ARCHITECT®
i 1000SR System
Operations Manual

202895-102

Abbott Laboratories
Abbott Park, IL 60064

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Patents Pending

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Foreword

Congratulations on the addition of the ARCHITECT System to your laboratory. The ARCHITECT family of systems incorporates the latest advancements in laboratory automation, assay technology, and modularity.

- Ease of use
  - Touch screen control allows easy navigation.
  - An intuitive software user interface reduces training time.
  - Help?, integrated with the system software, provides immediate access to information about the currently displayed screen, window, or error message.
  - The online operation manual provides the fastest, easiest, most comprehensive, and most accurate resource for your informational needs.
  - Scheduled maintenance procedures display in a To Do list for automatic tracking and ease of performance.
  - A Maintenance log, automatically updated after each procedure is performed, provides current and accurate maintenance records.
- Sample management
  - Sample carriers accommodate a variety of test tube types.
  - Sample handlers allow loading of up to
    - 65 (*i* 1000_{SR}) samples.
  - Multi-dimensional sampling provides routine, priority, automated rerun, and reflex processing capabilities.
  - Clot detection ensures accurate sampling.
  - With robotic sample handler (RSH)
    - Indicators provide sample processing status at a glance.
    - Sample handler design provides continuous sample access.
- Simplified troubleshooting
  - Direct access to error message help provides probable cause and corrective action information.

- A troubleshooting model provides a practical, systematic approach to solving problems and implementing solutions.

Read me first topics include:

- *Customer support*, page Read me-3
- *Intended use*, page Read me-4
- *Proprietary statement*, page Read me-5
- *Disclaimers*, page Read me-6
- *ARCHITECT i System warranty*, page Read me-7
- *Abbott warranty*, page Read me-8
- *Agency approvals*, page Read me-9
- *Trademark statement*, page Read me-10
- *System labeling*, page Read me-12

Customer support

If you have any questions regarding your ARCHITECT System, please contact your local Abbott Laboratories Diagnostics Division customer support representative for prompt answers to your inquiries.

United States:	1-877-4ABBOTT (1-877-422-2688)
Canada:	1-800-387-8378 (English speaking customers)
	1-800-465-2675 (French speaking customers)
International:	Call your local Abbott customer support representative.

Intended use

The Abbott ARCHITECT System is intended for in vitro diagnostic use only.

The Abbott ARCHITECT System is designed to perform automated:

- Chemistry tests, utilizing photometry and potentiometric technology
- Immunoassay tests, utilizing CMIA (chemiluminescent microparticle assay) detection technology

Proprietary statement

The ARCHITECT System software programs and system documentation are protected by copyright. All rights are reserved.

The software and manual were developed solely for use with the ARCHITECT System and for *in vitro* diagnostic applications as specified in the operating instructions.

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Incremental manual updates may cause the master Table of contents or master Index page numbering to change.

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Abbott Laboratories (Abbott) warrants the ARCHITECT *i* System (system) when used for its intended purpose by the original purchaser, excluding items subject to wear and tear which require replacement during normal use. This warranty shall continue for a period of ninety (90) days commencing twenty-one (21) days from the date of system installation, or until title is transferred from the original purchaser, whichever occurs first (the Warranty Period). The warranty does not cover the software included in the system, which is subject to the warranty stated in the Software License Agreement. Other warranty options may be available through your Abbott representative. The warranty is country dependent, based on local legal requirements.

Abbott warranty

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Agency approvals

The ARCHITECT System has been tested and found to comply with the following agency standards:

- UL 61010A-1 or UL61010-1 Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1 General Requirements
- CAN/CSA-C22.2 No. 1010.1 or CAN/CSA-C22.2 No. 61010.1 Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1 General Requirements
- 21CFR Part 1040.10: Performance Standards for Light Emitting Products
- IEC 60825-1: Safety of Laser Products (Class I Laser Products)
- Directive 2002/96/EC: Waste Electrical and Electronic Equipment
- CE Marking

In Vitro Diagnostic Directive	98/79/EC
Manufacturer	Abbott Laboratories Diagnostic Division Abbott Park, IL 60064 USA
Authorized Representative in the European Community	Abbott Max-Planck-Ring 2 65205 Wiesbaden Germany +49-6122-580

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i 4000, *i* 6000, *i* 8000, *c* 16000, *ci* 16200, *c* System, *i* System, ARCHITECT ARM, FlexRate, and SmartWash are trademarks of Abbott Laboratories.

i 1000_{SR} is a registered trademark of Abbott Laboratories.

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Reference	Trademark
AEROSET	AEROSET®
ARCHITECT	ARCHITECT®
ARM	ARCHITECT ARM™
AxSYM	AxSYM®
Chemiflex	Chemiflex®
FlexRate	FlexRate™
i System	*i* System™
MasterCheck	MasterCheck®
SmartWash	SmartWash™
i 1000_{SR}	*i* 1000_{SR}®

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The following U.S. Patents are relevant to the ARCHITECT *c* System or its components.

4,533,457	4,619,739	4,647,362	4,678,755
4,797,192	5,025,389	5,413,770	

The following U.S. Patents are relevant to ARCHITECT *i* Systems or components.

5,468,646	5,536,049	5,543,524	5,545,739
5,565,570	5,669,819	5,682,662	5,723,795
5,795,784	Des. 397,938	Des. 401,699	Des. 401,697
Des. 401,700	5,783,699	5,856,194	5,859,429
Des. 404,829	Des. 406,901	5,915,282	5,915,583
5,938,120	Des. 413,539	5,965,828	6,022,746
6,063,634	6,150,113	6,153,377	6,162,645
6,413,780	6,562,298	6,588,625	

There are other such patents and patent applications in the United States and worldwide.

System labeling

The symbols in the following table are used on ARCHITECT System labeling.

Key to symbols used on labeling

Label	Description
EC REP	Authorized Representative in the European Community
CE ABBOTT LABORATORIES Abbott Park, IL 60064, USA	Legal manufacturer **NOTE:** A new presentation of the Legal manufacturer label will be phased into the system labeling in a future revision.
IVD	*In vitro* Diagnostic Medical Device
	Manufacturer
	Date of manufacture
SN	Serial number
~	Alternating current
	Class 2 laser radiation
	Caution, risk of electrical shock
	Electrical and electronic equipment waste
°C	Temperature limitation
	Use by/Expiration date
	Consult operating instructions
	Caution, risk of danger, consult instructions for use

Key to symbols used on labeling (continued)

Label	Description
LOT	Batch code/Lot number
QTY	Quantity
UNIT	Unit
	Biological risks
	Biohazard
	Caution, hot surface
ASSAY DISK	Assay disk
VERSION	Version
CONVENTIONAL UNITS	Conventional units
STANDARD INTERNATIONAL UNIT	Standard international unit
SAMPLE CUPS	Sample cups
PRE-TRIGGER SOLUTION	Pre-Trigger Solution
TRIGGER SOLUTION	Trigger Solution
CONCENTRATED WASH BUFFER	Concentrated Wash Buffer
WASH BUFFER	Wash buffer
REACTION VESSELS	Reaction vessels
SEPTUM	Septum
REPLACEMENT CAPS	Replacement caps

Key to symbols used on labeling (continued)

Label	Description
MULTI-ASSAY MANUAL DILUENT	Multi-Assay Manual Diluent
REF	Catalog number/List number

Introduction

Documentation for the ARCHITECT System consists of the ARCHITECT System Operations Manual, available in both printed and online versions, and ARCHITECT System Help.

Please take the time to become familiar with the organization, features, and use of each. Learning to use the documentation will pay off in time saved, trouble averted, and more confident operation of the ARCHITECT System.

System documentation topics include:

- *Printed documentation*, page System documentation-2
- *Online documentation*, page System documentation-6

Printed documentation

The printed version of the ARCHITECT System Operations Manual contains complete instructions for using and maintaining the ARCHITECT System. You will find it a valuable aid as you learn to use the system and an essential reference.

Printed documentation topics include:

- *Organization of the printed operations manual*, page System documentation-2
- *Conventions for the printed documentation*, page System documentation-4

Organization of the printed operations manual

The printed ARCHITECT System Operations Manual is organized as follows.

Read me first	Refer to this section for important information such as: • Customer support numbers • Intended use of the system • Trademark statements • Warranty details
System documentation	Refer to this section for: • Information on content organization • Features of the support documentation • Use of both the printed and online operations manual as well as online help
Section 1 **Use or function**	Use this section to identify: • Basic system components • Fundamentals of the user interface • Operating statuses of the processing module(s) and sample handler
Section 2 **Installation procedures and special requirements**	Refer to this section for: • Information on locating and placing the instrument • Installing system and assay software • Configuring the system to meet your laboratory's specific needs

Section 3 **Principles of operation**	Refer to this section for an explanation of: • The assay technology • How the system translates measurements into useful data and reports
Section 4 **Performance characteristics and specifications**	Refer to this section for details such as: • Dimensions of the instrument • System capabilities • Power requirements
Section 5 **Operating instructions**	Use this section to learn how to perform the various tasks related to running assays on the system.
Section 6 **Calibration procedures**	Use this section to learn how to: • Run assay calibrations • Review completed calibration results
Section 7 **Operational precautions and limitations**	Review this section carefully for information about actions or conditions that can impact the: • Integrity of the ARCHITECT System • Accuracy of patient test results
Section 8 **Hazards**	Use this section to become familiar with the safety icons both on the instrument and in the manual that alert you to potentially hazardous situations.
Section 9 **Service and maintenance**	Refer to this section for: • Descriptions of all maintenance procedures • Instructions for performing scheduled and non-scheduled maintenance procedures • Step-by-step instructions for replacing components
Section 10 **Troubleshooting and diagnostics**	Refer to this section for: • Troubleshooting basics • Information on probable causes and corrective actions for observed problems and error codes • Descriptions of all diagnostic procedures • Instructions for performing diagnostic procedures

Appendixes	Refer to the appendixes for information on: • Reports • Assay claim verifications • Math models • List numbers • Screen and window elements
Glossary	Refer to this section for definitions of ARCHITECT System terms.
Index	Use this alphabetical listing of subject matter to find specific information about the system.
Revision history	Refer to this section for a history of revisions to the operations manual.

Conventions for the printed documentation

Conventions are a set of defined standards and are used to convey meaning in an expected manner. The conventions used in the ARCHITECT System printed documentation are intended to facilitate finding, reading, understanding, and using the available information.

Text conventions

Description	Use
Italicized typeface	Indicates references to related information.
Bold typeface	Emphasizes key words within procedures. For example, within the numbered steps bold typeface is applied to names of: • Icons and menu items • Buttons • Function keys • Lists and tables and their available selections • Options and check boxes
Numbers in brackets, for example [1], [2], and so forth	Reference specific areas of an illustration within a procedure.

Content conventions

Description	Use
Requirements tables at the beginning of each procedure	Provide the information you need to know prior to performing a procedure. This information varies by procedure and may include: • Prerequisites for performing the procedure • Module status required to perform the procedure • Operator access level required to perform the procedure • Time required to complete the procedure • Tools required to perform the procedure • Replacement parts or supplies that you must have on hand
Lists of related information topics at the end of procedures, as appropriate	Reference topics that provide information related to the procedure, which can help in performing the procedure.
Lists of related procedural topics at the end of screen and window descriptions, as appropriate	Reference procedures that can be performed from specific screens and windows.

Graphic conventions

Description	Use
Safety symbols, see *Safety icons*, page 8-4, and the caution or warning signal word SYMBOL WARNING: CAUTION:	Identify activities that expose you to potentially dangerous conditions.
Important signal word IMPORTANT:	Advise you of precautions you should take to avoid a negative impact on system operations or assay results.
Note signal word NOTE:	Highlights information that is relevant to the current subject matter.
Numerical references on illustrations, photographs, and reports	Indicate the area described in the table that follows.

Online documentation

The online documentation is designed to provide the fastest, easiest, and most accurate resource for your informational needs.

The online operations manual (ARCHITECT System Operations Manual) contains the same content as the printed operations manual, which includes complete instructions for using and maintaining an ARCHITECT System. You can access the online operations manual from the software on the SCC (system control center) and from a stand-alone computer with the online operations manual installed.

Access to the online operations manual from the system software

Legend:

1. Operations manual menu item: Displays the online operations manual.
2. Online operations manual: Displays the content of the ARCHITECT System Operations Manual electronically.

Help? (ARCHITECT System Help) is integrated with the system software on the SCC to provide direct access to information about the SCC screen, window, or error message currently displayed. Help? content is a subset of information found in the operations manual. You can access Help? for:

- A screen or window - from the screen or window

- An error message - from the error message and the Details for exception status window

Access to Help? (screen or window)

Legend:

1. Help button: Displays Help? for the current screen or window.
2. Help?: Displays detailed information about the screen or window. Help content for the screen or window currently displayed includes overview information, links to descriptions of all fields, and links to procedures you can perform from the screen or window.

Access to Help? (error message)

Legend:

1. Help button (error message): Displays Help? for the current error message.
2. Help?: Displays detailed information about the error message including corrective actions required to resolve the issue.

Online documentation topics include:

- *Conventions for the online documentation*, page System documentation-8
- *Help window descriptions*, page System documentation-10
- *Procedure map description*, page System documentation-21
- *Tips for using the online documentation*, page System documentation-24
- *Procedures for using the online documentation*, page System documentation-26

Conventions for the online documentation

Conventions are a set of defined standards and are used to convey meaning in an expected manner. The conventions used in the

ARCHITECT System online documentation are intended to facilitate finding, reading, understanding, and using the available information.

Text conventions

Description	Used
Bold typeface	Emphasizes key words within procedures. For example, within the numbered steps bold typeface is applied to names of: • Icons and menu items • Buttons • Function keys • Lists and tables and their available selections • Options and check boxes
Blue, underlined text	Indicates links to related information.
Blue, 3D (three-dimensional) bullets	Indicate procedural topics.
Numbers in brackets, for example [1], [2], and so forth	Reference specific areas of an illustration within a procedure.

Content conventions

Description	Use
Requirements tables at the beginning of each procedure	Provide the information you need to know prior to performing a procedure. This information varies by procedure and may include: • Prerequisites for performing the procedure • Module status required to perform the procedure • Operator access level required to perform the procedure • Time required to complete the procedure • Tools required to perform the procedure • Replacement parts or supplies that you must have on hand
Lists of related information topics at the end of procedures, as appropriate	Reference topics that provide additional information related to procedures.
Lists of related procedural topics at the end of screen and window descriptions, as appropriate	Reference procedures that can be performed from specific screens and windows.

Graphic conventions

Description	Use
Safety symbols see *Safety icons*, page 8-4, and the caution or warning signal word Symbol WARNING: CAUTION:	Identify activities that expose you to potentially dangerous conditions.
Important symbol and signal word IMPORTANT:	Advise you of precautions you should take to avoid a negative impact on system operations or assay results.
Note symbol and signal word NOTE:	Highlight information that is relevant to the current subject matter.
Numerical references on illustrations and photographs	Indicate the area described in the table that follows.
Numerical references on reports	Indicate the area described in the table that follows and serve as hypertext links to that information.

Help window descriptions

The online documentation (ARCHITECT System Operations Manual and ARCHITECT System Help) is designed for online viewing and use and displays in a help window, which provides several elements to help you quickly access desired information and functionality.

Help window example - online operations manual

Legend:

1. Title bar: Displays the name of the help window.
2. *Help window toolbar*, page System documentation-12: Use the buttons to display topics in the topic pane, print a topic, or close the help window.
3. *Help window navigation pane (online operations manual)*, page System documentation-14: Use to find and display topics.
4. *Help window topic pane*, page System documentation-13: Use to view topic content and display related information.
5. Help on Help button: Select to display a list of tasks/procedures for using the online documentation.
6. Minimize button: Select _ to reduce the help window to a program button on the taskbar at the bottom of the screen. To display the minimized help window, select the program button.

   Maximize/Restore Down button: Select ☐ to enlarge the help window to full screen size or ⧉ to restore the help window to its last size and position before it was maximized.

   Exit button: Select ✕ to close the help window.

Help window example - Help? (screen or window)

Legend:

1. Title bar: Displays the name of the help window.
2. Toolbar: Use the buttons to display topics in the topic pane, print a topic, or close the help window.
3. Topic pane: Use to view topic content and display related information.
4. Minimize button: Select _ to reduce the help window to a program button on the taskbar at the bottom of the screen. To display the minimized help window, select the program button.

   Maximize/Restore Down button: Select ☐ to enlarge the help window to full screen size or ⧉ to restore the help window to its last size and position before it was maximized.

   Exit button: Select ✕ to close the help window.

Help window toolbar

The toolbar, below the title bar on the help window, contains command buttons that provide quick access to commonly used navigational aids as well as the print and close commands.

Previous

Previous	(Online operations manual) Select to display the previous topic listed in the table of contents.

Next

Next	(Online operations manual) Select to display the next topic listed in the table of contents.

Back

Back	Select to display the last topic you viewed.

Forward

Forward	Select to display the next topic in a previously displayed sequence of topics.

Home

Home	Select to display the procedure map. (Not available for error codes.)

Print

Print	Select to print the current topic or all topics under a particular heading.

Glossary

Glossary	Select to display the glossary.

Close

Close	Select to close the help window.

Help window topic pane

The topic pane, under the toolbar, is the area of the help window where online content displays. In addition to content, individual

topics may contain navigational aids (for example, hypertext and image maps) and multimedia.

Topic pane example - Help?

Related procedures...

- *Display related information*, page System documentation-39
- *Play videos and animations*, page System documentation-41

Help window navigation pane (online operations manual)

The navigation pane, under the toolbar and to the left of the topic pane, is the area of the help window that provides the primary navigational functionality.

NOTE: When only a portion of the topic title is displayed in the navigation pane, you can click and drag the right border of the pane to widen it.

It contains four tabs that you can use to find and display information in the online ARCHITECT System Operations Manual:

- *Contents tab (online operations manual)*, page System documentation-15

- *Index tab (online operations manual)*, page System documentation-18
- *Search tab (online operations manual)*, page System documentation-19
- *Favorites tab (online operations manual)*, page System documentation-20

Navigation pane and tabs

Related procedures...

- *Use the table of contents (online operations manual)*, page System documentation-30
- *Use the index (online operations manual)*, page System documentation-31
- *Search for a term (online operations manual)*, page System documentation-32
- *Add or remove a favorite topic (online operations manual)*, page System documentation-44

Contents tab (online operations manual)

The Contents tab is a tab on the navigation pane that displays the table of contents, which shows how information in the online ARCHITECT System Operations Manual is organized, see *Organization of the online operations manual*, page System documentation-17. Topics

identified by a book icon and a plus (+) sign have one or more subtopics. Topics identified by a page icon have no additional subtopics.

Contents tab

Related procedures...

- *Use the table of contents (online operations manual)*, page System documentation-30
- *Page through the content (online operations manual)*, page System documentation-30

Organization of the online operations manual

The online ARCHITECT System Operations Manual is organized as follows:

Read me first	Refer to this section for important information such as: • Customer support numbers • Intended use of the system • Trademark statements • Warranty details
System documentation	Refer to this section for: • Information on content organization • Features of the support documentation • Use of both the printed and online operations manual as well as online help
Section 1 **Use or function**	Use this section to identify: • Basic system components • Fundamentals of the user interface • Operating statuses of the processing module(s) and sample handler
Section 2 **Installation procedures and special requirements**	Refer to this section for: • Information on locating and placing the instrument • Installing system and assay software • Configuring the system to meet your laboratory's specific needs
Section 3 **Principles of operation**	Refer to this section for an explanation of: • The assay technology • How the system translates measurements into useful data and reports
Section 4 **Performance characteristics and specifications**	Refer to this section for details such as: • Dimensions of the instrument • System capabilities • Power requirements
Section 5 **Operating instructions**	Use this section to learn how to perform the various tasks related to running assays on the system.

Section 6 **Calibration procedures**	Use this section to learn how to: • Run assay calibrations • Review completed calibration results
Section 7 **Operational precautions and limitations**	Review this section carefully for information about actions or conditions that can impact the: • Integrity of the ARCHITECT System • Accuracy of patient test results
Section 8 **Hazards**	Use this section to become familiar with the safety icons both on the instrument and in the manual that alert you to potentially hazardous situations.
Section 9 **Service and maintenance**	Refer to this section for: • Descriptions of all maintenance procedures • Instructions for performing scheduled and non-scheduled maintenance procedures • Step-by-step instructions for replacing components
Section 10 **Troubleshooting and diagnostics**	Refer to this section for: • Troubleshooting basics • Information on probable causes and corrective actions for observed problems and error codes • Descriptions of all diagnostic procedures • Instructions for performing diagnostic procedures
Appendixes	Refer to the appendixes for information on: • Reports • Assay claim verifications • Math models • List numbers • Screen and window elements
Revision history	Refer to this section for a history of revisions to the operations manual.

Index tab (online operations manual)

The Index tab is a tab on the navigation pane that displays an alphabetical list of all index entries in the online ARCHITECT System Operations Manual. Entries are indexed by subject and relevance, and

include terms for all experience levels and informational types from general to specific.

Index tab

Related procedures...

- *Use the index (online operations manual)*, page System documentation-31

Search tab (online operations manual)

The Search tab is a tab on the navigation pane that allows you to locate every occurrence (up to 500) of a word or phrase used in the online ARCHITECT System Operations Manual. You can also limit the number of results returned by using advanced search capabilities to refine your search.

NOTE: When only a portion of the topic title is displayed in the Search tab's navigation pane, you can click and drag either the right border of the pane or the Title column.

Search tab

Related procedures...

- *Search for a term (online operations manual)*, page System documentation-32
- *Perform an advanced search (online operations manual)*, page System documentation-33

Favorites tab (online operations manual)

The Favorites tab is a tab on the navigation pane that displays topics you have added to your favorites list, which are topics you wish to access often. The list is saved and is available each time you open the online ARCHITECT System Operations Manual.

Favorites tab

Related procedures...

- *Add or remove a favorite topic (online operations manual)*, page System documentation-44
- *Display a favorite topic (online operations manual)*, page System documentation-40
- *Rename a favorite topic (online operations manual)*, page System documentation-45

Procedure map description

The procedure map is an online image map that displays categories of job-related activities and provides links to lists of tasks and procedures. You can use the procedure map to quickly access step-by-step instructions for performing your primary job responsibilities.

Procedure map

Legend:

1. Help on Help: Provides access to procedures associated with using the online documentation.

2. Stored Results: Provides access to procedures associated with retransmitting, printing, and archiving patient and control results.
3. Quality Control: Provides access to procedures associated with reviewing Levey-Jennings graph data and printing QC reports.
4. Setup: Provides access to procedures associated with configuring and viewing system, assay, and QC/Cal settings, installing software and assays, and printing reports.
5. Troubleshooting: Provides access to procedures associated with emergency shutdown, reviewing system logs, performing diagnostics, replacing components, and printing diagnostic reports.
6. Maintenance: Provides access to procedures associated with performing maintenance, approving maintenance logs, and printing reports.
7. Sample Processing: Provides access to procedures associated with preparing for operation, ordering tests, loading and processing samples, reviewing results, and printing reports.

Related procedures...

- *Display and use the procedure map,* page System documentation-29

Task lists

Task lists are online topics you access from the procedure map. Each topic contains an expandable list of tasks related to the selected procedure map category or job-related activity. Under each task is a list of links to the associated procedures.

Example of a task list (maintenance)

Legend:

1. Task list item expanded
2. Task list item collapsed

Online documentation use

The online documentation is designed to help you quickly and easily find the information you need to:

- Accomplish a task
- Recover from a mistake
- Troubleshoot a problem
- Optimize task performance
- Understand the concepts behind system operation and performance

Online documentation use topics include:

- *Tips for using the online documentation*, page System documentation-24
- *Procedures for using the online documentation*, page System documentation-26

Tips for using the online documentation

The online documentation is designed to provide the fastest, easiest, and most accurate resource for your informational needs. However, your understanding of how it works and how to use it will enhance your satisfaction with the results.

For example, there are a number of ways to retrieve information. To an extent the fastest and easiest method depends on the online documentation you are using and the type of information you are seeking.

The following tables provide tips for using Help? (ARCHITECT System Help) and the online operations manual (ARCHITECT System Operations Manual) to find specific types of information.

Using Help?

To...	Then...
View a description of the current screen or window	*Access Help?*, page System documentation-28.
View a list of procedures you can perform from the current screen or window	1. *Access Help?*, page System documentation-28. 2. *Scroll through a topic*, page System documentation-39 to view the list of procedures under Related procedures.

Using Help? (continued)

To...	Then...
Display the steps of a procedure you can perform from the current screen or window	1. *Access Help?*, page System documentation-28. 2. *Scroll through a topic*, page System documentation-39, and then select one of the list items under Related procedures.
Find the location of a part when performing a maintenance procedure	1. *Access Help?*, page System documentation-28, for the Maintenance Perform window. 2. *Display related information*, page System documentation-39, for associated maintenance graphics.
Find a description of a procedure when performing maintenance and diagnostic procedures	1. *Access Help?*, page System documentation-28, for the Maintenance Perform window. 2. *Display related information*, page System documentation-39, for maintenance categories and procedure descriptions.
View all procedures related to the performance of a particular task	*Display and use the procedure map*, page System documentation-29.
Look up a word	*Use the glossary*, page System documentation-38.
View topics that contain related information	*Display related information*, page System documentation-39.
View more information about an error code including suggested corrective actions	*Access Help?*, page System documentation-28.

Using the online operations manual

To...	Then...
Get an overview of the subject matter found in the online ARCHITECT System Operations Manual	*Use the table of contents (online operations manual)*, page System documentation-30
Step through a sequence of associated topics	*Page through the content (online operations manual)*, page System documentation-30

Using the online operations manual (continued)

To...	Then...
Find a description of a particular screen or window	Perform one of the following: • *Use the index (online operations manual)*, page System documentation-31 • *Search for a term (online operations manual)*, page System documentation-32
View the procedures you can perform from a particular screen	Select the blue, underlined text found in the body of the content or at the end of the topic under Related procedures.
View all procedures related to the performance of a particular task	*Display and use the procedure map*, page System documentation-29.
Find and view a particular procedure	Perform one of the following: • *Use the index (online operations manual)*, page System documentation-31 • *Search for a term (online operations manual)*, page System documentation-32
Look up a word	*Use the glossary*, page System documentation-38.
View topics that contain related information	*Display related information*, page System documentation-39.
Quickly display frequently accessed topics	1. Add topics to your favorites list. See *Add or remove a favorite topic (online operations manual)*, page System documentation-44. 2. *Display a favorite topic (online operations manual)*, page System documentation-40.
View more information about an error code including suggested corrective actions	Search for the error code, see *Search for a term (online operations manual)*, page System documentation-32.

Procedures for using the online documentation

The following procedures provide instructions on how to access and use the online operations manual (ARCHITECT System Operations Manual) and Help? (ARCHITECT System Help):

- *Access the online operations manual,* page System documentation-27
- *Access Help?,* page System documentation-28

- *Display and use the procedure map*, page System documentation-29
- *Use the table of contents (online operations manual)*, page System documentation-30
- *Page through the content (online operations manual)*, page System documentation-30
- *Use the index (online operations manual)*, page System documentation-31
- *Search for a term (online operations manual)*, page System documentation-32
- *Perform an advanced search (online operations manual)*, page System documentation-33
- *Use the glossary*, page System documentation-38
- *Scroll through a topic*, page System documentation-39
- *Display related information*, page System documentation-39
- *Redisplay a topic*, page System documentation-40
- *Display a favorite topic (online operations manual)*, page System documentation-40
- *Play videos and animations*, page System documentation-41
- *Print topics from the online documentation*, page System documentation-41
- *Close the help window*, page System documentation-43
- *Resize and move the help window*, page System documentation-43
- *Add or remove a favorite topic (online operations manual)*, page System documentation-44
- *Rename a favorite topic (online operations manual)*, page System documentation-45

Access the online operations manual

Perform this procedure to display the online operations manual (ARCHITECT System Operations Manual) on either the SCC (system control center) or a stand-alone computer that has the online operations manual installed.

Prerequisite	NA
Module status	Any
User access level	General operator

To access the online operations manual from the SCC:

Select **Overview** from the menu bar, and then select **Operations manual**.

The online operations manual opens in a help window and displays the title page in the topic pane.

To access the online operations manual from a stand-alone computer:

Click **Start**, point to **Programs**, point to **ARCHITECT System Operations Manual**, and then click the (Language) Operations Manual.

The online operations manual opens in a help window and displays the title page in the topic pane.

Related information...

- *Online documentation*, page System documentation-6
- *Help window descriptions*, page System documentation-10

Access Help?

Perform this procedure to display Help? (ARCHITECT System Help) on the SCC (system control center).

Prerequisite	NA
Module status	Any
User access level	General operator

To access Help?:

Select the **help** button found in the lower right-hand corner of the software screen or window.

Help? opens and displays content specific to the current screen or window.

To access Help? for error code messages, perform one of the following:

- Select the **help** button on the error message.
- Select the **Error?** help button

on the Details for exceptions window.

  Help? opens and displays content specific to the current error message.

Related information...

- *Online documentation*, page System documentation-6

- *Help window descriptions*, page System documentation-10

Display and use the procedure map

Perform this procedure to view a list of procedures related to the performance of a particular task and to display the instructions associated with each procedure.

Prerequisite	*Access the online operations manual*, page System documentation-27, or *Access Help?*, page System documentation-28
Module status	Any
User access level	General operator

To display and use the procedure map:

1. Select the **Home** button on the toolbar.

   The procedure map displays in the topic pane.

2. Select a category on the procedure map to display a list of related tasks.

   The topic content related to your selection displays in the topic pane with an expandable list of related tasks.

3. Select a task(s) with a **right arrow** symbol ▸ to display a list of related subtasks or procedures.

   The right arrow changes to a down arrow ▾ and a list of subtasks or procedures displays.

   NOTE: You can select tasks with a down arrow symbol to collapse the list.

4. Repeat step 3 until the desired procedure displays, and then select the procedure.

   The procedure content displays in the topic pane.

5. Select the **Back** button to return to the task list. ***(optional)***

Related information...

- *Help window toolbar*, page System documentation-12
- *Procedure map description*, page System documentation-21
- *Task lists*, page System documentation-22

Use the table of contents (online operations manual)

Perform this procedure to view a list of topics found in the online operations manual (ARCHITECT System Operations Manual) and to display the associated content.

Prerequisite	*Access the online operations manual*, page System documentation-27
Module status	Any
User access level	General operator

To use the table of contents:

1. Select the **Contents** tab on the navigation pane.
2. Select the + symbols next to the book icons.

   NOTE: You can select the - symbol to collapse the list.
3. Use the scroll bar to the right of the navigation pane to view all content.
4. Select a topic title.

   The topic content displays in the topic pane.

Related information...

- *Help window descriptions*, page System documentation-10
- *Contents tab (online operations manual)*, page System documentation-15
- *Organization of the online operations manual*, page System documentation-17

Page through the content (online operations manual)

Perform this procedure to step through a sequence of associated topics much like turning the pages of a book. You can start anywhere in the table of contents, but a logical starting point is at a heading or subheading level.

Prerequisite	*Access the online operations manual*, page System documentation-27
Module status	Any
User access level	General operator

To page through the content:

1. Select the **Contents** tab on the navigation pane, and then select a topic title.

The topic content displays in the topic pane.

2. Select the **Next** button on the toolbar to display the next topic listed in the table of contents.
3. Repeat step 2 as often as desired.
4. Select the **Previous** button to display the previous topic listed in the table of contents. ***(optional)***

Related information...

- *Help window toolbar*, page System documentation-12
- *Organization of the online operations manual*, page System documentation-17

Use the index (online operations manual)

Perform this procedure to view a list of index entries and display the associated content.

Prerequisite	*Access the online operations manual*, page System documentation-27
Module status	Any
User access level	General operator

To use the index:

1. Select the **Index** tab on the navigation pane.
2. Type a word or scroll through the list.
3. Select the desired entry, and then select **Display**.

   The topic content displays in the topic pane.

   Or

   The Topics Found dialog displays if the selected entry is found in more than one topic. Highlight the desired topic, and then select **Display**.

Related information...

- *Help window descriptions*, page System documentation-10
- *Index tab (online operations manual)*, page System documentation-18

Search for a term (online operations manual)

Perform this procedure to conduct a basic search of the ARCHITECT System Operations Manual for the use of a particular word or phrase. For example, if you search for the word *create* every topic that contains the word *create* is found.

NOTE: In non-English languages instances of the same word, with and without accented characters, are found. Exact matches including the accented and non-accented characters are highlighted. Search results may be expanded to include word forms of the entry.

The basic rules for formulating search queries are:

- Enter the desired word or phrase in either uppercase or lowercase characters. Searches are not case sensitive.
- Enter any combination of letters (a-z) and numbers (0-9). You cannot search for single letters (a, b, c, and so forth). Punctuation marks such as a period, colon, semicolon, comma, and hyphen are ignored.

To target your search and narrow the number of results returned, see *Perform an advanced search (online operations manual)*, page System documentation-33.

Prerequisite	*Access the online operations manual*, page System documentation-27
Module status	Any
User access level	General operator

To search for a term:

1. Select the **Search** tab on the navigation pane.
2. Enter the desired word or phrase, or select the **down** arrow to choose from previous used search terms.

   NOTE: Use quotation marks to specify a literal phrase for example, sample processing. Without the quotation marks, your search is equivalent to specifying "sample" AND "processing," which finds topics that contain both individual words and not necessarily the phrase.
3. Select **List Topics**.

   The number of results found and a list of topics that contain the word or phrase display sorted by rank (number of occurrences in a topic).
4. Select **Title** to sort the topic list alphabetically. ***(optional)***
5. Select a topic from the **Select Topics to display** list, and then select **Display**.

   The topic content displays in the topic pane.

Related information...

- *Help window descriptions*, page System documentation-10
- *Search tab (online operations manual)*, page System documentation-19

Perform an advanced search (online operations manual)

Perform this procedure to target your search and narrow the number of results returned. Steps are included to perform an advanced search using:

- Boolean operators - qualifiers that enable you to refine a search by creating a relationship between words
- Nested expressions - a combination of operators, one inside another, that enable you to perform an even more refined search
- Wildcard expressions - keyboard characters that enable you to search for terms without entering a complete entry
- Previous results only
- Similar word matches

- Topic titles only

Prerequisite	*Access the online operations manual*, page System documentation-27
Module status	Any
User access level	General operator

To perform an advanced search using boolean operators:

1. Select the **Search** tab on the navigation pane, and then enter the desired terms.
2. Place the cursor where you want to use a boolean operator, and then select the **right arrow** button to display a list of operators.
3. Select the boolean operator to add, see *Boolean operators description*, page System documentation-37.
4. Repeat steps 2 and 3 to add additional operators. ***(optional)***

   NOTE: You can type the boolean operator(s) or select the **right arrow** button, and then select the operator to add.
5. Select **List Topics**.

   The number of results found and a list of topics that contain the word or phrase display sorted by rank (number of occurrences in a topic).
6. Select **Title** to sort the topic list alphabetically. ***(optional)***
7. Select the desired topic, and then select **Display**.

   The topic content displays in the topic pane.

To perform an advanced search using nested expressions:

1. Select the **Search** tab on the navigation pane, and then enter the nested expression, see *Nested expressions description*, page System documentation-37.

   NOTE: You can type the boolean operator(s) or select the **right arrow** button, and then select the operator to add.
2. Select **List Topics**.

   The number of results found and a list of topics that contain the word or phrase display sorted by rank (number of occurrences in a topic).
3. Select **Title** to sort the topic list alphabetically. ***(optional)***

4. Select the desired topic, and then select **Display**.

   The topic content displays in the topic pane.

To perform an advanced search using a wildcard expression:

1. Select the **Search** tab on the navigation pane, and then enter the characters and wildcard expression, see *Wildcard expressions description*, page System documentation-38.
2. Select **List Topics**.

   The number of results found and a list of topics that contain the word or phrase display sorted by rank (number of occurrences in a topic).
3. Select **Title** to sort the topic list alphabetically. ***(optional)***
4. Select the desired topic, and then select **Display**.

   The topic content displays in the topic pane.

To perform an advanced search in previous results only:

1. Select the **Search** tab on the navigation pane, and then enter the word or phrase you want to find.
2. Select the **Search previous results** check box to search through the results of your last search in the current help session.
3. Select **List Topics**.

   The number of results found and a list of topics that contain the word or phrase display sorted by rank (number of occurrences in a topic).
4. Select **Title** to sort the topic list alphabetically. ***(optional)***
5. Select the desired topic, and then select **Display**.

   The topic content displays in the topic pane.

   NOTE: The Search tab opens with the Search previous results check box selected if you used this feature last. To search through all files in the operations manual you must select this check box to clear it.

To perform an advanced search for similar words:

1. Select the **Search** tab on the navigation pane, and then enter the word or phrase you want to find.
2. Select the **Match similar words** check box.

NOTE: This search feature adjusts word forms to expand the context, for example the word *create* is also found as *creating*, *to create*, *created*, and so forth.

This feature is not functional for non-English languages.

3. Select **List Topics**.

   The number of results found and a list of topics that contain the word or phrase display sorted by rank (number of occurrences in a topic).

4. Select **Title** to sort the topic list alphabetically. ***(optional)***

5. Select the desired topic, and then select **Display**.

   The topic content displays in the topic pane.

   NOTE: The Search tab displays with the Match similar words check box selected if you used this feature last. You can select this check box to clear it.

To perform an advanced search in topic titles only:

1. Select the **Search** tab on the navigation pane, and then enter the word or phrase you want to find.

2. Select the **Search titles only** check box.

3. Select **List Topics**.

   The number of results found and a list of topics that contain the word or phrase display sorted by rank (number of occurrences in a topic).

4. Select **Title** to sort the topic list alphabetically. ***(optional)***

5. Select the desired topic, and then select **Display**.

   The topic content displays in the topic pane.

   NOTE: The Search tab displays with the Search titles only check box selected if you used this feature last. To search through all files in the operations manual you must select this check box to clear it.

Related information...

- *Help window descriptions*, page System documentation-10
- *Search tab (online operations manual)*, page System documentation-19

Boolean operators description

Boolean operators (AND, OR, NOT, and NEAR) are qualifiers that enable you to refine a search by creating a relationship between words. If you do not specify an operator, AND is used. For example, a search for *system control center* is equivalent to a search for *system AND control AND center*.

The following table shows how to use each operator.

Using boolean operators

To search for	Use	Results in
Both words in the same topic	processing AND module	A list of topics containing both the words "processing" and "module"
Either word in a topic	processing OR module	A list of topics containing either the word "processing" or the word "module" or both
The first word without the second word	processing NOT module	A list of topics containing the word "processing," but not the word "module"
Both words in the same topic, close together	processing NEAR module	A list of topics containing the word "processing" within eight words of the word "module"

Nested expressions description

Nested expressions are a combination of operators, one inside another, that enable you to create a highly refined search. The expressions in parentheses are evaluated first. For example, a search for *calibration NOT (active OR failed)* finds topics containing the word calibration without either of the words active or failed.

Without the parentheses your search is evaluated from left to right and finds topics containing the word calibration without the word active, or topics containing the word failed.

You can nest expressions five levels deep. The following example shows a nested expression using two levels:

calibration AND ((active OR failed) NEAR curve)

This search finds topics containing the word calibration used with the words active and curve close together, or topics containing the word calibration with the words failed and curve close together.

Related information...

- *Boolean operators description*, page System documentation-37

Wildcard expressions description

Wildcard expressions are keyboard characters used to represent one or more real characters. You use wildcard expressions to search for terms without entering a complete entry by:

- Using a question mark as a substitute for a single character
- Using an asterisk as a substitute for any number of characters

  NOTE: The question mark or asterisk cannot be the only character used.

The following table shows how to use the asterisk wildcard expression.

Using an asterisk wildcard expression

To search for	Use	Results in
Results that start with specific characters or numbers	op*	A list of topics that contain the terms "operator," "operating," "operation," and so forth.
Results that start and end with specific characters or numbers	80*86	A list of topics that contain the numbers "80186," "80286," "80386," and so forth.
Results that end with specific characters or numbers	*25	A list of topics that contain the numbers "125," "1025," "12025," and so forth.
Results that contain specific characters or numbers	*15*	A list of topics that contain the numbers "15," "215," "3015," and so forth.

Use the glossary

Perform this procedure to look up the definition.

Prerequisite	*Access the online operations manual*, page System documentation-27, or *Access Help?*, page System documentation-28
Module status	Any
User access level	General operator

To use the glossary:

1. Select the **Glossary** button on the toolbar.

   The glossary displays.

2. Select the desired letter.

   An alphabetized list of terms and definitions that start with the selected letter displays.

3. Use the **scroll bar** to the right of the topic pane, as required, to display the desired word.

Related information...

- *Help window toolbar*, page System documentation-12
- *Help window topic pane*, page System documentation-13

Scroll through a topic

Perform this procedure to view all content of a longer topic or to control which part of the content displays in the help window.

Prerequisite	*Access the online operations manual*, page System documentation-27, or *Access Help?*, page System documentation-28
Module status	Any
User access level	General operator

To scroll through a topic:

1. Use the **down** arrow, in the lower right-hand corner of topics that have scroll bars, to scroll through the content.

   The content scrolls down and the scroll box indicates your position in the topic.

2. Select the **up** or **down** arrow to move a few lines at a time. ***(optional)***

3. Select an empty space above or below the scroll box to move several lines at a time. ***(optional)***

4. Drag the **scroll** box to the desired location. ***(optional)***

Related information...

- *Help window topic pane*, page System documentation-13

Display related information

Perform this procedure to display related information such as a further explanation, a definition, procedures, and so forth.

Prerequisite	*Access the online operations manual*, page System documentation-27, or *Access Help?*, page System documentation-28
Module status	Any
User access level	General operator

To display related information:

1. Select the hypertext (blue, underlined text).

   The related information displays in the topic pane.

2. Select the **Back** button on the toolbar to return to the previously displayed topic. ***(optional)***

Related information...

- *Help window toolbar,* page System documentation-12
- *Help window descriptions*, page System documentation-10

Redisplay a topic

Perform this procedure to display a topic(s) you have viewed in your current help session.

Prerequisite	*Access the online operations manual*, page System documentation-27, or *Access Help?*, page System documentation-28
Module status	Any
User access level	General operator

To redisplay a topic:

1. Select the **Back** button on the toolbar to display the last topic you viewed.
2. Select the **Forward** button to display the next topic in a previously displayed sequence of topics.

Related information...

- *Help window toolbar,* page System documentation-12

Display a favorite topic (online operations manual)

Perform this procedure to display a topic(s) in your favorites list.

Prerequisite	*Access the online operations manual*, page System documentation-27
Module status	Any
User access level	General operator

To display a favorite topic:

1. Select the **Favorites** tab on the navigation pane.
2. Select the desired topic from the **Topics** list, and then select **Display**.

   The topic content displays in the topic pane.

Related information...

- *Help window descriptions*, page System documentation-10

- *Favorites tab (online operations manual)*, page System documentation-20

Play videos and animations

Perform this procedure to display and play video and animation clips.

Prerequisite	*Access the online operations manual*, page System documentation-27, or *Access Help?*, page System documentation-28
Module status	Any
User access level	General operator

To play video and animation clips:

1. Select the **movie** button to the left of images that have multimedia capabilities.

   The video or animation clip loads and begins to play. Three buttons display below the image. These buttons represent the standard play , pause , and stop buttons commonly associated with VCRs and CD-Players.

2. Select the **movie** button after the video or animation has played to return to the original view.

Related information...

- *Help window topic pane*, page System documentation-13

Print topics from the online documentation

Perform this procedure to print the currently displayed topic or to print all topics under a heading.

Prerequisite	*Access the online operations manual*, page System documentation-27, or *Access Help?*, page System documentation-28
Module status	Any
User access level	General operator

To print topics from the online documentation:

1. Select the **Print** button on the toolbar.

   The Print Topics window displays with Print the selected topic option selected if you are using the Contents tab to access topics.

Or

The Print window displays with the General tab selected.

2. Perform steps a and b or step b depending on the window that displays.
   a. From the Print Topics window select **OK** to print the selected topic or select **Print the selected heading and all subtopics** option, and then select **OK**.

The Print window displays with the General tab selected.

b. From the Print window follow these instructions:

Option	Instructions
Printer	• Do not change the selection when printing from the SCC (system control center).
Print to file	• Do not select.
Find Printer	• Do not select.
Page Range	• Do not change the default selection of All.
Number of copies	• Select the **up** arrow to increase the number of copies. ***(optional)*** • Do not select the Collate option.
Print	• Select to print.

Related information...

- *Help window descriptions*, page System documentation-10
- *Help window toolbar*, page System documentation-12

Close the help window

Perform this procedure to close the help window.

Prerequisite	*Access the online operations manual*, page System documentation-27, or *Access Help?*, page System documentation-28
Module status	Any
User access level	General operator

To close the help window:

Select the **Close** button on the toolbar.

The help window closes.

Related information...

- *Help window descriptions*, page System documentation-10
- *Help window toolbar*, page System documentation-12

Resize and move the help window

Perform this procedure to change the size and position of the help window and the width of help window panes. Steps are included to:

- Maximize the help window
- Resize the navigation and topic panes (online operations manual)

- Change the width or height of the help window
- Move the help window

Prerequisite	*Access the online operations manual*, page System documentation-27, or *Access Help?*, page System documentation-28
User access level	General operator

To maximize the help window:

Select the **Maximize** button in the upper right-hand corner of the help window.

The help window enlarges to full screen size. You can select the **Restore Down** button to return it to its previous size and position.

To resize the navigation and topic panes (online operations manual):

1. Position the pointer on the divider between the two panes.

   The pointer changes to a double arrow ↔.

2. Drag the divider right or left.

To change the height or width of the help window:

1. Position the pointer on the top, bottom, left, or right edge of the help window.

   The pointer changes to a double arrow ↔.

2. Drag the edge in the desired direction.

To move the help window:

1. Position the pointer on the title bar.
2. Drag the help window to the desired position.

Related information...

- *Help window descriptions*, page System documentation-10

Add or remove a favorite topic (online operations manual)

Perform this procedure to add a topic(s) to your favorites list for quick access, or to remove a topic(s) that is no longer needed.

Prerequisite	*Access the online operations manual*, page System documentation-27
Module status	Any
User access level	General operator

To add a favorite topic:

1. Display the desired topic.
2. Select the **Favorites** tab on the navigation pane.
3. Select **Add**.

   The topic title displays in the Topic list.

To remove a favorite topic:

1. Select the **Favorites** tab on the navigation pane.
2. Select the desired topic from the **Topics** list, and then select **Remove**.

   The topic title no longer displays in the Topic list.

Related information...

- *Help window descriptions*, page System documentation-10
- *Favorites tab (online operations manual)*, page System documentation-20

Rename a favorite topic (online operations manual)

Perform this procedure to rename a favorites topic.

Prerequisite	*Access the online operations manual*, page System documentation-27
Module status	Any
User access level	General operator

To rename a favorite topic:

1. Select the **Favorites** tab on the navigation pane.
2. Select the desired topic from the **Topics** list, and then select **Display**.

   The topic content displays in the topic pane.
3. Enter the new name in the **Current topic** data entry box, and then select **Add**.
4. Select the old topic name, and then select **Remove**. ***(optional)***

Related information...

- *Help window descriptions*, page System documentation-10
- *Favorites tab (online operations manual)*, page System documentation-20

Introduction

The modular design and integration capabilities of the ARCHITECT family of analyzers provide a single workstation capable of processing a variety of assays.

With an intuitive software interface, real-time display of system statuses, and a "to do" list of scheduled maintenance activities, you can minimize system interaction and optimize your productivity.

Use or function topics include:

- *ARCHITECT System overview*, page 1-2

  Provides a general description of the available ARCHITECT System configurations.

- *System control center*, page 1-4

  Provides a detailed description of the computer system, both hardware and software, that provides the interface to your ARCHITECT System.

- *Processing modules*, page 1-23

  Provides a detailed description of each processing module including all related hardware components.

- *Sample handlers*, page 1-60

  Provides a detailed description of each sample transport system including all related hardware components.

- *Required consumables*, page 1-67

  Describes the consumables that are required to operate each system.

- *Required accessories*, page 1-78

  Describes the accessories that are required to operate each system.

- *System statuses*, page 1-80

  Lists and describes the various statuses of each system.

- *Automatic processing module activities*, page 1-86

  Describes the automatic activities performed by the processing module(s).

ARCHITECT System overview

The modular design of the ARCHITECT family of analyzers allows multiple processing modules, which perform all sample processing activities, to be physically joined to form a single workstation or system. The processing module(s) determines your system configuration.

ARCHITECT Systems can be configured to process samples using potentiometric and photometric methods and/or CMIA (chemiluminescent microparticle immunoassay) methods.

System overview topics include:

- *Primary components of an ARCHITECT System*, page 1-2
- *ARCHITECT i 1000$_{SR}$ System*, page 1-2

Primary components of an ARCHITECT System

Each ARCHITECT System, regardless of type, consists of three primary components:

- *System control center*, page 1-4 - provides a common user interface across all ARCHITECT System configurations.
- *Processing modules*, page 1-23 - performs all sample processing activities from aspiration to final read. The type(s) and number(s) of processing module(s) determines your system configuration.
- *Sample handlers*, page 1-60 - transports samples through an ARCHITECT System. Each system has a single, primary sample handler regardless of the number of processing modules and types.

ARCHITECT *i* 1000$_{SR}$ System

The ARCHITECT *i* 1000$_{SR}$ System is a fully-automated immunoassay system allowing random and continuous access as well as priority and automated retest processing.

Figure 1.1: Primary components of an i 1000$_{SR}$ System

Legend:

1. *i 1000$_{SR}$ processing module*, page 1-23 Diagnostic module with priority processing capability that performs sample processing using the CMIA (chemiluminescent microparticle immunoassay) method.
2. *RSH - robotic sample handler (i 1000$_{SR}$)*, page 1-60 Transport module that presents samples to the processing module(s) for analysis and retesting.
3. *System control center*, page 1-4 Computer system that provides user control of the processing module(s) and related components through a centralized interface.

System control center

The SCC (system control center) is a computer system that provides the software interface to the ARCHITECT System and can provide an interface to a host computer. From the SCC you can:

- Configure the system
- Enter patient, control, and calibration orders
- Review patient results, control data, and calibration results
- Control the processing module(s) and the sample handler
- Perform system diagnostics and maintenance procedures
- Receive test orders and diagnostic data from a host computer
- Transfer test results to a host computer

System control center topics include:

- *SCC standard components*, page 1-4
- *SCC optional components*, page 1-7
- *ARCHITECT System software*, page 1-7

SCC standard components

The following illustration shows the standard components of the SCC (system control center).

Figure 1.2: SCC standard components

Legend:

1. Touch-screen monitor: Allows you to make onscreen selections by touching text areas and graphics, icons and menu items, and function bar buttons.
2. CPU (central processing unit): Houses the microprocessor and other computer components.

   NOTE: Upgrades to the computer hardware may change the location of CPU components.
3. Floppy drive: Used to:
   – Collect system logs for troubleshooting purposes
4. CD-RW drive: Used to:
   – Install assay, maintenance, and diagnostic files
   – Upgrade system software
   – Archive patient and quality control results
   – Collect system logs for troubleshooting purposes
5. Keyboard: Used with the mouse and/or touch-screen monitor to enter information. You can use the keyboard as an alternate means of performing most functions.
6. Mouse (pointing device): Used with the touch-screen monitor and/or keyboard to make onscreen selections.

7. *Network hub and CPU back panel*, page 1-6 (not shown): Provides the connection between the SCC and modules for information exchange.

Related information...

- *SCC optional components*, page 1-7

Network hub and CPU back panel

The network hub is an external device that joins communication lines and enables the electronic transfer of information between the SCC (system control center) and processing modules(s). Cables run from the hub to ethernet connectors on the back of the SCC and processing module(s).

Additional I/O (input/output) ports and connectors on the back panel of the CPU (central processing unit) provide connections to other external devices, such as a keyboard, mouse, printer, and monitor.

Figure 1.3: Network hub and CPU back panel

Legend:

1. CPU (central processing unit - rear view): Provides the I/O (input/output) ports and connectors for external devices.

   NOTE: Upgrades to the computer hardware may change the location of CPU components.

2. Ethernet connector: Provides the physical connection between the network hub and the SCC and allows communication between the SCC and the processing module(s).
3. Ethernet connectors: Provides the physical connection between the network hub and each module, and allows communication between the processing module(s) and the SCC.

4. Scanner and keyboard connector: Provides the connection for the bar code scanner and keyboard.
5. Mouse connector: Provides the connection for the mouse.
6. Com1 port: Provides the connection for the touch-screen interface.
7. Printer port: Provides the connection for the printer.
8. Video connector: Provides the connection for the monitor.

SCC optional components

Optional components available for the SCC (system control center) include:

- Printer - provides a hard copy of test results and printed reports.
- Bar code scanner - provides a convenient means of scanning sample bar codes to allow positive sample identification.
- UPS (uninterruptible power supply) - provides a temporary, continuous flow of power to the CPU (central processing unit) during a power failure, allowing you to save data as necessary and perform a controlled shutdown procedure.
- External modem - connects the ARCHITECT System to a telephone line, which allows communication with Abbott personnel for training and troubleshooting purposes.
- Cart - supports the SCC components.
- Speakers - provide audio output.

ARCHITECT System software

ARCHITECT System software is the computer program or set of computer instructions that interprets system and assay information, calculates results, and provides the interface for controlling the system hardware.

System software topics include:

- *Software interface description*, page 1-7
- *Software navigation*, page 1-14
- *Snapshot screen*, page 1-15

Software interface description

The software interface is the portion of the computer program with which you interact by making selections and entering information. The interface provided by the ARCHITECT System software is a GUI

(graphical user interface), which is a type of display format. A GUI allows you to initiate commands or make choices by selecting icons, buttons, items from lists, and so forth. You can use the mouse, touch-screen monitor, and/or keyboard to make your selections.

The software interface is common among all ARCHITECT Systems.

Figure 1.4: Software interface layout

Legend:

1. Icons: Represent a category of screens. When you select an icon, its color changes from green to blue and a menu displays below the icon. See *Icons and menus*, page Appendix E-2.
2. Menus: Lists the available items for the selected category (icon). When you select a menu item, the associated screen displays. See *Icons and menus*, page Appendix E-2.
3. *Screens*, page 1-9: Provides access to all related system information and functions.
4. *Buttons*, page Appendix E-6: Allow you to perform actions associated with the active screen and correspond to the function keys on the keyboard. Some may be unavailable until you make a selection on the screen.
5. *Windows*, page 1-11: Provides additional details or functions related to the active screen.
6. *Messages*, page 1-12 or *prompts*, page 1-13: Provides informational or error messages that allow you to complete a procedure or address the current situation.
7. Help button: Provides access to context-sensitive help for the active screen, window, or error message.

Screens

When you select an icon, and then a menu item, the associated screen displays. This screen is considered the active screen and provides access to all related system information and functions.

A screen can have different views (information displays) based on module type and your onscreen selections.

Figure 1.5: Example of a screen

Legend:

1. *Icons and menus*, page 1-10: Provide access to a menu that lists related screens.
2. Title bar: Identifies the active screen.
3. Information area: Displays data and allows you to make selections and/or enter information to perform various functions.
4. *Function bar buttons*, page 1-10: Allow you to perform actions associated with the active screen and correspond to the function keys on the keyboard. Some may be unavailable until you make a selection on the screen.
5. Help button: Provides access to context-sensitive help for the active screen, window, or error message.

For descriptions of all elements on a screen or window, see *Descriptions of screen elements*, page Appendix E-1.

Icons and menus

Icons and menus are the navigational elements that allow you to display specific screens. Additionally, icons serve as blinking indicators to inform you that a condition requires your attention.

Figure 1.6: Example of icons and a menu

Legend:

1. Icons: Represent a category of screens. When you select an icon, its color changes from green to blue and a menu displays below the icon.
2. Menu: Lists the available items for the selected category (icon). When you select a menu item, the associated screen displays.

NOTE: Icons can be accessed by the keyboard equivalents shown in the figure below.

Figure 1.7: Icon keyboard equivalents

Function bar buttons

Function bar buttons are the buttons at the bottom of each screen that allow you to perform actions or access windows associated with the screen. They correspond to the function keys on the keyboard. You can use either the function bar buttons or the keyboard function keys.

The two types of function bar buttons are:

- Screen available - have white lettering and are always available (green background). For example, from the Order status screen you can always select F3 - Find.

- Context available - have yellow lettering and are available (green background) or unavailable (gray background) based on selections you make from the screen. For example, from the Order status screen you can only select the F5 - Details function key after you select an order.

Figure 1.8: Screen and context function bar buttons

Legend:

1. Screen available function bar buttons: Are always enabled for the active screen.
2. Unavailable context function bar buttons: Are available after you make a selection on the screen.

Windows

Windows provide additional information or functions related to the active screen. You access windows by selecting a button on the screen. The window displays on top of, or in front of, the screen.

Figure 1.9: Example of a window

Legend:

1. Title bar: Identifies the active window.
2. Information area: Displays data and allows you to make selections and/or enter information to perform various functions.
3. Help button: Provides access to context-sensitive help for the active screen, window, or error message.

For a description of all elements on a screen or window, see *Descriptions of screen elements*, page Appendix E-1.

Messages

Messages provide important information during the course of normal system operation. They display in front of the currently displayed screen or window and require an acknowledgement. All interaction with the user interface is suspended as long as the message displays.

Figure 1.10: Example of a message

The type of message is indicated by one of two symbols at the left of the window.

	Caution: Indicates a condition that requires you to take corrective action as described in the text of the message.
	Information: Provides feedback or other useful information.

prompts

Prompts allow you to continue or cancel the requested operation. They display in front of the currently displayed screen or window and require a response. All interaction with the user interface is suspended as long as the prompt displays.

Figure 1.11: Example of a prompt

Refresh button

The Refresh button allows you to update the screen for items that do not update automatically. The button is located on the upper right corner of the screen and is available when the system has new data to display. The following screens update automatically:

- Sample status
- Order status

- Reagent status - module view
- Reagent status - view all view

Figure 1.12: Example of a refresh button

Software navigation

The ARCHITECT System software interface is designed to provide consistent and easy access to system information, software functions, and context-sensitive help. You can navigate through the screens and windows by using the mouse (pointing device), touch-screen monitor, and/or keyboard.

Figure 1.13: Software navigation

Legend:

1. Select an icon to display a menu that lists related items. See *Icons and menus*, page 1-10.
2. Select a menu item from the menu to display that screen. See *Icons and menus*, page 1-10.
3. Select a function bar button to perform an action or access a window associated with the screen.

   NOTE: Some function bar buttons may be unavailable until you make a selection on the screen.
4. Select the help button to access context-sensitive help for the screen, window, or error message.

Once you access a screen where scroll buttons appear, additional navigation is available via the keyboard.

Key name	Function
Page Up	Allows you to move the cursor up a page at a time.
Page Down	Allows you to move the cursor down a page at a time.
Home	Allows you to move to the top of the list.
End	Allows you to move to the end of the list.

Snapshot screen

From the Snapshot screen you can view key system information such as:

- *Sample handler status*, page 1-80 - displays on the sample handler graphic.

NOTE: The sample handler status graphic is not displayed for an *i* 2000_{SR} processing module configured with a LAS (laboratory automation system).

- *Processing module status*, page 1-82 - displays on the processing module graphic(s).
- Test processing status - displays on the order status button. You can select this button to display the Order status screen.
- Reagent status - displays on the reagent status button. You can select this button to display the Reagent status screen.
- Supply and waste status - displays on the supply status button. You can select this button to display the Supply status screen.
- Number of orders pending rerun - displays on the Reruns status button. You can select this button to display the Rerun status screen.
- Number of exceptions pending review - displays on the Exceptions status button. You can select this button to display the Exception status screen.

Additionally, the Printer, LIS, ARM, and LAS status buttons display if your system is configured with these optional components. A caution symbol indicates a condition that requires attention.

Figure 1.14: Snapshot screen

For descriptions of these fields, see *Snapshot screen field descriptions*, page Appendix E-14.

To display this screen, see *Access the Snapshot screen*, page 1-18.

Related procedures...

- *Log on (general operator)*, page 1-19
- *Log on (system administrator)*, page 1-20
- *Change the system administrator password*, page 1-21
- *Log off*, page 1-22
- *Power on the SCC*, page 5-3
- *Power off the SCC*, page 5-4
- *Cycle power to the SCC*, page 5-5
- *Start up the processing module and/or sample handler*, page 5-10
- *Pause the processing module*, page 5-11
- *Pause the RSH*, page 5-12
- *Initiate or resume sample processing (RSH and SSH)*, page 5-135

Access the Snapshot screen

Perform this procedure to display the Snapshot screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Snapshot screen:

Select **Overview** from the menu bar, and then select **Snapshot**.

The Snapshot screen displays. The information is dependent on your system configuration and test processing status.

Related information...

- *Snapshot screen*, page 1-15
- *Sample handler status*, page 1-80
- *Processing module status*, page 1-82

Window - Snapshot screen

The window you can access from the Snapshot screen is the *Log on window*, page 1-18.

Log on window

From the Log on window you can log on as:

- General operator - required to display your operator ID on printouts and reports
- System administrator - required to perform system configuration, assay configuration, specific diagnostic procedures, and approve the maintenance log

Figure 1.15: Log on window (system administrator)

For descriptions of these fields, see *Log on window field descriptions*, page Appendix E-17.

Related procedures...

- *Log on (general operator)*, page 1-19
- *Log on (system administrator)*, page 1-20
- *Change the system administrator password*, page 1-21
- *Log off*, page 1-22

User logon

User logon is the identifier that controls access to certain SCC (system control center) functionality. The two types of user logon are:

- General operator - required to print the operator ID of the current user on printouts and reports
- Administrator - required to perform administrator functions such as configuring settings, performing specific diagnostic procedures, and approving the maintenance log

Additionally, Abbott Area Customer Support may provide a user name and temporary password to operators who call for troubleshooting assistance. This logon authorizes selected functions in addition to those allowed by the system administrator logon.

Log on (general operator)

Perform this procedure so that your operator ID displays on various screens and reports.

NOTE: Although you can run the system without logging on, you must log on if your operator ID is needed on system printouts and reports.

To log on as a system administrator, see *Log on (system administrator)*, page 1-20.

Prerequisite	*Access the Snapshot screen*, page 1-18
Module status	Any
User access level	General operator
Supplies	NA

To log on (general operator):

1. Select **F2 - Log on** on the Snapshot screen.

   The Log on window displays.

2. Enter your operator ID in the **User name** data entry box (maximum of 12 alphanumeric characters).

3. Select **Done** to log on.

   Your operator ID displays in the upper left-hand corner of the Snapshot screen.

Related information...

- *User logon*, page 1-19
- *Snapshot screen*, page 1-15
- *Log on window*, page 1-18

Log on (system administrator)

Perform this procedure to complete system administrator functions such as configuring settings, performing specific diagnostic procedures, and approving the maintenance log.

To log on as a general operator, see *Log on (general operator)*, page 1-19.

To change the administrator password, see *Change the system administrator password*, page 1-21.

Prerequisite	*Access the Snapshot screen*, page 1-18
Module status	Any
User access level	System administrator
Supplies	NA

To log on (system administrator):

1. Select **F2 - Log on** on the Snapshot screen.

   The Log on window displays.

2. Enter `ADMIN` (all capital letters) in the **User name** data entry box.

3. Enter the system administrator password in the **Password** field.
4. Select **Done** to log on.

   ADMIN displays in the upper left-hand corner of the Snapshot screen.

Related information...

- *User logon*, page 1-19
- *Snapshot screen*, page 1-15
- *Log on window*, page 1-18

Change the system administrator password

Perform this procedure to configure a new system administrator password.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Any
User access level	System administrator
Supplies	NA

To change the system administrator password:

1. Select **Password** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.
3. The Configure password window displays.
4. Enter the new password in the **System administrator password** data entry box.
5. Enter the new password in the **System administrator password confirm** data entry box to confirm the new password.
6. Select **Done** to save your changes.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure password window*, page 2-39

Log off

Perform this procedure to log off if you are currently logged on to the system.

Prerequisite	*Access the Snapshot screen*, page 1-18
Module status	Any
User access level	Any
Supplies	NA

To log off:

1. Select **F2 - Log on** on the Snapshot screen.

   The Log on window displays.

2. Press the **Delete** key on the keyboard to delete the user name.
3. Select **Done** to log off.
4. Verify that a logon identifier does not display in the upper left-hand corner of the Snapshot screen.

Related information...

- *User logon*, page 1-19
- *Snapshot screen*, page 1-15
- *Log on window*, page 1-18

Processing modules

Processing modules perform all sample processing activities from aspiration to final read.

Unless otherwise indicated, the term processing module is used generically throughout this documentation to refer to all types.

Processing module topics include:

- *Processing modules (i System)*, page 1-23

Processing modules (*i* System)

The *i* System processing modules perform all sample processing activities from aspiration to final read.

For more information for the *i* 1000_{SR}, see *i* 1000_{SR} *processing module*, page 1-23.

i 1000_{SR} processing module

An *i* 1000_{SR} is an immunoassay analyzer that performs sample processing. It processes up to 100 CMIA (chemiluminescent microparticle immunoassay) tests per hour when using a one step 11 STAT protocol. It has the capability to load up to 25 onboard reagent kits (100 tests) in a temperature-controlled reagent carousel and provides stat processing.

Figure 1.16: i 1000$_{SR}$ processing module (front view)

Legend:

1. Processing center cover: Provides access to the components that perform assay processing activities.
2. SCC articulated arm: Provides access to the SCC monitor, keyboard, and mouse.
3. Supply and waste center door: Provides access to the bulk storage and waste storage area.
4. Card cage and SCC center door: Provides access to the card cage and SCC components.

Figure 1.17: i 1000$_{SR}$ processing module (rear view)

Legend:

1. SCC rear panel: Provides access to the SCC CPU back panel connectors.
2. Card cage rear panel: Provides access to the card cage backplane and power supply.
3. Fluidics rear panel: Provides access to the fluidics components.

Processing center (*i* 1000$_{SR}$)

The processing center is the main activity area of the processing module. Samples and reagents are dispensed and mixed into the RVs (reaction vessels) in the process path where assay processing is performed.

Figure 1.18: ARCHITECT i 1000$_{SR}$ processing center hardware components

Legend:

1. *Pipetting hardware components (i 1000$_{SR}$)*, page 1-27 Provide sample and reagent aspiration and dispense.
2. *Process path hardware components (i 1000$_{SR}$)*, page 1-30 Position the RVs for sample and reagent aspiration, mixing, washing, and CMIA processing.

Related information...

- *Processing center map (i 1000$_{SR}$)*, page 1-26

Processing center map (*i* 1000$_{SR}$)

A processing center map is attached to the processing center cover on an ARCHITECT *i* 1000$_{SR}$ to assist you in locating components when you are performing component replacement procedures or troubleshooting processing module problems. The map displays a letter and/or number identifier for each component.

Figure 1.19: Processing center map (i 1000$_{SR}$)

For a description of each component, refer to *Pipetting hardware components (i 1000$_{SR}$)*, page 1-27, or *Process path hardware components (i 1000$_{SR}$)*, page 1-30.

Pipetting hardware components (*i* 1000$_{SR}$)

Pipetting hardware components are devices that provide sample and reagent aspiration and dispense.

Figure 1.20: Pipetting hardware components of the processing center (i 1000$_{SR}$)

Legend:

1. *Pipettor (i 1000$_{SR}$)*, page 1-28 (P): Aspirates and dispenses samples and reagents into the RVs (reaction vessels).
2. *Syringe (i 1000$_{SR}$)*, page 1-29 (PS): Controls the aspiration and dispense of samples and reagents.
3. *Wash cup (i 1000$_{SR}$)*, page 1-30 (PW): Used to wash remaining fluid from the probe interior and exterior surfaces.

Pipettor (*i* 1000$_{SR}$)

The pipettor (P on the processing center map) is a device that detects, aspirates, transfers, and dispenses samples and reagents into the reaction vessel. The pipettor also transfers pretreated samples into a new reaction vessel after the appropriate incubation period. A fluid sense/pressure monitoring system is included in the pipettor assembly to help identify errors in aspiration.

Figure 1.21: Pipettor (i 1000$_{SR}$)

Syringe (*i* 1000$_{SR}$)

The syringe (PS on the *Processing center map (i 1000$_{SR}$)*, page 1-26) is a device that controls the aspiration and dispense of samples and reagents.

Figure 1.22: Example of a syringe (i 1000$_{SR}$)

Wash cup (*i* 1000$_{SR}$)

The wash cup (PW on the *Processing center map (i 1000$_{SR}$)*, page 1-26) is an active wash cup that washes any remaining fluid from the probe interior and exterior surfaces. In addition, a vacuum source dries the exterior of the probe.

Figure 1.23: Example of a wash cup (i 1000$_{SR}$)

Process path hardware components (*i* 1000$_{SR}$)

The process path is a covered circular track that provides incubation temperatures, liquid aspiration, and wash points as necessary for the assay protocol. The process path advances RVs (reaction vessels) every 18 seconds and positions them at the designated locations to process

the CMIA reaction. For information on the CMIA reaction, see *CMIA technology and reaction sequence*, page 3-2.

Figure 1.24: Process path hardware components (i 1000$_{SR}$)

Legend:

1. *RV loader and hopper assembly (i 1000$_{SR}$)*, page 1-32 (RVL): Provides onboard storage for RVs and transports RVs into the process path.
2. *Upper waste manifold (i 1000$_{SR}$)*, page 1-32 (UWM): Directs liquid waste from the RVs after washing into the waste area.
3. *Wash zone manifold (i 1000$_{SR}$)*, page 1-33 (WZ): Dispenses wash buffer, and removes and discards unbound analyte from the reaction mixture in the RV.
4. *Wash zone outlet diverter (i 1000$_{SR}$)*, page 1-34 (WZOD): Directs RVs either into the inner track or keeps the RVs in the outer track.
5. *RV access door (i 1000$_{SR}$)*, page 1-34 (RVA): Used for diagnostic purposes only. This door allows access to one position on the outer track.
6. *Vortexers (i 1000$_{SR}$)*, page 1-35 (VTX1, VTX2): Mix the reaction mixture to suspend microparticles.
7. *Pre-trigger/trigger manifold (i 1000$_{SR}$)*, page 1-36 (PT/T): Dispenses Pre-Trigger Solution, and Trigger Solution into the RVs.
8. *CMIA reader (i 1000$_{SR}$)*, page 1-37 (CMIA): Measures the chemiluminescent emission from RVs and outputs data corresponding to the quantity of emission detected.
9. *Process path (i 1000$_{SR}$)*, page 1-37 (PP): Contains provisions for moving RVs, positioning them at processing stations, and providing incubation temperatures required for the assay processing.

10. *Unload diverter (i 1000$_{SR}$)*, page 1-38 (ULD): Unloads RVs used for pretreatment or dilution of samples from the inner track into the solid waste container.
11. *Unloader (i 1000$_{SR}$)*, page 1-39 (UL): Removes used RVs from the process path and discards them into the solid waste container after assay processing.
12. *Process path motor (i 1000$_{SR}$)*, page 1-39 (PPM): Rotates the process path disk, which holds RVs in place, and advances the RVs from position to position.
13. *Wash zone inlet diverter (i 1000$_{SR}$)*, page 1-40 (WZID): Directs RVs either into the wash zone (outer track) where a wash occurs or keeps the RVs in the inner track.

RV loader and hopper assembly (*i* 1000$_{SR}$)

The RV loader and hopper assembly (RVL on the *Processing center map (i 1000$_{SR}$)*, page 1-26) is a device that provides onboard storage for RVs (reaction vessels) and transports the RVs into the process path.

Figure 1.25: RV loader and hopper assembly (i 1000$_{SR}$)

Upper waste manifold (*i* 1000$_{SR}$)

The upper waste manifold (UWM on the *Processing center map (i 1000$_{SR}$)*, page 1-26) is a device that directs liquid waste from the RVs after washing into the waste area.

Figure 1.26: Upper waste manifold (i 1000$_{SR}$)

Wash zone manifold (*i* 1000$_{SR}$)

The wash zone manifold (WZ on the *Processing center map (i 1000$_{SR}$)*, page 1-26) is a device that removes and discards unbound analyte from the reaction mixture in an RV (reaction vessel). Each wash zone has four positions where the following actions occur:

- Position 1 - A magnet attracts paramagnetic microparticles to the wall of the RV and a dispense nozzle dispenses wash buffer into the RV.
- Position 2 and 3 - A vacuum is applied to the wash zone probes as they move to the bottom of the RV. In addition, nozzles dispense wash buffer into the RV. Additional wash/aspiration cycles occur at these positions.
- Position 4 - A wash zone probe aspirates liquid waste from the RV.

Figure 1.27: Wash zone manifold (i 1000$_{SR}$)

Wash zone outlet diverter (*i* 1000$_{SR}$)

The wash zone outlet diverter (WZOD on the *Processing center map (i 1000$_{SR}$)*, page 1-26) is a device that directs RVs either into the inner track or keeps the RVs in the outer track.

Figure 1.28: Wash zone outlet diverter (i 1000$_{SR}$)

RV access door (*i* 1000$_{SR}$)

The RV access door (RVA on the *Processing center map (i 1000$_{SR}$)*, page 1-26) is an opening that allows access to one position on the outer track. You use this door for diagnostic purposes only and should always make sure it is closed during system operation.

Figure 1.29: RV access door (i 1000$_{SR}$)

Vortexers (*i* 1000$_{SR}$)

The vortexers (VTX1 and VTX2 on the *Processing center map (i 1000$_{SR}$)*, page 1-26) are devices that mix the reaction mixture to suspend microparticles. The RVs are vortexed in the process path.

Figure 1.30: Vortexers (i 1000$_{SR}$)

Pre-trigger/trigger manifold (*i* 1000$_{SR}$)

The pre-trigger/trigger manifold (PT/T on the *Processing center map (i 1000$_{SR}$)*, page 1-26) is a device that dispenses Pre-Trigger Solution, and then Trigger Solution into RVs (reaction vessels).

Figure 1.31: Pre-trigger/trigger manifold (i 1000$_{SR}$)

CMIA reader (*i* 1000$_{SR}$)

The CMIA reader (CMIA on the *Processing center map (i 1000$_{SR}$)*, page 1-26) is a device that measures the chemiluminescent emission from RVs (reaction vessels) and reports the quantity of emission detected.

Figure 1.32: CMIA reader (i 1000$_{SR}$)

Process path (*i* 1000$_{SR}$)

The process path (PP on the *Processing center map (i 1000$_{SR}$)*, page 1-26) is a device that contains provisions for moving RVs, positioning them

at processing stations, and provides incubation temperatures required for assay processing.

Figure 1.33: Process path (i 1000$_{SR}$)

Unload diverter (*i* 1000$_{SR}$)

The unload diverter (ULD on the *Processing center map (i 1000$_{SR}$)*, page 1-26) is a device that unloads RVs used for pretreatment or dilution of samples from the inner track into the solid waste container.

Figure 1.34: Unload diverter (i 1000$_{SR}$)

Unloader (*i* 1000$_{SR}$)

The unloader (UL on the *Processing center map (i 1000$_{SR}$)*, page 1-26) is a device that removes used RVs from the process path and discards them into the solid waste container after assay processing.

Figure 1.35: Unloader (i 1000$_{SR}$)

Process path motor (*i* 1000$_{SR}$)

The process path drive motor (PPM on the *Processing center map (i 1000$_{SR}$)*, page 1-26) is a device that rotates the process path disk, which holds RVs (reaction vessels) in place, and advances the RVs from position to position.

Figure 1.36: Process path motor (i 1000$_{SR}$)

Wash zone inlet diverter (*i* 1000$_{SR}$)

The wash zone inlet diverter (WZID on the *Processing center map (i 1000$_{SR}$)*, page 1-26) is a device that directs RVs either into the wash zone (outer track) where a wash occurs or keeps the RVs in the inner track.

Figure 1.37: Wash zone inlet diverter (i 1000$_{SR}$)

Supply and waste center (*i* 1000$_{SR}$)

The supply and waste center is the onboard storage area for bulk solutions and waste.

Figure 1.38: Supply and waste center (i 1000$_{SR}$)

Legend:

1. *Pre-trigger/trigger storage area (i 1000$_{SR}$)*, page 1-41: Provides onboard storage for Pre-Trigger Solution and Trigger Solution.
2. *Wash buffer storage area (i 1000$_{SR}$)*, page 1-45: Provides onboard storage for the wash buffer.
3. *Waste storage area (i 1000$_{SR}$)*, page 1-49: Provides storage for liquid and solid waste.

Pre-trigger/trigger storage area (*i* 1000$_{SR}$)

The pre-trigger/trigger storage area is the location in the supply and waste center that provides onboard storage for the Pre-Trigger Solution and Trigger Solution, which are necessary for test processing.

Figure 1.39: Pre-trigger/trigger storage area (i 1000$_{SR}$)

Legend:

1. *Pre-trigger/trigger tray (i 1000$_{SR}$)*, page 1-42: Holds the pre-trigger and trigger bottles.
2. *Trigger level sensor (i 1000$_{SR}$)*, page 1-44: Detects the volume of remaining trigger solution.
3. *Pre-trigger level sensor (i 1000$_{SR}$)*, page 1-43: Detects the volume of remaining pre-trigger solution.

Pre-trigger/trigger tray (*i* 1000$_{SR}$)

The pre-trigger/trigger tray is a platform in the supply and waste center that holds the Pre-Trigger Solution and Trigger Solution bottles.

Figure 1.40: Pre-trigger/trigger tray (i 1000$_{SR}$)

Legend:

1. *Trigger solution (i System)*, page 1-74: Used to produce the chemiluminescent reaction that provides the final read.
2. *Pre-trigger solution (i System)*, page 1-73: Used to split the acridinium dye off the conjugate bound to the microparticle complex. This process prepares the acridinium dye for the addition of trigger solution.

Pre-trigger level sensor (*i* 1000$_{SR}$)

The pre-trigger level sensor is an assembly with a magnetic float sensor located in the pre-trigger bottle that indicates when the liquid level is low. When the sensor trips, approximately 70 mLs of usable solution remains.

Figure 1.41: Pre-trigger level sensor (i 1000$_{SR}$)

Trigger level sensor (*i* 1000$_{SR}$)

The trigger level sensor is an assembly with a magnetic float sensor located in the trigger bottle that indicates when the liquid level is low. When the sensor trips, approximately 70 mLs of usable solution remains.

Figure 1.42: Trigger level sensor (i 1000$_{SR}$)

Wash buffer storage area (*i* 1000$_{SR}$)

The wash buffer storage area is the location in the supply and waste center for onboard storage of wash buffer, which is used in test processing.

Figure 1.43: Wash buffer storage area (i 1000$_{SR}$)

Legend:

1. *Wash buffer reservoir (i 1000$_{SR}$)*, page 1-46: Provides onboard storage for up to 12 liters of wash buffer.
2. *Wash buffer level sensor and outlet assembly (i 1000$_{SR}$)*, page 1-47: Dispenses wash buffer into the reservoir and measures the remaining volume of wash buffer.
3. *Wash buffer level sensor and outlet assembly (i 1000$_{SR}$)*, page 1-47: Draws wash buffer from the reservoir during test processing.
4. *Wash buffer filter (i 1000$_{SR}$)*, page 1-48: Protects the fluidics components by eliminating particulates.

Wash buffer reservoir (*i* 1000$_{SR}$)

The wash buffer reservoir is an onboard container in the supply and waste center that holds up to 12 liters of wash buffer.

Figure 1.44: Wash buffer reservoir (i 1000$_{SR}$)

Wash buffer level sensor and outlet assembly (*i* 1000$_{SR}$)

The wash buffer level sensor, located in the wash buffer reservoir, is an assembly containing a tube with three magnetic float sensors that indicate when the wash buffer reservoir is full (top sensor), needs to be filled by the ARCHITECT ARM (Automatic Reconstitution Module) accessory (middle sensor), or is empty (lower sensor).

The buffer level sensor dispenses wash buffer into the reservoir. The outlet assembly draws wash buffer from the reservoir during test processing.

Figure 1.45: Wash buffer level sensor and outlet tube (i 1000$_{SR}$)

Wash buffer filter (*i* 1000$_{SR}$)

The wash buffer filter, located in the wash buffer storage area, is an assembly containing material used to eliminate particulates that might damage the fluidics components of the system.

Figure 1.46: Wash buffer filter (i 1000$_{SR}$)

Waste storage area (*i* 1000$_{SR}$)

The waste storage area is the location in the supply and waste center that provides a storage area for the solid waste container that holds used RVs (reaction vessels) and the liquid waste container. These containers are accessed by sliding out the waste drawer.

Figure 1.47: Waste storage area (i 1000$_{SR}$)

Legend:

1. *Waste drawer (i 1000$_{SR}$)*, page 1-50: Provides onboard storage for the liquid and solid waste containers.
2. *Liquid waste container (i 1000$_{SR}$)*, page 1-51: Provides onboard storage for liquid waste.
3. *Solid waste container (i 1000$_{SR}$)*, page 1-52: Provides onboard storage for the used RVs (reaction vessels).
4. *Waste pan (i 1000$_{SR}$)*, page 1-53: Provides storage for up to 25 used RVs when the solid waste container is removed during processing.

Waste drawer (*i* 1000$_{SR}$)

The waste drawer is the location in the waste area that holds the liquid and solid waste containers. Sliding this drawer out of the waste area allows access to the liquid and solid waste containers.

Figure 1.48: Waste drawer (i 1000$_{SR}$)

Liquid waste container (*i* 1000$_{SR}$)

The liquid waste container is a receptacle that holds the liquid waste from the system. This is an optional item and only required if your system is not configured for an external floor drain.

Figure 1.49: Liquid waste container (i 1000$_{SR}$)

Solid waste container (*i* 1000$_{SR}$)

The solid waste container is a receptacle that holds used RVs (reaction vessels).

Figure 1.50: Solid waste container (i 1000$_{SR}$)

Waste pan (*i* 1000$_{SR}$)

The waste pan is a receptacle that holds used RVs (reaction vessels) when the solid waste container is not present. This pan holds up to 25 RVs when you remove the solid waste container during processing.

Figure 1.51: Waste pan (i 1000$_{SR}$)

Optional components (*i* System)

Optional components available for an *i* System processing module include:

- UPS (uninterruptible power supply) - provides a temporary, continuous flow of power to the processing module during a power failure
- *ARM optional accessory (i System)*, page 1-54 - dilutes Concentrated Wash Buffer to the proper concentration and delivers it to the wash buffer reservoir.

ARM optional accessory (*i* System)

The ARCHITECT ARM (Automatic Reconstitution Module) accessory is an optional ARCHITECT *i* System accessory that automatically dilutes Concentrated Wash Buffer to the proper concentration and delivers it to the wash buffer reservoir.

The ARM is connected to a water supply and is loaded with a 10 L container of concentrated wash buffer. A single motor operating at a constant speed is geared to drive two pumps at a 9:1 ratio to each other, pumping the necessary proportions of water and concentrated wash buffer into a mixing chamber.

Sensors verify that incoming water and outgoing wash buffer meet predetermined specifications for ion content and temperature. If the standards are not met, the ARM motor stops automatically.

Figure 1.52: ARM (front view)

Legend:

1. *ARM keypad (i System)*, page 1-56: Provides a local user interface for controlling the ARM.
2. Tubing assembly: Detects the level of concentrated wash buffer in the 10 L container and transfers the concentrated wash buffer to the mixing chamber inside the ARM.
3. Fluidics and electronics bay: Provides access to the pump and circuit boards.
4. Concentrated wash buffer (10 L container): Concentrated wash buffer diluted by the ARM and delivered to the processing modules.

Figure 1.53: ARM (rear view)

Related information...

- *ARM connectors (i System)*, page 1-58

ARM keypad (*i* System)

The ARM keypad is an input device used by the operator to operate the ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Figure 1.54: Components of the ARM keypad

Legend:

1. Start key: Initiates operation. The green indicator below the key illuminates during operation and flashes when wash buffer is being pumped to the wash buffer reservoir in the processing module.
2. Decontamination key (used by Abbott service representatives): Initiates the decontamination procedures.
3. Flush to drain key: Initiates a flush. This key is not functional when your wash buffer transfer option is set to Automatic.
4. Replace buffer key: Initiates loading of the 10 L container of Concentrated Wash Buffer. The amber indicator illuminates during this procedure.
5. Stop key: Stops the procedure currently in progress and/or interrupts communication to the SCC (system control center). The red indicator illuminates when you press the stop key.
6. Water quality error indicator: Illuminates red if the incoming water does not meet the NCCLS Type II resistivity standard. When this occurs, transfer of buffer stops.
7. Buffer quality error indicator: Illuminates red if the diluted buffer mixture is outside acceptable limits. The up arrow indicates too much water. The down arrow indicates too little water. When either occurs, the system stops transfer of buffer.
8. Flood indicator: Illuminates red if liquid is detected in the flood pan. When this occurs, transfer of buffer stops.
9. Water temperature indicator: Illuminates red if incoming water temperature is outside the range of 15° - 37°C. When this occurs, transfer of buffer stops.
10. Low inlet pressure indicator: Illuminates red if incoming water pressure or the flow rate is too low. When this occurs, transfer of buffer stops.
11. High outlet pressure indicator: Illuminates red if the outgoing wash buffer pressure exceeds the pressure limit of the inlet valves. When this occurs, transfer of buffer stops.

12. Inventory level indicator: Indicates the volume of buffer remaining in the container.

    3 bars illuminated = full

    2 bars illuminated = mid (50%)

    1 bar illuminated = low (20%)

    No bar illuminated = empty (<2%) The red indicator illuminates and the ARM stops.

ARM connectors (*i* System)

Connectors on the ARCHITECT ARM (Automatic Reconstitution Module) accessory are ports that provide the connections for transporting fluids to and from the ARM and communicating with the SCC (system control center).

Figure 1.55: Connectors on rear of ARM

1.	Diluted wash buffer outlet: Provides the connection that allows diluted wash buffer to be transferred to the wash buffer reservoir in the processing module.	
2.	Decontamination port 1: Provides the connection that allows a 0.5% sodium hypochlorite solution to be flushed through the ARM for decontamination.	

3.	Water inlet: Provides the connection from the deionized water system to the ARM.	
4.	Waste 1 (pressurized) port: Provides pressurized waste from the internal drip pan located inside the ARM to the external waste pump or floor drain.	
5.	Waste 2 (gravity) port: Provides gravity waste from the internal drip pan, located inside the ARM, to the external waste pump or floor drain.	
6.	RS232 port: Provides communication between the ARM and the SCC.	
7.	Power switch: Used to cycle the power.	

Figure 1.56: Connectors on top of ARM

1.	Sensor cable: Provides the connection from the tubing assembly to the ARM.	
2.	Concentrated wash buffer inlet: Provides the connection that allows the concentrated wash buffer to be transferred to the mixing chamber of the ARM.	
3.	Decontamination port 2: Provides the connection that allows the ARM system to be flushed with water to remove the 0.5% sodium hypochlorite solution.	

Sample handlers

The sample handler is a transport system used for loading calibrators, controls, and patient samples and presenting them to the processing module(s).

A single primary sample handler transports samples through an ARCHITECT System regardless of the number of processing modules and types.

NOTE: Unless otherwise indicated, the term sample handler is used generically throughout this documentation to refer to all configurations.

Sample handler topics include:

- *RSH - robotic sample handler (i 1000_{SR})*, page 1-60

RSH - robotic sample handler (*i* 1000_{SR})

The RSH (robotic sample handler) is a transport system used for loading calibrators, controls, patient samples, and reagents. The design of the RSH allows random and continuous access for loading/unloading samples and reagents. Two types of sections position samples for either routine or priority processing. Reagent carriers can be loaded in any RSH section.

Figure 1.57: Robotic sample handler components (i 1000$_{SR}$)

Legend:

1. Processing center cover: Provides access to the RSH components.
2. Load/Unload area: Positions sample and reagent carriers for loading and unloading.
3. Bar code reader:
   – For sample carriers - reads the sample and sample carrier ID bar code labels
   – For reagent carriers - reads the reagent bottle 2D bar code labels
4. Bottle rotator: Orients the pink position on the reagent carrier so the reagent bar code label can be read.
5. Carrier transport:
   – For sample carriers - transfers carriers from the sections to the aspiration area and back.
   – For reagent carriers - transfers carriers from the sections to the reagent carousel and back
6. Aspiration area: Positions sample carriers for sample aspiration.
7. Priority sections:
   – For sample carriers - positions samples for priority processing
   – For reagent carriers - positions reagent carriers for loading on the reagent carousel

8. Routine sections:
   – For sample carriers - positions samples for routine processing
   – For reagent carriers - positions reagent carriers for loading on the reagent carousel

Priority sections (RSH - *i* 1000$_{SR}$)

The priority section(s) is a holding area for sample or reagent carriers. You can configure the number of priority sections (range 0 - 7).

- For a sample carrier - You place samples in a sample carrier and load the carrier into the priority section. The carrier transport picks up the carrier and moves it past the bar code reader. The bar code reader identifies the samples, and the carrier transport moves the carrier to the aspiration area for sample aspiration.
- For a reagent carrier - You place reagent bottles on the reagent carrier and load them into the priority section. The carrier transport picks up the carrier and moves it past the bar code reader. The bar code reader identifies the reagent kit, and the carrier transport loads the carrier on the reagent carousel.

Figure 1.58: Priority sections (i 1000$_{SR}$)

Legend:

1. Priority sections:
   – For sample carriers - positions samples for priority processing
   – For reagent carriers - positions reagent carriers for loading the reagent carousel
2. Status indicator: Indicates the status of sample processing and when you can access samples:

– Indicators off - no sample or reagent carriers are loaded in the section.

– Green (steady) - sample or reagent carriers are loaded, but processing has not begun. You can access the samples.

– Amber (steady) - sample or reagent carriers are processing and you cannot access them.

– Green (blinking) - processing is complete and you can access the sample or reagent carrier.

NOTE: If you add or rerun tests for a sample before it is unloaded, the indicator for the section changes back to amber while the sample is re-aspirated.

– Amber (blinking) - unloading a reagent carrier is in process so this section is unavailable for loading carriers.

– Amber and green (alternating) - bar code scan or other error occurred. You can access the carriers.

3. Sample carrier: Holds five primary tubes, aliquot tubes, or sample cups, which you may mix within a sample carrier.
4. Reagent carrier: Holds up to three reagent bottles. Two reagent carriers are required for assays that have more than three reagent bottles.

Routine sections (RSH - *i* 1000$_{SR}$)

The routine sections are holding areas for sample or reagent carriers.

- For a sample carrier - You place samples in a sample carrier and load the carrier into the routine section. The carrier transport picks up the carrier and moves it past the bar code reader. The bar code reader identifies the samples, and the carrier transport moves the carrier to the aspiration area for sample aspiration.
- For a reagent carrier - You place reagent bottles on the reagent carrier and load them into the routine section. The carrier transport picks up the carrier and moves it past the bar code reader. The bar code reader identifies the reagent kit, and the carrier transport loads the carrier on the reagent carousel.

Figure 1.59: Routine sections (i 1000$_{SR}$)

Legend:

1. Routine sections:
   - For sample carriers - positions samples for routine processing
   - For reagent carriers - positions reagent carriers for loading on the reagent carousel
2. Status indicator: Indicates the status of sample processing and when you can access samples:
   - Indicators off - no sample or reagent carriers are loaded in the section.
   - Green (steady) - sample or reagent carriers are loaded, but processing has not begun. You can access the carriers.
   - Amber (steady) - sample or reagent carriers are processing and you cannot access them.
   - Green (blinking) - processing is complete and you can access the sample or reagent carrier.

   NOTE: If you add or rerun tests for a sample before it is unloaded, the indicator for the section changes back to amber while the sample is re-aspirated.

   - Amber (blinking) - unloading a reagent carrier is in process so this section is unavailable for loading carriers.
   - Amber and green (alternating) - bar code scan or other error occurred. You can access the carriers.
3. Sample carrier: Holds five primary tubes, aliquot tubes, or sample cups, which you may mix within a sample carrier.
4. Reagent carrier: Holds up to three reagent bottles. Two reagent carriers are required for assays that have more than three reagent bottles.

Carrier transport and aspiration area (RSH - *i* 1000$_{SR}$)

The carrier transport is a mechanism used to transport sample carriers from:

For sample carriers

- A section on the RSH to the bar code reader
- The bar code reader to the aspiration area or back to the section
- The aspiration area back to the section

For reagent carriers

- A section on the RSH to the bar code reader and bottle rotator
- The bar code reader and bottle rotator to the reagent carousel or back to the section
- The reagent carousel back to the section

The aspiration area is a location on the RSH that assists in positioning sample carriers at the appropriate aspiration position.

Figure 1.60: Carrier transport and aspiration area (i 1000$_{SR}$)

Legend:

1. Carrier transport:
   – For sample carriers - transfers carriers from the sections to the aspiration area and back

- For reagent carriers - transfers carriers from the sections to the reagent carousel and back

2. Aspiration area: Positions sample carriers for sample aspiration.

Required consumables

Consumables are replenishable items required to run assays on an ARCHITECT System. It is important to maintain adequate inventory of these consumables.

Required consumables topics include:

- *ARCHITECT System consumables*, page 1-67
- *ARCHITECT i System consumables*, page 1-67

ARCHITECT System consumables

Sample cups, page 1-67, are used on every ARCHITECT System.

Sample cups

The sample cup is a 1400 µL disposable container that holds patient samples, calibrators, or controls. Volume graduation lines at 125 µL, 500 µL, and 1400 µL help you fill sample cups, eliminating the need for precision pipetting.

You can use sample cups in conjunction with sample tubes with bar code labels to facilitate positive sample identification.

Figure 1.61: Sample cups

ARCHITECT *i* System consumables

The following consumables are used on an ARCHITECT *i* System:

- *Reagent kits and components (i System)*, page 1-68
- *Septums and replacement caps (i System)*, page 1-69

- *Single constituent controls (i System)*, page 1-70
- *Multiconstituent controls (i System)*, page 1-71
- *Calibrators (i System)*, page 1-72
- *Bulk solutions (i System)*, page 1-72
- *Reaction vessels (i System)*, page 1-77
- *Probe conditioning solution (i System)*, page 1-76

Reagent kits and components (*i* System)

Reagent kits are two or more bottles that contain all the necessary reagent components for an ARCHITECT *i* System assay. Based on the size, reagent kits include:

- 100 test kits
- 500 test kits

NOTE: 500 test reagent kits can only be used on the *i* 2000/*i* 2000_{SR} systems.

Reagent kits can be stored on board the system in accordance with assay-specific instructions. For details about onboard storage, see the assay-specific package insert.

Figure 1.62: Reagent kit and components

Related information...

- *Reagent labels (i System)*, page 1-69

Reagent labels (*i* System)

Reagent labels are unique identifiers on Abbott pre-packaged reagents that contain 2D (two-dimensional) bar codes. Bar code information includes:

- Assay name
- Reagent serial number
- Lot number
- Test size (number of tests per kit)
- Expiration date
- Onboard stability time
- Master calibration curve information for assays that use the 2-point adjustment calibration method

Color bands, which match the reagent carousel position, are located at the top of the reagent label to aid in loading reagents.

Figure 1.63: Reagent labels

Septums and replacement caps (*i* System)

Septums are membranes with slits that are used to prevent reagent evaporation and contamination, and to ensure reagent integrity. You place septums on all open reagent bottles prior to loading the bottle into the processing module.

Replacement caps are teal-colored caps used to visually indicate that reagent bottles have been opened. You place replacement caps on open reagent bottles with the septums in place when you remove

reagent bottles from the processing module. You can then store the bottles upright in refrigerated storage off the system.

Figure 1.64: Septums and replacement caps

Single constituent controls (*i* System)

Single constituent controls are assay-specific samples that contain known concentrations of analyte. They are typically labeled L, M, and H, or Pos and Neg.

Figure 1.65: Single constituent controls

Multiconstituent controls (*i* System)

Abbott multiconstituent controls are samples that contain multiple analytes. Two or three levels of control are available to allow performance monitoring within a clinical range:

- Immunoassay-MCC (Liquid) - contains immunoassay markers (including some cancer assay markers)
- Tumor Marker-MCC (Lyophilized) - contains all the cancer markers available to an ARCHITECT *i* System

Figure 1.66: Multiconstituent controls

Calibrators (*i* System)

Calibrators are samples that contain known concentrations of analyte. Single analyte calibrators are used on an *i* System. See the assay-specific package insert to identify the calibrators used for each assay.

Figure 1.67: Calibrators

Bulk solutions (*i* System)

Bulk solutions are liquid solutions provided in large quantities that are used in sample processing. Three bulk solutions are loaded into the

supply and waste center of an ARCHITECT *i* System processing module:

- *Pre-trigger solution (i System)*, page 1-73
- *Trigger solution (i System)*, page 1-74
- *Concentrated wash buffer (i System)*, page 1-75

NOTE: For information specific to storing bulk solutions, see the labels on the bulk solution bottles.

Related information...

- *Supply and waste center (i 1000$_{SR}$)*, page 1-40

Pre-trigger solution (*i* System)

Pre-Trigger Solution is a hydrogen peroxide solution used to split the acridinium dye off the conjugate bound to the microparticle complex. This process prepares the acridinium dye for the addition of Trigger Solution. The pre-trigger bottle is black.

Figure 1.68: Pre-trigger solution

Trigger solution (*i* System)

Trigger Solution is a sodium hydroxide solution used to produce the chemiluminescent reaction that provides the final read. The trigger bottle is natural.

Figure 1.69: Trigger solution

Trigger Solution contains sodium hydroxide (NaOH) and is classified per applicable EC (European Community) Directives as: Irritant (Xi). For more information, see *Chemical hazards*, page 8-9.

Concentrated wash buffer (*i* System)

Concentrated Wash Buffer is a solution containing phosphate buffered saline. Wash buffer is used throughout assay processing and is pumped to the sample and reagent pipetting assemblies and the two wash zones.

A reservoir is kept on board the system in the supply and waste center and can be replenished while the system is running.

Concentrated wash buffer is supplied in a 1 L bottle that must be diluted prior to use or in a 10 L cubitainer for use with the ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Figure 1.70: Concentrated wash buffer (1 L bottle)

Probe conditioning solution (*i* System)

Probe conditioning solution is a solution containing recalcified human plasma. Some maintenance procedures require this solution to condition the sample pipettor probe after cleaning to prevent non-specific binding of analytes in the probe.

Figure 1.71: Probe conditioning solution

Reaction vessels (*i* System)

RVs (reaction vessels) are disposable containers in which the CMIA reaction takes place. RVs are stored in bulk in the RV hopper and are automatically loaded into the process path as needed. The maximum onboard storage is 1200 RVs(*i* 2000/*i* 2000_{SR}) or 360 RVs (*i* 1000_{SR}). You can add RVs to the hopper at any time.

Figure 1.72: Reaction vessel

Required accessories

Accessories are components that are required for sample processing on an ARCHITECT System. It is important to maintain a sufficient supply of these accessories.

Required accessory topics include:

- *Sample carriers*, page 1-78
- *Reagent carriers (i 1000$_{SR}$)*, page 1-78

Sample carriers

Sample carriers are racks used on the RSH (robotic sample handler) or SSH (standard sample handler) to transport patient samples, calibrators, or controls to the sample pipettor(s). Sample carriers are bar coded for identification and hold five primary tubes, aliquot tubes, or sample cups, which you may mix within a sample carrier.

Sample carriers have a sample gauge label to verify the sample volume in a primary or aliquot tube. See *Sample gauge label*, page 5-124.

Figure 1.73: Sample carriers

Reagent carriers (*i* 1000$_{SR}$)

Reagent carriers are racks used on the RSH (robotic sample handler) to transport reagent kits from the RSH section to the reagent carousel. The reagent carriers hold up to three reagent bottles. Two reagent

carriers are required for assays that have more than three reagent bottles.

Figure 1.74: Reagent carrier (i 1000$_{SR}$)

System statuses

System status refers to the operational modes of the ARCHITECT System. Key information displays on the Snapshot screen, providing an immediate overview of your system.

The processing modules and sample handlers have several status types. The following diagram illustrates the progression of statuses from Offline to Running (all except *i* 1000_{SR}). The transition times are approximate and may vary between the processing module and sample handler.

The following figure shows the processing status sequence for the *i* 1000_{SR} with approximate times allowed for each status.

Figure 1.75: Processing module and sample handler status sequence (i 1000_{SR})

*The Scheduled pause status applies to all processing modules, the RSH (robotic sample handler) and the LAS (laboratory automation system) carousel sample handler. For the SSH (standard sample handler) this status is Load queue paused.

System status topics include:

- *Sample handler status*, page 1-80
- *Processing module status*, page 1-82

Sample handler status

The sample handler graphic on the Snapshot screen indicates the status of the sample handler. Sample handler status types depend on your sample handler configuration:

- *RSH status types*, page 1-81

Figure 1.76: An example of a sample handler graphic

RSH status types

The RSH (robotic sample handler) has seven possible status types. The following table provides a description of each.

Table 1.1: RSH status types

Status	Indicates
Offline	One of the following exists: • Power to the sample handler is off. • Power has been turned on, but communication between the sample handler and SCC (system control center) has not been re-established. • Communication between the sample handler and the SCC has been lost due to a software or system error.
Stopped	One of the following exists: • Power to the sample handler is on, but F5 - Start-up on the Snapshot screen has not been selected. • F6 - Stop on the Snapshot screen was selected. • Stop key on the sample handler keypad was selected. • A sample handler diagnostic procedure has completed. • One of the RSH covers was opened while the sample handler was running (RSH - except for *i* 1000_{SR}). • The processing center cover was opened while the sample handler was running (RSH - *i* 1000_{SR}). • Sample handler detected a fatal error while processing.
Ready	One of the following exists: • Startup is complete. • Scheduled pause status is complete.
Running	One of the following exists: • F8 - Run on the Snapshot screen was selected. • Run key on the sample handler keypad was selected.
Scheduled pause	One of the following exists: • F7 - Pause on the Snapshot screen was selected. • Pause key on the sample handler keypad was selected. • All processing modules are unavailable for sample processing.

Table 1.1: RSH status types (continued)

Status	Indicates
Initializing	Either the run key, F8 - Run, or F5 - Start-up was selected. This status is a temporary status during which the system performs the following initialization functions: • Homes all moving parts on the sample handler • Checks the bar code reader Once initialization is complete, the status changes to Running or Ready depending on whether run or startup was selected.
Maintenance	A maintenance procedure requiring use of the RSH is in process on a module.

Processing module status

The processing module graphic(s) on the Snapshot screen indicates the status of the processing module and displays other key system information.

Figure 1.77: Processing module status

Processing module status types depend on the configuration of your system. For a description of the various statuses, see:

- *Processing module status types (i 1000$_{SR}$)*, page 1-82

Processing module status types (*i* 1000$_{SR}$)

The *i* 1000$_{SR}$ processing module has eight possible status types. The following table provides a description of each.

To view the table describing tasks that can be performed in each status, see *i 1000$_{SR}$ processing module status types by task*, page 1-84.

Table 1.2: i 1000$_{SR}$ processing module status types

Status	Indicates	Prohibited activities
Offline	One of the following exists: • Power to the processing module is off. • Power has been turned on, but communication between the processing module and SCC (system control center) has not been re-established. • Communication between the processing module and the SCC has been lost due to a software or system error.	You cannot run samples on the module. You cannot load or unload reagents because the reagent carousel is not aligned correctly.
Stopped	One of the following exists: • Power to the processing module is on but F5 - Start-up on the Snapshot screen has not been selected. • F6 - Stop on the Snapshot screen was selected. • Processing module diagnostic procedure has completed. • Processing module detected a fatal error while processing.	You cannot run samples on the module. You cannot load or unload reagents because the reagent carousel is not aligned correctly.
Warming	Startup is complete, but temperature initialization is not.	You cannot run samples on the module.
Ready	One of the following exists: • Startup is complete (including temperature initialization). • Scheduled Pause status is complete.	
Scheduled pause	One of the following exists: • F7 - Pause on the Snapshot screen was selected. • Supplies ran out. • Processing module detected an error while processing.	You cannot open the processing center cover.
Running	F8 - Run on the Snapshot screen was selected.	You cannot open the processing center cover.

Table 1.2: i 1000$_{SR}$ processing module status types (continued)

Status	Indicates	Prohibited activities
Initializing	A temporary status that occurs when F8 - Run, or F5 - Start-up is selected. The following initialization functions are performed by the system: • Initialization after F5 - Start-up is selected: – Checks processing center and reagent carousel cover sensors – Homes motors – Clears RVs from the process path and adds clean RVs to all 23 positions – Initializes the wash zone mechanism – Starts microparticle dispersion • Initialization after F8 - Run is selected: – Checks processing center and reagent carousel cover sensors – Checks presence of solid waste container – Homes motors – Washes probes – Initializes wash zone mechanism – Performs a background read Once initialization is complete, the status changes to Running or Ready depending on whether run or startup was selected.	You cannot run samples on the module. You cannot load or unload reagents because the reagent carousel is not aligned correctly. You cannot load wash buffer.
Maintenance	A maintenance procedure is in process on the module.	You cannot run samples on the module.

Table 1.3: i 1000$_{SR}$ processing module status types by task

	Offline	Stopped	Initializing	Warming	Ready	Scheduled Pause
Order samples	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*
Initiate a run	No	No	No	No	Yes	Yes
Raise the processing center cover	Yes	Yes	No	Yes	Yes	No
Load reagent kits on RSH	Yes	Yes	Yes	Yes**	Yes**	Yes**
Unload reagent kits from reagent carousel	No	No	No	Yes**	Yes**	Yes**

Table 1.3: i 1000$_{SR}$ processing module status types by task (continued)

	Offline	Stopped	Initializing	Warming	Ready	Scheduled Pause
Load pre-trigger and trigger	Yes	Yes	No	Yes	Yes	No
Load wash buffer	No	Yes	No	Yes	Yes	Yes
Load RVs	Yes	Yes	Yes	Yes	Yes	Yes

* Ordering QC and Calibrations is not recommended because the system cannot calculate the required sample volumes unless the processing module(s) status is Running.

** The system will load or unload the reagent carriers when the processing module status is Warming, Ready, Scheduled Pause, or Running and the RSH status is Running.

Automatic processing module activities

Periodically, fluids are pumped through various processing module components to remove air or bubbles. It is important to ensure that enough onboard inventory to perform these automatic flushes and primes is available.

Automatic processing module activity topics include:

- *System flush (i System)*, page 1-86
- *System prime (i System)*, page 1-87

System flush (*i* System)

A system flush is an automated process used to remove bubbles that may be present. Periodic flushes are performed on all pipettors by pumping wash buffer through the pipettor probes into the wash stations. The wash zones and the pre-trigger/trigger manifold are flushed by pumping fluid through a bypass valve and into the waste line.

Wash buffer, Pre-Trigger Solution, and Trigger Solution are used to perform the automatic flushes that occur:

- When you start up the system after powering on
- Every eight hours when the processing module status is:
  - Ready and the processing module covers are closed, or
  - Running and no tests are in process

  NOTE: Performing the 2137 Flush Fluids (*i* 1000_{SR}) maintenance procedure does not reset the clock for the automatic flush.
- When you initiate a run after replacing a solution(s)

If the system is idle for an extended period of time, for example over a weekend (48 hours), you need to ensure there is enough inventory for all flushes that will take place. Each flush requires:

- 75 mL of wash buffer (*i* 1000_{SR})
- 14 mL of pre-trigger
- 14 mL of trigger

In a 48 hour period, for example, there are six flushes. Therefore, the required inventory is:

- 450 mL of wash buffer (*i* 1000_{SR})
- 84 mL of pre-trigger

- 84 mL of trigger

System prime (*i* System)

A prime is the process the system uses to dispense solutions into RVs (reaction vessels) to ensure the fluidics system is primed. The system periodically primes to remove air from the wash zone, pre-trigger, and trigger delivery nozzles. Priming pumps fluid through the delivery nozzles and into an RV. The RV is then automatically discarded.

Prime occurs automatically when you initiate a run.

Introduction

To ensure accurate results and maximum performance, your ARCHITECT System must be properly installed. After the system has been installed, you must configure it to meet your site's specific requirements.

Installation procedures and special requirements topics include:

- *System installation or relocation*, page 2-2

  Describes the steps for installing or relocating the system.

- *System configuration*, page 2-4

  Provides a description of all configuration screens and windows, and step-by-step instructions for performing configuration procedures.

- *Software installation and backup*, page 2-134

  Provides a description of all software installation and backup screens and windows, and step-by-step instructions for performing installation and backup procedures.

- *Assay file management*, page 2-139

  Describes how to install new assay files.

- *Maintenance and diagnostic file management*, page 2-141

  Describes how to install new maintenance and diagnostic procedure files.

System installation or relocation

Installation of the ARCHITECT System is a team effort involving Abbott customer support and the Abbott field service representative.

System installation or relocation topics include:

- *System installation*, page 2-2
- *System checkout*, page 2-2
- *System relocation*, page 2-3

System installation

Prior to installation the Abbott field service representative ensures the site is prepared.

The location must meet environmental specifications and electrical requirements before the system can be installed. For additional information, see *Specifications and requirements*, page 4-3.

CAUTION: The Abbott field service representative unpacks, positions, and installs the ARCHITECT System, and unpacks the accessory kits that accompany the system. Do not attempt to unpack or install the ARCHITECT System.

NOTE: Do not position the ARCHITECT System in direct sunlight.

For additional information on items included in the accessory kit, see *Accessory kit list number (i System)*, page Appendix D-3.

During installation, the Abbott field service representative performs system preparation and checkout.

System checkout

After you position and install the ARCHITECT System, you should perform the following to ensure that the system operates properly:

- *Install or delete an assay file*, page 2-139
- *Configuring system settings*, page 2-6
- *Configuring Abbott assays*, page 2-53
- *Configuring QC - Cal settings*, page 2-104

- Order and calibrate assays
- Order and run controls

- Perform testing specific to your site requirements

System relocation

For information on relocating your ARCHITECT System, contact your Abbott field service representative.

WARNING: Potential Biohazard. Before the system can be moved or shipped, decontamination is required. For more information, see *Decontamination procedure requirements*, page 8-13.

System configuration

Configuration settings define the information the ARCHITECT System needs to meet your site's specific requirements. You perform system configuration at installation and may reconfigure the system at any time, if necessary.

You access windows to configure system, assay, and QC - Cal settings from the Configuration screen. Access to these windows is controlled by logon. The system administrator logon allows you to access configuration windows to change most configurable items. The general operator logon allows you to:

- View configured settings
- Configure host-release mode options

For more information on logons, see *User logon*, page 1-19.

System configuration topics include:

- *Configuration screen - System settings view*, page 2-4
- *Configuration screen - Assay settings view*, page 2-49
- *Configuration screen - QC - Cal settings view*, page 2-102

Configuration screen - System settings view

From the System settings view of the Configuration screen the general operator can access windows to view detailed information for configured system settings.

The system administrator can access windows to configure these settings, which include:

- Sample ordering
- Host - Release mode
- Reports - Printing
- Reagents - Supplies
- Password
- System control center
- Modules
- Sample handler
- Sample bar code reader
- Serial ports

Figure 2.1: Configuration screen - System settings view

For descriptions of these fields, see *Configuration screen - System settings view field descriptions*, page Appendix E-98.

To display this view of the screen, see *Access the Configuration screen - System settings view*, page 2-5.

Related procedures...

- *Configuring system settings*, page 2-6
- *Viewing system settings*, page 2-9
- *Changing system settings*, page 2-17

Access the Configuration screen - System settings view

Perform this procedure to display the System settings view of the Configuration screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Configuration screen - System settings view:

Select **System** from the menu bar, and then select **Configuration**.

The Configuration screen - System settings view displays.

Related information...

- *Configuration screen - System settings view*, page 2-4

Procedures - Configuration screen - System settings view

Procedures you can perform from the Configuration screen - System settings view and its related windows are grouped by task:

- *Configuring system settings*, page 2-6
- *Viewing system settings*, page 2-9
- *Changing system settings*, page 2-17

Configuring system settings

Procedures for configuring system settings include:

- *Configure host interface settings (i 1000$_{SR}$)*, page 2-6
- *Configure report settings*, page 2-7
- *Configure a QC run definition*, page 2-8

Configure host interface settings (*i* 1000$_{SR}$)

Perform this procedure to configure the host interface settings for release mode, communications, and transmitting results to the host.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready (Exceptions are noted)
User access level	General operator
Supplies	NA

To configure host interface settings:

1. Select **Host - Release mode** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure host-release mode window displays.
3. Select the desired **Release mode** option.
4. Enter the timeout interval (in seconds) in the **Host query timeout** data entry box. ***(optional)***

NOTE: You can configure this value in any system status. System throughput may be degraded if the time interval is greater than 10 seconds.

5. Select the desired **Bidirectional host** option.

   NOTE: You can configure this value in any system status.

   Turning Bidirectional host off allows you to clear all results waiting to be sent to the host.

6. Select the desired **Transmit to host** option.
7. Select **Done** to save your changes.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure host - release mode window*, page 2-32

Configure report settings

Perform this procedure to configure the settings for printing flags on reports and automatic report printing, and to specify the text to print in the report header for the Sample Report and Patient Report.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To configure report settings:

1. Select **Reports - Printing** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure reports-printing window displays.

3. Select the **Off** option for the Print flags on reports setting. ***(optional)***

   NOTE: The CNTL (control), EXP (expired), EXPC (expired calibration curve) (*c* System only), and EDIT (*c* System only) flags print on the sample and patient reports whether the feature is turned on or off.

4. Select the **On** option for the following automatic report printing settings:
   - Maintenance - A Procedure report prints after a maintenance procedure completes, if a report is available. ***(optional)***
   - Sample - The Sample Report prints after all tests for a sample complete and the results are released. ***(optional)***
   - Results list - The Results List Report prints after 24 results complete and are released or 10 minutes have elapsed. ***(optional)***
   - Calibration curve results - A Cal Curve Detail report prints after a calibration completes. ***(optional)***
5. Enter the desired report header information in the **Header for sample and patient reports** data entry boxes. ***(optional)***
6. Select **Done** to save your changes.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure reports printing window*, page 2-34
- *Cal Curve Details Report - Adjust (i System)*, page Appendix A-7
- *Cal Curve Details Report - Full (i System)*, page Appendix A-10
- *Cal Curve Details Report - Index (i System)*, page Appendix A-13
- *Patient Report*, page Appendix A-34
- *Procedure Report, Basic*, page Appendix A-36
- *Procedure Report, Columnar*, page Appendix A-38
- *Results List Report*, page Appendix A-61
- *Sample Report*, page Appendix A-63

Configure a QC run definition

Perform this procedure to define a run period for the evaluation of Westgard rules. The run definition should be configured when you enable Westgard rules 2-2s 1R 1M, 2-2s 1R xM, 2-2s xR 1M, 4-1s 1M, or 4-1s xM.

To configure Westgard rules, see *Configure a Westgard rule*, page 2-109.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready

User access level	System administrator
Supplies	NA

To configure a QC run definition:

1. Select **System control center** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure system control center window displays.
3. Enter the start time in the **QC run definition Start time** data entry box.
4. Enter the number of hours per run in the **QC run definition No. of hours per run** data entry box.
5. Select **Done** to save your changes.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure system control center window*, page 2-40

Viewing system settings

Procedures for viewing system settings include:

- *View the batch sample ordering type*, page 2-10
- *View average number of tests per sample setting (multi-module i System)*, page 2-10
- *View the host communication settings*, page 2-11
- *View the automatic report printing setting*, page 2-11
- *View the option for printing flags on reports*, page 2-12
- *View the report header text*, page 2-13
- *View the system low alert setting for reagent kits*, page 2-13
- *View the system language setting*, page 2-14
- *View the screen timeout setting*, page 2-14
- *View the date and time settings*, page 2-15
- *View the sample bar code settings*, page 2-15
- *View the LIS serial port settings*, page 2-16
- *View the wash buffer transfer option (i System)*, page 2-16

- *View the option for running controls for onboard reagent kits*, page 2-17

View the batch sample ordering type

Perform this procedure to display the Details for sample ordering window. From this window you can view the batch sample type. The type depends on whether the samples for the batch are bar code labeled.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Any
User access level	General operator
Supplies	NA

To view the batch sample ordering type:

1. Select **Sample ordering** from the **System categories** list on the Configuration screen.
2. Select **F5 - Details**.

   The Details for sample ordering window displays.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Details for sample ordering window*, page 2-31

View average number of tests per sample setting (multi-module *i* System)

Perform this procedure to display the Details for sample ordering window. From this window you can view the setting for the average number of tests per sample, which is used to optimize the scheduling of tests for each module.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Any
User access level	General operator
Supplies	NA

To view the average number of tests per sample:

1. Select **Sample ordering** from the **System categories** list on the Configuration screen.

2. Select **F5 - Details**.

   The Details for sample ordering window displays.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Details for sample ordering window*, page 2-31

View the host communication settings

Perform this procedure to display the Details for host - release mode window. From this window you can view the current settings for host communication which include the release mode, communication type, and result reporting to a host computer.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Any
User access level	General operator
Supplies	NA

To view the host communication settings:

1. Select **Host - Release mode** from the **System categories** list on the Configuration screen.
2. Select **F5 - Details**.

   The Details for host - release mode window displays.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Details for host - release mode window*, page 2-33

View the automatic report printing setting

Perform this procedure to display the Details for reports printing window. From this window you can view the current settings for automatic printing of the Procedure, Sample, Results List, and Cal Curve Details reports.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Any
User access level	General operator
Supplies	NA

To view the automatic report printing setting:

1. Select **Reports - Printing** from the **System categories** list on the Configuration screen.
2. Select **F5 - Details**.

   The Details for reports printing window displays.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Details for reports printing window*, page 2-35
- *Procedure Report, Basic*, page Appendix A-36
- *Procedure Report, Columnar*, page Appendix A-38
- *Cal Curve Details Report - Adjust (i System)*, page Appendix A-7
- *Cal Curve Details Report - Full (i System)*, page Appendix A-10
- *Cal Curve Details Report - Index (i System)*, page Appendix A-13

View the option for printing flags on reports

Perform this procedure to display the Details for reports printing window. From this window you can view the current settings for printing flags on Sample and Patient reports.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Any
User access level	General operator
Supplies	NA

To view the options for printing flags on reports:

1. Select **Reports - Printing** from the **System categories** list on the Configuration screen.
2. Select **F5 - Details**.

   The Details for reports printing window displays.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Details for reports printing window*, page 2-35
- *Patient Report*, page Appendix A-34
- *Sample Report*, page Appendix A-63

View the report header text

Perform this procedure to display the Details for reports printing window. From this window you can view the current text for the report header that prints on the Sample and Patient reports.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Any
User access level	General operator
Supplies	NA

To view the report header text:

1. Select **Reports - Printing** from the **System categories** list on the Configuration screen.
2. Select **F5 - Details**.

   The Details for reports printing window displays.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Details for reports printing window*, page 2-35
- *Patient Report*, page Appendix A-34
- *Sample Report*, page Appendix A-63

View the system low alert setting for reagent kits

Perform this procedure to display the Details for reagents - supplies window. From this window you can view the current level at which the system low alert notification occurs.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Any
User access level	General operator
Supplies	NA

To view the system low alert setting for reagent kits:

1. Select **Reagents - Supplies** from the **System categories** list on the Configuration screen.
2. Select **F5 - Details**.

   The Details for reagents - supplies window displays.

Related information...

- *Configuration screen - System settings view,* page 2-4
- *Details for reagents - supplies window,* page 2-38

View the system language setting

Perform this procedure to display the Details for system control center window. From this window you can view the current setting for the system language.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Any
User access level	General operator
Supplies	NA

To view the system language setting:

1. Select **System control center** from the **System categories** list on the Configuration screen.
2. Select **F5 - Details**.

   The Details for system control center window displays.

Related information...

- *Configuration screen - System settings view,* page 2-4
- *Details for system control center window,* page 2-41

View the screen timeout setting

Perform this procedure to display the Details for system control center window. From this window you can view the current setting for the screen timeout.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Any
User access level	General operator
Supplies	NA

To view the screen timeout setting:

1. Select **System control center** from the **System categories** list on the Configuration screen.
2. Select **F5 - Details**.

The Details for system control center window displays.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Details for system control center window*, page 2-41

View the date and time settings

Perform this procedure to display the Details for system control center window. From this window you can view the current settings for the system date, date format, time, time zone, and automatic adjustment for daylight savings time.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Any
User access level	General operator
Supplies	NA

To view the date and time settings:

1. Select **System control center** from the **System categories** list on the Configuration screen.
2. Select **F5 - Details**.

   The Details for system control center window displays.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Details for system control center window*, page 2-41

View the sample bar code settings

Perform this procedure to display the Details for bar codes window. From this window you can view the current settings for sample bar codes.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Any
User access level	General operator
Supplies	NA

To view the sample bar code settings:

1. Select **Sample bar code reader** from the **System categories** list on the Configuration screen.

2. Select **F5 - Details**.

   The Details for bar codes window displays.

3. Select the **Bar code type** list button, and then select the desired bar code type.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Details for bar codes window*, page 2-47

View the LIS serial port settings

Perform this procedure to display the Details for serial ports window. From this window you can view the current settings for the system's communications ports for the LIS (laboratory information system).

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Any
User access level	General operator
Supplies	NA

To view the LIS serial port settings:

1. Select **Serial ports** from the **System categories** list on the Configuration screen.

2. Select **F5 - Details**.

   The Details for serial ports window displays.

3. Select the **Port type** list button, and then select **LIS**.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Details for serial ports window*, page 2-49

View the wash buffer transfer option (*i* System)

Perform this procedure to display the Details for reagents - supplies window. From this window you can view the current setting for the wash buffer transfer option.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Any

User access level	General operator
Supplies	NA

To view the wash buffer transfer option:

1. Select **Reagents - Supplies** from the **System categories** list on the Configuration screen.
2. Select **F5 - Details**.

   The Details for reagent - supplies window displays.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Details for reagents - supplies window*, page 2-38

View the option for running controls for onboard reagent kits

Perform this procedure to display the Details for reagents - supplies window. From this window you can view the current option for running controls for onboard reagent kits.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Any
User access level	General operator
Supplies	NA

To view the option for running controls for onboard reagent kits:

1. Select **Reagents - Supplies** from the **System categories** list on the Configuration screen.
2. Select **F5 - Details**.

   The Details for reagent - supplies window displays.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Details for reagents - supplies window*, page 2-38

Changing system settings

Procedures for changing system settings include:

- *Change the batch sample ordering type*, page 2-18
- *Change the automatic report printing settings*, page 2-19
- *Change the option for printing flags*, page 2-20

- *Change the report header text*, page 2-20
- *Change the system low alert setting for reagent kits*, page 2-21
- *Change the system language setting*, page 2-22
- *Change the screen timeout setting*, page 2-23
- *Change the date and time settings*, page 2-23
- *Change liquid waste container settings (i 1000$_{SR}$)*, page 2-24
- *Change automatic repositioning for retest setting (RSH)*, page 2-25
- *Change the number of priority sections on the RSH (i 1000$_{SR}$)*, page 2-25
- *Change the sample bar code settings for codabar*, page 2-26
- *Change the sample bar code settings for code 39*, page 2-27
- *Change the sample bar code settings for I 2 of 5*, page 2-27
- *Change the LIS serial port settings*, page 2-28
- *Change the option for running controls for onboard reagent kits*, page 2-29

Change the batch sample ordering type

Perform this procedure to change the batch sample ordering type for bar coded or non-bar coded samples. The batch ordering type determines the fields that display on the Patient order screen - Batch view.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5 No batch orders pending
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the batch sample ordering type:

1. Select **F6 - Configure** on the Configuration screen.

   The Configure sample ordering window displays.

2. Select the desired **Batch ordering** option.
3. Select **Done** to save your changes.

Related information...

- *Configuration screen - System settings view*, page 2-4

- *Configure sample ordering window*, page 2-31

Change the automatic report printing settings

Perform this procedure to enable or disable automatic printing of the Procedure, Sample, Results List, and Cal Curve Details reports.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the automatic report printing settings:

1. Select **Reports - Printing** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure reports printing window displays.
3. Select the desired **Automatic report printing** option(s) for:
   - Maintenance - A Procedure report prints after a maintenance procedure completes, if a report is available.
   - Sample - The Sample Report prints after all tests for a sample complete and the results are released.
   - Results list - The Results List Report prints after 18 results complete and are released or 10 minutes have elapsed.
   - Calibration curve results - A Cal Curve Detail report prints after a calibration completes.
4. Select **Done** to save your changes.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure reports printing window*, page 2-34
- *Cal Curve Details Report - Adjust (i System)*, page Appendix A-7
- *Cal Curve Details Report - Full (i System)*, page Appendix A-10
- *Cal Curve Details Report - Index (i System)*, page Appendix A-13
- *Procedure Report, Basic*, page Appendix A-36
- *Procedure Report, Columnar*, page Appendix A-38
- *Results List Report*, page Appendix A-61

- *Sample Report*, page Appendix A-63

Change the option for printing flags

Perform this procedure to enable or disable the printing of flags on the Sample and Patient reports.

NOTE: The CNTL (control), EXP (expired), EXPC (expired calibration curve) (*c* System only), and EDIT (*c* System only) flags print on the sample and patient reports whether the feature is turned on or off.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the options for printing flags:

1. Select **Reports - Printing** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure reports printing window displays.
3. Select the desired **Print flags on reports** option.
4. Select **Done** to save your changes.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure reports printing window*, page 2-34
- *Patient Report*, page Appendix A-34
- *Sample Report*, page Appendix A-63

Change the report header text

Perform this procedure to change the text that displays in the report header on the Sample and Patient reports.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the report header text:

1. Select **Reports - Printing** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure reports printing window displays.
3. Enter the desired report header information in the **Header for sample and patient reports** data entry boxes.

   NOTE: Each field on the screen represents one line of the report header (approximately 50 characters per line).
4. Select **Done** to save your changes.

Related information...

- *Configuration screen - System settings view,* page 2-4
- *Configure reports printing window,* page 2-34
- *Patient Report,* page Appendix A-34
- *Sample Report,* page Appendix A-63

Change the system low alert setting for reagent kits

Perform this procedure to change the level at which the system low alert notification occurs.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the system low alert setting for reagent kits:

1. Select **Reagents - Supplies** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure reagents - supplies window displays.
3. Enter the desired alert level (number of tests left) in the **Default reagent low alert** data entry box.
4. Select **Done** to save your changes.

Related information...

- *Configuration screen - System settings view,* page 2-4
- *Configure reagents - supplies window,* page 2-36

Change the system language setting

Perform this procedure to change the language for the system.

NOTE: Messages in the Temporary message and Message history logs remain in the language in which they were generated. If you change the system language to or from Japanese, previously generated messages may display □□□ for some characters.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	General operator
Supplies	NA

To change the system language setting:

1. Select **System control center** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure system control center window displays.
3. Select the **System language** list button, and then select the desired language.
4. Select **Done**.

   A prompt displays to notify you that the SCC will shut down and restart to change the language.
5. Select **OK** to shut down the SCC.
6. Wait for the SCC to cycle through shutdown.
7. *Power on the processing module and/or sample handler*, page 5-7.

   NOTE: If your system is configured with the bar code scanner, you must modify the keyboard language to match the system language. See the *ARCHITECT Bar Code Scanner User's Guide* or the *ARCHITECT and AxSYM Bar Code Scanner User's Guide* for instructions.

Related information...

- *Configuration screen - System settings view,* page 2-4
- *Configure system control center window,* page 2-40

Change the screen timeout setting

Perform this procedure to change the setting for the screen timeout.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the screen timeout setting:

1. Select **System control center** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure system control center window displays.
3. Enter the desired screen timeout in the **Screen timeout** data entry box.
4. Select **Done** to save your changes.

Related information...

- *Configuration screen - System settings view,* page 2-4
- *Configure system control center window,* page 2-40

Change the date and time settings

Perform this procedure to change the date and time settings.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the date and time settings:

1. Select **System control center** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

The Configure system control center window displays.

3. Enter the date using the current format in the **System date** data entry box.
4. Enter the time in the **System time** data entry box.

   The system time displays in a 24-hour format.
5. Select the desired **Date format** option.

   NOTE: When you edit this field, the new format does not display in the System date field until you select **Done** and access the window again.
6. Select the **Time zone** list button, and then select the desired time zone.
7. Select the **Automatically adjust clock for daylight savings** check box. ***(optional)***
8. Select **Done** to save your changes.

Related information...

- *Configuration screen - System settings view,* page 2-4
- *Configure system control center window,* page 2-40

Change liquid waste container settings (*i* 1000_{SR})

Perform this procedure to change the liquid waste container settings when you want to use an external floor drain instead of the liquid waste container.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To configure liquid waste container settings (*i* 1000_{SR}):

1. Select **Modules** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure modules window displays.
3. Select the desired **Liquid waste container** option.
4. Select **Done** to save your changes.

Related information...

- *Configuration screen - System settings view,* page 2-4
- *Configure modules window (i 1000$_{SR}$),* page 2-42

Change automatic repositioning for retest setting (RSH)

Perform this procedure to change the settings that determine whether the RSH (robotic sample handler) automatically repositions patient samples for retest.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change automatic repositioning for retest setting:

1. Select **Sample handler** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure sample handler window displays.
3. Select the desired **Retest option**.
4. Select **Done** to save your changes.

Related information...

- *Configuration screen - System settings view,* page 2-4

Change the number of priority sections on the RSH (*i* 1000$_{SR}$)

Perform this procedure to change the number of priority sections to be used on the RSH (robotic sample handler) when the default setting for the number of priority sections does not reflect your laboratory requirements.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To configure the number of priority sections on the RSH (*i* 1000$_{SR}$):

1. Select **Sample handler** from the **System categories** list on the Configuration screen.

2. Select **F6 - Configure**.

   The Configure sample handler window displays.

3. Enter the desired **Number of priority sections**.
4. Select **Done** to save your changes.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure sample handler window (RSH - i 1000$_{SR}$)*, page 2-44

Change the sample bar code settings for codabar

Perform this procedure to change the sample bar code settings for codabar.

To change bar code settings for code 39, see *Change the sample bar code settings for code 39*, page 2-27.

To change bar code settings for I 2 of 5, see *Change the sample bar code settings for I 2 of 5*, page 2-27.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the sample bar code settings for codabar:

1. Select **Sample bar code reader** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure bar codes window displays.

3. Select the **Bar code type** list button, and then select **Codabar**.
4. Select the desired **Bar code type** option to either enable or disable the bar code type.
5. Select the desired **Checksums** option.
6. Select the **Send checksum digits to the SCC** check box, if you enabled Checksums. ***(optional)***
7. Select the **Send the start / stop characters to the SCC** check box, if you enabled Checksums. ***(optional)***
8. Select **Done** to save your changes.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure bar codes window*, page 2-46

Change the sample bar code settings for code 39

Perform this procedure to change the sample bar code settings for code 39.

To change bar code settings for I 2 of 5, see *Change the sample bar code settings for I 2 of 5*, page 2-27.

To change bar code settings for codabar, see *Change the sample bar code settings for codabar*, page 2-26.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the sample bar code settings for code 39:

1. Select **Sample bar code reader** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure bar codes window displays.
3. Select the desired **Bar code type** option to either enable or disable the bar code type.
4. Select the desired **Checksums** option.
5. Select the **Send checksum digits to the SCC** check box, if you enabled Checksums. ***(optional)***
6. Select **Done** to save your changes.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure bar codes window*, page 2-46

Change the sample bar code settings for I 2 of 5

Perform this procedure to change the sample bar code settings for I 2 of 5.

To change bar code settings for code 39, *Change the sample bar code settings for code 39*, page 2-27.

To change bar code settings for codabar, see *Change the sample bar code settings for codabar*, page 2-26.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the sample bar code settings for I 2 of 5:

1. Select **Sample bar code reader** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure bar codes window displays.
3. Select the **Bar code type** list button, and then select **I 2 of 5**.
4. Select the desired **Bar code type** option to either enable or disable the bar code type.
5. Select the desired **Checksums** option.
6. Select the **Send checksum digits to the SCC** check box, if you enabled Checksums. ***(optional)***
7. Enter a value in the **Code length #1** data entry box.
8. Enter a value in the **Code length #2** data entry box. ***(optional)***
9. Select **Done** to save your changes.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure bar codes window*, page 2-46

Change the LIS serial port settings

Perform this procedure to change the LIS (laboratory information system) serial port settings.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready

User access level	System administrator
Supplies	NA

To change the LIS serial port settings:

1. Select **Serial ports** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure serial ports window displays.
3. Select the **Port type** list button, and then select **LIS**.
4. Select the **Baud rate** list button, and then select the desired value.
5. Select the desired **Parity** option.
6. Select the desired **Data bits** option.
7. Select the desired **Stop bits** option.
8. Select **Done**.

   A confirmation message displays.
9. Select **OK** to save your changes.

   The serial port changes take effect the next time the system control center power is cycled.

To cycle power to the system control center, see *Cycle power to the SCC*, page 5-5.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure serial ports window*, page 2-48

Change the option for running controls for onboard reagent kits

Perform this procedure to change the option for running controls for onboard reagents.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the option for running controls for onboard reagents:

1. Select **Reagents-Supplies** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure reagents-supplies window displays.
3. Select the desired **Run controls for onboard reagents by** option for:
   - Lot: Run QC on only one kit per lot
   - Kit: Run QC for every kit in a lot
4. Select **Done** to save your changes.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure reagents - supplies window*, page 2-36

Windows - Configuration screen - System settings view

Windows you can access from the Configuration screen - System settings view include:

- *Configure sample ordering window*, page 2-31
- *Details for sample ordering window*, page 2-31
- *Configure host - release mode window*, page 2-32
- *Details for host - release mode window*, page 2-33
- *Configure reports printing window*, page 2-34
- *Details for reports printing window*, page 2-35
- *Configure reagents - supplies window*, page 2-36
- *Details for reagents - supplies window*, page 2-38
- *Configure password window*, page 2-39
- *Details for password window*, page 2-40
- *Configure system control center window*, page 2-40
- *Details for system control center window*, page 2-41
- *Configure modules window (i 1000$_{SR}$)*, page 2-42
- *Details for modules window (i 1000$_{SR}$)*, page 2-43
- *Configure sample handler window (RSH - i 1000$_{SR}$)*, page 2-44
- *Details for sample handler window (RSH - i 1000$_{SR}$)*, page 2-45

- *Configure bar codes window*, page 2-46
- *Details for bar codes window*, page 2-47
- *Configure serial ports window*, page 2-48
- *Details for serial ports window*, page 2-49

Configure sample ordering window

From the Configure sample ordering window the system administrator can configure settings for batch ordering, calibration override (*c* System), and average tests per sample (multi-module *i* System).

Figure 2.2: Configure sample ordering window

For descriptions of these fields, see *Configure sample ordering window field descriptions*, page Appendix E-99.

Related procedures...

- *Change the batch sample ordering type*, page 2-18

Details for sample ordering window

From the Details for sample ordering window you can view the current settings for batch ordering, calibration expiration override (*c* System), and average test(s) per sample (multi-module *i* System).

Figure 2.3: Details for sample ordering window

For descriptions of these fields, see *Details for sample ordering window field descriptions*, page Appendix E-100.

Related procedures...

- *View the batch sample ordering type*, page 2-10
- *View average number of tests per sample setting (multi-module i System)*, page 2-10

Configure host - release mode window

From the Configure host - release mode window the system administrator can configure the settings for release mode, communication type, and result reporting to a host computer.

Figure 2.4: Configure host - release mode window

For descriptions of these fields (*i* 1000_{SR}), see *Configure host - release mode window field descriptions (i* 1000_{SR}*)*, page Appendix E-101.

Related procedures...

- *Configure host interface settings (i* 1000_{SR}*)*, page 2-6
- *Cancel result transmission*, page 5-176

Details for host - release mode window

From the Details for host - release mode window you can view the current settings for release mode, communication type, and result reporting to a host computer.

Figure 2.5: Details for host - release mode window

For descriptions of these fields (*i* 1000_{SR}), see *Details for host - release mode window field descriptions (i* 1000_{SR}*)*, page Appendix E-103.

Related procedures...

- *View the host communication settings*, page 2-11

Configure reports printing window

From the Configure reports printing window the system administrator can configure the settings for printing flags on reports, automatic report printing, and specify the text to print in the report header.

Figure 2.6: Configure reports printing window

For descriptions of these fields, see *Configure reports printing window field descriptions*, page Appendix E-103.

Related procedures...

- *Configure report settings*, page 2-7
- *Change the option for printing flags*, page 2-20
- *Change the automatic report printing settings*, page 2-19
- *Change the report header text*, page 2-20

Details for reports printing window

From the Details for reports printing window you can view the current settings for printing flags on reports and automatic report printing, and the text for the report header.

Figure 2.7: Details for reports printing window

For descriptions of these fields, see *Details for reports printing window field descriptions*, page Appendix E-104.

Related procedures...

- *View the option for printing flags on reports*, page 2-12
- *View the automatic report printing setting*, page 2-11
- *View the report header text*, page 2-13

Configure reagents - supplies window

From the Configure reagents - supplies window the system administrator can configure the settings for:

- Reagent options
  - Default reagent low alert
  - Reagent expiration and stability override
  - Run controls by reagent lot or reagent kit
- Supply options
  - Wash buffer transfer (*i* System)
  - Pre-Trigger and Trigger stability override (*i* System)

Figure 2.8: Configure reagents - supplies window (i System, c 8000)

Figure 2.9: Configure reagents - supplies window (i System, c 16000)

For descriptions of these fields, see *Configure reagents - supplies window field descriptions*, page Appendix E-105.

Related procedures...

- *Change the system low alert setting for reagent kits*, page 2-21
- *Change the wash buffer transfer option*, page 10-623
- *Change the option for running controls for onboard reagent kits*, page 2-29

Details for reagents - supplies window

From the Details for reagents - supplies window you can view the current settings for reagent options including:

- Default reagent low alert
- Reagent expiration and stability override
- Run controls by reagent lot or reagent kit

You can also view the current settings for supply options including:

- Wash buffer transfer (*i* System)
- Pre-Trigger and Trigger stability override (*i* System)

Figure 2.10: Details for reagents - supplies window (i System, c 8000)

Figure 2.11: Details for reagents - supplies window (i System, c 16000)

For descriptions of these fields, see *Details for reagents - supplies window field descriptions*, page Appendix E-105.

Related procedures...

- *View the system low alert setting for reagent kits*, page 2-13
- *View the wash buffer transfer option (i System)*, page 2-16
- *View the option for running controls for onboard reagent kits*, page 2-17

Configure password window

From the Configure password window the system administrator can configure the system administrator password.

Figure 2.12: Configure password window

For descriptions of these fields, see *Configure password window field descriptions*, page Appendix E-106.

Related procedures...

- *Change the system administrator password*, page 1-21

Details for password window

From the Details for password window the system administrator can view the current system administrator password.

Figure 2.13: Details for password window

For descriptions of these fields, see *Details for password window field descriptions*, page Appendix E-106.

Configure system control center window

From the Configure system control center window the system administrator can configure the settings for the SCC (system control center), which include:

- System date, date format, time, time zone, and automatic adjustment for daylight savings time

- Number format for thousands separator
- System language
- Screen timeout
- QC run definition
- Beep volume

Figure 2.14: Configure system control center window

For descriptions of these fields, see *Configure system control center window field descriptions*, page Appendix E-106.

Related procedures...

- *Change the date and time settings*, page 2-23
- *Change the system language setting*, page 2-22
- *Configure a QC run definition*, page 2-8
- *Change the screen timeout setting*, page 2-23

Details for system control center window

From the Details for system control center window you can view the current settings for the SCC (system control center), which include:

- System date, date format, time, time zone, and automatic adjustment for daylight savings time
- Number format for thousands separator
- System language

- Screen timeout
- QC run definition
- Beep volume

Figure 2.15: Details for system control center

For descriptions of these fields, see *Details for system control center window field descriptions*, page Appendix E-108.

Related procedures...

- *View the system language setting*, page 2-14
- *View the date and time settings*, page 2-15
- *View the screen timeout setting*, page 2-14

Configure modules window (*i* 1000$_{SR}$)

From the Configure modules window, the system administrator can:

- Enter the optics normalization and linearity values
- Change the liquid waste container option

Figure 2.16: Configure modules window (i 1000$_{SR}$)

For descriptions of these fields, see *Configure modules window (i 1000$_{SR}$) field descriptions*, page Appendix E-109.

Details for modules window (*i* 1000$_{SR}$)

From the Details for modules window, you can view the current settings for:

- Serial number of the processing module
- Optics normalization and linearity values
- Liquid waste container

Figure 2.17: Details for modules window (i 1000$_{SR}$)

For descriptions of these fields, see *Details for modules window (i 1000$_{SR}$) field descriptions*, page Appendix E-109.

Configure sample handler window (RSH - *i* 1000$_{SR}$)

From the configure sample handler window, the system administrator can:

- Enable or disable the sample handler to automatically reposition samples for retest
- Change the number of priority sections

Figure 2.18: Configure sample handler window (RSH - i 1000$_{SR}$)

For descriptions of these fields, see *Configure sample handler window (RSH - i 1000$_{SR}$) field descriptions*, page Appendix E-110.

Details for sample handler window (RSH - *i* 1000$_{SR}$)

From the Details for sample handler window, you can view the current settings for:

- Sample handler type
- Sample handler serial number
- Automatic repositioning of samples for retest

Figure 2.19: Details for sample handler window (RSH - i 1000$_{SR}$)

For descriptions of these fields, see *Details for sample handler window (RSH - i 1000$_{SR}$) field descriptions*, page Appendix E-110.

Configure bar codes window

From the Configure bar codes window the system administrator can enable or disable bar code types and, depending on the type, can configure:

- Checksums
- Send checksum digits to the SCC (system control center)
- Send the start / stop characters to the SCC
- Code length #1
- Code length #2

Figure 2.20: Configure bar codes window

For descriptions of these fields, see *Configure bar codes window field descriptions*, page Appendix E-111.

Related procedures...

- *Change the sample bar code settings for codabar*, page 2-26
- *Change the sample bar code settings for code 39*, page 2-27
- *Change the sample bar code settings for I 2 of 5*, page 2-27

Details for bar codes window

From the Details for bar codes window, depending on the bar code type selected, you can view the current settings for:

- Bar code type
- Checksums
- Send checksum digits to the SCC (system control center)
- Send the start / stop characters to the SCC
- Code length #1
- Code length #2

Figure 2.21: Details for bar codes window

For descriptions of these fields, see *Details for bar codes window field descriptions*, page Appendix E-112.

Related procedures...

- *View the sample bar code settings*, page 2-15

Configure serial ports window

From the Configure serial ports window the system administrator can configure communication settings for the serial ports.

Figure 2.22: Configure serial ports window

For descriptions of these fields, see *Configure serial ports window field descriptions*, page Appendix E-113.

Related procedures...

- *Change the LIS serial port settings*, page 2-28

Details for serial ports window

From the Details for serial ports window you can view the current communication settings for the port types.

Figure 2.23: Details for serial ports window

For descriptions of these fields, see *Details for serial ports window field descriptions*, page Appendix E-114.

Related procedures...

- *View the LIS serial port settings*, page 2-16

Configuration screen - Assay settings view

From the Assay settings view of the Configuration screen you can configure settings associated with assays. The display of this view is dependent on your selection from the Assay categories list:

- *Configuration screen - Assay settings - Assay parameters view*, page 2-49
- *Configuration screen - Assay settings - New assay view*, page 2-51

Configuration screen - Assay settings - Assay parameters view

From the Assay settings - Assay parameters view of the Configuration screen the general operator can access windows to view detailed information for configured assay settings.

The system administrator can access windows to configure these settings, which include:

- Assay parameters
- CC reagent settings
- New assay

- Result units
- Panel definitions
- Retest rules

Figure 2.24: Configuration screen - Assay settings - Assay parameters view

For descriptions of these fields, see *Configuration screen - Assay settings - Assay parameters view field descriptions*, page Appendix E-115.

To display this view of the screen, see *Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51.

Related procedures...

- *Configuring Abbott assays*, page 2-53
- *Changing assay configuration settings*, page 2-71
- *Change the result units setting*, page 2-81
- *Printing assay parameter reports*, page 2-82

Access the Configuration screen - Assay settings - Assay parameters view

Perform this procedure to display the Assay settings - Assay parameters view of the Configuration screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Configuration screen - Assay settings - Assay Parameters view:

1. Select **System** from the menu bar, and then select **Configuration**.

   The Configuration screen - System settings view displays.

2. Select the **Assay settings** option.

   The Configuration screen - Assay settings - Assay Parameters view displays.

Related information...

- *Configuration screen - Assay settings - Assay parameters view,* page 2-49

Configuration screen - Assay settings - New assay view

From the Assay settings - New assay view of the Configuration screen the system administrator can select an assay file type and access windows to configure. Assay file types include calculated and photometric.

Figure 2.25: Configuration screen - Assay settings - New assay view

For descriptions of these fields, see *Configuration screen - Assay settings - New assay view field descriptions*, page Appendix E-115.

To display this view of the screen, see *Access the Configuration screen - Assay settings - New assay view*, page 2-52.

Related procedures...

- *Configure a calculated assay*, page 2-62

Access the Configuration screen - Assay settings - New assay view

Perform this procedure to display the Assay settings - New assay view of the Configuration screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Configuration screen - Assay settings - New assay view:

1. Select **System** from the menu bar, and then select **Configuration**.

   The Configuration screen - System settings view displays.

2. Select the **Assay settings** option.

   The Configuration screen - Assay settings - Assay parameters view displays.

3. Select **New assay** from the **Assay categories** list.

   The Configuration screen - Assay settings - New assay view displays.

Related information...

- *Configuration screen - Assay settings - New assay view*, page 2-51

Procedures - Configuration screen - Assay settings view

Procedures you can perform from the Configuration screen - Assay settings view and its related windows are grouped by task:

- *Configuring Abbott assays*, page 2-53
- *Configuring user-defined assays*, page 2-62
- *Viewing assay settings*, page 2-66
- *Changing assay configuration settings*, page 2-71
- *Printing assay parameter reports*, page 2-82

Configuring Abbott assays

Procedures for configuring Abbott assay settings include:

- *Configure normal and extreme ranges*, page 2-53
- *Configure patient and QC panels*, page 2-55
- *Configure a retest rule*, page 2-55
- *Configure result units and decimal places*, page 2-58
- *Configure interpretation options (c System and calculated)*, page 2-59
- *Configure the default dilution setting (i System)*, page 2-61

Configure normal and extreme ranges

Perform this procedure to configure normal and extreme result ranges for an assay.

NOTE: Ranges are evaluated in the order defined.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51
Module status	Stopped, Warming, or Ready

User access level	System administrator
Supplies	NA

To configure normal and extreme ranges:

1. Select the desired assay(s) from the **Assays** list on the Configuration screen, and then select **F6 - Configure**.

   The Configure assay parameters window - General view displays. The information is dependent on the assay(s) you selected.

2. Select the **Results** option.

   The Configure assay parameters window - Results view displays.

3. Select **Add**.

   The Configure results parameters window displays.

4. Select the desired **Gender** option.

5. Select the **Age** list button, and then select the desired age format.

   NOTE: If you do not enter an age when creating a patient order, the age is assumed to be 0.

6. Enter a value in the **Minimum** and **Maximum** data entry boxes.

7. Enter a value in the **Normal range** data entry boxes.

8. Enter a value in the **Extreme range** data entry boxes. ***(optional)***

9. Select **Done** to return to the Results view of the Configure assay parameters window.

   Your values display in the Gender and age specific ranges table.

10. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 3 through 9 for each. ***(optional)***

11. Select **Done** to save your changes.

Related information...

- *Configuration screen - Assay settings - Assay parameters view*, page 2-49
- *Configure assay parameters window - Results view*, page 2-90
- *Configure results parameters window*, page 2-91

Configure patient and QC panels

Perform this procedure to create a panel(s) that may be used when ordering patient or control samples.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To configure patient and QC panels:

1. Select **Panel definitions** from the **Assay categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure panel definitions window displays.
3. Enter a unique name (maximum of 10 alphanumeric characters) in the **New panel name** data entry box.
4. Select the desired **Panel type** check box(es).
5. Select the desired assay(s) from the **Assays** list.
6. Select **Add** to create the panel.

   The panel name displays in the Panels list.
7. Repeat steps 3 through 6 to add another panel. ***(optional)***
8. Select **Done** to save your changes.

Related information...

- *Configuration screen - Assay settings - Assay parameters view,* page 2-49
- *Configure panel definitions window,* page 2-96

Configure a retest rule

Perform this procedure to configure a retest rule(s), which provides automatic patient sample reordering for those samples that meet specified retest rules on an assay-by-assay basis.

IMPORTANT: If you configure a calculated assay as your retest assay the system will use existing valid constituent results to perform the calculation.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To configure a retest rule:

1. Select **Retest rules** from the **Assay categories** list on the Configuration screen.
2. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure assay retest rules window displays.
3. Select **Add rule**.

   The Add / edit assay retest rules window displays.
4. Enter a name in the **Rule name** data entry box.
5. Enter the number of replicates in the **Replicates** data entry box.

   NOTE: The system runs the number of replicates entered for all retest assays.
6. Select the desired **Retest indicator** option to determine the retest criteria, result range, or error code.

   NOTE: If you selected the error code option and one of the following error codes occurs, the assay is retested.

   - 1005 - Result cannot be calculated, final RLU read is outside the specification of the lowest calibrator.
   - 1007 - Unable to process test, activated read failure.
   - 1008 - Unable to process test, final read failure.
   - 1051 - Unable to calculate result, absorbance exceeded optical limits.
   - 1053 - Unable to calculate result, rate reaction linearity failure.
   - 1054 - Unable to calculate result, Reaction check failure.

- 1232 - Result cannot be calculated, final RLU read is outside the specification of the highest calibrator.
- 1250 - Unable to calculate result, absorbance exceeds highest calibrator.
- 1350 - Unable to calculate result, no absorbance reads within absorbance range.
- 1351 - Unable to calculate result, insufficient absorbance reads within absorbance range.

7. Enter a value(s) in the **Result range** data entry box(es), if displayed.
   - To automatically retest all samples when the original results are within a specific range, enter values in both data entry boxes.
   - To automatically retest all samples when the original results are less than a specific value, leave the first data entry box blank and enter the value in the second data entry box.
   - To automatically retest all samples when the original results are greater than a specific value, enter the value in the first data entry box and leave the second data entry box blank.
8. Select **Select assay**. ***(optional)***

   The Select assay window displays.

   a. Select the desired assay(s) from the **Assays** list.

   b. Deselect the original assay if you do not want to include it as a retest assay. ***(optional)***

   c. Select **Done** to return to the Add / edit assay retest rules window.

      The selected assay(s) displays in the Selected retest assays list.
9. Select the desired **Original dilution** option for the original assay. ***(optional)***
10. Select a retest assay from the **Selected retest assays** list. ***(optional)***
11. Select the desired **Retest dilution** option. ***(optional)***
12. Repeat steps 10 and 11 for each retest assay.
13. Select **Done** to return to the Configure assay retest rules window.

    The retest rule displays.

14. Repeat steps 3 through 13 to configure additional rules for this assay. **(optional)**
15. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 3 through 14 for each. ***(optional)***
16. Select **Done** to save your changes.

Related information...

- *Configuration screen - Assay settings - Assay parameters view,* page 2-49
- *Configure assay retest rules window,* page 2-98
- *Add / edit assay retest rules window,* page 2-99
- *Select assay window,* page 2-100

Configure result units and decimal places

Perform this procedure to configure alternate result units and decimal places for an assay.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To configure result units and decimal places:

1. Select **Result units** from the **Assay categories** list on the Configuration screen.
2. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure result units window displays.
3. Enter the result units by performing one of the following:
   – Select the **Result units** list button, and then select the desired unit (*i* System assays).
4. Enter the desired value in the **Decimal places** data entry box.
5. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 3 and 4 for each. ***(optional)***
6. Select **Done** to save your changes.

Related information...

- *Configuration screen - Assay settings - Assay parameters view,* page 2-49
- *Configure result units window,* page 2-95

Configure interpretation options (*c* System and calculated)

Perform this procedure to include the interpretation with the test result and to determine whether results are held for review.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To configure interpretation options:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure assay parameters window - General view displays. The information is dependent on the assay(s) you selected.

2. Select the **Interpretation** option.

   The Configure assay parameters window - Interpretation view displays.

3. Select the **Name** list button, and then select the desired name for the interpretation.

NOTE: If the desired name is not listed, select **User defined** and enter the name.

4. Repeat step 3 to select another interpretation name.
5. Enter a value(s) in the **Range** data entry box(es).

   NOTE: The first Range data entry must be ≥ the low-linearity value. The last Range data entry must be ≤ the high-linearity value.

6. Select the **Results review required** check box(es) for the desired interpretation(s). ***(optional)***

7. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 3 through 6 for each. ***(optional)***

8. Select **Done** to save your changes.

Related information...

- *Configuration screen - Assay settings - Assay parameters view,* page 2-49
- *Configure assay parameters window - Interpretation view,* page 2-93

Configure the default dilution setting (*i* System)

Perform this procedure to configure the dilution option to use if a dilution is not specified when you order a test.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To configure the default dilution setting:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

The Configure assay parameters window - General view displays. The information is dependent on the assay(s) you selected.

2. Select the **Dilution** option.
3. Select the desired **Default dilution** option.
4. Use the **previous/next** buttons to display each assay if you selected more than one, and then select a default dilution for each. ***(optional)***
5. Select **Done** to save your changes.

Related information...

- *Configuration screen - Assay settings - Assay parameters view,* page 2-49
- *Configure assay parameters window - General view (i System),* page 2-83

Configuring user-defined assays

For calculated assays see *Configure a calculated assay,* page 2-62.

The following procedures are optional once the user-defined assay is configured.

Table 2.1: Configuring optional items for user-defined assays

Procedure	Description
Configure patient and QC panels, page 2-55	Perform this procedure to create a panel(s) to use when ordering patient or control samples.
Configure a retest rule, page 2-55	Perform this procedure to configure a retest rule(s) to provide automatic patient sample reordering for those samples that meet specified retest rules on an assay-by-assay basis.

To save your configuration information to an alternative location, see *Create a system software backup*, page 2-137.

Configure a calculated assay

Perform this procedure to create an assay with a mathematical formula for deriving a calculated (ratio) result.

Prerequisite	*Access the Configuration screen - Assay settings - New assay view*, page 2-52
Module status	Stopped, Warming, or Ready

User access level	System administrator
Supplies	NA

To configure a calculated assay:

1. Select **F6 - Configure**.

   The Configure assay parameters window - General view (calculated) displays.

2. Enter the desired name in the **Assay** data entry box.
3. Enter the desired assay number in the **Number** data entry box.

   NOTE: The next available assay number displays in the number field, but may be edited. The user-defined assay number range is 2000-2999.

4. Select the **Assay availability** list button, and then select the desired option.
5. Select **Select assays**.

   The Select assay window displays.

   a. Select the assay(s) to be included in the formula from the **Assays** list. The assays are assigned to calculator buttons in the order you select them.

      For example: For an LDL calculation you would select Cholesterol, HDL, and Triglyceride.

   b. Select **Done** to return to the Configure assay parameters window - General view (calculated).

The selected assay(s) display in the Selected assays area and the appropriate ASSAY buttons display above the calculator keypad.

6. Enter the formula for the calculation by selecting the desired constituent assay(s) and calculator buttons.

   NOTE: You must include all of the selected constituent assay(s) in the formula.

   For example: To enter the formula for an LDL calculation Cholesterol - HDL - (Triglyceride /5), you would perform the following steps:

   a. Select the **ASSAY1** (cholesterol) button [ASSAY1], and then select the minus button [-].

   b. Select the **ASSAY2** (HDL) button [ASSAY2], and then select the minus button [-].

   c. Select the open parenthesis button [(], and then select the ASSAY3 (Triglyceride) button [ASSAY3].

   d. Select the divide button [/], then select 5, and then select the close parenthesis button [)].

The formula for the calculation displays in the **Formula** data entry box.

7. Enter a result range for the assay(s) in the **Minimum** and **Maximum** value data entry box(es).

   NOTE: If the constituent test result(s) is outside the defined range, the calculated test becomes an exception and a result is not reported.

8. Select the Results option to configure ranges.

   See *Configure normal and extreme ranges*, page 2-53.

9. Select the Interpretation option to configure interpretations.

   See *Configure interpretation options (c System and calculated)*, page 2-59.

10. Select **Done** to create the calculated assay and return to the Configuration screen.

    The calculated assay displays in the Assays list.

To configure result units and decimal places for the calculated assay, see *Configure result units and decimal places*, page 2-58.

Related information...

- *Configuration screen - Assay settings - New assay view*, page 2-51
- *Configure assay parameters window - General view (calculated)*, page 2-84
- *Select assay window*, page 2-100

Viewing assay settings

Procedures for viewing assay settings include:

- *View assay parameters*, page 2-66
- *View assay availability*, page 2-67
- *View the normal and extreme result range settings*, page 2-68
- *View the patient and QC panel definitions*, page 2-68
- *View the assay retest rule settings*, page 2-69
- *View the linearity range settings*, page 2-70
- *View the default dilution setting (i System)*, page 2-70

View assay parameters

Perform this procedure to display the Details for assay parameters window. From this window you can access and view the assay parameter settings.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51
Module status	Any
User access level	General operator
Supplies	NA

To view assay parameters:

1. Select the desired assay(s) from the **Assays** list.

2. Select **F5 - Details**.

   The Details for assay parameters - General view displays. The information is dependent on the assay(s) you selected.

3. Select the appropriate options to view additional parameters.

4. Use the **previous/next** buttons to display each assay if you selected more than one. ***(optional)***

5. Select **Done** to return to the Configuration screen.

For assay parameter information refer to the manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

Related information...

- *Windows - Configuration screen - Assay settings view,* page 2-82

View assay availability

Perform this procedure to display the General view of the Details for assay parameters window.

From this window you can view the setting that determines if you can select the assay name on the order screens.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51
Module status	Any
User access level	General operator
Supplies	NA

To view assay availability:

1. Select the desired assay(s) from the **Assays** list on the Configuration screen.

2. Select **F5 - Details**.

   The Details for assay parameters window - General view displays. The information is dependent on the assay(s) you selected.

3. Use the **previous/next** buttons to display each assay if you selected more than one. ***(optional)***

4. Select **Done** to return to the Configuration screen.

Related information...

- *Details for assay parameters window - General view (i System),* page 2-84

View the normal and extreme result range settings

Perform this procedure to display the Results view of the Details for assay parameters window. From this view you can see the current normal and extreme result range settings.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51
Module status	Any
User access level	General operator
Supplies	NA

To view the normal and extreme result range settings:

1. Select the desired assay(s) from the **Assays** list, and then select **F5 - Details**.

   The Details for assay parameters window - General view displays. The information is dependent on the assay(s) you selected.

2. Select the **Results** option.

   The Details for assay parameters window - Results view displays.

3. Use the **previous/next** buttons to display each assay if you selected more than one. ***(optional)***

4. Select **Done** to return to the Configuration screen.

Related information...

- *Configuration screen - Assay settings view,* page 2-49
- *Details for assay parameters window - Results view,* page 2-92

View the patient and QC panel definitions

Perform this procedure to display the Details for panel definition window. From this window you can view the current settings for patient and QC panels.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51
Module status	Any
User access level	General operator
Supplies	NA

To view the patient and QC panel definitions:

1. Select **Panel definitions** from the **Assays categories** list on the Configuration screen.

2. Select **F5 - Details**.

   The Details for panel definition window displays.

3. Select the desired panel from the **Panels** list.
4. Select **Done** to return to the Configuration screen.

Related information...

- *Configuration screen - Assay settings - Assay parameters view,* page 2-49
- *Details for panel definition window,* page 2-97

View the assay retest rule settings

Perform this procedure to display the Details for assay retest rules window. From this window you can view the current settings for assay retest rules.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51
Module status	Any
User access level	General operator
Supplies	NA

To view the assay retest rule settings:

1. Select **Retest rules** from the **Assay categories** list on the Configuration screen.
2. Select the desired assay(s) from the **Assays** list, and then select **F5 - Details**.

   The Details for assay retest rules window displays.

3. Select the desired rule from the **Assay retest rules** list.
4. Use the **previous/next** buttons to display each assay if you selected more than one. ***(optional)***
5. Select **Done** to return to the Configuration screen.

Related information...

- *Configuration screen - Assay settings - Assay parameters view,* page 2-49
- *Details for assay retest rules window,* page 2-101

View the linearity range settings

Perform this procedure to display the Results view of the Details for assay parameters window. From this view you can see the current linearity range settings.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51
Module status	Any
User access level	General operator
Supplies	NA

To view the linearity range settings:

1. Select the desired assay(s) from the **Assays** list, and then select **F5 - Details**.

   The Details for assay parameters window - General view displays. The information is dependent on the assay(s) you selected.

2. Select the **Results** option.

   The Details for assay parameters window - Results view displays.

3. Use the **previous/next** buttons to display each assay if you selected more than one. ***(optional)***

4. Select **Done** to return to the Configuration screen.

Related information...

- *Configuration screen - Assay settings - Assay parameters view,* page 2-49
- *Details for assay parameters window - Results view,* page 2-92

View the default dilution setting (*i* System)

Perform this procedure to display the Dilution view of the Details for assay parameters window. From this view you can see the current setting for the default dilution.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51
Module status	Any
User access level	General operator
Supplies	NA

To view the default dilution setting:

1. Select the desired assay(s) from the **Assays** list, and then select **F5 - Details**.

   The Details for assay parameters window - General view displays. The information is dependent on the assay(s) you selected.

2. Select the **Dilution** option.

   The Details for assay parameters window - Dilution view displays.

3. Use the **previous/next** buttons to display each assay if you selected more than one. ***(optional)***

4. Select **Done** to return to the Configuration screen.

Related information...

- *Configuration screen - Assay settings - Assay parameters view*, page 2-49
- *Details for assay parameters window - Dilution view (i System)*, page 2-89.

Changing assay configuration settings

Procedures for changing assay settings include:

- *Change the name of an assay*, page 2-72
- *Change the availability of an assay*, page 2-72
- *Change normal and extreme ranges*, page 2-73
- *Change a patient or QC panel*, page 2-74
- *Delete a patient or QC panel*, page 2-75
- *Add an assay to a retest rule*, page 2-76
- *Remove an assay from a retest rule*, page 2-77
- *Delete a retest rule*, page 2-78
- *Change the default dilution setting (i System)*, page 2-79
- *Change interpretation settings (i System)*, page 2-80
- *Change the result units setting*, page 2-81

Change the name of an assay

Perform this procedure to change the assay name that displays on all screens and windows.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51 No orders pending for the assay being changed
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the name of an assay:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure assay parameters window - General view displays. The information is dependent on the assay(s) you selected.

2. Enter a unique name (maximum of 10 alphanumeric characters) in the **Assay** data entry box.

3. Use the **previous/next** buttons to display each assay if you selected more than one, and enter a unique name for each. ***(optional)***

4. Select **Done** to save your changes.

Related information...

- *Configuration screen - Assay settings - Assay parameters view,* page 2-49
- *Configure assay parameters window - General view (i System),* page 2-83

Change the availability of an assay

Perform this procedure to change assay availability, which determines whether an assay(s) is available for ordering on the order screens.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51 No orders pending for the assay being changed
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the availability of an assay:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure assay parameters window - General view displays. The information is dependent on the assay(s) you selected.

2. Select the **Assay availability** list button, and then select the desired assay availability.
   - Enabled - Indicates the assay is available for ordering.
   - Disabled - Indicates the assay name does not display on the patient, control, and calibration order screens.
   - Patient disabled - Indicates the assay name does not display on the Patient order screen.

3. Use the **previous/next** buttons to display each assay if you selected more than one, and then enable or disable each. ***(optional)***

4. Select **Done** to save your changes.

Related information...

- *Configuration screen - Assay settings - Assay parameters view,* page 2-49
- *Configure assay parameters window - General view (i System),* page 2-83

Change normal and extreme ranges

Perform this procedure to edit normal and extreme ranges.

NOTE: Ranges are evaluated in the order defined.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51 No orders pending for the assay being changed
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change normal and extreme ranges:

1. Select the desired assay(s) from the **Assays** list on the Configuration screen, and then select **F6 - Configure**.

   The Configure assay parameters window - General view displays. The information is dependent on the assay(s) you selected.

2. Select the **Results** option.

   The Configure assay parameters window - Results view displays.

3. Select the desired range from the **Gender and age specific ranges** table, and then select **Edit**.

   The Configure results parameters window displays.

4. Select the **Age** list button, and then select the desired age format.
5. Enter a value in the **Minimum** and **Maximum** data entry boxes.
6. Enter a value in the **Normal range** data entry boxes.
7. Enter a value in the **Extreme range** data entry boxes. ***(optional)***
8. Select **Done** to return to the Results view of the Configure assay parameters window.

   Your edits display in the Gender and age specific ranges table.

9. Select another range, and then repeat steps 3 through 8. ***(optional)***
10. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 3 through 9 for each. ***(optional)***
11. Select **Done** to save your changes.

Related information...

- *Configuration screen - Assay settings - Assay parameters view,* page 2-49
- *Configure assay parameters window - Results view,* page 2-90
- *Configure results parameters window,* page 2-91

Change a patient or QC panel

Perform this procedure to add or remove assays from a previously defined panel or to change the panel type.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change a patient or QC panel:

1. Select **Panel definitions** from the **Assay categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure panel definitions window displays.
3. Select the desired panel from the **Panels** list.
4. Select or deselect the **Panel type** check box(es).
5. Select or deselect an assay(s) from the **Assays** list.
6. Select **Add** to add your changes.
7. Select **Done** to save your changes.

Related information...

- *Configuration screen - Assay settings - Assay parameters view,* page 2-49
- *Configure panel definitions window,* page 2-96

Delete a patient or QC panel

Perform this procedure to delete a patient or QC panel when the panel is no longer in use.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To delete a patient or QC panel:

1. Select **Panel definitions** from the **Assay categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure panel definitions window displays.
3. Select the panel to delete from the **Panels** list, and then select **Delete**.

   A confirmation message displays.
4. Select **OK** to delete the panel.

   The panel name no longer displays in the Panels list.
5. Select **Done** to return to the Configuration screen.

Related information...

- *Configuration screen - Assay settings - Assay parameters view,* page 2-49
- *Configure panel definitions window,* page 2-96

Add an assay to a retest rule

Perform this procedure to add an assay(s) to a retest rule(s).

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To add an assay to a retest rule:

1. Select **Retest rules** from the **Assay categories** list on the Configuration screen.
2. Select an assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure assay retest rules window displays.
3. Select the desired rule from the **Assay retest rules** list, and then select **Edit rule**.

   The Add / edit assay retest rules window displays.
4. Select **Select assay**.

   The Select assay window displays.
   a. Select the desired assay(s).
   b. Select **Done** to return to the Add / edit assay retest rules window.

      The selected assay(s) display in the Selected retest assays list.
5. Select an assay from the **Selected retest assays** list.
6. Select the desired **Retest dilution** option.
7. Repeat steps 5 and 6 for each assay.
8. Select **Done** to return to the Configure assay retest rules window.
9. Repeat steps 3 through 8 to add a retest assay(s) to another rule. ***(optional)***

10. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 3 through 9 for each. ***(optional)***
11. Select **Done** to save your changes.

Related information...

- *Configuration screen - Assay settings - Assay parameters view,* page 2-49
- *Configure assay retest rules window,* page 2-98
- *Add / edit assay retest rules window,* page 2-99
- *Select assay window,* page 2-100

Remove an assay from a retest rule

Perform this procedure to remove an assay from a retest rule(s).

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To remove an assay from a retest rule:

1. Select **Retest rules** from the **Assay categories** list on the Configuration screen.
2. Select an assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure assay retest rules window displays.
3. Select the desired rule from the **Assay retest rules** list, and then select **Edit rule**.

   The Add / edit assay retest rules window displays.
4. Select **Select assay**.

   The Select assay window displays.

   a. Deselect the desired assay(s).

   b. Select **Done** to return to the Add / edit assay retest rules window.

      The updated Selected retest assays list displays.

5. Repeat steps 3 and 4 to remove a retest assay(s) from another rule. ***(optional)***
6. Select **Done** to return to the Configure assay retest rules window.
7. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 3 through 6 for each. ***(optional)***
8. Select **Done** to save your changes.

Related information...

- *Configuration screen - Assay settings - Assay parameters view,* page 2-49
- *Configure assay retest rules window,* page 2-98
- *Add / edit assay retest rules window,* page 2-99
- *Select assay window,* page 2-100

Delete a retest rule

Perform this procedure to delete a retest rule(s).

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51 No orders pending for the assay being changed
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To delete a retest rule:

1. Select **Retest rules** from the **Assay categories** list on the Configuration screen.
2. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure assay retest rules window displays.
3. Select the desired rule, and then select **Delete rule**.
4. Use the **previous/next** buttons to display each assay, if you selected more than one, and then repeat step 3 for each. ***(optional)***
5. Select **Done** to save your changes.

Related information...

- *Configuration screen - Assay settings - Assay parameters view,* page 2-49
- *Configure assay retest rules window,* page 2-98

Change the default dilution setting (*i* System)

Perform this procedure to select the dilution option to use if a dilution is not specified when the test is ordered.

To specify a dilution for a specific sample when ordering, see *Create a patient order (single order)*, page 5-76, *Create a control order (single analyte)*, page 5-95, or *Create a control order (multiconstituent)*, page 5-97.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51 No orders pending for the assay being changed
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the default dilution setting:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure assay parameters window - General view displays. The information is dependent on the assay(s) you selected.

2. Select the **Dilution** option.
3. Select the desired **Default dilution** option.
4. Use the **previous/next** buttons to display each assay if you selected more than one, and then select a default dilution for each. ***(optional)***
5. Select **Done** to save your changes.

Related information...

- *Configuration screen - Assay settings - Assay parameters view,* page 2-49
- *Configure assay parameters window - Dilution view (i System),* page 2-88

Change interpretation settings (*i* System)

Perform this procedure to change the settings that determine whether the interpretation is included with the test result and results are held for review. The interpretation option is available for specific ARCHITECT *i* System assays.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change interpretation settings:

1. Select **Assay parameters** from the **Assay categories** list on the Configuration screen.
2. Select the desired *i* System assay(s) from the **Assay** list, and then select **F6 - Configure**.

   The Configure assay parameters window - General view displays.
3. Select the **Interpretation** option.

   The Configure assay parameters window - Interpretation view displays.
4. Select the **Name** list button, and then select the desired name for the interpretation. ***(optional)***
5. Repeat step 4 to select another interpretation name. ***(optional)***
6. Enter the desired value(s) in the **Range** data entry box(es), if available. ***(optional)***

   NOTE: The first Range data entry must be ≥ the low-linearity value. The last Range data entry must be ≤ the high-linearity value.
7. Select the **Results review required** checkbox(es) for the desired interpretation(s). ***(optional)***
8. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 4 through 7 for each. ***(optional)***
9. Select **Done** to save your changes.

Related information...

- *Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51
- *Configure assay parameters window - Interpretation view*, page 2-93

Change the result units setting

Perform this procedure to change the result units for an assay.

IMPORTANT: When you edit the result concentration unit, all previous Levey-Jennings and QC summary information is deleted.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the result units setting:

1. Select **Result units** from the **Assay categories** list on the Configuration screen.
2. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure result units window displays.
3. Enter the result units by performing one of the following:
   – Select the **Result units** list button, and then select the desired unit (*i* System assays).

   NOTE: For *c* System assays, the system changes the result unit name displayed but it does not automatically adjust any values. You must enter the following parameters, if applicable, using the appropriate conversion factor.

   - Calibrator concentrations
   - Gender and age specific ranges (normal and extreme)
   - Linearity ranges
   - Interpretation ranges
   - Control means
   - Retest rules result ranges
   - Constituent assay ranges for calculated assays

4. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat step 3 for each. ***(optional)***
5. Select **Done** to save your changes.

Related information...

- *Configuration screen - Assay settings - Assay parameters view*, page 2-49
- *Configure result units window*, page 2-95

Printing assay parameter reports

Procedures for printing reports include:

- *Print an Assay Parameter report for specified assays*, page 5-239
- *Print an Assay Parameter report for all assays*, page 5-240

Windows - Configuration screen - Assay settings view

Windows you can access from the Configuration screen - Assay settings view include:

- *Configure assay parameters window - General view (i System)*, page 2-83
- *Details for assay parameters window - General view (i System)*, page 2-84
- *Configure assay parameters window - General view (calculated)*, page 2-84
- *Details for assay parameters window - General view (calculated)*, page 2-85
- *Configure assay parameters window - Calibration view (i System)*, page 2-86
- *Details for assay parameters window - Calibration view (i System)*, page 2-87
- *Configure assay parameters window - Dilution view (i System)*, page 2-88
- *Details for assay parameters window - Dilution view (i System)*, page 2-89
- *Configure assay parameters window - Results view*, page 2-90
- *Configure results parameters window*, page 2-91
- *Details for assay parameters window - Results view*, page 2-92

- *Configure assay parameters window - Interpretation view*, page 2-93
- *Details for assay parameters window - Interpretation view*, page 2-94
- *Configure result units window*, page 2-95
- *Details for result units window*, page 2-96
- *Configure panel definitions window*, page 2-96
- *Details for panel definition window*, page 2-97
- *Configure assay retest rules window*, page 2-98
- *Add / edit assay retest rules window*, page 2-99
- *Select assay window*, page 2-100
- *Details for assay retest rules window*, page 2-101

Configure assay parameters window - General view (*i* System)

From the General view of the Configure assay parameters window the system administrator can configure general assay settings, such as the assay name and assay availability.

Figure 2.26: Configure assay parameters window - General view (i System)

For descriptions of these fields, see *Configure assay parameters window - General view (i System) field descriptions*, page Appendix E-115.

Related procedures...

- *Change the name of an assay*, page 2-72

- *Change the availability of an assay*, page 2-72

Details for assay parameters window - General view (*i* System)

From the General view of the Details for assay parameters window you can view the current general assay settings, such as:

- Assay name, number, and availability
- Assay type and pretreatment option
- Assay and calibration version

Figure 2.27: Details for assay parameters window - General view (i System)

For descriptions of these fields, see *Details for assay parameters window - General view (i System) field descriptions*, page Appendix E-116.

Related procedures...

- *View assay availability*, page 2-67

Configure assay parameters window - General view (calculated)

From the General view of the Configure assay parameters window the system administrator can configure the settings used to calculate the assay.

Figure 2.28: Configure assay parameters window - General view (calculated)

For descriptions of these fields, see *Configure assay parameters window - General view (calculated) field descriptions*, page Appendix E-117.

Related procedures...

- *Configure a calculated assay*, page 2-62

Details for assay parameters window - General view (calculated)

From the General calculated view of the Details for assay parameters window you can view the current settings used to calculate an assay.

Figure 2.29: Details for assay parameters window - General view (calculated)

For descriptions of these fields, see *Details for assay parameters window - General view (calculated) field descriptions*, page Appendix E-118.

Configure assay parameters window - Calibration view (*i* System)

From the Calibration view of the Configure assay parameters window the system administrator can configure the setting for calibrator replicates.

Figure 2.30: Configure assay parameters window - Calibration view (i System)

For descriptions of these fields, see *Configure assay parameters window - Calibration view (i System) field descriptions*, page Appendix E-119.

Details for assay parameters window - Calibration view (*i* System)

From the Calibration view of the Details for assay parameters window you can view the current calibration settings, such as:

- Method for calibration, data reduction, and calibration adjustment
- Calibrator replicates
- Calibrator names and concentrations

Figure 2.31: Details for assay parameters window - Calibration view (i System)

For descriptions of these fields, see *Details for assay parameters window - Calibration view (i System) field descriptions*, page Appendix E-119.

Configure assay parameters window - Dilution view (*i* System)

From the Dilution view of the Configure assay parameters window the system administrator can configure the default dilution for an ARCHITECT *i* System assay.

Figure 2.32: Configure assay parameters window - Dilution view (i System)

For descriptions of these fields, see *Configure assay parameters window - Dilution view (i System) field descriptions*, page Appendix E-120.

Related procedures...

- *Change the default dilution setting (i System)*, page 2-79

Details for assay parameters window - Dilution view (*i* System)

From the Dilution view of the Details for assay parameters window you can view the current settings for the default dilution and dilution ranges for an ARCHITECT *i* System assay.

Figure 2.33: Details for assay parameters window - Dilution view (i System)

For descriptions of these fields, see *Details for assay parameters window - Dilution view (i System) field descriptions*, page Appendix E-121.

Related procedures...

- *View the default dilution setting (i System)*, page 2-70

Configure assay parameters window - Results view

From the Results view of the Configure assay parameters window the system administrator can:

- Configure age and gender specific ranges
- Change normal and extreme ranges
- Edit or delete ranges

Figure 2.34: Configure assay parameters window - Results view

For descriptions of these fields, see *Configure assay parameters window - Results view field descriptions*, page Appendix E-122.

Related procedures...

- *Configure normal and extreme ranges*, page 2-53
- *Change normal and extreme ranges*, page 2-73
- *Change the default dilution setting (i System)*, page 2-79

Configure results parameters window

From the Configure results parameters window the system administrator can configure normal and extreme ranges.

Figure 2.35: Configure results parameters window

For descriptions of these fields, see *Configure results parameters window field descriptions*, page Appendix E-123.

Related procedures...

- *Configure normal and extreme ranges*, page 2-53
- *Change normal and extreme ranges*, page 2-73

Details for assay parameters window - Results view

From the Results view of the Details for assay parameters window you can view the current settings for normal and extreme ranges and assay linearity.

Figure 2.36: Details for assay parameters window - Results view

For descriptions of these fields, see *Details for assay parameters window - Results view field descriptions*, page Appendix E-123.

Related procedures...

- *View the normal and extreme result range settings*, page 2-68
- *View the linearity range settings*, page 2-70

Configure assay parameters window - Interpretation view

From the Interpretation view of the Configure assay parameters window the system administrator can configure the settings for interpretation name, range, and the requirement to review the result.

Figure 2.37: Configure assay parameters window - Interpretation view

For descriptions of these fields, see *Configure assay parameters window - Interpretation view field descriptions*, page Appendix E-124.

Related procedures...

- *Change interpretation settings (i System)*, page 2-80

Details for assay parameters window - Interpretation view

From the Interpretation view of the Details for assay parameters window you can view the current settings for interpretation name, range, and the requirement to review the result.

Figure 2.38: Details for assay parameters window - Interpretation view

For descriptions of these fields, see *Details for assay parameters window - Interpretation view field descriptions*, page Appendix E-125.

Configure result units window

From the Configure result units window the system administrator can configure the settings for:

- Result units and decimal places

Figure 2.39: Configure result units window

For descriptions of these fields, see *Configure result units window field descriptions*, page Appendix E-126.

Related procedures...

- *Configure result units and decimal places*, page 2-58

- *Change the result units setting*, page 2-81

Details for result units window

From the Details for result units window you can view the current settings for:

- Result units and decimal places
- Correlation factor and intercept (*c* System)

Figure 2.40: Details for result units window

For descriptions of these fields, see *Details for result units window field descriptions*, page Appendix E-126.

Related procedures...

- *Configure result units and decimal places*, page 2-58

Configure panel definitions window

From the Configure panel definitions window the system administrator can configure patient and QC panels.

Figure 2.41: Configure panel definitions window

For descriptions of these fields, see *Configure panel definitions window field descriptions*, page Appendix E-127.

Related procedures...

- *Configure patient and QC panels*, page 2-55
- *Change a patient or QC panel*, page 2-74
- *Delete a patient or QC panel*, page 2-75

Details for panel definition window

From the Details for panel definition window you can view the current settings for patient and QC panel definitions.

Figure 2.42: Details for panel definition window

For descriptions of these fields, see *Details for panel definition window field descriptions*, page Appendix E-127.

Related procedures...

- *View the patient and QC panel definitions*, page 2-68

Configure assay retest rules window

From the Configure assay retest rules window the system administrator can add, change, or delete retest rules.

Figure 2.43: Configure assay retest rules window

For descriptions of these fields, see *Configure assay retest rules window field descriptions*, page Appendix E-128.

Related procedures...

- *Configure a retest rule*, page 2-55
- *Add an assay to a retest rule*, page 2-76
- *Remove an assay from a retest rule*, page 2-77
- *Delete a retest rule*, page 2-78
- *Change automatic repositioning for retest setting (RSH)*, page 2-25

Add / edit assay retest rules window

From the Add / edit assay retest rules window the system administrator can add or edit assay retest rules.

Figure 2.44: Add / edit assay retest rules window

For descriptions of these fields, see *Add / edit assay retest rules window field descriptions*, page Appendix E-128.

Related procedures...

- *Configure a retest rule*, page 2-55
- *Add an assay to a retest rule*, page 2-76
- *Remove an assay from a retest rule*, page 2-77
- *Delete a retest rule*, page 2-78

Select assay window

From the Select assay window the system administrator can select or deselect assay(s) for assay retest rules, multiconstituent controls, and calculated assays.

Figure 2.45: Select assay window

For descriptions of these fields, see *Select assay window field descriptions*, page Appendix E-131.

Related information...

- *Configure a retest rule*, page 2-55
- *Add an assay to a retest rule*, page 2-76
- *Remove an assay from a retest rule*, page 2-77
- *Configure a new multiconstituent control*, page 2-106
- *Add an assay to a multiconstituent control*, page 2-117
- *Configure a calculated assay*, page 2-62

Details for assay retest rules window

From the Details for assay retest rules window you can view the current settings for retest rules.

Figure 2.46: Details for assay retest rules window

For descriptions of these fields, see *Details for assay retest rules window field descriptions*, page Appendix E-131.

Related procedures...

- *View the assay retest rule settings*, page 2-69

Configuration screen - QC - Cal settings view

From the QC - Cal settings view of the Configuration screen the general operator can access windows to view detailed information for configured QC Cal settings.

The system administrator can access windows to configure these settings, which include:

- QC - Single analyte
- QC - Multiconstituent
- Multiconstituent bar code SID
- Westgard rules
- Calibrator set

Figure 2.47: Configuration screen - QC - Cal settings view

For descriptions of these fields, see *Configuration screen - QC-Cal settings view field descriptions*, page Appendix E-132.

To display this view of the screen, see *Access the Configuration screen - QC - Cal settings view*, page 2-103.

Related procedures...

- *Configuring QC - Cal settings*, page 2-104
- *Viewing QC - Cal settings*, page 2-110
- *Changing QC - Cal settings*, page 2-113

Access the Configuration screen - QC - Cal settings view

Perform this procedure to display the QC - Cal view of the Configuration screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Configuration screen - QC - Cal settings view:

1. Select **System** from the menu bar, and then select **Configuration**.

The Configuration screen displays.

2. Select the **QC - Cal settings** option.

   The Configuration screen - QC - Cal settings view displays.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-102

Procedures - Configuration screen - QC - Cal settings view

Procedures you can perform from the Configuration screen - QC - Cal settings view and its related windows are grouped by task:

- *Configuring QC - Cal settings*, page 2-104
- *Viewing QC - Cal settings*, page 2-110
- *Changing QC - Cal settings*, page 2-113

Configuring QC - Cal settings

Procedures for configuring QC - Cal settings include:

- *Configure a new single analyte control*, page 2-104
- *Configure a bar code for a single analyte control level*, page 2-106
- *Configure a new multiconstituent control*, page 2-106
- *Configure a multiconstituent bar code SID*, page 2-108
- *Configure a Westgard rule*, page 2-109

Configure a new single analyte control

Perform this procedure to configure control information for each level of a new single analyte control set.

NOTE: You cannot configure controls for calculated assays.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-103
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To configure a new single analyte control:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure single analyte window displays.

2. Select the **Lot no.** list button, and then select **New Lot**.
3. Enter the lot number for the control in the **Lot no.** data entry box.
4. Enter the expiration date for the control in the **Exp. date** data entry box. ***(optional)***
5. Enter values for the following level information in the appropriate data entry box:
   - Level name (maximum of 10 alphanumeric characters and name is case sensitive)
   - Manufacturer mean ***(optional)***
   - Manufacturer 1 SD (standard deviation) ***(optional)***
   - Expected mean
   - Expected 1 SD (standard deviation)
6. Select the **Default dilution** list button, and then select the desired dilution for the control level.
7. Enter the ID for the control level bar code in the **Bar code SID** data entry box. ***(optional)***

   NOTE: The Bar code SID must be unique for each control level within a lot.
8. Select the **Display order** list button, and then select the desired display order for the control level.
9. Select **Add level** to add the control.

   The control level name displays in the **Level** list.
10. Select the **Level** list button, select **New Level** to add another level, and then repeat steps 5 through 9. ***(optional)***
11. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 2 through 10 for each. ***(optional)***
12. Select **Done** to save your changes.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-102
- *Configure single analyte window*, page 2-125

Configure a bar code for a single analyte control level

Perform this procedure to define a bar code for a single analyte control level.

NOTE: You cannot configure controls for calculated assays.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-103
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To configure a bar code for a single analyte control level:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure single analyte window displays.

2. Select the **Lot no.** list button, and then select the desired lot.
3. Select the **Level** list button, and then select the desired level.
4. Enter the ID to be used for the control level bar code in the **Bar code SID** data entry box.

   NOTE: The Bar code SID must be unique for each control level within a lot.

5. Select the **Level** list button, select another level, and then enter a bar code SID. ***(optional)***
6. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 2 through 5 for each. ***(optional)***
7. Select **Done** to save your changes.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-102
- *Configure single analyte window*, page 2-125

Configure a new multiconstituent control

Perform this procedure to configure control information for each level of a multiconstituent control set.

NOTE: You cannot configure controls for calculated assays.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-103
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To configure a new multiconstituent control:

1. Select **QC - Multiconstituent** from the **QC - Cal categories** list on the Configuration screen.
2. Select **NEW** from the **Controls** list, and then select **F6 - Configure**.

   The Configure multiconstituent control window displays.
3. Enter the control name in the **Control** data entry box.
4. Select the **Lot number** list button, and then select **New Lot**.
5. Enter the lot number for the control in the **Lot number** data entry box.
6. Select the **Level** list button, and then select the desired level.
7. Enter the expiration date for the control in the **Exp. date** data entry box. ***(optional)***
8. Select **Select assays**.

   The Select assay window displays.

   a. Select the desired assay(s) from the list.

   b. Select **Done** to return to the Configure multiconstituent control window.

      The assay(s) display in the table.
9. Select the assay(s) from the table, and then select **Define data**.

   The Define data window displays.

   NOTE: You must define the assay-specific data for each assay before you can add the level.

   a. Enter values for the following level information in the appropriate data entry box:

      – Manufacturer mean ***(optional)***

      – Manufacturer 1 SD (standard deviation) ***(optional)***

- Expected mean
- Expected 1 SD (standard deviation)

b. Select the **Default dilution** list button, and then select the desired dilution for the control level.

c. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 9a and 9b for each. ***(optional)***

d. Select **Done** to return to the Configure multiconstituent control window.

The assay-specific data displays in the table.

10. Select **Add level** to add the level.
11. Select the **Level** list button, select another level, and then repeat steps 8 through 10. ***(optional)***
12. Select **Done** to save your changes.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-102
- *Configure multiconstituent control window*, page 2-126
- *Select assay window*, page 2-100
- *Define data window*, page 2-127

Configure a multiconstituent bar code SID

Perform this procedure to assign a bar code SID for a configured multiconstituent control.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-103
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To configure a multiconstituent bar code SID:

1. Select **Multiconstituent bar code SID** from the **QC - Cal categories** list on the Configuration screen, and then select **F6 - Configure**.

   The Configure multiconstituent bar code SID window displays.

2. Enter the ID to be used for the multiconstituent control level bar code in the **New bar code SID** data entry box.

NOTE: The bar code SID must be unique for each control level within a lot.

3. Select the **Control** list button, and then select the desired control.
4. Select the **Lot** list button, and then select the desired lot.
5. Select the **Level** list button, and then select the desired level.
6. Select the desired assay(s) from the **Assays** list, and then select **Add**.
7. Repeat steps 2 through 6 to configure additional bar code SIDs. ***(optional)***
8. Select **Done** to save your changes.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-102
- *Configure multiconstituent bar code SID window*, page 2-129

Configure a Westgard rule

Perform this procedure to configure Westgard rules, which are used to assess quality control results.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-103
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To configure a Westgard rule:

1. Select **Westgard rules** from the **QC - Cal categories** list on the Configuration screen.
2. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure Westgard window displays.
3. Select the desired rule from the **Rules** list.
4. Select the desired **Status** option.

   NOTE: If you selected Westgard rules 2-2s 1R 1M, 2-2s 1R xM, 2-2s xR 1M, 4-1s 1M, or 4-1s xM, you must configure a run definition.

5. Select the desired **Flag type** option.

   NOTE: Westgard rules configured as a warning do not produce a flag for patient results. Westgard rules configured as a failure produce a CNTL flag for a patient result.

6. Repeat Steps 3 through 5 to configure another rule for the displayed assay. ***(optional)***
7. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 3 through 6 for each. ***(optional)***
8. Select **Done** to save your changes.

To define a run, see *Configure a QC run definition*, page 2-8.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-102
- *Configure Westgard window*, page 2-131
- *Westgard rule application*, page 5-207

Viewing QC - Cal settings

Procedures for viewing QC - Cal settings include:

- *View single analyte control settings*, page 2-110
- *View multiconstituent control settings*, page 2-111
- *View multiconstituent bar code SID settings*, page 2-112
- *View Westgard rule(s) settings*, page 2-112

View single analyte control settings

Perform this procedure to display the Details for single analyte window. From this window you can view the current settings for single analyte controls.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-103
Module status	Any
User access level	General operator
Supplies	NA

To view the single analyte control settings:

1. Select the desired assay(s) from the **Assays** list, and then select **F5 - Details**.

The Details for single analyte window displays.

2. Select the **Level** list button, and then select the desired level.
3. Use the **previous/next** buttons to display each assay if you selected more than one. ***(optional)***
4. Select **Done** to return to the Configuration screen.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-102
- *Details for single analyte window*, page 2-125

View multiconstituent control settings

Perform this procedure to display the Details for multiconstituent control window. From this window you can view the current configuration settings for multiconstituent controls.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-103
Module status	Any
User access level	General operator
Supplies	NA

To view multiconstituent control settings:

1. Select **QC - Multiconstituent** from the **QC - Cal categories** list on the Configuration screen.
2. Select the desired control from the **Controls** table, and then select **F5 - Details**.

   The Details for multiconstituent control window displays.
3. Select the **Lot number** list button, and then select the desired lot.
4. Select the **Level** list button, and then select the desired level.
5. Select **Done** to return to the Configuration screen.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-102
- *Details for multiconstituent control window*, page 2-128

View multiconstituent bar code SID settings

Perform this procedure to display the Details for multiconstituent bar code SID window. From this window you can view the current settings for multiconstituent bar code SIDs.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-103
Module status	Any
User access level	General operator
Supplies	NA

To view multiconstituent bar code SID settings:

1. Select **Multiconstituent bar code SID** from the **QC - Cal categories** list on the Configuration screen, and then select **F5 - Details**.

   The Details for multiconstituent bar code SID window displays.

2. Select the desired bar code from the **Bar codes** list.
3. Select **Done** to return to the Configuration screen.

Related information...

- *Configuration screen - QC - Cal settings view,* page 2-102
- *Details for multiconstituent bar code SID window,* page 2-130

View Westgard rule(s) settings

Perform this procedure to display the Details for Westgard window. From this window you can view the current settings for Westgard rules.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-103
Module status	Any
User access level	General operator
Supplies	NA

To view Westgard rule settings:

1. Select **Westgard rules** from the **QC - Cal categories** list on the Configuration screen.
2. Select the desired assay(s) from the **Assays** list, and then select **F5 - Details**.

   The Details for Westgard window displays.

3. Select the desired rule from the **Rules** list.
4. Use the **previous/next** buttons to display each assay if you selected more than one. ***(optional)***
5. Select **Done** to return to the Configuration screen.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-102
- *Details for Westgard window*, page 2-132
- *Westgard rule application*, page 5-207

Changing QC - Cal settings

Procedures for changing QC - Cal settings include:

- *Add a lot to a single analyte control*, page 2-113
- *Change single analyte control settings*, page 2-115
- *Delete a single analyte control level*, page 2-116
- *Change the default dilution for a single analyte control level*, page 2-117
- *Add an assay to a multiconstituent control*, page 2-117
- *Change multiconstituent control settings*, page 2-119
- *Add an assay to a multiconstituent bar code SID*, page 2-120
- *Change multiconstituent bar code SID settings*, page 2-121
- *Delete a multiconstituent bar code SID*, page 2-122
- *Delete a multiconstituent control level*, page 2-122
- *Change Westgard rule settings*, page 2-123

Add a lot to a single analyte control

Perform this procedure to add a lot to an existing single analyte control.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-103
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To add a lot to a single analyte control:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure single analyte window displays.

2. Select the **Lot no.** list button, and then select **New Lot**.

3. Enter the lot number for the control in the **Lot no.** data entry box.

4. Enter the expiration date for the control in the **Exp. date** data entry box. ***(optional)***

5. Enter values for the following level information in the appropriate data entry box:

   – Level name (maximum of 10 alphanumeric characters and name is case sensitive)

   – Manufacturer mean ***(optional)***

   – Manufacturer 1 SD (standard deviation) ***(optional)***

   – Expected mean

   – Expected 1 SD (standard deviation)

6. Select the **Default dilution** list button, and then select the dilution for the control level.

7. Enter the ID for the control level bar code in the **Bar code SID** data entry box. ***(optional)***

   NOTE: The bar code SID must be unique for each control level within a lot.

8. Select the **Display order** list button, and then select a display order for the control level.

9. Select **Add level** to add the lot.

   The lot number displays in the Lot no. list.

10. Select the **Level** list button, select **New Level** to add another level, and then repeat steps 5 through 9. ***(optional)***

11. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 2 through 10 for each. ***(optional)***

12. Select **Done** to save your changes.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-102

- *Configure single analyte window,* page 2-125

Change single analyte control settings

Perform this procedure to configure control information for each level of a new single analyte control set.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-103
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change single analyte control settings:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure single analyte window displays.

2. Select the **Lot no.** list button, and then select the desired lot.
3. Select the **Level** list button, and then select the desired level.
4. Enter values for the following level information in the appropriate data entry box:
   - Level name (maximum of 10 alphanumeric characters and name is case sensitive)
   - Manufacturer mean ***(optional)***
   - Manufacturer 1 SD (standard deviation) ***(optional)***
   - Expected mean
   - Expected 1 SD (standard deviation)
5. Select the **Default dilution** list button, and then select the desired dilution.
6. Select the **Display order** list button, and then select the desired order.
7. Enter the ID for the control level bar code in the **Bar code SID** data entry box. ***(optional)***
8. Select the **Level** list button, select another level, and then repeat steps 4 - 7. ***(optional)***
9. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 2 - 8 for each. ***(optional)***

10. Select **Done** to save your changes.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-102
- *Configure single analyte window*, page 2-125

Delete a single analyte control level

Perform this procedure to delete a single analyte control level.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-103
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To delete a single analyte control level:

1. Release, archive, and delete all control results for the control level. See *Release a control result*, page 5-163 and then *Archive stored control results*, page 5-190.
2. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure single analyte window displays.
3. Select the **Lot no.** list button, and then select the desired lot.
4. Select the **Level** list button, and then select the level to delete.
5. Select **Delete level**.
6. Select the **Level** list button, select another level, and then select **Delete**. ***(optional)***
7. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 3 through 5 for each. ***(optional)***
8. Select **Done** to save your changes.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-102
- *Configure single analyte window*, page 2-125

Change the default dilution for a single analyte control level

Perform this procedure to change the default dilution for a single analyte control level.

To specify a dilution for a specific sample when ordering, see *Create a control order (single analyte)*, page 5-95.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-103
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the default dilution for a single analyte control level:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure single analyte window displays.

2. Select the **Lot no.** list button, and then select the desired lot.
3. Select the **Level** list button, and then select the desired level.
4. Select the **Default dilution** list button, and then select the desired dilution.
5. Select the **Level** list button, and then another level. ***(optional)***
6. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 2 through 5 for each. ***(optional)***
7. Select **Done** to save your changes.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-102
- *Configure single analyte window*, page 2-125

Add an assay to a multiconstituent control

Perform this procedure to add an assay(s) to the level(s) of a multiconstituent control.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-103
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To add an assay to a multiconstituent control:

1. Select **QC - Multiconstituent** from the **QC - Cal categories** list on the Configuration screen.
2. Select the desired multiconstituent control from the **Controls** list, and then select **F6 - Configure**.

   The Configure multiconstituent control window displays.
3. Select the **Lot number** list button, and then select the desired lot number.
4. Select the **Level** list button, and then select the desired level.
5. Select **Select assays**.

   The Select assay window displays.

   a. Select the desired assay(s) from the **Assays** list.

   b. Select **Done** to return to the Configure multiconstituent control window.

      The selected assay(s) display in the table.
6. Select the assay(s) from the table, and then select **Define data**.

   The Define data window displays.

   NOTE: You must define the assay-specific data for each assay before you can add the level.

   a. Enter values for the following level information in the appropriate data entry box:

      – Manufacturer mean ***(optional)***

      – Manufacturer 1 SD (standard deviation) ***(optional)***

      – Expected mean

      – Expected 1 SD (standard deviation)

   b. Select the **Default dilution** list button, and then select the desired dilution for the control level.

   c. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 6a and 6b for each. ***(optional)***

   d. Select **Done** to return to the Configure multiconstituent control window.

      The assay-specific data displays in the table.
7. Select **Add level** to add the assay to the level.

8. Select the **Level** list button, select another level, and then repeat steps 5 through 7. ***(optional)***
9. Select **Done** to save your changes.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-102
- *Configure multiconstituent control window*, page 2-126
- *Select assay window*, page 2-100
- *Define data window*, page 2-127

Change multiconstituent control settings

Perform this procedure to change multiconstituent control settings when you determine that the quality control values for the ranges have changed.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-103
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change multiconstituent control settings:

1. Select **QC - Multiconstituent** from the **QC - Cal categories** list on the Configuration screen.
2. Select the desired multiconstituent control from the **Controls** list, and then select **F6 - Configure**.

   The Configure multiconstituent control window displays.
3. Select the **Lot number** list button, and then select the desired lot number.
4. Select the **Level** list button, and then select the desired level.
5. Select the desired assay(s) from the table, and then select **Define data**.

   The Define data window displays.

   a. Enter the desired values for the following level information in the appropriate data entry box:

      – Manufacturer mean ***(optional)***

      – Manufacturer 1 SD (standard deviation) ***(optional)***

      – Expected mean

– Expected 1 SD (standard deviation)

b. Select the **Default dilution** list button, and then select the desired dilution for the control level.

c. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 5a and 5b for each. ***(optional)***

d. Select **Done** to return to the Configure multiconstituent control window.

The assay-specific data displays in the table.

6. Select **Add level** to add the data to the level.
7. Select the **Level** list button, select another level, and then repeat steps 5 and 6. ***(optional)***
8. Select **Done** to save your changes.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-102
- *Configure multiconstituent control window*, page 2-126
- *Define data window*, page 2-127

Add an assay to a multiconstituent bar code SID

Perform this procedure to add an assay to a multiconstituent bar code SID.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-103
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To add an assay to a multiconstituent bar code SID:

1. Select **Multiconstituent bar code SID** from the **QC - Cal categories** list on the Configuration screen and then select **F6 - Configure**.

   The Configure multiconstituent bar code SID window displays.

2. Select the desired bar code SID from the **Bar codes** list.

   NOTE: The bar code SID is unique for each control level within a lot.

3. Select the desired assay(s) from the **Assays** list, and then select **Add**.
4. Select another bar code SID from the **Bar codes** list, and then repeat step 3. ***(optional)***
5. Select **Done** to save your changes.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-102
- *Configure multiconstituent bar code SID window*, page 2-129

Change multiconstituent bar code SID settings

Perform this procedure to change multiconstituent bar code SID settings.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-103
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change multiconstituent bar code SID settings:

1. Select **Multiconstituent bar code SID** from the **QC - Cal categories** list on the Configuration screen and then select **F6 - Configure**.

   The Configure multiconstituent bar code SID window displays.
2. Select the desired bar code SID from the **Bar codes** list.

   NOTE: The bar code SID is unique for each control level within a lot.
3. Select the **Control** list button, and then select the desired control.
4. Select the **Lot** list button, and then select the desired lot.
5. Select the **Level** list button, and then select the desired level.
6. Select the desired assay(s) from the **Assays** list, and then select **Add**.
7. Select another bar code SID from the **Bar codes** list, and then repeat steps 3 through 6. ***(optional)***
8. Select **Done** to save your changes.

Related information...

- *Configuration screen - QC - Cal settings view,* page 2-102
- *Configure multiconstituent bar code SID window,* page 2-129

Delete a multiconstituent bar code SID

Perform this procedure to delete a multiconstituent bar code SID.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-103
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To delete a multiconstituent bar code SID:

1. Select **Multiconstituent bar code SID** from the **QC - Cal categories** list on the Configuration screen and then select **F6 - Configure**.

   The Configure multiconstituent bar code SID window displays.

2. Select the desired bar code SID from the **Bar codes** list.
3. Select **Delete**.
4. Select another bar code SID from the **Bar codes** list, and then repeat step 3. ***(optional)***
5. Select **Done** to save your changes.

Related information...

- *Configuration screen - QC - Cal settings view,* page 2-102
- *Configure multiconstituent bar code SID window,* page 2-129

Delete a multiconstituent control level

Perform this procedure to delete a level from a multiconstituent control set.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-103
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To delete a multiconstituent control level:

1. Select **QC - Multiconstituent** from the **QC - Cal categories** list on the Configuration screen.
2. Select the desired multiconstituent control from the **Controls** list, and then select **F6 - Configure**.

   The Configure multiconstituent control window displays.
3. Select the **Lot number** list button, and then select the desired lot number.
4. Select the **Level** list button, and then select the level to delete.
5. Select **Delete level**.

   A confirmation message displays.
6. Select the **Level** list button, select another level, and then repeat step 5. ***(optional)***
7. Select **Done** to save your changes.

   NOTE: If there is only one level of a multiconstituent control configured and you delete the level, the control name is also deleted.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-102
- *Configure multiconstituent control window*, page 2-126

Change Westgard rule settings

Perform this procedure to change Westgard rule settings, which are used to assess quality control results.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-103
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change Westgard rule settings:

1. Select **Westgard rules** from the **QC - Cal categories** list on the Configuration screen.
2. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure Westgard window displays.

3. Select the desired rule from the **Rules** list.
4. Select the **Status** option to enable or disable the rule.

   NOTE: If you selected Westgard rules 2-2s 1R 1M, 2-2s 1R xM, 2-2s xR 1M, 4-1s 1M, or 4-1s xM, you must configure a run definition. See *Configure a QC run definition*, page 2-8.
5. Select the **Flag type** option for the rule.

   NOTE: Westgard rules configured as a warning do not produce a flag for patient results. Westgard rules configured as a failure produce a CNTL flag for patient results.
6. Repeat steps 3 through 5 to configure another rule for the displayed assay. ***(optional)***
7. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 3 through 6 for each. ***(optional)***
8. Select **Done** to save your changes.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-102
- *Configure Westgard window*, page 2-131
- *Westgard rule application*, page 5-207

Windows - Configuration screen - QC - Cal settings view

Windows you can access from the Configuration screen - QC - Cal settings view include:

- *Configure single analyte window*, page 2-125
- *Details for single analyte window*, page 2-125
- *Configure multiconstituent control window*, page 2-126
- *Define data window*, page 2-127
- *Details for multiconstituent control window*, page 2-128
- *Configure multiconstituent bar code SID window*, page 2-129
- *Details for multiconstituent bar code SID window*, page 2-130
- *Configure Westgard window*, page 2-131
- *Details for Westgard window*, page 2-132

Configure single analyte window

From the Configure single analyte window the system administrator can configure single analyte control settings, which include:

- Control level name, lot number, expiration date, default dilution, bar code SID (sample identification), and display order
- Manufacturer mean and 1 SD (standard deviation)
- Expected mean and 1 SD (standard deviation)

Figure 2.48: Configure single analyte window

For descriptions of these fields, see *Configure single analyte window field descriptions*, page Appendix E-132.

Related procedures...

- *Configure a new single analyte control*, page 2-104
- *Add a lot to a single analyte control*, page 2-113
- *Change single analyte control settings*, page 2-115
- *Delete a single analyte control level*, page 2-116
- *Change the default dilution for a single analyte control level*, page 2-117
- *Configure a bar code for a single analyte control level*, page 2-106

Details for single analyte window

From the Details for single analyte window you can view the current settings for single analyte controls, which include:

- Control level name, lot number, expiration date, default dilution, bar code SID (sample identification), and display order
- Manufacturer mean and 1 SD (standard deviation)
- Expected mean and 1 SD (standard deviation)

Figure 2.49: Details for single analyte window

For descriptions of these fields, see *Details for single analyte window field descriptions*, page Appendix E-133.

Related procedures...

- *View single analyte control settings*, page 2-110

Configure multiconstituent control window

From the Configure multiconstituent control window the system administrator can configure the settings for the control name, level name, lot number, and expiration date. Also, the system administrator can access windows to add or delete a level, define data for a level, and add or delete an assay from a level.

Figure 2.50: Configure multiconstituent control window

For descriptions of these fields, see *Configure multiconstituent control window field descriptions*, page Appendix E-134.

Related procedures...

- *Configure a new multiconstituent control*, page 2-106
- *Add an assay to a multiconstituent control*, page 2-117
- *Change multiconstituent control settings*, page 2-119
- *Delete a multiconstituent control level*, page 2-122

Define data window

From the Define data window the system administrator can configure the following settings for multiconstituent controls:

- Manufacturer mean and 1 SD (standard deviation)
- Expected mean and 1 SD (standard deviation)
- Default dilution

Figure 2.51: Define data window

For descriptions of these fields, see *Define data window field descriptions*, page Appendix E-135.

Related procedures...

- *Configure a new multiconstituent control*, page 2-106
- *Change multiconstituent control settings*, page 2-119
- *Add an assay to a multiconstituent control*, page 2-117

Details for multiconstituent control window

From the Details for multiconstituent control window you can view the current settings for multiconstituent controls, which include:

- Control level name, lot number, expiration date, default dilution, and display order
- Manufacturer mean and 1 SD (standard deviation)
- Expected mean and 1 SD (standard deviation)

Figure 2.52: Details for multiconstituent control window

For descriptions of these fields, see *Details for multiconstituent control window field descriptions*, page Appendix E-136.

Related procedures...

- *View multiconstituent control settings*, page 2-111

Configure multiconstituent bar code SID window

From the Configure multiconstituent bar code SID window, the system administrator can assign the bar code SID (sample identification) for a configured multiconstituent control. Also, the system administrator can add or delete assays from a bar code SID and delete a bar code SID.

Figure 2.53: Configure multiconstituent bar code SID window

For descriptions of these fields, see *Configure multiconstituent bar code SID window field descriptions*, page Appendix E-137.

Related procedures...

- *Configure a multiconstituent bar code SID*, page 2-108
- *Add an assay to a multiconstituent bar code SID*, page 2-120
- *Change multiconstituent bar code SID settings*, page 2-121
- *Delete a multiconstituent bar code SID*, page 2-122

Details for multiconstituent bar code SID window

From the Details for multiconstituent bar code SID window you can view the current settings for multiconstituent bar code SID (sample identification), which include control name, lot number, level name and assays.

Figure 2.54: Details for multiconstituent bar code SID window

For descriptions of these fields, see *Details for multiconstituent bar code SID window field descriptions*, page Appendix E-138.

Related procedures...

- *View multiconstituent bar code SID settings*, page 2-112

Configure Westgard window

From the Configure Westgard window, the system administrator can select the Westgard rules that are enabled for an assay and determine whether the failure of the rules is flagged as a Warning or a Failure.

Figure 2.55: Configure Westgard window

For descriptions of these fields, see *Configure Westgard window field descriptions*, page Appendix E-138.

Related procedures...

- *Configure a Westgard rule*, page 2-109
- *Change Westgard rule settings*, page 2-123

Details for Westgard window

From the Details for Westgard window you can view the Westgard rule(s) that are enabled for an assay and whether the failure of the rule(s) is flagged as a Warning or a Failure.

Figure 2.56: Details for Westgard window

For descriptions of these fields, see *Details for Westgard window field descriptions*, page Appendix E-138.

Related procedures...

- *View Westgard rule(s) settings*, page 2-112

Software installation and backup

Your Abbott field service representative must install the software before you can use your system.

You may need to install certain system software releases. Abbott Laboratories will notify you when you are to install a new software release.

Before you install system software, read the information that accompanies the ARCHITECT System Software CD-ROM.

Software installation and backup topics include:

- *Utilities screen - Software install view*, page 2-134
- *Utilities screen - Backup software view*, page 2-136

Utilities screen - Software install view

From the Software install view of the Utilities screen the general operator can view the current system software version. The system administrator can install system software.

Figure 2.57: Utilities screen - Software install view

For descriptions of these fields, see *Utilities screen - Software install view field descriptions*, page Appendix E-139.

To display this view of the screen, see *Access the Utilities screen - Software install view*, page 2-135.

Related procedures...

- *View the system software version*, page 2-135

Access the Utilities screen - Software install view

Perform this procedure to display the Software install view of the Utilities screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Utilities screen - Software install view:

1. Select **System** from the menu bar, and then select **Utilities**.

   The Utilities screen - Backup software view displays.

2. Select the **Software install** option.

   The Utilities screen - Software install view displays.

Related information...

- *Utilities screen - Software install view*, page 2-134

Procedure - Utilities screen - Software install view

The procedure you can perform from the Utilities screen - Software install view and its related window is:

- *View the system software version*, page 2-135

View the system software version

Perform this procedure to view the version information for the current system software.

Prerequisite	NA
Module status	Any
User access level	General operator / system administrator
Supplies	NA

To view the system software version:

1. Select **System** from the menu bar, and then select **Utilities**.

The Utilities screen - Backup software view displays.

2. Select the **Software install** option.

   The current software version displays.

Related information...

- *Utilities screen - Software install view*, page 2-134

Utilities screen - Backup software view

From the Backup view of the Utilities screen you can create a software backup, access a window to add a comment for the backup, and view backups that were previously created. If necessary, Abbott service and support personnel can restore your software from a backup.

Figure 2.58: Utilities screen - Backup software view

For descriptions of these fields, see *Utilities screen - Backup software view field descriptions*, page Appendix E-139.

To display this view of the screen, see *Access the Utilities screen - Backup software view*, page 2-137.

Related procedures...

- *Create a system software backup*, page 2-137

Access the Utilities screen - Backup software view

Perform this procedure to display the Backup software view of the Utilities screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Utilities screen - Backup software view:

Select **System** from the menu bar, and then select **Utilities**.

The Utilities screen - Backup software view displays.

Related information...

- *Utilities screen - Backup software view*, page 2-136
- *Create backup window*, page 2-138

Procedure - Utilities screen - Backup view

The procedure you can perform from the Utilities screen - Backup view and its related window is:

- *Create a system software backup*, page 2-137

Create a system software backup

Perform this procedure in accordance with your laboratory's data backup schedule and any time you perform module calibration procedures, edit configuration, add a new assay, or calibrate an assay.

The software backup procedure allows you to transfer ARCHITECT System information, such as module calibrations, configuration, and the database, to an alternative location. Backing up system information protects against data loss.

You can create and save a total of three software backups. Additional backups replace the existing backups starting with the oldest first.

Prerequisite	*Access the Utilities screen - Backup software view*, page 2-137
Module status	Offline, Stopped, or Ready
User access level	General operator
Supplies	NA

To create a system software backup:

1. Select **F4 - Create backup** from the Utilities screen.

   The Create backup window displays.

2. Enter a comment (up to 50 characters) in the **Comment** data entry box. ***(optional)***

3. Select **Done** to create the backup.

   A progress indicator displays until the process completes.

Related information...

- *Utilities screen - Backup software view*, page 2-136
- *Create backup window*, page 2-138

Windows - Utilities screen - Backup view

Windows you can access from the Utilities screen - Backup view include:

- *Create backup window*, page 2-138

Create backup window

From the Create backup window you can enter a comment for the software backup.

Figure 2.59: Create backup window

For descriptions of these fields, see *Create backup window field descriptions*, page Appendix E-139.

Related procedures...

- *Create a system software backup*, page 2-137

Assay file management

You need to install assay files when you install a new system and when new assays become available. Assay installation requires system administrator logon or higher.

Before you install assay files, read the information that accompanies the ARCHITECT System Assay CD-ROM.

Assay installation procedures include:

- *Install or delete an assay file*, page 2-139

Install or delete an assay file

Perform this SCC (system control center) diagnostic procedure to install or delete an assay file(s). The ARCHITECT System can store 200 *c* System assay files.

When deleting a *c* System photometric assay that is used as a reference assay, you must perform one of the following:

- Change the Use Cal Factor or Reference photometric assay parameter in the assay file to use a different assay
- Delete the assay

Prerequisite	*Access the Diagnostics screen*, page 10-595
Module status	Stopped, Warming, or Ready
User access level	System Administrator
Supplies	ARCHITECT System Assay CD-ROM

To install or delete an assay file(s):

1. Select the **Module 5** (SCC) option on the Diagnostics screen.
2. Select the **page down** scroll button, and then select the **Utilities** tab.

   The diagnostic procedures for the Utilities category display.
3. Select **6114 Install / Delete Assays** from the **DIAGNOSTICS PROCEDURES** list, and then select **F5 - Perform**.

   A confirmation message displays.
4. Select **OK** to perform the procedure.

   The Diagnostic perform window displays.
5. Follow the onscreen instructions to install or delete an assay(s) file.

NOTE: When handling CD-ROMs, only hold them by their edges. Avoid getting fingerprints on the CD-ROM surface. If the CD-ROM comes in contact with moisture the ink can smear or run.

6. Select **Done** to return to the Diagnostics screen.
7. Remove the CD-ROM from the drive if you installed an assay file(s). ***(optional)***

   NOTE: If you installed a new version of an existing assay file(s), see the information that accompanied the ARCHITECT System Assay CD-ROM for specific calibration and QC requirements.

   You may need to calibrate the assay(s) and run all levels of controls before reporting patient results. See *Create a calibration order*, page 6-7, *Create a control order (single analyte)*, page 5-95 or *Create a control order (multiconstituent)*, page 5-97.

Related information...

- *Diagnostics screen*, page 10-594
- *Diagnostic perform window*, page 10-599
- *SCC diagnostic categories*, page 10-615

Maintenance and diagnostic file management

You need to install maintenance and diagnostic files when you install a new system and when new maintenance and diagnostics files become available. Maintenance and diagnostic file installation requires system administrator logon or higher.

Before you install these files, read the information that accompanies the ARCHITECT System Maintenance and Diagnostics CD-ROM.

To install or delete maintenance or diagnostic files, see *Install or delete a maintenance or diagnostic procedure file*, page 2-141

Install or delete a maintenance or diagnostic procedure file

Perform this procedure to install or delete a procedure file(s).

Prerequisite	*Access the Diagnostics screen*, page 10-595
Module status	Stopped, Warming, or Ready
User access level	System Administrator
Supplies	ARCHITECT System Maintenance and Diagnostic CD-ROM

To install or delete a maintenance or diagnostic procedure file:

1. Select the **Module 5** (SCC) option on the Diagnostics screen.
2. Select the **page down** scroll button, and then select the **Utilities** tab.

   The diagnostic procedures for the Utilities category display.
3. Select **6115 Install / Delete Procedures** from the **DIAGNOSTICS PROCEDURES** list, and then select **F5 - Perform**.

   A confirmation message displays.
4. Select **OK** to perform the procedure.

   The Diagnostic perform window displays.
5. Follow the onscreen instructions to install or delete a procedure file(s).

   NOTE: When handling CD-ROMs, only hold them by their edges. Avoid getting fingerprints on the CD-ROM surface. If the CD-ROM comes in contact with moisture the ink can smear or run.

6. Select **Done** to return to the Diagnostics screen.
7. Remove the CD-ROM from the drive if you installed a procedure file(s). ***(optional)***

Related information...

- *Diagnostics screen*, page 10-594
- *Diagnostic perform window*, page 10-599
- *SCC diagnostic categories*, page 10-615

Introduction

An ARCHITECT System uses photometric, potentiometric, and/or CMIA (chemiluminescent microparticle immunoassay) technology to measure analyte concentrations in samples.

Principles of operation topics include:

- *i System principles of operation*, page 3-2

  Provides an overview of the technology, optical measurements, and protocols used for *i* System assay processing.

i System principles of operation

ARCHITECT *i* System principles of operation provides an overview of the CMIA (chemiluminescent microparticle immunoassay) technology, assay processing, and optical system used for analyte measurement.

i System principles of operation topics include:

- *CMIA method*, page 3-2
- *Assay processing (i 1000$_{SR}$)*, page 3-7

CMIA method

CMIA (chemiluminescent microparticle immunoassay) is a detection method used by an *i* System to measure and quantify analyte concentration.

CMIA method topics include:

- *CMIA technology and reaction sequence*, page 3-2
- *Optical measurements (i System)*, page 3-5

CMIA technology and reaction sequence

CMIA (chemiluminescent microparticle immunoassay) is a technology used to determine the presence of antigens, antibodies, and analytes in samples.

The reactants necessary for CMIA technology include:

- Paramagnetic microparticles coated with a capture molecule (antigen, antibody, or viral particle) specific for the analyte being measured
- Acridinium-labeled conjugate
- Pre-Trigger Solution and Trigger Solution

The following graphic symbols are used to represent these reactants.

Figure 3.1: Graphical symbols

Legend:

1. Anti-analyte microparticle with capture molecule
2. Sample analyte measured
3. Acridinium-labeled conjugate
4. Sample analyte not measured

A CMIA reaction sequence is the order of interactions between the analyte present in the sample and the reactants. A sequence is specific to the assay protocol.

The following two-step reaction sequence illustrates the basic principles of a reaction.

1. The pipettor dispenses microparticles (paramagnetic microparticles coated with capture molecules) into the sample in the reaction vessel. The vortexer mixes the reaction mixture.

Figure 3.2: Sample and microparticle binding

2. The reaction mixture incubates and the analyte present in the sample binds to the corresponding capture molecules on the microparticles forming the immune complex.
3. A magnet attracts the paramagnetic microparticles (bound to the specific analyte) to a wall of the reaction vessel. The wash zone manifold washes the reaction mixture to remove unbound materials. Further processing can now take place.

Figure 3.3: Magnet attracting paramagnetic microparticles

4. The pipettor dispenses a chemiluminescent acridinium-labeled conjugate. The conjugate binds to the immune complex to complete the reaction mixture.

Figure 3.4: Addition of the acridinium-labeled conjugate

5. The reaction mixture incubates.
6. The wash zone manifold washes the reaction mixture to remove unbound materials.
7. The pre-trigger nozzle dispenses Pre-Trigger Solution (hydrogen peroxide) and the CMIA optical system takes a background read. Pre-trigger performs the following functions:
   - Creates an acidic environment to prevent early release of energy (light emission).
   - Helps to keep microparticles from clumping.
   - Splits acridinium dye off the conjugate bound to the microparticle complex. This action prepares the acridinium dye for the next step.

8. The trigger nozzle dispenses Trigger Solution (sodium hydroxide) to the reaction mixture. The acridinium undergoes an oxidative reaction when exposed to peroxide and an alkaline solution. This reaction causes the chemiluminescent reaction to occur. N-methylacridone forms and releases energy (light emission) as it returns to its ground state.
9. The CMIA optical system measures the chemiluminescent emission (activated read) over a predefined time period to quantitate the analyte concentration or to determine qualitative interpretations for index (cutoff) assays.

Related information...

- *Assay processing for One step 25 (i 1000$_{SR}$)*, page 3-9
- *Assay processing for Two step 18-4 (i 1000$_{SR}$)*, page 3-11
- *Assay processing for One step 18 (i 1000$_{SR}$)*, page 3-12
- *Assay processing for Two step 11-4 (i 1000$_{SR}$)*, page 3-13
- *Pretreatment (i 1000$_{SR}$)*, page 3-14
- *STAT assay processing for One step 11 (i 1000$_{SR}$)*, page 3-16
- *STAT assay processing for Two step 4-4 (i 1000$_{SR}$)*, page 3-18
- *STAT assay processing for One step 4 (i 1000$_{SR}$)*, page 3-20

Optical measurements (*i* System)

Optical measurement is the process an *i* System uses to obtain RLU (relative light unit) readings, and then convert them to assay-specific analyte concentration units or qualitative interpretations for index (cutoff) assays.

Optical measurement topics include:

- *Optical system and measurement sequence (i System)*, page 3-5
- *Data reduction calculation (i System)*, page 3-7

Optical system and measurement sequence (*i* System)

The optical system on the processing module is a system that directs the chemiluminescent emission from the reaction vessel to the CMIA (chemiluminescent micropartical immunoassay) reader.

Figure 3.5: Optical system

Legend:

1. Photomultiplier tube (PMT)
2. CMIA reader
3. Light pipe
4. Trigger Solution delivery nozzle
5. Reaction vessel
6. Magnet
7. CMIA shutter assembly

Measurement occurs as the optical system performs the following:

1. Closes the shutter around the reaction vessel to seal off ambient light
2. Turns on the high voltage to the PMT (photomultiplier tube), takes a background read (Pre-Trigger Solution has already been dispensed), and transfers the data to the CPU (central processing unit)
3. Dispenses Trigger Solution into the reaction vessel

   NOTE: This solution initiates the chemiluminescent reaction that results in the emission of photons of light.
4. Uses the light pipe to collect the emitted light and directs it to the PMT, which is in the CMIA (chemiluminescent microparticle immunoassay) reader
5. Takes the activated read by collecting the emitted photons of light

6. Transfers the count data to the CPU

   NOTE: The chemiluminescent light produced during this reaction is directly or indirectly proportional to the amount of analyte present in the sample, depending on the type of assay.

7. Sums the signal over a defined time period to yield the RLU (relative light unit)
8. Turns off the high voltage PMT
9. Opens the shutter

Data reduction calculation (*i* System)

Data reduction calculation is the method used to calculate the final read in RLUs (relative light units). The calculation is:

Final Read (RLU) = Activated Read - Background

In performing the data reduction calculation the system:

1. Sums the signal measured by the CMIA optical system
2. Verifies that:
   - Background counts fall within an acceptable range
   - Activated read profile falls within an acceptable set of ranges
3. Subtracts the background counts from the activated read counts to calculate the final read and converted it to concentration units

Related information...

- *i System data reduction methods*, page Appendix C-2

Assay processing (*i* 1000_{SR})

Many kinds of assay processing activities take place between sample aspiration and the final read. The movement of the process path, the timing of these movements, and the position of the components allow each reaction activity to occur at a specified time and location.

The following illustration shows the components surrounding the process path that are used for assay measurements.

Figure 3.6: System assay processing components (i 1000$_{SR}$)

Legend:

1. RV Loader assembly (RVL)
2. Upper waste manifold (UWM)
3. Wash zone manifold (WM)
4. Wash zone outlet diverter (WZOD)
5. Pipettor wash (PW)
6. RV access door (RVA)
7. Vortexer 2 (VTX2)
8. Pipettor (P)
9. Pre-trigger/trigger manifold (PT/T)
10. CMIA reader (CMIA)
11. Vortexer 1 (VTX1)
12. Process path (PP)
13. Unload diverter (ULD)
14. Unloader (UL)
15. Process path motor (PPM)
16. Wash zone inlet diverter (WZID)
17. Pipettor syringe (PS)

i System technology, known as Chemiflex technology, provides you with a variety of protocols or assay processing methods. Depending on the type of protocol, assay processing steps occur at different positions on the process path.

Related information...

- *Assay processing for One step 25 (i 1000$_{SR}$)*, page 3-9

- *Assay processing for Two step 18-4 (i 1000_{SR})*, page 3-11
- *Assay processing for One step 18 (i 1000_{SR})*, page 3-12
- *Assay processing for Two step 11-4 (i 1000_{SR})*, page 3-13
- *Pretreatment (i 1000_{SR})*, page 3-14
- *STAT assay processing for One step 11 (i 1000_{SR})*, page 3-16
- *STAT assay processing for Two step 4-4 (i 1000_{SR})*, page 3-18
- *STAT assay processing for One step 4 (i 1000_{SR})*, page 3-20

Assay processing for One step 25 (*i* 1000_{SR})

A One step 25 assay protocol is a method of assay processing in which the sample and all required reagents are added prior to washing the microparticles. Total processing time for a One step 25 assay is 29 minutes including a 25 minute incubation time. See *Pretreatment (i 1000_{SR})*, page 3-14, for additional processing required by pretreatment assays.

The following steps describe *i* 1000_{SR} operation and CMIA (chemiluminescent microparticle immunoassay) reaction that occurs during One step 25 assay processing.

Figure 3.7: Assay processing for One step 25 (i 1000$_{SR}$)

Inner process path track.

1. The pipettor dispenses the sample into the Reaction Vessel (RV) at position 1.
2. The pipettor dispenses the microparticles and acridinium-labeled conjugate into the RV at position 2.
3. Vortexer 1 mixes the sample, microparticles, and conjugate at position 3.
4. The reaction mixture incubates for 25 minutes. (3 complete revolutions around the process path track)

   Outer process path track:

5. The wash zone inlet diverter directs the RV with the reaction mixture to the outer track. The wash zone manifold washes the reaction mixture in the RV and then removes unbound materials.
6. Pre-trigger is dispensed into the RV and Vortexer 2 mixes the reaction mixture.
7. The CMIA optical system takes a background read and then Trigger is dispensed into the RV with the reaction mixture. The CMIA optical system takes an activated read.

8. The Unloader removes the RV and disposes of it in the solid waste container.

Assay processing for Two step 18-4 (*i* 1000_{SR})

A Two step 18-4 assay protocol is a method of sample processing in which the sample and some reagents are added prior to washing the microparticles. The conjugate reagent is added after the microparticles are washed. Total processing time for a Two step 18-4 assay is 29 minutes including a 22 minute incubation time. See *Pretreatment (i 1000_{SR})*, page 3-14, for additional processing steps required by pretreatment assays.

The following steps describe the *i* 1000_{SR} operation and CMIA (chemiluminescent microparticle immunoassay) reaction that occurs during Two step 18-4 assay processing.

Figure 3.8: Assay processing for Two step 18-4 (i 1000_{SR})

Inner process path track:

1. The pipettor dispenses the sample into the Reaction Vessel (RV) at position 1.

2. The pipettor dispenses the microparticles into the RV at position 2.
3. Vortexer 1 mixes the sample and microparticles at position 3.
4. The reaction mixture incubates for 18 minutes. (2 complete revolutions around the process path track)

   Outer process path track:

5. The wash zone inlet diverter directs the RV with the reaction mixture to the outer track. The wash zone manifold washes the reaction mixture in the RV and then removes unbound materials.

   Inner process path track:

6. The wash zone outlet diverter directs the RV back to the inner track and acridinium-labeled conjugate is added to the RV in position 2.
7. Vortexer 1 mixes the reaction mixture.
8. The reaction mixture incubates for 4 minutes.

   Outer process path track:

9. The wash zone inlet diverter directs the RV with the reaction mixture to the outer track for a second wash.
10. Pre-trigger is dispensed into the RV and Vortexer 2 mixes the reaction mixture.
11. The CMIA optical system takes a background read and then trigger is dispensed into the RV with the reaction mixture. The CMIA optical system takes an activated read.
12. The Unloader removes the RV and disposes of it in the solid waste container.

Assay processing for One step 18 (*i* 1000_{SR})

A One step 18 assay protocol is a method of assay processing in which the sample and all required reagents are added prior to washing the microparticles. Total processing time for a One step 18 assay is 22 minutes including an 18 minute incubation time. See *Pretreatment (i 1000_{SR})*, page 3-14, for additional processing required by pretreatment assays.

The following steps describe the *i* 1000_{SR} operation and CMIA (chemiluminescent microparticle immunoassay) reaction that occurs during One step 18 assay processing.

Inner process path track:

1. The pipettor dispenses the sample into the Reaction Vessel (RV) at position 1.
2. The pipettor dispenses the microparticles and acridinium-labeled conjugate into the RV at position 2.
3. Vortexer 1 mixes the sample, microparticles, and conjugate at position 3.
4. The reaction mixture incubates for 18 minutes. (2 complete revolutions around the process path track.)

   Outer process path track:

5. The wash zone inlet diverter directs the RV with the reaction mixture to the outer track. The wash zone manifold washes the reaction mixture in the RV and then removes unbound materials.
6. Pre-trigger is dispensed into the RV and Vortexer 2 mixes the reaction mixture.
7. The CMIA optical system takes a background read and then Trigger is dispensed into the RV with the reaction mixture. The CMIA optical system takes an activated read.
8. The Unloader removes the RV and disposes of it in the solid waste container.

Assay processing for Two step 11-4 (*i* 1000_{SR})

A Two step 11-4 assay protocol is a method of sample processing in which the sample and some reagents are added prior to washing the microparticles. The conjugate reagent is added after the microparticles are washed. Total processing time for a Two step 11-4 assay is 22 minutes including a 15 minute incubation time. See *Pretreatment (i 1000_{SR})*, page 3-14, for additional processing steps required by pretreatment assays.

The following steps describe the *i* 1000_{SR} operation and CMIA (chemiluminescent microparticle immunoassay) reaction that occurs during Two step 11-4 assay processing.

Inner process path track:

1. The pipettor dispenses the sample into the Reaction Vessel (RV) at position 1.
2. The pipettor dispenses the microparticles into the RV at position 2.
3. Vortexer 1 mixes the sample and microparticles at position 3.
4. The reaction mixture incubates for 11 minutes. (1 complete revolution around the process path track.)

   Outer process path track:

5. The wash zone inlet diverter directs the RV with the reaction mixture to the outer track. The wash zone manifold washes the reaction mixture in the RV and then removes unbound materials.

   Inner process path track:

6. The wash zone outlet diverter directs the RV back to the inner track and acridinium-labeled conjugate is added to the RV in position 2.
7. The reaction mixture incubates for 4 minutes.

   Outer process path track:

8. The wash zone inlet diverter directs the RV with the reaction mixture to the outer track for a second wash.
9. Pre-trigger is dispensed into the RV and Vortexer 2 mixes the reaction mixture.
10. The CMIA optical system takes a background read and then trigger is dispensed into the RV with the reaction mixture. The CMIA optical system takes an activated read.
11. The Unloader removes the RV and disposes of it in the solid waste container.

Pretreatment (*i* 1000_{SR})

Pretreatment is the performance of additional steps prior to performing one-step or two-step assay protocols. An *i* 1000_{SR} automatically performs these steps if pretreatment is required.

Depending on the type of pretreatment processing, incubation times and number of pretreatment reagents vary. For information on processing activities for specific pretreatment types, see

- *Processing for Pretreatment 7 (i 1000_{SR})*, page 3-15

- *Processing for Pretreatment 7-7 (i 1000$_{SR}$)*, page 3-15
- *Processing for Pretreatment 14 (i 1000$_{SR}$)*, page 3-16

Processing for Pretreatment 7 (*i* 1000$_{SR}$)

Performance of Pretreatment 7 requires an additional 7 minutes. During pretreatment, the system completes the following steps.

Inner process path track:

1. The pipettor dispenses sample into the Reaction Vessel (RV) at position 1.
2. The pipettor dispenses the pretreatment reagents to the sample in the RV at position 2.
3. The reaction mixture incubates 7 minutes. (One complete revolution around the process path track)
4. At the RV in position 2 the pipettor transfers the pretreated sample to a new RV in position 1. The one-step or two-step assay processing protocol proceeds.
5. The Unload diverter unloads the RV used for pretreatment and discards it into the solid waste container.

NOTE: For more information on assay-specific pretreatment processing protocols, see the *i* System assay-package insert.

Processing for Pretreatment 7-7 (*i* 1000$_{SR}$)

Performance of Pretreatment 7-7 requires an additional 14 minutes. During pretreatment, the system completes the following steps.

Inner process path track:

1. The pipettor dispenses the sample into the Reaction Vessel (RV) at position 1.
2. The pipettor dispenses the pretreatment reagents to the sample in the RV at position 2.
3. The reaction mixture incubates 7 minutes. (1 complete revolution around the process path track.)
4. At the RV in position 2 the pipettor transfers the pretreated sample to a new RV in position 1.
5. The pipettor dispenses the pretreatment reagents to the sample in the RV at position 2.

6. The reaction mixture incubates 7 minutes. (1 complete revolution around the process path track)
7. At the RV in position 2 the pipettor transfers the pretreated sample to a new RV in position 1. The one-step or two-step assay processing protocol proceeds.
8. The Unload diverter unloads the RVs used for pretreatment and discards them into the solid waste container.

NOTE: For more information on assay-specific pretreatment processing protocols, see the *i* System assay-package insert.

Processing for Pretreatment 14 (*i* 1000$_{SR}$)

Performance of Pretreatment 14 requires an additional 14 minutes. During pretreatment, the system completes the following steps.

Inner process path track:

1. The pipettor dispenses the sample into the Reaction Vessel (RV) at position 1.
2. The pipettor dispenses the pretreatment reagents to the sample in the RV at position 2.
3. The reaction mixture incubates 7 minutes (1 complete revolution around the process path track).
4. At the RV in position 2 the pipettor transfers the pretreated sample to a new RV in position 1.
5. The reaction mixture incubates 7 minutes (1 complete revolution around the process path track).
6. At the RV in position 2 the pipettor transfers the pretreated sample to a new RV in position 1. The one-step or two-step assay processing protocol proceeds.
7. The Unload diverter unloads the RVs used for pretreatment and discards them into the solid waste container.

NOTE: For more information on assay-specific pretreatment processing protocols, see the *i* System assay-package insert.

STAT assay processing for One step 11 (*i* 1000$_{SR}$)

A One step 11 assay protocol, like a One step 25 assay protocol, is a method of sample processing in which the sample and all required reagents are added prior to washing the microparticles. A One step 11

assay, however, has a shorter incubation time. After the sample is aspirated the processing time for a One step 11 assay is 15 minutes including an 11 minute incubation time.

The following steps describe the *i* 1000_{SR} operation and CMIA (chemiluminescent microparticle immunoassay) reaction that occurs during One step 11 assay processing.

Figure 3.9: STAT assay processing for One step 11 (i 1000_{SR})

Inner process path track:

1. The pipettor dispenses the sample into the RV (reaction vessel) at position 1.
2. The pipettor dispenses the microparticles and acridinium-labeled conjugate into the RV at position 2.
3. Vortexer 1 mixes the sample, microparticles and conjugate at position 3.
4. The reaction mixture incubates for 11 minutes. (One complete revolution around the process path track)

   Outer process path track:

5. The wash zone inlet diverter directs the reaction mixture to the outer track. The wash zone manifold washes the reaction mixture in the RV and then removes unbound materials.

6. Pre-trigger is dispensed into the RV and Vortexer 2 mixes the reaction mixture.
7. The CMIA optical system takes a background read and then trigger is dispensed into the RV with the reaction mixture. The CMIA optical system takes an activated read.
8. The Unloader removes the RV and disposes of it in the solid waste container.

STAT assay processing for Two step 4-4 (*i* 1000_{SR})

A Two step 4-4 assay protocol, like a Two step 18-4 assay protocol, is a method of sample processing in which the sample and some reagents are added prior to washing the microparticles. The conjugate reagent is added after the microparticles are washed. A Two step 4-4 assay, however, has a shorter incubation time. After the sample is aspirated the processing time for a Two step 4-4 assay is 15 minutes including an 8 minute incubation time.

The following steps describe the *i* 1000_{SR} operation and CMIA (chemiluminescent microparticle immunoassay) reaction that occurs during Two step 4-4 assay processing.

Figure 3.10: STAT assay processing for Two step 4-4 (i 1000$_{SR}$)

Inner process path track:

1. The pipettor dispenses the sample into the Reaction Vessel (RV) at position 1.
2. The pipettor dispenses the microparticles into the RV at position 2.
3. Vortexer 1 mixes the sample and microparticles at position 3.
4. The reaction mixture incubates for 4 minutes.

   Outer process path track:

5. The wash zone inlet diverter directs the RV with the reaction mixture to the outer track. The wash zone manifold washes the reaction mixture in the RV and then removes unbound materials.

   Inner process path track:

6. The wash zone outlet diverter directs the RV back to the inner track and acridinium-labeled conjugate is added to the RV in position 2.
7. Vortexer 1 mixes the reaction mixture.

8. The reaction mixture incubates for 4 minutes.

   Outer process path track:

9. The wash zone inlet diverter directs the RV with the reaction mixture to the outer track for a second wash.
10. Pre-trigger is dispensed into the RV and Vortexer 2 mixes the reaction mixture.
11. The CMIA optical system takes a background read and then trigger is dispensed into the RV with the reaction mixture. The CMIA optical system takes an activated read.
12. The Unloader removes the RV and disposes of it in the solid waste container.

STAT assay processing for One step 4 (*i* 1000_{SR})

A One step 4 assay protocol, like a One step 25 assay protocol, is a method of sample processing in which the sample and all required reagents are added prior to washing the microparticles. A One step 4 assay, however, has a shorter incubation time. Total processing for a One step 4 assay is 8 minutes including a 4 minute incubation time.

The following steps describe the *i* 1000_{SR} operation and CMIA (chemiluminescent microparticle immunoassay) reaction that occurs during One step 4 assay processing.

Inner process path track:

1. The pipettor dispenses the sample into the Reaction Vessel (RV) at position 1.
2. The pipettor dispenses the microparticles and acridinium-labeled conjugate into the RV at position 2.
3. Vortexer 1 mixes the sample, microparticles and conjugate at position 3.
4. The reaction mixture incubates for 4 minutes.

   Outer process path track:

5. The wash zone inlet diverter directs the reaction mixture to the outer track. The wash zone manifold washes the reaction mixture in the RV and then removes unbound materials.
6. Pre-trigger is dispensed into the RV and Vortexer 2 mixes the reaction mixture.

7. The CMIA optical system takes a background read and then Trigger is dispensed into the RV with the reaction mixture. The CMIA optical system takes an activated read.
8. The Unloader removes the RV and disposes of it in the solid waste container.

Introduction

Before attempting to operate your system, you may want to familiarize yourself with its performance characteristics, throughput capabilities and capacities, specifications, and requirements for samples, temperature, waste, and clearance.

You may also want to familiarize yourself with the specifications and requirements for the ARCHITECT ARM (Automatic Reconstitution Module) accessory, if your laboratory has chosen to use this accessory.

Performance characteristics and specifications topics include:

- *Performance characteristics*, page 4-2

  Describes the operational mode, detection technique, and pipetting capabilities of the ARCHITECT System.

- *Specifications and requirements*, page 4-3

  Describes the specifications and system capacities for the ARCHITECT System.

- *ARM specifications and requirements*, page 4-20

  Describes the specifications and requirements for the ARCHITECT ARM accessory.

NOTE: For assay information, see your reagent manufacturer's documentation, such as the package insert or reagent application sheet.

Performance characteristics

Performance characteristics include the operational mode, detection technology, and pipetting capabilities of the system.

Performance characteristics topics include:

- *i System performance characteristics*, page 4-2

i System performance characteristics

Performance characteristics representative of an *i* System are presented in the following table.

Table 4.1: i System performance characteristics

Operational mode	Random and continuous access, priority loading
Detection technology	CMIA (Chemiluminescent Microparticle Immunoassay)
Emission measurement	The CMIA optical assembly measures the chemiluminescent emission from the reaction vessel and outputs data corresponding to the quantity of emission detected.
Pipetting capability	Robotic precision with clot detection

Specifications and requirements

The system specifications and requirements presented are related to the proper installation and operation of the ARCHITECT System.

Specifications and requirements topics include:

- *General specifications*, page 4-3
- *System capacities*, page 4-5
- *Physical specifications*, page 4-7
- *Weight and force specifications*, page 4-7
- *System clearances*, page 4-8
- *Electrical specifications and requirements*, page 4-9
- *Electrical safety parameters*, page 4-11
- *Water and liquid waste specifications and requirements*, page 4-11
- *External waste pump specifications and requirements*, page 4-11
- *Environmental specifications and requirements*, page 4-13
- *Computer and interface specifications*, page 4-14
- *Printer specifications and requirements*, page 4-15
- *Bar code label requirements*, page 4-16

General specifications

General specifications include information about throughput for each processing module, sample types that can be used on the ARCHITECT System, the primary components of the system, and the operator interface components.

General specifications topics include:

- *ARCHITECT System specifications*, page 4-4
- *i System processing module specifications*, page 4-4

ARCHITECT System specifications

General specifications for the ARCHITECT System are presented in the following table.

Table 4.2: System specifications

Primary components	System control center, sample handler, and processing module
Operator interface	• System control center • Touch-screen monitor • Keyboard and pointing device • Optional bar code scanner
Throughput *i* 1000SR: • General • Time to first result	 Up to 100 tests per hour for One step 11 STAT protocol 29 minutes (non-pretreatment) 36 to 43 minutes (pretreatment) 18 minutes (STAT protocol)
Sample types	Serum, plasma, or other body fluids. For more information, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
Sample volume required	See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
Sample probe carryover performance	Less than 0.1 ppm
Quality control	Levey-Jennings and Westgard rules
Onboard data storage	Hard drive
Stored data protection	Optional UPS (uninterruptible power supply)

i System processing module specifications

General specifications for an *i* System are presented in the following table.

Table 4.3: i System processing module specifications

Bar code readers: • *i* 1000_{SR} with RSH (1)	 RSH
Dispensing volume: • Sample • Reagent (*i* 1000_{SR})	 2 - 200 µL in 1 µL increments 10 - 90 µL in 1 µL increments

Table 4.3: i System processing module specifications (continued)

• Pre-Trigger Solution • Trigger Solution	100 µL per test 300 µL per test
Temperature: • Onboard reagent refrigerator • Reaction mixture	 2°C to 12°C 36.4°C to 37.6°C
Average liquid waste output: • *i* 1000_{SR}	 1.5 L per hour

System capacities

System capacities include storage information for the SCC (system control center), processing modules, and sample handlers.

System capacities topics include:

- *SCC onboard data storage capacities*, page 4-5
- *i System processing module capacities*, page 4-6
- *Sample handler capacities*, page 4-6

SCC onboard data storage capacities

Capacities for the SCC (system control center) are presented in the following table.

Table 4.4: Onboard data storage capacities

Reagent kits	3,000 kits
Message history log	12,000 messages
Temporary messages	200 messages
Printer spool	10 print requests
QC results	35,000 results
Released results: • SCC with Pentium IV • SCC with Pentium II or III	 50,000 results 25,000 results
Unreleased results: • Patient • QC • Calibrator	 8,000 test orders, tests in process, and/or exceptions 2,000 test orders, tests in process, and/or exceptions 1,000 test orders, tests in process, and/or exceptions
Calibration curves (Inactive)	Up to 3 months

i System processing module capacities

Capacities for an *i* System processing modules are presented in the following table.

Table 4.5: i System processing module capacities

Bulk solutions:	
• Pre-Trigger Solution	975 mL
• Trigger Solution	975 mL
• Wash buffer reservoir volume (*i* 1000_{SR})	12 L
• Wash buffer reservoir weight (*i* 1000_{SR})	30 lbs. (14 kg)
Reagent carousel	25* reagent positions available for loading 100 or 500** test kits *Does not include use of reagent kits with > three reagent bottles **i 2000/i 2000_{SR} only
Process path:	
***i* 1000_{SR}**	23 positions
RVs (reaction vessels):	
• Total volume	1000 µL
• Maximum reaction mixture volume	400 µL
RV hopper:	
• *i* 1000_{SR}	360 RVs
Solid waste:	
• Container capacity (*i* 1000_{SR})	1000 RVs
Liquid waste container (*i* 1000_{SR})	
• Volume	10 L
• Weight	22 lbs (10 kg)
Biohazard bag size:	
• *i* 1000_{SR}	24" X 23" (60.9 cm X 58.42 cm)

Sample handler capacities

Capacities for the sample handlers are presented in the following table.

Table 4.6: Sample handler capacities

Sample carriers	5 positions per carrier
RSH (priority sections)	0-7 sample carriers (configurable)
RSH (routine sections)	Up to 13 sample carriers (configurable)

Physical specifications

Physical specifications for the ARCHITECT System are presented in the following table. Measurements for the processing modules and sample handlers do not include the SCC (system control center) or any optional accessories.

Table 4.7: Physical specifications

Module	Depth	Width	Height	Weight
SCC	21" (53.3 cm)	15.5" (39.4 cm)	22" (55.9 cm)	55 lbs. (25 kg)
c 16000 processing module and sample handler	49" (124.5 cm)	79" (200.6 cm)	48" (121.9 cm)	1545 lbs. (701 kg)
i 1000_{SR} processing module and sample handler	30" (76.2 cm)	59" (149.9 cm)	49" (124.5 cm)	636 lbs (288 kg)

Weight and force specifications

Weight and force specifications are presented in the following tables.

NOTE: Specifications also apply to processing modules with LAS sample handlers.

Figure 4.1: i 1000$_{SR}$ footprint

Table 4.8: ARCHITECT i 1000$_{SR}$ weight and force specifications

Total weight	636 lbs. (288 kg)
Weight at each foot (Approximate weight on level floor)	1. 150 lbs. (68 kg) 2. 190 lbs. (86 kg) 3. 128 lbs. (58 kg) 4. 168 lbs. (76 kg)
Force at each foot	1. 65 lbs./sq. in. (4.53 kg/sq. cm) 2. 82 lbs./sq. in. (5.74 kg/sq. cm) 3. 55 lbs./sq. in. (3.87 kg/sq. cm) 4. 72 lbs./sq. in. (5.07 kg/sq. cm)

System clearances

System clearances include information about the space required around the system and processing module(s) so you can safely operate and service an ARCHITECT System.

System clearance topics include:

- *i 1000$_{SR}$ processing module with RSH clearances*, page 4-9

i 1000$_{SR}$ processing module with RSH clearances

Clearance for the *i* 1000$_{SR}$ processing module with RSH (robotic sample handler) are presented in the following table.

Table 4.9: i 1000$_{SR}$ processing module with RSH clearances

Power cord length (to allow positioning of the module so that it is not difficult to disconnect the power cord)	8' (2.5 m)
Left clearance	3" (7.6 cm)
Right clearance	22" (55.9 cm)
Rear clearance (for safety access to main circuit breakers, cooling, airflow, cable and tubing routing, maintenance, and traffic)	20" (50.8 cm)
Clearance above (to open processing center cover)	20" (50.8 cm) 72" (182.9 cm) from floor
Front clearance (to open front doors and to access, remove, and replace bulk solutions and waste)	34" (86.4 cm)

Electrical specifications and requirements

Electrical specifications and requirements include information about the circuits, outlet types, and outlet requirements.

Electrical requirements topics include:

- *SCC electrical requirements*, page 4-9
- *i System processing module with sample handler electrical specifications and requirements*, page 4-10

SCC electrical requirements

Electrical requirements for the SCC (system control center) are presented in the following table.

Table 4.10: Electrical requirements - SCC

AC power: • Low voltage option	• Voltage: 90 - 132 VAC • Frequency: 47 - 63 Hz

Table 4.10: Electrical requirements - SCC (continued)

• High voltage option	• Voltage: 180 - 264 VAC • Frequency: 47 - 63 Hz
Circuit breaker that can be reset: • Low voltage option • High voltage option	 14 amp 12 amp
Outlet (one) • North America • International	 NEMA 5-15 three prong (120 VAC, 15A) IEC 320 M grounded (220 - 240 VAC)
Power cord length	6' (1.8 m)

i System processing module with sample handler electrical specifications and requirements

Electrical specifications and requirements for an *i* System processing module with its sample handler are presented in the following table.

Table 4.11: Electrical specifications and requirements - i System processing module with sample handler

AC power • *i* 1000_{SR}	 • Voltage: 110 - 120 or 200 - 240 ± 10% VAC (99 - 264 VAC) Frequency: 50 or 60 Hz Self adjusting
Circuit breaker that can be reset (*i* 1000_{SR}): One breaker for each processing module. • 110 Volts • 220 Volts	 20 amp 10 amp
Outlet (*i* 1000_{SR}): Outlet within 7' (2.1m) of the *i* 1000_{SR} processing module. • North America • International	 NEMA L5-20R (125 VAC, 20A, twist lock) NEMA L6-20R (250 VAC, 20A, twist lock) Country specific based on voltage
Power cord length • *i* 1000_{SR}	 8' (2.5 m)
Rated power consumption: • *i* 1000_{SR}	 1760 volt amp (1.76 kVA) maximum

Table 4.11: Electrical specifications and requirements - i System processing module with sample handler (continued)

Estimated heat output	
• *i* 1000_{SR}	1500 watts

Electrical safety parameters

Electrical safety parameters for an ARCHITECT System are presented in the following table.

Table 4.12: Electrical safety parameters

Installation category	II (Overvoltage category)
Pollution degree	2

NOTE: Electrical safety parameters have no bearing on performance.

Water and liquid waste specifications and requirements

Water and liquid waste specifications and requirements include information about water quality, water consumption, the drain port location, and drain capacity.

Water and liquid waste specifications and requirements topics include:

- *i System processing module water and liquid waste requirements*, page 4-11

i System processing module water and liquid waste requirements

Water and liquid waste requirements for an *i* System processing module are presented in the following table.

Table 4.13: Water and liquid waste requirements - i System processing module

Water quality (NCCLS Type II):	
• Maximum microbial contamination	< 1000 colony-forming units/mL
• Minimum resistivity	1 Meg Ohm - cm @ 25°C (77°F)
Liquid waste	Gravity flow to drain at floor level or external pump to sink

External waste pump specifications and requirements

The external waste pump is optional for use with the *c* System and/or *i* System when a floor drain is unavailable and a sink drain is used. This accessory pumps waste from the processing module(s) to an elevated drain located in a sink.

External waste pump specifications and requirements topics include:

- *External waste pump general specifications*, page 4-12
- *External waste pump electrical specifications and requirements*, page 4-12
- *External waste pump clearances*, page 4-13

External waste pump general specifications

Physical specifications for the external waste pump are presented in the following table.

Table 4.14: External waste pump general specifications

Depth	13" (33 cm)
Width	13" (33 cm)
Height	13" (33 cm)
Weight	18 lbs. (8 kg)

External waste pump electrical specifications and requirements

Electrical specifications and requirements for the external waste pump are presented in the following table.

NOTE: You must manually set the voltage selector switch.

Table 4.15: Electrical specifications and requirements - external waste pump

AC power:	
• North America	• Voltage: 115 ± 10% VAC (104 - 126 VAC) • Frequency: 60 Hz (47 - 63 Hz)
• International	• Voltage: 220 ± 10% VAC (207 - 253 VAC) • Frequency: 50 Hz (47 - 63 Hz)
Circuit breaker that can be reset:	
• North America	1.6 amp
• International	0.8 amp
Outlet (one):	
• North America	NEMA 5-15 three prong (120 VAC, 15A)
• International	IEC 320 M grounded (220 - 240 VAC)

External waste pump clearances

Clearances for the external waste pump are presented in the following table.

Table 4.16: External waste pump clearances

Clearance on either side (for access)	5" (12.7 cm)
Clearance in front (for access)	9" (22.9 cm)
Clearance in rear (for access)	9" (22.9 cm)

Environmental specifications and requirements

Environmental specifications and requirements for the ARCHITECT System are presented in the following table.

Table 4.17: Environmental specifications and requirements

Heat dissipation (including the system control center and sample handler): • *i* 1000_{SR}	5119 BTU/hour
Noise level	Does not exceed 85 dB during normal operation above a reference sound pressure of 20 μ Pa.
Temperature, operating	15°C to 30°C (59°F to 86°F)
Humidity	10% - 85% (non-condensing) RH (relative humidity) at 25°C (77°F) **NOTE:** For SCC (system control center) humidity requirements refer to the component manufacturers' information.
Altitude	≤ 8500 ft. (2590.7 m)
Placement	• For indoor use. Do not place in direct sunlight. • Avoid drafts from heating and cooling vents.
Storage and Transport	• Keep dry • Fragile - Handle with care

Computer and interface specifications

Computer and interface specifications for the SCC (system control center) of an ARCHITECT System are presented in the following table.

Table 4.18: Computer and interface specifications

Processor	Minimum: Intel Pentium II; 350 MHz, 640 Mb RAM
Hard drive (2):	
• C drive	Minimum: 10 Gbyte
• D drive	Minimum: 10 Gbyte
Floppy drive	3.5", 1.44 Mbyte
CD-RW drive:	
• Minimum read speed	24x
• Minimum write speed	8x
Operator interface:	
• Color monitor	Standard VGA connection
• Touchscreen	"Surface Wave" glass, USB connection (*i* 1000_{SR})
• Keyboard	Standard PC-style 101-key system
• Pointing device	PS-2 interface
Optional external modem:	
• Speed	Minimum 28.8 bps
• PC interface	Integrated RS-232
• Cabling	RS-232 25-pin serial cable, RJ-11 phone cord and power adapter cable
• Telephone line	Direct line (no switchboard interface) is required. Dedicated line is recommended, but not required.
Host interface:	
• Communications mode	Bidirectional
• Communications device	Serial RS-232 port
• Baud rate options	1200, 2400, 4800, 9600, 14400, 19200, 28800, 38400, 57600 or 115200 bps
• Interface reference document	ASTM standard (E 1381-91 and E1394-91)
Processing module interface:	
• *i* System	Ethernet, 10 BASE-T

Printer specifications and requirements

The printer for the SCC (system control center) of the ARCHITECT System is provided by Abbott Laboratories.

Printer specifications and requirements topics include:

- *Printer general specifications*, page 4-15
- *Printer electrical specifications and requirements*, page 4-15

Printer general specifications

General specifications for the printer are presented in the following table.

Table 4.19: Printer general specifications

Power cord length	6' (1.8 m)
Parallel cable length	6' (1.8 m)

Printer electrical specifications and requirements

Electrical specifications and requirements for the printer are presented in the following table.

Table 4.20: Electrical specifications and requirements - printer

AC power:	
• North America	• Voltage: 110 or 120 ± 10% VAC (90 - 132 VAC) • Frequency: 60 Hz (47 - 63 Hz)
• International	• Voltage: 200, 208, 220, 230, or 240 ± 10% VAC (180 - 264 VAC) • Frequency: 50 Hz (47 - 63 Hz)
Circuit breaker that can be reset:	
• North America	14 amp
• International	12 amp
Outlet (one):	
• North America	NEMA 5-15 three prong (120 VAC, 15A)
• International	IEC 320 M grounded (220 - 240 VAC)
Power cord length	6' (1.8 m)

Bar code label requirements

Depending on the type of bar code label, requirements include information about guidelines, format, Sample ID length, label length, and placement.

Bar code label requirements topics include:

- *Sample bar code label requirements*, page 4-16

Sample bar code label requirements

Review the following information to ensure sample bar code labels meet the recommended guidelines and are properly placed on sample tubes.

- *Sample bar code label guidelines*, page 4-16
- *Sample ID (identification) length*, page 4-17
- *Sample bar code label length*, page 4-18
- *Sample bar code label placement*, page 4-18

Sample bar code label guidelines

Guidelines for sample bar code labels are presented in the following table.

Table 4.21: Bar code label guidelines

Component	Description
Printer type	Printer with a minimum resolution of 300 DPI (dots per inch). Proper maintenance of the bar code printer is essential. **NOTE:** Laser and ink jet printers with resolution less than 300 DPI may not produce acceptable labels. Dot matrix printers are not recommended.
Label stock	Good quality white label stock. Black ink used for bar codes must be compatible with the label stock used. The printed labels should be clean and dry when they are presented to the bar code reader. **NOTE:** The contrast between the bars and the background label must be the maximum possible. Contact your bar code label supplier for help in increasing the contrast. If the use of color on the label is desired, a color band may be used outside the bar code portion of the label. For optimal performance, it is recommended that only black bars be used on a white background for the bar code portion of the label.

Table 4.21: Bar code label guidelines (continued)

Component	Description
Bar code print quality	Label print quality is an important factor affecting the ability of a bar code reader to correctly decode label information. Performance can be enhanced by using labels with an ANSI (American National Standards Institute) grade of A, B, or C. Although bar code labels with ANSI grades lower than C can provide valid reads, the number of "no reads" is higher and the possibility of misreads is increased. **NOTE:** ANSI document X3.182-1990, "Bar Code Print Quality - Guideline," presents a standardized methodology for measuring and grading bar code print quality. It is good practice to evaluate all bar code labels according to this methodology. Contact your bar code label or print supplier for help in grading your labels. Commercially available verifier systems are also available to perform these evaluations.
Symbology	Symbologies allowed on the ARCHITECT System include: • Code 39 • Codabar • Interleaved 2 of 5 • Code 128 (Subsets A, B, and C)
Quiet zone	The quiet zone is the distance from the left edge of the label to the first black bar and from the last black bar to the right edge of the label. Minimum quiet zone distance: 0.25" (6.35 mm)
Density	Minimum density (narrow bar width) is 7.5 Mils (0.0075" or 0.19 mm)
Ratio (wide to narrow bar)	Minimum ratio: 2:1 Maximum ratio: 3:1

Sample ID (identification) length

The following factors affect the number of characters that can fit on a sample bar code label:

- *Sample bar code label length,* page 4-18
- *Sample bar code label placement,* page 4-18
- Symbology used
- Density
- Ratio
- Quiet zone

A maximum of 20 characters is allowed on the sample bar code label. However, the maximum number of readable characters may be less than 20 for some symbologies due to overall label length, narrow bar width, and ratio. A minimum of 2 characters is required for samples loaded on the *c* System sample carousel when using Code 128 symbology.

IMPORTANT: When the bar code reader scans a bar code label with an SID containing >20 characters, only the first 20 characters are read.

NOTE: If you print bar code labels (3 of 9, codabar, and I 2 of 5) with the checksum function enabled, a checksum character is added to the label. This character is usually added after the last character on the right and to the left of the stop character. The operator-readable portion of the label may or may not display this checksum character.

Sample bar code label length

Generally, a 51 mm label fits a 75 mm sample tube and a 76 mm label fits a 100 mm sample tube.

Sample bar code label placement

You should affix the bar code label to the sample tube in a "ladder" orientation where the printed bars are horizontal. *Correctly labeled tube*, page 4-19, shows an example of correct label placement. *Incorrectly labeled tubes*, page 4-19, shows examples of incorrect label placement.

To ensure the entire label is visible to the bar code reader when the tube is loaded into the carousel, do not place the bar code label lower than 8 mm from the bottom of the sample tube. Place bar code labels on tubes as vertically straight as possible. If the vertical angle exceeds five degrees, the bar code reader may have difficulty locating the required quiet zones and the start/stop characters. The bar code label should not exceed the top of the tube.

IMPORTANT: The operator is responsible for placing the correct bar code label on the sample tube to ensure proper sample identification.

Figure 4.2: Correctly labeled tube

Legend:

1. Quiet zones
2. Minimum distance from bottom of sample tube: 8 mm

Figure 4.3: Incorrectly labeled tubes

Legend:

1. Angled placement
2. Edges peeled loose
3. Clear tape over label
4. Flap extending from label
5. Label extending beyond bottom of tube

ARM specifications and requirements

The ARCHITECT ARM (Automatic Reconstitution Module) accessory is optional for use with an *i* System. You may want to familiarize yourself with the specifications and requirements for the ARM, if your laboratory has chosen to use this accessory. This information is related to the proper installation and operation of the ARM to ensure optimal safety and performance requirements are met.

ARM specifications and requirements topics include:

- *ARM physical specifications*, page 4-20
- *ARM clearance requirements*, page 4-20
- *ARM electrical requirements*, page 4-21
- *ARM electrical safety parameters*, page 4-21
- *ARM water source requirements*, page 4-22
- *ARM environmental requirements*, page 4-22

ARM physical specifications

Physical specifications for the ARCHITECT ARM (Automatic Reconstitution Module) accessory are presented in the following table.

Table 4.22: ARCHITECT ARM accessory physical specifications

Dimensions:	
• Height	28.3" (71.9 cm)
• Width	22.9" (58.2 cm)
• Depth	17.8" (45.2 cm)
Weight	69 lbs. (31.3 kg)

ARM clearance requirements

Clearance requirements for the ARCHITECT ARM (Automatic Reconstitution Module) accessory are presented in the following table.

Table 4.23: ARCHITECT ARM accessory clearance requirements

Left clearance (for tubing and fittings)	18" (45.7 cm)
Right clearance (for tubing and fittings)	12" (30.5 cm)

Table 4.23: ARCHITECT ARM accessory clearance requirements

Rear clearance (for access and airflow)	10" (25.4 cm)
Front clearance (for panel access)	20" (50.8 cm)

ARM electrical requirements

Electrical requirements for the ARCHITECT ARM (Automatic Reconstitution Module) accessory are presented in the following table.

Table 4.24: ARCHITECT ARM accessory electrical requirements

Line voltage	90-132 VAC / 180-264 VAC, 50/60 Hz. The ARM accessory ships with power cords and fuses for various power systems.
Power cord type	U.S.: NEMA 5-15P or equivalent Europe: CE E 7/7 or equivalent
Current rating	1.5 amp maximum
Fuses	2 time-lag, Type T, 5x20 mm, 250 V~, 1.0 amp 2 time-lag, Type T, 5x20 mm, 250 V~, 2.0 amp

ARM electrical safety parameters

Electrical safety parameters for the ARCHITECT ARM (Automatic Reconstitution Module) accessory are presented in the following table.

Table 4.25: ARCHITECT ARM accessory electrical safety parameters

Installation category	II (Overvoltage category)
Pollution degree	2

NOTE: Electrical safety parameters have no bearing on performance.

ARM water source requirements

Water source requirements for the ARCHITECT ARM (Automatic Reconstitution Module) accessory are presented in the following table.

Table 4.26: ARCHITECT ARM accessory water source requirements

Purity	NCCLS (National Committee for Clinical Laboratory Standards) Reagent Grade Type II water or better
Pressure	8 to 100 psi
Flow rate	102 L/hr (1.7 L/minute) or greater if pressure exceeds 15 psig (103.425 Kpa) 132 L/hr (2.2 L/minute) or greater if pressure is 8-15 psig (55.16-103.425 Kpa)
Temperature	15°C to 37°C (59°F - 98.6°F)

ARM environmental requirements

Environmental requirements for the ARCHITECT ARM (Automatic Reconstitution Module) accessory are presented in the following table.

Table 4.27: ARCHITECT ARM accessory environmental requirements

Operating environment:	For indoor use only
• Temperature	15°C to 30°C
• Humidity	10% to 85% (non-condensing) RH (relative humidity) at 25°C (77°F)
Storage environment:	
• Temperature	-25°C to 65°C
• Humidity	10% to 85% (non-condensing) RH (relative humidity) at 25°C (77°F)

Introduction

The flexibility of the ARCHITECT System accommodates many laboratory environments and workflows. Operating procedures are included for all system configurations.

Before attempting to operate the system, you should be familiar with the hardware components of your system and the fundamental principles of the software user interface. See *Use or function*, page 1-1.

Operating instructions topics include:

- *System startup, pause, and shutdown*, page 5-3

  Describes how to start up, pause, shut down, cycle power to, and power off the system and its components.

- *Consumable inventory management*, page 5-17

  Provides a description of the Supply status screen and instructions for performing consumable inventory management procedures.

- *Reagent inventory management*, page 5-37

  Provides descriptions of the Reagent status and Reagent history screens and instructions for performing reagent inventory management procedures.

- *Patient and control orders*, page 5-68

  Provides instructions for automated ordering of patient and control samples, descriptions of the Patient order and Control order screens and instructions for performing patient order and control order procedures.

- *Sample management*, page 5-120

  Describes how to prepare, load, and unload samples, and how to initiate processing.

- *Patient and QC results review, rerun, and release*, page 5-142

  Provides descriptions of the Results review and the QC result review screens and instructions for rerunning tests and releasing results.

- *Patient and QC stored results*, page 5-171

Provides descriptions of the Stored results and the Stored QC results screens and instructions on how to view and archive patient and QC results that have been released.

- *Exception management*, page 5-195

  Provides a description of the Exception status screen and instructions for performing exception management procedures.

- *Quality control analysis*, page 5-207

  Provides descriptions of Westgard rules, Levey-Jennings graph and QC reports screens, and instructions on quality control management.

- *Report printing*, page 5-230

  Provides instructions for printing reports and describes the screens from which you can print each report.

System startup, pause, and shutdown

You may need to start up, pause, shut down, cycle power to, or power off the system and its components to:

- Load samples, reagents, and solutions
- Perform maintenance or diagnostic procedures
- Replace components

System startup, pause, and shutdown topics include:

- *SCC power off and power on*, page 5-3
- *Processing module and sample handler cycle power, startup, and pause*, page 5-6
- *ARM power off and power on*, page 5-13
- *Emergency shutdown*, page 5-15
- *Long-term shutdown (i System)*, page 5-16

SCC power off and power on

You may need to power off and power on the SCC (system control center) to store configuration information or when indicated for component replacement or troubleshooting purposes.

See specific procedures to determine if you must shut down the SCC.

To resume normal operation, you must then *Power on the SCC*, page 5-3.

SCC power off and power on procedures include:

- *Power on the SCC*, page 5-3
- *Power off the SCC*, page 5-4
- *Cycle power to the SCC*, page 5-5

Power on the SCC

Perform this procedure to apply power to the SCC (system control center).

Prerequisite	*Power off the processing module and/or sample handler*, page 5-8
Module status	Offline, Stopped, Warming, or Ready
User access level	General operator
Supplies	NA

To power on the SCC:

1. Verify the processing module power is off before applying power to the SCC.

   NOTE: If the processing module(s) power is on when you power on the SCC, communication is not properly initialized between the system components.

2. Locate the CPU (central processing unit).

   NOTE: For the *i* 1000_{SR}, open the card cage and SCC center door to access the power switch.

3. Press the power switch on the front of the CPU (central processing unit) to turn on the SCC.

To power on the processing module and/or sample handler, see *Power on the processing module and/or sample handler*, page 5-7.

Related information...

- *Snapshot screen*, page 1-15
- *System control center*, page 1-4

Power off the SCC

Perform this procedure to shut down and power off the SCC (system control center) and to ensure that all data is stored before powering off the system.

NOTE: The sample handler and processing module(s) are not functional when the system control center is off. To prevent flooding when your system is connected to an ARCHITECT ARM (Automatic Reconstitution Module) accessory, do not shut down the SCC if the ARM is in the process of filling the wash buffer reservoir.

To cycle power to the SCC, see *Cycle power to the SCC*, page 5-5.

Prerequisite	*Access the Snapshot screen*, page 1-18
Module status	Offline, Stopped, Warming, or Ready
User access level	General operator
Supplies	NA

To power off the SCC:

1. Select **F3 - Shutdown** on the Snapshot screen.

   A confirmation message displays.

2. Select **OK** to initiate shutdown.

3. Wait for the information window to display, and then simultaneously press the **CTRL+ALT+DELETE** keys on the keyboard.

   The Confirm Exit window displays.

4. Leave the **Shutdown Computer** option selected, select **OK**, and then wait for the information window to display.

5. Locate the CPU (central processing unit).

   NOTE: For the *i* 1000_{SR}, open the card cage and SCC center door to access the power switch.

6. Press and hold the power switch on the front of the CPU (central processing unit) to turn off power to the SCC.

   NOTE: The SCC may power off immediately, or it may take up to 10 seconds depending on the type of SCC you have.

Related information...

- *Snapshot screen*, page 1-15
- *System control center*, page 1-4

Cycle power to the SCC

Perform this procedure to cycle power to the SCC (system control center) to reestablish communication to the system control center, to store configuration information, or when indicated for troubleshooting purposes.

NOTE: The sample handler and processing module(s) are not functional when the system control center is off. To prevent flooding when your system is connected to an ARCHITECT ARM (Automatic Reconstitution Module) accessory, do not shut down the SCC if the ARM is in the process of filling the wash buffer reservoir.

Prerequisite	*Access the Snapshot screen*, page 1-18
Module status	Offline, Stopped, Warming, or Ready
User access level	General operator
Supplies	NA

To cycle power to the SCC:

1. Select **F3 - Shutdown** on the Snapshot screen.

   A confirmation message displays.

2. Select **OK** to confirm the shutdown.

3. Wait for the information window to display, and then simultaneously press the **CTRL+ALT+DELETE** keys on the keyboard.

   The Confirm Exit window displays.

4. Leave the **Shutdown Computer** option selected, select **OK**, and then wait for the information window to display.

5. Locate the CPU (central processing unit).

   NOTE: For the *i* 1000_{SR}, open the card cage and SCC center door to access the power switch.

6. Press and hold the power switch on the front of the CPU (central processing unit) to turn off power to the SCC.

   NOTE: The SCC may power off immediately, or it may take up to 10 seconds depending on the type of SCC you have.

7. Turn off the power to the processing module(s) by moving the power switch down. See *Power off the processing module and/or sample handler*, page 5-8 for power switch location.

8. Press the power switch on the front of the CPU to turn on the SCC.

9. Wait for the Snapshot screen to display. It may take several minutes to display.

10. Ensure the processing module(s) has been powered off for one minute (*i* 1000_{SR}), and then move the power switch up to turn on power.

To change the status of the processing module from Stopped to Ready, see *Start up the processing module and/or sample handler*, page 5-10.

Related information...

- *Snapshot screen*, page 1-15
- *System control center*, page 1-4

Processing module and sample handler cycle power, startup, and pause

It may be necessary for you to remove power to the processing module(s) and sample handler to perform certain procedures.

Cycling power involves powering off the processing module and sample handler followed by applying power. Once the power is on, you must perform a startup to attain a Ready status.

You are required to pause the sample load queue to load samples on the SSH (standard sample handler), and you must pause the sample carousel (*c* System) to load samples in the carousel.

You are required to pause the sample handler and the processing module to load reagents and solutions, and to perform maintenance or diagnostic procedures.

Processing module and sample handler cycle power, startup, and pause procedures include:

- *Power on the processing module and/or sample handler*, page 5-7
- *Power off the processing module and/or sample handler*, page 5-8
- *Cycle power to the processing module and/or sample handler*, page 5-10
- *Start up the processing module and/or sample handler*, page 5-10
- *Pause the processing module*, page 5-11
- *Pause the RSH*, page 5-12

Power on the processing module and/or sample handler

Perform this procedure to apply power to the processing module and/or sample handler.

Prerequisite	*Power on the SCC*, page 5-3
Module status	Offline
User access level	General operator
Supplies	NA

To power on the processing module and/or sample handler:

1. Ensure that the SCC (system control center) power is on and that the Snapshot screen displays.
2. Move the power switch on the lower center rear (*i* 1000_{SR}) of the processing module up to the ON/| position to turn on the power.

   NOTE: In a single module system, powering on the processing module also turns on power to the sample handler.

Figure 5.1: i 1000$_{SR}$ power switch

To change the status of the processing module and sample handler from Stopped to Ready, see *Start up the processing module and/or sample handler*, page 5-10.

Related information...

- *Snapshot screen*, page 1-15
- *Processing modules (i System)*, page 1-23

Power off the processing module and/or sample handler

Perform this procedure to power off the processing module and sample handler during component replacement and troubleshooting activities.

To cycle power to the processing module and sample handler, see *Cycle power to the processing module and/or sample handler*, page 5-10.

To power off the *i* System for more than two weeks, see *Long-term shutdown (i System)*, page 5-16.

Prerequisite	NA
Module status	Offline, Stopped, Warming, or Ready
User access level	General operator
Supplies	NA

To power off the processing module and/or sample handler:

1. Determine which module to power off.

IMPORTANT: To power off all processing modules in a multi-module system, you must turn the power to each processing module off.

2. Verify the processing module and/or sample handler are in Offline, Stopped, Warming, or Ready status. The processing module MUST be in one of these statuses to ensure that test processing is not interrupted.

3. Move the power switch on the lower center rear (*i* 1000_{SR}) of the processing module down to the OFF/O position to turn off the power.

   NOTE: In a single module system, powering off the processing module also turns off power to the sample handler.

   In a multi-module system, powering off the processing module farthest to the right (when facing the front of the system) powers off the sample handler.

Figure 5.2: i 1000_{SR} power switch

Related information...

- *Snapshot screen*, page 1-15
- *Processing modules (i System)*, page 1-23

Cycle power to the processing module and/or sample handler

Perform this procedure to cycle power to the processing module and/or sample handler when indicated for troubleshooting purposes, and to reestablish communication to the SCC (system control center).

Prerequisite	NA
Module status	Offline, Stopped, Warming, or Ready
User access level	General operator
Supplies	NA

To cycle power to the processing module and/or sample handler:

1. Determine the module to power off.
2. Verify the processing module and/or sample handler are in Offline, Stopped, Warming, or Ready status. The processing module MUST be in one of these statuses to ensure that test processing is not interrupted.
3. Move the power switch on the lower center rear (*i* 1000_{SR}) of the processing module down to turn off the power.

   NOTE: In a single module system, powering off the processing module also turns off power to the sample handler.
4. Ensure that the SCC (system control center) power is on and that the Snapshot screen displays.
5. Ensure the processing module has been powered off for one minute (*i* 1000_{SR}), and then move the power switch up to turn on the processing module and/or sample handler.

To change the status of the processing module and sample handler from Stopped to Ready, see *Start up the processing module and/or sample handler*, page 5-10.

Related information...

- *Snapshot screen*, page 1-15
- *Processing modules (i System)*, page 1-23

Start up the processing module and/or sample handler

Perform this procedure to change the status of the processing module and/or sample handler from Stopped to Ready to:

- Initialize the processing module and/or sample handler

- Prepare for sample processing

Prerequisite	*Power on the SCC*, page 5-3 *Power on the processing module and/or sample handler*, page 5-7 *Access the Snapshot screen*, page 1-18
Module status	Stopped
User access level	General operator
Supplies	NA

To start up the processing module and/or sample handler:

1. Select the **processing module** graphic and/or **sample handler** graphic on the Snapshot screen, and then select **F5 - Start-up**.

   NOTE: For the *i* 2000 SSH (standard sample handler), you must wait for the processing module status to change from Offline to Stopped before initiating a start up.

2. Verify the status(es) when startup is complete:
   - Ready or Warming (processing module)
   - Ready (sample handler)

To initiate a run, see *Initiate or resume sample processing (RSH and SSH)*, page 5-135.

Related information...

- *Snapshot screen*, page 1-15
- *Processing modules*, page 1-23

Pause the processing module

Perform this procedure to change the status of the processing module from Running to Ready to:

- Load bulk solutions
- Perform maintenance or diagnostic procedures
- Perform component replacement

Prerequisite	*Pause the RSH*, page 5-12 *Access the Snapshot screen*, page 1-18
Module status	Sample handler - All except Running Processing module - Running
User access level	General operator
Supplies	NA

To pause the processing module:

1. Verify the sample handler is not in the Running status.

   NOTE: If you do not pause the sample handler and wait for all scheduled tests to aspirate before you pause the processing module, all tests with a status of Scheduled become exceptions and are not processed.

2. Verify all tests have a status of Pending or Running. See *View the status of ordered tests*, page 5-105.

3. Select the desired **processing module** graphic on the Snapshot screen, and then select **F7 - Pause**.

   A confirmation message displays.

4. Select **OK** to pause the processing module.

   NOTE: If you are pausing a *c* System processing module, do not open the R1 and R2 reagent supply center covers until the access indicators on the processing module keypad illuminate.

   If you are pausing an *i* System processing module, do not open the module covers until the access indicator on the processing module keypad illuminates, indicating the status is Ready.

To resume processing module operation, see *Initiate or resume sample processing (RSH and SSH)*, page 5-135.

Related information...

- *Snapshot screen*, page 1-15
- *Processing modules (i System)*, page 1-23

Pause the RSH

Perform this procedure to pause the RSH (robotic sample handler) so you can:

- Remove a sample carrier from the priority bay or section when the amber indicator is illuminated
- Remove a carrier tray from a routine bay(s) or section(s) when the amber indicator is illuminated
- Perform maintenance or diagnostic procedures (*i* 1000_{SR})

You may also perform this procedure to pause the RSH prior to pausing a processing module(s) so that samples are not transported to the module(s).

NOTE: When you pause the RSH, the sample handler status transitions from Running to Scheduled pause. The processing module completes aspirations for all scheduled tests and the RSH returns the carriers to their original locations. It may take up to 45 minutes for the sample handler to complete this process. If you do not initiate a run on the sample handler during that time, the sample handler status changes to Ready.

To pause the processing module, see *Pause the processing module*, page 5-11.

Prerequisite	*Access the Snapshot screen*, page 1-18
Module status	Running
User access level	General operator
Supplies	NA

To pause the RSH:

1. Select the **sample handler** graphic on the Snapshot screen, and then select **F7 - Pause**.

   A confirmation message displays.

2. Select **OK** to pause the RSH.

   The pause indicator illuminates on the RSH keypad.

To return to Running status, see *Initiate or resume sample processing (RSH and SSH)*, page 5-135.

Related information...

- *Snapshot screen*, page 1-15
- *Loading samples (RSH)*, page 5-126
- *Load samples for processing (RSH - i 1000$_{SR}$)*, page 5-128
- *Unload samples (RSH - i 1000$_{SR}$)*, page 5-139

ARM power off and power on

You may need to power off the ARCHITECT ARM (Automatic Reconstitution Module) accessory to perform troubleshooting, and then power it back on.

ARM power off and power on procedures include:

- *Power off the ARM (i System)*, page 5-14
- *Power on and initialize the ARM (i System)*, page 5-14

Power off the ARM (*i* System)

Perform this procedure to power off the ARCHITECT ARM (Automatic Reconstitution Module) accessory when indicated for troubleshooting purposes.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To power off the ARM:

1. Verify the ARM is not transferring buffer.

   The green indicator, located under the start key on the ARM keypad, flashes when wash buffer is pumped to the wash buffer reservoir in the processing module.

2. Move the power switch, located on the lower left side of the ARM, down to the "0" position.

Related information...

- *ARM optional accessory (i System)*, page 1-54

Power on and initialize the ARM (*i* System)

Perform this procedure to power on and initialize the ARCHITECT ARM (Automated Reconstitution Module) accessory for automated buffer transfer.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To power on and initialize the ARM accessory:

1. Move the power switch, located on the lower left side of the ARM, up to the "|" position.

   A red indicator illuminates under the stop key on the ARM keypad.

2. Press the **start** key on the ARM keypad to initialize the ARM.

   A green indicator illuminates under the start key.

Related information...

- *ARM optional accessory (i System)*, page 1-54

Emergency shutdown

When an unusual circumstance indicates that an emergency may exist, you should turn off power to the ARCHITECT System.

Steps for turning off the power vary slightly based on whether you have a single or multi-module system.

Related procedures...

- *Emergency shutdown recovery (RSH)*, page 5-15
- *Perform an emergency shutdown on an i 1000$_{SR}$*, page 5-15

Emergency shutdown recovery (RSH)

If a carrier is in the RSH (robotic sample handler) carrier transport when you perform an emergency shutdown, samples and the surrounding area may be contaminated by sample splashing as the carrier transport motor loses power. You must remove the sample carrier(s) from the carrier transport and positioner(s) and then discard all sample cups and/or tubes.

Related procedures...

- *Remove sample carrier(s) from the carrier transport and aspiration area (RSH - i 1000$_{SR}$)*, page 10-621

Perform an emergency shutdown on an *i* 1000$_{SR}$

Perform this procedure to stop the sample handler and processing module on an *i* 1000$_{SR}$.

To perform an emergency shutdown on an *i* 1000$_{SR}$ system:

1. Move the power switch on the lower center rear of the processing module down to the OFF/O position to turn off the power.
2. Disconnect the main power cord at its receptacle.

   NOTE: This AC power cord does not disconnect power to the System Control Center (SCC).

Related information...

- *Emergency shutdown*, page 5-15
- *Emergency shutdown recovery (RSH)*, page 5-15
- *Power off the processing module and/or sample handler*, page 5-8

Long-term shutdown (*i* System)

Whenever you shut down an ARCHITECT *i* System for more than seven days, you must perform the processing module specific Long Term Shutdown diagnostic procedure. This diagnostic procedure:

- Flushes all pumps with deionized water and then air
- Removes all RVs

For instructions on how to perform a diagnostic procedure, see *Perform a diagnostic procedure*, page 10-597.

An internal decontamination must be performed prior to start up after a long-term shutdown. Contact your Area Customer Support for more information.

Related procedures...

- *2138 Long Term Shutdown*, page 10-606 (*i* 1000_{SR})

Consumable inventory management

Always check consumable inventory before processing samples. Use the Supply status screen to check inventory.

Consumable inventory management topics include:

- *Supply status screens*, page 5-17
- *ARCHITECT System procedures - consumable inventory management*, page 5-20
- *i System procedures - consumable inventory management*, page 5-21

Supply status screens

From the Supply status screen you can view the status of supplies on board the system and the waste status. The view that displays is dependent on the processing module configuration of your system.

Supply status screen and views topics include:

- *Supply status screen - i 1000$_{SR}$ view*, page 5-17
- *Windows - Supply status screen*, page 5-19

Supply status screen - *i* 1000$_{SR}$ view

From the *i* 1000$_{SR}$ view of the Supply status screen you can:

- View the volume and percent of bulk solutions
- View the status of solid waste
- View the volume and percentage of liquid waste
- View the status of RVs (reaction vessels)
- Access a window to update the status(es) of bulk solutions, solid waste, RVs, and liquid waste

NOTE: The system calculates supply volume and % remaining information based on tests required for samples that have been scanned by the sample handler.

Figure 5.3: Supply status screen - i 1000$_{SR}$ view

To display this view of the screen, see *Access the Supply status screen - i 1000$_{SR}$ view*, page 5-18.

Related procedures...

- *Verify supply and waste inventory*, page 5-20
- *Remove solid waste and update inventory (i 1000$_{SR}$)*, page 5-21
- *Empty liquid waste and update inventory (i 1000$_{SR}$)*, page 5-23
- *Replenish RVs and update inventory (i 1000$_{SR}$)*, page 5-25
- *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27
- *Replace pre-trigger and/or trigger solution and update inventory (i 1000$_{SR}$)*, page 5-33
- *Initiate wash buffer transfer from the ARM (i System)*, page 5-35

Access the Supply status screen - *i* 1000$_{SR}$ view

Perform this procedure to display the *i* 1000$_{SR}$ view of the Supply status screen.

Prerequisite	NA
Module status	Any

User access level	General operator
Supplies	NA

To access the Supply status screen:

NOTE: You may also access this screen from the Snapshot screen by selecting the **supply status** button on the desired *i* 1000_{SR} processing module graphic.

1. Select **Supplies** from the menu bar, and then select **Supply status**.

Related information...

- *Snapshot screen*, page 1-15
- *Supply status screen - i 1000_{SR} view*, page 5-17

Windows - Supply status screen

The window you can access from the Supply status screen is:

- *Update supplies window - i 1000_{SR} view*, page 5-19

Update supplies window - *i* 1000_{SR} view

From the *i* 1000_{SR} view of the Update supplies window you can update supply information so the system can accurately track onboard supply inventory.

Figure 5.4: Update supplies window - i 1000_{SR} view

For descriptions of these fields, see *Update supplies window - i 1000_{SR} view field descriptions*, page Appendix E-87.

Related procedures...

- *Initiate wash buffer transfer from the ARM (i System)*, page 5-35

- *Remove solid waste and update inventory (i 1000$_{SR}$)*, page 5-21
- *Empty liquid waste and update inventory (i 1000$_{SR}$)*, page 5-23
- *Replenish RVs and update inventory (i 1000$_{SR}$)*, page 5-25
- *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27
- *Replace pre-trigger and/or trigger solution and update inventory (i 1000$_{SR}$)*, page 5-33

ARCHITECT System procedures - consumable inventory management

The procedure that is common to both the *c* System and *i* Systems is *Verify supply and waste inventory*, page 5-20.

Verify supply and waste inventory

Perform this procedure before initiating sample processing to verify adequate supply inventory levels or when the supply status button on the processing module(s) graphic(s) displays a caution icon.

NOTE: The status that displays reflects the inventory that remains after the system processes the samples that have been scanned by the sample bar code reader.

You can create orders when inventory levels are insufficient. However, if inventory is not adequate when you initiate sample processing, tests become exceptions and are not processed.

Prerequisite	*Access the Supply status screen - i 1000$_{SR}$ view*, page 5-18
Module status	Any
User access level	General operator
Supplies	NA

To verify supply and waste inventory:

1. Select the desired **Module** option.

   The Supply status screen for the selected module displays.

2. View the inventory of supplies and waste.

Related information...

- *Supply status screen - i 1000$_{SR}$ view*, page 5-17

i System procedures - consumable inventory management

i System consumable inventory management procedures include:

- *Remove solid waste and update inventory (i 1000$_{SR}$)*, page 5-21
- *Empty liquid waste and update inventory (i 1000$_{SR}$)*, page 5-23
- *Replenish RVs and update inventory (i 1000$_{SR}$)*, page 5-25
- *Prepare wash buffer (i System)*, page 5-26
- *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27
- *Replace concentrated wash buffer on the ARM (i System)*, page 5-31
- *Replace pre-trigger and/or trigger solution and update inventory (i 1000$_{SR}$)*, page 5-33
- *Initiate wash buffer transfer from the ARM (i System)*, page 5-35

Remove solid waste and update inventory (*i* 1000$_{SR}$)

Perform this procedure to empty the solid waste container and to update the waste status. The solid waste container holds used RVs (reaction vessels).

Prerequisite	*Access the Supply status screen - i 1000$_{SR}$ view*, page 5-18
Module status	Any
User access level	General operator
Supplies	Biohazard bag

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

To remove solid waste and update inventory:

1. Open the supply and waste center door.
2. Disconnect the quick disconnect on the liquid waste container, if present.
3. Grasp the handle and pull out the waste drawer.
4. Lift the solid waste container out of the drawer.

5. Remove the biohazard bag and discard the bag and its contents in a biohazard trash receptacle.
6. Install a new biohazard bag in the solid waste container.

   NOTE: The biohazard bag must fit snugly and be fully opened in the solid waste container to allow RVs to drop freely into the container.
7. Replace the solid waste container and liquid waste container (if present) into the waste drawer and push the waste drawer back in place.

   NOTE: If the solid or liquid waste container is not replaced within 30 minutes, sample processing will be paused.
8. Reconnect the quick disconnect fitting on the liquid waste container.
9. Select the appropriate **Module** option on the Supply status screen, and then select **F2 - Update supplies**.

   The Update supplies window displays.
10. Select the **Solid waste** check box.
11. Select **Done** to update supplies.

Related information...

- *Supply status screen - i 1000$_{SR}$ view*, page 5-17
- *Update supplies window - i 1000$_{SR}$ view*, page 5-19

Empty liquid waste and update inventory (*i* 1000$_{SR}$)

Perform this procedure to empty the liquid waste container and to update the liquid waste status.

Prerequisite	*Access the Supply status screen - i 1000$_{SR}$ view*, page 5-18
Module status	Any
User access level	General operator
Supplies	

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

To empty liquid waste and update inventory:

1. Open the supply and waste center door.
2. Disconnect the quick disconnect on the liquid waste container.
3. Grasp the handle and pull out the waste drawer.
4. Lift the liquid waste container out of the drawer.

CAUTION: Lifting hazard. The *i* 1000$_{SR}$ liquid waste container is heavy when full. Use proper lifting techniques when handling the container to reduce the risk of injury.

5. Discard the liquid waste in accordance with the waste disposal procedures for your laboratory. See *Waste handling and disposal*, page 8-12 for additional information.

   NOTE: Do not add disinfectant to the liquid waste container prior to loading it back onto the system.

6. Replace the liquid waste container into the waste drawer and push the waste drawer back in place.

   NOTE: If the liquid waste container is not replaced within 30 minutes, sample processing will be paused.

7. Reconnect the quick disconnect fitting on the liquid waste container.

8. Select the appropriate **Module** option on the Supply status screen, and then select **F2 - Update supplies**.

   The Update supplies window displays.

9. Select the **Liquid waste** check box.

10. Select **Done** to update supplies.

Related information...

- *Supply status screen - i 1000$_{SR}$ view*, page 5-17
- *Update supplies window - i 1000$_{SR}$ view*, page 5-19

Replenish RVs and update inventory (*i* 1000$_{SR}$)

Perform this procedure to replenish and update RV (reaction vessel) inventory on the processing module. The maximum onboard storage capacity is 360 RVs.

Prerequisite	*Access the Supply status screen - i 1000$_{SR}$ view*, page 5-18
Module status	Any
User access level	General operator
Supplies	Reaction vessels

To replenish RVs and update inventory:

1. Open the RV hopper cover.
2. Add enough RVs to fill the hopper.

   NOTE: Do not overfill the hopper.

3. Close the RV hopper cover.
4. Select the appropriate **Module** option on the Supply status screen, and then select **F2 - Update supplies**.

   The Update supplies window displays.
5. Select the appropriate **Filled hopper check box**.

6. Select **Done** to update RV inventory.

Related information...

- *Reaction vessels (i System)*, page 1-77
- *Supply status screen - i 1000$_{SR}$ view*, page 5-17
- *Update supplies window - i 1000$_{SR}$ view*, page 5-19

Prepare wash buffer (*i* System)

Perform this procedure to prepare wash buffer from concentrate. You can prepare wash buffer ahead of time as long as its expiration date is not exceeded when in use.

If your system is configured with an ARCHITECT ARM (Automatic Reconstitution Module) accessory, see *Replace concentrated wash buffer on the ARM (i System)*, page 5-31.

Prerequisite	NA
Module status	NA
User access level	General operator
Supplies	• Concentrated Wash Buffer (1 L bottle) • 10 L wash buffer preparation container • Reagent Grade Type II water

To prepare wash buffer:

1. Verify that the wash buffer is within the expiration date on the bottle label. DO NOT use if the expiration date is exceeded.

   NOTE: The expiration date of the prepared wash buffer is the expiration date on the wash buffer label.

2. Invert the concentrated wash buffer bottle several times to ensure a homogeneous solution.

3. Pour the concentrated wash buffer into the preparation container.

4. Slowly add Reagent Grade Type II water into the preparation container until the liquid reaches the 10 L mark.

   NOTE: Add the water slowly to avoid foaming. Ensure that the liquid level is between the two solid lines on the preparation container.

To load wash buffer, see *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.

Related information...

- *Concentrated wash buffer (i System)*, page 1-75

Replenish wash buffer manually and update inventory (*i* 1000$_{SR}$)

Perform this procedure to load wash buffer concentrate into the 12 liter onboard reservoir when your system is not configured with an ARCHITECT ARM (Automatic Reconstitution Module) accessory or when the ARM is unavailable.

CAUTION: The quick disconnect port above the waste area is used for manually loading wash buffer.

To replace the concentrated wash buffer container on the ARCHITECT ARM accessory, see *Replace concentrated wash buffer on the ARM (i System)*, page 5-31.

Prerequisite	*Prepare wash buffer (i System)*, page 5-26 *Access the Supply status screen - i 1000$_{SR}$ view*, page 5-18
Module status	All except Offline and Initializing
User access level	General operator
Supplies	• Prepared wash buffer (room temperature 15°C - 37°C) • Wash buffer transfer tubing • Lint-free tissue • Reagent Grade Type II water

To replenish wash buffer manually and update inventory:

1. Open the supply and waste center door.
2. Put the transfer tubing into the wash buffer preparation container.
3. Attach the wash buffer transfer tubing to the quick disconnect above the waste area.

4. Select the appropriate **Module** option on the Supply status screen, and then select **F2 - Update supplies**.

   The Update supplies window displays.

5. Select the **Add buffer** check box.

6. Select **Done**.

   An information message displays.

7. Select **OK** to initiate buffer transfer.

   The Supply status screen displays with a Wash buffer status of FILL IN PROGRESS.

8. Wait for the fill to complete, and then push the gray button to disconnect the wash buffer transfer tubing from the quick disconnect above the waste area.

9. Remove the tubing from the preparation container.
10. Drain any liquid remaining in the transfer tubing into a sink by raising the tubing above the level of the sink and depressing the connector (as indicated in the graphic) in the end of the tubing.

11. Dry the outside of the tubing with a clean soft lint-free tissue, and then store the tubing in a clean, dry place.
12. Close the supply and waste center door.
13. Rinse the wash buffer preparation container with Reagent Grade Type II water and place the container upside down to air dry.

Related information...

- *Supply and waste center (i 1000$_{SR}$)*, page 1-40
- *Supply status screen - i 1000$_{SR}$ view*, page 5-17
- *Update supplies window - i 1000$_{SR}$ view*, page 5-19

Replace concentrated wash buffer on the ARM (*i* System)

Perform this procedure to load a Concentrated Wash Buffer container on the ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	Concentrated Wash Buffer

To replace concentrated wash buffer on the ARM:

1. Verify that the concentrated wash buffer is within the expiration date on the box label. DO NOT use if the expiration date is exceeded.
2. Press the **stop** key on the ARM keypad.

   The red indicator beneath the stop key illuminates.
3. Disconnect the sensor cable [1] from the ARM.

4. Disconnect the tubing [2].
5. Twist the fitting to loosen the tubing assembly [4] and remove it from the container.
6. Place the tubing assembly into the tubing assembly holder [3].
7. Remove the empty container from the ARM.

8. Remove the cardboard cutout from the full container and discard.
9. Position the full container on the ARM so that the cap is close to the white bracket [5].
10. Remove the cap from the container.
11. Place the tubing assembly into the full container, and then twist the fitting to tighten.
12. Reconnect the sensor cable [1] and supply tubing quick disconnect fitting [2] to the ARM console.
13. Press the **replace buffer** key on the ARM keypad.

    NOTE: It is normal for a small amount of wash buffer to drain as the ARM primes itself before resuming operation.

    The stop indicator is no longer illuminated and the following occurs:

    – The amber replace buffer indicator illuminates briefly while the sensor automatically recalibrates to "full."

    – The green start indicator illuminates steadily indicating the ARM is ready for operation.

    – Buffer is automatically transferred to the buffer reservoir when the onboard remaining wash buffer is approximately 40%.

14. Discard the empty container.

To initiate wash buffer transfer, see *Initiate wash buffer transfer from the ARM (i System)*, page 5-35.

Related information...

- *ARM optional accessory (i System)*, page 1-54
- *ARM connectors (i System)*, page 1-58
- *Concentrated wash buffer (i System)*, page 1-75

Replace pre-trigger and/or trigger solution and update inventory (*i* 1000$_{SR}$)

Perform this procedure to replace and update Pre-Trigger and Trigger Solution inventory when the bottle is empty, has reached the onboard stability expiration date, or is expired.

Prerequisite	*Access the Supply status screen - i 1000$_{SR}$ view*, page 5-18
Module status	Stopped, Warming, or Ready
User access level	General operator
Supplies	• Pre-Trigger Solution • Trigger Solution

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See product-specific information under *Chemical hazards*, page 8-9.

To replace pre-trigger and/or trigger and update inventory:

1. Verify that the new pre-trigger or trigger is within the expiration date listed on the label. DO NOT use if the expiration date is exceeded.

   IMPORTANT: DO NOT pool partially filled bottles of pre-trigger or trigger.

2. Record the installation date in accordance with your current laboratory procedures.
3. Add the number of days for onboard storage listed on the bottle label to the installation date.
4. Record this date (onboard expiration date) in accordance with your current laboratory procedures.

   NOTE: This date must not exceed the expiration date of the solution.

5. Open the supply and waste center door.
6. Slide the pre-trigger/trigger tray out.

   NOTE: Use caution when handling Level Sensors:

   - Avoid bending the tubing connected to the cap
   - Avoid stress on the Level Sensor wiring and connectors

7. Move the bottle to be replaced to the bottle exchange position in the middle of the tray.
8. Place the new bottle in the correct location in the tray, as indicated by the label on the tray.

   IMPORTANT: Results can be adversely affected if you do not load pre-trigger and trigger correctly.
9. Remove the cap from the new bottle and place it in the cap storage area at the front of the tray.
10. Remove the cap from the used bottle. The level sensor assembly is attached to the cap.
11. Slide the level sensor and cap into the new bottle, with the arrow on top of the level sensor facing towards the front.

12. Tighten the cap.

    IMPORTANT: Results and inventory status can be adversely affected if you do not align the level sensor correctly.
13. Place the cap from the cap storage area on the used bottle and then remove the bottle.
14. Discard the used bottle in accordance with the waste disposal procedures for your laboratory. See *Waste handling and disposal*, page 8-12 for additional information.
15. Slide the pre-trigger/trigger tray back into the module.
16. Close the supply and waste center door.

17. Select the appropriate **Module** option from the Supply status screen, and then select **F2 - Update supplies**.

    The Update supplies window displays.

18. Select the **Pre-Trigger** and/or **Trigger** check box(es).

19. Select **Done** to update the pre-trigger or trigger inventory.

Related information...

- *Pre-trigger solution (i System)*, page 1-73
- *Trigger solution (i System)*, page 1-74
- *Supply status screen - i 1000$_{SR}$ view*, page 5-17
- *Update supplies window - i 1000$_{SR}$ view*, page 5-19

Initiate wash buffer transfer from the ARM (*i* System)

Perform this procedure to manually start transfer of buffer from the ARCHITECT ARM (Automatic Reconstitution Module) accessory to an *i* System processing module. This procedure is required when an error condition occurs during buffer transfer.

Prerequisite	*Access the Supply status screen - i 1000$_{SR}$ view*, page 5-18
Module status	All except Offline and Stopped
User access level	General operator
Supplies	NA

To initiate wash buffer transfer from the ARM:

1. Verify the ARM is in Ready status (green indicator under the Start key is illuminated). If not in Ready status, press the Stop key followed by the Start key on the ARM keypad.

2. Select the appropriate **Module** option on the Supply status screen, and then select **F2 - Update Supplies**.

   The Update supplies window displays.

3. Select the **Add buffer** check box.

4. Select **Done**.

   The updated Supply status screen displays.

Related information...

- *Supply status screen - i 1000$_{SR}$ view*, page 5-17
- *Update supplies window - i 1000$_{SR}$ view*, page 5-19

- *ARM optional accessory (i System)*, page 1-54

Reagent inventory management

Always check reagent inventory before processing samples. Use the Reagent screens to manage reagent inventory.

Reagent inventory management topics include:

- *Reagent status screens*, page 5-37
- *Reagent history screen*, page 5-47
- *ARCHITECT System procedures - Reagent inventory management*, page 5-51
- *i 1000$_{SR}$ procedures - reagent inventory management*, page 5-55

Reagent status screens

From the Reagent status and Reagent status all screens you can view the status of reagents on board the system. The view that displays for the Reagent status screen is dependent on the processing module configuration of your system.

Reagent status screen and views topics include:

- *Reagent status screen - i 1000$_{SR}$ view*, page 5-37
- *Reagent status screen - View all view*, page 5-40
- *Descriptions of reagent statuses (i 1000$_{SR}$)*, page 5-42
- *Descriptions of carrier statuses (i 1000$_{SR}$)*, page 5-44
- *Windows - Reagent status screens*, page 5-44

Reagent status screen - *i* 1000$_{SR}$ view

From the *i* 1000$_{SR}$ view of the Reagent status screen you can view information for reagents loaded on the reagent carousel and RSH (robotic sample handler), such as:

- Reagent location
- Assay name
- Calibration status
- Remaining tests
- Reagent status
- Carrier status
- Scheduled tests

- Ready to unload time (reagent kit becomes available to unload)

A graphical representation of the reagent carousel indicates the location of the reagents and their statuses.

You can also access windows to:

- Find a specific reagent
- View detailed reagent information

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

Figure 5.5: Reagent status screen - i 1000$_{SR}$ view

For descriptions of these fields, see *Reagent status screen - i 1000$_{SR}$ field descriptions*, page Appendix E-79.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
P	RSH section number and then carousel position in ascending order.
ASSAY	Alphanumerically in ascending order.
REMAINING TESTS	Numerically is ascending order.

Column	Sort description
CAL STATUS and REAGENT STATUS	See *Descriptions of calibration statuses*, page 6-12 and *Descriptions of reagent statuses (i 1000$_{SR}$)*, page 5-42.
CARRIER STATUS	See *Descriptions of carrier statuses (i 1000$_{SR}$)*, page 5-44.
SCHEDULED TESTS	Numerically in ascending order.
READY TO UNLOAD	First to last to become available for unload.

To display this screen, see *Access the Reagent status screen - i 1000$_{SR}$ view*, page 5-39.

Related information...

- *Verify reagent inventory on a single module*, page 5-51
- *Find a specific reagent*, page 5-53
- *View reagent details*, page 5-54
- *Prepare new reagent bottles (i 1000$_{SR}$)*, page 5-56
- *Prepare used reagent bottles (i 1000$_{SR}$)*, page 5-58
- *Load reagents on the RSH (i 1000$_{SR}$)*, page 5-61
- *Unload reagents from reagent carousel (i 1000$_{SR}$)*, page 5-62
- *Reloading reagents after opening the reagent carousel cover (i 1000$_{SR}$)*, page 5-66
- *Cancel reagent unload (i 1000$_{SR}$)*, page 5-63
- *Print a report*, page 5-230

Access the Reagent status screen - *i* 1000$_{SR}$ view

Perform this procedure to display the *i* 1000$_{SR}$ view of the Reagent status screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Reagent status screen:

NOTE: You may also access this screen from the Snapshot screen by selecting the **reagent status** button on the *i* 1000_{SR} processing module graphic.

1. Select **Reagents** from the menu bar, and then select **Reagent status**.

   The Reagent status screen - *i* 1000_{SR} view displays.

2. Select another **Module** option to display a different view. ***(optional)***

Related information...

- *Snapshot screen*, page 1-15
- *Reagent status screen - i 1000_{SR} view*, page 5-37

Reagent status screen - View all view

From the View all view of the Reagent status screen you can see information for reagents loaded on all modules, such as:

- Assay name
- Reagent location, lot number, expiration date, and onboard stability
- Reagent and calibration status
- Remaining tests

You can also access windows to:

- Find a specific reagent
- Print the Reagent Load Error report
- Print the Reagent Status report
- View detailed reagent information

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

Figure 5.6: Reagent status screen - View all view

M/P	ASSAY	CAL STATUS	REAGENT LOT	REMAINING TESTS	REAGENT STATUS	EXP. DATE	STABILITY
2/9	TSH	Active	81234JS01	100	OK	12.31.2002	49
2/12	_B-hCG B-hCG STAT	Active Active	29876AC98	7	OK	12.31.2002	189
2/6	_B-hCG B-hCG STAT	Active Active	29876AC98	0	Empty	12.31.2002	189
2/13	_B-hCG B-hCG STAT	Active Active	29876AC98	100	OK	12.31.2002	189
2/1	FT4	Active	53233AC98	23	OK	12.31.2002	189
1/A13	HDL	Active	10190L005	572	OK	12.31.2002	405
2/3	Progest	Active	71234JS01	23	OK	12.31.2002	49
1/A9	TP	Active	10140L004	473	OK	12.31.2002	405

For descriptions of these fields, see *Reagent status screen - View all view field descriptions*, page Appendix E-81.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
M/P	Module, and then carousel position in ascending order.
ASSAY and REAGENT LOT	Numerically in ascending order.
REMAINING TESTS and STABILITY	Alphanumerically is ascending order.
CAL STATUS and REAGENT STATUS	*Descriptions of calibration statuses*, page 6-12 *Descriptions of reagent statuses (i 1000$_{SR}$)*, page 5-42.
EXP. DATE	First to last to expire.

To display this screen, see *Access the Reagent status screen - View all view*, page 5-42.

Related procedures...

- *Verify reagent inventory on all modules*, page 5-52
- *Find a specific reagent*, page 5-53
- *View reagent details*, page 5-54

- *Print a report*, page 5-230

Access the Reagent status screen - View all view

Perform this procedure to display the Reagent status screen - View all view.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Reagent status screen - View all view:

1. Select **Reagents** from the menu bar, and then select **Reagent status**.

   The Reagent status screen - *c* System view displays. This view displays for a standalone *c* System and an integrated system.

   OR

   The Reagent status screen - *i* System view displays. This view displays for standalone and multi-module *i* Systems.

2. Select the **View all** option.

   The Reagent status screen - view all view displays.

Related information...

- *Reagent status screen - i 1000$_{SR}$ view*, page 5-37
- *Reagent status screen - View all view*, page 5-40

Descriptions of reagent statuses (*i* 1000$_{SR}$)

You can use reagent status information to determine the status of each reagent and if there are problems with the reagent kits loaded on the system. The system displays one of the following reagent statuses for

each reagent kit. When you select the REAGENT STATUS column heading, the reagent status sorts in the following order.

Table 5.1: Reagent statuses (i 1000$_{SR}$)

Status	Description
BC Fail	The bar code on the reagent bottle is unreadable. **NOTE:** This status is also displayed when the system automatically unloads reagent carriers after opening the reagent carousel cover.
Incomplete	A hardware error occurred during loading or unloading a two carrier reagent kit causing a separation of the reagent carriers. **NOTE:** When this status occurs either: • one reagent carrier is located on the RSH and the other carrier is on the reagent carousel or • one reagent carrier is located on the RSH or reagent carousel and the other carrier is no longer on the system
Missing Bottle	The reagent kit is missing a required bottle.
Extra Bottle	The detected bottle(s) is not part of a known reagent kit or insufficient bottles are loaded to create a kit.
Mismatch	One or more detected bottles are not linked to the reagent kit. **NOTE:** Bottles in a reagent kit are linked together by the system software when they are scanned for the first time. The bottles must be kept together and cannot be used for another reagent kit.
No Assay	The reagent is not used by any assay file installed on the system.
Empty	The reagent is empty.
LLS Error	A liquid level sense error occurred during aspiration of the reagent.
Expired	The reagent is expired or has exceeded the onboard stability time.
Low Alert	The remaining volume of the reagent is below the configured number of tests for the low alert notification.
Overridden	The operator has overridden a reagent that is expired or has exceeded the onboard stability time.
OK	The reagent is OK.
Mixing	The reagent is mixing to disperse the microparticles.

Descriptions of carrier statuses (*i* 1000$_{SR}$)

You can use carrier status information to determine the status of loading or unloading each reagent carrier and if there are problems with the loading or unloading of the reagent carriers. The system displays one of the following carrier statuses for each reagent kit. When you select the CARRIER STATUS column heading, the carrier status sorts in the following order.

Table 5.2: Carrier statuses (i 1000$_{SR}$)

Status	Description
Unload error	A hardware error occurred when unloading the reagent carrier.
Load error	A hardware error occurred when loading the reagent carrier or a hardware condition exists that prevents future loading of reagent carriers.
Scheduled unload	A reagent carrier unload has been requested but can not be immediately processed due to one of the following: • tests are still running for the requested reagent • no RSH section is available to unload the carrier • the system is currently unloading another reagent kit
Scheduled load	A reagent carrier needs to be loaded on the reagent carousel but no position is available on the carousel.
Partially unloaded	The first carrier of a two carrier reagent kit has been unloaded or the second carrier needs to be unloaded but no section is available on the RSH.
Scanning	The first carrier of a two carrier reagent kit has been scanned by the bar code reader and is waiting on the system to scan the second carrier.
Unloading	The reagent carrier is in the process of being removed from the reagent carousel.
Loading	The reagent carrier is in the process of being loaded on the reagent carousel.
Blank	The reagent carrier is loaded on the reagent carousel, has been successfully unloaded to the RSH or has just been loaded on the RSH but not scanned by the bar code reader.

Windows - Reagent status screens

Windows you can access from the Reagent status screen include:

- *Details for reagent (Reagent status) window*, page 5-45
- *Find options (Reagent status) window*, page 5-46
- *Find options (Reagent status - View all or Reagent history) window*, page 5-46

- *Print options window*, page 5-242

Details for reagent (Reagent status) window

From the Details for reagent (Reagent status) window you can view reagent, assay, and component details for a reagent. This information allows you to address reagent inventory concerns.

Figure 5.7: Details for reagent (Reagent status) window - c System

Figure 5.8: Details for reagent (Reagent status) window - i System

For descriptions of these fields, see *Details for reagent (Reagent status) window field descriptions*, page Appendix E-82.

Related procedures...

- *View reagent details*, page 5-54

Find options (Reagent status) window

From the Find options (Reagent status) window you can search for specific reagent(s) on a single module by entering your search criteria in one or more fields.

Figure 5.9: Find options (Reagent status) window

For descriptions of these fields, see *Find options (Reagent status) window field descriptions*, page Appendix E-82.

Related procedures...

- *Find a specific reagent*, page 5-53

Find options (Reagent status - View all or Reagent history) window

From the Find options (Reagent status - View all or Reagent history) window you can search for specific reagents on all modules by entering your search criteria in one or more fields.

Figure 5.10: Find options (Reagent status - view all) window

For descriptions of these fields, see *Find options (Reagent status - View all) window field descriptions*, page Appendix E-83.

Related procedures...

- *Find a specific reagent*, page 5-53

Reagent history screen

From the Reagent history screen you can view historical information on reagent kits that have been used on the system, such as:

- Assay name
- Reagent location, lot number, onboard stability, and expiration date
- Reagent and calibration status
- Remaining tests

You can also access windows to:

- Find a specific reagent
- View detailed reagent information

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

The system stores information for up to 3000 reagent kits.

Figure 5.11: Reagent history screen

M/P	ASSAY	CAL STATUS	REAGENT LOT	REMAINING TESTS	REAGENT STATUS	EXP. DATE	STABILITY
1 / A1, A1	ALT	Active	11111M921	324	OK	12.31.2002	405
1 / A10	AST	Active	10230L002	591	OK	12.31.2002	405
1 / A7	Ca	Active	10080L009	393	OK	12.31.2002	405
1 / A11	Chol	Active	10180HW00	393	OK	12.31.2002	405
1 / A2, A2	Crea	Active	10070M907	259	OK	12.31.2002	405
2 / 8	FT4	Active	53233AC98	100	OK	12.31.2002	189
2 / 1	FT4	Active	53233AC98	23	OK	12.31.2002	189
1 / A5	Glu	Active	10060L007	591	OK	12.31.2002	405
1 / A13	HDL	Active	10190L005	572	OK	12.31.2002	405
1 / A6, A6	Iron	Active	10300L000	401	OK	12.31.2002	405

For descriptions of these fields, see *Reagent history screen field descriptions*, page Appendix E-84.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
M/P	Module, and then carousel position in ascending order.
ASSAY and REAGENT LOT	Numerically in ascending order.
REMAINING TESTS and STABILITY	Alphanumerically in ascending order.
CAL STATUS and REAGENT STATUS	*Descriptions of calibration statuses*, page 6-12 *Descriptions of reagent statuses (i 1000$_{SR}$)*, page 5-42.
EXP. DATE	First to last to expire.

To display this screen, see *Access the Reagent history screen*, page 5-49.

Related procedures...

- *View reagent history details*, page 5-55
- *Find a specific reagent*, page 5-53

Access the Reagent history screen

Perform this procedure to display the Reagent history screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Reagent history screen:

Select **Reagents** from the menu bar, and then select **Reagent history**.

The Reagent history screen displays.

Related information...

- *Reagent history screen*, page 5-47

Window - Reagent history screen

Windows you can access from the Reagent history screen include:

- *Details for reagent (history) window*, page 5-49
- *Find options (Reagent status - View all or Reagent history) window*, page 5-46

Details for reagent (history) window

From the Details for reagent (history) window you can view reagent, assay, and component details for a reagent. This information provides a historical perspective that is useful in a troubleshooting scenario.

Figure 5.12: Details for reagent (history) window - c System

Figure 5.13: Details for reagent (history) window - i System

For descriptions of these fields, see *Details for reagent (history) window field descriptions*, page Appendix E-85.

Related procedures...

- *View reagent history details*, page 5-55
- *Find a specific reagent*, page 5-53

ARCHITECT System procedures - Reagent inventory management

Procedures that are common to both the *c* System and the *i* System are:

- *Verify reagent inventory on a single module*, page 5-51
- *Verify reagent inventory on all modules*, page 5-52
- *Find a specific reagent*, page 5-53
- *View reagent details*, page 5-54
- *View reagent history details*, page 5-55

Verify reagent inventory on a single module

Perform this procedure before initiating sample processing to verify adequate reagent inventory or when the reagent status button on the processing module graphic displays a caution icon.

NOTE: The status that displays reflects the inventory that remains after the system processes the samples that have been scanned by the sample bar code reader.

You can create orders when inventory levels are insufficient. However, if inventory is not adequate when you initiate sample processing, tests become exceptions and are not processed.

To verify reagent inventory on all modules, see *Verify reagent inventory on all modules*, page 5-52.

Prerequisite	*Access the Reagent status screen - i 1000$_{SR}$ view*, page 5-39
Module status	Any
User access level	General operator
Supplies	NA

To verify reagent inventory on a single module:

1. Select the desired **Module** option on the Reagent status screen. ***(optional)***

   Reagent information for the selected module displays.

2. View reagent inventory.

To print a Reagent Status report or Reagent Load Error report, see *Print a report*, page 5-230.

Related information...

- *Reagent status screen - i 1000$_{SR}$ view*, page 5-37
- *Descriptions of reagent statuses (i 1000$_{SR}$)*, page 5-42
- *Descriptions of carrier statuses (i 1000$_{SR}$)*, page 5-44
- *Reagent Load Error Report*, page Appendix A-52
- *Reagent Status Report (i 1000$_{SR}$)*, page Appendix A-54

Verify reagent inventory on all modules

Perform this procedure before initiating sample processing to verify adequate reagent inventory or when the reagent status button on the processing module displays a caution icon.

NOTE: The status that displays reflects the inventory that remains after the system processes the samples that have been scanned by the sample bar code reader.

You can create orders when inventory levels are insufficient. However, if inventory is not adequate when you initiate sample processing, tests become exceptions and are not processed.

To view reagent inventory on a single module system, see *Verify reagent inventory on a single module*, page 5-51.

Prerequisite	*Access the Reagent status screen - i 1000$_{SR}$ view*, page 5-39
Module status	Any
User access level	General operator
Supplies	NA

To verify reagent inventory on all modules:

1. Select the **View all** option on the Reagent status screen.

   The Reagent status screen - View all view displays.

2. View reagent inventory.

To print a Reagent Status report or Reagent Load Error report, see *Print a report*, page 5-230.

Related information...

- *Reagent status screen - i 1000$_{SR}$ view*, page 5-37
- *Reagent status screen - View all view*, page 5-40
- *Descriptions of reagent statuses (i 1000$_{SR}$)*, page 5-42
- *Reagent Load Error Report*, page Appendix A-52

- *Reagent Status Report (i 1000$_{SR}$)*, page Appendix A-54

Find a specific reagent

Perform this procedure to search for specific reagents by entering search criteria in one or more fields.

Prerequisite	*Access the Reagent status screen - i 1000$_{SR}$ view*, page 5-39 *Access the Reagent status screen - View all view*, page 5-42 *Access the Reagent history screen*, page 5-49
Module status	Any
User access level	General operator
Supplies	NA

To find a specific reagent:

1. Select the appropriate **Module** option on the Reagent status screen.

   The reagent inventory for the selected module displays.

2. Select **F3 - Find**.

   The Find options (Reagent status) window displays.

3. Select and/or enter your search conditions. You can narrow the results returned by entering/selecting more criteria.

   NOTE: A wild card search allows you to type a partial entry followed by an asterisk (*) to begin a search when you do not know the entire entry. You can use the asterisk (*) wildcard character in all data entry boxes except position (P).

   Example: If you enter 123* in the Reagent lot data entry box, all reagent lots starting with 123 display. This list could include 12345M100, 12346M100, and 12347M100.

   NOTE: To display *c* System reagent(s) for a specific reagent carousel, you must enter a position in the P data entry box and select the R1 and/or R2 check box. If you do not enter a position (P), all reagents display.

4. Select **Done** to initiate the search.

   The Reagent status screen displays with the text "Search results:" in the title bar.

   NOTE: Select the **refresh** button to display all records.

Related information...

- *Reagent status screen - i 1000$_{SR}$ view*, page 5-37
- *Reagent status screen - View all view*, page 5-40
- *Find options (Reagent status) window*, page 5-46
- *Find options (Reagent status - View all or Reagent history) window*, page 5-46
- *Reagent history screen*, page 5-47

View reagent details

Perform this procedure to display the Details for reagent (Reagent status) window. From this window you can view detailed information for reagents.

Prerequisite	*Access the Reagent status screen - i 1000$_{SR}$ view*, page 5-39 *Access the Reagent status screen - View all view*, page 5-42
Module status	Any
User access level	General operator
Supplies	NA

To view reagent details:

1. Select a **Module** option on the Reagent status screen.
2. Select the desired reagent(s) from the table or select **F2 - Select all**.
3. Select **F7 - Details**.

   The Details for reagent (Reagent status) window displays.
4. Use the **previous/next** buttons to display each reagent if you selected more than one. ***(optional)***
5. Select **Done** to return to the Reagent status screen.

Related information...

- *Reagent status screen - i 1000$_{SR}$ view*, page 5-37
- *Reagent status screen - View all view*, page 5-40
- *Details for reagent (Reagent status) window*, page 5-45

View reagent history details

Perform this procedure to display the Details for reagent (Reagent history) window. From this window you can view detailed information for reagents.

Prerequisite	*Access the Reagent history screen*, page 5-49
Module status	Any
User access level	General operator
Supplies	NA

To view reagent history details:

1. Select the desired reagent(s) from the table on the Reagent history screen or select **F2 - Select all**.
2. Select **F5 - Details**.

   The Details for reagent (Reagent history) window displays.
3. Use the **previous/next** buttons to display each reagent if you selected more than one. ***(optional)***
4. Select **Done** to return to the Reagent history screen.

Related information...

- *Reagent history screen*, page 5-47
- *Details for reagent (history) window*, page 5-49

i 1000$_{SR}$ procedures - reagent inventory management

i System reagent inventory management procedures include:

- *Prepare new reagent bottles (i 1000$_{SR}$)*, page 5-56
- *Prepare used reagent bottles (i 1000$_{SR}$)*, page 5-58
- *Load reagent bottles into reagent carrier(s) (i 1000$_{SR}$)*, page 5-59
- *Load reagents on the RSH (i 1000$_{SR}$)*, page 5-61
- *Unload reagents from reagent carousel (i 1000$_{SR}$)*, page 5-62
- *Cancel reagent unload (i 1000$_{SR}$)*, page 5-63
- *Unload reagents from RSH (i 1000$_{SR}$)*, page 5-64
- *Reloading reagents after opening the reagent carousel cover (i 1000$_{SR}$)*, page 5-66

Prepare new reagent bottles (*i* 1000$_{SR}$)

Perform this procedure to prepare new reagent bottles before loading them on the processing module.

Prerequisite	NA
Module status	NA
User access level	General operator
Supplies	• Reagent kits • One septum per reagent bottle

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert.

To prepare new reagent bottles:

1. Verify the required assay reagent components are present.
2. Record the reagent lot numbers.
3. Verify the reagent component is within the expiration date on the bottle label. DO NOT use if the expiration date is exceeded.
4. Ensure the reagent bottles are not leaking.
5. Invert the microparticle bottle gently 30 times to resuspend microparticles that may have settled during shipment.
6. Inspect the bottle to ensure microparticles are resuspended. If microparticles still adhere to the bottle or cap, continue to invert the bottle until the microparticles have been completely resuspended.
7. Open the reagent bottle and discard the white cap.

   IMPORTANT: Do not mix reagent kit components from different reagent lots. Do not pool reagents.

   NOTE: An ARCHITECT *i* System tracks only the reagent lot number from the reagent bottle. Record the lot numbers found on the reagent kit box prior to discarding the box. Also, record the reagent lot numbers from the reagent bottles.

IMPORTANT: DO NOT use if the microparticles do not resuspend. Contact your Area Customer Support.

8. Check each bottle for bubbles. If bubbles are present, remove them with a clean applicator stick.

9. Wear clean gloves to prevent contamination, and then remove a septum from the bag.
10. Carefully seat the septum onto the top of the bottle. Ensure the reagent does not contaminate your gloves.

IMPORTANT: You MUST use septums to prevent reagent evaporation and contamination and to ensure reagent integrity. Reliability of assay results cannot be guaranteed if septums are not used as instructed.

Once you have placed a septum on a reagent bottle, do not invert the bottle as this results in reagent leakage and may compromise assay results. Reagent bottles with septums installed must be stored UPRIGHT. Do not remove septums once they have been installed on reagent bottles.

To load reagents, see *Load reagents on the RSH (i 1000$_{SR}$)*, page 5-61.

Related information...

- *Reagent kits and components (i System)*, page 1-68
- *Septums and replacement caps (i System)*, page 1-69
- *Reagent status screen - i 1000$_{SR}$ view*, page 5-37

Prepare used reagent bottles (*i* 1000$_{SR}$)

Perform this procedure to prepare used reagent bottles before loading them on the processing module.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	• Reagent kits • Septum as required

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert.

To prepare used reagent bottles:

1. Verify required assay reagent components are present.

   IMPORTANT: Do not pool reagents.

2. Verify the reagent component is within the expiration date on the bottle label. DO NOT use if the expiration date is exceeded.

3. Ensure reagent bottles have been stored upright.
4. Open the reagent bottles and discard the teal-colored replacement caps.
5. Ensure reagent bottles have septums.

To load reagents, see *Load reagents on the RSH (i 1000$_{SR}$)*, page 5-61.

Related information...

- *Reagent kits and components (i System)*, page 1-68
- *Septums and replacement caps (i System)*, page 1-69
- *Reagent status screen - i 1000$_{SR}$ view*, page 5-37

Load reagent bottles into reagent carrier(s) (*i* 1000$_{SR}$)

Perform this procedure to load reagent bottles into reagent carrier(s).

Prerequisite	*Prepare new reagent bottles (i 1000$_{SR}$)*, page 5-56 *Prepare used reagent bottles (i 1000$_{SR}$)*, page 5-58
Module status	NA
User access level	General operator
Supplies	• Reagent kit(s) **NOTE:** Only 100 test reagent kits can be used on the *i* 1000$_{SR}$. • Reagent carriers

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert.

To load reagent bottles into reagent carrier(s):

1. Place a reagent carrier on a work surface with the handle to the left.

2. Place the bottle with the yellow color band securely into the position with the yellow seat on the reagent carrier. Ensure the bottle is not tilted and the reagent bar code is visible.

   NOTE: If the reagent kit has more than three bottles, load the bottle(s) designated with a #2 in a second reagent carrier.

3. Place the bottle with the pink color band into the position with the pink seat on the reagent carrier. Ensure the bottle is not tilted.

4. Place the bottle with the green color band into the position with the green seat on the reagent carrier. Ensure the bottle is not tilted and the reagent bar code is visible.

To load reagents on the RSH, see *Load reagents on the RSH (i 1000$_{SR}$)*, page 5-61,

Load reagents on the RSH (*i* 1000$_{SR}$)

Perform this procedure to load reagent carriers in sections on the RSH (robotic sample handler).

Prerequisite	*Load reagent bottles into reagent carrier(s) (i 1000$_{SR}$)*, page 5-59
Module status	Ready or Running (processing module) Running (sample handler)
User access level	General operator
Supplies	NA

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert.

To load reagents:

1. Verify the indicators below the desired section are off, which indicates the section is available.

2. Load the reagent carrier into the section by pushing it in until the indicator illuminates.

   NOTE: When the modules have a status of Running or Ready for the processing module and Running for the sample handler, reagent carriers are scanned by the bar code reader and loaded on the reagent carousel in the order they are placed on the RSH, not by position number.

   NOTE: Once you place a new reagent(s) on the RSH and the bar code reader scans the bar code label, the system software links individual bottles together as a kit. If the bottles are not kept together, the reagent status of Missing bottle or Extra bottle displays.

   Onboard stability is tracked after the reagent carrier is scanned by the bar code reader and is in the process of being loaded on the reagent carousel and while the reagent kit is loaded on the reagent carousel. Once the reagent carrier has been unloaded from the reagent carousel and removed from the RSH the onboard stability tracking timer stops.

   For information on reagent onboard stability, see the assay-specific package insert.

Related information...

- *Reagent status screen - i 1000$_{SR}$ view*, page 5-37

Unload reagents from reagent carousel (*i* 1000$_{SR}$)

Perform this procedure when reagents are expired, or when you need room to add a different assay reagent kit on the reagent carousel.

NOTE: The system automatically unloads reagent kits with a reagent status of empty or LLS error.

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert.

Prerequisite	*Access the Reagent status screen - i 1000$_{SR}$ view*, page 5-39
Module status	Running, Scheduled pause, Ready (processing module) Running (sample handler)
User access level	General operator
Supplies	NA

To unload reagents:

1. Select the **Refresh** button to display all records.
2. Select the **Page scroll right** button and verify there are no scheduled tests for the reagent kit to be unloaded.

   NOTE: If a reagent kit is unloaded, all scheduled tests for that reagent kit will go to exceptions.
3. Select the desired reagent kit(s) to be unloaded, and then select **F7 Unload**. The reagent carrier will be unloaded to an available section on the RSH.

To cancel the unloading of the reagent kit, see *Cancel reagent unload (i 1000$_{SR}$)*, page 5-63.

Related information...

- *Reagent status screen - i 1000$_{SR}$ view*, page 5-37

Cancel reagent unload (*i* 1000$_{SR}$)

Perform this procedure when reagent kit(s) have been selected for unloading from the reagent carousel and you want to cancel the unloading process and leave the reagent kit(s) on the reagent carousel.

Prerequisite	*Access the Reagent status screen - i 1000$_{SR}$ view*, page 5-39
Module status	Running, Scheduled pause, Ready (processing module) Running (sample handler)

User access level	General operator
Supplies	NA

To cancel a reagent unload:

1. Verify the carrier status is scheduled unload for the desired reagent kit(s).
2. Select the appropriate reagent kit(s).
3. Select **F8 Cancel unload** to cancel the unloading of reagent kit(s).

Related information...

- *Reagent status screen - i 1000$_{SR}$ view*, page 5-37

Unload reagents from RSH (*i* 1000$_{SR}$)

Perform this procedure to unload reagents from the sections of the RSH (robotic sample handler) when they are no longer needed on the system.

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert.

Prerequisite	Section indicator: • blinking green • solid green • alternating green/amber
Module status	Any
User access level	General operator
Supplies	Replacement cap (one for each bottle removed)

To unload reagents from the RSH:

1. Remove the reagent carrier by sliding the reagent carrier out of the section.

2. Place new teal-colored replacement caps on the bottles covering the septums.

   IMPORTANT: Always use replacement caps on used reagent bottles. Do not use the original bottle caps. Do not invert bottles with a septum and replacement cap, as this results in reagent leakage and may compromise assay results. Reagent bottles MUST be stored in an UPRIGHT position.

   Empty reagent kits may be discarded without the teal-colored replacement cap.

   NOTE: Once you place a new reagent(s) on the RSH and the bar code reader scans the bar code label, the system software links individual bottles together as a kit. If the bottles are not kept together, the reagent status of Missing bottle or Extra bottle displays.

   Onboard stability is tracked after the reagent carrier is scanned by the bar code reader and is in the process of being loaded on the reagent carousel and while the reagent kit is loaded on the reagent carousel. Once the reagent carrier has been unloaded from the reagent carousel and removed from the RSH the onboard stability tracking timer stops.

   For information on reagent onboard stability, see the assay-specific package insert.

3. Place the reagent carriers UPRIGHT in refrigerated storage according to instructions in the assay-specific package insert.

NOTE: For reagents stored off the system, it is recommended you store them in their reagent carriers and ensure they remain upright.

To cancel the unloading of the reagent kit, see *Cancel reagent unload (i 1000$_{SR}$)*, page 5-63.

Related information...

- *Septums and replacement caps (i System)*, page 1-69
- *Reagent status screen - i 1000$_{SR}$ view*, page 5-37

Reloading reagents after opening the reagent carousel cover (*i* 1000$_{SR}$)

Perform this procedure to reload reagent carriers in sections on the RSH (robotic sample handler) after opening the reagent carousel cover.

NOTE: Reagent carrier positions on the reagent carousel must be verified after opening the reagent carousel cover. Once the sample handler module status is running, the system will automatically unload the reagent carriers. You must reinsert the reagent carriers that you want to be loaded back on the reagent carousel.

Prerequisite	NA
Module status	Ready or Running (processing module) Running (sample handler)
User access level	General operator
Supplies	NA

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert.

To reload reagents:

1. Verify the indicators below the desired section are blinking green, which indicates the reagent carrier has been unloaded.
2. Reload the reagent carrier into the section by pulling the carrier out and pushing it in until the indicator illuminates.

NOTE: Reagent carriers are scanned by the bar code reader and loaded on the reagent carousel in the order they are repositioned on the RSH, not by position number.

Patient and control orders

Patient and control orders are created automatically or by an operator.

Patient and control orders topics include:

- *Automated ordering*, page 5-68
- *Patient order screens and views*, page 5-70
- *Control order screen and views*, page 5-92
- *Order status screen*, page 5-101
- *Sample status screen*, page 5-113

Automated ordering

Automated patient sample and control ordering is available using host computer download, host order query, or automated control ordering.

- *Host computer download*, page 5-68
- *Host order query*, page 5-69
- *Automated control ordering*, page 5-69
- *Auto retest (patient samples)*, page 5-70

Host computer download

Host computer download is the process of downloading sample orders from a host computer to the SCC (system control center). Depending on the type of sample handler:

- All sample handlers except an LAS (laboratory automated system) track - When the bar code reader scans a bar coded sample and the host has downloaded an order to the SCC, the system processes the test(s).
- LAS track - When the LAS system sends sample information to the SCC and the host has downloaded an order to the SCC, the system processes the test(s).
- RSH (robotic sample handler) - When the host computer sends a rerun order for a sample to the SCC and the sample has not been unloaded from the RSH, the system processes the test(s).

When the host downloads new orders, the Orders icon blinks. You can view the orders on the Order status screen.

NOTE: For automated ordering by host computer download, you must configure your system to communicate with a host computer.

See *Configure host interface settings (i 1000$_{SR}$)*, page 2-6.

Host order query

Host order query is the process of downloading a sample order from a host computer to the SCC (system control center) after a request from the SCC. Depending on the type of sample handler:

- All sample handlers except an LAS (laboratory automation system) track - When a bar code reader scans a bar coded sample (sample identification number not configured as a control) and an order does not exist on the SCC, the SCC sends a query to the host computer.
- LAS track - When the LAS system sends sample information to the SCC and an order does not exist, the SCC sends a query to the host computer.

If the host computer has test requests for that sample it sends them. When a new order is downloaded the Orders icon blinks. You can view the order on the Order status screen.

If the host computer has no orders for the sample (or no record of the sample) you are notified by a message on the System logs screen - Temporary message log view.

NOTE: For automated ordering by host order query, you must configure your system to communicate with a host computer with query.

See *Configure host interface settings (i 1000$_{SR}$)*, page 2-6.

If the ARCHITECT System encounters three consecutive host time-out errors while waiting for a response from the host computer, the system communications setting "On with query" is turned off and the sample handler is paused. To continue using the query mode, you must reconfigure this setting.

NOTE: If the host computer creates rerun orders, you must download the orders to the SCC. The SCC does not query for rerun orders.

Automated control ordering

Automated control ordering is the process the system uses to automatically order control tests by associating an SID (sample ID) with a predefined test(s). When a bar code is scanned and recognized as a configured control, the system automatically processes the test(s) configured for that SID. You can view the order on the Order status screen.

NOTE: For automated control ordering, you must configure an SID for the control level. See *Configure a bar code for a single analyte control level*, page 2-106 or *Configure a multiconstituent bar code SID*, page 2-108.

Auto retest (patient samples)

Auto retest is the process the system uses to automatically generate rerun orders for patient tests (excluding controls and calibrators). For each test, the system can generate two automatic rerun orders.

1. The system compares test results to the configured retest rules starting with the first rule. When a result meets the retest criteria of a rule, the system generates a rerun order without evaluating further rules.

   You can view the tests scheduled for rerun on the Order status, Rerun status, and Sample status screens. The R (rerun) code is assigned to the test.

   If your system is configured with an RSH (robotic sample handler), you can configure the system to automatically reposition the sample(s) for retest. If your system is not configured for automatic repositioning, you must reload the sample(s) to be retested.

2. The system compares retest results to the configured retest rules. If a retest result meets the retest criteria of a rule, the system generates a second rerun order. This rerun order displays and processes the same as the first.

   NOTE: If you manually rerun a test result or test exception, the system restarts the auto retest process and can generate two additional automatic rerun orders for each test.

To configure retest rules, see *Configure a retest rule*, page 2-55.

Patient order screens and views

You use patient order screens and their views to create patient orders.

Patient order screen and views topics include:

- *Patient order screen - Single patient view*, page 5-71
- *Patient order screen - Batch (bar coded) view*, page 5-72
- *Patient order screen - Batch (non-bar coded) view*, page 5-74
- *Procedures - Patient order screen*, page 5-76

- *Windows - Patient order screen and views*, page 5-88

Patient order screen - Single patient view

From the single patient view of the Patient order screen you can create non-batch patient orders when:

- The system is not connected to a host computer
- The host computer is inoperable
- The LAS (laboratory automation system) track is inoperable
- A sample does not have a bar code label

You can also access windows to enter additional patient information and order assay options.

Figure 5.14: Patient order screen - single patient view

For descriptions of these fields, see *Patient order screen - Single patient view field descriptions*, page Appendix E-20.

To display this screen, see *Access the Patient order screen - Single patient view*, page 5-72.

Related procedures...

- *Create a patient order (single order)*, page 5-76
- *Add a test to a patient order*, page 5-86

Access the Patient order screen - Single patient view

Perform this procedure to display the single order view of the Patient order screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Patient order screen - single order view:

Select **Orders** from the menu bar, and then select **Patient order**.

The Patient order screen - single order view displays.

Related information...

- *Patient order screen - Single patient view*, page 5-71

Patient order screen - Batch (bar coded) view

From the Batch (bar coded) view of the Patient order screen you can create patient batch orders for bar coded samples.

NOTE: Batch ordering is not available if your system is configured with an LAS (laboratory automation system) sample handler.

Batch processing is not available for the *c* System sample carousel. Batch samples placed on the carousel will not be processed as part of the batch.

You can also access windows to change the batch name, add a comment for the batch order, and order assay options.

To change the view to allow you to order a non-bar coded batch, see *Change the batch sample ordering type*, page 2-18.

Figure 5.15: Patient order screen - Batch (bar coded) view

For descriptions of these fields, see *Patient order screen - Batch (bar coded) view field descriptions*, page Appendix E-21.

To display this view of the screen, see *Access the Patient order screen - Batch (bar coded) view*, page 5-73.

Related procedures...

- *Create a patient order (batch, bar coded)*, page 5-79
- *Change the batch sample ordering type*, page 2-18

Access the Patient order screen - Batch (bar coded) view

Perform this procedure to display the batch view of the Patient order screen.

Prerequisite	Batch ordering sample type configured to bar coded
Module status	Any
User access level	General operator
Supplies	NA

To access the Patient order screen - batch (bar coded) view:

1. Select **Orders** from the menu bar, and then select **Patient order**.

   The Patient order screen - single order view displays.

2. Select the **Batch** option.

   The Patient order screen - Batch view displays.

Related information...

- *Patient order screen - Single patient view*, page 5-71
- *Patient order screen - Batch (bar coded) view*, page 5-72
- *Patient order screen - Batch (non-bar coded) view*, page 5-74

Patient order screen - Batch (non-bar coded) view

From the Batch (non-bar coded) view of the Patient order screen you can create patient batch orders for non-bar coded samples.

You can also access windows to:

- Change the batch name
- Enter a comment for the batch order
- Order assay options

NOTE: Batch ordering is not available if your system is configured with an LAS (laboratory automation system) sample handler.

Batch ordering is not available for the *c* System sample carousel. Batch samples placed on the carousel will not be processed as part of the batch.

To change the view to allow you to order a bar coded batch, see *Change the batch sample ordering type*, page 2-18.

Figure 5.16: Patient order screen - Batch (non-bar coded) view

For descriptions of these fields, see *Patient order screen - Batch (non-bar coded) view field descriptions*, page Appendix E-23.

To display this view of the screen, see *Access the Patient order screen - Batch (non-bar coded) view*, page 5-75.

Related procedures...

- *Create a patient order (batch, non-bar coded)*, page 5-82
- *Change the batch sample ordering type*, page 2-18

Access the Patient order screen - Batch (non-bar coded) view

Perform this procedure to display the Batch view of the Patient order screen.

Prerequisite	Batch ordering sample type configured to non-bar coded
Module status	Any
User access level	General operator
Supplies	NA

To access the Patient order screen - Batch (non-bar coded) view:

1. Select **Orders** from the menu bar, and then select **Patient order**.
2. The Patient order screen - Single patient view displays.

3. Select the **Batch** option.

   The Patient order screen - batch view displays.

Related information...

- *Patient order screen - Single patient view*, page 5-71
- *Patient order screen - Batch (bar coded) view*, page 5-72
- *Patient order screen - Batch (non-bar coded) view*, page 5-74

Procedures - Patient order screen

Procedures you can perform from the Patient order screen and its related windows include:

- *Create a patient order (single order)*, page 5-76
- *Create a patient order (batch, bar coded)*, page 5-79
- *Create a patient order (batch, non-bar coded)*, page 5-82
- *Add a test to a patient order*, page 5-86

Create a patient order (single order)

Perform this procedure to create a manual patient order.

To create batch orders, see:

- *Create a patient order (batch, bar coded)*, page 5-79
- *Create a patient order (batch, non-bar coded)*, page 5-82

Prerequisite	*Access the Patient order screen - Single patient view*, page 5-72
Module status	Any
User access level	General operator
Supplies	NA

To create a patient order (single order):

1. Select the **Sampling priority: STAT** option on the Patient order screen to display the "S" (STAT) code for the sample orders and results. ***(optional)***
2. Select the **carrier** or **carousel** button, if displayed.
3. Enter a carrier or carousel ID in the **C** data entry box, if displayed.
4. Enter a position in the **P** data entry box, if displayed.

NOTE: When using bar coded samples, steps **3** and **4** are not required. If a carrier and position are entered and the bar code on the sample is not seen, the system automatically uses the scanned C/P as the unique ID and the sample is processed as entered.

5. Enter the SID (sample identification) in the **SID** data entry box.

   NOTE: You can use the bar code scanner, if available, to scan the SID. When using the bar code scanner, Caps Lock on the keyboard must be off to prevent an incorrect read of the SID.

   IMPORTANT: To ensure tests processed include the correct information, confirm that your laboratory is not reusing the same SID prior to completion or deletion of previously pending orders.

6. Enter a value in the **Sample manual dilution factor** data entry box. ***(optional)***

   NOTE: Not all assays support manual dilutions. An assay displays unavailable if you select manual dilution, and the assay does not support this type of dilution. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

7. Select the desired panel(s) from the **Panels** list and/or select an assay(s) from the **Assays** list.

   NOTE: If you selected the carousel button on a *ci* 8200 System, panel names that include ARCHITECT *i* System assays do not display.

   To order a calculated assay, perform one of the following:

   - Select only the calculated assay. The system automatically orders the assays required to complete the calculation but does not release or report these results.
   - Select the calculated assay and the desired constituent assay(s). The system automatically orders the additional constituent assays required to complete the calculation but does not release or report the system-ordered constituent results.
   - Select the calculated assay and all its constituent assays. The system releases and reports all results.

8. Select **F2 - Sample details** to enter patient information. ***(optional)***

   The Details for sample window displays.

   a. Enter patient information in the appropriate data entry box(es) and/or select the appropriate **Gender** option.

   NOTE: When entering a PID, enter only the details that are known to be accurate. If the information is not known, leave the data entry box empty. Never edit information previously entered. If you edit the PID, the software recognizes the PID as a different and unique patient.

   b. Enter a comment in the **Comment** data entry box.

   c. Select **Done** to save your changes and return to the Patient order screen.

9. Select **F5 - Assay options to** specify assay options. ***(optional)***

   The Assay options (Patient order) window - manual dilution view displays if you entered a manual dilution factor.

   OR

   The Assay options (Patient order) window - automated dilution view displays if you did not enter a manual dilution factor.

   a. Delete replicate values that are not required, and then enter the number of replicates for the desired dilution(s) in the **Dilution protocols/Number of replicates** data entry box.

   NOTE: You cannot run all assays with an automated dilution protocol. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

   The system software automatically selects one replicate for the default dilution protocol.

   You cannot order replicates for calculated assays.

   IMPORTANT: For ARCHITECT *i* System assays do not order more than 10 tests per sample for samples loaded in sample cups.

   For *c* System ICT assays do not order more than 15 tests per sample for samples loaded in cups and/or tubes.

   The total number of tests per sample includes all assays, replicates, dilutions, and available reagent lots for the order.

b. Select the **Module selection: Manual** option, and then select the appropriate module check box(es) to override the system module scheduler (multi-module *i* System).

NOTE: Overriding the system module scheduler may impact overall throughput.

c. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 9a and 9b for each. ***(optional)***

d. Select **Done** to save your changes and return to the Patient order screen.

10. Select **F3 - Add order**.

To view orders, see *Access the Order status screen*, page 5-103.

To print the Order List Report, see *Print the Order List report*, page 5-233.

NOTE: The minimum sample volume information prints on the Order List report.

Related information...

- *Patient order screen - Single patient view*, page 5-71
- *Details for sample window*, page 5-90
- *Assay options (Patient order) window - manual dilution view*, page 5-89
- *Assay options (Patient order) window - automated dilution view*, page 5-89
- *Order List Report*, page Appendix A-30
- *Loading samples (RSH)*, page 5-126

Create a patient order (batch, bar coded)

Perform this procedure to order the same test(s) on multiple patient samples. You can process batch orders on the standard or robotic sample handlers.

If you have an RSH and/or sample carousel, you may order tests for priority processing on patient or control samples and load them in the priority bay, section, or sample carousel while the batch order is processing.

IMPORTANT: When running a bar coded batch you cannot:

- Load calibrators

- Load priority samples in the SSH
- Leave empty spaces in a carrier
- Load batch samples in a carrier with tests in process

NOTE: You cannot add a test(s) to an order within the batch. If you add a test(s) to an order that is part of a batch order, the additional test(s) processes instead of the batch test(s). You must order additional tests separately and load the samples after the batch process is complete.

To change the view to allow you to order a non-bar coded batch, see *Change the batch sample ordering type*, page 2-18.

To create a single order for a patient sample, see *Create a patient order (single order)*, page 5-76.

Prerequisite	Batch ordering sample type configured to bar coded *Access the Patient order screen - Batch (bar coded) view*, page 5-73
Module status	Any
User access level	General operator
Supplies	NA

To create a patient order (batch, bar coded):

1. Select the **Order type: Batch** option on the Patient order screen.

   The Patient order screen - Batch (bar coded) view displays.

2. Enter a starting sample ID in the **Starting SID** data entry box.
3. Enter an ending sample ID in the **Ending SID** data entry box.

   NOTE: Batch processing begins on the sample with the starting SID and continues until the sample with the ending SID is processed. All samples in between, regardless of sequence or SID, are included in the batch process.

4. Enter a value in the **Sample manual dilution factor** data entry box. ***(optional)***

   NOTE: Not all assays support manual dilutions. An assay displays unavailable if you select manual dilution, and the assay does not support this type of dilution. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

5. Select the desired panel(s) from the **Panels** list and/or select an assay(s) from the **Assays** list.

NOTE: To order a calculated assay, perform one of the following:

- Select only the calculated assay. The system automatically orders the assays required to complete the calculation but does not release or report these results.
- Select the calculated assay and the desired constituent assay(s). The system automatically orders the additional constituent assays required to complete the calculation but does not release or report the system-ordered constituent results.
- Select the calculated assay and all its constituent assays. The system releases and reports all results.

6. Select **F2 - Batch details** to change the batch name or enter a comment. ***(optional)***

   The Details for batch window displays.

   a. Enter a new batch name in the **Batch name** data entry box.

   b. Enter a comment in the **Comment** data entry box.

   c. Select **Done** to save your changes and return to the Patient order screen.

7. Select **F5 - Assay options to** specify assay options. ***(optional)***

   The Assay options (Patient order) window - manual dilution view displays if you entered a manual dilution factor.

   OR

   The Assay options (Patient order) window - automated dilution view displays if you did not enter a manual dilution factor.

   a. Delete replicate values that are not required, and then enter the number of replicates for the desired dilution(s) in the **Dilution protocols/Number of replicates** data entry box.

   NOTE: You cannot run all assays with an automated dilution protocol. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

   The system software automatically selects one replicate for the default dilution protocol.

   IMPORTANT: For ARCHITECT *i* System assays do not order more than 10 tests per sample for samples loaded in sample cups.

For *c* System ICT assays do not order more than 15 tests per sample for samples loaded in cups and/or tubes.

The total number of tests per sample includes all assays, replicates, dilutions, and available reagent lots for the order.

b. Select the **Module selection: Manual** option, and then select the appropriate module check box(es) to override the system module scheduler (multi-module *i* System).

NOTE: Overriding the system module scheduler may impact overall throughput.

c. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 7a and 7b for each. ***(optional)***

d. Select **Done** to save your changes and return to the Patient order screen.

8. Select **F3 - Add order**.

To view orders, see *Access the Order status screen*, page 5-103.

To print the Order List report, see *Print the Order List report*, page 5-233.

NOTE: The minimum sample volume information prints on the Order List report.

Related information...

- *Patient order screen - Batch (bar coded) view*, page 5-72
- *Details for batch window*, page 5-91
- *Assay options (Patient order) window - manual dilution view*, page 5-89
- *Assay options (Patient order) window - automated dilution view*, page 5-89
- *Order status screen*, page 5-101
- *Order List Report*, page Appendix A-30
- *Loading samples (RSH)*, page 5-126
- *Batch processing*, page 5-138

Create a patient order (batch, non-bar coded)

Perform this procedure to order the same test(s) on multiple patient samples. You can process batch orders on the RSH (robotic sample handler) or SSH (standard sample handler).

If you have an RSH and/or sample carousel, you may order tests for priority processing on patient or control samples and load them in the priority bay, section, or sample carousel while the batch order is processing.

IMPORTANT: When running a non-bar coded batch you cannot:

- Load calibrators
- Load priority samples in the SSH
- Leave empty spaces in a carrier
- Load batch samples in a carrier with tests in process

NOTE: You cannot add a test(s) to an order within the batch. If you add a test(s) to an order that is part of a batch order, the additional test(s) processes instead of the batch test(s). You must order additional tests separately and load the samples after the batch process is complete.

To change the view to allow you to order a bar coded batch, see *Change the batch sample ordering type*, page 2-18.

To create a single order for a patient sample, see *Create a patient order (single order)*, page 5-76.

Prerequisite	Batch ordering sample type configured to non-bar coded *Access the Patient order screen - Batch (non-bar coded) view*, page 5-75
Module status	Any
User access level	General operator
Supplies	NA

To create a patient order (batch, non-bar coded):

1. Select the **Order type: Batch** option on the Patient order screen.

   The Patient order screen - Batch (non-bar coded) view displays.

2. Enter the starting carrier ID in the **Starting (C)** data entry box.
3. Enter a position in the **(P)** data entry box.
4. Enter the starting SID (sample identification) in the **Starting SID** data entry box (maximum of nine numeric characters).

   The SID is assigned sequentially for each batch sample.

5. Enter the total number of samples in the batch order. This number cannot exceed 5000.

NOTE: Batch processing begins on the sample with the starting carrier and position and continues until the total number of samples processed equals the number of samples entered.

6. Enter a value in the **Sample manual dilution factor** data entry box. ***(optional)***

   NOTE: Not all assays support manual dilutions. An assay displays unavailable if you select manual dilution, and the assay does not support this type of dilution. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

7. Select the desired panel(s) from the **Panels** list and/or select an assay(s) from the **Assays** list.

   NOTE: To order a calculated assay, perform one of the following:

   - Select only the calculated assay. The system automatically orders the assays required to complete the calculation but does not release or report these results.
   - Select the calculated assay and the desired constituent assay(s). The system automatically orders the additional constituent assays required to complete the calculation but does not release or report the system-ordered constituent results.
   - Select the calculated assay and all its constituent assays. The system releases and reports all results.

8. Select **F2 - Batch details**, to change the batch name or enter a comment. ***(optional)***

   The Details for batch window displays.

   a. Enter a new batch name in the **Batch name** data entry box.

   b. Enter a comment in the **Comment** data entry box.

   c. Select **Done** to save your changes and return to the Patient order screen.

9. Select **F5 - Assay options to** specify assay options. ***(optional)***

   The Assay options (Patient order) window - manual dilution view displays if you entered a manual dilution factor.

   OR

   The Assay options (Patient order) window - automated dilution view displays if you did not enter a manual dilution factor.

a. Delete replicate values that are not required, and then enter the number of replicates for the desired dilution(s) in the **Dilution protocols/Number of replicates** data entry box.

NOTE: You cannot run all assays with an automated dilution protocol. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

The system software automatically selects one replicate for the default dilution protocol.

IMPORTANT: For ARCHITECT *i* System assays do not order more than 10 tests per sample for samples loaded in sample cups.

For *c* System ICT assays do not order more than 15 tests per sample for samples loaded in cups and/or tubes.

The total number of tests per sample includes all assays, replicates, dilutions, and available reagent lots for the order.

b. Select the **Module selection: Manual** option, and then select the appropriate module check box(es) to override the system module scheduler (multi-module *i* System).

NOTE: Overriding the system module scheduler may impact overall throughput.

c. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 9a and 9b for each. ***(optional)***

d. Select **Done** to save your changes and return to the Patient order screen.

10. Select **F3 - Add order**.

To view orders, see *Access the Order status screen*, page 5-103.

To print the Order List report, see *Print the Order List report*, page 5-233.

NOTE: The minimum sample volume information prints on the Order List report.

Related information...

- *Patient order screen - Batch (non-bar coded) view*, page 5-74
- *Details for batch window*, page 5-91
- *Assay options (Patient order) window - manual dilution view*, page 5-89

- *Assay options (Patient order) window - automated dilution view*, page 5-89
- *Order status screen*, page 5-101
- *Order List Report*, page Appendix A-30
- *Loading samples (RSH)*, page 5-126
- *Batch processing*, page 5-138

Add a test to a patient order

Perform this procedure to add a test(s) to a patient order.

IMPORTANT: If you are adding a calculated assay you must delete existing constituent assay results for this sample if new constituent results are desired for the calculation.

NOTE: You cannot add a test(s) to an order within a batch.

If you add a test(s) to an order that is part of a batch order, the additional test(s) processes instead of the batch test(s).

You must order additional tests separately and load the samples after the batch process is complete.

Prerequisite	Original order status - Pending *Access the Patient order screen - Single patient view*, page 5-72
Module status	Any
User access level	General operator
Supplies	NA

To add a test to a patient order:

1. Enter the SID (sample identification) in the **SID** data entry box.

   NOTE: You can use the bar code scanner, if available, to scan the SID. When using the bar code scanner, the Caps Lock key on the keyboard must be off to prevent an incorrect read of the SID.

2. Enter the value from the original order in the **Sample manual dilution factor** data entry box.

3. Select the desired panel(s) from the **Panels** list and/or select an assay(s) from the **Assays** list.

NOTE: If you selected the carousel button on an integrated system, panel names that include both ARCHITECT *c* System and ARCHITECT *i* System assays or only *i* System assays do not display.

To order a calculated assay, perform one of the following:

- Select only the calculated assay. The system automatically orders the assays required to complete the calculation but does not release or report these results.
- Select the calculated assay and the desired constituent assay(s). The system automatically orders the additional constituent assays required to complete the calculation but does not release or report the system-ordered constituent results.
- Select the calculated assay and all its constituent assays. The system releases and reports all results.

4. Select **F5 - Assay options to** specify assay options. ***(optional)***

   The Assay options (Patient order) window - manual dilution view displays if you entered a manual dilution factor.

   OR

   The Assay options (Patient order) window - automated dilution view displays if you did not enter a manual dilution factor.

   a. Delete replicate values that are not required, and then enter the number of replicates for the desired dilution(s) in the **Dilution protocols/Number of replicates** data entry box.

   NOTE: You cannot run all assays with an automated dilution protocol. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

   The system software automatically selects one replicate for the default dilution protocol.

   IMPORTANT: For ARCHITECT *i* System assays do not order more than 10 tests per sample for samples loaded in sample cups.

   For *c* System ICT assays do not order more than 15 tests per sample for samples loaded in cups and/or tubes.

   The total number of tests per sample includes all assays, replicates, dilutions, and available reagent lots for the order.

b. Select the **Module selection: Manual** option, and then select the appropriate module check box(es) to override the system module scheduler (multi-module *i* System).

NOTE: Overriding the system module scheduler may impact overall throughput.

c. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 4a and 4b for each. ***(optional)***

d. Select **Done** to save your changes and return to the Patient order screen.

5. Select **F3 - Add order**.

NOTE: If you have an RSH (robotic sample handler) that is configured to automatically reposition samples for retest and the sample is still onboard, a confirmation message displays. Select **Yes** to have the system re-aspirate the sample.

To view orders, see *Access the Order status screen*, page 5-103.

To print the Order List report, see *Print the Order List report*, page 5-233.

NOTE: The minimum sample volume information prints on the Order List report.

Related information...

- *Patient order screen - Single patient view*, page 5-71
- *Details for sample window*, page 5-90
- *Assay options (Patient order) window - manual dilution view*, page 5-89
- *Assay options (Patient order) window - automated dilution view*, page 5-89
- *Order status screen*, page 5-101
- *Order List Report*, page Appendix A-30
- *Loading samples (RSH)*, page 5-126

Windows - Patient order screen and views

Windows you can access from the Patient order screen include:

- *Assay options (Patient order) window - manual dilution view*, page 5-89

- *Assay options (Patient order) window - automated dilution view*, page 5-89
- *Details for sample window*, page 5-90
- *Details for batch window*, page 5-91

Assay options (Patient order) window - manual dilution view

From the manual dilution view of the Assay options (Patient order) window you can:

- Enter the desired number of replicates
- Override the system module scheduler and select a specific module for processing an order (multi-module *i* System)

Figure 5.17: Assay options (Patient order) window - manual dilution view

For descriptions of these fields, see *Assay options (Patient order) window - Manual dilution view field descriptions*, page Appendix E-23.

Related procedures...

- *Create a patient order (single order)*, page 5-76
- *Create a patient order (batch, bar coded)*, page 5-79
- *Create a patient order (batch, non-bar coded)*, page 5-82
- *Add a test to a patient order*, page 5-86

Assay options (Patient order) window - automated dilution view

From the automated dilution view of the Assay options (Patient order) window you can:

- Select an automated dilution factor other than the configured option
- Enter the desired number of replicates
- Override the system module scheduler and select a specific module for processing an order (multi-module *i* System)

Figure 5.18: Assay options (Patient order) window - automated dilution view

For descriptions of these fields, see *Assay options (Patient order) window - Automated dilution view field descriptions*, page Appendix E-24.

Related procedures...

- *Create a patient order (single order)*, page 5-76
- *Create a patient order (batch, bar coded)*, page 5-79
- *Create a patient order (batch, non-bar coded)*, page 5-82
- *Add a test to a patient order*, page 5-86

Details for sample window

From the Details for sample window you can:

- Enter patient information such as patient ID, name, date of birth, and gender
- Enter comments for orders
- View previously entered patient information

Figure 5.19: Details for sample window

For descriptions of these fields, see *Details for sample window field descriptions*, page Appendix E-25.

Related procedures...

- *Create a patient order (single order)*, page 5-76

Details for batch window

From the Details for batch window you can change the batch name and enter a comment for your batch order.

Figure 5.20: Details for batch window

For descriptions of these fields, see *Details for batch window field descriptions*, page Appendix E-26.

Related procedures...

- *Create a patient order (batch, bar coded)*, page 5-79

- *Create a patient order (batch, non-bar coded)*, page 5-82

Control order screen and views

You use control order screens and their views to create control orders.

Controls have the following characteristics:

- Require running, at all levels and for each assay, immediately after calibration to verify the newly-stored calibration curve on a specific processing module.
- Are run routinely to check a previously-stored active curve and to monitor system/assay performance.

For recommendations on routine control test frequency, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

IMPORTANT: Patient results can be compromised if you do not run controls and evaluate the results according to the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

Control order screen and views topics include:

- *Control order screen - Single analyte view*, page 5-92
- *Control order screen - Multiconstituent view*, page 5-94
- *Procedures - Control order screen*, page 5-95
- *Windows - Control order screen and views*, page 5-100

Control order screen - Single analyte view

From the Single analyte view of the Control order screen you can create a control order when:

- The system is not connected to a host computer
- The host computer is inoperable
- The system is not configured to run bar coded control samples
- The control sample does not have a bar code label
- The control sample has a SID bar code label not currently configured on the system

You can also access a window to order assay options.

Figure 5.21: Control order screen - Single analyte view

For descriptions of these fields, see *Control order screen - Single analyte view field descriptions*, page Appendix E-27.

Related procedures...

- *Create a control order (single analyte)*, page 5-95

Access the Control order screen - Single analyte view

Perform this procedure to display the Single analyte view of the Control order screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Control order screen - Single analyte view:

1. Select **Orders** from the menu bar, and then select **Control order**.

   The Control order screen - Multiconstituent view displays.

2. Select the **Order type: Single analyte** option.

   The Control order screen - Single analyte view displays.

Related information...

- *Control order screen - Multiconstituent view*, page 5-94
- *Control order screen - Single analyte view*, page 5-92

Control order screen - Multiconstituent view

From the Multiconstituent view of the Control order screen you can create a control order when:

- The system is not connected to a host computer
- The host computer is inoperable
- The system is not configured to run bar coded control samples
- The control sample does not have a bar code label
- The control sample has a SID bar code label not currently configured on the system

You can also access a window to order assay options.

Figure 5.22: Control order screen - Multiconstituent view

For descriptions of these fields, see *Control order screen - Multiconstituent view field descriptions*, page Appendix E-28.

Related procedures...

- *Create a control order (multiconstituent)*, page 5-97

Access the Control order screen - Multiconstituent view

Perform this procedure to display the Multiconstituent view of the Control order screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Control order screen - Multiconstituent view:

Select **Orders** from the menu bar, and then select **Control order**.

The Control order screen - Multiconstituent view displays.

Related information...

- *Control order screen - Multiconstituent view*, page 5-94

Procedures - Control order screen

Procedures you can perform from the Control order screen and its related windows include:

- *Create a control order (single analyte)*, page 5-95
- *Create a control order (multiconstituent)*, page 5-97

Create a control order (single analyte)

Perform this procedure to create an order for a single analyte control when a host computer is not available or single analyte controls are not configured to use a bar code SID (sample identification).

NOTE: You must configure controls in the system before you can perform this procedure. See *Configure a new single analyte control*, page 2-104.

Prerequisite	*Access the Control order screen - Single analyte view*, page 5-93
Module status	Any. If the processing module(s) is not in Running status, the volume printed on the Order List report is for one control per module.
User access level	General operator
Supplies	NA

To create a control order (single analyte):

1. Select the **Sampling priority: STAT** option on the Control order screen to display the "S" (STAT) code for the sample order and results. ***(optional)***
2. Select the **carrier** or **carousel** button.
3. Enter a carrier or carousel ID in the **C** data entry box, if displayed.
4. Enter a position in the **P** data entry box.
5. Enter a value in the **Sample manual dilution factor** data entry box. ***(optional)***

   NOTE: Not all assays support manual dilutions. An assay displays unavailable if you select manual dilution, and the assay does not support this type of dilution. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
6. Select the desired assay from the **Assays** list.
7. Select the **Lot** list button, and then select the desired lot.
8. Select the desired **Levels** check box(es).

   NOTE: All control levels selected must fit in one carrier/carousel.
9. Select **F5 - Assay options** to specify assay options. ***(optional)***

   The Assay options (Control order) window - manual dilution view displays if you entered a manual dilution factor.

   OR

   The Assay options (Control order) window - automated dilution view displays if you did not enter a manual dilution factor.

   a. Delete replicate values that are not required, and then enter the number of replicates for the desired dilution(s) in the **Dilution protocols/Number of replicates** data entry box.

   NOTE: You cannot run all assays with an automated dilution protocol. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet) for limitations on automated dilutions.

   The system software automatically selects one replicate for the default dilution protocol.

   IMPORTANT: For ARCHITECT *i* System assays do not order more than 10 tests per sample for samples loaded in sample cups.

For *c* System ICT assays do not order more than 15 tests per sample for samples loaded in cups and/or tubes.

The total number of tests per sample includes all assays, replicates, dilutions, and available reagent lots for the order.

b. Select the **Module selection: Manual** option, and then select the appropriate module check box(es) to override the system module scheduler (multi-module *i* System).

NOTE: Overriding the system module scheduler may impact overall throughput.

c. Use the previous/next buttons to display each level if you selected more than one, and then repeat steps 9a and 9b for each. ***(optional)***

d. Select **Done** to save your changes and return to the Control order screen.

10. Select **F2 - Add order**.

To view orders, see *Access the Order status screen*, page 5-103.

To print the Order List report, see *Print the Order List report*, page 5-233.

NOTE: The minimum sample volume information prints on the Order List report.

Related information...

- *Control order screen - Single analyte view*, page 5-92
- *Assay options (Control order) window - manual dilution view*, page 5-100
- *Assay options (Control order) window - automated dilution view*, page 5-101
- *Order status screen*, page 5-101
- *Order List Report*, page Appendix A-30
- *Loading samples (RSH)*, page 5-126

Create a control order (multiconstituent)

Perform this procedure to create an order for a multiconstituent control when a host computer is not available or multiconstituent controls are not configured to use a bar code SID (sample identification).

NOTE: You must configure controls in the system before you can perform this procedure. See *Configure a new multiconstituent control*, page 2-106.

Prerequisite	*Access the Control order screen - Multiconstituent view*, page 5-95
Module status	Any. If the processing module(s) is not in Running status, the volume printed on the Order List report is for one control per module.
User access level	General operator
Supplies	NA

To create a control order (multiconstituent):

1. Select the **Sampling priority: STAT** option on the Control order screen to display the "S" (STAT) code for the sample orders and results. ***(optional)***
2. Select the **carrier** or **carousel** button.
3. Enter a carrier or carousel ID in the **C** data entry box, if displayed.
4. Enter a position in the **P** data entry box.
5. Enter a value in the **Sample manual dilution factor** data entry box. ***(optional)***

   NOTE: Not all assays support manual dilutions. An assay displays unavailable if you select manual dilution, and the assay does not support this type of dilution. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
6. Select the **Control** list button, and then select the desired control.
7. Select the **Lot** list button, and then select the desired lot.
8. Select the desired **Levels** option.
9. Select the desired panel(s) from the **Panels** list and/or select the assay(s) from the **Assays** list.
10. Select **F5 - Assay options to** specify assay options.

    The Assay options (Control order) window - manual dilution view displays if you entered a manual dilution factor.

    OR

The Assay options (Control order) window - automated dilution view displays if you did not enter a manual dilution factor.

a. Delete replicate values that are not required, and then enter the number of replicates for the desired dilution(s) in the **Dilution protocols/Number of replicates** data entry box.

NOTE: You cannot run all assays with an automated dilution protocol. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

The system software automatically selects one replicate for the default dilution protocol.

IMPORTANT: For ARCHITECT *i* System assays do not order more than 10 tests per sample for samples loaded in sample cups.

For *c* System ICT assays do not order more than 15 tests per sample for samples loaded in cups and/or tubes.

The total number of tests per sample includes all assays, replicates, dilutions, and available reagent lots for the order.

b. Select the **Module selection: Manual** option, and then select the appropriate module check box(es) to override the system module scheduler (multi-module *i* System).

NOTE: Overriding the system module scheduler may impact overall throughput.

c. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 10a and 10b for each. ***(optional)***

d. Select **Done** to save your changes and return to the Control order screen.

11. Select **F2 - Add order**.

To view orders, see *Access the Order status screen*, page 5-103.

To print the Order List report, see *Print the Order List report*, page 5-233.

NOTE: The minimum sample volume information prints on the Order List report.

Related information...

- *Control order screen - Multiconstituent view*, page 5-94

- *Assay options (Control order) window - manual dilution view*, page 5-100
- *Assay options (Control order) window - automated dilution view*, page 5-101
- *Order status screen*, page 5-101
- *Order List Report*, page Appendix A-30
- *Loading samples (RSH)*, page 5-126

Windows - Control order screen and views

Windows you can access from the Control order screen include:

- *Assay options (Control order) window - manual dilution view*, page 5-100
- *Assay options (Control order) window - automated dilution view*, page 5-101

Assay options (Control order) window - manual dilution view

From the manual dilution view of the Assay options (Control order) window you can:

- Enter the desired number of replicates
- Override the system module scheduler and select a specific module for processing an order (multi-module *i* System)

Figure 5.23: Assay options (Control order) window - manual dilution view

For descriptions of these fields, see *Assay options (Control order) window - Manual dilution view field descriptions*, page Appendix E-29.

Related procedures...

- *Create a control order (single analyte)*, page 5-95
- *Create a control order (multiconstituent)*, page 5-97

Assay options (Control order) window - automated dilution view

From the automated dilution view of the Assay options (Control order) window you can:

- Select an automated dilution factor other than the configured option
- Enter the desired number of replicates
- Override the system module scheduler and select a specific module for processing an order (multi-module *i* System)

Figure 5.24: Assay options (Control order) window - automated dilution view

For descriptions of these fields, see *Assay options (Control order) window - Automated dilution view field descriptions*, page Appendix E-30.

Related procedures...

- *Create a control order (single analyte)*, page 5-95
- *Create a control order (multiconstituent)*, page 5-97

Order status screen

From the Order status screen you can view information for patient, control, calibration, and rerun test orders, which includes:

- Sample location, identified by sample carrier ID/position, carousel ID/position, or LAS
- Sample name and identification number
- Assay name, status, and time of completion
- Processing codes

You can also delete a test from an order and access windows to:

- Find information for specific tests based on specified search criteria
- Print the Order List report and Order Status report
- View detailed test information
- Add a comment to an order

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

Figure 5.25: Order status screen

For descriptions of these fields, see *Order status screen field descriptions*, page Appendix E-31.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
C/P	Alphanumerically in the following order: • Carrier/position • CRSL (carousel)/position • LAS • LAS carousel/position • WTR (water)/0 • No carrier or carousel/position
SID, NAME, and ASSAY	Alphanumerically in ascending order. If you did not enter a patient name, the test(s) with a blank name field displays last when the column sorts.
TIME	First to last to complete.
STATUS and CODE	See *Descriptions of test statuses*, page 5-104 and *Descriptions of processing codes*, page 5-105.

To display this screen, see *Access the Order status screen*, page 5-103.

Related procedures...

- *View the status of ordered tests*, page 5-105
- *Find a specific test order*, page 5-106
- *Print a report*, page 5-230
- *Print the Order List report*, page 5-233
- *View order or rerun status details*, page 5-107
- *Add a comment to an order*, page 5-108
- *Delete a test from a patient order*, page 5-109

Access the Order status screen

Perform this procedure to display the Order status screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Order status screen:

NOTE: You may also access this screen from the Snapshot screen by selecting the **order status** button on the processing module graphic.

Select **Orders** from the menu bar, and then select **Order status**.

The Order status screen displays.

Related information...

- *Snapshot screen*, page 1-15
- *Order status screen*, page 5-101
- *Descriptions of test statuses*, page 5-104
- *Descriptions of processing codes*, page 5-105

Descriptions of test statuses

You can use test status information to determine the progress of an ordered test or to manage patient and control results. The system tracks one of the following test statuses for each ordered or completed test. When you select the STATUS column heading, the status sorts in the following order.

Table 5.3: Test statuses

Status	Description
Pending	The test was ordered but the sample has not been scanned by the bar code reader.
Scheduled	The test was assigned to a processing module when the sample was scanned by the bar code reader, but aspiration has not occurred.
Running	The aspiration for the test has occurred and the test is being processed.
In Process	• Batch order - the sample labeled with the starting SID of a batch order was scanned by the bar code reader. • Calculated test - the tests required to calculate the result of a calculated test are being processed.
Exception	The test did not complete successfully due to an error.
*Complete	The test is complete.
*Pending Transmission	The test is complete but is waiting to be transmitted to the host.
*Archived	The test was archived (copied) to a CD.
*Pending Collation	The test is complete, but the system is waiting for one of the following to occur prior to transmitting to the host: • all tests associated with the SID to complete • all tests associated with the SID on a particular processing module to complete

* Indicates you can use the find option in the Stored results screen to locate these statuses.

Descriptions of processing codes

You use processing code information to determine how a sample(s) was processed. The system displays one or more of the following processing codes, when applicable, for an ordered test or test result. When you select the CODE column heading, the codes sort in the following order.

Table 5.4: Processing codes

Code	Description
S	The sample is ordered as a STAT.
D	The test is an automated dilution with a dilution factor >1, or an automated dilution that is not the first configured dilution.
M	The sample is manually diluted.
R	The test is a rerun.
*	The test is an original result for a rerun.
B	The test is part of a batch order.
C	The test has a comment.

Procedures - Order status screen

Procedures you can perform from the Order status screen and its related windows include:

- *View the status of ordered tests*, page 5-105
- *Find a specific test order*, page 5-106
- *View order or rerun status details*, page 5-107
- *Add a comment to an order*, page 5-108
- *Delete a test from a patient order*, page 5-109

View the status of ordered tests

Perform this procedure to access the Order status screen. From this screen you can check the status of patient, control, calibration, and rerun test orders.

To find specific test orders, see *Find a specific test order*, page 5-106.

Prerequisite	NA
Module status	Any

User access level	General operator
Supplies	NA

To view the status of ordered tests:

NOTE: You may also access this screen from the Snapshot screen by selecting the **order status** button on the processing module graphic.

Select **Orders** on the menu bar, and then select **Order status**.

The Order status screen displays.

An ellipsis (...) displays when the system cannot display all the data on a screen or window. View the details window to see all of the data.

Some data fields may not display all data if the data you entered is maximum character length.

NOTE: Select the **refresh** button to display all records.

Related information...

- *Snapshot screen*, page 1-15
- *Order status screen*, page 5-101
- *Descriptions of test statuses*, page 5-104
- *Descriptions of processing codes*, page 5-105

Find a specific test order

Perform this procedure to search for a specific test order(s) by entering search criteria in one or more fields.

Prerequisite	*Access the Order status screen*, page 5-103, or *Access the Rerun status screen*, page 5-168
Module status	Any
User access level	General operator
Supplies	NA

To find a specific test order:

1. Select **F3 - Find** on the Order or Rerun status screen.

   The Find options (Order status/Rerun status) window displays.

2. Select and/or enter your search conditions. You can narrow the results returned by entering/selecting more criteria.

NOTE: A wild card search allows you to type a partial entry followed by an asterisk (*) to begin a search when you do not know the entire entry. You can use the asterisk (*) wildcard character in all data entry boxes except position (P).

Example: If you enter 123* in the SID data entry box, all results starting with 123 display. This list could include 12345, 12346, and 12347.

3. Select **Done** to initiate the search.

   The Order or Rerun status screen displays with the text "Search results:" in the title bar.

   NOTE: Select the **refresh** button to display all records.

Related information...

- *Order status screen*, page 5-101
- *Rerun status screen*, page 5-166
- *Find options (Order status/Rerun status) window*, page 5-110
- *Descriptions of test statuses*, page 5-104
- *Descriptions of processing codes*, page 5-105

View order or rerun status details

Perform this procedure to display the Details for order (Order status/Rerun status) window. From this window you can view details for orders and add comments.

Prerequisite	*Access the Order status screen*, page 5-103,or *Access the Rerun status screen*, page 5-168
Module status	Any
User access level	General operator
Supplies	NA

To view order or rerun status details:

1. Select the desired orders from the table on the Order or Rerun status screen, or select **F2 - Select all**.
2. Select **F5 - Details**.

   The Details for order (Order status/Rerun status) window displays.
3. Use the **previous/next** buttons to display each order if you selected more than one. ***(optional)***

4. Select **Done** to return to the Order status or Rerun status screen.

Related information...

- *Order status screen*, page 5-101
- *Rerun status screen*, page 5-166
- *Details for order (Order status/Rerun status) window - single order view*, page 5-110
- *Details for order (Order status) window - batch (bar coded) view*, page 5-111
- *Details for order (Order status) window - batch (non-bar coded) view*, page 5-112
- *Descriptions of test statuses*, page 5-104
- *Descriptions of processing codes*, page 5-105

Add a comment to an order

Perform this procedure to add a comment to an order.

Prerequisite	*Access the Order status screen*, page 5-103 or *Access the Rerun status screen*, page 5-168
Module status	Any
User access level	General operator
Supplies	NA

To add a comment to an order:

1. Select the desired order(s) from the table on the Order or Rerun status screen, or select **F2 - Select All**.
2. Select **F5 - Details**.

   The Details for order window displays.
3. Enter a comment in the **Comment** data entry box.

   NOTE: For batch orders, if the batch status is In process, you cannot enter a comment for the batch order. You must enter a comment when the batch order is created or the batch status is pending.
4. Use the **previous/next** buttons to display each order if you selected more than one, and then enter a comment for each. ***(optional)***
5. Select **Done** to save your changes.

Related information...

- *Order status screen*, page 5-101
- *Rerun status screen*, page 5-166
- *Details for order (Order status/Rerun status) window - single order view*, page 5-110
- *Sample status screen*, page 5-113
- *Details for order (Order status) window - batch (bar coded) view*, page 5-111
- *Details for order (Order status) window - batch (non-bar coded) view*, page 5-112

Delete a test from a patient order

Perform this procedure to delete a test(s) that no longer needs to be processed.

Prerequisite	*Access the Order status screen*, page 5-103 Test status - Pending, In process
Module status	Any
User access level	General operator
Supplies	NA

To delete a test from a patient order:

1. Select the desired test(s) from the table on the Order status screen, or select **F2 - Select all**.
2. Select **F6 - Delete**.

   A confirmation message displays.

   NOTE: If you delete a batch order, tests with a status of Running or Scheduled continue processing. Additional tests for the order do not process.
3. Select **OK** to delete the test(s).

Related information...

- *Order status screen*, page 5-101

Windows - Order status screen

Windows you can access from the Order status screen include:

- *Find options (Order status/Rerun status) window*, page 5-110

- *Details for order (Order status/Rerun status) window - single order view*, page 5-110
- *Details for order (Order status) window - batch (bar coded) view*, page 5-111
- *Details for order (Order status) window - batch (non-bar coded) view*, page 5-112

Find options (Order status/Rerun status) window

From the Find options (Order status/Rerun status) window you can search for specific test orders.

Figure 5.26: Find options (Order status/Rerun status) window

For descriptions of these fields, see *Find options (Order status/Rerun status) window field descriptions*, page Appendix E-32.

Related procedures...

- *Find a specific test order*, page 5-106

Details for order (Order status/Rerun status) window - single order view

From the single order view of the Details for order (Order status/Rerun status) window you can view detailed information for orders and add comments.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.27: Details for order (Order status/Rerun status) window - single order view

For descriptions of these fields, see *Details for order (Order status/Rerun status) window - Single order view field descriptions*, page Appendix E-32.

Related procedures...

- *View order or rerun status details*, page 5-107
- *Add a comment to an order*, page 5-108
- *View sample status details*, page 5-118

Details for order (Order status) window - batch (bar coded) view

From the batch (bar coded) view of the Details for order (Order status) window you can view information for bar coded batch orders and add comments.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.28: Details for order (Order status) window - batch (bar coded) view

For descriptions of these fields, see *Details for order (Order status) window - Batch (bar coded) view field descriptions*, page Appendix E-34.

Related procedures...

- *View order or rerun status details*, page 5-107
- *Add a comment to an order*, page 5-108
- *View sample status details*, page 5-118

Details for order (Order status) window - batch (non-bar coded) view

From the batch (non-bar coded) view of the Details for order (Order status) window you can view information for non-bar coded batch orders and add comments.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.29: Details for order (Order status) window - batch (non-bar coded) view

For descriptions of these fields, see *Details for order (Order status) window - Batch (non-bar coded) view field descriptions*, page Appendix E-35.

Related procedures...

- *View order or rerun status details*, page 5-107
- *Add a comment to an order*, page 5-108
- *View sample status details*, page 5-118

Sample status screen

From the Sample status screen you can view information for patient, control, calibration orders, unreleased patient and control results, and exceptions, which includes:

- Sample name and identification number
- Sample location, identified by carrier ID/position, bay, section, carousel ID/position, or LAS
- Assay name and processing code
- Test status and time to completion or result, date and time of completion, and (where applicable) interpretation

You can also suspend processing on a sample, release a result, and access windows to:

- Find information for specific samples based on specified search criteria
- Print the Sample Status report
- View detailed test information
- Add a comment to an order or result
- Rerun a test

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

Figure 5.30: Sample status screen

For descriptions of these fields, see *Sample status screen field descriptions*, page Appendix E-17.

When accessing the Sample status screen, the information sorts by SID. To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
SID and NAME	Alphanumerically in ascending order.
C/P and BAY or Section	Alphanumerically in the following order: • Carrier/position and bay or section • CRSL (carousel)/position • LAS • LAS carousel/position • WTR (water)/0 • No carrier or carousel/position
ASSAY and CODES STATUS/RESULT	These columns do not sort. See *Descriptions of test statuses*, page 5-104 and *Descriptions of processing codes*, page 5-105.

To display this screen, see *Access the Sample status screen*, page 5-115.

Related procedures...

- *View sample status*, page 5-116
- *Find a specific sample*, page 5-117
- *View sample status details*, page 5-118
- *Add a comment to an order*, page 5-108
- *Print a report*, page 5-230
- *Rerun a test*, page 5-149
- *Release a patient result*, page 5-151

Access the Sample status screen

Perform this procedure to display the Sample status screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Sample status screen:

Select **Overview** from the menu bar, and then select **Sample status**.

The Sample status screen displays.

Related information...

- *Sample status screen*, page 5-113
- *Descriptions of test statuses*, page 5-104
- *Descriptions of processing codes*, page 5-105

Procedures - Sample status screen

Procedures you can perform from the Sample status screen and its related windows include:

- *View sample status*, page 5-116
- *Find a specific sample*, page 5-117
- *View sample status details*, page 5-118
- *Access a sample with tests in process (RSH - i 1000$_{SR}$)*, page 5-140
- *Print a report*, page 5-230
- *Rerun a test*, page 5-149
- *Release a patient result*, page 5-151

View sample status

Perform this procedure to access the Sample status screen.

Prerequisite	*Access the Sample status screen*, page 5-115
Module status	Any
User access level	General operator
Supplies	NA

To view sample status:

Select the desired sample from the **SID Name** column on the Sample status screen.

The tests and codes display in the ASSAY and CODES column. The results and status display in the STATUS/RESULT column.

Related information...

- *Sample status screen*, page 5-113
- *Descriptions of test statuses*, page 5-104
- *Descriptions of processing codes*, page 5-105

Find a specific sample

Perform this procedure to search for a specific sample(s) by entering search criteria in one or more fields.

Prerequisite	*Access the Sample status screen*, page 5-115
Module status	Any
User access level	General operator
Supplies	NA

To find a specific sample:

1. Select **F3 - Find** on the Sample status screen.

   The Find options (Sample status) window displays.

2. Select and/or enter your search conditions. You can narrow the results returned by entering/selecting more criteria.

   NOTE: A wild card search allows you to type a partial entry followed by an asterisk (*) to begin a search when you do not know the entire entry. You can use the asterisk (*) wildcard character in all data entry box(es) except position (P).

   Example: If you enter 123* in the SID data entry box, all results starting with 123 display. This list could include 12345, 12346, and 12347.

3. Select **Done** to initiate the search.

   The Sample status screen displays with the text "Search results:" in the title bar.

   NOTE: Select the **refresh** button to display all records.

Related information...

- *Sample status screen*, page 5-113
- *Find options (Sample status) window*, page 5-119
- *Descriptions of test statuses*, page 5-104
- *Descriptions of processing codes*, page 5-105

View sample status details

Perform this procedure to display the Details... window. From this window you can view detailed information for orders, exceptions, and patient and QC results.

Prerequisite	*Access the Sample status screen*, page 5-115
Module status	Any
User access level	General operator
Supplies	NA

To view sample status details:

1. Select the desired sample from the **SID Name** column on the Sample status screen, and then select the desired assay(s) from the **ASSAY** and **CODES** column.
2. Select **F5 - Details**.

   The Details... window displays. Information is dependent on the assay(s) you selected.
3. Use the **previous/next** buttons to display each assay if you selected more than one. ***(optional)***
4. Select **Done** to return to the Sample status screen.

Related information...

- *Sample status screen*, page 5-113
- *Details for order (Order status/Rerun status) window - single order view*, page 5-110
- *Details for order (Order status) window - batch (bar coded) view*, page 5-111
- *Details for order (Order status) window - batch (non-bar coded) view*, page 5-112
- *Details for exceptions window (i System)*, page 5-202
- *Details for exceptions window - calculated view*, page 5-203
- *Details for exceptions window - control view*, page 5-204
- *Details for exceptions window - calibrator view*, page 5-205
- *Find options (Results review) window*, page 5-152
- *Details for result (Results review) window - calculated view*, page 5-153
- *Details for result (Results review) window (i System)*, page 5-154

- *Details for QC result (QC result review) window (i System)*, page 5-164

Windows - Sample status screen

The windows you can access from the Sample status screen are:

- *Find options (Sample status) window*, page 5-119
- *Rerun options window*, page 5-155

Find options (Sample status) window

From the Find options (Sample status) window you can search for specific samples by entering your search criteria in one or more fields.

Figure 5.31: Find options (Sample status) window

For descriptions of these fields, see *Find options (Sample status) window field descriptions*, page Appendix E-19.

Related procedures...

- *Find a specific sample*, page 5-117

Sample management

Sample management consists of the activities associated with preparing and loading samples, initiating processing, and unloading samples.

Sample management topics include:

- *Sample requirements*, page 5-120
- *Loading samples (RSH)*, page 5-126
- *Initiating or resuming sample processing*, page 5-134
- *Sample processing*, page 5-136
- *Unloading samples*, page 5-138

Sample requirements

Before you load samples onto the system, be sure you are familiar with the following:

- *Sample cup and/or tube requirements*, page 5-120
- *Sample volume requirements*, page 5-122
- *Sample integrity*, page 5-126
- *Sample bar code label requirements*, page 4-16

Sample cup and/or tube requirements

The following sample cups and/or tubes are acceptable for use on the ARCHITECT System:

- ARCHITECT System sample cups (see *Sample cup*, page 5-121)
- ARCHITECT System sample cups used in conjunction with sample tubes
- Aliquot and primary sample tubes (see *Aliquot and primary sample tube specifications*, page 5-121)

For information on sample volume, see *Sample volume requirements*, page 5-122.

Figure 5.32: Sample cup

Figure 5.33: Aliquot and primary sample tube specifications

Measurement	Nominal	Extreme limits
1. Height	75 mm - 100 mm	72 mm - 102 mm
2. Outside diameter	10 mm - 16 mm	8.25 mm - 16.1 mm
3. Inside diameter	NA	7.75 mm minimum

NOTE: The sample cup, when used with sample tubes, shall be no greater than:

- 6 mm in height above the maximum tube specification of 102 mm for systems with the RSH (robotic sample handler)
- 12 mm in height above the maximum tube specification of 102 mm for systems with the SSH (standard sample handler)

NOTE: Use of serum filters in sample tubes is acceptable if the opening (inside diameter) and the height of the filter meets the sample tube specifications.

Sample volume requirements

Sample volume requirement depend on the sample vessel type, the onboard sample storage conditions, and the assay(s) ordered.

For sample cup and tube volume requirements, and the use of the sample gauge label, see:

- *Sample cup volumes*, page 5-122
- *Primary tube volumes*, page 5-123
- *Aliquot tube volumes*, page 5-123
- *Sample gauge label*, page 5-124

For information on onboard sample storage conditions and the effect on sample evaporation, see *Onboard sample storage*, page 5-125.

For assay-specific sample volume requirements, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

Sample cup volumes

The ARCHITECT System calculates the minimum sample cup volume required to test a sample as follows:

- *i* System:

  50 µL (sample cup dead volume) + combined sample volume of the ordered assays and replicates

This volume is printed on the Order List report as "Minimum sample cup volume required:."

NOTE: The minimum sample cup volume for controls and calibrators is valid for the reagent inventory on the processing module(s) in Running status at the time you order the sample.

If the processing module(s) is not in Running status, the indicated volume is for one calibration/control per module.

If the minimum sample cup volume is less than 150 µL, you must priority load the sample to avoid concentration effects due to sample evaporation. If you do not priority load the sample, a minimum volume of 150 µL is required.

IMPORTANT: If you do not use adequate sample volume, reliability of assay results cannot be guaranteed.

To ensure accurate liquid level detection, do not fill the sample cups above the 1400 µL mark.

For sample volume information, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

IMPORTANT: If you load samples on the RSH (robotic sample handler) and the RSH is configured to automatically reposition samples for retest, you must ensure there is adequate sample volume to allow for retests.

For information on sample volume requirements for primary or aliquot tubes, see *Primary tube volumes*, page 5-123 or *Aliquot tube volumes*, page 5-123.

Primary tube volumes

When using primary tubes, remove any tube closures and verify at least 8 mm of sample is available above the clot, gel separator, or plasma/red cell interface to avoid contamination of the sample during aspiration.

Use the sample gauge label to verify adequate sample volume. See *Sample gauge label*, page 5-124.

IMPORTANT: If you do not use adequate sample volume, reliability of assay results cannot be guaranteed.

For sample volume information, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

IMPORTANT: If you load samples on the RSH (robotic sample handler) and the RSH is configured to automatically reposition samples for retest, you must ensure there is adequate sample volume to allow for retests.

For information on sample volume requirements for aliquot tubes or sample cups, see *Aliquot tube volumes*, page 5-123, or *Sample cup volumes*, page 5-122.

Aliquot tube volumes

When using aliquot tubes, remove any tube closures and verify adequate sample is present in the tube.

Use the sample gauge label to verify at least 8 mm of sample is present in the tube. See *Sample gauge label*, page 5-124.

IMPORTANT: If you do not use adequate sample volume, reliability of assay results cannot be guaranteed.

For sample volume information, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

IMPORTANT: If you load samples on the RSH (robotic sample handler) and the RSH is configured to automatically reposition samples for retest, you must ensure there is adequate sample volume to allow for retests.

For information on sample volume requirements for primary tubes or sample cups, see *Primary tube volumes*, page 5-123, or *Sample cup volumes*, page 5-122.

Sample gauge label

You use the sample gauge (1 on the following illustration) to verify at least 8 mm of sample is present above the clot, gel separator, or plasma/red cell interface when using primary tubes.

You also use the gauge to verify at least 8 mm of sample is present in an aliquot tube.

Figure 5.34: Sample gauge on a sample carrier

Onboard sample storage

The ARCHITECT System requires a minimum of 150 µL for routine testing of controls and patient samples. This recommendation supports onboard sample storage for three hours under average laboratory conditions without observable concentration effects due to sample evaporation. Reliability of assay results cannot be guaranteed if this recommendation is not followed.

The following table describes the approximate amount of time required to decrease the weight of various starting sample volumes by 5% when measured in sample cups under different environmental conditions.

The high and low temperatures (30°C and 15°C) were tested with low humidity. An environment of 25°C and 45% RH (relative humidity) is considered representative of average laboratory conditions.

"Onboard" time (Hrs)	15°C 15% RH	25°C 45% RH	30°C 15% RH
1	60 µL	60 µL	100 µL
2	70 µL	80 µL	180 µL
3	100 µL	120 µL	280 µL
4	130 µL	160 µL	365 µL
5	160 µL	200 µL	450 µL

Sample integrity

For detailed specimen collection, preparation, and storage information, see *Requirements for handling specimens*, page 7-8, and the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

Loading samples (RSH)

Calibrators, controls, and patient samples are loaded on the RSH (robotic sample handler) for routine, priority, or batch processing.

Loading samples (RSH) procedures include:

- *Load samples in sample carriers (RSH)*, page 5-126
- *Load samples for processing (RSH - i 1000$_{SR}$)*, page 5-128
- *Load bar coded samples for batch processing (RSH - i 1000$_{SR}$)*, page 5-130
- *Load non-bar coded samples for batch processing (RSH - i 1000$_{SR}$)*, page 5-132

Load samples in sample carriers (RSH)

Perform this procedure to load samples in sample carriers.

Prerequisite	NA
Module status	NA
User access level	General operator
Supplies	• Samples • Sample carriers

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

To load samples in sample carriers:

1. Verify the calibrators and controls, if loading, are within the expiration date on the bottle label. DO NOT use the calibrators or controls if the expiration date is exceeded.
2. Determine the minimum sample volume required in the sample cup or tube. See *Sample volume requirements*, page 5-122.

3. Verify adequate sample volume above the separation point in a primary tube by using the sample gauge label (1 on the following illustration).
   a. Hold the primary tube so that the separation point is level with the bottom of the sample gauge label.
   b. Verify the amount of sample above the separation point is at least equivalent to the sample gauge label. This volume is adequate for one test.

4. Verify adequate sample volume in an aliquot tube by using the sample gauge label (1 on the illustration).
   a. Hold the bottom of the aliquot tube level with the bottom of the sample gauge label.
   b. Verify the amount of sample in the aliquot tube is at least equivalent to the sample gauge label. This volume is adequate for one test.
5. Print the Order List report to ensure that you load the samples in the correct C/P (carrier/position). See *Print the Order List report*, page 5-233.

   IMPORTANT: You are responsible for loading the correct sample in the correct position.

   NOTE: This step is optional when using bar code labels on samples for positive ID.

6. Place the sample in the sample carrier so that the bar code, if used, is visible in the sample bar code label window (1 on the following illustration) and the bar code fills the width of the window.

IMPORTANT: When you load sample cups and/or tubes, ensure that you have pushed them completely down into the sample carriers and that they are not tilted.

Avoid splashing outside of the sample cups and/or tubes.

To load sample carriers for the *i* 1000_{SR}, see *Load samples for processing (RSH - i* 1000_{SR}*)*, page 5-128.

Related information...

- *Sample cup and/or tube requirements*, page 5-120
- *Sample integrity*, page 5-126
- *Sample bar code label requirements*, page 4-16
- *Sample carriers*, page 1-78
- *Sample gauge label*, page 5-124
- *Order List Report*, page Appendix A-30

Load samples for processing (RSH - *i* 1000_{SR})

Perform this procedure to load samples in the sections of the RSH (robotic sample handler) for routine and priority processing.

IMPORTANT: Verify calibrator(s) in order status is Scheduled before you load controls in the sections of the RSH to ensure the system does not process controls before the calibration completes.

To view the calibrator order status, see *Access the Order status screen*, page 5-103.

Prerequisite	*Load samples in sample carriers (RSH)*, page 5-126
Module status	Ready or Running
User access level	General operator
Supplies	Sample carriers loaded with samples

WARNING: Potential Biohazard. Identifies an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

IMPORTANT: When transporting or loading sample carriers, avoid splashing sample outside of the sample cups and/or tubes.

To load samples for processing:

1. Verify the indicators below the desired section are off, which indicates the section is available.
2. Position the sample carrier so that the carrier ID label is at the front of the RSH.

3. Load the carrier into a priority section or a routine section by pushing it in until the indicator illuminates.

NOTE: You must physically place the carriers with calibrators in the sections in sequential order. Carriers are processed in the order they are placed on the sample handler, not by the position number.

To initiate sample processing, see *Initiate or resume sample processing (RSH and SSH)*, page 5-135.

Related information...

- *Sample carriers*, page 1-78
- *RSH sample processing (i 1000$_{SR}$)*, page 5-136

Load bar coded samples for batch processing (RSH - *i* 1000$_{SR}$)

Perform this procedure to load bar coded samples for batch processing in the RSH (robotic sample handler). Batch processing is not available in the RSH priority section(s).

To load non-bar coded samples for batch processing, see *Load non-bar coded samples for batch processing (RSH - i 1000$_{SR}$)*, page 5-132.

NOTE: Before loading samples, ensure you are familiar with the components of the RSH. See *RSH - robotic sample handler (i 1000$_{SR}$)*, page 1-60.

Prerequisite	*Load samples in sample carriers (RSH)*, page 5-126
Module status	Ready or Running
User access level	General operator
Supplies	Sample carriers loaded with samples

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

IMPORTANT: When transporting and loading sample carriers avoid splashing sample outside of the sample cups and/or tubes.

NOTE: When you load samples for batch processing, DO NOT load calibrators or controls within the batch. Also, do not leave an empty space(s) between samples as it will be identified as an invalid sample with error message 0120.

To load bar coded samples for batch processing:

1. Locate the sample carrier that contains the sample with the starting SID (sample identification) that was entered in the batch order.
2. Position the carrier so the carrier ID label is located at the front of the RSH.

3. Verify the indicators below the routine section farthest to the left are both off, which indicates the section is available.
4. Load the carrier in the routine section farthest to the left pushing the carrier in until the indicator illuminates.
5. Load additional carriers, from left to right, until all samples are loaded.
6. Ensure the sample with the ending SID is loaded at the end of all samples in the batch.

To initiate sample processing, see *Initiate or resume sample processing (RSH and SSH)*, page 5-135.

Related information...

- *Sample carriers*, page 1-78
- *Sample bar code label requirements*, page 4-16
- *RSH sample processing (i 1000$_{SR}$)*, page 5-136
- *Batch processing*, page 5-138

Load non-bar coded samples for batch processing (RSH - *i* 1000$_{SR}$)

Perform this procedure to load non-bar coded samples for batch processing in the RSH (robotic sample handler). Batch processing is not available in the RSH priority section(s).

NOTE: Before loading samples, ensure you are familiar with the components of the RSH. See *RSH - robotic sample handler (i 1000$_{SR}$)*, page 1-60.

To load bar coded samples for batch processing, see *Load bar coded samples for batch processing (RSH - i 1000$_{SR}$)*, page 5-130.

Prerequisite	*Load samples in sample carriers (RSH)*, page 5-126.
Module status	Ready or Running
User access level	General operator
Supplies	Sample carriers loaded with samples

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

IMPORTANT: When transporting and loading sample carriers avoid splashing sample outside of the sample cups and/or tubes.

NOTE: When you load samples for batch processing, DO NOT:

- Load calibrators or controls within the batch
- Leave empty spaces between samples as they will be included in the total number of samples
- Load batch samples in a carrier with tests in process

To load non-bar coded samples for batch processing:

1. Locate the sample carrier that contains the sample with the starting carrier and position entered in the batch order.
2. Position the carrier so the carrier ID label is located at the front of the RSH.

3. Verify the indicators below the routine section farthest to the left are both off, which indicates the section is available.
4. Load the carrier in the routine section farthest to the left pushing the carrier in until the indicator illuminates.
5. Load additional carriers, from left to right, until all samples are loaded.

6. Ensure the number of samples loaded matches the number of samples in the order.

To initiate sample processing, see *Initiate or resume sample processing (RSH and SSH)*, page 5-135.

Related information...

- *Sample carriers*, page 1-78
- *Sample bar code label requirements*, page 4-16
- *RSH sample processing (i 1000$_{SR}$)*, page 5-136
- *Batch processing*, page 5-138

Initiating or resuming sample processing

You must initiate or resume sample processing when:

- Orders have been created and samples have been loaded
- The processing module and/or sample handler have been paused

Procedures include:

- *Initiate or resume sample processing (RSH and SSH)*, page 5-135

Initiate or resume sample processing (RSH and SSH)

Perform this procedure to process a run after ordering and loading samples or to resume sample processing after the module and/or sample handler have been paused.

Prerequisite	*Verify supply and waste inventory*, page 5-20 *Verify reagent inventory on a single module*, page 5-51 *Verify reagent inventory on all modules*, page 5-52 *Access the Snapshot screen*, page 1-18
Module status	Processing module - Ready or Scheduled pause Sample handler - Ready, Scheduled pause (RSH), or Load queue paused (SSH)
User access level	General operator
Supplies	NA

To initiate or resume sample processing:

1. Initialize the processing module, if the status is not Running, by performing one of the following:
   - Press the **run** key on each processing module keypad if available.
   - Select the appropriate **processing module** graphic(s) on the Snapshot screen, and then select **F8 - Run**.
2. Initialize the sample handler, if the status is not Running, by performing one of the following:
   - Press the **run** key on the sample handler keypad if available.
   - Select the **sample handler** graphic on the Snapshot screen, and then select **F8 - Run**.

   IMPORTANT: For *i* 2000, do not open the processing queue access door(s) to remove or add samples. Positive sample identification cannot be guaranteed when a processing queue access door is opened. The sample processing queue bar code reader does not verify the sample tube bar code labels read by the load queue bar code reader. If an access door(s) is opened, all tests on samples on the processing queue become exceptions. In addition, all sample carriers on the processing queue are transferred to the sample unload queue.

Related information...

- *Snapshot screen*, page 1-15

Sample processing

Many kinds of sample processing activities take place between the time you load a sample(s) and when the sample(s) is aspirated. The progression of samples through the ARCHITECT System differs depending on your system configuration.

Sample processing topics include:

- *Control sample processing*, page 5-136
- *RSH sample processing (i 1000$_{SR}$)*, page 5-136
- *Batch processing*, page 5-138

Control sample processing

When multiple reagent kits are loaded on the system and the sampling process for a control order is ready to begin, the system determines which reagent kits to use depending on the configuration of your system. If your system is configured to run controls by:

- Lot (default) - QC will run only on one kit per lot per module
- Kit - QC will run on every kit per module

Controls for constituents of calculated assays are automatically run on one kit on one module (selected by the system software) regardless of the system configuration.

To change the current control run configuration see *Change the option for running controls for onboard reagent kits*, page 2-29.

RSH sample processing (*i* 1000$_{SR}$)

After you load a sample(s) the sample handler moves the sample(s) to the aspiration location. The prioritization of samples on the system:

- Carriers in the priority sections are processed first in the order they were inserted.
- Carriers in the routine sections are then processed in the order they were inserted.

Figure 5.35: i 1000$_{SR}$ sample processing

After you load samples onto the RSH and initiate a run:

1. The RSH carrier transport moves to the first carrier as determined by software prioritization, and then picks up a carrier. The RSH indicators turn amber to indicate the carriers are being accessed by the carrier transport.
2. The carrier transport moves the carrier to the bar code reader where the carrier ID and sample ID(s) are read, and then the carrier returns to its original location.
3. The system software determines if an order is present on the SCC for each sample on the carrier. If there are no orders and your system is configured for host query, a query is sent to the host.
4. The carrier is moved to the aspiration area if an order exists or a query returns a test order(s).
5. The processing module pipettor aspirates the sample.
6. The carrier transport picks up the carrier and moves it to the next carrier position for aspiration, if necessary, and then moves it back to the routine or priority section.
7. The RSH indicators blink green when all samples within the routine or priority section are aspirated.

   If your system is configured to automatically reposition samples for reruns, the indicators remain amber until all reruns are aspirated.

If you add or rerun tests for a sample before it is unloaded, the indicators for the section change back to amber while the sample is re-aspirated.

Related information...

- *Host order query*, page 5-69
- *Host computer download*, page 5-68
- *Automated control ordering*, page 5-69
- *Auto retest (patient samples)*, page 5-70

Batch processing

After you load samples the sample handler moves the samples to the sample bar code reader.

NOTE: Batch processing is not available on the sample carousel (*c* System) or the RSH priority bays or sections.

For bar code labeled batch orders, the starting SID (sample ID) identifies the beginning of the batch run and the ending SID the end of the run. All bar coded samples loaded in between, regardless of SID or sequence, are processed as part of the batch. The batch is terminated when the ending SID is scanned.

For non-bar code labeled batch orders, the starting carrier/position identifies the beginning of the batch run. All non-bar coded samples after the starting carrier/position are processed as part of the batch until the total number of samples equals the number entered.

The only samples that may temporarily interrupt batch processing are patient or control samples loaded in the sample carousel (*c* System) or priority bay or section on the RSH (robotic sample handler). When loaded on any other sample handler, any samples loaded within the batch become exceptions and are not processed.

Unloading samples

To maintain continuous processing you should unload samples on a routine basis.

Procedures include:

- *Unload samples (RSH - i 1000$_{SR}$)*, page 5-139
- *Access a sample with tests in process (RSH - i 1000$_{SR}$)*, page 5-140

Unload samples (RSH - *i* 1000$_{SR}$)

Perform this procedure to unload samples from the priority and/or routine section(s) of the RSH (robotic sample handler) when they are no longer needed on the system.

NOTE: Review the Exception status and Rerun status screens to determine if the sample(s) is still needed on the system. See *Access the Exception status screen*, page 5-197, or *Access the Rerun status screen*, page 5-168.

Prerequisite	Section indicator: • blinking green • solid green • alternating green/amber
Module status	Any
User access level	General operator
Supplies	NA

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

IMPORTANT: When unloading and transporting sample carriers and carrier trays, do not splash sample outside of the sample cups and/or tubes.

To unload samples:

1. Remove the sample carrier sliding the sample carrier out of the section.

2. Remove the samples from the sample carrier.
3. Dispose of sample cups in a biohazardous waste container.
4. Store remaining samples according to laboratory guidelines.

Related information...

- *RSH - robotic sample handler (i 1000$_{SR}$)*, page 1-60

Access a sample with tests in process (RSH - *i* 1000$_{SR}$)

Perform this procedure to suspend a section on the RSH (robotic sample handler) when you need to immediately access a sample that is being processed.

NOTE: When you suspend processing for a section, the processing module stops aspirations on all samples associated with that location. Any scheduled tests not aspirated become exceptions and are not processed.

Prerequisite	*Access the Sample status screen*, page 5-115
Module status	Stopped, Warming, or Ready
User access level	General operator
Supplies	NA

To access a sample with tests in process:

1. Select **F3 - Find** on the Sample status screen to locate the sample to be accessed.

   The Find options (Sample status) window displays.

a. Enter the sample name, sample ID, and/or patient ID in the appropriate data entry boxes.

b. Select **Done** to initiate the search.

The Sample status screen displays with the text "Search results:" in the title bar.

2. Select the sample from the **SID Name** column, and then select **F6 - Suspend**.

   A confirmation message displays.

3. Select **OK** to suspend processing.

   The RSH returns the carrier(s) to its original location.

4. *Unload samples (RSH - i 1000$_{SR}$)*, page 5-139.

To reload the sample(s), see *Load samples for processing (RSH - i 1000$_{SR}$)*, page 5-128.

Related information...

- *Sample status screen*, page 5-113
- *Find options (Sample status) window*, page 5-119
- *RSH - robotic sample handler (i 1000$_{SR}$)*, page 1-60

Patient and QC results review, rerun, and release

Once patient and QC sample processing are complete, you can view the results to determine whether to release them or rerun the tests.

Patient and QC results review, rerun, and release topics include:

- *Patient results review and release*, page 5-142
- *QC result review and release*, page 5-156
- *Patient results, QC results, and exceptions rerun review*, page 5-166

Patient results review and release

Review patient results to determine whether to rerun the tests, release, or delete them.

Patient results review and release topics include:

- *Results review screen*, page 5-142
- *Descriptions of patient result flags*, page 5-145
- *Procedures - Results review screen*, page 5-145
- *Windows - Results review screen*, page 5-152

Results review screen

From the Results review screen you can view information for unreleased patient results, which includes:

- Sample location, identified by sample carrier ID/position, carousel ID/position, or LAS
- Sample name and identification number
- Assay name and result
- Flags and codes

You can also release or delete a result and access windows to:

- Find information for specific tests based on specified search criteria
- Print the Absorbance Data report, Patient report, Result Details report, Results List report, and Sample report
- View detailed result information
- Add a comment to a result

- Rerun a test

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

For results that have been released, see *Stored results screen*, page 5-171.

Figure 5.36: Results review screen

For descriptions of these fields, see *Results review screen field descriptions*, page Appendix E-37.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
SID and NAME	Alphanumerically in ascending order.
C/P	Alphanumerically in the following order: • Carrier/position • CRSL (carousel)/position • LAS • LAS carousel/position • No carrier or carousel/position
SID, NAME, and ASSAY	Alphanumerically in ascending order.

Column	Sort description
RESULT	Based on interpretation.
FLAG and CODE	See *Descriptions of patient result flags*, page 5-145 and *Descriptions of processing codes*, page 5-105.

To display this screen, see *Access the Results review screen*, page 5-144.

Related procedures...

- *View all patient results*, page 5-146
- *Find a specific patient result*, page 5-146
- *Print a report*, page 5-230
- *View patient result details*, page 5-147
- *Add a comment to a patient result*, page 5-148
- *Rerun a test*, page 5-149
- *Delete a patient result*, page 5-151
- *Release a patient result*, page 5-151
- *Cancel result transmission*, page 5-176

Access the Results review screen

Perform this procedure to display the Results review screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Results review screen:

Select **Results** from the menu bar, and then select **Results review**.

The Results review screen displays.

Related information...

- *Results review screen*, page 5-142
- *Descriptions of patient result flags*, page 5-145
- *Descriptions of processing codes*, page 5-105

Descriptions of patient result flags

Flags provide additional information about a result and indicate that you may need to review the result. When a patient result has a flag, the information displays in red on the Results review and Stored results screens. The system displays one or more of the following result flags, when applicable, for a test result. When you select the FLAG column heading, the flags sort in the following order.

Table 5.5: Patient result flags

Flag	Description
EXP*	The result was measured using expired reagents, Pre-Trigger or Trigger Solutions.
EXPC* (*c* System)	The result was calculated using an expired calibration curve.
CNTL*	The result was calculated after the quality control failed for the same control name and control level. The flag continues to appear on subsequent results until the failed quality control result is rerun and the result is within acceptable limits. **NOTE:** Only Westgard rules configured as a failure produce a CNTL flag for a patient result.
< or >	The result is outside the dynamic or linear range.
LL or HH**	The result is outside the defined extreme range.
LOW or HIGH**	The result is outside the defined normal range.

***** Indicates these flags carry over from a constituent result to a calculated result.

****** Indicates a result is rounded to the reporting number of decimals for an assay, and then compared against the range.

Procedures - Results review screen

Procedures you can perform from the Results review screen and its related windows include:

- *View all patient results*, page 5-146
- *Find a specific patient result*, page 5-146
- *View patient result details*, page 5-147
- *Add a comment to a patient result*, page 5-148
- *Rerun a test*, page 5-149
- *Delete a patient result*, page 5-151

- *Release a patient result*, page 5-151
- *Cancel result transmission*, page 5-176

View all patient results

Perform this procedure to display the Results review screen. From this screen you can view information on unreleased patient results.

To view information for released patient results, see *View all stored patient results*, page 5-174.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To view all patient results:

Select **Results** on the menu bar, and then select **Results review**.

The Results review screen displays.

Related information...

- *Results review screen*, page 5-142
- *Descriptions of patient result flags*, page 5-145
- *Descriptions of processing codes*, page 5-105

Find a specific patient result

Perform this procedure to search for specific unreleased patient results by entering your search criteria in one or more fields.

Prerequisite	*Access the Results review screen*, page 5-144
Module status	Any
User access level	General operator
Supplies	NA

To find a specific patient result:

1. Select **F3 - Find** on the Results review screen.

   The Find options (Results review) window displays.

2. Select and/or enter your search conditions. You can narrow the results returned by entering/selecting more criteria.

   NOTE: Do not enter multiple dates when searching for a specific time interval.

A wild card search allows you to type a partial entry followed by an asterisk (*) to begin a search when you do not know the entire entry. You can use the asterisk (*) wildcard character in all fields except position (P).

Example: If you enter 123* in the SID data entry box, all results starting with 123 display. This list could include 12345, 12346, and 12347.

3. Select **Done** to initiate the search.

   The Results review screen displays with the text "Search results:" in the title bar.

   NOTE: Select the **refresh** button to display all records.

Related information...

- *Results review screen*, page 5-142
- *Find options (Results review) window*, page 5-152
- *Descriptions of patient result flags*, page 5-145
- *Descriptions of processing codes*, page 5-105

View patient result details

Perform this procedure to display the Details for result window. From this window you can view details for unreleased patient results and add comments.

To view details for released patient results, see *View stored patient results details*, page 5-175.

Prerequisite	*Access the Results review screen*, page 5-144
Module status	Any
User access level	General operator
Supplies	NA

To view patient result details:

1. Select the desired result(s) from the table on the Results review screen, or select **F2 - Select all**.
2. Select **F5 - Details**.

   The Details for result (Results review) window displays.
3. Use the **previous/next** buttons to display each result if you selected more than one. ***(optional)***
4. Select **Done** to return to the Results review screen.

Related information...

- *Results review screen*, page 5-142
- *Details for result (Results review) window - calculated view*, page 5-153
- *Details for result (Results review) window (i System)*, page 5-154
- *Descriptions of patient result flags*, page 5-145
- *Descriptions of processing codes*, page 5-105

Add a comment to a patient result

Perform this procedure to add a comment to an unreleased patient result(s).

Prerequisite	*Access the Results review screen*, page 5-144
Module status	Any
User access level	General operator
Supplies	NA

To add a comment to a patient result:

1. Select the desired result(s) from the table on the Results review screen, or select **F2 - Select all**.
2. Select **F5 - Details**.

   The Details for result (Results review) window displays.
3. Enter a comment in the **Comment** data entry box.
4. Use the **previous/next** buttons to display each result if you selected more than one, and then enter a comment for each. ***(optional)***
5. Select **Done** to save your changes.

Related information...

- *Results review screen*, page 5-142
- *Details for result (Results review) window - calculated view*, page 5-153
- *Details for result (Results review) window (i System)*, page 5-154

Rerun a test

Perform this procedure to rerun a patient test, control test, or an exception. If additional tests are required, you must create a new order. See *Add a test to a patient order*, page 5-86.

Prerequisite	*Access the Sample status screen*, page 5-115 *Access the Results review screen*, page 5-144 *Access the QC result review screen*, page 5-158 *Access the Exception status screen*, page 5-197
Module status	Any
User access level	General operator
Supplies	NA

IMPORTANT: If you are rerunning a calculated assay for a patient sample, you must perform one of the following:

- Delete any pending constituent orders for the sample, and then create a new order for the calculated assay.

  OR

- Delete existing valid constituent results for this sample if new constituent results are desired for the calculation.
  - Delete results for manually ordered constituents from either the Results review or Stored results screen.
  - Delete results for constituents automatically ordered by the system from the Results review, Stored results, or Exception status screen.

To rerun a test:

1. Retrieve the original sample and verify:
   - Volume is sufficient. See *Sample volume requirements*, page 5-122.
   - Sample integrity is acceptable. See *Sample integrity*, page 5-126.
2. Return the sample to its position.
3. Select the desired test(s) on the appropriate screen.

   NOTE: You cannot rerun calibrator exceptions.
4. Select one of the following:

– **F6 - Rerun** from the Results review, QC result review, or Exception status screen.

– **F7 - Rerun** from the Sample status screen.

The Rerun options window displays.

5. Specify the desired rerun options. ***(optional)***

   a. Select the **carrier** or **carousel** button, and then enter a carrier or carousel ID in the **C** data entry box, if displayed.

   b. Enter a position in the **P** data entry box.

   NOTE: Steps 5a and 5b are not required if using a bar coded sample.

   c. Delete replicate values that are not required, and then enter the number of replicates for the desired dilution(s) in the **Dilution protocols/number of replicates** data entry box.

   NOTE: You cannot run all assays with an automated dilution protocol. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

   d. Select the **Module selection: Manual** option, and then select the appropriate module check box(es) to override the system module scheduler (multi-module *i* System).

   NOTE: Overriding the system module scheduler may impact overall throughput.

   e. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 5a through 5d for each. ***(optional)***

6. Select **Done** to save your changes and schedule the rerun.

   You can view the tests scheduled for rerun on the Order status, Rerun status, and Sample status screens. The R (rerun) code is assigned to the test(s).

   NOTE: If the sample is still onboard the RSH (robotic sample handler) and the RSH is configured to automatically reposition samples for retest, the system repositions and re-aspirates the sample automatically.

To print the Order List report, see *Print the Order List report*, page 5-233.

Related information...

- *Sample status screen*, page 5-113
- *Results review screen*, page 5-142
- *QC result review screen*, page 5-156
- *Exception status screen*, page 5-195
- *Rerun options window*, page 5-155
- *Rerun options (QC result review) window*, page 5-165
- *Loading samples (RSH)*, page 5-126

Delete a patient result

Perform this procedure to delete a patient result(s) that does not meet release requirements.

Prerequisite	*Access the Results review screen*, page 5-144
Module status	Any
User access level	General operator
Supplies	NA

To delete a patient result:

1. Select the desired patient result(s) from the table on the Results review screen, or select **F2 - Select all**.
2. Select **F7 - Delete**.

   A confirmation message displays.
3. Select **OK** to delete the result(s).

Related information...

- *Results review screen*, page 5-142
- *Stored results screen*, page 5-171

Release a patient result

Perform this procedure to release a patient result(s) that has been reviewed.

Prerequisite	*Access the Sample status screen*, page 5-115 *Access the Results review screen*, page 5-144
Module status	Any
User access level	General operator
Supplies	NA

To release a patient result:

1. Select the desired patient result(s) or select **F2 - Select all**.
2. Select **F8 - Release** to release the result(s).

   NOTE: The **F8 - Release** button is not available if any of the selected items on the Sample status screen are exceptions (red text) or released results (blue text). Deselect the exceptions and/or released results to make the button available.

   You can view result information on the Stored results screen. If your system interfaces with a host computer, the results transmit to the host and the number of tests pending transmission display on the LIS status button on the Snapshot screen.

To cancel a result transmission, see *Cancel result transmission*, page 5-176.

Related information...

- *Snapshot screen*, page 1-15
- *Results review screen*, page 5-142
- *Stored results screen*, page 5-171
- *Sample status screen*, page 5-113

Windows - Results review screen

Windows you can access from the Results review screen include:

- *Find options (Results review) window*, page 5-152
- *Details for result (Results review) window - calculated view*, page 5-153
- *Details for result (Results review) window (i System)*, page 5-154
- *Rerun options window*, page 5-155

Find options (Results review) window

From the Find options (Results review) window you can search for specific unreleased patient results by entering your search criteria in one or more fields.

For patient results that have been released, see *Find options (Stored results) window*, page 5-181.

Figure 5.37: Find options (Results review) window

For descriptions of these fields, see *Find options (Results review) window field descriptions*, page Appendix E-37.

Related procedures...

- *Find a specific patient result*, page 5-146

Details for result (Results review) window - calculated view

From the calculated view of the Details for result (Results review) window you can view detailed information for unreleased calculated patient results and add comments.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.38: Details for result (Results review) window - calculated view

For descriptions of these fields, see *Details for result (Results review) window - Calculated view field descriptions*, page Appendix E-38.

Related procedures...

- *View patient result details*, page 5-147
- *Add a comment to a patient result*, page 5-148

Details for result (Results review) window (*i* System)

From the Details for result (Results review) window (*i* System) you can view detailed information for unreleased patient results and add comments.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.39: Details for result (Results review) window (i System)

For descriptions of these fields, see *Details for result (Results review) window (i System) field descriptions*, page Appendix E-40.

Related procedures...

- *View patient result details*, page 5-147
- *Add a comment to a patient result*, page 5-148

Rerun options window

From the Rerun options window you can order a rerun for a patient test and change the following:

- Carrier ID and position or the carousel position
- Automated dilution factor
- Number of replicates
- Module for processing the test (multi-module *i* System)

Figure 5.40: Rerun options window

For descriptions of these fields, see *Rerun options window field descriptions*, page Appendix E-41.

Related procedures...

- *Rerun a test*, page 5-149

QC result review and release

Review control results to determine whether to rerun the tests, release, or delete them.

QC result review and release topics include:

- *QC result review screen*, page 5-156
- *Descriptions of quality control result flags*, page 5-159
- *Procedures - QC result review screen*, page 5-159
- *Windows - QC result review screen*, page 5-163

QC result review screen

From the QC result review screen you can view information for unreleased control results, which includes:

- Sample location, identified by sample carrier ID/position, sample carousel ID/position, or LAS
- Control name, level, and identification number
- Assay name and result
- Flags

You can also release a control result and access windows to:

- Find information for specific tests based on specified search criteria
- Print the Absorbance Data report, QC Result Details report, and the QC Results List report
- View detailed control result information
- Add a comment to a control result
- Rerun a test

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

For control results that have been released, see *Stored QC results screen*, page 5-184.

Figure 5.41: QC result review screen

M	C / P	SID	CONTROL NAME	LEVEL	ASSAY	RESULT	FLAG
1	Z106 / 2	BioRadLevel 2	BioRad	Level 2	Cl	88.183 mmol/L	
2	Z101 / 3	TT4 High	TT4	High	TT4	12.47 ug/dL	
2	Z102 / 1	Progest Low	Progest	Low	Progest	0.9 ng/mL	
2	Z102 / 2	Progest Medium	Progest	Medium	Progest	4.3 ng/mL	
2	Z102 / 3	Progest High	Progest	High	Progest	21.1 ng/mL	
2	Z103 / 1	TSH Low	TSH	Low	TSH	0.0919 uIU/mL	
1	Z106 / 1	BioRadLevel 1	BioRad	Level 1	Urea	37.433 mg/dL	
2	Z103 / 2	TSH Medium	TSH	Medium	TSH	5.7569 uIU/mL	
1	Z106 / 1	BioRadLevel 1	BioRad	Level 1	Ca	7.380 mg/dL	
1	Z106 / 1	BioRadLevel 1	BioRad	Level 1	Mg	1.702 mEq/L	

For descriptions of these fields, see *QC result review screen field descriptions*, page Appendix E-50.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
C/P	Alphanumerically in the following order: • Carrier/position • CRSL (carousel)/position • LAS • LAS carousel/position • No carrier or carousel/position
M	Numerically in ascending order.
SID, CONTROL NAME, LEVEL, and ASSAY	Alphanumerically in ascending order.
RESULT	This column does not sort.
FLAG	See *Descriptions of quality control result flags*, page 5-159.

To display this screen, see *Access the QC result review screen*, page 5-158.

Related procedures...

- *View all control results*, page 5-159
- *Find a specific control result*, page 5-160
- *Print a report*, page 5-230
- *View control result details*, page 5-161
- *Add a comment to a control result*, page 5-162
- *Rerun a test*, page 5-149
- *Release a control result*, page 5-163
- *Cancel result transmission*, page 5-176

Access the QC result review screen

Perform this procedure to display the QC result review screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the QC result review screen:

Select **QC - Cal** from the menu bar, and then select **QC result review**.

The QC result review screen displays.

Related information...

- *QC result review screen*, page 5-156
- *Descriptions of quality control result flags*, page 5-159
- *Descriptions of processing codes*, page 5-105

Descriptions of quality control result flags

Flags provide additional information about a quality control result and indicate that you may need to review the result. When a control result has a flag, the information displays in red on the QC result review, Stored QC results, and QC summary review screens. The system displays one or more of the following quality control result flags, when applicable, for a quality control result. When you select the FLAG column header, the flags sort in the following order.

Table 5.6: Quality control result flags

Flag	Description
Westgard rule	The quality control result failed one or more Westgard rules. Each failed rule displays. See *Westgard rule descriptions*, page 5-208.
EXP	The quality control result was measured using expired reagents, Pre-Trigger, or Trigger Solutions.
< or >	The quality control result is outside the dynamic or linear range.

Procedures - QC result review screen

Procedures you can perform from the QC result review screen and its related windows include:

- *View all control results*, page 5-159
- *Find a specific control result*, page 5-160
- *View control result details*, page 5-161
- *Add a comment to a control result*, page 5-162
- *Rerun a test*, page 5-149
- *Release a control result*, page 5-163

View all control results

Perform this procedure to display the QC result review screen. From this screen you can view information on unreleased control results.

To view information for released control results, see *View all stored control results*, page 5-187.

To view a summary of statistical data for controls, see *View QC data summary*, page 5-223.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To view all control results:

Select **QC-Cal** icon from the menu bar, and then select **QC result review**.

The QC result review screen displays.

Related information...

- *QC result review screen*, page 5-156
- *Descriptions of quality control result flags*, page 5-159
- *Descriptions of processing codes*, page 5-105
- *Westgard rule descriptions*, page 5-208

Find a specific control result

Perform this procedure to search for specific unreleased control results by entering your search criteria in one or more fields.

Prerequisite	*Access the QC result review screen*, page 5-158
Module status	Any
User access level	General operator
Supplies	NA

To find a specific control result:

1. Select **F3 - Find** on the QC result review screen.

   The Find options (QC result review) window displays.

2. Select and/or enter your search conditions. You can narrow the results returned by entering/selecting more criteria.

   NOTE: Do not enter multiple dates when searching for a specific time interval.

A wild card search allows you to type a partial entry followed by an asterisk (*) to begin a search when you do not know the entire entry. You can use the asterisk (*) wildcard character in all fields except position (p).

Example: If you enter 123* in the SID data entry box, all results starting with 123 display. This list could include 12345, 12346, and 12347.

3. Select **Done** to initiate the search.

   The QC result review screen displays with the text "Search results:" in the title bar.

   NOTE: Select the **refresh** button to display all records.

Related information...

- *QC result review screen*, page 5-156
- *Find options (QC result review) window*, page 5-163
- *Descriptions of quality control result flags*, page 5-159
- *Descriptions of processing codes*, page 5-105
- *Westgard rule descriptions*, page 5-208

View control result details

Perform this procedure to display the Details for QC result window. From this window you can view details for unreleased control results and add comments.

To view details for released control results, see *View stored control result details*, page 5-189.

Prerequisite	*Access the QC result review screen*, page 5-158
Module status	Any
User access level	General operator
Supplies	NA

To view control result details:

1. Select the desired result(s) from the table on the QC result review screen, or select **F2 - Select all**.
2. Select **F5 - Details**.

   The Details for QC result (QC result review) window displays.

   NOTE: A code C may display for a Levey-Jennings point comment and a QC result details comment.

3. Use the **previous/next** buttons to display each result if you selected more than one. ***(optional)***
4. Select **Done** to return to the QC result review screen.

Related information...

- *QC result review screen*, page 5-156
- *Details for QC result (QC result review) window (i System)*, page 5-164
- *Descriptions of quality control result flags*, page 5-159
- *Descriptions of processing codes*, page 5-105
- *Westgard rule descriptions*, page 5-208

Add a comment to a control result

Perform this procedure to add a comment to an unreleased control result(s).

Prerequisite	*Access the QC result review screen*, page 5-158
Module status	Any
User access level	General operator
Supplies	NA

To add a comment to a control result:

1. Select the desired result(s) from the table on the QC result review screen, or select **F2 - Select all**.
2. Select **F5 - Details**.

   The Details for QC result (QC result review) window displays.
3. Enter a comment in the **Comment** data entry box.
4. Use the **previous/next** buttons to display each result if you selected more than one, and then enter a comment for each. ***(optional)***
5. Select **Done** to save your changes.

Related information...

- *QC result review screen*, page 5-156
- *Details for QC result (QC result review) window (i System)*, page 5-164

Release a control result

Perform this procedure to release a control result(s) that has been reviewed.

Prerequisite	*Access the QC result review screen*, page 5-158
Module status	Any
User access level	General operator
Supplies	NA

To release a control result:

1. Select the desired control result(s) from the table on the QC result review screen, or select **F2 - Select all**.
2. Select **F8 - Release** to release the result(s).

   You can view result information on the Stored QC results screen and the Levey-Jennings graph screen. If your system interfaces with a host computer and is configured for transmitting approved QC results to the host, the results transmit to the host and the number of tests pending transmission display on the LIS (laboratory information system) status button on the Snapshot screen.

To cancel result transmission, see *Cancel result transmission*, page 5-176.

Related information...

- *Snapshot screen*, page 1-15
- *QC result review screen*, page 5-156
- *Stored QC results*, page 5-184

Windows - QC result review screen

Windows you can access from the QC result review screen include:

- *Find options (QC result review) window*, page 5-163
- *Details for QC result (QC result review) window (i System)*, page 5-164
- *Rerun options (QC result review) window*, page 5-165

Find options (QC result review) window

From the Find options (QC result review) window you can search for specific unreleased control results by entering your search criteria in one or more fields.

For control results that have been released, see *Find options (Stored QC results) window*, page 5-192.

Figure 5.42: Find options (QC result review) window

For descriptions of these fields, see *Find options (QC result review) window field descriptions*, page Appendix E-51.

Related procedures...

- *Find a specific control result*, page 5-160

Details for QC result (QC result review) window (*i* System)

From the *i* System view of the Details for QC result (QC result review) window you can view detailed information for unreleased control results and add comments.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.43: Details for QC result (QC result review) window (i System)

For descriptions of these fields, see *Details for QC result (QC result review) window (i System) field descriptions*, page Appendix E-52.

Related procedures...

- *View control result details*, page 5-161
- *Add a comment to a control result*, page 5-162

Rerun options (QC result review) window

From the Rerun options (QC result review) window you can order a rerun for a control test and change the following:

- Carrier ID and position or the carousel position
- Automated dilution factor
- Number of replicates
- Module for processing the test (multi-module *i* System)

Figure 5.44: Rerun options (QC result review) window

For descriptions of these fields, see *Rerun options (QC result review) window field descriptions*, page Appendix E-54.

Related procedures...

- *Rerun a test*, page 5-149

Patient results, QC results, and exceptions rerun review

A rerun is a test order created by the operator or automatically by the system. You use the Rerun status screen to review and manage patient results, QC results, and exceptions that are scheduled for rerun.

Patient, QC, and exception rerun review topics include:

- *Rerun status screen*, page 5-166
- *Procedures - Rerun status screen*, page 5-169

Rerun status screen

From the Rerun status screen you can view information for the tests scheduled for rerun and delete a rerun. These tests are ordered by the operator or created automatically by the system and display until the rerun is complete.

NOTE: Tests scheduled for rerun also display on the Order status and Sample status screens.

Information includes:

- Sample location, identified by sample carrier ID/position, carousel ID/position, or LAS
- Sample name and identification number

- Assay name, status, and time of completion
- Processing codes

You can also access windows to:

- Find information for specific reruns based on specified search criteria
- Print the Rerun list report
- View detailed rerun information
- Add a comment to a rerun
- Delete a test scheduled for rerun

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

Figure 5.45: Rerun status screen

C / P	SID	NAME	ASSAY	STATUS	TIME	CODE
P100 / 1	SID001		Na	Pending		R
P100 / 1	SID001		K	Pending		R
P100 / 1	SID001		Cl	Pending		R
P200 / 1	SID006	Smith, Bob	K	Pending		R
P200 / 1	SID006	Smith, Bob	Na	Pending		R
P200 / 1	SID006	Smith, Bob	Cl	Pending		R
P200 / 2	SID007	Nguyen, May	TSH	Pending		R
P300 / 1	SID011	Schultz, Heidi	TSH	Pending		R
P200 / 5	SID010	Flanagan, Ian	TSH	Pending		R
P200 / 4	SID009	Jackson, Wilma	TSH	Pending		R

For descriptions of these fields, see *Rerun status screen field descriptions*, page Appendix E-78.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
C/P	Alphanumerically in the following order: • Carrier/position • CRSL (carousel)/position • LAS • LAS carousel/position • No carrier or carousel/position
SID, NAME, and ASSAY	Alphanumerically in ascending order.
TIME	Last to first to complete.
STATUS and CODE	See *Descriptions of test statuses*, page 5-104 and *Descriptions of processing codes*, page 5-105.

To display this screen, see *Access the Rerun status screen*, page 5-168.

Related procedures...

- *View the status of tests scheduled for rerun*, page 5-169
- *Find a specific test order*, page 5-106
- *Print a report*, page 5-230
- *View order or rerun status details*, page 5-107
- *Add a comment to an order*, page 5-108
- *Delete a test from a rerun order*, page 5-170

Access the Rerun status screen

Perform this procedure to display the Rerun status screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Rerun status screen:

NOTE: You may also access this screen from the Snapshot screen by selecting the **Reruns status** button.

Select **Exceptions** from the menu bar, and then select **Rerun status**.

The Rerun status screen displays.

Related information...

- *Snapshot screen*, page 1-15
- *Rerun status screen*, page 5-166
- *Descriptions of processing codes*, page 5-105
- *Descriptions of test statuses*, page 5-104

Procedures - Rerun status screen

Procedures you can perform from the Rerun status screen and its related windows include:

- *View the status of tests scheduled for rerun*, page 5-169
- *Find a specific test order*, page 5-106
- *View order or rerun status details*, page 5-107
- *Add a comment to an order*, page 5-108
- *Delete a test from a rerun order*, page 5-170

View the status of tests scheduled for rerun

Perform this procedure to access the Rerun status screen. From this screen you can view information for the tests scheduled for rerun and delete a rerun. These tests are ordered by the operator or created automatically by the system and display until the rerun is complete.

NOTE: Tests scheduled for rerun also display on the Order status and Sample status screens.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To view the status of tests scheduled for rerun:

NOTE: You may also access this screen from the Snapshot screen by selecting the **Reruns status** button.

Select **Exceptions** from the menu bar, and then select **Rerun status**.

The Rerun status screen displays.

Related information...

- *Snapshot screen*, page 1-15
- *Rerun status screen*, page 5-166

- *Descriptions of processing codes*, page 5-105
- *Descriptions of test statuses*, page 5-104

Delete a test from a rerun order

Perform this procedure to delete a test(s) that no longer needs to be rerun.

Prerequisite	*Access the Rerun status screen*, page 5-168 Rerun order status - Pending
Module status	Any
User access level	General operator
Supplies	NA

To delete a test from a rerun order:

1. Select the desired test(s) from the table on the Rerun status screen, or select **F2 - Select all**.
2. Select **F6 - Delete**.

   A confirmation message displays.
3. Select **OK** to delete the test(s).

Related information...

- *Rerun status screen*, page 5-166

Patient and QC stored results

This subsection describes how to view and archive patient and QC results that have been released.

Patient and QC stored results topics include:

- *Patient stored results*, page 5-171
- *Stored QC results*, page 5-184

Patient stored results

Patient results that have been released remain in stored results until you archive or delete them, or system capacity is reached. See *System capacities*, page 4-5.

Patient stored results topics include:

- *Stored results screen*, page 5-171
- *Procedures - Stored results screen*, page 5-173
- *Windows - Stored results screen*, page 5-180

Stored results screen

From the Stored results screen you can view information for released patient results, which includes:

- Sample location, identified by sample carrier ID/position, carousel ID/position, or LAS
- Sample name and identification number
- Assay name and result
- Flags and codes

You can also retransmit, archive, or delete a stored result and access windows to:

- Find information for specific stored results based on specified search criteria
- Print the Absorbance Data report, Patient report, Result Details report, Results List report, and the Sample report
- View detailed information for stored results

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

For results that have not been released, see *Results review screen*, page 5-142.

Figure 5.46: Stored results screen

For descriptions of these fields, see *Stored results screen field descriptions*, page Appendix E-43.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
C/P	Alphanumerically in the following order: • Carrier/position • CRSL (carousel)/position • LAS • LAS carousel/position • No carrier or carousel/position
SID, NAME, and ASSAY	Alphanumerically in ascending order.
RESULT	Based on interpretation.
FLAG and CODE	See *Descriptions of patient result flags*, page 5-145 and *Descriptions of processing codes*, page 5-105.

To display this screen, see *Access the Stored results screen*, page 5-173.

Related procedures...

- *View all stored patient results*, page 5-174
- *Find a specific stored patient result*, page 5-174
- *Print a report*, page 5-230
- *View stored patient results details*, page 5-175
- *Retransmit a stored patient result to the host*, page 5-176
- *Delete a stored patient result*, page 5-177
- *Archive stored patient results*, page 5-178
- *Cancel result transmission*, page 5-176

Access the Stored results screen

Perform this procedure to display the Stored results screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Stored results screen:

Select **Results** from the menu bar, and then select **Stored results**.

The Stored results screen displays.

Related information...

- *Stored results screen*, page 5-171
- *Descriptions of patient result flags*, page 5-145
- *Descriptions of processing codes*, page 5-105

Procedures - Stored results screen

Procedures you can perform from the Stored results screen and its related windows include:

- *View all stored patient results*, page 5-174
- *Find a specific stored patient result*, page 5-174
- *View stored patient results details*, page 5-175
- *Retransmit a stored patient result to the host*, page 5-176
- *Cancel result transmission*, page 5-176
- *Delete a stored patient result*, page 5-177

- *Archive stored patient results*, page 5-178

View all stored patient results

Perform this procedure to display the Stored results screen. From this screen you can view information on released patient results.

To view information for unreleased patient results, see *View all patient results*, page 5-146.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To view all stored patient results:

Select **Results** on the menu bar, and then select **Stored results**.

The Stored results screen displays.

Related information...

- *Stored results screen*, page 5-171
- *Descriptions of patient result flags*, page 5-145
- *Descriptions of processing codes*, page 5-105

Find a specific stored patient result

Perform this procedure to search for specific released patient results by entering your search criteria in one or more fields.

Prerequisite	*Access the Stored results screen*, page 5-173
Module status	Any
User access level	General operator
Supplies	NA

To find a specific stored patient result:

1. Select **F3 - Find** on the Stored results screen.

   The Find options (Stored results) window displays.

2. Select and/or enter your search conditions. You can narrow the results returned by entering/selecting more criteria.

   NOTE: Do not enter multiple dates when searching for a specific time interval.

A wild card search allows you to type a partial entry followed by an asterisk (*) to begin a search when you do not know the entire entry. You can use the asterisk (*) wildcard character in all fields except position (P).

Example: If you enter 123* in the SID data entry box, all results starting with 123 display. This list could include 12345, 12346, and 12347.

3. Select **Done** to initiate the search.

   The Stored results screen displays with the text "Search results:" in the title bar.

   NOTE: Select the **refresh** button to display all records.

Related information...

- *Stored results screen*, page 5-171
- *Find options (Stored results) window*, page 5-181
- *Descriptions of patient result flags*, page 5-145
- *Descriptions of processing codes*, page 5-105

View stored patient results details

Perform this procedure to display the Stored results screen. From this screen you can view details for released patient results.

To view details for unreleased patient results, see *View patient result details*, page 5-147.

Prerequisite	*Access the Stored results screen*, page 5-173
Module status	Any
User access level	General operator
Supplies	NA

To view stored patient results details:

1. Select the desired result(s) from the table on the Stored results screen, or select **F2 - Select all**.
2. Select **F5 - Details**.

   The Details for result (Stored results) window displays.
3. Use the **previous/next** buttons to display each result if you selected more than one. ***(optional)***
4. Select **Done** to return to the Stored results screen.

Related information...

- *Stored results screen*, page 5-171
- *Details for result (Stored results) window - calculated view*, page 5-181
- *Details for result (Stored results) window (i System)*, page 5-182
- *Descriptions of patient result flags*, page 5-145
- *Descriptions of processing codes*, page 5-105

Retransmit a stored patient result to the host

Perform this procedure to retransmit a released patient result(s) to the host.

Prerequisite	*Access the Stored results screen*, page 5-173 Must be configured for bidirectional host communications. See *Configure host interface settings (i 1000$_{SR}$)*, page 2-6.
Module status	Any
User access level	General operator
Supplies	NA

To retransmit a stored patient result to the host:

1. Select the desired patient result(s) from the table on the Stored results screen, or select **F2 - Select all**.
2. Select **F6 - Transmit to Host**.

   A confirmation message displays.
3. Select **OK** to transmit the result(s).

To cancel a transmission to the host computer, see *Cancel result transmission*, page 5-176.

Related information...

- *Stored results screen*, page 5-171

Cancel result transmission

Perform this procedure to clear all results that are pending transmission to the host.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Any

User access level	General operator
Supplies	NA

To cancel result transmission:

1. Select **Host-Release mode** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure host - release mode window displays.
3. Select the **Bidirectional host: Off** option, and then select **Done**.

   A message displays when you have results that are pending transmission to the host.
4. Select **OK** to cancel result transmission.

   NOTE: If you select Cancel to leave the Bidirectional host on, the results pending transmission remain until transmission is successful.

   Results with a status of Pending Transmission go to a status of complete. Error message 8465, Host transmission canceled by the user is logged in the Message History log.

   NOTE: To resume host communication, you must reset the bidirectional host option.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Details for host - release mode window*, page 2-33
- *Configure host - release mode window*, page 2-32

Delete a stored patient result

Perform this procedure to delete a released patient result(s) that is no longer needed on the system.

Prerequisite	*Access the Stored results screen*, page 5-173 Result is not pending transmission or pending collation
Module status	Any
User access level	General operator
Supplies	NA

To delete a stored patient result:

1. Select the desired patient result(s) from the table on the Stored results screen, or select **F2 - Select all**.

   NOTE: Results with a status of pending transmission or pending collation cannot be deleted. Wait until the results have been transmitted or all results have been released before deleting them.

2. Select **F7 - Delete**.

   A confirmation message displays.

3. Select **OK** to delete the result(s).

Related information...

- *Stored results screen*, page 5-171

Archive stored patient results

Perform this procedure to store released patient results on a CD to create a backup for long-term storage.

NOTE: The results are archived in a delimited ASCII format so you can import them into a spreadsheet. You cannot use the ARCHITECT System to retrieve the information.

Prerequisite	*Access the Stored results screen*, page 5-173
Module status	Offline, Stopped, or Ready
User access level	General operator
Supplies	• CD-R (compact disk recordable) or • Unformatted CD-RW (compact disk Recordable/ReWritable)

To archive stored patient results:

1. Disable the screen timeout if the database is full and you are archiving a large amount of data. See *Change the screen timeout setting*, page 2-23. ***(optional)***

2. Insert a CD-R or CD-RW into the CD drive.

   NOTE: If an archive message displays, see *Descriptions of archive messages*, page 5-180.

3. Select the desired patient result(s) from the table on the Stored results screen, or select **F2 - Select all**.

   NOTE: You can also select F3 - Find to search for and select results. See *Find a specific stored patient result*, page 5-174.

4. Select **F8 - Archive**.

   The Archive results window displays.

5. Verify the CD drive read indicator light is off.

6. Deselect **Delete records after archive** check box. ***(optional)***

   NOTE: If you choose to delete results, results with a status of Pending transmission or Pending collation are not deleted.

7. Select **Done** to archive the results.

   NOTE: An archive routinely takes less than four minutes, but with a full database it may take longer. You can cancel an archive when the system is collecting archive data and creating a temporary archive data file. A progress indicator displays with a Cancel button. You can cancel an archive prior to it being 50% complete.

   Do not navigate to a different screen or window until the "0519 Data Archive Complete" message displays.

8. Select the **refresh** button, if available.

Related information...

- *Stored results screen*, page 5-171
- *Archive results window*, page 5-183

Descriptions of archive messages

The following table lists the archive messages and their meanings.

Table 5.7: Descriptions of archive messages

Message	Description
Insufficient disk space for archive	The disk does not have enough space to archive the requested record. See error code 0180. **NOTE:** A minimum of 40 megabytes of disk space is required to initiate an archive.
No disk or incorrect disk type detected	• You did not place a disk in the CD drive. • You used an incorrect disk type. • You inserted the disk upside down. • The archive disk is not a Recordable/ReWritable disk. See error code 0181.
No CD drive is detected	• A CD-RW drive is not installed on the SCC. • A cabling problem exists on the CD drive. • The CD drive had a hardware failure. See error code 0182.
CD drive is initializing	You selected the Done button before initialization is complete. See error code 0183.
The disk is read-only	The archive disk is not a Recordable/ReWritable disk. See error code 0184. **NOTE:** A CD that has been previously used to write information other than archive information cannot be used to archive additional information.
Busy	The CD is in the process of reading, writing, or initializing. See error code 0185.

Windows - Stored results screen

Windows you can access from the Stored results screen include:

- *Find options (Stored results) window,* page 5-181

- *Details for result (Stored results) window - calculated view*, page 5-181
- *Details for result (Stored results) window (i System)*, page 5-182
- *Archive results window*, page 5-183

Find options (Stored results) window

From the Find options (Stored results) window you can search for specific released patient results by entering your search criteria in one or more fields.

For patient results that have not been released, see *Find options (Results review) window*, page 5-152.

Figure 5.47: Find options (Stored results) window

For descriptions of these fields, see *Find options (Stored results) window field descriptions*, page Appendix E-43.

Related procedures...

- *Find a specific stored patient result*, page 5-174

Details for result (Stored results) window - calculated view

From the calculated view of the Details for result (Stored results) window you can view detailed information for released patient results.

NOTE: Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.48: Details for result (Stored results) window - calculated view

For descriptions of these fields, see *Details for result (Stored results) window - Calculated view field descriptions*, page Appendix E-45.

Related procedures...

- *View stored patient results details*, page 5-175

Details for result (Stored results) window (*i* System)

From the Details for result (Stored results) window (*i* System) you can view detailed information for released patient results.

NOTE: Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.49: Details for result (Stored results) window (i System)

For descriptions of these fields, see *Details for result (Stored results) window (i System) field descriptions*, page Appendix E-46.

Related procedures...

- *View stored patient results details*, page 5-175

Archive results window

From the Archive results window you can archive released patient results to a CD.

Figure 5.50: Archive results window

For descriptions of these fields, see *Archive results window field descriptions*, page Appendix E-48.

Related procedures...

- *Archive stored patient results*, page 5-178

Stored QC results

QC results that have been released remain in stored results until you archive and delete them.

Stored QC results topics include:

- *Stored QC results screen*, page 5-184
- *Procedures - Stored QC results screen*, page 5-187
- *Windows - Stored QC results screen*, page 5-191

Stored QC results screen

From the Stored QC results screen you can view information for released control results, which includes:

- Sample location, identified by sample carrier ID/position, carousel ID/position, or LAS
- Control name, level, and identification number
- Assay name and result
- Flags

You can also retransmit or archive a stored control result and access windows to:

- Find information for specific tests based on specified search criteria
- Print the Absorbance Data report, QC Result Details report, and QC Results List report
- View detailed stored control result information

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

For control results that have not been released, see *QC result review screen*, page 5-156.

Figure 5.51: Stored QC results screen

M	C / P	SID	CONTROL NAME	LEVEL	ASSAY	RESULT	FLAG
2	Z104 / 3	BhCG High	_B-hCG	High	_B-hCG	5893.22 mIU/mL	
2	Z104 / 2	BhCG Medium	_B-hCG	Medium	_B-hCG	515.31 mIU/mL	
2	Z104 / 1	BhCG Low	_B-hCG	Low	_B-hCG	31.32 mIU/mL	
1	Z106 / 2	BioRadLevel 2	BioRad	Level 2	AST	194.903 U/L	
1	Z106 / 2	BioRadLevel 2	BioRad	Level 2	ALT	99.765 U/L	
1	Z106 / 2	BioRadLevel 2	BioRad	Level 2	Chol	85.038 mg/dL	
1	Z106 / 2	BioRadLevel 2	BioRad	Level 2	Trig	113.515 mg/dL	
2	Z103 / 3	TSH High	TSH	High	TSH	28.8992 uIU/mL	
1	Z106 / 2	BioRadLevel 2	BioRad	Level 2	AlbG	3.090 g/dL	
1	Z106 / 2	BioRadLevel 2	BioRad	Level 2	TP	4.121 g/dL	

For descriptions of these fields, see *Stored QC results screen field descriptions*, page Appendix E-64.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
C/P	Alphanumerically in the following order: • Carrier/position • CRSL (carousel)/position • LAS • LAS carousel/position • No carrier or carousel/position
M	Numerically in ascending order.
SID, CONTROL NAME, LEVEL, and ASSAY	Alphanumerically in ascending order.
RESULT	This column does not sort.
FLAG	See *Descriptions of quality control result flags*, page 5-159.

To display this screen, see *Access the Stored QC results screen*, page 5-186.

Related procedures...

- *View all stored control results*, page 5-187
- *Find a specific stored control result*, page 5-188
- *Print a report*, page 5-230
- *View stored control result details*, page 5-189
- *Retransmit a stored control result*, page 5-189
- *Cancel result transmission*, page 5-176
- *Archive stored control results*, page 5-190

Access the Stored QC results screen

Perform this procedure to display the Stored QC results screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Stored QC results screen:

Select **QC - Cal** from the menu bar, and then select **Stored QC results**.

The Stored QC results screen displays.

Related information...

- *Stored QC results screen*, page 5-184
- *Descriptions of quality control result flags*, page 5-159
- *Descriptions of processing codes*, page 5-105

Procedures - Stored QC results screen

Procedures you can perform from the Stored QC results screen and its related windows include:

- *View all stored control results*, page 5-187
- *Find a specific stored control result*, page 5-188
- *View stored control result details*, page 5-189
- *Retransmit a stored control result*, page 5-189
- *Archive stored control results*, page 5-190

View all stored control results

Perform this procedure to display the Stored QC results screen. From this screen you can view information for released control results.

To view information for unreleased control results, see *View all control results*, page 5-159.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To view all stored control results:

Select **QC - Cal** icon from the menu bar, and then select **Stored QC results**.

The Stored QC results screen displays.

Related information...

- *Stored QC results screen*, page 5-184
- *Descriptions of quality control result flags*, page 5-159
- *Descriptions of processing codes*, page 5-105
- *Westgard rule descriptions*, page 5-208

Find a specific stored control result

Perform this procedure to search for specific released control results by entering your search criteria in one or more fields.

Prerequisite	*Access the Stored QC results screen*, page 5-186
Module status	Any
User access level	General operator
Supplies	NA

To find a specific stored control result:

1. Select **F3 - Find** on the Stored QC results screen.

   The Find options (Stored QC results) window displays.

2. Select and/or enter your search conditions. You can narrow the results returned by entering/selecting more criteria.

   NOTE: Do not enter multiple dates when searching for a specific time interval.

   A wild card search allows you to type a partial entry followed by an asterisk (*) to begin a search when you do not know the entire entry. You can use the asterisk (*) wildcard character in all fields except position (p).

   Example: If you enter 123* in the SID data entry box, all results starting with 123 display. This list could include 12345, 12346, and 12347.

3. Select **Done** to initiate the search.

   The Stored QC results screen displays with the text "Search results:" in the title bar.

   NOTE: Select the **refresh** button to display all records.

Related information...

- *Stored QC results screen*, page 5-184
- *Find options (Stored QC results) window*, page 5-192
- *Descriptions of quality control result flags*, page 5-159
- *Descriptions of processing codes*, page 5-105
- *Westgard rule descriptions*, page 5-208

View stored control result details

Perform this procedure to display the Details for QC result (Stored QC results) window. From this screen you can view details for released control results and add comments.

To view details for unreleased control results, see *View control result details*, page 5-161.

Prerequisite	*Access the Stored QC results screen*, page 5-186
Module status	Any
User access level	General operator
Supplies	NA

To view stored control result details:

1. Select the desired result(s) from the table on the Stored QC results screen, or select **F2 - Select all**.
2. Select **F5 - Details**.

   The Details for QC result (Stored QC results) window displays.
3. Use the **previous/next** buttons to display each result if you selected more than one. ***(optional)***
4. Select **Done** to return to the Stored QC results screen.

Related information...

- *Stored QC results screen*, page 5-184
- *Details for QC result (Stored QC results) window (i System)*, page 5-192
- *Descriptions of quality control result flags*, page 5-159
- *Descriptions of processing codes*, page 5-105

Retransmit a stored control result

Perform this procedure to retransmit a released control result(s) to the host.

Prerequisite	*Access the Stored QC results screen*, page 5-186 Must be configured for bidirectional host communications. See *Configure host interface settings (i 1000$_{SR}$)*, page 2-6.
Module status	Any

User access level	General operator
Supplies	NA

To retransmit a stored control result to the host:

1. Select the desired control result(s) from the table on the Stored QC results screen, or select **F2 - Select all**.
2. Select **F6 - Transmit to Host**.

   A confirmation message displays.
3. Select **OK** to transmit the result(s).

To cancel a transmission to the host computer, see *Cancel result transmission*, page 5-176.

Related information...

- *Stored QC results screen*, page 5-184

Archive stored control results

Perform this procedure to store released control results on a CD to create a backup for long-term storage.

NOTE: The results are archived in a delimited ASCII format so you can import them into a spreadsheet. You cannot use the ARCHITECT System to retrieve the information.

Prerequisite	*Access the Stored QC results screen*, page 5-186
Module status	Stopped, Warming, or Ready
User access level	General operator
Supplies	• CD-R (compact disk recordable) or • Unformatted CD-RW (compact disk read/write)

To archive stored control results:

1. Disable the screen timeout if the database is full and you are archiving a large amount of data. See *Change the screen timeout setting*, page 2-23. ***(optional)***
2. Insert a CD-R or CD-RW into the CD drive.

   NOTE: If an archive message displays, see *Descriptions of archive messages*, page 5-180.
3. Select the desired control results from the table on the Stored QC results screen, or select **F2 - Select all**.

NOTE: You can also select **F3 - Find** to search for and select results. See *Find a specific stored control result*, page 5-188.

4. Select **F8-Archive**.

   The Archive QC results window displays.

5. Verify the CD drive read indicator light is off.

6. Deselect **Delete records after archive** check box. ***(optional)***

   NOTE: If you delete QC results, the result values continue to be used in the cumulative module or system data. However, deleted QC results are deleted from the current Westgard analysis. Before deleting QC results, verify that all results you do not want included in the cumulative data have been excluded. See *Exclude or include a Levey-Jennings point*, page 5-216. Once the archive is complete and the QC results have been deleted, you cannot access the result to exclude it.

   If you choose to delete results, results with a status of Pending transmission or Pending collation are not deleted.

7. Select **Done** to archive the results.

   NOTE: An archive routinely takes less than four minutes, but with a full database it may take longer. You can cancel an archive when the system is collecting archive data and creating a temporary archive data file. A progress indicator displays with a Cancel button. You can cancel an archive prior to it being 50% complete. Do not navigate to a different screen or window until the "0519 Data Archive Complete" message displays.

8. Select the **refresh** button, if available.

   NOTE: Select the **refresh** button to display all records.

Related information...

- *Stored QC results screen*, page 5-184
- *Archive QC results window*, page 5-193

Windows - Stored QC results screen

Windows you can access from the Stored QC results screen include:

- *Find options (Stored QC results) window*, page 5-192
- *Details for QC result (Stored QC results) window (i System)*, page 5-192

- *Archive QC results window*, page 5-193

Find options (Stored QC results) window

From the Find options (Stored QC results) window you can search for specific released control results by entering your search criteria in one or more fields. The information that displays depends on the assay type (photometric or potentiometric) for the result selected.

For unreleased control results, see *Find options (QC result review) window*, page 5-163.

Figure 5.52: Find options (Stored QC results) window

For descriptions of these fields, see *Find options (Stored QC results) window field descriptions*, page Appendix E-65.

Related procedures...

- *Find a specific stored control result*, page 5-188

Details for QC result (Stored QC results) window (*i* System)

From the *i* System view of the Details for QC result (Stored QC results) window you can view detailed information for released control results.

Figure 5.53: Details for QC result (Stored QC results) window (i System)

For descriptions of these fields, see *Details for QC result (Stored QC results) window (i System) field descriptions*, page Appendix E-66.

Related procedures...

- *View stored control result details*, page 5-189

Archive QC results window

From the Archive QC results window you can archive released control results to a CD.

Figure 5.54: Archive QC results window

For descriptions of these fields, see *Archive QC results window field descriptions*, page Appendix E-67.

Related procedures...

- *Archive stored control results*, page 5-190

Exception management

An exception is a test order that failed to complete. Results are not reported and operator intervention is required. You use the Exception status screen to review and manage exceptions.

When an exception(s) occurs:

- The Exceptions status button displays on the Snapshot screen and indicates the number of exceptions. You can select this button to display the Exception status screen.
- The Exceptions icon on the menu bar blinks to indicate new exceptions exist. You can select this icon, and then Exception status, to display the Exception status screen.

The exception management topic includes the *Exception status screen*, page 5-195.

Exception status screen

From the Exception status screen you can view information for patient, control, and calibration exceptions, which includes:

- Sample location, identified by sample carrier ID/position, carousel ID/position, or LAS
- Sample name and identification number
- Assay name
- Error code
- Module identifier

You can also transmit an exception to the host, delete an exception, and access windows to:

- Find information for specific exceptions based on specified search criteria
- Print the Exception Details, Exception Status, and Absorbance Data reports
- View detailed information for exceptions
- View probable causes and corrective actions for the error code
- Add a comment to an exception
- Rerun an exception

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

NOTE: Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.55: Exception status screen

For descriptions of these fields, see *Exception status screen field descriptions*, page Appendix E-71.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
C/P	Alphanumerically in the following order: • Carrier/position • CRSL (carousel)/position • LAS • LAS carousel/position • WTR (water)/0 • No carrier or carousel/position
SID, NAME, and ASSAY	Alphanumerically in ascending order.
M	Numerically in ascending order.
ERROR CODE	Numerically in ascending order.

To display this screen, see *Access the Exception status screen*, page 5-197.

Related procedures...

- *View all exceptions*, page 5-198
- *Find a specific exception*, page 5-198
- *Print a report*, page 5-230
- *View exception details*, page 5-199
- *Add a comment to an exception*, page 5-200
- *Rerun a test*, page 5-149
- *Transmit an exception to the host*, page 5-200
- *Delete an exception*, page 5-201

Access the Exception status screen

Perform this procedure to display the Exception status screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Exception status screen:

NOTE: You may also access this screen from the Snapshot screen by selecting the **Exceptions status** button.

Select **Exceptions** from the menu bar, and then select **Exception status**.

The Exception status screen displays.

Related information...

- *Snapshot screen*, page 1-15
- *Exception status screen*, page 5-195

Procedures - Exception status screen

Procedures you can perform from the Exception status screen include:

- *View all exceptions*, page 5-198
- *Find a specific exception*, page 5-198
- *View exception details*, page 5-199
- *Add a comment to an exception*, page 5-200
- *Transmit an exception to the host*, page 5-200

- *Delete an exception*, page 5-201
- *Rerun a test*, page 5-149

View all exceptions

Perform this procedure to display the Exception status screen. From this screen you can view a list of all tests that have failed to complete.

To find specific exceptions, see *Find a specific exception*, page 5-198.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

NOTE: You may also access this screen from the Snapshot screen by selecting the **Exceptions status** button.

To view all exceptions:

Select **Exceptions** from the menu bar, and then select **Exception status**.

The Exception status screen displays.

Related information...

- *Snapshot screen*, page 1-15
- *Exception status screen*, page 5-195

Find a specific exception

Perform this procedure to search for a specific exception(s) by entering your search criteria in one or more fields.

Prerequisite	*Access the Exception status screen*, page 5-197
Module status	Any
User access level	General operator
Supplies	NA

To find a specific exception:

1. Select **F3 - Find** on the Exception status screen.

   The Find options (Exception status) window displays.

2. Select and/or enter your search conditions. You can narrow the results returned by entering/selecting more criteria.

NOTE: A wild card search allows you to type a partial entry followed by an asterisk (*) to begin a search when you do not know the entire entry. You can use the asterisk (*) wildcard character in all data entry boxes except position (P).

Example: If you enter 123* in the Error code data entry box, all orders with an error code starting with 123 display.

3. Select **Done** to initiate the search.

   The Exception status screen displays with the text "Search results:" in the title bar.

   NOTE: Select the **refresh** button to display all records.

Related information...

- *Exception status screen*, page 5-195
- *Find options (Exception status) window*, page 5-202

View exception details

Perform this procedure to display the Details for exceptions window. From this window you can view detailed information for exceptions that you can use in troubleshooting.

Prerequisite	*Exception status screen*, page 5-195
Module status	Any
User access level	General operator
Supplies	NA

To view exception details:

1. Select the desired exception(s) from the table on the Exception status screen, or select **F2 - Select all**.
2. Select **F5 - Details**.

   The Details for exceptions window displays.
3. Use the **previous/next** buttons to display each exception if you selected more than one. ***(optional)***
4. Select **Done** to return to the Exception status screen.

Related information...

- *Exception status screen*, page 5-195
- *Details for exceptions window - calculated view*, page 5-203
- *Details for exceptions window (i System)*, page 5-202

- *Details for exceptions window - control view,* page 5-204
- *Details for exceptions window - calibrator view,* page 5-205

Add a comment to an exception

Perform this procedure to add a comment to an exception(s).

Prerequisite	*Access the Exception status screen*, page 5-197
Module status	Any
User access level	General operator
Supplies	NA

To add a comment to an exception:

1. Select the desired exception(s) from the table on the Exception status screen, or select **F2 - Select all**.
2. Select **F5 - Details**.

   The Details for exceptions window displays.
3. Enter a comment in the **Comment** data entry box.
4. Use the **previous/next** buttons to display each exception if you selected more than one, and then enter a comment for each. ***(optional)***
5. Select **Done** to save your changes.

Related information...

- *Exception status screen,* page 5-195
- *Details for exceptions window - calculated view,* page 5-203
- *Details for exceptions window (i System),* page 5-202
- *Details for exceptions window - control view,* page 5-204

Transmit an exception to the host

Perform this procedure to transmit an exception(s) to the host when exceptions are managed on a host system.

Prerequisite	*Access the Exception status screen*, page 5-197 Must be configured for bidirectional host communications. See *Configure host interface settings (i 1000$_{SR}$)*, page 2-6.
Module status	Any

User access level	General operator
Supplies	NA

To transmit an exception to the host:

1. Select the desired exception(s) from the table on the Exception status screen, or select **F2 - Select all**.
2. Select **F8 - Transmit to Host** to transmit the exceptions.

   Once the transmission completes, the exception(s) no longer displays on the Exception status screen.

To cancel the exception transmission, see *Cancel result transmission*, page 5-176.

Related information...

- *Exception status screen*, page 5-195

Delete an exception

Perform this procedure to delete an exception(s) that is no longer needed for troubleshooting.

Prerequisite	*Access the Exception status screen*, page 5-197
Module status	Any
User access level	General operator
Supplies	NA

To delete an exception:

1. Select the desired exception(s) from the table on the Exception status screen, or select **F2 - Select all**.
2. Select **F7 - Delete**.

   A confirmation message displays.
3. Select **OK** to delete the exception(s).

   NOTE: Exceptions that are pending transmission or pending collation are not deleted until transmission completes.

Related information...

- *Exception status screen*, page 5-195

Windows - Exception status screen

Windows you can access from the Exception status screen include:

- *Find options (Exception status) window*, page 5-202
- *Details for exceptions window (i System)*, page 5-202
- *Details for exceptions window - calculated view*, page 5-203
- *Details for exceptions window - control view*, page 5-204
- *Details for exceptions window - calibrator view*, page 5-205

Find options (Exception status) window

From the Find options (Exception status) window you can search for specific exceptions by entering your search criteria in one or more fields.

Figure 5.56: Find options (Exception status) window

For descriptions of these fields, see *Find options (Exception status) window field descriptions*, page Appendix E-72.

Related procedures...

- *Find a specific exception*, page 5-198

Details for exceptions window (*i* System)

From the Details for exceptions window you can view detailed information for exceptions and add comments.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.57: Details for exceptions window (i System)

For descriptions of these fields, see *Details for exceptions window (i System) field descriptions*, page Appendix E-73.

Related procedures...

- *View exception details*, page 5-199
- *Add a comment to an exception*, page 5-200

Details for exceptions window - calculated view

From the calculated view of the Details for exceptions window you can view detailed information for exceptions and add comments.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.58: Details for exceptions window - calculated view

For descriptions of these fields, see *Details for exceptions window - Calculated view field descriptions*, page Appendix E-74.

Related procedures...

- *View exception details*, page 5-199
- *Add a comment to an exception*, page 5-200

Details for exceptions window - control view

From the control view of the Details for exceptions window you can view detailed information for exceptions and add comments.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.59: Details for exceptions window - control view

For descriptions of these fields, see *Details for exceptions window - Control view field descriptions*, page Appendix E-75.

Related procedures...

- *View exception details*, page 5-199
- *Add a comment to an exception*, page 5-200

Details for exceptions window - calibrator view

From the calibrator view of the Details for exceptions window you can view detailed information for exceptions and add comments.

NOTE: The title of this window is Details... when you access it from the Sample status window. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.60: Details for exceptions window - calibrator view

For descriptions of these fields, see *Details for exceptions window - Calibrator view field descriptions*, page Appendix E-77.

Related procedures...

- *View exception details*, page 5-199
- *Add a comment to an exception*, page 5-200

Quality control analysis

Quality control analysis is the process of monitoring control activity. The ARCHITECT System allows you to monitor control activity using standard Levey-Jennings graphs, Westgard rules, and QC data summaries. Control data includes both unreleased and released results.

To help ensure quality results and maintain optimal system performance:

- Carefully follow all directions in the Operations Manual and the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
- Never use expired or contaminated consumables.
- Perform maintenance checks and calibration procedures as recommended. See *Maintenance*, page 9-2.

IMPORTANT: The system evaluates controls on an assay per control lot basis. If a control fails on one or multiple reagent kits, the control failure on the kit(s) does not prevent the kit(s) from being used. You need to evaluate and resolve any control issues before running patient samples.

The quality control management topics include:

- *Westgard rule application*, page 5-207
- *Levey-Jennings graph screen*, page 5-210
- *QC summary review screen*, page 5-220
- *QC reports screen*, page 5-227

Westgard rule application

When Westgard rules are configured, the ARCHITECT System compares a control result against the expected mean and standard deviation for the control level. Previous results for the same assay are considered.

For information on configuring Westgard rules, see *Configure a Westgard rule*, page 2-109.

For information on each of the rules, see *Westgard rule descriptions*, page 5-208.

For information on run definitions, see *Westgard rule run descriptions*, page 5-209.

Westgard rule descriptions

Westgard rules configured as a failure for an assay(s) produce a CNTL (control) flag for each patient result associated with the assay(s). The following table lists the Westgard rules in the order they are applied and provides a description of each.

Table 5.8: Westgard rule descriptions

Westgard rule	Description
1-3s	Control rule to test whether a control measurement exceeds the control limits of x + 3SD or x - 3SD.
2-2s 1R 1M	Control rule to test whether two consecutive control measurements for the same control material within the same run exceed the same control limit of either x + 2SD or x - 2SD. Both results must fall on the same side of the mean.
2-2s 1R xM	Control rule to test whether two consecutive control measurements across control materials within the same run exceed the same control limit of either x + 2SD or x - 2SD. Both results must fall on the same side of the mean. The two control results must have different control level names.
2-2s xR 1M	Control rule to test whether two consecutive control measurements for the same control material across two different runs exceed the same control limit of either x + 2SD or x - 2SD. Both results must fall on the same side of the mean. The previous consecutive control result can be obtained during any previous run.
R-4s	Control rule to test whether the range, or difference, between control measurements run within 30 minutes of each other exceeds 4SD. The two control results need not be consecutive. The current control result is compared against each control result, which is older than the current result, by 30 minutes or less. Each result must be greater than 2SD, but in opposite directions.
4-1s 1M	Control rule to test whether four consecutive control measurements for the same control material exceed the same control limit of either x + 1SD or x - 1SD. All four control results must fall on the same side of the mean. The previous control results can be obtained during any run.
4-1s xM	Control rule to test whether four consecutive control measurements across control materials exceed the same control limit of either x + 1SD or x - 1SD. All four results must fall on the same side of the mean. The previous control results can be obtained during any run. (For this rule, both control results with the same or different control level names are considered.)

Table 5.8: Westgard rule descriptions (continued)

Westgard rule	Description
10-x 1M	Control rule to test whether 10 consecutive control measurements for the same control material fall on the same side of the mean. If a result falls on the mean, the rule does not fail. The previous control results can be obtained during any run.
10-x xM	Control rule to test whether 10 consecutive control measurements across control materials fall on the same side of the mean. If a result falls on the mean, the rule does not fail. The previous control results can be obtained during any run. (For this rule, both control results with the same or different control level names are considered.)
1-2s	Control rule to test whether a control measurement exceeds the control limits of x + 2SD or x - 2SD.

NOTE: To evaluate 1M (one material) rules, the system considers previous control results with the same control name, control level name, and control lot number.

To evaluate xM (across materials) rules, the system considers previous control results with the same control name and control lot number but different control level names.

Westgard rule run descriptions

The following table describes Westgard rules run definitions. For information on configuring Run definitions, see *Configure system control center window*, page 2-40.

Table 5.9: Westgard rules run definitions

Run definitions	Description
First Run Start Hour	The system allows the user to define what a run is on a system-wide basis. Run is defined by specifying a start time (which hour) and a time period (how many hours per run). This is the time based run mode. The start hour is an integer between 0 and 23. The "Run Period" is used for Westgard rules 2-2s 1R 1M, 2-2s 1R xM, 2-2s xR 1M, 4-1s 1M, 4-1s xM.
Run Period Length	The length of the "Run Period" in hours. The next Run Period begins Run Period Length hours after the current Run Period started. The run period is an integer between 1 and 24. If the 1 day period (24 hours) cannot be divided into equal time runs, the last run shall have the remaining hours. The Run Period is used for Westgard rules 2-2s 1R 1M, 2-2s 1R xM, 2-2s xR 1M, 4-1s 1M, 4-1s xM.

Levey-Jennings graph screen

From the Levey-Jennings graph screen you can view graphs and statistical data that reflect the criteria you specified on the QC selection window. A maximum of six Levey-Jennings graphs, three per page, displays.

You can also access windows to:

- Change the criteria for the graph and data
- Include or exclude points from a graph
- View details for a selected point
- Print the Levey-Jennings report

Figure 5.61: Levey-Jennings graph screen

For descriptions of these fields, see *Levey-Jennings graph screen field descriptions*, page Appendix E-55.

An explanation of the graph and statistical data elements on the Levey-Jennings graph screen follows.

Table 5.10: Graph elements

Item	Description
MEAN	Represented by the center line of the graph and indicates the expected control mean.
+ and - 1 SD (standard deviation)	Represented by the first line above and below the mean (green area).
+ and - 2 SD	Represented by the second line above and below the mean (yellow area).
+ and - 3 SD	Represented by the third line above and below the mean (red area).
Cursor (yellow box)	Indicates the selected point. Use the Point cursor controls to move the cursor from one point to the next.
Points	Represent control results and are graphed in the order of completion.
• Normal (black)	Points that fall within the defined control range and do not fail configured Westgard rules.
• Westgard warnings (yellow)	Points that caused a warning condition based on the Westgard analysis.
• Westgard failures (red)	Points that failed Westgard analysis.
• Out of range (blue)	Bar that indicates a control result that is outside of the control range.
• Excluded (white)	Points that have been excluded from the data calculation.

Table 5.11: Levey-Jennings graph statistical data elements

Statistic fields	Description
MEAN	The expected mean value as configured.
SD	The expected standard deviation value as configured.
LEVEL	The control level name you selected.
N	The number of control points for the selected level/lot/assay/module.

Table 5.11: Levey-Jennings graph statistical data elements

Statistic fields	Description
COMPARISON MEAN	The mean used to compare to the expected control mean. Information that displays is determined by your selections on the QC selection window. Options are: None - no comparison displayed Manufacturers - mean as configured Module cumulative - calculated for the selected assay/level/lot for the selected module System cumulative - calculated value for the selected assay/level/lot for all modules
COMPARISON SD	The SD (standard deviation) used to compare to the expected control SD. Information that displays is determined by your selections on the QC selection window. Options are: None - no comparison displayed Manufacturers - SD as configured Module cumulative - calculated for the selected assay/level/lot for the selected module System cumulative - calculated value for the selected assay/level/lot for all modules
VISIBLE DATE RANGE	The date range of the displayed points. As you navigate through the graph, the VISIBLE DATE RANGE changes to reflect the points you are viewing.

To display this screen, see *Create a Levey-Jennings graph*, page 5-213.

Related procedures...

- *Display the value for a Levey-Jennings point*, page 5-215
- *Change a Levey-Jennings graph*, page 5-214
- *View details for a Levey-Jennings point*, page 5-217
- *Add a comment to a Levey-Jennings point*, page 5-217
- *Exclude or include a Levey-Jennings point*, page 5-216
- *Recalculate Westgard analysis*, page 5-218
- *Print the Levey-Jennings report*, page 5-233

Procedures - Levey-Jennings graph screen

Procedures you can perform from the Levey-Jennings graph screen include:

- *Create a Levey-Jennings graph*, page 5-213
- *Change a Levey-Jennings graph*, page 5-214
- *Display the value for a Levey-Jennings point*, page 5-215
- *Exclude or include a Levey-Jennings point*, page 5-216
- *View details for a Levey-Jennings point*, page 5-217
- *Add a comment to a Levey-Jennings point*, page 5-217
- *Recalculate Westgard analysis*, page 5-218

Create a Levey-Jennings graph

Perform this procedure to create Levey-Jennings graphs that you can use to monitor control activity.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To create a Levey-Jennings graph:

1. Select **QC - Cal** from the menu bar, and then select **Levey-Jennings graph**.

   The Levey-Jennings graph screen displays in the background with the QC selection window as the active window.

2. Select the desired **Module** option.

   The control information for the selected module displays.

3. Enter a date range in the **Date range for calculation** data entry box.

   NOTE: The default range includes one month prior to the current date.

4. Select the desired **Comparison type** option:
   - **None** - Does not use a comparison method
   - **Manufacturers** - Compares the expected mean and SD (standard deviation) to the manufacturers mean and SD configured for the control
   - **Module cumulative** - Compares the expected mean and SD to the cumulative mean and SD of the processing module selected in step 2

– **System cumulative** - Compares the expected mean and SD to the cumulative mean and SD of all modules for a multi-module system

5. Select the desired assay from the **Assay** list.
6. Select the desired control name from the **Control name** list.
7. Select the desired control lot number from the **Control lot** list.
8. Deselect the desired **Control level** check boxes. ***(optional)***

   NOTE: The default setting is all control level check boxes selected.

9. Select **Done** to create the graph.

To view detailed information for a single control result, see *View details for a Levey-Jennings point*, page 5-217.

To change the criteria for your graph, see *Change a Levey-Jennings graph*, page 5-214.

Related information...

- *QC selection window*, page 5-219
- *Levey-Jennings graph screen*, page 5-210
- *Westgard rule application*, page 5-207

Change a Levey-Jennings graph

Perform this procedure to redefine the criteria for a Levey-Jennings graph.

Prerequisite	*Create a Levey-Jennings graph*, page 5-213 *View an assay control level Levey-Jennings graph*, page 5-225
Module status	Any
User access level	General operator
Supplies	NA

To change a Levey-Jennings graph:

1. Select **F2 - QC selection** on the Levey-Jennings graph screen.

   The QC selection window displays.

2. Select the desired **Module** option.

   The control information for the selected module displays.

3. Enter a date range in the **Date range for calculation** data entry box.

   NOTE: The default range includes one month prior to the current date.

4. Select the desired **Comparison type** option:
   - **None** - Does not use a comparison method
   - **Manufacturers** - Compares the expected mean and SD (standard deviation) to the manufacturers mean and SD configured for the control
   - **Module cumulative** - Compares the expected mean and SD to the cumulative mean and SD of the processing module selected in step 2
   - **System cumulative** - Compares the expected mean and SD to the cumulative mean and SD of all modules for a multi-module system
5. Select the desired assay from the **Assay** list.
6. Select the desired control name from the **Control name** list.
7. Select the desired control lot number from the **Control lot** list.
8. Deselect the desired **Control level** check boxes. ***(optional)***

   NOTE: The default setting is all control level check boxes selected.

9. Select **Done** to save your changes.

   The updated Levey-Jennings graph screen displays.

Related information...

- *Levey-Jennings graph screen*, page 5-210
- *QC selection window*, page 5-219
- *Westgard rule application*, page 5-207

Display the value for a Levey-Jennings point

Perform this procedure to display the result value and date for a specific point(s) on the Levey-Jennings graph screen.

Prerequisite	*Create a Levey-Jennings graph*, page 5-213
Module status	Any

User access level	General operator
Supplies	NA

To display the value for a Levey-Jennings point:

1. Select the desired point from the graph on the Levey-Jennings graph screen.

   The point value and date display in the lower right corner of the screen.

2. Use the **Point** scroll buttons to select another point. ***(optional)***

Related information...

- *Levey-Jennings graph screen*, page 5-210

Exclude or include a Levey-Jennings point

Perform this procedure to exclude a point or include a previously excluded point from the comparison mean and standard deviation.

To recalculate Westgard rules, see *Recalculate Westgard analysis*, page 5-218.

Prerequisite	*Create a Levey-Jennings graph*, page 5-213
Module status	Any
User access level	General operator
Supplies	NA

To exclude or include a Levey-Jennings point:

1. Select the desired point from the graph on the Levey-Jennings graph screen, and then select **F5 - Details**.

   The Point detail window displays.

2. Select the desired **Include/exclude** option.

3. Enter a comment in the **Comment** data entry box.

   NOTE: You must enter a comment to include or exclude a point. Both the QC result comment and the Levey-Jennings point comment print on the QC Result Details report.

4. Select the Westgard re-evaluation check box to recalculate the Westgard analysis. ***(optional)***

5. Select **Done** to save your changes.

   The updated Levey-Jennings graph screen displays.

Related information...

- *Levey-Jennings graph screen*, page 5-210
- *Point detail window*, page 5-219
- *Westgard rule application*, page 5-207

View details for a Levey-Jennings point

Perform this procedure to display the Point detail window. From this window you can view detailed information for a control result.

Prerequisite	*Create a Levey-Jennings graph*, page 5-213
Module status	Any
User access level	General operator
Supplies	NA

To view details for a Levey-Jennings point:

Select the desired point from the graph on the Levey-Jennings graph screen, and then select **F5 - Details**.

The Point detail window displays.

To exclude a point on the Levey-Jennings graph, see *Exclude or include a Levey-Jennings point*, page 5-216.

To add a comment, see *Add a comment to a Levey-Jennings point*, page 5-217.

Related information...

- *Levey-Jennings graph screen*, page 5-210
- *Point detail window*, page 5-219
- *Descriptions of quality control result flags*, page 5-159
- *Descriptions of processing codes*, page 5-105

Add a comment to a Levey-Jennings point

Perform this procedure to add a comment to a control point on a Levey-Jennings graph.

Prerequisite	*Create a Levey-Jennings graph*, page 5-213
Module status	Any
User access level	General operator
Supplies	NA

To add a comment to a Levey-Jennings point:

1. Select the desired Levey-Jennings point, and then select **F5 - Details**.

   The Point detail window displays.

2. Enter a comment in the **Comment** data entry box.

   NOTE: Both the QC result comment and the Levey-Jennings point comment print on the QC Result Details report.

3. Select **Done** to save your changes.

Related information...

- *Levey-Jennings graph screen*, page 5-210
- *Point detail window*, page 5-219

Recalculate Westgard analysis

Perform this procedure to recalculate Westgard analysis after:

- Including or excluding a point
- Changing the configured expected mean and/or SD (standard deviation) settings

The analysis is repeated for all rules except 1-3s or 1-2s.

Prerequisite	*Create a Levey-Jennings graph*, page 5-213
Module status	Any
User access level	General operator
Supplies	NA

To recalculate Westgard analysis:

1. Select the desired point from the graph on the Levey-Jennings graph screen, and then select **F5 - Details**.

   The Point detail window displays.

2. Select the desired **Include/exclude** option. ***(optional)***

3. Select the **Westgard re-evaluation** check box.

4. Select **Done** to save your changes.

   The updated Levey-Jennings graph screen displays.

Related information...

- *Levey-Jennings graph screen*, page 5-210
- *Point detail window*, page 5-219

- *Westgard rule descriptions*, page 5-208
- *Descriptions of quality control result flags*, page 5-159

Windows - Levey-Jennings graph screen

Windows you can access from the Levey-Jennings graph screen include:

- *QC selection window*, page 5-219
- *Point detail window*, page 5-219

QC selection window

From the QC selection window you specify the criteria used to create Levey-Jennings graphs and statistical data.

Figure 5.62: QC selection window

For descriptions of these fields, see *QC selection window field descriptions*, page Appendix E-56.

Related procedures...

- *Create a Levey-Jennings graph*, page 5-213
- *Change a Levey-Jennings graph*, page 5-214

Point detail window

From the Point detail window you can view detailed information for a point on the Levey-Jennings graph screen. You can also:

- Include or exclude a point
- Recalculate the Westgard analysis
- Add a comment

Figure 5.63: Point detail window

For descriptions of these fields, see *Point detail window field descriptions*, page Appendix E-57.

Related procedures...

- *Exclude or include a Levey-Jennings point*, page 5-216
- *Recalculate Westgard analysis*, page 5-218
- *Add a comment to a Levey-Jennings point*, page 5-217

QC summary review screen

From the QC summary review screen you can view statistical data for all assay control levels, which includes:

- Assay name
- Control name, lot number, and level
- Number of control points
- Actual mean, SD, and %CV
- Expected mean and SD

You can also access windows to:

- Find information for specific assay controls based on specified search criteria
- Print the QC Analysis, QC Summary, and Levey-Jennings reports
- View detailed QC data
- View the Levey-Jennings graphs for a selected assay control level

Figure 5.64: QC summary review screen

M	ASSAY	CONTROL NAME /LOT	LEVEL	N	ACTUAL MEAN	ACTUAL SD	% CV	EXPECTED MEAN	EXPECTED SD
1	_FT4	_FT4 12345A100	Low	1	0.71			0.7	0.115
1	_FT4	_FT4 12345A100	Medium	1	1.27			1.2	0.1725
1	_FT4	_FT4 12345A100	High	1	2.89			2.8	0.49
1	Progest	Progest 12345A200	Low	1	0.9			0.9	0.15
1	Progest	Progest 12345A200	Medium	1	4.3			4.6	0.6
1	Progest	Progest 12345A200	High	1	21.1			20.0	2.6
1	TSH	TSH 12345A300	Low	1	0.0919			0.1	0.0175
1	TSH	TSH 12345A300	Medium	1	5.7569			6.0	1.05
1	TSH	TSH 12345A300	High	1	28.8992			30.0	5.25

For descriptions of these fields, see *QC summary review screen field descriptions*, page Appendix E-68.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
M	Numerically in ascending order.
ASSAY	Alphanumerically in ascending order.
CONTROL NAME/LOT	Alphanumerically in ascending order.
LEVEL	Alphanumerically in ascending order.
N	Numerically in descending order.
ACTUAL MEAN ACTUAL SD % CV EXPECTED MEAN EXPECTED SD	These columns do not sort.

Table 5.12: QC summary review statistical data elements

Statistic fields	Description
N	The number of control points for the level/lot/assay/module used in the calculation.
ACTUAL MEAN	The mean calculated for the level/lot/assay for a processing module and specified date range.
ACTUAL SD	The SD calculated for the level/lot/assay for a processing module and specified date range.
% CV	The percent coefficient of variation calculated for the level/lot/assay for a processing module and specified date range.
EXPECTED MEAN	The expected mean configured for the control level.
EXPECTED SD	The expected SD configured for the control level.

When a control result has a flag, the QC summary information displays in red on this screen. Once a control result completes without a flag, the information displays in black. See *Descriptions of quality control result flags*, page 5-159.

To display this screen, see *View QC data summary*, page 5-223.

Related procedures...

- *Find the summary for specific QC data*, page 5-223
- *View QC data details*, page 5-224
- *View an assay control level Levey-Jennings graph*, page 5-225
- *Print the Levey-Jennings report*, page 5-233
- *Print the QC Analysis report*, page 5-234
- *Print the QC Summary report*, page 5-235

Procedures - QC summary review screen

Procedures you can perform from the QC summary review screen include:

- *View QC data summary*, page 5-223
- *Find the summary for specific QC data*, page 5-223
- *View QC data details*, page 5-224
- *View an assay control level Levey-Jennings graph*, page 5-225

View QC data summary

Perform this procedure to display the QC summary review screen. From this screen you can view a summary of control data.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To view QC data summary:

1. Select the **QC-Cal** icon from the menu bar and then select **QC summary**.

   The QC summary review screen displays.

2. Select the desired **Module** option. ***(optional)***

   The control information for the selected module displays.

3. Enter a date range in the **Date range:** data entry box and then select the update button to update the data. ***(optional)***

   NOTE: The default range includes one month prior to the current date.

Related information...

- *QC summary review screen*, page 5-220

Find the summary for specific QC data

Perform this procedure to search for specific QC data by entering your search criteria in one or more fields.

Prerequisite	*View QC data summary*, page 5-223
Module status	Any
User access level	General operator
Supplies	NA

To find the summary for specific QC data:

1. Select **F3-Find** on the QC summary review screen.

   The Find options (QC summary review) window displays.

2. Select and/or enter your search conditions. You can narrow the results returned by entering/selecting more criteria.

NOTE: A wild card search allows you to type a partial entry followed by an asterisk (*) to begin a search when you do not know the entire entry. You can use the asterisk (*) wildcard character in all data entry boxes except position (P).

Example: If you enter 123* in the Error code data entry box, all orders with an error code starting with 123 display.

3. Select **Done** to initiate the search.

The QC summary review screen displays with the text "Search results:" in the title bar.

NOTE: Select the **refresh** button to display all records.

Related information...

- *QC summary review screen*, page 5-220
- *Find options (QC summary review) window*, page 5-225

View QC data details

Perform this procedure to display the Details for QC summary window. From this window you can view QC data details for a selected assay control level.

Prerequisite	*View QC data summary*, page 5-223
Module status	Any
User access level	General operator
Supplies	NA

To view QC data details:

1. Select the desired assay control level(s) from the table on the QC summary review screen, or select **F2 - Select all**.
2. Select **F5 - Details**.

   The Details for QC summary window displays.
3. Use the **previous/next** buttons to display each assay control level if you selected more than one. ***(optional)***
4. Select **Done** to return to the QC summary review screen.

Related information...

- *QC summary review screen*, page 5-220
- *Details for QC summary window*, page 5-226

View an assay control level Levey-Jennings graph

Perform this procedure to display the Levey-Jennings graph screen. From this screen you can view the Levey-Jennings graph for a selected assay control level.

Prerequisite	*View QC data summary*, page 5-223
Module status	Any
User access level	General operator
Supplies	NA

To view an assay control level Levey-Jennings graph:

1. Select the control level(s) for an assay from the table on the QC summary review screen.

   NOTE: The **F7 - Graph** button is not available if more than one assay control lot is selected on the QC summary review screen.

2. Select **F7 - Graph**.

   The Levey-Jennings graph screen displays.

3. Select **F3 - QC summary** to return to the QC summary review screen. ***(optional)***

To redefine the criteria for the Levey-Jennings graph, see *Change a Levey-Jennings graph*, page 5-214.

Related information...

- *QC summary review screen*, page 5-220
- *Levey-Jennings graph screen*, page 5-210

Windows - QC summary review screen

Windows you can access from the QC summary review screen include:

- *Find options (QC summary review) window*, page 5-225
- *Details for QC summary window*, page 5-226

Find options (QC summary review) window

From the Find options (QC summary review) window you can search for specific control data by entering your search criteria in one or more fields.

Figure 5.65: Find options (QC summary review) window

For descriptions of these fields, see *Find options (QC summary review) window field descriptions*, page Appendix E-69.

Related procedures...

- *Find the summary for specific QC data*, page 5-223

Details for QC summary window

From the Details for QC summary window you can view QC data details for the selected control level, which includes:

- Expected and Manufacturer mean and SD
- Actual (processing module specific) and System (all processing modules in an *i* System) data for a date range
- Module cumulative (processing module specific) and System cumulative (all processing modules in an *i* System) data

Figure 5.66: Details for QC summary window

For descriptions of these fields, see *Details for QC summary window field descriptions*, page Appendix E-70.

Related procedures...

- *View QC data details*, page 5-224

QC reports screen

From the QC reports screen you can specify the information to include in the QC Analysis, QC Summary, and Levey-Jennings reports, and print the reports. This information includes:

- Module
- Assay
- Date range

Figure 5.67: QC reports screen

For descriptions of these fields, see *QC reports screen field descriptions*, page Appendix E-68.

To display this screen, see *Access the QC reports screen*, page 5-228.

Related procedures...

- *Print the Levey-Jennings report*, page 5-233
- *Print the QC Analysis report*, page 5-234
- *Print the QC Summary report*, page 5-235

Access the QC reports screen

Perform this procedure to display the QC reports screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the QC reports screen:

Select **QC - Cal** from the menu bar, and then select **QC reports**.

The QC reports screen displays.

To print the Levey-Jennings report, see *Print the Levey-Jennings report*, page 5-233.

To print the QC Analysis report, see *Print the QC Analysis report*, page 5-234.

To print the QC Summary report, see *Print the QC Summary report*, page 5-235.

Related information...

- *QC reports screen*, page 5-227
- *Levey - Jennings Report*, page Appendix A-23
- *QC Analysis Report*, page Appendix A-40
- *QC Summary Report*, page Appendix A-48

Report printing

You can print screen images and reports generated by the ARCHITECT System. Your system may be configured to print some reports automatically. For example, the Procedure, Cal Curve Details, Sample, and Results List reports print upon completion of the related activity.

Report printing procedures and topic include:

- *Print a report*, page 5-230
- *Print the Order List report*, page 5-233
- *Print the Levey-Jennings report*, page 5-233
- *Print the QC Analysis report*, page 5-234
- *Print the QC Summary report*, page 5-235
- *Print a Maintenance History report for a specified month*, page 5-236
- *Print a Maintenance History report for a specific procedure*, page 5-236
- *Print a Procedure report*, page 5-237
- *Print the Message History Log report*, page 5-238
- *Print an Assay Parameter report for specified assays*, page 5-239
- *Print an Assay Parameter report for all assays*, page 5-240
- *View a print job in the print queue*, page 5-241
- *Delete a print job*, page 5-241
- *Print a screen image*, page 5-242
- *Windows - Report printing*, page 5-242

Print a report

Perform this procedure to print a report. Reports are available from related screens. For example, you can print the Patient report from both the Results review and Stored results screens. You can print the Order List report from the Order status screen. Report availability is listed in the following table.

NOTE: Your system may be configured to print some reports automatically. For more information see *Configure report settings*, page 2-7.

To print the...	Access the...
Assay Parameter Report (i System), page Appendix A-3	Configuration screen
Cal Curve Details Report - Adjust (i System), page Appendix A-7 *Cal Curve Details Report - Full (i System)*, page Appendix A-10 *Cal Curve Details Report - Index (i System)*, page Appendix A-13	Calibration status screen Calibration history screen
Cal Curve Summary Report, page Appendix A-16	Calibration status screen Calibration history screen
Exception Details Report, page Appendix A-18 *Exception Status Report*, page Appendix A-21	Exception status screen
Levey - Jennings Report, page Appendix A-23	Levey-Jennings graph screen QC reports screen QC summary review screen
Maintenance History Report, page Appendix A-26	Maintenance log screen
Message History Log Report, page Appendix A-28	System logs screen
Order List Report, page Appendix A-30 *Order Status Report*, page Appendix A-32	Order status screen
Patient Report, page Appendix A-34	Results review screen Stored results screen
Procedure Report, Basic, page Appendix A-36 *Procedure Report, Columnar*, page Appendix A-38	Maintenance screen Diagnostics screen
QC Analysis Report, page Appendix A-40 *QC Summary Report*, page Appendix A-48	QC reports screen QC summary review screen
QC Result Details Report, page Appendix A-43 *QC Results List Report*, page Appendix A-46	QC result review screen Stored QC results screen

To print the...	Access the...
Reagent Load Error Report, page Appendix A-52 *Reagent Status Report (i 1000$_{SR}$)*, page Appendix A-54	Reagent status screen
Rerun List Report, page Appendix A-56	Rerun status screen
Result Details Report, page Appendix A-58 *Results List Report*, page Appendix A-61	Results review screen Stored results screen
Sample Report, page Appendix A-63	Results review screen Stored results screen
Sample Status Report, page Appendix A-65	Sample status screen
Temporary Message Log Report, page Appendix A-67	System logs screen

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To print a report:

1. Select the item(s) to include in the report. ***(optional)***

   NOTE: Items print in the order you select them with the exception of the Sample report. Sample reports are printed in order of SID. If you do not select a specific item(s), all items print.

2. Select **F4 - Print**.

   The Print options window displays.

3. Select the desired **Print selection** option.
4. Select the desired report from the **Reports available** list.
5. Enter the number of copies in the **Number of copies** data entry box.
6. Select **Done** to print the report.

Related information...

- *Print options window*, page 5-242
- *Printed report examples*, page Appendix A-1

Print the Order List report

Perform this procedure to print an Order List report to assist you in placing a sufficient amount of sample in the assigned position.

Prerequisite	*Access the Order status screen*, page 5-103
Module status	Any, however, if the processing module is not in Running status the volume printed on the Order List report is for one calibration/control per module and does not account for multiple reagent lots and kits on a module.
User access level	General operator
Supplies	NA

To print an Order List report:

1. Select **F4 - Print** on the Order status screen.

   The Print options window displays.

2. Select the **Order List** report option.

3. Select **Done** to print the report.

Related information...

- *Order status screen,* page 5-101
- *Print options window,* page 5-242

Print the Levey-Jennings report

Perform this procedure to print a Levey-Jennings report for a selected control.

Prerequisite	*Access the QC reports screen*, page 5-228
Module status	Any
User access level	General operator
Supplies	NA

To print a Levey-Jennings report for a selected control:

1. Select the desired **Module** option or for a multi-module *i* System the desired check box(es) on the QC reports screen.

2. Enter the starting and ending dates in the **Date from** and **to** data entry boxes.

3. Select the desired control(s) from the **Controls** list.

4. Select **F3 - Print**.

The Print options window displays.

5. Select the desired report from the **Reports available** list.
6. Enter the number of copies in the **Number of copies** data entry box.
7. Select **Done** to print the report.

Related information...

- *QC reports screen*, page 5-227
- *Print options window*, page 5-242
- *Levey - Jennings Report*, page Appendix A-23
- *QC Analysis Report*, page Appendix A-40
- *QC Summary Report*, page Appendix A-48

Print the QC Analysis report

Perform this procedure to print a QC Analysis report for a selected control.

Prerequisite	*Access the QC reports screen*, page 5-228
Module status	Any
User access level	General operator
Supplies	NA

To print a QC Analysis report for a selected control:

1. Select the desired **Module** option or for a multi-module *i* System the desired check box(es) on the QC reports screen.
2. Enter the starting and ending dates in the **Date from** and **to** data entry boxes.
3. Select the desired control(s) from the **Controls** list.
4. Select **F3 - Print**.

   The Print options window displays.
5. Select the desired report from the **Reports available** list.
6. Enter the number of copies in the **Number of copies** data entry box.
7. Select **Done** to print the report.

Related information...

- *QC reports screen*, page 5-227
- *Print options window*, page 5-242
- *Levey - Jennings Report*, page Appendix A-23
- *QC Analysis Report*, page Appendix A-40

Print the QC Summary report

Perform this procedure to print a QC Summary report for a selected control.

Prerequisite	*Access the QC reports screen*, page 5-228
Module status	Any
User access level	General operator
Supplies	NA

To print a QC Summary report for a selected control:

1. Select the desired **Module** option or for a multi-module *i* System the desired check box(es) on the QC reports screen.
2. Enter the starting and ending dates in the **Date from** and **to** data entry boxes. ***(optional)***
3. Select the desired control(s) from the **Controls** list.
4. Select **F3 - Print**.

   The Print options window displays.
5. Select the desired report from the **Reports available** list.
6. Enter the number of copies in the **Number of copies** data entry box.
7. Select **Done** to print the report.

Related information...

- *QC reports screen*, page 5-227
- *Print options window*, page 5-242
- *Levey - Jennings Report*, page Appendix A-23
- *QC Summary Report*, page Appendix A-48

Print a Maintenance History report for a specified month

Perform this procedure to print a Maintenance History report that includes the maintenance procedures (scheduled and/or performed) for a specified month.

To print a report for all procedures, see *Print a Maintenance History report for a specific procedure*, page 5-236.

Prerequisite	*Access the Maintenance log screen*, page 9-16
Module status	Any
User access level	General operator
Supplies	NA

To print a Maintenance History report for a specified month:

1. Select the desired **Module** option on the Maintenance log screen.
2. Use the **previous/next** buttons to display the desired month. ***(optional)***
3. Select **F3 - Print**.

   The Print options window displays.
4. Ensure the **All items** option is selected.
5. Select **Done** to print the Maintenance History report for the selected month.

   NOTE: For procedures that were scheduled but not performed, 00.00.00 prints in the time column.

Related information...

- *Maintenance log screen*, page 9-14
- *Print options window*, page 5-242
- *Maintenance History Report*, page Appendix A-26

Print a Maintenance History report for a specific procedure

Perform this procedure to print a Maintenance History report for a specific procedure for a specific month (scheduled and/or performed) stored on the system. The system stores procedures for the last three months.

To print a report for a selected month, see *Print a Maintenance History report for a specified month*, page 5-236.

Prerequisite	*Access the Maintenance log screen*, page 9-16
Module status	Any
User access level	General operator
Supplies	NA

To print a Maintenance History report for all procedures:

1. Select the desired **Module** option on the Maintenance log screen.
2. Select the desired procedure.
3. Select **F3 - Print**.

   The Print options window displays.
4. Select the **Selected items** option.
5. Select **Done** to print the Maintenance History report.

   NOTE: For procedures that were scheduled but not performed, 00:00:00 prints in the time column.

Related information...

- *Maintenance log screen*, page 9-14
- *Print options window*, page 5-242

Print a Procedure report

Perform this procedure to:

- Print a Procedure report if your system is not configured to automatically print one after a maintenance procedure is performed
- Print a Procedure report after a diagnostic procedure is performed
- Reprint a Procedure report

For information on enabling automatic report printing, see *Change the automatic report printing settings*, page 2-19.

Prerequisite	*Access the Maintenance screen*, page 9-4, or *Access the Diagnostics screen*, page 10-595
Module status	Stopped, Warming, Ready, or Maintenance

User access level	General operator
Supplies	NA

To print a Procedure report:

1. Select the desired **Module** option.
2. Select the desired tab to display the maintenance or diagnostic procedures for that category.
3. Select a procedure from the **MAINTENANCE PROCEDURES** or **DIAGNOSTIC PROCEDURES** list. ***(optional)***

   NOTE: If you do not select a specific procedure, all available reports print for all performed procedures in the selected category.

   To print a Procedure report for a procedure currently in process, you must return to the Maintenance perform window. See *Return to a maintenance procedure in process*, page 9-9.
4. Select **F4 - Print**.

   The Print Options window displays.
5. Select the desired **Print selection** option.
6. Enter the number of copies in the **Number of copies** data entry box.
7. Select **Done** to print the report.

Related information...

- *Maintenance screen*, page 9-3
- *Diagnostics screen*, page 10-594
- *Print options window*, page 5-242
- *Procedure Report, Basic*, page Appendix A-36
- *Procedure Report, Columnar*, page Appendix A-38

Print the Message History Log report

Perform this procedure to print the Message History Log report.

Prerequisite	*Access the System logs screen*, page 10-9
Module status	Any
User access level	General operator
Supplies	NA

To print the Message History Log report:

1. Select the **Log selection** list button on the System logs screen, and then select **Message history log**.
2. Select the item(s) to include in the report. ***(optional)***

   NOTE: Items print in the order you select them. If you do not select a specific item(s), all items print.
3. Select **F4 - Print**.

   The Print options window displays.
4. Select the desired **Print selection** option.
5. Enter the number of copies in the **Number of copies** data entry box.
6. Select **Done** to print the report.

Related information...

- *System logs screen*, page 10-8
- *Print options window*, page 5-242

Print an Assay Parameter report for specified assays

Perform this procedure to print an Assay Parameter report for selected assays.

To print an Assay Parameter report for all assays, see *Print an Assay Parameter report for all assays*, page 5-240.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51
Module status	Any
User access level	General operator
Supplies	NA

To print an Assay Parameter report for specified assays:

1. Select the assay(s) to include in the report from the **Assays** list on the Configuration screen.

   NOTE: The Assay Parameter report prints in the order you select the assays.
2. Select **F2 - Print**.

   The Print options window displays.

3. Enter the number of copies in the **Number of copies** data entry box.
4. Select **Done** to print the report.

Related information...

- *Configuration screen - Assay settings - Assay parameters view*, page 2-49
- *Print options window*, page 5-242
- *Assay Parameter Report (i System)*, page Appendix A-3

Print an Assay Parameter report for all assays

Perform this procedure to print an Assay Parameter report for all assays.

To print an Assay Parameter Report for selected assays, see *Print an Assay Parameter report for specified assays*, page 5-239.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-51
Module status	Any
User access level	General operator
Supplies	NA

To print an Assay Parameter report for all assays:

1. Select **F2 - Print** on the Configuration screen.

   The Print options window displays.
2. Enter the number of copies in the **Number of copies** data entry box.
3. Select **Done** to print the report.

Related information...

- *Configuration screen - Assay settings - Assay parameters view*, page 2-49
- *Print options window*, page 5-242
- *Assay Parameter Report (i System)*, page Appendix A-3

View a print job in the print queue

Perform this procedure to view the status of a print request that is in the print queue.

Prerequisite	*Access the Snapshot screen*, page 1-18
Module status	Any
User access level	General operator
Supplies	NA

To view a print job in the print queue:

1. Select the **Printer** button on the Snapshot screen.

   The Printer window displays.

2. View the status of the desired print job in the **Printer queue** list.
3. Select **Done** to return to the Snapshot screen.

Related information...

- *Snapshot screen*, page 1-15
- *Printer window*, page 5-243

Delete a print job

Perform this procedure to delete a report that is printing or waiting to be printed.

Prerequisite	*Access the Snapshot screen*, page 1-18
Module status	Any
User access level	General operator
Supplies	NA

To delete a print job:

1. Select the **Printer** button on the Snapshot screen.

   The Printer window displays.

2. Select the desired print job from the **Printer queue** list.
3. Select **Delete** to delete the print job.

   NOTE: When deleting a print request with a status of printing, wait until the printer starts printing the report before selecting Delete.

4. Select **Done** to return to the Snapshot screen.

Related information...

- *Snapshot screen*, page 1-15
- *Printer window*, page 5-243

Print a screen image

Perform this procedure to print a screen image to preserve graphical or troubleshooting information such as:

- The Maintenance log
- A Levey-Jennings graph
- An alert and/or information message

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To print a screen image:

Access the desired screen image, and then simultaneously press the **ALT+Print Screen** keys on the keyboard.

The screen image prints.

NOTE: General printing errors can occur when you attempt to print multiple screen images. Do not attempt to print more than three screen images at one time or to print a screen image while printing reports.

Windows - Report printing

Windows you can access include:

- *Print options window*, page 5-242
- *Printer window*, page 5-243

Print options window

From the Print options window you can choose the report to print, specify the data to include, and enter the number of copies.

Figure 5.68: Print options window

For descriptions of these fields, see *Print options window field descriptions*, page Appendix E-140.

Related procedures...

- *Print a report*, page 5-230
- *Print the Levey-Jennings report*, page 5-233
- *Print the QC Analysis report*, page 5-234
- *Print the QC Summary report*, page 5-235
- *Print a Maintenance History report for a specific procedure*, page 5-236
- *Print a Procedure report*, page 5-237
- *Print the Message History Log report*, page 5-238
- *Print an Assay Parameter report for specified assays*, page 5-239
- *Print an Assay Parameter report for all assays*, page 5-240

Printer window

From the Printer window you can check the printer status and delete a print job.

Figure 5.69: Printer window

For descriptions of these fields, see *Printer window field descriptions*, page Appendix E-140.

Related procedures...

- *View a print job in the print queue*, page 5-241
- *Delete a print job*, page 5-241

Introduction

Prior to running patient and control samples you must calibrate your assay(s).

Before attempting to calibrate the system you should be familiar with the hardware components of your system and the fundamental principles of the software user interface. See *Use or function*, page 1-1.

Calibration topics include:

- *Assay calibration*, page 6-2

  Provides descriptions of calibration methods and types and descriptions of the Calibration order screen with instructions for performing calibration order procedures.

- *Calibration review*, page 6-10

  Provides descriptions of the Calibration status and Calibration history screens with instructions for viewing and archiving calibration curves.

Assay calibration

Calibration is analyzing samples of known concentrations, recording the instrument response value(s), and plotting the measured value(s) against the known concentration to create a curve for evaluating unknown samples.

Assay calibration topics include:

- *Calibration guidelines*, page 6-2
- *Calibration sampling rules*, page 6-3
- *Calibration methods (i System)*, page 6-3
- *Calibration types (i System)*, page 6-4
- *Calibration curve storage*, page 6-5
- *Calibration order screen*, page 6-6

Calibration guidelines

After you install an assay(s) that requires a calibration, you must generate an active calibration curve. You do not need to recalibrate assays every time they are run; however, certain variables make recalibration necessary.

For more information, see:

- *Mandatory assay calibration*, page 6-2
- *Optional assay calibration*, page 6-2

NOTE: It is recommended that you run all levels of appropriate controls whenever you calibrate an assay.

Mandatory assay calibration

You must perform a calibration when:

- A new reagent lot number is used
- Documentation accompanying a new version of an existing assay file states calibration is required
- A new assay file that requires a calibration is installed

Optional assay calibration

You may need to perform a calibration when:

- Assay control values are out of specification. For specific information regarding quality control, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
- Certain system maintenance/component replacement procedures are performed.
- Certain errors occur. To determine whether recalibration is necessary when an error occurs, see assay-specific error codes.

Calibration sampling rules

When multiple reagent lots for an assay are loaded on the system and the sampling process for a calibration order is ready to begin, the system determines the lots to calibrate using the following rules.

For the ARCHITECT System:

- If all reagent lots for the assay do not currently have a calibration status of Active, the system calibrates all reagent lots loaded on the system.
- If all reagent lots for the assay currently have a calibration status of Active, the system recalibrates all reagent lots loaded on the system.
- If some reagent lots for the assay have a calibration status of Active and some do not, the system calibrates only the reagent lots loaded on the system without an active calibration.

For the *c* 16000 the calibration status is specific to one line. If a reagent with an Active calibration status is moved from one line (A or B line) to the other and then scanned, the calibration status for the reagent in its current location is No Cal. To avoid recalibration:

- do not move reagents from one line to another
- do not load on a different line when replacing reagents

Calibration methods (*i* System)

Calibration methods are data reduction methods used by ARCHITECT *i* Systems to measure RLU (relative light unit) values and to plot a calibration curve or cutoff value. One of four different mathematical methods is used to calculate results:

- *Point to point method (i System)*, page Appendix C-2
- *Linear regression method (i System)*, page Appendix C-2

- *4PLC methods (i System)*, page Appendix C-4
- *Cutoff assay method (i System)*, page Appendix C-6

i System calibration methods are assay-specific and are defined in the assay parameter file. You can view the method on the *Details for assay parameters window - Calibration view (i System)*, page 2-87.

For more information on the mathematical methods, See *i System data reduction methods*, page Appendix C-2.

Calibration types (*i* System)

The calibration type indicates whether a new calibration curve is created, a master reference curve is adjusted, or a cutoff value is created for *i* System assays on a processing module. The type is defined in the assay parameter file and is assay-specific.

The calibration types are as follows:

- *Adjust calibration*, page 6-4
- *Full calibration*, page 6-4
- *Index calibration*, page 6-5

NOTE: Calibration type is assay-specific. For a detailed description of the assay calibrator(s) and calibration type for each assay, see the ARCHITECT *i* System assay-specific package insert.

Adjust calibration

A calibration adjustment is a new measurement of 2 points of a master reference curve specified for an assay. This 2-point calibration generates a processing module-specific calibration curve for quantitative assays by adjusting the master calibration data.

A 2-point calibration adjustment assay has master calibration data encoded within the 2D bar code on the microparticle bottle label. After you load a reagent kit on a processing module, the system performs a scan and stores master calibration data in the system software. The data stored is specific for the assay but must be adjusted to fit the specific processing module. Therefore, the operator must run two calibrators.

Full calibration

A full calibration is the measurement of 6 points specified for a quantitative assay plotted against known concentrations to generate a

processing module-specific calibration curve for evaluating unknown samples.

Index calibration

An index calibration is the measurement of 1 point or 2 points specified for a qualitative assay and generates a processing module-specific index (cutoff).

The system software uses the index value to generate all cutoff values defined for an index or screening assay.

Calibration curve storage

The ARCHITECT System stores active, inactive, and failed calibration curves.

For more information on curve storage, see:

- *Active calibration curve storage*, page 6-5
- *Inactive calibration curve storage*, page 6-6
- *Failed calibration curve storage*, page 6-6

For more information on calibration curve statuses, see *Descriptions of calibration statuses*, page 6-12.

Active calibration curve storage

The system stores active curves as follows:

- Stores the processing module-specific calibration as the active curve for that reagent lot
- Replaces the previous calibration curve, which becomes inactive
- Automatically defaults to the active curve for the onboard reagent lot
- Stores one active curve for up to four different reagent lots for each assay on a processing module
- Replaces the oldest active curve if a fifth reagent lot calibrates successfully

  NOTE: You may manually fail an active calibration curve by selecting the Fail Curve button on the Calibration curve window.

Inactive calibration curve storage

The system stores the previous curve as inactive when a new calibration curve is generated for the reagent lot. Inactive curves are stored for up to 3 months.

Failed calibration curve storage

The system stores a failed calibration curve until an active curve or another failed curve is generated for the reagent lot.

For details on how to resolve errors for failed curves, see assay-specific error codes.

Calibration order screen

From the Calibration order screen you can order assay calibrations and access a window to specify calibration options.

Figure 6.1: Calibration order screen

For descriptions of these fields, see *Calibration order screen field descriptions*, page Appendix E-58.

To display this screen, see *Access the Calibration order screen*, page 6-7.

Related procedures...

- *Create a calibration order*, page 6-7

Access the Calibration order screen

Perform this procedure to display the Calibration order screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Calibration order screen:

Select **Orders** from the menu bar, and then select **Calibration order**.

The Calibration order screen displays.

Related information...

- *Calibration order screen,* page 6-6

Procedure - Calibration order screen

The procedure you can perform from the Calibration order screen is:

- *Create a calibration order,* page 6-7

Create a calibration order

Perform this procedure to order a calibration when one or more assays require a new calibration.

Prerequisite	*Access the Calibration order screen*, page 6-7
Module status	Any
User access level	General operator
Supplies	Consecutively numbered carriers

To create a calibration order:

1. Select the **carrier** or **carousel** button on the Calibration order screen, if displayed.

   NOTE: When you select multiple assays, the software automatically assigns the calibrators in sequential carriers and/or positions:

   - If you select carrier, the system does not increment to more than five sequential carriers.
   - If you select carousel, the system does not increment beyond the last position in the sample carousel.

2. Enter a carrier ID or carousel ID (LAS carousel sample handler) in the **C** data entry box, if displayed.
3. Enter a position in the **P** data entry box, if displayed.
4. Select the desired assay(s) from the **Assays** list.
5. Select **F5 - Assay options** to specify calibration options. ***(optional)***

   The Assay options (Calibration order) window displays.

   a. Enter a calibrator lot number in the **Lot** data entry box, and then enter a date in the **Expiration date** data entry box. ***(optional)***

   NOTE: The data entry box(es) display the last calibrator lot number and expiration date entered.

   This information displays on the Calibration curve window and in the Cal Curve Details report.

   b. Select the **Manual** option, and then select the desired **Module selection** check box (multi-module *i* System). ***(optional)***

   c. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat Steps 5a - 5c for each. ***(optional)***

   d. Select **Done** to save your changes and/or return to the Calibration order screen.
6. Select **F2 - Add order** to add the calibration order.

   Orders can be viewed from the Order status screen.

To print the Order List report, see *Print the Order List report*, page 5-233.

To load samples, see *Loading samples (RSH)*, page 5-126.

Related information...

- *Calibration order screen*, page 6-6
- *Assay options (Calibration order) window*, page 6-9
- *Order List Report*, page Appendix A-30

Window - Calibration order screen

The window you can access from the Calibration order screen is the *Assay options (Calibration order) window*, page 6-9.

Assay options (Calibration order) window

From the Assay options (Calibration order) window you can:

- Enter a calibrator lot number and expiration date. This information displays on the Calibration curve window and in the Cal Curve Details report.
- Specify the processing module to use (multi-module *i* System).

Figure 6.2: Assay options (Calibration order) window

For descriptions of these fields, see *Assay options (Calibration order) window field descriptions*, page Appendix E-58.

Related procedures...

- *Create a calibration order*, page 6-7

Calibration review

The assay calibration run must pass calibration verification before the system stores the calibration. The status of each calibration displays on the Calibration status and/or Calibration history screens.

Calibration review topics include:

- *Calibration verification*, page 6-10
- *Calibration status screen*, page 6-10
- *Calibration history screen*, page 6-17

Calibration verification

After you process calibrators, the system verifies the results by comparing them to the assay-specific calibration parameter specifications. If the results of a calibration fall within the specified range for that assay, the new calibration curve replaces any previous calibration curve and the previous calibration curve status changes to inactive. If the results of a calibration do not fall within the specified range, then the new calibration curve is assigned a status of failed; if there is an existing calibration curve for that assay, it is not replaced. The assigned status of a calibration displays on the Calibration status and/or Calibration history screens and includes:

- Active - the values fall within the specifications. The system software calculates patient and control test results from this curve.
- Failed - the values fall outside of the specifications. If an active curve exists for a reagent lot, the system software calculates patient and control test results from the existing active curve.
- Inactive - this is an older, previously active curve that has been superseded by a more recent calibration. An inactive curve status displays only on the Calibration history screen.

Calibration status screen

From the Calibration status screen you can view a summary list of the calibration statuses for each assay and reagent lot currently loaded on the system.

You can also access windows to:

- Find information for specific calibrations based on specified search criteria

- View detailed calibration curve information
- Fail a calibration curve
- Print the Cal Curve Summary and Cal Curve Details reports

To view information about previously performed calibrations, see *Calibration history screen*, page 6-17.

Figure 6.3: Calibration status screen

M	ASSAY	REAGENT LOT	CAL DATE / TIME	CAL STATUS	EXP DATE / TIME
1	Iron	10300L008	04.18.2002 / 10:05	Active	05.15.2002 / 10:05
1	TP	10140L004	04.18.2002 / 10:05	Active	05.11.2002 / 10:05
1	Ca	10080L009	04.18.2002 / 10:04	Active	05.29.2002 / 10:04
1	Glu	10060L007	04.18.2002 / 10:04	Active	05.18.2002 / 10:04
2	BhCG STAT	29876AC98	04.18.2002 / 10:04	Active	
2	TT4	59876AC98	04.18.2002 / 10:42	Failed	
2	TSH	81234JS01	04.18.2002 / 10:04	Active	
2	Progest	71234JS01	04.18.2002 / 10:03	Active	
2	FT4	53233AC98	04.18.2002 / 10:03	Active	
1	AST	10230L002	04.18.2002 / 10:02	Active	05.18.2002 / 10:02

For descriptions of these fields, see *Calibration status screen field descriptions*, page Appendix E-59.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
M	Numerically in ascending order.
ASSAY and REAGENT LOT	Alphanumerically in ascending order.
CAL DATE / TIME and EXP DATE / TIME	Chronologically in descending order.
CAL STATUS	See *Descriptions of calibration statuses*, page 6-12.

To display this screen, see *Access the Calibration status screen*, page 6-12.

Related procedures...

- *View assay calibration status*, page 6-21
- *Find a specific calibration*, page 6-22
- *View calibration curve information*, page 6-23
- *Fail a calibration curve*, page 6-24
- *Print a report*, page 5-230

Access the Calibration status screen

Perform this procedure to display the Calibration status screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Calibration status screen:

NOTE: You may also access this screen from the Snapshot screen by selecting the **Calibration status** button on the *c* 8000 processing module graphic.

Select **QC-Cal** from the menu bar, and then select **Calibration status**.

The Calibration status screen displays.

Related information...

- *Calibration status screen*, page 6-10

Descriptions of calibration statuses

You can use calibration status information to determine the status of each calibration curve. The system displays one of the following

calibration statuses for each calibration curve. The table below displays the calibration statuses in the order in which they sort.

Table 6.1: Calibration statuses

Status	Description
Failed	One of the following occurred: • The calibration failed curve validity checks. • The calibration did not complete successfully due to a hardware error. • The user manually failed the calibration.
No Cal	One of the following occurred: • The reagent lot was never calibrated.
In Process	The calibration is currently in process.
Active	The calibration completed successfully and, for *c* System assays, the calibration is not expired.
Inactive	A previously active curve which was replaced by a new active curve. Inactive calibration curves display only on the Calibration history screen.

Windows - Calibration status screen

Windows and views of windows that you can access from the Calibration status screen include:

- *Find options (Calibration status) window*, page 6-13
- *Calibration curve window - adjust assay view (i System)*, page 6-14
- *Calibration curve window - index assay view (i System)*, page 6-15
- *Calibration curve window - full assay view (i System)*, page 6-16

Find options (Calibration status) window

From the Find options (Calibration status) window you can search for specific calibration records.

Figure 6.4: Find options (Calibration status) window

For descriptions of these fields, see *Find options (Calibration status and Calibration history) window field descriptions*, page Appendix E-59.

Related procedures...

- *Find a specific calibration*, page 6-22

Calibration curve window - adjust assay view (*i* System)

From the adjust assay view of the Calibration curve window you can view information such as:

- Calibrator name
- Calibrator lot number and expiration date, if entered
- Calibrator RLU (relative light units) response for all replicates, mean RLU, and the calibration adjustment ratio(s)
- Reference calibrator concentration, RLU response, and the fit curve RLU response for each calibrator

You can also manually fail a curve(s).

Figure 6.5: Calibration curve window - Adjust assay view (i System)

For descriptions of these fields, see *Calibration curve window - Adjust assay view (i System) field descriptions*, page Appendix E-60.

Related procedures...

- *View calibration curve information*, page 6-23
- *Fail a calibration curve*, page 6-24

Calibration curve window - index assay view (*i* System)

From the index assay view of the Calibration curve window you can view information such as:

- Calibrator name
- Calibrator lot number and expiration date, if entered
- Calibrator RLU (relative light units) response for all replicates, mean RLU, and cutoff value

You can also manually fail a curve(s).

Figure 6.6: Calibration curve window - Index assay view (i System)

For descriptions of these fields, see *Calibration curve window - Index assay view (i System) field descriptions*, page Appendix E-61.

Related procedures...

- *View calibration curve information*, page 6-23
- *Fail a calibration curve*, page 6-24

Calibration curve window - full assay view (*i* System)

From the full assay view of the Calibration curve window you can view information such as:

- Calibrator name and concentration
- Calibrator lot number and expiration date, if entered
- Calibrator RLU (relative light units) response for all replicates, mean RLU, and the fit curve RLU response for each calibrator

You can also manually fail a curve(s).

Figure 6.7: Calibration curve window - Full assay view (i System)

For descriptions of these fields, see *Calibration curve window - Full assay view (i System) field descriptions*, page Appendix E-62.

Related procedures...

- *View calibration curve information*, page 6-23
- *Fail a calibration curve*, page 6-24

Calibration history screen

From the Calibration history screen you can view a summary list of the calibration statuses for current and previously performed calibrations.

You can also access windows to:

- Find information for specific calibrations based on specified search criteria
- View detailed calibration curve information
- Fail a calibration curve
- Print the Cal Curve Summary and Cal Curve Details reports
- Archive calibration curve information

Figure 6.8: Calibration history screen

M	ASSAY	REAGENT LOT	CAL DATE / TIME	CAL STATUS	EXP DATE / TIME
2	_B-hCG	29876AC98	04.05.2005 / 17:55	Failed	
1	Cl	710B1I001	04.05.2005 / 15:30	Expired	04.05.2005 / 23:30
1	K	710B1I001	04.05.2005 / 15:29	Expired	04.05.2005 / 23:29
1	Na	710B1I001	04.05.2005 / 15:29	Expired	04.05.2005 / 23:29
1	Mg	10090L100	04.05.2005 / 15:28	Expired	04.06.2005 / 15:28
1	HDL	10190L005	04.05.2005 / 15:34	Active	05.05.2005 / 15:34
1	Trig	10170HW00	04.05.2005 / 15:32	Active	05.16.2005 / 15:32
1	Chol	10180HW00	04.05.2005 / 15:34	Active	05.05.2005 / 15:34
1	AST	10230L002	04.05.2005 / 15:28	Active	05.05.2005 / 15:28
1	TP	10140L004	04.05.2005 / 15:28	Active	04.28.2005 / 15:28

For descriptions of these fields, see *Calibration history screen field descriptions*, page Appendix E-63.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
M	Numerically in ascending order.
ASSAY and REAGENT LOT	Alphanumerically in ascending order.
CAL DATE / TIME and EXP DATE / TIME	Chronologically in descending order.
CAL STATUS	See *Descriptions of calibration statuses*, page 6-12.

To display this screen, see *Access the Calibration history screen*, page 6-19.

Related procedures...

- *View assay calibration history*, page 6-22
- *View calibration curve information*, page 6-23
- *Find a specific calibration*, page 6-22
- *Fail a calibration curve*, page 6-24
- *Print a report*, page 5-230

- *Archive calibration curves*, page 6-25

Access the Calibration history screen

Perform this procedure to display the Calibration history screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Calibration history screen:

Select **QC-Cal** from the menu bar, and then select **Calibration history**.

The Calibration history screen displays.

Related information...

- *Calibration history screen*, page 6-17

Windows - Calibration history screen

Windows and views of windows that you can access from the Calibration history screen include:

- *Find options (Calibration history) window*, page 6-19
- *Calibration curve window - adjust assay view (i System)*, page 6-14
- *Calibration curve window - index assay view (i System)*, page 6-15
- *Calibration curve window - full assay view (i System)*, page 6-16
- *Archive calibration curves window*, page 6-20

Find options (Calibration history) window

From the Find options (Calibration history) window you can search for specific calibration records.

Figure 6.9: Find options (Calibration history) window

For descriptions of these fields, see *Find options (Calibration status and Calibration history) window field descriptions*, page Appendix E-59.

Related procedures...

- *Find a specific calibration*, page 6-22

Archive calibration curves window

From the Archive calibration curves window you can archive calibration curves to a CD.

Figure 6.10: Archive calibration curves window

For descriptions of these fields, see *Archive calibration curves window field descriptions*, page Appendix E-63.

Related procedures...

- *Archive calibration curves*, page 6-25

Procedures - Calibration review

Procedures you can perform from the Calibration status and/or Calibration history screen and its related windows include:

- *View assay calibration status*, page 6-21
- *View assay calibration history*, page 6-22
- *Find a specific calibration*, page 6-22
- *View calibration curve information*, page 6-23
- *Fail a calibration curve*, page 6-24
- *Print a report*, page 5-230
- *Archive calibration curves*, page 6-25

View assay calibration status

Perform this procedure to display the Calibration status screen. From this screen you can view a summary list of the calibration statuses for each assay and reagent lot currently loaded on the system.

To find specific calibrations, see *Find a specific calibration*, page 6-22.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To view assay calibration status:

NOTE: You may also access this screen from the Snapshot screen by selecting the **CAL STATUS** button on the *c* 8000 processing module graphic.

Select **QC-Cal** from the menu bar, and then select **Calibration status**.

The Calibration status screen displays.

Related information...

- *Calibration status screen*, page 6-10
- *Descriptions of calibration statuses*, page 6-12

View assay calibration history

Perform this procedure to display the Calibration history screen. From this screen you can view a summary list of the calibration statuses for current and previously performed calibrations.

To find specific calibrations, see *Find a specific calibration*, page 6-22.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To view assay calibration history:

Select **QC-Cal** from the menu bar, and then select **Calibration history**.

The Calibration history screen displays.

Related information...

- *Calibration history screen*, page 6-17
- *Descriptions of calibration statuses*, page 6-12

Find a specific calibration

Perform this procedure to search for a specific calibration by entering your search criteria in one or more fields.

Prerequisite	*Access the Calibration status screen*, page 6-12 *Access the Calibration history screen*, page 6-19
Module status	Any
User access level	General operator
Supplies	NA

To find a specific calibration:

1. Select **F3 - Find** on the Calibration status or Calibration history screen.

   The Find options (Calibration status or Calibration history) window displays.

2. Select and/or enter your search conditions. You can narrow the results returned by entering/selecting more criteria.

NOTE: A wildcard search allows you to type a partial entry followed by an asterisk (*) to begin a search when you do not know the entire entry. You can use the asterisk (*) wildcard character in all data entry boxes except position (P).

Example: If you enter 123* in the Reagent lot data entry box, all the reagent lots starting with 123 display. This list could include 12345M100, 12346M100, or 12347M100.

3. Select **Done** to initiate the search.

   The Calibration status or Calibration history screen displays with the text "Search results:" in the title bar.

   NOTE: Select the **refresh** button to display all records.

Related information...

- *Find options (Calibration status) window*, page 6-13
- *Find options (Calibration history) window*, page 6-19

View calibration curve information

Perform this procedure to display the Calibration curve window. From this window you can view detailed information for a calibration curve(s) such as:

- Calibrator name, concentration, lot number, and expiration date
- Calibrator curve data

Prerequisite	*Access the Calibration status screen*, page 6-12 *Access the Calibration history screen*, page 6-19
Module status	Any
User access level	General operator
Supplies	NA

To view calibration curve information:

1. Select the desired calibration(s) from the table on the Calibration status or Calibration history screen, or select **F2- Select all**.
2. Select **F5 - Details**.

   The Calibration curve window displays. The view is dependent on the calibration(s) you selected.
3. Use the **previous/next** buttons to display each calibration if you selected more than one. ***(optional)***

4. Select **Done** to return to the Calibration status or Calibration history screen.

Related information...

- *Calibration curve window - adjust assay view (i System)*, page 6-14
- *Calibration curve window - index assay view (i System)*, page 6-15
- *Calibration curve window - full assay view (i System)*, page 6-16

Fail a calibration curve

Perform this procedure to fail an active calibration curve so that subsequent control or patient orders are not calculated from the curve.

Prerequisite	*Access the Calibration status screen*, page 6-12 *Access the Calibration history screen*, page 6-19
Module status	Stopped, Warming, or Ready
User access level	General operator
Supplies	NA

To fail a calibration curve:

1. Select the desired calibration(s) from the table on the Calibration status or Calibration history screen.
2. Select **F5 - Details**.

   The Calibration curve window displays.
3. Select **Fail Curve**.

   A confirmation message displays.
4. Select **OK** to fail the calibration curve.
5. Use the **previous/next** buttons to display each calibration if you selected more than one, and then repeat steps 3 and 4 for each. ***(optional)***
6. Select **Done** to return to the Calibration status or Calibration history screen.

Related information...

- *Calibration curve window - adjust assay view (i System)*, page 6-14
- *Calibration curve window - index assay view (i System)*, page 6-15
- *Calibration curve window - full assay view (i System)*, page 6-16

Archive calibration curves

Perform this procedure to store calibration curves on a CD to create a backup for long-term storage.

NOTE: The calibration curves are archived in a delimited ASCII format so you can import them into a spreadsheet. You cannot use the ARCHITECT System to retrieve the information.

Prerequisite	*Access the Calibration history screen*, page 6-19
Module status	Offline, Stopped, or Ready
User access level	General operator
Supplies	• CD-R (compact disk recordable) or • Unformatted CD-RW (compact disk Recordable/ReWritable)

To archive calibration curves:

1. Disable the screen timeout if the database is full and you are archiving a large amount of data. See *Change the screen timeout setting*, page 2-23. ***(optional)***
2. Insert a CD-R or CD-RW into the CD drive.

   NOTE: If an archive message displays, see *Descriptions of archive messages*, page 5-180.
3. Select the desired calibration curves from the table on the Calibration history screen, or select **F2 - Select all**.

   NOTE: You can also select **F3 - Find** to search for and select calibration curves. See *Find a specific calibration*, page 6-22.
4. Select **F8 - Archive**.

   The Archive calibration curves window displays.
5. Verify the CD drive read indicator light is off.
6. Deselect **Delete inactive curves after archive** check box. ***(optional)***

   NOTE: If you choose to delete calibration curves, curves with a status of Active are not deleted.
7. Select **Done** to archive the calibration curves.

NOTE: An archive routinely takes less than four minutes, but with a full database it may take longer. You can cancel an archive when the system is collecting archive data and creating a temporary archive data file. A progress indicator displays with a Cancel button. You can cancel an archive prior to it being 50% complete.

Do not navigate to a different screen or window until the "0519 Data Archive Complete" message displays.

8. Select the **refresh** button, if available.

Related information...

- *Calibration history screen*, page 6-17
- *Archive calibration curves window*, page 6-20

Introduction

Operational requirements, precautions, and limitations are provided to ensure operator safety and accurate assay results. Not following these requirements or taking these precautions can impact system and assay performance and may cause damage to the system or adversely affect assay results.

Operational precautions and limitations topics include:

- *General requirements*, page 7-2

  Lists the requirements for system environment, maintenance, and troubleshooting to ensure proper system performance.

- *Precautions and requirements for system operation*, page 7-3

  Lists the precautions you should take and the requirements you should follow before and during system operation.

- *Requirements for handling consumables*, page 7-5

  Lists the requirements for storing and using consumables such as reagents, calibrators, controls, bulk solutions, and onboard solutions.

- *Requirements for handling specimens*, page 7-8

  Lists the requirements for collecting, preparing, and storing specimens.

- *Limitations of result interpretation*, page 7-10

  Discusses the other factors you should consider when interpreting patient test results.

General requirements

You MUST follow these general ARCHITECT System requirements to help ensure proper system performance:

- Contact your Abbott representative to install your ARCHITECT System.
- Ensure the system is out of direct sunlight, heat and drafts, and away from any heat generating device. Exposure to heat and drafts can interfere with the ability of the system to maintain an operating temperature that is within the acceptable range.
- Maintain the required space on all sides of the system. For more information about space requirements, see *System clearances*, page 4-8. This space buffer is essential for:
  - Adequate cooling of electrical components
  - Accurate temperature control of the processing center
  - Easy access for maintenance
  - Easy access for disconnecting the power cord when required
- Leave the system power on continuously unless instructed otherwise in a maintenance or troubleshooting procedure, or unless an emergency situation occurs.
- Perform maintenance procedures as recommended in Section 9, Service and maintenance.
- Do not attempt any maintenance or repairs that are not specified in documentation provided by Abbott Laboratories.

Precautions and requirements for system operation

You MUST take these precautions and follow these requirements when operating the ARCHITECT System. Failure to do so may cause damage to the system and may adversely affect test results.

Precautions before operation

Before you begin operating the system, you should:

- Read this manual thoroughly to understand full functionality of the system and associated hazards.
- Read the sections of the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet) that are associated with:
  - Warnings and precautions
  - Safety precautions
  - Handling precautions

Requirements before operation

Before you begin operating the system, you should:

- Verify that supplies are loaded.
- Load *i* System reagents, with septums installed, in the appropriate section of the reagent carousel or reagent carrier.

  IMPORTANT: You must use septums to prevent reagent evaporation and to ensure reagent integrity. Reliability of assay results cannot be guaranteed if you do not use septums as instructed in this manual and the assay-specific package insert.

  Once you have placed a septum on a reagent bottle, do not invert the bottle. Inverting the bottle results in reagent leakage and may compromise assay results. Do not remove septums once they have been installed on reagent bottles.

Precautions during operation

While operating the system, take the following precautions:

- Keep all processing module and sample handler doors closed and covers in place unless instructed otherwise in a maintenance or troubleshooting procedure.
- Do not disconnect any electrical connection while the power is on.
- Shutdown the system control center if the main power source is interrupted. You have a maximum of ten minutes to perform the shutdown before losing backup power from the UPS (uninterruptible power supply). See *Power off the SCC*, page 5-4.
- Respond to system notifications relating to waste levels during processing. Dispose of all liquid waste according to local, state, and federal regulations.
- Stop the RSH (robotic sample handler) before losing power from the UPS (uninterruptible power supply) if the main power source to the processing module(s) is interrupted. Stop the RSH by performing one of the following:
  - Press the stop key on the sample handler keypad, if available.
  - Select the sample handler graphic on the Snapshot screen, and then select F6 - Stop.
- Discard all sample cups and/or tubes on the sample carrier if a carrier is in the RSH carrier transport when you perform an emergency shutdown. Samples and the surrounding area may be contaminated by sample splashing as the RSH carrier transport motor loses power.

  For proper recovery information for the *i* 1000, see *Remove sample carrier(s) from the carrier transport and aspiration area (RSH - i 1000$_{SR}$)*, page 10-621.

Requirements for handling consumables

You MUST follow these requirements when handling consumables to help ensure your safety and accurate assay results. See the manufacturer's assay-specific documentation (such as a package insert or reagent application sheet), the specific product label, or the Material Safety Data Sheet (MSDS) for detailed information. For a description of the hazard symbols, see *Hazard symbols*, page 8-6.

Requirements for storage

Follow these requirements for storing cuvettes, reaction vessels, sample cups, and reagent cartridges:

- Keep all consumables clean and free of dust.
- Store all consumables in their original containers so that you can obtain information such as expiration dates and lot numbers if necessary.

Follow these requirements for storing reagents, calibrators, controls, bulk solutions, and onboard solutions:

- Store reagents, calibrators, and controls according to directions in the manufacturer's documentation (such as a package insert or reagent application sheet).
- Store bulk solutions and onboard solutions as instructed on their labels or in the product's documentation (such as a package insert or reagent application sheet).
- Store *i* System reagents off the system in an UPRIGHT position according to the directions in the assay-specific package insert.

Contact your Abbott Customer Support if you receive reagents, calibrators, controls, bulk solutions, or onboard solutions that are in a condition contrary to the product's documentation (such as a package insert or reagent application sheet) or label recommendation, or that are damaged.

Requirements for use

Follow these requirements for using reaction vessels, sample cups, and reagent cartridges:

- Do not reuse or substitute. Abbott Laboratories cannot accept responsibility for system performance and assay results when consumables are reused or have been manufactured by anyone other than Abbott Laboratories.

- Use caution when handling to prevent contamination and operator exposure.
- Use within their specified dating periods.
- Consider all used reaction vessels, sample cups, and reagent cartridges as potentially infectious. Follow appropriate procedures for handling.

Follow these requirements for using reagents, calibrators, controls, bulk solutions, and onboard solutions:

- Do not substitute. Abbott Laboratories manufactures substances and components to rigidly controlled quality standards. Substitution of materials may affect ARCHITECT System performance, assay results, safety, and equipment life.
- Avoid excessive mixing or shaking of liquids to minimize formation of foam and bubbles.
- Do not pipette by mouth.
- Do not smoke, eat, drink, apply cosmetics, or handle contact lenses in areas where specimens, reagents, calibrators, controls, bulk solutions, or onboard solutions are handled.
- Use caution when handling reagents, calibrators, controls, bulk solutions, and onboard solutions to prevent contamination and operator exposure.
- Wear clean gloves to avoid contamination and operator exposure when placing an uncapped reagent bottle or cartridge on the processing module.
- Wear clean gloves to avoid contamination and operator exposure when placing a septum on an uncapped *i* System reagent bottle or when handling a *c* System reagent cartridge.
- Do not invert the *i* System reagent bottle once you have placed a septum on it. Inverting the bottle results in reagent leakage and may compromise assay results.

  IMPORTANT: You must use septums to prevent reagent evaporation and contamination and to ensure reagent integrity. Reliability of assay results cannot be guaranteed if you do not use septums as instructed in this manual and the assay-specific package insert. Do not remove septums once they have been installed on reagent bottles.
- Verify that all necessary assay components are present in the kit when loading new reagents.

- Verify the lot number and expiration date of each reagent kit component before you load the components in the reagent supply centers.
- Do not use reagents, calibrators, controls, bulk solutions, and onboard solutions beyond their expiration dates.
- Do not use reagents on board the system beyond the maximum number of cumulative days as stated in the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
- Verify that bulk solutions and onboard solutions are loaded in the appropriate positions to ensure that results are not adversely affected.
- Do not mix reagents, calibrators, controls, or Pre-Trigger Solution and Trigger Solution within a lot or between lots.

Requirements for handling specimens

See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet) for detailed, assay-specific information about specimen collection, preparation, and storage. Consider all clinical specimens, reagents, controls, and calibrators that contain human-sourced materials as potentially infectious. Consider all system surfaces or components that have come in contact with human-sourced materials as potentially infectious. Refer to *Biological hazards*, page 8-7 for additional information.

WARNING: Potential Biohazard. Identifies an activity or area where you may be exposed to potentially infectious material.

Requirements for collection

Follow these requirements for collecting specimens:

- Follow all usual precautions for collecting blood by venipuncture to avoid specimen hemolysis.
- See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet) for the appropriate specimen type for each assay.

  NOTE: Only human specimens have been tested and approved for analysis on the ARCHITECT System. Performance has not been established using cadaver specimens or body fluids other than those specified in the Abbott product assay-specific documentation (such as a package insert or reagent application sheet).
- Verify the correct specimen type(s) is used. The ARCHITECT System does not verify specimen type.

Requirements for preparation and storage

Follow these requirements for preparing and storing specimens:

- Ensure that serum specimens collected in tubes containing a gel separator have 8 mm of serum above the gel to avoid contamination of the specimen during pipetting.
- Inspect all samples for bubbles. Remove bubbles with a clean applicator stick prior to analysis. Use a new applicator stick for each sample to prevent cross contamination.

- Verify serum and plasma specimens are free of fibrin, red blood cells, or other particulate matter.
- Ensure that complete clot formation in serum specimens has taken place prior to centrifugation. Some specimens, especially those from patients receiving anticoagulant or thrombolytic therapy may exhibit increased clotting times. If the specimen is centrifuged before a complete clot forms, the presence of fibrin may cause erroneous results.
- See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet) for sample volume information.
- Separate the serum or plasma from the clot, serum separator, or red blood cells prior to freezing.
- Mix and centrifuge patient samples after any freeze/thaw cycle or to remove red blood cells or particulate matter. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet) for limitations and interfering substances.
- Avoid multiple freeze-thaw cycles. After you thaw a specimen, you MUST mix it thoroughly by low speed vortexing or by gently inverting it to ensure consistency in the results.
- Remove closures from specimen tubes prior to loading them on the sample handler.
- Minimize evaporation effects after you load samples on the system by processing them within the number of hours specified in the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet). For detailed information on evaporation effects, see *Sample volume requirements*, page 5-122.

Limitations of result interpretation

Assay results MUST be used with other clinical data, for example, symptoms, other test results, patient history, clinical impressions, information available from clinical evaluation, and other diagnostic procedures. All data MUST be considered for patient care management.

If assay results are inconsistent with clinical evidence, additional testing is suggested to confirm the result.

The ARCHITECT System has been validated for its intended use. However, errors can occur due to potential operator errors and ARCHITECT System technology limitations.

Introduction

Attention to hazard and safety information minimizes the potential of harm to personnel and damage to the laboratory environment.

Hazard and safety topics include:

- *Operator responsibility*, page 8-3

  Provides guidance on using the ARCHITECT System as designed.

- *Safety icons*, page 8-4

  Provides an illustration of each safety symbol and sample text associated with the symbol.

- *Hazard symbols*, page 8-6

  Provides an illustration of each hazard symbol and a description along with its standard abbreviation.

- *Biological hazards*, page 8-7

  Provides an overview of the biological hazards you may be exposed to and the precautions you should take to minimize exposure.

- *Chemical hazards*, page 8-9

  Provides an overview of the chemical hazards you may be exposed to and the precautions you should take to minimize exposure.

- *Spill clean-up*, page 8-11

  Provides guidelines for cleaning spills in accordance with established biosafety practices.

- *Waste handling and disposal*, page 8-12

  Identifies the responsibilities for appropriate waste disposal.

- *Decontamination procedure requirements*, page 8-13

  Provides information on decontaminating an ARCHITECT System and links to specific decontamination procedures.

- *Electrical hazards*, page 8-15

  Provides an overview of precautions you should take to avoid personal injury or damage to the system from the electrical components.

- *Mechanical hazards*, page 8-17

  Provides an overview of the precautions you should take to avoid personal injury or damage to the system from the mechanical components.

- *Physical hazards*, page 8-19

  Provides an overview of the precautions you should take to avoid physical injury when operating or moving the system.

Operator responsibility

You are responsible for using the ARCHITECT System only as designed. Operators must be trained before being allowed to operate the system. Failure to follow safe use instructions could cause injury to you, damage to the system, or adversely affect assay results. See *Operational precautions and limitations*, page 7-1.

Safety icons

Safety icons are used in ARCHITECT System documentation and on ARCHITECT Systems to identify potentially dangerous conditions. You MUST recognize these icons and understand the type and degree of potential hazard.

The following icons may be used with text or in lieu of text. If text accompanies the icon, it describes the nature of the hazard and is labeled with **WARNING** or **CAUTION**.

WARNING is defined as a physical, mechanical, or procedural condition that could result in moderate to serious personal injury.

CAUTION is defined as a condition that could result in minor injury or interfere with proper functioning of the system.

Table 8.1: Safety icons and descriptions

Icon	Description
	WARNING: Potential Biohazard Identifies an activity or area where you may be exposed to potentially infectious material. For more information, see *Biological hazards*, page 8-7.
	WARNING: Potential Biohazard Identifies an activity or area where you may be exposed to potentially infectious material. For more information, see *Biological hazards*, page 8-7.
	WARNING: Electrical Shock Hazard Indicates the possibility of electrical shock if procedural or engineering controls are not observed. For more information, see *Electrical hazards*, page 8-15.
	CAUTION: Class 2 Laser radiation when open. Avoid eye exposure to light. Do not stare into the beam. Warns against direct viewing of the beam or reflections from the beam. For more information, see *Laser light*, page 8-19.

Table 8.1: Safety icons and descriptions (continued)

Icon	Description
	WARNING: Hot Surface Identifies an activity or area where you may be exposed to hot surfaces. For more information, see *Hot objects*, page 8-21.
	WARNING: Probe Stick Hazard Identifies an activity or area where you may be exposed to probes. For more information, see *Probes and sharps*, page 8-19.
	Identifies an activity that may present a safety-related hazard and advises you to consult the associated caution or warning instructions provided. Examples include: **CAUTION: Lifting Hazard** Identifies an activity where you may be required to lift or move a heavy object. For more information, see *Heavy objects*, page 8-20. **CAUTION: Moving Parts** Identifies an activity or area where you may be exposed to moving parts. For more information, see *Mechanical hazards*, page 8-17. **CAUTION: Chemical Hazard** Identifies an activity or area where you may be exposed to hazardous chemicals. For more information, see *Chemical hazards*, page 8-9.

Hazard symbols

ARCHITECT System product labeling may include one or more of the following hazard symbols. These symbols convey properties of the chemical or chemical mixture, and notify you that you should take precautions when working with the material. Always consult the specific package insert or MSDS (Material Safety Data Sheet) for further information.

Table 8.2: Hazard symbols and descriptions

Symbol	Description with standard abbreviation
	This symbol indicates that some component(s) of the product has irritant (Xi) properties.
	This symbol indicates that some component(s) of the product has harmful (Xn) properties.
	This symbol indicates that some component(s) of the product has corrosive (C) properties.

Biological hazards

When performing the following activities you may be exposed to potentially infectious materials:

- Handling samples, reagents, calibrators, and controls
- Cleaning spills
- Handling and disposing of waste
- Moving the system
- Performing maintenance procedures
- Performing cleaning or decontamination procedures
- Performing component replacement procedures

The following information is presented to help you minimize the impact of this exposure.

Precautions

You should consider all clinical samples, reagents, calibrators, controls, and used RVs (reaction vessels) that contain human-sourced material as potentially infectious. You should consider all system surfaces or components that have come in contact with human-sourced material as potentially infectious. No known test method can offer complete assurance that products derived from human-sourced material will not transmit infection. Therefore, all products derived from human-sourced materials and system components exposed to human-sourced materials should be considered potentially infectious.

It is recommended that you handle all potentially infectious materials in accordance with the *OSHA Standard on Bloodborne Pathogens*[1]. You should use Biosafety Level 2[2] or appropriate biosafety practices[3,4] for materials that contain or are suspected of containing infectious agents. Precautions include, but are not limited to the following:

- Wear gloves, lab coats, and protective eye wear when handling human-sourced material or contaminated system components.
- Do not pipette by mouth.
- Do not eat, drink, smoke, apply cosmetics, or handle contact lenses when handling human-sourced material or contaminated system components.

- Clean spills of potentially infectious materials and contaminated system components with a detergent followed by an appropriate disinfectant, such as 0.1% sodium hypochlorite or other suitable disinfectant.

  NOTE: For information on diluting sodium hypochlorite, see *Decontamination procedure requirements*, page 8-13.

- Decontaminate and dispose of all samples, reagents, and other potentially contaminated materials in accordance with local, state, and federal regulations.

If you are exposed to biohazardous or potentially infectious materials, you should seek medical attention immediately and take steps to cleanse the affected area:

- Eyes - Rinse with water for 15 minutes.
- Mouth - Rinse with water.
- Skin - Wash the affected area with soap and water.
- Puncture wound - Allow to bleed freely. Wash the affected area with soap and water.

1. US Department of Labor, Occupational Safety and Health Administration, 29 CFR Part 1910.1030, Occupational Exposure to Bloodborne Pathogens.

2. US Department of Health and Human Services. Biosafety in Microbiological and Biomedical Laboratories, Fourth Edition. Washington, DC: US Government Printing Office, May 1999.

3. World Health Organization. *Laboratory Biosafety Manual*. Geneva: World Health Organization, 2004.

4. Sewell DL, Bove KE, Callihan DR, et al. *Protection of Laboratory Workers from Occupationally Acquired Infections: Approved Guideline - Third Edition*. NCCLS Document M29-A3. Wayne, PA: Clinical and Laboratory Standards Institute, 2005.

Chemical hazards

You may be exposed to hazardous chemicals when handling reagents, calibrators, controls, bulk solutions, or onboard solutions.

Your exposure to hazardous chemicals is minimized by following instructions provided in the assay-specific documentation (such as a package insert or reagent application sheet) and on product-specific labels, and product-specific MSDS (Material Safety Data Sheets).

Precautions

In general, observe the following precautions when handling chemicals:

- Consult MSDS for safe use instructions and precautions.
- Avoid contact with skin and eyes. If contact with material is anticipated, wear impervious gloves, protective eye wear, and clothing.
- Maintain good housekeeping. Do not eat, drink, or store food and beverages in areas where chemicals are used.
- Seek medical attention if irritation or signs of toxicity occur after exposure.

Some products may contain sodium azide. Observe the following precautions when using products that contain sodium azide:

- Do not autoclave products containing sodium azide.
- Flush drains thoroughly with water after disposing of solutions containing sodium azide to prevent metal azides from forming on lead or copper pipes in laboratory plumbing. These azides can explode upon percussion, such as hammering.

  To remove contamination from old drains suspected of azide accumulation, the U.S. National Institute of Occupational Safety and Health recommends the following procedure:

  a. Siphon liquid from the trap using a rubber or plastic hose.

  b. Fill the trap with 10% sodium hydroxide solution.

  c. Allow the solution to stand in the trap for 16 hours.

  d. Flush the trap thoroughly with water.

Hazard symbols that appear on ARCHITECT System product labeling are accompanied by risk (R) and safety (S) numbers and represent risk and safety phrases defined by European Community Directives. The

risk and safety phrases describe precautions you should use when working with a particular chemical or chemical mixture.

For all (R) and (S) numbers that appear on product labeling, refer to the corresponding phrases in the assay-specific inserts. Other country-specific warning and precautions may be included on the labeling.

Spill clean-up

Clean spills in accordance with established biosafety practices and follow instruction in the MSDS (Material Safety Data Sheets). In general, safe work practices for cleaning spills include:

1. Wear appropriate personal protective equipment, such as gloves, eye wear, and lab coat.
2. Absorb the spill with absorbent material.
3. Wipe the spill area with detergent solution.
4. Wipe the area clean with an appropriate disinfectant such as 0.1% sodium hypochlorite.

   NOTE: For information on diluting sodium hypochlorite, see *Decontamination procedure requirements*, page 8-13.

Waste handling and disposal

Each facility is responsible for labeling all waste containers and characterizing its waste stream to ensure waste is disposed of in accordance with the appropriate local, state, and federal regulations.

Reagents, calibrators, and controls may contain thimersol or mercury and may be considered hazardous per applicable environmental regulatory agencies. See the manufacturer's assay-specific documentation (such as a package insert or reagent application sheet), the product-specific label, or the product-specific MSDS (Material Safety Data Sheet). Check with your local sanitary district to determine limits for mercury in wastewater.

Decontamination procedure requirements

Always wear appropriate personal protective equipment (such as gloves, eye wear, and lab coat) while performing decontamination activities.

Prior to servicing the ARCHITECT System you must:

- Decontaminate the exterior surfaces
- Clean and decontaminate probes, if present
- Remove all samples, reagents, controls, calibrators, and liquid consumables

Prior to shipment or relocation of the ARCHITECT System you must:

- Decontaminate the exterior surfaces
- Remove all samples, reagents, controls, calibrators, and liquid consumables

IMPORTANT: If you must ship the system to a new location, contact your Abbott field service representative for assistance. The Abbott field service representative will prepare the decontaminated system for shipment and install it at the new destination.

The following components of the ARCHITECT System require decontamination.

Component	Reference
Sample carrier	For information about decontaminating the sample carrier, see *6038 External Decontamination*, page 9-37.
System control center	For information about decontaminating the system control center, see *6038 External Decontamination*, page 9-37.
Processing module external surfaces	For information about decontaminating the processing module, see *6038 External Decontamination*, page 9-37.
Supply and waste center (*i* System)	For information about decontaminating the supply and waste center, see *6038 External Decontamination*, page 9-37.
ARCHITECT System / ARCHITECT ARM surfaces (*i* System)	For information about decontaminating system surfaces, see *6038 External Decontamination*, page 9-37.
RSH (robotic sample handler)	For information about decontaminating the RSH, see *6400 RSH Cleaning*, page 9-35 (*i* 1000_{SR}).

Decontamination procedures may require the use of diluted sodium hypochlorite. To calculate the parts of water required to mix with one part of manufacturer-supplied sodium hypochlorite solution, use the following formula:

$$X = \frac{B - A}{A}$$

Where:

A	=	% of sodium hypochlorite solution desired
B	=	% of sodium hypochlorite (active or available chlorine) in manufactured-supplied solution
X	=	number of parts of water required to mix with one part of manufacturer-supplied sodium hypochlorite (active or available chlorine) solution

NOTE: The stability of the working solution is 30 days after preparation.

Electrical hazards

The ARCHITECT System does not pose uncommon electrical hazards to operators if it is installed and operated without alteration, and is connected to a power source that meets required specifications. See *Electrical specifications and requirements*, page 4-9.

Basic electrical hazard awareness is essential to the safe operation of any system. Only qualified personnel should perform electrical servicing.

Elements of electrical safety include, but are not limited to the following:

- Inspect electrical cabling into and on the ARCHITECT System for signs of wear and damage.
- Use only approved power cords and electrical accessories, such as those supplied with the system, to protect against electric shock.
- Use a properly grounded electrical outlet of correct voltage and current handling capability.
- Determine and correct the cause of a blown fuse or thrown circuit breaker before attempting to resume operation of the system.
- Do not disconnect any electrical connection or service any electrical or internal components while the power is on.
- Unplug the ARCHITECT ARM accessory before cleaning, servicing, or performing system maintenance.
- Disconnect the power cord from the UPS (uninterruptible power supply) before servicing.
- Disconnect the processing module power cord before cleaning major liquid spills.
- Keep liquids away from all connectors of electrical or communication components.
- Do not touch any switches or outlets with wet hands.
- Keep the floor dry and clean under and around the ARCHITECT System.
- Use a ground fault circuit interrupter when working in a wet environment.
- Avoid spilling fluids in the electronics bay when using the ARCHITECT ARM accessory.

- Clean spilled fluids immediately.

Mechanical hazards

The ARCHITECT System is an automated system that operates under computer control. As with most automated equipment, there is potential for injury and bodily harm from moving mechanical components whenever the system is in operation.

The ARCHITECT System minimizes mechanical hazards by providing guards to protect against accidental contact with moving components, and encoding the software with safety features.

The ARCHITECT System requires that you accurately position all samples, reagents, calibrators, controls, and cups and/or tubes on the system. It is very important that you correctly position sample cups and/or tubes, reaction vessels, and reagent containers before initiating any operation.

Although the ARCHITECT System is equipped with safety features to stop the lowering of the probes, it is NEVER acceptable for you to reach into the processing module's working area when the system is in operating mode. Should your intervention be necessary during a run, you should interrupt the run according to instructions defined in Section 5, Operating instructions.

During operation of the ARCHITECT System, you are potentially exposed to the following moving mechanical components:

- Sample and reagent arm(s)
- Pipettor(s) and probe(s)
- Sample handler
- RV load assembly
- Wash aspiration probe(s)
- Sample carousel
- Reagent supply center(s)
- Reaction carousel
- Mixer unit
- Cuvette washer
- ICT unit/probe

Basic elements of mechanical safety include, but are not limited to:

- Never bypass or override a safety device.
- Keep all protective covers and barriers in place.

- Never perform manual tasks on the work surface of the system.
- Never allow any part of your body to enter a range of mechanical movement during system operation.
- Do not wear articles of clothing or accessories that could catch on the system.
- Keep pockets free of items that could fall into the system.
- Use caution when performing adjustment, maintenance, cleaning, or repair procedures.
- Use caution when loading sample carriers into the sample handler.
- Use caution when loading reagents into the reagent supply center(s).
- Do not operate the ARCHITECT ARM accessory with the service doors open.
- Be aware that in the event of a system malfunction or an unexpected sequence of movements, reflex actions could occur, causing injury.

Physical hazards

Safe practices should be observed to avoid injury when exposed to the following potential physical hazards.

Probes and sharps

Probes are sharp and potentially contaminated with infectious material. Avoid contact with the tips of probes. Although the ARCHITECT System is equipped with machine guarding features to stop the lowering of the probes, you should never reach into the processing module while it is operating.

In general, minimize use of sharps and glassware. Use mechanical means to remove contaminated broken glassware. Dispose of sharps in an appropriately labeled, puncture-resistant, and leakproof container before treatment and disposal.

Laser light

	CAUTION: Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

The bar code readers of the sample handler, *c* System carousel, and *c* 8000 reagent carousels use a low power, visible laser diode and emit laser light. Because of normal human aversion response such as blinking, eye movement, and so forth, these lasers normally do not present a hazard to eyes.

Although momentary exposure to a CDRH Class 2 laser (1mW maximum) is not known to be harmful, failure to follow proper procedures may result in a potentially hazardous condition.

- Do not look into the aperture
- Do not remove the bar code reader covers or bypass interlocks
- Do not stare directly into the beam
- Do not place any optics into the beam

Only Abbott field service representatives should service the laser. The protective covers should only be removed by trained operators or Abbott field service representatives.

The following laser caution labels are affixed to the ARCHITECT System:

Figure 8.1: Manufacturer laser certification label

- *i* 1000_{SR} - affixed on the inside of the card cage and SCC center door.

Figure 8.2: System laser caution label

- RSH (robotic sample handler) - affixed near the bar code reader under the cover on the left side.
- SSH (standard sample handler) - affixed on the cover under the left processing queue access door.

Do not remove, damage, or obliterate any of the laser warning labels. If any of them become illegible, notify your Abbott field service representative to have them replaced.

Heavy objects

Use proper lifting techniques when handling full bottles or containers.

The *i* 1000_{SR} liquid waste container is heavy when full. Use care when handling the container to reduce the risk of injury.

The system is heavy and has unsupported sections of the shell. Ensure that you have adequate help before attempting to move the system. Push only on solid sections of the housing; do not exert pressure on unsupported sections of the shell.

Use proper lifting techniques when moving the ARCHITECT ARM accessory.

Hot objects

The lamp and lamp housing may be hot. Before replacing the lamp, turn off the power, and then allow the lamp and lamp housing to cool. Use temperature-resistant gloves if necessary.

Trip hazards

The ARCHITECT System is equipped with power cords and various computer connectors. To avoid a tripping hazard, ensure cords in high traffic areas are properly stowed.

Introduction

Proper service and maintenance of your ARCHITECT System is one of the most important aspects of a complete quality assurance program. A thorough service and maintenance program:

- Minimizes down time
- Maintains records for inspection and accreditation
- Maintains optimal system operation to provide optimal test results

Service and maintenance topics include:

- *Maintenance*, page 9-2

  Provides a description of all maintenance procedures, the software screens and windows associated with maintenance activities, associated graphics for some maintenance procedures, and step-by-step instructions for performing related procedures.

- *Component replacement*, page 9-38

  Provides step-by-step instructions and graphics for replacing system components.

Maintenance

The ARCHITECT System software provides a user-friendly interface for performing and tracking your maintenance activities.

The Maintenance screen displays procedures that are scheduled to be performed. Once you initiate a procedure, step-by-step instructions walk you through its completion.

Performance of a procedure is tracked in the online Maintenance log.

Maintenance topics include:

- *Maintenance suggestions*, page 9-2
- *Maintenance screen*, page 9-3
- *Maintenance log screen*, page 9-14
- *Maintenance statuses*, page 9-20
- *Maintenance categories and procedure descriptions*, page 9-20

Maintenance suggestions

Proper maintenance of your ARCHITECT System is important. These suggestions, which are especially useful for integrated and multi-module systems, are provided to help you determine efficient strategies for performing maintenance procedures and reducing downtime.

When scheduling and performing maintenance procedures:

- Schedule maintenance procedures during times of slower workflow.
- Verify adequate supplies are on board the system, or available to load, prior to initiating a maintenance procedure.
- Perform procedures within the weekly, monthly, and quarterly maintenance categories on different shifts or days. To avoid having these procedures scheduled for the same day, perform some of them early to stagger the schedule.

  NOTE: You must complete all maintenance procedures on or before the day they are due.
- Use the additional graphics provided in the online help to assist you with performing maintenance procedures. Access Help? by selecting the **help** button on the Maintenance perform window, and then select one of the following hypertext links to view a list of available graphics:

- *i 1000$_{SR}$ processing module associated maintenance graphics*, page 9-29
- *RSH associated maintenance graphics (i 1000$_{SR}$)*, page 9-35

NOTE: Not all maintenance procedures have additional graphics.

Maintenance screen

From the Maintenance screen you can view information for maintenance procedures and initiate a procedure. You can also access windows to view version and detail information for each procedure, and print the Procedure report.

The procedures display by module and by maintenance category:

- The To do tab displays procedures that are scheduled to be performed on a module from the Daily, Weekly, Monthly, and Quarterly maintenance categories. Circles that precede the procedure name are color-coded to match the appropriate maintenance category.
- The Daily, Weekly, Monthly, Quarterly, and As needed tabs display the non-scheduled procedures for a module and also show the:
  - LAST PERFORMED: date and time a procedure was last performed
  - OPERATOR ID: ID of the operator who last performed the procedure
- The In process tab displays any procedure currently in process on the selected module and also shows the:
  - PROCEDURE STATUS: Current status of the procedure in process
  - TIME STARTED: time the procedure was started

Figure 9.1: Maintenance screen

For descriptions of these fields, see *Maintenance screen field descriptions*, page Appendix E-91.

To display this screen, see *Access the Maintenance screen*, page 9-4.

Related procedures...

- *View maintenance procedure information*, page 9-5
- *Perform a maintenance procedure*, page 9-6
- *Perform concurrent maintenance procedures or other tasks*, page 9-8
- *Return to a maintenance procedure in process*, page 9-9
- *View details for a maintenance procedure*, page 9-10
- *Print a Procedure report*, page 5-237
- *Access the Maintenance log screen*, page 9-16

Access the Maintenance screen

Perform this procedure to display the Maintenance screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Maintenance screen:

Select **System** from the menu bar, and then select **Maintenance**.

The Maintenance screen displays with the To do tab selected.

Related information...

- *Maintenance screen*, page 9-3
- *Maintenance categories and procedure descriptions*, page 9-20

Procedures - Maintenance screen

Procedures you can perform from the Maintenance screen and its related windows include:

- *View maintenance procedure information*, page 9-5
- *Perform a maintenance procedure*, page 9-6
- *Perform concurrent maintenance procedures or other tasks*, page 9-8
- *Return to a maintenance procedure in process*, page 9-9
- *View details for a maintenance procedure*, page 9-10
- *Print a Procedure report*, page 5-237

View maintenance procedure information

Perform this procedure to display the Version details for procedure (maintenance) window. From this window, you can view information for a maintenance procedure prior to performing it. This information includes the version number, required module status, and required user access level.

Prerequisite	*Access the Maintenance screen*, page 9-4
Module status	All except Maintenance
User access level	General operator
Supplies	NA

To view maintenance procedure information:

1. Select the desired **Module** option on the Maintenance screen.

   The scheduled maintenance procedures for the selected module display on the To do tab.

2. Select the **Daily**, **Weekly**, **Monthly**, **Quarterly**, or **As needed** tab. ***(optional)***

   The non-scheduled maintenance procedures for the selected category display.

3. Select the desired procedure from the **MAINTENANCE PROCEDURES** box, and then select **F6 - Version**.

   The Version details for procedure (maintenance) window displays.

Related information...

- *Maintenance screen*, page 9-3
- *Version details for procedure (maintenance) window*, page 9-12
- *Maintenance categories and procedure descriptions*, page 9-20

Perform a maintenance procedure

Perform this procedure to do scheduled or non-scheduled maintenance on your ARCHITECT System.

CAUTION: Moving Parts. Maintenance procedures may expose operators to moving parts that can potentially cause personal injury. Untrained operators should not perform these procedures.

Prerequisite(s)	*Access the Maintenance screen*, page 9-4
Module status	Procedure dependent
User access level	Procedure dependent
Supplies	Procedure dependent

To perform a maintenance procedure:

1. Select the desired **Module** option on the Maintenance screen.

   The scheduled maintenance procedures for the selected module display on the To do tab.

2. Select the **Daily**, **Weekly**, **Monthly**, **Quarterly**, or **As needed** tab. ***(optional)***

   The non-scheduled maintenance procedures for the selected category display.

3. Select the desired procedure from the **MAINTENANCE PROCEDURES** box, and then select **F5 - Perform**.

   A confirmation message displays.

4. Select **OK** to perform the procedure.

   The Maintenance Perform window displays. A description of the procedure displays in the **INSTRUCTIONS** box.

5. Select **Proceed**, and then follow the instructions in the **INSTRUCTIONS** box.

   You are prompted to enter information if the procedure requires additional data.

6. Enter the required information in the **User input** data entry box, and then select **Continue**.

NOTE: You can select the Close window button at anytime to close the Maintenance Perform window to perform a maintenance procedure on another module or access other screens and windows. See *Perform concurrent maintenance procedures or other tasks*, page 9-8.

7. Select **Activity** to view the progress of the procedure. ***(optional)***

   The activity of the module displays in the **Activity** list. To return to the Result list, select **Results**.

8. Select **Print** to print the Procedure report. ***(optional)***
9. Select **Done** to return to the Maintenance screen.

Related information...

- *Maintenance screen*, page 9-3
- *Maintenance Perform window*, page 9-11
- *Maintenance categories and procedure descriptions*, page 9-20
- *Procedure Report, Basic*, page Appendix A-36
- *Procedure Report, Columnar*, page Appendix A-38

Perform concurrent maintenance procedures or other tasks

Perform this procedure to close the Maintenance Perform window when a maintenance procedure is in process. This allows you to

perform a maintenance procedure on another module or to access other screens and windows.

Prerequisite(s)	*Perform a maintenance procedure*, page 9-6
Module status	Maintenance
User access level	General operator
Supplies	NA

To perform concurrent maintenance procedures or other tasks:

1. Select **Close window** on the Maintenance perform window.

   The Maintenance screen displays with the In process tab selected.

2. Select the desired **Module** option to perform another maintenance procedure.

   Or

   Access any other screen to perform another task.

To return to an in-process maintenance procedure when user input is required or to complete the procedure, see *Return to a maintenance procedure in process*, page 9-9.

Related information...

- *Maintenance screen*, page 9-3
- *Maintenance Perform window*, page 9-11
- *Maintenance categories and procedure descriptions*, page 9-20

Return to a maintenance procedure in process

Perform this procedure to return to the Maintenance Perform window of an in-process maintenance procedure. You must return to this window to provide user input, when required, or to complete the procedure.

Prerequisite	*Access the Maintenance screen*, page 9-4
Module status	Maintenance
User access level	General operator
Supplies	NA

To return to a maintenance procedure in process:

1. Select the desired **Module** option on the Maintenance screen.

   The procedure displays on the In process tab.

2. Select the procedure from the **MAINTENANCE PROCEDURES** box, and then select **F5 - Continue**.

   The Maintenance Perform window for the selected in-process procedure displays.

3. Follow the instructions in the **INSTRUCTIONS** box.

Related information...

- *Maintenance screen*, page 9-3
- *Maintenance Perform window*, page 9-11
- *Maintenance categories and procedure descriptions*, page 9-20

View details for a maintenance procedure

Perform this procedure to display the Details for maintenance item window. From this window you can view information for a maintenance procedure that has been performed. This information includes the:

- Date the procedure was performed
- Procedure version used
- ID of the operator who performed the procedure
- Status of the procedure

Prerequisite	*Access the Maintenance screen*, page 9-4
Module status	All except Maintenance
User access level	General operator
Supplies	NA

To view details for a maintenance procedure:

1. Select the desired **Module** option on the Maintenance screen.

   The scheduled maintenance procedures for the selected module display on the To do tab.

2. Select the **Daily**, **Weekly**, **Monthly**, **Quarterly**, or **As needed** tab. ***(optional)***

   The non-scheduled maintenance procedures for the selected category display.

3. Select the desired procedure from the **MAINTENANCE PROCEDURES** box, and then select **F7 - Details**.

   The Details for maintenance item window displays.

Related information...

- *Maintenance screen*, page 9-3
- *Details for maintenance item window*, page 9-13
- *Maintenance categories and procedure descriptions*, page 9-20

Windows - Maintenance screen

Windows you can access from the Maintenance screen include:

- *Maintenance Perform window*, page 9-11
- *Version details for procedure (maintenance) window*, page 9-12
- *Details for maintenance item window*, page 9-13

Maintenance Perform window

From the Maintenance Perform window you can view information about an initiated procedure such as:

- Procedure category and name
- ID of the operator logged on to the system
- Status of the procedure
- Description of the procedure

  NOTE: The display of the Maintenance Perform window is dependent on the selected module, category, and procedure.

You can then proceed with the procedure, close the window to perform a maintenance procedure on another module or access other screens and windows, or quit the procedure.

For descriptions of maintenance procedures, see *Maintenance categories and procedure descriptions*, page 9-20.

To view an associated maintenance graphic, see:

- *i 1000$_{SR}$ processing module associated maintenance graphics*, page 9-29.
- *RSH associated maintenance graphics (i 1000$_{SR}$)*, page 9-35.

Figure 9.2: Maintenance Perform window

For descriptions of these fields, see *Maintenance Perform window field descriptions*, page Appendix E-92.

Related procedures...

- *Perform concurrent maintenance procedures or other tasks*, page 9-8

Version details for procedure (maintenance) window

From the Version details for procedure (maintenance) window you can view information for maintenance procedures including version number, required module status, and required user access level.

Figure 9.3: Version details for procedure (maintenance) window

For descriptions of these fields, see *Version details for procedure (maintenance) window field descriptions*, page Appendix E-93.

Related procedures...

- *View maintenance procedure information*, page 9-5

Details for maintenance item window

From the Details for maintenance item window you can view detailed information for maintenance procedures.

If the procedure has been performed, this information includes the:

- Version of the procedure
- Date
- ID of the operator logged on to the system
- Status of the procedure when last performed

  NOTE: If a procedure has not been performed or you selected a procedure from the To do tab, only the procedure name displays. All other fields are blank.

Figure 9.4: Details for maintenance item window

For descriptions of these fields, see *Details for maintenance item window field descriptions*, page Appendix E-93.

Related procedures...

- *View details for a maintenance procedure*, page 9-10.

Maintenance log screen

From the Maintenance log screen you can view information about procedures that have been performed. The system stores up to three months of data.

You can also access windows to:

- Print the Maintenance History report
- Approve the Maintenance log
- View additional details for procedures
- Add a comment to a procedure

Figure 9.5: Maintenance log screen

For descriptions of these fields, see *Maintenance log screen field descriptions*, page Appendix E-94.

An explanation of the descriptive elements of the Maintenance log follows:

Item	Description
Colored circles	Are color-coded to match the appropriate maintenance category tab.
Colored squares	Are color-coded to match the appropriate maintenance category tab.
• Solid (Completed)	Indicate procedures that have been performed and have a status of Completed. If the procedure is performed more than once a day, the status of the last performed procedure displays.
• Shaded (Not completed)	Indicate procedures that are scheduled, are pending, did not complete successfully, or were not performed when scheduled. If the procedure is performed more than once a day, the status of the last performed procedure displays.
Cursor	Indicates the selected field in the procedure row and date column. Use the directional arrows to move the cursor from one procedure to the next and from one day to the next.
*	Indicates a comment was entered for the procedure.

Item	Description
2-9	Indicates the procedure was performed X times on that day.
>	Indicates the procedure was performed more than nine times on that day.

To display this screen, see *Access the Maintenance log screen*, page 9-16.

Related procedures...

- *Approve the Maintenance log*, page 9-17
- *Add a comment to a maintenance procedure*, page 9-17
- *Print a Maintenance History report for a specified month*, page 5-236
- *Print a Maintenance History report for a specific procedure*, page 5-236

Access the Maintenance log screen

Perform this procedure to display the Maintenance log screen.

Prerequisite	*Access the Maintenance screen*, page 9-4
Module status	Any
User access level	General operator
Supplies	NA

To access the Maintenance log screen:

1. Select the desired **Module** option on the Maintenance screen.
2. Select **F2 - Maint. Log**.

   The Maintenance log screen for the selected module displays.

Related information...

- *Maintenance screen*, page 9-3
- *Maintenance log screen*, page 9-14
- *Maintenance categories and procedure descriptions*, page 9-20

Procedures - Maintenance log screen

Procedures you can perform from the Maintenance log screen and its related windows include:

- *Approve the Maintenance log*, page 9-17
- *Add a comment to a maintenance procedure*, page 9-17
- *Print a Maintenance History report for a specified month*, page 5-236

- *Print a Maintenance History report for a specific procedure*, page 5-236

Approve the Maintenance log

Perform this procedure to approve the monthly Maintenance log.

NOTE: The Maintenance log cannot be approved until the first day of the next month.

Prerequisite	*Access the Maintenance log screen*, page 9-16
Module status	NA
User access level	System administrator
Supplies	NA

To approve the maintenance log:

1. Use the **previous/next** buttons on the Maintenance log screen to display the desired month.
2. Select **F4 - Approve**.

   The Approve maintenance log window for the selected month displays.
3. Select the **Approve log** check box.
4. Select **Done** to approve the Maintenance log.

   The status of the monthly maintenance log changes from unapproved to approved, and displays the Operator ID, date, and time of approval.

Related information...

- *Maintenance log screen*, page 9-14
- *Approve maintenance log window*, page 9-18

Add a comment to a maintenance procedure

Perform this procedure to add a comment to a procedure listed in the Maintenance log. Comments are particularly useful when used to document why a procedure could not be completed when scheduled or why an as-needed procedure was performed.

Prerequisite	*Access the Maintenance log screen*, page 9-16
Module status	Any
User access level	General operator
Supplies	NA

To add a comment to a maintenance procedure:

1. Use the **previous/next** buttons on the Maintenance log screen to select the desired month.
2. Use the **up/down** arrows to select the desired maintenance procedure.
3. Use the **left/right** arrows to select the desired date.
4. Select **F5 - Details**.

   The Details for maintenance log window for the selected procedure and date displays.
5. Enter a comment in the **Comment** data entry box.
6. Select **Done** to save your changes.

Related information...

- *Details for maintenance log window*, page 9-19
- *Maintenance log screen*, page 9-14
- *Maintenance statuses*, page 9-20

Windows - Maintenance log screen

Windows you can access from the Maintenance log screen include:

- *Approve maintenance log window*, page 9-18
- *Details for maintenance log window*, page 9-19

Approve maintenance log window

From the Approve maintenance log window the system administrator can approve the Maintenance log.

Figure 9.6: Approve maintenance log window

For descriptions of these fields, see *Approve maintenance log window field descriptions*, page Appendix E-94.

Related procedures...

- *Approve the Maintenance log*, page 9-17

Details for maintenance log window

From the Details for maintenance log window you can view detailed information for a maintenance procedure (by date performed) and add a comment.

NOTE: The data displayed is from the last time the procedure was performed on the selected date.

Figure 9.7: Details for maintenance log window

For descriptions of these fields, see *Details for maintenance log screen field descriptions*, page Appendix E-95.

Related procedures...

- *Add a comment to a maintenance procedure*, page 9-17

Maintenance statuses

You can use maintenance status information to determine the status of each maintenance procedure.

Table 9.1: Maintenance statuses

Status	Description
Scheduled	A procedure is scheduled on a future date.
Pending	A procedure is scheduled on the current date.
Completed	The procedure is complete and for procedures that produce results, all results passed.
User Canceled	You selected Quit prior to the procedure completing.
Failed	The procedure produced an error or a failed result.
Blank	The procedure has not been performed.
Running	The procedure is in process.
Waiting user response	The procedure in process requires user input.
Stopped with errors	The procedure is complete but errors occurred during execution.

Maintenance categories and procedure descriptions

Maintenance procedures are grouped by module type and then by category. Each category is represented by a tab on the Maintenance screen.

The To do tab displays the currently scheduled Daily, Weekly, Monthly, and Quarterly procedures for the selected module.

The Daily, Weekly, Monthly, Quarterly, and As needed tabs display all procedures for the selected module. You can perform any of the listed procedures even if they are not currently scheduled.

The In process tab displays any procedure currently in process on the selected module.

Maintenance categories/procedures by module type include:

- Processing module - the type of processing module determines the categories and related procedures that are available.
  - *i 1000$_{SR}$ processing module maintenance categories*, page 9-21
  - *i 1000$_{SR}$ processing module associated maintenance graphics*, page 9-29

- Sample handler - the type of sample handler determines the categories and related procedures that are available.
  - *RSH maintenance categories (i 1000$_{SR}$)*, page 9-34
  - *RSH associated maintenance graphics (i 1000$_{SR}$)*, page 9-35
- *SCC maintenance categories*, page 9-36

i 1000$_{SR}$ processing module maintenance categories

Maintenance procedures for an *i* 1000$_{SR}$ processing module are grouped by category (tab) on the Maintenance screen. Procedures are available in the following categories:

- *Daily maintenance description (i 1000$_{SR}$ processing module)*, page 9-21
- *Weekly maintenance description (i 1000$_{SR}$ processing module)*, page 9-22
- *Monthly maintenance description (i 1000$_{SR}$ processing module)*, page 9-23
- *As-needed maintenance description (i 1000$_{SR}$ processing module)*, page 9-25

Daily maintenance description (*i* 1000$_{SR}$ processing module)

Daily maintenance for an ARCHITECT *i* 1000$_{SR}$ is required on the processing module only. Perform the 6440 Daily maintenance procedure daily.

To perform this maintenance procedure, see *Perform a maintenance procedure*, page 9-6.

6440 Daily Maintenance

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

Perform this daily maintenance procedure to:

- Clean the outside of the probes in the wash zone
- Mix the microparticle bottles on the reagent carousel

- Dry the vacuum pump filter

Estimated time	Materials needed	Required module status
10 minutes	• WZ probe maintenance water bottle • Tap water or saline • Reagent carrier	Warming or Ready

Weekly maintenance description (*i* 1000$_{SR}$ processing module)

Weekly maintenance for an ARCHITECT *i* 1000$_{SR}$ is required on the processing module only. Perform these procedures weekly:

- *6407 Probe Cleaning - Manual*, page 9-22
- *6445 Pipettor/WZ Probe Cleaning*, page 9-23
- *6450 Wash Cup Cleaning*, page 9-23

To perform a maintenance procedure, see *Perform a maintenance procedure*, page 9-6.

6407 Probe Cleaning - Manual

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

WARNING: Probe Stick Hazard. This is an activity or area where you may be exposed to probes. See *Probes and sharps*, page 8-19.

Perform this ***weekly*** maintenance procedure to clean the outside of the pipettor and wash zone probes to remove salt buildup.

Estimated time	Materials needed	Required module status
5 minutes	• Wash bottle with deionized water • Cotton swabs	Warming or Ready

6445 Pipettor/WZ Probe Cleaning

Perform this ***weekly*** maintenance procedure to clean and condition the pipettor probe and to clean the WZ (wash zone) probes.

Estimated time	Materials needed	Required module status
10 minutes	• Maintenance Cleaning Bottle (LN 02G19-99) • 0.5% sodium hypochlorite solution • Probe Conditioning Solution (LN 01L56)	Warming or Ready

6450 Wash Cup Cleaning

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

Perform this ***weekly*** maintenance procedure to clean the wash cup and wash cup baffle to remove salt buildup.

Estimated time	Materials needed	Required module status
2 minutes	• Cotton swabs • Deionized water	Stopped, Warming, or Ready

Monthly maintenance description (*i* 1000_{SR} processing module)

Monthly maintenance for an *i* 1000_{SR} is required on the processing module only. Perform these procedures monthly:

- *2190 Internal Decontamination*, page 9-23
- *6405 Air Filter Cleaning*, page 9-25

2190 Internal Decontamination

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

CAUTION: Lifting hazard. The *i* 1000_{SR} System wash buffer reservoir is heavy when full. Use care when handling the container to reduce the risk of injury.

Perform this ***monthly*** maintenance procedure to:

- Clean the wash buffer reservoir, buffer level sensor, and buffer outlet assembly
- Clean the wash dispense nozzles
- Clean and condition the pipettor probe

To view the associated graphics, see *2190 Internal Decontamination graphics*, page 9-30.

Estimated time	Materials needed	Required module status
90 minutes	• Absorbent tissues/towels • Bleach preparation container with 5L 0.5% sodium hypochlorite solution • Buffer filter • Concentrated Wash Buffer (1L bottle) • Internal Decon Extension Tubing/Cable Kit • Probe Conditioning Solution • Reagent carrier • Wash buffer preparation container • Wash buffer transfer tubing If ARM is installed: • Extra empty 5 liter container • Wash buffer transfer tubing	Warming or Ready

NOTE: For information on diluting sodium hypochlorite, see *Decontamination procedure requirements*, page 8-13.

6405 Air Filter Cleaning

Perform this ***monthly*** maintenance procedure to manually remove dust buildup from the air filters. Since the filters must be reinstalled dry, it is recommended you rotate between two filters to improve efficiency.

Estimated time	Materials needed	Required module status
10 minutes	• Air filters • Tap water	Stopped, Warming, or Ready

As-needed maintenance description (*i* 1000_{SR} processing module)

Perform the recommended ***as-needed*** maintenance procedures on an *i* 1000_{SR} processing module during troubleshooting/diagnostics or during a routine operation when problems are observed. Perform these procedures as needed:

- *1110 Pipettor Calibration*, page 9-25
- *2136 Air Flush*, page 9-26
- *2137 Flush Fluids*, page 9-26
- *2160 Prime Wash Zone*, page 9-27
- *2162 Prime Pre-Trigger and Trigger*, page 9-27
- *3535 Temperature Check - Manual*, page 9-27
- *3540 Temperature Status*, page 9-28
- *4100 Buffer Run*, page 9-28

To perform a maintenance procedure, see *Perform a maintenance procedure*, page 9-6.

1110 Pipettor Calibration

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

WARNING: Probe Stick Hazard. This is an activity or area where you may be exposed to probes. See *Probes and sharps*, page 8-19.

Perform this ***as-needed*** maintenance procedure to:

- Set pipettor probe positioning for all positions required for aspirating and dispensing specimens and reagents during processing
- Determine probe straightness

For the associated graphic, see *1110 Pipettor Calibration graphic*, page 9-29.

Estimated time	Materials needed	Required module status
10 minutes	• Sample carrier • Carrier calibration tool • Cotton swab or lint-free tissue • Deionized water	Stopped, Warming, or Ready

2136 Air Flush

Perform this ***as-needed*** maintenance procedure to flush the wash buffer, trigger, and pre-trigger tubing with air.

Estimated time	Materials needed	Required module status
5 minutes	• Wash buffer transfer tubing • Wash buffer reservoir (empty)	Warming or Ready

2137 Flush Fluids

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See *Chemical hazards*, page 8-9.

Perform this ***as-needed*** maintenance procedure to flush the wash buffer, as well as the Pre-Trigger and Trigger Solutions.

NOTE: To flush the wash buffer, the inventory status must be greater than 25%. To verify that sufficient wash buffer is available, see *Verify supply and waste inventory,* page 5-20.

Estimated time	Materials needed	Required module status
3 minutes **NOTE:** Performing this procedure does not reset the clock for the automatic flush.	None	Stopped, Warming, or Ready

2160 Prime Wash Zone

Perform this ***as-needed*** maintenance procedure to prime the wash zone by dispensing 100 µL wash buffer into three RVs in the wash zone.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

2162 Prime Pre-Trigger and Trigger

Perform this ***as-needed*** maintenance procedure to prime Pre-Trigger and Trigger Solutions by dispensing 300 µL pre-trigger and 100 µL trigger into an RV at the pre-trigger/trigger manifold.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

3535 Temperature Check - Manual

Perform this ***as-needed*** maintenance procedure to measure the temperature of the system when your laboratory requires external temperature measurement.

RVs containing wash buffer are equilibrated in each of three (3) process path zones during this procedure. In addition, tap water in the WZ probe maintenance water bottle is loaded on the reagent carousel

by the RSH. When instructed, insert a thermometer probe to measure the temperature.

Estimated time	Materials needed	Required module status
75 minutes	• External thermometer • WZ probe maintenance water bottle **NOTE:** An external thermometer must be purchased separately to perform the temperature check.	Stopped, Warming, or Ready

3540 Temperature Status

Perform this ***as-needed*** maintenance procedure to check the temperature status of the system under the following conditions:

- Taking temperature measurements required by your laboratory
- Troubleshooting certain error codes
- Starting up the system after a long-term shutdown

The temperature status of the following system components is checked and displayed:

- Process path
- Pre-Trigger Solution
- Trigger Solution
- Wash zone
- Reagent cooler
- Ambient

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

4100 Buffer Run

Perform this ***as-needed*** maintenance procedure to run one-step and two-step assay protocols using wash buffer instead of reagents. This

procedure will allow you to simulate running assays when troubleshooting system failures.

Estimated time	Materials needed	Required module status
60 minutes	• (2) Reagent kits (3 bottles per kit) - bottles must be empty • (5) Sample carriers • (2) Reagent carriers • Sample cups/tubes	Warming or Ready

i 1000$_{SR}$ processing module associated maintenance graphics

Maintenance procedure instructions are located in the INSTRUCTIONS box on the Maintenance Perform window. Occasionally graphics are required to illustrate a procedure, but they cannot display in the INSTRUCTIONS box. The following graphics are associated with *i* 1000$_{SR}$ processing module maintenance:

- *1110 Pipettor Calibration graphic*, page 9-29
- *2190 Internal Decontamination graphics*, page 9-30

1110 Pipettor Calibration graphic

View this as-needed maintenance graphic to locate the appropriate calibration targets.

Legend:

1. Wash cup calibration target
2. Reagent carousel calibration target

2190 Internal Decontamination graphics

View these monthly maintenance procedure graphics to identify:

- Materials required
- Wash buffer reservoir connectors
- Buffer level sensor and buffer outlet assembly
- Fitting on extension tubing with gray connector
- Internal decon extension tubing and cable connectors
- Buffer filter connectors

Figure 9.8: Materials required

Legend:

1. Bleach preparation container
2. Buffer filter
3. Internal Decon Extension Tubing/Cable Kit
4. Probe Conditioning Solution
5. Reagent Carrier
6. Wash Buffer Preparation Container
7. Concentrated Wash Buffer (1L bottle)
8. Wash buffer transfer tubing

Figure 9.9: Wash buffer reservoir connectors

Legend:

1. Gray tubing connector at top of filter
2. Gray electrical cable connector
3. Beige connector

Figure 9.10: Buffer level sensor and buffer outlet assembly

Legend:

1. Buffer level sensor
2. Buffer outlet assembly

Figure 9.11: Fitting on extension tubing with gray connector

Legend:

1. Gray connector on extension tubing
2. Gray fitting (used to drain tubing)

Figure 9.12: Internal decon extension tubing and cable connectors

Legend:

1. Gray electrical extension cable connectors
2. Gray extension tubing connectors
3. Beige extension connectors

Figure 9.13: Buffer filter connectors

Legend:

1. Gray tubing connector at top of filter
2. Gray tubing connector at bottom of filter

RSH maintenance categories (*i* 1000$_{SR}$)

Maintenance procedures for the RSH (robotic sample handler) are grouped by category (tab) on the Maintenance screen. Procedures are available in the following category:

- *As-needed maintenance description (RSH - i 1000$_{SR}$)*, page 9-34

As-needed maintenance description (RSH - *i* 1000$_{SR}$)

Perform the recommended ***as-needed*** maintenance procedures on the RSH (robotic sample handler) during troubleshooting/diagnostics or during routine operation when problems are observed:

- *1114 Carrier Transport Calibration*, page 9-35
- *6400 RSH Cleaning*, page 9-35

To perform this maintenance procedure, see *Perform a maintenance procedure*, page 9-6.

1114 Carrier Transport Calibration

Perform this ***as-needed*** maintenance procedure to align the carrier transport to the reagent carousel latch actuator and a sample carrier to the load/unload area.

Estimated time	Materials needed	Required module status
12 minutes	• Sample carriers • Carrier calibration tool	Stopped, Warming, or Ready

6400 RSH Cleaning

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

Perform this ***as-needed*** maintenance procedure to clean the RSH sections, transport arm, bar code reader, bottle rotator, and aspiration area.

For the associated graphic, see *6400 RSH Cleaning graphics*, page 9-36.

Estimated time	Materials needed	Required module status
5 minutes	• 0.1% sodium hypochlorite solution • Cotton swabs • Deionized water • Lint-free tissues	Stopped, Warming, or Ready

NOTE: For information on diluting sodium hypochlorite, see *Decontamination procedure requirements*, page 8-13.

RSH associated maintenance graphics (*i* 1000$_{SR}$)

Maintenance procedure instructions are located in the INSTRUCTIONS box on the Maintenance Perform window. Occasionally graphics are required to illustrate a procedure, but they cannot display in the INSTRUCTIONS box.

The following graphic is associated with the RSH (robotic sample handler) maintenance:

- *6400 RSH Cleaning graphics*, page 9-36

6400 RSH Cleaning graphics

View these ***as-needed*** maintenance graphics to clean the RSH sections, carrier transport arm, bar code reader, bottle rotator, and/or aspiration area.

Legend:

1. RSH sections
2. Transport arm
3. Bottle rotator
4. Bar code reader
5. Aspiration area

SCC maintenance categories

Maintenance procedures for the SCC (system control center) are grouped by category (tab) on the Maintenance screen.

Procedures are available for the following category:

- *As-needed maintenance description (SCC)*, page 9-36

As-needed maintenance description (SCC)

Perform the 6038 External Decontamination ***as-needed*** maintenance procedure on the SCC (system control center) during routine operation when problems are observed.

To perform this maintenance procedure, see *Perform a maintenance procedure*, page 9-6.

6038 External Decontamination

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

Perform this ***as-needed*** maintenance procedure to decontaminate the following external surfaces:

- Supply and waste center (*i* System)
- Sample handler accessories
- SCC (system control center)
- PM (processing module) external surface
- ARCHITECT ARM (Automatic Reconstitution Module) accessory (*i* System)

Estimated time	Materials needed	Required module status
5 minutes **NOTE:** Time above reflects the time required to apply the appropriate disinfectant only.	• Detergent • 0.1% sodium hypochlorite • Lint-free tissue or gauze	Stopped, Warming, or Ready

Component replacement

Some system components may need to be replaced due to normal wear from daily operations.

Your laboratory is responsible for maintaining an adequate supply of replacement parts. List numbers are provided in the procedures for guidance only and are subject to change. Contact your Abbott representative for the most current list numbers.

Component replacement topics include:

- *i 1000$_{SR}$ component replacement*, page 9-38

i 1000$_{SR}$ component replacement

Component replacement for *i* 1000$_{SR}$ includes:

- *ARCHITECT i 1000$_{SR}$ internal component cover replacement*, page 9-38
- *i 1000$_{SR}$ processing center component replacement*, page 9-40
- *i 1000$_{SR}$ supply and waste center component replacement*, page 9-59

ARCHITECT *i* 1000$_{SR}$ internal component cover replacement

The internal cover protects the internal components of the processing center. You remove the cover to access the internal components.

See the *ARCHITECT i 1000$_{SR}$ internal component cover*, page 9-38 for instructions.

ARCHITECT *i* 1000$_{SR}$ internal component cover

The internal component cover is located in the following area.

Figure 9.14: Internal component cover

To remove the cover:

1. Raise the lower chute of the RV loader. [1]

   NOTE: To move the pipettor probe away from the wash cup, perform modules diagnostic procedure, *1165 Pipettor Move*, page 10-603.

2. Press the tab located to the right of the wash cup area. [2]

3. Remove the internal cover.

Figure 9.15: Internal component cover

To replace the cover:

1. Raise the lower chute of the RV loader. [1]

2. Insert the tabs on the back of the cover into rear cover. [2].
3. Press the tab into the opening located to the right of the wash cup area. [3]
4. Lower the chute of the RV loader.

i 1000$_{SR}$ processing center component replacement

You may need to replace certain processing center components due to normal wear from daily operations. The following procedures provide step-by-step instructions on replacing these components:

- *Replace pipettor probe (i 1000$_{SR}$)*, page 9-40
- *Replace pipettor probe tubing (i 1000$_{SR}$)*, page 9-44
- *Replace the wash zone probe (i 1000$_{SR}$)*, page 9-47
- *Replace the wash zone temperature tubing and sensor (i 1000$_{SR}$)*, page 9-50
- *Remove/replace the RV loader assembly (i 1000$_{SR}$)*, page 9-52
- *Replace the wash cup baffle (i 1000$_{SR}$)*, page 9-55

Replace pipettor probe (*i* 1000$_{SR}$)

Replacing the pipettor probe consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-41
  - *Remove the probe*, page 9-42
- Replacement
  - *Install the probe*, page 9-43
  - *Prepare for operation*, page 9-43
- Verification
  - *Perform as-needed maintenance procedure 1110*, page 9-44

Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	15 minutes
Tools/materials required	• Absorbent tissue • #2 Phillips screwdriver (optional)
Replacement parts	LN 08C94-42 - Probe

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

WARNING: Probe Stick Hazard. This is an activity or area where you may be exposed to probes. See *Probes and sharps*, page 8-19.

Removal

Prepare for removal

Steps	Graphic / reference
1. Lift the processing center cover to access the probe. 2. Locate the pipettor (P) on the processing center map inside the processing center cover. 3. Verify the probe is over the wash cup. – To move the pipettor probe over the wash cup, perform modules diagnostic procedure *1165 Pipettor Move*, page 10-603.	

Remove the probe

Steps	Graphic / reference
1. Place an absorbent tissue under the probe tubing connection. 2. Loosen the screw (captive) on top of the probe clamp until you feel resistance and move the probe clamp backward to free the probe. [1] **NOTE:** You can use a #2 Phillips screwdriver to loosen the screw. Loosening the screw beyond the point of resistance can cause the clip to come apart. 3. Loosen the metal fitting on the probe and remove the probe tubing from the probe. [2] 4. Lift the probe and remove it from the boom arm. [3]	

Replacement

Install the probe

Steps	Graphic / reference
1. Slide the probe into the boom arm. [1] 2. Connect the probe tubing to the probe and finger tighten the probe fitting. [2] 3. Swing the probe clamp forward and tighten the screw (captive) on top of the probe clamp. [3] **NOTE:** You can use a #2 Phillips screwdriver to tighten the screw. Do not over tighten as stripping may result.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-26 to remove any air that may be present. 2. Visually check for leaks while performing the flush. If drips or leaks are observed, repeat the installation procedure. 3. Remove the absorbent tissue. 4. Close the processing center cover.	

Verification

Perform as-needed maintenance procedure 1110

Steps	Graphic / reference
Perform the following ***as-needed*** maintenance procedure: • *1110 Pipettor Calibration*, page 9-25	

Replace pipettor probe tubing (*i* 1000$_{SR}$)

Replacing the pipettor probe tubing consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-45
  - *Remove the probe tubing*, page 9-45
- Replacement
  - *Install the probe tubing*, page 9-46
  - *Prepare for operation*, page 9-46
- Verification

  Verification occurs during preparation for operation. No further verification is required.

Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	10 minutes
Tools/materials required	Absorbent tissue
Replacement parts	LN 06L04-01 - Tubing, Probe

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

WARNING: Probe Stick Hazard. This is an activity or area where you may be exposed to probes. See *Probes and sharps*, page 8-19.

Removal

Prepare for removal

Steps	Graphic / reference
1. Lift the processing center cover to access the pipettor probe. 2. Locate the pipettor (P) on the processing center map inside the processing center cover. 3. Locate the probe tubing to be replaced on the pipettor. 4. Verify the probe is over the wash cup. – To move the pipettor probe over the wash cup, perform modules diagnostic procedure *1165 Pipettor Move*, page 10-603.	

Remove the probe tubing

Steps	Graphic / reference
1. Place an absorbent tissue under the probe tubing connection [1]. 2. Remove the non-captive screws holding the tubing routing clips and remove the clips [2]. **NOTE:** Use care when removing the non-captive screws as they are easily dropped into the system. 3. Place an absorbent tissue near the tubing connection at the pressure monitor [3]. 4. Remove the pressure monitor from the clips on the pipettor [3]. 5. Disconnect the tubing connection at the pressure monitor and drain any fluid from the probe tubing onto the absorbent tissue [3]. 6. Loosen the metal fitting on the probe and remove the probe tubing from the probe [1]. 7. Remove the probe tubing from the module.	

Replacement

Install the probe tubing

Steps	Graphic / reference
1. Support the boom arm when replacing the tubing to prevent it from moving. 2. Orient the probe tubing so that the green band is located near the probe. 3. Connect the probe tubing to the pressure monitor [1]. 4. Place the pressure monitor into the clips on the pipettor [1]. 5. Connect the opposite end of the probe tubing to the probe and finger-tighten the probe metal fitting [2]. 6. Place the tubing into the routing clips and using the screws attach the clips to the pipettor [3].	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as needed*** maintenance procedure *2137 Flush Fluids*, page 9-26 to remove any air that may be present. 2. Visually check for leaks while performing the flush. If you observe drips or leaks, repeat the installation procedure. 3. Remove the absorbent tissue. 4. Close the processing center cover.	

Verification

Perform probe tubing verification

Steps	Graphic / reference
Verification occurs during preparation for operation. No further verification is required.	

Replace the wash zone probe (*i* 1000$_{SR}$)

Replacing the wash zone probe consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-48
  - *Remove the wash zone probe*, page 9-48
- Replacement
  - *Install the wash zone probe*, page 9-49
  - *Prepare for operation*, page 9-49
- Verification
  - *Perform calibration curve verification*, page 9-49

Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	40 minutes (includes running quality control samples)
Tools/materials required	None
Replacement parts	LN 08C94-35 - Probe, WZ

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

WARNING: Probe Stick Hazard. This is an activity or area where you may be exposed to probes. See *Probes and sharps*, page 8-19.

Removal

Prepare for removal

Steps	Graphic / reference
1. Lift the processing center cover to access the wash zone probe. 2. Locate the wash zone (WZ) on the processing center map inside the processing center cover. 3. Locate the wash zone probe that needs to be replaced on the wash zone. [1] 4. Verify the pipettor probe is away from the wash cup toward the rear of the process path. – To move the pipettor probe away from the wash cup, perform modules diagnostic procedure,*1165 Pipettor Move*, page 10-603.	

Remove the wash zone probe

Steps	Graphic / reference
1. Loosen the thumb screw(s) holding the wash zone clip(s), which is located at the top side of the wash zone motor assembly. [1] 2. Grasp the tab(s) on the wash zone clip(s), which is located at the top side of the wash zone motor assembly. Rotate the clip(s) counterclockwise, so the notch in the clip(s) moves away from the wash zone probe. [2] 3. Remove the wash zone tubing from the tubing guide, and then lift the probe and the attached tubing out of the wash zone motor assembly. [3] 4. Remove the tubing from the probe by gently pulling the tubing and sliding it from the probe.	

Replacement

Install the wash zone probe

Steps	Graphic / reference
1. Push the wash zone tubing onto the wash zone probe until it passes the ridge on the probe. [1] **NOTE:** The tubing should be halfway between the bend in the probe and the ridge. 2. Slide the probe in the wash zone motor assembly until it is fully seated. Pull up on the wash zone motor to raise it if the probes do not fit into the openings on the wash zone motor assembly. [2] 3. Place the tubing in the tubing guide. [3] 4. Grasp the tab(s) on the clip(s) and rotate the clip(s) clockwise toward the probes. [4] **NOTE:** If the clips do not rotate to their locked position, ensure that the probes are completely seated in the wash zone motor assembly. 5. Tighten the thumb screw(s) holding the wash zone clip(s). [5]	

Prepare for operation

Steps	Graphic / reference
Close the processing center cover.	

Verification

Perform fluidics/wash diagnostic procedure 2052 WZ Aspiration Test

Steps	Graphic / reference
Perform fluidics/wash diagnostic procedure *2052 WZ Aspiration Test*, page 10-604.	

Perform calibration curve verification

Steps	Graphic / reference
Run all levels of controls to validate the active calibration curves prior to reporting the patient results.	

Replace the wash zone temperature tubing and sensor (*i* 1000$_{SR}$)

Replacing the wash zone temperature tubing and sensor consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-51
  - *Remove the wash zone temperature tubing and sensor assembly*, page 9-51
- Replacement
  - *Install the wash zone temperature tubing and sensor assembly*, page 9-52
  - *Prepare for operation*, page 9-52
- Verification
  - *Perform fluidics/wash diagnostic procedure 2052 WZ Aspiration Test*, page 9-52
  - *Perform calibration curve verification*, page 9-52

Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	45 minutes
Tools/materials required	None
Replacement parts	LN 08C94-87 - Tubing/Sensor, Temp, WZ

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

WARNING: Probe Stick Hazard. This is an activity or area where you may be exposed to probes. See *Probes and sharps*, page 8-19.

Removal

Prepare for removal

Steps	Graphic / reference
1. Lift the processing center cover to access the tubing. 2. Locate the wash zone (WZ) on the processing center map inside the processing center cover. 3. Locate the wash zone temperature tubing/sensor to be replaced on the wash zone (WZ). 4. Verify the pipettor probe is away from the wash cup toward the rear of the process path. – To move the pipettor probe away from the wash cup, perform modules diagnostic procedure,*1165 Pipettor Move*, page 10-603.	

Remove the wash zone temperature tubing and sensor assembly

Steps	Graphic / reference
1. Remove the wash zone tubing from the tubing guide. [1] 2. Remove the tubing from the wash zone probe by gently pulling the tubing and sliding it from the probe. [2] 3. Remove the RV loader assembly (RVL) for easier access to the upper waste manifold (optional). **NOTE:** See the processing center map on the *i* 1000_{SR} processing module for RV loader location (RVL). 4. Disconnect the temperature sensor. [3] 5. Remove the tubing from the tubing guide on top of the upper waste manifold (UWM). [4] **NOTE:** See the processing center map on the *i* 1000_{SR} processing module for upper waste manifold location (UWM). 6. Remove the tubing from the barb fitting on the left side of the upper waste manifold. [5]	See *Remove/replace the RV loader assembly (i 1000_{SR})*, page 9-52.

Replacement

Install the wash zone temperature tubing and sensor assembly

Steps	Graphic / reference
1. Connect the tubing to the barb fitting on the upper waste manifold (UWM). [1] 2. Place the tubing in the tubing guide on top of the upper waste manifold. [2] 3. Connect the temperature sensor. [3] 4. Replace the RV loader assembly, if removed. 5. Push the wash zone tubing onto the wash zone probe until it passes the ridge on the probe. [4] **NOTE:** The tubing should be halfway between the bend in the probe and the ridge. 6. Place the tubing in the tubing guide. [5]	See *Remove/replace the RV loader assembly (i 1000$_{SR}$)*, page 9-52.

Prepare for operation

Steps	Graphic / reference
Close the processing center cover.	

Verification

Perform fluidics/wash diagnostic procedure 2052 WZ Aspiration Test

Steps	Graphic / reference
Perform fluidics/wash diagnostic procedure *2052 WZ Aspiration Test*, page 10-604.	

Perform calibration curve verification

Steps	Graphic / reference
Run all levels of controls to validate the active calibration curves prior to reporting results.	

Remove/replace the RV loader assembly (*i* 1000$_{SR}$)

Perform this procedure to remove the RV loader assembly to allow easier access to internal components. Removing and replacing the RV loader assembly consists of the following procedures.

- Removal

- – *Prepare for removal*, page 9-53
- – *Remove the RV loader assembly*, page 9-54

- Replacement
  - – *Install the RV loader assembly*, page 9-54
  - – *Prepare for operation*, page 9-54
- Verification
  - – *Perform modules diagnostic procedure, 4110 Module Initialization*, page 9-55

Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	2 minutes
Tools/materials required	None

Removal

Prepare for removal

Steps	Graphic / reference
1. Lift the processing center cover to access the RV loader assembly (RVL). 2. Locate the RV loader (RVL). **NOTE:** See the processing center map on the *i* 1000_{SR} processing module for RV loader location (RVL).	

Remove the RV loader assembly

Steps	Graphic / reference
1. Loosen the green captive screw at the base of the RV loader assembly. [1] 2. Lift the RV loader lower chute and remove the RV loader assembly. 3. Place the RV loader inside the left back corner of the processing center cover. [2]	

Replacement

Install the RV loader assembly

Steps	Graphic / reference
1. Remove the RV loader assembly from the left back corner of the processing center cover. [1] 2. Place the RV loader on the mounting base and tighten the captive screw. [2] 3. Lower the RV loader chute into the load position.	

Prepare for operation

Steps	Graphic / reference
Close the processing center cover.	

Verification

Perform modules diagnostic procedure, 4110 Module Initialization

Steps	Graphic / reference
Perform modules diagnostic procedure *4110 Module Initialization*, page 10-606.	

Replace the wash cup baffle (*i* 1000$_{SR}$)

Replacing the wash cup baffle consists of the following procedures.

- Removal
  - *Prepare for removal*, page 9-56
  - *Remove the wash cup baffle*, page 9-57
- Replacement
  - *Replace the wash cup baffle*, page 9-58
  - *Prepare for operation*, page 9-58
- Verification
  - *Perform modules diagnostic procedure, 4110 Module Initialization*, page 9-59

Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	5 minutes
Tools/materials required	None
Replacement parts	LN 01P41-01 - Wash cup baffle

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

WARNING: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and sharps*, page 8-19.

Removal

Prepare for removal

Steps	Graphic / reference
1. Lift the processing center cover to access the wash cup baffle. 2. Locate the wash cup (PW) on the processing center map inside the processing center cover. 3. Verify the pipettor probe is away from the wash cup toward the rear of the process path. – To move the pipettor probe away from the wash cup, perform modules diagnostic procedure,*1165 Pipettor Move*, page 10-603.	

Remove the wash cup baffle

Steps	Graphic / reference
Remove the wash cup baffle.	

Replacement

Replace the wash cup baffle

Steps	Graphic / reference
Install the wash cup baffle. Ensure the baffle is fully seated.	

Prepare for operation

Steps	Graphic / reference
Close the processing center cover.	

Verification

Perform modules diagnostic procedure, 4110 Module Initialization

Steps	Graphic / reference
Perform modules diagnostic procedure *4110 Module Initialization*, page 10-606.	

i 1000$_{SR}$ supply and waste center component replacement

You may need to replace certain supply and waste center components due to normal wear from daily operations.

The following procedures provide step-by-step instructions on replacing these components:

- *Replace the pre-trigger or trigger level sensor (i 1000$_{SR}$)*, page 9-59
- *Replace the buffer level sensor (i 1000$_{SR}$)*, page 9-61
- *Replace the buffer outlet assembly (i 1000$_{SR}$)*, page 9-65

See *Supply and waste center (i 1000$_{SR}$)*, page 1-40, for component locations when performing replacement procedures.

Replace the pre-trigger or trigger level sensor (*i* 1000$_{SR}$)

Replacing the pre-trigger or trigger level sensor consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-60
  - *Remove the pre-trigger or trigger level sensor*, page 9-60
- Replacement
  - *Install the pre-trigger or trigger level sensor*, page 9-61
  - *Prepare for operation*, page 9-61
- Verification
  - *Perform solenoids/sensors diagnostic procedure 3420 Level Sensors Test*, page 9-61

Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	10 minutes

Tools/materials required	Absorbent tissue
Replacement parts	• LN 08C94-27 - Sensor, Level, Pre-Trigger • LN 08C94-26 - Sensor, Level, Trigger

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See *Chemical hazards*, page 8-9.

Removal

Prepare for removal

Steps	Graphic / reference
Open the supply and waste center door.	

Remove the pre-trigger or trigger level sensor

Steps	Graphic / reference
1. Slide the pre-trigger/trigger tray out. 2. Disconnect the pre-trigger or trigger electrical connector. [1] 3. Use absorbent tissue to catch any spilled liquid and unscrew the tubing fitting from the level sense tube. [2] 4. Unscrew the level sensor cap. [3] 5. Remove the level sensor and wipe the outside of the assembly with an absorbent tissue.	

Replacement

Install the pre-trigger or trigger level sensor

Steps	Graphic / reference
1. Place the level sensor into the container with the arrow on the cap facing towards the front. 2. Tighten the cap. [1] **NOTE:** When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 3. Connect the pre-trigger or trigger electrical connector. [2] 4. Connect the tubing fitting to the level sensor tube. [3] 5. Slide the tray into place.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-26 to remove any air that may be present. 2. Visually check for leaks while performing the flush. If you observe drips or leaks, repeat the installation procedure. 3. Close the supply and waste center door.	

Verification

Perform solenoids/sensors diagnostic procedure 3420 Level Sensors Test

Steps	Graphic / reference
Perform ***solenoids/sensors*** diagnostic procedure *3420 Level Sensors Test*, page 10-608.	

Replace the buffer level sensor (*i* 1000$_{SR}$)

Replacing the buffer level sensor consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-62
  - *Remove the wash buffer reservoir and wash buffer level sensor*, page 9-63
- Replacement
  - *Install the wash buffer level sensor and wash buffer reservoir*, page 9-64
  - *Prepare for operation*, page 9-64
- Verification
  - *Perform solenoids/sensors diagnostic procedure 3420 Level Sensors Test*, page 9-65

Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	15 minutes
Tools/materials required	None
Replacement parts	LN 06L01-01 - Sensor, Level, Buffer

CAUTION: Lifting hazard. The *i* 1000_{SR} System wash buffer reservoir is heavy when full. Use care when handling the container to reduce the risk of injury.

Removal

Prepare for removal

Steps	Graphic / reference
Open the supply and waste center door.	

Remove the wash buffer reservoir and wash buffer level sensor

Steps	Graphic / reference
1. Push on the quick disconnect tab to remove the tubing from the buffer filter. [1] 2. Disconnect the gray level sensor cable. [2] 3. Push on the quick disconnect tab to remove the tubing from the buffer outlet assembly. [3] 4. Grasp the handle and slide the wash buffer reservoir outside the processing module on the floor. 5. Unscrew the cap. [4] 6. Remove the level sensor.	

Replacement

Install the wash buffer level sensor and wash buffer reservoir

Steps	Graphic / reference
1. Place the level sensor into the reservoir and tighten the cap. [1] 2. Grasp the handle and place the wash buffer reservoir into the supply and waste center. 3. Snap the quick disconnect into the tubing on the buffer level sensor. [2] 4. Connect the gray level sensor cable. [3] 5. Snap the quick disconnect into the tubing on the buffer outlet assembly. [4]	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-26 to remove any air that may be present. 2. Visually check for leaks while performing the flush. If you observe drips or leaks, repeat the installation procedure. 3. Close the supply and waste center door.	

Verification

Perform solenoids/sensors diagnostic procedure 3420 Level Sensors Test

Steps	Graphic / reference
Perform ***solenoids/sensors*** diagnostic procedure *3420 Level Sensors Test*, page 10-608.	

Replace the buffer outlet assembly (*i* 1000$_{SR}$)

Replacing the buffer outlet assembly consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-66
  - *Remove the wash buffer reservoir and buffer outlet assembly*, page 9-66
- Replacement
  - *Replace wash buffer reservoir and buffer outlet assembly*, page 9-67
  - *Prepare for operation*, page 9-67
- Verification
  - *Perform solenoids/sensors diagnostic procedure 3420 Level Sensors Test*, page 9-68

Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	15 minutes
Tools/materials required	None
Replacement parts	LN 01P12-01 - Buffer outlet assembly

CAUTION: Lifting hazard. The *i* 1000$_{SR}$ System wash buffer reservoir is heavy when full. Use care when handling the container to reduce the risk of injury.

Removal

Prepare for removal

Steps	Graphic / reference
Open the supply and waste center door.	

Remove the wash buffer reservoir and buffer outlet assembly

Steps	Graphic / reference
1. Push on the quick disconnect tab to remove the tubing from the buffer filter. [1] 2. Disconnect the gray level sensor cable. [2] 3. Push on the quick disconnect tab to remove the tubing from the buffer outlet assembly. [3] 4. Grasp the handle and slide the wash buffer reservoir outside the processing module on the floor. 5. Unscrew the cap on the buffer outlet assembly. [4] 6. Remove the buffer outlet assembly.	

Replacement

Replace wash buffer reservoir and buffer outlet assembly

Steps	Graphic / reference
1. Place the buffer outlet assembly into the reservoir and tighten the cap. [1] 2. Grasp the handle and place the wash buffer reservoir into the supply and waste center. 3. Snap the quick disconnect into the tubing on the buffer outlet assembly. [2] 4. Connect the gray level sensor cable. [3] 5. Snap the quick disconnect into the tubing on the buffer level sensor. [4]	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-26 to remove any air that may be present. 2. Visually check for leaks while performing the flush. If you observe drips or leaks, repeat the installation procedure. 3. Close the supply and waste center door.	

Verification

Perform solenoids/sensors diagnostic procedure 3420 Level Sensors Test

Steps	Graphic / reference
Perform ***solenoids/sensors*** diagnostic procedure *3420 Level Sensors Test*, page 10-608.	

Introduction

Problems with your ARCHITECT System are characterized by symptoms. Troubleshooting tools, references, and suggested techniques are provided to help you trace the symptom(s) to one or more root causes. You can then perform the corrective actions to resolve the problem.

Troubleshooting and diagnostic topics include:

- *Approach to troubleshooting*, page 10-2

  Provides a general model for troubleshooting your ARCHITECT System.

- *System logs screen*, page 10-8

  Provides a description of the software screen and window associated with system records of error-related messages

- *Error codes*, page 10-14

  Lists possible error codes and their messages, and provides detailed information on probable causes and corrective actions.

- *Observed problems*, page 10-524

  Lists symptoms you may observe and provides detailed information on probable causes and corrective actions.

- *System diagnostics*, page 10-594

  Provides a description of all system diagnostic procedures, the software screens and windows associated with diagnostic activities, and step-by-step instructions for performing related procedures.

- *Miscellaneous corrective action procedures*, page 10-619

  Includes procedures that are frequently provided as corrective actions for resolving error codes and/or observed problems.

Approach to troubleshooting

Troubleshooting consists of implementing a practical, systematic approach to problem solving. This approach focuses on:

- Observing, recognizing, and categorizing symptoms
- Identifying the probable cause(s)
- Systematically eliminating each potential problem (from most likely to least likely)

The troubleshooting model that follows describes a five step approach to defining symptoms, identifying problems, and implementing solutions. When troubleshooting your ARCHITECT System, you should also include considerations appropriate to your specific environment.

1. Observe and recognize symptoms

To properly analyze and correct a problem you must first identify the symptoms. Symptoms can be, but are not limited to:

- Error messages
- Observed problems, such as a noise, fluid leak, trend in controls, and so forth

  NOTE: If you are able to resolve the observed problem, no further action is required.

2. Categorize the symptom(s)

By grouping like symptoms into categories, you automatically eliminate some problems as probable causes. Categories of symptoms include:

- System, see:
  - *System troubleshooting variables (i System)*, page 10-4
- Reagents, see:
  - *Reagent troubleshooting variables (i System)*, page 10-5
- *Operator troubleshooting variables*, page 10-6
- *Environmental troubleshooting variables*, page 10-6

3. Isolate the root cause and create a plan of action

Based on the probable causes you identify, devise a plan that begins by addressing the most likely first and progresses to the least likely.

By addressing one probable cause at a time you are able to isolate the resolution, and then reproduce the solution to a specific problem.

Diagnostic resources and tools include:

- Error code and message
- ARCHITECT System Operations Manual and/or Help
  - Section 10 Troubleshooting and diagnostics
  - Appendix B Verification of ARCHITECT *i* System assay claims
  - Section 4 Performance characteristics and specifications
- System logs (Message history and Temporary)
- Levey-Jennings graph
- Diagnostic procedures
- Maintenance logs
- Maintenance procedures
- Reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet)

4. Resolve the problem

Carefully perform the steps required to solve the problem. Problems are corrected by:

- Making adjustments, such as tightening connections or removing jams
- Calibrating system components or assays
- Replacing or repairing system components
- Running new controls

5. Verify the resolution worked

Verify the symptoms no longer exist:

- Perform the appropriate verification procedure
- Check control values, if appropriate

If you continue to observe the symptoms, perform the steps to resolve the next most likely problem. Repeat this process until the problem is resolved.

System troubleshooting variables (*i* System)

The system category is a high level group of symptoms that relate to system performance. Within this category, there are more specific subcategories or variables. By tracing an error or problem to one of these variables, you can begin to isolate the probable cause(s).

System troubleshooting variables include:

- *Fluidic subsystems*, page 10-4
- *Optical subsystem*, page 10-4
- *Hardware*, page 10-5
- *Software*, page 10-5
- *Consumables*, page 10-5

Fluidic subsystems

Fluidic subsystems are the hardware components that control the precision and accuracy of liquid level sensing, aspiration, and dispense. Additionally, these components distribute the fluids used to wash the probes.

Examples	Pipettors, probes, LLS (liquid level sense) antennae, syringes and valves, dispensers, tubing, pumps, processing module circuit boards, and WAM (wash aspirate monitor) thermistors
Symptoms	Liquid level sense error messages (3000-3999), imprecise results, and/or erratic results

Optical subsystem

The optical subsystem consists of hardware components that control concise and accurate optical readings.

Examples	CMIA reader, shutter, and reader magnet
Symptoms	Optical-read error messages (6000-6999) and/or shift in values

Hardware

Hardware consists of the mechanical components that move consumables and samples through the system and distribute power and electrical signals.

Examples	Carousel, sensors, RV (reaction vessel) loader, circuit boards, and bar code readers
Symptoms	Homing failures, jams, step loss, and motor stalls (robotic and sensor error messages 5000-5999) and/or bar code reader error messages (4000-4999)

Software

Software consists of computer instructions that interpret system and assay information, calculate results, and provide the interface for controlling the system hardware.

Examples	System, assay, maintenance, and diagnostic software
Symptoms	Software error messages (9000-9999), cannot power on the SCC

Consumables

Consumables are supplies that are required to run assays.

Examples	Sample cups, bulk solutions, and RVs (reaction vessels)
Symptoms	Imprecise results and/or erratic results

Reagent troubleshooting variables (*i* System)

The reagent category is a high level group of symptoms that relate to processing results. Within this category, there are more specific subcategories or variables. By tracing an error or problem to one of these variables, you can begin to isolate the probable cause(s).

Reagent troubleshooting variables include:

- *Reagent kits*, page 10-6
- *Controls*, page 10-6
- *Calibrators*, page 10-6

Reagent kits

Reagent kits contain the consumables that detect and/or measure specific analyte presence or concentration in samples.

Examples	Antibody coated microparticles, conjugate, and assay-specific diluent
Symptoms	Control(s) out of range and/or trends and shifts in control and/or patient results

Controls

Controls are samples with known concentrations of analytes that allow performance monitoring within a clinical range.

Examples	Analyte-specific and multiconstituent controls
Symptoms	Control out of range, imprecise control results, and/or trends and shifts in control and/or patient results

Calibrators

Calibrators are samples with known concentrations of analytes used to create the calibration against which samples are measured.

Examples	Analyte-specific calibrators
Symptoms	Shift in control and patient results

Operator troubleshooting variables

The operator category is a group of symptoms that relate to proper system operation and maintenance. Within this category, the actions of a single operator and/or the actions of multiple operators can result in a variety of symptoms.

Examples	A new user and a trained operator
Symptoms	Bubbles in reagents or samples, particulate matter or fibrin in samples, general error messages (0001-0999), assay specific error messages (1000-1999), error code messages generated as a result of improper maintenance or component replacement

Environmental troubleshooting variables

The environmental category is a high level group of symptoms that relate to processing results. Within this category, there are more

specific subcategories or variables. By tracing an error or problem to one of these variables, you can begin to isolate the probable cause(s).

Environmental troubleshooting variables include:

- *Physical requirements*, page 10-7
- *Electrical requirements*, page 10-7
- *Host interface components*, page 10-7

Physical requirements

Physical requirements identify the environmental conditions needed to ensure consistent system performance.

Examples	Room temperature and/or humidity, location, processing module and sample handler clearances, and water quality
Symptoms	Temperature error messages (7000-7999) and/or inadequate airflow

Electrical requirements

Electrical requirements identify the power requirements needed to ensure consistent system performance and optical readings.

Examples	Power outlet, voltages, and dedicated line
Symptoms	Loss of power to the system

Host interface components

Host interface components enable communication between the laboratory information system and the system control center.

Examples	Ports, cables, and connections
Symptoms	Communication error messages (8000-8999)

System logs screen

From the System logs screen you can view (by module) the:

- Temporary message log - displays non-critical error-related messages that you can address, and then delete
- Message history log - displays and stores a record of error-related messages that you use to troubleshoot problems associated with system performance and/or results reporting

You can also access windows to print the Temporary Message Log and Message History Log reports, and find a specific message(s) in the system logs.

Figure 10.1: System logs screen

For descriptions of these fields, see *System logs screen field descriptions*, page Appendix E-97.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
DATE/TIME	Chronologically in descending order
M	Numerically in ascending order
ERROR CODE	Numerically in ascending order

To display this screen, see *Access the System logs screen*, page 10-9.

Related procedures...

- *Review message logs*, page 10-10
- *Find a specific message*, page 10-10
- *View low level error messages*, page 10-11
- *Delete a temporary message*, page 10-12
- *Print a report*, page 5-230

Access the System logs screen

Perform this procedure to display the System logs screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the System logs screen:

NOTE: You may also access this screen from the Snapshot screen by selecting the **LIS**, **ARM**, or **LAS** button.

Select **System** from the menu bar, and then select **System logs**.

The System logs screen displays.

Related information...

- *System logs screen*, page 10-8

Procedures - System logs screen

Procedures that can be performed from the System logs screen and its related windows include:

- *Review message logs*, page 10-10
- *Find a specific message*, page 10-10
- *View low level error messages*, page 10-11
- *Delete a temporary message*, page 10-12
- *Print a report*, page 5-230

Review message logs

Perform this procedure to display the System logs screen. From this screen you can view the Temporary message and Message history logs.

To find specific messages, see *Find a specific message*, page 10-10.

To view low level messages, see *View low level error messages*, page 10-11.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To review message logs:

1. Select **System** from the menu bar, and then select **System logs**.

   The System logs screen displays.

2. Select the **Log selection** list button, and then select the desired log.

To print the Message History Report, see *Print the Message History Log report*, page 5-238. To print Temporary Message Log report, see *Print a report*, page 5-230.

Related information...

- *System logs screen*, page 10-8

Find a specific message

Perform this procedure to search for a specific message(s) in the system logs when necessary for troubleshooting.

Prerequisite	*Access the System logs screen*, page 10-9
Module status	Any
User access level	General operator
Supplies	NA

To find a specific message:

1. Select **F3 - Find** on the System logs screen.

   The Find options (System logs) window displays.

2. Select and/or enter your search conditions. You can narrow the results returned by entering/selecting more criteria.

NOTE: A wildcard search allows you to type a partial entry followed by an asterisk (*) to begin a search when you do not know the entire entry. You can use the asterisk (*) wildcard character in all fields except position (P).

Example: If you enter 123* in the Error code data entry box, all error codes starting with 123 display. This list could include 1234, 1235, or 1236.

3. Select **Done** to initiate the search.

   The System logs screen displays with the text "Search results:" in the title bar.

   NOTE: Select the **refresh** button to display all records.

Related information...

- *System logs screen*, page 10-8
- *Find options (System logs) window*, page 10-12

View low level error messages

Perform this procedure to view additional error messages when necessary for troubleshooting.

To find specific error messages, see *Find a specific message*, page 10-10.

Prerequisite	*Access the System logs screen*, page 10-9
Module status	Any
User access level	General operator
Supplies	NA

To view message details:

1. Select the **Log selection** list button on the System logs screen, and then select **Message history log**.
2. Select **F3 - Find**.

   The Find options window displays.
3. Select the **Error level: Low** check box.
4. Select **Done** to display the messages.

   The System logs screen displays with the text "Search results:" in the title bar.

   NOTE: Select the **refresh** button to display all records.

Related information...

- *System logs screen*, page 10-8
- *Find options (System logs) window*, page 10-12

Delete a temporary message

Perform this procedure to delete a temporary message(s) after correcting the issue that caused the error.

Prerequisite	*Access the System logs screen*, page 10-9
Module status	Any
User access level	General operator
Supplies	NA

To delete a temporary message:

1. Select the desired message(s) from the table on the System logs screen or select **F2 - Select all**.
2. Select **F5 - Delete**.

   A confirmation message displays.
3. Select **OK** to delete the message(s).

Related information...

- *System logs screen*, page 10-8

Windows - System logs screen

Windows you can access from the System logs screen include:

- *Find options (System logs) window*, page 10-12
- *Print options window*, page 5-242

Find options (System logs) window

From the Find options (System logs) window, you can search for specific item(s) in the logs by entering search criteria in one or more fields.

Figure 10.2: Find options (System logs) window

For descriptions of these fields, see *Find options (System logs) window field descriptions*, page Appendix E-98.

Related procedures...

- *Find a specific message*, page 10-10

Error codes

Error codes are divided into ten sections that reflect the major categories in which errors may occur:

- *General error codes (0001-0999)*, page 10-14
- *Assay specific error codes (1000-1999)*, page 10-110
- *Maintenance error codes (2000-2999)*, page 10-172
- *Level sense error codes (3000-3999)*, page 10-216
- *Bar code reader error codes (4000-4999)*, page 10-294
- *Robotic and sensor error codes (5000-5999)*, page 10-315
- *Optics error codes (6000-6999)*, page 10-390
- *Temperature error codes (7000-7999)*, page 10-398
- *Computer hardware error codes (8000-8999)*, page 10-417
- *Software error codes (9000-9999)*, page 10-454

General error codes (0001-0999)

The general error code category includes error codes between 0001-0999.

If the corrective actions listed under the error code in question do not resolve the problem, contact your Area Customer Support representative at:

United States	1-877-4ABBOTT (1-877-422-2688)
International	Call your Area Customer Support representative.

NOTE: For corrective actions that involve hazardous activity refer to *Hazards*, page 8-1, for precautions you should take to minimize exposure and prevent personal injury or system damage. Hazard activities include but are not limited to:

- Replacing system probes
- Handling reagents, calibrators, controls, and specimens
- Removing physical obstructions
- Changing the lamp
- Removing system waste

Error code: 0102

Unable to perform requested operation, Processing Module not in correct status.

Probable cause	Corrective action
• Attempted one of the following when the processing module status did not allow the activity: – Start up – Reagent scanning – Reagent carousel advance	Perform the activity when the processing module status changes.
• The first time run was selected for the processing module, error code 4103 - "Reagent bar code reader not responding" occurred during the Run initialization.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Reagent bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0104

Unable to perform requested operation, Sample Handler not in correct status.

Probable cause	Corrective action
Attempted one of the following when the sample handler status did not allow the activity: • Start up • Pause	Perform the activity when the sample handler status changes.

Error code: 0105

Batch (x) terminated. Final sample is in a carrier and that carrier label cannot be read.
x = Batch name

Probable cause	Corrective action
A non-bar coded batch is in process and 5 or fewer samples remain to be identified. The bar code label on the sample carrier cannot be read by the sample ID bar code reader. The system assumes this carrier contains the last samples for the batch, therefore the batch is terminated.	1. Determine the samples present in the sample carrier that were not processed. 2. Place a new batch order for these samples. 3. Place the samples into a different sample carrier. 4. Refer to error code 4204, for corrective action, if error continues.

Error code: 0106

Unable to perform installation, a valid ARCHITECT CD is not in the CD drive.

Probable cause	Corrective action
Software upgrade was attempted without the CD installed in the CD drive.	1. Place the ARCHITECT CD into the drive. 2. Restart the software upgrade procedure.

Error code: 0107

Unable to perform requested operation, Sample Handler or Processing Module not in correct status.

Probable cause	Corrective action
• Attempted one of the following when the processing module status did not allow the activity: – Selected pause when the status is Stopped. – Selected start up when the status is Running.	Perform a different operation or wait until the module changes status.
• Hardware failure: – Keypad	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0108

Unload Queue at capacity, remove Sample Carriers.

Probable cause	Corrective action
• Unload queue is full of sample carriers.	Remove carriers from the unload queue.
• Hardware failure: – Unload queue sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0109

Unable to process test, Processing Module not Running.

Probable cause	Corrective action
• User selected stop before processing began.	Start up the processing module when the reason for the stop no longer exists. See *Start up the processing module and/or sample handler*, page 5-10.
• Hardware failure.	1. *Review message logs*, page 10-10, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-11, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 0110

Unable to execute command, Processing Module or Sample Handler Stopped.

Probable cause	Corrective action
• User selected stop for either the sample handler or processing module.	*Start up the processing module and/or sample handler*, page 5-10, when the reason for the stop no longer exists.
• Communication or hardware failure.	1. *Review message logs*, page 10-10, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-11, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 0111

Unable to perform requested operation, previously requested operation still in progress.

Probable cause	Corrective action
System is currently performing a requested activity such as flush, reagent scan, or carousel advance.	Request the new activity when the current activity is complete.

Error code: 0112

Unable to process test, Sample Handler Stopped.

Probable cause	Corrective action
• User selected stop.	Start up the sample handler when the reason for the stop no longer exists. See *Start up the processing module and/or sample handler*, page 5-10.
• Processing module stopped because of a previous hardware failure.	1. *Review message logs*, page 10-10, for any 5000 category error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-11, if you do not find any 5000 category error codes. 3. Perform the corrective action for the specific error code.
• Hardware failure: – Sample handler keypad	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0113

Unable to delete assay, at least one module is not in the correct status.

Probable cause	Corrective action
Attempted to delete an assay while the processing module(s) are not in the correct status.	Delete the assay when the status for all processing modules is Stopped, Ready, or Offline.

Error code: 0114

Unable to process test, assay deleted.

Probable cause	Corrective action
Assay deleted, all pending orders for the assay are sent to exceptions.	Reinstall the assay and create new orders for the samples sent to exceptions, if required.

Error code: 0115

No assay found for reagent kit in position (x).
x = Reagent carousel position

Probable cause	Corrective action
The assay file required for the reagent kit is either not installed or it is not the correct version.	Install the correct assay file. See *Install or delete an assay file*, page 2-139.
The manually defined reagent name does not match the name, including capitalization, encoded in the bar code.	Reconfigure the reagent name.

Error code: 0116

Invalid order, missing Carrier/Carousel or Position.

Probable cause	Corrective action
Add order was selected when the information in either the carrier/carousel or position data entry box was missing or incorrect.	Enter valid data in both the **C** (carrier/carousel) and **P** (position) data entry boxes.

Error code: 0117

Invalid entry, no assays selected.

Probable cause	Corrective action
• Add order was selected when no assay was selected.	Select one or more assays.
• Done was selected in the Select assays window with no assays selected.	Select one or more assays.

Error code: 0118

Invalid order, missing Sample ID.

Probable cause	Corrective action
Add order was selected before a sample ID was entered in the sample ID field.	Enter a sample ID in the **SID** data entry box.

Error code: 0119

Batch (x) deleted, batch (y) has been initiated.
x = Name of deleted batch
y = Name of overlapping batch

Probable cause	Corrective action
A batch was in process when a carrier was loaded containing a sample that is defined as the start of a different batch.	No corrective action is required. Remaining tests from the batch in process are deleted. Batch tests in process continue. Tests from the new batch start. To avoid future occurrences, do not start another batch until the batch in process terminates.

Error code: 0120

Invalid sample type detected in batch (y). Sample is in C/P (x).
x = Carrier and position of sample
y = Name of batch

Probable cause	Corrective action
• When processing a non-bar coded batch, a sample with a bar code was found for which there were no tests ordered.	When processing a non-bar coded batch, do not place bar coded samples within the batch unless tests are ordered for the sample.
• When processing a bar coded batch, a sample with no bar code was found for which there were no tests ordered.	When processing a bar coded batch, do not place non-bar coded samples within the batch unless tests are ordered for the sample in the position.
• There are empty positions in a sample carrier during a bar coded batch.	When processing a bar coded batch, do not leave open positions in the sample carrier.

Error code: 0121

Invalid order, Assay (x), number (y) is no longer installed.
x = Assay name
y = Assay number

Probable cause	Corrective action
• The assay file for the test to be rerun was deleted.	1. Delete the rerun test order. 2. Reinstall the assay and create new orders for the tests to be rerun, if required.
• The assay file for the test to be rerun was deleted and then reinstalled.	1. Delete the rerun test order. 2. Reorder the test for rerun.

Error code: 0122

No Reagent kits found during reagent scan.

Probable cause	Corrective action
Processing module does not have any reagents, therefore the status cannot change to Running.	Load reagents on the specified processing module, and then select run.

Error code: 0123

Unable to fail calibration curve, Processing Module (x) Running.
x = Processing module number (1-4)

Probable cause	Corrective action
Attempted to fail an active calibration curve when the processing module status was Running.	1. *Pause the processing module*, page 5-11. 2. Fail the desired calibration curve when the status is Ready. See *Fail a calibration curve*, page 6-24.

Error code: 0124

Ending Sample ID cannot be the same as the starting Sample ID.

Probable cause	Corrective action
When creating a bar coded batch order, the same number was entered for both the starting and ending sample ID.	Change either the starting or the ending sample ID so they are not the same.

Error code: 0125

Invalid rerun request, missing Carrier/Carousel and Position for Sample ID (x).
x = Sample ID

Probable cause	Corrective action
Ordered a rerun for an unlabeled tube without entering carrier/carousel and position information.	Enter the carrier/carousel and position for the rerun sample.

Error code: 0126

Unable to delete order, test is in progress.

Probable cause	Corrective action
Requested deletion of an order when the test is in process.	Delete the desired results when all tests for the sample are complete.

Error code: 0127

Invalid order, Sample ID previously assigned to Patient ID (x).
x = Patient ID

Probable cause	Corrective action
Entered an order for a sample ID already associated with a different patient ID.	1. Verify the patient ID associated with the sample ID is correct for all orders. 2. Enter the correct sample ID. **NOTE:** Patient ID is optional and is entered on the Details for sample window.

Error code: 0128

Invalid rerun request, Assay (x), number (y) no longer installed.
x = Assay name
y = Assay number

Probable cause	Corrective action
• The assay file for the test to be rerun was deleted.	1. Delete the rerun test order. 2. Reinstall the assay and create new orders for the tests to be rerun, if required.
• The assay file for the test to be rerun was deleted and then reinstalled.	1. Delete the rerun test order. 2. Reorder the test for rerun.

Error code: 0129

The end time (x) is earlier than the start time for the specified date (y).
x = The end time
y = The date of the start time

Probable cause	Corrective action
Specified incorrect date and time in a Find window.	Enter a correct date and time.

Error code: 0130

Invalid entry, (x) not within range (y - z).
x = Value entered
y = Minimum range value
z = Maximum range value

Probable cause	Corrective action
Value entered was not within the specified range.	Enter a value within the specified range. **NOTE:** Some data entry boxes may also be left blank.

Error code: 0131

Invalid entry, user input (x) for character (y).
x = User input
y = Number of characters from left in data entry box

Probable cause	Corrective action
Character in the position specified is missing or incorrect.	Enter the correct value for the specified position.

Error code: 0132

Unable to install procedure (x), an equal or higher version already exists.
x = Procedure name

Probable cause	Corrective action
The same or higher version of the procedure is already installed.	No corrective action required if the request was made in error. To install a lower version, delete the procedure and then install the desired version. See *Install or delete a maintenance or diagnostic procedure file*, page 2-141.

Error code: 0133

Unable to install (x) procedure, system software version not compatible.
x = Procedure name

Probable cause	Corrective action
The procedure requires a newer version of ARCHITECT System software.	Upgrade the ARCHITECT System software to the appropriate version and reinstall the procedure. (Contact your Area Customer Support.)

Error code: 0134

Procedure (x) does not exist.
x = Procedure number

Probable cause	Corrective action
Wrong procedure number entered when deleting a procedure.	Enter a valid number for the procedure you are deleting.

Error code: 0135

Unable to install software. Processing Module is not in the correct status.

Probable cause	Corrective action
Processing module status is Running, Scheduled pause, Initializing, or Scanning.	Install the software when the processing module status is Stopped, Offline, Ready, or Warming.

Error code: 0136

Unable to perform procedure, Module (x) not in the correct status.
x = Module number (0-4)

Probable cause	Corrective action
The specified processing module or sample handler is not in the correct status to perform the procedure.	Refer to the *Version details for procedure (diagnostics) window*, page 10-600, to determine the status required for performing the procedure.

Error code: 0137

Unable to perform (x) procedure, insufficient user access.
x = Procedure name

Probable cause	Corrective action
The current user does not have access sufficient to execute the selected procedure.	Use a logon with the access required to execute the procedure.

Error code: 0138

Unable to approve maintenance log, insufficient user access.

Probable cause	Corrective action
The current user does not have access sufficient to approve a maintenance month.	Log on with system administrator access. See *Log on (system administrator)*, page 1-20.

Error code: 0139

Unable to modify approval status for a previously approved maintenance log.

Probable cause	Corrective action
Requested an approval status update for a maintenance month that is already approved.	Select the correct month, and then select **F4 - Approve**.

Error code: 0140

Unable to approve, no maintenance activity.

Probable cause	Corrective action
Requested an approval status change for a month with no maintenance activity.	Select the correct month, and then select **F4 - Approve**.

Error code: 0141

Unable to approve current month.

Probable cause	Corrective action
Requested an approval status for the current month or a future month.	Select the correct month, and then select **F4 - Approve**.

Error code: 0142

Unable to install software, host transmission is in process.

Probable cause	Corrective action
Results are transferring to the host. Software cannot be installed during this process.	Install the software when the transmission is complete.

Error code: 0143

Unable to process test, no reagent kits eligible on the selected Processing Module.

Probable cause	Corrective action
The required reagent kit is not available on the selected processing module. All of the reagent kits on the module for the assay are either empty, expired, or not calibrated.	Verify reagent inventory for the assay. See *Verify reagent inventory on a single module*, page 5-51.

Error code: 0144

Invalid order, manual dilution factor is inconsistent with previous order for Sample ID (x).
x = Sample ID

Probable cause	Corrective action
A manual dilution was requested for a sample ID that already has an order using a different manual dilution.	1. Order the test using the same manual dilution. 2. Assign another sample ID to the new dilution, if a different manual dilution is required.

Error code: 0145

Missing entry, Level name required.

Probable cause	Corrective action
The control level name is not entered in the required field.	Enter a control level name.

Error code: 0146

Missing entry, Lot no. required.

Probable cause	Corrective action
A control lot number is not entered in the required field.	Enter the control lot number.

Error code: 0147

Invalid entry, control Level name already exists for this lot.

Probable cause	Corrective action
The entered control level name already exists for this lot.	Enter a unique control level name.

Error code: 0148

Invalid entry, control Lot no. already exists for this assay.

Probable cause	Corrective action
A duplicate lot number was entered.	Enter a unique control lot number for the control.

Error code: 0149

Invalid request, unable to delete default control lot.

Probable cause	Corrective action
Attempted to delete the default control lot.	1. Define a new control lot as the default. 2. Delete the desired control lot.

Error code: 0150

Invalid request, select another lot, then specify it as default.

Probable cause	Corrective action
Attempted to deselect the current default control lot.	Select another control lot and define it as the default lot.

Error code: 0151

Missing entry, Expected mean required.

Probable cause	Corrective action
The expected mean value is not entered.	Enter the expected mean value.

Error code: 0152

Missing entry, Expected 1 SD required.

Probable cause	Corrective action
The expected 1 SD value is not entered.	Enter the expected 1 SD value.

Error code: 0153

Missing entry, Carrier/Carousel ID required.

Probable cause	Corrective action
Add order was selected when the information in the carrier/carousel field was missing or incorrect.	Enter valid data in the carrier/carousel field.

Error code: 0154

Missing entry, Position required.

Probable cause	Corrective action
Add order was selected when the information in the position field was missing or incorrect.	Enter valid data in the position field.

Error code: 0155

Unable to delete assay (x), it is part of a batch order on the system.
x = Assay name

Probable cause	Corrective action
The assay is part of a batch order with a status of Pending.	To delete the assay without processing the batch, delete the batch and then delete the assay. To process the batch, delete the assay when the batch is complete.

Error code: 0156

Invalid entry, bar code SID must be unique.

Probable cause	Corrective action
The specified bar code SID is used for another control level in the same control lot or for another control.	Enter a unique bar code SID.

Error code: 0157

Invalid entry, day entered must be valid for the month and year specified.

Probable cause	Corrective action
The day of the month entered in the field is not correct for the month and year specified.	Enter the correct day for the month and year specified.

Error code: 0158

Invalid entry, month entered must be in the range (1 - 12).

Probable cause	Corrective action
The month entered is outside the range 1 - 12.	Enter a month from 1 - 12.

Error code: 0159

Invalid entry, year entered must be in range (1800 - 9999).

Probable cause	Corrective action
The year entered is outside the range 1800 - 9999.	Enter a year from 1800 - 9999.

Error code: 0160

Invalid entry, hour entered must be within range (0 - 23).

Probable cause	Corrective action
The hour entered is outside the range 0 - 23.	Enter an hour from 0 - 23.

Error code: 0161

Invalid entry, minute entered must be within range (0 - 59).

Probable cause	Corrective action
The minutes entered is outside the range 0 - 59.	Enter a value for minutes from 0 - 59.

Error code: 0162

System backup canceled, insufficient disk space for (x).
x = File name

Probable cause	Corrective action
There is not enough disk space to perform a backup procedure.	Contact your Area Customer Support. Please provide information specifying the operation you were attempting to perform when this error occurred.

Error code: 0164

Invalid request, select at least one restore option.

Probable cause	Corrective action
Done was selected without selecting a restore option (module calibrations, system configuration, or database).	Select at least one option from the **Restore** options list, and then select **Done**. To exit without performing a restore, select **Cancel**.

Error code: 0166

Batch (x) deleted. Batch was in process when the SCC was shut down.
x = Batch name

Probable cause	Corrective action
The batch was in process when the SCC was shutdown. All samples with a Scheduled or Running status go to exceptions.	1. Determine why the SCC was shutdown and correct the cause. 2. Rerun the tests in exceptions. 3. Order another batch for the remaining samples.

Error code: 0167

Invalid order, Carrier/Carousel and Position required for previously ordered Sample ID (x).
x = Sample ID

Probable cause	Corrective action
The same sample ID was found in one or more carrier/carousel positions and the carrier/carousel position was not specified for the test order.	Specify the carrier/carousel ID and position for each aliquot loaded when using multiple aliquots of the same sample ID.

Error code: 0168

Invalid entry, end date is earlier than the start date.

Probable cause	Corrective action
The end date entered is earlier than the start date.	Enter the correct date range.

Error code: 0169

Procedure not performed on selected day.

Probable cause	Corrective action
Details was selected from a Maintenance log for a date when the procedure was not run.	Select a date when the procedure was run, and then select **F5 - Details**.

Error code: 0170

Samples (x) were not processed in batch (y). Unable to read carrier label.
x = Range of Sample IDs that were not processed
y = Batch name

Probable cause	Corrective action
A non-bar coded batch is in process and the bar code label on the sample carrier can not be read by the sample ID bar code reader. The system assumes this carrier contains 5 samples for the batch, increments the sample ID by 5 samples, and does not process these samples.	1. Determine the samples present in the sample carrier that were not processed. 2. Place a new batch order for these samples. 3. Place the samples into a different sample carrier. 4. Refer to error code 4204, for corrective action, if error continues.

Error code: 0171

Invalid shutdown request, at least one module is currently Running.

Probable cause	Corrective action
• Shutdown was selected from the Snapshot screen when the status of at least one module was Running.	1. Pause the sample handler and all processing modules with a status of Running. See *System startup, pause, and shutdown*, page 5-3. 2. Shutdown the system when the status of all modules is Ready.
• Shutdown was selected from the Snapshot screen when the status of at least one module was Scheduled pause.	1. Wait until the status of the sample handler and all processing modules changes to Ready, or select the **sample handler** and/or **processing module** graphic, and then select **Stop**. 2. Shutdown the system when the status of all modules is Ready or Stopped.
• Shutdown was selected from the Snapshot screen when the status of at least one module was Maintenance.	1. Wait until all maintenance procedures are complete, or select the **sample handler** and/or **processing module** graphic, and then select **Stop**. 2. Shutdown the system when the status of all modules is Ready or Stopped.
• Shutdown was selected from the Snapshot screen while the ARM (Automatic Reconstitution Module) was transferring buffer to the wash buffer reservoir.	Shutdown the system when the ARM completes buffer transfer.

Error code: 0172

No assay found for reagent kit in section (x).
x = RSH section number

Probable cause	Corrective action
The assay file required for the reagent kit is either not installed or it is not the correct version.	Install the correct assay file. See *Install or delete an assay file*, page 2-139.

Error code: 0173

System restore canceled, backup version (x) and current software version (y) are incompatible.
x = Software version when backup was created
y = Current software version

Probable cause	Corrective action
Attempted to restore a backup with a database created with a different system software version number.	Select a backup created with the current version of system software.

Error code: 0174

Invalid order for Sample ID (x), Assay (y) disabled.
x = Sample ID
y = Assay name

Probable cause	Corrective action
Order was received with an assay that is disabled or patient disabled.	1. Change the availability of the assay when the reason for disabling the assay is corrected. See *Change the availability of an assay*, page 2-72. 2. Reorder the test.

Error code: 0175

Attempted to operate an un-initialized assembly (x).
x = Mechanism name

Probable cause	Corrective action
Hardware failure for mechanism indicated.	1. *Review message logs*, page 10-10, for any error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-11, if you do not find any error codes. 3. Perform the corrective action for the specific error code.

Error code: 0176

Invalid order, no control levels selected.

Probable cause	Corrective action
Add order was selected when no control level was selected.	Select one or more control levels.

Error code: 0177

Invalid order, Sample ID (x) exists for a different type of order (patient, calibrator, control or batch).
x = Existing Sample ID

Probable cause	Corrective action
The sample ID is already in use for an existing calibrator, control, patient, or batch order.	Assign a different sample ID for the order being created.

Error code: 0178

Unable to process test, Sample ID (x) currently configured as a control bar code SID.
x = Sample ID

Probable cause	Corrective action
A patient order was created using a previously assigned control bar code SID.	Re-order the test using a unique sample ID.

Error code: 0179

Data archive failed, previous archive still in progress.

Probable cause	Corrective action
Another archive was selected before the current archive was complete.	Request the new archive when the current archive is complete.

Error code: 0180

Unable to archive, insufficient disk space.

Probable cause	Corrective action
There is not enough space on the disk to archive the selected records.	Select fewer records to archive or insert a new disk.

Error code: 0181

Unable to archive, no disk or incorrect disk type detected.

Probable cause	Corrective action
• A disk wasn't placed in the CD drive.	Place a disk in the CD drive.
• An incorrect disk type was used.	Use a CD-R disk or non-formatted CD-RW disk.
• The disk is inserted upside down.	Turn the disk over and insert it in the drive.

Error code: 0182

Unable to archive, no CD drive detected.

Probable cause	Corrective action
• Software error	*Cycle power to the SCC*, page 5-5
• The CD-RW drive is not installed on the SCC.	Contact your Area Customer Support to resolve any hardware failure.
• Hardware failure: – Cables on the CD drive have a poor connection – CD drive – Power cable – Ribbon cable	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0183

Unable to archive, CD drive is initializing.

Probable cause	Corrective action
Done was selected before initialization was complete.	1. Select **OK** on the archive message, and then wait until initialization is complete. 2. Select **Done** to continue archiving.

Error code: 0184

Unable to archive, disk is read-only.

Probable cause	Corrective action
• A CD-ROM disk was left in the drive. Example: ARCHITECT System Assay CD-ROM, ARCHITECT System Maintenance and Diagnostic CD-ROM	Remove the CD-ROM disk and insert a CD-R or non-formatted CD-RW disk.
• The archive CD disk was used for procedures other than archive.	Use archive disk for archive only.

Error code: 0185

Unable to archive, Processing Module is not in the correct status.

Probable cause	Corrective action
Processing module status is Running, Scheduled pause, Initializing, or Scanning.	Perform the archive when the processing module status is Stopped, Offline, or Ready.

Error code: 0186

Unable to archive, archive device is in use.

Probable cause	Corrective action
The archive device is in the process of reading, writing, or initializing.	Archive results when the device is ready.

Error code: 0187

Data archive failed, duplicate archive file name found.

Probable cause	Corrective action
• Archive disk is used on multiple SCC systems which have the same ARCHITECT System number.	Verify the ARCHITECT System number matches the label on the SCC. If the number is not correct, contact your Area Customer Support.
• A write error occurred on an earlier archive attempt and could not be erased.	Use a different disk and archive.
• An archive was performed before and after a restore was performed.	Use a different disk and archive.

Error code: 0188

Data archive failed, CD tray is open.

Probable cause	Corrective action
After the CD drive was initialized, the CD tray was opened.	Close CD tray and start archive procedure.

Error code: 0189

Data archive failed, no disk found in drive.

Probable cause	Corrective action
A disk wasn't placed in the CD drive.	Place a CD-R disk or non-formatted CD-RW disk in the CD drive.

Error code: 0190

Data archive failed, incorrect disk type detected.

Probable cause	Corrective action
• An incorrect disk type was used.	Use a CD-R disk or non-formatted CD-RW disk.
• The disk is inserted upside down.	Turn the disk over and insert it in the drive.

Error code: 0191

Data archive failed, error reading/writing to disk.

Probable cause	Corrective action
• CD disk is dirty.	Clean disk. Refer to the CD cover for cleaning and handling procedures.
• CD disk is defective.	Use new disk.
• Hardware failure: – CD drive	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0192

Data archive failed, error verifying archive data on disk.

Probable cause	Corrective action
• CD disk is defective.	Use new disk.
• Hardware failure: – CD drive	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0193

Unable to archive, no archive data found. Refresh screen then select data to archive.

Probable cause	Corrective action
The screen was not refreshed before F8 - Archive was selected.	Select the **refresh** button, and then repeat the archive procedure. See *Archive stored patient results*, page 5-178 or *Archive stored control results*, page 5-190.

Error code: 0194

Unable to process test, invalid product type.

Probable cause	Corrective action
Reagent bottles for a STAT test are incorrectly loaded on an *i* 2000.	Load the reagent bottles on an ARCHITECT System with STAT test capability.

Error code: 0196

Unable to delete assay (x), pending orders exist for this assay.
x = Assay name

Probable cause	Corrective action
Attempted to delete an assay when pending or running orders exist for the assay.	Delete the pending orders or wait until the orders are complete before trying to delete the assay.

Error code: 0197

Missing entry, formula required.

Probable cause	Corrective action
A valid formula is not entered for a calculated assay.	Enter a valid formula for the calculated assay.

Error code: 0198

Unable to delete assay (x), the assay is a constituent of a calculated assay.
x = Assay name

Probable cause	Corrective action
Attempted to delete an assay that is a constituent for a calculated assay.	Delete or edit the calculated assay before deleting the constituent assay.

Error code: 0199

Unable to process test from sample carousel, invalid Processing Module for assay type.

Probable cause	Corrective action
A sample was loaded on the sample carousel with *i* System assays ordered.	Place the sample on the robotic sample handler to run the *i* System assays.

Error code: 0200

A two position reagent kit loaded in positions 25 and 1.

Probable cause	Corrective action
Bottles from a two-position reagent kit are loaded in positions 25 and 1 (not sequentially).	Load the reagents in sequential positions.

Error code: 0201

No bottle found where expected in position (x) on (y) carousel. Print reagent load error report.
x = Position in which the bottle was missing
y = Location in which the bottle was missing

Probable cause	Corrective action
• There is no bottle in the indicated position and carousel where expected.	Load the correct bottle with the kit in the correct position.
• Label on a bottle in the indicated position cannot be read.	Turn the reagent bottle to expose a different area of the bar code to the reader.

Error code: 0202

The reagent kit in position (x) has expired or exceeded the stability time.
x = Reagent carousel position

Probable cause	Corrective action
The indicated reagent is expired or has exceeded the onboard stability time.	Load a new, in-date reagent kit.

Error code: 0203

Unable to change configuration, Processing Module is not in the correct status.

Probable cause	Corrective action
The processing module status is Running, Scheduled pause, Initializing, or Scanning.	Perform required configuration changes when the processing module status is Offline, Stopped, Ready, or Warming.

Error code: 0204

Unable to process test, no Reagent kits available to run test on assigned Processing Module.

Probable cause	Corrective action
The processing module does not have adequate reagent on board to run the requested test. All of the reagent kits on the module for the assay are either empty, expired, or not calibrated.	Load the required reagent kit.

Error code: 0205

Wrong lot, component or serial number in position (x) on (y) carousel. Print reagent load error report.
x = Position in which the bottle was detected
y = Location in which the bottle was detected

Probable cause	Corrective action
A bottle with the wrong lot number, component ID, or serial number is loaded in the indicated position and carousel.	Load the correct bottle for the kit in the correct position.

Error code: 0206

Bottle mismatch in position (x) on (y) carousel, bottle is already part of another Reagent kit.
x = Position in which the bottle was detected
y = Location in which the bottle was detected

Probable cause	Corrective action
A bottle in the indicated position is already part of another reagent kit.	1. Print the reagent load error report to determine the kit causing the error. 2. Load the correct bottles for the reagent kit or load a new reagent kit.

Error code: 0207

Calibration version mismatch for reagent kit in position (x).
x = Reagent carousel position

Probable cause	Corrective action
Calibration version for the reagent kit on the processing module does not match the currently installed assay.	1. Load a reagent kit matching the currently installed assay version. **NOTE:** Deplete the supply of reagents for the old assay before installing the new assay. 2. Install the new assay file when the current supply of reagents is depleted. See *Install or delete an assay file*, page 2-139.

Error code: 0208

Reagent Carousel scan error, refer to Reagent status screen for details.

Probable cause	Corrective action
• Bottle mismatch, extra bottle is in the carousel, or the required bottle is missing.	1. View the reagent status screen and correct the indicated problem. 2. *Review message logs*, page 10-10, for any 0000 category error codes, if the cause is not obvious.
• Reagent bottle not loaded properly.	Reseat the reagent bottle.
• Label cannot be read on a bottle.	Clean the bottle label.
• The bar code reader requires calibration.	Perform ***bar code readers*** diagnostic procedure *3240 Bar Code Calibration*, page 10-613 for *i* 1000_{SR}.

Error code: 0209

Number of unreleased patient results reached limit. New orders will not be accepted.

Probable cause	Corrective action
The number of unreleased results has reached the limit.	Delete or release results, QC, exceptions, or pending orders before placing new orders.

Error code: 0210

Selected Carrier/Carousel and Position in use by another Sample ID (x), enter an available C/P.
x = Sample ID

Probable cause	Corrective action
The carrier/carousel and position is in use by another sample.	Enter a carrier/carousel and position number that is not currently in use.

Error code: 0211

Unable to process test(s), Sample ID (x) does not match scanned sample ID (y).
x = Sample ID ordered
y = Sample ID on sample tube at the bar code reader

Probable cause	Corrective action
• A carrier/carousel and position were assigned for a sample ID, then a different sample was placed into this carrier/carousel and position.	1. See the *Order status screen*, page 5-101, for carrier/carousel and position assignment. 2. Place the correct sample tube into the carrier/carousel position.
• Sample ID bar code reader requires calibration.	Perform ***bar code readers*** diagnostic procedure *3240 Bar Code Calibration*, page 10-613 for *i* 1000_{SR} if you have a robotic sample handler.

Error code: 0212

Run request denied. Solid Waste Container not present.

Probable cause	Corrective action
Waste container was not present in a processing module when run was selected.	Replace the solid waste container.

Error code: 0213

Batch is in process. Remaining unprocessed samples will be added to the batch unless you manually delete the batch.

Probable cause	Corrective action
A batch was in process when the sample handler was paused or the SCC was shutdown.	If you want the batch to continue, no corrective action is required. When you select run for the sample handler, batch processing continues. If you do not want the unprocessed samples remaining on the sample handler to be added to the current batch, delete the batch before restarting the sample handler.

Error code: 0214

Pause Load Queue before pressing reverse key.

Probable cause	Corrective action
• User selected reverse while the sample handler status is Running.	Pause the sample handler before pressing the reverse key.
• Hardware failure: – Keypad	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0215

Motor command aborted, operator requested Stop.

Probable cause	Corrective action
Unable to complete motor command, user selected stop.	*Start up the processing module and/or sample handler*, page 5-10, when the reason for the stop no longer exists.

Error code: 0216

Unable to process test, operator requested Stop or Processing Queue access door opened.

Probable cause	Corrective action
• User selected stop for the sample handler before the sample was aspirated.	Start up the sample handler when the reason for the stop no longer exists. See *Start up the processing module and/or sample handler*, page 5-10
• Processing queue access door was opened before the sample was aspirated.	Close the door and restart the run.

Error code: 0217

Unable to process test, specified Processing Module not available.

Probable cause	Corrective action
User specified a test be processed on a specific module, but the module is unable to process the test for one of the following reasons:	
• There are no reagent kits present for the assay.	Load reagents for the assay.
• All of the reagents kits on the module for the assay are either empty, expired, or not calibrated.	1. Replace empty or expired reagents. 2. Order a calibration for the assay if a calibration is not already in process.
• The module does not have sufficient supplies to run the assay.	1. Replace empty or expired supplies. 2. *Review message logs*, page 10-10, for any 2000 category error codes, if the cause is not obvious.
• The module status is not Running.	1. Select run for the processing module. 2. Wait for the processing module status to change to Running before processing tests.
• STAT protocol percentage set to None in the module configuration screen.	Select a STAT protocol percentage of Low, Medium, or High.
• Processing module stopped because of a previous hardware failure.	1. *Review message logs*, page 10-10, for any 5000 category error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-11, if you do not find any 5000 category error codes. 3. Perform the corrective action for the specific error code.

Error code: 0218

Unable to process test, no Processing Modules available.

Probable cause	Corrective action
User specified that the system automatically assign the test to a module, but none of the modules are able to process the test for one of the following reasons:	
• There are no reagent kits for the assay present on any of the modules with a status of Running.	Load reagents for the assay.
• All of the reagents kits for the assay on all the modules in the Ready or Running status are either empty, expired, or not calibrated.	1. Replace empty or expired reagents. 2. Order a calibration for the assay if a calibration is not already in process.
• None of the modules with a status of Running have sufficient supplies to run the assay.	1. Replace empty or expired supplies. 2. *Review message logs*, page 10-10, for any 2000 category error codes, if the cause is not obvious.
• No modules have a status of Running.	1. Select run for a processing module. 2. Wait for the processing module status to change to Running before processing tests.
• Processing modules are stopped because of a previous hardware failure.	1. *Review message logs*, page 10-10, for any 5000 category error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-11, if you do not find any 5000 category error codes. 3. Perform the corrective action for the specific error code.

Error code: 0219

Run request denied, at least one module must be Running.

Probable cause	Corrective action
Selected run for the sample handler when no modules have a status of Running.	Select run for a processing module.

Error code: 0220

Unable to perform requested operation, Processing Module not in correct status.

Probable cause	Corrective action
The processing module is not in the correct status to perform the requested activity.	Establish the correct module status, and then repeat the activity.

Error code: 0221

Invalid order, selected quality control levels do not all fit onto Carrier/Carousel (x).
x = Carrier/Carousel ID

Probable cause	Corrective action
The number of control levels ordered exceeds the number of available positions on the carrier/carousel. When requested with one control order, multiple control levels all must be run in one carrier/carousel.	1. Order fewer control levels for the selected carrier/carousel. 2. Create a new order for the remaining control levels on a new carrier/carousel.

Error code: 0222

Invalid entry, serial number (x) already exists.
x = Serial number currently in system

Probable cause	Corrective action
A serial number was entered that already exists in the SCC.	Enter a valid serial number. Example: i201099

Error code: 0223

Invalid password for (x), enter correct password.
x = User logon name

Probable cause	Corrective action
An invalid password was entered for the user who logged on.	Enter the correct password.

Error code: 0224

Invalid entry, the Sample Handler serial number must be 7 characters.

Probable cause	Corrective action
A sample handler serial number was entered that did not contain 7 characters.	Enter the sample handler serial number in the correct format. Example: SH01175

Error code: 0225

Invalid entry, date entered must be in range January 1, 1970 to February 5, 2036.

Probable cause	Corrective action
The date entered is outside the range January 1, 1970 - February 5, 2036.	Enter the correct date within the range January 1, 1970 - February 5, 2036.

Error code: 0226

Unable to perform Unload, Wash Buffer reservoir empty.

Probable cause	Corrective action
• Wash buffer container is already empty.	No corrective action is required.
• Wash buffer transfer tubing is not properly connected or is crimped.	Reconnect all tubing and repeat maintenance procedure.
• Hardware failure: • Buffer level sensor connection is loose • Buffer level sensor failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0227

Invalid entry, Manual dilution factor not within range of (2 - 999).

Probable cause	Corrective action
A manual dilution factor less than 2 or greater than 999 was entered.	Enter a value from 2 - 999.

Error code: 0228

Invalid request, Manual dilution must be defined before selecting assay(s).

Probable cause	Corrective action
Assays for a patient or control order were selected before the manual dilution factor was entered.	Define the manual dilution option prior to selecting assays for a patient order. Enter a value in the **Sample manual dilution factor** data entry box, and then select the desired assays from the **Assays** list.

Error code: 0229

Unable to perform Automatic Flush for (x), system door open.
x = Inventory item

Probable cause	Corrective action
• A door or cover is open on the processing module.	Close the door or cover when the reason for opening no longer exists.
• Hardware failure: – Sensors	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0230

Duplicate Carrier (x) detected.
x = Carrier ID

Probable cause	Corrective action
Sample carrier cannot be re-used while tests are still in process.	Wait until tests are complete before re-using a sample carrier.

Error code: 0231

Reagent carousel cover has been open for 30 minutes, close cover or remove reagents.

Probable cause	Corrective action
Reagent carousel cover has been open for more than 30 minutes.	Close the reagent carousel cover or remove reagents.

Error code: 0232

Override for cover interlocks configured to On, all tests will be sent to exception.

Probable cause	Corrective action
Override for cover interlocks is set to on in the module configuration screen.	1. Status message. No corrective action is required. All tests become exceptions. The PMT does not read with covers open. 2. Contact your Area Customer Support, if results are desired.

Error code: 0233

Unable to delete control, order(s) are pending for this Lot no. and Level.

Probable cause	Corrective action
Attempted to delete a control level when orders are pending for this level.	Archive all QC results for the control level before deleting the level.

Error code: 0234

Invalid order, starting Sample ID is missing.

Probable cause	Corrective action
The starting sample ID field is empty.	Enter a valid starting sample ID.

Error code: 0235

Unable to delete control level, result(s) exist for this Lot no. and Level.

Probable cause	Corrective action
Attempted to delete a control level when orders are pending or results exist for this level.	1. *Archive stored control results*, page 5-190, with **Delete records after archive** check box selected. 2. Delete all pending orders for the control level.

Error code: 0236

Invalid request, Processing Module not in the correct status for backup or restore.

Probable cause	Corrective action
Attempted to create a backup or restore when the status of one or more modules is Running.	1. Pause all modules. Pause the sample handler and *Pause the processing module*, page 5-11. 2. Repeat the backup or restore procedure, when the processing module status is Ready.

Error code: 0237

Invalid automatic system backup request, Processing Module status must be Stopped or Ready.

Probable cause	Corrective action
Feature not available at this time.	Status message. No corrective action is required.

Error code: 0238

Invalid order, ending Sample ID is missing.

Probable cause	Corrective action
The ending sample ID field is empty.	Enter a valid ending sample ID.

Error code: 0239

Run request denied, Processing Module hardware failure.

Probable cause	Corrective action
A previous hardware failure is preventing the Run initialization. Module status changes to Stopped.	1. Wait until all tests in process are completed. 2. *Review message logs*, page 10-10, for any error codes that occurred at the same time as this message. 3. *View low level error messages*, page 10-11, if you do not find any error codes. 4. Perform the corrective action for the specific error code.

Error code: 0240

Run request denied, Sample Handler hardware failure.

Probable cause	Corrective action
User selected run after a hardware failure.	1. Wait until the sample handler is Stopped. 2. *Review message logs*, page 10-10, for any error codes that occurred at the same time as this message. 3. *View low level error messages*, page 10-11, if you do not find any error codes. 4. Perform the corrective action for the specific error code. **NOTE:** If the hardware failure is not corrected and run is selected again for the sample handler, no error message is displayed and the sample handler status does not change to Running.

Error code: 0241

Invalid entry, date of birth must be today's date or earlier.

Probable cause	Corrective action
A birth date later than today's date was entered.	Enter a valid birth date.

Error code: 0242

Bottle mismatch in the (x) reagent carrier position in section (y), bottle is part of another Reagent kit.
x = Reagent carrier position in which the bottle was detected
y = RSH section number

Probable cause	Corrective action
A bottle in the indicated position is already part of another reagent kit.	Load the correct bottles for the reagent kit or load a new reagent kit.

Error code: 0243

Unable to change configuration, (x) not in the correct state.
x = Sample handler or modules.

Probable cause	Corrective action
Attempted to configure settings while the sample handler status is Running, or configure assays while a processing module status is Running.	1. Pause the sample handler or *Pause the processing module*, page 5-11. 2. Perform the required configuration when the module status is Ready.

Error code: 0244

Version mismatch for reagent kit in position (x).
x = Reagent carousel position.

Probable cause	Corrective action
The Reagent Configuration Version of the onboard reagent kit is not the expected value. **NOTE:** This error occurs if Clinical Investigation reagents or assay files are used. Clinical Investigation reagent bottles contain the text Investigational Use Only. Clinical Investigation assay files Cal Version parameter is 0 (zero).	Load the expected kit or assay file.

Error code: 0245

Invalid entry. The value for (x) must be less than the value for (y).
x = Field with invalid entry
y = Field with invalid entry

Probable cause	Corrective action
Minimum must be less than the value for maximum.	Enter a number for parameter (x) that is less than parameter (y).

Error code: 0246

Invalid entry. The value for (x) must be less than or equal to the value for (y).
x = Field with invalid entry
y = Field with invalid entry

Probable cause	Corrective action
Minimum range must be less than or equal to the value for maximum range.	Enter a value for parameter (x) that is less than or equal to parameter (y).

Error code: 0247

Invalid entry. One or more fields are empty. Enter valid data.

Probable cause	Corrective action
One or more data fields are empty.	Enter valid data in the empty fields.

Error code: 0248

Input out of range.

Probable cause	Corrective action
The number entered is outside the specified range.	Enter a number within the acceptable range.

Error code: 0249

Invalid entry, the Processing Module serial number must be in the correct format.

Probable cause	Corrective action
Processing module serial number entered is not in the correct format.	Enter the processing module serial number in the correct format.

Error code: 0250

The starting Sample ID plus the number of samples exceeds the maximum Sample ID: (x) allowed.
x = Maximum Sample ID allowed

Probable cause	Corrective action
No orders can be added in a non-bar coded batch order type for patient orders because the ending sample ID number is greater than 999,999,999.	Re-enter a valid starting sample ID that is less than the maximum sample ID number allowed. The rule is: starting SID + number of samples must be less than or equal to the maximum sample ID number allowed. • The maximum sample ID must be less than or equal to 9 characters. • The maximum number of samples allowed in a non-bar coded batch is 5000.

Error code: 0251

Calibration canceled, calibrator detected during a batch run.

Probable cause	Corrective action
A calibrator was identified at the sample ID bar code reader when a batch was in process. The batch continues processing.	Wait until the batch has finished processing before running calibrators. **Or** Terminate the batch in process then run the calibration, if a calibration is required immediately.

Error code: 0252

Duplicate Sample ID (x) detected in the batch (y), sample is ignored.
x = Sample ID
y = Batch name

Probable cause	Corrective action
In a bar coded batch, a sample was detected with the same sample ID as a sample already in process.	Rerun the ignored sample.

Error code: 0253

Duplicate Sample ID detected at (x) in batch (y). No batch orders are created.
x = Carrier and Position of sample
y = Batch name

Probable cause	Corrective action
In a non-bar coded batch one of two situations occurred: • The batch contains the same sample ID as a bar coded sample detected during the batch. • Two non-bar coded batches have overlapping sample IDs and neither of the sample IDs have completed processing.	Order and run the batch tests for the sample at the carrier and position indicated in the message.

Error code: 0254

Unable to process control (x), ID is assigned to more than one control for assay (y).
x = Control ID
y = Assay name

Probable cause	Corrective action
The same bar code SID number is assigned to two different levels within the same control lot number.	Delete the ID number for controls that are not used or assign a different ID number to the new controls.

Error code: 0255

Batch Sample ID (x) not processed, unable to read bar code in C/P: (y).
x = Batch name
y = Carrier and Position

Probable cause	Corrective action
The carrier position number cannot be read by the bar code reader.	Place a new batch order for the samples that are not processed.

Error code: 0256

Invalid entry. The LAS serial number must be 8 characters and in the correct format.

Probable cause	Corrective action
The LAS serial number is entered incorrectly. It must be 8 characters and in the correct format.	Enter the LAS serial number with 8 characters and in the correct format. Example: LAS00102

Error code: 0257

Invalid order, starting carousel position plus number of calibrators cannot exceed 20.

Probable cause	Corrective action
The number of calibrator levels exceeds the number of available positions on the LAS carousel. Example: When creating a 2-point Adjust calibration order, the starting position cannot be position 20.	Create a new order for the calibration.

Error code: 0258

C/P (x) already in use and is ignored in batch (y). An additional position will be added to batch.
x = Carrier and position of the sample.
y = Batch name

Probable cause	Corrective action
A sample carrier, in which tests were still in process, was used to load a sample for a non-bar coded batch. The position is not included in the batch and an additional position is added to the end of the batch to complete the defined number of samples. If a sample is in the added position, results are generated.	1. *Create a patient order (single order)*, page 5-76, for the sample not included in the batch. 2. Delete the additional batch sample result, if generated and not required. See *Delete a patient result*, page 5-151.

Error code: 0259

Invalid entry, SID field must not start with zero in a non-bar coded batch order.

Probable cause	Corrective action
In a non-bar coded batch order the Sample ID was started with a zero.	Enter a number (1-9) as the first digit in the **SID** data entry box.

Error code: 0260

Invalid entry, Sample ID length cannot exceed 20 characters.

Probable cause	Corrective action
The sample ID in a patient order is greater than 20 characters long.	Enter a sample ID with 20 characters or less.

Error code: 0261

Invalid entry, Sample ID length cannot exceed 9 characters in a non-bar coded batch order.

Probable cause	Corrective action
The sample ID in a non-bar coded batch order is greater than 9 numeric characters.	Enter a sample ID with 9 numeric characters or less.

Error code: 0262

The reagent kit in section (x) has expired.
x = RSH section number

Probable cause	Corrective action
The indicated reagent is expired.	Load a new, in-date reagent kit. See *Load reagents on the RSH (i 1000$_{SR}$)*, page 5-61.

Error code: 0263

A panel with the same name exists on the system. Choose a different panel name.

Probable cause	Corrective action
A panel with the same name exists.	Enter a different panel name.

Error code: 0264

A panel name must be defined and a panel type must be selected before a panel can be configured.

Probable cause	Corrective action
A panel name was not entered and/or a panel type was not selected.	Enter a panel name or select a panel type.

Error code: 0265

A panel should have at least 2 assays selected.

Probable cause	Corrective action
A panel was configured with less than 2 assays.	Select 2 or more assays when configuring a panel.

Error code: 0266

Invalid entry, at least one dilution replicate must be entered.

Probable cause	Corrective action
The number of replicates was not entered for an automated or manual dilution.	Enter a number from 1-10 in the replicates field for an automated or manual dilution.

Error code: 0267

The reagent kit in section (x) has exceeded stability time.
x = RSH section number

Probable cause	Corrective action
The indicated reagent has exceeded the onboard stability time.	Load a new, in-date reagent kit. See *Load reagents on the RSH (i 1000$_{SR}$)*, page 5-61.

Error code: 0268

Carrier pick attempt failed at bay (x) section (y).
x = Bay number
y = Section number

Probable cause	Corrective action
• Carrier is inserted backwards in the tray or priority position.	Reposition the carrier in the tray or priority position.
• Carrier is damaged.	Rerun the sample in a different carrier.
• The insertion sensor is tripped when you dropped a carrier back into the priority bay during removal.	Reposition the carrier in the priority section.
• Hardware failure: – Section carrier detect sensor – Carrier transport flex board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0269

The reagent kit in section (x) has expired and exceeded stability time.
x = RSH section number

Probable cause	Corrective action
The indicated reagent is expired and has exceeded the onboard stability time.	Load a new, in-date reagent kit. See *Load reagents on the RSH (i 1000$_{SR}$)*, page 5-61.

Error code: 0270

Insufficient consecutive positions available for calibration order. (x) sample positions required.
x = Number of sample positions required for the calibration order

Probable cause	Corrective action
For carriers:	
• The number of positions required for the calibration order exceeds the maximum number of positions in five consecutive carriers.	1. Deselect assays from the calibration order to decrease the number of calibrators required for the order. 2. Create a new calibration order for the deselected assays.
• The starting carrier ID plus the number of samples for calibration exceeds the range (C001-C999) for the carrier. Starting carrier ID cannot be greater then 995.	Re-enter a valid starting carrier ID. Start with a carrier with a lower number.
For carousels:	
• The number of positions required for the calibration order exceeds the number of available positions on the carousel.	1. Deselect assays from the calibration order to decrease the number of calibrators required for the order. 2. Create a new calibration order for the deselected assays.

Error code: 0271

Invalid entry, missing draw date or draw time.

Probable cause	Corrective action
In the patient demographics field, draw date or draw time is empty.	Enter draw date and draw time or leave both empty.

Error code: 0272

Draw date must be greater than January 1, 1970 and less than the current system time.

Probable cause	Corrective action
• A draw date earlier than January 1, 1970 was entered in the patient demographics field.	Enter a draw date greater than January 1, 1970.
• A draw date and time was entered with the current date but with the time later than the current time defined for the system.	Enter a draw time that is less than the current system time.

Error code: 0273

Priority carrier in bay (x) section (y) was removed before access was granted.
x = Bay number
y = Section number

Probable cause	Corrective action
• A priority carrier was removed before the access indicator was activated.	Restart the RSH. See *Start up the processing module and/or sample handler*, page 5-10.
• The insertion sensor is tripped when you dropped a carrier back into the priority bay during removal.	Reposition the carrier in the priority section.
• Hardware failure: – Carrier/tray sensor – Unit detect board – Sensor interface board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0274

Tray in bay (x) was removed before access was granted.
x = Bay number

Probable cause	Corrective action
• A tray was removed before the access indicator was activated.	Restart the RSH. See *Start up the processing module and/or sample handler*, page 5-10.
• A tray is defective.	Replace tray.
• Hardware failure: – Carrier/tray sensor – Sensor interface board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0275

Unable to process test, ICT reference solution inventory empty.

Probable cause	Corrective action
• ICT Reference Solution bottle is empty.	Load a new bottle and update the inventory. **NOTE:** ICT Reference Solution can **only** be loaded when the processing module status is Stopped, Ready, or Warming.
• The supplies screen was not updated when the ICT Reference Solution bottle was replaced.	Update the inventory.
• ICT Reference Solution bottle was removed from the weight platform during the run.	1. Seat the bottle correctly on the weight platform. 2. Update the inventory.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0276

Invalid selection, a maximum of four constituent assays can be used in the formula.

Probable cause	Corrective action
Selected more than four constituent assays for a calculated assay.	Select four or less assays for the calculated assay.

Error code: 0277

Selected carrier/carousel and position in use by another control order for SID (x). Enter an available C/P.
x = Sample ID

Probable cause	Corrective action
Carrier/carousel and position is in use by another control order.	Enter a carrier/carousel and position number that is not currently in use.

Error code: 0278

User defined reagent kit in position (x) was unassigned, bar coded cartridge scanned in same position.
x = Reagent carousel segment and position

Probable cause	Corrective action
A bar coded reagent cartridge is loaded in a position in which a non-bar coded reagent was manually assigned.	1. If the non-bar coded reagent was moved to a different position, assign the new position. 2. If the non-bar coded reagent is no longer onboard, no action is required until the reagent is loaded again. At that time, assign a new position.

Error code: 0279

Invalid number of cartridges detected for (x) carousel segment (y) during reagent scan.
x = Carousel
y = Segment

Probable cause	Corrective action
Hardware failure: – Mislabeled reagent segment	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0280

Reagent kit in position (x) on carousel (y) is missing a required bottle. Print reagent load error report.
x = Reagent segment and position
y = Reagent carousel

Probable cause	Corrective action
• The R1 reagent is onboard but the R2 reagent is not loaded, or the R2 reagent is onboard and the R1 reagent is not loaded.	Load both the R1 and R2 reagent cartridges. **NOTE:** For the *c* 16000 processing module ensure the R1 and R2 cartridges are both loaded in either the outer (A-line) or inner (B-line) carousels.
• The R1 or R2 reagent is already linked to a different kit.	Replace with a new unused cartridge if a reagent cartridge was used in a previous reagent kit.
• A reagent with a 1D (one-dimensional) bar code label matches a manually configured reagent kit. A manually configured reagent kit requires the R1 and R2 reagent to have the same serial number.	Delete the manually configured kit.

Error code: 0281

Reagent kit in location (x) has component(s) loaded in wrong carousel(s).
x = Reagent carousel segment and position

Probable cause	Corrective action
• The reagent cartridge was placed in the wrong reagent supply center.	Move the reagent cartridge to the correct reagent supply center.

Error code: 0282

Invalid selection, each reagent supply center position must have different solution.

Probable cause	Corrective action
The same onboard solution is selected for more than one reagent supply center position on the Configure reagents - supplies screen.	Select a different onboard solution option for each reagent supply center position.

Error code: 0283

A control with the same name already exists. Choose a different multiconstituent control name.

Probable cause	Corrective action
The multiconstituent control name entered is already in use.	Enter a different control name.

Error code: 0284

Unable to add control level, all data not defined for assays. Define data or delete assay.

Probable cause	Corrective action
The manufacturer mean and SD and/or expected mean and SD are not defined for one or more assays.	Enter values for the manufacturer mean and SD and for the expected mean and SD for all assays.

Error code: 0285

Invalid entry, the RSH serial number must be 8 characters and in the correct format.

Probable cause	Corrective action
The RSH serial number is entered incorrectly. It must be 8 characters and start with RSH.	Enter the RSH serial number with 8 characters and in the correct format. Example: RSH00103

Error code: 0286

Carrier detected in bay (x) section (y).
x = Bay number
y = Section number

Probable cause	Corrective action
• A carrier was placed in a priority section that was not available.	Remove the carrier from the priority section.
• Hardware failure: – Section carrier detect sensor failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0287

Invalid batch order, Sample ID (x) already defined for batch (y).
x = Sample ID
y = Batch name

Probable cause	Corrective action
The starting sample ID for the bar coded batch matches the starting sample ID of an existing batch on the system.	Enter a unique starting sample ID for the batch order.

Error code: 0288

Selected Carrier/Carousel and Position in use by batch (x). Enter an available C/P.
x = Batch name

Probable cause	Corrective action
The starting carrier ID and position for the non-bar coded batch matches the starting carrier ID and position for an existing batch on the system.	Enter a unique starting carrier ID/position for the batch order.

Error code: 0289

Unable to process test, sample removed from system.

Probable cause	Corrective action
The carrier or tray was removed from the RSH before the test or retest was aspirated.	Replace the sample on the RSH and rerun the exception.

Error code: 0290

Unable to process test, no sample diluent available.

Probable cause	Corrective action
• The required sample diluent is not loaded.	Load sample diluent.
• The required sample diluent is empty.	Replace sample diluent.

Error code: 0291

Unable to process test, sample handler not in the correct status.

Probable cause	Corrective action
The sample handler status is not Scheduled pause or Running.	Start up the sample handler. See *Start up the processing module and/or sample handler*, page 5-10.

Error code: 0292

The reagent bottle in position (x) on carousel (y) has an undefined reagent name (z).
x = Reagent carousel segment and position
y = Reagent carousel
z = Scanned reagent name (first 5 digits of the bar code)

Probable cause	Corrective action
• A new reagent with a 1D (one-dimensional) bar code label was loaded and scanned before the new reagent was configured.	Configure the new reagent before scanning the 1D bar code.
• The reagent name defined for a reagent is not identical to the first 5 digits of the 1D bar code label.	1. Configure the reagent ensuring the reagent name is identical to the first five digits of the 1D bar code label. 2. Delete the incorrectly defined reagent, if desired.
• The 1D bar code label did not print correctly and the first 5 digits do not match the first 5 digits of the defined reagent name.	Reprint the 1D bar code labels ensuring the first five digits are identical to the defined reagent name.

Error code: 0293

Carrier detected in section (x).
x = RSH section number

Probable cause	Corrective action
• A carrier was placed in a section that was not available.	Remove the carrier from the section.
• Hardware failure: – Section carrier detect sensor – Carrier sensor arm – RSH distribution board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0294

Carrier pick attempt failed at section (x).
x = RSH section number

Probable cause	Corrective action
• Carrier is inserted backwards in the section.	Reposition the carrier in the section.
• Carrier is damaged.	Use a different carrier.
• Hardware failure: – Rail guide sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0295

Carrier in section (x) was removed before access was granted.
x = RSH section number

Probable cause	Corrective action
• A carrier was removed before the access indicator was activated.	Restart the RSH. Start up the processing module and/or sample handler.
• A carrier is not seated in the section.	Remove and reseat the carrier. Restart the RSH. See *Start up the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Section carrier detect sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0296

Carrier pick attempt failed at reagent carousel position (x).
x = Reagent carousel position

Probable cause	Corrective action
• Reagent carrier is not seated correctly in the reagent carousel.	Remove the reagent carrier and perform a startup on the RSH.
• Carrier is damaged.	Use a different carrier.
• Hardware failure: – Rail guide sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0297

Processing module stopped, RV unloader removed.

Probable cause	Corrective action
• RV unloader was removed during initialization or while the system was running.	Ensure that the RV unloader is placed in the unload position.
• Hardware failure: – RV unloader sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0299

No bottle found in the (x) reagent carrier position in section (y). Print reagent load error report.
x = Reagent carrier position in which the bottle was missing
y = RSH section number

Probable cause	Corrective action
• There is no bottle in the indicated reagent carrier position where expected.	Load the correct bottle with the kit in the correct reagent carrier position.
• Label on a bottle in the indicated reagent carrier position cannot be read.	Turn the reagent bottle to expose a different area of the bar code to the reader. See *Load reagent bottles into reagent carrier(s) (i 1000$_{SR}$)*, page 5-59.

Error code: 0300

Run request denied, hardware failure.

Probable cause	Corrective action
Hardware failure on a mechanism.	1. *Review message logs*, page 10-10, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-11, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 0301

Unable to process test, hardware failure.

Probable cause	Corrective action
Hardware failure on an item unique to either a one-step test or two-step test.	1. *Review message logs*, page 10-10, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-11, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 0302

Unable to process test, hardware failure or the user pressed Stop.

Probable cause	Corrective action
• User selected stop.	*Start up the processing module and/or sample handler*, page 5-10, when the reason for the stop no longer exists.
• Hardware failure	1. *Review message logs*, page 10-10, for any 0304 error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-11, if you do not find any 0304 error codes. 3. Perform the corrective action for the specific error code.

Error code: 0303

Unable to process test, hardware failure or inventory item limited.

Probable cause	Corrective action
The processing module status changed to Scheduled pause before this test arrived at the module. This happened for one of the following reasons:	
• User selected pause.	Restart the processing module or sample handler when the reason for the pause no longer exists.

Probable cause	Corrective action
• An inventory item is limited on the module.	Review the Supplies status screen. Add and update the supplies. See *Verify supply and waste inventory*, page 5-20. **NOTE:** Pre-Trigger and Trigger Solutions can only be loaded when the processing module status is Stopped, Ready, or Warming. Wash buffer can be loaded when the processing module is in any status except Initializing, Stopped, or Offline.
• A hardware failure occurred.	1. *Review message logs*, page 10-10, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-11, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 0304

(x) failure.
x = Mechanism name

Probable cause	Corrective action
Hardware failure for the mechanism indicated.	1. *Review message logs*, page 10-10, for any error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-11, if you do not find any error codes. 3. Perform the corrective action for the specific error code.

Error code: 0305

The One Step assay is disabled due to a hardware failure.

Probable cause	Corrective action
Hardware failure on an item required for processing a one-step assay.	1. *Review message logs*, page 10-10, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-11, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 0306

The Two Step assay is disabled due to a hardware failure.

Probable cause	Corrective action
Hardware failure on an item required for processing a two-step assay.	1. *Review message logs*, page 10-10, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-11, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 0307

Attempted to operate an un-initialized assembly (x).
x = Mechanism name

Probable cause	Corrective action
Hardware failure for mechanism indicated.	1. *Review message logs*, page 10-10, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-11, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 0308

The (x) assay is disabled due to a hardware failure.
x = Assay type

Probable cause	Corrective action
Hardware failure on an item required for processing the specified assay type.	1. *Review message logs*, page 10-10, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-11, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 0310

Unable to process test, sample pipettor failed at sample cup/tube.

Probable cause	Corrective action
• Test is not processed due to sample pipettor that is left in the sample cup or tube due to: – User selected stop for the processing module. **Or** – Damaged pipettor.	1. Start up the processing module to remove the probe from the sample cup or tube. See *Start up the processing module and/or sample handler*, page 5-10. 2. Contact your Area Customer Support to resolve any hardware failure, if the error continues.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0311

Unable to process test, sample handler component failed.

Probable cause	Corrective action
A sample handler component failed and the sample could not be delivered to the aspiration location.	1. *Review message logs*, page 10-10, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-11, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 0314

Control point excluded.

Probable cause	Corrective action
User excluded a control point, data is logged to QC log.	Status message. No corrective action is required.

Error code: 0315

Control point excluded by system.

Probable cause	Corrective action
System excluded a control point, data is logged to QC log.	Status message. No corrective action is required.

Error code: 0316

RV hopper door solenoid activation attempted.

Probable cause	Corrective action
Solenoid activation attempted which allows RV to drop from the upper hopper to the lower hopper.	Status message. No corrective action is required.

Error code: 0317

Processing module stopped, no RV detected in process path.

Probable cause	Corrective action
RV (reaction vessel) inventory is empty.	1. Replenish RVs and update inventory (*i* 1000_{SR}). 2. Start up the processing module. See *Start up the processing module and/or sample handler*, page 5-10.

Error code: 0350

Unable to process test, lamp failure.

Probable cause	Corrective action
An optics or lamp error occurred before or during processing of this test.	1. *Review message logs*, page 10-10, for any 6500 category error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-11, if you do not find any 6500 category error codes. 3. Perform the corrective action for the specific error code.

Error code: 0351

Unable to process test, water bath level low or temperature out of range.

Probable cause	Corrective action
Water bath level or temperature error occurred while processing the test.	1. *Review message logs*, page 10-10, for any water bath level or temperature error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-11, if you do not find any water bath level or temperature category error codes. 3. Perform the corrective action for the specific error code.

Error code: 0352

Unable to process test due to previous processing module error.

Probable cause	Corrective action
The test was not processed due to a previous failure on the processing module.	1. *Review message logs*, page 10-10, for any error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-11, if you do not find any error codes. 3. Perform the corrective action for the specific error code.

Error code: 0353

System is configured to run in exhibition mode.

Probable cause	Corrective action
Hardware failure: – CPU board is configured for Exhibition Mode.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0400

Control point excluded by system, outside (x) standard deviation limit.
x = Standard deviation limit.

Probable cause	Corrective action
Control point excluded. The value is outside the system configured standard deviation limit, data is logged to QC log.	1. Verify the correct level was run. 2. See Observed Problems for corrective action. See *Controls out of range (i System)*, page 10-527. 3. Rerun the same control level(s) after performing corrective action.

Error code: 0401

System QC inhibits Assay (x) on Processing Module (y).
x = Assay name
y = Processing module number (1-4)

Probable cause	Corrective action
Feature not available at this time.	Status message. No corrective action is required.

Error code: 0402

Westgard rule (x) enabled for Assay (y).
x = Name of Westgard rule
y = Assay name

Probable cause	Corrective action
A Westgard rule was enabled for the specified assay, information is logged to QC log.	Status message. No corrective action is required.

Error code: 0403

Westgard rule (x) disabled for Assay (y).
x = Name of Westgard rule
y = Assay name

Probable cause	Corrective action
A Westgard rule was disabled for the specified assay, information is logged to QC log.	Status message. No corrective action is required.

Error code: 0404

Westgard rule (x) for Assay (y) changed to Failure.
x = Name of Westgard rule
y = Assay name

Probable cause	Corrective action
A Westgard rule was changed from Warning to Failure for the specified assay, information is logged to QC log.	Status message. No corrective action is required.

Error code: 0405

Westgard rule (x) assay (y) changed to Warning.
x = Name of Westgard rule
y = Assay name

Probable cause	Corrective action
A Westgard rule was changed from Failure to Warning for the specified assay, information is logged to QC log.	Status message. No corrective action is required.

Error code: 0406

Control configuration, original data.

Probable cause	Corrective action
The control configuration was edited for a defined control level, information is logged to QC log.	Status message. No corrective action is required.

Error code: 0407

Control configuration, current data.

Probable cause	Corrective action
The control configuration was edited for a defined control level, information is logged to QC log.	Status message. No corrective action is required.

Error code: 0408

Control point included.

Probable cause	Corrective action
User included a control point, data is logged to QC log.	Status message. No corrective action is required.

Error code: 0409

Units changed for Assay (x) number (y). Existing QC values will be excluded from the QC data plot.
x = Assay name
y = Assay number

Probable cause	Corrective action
The unit used to report results for the indicated assay was changed. All QC results for the previous units will be excluded from the QC data Levey-Jennings plot. Excluded data is not used during Westgard analysis.	Status message. No corrective action is required.

Error code: 0411

System QC uninhibits Assay (x) on Processing Module (y).
x = Assay name
y = Processing module number (1-4)

Probable cause	Corrective action
Feature not available at this time.	Status message. No corrective action is required.

Error code: 0412

Operator inhibits Assay (x) on Processing Module (y).
x = Assay name
y = Processing module number (1-4)

Probable cause	Corrective action
Feature not available at this time.	Status message. No corrective action is required.

Error code: 0413

Operator uninhibits Assay (x) on Processing Module (y).
x = Assay name
y = Processing module number (1-4)

Probable cause	Corrective action
Feature not available at this time.	Status message. No corrective action is required.

Error code: 0414

Westgard Warning (x) received for control.
x = Assay name, control name, control level, Westgard rule symbolic name.

Probable cause	Corrective action
The control received a Westgard Warning flag.	1. Review QC results for specified control. 2. See Observed Problems for corrective action. See *Controls out of range (i System)*, page 10-527. 3. Rerun the same control level(s) after performing corrective action.

Error code: 0415

System QC excludes result, Westgard rule (x) was activated.
x = Name of Westgard rule

Probable cause	Corrective action
Feature not available at this time.	Status message. No corrective action is required.

Error code: 0416

Westgard Failure (x) received for control.
x = Assay name, control name, control level, Westgard rule symbolic name.

Probable cause	Corrective action
The control received a Westgard failure flag.	1. Review QC results for specified control. 2. See Observed Problems for corrective action. See *Controls out of range (i System)*, page 10-527. 3. Rerun the same control level(s) after performing corrective action.

Error code: 0418

Lot (x) for control (y) is the default lot.
x = Default control lot number
y = Control name

Probable cause	Corrective action
Control configuration was edited for a defined control level, information is logged to QC log.	Status message. No corrective action is required.

Error code: 0419

Westgard Run Specification changed.

Probable cause	Corrective action
Changed the Westgard time limit definition for a Run. Action performed by an Abbott Representative at the request of the customer.	Status message. No corrective action is required.

Error code: 0420

Westgard failure auto-exclusion feature enabled.

Probable cause	Corrective action
Changed the Westgard failure auto-exclusion from FALSE to TRUE. Action performed by an Abbott Representative at the request of the customer.	Status message. No corrective action is required.

Error code: 0421

Westgard failure auto-exclusion feature disabled.

Probable cause	Corrective action
Changed the Westgard failure auto-exclusion from TRUE to FALSE. Action performed by an Abbott Representative at the request of the customer.	Status message. No corrective action is required.

Error code: 0422

Control result outside (x) standard deviation auto-exclusion feature enabled.
x = Standard Deviation limit

Probable cause	Corrective action
Changed the Westgard Standard Deviation Limit or changed the statistical accumulation criteria from FALSE to TRUE. Action performed by an Abbott Representative at the request of the customer.	Status message. No corrective action is required.

Error code: 0423

Control result outside (x) standard deviation auto-exclusion feature disabled.
x = Standard Deviation limit

Probable cause	Corrective action
Changed the Westgard Standard Deviation Limit or changed the statistical accumulation criteria from TRUE to FALSE. Action performed by an Abbott Representative at the request of the customer.	Status message. No corrective action is required.

Error code: 0424

Reduction of lot or level limits not allowed.

Probable cause	Corrective action
Changed the Westgard control configuration limits to a smaller size. Action performed by an Abbott Representative at the request of the customer.	Status message. No corrective action is required.

Error code: 0500

Operator requested Stop on Sample Handler.

Probable cause	Corrective action
Unable to complete the motor command because user selected stop.	Start up the sample handler when the reason for the stop no longer exists. See *Start up the processing module and/or sample handler*, page 5-10.

Error code: 0501

Power On Self Test (POST) starting on module (x).
x = Module Number (0-4)

Probable cause	Corrective action
Power on self tests (POST) are starting on the indicated module.	Status message. No corrective action is required.

Error code: 0502

Optics values modified.

Probable cause	Corrective action
The optics values for linearity or normalization were modified by the user.	Status message. No corrective action is required.

Error code: 0503

System Control Center (SCC) shutdown.

Probable cause	Corrective action
System control center shutdown correctly.	Status message. No corrective action required.

Error code: 0504

User (x) logged on.
x = User name

Probable cause	Corrective action
The indicated user successfully logged on the system control center.	Status message. No corrective action is required.

Error code: 0505

Configuration changes take effect next time SCC is started.

Probable cause	Corrective action
Edited serial port configuration.	*Cycle power to the SCC*, page 5-5, for new configuration to take effect.

Error code: 0506

Retest rule (x) for Assay number (y) was deleted because an assay required for this rule was deleted.
x = Name of retest rule
y = Assay number

Probable cause	Corrective action
An assay required for the retest rule was deleted.	Reinstall the deleted assay and re-define the rule, if the retest rule is required.

Error code: 0507

Decimal separator changed from (x) to (y). Make sure your host system, if configured, supports this number format.
x = Previously used separator
y = New separator

Probable cause	Corrective action
The symbol used as the decimal separator was changed from the SCC Configuration screen. **NOTE:** Data generated prior to this change does not have the new format. All data generated after this change uses the new format.	Status message. No corrective action is required.

Error code: 0508

Batch (x) deleted, unreleased results are at the limit.
x = Name of Batch

Probable cause	Corrective action
The number of unreleased results is at the maximum.	Release or delete unreleased patient results, quality controls, and exceptions currently on the system.

Error code: 0509

Unreleased patient results are at 90 percent of capacity. Release patient results or delete patient exceptions.

Probable cause	Corrective action
Unreleased results are at 90% of the system capacity.	Release or delete unreleased patient results, quality controls, and exceptions currently on the system.

Error code: 0510

System backup complete.

Probable cause	Corrective action
The system backup procedure is complete.	Status message. No corrective action is required.

Error code: 0511

Thousands separator changed from (x) to (y). Make sure your host system, if configured, supports this number format.
x = Previously used separator
y = New separator

Probable cause	Corrective action
The symbol used as the thousands separator was changed using the SCC Configuration screen. **NOTE:** Data generated prior to this change does not have the new format. All data generated after this change uses the new format.	Status message. No corrective action is required.

Error code: 0512

System (x) restore complete.
x = Name of backup

Probable cause	Corrective action
The requested restore was complete.	Status message. Contact your Area Customer Support if the backup data was not restored.

Error code: 0513

User manually failed calibration curve.

Probable cause	Corrective action
User manually failed a calibration curve.	Status message. No corrective action is required.

Error code: 0514

Control (x) excluded by system, outside (y) standard deviation limit.
x = Control name, control level, assay name
y = Standard Deviation limit

Probable cause	Corrective action
Control point excluded. The value is outside the system configured standard deviation limit, data is logged to QC log.	1. Verify the correct level was run. 2. See Observed Problems for corrective action. See *Controls out of range (i System)*, page 10-527. 3. Rerun the same control level(s) after performing corrective action.

Error code: 0515

Control (x) excluded by system, Westgard rule (y) activated.
x = Control name, control level name, assay name
y = Rule name

Probable cause	Corrective action
Auto-exclusion feature is active and a control point failed the specified Westgard rule. The control point is not used in statistical analysis.	Status message. No corrective action is required.

Error code: 0516

It will take (x) minutes to pause the modules. Are you sure you want to pause the selected modules?
x = Number of minutes

Probable cause	Corrective action
User selected pause for a processing module while test were scheduled or running.	Select **OK** to pause the processing module. **Or** Select **Cancel** if you do not want to pause the processing module.

Error code: 0517

System time and/or date setting was changed.

Probable cause	Corrective action
The system time, date or daylight savings settings were changed.	Status message. No corrective action is required.

Error code: 0518

Avoid loading calibrators, QC, priority samples or leaving empty spaces in a carrier when running a non-bar coded batch.

Probable cause	Corrective action
Informational message telling the user to avoid loading calibrators, controls, priority samples, or leaving empty spaces in a carrier when running a non-bar coded batch.	Status message. No corrective action is required.

Error code: 0519

Data archive complete.

Probable cause	Corrective action
The requested data archive procedure successfully completed.	Status message. No corrective action is required.

Error code: 0520

System language changed to (x) by user (y).
x = Language
y = User ID

Probable cause	Corrective action
The system language was changed on the system control center configure screen.	Status message. No corrective action is required.

Error code: 0521

Data archive canceled.

Probable cause	Corrective action
The Cancel button on the progress bar was selected while archiving data.	Status message. No corrective action is required.

Error code: 0522

Retest rule (x) for Assay number (y) was modified because an assay required for this rule was deleted.
x = Retest rule number
y = Assay number

Probable cause	Corrective action
An assay required for the retest rule was deleted.	Status message. No corrective action is required.

Error code: 0523

For module configuration changes to take effect, the SCC will shutdown.

Probable cause	Corrective action
A change to the module configuration was made. The system automatically shuts down.	Status message. No corrective action is required.

Error code: 0524

Incomplete module configuration, system shutting down.

Probable cause	Corrective action
The Cancel button was selected on the initial module configuration screen.	1. Repeat the initial module configuration after rebooting the system. 2. Select **Done**.

Error code: 0525

An automatic screen refresh has been performed.

Probable cause	Corrective action
The screen was automatically refreshed due to a 2 hour period of inactivity.	Status message. No corrective action is required.

Error code: 0526

Empty tray detected in bay (x).
x = The number of the bay containing the empty tray

Probable cause	Corrective action
• An empty tray was loaded in the bay.	Status message. No corrective action is required.
• Hardware failure: – Carrier/Tray sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0527

Number of Unreleased Control Results reached limit. New orders will not be accepted.

Probable cause	Corrective action
The number of unreleased control results has reached the limit.	Delete or release QC results, exceptions, or pending orders.

Error code: 0528

Unreleased Control Results are at 90 percent of capacity. Release Control Results or delete exceptions.

Probable cause	Corrective action
Unreleased control results are at 90% of the system capacity.	Delete or release unreleased control results and exceptions currently on the system.

Error code: 0529

c System module powered ON.

Probable cause	Corrective action
The user powered on the module or the module powered on after a power failure.	Status message. No corrective action is required.

Error code: 0530

Suspend processing for sample (x).
x = Sample ID

Probable cause	Corrective action
Suspend was selected for a sample that was pending.	1. Select **OK** to suspend the sample. 2. Wait until the RSH indicator lights to signal that the sample is available to remove.

Error code: 0531

No test orders found for Carrier (x), Position (y).
x = Carrier ID or CRSL
y = Carrier or carousel position

Probable cause	Corrective action
A bar coded tube scanned by the sample handler did not have pending test orders.	Place an order for the sample in the carrier.

Error code: 0532

Suspend request denied, sample not present.

Probable cause	Corrective action
The sample was removed from the system.	Status message. No corrective action is required.

Error code: 0534

Suspend processing for sample (x) on bay (y).
x = Sample ID
y = Bay number

Probable cause	Corrective action
Suspend was selected for a sample in process on the RSH.	1. Select **OK** to suspend the sample. 2. Wait until the RSH indicator lights signal that the sample is available to remove.

Error code: 0535

Number of calibrator tests reached limit. New Calibration orders will not be accepted.

Probable cause	Corrective action
The number of unreleased calibrator results has reached the limit.	Delete calibrator exceptions or pending orders, or wait until in-process calibrations complete.

Error code: 0536

No database found. A new database will be created. Wait for the snapshot screen to display (up to 20 minutes).

Probable cause	Corrective action
No database exists, a new database will be created.	Status message. No corrective action is required.

Error code: 0537

Improper shutdown on SCC. Discard samples in carrier if carrier is located on RSH carrier transport.

Probable cause	Corrective action
Main power source to the SCC was interrupted causing an improper shutdown.	1. Remove sample carrier(s) from the carrier transport and carrier positioner(s). If the carrier is located on the RSH carrier, see *Remove sample carrier(s) from the carrier transport and aspiration area (RSH - i 1000$_{SR}$)*, page 10-621. 2. Determine the cause of the power interruption and resolve.

Error code: 0538

RSH has gone offline. Discard samples in carrier if carrier is located on carrier transport.

Probable cause	Corrective action
Main power source to the RSH was interrupted while the module status was Scheduled pause or Running.	1. Discard samples in carrier if carrier is located on carrier transport. See *Remove sample carrier(s) from the carrier transport and aspiration area (RSH - i 1000$_{SR}$)*, page 10-621. 2. Determine the cause of the power interruption and resolve. 3. *Power on the processing module and/or sample handler*, page 5-7.

Error code: 0539

(y) will not be recalculated unless you delete the existing (x) results for this sample prior to rerunning.
x = Constituent assay names
y = Calculated assay name

Probable cause	Corrective action
One or more of the required constituents are present on the system with valid results and the calculated assay has been added to an order(s).	If new constituent results are desired: • Delete any pending constituent orders for the sample, and then create a new order for the calculated assay. OR • Delete existing valid constituent results for this sample if new constituent results are desired for the calculation. – Delete results for manually ordered constituents from either the Results review or Stored results screen. – Delete results for constituents automatically ordered by the system from the Results review, Stored results, or Exception status screen.

Error code: 0540

Dilution for Assay number (y) was modified or deleted. Retest rule (x) may become invalid.
x = Retest rule number
y = Assay number

Probable cause	Corrective action
An assay dilution used in a retest rule was deleted from the assay parameter file.	Review the configured retest rules to determine if a change to an existing retest rule or a new retest rule is desired. See *View the assay retest rule settings*, page 2-69.

Error code: 0542

Unable to process test, reagent kit is unavailable.

Probable cause	Corrective action
User selected a reagent kit to be unloaded that had scheduled tests in process.	Load the required reagent kit. See *Load reagents on the RSH (i 1000$_{SR}$)*, page 5-61.

Error code: 0544

Assay (x) number (y) definition has been changed.
x = Assay name
y = Assay number

Probable cause	Corrective action
An assay parameter was edited.	Status message. No corrective action is required.

Error code: 0545

Calculated Assay (x) number (y) was created.
x = Assay name
y = Assay number

Probable cause	Corrective action
A calculated assay was automatically created during assay installation.	Status message. No corrective action is required.

Error code: 0546

Panel (x) was created.
x = Panel name

Probable cause	Corrective action
A panel name was automatically created during assay installation.	Status message. No corrective action is required.

Error code: 0547

Retest rule for Assay (x) number (y) was created.
x = Assay name
y = Assay number

Probable cause	Corrective action
A retest rule was automatically created during assay installation.	Status message. No corrective action is required.

Error code: 0548

Replenished RVs and updated inventor.

Probable cause	Corrective action
RVs were added to the hopper and the inventory was updated.	Status message. No corrective action is required.

Error code: 0550

Cuvette washing not completed, hardware failure or user pressed Stop. Promptly perform the Wash cuvettes procedure.

Probable cause	Corrective action
• User selected stop.	Restart the run that was in process as soon as the reason for the stop no longer exists. **Or** Perform ***as-needed*** maintenance procedure Wash Cuvettes if the run will not be restarted immediately. The cuvettes should not be left dirty for extended periods of time.
• Hardware failure.	1. *Review message logs*, page 10-10, for any error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-11, if you do not find any error codes. 3. Perform the corrective action for the specific error code. 4. If the run will not be started immediately, perform ***as-needed*** maintenance procedure Wash Cuvettes as soon as the instrument is operational. The cuvettes should not be left dirty for extended periods of time.

Error code: 0551

Units changed for CC Assay (x) number (y). Existing QC values will be excluded from the QC data plot.
x = Assay name
y = Assay number

Probable cause	Corrective action
The unit used to report results for the indicated assay was changed. All QC results for the previous units will be excluded from the QC data Levey-Jennings plot. Excluded data is not used during Westgard analysis.	Status message. No corrective action is required.

Error code: 0552

Update of c System module CPU firmware complete. Cycle the module power to complete the update process.

Probable cause	Corrective action
The system has completed the upgrade of the *c* System module CPU firmware that was required during the upgrade of the ARCHITECT System software.	*Cycle power to the processing module and/or sample handler*, page 5-10.

Error code: 0553

Update of c System module DAQ firmware complete. Cycle the module power to complete the update process.

Probable cause	Corrective action
The system has completed the upgrade of the *c* System module DAQ firmware that was required during the upgrade of the ARCHITECT System software.	*Cycle power to the processing module and/or sample handler*, page 5-10.

Error code: 0554

User-defined reagent kit in location (x) was unloaded, new segment type was scanned.
x = Reagent carousel segment and position

Probable cause	Corrective action
A new reagent supply center segment was scanned with fewer positions than the previous segment in the location. A non-bar coded reagent was assigned to a position that no longer exists.	Define a new position for the non-bar coded reagent.

Error code: 0555

c System CPU firmware update required. Do not perform any module tasks until completion message appears (up to 20 min).

Probable cause	Corrective action
An upgrade of the *c* System module CPU firmware is in process.	Do not perform any activity on the module including the following which send commands to the CPU board: • Pressing any keypad or sample carousel buttons • Opening or removing any carousel covers • Emptying the high-concentration waste bottle A message displays when the upgrade is complete. Wait for the message before performing any activity.

Error code: 0556

c System DAQ firmware update required. Do not perform any module tasks until completion message appears (up to 20 min).

Probable cause	Corrective action
An upgrade of the *c* System module DAQ firmware is in process.	Do not perform any activity on the module including the following, which send commands to the DAQ board: • Pressing any keypad or sample carousel buttons • Opening or removing any carousel covers • Emptying the high-concentration waste bottle Wait for the message indicating the upgrade is complete.

Error code: 0600

Unable to install (x) number (y) as correlation assay, primary assay with same or higher version exists.
x = Assay name
y = Assay number

Probable cause	Corrective action
Feature not currently available.	No corrective action is required.

Error code: 0601

Unable to install (x) number (y) as correlation assay, primary assay does not exist.
x = Assay name
y = Assay number

Probable cause	Corrective action
Feature not currently available.	No corrective action is required.

Error code: 0602

Assay (x) number (y) installation error, a higher version of the assay is already installed.
x = Assay name
y = Assay number

Probable cause	Corrective action
Attempted to install an older assay version when a newer assay version is already installed on the system.	If the older assay version is required: 1. Delete the most recently installed assay version. 2. Install the older assay version. See *Install or delete an assay file*, page 2-139.

Error code: 0603

Assay (x) number (y) installation error, assay with a higher calibration version already installed.
x = Assay name
y = Assay number

Probable cause	Corrective action
Attempted to install an older assay version when a version with a higher calibration version is already installed on the system.	If the older assay version is required: 1. Delete the most recently installed assay version. 2. Install the older assay version. See *Install or delete an assay file*, page 2-139.

Error code: 0604

Unable to install assay, at least one module is not in the correct status.

Probable cause	Corrective action
Attempted to install an assay while the processing module(s) are not in the correct status.	Install the assay when the status for all processing modules is Stopped, Ready, or Offline. See *Install or delete an assay file*, page 2-139.

Error code: 0605

Assay (x) number (y) installation error, assay with same version is already installed.
x = Assay name
y = Assay number

Probable cause	Corrective action
Attempted to install an assay when the same version is already installed on the system.	Status message. No corrective action is required.

Error code: 0606

Assay (x) number (y) installation error. Higher reagent version already installed.
x = Assay name
y = Assay number

Probable cause	Corrective action
Attempted to install an assay whose reagent configuration version is less than that of the installed assay.	If the older assay version is required: 1. Delete the most recently installed assay version. 2. Install the older assay version. See *Install or delete an assay file*, page 2-139.

Error code: 0607

Assay (x) number (y) installation error. The module does not support this assay type.
x = Assay name
y = Assay number

Probable cause	Corrective action
Attempted to install a stat assay on the *i* 2000.	Status message. No corrective action is required.

Error code: 0608

Assay (x) number (y) installation error. Invalid module configuration.
x = Assay name
y = Assay number

Probable cause	Corrective action
Attempted to install an assay not supported by the module configuration.	Configure the system with the appropriate module(s) and reinstall the assay.

Error code: 0609

Primary wavelength cannot be the same as the Secondary wavelength.

Probable cause	Corrective action
The primary wavelength cannot be the same as the secondary wavelength.	Select a different primary or secondary wavelength or select the option of "None" for the secondary wavelength.

Error code: 0610

Reaction check Read time A or Read time B not defined.

Probable cause	Corrective action
A Reaction check option is selected on the Configure assay parameters window - General - Validity check view, but the Read time A and/or Read time B is not defined.	Define a range for both the Read time A and B settings or select the Reaction check option of "None".

Error code: 0611

Invalid R1 or R2 reagent volume. (Range: 20-345 μL)

Probable cause	Corrective action
A value outside the limit of 20-345 μL is entered for the R1 or R2 reagent volume.	Enter a value between 20-345 μL.

Error code: 0612

Invalid R1 or R2 Water volume. (Range: 45-300 µL, or field can be blank)

Probable cause	Corrective action
A value outside the limit of 45-300 µL is entered for the R1 or R2 water volume.	Enter a value between 45-300 µL or leave the field blank for undiluted reagents.

Error code: 0615

Invalid total dilution volume. Sum of Sample, Diluent, and Water volumes must total 100-360 µL.

Probable cause	Corrective action
The combined sample, diluent, and water volume defined for a sample or calibrator dilution is less than 100 µL or greater than 360 µL. At least 100 µL is required to ensure complete mixing and 360 µL is the volume limit of the cuvette.	Change the entries in the **Sample**, **Diluent**, and/or **Water** volume data entry boxes so the combined volume is 100-360 µL.

Error code: 0616

Diluent volume must be defined if Diluted sample and/or Water volume are defined.

Probable cause	Corrective action
A Diluted sample or Water volume is defined for a sample or calibrator dilution, but the Diluent volume is not defined.	Enter a value between 20-345 µL for the Diluent volume or leave the Diluted sample and Water volume fields blank for undiluted samples.

Error code: 0617

Assay name already exists, enter a different name.

Probable cause	Corrective action
The assay name entered is already used for another assay parameter file.	Enter a unique assay name.

Error code: 0618

Assay number already exists, enter a different assay number.

Probable cause	Corrective action
The assay number entered is already used for another assay parameter file.	Enter a unique assay number.

Error code: 0619

Undefined dilution selected as Default dilution. Select a different dilution as default.

Probable cause	Corrective action
The dilution option selected as the default does not have sample or diluent volumes defined.	Select a different dilution option as the default, or define the volumes for the selected option.

Error code: 0620

For the selected calculated assay, the retest assays are not used for calculation if original results exist.

Probable cause	Corrective action
A calculated assay was selected for the retest assay when the retest rule was configured. When a calculated assay is ordered as a result of a retest rule, any existing original results for the constituent assays are used to calculate the result.	A retest rule may include a calculated assay and other assays, but should not include the original assay for retest. Examples: • Correct retest rule - Total PSA to retest to Free PSA and PSA ratio • Incorrect retest rule - Total PSA to retest to Total PSA, Free PSA and PSA ratio

Error code: 0621

Invalid Assay Number. Assay Number for user-defined assays must be 2000 - 2999.

Probable cause	Corrective action
A user-defined assay can only be defined with an assay number between 2000-2999.	Enter an assay number between 2000-2999.

Error code: 0622

Last required read value (x) must be greater than or equal to the last read defined for all read times.
x = Read point value defined in the last required read field

Probable cause	Corrective action
One of the following read times is defined with a read point larger than the read point defined for the last required read. • Main read time • Blank read time • Flex read time • Color correction read time • Reaction check - Read time A • Reaction check - Read time B	Change the last required read to a read point equal to or greater than the largest read point defined for all the read times.

Error code: 0623

Reagent name already exists, enter a different name.

Probable cause	Corrective action
The reagent name entered is already used for another reagent.	Enter a unique reagent name.

Error code: 0624

Missing entry, Reagent name required.

Probable cause	Corrective action
The reagent name was not defined for a new reagent configuration.	Enter a unique reagent name.

Error code: 0625

Assay (x) number (y) installation error, reference Photometric assay does not exist.
x = Assay name
y = Assay number

Probable cause	Corrective action
Attempted to install a sample interference index assay before installing the photometric assay that is used as a reference (for example, HILref or AST).	1. Install the desired reference photometric assay. Example: HILref or AST 2. Install the sample interference index assay.

Error code: 0626

Missing entry, Serial number required.

Probable cause	Corrective action
The serial number was not defined for a new reagent kit configuration.	Enter a serial number.

Error code: 0627

Serial number already exists for this lot number, enter a different Serial number.

Probable cause	Corrective action
The serial number entered is already used for the reagent lot.	Enter a unique serial number for the reagent lot.

Error code: 0628

Assay (x) number (y) installation error, assay name already exists for a different assay.
x = Assay name
y = Assay number

Probable cause	Corrective action
An assay parameter file with the same name but a different assay number already exists.	Rename or delete the assay with the same name prior to installing the new assay.

Error code: 0629

Sum of Sample, R1, and R2 volumes must be 160-360 µL. If R2 is used, Sample and R1 volume must be greater than 100 µL.

Probable cause	Corrective action
• The combined sample and reagent volumes defined for a sample or calibrator dilution is less than 160 µL or greater than 360 µL	Change the Sample (or Diluted sample) volume, R1 volume, R1 Water volume, R2 volume, and/or R2 Water volume so the combined volume is 160-360 µL.
• The combined sample and R1 volumes defined for two reagent assay is less than 100 µL.	Change the Sample (or Diluted sample) volume, R1 volume, and/or R1 Water volume so the combined volume is equal to or greater than 100 µL.

Error code: 0630

Calibrator set name already exists, enter a different name.

Probable cause	Corrective action
The calibrator name entered is already used for another calibrator set.	Enter a unique calibrator name.

Error code: 0631

Lot number already exists for a different reagent, enter a unique lot number.

Probable cause	Corrective action
The lot number entered is already used for a reagent.	Enter a unique lot number for the reagent.

Error code: 0632

A sample diluent must be specified when a Diluent volume is defined.

Probable cause	Corrective action
A Diluent volume is defined for a sample or calibrator dilution, but a diluent is not selected.	Select the **Diluent** list button, and then select the desired sample diluent from the list.

Error code: 0634

Diluted sample volume must be defined if Diluent volume is defined.

Probable cause	Corrective action
A Diluent volume is defined for a sample or calibrator dilution, but the Diluted sample volume is not defined.	Enter a value between 2.0-15.0 µL for the Diluted sample volume or leave the Diluent volume field blank for undiluted samples.

Error code: 0635

Unable to save assay, missing parameter. Verify all assay parameters are defined.

Probable cause	Corrective action
A required parameter is not defined.	Verify all required assay parameters are defined.

Error code: 0636

Assay (x) number (y) installation error, reagent name exists for a different reagent or sample diluent.
x = Assay name
y = Assay number

Probable cause	Corrective action
The reagent name defined for the assay being installed is used for a different reagent or sample diluent already defined on the system. The assay installation does not complete.	Perform one of the following prior to installing the assay: • Edit the assay to be installed with a unique reagent name. • Delete or edit the reagent or sample diluent already defined on the system.

Error code: 0637

Assay (x) number (y) installation error, sample diluent name exists for a reagent.
x = Assay name
y = Assay number

Probable cause	Corrective action
The sample diluent name defined for the assay being installed is used for a reagent already defined on the system. The assay installation does not complete.	Perform one of the following prior to installing the assay: • Edit the assay to be installed with a unique sample diluent name. • Delete or edit the reagent already defined on the system.

Error code: 0638

Missing entry, Lot Number required.

Probable cause	Corrective action
The lot number was not defined for a new reagent kit configuration.	Enter a lot number.

Error code: 0639

Interpretation categories must be defined consecutively starting with the first row.

Probable cause	Corrective action
An interpretation row was skipped when defining interpretation names.	Define interpretations consecutively starting with the first row.

Error code: 0640

Same calibrator selected for more than one level, calibrator concentrations must be the same.

Probable cause	Corrective action
Entered different concentrations for the same calibrator level.	Enter the same concentration for each use of the calibrator level.

Error code: 0641

Reagent Lot contains non-alphanumeric characters.

Probable cause	Corrective action
The reagent lot entered contains a space or other non-alphanumeric character.	Remove the space and make sure the reagent lot contains only alphanumeric characters.

Error code: 0642

Assay (x) number (y) installation error, assay is already installed.
x = Assay name
y = Assay number

Probable cause	Corrective action
Attempted to import an assay when the same assay is already installed on the system.	If the new assay is required: 1. Delete the assay file currently installed. See *Install or delete an assay file*, page 2-139. 2. Import the new assay file.

Error code: 0643

Dilution Protocols must be defined in consecutive order starting from the first dilution.

Probable cause	Corrective action
The sample dilution protocols were not defined consecutively. The first and/or second row was left undefined.	Define the dilution protocols in the correct order starting from the first row. Do not leave a row empty and define a row below it.

Error code: 0644

Sample probe wash type converted to Maximum Wash for Assay (x) number (y).
x = Assay name
y = Assay number

Probable cause	Corrective action
The sample probe wash changed from Optimized throughput (*c* 8000 only) to Maximum wash (*c* 8000 and *c* 16000) for an assay file exported and then imported between an ARCHITECT *c* 8000 and *c* 16000 System.	No corrective action required.

Error code: 0645

One or more wavelengths were changed for Assay (x) number (y).
x = Assay name
y = Assay number

Probable cause	Corrective action
A wavelength was changed for an assay file exported and then imported between an ARCHITECT *c* 8000 and *c* 16000 System.	No corrective action required.

Error code: 0700

Run request denied, Processing Module cover open.

Probable cause	Corrective action
• A processing module cover is open.	Close all covers, and then select run.
• Hardware failure: – Cover sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0701

Processing Module Stopped, cover opened.

Probable cause	Corrective action
• A processing module cover was opened during a run.	Close the cover and restart the run.
• A processing module cover was opened during a diagnostic procedure.	Select **OK**. No corrective action required.
• Hardware failure: – Cover sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0702

Reagent scan canceled, Reagent Carousel Cover opened.

Probable cause	Corrective action
• Reagent carousel cover is open.	Close the cover and repeat the scan.
• Hardware failure: – Cover sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0703

Request canceled, Reagent Carousel Cover is open.

Probable cause	Corrective action
• Reagent carousel cover is open.	Close the reagent carousel cover.
• Hardware failure: – Cover sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0704

Run request denied, Processing Queue access door open module (x), close door and press Run.
x = Processing module number (1-4)

Probable cause	Corrective action
• Processing queue access door is open on the sample handler.	Close the processing queue access door.
• Hardware failure: – Sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0705

Processing Queue access door opened on Processing Module (x).
x = Processing module number (1-4)

Probable cause	Corrective action
• A processing queue access door was opened	1. Close the processing queue access door. 2. Start up the sample handler if status is Stopped. See *Start up the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0706

Run request denied, LAS Carousel cover is open. Close cover and press Run.

Probable cause	Corrective action
• LAS carousel cover is open.	Close the LAS carousel cover and select run.
• Hardware failure: – LAS carousel cover sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0707

LAS Carousel cover opened.

Probable cause	Corrective action
• LAS carousel cover was opened while the LAS carousel status was Running or Scheduled pause.	1. Close the LAS carousel cover. 2. *Start up the processing module and/or sample handler*, page 5-10.
• Hardware failure: – LAS carousel cover sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0708

Run request denied, RSH cover(s) open. Close cover(s) and press Run.

Probable cause	Corrective action
• An RSH cover was open when starting a run.	Close the RSH cover and select run.
• Hardware failure: – RSH cover access sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0709

RSH stopped, cover opened.

Probable cause	Corrective action
• An RSH cover(s) was opened while the sample handler status was Running, Scheduled pause, or Initializing.	1. Close the RSH cover. 2. Start up the sample handler. See *Start up the processing module and/or sample handler*, page 5-10.
• Hardware failure: – RSH cover access sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0710

Reagent supply center cover is open.

Probable cause	Corrective action
A reagent supply center cover is open: • When attempting to initiate a run. • During a run when the access light on the keypad is not illuminated. • When attempting a reagent scan.	1. Close the reagent supply center covers. 2. Restart the run or perform another reagent scan.

Error code: 0711

Sample carousel cover is open.

Probable cause	Corrective action
• The sample carousel cover is open: – When attempting to initiate a run. – During a run when the sample carousel access indicator (square) is not illuminated.	1. Close the sample carousel cover. 2. Restart the run.
• Sample carousel cover sensor did not detect that the cover was closed.	1. Verify the status of the sample carousel access indicator button. If the button is not illuminated, select the button to pause the sample carousel. 2. Open and then firmly close the sample carousel cover.

Error code: 0712

Startup request denied, Processing Module cover open.

Probable cause	Corrective action
• The processing module cover was open when start up was selected.	Close the processing module cover.
• Hardware failure: – Cover sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0713

Startup request denied, RSH cover(s) open. Close cover(s) and press Startup.

Probable cause	Corrective action
• An RSH cover(s) was open when start up was selected.	1. Close the RSH cover. 2. Start up the sample handler. See *Start up the processing module and/or sample handler*, page 5-10.
• Hardware failure: – RSH cover access sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0714

Startup request denied, LAS Carousel cover is open.

Probable cause	Corrective action
• The LAS carousel cover was open when start up was selected.	Close the LAS carousel cover.
• Hardware failure: – LAS carousel cover sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0800

Unable to perform requested operation, remove carrier(s) from carrier positioner(s).

Probable cause	Corrective action
Carriers are present on the carrier positioner while attempting to perform a start up for the RSH. Carriers may be present because a user selected stop while the RSH was running, power to the processing module(s) and RSH was interrupted, or the RSH was stopped due to hardware failure.	Remove carrier(s) from carrier positioner(s).

Error code: 0801

Unable to save edits when orders exist for the selected assay (x).
x = Assay name

Probable cause	Corrective action
Attempted to edit an assay when pending or running orders exist for the assay.	Delete the pending orders or wait until the orders are complete before trying to edit the assay.

Error code: 0802

Carrier in carrier transport arm. Please remove.

Probable cause	Corrective action
• The RSH was stopped and a carrier was detected in the transport arm. The RSH may be stopped because a user selected stop while the RSH was running, power to the processing module(s) and RSH was interrupted, or the RSH was stopped due to hardware failure.	Remove carrier(s) from carrier positioner(s). See *Remove sample carrier(s) from the carrier transport and aspiration area (RSH - i 1000$_{SR}$)*, page 10-621.
• Hardware failure: – Rail guide sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0803

Unable to delete assay (x), it is being referenced by another assay (y).
x = Assay name of the assay to be deleted
y = Assay name of the assay that is referring to assay to be deleted

Probable cause	Corrective action
The assay to be deleted is referenced in another photometric or sample interference assay file.	Perform one of the following to the assay that is referring to the assay to be deleted: • Delete the assay. See *Install or delete an assay file*, page 2-139. • For a photometric assay, select the **Use Cal Factor** from the list button, and then select a different assay. • For a sample interference assay, select the **Reference photometric** assay list button, and then select a different assay.

Error code: 0804

Unable to delete reagent until all kits are deleted and any assay file defined to use this reagent is edited.

Probable cause	Corrective action
• Reagent kits are defined for the reagent.	Delete all reagent kits prior to deleting the reagent. Contact your Area Customer Support.
• The reagent is defined for use in an assay parameter file.	Perform one of the following prior to deleting the reagent: • Change the Reagent parameter in the assay to use a different reagent. • Delete the assay that uses the reagent. See *Install or delete an assay file*, page 2-139.

Error code: 0805

Unable to configure, a reagent is currently assigned to position D1.

Probable cause	Corrective action
A bar coded reagent was scanned or non-bar coded reagent was assigned in position D1 of reagent supply center 1 and/or 2.	Unload the reagent in position D1 prior to configuring an onboard solution into the position.

Error code: 0806

Unable to use (x) inventory in position (y), bar coded reagent found in the same location.
x = Inventory item
y = Reagent carousel segment and position

Probable cause	Corrective action
A bar coded reagent was scanned in position D1 of the reagent supply center.	1. Unload the reagent in position D1. 2. Load expected onboard solution in position D1.

Error code: 0808

Unable to perform requested operation, cuvette segment alignment tool was not removed.

Probable cause	Corrective action
• The cuvette segment alignment tool was not removed after performing a pipettor calibration procedure.	Remove the cuvette segment alignment tool and replace the cuvette segment into the position.
• Water is present on the slotted edges of a cuvette segment.	Dry off the slotted edge of the cuvette segment.
• Cuvette tab is broken.	Replace the cuvette segment.
• Hardware failure. – Optics trigger sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0809

Unable to change level, level has not been added.

Probable cause	Corrective action
A multiconstituent control level was not added before the user tried to create another level.	Add the multiconstituent control level before selecting another level.

Error code: 0810

Unable to change lot number, level for current lot has not been added.

Probable cause	Corrective action
Attempted to edit the lot number for a multi-constituent control before adding the control level.	Add the control level for the current lot before trying to change the lot number.

Error code: 0811

Unable to delete assay (x), it is being referenced by another assay.
x = Assay name of the assay to be deleted

Probable cause	Corrective action
Attempted to delete an assay that is referenced in another assay parameter file.	Delete or edit the assay file that is referencing the assay before deleting the assay.

Error code: 0812

Unable to delete assay (x), the assay is a constituent of a calculated assay (y).
x = Assay name
y = Calculated assay name

Probable cause	Corrective action
Attempted to delete an assay that is defined as a constituent of a calculated assay.	Delete or edit the calculated assay before deleting the constituent assay.

Error code: 0813

Unable to process test, carrier cannot be transported.

Probable cause	Corrective action
The carrier could not be picked up from either a tray section or carrier positioner pocket due to:	
• Carrier is inserted backwards in the tray or priority position.	Reposition the carrier in the tray or priority position.
• Carrier is damaged.	Rerun the sample in a different carrier.
• Carrier transport is not aligned.	Perform Transport Calibration.

Error code: 0815

Unable to process test, carrier ID/position bar code read error at aspiration point.

Probable cause	Corrective action
If error occurs for one carrier: • Carrier bar code label is damaged, wet, or dirty.	1. Clean the carrier bar code label. 2. Use a different carrier, if error continues.
If error occurs for multiple carriers: • Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-619.
• Hardware failure: – Bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0816

Unable to process test, sample suspend requested.

Probable cause	Corrective action
Suspend was selected on the Sample status screen and the sample becomes an exception and is not processed.	Rerun the sample.

Error code: 0817

Unable to suspend processing, sample located on sample carousel.

Probable cause	Corrective action
Suspend was selected on the Sample status screen for a sample processing on the sample carousel.	1. Verify the status of the sample carousel access indicator button. 2. If the button is not illuminated, select the button to pause the sample carousel or wait until the sample carousel is finished processing all the samples before accessing the sample.

Error code: 0818

Unable to suspend processing, sample has not been scanned by the RSH.

Probable cause	Corrective action
Suspend was selected for a sample that was not scanned by the RSH.	Wait until the sample is identified before attempting to suspend the sample.

Error code: 0819

Unable to suspend processing, sample handler not in correct status.

Probable cause	Corrective action
Suspend was selected for a sample when the RSH status is not Running or Scheduled pause.	Sample access is allowed unless the RSH status is Running or Scheduled pause.

Error code: 0820

Unable to suspend processing, batch is in process.

Probable cause	Corrective action
Suspend was selected for a sample when batch was in process.	Wait until the batch is completed or delete the batch.

Error code: 0821

Unable to suspend processing, blank calibrator sample selected.

Probable cause	Corrective action
Suspend was selected for a water blank calibrator sample.	Select a different calibrator level located on the RSH.

Error code: 0822

Unable to delete calibrator set, calibrator is used by an assay.

Probable cause	Corrective action
The calibrator set is defined for use in an assay parameter file.	Perform one of the following prior to deleting the calibrator set: • Change the Calibrator set parameter in the assay to use a different calibrator set. • Delete the assay that uses the calibrator set.

Error code: 0823

Unable to reduce number of calibrator set levels.

Probable cause	Corrective action
Attempted to reduce the number of calibrator set levels for a calibrator when an assay parameter file is configured to use the larger number of levels.	You must perform one of the following prior to reducing the number of levels for the calibrator set: • Edit the assay parameters of any assay using the calibrator set to use fewer levels of the set. • Change the Calibrator set parameter in the assay to use a different calibrator set. • Delete the assay that uses the calibrator set.

Error code: 0824

You have selected too many results. Select no more than (x) results for each Absorbance report print request.
x = Maximum number of results

Probable cause	Corrective action
More than 1000 results were selected when attempting to print an Absorbance report.	Select less than 1000 results when printing an Absorbance report and try again.

Error code: 0825

Unable to perform the selected procedure, another procedure is already in process on the module.

Probable cause	Corrective action
Attempted to perform a diagnostic procedure or a new maintenance procedure on a module that already has a maintenance procedure in process.	Wait until the maintenance procedure currently in process is complete before starting a diagnostic procedure or a new maintenance procedure.

Error code: 0826

Unable to perform the selected procedure, a required module is being used by another procedure already in process.

Probable cause	Corrective action
Attempted to perform a maintenance procedure on a module that is being used by a maintenance procedure in process on another module.	Wait until the maintenance procedure currently in process is complete before starting a new maintenance procedure.

Error code: 0827

Unable to perform diagnostic procedures while module is in the Maintenance state.

Probable cause	Corrective action
Attempted to perform a diagnostic procedure on a module that has a maintenance procedure in process.	Wait until the maintenance procedure currently in process is complete before starting a diagnostic procedure.

Error code: 0828

Unable to unload reagent carrier, RSH sections full.

Probable cause	Corrective action
• Carriers are loaded in every RSH section.	Remove a carrier from an RSH section to make room to unload the reagent carrier.
• Hardware failure: – Carrier sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0829

Unable to load reagent carrier, all reagent carousel positions full.

Probable cause	Corrective action
• Reagent carriers are loaded in every reagent carousel position.	Unload a reagent carrier for an assay that is no longer required for testing to make room to load the reagent carrier.
• Hardware failure: – Reagent carrier detect sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0830

Request canceled, RV unloader is not detected.

Probable cause	Corrective action
• RV unloader was not detected during initialization.	Ensure that the RV unloader is placed in the unload position.
• RV unloader is not seated correctly.	Reseat the RV unloader.
• Hardware failure: – RV unloader sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0831

Unable to perform requested operation, remove carrier from aspiration area.

Probable cause	Corrective action
A carrier is present in the aspiration area while attempting to perform a Startup on the RSH. A carrier may be present because a user selected stop while the RSH was running, power to the processing module and RSH was interrupted, or the RSH was stopped due to hardware failure.	Remove the sample carrier(s) from the carrier transport and aspiration area.

Error code: 0832

Carrier transport preventing (x) from performing initialization.
x = Mechanism name

Probable cause	Corrective action
Attempted to initialize the processing module when the carrier transport is not initialized.	1. Start up the sample handler. 2. Start up the processing module. See *Start up the processing module and/or sample handler*, page 5-10.

Error code: 0900

Wrong lot, component or serial number in the (x) reagent carrier position in section (y).
x = Reagent carrier position in which the bottle was detected
y = RSH section number

Probable cause	Corrective action
A bottle with the wrong lot number, component ID, or serial number is loaded in the indicated reagent carrier position and RSH section.	1. Print the reagent load error report. 2. Load the correct bottle for the kit in the correct position.

Error code: 0901

Calibration version mismatch for reagent kit in section (x).
x = RSH section number

Probable cause	Corrective action
Calibration version for the reagent kit in the RSH section indicated does not match the currently installed assay.	1. Load a reagent kit matching the currently installed assay version. **NOTE:** Deplete the supply of reagents for the old assay before installing the new assay. 2. Install the new assay file when the current supply of reagents is depleted. See *Install or delete an assay file*, page 2-139.

Error code: 0902

Version mismatch for reagent kit in section (x). This kit cannot be used on the i 1000
x = RSH section number

Probable cause	Corrective action
The Reagent Configuration Version of the reagent kit in the RSH section indicated is not the expected value. **NOTE:** This error occurs if Clinical Investigation reagents or assay files are used. Clinical Investigation reagent bottles contain the text Investigational Use Only. Clinical Investigation assay files Cal Version parameter is 0 (zero).	Load the expected kit or assay file.

Error code: 0903

Reagent kit in location (x) has R1 and R2 components loaded on different reagent lines.
x = Reagent carousel segment and position

Probable cause	Corrective action
A reagent kit with 2 cartridges (R1 and R2) has cartridges loaded on different lines (outer and inner) in the R1 and R2 reagent supply centers.	Load the reagent cartridges for the assay on the same line in both the R1 and R2 reagent supply centers. Choose one of the following options: • Load the reagent cartridges for the assay on the outer (A-line) carousel of R1 and R2 reagent supply centers. • Load the reagent cartridges for the assay on the inner (B-line) carousel of R1 and R2 reagent supply centers.

Error code: 0904

Reagent carrier in section (x) is a 500 test reagent kit. This kit cannot be used on this system.
x = RSH section number

Probable cause	Corrective action
A 500 test reagent kit was loaded on the *i*1000$_{SR}$.	Remove the 500 test reagent kit.

Error code: 0905

Unload the two carrier reagent kit in sections (x) before trying to reload.
x = RSH section number

Probable cause	Corrective action
• One reagent carrier of a two carrier kit was removed from the load/unload area.	Remove both carriers of a two carrier reagent kit before reloading the reagent kit on the system.
• A two carrier reagent kit's on board stability has been overridden and one reagent carrier has been removed from the load/unload area.	Remove both carriers of a two carrier reagent kit from the load/unload area and reload them.

Error code: 0906

Reagent packs for Assay (x) loaded on both reagent lines.
x = Assay

Probable cause	Corrective action
Reagent packs for the same assay were found on both the outer (A-line) and inner (B-line) carousels for the R1 and R2 reagent supply centers.	Load reagent cartridges for the same assay on the same line, either outer (A-line) or inner (B-line), in the R1 and R2 reagent supply centers.

Error code: 0909

Invalid entry. The value for Low Linearity must not be less than 0.

Probable cause	Corrective action
A value less than zero was entered.	Enter a value above zero.

Error code: 0910

Invalid entry. The value for High Linearity must be less than (x) for dilution description 1.
x = Assay default High Linearity

Probable cause	Corrective action
A value greater than the assay default High Linearity was entered.	Enter a value lower than the assay default High Linearity.

Error code: 0911

Carrier partially inserted, inserted too slowly, or inserted then dropped into section (x).
x = RSH section number

Probable cause	Corrective action
Carrier was partially inserted or inserted too slowly.	Status message. No corrective action is required.

Error code: 0912

Carrier detected in section (x). This section is not available. Remove carrier.
x = RSH section number

Probable cause	Corrective action
A carrier was placed in a section that was not available.	Remove the carrier and place the carrier in a section that is available.

Assay specific error codes (1000-1999)

The assay specific error code category includes error codes between 1000-1999.

If the corrective actions listed under the error code in question do not resolve the problem, contact your Area Customer Support representative at:

United States	1-877-4ABBOTT (1-877-422-2688)
International	Call your Area Customer Support representative.

NOTE: For corrective actions that involve hazardous activity refer to *Hazards*, page 8-1, for precautions you should take to minimize

exposure and prevent personal injury or system damage. Hazard activities include but are not limited to:

- Replacing system probes
- Handling reagents, calibrators, controls, and specimens
- Removing physical obstructions
- Changing the lamp
- Removing system waste

Error code: 1000

Assay (x) Number (y) Calibration failure, Cal 1 or Cal 2 final read is below specifications.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong Cal 1 or Cal 2 used for the assay calibration.	If other assays are performing without error, place fresh Cal 1 and Cal 2 into sample cup ensuring they are for the correct assay and are placed in the correct positions.
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. See *Replace pre-trigger and/or trigger solution and update inventory (i 1000$_{SR}$)*, page 5-33. 3. Perform the following ***as-needed*** maintenance procedures: • For *i* 1000$_{SR}$: – *2137 Flush Fluids*, page 9-26 – *2162 Prime Pre-Trigger and Trigger*, page 9-27
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform *as-needed* maintenance procedure *2137 Flush Fluids*, page 9-26 for *i* 1000$_{SR}$.
• Pre-trigger or trigger solution volume is too low.	*Replace pre-trigger and/or trigger solution and update inventory (i 1000$_{SR}$)*, page 5-33.

Probable cause	Corrective action
• Pre-trigger and trigger bottles were replaced while processing tests, so air may have been aspirated instead of reagent.	Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2162 Prime Pre-Trigger and Trigger*, page 9-27
• Hardware failure: – Pre-trigger or trigger pumps – Pre-trigger or trigger valves – Pre-trigger or trigger tubing connections are loose – Motor driver board has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1001

Assay (x) Number (y) Calibration failure, final read too high for Cal 1.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1002

Assay (x) Number (y) Calibration failure, final read too low for Cal 1.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1003

Assay (x) Number (y) Calibration failure, final read too high for Cal 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1004

Assay (x) Number (y) Calibration failure, final read too low for Cal 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1005

Result cannot be calculated, final RLU read is outside the specification of the lowest calibrator.

Probable cause	Corrective action
RLU read is outside the specification for the ascending curve assay.	
If error occurs on one sample:	
• Normal for some non-reactive samples.	1. Follow the sample handling instructions in the ARCHITECT *i* System assay-specific package insert. 2. Rerun the sample. 3. Source another sample. 4. Contact your Area Customer Support to resolve.

Probable cause	Corrective action
• Sample handling error.	1. Follow the sample handling instructions in the ARCHITECT *i* System assay-specific package insert. 2. Rerun the sample. 3. Source another sample.
If error occurs for more than one sample:	
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. See *Replace pre-trigger and/or trigger solution and update inventory (i 1000$_{SR}$)*, page 5-33. 3. Perform the following ***as-needed*** maintenance procedures: • For *i* 1000$_{SR}$: – *2137 Flush Fluids*, page 9-26 – *2162 Prime Pre-Trigger and Trigger*, page 9-27
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-26 for *i* 1000$_{SR}$.
• Pre-trigger or trigger solution volume is too low.	*Replace pre-trigger and/or trigger solution and update inventory (i 1000$_{SR}$)*, page 5-33.

Probable cause	Corrective action
• Pre-trigger or trigger bottles were replaced while processing tests so air may have been aspirated instead of reagent.	Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2162 Prime Pre-Trigger and Trigger*, page 9-27
• Hardware failure: – Pre-trigger or trigger pumps – Pre-trigger or trigger valves – Pre-trigger or trigger tubing connections are loose – Motor driver board has a poor connection or failed – DC driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1006

Unable to process test, background read failure.

Probable cause	Corrective action
• Ambient light level is too high.	1. Move the processing module or block it from direct sunlight. 2. Ensure all system panels are properly installed.
• Optics linearity and/or Normalization values are not entered correctly on the Configure modules window.	Update the Configure modules window with the correct values from the optics assembly. See *Configure modules window (i 1000_{SR})*, page 2-42.
• Hardware failure: – Pre-trigger or trigger or pumps – Pre-trigger or trigger valves – Pre-trigger or trigger tubing connections are loose – DC driver I/O board in the card cage has a poor connection or failed – Dirty light pipes – CMIA reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1007

Unable to process test, activated read failure.

Probable cause	Corrective action
• Wrong Cal 1 or Cal 2 is used for the assay calibration.	If other assays are performing without error, place fresh Cal 1 and Cal 2 into sample cup ensuring they are for the correct assay and are placed in the correct positions.
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. See *Replace pre-trigger and/or trigger solution and update inventory (i 1000$_{SR}$)*, page 5-33. 3. Perform the following ***as-needed*** maintenance procedures: • For *i* 1000$_{SR}$: – *2137 Flush Fluids*, page 9-26 – *2162 Prime Pre-Trigger and Trigger*, page 9-27
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-26 for *i* 1000$_{SR}$.
• Pre-trigger or trigger solution volume is too low.	*Replace pre-trigger and/or trigger solution and update inventory (i 1000$_{SR}$)*, page 5-33.
• Pre-Trigger or Trigger Solution is expired.	*Replace pre-trigger and/or trigger solution and update inventory (i 1000$_{SR}$)*, page 5-33.
• Pre-trigger or trigger bottles were replaced while processing tests, so air may have been aspirated instead of reagent.	Perform the following ***as-needed*** maintenance procedures: • For *i* 1000$_{SR}$: – *2137 Flush Fluids*, page 9-26 – *2162 Prime Pre-Trigger and Trigger*, page 9-27
• Optics linearity and/or Normalization values are not entered correctly on the Configure modules window.	Update the Configure modules window with the correct values from the optics assembly. See *Configure modules window (i 1000$_{SR}$)*, page 2-42.

Probable cause	Corrective action
• Ambient light level is too high.	1. Move the processing module or block it from direct sunlight. 2. Ensure all system panels are properly installed.
• Hardware failure: – Pre-trigger or trigger valve – Pre-trigger or trigger pumps – Pre-trigger or trigger tubing connections are loose – Pre-trigger or trigger level sensor is broken – Dirty light pipes – Motor driver board has a poor connection or failed – DC driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1008

Unable to process test, final read failure.

Probable cause	Corrective action
• Wrong Cal 1 or Cal 2 used for the assay calibration.	If other assays are performing without error, place fresh Cal 1 and Cal 2 into sample cup ensuring they are for the correct assay and are placed in the correct positions.
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. See *Replace pre-trigger and/or trigger solution and update inventory (i 1000$_{SR}$)*, page 5-33. 3. Perform the following ***as-needed*** maintenance procedures: • For *i* 1000$_{SR}$: – *2137 Flush Fluids*, page 9-26 – *2162 Prime Pre-Trigger and Trigger*, page 9-27
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-26 for *i* 1000$_{SR}$.

Probable cause	Corrective action
• Pre-trigger or trigger solution volume is too low.	*Replace pre-trigger and/or trigger solution and update inventory (i 1000$_{SR}$)*, page 5-33.
• Pre-Trigger or Trigger Solution is expired.	*Replace pre-trigger and/or trigger solution and update inventory (i 1000$_{SR}$)*, page 5-33.
• Pre-trigger and trigger bottles were replaced while processing tests, so air may have been aspirated instead of reagent.	Perform the following ***as-needed*** maintenance procedures: • For *i* 1000$_{SR}$: – *2137 Flush Fluids*, page 9-26 – *2162 Prime Pre-Trigger and Trigger*, page 9-27
• Optics linearity and/or Normalization values are not entered correctly on the Configure modules window.	Update the Configure modules window with the correct values from the optics assembly. See *Configure modules window (i 1000$_{SR}$)*, page 2-42.
• Ambient light level too high.	1. Move the processing module or block it from direct sunlight. 2. Ensure all system panels are properly installed.
• Hardware failure: – Pre-trigger and trigger valve – Pre-trigger and trigger pumps – Pre-trigger and trigger tubing connections are loose – Pre-trigger and trigger level sensor is broken – Dirty light pipes – Motor driver board has a poor connection or failed – DC driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1009

Unable to calculate result, constituent assay (x) number (y) result is not available.
x = Assay name
y = Assay number

Probable cause	Corrective action
• A constituent result was deleted before other constituents of a calculated result completed.	Reorder the constituent assay.
• The constituent result was flagged outside the linear range of the assay.	Rerun the constituent assay with manual or automatic dilution, if available.
• One of the constituent results became an exception.	Determine the cause of the exception, correct and rerun the sample.

Error code: 1050

Unable to calculate result, absorbance collection error.

Probable cause	Corrective action
• Lamp is not performing as expected.	Replace the lamp.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1051

Unable to calculate result, absorbance exceeded optical limits.

Probable cause	Corrective action
• Sample concentration is too high.	Dilute the sample and rerun. For the dilution protocol, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
• Sample is lipemic.	Ultra-centrifuge the sample and rerun the infranatant. For details on sample integrity, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp.
• Cuvettes are dirty.	Clean the cuvettes.
• Cuvette washer is not functioning properly.	1. Clean the cuvettes. 2. Perform ***as-needed*** maintenance procedure to wash the cuvettes and observe the cuvette washer nozzles for hanging drops or leaks. – If drops or leaks are observed for the high-concentration waste nozzle, replace the high-concentration waste pump poppet valve. – If drops or leaks are observed for any of the other nozzles, replace the cuvette wash pump poppet valve.

Probable cause	Corrective action
• Cuvette dry tip is damaged.	Replace the cuvette dry tip.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1052

Unable to calculate result, endpoint absorbance reads are unstable.

Probable cause	Corrective action
• Debris in the water bath incubator.	Change water bath.
• Bubbles in the water bath incubator due to the pressure of the incoming water.	Decrease the incoming DI water pressure to within specifications.
• Bubbles in the water bath incubator due to a high gas content of the incoming water.	Contact your Area Customer Support.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp.
• Dispense system is not performing correctly.	Check dispense components.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1053

Unable to calculate result, rate reaction linearity failure.

Probable cause	Corrective action
• Sample concentration is too high.	Dilute the sample and rerun. For the dilution protocol, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp.
• Cuvettes are dirty.	Clean the cuvettes.

Probable cause	Corrective action
• Cuvette washer is not functioning properly.	1. Clean the cuvettes. 2. Perform ***as-needed*** maintenance procedure to wash the cuvettes and observe the cuvette washer nozzles for hanging drops or leaks. – If drops or leaks are observed for the high-concentration waste nozzle, replace the high-concentration waste pump poppet valve. – If drops or leaks are observed for any of the other nozzles, replace the cuvette wash pump poppet valve.
• Cuvette dry tip is damaged.	Replace the cuvette dry tip.
• Debris in the water bath incubator.	Change water bath.
• R2 pipettor is out of alignment.	Calibrate the pipettor.
• Bubbles in the water bath incubator due to the pressure of the incoming water.	Decrease the incoming DI water pressure to within specifications.
• Bubbles in the water bath incubator due to a high gas content of the incoming water.	Contact your Area Customer Support.
• Hardware failure:	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1054

Unable to calculate result, Reaction check failure.

Probable cause	Corrective action
If error occurs for patient or control samples:	
• Sample concentration is too high.	Dilute the sample and rerun. For the dilution protocol, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet). **NOTE:** View the reaction graph to confirm the high sample concentration.

Probable cause	Corrective action
• Sample interferences (e.g., hemolysis, lipemia, etc.).	Visually inspect the sample for possible interference due to hemolysis, icterus, and/or turbidity and perform one of the following: • Redraw and rerun the sample if interference is present. • Rerun the sample if no interference is observed. **NOTE:** You may use the Sample interference indices to determine increased interference levels, or you may view the reaction graph to confirm abnormal absorbance readings during the Blank read time (compare to normal result with this error).
• High anticoagulant to plasma ratio (i.e., sample tube is improperly filled).	Redraw the sample into a sufficiently-filled anticoagulant tube or use a serum sample. For specimen collection and handling information, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
If error occurs for calibration samples:	
• Wrong calibrator was used or the calibrator was loaded incorrectly	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.
If error occurs for all samples:	
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp.

Error code: 1055

Unable to calculate result, Flex read absorbance invalid for calibration.

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes.
• Calibrators or reagents are not performing as expected.	Open new calibrators or reagents.

Probable cause	Corrective action
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1056

Unable to calculate result, absorbance below calibration curve lower limit.

Probable cause	Corrective action
• Sample concentration is too low.	Rerun the sample.
• Calibration curve is not optimal.	Recalibrate the assay.
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is damaged.	Replace reagent probe.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp.
• Reagent is not performing as expected.	Open new reagent(s).
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1057

Unable to calculate result, the Last required read in reference assay (x) number (y) must be defined as 5.
x = Assay name
y = Assay number

Probable cause	Corrective action
The reference photometric assay selected in the sample interference assay file does not have the Last required read setting defined as 5.	Change the last required read setting in the reference assay to a value of 5.

Error code: 1100

Assay (x) Number (y) Calibration failure, deviation between reference and fit curve too large for Cal A.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1101

Assay (x) Number (y) Calibration failure, deviation between reference and fit curve too large for Cal B
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1102

Assay (x) Number (y) Calibration failure, deviation between reference and fit curve too large for Cal C.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1103

Assay (x) Number (y) Calibration failure, deviation between reference and fit curve too large for Cal D.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1104

Assay (x) Number (y) Calibration failure, deviation between reference and fit curve too large for Cal E.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1105

Assay (x) Number (y) Calibration failure, deviation between reference and fit curve too large for Cal F.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1106

Assay (x) Number (y) Calibration failure, deviation between reference and fit curve too large for Cal 1.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1107

Assay (x) Number (y) Calibration failure, deviation between reference and fit curve too large for Cal 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1108

Assay (x) Number (y) Calibration failure, ratio too large for Cal B/Cal A.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1109

Assay (x) Number (y) Calibration failure, ratio too small for Cal B/Cal A.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1110

Assay (x) Number (y) Calibration failure, Log: Logit slope exceeds maximum parameter.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1111

Assay (x) Number (y) Calibration failure, Log: Logit slope is below minimum parameter.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1112

Assay (x) Number (y) Calibration failure, RMSE too large.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1113

Assay (x) Number (y) Calibration failure, minimum upper curve asymptote exceeded.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1114

Assay (x) Number (y) Calibration failure, maximum lower curve asymptote exceeded.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1115

Assay (x) Number (y) Calibration failure, minimum lower curve asymptote exceeded.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1116

Unable to calculate result, index formula error, parameter to LOG function.

Probable cause	Corrective action
• Wrong Cal 1 or Cal 2 used for the assay calibration.	If other assays are performing without error, place fresh Cal 1 and Cal 2 into sample cup ensuring they are for the correct assay and are placed in the correct positions.
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. See *Replace pre-trigger and/or trigger solution and update inventory (i 1000$_{SR}$)*, page 5-33. 3. Perform the following ***as-needed*** maintenance procedures: • For *i* 1000$_{SR}$: – *2137 Flush Fluids*, page 9-26 – *2162 Prime Pre-Trigger and Trigger*, page 9-27
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-26 for *i* 1000$_{SR}$.
• Pre-trigger or trigger solution volume is too low.	*Replace pre-trigger and/or trigger solution and update inventory (i 1000$_{SR}$)*, page 5-33.

Probable cause	Corrective action
• Pre-trigger or trigger bottles were replaced while processing tests, so air may have been aspirated instead of reagent.	Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2162 Prime Pre-Trigger and Trigger*, page 9-27
• Hardware failure: – Pre-trigger or trigger valve – Pre-trigger or trigger pumps – Pre-trigger or trigger tubing connections are loose – Pre-trigger or trigger level sensor is broken – Motor driver board has a poor connection or failed – DC driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1117

Assay (x) Number (y) Calibration failure, intercept out of range.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1118

Assay (x) Number (y) Calibration failure, maximum upper curve asymptote exceeded.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1119

Assay (x) Number (y) Calibration failure, curve validity check failed.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1120

Assay (x) Number (y) Calibration failure, fit response too low for Cal A.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1121

Assay (x) Number (y) Calibration failure, fit response too low for Cal F.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1122

Assay (x) Number (y) Calibration failure, fit response too low for Cal 1.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1123

Assay (x) Number (y) Calibration failure, fit response too low for Cal 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1124

Assay (x) Number (y) Calibration failure, ratio too small for Cal 1/Cal 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1125

Assay (x) Number (y) Calibration failure, ratio too large for Cal 1/Cal 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1126

Assay (x) Number (y) Calibration failure, ratio too small for Calibrators.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1127

Assay (x) Number (y) Calibration failure, ratio too large for Calibrators.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1150

Assay (x) Number (y) calibration failure, insufficient calibrator replicates.
x = Assay name
y = Assay number

Probable cause	Corrective action
Required number of replicates for a calibrator failed to complete due to an error.	Review exceptions to determine the reason for the failed calibrator replicate(s). Refer to the corrective action for the specific error.

Error code: 1151

Assay (x) Number (y) calibration failure, convergence error.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Bubbles or foam are on top of the liquid.	Remove air bubbles or foam from the surface of the sample using a clean disposable pipette or applicator stick.
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes.
• Reaction mode is incorrectly defined.	Select the **Reaction mode** list button on the Configure assay parameters window - General - Reaction Definition view, and then select the appropriate reaction mode.
• Dispense system is not performing correctly.	Check dispense components.
• Lamp is not performing as expected.	Replace the lamp.
• Calibrators or reagents are not performing as expected.	Open new calibrators or reagents.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1152

Assay (x) Number (y) calibration failure, maximum curve fit too large.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes.
• Dispense system is not performing correctly.	Check dispense components.

Probable cause	Corrective action
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp.
• Calibrators or reagents are not performing as expected.	Open new calibrators or reagents.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1153

Assay (x) Number (y) calibration failure, Slope is too low.
x = Assay name
y = Assay number

Probable cause	Corrective action
• ICT module is expired or has exceeded time or sample warranty (> two months after installation or > 15,000 samples).	Change ICT module.
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes.
• ICT module o-rings are missing or are not seated correctly.	Replace or reseat the o-rings.
• ICT probe is not connected correctly.	Finger tighten the probe to the ICT module.
• ICT aspiration tubing is not connected correctly.	Tighten the tubing connections at the top of the ICT module and at the top of the 1 mL syringes in the ICT aspiration pump.
• ICT reference solution tubing is not connected correctly.	Tighten the connections at the top and side of each check valve in the ICT reference solution pump.
• ICT check valves are not connected correctly.	Tighten the connections to the 1 mL syringes in the ICT reference solution pump and ICT aspiration pump.
• ICT check valves are not functioning.	Replace check valves.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are not seated correctly.	Reseat the 1 mL syringes.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are leaking.	Replace the 1 mL syringes.
• ICT module is not performing as expected.	Change ICT module.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1154

Unable to calculate result, convergence error.

Probable cause	Corrective action
• The sample absorbance is on the border between two segments of a Spline calibration curve and the system cannot confirm the correct segment was used for calculation.	Rerun the sample.
• An invalid Spline calibration curve was generated.	Recalibrate the assay.

Error code: 1155

Unable to calculate result, calibration curve allows multiple solutions.

Probable cause	Corrective action
An invalid Spline calibration curve was generated.	Recalibrate the assay.

Error code: 1156

Assay (x) Number (y) calibration failure, slope is outside of defined range.
x = Assay name
y = Assay number

Probable cause	Corrective action
• ICT module is expired or has exceeded time or sample warranty (> two months after installation or > 15,000 samples).	Change ICT module.
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes.
• ICT module o-rings are missing or are not seated correctly.	Replace or reseat the o-rings.
• ICT probe is not connected correctly.	Finger tighten the probe to the ICT module.
• ICT aspiration tubing is not connected correctly.	Tighten the tubing connections at the top of the ICT module and at the top of the 1 mL syringes in the ICT aspiration pump.
• ICT reference solution tubing is not connected correctly.	Tighten the tubing connections at the top and side of each check valve in the ICT reference solution pump.
• ICT check valves are not connected correctly.	Tighten the connections to the 1 mL syringes in the ICT reference solution pump and ICT aspiration pump.
• ICT check valves are not functioning.	Replace check valves.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are not seated correctly.	Reseat the 1 mL syringes.

Probable cause	Corrective action
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are leaking.	Replace the 1 mL syringes.
• ICT module is not performing as expected.	Change ICT module.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1200

Assay (x) Number (y) Calibration failure, concentration too low for Cal A.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1201

Assay (x) Number (y) Calibration failure, concentration too low for Cal B.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1202

Assay (x) Number (y) Calibration failure, concentration too low for Cal C.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1203

Assay (x) Number (y) Calibration failure, concentration too low for Cal D.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1204

Assay (x) Number (y) Calibration failure, concentration too low for Cal E.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1205

Assay (x) Number (y) Calibration failure, concentration too low for Cal F.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1206

Assay (x) Number (y) Calibration failure, concentration too high for Cal A.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1207

Assay (x) Number (y) Calibration failure, concentration too high for Cal B.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1208

Assay (x) Number (y) Calibration failure, concentration too high for Cal C.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1209

Assay (x) Number (y) Calibration failure, concentration too high for Cal D.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1210

Assay (x) Number (y) Calibration failure, concentration too high for Cal E.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1211

Assay (x) Number (y) Calibration failure, concentration too high for Cal F.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1212

Assay (x) Number (y) Calibration failure, concentration too low for Cal 1.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1213

Assay (x) Number (y) Calibration failure, concentration too low for Cal 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1214

Assay (x) Number (y) Calibration failure, concentration too high for Cal 1.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1215

Assay (x) Number (y) Calibration failure, concentration too high for Cal 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1216

Assay (x) Number (y) Calibration failure, fit concentration too low for Cal A.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1217

Assay (x) Number (y) Calibration failure, fit concentration too low for Cal B.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1218

Assay (x) Number (y) Calibration failure, fit concentration too low for Cal C.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1219

Assay (x) Number (y) Calibration failure, fit concentration too low for Cal D.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1220

Assay (x) Number (y) Calibration failure, fit concentration too low for Cal E.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1221

Assay (x) Number (y) Calibration failure, fit concentration too low for Cal F.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1222

Assay (x) Number (y) Calibration failure, fit concentration too high for Cal A.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1223

Assay (x) Number (y) Calibration failure, fit concentration too high for Cal B.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1224

Assay (x) Number (y) Calibration failure, fit concentration too high for Cal C.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1225

Assay (x) Number (y) Calibration failure, fit concentration too high for Cal D.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1226

Assay (x) Number (y) Calibration failure, fit concentration too high for Cal E.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1227

Assay (x) Number (y) Calibration failure, fit concentration too high for Cal F.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1228

Assay (x) Number (y) Calibration failure, fit concentration too low for Cal 1.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1229

Assay (x) Number (y) Calibration failure, fit concentration too low for Cal 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1230

Assay (x) Number (y) Calibration failure, fit concentration too high for Cal 1.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1231

Assay (x) Number (y) Calibration failure, fit concentration too high for Cal 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1232

Result cannot be calculated, final RLU read is outside the specification of the highest calibrator.

Probable cause	Corrective action
RLU read is outside the specification for the descending curve assay.	
If error occurs on one sample:	
• Sample concentration is too high.	Dilute the sample and rerun. See the Sample Dilution Procedures in the ARCHITECT *i* System assay-specific package insert.
• Sample contains an interfering substance.	1. See the Limitations of the Procedure in the ARCHITECT *i* System assay-specific package insert. 2. Redraw and rerun the sample if interference is present.

Probable cause	Corrective action
• Sample handling error.	1. Follow the sample handling instructions in the ARCHITECT *i* System assay-specific package insert. 2. Rerun the sample. 3. Source another sample.
If error occurs for more than one sample:	
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. See *Replace pre-trigger and/or trigger solution and update inventory (i 1000$_{SR}$)*, page 5-33. 3. Perform the following ***as-needed*** maintenance procedures: • For *i* 1000$_{SR}$: – *2137 Flush Fluids*, page 9-26 – *2162 Prime Pre-Trigger and Trigger*, page 9-27
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform **as-needed** maintenance procedure *2137 Flush Fluids*, page 9-26 for *i* 1000$_{SR}$.
• Pre-trigger or trigger solution volume is too low.	*Replace pre-trigger and/or trigger solution and update inventory (i 1000$_{SR}$)*, page 5-33.

Probable cause	Corrective action
• Pre-trigger or trigger bottles were replaced while processing tests, so air may have been aspirated instead of reagent.	Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2162 Prime Pre-Trigger and Trigger*, page 9-27
• Hardware failure: – Pre-trigger or trigger pumps – Pre-trigger or trigger valves – Pre-trigger or trigger tubing connections are loose – Motor driver board has a poor connection or failed – DC driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1250

Unable to calculate result, absorbance exceeds highest calibrator.

Probable cause	Corrective action
• Sample concentration is too high.	Dilute the sample and rerun. For the dilution protocol, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
• Sample is lipemic.	Ultra-centrifuge the sample and rerun the infranatant. For details on sample integrity, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
• Cuvette washer is not functioning properly.	1. Clean the cuvettes. 2. Perform ***as-needed*** maintenance procedure to wash the cuvettes and observe the cuvette washer nozzles for hanging drops or leaks. – If drops or leaks are observed for the high-concentration waste nozzle, replace the high-concentration waste pump poppet valve. – If drops or leaks are observed for any of the other nozzles, replace the cuvette wash pump poppet valve.
• Cuvette dry tip is damaged.	Replace the cuvette dry tip.
• Lamp is not performing as expected.	Replace the lamp.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1251

Assay (x) Number (y) calibration failure, concentration out of range for ICT index.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong index calibrator was used for calibration.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Index calibrator is not performing as expected.	Open new calibrator bottles.
• Index concentration or index range is incorrectly defined.	Define the correct **Index concentration** and **Index range** on the Configure assay parameters - Calibration window.

Error code: 1300

Assay (x) Number (y) Calibration failure, range failed for Cal A.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1301

Assay (x) Number (y) Calibration failure, range failed for Cal B.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1302

Assay (x) Number (y) Calibration failure, range failed for Cal C.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1303

Assay (x) Number (y) Calibration failure, range failed for Cal D.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1304

Assay (x) Number (y) Calibration failure, range failed for Cal E.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1305

Assay (x) Number (y) Calibration failure, range failed for Cal F.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1306

Assay (x) Number (y) Calibration failure, range failed for Cal 1.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1307

Assay (x) Number (y) Calibration failure, range failed for Cal 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1308

Assay (x) Number (y) Calibration failure, range failed for Cal 1.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1309

Assay (x) Number (y) Calibration failure, range failed for Cal 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1310

Assay (x) Number (y) Calibration failure, range too large Cal A to Cal F.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1311

Assay (x) Number (y) Calibration failure, range too small Cal A to Cal F.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1312

Assay (x) Number (y) Calibration failure, deviation too large for CAL A.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1313

Assay (x) Number (y) Calibration failure, deviation too large for CAL B.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1314

Assay (x) Number (y) Calibration failure, deviation too large for CAL C.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1315

Assay (x) Number (y) Calibration failure, deviation too large for CAL D.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1316

Assay (x) Number (y) Calibration failure, deviation too large for CAL E.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1317

Assay (x) Number (y) Calibration failure, deviation too large for CAL F.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1318

Assay (x) Number (y) Calibration failure, deviation too large for CAL 1.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1319

Assay (x) Number (y) Calibration failure, deviation too large for CAL 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1320

Assay (x) Number (y) Calibration failure, CV too large for Cal 1.
x = Assay name
y = Assay number

Probable cause	Corrective action
Calibrator 1 failed the CV specification defined in the assay settings.	1. Place fresh calibrators into clean sample cups or tubes. 2. Repeat calibration. 3. See Sample results observed problems for corrective action if error continues. See *Sample results observed problems (i System)*, page 10-526.

Error code: 1321

Assay (x) Number (y) Calibration failure, CV too large for Cal 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
Calibrator 2 failed the CV specification defined in the assay settings.	1. Place fresh calibrators into clean sample cups or tubes. 2. Repeat calibration. 3. See Sample results observed problems for corrective action if error continues. See *Sample results observed problems (i System)*, page 10-526.

Error code: 1322

Assay (x) Number (y) Calibration failure, CV too large for a Calibrator.
x = Assay name
y = Assay number

Probable cause	Corrective action
One of the calibrator replicates (A-F) failed the CV specification defined in the assay settings.	1. Place fresh calibrators into clean sample cups or tubes. 2. Repeat calibration. 3. See Sample results observed problems for corrective action if error continues. See *Sample results observed problems (i System)*, page 10-526.

Error code: 1323

Unable to calculate result, constituent assay (x) number (y) result is out of specified range.
x = Assay name
y = Assay number

Probable cause	Corrective action
A constituent result was outside of the constituent range specified in the calculated assay file.	Status message. No corrective action is required.

Error code: 1324

Unable to calculate result, result exceeds numerical limits.

Probable cause	Corrective action
A calculated result cannot be computed because the result exceeds the numerical limit of the software.	Modify the calculated result formula or constituent assay ranges. See *Configure a calculated assay*, page 2-62.

Error code: 1350

Unable to calculate result, no absorbance reads within absorbance range.

Probable cause	Corrective action
• Sample concentration is too high.	Dilute the sample and rerun. For the dilution protocol, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
• Sample is lipemic.	Ultra-centrifuge the sample and rerun the infranatant. For details on sample integrity, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is damaged.	Replace reagent probe.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp.
• Reagent is not performing as expected.	Open new reagent(s).
• Cuvettes are dirty.	Clean the cuvettes.

Probable cause	Corrective action
• Cuvette washer is not functioning properly.	1. Clean the cuvettes. 2. Perform ***as-needed*** maintenance procedure to wash the cuvettes and observe the cuvette washer nozzles for hanging drops or leaks. – If drops or leaks are observed for the high-concentration waste nozzle, replace the high-concentration waste pump poppet valve. – If drops or leaks are observed for any of the other nozzles, replace the cuvette wash pump poppet valve.
• Cuvette dry tip is damaged.	Replace the cuvette dry tip.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1351

Unable to calculate result, insufficient absorbance reads within absorbance range.

Probable cause	Corrective action
• Sample concentration is too high.	Dilute the sample and rerun. For the dilution protocol, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
• Sample is lipemic.	Ultra-centrifuge the sample and rerun the infranatant. For details on sample integrity, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is damaged.	Replace reagent probe.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp.
• Reagent is not performing as expected.	Open new reagent(s).
• Cuvettes are dirty.	Clean the cuvettes.

Probable cause	Corrective action
• Cuvette washer is not functioning properly.	1. Clean the cuvettes. 2. Perform ***as-needed*** maintenance procedure to wash the cuvettes and observe the cuvette washer nozzles for hanging drops or leaks. – If drops or leaks are observed for the high-concentration waste nozzle, replace the high-concentration waste pump poppet valve. – If drops or leaks are observed for any of the other nozzles, replace the cuvette wash pump poppet valve.
• Cuvette dry tip is damaged.	Replace the cuvette dry tip.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1352

Assay (x) Number (y) calibration failure, calibrator deviation too large.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Bubbles in the calibrator sample cup.	Remove any bubbles in the sample cup using a clean applicator stick for each calibrator.
• Dispense system is not performing correctly.	Check dispense components.
• Lamp is not performing as expected.	Replace the lamp.
• Calibrators or reagents are not performing as expected.	Open new calibrators or reagents.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1353

Assay (x) Number (y) calibration failure, calibration factor out of range.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Calibrator concentration values are incorrectly defined.	Review the Configure assay parameters - Calibration - Calibrators window for the assay to verify the correct values for the lot number used. Refer to the calibrator-specific value sheet for the correct calibrator values.
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes.

Probable cause	Corrective action
• Calibrators were onboard too long.	Place fresh calibrators into clean sample cups or tubes.
• Dispense system is not performing correctly.	Check dispense components.
• Lamp is not performing as expected.	Replace the lamp.
• Calibrators or reagents are not performing as expected.	Open new calibrators or reagents.
• Expected cal factor or expected cal factor tolerance% values need to be re-evaluated.	Perform the following steps, if it becomes necessary to re-evaluate the expected cal factor for your laboratory: 1. Collect Cal factor values from multiple calibration curves, or review calibration curve details reports for recent historical curves. (A thorough study requires multiple cartridges and multiple reagent lots.) During this collection period, be sure the control values run against those Cal factors are in range and do not display trends or shifts. 2. Average the acceptable Cal factors and enter the mean in the expected cal factor field on the Configure assay parameters - Calibration - Validity checks window. 3. If the average expected cal factor is correct and the control values have been in range, consider slightly increasing the expected cal factor tolerance%.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1354

Assay (x) Number (y) calibration failure, defined Span out of range.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Bubbles in the calibrator sample cup.	Remove any bubbles in the sample cup using a clean applicator stick for each calibrator.
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes.
• Dispense system is not performing correctly.	Check dispense components.
• Lamp is not performing as expected.	Replace the lamp.
• Calibrators or reagents are not performing as expected.	Open new calibrators or reagents.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1355

Assay (x) Number (y) calibration failure, Blank absorbance out of range.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Water quality is below specifications (if the blank calibrator is defined to use water).	Check DI water purity.
• Calibrator is not performing as expected (if the blank calibrator is defined to use a zero concentration calibrator rather than water).	Open new calibrator bottles.
• Reagent is not performing as expected.	Open new reagent(s).
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp.
• Cuvettes are dirty.	Clean the cuvettes.
• Cuvette washer is not functioning properly.	1. Clean the cuvettes. 2. Perform ***as-needed*** maintenance procedure to wash the cuvettes and observe the cuvette washer nozzles for hanging drops or leaks. – If drops or leaks are observed for the high-concentration waste nozzle, replace the high-concentration waste pump poppet valve. – If drops or leaks are observed for any of the other nozzles, replace the cuvette wash pump poppet valve.
• Cuvette dry tip is damaged.	Replace the cuvette dry tip.
• Debris in the water bath incubator.	Change water bath.
• Bubbles in the water bath incubator due to the pressure of the incoming water.	Decrease the incoming DI water pressure to within specifications.
• Bubbles in the water bath incubator due to a high gas content of the incoming water.	Contact your Area Customer Support.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1356

Unable to calculate calibrator result, insufficient absorbance reads within absorbance range.

Probable cause	Corrective action
• Bubbles for foam on the surface of the reagent.	Remove the bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is damaged.	Replace reagent probe.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp.
• Calibrators or reagents are not performing as expected.	Open new calibrators or reagents.
• Cuvettes are dirty.	Clean the cuvettes.
• Cuvette washer is not functioning properly.	1. Clean the cuvettes. 2. Perform ***as-needed*** maintenance procedure to wash the cuvettes and observe the cuvette washer nozzles for hanging drops or leaks. – If drops or leaks are observed for the high-concentration waste nozzle, replace the high-concentration waste pump poppet valve. – If drops or leaks are observed for any of the other nozzles, replace the cuvette wash pump poppet valve.
• Cuvette dry tip is damaged.	Replace the cuvette dry tip.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1400

Assay (x) Number (y) Calibration failure, inadequate number of replicates.
x = Assay name
y = Assay number

Probable cause	Corrective action
Required number of replicates for a calibrator failed to complete due to an error.	Review exceptions to determine the reason for the failed calibrator replicate(s). Refer to the corrective action for the specific error.

Error code: 1401

Assay (x) Number (y) Calibration failure did not receive results for all calibrator levels.
x = Assay name
y = Assay number

Probable cause	Corrective action
No results for all replicates of one or more calibrator levels.	Review exceptions to determine the reason for the failed calibrator replicate(s). Refer to the corrective action for the specific error.

Error code: 1402

Assay (x) Number (y) Calibration failure, calibrators incorrectly loaded.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.
• Wash buffer not correctly prepared.	1. Remove the buffer reservoir and rinse with type II water. 2. Replace buffer reservoir and load new wash buffer.

Error code: 1403

Assay (x) Number (y) Calibration failure, unable to generate calibration curve.
x = Assay name
y = Assay number

Probable cause	Corrective action
Unable to converge points on calibration curve.	
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1404

Unable to calculate result, assay is not calibrated.

Probable cause	Corrective action
No Active calibration currently stored for the assay and no assay calibration in process. Patients run after a failed calibration cannot be calculated if there is no previously stored calibration data.	1. Run assay calibration before running samples. Always priority load carriers containing calibrators. 2. Refer to specific assay calibration report or calibration detail screen to determine reason for the failed calibration. 3. Refer to the corrective action for the specific error code.

Error code: 1405

Calibrator out of order, calibration failed.

Probable cause	Corrective action
• Carriers loaded out of order.	Load the carriers in sequential order. In the robotic sample handler priority bay or section, you must physically place the carriers in the positions in sequential order. Carriers are processed in the order they are placed on the sample handler, not by position number.
• The carriers arrived at the aspiration position out of order due to robotic sample handler routing.	Reorder the calibration.
• A bar code label was detected in a position in which there was a calibrator order.	Load the calibrators in the ordered positions ensuring there are no bar codes on the calibrator cups or tubes.
• Bar code reader detecting sample cups.	Use clean sample cups. Do not write on the sample cups or use tape or labels on the sample cups.

Error code: 1406

Calibration canceled, processing interrupted between carriers containing calibrators.

Probable cause	Corrective action
• User selected stop.	*Start up the processing module and/or sample handler*, page 5-10, when the reason for the stop no longer exists.
• Hardware failure.	1. *Review message logs*, page 10-10, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-11, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 1407

Unable to process test, constituent assay (x) number (y) is disabled.
x = Assay name
y = Assay number

Probable cause	Corrective action
An assay used for computing a calculated assay was disabled.	The assay should be enabled prior to processing a calculated result which uses the assay as a constituent.

Error code: 1408

Unable to calculate result, constituent assay (x) number (y) does not support manual dilution.
x = Assay name
y = Assay number

Probable cause	Corrective action
A calculated assay was ordered on a manually diluted patient sample. The calculated assay has a constituent assay which does not support a manual dilution.	Order the calculated assay for a patient sample that is undiluted or that uses an automated dilution protocol.

Error code: 1450

Assay (x) Number (y) calibration failure.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 1451

Assay (x) Number (y) calibration failure, invalid mathematical calculation occurred.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used, or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes.
• Dispense system is not performing correctly.	Check dispense components.
• Lamp is not performing as expected.	Replace the lamp.
• Calibrators or reagents are not performing as expected.	Open new calibrators or reagents.

Error code: 1452

Unable to calculate result, invalid mathematical calculation occurred.

Probable cause	Corrective action
• Sample concentration is too low.	Rerun the sample.
• Calibration curve is not optimal.	Recalibrate the assay.
• Bubbles for foam on the surface of the reagent.	Remove the bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is damaged.	Replace reagent probe.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp.
• Reagent is not performing as expected.	Open new reagent(s).
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1453

Assay (x) Number (y) calibration failure, assay configuration error.
x = Assay name
y = Assay number

Probable cause	Corrective action
• The combined sample and reagent volume is less than 160 µL at a defined read time.	Verify the combined volume defined for: • Sample (or Diluted sample) • R1 reagent • R1 water is greater than or equal to 160 µL, if the assay uses a read point less than 17 for any defined read time.
• An assay setting is defined incorrectly.	Verify the settings on the *Windows - Configuration screen - Assay settings view*, page 2-82.

Error code: 1454

Unable to calculate result, assay configuration error.

Probable cause	Corrective action
• The combined sample and reagent volume is less than 160 µL at a defined read time.	Verify the combined volume defined for: • Sample (or Diluted sample) • R1 reagent • R1 water is greater than or equal to 160 µL, if the assay uses a read point less than 17 for any defined read time.
• An assay setting is defined incorrectly.	Verify the settings on the *Windows - Configuration screen - Assay settings view*, page 2-82.

Error code: 1455

Assay (x) Number (y) calibration failure, calibrator out of order.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes.
• Calibrator concentration values are incorrectly defined.	Review the Configure assay parameters - Calibration - Calibrators window for the assay to verify the correct values for the lot number used. Refer to the calibrator specific value sheet for the correct calibrator values.
• Dispense system is not performing correctly.	Check dispense components.
• Lamp is not performing as expected.	Replace the lamp.

Probable cause	Corrective action
• Calibrators or reagents are not performing as expected.	Open new calibrators or reagents.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1456

Assay (x) Number (y) calibration failure, no calibration curve available for adjustment.
x = Assay name
y = Assay number

Probable cause	Corrective action
No active full calibration curve currently stored for the assay. An adjustment calibration cannot be performed if there is no previously stored full calibration curve.	1. *Create a calibration order*, page 6-7, and then select **Calibration type: Full**. 2. Create an adjustment type calibration order when the full calibration is complete, if desired.

Error code: 1457

Assay (x) Number (y) calibration failure, calibration curve full interval has expired.
x = Assay name
y = Assay number

Probable cause	Corrective action
Adjustment calibration order failed because the full calibration interval has expired or the full calibration failed.	1. *Create a calibration order*, page 6-7, and then select **Calibration type: Full**. 2. Create an adjustment type calibration order when the full calibration is complete, if desired.

Error code: 1458

Assay (x) Number (y) calibration failure, did not complete results for all calibrator levels.
x = Assay name
y = Assay number

Probable cause	Corrective action
Required number of replicates for a calibrator failed to complete due to an error.	Review exceptions to determine the reason for the failed calibrator replicate(s). Refer to the corrective action for the specific error.

Error code: 1461

Unable to recalculate result, assay does not exist.

Probable cause	Corrective action
Assay was deleted since the original result was run.	Install the assay and create new test orders for the sample, if required.

Error code: 1462

Unable to edit result, assay does not exist.

Probable cause	Corrective action
Assay was deleted since the original result was generated.	Install the assay and create new test orders for the sample, if required.

Error code: 1463

Unable to recalculate result, a reaction definition assay parameter was edited.

Probable cause	Corrective action
An assay parameter setting was edited making recalculation of the result invalid (ex. Primary wavelength or Sample volume)	Rerun the sample.

Error code: 1464

Unable to recalculate a result that is a constituent of a calculated result.

Probable cause	Corrective action
The system prevents recalculation of a result used for computing a calculated result.	Rerun the sample.

Error code: 1465

Unable to edit a result that is a constituent of a calculated result.

Probable cause	Corrective action
The system prevents editing of a result used for computing a calculated result.	Status message. No corrective action is required.

Error code: 1500

Assay (x) Number (y) Calibration failure, correlation coefficient is out of range.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1600

Unable to calculate result, mV reading outside measurable range of ICT Unit.

Probable cause	Corrective action
• Black electrical connector for the ICT module is loose or not connected.	Reseat the connection.
• ICT module o-rings are missing or are not seated correctly.	Replace or reseat the o-rings.
• ICT probe is not connected correctly.	Finger tighten the probe to the ICT module.
• ICT aspiration tubing is not connected correctly.	Tighten the tubing connections at the top of the ICT module and at the top of the 1 mL syringes in the ICT aspiration pump.
• ICT reference solution tubing is not connected correctly.	Tighten the tubing connections at the top and side of each check valve in the ICT reference solution pump.
• ICT check valves are not connected correctly.	Tighten the connections to the 1 mL syringes in the ICT reference solution pump and ICT aspiration pump.
• ICT check valves are not functioning.	Replace check valves.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are not seated correctly.	Reseat the 1 mL syringes.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are leaking.	Replace the 1 mL syringes.
• ICT module is expired or has exceeded time or sample warranty (> two months after installation or > 15,000 samples).	Change ICT module.
• ICT module is not performing as expected.	Change ICT module.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1601

Unable to calculate result, ICT reference solution voltage drift error.

Probable cause	Corrective action
• Black electrical connector for the ICT module is loose or not connected.	Reseat the connection.
• ICT module o-rings are missing or are not seated correctly.	Replace or reseat the o-rings.
• ICT probe is not connected correctly.	Finger tighten the probe to the ICT module.
• ICT aspiration tubing is not connected correctly.	Tighten the tubing connections at the top of the ICT module and at the top of the 1 mL syringes in the ICT aspiration pump.
• ICT reference solution tubing is not connected correctly.	Tighten the tubing connections at the top and side of each check valve in the ICT reference solution pump.
• ICT check valves are not connected correctly.	Tighten the connections to the 1 mL syringes in the ICT reference solution pump and ICT aspiration pump.
• ICT check valves are not functioning.	Replace check valves.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are not seated correctly.	Reseat the 1 mL syringes.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are leaking.	Replace the 1 mL syringes.
• ICT module is expired or has exceeded time or sample warranty (> 2 months after installation or > 15,000 samples).	Change ICT module.
• ICT module is not performing as expected.	Change ICT module.
• The ICT Reference Solution is not performing as expected.	1. Replace the ICT Reference Solution bottle. 2. Flush ICT cup.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1602

Unable to calculate result, ICT reference solution voltage out of range.

Probable cause	Corrective action
• ICT module o-rings are missing or are not seated correctly.	Replace or reseat the o-rings.
• ICT probe is not connected correctly.	Finger tighten the probe to the ICT module.
• ICT aspiration tubing is not connected correctly.	Tighten the tubing connections at the top of the ICT module and at the top of the 1 mL syringes in the ICT aspiration pump.

Probable cause	Corrective action
• ICT reference solution tubing is not connected correctly.	Tighten the tubing connections at the top and side of each check valve in the ICT reference solution pump.
• ICT check valves are not connected correctly.	Tighten the connections to the 1 mL syringes in the ICT reference solution pump and ICT aspiration pump.
• ICT check valves are not functioning.	Replace check valves.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are not seated correctly.	Reseat the 1 mL syringes.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are leaking.	Replace the 1 mL syringes.
• ICT module is expired or has exceeded time or sample warranty (> 2 months after installation or > 15,000 samples).	Change ICT module.
• ICT module is not performing as expected.	Change ICT module.
• The ICT Reference Solution is not performing as expected.	1. Replace the ICT Reference Solution bottle. 2. Flush ICT cup.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Maintenance error codes (2000-2999)

The maintenance error code category includes error codes between 2000-2999.

If the corrective actions listed under the error code in question do not resolve the problem, contact your Area Customer Support representative at:

United States	1-877-4ABBOTT (1-877-422-2688)
International	Call your Area Customer Support representative.

NOTE: For corrective actions that involve hazardous activity refer to *Hazards*, page 8-1, for precautions you should take to minimize exposure and prevent personal injury or system damage. Hazard activities include but are not limited to:

- Replacing system probes
- Handling reagents, calibrators, controls, and specimens
- Removing physical obstructions
- Changing the lamp

- Removing system waste

Error code: 2000

Solid waste chute full. Install empty waste container, update supplies and press Run.

Probable cause	Corrective action
• The solid waste chute is full. This chute is designed to hold approximately 50 used RVs (reaction vessels) while the waste container is removed for emptying.	*Remove solid waste and update inventory (i 1000_{SR})*, page 5-21.
• Hardware failure: – Waste chute sensor board #7	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2001

RV Hopper empty, add RVs, update supplies and press Run.

Probable cause	Corrective action
• No RVs (reaction vessels) in the RV Hopper.	*Replenish RVs and update inventory (i 1000_{SR})*, page 5-25.
• Hardware failure: – RV Hopper sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2003

(x) inventory discrepancy, update supplies and press Run.
x =Inventory item

Probable cause	Corrective action
For *i* System:	
• Expected inventory does not match the available inventory.	1. Check the physical inventory level of the item against the reported inventory shown on the Supply status screen. 2. Update supplies on the Update supplies window as required.
– Pre-Trigger or Trigger Solution	*Replace pre-trigger and/or trigger solution and update inventory (i 1000_{SR})*, page 5-33.
– RVs (reaction vessels)	*Replenish RVs and update inventory (i 1000_{SR})*, page 5-25.
– Wash buffer	*Replenish wash buffer manually and update inventory (i 1000_{SR})*, page 5-27.

Probable cause	Corrective action
• During manual buffer transfer, not enough buffer was transferred to trip the full sensor.	Fill the buffer reservoir until the icon shows full.
• Hardware failure: – Cables to the pre-trigger, trigger, or wash buffer level sensors are loose – Level sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2004

(x) inventory is close to empty, update supplies.
x =Inventory item

Probable cause	Corrective action
For *i* System:	
• The indicated inventory item is low.	
– Pre-Trigger or Trigger Solution	*Replace pre-trigger and/or trigger solution and update inventory (i 1000$_{SR}$)*, page 5-33.
– RVs (reaction vessels)	*Replenish RVs and update inventory (i 1000$_{SR}$)*, page 5-25.
– Wash buffer	*Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.
– Solid waste	*Remove solid waste and update inventory (i 1000$_{SR}$)*, page 5-21.

Error code: 2006

(x) inventory has exceeded on-board stability, update supplies.
x =Inventory item

Probable cause	Corrective action
Onboard stability for either Pre-Trigger or Trigger Solution is exceeded.	*Replace pre-trigger and/or trigger solution and update inventory (i 1000$_{SR}$)*, page 5-33. **NOTE:** Pre-trigger and trigger can only be loaded when the processing module status is Stopped, Ready, or Warming.

Error code: 2007

Unable to process test, insufficient supplies.

Probable cause	Corrective action
• The available inventory for Pre-Trigger and/or Trigger Solution, wash buffer, or RVs (reaction vessels) is not sufficient to complete the test order.	Load the required inventory items on the system and update inventory. **NOTE:** Pre-trigger and trigger can only be loaded when the processing module status is Stopped, Ready, or Warming. Wash buffer can be loaded when the processing module is in any status except Initializing, Stopped, or Offline.
Onboard stability for either Pre-Trigger or Trigger Solution is exceeded.	See *Replace pre-trigger and/or trigger solution and update inventory (i 1000$_{SR}$)*, page 5-33. **NOTE:** Pre-trigger and trigger can only be loaded when the processing module status is Stopped, Ready, or Warming.
• RVs are bridged above the sensor in the RV hopper.	1. Stir the RVs in the hopper. 2. *Pause the processing module*, page 5-11, if error continues. When the status is Ready, remove RVs from the RV hopper then reload them.

Error code: 2008

Unable to process test, Pre-Trigger expired.

Probable cause	Corrective action
Onboard stability for Pre-Trigger Solution is exceeded.	Load a new bottle of pre-trigger. See *Replace pre-trigger and/or trigger solution and update inventory (i 1000$_{SR}$)*, page 5-33. **NOTE:** Pre-trigger and trigger can only be loaded when the processing module status is Stopped, Ready, or Warming.

Error code: 2009

Unable to process test, Trigger expired.

Probable cause	Corrective action
Onboard stability for Trigger Solution is exceeded.	Load a new bottle of pre-trigger. See *Replace pre-trigger and/or trigger solution and update inventory (i 1000$_{SR}$)*, page 5-33. **NOTE:** Pre-trigger and trigger can only be loaded when the processing module status is Stopped, Ready, or Warming.

Error code: 2010

Empty reagent kit in position (x).
x =Reagent carousel position

Probable cause	Corrective action
Reagent carousel contains an empty reagent kit in the indicated position.	Load a new reagent kit or continue processing samples with the other reagent kits on the module. **NOTE:** Reagents can only be loaded when the processing module status is Ready.

Error code: 2011

Extra reagent bottle detected in position (x) on (y) carousel. Print reagent load error report.
x = Position in which extra bottle was detected.
(1-25 for *i* System; A1-D20 for *c* System)
y = Location in which extra bottle was detected.
(Inner, Middle, or Outer ring for *i* System; R1 or R2 for *c* System)

Probable cause	Corrective action
For *i* System: • An extra bottle not belonging to the reagent kit in this position was detected by the system.	Load the correct bottle for the kit in the correct position.

Error code: 2012

Extra reagent bottle detected in the (x) reagent carrier position in section (y).
x = Reagent carrier position in which extra bottle was detected
y = RSH section number

Probable cause	Corrective action
An extra bottle not belonging to the reagent kit in this reagent carrier position was detected by the system.	1. Print the reagent load error report. 2. Load the correct bottle for the kit in the correct position.

Error code: 2013

Empty reagent kit in section (x).
x =RSH section number

Probable cause	Corrective action
Reagent carrier contains an empty reagent kit in the RSH section indicated.	Load a new reagent kit.

Error code: 2014

Inventory discrepancy between hardware and software, update supplies.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 2015

Insufficient or expired inventory, update supplies.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 2017

(x) inventory full, empty the container.
x = Inventory item

Probable cause	Corrective action
The waste container is full or the inventory was not updated the last time the container was emptied.	*Remove solid waste and update inventory (i 1000$_{SR}$)*, page 5-21.

Error code: 2018

Unable to perform procedure, insufficient supplies on Processing Module (x).
x = Processing module (1-4)

Probable cause	Corrective action
• The available inventory for Pre-Trigger and/or Trigger Solution, wash buffer, or RVs (reaction vessels) is not sufficient to complete the requested procedure.	Load the required inventory items on the system and update inventory.
• RVs are bridged above the sensor in the RV hopper.	1. Stir the RVs in the hopper. 2. *Pause the processing module*, page 5-11, if error continues. When the status is Ready, remove RVs from the RV hopper then reload them.

Error code: 2019

(x) inventory empty, update supplies.
x = Inventory item

Probable cause	Corrective action
For *i* System:	
• The indicated inventory item is empty or the supplies status screen was not updated when the inventory item was added. – Pre-Trigger or Trigger Solution – RVs (reaction vessels)	*Replace pre-trigger and/or trigger solution and update inventory (i 1000$_{SR}$)*, page 5-33. *Replenish RVs and update inventory (i 1000$_{SR}$)*, page 5-25.
– Wash buffer	*Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.
– Solid waste	*Remove solid waste and update inventory (i 1000$_{SR}$)*, page 5-21.
• Hardware failure: – Pre-trigger or trigger sensor – Wash buffer sensor – RV sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2020

Inventory error, review Supplies status screen.

Probable cause	Corrective action
• One or more inventory items are low or empty.	Load the required inventory items on the system and update inventory. **NOTE:** Pre-trigger and trigger can only be loaded when the processing module status is Stopped, Ready, or Warming. Wash buffer can be loaded when the processing module is in any status except Initializing, Stopped, or Offline.
• RVs (reaction vessels) are bridged above the sensor in the RV hopper.	1. Stir the RVs in the hopper. 2. *Pause the processing module*, page 5-11, if error continues. When the status is Ready, remove RVs from the RV hopper then reload them.

Error code: 2021

Solid waste pan full. Install empty solid waste container, update supplies and press Run.

Probable cause	Corrective action
The limit has been exceeded for the number of RVs to drop into the solid waste pan while the waste container has been removed for emptying.	1. Remove the solid waste and update inventory. 2. After the tests in process have completed, remove the solid waste container and clean the solid waste pan.

Error code: 2050

(x) inventory low.
x = Inventory item

Probable cause	Corrective action
The indicated bulk solution inventory is low.	Replace bulk solutions and update inventory.

Error code: 2051

(x) inventory empty, update supplies.
x = Inventory item

Probable cause	Corrective action
• The indicated bulk solution is empty.	Replace bulk solutions and update inventory.
• The supply status was not updated when the solution was added.	Update the inventory of the solution.
• Hardware failure: – Weight platform sensor cable has a poor connection – Weight platform not adjusted properly – Weight platform sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2054

High concentration waste container is Full.

Probable cause	Corrective action
• The high-concentration waste bottle is full.	Empty the high-concentration waste bottle.
• The high-concentration waste bottle float switch is dirty.	Clean the high-concentration waste sensor.
• Float switch cable has a poor connection.	Reseat the float switch cable to the module and to the high-concentration waste bottle.
• Float switch cable failed.	Replace the float switch cable.
• Float switch failed.	Replace the high-concentration waste bottle.

Error code: 2100

Wash Buffer reservoir full, ignored fill request.

Probable cause	Corrective action
• Wash buffer container was full when a request to fill was made.	Do not attempt to add wash buffer if wash buffer container is full. **NOTE:** Wash buffer can be loaded when the processing module is in any status except Initializing, Stopped, or Offline.
• Hardware failure: – Buffer level sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2101

Wash Buffer transfer canceled, Processing Module stop requested.

Probable cause	Corrective action
Wash buffer transfer canceled because of a processing module stop.	1. Start up the processing module. See *Start up the processing module and/or sample handler*, page 5-10. 2. When processing module status is Ready, load wash buffer.

Error code: 2102

Unable to prime Wash Buffer transfer pump, transfer canceled.

Probable cause	Corrective action
• Wash buffer container is empty.	*Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27. **NOTE:** Wash buffer can be loaded when the processing module is in any status except Initializing, Stopped, or Offline.
• Wash buffer transfer tubing is not connected.	Reconnect the wash buffer transfer tubing to the quick disconnect fitting.
• Hardware failure: – Buffer level sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2103

Wash Buffer transfer timed out, transfer canceled.

Probable cause	Corrective action
• Wash buffer transfer tubing is crimped.	Reposition the wash buffer transfer tubing.
• Wash buffer transfer tubing is not connected properly.	Reconnect the transfer tubing.
• Hardware failure: – Transfer pump	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2104

Unable to perform automatic Flush, (x) inventory is not adequate.
x = Inventory item

Probable cause	Corrective action
• The indicated inventory item is empty or the supplies screen was not updated when the inventory item was added.	
– Pre-Trigger or Trigger Solution	*Replace pre-trigger and/or trigger solution and update inventory (i 1000$_{SR}$)*, page 5-33. **NOTE:** Pre-trigger and trigger can only be loaded when the processing module status is Stopped, Ready, or Warming.
– RVs (reaction vessels) or wash buffer	*Replenish RVs and update inventory (i 1000$_{SR}$)*, page 5-25.
– Liquid Waste	*Empty liquid waste and update inventory (i 1000$_{SR}$)*, page 5-23.
• Hardware failure: – Pre-trigger or trigger sensor – Wash buffer sensor – RV sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2200

(x) procedure failed, refer to Activity window for details.
x = Procedure name

Probable cause	Corrective action
• A system error message occurred.	Refer to corrective action for the error indicated in the Activity list on the Maintenance Perform or Diagnostic perform window.
• Criteria for acceptance specified in the procedure was not met.	If there is no error in the Activity list, the criteria for acceptance specified in the maintenance or diagnostic procedure was not met.

Error code: 2201

(x) procedure canceled by user.
x = Procedure name

Probable cause	Corrective action
User selected Quit while performing a procedure.	Status message. No corrective action is required.

Error code: 2202

(x) procedure report not available.
x = Procedure name

Probable cause	Corrective action
Requested to print a report for a procedure not performed on the selected module.	Select a different module or perform the procedure for the selected module, and then select print.

Error code: 2300

Unable to perform Sample pipettor calibration, sample carousel cover is closed.

Probable cause	Corrective action
• The sample carousel cover was closed during the procedure.	Do not close the sample carousel cover unless instructed to do so in the procedure.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2301

Unable to perform Reagent 1 pipettor calibration, reagent 1 carousel cover is closed.

Probable cause	Corrective action
• The reagent carousel cover was closed during the calibration procedure.	Do not close the reagent carousel cover unless instructed to do so in the procedure.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2302

Unable to perform Reagent 2 pipettor calibration, reagent 2 carousel cover is closed.

Probable cause	Corrective action
• The reagent carousel cover was closed during the calibration procedure.	Do not close the reagent carousel cover unless instructed to do so in the procedure.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2303

Unable to perform Sample pipettor calibration, sample carousel homing failed.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the sample carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2304

Unable to perform Reagent 1 pipettor calibration, reagent 1 outer carousel homing failed.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 outer carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2305

Unable to perform Reagent 1 pipettor calibration, reagent 1 inner carousel homing failed.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 inner carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2306

Unable to perform Reagent 2 pipettor calibration, reagent 2 carousel homing failed.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2307

Unable to perform (x) pipettor calibration, pipettor homing error.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstructions.
• Probe is damaged.	Perform the appropriate probe replacement procedure.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2308

Unable to perform Sample pipettor calibration, error while moving Sample carousel.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the sample carousel.	Look for and remove any physical obstruction.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2309

Unable to perform Reagent 1 pipettor calibration, error while moving Reagent 1 outer carousel.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 outer carousel.	Look for and remove any physical obstruction.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2310

Unable to perform Reagent 1 pipettor calibration, error while moving Reagent 1 inner carousel.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 inner carousel.	Look for and remove any physical obstruction.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2311

Unable to perform Reagent 2 pipettor calibration, error while moving Reagent 2 carousel.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 carousel.	Look for and remove any physical obstruction.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2312

Unable to perform (x) pipettor calibration, pipettor horizontal movement error.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the rotation of the pipettor.	Look for and remove any physical obstruction.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2313

Unable to perform (x) pipettor calibration, pipettor error while moving down.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is preventing the pipettor from moving down.	Look for and remove any physical obstruction.
• Probe is damaged.	Perform the appropriate probe replacement procedure.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2314

Unable to perform (x) pipettor calibration, pipettor error while moving up.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Probe is damaged.	Perform the appropriate probe replacement procedure.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2315

Unable to perform Sample pipettor calibration, sample carousel rotation error.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the sample carousel.	Look for and remove any physical obstruction.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2316

Unable to perform Reagent 1 pipettor calibration, reagent 1 outer carousel rotation error.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 outer carousel.	Look for and remove any physical obstruction.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2317

Unable to perform Reagent 1 pipettor calibration, reagent 1 inner carousel rotation error.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 inner carousel.	Look for and remove any physical obstruction.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2318

Unable to perform Reagent 2 pipettor calibration, reagent 2 carousel rotation error.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 carousel.	Look for and remove any physical obstruction
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2319

Unable to perform Sample pipettor calibration, exceeded sample carousel target vertical range.

Probable cause	Corrective action
• Sample carousel is not seated properly.	Reseat the sample carousel properly on the alignment pins.
• Sample carousel is not present.	Place the sample carousel in position.

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is dirty.	Clean sample probe.
• Sample probe is damaged.	Replace sample probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2320

Unable to perform Sample pipettor calibration, exceeded cuvette target vertical range.

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is dirty.	Clean sample probe.
• Sample probe is damaged.	Replace sample probe.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2321

Unable to perform Sample pipettor calibration, exceeded sample handler target vertical range.

Probable cause	Corrective action
• Carrier calibration tool is not present.	Place the carrier calibration tool in the carrier.
• Carrier calibration tool is not seated properly.	Reseat the carrier calibration tool in the carrier.

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is dirty.	Clean sample probe.
• Sample probe is damaged.	Replace sample probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2322

Unable to perform (x) pipettor calibration, exceeded cuvette target vertical range.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2323

Unable to perform Reagent 1 pipettor calibration, exceeded outer carousel target vertical range.

Probable cause	Corrective action
• The segment in position A of reagent supply center 1 is not present or does not have the calibration target.	Install a segment with the calibration target into position A of reagent supply center 1.
• The segment in position A of reagent supply center 1 is not seated properly.	Reseat the segment in position A of reagent supply center 1 on the alignment pins.
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2324

Unable to perform Reagent 1 pipettor calibration, exceeded inner carousel target vertical range.

Probable cause	Corrective action
• The segment in position D of reagent supply center 1 is not present.	Install a segment into position D of reagent supply center 1.
• The segment in position D of reagent supply center 1 is not seated properly.	Reseat the segment in position D of reagent supply center 1 on the alignment pins.
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.

Probable cause	Corrective action
• Reagent probe is damaged.	Replace reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2325

Unable to perform Reagent 2 pipettor calibration, exceeded cuvette target vertical range.

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2326

Unable to perform Reagent 2 pipettor calibration, exceeded carousel target vertical range.

Probable cause	Corrective action
• The segment in position A of reagent supply center 2 is not present or does not have the calibration target.	Install a segment with the calibration target into position A of reagent supply center 2.
• The segment in position A of reagent supply center 2 is not seated properly.	Reseat the segment in position A of reagent supply center 2 on the alignment pins.
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.

Probable cause	Corrective action
• Reagent probe is damaged.	Replace reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2327

Unable to perform Sample pipettor calibration, exceeded wash cup target horizontal range.

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is dirty.	Clean sample probe.
• Sample probe is damaged.	Replace sample probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2328

Unable to perform Sample pipettor calibration, exceeded cuvette target horizontal range.

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is dirty.	Clean sample probe.
• Sample probe is damaged.	Replace sample probe.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2329

Unable to perform (x) pipettor calibration, exceeded cuvette target horizontal range.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2330

Unable to perform (x) pipettor calibration, exceeded wash cup target horizontal range.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2331

Unable to perform (x) pipettor calibration, exceeded cuvette target horizontal range.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2332

Unable to perform (x) pipettor calibration, exceeded wash cup target horizontal range.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2333

(x) pipettor calibration failed probe straightness check.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Probe is damaged.	Perform the appropriate probe replacement procedure.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Probe is dirty.	Clean the probe.

Error code: 2334

Unable to perform (x) pipettor calibration, cuvette segment alignment tool not found.
x = Pipettor name

Probable cause	Corrective action
• The cuvette segment alignment tool was not installed.	Install the cuvette segment alignment tool when instructed to do so in the procedure.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Water is present on the slotted edges of the cuvette segment alignment tool.	Remove the cuvette segment alignment tool and dry the slotted edges before reinstalling it to repeat the procedure.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2335

Unable to perform Sample pipettor calibration, sample carousel target not found.

Probable cause	Corrective action
• Sample carousel is not seated properly.	Reseat the sample carousel properly on the alignment pins.
• Sample carousel is not present.	Place the sample carousel in position.
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.

Probable cause	Corrective action
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is dirty.	Clean sample probe.
• Sample probe is damaged.	Replace sample probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2336

Unable to perform Sample pipettor calibration, cuvette target not found.

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is dirty.	Clean sample probe.
• Sample probe is damaged.	Replace sample probe.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2337

Unable to perform (x) pipettor calibration, cuvette target not found.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2338

Unable to perform Reagent 1 pipettor calibration, outer carousel target not found.

Probable cause	Corrective action
• The segment in position A of reagent supply center 1 is not present or does not have the calibration target.	Install a segment with the calibration target into position A of reagent supply center 1.
• The segment in position A of reagent supply center 1 is not seated properly.	Reseat the segment in position A of reagent supply center 1 on the alignment pins.
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2339

Unable to perform Reagent 1 pipettor calibration, inner carousel target not found.

Probable cause	Corrective action
• The segment in position D of reagent supply center 1 is not present.	Install a segment into position D of reagent supply center 1.
• The segment in position D of reagent supply center 1 is not seated properly.	Reseat the segment in position D of reagent supply center 1 on the alignment pins.
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2340

Unable to perform Reagent 2 pipettor calibration, cuvette target not found.

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2341

Unable to perform Reagent 2 pipettor calibration, carousel target not found.

Probable cause	Corrective action
• The segment in position A of reagent supply center 2 is not present or does not have the calibration target.	Install a segment with the calibration target into position A of reagent supply center 2.
• The segment in position A of reagent supply center 2 is not seated properly.	Reseat the segment in position A of reagent supply center 2 on the alignment pins.
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2342

Unable to perform Sample pipettor calibration, unable to determine target position.

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Carrier calibration tool is not present.	Place the carrier calibration tool in the carrier.
• Carrier calibration tool is not seated properly.	Reseat the carrier calibration tool in the carrier.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is damaged.	Replace sample probe.
• Sample probe is dirty.	Clean sample probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2343

Unable to perform Reagent 1 pipettor calibration, incorrect segment A type found in outer carousel.

Probable cause	Corrective action
• A reagent segment without a calibration target was detected in position A of reagent supply center 1.	Install a segment with the calibration target into position A of reagent supply center 1.
• The segment in position A of reagent supply center 1 is not seated properly.	Reseat the segment in position A of reagent supply center 1 on the alignment pins.
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-619.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2344

Unable to perform Reagent 2 pipettor calibration, incorrect segment A type found in carousel.

Probable cause	Corrective action
• A reagent segment without a calibration target was detected in position A of reagent supply center 2.	Install the segment with the calibration target in position A of reagent supply center 2.
• The segment in position A of reagent supply center 1 is not seated properly.	Reseat the segment in position A of reagent supply center 1 on the alignment pins.
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-619.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2345

Unable to perform (x) pipettor calibration, water bath level low.
x = Pipettor name

Probable cause	Corrective action
• DI water system failure.	1. Turn on the water supply. 2. Flush water lines.
• System power was off.	Perform either Daily Maintenance or Change Water Bath procedures to fill the water bath.
• Hardware failure: – Module is not level – Level sensor is dirty or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2346

Unable to perform Sample pipettor calibration, LLS error occurred at sample carousel.

Probable cause	Corrective action
• Sample carousel is not seated properly.	Reseat the sample carousel properly on the alignment pins.
• Sample carousel is not present.	Place the sample carousel in position.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is dirty.	Clean sample probe.
• Sample probe is damaged.	Replace sample probe.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2347

Unable to perform Sample pipettor calibration, LLS error occurred at wash cup.

Probable cause	Corrective action
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is dirty.	Clean sample probe.
• Sample probe is damaged.	Replace sample probe.

Probable cause	Corrective action
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2348

Unable to perform Sample pipettor calibration, LLS error occurred at cuvette.

Probable cause	Corrective action
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is dirty.	Clean sample probe.
• Sample probe is damaged.	Replace sample probe.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2349

Unable to perform Sample pipettor calibration, LLS error occurred at sample handler.

Probable cause	Corrective action
• Carrier calibration tool is not present.	Place the carrier calibration tool in the carrier.
• Carrier calibration tool is not seated properly.	Reseat the carrier calibration tool in the carrier.
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.

Probable cause	Corrective action
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is dirty.	Clean sample probe.
• Sample probe is damaged.	Replace sample probe.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2350

Unable to perform (x) pipettor calibration, LLS error occurred at cuvette.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.

Probable cause	Corrective action
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2351

Unable to perform (x) pipettor calibration, LLS error occurred at wash cup.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2352

Unable to perform Reagent 1 pipettor calibration, LLS error occurred at outer carousel.

Probable cause	Corrective action
• The segment in position A of reagent supply center 1 is not present or does not have the calibration target.	Install a segment with the calibration target into position A of reagent supply center 1.
• The segment in position A of reagent supply center 1 is not seated properly.	Reseat the segment in position A of reagent supply center 1 on the alignment pins.

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2353

Unable to perform Reagent 1 pipettor calibration, LLS error occurred at inner carousel.

Probable cause	Corrective action
• The segment in position D of reagent supply center 1 is not present.	Install a segment into position D of reagent supply center 1.
• The segment in position D of reagent supply center 1 is not seated properly.	Reseat the segment in position D of reagent supply center 1 on the alignment pins.
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.

Probable cause	Corrective action
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2354

Unable to perform (x) pipettor calibration, LLS error occurred at cuvette.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2355

Unable to perform (x) pipettor calibration, LLS error occurred at wash cup.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2356

Unable to perform Reagent 2 pipettor calibration, LLS error occurred at carousel.

Probable cause	Corrective action
• The segment in position A of reagent supply center 2 is not present or does not have the calibration target.	Install a segment with the calibration target into position A of reagent supply center 2.
• The segment in position A of reagent supply center 2 is not seated properly.	Reseat the segment in position A of reagent supply center 2 on the alignment pins.
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.

Probable cause	Corrective action
• Reagent probe is damaged.	Replace reagent probe.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2357

Unable to perform Sample pipettor calibration, pipettor movement restricted at sample carousel.

Probable cause	Corrective action
• A physical interference is blocking the movement of the sample pipettor.	Remove any obstruction from the area of movement of the sample pipettor.
• Probe is damaged.	Replace the sample probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2358

Unable to perform Sample pipettor calibration, pipettor movement restricted at wash cup.

Probable cause	Corrective action
• A physical interference is blocking the movement of the sample pipettor.	Remove any obstruction from the area of movement of the sample pipettor.
• Probe is damaged.	Replace the sample probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2359

Unable to perform Sample pipettor calibration, pipettor movement restricted at cuvette.

Probable cause	Corrective action
• A physical interference is blocking the movement of the sample pipettor.	Remove any obstruction from the area of movement of the sample pipettor.
• Probe is damaged.	Replace the sample probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2360

Unable to perform Sample pipettor calibration, pipettor movement restricted at sample handler.

Probable cause	Corrective action
• A physical interference is blocking the movement of the sample pipettor.	Remove any obstruction from the area of movement of the sample pipettor.
• Probe is damaged.	Replace the sample probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2361

Unable to perform (x) pipettor calibration, pipettor movement restricted at cuvette.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent pipettor.	Remove any obstruction from the area of movement of the reagent pipettor.
• Probe is damaged.	Replace the reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2362

Unable to perform (x) pipettor calibration, pipettor movement restricted at wash cup.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent pipettor.	Remove any obstruction from the area of movement of the reagent pipettor.
• Probe is damaged.	Replace the reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2363

Unable to perform Reagent 1 pipettor calibration, pipettor movement restricted at outer carousel.

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent pipettor.	Remove any obstruction from the area of movement of the reagent pipettor.
• Probe is damaged.	Replace the reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2364

Unable to perform Reagent 1 pipettor calibration, pipettor movement restricted at inner carousel.

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent pipettor.	Remove any obstruction from the area of movement of the reagent pipettor.
• Probe is damaged.	Replace the reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2365

Unable to perform (x) pipettor calibration, pipettor movement restricted at cuvette.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent pipettor.	Remove any obstruction from the area of movement of the reagent pipettor.
• Probe is damaged.	Replace the reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2366

Unable to perform (x) pipettor calibration, pipettor movement restricted at wash cup.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent pipettor.	Remove any obstruction from the area of movement of the reagent pipettor.
• Probe is damaged.	Replace the reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2367

Unable to perform Reagent 2 pipettor calibration, pipettor movement restricted at carousel.

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent pipettor.	Remove any obstruction from the area of movement of the reagent pipettor.
• Probe is damaged.	Replace the reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2368

Unable to perform Sample pipettor calibration, sample handler target not found.

Probable cause	Corrective action
• Carrier calibration tool is not present.	Place the carrier calibration tool in the carrier.
• Carrier calibration tool is not seated properly.	Reseat the carrier calibration tool in the carrier.
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is dirty.	Clean sample probe.
• Sample probe is damaged.	Replace sample probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2369

Unable to perform (x) pipettor calibration, pipettor is not properly aligned with cuvette target.
x = Pipettor name

Probable cause	Corrective action
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Hardware failure: – Reagent 2 pipettor requires manual alignment.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2370

Unable to perform Reagent 2 pipettor calibration, reagent 2 outer carousel homing failed.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 outer carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2371

Unable to perform Reagent 2 pipettor calibration, reagent 2 inner carousel homing failed.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 inner carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2372

Unable to perform Reagent 2 pipettor calibration, error while moving Reagent 2 outer carousel.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 outer carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2373

Unable to perform Reagent 2 pipettor calibration, error while moving Reagent 2 inner carousel.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 inner carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2374

Unable to perform Reagent 2 pipettor calibration, Reagent 2 inner carousel rotation error.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 inner carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2375

Unable to perform Reagent 2 pipettor calibration, Reagent 2 outer carousel rotation error.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 outer carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2376

Unable to perform Reagent 2 pipettor calibration, exceeded outer carousel target vertical range.

Probable cause	Corrective action
• The segment in position A of reagent supply center 2 is not present or does not have the calibration target.	Install a segment with the calibration target into position A of reagent supply center 2.
• The segment in position A of reagent supply center 2 is not seated properly.	Reseat the segment in position A of reagent supply center 2 on the alignment pins.
• A physical interference is blocking the movement of the pipettor.	Remove any obstruction from the area of movement of the pipettor.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover ensuring the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2377

Unable to perform Reagent 2 pipettor calibration, exceeded inner carousel target vertical range.

Probable cause	Corrective action
• The segment in position D of reagent supply center 2 is not present.	Install a segment with the calibration target into position D of reagent supply center 2.
• The segment in position D of reagent supply center 2 is not seated properly.	Reseat the segment in position D of reagent supply center 2 on the alignment pins.
• A physical interference is blocking the movement of the pipettor.	Remove any obstruction from the area of movement of the pipettor.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover ensuring the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2378

Unable to perform Reagent 2 pipettor calibration, outer carousel target not found.

Probable cause	Corrective action
• The segment in position A of reagent supply center 2 is not present or does not have the calibration target.	Install a segment with the calibration target into position A of reagent supply center 2.
• The segment in position A of reagent supply center 2 is not seated properly.	Reseat the segment in position A of reagent supply center 2 on the alignment pins.
• A physical interference is blocking the movement of the pipettor.	Remove any obstruction from the area of movement of the pipettor.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover ensuring the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2379

Unable to perform Reagent 2 pipettor calibration, inner carousel target not found.

Probable cause	Corrective action
• The segment in position D of reagent supply center 2 is not present.	Install a segment with the calibration target into position D of reagent supply center 2.
• The segment in position D of reagent supply center 2 is not seated properly.	Reseat the segment in position D of reagent supply center 2 on the alignment pins.
• A physical interference is blocking the movement of the pipettor.	Remove any obstruction from the area of movement of the pipettor.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover ensuring the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2380

Unable to perform Reagent 2 pipettor calibration, incorrect segment A type found in outer carousel.

Probable cause	Corrective action
• A 15-position reagent segment was detected in position A of reagent supply center 2.	Install a segment with the calibration target into position A of reagent supply center 2.
• The segment in position A of reagent supply center 2 is not seated properly.	Reseat the segment in position A of reagent supply center 2 on the alignment pins.
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-619.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2381

Unable to perform Reagent 2 pipettor calibration, LLS error occurred at outer carousel.

Probable cause	Corrective action
• The segment in position A of reagent supply center 2 is not present or does not have the calibration target.	Install a segment with the calibration target into position A of reagent supply center 2.
• The segment in position A of reagent supply center 2 is not seated properly.	Reseat the segment in position A of reagent supply center 2 on the alignment pins.

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Remove any obstruction from the area of movement of the pipettor.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover ensuring the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure. – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2382

Unable to perform Reagent 2 pipettor calibration, LLS error occurred at inner carousel.

Probable cause	Corrective action
• The segment in position D of reagent supply center 2 is not present.	Install a segment with the calibration target into position D of reagent supply center 2.
• The segment in position D of reagent supply center 2 is not seated properly.	Reseat the segment in position D of reagent supply center 2 on the alignment pins.
• A physical interference is blocking the movement of the pipettor.	Remove any obstruction from the area of movement of the pipettor.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover ensuring the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe.
• Reagent probe is damaged.	Replace reagent probe.

Probable cause	Corrective action
• Water quality is below specifications.	Check DI water purity.
• Hardware failure. – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2383

Unable to perform Reagent 2 pipettor calibration, pipettor movement restricted at outer carousel.

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent pipettor.	Remove any obstruction from the area of movement of the reagent pipettor.
• Reagent probe is damaged.	Replace reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2384

Unable to perform Reagent 2 pipettor calibration, pipettor movement restricted at inner carousel.

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent pipettor.	Remove any obstruction from the area of movement of the reagent pipettor.
• Reagent probe is damaged.	Replace reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Level sense error codes (3000-3999)

The level sense error code category includes error codes between 3000-3999.

If the corrective actions listed under the error code in question do not resolve the problem, contact your Area Customer Support representative at:

United States	1-877-4ABBOTT (1-877-422-2688)
International	Call your Area Customer Support representative.

NOTE: For corrective actions that involve hazardous activity refer to *Hazards*, page 8-1, for precautions you should take to minimize exposure and prevent personal injury or system damage. Hazard activities include but are not limited to:

- Replacing system probes
- Handling reagents, calibrators, controls, and specimens
- Removing physical obstructions
- Changing the lamp
- Removing system waste

Error code: 3000

Unable to process test, Liquid not found for (x) at (y).
x = Pipettor name
y = Location

Probable cause	Corrective action
For sample pipetting:	
• A sample cup or tube is not present.	Ensure sample cup or tube is present.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-122.
• Pipettor probe clamp is loose.	Tighten the probe clamp finger tight.
• Liquid level sense and Z cable has a poor connection.	Tighten the screw holding the cable to the probe clamp, then perform one of the following ***fluidics/wash*** diagnostic procedures: • For *i* 1000_{SR}: – *3630 LLS Test*, page 10-605, for the pipettor
• Probe is out of alignment.	Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25
• Probe is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40

Probable cause	Corrective action
• Hardware failure: – Liquid level sense and Z cable – Antenna board or cables have a poor connection or failed – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 2 (*i* 1000_{SR}) – Indexer board in the upper card cage has a poor connection or failed in: Slot 3 (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.
For reagent pipetting:	
• Reagent bottle is empty.	Replace empty reagents.
• WZ probe maintenance water bottle was filled with DI water instead of tap water or saline during a procedure.	Repeat one of the following ***daily*** or ***as-needed*** maintenance procedures, ensuring the WZ probe maintenance water bottle is 1/2 to 3/4 full of tap water or saline: **NOTE:** Do not use DI water for these procedures: • For *i* 1000_{SR}: – *6440 Daily Maintenance*, page 9-21
• WZ probe maintenance water bottle was over-filled with tap water or saline during a procedure.	Repeat one of the following ***daily*** or ***as-needed*** maintenance procedures, ensuring the WZ probe maintenance water bottle is 1/2 to 3/4 full of tap water or saline: • For *i* 1000_{SR}: – *6440 Daily Maintenance*, page 9-21
• Maintenance cleaning bottle was overfilled with sodium hypochlorite solution during a procedure.	Repeat one of the following ***daily*** or ***as-needed*** maintenance procedures, ensuring the WZ probe maintenance water bottle is 1/2 to 3/4 full of sodium hypochlorite solution: • For *i* 1000_{SR}: – *6445 Pipettor/WZ Probe Cleaning*, page 9-23
• WZ probe maintenance water bottle was not loaded or was not loaded in the correct position during a procedure.	Repeat one of the following ***daily*** or ***as-needed*** maintenance procedures, ensuring the WZ probe maintenance water bottle is 1/2 to 3/4 full of tap water or saline: • For *i* 1000_{SR}: – *6440 Daily Maintenance*, page 9-21

Probable cause	Corrective action
• Maintenance cleaning bottle was not loaded or was not loaded in the correct position during a procedure.	Repeat one of the following ***daily*** or ***as-needed*** maintenance procedures, ensuring the WZ probe maintenance water bottle is 1/2 to 3/4 full of sodium hypochlorite solution: • For *i* 1000_{SR}: – *6445 Pipettor/WZ Probe Cleaning*, page 9-23
• Pipettor probe clamp is loose.	Tighten the probe clamp finger tight.
• Liquid level sense and Z cable has a poor connection.	Tighten the screw holding the cable to the probe clamp, then perform one of the following ***fluidics/wash*** diagnostic procedures: • For *i* 1000_{SR}: – *3630 LLS Test*, page 10-605, for the pipettor
• Probe is out of alignment.	Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25
• Probe is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40
• Hardware failure: – Liquid level sense and Z cable – Antenna board or cables have a poor connection or failed – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 2 (*i* 1000_{SR}) – Indexer board in the upper card cage has a poor connection or failed in: Slot 3 (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3001

Unable to process test, liquid not found for sample pipettor at sample carousel position (x).
x = Sample carousel position

Probable cause	Corrective action
• A sample cup or tube is not present.	Ensure sample cup or tube is present.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-122.
• Bubbles or foam are on top of the liquid.	Remove bubbles or foam from the surface of the sample using a clean disposable pipette or applicator stick.

Probable cause	Corrective action
• Sample probe is dirty.	Clean sample probe.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is out of alignment.	Perform sample pipettor calibration.
• Sample probe is damaged or has been in use for greater than one year.	Replace sample probe.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – SMC board has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3002

Unable to process test, liquid not found for (x) pipettor at position (y).
x = Pipettor name
y = Reagent carousel segment and position

Probable cause	Corrective action
• No reagent cartridge present or the cartridge is empty.	Load reagents or replace empty reagents.
• Reagent cartridge is not seated properly.	Verify there is nothing preventing the reagent cartridge from seating against the bottom of the carousel. For reagents using the 20 mL (bottle) cartridge in the adapter, verify the bottle was pressed down against the bottom of the carousel.
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is dirty.	Clean reagent probe.

Probable cause	Corrective action
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration.
• Reagent probe is damaged.	Replace reagent probe.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3003

Unable to process test, liquid not found for (x) pipettor at position (y).
x = Pipettor name
y = Reagent carousel segment and position

Probable cause	Corrective action
• No reagent cartridge present or the cartridge is empty.	Load reagents or replace empty reagents.
• Reagent cartridge is not seated properly.	Verify there is nothing preventing the reagent cartridge from seating against the bottom of the carousel. For reagents using the 20 mL (bottle) cartridge in the adapter, verify the bottle was pressed down against the bottom of the carousel.
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is dirty.	Clean reagent probe.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.

Probable cause	Corrective action
• Reagent probe is out of alignment.	Perform pipettor calibration.
• Reagent probe is damaged.	Replace reagent probe.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3004

Unable to process test, liquid not found for sample pipettor at sample carrier.

Probable cause	Corrective action
• A sample cup or tube is not present.	Ensure sample cup or tube is present.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-122.
• Bubbles or foam are on top of the liquid.	Remove bubbles or foam from the surface of the sample using a clean disposable pipette or applicator stick.
• Sample probe is dirty.	Clean sample probe.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is out of alignment.	Perform sample pipettor calibration.
• Sample probe is damaged or has been in use for greater than one year.	Replace the sample probe.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3005

Unable to process test, liquid not found for reagent 1 pipettor.

Probable cause	Corrective action
• No reagent cartridge present or the cartridge is empty.	Load reagents or replace empty reagents.
• Reagent cartridge is not seated properly.	Verify there is nothing preventing the reagent cartridge from seating against the bottom of the carousel. For reagents using the 20 mL (bottles) cartridge in the adapter, verify the bottle was pressed down against the bottom of the carousel.
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is dirty.	Clean reagent probe.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration.
• Reagent probe is damaged.	Replace reagent probe.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3006

Unable to process test, liquid not found for reagent 2 pipettor.

Probable cause	Corrective action
• No reagent cartridge present or the cartridge is empty.	Load reagents or replace empty reagents.
• Reagent cartridge is not seated properly.	Verify there is nothing preventing the reagent cartridge from seating against the bottom of the carousel. For reagents using the 20 mL (bottle) cartridge in the adapter, verify the bottle was pressed down against the bottom of the carousel.
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is dirty.	Clean reagent probe.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration.
• Reagent probe is damaged.	Replace reagent probe.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3050

Unable to process test, Liquid too low for (x) at (y).
x = Pipettor name
y = Location

Probable cause	Corrective action
For sample pipetting:	
• A sample cup or tube is not present.	Ensure sample cup or tube is present.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-122.

Probable cause	Corrective action
• Pipettor probe clip is loose.	Tighten the probe clip finger tight.
• Liquid level sense and Z cable has a poor connection.	Tighten the screw holding the cable to the probe clip, then perform the following ***fluidics/wash*** diagnostic procedures: • For *i* 1000_{SR}: – *3630 LLS Test*, page 10-605, for the pipettor
• Probe is out of alignment.	Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR} – *1110 Pipettor Calibration*, page 9-25
• Probe is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR} – *Replace pipettor probe (i 1000_{SR})*, page 9-40
• Hardware failure: – Liquid level sense and Z cable – Antenna board or cables have a poor connection or failed. – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 2 (*i* 1000_{SR}) – Indexer board in the upper card cage has a poor connection or failed in: Slot 3 (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.
For reagent pipetting:	
• Reagent bottle is empty.	Replace empty reagents.
• Pipettor probe clip is loose.	Tighten the probe clip finger tight.
• Liquid level sense and Z cable has a poor connection.	Tighten the screw holding the cable to the probe clip, then perform one of the following ***fluidics/wash*** diagnostic procedures: • For *i* 1000_{SR}: – *3630 LLS Test*, page 10-605, for the pipettor
• Probe is out of alignment.	Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25

Probable cause	Corrective action
• Probe is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40
• Hardware failure: – Liquid level sense and Z cable – Antenna board or cables have a poor connection or failed – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 2 (*i* 1000_{SR}) – Indexer board in the upper card cage has a poor connection or failed in: Slot 3 (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3051

Unable to process test, liquid too high for (y) at (x).
x = Pipettor name
y = Location

Probable cause	Corrective action
For sample pipetting:	
• Too much sample in cup or tube.	Load a properly filled sample cup or tube. See *Sample volume requirements*, page 5-122.
• Probe is dirty.	Wipe the exterior of the sample probe with a lint free tissue dampened with DI water.
• Pipettor probe clip loose.	Tighten the probe clip finger tight.
• Probe is out of alignment.	Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25

Probable cause	Corrective action
• Hardware failure: – Pipettor pressure monitor cables have a poor connection or failed – Pipettor pressure monitor board – Pipettor pressure monitor – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 2 (*i* 1000_{SR}) – Indexer board in the upper card cage has a poor connection or failed in: Slot 3 (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.
For reagent pipetting:	
• Liquid on reagent bottle septum.	1. Verify reagent bottle is not over filled. 2. Place a new septum on all reagent bottles.
• Probe is dirty.	Wipe the exterior of the probe with a lint free tissue dampened with DI water.
• Pipettor probe clip loose.	Tighten the probe clip finger tight.
• Probe is out of alignment.	Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25
• Hardware failure: – Pressure monitor cables have a poor connection – Pipettor pressure monitor board – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 2 (*i* 1000_{SR}) – Indexer board in the upper card cage has a poor connection or failed in: Slot 3 (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3052

Unable to process test, liquid too low for sample pipettor at sample carousel position (x).
x = Sample carousel position

Probable cause	Corrective action
• A sample cup or tube is not present.	Ensure sample cup or tube is present.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-122.

Probable cause	Corrective action
• Sample probe is dirty.	Clean sample probe.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is out of alignment.	Perform sample pipettor calibration.
• Sample probe is damaged or has been in use for greater than one year.	Replace the sample probe.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3053

Unable to process test, liquid too low for (x) pipettor at position (y).
x = Pipettor name
y = Reagent carousel segment and position

Probable cause	Corrective action
• No reagent cartridge present or the cartridge is empty.	Load reagents or replace empty reagents.
• Reagent cartridge is not seated properly.	Verify there is nothing preventing the reagent cartridge from seating against the bottom of the carousel. For reagents using the 20 mL (bottle) cartridge in the adapter, verify the bottle was pressed down against the bottom of the carousel.
• Reagent probe is dirty.	Clean reagent probe.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration.

Probable cause	Corrective action
• Reagent probe is damaged.	Replace reagent probe.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3054

Unable to process test, liquid too low for (x) pipettor at position (y).
x = Pipettor name
y = Reagent carousel segment and position

Probable cause	Corrective action
• No reagent cartridge present or the cartridge is empty.	Load reagents or replace empty reagents.
• Reagent cartridge is not seated properly.	Verify there is nothing preventing the reagent cartridge from seating against the bottom of the carousel. For reagents using the 20 mL (bottle) cartridge in the adapter, verify the bottle was pressed down against the bottom of the carousel.
• Reagent probe is dirty.	Clean reagent probe.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration.
• Reagent probe is damaged.	Replace reagent probe.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3055

Unable to process test, liquid too high for sample pipettor at sample carousel position (x).
x = Sample carousel position

Probable cause	Corrective action
• Too much sample in cup or tube.	Load a properly filled sample cup or tube. See *Sample volume requirements*, page 5-122.
• Bubbles or foam are on top of the liquid.	Remove bubbles or foam from the surface of the sample using a clean disposable pipette or applicator stick.
• Sample probe is dirty.	Clean sample probe.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is out of alignment.	Perform sample pipettor calibration.
• Sample probe is damaged or has been in use for greater than one year.	Replace the sample probe.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3056

Unable to process test, liquid too high for (x) pipettor at position (y).
x = Pipettor name
y = Reagent carousel segment and position

Probable cause	Corrective action
• Reagent cartridge is not seated properly.	Verify there is nothing preventing the reagent cartridge from seating against the bottom of the carousel. For reagents using the 20 mL (bottle) cartridge in the adapter, verify the bottle was pressed down against the bottom of the carousel.
• Reagent probe is dirty.	Clean reagent probe.

Probable cause	Corrective action
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration.
• Reagent probe is damaged.	Replace reagent probe.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3057

Unable to process test, liquid too high for (x) pipettor at position (y).
x = Pipettor name
y = Reagent carousel segment and position

Probable cause	Corrective action
• Reagent cartridge is not seated properly.	Verify there is nothing preventing the reagent cartridge from seating against the bottom of the carousel. For reagents using the 20 mL (bottle) cartridge in the adapter, verify the bottle was pressed down against the bottom of the carousel.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration.
• Reagent probe is damaged.	Replace reagent probe.

Probable cause	Corrective action
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3058

Unable to process test, liquid too low for sample pipettor at sample carrier.

Probable cause	Corrective action
• A sample cup or tube is not present.	Ensure sample cup or tube is present.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-122.
• Sample probe is dirty.	Clean sample probe.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is out of alignment.	Perform sample pipettor calibration.
• Sample probe is damaged or has been in use for greater than one year.	Replace the sample probe.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3059

Unable to process test, liquid too high for sample pipettor at sample carrier.

Probable cause	Corrective action
• Too much sample is in cup or tube.	Load a properly filled sample cup or tube. See *Sample volume requirements*, page 5-122.
• Bubbles or foam are on top of the liquid.	Remove bubbles or foam from the surface of the sample using a clean disposable pipette or applicator stick.
• Sample probe is dirty.	Clean sample probe.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is out of alignment.	Perform sample pipettor calibration.
• Sample probe is damaged or has been in use for greater than one year.	Replace the sample probe.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3060

Unable to process test, liquid too high for reagent 1 pipettor.

Probable cause	Corrective action
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is dirty.	Clean reagent probe.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.

Probable cause	Corrective action
• Reagent probe is out of alignment.	Perform pipettor calibration.
• Reagent probe is damaged.	Replace reagent probe.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3061

Unable to process test, liquid too high for reagent 2 pipettor.

Probable cause	Corrective action
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is dirty.	Clean reagent probe.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration.
• Reagent probe is damaged.	Replace reagent probe.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3100

Liquid contact broken during aspiration for (x) at (y).
x = Pipettor name
y = Location

Probable cause	Corrective action
For sample pipetting:	
• Bubbles or foam are on top of the liquid.	Remove bubbles or foam from the surface of the sample using a clean disposable pipette or applicator stick.
• Sample cup or tube is tilted in the carrier.	Reposition the sample cup or tube in the carrier so that it is not tilted.
• Drop of liquid on the side of the sample cup or tube.	Transfer the sample to a new sample cup or tube.
• Drop of liquid on the end of the probe.	Tighten probe tubing connections finger tight.
• Pipettor probe clip is loose.	Tighten the probe clip finger tight.
• Probe is out of alignment.	Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25
• Probe is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40
• Probe tubing is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe tubing (i 1000_{SR})*, page 9-44
• Hardware failure: – Pipettor pressure monitor cables have a poor connection or failed – Pipettor pressure monitor board – Pipettor pressure monitor – Pipettor syringe – Antenna board – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 2 (*i* 1000_{SR}) – Indexer board in the upper card cage has a poor connection or failed in: Slot 3 (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
For reagent pipetting:	
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle
• Liquid on the reagent septum.	Place a new septum on all reagent bottles.
• Pipettor probe clip is loose.	Tighten the probe clip finger tight.
• Drop of liquid on the end of the probe.	Tighten probe tubing connections finger tight.
• Probe is out of alignment.	Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25
• Probe is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40
• Probe tubing is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe tubing (i 1000_{SR})*, page 9-44
• Hardware failure: – Pipettor pressure monitor cables have a poor connection or failed – Pipettor pressure monitor board – Pipettor pressure monitor – Pipettor syringe – Antenna board – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 2 (*i* 1000_{SR}) – Indexer board in the upper card cage has a poor connection or failed in: Slot 3 (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3101

Unable to process test, liquid contact broken during aspiration for sample pipettor at sample carousel position (x).
x = Sample carousel position

Probable cause	Corrective action
• Bubbles or foam are on top of the liquid.	Remove bubbles or foam from the surface of the sample using a clean disposable pipette or applicator stick.
• Sample cup or tube is tilted in the carousel.	Reposition the sample cup or tube in the carousel so that it is not tilted.
• Drop of liquid on the side of the sample cup or tube.	Transfer the sample to a new sample cup or tube.
• Sample probe is dirty.	Clean sample probe.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is out of alignment.	Perform sample pipettor calibration.
• Sample probe is damaged or has been in use for greater than one year.	Replace the sample probe.
• Sample probe tubing connections are loose or leaking.	Tighten the tubing connections or replace the tubing.
• Sample probe tubing is damaged.	Replace the sample probe tubing.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3102

Unable to process test, liquid contact broken during aspiration for (x) pipettor at position (y).
x = Pipettor name
y = Reagent carousel segment and position

Probable cause	Corrective action
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle
• Reagent probe is dirty.	Clean reagent probe.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration.
• Reagent probe is damaged.	Replace reagent probe.
• Reagent probe tubing connections are loose or leaking.	Tighten the tubing connections or replace the tubing.
• Reagent probe tubing is damaged.	Replace the reagent probe tubing.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3103

Unable to process test, liquid contact broken during aspiration for (x) pipettor at position (y).
x = Pipettor name
y = Reagent carousel segment and position

Probable cause	Corrective action
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle
• Reagent probe is dirty.	Clean reagent probe.

Probable cause	Corrective action
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration.
• Reagent probe is damaged.	Replace reagent probe.
• Reagent probe tubing connections are loose or leaking.	Tighten the tubing connections or replace the tubing.
• Reagent probe tubing is damaged.	Replace the reagent probe tubing.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3104

Unable to process test, liquid contact broken during aspiration for sample pipettor at sample carrier.

Probable cause	Corrective action
• Bubbles or foam are on top of the liquid.	Remove bubbles or foam from the surface of the sample using a clean disposable pipette applicator stick.
• Sample cup or tube is tilted in the carrier.	Reposition the sample cup or tube in the carrier so that it is not tilted.
• Drop of liquid on the side of the sample cup or tube.	Transfer the sample to a new sample cup or tube.
• Sample probe is dirty.	Clean sample probe.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is out of alignment.	Perform sample pipettor calibration.

Probable cause	Corrective action
• Sample probe is damaged or has been in use for greater than one year.	Replace the sample probe.
• Sample probe tubing connections are loose or leaking.	Tighten the tubing connections or replace the tubing.
• Sample probe tubing is damaged.	Replace the sample probe tubing.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3105

Unable to process test, liquid contact broken during aspiration for reagent 1 pipettor.

Probable cause	Corrective action
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is dirty.	Clean reagent probe.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration.
• Reagent probe is damaged.	Replace reagent probe.
• Reagent probe tubing connections are loose or leaking.	Tighten the tubing connections or replace the tubing.
• Reagent probe tubing is damaged.	Replace the reagent probe tubing.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3106

Unable to process test, liquid contact broken during aspiration for reagent 2 pipettor.

Probable cause	Corrective action
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is dirty.	Clean reagent probe.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration.
• Reagent probe is damaged.	Replace reagent probe.
• Reagent probe tubing connections are loose or leaking.	Tighten the tubing connections or replace the tubing.
• Reagent probe tubing is damaged.	Replace the reagent probe tubing.
• Water quality is below specifications.	Check DI water purity.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3200

Unable to process test, maximum number of LLS errors exceeded for a reagent.

Probable cause	Corrective action
Consecutive liquid level sense, aspiration or movement restriction errors detected for the indicated pipettor.	1. *Review message logs*, page 10-10, for any 3000 or 5000 category error codes that occurred at the same time as this message to determine the specific error with the R1 or R2 pipettor. 2. *View low level error messages*, page 10-11, if you do not find any 3000 or 5000 category error codes. 3. Perform the corrective action for the specific error code. **NOTE:** After the cause has been corrected and the system status is Ready, Perform one of the following to remove the reagent pack LLS error status: • *Initiate or resume sample processing (RSH and SSH)*, page 5-135.

Error code: 3201

Maximum number of LLS errors exceeded for reagent located in position (x) on carousel (y).
x = Position in which the error occurred (A1 - D20 for *c* System; 1 - 25 for *i* System)
y = Location in which the error occurred (R1 or R2 for *c* System; inner, middle, or outer ring for *i* System)

Probable cause	Corrective action
Consecutive liquid level sense, aspiration or movement restriction errors detected for the indicated pipettor in the indicated position.	1. *Review message logs*, page 10-10, for any 3000 or 5000 category error codes that occurred at the same time as this message to determine the specific error with the R1 or R2 pipettor. 2. *View low level error messages*, page 10-11, if you do not find any 3000 or 5000 category error codes. 3. Perform the corrective action for the specific error code. **NOTE:** After the cause has been corrected and the system status is Ready, perform one of the following to remove the reagent pack LLS error status: • *Initiate or resume sample processing (RSH and SSH)*, page 5-135.

Error code: 3202

Maximum number of LLS errors exceeded in (x) position of reagent carrier located on reagent carousel position (y).
x = Reagent carrier position in which the error occurred
y = Reagent carousel position

Probable cause	Corrective action
Consecutive liquid level sense, aspiration or movement restriction errors detected for the indicated reagent carrier position.	1. *Review message logs*, page 10-10, for any 3000 or 5000 category error codes that occurred at the same time as this message to determine the specific error with the pipettor. 2. *View low level error messages*, page 10-11, if you do not find any 3000 or 5000 category error codes. 3. Perform the corrective action for the specific error code.

Error code: 3300

High or low pressure detected on (x).
x = Pipettor name

Probable cause	Corrective action
For sample pipetting:	
• Bubbles, foam, or fibrin clots in the sample.	Remove bubbles, foam, or fibrin clots using a clean disposable pipette or applicator stick.
• Probe is out of alignment.	Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25
• Tubing connections are loose.	Tighten tubing connections finger tight.

Probable cause	Corrective action
• Hardware failure: – Pipettor pressure monitor cables have a poor connection or have failed – Pipettor pressure monitor board – Pipettor pressure monitor – Pipettor syringe – Antenna board – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 2 (*i* 1000_{SR}) – Indexer board in the upper card cage has a poor connection or failed in: Slot 3 (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.
For reagent pipetting:	
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Liquid on the reagent septum	Place a new septum on all reagent bottles.
• Probe is out of alignment.	Perform one of the following **as-needed** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25
• Tubing connections are loose.	Tighten tubing connections finger tight.
• Hardware failure: – Pipettor pressure monitor cables have a poor connection or failed – Pipettor pressure monitor board – Pipettor pressure monitor – Pipettor syringe – Antenna board – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 2 (*i* 1000_{SR}) – Indexer board in the upper card cage has a poor connection or failed in: Slot 3 (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3350

Unable to process test, aspiration error for (x) at (y).
x = Pipettor name
y = Location

Probable cause	Corrective action
For sample pipetting:	
• A sample cup or tube is not present.	Ensure sample cup or tube is present.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-122.
• Bubbles, foam, or fibrin clots in the sample.	Remove bubbles, foam, or fibrin clots using a clean disposable pipette or applicator stick.
• Drop of liquid on the side of the sample cup or tube.	Transfer the sample to a new sample cup or tube.
• Drop of liquid on the end of the probe.	Tighten tubing connections finger tight.
• Pipettor probe clip is loose.	Tighten the probe clip finger tight.
• Probe is out of alignment.	Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25
• Probe is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40
• Probe tubing is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe tubing (i 1000_{SR})*, page 9-44
• Hardware failure: – Pipettor pressure monitor cables have a poor connection or failed – Pipettor pressure monitor board – Pipettor pressure monitor – Pipettor syringe – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 2 (*i* 1000_{SR}) – Indexer board in the upper card cage has a poor connection or failed in: Slot 3 (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.
For reagent pipetting:	

Probable cause	Corrective action
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Liquid on the reagent septum.	Place a new septum on all reagent bottles.
• Reagent bottle is empty.	Replace empty reagents.
• Drop of liquid on the end of the probe.	Tighten tubing connections finger tight.
• Pipettor probe clip is loose.	Tighten the probe clip finger tight.
• Probe is out of alignment.	Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR} – *1110 Pipettor Calibration*, page 9-25
• Probe is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i* 1000_{SR}*)*, page 9-40
• Probe tubing is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe tubing (i* 1000_{SR}*)*, page 9-44
• Hardware failure: – Pipettor pressure monitor cables have a poor connection or failed – Pipettor pressure monitor board – Pipettor pressure monitor – Pipettor syringe – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 2 (*i* 1000_{SR}) – Indexer board in the upper card cage has a poor connection or failed in: Slot 3 (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3351

Aspiration error on liquid level sense board (x), output enable bit value.
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
Hardware failure: – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3352

Aspiration error on liquid level sense board (x), invalid syringe start.
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3353

Aspiration error on liquid level sense board (x), pressure discord score.
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
For sample pipetting:	
• A sample cup or tube is not present.	Ensure sample cup or tube is present.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-122.
• Bubbles, foam, or fibrin clots in the sample.	Remove bubbles, foam, or fibrin clots using a clean disposable pipette or applicator stick.
• Drop of liquid on the side of the sample cup or tube.	Transfer the sample to a new sample cup or tube.
• Drop of liquid on the end of the probe.	Tighten tubing connections finger tight.
• Pipettor probe clip is loose.	Tighten the probe clip finger tight.

Probable cause	Corrective action
• Probe is out of alignment.	Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25
• Probe is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40
• Probe tubing is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe tubing (i 1000_{SR})*, page 9-44
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed – Pipettor pressure monitor – Pipettor syringe – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 2 (*i* 1000_{SR}) – Indexer board in the upper card cage has a poor connection or failed in: Slot 3 (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.
For reagent pipetting:	
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Liquid on the reagent septum.	Place a new septum on all reagent bottles.
• Reagent bottle is empty.	Replace empty reagents.
• Drop of liquid on the end of the probe.	Tighten tubing connections finger tight.
• Pipettor probe clip is loose.	Tighten the probe clip finger tight.
• Probe is out of alignment.	Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25

Probable cause	Corrective action
• Probe is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40
• Probe tubing is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe tubing (i 1000_{SR})*, page 9-44
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed – Pipettor pressure monitor – Pipettor syringe – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 2 (*i* 1000_{SR}) – Indexer board in the upper card cage has a poor connection or failed in: Slot 3 (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3354

Aspiration error on liquid level sense board (x), foam detection failure.
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3355

Aspiration error on liquid level sense board (x), incomplete aspiration.
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3356

Aspiration error on liquid level sense board (x), clot score.
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
For sample pipetting:	
• A sample cup or tube is not present.	Ensure sample cup or tube is present.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-122.
• Bubbles, foam, or fibrin clots in the sample.	Remove bubbles, foam, or fibrin clots using a clean disposable pipette or applicator stick.
• Drop of liquid on the side of the sample cup or tube.	Transfer the sample to a new sample cup or tube.
• Drop of liquid on the end of the probe.	Tighten tubing connections finger tight.
• Pipettor probe clip is loose.	Tighten the probe clip finger tight.
• Probe is out of alignment.	Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25
• Probe is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40
• Probe tubing is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe tubing (i 1000_{SR})*, page 9-44

Probable cause	Corrective action
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed – Pipettor pressure monitor – Pipettor syringe – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 2 (*i* 1000_{SR}) – Indexer board in the upper card cage has a poor connection or failed in: Slot 3 (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.
For reagent pipetting:	
• Bubbles or foam are on the surface of the reagent	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Liquid on the reagent septum.	Place a new septum on all reagent bottles.
• Reagent bottle is empty.	Replace empty reagents.
• Drop of liquid on the end of the probe.	Tighten tubing connections finger tight.
• Pipettor probe clip is loose.	Tighten the probe clip finger tight.
• Probe is out of alignment.	Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25
• Probe is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40

Probable cause	Corrective action
• Probe tubing is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe tubing (i 1000_{SR})*, page 9-44
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed – Pipettor pressure monitor – Pipettor syringe – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 2 (*i* 1000_{SR}) – Indexer board in the upper card cage has a poor connection or failed in: Slot 3 (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3357

Aspiration error on liquid level sense board (x), shape conform score.
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
For sample pipetting:	
• A sample cup or tube is not present.	Ensure sample cup or tube is present.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-122.
• Bubbles, foam, or fibrin clots in the sample.	Remove bubbles, foam, or fibrin clots using a clean disposable pipette or applicator stick.
• Drop of liquid on the side of the sample cup or tube.	Transfer the sample to a new sample cup or tube.
• Drop of liquid on the end of the probe.	Tighten tubing connections finger tight.
• Pipettor probe clip is loose.	Tighten the probe clip finger tight.
• Probe is out of alignment.	Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25

Probable cause	Corrective action
• Probe is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40
• Probe tubing is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe tubing (i 1000_{SR})*, page 9-44
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed – Pipettor pressure monitor – Pipettor syringe – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 2 (*i* 1000_{SR}) – Indexer board in the upper card cage has a poor connection or failed in: Slot 3 (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.
For reagent pipetting:	
• Bubbles or foam are on the surface of the reagent	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Liquid on the reagent septum.	Place a new septum on all reagent bottles.
• Reagent bottle is empty.	Replace empty reagents.
• Drop of liquid on the end of the probe.	Tighten tubing connections finger tight.
• Pipettor probe clip is loose.	Tighten the probe clip finger tight.
• Probe is out of alignment.	Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25
• Probe is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40

Probable cause	Corrective action
• Probe tubing is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe tubing (i* 1000_{SR}*)*, page 9-44
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed – Pipettor pressure monitor – Pipettor syringe – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 2 (*i* 1000_{SR}) – Indexer board in the upper card cage has a poor connection or failed in: Slot 3 (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3358

Aspiration error on liquid level sense board (x), back end average pressure.
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3359

Aspiration error on liquid level sense board (x), front end and back end average pressure correlation.
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
Hardware failure: • Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed • Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed • Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3360

Aspiration error on liquid level sense board (x), communication failure.
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3361

High pressure detected on liquid level sense board (x).
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
• Probe for the specific pipettor is obstructed.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3362

Low pressure detected on liquid level sense board (x).
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3363

Aspiration error on liquid level sense board (x), invalid detail status code.
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3364

Aspiration error on liquid level sense board (x), output enable bit number.
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3365

(x) disabled, maximum number of aspiration errors exceeded.
x = Pipettor name

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed (S = slot 10, R1 = slot 8, R2 = slot 6, STAT = slot 4) – Pressure monitor board for the indicated pipettor has a poor connection or failed (S = slot 10, R1 = slot 8, R2 = slot 6, STAT = slot 4)	Contact your Area Customer Support to resolve any hardware failure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 3366

Aspiration error on liquid level sense board (x), pressure discord score.
x = Board number for pipettor

Probable cause	Corrective action
For sample pipetting:	
• A sample cup or tube is not present.	Ensure sample cup or tube is present.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-122.
• Bubbles, foam, or fibrin clots in the sample.	Remove bubbles, foam, or fibrin clots using a clean disposable pipette or applicator stick.
• Drop of liquid on the side of the sample cup or tube.	Transfer the sample to a new sample cup or tube.
• Drop of liquid on the end of the probe.	Tighten tubing connections finger tight.
• Pipettor probe clamp is loose.	Tighten the probe clamp finger tight.
• Probe is out of alignment.	Perform the pipettor calibration ***as-needed*** maintenance procedure. See *1110 Pipettor Calibration*, page 9-25.
• Probe is damaged.	Replace the probe. See *Replace pipettor probe (i 1000$_{SR}$)*, page 9-40.

Probable cause	Corrective action
• Probe tubing is damaged.	Replace the probe tubing. See *Replace pipettor probe tubing (i 1000$_{SR}$)*, page 9-44.
• Hardware failure: – Cables to the pipettor board for the pipettor indicated have a poor connection or failed – Pipettor board for the pipettor has a poor connection or failed – Pipettor pressure monitor – Pipettor syringe – Liquid level sense board has a poor connection or failed in: Slot 2 in the upper card cage – Indexer board has a poor connection or failed in: Slot 3 in the upper card cage	Contact your Area Customer Support to resolve any hardware failure.
For reagent pipetting:	
• Bubbles or foam are on the surface of the reagent	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Liquid on the reagent septum.	Place a new septum on all reagent bottles.
• Reagent bottle is empty.	Replace empty reagents.
• Drop of liquid on the end of the probe.	Tighten tubing connections finger tight.
• Pipettor probe clamp is loose.	Tighten the probe clamp finger tight.
• Probe is out of alignment.	Perform the pipettor calibration ***as-needed*** maintenance procedure. See *1110 Pipettor Calibration*, page 9-25.
• Probe is damaged.	Replace the probe. See *Replace pipettor probe (i 1000$_{SR}$)*, page 9-40.

Probable cause	Corrective action
• Probe tubing is damaged.	Replace the probe tubing. See *Replace pipettor probe tubing (i 1000$_{SR}$)*, page 9-44.
• Hardware failure: – Cables to the pipettor board for the pipettor have a poor connection or failed – Pipettor board for the pipettor has a poor connection or failed – Pipettor pressure monitor – Pipettor syringe – Liquid level sense board has a poor connection or failed in: Slot 2 in the upper card cage – Indexer board has a poor connection or failed in: Slot 3 in the upper card cage	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3367

Aspiration error on liquid level sense board (x), slope score failure.
x = Board number for pipettor

Probable cause	Corrective action
• Hardware failure: – Cables to the pipettor board for the pipettor have a poor connection or failed – Pipettor board for the pipettor has a poor connection or failed – Liquid level sense board has a poor connection or failed in: Slot 2 in the upper card cage	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3368

Aspiration error on liquid level sense board (x), shape conform score.

Probable cause	Corrective action
For sample pipetting:	
• A sample cup or tube is not present.	Ensure sample cup or tube is present.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-122.
• Bubbles, foam, or fibrin clots in the sample.	Remove bubbles, foam, or fibrin clots using a clean disposable pipette or applicator stick.

Probable cause	Corrective action
• Drop of liquid on the side of the sample cup or tube.	Transfer the sample to a new sample cup or tube.
• Drop of liquid on the end of the probe.	Tighten tubing connections finger tight.
• Pipettor probe clamp is loose.	Tighten the probe clamp finger tight.
• Probe is out of alignment.	Perform the pipettor calibration ***as-needed*** maintenance procedure. See *1110 Pipettor Calibration*, page 9-25.
• Probe is damaged.	Replace the probe. See *Replace pipettor probe (i 1000$_{SR}$)*, page 9-40.
• Probe tubing is damaged.	Replace the probe tubing. See *Replace pipettor probe tubing (i 1000$_{SR}$)*, page 9-44.
• Hardware failure: – Cables to the pipettor board for the pipettor indicated have a poor connection or failed – Pipettor board for the pipettor has a poor connection or failed – Pipettor pressure monitor – Pipettor syringe – Liquid level sense board has a poor connection or failed in: Slot 2 in the upper card cage – Indexer board has a poor connection or failed in: Slot 3 in the upper card cage	Contact your Area Customer Support to resolve any hardware failure.
For reagent pipetting:	
• Bubbles or foam are on the surface of the reagent	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Liquid on the reagent septum.	Place a new septum on all reagent bottles.
• Reagent bottle is empty.	Replace empty reagents.
• Drop of liquid on the end of the probe.	Tighten tubing connections finger tight.
• Pipettor probe clamp is loose.	Tighten the probe clamp finger tight.
• Probe is out of alignment.	Perform the pipettor calibration ***as-needed*** maintenance procedure. See *1110 Pipettor Calibration*, page 9-25.
• Probe is damaged.	Replace the probe. See *Replace pipettor probe (i 1000$_{SR}$)*, page 9-40.

Probable cause	Corrective action
• Probe tubing is damaged.	Replace the probe tubing. See *Replace pipettor probe tubing (i 1000$_{SR}$)*, page 9-44.
• Hardware failure: – Cables to the pipettor board for the pipettor have a poor connection or failed – Pipettor board for the pipettor has a poor connection or failed – Pipettor pressure monitor – Pipettor syringe – Liquid level sense board has a poor connection or failed in: Slot 2 in the upper card cage – Indexer board has a poor connection or failed in: Slot 3 in the upper card cage	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3375

Unable to process test, aspiration error occurred.

Probable cause	Corrective action
• Bubbles, foam, or fibrin clots present in the sample.	Remove bubbles or foam using a clean disposable pipette or applicator stick. Remove fibrin clots using an applicator stick, or recentrifuge the sample.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-122.
• Sample cup or tube not seated properly in sample carrier or sample carousel.	Ensure sample cup or tube is pushed completely down into the sample carrier or sample carousel.
• Sample probe is obstructed.	Clean the sample probe.
• Sample probe is out of alignment.	Perform sample pipettor calibration.
• Sample probe is damaged.	Replace the sample probe.
• Sample probe tubing is damaged.	Replace the sample probe tubing.
• Drop of liquid on the side of the sample cup or tube.	Transfer the sample to a new cup or tube.
• Drop of liquid on the end of the probe.	Tighten tubing connection finger tight.
• Hardware failure: – PM Sensor defective – PM sensor cable disconnected – PM board defective	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3376

Unable to process test, dispense error occurred.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 3377

Unable to process test, wash error occurred.

Probable cause	Corrective action
• Sample probe tubing connections are loose or leaking.	Tighten the tubing connections or replace the tubing.
• Sample probe is damaged.	Replace the sample probe.
• Sample probe tubing is damaged.	Replace the sample probe tubing.
• Water source supply was interrupted.	1. Verify the water source supply is functioning. 2. Flush water lines.
• Air bubbles are present in the water source supply tubing.	1. Check the tubing connections. 2. Flush water lines.
• Hardware failure: – Probe wash pump – Tubing damaged – PM sensor – PM sensor cable disconnected – PM board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3378

Unable to initialize run, wash error occurred.

Probable cause	Corrective action
• Sample probe tubing connections are loose or leaking.	Tighten the tubing connections or replace the tubing.
• Sample probe is damaged.	Replace the sample probe.
• Sample probe tubing is damaged.	Replace the sample probe tubing.
• Water source supply was interrupted.	1. Verify the water source supply is functioning. 2. Flush water lines.

Probable cause	Corrective action
• Air bubbles are present in the water source supply tubing.	1. Check the tubing connections. 2. Flush water lines.
• Hardware failure: – Probe wash pump – Tubing damaged – PM sensor – PM sensor cable disconnected – PM board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3500

Pressure monitoring failure on liquid level sense board (x).
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 3501

LLS Command timeout on liquid level sense board (x).
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
• Software error	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 3502

LLS data read timeout on liquid level sense board (x).
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 3503

LLS data write timeout on liquid level sense board (x).
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 3504

Pressure Monitoring timeout on liquid level sense board (x).
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 3505

Pressure Monitoring data read timeout on liquid level sense board (x).
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 3506

Pressure Monitoring data write timeout on liquid level sense board (x).
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 3507

Invalid timeout bit on liquid level sense board (x).
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 3508

Communication failure on liquid level sense board for (x).
x = Pipettor name

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 3550

Self test failure on liquid level sense board (x).
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
Hardware failure: – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3551

Self test failure on liquid level sense board (x).
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
Hardware failure: – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3552

No response from liquid level sense board (x).
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
Hardware failure: – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3553

Invalid address detected on liquid level sense board (x).
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
Hardware failure: – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3554

Self test timeout on liquid level sense board (x).
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
Hardware failure: – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3556

Self test failed on liquid level sense board (x).
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
Hardware failure: – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3557

POST failed on Liquid level sense board (x).
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
Hardware failure: – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3574

PM code invalid at end of dispense.

Probable cause	Corrective action
Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3575

DI water tank is empty.

Probable cause	Corrective action
• Water source supply was interrupted.	1. Verify the water source supply is functioning. 2. Flush water lines.
• Water source supply is restricted.	1. Verify tubing from the water source is not crimped or blocked. 2. Flush water lines.
• Incoming DI water pressure is too low.	Increase the incoming DI water pressure to within specifications.
• Air bubbles are present in the water source supply tubing.	1. Check the tubing connections. 2. Flush water lines.
• Hardware failure: – Supply water tubing is disconnected – Incoming On/Off valve failure – Float sensor is disconnected or defective – AC/DC driver board is defective – AC/DC controller board is defective	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3576

DI water tank, timeout during automatic fill.

Probable cause	Corrective action
• Water source supply was interrupted.	1. Verify the water source supply is functioning. 2. Flush water lines.
• Water source supply is restricted.	1. Verify tubing from the water source is not crimped or blocked. 2. Flush water lines.
• Incoming DI water pressure is too low.	Increase the incoming DI water pressure to within specifications.

Probable cause	Corrective action
• Air bubbles are present in the water source supply tubing.	1. Check the tubing connections. 2. Flush water lines.
• Hardware failure: – Supply water tubing is disconnected – Incoming On/Off valve failure – Float sensor is disconnected or defective – AC/DC driver board is defective – AC/DC controller board is defective	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3577

DI water tank not filling.

Probable cause	Corrective action
• Water source supply was interrupted.	1. Verify the water source supply is functioning. 2. Flush water lines.
• Water source supply is restricted.	1. Verify tubing from the water source is not crimped or blocked. 2. Flush water lines.
• Incoming DI water pressure is too low.	Increase the incoming DI water pressure to within specifications.
• Air bubbles are present in the water source supply tubing.	1. Check the tubing connections. 2. Flush water lines.
• Hardware failure: – Supply water tubing is disconnected – Incoming On/Off valve failure – Float sensor is disconnected or defective – AC/DC driver board is defective – AC/DC controller board is defective	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3578

DI water tank, timeout during initialization.

Probable cause	Corrective action
• Water source supply was interrupted.	1. Verify the water source supply is functioning. 2. Flush water lines.
• Water source supply is restricted.	1. Verify tubing from the water source is not crimped or blocked. 2. Flush water lines.
• Incoming DI water pressure is too low.	Increase the incoming DI water pressure to within specifications.
• Air bubbles are present in the water source supply tubing.	1. Check the tubing connections. 2. Flush water lines.
• Hardware failure: – Supply water tubing is disconnected – Incoming On/Off valve failure – Float sensor is disconnected or defective – AC/DC driver board is defective – AC/DC controller board is defective	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3579

Internal Low concentration waste tank is full.

Probable cause	Corrective action
• Drainage or overflow tubing is crimped.	Reposition the drainage and overflow tubing so there are no crimps.
• Waste tubing is too high.	Adjust the waste tubing so it is less than 4 inches (100 mm) from the ground.
• Hardware failure: – Drain line is plugged – Float switch is defective	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3580

PM board not in ready mode.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3581

PM board does not respond.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3582

PM board POST error.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3583

PM board not in ready mode to request PM software version.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3584

PM board does not respond to request for PM software version.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3585

PM board not in ready status during seek.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3586

PM board not in ready status beginning aspiration.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3587

PM board not in ready status ending aspiration.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3588

PM board not in ready status before dispense.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3589

PM board not in ready status at start of dispense.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3590

PM board not in ready status at end of dispense.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3591

PM board not in ready status before wash.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3592

PM board not in ready status at start of wash.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3595

PM board not in ready status at end of wash.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3596

PM board not responding at end of aspiration.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3597

PM board not responding at end of dispense.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3598

PM board not responding at end of wash.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3599

PM code invalid at end of aspiration.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3600

PM code invalid at end of wash.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3601

Invalid data terminator received from Liquid Level Sense board (x).
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})

Probable cause	Corrective action
Hardware failure: – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3602

(x) liquid level sense antenna verification failure.
x = Pipettor name

Probable cause	Corrective action
Hardware failure: – The liquid level sense antenna indicated in the message is not responding.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3603

POST passed, Liquid level sense board (x), version (y).
x = Board number for Pipettor, 0 = P (slot 2 - *i* 1000_{SR})
y = Firmware revision

Probable cause	Corrective action
Power on self tests (POST) passed on the indicated liquid level sense board.	Status message. No corrective action is required.

Error code: 3604

PM board not in ready status at beginning of seek.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3700

Unable to process test, (x) wash aspiration error for probe(s) (y).
x = Wash Zone
y = Probe number

Probable cause	Corrective action
If error occurs on one sample:	
• Fibrin or clots in the sample.	Remove fibrin clots with a clean applicator stick.
If error occurs on multiple samples:	
• Poor tubing connections to the wash zone probes.	Reconnect tubing to the affected probe(s) for the indicated wash zone.
• Temperature sensor connected to wrong probe tubing.	Reconnect the wash zone tubing/sensor cable to the correct probe.

Probable cause	Corrective action
• Wash zone probe obstructed.	1. Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *6445 Pipettor/WZ Probe Cleaning*, page 9-23. 2. Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the wash zone probe (i 1000_{SR})*, page 9-47.
• Wash zone temperature sensor obstructed.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the wash zone temperature tubing and sensor (i 1000_{SR})*, page 9-50.
• Poor tubing connections to the vacuum vessels.	Reseat the tubing connection at the vacuum valve of the vacuum vessel.
• Hardware failure: – DC driver I/O board in slot 4 in the lower card cage has a poor connection or failed (*i* 1000_{SR}) – Wash zone manifold valve failure	Contact your Area Customer Support to resolve any hardware failure.
If error occurs after daily maintenance: • Processing module status is in the Warming status.	Repeat daily maintenance once the processing module is in the Ready status.

Error code: 3701

(x) disabled, maximum number of wash aspiration errors exceeded.
x = Wash Zone name

Probable cause	Corrective action
Error 3700 occurred shortly before or at the same time as this message. Determine the specific probe(s) 1, 2, or 3 experiencing the 3700 error message.	
• Poor tubing connections to the wash zone probes.	Reconnect tubing to the affected probe(s) for the indicated wash zone.
• Temperature sensor connected to wrong probe tubing.	Reconnect the wash zone tubing/sensor cable to the correct probe.

Probable cause	Corrective action
• Wash zone probe obstructed.	1. Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *6445 Pipettor/WZ Probe Cleaning*, page 9-23. 2. Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the wash zone probe (i 1000_{SR})*, page 9-47.
• Wash zone temperature sensor obstructed.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the wash zone temperature tubing and sensor (i 1000_{SR})*, page 9-50
• Poor tubing connections to the vacuum vessels.	Reseat the tubing connection at the vacuum valve of the vacuum vessel.
• Hardware failure: – DC driver I/O board in slot 4 in the lower card cage has a poor connection or failed (*i* 1000_{SR}) – Wash zone manifold valve failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3702

Wash water supply warning (x), decreased flow detected, (y/z).
x = Wash cup name
y = Measured water flow rate
z = Minimum flow rate

Probable cause	Corrective action
Fluctuation or a slight decrease in water wash flow.	No corrective action required.

Error code: 3703

Unable to process test, wash water supply failure (x), (y/z).
x = Wash cup name
y = Measured water flow rate
z = Minimum flow rate

Probable cause	Corrective action
Wash water supply is restricted or requires adjustment.	Contact your Area Customer Support.

Error code: 3840

(x) timeout during rotation.
x = High concentration waste pump name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3841

(x) homing failure.
x = High concentration waste pump name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3850

(x) timeout while moving to upper limit.
x = Probe wash pump name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3851

Unexpected sensor status (Up and Down not activated) while moving (x) to upper limit.
x = Probe wash pump name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3852

Unexpected sensor status (only Down activated) while moving (x) to upper limit.
x = Probe wash pump name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3853

Unexpected sensor status (Up and Down activated) while moving (x) to upper limit.
x = Probe wash pump name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3854

(x) timeout while moving to lower limit.
x = Probe wash pump name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3855

Unexpected sensor status (Up and Down not activated) while moving (x) to lower limit.
x = Probe wash pump name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3856

Unexpected sensor status (only Up activated) while moving (x) to lower limit.
x = Probe wash pump name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3857

Unexpected sensor status (Up and Down activated) while moving (x) to lower limit.
x = Probe wash pump name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3858

Cuvette wash pump timeout while moving to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3859

Unexpected sensor status (Up and Down not activated) while moving Cuvette wash pump to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3860

Unexpected sensor status (only Down activated) while moving Cuvette wash pump to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3861

Unexpected sensor status (Up and Down activated) while moving Cuvette wash pump to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3862

Cuvette wash pump timeout while moving to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3863

Unexpected sensor status (Up and Down not activated) while moving Cuvette wash pump to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3864

Unexpected sensor status (only Up activated) while moving Cuvette wash pump to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3865

Unexpected sensor status (Up and Down activated) while moving Cuvette wash pump to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3866

Cuvette wash pump timeout while homing.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3867

Unexpected sensor status (Up and Down not activated) while homing Cuvette wash pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3868

Unexpected sensor status (only Up activated) while homing Cuvette wash pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3869

Unexpected sensor status (Up and Down activated) while homing Cuvette wash pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3870

Wash solution pump timeout while moving to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3871

Unexpected sensor status (Up and Down not activated) while moving Wash solution pump to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3872

Unexpected sensor status (only Down activated) while moving Wash solution pump to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3873

Unexpected sensor status (Up and Down activated) while moving Wash solution pump to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3874

Wash solution pump timeout while moving to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3875

Unexpected sensor status (Up and Down not activated) while moving Wash solution pump to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3876

Unexpected sensor status (only Up activated) while moving Wash solution pump to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3877

Unexpected sensor status (Up and Down activated) while moving Wash solution pump to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3878

Wash solution pump timeout while homing.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3879

Unexpected sensor status (Up and Down not activated) while homing Wash solution pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3880

Unexpected sensor status (only Down activated) while homing Wash solution pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3881

Unexpected sensor status (Up and Down activated) while homing Wash solution pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3882

High concentration waste pump timeout while moving to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3883

Unexpected sensor status (Up and Down not activated) while moving High concentration waste pump to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3884

Unexpected sensor status (only Down activated) while moving High concentration waste pump to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3885

Unexpected sensor status (Up and Down activated) while moving High concentration waste pump to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3886

High concentration waste pump timeout while moving to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3887

Unexpected sensor status (Up and Down not activated) while moving High concentration waste pump to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3888

Unexpected sensor status (only Up activated) while moving High concentration waste pump to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3889

Unexpected sensor status (Up and Down activated) while moving High concentration waste pump to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3890

High concentration waste pump timeout while homing.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3891

Unexpected sensor status (Up and Down not activated) while homing High concentration waste pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3892

Unexpected sensor status (only Down activated) while homing High concentration waste pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3893

Unexpected sensor status (Up and Down activated) while homing High concentration waste pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3894

Sample syringe drive timeout during movement.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3895

Sample syringe drive homing failure.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3896

(x) syringe drive timeout during movement.
x = Syringe drive name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3897

(x) syringe drive homing failure.
x = Syringe drive name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3898

(x) syringe drive timeout during movement.
x = Syringe drive name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3899

(x) syringe drive homing failure.
x = Syringe drive name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3900

The Processing Module is (x), inlet valve cannot be opened for ARM buffer transfer.
x = Processing module status

Probable cause	Corrective action
User manually requested buffer transfer and the processing module is not in the correct status for receiving buffer from the ARM.	See *Initiate wash buffer transfer from the ARM (i System)*, page 5-35.

Error code: 3901

(x) failed: (y).
x = Type of request
y = Text that describes the failure

Probable cause	Corrective action
The ARM cannot respond to the SCC request to transfer buffer to a processing module.	Refer to ***Observed Problems*** in this section, for the text in the last field of the ARM error code: • *A to D timeout (ARM)*, page 10-572 • *ARM accessory is stopped*, page 10-573 • *ARM decontamination mode aborted*, page 10-573 • *ARM message not sent*, page 10-574 • *Calibration check failure (ARM)*, page 10-577 • *Checksum failure (ARM)*, page 10-577 • *Communication timeout (ARM)*, page 10-578 • *Concentrated wash buffer empty (ARM)*, page 10-579 • *Decontamination is in process (ARM)*, page 10-579 • *Flood condition (ARM)*, page 10-580 • *Buffer quality error indicator - up arrow (high conductivity) illuminated (ARM)*, page 10-575 • *High outlet pressure indicator illuminates (ARM)*, page 10-581 • *Temperature indicator illuminates (ARM)*, page 10-590 • *Invalid ARM error code*, page 10-582 • *Invalid ARM status code*, page 10-583 • *Invalid format of ARM message "message string"*, page 10-584 • *System flush is in process (ARM)*, page 10-589 • *Buffer quality error indicator - down arrow (low conductivity) illuminated (ARM)*, page 10-576 • *Low inlet pressure indicator illuminates (ARM)*, page 10-585 • *Meter handshaking failure (ARM)*, page 10-586 • *Motor stall (ARM)*, page 10-587 • *Water quality error indicator illuminates (ARM)*, page 10-590 • *SCI (serial communication interface) process timeout (ARM)*, page 10-588

Error code: 3902

(x): (y)
x = Type of message
y = Text that describes the failure

Probable cause	Corrective action
The ARM is not able to respond to a request to transfer buffer to a processing module, because it is not in the correct status.	Refer to ***Observed Problems*** in this section, for the text in the last field of the ARM error code: • *A to D timeout (ARM)*, page 10-572 • *ARM accessory is stopped*, page 10-573 • *ARM decontamination mode aborted*, page 10-573 • *ARM message not sent*, page 10-574 • *Calibration check failure (ARM)*, page 10-577 • *Checksum failure (ARM)*, page 10-577 • *Communication timeout (ARM)*, page 10-578 • *Concentrated wash buffer empty (ARM)*, page 10-579 • *Decontamination is in process (ARM)*, page 10-579 • *Flood condition (ARM)*, page 10-580 • *Buffer quality error indicator - up arrow (high conductivity) illuminated (ARM)*, page 10-575 • *High outlet pressure indicator illuminates (ARM)*, page 10-581 • *Temperature indicator illuminates (ARM)*, page 10-590 • *Invalid ARM error code*, page 10-582 • *Invalid ARM status code*, page 10-583 • *Invalid format of ARM message "message string"*, page 10-584 • *System flush is in process (ARM)*, page 10-589 • *Buffer quality error indicator - down arrow (low conductivity) illuminated (ARM)*, page 10-576 • *Low inlet pressure indicator illuminates (ARM)*, page 10-585 • *Meter handshaking failure (ARM)*, page 10-586 • *Motor stall (ARM)*, page 10-587 • *Water quality error indicator illuminates (ARM)*, page 10-590 • *SCI (serial communication interface) process timeout (ARM)*, page 10-588 • *Sensor cable disconnected (ARM)*, page 10-588

Error code: 3903

Unable to configure Wash Buffer transfer to automatic, ARM port error.

Probable cause	Corrective action
• The ARM RS-232 cable was not connected when the SCC was configured to automatic wash buffer transfer.	Connect the RS-232 cable to the SCC port then configure the SCC to automatic wash buffer transfer.
• Another cable is connected to the port used for the ARM RS-232 cable.	Reseat the RS-232 cable connection to the SCC port and to the ARM.
• The SCC hyperterminal program is running.	Contact your Area Customer Support.

Error code: 3904

ARM turned off, SCC communication to a Processing Module failed.

Probable cause	Corrective action
Buffer was transferring to a processing module when communication to the SCC failed.	1. Determine why the communication failed between the SCC and the processing module and correct the cause. 2. *Cycle power to the processing module and/or sample handler*, page 5-10. 3. *Power off the ARM (i System)*, page 5-14. 4. *Power on and initialize the ARM (i System)*, page 5-14.

Bar code reader error codes (4000-4999)

The bar code reader error code category includes error codes between 4000-4999.

If the corrective actions listed under the error code in question do not resolve the problem, contact your Area Customer Support representative at:

United States	1-877-4ABBOTT (1-877-422-2688)
International	Call your Area Customer Support representative.

NOTE: For corrective actions that involve hazardous activity refer to *Hazards*, page 8-1, for precautions you should take to minimize exposure and prevent personal injury or system damage. Hazard activities include but are not limited to:

- Replacing system probes
- Handling reagents, calibrators, controls, and specimens

- Removing physical obstructions
- Changing the lamp
- Removing system waste

Error code: 4000

Unable to read reagent bar code in position (x) on (y) carousel.
x = Position in which the unreadable bar code was detected.
(1-25 for *i* System; A1-D20 for *c* System)
y = Location in which the unreadable bar code was detected.
(Inner, Middle, or Outer ring for *i* System; R1 or R2 for *c* System)

Probable cause	Corrective action
• Reagent bottle bar code label is dirty.	Clean the label.
• Condensation on reagent bottle bar code label.	Wipe the label with a clean lint-free tissue.
• Reagent bottle bar code label is damaged.	Load a new reagent kit.
• Reagent bottle not loaded properly.	Reseat the reagent bottle.
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-619, if error occurs with multiple reagent bottles.
For *i* System:	
• Reagent bar code reader requires calibration.	Calibrate the bar code reader.
• Reagent bar code reader was not calibrated correctly.	Repeat ***bar code readers*** diagnostic procedure and ensure the bar code calibration tools are not tilted and the bar codes face the center of the reagent carousel.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4001

Unable to read reagent 1 bar code in position (x).
x = Reagent carousel segment and position

Probable cause	Corrective action
• Reagent bottle bar code label is dirty.	Clean the label.
• Condensation on reagent bottle bar code label.	Wipe the label with a clean lint-free tissue.
• Reagent bottle bar code label is damaged.	Load a new reagent kit.
• The bar code label on the 20 mL (bottle) cartridge is not facing the bar code reader.	Reposition the 20 mL cartridge in the adapter so it faces the outside of the reagent supply center.
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-619.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4002

Unable to read reagent 2 bar code in position (x).
x = Reagent carousel segment and position

Probable cause	Corrective action
• Reagent bottle bar code label is dirty.	Clean the label.
• Condensation on reagent bottle bar code label.	Wipe the label with a clean lint-free tissue.
• Reagent bottle bar code label is damaged.	Load a new reagent kit.
• The bar code label on the 20 mL (bottle) cartridge is not facing the bar code reader.	Reposition the 20 mL cartridge in the adapter so it faces the outside of the reagent supply center.
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-619.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4003

Unable to read reagent 1 bar code.

Probable cause	Corrective action
• Reagent bottle bar code label is dirty.	Clean the label.
• Condensation on reagent bottle bar code label.	Wipe the label with a clean lint-free tissue.
• Reagent bottle bar code label is damaged.	Load a new reagent kit.
• The bar code label on the 20 mL (bottle) cartridge is not facing the bar code reader.	Reposition the 20 mL cartridge in the adapter so it faces the outside of the reagent supply center.
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-619.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4004

Unable to read reagent 2 bar code.

Probable cause	Corrective action
• Reagent bottle bar code label is dirty.	Clean the label.
• Condensation on reagent bottle bar code label.	Wipe the label with a clean lint-free tissue.
• Reagent bottle bar code is damaged	Load a new reagent kit.
• The bar code label on the 20 mL (bottle) cartridge is not facing the bar code reader.	Reposition the 20 mL cartridge in the adapter so it faces the outside of the reagent supply center.
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-619.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4005

Unable to read segment ID bar code on reagent carousel 1 segment (x).
x= Reagent carousel segment

Probable cause	Corrective action
• Segment bar code label is dirty.	Clean the label.
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-619.
• Segment bar code label is damaged.	Replace the reagent carousel segment.
• Communication failure with the reagent bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4006

Unable to read segment ID barcode on reagent carousel 2 segment (x).
x= Reagent carousel segment

Probable cause	Corrective action
• Segment bar code has too much condensation.	Wipe the label with a clean lint-free tissue.
• Segment bar code label is dirty.	Clean the label.
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-619.
• Segment bar code label is damaged.	Replace the reagent carousel segment.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4007

User-defined reagent kit in location (x) was unloaded, bar code read error in same position.
x= Reagent carousel segment and position

Probable cause	Corrective action
A bar coded reagent cartridge was detected in a position in which a non-bar coded reagent was manually assigned.	1. If the non-bar coded reagent was moved to a different position, assign the new position. 2. If the non-bar coded reagent is no longer onboard, no action is required until the reagent is loaded again. At that time, assign a new position.

Error code: 4008

Unable to read reagent bar code in the (x) reagent carrier position in section (y).
x = Position in which the unreadable bar code was detected
y = RSH section number

Probable cause	Corrective action
• Reagent bottle bar code label is dirty.	Clean the label.
• Reagent bottle bar code label is damaged.	Load a new reagent kit.
• Reagent bottle not loaded properly.	Reseat the reagent bottle.
• Bar code reader window is dirty.	See *Bar code reader diagnostics description (RSH - i 1000$_{SR}$)*, page 10-612, if error occurs with multiple reagent bottles.
• Bar code reader requires calibration.	Perform ***bar code readers*** diagnostic procedure *3240 Bar Code Calibration*, page 10-613.
• Bar code reader was not calibrated correctly.	Repeat ***bar code readers*** diagnostic procedure *3240 Bar Code Calibration*, page 10-613.
• Hardware failure. – Bar Code Reader – RSH Distribution Board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4100

Termination character not received from Reagent bar code reader.

Probable cause	Corrective action
Hardware failure: – Reagent bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4101

Invalid checksum received from Reagent bar code reader.

Probable cause	Corrective action
Hardware failure: – Reagent bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4102

Invalid command sent to Reagent bar code reader.

Probable cause	Corrective action
Hardware failure: – Reagent bar code reader – Controller board in slot 14 in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4103

Reagent bar code reader not responding.

Probable cause	Corrective action
• Communication failure with the Reagent bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Reagent bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4104

Acknowledge command not received from Reagent bar code reader.

Probable cause	Corrective action
Hardware failure: – Reagent bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4105

POST failed, Reagent bar code reader.

Probable cause	Corrective action
• Communication failure with the Reagent bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Reagent bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4106

POST passed, Reagent Bar code Reader (x).
x = Firmware Version.

Probable cause	Corrective action
Power on self tests (POST) passed on the reagent bar code reader.	Status message. No corrective action is required.

Error code: 4200

Unable to read bar code label at Carrier (x) Position (y).
x = Carrier ID
y = Position

Probable cause	Corrective action
If error code 4203 occurred at the same time, the carrier label cannot be read. If there is no other error code, the sample label cannot be read.	
• A cup or tube is not in position.	No corrective action is required.

Probable cause	Corrective action
• A bar code label is not on the sample tube.	Place a bar code label on the sample tube.
• Tube is not correctly positioned in the carrier.	Place the tube in the carrier so the bar code is visible through the slot.
• Sample tube bar code label is dirty or damaged.	Clean the sample bar code label or replace if damaged.
• Sample cup or tube is scratched or dirty.	1. Clean the sample cup or tube. 2. Replace if damaged.
• Bar code label does not meet specifications.	See *Sample bar code label requirements*, page 4-16 for guidelines.
• System bar code configuration does not match bar code label.	Edit the bar code configuration as required for the bar code label symbology. See *Change the sample bar code settings for codabar*, page 2-26, *Change the sample bar code settings for code 39*, page 2-27, or *Change the sample bar code settings for I 2 of 5*, page 2-27.
• Sample ID bar code reader requires calibration.	Perform ***bar code readers*** diagnostic procedure *3240 Bar Code Calibration*, page 10-613 if you have an *i* 1000_{SR} sample handler.
• Hardware failure: – RSH bar code reader or sample load queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4201

Unable to read Carrier ID (x) at Load Queue bar code reader, samples will not be processed.
x = Carrier ID

Probable cause	Corrective action
Carrier ID read at the processing queue bar code reader but was unable to be read at the load queue bar code reader.	
• Carrier bar code label is damaged, wet, or dirty.	1. Clean the carrier bar code label. 2. Place carrier on the load queue. 3. Use a different carrier, if error continues.
• Sample ID bar code reader requires calibration.	Calibrate the bar code reader.
• Hardware failure: – Load queue SID bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4202

Carrier position numbers detected out of sequence on Carrier (x).
x = Carrier ID

Probable cause	Corrective action
• Carrier mis-labeled.	Use a different carrier.
• Load queue bar code reader requires calibration.	Perform bar code reader calibration.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4203

Unable to read Position number (x) on Carrier at the Load Queue bar code reader.
x = Position

Probable cause	Corrective action
• Carrier bar code label is damaged, wet, or dirty.	1. Clean the carrier bar code label. 2. Place carrier on the load queue. 3. Use a different carrier, if error continues.
• Sample ID bar code reader requires calibration.	Perform bar code reader calibration.
• Hardware failure: – Load queue SID bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4204

Unable to read Carrier ID at Sample ID bar code reader.

Probable cause	Corrective action
• Carrier bar code label is damaged, wet, or dirty.	1. Clean the carrier bar code label. 2. Place carrier on the load queue. 3. Use a different carrier, if error continues.
• Sample ID bar code reader requires calibration.	Perform bar code reader calibration.
• Hardware failure: – Sample ID bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4205

Unable to read carrier ID (x) at RSH bar code reader.
x = Carrier ID

Probable cause	Corrective action
• Carrier bar code label is damaged, wet, or dirty.	1. Clean the carrier bar code label. 2. Place carrier on the load queue. 3. Use a different carrier, if error continues.
• Bar code reader requires calibration.	Perform bar code reader calibration.
• Hardware failure: – Sample ID bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4206

Unable to read Carrier ID for carrier in bay (x) section (y).
x = Bay number
y = Section number

Probable cause	Corrective action
If error occurs for one carrier:	
• Carrier bar code label is wet or dirty.	Clean and dry the carrier bar code label.
• Carrier bar code is damaged.	Use a different carrier.
If error occurs for more than one carrier:	
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-619.
• Bar code reader requires calibration.	Perform bar code reader calibration.
• Hardware failure: – Bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4207

Unable to read Carrier ID for carrier in section (x).
x = RSH section number

Probable cause	Corrective action
If error occurs for one carrier:	
• Carrier bar code label is wet or dirty.	Clean and dry the carrier bar code label.
• Carrier bar code is damaged.	Use a different carrier.
If error occurs for more than one carrier:	
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-619.

Probable cause	Corrective action
• Bar code reader requires calibration.	Perform ***bar code readers*** diagnostic procedure *3240 Bar Code Calibration*, page 10-613.
• Hardware failure: – Bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4208

Invalid Sample ID scanned by the Sample ID bar code reader. The Sample ID contains an invalid character.

Probable cause	Corrective action
The sample ID contains an invalid character.	Use valid characters only. Valid characters are defined by Abbott Laboratories as A - Z, a - z, 0 - 9 and the special characters , / > < ? ; :] [\ } { ' - = ~ ! @ # $ % ^ & *) (_ + and <space>.

Error code: 4300

Unable to read position number (x) on Carrier at the (y).
x = Position number
y = Bar code reader

Probable cause	Corrective action
• Carrier bar code label is damaged or dirty.	1. Clean the carrier bar code label. 2. Place carrier on the load queue. 3. Use a different carrier, if error continues.
• Hardware failure: – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4301

Unable to read Carrier ID at the (x) on module (y).
x = Bar code reader
y = Processing module number (1-4)

Probable cause	Corrective action
• Carrier bar code label is damaged or dirty.	1. Clean the carrier bar code label. 2. Place carrier on the load queue. 3. Use a different carrier, if error continues.
• Hardware failure: – Processing queue bar code reader.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4302

Invalid Carrier ID detected at (x) on module (y).
x = Bar code reader
y = Processing module number (1-4)

Probable cause	Corrective action
• Carrier bar code label is damaged or dirty.	1. Clean the carrier bar code label. 2. Place carrier on the load queue. 3. Use a different carrier, if error continues.
• Hardware failure: – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4400

Sample ID bar code reader not responding.

Probable cause	Corrective action
• Hardware failure: – RSH bar code reader or sample load queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4401

Invalid checksum received from sample ID bar code reader.

Probable cause	Corrective action
• Hardware failure: – RSH bar code reader or sample load queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4402

Termination character not received from sample ID bar code reader.

Probable cause	Corrective action
• Hardware failure: – RSH bar code reader or sample load queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4403

Sample ID bar code reader not detected.

Probable cause	Corrective action
• Hardware failure: – RSH bar code reader or sample load queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4404

Invalid command sent to sample ID bar code reader.

Probable cause	Corrective action
• Hardware failure: – RSH bar code reader or sample load queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4405

Sample ID bar code reader communication error.

Probable cause	Corrective action
• Hardware failure: – RSH bar code reader or sample load queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4406

Unable to perform read, sample ID bar code reader in use.

Probable cause	Corrective action
• Hardware failure: – RSH bar code reader or sample load queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4407

Invalid configuration for sample ID bar code reader.

Probable cause	Corrective action
• Hardware failure: – RSH bar code reader or sample load queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4408

POST failed, sample ID bar code reader.

Probable cause	Corrective action
• Communication failure with the sample ID bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Controller board has a poor connection or failed (*ci* System/*i* System - slot 3 in the upper card cage, *c* System - slot 2 in lower card cage) – RSH bar code reader or sample load queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4409

POST passed, sample ID bar code reader, version (x).
x = Firmware version

Probable cause	Corrective action
Power on self tests (POST) passed for the sample load queue bar code reader or RSH bar code reader.	Status message. No corrective action is required.

Error code: 4410

Timing sequence error detected with RSH bar code reader.

Probable cause	Corrective action
• RSH bar code reader calibration was not performed.	Perform bar code reader calibration.
• Hardware failure: – RSH bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4411

Invalid checksum received from the bar code reader.

Probable cause	Corrective action
Hardware failure: – Bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4412

Invalid command sent to the bar code reader.

Probable cause	Corrective action
Hardware failure: – Bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4413

Bar code reader communication error.

Probable cause	Corrective action
Hardware failure: – Bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4414

Bar code reader not detected.

Probable cause	Corrective action
Hardware failure: – Bar code reader – Controller board has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4415

Termination character not received from the bar code reader.

Probable cause	Corrective action
Hardware failure: – Bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4416

Unable to perform read, bar code reader in use.

Probable cause	Corrective action
Hardware failure: – Bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4417

Invalid configuration for the bar code reader.

Probable cause	Corrective action
Hardware failure: – Bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4418

Reagent bar code reader communication error.

Probable cause	Corrective action
• Hardware failure: – Reagent bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4419

Invalid configuration for reagent bar code reader.

Probable cause	Corrective action
• Hardware failure: – Reagent bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4420

Unable to perform read, reagent bar code reader in use.

Probable cause	Corrective action
• Hardware failure: – Reagent bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4500

(x) not responding on Processing Module (y).
x = Bar code reader
y = Processing module number (1 - 4)

Probable cause	Corrective action
• Communication failure with the bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4501

Processing Queue bar code reader (x) in use.
x = Processing module number (1 - 4)

Probable cause	Corrective action
• Communication failure with the processing queue bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4502

Invalid reader number (x) requested for Processing Queue bar code reader.
x = Reader number

Probable cause	Corrective action
• Communication failure with the processing queue bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4503

Invalid configuration on Processing Queue bar code reader (x).
x = Processing module number (1 - 4)

Probable cause	Corrective action
• Communication failure with the processing queue bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4504

Processing Queue barcode reader (x) communication error.
x = Processing module number (1 - 4)

Probable cause	Corrective action
• Communication failure with the processing queue bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4505

Invalid checksum received from Processing Queue bar code reader (x).
x = Processing module number (1 - 4)

Probable cause	Corrective action
• Communication failure with the processing queue bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4506

Termination character not received from Processing Queue bar code reader (x).
x = Processing module number (1 - 4)

Probable cause	Corrective action
• Communication failure with the processing queue bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4507

Invalid terminator received from Processing Queue bar code reader (x).
x = Processing module number (1 - 4)

Probable cause	Corrective action
• Communication failure with the processing queue bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4508

Processing Queue bar code reader (x) not detected.
x = Processing module number (1 - 4)

Probable cause	Corrective action
• Communication failure with the processing queue bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4509

Invalid reader address received from Processing Queue bar code reader (x).
x = Processing module number (1 - 4)

Probable cause	Corrective action
• Communication failure with the processing queue bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4510

Invalid command received from Processing Queue bar code reader (x).
x = Processing module number (1 - 4)

Probable cause	Corrective action
• Communication failure with the processing queue bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4511

Processing Queue bar code reader (x) not responding.
x = Processing module number (1 - 4)

Probable cause	Corrective action
• Communication failure with the processing queue bar code reader	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Controller board in slot 3 in the upper card cage has a poor connection or failed – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4520

POST passed, Processing Queue Bar code Reader (x) version (y).
x = Processing module number (1 - 4)
y = Firmware version

Probable cause	Corrective action
Power on self tests (POST) passed on the processing queue bar code reader.	Status message. No corrective action is required.

Error code: 4530

POST failed, Processing Queue bar code reader (x).
x = Processing module number (1 - 4)

Probable cause	Corrective action
• Communication failure with the processing queue bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Controller board in slot 3 in the upper card cage has a poor connection or failed – Processing Queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4600

Unable to read carousel ID at Processing Queue bar code reader.

Probable cause	Corrective action
• Carousel is not present.	Place carousel on the LAS carousel platform.
• Carousel ID label is not on the carousel.	Apply a carousel ID label to the carousel.
• The carousel is not seated correctly.	Seat the carousel correctly.
• Carousel bar code label is damaged, wet, or dirty.	1. Clean the carousel bar code label or replace the label if damaged. 2. Place carousel on the LAS carousel platform. 3. Use a different carousel, if error continues.
• Processing queue bar code reader (used to read the LAS carousel) requires calibration.	Perform bar code reader calibration.
• Hardware failure: – Processing queue bar code reader.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4601

LAS bar code read failed for SID (x).
x - Sample ID

Probable cause	Corrective action
• Sample tube bar code label is dirty or damaged.	Clean the sample bar code label or replace if damaged.
• Sample tube is not correctly positioned in the carrier.	Position the tube in the carrier so the bar code is visible.

Probable cause	Corrective action
• Bar code label does not meet specifications.	1. See *Sample bar code label requirements*, page 4-16, for guidelines. 2. Contact your LAS vendor.
• Hardware failure: – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4602

LAS bar code read mismatched for SID (x).
x = Sample ID ordered

Probable cause	Corrective action
The bar code read by the LAS did not match the SID data ordered.	
• The wrong tube is at the aspiration point.	1. Rerun the sample. 2. Contact your LAS vendor.

Error code: 4800

Unable to read Sample ID at sample carousel position (x).
x = Sample carousel position

Probable cause	Corrective action
If error occurs on one sample:	
• Tube is not correctly positioned in the carousel.	Place the tube in the carousel so the bar code is visible through the slot.
• Sample tube bar code label is dirty or damaged.	Clean the sample bar code label or replace if damaged.
• Bar code label does not meet specifications.	See *Sample bar code label requirements*, page 4-16, for guidelines.
If error occurs with multiple samples:	
• System bar code configuration does not match bar code labels.	Edit the bar code configuration as required for the bar code label symbology. See *Change the sample bar code settings for codabar*, page 2-26, *Change the sample bar code settings for code 39*, page 2-27, or *Change the sample bar code settings for I 2 of 5*, page 2-27.
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-619.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4801

Unable to read Sample ID at sample carousel.

Probable cause	Corrective action
If error occurs on one sample: • Tube is not correctly positioned in the carousel.	Place the tube in the carousel so the bar code is visible through the slot.
• Sample tube bar code label is dirty or damaged.	Clean the sample bar code label or replace if damaged.
• Bar code label does not meet specifications.	See *Sample bar code label requirements*, page 4-16, for guidelines.
If error occurs with multiple samples:	
• System bar code configuration does not match bar code labels.	Edit the bar code configuration as required for the bar code label symbology. See *Change the sample bar code settings for codabar*, page 2-26, *Change the sample bar code settings for code 39*, page 2-27, or *Change the sample bar code settings for I 2 of 5*, page 2-27.
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-619.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4900

(x) bar code reader Power On Self Test failure.
x = Sample Carousel, Reagent 1, or Reagent 2

Probable cause	Corrective action
• Communication failure with bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4901

(x) bar code reader failure (port initialize error).
x = Sample Carousel, Reagent 1, or Reagent 2

Probable cause	Corrective action
• Communication failure with bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4902

(x) bar code reader failure.
x = Sample Carousel, Reagent 1, or Reagent 2

Probable cause	Corrective action
• Communication failure with bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4906

(x) bar code reader parity error.
x = Sample Carousel, Reagent 1, or Reagent 2

Probable cause	Corrective action
For sample carousel:	
• Tube is not correctly positioned in the carousel.	Place the tube in the carousel so the bar code is visible through the slot.
• Sample tube bar code label is dirty or damaged.	Clean the sample bar code label or replace if damaged.
• Bar code label does not meet specifications.	See *Sample bar code label requirements*, page 4-16, for guidelines.
• System bar code configuration does not match bar code labels.	Edit the bar code configuration as required for the bar code label symbology. See *Change the sample bar code settings for codabar*, page 2-26, *Change the sample bar code settings for code 39*, page 2-27, or *Change the sample bar code settings for I 2 of 5*, page 2-27.
For Reagent 1 or 2:	
• Reagent bottle bar code label is dirty.	Clean the label.
• Reagent bottle bar code label is damaged.	Load a new reagent kit.
• The bar code label on the 20 mL (bottle) cartridge is not facing the bar code reader.	Reposition the 20 mL cartridge in the adapter so it faces the outside of the reagent supply center.
For all bar code readers:	
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-619.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Robotic and sensor error codes (5000-5999)

The robotic and sensor error code category includes error codes between 5000-5999.

If the corrective actions listed under the error code in question do not resolve the problem, contact your Area Customer Support representative at:

United States	1-877-4ABBOTT (1-877-422-2688)
International	Call your Area Customer Support representative.

NOTE: For corrective actions that involve hazardous activity refer to *Hazards*, page 8-1, for precautions you should take to minimize exposure and prevent personal injury or system damage. Hazard activities include but are not limited to:

- Replacing system probes
- Handling reagents, calibrators, controls, and specimens
- Removing physical obstructions
- Changing the lamp
- Removing system waste

Error code: 5000

(x) movement restricted at (y) step number (z).
x = Pipettor name
y = Location
z = Position

Probable cause	Corrective action
For sample pipetting:	
• Stopper not removed from the sample tube.	Remove stopper from sample tube.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-122.
• Sample cup or tube was not properly placed in the carrier.	Ensure sample cup or tube is fully seated into sample carrier and is positioned straight.
• Probe is out of alignment.	Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25
• Probe is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40

Probable cause	Corrective action
• Liquid level sense and Z cable has a poor connection.	Tighten the screw holding the cable to the probe clamp, then perform one of the following ***fluidics/wash*** diagnostic procedures: • For *i* 1000_{SR}: – *3630 LLS Test*, page 10-605
• Sample carrier is damaged.	Use a different carrier.
• Hardware failure: – Indexer board has a poor connection or failed – Liquid level sense board has a poor connection or failed – Liquid level sense and Z cable failure – Pipettor	Contact your Area Customer Support to resolve any hardware failure.
For reagent pipetting:	
• Reagent bottle cap was not removed.	Remove the cap from the reagent bottle, and then install septum.
• Reagent bottle is empty.	Replace empty reagents.
• Vacuum vessel tubing obstructing probe.	Adjust vacuum vessel tubing so the pipettor does not touch it when washing the probe.
• Reagent bottle is not seated correctly in the reagent carousel.	Reseat the reagent bottle in the carousel.
• Probe is out of alignment.	Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25
• Probe is damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40
• Liquid level sense and Z cable has a poor connection.	Tighten the screw holding the cable to the probe clamp, then perform one of the following ***fluidics/wash*** diagnostic procedures: • For *i* 1000_{SR}: – *3630 LLS Test*, page 10-605
• Hardware failure: – Liquid level sense board has a poor connection or failed – Indexer board has a poor connection or failed – Liquid level sense and Z cable – Pipettor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5001

Sample Pipettor probe may be in sample cup/tube on Processing Module (x) due to prior hardware failure.
x = Processing module number (1-4)

Probable cause	Corrective action
Sample pipettor failure occurred on the specified processing module that could possibly leave the probe inside the sample cup or tube.	1. Start up the processing module to remove probe from sample cup or tube. Do not perform start up on the sample handler at the same time. See *Start up the processing module and/or sample handler*, page 5-10. 2. Perform a start up on the sample handler when processing module status is Ready. 3. *Review message logs*, page 10-10, for any 3000 or 5000 category error codes that occurred at the same time as this message. 4. *View low level error messages*, page 10-11, if you do not find any 3000 or 5000 category error codes. 5. Perform the corrective action for the specific error code.

Error code: 5002

Sample pipettor timeout during vertical movement.

Probable cause	Corrective action
• A physical interference is blocking the movement of the sample pipettor in the cuvette dispense or wash cup positions.	Look for and remove any physical obstructions.
• Sample probe is out of alignment.	Perform sample pipettor calibration.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5003

Sample pipettor vertical homing failure.

Probable cause	Corrective action
• A physical interference is blocking the movement of the sample pipettor.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5004

Sample pipettor timeout during horizontal movement.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the sample pipettor.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5005

Sample pipettor horizontal homing failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the sample pipettor.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5006

(x) pipettor timeout during vertical movement.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent 1 pipettor in the cuvette dispense or wash cup positions.	Look for and remove any physical obstructions.
• Reagent probe is out of alignment.	Perform pipettor calibration.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5007

(x) pipettor vertical homing failure.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent 1 pipettor.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5008

(x) pipettor timeout during horizontal movement.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 pipettor.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5009

(x) pipettor horizontal homing failure.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 pipettor.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5010

(x) pipettor timeout during vertical movement.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent 2 pipettor in the cuvette dispense or wash cup positions.	Look for and remove any physical obstructions.
• Reagent probe is out of alignment.	Perform pipettor calibration.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5011

(x) pipettor vertical homing failure.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent 2 pipettor.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5012

(x) pipettor timeout during horizontal movement.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 pipettor.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5013

(x) pipettor horizontal homing failure.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 pipettor.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5014

Sample pipettor movement restricted at sample carousel position (x).
x = Sample carousel position

Probable cause	Corrective action
• Stopper not removed from the sample tube.	Remove stopper from sample tube.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-122.
• Sample cup or tube was not properly placed in the carousel.	Ensure sample cup or tube is fully seated into the sample carousel and is positioned straight.
• Sample carousel cover is not seated properly.	Reseat the sample carousel cover.
• A physical interference is blocking the movement of the sample pipettor.	Look for and remove any physical obstructions.
• Sample probe is out of alignment.	Perform sample pipettor calibration.
• Sample probe is damaged.	Replace the sample probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5015

(x) pipettor movement restricted at (y).
x = Pipettor name
y = Reagent carousel segment and position

Probable cause	Corrective action
• Cap not removed from a reagent cartridge.	Remove cap from reagent bottles.
• Reagent cartridge and/or adapter is not seated correctly.	Reseat the reagent cartridge and/or adapter.
• Empty reagent cartridge.	Replace the reagent.
• Carousel cover is not seated properly.	Reseat the carousel cover.
• A physical interference is blocking the movement of the reagent pipettor.	Look for and remove any physical obstructions.
• Non-bar coded reagent is not loaded or is not loaded in the correct position.	Load the non-bar coded reagent in the correct assigned position.
• Reagent probe is out of alignment.	Perform pipettor calibration.
• Reagent probe is damaged.	Replace reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5016

(x) pipettor movement restricted at (y).
x = Pipettor name
y = Reagent carousel segment and position

Probable cause	Corrective action
• Cap not removed from a reagent cartridge.	Remove cap from reagent bottles.
• Reagent cartridge and/or adapter is not seated correctly.	Reseat the reagent cartridge and/or adapter.
• Empty reagent cartridge.	Replace the reagent.
• Carousel cover is not seated properly.	Reseat the carousel cover.
• A physical interference is blocking the movement of the reagent pipettor.	Look for and remove any physical obstructions.
• Non-bar coded reagent is not loaded or is not loaded in the correct position.	Load the non-bar coded reagent in the correct assigned position.
• Reagent probe is out of alignment.	Perform pipettor calibration.
• Reagent probe is damaged.	Replace reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5017

Unable to perform horizontal movement, sample pipettor not in up position.

Probable cause	Corrective action
• The sample pipettor was physically pushed down from its vertical home position.	1. Select the **processing module graphic**, and then select **Stop**. 2. Start up the processing module when the status is Stopped. See *Start up the processing module and/or sample handler*, page 5-10.
• A physical interference is blocking the movement of the sample pipettor.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5018

Sample pipettor movement restricted at sample carrier.

Probable cause	Corrective action
• Stopper not removed from the sample tube.	Remove stopper from sample tube.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-122.
• Sample cup or tube was not properly placed in the carrier.	Ensure sample cup or tube is fully seated into the sample carrier and is positioned straight.
• A physical interference is blocking the movement of the sample pipettor.	Look for and remove any physical obstructions.
• Sample probe is out of alignment.	Perform sample pipettor calibration.
• Sample probe is damaged.	Replace the sample probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5019

Unable to process test, (x) pipettor movement restricted.
x = Pipettor name

Probable cause	Corrective action
• Cap not removed from a reagent cartridge.	Remove cap from reagent bottles.
• Reagent cartridge and/or adapter is not seated correctly.	Reseat the reagent cartridge and/or adapter.
• Empty reagent cartridge.	Replace the reagent.
• Carousel cover is not seated properly.	Reseat the carousel cover.
• A physical interference is blocking the movement of the reagent pipettor.	Look for and remove any physical obstructions.

Probable cause	Corrective action
• Non-bar coded reagent is not loaded or is not loaded in the correct position.	Load the non-bar coded reagent in the correct assigned position.
• Reagent probe is out of alignment.	Perform pipettor calibration.
• Reagent probe is damaged.	Replace reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5020

Unable to process test, (x) pipettor movement restricted.
x = Pipettor name

Probable cause	Corrective action
• Cap not removed from a reagent cartridge.	Remove cap from reagent bottles.
• Reagent cartridge and/or adapter is not seated correctly.	Reseat the reagent cartridge and/or adapter.
• Empty reagent cartridge.	Replace the reagent.
• Carousel cover is not seated properly.	Reseat the carousel cover.
• A physical interference is blocking the movement of the reagent pipettor.	Look for and remove any physical obstructions.
• Non-bar coded reagent is not loaded or is not loaded in the correct position.	Load the non-bar coded reagent in the correct assigned position.
• Reagent probe is out of alignment.	Perform pipettor calibration.
• Reagent probe is damaged.	Replace reagent probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5021

Sample pipettor movement restricted at LAS.

Probable cause	Corrective action
• Stopper not removed from the sample tube.	Remove stopper from sample tube.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-122.
• Sample cup or tube was not properly placed in the carousel.	Ensure sample cup or tube is fully seated into the carousel and is positioned straight.
• A physical interference is blocking the movement of the sample pipettor.	Look for and remove any physical obstructions.
• Sample probe is out of alignment.	Perform sample pipettor calibration.
• Sample probe is damaged.	Replace the sample probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5022

Sample pipettor movement restricted at dilution cuvette position.

Probable cause	Corrective action
• A physical interference is blocking the movement of the sample pipettor.	Look for and remove any physical obstructions.
• Sample probe is out of alignment.	Perform sample pipettor calibration.
• Sample probe is damaged.	Replace the sample probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5023

Sample pipettor movement restricted.

Probable cause	Corrective action
• Stopper not removed from the sample tube.	Remove stopper from sample tube.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-122.
• Sample cup or tube was not properly placed in the carrier or carousel.	Ensure sample cup or tube is fully seated into sample carrier or carousel and is positioned straight.
• A physical interference is blocking the movement of the sample pipettor.	Look for and remove any physical obstructions.
• Sample probe is out of alignment.	Perform sample pipettor calibration.
• Sample probe is damaged.	Replace the sample probe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5024

Unexpected SMC status after (x) movement.
x = Hardware component

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstructions.
• Probe is out of alignment.	Perform pipettor calibration.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.
• Communication failure with SMC board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5025

Sample Pipettor (vertical) did not stop as expected.

Probable cause	Corrective action
• Communication failure with SMC board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5026

(x) pipettor (vertical) did not stop as expected.
x = Pipettor name

Probable cause	Corrective action
• Communication failure with SMC board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5027

(x) pipettor (vertical) did not stop as expected.
x = Pipettor name

Probable cause	Corrective action
• Communication failure with SMC board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5100

(x) disabled, maximum number of errors exceeded.
x = Name of mechanism taken offline

Probable cause	Corrective action
For vortexer:	
Hardware failure: – Cable for the specified vortexer has a poor connection or failed – Vortexer in the indicated position – DC Driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
For other motors:	
Hardware failure: – Cable for the specified motor has a poor connection or failed – DC Driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5101

(x) did not disengage from RV.
x = Vortexer number

Probable cause	Corrective action
Hardware failure: – Cable for the specified vortexer has a poor connection or failed – Vortexer in the specified position – DC Driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5102

Unable to process test, failure on (x).
x = Mechanism name

Probable cause	Corrective action
Intermittent failure with the specified mechanism.	1. *Review message logs*, page 10-10, for any 5000 or 7000 category error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-11, if you do not find any 5000 or 7000 category error codes. 3. Perform the corrective action for the specific error code.

Error code: 5103

(x) did not mix RV for required time.
x = Vortexer number

Probable cause	Corrective action
Hardware failure: – Cable for the specified vortexer has a poor connection or failed – Vortexer in the specified position – DC Driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5104

(x) did not reach required speed.
x = Vortexer number

Probable cause	Corrective action
Hardware failure: – Cable for the specified vortexer has a poor connection or failed – Vortexer in the specified position – DC Driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5105

(x) did not engage with RV.
x = Vortexer number

Probable cause	Corrective action
Hardware failure: – Cable for the specified vortexer has a poor connection or failed – Vortexer in the specified position – DC Driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5106

Process path jam was detected and a recovery was successfully performed. Process path may require servicing.

NOTE: Frequent occurrences of this error code may indicate a pending hardware failure. Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
• An RV (reaction vessel) was jammed in the process path track.	A recovery was performed to clear the jammed RV. No further action required.
• RVs are damaged or have an irregular shape.	A recovery was performed to clear the jammed RV. No further action required.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5107

Process path jam was detected and a recovery was successfully performed. Process path may require servicing.

NOTE: Frequent occurrences of this error code may indicate a pending hardware failure. Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
• An RV (reaction vessel) was jammed in the process path track.	A recovery was performed to clear the jammed RV. No further action required.
• RVs are damaged or have an irregular shape.	A recovery was performed to clear the jammed RV. No further action required.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5151

Reaction carousel timeout during rotation.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reaction carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5152

Reaction carousel homing failure

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reaction carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5153

Reagent 1 outer carousel timeout during rotation.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 outer carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5154

Reagent 1 outer carousel homing failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 outer carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5155

Reagent 1 inner carousel timeout during rotation.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 inner carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5156

Reagent 1 inner carousel homing failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 inner carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5157

Reagent 2 carousel timeout during rotation.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5158

Reagent 2 carousel homing failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5159

Sample carousel rotation error from (x) to (y).
x = Start position
y = Destination

Probable cause	Corrective action
• A physical interference is blocking the rotation of the sample carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5160

Sample carousel failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the sample carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5161

Reagent 1 outer carousel rotation error from (x) to (y).
x = Start position
y = Destination

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 outer carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5162

Reagent 1 outer carousel failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 outer carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5163

Reagent 1 inner carousel rotation error from (x) to (y).
x = Start position
y = Destination

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 inner carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5164

Reagent 1 inner carousel failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 inner carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5165

Reagent 2 carousel rotation error from (x) to (y).
x = Start position
y = Destination

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5166

Reagent 2 carousel failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5167

Cuvette tab not detected at cuvette (x).
x = Cuvette #

Probable cause	Corrective action
• Water is present on the slotted edges of the cuvette segment.	Dry off the slotted edge of the cuvette segment.
• Cuvette tab is broken.	Replace cuvette segment.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5168

Cuvette tab not detected.

Probable cause	Corrective action
• Water is present on the slotted edges of the cuvette segment.	Dry off the slotted edge of the cuvette segment.
• Cuvette tab is broken.	Replace cuvette segment.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.

Probable cause	Corrective action
• Lamp is not performing as expected.	Replace the lamp.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5169

Optics trigger sensor auto adjustment value (x) out of range.
x = Trigger value

Probable cause	Corrective action
• Water is present on the slotted edges of the cuvette segment.	Dry off the slotted edge of the cuvette segment.
• Cuvette tab is broken.	Replace cuvette segment.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5170

Sample carousel timeout during rotation.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the sample carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5171

Sample carousel homing failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the sample carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5172

Optics trigger sensor auto adjustment error.

Probable cause	Corrective action
• Water is present on the slotted edges of the cuvette segment.	Dry off the slotted edge of the cuvette segment.
• Cuvette tab is broken.	Replace cuvette segment.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5173

Unable to complete reagent scan.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information specifying the operation you were attempting to perform when this error occurred.

Error code: 5174

Duplicate reagent bottle detected in position (x) on carousel (y). The bottle will not be used.
x = Position in which the bottle was detected
y = Location in which the bottle was detected

Probable cause	Corrective action
• Reagent bar code reader requires calibration.	Calibrate the bar code reader.
• The reagent carousel is slipping and the same bottle was scanned twice.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5175

Duplicate reagent bottle detected in position (x) on carousel (y). The bottle will not be created.
x = Reagent segment and position
y = Reagent carousel

Probable cause	Corrective action
A user printed reagent bar code was created with the same lot number and serial number as a reagent already scanned on the system.	Remove the duplicate bottle and recreate the reagent bar code with a unique serial number.

Error code: 5176

No carrier detected at reagent carousel position (x).
x = Reagent carousel position number

Probable cause	Corrective action
Hardware failure: – Reagent carrier detect sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5177

Carrier detected in reagent carousel position (x).
x = Reagent carousel position number

Probable cause	Corrective action
Hardware failure: – Reagent carrier detect sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5178

Reagent carrier detect sensor failed.

Probable cause	Corrective action
Hardware failure: – Reagent carrier detect sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5179

Duplicate reagent bottle detected in the (x) reagent carrier position in section (y).
x = Reagent carrier position in which the bottle was detected
y = RSH section number

Probable cause	Corrective action
Bar code reader requires calibration.	Perform ***bar code readers*** diagnostic procedure. *3240 Bar Code Calibration*, page 10-613.

Error code: 5180

Unable to load reagent carrier from section (x) due to a previous mechanism failure.
x = RSH section number

Probable cause	Corrective action
A mechanism failure prevented loading of the reagent carrier.	Restart the RSH.

Error code: 5181

Unable to unload reagent carrier from reagent carousel position (x) due to a previous mechanism failure.
x = Position number on the reagent carousel

Probable cause	Corrective action
A mechanism failure prevented unloading of the reagent carrier.	Restart the RSH.

Error code: 5182

Carrier not detected in reagent carousel position (x).
x = Position number on the reagent carousel

Probable cause	Corrective action
• Carrier is damaged.	Use a different carrier.
• Hardware failure: – Reagent carrier detect sensor – Carrier detect sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5183

Reagent 2 outer carousel failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 outer carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5184

Reagent 2 inner carousel failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 inner carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5185

Reagent 2 outer carousel rotation error from (x) to (y).
x = Start position
y = Destination

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 outer carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5186

Reagent 2 inner carousel rotation error from (x) to (y).
x = Start position
y = Destination

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 inner carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5187

Reagent 2 outer carousel homing failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 outer carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5188

Reagent 2 inner carousel homing failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 inner carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5189

Reagent 2 outer carousel timeout during rotation.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 outer carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5190

Reagent 2 inner carousel timeout during rotation.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 inner carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5191

Unable to reset reagent carousel cover monitor.

Probable cause	Corrective action
• The reagent access door was opened.	Close the reagent access door and perform a Startup.
• Hardware failure: – Reagent access door sensor – Reagent cooler monitor sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5200

RV detected below drop point when none was expected.

Probable cause	Corrective action
• An RV is jammed at the load point in the RV transport.	1. Remove the RV transport shield. 2. Remove RV from the RV loader drop point on the RV transport. 3. Replace the RV transport shield. 4. *Start up the processing module and/or sample handler*, page 5-10.
• Hardware failure: – CMIA optics board in slot 12 in the upper card cage has a poor connection or failed – RV loader drop point sensor is dirty or dusty – RV loader drop point sensor board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5201

RVs have not been picked up for an extended period of time.

Probable cause	Corrective action
• RVs (reaction vessels) are blocking the access path to the RV loader wheel.	1. Open the RV access door and stir the RVs in the hopper by hand. 2. Wait until all tests in process are complete if the RVs are still not picked up, and then *Pause the processing module*, page 5-11. 3. Remove all RVs from the hopper, when the processing module status is Ready. 4. Inspect the path to the RV loader wheel and remove any RVs. 5. Place RVs back into the Hopper.
• Hardware failure: – RV loader wheel missing fingers – CMIA optics board in slot 12 in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5202

Drop point sensor on RV Loader failed.

Probable cause	Corrective action
Hardware failure: – CMIA optics board in slot 12 in the upper card cage has a poor connection or failed – RV loader drop point sensor is dirty or dusty – RV transport drop point sensor board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5203

RV Loader Transport assembly depleted of RVs.

Probable cause	Corrective action
• There are no RVs (reaction vessels) in the hopper.	Add reaction vessels to the RV loader hopper.
• The hopper baffle is not attached to the RV loader.	Secure the baffle on the hopper to the RV loader.
• Hardware failure: – RV loader – RV loader wheel is missing fingers – RV HOP LVL SNSR W104 cable underneath the hopper has a poor connection	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5204

RV load verification sensor failure detected.

Probable cause	Corrective action
• An RV (reaction vessel) is jammed at the load point in the RV transport.	1. Remove RV transport shield. 2. Remove all RVs from the RV transport. 3. Replace the RV transport shield. 4. *Start up the processing module and/or sample handler*, page 5-10.
• Hardware failure: – RV transport drop point sensor board – CMIA optics board in slot 12 in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
For *i* 1000$_{SR}$:	

Probable cause	Corrective action
• An RV (reaction vessel) is jammed at the load point on the process path.	1. Raise the lower chute or remove the lower chute cover to remove the jammed RV. 2. *Start up the processing module and/or sample handler*, page 5-10.
• Hardware failure: – RV present sensor	Contact your Area Customer Support to resolve hardware failure.

Error code: 5205

RV detected in Process Path when attempting to load a new RV.

Probable cause	Corrective action
Hardware failure: – RV sensor	1. If error is infrequent, it is probably due to an occasional failure to move a clean RV into the processing path. No corrective action is required. 2. If error is frequent, it is probably due to an intermittent sensor problem. Contact your Area Customer Support to resolve any hardware failure.

Error code: 5207

No RV detected at drop point.

Probable cause	Corrective action
• RV fell off the orienter wheel before reaching the chute.	If this occurs infrequently (three times a day or less) no corrective action is required.
• Hardware failure: – CMIA optics board in slot 12 in the upper card cage has a poor connection or failed – RV sensor cable has a poor connection – RV sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5208

Unable to process test, RVs are not available.

Probable cause	Corrective action
• RVs (reaction vessels) blocking the access path to the RV loader wheel.	1. Open the RV access door and stir the RVs in the hopper by hand. 2. Wait until all tests in process are complete if the RVs are still not picked up, and then *Pause the processing module*, page 5-11. 3. Remove all RVs from the hopper, when the processing module status is Ready. 4. Inspect the path to the RV loader wheel and remove any RVs. 5. Place RVs back into the Hopper.
• RV pickers are broken off the RV loader wheel.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5209

No RV detected in process path after RV load attempt.

Probable cause	Corrective action
• RV loader chute is not in position to load RVs.	Reseat the RV loader chute into the wash zone manifold.
• Hardware failure: – RV present sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5210

RV detected in process path when no RV was expected.

Probable cause	Corrective action
Hardware failure: – RV present sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5211

An RV could not be loaded in the allotted time.

Probable cause	Corrective action
Hardware failure: – RV pickup assembly – RV picked sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5212

Empty RV hopper detected during initialization. Add RVs, update supplies and press Run.

Probable cause	Corrective action
No RVs (reaction vessels) in the RV Hopper.	*Replenish RVs and update inventory (i 1000$_{SR}$)*, page 5-25.
Hardware failure: – RV hopper sensor – RV hopper door solenoid	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5251

Wash Buffer Transfer sensor failed, transfer canceled.

Probable cause	Corrective action
Hardware failure: – Air sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5252

Wash buffer level sensor disconnected.

Probable cause	Corrective action
• Wash buffer level sensor cable has a poor connection.	Reconnect the buffer level sensor.
• Wash buffer level sensor failed.	Perform one of the following replacement procedures: • For *i* 1000$_{SR}$: – *Replace the buffer level sensor (i 1000$_{SR}$)*, page 9-61
• Hardware failure: – Buffer level sensor cable	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5300

(x) vacuum failure during aspiration.
x = Wash Zone name

Probable cause	Corrective action
• Tubing/sensor at probe on one of the wash zones has a poor connection.	Reseat the wash zone tubing onto each probe one at a time.
• Wash zone probe obstructed.	1. Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *6445 Pipettor/WZ Probe Cleaning*, page 9-23 2. Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the wash zone probe (i 1000_{SR})*, page 9-47
• Tubing/sensor for one of the wash zones was obstructed or failed.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the wash zone temperature tubing and sensor (i 1000_{SR})*, page 9-50
• Wash zone probe is dirty.	Clean the exterior of the probes on the wash zone indicated in the error message.
• Hardware failure: – Vacuum filter – Vacuum valve – Vacuum vessel drain valve – Vacuum pump	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5301

Vacuum system failure.

Probable cause	Corrective action
Hardware failure: – Tubing to vacuum vessel is obstructed – Vacuum tubing – Vacuum vessel drain vessel – Vacuum valve – Vacuum pump – Vacuum filter	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5302

Vacuum initialization failed, vacuum sensor.

Probable cause	Corrective action
Hardware failure: – Vacuum vessel – Vacuum vessel drain valve – Vacuum valve – Vacuum sensor has a poor connection	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5303

Vacuum system failure, vacuum too low.

Probable cause	Corrective action
Hardware failure: • Vacuum low pressure sensor • Vacuum pump • Heater cooler board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5304

Vacuum system failure, liquid too high.

Probable cause	Corrective action
• External waste tubing is crimped.	Reposition the external waste tubing so there are no crimps.
• Liquid waste quick disconnect is not connected.	Connect the liquid waste quick disconnect.
• Hardware failure: – Waste pump – Heater cooler board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5305

Liquid too high in vacuum accumulator.

Probable cause	Corrective action
NOTE: Processing module will go to paused if running tests.	
• Liquid waste is full.	Empty liquid waste container.
• Liquid waste tubing is not connected at the quick disconnect.	Reconnect the liquid waste container tubing at the quick disconnect.
• Liquid waste tubing is crimped or obstructed.	Remove any obstructions.
• External waste tubing is obstructed.	Remove any obstructions.

Error code: 5306

Run request denied, liquid too high in vacuum accumulator. Wait (x) minute(s) and try again.

Probable cause	Corrective action
Attempted to run a test when there is still too much liquid in the vacuum accumulator.	Wait the designated amount of time before trying to initiate a run.

Error code: 5307

Liquid waste high pressure condition detected.

Probable cause	Corrective action
• Liquid waste is full.	Empty liquid waste container.
• Liquid waste tubing is not connected at the quick disconnect.	Reconnect the liquid waste container tubing at the quick disconnect.
• Liquid waste tubing is crimped or obstructed.	Remove any obstructions.
• External waste tubing is obstructed.	Remove any obstructions.

Error code: 5350

POST failed, Indexer board (x).
x = Board number 0 = slot 11, 1 = slot 9, 2 = slot 7, 3 = slot 5

Probable cause	Corrective action
• Communication failure between the processing module and the SCC.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Indexer board in the indicated position in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5351

DC Drive I/O board not present.

Probable cause	Corrective action
• Communication failure between the processing module and the SCC.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – DC Driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5352

POST passed, DC Driver I/O board, version (x).
x = Firmware revision

Probable cause	Corrective action
Power on self tests (POST) passed on the DC Driver I/O board.	Status message. No corrective action is required.

Error code: 5353

POST failed, DC Driver I/O board.

Probable cause	Corrective action
• Communication failure between the processing module and the SCC.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – DC Driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5354

Controller board failed.

Probable cause	Corrective action
• Communication failure between the processing module and the SCC.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Module controller board in the upper card cage has a poor connection or failed – Sample handler controller board in slot 3 in the upper card cage has a poor connection or failed (*i* 2000/*i* 2000_{SR})	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5355

Controller board register reset failure.

Probable cause	Corrective action
• Communication failure between the processing module and the SCC.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Module controller board in the upper card cage has a poor connection or failed – Sample handler controller board in slot 3 in the upper card cage has a poor connection or failed (*i* 2000/*i* 2000_{SR})	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5356

System Stopped, I/O communication error.

Probable cause	Corrective action
• User selected stop.	*Start up the processing module and/or sample handler*, page 5-10, when the reason for the stop no longer exists.
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Module controller board in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5357

Digital I/O interrupt failure.

Probable cause	Corrective action
Generic 6000 or 8000 error code.	1. *Review message logs*, page 10-10, for any 6000 or 8000 category error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-11, if you do not find any 6000 or 8000 category error codes. 3. Perform the corrective action for the specific error code.

Error code: 5358

POST passed, Controller board version (x).
x = Version number

Probable cause	Corrective action
Power on self tests (POST) passed on the controller board.	Status message. No corrective action is required.

Error code: 5359

POST failed, Controller board.

Probable cause	Corrective action
• Communication failure between the processing module and the SCC.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Module controller board in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5360

Controller board checksum failed.

Probable cause	Corrective action
• Communication failure between the processing module and the SCC.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Module controller board in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5361

POST passed, Motor Indexer board (x) version (y).
x = Board number
y = Firmware revision

Probable cause	Corrective action
Power on self tests (POST) passed on the Motor indexer board.	Status message. No corrective action is required.

Error code: 5362

False interrupt generated on bit (x).
x = Digital I/O bit number

Probable cause	Corrective action
A false signal is sent to a sensor, the sensor is read and determined to be in the correct state. The message is ignored.	This message is used to aid in troubleshooting electronic noise on the system. No corrective action is required.

Error code: 5363

DC Driver I/O board overcurrent failure.

Probable cause	Corrective action
Hardware failure: – DC driver I/O board in slot 7 in the lower card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5364

POST passed, Sensor Interface Board, version (x).
x = Firmware revision

Probable cause	Corrective action
Power on self tests (POST) passed on the Sensor Interface Board.	Status message. No corrective action is required.

Error code: 5365

POST failed, Sensor Interface Board.

Probable cause	Corrective action
• Communication failure with Sensor Interface Board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Sensor Interface Board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5366

Sensor Interface Board not present.

Probable cause	Corrective action
• Communication failure with Sensor Interface Board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Sensor Interface Board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5370

DAQ failure, invalid interrupt.

Probable cause	Corrective action
• Communication failure with DAQ board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5371

Invalid command received by the AC/DC controller board from the CPU board.

Probable cause	Corrective action
• Communication failure with CPU board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5372

Timeout: AC/DC board busy.

Probable cause	Corrective action
• Communication failure with AC/DC board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5373

AC/DC controller board failure.

Probable cause	Corrective action
• Communication failure with AC/DC board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5374

Communication error between SMC and CPU board.

Probable cause	Corrective action
• Communication failure between SMC and CPU board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5375

Disk On Chip failure.

Probable cause	Corrective action
• Communication failure with CPU board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5376

System memory check error for main CPU.

Probable cause	Corrective action
• Communication failure with CPU board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5377

DAQ backup memory error.

Probable cause	Corrective action
• Communication failure with DAQ board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5378

Communication error between DAQ board and CPU board.

Probable cause	Corrective action
• Communication failure between DAQ board and CPU board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5379

Communication error between SMC board and CPU board.

Probable cause	Corrective action
• Communication failure between SMC board and CPU board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5380

Communication error between AC/DC board and CPU board.

Probable cause	Corrective action
• Communication failure between AC/DC board and CPU board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5381

Communication error between PM board and CPU board.

Probable cause	Corrective action
• Communication failure between PM board and CPU board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5382

Initialization error for AC/DC board.

Probable cause	Corrective action
• Communication failure with AC/DC board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5383

Initialization error for SMC board.

Probable cause	Corrective action
• Communication failure with SMC board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5384

c System CPU floppy disk error.

Probable cause	Corrective action
• Communication failure with CPU board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5385

Initialization error for DAQ board.

Probable cause	Corrective action
• Communication failure with DAQ board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5386

Step loss detected for (x).
x = Hardware component

Probable cause	Corrective action
For pipettors:	
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstructions.

Probable cause	Corrective action
• Probe is out of alignment.	Perform probe calibration.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.
For other components:	
• A physical interference is blocking the movement of the component.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5387

Acknowledge command not received from RSH distribution board.

Probable cause	Corrective action
Hardware failure: – RSH distribution board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5388

Invalid checksum received from RSH distribution board.

Probable cause	Corrective action
Hardware failure: – RSH distribution board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5389

Termination character not received from RSH distribution board.

Probable cause	Corrective action
Hardware failure: – RSH distribution board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5390

Invalid command sent to RSH distribution board.

Probable cause	Corrective action
Hardware failure: – RSH distribution board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5391

RSH distribution board command timeout.

Probable cause	Corrective action
Hardware failure: • RSH distribution board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5392

Communication error between SM AC/DC board and CPU board.

Probable cause	Corrective action
• Communication failure between the SM AC/DC board and CPU board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5393

Initialization error for SM AC/DC board.

Probable cause	Corrective action
• Communication failure with the SM AC/DC board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5400

Load or Unload Transfer assembly or multi-module Load Queue Gate failed to transfer Sample Carrier.

Probable cause	Corrective action
• A physical interference is blocking the movement of the load or unload queue (load queue gate for multi-module systems).	Look for and remove any physical obstructions found in the load queue, unload queue or load queue gate (multi-module only).
• Hardware failure: – Load transfer sensor board failure – Unload transfer sensor board failure – Unload transfer motor failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5402

Unable to move carrier into Unload Queue.

Probable cause	Corrective action
• A physical interference is blocking the movement of the load or unload queue (load queue gate for multi-module systems).	Look for and remove any physical obstructions found in the load queue, unload queue or load queue gate (multi-module only).
• Hardware failure: – Unload queue transfer assembly – Micro switch	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5403

Outer Load Queue or Outer Unload Queue not available.

Probable cause	Corrective action
Hardware failure: – Outer lane of the load queue or the unload queue	1. If the outer load queue is not working, continue processing samples by placing sample carriers on the inner load queue. 2. If the outer unload queue is not working, remove sample carriers from the inner unload queue more frequently to avoid filling the queue with sample carriers. 3. Contact your Area Customer Support to resolve any hardware failure.

Error code: 5404

Solenoid (x) failed.
x = Sample Handler solenoid name or Processing Module solenoid number (32 = RV Load Diverter Shutter, 36 = RV Unload Diverter, 42 = RV Load Diverter, 34 = STAT RV Diverter)

Probable cause	Corrective action
• Hardware failure: – Specified solenoid on sample handler or processing module – DC driver I/O board in the card cage has a poor connection or failed.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5405

Sample Handler (x) failed.
x = Mechanism name

Probable cause	Corrective action
Hardware failure: – Sample handler	1. *Review message logs*, page 10-10, for any 5000 category error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-11, if you do not find any 5000 category error codes. 3. Perform the corrective action for the specific error code.

Error code: 5406

Carrier jammed on Unload Transfer assembly.

Probable cause	Corrective action
• A physical interference is blocking the movement of the carrier to the unload queue.	1. Remove carrier from the processing queue at the unload transfer. 2. Look for and remove any physical obstructions on the processing queue.
• Hardware failure: – Unload queue sensor failure – Processing module skin alignment	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5407

Sensor (x) blocked by sample carrier.
x = Sensor name

Probable cause	Corrective action
• Sample carrier is blocking the sensor.	1. Remove sample carrier from the sample handler area where the indicated sensor is located. 2. *Start up the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Sensor connector cable not connected – Sensor failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5408

Carrier transport not aligned with tray section.

Probable cause	Corrective action
• Carrier transport not aligned.	Perform carrier transport calibration.
• Hardware failure: – Section align sensor – Carrier transport drive belt slipped – Carrier transport motor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5409

Step loss detected on (x) actual (expected), (y).
x = Stepper motor name
y = Actual and expected interrupt counts

Probable cause	Corrective action
For carrier transport motors: • Carrier transport not aligned.	Calibrate the carrier transport. Perform ***as-needed*** maintenance procedure*1114 Carrier Transport Calibration*, page 9-35.
• Hardware failure: – Carrier transport drive belt slipped – Carrier transport X, Z, or Theta motor – Carrier transport pulley assembly	Contact your Area Customer Support to resolve any hardware failure.
For carrier positioner motors: • Carrier positioner not aligned.	Perform carrier transport calibration.
• Hardware failure: – Reagent bottle rotator motor (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5410

Carrier pick attempt failed at positioner pocket (x) module (y).
x = Carrier positioner pocket
y = Processing module number

Probable cause	Corrective action
• Carrier is damaged.	Rerun the sample in a different carrier.
• Carrier transport is not aligned.	Perform carrier transport calibration.

Error code: 5411

Theta transport alignment error.

Probable cause	Corrective action
• Theta transport not aligned.	Perform carrier transport calibration.
• Hardware failure: – Carrier transport theta motor – Carrier transport theta home sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5412

No carrier detected in bay (x) section (y).
x = Bay number
y = Section number

Probable cause	Corrective action
Hardware failure: – Section carrier detect sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5413

Transport Z not aligned.

Probable cause	Corrective action
Hardware failure: – Carrier transport Z home sensor – Carrier transport Z motor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5414

Carrier removed from carrier transport arm.

Probable cause	Corrective action
• Carrier came off the carrier transport arm due to an obstacle in the path.	1. Remove the carrier from the RSH. 2. Clear any obstacles.
• Hardware failure: – Rail guide sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5415

No carrier in carrier transport arm.

Probable cause	Corrective action
• Carrier came off the carrier transport arm due to an obstacle in the path.	1. Remove the carrier from the RSH. 2. Clear any obstacles.
• Hardware failure: – Rail guide sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5416

No carrier detected in positioner pocket (x) module (y).
x = Pocket on carrier positioner
y = Processing module number

Probable cause	Corrective action
Hardware failure: – Carrier positioner carrier detect sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5417

(x) sensor failure.
x = sensor

Probable cause	Corrective action
Hardware failure: – An RSH sensor has failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5418

Interrupt count discrepancy on (x), actual (expected), (y).
x = Stepper motor name
y = Actual and expected interrupt counts

Probable cause	Corrective action
Movement of the carrier positioner did not return the expected interrupt count.	Status message. No corrective action is required.

Error code: 5419

Carrier transport not aligned with carrier positioner.

Probable cause	Corrective action
• Carrier transport not aligned.	Perform carrier transport calibration.
• Hardware failure: – Carrier positioner align sensor failure – Carrier positioner motor failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5420

Carrier pick required multiple attempts at bay (x) section (y).
x = Bay number
y = Section number

Probable cause	Corrective action
• Carrier is inserted backwards in the tray or priority position.	Reposition the carrier in the tray or priority position.
• Carrier is damaged.	Rerun the sample in a different carrier.
• Carrier transport is not aligned.	Perform carrier transport calibration.

Error code: 5421

Carrier pick required multiple attempts at positioner pocket (x) module (y).
x = Carrier positioner pocket
y = Processing module number

Probable cause	Corrective action
• Carrier is damaged.	Rerun the sample in a different carrier.
• Carrier transport is not aligned.	Perform carrier transport calibration.

Error code: 5422

Solenoid (x) failed to extend.
x = Solenoid name

Probable cause	Corrective action
Hardware failure: – Specified solenoid or verification sensor on sample handler or processing module – DC driver I/O board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5423

Solenoid (x) failed to retract.
x = Solenoid name

Probable cause	Corrective action
Hardware failure: – Specified solenoid or verification sensor on sample handler or processing module – DC driver I/O board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5424

Solenoid (x) failed to remain in the last commanded position.

Probable cause	Corrective action
Hardware failure: – Specified solenoid or verification sensor on sample handler or processing module – DC driver I/O board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5425

Unknown carrier type detected in section (x), remove carrier.
x = RSH section number

Probable cause	Corrective action
• Carrier is inserted too slowly into the section.	Select **OK** to the error message. No further corrective action is required.
• Carrier is not fully inserted in the section.	Reposition the carrier in the section or use a different section.
• Carrier is damaged.	Use a different carrier.

Error code: 5426

Carrier pick attempt failed at aspiration area. Remove sample carrier when modules are Ready or Stopped.

Probable cause	Corrective action
• Carrier is damaged.	Use a different carrier.
• Carrier transport is not aligned.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5427

No carrier detected at aspiration area.

Probable cause	Corrective action
• Carrier is damaged.	Use a different carrier.
• Hardware failure: – Rail guide sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5428

No carrier detected in section (x).
x = RSH section number

Probable cause	Corrective action
Hardware failure: – Section carrier detect sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5429

Carrier pick required multiple attempts at section (x).
x = RSH section number

Probable cause	Corrective action
• Carrier is inserted backwards in the section.	Reposition the carrier in the section.
• Carrier is damaged.	Use a different carrier.
• Carrier transport is not aligned.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5430

Carrier pick required multiple attempts at aspiration area.

Probable cause	Corrective action
• Carrier is damaged.	Use a different carrier.
• Carrier transport is not aligned.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5431

Carrier pick required multiple attempts at reagent carousel position (x).
x = Reagent carousel position number

Probable cause	Corrective action
• Reagent carrier is not seated correctly in the reagent carousel.	Remove the reagent carrier and perform a Startup on the RSH.

Probable cause	Corrective action
• Carrier is damaged.	Use a different carrier.
• Carrier transport is not aligned.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5435

Sample carrier in aspiration area. Remove carrier when modules are Ready or Stopped.

Probable cause	Corrective action
A sample carrier is present in the aspiration area. A user selected stop while the RSH was running or a hardware failure occurred.	Remove sample carrier(s) from the carrier transport and aspiration area.

Error code: 5436

Unable to verify carrier type in section (x), remove carrier.

Probable cause	Corrective action
• A carrier is not seated in the section.	Remove and reseat the carrier.
• Hardware failure: – Load - Unload board sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5501

Sample Handler Stopped, hardware failure.

Probable cause	Corrective action
Sample handler stopped because of a previous hardware failure.	1. *Review message logs*, page 10-10, for any 5000 category error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-11, if you do not find any 5000 category error codes. 3. Perform the corrective action for the specific error code.

Error code: 5502

(x) blown.
x = Fuse name

Probable cause	Corrective action
Hardware failure: – Fuse	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5503

Step loss detected on (x), actual (expected), y.
x = Stepper motor name
y = Actual and (expected) steps

Probable cause	Corrective action
• Air is in tubing.	1. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-26 (*i* 1000_{SR}) for the affected dispense pump (wash buffer, pre-trigger, or trigger). 2. Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2160 Prime Wash Zone*, page 9-27 – *2162 Prime Pre-Trigger and Trigger*, page 9-27 for the affected dispense pump.
• Hardware failure: – Dispense pump – Tubing crimped or clogged	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5504

Invalid position for (x).
x = Hardware component

Probable cause	Corrective action
• Communication failure with SMC, CPU, or DAQ board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5505

Keypad communication failure.

Probable cause	Corrective action
• Communication failure with keypad or DAQ board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5506

Water bath level low.

Probable cause	Corrective action
• System power was off.	Perform either Daily Maintenance or Change Water Bath procedures to fill the water bath.
• Water source supply was interrupted.	1. Verify the water source supply is functioning. 2. Flush water lines.
• Incoming DI water pressure is too low.	Increase the incoming DI water pressure to within specifications.
• Hardware failure: – Module is not level – Level sensor is dirty or defective	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5507

Water bath drain time exceeded.

Probable cause	Corrective action
• Water bath drain tubing is crimped.	Uncrimp the drain tubing.
• External drain is obstructed.	Clear the obstruction from the external drain.
• Hardware failure: – Level sensor is dirty or defective	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5508

Water bath fill time exceeded.

Probable cause	Corrective action
• Water source supply was interrupted.	1. Verify the water source supply is functioning. 2. Flush water lines.
• Water source supply is restricted.	1. Verify tubing from the water source is not crimped or blocked. 2. Flush water lines.
• Incoming DI water pressure is too low.	Increase the incoming DI water pressure to within specifications.

Probable cause	Corrective action
• Air bubbles are present in the water source supply tubing.	1. Check the tubing connections. 2. Flush water lines.
• Hardware failure: – Module is not level – Supply water tubing is disconnected – Level sensor is dirty or defective – AC/DC driver board is defective – AC/DC controller board is defective	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5512

Unexpected sensor status for DI water tank.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5513

DI water tank overflow detected.

Probable cause	Corrective action
• Incoming DI water pressure is too high.	Decrease the incoming DI water pressure to within specifications.
• Maintenance is being performed on the DI water system.	Do not operate the system while the DI water system is undergoing cleaning or maintenance.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5514

Degasser pressure high.

Probable cause	Corrective action
• Incoming DI water has a high gas content.	Contact your Area Customer Support.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5515

Unexpected sensor status after (x) movement.
x = Hardware component

Probable cause	Corrective action
For pipettors:	
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstructions.
• Probe is out of alignment.	Perform probe calibration.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.
For other components:	
• A physical interference is blocking the movement of the component.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5516

(x) did not stop as expected.
x = Hardware component

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5517

Backplane +12V fuse blown.

Probable cause	Corrective action
Hardware failure: – Fuse	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5518

Backplane -12V fuse blown.

Probable cause	Corrective action
Hardware failure: – Fuse	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5519

Backplane +5V fuse blown.

Probable cause	Corrective action
Hardware failure: – Fuse	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5520

Backplane +24V fuse blown.

Probable cause	Corrective action
Hardware failure: – Fuse	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5600

ICT aspiration pump timeout while moving to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5601

Unexpected sensor status (Up and Down not activated) while moving ICT aspiration pump to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5602

Unexpected sensor status (only Down activated) while moving ICT aspiration pump to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5603

Unexpected sensor status (Up and Down activated) while moving ICT aspiration pump to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5604

ICT aspiration pump timeout while moving to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5605

Unexpected sensor status (Up and Down not activated) while moving ICT aspiration pump to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5606

Unexpected sensor status (only Up activated) while moving ICT aspiration pump to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5607

Unexpected sensor status (Up and Down activated) while moving ICT aspiration pump to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5608

ICT aspiration pump timeout while homing.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5609

Unexpected sensor status (Up and Down not activated) while homing ICT aspiration pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5610

Unexpected sensor status (only Down activated) while homing ICT aspiration pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5611

Unexpected sensor status (Up and Down activated) while homing ICT aspiration pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5612

ICT reference solution pump timeout during movement.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5613

Unexpected sensor status (not activated) while moving ICT reference solution pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5614

ICT unit timeout during vertical movement.

Probable cause	Corrective action
• A physical interference is blocking the movement of the ICT unit.	Look for and remove any physical obstructions.
• Hardware failure: – ICT probe is out of alignment	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5615

ICT unit vertical homing failure.

Probable cause	Corrective action
• A physical interference is blocking the movement of the ICT unit.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5616

ICT unit timeout during horizontal movement.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the ICT unit.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5617

ICT unit horizontal homing failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the ICT unit.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5618

ICT measurement failure for (x).
x = Analyte

Probable cause	Corrective action
• ICT module is expired or has exceeded time or sample warranty (> two months after installation or > 15,000 samples).	Change ICT module.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5619

ICT offset adjustment error for (x).
x = Analyte(s)

Probable cause	Corrective action
• ICT module o-rings are missing or are not seated correctly.	Replace or reseat the o-rings.
• ICT probe is not connected correctly.	Finger tighten the probe to the ICT module.
• ICT aspiration tubing is not connected correctly.	Tighten the tubing connections at the top of the ICT module and at the top of the 1 mL syringes in the ICT aspiration pump.
• ICT reference solution tubing is not connected correctly.	Tighten the tubing connections at the top and side of each check valve in the ICT reference solution pump.
• ICT check valves are not connected correctly.	Tighten the check valve connections to the 1 mL syringes in the ICT reference solution pump and ICT aspiration pump.
• ICT check valves are not functioning.	Replace check valves.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are not seated correctly.	Reseat the 1 mL syringes in the ICT aspiration pump and the ICT reference solution pump.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are leaking.	Replace the 1 mL syringes.
• ICT module is expired or has exceeded time or sample warranty (> two months after installation or > 15,000 samples).	Change ICT module.
• ICT module is not performing as expected.	Change ICT module.
• The ICT Reference Solution is not performing as expected.	1. Replace the ICT Reference Solution bottle. 2. Flush ICT cup.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5620

Unexpected ICT unit vertical home status at ICT reference solution cup.

Probable cause	Corrective action
• A physical interference is blocking the movement of the ICT unit.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5621

Unexpected ICT unit horizontal home status at ICT reference solution cup.

Probable cause	Corrective action
• A physical interference is blocking the movement of the ICT unit.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5622

Unable to process test, ICT reference solution cup not filling.

Probable cause	Corrective action
• The ICT reference solution bottle is empty, but the weight platform failed to detect it.	1. Replace the ICT reference solution bottle. 2. Contact your Area Customer Support to resolve the weight platform failure.
• ICT reference solution tubing is not connected correctly.	Tighten the tubing connections at the top and side of each check valve in the ICT reference solution pump.
• ICT reference solution tubing is crimped or damaged.	1. Inspect the tubing. 2. Contact your Area Customer Support if any damage is observed.
• ICT check valves are not connected correctly.	Tighten the connections to the 1 mL syringes in the ICT reference solution pump.
• ICT check valves are not functioning.	Replace check valves.
• 1 mL syringes in the ICT reference solution pump are not seated correctly.	Reseat the 1 mL syringes.
• 1 mL syringes in the ICT reference solution pump are leaking.	Replace the 1 mL syringe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5623

Unable to process test, ICT reference solution not aspirated.

Probable cause	Corrective action
• A single flush did not remove all air from the ICT reference solution tubing after you replaced the ICT reference bottle.	Flush the ICT reference solution tubing.
• ICT module 0-rings are missing or not seated correctly.	Replace or reseat the o-rings.
• ICT probe is not connected correctly.	Finger tighten the probe to the ICT module.
• ICT probe is damaged.	Replace the ICT probe.
• ICT aspiration tubing is not connected correctly.	Tighten the tubing connections at the top of the ICT module and at the top of the 1 mL syringes in the ICT aspiration pump.
• ICT reference solution tubing is crimped or damaged.	1. Inspect the tubing. 2. Contact your Area Customer Support if any damage is observed.
• ICT check valves are not connected correctly.	Tighten the connections to the 1 mL syringes in the ICT reference solution pump.
• ICT check valves are not functioning.	Replace check valves.
• 1 mL syringes in the ICT reference solution pump are not seated correctly.	Reseat the 1 mL syringes.
• 1 mL syringes in the ICT reference solution pump are leaking.	Replace the 1 mL syringe.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5650

Cuvette washer timeout while moving to upper limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the cuvette washer.	Look for and remove any physical obstructions.
• Black knob holding cuvette washer is loose.	Tighten the black knob.
• Dry tip on cuvette washer is out of alignment.	Align the cuvette dry tip.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5651

Unexpected sensor status (Up, Down, and Down OK not activated) while moving Cuvette washer to upper limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the cuvette washer.	Look for and remove any physical obstructions.
• Black knob holding cuvette washer is loose.	Tighten the black knob.
• Dry tip on cuvette washer is out of alignment.	Align the cuvette dry tip.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5652

Unexpected sensor status (only Down activated) while moving Cuvette washer to upper limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the cuvette washer.	Look for and remove any physical obstructions.
• Black knob holding cuvette washer is loose.	Tighten the black knob.
• Dry tip on cuvette washer is out of alignment.	Align the cuvette dry tip.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5653

Unexpected sensor status (Up and Down activated) while moving Cuvette washer to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5654

Unexpected sensor status (only Down OK activated) while moving Cuvette washer to upper limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the cuvette washer.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5655

Unexpected sensor status (Up and Down OK activated) while moving Cuvette washer to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5656

Unexpected sensor status (Down and Down OK activated) while moving Cuvette washer to upper limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the cuvette washer.	Look for and remove any physical obstructions.
• Black knob holding cuvette washer is loose.	Tighten the black knob.
• Dry tip on cuvette washer is out of alignment.	Align the cuvette dry tip.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5657

Unexpected sensor status (Up, Down, and Down OK activated) while moving Cuvette washer to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5658

Cuvette washer timeout while moving to lower limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the cuvette washer.	Look for and remove any physical obstructions.
• Black knob holding cuvette washer is loose.	Tighten the black knob.
• Dry tip on cuvette washer is out of alignment.	Align the cuvette dry tip.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5659

Unexpected sensor status (Up, Down, and Down OK not activated) while moving Cuvette washer to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5660

Unexpected sensor status (only Up activated) while moving Cuvette washer to lower limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the cuvette washer.	Look for and remove any physical obstructions.
• Black knob holding cuvette washer is loose.	Tighten the black knob.
• Dry tip on cuvette washer is out of alignment.	Align the cuvette dry tip.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5661

Unexpected sensor status (only Down activated) while moving Cuvette washer to lower limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the cuvette washer.	Look for and remove any physical obstructions.
• Black knob holding cuvette washer is loose.	Tighten the black knob.
• Dry tip on cuvette washer is out of alignment.	Align the cuvette dry tip.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5662

Unexpected sensor status (Up and Down activated) while moving Cuvette washer to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5663

Unexpected sensor status (Only Down OK activated) while moving Cuvette washer to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5664

Unexpected sensor status (Up and Down OK activated) while moving Cuvette washer to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5665

Unexpected sensor status (Up, Down, and Down OK activated) while moving Cuvette washer to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5666

Unexpected sensor status (Down and Down OK not activated) while moving cuvette washer to lower limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the cuvette washer.	Look for and remove any physical obstructions.
• Black knob holding cuvette washer is loose.	Tighten the black knob.
• Dry tip on cuvette washer is out of alignment.	Align the cuvette dry tip.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5667

Unexpected sensor status (Down activated and Down OK not activated) during Cuvette washer step down movement.

Probable cause	Corrective action
• A physical interference is blocking the movement of the cuvette washer.	Look for and remove any physical obstructions.
• Black knob holding cuvette washer is loose.	Tighten the black knob.
• Dry tip on cuvette washer is out of alignment.	Align the cuvette dry tip.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5700

Mixer timeout while moving to upper limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the mixer unit.	1. Look for and remove any physical obstructions. 2. Replace any bent mixers.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5701

Unexpected sensor status (Up, Down, and Down OK not activated) while moving Mixer to upper limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the mixer unit.	1. Look for and remove any physical obstructions. 2. Replace any bent mixers.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5702

Unexpected sensor status (only Down activated) while moving Mixer to upper limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the mixer unit.	1. Look for and remove any physical obstructions. 2. Replace any bent mixers.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5703

Unexpected sensor status (Up and Down activated) while moving Mixer to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5704

Unexpected sensor status (only Down OK activated) while moving Mixer to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5705

Unexpected sensor status (Up and Down OK activated) while moving Mixer to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5706

Unexpected sensor status (Down and Down OK activated) while moving Mixer to upper limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the mixer unit.	1. Look for and remove any physical obstructions. 2. Replace any bent mixers.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5707

Unexpected sensor status (Up, Down, and Down OK activated) while moving Mixer to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5708

Busy status: AC/DC board.

Probable cause	Corrective action
• Communication failure with AC/DC board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5709

Mixer timeout while moving to lower limit.

Probable cause	Corrective action
• Bent mixer blade.	Replace the mixer.
• A physical interference is blocking the movement of the mixer unit.	1. Look for and remove any physical obstructions. 2. Replace any bent mixers.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5710

Unexpected sensor status (Up, Down, and Down OK not activated) while moving Mixer to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5711

Unexpected sensor status (only Up activated) while moving Mixer to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5712

Unexpected sensor status (only Down activated) while moving Mixer to lower limit.

Probable cause	Corrective action
• Bent mixer blade.	Replace the mixer.

Probable cause	Corrective action
• A physical interference is blocking the movement of the mixer unit.	1. Look for and remove any physical obstructions. 2. Replace any bent mixers.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5713

Unexpected sensor status (Up and Down activated) while moving Mixer to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5714

Unexpected sensor status (only Down OK activated) while moving Mixer to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5715

Unexpected sensor status (Up and Down OK activated) while moving Mixer to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5716

Unexpected sensor status (Up, Down, and Down OK activated) while moving Mixer to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5717

Vibration error, (x).
x = Mixer name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5718

Vibration error, (x).
x = Mixer name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5719

(x) timeout during rotation.
x = Mixer name

Probable cause	Corrective action
• Bent mixer blade.	Replace the mixer.
• A physical interference is blocking the rotation of the mixer unit.	1. Look for and remove any physical obstructions. 2. Replace any bent mixers.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5720

(x) homing failure.
x = Mixer name

Probable cause	Corrective action
• Bent mixer blade.	Replace the mixer.
• A physical interference is blocking the movement of the mixer unit.	1. Look for and remove any physical obstructions. 2. Replace any bent mixers.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5721

(x) timeout during rotation.
x = Mixer name

Probable cause	Corrective action
• Bent mixer blade.	Replace the mixer.
• A physical interference is blocking the rotation of the mixer unit.	1. Look for and remove any physical obstructions. 2. Replace any bent mixers.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5722

(x) homing failure.
x = Mixer name

Probable cause	Corrective action
• Bent mixer blade.	Replace the mixer.
• A physical interference is blocking the movement of the mixer unit.	1. Look for and remove any physical obstructions. 2. Replace any bent mixers.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5900

Step loss detected on (x).
x = Motor name

Probable cause	Corrective action
For RV loader transport motor:	
An RV is jammed at the load point in the RV transport.	Clear the RV jam at the load point on the RV loader transport.
For process path motor:	
An RV is jammed in the process path.	Clear the RV jam in the process path.
For pipettors:	
• A physical interference is blocking the up/down movement of the pipettor.	Look for and remove any physical obstructions around the specified pipettor, and if no obstruction is found, then perform one of the following pipettors diagnostic procedures: • For *i* 1000_{SR}: – *4150 Functional Area Tests*, page 10-607
• Probe is out of alignment.	Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25
• An empty sample tube is loaded.	Remove the empty sample tube.
For wash zones:	
• Probes are not inserted into the manifold.	If weekly maintenance was recently done, press the wash zone motor assembly down so the probes are inserted into the manifold.
For all motors:	
• A physical interference is blocking the movement of the device.	Look for and remove any physical obstruction.
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-10.

Probable cause	Corrective action
• Power to the module fluctuated.	Contact your Area Customer Support.
• Hardware failure: – Sensor is dirty or dusty – Sensors have a poor connection or failed – Motor and/or cables have a poor connection or failed – Motor driver board has a poor connection or failed – Indexer board has a poor connection or failed – Fuse	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5901

Motor command timeout on device (x).
x = Device name

Probable cause	Corrective action
For RV loader transport motor:	
An RV is jammed at the load point in the RV transport.	Clear the RV jam at the load point on the RV loader transport.
For process path motor:	
An RV is jammed in the process path.	Clear the RV jam in the process path.
For sample pipetting:	
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-122.
• Probe is out of alignment.	Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25
For reagent pipetting:	
• Empty reagent bottle.	Replace the reagent.
• Probe is out of alignment.	Perform one of the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25 (*i* 1000_{SR})
For all motors:	
• A physical interference is blocking the movement of the device.	Look for and remove any physical obstruction.
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-10.

Probable cause	Corrective action
• Power to the module fluctuated.	Contact your Area Customer Support.
• Hardware failure: – Sensor is dirty or dusty – Sensors have a poor connection or failed – Motor and/or cables have a poor connection or failed – Motor driver board has a poor connection or failed – Indexer board has a poor connection or failed – Fuse	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5902

Stepper motor (x) not present.
x = Motor number

Probable cause	Corrective action
Hardware failure: – Communication failure with indexer board	1. Verify the jumper placement is correct, if the indexer board was recently replaced. 2. Contact your Area Customer Support to resolve any hardware failure, if error continues.

Error code: 5903

Motor command error, device (x) failed to respond.
x = Motor number or indexer number

Probable cause	Corrective action
Hardware failure: – Motor or indexer board in the specified position has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5904

(x) homing failure.
x = Motor name

Probable cause	Corrective action
Hardware failure: – Homing sensor cable in the indicated position has a poor connection or failed – Indexer board has a poor connection or failed – Motor driver board has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5905

Motor (x) is not initialized.
x = Motor name

Probable cause	Corrective action
• User selected stop.	*Start up the processing module and/or sample handler*, page 5-10, when the reason for the stop no longer exists.
• The specified motor stopped due to a module stop.	1. *Review message logs*, page 10-10, for any error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-11, if you do not find any error codes. 3. Perform the corrective action for the specific error code.

Error code: 5906

Automatic Prime failed, affected mechanism disabled.

Probable cause	Corrective action
Prime failed for one of the following: • Wash zone • Pre-Trigger • Trigger dispense pumps	1. *Review message logs*, page 10-10, for any 5000 category error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-11, if you do not find any 5000 category error codes. 3. Perform the corrective action for the specific error code.

Error code: 5907

Automatic Flush failed.

Probable cause	Corrective action
A flush operation failed due to a hardware failure or inventory failure.	1. *Review message logs*, page 10-10, for any 0229, 0304, or 2104 error codes. 2. Perform the corrective action for the specific error code.

Error code: 5908

Command on motor (x) detected fluid or over travel.
x = Motor number

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5909

Stepper motor encoder (x) not present.
x = Stepper Motor Encoder number

Probable cause	Corrective action
Hardware failure: – Communication failure with indexer board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5910

Invalid absolute encoder (x) position value.
x = Encoder name

Probable cause	Corrective action
Hardware failure: – Absolute encoder or cabling	Contact your Area Customer Support to resolve any hardware failure.

Optics error codes (6000-6999)

The Optics error code category includes error codes between 6000-6999.

If the corrective actions listed under the error code in question do not resolve the problem, contact your Area Customer Support representative at:

United States	1-877-4ABBOTT (1-877-422-2688)
International	Call your Area Customer Support representative.

NOTE: For corrective actions that involve hazardous activity refer to *Hazards*, page 8-1, for precautions you should take to minimize exposure and prevent personal injury or system damage. Hazard activities include but are not limited to:

- Replacing system probes

- Handling reagents, calibrators, controls, and specimens
- Removing physical obstructions
- Changing the lamp
- Removing system waste

Error code: 6000

Zero read detected.

Probable cause	Corrective action
Hardware failure: – Optics assembly – CMIA optics board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6050

Optics check failed, Run initialization canceled.

Probable cause	Corrective action
• Optics linearity and/or normalization values are not entered correctly on the Configure modules window.	Update the configures module windows with the correct values from the optics assembly.
• Hardware failure: – CMIA reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6051

CMIA Optics board not responding.

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – CMIA optics board in slot 12 in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6100

CMIA Optics board failed.

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – CMIA optics board in slot 12 in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6101

POST passed, CMIA Optics board.

Probable cause	Corrective action
Power on self tests (POST) passed on the CMIA optics board.	Status message. No corrective action is required.

Error code: 6102

Register read back failure, CMIA Optics board.

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – CMIA Optics board in slot 12 in the upper card cage has a poor connection or failed – Controller board in slot 14 in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6103

Optics timer interrupt failure, Controller board.

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Controller board in slot 14 in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6200

POST failed, CMIA Optics board.

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – CMIA Optics board in slot 12 in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6300

Register reset failure, CMIA Optics board.

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – CMIA Optics board in slot 12 in the upper card cage has a poor connection or failed – Controller board in slot 14 in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6500

DAQ board failure.

Probable cause	Corrective action
• Communication failure with DAQ board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6501

Optics system error, lamp failure.

Probable cause	Corrective action
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp.
• Water bath level is low.	Perform Change Water Bath ***as-needed*** maintenance procedure
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6502

Optics system error, lamp intensity too high.

Probable cause	Corrective action
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6503

Optics system error, lamp intensity too low.

Probable cause	Corrective action
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6504

Optics system error, transmittance above maximum range.

Probable cause	Corrective action
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6505

Photometer conversion error.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6506

Cuvette integrity check failed on cuvette (x).
x = Cuvette #

Probable cause	Corrective action
• Cuvette is dirty.	Clean cuvettes manually.
• Cuvette is damaged.	Replace the cuvette or cuvette segment.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp.
• Debris in the water bath incubator.	Change water bath.
• Water or wash solutions are not aspirated or dispensed correctly into the reaction cuvettes.	Clean cuvette washer nozzles.
• Bubbles in the water bath incubator due to the pressure of the incoming water.	Decrease the incoming DI water pressure to within specifications.
• Bubbles in the water bath incubator due to a high gas content of the incoming water.	Contact your Area Customer Support.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6510

Optics system warning, fluctuation detected, monochromatic check.

Probable cause	Corrective action
• Debris in the water bath incubator.	Change water bath.
• Bubbles in the water bath incubator due to the pressure of the incoming water.	Decrease the incoming DI water pressure to within specifications.
• Bubbles in the water bath incubator due to a high gas content of the incoming water.	Contact your Area Customer Support.

Probable cause	Corrective action
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6511

Optics system failure, fluctuation above maximum range, monochromatic check.

Probable cause	Corrective action
• Debris in the water bath incubator.	Change water bath.
• Bubbles in the water bath incubator due to the pressure of the incoming water.	Decrease the incoming DI water pressure to within specifications.
• Bubbles in the water bath incubator due to a high gas content of the incoming water.	Contact your Area Customer Support.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6512

Optics system warning, fluctuation detected, bichromatic check.

Probable cause	Corrective action
• Lamp in use for > 3 months.	Replace the lamp.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.

Probable cause	Corrective action
• Cuvette washer is not functioning properly.	1. Clean the cuvettes. 2. Perform ***as-needed*** maintenance procedure to wash the cuvettes and observe the cuvette washer nozzles for hanging drops or leaks. – If drops or leaks are observed for the high-concentration waste nozzle, replace the high-concentration waste pump poppet valve. – If drops or leaks are observed for any of the other nozzles, replace the cuvette wash pump poppet valve.
• Debris in the water bath incubator.	Change water bath.
• R2 pipettor is out of alignment.	Calibrate the pipettor.
• R2 probe is damaged.	Replace reagent probe.
• Lamp is not performing as expected.	Replace the lamp.
• Bubbles in the water bath incubator due to the pressure of the incoming water.	Decrease the incoming DI water pressure to within specifications.
• Bubbles in the water bath incubator due to a high gas content of the incoming water.	Contact your Area Customer Support.
• Hardware failure: – Reaction carousel is not aligned with the light path – Optics assembly incorrectly grounded to chassis – DC lamp power supply	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6513

Optics system failure, fluctuation above maximum range, bichromatic check.

Probable cause	Corrective action
• Lamp in use for > 3 months.	Replace the lamp.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.

Probable cause	Corrective action
• Cuvette washer is not functioning properly.	1. Clean the cuvettes. 2. Perform ***as-needed*** maintenance procedure to wash the cuvettes and observe the cuvette washer nozzles for hanging drops or leaks. – If drops or leaks are observed for the high-concentration waste nozzle, replace the high-concentration waste pump poppet valve. – If drops or leaks are observed for any of the other nozzles, replace the cuvette wash pump poppet valve.
• Debris in the water bath incubator.	Change water bath.
• R2 pipettor is out of alignment.	Calibrate the pipettor.
• R2 probe is damaged.	Replace reagent probe.
• Lamp is not performing as expected.	Replace the lamp.
• Bubbles in the water bath incubator due to the pressure of the incoming water.	Decrease the incoming DI water pressure to within specifications.
• Bubbles in the water bath incubator due to a high gas content of the incoming water.	Contact your Area Customer Support.
• Hardware failure: – Reaction carousel is not aligned with the light path – Optics assembly incorrectly grounded to chassis – DC lamp power supply	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6516

Optics system failure, ADC above maximum range at lamp check.

Probable cause	Corrective action
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp.
• Hardware failure	Contact your Area Customer Support to resolve any hardware failure.

Temperature error codes (7000-7999)

The temperature error code category includes error codes between 7000-7999.

If the corrective actions listed under the error code in question do not resolve the problem, contact your Area Customer Support representative at:

United States	1-877-4ABBOTT (1-877-422-2688)
International	Call your Area Customer Support representative.

NOTE: For corrective actions that involve hazardous activity refer to *Hazards*, page 8-1, for precautions you should take to minimize exposure and prevent personal injury or system damage. Hazard activities include but are not limited to:

- Replacing system probes
- Handling reagents, calibrators, controls, and specimens
- Removing physical obstructions
- Changing the lamp
- Removing system waste

Error code: 7000

Temperature stability failed, channel (x).
x = Channel number

Probable cause	Corrective action
Specified heater is not able to maintain temperature within specifications.	
x = 28 (For Ambient):	
Room temperature is out of specification.	Modify room temperature to be within specification.
For Pre-Trigger or Trigger	
• x = 16 (Pre-Trigger/Trigger - *i* 1000_{SR}) • Hardware failure: – Heater-specific tubing – Heater and/or heater thermistor specific cable has a poor connection	Contact your Area Customer Support to resolve any hardware failure.
For Process path:	

Probable cause	Corrective action
• x = 4 (zone 1) • x = 5 (zone 2) • x = 8 (zone 3) • x = 9 (zone 4) • x = 12 (zone 5) • x = 13 (zone 6) • Hardware failure: – Process path thermistor for the specific heater zone has a poor connection or failed – Process path heater	Contact your Area Customer Support to resolve any hardware failure.
x = 7 (For Reagent cooler):	
• Hardware failure: – Reagent cooler cable has a poor connection (*i* 1000_{SR}) – Reagent cooler control thermistor (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.
x = 17 (For Reagent Carousel Cover Heater):	
• Hardware failure: – Reagent cover heater failure – Reagent cover heater cable to the reagent distribution board has a poor connection	Unload reagent kits from the system. See *Unload reagents from reagent carousel (i 1000_{SR})*, page 5-62 and *Unload reagents from RSH (i 1000_{SR})*, page 5-64. Contact your Area Customer Support to resolve any hardware failure.
For Wash Zone:	
• x = 21 (Wash Zone - *i* 1000_{SR}) • Hardware failure: – Thermistor cable for the specific wash zone buffer heater has a poor connection – Wash zone buffer heater	Contact your Area Customer Support to resolve any hardware failure.
For Wash Zone temperature sensor:	
Wash Zone temperature sensor (*i* 1000_{SR}): • x = 6 (probe 1) • x = 10 (probe 2) • x = 14 (probe 3) **Hardware failure:** • Wash zone-specific temperature sensor failure • Wash zone tubing sensor	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
For all channels:	
• Hardware failure: – Temperature controller board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7001

Temperature failed channel (x).
x = Channel number

Probable cause	Corrective action
Specified heater is not able to maintain temperature within specifications.	
x = 28 (For Ambient):	
Room temperature is out of specification.	Modify room temperature to be within specification.
For Pre-Trigger or Trigger:	
• x = 16 (Pre-Trigger/Trigger - *i* 1000_{SR}) • Hardware failure: – Heater-specific tubing – Heater and/or heater thermistor specific cable has a poor connection	Contact your Area Customer Support to resolve any hardware failure.
For Process path:	
• x = 4 (zone 1) • x = 5 (zone 2) • x = 8 (zone 3) • x = 9 (zone 4) • x = 12 (zone 5) • x = 13 (zone 6) • Hardware failure: – Process path thermistor for the specific heater zone has a poor connection or failed – Process path heater	Contact your Area Customer Support to resolve any hardware failure.
x = 7 (For Reagent cooler):	
• Hardware failure: – Reagent cooler cable has a poor connection (*i* 1000_{SR}) – Reagent cooler control thermistor (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.
For Wash Zone:	

Probable cause	Corrective action
• x = 21 (Wash Zone - *i* 1000_{SR}) • Hardware failure: – Thermistor cable for the specific wash zone buffer heater has a poor connection – Wash zone buffer heater	Contact your Area Customer Support to resolve any hardware failure.
For Wash Zone temperature sensor:	
Wash Zone temperature sensor (*i* 1000_{SR}): • x = 6 (probe 1) • x = 10 (probe 2) • x = 14 (probe 3) **Hardware failure:** • Wash zone-specific temperature sensor failure • Wash zone tubing sensor	Contact your Area Customer Support to resolve any hardware failure.
For all channels:	
• Hardware failure: – Temperature controller board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7002

Channel (x) below minimum temperature.
x = Channel number

Probable cause	Corrective action
Specified heater is not able to maintain temperature within specifications.	
x = 28 (For Ambient):	
Room temperature is out of specification.	Modify room temperature to be within specification.
For Pre-Trigger or Trigger:	
• x = 16 (Pre-Trigger/Trigger - *i* 1000_{SR}) • Hardware failure: – Heater-specific tubing – Heater and/or heater thermistor specific cable has a poor connection	Contact your Area Customer Support to resolve any hardware failure.
For Process path:	

Probable cause	Corrective action
• x = 4 (zone 1) • x = 5 (zone 2) • x = 8 (zone 3) • x = 9 (zone 4) • x = 12 (zone 5) • x = 13 (zone 6) • Hardware failure: – Process path thermistor for the specific heater zone has a poor connection or failed – Process path heater	Contact your Area Customer Support to resolve any hardware failure.
x = 7 (For Reagent cooler):	
• Hardware failure: – Reagent cooler cable has a poor connection (*i* 1000_{SR}) – Reagent cooler control thermistor (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.
x = 17 (For Reagent Carousel Cover Heater):	
• Hardware failure: – Reagent cover heater failure – Reagent cover heater cable to the reagent distribution board has a poor connection	Unload reagent kits from the system. See *Unload reagents from reagent carousel (i 1000_{SR})*, page 5-62 and *Unload reagents from RSH (i 1000_{SR})*, page 5-64. Contact your Area Customer Support to resolve any hardware failure.
For Wash Zone:	
• x = 21 (Wash Zone - *i* 1000_{SR}) • Hardware failure: – Thermistor cable for the specific wash zone buffer heater has a poor connection – Wash zone buffer heater	Contact your Area Customer Support to resolve any hardware failure.
For Wash Zone temperature sensor:	
Wash Zone temperature sensor (*i* 1000_{SR}): • x = 6 (probe 1) • x = 10 (probe 2) • x = 14 (probe 3) **Hardware failure:** • Wash zone-specific temperature sensor failure • Wash zone tubing sensor	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
For all channels:	
• Hardware failure: – Temperature controller board in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7003

Temperature alarm from channel (x), reading (y).
x = Channel number
y = Temperature in thousandths of degrees C

Probable cause	Corrective action
Temporary out of range condition.	No corrective action is required. If the out of range condition continues, error code 7000 occurs.

Error code: 7004

(x) operation canceled, temperature failure.
x = Mechanism name

Probable cause	Corrective action
Hardware failure: – Pre-trigger or trigger heater – Wash zone heater	1. *Review message logs*, page 10-10,for any 7000 category error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-11, if you do not find any 7000 category error codes. 3. Perform the corrective action for the specific error code.

Error code: 7005

Unable to process test, temperature not within range, channel (x).
x = Channel number

Probable cause	Corrective action
Specified heater is not able to maintain temperature within specifications.	
x = 28 (For Ambient):	
Room temperature is out of specification.	Modify room temperature to be within specifications.
For Pre-Trigger or Trigger:	

Probable cause	Corrective action
• x = 16 (Pre-Trigger/Trigger - *i* 1000_{SR}) • Hardware failure: – Heater-specific tubing – Heater and/or heater thermistor specific cable has a poor connection	Contact your Area Customer Support to resolve any hardware failure.
For Process path:	
• x = 4 (zone 1) • x = 5 (zone 2) • x = 8 (zone 3) • x = 9 (zone 4) • x = 12 (zone 5) • x = 13 (zone 6) • Hardware failure: – Process path thermistor for the specific heater zone has a poor connection or failed – Process path heater	Contact your Area Customer Support to resolve any hardware failure.
x = 7 (For Reagent cooler):	
Hardware failure: • Reagent cooler cable has a poor connection (*i* 1000_{SR}) • Reagent cooler control thermistor (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.
For Wash Zone:	
• x = 21 (Wash Zone - *i* 1000_{SR}) • Hardware failure: – Thermistor cable for the specific wash zone buffer heater has a poor connection – Wash zone buffer heater	Contact your Area Customer Support to resolve any hardware failure.
For Wash Zone temperature sensor:	
Wash Zone temperature sensor (*i* 1000_{SR}): • x = 6 (probe 1) • x = 10 (probe 2) • x = 14 (probe 3) **Hardware failure:** • Wash zone-specific temperature sensor failure • Wash zone tubing sensor	Contact your Area Customer Support to resolve any hardware failure.
For all channels:	
• Hardware failure: – Temperature controller board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7006

Channel (x) above maximum temperature.
x = Channel number

Probable cause	Corrective action
Specified heater is not able to maintain temperature within specifications.	
x = 28 (For Ambient):	
Room temperature is out of specification.	Modify room temperature to be within specifications.
For Pre-Trigger or Trigger:	
• x = 16 (Pre-Trigger/Trigger - *i* 1000_{SR}) • Hardware failure: – Heater-specific tubing – Heater and/or heater thermistor specific cable has a poor connection	Contact your Area Customer Support to resolve any hardware failure.
For Process path:	
• x = 4 (zone 1) • x = 5 (zone 2) • x = 8 (zone 3) • x = 9 (zone 4) • x = 12 (zone 5) • x = 13 (zone 6) • Hardware failure: – Process path thermistor for the specific heater zone has a poor connection or failed – Process path heater	Contact your Area Customer Support to resolve any hardware failure.
x = 7 (For Reagent cooler):	
• Hardware failure: – Reagent cooler cable has a poor connection (*i* 1000_{SR}) – Reagent cooler control thermistor (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.
x = 17 (For Reagent Carousel Cover Heater):	
• Hardware failure: – Reagent cover heater failure – Reagent cover heater cable to the reagent distribution board has a poor connection	Unload reagent kits from the system. See *Unload reagents from reagent carousel (i 1000_{SR})*, page 5-62 and *Unload reagents from RSH (i 1000_{SR})*, page 5-64. Contact your Area Customer Support to resolve any hardware failure.
For Wash Zone:	

Probable cause	Corrective action
• x = 21 (Wash Zone - *i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.
• Hardware failure: – Thermistor cable for the specific wash zone buffer heater has a poor connection – Wash zone buffer heater	
For Wash Zone temperature sensor:	
Wash Zone temperature sensor (*i* 1000_{SR}): • x = 6 (probe 1) • x = 10 (probe 2) • x = 14 (probe 3) **Hardware failure:** • Wash zone-specific temperature sensor failure • Wash zone tubing sensor	Contact your Area Customer Support to resolve any hardware failure.
For all channels:	
• Hardware failure: – Temperature controller board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7007

Temperature failure channel (x), cannot reach Ready status.
x = Channel number

Probable cause	Corrective action
Specified heater is not able to maintain temperature within specifications.	
x = 28 (For Ambient):	
Room temperature is out of specification.	Modify room temperature to be within specifications.
For Pre-Trigger or Trigger:	
• x = 16 (Pre-Trigger/Trigger - *i* 1000_{SR}) • Hardware failure: – Heater-specific tubing – Heater and/or heater thermistor specific cable has a poor connection	Contact your Area Customer Support to resolve any hardware failure.
For Process path:	

Probable cause	Corrective action
• x = 4 (zone 1) • x = 5 (zone 2) • x = 8 (zone 3) • x = 9 (zone 4) • x = 12 (zone 5) • x = 13 (zone 6) • Hardware failure: – Process path thermistor for the specific heater zone has a poor connection or failed – Process path heater	Contact your Area Customer Support to resolve any hardware failure.
x = 7 (For Reagent cooler):	
• Hardware failure: – Reagent cooler cable has a poor connection (*i* 1000_{SR}) – Reagent cooler control thermistor (*i* 1000_{SR})	Contact your Area Customer Support to resolve any hardware failure.
x = 17 (For Reagent Carousel Cover Heater):	
• Hardware failure: – Reagent cover heater failure – Reagent cover heater cable to the reagent distribution board has a poor connection	Unload reagent kits from the system. See *Unload reagents from reagent carousel (i 1000_{SR})*, page 5-62 and *Unload reagents from RSH (i 1000_{SR})*, page 5-64. Contact your Area Customer Support to resolve any hardware failure.
For Wash Zone:	
• x = 21 (Wash Zone - *i* 1000_{SR}) • Hardware failure: – Thermistor cable for the specific wash zone buffer heater has a poor connection – Wash zone buffer heater	Contact your Area Customer Support to resolve any hardware failure.
For Wash Zone temperature sensor:	
Wash Zone temperature sensor (*i* 1000_{SR}): • x = 6 (probe 1) • x = 10 (probe 2) • x = 14 (probe 3) **Hardware failure:** • Wash zone-specific temperature sensor failure • Wash zone tubing sensor	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
For all channels:	
• Hardware failure: – Temperature controller board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7008

Run request denied, temperature stability failure.

Probable cause	Corrective action
User selected run after a temperature stability failure occurred.	1. *Review message logs*, page 10-10, for any error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-11, if you do not find any error codes. 3. Perform the corrective action for the specific error code.

Error code: 7100

Acknowledge command not received from Temperature Controller board.

Probable cause	Corrective action
Hardware failure: – Temperature controller board in the upper card cage has a poor connection or failed – Controller board in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7102

Invalid response received from Temperature Controller board.

Probable cause	Corrective action
Hardware failure: – Temperature controller board in the upper card cage has a poor connection or failed – Controller board in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7103

Temperature controller mode not correct.

Probable cause	Corrective action
Hardware failure: – Temperature controller board in the upper card cage has a poor connection or failed – Controller board in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7104

Temperature Controller board not responding.

Probable cause	Corrective action
Hardware failure: – Temperature controller board in the upper card cage has a poor connection or failed – Controller board in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7106

Invalid Temperature Controller board response.

Probable cause	Corrective action
Hardware failure: – Temperature controller board in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7107

Unable to communicate to Temperature Controller board for channel (x).
x = Channel number

Probable cause	Corrective action
Hardware failure: – Temperature controller board in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7108

Temperature Controller board not initialized.

Probable cause	Corrective action
Hardware failure: – Temperature controller board in the upper card cage has a poor connection or failed – Controller board in the upper card cage has a poor connection or failed – Power supply	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7109

Temperature Controller board not communicating.

Probable cause	Corrective action
Hardware failure: – Temperature controller board in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7110

Reagent cooler control error detected.

Probable cause	Corrective action
Hardware failure: – Reagent cooler – Heater cooler board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7200

POST failed, Temperature Controller board.

Probable cause	Corrective action
Hardware failure: – Temperature controller board in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7201

POST passed, Temperature Controller board, version (x).
x = Firmware revision

Probable cause	Corrective action
Power on self tests (POST) passed on the temperature controller board.	Status message. No corrective action is required.

Error code: 7501

Water bath temperature below minimum range.

Probable cause	Corrective action
• Water in water bath is not circulating because the system was idle for an extended period of time.	Change water bath.
• System was just powered on.	Check the temperature status to verify the temperature returns to specifications within five minutes.
• Water bath is filling after an extended idle time.	Check the temperature status to verify the temperature returns to specifications within five minutes.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7502

Water bath temperature above maximum range.

Probable cause	Corrective action
• Room temperature is too high.	Modify room temperature to be within specifications.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7503

Temperature detector failure, water bath temperature exceeded lower detectable limit.

Probable cause	Corrective action
• System was just powered on.	Check the temperature status to verify the temperature returns to specifications within five minutes.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7504

Temperature detector failure, water bath temperature exceeded upper detectable limit.

Probable cause	Corrective action
• Room temperature is too high.	Modify room temperature to be within specifications.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7505

Sample carousel temperature below minimum range.

Probable cause	Corrective action
• Room temperature is too low.	Modify room temperature to be within specifications.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7506

Sample carousel temperature above maximum range.

Probable cause	Corrective action
• System was just powered on.	Check the temperature status to verify the temperature returns to specifications within five minutes.
• Carousel cover is open.	Close the carousel cover.
• Carousel cover is not installed.	Install the carousel cover.
• Room temperature is too high.	Modify room temperature to be within specifications.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7507

Temperature detector failure, sample carousel temperature exceeded lower detectable limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7508

Temperature detector failure, sample carousel temperature exceeded upper detectable limit.

Probable cause	Corrective action
• System was just powered on.	Check the temperature status to verify the temperature returns to specifications within five minutes.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7509

Reagent 1 supply center temperature below minimum range.

Probable cause	Corrective action
• Room temperature is too low.	Modify room temperature to be within specifications.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7510

Reagent 1 supply center temperature above maximum range.

Probable cause	Corrective action
• System was just powered on.	Check the temperature status to verify the temperature returns to specifications within five minutes.
• Carousel cover is open.	Close the carousel cover.
• Carousel cover is not installed.	Install the carousel cover.
• Numerous reagent cartridges were just loaded into the reagent supply center.	1. Cover the reagent supply center. 2. Check the temperature status to verify the temperature returns to specifications within five minutes.
• Room temperature is too high.	Modify room temperature to be within specifications.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7511

Temperature detector failure, reagent 1 supply center temperature exceeded lower detectable limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7512

Temperature detector failure, reagent 1 supply center temperature exceeded upper detectable limit.

Probable cause	Corrective action
• System was just powered on.	Check the temperature status to verify the temperature returns to specifications within five minutes.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7513

Reagent 2 supply center temperature below minimum range.

Probable cause	Corrective action
• Room temperature is too low.	Modify room temperature to be within specifications.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7514

Reagent 2 supply center temperature above maximum range.

Probable cause	Corrective action
• System was just powered on.	Check the temperature status to verify the temperature returns to specifications within five minutes.
• Carousel cover is open.	Close the carousel cover.
• Carousel cover is not installed.	Install the carousel cover.
• Numerous reagent cartridges were just loaded into the reagent supply center.	1. Cover the reagent supply center. 2. Check the temperature status to verify the temperature returns to specifications within five minutes.
• Room temperature is too high.	Modify room temperature to be within specifications.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7515

Temperature detector failure, reagent 2 supply center temperature exceeded lower detectable limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7516

Temperature detector failure, reagent 2 supply center temperature exceeded upper detectable limit.

Probable cause	Corrective action
• System was just powered on.	Check the temperature status to verify the temperature returns to specifications within five minutes.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7517

Internal temperature below minimum range.

Probable cause	Corrective action
• Room temperature is too low.	Modify room temperature to be within specifications.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7518

Internal temperature above maximum range.

Probable cause	Corrective action
• Room temperature is too high.	Modify room temperature to be within specifications.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7519

Temperature detector failure, internal temperature exceeded lower detectable limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7520

Temperature detector failure, internal temperature exceeded upper detectable limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7521

Run request denied, water bath temperature is out of range.

Probable cause	Corrective action
• Water in water bath is not circulating because the system was idle for an extended period of time.	Change water bath.
• System was just powered on.	Check the temperature status to verify the temperature returns to specifications within five minutes.
• Water bath is filling after an extended idle time.	Check the temperature status to verify the temperature returns to specifications within five minutes.
• Room temperature is too high.	Modify room temperature to be within specifications.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Computer hardware error codes (8000-8999)

The computer hardware error code category includes error codes between 8000-8999.

If the corrective actions listed under the error code in question do not resolve the problem, contact your Area Customer Support representative at:

United States	1-877-4ABBOTT (1-877-422-2688)
International	Call your Area Customer Support representative.

NOTE: For corrective actions that involve hazardous activity refer to *Hazards*, page 8-1, for precautions you should take to minimize exposure and prevent personal injury or system damage. Hazard activities include but are not limited to:

- Replacing system probes
- Handling reagents, calibrators, controls, and specimens
- Removing physical obstructions

- Changing the lamp
- Removing system waste

Error code: 8000

Power supply AC failed.

Probable cause	Corrective action
• User cycled power to the processing module.	Restart the Processing module after the module power is restored.
• Power fluctuated.	Contact your Area Customer Support. Please provide information that describes the failure.
• Hardware failure: – Power supply	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8001

Power supply over voltage.

Probable cause	Corrective action
• User cycled power to the processing module.	Restart the Processing module after the module power is restored.
• Hardware failure: – Power supply	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8002

Power supply under voltage.

Probable cause	Corrective action
• User cycled power to the processing module.	Restart the Processing module after the module power is restored.
• Power fluctuated.	Contact your Area Customer Support. Please provide information that describes the failure.
• Hardware failure: – Power supply	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8003

Power supply over temperature.

Probable cause	Corrective action
• User cycled power to the processing module.	Restart the Processing module after the module power is restored.
• Hardware failure: – Power supply	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8004

UNICODE data could not be sent to (x).
x = Remote system

Probable cause	Corrective action
Hardware failure: – Digiboard or External multiport serial adapter	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8005

Communication error reading data from port (x).
x = Remote system

Probable cause	Corrective action
Hardware failure: – Digiboard or External multiport serial adapter	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8006

Unable to process tests, Processing Module (x).
x = Description of failure

Probable cause	Corrective action
• User cycled power to the processing module.	Restart the processing module after the module power is restored.
• Power from the UPS fluctuated.	Contact your Area Customer Support. Please provide information specifying the failure description.
• Hardware failure: – Power Supply	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8007

Board error (x).
x = Description of failure

Probable cause	Corrective action
• Inadequate ventilation underneath instrument.	Remove any objects from underneath the processing module that may be blocking free flow of air to the card cage.
• Card cage filter is dirty.	Clean the card cage air filter. (Contact your Area Customer Support.)
• Card cage door is open.	Close the card cage door.
• Hardware failure: – Card cage fan – DC Driver I/O board with fault LED lit – Motor driver board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8008

Motor driver over temperature.

Probable cause	Corrective action
• Inadequate ventilation underneath instrument.	Remove any objects from underneath the Processing module that might be blocking the free flow of air to the card cage.
• Card cage filter is dirty.	Clean the card cage air filter. (Contact your Area Customer Support.)
• Hardware failure: – Card cage fan – DC Driver I/O board with fault LED lit – Motor driver board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8009

Power board fault condition detected.

Probable cause	Corrective action
Hardware failure: – Motor driver board – DC driver I/O board – Heater cooler board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8010

RSH distribution board CPLD fault condition detected.

Probable cause	Corrective action
Hardware failure: – Cable from carrier transport board to RSH distribution board has poor connection or failed – RSH distribution board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8011

RSH load/unload board LED fault condition detected.

Probable cause	Corrective action
Hardware failure: – LEDs on RSH load/unload board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8012

RSH load/unload board sensor fault condition detected.

Probable cause	Corrective action
Hardware failure: • Sensors on RSH load/unload board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8050

Unable to open (x) port for (y).
x = Serial port (COM1 - COM10)
y = Remote system

Probable cause	Corrective action
For host:	
Hardware failure: – Cable from LIS to SCC has a poor connection or failed – Digiboard or External multiport serial adapter	Contact your Area Customer Support to resolve any hardware failure.
For ARM:	
Hardware failure: • Cable from ARM to SCC has a poor connection or failed • Digiboard or External multiport serial adapter	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
For LAS:	
Hardware failure: – Cable from LAS to SCC has a poor connection or failed – Digiboard or External multiport serial adapter	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8053

Failed opening CLI serial port.

Probable cause	Corrective action
• Serial port configuration.	See *Configure serial ports window*, page 2-48, for more information.
• Hardware failure: – LIS cables have a poor connection or failed – Digiboard or External multiport serial adapter	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8054

CLI communication error.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8100

Unable to write (x) file to designated drive.
x = File name

Probable cause	Corrective action
• Floppy disk is not in drive.	Insert the floppy disk in the floppy drive.
• Floppy disk is write protected.	Ensure the write protect tab on the floppy disk is in the correct position.
• Floppy disk is not formatted.	Format the floppy disk or use a disk that is already formatted.
• Floppy disk is defective.	Use a new floppy disk.

Probable cause	Corrective action
• Software error	If not writing to a floppy disk when this error occurs, contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure: – Floppy drive – Hard drive	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8101

Failure in compression of log file.

Probable cause	Corrective action
• Floppy disk is not in drive.	Insert the floppy disk in the floppy drive.
• Floppy disk is not formatted.	Format the floppy disk or use a disk that is already formatted.
• Floppy disk is defective or is not blank.	Use a new floppy disk.

Error code: 8102

ASCII data could not be sent to (x).
x = Remote system

Probable cause	Corrective action
For host:	
Hardware failure: – Cable from LIS to SCC has a poor connection or failed – Digiboard or External multiport serial adapter	Contact your Area Customer Support to resolve any hardware failure.
For ARM:	
Hardware failure: – Cable from ARM to SCC has a poor connection or failed – Digiboard or External multiport serial adapter	Contact your Area Customer Support to resolve any hardware failure.
For LAS:	
Hardware failure: – Cable from LAS to SCC has a poor connection or failed – Digiboard or External multiport serial adapter	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8103

Field (x) in section (y) truncated for printing.
x = Field name
y = Report section name

Probable cause	Corrective action
The data entered in the data entry box is too long to print.	Print a screen image if a hard copy is required.

Error code: 8104

Print job for (x) canceled by the user.
x = Report name

Probable cause	Corrective action
User cancelled a print job.	Status message. No corrective action is required.

Error code: 8105

A printer error has occurred.

Probable cause	Corrective action
A printer error occurred.	Refer to the printer documentation for assistance.

Error code: 8107

Printer out of paper.

Probable cause	Corrective action
• Printer is out of paper.	Add paper to the printer.
• Printer is offline.	Change the printer status to online.
• Printer is not connected.	Connect the printer cable to the SCC printer port.

Error code: 8110

Printer status unavailable at this time.

Probable cause	Corrective action
Printer is not available.	1. Verify the printer is plugged in, on, and ready. 2. Verify the cable from the SCC to the printer is connected. 3. Refer to the printer documentation if printer is still unavailable.

Error code: 8115

(x) printer not properly installed.
x = Default printer name

Probable cause	Corrective action
Configured printer is not installed properly or does not exist.	Contact your Area Customer Support. Please provide information specifying the operation you were attempting to perform when this error occurred.

Error code: 8150

Invalid Host order, Sample ID (x) already exists.
x = Sample ID

Probable cause	Corrective action
The system received an order from the host and the order already exists. The new order from the host is ignored by the system.	If this error occurs frequently without obvious explanation, check the function of the host interface.

Error code: 8151

Invalid Host cancel, Sample ID (x) does not exist.
x = Sample ID

Probable cause	Corrective action
The system received a cancellation request from the host on a test order and the order does not exist in the database. The cancellation request from the host is ignored by the system.	If this error occurs frequently without obvious explanation, check the function of the host interface.

Error code: 8152

Orders received for Sample ID (x) did not match the Sample ID sent to the Host.
x = Sample ID

Probable cause	Corrective action
The sample ID returned from the host did not match the sample ID queried for by the system because: • The host is responding to a previous query, which has timed out on the system.	Increase the host query timeout value. See *Configure host interface settings (i 1000$_{SR}$)*, page 2-6.
• The host sent an order not requested by the system.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual for information about communications.

Error code: 8153

Invalid Host order, no quality control information for Assay (x) number (y).
x = Assay name
y = Assay number

Probable cause	Corrective action
The system received a QC order for an assay from the host but a control is not configured for the assay. The order from the host is ignored by the system.	Use the Control configuration screen to configure a control for the requested assay, and then download the order from the host. See *Configure a new single analyte control*, page 2-104 or *Configure a new multiconstituent control*, page 2-106.

Error code: 8154

Invalid Host order for Sample ID (x), specified dilution for Assay number (y) not found.
x = Sample ID
y = Assay number

Probable cause	Corrective action
The system received a test order from the host requesting an undefined dilution. The order from the host is ignored by the system.	Order a dilution available for the specified assay. Dilution Name is case sensitive, verify the host dilution name is exactly the same as the Dilution Name in the SCC.

Error code: 8155

Invalid Host order for Sample ID (x), Assay number (y) not installed.
x = Sample ID
y = Assay number

Probable cause	Corrective action
• The system received a test order from the host requesting an assay that is not installed.	Install the requested assay. See *Install or delete an assay file*, page 2-139.
• The assay number is incorrectly defined in the host.	Correct the assay number in the host system.

Error code: 8156

Error detected when parsing record (x) from (y).
x = Record string or field string
y = Remote system

Probable cause	Corrective action
An error was detected when parsing an ASTM record received. The record may not utilize the delimiters correctly. **For host:**	

Probable cause	Corrective action
• Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8158

Required data (x) is missing from message received from (y).
x = Component string
y = Remote system

Probable cause	Corrective action
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8159

Incoming frame from (x) is too long. <NAK> has been sent.
x = Remote system

Probable cause	Corrective action
Frame received exceeds ASTM length limit. **For host:** • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, error code 3901 occurs. Follow the corrective action for this specific code.

Error code: 8160

Field (x) received from (y) is not repeatable.
x = Field name
y = Remote system

Probable cause	Corrective action
Data field in a record received contains an illegal repeat delimiter. **For host:** • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8161

(x) sent illegal record type (y). The remainder of the message will be ignored.
x = Remote system
y = Record text

Probable cause	Corrective action
Record received is an invalid record type not defined by the ASTM E1394 Standard.	
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8162

(x) sent record (y) which contained an incorrect sequence number.
x = Remote system
y = Record received

Probable cause	Corrective action
Message received contained a record which was out of sequence. **For host:** • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.

Probable cause	Corrective action
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8163

Host sent record (x) for a negative query response.
x = Record received

Probable cause	Corrective action
Record received from the host contains an invalid query response.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.

Error code: 8165

(x) sent record (y) which contained an improper level transition.
x = Remote system
y = Record received

Probable cause	Corrective action
Message received contained a record which caused an improper message hierarchy level transition.	
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8166

Invalid ASTM record (x) in test order message.
x = Record name

Probable cause	Corrective action
Test order message received from the host contains an unacceptable ASTM record. Acceptable records in a test order message: Header, Patient, Test Order, Comment, and Terminator records.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.

Error code: 8169

Invalid message sent by (x).
x = Remote system

Probable cause	Corrective action
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8170

Negative query response for Sample ID (x) received after a host query timeout.
x = Sample ID

Probable cause	Corrective action
Negative query response message contained a SID which was different than the one contained in the earlier issued query message.	
• The host is responding to a previous query, which has timed out on the system.	Increase the host query timeout value. See *Configure host interface settings (i 1000$_{SR}$)*, page 2-6.
• A query message was never issued to the Host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual for information about communications.

Error code: 8172

Host query time-out exceeded for Sample ID (x).
x = Sample ID

Probable cause	Corrective action
The host did not respond to the query message within the time period specified in the configuration.	Increase the host query timeout value. See *Configure host interface settings (i 1000$_{SR}$)*, page 2-6.

Error code: 8173

Message received from (x) did not end with a terminator record.
x = Remote system

Probable cause	Corrective action
For host:	
• Host is busy or not responding.	1. Verify the host system is functional. 2. Re-enable host communications. See *Configure host interface settings (i 1000$_{SR}$)*, page 2-6. 3. *Cycle power to the SCC*, page 5-5.
• Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual for information about the ASTM protocol.
• Hardware failure: – Cable from LIS to SCC has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
For ARM: • Hardware failure: – Cable from ARM to SCC has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8174

Record (x) received from (y) did not terminate in a carriage return.
x = Record string
y = Remote system

Probable cause	Corrective action
For host: • Incorrectly formatted record or message was received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
• Cabling was not properly shielded or was too long.	Use shorter or shielded cable.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8175

Length of data (x) received from (y) exceeded specified maximum length.
x = Component string
y = Remote system

Probable cause	Corrective action
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8176

Data field (x) received from (y) must be a numeric value.
x = Data field
y = Remote system

Probable cause	Corrective action
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8177

Data field (x) received from (y) must be an alphanumeric value.
x = Data field
y = Remote system

Probable cause	Corrective action
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8178

Data field (x) received from (y) must be an alpha value.
x = Data field
y = Remote system

Probable cause	Corrective action
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8179

Invalid host order for Sample ID (x), Assay number (y) status type does not exist.
x = Sample ID
y = Assay number

Probable cause	Corrective action
The system received a test order from the host for an assay that is not installed.	
• The assay is not installed.	Install the requested assay. See *Install or delete an assay file*, page 2-139.
• The assay number is incorrectly defined in the host.	Correct the assay number in the host system.

Error code: 8180

Required field (x) was not populated by (y).
x = Field name
y = Remote system

Probable cause	Corrective action
Mandatory ASTM field was blank in the message received. The remainder of the message is ignored by the system.	
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8181

Invalid host order, incorrect birth date (y) for Sample ID (x).
x = Sample ID
y = Birth date

Probable cause	Corrective action
The system received an order from the host containing a birth date later than the current date.	Correct the birth date in the host system, and then re-send the order.

Error code: 8182

Unsupported character received from the host in a record. Original: (x), Translated: (y).
x = Input string
y = Output string

Probable cause	Corrective action
Record received from the host containing a character not supported in the ASI Code page. This character is translated as the copyright symbol ((c) or code 0169).	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual. Acceptable characters are defined in the ASI Code page for ARCHITECT table.

Error code: 8183

Unsupported character sent to the host in a record. Original: (x), Translated: (y).
x = Input string
y = Output string

Probable cause	Corrective action
Record sent to the host containing a character not supported in the ASI Code page. This character is translated as the registered mark ((c) or code 0174).	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual. Acceptable characters are defined in the ASI Code page for ARCHITECT table.

Error code: 8184

Invalid message type sent by LAS.

Probable cause	Corrective action
• The LAS sent out an unknown message type.	Refer to the ARCHITECT *i* System Laboratory Automation System Interface Manual and/or contact your LAS vendor.
• Hardware failure: – Cable from LAS to SCC (COM6, Connector P4) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8185

Invalid <ACK> or <NAK> message length sent by LAS.

Probable cause	Corrective action
The system received an invalid <ACK> or <NAK> message length by LAS. • LAS sent incorrect message length.	Refer to the ARCHITECT *i* System Laboratory Automation System Interface Manual and/or contact your LAS vendor.
• Hardware failure: – Cable from LAS to SCC (COM6, Connector P4) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8186

Invalid Sample ID length sent by LAS. Sample ID length cannot be zero.

Probable cause	Corrective action
The system received a sample ID from the LAS with a length of zero.	Refer to the ARCHITECT *i* System Laboratory Automation System Interface Manual and/or contact your LAS vendor.

Error code: 8187

Invalid Sample ID length sent by LAS. Sample ID length cannot be greater than 20 characters.

Probable cause	Corrective action
The system received a sample ID from the LAS with a length greater than 20 characters.	Refer to the ARCHITECT *i* System Laboratory Automation System Interface Manual and/or contact your LAS vendor.

Error code: 8188

Invalid Sample ID sent by the LAS. The Sample ID contains an invalid character.

Probable cause	Corrective action
The system received a sample ID from the LAS containing an invalid character.	Use valid characters only. Valid characters are defined by Abbott Laboratories as A - Z, a - z, 0 - 9 and the special characters , / > < ? ; :] [\ } { ' - = ~ ! @ # $ % ^ & *) (_ + and <space>.

Error code: 8189

Invalid message sent by LAS. Message exceeded maximum length.

Probable cause	Corrective action
The system received a message from the LAS that exceeded the maximum allowable length.	Refer to the ARCHITECT *i* System Laboratory Automation System Interface Manual and/or contact your LAS vendor.

Error code: 8190

Invalid SID (x) sent by LAS.
x = Sample ID

Probable cause	Corrective action
The system received an invalid sample ID from the LAS.	Contact your LAS vendor.

Error code: 8191

Invalid message sent by LAS.

Probable cause	Corrective action
• System bar code configuration does not match bar code label.	Contact your LAS vendor.
• Hardware failure: – Cable from LAS to SCC (COM6, Connector P4) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8192

Invalid formatted bar code read: (x) sent by LAS for SID (y).
x = Bar code read data
y = Sample ID

Probable cause	Corrective action
The system received an invalid SID from the LAS bar code reader.	Contact your LAS vendor.

Error code: 8193

Invalid host order, incorrect draw date (x) for Sample ID (y).
x = Sample draw date
y = Sample ID

Probable cause	Corrective action
Host order received containing a draw date later than the current date.	Correct the draw date in the host, then resend the order from the host.

Error code: 8194

Invalid Sample ID sent by the LIS. The Sample ID contains an invalid character.

Probable cause	Corrective action
An invalid character was encoded in a host download or query response.	Use valid characters only. Valid characters are defined by Abbott Laboratories as A - Z, a - z, 0 - 9 and the special characters , / > < ? ; :] [\ } { ' - = ~ ! @ # $ % ^ & *) (_ + and <space>.

Error code: 8250

Invalid frame number received from (x). <NAK> has been sent.
x = Remote system

Probable cause	Corrective action
Record received did not contain the frame in sequence.	
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, error code 3901 occurs. Follow the corrective action for this specific code.

Error code: 8251

Received <NAK> for outgoing frame from (x).
x = Remote destination name

Probable cause	Corrective action
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, error code 3901 occurs. Follow the corrective action for this specific code.

Error code: 8252

No terminating <CR> in received frame from (x). <NAK> has been sent.
x = Remote system

Probable cause	Corrective action
Frame received did not terminate in a carriage return.	
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, error code 3901 occurs. Follow the corrective action for this specific code.

Error code: 8253

Invalid checksum received in incoming frame from (x). <NAK> has been sent.
x = Remote system

Probable cause	Corrective action
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, error code 3901 occurs. Follow the corrective action for this specific code.

Error code: 8254

Restricted character in message text from (x). <NAK> has been sent.
x = Remote system

Probable cause	Corrective action
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, error code 3901 occurs. Follow the corrective action for this specific code.

Error code: 8255

No terminating <LF> in received frame from (x). <NAK> has been sent.
x = Remote system

Probable cause	Corrective action
Frame received did not contain a terminating line feed.	
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, error code 3901 occurs. Follow the corrective action for this specific code.

Error code: 8256

Data field (x) received from (y) must be a printable string.
x = Data field
y = Remote system

Probable cause	Corrective action
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8257

Data field (x) received from (y) must be a valid date.
x = Data field
y = Remote system

Probable cause	Corrective action
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8258

Record (x) was received in message from (y) prior to a required header record.
x = Record string which was received as the first record of the message
y = Remote system

Probable cause	Corrective action
Message received without the Header record as the first record of the message.	
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8259

Record received from (x) contained an invalid field (y).
x = Remote system
y = Field name

Probable cause	Corrective action
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8260

(x) sent an unsupported record type (y). The record will be ignored.
x = Remote system
y = Record received

Probable cause	Corrective action
Record received was a valid ASTM format but is not supported by the system.	
For host: • Unsupported record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.

Probable cause	Corrective action
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8261

Negative query received for Sample ID (x), in Carrier/Position (y).
x = Sample ID
y = Carrier or CRSL and Position number

Probable cause	Corrective action
• The sample ID has not been entered into the host computer.	Enter the sample ID and test order(s) for the sample ID into the host computer.
• There are no ARCHITECT System test orders for the specified sample ID.	Enter the test order(s) for the sample ID into the host computer.
• Host computer is not functioning properly.	*Create a patient order (single order)*, page 5-76.
• SID (sample identification) is truncated.	See *Sample ID is truncated*, page 10-565.

Error code: 8262

Invalid Message ID sent by LAS.

Probable cause	Corrective action
The system received an invalid message ID from the LAS.	Refer to the ARCHITECT *i* System Laboratory Automation System Interface Manual and/or contact your LAS vendor.

Error code: 8263

Invalid Recovery Type sent by LAS.

Probable cause	Corrective action
The SCC is unable to re-initialize communication due to LAS message containing Invalid Recovery Type.	1. Re-initialize communication with the LAS. 2. Refer to the ARCHITECT *i* System Laboratory Automation System Interface Manual and/or contact your LAS vendor, if error continues.

Error code: 8264

Invalid Cyclical Redundancy Check sent by LAS.

Probable cause	Corrective action
The system received an invalid Cyclical Redundancy Check.	Refer to the ARCHITECT *i* System Laboratory Automation System Interface Manual and/or contact your LAS vendor.

Error code: 8265

Invalid message sent by LAS. LAS message length mismatch.

Probable cause	Corrective action
The LAS sent a message to the system that did not match what the system expected. The message is ignored.	Refer to the ARCHITECT *i* System Laboratory Automation System Interface Manual and/or contact your LAS vendor.

Error code: 8266

The <ACK> message sequence number sent by LAS does not match outgoing message sequence number.

Probable cause	Corrective action
The <ACK> message sequence number sent by the LAS does not match the outgoing sequence number. The message is ignored. Previous message is resent by the system.	Refer to the ARCHITECT *i* System Laboratory Automation System Interface Manual and/or contact your LAS vendor.

Error code: 8267

The <NAK> message sequence number sent by LAS does not match outgoing message sequence number.

Probable cause	Corrective action
The system received a <NAK> sequence number that did not match the sequence number sent to the LAS. The message is ignored. Previous message is resent by the system.	Refer to the ARCHITECT *i* System Laboratory Automation System Interface Manual and/or contact your LAS vendor.

Error code: 8268

Received <NAK> from LAS for outgoing message.

Probable cause	Corrective action
Not able to interpret message sent from the SCC. The message is ignored. Previous message is resent by the system.	Refer to the ARCHITECT *i* System Laboratory Automation System Interface Manual and/or contact your LAS vendor.

Error code: 8269

Message sequence number sent by LAS is out of order.

Probable cause	Corrective action
The system received a sequence number from the LAS that does not match the expected sequence number.	Refer to the ARCHITECT *i* System Laboratory Automation System Interface Manual and/or contact your LAS vendor.

Error code: 8270

Unexpected <ACK> or <NAK> message sent by LAS.

Probable cause	Corrective action
Unexpected <ACK> or <NAK> message sent by LAS. The message is ignored.	Refer to the ARCHITECT *i* System Laboratory Automation System Interface Manual and/or contact your LAS vendor.

Error code: 8271

Invalid checksum sent by LAS.

Probable cause	Corrective action
The system received an invalid checksum.	Contact your LAS vendor.

Error code: 8272

A message was received from the LAS before the previous message was complete.

Probable cause	Corrective action
A message was received from the LAS that was out of order.	Contact your LAS vendor.

Error code: 8273

The LAS detected an internal error.

Probable cause	Corrective action
The LAS detected an internal error.	Contact your LAS vendor.

Error code: 8274

Result for Sample ID (x), Assay Number (y) could not be transmitted to the Host.
x = Sample ID
y = Assay number

Probable cause	Corrective action
• Communication failure.	Retransmit the result.
• Host is not configured for the expected result format.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.

Error code: 8350

Maximum number of query timeouts exceeded. Host query mode disabled.

Probable cause	Corrective action
Three consecutive timeouts received while requesting orders from the host. The host port is disabled after this error.	
• Host did not respond within the time period configured.	Increase host query timeout value. See *Configure host interface settings (i 1000$_{SR}$)*, page 2-6.
• Incorrect baud rate on host port.	Reconfigure the host baud rate. See *Configure serial ports window*, page 2-48, for more information.
• Hardware failure: – Cable from LIS to SCC (COM5, Connector P3) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8351

(x) connection cannot be established because of contention.
x = Remote system

Probable cause	Corrective action
For host: • Both systems request a connection at the same time by sending an <ENQ> and this creates contention.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, error code 3901 occurs. Follow the corrective action for this specific code.

Error code: 8353

Maximum retries exceeded for outgoing frame sent to (x).
x = Remote system

Probable cause	Corrective action
Unable to send frame to the remote system, because the remote system sends a negative acknowledgment <NAK> for the frame received.	
For host:	

Probable cause	Corrective action
• Incorrectly formatted record or message received from the host. – Checksum is invalid. – Frame is not received in sequence.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
• Hardware failure: – Cable from LIS to SCC (COM5, Connector P3) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, error code 3901 occurs. Follow the corrective action for this specific code.

Error code: 8354

(x) connection cannot be established, no response was received.
x = Remote system

Probable cause	Corrective action
For host: • Host is busy or not responding.	1. Verify the host system is functional. 2. Re-enable host communications. See *Configure host interface settings (i 1000$_{SR}$)*, page 2-6. 3. *Cycle power to the SCC*, page 5-5.
• Incorrect baud rate on host port.	Reconfigure the host baud rate. See *Configure serial ports window*, page 2-48, for more information.
• Message response is incorrectly defined for the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual for information about the ASTM protocol.
• Hardware failure: – Cable from LIS to SCC (COM5, Connector P3) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, error code 3901 occurs. Follow the corrective action for this specific code.

Error code: 8355

Time out on frame sent to (x).
x = Remote system

Probable cause	Corrective action
System timed out waiting for confirmation that the remote system received a frame. The connection is terminated by the system.	
For host: • Host is busy or not responding.	1. Verify the host system is functional. 2. Re-enable host communications. See *Configure host interface settings (i 1000$_{SR}$)*, page 2-6. 3. *Cycle power to the SCC*, page 5-5.
• Message response is incorrectly defined for the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual for information about the ASTM protocol.
• Hardware failure: – Cable from LIS to SCC (COM5, Connector P3) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, error code 3901 occurs. Follow the corrective action for this specific code.

Error code: 8356

Query for sample ID (x) has been deleted.
x = Sample ID

Probable cause	Corrective action
• Host is busy or not responding.	1. Verify the host system is functional. 2. Re-enable host communications. See *Configure host interface settings (i 1000$_{SR}$)*, page 2-6. 3. *Cycle power to the SCC*, page 5-5.
• Host query option was turned off due to a previous communication failure or was turned off by the user.	Re-enable the Bidirectional host option in system settings. See *Configure host interface settings (i 1000$_{SR}$)*, page 2-6.

Probable cause	Corrective action
• Incorrect baud rate on host port.	Reconfigure the host baud rate. See *Configure serial ports window*, page 2-48, for more information.
• Message response is incorrectly defined for the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual for information about the ASTM protocol.
• Hardware failure: – Cable from LIS to SCC (COM5, Connector P3) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8357

Unable to transmit results to Host, Host access turned off.

Probable cause	Corrective action
System attempted to transmit approved results but the host is turned off	
• Host is not responding or is turned off.	Turn on the host interface and re-transmit the data.
• Bidirectional host option is turned off.	Re-enable the Bidirectional host option in system settings. See *Configure host interface settings (i 1000$_{SR}$)*, page 2-6.

Error code: 8358

Time out on incoming frame from (x).
x = Remote system

Probable cause	Corrective action
System timed out waiting to receive a frame. The connection is terminated by the system.	
For host: • Host is busy or not responding.	1. Verify the host system is functional. 2. Re-enable host communications. See *Configure host interface settings (i 1000$_{SR}$)*, page 2-6. 3. *Cycle power to the SCC*, page 5-5.
• Message response is incorrectly defined for the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual for information about the ASTM protocol.
• Hardware failure: – Cable from LIS to SCC (COM5, Connector P3) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, error code 3901 occurs. Follow the corrective action for this specific code.

Error code: 8359

Time out exceeded on message sent to LAS.

Probable cause	Corrective action
The LAS did not respond within the designated time period. The connection is terminated by the system.	
• LAS response time is too slow.	Optimize the LAS response timeout value.
• Hardware failure: – Cable from LAS to SCC (COM6, Connector P4) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8360

Maximum number of consecutive LAS message timeouts and/or LAS <NAK> messages exceeded.

Probable cause	Corrective action
• The LAS did not respond to the outgoing message.	Re-initialize communication with the LAS.
• Communication failed.	*Cycle power to the SCC*, page 5-5.
• The system received an invalid checksum.	Refer to the ARCHITECT *i* System Laboratory Automation System Interface Manual and/or contact your LAS vendor.
• Hardware failure: – Cable from LAS to SCC (COM6, Connector P4) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8361

LAS message communication error.

Probable cause	Corrective action
System is unable to send a message to the LAS.	
• The LAS did not respond to the outgoing message.	Re-initialize communication with the LAS.
• The SCC is not configured correctly for the LAS settings.	Reconfigure the serial port parameter settings. See *Configure serial ports window*, page 2-48, for more information.

Probable cause	Corrective action
• LAS response time is too slow.	Optimize the LAS response timeout value.
• The system received an invalid checksum.	Refer to the ARCHITECT *i* System Laboratory Automation System Interface Manual.
• Hardware failure: – Cable from LAS to SCC (COM6, Connector P4) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8362

Time out on message sent from LAS.

Probable cause	Corrective action
The connection between the SCC and the LAS was terminated.	
• LAS not responding.	Contact your LAS vendor.
• Hardware failure: – Cable from LAS to SCC (COM6, Connector P4) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8363

(x) connection cannot be established, remote system is busy.
x = Remote system

Probable cause	Corrective action
System attempted to connect with the remote system, but the remote system was busy and responded with a <NAK>.	
For host: • Host is busy.	Wait for host system to become available.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, a error code 3901 occurs. Follow the corrective action for this specific error code.

Error code: 8364

The maximum number of connection attempts has been reached for (x).
x = Remote system

Probable cause	Corrective action
Multiple failures while attempting to establish communication with the remote system.	
For host:	

Probable cause	Corrective action
• Host is busy or not responding.	1. Verify the host system is functional. 2. Re-enable host communications. See *Configure host interface settings (i 1000$_{SR}$)*, page 2-6. 3. *Cycle power to the SCC*, page 5-5.
• Incorrect baud rate on host port.	Reconfigure the host baud rate. See *Configure serial ports window*, page 2-48, for more information.
• Message response is incorrectly defined for the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual for information about the ASTM protocol.
• Hardware failure: – Cable from LIS to SCC (COM5, Connector P3) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, a error code 3901 occurs. Follow the corrective action for this specific error code.

Error code: 8457

(x) port disabled.
x = Remote system

Probable cause	Corrective action
The communication port is disabled due to multiple failures while attempting to establish communication with the remote system.	
For host: • Host is busy or not responding.	1. Verify the host system is functional. 2. Re-enable host communications. See *Configure host interface settings (i 1000$_{SR}$)*, page 2-6. 3. *Cycle power to the SCC*, page 5-5.
• Incorrect baud rate on host port.	1. Reconfigure the host baud rate. See *Change the LIS serial port settings*, page 2-28. 2. Re-enable the Bidirectional host option, after correcting the baud rate. See *Configure host interface settings (i 1000$_{SR}$)*, page 2-6.

Probable cause	Corrective action
• Message response is incorrectly defined for the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual for information about the ASTM protocol.
• Hardware failure: – Cable from LIS to SCC has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
For ARM: • ARM is busy or not responding	Re-enable the Wash buffer transfer option for automatic buffer transfer, after the ARM is functional. See *Configuration screen - System settings view*, page 2-4.
• Hardware failure: – Cable from ARM to SCC has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8458

Unable to accept test orders from Host.

Probable cause	Corrective action
System has reached unreleased result capacity, regardless if you are connected to a host or not. This includes unreleased patient and QC results, test orders, and exceptions.	1. If configured for host, release patient and QC results. 2. Delete or release exceptions or pending orders below 10% of maximum capacity. (Currently, maximum capacity is 6,500, therefore 90% = 5,850). Once unreleased patient results, QC results, and exceptions are released or deleted, the system accepts test orders from the host. **NOTE:** If not configured for a host, this message should be ignored.

Error code: 8459

Test orders may be downloaded from the Host.

Probable cause	Corrective action
The number of unreleased patient and QC results, pending orders, and exceptions was reduced to a level that is 10 percent below the maximum capacity.	No corrective action is required. Test orders from the host are accepted if the feature is enabled in the system configuration.

Error code: 8460

Unable to process backup or restore request, host transfer in process.

Probable cause	Corrective action
Backup or restore selected when data is transferring to the host.	Wait until all host transfers are complete, or *Cancel result transmission*, page 5-176, before performing the backup or restore procedure.

Error code: 8462

Negative query response for Sample ID (x), did not match the Sample ID sent to the host.
x = Sample ID

Probable cause	Corrective action
The sample ID returned from the host did not match the sample ID queried for by the system.	
• The host is responding to a previous query, which has timed out on the system.	Increase the host query timeout value. See *Configure host interface settings (i 1000$_{SR}$)*, page 2-6.
• The host sent an order not requested by the system.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual for information about communications.

Error code: 8463

Unable to change configuration, host transmission is in process.

Probable cause	Corrective action
Host transmission was in process while attempting to configure a new processing module.	Wait until all host transfers are complete, or *Cancel result transmission*, page 5-176, before configuring the new processing module.

Error code: 8464

LAS initialization communication failed.

Probable cause	Corrective action
• Communication failure between the SCC and the LAS.	Re-initialize communication with the LAS.
• Serial port settings configured on SCC do not match LAS configured settings.	1. Verify/reconfigure the serial port settings. 2. *Cycle power to the SCC*, page 5-5.
• LAS is inoperable.	Contact your LAS vendor.
• Hardware failure: – Cable from LAS to SCC (COM6, Connector P4) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8465

Host transmission canceled by the user.

Probable cause	Corrective action
User cancelled result transmission to the host.	Status message. No corrective action is required.

Error code: 8466

Incoming connection from (x) has been rejected, unreleased result capacity has been reached on the system.
x = Remote system

Probable cause	Corrective action
The number of unreleased results is at the maximum.	Release or delete unreleased patient results, quality control results, and exceptions currently on the system.

Error code: 8550

Unable to process test; power supply + 5 V failure.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8551

Unable to process test; power supply - 15 V failure.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8552

Unable to process test; power supply + 15 V failure.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8553

Unable to process test; power supply + 12 V failure.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8554

Unable to process test; power supply + 11.5 V failure.

Probable cause	Corrective action
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. – Ensure the lamp is seated correctly against the lamp plate and in the housing. – Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8555

Unable to process test; power supply + 24 V failure.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Software error codes (9000-9999)

The software error code category includes error codes between 9000-9999.

If the corrective actions listed under the error code in question do not resolve the problem, contact your Area Customer Support representative at:

United States	1-877-4ABBOTT (1-877-422-2688)
International	Call your Area Customer Support representative.

NOTE: For corrective actions that involve hazardous activity refer to *Hazards*, page 8-1, for precautions you should take to minimize exposure and prevent personal injury or system damage. Hazard activities include but are not limited to:

- Replacing system probes
- Handling reagents, calibrators, controls, and specimens
- Removing physical obstructions
- Changing the lamp
- Removing system waste

Error code: 9000

Call Abbott. Invalid command.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9001

Call Abbott. Parameter (x) out of range.
x = CLI parameter number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9002

Missing Failure response detected in work hierarchy, child work type (x), Test ID (y).
x = Work order child type
y = Test ID

Probable cause	Corrective action
An operation could not be performed on the indicated device due to a conflict with another device.	
• User selected stop while a module was in Running status.	This message may occur several times. *Start up the processing module and/or sample handler*, page 5-10, when the reason for the stop no longer exists.
• Previous hardware failure.	1. *Review message logs*, page 10-10, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-11, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9003

Missing Failure response detected in work hierarchy, child work type (x), not a test or a work order.
x = Work order child type

Probable cause	Corrective action
An operation could not be performed on the indicated device due to a conflict with another device.	
• User selected stop while a module was in Running status.	This message may occur several times. *Start up the processing module and/or sample handler*, page 5-10, when the reason for the stop no longer exists.
• Previous hardware failure.	1. *Review message logs*, page 10-10, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-11, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9004

Call Abbott. CLI parser error.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9005

Call Abbott. Destination module not found.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9006

Call Abbott. Software error, CLI Parser error.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9007

Call Abbott. CLI Parser, unknown error.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9008

Call Abbott. CLI Parser, stack overflow.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9009

Concurrency of (x) exceeded.
x = Mechanism name

Probable cause	Corrective action
An operation could not be performed on the indicated device due to a conflict with another device.	

Probable cause	Corrective action
• User selected stop while a module was in Running status.	This message may occur several times. *Start up the processing module and/or sample handler*, page 5-10, when the reason for the stop no longer exists.
• Previous hardware failure.	1. *Review message logs*, page 10-10, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-11, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 9010

(y) preventing (x) from operating.
x = Mechanism experiencing failure
y = Mechanism causing failure

Probable cause	Corrective action
An operation could not be performed on the indicated device due to a conflict with another device.	
• User selected stop while a module was in Running status.	This message may occur several times. *Start up the processing module and/or sample handler*, page 5-10, when the reason for the stop no longer exists.
• Previous hardware failure.	1. *Review message logs*, page 10-10, for any 0304 error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-11, if you do not find any 0304 error codes. 3. Perform the corrective action for the specific error code.

Error code: 9011

Previous lockstep operations were not complete when new lockstep operation was scheduled.

Probable cause	Corrective action
An operation could not be performed on the indicated device due to a conflict with another device.	
• User selected stop while a module was in Running status.	This message may occur several times. *Start up the processing module and/or sample handler*, page 5-10, when the reason for the stop no longer exists.
• Previous hardware failure.	1. *Review message logs*, page 10-10, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-11, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 9012

Call Abbott. Unknown / pSOS+ error number (x) received by IT domain.
x = Error message

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9013

Call Abbott. Invalid bit number (x).
x = Bit number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9014

Call Abbott. Invalid module type requested.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9015

Call Abbott. Required command argument was not specified.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9016

Call Abbott. Request denied, experiment not found.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9017

Call Abbott. TCB Command, memory allocation error.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9018

Call Abbott. CLI command, incorrect increment/resolution parameter (x).
x = Parameter number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9019

Call Abbott. TCB command, invalid parameter (x).
x = Count variable

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9020

Call Abbott. An Invalid OMS command sent to motor indexer device (x).
x = Motor or indexer board number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9021

Call Abbott. Invalid command for module.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9022

Call Abbott. Invalid liquid level sense command on liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9023

Call Abbott. Invalid liquid level sense board status bit on liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9026

Call Abbott. Digital I/O bit (x) interrupt in use.
x = Bit number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9027

Microparticle Dispersion Mechanism is active, unable to execute request.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9028

Call Abbott. Digital I/O bit (x) interrupt not in use.
x = Bit number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9029

Call Abbott. A CLI command initiated while the instrument was in a status not permitting such commands.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9030

Call Abbott. Unknown error category number (x) received by IT domain.
x = Error number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9031

Call Abbott. Invalid liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9032

Call Abbott. Invalid pressure monitor command on liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9033

Call Abbott. Invalid command sent to liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9034

Call Abbott. Sample Handler status does not allow execution of command.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9035

Call Abbott. Invalid pressure monitor command on liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9037

Invalid Temperature Controller command.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9038

Call Abbott. Invalid flow/clog detection channel (x).
x = Channel number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9039

Call Abbott. Invalid temperature channel (x).
x = Temperature channel number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9040

Call Abbott. Mechanism command sent to invalid destination.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9041

Missing failure response detected in work hierarchy, child work type (x), parent work type (y).
x = Child work type
y = Parent work type

Probable cause	Corrective action
Could not perform an operation on the indicated device due to a conflict with another device.	
• User selected stop while a module was in Running status.	This message may occur several times. *Start up the processing module and/or sample handler*, page 5-10, when the reason for the stop no longer exists.
• Previous hardware failure.	1. *Review message logs*, page 10-10, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-11, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9042

The lockstep operation detected a timing error.

Probable cause	Corrective action
Could not perform an operation on the indicated device due to a conflict with another device.	
• User selected stop while a module was in Running status.	This message may occur several times. *Start up the processing module and/or sample handler*, page 5-10, when the reason for the stop no longer exists.

Probable cause	Corrective action
• Previous hardware failure.	1. *Review message logs*, page 10-10, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-11, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.
For STAT assays:	
• Software error.	Repeat the test, see *Rerun a test*, page 5-149.

Error code: 9043

Call Abbott. Command error, not yet implemented.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9044

Call Abbott. Set_module CLI command failed.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9045

The lockstep operation detected a timing failure.

Probable cause	Corrective action
Could not perform an operation on the indicated device due to a conflict with another device.	
• User selected stop while a module was in Running status.	This message may occur several times. *Start up the processing module and/or sample handler*, page 5-10, when the reason for the stop no longer exists.

Probable cause	Corrective action
• Previous hardware failure.	1. *Review message logs*, page 10-10, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-11, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9046

Call Abbott. Motor command error on motor indexer device (x), parameter error.
x = Motor number or indexer board number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9047

Call Abbott. Motor command sent to motor (x) and it was still processing a previous command.
x = Motor number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9048

Call Abbott. Motor mailbox error on motor indexer device (x).
x = Motor number or indexer number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9049

Call Abbott. Invalid context used to load the motor data table.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9050

Call Abbott. Solenoid task not created, call back cannot be executed.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9051

Call Abbott. O/S Error.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9052

Call Abbott. O/S ISR Error.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9053

Call Abbott. Software error.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9054

File (x) not found.
x = File name

Probable cause	Corrective action
• Incorrect information entered when installing an assay file or maintenance or diagnostic procedure.	Enter the correct information.
• Software error, when the error occurs at the beginning of the procedure.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9055

Call Abbott. Invalid OMS command sent to motor indexer device (x).
x = Motor number or indexer board number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9056

Call Abbott. Invalid DEBUG command parameter.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9057

Call Abbott. Run request denied, at least one module must be Running.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9058

The lockstep operation detected a timing error.

Probable cause	Corrective action
Could not perform an operation on the indicated device due to a conflict with another device.	
• User selected stop while a module was in Running status.	This message may occur several times. *Start up the processing module and/or sample handler*, page 5-10, when the reason for the stop no longer exists.
• Previous hardware failure.	1. *Review message logs*, page 10-10, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-11, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9059

Call Abbott. Load list (x) line (y), Carrier ID or Position are invalid.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9061

Discrepancy during report generation for parameter (x) in report (y).
x = Parameter number
y = Report name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9062

Read interval of 0 msec. sent to data reduction.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9063

Reporting database access error, table (x).
x = Database table write error

Probable cause	Corrective action
For x = generic framework error: • Software error.	*Cycle power to the SCC*, page 5-5.
For x = any other error: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9064

Call Abbott. Unable to print report.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information specifying the report you were attempting to print when the error occurred.

Error code: 9065

Unable to print report, field (x) data in (y) not present.
x = Field name
y = Report section name

Probable cause	Corrective action
Requested report is missing information required to generate the report.	Perform the procedure before attempting to print a report.

Error code: 9066

Unable to generate report, error accessing data.

Probable cause	Corrective action
Software reporting error.	Contact your Area Customer Support. Please provide information specifying the report you were attempting to print when the error occurred.

Error code: 9068

Call Abbott. Unable to print (x), print job failed.
x = Report name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information specifying the report you were attempting to print when the error occurred.

Error code: 9069

Call Abbott. Unknown error (x) detected in Instrument Control.
x = Error number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9070

Call Abbott. Error occurred while attempting Automatic Prime.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9071

Run-time error encountered while running (x) procedure.
x = Procedure name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9073

Call Abbott. Software error, unable to open database. (No backup database exists)

Probable cause	Corrective action
The database is corrupted.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9074

Call Abbott. Software error, unable to open database. (Backup database exists)

Probable cause	Corrective action
The database is corrupted.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9075

System backup or restore canceled, unknown file access failure for (x).
x = Description of file

Probable cause	Corrective action
• Software error: – Hard drive is full – File system on hard drive is corrupt	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure: – Hard drive	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9076

Call Abbott. System backup canceled, system file (x) missing.
x = Description of file

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9077

Unable to communicate to Sample Handler or Processing Module, error (x), (y).
x = Architecture error number
y = String associated with architecture error

Probable cause	Corrective action
For x = 37:	
• Processing module is powering on.	Wait until the power on is complete and the module status is Stopped.
• Ethernet cable has a poor connection.	Reconnect the Ethernet cable.
• Network hub is turned off.	1. Turn on the power switch to the network hub. 2. Cycle power to the processing module and to the sample handler. See *Cycle power to the processing module and/or sample handler*, page 5-10.

Probable cause	Corrective action
• Network hub power cord is disconnected.	1. Connect the power cord to the network hub and plug into a UPS or wall outlet. 2. Cycle power to the processing module and to the sample handler. See *Cycle power to the processing module and/or sample handler*, page 5-10.
• Network hub failure.	Replace the network hub.
• Communication failure between the SCC and a processing module or sample handler.	Cycle power to the processing module and to the sample handler. See *Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Indexer board has a poor connection or failed.	Contact your Area Customer Support to resolve any hardware failure.
For x = 82:	
• Processing module is powering on.	Wait until the power on is complete and the module status is Stopped.
• Communication failure between the SCC and a processing module or sample handler.	Cycle power to the processing module and to the sample handler. See *Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure: – Module controller board in the upper card cage has a poor connection or failed – Sample handler controller board in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
For x = any other number:	
• Processing module is powering on.	Wait until the power on is complete and the module status is Stopped.
• Communication failure between the SCC and a processing module or sample handler.	Cycle power to the processing module and to the sample handler. See *Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure. Please provide the error information displayed in the error message.

Error code: 9078

Run request denied, Sample Handler must be Ready.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9079

Unable to perform procedure, module (x) incorrect module type.
x = Module number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9080

Process Path Index response not received when expected. Attempting to initiate response.

Probable cause	Corrective action
Software status message.	No corrective action is required.

Error code: 9081

Data archive failed, error (x).
x = Error message

Probable cause	Corrective action
• CD disk is dirty	Clean disk. Refer to the CD cover for cleaning and handling procedures.
• CD disk is defective	Use a new disk.
• Hardware failure: – CD drive	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9082

Call Abbott. Data archive failed, error writing data to hard drive.

Probable cause	Corrective action
• The C drive is out of disk space. • Hardware failure: – Hard drive	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9083

Call Abbott. Unknown c System System Error (x).
x = Error code number/status

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure: – CPU board – DAQ board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9084

Processing module received an invalid sample order from the SCC.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9085

c System CPU software error.

Probable cause	Corrective action
Hardware failure: – CPU board has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9086

Connection error between SCC and processing module.

Probable cause	Corrective action
• Power is turned off to the module.	*Power on the processing module and/or sample handler*, page 5-7.
• Processing module is powering on.	Wait until power on is complete and processing module status is Stopped.
• Communication failure.	*Cycle power to the processing module and/or sample handler*, page 5-10, if the module stopped running as a result of the error.
• Ethernet cable has a poor connection.	Reconnect the Ethernet cable.
• Network hub is turned off.	Turn on the power switch to the network hub.

Probable cause	Corrective action
• Network hub power cord is disconnected.	Connect the power cord to the network hub and plug into a UPS or wall outlet.
• Hardware failure: – CPU board has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9087

Communication error between SCC and processing module.

Probable cause	Corrective action
• Power is turned off to the module.	*Power on the processing module and/or sample handler*, page 5-7.
• Processing module is powering on.	Wait until power on is complete and processing module status is Stopped.
• Communication failure.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Ethernet cable has a poor connection.	Reconnect the Ethernet cable.
• Network hub is turned off.	Turn on the power switch to the network hub.
• Network hub power cord is disconnected.	Connect the power cord to the network hub and plug into a UPS or wall outlet.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9088

Call Abbott. Invalid solenoid number (x).
x = Solenoid number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9089

Call Abbott. Invalid DC motor number (x).
x = DC motor number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9090

Call Abbott. Invalid DC motor speed.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9091

Call Abbott. Invalid solenoid duty cycle value.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9092

Call Abbott. Software error, unsolicited sample complete received by module (x).
x = ID of the processing module with the software defect

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9093

Call Abbott. Unknown error exporting assay file (x). Error code (y).
x = Assay number
y = Error code

Probable cause	Corrective action
• Error while formatting or writing to the floppy disk.	Use a new floppy disk.
• Hardware failure: – Floppy drive	Contact your Area Customer Support to resolve any hardware failure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9094

Call Abbott. Unknown assay file.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9095

Call Abbott. Reagent bottle timeout, response not received within 30 seconds of run initialize.

Probable cause	Corrective action
A new reagent supply center segment was loaded with fewer positions than the previous segment and a manual reagent scan was not performed prior to initiating the run.	Scan the reagent carousel prior to initiating the run.
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9096

Error message received from c System (x).
x = Error code number and statuses

Probable cause	Corrective action
Low level informational message displaying the error number received from the *c* System processing module.	*Review message logs*, page 10-10, for an error code that occurred at the same time as this message.

Error code: 9097

Call Abbott. Invalid optical read data received from c System module.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9098

Call Abbott. Unable to calculate result, optical read data not received from c System module.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9099

Call Abbott. Excessive scheduling locksteps detected.

Probable cause	Corrective action
Too many tests ordered for the carrier.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9100

Call Abbott. Assay (x) number (y) Calibration failure, too many calibrators.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9101

Call Abbott. Assay (x) number (y) Calibration failure, unknown math model.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9102

Call Abbott. Calibrator response for lot (x) has a value that is equal to or less than zero.
x = Reagent lot number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9103

Call Abbott. Calculation error, divide by zero.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9104

Call Abbott. Unable to calculate cutoff/index for Assay (x) number (y).
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9105

Call Abbott. Invalid variable in index formula for Assay (x) number (y).
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9107

Assay (x) Number (y) Calibration failure, memory allocation error.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9108

Call Abbott. Unable to perform scan, experiment reagent kit(s) exist.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9109

Call Abbott. Reference Cal Curve for Assay number (x) with cal version (y) deleted, no assay exists.
x = Assay number
y = Calibration version

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9110

Call Abbott. (x) does not exist.
x = Mechanism name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9112

Call Abbott. Module specified for the experiment reagent kit in position (x) does not exist.
x = Reagent carousel position

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9113

Call Abbott. Unable to process calibration, Reference Cal Curve missing.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9200

Call Abbott. Duplicate reagent kit size code found in the system file for size code (x).
x = Size code

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9201

Call Abbott. Error parsing ALD system file for reagent kit size maps.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9202

Call Abbott. Parser error, value specified in the parser formula does not exist.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9203

Call Abbott. Unable to create reagent bottles, one of the lists has a zero length.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9204

Call Abbott. Invalid bar code in position (x) on (y) carousel.
x = Position in which the invalid bar code was detected.
(1-25 for *i* System; A1 - D20 for *c* System)
y = Location in which the invalid bar code was detected.
(Inner, Middle, or Outer ring for *i* System; R1 or R2 for *c* System)

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9205

Call Abbott. No pack size exists for a scanned reagent kit with size code (x).
x = Size code on the reagent kit

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9206

Unrecognized bar code version or format in position (x) on (y) carousel.
x = Position in which the unrecognized bar code version was detected.
(1-25 for *i* System; A1 - D20 for *c* System)
y = Location in which the unrecognized bar code version was detected.
(Inner, Middle, or Outer ring for *i* System; R1 or R2 for *c* System)

Probable cause	Corrective action
For all systems: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9207

Call Abbott. No reagent kits found.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9208

Call Abbott. A no assay, load error, mismatch or bad master lot experiment reagent pack loaded.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9210

Position not defined for detergent B solution in the sample carousel.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9211

Position not defined for ICT cleaning fluid in the sample carousel.

Probable cause	Corrective action
• Position information was not sent from the SCC to the module after cycling power to the module.	1. Initiate a run (it is not necessary to have any orders). See *Initiating or resuming sample processing*, page 5-134. 2. Wait for the processing module status to change to Running. 3. Select the **processing module graphic**, and then select **F6 - Stop**. 4. Wait for the processing module status to change to Stopped, and then select **F5 - Start-up**. 5. Restart the desired procedure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9212

Position not defined for 0.5 percent acid wash solution in the sample carousel.

Probable cause	Corrective action
• Position information was not sent from the SCC to the module after cycling power to the module.	1. Initiate a run (it is not necessary to have any orders). See *Initiating or resuming sample processing*, page 5-134. 2. Wait for the processing module status to change to Running. 3. Select the **processing module graphic**, and then select **F6 - Stop**. 4. Wait for the processing module status to change to Stopped, and then select **F5 - Start-up**. 5. Restart the desired procedure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9213

Position not defined for detergent B solution in R1 supply center.

Probable cause	Corrective action
The solution was not configured in an onboard solution position for the reagent supply center.	Configure the solution into a position.

Error code: 9214

Position not defined for 0.5 percent acid wash solution in R1 supply center.

Probable cause	Corrective action
The solution was not configured in an onboard solution position for the reagent supply center.	Configure the solution into a position.

Error code: 9215

Position not defined for detergent A solution in R1 supply center.

Probable cause	Corrective action
The solution was not configured in an onboard solution position for the reagent supply center.	Configure the solution into a position.

Error code: 9216

Position not defined for detergent B solution in R2 supply center.

Probable cause	Corrective action
The solution was not configured in an onboard solution position for the reagent supply center.	Configure the solution into a position.

Error code: 9217

Position not defined for 0.5 percent acid wash solution in R2 supply center.

Probable cause	Corrective action
The solution was not configured in an onboard solution position for the reagent supply center.	Configure the solution into a position.

Error code: 9218

Position not defined for detergent A solution in R2 supply center.

Probable cause	Corrective action
The solution was not configured in an onboard solution position for the reagent supply center.	Configure the solution into a position.

Error code: 9219

Position not defined for water bath additive in R2 supply center.

Probable cause	Corrective action
• Unable to read segment ID bar code on reagent carousel.	1. Review message logs for error code 4006. 2. Perform the corrective action for this error code.
• Position information was not sent from the SCC to the module after cycling power to the module.	1. Initiate a run (it is not necessary to have any orders). See *Initiating or resuming sample processing*, page 5-134. 2. Wait for the processing module status to change to Running. 3. Select the **processing module graphic**, and then select **F6 - Stop**. 4. Wait for the processing module status to change to Stopped, and then select **F5 - Start-up**. 5. Restart the desired procedure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9220

Position not defined for detergent A solution in the sample carousel.

Probable cause	Corrective action
• Position information was not sent from the SCC to the module after cycling power to the module.	1. Initiate a run (it is not necessary to have any orders). See *Initiating or resuming sample processing*, page 5-134. 2. Wait for the processing module status to change to Running. 3. Select the **processing module graphic**, and then select **F6 - Stop**. 4. Wait for the processing module status to change to Stopped, and then select **F5 - Start-up**. 5. Restart the desired procedure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9221

Unrecognized bar code version or format in the (x) reagent carrier position in section (y).
x = Reagent carrier position in which the unrecognized bar code version was detected.
y = RSH section number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9222

Call Abbott. Invalid bar code in the (x) reagent carrier position in section (y).
x = Reagent carrier position in which the unrecognized bar code version was detected.
y = RSH section number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9223

Reagent kit is unavailable.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9300

Call Abbott. Value required for Assay (x) parameter (y) is not specified.
x = Assay name
y = Assay parameter

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9301

Call Abbott. Unable to delete assay (x), the assay is part of a loaded experiment.
x = Assay name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9302

Call Abbott. Parameter out of range Assay number (x) status (y).
x = Assay number
y = Assay status

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9303

Call Abbott. Invalid value in unit formula for assay (x) number (y).
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9304

Assay (x) installation error, system software version not compatible.
x = Assay name

Probable cause	Corrective action
The assay can only be used with a later version of System software. The software must be upgraded before the assay can be run.	Install required system software. Contact your Area Customer Support.
The assay being imported can only be used with a later version of System software.	For Abbott assays install the assay from the ARCHITECT System Assay CD-ROM. For more information see *Install or delete an assay file*, page 2-139.

Error code: 9305

Call Abbott. Unable to delete assay, assay number (x) does not exist.
x= Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9306

Call Abbott. No assays found.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9307

Call Abbott. Calibration Curve specified in experiment already exists for lot number (x).
x = Lot number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9308

Call Abbott. Load request denied, load list (x) line (y), dilution protocol not defined for the assay.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9309

Call Abbott. Load request denied, load list (x) line (y), specified assay is not installed.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9310

Call Abbott. Assay (x) number (y) installation error. A required reagent does not exist for bottle type.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9311

Call Abbott. Syntax error detected in system file (x), section (y).
x = File name
y = Section where error occurred

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9312

Call Abbott. (x) procedure contains invalid inventory usage specification.
x = Procedure name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9313

Call Abbott. Procedure (x) contains a range error.
x = Procedure name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9314

Call Abbott. No procedures found.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9315

Call Abbott. Value required for calculated assay (x) number (y), is not specified.
x = Name of the calculated assay
y = Number of the calculated assay

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9320

Processing module received invalid assay parameters from the SCC, sample volume out of range.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9321

Processing module received invalid assay parameters from the SCC, reagent volume out of range.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9322

Processing module received invalid assay parameters from the SCC, total sample volume out of range.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9323

Processing module received invalid assay parameters from the SCC, total R1 volume out of range.

Probable cause	Corrective action
• Previous level sense or hardware error.	1. *Review message logs*, page 10-10, for any 3000 or 5000 category error codes that occurred just prior to this message. 2. Perform the corrective action for the error code.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9324

Processing module received invalid assay parameters from the SCC, total R2 volume out of range.

Probable cause	Corrective action
• Previous level sense or hardware error.	1. *Review message logs*, page 10-10, for any 3000 or 5000 category error codes that occurred just prior to this message. 2. Perform the corrective action for the error code.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9325

Call Abbott. Unable to create retest rule (x), dilution(s) do not exist in DAT file.
x = Dilution name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9326

Call Abbott. Unable to create (x), number of characters cannot exceed (y).
x = Name of the panel or assay
y = Maximum number of characters

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9327

Call Abbott. Unable to create (x), number (y). Assay number must be in the range 3000 to 3099.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9328

Call Abbott. Parameter specified for (x) was out of range.
x = Name of component which contains the range parameter

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9400

Call Abbott, Sample Handler Run request denied, experiment exists. Use the run_exp CLI command.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9401

Unable to delete, specified reagent kit does not exist.

Probable cause	Corrective action
FSR only. (Incorrect data typed when deleting the Buffer Run assay. Must enter SN and lot number from the Microparticle bottle.)	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9402

Unable to execute CLI commands, insufficient access level.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9403

Call Abbott. Wash Aspirate integrity compromised when initiating a wash aspirate from a non-park position.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9404

Call Abbott. Toggle ARM transfer failed.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9405

Unable to execute CLI command, carrier detected in aspiration area.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9406

Call Abbott. Invalid context used to load the DC motor solenoid data table.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9410

Unable to execute CLI command, carrier detected on carrier positioner pocket (y) module (x).
x = Processing module number
y = Carrier positioner pocket

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9413

Unable to execute CLI command, carrier pick attempt failed.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9414

Unable to execute CLI command, unexpected carrier detected.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9418

Unable to execute CLI command, no carrier detected.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9420

Module (x) is offline.
x = Module number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9421

Module (x) has been reserved for execution.
x = Module that has been reserved

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9422

Module (x) is executing a command and is unavailable.
x = Module that is busy executing another command

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9424

Unable to execute CLI command, carrier verification failure detected.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9451

Unable to execute CLI command, invalid device referenced.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9452

Unable to execute CLI command, invalid command received.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9453

Unable to execute CLI command, invalid parameter length.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9454

Unable to execute CLI command, invalid parameter 1 received.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9455

Unable to execute CLI command, invalid device position.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9456

Unable to execute CLI command, device not recognized.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9457

Unable to execute CLI command, unspecified command.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9458

Unable to execute CLI command, module not in correct status.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9459

Unable to execute CLI command, multiple commands.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9460

Unable to execute CLI command, device busy.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9461

Unable to execute CLI command, file error.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9462

Unable to execute CLI command, no sample handler order.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9463

Unable to execute CLI command, sample present on sample handler.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9464

Unable to execute CLI command, incomplete sample order.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9465

(x) error occurred while executing CLI command.
x = Error code number/status

Probable cause	Corrective action
• User selected stop.	*Start up the processing module and/or sample handler*, page 5-10, when the reason for the stop no longer exists.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9466

Unable to execute CLI command, carousel not homed.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9467

Unable to execute CLI command, PM board communication error.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-10.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9468

Unable to execute CLI command, sample pipettor movement restricted.

Probable cause	Corrective action
• A physical interference is blocking the movement of the sample pipettor.	Look for and remove any physical obstruction.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9469

Unable to execute CLI command, (x) pipettor movement restricted.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent 1 pipettor.	Look for and remove any physical obstruction.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9470

Unable to execute CLI command, (x) pipettor movement restricted.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent 2 pipettor.	Look for and remove any physical obstruction.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9500

Call Abbott. Error parsing ALD system file for assay modules.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9501

Call Abbott. Error parsing ALD system file for assay module configurations.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9502

Call Abbott. Error parsing ALD system file for assay module wedge maps.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9505

Call Abbott. Error parsing ALD system file for LLS Error default.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9506

Call Abbott. Invalid parameter received by (x).
x = Mechanism name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9507

Call Abbott. Motor system file corrupt.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9508

Call Abbott. Motor system file not found.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9509

Call Abbott. System file error, NA found in section (x).
x = Keyword section header name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9510

Call Abbott. Error parsing system file (x).
x = File name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9511

Call Abbott. Module (x) specified in this procedure does not exist in current system configuration.
x = Module number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9512

System backup failed, see Message History log.

Probable cause	Corrective action
Backup failed while attempting to backup one or more individual files.	1. *Review message logs*, page 10-10, for any 0162, 0237, 9075, or 9076 error codes that occurred at the same time as this message. 2. Perform the corrective action for the specific error code.

Error code: 9513

Call Abbott. Reporting database error.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9514

Call Abbott. Duplicate configuration file entry in keyword section (x).
x = Keyword section

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9515

Call Abbott. System Parameters.ini file not found or corrupt.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9516

Call Abbott. Solenoid system file corrupt.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9600

Call Abbott. Load request denied, module in load list (x) line (y) not configured for system.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9601

Call Abbott. Load request denied, experiment (x) already loaded.
x = Experiment file name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9602

Call Abbott. Experiment file error, no load list files found.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9603

Call Abbott. Load list (x) line (y), reagent kit not defined in experiment file.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9604

Call Abbott. Load list (x) line (y), calibrator order type is inconsistent with other calibrators.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9605

Call Abbott. Load list (x) line (y), first calibrator order missing for calibration.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9606

Call Abbott. Load list (x) line (y), module assignment required when reagent kit specified.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9607

Call Abbott. Load list (x) line (y), selected carrier and position in use by another sample.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9608

Call Abbott. Load list (x) line (y), location not specified for first calibrator.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9609

Call Abbott. Load list (x) line (y), specified reagent kit is not valid for assay.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9610

Call Abbott. Load list (x) line (y), missing a required calibrator order.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9611

Call Abbott. Load list (x) line (y), calibrator order type invalid for the assay.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9612

Call Abbott. Load list (x) line (y), module or kit specified inconsistent with other calibrator orders
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9614

Call Abbott. Invalid Control order, assay not configured. Load list (x), line number (y).
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9615

Call Abbott. Load request denied, load list (x) line (y), illegal kit location.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9616

Call Abbott. Load request denied, illegal kit location (x) in experiment file.
x = Illegal reagent position

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9617

Call Abbott. Load request denied, load list (x) line (y), specified assay is invalid for module.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9618

Call Abbott. Load request denied, load list (x) line (y), number of replicates greater than 5.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9619

Call Abbott. Invalid assay ordered on processing module in load list (x) line (y).
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9620

Call Abbott. Specified reagent pack invalid for the module specified in load list (x) line (y).
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9621

Call Abbott. Load request denied, load list (x) line (y), number of replicates is 0.
x = Load list name
y = Load list line number.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9700

Call Abbott. Syntax error in file (x).
x = File name

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
For *i* System: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9701

Call Abbott. Syntax error detected in assay file with assay number (x) and status (y).
x = Assay number
y = Assay status

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9702

Call Abbott. (x) procedure contains a syntax error. Refer to scripting log.
x = Procedure name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9703

Syntax error in formula.

Probable cause	Corrective action
Calculated assay formula is incorrect.	Correct the formula for the Calculated assay. Ensure all selected assays are included in the assay formula.

Error code: 9800

Call Abbott. Assay (x) number (y) installation error, not a quantitative assay.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9801

Call Abbott. Assay (x) number (y) installation error. Invalid calibration method specified.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9802

Call Abbott. Assay (x) number (y) installation error. Invalid calibration validity error specification.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9803

Call Abbott. Assay (x) number (y) installation error. Quantitative adjuster level already exists.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9805

Call Abbott. Assay (x) number (y) installation error. Duplicate parameter weighting term.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9808

Call Abbott. Assay (x) number (y) installation error. Invalid interpretation category.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9810

Call Abbott. Assay (x) number (y) installation error. Duplicate interpretation specification.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9811

Call Abbott. Assay (x) number (y) installation error. Calibrator adjusters have equal concentration.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9813

Call Abbott. Assay (x) number (y) installation error. Invalid default dilution.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9814

Call Abbott. Assay (x) number (y) installation error. Invalid calibration dilution.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9815

Call Abbott. Assay (x) number (y) installation error. Incorrect number of calibrator replicates.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9816

Call Abbott. Assay (x) number (y) installation error. Units do not match specifications.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9817

Call Abbott. Assay (x) number (y) installation error. Adjuster conc. does not match calibrator conc.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9818

Call Abbott. File (x) installation error, checksum failure.
x = File name

Probable cause	Corrective action
For *i* System: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9819

Call Abbott. File (x) installation error, parameter specified in the file was out of range.
x = File name

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Linearity parameter (*c* System) in an imported file is out of range.	Edit the linearity parameters to be within -999,999.0000 to 999,999.000 prior to exporting the assay file.

Error code: 9821

Call Abbott. Lot number with a different reagent configuration exists. Cannot install lot (x).
x = Lot number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9822

Call Abbott. Assay (x) number (y) installation error. Assay with different result type already installed.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9823

Call Abbott. Assay (x) number (y) installation error. No adjusters present for calibration type ADJUST.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9824

Call Abbott. Assay (x) number (y) installation error. No calibrators present.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9825

Call Abbott. Assay (x) number (y) installation error. Not enough bottles in reagent kit.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9826

Call Abbott. Assay (x) number (y) installation error. Invalid interpretation cutoff type.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9828

Call Abbott. Assay (x) number (y) installation error. Reagent kit size does not exist.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9830

CPU firmware update failure (TFTP).

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9831

DAQ firmware update failure (TFTP).

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9832

DAQ firmware update failure (handling main CPU).

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9833

DAQ firmware update failure (Data file format).

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9834

Call Abbott. Update of c System module CPU firmware did not complete successfully.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9835

Call Abbott. Unable to perform automatic update of c System module CPU, missing file list.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9836

Call Abbott. Update of c System module DAQ firmware did not complete successfully.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9837

Call Abbott. Unable to perform automatic update of c System module DAQ, missing file list.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9838

Call Abbott. CPU firmware configuration does not match application firmware.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9900

Call Abbott. Exception number (x). System shutting down. Error data (y).
x = Software architecture exception number
y = Supplemental exception data provided with some software architecture exceptions

Probable cause	Corrective action
• SCC shutdown due to an error or corrupted file.	1. Press **ALT + PRINT SCREEN** on the keyboard to obtain a printout of the specific information on the screen. 2. *Power off the SCC*, page 5-4. 3. Wait five minutes. 4. *Power on the SCC*, page 5-3. 5. *Start up the processing module and/or sample handler*, page 5-10, when the processing module status is Stopped.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9901

Call Abbott. User access level error, unable to locate system file. General user and Admin access only.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9902

Call Abbott. The server process is currently not running. Perform a shutdown and restart.

Probable cause	Corrective action
• SCC shutdown due to an error.	*Cycle power to the SCC*, page 5-5.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9903

Call Abbott. Server process is currently running. Perform a shutdown and restart.

Probable cause	Corrective action
• SCC shutdown due to an error.	*Cycle power to the SCC*, page 5-5.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9904

Call Abbott. O/S LLS/PM ISR Error.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9905

Call Abbott. Invalid sample data received during data processing.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9906

Call Abbott. Fatal Architecture Exception on SCC. The error has been logged. The application will now shutdown.

Probable cause	Corrective action
• SCC shutdown due to an error or corrupted file.	1. Press **ALT + PRINT SCREEN** on the keyboard to obtain a printout of the specific information on the screen. 2. *Power off the SCC*, page 5-4. 3. Wait five minutes. 4. *Power on the SCC*, page 5-3. 5. *Start up the processing module and/or sample handler*, page 5-10, when the processing module status is Stopped.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9907

Call Abbott. Invalid solenoid ramp time value.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9908

Call Abbott. Invalid solenoid ramp duty cycle value.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9909

Call Abbott. Invalid scheduler input detected.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9910

Call Abbott. Unable to process test, invalid carrier ID.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9911

Call Abbott. Reagent carousel access conflict detected.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9912

Memory pool limit exceeded for object (x) by (y) instances.
x = Object name
y = Number of instances

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Observed problems

Observed problems provides information on problems that may occur with an ARCHITECT System, ARCHITECT *c* System, ARCHITECT *i* System, and ARCHITECT ARM (Automatic Reconstitution Module), and the corrective action steps you can follow to help resolve the problem.

Observed problem topics include:

- *Processing module observed problems (i System)*, page 10-524
- *Sample results observed problems (i System)*, page 10-526
- *Sample handler observed problems*, page 10-554
- *SCC observed problems*, page 10-556
- *Peripheral devices observed problems*, page 10-571

If performing the corrective actions do not resolve the problem, contact your Area Customer Support representative at:

United States	1-877-4ABBOTT (1-877-422-2688)
International	Call your Area Customer Support representative.

Processing module observed problems (*i* System)

Observed problems for the *i* System processing modules include:

- *2052 WZ Aspiration Test failure (i 1000$_{SR}$)*, page 10-524
- *Black powder observed in reagent carousel area (i System)*, page 10-525
- *Condensation in the external reagent carousel area (i 1000$_{SR}$)*, page 10-525
- *Wash buffer volume did not update (i System)*, page 10-525

2052 WZ Aspiration Test failure (*i* 1000$_{SR}$)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
• Temperature sensor connected to wrong probe tubing.	Reconnect the wash zone tubing/sensor cable to the correct probe.
• Poor tubing connections to the wash zone.	Reconnect tubing to the affected probe(s) for the wash zone.
• Incorrect tubing/sensor cable connections.	Reconnect the wash zone tubing/sensor cable to the correct probe.

Probable cause	Corrective action
• Wash zone probe obstructed.	See *Replace the wash zone probe (i 1000$_{SR}$)*, page 9-47.
• Wash zone temperature sensor obstructed.	See *Replace the wash zone temperature tubing and sensor (i 1000$_{SR}$)*, page 9-50.
• Poor tubing connections to the upper waste manifold.	Reseat the tubing connection at the upper waste manifold.
• Hardware failure: – DC driver I/O board has a poor connection or failed – Wash zone manifold valve failures – Wash zone dispense pump motor failure	Contact your Area Customer Support to resolve any hardware failure.

Black powder observed in reagent carousel area (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
Wearing of the brass wheel on the outer carousel is occurring.	Replace the septum if black powder is visible on the reagent septum. If you only observe black powder in the reagent carousel area no corrective action is required. Wearing is expected and does not impact hardware or assay performance.

Condensation in the external reagent carousel area (*i* 1000$_{SR}$)

This problem may be observed on an ARCHITECT *i* 1000$_{SR}$.

Probable cause	Corrective action
Condensation is present on the lower left front portion of the reagent carousel cover due to high humidity.	Remove condensate using absorbent tissues.

Wash buffer volume did not update (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
The wash buffer reservoir was not filled to the top sensor when using the ARCHITECT ARM (Automatic Reconstitution Module) accessory.	Load wash buffer until the wash buffer reservoir is full.

Sample results observed problems (*i* System)

Sample results observed problems for the *i* System include:

- *Calibration curves stable for less than 30 days - control drift (i System)*, page 10-527
- *Controls out of range (i System)*, page 10-527
- *Depressed concentration - entire run, direct assay, with decreased RLUs (i System)*, page 10-529
- *Depressed concentration - entire run, indirect assay, with increased RLUs (i System)*, page 10-531
- *Depressed concentration - single point, direct assay, with decreased RLUs (i System)*, page 10-532
- *Depressed concentration - single point, indirect assay, with increased RLUs (i System)*, page 10-537
- *Elevated concentration - entire run, direct assay, with increased RLUs (i System)*, page 10-540
- *Elevated concentration - entire run, indirect assay, with decreased RLUs (i System)*, page 10-541
- *Elevated concentration - single point, direct assay, with increased RLUs (i System)*, page 10-543
- *Elevated concentration - single point, indirect assay, with decreased RLUs (i System)*, page 10-546
- *Erratic assay results (i System)*, page 10-550

Calibration curves stable for less than 30 days - control drift (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
Control values for some assays are drifting out of the QC range. Under a combination of the following operating conditions microparticles may adhere to the sides of the reagent bottle: • A microparticle bottle with low testing frequency is used. **Or** • Reagents are stored onboard. **Or** • The instrument is in continuous run mode.	To minimize the frequency of calibration adopt one of the following options: • Remove, on a daily basis, the assay specific microparticle bottle from the processing module and hand swirl to resuspend the adhered microparticles. Reposition the bottle. **NOTE:** You must be careful when moving and swirling the bottle so microparticles do not come in contact with the septum. • Remove the assay specific reagent pack from the processing module at the completion of testing.

Controls out of range (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
• Controls are expired or have exceeded open vial stability.	Open new controls. For information on multiconstituent control open vial stability, see the multiconstituent control package insert.
• Controls were stored improperly.	Open new controls
• Controls were improperly reconstituted.	If controls require reconstitution verify condition of diluent, water, or pipettors. For information on multiconstituent control reconstitution, see the multiconstituent control package insert.
• A change to the system has occurred: – New bulk solutions were loaded – Component was replaced – Instrument was calibrated	1. Verify bulk solutions were loaded correctly if new bulk solutions were recently loaded. 2. Verify components were replaced correctly if components were recently replaced. 3. Recalibrate the assay.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-122.

Probable cause	Corrective action
• Wrong control lot was used.	1. Use the correct control lot for the established control ranges. 2. Establish new control ranges, as required, if a new lot of control was used.
• Scheduled maintenance is due.	Perform all required maintenance.
• Calibration curve is not optimal.	Recalibrate the assay.

For more information on troubleshooting to resolve this problem, see:

- *Depressed concentration - single point, direct assay, with decreased RLUs (i System)*, page 10-532
- *Depressed concentration - single point, indirect assay, with increased RLUs (i System)*, page 10-537
- *Elevated concentration - single point, direct assay, with increased RLUs (i System)*, page 10-543
- *Elevated concentration - single point, indirect assay, with decreased RLUs (i System)*, page 10-546
- *Erratic assay results (i System)*, page 10-550

Depressed concentration - entire run, direct assay, with decreased RLUs (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. Perform one of the following procedures: • For *i* 1000_{SR}: – *Replace pre-trigger and/or trigger solution and update inventory (i 1000_{SR})*, page 5-33 3. Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2162 Prime Pre-Trigger and Trigger*, page 9-27
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-26 for *i* 1000_{SR}.
• Trigger solution was used instead of Concentrated Wash Buffer.	1. Measure the pH of the prepared wash buffer. If it is not within the 7.0 to 7.6 range, go to **Step 2**. 2. Remove the buffer reservoir from the system. 3. Rinse buffer reservoir with Reagent Grade Type II or deionized water. 4. Rinse the float with Reagent Grade Type II or deionized water and then dry. 5. Replace buffer reservoir, and then load prepared wash buffer. 6. Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2160 Prime Wash Zone*, page 9-27

Probable cause	Corrective action
• Wash zone manifold is leaking.	1. Check for salt crystals and/or liquid on or around wash manifold valves and/or fittings. 2. Contact your Area Customer Support if crystals or liquid are observed.
• Pipettor or wash zone manifold tubing connections are loose.	Tighten the pipettor and/or wash zone manifold tubing connections.
• Buffer level sensor assembly is cracked or leaking.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the buffer level sensor (i 1000_{SR})*, page 9-61
• Bubbles are in wash buffer tubing.	Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2160 Prime Wash Zone*, page 9-27
• Wash zone probes are not properly seated in the wash zone motor assembly.	Reseat the wash zone probes. Refer to one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the wash zone probe (i 1000_{SR})*, page 9-47
• Wash zone probes are bent or damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the wash zone probe (i 1000_{SR})*, page 9-47
• Wash buffer dispense at the wash zones is inadequate.	1. Perform the following ***precision*** diagnostic procedures: • For *i* 1000_{SR}: – *2075 Wash Zone Check*, page 10-612 2. Contact your Area Customer Support if insufficient volume is dispensed.

Probable cause	Corrective action
• Probe is obstructed.	1. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-26 for *i* 1000_{SR} and observe that pipettors dispense liquid and no leaks or bubbles are observed in tubing. 2. Replace the appropriate probe as required. Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40
• Hardware failure: Vortexer	Contact your Area Customer Support to resolve any hardware failure.

Depressed concentration - entire run, indirect assay, with increased RLUs (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
• Trigger Solution was used instead of Concentrated Wash Buffer.	1. Measure the pH of the prepared wash buffer. If it is not within the 7.0 to 7.6 range, go to **Step 2**. 2. Remove the buffer reservoir from the system. 3. Rinse buffer reservoir with Reagent Grade Type II or deionized water. 4. Rinse the float with Reagent Grade Type II or deionized water and then dry. 5. Replace buffer reservoir, and then load prepared wash buffer. 6. Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2160 Prime Wash Zone*, page 9-27
• Wash zone manifold is leaking.	1. Check for salt crystals and/or liquid on or around wash manifold valves and/or fittings. 2. Contact your Area Customer Support if crystals or liquid are observed.
• Tubing connections are loose.	Tighten the tubing connections.

Probable cause	Corrective action
• Tubing is kinked.	Contact your Area Customer Support if tubing needs to be replaced.
• Buffer level sensor assembly is cracked or leaking.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the buffer level sensor (i 1000_{SR})*, page 9-61
• Bubbles are in wash buffer tubing.	Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2160 Prime Wash Zone*, page 9-27
• Wash zone probes are not properly seated in the wash zone motor assembly.	Reseat the wash zone probes. Refer to one of the following replacement procedures: • For *i* 1000_{SR} – *Replace the wash zone probe (i 1000_{SR})*, page 9-47
• Wash zone probes are bent or damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the wash zone probe (i 1000_{SR})*, page 9-47
• Wash buffer dispense at the wash zones is inadequate.	1. Perform the following ***precision*** diagnostic procedures: • For *i* 1000_{SR}: – *2075 Wash Zone Check*, page 10-612 2. Contact your Area Customer Support if insufficient volume is dispensed.
• Hardware failure: Vortexer	Contact your Area Customer Support to resolve any hardware failure.

Depressed concentration - single point, direct assay, with decreased RLUs (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
• Reagent was stored incorrectly.	Use a reagent kit that was stored under the correct conditions. See the ARCHITECT assay-specific package insert.
• Bubbles or foam are on surface of reagent.	Remove all foam and bubbles from the surface of the reagent using a clean applicator stick.

Probable cause	Corrective action
• Reagent was not properly mixed before loading.	Mix the reagent thoroughly before placing septums on the reagent bottle. **NOTE:** If brown microparticle build-up is observed on the septum, discard reagent.
• Reagent is contaminated.	Load a new reagent kit.
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. Perform one of the following procedures: • For *i* 1000_{SR}: – *Replace pre-trigger and/or trigger solution and update inventory (i* 1000_{SR}*)*, page 5-33 3. Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2162 Prime Pre-Trigger and Trigger*, page 9-27
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-26 for *i* 1000_{SR}.

Probable cause	Corrective action
• Trigger solution was used instead of Concentrated Wash Buffer.	1. Measure the pH of the prepared wash buffer. If it is not within the 7.0 to 7.6 range, go to **Step 2**. 2. Remove the buffer reservoir from the system. 3. Rinse buffer reservoir with Reagent Grade Type II or deionized water. 4. Rinse the float with Reagent Grade Type II or deionized water and then dry. 5. Replace buffer reservoir, and then load prepared wash buffer. 6. Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2160 Prime Wash Zone*, page 9-27
• Pre-trigger or trigger sensor is cracked.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the pre-trigger or trigger level sensor (i 1000_{SR})*, page 9-59
• Bubbles are in tubing.	Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2160 Prime Wash Zone*, page 9-27 – *2162 Prime Pre-Trigger and Trigger*, page 9-27
• Tubing connections are loose.	Tighten the tubing connections.
• Tubing is kinked.	Contact your Area Customer Support if tubing needs to be replaced.
• Pre-trigger or trigger dispense is inadequate.	Perform the following ***precision*** diagnostic procedures: • For *i* 1000_{SR}: – *2072 Pre-Trigger Check*, page 10-611 – *2073 Trigger Check*, page 10-611 Contact your Area Customer Support if insufficient volume is dispensed.

Probable cause	Corrective action
• Wash zone manifold is leaking.	Check for salt crystals and/or liquid on or around wash manifold valves and/or fittings. Contact your Area Customer Support if crystals or liquid are observed.
• Buffer level sensor assembly is cracked or leaking.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the buffer level sensor (i 1000_{SR})*, page 9-61
• Bubbles are in wash buffer tubing.	Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2160 Prime Wash Zone*, page 9-27
• Wash zone probes are not properly seated in the wash zone motor assembly.	Reseat the wash zone probes. Refer to one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the wash zone probe (i 1000_{SR})*, page 9-47
• Wash zone probes are bent or damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the wash zone probe (i 1000_{SR})*, page 9-47
• Wash buffer dispense at the wash zones is inadequate.	Perform the following ***precision*** diagnostic procedures: • For *i* 1000_{SR}: – *2075 Wash Zone Check*, page 10-612 Contact your Area Customer Support if insufficient volume is dispensed.
• Probe is dirty or partially clogged.	1. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-26 for *i* 1000_{SR} and observe that pipettors dispense liquid and no leaks or bubbles are observed in tubing. 2. Replace the appropriate probe. Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40

Probable cause	Corrective action
• Probe is damaged.	Replace the appropriate probe as required. Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40
• Probe is not positioned correctly.	Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25
• Bubbles or foam are on the surface of the sample.	Remove all bubbles or foam from the sample using a clean disposable pipette or applicator stick.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-122.
• Pipettor probes are not straight.	1. Perform ***pipettor*** diagnostic procedure *1152 Probe Straightness/Align Test*, page 10-603 for *i* 1000_{SR}. 2. Replace the probe if the probe is not straight. Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40
• Syringe assembly or valve is leaking.	Check for salt crystals and/or liquid around all syringes and/or valve. Contact your Area Customer Support if crystals or liquid are observed.
• Pipettor aspiration or dispense is insufficient.	Perform the following ***precision*** diagnostic procedures: • For *i* 1000_{SR}: – *2070 Pipettor Check*, page 10-611 Contact your Area Customer Support if insufficient volume is dispensed.
• Wash zone manifold is not properly seated on process path.	Contact your Area Customer Support.
• Hardware failure: – CMIA Optics reader – Vortexer	Contact your Area Customer Support to resolve any hardware failure.

Depressed concentration - single point, indirect assay, with increased RLUs (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
• Bubbles or foam are on the surface of the sample.	Remove all bubbles or foam from the sample using a clean disposable pipette or applicator stick.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-122.
• Sample cup or tube was not properly placed in the sample carrier or LAS carousel.	Reseat the sample cup or tube.
• Probe is not positioned correctly.	Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25
• Wash zone manifold is not properly seated on process path.	Contact your Area Customer Support.
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. Perform one of the following procedures: • For *i* 1000_{SR}: – *Replace pre-trigger and/or trigger solution and update inventory (i 1000_{SR})*, page 5-33 3. Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2162 Prime Pre-Trigger and Trigger*, page 9-27
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-26 for *i* 1000_{SR}.

Probable cause	Corrective action
• Trigger solution was used instead of Concentrated Wash Buffer.	1. Measure the pH of the prepared wash buffer. If it is not within the 7.0 to 7.6 range, go to **Step 2**. 2. Remove the buffer reservoir from the system. 3. Rinse buffer reservoir with Reagent Grade Type II or deionized water. 4. Rinse the float with Reagent Grade Type II or deionized water and then dry. 5. Replace buffer reservoir, and then load prepared wash buffer. 6. Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2160 Prime Wash Zone*, page 9-27
• Pre-trigger or trigger sensor is cracked.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the pre-trigger or trigger level sensor (i 1000_{SR})*, page 9-59
• Bubbles are in pre-trigger or trigger tubing.	Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2160 Prime Wash Zone*, page 9-27
• Tubing connections are loose.	Tighten the tubing connections.
• Tubing is kinked.	Contact your Area Customer Support if tubing needs to be replaced.
• Pre-trigger or trigger dispense is inadequate.	Perform the following ***precision*** diagnostic procedures: • For *i* 1000_{SR}: – *2072 Pre-Trigger Check*, page 10-611 – *2073 Trigger Check*, page 10-611 Contact your Area Customer Support if insufficient volume is dispensed.
• Wash zone manifold is leaking.	Check for salt crystals and/or liquid on or around wash manifold valves and/or fittings. Contact your Area Customer Support if crystals or liquid are observed.

Probable cause	Corrective action
• Buffer level sensor assembly is cracked or leaking.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the buffer level sensor (i 1000_{SR})*, page 9-61
• Bubbles are in wash buffer tubing.	Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2160 Prime Wash Zone*, page 9-27
• Wash zone probes are not properly seated in the wash zone motor assembly.	Reseat the wash zone probes. Refer to one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the wash zone probe (i 1000_{SR})*, page 9-47
• Wash zone probes are bent or damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the wash zone probe (i 1000_{SR})*, page 9-47
• Wash buffer dispense at the wash zones is inadequate.	Perform the following ***precision*** diagnostic procedures: • For *i* 1000_{SR}: – *2075 Wash Zone Check*, page 10-612 Contact your Area Customer Support if insufficient volume is dispensed.
• Hardware failure: Vortexer	Contact your Area Customer Support to resolve any hardware failure.

Elevated concentration - entire run, direct assay, with increased RLUs (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
• Trigger Solution was used instead of Concentrated Wash Buffer.	1. Measure the pH of the prepared wash buffer. If it is not within the 7.0 to 7.6 range, go to **Step 2**. 2. Remove the buffer reservoir from the system. 3. Rinse buffer reservoir with Reagent Grade Type II or deionized water. 4. Rinse the float with Reagent Grade Type II or deionized water and then dry. 5. Replace buffer reservoir, and then load prepared wash buffer. 6. Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2160 Prime Wash Zone*, page 9-27
• Wash zone manifold is leaking.	Check for salt crystals and/or liquid on or around wash manifold valves and/or fittings. Contact your Area Customer Support if crystals or liquid are observed.
• Wash buffer dispense is inadequate.	Tighten the pipettor and wash zone manifold tubing connections.
• Buffer level sensor assembly is cracked or leaking.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the buffer level sensor (i 1000_{SR})*, page 9-61
• Bubbles are in wash buffer tubing.	Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2160 Prime Wash Zone*, page 9-27
• Wash zone probes are not properly seated in the wash zone motor assembly.	Reseat the wash zone probes. Refer to one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the wash zone probe (i 1000_{SR})*, page 9-47

Probable cause	Corrective action
• Wash zone probes are bent or damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the wash zone probe (i 1000_{SR})*, page 9-47
• Wash buffer dispense at the wash zones is inadequate.	Perform the following ***precision*** diagnostic procedures: • For *i* 1000_{SR}: – *2075 Wash Zone Check*, page 10-612 Contact your Area Customer Support if insufficient volume is dispensed.
• Hardware failure: Vortexer	Contact your Area Customer Support to resolve any hardware failure.

Elevated concentration - entire run, indirect assay, with decreased RLUs (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. Perform one of the following procedures: • For *i* 1000_{SR}: – *Replace pre-trigger and/or trigger solution and update inventory (i 1000_{SR})*, page 5-33 3. Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2162 Prime Pre-Trigger and Trigger*, page 9-27
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-26 for *i* 1000_{SR}.

Probable cause	Corrective action
• Trigger solution was used instead of Concentrated Wash Buffer.	1. Measure the pH of the prepared wash buffer. If it is not within the 7.0 to 7.6 range, go to **Step 2**. 2. Remove the buffer reservoir from the system. 3. Rinse buffer reservoir with Reagent Grade Type II or deionized water. 4. Rinse the float with Reagent Grade Type II or deionized water and then dry. 5. Replace buffer reservoir, and then load prepared wash buffer. 6. Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2160 Prime Wash Zone*, page 9-27
• Wash zone manifold is leaking.	Check for salt crystals and/or liquid on or around wash manifold valves and/or fittings. Contact your Area Customer Support if crystals or liquid are observed.
• Pipettor or wash zone manifold tubing connections are loose.	Tighten the pipettor and/or wash zone manifold tubing connections.
• Buffer level sensor assembly is cracked or leaking.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the buffer level sensor (i 1000_{SR})*, page 9-61
• Bubbles are in wash buffer tubing.	Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2160 Prime Wash Zone*, page 9-27
• Wash zone probes are not properly seated in the wash zone motor assembly.	Reseat the wash zone probes. Refer to one of the following procedures: • For *i* 1000_{SR}: – *Replace the wash zone probe (i 1000_{SR})*, page 9-47
• Wash zone probes are bent or damaged.	Perform one of the following procedures: • For *i* 1000_{SR}: – *Replace the wash zone probe (i 1000_{SR})*, page 9-47

Probable cause	Corrective action
• Wash buffer dispense at the wash zones is inadequate.	Perform the following ***precision*** diagnostic procedures: • For *i* 1000_{SR}: – *2075 Wash Zone Check*, page 10-612 Contact your Area Customer Support if insufficient volume is dispensed.
• Probe is obstructed.	1. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-26 for *i* 1000_{SR} and observe that pipettors dispense liquid and no leaks or bubbles are observed in tubing. 2. Replace the appropriate probe as required. Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40
• Hardware failure: Vortexer	Contact your Area Customer Support to resolve any hardware failure.

Elevated concentration - single point, direct assay, with increased RLUs (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
• Reagent was stored incorrectly.	Use a reagent kit that was stored under the correct conditions. See the ARCHITECT assay-specific package insert.
• Bubbles or foam are on surface of reagent.	Remove all foam and bubbles from the surface of the reagent using a clean applicator stick.
• Reagent was not properly mixed before loading.	Mix the reagent thoroughly before placing septums on the reagent bottle. **NOTE:** If brown microparticle build-up is observed on the septum, discard reagent.
• Reagent is contaminated.	Load a new reagent kit.
• Septums were not installed on the reagent bottles.	1. Discard the open reagent kit. 2. Load new reagents. 3. Ensure septums are properly installed.

Probable cause	Corrective action
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. Perform one of the following procedures: • For *i* 1000_{SR}: – *Replace pre-trigger and/or trigger solution and update inventory (i* 1000_{SR}*)*, page 5-33 3. Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2162 Prime Pre-Trigger and Trigger*, page 9-27
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-26 for *i* 1000_{SR}.
• Trigger solution was used instead of Concentrated Wash Buffer.	1. Measure the pH of the prepared wash buffer. If it is not within the 7.0 to 7.6 range, go to **Step 2**. 2. Remove the buffer reservoir from the system. 3. Rinse buffer reservoir with Reagent Grade Type II or deionized water. 4. Rinse the float with Reagent Grade Type II or deionized water and then dry. 5. Replace buffer reservoir, and then load prepared wash buffer. 6. Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2160 Prime Wash Zone*, page 9-27
• Pre-trigger or trigger sensor is cracked.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the pre-trigger or trigger level sensor (i* 1000_{SR}*)*, page 9-59

Probable cause	Corrective action
• Bubbles are in tubing.	Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2160 Prime Wash Zone*, page 9-27 – *2162 Prime Pre-Trigger and Trigger*, page 9-27
• Tubing connections are loose.	Tighten the tubing connections.
• Tubing is kinked.	Contact your Area Customer Support if tubing needs to be replaced.
• Pre-trigger or trigger dispense is inadequate.	Perform the following ***precision*** diagnostic procedures: • For *i* 1000_{SR}: – *2072 Pre-Trigger Check*, page 10-611 – *2073 Trigger Check*, page 10-611 Contact your Area Customer Support if insufficient volume is dispensed.
• Wash zone manifold is leaking.	Check for salt crystals and/or liquid on or around wash manifold valves and/or fittings. Contact your Area Customer Support if crystals or liquid are observed.
• Buffer level sensor assembly is cracked or leaking.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the buffer level sensor (i 1000_{SR})*, page 9-61
• Wash zone probes are not properly seated in wash zone motor assembly.	Reseat the wash zone probes. Refer to one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the wash zone probe (i 1000_{SR})*, page 9-47
• Wash zone probes are bent or damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the wash zone probe (i 1000_{SR})*, page 9-47

Probable cause	Corrective action
• Wash buffer dispense at the wash zones is inadequate.	Perform the following ***precision*** diagnostic procedures: • For *i* 1000_{SR}: – *2075 Wash Zone Check*, page 10-612 Contact your Area Customer Support if insufficient volume is dispensed.
• Probe is dirty or partially clogged.	1. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-26 for *i* 1000_{SR} and observe that pipettors dispense liquid and no leaks or bubbles are observed in tubing. 2. Replace the appropriate probe. Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40
• Probe is damaged.	Replace the appropriate probe as required. Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40
• Probe is not positioned correctly.	Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25
• Wash zone manifold is not properly seated on process path.	Contact your Area Customer Support.
• Hardware failure: Vortexer	Contact your Area Customer Support to resolve any hardware failure.

Elevated concentration - single point, indirect assay, with decreased RLUs (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
• Reagent was stored incorrectly.	Use a reagent kit that was stored under the correct conditions. See the ARCHITECT assay-specific package insert.
• Bubbles or foam are on surface of reagent.	Remove all foam and bubbles from the surface of the reagent using a clean applicator stick.

Probable cause	Corrective action
• Reagent was not properly mixed before loading.	Mix the reagents thoroughly before placing septums on the reagent bottle. **NOTE:** If brown microparticle build-up is observed on the septum, discard reagent.
• Reagent is contaminated.	Load a new reagent kit.
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. Perform one of the following procedures: • For *i* 1000_{SR}: – *Replace pre-trigger and/or trigger solution and update inventory (i* 1000_{SR}*)*, page 5-33 3. Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2162 Prime Pre-Trigger and Trigger*, page 9-27
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-26 for the *i* 1000_{SR}.

Probable cause	Corrective action
• Trigger solution was used instead of Concentrated Wash Buffer.	1. Measure the pH of the prepared wash buffer. If it is not within the 7.0 to 7.6 range, go to **Step 2**. 2. Remove the buffer reservoir from the system. 3. Rinse buffer reservoir with Reagent Grade Type II or deionized water. 4. Rinse the float with Reagent Grade Type II or deionized water and then dry. 5. Replace buffer reservoir, and then load prepared wash buffer. 6. Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2160 Prime Wash Zone*, page 9-27
• Pre-trigger or trigger sensors are cracked.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the pre-trigger or trigger level sensor (i 1000_{SR})*, page 9-59
• Bubbles are in tubing.	Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2160 Prime Wash Zone*, page 9-27 – *2162 Prime Pre-Trigger and Trigger*, page 9-27
• Tubing connections are loose.	Tighten the tubing connections.
• Tubing is kinked.	Contact your Area Customer Support if tubing needs to be replaced.
• Pre-Trigger or trigger dispense is inadequate.	Perform the following ***precision*** diagnostic procedures: • For *i* 1000_{SR} – *2072 Pre-Trigger Check*, page 10-611 – *2073 Trigger Check*, page 10-611 Contact your Area Customer Support if insufficient volume is dispensed.

Probable cause	Corrective action
• Wash zone manifold is leaking.	Check for salt crystals and/or liquid on or around wash manifold valves and/or fittings. Contact your Area Customer Support if crystals or liquid are observed.
• Buffer level sensor assembly is cracked or leaking.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the buffer level sensor (i 1000_{SR})*, page 9-61
• Wash zone probes are not properly seated in wash zone motor assembly.	Reseat the wash zone probes. Refer to one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the wash zone probe (i 1000_{SR})*, page 9-47
• Wash zone probes are bent or damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the wash zone probe (i 1000_{SR})*, page 9-47
• Wash buffer dispense at the wash zones is inadequate.	Perform the following ***precision*** diagnostic procedures: • For *i* 1000_{SR}: – *2075 Wash Zone Check*, page 10-612 Contact your Area Customer if insufficient volume is dispensed.
• Probe is dirty or partially clogged.	1. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-26 for *i* 1000_{SR} and observe that pipettors dispense liquid and no leaks or bubbles are observed in tubing. 2. Replace the appropriate probe. Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40
• Probe is damaged.	Replace the appropriate probe as required. Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40

Probable cause	Corrective action
• Probe is not positioned correctly.	Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25
• Syringe assembly or valve is leaking.	Check for salt crystals and/or liquid on or around the R1 and R2 syringe assembly or valve. Contact your Area Customer Support if crystals or liquid are observed.
• Wash zone manifold is not properly seated on process path.	Contact your Area Customer Support.
• Hardware failure: – CMIA reader – Vortexer	Contact your Area Customer Support to resolve any hardware failure.

Erratic assay results (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
• Reagent was stored incorrectly.	Use a reagent kit that was stored under the correct conditions. See the ARCHITECT assay-specific package insert for reagent kit storage conditions.
• Bubbles or foam are on surface of reagent.	Remove all bubbles and foam from the surface of the reagent using a clean applicator stick.
• Reagent was not properly mixed before loading.	Mix the reagent thoroughly before placing septums on the reagent bottle. **NOTE:** If brown microparticle build-up is observed on the septum, discard reagent.
• Reagent is contaminated.	Load a new reagent kit.
• Septums were not installed on the reagent bottles.	1. Discard the open reagent kit. 2. Load a new reagent. 3. Ensure septums are properly installed.

Probable cause	Corrective action
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. Perform one of the following procedures: • For *i* 1000_{SR}: – *Replace pre-trigger and/or trigger solution and update inventory (i* 1000_{SR}*)*, page 5-33 3. Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2162 Prime Pre-Trigger and Trigger*, page 9-27
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-26 for *i* 1000_{SR}.
• Trigger solution was used instead of Concentrated Wash Buffer.	1. Measure the pH of the prepared wash buffer. If it is not within the 7.0 to 7.6 range, go to **Step 2**. 2. Remove the buffer reservoir from the system. 3. Rinse buffer reservoir with Reagent Grade Type II or deionized water. 4. Rinse the float with Reagent Grade Type II or deionized water and then dry. 5. Replace buffer reservoir, and then load prepared wash buffer. 6. Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2160 Prime Wash Zone*, page 9-27
• Pre-trigger or trigger sensor is cracked.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the pre-trigger or trigger level sensor (i* 1000_{SR}*)*, page 9-59

Probable cause	Corrective action
• Bubbles are in tubing.	Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *2137 Flush Fluids*, page 9-26 – *2160 Prime Wash Zone*, page 9-27 – *2162 Prime Pre-Trigger and Trigger*, page 9-27
• Tubing connections are loose.	Tighten the tubing connections.
• Tubing is kinked.	Contact your Area Customer Support if tubing needs to be replaced.
• Pre-trigger or trigger dispense is inadequate.	Perform the following ***precision*** diagnostic procedures: • For *i* 1000_{SR} – *2072 Pre-Trigger Check*, page 10-611 – *2073 Trigger Check*, page 10-611 Contact your Area Customer Support if insufficient volume is dispensed.
• Wash zone manifold is leaking.	Check for salt crystals and/or liquid on or around wash manifold valves and/or fittings. Contact your Area Customer Support if crystals or liquid are observed.
• Buffer level sensor assembly is cracked or leaking.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the buffer level sensor (i 1000_{SR})*, page 9-61
• Wash zone probes are not properly seated in the wash zone motor assembly.	Reseat the wash zone probes. Refer to one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the wash zone probe (i 1000_{SR})*, page 9-47
• Wash zone probes are bent or damaged.	Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace the wash zone probe (i 1000_{SR})*, page 9-47

Probable cause	Corrective action
• Wash buffer dispense at the wash zones is inadequate.	Perform the following ***precision*** diagnostic procedures: • For *i* 1000_{SR}: – *2075 Wash Zone Check*, page 10-612 Contact your Area Customer Support if insufficient volume is dispensed.
• Sample was not collected and/or prepared correctly.	1. Follow the specimen collection and handling instructions in the ARCHITECT assay-specific package insert. 2. Rerun the sample. 3. Source another sample if not resolved.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-122.
• Sample contains fibrin clots or particulate matter.	1. Examine samples for fibrin or other large particles. 2. Remove fibrin clots with a clean applicator stick or centrifuge samples.
• Bubbles or foam are on the surface of the sample.	Remove all bubbles or foam from the sample with a clean disposable pipette or applicator stick.
• Probe tip is bent or damaged.	Replace the appropriate probe as required. Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40
• Pipettor probes are not straight.	1. Perform ***pipettor*** diagnostics procedure or *1152 Probe Straightness/Align Test*, page 10-603 for *i* 1000_{SR}. 2. Replace the probe if the probe is not straight. Perform one of the following replacement procedures: • For *i* 1000_{SR}: – *Replace pipettor probe (i 1000_{SR})*, page 9-40
• Probe is not positioned correctly.	Perform the following ***as-needed*** maintenance procedures: • For *i* 1000_{SR}: – *1110 Pipettor Calibration*, page 9-25
• Water quality is poor.	Ensure the water quality is Reagent Grade Type II water.

Probable cause	Corrective action
• Syringe assemblies or valves are leaking.	Check for salt crystals and/or liquid around all syringes or valves. Contact your Area Customer Support if crystals or liquid are observed.
• Wash buffer dispense of pipettors is inadequate.	Perform ***precision*** diagnostic procedure *2070 Pipettor Check*, page 10-611 (*i* 1000_{SR}). Contact your Area Customer Support if insufficient volume is dispensed.
• Hardware failure: Vortexer	Contact your Area Customer Support to resolve any hardware failure.

Sample handler observed problems

Observed problems for the sample handlers include:

- *Power to the processing module(s) and sample handler is interrupted*, page 10-554
- *Sample handler will not go to Running status*, page 10-555
- *Sample is not automatically re-aspirated after adding or rerunning a test (RSH)*, page 10-555
- *Sample tubes in a carrier are scanned, but are not processed*, page 10-556

Power to the processing module(s) and sample handler is interrupted

This problem may be observed for any sample handler on an ARCHITECT System.

Probable cause	Corrective action
• Main power source to the processing module(s) and sample handler is interrupted.	For systems with an RSH (robotic sample handler): 1. Perform one of the following procedures: • For *i* 1000_{SR}: – *Remove sample carrier(s) from the carrier transport and aspiration area (RSH - i 1000_{SR})*, page 10-621 2. Determine the cause of the power interruption and resolve. 3. Perform *Power on the processing module and/or sample handler*, page 5-7.

Sample handler will not go to Running status

This problem may be observed for any sample handler on an ARCHITECT System.

Probable cause	Corrective action
Run was selected for the sample handler, but a hardware failure was not corrected from the last run.	1. *Review message logs*, page 10-10, for any error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-11, if you do not find any error codes. 3. Perform the corrective action for the specific error code.

Sample is not automatically re-aspirated after adding or rerunning a test (RSH)

This problem may be observed for the RSH (robotic sample handler) on an ARCHITECT System.

Probable cause	Corrective action
• The sample was removed from the RSH.	Reinsert the carrier or tray.
• The RSH status changed to Ready or Stopped before adding or rerunning a test.	1. *Initiate or resume sample processing (RSH and SSH)*, page 5-135. 2. Reinsert the carrier or tray.
• The RSH is not configured to automatically reposition samples for retest.	Change the automatic repositioning setting. See *Change automatic repositioning for retest setting (RSH)*, page 2-25.
• Different patient demographic information was entered when creating the order for additional tests.	1. Delete and reorder the test, if the patient demographics were entered in error. **NOTE:** Do not enter patient demographic information when adding tests to a sample. See *Add a test to a patient order*, page 5-86. 2. Assign another sample ID to the order, if the sample is from a different patient.
• A different Sample manual dilution factor was entered when creating the order for additional tests.	1. Delete and reorder the test using the same manual dilution. 2. Assign another sample ID to the new dilution, if a different manual dilution is required.
• The option to not automatically re-aspirate from the sample was selected when the confirmation message displayed after adding new tests for the sample.	Reinsert the carrier or tray.

Probable cause	Corrective action
• The same sample ID was found in one or more carrier/carousel positions and the carrier/carousel position was not specified for the test order.	Specify the carrier/carousel ID and position for each aliquot loaded when using multiple aliquots of the same sample ID.
• The host computer sent an action code with the order that indicated to the SCC to create a new order instead of adding to an existing order.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.

Sample tubes in a carrier are scanned, but are not processed

This problem may be observed for the retest or standard sample handler on an ARCHITECT System.

Probable cause	Corrective action
• No bar code label on the sample tube.	Place a bar code label on the sample tube.
• Tube is not correctly positioned in the carrier.	Place the tube in the carrier so the bar code is visible through the slot.
• Sample tube bar code label is dirty or damaged.	Clean the sample bar code label or replace if damaged.
• System bar code configuration does not match bar code label.	Edit the bar code configuration as required for the bar code label symbology.
• Bar code label does not meet specifications.	See *Sample bar code label requirements*, page 4-16, for guidelines.

SCC observed problems

Observed problems for the SCC (system control center) include:

- *"&" character appears as an underline when defining a single analyte control name*, page 10-558
- *All reagent kits display after performing a search by selecting the R1 or R2 checkbox on the Find options window*, page 10-558
- *All reagent kits display after performing a search for only kits with the Extra Bottle status*, page 10-559
- *Bay number and sample carousel position display on the Details for results windows*, page 10-559
- *Bi-directional host communication is not working*, page 10-559
- *C/P information is not printed on the Rerun list report*, page 10-559
- *Dr Watson error, on tapisrv.exe (file name in middle of message window)*, page 10-560

- *Error code column on the Exception status screen does not sort as expected*, page 10-560
- *Gray screen displays during an archive*, page 10-560
- *icwserver.exe error Message "Address space is full"*, page 10-560
- *Intel Active Monitor System Alert! message is displayed*, page 10-561
- *Internet Explorer Script Error displayed when using the online documentation*, page 10-562
- *Keyboard fails to respond*, page 10-562
- *Maintenance history report prints with 00:00:00 in the Time column*, page 10-563
- *Maintenance log contains blank spaces for Daily Maintenance items*, page 10-563
- *Many error messages are displayed*, page 10-563
- *Non-system disk or disk error message displays or NTLDR is missing message displays*, page 10-563
- *Order Status report does not print all the codes*, page 10-564
- *Progress indicator is blank and the software is not responding*, page 10-564
- *QC data does not appear on the Levey-Jennings graph and does not print on the QC Analysis report*, page 10-564
- *Result column does not sort as expected*, page 10-565
- *Results did not display or print*, page 10-565
- *Results or exceptions are deleted or released and the result or exception is not removed from the screen*, page 10-565
- *Sample ID is truncated*, page 10-565
- *SCC does not boot to the Snapshot screen*, page 10-566
- *Shutdown screen displays during concurrent maintenance*, page 10-566
- *Shutdown screen displays unexpectedly*, page 10-566
- *Slow screen response*, page 10-567
- *Software Architecture Exception 38 displays*, page 10-567
- *Software Architecture Exception 50 displays*, page 10-567
- *Tests remain in Pending Transmission status*, page 10-568

- *Tests remain in Running status and the module will not go to Stopped status*, page 10-568
- *Tests remain in Scheduled status*, page 10-568
- *The message "The location (x) has a bar coded kit. Do you still want to assign this location?" displays when assigning a location for a non-bar coded reagent.*, page 10-568
- *Touchscreen monitor display is blank*, page 10-569
- *Touchscreen monitor fails to respond*, page 10-569
- *Unable to delete results*, page 10-569
- *Unable to find specific patient or QC results*, page 10-570
- *Undefined fields for assay parameters display and print differently*, page 10-570
- *UPS (uninterruptible power supply) is activated*, page 10-570

"&" character appears as an underline when defining a single analyte control name

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Software error.	Do not use the "&" character when defining control names.

All reagent kits display after performing a search by selecting the R1 or R2 checkbox on the Find options window

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
The **R1** or **R2** checkbox was selected on the Reagent status Find options window without entering a position in the **Position** data entry box. The R1 and R2 checkboxes are only functional if a position is entered, and they determine if the system searches in one or both carousels when searching for a specified position.	Enter a **position** in the Position data entry box before selecting the **R1** or **R2** checkboxes on the Reagent status Find options window.

All reagent kits display after performing a search for only kits with the Extra Bottle status

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
The option to find reagent kits with the Extra Bottle status using Reagent status Find options window is not working correctly.	Select one other Reagent status checkbox along with Extra Bottle, and the system correctly finds reagent kits with either status.

Bay number and sample carousel position display on the Details for results windows

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
The original test order was run on the RSH and the retest order was run on the sample carousel.	No corrective action is required.

Bi-directional host communication is not working

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Failure occurred with either the host or the SCC (system control center).	1. Refer to the probable cause and corrective action for the error code observed. 2. Re-enable bi-directional host communications. See *Configure host interface settings (i 1000$_{SR}$)*, page 2-6. 3. *Cycle power to the SCC*, page 5-5.

C/P information is not printed on the Rerun list report

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
The C/P information does not print on the Rerun list report if you are using the robotic sample handler with the automatically reposition samples for retest option selected.	View the C/P information on the Rerun status, Order status, or Sample status screen.

Dr Watson error, on tapisrv.exe (file name in middle of message window)

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Modem is not connected.	1. Reseat the RS-232 cable connected from the modem to P2 connector on the SCC. See *Reseat cables to the SCC*, page 10-623. 2. *Cycle power to the SCC*, page 5-5. 3. Contact your Area Customer Support, if the modem will not be used, for instructions to change pcANYWHERE startup from automatic to manual.
• Modem is not turned on.	1. Turn on the modem. 2. *Cycle power to the SCC*, page 5-5.

Error code column on the Exception status screen does not sort as expected

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
The Error code column sorts by an internal software error code number rather than by the visible error code number.	Sort using a different column or use the Find options window to search for a specific error code. See *Find a specific exception*, page 5-198.

Gray screen displays during an archive

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Screen timeout is activated while an archive is in process.	No corrective action is required. Allow the archive to complete.

icwserver.exe error Message "Address space is full"

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Software error.	1. *Cycle power to the SCC*, page 5-5. 2. Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Intel Active Monitor System Alert! message is displayed

This problem may be observed on an ARCHITECT System when using the SCC Intel Active Monitor software to monitor voltage, fan speeds, and temperature status of the SCC.

Probable cause	Corrective action
Voltage (x) has gone outside of its recommended range x = specific voltage	
• Vents in the SCC have become blocked, restricting airflow to the fans.	1. Remove any obstacles preventing adequate airflow around the SCC. 2. Remove dust or foreign objects from vents.
• Hardware failure	1. Document the message displayed. 2. Select Close or select View Details and then Exit. You may continue to operate the system. 3. *Create a system software backup*, page 2-137. 4. Perform ***utilities*** diagnostic procedure *6004 Copy backup software*, page 10-615. 5. If this message reoccurs, contact your Area Customer Support to resolve any hardware failure.
Fan (x) has stopped or slowed x = fan 1 or fan 2	
• An obstacle is preventing the SCC fan from spinning.	Remove any objects obstructing the fan that prevent it from spinning.
• Hardware failure	1. Document the message displayed. 2. Select Close or select View Details and then Exit. You may continue to operate the system. 3. *Create a system software backup*, page 2-137. 4. Perform ***utilities*** diagnostic procedure *6004 Copy backup software*, page 10-615. 5. Contact your Area Customer Support to resolve any hardware failure.
Your system has exceeded its recommended maximum temperature	
• The SCC fan(s) have slowed or stopped.	Remove any objects obstructing the fan that prevent it from spinning.

Probable cause	Corrective action
• The SCC is in a location that is not allowing optimal airflow.	Ensure there is proper airflow in and around your SCC. Ensure your SCC is not located near walls or in corners. If vents in the SCC become blocked, airflow to the fans may be restricted.
• Room temperature is out of specifications.	Modify room temperature to be within specifications. See *Environmental specifications and requirements*, page 4-13.
• Hardware failure	1. Document the message displayed. 2. Select Close or select View Details and then Exit. You may continue to operate the system. 3. *Create a system software backup*, page 2-137. 4. Perform ***utilities*** diagnostic procedure *6004 Copy backup software*, page 10-615. 5. Contact your Area Customer Support to resolve any hardware failure.

Internet Explorer Script Error displayed when using the online documentation

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
The Print button on the Help window was selected, and then the Close button was selected before the Print window displayed.	Select **No** on the Internet Explorer Script Error message. Allow the print dialog window to display and complete the steps for printing prior to closing the Help window.

Keyboard fails to respond

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Keyboard cable is loose or disconnected.	1. Reseat or reconnect the keyboard cable. See *Reseat cables to the SCC*, page 10-623. 2. *Cycle power to the SCC*, page 5-5. 3. Verify keyboard operation.
• Keyboard has failed.	Contact your Area Customer Support to resolve any hardware failure.

Maintenance history report prints with 00:00:00 in the Time column

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
A Maintenance History report was printed for a procedure that had not been performed.	No corrective action is required. When the procedure has been performed, print the report. The time the procedure was performed appears on the report.

Maintenance log contains blank spaces for Daily Maintenance items

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
A maintenance procedure was initiated on one day and completed the following day.	Avoid performing a maintenance procedure if it will not complete on the same day.

Many error messages are displayed

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Some error conditions can generate a large number of error messages.	1. Press and hold the **Enter** key on the keyboard until all messages close. 2. Review recent messages in the Message history log. See *Review message logs*, page 10-10. **NOTE:** You must review messages to ensure you do not overlook a different error condition.

Non-system disk or disk error message displays or NTLDR is missing message displays

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
A floppy disk is in the floppy drive during the powering on of the SCC.	Remove the floppy disk and follow the instructions on the screen.

Order Status report does not print all the codes

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
More than three codes are associated with the order. The Order Status report prints up to three codes for each order.	Review the appropriate window for a listing of all codes: • *Details for order (Order status/Rerun status) window - single order view*, page 5-110. • *Details for order (Order status) window - batch (bar coded) view*, page 5-111. • *Details for order (Order status) window - batch (non-bar coded) view*, page 5-112.

Progress indicator is blank and the software is not responding

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Results/exceptions were released or deleted and the software did not remove them from the screen.	No corrective action is required. A progress indicator displays until the process is complete. It may take up to 15 minutes. After the process is complete, results or exceptions no longer display on the screen.
• Previously released or deleted results/exceptions were selected for release or deletion.	No corrective action is required. A progress indicator displays until the process is complete. It may take up to 15 minutes. After the process is complete results or exceptions no longer display on the screen. For additional information see Observed problem: *Results or exceptions are deleted or released and the result or exception is not removed from the screen*, page 10-565.

QC data does not appear on the Levey-Jennings graph and does not print on the QC Analysis report

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Assay result units were changed. **Or** • Module serial number was changed.	No corrective action is required. To capture all QC data print the *QC Analysis Report*, page Appendix A-40 prior to: • Editing or configuring assay result units • Editing or configuring the module serial number

Result column does not sort as expected

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
The result column sorts by interpretation. If a result does not have an interpretation, the data in the result column is not consistently sorted.	No corrective action is required. Do not sort by results if the results do not contain interpretations.

Results did not display or print

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• When creating an order or adding a test(s) to an order, a calculated assay was selected without selecting the constituent assays.	Create the order or add the test(s) by selecting both the constituent assays and the calculated assay.
• Constituent assay results that were processing for a calculated assay order met the criteria for a retest rule configured to run another assay.	Create a new patient order or add the test(s) by selecting all tests desired for display or print.

Results or exceptions are deleted or released and the result or exception is not removed from the screen

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
The time needed to update the information on the screen is longer than the time needed to delete or release the results from the database.	No corrective action is required. Select the Refresh button to update the information on the screen.

Sample ID is truncated

This problem may be observed on an ARCHITECT System when using codabar bar code labels that do not contain checksums.

IMPORTANT: When using codabar bar code labels with checksums disabled, a SID (sample identification) may be truncated. For example, an actual SID of 123456 is shortened to 1234.

When using variable SID lengths and a SID is truncated, a result(s) may be attached to an incorrect SID for which an order exists. To eliminate this:

- Enable checksums

  Or

- Use fixed lengths SIDs

Probable cause	Corrective action
Bar code reader misinterprets bar code label.	• Place tube in carrier so the bar code fills the width of the window. • Use labels that meet guidelines. See *Sample bar code label guidelines*, page 4-16. • Enable checksums. See *Change the sample bar code settings for codabar*, page 2-26.

SCC does not boot to the Snapshot screen

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information specifying errors that were received.
• The database is corrupt.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Shutdown screen displays during concurrent maintenance

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Software error.	1. *Cycle power to the SCC*, page 5-5. 2. Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Shutdown screen displays unexpectedly

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Software error.	1. *Cycle power to the SCC*, page 5-5. 2. Perform ***utilities*** diagnostic procedure *6009 Log Utilities*, page 10-616 to collect system logs. 3. Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Slow screen response

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Database is close to capacity.	Archive results or delete stored results.

Software Architecture Exception 38 displays

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Ethernet cable has a poor connection.	Contact your Area Customer Support to resolve any hardware failure.
• Network hub is turned off.	1. Turn on the power switch to the network hub. 2. *Cycle power to the SCC*, page 5-5.
• Network hub power cord is disconnected.	1. Connect the power cord to the network hub and plug into a UPS or wall outlet. 2. *Cycle power to the SCC*, page 5-5.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Software Architecture Exception 50 displays

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Software error	1. Obtain a screen image of the software error, see *Print a screen image*, page 5-242. 2. *Cycle power to the SCC*, page 5-5. 3. Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Tests remain in Pending Transmission status

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Software error	1. Reconfigure the host communication to off. See *Cancel result transmission*, page 5-176. 2. *Cycle power to the SCC*, page 5-5. 3. Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Tests remain in Running status and the module will not go to Stopped status

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Communication is lost between the SCC and the processing module.	*Cycle power to the SCC*, page 5-5.

Tests remain in Scheduled status

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Software error.	*Cycle power to the SCC*, page 5-5. **NOTE:** Wait until all tests processing are complete before cycling the power.

The message "The location (x) has a bar coded kit. Do you still want to assign this location?" displays when assigning a location for a non-bar coded reagent.

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• A bar coded reagent is in the position entered for the non-bar coded reagent.	1. Locate an empty position. 2. Enter this position for the non-bar coded reagent
• A bar coded reagent was removed but the reagent carousel was not rescanned to update the availability of the position entered.	1. Select OK to allow the system to assign this location for the non-bar coded reagent. 2. Verify the position is empty.

Touchscreen monitor display is blank

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Power was turned off to the monitor.	Power on the monitor.
• Monitor power cable is unplugged.	Plug in the monitor power cable.
• Monitor data cable is unplugged.	Plug in the monitor data cable. See *Reseat cables to the SCC*, page 10-623.
• Monitor has failed.	Contact your Area Customer Support to resolve any hardware failure.
• Hardware failure: Monitor port failure on CPU	Contact your Area Customer Support to resolve any hardware failure.

Touchscreen monitor fails to respond

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Touch-screen connector is loose or disconnected.	1. Reseat or reconnect the touch-screen connector. See *Reseat cables to the SCC*, page 10-623. 2. *Cycle power to the SCC*, page 5-5. 3. Verify the touch-screen operation.
• Monitor has failed.	Contact your Area Customer Support to resolve any hardware failure.
• Hardware failure: Monitor not calibrated	Contact your Area Customer Support to resolve any hardware failure.

Unable to delete results

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Results are being transmitted to the host. Result status is "Pending Transmission".	No corrective action is required. Wait until transmission is complete, and then delete the results.
• Transmission was requested when the system is configured for host communication but a host computer is not connected. Result status is "Pending Transmission".	1. Reconfigure the host communication to off. A message displays. 2. Select **OK** to clear results waiting to be sent to the host, and then delete results.
• The host mode is set to collate and not all of the results have been released. Result status is "Pending Collation".	No corrective action is required. Release or delete the associated SIDs, and then delete the result.

Unable to find specific patient or QC results

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
The find was performed using time only and the time range spanned two days.	Do not enter multiple dates when searching for a specific time interval.

Undefined fields for assay parameters display and print differently

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
Undefined fields for assay parameters may display as zero or are blank.	No corrective action is required.

UPS (uninterruptible power supply) is activated

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Main power source to the processing module(s) and sample handler is interrupted.	For system with an RSH (robotic sample handler): 1. Stop the sample handler by performing one of the following: – Press the **stop** key on the sample handler keypad. – Select the **sample handler** graphic on the Snapshot screen, and then select **F6 - Stop**. **NOTE:** You have a maximum of ten minutes to stop the RSH before losing backup power from the UPS. 2. Perform one of the following procedures: • For *i* 1000_{SR}: – *Remove sample carrier(s) from the carrier transport and aspiration area (RSH - i* 1000_{SR}*)*, page 10-621 3. Determine the cause of the power interruption and resolve. 4. Perform *Power on the processing module and/or sample handler*, page 5-7.

Peripheral devices observed problems

Observed problems for ARCHITECT System peripheral devices are grouped by:

- *ARCHITECT ARM observed problems*, page 10-571
- *Printer observed problems*, page 10-590

ARCHITECT ARM observed problems

Observed problems for the ARCHITECT ARM include:

- *A to D timeout (ARM)*, page 10-572
- *ARM accessory is not functioning*, page 10-572
- *ARM accessory is stopped*, page 10-573
- *ARM decontamination mode aborted*, page 10-573
- *ARM message not sent*, page 10-574
- *Buffer quality error indicator - up arrow (high conductivity) illuminated (ARM)*, page 10-575
- *Buffer quality error indicator - down arrow (low conductivity) illuminated (ARM)*, page 10-576
- *Calibration check failure (ARM)*, page 10-577
- *Checksum failure (ARM)*, page 10-577
- *Communication timeout (ARM)*, page 10-578
- *Concentrated wash buffer empty (ARM)*, page 10-579
- *Decontamination is in process (ARM)*, page 10-579
- *Flood condition (ARM)*, page 10-580
- *High outlet pressure indicator illuminates (ARM)*, page 10-581
- *Invalid ARM error code*, page 10-582
- *Invalid ARM status code*, page 10-583
- *Invalid format of ARM message "message string"*, page 10-584
- *Low inlet pressure indicator illuminates (ARM)*, page 10-585
- *Meter handshaking failure (ARM)*, page 10-586
- *Motor stall (ARM)*, page 10-587
- *SCI (serial communication interface) process timeout (ARM)*, page 10-588
- *System flush is in process (ARM)*, page 10-589

- *Temperature indicator illuminates (ARM)*, page 10-590
- *Water quality error indicator illuminates (ARM)*, page 10-590

A to D timeout (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• A temporary failure to receive data from the A to D converter occurred.	1. *Power off the ARM (i System)*, page 5-14. 2. *Power on and initialize the ARM (i System)*, page 5-14. 3. *Initiate wash buffer transfer from the ARM (i System)*, page 5-35.
• Hardware failure: – Main board – Sensor board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-623, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-26, as required. 4. *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.

ARM accessory is not functioning

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
A failure occurred on the ARM and cannot be corrected without a service call.	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-623, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-26, as required. 4. *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.

ARM accessory is stopped

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• The replace buffer key was not pressed after replacing a buffer container.	1. Press **replace buffer** on the ARM keypad to bring the ARM to Ready status. 2. *Initiate wash buffer transfer from the ARM (i System)*, page 5-35.
• The stop key on the ARM keypad was pressed.	Press the **stop** key, and then the **start** key on the ARM keypad.
• Hardware failure: Keypad	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-623, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-26, as required. 4. *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.

ARM decontamination mode aborted

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
Decontamination procedure was stopped in mid-cycle.	1. *Power off the ARM (i System)*, page 5-14. 2. *Power on and initialize the ARM (i System)*, page 5-14. 3. *Flush the ARM*, page 10-624. 4. *Replace concentrated wash buffer on the ARM (i System)*, page 5-31. 5. *Initiate wash buffer transfer from the ARM (i System)*, page 5-35.

ARM message not sent

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• SCC cannot connect to the ARM.	1. *Reseat cables to the SCC*, page 10-623, and to the ARM. 2. Press the **stop** key, and then the **start** key on the ARM keypad. 3. *Power off the ARM (i System)*, page 5-14. 4. *Power on and initialize the ARM (i System)*, page 5-14. 5. *Initiate wash buffer transfer from the ARM (i System)*, page 5-35. 6. *Cycle power to the SCC*, page 5-5, if error continues.
• EMF (electromagnetic fields) interference is affecting the RS-232 data cable because it is too close to the power cord.	Move the RS-232 cable so it is not near the power cord.
• Hardware failure: – Main board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-623, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-26, as required. 4. *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.

Buffer quality error indicator - up arrow (high conductivity) illuminated (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• Concentrated wash buffer is contaminated.	*Replace concentrated wash buffer on the ARM (i System)*, page 5-31.
• Concentrated wash buffer was received frozen and not properly mixed before use.	Perform the following steps to mix the buffer: 1. Clean and dry a 3 inch (8 cm) magnetic stirrer. 2. Open the concentrated wash buffer container. 3. Place the magnetic stirrer into the concentrated wash buffer container. 4. Position the container onto the center of a magnetic stirrer with a top plate dimension of at least 7 inches by 7 inches (17.7 cm by 17.7 cm). 5. Adjust the mixing speed to the highest possible setting, and then mix for a minimum of 20 minutes. 6. *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.
• Hardware failure: – Pump – Conductivity sensor – Sensor board – Pressure sensor	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-623, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-26, as required. 4. *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.

Buffer quality error indicator - down arrow (low conductivity) illuminated (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• AxSYM buffer was placed on ARM instead of Concentrated Wash Buffer. **Or** • Concentrated wash buffer is contaminated.	1. Remove the buffer container. 2. Rinse the float with Reagent Grade Type II or deionized water and then dry. 3. *Replace concentrated wash buffer on the ARM (i System)*, page 5-31.
Concentrated wash buffer was frozen and not properly mixed before use.	Perform the following steps to mix the buffer: 1. Clean and dry a 3 inch (8 cm) magnetic stirrer. 2. Open the concentrated wash buffer container. 3. Place the magnetic stirrer into the concentrated wash buffer container. 4. Position the container onto the center of a magnetic stirrer with a top plate dimension of at least 7 inches by 7 inches (17.7 cm by 17.7 cm). 5. Adjust the mixing speed to the highest possible setting, and then mix for a minimum of 20 minutes. 6. *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.
• Hardware failure: – Pump – Conductivity sensor – Sensor board – Pressure sensor	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-623, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-26, as required. 4. *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.

Calibration check failure (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• Hardware failure: – Main board – Sensor board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-623, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-26, as required. 4. *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.

Checksum failure (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• Handshaking sequence failed between two circuit boards.	1. *Power off the ARM (i System)*, page 5-14. 2. *Power on and initialize the ARM (i System)*, page 5-14. 3. *Initiate wash buffer transfer from the ARM (i System)*, page 5-35.
• Hardware failure: Main board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-623, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-26, as required. 4. *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.

Communication timeout (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• ARM accessory is turned off.	1. *Power on and initialize the ARM (i System)*, page 5-14. 2. *Initiate wash buffer transfer from the ARM (i System)*, page 5-35.
• SCC did not receive a response from the ARM.	1. *Reseat cables to the SCC*, page 10-623, and to the ARM. 2. Press the **stop** key, and then the **start** key on the ARM keypad. 3. *Power off the ARM (i System)*, page 5-14. 4. *Power on and initialize the ARM (i System)*, page 5-14. 5. *Initiate wash buffer transfer from the ARM (i System)*, page 5-35. 6. *Cycle power to the SCC*, page 5-5, if error continues.
• EMF (electromagnetic fields) interference is affecting the RS-232 data cable because it is too close to the power cord.	Move the RS-232 cable so it is not near the power cord.
• Hardware failure: Main board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-623, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-26, as required. 4. *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.

Concentrated wash buffer empty (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• Concentrated wash buffer container has less than 100 mL remaining.	1. *Replace concentrated wash buffer on the ARM (i System)*, page 5-31. 2. *Initiate wash buffer transfer from the ARM (i System)*, page 5-35.
• Hardware failure: – Wash buffer tubing assembly – Sensor board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-623, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-26, as required. 4. *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.

Decontamination is in process (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
ARM decontamination procedure is in process.	1. Wait until ARM decontamination is complete. 2. *Initiate wash buffer transfer from the ARM (i System)*, page 5-35.

Flood condition (ARM)

This problem may be observed on an ARCHITECT ARM accessory.

Probable cause	Corrective action
• Fluid leaked from the concentrated wash buffer container and the gravity drain tube is crimped or not properly positioned.	1. Adjust the gravity drain waste tubing to ensure it is not crimped and allows the waste to drain freely.
• Shutdown was selected from the SCC (system control center) while the ARM was in the process of filling the wash buffer reservoir.	Perform the following prior to shutting down the SCC: 1. Select the **supply status** button on the Snapshot screen. 2. Verify FILL IN PROGRESS does not display next to the wash buffer icon. If FILL IN PROGRESS displays wait until the process is complete and an update of the supplies has occurred.
• ARM fluidics system has an internal leak. **Or** • Hardware failure: – Flood detector – Main board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-623, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-26, as required. 4. *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.

High outlet pressure indicator illuminates (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• SCC (system control center) or processing module has closed the inlet valve causing the outgoing wash buffer pressure to exceed 15 psi (103 Kpa).	1. *Review message logs*, page 10-10, for any error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-11, if you do not find any error codes. 3. Perform the corrective action for the specific error code.
• Hardware failure: – Pressure sensor – Sensor board – Processing module	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-623, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-26, as required. 4. *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.

Invalid ARM error code

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• A communication problem has occurred.	1. *Reseat cables to the SCC*, page 10-623, and to the ARM. 2. Press the **stop** key, and then the **start** key on the ARM keypad. 3. *Power off the ARM (i System)*, page 5-14. 4. *Power on and initialize the ARM (i System)*, page 5-14. 5. *Initiate wash buffer transfer from the ARM (i System)*, page 5-35. 6. *Cycle power to the SCC*, page 5-5, if error continues.
• EMF (electromagnetic fields) interference is affecting the RS-232 data cable because it is too close to the power cord.	Move the RS-232 cable so it is not near the power cord.
• Hardware failure: – Main board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-623, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-26, as required. 4. *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.

Invalid ARM status code

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• A communication problem has occurred.	1. *Reseat cables to the SCC*, page 10-623, and to the ARM. 2. Press the **stop** key, and then the **start** key on the ARM keypad. 3. *Power off the ARM (i System)*, page 5-14. 4. *Power on and initialize the ARM (i System)*, page 5-14. 5. *Initiate wash buffer transfer from the ARM (i System)*, page 5-35. 6. *Cycle power to the SCC*, page 5-5, if error continues.
• EMF (electromagnetic fields) interference is affecting the RS-232 data cable because it is too close to the power cord.	Move the RS-232 cable so it is not near the power cord.
• Hardware failure: – Main board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-623, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-26, as required. 4. *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.

Invalid format of ARM message "message string"

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• A communication problem has occurred.	1. *Reseat cables to the SCC*, page 10-623, and to the ARM. 2. Press the **stop** key, and then the **start** key on the ARM keypad. 3. *Power off the ARM (i System)*, page 5-14. 4. *Power on and initialize the ARM (i System)*, page 5-14. 5. *Initiate wash buffer transfer from the ARM (i System)*, page 5-35. 6. *Cycle power to the SCC*, page 5-5, if error continues.
• EMF (electromagnetic fields) interference is affecting the RS-232 data cable because it is too close to the power cord.	Move the RS-232 cable so it is not near the power cord.
• Hardware failure: – Main board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-623, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-26, as required. 4. *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.

Low inlet pressure indicator illuminates (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• External water supply pressure dropped below 8 psi (55 Kpa) and 2.2 LPM flow rate.	Increase external water supply pressure.
• Tubing from the external water supply to the ARM is pinched.	1. Correct pinch in tubing or replace tubing from external water supply to the ARM. 2. *Initiate wash buffer transfer from the ARM (i System)*, page 5-35.
• Hardware failure: Pressure sensor	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-623, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-26, as required. 4. *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.

Meter handshaking failure (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• Handshaking sequence failed between two circuit boards.	1. *Power off the ARM (i System)*, page 5-14. 2. *Power on and initialize the ARM (i System)*, page 5-14. 3. *Initiate wash buffer transfer from the ARM (i System)*, page 5-35.
• Hardware failure: – Main board – Sensor board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-623, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-26, as required. 4. *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.

Motor stall (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• External water supply was turned off.	1. Turn on the external water supply. 2. *Power off the ARM (i System)*, page 5-14. 3. Disconnect the water inlet tubing. See *ARM connectors (i System)*, page 1-58, for location of the tubing connection. 4. Hold the end of the tubing over a sink or container, and then press the connector at the end of the tubing until water flows out. 5. Flush the tubing for 2-3 minutes to ensure all air is cleared from the water system. 6. Release the connector at the end of the tubing, and then reconnect the tubing to the ARM. 7. *Power on and initialize the ARM (i System)*, page 5-14. 8. *Initiate wash buffer transfer from the ARM (i System)*, page 5-35.
• External water supply is restricted.	1. Correct pinch in tubing or replace tubing from external water supply to the ARM. 2. *Initiate wash buffer transfer from the ARM (i System)*, page 5-35.
• External water supply pressure dropped below 8 psi (55Kpa) and 2.2 LPM flow rate.	Increase external water supply pressure.
• Hardware failure: – Internal tubing from valve block to pump – Pump – Stepper motor board – Power supply – valve block	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-623, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-26, as required. 4. *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.

SCI (serial communication interface) process timeout (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• Temporary communication error in the ARM.	1. *Power off the ARM (i System)*, page 5-14. 2. *Power on and initialize the ARM (i System)*, page 5-14. 3. *Initiate wash buffer transfer from the ARM (i System)*, page 5-35.
• Hardware failure: – Main board – Sensor board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-623, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-26, as required. 4. *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.

Sensor cable disconnected (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• Sensor cable on the concentrated wash buffer tubing assembly is not properly connected.	1. Reconnect the sensor cable from the concentrated wash buffer tubing assembly to the ARM. 2. *Initiate wash buffer transfer from the ARM (i System)*, page 5-35.

Probable cause	Corrective action
• Tubing assembly is not calibrated.	1. *Calibrate the ARM level sense*, page 10-625. 2. *Initiate wash buffer transfer from the ARM (i System)*, page 5-35.
• Hardware failure: – Wash buffer tubing assembly – Sensor board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-623, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-26, as required. 4. *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.

System flush is in process (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
ARM flush procedure is in process.	1. Wait until the flush procedure is complete. 2. Press the **start** key on the ARM keypad to bring the ARM to Ready status. 3. *Initiate wash buffer transfer from the ARM (i System)*, page 5-35.

Temperature indicator illuminates (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• Temperature of the external water supply is not within the range 15-37°C.	1. Adjust the temperature of the external water supply to be within the range 15-37°C. 2. Contact your Area Customer Support if the temperature of the external water supply is within the range 15-37°C.
• Hardware failure: – Temperature sensor – Sensor board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-623, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-26, as required. 4. *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27.

Water quality error indicator illuminates (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• Water supply does not meet Reagent Grade Type II specification. **Or** • Tubing from water supply is contaminated. **Or** • External water supply is contaminated.	1. Correct the water quality or contamination problem with the external water supply. 2. *Flush the ARM*, page 10-624.
• Hardware failure: – Inlet cell – Valve 1 – Valve block	Contact your Area Customer Support to resolve any hardware failure.

Printer observed problems

Observed printer problems include:

- *Incomplete comment printed on the Maintenance History Report*, page 10-591
- *Print window displays behind the Help window*, page 10-591
- *Print is cut off at the bottom of the page when printing from the online documentation*, page 10-592
- *Print on reports is too light to read*, page 10-592
- *Report will not print*, page 10-592
- *Sample report does not print*, page 10-593
- *Windows printer error displays*, page 10-593

Incomplete comment printed on the Maintenance History Report

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
The comment was more than 255 characters in length. The Details for maintenance log window allows you to enter 275 characters, but the Maintenance History Report only prints 255 characters.	Limit the comment length to 255 characters or view the comment on the Details for maintenance log window.

Print window displays behind the Help window

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
The option Print the selected heading and all subtopics was selected on the Print Topics window.	No corrective action is required. To print: 1. Minimize the Help window. 2. Select **Print** on the Print Window. 3. Select the ARCHITECT System Operations Manual icon to restore the Help window.

Print is cut off at the bottom of the page when printing from the online documentation

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
HTML functionality does not support page breaks.	No corrective action is required. Compare the information on the printout to the information on the screen.

Print on reports is too light to read

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Printer cartridge is empty.	Replace printer cartridge.
• Printer head is damaged.	Contact your Area Customer Support to resolve any hardware failure.

Report will not print

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Report was initiated while a print screen request was printing.	No corrective action is required. Wait until the print screen has printed to avoid having problems with printed reports.
• Printer is out of paper.	Add paper to the printer.
• Paper tray is open.	Close the paper tray.
• Printer is disconnected or not powered on.	Verify the printer is plugged in, on, and ready.
• Paper is jammed.	Clear the paper jam.
• Failed print job is in the printer queue.	Select the Printer status icon on the Snapshot screen, and then delete the failed print job in the printer queue.
• Printer cartridge is damaged or heat stressed.	Replace the printer cartridge.

Sample report does not print

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
The system is configured to print reports automatically and all tests associated with the sample are not complete or not released.	No corrective action is required. Access the Sample status screen to verify the status of all tests ordered for the sample. Wait until all tests are complete or released and the report will print.

Windows printer error displays

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Error occurred with the printer.	1. Select **Cancel** on the Printers Folder message to respond to the printer error. **NOTE:** Do not select the **Retry** button. 2. Resolve the printer problem. 3. Reprint the report.

System diagnostics

Diagnostic procedures allow you to check the status of assemblies and mechanisms in reaction to certain hardware malfunctions on your ARCHITECT System.

The ARCHITECT System software provides a user-friendly interface for performing diagnostic activities. The Diagnostic screen displays the available diagnostic procedures. Once you initiate a procedure, step-by-step instructions walk you through its completion.

System diagnostics topics include:

- *Diagnostics screen*, page 10-594

  Provides a description of the software screens and windows associated with diagnostic activities and step-by-step instructions for performing related procedures.

- *Diagnostic categories and procedure descriptions*, page 10-601

  Provides a description of all diagnostic procedures.

Diagnostics screen

From the Diagnostics screen you can initiate a diagnostic procedure. You can also access windows to view information for a procedure prior to performing it and print the Procedure report.

The procedures display by module and by category (tab). Each tab on the screen displays the procedures available for the selected module.

Figure 10.3: Diagnostics screen

For descriptions of these fields, see *Diagnostics screen field descriptions*, page Appendix E-95.

To display this screen, see *Access the Diagnostics screen*, page 10-595.

Related procedures...

- *View diagnostic procedure information*, page 10-596
- *Perform a diagnostic procedure*, page 10-597
- *Print a Procedure report*, page 5-237

Access the Diagnostics screen

Perform this procedure to display the Diagnostics screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Diagnostics screen:

Select **System** from the menu bar, and then select **Diagnostics**.

The Diagnostics screen displays with the Reaction Mechanisms tab selected.

Related information...

- *Diagnostics screen*, page 10-594
- *Diagnostic categories and procedure descriptions*, page 10-601

Procedures - Diagnostics screen

Procedures you can perform from the Diagnostics screen and its related windows include:

- *View diagnostic procedure information*, page 10-596
- *Perform a diagnostic procedure*, page 10-597
- *Print a Procedure report*, page 5-237

View diagnostic procedure information

Perform this procedure to display the Version details for procedure (Diagnostics) window. From this window you can view information for a diagnostic procedure prior to performing it. This information includes the version number, required module status, and required user access level.

Prerequisite	*Access the Diagnostics screen*, page 10-595
Module status	Any
User access level	General operator
Supplies	NA

To view diagnostic procedure information:

1. Select the desired **Module** option on the Diagnostics screen.

   The diagnostic procedures for the selected module display on the Reaction Mechanisms tab.

2. Select a different tab to display the diagnostic procedures for that category. ***(optional)***

   The diagnostic procedures for the selected category display.

3. Select the desired procedure from the **DIAGNOSTICS PROCEDURES** box, and then select **F6 - Version**.

   The Version details for procedure window displays.

Related information...

- *Diagnostics screen*, page 10-594
- *Version details for procedure (diagnostics) window*, page 10-600
- *Diagnostic categories and procedure descriptions*, page 10-601

Perform a diagnostic procedure

Perform this procedure to:

- Install assays
- Install procedures
- Verify component replacement procedures
- Diagnose hardware malfunctions

NOTE: Before you perform a specific procedure, be sure you are familiar with the purpose of the procedure and are aware of the required materials and module statuses.

CAUTION: Moving Parts. Diagnostic procedures may expose operators to moving parts that can potentially cause personal injury. Untrained operators should not perform these procedures.

Prerequisite	*Access the Diagnostics screen*, page 10-595
Module status	Procedure dependent
User access level	Procedure dependent
Supplies	Procedure dependent

To perform a diagnostic procedure:

1. Select the desired **Module** option on the Diagnostics screen.

   The diagnostic procedures for the selected module display on the Reaction Mechanisms tab.

2. Select a different tab to display the diagnostic procedures for that category. ***(optional)***

3. Select the desired procedure from the **DIAGNOSTICS PROCEDURES** list, and then select **F5 - Perform**.

   A confirmation message displays.

4. Select **OK** to perform the procedure.

   The Diagnostic perform window displays. A description of the procedure displays in the **INSTRUCTIONS** box.

5. Select **Proceed**, and then follow the instructions in the **INSTRUCTIONS** box.

   You are prompted to enter information if the procedure requires additional data.

6. Enter the required information in the **User input** data entry box, and then select **Continue**.

7. Select **Activity** to view the progress of the procedure. ***(optional)***

   The activity of the module displays in the **Activity** list. To return to the Result list, select **Results**.

8. Select **Print** to print the Procedure report. ***(optional)***
9. Select **Done** to return to the Diagnostics screen.

Related information...

- *Diagnostics screen*, page 10-594
- *Diagnostic perform window*, page 10-599
- *Diagnostic categories and procedure descriptions*, page 10-601

Windows - Diagnostic screen

Windows you can access from the Diagnostic screen include:

- *Diagnostic perform window*, page 10-599
- *Version details for procedure (diagnostics) window*, page 10-600

Diagnostic perform window

From the Diagnostic perform window you can initiate a procedure.

NOTE: The display of the Diagnostic perform window is dependent on the selected module, category, and procedure.

To view an associated graphic, see:

- *i 1000$_{SR}$ processing module associated maintenance graphics*, page 9-29

Figure 10.4: Diagnostic perform window

For descriptions of these fields, see *Diagnostic perform window field descriptions*, page Appendix E-96.

Related procedures...

- *Perform a diagnostic procedure*, page 10-597

Version details for procedure (diagnostics) window

From the Version details for procedure window you can view information for diagnostic procedures such as:

- Procedure category and name
- Current version
- Required module status
- Required user access level

Figure 10.5: Version details for procedure window

For descriptions of these fields, see *Version details for procedure (diagnostics) window field descriptions*, page Appendix E-97.

Related procedures...

- *View diagnostic procedure information*, page 10-596

Diagnostic categories and procedure descriptions

Diagnostic procedures are grouped by module type, and then by category. Each category is represented by a tab on the Diagnostics screen.

Diagnostic categories/procedures by module type include:

- Processing module - the type of processing module determines the categories and related procedures that are available.
  - *i 1000$_{SR}$ System processing module diagnostic categories*, page 10-601
- Sample handler - the type of sample handler determines the categories and related procedures that are available.
  - *RSH diagnostic categories (i 1000$_{SR}$)*, page 10-612
- *SCC diagnostic categories*, page 10-615

i 1000$_{SR}$ System processing module diagnostic categories

Diagnostic procedures for an *i* 1000$_{SR}$ processing module are grouped by category (tab) on the Diagnostics screen.

Procedures are available for the following categories:

- *Reaction mechanism diagnostics description (i 1000$_{SR}$ processing module)*, page 10-602
- *Pipettor diagnostics description (i 1000$_{SR}$ processing module)*, page 10-603
- *Fluidic/wash diagnostics description (i 1000$_{SR}$ processing module)*, page 10-604
- *Module diagnostics description (i 1000$_{SR}$ processing module)*, page 10-605
- *Solenoid/sensor diagnostics description (i 1000$_{SR}$ processing module)*, page 10-607
- *Fuse/motor diagnostics description (i 1000$_{SR}$ processing module)*, page 10-608
- *Optic/temperature diagnostics description (i 1000$_{SR}$ processing module)*, page 10-609
- *Carousel diagnostics description (i 1000$_{SR}$ processing module)*, page 10-610
- *Precision diagnostics description (i 1000$_{SR}$ processing module)*, page 10-610

Reaction mechanism diagnostics description (*i* 1000$_{SR}$ processing module)

You may need to perform the following diagnostic procedures when replacing components associated with RVs (reaction vessels) or diagnosing error messages or observed problems associated with RV mechanisms:

- *3120 Vortexer Test*, page 10-602
- *3155 Diverter Test*, page 10-603

To perform a procedure, see *Perform a diagnostic procedure*, page 10-597.

3120 Vortexer Test

Perform this ***reaction mechanisms*** diagnostic procedure to test vortexer function.

Estimated time	Materials needed	Required module status
2 minutes per vortexer	None	Stopped, Warming, or Ready

3155 Diverter Test

Perform this ***reaction mechanisms*** diagnostic procedure to test the wash zone inlet, wash zone outlet, and RV unload diverter functionality.

Estimated time	Materials needed	Required module status
2 minutes	None	Stopped, Warming, or Ready

Pipettor diagnostics description (*i* 1000$_{SR}$ processing module)

You may need to perform the following diagnostic procedures when replacing pipettor components or diagnosing error messages or observed problems associated with pipettors:

- *1152 Probe Straightness/Align Test*, page 10-603
- *1165 Pipettor Move*, page 10-603
- *5420 Crash Sensor Test*, page 10-604

1152 Probe Straightness/Align Test

Perform this ***pipettors*** diagnostic procedure to check the pipettor probe straightness and/or alignment.

Estimated time	Materials needed	Required module status
3 minutes	None	Warming or Ready

1165 Pipettor Move

Perform this ***pipettors*** diagnostic procedure to move the pipettor to the wash cup to remove the pipettor probe or toward the rear of the process path for accessing processing center components.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

5420 Crash Sensor Test

Perform this ***pipettor*** diagnostic procedure to test the pipettor probe crash sensor.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

Fluidic/wash diagnostics description (*i* 1000$_{SR}$ processing module)

You may need to perform the following diagnostic procedures when replacing liquid level sense or wash zone components, or diagnosing error messages or observed problems associated with liquid level sense or the wash zone:

- *2052 WZ Aspiration Test*, page 10-604
- *3630 LLS Test*, page 10-605
- *3810 Pressure Monitoring Test*, page 10-605
- *6410 WZ Probe Straightness*, page 10-605

To perform a procedure, see *Perform a diagnostic procedure*, page 10-597.

2052 WZ Aspiration Test

Perform this ***fluidics/wash*** diagnostic procedure to test wash zone aspiration. The wash zone dispenses and aspirates buffer from 14 RVs (reaction vessels).

Estimated time	Materials needed	Required module status
10 minutes	None	Warming or Ready

3630 LLS Test

Perform this ***fluidics/wash*** diagnostic procedure to test the ability of the pipettor probe to detect liquid at the RV2, sample, and reagent carousel inner, middle, and outer locations.

Estimated time	Materials needed	Required module status
8 minutes	• Sample cups • Sample tubes • One - Three Reagent Bottles	Warming or Ready

3810 Pressure Monitoring Test

Perform this ***fluidics/wash*** diagnostic procedure to test the operation of the pipettor board and pressure monitor for the pipettor.

Estimated time	Materials needed	Required module status
2 minutes	None	Warming or Ready

6410 WZ Probe Straightness

Perform this ***fluidics/wash*** diagnostic procedure to visually check the straightness of the wash zone probes.

NOTE: You should run diagnostic procedure 2052 WZ Aspiration Test after completing this test.

Estimated time	Materials needed	Required module status
2 minutes	None	Stopped, Warming, or Ready

Module diagnostics description (*i* 1000$_{SR}$ processing module)

You may need to perform the following diagnostic procedures when preparing for a long-term shutdown or diagnosing error messages or observed problems associated with the vacuum:

- *2138 Long Term Shutdown*, page 10-606
- *3180 Vacuum System Test*, page 10-606
- *4110 Module Initialization*, page 10-606
- *4150 Functional Area Tests*, page 10-607

To perform a procedure, see *Perform a diagnostic procedure*, page 10-597.

2138 Long Term Shutdown

Perform this ***modules*** diagnostic procedure to flush all pumps with water, then air, and remove all RVs (reaction vessels) in preparation for long term shutdown of the ARCHITECT System.

Estimated time	Materials needed	Required module status
30 minutes	• 4 Liter (minimum) container of deionized water • Empty 4 Liter container • Wash buffer reservoir • Wash buffer transfer tubing • Deionized water	Warming or Ready

3180 Vacuum System Test

Perform this ***modules*** diagnostic procedure to test the operation of the vacuum system, vacuum accumulator, and drain valves.

Estimated time	Materials needed	Required module status
5 - 10 minutes depending on option chosen	None	Warming or Ready

4110 Module Initialization

Perform this ***modules*** diagnostic procedure to perform a processing module initialization.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

4150 Functional Area Tests

Perform this ***modules*** diagnostic procedure to test the functionality of the following areas: RV loading, process path, reagent carousel, and pipettor.

Estimated time	Materials needed	Required module status
Variable	None	Stopped, Warming, or Ready

Solenoid/sensor diagnostics description (*i* 1000$_{SR}$ processing module)

You may need to perform the following diagnostic procedures when replacing solenoids and sensors or diagnosing error messages or observed problems associated with solenoids or sensors:

- *3190 Waste Sensors Test*, page 10-607
- *3405 Interlock/Carousel Sensor Test*, page 10-607
- *3420 Level Sensors Test*, page 10-608
- *5165 Valve Tests*, page 10-608

To perform a procedure, see *Perform a diagnostic procedure*, page 10-597.

3190 Waste Sensors Test

Perform this ***solenoids/sensors*** diagnostic procedure to test the waste pump pressure switch, the liquid waste container full sensor, and the solid waste container present sensor.

Estimated time	Materials needed	Required module status
Variable	Tap water	Stopped, Warming, or Ready

3405 Interlock/Carousel Sensor Test

Perform this ***solenoids/sensors*** diagnostic procedure to test the sensors for the processing center cover and reagent carousel cover.

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped, Warming, or Ready

3420 Level Sensors Test

Perform this ***solenoids/sensors*** diagnostic procedure to test wash buffer, pre-trigger, and trigger level sensors.

Estimated time	Materials needed	Required module status
1 - 2 minutes, depending upon the option chosen	None	Stopped, Warming, or Ready

5165 Valve Tests

Perform this ***solenoids/sensors*** diagnostic procedure to test wash zone, pre-trigger, trigger, vacuum, pipettor syringe, wash cup drain, and liquid waste valves.

Estimated time	Materials needed	Required module status
1 - 2 minutes depending on option chosen	None	Stopped, Warming, or Ready

Fuse/motor diagnostics description (*i* 1000$_{SR}$ processing module)

You may need to perform the following diagnostic procedures when replacing motors or diagnosing error messages or observed problems associated with motors:

- *5150 Motor Tests*, page 10-608
- *5160 Pump Motor Tests*, page 10-609
- *5720 Fuse Status*, page 10-609

To perform a procedure, see *Perform a diagnostic procedure*, page 10-597.

5150 Motor Tests

Perform this ***fuses/motors*** diagnostic procedure to home the pipettor, syringe, process path, and reagent carousel motors.

Estimated time	Materials needed	Required module status
2 minutes	None	Stopped, Warming, or Ready

5160 Pump Motor Tests

Perform this ***fuses/motors*** diagnostic procedure to home the pre-trigger, trigger, wash buffer, and wash zone pump motors.

Estimated time	Materials needed	Required module status
2 minutes	None	Stopped, Warming, or Ready

5720 Fuse Status

Perform this ***fuses/motors*** diagnostic procedure to display the status of +5, +12, -12, and +24 volt fuses.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

Optic/temperature diagnostics description (*i* 1000$_{SR}$ processing module)

You may need to perform the following diagnostic procedures when replacing optics or diagnosing error messages or observed problems associated with optics:

- *1022 Optics Background*, page 10-609
- *1032 Shutter Test*, page 10-610

To perform a procedure, see *Perform a diagnostic procedure*, page 10-597.

1022 Optics Background

Perform this ***optics/temperature*** diagnostic procedure to determine the optics background reading. The system takes three readings; first with no RV (reaction vessel), second with an empty RV, and third with Pre-Trigger Solution in the RV.

NOTE: The system does not use normalization and linearity parameters during this procedure. Raw counts must be between 3 RLU - 500 RLU.

Estimated time	Materials needed	Required module status
2 minutes	None	Warming or Ready

1032 Shutter Test

Perform this ***optics/temperature*** diagnostic procedure to verify correct shutter operation.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

Carousel diagnostics description (*i* 1000$_{SR}$ processing module)

One carousels diagnostic procedure, 3002 Reagent Carousel Test, is available. You may need to perform this procedure when replacing the reagent carousel or diagnosing error messages or observed problems associated with the reagent carousel.

To perform this procedure, see *Perform a diagnostic procedure*, page 10-597.

3002 Reagent Carousel Test

Perform this ***carousels*** diagnostic procedure to test the reagent carousel movement and check for step loss.

Estimated time	Materials needed	Required module status
10 minutes	Reagent carriers	Stopped, Warming, or Ready

Precision diagnostics description (*i* 1000$_{SR}$ processing module)

You may need to perform the following diagnostic procedures when replacing fluidics components or diagnosing error messages or observed problems associated with precision and accuracy:

- *2070 Pipettor Check*, page 10-611
- *2072 Pre-Trigger Check*, page 10-611
- *2073 Trigger Check*, page 10-611
- *2075 Wash Zone Check*, page 10-612

To perform a procedure, see *Perform a diagnostic procedure*, page 10-597.

2070 Pipettor Check

Perform this ***precision*** diagnostic procedure to visually check the dispensing precision and accuracy of the pipettor.

Estimated time	Materials needed	Required module status
10 minutes	• Saline or tap water • Sample carriers/cups • Calibrated manual pipettor (capable of pipetting 50 µL)	Warming or Ready

2072 Pre-Trigger Check

Perform this ***precision*** diagnostic procedure to visually check the dispensing precision and accuracy of Pre-Trigger Solution.

Estimated time	Materials needed	Required module status
10 minutes	• Saline or tap water • Calibrated manual pipettor (capable of pipetting 100 µL)	Warming or Ready

2073 Trigger Check

Perform this ***precision*** diagnostic procedure to visually check the dispensing precision and accuracy of the Trigger Solution.

Estimated time	Materials needed	Required module status
10 minutes	• Saline or tap water • Calibrated manual pipettor (capable of pipetting 300 µL)	Warming or Ready

2075 Wash Zone Check

Perform this ***precision*** diagnostic procedure to visually check the dispensing precision and accuracy of the wash zone manifold.

Estimated time	Materials needed	Required module status
10 minutes	• Saline or tap water • Calibrated manual pipettor (capable of pipetting 400 µL)	Warming or Ready

RSH diagnostic categories (*i* 1000_{SR})

Diagnostic procedures for the RSH (robotic sample handler) are grouped by category (tab) on the Diagnostics screen. Procedures are available in the following categories:

- *Bar code reader diagnostics description (RSH - i 1000_{SR})*, page 10-612
- *Module diagnostics description (RSH - i 1000_{SR})*, page 10-613
- *Solenoid/sensor diagnostics description (RSH - i 1000_{SR})*, page 10-614
- *Fuse/motor diagnostics description (RSH - i 1000_{SR})*, page 10-615

Bar code reader diagnostics description (RSH - *i* 1000_{SR})

CAUTION: Class 2 Laser radiation when open. Avoid eye exposure to light. Do not stare into the beam. Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

You may need to perform the following diagnostic procedures when replacing the bar code reader or diagnosing error messages or observed problems associated with the bar code reader:

- *3230 Bar Code Reader Test*, page 10-613
- *3240 Bar Code Calibration*, page 10-613

To perform a procedure, see *Perform a diagnostic procedure*, page 10-597.

3230 Bar Code Reader Test

Perform this ***bar code readers*** diagnostic procedure to test the bar code reader.

NOTE: Only the first 20 characters of each bar code display.

Estimated time	Materials needed	Required module status
1 - 4 minutes, depending on the number of carriers tested.	• Sample carriers • SH bar code tool or bar coded tubes • Reagent carriers • Reagent kit bottles (100 test kits only)	Stopped, Warming, or Ready

3240 Bar Code Calibration

Perform this ***bar code readers*** diagnostic procedure to calibrate positions for bar coded sample tubes and reagent bottles.

Estimated time	Materials needed	Required module status
2 minutes	• Sample carrier • SH bar code tool	Stopped, Warming, or Ready

Module diagnostics description (RSH - *i* 1000$_{SR}$)

You may need to perform the following diagnostic procedures when replacing RSH (robotic sample handler) components or diagnosing error messages or observed problems associated with the sample handler:

- *3310 RSH Test,* page 10-614
- *4120 RSH Initialization,* page 10-614

3310 RSH Test

Perform this ***modules*** diagnostic procedure to test the operation of the RSH (robotic sample handler) and bar code reader.

Estimated time	Materials needed	Required module status
5 - 10 minutes depending on option chosen	• Sample carriers • 5 bar coded sample tubes • Reagent carriers • Reagent kit bottles (100 test kits only)	Warming or Ready

4120 RSH Initialization

Perform this ***modules*** diagnostic procedure to perform a sample handler initialization.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

Solenoid/sensor diagnostics description (RSH - *i* 1000$_{SR}$)

You may need to perform the following procedures when replacing RSH (robotic sample handler) sensors or diagnosing error messages or observed problems associated with sensors.

- *5555 RSH Sensor Tests*, page 10-614

5555 RSH Sensor Tests

Perform this ***solenoids/sensors*** diagnostic procedure to test the sensors associated with the carrier transport, load/unload area, and reagent access door.

Estimated time	Materials needed	Required module status
5 minutes	• Reagent carrier with at least one reagent bottle • Sample carrier	Stopped, Warming, or Ready

Fuse/motor diagnostics description (RSH - *i* 1000$_{SR}$)

One fuses/motors diagnostic procedure, 5550 RSH Motor Tests, is available. You may need to perform this procedure when replacing sample handler motors or diagnosing error messages or observed problems associated with sample handler motors.

To perform this procedure, see *Perform a diagnostic procedure*, page 10-597.

- *5550 RSH Motor Test*, page 10-615

5550 RSH Motor Test

Perform this ***fuses/motors*** diagnostic procedure to test the motors associated with the carrier transport, reagent bottle rotator, and the reagent access door.

Estimated time	Materials needed	Required module status
2 minutes	None	Stopped, Warming, or Ready

SCC diagnostic categories

Diagnostic procedures for the SCC (system control center) display on the Utilities tab on the Diagnostics screen.

You may need to perform the following diagnostic procedures when installing assays and procedures or diagnosing error messages or observed problems:

- *6004 Copy backup software*, page 10-615
- *6008 Controller Configuration*, page 10-616
- *6009 Log Utilities*, page 10-616
- *6029 Assay Information*, page 10-616
- *6114 Install/Delete Assays*, page 10-617
- *6115 Install/Delete Procedures*, page 10-617
- *6116 Update 6115 Procedure*, page 10-617

To perform a procedure, see *Perform a diagnostic procedure*, page 10-597.

6004 Copy backup software

Perform this ***utilities*** diagnostic procedure to copy a system software backup to a CD or to replace a backup on your SCC (system control center) with one on a CD.

NOTE: Performing this procedure does not backup the system software. To backup system information, see *Create a system software backup*, page 2-137.

Estimated time	Materials needed	Required module status
Time variable	Blank or appendable CDR/CDRW or a CD containing a backup	Stopped, Warming, or Ready

6008 Controller Configuration

Perform this ***utilities*** diagnostic procedure to configure the processing module and sample handler controller board after you replace the board or upgrade your software.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

6009 Log Utilities

Perform this ***utilities*** diagnostic procedure to retrieve current logs, copy the database to CD, or copy archived logs to CD.

Estimated time	Materials needed	Required module status
Time variable	Materials vary depending on the option selected. Required materials may include: • CD-R (compact disk recordable) or Unformatted CD-RW (compact disk read/write) • One or more floppy disks	Stopped, Warming, or Ready

6029 Assay Information

Perform this ***utilities*** diagnostic procedure to print:

- A complete list of all assays installed on the ARCHITECT System to verify the most current assay version is in use. The list contains the assay number, assay name, and version.

Estimated time	Materials needed	Required module status
2 minutes	None	Stopped, Warming, or Ready

6114 Install/Delete Assays

NOTE: Requires system administrator logon.

Perform this ***utilities*** diagnostic procedure to install all or selected assays. You also use this procedure to delete selected assays.

Estimated time	Materials needed	Required module status
2 minutes	ARCHITECT *c* System CD-ROM or ARCHITECT *i* System CD-ROM	Stopped, Warming, or Ready

6115 Install/Delete Procedures

NOTE: Requires system administrator logon.

Perform this ***utilities*** diagnostic procedure to install all or selected maintenance and diagnostic procedures. You also use this procedure to delete selected maintenance and diagnostic procedures.

Estimated time	Materials needed	Required module status
2 minutes	ARCHITECT System Maintenance and Diagnostic CD-ROM	Stopped, Warming, or Ready

6116 Update 6115 Procedure

NOTE: Requires system administrator logon.

Perform this ***utilities*** diagnostic procedure to install an updated version of diagnostic procedure 6115 Install/Delete Procedures, when required.

Estimated time	Materials needed	Required module status
2 minutes	ARCHITECT System Maintenance and Diagnostic CD-ROM	Stopped, Warming, or Ready

Miscellaneous corrective action procedures

Corrective action procedures are:

- A series of steps recommended to resolve a probable cause(s) associated with an error message or observed problem
- Common to more than one error code or observed problem

Miscellaneous corrective action procedures topics include:

- *Processing module corrective action procedures*, page 10-619
- *Sample handler corrective action procedure*, page 10-621
- *SCC corrective action procedure*, page 10-623
- *ARM corrective action procedures*, page 10-623

Processing module corrective action procedures

Procedures that are often recommended as corrective actions for resolving error messages and/or observed problems associated with the processing module(s) include:

- *Clean the bar code reader window*, page 10-619
- *Manually unloading reagent carrier(s) from the reagent carousel (i 1000$_{SR}$)*, page 10-620

Clean the bar code reader window

Perform this procedure to clean the bar code reader window when suggested by the corrective action of an error code. This procedure includes the steps to clean the bar code reader window in the:

- RSH (robotic sample handler)

Prerequisite	NA
Module status	Warming or Ready
User access level	General operator
Supplies	• Soft, lint-free tissue or lens paper • Deionized water

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

CAUTION: Class 2 Laser radiation when open. Avoid eye exposure to light. Do not stare into the beam. Class 2 Laser radiation when open for all processing modules except the *c* 16000 reagent carousels. Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

To clean the bar code reader window:

1. Access the bar code reader window.

For the...	Perform the following...
RSH (*i* 1000_{SR})	Open the processing center cover.

2. Locate the bar code reader window and gently wipe with a moistened lint-free tissue.
3. Dry the bar code reader(s) window with a lint-free tissue.
4. Prepare for operation.

For the...	Perform the following...
RSH (*i* 1000_{SR})	Close the processing center cover.

To verify the bar code reader is functioning properly, perform one of the following ***bar code readers*** diagnostic procedures:

- *3230 Bar Code Reader Test*, page 10-613 (*i* 1000_{SR})

Related information...

- *RSH - robotic sample handler (i 1000_{SR})*, page 1-60

Manually unloading reagent carrier(s) from the reagent carousel (*i* 1000_{SR})

Prerequisite	NA
Module status	Stopped
User access level	General operator
Supplies	NA

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See *Chemical hazards*, page 8-9.

To unload a reagent carrier:

1. Open the processing center cover to access the reagent carousel door.
2. Turn the reagent carousel cover knob counterclockwise 180 degrees to open the carousel cover.
3. Push in and pull up on the reagent carrier to remove the carrier.

Sample handler corrective action procedure

A procedure that may be recommended as a corrective action for resolving error messages and observed problems associated with the RSH (robotic sample handler) is:

- *Remove sample carrier(s) from the carrier transport and aspiration area (RSH - i 1000$_{SR}$)*, page 10-621

Remove sample carrier(s) from the carrier transport and aspiration area (RSH - *i* 1000$_{SR}$)

Perform this procedure to remove sample carrier(s) from the RSH (robotic sample handler) carrier transport and aspiration area after power is interrupted to the processing module(s).

Prerequisite	NA
Module status	Offline
User access level	General operator
Supplies	NA

WARNING: Potential Biohazard. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-7.

To remove sample carrier(s) from the RSH (robotic sample handler) carrier transport and aspiration area:

1. Open the processing module cover and observe the carrier transport and aspiration area for the presence of a sample carrier(s).

   NOTE: If there are no carrier(s) on the carrier transport or aspiration area, no further action is required.

2. Remove the carrier(s) carefully by lifting them up and out of their location.

   IMPORTANT: When removing or transporting sample carriers, avoid splashing sample outside of the sample cups and/or tubes.

3. Close the processing module cover.

To resume processing:

- If a UPS (uninterruptible power supply) was powering the system and the RSH was stopped prior to the loss of power, no further action is required.
- If power was lost prior to stopping the RSH the samples in the sample carrier on the carrier transport and the surrounding area may have been contaminated by sample splashing as the RSH carrier transport motor loses power. Discard all sample cups and/or tubes in this carrier.

  Perform ***as-needed*** maintenance procedures *6400 RSH Cleaning*, page 9-35 (*i* 1000_{SR}) to decontaminate the carrier transport and *6038 External Decontamination*, page 9-37 to clean the sample carrier.

Related information...

- *RSH - robotic sample handler (i* 1000_{SR}*)*, page 1-60

SCC corrective action procedure

A procedure that is often recommended as a corrective action for resolving error messages and observed problems associated with the SCC (system control center) is *Reseat cables to the SCC*, page 10-623.

Reseat cables to the SCC

Perform this procedure to reseat the cables to the SCC (system control center) when communication timeout errors occur and/or when suggested by the corrective action of an error code.

Prerequisite	*Power off the SCC*, page 5-4
Module status	NA
User access level	General operator
Supplies	NA

To reseat cables to the SCC:

1. Locate the desired cable(s) on the *Network hub and CPU back panel*, page 1-6.
2. Disconnect, and then reconnect the cable(s).
3. *Power on the SCC*, page 5-3.

   NOTE: Do not proceed to the next step until the system control center displays the **Snapshot** screen.
4. *Power on the processing module and/or sample handler*, page 5-7.

ARM corrective action procedures

Procedures that are often recommended as corrective actions for resolving error messages and observed problems associated with the ARCHITECT ARM (Automatic Reconstitution Module) accessory include:

- *Change the wash buffer transfer option*, page 10-623
- *Flush the ARM*, page 10-624
- *Calibrate the ARM level sense*, page 10-625

Change the wash buffer transfer option

Perform this procedure to change the wash buffer transfer option from automatic to manual when troubleshooting an ARCHITECT ARM (Automatic Reconstitution Module) accessory failure or as instructed

by the corrective action of an error code or observed problem. After you resolve the problem, change the wash buffer transfer option back to automatic.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the wash buffer transfer option:

1. Select **Reagents - Supplies** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure reagents - supplies window displays.
3. Select the desired **Wash buffer transfer** option.
4. Select **Done** to save your changes.

Related information...

- *Configuration screen - System settings view,* page 2-4
- *Configure reagents - supplies window,* page 2-36

Flush the ARM

Perform this procedure to flush the ARCHITECT ARM (Automatic Reconstitution Module) accessory when poor inlet water quality is indicated on the ARM keypad.

Prerequisite	*Access the Supply status screen - i 1000$_{SR}$ view*, page 5-18
Module status	All except Offline and Stopped
User access level	General operator
Supplies	NA

To flush the ARM:

1. Verify the ARM is in Ready status. If not, press the **stop** key on the ARM keypad followed by the **start** key.
2. Select **F2 - Update Supplies** on the Supply status screen.

   The Update supplies window displays.
3. Select the **Add Buffer** check box.

4. Select **Done** to initiate buffer transfer.

   The Update supplies window displays.

   NOTE: The ARM automatically flushes once you initiate buffer transfer.

5. Repeat steps 1 through 4 until buffer is successfully transferred to the processing module.

Related information...

- *ARM keypad (i System)*, page 1-56
- *Supply status screens*, page 5-17

Calibrate the ARM level sense

Perform this procedure to calibrate the level sense of the ARCHITECT ARM (Automatic Reconstitution Module) accessory when you install a new tubing assembly or there is too much buffer in the cubitainer when empty is indicated on the ARM keypad.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To calibrate the ARM level sense:

1. Press the **stop** key on the ARM keypad.
2. Disconnect the sensor cable. [1]

3. Disconnect the tubing. [2]

4. Remove the tubing assembly [3] from the concentrated wash buffer cubitainer and place it in the tubing assembly holder. [4]
5. Remove the wash buffer cubitainer [5] from the ARM.
6. Remove the tubing assembly from the tubing assembly holder.
7. Reconnect the sensor cable.
8. Hold the tubing assembly in a vertical position, and then press the **replace buffer** key.

   The amber replace buffer indicator beneath the replace buffer key flashes.

   NOTE: If the tubing assembly is not held vertically the ARM level sense calibration will not be accurate.
9. Disconnect the sensor cable while the indicator continues to flash.
10. Replace the wash buffer cubitainer.
11. Place the wash buffer tubing assembly in the concentrated wash buffer, and then twist the fitting to tighten.
12. Reconnect the sensor cable [1] and supply tubing quick disconnect fitting [2] to the ARM.

To transfer concentrated wash buffer to the processing module, see:

- *Replenish wash buffer manually and update inventory (i 1000$_{SR}$)*, page 5-27

Related information...

- *ARM keypad (i System)*, page 1-56

Introduction

The following printed reports are generated by the ARCHITECT System:

- *Assay Parameter Report (i System)*, page Appendix A-3
- *Cal Curve Details Report - Adjust (i System)*, page Appendix A-7
- *Cal Curve Details Report - Full (i System)*, page Appendix A-10
- *Cal Curve Details Report - Index (i System)*, page Appendix A-13
- *Cal Curve Summary Report*, page Appendix A-16
- *Exception Details Report*, page Appendix A-18
- *Exception Status Report*, page Appendix A-21
- *Levey - Jennings Report*, page Appendix A-23
- *Maintenance History Report*, page Appendix A-26
- *Message History Log Report*, page Appendix A-28
- *Order List Report*, page Appendix A-30
- *Order Status Report*, page Appendix A-32
- *Patient Report*, page Appendix A-34
- *Procedure Report, Basic*, page Appendix A-36
- *Procedure Report, Columnar*, page Appendix A-38
- *QC Analysis Report*, page Appendix A-40
- *QC Result Details Report*, page Appendix A-43
- *QC Results List Report*, page Appendix A-46
- *QC Summary Report*, page Appendix A-48
- *Reagent History Report*, page Appendix A-50
- *Reagent Load Error Report*, page Appendix A-52
- *Reagent Status Report (i 1000$_{SR}$)*, page Appendix A-54
- *Rerun List Report*, page Appendix A-56
- *Result Details Report*, page Appendix A-58
- *Results List Report*, page Appendix A-61
- *Sample Report*, page Appendix A-63
- *Sample Status Report*, page Appendix A-65

- *Temporary Message Log Report*, page Appendix A-67

Assay Parameter Report (*i* System)

Use this report as a hardcopy record of your configured assay parameters.

1 **Assay Parameter Report**

2 Operator ID: Abbott
3 System serial number: 1000

TSH

General parameters

4 Name: TSH
5 Assay type: Two step 18-4
6 Assay number: 241
7 Pretreatment option: None
8 Assay version: 24
9 Assay availability: Enabled
10 Cal version: 1
11 Assay status: Primary

Calibration parameters

12 Type: Adjust
13 Calibration method 4PLC Y
14 Adjustment method: Linear transformation
15 Replicates: 2

16

Standard concentrations	
Cal A	0.0000
Cal B	0.5000
Cal C	2.0000
Cal D	10.0000
Cal E	40.0000
Cal F	100.0000

17

Adjustors	
Cal 1	0.0000
Cal 2	40.0000

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Assay Parameter Report

Operator ID: Abbott
System serial number: 1000

TSH

Dilution parameters

18 Manual dilution: On

19 Default dilution: UNDILUTED

20 Result concentration units: mIU/mL

21 Dilution ranges:

Dilution name	Low	High
UNDILUTED	0.0000	100.0000
1:5	0.0500	500.0000

Results parameters

22 Flag range specifications:

Gender	Age	Normal range	Extreme range
Either	0 - 100	0.3500 - 4.9400	

23 Interpretation parameters

Name	Range	Results review required

Result units

24 Result concentration units: mIU/mL

25 Result decimal places: 4

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Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

   Shows the serial number configured for your ARCHITECT System.

4. Name:

   Shows the name of the assay.

5. Assay type:

   Shows the assay processing protocol type defined for the assay.

   Options are:

   – Two step 18 - 4
   – One step 25
   – Two step 4 - 4
   – One step 11

6. Assay number:

   Shows the number defined for the assay.

7. Pretreatment option:

   Shows the pretreatment option the system uses in the assay protocol.

8. Assay version:

   Shows the version number of the assay.

9. Assay availability:

   Shows the availability of the assay for ordering.

   Options are:

   – Enabled
   – Disabled
   – Patient Disabled

10. Cal version:

    Shows the calibration version of the assay.

11. Assay status:

    Shows the assay status defined for the assay.

    Options are:

    – Primary
    – Correlation

12. Type:

    Shows the assay type defined for the assay.

    Options are:

    – Full
    – Adjust
    – Index

13. Calibration method:

    Shows the calibration method defined for the assay.

    Options are:

    – Point to Point
    – Linear Regression

- 4PLC X
- 4PLC Y
- Cutoff

14. Adjustment method:

    Shows the adjustment method defined for the assay.

    Options are:

    - Linear Transformation
    - Parameter adjustment
    - Ratio techniques (Ratio A, Ratio AB, Adjustment)
    - Curve shape

15. Replicates:

    Shows the number of calibrator replicates the system uses when calculating the calibration curve.

16. Standard concentrations (column):

    Shows the concentrations for the standard calibrators (A - F) defined for the assay.

17. Adjustors (column):

    Shows the concentrations for the adjustor calibrators defined for the assay.

18. Manual dilution:

    Shows the availability of using the manual dilution option for the assay.

19. Default dilution:

    Shows the default dilution configured for the assay.

20. Result concentration units:

    Shows the result concentration units configured for the assay.

21. Dilution ranges:

    Show the dilution names and ranges specified for the assay.

22. Flag range specifications:

    Shows the age and gender-specific normal and extreme flags specified for the assay.

23. Interpretation parameters:

    Shows the interpretation parameters defined for the assay.

24. Result concentration units:

    Shows the result concentration units configured for the assay.

25. Result decimal places:

    Shows the number of digits specified to the right of the decimal for the result concentration units.

Cal Curve Details Report - Adjust (*i* System)

Use this report as a hardcopy record of your assay calibration details. You can configure this report to print automatically. See *Configure report settings*, page 2-7.

1 Cal Curve Details Report

2 Operator ID: Abbott

3 System serial number: 1000

4 Assay name: TSH

5 Assay number: 241

6 Reagent lot: 81234JS01

7 Expiration date: 12.31.2002

8 Serial no.: 10024

9 Cal status: Active

10 Module / Serial no.: 2 / iSR01000

11 Cal date: 06.27.2002

12 Cal time: 14:59

13 Cal type: Adjust

14 Operator ID:

15 Calibrator lot: 12345M300

16 Expiration date: 12.20.2002

Cal 1 ratio: 0.909 17 Cal 2 ratio: 1.255

18 Cal ID	19 Mean RLU	20 Rep. 1 RLU	21 Rep. 2 RLU
Cal 1	279.0	283	275
Cal 2	2546524.0	2550529	2542519

22 Concentration uIU/mL	23 Ref. Cal RLU	24 Fit curve RLU
0.0000	307	278.3
0.5000	53419	67628.9
2.0000	201525	250077.1
10.0000	816305	1018668.8
40.0000	2029702	2575854.5
100.0000	3022348	3773862.6

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Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

Shows the ID of the operator logged on when the report was printed.

3. System serial number:

   Shows the serial number configured for your ARCHITECT System.

4. Assay name:

   Shows the name of the assay.

5. Assay number:

   Shows the number assigned to the assay.

6. Reagent lot:

   Shows the lot number of the reagent.

7. Expiration date:

   Shows the expiration date of the reagent kit used for the calibration.

8. Serial no.:

   Shows the serial number of the reagent used to obtain the calibration curve.

9. Cal status:

   Shows the status of the calibration.

10. Module/Serial no.:

    Shows the module and serial number on which the assay was calibrated.

11. Cal date:

    Shows the date the calibration completed.

12. Cal time:

    Shows the time the calibration completed.

13. Cal type:

    Shows the type of calibration performed.

14. Operator ID:

    Shows the ID of the operator logged on when the order was placed.

15. Calibrator lot:

    Shows the lot number of the calibrator used to calibrate the assay.

16. Expiration date:

    Shows the expiration date of the calibrator lot number used to calibrate the assay.

17. Cal 1 ratio and Cal 2 ratio:

    Shows the ratios for the calibration adjustment.

18. Cal ID (column):

    Shows the name for each calibrator.

19. Mean RLU (column):

    Shows the mean RLU (relative light unit) for the calibrator replicates.

20. Rep. 1 RLU (column):

Shows the RLU value for replicate 1.

21. Rep. 2 RLU (column):

    Shows the RLU value for replicate 2.

22. Concentration / Units (column):

    Shows the concentration value for each level of calibrator as defined in the assay parameters.

23. Ref. Cal RLU (column):

    Shows the reference (master cal) data read from the 2-D bar code label.

24. Fit curve RLU:

    Shows the fit curve RLU data for each concentration.

Cal Curve Details Report - Full (*i* System)

Use this report as a hardcopy record of your assay calibration details. You can configure this report to print automatically. See *Configure report settings*, page 2-7.

1 **Cal Curve Details Report**

2 Operator ID: Abbott

3 System serial number: 1000

4 Assay name: B-hCG STAT

5 Assay number: 30

6 Reagent lot: 29876AC98

7 Expiration date: 12.31.2002

8 Serial no.: 10031

9 Cal status: Active

10 Module / Serial no.: 2 / iSR01000

11 Cal date: 06.27.2002

12 Cal time: 14:59

13 Cal type: Full

14 Operator ID:

15 Calibrator lot: 12345M300

16 Expiration date: 12.20.2002

Cal ID 17	18 Concentration uIU/mL	19 Fit curve RLU	20 Mean RLU	21 Rep. 1 RLU	22 Rep. 2 RLU
Cal A	0.00	682.4	611.5	610	613
Cal B	10.00	3048.1	3264.5	3372	3157
Cal C	250.00	72910.0	70765.5	69102	72429
Cal D	1000.00	301847.5	297533.5	300669	294398
Cal E	7500.00	1736819.4	1790547.5	1777954	1803141
Cal F	15000.00	2586173.0	2559207.5	2545874	2572541

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Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

   Shows the serial number configured for your ARCHITECT System.
4. Assay name:

   Shows the name of the assay.
5. Assay number:

   Shows the number assigned to the assay.
6. Reagent lot:

   Shows the lot number of the reagent.
7. Expiration date:

   Shows the expiration date of the reagent kit used for the calibration.
8. Serial no.:

   Shows the serial number of the reagent used to obtain the calibration curve.
9. Cal status:

   Shows the status of the calibration.
10. Module/Serial no.:

    Shows the module and serial number on which the assay was calibrated.
11. Cal date:

    Shows the date the calibration was completed.
12. Cal time:

    Shows the time the calibration was completed.
13. Cal type:

    Shows the type of calibration performed.
14. Operator ID:

    Shows the ID of the operator logged on when the order was placed.
15. Calibrator lot:

    Shows the lot number of the calibrator used to calibrate the assay.
16. Expiration date:

    Shows the expiration date of the calibrator lot number used to calibrate the assay.
17. Cal ID (column):

    Shows the name for each calibrator.
18. Concentration / Units (column):

    Shows the concentration value for each level of calibrator as defined in the assay parameters.
19. Fit curve RLU (column):

    Shows the fit curve RLU (relative light unit) data for each concentration.
20. Mean RLU (column):

    Shows the mean RLU data for the calibrator replicates.

21. Rep. 1 RLU (column):

    Shows the RLU values for replicate 1.

22. Rep. 2 RLU (column):

    Shows the RLU values for replicate 2.

Cal Curve Details Report - Index (*i* System)

Use this report as a hardcopy record of your assay calibration details. You can configure this report to print automatically. See *Configure report settings*, page 2-7.

1 Cal Curve Details Report

2 Operator ID: Abbott

3 System serial number: 1000

4 Assay name: Assay 2

5 Assay number: 161

6 Reagent lot: 49662M300

7 Expiration date:

8 Serial no.: 00304

9 Cal status: Active

10 Module/Serial no.: 1/i200019

11 Cal date: 08.14.2000

12 Cal time: 10:19

13 Cal type: Index 1 pt

14 Operator ID:

15 Calibrator lot:

16 Expiration date:

17 Cal ID	18 Mean RLU	19 Rep. 1 RLU	20 Rep. 2 RLU	21 Rep. 3 RLU
Cal 1	248,994.0	242,801	244,256	254,030

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Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

   Shows the serial number configured for your ARCHITECT System.
4. Assay name:

   Shows the name of the assay.
5. Assay number:

   Shows the number assigned to the assay.
6. Reagent lot:

   Shows the lot number of the reagent.
7. Expiration date:

   Shows the expiration date of the reagent kit used for the calibration.
8. Serial no.:

   Shows the serial number of the reagent used to obtain the calibration curve.
9. Cal status:

   Shows the status of the calibration.
10. Module/Serial no.:

    Shows the module and serial number on which the assay was calibrated.
11. Cal date:

    Shows the date the calibration completed.
12. Cal time:

    Shows the time the calibration completed.
13. Cal type:

    Shows the type of calibration performed.
14. Operator ID:

    Shows the ID of the operator logged on when the order was placed.
15. Calibrator lot:

    Shows the lot number of the calibrator used to calibrate the assay.
16. Expiration date:

    Shows the expiration date of the calibrator lot number used to calibrate the assay.
17. Cal ID (column):

    Shows the name for each calibrator.
18. Mean RLU (column):

    Shows the mean RLU (relative light unit) for the calibrator replicates.
19. Rep. 1 RLU (column):

    Shows the RLU value for replicate 1.
20. Rep. 2 RLU (column):

    Shows the RLU value for replicate 2.

21. Rep. 3 RLU (column):

    Shows the RLU value for replicate 3.

Cal Curve Summary Report

Use this report to quickly identify reagent lots with an expired calibration or no calibration.

1 Cal Curve Summary Report

2 Operator ID: Abbott

3 System serial number: 1000

4 Module	5 Assay	6 Reagent lot	7 Cal status	8 Cal date / time	9 Cal expiration date / time
2	_B-hCG	29876AC98	Active	06.27.2002 15:03	
2	_FT4	63176AC98	No Cal		
1	AlbG	10150L200	Active	06.27.2002 15:04	08.08.2000 15:04
1	ALT	11111M921	Active	06.27.2002 14:58	07.24.2000 14:58
1	AST	10230L002	Active	06.26.2002 20:22	07.26.2000 20:22
2	B-hCG STAT	29876AC98	Active	06.27.2002 15:02	
1	Ca	10080L009	Active	06.27.2002 15:00	08.07.2000 15:00
1	Chol	10180HW00	Active	06.27.2002 15:05	07.27.2000 15:05
1	CL	710B1I001	Expired	06.28.2002 18:49	06.29.2000 02:49
1	Crea	10070M907	Expired	06.28.2002 18:49	06.29.2000 18:49

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

   Shows the serial number configured for your ARCHITECT System.

4. Module (column):

   Shows the module on which the reagent lot was calibrated.

5. Assay (column):

   Shows the name of the assay.

6. Reagent lot (column):

   Shows the lot number of the reagent.

7. Cal status (column):

   Shows the calibration status of the reagent lot.

8. Cal date / time (column):

   Shows the date and time the reagent lot was calibrated.

9. Cal expiration date / time (column):

   Shows the date and time the calibration curve expires for the reagent lot. (*c* System)

Exception Details Report

Use this report to troubleshoot your system.

1 Exception Details Report
2 Operator ID: Abbott
3 System serial number: 1000
4 Name: Smith, John Lee
5 Sample ID: SID001
6 Assay: Crea
7 Patient ID: 707341
8 Assay number: 1007
9 Draw date / time: 06.06.2001 / 00:25
10 Module / Serial no.: /
11 Sample comment: Call results to doctor.
Calibration information
12 Cal. lot:
13 Cal. date/time:
14 Reagent master lot:
15 Serial no.:
16 Date completed: 07.02.2002
17 Location: ER2
18 Time completed: 19:39
19 Doctor: Black
20 Operator ID: Abbott

21 C / P	22 Dilution	23 Code	24 Abs.	25 Cuvette	26 Error code / Description
P100/1	Default	C			0218 / Unable to process test, no Processing Modules available.

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

Shows the serial number configured for your ARCHITECT System.

4. Name:

   Shows the name of the patient, control, or calibrator.

5. Sample ID:

   Shows the bar code number or ID assigned to the sample.

6. Assay:

   Shows the name of the assay.

7. Patient ID:

   Shows the ID assigned to the patient.

8. Assay number:

   Shows the number assigned to the assay.

9. Draw date / time:

   Shows the date and time the sample was drawn.

10. Module/Serial no.:

    Shows the module and serial number on which the exception was generated. This field is blank when the test cannot be assigned to or processed on a module.

11. Sample comment:

    Shows the comment entered for the test.

12. Cal. lot:

    Shows the calibrator lot number for the calibration used to calculate the result.

13. Cal. date / time:

    Shows the calibration date and time for the reagent lot used to calculate the result.

14. Reagent master lot:

    Shows the reagent master lot for the calibration used to calculate the result.

15. Serial no.:

    Shows the serial number of the reagent used to obtain the calibration curve.

16. Date completed:

    Shows the date the exception completed.

17. Location:

    Shows the location associated with the patient.

18. Time completed:

    Shows the time the exception completed.

19. Doctor:

    Shows the name of the patient's doctor.

20. Operator ID:

Shows the ID of the operator logged on when the order was placed.

21. C / P (column):

    Shows the sample location for one of the following:

    – Carrier ID and position (P) (RSH/SSH)
    – LAS - Shown if the sample was pipetted from the LAS track
    – LAS carousel ID (C) and position (P) (*i* 2000)

22. Dilution (column):

    Shows the dilution used for the test.

23. Code (column):

    Shows the code(s) to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-105.

24. Abs. (column):

    Shows the absorbance value for the test.

25. Cuvette (column):

    Shows the number of the cuvette used to process the exception.

26. Error code / Description (column):

    Shows the error code number and description.

Exception Status Report

Use this report to troubleshoot your system.

1 Exception Status Report

2 Operator ID: Abbott

3 System serial number: 1000

4 C / P	5 SID	6 Name	7 Assay	8 Module	9 Error code
P100/1	SID001	Smith, John Lee	CL		0218
P100/1	SID001	Smith, John Lee	Crea		0218
P100/1	SID001	Smith, John Lee	K		0218
P100/1	SID001	Smith, John Lee	Na		0218

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

Shows the serial number configured for your ARCHITECT System.

4. C / P (column):

   Shows the sample location for one of the following:

   – Carrier ID and position (P) (RSH/SSH)
   – LAS - Shown if the sample was pipetted from the LAS track
   – LAS carousel ID (C) and position (P) (*i* 2000)

5. SID (column):

   Shows the bar code number or ID assigned to the sample.

6. Name (column):

   Shows the name of the patient, control, or calibrator for the order.

7. Assay (column):

   Shows the name of the assay.

8. Module (column):

   Shows the module that generated the test exception. This field is blank when the test cannot be assigned to or processed on a module.

9. Error code (column):

   Shows the numeric error code for the exception and the message text that describes the error that occurred.

Levey - Jennings Report

Use this report as a hardcopy record of QC data.

1 Levey - Jennings Report

2 Operator ID:

3 System serial number: 100

4 Assay Name: TT4
6 Control Name: 1080
8 Control Level: Level 1
10 Control Lot Number: IACC
11 Control Expiration Date:

5 Module: 2
7 Module Serial Number: iSR01002
9 Date Range: 04.19.2005 - 05.19.2005
12 Calculation Type: Cumulative and Sample

13 Date / Time		14 Results	15 Reagent Lot Number	16 Flags	17 -2SD	18 -1SD	19 Mean	18 +1SD	17 +2SD
05.05.2005	14:01:52	3.57	59876CC98					+	
05.05.2005	14:02:48	4.07	59876CC98						+
05.05.2005	14:03:42	0.57	59876CC98	1-3s	<				
05.05.2005	14:04:55	1.57*	59876CC98			*			
05.05.2005	14:06:14	2.57*	59876CC98					*	
05.05.2005	14:08:12	3.17*	59876CC98					*	

EXPECTED:		MANUFACTURER:	
20 Mean:	2.43115 ug/dL	21 Mean:	2.60000 ug/dL
S.D.:	0.70000 ug/dL	S.D.:	0.70000 ug/dL

MODULE CUMULATIVE:		SYSTEM CUMULATIVE:	
22 Mean:	2.57000 ug/dL	23 Mean:	2.57000 ug/dL
S.D.:	0.00000 ug/dL	S.D.:	0.00000 ug/dL
%C.V.:	0.00000	%C.V.:	0.00000
N:	40	N:	40

MODULE DATA FOR DATE RANGE:		SYSTEM DATA FOR DATE RANGE:	
24 Mean:	2.57000 ug/dL	25 Mean:	2.57000 ug/dL
S.D.:	0.00000 ug/dL	S.D.:	0.00000 ug/dL
%C.V.:	0.00000	%C.V.:	0.00000
N:	20	N:	20

* - Excluded Result

Printed On: 05.19.2005
3:19:56PM

ARCHITECT®

Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

Shows the serial number configured for your ARCHITECT System.

4. Assay Name:

   Shows the name of the assay.

5. Module:

   Shows the module number on which the controls were run.

6. Control Name:

   Shows the name of the control.

7. Module Serial Number:

   Shows the serial number of the module on which the controls were run.

8. Control Level:

   Shows the level of the control.

9. Date Range:

   Shows the date range selected for the Levey - Jennings report.

10. Control Lot Number:

    Shows the lot number of the control.

11. Control Expiration Date:

    Shows the expiration date of the control.

12. Calculation Type:

    Shows the calculation type, which includes cumulative data for both the module and the system.

13. Date / Time (column):

    Shows the date and time for each control result.

14. Results (column):

    Shows the results for each control. Results with an asterisk are excluded from the calculations.

15. Reagent Lot Number:

    Shows the lot number for the reagent kit used to run the control.

16. Flags:

    Shows the flags associated with the result. See *Descriptions of quality control result flags*, page 5-159.

17. ±2SD:

    Shows ±2 SD (standard deviation) for the control data.

18. ±1SD:

    Shows ±1 SD (standard deviation) for the control data.

19. Mean:

    Shows the mean for the control data.

20. EXPECTED:

    Shows the expected mean and standard deviation configured.

21. MANUFACTURER:

    Shows the manufacturer's mean and standard deviation configured.

22. MODULE CUMULATIVE:

    Shows the module cumulative data for the control run on the specified module.

23. SYSTEM CUMULATIVE:

    Shows the system cumulative data for the control run on the system. This data is the same as the module cumulative data when there is only one module.

24. MODULE DATA FOR DATE RANGE:

    Shows the module data calculated for the specified module and date range.

25. SYSTEM DATA FOR DATE RANGE:

    Shows the system data calculated for the date range. This data is the same as the module data for date range when there is only one module.

Maintenance History Report

Use this report as a hardcopy record of the maintenance performed on your system.

1 Maintenance History Report

2 Module no:	1	3 Approval status:	Unapproved
4 Serial no:	c801000	5 Approval date:	
6 Operator ID:	Abbott	7 Approved by:	

8 Category: Daily
9 Procedure: 6024 Check 1 mL Syringes

10 Date	11 Time	12 Operator ID	13 Status	14 Comments
07.03.2002	09:44:53	Abbott	Completed	
07.02.2002	00:00:00		Not performed	

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Module no.:

   Shows the module on which the maintenance procedure was performed.

3. Approval status:

   Shows the status of approval for the maintenance log.

4. Serial no.:

   Shows the serial number of the module on which the maintenance procedure was performed.

5. Approval date:

   Shows the date of approval for the maintenance log.

6. Operator ID:

   Shows the ID of the operator logged on when the procedure was performed.

7. Approved by:

   Shows the ID of the operator who approved the maintenance log.

8. Category:

   Shows the maintenance category of the procedure.

9. Procedure:

   Shows the name of the maintenance procedure.

10. Date (column):

    Shows the date the maintenance procedure was performed.

11. Time (column):

    Shows the time the maintenance procedure was performed.

12. Operator ID (column):

    Shows the ID of the operator logged on when the procedure was performed.

13. Status (column):

    Shows the status of the maintenance procedure.

14. Comments:

    Shows the comments entered for the maintenance procedure.

Message History Log Report

Use this report to troubleshoot your system.

1 Message History Log Report

2 Operator ID: Abbott

3 System serial number: 1000

4 Date	5 Time	6 Module	7 Error code / Message text
07.02.20002	16:50:30	5	0504 User (Abbott) logged on.
07.02.20002	16:50:26	5	2200 (6311 RSH Cleaning) procedure failed, refer to Activity window for details.
07.01.20002	16:28:35	5	2201 (6114 Install/Delete Assays) procedure canceled by user.
07.01.20002	16:28:35	1	0529 c8000 module powered ON.
07.01.20002	16:06:12	0	9077 Unable to communicate to Sample Handler or Processing Module, error (37), (10061).
06.28.20002	14:40:27	1	2019 (Alkaline Wash) inventory empty, update supplies.

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

Shows the serial number configured for your ARCHITECT System.

4. Date (column):

   Shows the date the error/message was generated.

5. Time (column):

   Shows the time the error/message was generated.

6. Module (column):

   Shows the module that generated the error/message.

7. Error code / Message text (column):

   Shows the numeric error code for the exception and the message text that describes the error that occurred.

Order List Report

Use this report to aid in loading samples.

1 Order List Report

2 Operator ID: Abbott

3 System serial number: 1000

4 C / P	5 SID	6 Name	7 Code	8 Minimum sample volume
P100/1	SID001	Smith, John Lee		120.0 uL
P200/1	SID006	Jones, Bill W		291.0 uL
P200/4	SID009	Walker, Mary W		120.0 uL

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

Shows the serial number configured for your ARCHITECT System.

4. C / P (column):

   Shows the sample location for one of the following:

   – Carrier ID and position (P) (RSH/SSH)
   – LAS - Shown if the sample was pipetted from the LAS track
   – LAS carousel ID (C) and position (P) (*i* 2000)

   NOTE: This field is blank for pending orders that have not been assigned a carrier or carousel position.

5. SID (column):

   Shows the bar code number or ID assigned to the sample.

6. Name (column):

   Shows the name of the patient, control, or calibrator for the order.

7. Code (column):

   Shows the code(s) to indicate a sample processing condition(s). See *Descriptions of processing codes*, page 5-105.

   NOTE: Only sample processing codes (M and S) will print.

8. Minimum sample volume (column):

   Shows the minimum sample cup volume required to process the test.

Order Status Report

Use this report to check the status of an order.

1 Order Status Report

2 Operator ID: Abbott

3 System serial number: 1000

C / P	SID	Name	Assay	Status	Time	Code
4	5	6	7	8	9	10
P100/1	SID001	Smith, John Lee	TSH	Running	20:14	C
P100/1	SID001	Smith, John Lee	TT4	Running	20:14	C
P100/1	SID001	Smith, John Lee	Glu	Running	20:14	C
P100/1	SID001	Smith, John Lee	Urea	Running	20:14	C
P200/1	SID006	Smith, Bob	Chol	Running	20:14	
P200/4	SID009	Jackson, Wilma	Glu	Running	20:14	
	SID001	Smith, John Lee	Na	Pending		R, C
P200/4	SID009	Jackson, Wilma	Urea	Running	20:14	
P200/4	SID009	Jackson, Wilma	TSH	Running	20:14	
	SID001	Smith, John Lee	K	Pending		R, C

Printed On: 07.02.2002 ARCHITECT© Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

Shows the serial number configured for your ARCHITECT System.

4. C / P (column):

   Shows the sample location for one of the following:

   – Carrier ID and position (P) (RSH/SSH)
   – LAS - Shown if the sample was pipetted from the LAS track
   – LAS carousel ID (C) and position (P) (*i* 2000)

   NOTE: This field is blank for pending orders that have not been assigned a carrier or carousel position.

5. SID (column):

   Shows the bar code number or ID assigned to the sample.

6. Name (column):

   Shows the name of the patient, control and level, or calibrator for the order.

7. Assay (column):

   Shows the name of the assay.

8. Status (column):

   Shows the current status of the test ordered.

9. Time (column):

   Shows the time the test with a status of Running will complete (in 24 hour format).

10. Code (column):

    Shows the code(s) to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-105.

Patient Report

Use this report as a hardcopy patient record.

1 **Laboratory Name**
Address
City, State Zip Code

Released

2 Name: Jackson, Wilma
3 Gender: Female
4 Patient ID: 123456
5 Birthdate: 09.09.1963

6 Sample ID: SID009
7 Draw date / time: 07.06.2002 / 21:30
8 Location: N 123
9 Doctor: Brown

10 Assay	11 Result	12 Units	13 Flags	14 Range	15 Date Completed Time completed
TT4	12.33	ug/dL	HIGH	4.87 - 11.72	07.09.2002 12.:04
TSH	1.1783	uIU/mL		0.3500 - 4.9400	07.09.2002 12.:04

Sample ID: SID010
Draw date / time: 07.06.2002 / 21:30
Location: N 123
Doctor: Brown

Assay	Result	Units	Flags	Range	Date Completed Time completed
TP	5.151	g/dL	LOW	6.40 - 8.30	07.09.2002 12:04

End of patient record

Printed On: 07.02.2002
ARCHITECT®
Page: 1 of 1

Legend:

1. Report header:

   Shows the configured report header information.

2. Name:

   Shows the name of the patient.

3. Gender:

Shows the gender of the patient.

4. Patient ID:

   Shows the ID assigned to the patient.

5. Birthdate:

   Shows the patient's birthdate.

6. Sample ID:

   Shows the bar code number or ID assigned to the sample.

7. Draw date / time:

   Shows the date and time the sample was drawn.

8. Location:

   Shows the location associated with the patient.

9. Doctor:

   Shows the name of the patient's doctor.

10. Assay (column):

    Shows the name of the assay.

11. Result (column):

    Shows the value and (where applicable) interpretation of the result.

12. Units (column):

    Shows the units for the result.

13. Flags (column):

    Shows the flags associated with the result. See *Descriptions of patient result flags*, page 5-145.

14. Range (column):

    Shows the normal / therapeutic range of the assay, if configured.

15. Date Completed / Time completed:

    Shows the date and time the result completed.

Procedure Report, Basic

Use this report as a hardcopy record of a maintenance or diagnostic procedure performed on your system. You can configure this report to print automatically. See *Configure report settings*, page 2-7.

1 Procedure Report

2 Procedure: 6070 Daily Maintenance
3 Procedure version: 2
4 Date: 06.17.2002
5 Module no: 1
6 Time: 15:50:30
7 Serial no: c801000
8 Status: Completed
9 Operator ID: Abbott

Results:
10 6070 Daily Maintenance Procedure completed.

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Procedure:

   Shows the name of the procedure.

3. Procedure version:

   Shows the version of the procedure.

4. Date:

   Shows the date the procedure was performed.

5. Module no.:

   Shows the number of the module on which the procedure was performed.

6. Time:

   Shows the time when the procedure was performed.

7. Serial no.:

   Shows the serial number of the module on which the procedure was performed.

8. Status:

   Shows the status of the procedure.

9. Operator ID:

   Shows the ID of the operator logged on when the procedure was performed.

10. Results:

    Shows the results of the procedure.

Procedure Report, Columnar

Use this report as a hardcopy record of a maintenance or diagnostic procedure performed on your system. You can configure this report to print automatically. See *Configure report settings*, page 2-7.

1 Procedure Report

2 Procedure: 6070 Daily Maintenance
3 Procedure version: 2
4 Date: 06.17.2002
5 Module no: 1
6 Time: 15:50:30
7 Serial no: c801000
8 Status: Completed
9 Operator ID: Abbott

Results:
10 6070 Daily Maintenance Procedure completed.

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Procedure:

   Shows the name of the procedure.

3. Procedure version:

   Shows the version of the procedure.

4. Date:

   Shows the date the procedure was performed.

5. Module no.:

   Shows the number of the module on which the procedure was performed.

6. Time:

   Shows the time when the procedure was performed.

7. Serial no.:

   Shows the serial number of the module on which the procedure was performed.

8. Status:

   Shows the status of the procedure.

9. Operator ID:

   Shows the ID of the operator logged on when the procedure was performed.

10. Results:

    Shows the results of the procedure.

QC Analysis Report

Use this report as a hardcopy record of QC data.

1 QC Analysis Report

2 Operator ID: Abbott
3 System serial number: 1000

4 Assay Name: Ca
5 Module: 1
6 Control Name: BioRad
7 Module Serial Number: c801000
8 Control Level: Level 1
9 Date Range: 06.03.2002 - 07.03.2002
10 Control Lot Number: 12345M100
11 Control Expiration Date: 12.20.2002
12 Calculation Type: Cumulative and Sample

13 Date / Time	14 Results	15 Units	16 Reagent Lot Number	17 Operator ID	18 Flags	19 Code
08.19.2002 17:29:21	7.380	mg/mL	10080L009	Abbott		
08.19.2002 17:29:03	12.731*	mg/mL	10080L009	ADMIN	1-3s	C
08.19.2002 17:28:45	7.380	mg/mL	10080L009	ADMIN		
08.19.2002 17:28:27	7.380	mg/mL	10080L009	ADMIN		

EXPECTED:		MANUFACTURER:	
20 Mean:	7.50000 mg/mL	21 Mean:	7.50000 mg/mL
S.D.:	0.37500 mg/mL	S.D.:	0.37500 mg/mL

MODULE CUMULATIVE:		SYSTEM CUMULATIVE:	
22 Mean:	7.38000 mg/dL	23 Mean:	7.38000 mg/dL
S.D.:	0.00000 mg/dL	S.D.:	0.00000 mg/dL
%C.V.:	0.00000	%C.V.:	0.00000
N:	3	N:	3

MODULE DATA FOR DATE RANGE:		SYSTEM DATA FOR DATE RANGE:	
24 Mean:	7.38000 mg/dL	25 Mean:	7.38000 mg/dL
S.D.:	0.00000 mg/dL	S.D.:	0.00000 mg/dL
%C.V.:	0.00000	%C.V.:	0.00000
N:	3	N:	3

* - Excluded Result

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

Shows the serial number configured for your ARCHITECT System.

4. Assay Name:

   Shows the name of the assay.

5. Module:

   Shows the module number on which the controls were run.

6. Control Name:

   Shows the name of the control.

7. Module Serial Number:

   Shows the serial number of the module on which the controls were run.

8. Control Level:

   Shows the level of the control.

9. Date Range:

   Shows the date range selected for the QC report.

10. Control Lot Number:

    Shows the lot number of the control.

11. Control Expiration Date:

    Shows the expiration date of the control.

12. Calculation Type:

    Shows the calculation type, which includes cumulative data for both the module and the system.

13. Date / Time (column):

    Shows the date and time for each control result.

14. Results (column):

    Shows the results for each control. Results with an asterisk are excluded from the calculations.

15. Units (column):

    Shows the units for each control result.

16. Reagent Lot Number:

    Shows the lot number for the reagent kit used to run the control.

17. Operator ID:

    Shows the ID of the operator logged on when the order was placed.

18. Flags:

    Shows the flags associated with the result. See *Descriptions of quality control result flags*, page 5-159.

19. Code (column):

    Shows the code(s) to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-105.

20. EXPECTED:

Shows the expected mean and standard deviation configured.

21. MANUFACTURER:

    Shows the manufacturer's mean and standard deviation configured.

22. MODULE CUMULATIVE:

    Shows the module cumulative data for the control run on the specified module.

23. SYSTEM CUMULATIVE:

    Shows the system cumulative data for the control run on the system. This data is the same as the module cumulative data when there is only one module.

24. MODULE DATA FOR DATE RANGE:

    Shows the module data calculated for the specified module and date range.

25. SYSTEM DATA FOR DATE RANGE:

    Shows the system data calculated for the date range. This data is the same as the module data for date range when there is only one module.

QC Result Details Report

Use this report to troubleshoot your system.

1 QC Result Details Report
Unreleased

2 Operator ID: Abbott
3 System serial number: 1000

4 Control name: BioRad - Level
6 Sample ID: BioRadLevel 1
8 Control lot number: 12345M100
10 Control comment:

5 Assay: K
7 Assay number: 1002
9 Module / Serial no.: 1 / c801000

Calibration information
11 Cal. lot: 12345M300
12 Cal. date/time: 07.03.2002 / 08:46
13 Reagent master lot: 710B11001
14 Serial no.: 12346

15 Date completed: 07.03.2002
16 Time completed: 10:00
17 Operator ID: Abbott

18 C / P	19 Result	20 Units	21 Range	22 Dilution	23 Flags	24 Code	25 mV	26 Cuvette
Z106/1	4.301	mmol/L	4.000 - 4.600	STANDARD			1.1559	126

Control name: FT4 - Medium
Sample ID: FT4 - Medium
Control lot number: 12345M100
Control comment:

Assay: FT4
Assay number: 101
Module / Serial no.: 2 / iSR01000

Calibration information
Cal. lot: 12345M300
Cal. date/time: 06.27.2002 / 14:58
Reagent master lot: 53233AC98
Serial no.: 10022

Date completed: 07.03.2002
Time completed: 10:01
Operator ID: Abbott

C / P	Result	Units	Range	Dilution	Flags	Code	RLU
Z100/1	1.25	ng/dL	0.86 - 1.55	UNDILUTED			245849

Control name: BioRad - Level 1
Sample ID: BioRadLevel 1
Control lot number: 12345M100
Control comment:

Assay: Ca
Assay number: 1008
Module / Serial no.: 1 / c801000

Calibration information
Cal. lot: 12345M300
Cal. date/time: 06.27.2002 / 15:00
Reagent master lot: 10080L009
Serial no.: 00987

Date completed: 07.03.2002
Time completed: 10:02
Operator ID: Abbott

C / P	Result	Units	Range	Dilution	Flags	Code	Abs.	Cuvette
Z106/1	7.380	mg/dL	6.750 - 8.250	Default			0.4085	128

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

Shows the serial number configured for your ARCHITECT System.

4. Control name:

   Shows the name and level of the control.

5. Assay:

   Shows the name of the assay.

6. Sample ID:

   Shows the bar code number or ID assigned to the sample.

7. Assay number:

   Shows the number assigned to the assay.

8. Control lot number:

   Shows the lot number of the control.

9. Module / Serial no.:

   Shows the module and serial number on which the assay was run.

10. Control comment:

    Shows the comment entered for the control.

11. Cal. lot:

    Shows the calibrator lot number for the calibration used to calculate the result.

12. Cal. date / time:

    Shows the calibration date and time for the reagent lot used to calculate the result.

13. Reagent master lot:

    Shows the reagent master lot for the calibration used to calculate the result.

14. Serial no.:

    Shows the serial number of the reagent used to obtain the calibration curve.

15. Date completed:

    Shows the date the control completed.

16. Time completed:

    Shows the time the control completed.

17. Operator ID:

    Shows the ID of the operator logged on when the order was placed.

18. C / P (column):

    Shows the sample location for one of the following:

    – Carrier ID and position (P) (RSH/SSH)
    – LAS - Shown if the sample was pipetted from the LAS track
    – LAS carousel ID (C) and position (P) (*i* 2000)

19. Result (column):

    Shows the value of the control result.

20. Units (column):

    Shows the units for the control result.

21. Range (column):

    Shows the range configured for the control.

22. Dilution (column):

    Shows the dilution used for the test.

23. Flags (column):

    Shows the flags associated with the result. See *Descriptions of quality control result flags*, page 5-159.

24. Code (column):

    Shows the code(s) to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-105.

25. mV (column):

    Shows the millivolt value for the control result.

26. Cuvette (column):

    Shows the number of the cuvette used to process the control.

QC Results List Report

Use this report to troubleshoot your system and as a hardcopy record of QC results.

1 QC Results List Report 2 Operator ID: Abbott
Released 3 System serial number: 1000

4 C / P	5 Module	6 SID	7 Control name	8 Assay	9 Result	10 Flags	11 Code	12 Date / Time
Z106/1	1	BioRadLevel 1	BioRad - Level 1	CL	105.401 mmol/L			07.03.2002 10:00
Z106/1	1	BioRadLevel 1	BioRad - Level 1	K	4.301 mmol/L			07.03.2002 10:00
Z106/1	1	BioRadLevel 1	BioRad - Level 1	Na	140.031 mmol/L			07.03.2002 10:00
Z106/2	1	BioRadLevel 2	BioRad - Level 2	CL	88.183 mmol/L			07.03.2002 10:00
Z106/2	1	BioRadLevel 2	BioRad - Level 2	K	6.308 mmol/L			07.03.2002 10:00
Z106/2	1	BioRadLevel 2	BioRad - Level 2	Na	125.019 mmol/L			07.03.2002 10:01
Z101/1	2	FT4 Low	FT4 - Low	FT4	0.90 ng/dL			07.03.2002 10:01
Z101/2	2	FT4 Medium	FT4 - Medium	FT4	1.25 ng/dL			07.03.2002 10:01
Z101/3	2	FT4 High	FT4 - High	FT4	3.37 ng/dL			07.03.2002 10:01

Printed On: 07.02.2002 ARCHITECT© Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

   Shows the serial number configured for your ARCHITECT System.

4. C / P (column):

   Shows the sample location for one of the following:

   – Carrier ID and position (P) (RSH/SSH)
   – LAS - Shown if the sample was pipetted from the LAS track
   – LAS carousel ID (C) and position (P) (*i* 2000)

5. Module (column):

   Shows the module that generated the control result.

6. SID (column):

   Shows the bar code number or ID assigned to the sample.

7. Control name (column):

   Shows the name and level for the control.

8. Assay (column):

   Shows the name of the assay.

9. Result (column):

   Shows the value of the control result.

10. Flags (column):

    Shows the flags associated with the result. See *Descriptions of quality control result flags*, page 5-159.

11. Code (column):

    Shows the code(s) to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-105.

12. Date / Time (column):

    Shows the date and time the control result was completed.

QC Summary Report

Use this report as a hardcopy record of QC data.

1 QC Summary Report

2 Operator ID: Abbott

3 System serial number: 1000

4 Start Date: 02.05.2005

5 End Date: 03.07.2005

6 Control Name: BioRad

7 Module: 1

8 Control Lot Number: 12345M100

9 Module Serial Number: c801000

10 Assay	11 Level	12 N	13 Actual Mean	13 Actual SD	13 Actual %CV	14 Expected Mean	14 Expected SD
Ca	Level 1	4	7.50000	0.7500	2.0	7.50000	0.7500
Ca	Level 2	4	12.70000	0.2300	2.3	12.70000	0.2300

Printed On: 03.07.2005 12:30:01 PM

ARCHITECT®

Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

Shows the serial number configured for your ARCHITECT System.

4. Start Date:

   Shows the Start Date entered in the QC summary review screen.

5. End Date:

   Shows the End Date entered in the QC summary review screen.

6. Control Name:

   Shows the name of the control.

7. Module:

   Shows the module that generated the control result(s).

8. Control Lot Number:

   Shows the lot number of the control

9. Module Serial Number:

   Shows the serial number of the module on which the controls were run.

10. Assay:

    Shows the name of the assay.

11. Level:

    Shows the level of the control.

12. N:

    Shows the number of samples for that control level within the specified date range.

13. Actual:

    Shows the Mean, SD, and %CV for that control level within the specified date range.

14. Expected:

    Shows the expected mean and standard deviation configured.

Reagent History Report

Use this report to identify the number of remaining tests and expiration dates of the last 3000 reagent packs.

1 Reagent History Report

2 Operator ID: FSE

3 System serial number: 100

4 M / P	5 Assay	6 Cal status	7 Reagent lot	8 Remaining tests	9 Reagent status	10 Exp. date	11 Stability
1 / 7	TT4	Active	5987AC98	92	OK	12.31.2007	200
1 / 8	TSH	Active	81234JS01	100	OK	12.31.2007	60
1 / 16, 24	B12	No Cal	11001M300	100	OK	08.05.2006	30
1 / 17	_B-hCG _BhCG_STAT	Active No Cal	29876BC98	76	Overriden	12.31.2000	200
1 / 25	TSH	Active	81234JS01	92	OK	12.31.2007	60
1 / RSH 1, RSH 2	_Estradiol	No Cal	29213M100	100	Expired	01.06.2006	30
1 / RSH 3	TSH	Active	81234JS01	100	Mismatch	12.31.2007	60
1 / RSH 4	TSH	Active	81234JS01		Missing Bottle	12.31.2007	
1 / RSH 5	_B-hCG _BhCG_STA	Active No Cal	29876AC98	100	Mismatch	12.31.2007	200
1 / RSH 6			71234JS01	100	No Assay	12.31.2007	60
1 / RSH 7	TT4	Active	59876AC98		Extra Bottle	12.31.2007	
1 / RSH 9	_Estradiol	No Cal	20713M200	100		12.31.2007	30
1 / RSH			24623M100	100	No Assay	05.22.2006	30
1 / RSH 11	_Estradiol		24623M100	100	No Assay	05.22.2006	30
1 / RSH 12			13245M100	100	No Assay	10.21.2007	30
1 / RSH 13, 9		No Cal	20469M200	100	OK	12.31.2007	30

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

   Shows the serial number configured for your ARCHITECT System.

4. M / P (column):

   Shows the module and position in which the reagent kit is located.

5. Assay (column):

   Shows the name of the assay.

6. Cal status (column):

   Shows the status of the calibration for the reagent lot.

7. Reagent lot (column):

   Shows the lot number of the reagent kit.

8. Remaining tests (column):

   Shows the number of tests remaining for the reagent kit (*i* 2000).

9. Reagent status (column):

   Shows the status of the reagent kit.

10. Exp date (column):

    Shows the date on which the reagent kit expires.

11. Stability (column):

    Shows the number of onboard stability days/hours remaining for the reagent kit.

Reagent Load Error Report

Use this report to troubleshoot reagent load errors.

1 Reagent Load Error Report

2 Operator ID: Abbott

3 System serial number: 1000

4 Module: 2

5 Reagent status: Missing bottle

6 Assays: Progest

7 Location	8 Serial number Onboard	9 Serial number Expected
7 - Outer Ring	J - 10020	J - 10020
7 - Middle Ring	G - 10019	G - 10019
7 - Inner Ring		H - 10021

Module: 2

Reagent status: Empty

Assays: FT4

Location	Serial number Onboard	Serial number Expected
8 - Outer Ring		
8- Middle Ring	G - 10022	G - 10022
8- Inner Ring	H - 10023	H - 10023

Module: 2

Reagent status: Empty

Assays: TSH

Location	Serial number Onboard	Serial number Expected
9 - Outer Ring	J - 10025	J - 10025
9- Middle Ring	G - 10024	G - 10024
9- Inner Ring	H - 10026	H - 10026

Module: 2

Reagent status: Empty

Assays: TT4

Location	Serial number Onboard	Serial number Expected
10 - Outer Ring		
10- Middle Ring	G - 10027	G - 10027
10- Inner Ring	H - 10028	H - 10028

Module: 2

Reagent status: Empty

Assays: TT4

Location	Serial number Onboard	Serial number Expected
11 - Outer Ring		
11- Middle Ring	G - 10029	G - 10029
11- Inner Ring	H - 10030	H - 10030

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

Shows the serial number configured for your ARCHITECT System.

4. Module:

   Shows the number of the module in which the reagent is located.

5. Reagent status:

   Shows the status of the reagent kit.

6. Assays:

   Shows the name of the assay.

7. Location (column):

   Shows the position in which you loaded the reagent bottle/cartridge.

8. Serial number / Onboard (column):

   Shows the serial number of the reagent bottle/cartridge loaded on board the reagent carousel(s).

9. Serial number / Expected (column):

   Shows the serial number of the reagent bottle/cartridge expected to be loaded on the reagent carousel(s).

Reagent Status Report (*i* 1000_{SR})

Use this report to quickly identify empty reagent kits.

* Expiration Date and Stability columns are not shown.

1 Reagent Status Report

2 Operator ID: FSE

3 System serial number: 100

4 M / P	5 Assay	6 Cal status	7 Reagent lot	8 Remaining tests	9 Reagent status	*	10 Carrier Status
1 / 7	TT4	Active	59876AC98	92	OK		
1 / 8	TSH	Active	81234JS01	100	OK		Schedule Unloaded
1/ 16, 24	B12	No Cal	11001M300	100	OK		
1 / 17	_B-hCG	Active	29876BC98	76	Overridden		
	_BhCG_STAT	No Cal					
1 / 25	TSH	Active	81234JS01	92	OK		
1 RSH 1, RSH 2	_Estradiol	No Cal	29213M100	100	Expired		
1 / RSH 3	TSH	Active	81234JS01	100	Mismatch		
1 / RSH 4	TSH	Active	81234JS01		Missing Bottle		
1 / RSH 5	_B-hCG	No Cal	29876AC98	100	Mismatch		
	_BhCG_STAT	No Cal					
1 / RSH 6			71234JS01	100	No Assay		
1 / RSH 7	TT4	Active	59876AC98		Extra Bottle		
1 / RSH 8					BC Fail		
1 / RSH 9	_Estradiol	No Cal	20713M200	100			Scanning
1 / RSH 10			24623M100	100	No Assay		
1 / RSH 11			24623M100	100	No Assay		
1 / RSH 12			13245M100	100	No Assay		
1 / RSH 13, 9	_Estradiol	No Cal	20469M200	100	OK		Partially Unloaded

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

   Shows the serial number configured for your ARCHITECT System.

4. M / P (column):

   Shows the module and position in which the reagent kit is located.

5. Assay (column):

   Shows the name of the assay.

6. Cal status (column)

   Shows the status of the calibration for the reagent lot.

7. Reagent lot (column):

   Shows the lot number of the reagent kit.

8. Remaining tests (column):

   Shows the number of tests remaining for the reagent kit (*i* System).

9. Reagent status (column):

   Shows the status of the reagent kit.

10. Carrier Status (column):

    Shows the status of the reagent carriers for loading or unloading.

11. *Exp. date (column - not shown):

    Shows the date on which the reagent kit expires.

12. *Stability (column - not shown):

    Shows the number of onboard stability days/hours remaining for the reagent kit.

Rerun List Report

Use this report to find samples that have reruns ordered.

1 Rerun List Report

2 Operator ID: Abbott

3 System serial number: 1000

4 *C/P	5 SID	6 Name	7 Assay	8 Code
L727 /1	3469655	Walker, Mary W	Prolactin	R
L731 /1	789650	Williams, Martha	Prolactin	R,C
L727 /1	3469655	Walker, Mary W	Prolactin	R
L727 /2	7890574	Williams, Martha	Prolactin	R,C

* Original order location

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

Shows the serial number configured for your ARCHITECT System.

4. *C / P (column):

   Shows the sample location for one of the following:

   – Carrier ID and position (P) (RSH/SSH)
   – LAS - Shown if the sample was pipetted from the LAS track
   – LAS carousel ID (C) and position (P) (*i* 2000)

5. SID (column):

   Shows the bar code number or ID assigned to the sample.

6. Name (column):

   Shows the name of the patient or control.

7. Assay (column):

   Shows the name of the assay.

8. Code (column):

   Shows the code(s) to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-105.

Result Details Report

Use this report to troubleshoot your system. Up to three result details print per page.

1 Result Details Report
Unreleased
2 Operator ID: Abbott
3 System serial number: 1000
4 Name: Smith, John Lee
5 Sample ID: SID005
6 Assay: TSH
7 Patient ID:
8 Assay number: 241
9 Draw date / time: 06.06.2002 / 00:25
10 Module / Serial no.: 2 iSR01000
11 Sample comment: Call Results to Doctor
Calibration information
12 Cal. lot: 12345M300
13 Cal. date/time: 06.27.2002 / 14:59
14 Reagent master lot: 81234JS01
15 Serial no.: 10024
16 Date completed: 07.02.2002
17 Location: Ped 12
18 Time completed: 19:39
19 Doctor: Green
20 Operator ID: Abbott

21 C / P	22 Result	23 Units	24 Range	25 Dilution	26 Flags	27 Code	28 RLU
P100/5	0.4957	uIU/mL	0.3500 - 4.9400	UNDILUTED			67079

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

   Shows the serial number configured for your ARCHITECT System.
4. Name:

   Shows the name of the patient.
5. Sample ID:

   Shows the bar code number or ID assigned to the sample.
6. Assay:

   Shows the name of the assay.
7. Patient ID:

   Shows the ID assigned to the patient.
8. Assay number:

   Shows the number assigned to the assay.
9. Draw date / time:

   Shows the date and time the sample was drawn.
10. Module / Serial no.:

    Shows the module and serial number on which the test was run.
11. Sample comment:

    Shows the comment entered for the test.
12. Cal. lot:

    Shows the calibrator lot number for the calibration used to calculate the result.
13. Cal. date/time:

    Shows the calibration date and time for the reagent lot used to calculate the result.
14. Reagent master lot:

    Shows the reagent master lot for the calibration used to calculate the result.
15. Serial no.:

    Shows the serial number of the reagent used to obtain the calibration curve.
16. Date completed:

    Shows the date the result completed.
17. Location:

    Shows the location associated with the patient.
18. Time completed:

    Shows the time the result completed.
19. Doctor:

    Shows the name of the patient's doctor.
20. Operator ID:

    Shows the ID of the operator logged on when the order was placed.

21. C / P (column):

    Shows the sample location for one of the following:

    – Carrier ID and position (P) (RSH/SSH)
    – LAS - Shown if the sample was pipetted from the LAS track
    – LAS carousel ID (C) and position (P) (*i* 2000)

22. Result (column):

    Shows the value and (where applicable) interpretation of the result.

23. Units (column):

    Shows the units for the result.

24. Range (column):

    Shows the normal / therapeutic range for the assay, if configured.

25. Dilution (column):

    Shows the dilution used for the test.

26. Flags (column):

    Shows the flags associated with the result. See *Descriptions of patient result flags*, page 5-145.

27. Code (column):

    Shows the code(s) to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-105.

28. RLU (column):

    Shows the RLU (relative light unit) value for the result.

Results List Report

Use this report as a hardcopy record of the results generated by your system. You can configure this report to print automatically. See *Configure report settings*, page 2-7.

1 Results List Report
Released

2 Operator ID: Abbott
3 System serial number: 1000

4 C / P	5 Module	6 SID	7 Name	8 Assay	9 Result	10 Flags	11 Code	12 Date / Time
L595 /1	2	55554445	Lopez, Maria	_B-hCG	56.37 mIU/mL Positive	HIGH	C	07.09.2002 12.02
L595 /2	1	367979	Jones, Bill W	Glu	118.510 mg/dL	HIGH	C	07.09.2002 12.02
L727 /2	1	7890574	Williams, Martha	Crea	1.169 mg/dL			07.09.2002 12.02
L731 /1	1	789650	Williams, Martha	Ca	2.300 mg/dL	LOW		07.09.2002 12.03
L731 /2	2	48373923	Adams, James T	TSH	1.7874 uIU/mL		C	07.09.2002 12.03

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

Shows the ID of the operator logged on when the report was printed.

3. System serial number:

   Shows the serial number configured for your ARCHITECT System.

4. C / P (column):

   Shows the sample location for one of the following:

   – Carrier ID and position (P) (RSH/SSH)
   – LAS - Shown if the sample was pipetted from the LAS track
   – LAS carousel ID (C) and position (P) (*i* 2000)

5. Module (column):

   Shows the module that generated the test result.

6. SID (column):

   Shows the bar code number or ID assigned to the sample.

7. Name (column):

   Shows the name of the patient associated with the result.

8. Assay (column):

   Shows the name of the assay.

9. Result (column):

   Shows the value and (where applicable) interpretation of the result.

10. Flags (column):

    Shows the flags associated with the result. See *Descriptions of patient result flags*, page 5-145.

11. Code (column):

    Shows the code(s) to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-105.

12. Date / Time (column):

    Shows the date and time the test result was completed.

Sample Report

Use this report as a hardcopy sample record. If you add a test to an existing order, the system generates a separate sample report for that test unless the original order is still pending.

1 Laboratory Name
Address
City, State Zip Code

Unreleased

2 Name: Schultz, Gretchen
3 Gender: Female
4 Patient ID: 111222
5 Birthdate: 08.30.2000

6 Sample ID: SID022
7 Draw date / time: 06.07.2001 / 02:45
8 Location: ER 4
9 Doctor: Green

10 Assay	11 Result	12 Units	13 Flags	14 Range	15 Date Completed Time completed
TT4	7.95	ug/dL		4.87 - 11.72	07.03.2002 11:28
TSH	1.2756	uIU/mL		0.3500 - 4.9400	07.03.2002 11:28
Crea	2.530	mg/dL	HIGH	0.700 - 1.300	07.03.2002 11:23
Glu	83.015	mg/dL		70.000 - 105.000	07.03.2002 11:23
Urea	32.864	mg/dL	HIGH	7.000 - 18.000	07.03.2002 11:23
CL	104.151	mmol/L		98.000 - 107.000	07.03.2002 11:20
K	4.633	mmol/L		3.500 - 5.100	07.03.2002 11:20
Na	135.852	mmol/L	LOW	136.000 - 145.000	07.03.2002 11:20

End of Sample Record

Printed On: 07.03.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report header:

   Shows the configured report header information.

2. Name:

   Shows the name of the patient.

3. Gender:

   Shows the gender of the patient.
4. Patient ID:

   Shows the ID assigned to the patient.
5. Birthdate:

   Shows the birthdate of the patient.
6. Sample ID:

   Shows the bar code number or ID assigned to the sample.
7. Draw date / time:

   Shows the date and time the sample was drawn.
8. Location:

   Shows the location associated with the patient.
9. Doctor:

   Shows the name of the patient's doctor.
10. Assay:

    Shows the name of the assay.
11. Result:

    Shows the value and (where applicable) interpretation of the result.
12. Units:

    Shows the units for the result.
13. Flags:

    Shows the flags associated with the result. See *Descriptions of patient result flags*, page 5-145.
14. Range:

    Shows the normal / therapeutic range for the assay, if configured.
15. Date Completed / Time completed:

    Shows the date and time the result completed.

Sample Status Report

Use this report to check the status of a sample or as a hardcopy record of the results generated by your system.

1 **Sample Status Report**

2 Operator ID:

3 System serial number:

4 Sample ID: SID022

5 C / P: L595 /1

6 Name: Schultz, Gretchen

7 Bay: 5

8 Assay	9 Status / Result		10 Flags	Code 11
TT4	7.95 ug/dL	07.01.2002 / 11:28		
TSH	1.2756 uIU/mL	07.01.2002 / 11:28		R
Crea	2.530 mg/dL	07.01.2002 / 11:23	CNTL	C
Glu	Running	10:05		S
Urea	32.864 mg/dL	07.01.2002 / 11:23	HIGH	C
CL	104.151 mmol/L	07.01.2002 / 11:20		
K	4.633 mmol/L	07.01.2002 / 11:20		
Na	135.852 mmol/L	07.01.2002 / 11:20	LOW	C
_B-hCG	Exception	0218 / Unable to process test, no Processing Modules available.		
Urea	Scheduled			

End of sample status record

Printed On: 07.02.2002
9:02:20AM

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Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

   Shows the serial number configured for your ARCHITECT System.

4. Sample ID:

   Shows the bar code number or ID assigned to the sample.

5. C / P:

   Shows the carrier or carousel (CRSL) ID and position for the sample.

6. Name:

   Shows the name of the patient.

7. Bay (column):

   Displays the bay in which you loaded the sample. (RSH)

8. Assay (column):

   Shows the name of the assay.

9. Status / Result (column):

   Displays the:

- Status - current status of the test, see *Descriptions of test statuses*, page 5-104
- Time the order will complete (in 24- hour format), for all samples with a status of Running
- Result - value, unit, and (where applicable) interpretation of result
- Date and time the result was completed

10. Flags (column):

    Shows the flags associated with the result. See *Descriptions of patient result flags*, page 5-145.

11. Code (column):

    Shows the code(s) to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-105.

Temporary Message Log Report

Use this report to troubleshoot your system.

1 Temporary Message Log Report

2 Operator ID: Abbott

3 System serial number: 1000

4 Date	5 Time	6 Module	7 Error code / Message text
07.02.2002	19:44:22	5	0531 No test orders found for Carrier (P100), Position (3).
07.02.2002	19:44:22	5	8356 Query for sample ID (SID002) has been deleted.
07.02.2002	19:44:22	5	8364 The maximum number of connection attempts has been reached for (LIS).
07.02.2002	19:44:22	5	8354 (LIS) connection cannot be established, no response was received.

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

Shows the serial number configured for your ARCHITECT System.

4. Date (column):

   Shows the date the temporary message occurred.

5. Time (column):

   Shows the time the temporary message occurred.

6. Module (column):

   Shows the module that generated the temporary message.

7. Error code / Message text (column):

   Shows the numeric error code for the exception and the message text that describes the error that occurred.

Introduction

You can verify the ARCHITECT *i* System assay claims by performing verification protocols. These protocols are categorized into method groups. You can find the method group number for an assay under *QUALITY CONTROL PROCEDURES/VERIFICATION* of the ASSAY CLAIMS section in the ARCHITECT *i* System assay-specific package insert.

Method groups for verification protocols

	Method Group Number					
Protocol	**Group 1**	**Group 2**	**Group 3**	**Group 4**	**Group 5**	**Group 6**
Analytical sensitivity	Method 1	Method 1	N/A	Method 2	N/A	Method 1
Functional sensitivity	N/A	N/A	N/A	N/A	Method 1	N/A
Precision	Method 1	Method 1	Method 1	Method 1	Method 1	Method 1
Reportable range / calibration verification	Method 1	Method 2	Method 1	Method 1	N/A	Method 3
Automated dilution verification	Method 1	N/A	N/A	N/A	N/A	N/A
Methods comparison (correlation)	Method 1	Method 1	Method 1	Method 1	N/A	Method 1
Methods comparison (concordance)	N/A	N/A	N/A	Method 2	Method 2	N/A
Analytical specificity	Method 1	Method 1	Method 1	Method 1	N/A	Method 1
Reference range	Method 1	Method 1	Method 1	N/A	N/A	Method 1

Verification of *i* System assay claims topics include:

- *Analytical sensitivity - method 1 (limit of detection)*, page Appendix B-3
- *Analytical sensitivity - method 2 (limit of quantitation)*, page Appendix B-6
- *Functional sensitivity - method 1 (serial dilution)*, page Appendix B-11
- *Precision - method 1*, page Appendix B-14
- *Reportable range/calibration verification - method 1*, page Appendix B-16
- *Reportable range/calibration verification- method 2*, page Appendix B-22

- *Reportable range/calibration verification - method 3*, page Appendix B-28
- *Automated dilution verification - method 1*, page Appendix B-34
- *Methods comparison - method 1 (correlation)*, page Appendix B-37
- *Methods comparison - method 2 (concordance)*, page Appendix B-39
- *Analytical specificity - method 1*, page Appendix B-43
- *Reference range - method 1*, page Appendix B-44

Analytical sensitivity - method 1 (limit of detection)

This method uses the LOD (limit of detection) at a 95% confidence level to determine assay sensitivity on an ARCHITECT *i* System.

A worksheet and example are provided:

- *Analytical sensitivity - method 1 data sheet*, page Appendix B-4
- *Analytical sensitivity - method 1 data sheet example*, page Appendix B-5

Procedure

1. Run MasterCheck Level 0 (zero conc.) in replicates of 10.
2. Run MasterCheck Level 1 in replicates of 4.

   NOTE: If MasterCheck is not available, substitute other appropriate material.

Data evaluation

1. Calculate the mean and standard deviation for the MasterCheck Level 0 (zero conc.) replicates and the mean for the MasterCheck Level 1 replicates.
2. Determine the sensitivity using the following formula:

$$\text{Analytical sensitivity} = 2(\text{Level 0 RLU SD}) \times \frac{\text{Level 1 concentration}}{(\text{Level 1 RLU mean} - \text{Level 0 RLU mean})}$$

NOTE: The concentration of MasterCheck Level 1 changes with each lot. Therefore, insert the concentration listed on the data sheet for that particular lot.

Analytical sensitivity = _____

Analytical sensitivity - method 1 data sheet

DATE:_____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO. _____

Reagents	Lot Number	Expiration Date
Calibrators		
Controls		
Reagent Kit		
Pre-Trigger		
Trigger		
Wash Buffer		
RV		
Assay Diluent		
Multi-Assay Manual Diluent		
MasterCheck		

Replicate	RLUs	
	Level 0	Level 1
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
x		
SD		

Concentration of Level 1 _____

Analytical sensitivity =

$$2(\text{Level 0 RLU SD}) \times \frac{\text{Level 1 concentration}}{(\text{Level 1 RLU mean - Level 0 RLU mean})}$$

_____ = 2 ( ) x _____
(_____ - _____)

Data Summary	
Calculated Analytical Sensitivity	Expected Analytical Sensitivity

COMMENTS: _____

_____

TECHNOLOGIST: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

Analytical sensitivity - method 1 data sheet example

DATE: 12/1/02 ANALYTE: ABC

INSTRUMENT: ARCHITECT *i* 2000 System SERIAL NO. 1234

Reagents	Lot Number	Expiration Date
Calibrators	12741	3/03
Controls	336X5	3/03
Reagent Kit	447M108	3/03
Pre-Trigger	27B58	3/03
Trigger	4211AZ	3/03
Wash Buffer	541M120	3/03
RV	1235RJ	3/03
Assay Specific Diluent	14884JK	3/03
Multi-Assay Manual Diluent	1765R2	3/03
MasterCheck	Q123	7/03

	RLUs	
Replicate	Level 0	Level 1
1	373	61125
2	348	61326
3	378	60793
4	333	60983
5	378	
6	332	
7	359	
8	353	
9	348	
10	340	
x	354	61057
SD	17.42	

Concentration of Level 1 ___5____

Analytical sensitivity =

$$2(17.42) \times \frac{5}{(61057 - 354)}$$

Data Summary	
Calculated Analytical Sensitivity	Expected Analytical Sensitivity
0.003 ng/mL	0.1 ng/mL

COMMENTS: Confirmed sensitivity

TECHNOLOGIST: (NAME) DATE: 12/1/02

REVIEWED BY: (NAME) DATE: 12/1/02

Analytical sensitivity - method 2 (limit of quantitation)

This method uses the LOQ (limit of quantitation), the concentration value of the last dilution at which the observed values still fall inside the tolerance limits established for MasterCheck Level 1, to determine assay sensitivity on an ARCHITECT *i* System.

Worksheets and examples are provided:

- *Analytical sensitivity - method 2 data sheet*, page Appendix B-7
- *Analytical sensitivity - method 2 graph*, page Appendix B-8
- *Analytical sensitivity - method 2 data sheet example*, page Appendix B-9
- *Analytical sensitivity - method 2 graph example*, page Appendix B-10

Procedure

1. Prepare the following serial dilutions of MasterCheck Level 1 with MasterCheck Level 0.

   1:2, 1:4, 1:8, 1:16, 1:32, and so forth until the expected value is well below the claimed value.

   NOTE: If MasterCheck is not available, substitute other appropriate material.

	Dilution	Volume of Level 1	Volume of Level 0	Expected Value
1	Level 1	_____ µL	0 µL	Label Value
2	1:2	400 µL	400 µL	Label Value/2
3	1:4	400 µL of Dilution 2	400 µL	Label Value/4
4	1:8	400 µL of Dilution 3	400 µL	Label Value/8
5	1:16	400 µL of Dilution 4	400 µL	Label Value/16
6	1:32	400 µL of Dilution 5	400 µL	Label Value/32

2. Run the serial dilutions and the undiluted MasterCheck Level 1 in replicates of 4.

Data evaluation

1. Calculate the mean for each level.
2. Determine the tolerance limits acceptable to your laboratory. Your laboratory is responsible for determining acceptable tolerance limits.

3. Calculate the tolerance limit ranges, and then record the upper and lower tolerance limits on the data sheet.
4. Plot the assayed value mean versus the expected value on the graph, and then the tolerance limits.

Analytical sensitivity - method 2 data sheet

DATE:_____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO. _____

Reagents	Lot Number	Expiration Date
Calibrators		
Controls		
Reagent Kit		
Pre-Trigger		
Trigger		
Wash Buffer		
RV		
Assay Diluent		
Multi-Assay Manual Diluent		
MasterCheck		

Data Summary						
	Dilution Set	Replicates	Mean Assayed Value	Expected Value	Lower Tolerance Limit - _____%	Upper Tolerance Limit + _____%
1	Level 1	_____ _____ _____ _____				
2	1:2	_____ _____ _____ _____				
3	1:4	_____ _____ _____ _____				
4	1:8	_____ _____ _____ _____				
5	1:16	_____ _____ _____ _____				
6	1:32	_____ _____ _____ _____				

Analytical sensitivity - method 2 graph

DATE:_____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO. _____

EXPECTED ANALYTICAL SENSITIVITY RESULTS: _____

CALCULATED ANALYTICAL SENSITIVITY RESULTS: _____

COMMENTS: _____

_____

TECHNOLOGIST: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

Analytical sensitivity - method 2 data sheet example

DATE: 12/9/02 ANALYTE: ABC

INSTRUMENT: ARCHITECT *i* 2000 System SERIAL NO. 1234

Reagents	Lot Number	Expiration Date
Calibrators	12741	3/03
Controls	336X5	3/03
Reagent Kit	447M108	3/03
Pre-Trigger	27B58	3/03
Trigger	4211AZ	3/03
Wash Buffer	541M120	3/03
RV	1235RJ	3/03
Assay Diluent	14884JK	3/03
Multi-Assay Manual Diluent	1765R2	3/03
MasterCheck	Q123	7/03

Data Summary						
	Dilution Set	Replicates	Mean Assayed Value ng/mL	Expected Value	Lower Tolerance Limit - 20%	Upper Tolerance Limit + 20%
1	Level 1	6.26 6.40 6.28 6.34	6.32	6	4.8	7.2
2	1:2	2.89 3.00 3.00 2.97	2.96	3.0	2.4	3.6
3	1:4	1.50 1.53 1.50 1.52	1.52	1.50	1.2	1.8
4	1:8	0.74 0.74 0.75 0.76	0.75	0.75	0.6	0.9
5	1:16	0.33 0.33 0.32 0.32	0.32	0.37	0.3	0.44
6	1:32	0.16 0.16 0.16 0.16	0.16	0.19	0.15	0.23

Analytical sensitivity - method 2 graph example

DATE: 12/9/02 ANALYTE: ABC

INSTRUMENT: ARCHITECT *i* 2000 System SERIAL NO. 1234

EXPECTED ANALYTICAL SENSITIVITY RESULTS: 0.20 ng/mL

CALCULATED ANALYTICAL SENSITIVITY RESULTS: <0.16 ng/mL

COMMENTS: Calculated analytical sensitivity is below 0.16 ng/mL

TECHNOLOGIST: (NAME) DATE: 12/9/02

REVIEWED BY: (NAME) DATE: 12/9/02

Functional sensitivity - method 1 (serial dilution)

This method uses serial dilution of positive samples and comparison of performance to a reference method to determine the sensitivity of a qualitative assay on an ARCHITECT *i* System. If an assay has comparable sensitivity the dilution factor should be equivalent or better than the reference method.

A worksheet and example are provided:

- *Functional sensitivity - method 1 serial dilution data sheet*, page Appendix B-12
- *Functional sensitivity - method 1 serial dilution data sheet example*, page Appendix B-13

Procedure

1. Prepare the following serial dilutions of 5 or more positive samples (mid to high-range) with a known negative sample:

   1:2, 1:4, 1:8, 1:16, 1:32 (and so forth until the sample is nonreactive)

   NOTE: The positive and negative samples should be serum or plasma of the same anticoagulant type.

2. Run 2 replicates of the undiluted sample and each dilution for each method.

Data evaluation

1. Average the 2 replicates for each sample.
2. Determine the highest dilution at which the sample was reactive for each method.

Functional sensitivity - method 1 serial dilution data sheet

DATE:_____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO. _____

REFERENCE METHODOLOGY ____ ARCHITECT METHODOLOGY CMIA

Reagents	Lot Number	Expiration Date
Calibrators		
Controls		
Reagent Kit		
Pre-Trigger		
Trigger		
Wash Buffer		
RV		
Assay Diluent		
Multi-Assay Manual Diluent		

Sample	Dilution Factor*	Replicates		ARCHITECT Result Mean S/CO (Unit)	Replicates		Reference Result Mean S/CO (Unit)
ID #_____	undiluted	___	___		___	___	
	1:2	___	___		___	___	
	1:4	___	___		___	___	
	1:8	___	___		___	___	
	1:16	___	___		___	___	
	1:32	___	___		___	___	
	1:64	___	___		___	___	
	1:128	___	___		___	___	
	1:256	___	___		___	___	
	1:512	___	___		___	___	

*More or fewer dilutions may be required to dilute the sample to be non-reactive.

Results

Report Last Reactive Dilution Factor	
ARCHITECT Assay	Reference Assay

COMMENTS: _____

TECHNOLOGIST: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

Functional sensitivity - method 1 serial dilution data sheet example

DATE: 12/9/02 ANALYTE: ABC

INSTRUMENT: ARCHITECT i 2000 System SERIAL NO. 1234

REFERENCE METHODOLOGY XAT ARCHITECT METHODOLOGY CMIA

Reagents	Lot Number	Expiration Date
Calibrators	12741	3/03
Controls	336X5	3/03
Reagent Kit	447M108	3/03
Pre-Trigger	27B58	3/03
Trigger	4211AZ	3/03
Wash Buffer	541M120	3/03
RV	1235RJ	3/03
Assay Diluent	14884JK	3/03
Multi-Assay Manual Diluent	1765R2	3/03

Sample 1	Dilution Factor*	Replicates		ARCHITECT Result Mean S/CO (Unit)	Replicates		Reference Result Mean S/CO (Unit)
ID #354A	undiluted	35.7	35.9	35.8	36.2	36.8	36.5
	1:2	18.2	17.4	17.8	17.9	18.5	18.2
	1:4	8.7	9.1	8.9	8.8	9.0	8.9
	1:8	4.0	4.6	4.3	4.5	4.1	4.3
	1:16	2.25	1.95	2.1	2.1	1.9	2.0
	1:32	1.0	1.0	1.0	0.95	0.85	0.9
	1:64	0.4	0.2	0.3	0.6	0.4	0.5
	1:128			NT**			NT**
	1:256			NT**			NT**
	1:512			NT**			NT**

*More or fewer dilutions may be required to dilute the sample to be non-reactive.

**NT = Not tested.

Report Last Reactive Dilution Factor	
ARCHITECT assay	Reference assay
1:32	1:16

COMMENTS: Functional sensitivity is 1:32.

TECHNOLOGIST: (NAME) DATE: 12/9/02

REVIEWED BY: (NAME) DATE: 12/9/02

Precision - method 1

This method uses the calculation of mean values to determine assay precision on an ARCHITECT *i* System. Precision indicates how well the assay or system provides the same result when a given sample is tested repeatedly.

Within-run and total precision is used to evaluate the performance of an assay or system. Within-run precision provides a "best case" estimate of the expected performance since there is minimal opportunity for conditions to change during the course of the run. Total precision is the most realistic assessment of the performance because it includes variables such as different operators and laboratory conditions.

Precision data for assays on the ARCHITECT *i* System is found under the *SPECIFIC PERFORMANCE CHARACTERISTICS* section in the ARCHITECT *i* System assay-specific package insert.

A worksheet is provided:

- *Precision - method 1 data sheet*, page Appendix B-14

Procedure

1. Determine the material to use (Abbott control material, commercial control material, or patient pool).
2. Run the material in duplicate, twice a day.

   NOTE: The runs should be at least two hours apart.

Data evaluation

1. Calculate the mean values for both runs.
2. Perform the appropriate calculation to determine the precision. See the *SPECIFIC PERFORMANCE CHARACTERISTICS* section of the ARCHITECT *i* System assay-specific package insert.

Precision - method 1 data sheet

DATE:_____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO.: _____

REAGENT LOT: _____ CALIBRATOR LOT: _____

DAY #	DATE	RUN 1 RESULTS		RUN 2 RESULTS		RUN1 MEAN	RUN2 MEAN
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

EXPECTED % CV: _____

CALCULATED % CV: _____

COMMENTS: _____

TECHNOLOGIST: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

Reportable range/calibration verification - method 1

This method uses the measurement of samples throughout the reportable range to determine the reportable range/calibration verification for an assay on an ARCHITECT *i* System. The terms reportable range and calibration verification are interchangeable and use the same protocol.

When MasterCheck is available for an *i* System this method uses the measurement of MasterCheck Levels 0, 2, and 3. If MasterCheck is not available, substitute other appropriate material.

If the value exceeds the assay range, method 1 uses an 8:10 dilution of MasterCheck Level 3. If MasterCheck is not available, substitute Calibrator F when available.

NOTE: By adding MasterCheck Level 4 to the run you can perform this procedure concurrently with the automated dilution verification procedure.

Worksheets and examples are provided:

- *Reportable range/calibration verification - method 1 data sheet*, page Appendix B-18
- *Reportable range/calibration verification - method 1 graph*, page Appendix B-19
- *Reportable range/calibration verification - method 1 - data sheet example*, page Appendix B-20
- *Reportable range/calibration verification - method 1 graph example*, page Appendix B-21

Procedure

1. Determine the number of replicates (up to 3) to run.
2. Run MasterCheck Levels 0, 2, and 3 as unknown samples.

   If the value of MasterCheck Level 3 exceeds the assay range, make an 8:10 dilution of MasterCheck Level 3 using eight parts MasterCheck Level 3 to two parts MasterCheck Level 0.

   NOTE: If MasterCheck is not available, substitute other appropriate material.
3. Use the appropriate analytical sensitivity method for the specific assay to determine the limit of detection.

Data evaluation

1. Determine the tolerance limits acceptable to your laboratory. Your laboratory is responsible for determining acceptable tolerance limits.
2. Calculate the tolerance limit ranges, and then record the upper and lower tolerance limits on the data sheet.
3. Average the replicates for each level if you ran more than one replicate.
4. Plot the assayed MasterCheck value on the Y-axis of the graph versus the expected MasterCheck value on the X-axis.

   If the value of MasterCheck Level 3 exceeds the calibrator range, plot the calculated value of the 8:10 dilution of MasterCheck Level 3.
5. Plot the lower tolerance limit on the Y-axis versus the expected values of MasterCheck Levels 0, 2, and 3 on the X-axis.
6. Plot the upper tolerance limit on the Y-axis versus the expected values of MasterCheck Levels 0, 2, and 3 on the X-axis.
7. Connect the points for each of the three lines.

   If the line formed by connecting the points for the assayed MasterCheck Levels 0, 2, and 3 values falls between the upper and lower tolerance limits, the reportable range is verified.

Reportable range/calibration verification - method 1 data sheet

DATE: _____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO._____

Reagents	Lot Number	Expiration Date
Calibrators		
Controls		
Reagent Kit		
Pre-Trigger		
Trigger		
Wash Buffer		
RV		
Assay Diluent		
Multi-Assay Manual Diluent		
MasterCheck		

Data Summary					
	MasterCheck Value	Expected Values	Lower Tolerance Limit - _____%	Upper Tolerance Limit + _____%	Assayed Values Mean*
1	Level 0				
2	Level 2				
3	Level 3 8:10 dil				
4	Level 3				

Analytical sensitivity**	

*Mean applies if more than one replicate was run.

**From analytical sensitivity – method 1.

RESULTS: _____

COMMENTS:_____

_____

TECHNOLOGIST: _____ DATE:_____

REVIEWED BY: _____ DATE:_____

Reportable range/calibration verification - method 1 graph

DATE:_____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO. _____

PATIENT REPORTABLE RANGE: _____

COMMENTS: _____

_____

_____

TECHNOLOGIST: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

Reportable range/calibration verification - method 1 - data sheet example

DATE: 12/9/02 ANALYTE: ABC

INSTRUMENT: ARCHITECT *i* 2000 System SERIAL NO. 1234

Reagents	Lot Number	Expiration Date
Calibrators	12741	3/03
Controls	336X5	3/03
Reagent Kit	447M108	3/03
Pre-Trigger	27B58	3/03
Trigger	4211AZ	3/03
Wash Buffer	541M120	3/03
RV	1235RJ	3/03
Assay Diluent	14884JK	3/03
Multi-Assay Manual Diluent	1765R2	3/03
MasterCheck	Q123	7/03

Data Summary					
	MasterCheck Value	Expected Values ng/mL	Lower Tolerance Limit - 20%	Upper Tolerance Limit +20%	Assayed Values Mean* ng/mL
1	Level 0	0	N/A	N/A	N/A
2	Level 2	60	48	72	56.1
3	Level 3 8:10 dil				
4	Level 3	180	144	216	175

Analytical sensitivity**	0.1

*Mean applies if more than one replicate was run.

**From analytical sensitivity – method 1.

Results

PATIENT REPORTABLE RANGE: Assay is linear from 0.1 to 180 ng/mL

COMMENTS: _____

_____

TECHNOLOGIST: (NAME) DATE: 12/9/02

REVIEWED BY: (NAME) DATE: 12/9/02

Reportable range/calibration verification - method 1 graph example

DATE: 12/9/02 ANALYTE: ABC

INSTRUMENT: ARCHITECT *i* 2000 System SERIAL NO. 1234

PATIENT REPORTABLE RANGE: 0.1 – 180 ng/mL

COMMENTS: _____

_____

_____

TECHNOLOGIST: (NAME) DATE: 12/9/02

REVIEWED BY: (NAME) DATE: 12/9/02

Reportable range/calibration verification-method 2

This method uses the measurement of samples throughout the reportable range to determine the reportable range/calibration verification for an assay on an ARCHITECT *i* System. The terms reportable range and calibration verification are interchangeable and use the same protocol.

When MasterCheck is available for an *i* System this method uses the measurement of MasterCheck Levels 0, 2, and 3. If MasterCheck is not available, substitute other appropriate material.

If the value exceeds the assay range, method 2 uses an 9:10 dilution of MasterCheck Level 3.

Worksheets and examples are provided:

- *Reportable range/calibration verification - method 2 data sheet*, page Appendix B-24
- *Reportable range/calibration verification - method 2 graph*, page Appendix B-25
- *Reportable range/calibration verification - method 2 data sheet example*, page Appendix B-26
- *Reportable range/calibration verification - method 2 graph example*, page Appendix B-26

Procedure

1. Determine the number of replicates (up to 3) to run.
2. Run MasterCheck Levels 0, 2, and 3 as unknown samples.

   If the value of MasterCheck Level 3 exceeds the assay range, make a 9:10 dilution of MasterCheck Level 3 using nine parts MasterCheck Level 3 to one part MasterCheck Level 0.

   NOTE: If MasterCheck is not available, substitute other appropriate material.
3. Use the appropriate analytical sensitivity method for the specific assay to determine the limit of detection.

Data evaluation

1. Determine the tolerance limits acceptable to your laboratory. Your laboratory is responsible for determining acceptable tolerance limits.

2. Calculate the tolerance limit ranges, and then record the upper and lower tolerance limits on the data sheet.
3. Average the replicates for each level if you ran more than one replicate.
4. Plot the assayed MasterCheck value on the Y-axis of the graph versus the expected MasterCheck value on the X-axis.

   If the value of MasterCheck Level 3 exceeds the calibrator range, plot the calculated value of the 9:10 dilution of MasterCheck Level 3.
5. Plot the lower tolerance limit on the Y-axis versus the expected values of MasterCheck Levels 0, 2, and 3 on the X-axis.
6. Plot the upper tolerance limit on the Y-axis versus the expected values of MasterCheck Levels 0, 2, and 3 on the X-axis.
7. Connect the points for each of the three lines.

   If the line formed by connecting the points for the assayed MasterCheck Levels 0, 2, and 3 values falls between the upper and lower tolerance limits, the reportable range is verified.

Reportable range/calibration verification - method 2 data sheet

DATE: _____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO._____

Reagents	Lot Number	Expiration Date
Calibrators		
Controls		
Reagent Kit		
Pre-Trigger		
Trigger		
Wash Buffer		
RV		
Assay Diluent		
Multi-Assay Manual Diluent		
MasterCheck		

Data Summary					
	MasterCheck Value	Expected Values	Lower Tolerance Limit - _____%	Upper Tolerance Limit + _____%	Assayed Values Mean*
1	Level 0				
2	Level 2				
3	Level 3 9:10 dil				
4	Level 3				

Analytical sensitivity**	

*Mean applies if more than one replicate was run.

**From analytical sensitivity – method 1.

Results

COMMENTS:_____

_____

TECHNOLOGIST: _____ DATE:_____

REVIEWED BY: _____ DATE:_____

Reportable range/calibration verification - method 2 graph

DATE:_____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO. _____

PATIENT REPORTABLE RANGE: _____

COMMENTS: _____

_____

_____

TECHNOLOGIST: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

Reportable range/calibration verification - method 2 data sheet example

DATE: 12/9/02 ANALYTE: ABC

INSTRUMENT: ARCHITECT *i* 2000 System SERIAL NO. 1234

Reagents	Lot Number	Expiration Date
Calibrators	12741	3/03
Controls	336X5	3/03
Reagent Kit	447M108	3/03
Pre-Trigger	27B58	3/03
Trigger	4211AZ	3/03
Wash Buffer	541M120	3/03
RV	1235RJ	3/03
Assay Diluent	14884JK	3/03
Multi-Assay Manual Diluent	1765R2	3/03
MasterCheck	Q123	7/03

Data Summary					
	MasterCheck Value	Expected Values ng/mL	Lower Tolerance Limit - 20%	Upper Tolerance Limit +20%	Assayed Values Mean* ng/mL
1	Level 0	0	N/A	N/A	N/A
2	Level 2	60	48	72	56.1
3	Level 3 9:10 dil				
4	Level 3	180	144	216	175

Analytical sensitivity**	0.1

*Mean applies if more than one replicate was run.

**From analytical sensitivity – method 1.

Results

PATIENT REPORTABLE RANGE: Assay is linear from 0.1 to 180 ng/mL

COMMENTS: _____

_____

TECHNOLOGIST: (NAME) DATE: 12/9/02

REVIEWED BY: (NAME) DATE: 12/9/02

Reportable range/calibration verification - method 2 graph example

DATE: 12/9/02 ANALYTE: ABC

INSTRUMENT: ARCHITECT *i* 2000 System SERIAL NO. 1234

PATIENT REPORTABLE RANGE: 0.1 – 180 ng/mL

COMMENTS: _____

_____

_____

TECHNOLOGIST: (NAME) DATE: 12/9/02

REVIEWED BY: (NAME) DATE: 12/9/02

Reportable range/calibration verification - method 3

This method uses the measurement of samples throughout the reportable range to determine the reportable range/calibration verification for an assay on an ARCHITECT *i* System. The terms reportable range and calibration verification are interchangeable and use the same protocol.

When MasterCheck is available for an *i* System this method uses the measurement of MasterCheck Levels 0, 2, and 3. If MasterCheck is not available, substitute other appropriate material.

Worksheets and examples are provided:

- *Reportable range/calibration verification - method 3 data sheet*, page Appendix B-30
- *Reportable range/calibration verification - method 3 graph*, page Appendix B-31
- *Reportable range/calibration verification - method 3 data sheet example*, page Appendix B-32
- *Reportable range/calibration verification - method 3 graph example*, page Appendix B-32

Procedure

1. Determine the number of replicates (up to 3) to run.
2. Run MasterCheck Levels 0, 2, and 3 as unknown samples.

   NOTE: If MasterCheck is not available, substitute other appropriate material.
3. Use the appropriate analytical sensitivity method for the specific assay to determine the limit of detection.

Data evaluation

1. Determine the tolerance limits acceptable to your laboratory. Your laboratory is responsible for determining acceptable tolerance limits.
2. Calculate the tolerance limit ranges, and then record the upper and lower tolerance limits on the data sheet.
3. Average the replicates for each level if you ran more than one replicate.

4. Plot the assayed MasterCheck value on the Y-axis of the graph versus the expected MasterCheck value on the X-axis.
5. Plot the lower tolerance limit on the Y-axis versus the expected values of MasterCheck Levels 0, 2, and 3 on the X-axis.
6. Plot the upper tolerance limit on the Y-axis versus the expected values of MasterCheck Levels 0, 2, and 3 on the X-axis.
7. Connect the points for each of the three lines.

   If the line formed by connecting the points for the assayed MasterCheck Levels 0, 2, and 3 values falls between the upper and lower tolerance limits, the reportable range is verified.

Reportable range/calibration verification - method 3 data sheet

DATE: _____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO._____

Reagents	Lot Number	Expiration Date
Calibrators		
Controls		
Reagent Kit		
Pre-Trigger		
Trigger		
Wash Buffer		
RV		
Assay Diluent		
Multi-Assay Manual Diluent		
MasterCheck		

Data Summary					
	MasterCheck Value	Expected Values	Lower Tolerance Limit - _____%	Upper Tolerance Limit +_____%	Assayed Values Mean*
1	Level 0				
2	Level 2				
3	Level 3				

Analytical sensitivity**	

*Mean applies if more than one replicate was run.

**From analytical sensitivity – method 1.

RESULTS: _____

COMMENTS:_____

_____

TECHNOLOGIST: _____ DATE:_____

REVIEWED BY: _____ DATE:_____

Reportable range/calibration verification - method 3 graph

DATE:_____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO. _____

PATIENT REPORTABLE RANGE: _____

COMMENTS: _____

_____

_____

TECHNOLOGIST: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

Reportable range/calibration verification - method 3 data sheet example

DATE: 12/9/02 ANALYTE: ABC

INSTRUMENT: ARCHITECT *i* 2000 System SERIAL NO. 1234

Reagents	Lot Number	Expiration Date
Calibrators	12741	3/03
Controls	336X5	3/03
Reagent Kit	447M108	3/03
Pre-Trigger	27B58	3/03
Trigger	4211AZ	3/03
Wash Buffer	541M120	3/03
RV	1235RJ	3/03
Assay Diluent	14884JK	3/03
Multi-Assay Manual Diluent	1765R2	3/03
MasterCheck	Q123	7/03

Data Summary					
	MasterCheck Value	Expected Values ng/mL	Lower Tolerance Limit - 20%	Upper Tolerance Limit +20%	Assayed Values Mean* ng/mL
1	Level 0	0	N/A	N/A	N/A
2	Level 2	30	24	36	29.5
3	Level 3	60	48	72	56.1

Analytical sensitivity**	0.1

*Mean applies if more than one replicate was run.

**From analytical sensitivity – method 1.

Results

PATIENT REPORTABLE RANGE: Assay is linear from 0.1 to 60 ng/mL

COMMENTS: _____

_____

TECHNOLOGIST: (NAME) DATE: 12/9/02

REVIEWED BY: (NAME) DATE: 12/9/02

Reportable range/calibration verification - method 3 graph example

DATE: 12/9/02 ANALYTE: ABC

INSTRUMENT: ARCHITECT *i* 2000 System SERIAL NO. 1234

PATIENT REPORTABLE RANGE: 0.1 – 60 ng/mL

COMMENTS: _____

_____

_____

TECHNOLOGIST: (NAME) DATE: 12/9/02

REVIEWED BY: (NAME) DATE: 12/9/02

Automated dilution verification - method 1

This method uses the calculation of a mean value to verify the automated dilution for an assay on an ARCHITECT *i* System.

NOTE: By adding MasterCheck Levels 0, 2, and 3 to the run you can perform this procedure concurrently with the reportable range procedure.

A worksheet and example are provided:

- *Automated dilution verification - method 1 data sheet*, page Appendix B-35
- *Automated dilution verification - method 1 data sheet example*, page Appendix B-35

Procedure

1. Determine the number of replicates (up to 3) to run.
2. Run MasterCheck Level 4 using the automated dilution protocol.

   NOTE: If MasterCheck is not available, substitute other appropriate material.
3. Perform the following steps if the value of MasterCheck Level 4 exceeds the assay range:
   a. Prepare the desired manual dilution of MasterCheck Level 4 (for example, 8:10) using MasterCheck Level 0.
   b. Run the diluted MasterCheck Level 4 with the automated dilution protocol in replicates of up to 3.

Data evaluation

1. Determine the tolerance limits acceptable to your laboratory. Your laboratory is responsible for determining acceptable tolerance limits.
2. Calculate the tolerance limit ranges. Record the upper and lower tolerance limits on the data sheet.
3. If more than one replicate was run, average the results obtained.

   If the value of MasterCheck Level 4 exceeds the calibrator range, evaluate the calculated value of the manual dilution for MasterCheck Level 4.
4. If the assayed MasterCheck Level 4 value falls between the upper and lower tolerance limits, the automated dilution for this assay is verified.

Automated dilution verification - method 1 data sheet

Automated dilution verification – method 1 data sheet

DATE:_____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO. _____

Reagents	Lot Number	Expiration Date
Calibrators		
Controls		
Reagent Kit		
Pre-Trigger		
Trigger		
Wash Buffer		
RV		
Assay Diluent		
Multi-Assay Manual Diluent		
MasterCheck		

	MasterCheck Value	Expected Value	Lower Tolerance Limit - _____ %	Upper Tolerance Limit + _____ %	Assayed Value Mean*
1	Level 4				
2	Level 4 ____:____ dil				

*Mean applies if more than one replicate was run. Use the adjusted mean value if a manual dilution was performed.

RESULTS: _____

COMMENTS: _____

_____

TECHNOLOGIST: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

Automated dilution verification - method 1 data sheet example

DATE: 12/9/02 ANALYTE: ABC

INSTRUMENT: ARCHITECT *i* 2000 System SERIAL NO. 1234

Reagents	Lot Number	Expiration Date
Calibrators	12741	3/03
Controls	336X5	3/03
Reagent Kit	447M108	3/03
Pre-Trigger	27B58	3/03
Trigger	4211AZ	3/03
Wash Buffer	541M120	3/03
RV	1235RJ	3/03
Assay Diluent	14884JK	3/03
Multi-Assay Manual Diluent	1765R2	3/03
MasterCheck	Q123	7/03

	MasterCheck Value	Expected Value	Lower Tolerance Limit - 20%	Upper Tolerance Limit + 20%	Assayed Value Mean* ng/mL
1	Level 4	150	144	216	175
2	Level 4 ____:____ dil				

*Mean applies if more than one replicate was run. Use the adjusted mean value if a manual dilution was performed.

RESULTS: Automated Dilution verified for ABC Assay.

_____

COMMENTS: _____

_____

TECHNOLOGIST: (NAME) DATE: 12/9/02

REVIEWED BY: (NAME) DATE: 12/9/02

Methods comparison - method 1 (correlation)

This method uses correlation to determine the method comparison between your existing assay method and the ARCHITECT *i* System assay method.

A worksheet is provided:

- *Methods comparison - method 1 correlation data sheet,* page Appendix B-38

Procedure

1. Determine the number of samples to run ensuring adequate distribution throughout the assay range.
2. Run the samples.
3. Record the sample values using the X column for your existing method and the Y column for the ARCHITECT *i* System method values.

Methods comparison - method 1 correlation data sheet

INSTRUMENT (X) _____ INSTRUMENT (Y) _____
METHODOLOGY _____ METHODOLOGY _____
REFERENCE RANGE _____ REFERENCE RANGE _____
ASSAY RANGE _____ ASSAY RANGE _____

SAMPLE NO.	SID	VALUE X	VALUE Y	SAMPLE NO.	SID	VALUE X	VALUE Y
1				31			
2				32			
3				33			
4				34			
5				35			
6				36			
7				37			
8				38			
9				39			
10				40			
11				41			
12				42			
13				43			
14				44			
15				45			
16				46			
17				47			
18				48			
19				49			
20				50			
21				51			
22				52			
23				53			
24				54			
25				55			
26				56			
27				57			
28				58			
29				59			
30				60			

Methods comparison - method 2 (concordance)

This method uses concordance to determine the method comparison between your existing assay method and the ARCHITECT *i* System. Concordance is a study used to compare the agreement between two methods when assessing the distribution of values in specific concentration ranges (for example, at a cut-off value).

Worksheets and examples are provided:

- *Methods comparison - method 2 concordance data sheet*, page Appendix B-40
- *Methods comparison - method 2 concordance calculation sheet*, page Appendix B-41
- *Methods comparison - method 2 concordance calculation sheet example*, page Appendix B-41

Procedure

1. Determine the number of samples to run ensuring adequate distribution throughout the assay range.
2. Run the samples.
3. Record the sample values using the X column for your existing method and the Y column for the ARCHITECT *i* System method values.
4. Determine the concordance using the following formula.

   % Concordance = (total true positives and true negatives)/total samples x 100
5. Determine the specificity, correct true negative results, using the following formula. ***(optional)***

   % Specificity = true negatives/(total true negatives and false positives) x 100
6. Determine the sensitivity, correct true positive results, using the following formula. ***(optional)***

   % Sensitivity = true positives/(total true positives and false negatives) x 100

   Where:

True negative	=	Negative by both reference and test method
True positive	=	Positive by both reference and test method

False negative	=	Negative by test method; positive by reference method
False positive	=	Positive by test method; negative by reference method

Methods comparison - method 2 concordance data sheet

ASSAY _____ INSTRUMENT (Y) _____
INSTRUMENT (X) _____ METHODOLOGY _____
METHODOLOGY _____ REFERENCE RANGE _____
REFERENCE RANGE _____ ASSAY RANGE _____
ASSAY RANGE _____

SAMPLE NO.	SID	VALUE X	VALUE Y	SAMPLE NO.	SID	VALUE X	VALUE Y
1				26			
2				27			
3				28			
4				29			
5				30			
6				31			
7				32			
8				33			
9				34			
10				35			
11				36			
12				37			
13				38			
14				39			
15				40			
16				41			
17				42			
18				43			
19				44			
20				45			
21				46			
22				47			
23				48			
24				49			
25				50			

Methods comparison - method 2 concordance calculation sheet

ASSAY _____

REFERENCE METHOD _____

	Reference Negative	Reference Positive
ARCHITECT *i* System Negative	A	B
ARCHITECT *i* System Positive	C	D

Concordance = _____

Specificity = _____

Sensitivity = _____

$$\text{Concordance} = \frac{\text{True Negative} + \text{True Positive}}{\text{Total Samples}} \times 100 \quad \text{OR} \quad \frac{A + D}{A + B + C + D} \times 100$$

$$\text{Specificity} = \frac{\text{True Negatives}}{\text{Total True Negatives} + \text{False Positives}} \times 100 \quad \text{OR} \quad \frac{A}{A + C} \times 100$$

$$\text{Sensitivity} = \frac{\text{True Positives}}{\text{Total True Positives} + \text{False Negatives}} \times 100 \quad \text{OR} \quad \frac{D}{D + B} \times 100$$

Methods comparison - method 2 concordance calculation sheet example

ASSAY ABC

REFERENCE METHOD XAT

	Reference Negative	Reference Positive
ARCHITECT *i* System Negative	IIIII IIIII IIIII IIII (19) A	I (1) B
ARCHITECT *i* System Positive	(0) C	IIIII IIIII III (13) D

Concordance = 97%

Specificity = 100%

Sensitivity = 93%

$$\text{Concordance} = \frac{A + D}{A + B + C + D} \times 100 = \frac{19 + 13}{19 + 1 + 0 + 13} = 97\%$$

$$\text{Specificity} = \frac{A}{A + C} \times 100 = \frac{19}{19 + 0} \times 100 = 100\%$$

$$\text{Sensitivity} = \frac{D}{D + B} \times 100 = \frac{13}{13 + 1} \times 100 = 93\%$$

Analytical specificity - method 1

See the ARCHITECT *i* System assay-specific package insert for the description of the procedure used and the results for specificity and interferences studies.

Procedures in NCCLS Document EP-7, Vol. 6, No. 13 were followed.

Reference range - method 1

Initially use the reference range for the specific ARCHITECT *i* assay as stated in the assay-specific package insert.

NOTE: Your laboratory is responsible for determining the appropriate reference range(s).

Introduction

Data reduction/calibration methods use various math models to analyze a set of given data and calculate results. These math models may range in complexity from simple subtraction to polynomial equations.

Math model topics include:

- *i System data reduction methods*, page Appendix C-2
- *i System adjustment methods*, page Appendix C-8

i System data reduction methods

The ARCHITECT *i* System uses CMIA (chemiluminescent microparticle immunoassay) technology to measure analyte concentrations in samples. Data reduction/calibration methods are specific to this type of technology.

i System data reduction methods topics include:

- *Point to point method (i System)*, page Appendix C-2
- *Linear regression method (i System)*, page Appendix C-2
- *4PLC methods (i System)*, page Appendix C-4
- *Cutoff assay method (i System)*, page Appendix C-6

Point to point method (*i* System)

The point to point data reduction method uses the average RLU (relative light unit) value obtained for each calibrator compared to the calibrator concentration to generate a calibration curve. A straight line is used to connect each point and the slope is calculated for each line segment. Concentrations of unknown samples are calculated from the line segment that brackets the sample RLU values.

Figure Appendix C.1: Point to point calibration method

For example, if a sample has an RLU value between the RLU values for Calibrator B and Calibrator C, the unknown sample concentration is calculated using the following equation:

$$\text{Conc (X)} = \frac{\text{Conc (C)} - \text{Conc (B)}}{\text{RLU (C)} - \text{RLU (B)}} \times (\text{RLU (X)} - \text{RLU (B)}) + \text{Conc (B)}$$

Linear regression method (*i* System)

The linear regression data reduction method uses the linear relationship between the RLU (relative light unit) value and the

concentration of the analyte in the sample as follows to generate a calibration curve:

RLU = Intercept + Slope x Concentration

The intercept in this case is the RLU value at concentration zero. The slope defines how much the concentration increases when the RLU value increases.

Figure Appendix C.2: Linear regression calibration method

The unknown specimen concentration is calculated using the following equation:

$$\text{Concentration} = \frac{\text{RLU} - \text{Intercept}}{\text{Slope}}$$

Slope and intercept are obtained from the calibration. The parameters are determined by minimizing the sum of squares of the difference between the observed and predicted (by the regression equation) values for all calibrators as shown in the following formulas:

$$\text{Intercept} = \frac{S_{xx} \times S_y - S_x \times S_{xy}}{\Delta}$$

$$\text{Slope} = \frac{S \times S_{xy} - S_x \times S_y}{\Delta}$$

$$\Delta = S \times S_{xx} - S_x^{\,2}$$

$$S = \sum \frac{1}{\sigma_i^2}$$

$$S_x = \sum \frac{x_i}{\sigma_i^2}$$

$$S_y = \sum \frac{y_i}{\sigma_i^2}$$

$$S_{xx} = \sum \frac{x_i^2}{\sigma_i^2}$$

$$S_{xy} = \sum \frac{x_i \times y_i}{\sigma_i^2}$$

Where:

σ_i	=	Standard deviation associated with a calibrator
x_i	=	Observed calibrator concentration
y_i	=	Observed calibrator RLU value

4PLC methods (*i* System)

4PLC (four-parameter logistic curve fit or four-parameter logistic calibration) data reduction methods use the difference between the predicted and observed calibrator concentration or signal to generate a calibration curve.

4PLC is calculated as follows:

$$RLU = P1 + \frac{P2}{P3 + Concentration^{P4}}$$

The four parameters (P1 through P4) control the shape of the curve. Depending on the data generated a 4PLC curve can be either sigmoidal (S-shaped) or have no second bend at all.

The four parameters are used as follows:

P_1	Defines the signal at an infinite concentration
$\frac{P_2}{P_3}$	Defines the maximum theoretical range of the RLU (relative light unit) value from concentration zero to infinity
$x_{50} = P_3^{\left(\frac{1}{P_4}\right)}$	Defines the concentration that yields a signal midway between the highest and the lowest possible signal
P_4	Determines if the curve is S-shaped. The curve is S-shaped when P4>1.

These parameters are calculated to find the P values that result in a curve with the lowest sum of squares.

$$\text{Concentration} = \left(\frac{P2}{RLU - P1} - P3\right)^{\frac{1}{P4}}$$

There are two types of 4PLC curve fit methods:

- 4PLC with x residual minimization (x weighted)
- 4PLC with y residual minimization (y weighted)

4PLC with x residual minimization (x-weighted) method (*i* System)

The 4PLC (four-parameter logistic curve fit) with x-residual minimization data reduction method uses the difference between the predicted and observed calibrator concentration to generate a calibration curve. The four parameters are computed to result in the lowest possible sum of squares using the following equation:

$$\sum \left[\frac{x_i - \bar{x}_i}{\sigma_i}\right]^2$$

Where:

x_i	=	Observed calibrator concentration
$\bar{x}_i$	=	Predicted calibrator concentration
σ_i	=	Standard deviation associated with a calibrator

4PLC with y residual minimization (y-weighted) method (*i* System)

The 4PLC (four-parameter logistic curve fit) with y-residual minimization data reduction method uses the difference between the predicted and observed calibrator signals to generate a calibration curve. The four parameters are computed to result in the lowest possible sum of squares using the following equation:

$$\sum \left(\frac{y_i - \bar{y}_i}{\sigma_i} \right)^2$$

Where:

y_i	=	Observed calibrator signal (RLU)
$\bar{y}_i$	=	Predicted calibrator signal (RLU)
σ_i	=	Standard deviation associated with a calibrator

Cutoff assay method (*i* System)

The cutoff assay data reduction method uses a one or two point calibration to determine the point (cutoff) where reactive and non-reactive samples are differentiated. Cutoff formulas can use addition, subtraction, and multiplication and it is possible to add constants. Once the cutoff is determined the unknown sample RLU (relative light unit) value is divided by the cutoff to determine the cutoff ratio (index).

For more information on the methods, see:

- *One-point qualitative (index formula) method (i System)*, page Appendix C-7
- *Two-point qualitative (index formula) method (i System)*, page Appendix C-7

One-point qualitative (index formula) method (*i* System)

The one point qualitative data reduction method uses one calibrator in the index formula. Depending on the cutoff formula, the calibrator can be either reactive or non-reactive for the assay.

The following is an example of a one-point cutoff formula where a and b are assay-specific constants:

Cutoff = a x Calibrator Signal + b

Two-point qualitative (index formula) method (*i* System)

The two point qualitative data reduction method uses two calibrators in the index formula. Depending on the cutoff formula, the calibrators for the assay can be:

- Both reactive
- Both non-reactive
- One reactive and the other non-reactive

The following is an example of a two-point cutoff formula where a and b are assay-specific constants:

Cutoff = a x Calibrator 1 Signal + Calibrator 2 Signal - b

i System adjustment methods

Adjustment methods allow you to run two calibrator levels instead of six to calibrate an assay. The two calibrator levels (adjusters) are used to adjust the master calibration curve stored in the reagent bar code to reflect the actual RLU (relative light unit) values measured on your system.

The ARCHITECT *i* System offers the following methods of calibration adjustment:

- *Ratio technique method (i System)*, page Appendix C-8
- *Linear transformation method (i System)*, page Appendix C-9
- *Parameter method (i System)*, page Appendix C-10
- *Curve shape method (i System)*, page Appendix C-10

Ratio technique method (*i* System)

The ratio technique adjustment method compares the RLU (relative light unit) value of the calibrators to the corresponding calibrator values from the master calibration curve. This technique is used when the lower end of the calibration curve has different characteristics than the rest of the curve, but the general behavior of the curve is still proportional and linear.

Ratios are calculated for calibrator 1 and calibrator 2 using the following formulas:

$$\text{Ratio}_1 = \frac{\text{Calibrator}_1}{\text{Master}_1}$$

Where:

Calibrator_1	=	RLU (value) measured for Calibrator 1
Master_1	=	RLU (value) stored in the reagent bar code for the calibrator corresponding to Calibrator 1

$$\text{Ratio}_2 = \frac{\text{Calibrator}_2}{\text{Master}_2}$$

Where:

Calibrator_2	=	RLU (value) measured for Calibrator 2
Master_2	=	RLU (value) stored in the reagent bar code for the calibrator corresponding to Calibrator 2

Two types of ratio techniques, A and AB, are used depending on which master calibrator level(s) is multiplied by ratio 1 and ratio 2.

The ratio A technique adjustment method produces an estimate of RLU values by multiplying the RLU (relative light unit) value stored in the reagent bar code for:

- Calibrator A by ratio 1
- Calibrator B through F by ratio 2

The ratio AB technique adjustment method produces an estimate of RLU values by multiplying the RLU (relative light unit) value stored in the reagent bar code for:

- Calibrators A and B by ratio 1
- Calibrators C through F by ratio 2

The estimated instrument specific RLU values are used to generate the calibration curve.

Linear transformation method (*i* System)

The linear transformation adjustment method assumes a linear relationship between the calibrator RLU (relative light unit) values generated by the system and the master calibration information stored in the reagent bar code.

The following is an example where the slope and intercept that describe the linear relationship are based on the RLU values of calibrator 1 and calibrator 2 generated by the system and their corresponding values stored in the reagent bar code.

The slope is calculated as follows:

$$\text{Slope} = \frac{\text{Calibrator}_1 - \text{Calibrator}_2}{\text{Master}_2 - \text{Master}_1}$$

The intercept is calculated as follows:

$$\text{Intercept} = \text{Calibrator}_1 - \left(\text{Master}_1 \times \frac{\text{Calibrator}_1 - \text{Calibrator}_2}{\text{Master}_2 - \text{Master}_1}\right)$$

The instrument RLU values for the six calibrators in the master calibration can be estimated as follows:

$$\text{Calibrator}_i = \text{Master}_i \times \text{Slope} + \text{Intercept}$$

The resulting estimated instrument RLU values for the six calibrators are then used to generate the calibration curve using the appropriate calibration curve model.

Parameter method (*i* System)

The parameter adjustment method uses the RLU (relative light unit) values stored in the reagent bar code for calibrators A through F to determine the 4PLC (four parameter logistic curve) parameters of the master calibration. Calibrator 1 and calibrator 2 adjusters are then used to provide an instrument specific calibration curve based on the parameters.

The following equation is used to calculate the residual sum of squares for the parameter adjustment method:

$$\sum \left(\frac{\overline{P}_j - P_j}{\sigma_j} \right)^2 + \sum \left(\frac{\overline{y}_i - y_i}{\sigma_i} \right)^2$$

Where:

$\overline{P}_j$	=	Population average parameter
P_j	=	System specific parameter
σ_j	=	Standard deviation parameter
$\bar{y}_i$	=	Predicted calibrator signal
y_i	=	Observed calibrator signal
σ_i	=	Standard deviation of calibrator signal

Curve shape method (*i* System)

The curve shape adjustment method uses the RLU (relative light unit) values stored in the reagent bar code for calibrators A through F to determine the 4PLC (four parameter logistic curve) parameters of the master calibration. Calibrator 1 and calibrator 2 adjusters are then

used to provide an instrument-specific calibration curve based on the shape of the curve.

The following equation is used to calculate the residual sum of squares for the curve shape adjustment method:

$$\sum \left(\frac{\bar{S}_j - S_j}{\sigma_j} \right)^2 + \sum \left(\frac{\bar{Y}_i - Y_i}{\sigma_i} \right)^2$$

Where:

$\bar{S}_j$	=	Population average shape parameter
S_j	=	System specific shape parameter
σ_j	=	Standard deviation shape parameter
$\bar{Y}_i$	=	Predicted calibrator signal
Y_i	=	Observed calibrator signal
σ_i	=	Standard deviation of calibrator signal

ARCHITECT System

List numbers are unique identifiers that are used when ordering products. These numbers are provided for guidance only and are subject to change. Contact your Abbott representative for the most current list numbers.

List numbers topics include:

- *Consumable list numbers (i System)*, page Appendix D-2
- *Accessory kit list number (i System)*, page Appendix D-3
- *Additional accessory list numbers*, page Appendix D-5
- *Electronic media list numbers*, page Appendix D-6
- *Manual list numbers*, page Appendix D-7
- *SCC component list numbers*, page Appendix D-8
- *Processing module list numbers*, page Appendix D-9

Consumable list numbers (*i* System)

Consumables are replenishable items required to run assays on an ARCHITECT *i* System. Contact your Abbott representative to order the following consumables.

ARCHITECT i System consumables

Item	Quantity	List Number
Concentrated Wash Buffer:		
• Concentrated Wash Buffer (1 L bottle)	4 x 975 mL	06C54-55
• Concentrated Wash Buffer, ARCHITECT ARM (10 L cubitainer)	1 x 9.75 L	06C54-85
Multi-Assay Manual Diluent	1 x 100 mL	07D82-50
Pre-Trigger Solution	4 x 975 mL, 9000 tests/btl	06E23-65
Probe Conditioning Solution	4 x 25 mL	01L56-40
Trigger Solution	4 x 975 mL, 3000 tests/btl	06C55-60
Reaction Vessels	2000/box	07C15-01
Replacement Caps	100/box	04D19-01
Septums	200/box	04D18-02
Sample Cups	1000/box	07C14-01

Accessory kit list number (*i* System)

The ARCHITECT *i* System accessory kit contains items used for the installation of the system, items used to perform maintenance and troubleshooting procedures, and some spare accessories for as-needed component replacement. Your Abbott representative orders the accessory kits for you. Contact your Abbott representative to order individual items.

For other accessories such as an external thermometer, sample carriers, and carrier trays see *Additional accessory list numbers*, page Appendix D-5.

ARCHITECT i 1000$_{SR}$ components - LN 01L87-01

Item	Quantity	List Number
Bag, Biohazard	6	NA
Bleach Preparation Container	1	08C94-63
Buffer filter	1	08C94-28
Buffer outlet assembly	1	01P12-01
Card cage/SCC door filter	1	03L99-01
Card cage filter	1	06L00-01
External Waste Tubing	1	NA
Internal Decon Extension Tubing/Cable Kit	1	01P83-01
Maintenance Kit:	1	
• Bar Code Calibration Tool	2	06E67-01
• Buffer Reservoir Cap	1	NA
• Carrier Calibration Tool	1	01P16-01
• Flashlight	1	NA
• Fuse Kit	2	NA
• Grease	1	NA
• Lens Paper	1	NA
• Maintenance Cleaning Bottle	1	02G16-99
• Optics Cap	1	NA
• WZ Probe Maintenance Water Bottle	1	06E68-01
• Screwdriver #1 Phillips	1	NA
• Screwdriver #2 Phillips	1	NA
• SH Bar Code Tool	2	06E69-01
• Thermistor Removal Wrench	1	NA
• Valve Removal Tool	1	NA
• Ground strap	1	NA
• O-ring Removal Tool	1	NA

ARCHITECT i 1000$_{SR}$ components - LN 01L87-01 (continued)

Item	Quantity	List Number
Probe (Sample/Reagent)	1	08C94-42
Probe, Wash Zone	1	08C94-35
Reagent Carriers	30	NA
Sample Carriers	30	05E15-01
Sensor, Level, Buffer	1	06L01-01
Sensor, Level, Pre-Trigger	1	8C94-27
Sensor, Level, Trigger	1	8C94-26
Tubing, Probe	1	06L04-01
Tubing/Sensor, Temp, WZ	2	08C94-87
Tubing, Wash Buffer Transfer	1	08C94-21
Unloader	1	NA
Wash Cup Baffle	6	01P41-01
Wash Buffer Preparation Container	1	08C94-56
Wash Buffer Reservoir	1	06L06-01
Waste pressure switch to floor tubing	1	NA

Additional accessory list numbers

Additional accessories are products not included in an accessory kit. These products are used during routine processing, in maintenance procedures, and for component replacement. Contact your Abbott representative to order the following accessories.

Additional accessories

Item	Quantity	List Number
Reagent carriers (*i* 1000_{SR})	10	08L20-01
RSH Sample Carrier Trays	2	04J49-01
Sample Carriers	10	05E15-01
Thermometer, External (*i* System)	1	08C94-88
Carrier Calibration Tool	1	05E13-01
Bar code Calibration Tool	1	06E67-01

Electronic media list numbers

Some products are distributed on electronic media such as assay files, maintenance and diagnostic procedure files, and online documentation. Contact your Abbott representative to order the following electronic media.

Electronic media

Item	List Number
ASIST software diskettes	06D02
Assay CD-ROM, ARCHITECT *i* System:	
• Assay CD-ROM - WW (excluding US)	06E59
• Assay CD-ROM - US	06E58
• Assay CD-ROM - Japan only	05F94
• Assay CD-ROM - WW (excluding US) Addition A	03K52
• Assay CD-ROM - US Addition A	03K50
• Assay CD-ROM - WW (excluding US) Addition B	03K53
• Assay CD-ROM - US Addition B	03K51
• Assay CD-ROM - WW (excluding US) Addition C	08K30
• Assay CD-ROM - WW (excluding US) Addition D	07K32
• Assay CD-ROM - US Addition D	07K33
Computer Based Training, ARCHITECT System	03E48
Host/Instrument Interface Data Disk	06D03
Operations Manual, ARCHITECT *i* 1000_{SR} System	08L42
System Software CD-ROM, ARCHITECT System	05F48

Manual list numbers

Support documentation is available in printed format. Contact your Abbott representative to order the following manuals.

Manuals

Item	List Number
Abbott Standard Interface RS232 Manual, ARCHITECT System	06F71
Laboratory Automated System Standard Interface Manual, ARCHITECT *i* System	05M71
Package Insert Manual, AEROSET and ARCHITECT System	04J69

SCC component list numbers

The following products are required and optional SCC (system control center) components. Contact your Abbott representative to order the following components.

SCC components

Item	List Number
Required	
CPU	07D01-04
SCC Serial Expansion (External Multiport Serial Adapter)	07D01-40
Keyboard:	
• English Keyboard	07D11-01
• French Keyboard	07D11-20
• German Keyboard	07D11-30
• Italian Keyboard	07D11-40
• Spanish Keyboard	07D11-50
• Japanese Keyboard	07D11-60
Monitor - Touchscreen LCD	03L97-01
Mouse	07D01-99
Network HUB (USB Powered)	07D04-60
Optional	
Bar Code Scanner	07D09-02
ARCHITECT and AxSYM Bar Code Scanner User's Guide	02K93
Component Stand	09D19-01
Modem (USB)	07D07-12
Printer:	
• Printer (110V)	07D08-11
• Printer (220V)	07D08-22
Speakers	07D05-11
UPS for SCC only:	
• UPS 110V	07D06-11
• UPS 220V	07D06-22

Processing module list numbers

Depending on your system configuration different processing modules and optional components are available. Your Abbott representative orders the appropriate products for you.

Processing modules

Item	List Number
i 1000_{SR} processing module	01L86
High Concentration Waste Bottle	03E50-26
High Concentration Float Switch Cable	03E50-31
External Waste Pump:	
• *i* System	08C94-99
ARCHITECT ARM (Automated Reconstitution Module) accessory	08C95-88
ARCHITECT ARM Adapter Kit (*i* 1000_{SR})	03L98-01
Liquid Waste Container (*i* 1000_{SR})	06L05-01
Power Cord Set (*i* 1000_{SR})	
• Australia/New Zealand	08L15-01
• China	08L18-01
• Continental Europe	08L14-01
• Denmark	01P17-01
• India/South Africa	01P18-01
• Israel	01P19-01
• Italy	01P20-01
• North America (125 VAC)	08L12-01
• North America (250 VAC)	08L13-01
• Switzerland	08L17-01
• United Kingdom/Ireland	08L16-01

Introduction

Screen elements are items on each screen that allow you to interact with the system software. Screen elements can be any of the following:

- Icons, which allow you to display a menu
- Menus, which allow you to display a screen
- Buttons, which allow you to initiate a command such as:
  - Display another screen or window
  - Add items to a list
  - Refresh the data on the screen or window
  - Confirm that you want to save the changes you have entered
  - Delete items from the system
  - Display help for a screen, window, or error message
- Data entry boxes, which allow you to enter text
- List buttons, which allow you to display a list so you can select an item
- Options, which allow you to select one item from the displayed choices
- Check boxes, which allow you to select one or more items from the displayed choices

Descriptions of screen elements topics include:

- *Icons and menus*, page Appendix E-2

  Shows each icon and its related menu items, and describes what each icon and menu displays.
- *Buttons*, page Appendix E-6

  Shows each button and provides a description of what the button does.
- *Field descriptions*, page Appendix E-14

  Describes each field found on the user interface screens and windows.

Icons and menus

Icons and menus allow you to display screens. Also, icons blink to inform you that a condition requires your attention.

	Overview icon The Overview icon provides access to overall system monitoring data. When you select it, a menu displays the following options: • Snapshot Select to navigate to the Snapshot screen, which displays system status information. • Sample status - Select to navigate to the Sample status screen, which allows you to: – View all unreleased tests for a sample regardless of test status – Rerun patient results – Release completed patient results – Suspend a bay or section on the RSH to allow immediate access to a sample in process • Operations manual - Select to access the online ARCHITECT System Operations Manual.
	Orders icon The Orders icon provides access to test ordering functions and illuminates to notify you that new orders have been downloaded by the host computer but have not been viewed. When you select the Orders icon, a menu displays the following options. • Order status - Select to navigate to the Order status screen, which displays information on the patient, control, and calibration orders currently managed by the ARCHITECT System. An indicator next to this menu item displays when new orders have been downloaded by the host computer but have not been viewed. • Patient order - Select to navigate to the Patient order screens and views, which allows you to enter a patient order. • Control order - Select to navigate to the Control order screen and views, which allows you to enter single analyte or multiconstituent control orders. • Calibration order - Select to navigate to the Calibration order screen, which allows you to enter a calibration order.

	Results icon The Results icon provides access to patient results and illuminates to notify you results have completed and are awaiting review prior to release. When you select the Results icon, a menu displays the following options. • Results review - Select to navigate to the Results review screen, which displays information on the completed patient results awaiting review and release. An indicator next to this menu item displays to notify you results have completed. From this screen you can select the patient results to rerun. • Stored results - Select to navigate to the Stored results screen, which allows you to: – View patient results that have been reviewed and released – Retransmit patient results to the host computer – Archive patient results

	QC-Cal icon The QC-Cal icon provides access to QC results, QC graphs, and calibration results. The icon illuminates to notify you that QC samples have completed and are awaiting review prior to release, or that a calibration is within 1 hour of expiration or has an Expired or Failed status. When you select the QC-Cal icon, a menu displays the following options: • QC result review - Select to navigate to the QC result review screen, which displays information on completed QC results awaiting review and release. An indicator next to this menu item displays to notify you QC results have completed. From this screen you can select the QC results to rerun. • QC summary - Select to navigate to the QC summary review screen, which provides a summary of QC data for all assay control levels. You can select and review individual control level QC data details and the associated Levey-Jennings graph. From this screen you can also print the QC analysis, QC summary, and Levey-Jennings reports. • Levey-Jennings graph - Select to view and manipulate QC data. From this screen you can also print the Levey-Jennings report. • Calibration status - Select to navigate to the Calibration status screen, which provides a summary list of the calibration status of each assay and reagent lot loaded on the system. You can select and review individual calibration curves. An indicator next to this menu item displays to notify you when a calibration is within 1 hour of expiration or has an Expired or Failed status. • Calibration history - Select to navigate to the Calibration history screen, which provides a summary list of the calibration status for current and previously performed calibrations. You can select, review, and archive individual calibration curves. • Stored QC results - Select to navigate to the Stored QC results screen, which allows you to: – View QC results that have been reviewed and released – Retransmit QC results to the host computer – Archive QC results • QC reports - Select to navigate to the QC reports screen, which allows you to print the QC analysis, QC summary, and Levey-Jennings reports.
	Exceptions icon The Exceptions icon provides access to patient, QC, and calibration result exceptions and illuminates to notify you of new order exceptions. When you select the Exceptions icon, a menu displays the following options: • Exception status - Select to navigate to the Exception status screen, which provides a summary listing of the exceptions that have occurred. An indicator next to this menu item displays to notify you there are new exceptions. From this screen you can select the patient and QC exception results to rerun. • Rerun status - Select to navigate to the Rerun status screen, which provides a listing of the orders scheduled to be rerun.

	Reagents icon The Reagents icon provides access to reagent inventory management functions and illuminates to notify you that a reagent kit has a status other than OK, Mixing (*i* System), or Overridden. When you select the Reagents icon, a menu displays the following options: • Reagent status - Select to navigate to the Reagent status screens, which provides a summary and listing of the current inventory status of the onboard reagents, and allows you to request a scan of the current reagent kits for a selected processing module. An indicator next to this menu item displays to notify you that a reagent kit has a status other than OK, Mixing (*i* System), Overridden, or Low Alert. • Reagent history - Select to navigate to the Reagent history screen, which provides a historical summary listing of the reagent kits that have been scanned by the reagent bar code reader.
	Supplies icon The Supplies icon provides access to supply inventory management functions and illuminates to notify you that an inventory item has a status other than OK. When you select the Supplies icon, a menu displays the following option: • Supply status - Select to navigate to the Supply status screens, which provides inventory information for the onboard supplies for each processing module. An indicator next to this menu item displays to notify you that an inventory item has a status other than OK. From this screen you can update the status for each item.
	System icon The System icon provides access to system diagnostics, maintenance, and configuration functions and illuminates to notify you that an in-process maintenance procedure requires user interaction or that a new message has been entered into the Temporary message log. When you select the System icon, a menu displays the following options: • Maintenance - Select to navigate to the Maintenance screen, which allows you to perform system maintenance procedures. An indicator next to this menu item displays when an in-process maintenance procedure requires user input or is complete. • Diagnostics - Select to navigate to the Diagnostics screen, which allows you to perform system diagnostic procedures. • System logs - Select to navigate to the System logs screen, which allows you to review the Temporary message log and Message history log. An indicator next to this menu item displays when a new message has been entered into the Temporary message log. • Configuration - Select to navigate to the System configuration, which allows you to configure system, assay, and QC-Cal parameters. • Utilities - Select to navigate to the Software installation and backup, which allows you to perform system software maintenance tasks.

Buttons

Each screen, window, and message has buttons. Buttons allow you to display other screens or windows, add, edit, or delete information from the system, print reports, or toggle between two views of a screen or window.

Activity	**Activity** Allows you to toggle from the Result list to the Activity list during maintenance and diagnostic procedures.
Add	**Add** Saves the information you enter and updates the corresponding list or table. Also clears data from the window so you can add the next new item.
Add level	**Add level** Allows you to add the control level information you define. Once added, the new control level displays in the Level list. This button is unavailable until you select a lot.
Add rule	**Add rule** Displays the Add / edit assay retest rules window. In this window you can configure or edit retest rules for the assay you selected.
Cancel	**Cancel** Cancels your selections or entries and displays the screen or window you were previously viewing.
	Carrier Allows you to order a sample to be run on the carrier.
Close window	**Close window** Allows you to close the Maintenance Perform window of an in-process procedure so you can perform a maintenance procedure on another module or access other screens and windows.
Continue	**Continue** Allows you to continue to the next step of a maintenance or diagnostic procedure.
Define data	**Define data** Displays the Define data window allowing you to enter expected values for multiconstituent controls. This button is unavailable until you select an assay(s).
Delete assay	**Delete assay** Allows you to delete an assay(s) for a multiconstituent control. This button is unavailable until you select an assay(s).

Delete level	**Delete level** Allows you to delete the control level(s) you selected. This button is unavailable until you select a control level.
Delete rule	**Delete rule** Allows you to delete the retest rule(s) you selected. This button is unavailable until you select a retest rule.
Delete	**Delete** Allows you to delete the item(s) you selected.
Deselect all	**Deselect all** Allows you to deselect all items in a list. This button toggles between Deselect all and Select all.
Done	**Done** Accepts or saves your selections or entries and displays the screen or window you were previously viewing.
Edit result	**Edit result** Displays an edit result window allowing the system administrator to edit the result. The result flag EDIT displays for the result to indicate it was edited by the system administrator. This button is available only for photometric or potentiometric test results.
Edit rule	**Edit rule** Displays the Add / edit assay retest rules window allowing you to edit a retest rule to create a new one. This button is unavailable until you select a retest rule.
Edit	**Edit** Allows you to edit the item(s) you selected.
Error ?	**Error ?** Displays help for the probable cause and corrective action for the error.
Export	**Export** Initiates the process of exporting an assay file.
Exit F1	**F1 - Exit** Displays the Snapshot screen.
Add order F2	**F2 - Add order** Saves the order information and clears data from the screen so that you can add the next order.

Batch details F2	**F2 - Batch details** Displays the Details for batch window allowing you to name the batch and add comments for the current batch order. This button is available only when the order type is batch.
Log on F2	**F2 - Log on** Displays the Log on window allowing you to log on to the system.
Maint. Log F2	**F2 - Maint. Log** Displays the Maintenance log screen. This button toggles between F2 - Maint. Log and F2 - To do.
Print F2	**F2 - Print** Displays the Print options window allowing you to select the report you want to print.
QC selection F2	**F2 - QC selection** Displays the QC selection window allowing you to select the data to display on the Levey-Jennings graph screen.
Sample details F2	**F2 - Sample details** Displays the Details for sample window allowing you to enter patient demographic information and comments for the current sample. This button is available only when the order type is single.
Select all F2	**F2 - Select all / F2 - Deselect all** Allows you to select or deselect all items in a list or table. This button toggles between Select all and Deselect all.
To do F2	**F2 - To do** Displays the Maintenance screen with the To do tab selected. This button toggles between F2 - To do and F2 - Maint. Log.
Update supplies F2	**F2 - Update supplies** Displays the Windows - Supply status screen allowing you to update the inventory for the supplies.
Add order F3	**F3 - Add order** Saves the order information and clears data from the screen so that you can add the next order.
Find... F3	**F3 - Find** Displays a find options window allowing you to search for specific data.
Install F3	**F3 - Install** Scans the CD and initiates the system software installation program. This button is available only if your log on is system administrator, CSC, or FSE.

Print F3	**F3 - Print** Displays the Print options window allowing you to select the report you want to print.
Shutdown F3	**F3 - Shutdown** Displays a message asking you to confirm that you want to shut down the system.
Approve... F4	**F4 - Approve** Displays the Approve maintenance log window allowing the system administrator to approve the maintenance log. This button is unavailable for the months when no procedures were performed.
Create backup F4	**F4 - Create backup** Displays the Create backup window allowing you to initiate a system backup.
Print F4	**F4 - Print** Displays the Print options window allowing you to select the report you want to print.
Scan F4	**F4 - Scan** Allows you to request a scan of the reagent carousel(s) for a selected module for the assay(s) you selected.
Assay options... F5	**F5 - Assay options** Displays an assay options window allowing you to select or enter assay-specific data for the assay(s) you selected.
Delete F5	**F5 - Delete** Displays a message asking you to confirm that you want to delete the selected item(s).
Details... F5	**F5 - Details** DIsplays the details window allowing you to view detailed information for the item(s) you selected.
Perform F5	**F5 - Perform** Displays the Maintenance perform window or Diagnostic perform window for the selected procedure.
Print F5	**F5 - Print** Displays the Print options window allowing you to select the report you want to print.
Start-up F5	**F5 - Start-up** Displays a message asking you to confirm that you want to start-up the system.
Configure F6	**F6 - Configure** Displays the configuration window allowing you to configure the information for the selected item(s).

Delete F6	**F6 - Delete** Displays a message asking you to confirm that you want to delete the selected item(s).
Rerun F6	**F6 - Rerun** Displays a rerun options window allowing you to schedule the selected tests to be rerun, the module on which you want to rerun them, and the dilutions for the assay.
Suspend F6	**F6 - Suspend** Displays a message asking you to confirm that you want to suspend the selected bay or section to access the sample you selected.
Stop F6	**F6 - Stop** Displays a message asking you to confirm that you want to stop the selected module.
Transmit to host F6	**F6 - Transmit to host** Allows you to transmit the selected result(s) to the LIS. This button is unavailable until bidirectional host communication is configured to On or On with query.
Version... F6	**F6 - Version** Displays the Version details for procedure (maintenance) window, or the Version details for procedure (diagnostics) window. This button is unavailable until you select a maintenance item from one of the categories.
Delete F7	**F7 - Delete** Displays a message asking you to confirm that you want to delete the selected item(s).
Details... F7	**F7 - Details** Displays the details window allowing you to view detailed information for the item(s) you selected.
Pause F7	**F7 - Pause** Displays a message asking you to confirm that you want to pause the selected module.
Unload F7	**F7 - Unload** Allows you to manually unload a reagent kit from the reagent carousel. This button is unavailable until you select a reagent(s) to unload.
Archive F8	**F8 - Archive** Displays the *Archive results window*, page 5-183 so that you can save the selected results or calibration curves to a floppy disk. This button is unavailable until you select a result or calibration curve.

Cancel unload F8	**F8 - Cancel Unload** Allows you to cancel an unload request when a reagent(s) is in the scheduled unload status.
Release F8	**F8 - Release** Releases the selected test results. **NOTE:** On the Sample status screen this button is not available if any of the selected items are exceptions (red text) or are already released (blue text).
Run F8	**F8 - Run** Displays a message asking you to confirm that you want to initialize the selected module to running status.
Transmit to host F8	**F8 - Transmit to host** Allows you to transmit the selected result(s) to the host (LIS). This button is unavailable until bidirectional host communication is configured to On or On with query.
Fail Curve	**Fail Curve** Displays a message asking that you confirm you are failing the selected curve so that it can no longer be used to calculate results.
	Formula tool Allows the system administrator to enter a formula when creating a calculated assay. Buttons on the formula tool provide the following functions: / = Divide * = Multiply + = Add - = Subtract ⬅ = Backspace √ = Calculate square root exp = Perform an exponential calculation
Graph	**Graph scroll buttons** Allows you to scroll left and right one page at a time.
?	**Help** Provides access to context-sensitive help for the active SCC screen, window, or error message.
L1	**L1** Corresponds to the processing module keypad L1 key. When you are instructed to select this button during a maintenance or diagnostic procedure, you can select either the screen button or the keypad button.

L2	**L2** Corresponds to the processing module keypad L2 key. When you are instructed to select this button during a maintenance or diagnostic procedure, you can select either the screen button or the keypad button.
L3	**L3** Corresponds to the processing module keypad L3 key. When you are instructed to select this button during a maintenance or diagnostic procedure, you can select either the screen button or the keypad button.
L4	**L4** Corresponds to the processing module keypad L4 key. When you are instructed to select this button during a maintenance or diagnostic procedure, you can select either the screen button or the keypad button.
	Left scroll arrow Allows you to move left one grid square at a time to select a procedure.
	Line scroll down arrow Allows you to scroll down one line at a time.
	Line scroll up arrow Allows you to scroll up one line at a time.
	List Displays a list of items from which to choose. You can select one of the items from the list or press the Esc key on the keyboard to exit. This button is unavailable (gray background) if there are no items in a list.
	Next Allows you to display the next item when you have selected more than one.
OK	**OK** Allows you to acknowledge a displayed message and displays the screen or window you were previously viewing.
	Page scroll down Allows you to move the cursor down one page (view) at a time.
	Page scroll up Allows you to move the cursor up one page (view) at a time.
Point	**Point details scroll buttons** Allows you to scroll left or right one point at a time.

	Previous Allows you to display the previous item when you have selected more than one.
	Print Allows you to print the results of the procedure you selected.
	Proceed Allows you to continue to the next step of the maintenance or diagnostic procedure.
	Quit Cancels your selection and displays the screen or window you were previously viewing.
	Refresh Allows you to refresh the screen to see any new items that may be available.
	Results Allows you to toggle from the Activity list to the Result list during maintenance and diagnostic procedures.
	Right arrow Allows you to move right one grid square at a time to select a procedure.
	Select all Allows you to select all items in a list. This button toggles between Select all and Deselect all.
	Select assays Displays the *Select assay window*, page 2-100 allowing you to select one or more assays from the list.
	Update Allows you to update the screen to view data for the selected date range.

Field descriptions

Field descriptions explain the kinds of information you can enter, select, or view.

Field description topics include:

- *Overview icon screens and windows*, page Appendix E-14
- *Orders icon screens and windows*, page Appendix E-19
- *Results icon screens and windows*, page Appendix E-36
- *QC-Cal icon screens and windows*, page Appendix E-49
- *Exceptions icon screens and windows*, page Appendix E-70
- *Reagents icon screens and windows*, page Appendix E-79
- *Supplies icon screens and windows*, page Appendix E-86
- *System icon screens and windows*, page Appendix E-87

Overview icon screens and windows

The Overview icon allows you to access the menu items Snapshot, Sample status, and Operations manual.

Overview icon screens and windows topics include:

- *Snapshot screen field descriptions*, page Appendix E-14
- *Log on window field descriptions*, page Appendix E-17
- *Sample status screen field descriptions*, page Appendix E-17
- *Find options (Sample status) window field descriptions*, page Appendix E-19

Snapshot screen field descriptions

To see a description of the function bar buttons on this screen, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

	Operator Displays the ID of the operator who is logged on.
	Date Displays the current system date.
	Time Displays the current system time.

	Sample handler graphic Displays the status of the sample handler graphic.
	Processing module graphic (*i* System) Displays the module number in a multi-module/integrated system and the current status of the module.
	Order status button Displays the number of tests currently processing for the module you selected. When you select the Order status button, the *Order status screen*, page 5-101 displays.

	Reagent status button Displays the total number of reagent kits on the module you selected. If you select the Reagent status button, the *Reagent status screens*, page 5-37 display. A caution symbol displays if any kit has a status other than OK, Mixing (*i* System), or Overridden. Once you resolve the problem(s), the caution symbol no longer displays.

	Supply status button (*i* System) Displays the status of bulk solutions, solid waste, and RVs (reaction vessels) for the processing module. If you select the Supply status button, the *Supply status screens*, page 5-17 displays. For bulk solutions, OK displays if all liquids have inventory of 20% volume or more. For bulk solutions, a caution symbol displays if liquid inventory is either empty or the volume is less than 20%. Once you replenish the solution, the caution symbol no longer displays. For solid waste, OK displays until the waste inventory is at 80%. A caution symbol displays when the waste is 80% or more. Once you empty the waste, the caution symbol no longer displays. For RVs, OK displays until inventory is at 20%. A caution symbol displays when inventory is below 20%. Once you add RVs, the caution symbol no longer displays.
	Reruns status button Displays the number of tests waiting to be rerun. The tests may have been ordered manually or automatically. After the system software schedules the tests, the button no longer displays. When you select the Reruns status button, the *Rerun status screen*, page 5-166 displays.
	Exceptions status button Displays the number of exceptions for review. When you select the Exceptions status button, the *Exception status screen*, page 5-195 displays.
	Printer status button Displays only if a printer is available. When you select the Printer status button, the *Printer window*, page 5-243 displays. The Printer status button displays a caution symbol if an alert condition exists.

	LIS status button Displays only when the LIS (host) is enabled. The number of results pending transmission to the host display below the button. When you select the LIS status button, the *System logs screen*, page 10-8 displays. The button displays a caution symbol when a communication problem exists with the LIS.
	ARM status button Displays only when the system is configured with the ARCHITECT ARM (Automatic Reconstitution Module accessory). When you select the ARM status button, the *System logs screen*, page 10-8 displays. The button displays a caution symbol when a problem exists with the ARM.

Log on window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

User name	Password
Allows you to enter your operator ID, up to 12 alphanumeric characters, or type ADMIN to log on as an administrator.	Displays if you type ADMIN in the User name field and allows you to enter the system administrator password. **NOTE:** General operators are not required to enter a password.

Sample status screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

SID and **Name** Displays the sample ID, which can be one of the following: • The bar code number or ID assigned to the patient sample • The SID of the first sample in the batch • The control name and level • The calibrator name and level Displays the first 15 characters of the name, which can be one of the following: • The patient's name for patient orders • The batch name for batch orders • The control name and level for control orders • The calibrator name and level for calibration orders	**C / P** and **BAY** or **SECTION** Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • Bay or section number (RSH) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i* 2000) **NOTE:** For pending orders when you have not manually assigned a carrier or carousel position, this field is blank.
ASSAY and **CODES** Displays the: • Assay - name of the test requested for processing and displays: – Black if the test has a status of Pending, Scheduled, or Running – Green if the test is completed but not released – Blue if the test is completed and released – Red if the test is an exception • Codes - up to four single character codes to indicate processing condition(s) and displays: – Green if the test is completed but not released – Blue if the test is completed and released *Descriptions of processing codes*, page 5-105	**STATUS/RESULT** Displays the: • Status - current status (Pending, Scheduled, or Running) of the test displays black. See *Descriptions of test statuses*, page 5-104 • Date and time (estimated time of completion) - displays black • Result - value, unit, and (where applicable) interpretation of result and displays: – Green if the test is completed but not released – Blue if the test is completed and released • Date and time (time of completion) and displays: – Green if the test is completed but not released – Blue if the test is completed and released • Error code and message (where applicable) - displays red

Find options (Sample status) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Name Allows you to enter the patient or control name you want to search for. This field supports a wildcard (*) search.	**SID** Allows you to enter the sample ID you want to search for. You can enter up to 20 alphanumeric characters. This field supports a wildcard (*) search.
C Allows you to enter one of the following: • Carrier ID (RSH/SSH) • CRSL (*c* System sample carousel) • LAS for samples aspirated from the LAS track • LAS carousel ID (*i* 2000) This field supports a wildcard (*) search. This field is not displayed on an *i* 2000_{SR} LAS.	**P** Allows you to enter the position number you want to search on. This field is not displayed on an *i* 2000_{SR} LAS.
Bay or Section Allows you to enter the bay or section number you want to search for. (RSH)	**PID** Allows you to enter the patient ID you want to search for. This field supports a wildcard (*) search.

Orders icon screens and windows

The Order icon allows you to access the menu items Order status, Patient order, Control order, and Calibration order.

Orders icon screens and windows topics include:

- *Patient order screen - Single patient view field descriptions*, page Appendix E-20
- *Patient order screen - Batch (bar coded) view field descriptions*, page Appendix E-21
- *Patient order screen - Batch (non-bar coded) view field descriptions*, page Appendix E-23

- *Assay options (Patient order) window - Manual dilution view field descriptions*, page Appendix E-23
- *Assay options (Patient order) window - Automated dilution view field descriptions*, page Appendix E-24
- *Details for sample window field descriptions*, page Appendix E-25
- *Details for batch window field descriptions*, page Appendix E-26
- *Control order screen - Single analyte view field descriptions*, page Appendix E-27
- *Control order screen - Multiconstituent view field descriptions*, page Appendix E-28
- *Assay options (Control order) window - Manual dilution view field descriptions*, page Appendix E-29
- *Assay options (Control order) window - Automated dilution view field descriptions*, page Appendix E-30
- *Order status screen field descriptions*, page Appendix E-31
- *Find options (Order status/Rerun status) window field descriptions*, page Appendix E-32
- *Details for order (Order status/Rerun status) window - Single order view field descriptions*, page Appendix E-32
- *Details for order (Order status) window - Batch (bar coded) view field descriptions*, page Appendix E-34
- *Details for order (Order status) window - Batch (non-bar coded) view field descriptions*, page Appendix E-35

Patient order screen - Single patient view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Order type	Sampling priority
Allows you to specify whether you want to create a single patient or batch order. **NOTE:** Batch ordering is not available on the sample carousel (*c* System) or if your system is configured with an LAS (laboratory automation system).	Allows you to indicate the priority of the sample on the *Order List Report*, page Appendix A-30. If you select the STAT option, an S code displays on the Order List report. You MUST priority load the samples with the S code to process these samples first.

C / P Allows you to select the carrier or carousel button to specify whether to run the sample on the sample carrier or the sample carousel (*c* System). This field is not displayed on an *i* 2000_{SR} LAS.	**C** Displays when you select the carrier button. Allows you to enter the ID for the carrier or LAS carousel (*i* 2000) in which you place the sample for processing. (Optional when using bar coded samples.) This field is not displayed on an *i* 2000_{SR} LAS.
P Allows you to enter the position for the sample carrier or carousel in which you place the sample for processing. (Optional when using bar coded samples).	**SID** Allows you to enter the sample ID. You can enter up to 20 alphanumeric characters, which are defined by Abbott Laboratories as A - Z, a - z, 0 - 9 and the special characters , / > < ? ; :] [\ } { ' - = ~ ! @ # $ % ^ & *) (_ + and <space>. **IMPORTANT:** Contact your host system vendor to verify that your host computer handles special characters (if used in sample IDs) as characters rather than functions. Some computers may interpret special characters as a line return, line feed, delimiter, or wildcard.
Panels (list) Lists the panels available on the system. When you select a panel, all assays in that panel are selected. **NOTE:** If you deselect an assay from the panel, the panel name is deselected.	**Assays (list)** Lists the assays available on the system. You must select at least one assay before you can create an order using the F3 - Add order button.
Sample manual dilution factor: 1: Allows you to specify a manual dilution factor for a sample. The system uses the dilution factor to automatically calculate the sample concentration and report the result. **NOTE:** The entry range that is allowed for a manual dilution factor is 2 - 999.	

Patient order screen - Batch (bar coded) view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Order type Allows you to specify whether you want to create a single patient or batch order. **NOTE:** Batch ordering is not available on the sample carousel (*c* System) or if your system is configured with an LAS (laboratory automation system).	**Starting SID** Allows you to enter the starting sample ID of the batch to be processed. You can enter up to 20 alphanumeric characters, which are defined by Abbott Laboratories as A - Z, a - z, 0 - 9 and the special characters , / > < ? ; :] [\ } { ' - = ~ ! @ # $ % ^ & *) (_ + and <space>. **IMPORTANT:** Contact your host system vendor to verify your host computer handles special characters (if used in sample IDs) as characters rather than functions. Some computers may interpret special characters as a line return, line feed, delimiter, or wildcard.
Ending SID Allows you to enter the ending sample ID of the batch to be processed. You can enter up to 20 alphanumeric characters, which are defined by Abbott Laboratories as A - Z, a - z, 0 - 9 and the special characters , / > < ? ; :] [\ } { ' - = ~ ! @ # $ % ^ & *) (_ + and <space>. **IMPORTANT:** Contact your host system vendor to verify your host computer handles special characters (if used in sample IDs) as characters rather than functions. Some computers may interpret special characters as a line return, line feed, delimiter, or wildcard.	**Panels (list)** Lists the panels available on the system. When you select a panel, all assays in that panel are selected. **NOTE:** If you deselect an assay from the panel, the panel name is deselected.
Assays (list) Lists the assays available on the system. You must select at least one assay before you can create an order using the F3 - Add order button.	**Sample manual dilution factor: 1:** Allows you to specify a manual dilution factor for a sample. The system uses the dilution factor to automatically calculate the sample concentration and report the result. **NOTE:** The entry range that is allowed for a manual dilution factor is 2 - 999.

Patient order screen - Batch (non-bar coded) view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Order type Allows you to specify whether you want to create a single patient or batch order. **NOTE:** Batch ordering is not available on the sample carousel (*c* System) or if your system is configured with an LAS (laboratory automation system).	**Starting C** Allows you to enter the starting carrier ID.
P Allows you to enter the starting carrier position for the sample.	**Starting SID** Allows you to enter the starting sample ID of the batch to be processed. You can enter up to nine numeric characters.
Number of samples Allows you to enter the number of samples to be tested as part of this batch.	**Sample manual dilution factor: 1:** Allows you to specify a manual dilution factor for a sample. The system uses the dilution factor to automatically calculate the sample concentration and report the result. **NOTE:** The entry range that is allowed for a manual dilution factor is 2 - 999.
Panels (list) Lists the panels available on the system. When you select a panel, all assays in that panel are selected. **NOTE:** If you deselect an assay from the panel, the panel name is deselected.	**Assays (list)** Lists the assays available on the system. You must select at least one assay before you can create an order using the F3 - Add order button.

Assay options (Patient order) window - Manual dilution view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • CRSL (*c* System sample carousel) • LAS carousel ID (C) and position (P) (*i* 2000) **NOTE:** For pending orders when you have not manually assigned a carrier or carousel position, this field is blank.	**Assay** Displays the name of the assay(s) you ordered.
SID Displays the sample ID.	**Name** Displays the patient's name if entered on the *Details for sample window*, page 5-90
Module selection (*i* System) Allows you to select a processing module other than the default module when you have a multi-module (*i* System). If you select Manual, a check box displays for each processing module.	**Module (*i* System)** Displays a check box for each processing module if you select manual as the Module selection option.
Dilution protocols / number of replicates Allows you to enter the number of replicates for the specified manual dilution factor when you desire more than one replicate.	

Assay options (Patient order) window - Automated dilution view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • LAS carousel ID (C) and position (P) (*i* 2000) **NOTE:** For pending orders when you have not manually assigned a carrier or carousel position, this field is blank.	**Assay** Displays the name of the assay(s) you ordered.
SID Displays the sample ID.	**Name** Displays the patient's name if entered on the *Details for sample window*, page 5-90.
Module selection (*i* System) Allows you to select a processing module other than the default module when you have a multi-module (*i* System). If you select Manual, a check box displays for each processing module.	**Module (*i* System)** Displays a check box for each processing module if you select manual as the Module selection option.
Dilution protocols / number of replicates Allows you to select an automated dilution and number of replicates.	

Details for sample window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

SID Displays the sample identification number that you entered on the *Patient order screens and views*, page 5-70.	**PID** Allows you to enter a patient ID number. You can enter up to 20 alphanumeric characters. **NOTE:** When you enter a PID, enter only details that you know to be accurate. If you do not know the information, leave this field empty. Never edit information entered previously in a field. If you make edits, the software recognizes the PID as a different and unique patient.
Last name Allows you to enter a patient's last name. You can enter up to 20 alphanumeric characters.	**First name** Allows you to enter a patient's first name. You can enter up to 20 alphanumeric characters.
M. Allows you to enter the patient's middle name. You can enter up to 12 alphanumeric characters.	**Date of birth** Allows you to enter the month, year, and the day of the patient's birth. This information provides an age-specific reference range if you have configured the assay to provide reference ranges.
Gender Allows you to select a gender. This information provides a gender-specific reference range if you have configured the assay to provide reference ranges.	**Draw date** Allows you to enter the date the sample was drawn.
Time Allows you to enter the time the sample was drawn.	**Location** Allows you to enter the location associated with the patient. You can enter up to 20 alphanumeric characters.
Doctor Allows you to enter the name of the patient's doctor. You can enter up to 20 alphanumeric characters.	**Comment** Allows you to enter a comment for the sample. You can enter up to 50 characters.

Details for batch window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Batch name Displays the name of the batch. The default name is BATCHXX:XX:XX, where XX:XX:XX represents a timestamp. The timestamp is based on when the patient order batch screen was entered, or the time after the previous order was added. The name can be edited to contain up to 20 alphanumeric characters. The name displays for all samples in the batch order.	**Comment** Allows you to enter a comment for the samples in the batch. You can enter up to 50 characters. The comment displays for all samples in the batch order.

Control order screen - Single analyte view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Order type Allows you to specify whether you want to create a single analyte or multiconstituent control order.	**Sampling priority** Allows you to indicate the priority of the sample on the *Order List Report*, page Appendix A-30. If you select the STAT option, an S code prints on the Order List report. You MUST priority load the samples with the S code to process these samples first.
C / P Allows you to select the carrier or carousel button to specify whether to run the sample on the sample carrier or the sample carousel (*c* System).	**Starting C** Displays when you select the carrier button. Allows you to enter the starting ID for the carrier or LAS carousel (*i* 2000) in which you place the first control for processing. **NOTE:** All control levels selected must fit on one carrier/carousel.
Starting P Displays the position (P) in which you place the first control for processing. (Optional when using bar coded samples). **NOTE:** All control levels selected must fit on one carrier/carousel.	**Assays (list)** Lists the assays available on the system. You must first select an assay to display the control level(s) and lot number(s) configured for that assay.

Sample manual dilution factor: 1: Allows you to select a manual dilution for the sample. You must then enter the manual dilution factor. The system uses the dilution factor to automatically calculate the sample concentration and report the result. **NOTE:** The entry range that is allowed for a manual dilution factor is 2 - 999.	**Lot (list)** Displays a list of control lots configured for the assay. The default lot displays when you select the assay.
Levels Required field that allows you to select user-configured control levels for the selected assay. You can select one or more levels to process. Based on the assay selected, up to six levels of controls are supported.	

Control order screen - Multiconstituent view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Order type Allows you to specify whether you want to create a single analyte or multiconstituent control order.	**Sampling priority** Allows you to indicate the priority of the sample on the *Order List Report*, page Appendix A-30. If you select the STAT option, an S code displays on the Order List report. You MUST priority load the samples with the S code to process these samples first.
C / P Allows you to select the carrier or carousel button to specify whether to run the sample on the sample carrier or the sample carousel (*c* System).	**Starting C** Displays when you select the carrier button. Allows you to enter the starting ID for the carrier or LAS carousel (*i* 2000) in which you place the first control for processing.

Starting P Displays the position (P) in which you place the first control for processing.	**Sample manual dilution factor: 1:** Allows you to select a manual dilution for the sample. You must then enter the manual dilution factor. The system uses the dilution factor to automatically calculate the sample concentration and report the result. **NOTE:** The entry range that is allowed for a manual dilution factor is 2 - 999.
Control (list) Displays a list of the multiconstituent control names configured on the system.	**Lot (list)** Displays a list of lot numbers configured for the control. The default lot displays when you select the control.
Levels Allows you to select the user-configured control levels for the control. Based on the control you select, up to three levels are supported.	**Panels (list)** Lists the QC panels available on the system. When you select a panel, all assays in that panel are selected. **NOTE:** If you deselect an assay from the panel, the panel name is deselected.
Assays (list) Lists the assays configured for the control level on the system. You must select at least one assay before you can create an order using the F2 - Add order button.	

Assay options (Control order) window - Manual dilution view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • LAS carousel ID (C) and position (P) (*i* 2000) **NOTE:** For pending orders when you have not manually assigned a carrier or carousel position, this field is blank	**Assay** Displays the name of the assay(s) you ordered.

Control name Displays the name of the control you selected on the Control order screen.	**Control level** Displays the control level you selected on the Control order screen.
Control lot Displays the control lot number you selected on the Control order screen.	**Module selection (*i* System)** Allows you to select a processing module other than the default module when you have a multi-module *i* System. If you select Manual, a check box displays for each processing module.
Module (*i* System) Displays a check box for each processing module if you select manual as the Module selection option.	**Dilution protocols / number of replicates** Allows you to enter the number of replicates for the dilution when more than one replicate is desired.

Assay options (Control order) window - Automated dilution view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • LAS carousel ID (C) and position (P) (*i* 2000) **NOTE:** For pending orders when you have not manually assigned a carrier or carousel position, this field is blank	**Assay** Displays the name of the assay(s) you ordered.
Control name Displays the name of the control you selected on the Control order screen.	**Control level** Displays the control level you selected on the Control order screen.
Control lot Displays the control lot number you selected on the Control order screen.	**Module selection (*i* System)** Allows you to select a processing module other than the default module when you have a multi-module *i* System. If you select Manual, a check box displays for each processing module.

Module (*i* System) Displays a check box for each processing module if you select manual as the Module selection option.	**Dilution protocols / number of replicates** Allows you to select an automated dilution and number of replicates.

Order status screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i* 2000) **NOTE:** For pending orders when you have not manually assigned a carrier or carousel position, this field is blank	**SID** Displays the sample ID, which can be one of the following: • The bar code number or ID assigned to the patient sample • The SID of the first sample in the batch • The control name and level • The calibrator name and level
NAME Displays the first 15 characters of the name, which can be one of the following: • The patient's name for patient orders • The batch name for batch orders • The control name and level for control orders • The calibrator name and level for calibration orders	**ASSAY** Displays the name of the test you ordered.
STATUS Displays the current status of the assay you ordered. See *Descriptions of test statuses*, page 5-104.	**TIME** Displays the time the order will complete (in 24 hour format). Time information displays for all samples with a status of Running.
CODE Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-105.	

Find options (Order status/Rerun status) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select the module in a multi-module/integrated system to search on.	**Name** Allows you to enter the patient or control name you want to search for. This field supports a wildcard (*) search.
SID Allows you to enter the sample ID you want to search for. You can enter up to 20 alphanumeric characters. This field supports a wildcard (*) search.	**C** Allows you to enter one of the following: • Carrier ID (RSH/SSH) • CRSL (*c* System sample carousel) • LAS for samples aspirated from the LAS track • LAS carousel ID (*i* 2000) This field supports a wildcard (*) search. This field is not displayed on an *i* 2000_{SR} LAS.
P Allows you to enter the position number you want to search on. This field is not displayed on an *i* 2000_{SR} LAS.	**Bay or Section** Allows you to enter the bay or section number you want to search for. (RSH)
PID Allows you to enter the patient ID you want to search for. This field supports a wildcard (*) search.	**Assay** Allows you to search for a specific assay ordered. This field supports a wildcard (*) search.
Time from / to Allows you to enter a time range you want to search for.	

Details for order (Order status/Rerun status) window - Single order view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i* 2000) **NOTE:** For pending orders when you have not manually assigned a carrier or carousel position, this field is blank	**Bay or Section** Displays the number of the bay or section in which the sample is located. (RSH)
SID Displays the sample ID.	**Date of birth** Displays the date of birth for the patient.
Name Displays the name, which can be one of the following: • The patient's name for patient orders • The batch name for batch orders • The control name and level for control orders • The calibrator name and level for calibration orders	**Gender** Displays the gender of the patient.
PID Displays the assigned patient ID, if entered on the *Details for sample window*, page 5-90 or sent by the host. (For patient samples only)	**Draw date/time** Displays the date and time the sample was drawn. (For patient samples only)
Assay Displays the name of the assay you ordered.	**Dilution** Displays the dilution requested for the assay.
Assay number Displays the number defined for the assay.	**Status** Displays the status of the order. See *Descriptions of test statuses*, page 5-104.
Codes Displays the codes that indicate processing conditions. See *Descriptions of processing codes*, page 5-105.	**Time to completion** Displays the time and date the test will complete.

Operator ID Displays the ID of the operator logged on when the test was ordered.	**Location** Displays the location associated with the patient.
Doctor Displays the name of the patient's doctor.	**Reference assay** Displays the photometric reference assay. (For sample interference index assays only - *c* System)
Comment Allows you to enter a comment for the order. You can enter up to 50 characters.	

Details for order (Order status) window - Batch (bar coded) view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Starting C / P Displays the starting carrier (C) and position (P) for the first sample in the batch.	**Starting SID** Displays the sample ID of the first sample in the batch.
Ending SID Displays the sample ID of the last sample in the batch.	**Name** Displays the name of the batch.
Samples scanned Displays the number of samples in the batch order scanned by the sample handler.	**Assay info (table)** Displays the assay(s) and dilution(s) ordered for the batch. • Assay • Dilution

Status Displays the status of the batch order. See *Descriptions of test statuses*, page 5-104.	**Operator ID** Displays the ID of the operator logged on when the test was ordered.
Comment Allows you to enter a comment for the batch. You can enter up to 50 characters. **NOTE:** If the status is Pending, the comment is applied to all orders within the batch. If the status is In Process, a comment cannot be entered for batch orders and must be entered for each individual sample. If you entered a comment on the *Details for batch window*, page 5-91, the comment displays here.	

Details for order (Order status) window - Batch (non-bar coded) view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Starting C / P Displays the starting carrier (C) and position (P) for the first sample in the batch.	**Starting SID** Displays the sample ID of the first sample in the batch.
Number of samples Displays the number of samples to be processed in the batch.	**Name** Displays the name of the batch.
Samples scanned Displays the number of samples in the batch order scanned by the sample handler.	**Assay info (table)** Displays the assay(s) and dilution(s) ordered for the batch. • Assay • Dilution

Status Displays the status of the batch order. See *Descriptions of test statuses*, page 5-104.	**Operator ID** Displays the ID that of the operator logged on when the test was ordered.
Comment Allows you to enter a comment for the batch. You can enter up to 50 characters. **NOTE:** If the status is Pending, the comment is applied to all orders within the batch. If the status is In Process, a comment cannot be entered for batch orders and must be entered for each individual sample. If you entered a comment on the *Details for batch window*, page 5-91, the comment displays here.	

Results icon screens and windows

The Results icon allows you to access the menu items Results review and Stored results.

Results icon screens and windows topics include:

- *Results review screen field descriptions*, page Appendix E-37
- *Find options (Results review) window field descriptions*, page Appendix E-37
- *Details for result (Results review) window - Calculated view field descriptions*, page Appendix E-38
- *Details for result (Results review) window (i System) field descriptions*, page Appendix E-40
- *Rerun options window field descriptions*, page Appendix E-41
- *Stored results screen field descriptions*, page Appendix E-43
- *Find options (Stored results) window field descriptions*, page Appendix E-43
- *Details for result (Stored results) window - Calculated view field descriptions*, page Appendix E-45
- *Details for result (Stored results) window (i System) field descriptions*, page Appendix E-46
- *Archive results window field descriptions*, page Appendix E-48

Results review screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i* 2000)	**SID** Displays the sample ID.
NAME Displays the name of the patient.	**ASSAY** Displays the name of the assay.
RESULT Displays the value, unit, and (where applicable) interpretation of the result.	**FLAG** Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-145.
CODE Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-105.	

Find options (Results review) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select the module in a multi-module system to search on.	**Name** Allows you to enter the patient or control name you want to search for. This field supports a wildcard (*) search.

C Allows you to enter one of the following: • Carrier ID (RSH/SSH) • CRSL (*c* System sample carousel) • LAS for samples aspirated from the LAS track • LAS carousel ID (*i* 2000) This field supports a wildcard (*) search. This field is not displayed on an *i* 2000_{SR} LAS.	**P** Allows you to enter the position number you want to search on. This field is not displayed on an *i* 2000_{SR} LAS.
Bay or Section Allows you to enter the bay or section number you want to search for. (RSH)	**SID** Allows you to enter the sample ID you want to search for. You can enter up to 20 alphanumeric characters. This field supports a wildcard (*) search
PID Allows you to enter the patient ID you want to search for. This field supports a wildcard (*) search.	**Assay** Allows you to search for a specific assay ordered. This field supports a wildcard (*) search.
Reagent lot Allows you to search by the reagent lot number. This field supports a wildcard (*) search.	**Results with option** Allows you to search for results with flags or interpretations.
Date from / to Allows you to enter a date range you want to search for. **NOTE:** Do not enter multiple dates when searching for a specific time interval.	**Time from / to** Allows you to enter a time range you want to search for. **NOTE:** Do not enter multiple dates when searching for a specific time interval.
Operator ID Allows you to search for the operator ID logged on to the system at the time the order was placed. This field supports a wildcard (*) search.	

Details for result (Results review) window - Calculated view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i* 2000)	**Module / Serial No.** Displays the module number and system serial number.
Name Displays the name of the patient or batch.	**Gender** Displays the gender of the patient.
SID Displays the sample ID.	**Date of birth** Displays the date of birth for the patient.
PID Displays the assigned patient ID, if entered on the *Details for sample window*, page 5-90 or sent by the host.	**Bay or Section** Displays the bay or section in which you loaded the sample. (RSH)
Assay Displays the assay that was processed.	**Constituent assays (table)** Displays the names, results, and flags for the constituent assays used to determine the calculated result. • Module (M) • Assay • Result • Flags
Assay number Displays the number defined for the assay.	**Result** Displays the value, unit, and (where applicable) interpretation of the result.
Normal range Displays the normal / therapeutic range of the assay.	**Flags** Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-145.
Codes Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-105.	**Status** Displays the status of the result as follows: • Complete - Results have completed processing

Time completed Displays the date and time the result was completed.	**Operator ID** Displays the ID of the operator logged on when the order was placed.
Doctor Displays the name of the patient's doctor.	**Location** Displays the location associated with the patient.
Draw date / time Displays the date and time the sample was drawn.	**Comment** Allows you to enter a comment for the result. You can enter up to 50 characters.

Details for result (Results review) window (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i* 2000)	**Module / Serial No.** Displays the module number and serial number of the module on which the assay was run.
Name Displays the name of the patient or batch.	**Gender** Displays the gender of the patient.
SID Displays the sample ID.	**Date of birth** Displays the date of birth for the patient.
PID Displays the assigned patient ID, if entered on the *Details for sample window*, page 5-90 or sent by the host.	**Bay or Section** Displays the bay or section in which you loaded the sample. (RSH)
Assay Displays the assay that was processed.	**Assay number** Displays the number defined for the assay.
Result Displays the value, unit, and (where applicable) interpretation of the result.	**RLU** Displays the response value in RLUs (relative light units) used to calculate the result.

Normal range Displays the normal range configured for the assay.	**Dilution** Displays the dilution used for this test.
Flags Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-145.	**Codes** Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-105.
Status Displays the status of the result as follows: • Complete - Results have completed processing	**Time completed** Displays the date and time the result was completed.
Operator ID Displays the ID of the operator logged on when the order was placed.	**Reagent lot** Displays the reagent lot used to process the sample and generate the result.
Doctor Displays the name of the patient's doctor.	**Reagent S / N** Displays the serial number of the reagent used to obtain the result.
Location Displays the location associated with the patient.	**Time of cal** Displays the date and time the reagent lot calibration was completed.
Draw date / time Displays the date and time the sample was drawn.	**Comment** Allows you to enter a comment for the result. You can enter up to 50 characters.

Rerun options window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Allows you to select the carrier or carousel button to specify whether to rerun the sample on the sample carrier or the sample carousel (*c* System). This field is not displayed on an *i* 2000_{SR} LAS.	**C** Allows you to enter the RSH/SSH carrier ID or *i* 2000 LAS carousel ID (C) in which the sample will be rerun. The default carrier or carousel ID and position are the same location as the original order. **NOTE:** If the original order did not have a carrier or carousel ID (C) and position (P) manually assigned, these fields are blank.
P Allows you to enter the position (P) in which you place the sample for rerun.	**SID** Displays the identifier for the sample or control being rerun.
Assay Displays the name of the assay to be used for rerun.	**Name** Displays the name of the patient or control.
Result Displays the value, unit, and (where applicable) interpretation of the result.	**Module selection (*i* System)** Allows you to select a processing module other than the default module when you have a multi-module *i* System. If you select Manual, a check box displays for each processing module. Selecting multiple modules results in processing being performed on each module.
Module (*i* System) Displays a check box for each processing module if you select manual as the Module selection option.	**Dilution protocols / number of replicates** Displays the dilution at which the original order was run. Allows you to select an automated dilution and number of replicates. If the original order was a manual dilution, only Number of replicates is available. The rerun must use the original manual dilution. To use a different dilution protocol, you must generate a new order. If the original order was undiluted or an automated dilution, you can select a dilution protocol and replicates.

Stored results screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i* 2000)	**SID** Displays the sample ID.
NAME Displays the name of the patient.	**ASSAY** Displays the name of the assay.
RESULT Displays the value, unit, and (where applicable) interpretation of the stored result.	**FLAG** Displays the flags associated with the stored result. See *Descriptions of patient result flags*, page 5-145.
CODE Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-105.	

Find options (Stored results) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select the module in a multi-module system to search on.	**Name** Allows you to enter the patient or control name you want to search for. This field supports a wildcard (*) search.

C Allows you to enter one of the following: • Carrier ID (RSH/SSH) • CRSL (*c* System sample carousel) • LAS for samples aspirated from the LAS track • LAS carousel ID (*i* 2000) This field supports a wildcard (*) search. This field is not displayed on an *i* 2000_{SR} LAS.	**P** Allows you to enter the position number you want to search on. This field is not displayed on an *i* 2000_{SR} LAS.
Bay or Section Allows you to enter the bay or section number you want to search for. (RSH)	**SID** Allows you to enter the sample ID you want to search for. You can enter up to 20 alphanumeric characters. This field supports a wildcard (*) search.
PID Allows you to enter the patient ID you want to search for. This field supports a wildcard (*) search.	**Assay** Allows you to search for a specific assay ordered. This field supports a wildcard (*) search.
Reagent lot Allows you to search by the reagent lot number. This field supports a wildcard (*) search.	**Results with option** Allows you to search for results with flags or interpretations.
Date from / to Allows you to enter a date range you want to search for. **NOTE:** Do not enter multiple dates when searching for a specific time interval.	**Time from / to** Allows you to enter a time range you want to search for. **NOTE:** Do not enter multiple dates when searching for a specific time interval.
Operator ID Allows you to search for the operator ID logged on to the system at the time the order was placed. This field supports a wildcard (*) search.	**Status** Allows you to search by result status. See *Descriptions of test statuses*, page 5-104.

Details for result (Stored results) window - Calculated view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i* 2000)	**Module / Serial No.** Displays the module number and system serial number.
Name Displays the name of the patient.	**Gender** Displays the gender of the patient.
SID Displays the sample ID.	**Date of birth** Displays the date of birth for the patient.
PID Displays the assigned patient ID, if entered on the *Details for sample window*, page 5-90 or sent by the host.	**Bay or Section** Displays the bay or section in which you loaded the sample. (RSH)
Assay Displays the name of the assay that was processed.	**Constituent assays (table)** Displays the following information for the constituent assays used to determine the calculated result. • Module (M) • Assay • Result • Flags
Assay number Displays the number defined for the assay.	**Result** Displays the value, unit, and (where applicable) interpretation of the result.
Normal range Displays the normal / therapeutic range for the assay.	**Flags** Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-145.

Codes Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-105.	**Status** Displays the status of the result as follows: • Complete - Results have completed and are not pending transmission to the host (when connected to a host computer). • Pending transmission - Results have completed and are pending transmission to the host (when connected to a host computer). • Pending collation - Results have been selected for release to the host and, depending on the collation option setting: – all results associated with the SID have not completed or have not been selected for release. OR – all results associated with the SID on a particular processing module have not completed or have not been selected for release.
Time completed Displays the date and time the result was completed.	**Operator ID** Displays the ID of the operator logged on when the test completed.
Doctor Displays the name of the patient's doctor.	**Location** Displays the location associated with the patient.
Draw date / time Displays the date and time the sample was drawn.	**Comment** Displays the comment entered for the result.

Details for result (Stored results) window (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i* 2000)	**Module / Serial No.** Displays the module number and the serial number on which the assay was run.
Name Displays the name of the patient.	**Gender** Displays the gender of the patient.
SID Displays the sample ID.	**Date of birth** Displays the date of birth for the patient.
PID Displays the assigned patient ID if entered on the *Details for sample window*, page 5-90 or sent by the host.	**Bay or Section** Displays the bay or section in which you loaded the sample. (RSH)
Assay Displays the name of the assay that processed.	**Assay number** Displays the number defined for the assay.
Result Displays the value, unit, and (where applicable) interpretation of the result.	**RLU** Displays the response value in RLUs (relative light units) used to calculate the result.
Normal range Displays the normal / therapeutic range for the assay.	**Dilution** Displays the dilution used for this test.
Flags Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-145.	**Codes** Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-105.

Status Displays the status of the result as follows: • Complete - Results have completed and are not pending transmission to the host (when connected to a host computer). • Pending transmission - Results have completed and are pending transmission to the host (when connected to a host computer). • Pending collation - Results have been selected for release to the host and, depending on the collation option setting: – all results associated with the SID have not completed or have not been selected for release. OR – all results associated with the SID on a particular processing module have not completed or have not been selected for release.	**Time completed** Displays the date and time the result was completed.
Operator ID Displays the ID of the operator logged on when the test completed.	**Reagent lot** Displays the master lot number of the reagent used to process the sample and generate the result.
Doctor Displays the name of the patient's doctor.	**Reagent S / N** Displays the serial number of the reagent used to obtain the result.
Location Displays the location associated with the patient.	**Time of cal** Displays the date and time the reagent lot calibration was completed.
Draw date / time Displays the date and time the sample was drawn.	**Comment** Displays the comment entered for the result.

Archive results window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

INSTRUCTIONS (box) Displays the step-by-step instructions you must perform.	**Archive name** Displays the name the system uses to archive the file. You cannot change the name. The naming convention displays in the format xxxxx\yyyyyyyy.Pzz, where: • xxxxx represents the ARCHITECT System number • yyyyyyyy represents that day's date • Pzz represents the archive number The patient archive identifier (.Pzz) starts at 01 and increments for each patient archive created on each new day.
Number of results selected Displays the number of results you selected for the archive from the *Stored results screen*, page 5-171.	**Space required** Displays the approximate amount of space needed on the CD to perform the archive.
Space available Displays the amount of space available on the CD currently in the CD drive. If the correct CD is not recognized, an information message displays in this field. See *Descriptions of archive messages*, page 5-180.	**Delete records after archive** Allows you to delete the result records after you archive them. Default: Delete records after archive.

QC-Cal icon screens and windows

The QC-Cal icon allows you to access the menu items QC result review, QC summary, Levey-Jennings graph, Calibration status, Calibration history, Stored QC results, and QC reports.

QC-Cal icon screens and windows topics include:

- *QC result review screen field descriptions*, page Appendix E-50
- *Find options (QC result review) window field descriptions*, page Appendix E-51
- *Details for QC result (QC result review) window (i System) field descriptions*, page Appendix E-52
- *Rerun options (QC result review) window field descriptions*, page Appendix E-54
- *Levey-Jennings graph screen field descriptions*, page Appendix E-55

- *QC selection window field descriptions*, page Appendix E-56
- *Point detail window field descriptions*, page Appendix E-57
- *Calibration order screen field descriptions*, page Appendix E-58
- *Assay options (Calibration order) window field descriptions*, page Appendix E-58
- *Calibration status screen field descriptions*, page Appendix E-59
- *Find options (Calibration status and Calibration history) window field descriptions*, page Appendix E-59
- *Calibration curve window - Adjust assay view (i System) field descriptions*, page Appendix E-60
- *Calibration curve window - Index assay view (i System) field descriptions*, page Appendix E-61
- *Calibration curve window - Full assay view (i System) field descriptions*, page Appendix E-62
- *Calibration history screen field descriptions*, page Appendix E-63
- *Archive calibration curves window field descriptions*, page Appendix E-63
- *Stored QC results screen field descriptions*, page Appendix E-64
- *Find options (Stored QC results) window field descriptions*, page Appendix E-65
- *Details for QC result (Stored QC results) window (i System) field descriptions*, page Appendix E-66
- *Archive QC results window field descriptions*, page Appendix E-67
- *QC reports screen field descriptions*, page Appendix E-68
- *QC summary review screen field descriptions*, page Appendix E-68
- *Find options (QC summary review) window field descriptions*, page Appendix E-69
- *Details for QC summary window field descriptions*, page Appendix E-70

QC result review screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

M Displays the number of the module that processed the control.	**C / P** Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i* 2000)
SID Displays the sample ID.	**CONTROL NAME** Displays the name of the control that processed.
LEVEL Displays the level of the control that was processed.	**ASSAY** Displays the name of the assay.
RESULT Displays the value and units of the result.	**FLAG** Displays the flags associated with the result. See *Descriptions of quality control result flags*, page 5-159.

Find options (QC result review) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select the module in a multi-module system to search on.	**Control name** Allows you to enter the control name you want to search for. This field supports a wildcard (*) search.
Control lot Allows you to enter the lot number of the control you want to search for. This field supports a wildcard (*) search.	**SID** Allows you to enter the sample ID you want to search for. You can enter up to 20 alphanumeric characters. This field supports a wildcard (*) search.

C Allows you to enter one of the following: • Carrier ID (RSH/SSH) • CRSL (*c* System sample carousel) • LAS for samples aspirated from the LAS track • LAS carousel ID (*i* 2000) This field supports a wildcard (*) search. This field is not displayed on an *i* 2000_{SR} LAS.	**P** Allows you to enter the position (P) number you want to search on. This field is not displayed on an *i* 2000_{SR} LAS.
Bay or Section Allows you to enter the bay or section number you want to search for. (RSH)	**Assay** Allows you to search for a specific assay ordered. This field supports a wildcard (*) search.
Reagent lot Allows you to search by the reagent lot number. This field supports a wildcard (*) search.	**Results with option** Allows you to search for results with flags.
Date from / to Allows you to enter a date range you want to search for. **NOTE:** Do not enter multiple dates when searching for a specific time interval.	**Time from / to** Allows you to enter a time range you want to search for. **NOTE:** Do not enter multiple dates when searching for a specific time interval.
Operator ID Allows you to search for the operator ID logged on to the system at the time the order was placed. This field supports a wildcard (*) search.	

Details for QC result (QC result review) window (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

SID Displays the sample ID.	**C / P** Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • LAS carousel ID (C) and position (P) (*i* 2000)
Control name Displays the name of the control.	**Control lot** Displays the lot number for the control.
Control level Displays the level that was run for the control.	**Bay or Section** Displays the bay or section in which you loaded the sample. (RSH)
Assay Displays the name of the assay that processed.	**Assay number** Displays the number defined for the assay.
Result Displays the value and unit of the result.	**RLU** Displays the response value in RLUs (relative light units) used to calculate the result.
Control range Displays the control range configured when you created the control during QC configuration.	**Dilution** Displays the dilution used for this test.
Flags Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-145.	**Codes** Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-105.
Status Displays the status of the result as follows: • Complete - Results have completed processing	**Module / Serial No.** Displays the module number and the serial number on which the assay was run.
Time completed Displays the date and time the control was processed.	**Operator ID** Displays the ID of the operator logged on when the control completed.
Time of cal Displays the date and time the reagent lot calibration was completed.	**Reagent lot** Displays the reagent lot used to process the control and generate the result.

Reagent S / N Displays the serial number of the reagent used to obtain the result.	**Comment** Allows you to enter a comment for the result. You can enter up to 50 characters.

Rerun options (QC result review) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Allows you to select the carrier or carousel button to specify whether to rerun the sample on the sample carrier or the sample carousel (*c* System).	**C** Allows you to enter the RSH/SSH carrier ID or *i* 2000 LAS carousel ID (C) in which the sample will be rerun. The default carrier or carousel ID and position are the same location as the original order. **NOTE:** If the original order did not have a carrier or carousel ID (C) and position (P) manually assigned, these fields are blank.
P Allows you to enter the position (P) in which the sample will be placed for rerun.	**Control name** Displays the name of the control.
Assay Displays the name of the assay you requested for the control.	**Control level** Displays the name of the level for the control.
Result Displays the value and unit of the result.	**Control lot** Displays the lot number for the control.

Module selection (*i* System) Allows you to select a processing module other than the default module when you have a multi-module *i* System. If you select Manual, a check box displays for each processing module. Selecting multiple modules results in processing being performed on each module.	**Module (*i* System)** Displays a check box for each processing module if you select manual as the Module selection option.
Dilution protocols / number of replicates Displays the dilution at which the original order was run. Allows you to select an automated dilution and number of replicates. If the original order was a manual dilution, only Number of replicates is available. The rerun must use the original manual dilution. To use a different dilution protocol, you must generate a new order.	

Levey-Jennings graph screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the name of the assay.	**Control lot** Displays the lot number for the control.
Comparison type Displays the source of the mean used to compare to the expected mean.	**Control** Displays the name of the control selected.
Exp. date Displays the expiration date of the control lot selected.	**Module** Displays the number of the module used to process the control(s).

Status Displays the current status of the assay on the selected module.	**Statistics (fields)** Displays the following statistical data elements related to a specific level of control: • Level • Mean • SD • N • Comparison mean • Visible data range See *Levey-Jennings graph statistical data elements*, page 5-211.
Date range Displays the date range used for the calculation.	**Date** Displays the date for the selected point on the graph.
Value Displays the value of the selected point on the graph.	

QC selection window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select a processing module other than the default module.	**Date range for calculations / to** Allows you to enter the date range of the data to display.
Comparison type Allows you to select the source of the mean used to compare to the expected control mean. Options are: • None • Manufacturers • Module cumulative • System cumulative	**Assay (list)** Allows you to select one assay to include in the Levey-Jennings graph.

Control name (list) Allows you to select one control name to include in the Levey-Jennings graph.	**Control lot (list)** Allows you to select one control lot to include in the Levey-Jennings graph. The system uses the configured default lot number if you do not make another selection.
Control level Allows you to select one or more levels to include in the Levey-Jennings graph.	

Point detail window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Point value Displays the value and units of the control point selected.	**Point SD** Displays the point value's standard deviation from the mean.
Mean Displays the expected mean of the control data selected.	**1 SD** Displays the +/- 1 standard deviation of the control data selected.
2 SD Displays the +/- 2 standard deviation of the control data selected.	**3 SD** Displays the +/- 3 standard deviation of the control data selected.
Time completed Displays the date and time the control result completed.	**Flags** Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-145.
Operator ID Displays the ID of the operator logged on when the control completed.	**Reagent lot** Displays the reagent lot used to process the control and generate the result.
Codes Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-105.	**Include / Exclude** Allows you to include the point again or exclude it. **NOTE:** You must enter a comment before the point is included again or excluded.
Westgard re-evaluation Allows you to re-evaluate a selected control result after including or excluding the point.	**Comment** Allows you to enter a comment for the control point. You can enter up to 50 characters.

Calibration order screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Allows you to specify whether to run the sample on the sample carrier or the sample carousel (*c* System). **NOTE:** This field is not displayed on an *i* 2000_{SR} LAS.	**Starting C** Displays when you select the carrier button. Allows you to enter the starting ID for the carrier or LAS carousel (*i* 2000) in which you place the first control for processing. This field is not displayed on an *i* 2000_{SR} LAS. **NOTE:** The system automatically increments the correct number of positions required for the calibration for up to five consecutive carriers.
Starting P Displays the starting carousel position (P) in which the calibrator will be placed for processing. **NOTE:** This field is not displayed on an *i* 2000_{SR} LAS.	**Assays (list)** Lists the assays installed on the system. If you select the carousel button, only *c* System assays display.

Assay options (Calibration order) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the name of the assay to be processed.	**Calibrator name** Displays the name of the calibrator set used to calibrate the assay.
Lot Allows you to enter the calibrator lot number.	**Expiration date** Allows you to enter the calibrator expiration date.
Calibration type Displays the calibration type for the assay selected. (*i* System) Allows you to select the calibration type if configured for the assay. (*c* System)	**Number of levels** Displays the number of levels defined for the assay.

Module selection (*i* System) Allows you to select a processing module other than the default module when you have a multi-module *i* System. If you select Manual, a check box displays for each processing module.	**Module (*i* System)** Displays a check box for each processing module if you select manual as the Module selection option.

Calibration status screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

M Displays the module on which the calibration was ordered and processed for the reagent lot.	**ASSAY** Displays the name of the assay.
REAGENT LOT Displays the lot number of the reagent.	**CAL DATE / TIME** Displays the date and time of the last calibration.
CAL STATUS Displays the calibration status for the reagent lot. See *Calibration statuses*, page 6-13.	**EXP DATE / TIME** Displays the date and time the calibration curve expires. (*c* System)

Find options (Calibration status and Calibration history) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select the module on which you want to search.	**Assay** Allows you to search by assay name. This field supports a wildcard (*) search.

Reagent lot Allows you to search by reagent lot number. This field supports a wildcard (*) search.	**Curves with an expiration less than** Allows you to enter an expiration time interval from 1-24 hours for a *c* System calibration curve(s).
Status Allows you to search by calibration *Descriptions of calibration statuses*, page 6-12.	

Calibration curve window - Adjust assay view (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the name of the assay that was processed.	**Assay number** Displays the number defined for the assay.
Reagent lot Displays the lot number of the reagent kit used to calibrate the assay.	**Reagent S / N** Displays the serial number of the reagent used to obtain the calibration curve.
Expiration date Displays the expiration date of the reagent lot number used for calibration.	**Calibration status** Displays the current calibration *Descriptions of calibration statuses*, page 6-12 of the assay.
Cal date / time Displays the date and time the calibration completed.	**Cal method** Displays the mathematical procedure used to analyze the data.
Calibration type Displays the calibration type for this assay.	**Calibrator lot** Displays the lot number of the calibrator used to calibrate the assay.
Expiration date Displays the expiration date of the calibrator lot used to calibrate the assay.	**Module / Serial No.** Displays the module number and the serial number on which the assay was run.
Operator ID Displays the ID of the operator logged on when the last calibration was performed.	**Error code** Displays the calibration error code and message text, if any.

Cal 1 ratio Displays the calibration 1 adjustment ratio.	**Cal 2 ratio** Displays the calibration 2 adjustment ratio.
CAL ID Displays the name of the calibrator.	**MEAN RLU** Displays the mean of the calibrator replicates RLU (relative light units).
REP 1 RLU Displays the RLU value for replicate 1.	**REP 2 RLU** Displays the RLU value for replicate 2.
CONC / UNITS Displays the concentration value for each level of calibrator defined in the assay parameters. **NOTE:** The displayed concentration is the default unit.	**REF CAL RLU** Displays the reference (master cal) data read from the 2-D reagent bar code label on the microparticle bottle.
FIT CURVE RLU Displays the fit curve RLU data for each calibrator.	

Calibration curve window - Index assay view (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the name of the assay that was processed.	**Assay number** Displays the number defined for the assay.
Reagent lot Displays the lot number of the reagent kit used to calibrate the assay.	**Reagent S / N** Displays the serial number of the reagent used to obtain the calibration curve.
Expiration date Displays the expiration date of the reagent lot number used for calibration.	**Calibration status** Displays the current calibration *Descriptions of calibration statuses*, page 6-12 of the assay.
Cal date / time Displays the date and time the calibration completed.	**Cal method** Displays the mathematical procedure used to analyze the data.
Calibration type Displays the calibration type for this assay.	**Calibrator lot** Displays the lot number of the calibrator used to calibrate the assay.

Expiration date Displays the expiration date of the calibrator lot used to calibrate the assay.	**Module / Serial No.** Displays the module number and the serial number on which the assay was run.
Operator ID Displays the ID of the operator logged on when the last calibration was performed.	**Error code** Displays the calibration error code and message text, if any.
CAL ID Displays the name of the calibrator.	**MEAN RLU** Displays the mean of the calibrator replicates RLU (relative light units).
REP 1 RLU Displays the RLU value for replicate 1.	**REP 2 RLU** Displays the RLU value for replicate 2.
REP 3 RLU Displays the RLU value for replicate 3.	

Calibration curve window - Full assay view (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the name of the assay that was processed.	**Assay number** Displays the number defined for the assay.
Reagent lot Displays the lot number of the reagent kit used to calibrate the assay.	**Reagent S / N** Displays the serial number of the reagent used to obtain the calibration curve.
Expiration date Displays the expiration date of the reagent lot number used for calibration.	**Calibration status** Displays the current calibration *Descriptions of calibration statuses*, page 6-12 of the assay.
Cal date / time Displays the date and time the calibration completed.	**Cal method** Displays the mathematical procedure used to analyze the data.
Calibration type Displays the calibration type for this assay.	**Calibrator lot** Displays the lot number of the calibrator used to calibrate the assay.
Expiration date Displays the expiration date of the calibrator lot used to calibrate the assay.	**Module / Serial No.** Displays the module number and the serial number on which the assay was run.

Operator ID Displays the ID of the operator logged on when the last calibration was performed.	**Error code** Displays the calibration error code and message text, if any.
CAL ID Displays the name of the calibrator.	**CONC / UNITS** Displays the concentration value for each level of calibrator defined in the assay parameters.
FIT CURVE RLU Displays the fit curve RLU (relative light units) data for each calibrator.	**MEAN RLU** Displays the mean of the calibrator replicates.
REP 1 RLU Displays the RLU value for replicate 1.	**REP 2 RLU** Displays the RLU value for replicate 2.

Calibration history screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

M Displays the module on which the calibration was ordered and processed for the reagent lot.	**ASSAY** Displays the name of the assay.
REAGENT LOT Displays the lot number of the reagent.	**CAL DATE / TIME** Displays the date and time of the last calibration.
CAL STATUS Displays the calibration status for the reagent lot. See *Calibration statuses*, page 6-13.	**EXP DATE / TIME** Displays the date and time the calibration curve expires (*c* System).

Archive calibration curves window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

INSTRUCTIONS (box) Displays the step-by-step instructions you must perform.	**Archive name** Displays the name the system uses to archive the file. You cannot change the name. The naming convention displays in the format xxxxx\yyyyyyyy.Czz, where: • xxxxx represents the ARCHITECT System number • yyyyyyyy represents that day's date • Czz represents the archive number The calibration curve archive identifier (.Czz) starts at 01 and increments for each calibration curve archive created on each new day.
Number of results selected Displays the number of results you selected for the archive from the *Calibration history screen*, page 6-17.	**Space required** Displays the approximate amount of space needed on the CD to perform the archive.
Space available Displays the amount of space available on the CD currently in the CD drive. If the correct CD is not recognized, an information message displays in this field. See *Descriptions of archive messages*, page 5-180.	**Delete inactive curves after archive** Allows you to delete the inactive curves after you archive them. Default: Delete inactive curves after archive.

Stored QC results screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

M Displays the number of the module that processed the control.	**C / P** Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i* 2000)

SID Displays the sample ID.	**CONTROL NAME** Displays the name of the control that processed.
LEVEL Displays the level of the control that processed.	**ASSAY** Displays the name of the assay.
RESULT Displays the value and units of the stored result.	**FLAG** Displays the flags associated with the result. See *Descriptions of quality control result flags*, page 5-159.

Find options (Stored QC results) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select the module in a multi-module system to search on.	**Control name** Allows you to enter the control name you want to search for. This field supports a wildcard (*) search.
C Allows you to enter one of the following: • Carrier ID (RSH/SSH) • CRSL (*c* System sample carousel) • LAS for samples aspirated from the LAS track • LAS carousel ID (*i* 2000) This field supports a wildcard (*) search. This field is not displayed on an *i* 2000_{SR} LAS.	**P** Allows you to enter the position (P) number you want to search on. This field is not displayed on an *i* 2000_{SR} LAS.
SID Allows you to enter the sample ID. You can enter up to 20 alphanumeric characters. This field supports a wildcard (*) search.	**Control lot** Allows you to enter the lot number of the control you want to search for. This field supports a wildcard (*) search.

Assay Allows you to search for a specific assay ordered. This field supports a wildcard (*) search.	**Reagent lot** Allows you to search by the reagent lot number. This field supports a wildcard (*) search.
Results with option Allows you to search for results with flags.	**Date from / to** Allows you to enter a date range you want to search for. **NOTE:** Do not enter multiple dates when searching for a specific time interval.
Time from / to Allows you to enter a time range you want to search for. NOTE: Do not enter multiple dates when searching for a specific time interval.	**Operator ID** Allows you to search for the operator ID logged on to the system at the time the control order was placed. This field supports a wildcard (*) search.
Status Allows you to search by result status. See *Descriptions of test statuses*, page 5-104.	

Details for QC result (Stored QC results) window (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

SID Displays the sample ID.	**C / P** Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i* 2000)
Control name Displays the name of the control.	**Control lot** Displays the lot number for the control.
Control level Displays the name of the level for the control result.	**Bay or Section** Displays the bay or section in which you loaded the sample. (RSH)

Assay Displays the name of the assay that was processed.	**Assay number** Displays the number defined for the assay.
Result Displays the value and units of the control result.	**RLU** Displays the response value in RLUs (relative light units) used to calculate the result.
Control range Displays the control range configured when you created the control during QC configuration.	**Dilution** Displays the dilution used for this test.
Flags Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-145.	**Codes** Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-105.
Status Displays the status of the result as follows: • Complete - Results have completed and are not pending transmission to the host (when connected to a host computer). • Pending transmission - Results have completed and are pending transmission to the host (when connected to a host computer).	**Module / Serial No.** Displays the module number and the serial number on which the assay was run.
Time completed Displays the date and time the control was processed.	**Operator ID** Displays the ID of the operator logged on when the control completed.
Time of cal Displays the date and time the reagent lot calibration completed.	**Reagent lot** Displays the reagent lot used to process the control and generate the result.
Reagent S / N Displays the serial number of the reagent used to obtain the result.	**Comment** Displays the comment entered for the QC result.

Archive QC results window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

INSTRUCTIONS (box) Displays the step-by-step instructions you must perform.	**Archive name** Displays the name the system uses to archive the file. You cannot change the name. The naming convention displays in the format xxxxx\yyyyyyyy.Qzz, where: • xxxxx represents the ARCHITECT System number • yyyyyyyy represents that day's date • Qzz represents the archive number The QC archive identifier (.Qzz) starts at 01 and increments for each QC archive created on each new day.
Number of results selected Displays the number of results you selected for the archive from the *Stored results screen*, page 5-171.	**Space required** Displays the approximate amount of space needed on the CD to perform the archive.
Space available Displays the amount of space available on the CD currently in the CD drive. If the correct CD is not recognized, an information message displays in this field. See *Descriptions of archive messages*, page 5-180.	**Delete records after archive** Allows you to delete the result records after you archive them. Default: Delete records after archive.

QC reports screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select a processing module to be used for the report.	**Date from / to** Allows you to enter the date range to be used for the report.
Controls Allows you to select the control(s) to include in the report.	

QC summary review screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Date range Displays the date range used for the calculation.	**M** Displays the number of the module that processed the control.
Assay Displays the name of the assay.	**CONTROL NAME/LOT** Displays the name and lot number of the control.
Level Displays the name of the control level.	**N** Displays the number of control points within the specified date range.
ACTUAL MEAN Displays the calculated mean of the QC data.	**ACTUAL SD** Displays the calculated standard deviation of the QC data.
% CV Displays the calculated percent coefficient of variation of the QC data.	**EXPECTED MEAN** Displays the expected mean configured for the control level.
EXPECTED SD Displays the expected standard deviation configured for the control level.	

Find options (QC summary review) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Control name Allows you to enter the control name you want to search for. This field supports a wildcard (*) search.	**Control lot** Allows you to enter the lot number of the control you want to search for. This field supports a wildcard (*) search.
Level Allows you to search for a specific control.	**SID** Allows you to enter the sample ID you want to search for. You can enter up to 20 alphanumeric characters. This field supports a wildcard (*) search.

Assay Allows you to search for a specific assay ordered. This field supports a wildcard (*) search.	**Results with** Allows you to search for results with Flags.

Details for QC summary window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the name of the assay.	**Control lot** Displays the lot number of the control.
Control name Displays the name of the control.	**Control level** Displays the name of the control level.
Date range Displays the date range entered for the QC summary.	**Module/Serial No.** Displays the module number and the serial number on which the assay was run.
Expected Displays the expected mean and standard deviation configured.	**Manufacturer** Displays the manufacturer's mean and standard deviation configured.
Actual data for date range Displays the data calculated for the specified module and date range.	**System data for date range** Displays the data calculated for the specified date range for all processing modules in a multi-module *i* System. This data is the same as the actual data for date range for other system configurations.
Module cumulative Displays the cumulative data calculated for the specified module.	**System cumulative** Displays the cumulative data calculated for all processing modules in a multi-module *i* System. This data is the same as the module cumulative data for other system configurations.

Exceptions icon screens and windows

The Exceptions icon allows you to access the menu items Exception status and Rerun status.

Exceptions icon screens and windows topics include:

- *Exception status screen field descriptions*, page Appendix E-71

- *Find options (Exception status) window field descriptions*, page Appendix E-72
- *Details for exceptions window (i System) field descriptions*, page Appendix E-73
- *Details for exceptions window - Calculated view field descriptions*, page Appendix E-74
- *Details for exceptions window - Control view field descriptions*, page Appendix E-75
- *Details for exceptions window - Calibrator view field descriptions*, page Appendix E-77
- *Rerun status screen field descriptions*, page Appendix E-78

Exception status screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i* 2000)	**SID** Displays the sample ID, which can be one of the following: • The bar code number or ID assigned to the patient sample • The control name and level for control orders • The calibrator name and level for calibration orders
NAME Displays the name or PID, which can be one of the following: • The patient's name for patient samples • The control name and level for control orders • The calibrator name and level for calibration orders	**ASSAY** Displays the name of the assay requested for processing.

M Displays the number of the module that generated the exception. This field is blank when the test cannot be assigned to or processed on a module. **NOTE:** Calculated assay results are assigned to module 5.	**ERROR CODE** Displays the numeric error code for the exception and the error code text that describes the error that occurred.

Find options (Exception status) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select the module in a multi-module system to search on.	**Name** Allows you to enter the patient, control, or calibrator name you want to search for. This field supports a wildcard (*) search.
C Allows you to enter one of the following: • Carrier ID (RSH/SSH) • CRSL (*c* System sample carousel) • LAS for samples aspirated from the LAS track • LAS carousel ID (*i* 2000) This field supports a wildcard (*) search. This field is not displayed on an *i* 2000_{SR} LAS.	**P** Allows you to enter the position number you want to search on. This field is not displayed on an *i* 2000_{SR} LAS.
Bay or Section Allows you to enter the bay or section number you want to search for. (RSH)	**SID** Allows you to enter the sample ID you want to search for. You can enter up to 20 alphanumeric characters. This field supports a wildcard (*) search

Assay Allows you to search for a specific assay. This field supports a wildcard (*) search.	**Error code** Allows you to enter the error code you want to search for.
Status Allows you to search by the following statuses: • Pending transmission • Pending collation See *Descriptions of test statuses*, page 5-104.	

Details for exceptions window (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i* 2000)	**Module / Serial No.** Displays the module number and the serial number of the module that processed the exception.
Name Displays the name of the patient.	**Gender** Displays the gender of the patient.
SID Displays the sample ID.	**Date of birth** Displays the date of birth for the patient.
PID Displays the assigned patient ID, if entered on the *Details for sample window*, page 5-90 or sent by the host. (For patient samples only)	**Bay or Section** Displays the bay or section in which you loaded the sample. (RSH)
Assay Displays the name of the assay that processed.	**Assay number** Displays the number defined for the assay.

Dilution Displays the dilution used for the test.	**RLU** Displays the response value in RLUs (relative light units) used to calculate the result.
Codes Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-105.	**Error code** Displays the exception error code number and text.
Time completed Displays the date and time the test was ordered.	**Operator ID** Displays the ID of the operator logged on when the test was ordered.
Reagent lot Displays the reagent lot used to process the test and generate the exception	**Doctor** Displays the name of the patient's doctor.
Reagent S / N Displays the serial number of the reagent used when the exception occurred.	**Location** Displays the location associated with the patient.
Time of cal Displays the date and time the reagent lot calibration completed.	**Draw date / time** Displays the date and time the sample was drawn.
Comment Allows you to enter a comment for the result. You can enter up to 50 characters.	

Details for exceptions window - Calculated view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i* 2000)	**Module / Serial No.** Displays the module number and the system serial number.

Name Displays the name of the patient.	**Gender** Displays the gender of the patient.
SID Displays the sample ID.	**Date of birth** Displays the date of birth for the patient.
PID Displays the assigned patient ID, if entered on the *Details for sample window*, page 5-90 or sent by the host. (For patient samples only)	**Bay or Section** Displays the bay or section in which you loaded the sample. (RSH)
Constituent assays (table) Displays the following for the constituent assays used to determine the calculated result. • Module (M) • Assay • Result • Flags	**Assay** Displays the name of the assay that processed.
Assay number Displays the number defined for the assay.	**Codes** Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-105.
Error code Displays the exception error code number and text.	**Time completed** Displays the date and time the test exception occurred.
Operator ID Displays the ID of the operator logged on when the test was ordered.	**Doctor** Displays the name of the patient's doctor.
Location Displays the location associated with the patient.	**Draw date / time** Displays the date and time the sample was drawn.
Comment Allows you to enter a comment for the result. You can enter up to 50 characters.	

Details for exceptions window - Control view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i* 2000)	**Module / Serial No.** Displays the module number and the serial number of the module that processed the exception.
Name Displays the name of the patient.	**Lot** Displays the control lot run.
SID Displays the sample ID.	**Level** Displays the name of the control level.
Bay or Section Displays the bay or section in which you loaded the sample. (RSH)	**Assay** Displays the name of the assay that processed.
Assay number Displays the number defined for the assay.	**Dilution** Displays the dilution used for the test.
RLU Displays the response value used in calculating the result: • RLU (*i* System) • Absorbance (photometric) • mV - (ICT) **NOTE:** This field does not display for sample interference index assays.	**Codes** Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-105.
Result This field is blank for control exceptions.	**Error code** Displays the exception error code number and text.
Time completed Displays the date and time the test exception occurred.	**Operator ID** Displays the ID of the operator logged on when the test was ordered.
Reagent lot Displays the reagent lot used to process the control and generate the exception	**Doctor** This field is blank for control exceptions.

Reagent S / N Displays the serial number of the reagent used when the exception occurred.	**Location** This field is blank for control exceptions.
Time of cal Displays the date and time the reagent lot calibration completed.	**Draw date / time** This field is blank for control exceptions.
Comment Allows you to enter a comment for the result. You can enter up to 50 characters.	

Details for exceptions window - Calibrator view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • CRSL (*c* System sample carousel) • LAS carousel ID (C) and position (P) (*i* 2000) • LAS (laboratory automation system)	**Module / Serial No.** Displays the module number and the serial number of the module that processed the exception.
Name Displays the name and level of the calibrator.	**Lot** This field is blank for calibrator exceptions.
SID Displays the sample ID.	**Type** Displays the type of calibration run.
Bay or Section Displays the bay or section in which you loaded the sample. (RSH)	**Assay** Displays the name of the assay that processed.
Assay number Displays the number defined for the assay.	**Dilution** Displays the dilution used for the test.

RLU Displays the response value used in calculating the result: • RLU (*i* System) • Absorbance (photometric) • mV - (ICT) **NOTE:** This field does not display for sample interference index assays.	**Codes** Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-105.
Result Displays a blank field as the system is unable calculate the result due to the exception error.	**Error code** Displays the exception error code number and text.
Time completed Displays the date and time the test exception occurred.	**Operator ID** Displays the ID of the operator logged on when the calibration was ordered.
Reagent lot Displays the reagent lot used to process the test and generate the exception	**Reagent S / N** Displays the serial number of the reagent used when the exception occurred.
Time of cal Displays the date and time the reagent lot calibration was completed.	**Comment** Allows you to enter a comment for the result. You can enter up to approximately 50 characters.

Rerun status screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i* 2000) **NOTE:** For pending orders when you have not manually assigned a carrier or carousel position, this field is blank	**SID** Displays the sample ID, which can be one of the following: • The bar code number or ID assigned to the patient sample • The control name and level for control orders

NAME Displays the name or PID, which can be one of the following: • The patient's name for patient samples • The control name and level for control orders	**ASSAY** Displays the name of the assay.
STATUS Displays the current status of the assay you ordered. See *Descriptions of test statuses*, page 5-104.	**TIME** Displays the time the order will complete (in 24 hour format). Time information displays for all samples with a status of Running.
CODE Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-105.	

Reagents icon screens and windows

The Reagents icon allows you to access the menu items Reagent status and Reagent history.

Reagents icon screens and windows topics include:

- *Reagent status screen - i 1000$_{SR}$ field descriptions*, page Appendix E-79
- *Reagent status screen - View all view field descriptions*, page Appendix E-81
- *Details for reagent (Reagent status) window field descriptions*, page Appendix E-82
- *Find options (Reagent status) window field descriptions*, page Appendix E-82
- *Find options (Reagent status - View all) window field descriptions*, page Appendix E-83
- *Reagent history screen field descriptions*, page Appendix E-84
- *Details for reagent (history) window field descriptions*, page Appendix E-85

Reagent status screen - *i* 1000$_{SR}$ field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select an individual module or all modules to view reagent status information.	**Reagent carousel graphic** Displays the reagent carousel positions. Positions may be colored as follows: • White - No reagent is loaded in the position • Teal - Reagent with an OK status loaded in the position • Gold - Reagent with a Low Alert or Overridden status loaded in the position • Red - Reagent with an error condition that requires your attention loaded in the position • Cross hatch - Reagent is being loaded or unloaded from the position
P Displays the carousel position or RSH position of a specific reagent. Some assays require two carousel positions.	**ASSAY** Displays the calibration status for the assay using the reagent kit. See *Descriptions of calibration statuses*, page 6-12.
CAL STATUS Displays the calibration status for the assay using the reagent kit. See *Descriptions of calibration statuses*, page 6-12.	**REMAINING TESTS** Displays the number of tests remaining in the reagent kit.
REAGENT STATUS Displays the status of the reagent kit. For statuses other than OK, Overridden, and Low Alert, text in the list associated with the reagent kit displays red. In addition, the caution symbol displays on the Reagent status button on the processing module graphic on the *Snapshot screen*, page 1-15. See *Descriptions of reagent statuses (i 1000$_{SR}$)*, page 5-42.	**CARRIER STATUS** Displays the status of loading or unloading of the reagent carrier.
SCHEDULED TESTS Displays the number of scheduled tests for the reagent kit.	**READY TO UNLOAD** Displays the time the reagent kit is ready to unload.

Reagent status screen - View all view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select an individual module or all modules to view reagent status information.	**M / P** Displays the module and position of a specific reagent kit.
ASSAY Displays the name of the assay using the reagent kit.	**CAL STATUS** Displays the calibration status for the assay using the reagent kit.
REAGENT LOT Displays the reagent lot number.	**REMAINING TESTS** Displays an estimated number of tests remaining in the reagent kit (*c* System). **NOTE:** When you load a new bar coded reagent and it is scanned, the system calculates an estimated number of tests remaining in the cartridge using the maximum cartridge capacity instead of the actual fill volume. This number updates when the system aspirates the reagent and a liquid level sense occurs. (*c* System) Displays the number of tests remaining in the reagent kit (*i* System).
REAGENT STATUS Displays the status of the reagent kit. For statuses other than OK, Mixing (*i* System), and Overridden, text in the list associated with the reagent kit displays red. In addition, the caution symbol displays on the reagent status button on the processing module graphic on the *Snapshot screen*, page 1-15. See *Descriptions of reagent statuses (i 1000$_{SR}$)*, page 5-42.	**EXP. DATE** Displays the date the reagent expires. If you override the expiration, Overridden displays.
STABILITY Displays the number of onboard stability days remaining for the reagent kit. If the time remaining is less than 24 hours, <1 displays. (*c* System)	

Details for reagent (Reagent status) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Reagent lot number Displays the lot number for the reagent kit.	**Reagent status** Displays the status for each reagent kit. See *Descriptions of reagent statuses (i 1000$_{SR}$)*, page 5-42.
Expiration date Displays the expiration date of the reagent kit.	**Remaining tests** Displays an estimated number of tests remaining in the reagent kit (*c* System). **NOTE:** When you load a new bar coded reagent and it is scanned, the system calculates an estimated number of tests remaining in the cartridge using the maximum cartridge capacity instead of the actual fill volume. This number updates when the system aspirates the reagent and a liquid level sense occurs. (*c* System) Displays the number of tests remaining in the reagent kit (*i* System).
Onboard stability: Displays the number of hours remaining for stability tracking. (*c* System) Displays the number of days remaining for stability tracking. (*i* System)	**Assay info (table)** Displays the following information for each assay using the selected reagent kit: • Module • Assay / Number • Assay Version • Cal Status
Component info (table) Displays the following information for each bottle / cartridge in the reagent kit: • Position • S / N • Control No. (*i* System)	

Find options (Reagent status) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

P Allows you to search on the position in which the reagent is loaded. **NOTE:** For *c* System processing modules, if a carousel position is not selected the search includes the R1 and R2 reagent carousels.	**Assay** Allows you to search by assay name.
Carousel (*c* System) Allows you to search for the reagent kit by its specific carousel location. **NOTE:** You must enter a position before the R1 and R2 checkboxes become available.	**Reagent status** Allows you to search for the reagent kit by its status. See *Descriptions of reagent statuses (i 1000$_{SR}$)*, page 5-42.
Cal status Allows you to search for the reagent kit by its calibration status. See *Descriptions of calibration statuses*, page 6-12.	

Find options (Reagent status - View all) window field descriptions

NOTE: The same Find options window displays from both the Reagent status screen - View all view and the Reagent history screen.

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to search by module to locate the reagent kit.	**P** Allows you to search on the position in which the reagent is loaded. **NOTE:** For *c* System processing modules, if a carousel position is not selected the search includes the R1 and R2 reagent carousels.
Assay Allows you to search by assay name.	**Carousel (*c* System)** Allows you to search for the reagent kit by its specific carousel location. **NOTE:** You must enter a position before the R1 and R2 checkboxes become available.

S / N Allows you to search by the serial number of the reagent kit.	**Control no. (*i* System)** Allows you to search by the control number of the reagent kit.
Reagent lot Allows you to search by the reagent lot number for the reagent kit.	**Reagent status** Allows you to search for the reagent kit by its status. See *Descriptions of reagent statuses (i 1000$_{SR}$)*, page 5-42.
Cal status Allows you to search for the reagent kit by its calibration status. See *Descriptions of calibration statuses*, page 6-12.	

Reagent history screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

M / P Displays the module and position of a specific reagent kit.	**ASSAY** Displays the name of the assay using the reagent kit.
CAL STATUS Displays the calibration status for the assay using the reagent kit. See *Descriptions of calibration statuses*, page 6-12.	**REAGENT LOT** Displays the reagent lot number.
REMAINING TESTS Displays an estimated number of tests remaining in the reagent kit (*c* System). **NOTE:** When you load a new bar coded reagent and it is scanned, the system calculates an estimated number of tests remaining in the cartridge using the maximum cartridge capacity instead of the actual fill volume. This number updates when the system aspirates the reagent and a liquid level sense occurs. (*c* System) Displays the number of tests remaining in the reagent kit (*i* System).	**REAGENT STATUS** Displays the status of the reagent kit. For statuses other than OK, Mixing (*i* System), and Overridden, text in the list associated with the reagent kit displays red. In addition, the caution symbol displays on the reagent status button on the processing module graphic on the Snapshot screen. See *Descriptions of reagent statuses (i 1000$_{SR}$)*, page 5-42.

EXP. DATE	STABILITY
Displays the date the reagent expires. If the user overrides the expiration, Overridden displays.	Displays the number of onboard stability days remaining for the reagent kit. If the time remaining is less than 24 hours, <1 displays (*c* System).

Details for reagent (history) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Reagent lot number	Reagent status
Displays the lot number for the reagent kit.	Displays the status for each reagent kit. See *Descriptions of reagent statuses (i 1000$_{SR}$)*, page 5-42.
Expiration date Displays the expiration date of the reagent kit.	**Remaining tests** Displays an estimated number of tests remaining in the reagent kit (*c* System). **NOTE:** When you load a new bar coded reagent and it is scanned, the system calculates an estimated number of tests remaining in the cartridge using the maximum cartridge capacity instead of the actual fill volume. This number updates when the system aspirates the reagent and a liquid level sense occurs. (*c* System) Displays the number of tests remaining in the reagent kit (*i* System).

Onboard stability Displays the number of hours remaining for stability tracking. (*c* System) Displays the number of days remaining for stability tracking. (*i* System)	**Assay info (table)** Displays the following information for each assay using the selected reagent kit: • Module • Assay / Number • Assay version • Cal status
Component info (table) Displays following information for each bottle / cartridge in the reagent kit: • Position • S / N • Remaining Tests (*c* System) • Control no. (*i* System)	

Supplies icon screens and windows

The Supplies status icon allows you to access the menu item Supply status.

Supplies icon screens and windows topics include:

- *Supply status screen - i 1000$_{SR}$ view field descriptions*, page Appendix E-86
- *Update supplies window - i 1000$_{SR}$ view field descriptions*, page Appendix E-87

Supply status screen - *i* 1000$_{SR}$ view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select a module to view supply status information.	**Solid waste** Displays the amount of available space in the container measured in number of RVs (reaction vessels) and % remaining. When approximately 20% remains the arrow changes from gray to red.
Liquid waste Displays the amount of liquid waste remaining on the system measured in liters. When approximately 20% (2 liters) remains, the arrow changes from gray to red.	**RVs remaining** Displays the approximate number of RVs remaining on the system. When approximately 20% remains the arrow changes from gray to red.

Wash buffer Displays the amount of wash buffer remaining on the system measured in liters. When approximately 20% (2.4 liters) remains, the arrow changes from gray to red.	**Trigger** Displays the amount of trigger remaining on the system measured in milliliters. When approximately 20% (195 mL) remains, the arrow changes from gray to red. **NOTE:** Stability displays the number of days remaining for onboard stability of the trigger solution. When the stability reaches zero days, EXPIRED displays next to the name. If trigger solution is configured for expiration override, OVERRIDDEN displays next to the name.
Pre-Trigger Displays the amount of pre-trigger remaining on the system measured in milliliters. When approximately 20% (195 mL) remains, the arrow changes from gray to red. **NOTE:** Stability displays the number of days remaining for onboard stability of the pre-trigger solution. When the stability reaches zero days, EXPIRED displays next to the name. If pre-trigger solution is configured for expiration override, OVERRIDDEN displays next to the name.	

Update supplies window - *i* 1000$_{SR}$ view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Solid waste Select the check box to indicate that you emptied the solid waste container.	**Liquid waste** Select the check box to indicate that you emptied the liquid waste container.
RVs added Select the check box to indicate that you filled the hopper.	**Wash buffer** Select to load buffer into the 12 L wash buffer reservoir.
Trigger Select to indicate you loaded a new bottle of trigger solution.	**Pre-Trigger** Select to indicate you loaded a new bottle of pre-trigger solution.

System icon screens and windows

The System icon allows you to access the menu items Maintenance, Diagnostics, System logs, Configuration, and Utilities.

System icon screens and windows topics include:

- *Maintenance screen field descriptions*, page Appendix E-91

- *Maintenance Perform window field descriptions*, page Appendix E-92
- *Version details for procedure (maintenance) window field descriptions*, page Appendix E-93
- *Details for maintenance item window field descriptions*, page Appendix E-93
- *Maintenance log screen field descriptions*, page Appendix E-94
- *Approve maintenance log window field descriptions*, page Appendix E-94
- *Details for maintenance log screen field descriptions*, page Appendix E-95
- *Diagnostics screen field descriptions*, page Appendix E-95
- *Diagnostic perform window field descriptions*, page Appendix E-96
- *Version details for procedure (diagnostics) window field descriptions*, page Appendix E-97
- *System logs screen field descriptions*, page Appendix E-97
- *Find options (System logs) window field descriptions*, page Appendix E-98
- *Configuration screen - System settings view field descriptions*, page Appendix E-98
- *Configure sample ordering window field descriptions*, page Appendix E-99
- *Details for sample ordering window field descriptions*, page Appendix E-100
- *Configure host - release mode window field descriptions (i 1000$_{SR}$)*, page Appendix E-101
- *Details for host - release mode window field descriptions (i 1000$_{SR}$)*, page Appendix E-103
- *Configure reports printing window field descriptions*, page Appendix E-103
- *Details for reports printing window field descriptions*, page Appendix E-104
- *Configure reagents - supplies window field descriptions*, page Appendix E-105
- *Details for reagents - supplies window field descriptions*, page Appendix E-105

- *Configure password window field descriptions*, page Appendix E-106
- *Details for password window field descriptions*, page Appendix E-106
- *Configure system control center window field descriptions*, page Appendix E-106
- *Details for system control center window field descriptions*, page Appendix E-108
- *Configure modules window (i 1000$_{SR}$) field descriptions*, page Appendix E-109
- *Details for modules window (i 1000$_{SR}$) field descriptions*, page Appendix E-109
- *Configure sample handler window (RSH - i 1000$_{SR}$) field descriptions*, page Appendix E-110
- *Details for sample handler window (RSH - i 1000$_{SR}$) field descriptions*, page Appendix E-110
- *Configure bar codes window field descriptions*, page Appendix E-111
- *Details for bar codes window field descriptions*, page Appendix E-112
- *Configure serial ports window field descriptions*, page Appendix E-113
- *Details for serial ports window field descriptions*, page Appendix E-114
- *Configuration screen - Assay settings - Assay parameters view field descriptions*, page Appendix E-115
- *Configuration screen - Assay settings - New assay view field descriptions*, page Appendix E-115
- *Configure assay parameters window - General view (i System) field descriptions*, page Appendix E-115
- *Details for assay parameters window - General view (i System) field descriptions*, page Appendix E-116
- *Configure assay parameters window - General view (calculated) field descriptions*, page Appendix E-117
- *Details for assay parameters window - General view (calculated) field descriptions*, page Appendix E-118
- *Configure assay parameters window - Calibration view (i System) field descriptions*, page Appendix E-119

- *Details for assay parameters window - Calibration view (i System) field descriptions*, page Appendix E-119
- *Configure assay parameters window - Dilution view (i System) field descriptions*, page Appendix E-120
- *Details for assay parameters window - Dilution view (i System) field descriptions*, page Appendix E-121
- *Configure assay parameters window - Results view field descriptions*, page Appendix E-122
- *Configure results parameters window field descriptions*, page Appendix E-123
- *Details for assay parameters window - Results view field descriptions*, page Appendix E-123
- *Configure assay parameters window - Interpretation view field descriptions*, page Appendix E-124
- *Details for assay parameters window - Interpretation view field descriptions*, page Appendix E-125
- *Configure result units window field descriptions*, page Appendix E-126
- *Details for result units window field descriptions*, page Appendix E-126
- *Configure panel definitions window field descriptions*, page Appendix E-127
- *Details for panel definition window field descriptions*, page Appendix E-127
- *Configure assay retest rules window field descriptions*, page Appendix E-128
- *Add / edit assay retest rules window field descriptions*, page Appendix E-128
- *Select assay window field descriptions*, page Appendix E-131
- *Details for assay retest rules window field descriptions*, page Appendix E-131
- *Configuration screen - QC-Cal settings view field descriptions*, page Appendix E-132
- *Configure single analyte window field descriptions*, page Appendix E-132
- *Details for single analyte window field descriptions*, page Appendix E-133

- *Configure multiconstituent control window field descriptions*, page Appendix E-134
- *Define data window field descriptions*, page Appendix E-135
- *Details for multiconstituent control window field descriptions*, page Appendix E-136
- *Configure multiconstituent bar code SID window field descriptions*, page Appendix E-137
- *Details for multiconstituent bar code SID window field descriptions*, page Appendix E-138
- *Configure Westgard window field descriptions*, page Appendix E-138
- *Details for Westgard window field descriptions*, page Appendix E-138
- *Utilities screen - Software install view field descriptions*, page Appendix E-139
- *Utilities screen - Backup software view field descriptions*, page Appendix E-139
- *Create backup window field descriptions*, page Appendix E-139
- *Print options window field descriptions*, page Appendix E-140
- *Printer window field descriptions*, page Appendix E-140

Maintenance screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select the module on which you want to perform maintenance.	**MAINTENANCE PROCEDURES (box)** Displays a list of procedures you can perform for the selected module and category.
Categories Displays the following categories for maintenance procedures that can be performed on a selected module: • To do • Daily • Weekly • Monthly • Quarterly • As needed • In process See *Maintenance categories and procedure descriptions*, page 9-20.	

Maintenance Perform window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Category Displays the category of the maintenance procedure you selected.	**Procedure** Displays the name of the maintenance procedure you selected.
Operator ID Displays the name of the operator who is currently logged on to the system.	**Module** Displays the module on which the maintenance procedure will be performed on.
Status Displays the status of the maintenance procedure. See *Maintenance statuses*, page 9-20.	**INSTRUCTIONS (box)** Displays the instructions for each step of the maintenance procedure.

User Input Allows you to select the Proceed button to continue the procedure. **NOTE:** Input field buttons change depending on the procedure.	**Keypad** Displays buttons specific to the procedure. These buttons correspond to the L1 - L4 keys on the processing module keypad. You can select the keys on the SCC (system control center) or the processing module keypad.
Result Displays the results of the procedure.	**Activity** Displays the activity of the module while performing the procedure. When you select Activity, the Results window toggles to the Activity window.

Version details for procedure (maintenance) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Procedure name Displays the name of the procedure.	**Current version** Displays the current version of the maintenance procedure you selected.
Category Displays the category of the maintenance procedure.	**Status to perform procedure** Displays the status the module must be in for you to perform the procedure. See *Maintenance statuses*, page 9-20.
User access level Displays the user access level required to perform the procedure.	

Details for maintenance item window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Procedure name Displays the name of the maintenance procedure you performed.	**Performed with version** Displays the version of the maintenance procedure when last performed. If the procedure has not been performed, this field is blank.

Date Displays the date and time on which you last performed the procedure. If the procedure has not been performed, this field is blank.	**Operator ID** Displays the ID of the operator logged on when the procedure was performed. If the procedure has not been performed, this field is blank.
Status Displays the last status of the selected maintenance procedure. If the procedure has not been performed, this field is blank. See *Maintenance statuses*, page 9-20.	

Maintenance log screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select the module for which you want to view the log.	**Status** Displays the approval status of the log you selected. Statuses are: • Approved • Unapproved
Operator ID Displays the ID of the system administrator who approved the log.	**Date / time** Displays the date and time the log was approved. If the maintenance log has not been approved, this field is blank.
MAINTENANCE PROCEDURES (box) Displays the maintenance procedures that have been performed.	

Approve maintenance log window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Operator ID Displays the ID of the operator logged on when the log was approved.	**Maintenance log month** Displays the month of the maintenance log to be approved.
Approve log option Allows the system administrator to approve the maintenance log for the displayed month.	

Details for maintenance log screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Procedure name Displays the name of the maintenance procedure.	**Category** Displays the maintenance category of the procedure you selected.
Performed with version Displays the version of the maintenance procedure performed on the displayed date and time.	**Operator ID** Displays the ID of the operator who was logged on when the maintenance procedure was performed.
Completion Date and Time Displays the date and time when the procedure was performed.	**Status** Displays the status of the maintenance procedure. See *Maintenance statuses*, page 9-20.
Comment Allows you to enter a comment for the maintenance procedure selected. You can enter up to approximately 200 characters. **NOTE:** The comment window is not available for a procedure with a status of Pending or Scheduled.	

Diagnostics screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select the module on which you want to perform the diagnostic procedure.	**DIAGNOSTIC PROCEDURES** Displays the list of diagnostic procedures available for the selected module and category.
Categories Displays the following categories for diagnostic procedures that can be performed on a module: • Reaction Mechanisms • Pipettors • Fluidics / Wash • Syringes / Pumps • Bar code Readers • Modules • Solenoids / Sensors • Fuses / Motors • Optics / Temperature • Carousels • Precision • ICT • Utilities • Other See *Diagnostic categories and procedure descriptions*, page 10-602.	

Diagnostic perform window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Category Displays the category for the diagnostic procedure you selected.	**Procedure** Displays the name of the diagnostic procedure you selected.
Operator ID Displays the name of the operator who is currently logged on to the system.	**Module** Displays the module you selected to perform the diagnostic procedure on.

Status Displays the status of the selected diagnostic procedure. See *Maintenance statuses*, page 9-20 for a description of the statuses.	**INSTRUCTIONS (box)** Displays the instructions for each step of the diagnostic procedure.
User Input Allows you to select the Proceed button to continue the procedure. **NOTE:** Input field buttons change depending on the procedure.	**Keypad** Displays buttons specific to the procedure. These buttons correspond to the L1 - L4 keys on the processing module keypad. You can select the keys on the SCC (system control center) or the processing module keypad.
Result Displays the results of the procedure.	**Activity** Displays the activity of the module while performing the procedure. When you select Activity, the Results window toggles to the Activity window.

Version details for procedure (diagnostics) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Procedure name Displays the name of the selected procedure.	**Current version** Displays the version of the diagnostic procedure currently on the system.
Category Displays the category of the diagnostic procedure.	**Status to perform procedure** Displays the status the module must be in for you to perform the procedure. See *Maintenance statuses*, page 9-20 for descriptions of statuses.
User access level Displays the log on level required to perform the procedure.	

System logs screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select the module on which you want to view the Temporary Message log or the Message History log.	**Log selection (list)** Allows you to select the following logs: • Temporary Message log • Message History log
DATE / TIME Displays the date and time the error occurred on the module.	**M** Displays the module on which the error occurred.
ERROR CODE - TEXT Displays the numeric error code and text that describes the error that occurred.	

Find options (System logs) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select the module to search on	**Date from / to** Allows you to enter a date range you want to search on.
Error code Allows you to enter an error code to search on.	**Error category** Allows you to select error categories to search on.
Error level Allows you to select an error level to search on.	

Configuration screen - System settings view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Configure	System categories (list)
Allows you to select one of the following categories for configuration: • System settings • Assay settings • QC-Cal settings	Allows you to select the following system configuration items: • Sample ordering • Host - Release mode • Reports - Printing • Reagents - Supplies • Password • System control center • Modules • Sample handler • Sample bar code reader • Serial ports

Configure sample ordering window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Batch ordering Allows you to select the sample identification type used when ordering samples in a batch. Options are: • Bar coded - Only bar coded samples are used in the batch run. (Default) • Non-bar coded - Only non-bar coded samples are used in the batch run. **NOTE:** If a batch order is pending, you cannot change the options. This option is not available for systems configured with a LAS (laboratory automation system).	**IA Sample options** Allows you to enter the average number of tests ordered per sample. This setting is used for multi-module systems to optimize the scheduling of tests per module. Range: 1.0 - 25.0 (Default: 1.4)
CC Sample options Allows you to select whether the calibration curve can be overridden or not overridden. Options are: • On • Off (Default)	

Details for sample ordering window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Batch ordering Displays the current sample identification type used when ordering samples in a batch. **NOTE:** This option is not available for systems configured with a LAS (laboratory automation system).	**IA Sample options** Displays the average number of tests per sample. The range is 1.0 to 25.0.
CC Sample options Displays whether or not the calibration curve can be overridden.	

Configure host - release mode window field descriptions (*i* 1000$_{SR}$)

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Release mode	**Host query timeout:**
Allows the general operator to select the release mode for results: Options are: • Manual - All results must be manually released. (Default) • Hold - All results with flags must be manually released. • Automatic - Results are released automatically. • Automatic with exceptions - Results and exceptions are automatically released.	Allows the general operator to enter the maximum time period (in seconds) that the system waits for the host computer to respond to a query. Range: 5 - 60 seconds (Default: 10 seconds) **NOTE:** System throughput may degrade if this timeout period is greater than ten seconds.

Communications	Transmit to host
Allows the general operator to enable the bidirectional host mode, so the system can receive orders from and transmit results to a host computer. Options are: • On • On with query • Off (Default) **NOTE:** Turning bidirectional host **off** allows you to clear all results waiting to be sent to the host.	Allows the general operator to define the method for transmitting the following to the host computer: • Patient and quality control results • Doctor, location, and draw date/time • Error code and text or error code number only Options are: • Approved patient results – Collated (Default) - Allows for results for multiple orders for a single sample ID to be sent within a message. – Collated by module - Allows for results for multiple orders for a single sample ID on a processing module to be sent within a message. **NOTE:** Results (both completed results and exceptions) are collated. Released results are held in Pending collation status until all completed results for a sample ID are released and all exceptions for the sample ID have been reported. All test orders for the sample ID must produce an outcome, either a completed result or an exception, before any released results for the sample ID are sent to the host computer. – Single - Allows for a single result for a single patient to be sent within a message. • Approved QC results – On - Allows approved QC results to be released to the host computer. **NOTE:** QC results are transmitted in single mode regardless of the option selected for patient results. – Off (Default) - Does not send approved QC results to host computer.

	Transmit to host, continued • Doctor, Location, and Draw Date/Time: – On - Allows doctor, location, and draw/date time to be sent to the host computer (if data is available) in result messages. – Off (Default) - Does not allow doctor, location, draw date/time to be sent to the host computer in result messages even if the data is available. • Error code number and text – Both - Allows both the numeric error code and the message text to be sent to the host computer. – Number only - Allows only the numeric error code to be sent to the host computer.

Details for host - release mode window field descriptions (*i* 1000$_{SR}$)

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Release mode Displays the current setting for result release mode,	**Host query timeout** Displays the maximum time period (in seconds) that the system waits for the host computer to respond to a query.
Communications Displays the current setting for bidirectional host transmissions.	**Timeout to host** Displays the method for transmitting the following to the host computer: • Patient and quality control results • Doctor, location, and draw date/time • Error code and text or error code number only

Configure reports printing window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Print flags on reports Allows you to enable the printing of flags on sample and patient reports. Options are: • On (default) • Off **NOTE:** The control (CNTL), expired (EXP), expired calibration curve (*c* System only) (EXPC), and EDIT (*c* System only) flags print on the sample and patient reports whether the feature is turned on or off.	**Automatic report printing** Allows you to enable automatic printing of the Procedure (Maintenance), Sample, Results List, and Cal Curve Details (Calibration curve results) reports. Options are: • On • Off (Default) **NOTE:** The Results List Report prints after 18 results have been generated and released or ten minutes have elapsed.
Header for sample and patient reports Allows you to enter up to five lines (approximately 50 characters per line) of text which print on each sample and patient report. Each field on the screen represents one line of the report header.	

Details for reports printing window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Print flags on reports Displays on or off to indicate whether flags are printed on the sample or patient reports. **NOTE:** The control (CNTL), expired (EXP), expired calibration curve (*c* System only) (EXPC), and EDIT (*c* System only) flags print on the sample and patient reports whether the feature is turned on or off.	**Automatic report printing** Displays on or off to indicate that Procedure (Maintenance), Sample, Results List, or Cal Curve Details (Calibration curve results) reports print automatically. **NOTE:** The Results List Report prints after 18 results have been generated and released or ten minutes have elapsed.
Header for sample and patient reports Displays the report header information that prints on the sample and patient reports.	

Configure reagents - supplies window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Default reagent low alert Allows you to specify a low alert level for reagent kits for CC tests and IA tests. Default: CC tests - 100 IA tests - 0	**Reagent expiration override** Indicates that the system allows you to override a reagent's expiration on the Details for reagents - supplies window. Options are: • On • Off (Default)
Reagent stability override Indicates that the system allows you to override a reagent's onboard stability on the Details for reagents - supplies window. Options are: • On • Off (Default)	**Run controls for onboard reagents by** Allows you to specify which reagent kits you want to run for QC. Options are: • Lot: Run QC on only one kit per lot (Default) • Kit: Run QC for every kit in lot
Wash buffer transfer Allows you to select the current setting for wash buffer transfer. Options are: • Manual (Default) • Automatic **NOTE:** Automatic option should be selected when the ARCHITECT ARM (Automatic Reconstitution Module) is installed.	**Pre-Trigger / Trigger stability override** Allows you to specify whether the pre-trigger and trigger stability dates can be overridden. Options are: • On • Off (Default)

Details for reagents - supplies window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Default reagent low alert Displays the current setting for the default low alert level for reagent kits for CC tests and IA tests.	**Reagent expiration override** Displays the current setting for reagent kit expiration override.

Reagent stability override Displays the current setting for reagent kit stability override.	**Run controls for onboard reagents by** Displays the reagent kits you want to run for QC. Lot - Run QC on only one kit per lot Kit - Run QC for every kit in lot
Wash buffer transfer Displays the current setting for wash buffer transfer.	**Pre-Trigger / Trigger stability override** Displays to indicate whether the system is configured to override pre-trigger/trigger onboard stability.

Configure password window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

System administrator password Allows you to enter a password of up to 20 alphanumeric characters. The password you enter is case sensitive. Default - ADM	**System administrator password confirm** Requires that the password be entered a second time to confirm the original entry. The password you enter displays as asterisks.

Details for password window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

System administrator password Displays the current password for the system administrator.

Configure system control center window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

System date Allows you to edit the system date.	**System time** Allows you to edit the system time.

Date format Allows you to edit the date format setting. Options are: • MM.DD.YYYY (Default) • DD.MM.YYYY • YYYY.MM.DD	**Time zone (list)** Allows you to select the area-specific time zone used to automatically adjust for daylight savings time.
Automatically adjust clock for daylight savings time Allows you to select the check box to automatically adjust the clock for daylight savings. Default: checked	**Thousands separator** Allows you to select the number format for the thousands separator. Options are: • Comma • None (Default) **NOTE:** Previously generated results are not updated to the new format.
System no. Allows the Abbott service representative to enter the ARCHITECT serial number.	**SCC serial no.** Allows the Abbott service representative to enter the SCC serial number.
System language (list) Allows the general operator to select the system language. Options are: • English • French • German • Italian • Spanish • Japanese	**Screen timeout** Allows you to edit the setting for screen timeout. Range: 0 - 60 minutes Default: 0 **NOTE:** System generated information or information messages do not remove the screen saver. To restore the screen, press Enter on the keyboard.

QC run definition - Start time Allows you to enter the run definition start time. This information is used during *Westgard rule application*, page 5-207. Default: Start time - 6:00	**QC run definition - No. of hours per run** Allows the you to enter the run definition number of hours per run. This information is used during Westgard rule analysis. Default: Hours per run - 12
Beep volume Allows you to enter a value for the beep volume for the following audible tones: • Alert (occurs when an information message displays) • Invalid key (occurs when you press an invalid keyboard key) Range: 0 - 10 Default: 5 **NOTE:** This setting is only available if your system is configured with speakers.	

Details for system control center window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

System date Displays the current system date.	**System time** Displays the current system time.
Date format Displays the current date format setting.	**Time zone** Displays the area-specific time zone used to automatically adjust for daylight savings time.
Automatically adjust clock for daylight savings If selected, indicates the system automatically adjusts the clock for daylight savings.	**Number format - Thousands separator** Displays the current number format for the thousands separator **NOTE:** Previously generated results are not updated to the new format.
System no. Displays the ARCHITECT System number. **NOTE:** Only an Abbott service representative can edit this setting.	**SCC serial number** Displays the SCC serial number. **NOTE:** Only an Abbott service representative can edit this setting.

System language Displays the current setting for system language.	**Screen timeout** Displays the current setting for screen timeout in minutes.
QC run definition - Start time Displays the run definition start time. This information is used during Westgard rule analysis.	**QC run definition - No. of hours per run** Displays the run definition number of hours per run. This information is used during Westgard rule analysis.
Beep volume Displays the beep volume settings for the Alert and Invalid key audible tones. **NOTE:** Displays only if your system is configured with speakers.	

Configure modules window (*i* 1000$_{SR}$) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module (list) Allows you to select the desired module.	**Type** Displays the current settings for a module. **NOTE:** Only an Abbott service representative can edit this information.
Serial number Displays the module serial number. **NOTE:** Only an Abbott service representative can edit this information.	**Optics values - Normalization** Allows you to edit the optics normalization value.
Optics values - Linearity Allows you to edit the optics linearity value.	**Liquid waste container** Allows you to indicate whether or not the liquid waste container is used. Options are: • Installed - Yes (Default) • Installed - No

Details for modules window (*i* 1000$_{SR}$) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module (list) Displays the configured modules.	**Type** Displays the current settings for a module.
Serial number Displays the serial number for the module.	**Optics values - Normalization** Displays the current optics normalization value.
Optics values - Linearity Displays the current optics linearity value.	**Liquid waste container** Displays whether or not the liquid waste container is used.

Configure sample handler window (RSH - *i* 1000$_{SR}$) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Type (list) Allows the Abbott service representative to select the sample handler type. **NOTE:** Only an Abbott service representative can edit this information.	**Serial No.** Allows you to enter the serial number for the module. **NOTE:** Only an Abbott service representative can edit this information.
Retest options Allows you to enable or disable, automatically repositioning samples for retest. Options are: • Yes (Default) • No	**Priority sections** Allows you to enter the number of priority sections. Range: 1 - 7 (Default: 4)

Details for sample handler window (RSH - *i* 1000$_{SR}$) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Type list Displays the option configured for the sample handler type.	**Serial No.** Displays the sample handler serial number.

Retest options Displays the option configured for automatically repositioning samples for retest.	**Priority sections** Displays the number of priority sections configured on the RSH (robotic sample handler).

Configure bar codes window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Bar code type (list) Allows you to select the bar code type. Select the list button to view all the bar code types from which to choose. Options are: • Code 128 • Code 39 • Codabar • I 2 of 5 See *Bar code configuration options*, page Appendix E-112.	**Bar code type** Allows you to enable or disable a bar code type. Options are: • Enabled (Default) • Disabled See *Bar code configuration options*, page Appendix E-112.
Checksums Allows you to enable checksums if the selected bar code type supports checksums. See *Bar code configuration options*, page Appendix E-112.	**Send checksum digits to the SCC** Allows you to specify whether or not checksums are sent to the SCC (system control center) if the selected bar code supports it. See *Bar code configuration options*, page Appendix E-112.
Send the start/stop characters to the SCC Allows you to specify whether or not start/stop characters are sent to the SCC if the selected bar code type supports it. See *Bar code configuration options*, page Appendix E-112.	**Code length #1** Allows you to specify the length for the primary bar code. The range is 2 to 20 with an incremental value of 2. See *Bar code configuration options*, page Appendix E-112.
Code length #2 Allows you to specify the length for the secondary bar code. The range is 2 to 20 with an incremental value of 2. See *Bar code configuration options*, page Appendix E-112.	

Table Appendix E.1: Bar code configuration options

Bar code type	Default option	Checksums	Start/stop characters	Code length
Code 39	Enabled	Select **Enabled** if a checksum is used. Select the check box if the checksum is to be sent to the SCC (system control center).	N/A	N/A
Codabar	Enabled	Select **Enabled** if a checksum is used. Select the check box if the checksum is to be sent to the SCC.	Default setting is **Disabled**.	N/A
Code 128	Enabled	N/A	N/A	N/A
I 2 of 5	Enabled	Select **Enabled** if a checksum is used. Select the check box if the checksum is to be sent to the SCC.	N/A	Code length #1: Enter an even number between 2 and 20. (Default is 10.) Code length #2: (Optional) If a second code length is required, enter an even number between 2 and 20. (Default is 8.)

Details for bar codes window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Bar code type Displays the bar code types the system supports. Select the list button to view all bar code types. See *Bar code configuration options*, page Appendix E-112.	**Bar code type** Displays whether the bar code type selected is enabled or disabled. See *Bar code configuration options*, page Appendix E-112.
Checksums If the bar code selected supports checksums, indicates whether checksums are enabled or disabled. See *Bar code configuration options*, page Appendix E-112.	**Send checksums digits to the SCC** If the bar code selected supports sending checksums, indicates whether checksums are sent to the SCC (system control center). See *Bar code configuration options*, page Appendix E-112.
Send the start/stop character to the SCC If the bar code selected supports sending start/stop characters, indicates whether start/stop characters are sent to the SCC. See *Bar code configuration options*, page Appendix E-112.	**Code length #1** If the bar code selected supports code lengths, indicates the code lengths. See *Bar code configuration options*, page Appendix E-112.
Code length #2 If the bar code selected supports code lengths, indicates the code lengths. See *Bar code configuration options*, page Appendix E-112.	

Configure serial ports window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Port type (list) Allows you to select the list button to view the port types supported by the system, and then select the desired port type(s). Options are: • LIS (Default) • ARM • LAS	**Port ID** Displays the unique ID for the port.

Baud rate (list) Allows you to select the baud rate for the selected port. Options are: • 1200 • 2400 • 4800 • 9600 (Default) • 14400 • 19200 • 28800 • 38400 • 57600 • 115200 **NOTE:** You cannot edit the baud rate for the ARCHITECT ARM serial port	**Parity** Allows you to select from the following parity options: • None (Default) • Even • Odd **NOTE:** You cannot edit the parity option for the ARCHITECT ARM serial port.
Data bits Allows you to select from the following options: • 7 • 8 (Default) **NOTE:** You cannot edit data bits for the ARCHITECT ARM serial port.	**Stop bits** Allows you to select from the following options: • 1 (Default) • 2 **NOTE:** You cannot edit stop bits for the ARCHITECT ARM serial port

Details for serial ports window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Port type (list) Displays the selected port type supported by the system. Select the list button to view all port types.	**Port ID** Displays the unique ID and the communication connector number for the port.
Baud rate Displays the selected baud rate.	**Parity** Displays the selected parity.
Data bits Displays the selected data bits.	**Stop bits** Displays the selected stop bits.

Configuration screen - Assay settings - Assay parameters view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Configure Allows you to select the configuration category. Categories include: • System settings • Assay settings • QC-Cal settings	**Assay categories (list)** Displays the configuration items in the Assay settings category. • Assay parameters • CC reagent settings • New assay • Result units • Panel definitions • Retest rules
Assays (list) Allows you to select the assays to configure.	

Configuration screen - Assay settings - New assay view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Configure Allows you to select the configuration category. Categories include: • System settings • Assay settings • QC-Cal settings	**Assay categories (list)** Displays the configuration items in the Assay settings category. • Assay parameters • CC reagent settings • New assay • Result units • Panel definitions • Retest rules
Select assay type Allows you to select the type of user-defined assay to configure. Options are: • Calculated (default) • Photometric	

Configure assay parameters window - General view (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay name Allows you to edit the name of the assay. You can enter up to ten characters. **NOTE:** You must use a unique name for each assay.	**Assay number** Displays the number defined for the assay. The assay number must be the same number used for a LIS (laboratory information system) and a LAS (laboratory automation system). **NOTE:** If you modify an assay parameter in an Abbott assay that affects result measurement, calculation, or validity checks an asterick displays next to the assay number to indicate the assay was modified from the Abbott released version.
Assay availability (list) Allows you to enable an assay so that it can be selected on the Patient order screen, Calibration order screen, or Control order screen. Options are: • Enabled (Default) • Disabled • Patient Disabled	**General assay parameters (list)** Allows you to view assay-specific parameters used in assay formulas for some *i* System assays. This general assay parameters list is not available for all assays and you cannot edit the list. This field is not shown in the example provided.
Current value Allows you to edit the current value for the selected general assay parameter. This field is not shown in the example provided.	**Range** Allows you to edit the current range for the selected general assay parameter. This field is not shown in the example provided.

Details for assay parameters window - General view (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay name Displays the name of the selected assay.	**Assay type** Displays the assay protocol types.

Assay number Displays the number defined for the assay. **NOTE:** If you modify an assay parameter in an Abbott assay that affects result measurement, calculation, or validity checks an asterick displays next to the assay number to indicate the assay was modified from the Abbott released version.	**Pretreatment option** Displays the pretreatment option the system uses in the assay protocol.
Assay version Displays the version number of the assay.	**Assay availability** Displays the availability of the assay for ordering.
Cal version Displays the calibration version of the assay.	**Assay status** Displays the assay status defined for the assay.
General assay parameters (list) Displays the assay-specific parameters used in formulas. This field is not shown in the example provided.	**Current value / Range** Displays the current value and allowable range for the general assay parameter. This field is not shown in the example provided.

Configure assay parameters window - General view (calculated) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Allows you to enter the name for the calculated assay. You can enter up to ten characters. **NOTE:** You must use a unique name for each assay.	**Type** Displays calculated as the type of assay.
Operator Displays the ID of the operator logged on when the calculated assay was created.	**Date** Displays the date the calculated assay was created.

Number Allows you to enter the number for the user-defined assay.	**Assay availability (list)** Allows you to enable the user-defined assay so that it can be selected on the Patient order screen, Calibration order screen, or Control order screen. Options are: • Enabled (Default) • Disabled • Patient Disabled
Time Displays the time the calculated assay was created.	**Formula** Displays the calculated formula you entered using the keypad keys.
Selected assays Displays the minimum and maximum value for each constituent assay selected for the calculated formula. The minimum and maximum values define the valid range for each constituent assay. You can select up to four constituent assays for each calculated formula.	

Details for assay parameters window - General view (calculated) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the name of the calculated assay.	**Type** Displays the type of assay.
Operator Displays the ID of the operator logged on when the assay was last edited.	**Date** Displays the date the constituent assay was last edited.
Number Displays the number defined for the calculated assay.	**Assay availability (list)** Displays the availability of the calculated assay for ordering.

Time Displays the time the calculated assay was last edited.	**Formula** Displays the calculated formula you enter using the keypad keys.
Selected assays Displays the constituent assays used in the calculated formula and the minimum and maximum values defined for the valid constituent ranges.	

Configure assay parameters window - Calibration view (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the name of the selected assay.	**Assay number** Displays the number defined for the assay. The assay number must be the same number used for a LIS (laboratory information system) and a LAS (laboratory automation system). **NOTE:** If you modify an assay parameter in an Abbott assay that affects result measurement, calculation, or validity checks an asterick displays next to the assay number to indicate the assay was modified from the Abbott released version.
Calibration replicates Allows you to edit the number of replicates for the calibrator. The assay-specific minimum number of replicates allowed displays as the default as well as the allowable range.	

Details for assay parameters window - Calibration view (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the name of the selected assay.	**Assay number** Displays the number defined for the assay. **NOTE:** If you modify an assay parameter in an Abbott assay that affects result measurement, calculation, or validity checks an asterick displays next to the assay number to indicate the assay was modified from the Abbott released version.
Type Displays the calibration type Adjust, Full, 1-point Index, or 2-point Index.	**Calibration method** Displays the data reduction used in the calibration math model.
Adjustment method Displays the type of adjustment used in the calibration mode. For information on calibration adjustment methods, see *i System data reduction methods*, page Appendix C-2 and *i System adjustment methods*, page Appendix C-8.	**Replicates** Displays the number of replicates of the calibrator used in the calculation of the calibration curve.
Standard concentrations / Adjustors Displays the concentrations of the standard calibrators (Calibrators A - F) and calibrator adjustors (Calibrator 1 / Calibrator 2) used for the assay selected.	

Configure assay parameters window - Dilution view (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the name of the selected assay.	**Assay number** Displays the number defined for the assay. The assay number must be the same number used for a LIS (laboratory information system) and a LAS (laboratory automation system). **NOTE:** If you modify an assay parameter in an Abbott assay that affects result measurement, calculation, or validity checks an asterick displays next to the assay number to indicate the assay was modified from the Abbott released version.
Default dilution Allows you to select the default dilution performed for patient samples when you do not select a dilution option when ordering the test. Each assay has up to six dilutions. Dilution options valid for the assay display. Refer to the ARCHITECT *i* System assay-specific package insert for dilution information.	

Details for assay parameters window - Dilution view (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the name of the selected assay.	**Assay number** Displays the number defined for the assay. **NOTE:** If you modify an assay parameter in an Abbott assay that affects result measurement, calculation, or validity checks an asterick displays next to the assay number to indicate the assay was modified from the Abbott released version.

Manual dilution Indicates whether the selected assay uses the manual dilution option selected from the Patient order screen or Control order screen.	**Default dilution** Displays the default dilution performed for patient samples when you do not select a dilution option.
Result units Displays the result concentration units selected for the assay.	**Dilution ranges (table)** Displays the minimum and maximum concentrations allowable for the dilution options. • Dilution name • Low • High

Configure assay parameters window - Results view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the assay selected on the Configuration screen - Assay settings view.	**Assay number** Displays the number defined for the assay. The assay number must be the same number used for a LIS (laboratory information system) and a LAS (laboratory automation system). **NOTE:** If you modify an assay parameter in an Abbott assay that affects result measurement, calculation, or validity checks an asterick displays next to the assay number to indicate the assay was modified from the Abbott released version.
Result units Displays the result concentration units selected for the assay.	**Low-Linearity** Displays the low limit value for the linearity range of the assay.

High-Linearity Displays the high limit value for the linearity range of the assay.	**Gender and age specific ranges (table)** Displays the following information for the selected assay. • Gender • Age (Units) • Normal range • Extreme range

Configure results parameters window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the name of the assay.	**Flag range specifications** Allows you to define a flag range, which includes the following parameters: • Gender (Male, Female, or Either) • Age units (Days, Months, Years) and age range • Normal range for the defined gender and age range • Extreme range for the defined gender and age range (optional)

Details for assay parameters window - Results view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the name of the selected assay.	**Assay number** Displays the number defined for the assay. The assay number must be the same number used for a LIS (laboratory information system) and a LAS (laboratory automation system). **NOTE:** If you modify an assay parameter in an Abbott assay that affects result measurement, calculation, or validity checks an asterick displays next to the assay number to indicate the assay was modified from the Abbott released version.
Result units Displays the result concentration units selected for the assay.	**Low-Linearity** Displays the low limit value for the linearity range of the assay.
High-Linearity Displays the high limit value for the linearity range of the assay.	**Gender and age specific ranges (table)** Displays the following information specified for the selected assay. • Gender • Age (Units) • Normal range • Extreme range

Configure assay parameters window - Interpretation view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the name of the assay.	**Assay number** Displays the number defined for the assay. The assay number must be the same number used for a LIS (laboratory information system) and a LAS (laboratory automation system). **NOTE:** If you modify an assay parameter in an Abbott assay that affects result measurement, calculation, or validity checks an asterick displays next to the assay number to indicate the assay was modified from the Abbott released version.
Name (list) Allows you to select the interpretation name from the list (assay-specific).	**Range** Allows you to enter the range for interpretations for the assay.
Results review required Allows you to select the settings at which results are held until they are manually reviewed and released.	

Details for assay parameters window - Interpretation view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the name of the assay.	**Assay number** Displays the number defined for the assay. **NOTE:** If you modify an assay parameter in an Abbott assay that affects result measurement, calculation, or validity checks an asterick displays next to the assay number to indicate the assay was modified from the Abbott released version.

Name Displays the names of the interpretations configured for the assay.	**Range** Displays the settings to determine the range for the interpretations configured for the assay.
Results review required Displays settings at which results are held until they are manually released.	

Configure result units window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the name of the assay.	**Version** Displays the version of the assay.
Result units Allows you to change the concentration units reported for the assay. **IMPORTANT:** If you edit the result concentration unit, all previous Levey-Jennings and QC summary information is deleted. For *c* System assays, the system changes the result unit name displayed but does not automatically adjust any values. To ensure the appropriate parameters are adjusted, see *Change the result units setting*, page 2-81.	**Decimal places** Allows you to edit the number of decimal places currently configured for the assay. Range: 0 - 4 (*c* System) Range: 1 - 4 (*i* System) Default: assay-specific
Correlation factor Allows you to enter a factor for *c* System assays if results require a calculation to match another system.	**Intercept** Allows you to enter an intercept for *c* System assays if results require a calculation to match another system.

Details for result units window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the name of the assay.	**Version** Displays the version of the assay.

Result units Displays the concentration units currently configured for the assay.	**Decimal places** Displays the number of decimal places currently configured for the assay.
Correlation factor Displays the factor configured for the *c* System assay if results require a calculation to match another system.	**Intercept** Displays the intercept configured for the *c* System assay if results require a calculation to match another system.

Configure panel definitions window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

New panel name Allows you to enter the name for the panel.	**Panel type** Allows you to select the panel type. The type indicates whether the panels display on the Patient order screen and/or Control order screen. Options are: • Patient • QC • Both
Panels (list) Lists the configured panels. When you select a panel, all assays in that panel are displayed.	**Assays (list)** Lists available assays that may be configured for the panel. **NOTE:** You must select at least two assays before you can add the panel.

Details for panel definition window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

New panel name Displays the selected panel name.	**Panel type** Displays the selected panel type. The type indicates whether the panels are displayed on the patient and/or control order screens.

Panels (list) Lists the configured panels. When you select a panel, all assays in that panel are displayed.	**Assays (list)** Lists the assays included in the selected panel.

Configure assay retest rules window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the name of the assay you selected from the Configuration screen - Assay settings view.	**Units** Displays the result units for the assay selected.
Assay retest rules List that displays the current name and settings for each rule. See *Assay retest rule settings*, page Appendix E-132.	**Original dilution** Displays the dilution run on the original test. The original test must be run at this dilution to be considered for a retest.
Retest indicator Allows you to enter minimum and maximum limits that the original test must fall within to be considered for an auto retest. **NOTE:** An entry in both fields is not required. You can enter either a minimum or maximum limit.	**Replicates** Displays the number of replicates to be run for the retest assay(s). **NOTE:** The number of replicates entered is run for all retest assays.
Retest assays (table) Displays the assay(s) and the dilution that is run if the original assay result falls within the defined limits. • Assay • Dilution **NOTE:** You can define any number of assays to be retested for a given rule.	

Add / edit assay retest rules window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the name of the assay you selected from the Configuration screen - Assay settings view.	**Units** Displays the result units for the assay selected.
Rule name Allows you to enter the retest rule name. You can enter up to 18 characters.	**Replicates** Allows you to enter the number of replicates to be run for the retest assay(s). **NOTE:** The number of replicates you enter runs for all retest assays for that rule.

Retest indicator Allows you to specify whether the retest rule is based on a result range or an error with result. **NOTE:** If you have selected the error code option and one of the following error codes occur, the result is retested. • 1005 - Result cannot be calculated, final RLU read is outside the specification of the lowest calibrator. • 1007 - Unable to process test, activated read failure. • 1008 - Unable to process test, final read failure. • 1051 - Unable to calculate result, absorbance exceeded optical limits. • 1053 - Unable to calculate result, rate reaction linearity failure. • 1054 - Unable to calculate result, Reaction check failure. • 1232 - Result cannot be calculated, final RLU read is outside the specification of the highest calibrator. • 1250 - Unable to calculate result, absorbance exceeds highest calibrator. • 1350 - Unable to calculate result, no absorbance reads within absorbance range. • 1351 - Unable to calculate result, insufficient absorbance reads within absorbance range.	**Result range** Allows you to enter minimum and maximum limits that the original test must fall within to be considered for an auto retest. **NOTE:** An entry in both fields is not required. You can enter either a minimum or maximum limit.
Original dilution Allows you to select the dilution for running the original test in order to be considered for an auto retest. You must run the original test at this dilution to be considered for a retest.	**Selected retest assays** Displays the selected retest assay(s) to be run. **NOTE:** You can define any number of assays to be retested for a given rule.
Retest dilution Allows you to select the dilution protocol for each of the selected assays to use for the auto retest.	

Select assay window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assays (list) Allows you to select or deselect the assay(s) you want to retest. **NOTE:** You can define any number of assays to be retested for a given rule.

Details for assay retest rules window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the name of the assay you selected from the Configuration screen - Assay settings view.	**Units** Displays the result units for the assay selected
Assay retest rules List that displays the current name and settings for each rule. See *Assay retest rule settings*, page Appendix E-132 for more information.	**Original dilution** Displays the dilution run on the original test. The original test must be run at this dilution to be considered for a retest.
Result range Displays the minimum and maximum limits for the result at the original dilution in order to be considered for a retest.	**Replicates** Displays the number of replicates to be run for the retest assay(s). **NOTE:** The number of replicates entered is run for all retest assays.
Retest assays (table) Displays the assay(s) and the dilution that is run if the original assay result falls within the defined limits. • Assay • Dilution	

Table Appendix E.2: Assay retest rule settings

Original dilution	The dilution run on the original test. The original test must be run at this dilution to be considered for a retest.
Result range	Displays the minimum and maximum limits for the result at the original dilution in order to be considered for a retest.
Replicates	The number of replicates to be run for the retest assay(s). **NOTE:** The number of replicates entered is run for all retest assays.
Retest assays	The assay(s) and the dilution that are run if the original assay result falls within the defined limits. **NOTE:** You can define any number of assays to be retested for a given rule.

Configuration screen - QC-Cal settings view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Configure Allows you to select one of the following categories for configuration: • System settings • Assay settings • QC-Cal settings	**QC-Cal categories (list)** Allows you to select the following QC-Cal configuration items: • QC - Single analyte • QC - Multiconstituent • Multiconstituent bar code SID • Westgard rules • Calibrator set
Assays (list) Allows you to select the assay to configure.	

Configure single analyte window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the assay you selected on the Configuration screen - QC - Cal settings view.	**Lot number (list)** Allows you to enter the lot number for the control. You can enter up to 20 different lot numbers.

Default Allows you to select the default lot number for the control.	**Exp. date** Allows you to enter the expiration date for the control.
Level name Allows you to enter a name for the specific control level. You can enter up to 10 alphanumeric characters for the level name and 6 different levels per lot number.	**Manufacturer mean** Allows you to enter the manufacturer mean for the control level.
Manufacturer 1 SD Allows you to enter the manufacturer value that represents one standard deviation for the control level.	**Expected mean** Allows you to enter the expected mean for the control level.
Expected 1 SD Allows you to enter the expected value that represents one standard deviation for the control level.	**Default dilution (list)** Allows you to select a dilution option other than the default.
Bar code SID Allows you to enter a specific bar code SID, up to 20 characters, to identify a sample as a control.	**Display order (list)** Allows you to select a display order position on the Control order screen.

Details for single analyte window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the assay you selected from the Configuration screen - QC - Cal settings view.	**Lot number (list)** Displays the lot number for the control.
Exp. date Displays the expiration date for the control.	**Level name** Displays the name for a specific control level.
Level (list) Displays the control levels configured for this control.	**Manufacturer mean** Displays the manufacturer mean for the control level.
Manufacturer 1 SD Displays the manufacturer value that represents one standard deviation for the control level.	**Expected mean** Displays the expected mean for the control level.

Expected 1 SD Displays the expected value that represents one standard deviation for the control level.	**Default dilution** Displays the selected dilution for the assay.
Bar code SID Displays the specific bar code SID used to identify the sample as this control level.	**Display order** Displays the display order position in the Control order screen.

Configure multiconstituent control window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Control name Displays the name of the multiconstituent control you selected. If you select New, you may enter a name for the multiconstituent control.	**Lot number** Allows you to enter a lot number for the multiconstituent control. You can enter up to 20 different lot numbers.

Level (list) Allows you to select a multiconstituent control level. Options are: • Level 1 (default) • Level 2 • Level 3	**Expiration date** Allows you to enter the expiration date for the multiconstituent control.
ASSAY (table) Displays the following information: • Assay - Displays the name of the assays configured for the multiconstituent control level. • Default Dilution - Displays the default dilution for the assays configured for the multiconstituent control level. • Manufacturer Mean - Displays the manufacturer mean for the assays for the multiconstituent control level. • Manufacturer 1 SD - Displays the manufacturer value that represents one standard deviation for the assays for the multiconstituent control level. • Expected Mean - Displays the expected mean for the assays for the multiconstituent control level. • Expected 1 SD - Displays the expected value that represents one standard deviation for the assays for the multiconstituent control level.	

Define data window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Control name Displays the name of the multiconstituent control.	**Level** Displays the name of the multiconstituent control level.
Assay Displays the name of the assay you selected on the Configure multiconstituent control window.	**Lot number** Displays the lot number for the assay you selected on the Configure multiconstituent control window.

Manufacturer mean Allows you to enter the manufacturer mean value for the multiconstituent control level.	**Manufacturer 1 SD** Allows you to enter the manufacturer value that represents one standard deviation for the multiconstituent control level.
Expected mean Allows you to enter the expected mean value for the multiconstituent control level.	**Expected 1 SD** Allows you to enter the expected value that represents one standard deviation for the multiconstituent control level.
Default dilution (list) Allows you to select a dilution for the assay.	

Details for multiconstituent control window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Control Displays the name of the multiconstituent control you selected.	**Lot number (list)** Allows you to select the lot number of the multiconstituent control to display.

Level (list) Allows you to select the multiconstituent control level to display.	**Expiration date** Displays the expiration date of the multiconstituent control.
ASSAY (table) Displays the following information: • Assay - Displays the name of the assays configured for the multiconstituent control level. • Default Dilution - Displays the default dilution for the assays configured for the multiconstituent control level. • Manufacturer Mean - Displays the manufacturer mean for the assays for the multiconstituent control level. • Manufacturer 1 SD - Displays the manufacturer value that represents one standard deviation for the assays for the multiconstituent control level. • Expected Mean - Displays the expected mean for the assays for the multiconstituent control level. • Expected 1 SD - Displays the expected value that represents one standard deviation for the assays for the multiconstituent control level.	

Configure multiconstituent bar code SID window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Bar codes Displays the configured multiconstituent bar code SIDs.	**New bar code SID** Allows you to enter a specific bar code SID, up to 20 characters, to identify a sample as a control.
Control Allows you to select the multiconstituent control for the bar code SID.	**Lot** Allows you to select the control lot number.
Level Allows you to select the control level.	**Assays** Allows you to select the assays for the multiconstituent bar code SID.

Details for multiconstituent bar code SID window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Bar codes Displays the available multiconstituent bar code SIDs.	**Control** Displays the control for the multiconstituent bar code SID.
Lot Displays the control lot number.	**Level** Displays the control level configured for the multiconstituent bar code SID.
Assays Displays the assays configured for the multiconstituent bar code SID.	

Configure Westgard window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the assay you selected.	**Rules (list)** Allows you to select each Westgard rule. **NOTE:** The default configuration setting for all assays is: • 1 - 2s Enabled, Warning • 1 - 3s Enabled, Failure
Status Allows you to select the status for the rule. Options are: • Enabled • Disabled	**Flag type** Allows you to select the type of Westgard flag for the rule. Options are: • Warning • Failure

Details for Westgard window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the assay you selected.	**Rules (list)** Displays the Westgard rule you selected.
Status Displays the current status (enabled or disabled) of the selected rule.	**Flag type** Displays the type of Westgard flag displayed for the selected rule.

Utilities screen - Software install view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Software install (option) Displays the software install options.	**Backup software (option)** Displays the backup options.
Current software version Displays the current system software version.	

Utilities screen - Backup software view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Software install (option) Displays the software install options.	**Backup software (option)** Displays the backup options.
Available backups (list) Displays a list of the backup files that have been created.	**Date / Time** Displays the date and time of the selected backup.
Comment Displays any comments that were entered when the selected backup was created.	

Create backup window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Backup name Displays the file name for the backup you are creating.	**Comment** Allows you to enter a comment, You can enter up to approximately 50 characters.

Print options window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Printer name Displays the name of the printer.	**Printer status** Displays the current status of the printer. **NOTE:** Printer status is specific to the type of printer you are using.
Print selection Allows you to select one or more items to print.	**Reports available (list)** Lists the names of the reports available to print. For a complete list of available reports, see *Print a report*, page 5-230.
Number of copies Allows you to enter the number of copies you want to print. Default: 1	

Printer window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page Appendix E-6.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Printer status Displays the current status of the printer. **NOTE:** Printer status is specific to the type of printer you are using.	**Printer queue (list)** Displays a list of the reports you requested, including printing status and the time you requested the report. Printing statuses include: • Failed • Pending • Printing • Downloading records • Deleting **NOTE:** If more than one report is in the queue and the first report has a status of Failed, you must delete this report before the other reports in the queue will print.

absorbance limit *c* System; Configured range of absorbance values that are considered acceptable for measurement purposes. Values outside this range are not used for calculation.

absorbance limit check *c* System; Calibration data check that evaluates the absorbance or change in absorbance obtained during sample measurement. If the absorbance or change in absorbance is outside the specified range an error message is generated.

absorbance mode *c* System; Calibration mode in which results are based on the absorbance of water and are represented as absorbance for an end-point assay or as absorbance change (rate of absorbance change per minute) for a rate assay.

accessory Item that is used repeatedly such as a sample carrier, carrier tray, and reagent segment.

Acid Wash *c* System; Acidic wash solution used by the cuvette washer to clean the cuvettes after sample analysis. A dilution of the acid wash solution may also be used for probe washing.

active curve Calibration curve that has passed all instrument verifications and is stored in memory (processing module-specific) for a specific reagent lot. The ARCHITECT System can store active calibration curves for four (4) reagent lots for each assay per processing module.

active screen Screen that is currently displayed.

active window Window that is currently displayed.

adjustment calibration *c* System; Adjustment method that allows you to run a reagent blank or fewer calibrator levels to adjust a calibration curve. See also *one-point adjust*, page Glossary-10, and *two-point adjust*, page Glossary-19.
i System; Adjustment method that allows you to run two calibrator levels instead of six to calibrate an assay. The two calibrator levels (adjusters) are used to adjust the master calibration curve stored in the reagent bar code on the microparticle bottle. See also *one-point adjust*, page Glossary-10, *linear transformation method*, page Glossary-9, *parameter method*, page Glossary-11, and *ratio technique method*, page Glossary-13.

administrator logon SCC (system control center) access level (user ID and password) required to perform administrator functions such as configuring settings, performing specific diagnostic procedures, and approving the maintenance log.

aliquot tube Tube (75 mm - 100 mm in height) that contains an aliquot of sample. Aliquot tubes may be used in conjunction with sample cups. If used alone, you must use the sample gauge to verify adequate sample is present.

Alkaline Wash *c* System; Alkaline wash solution used by the cuvette washer to clean the cuvettes after sample analysis.

alphanumeric characters Characters defined by Abbott Laboratories as A - Z, a - z, 0 - 9 and the special characters , / > < ? ; :] [\ } { ' - = ~ ! @ # $ % ^ & *) (_ + and <space>.

ARCHITECT Refers to a *c* System and/or *i* System.

ARM accessory *i* System; Automatic Reconstitution Module, optional component that automatically dilutes Concentrated Wash Buffer to the proper concentration and delivers it to the wash buffer reservoir.

assay	Analysis to determine the presence, absence, or quantity of one or more analytes.
assay calibration	Method of analyzing samples of known concentrations, recording the instrument response value(s), and plotting the measured value(s) against the known concentration to create a curve.
assay file	File containing assay-specific parameters.
assay parameters	Values that define specific characteristics or verify the performance of an assay.
assay settings	Settings within each assay configuration category that the system administrator configures to meet site-specific requirements.
assay software	Software used to install assay files.
assay-specific package insert	Assay-specific information included with each reagent kit.
ASTM	American Society for Testing and Materials; Organization that defines the specifications for the transfer of information between laboratory instruments and computer systems.
auto retest	Process the system uses to automatically generate rerun orders for patient samples.
bar code label	Unique identifier comprised of black bars that represent patient information.
bar code reader window	Glass window that prevents debris and liquid from collecting on the bar code reader components.
bar code scanner	Optional component used to scan sample bar codes to allow positive sample identification.
batch processing	Type of sample processing where each sample has the same assay(s) ordered.
biological hazard	Activity or area where you may be exposed to potentially infectious material.
blank adjust	*c* System; Calibration type that uses the absorbance data for the reagent blank to adjust the calibration curve.
boards	Printed circuit board.
bulk solutions	Liquid solutions provided in large quantities that are used in sample processing.
bulk solution supply center	*c* System; Onboard storage area for *Acid Wash*, page Glossary-1, *Alkaline Wash*, page Glossary-1, and *ICT Reference Solution*, page Glossary-8.
***c* 16000 processing module**	*c* System; Chemistry analyzer that processes up to 1600 photometric and 600 potentiometric tests per hour.
***c* 8000 processing module**	*c* System; Chemistry analyzer that processes up to 800 photometric and 600 potentiometric tests per hour.

calculated absorbance	*c* System; Rate of absorbance change per minute as calculated using the linear least squares method.
calibration, 6-point	*i* System; Calibration method in which six calibrators (A-F) are measured and a calibration curve is generated using these data points.
calibration, factor	*c* System; Calibration or data reduction method in which only the reagent blank is measured and a user defined factor is used to calculate results.
calibration, index	*i* System; Calibration method used for qualitative (cutoff) assays in which an index calibrator is run to generate the cutoff value for the assay.
calibration, linear mode (1-point method)	*c* System; Calibration or data reduction method in which a reagent blank and one calibrator are measured, and a calibration curve is generated using these two data points.
calibration, linear mode (multi-point method)	*c* System; Calibration or data reduction method in which a reagent blank and two to six calibrators of different concentrations are measured, and a point-to-point calibration curve is generated using these data points.
calibration, logit-4	*c* System; Non-linear calibration or data reduction method that measures a reagent blank and three to six calibrators for which the absorbance or absorbance change increases as the concentration increases.
calibration, spline	*c* System; Non-linear calibration or data reduction method in which a reagent blank and three to six calibrators are measured, and a multiple sectioned calibration curve is generated using a polynomial expression so that the adjoining sections are connected smoothly.
calibration, use factor and blank	*c* System; Calibration method in which the concentration or activity is calculated using the factor and reagent blank from a calibration curve generated for another assay.
calibration verification	*i* System; Method used to determine the reportable range of an assay.
card cage	Housing that contains the printed circuit boards that provides the power distribution and signal interconnection for the system.
carrier	Accessory used on the RSH (robotic sample handler) or SSH (standard sample handler) to transport patient samples, calibrators, or controls to the sample pipettor(s).
carrier positioner	Mechanism on the RSH (robotic sample handler) that positions sample carriers at the appropriate processing module sample aspiration position.
carrier tray	Accessory used to hold sample carriers for loading on the RSH (robotic sample handler). Each tray holds up to five sample carriers.
carrier transport	Mechanism used to transport sample carriers from a bay on the RSH (robotic sample handler) to the carrier positioner.
carousel	Rotating mechanism on which samples or reagents are placed.

CD-ROM drive Compact Disc Read Only Memory drive; Read device used for installing system and assay software and online documentation.

CE marking Symbol that indicates the product is in conformance with the EC (European Community) Directives.

check box Software interface element that allows you to select one or more items from the displayed choices. A black check mark in the box indicates it is selected.

Chemiflex *i* System; Assay protocols which incorporate chemiluminescent detection technology with flexible assay pipetting protocols.

chemiluminescence *i* System; Emission of light produced by a chemical reaction.

ci System Refers to a *ci* 8200 system.

CMIA *i* System; Chemiluminescent Microparticle Immunoassay; Detection technology used to perform automated immunoassays.

CMIA optics reader *i* System; Sub-assembly that houses the PMT (photomultiplier tube) and optics reader and produces the chemiluminescent reads by collecting the emitted photons of light and translates them to yield RLUs, which are then used by the system to calculate results.

color correction *c* System; Adjustment performed on the absorbance range limits to correct for sample color so that only flags and error messages associated with the absorbance of the analyte are generated. Color correction does not adjust the reported result.

Concentrated Wash Buffer *i* System; Solution containing phosphate buffered saline that must be diluted prior to use. See also *wash buffer*, page Glossary-19.

configuration Process you use to define system, assay, and QC-Cal settings to meet your site-specific requirements.

consumables Replenishable items required to run assays on an ARCHITECT System, such as bulk and onboard solutions, calibrators, controls, reagents, sample cups, and so forth.

context available function bar buttons Buttons on the function bar that have yellow lettering and are available (green background) or unavailable (gray background) based on selections you make from the screen. For example, from the Order status screen you can only select the F5 - Details function button after you select an order. See also *screen available function bar buttons*, page Glossary-17.

context-sensitive help Information that displays online and is specific to the screen, window, or error message currently displayed.

control Material with a known concentration of a specific analyte. Controls are run with patient samples and are used to monitor assay and system performance over time. See also *single constituent control*, page Glossary-17 and *multiconstituent control*, page Glossary-10.

C/P Carrier/position; Identifier that indicates the location of a sample, its position within a carrier, and the specific carrier in which it is loaded. For example, a C/P of A001/4 indicates the sample is located in position 4 of sample carrier A001.

C/P (LAS) Carousel/position; Identifier that indicates the location of a sample, its position within an LAS (laboratory automation system) sample carousel (*i* 2000), and the specific carousel it is loaded onto. For example, a C/P of A/4 indicates the sample is located in position 4 of LAS sample carousel A.

CPU Central processing unit; Computational and control unit of the SCC (system control center) that interprets and executes instructions.

c System Refers to a *c* 8000 or *c* 16000 instrument.

curve shape method *i* System; Adjustment method that uses the RLU (relative light unit) values stored in the reagent bar code for calibrators A through F to determine the 4PLC (four parameter logistic curve) parameters of the master calibration.

cuvette *c* System; Rectangular glass container that contains the assay reaction components for analysis.

cuvette tab *c* System; Plastic tab on top of the cuvette segment that is used to detect the positioning of the reaction carousel for optical readings.

cuvette segment *c* System; Segments that sit in the reaction carousel and hold cuvettes. Each cuvette segment holds 15 cuvettes.

cuvette segment alignment tool *c* System; Accessory placed in the reaction carousel during the sample and reagent pipettor calibration procedures.

cuvette washer *c* System; Device with eight nozzles that washes and dries the cuvettes after each use.

cycle power Process of removing power and then applying it again.

decontamination Process that removes contamination.

depressed concentration Concentration that is less than expected.

diagnostic procedure Procedure you perform to check the status of assemblies and mechanisms in reaction to certain hardware malfunctions on your ARCHITECT System.

dry tip *c* System; Absorbent material on the end of the cuvette washer nozzle used to dry the cuvette after it has been washed and before a sample is dispensed.

elevated concentration Concentration that is greater than expected.

end ratio *c* System; Assay validity check that uses a ratio of absorbances (A/B) measured at two different times during the reaction to check for prozone effect or other reaction anomalies.

end subtraction *c* System; Assay validity check that uses the difference between absorbances (A-B) measured at two different times during the reaction to check for prozone effect or other reaction anomalies.

end-point assay *c* System; Reactions that are allowed to react until all reactant is depleted and the absorbance is stable. When the reaction is complete, the system measures the absorbance readings used for calibration and calculating results.

erratic results Results that exceed the expected tolerance limits.

error code Numeric identifier for an error message.

error message Displayed message informing the operator of an error condition.

exception Test order that failed to complete.

external modem Optional component that connects the ARCHITECT System to a telephone line, which allows communication with Abbott personnel for training and troubleshooting purposes.

extrapolated calculation *c* System; Calculation used in linear calibration methods to extend the calibration curve for samples with concentrations higher than the calibrators.

factor method *c* System; Calibration or data reduction method in which only the reagent blank is measured and a user defined factor is used to calculate results.

failed curve Calibration curve with values that fall outside the predetermined range, that was manually failed, or could not be completed due to a hardware error.

field Software interface element that displays a specific type of data (for example, alphabetic or numeric).

FlexRate method *c* System; Method used to extend the linear range of an enzymatic assay. Data points in the flex read time are used for high-activity and high-concentration samples. Results calculated using these data points are identified by the FLEX result flag.

flush Procedure performed to flush solution through the fluidic system to remove bubbles.

full calibration *c* System; Measurement of a reagent blank and all data points specified for an assay plotted against known concentrations to create a curve for evaluating unknown samples.
i System; Measurement of all data points specified for an assay plotted against known concentrations to create a curve for evaluating unknown samples.

function bar buttons Buttons at the bottom of every software screen that allow you to perform actions or access windows associated with the screen. They correspond to the function keys on the keyboard. See also *screen available function bar buttons*, page Glossary-17 and *context available function bar buttons*, page Glossary-4.

general operator logon SCC (system control center) identifier that is used to add your operator ID to printouts and reports.

GUI Graphical user interface; Software display format that allows you to initiate commands or make choices by selecting icons, buttons, items from lists, and so forth. You can use the mouse, touch-screen monitor, and/or keyboard to make your selections.

hazards Situations that could cause physical harm to a user or damage to the system or laboratory environment.

Help? Online documentation that provides information on the screen, window, or error message currently displayed.

help button Button located on every software screen, window, and error message that provides access to Help?.

Help window Window in which the content of the online operations manual or Help? display. In addition to displaying information, Help windows provide several functional elements to help you find and use the information.

high-concentration waste bottle *c* System; Optional bottle that collects the high-concentration liquid waste from the cuvettes and the ICT unit.

home Starting position for mechanical components.

host Auxiliary computer system that can communicate with an ARCHITECT System.

host interface operation Act of communication between the ARCHITECT System and a host computer.

host query timeout The length of time the ARCHITECT System waits for a response from the host.

hot spot Area on an image map that when selected provides access to further information about the area it represents.

hypertext A text hyperlink (predefined link) to related information that displays as blue, underlined text in the online documentation.

***i* 2000 processing module** *i* 2000; Immunoassay analyzer that processes up to 200 CMIA (chemiluminescent microparticle immunoassay) tests per hour.

***i* 2000$_{SR}$ processing module** *i* 2000$_{SR}$; Immunoassay analyzer that processes up to 200 CMIA tests per hour and provides STAT processing.

icon Navigational element on the menu bar that allows you to display specific screens. Additionally, icons serve as blinking indicators to inform you that a condition requires your attention.

ICT *c* System; Integrated chip technology; Method for measuring Na+, K+, and Cl- potentiometrically using ion-selective electrodes that are combined into a single electronic device.

ICT aspiration pump *c* System; Syringe-drive pump that aspirates samples or ICT Reference Solution into the ICT module for measurement. Once measurement is complete, the pump aspirates waste from the ICT unit and moves it into the water bath/waste overflow area.

ICT cleaning fluid *c* System; Cleaning agent prepared by the operator and used during daily maintenance procedures to clean the ICT module.

ICT diluent *c* System; Reagent used to dilute samples for electrolyte analysis.

ICT module *c* System; Integrated chip located within the ICT unit that contains the Na+, K+, Cl-, and reference electrodes.

ICT Reference Solution *c* System; Mid-concentration standard that is aspirated and analyzed by the ICT module before and after each sample to provide a reference concentration used to calculate results.

ICT reference solution preheater *c* System; Metal tube located within the water bath through which the ICT Reference solution flows to preheat the solution before it is used to fill the ICT reference solution cup.

ICT reference solution pump *c* System; Pump that aspirates ICT Reference Solution through the ICT reference solution pre-heater into the ICT reference solution cup, and then drains the cup.

ICT unit *c* System; Device that consists of the ICT probe and ICT module that is used to perform indirect potentiometric analysis. The ICT probe aspirates the sample. The ICT module simultaneously measures Na+, K+, and Cl- using integrated chip technology.

image map Image that contains graphical hyperlinks with selectable areas or "hot spots" that provide access to additional information about the area they represent.

index method *i* System; Calibration method used for qualitative (cutoff) assays in which an index calibrator is run to generate the cutoff value for the assay.

information area Main area of software screens and windows that displays data and allows you to make selections and/or enter information to perform various functions.

infranatant fluid Clear fluid that, after the settling out of an insoluble liquid or solid by the action of normal gravity or of centrifugal force, takes up the lower portion of the contents of a vessel.

input device Hardware (for example mouse, touch-screen monitor, keypad, and so forth) that is used to enter information into the SCC (system control center).

i System Refers to a single or multi-module *i* 2000, *i* 2000_{SR}, or *i* 1000_{SR}.

keyboard Computer hardware component used with the mouse and/or touch-screen monitor to enter information. You can use the keyboard as an alternate means of performing most functions.

lamp *c* System; Tungsten-halogen lamp used to provide the light source for photometric measurement.

LAS carousel sample handler *i* 2000; Transport system used for loading calibrators, controls, and patient samples and presenting them to an i 2000 processing module that is integrated with an LAS (Laboratory automation system) track.

LAS sample carousels *i* 2000; Carousels used on the LAS (laboratory automation system) carousel sample handler to transport patient samples, calibrators, or controls to the sample pipettor.

Levey-Jennings graphs Control graphs that are used to monitor mean and range of control measurement values from run to run.

linear method *c* System; Calibration or data reduction method in which a reagent blank and one to six calibrators are measured, and a point-to-point calibration curve is generated using these data points.

linear transformation method *i* System; Adjustment method that assumes a linear relationship between the calibrator RLU (relative light unit) values generated by the system and the master calibration information stored in the reagent bar code on the microparticle bottle.

linearity range Minimum and maximum reportable values of an assay.

liquid level sensing Detection of liquid level as measured by the change in capacitance.

liquid waste arm *i* System; Device that removes liquid from RVs (reaction vessels) prior to unloading them to the solid waste container.

list button Software interface element that displays a list of items from which to choose.

LLS error Liquid level sense error; Error that occurs when there is not enough fluid present, when there are bubbles or extra drops of fluid, or due to incorrect probe positioning.

load diverter *i* System; Mechanism to move RVs from the inner track to the outer track of the process path when RVs are needed for processing.

log off Process of signing off the SCC (system control center).

log on Process of signing in or gaining access to certain SCC functionality.

logit-4 method *c* System; Non-linear calibration or data reduction method that measures a reagent blank and three to six calibrators for which the absorbance or absorbance change increases as the concentration increases.

logon SCC identifier that controls access to SCC functionality. See also *administrator logon*, page Glossary-1 and *general operator logon*, page Glossary-6.

lot Unique number used by Abbott to distinguish preparations of reagents or commodities. Identified as "Lot" on labels and boxes.

low level error message Detailed error message that can be found in the Message history log and is used for advanced troubleshooting.

maintenance Procedures performed on the ARCHITECT System to ensure continued proper function.

Maintenance log Electronic log updated by the system to track performance of maintenance procedures.

maximum absorbance variation *c* System; The maximum acceptable absorbance variation (0 - 3.2) allowed for absorbance readings within the main read time.

menu Software interface element that displays when you select an icon. Menus list the selection of available screens and when you select an item, the associated screen displays.

menu bar Area at the top of software screens where icons that provide navigational and status indication support are located.

menu item Item on a menu that represents an available screen. When you select a menu item, the associated screen displays.

message Software interface element that provides important information during the course of normal system operation. Messages display in front of the currently displayed screen or window and require an acknowledgement.

Message history log Electronic log that displays and stores a record of error-related messages that you use to troubleshoot problems associated with system performance and/or results reporting. The log holds a capacity of 12,000 messages. When capacity is reached messages are replaced on a first in - first out basis. See also *Temporary message log*, page Glossary-18.

Mils One one-thousandth of an inch.

mixer unit *c* System; Device that houses two mixers (1 and 2) that mix the sample and reagent(s) together.

module status Operational mode of the processing module or sample handler.

multimedia Video clips and animations in the online documentation that illustrate procedures, system functionality, and chemical reactions.

multiconstituent control Control material that contains multiple analytes. Up to 3 levels of each control can be configured and analyzed.

NCCLS National Committee for Clinical Laboratory Standards; Nonprofit organization that provides a communication forum for the development, promotion, and use of standards for the world's medical science community.

NCCLS Type II water Water with a resistivity of 1.0 megohm/centimeter or greater and a microbiological content of 1000 colony-forming units/mL or less.

network hub External device that joins communication lines and enables the electronic transfer of information between the SCC (system control center) and processing module(s).

onboard solutions *c* System; Detergents used to wash the sample and reagent probes, mixers, and reaction cuvettes.

onboard solution areas *c* System; Storage locations for probe wash solutions used for the SmartWash function and maintenance procedures.

onboard stability Amount of time that a reagent or solution remains stable when it is opened and placed on the system in its designated location.

one-point adjust *c* System; Calibration type that uses the absorbance data for a single calibrator to adjust the calibration curve.

option Software interface element that allows you to select one item from the displayed choices. A black-filled circle indicates it is selected.

o-ring Flexible seal used in many fluidics connections to prevent leakage at the connections.

OSS *c* 8000 processing module; Optimum sampling sequence; Feature that maximizes the processing speed when SmartWash is in use by rearranging the sampling sequence so that the number of empty reaction cuvettes is minimized.

over-aspiration volume Additional volume of sample aspirated by the system to prevent the water in the sample probe from diluting the sample.

panel Option that allows you to quickly order multiple tests by selecting one button instead of individual assay buttons.

parameter method *i* System; Adjustment method that uses the RLU (relative light unit) values stored in the reagent bar code for calibrators A through F to determine the 4PLC (four parameter logistic curve) parameters of the master calibration.

password String of characters entered during logon that is used in conjuction with your user ID to provide access to SCC (system control center) functionality.

pause Procedure that changes the status of the processing module or sample handler from Running to Ready without losing tests currently in process. Use when you need to load sample carriers, reagents, and bulk solutions or perform maintenance and diagnostic procedures.

photometer *c* System; Device that uses a concave diffraction grating capable of taking measurements at 16 different wavelengths to measure luminous intensity, luminous flux, illumination, and brightness.

photometric reads *c* System; Series of absorbance measurements taken for each reaction cuvette as it passes the photometric read position. These measurements are used to calculate result concentration.

photometric timing *c* System; Progression of a reaction from the initial sample dispense to the final read phase represented as the elapsed time at each of the 33 photometric points.

photomultiplier tube *i* System; Detector on the CMIA (chemiluminescent microparticle immunoassay) reader assembly that receives and amplifies light signals from the reaction solution.

pipetting Process of transferring liquid.

pipettor Devices that detect, aspirate, transfer, and dispense reagents or samples. See also *reagent pipettor*, page Glossary-14, *sample pipettor*, page Glossary-16, and *STAT pipettor*, page Glossary-18

pipettor calibration Automated maintenance procedure that optimizes probe positioning.

PMT See *photomultiplier tube*, page Glossary-11.

pointing device Input device (mouse) included with the SCC.

pointer Position indicator that you control with the mouse. Typically, the pointer is an arrow and the text entry position pointer is a blinking underscore or vertical bar. In the online Operations Manual and Help? the pointer turns into a pointing hand when it is pointed to an object that can be selected.

power supply Device that provides DC and AC voltages to various parts of the module.

pre-trigger level sensor *i* System; Assembly with a magnetic float sensor that indicates when the liquid level in the pre-trigger bottle is low.

pre-trigger/trigger manifold *i* System; Device that dispenses Pre-Trigger Solution, and then Trigger Solution into RVs.

Pre-Trigger Solution *i* System; Hydrogen peroxide solution used to split the acridinium dye off the conjugate bound to the microparticle complex. This process prepares the acridinium dye for the addition of Trigger Solution.

pre-trigger/trigger tray *i* System; Platform in the supply and waste center that holds the Pre-Trigger Solution and Trigger Solution bottles.

pre-trigger/trigger storage area *i* System; Location in the supply and waste center that provides onboard storage for the Pre-Trigger Solution and Trigger Solution, which are necessary for test processing.

primary tube Tube (75 mm - 100 mm in height) that contains a sample obtained by venipuncture. Primary tubes may be used in conjunction with sample cups. If used alone, you must use the sample gauge to verify there is adequate sample volume.

prime *i* System; System process of dispensing solutions into RVs (reaction vessels) to ensure the fluidics system is primed.

priority bay Holding area of the RSH (robotic sample handler) that positions samples for priority processing.

priority loading Procedure used to position a sample carrier(s) for priority processing.

priority processing Sample processing in which samples that were priority loaded are pipetted first.

processing center Main activity area of the processing module where samples and reagents are dispensed and mixed, and where all assay processing is performed.

processing center map *i* System; Label attached to the front and rear processing center covers to assist you in locating components. Each component is labeled with a letter and/or number identifier. The additional components of the i 2000_{SR}, which are used when processing STAT assay protocols, are indicated in pink.

processing module Analyzer that performs all sample processing activities from aspiration to final read. The type(s) and number(s) of processing module(s) determines your system configuration. See also *c 8000 processing module*, page Glossary-2, *c 16000 processing module*, page Glossary-2, *i 2000 processing module*, page Glossary-7, and *i 2000_{SR} processing module*, page Glossary-7.

processing module graphic Graphic(s) on the Snapshot screen that indicates the status of the processing module(s) and displays other key system information.

processing module keypad Input device used by the operator to direct processing center activities.

processing module status Operational mode of the processing module. Statuses include Offline, Stopped, Warming, Ready, Scheduled Pause, Running, Initializing, and Scanning.

prompt Software interface element that allows you to continue or cancel the requested operation. Prompts display in front of the currently displayed screen or window and require a response.

pumps Devices that provide accurate amounts of specific fluids to components in the processing center.

pump center *c* System; Area that houses the processing module pumps.

QC-Cal settings Settings within each quality control/calibrator configuration category that the system administrator configures to meet site-specific requirements.

quality control analysis Process of monitoring control activity. The ARCHITECT System allows you to monitor control activity using standard Levey-Jennings graphs and Westgard rules. Control data includes both unreleased and released results.

query message Message sent to a host computer system from the SCC (system control center) to request orders for a sample when a sample bar code is scanned by a system bar code reader.

rate assay *c* System; Reactions that are allowed to reach a stable rate in which the change in absorbance between readings is constant. The system performs several readings during this time, calculates absorbance change per minute (rate), and then uses the rate to calculate results.

rate linearity % *c* System; The allowable percent variation change in absorbance measured during the first three reads, and then compared to the last three reads for the main and flex read time.

rate ratio *c* System; Assay validity check that uses a ratio of rates (A/B) measured at two different times during the reaction to check for prozone effect or other reaction anomalies.

rate subtraction *c* System; Assay validity check that uses the difference between rates (A-B) measured at two different times during the reaction to check for prozone effect or other reaction anomalies.

ratio technique method *i* System; Adjustment method compares the RLU (relative light unit) value of the calibrators to the corresponding calibrator values from the master calibration curve.

reaction carousel *c* System; Device that holds the cuvettes and rotates counter-clockwise to position them for sample processing.

reaction cuvette Rectangular glass cuvette.

reaction timing See *photometric timing*, page Glossary-11.

reaction vessel *i* System; Disposable container in which the CMIA (chemiluminescent microparticle immunoassay) reaction takes place. RVs (reaction vessels) are stored in bulk in the RV hopper and are automatically loaded into the process path as needed. The maximum onboard storage is 1200 RVs. You can add RVs to the hopper at any time.

read time *c* System; Range (or window) of photometric reads that are defined in the assay parameter file and determine which of the 33 photometric reads measured for each assay reaction are used to calculate result concentration.

reagent bar code reader Device that reads bar code labels on reagent bottles.

reagent carousel *c* System; Refrigerated carousels (R1 and R2) that are part of the reagent supply centers and provide cooled, temperature-controlled storage for reagent cartridges.
i System; Refrigerated carousel located in the processing center that provides cooled, temperature-controlled storage for reagent bottles.

reagent cartridge *c* System; Container used in the reagent supply centers to hold the reagents used during operation.

reagent cartridge adapters *c* System; Positioners used to ensure correct alignment of the small (55 mL cartridge), 20 mL (cartridge), and 20 mL (bottle) reagent cartridges placed in reagent supply centers 1 and 2.

reagent kit Consumable that contains all reagent components necessary to run an assay on the ARCHITECT System.
c System; Reagent kits may include only R1 reagent or may include both R1 and R2 reagents,
i System; Reagent kits may include from two to six bottles.

reagent label Unique identifier on Abbott pre-packaged reagents that contains a 2D (two-dimensional) bar code.

reagent lot Unique number used by Abbott for tracking purposes.

reagent pipettor *c* System; Devices that detect, aspirate, transfer, and dispense reagents into the cuvette. Reagent pipettor 1 also transfers sample diluents from reagent supply center 1 into a cuvette to be used for onboard sample dilution.
i System; Devices that detect, aspirate, transfer, and dispense reagents into the RV. Each pipettor assembly includes a fluid sense/pressure monitoring system that helps to identify errors in aspiration.

reagent probe wash cup *c* System; Active wash station that washes any remaining fluid from the probe exterior, interior, and tip.

reagent scan Process of rotating the reagent carousels and reading the bar codes on each of the reagents to update reagent inventory after reagents are added or removed.

reagent segment *c* System; Section of each reagent supply center that hold reagents and diluents. Some segments have a target for pipettor calibration used for aligning sample or reagent pipettors when necessary.

reagent supply center — *c* System; Two areas (R1 and R2) of the processing center that include refrigerated reagent carousels and locations for additional onboard solutions.

reagent syringe — Devices that control the aspiration and dispense of reagents.

reagent wash stations 1 and 2 (R1S/R2S) — *i* System; Active wash stations that wash any remaining fluid from the probe interior and exterior surfaces. A vacuum source dries the exterior of the probe.

reference range — Normal clinical range of an analyte.

refresh — Function that allows you to update the data displayed on the screen.

released result — Control or patient result that was determined to be acceptable. You can view released results from the Stored QC result and Stored results screens. If your system interfaces with a host computer the results transmit to the host.

replacement cap — *i* System; Teal-colored caps used when storing reagents that are temporarily removed from the processing module. The color visually indicates that reagent bottles have been opened.

replicate — Duplicate test measurement on the same sample performed within the same run.

reportable range — See *linearity range*, page Glossary-9.

retest rules — User-specified criteria for each assay that determines whether the system automatically reorders the assay for samples that meet the criteria.

routine bay — Holding area of the RSH (robotic sample handler) that positions samples for routine processing.

RSH — Robotic sample handler; Transport system used for loading calibrators, controls, and patient samples and presenting them to a c 8000 and/or *i* 2000_{SR} processing module.

RSH keypad — Input device on the RSH (robotic sample handler) used by the operator to control the sample handler.

RV — *i* System; See *reaction vessel*, page Glossary-14.

RV access door — *i* System; Opening used for diagnostic purposes only that allows access to one RV position on the outer track of the process path. You should always make sure it is closed during system operation.

RV hopper cover — *i* System; Cover that allows you to add RVs to the RV hopper.

RV loader and hopper assembly — *i* System; Device that provides onboard storage for RVs and transports the RVs into the process path.

RV unloader — *i* System; Device that removes used RVs from the process path and discards them into the solid waste container after assay processing.

sample and reagent syringe area — *c* System; Location for the sample and reagent syringes and drives.

sample bar code reader Device that scans the sample carrier ID, sample position, and sample tube bar code IDs to verify the position of the sample(s).

sample carrier Accessory used on the RSH (robotic sample handler) or SSH (standard sample handler) to transport patient samples, calibrators, or controls to the sample pipettor(s).

sample carrier ID Four digit alphanumeric identifier used to indicate where a sample is loaded.

sample cup Disposable container (1400 µL) that holds patient samples, calibrators, and controls. You can load a sample cup directly into a carrier or into a bar coded tube.

sample handler Component that transports samples through an ARCHITECT System. Each system has a single, primary sample handler regardless of the number of processing modules and types. See also *LAS carousel sample handler*, page Glossary-8, *RSH*, page Glossary-15, or *SSH*, page Glossary-17.

sample handler keypad Input device used by the operator to direct sample handler activities.

sample handler status Operational mode of the sample handler. Statuses include Offline, Stopped, Ready, Running, and Load queue paused.

sample load queue *i* 2000; Track that transfers sample carriers to the sample processing queue on the standard sample handler.

sample load queue bar code reader *i* 2000; Device that reads the sample carrier ID, position, and sample ID.

sample pipettor *c* System; Device that detects, aspirates, transfers, and dispenses samples into the cuvettes. The pipettor assembly includes a fluid sense/pressure monitoring system that helps to identify errors in aspiration.
i System; Device that detects, aspirates, transfers, and dispenses samples into the reaction vessel. The pipettor assembly includes a fluid sense/pressure monitoring system that helps to identify errors in aspiration.

sample probe wash cup *c* System; Active wash station that washes any remaining fluid from the probe exterior, interior, and tip to eliminate carryover.

sample processing queue *i* 2000; Track that transfers sample carriers to the sample pipettor. Once samples are aspirated, the sample carriers are transferred to another processing module or to the sample unload queue.

sample saving mode Setting that allows the system to aspirate an over-aspiration volume once per sample rather than each time it aspirates a test.

sample syringe Device that controls the aspiration and dispense of samples.

sample unload queue *i* 2000; Track on the right side of the processing module where sample carriers are unloaded.

sample wash station *i* System; Passive wash station where the sample probe dispenses excess sample and any remaining fluid is washed from the probe exterior, interior, and tip.

SCC System control center; Computer system that provides the software interface to the ARCHITECT System and can provide an interface to a host computer.

screen Software interface element that provides access to all related system information and functions.

screen available function bar buttons Buttons that have white lettering and are always available (green background) when you access the screen. For example, from the Order status screen you can always select F3 - Find. See also *context available function bar buttons*, page Glossary-4.

scroll bar Vertical or horizontal bar at the side or bottom of a Help window that you use to move or "scroll" through topic content.

scroll box Box on a scroll bar that displays the current position in a topic and allows you to drag it to another location.

self blank *c* System; Blank read time used to correct the absorbance for sample coloring due to lipemia, hemolysis, bilirubin, and so forth.

septum *i* System; Membrane with a slit that is used to prevent reagent evaporation and contamination, and to ensure reagent integrity. You place septums on all open reagent bottles prior to loading the bottle into the processing module.

serial port A connection point between the SCC and an external device.

SSH *i* 2000; Standard sample handler; Transport system used for loading calibrators, controls, and patient samples and presenting them to an i 2000 processing module(s).

SSH keypad *i* 2000; Input device on the SSH (Standard sample handler) used by the operator to control the sample handler.

shutdown Procedure used to turn off the power to the processing module and SCC.

single constituent control Assay-specific sample that contains known concentrations of analyte. Single constituent controls are typically labeled L, M, and H, or Pos and Neg.

SmartWash feature *c* System; Additional wash for the reagent probes, sample probe, and cuvette to prevent assay-to-assay interference.

Snapshot screen Main ARCHITECT System software screen that displays key system information and provides quick access to related screens.

software interface Portion of the computer program with which you interact by making selections and entering information. The interface is common among all ARCHITECT Systems. See also *GUI*, page Glossary-6.

solenoid valve *c* System; Valves (six) located at the top of the sample and reagent syringe drives that open or close as required for flushing, aspiration, and dispense.

solid waste storage area *i* System; Location in the supply and waste center that provides a storage area for the solid waste container that holds used RVs (reaction vessels).

spline method *c* System; Non-linear calibration or data reduction method in which a reagent blank and three to six calibrators are measured, and a multiple sectioned calibration curve is generated using a polynomial expression so that the adjoining sections are connected smoothly.

startup Procedure used to home motors and initialize the processing module and sample handler. Changes the processing module and sample handler status from Stopped to Ready.

STAT assay protocol *i* 2000_{SR}; Assay protocol with a shorter incubation time than the routine assay protocol and provides faster result completion. The STAT assay protocol does not determine sampling priority. See also *priority processing*, page Glossary-12.

STAT diverter *i* 2000_{SR}; Device that moves RVs from the inner track to the outer track of the process path when the RVs are needed for STAT assay protocols.

STAT pipettor *i* 2000_{SR}; Device that detects, aspirates, transfers, and dispenses samples processed using a STAT assay protocol(s) into the RV.

STAT syringe *i* 2000_{SR}; Device that controls the aspiration and dispense of samples processed using a STAT assay protocol(s).

STAT wash station *i* 2000_{SR}; Passive wash station where the STAT probe dispenses excess sample and any remaining fluid is washed from the probe exterior, interior, and tip.

supernatant fluid Clear fluid that, after the settling out of an insoluble liquid or solid by the action of normal gravity or of centrifugal force, takes up the upper portion of the contents of a vessel.

supply and pump center *c* System; Storage area for processing module pumps, bulk solutions, and sample and reagent syringes and drives.

supply and waste center *i* System; Storage area for bulk solutions and solid waste.

syringe Device that controls the aspiration and dispense of sample or reagents by moving the piston in the syringe body. See also *reagent syringe*, page Glossary-15 and *sample syringe*, page Glossary-16.

system control center stand Optional mobile shelf unit which holds the computer, monitor, keyboard, and printer.

system settings Settings within each system configuration category that the system administrator configures to meet site-specific requirements.

system software Software application that controls operation of an ARCHITECT System.

system status Operational modes of the processing module and/or sample handler.

Temporary message log Electronic log that displays non-critical error-related messages that you can address, and then delete. The log holds a capacity of 200 messages.

timeout Error that may occur for software communication functions when a defined time limit is exceeded while waiting for a response from a device.

title bar Area under the menu bar of every screen or at the top of every window that contains the name of the screen or window.

touch-screen monitor Main interface between the operator and the ARCHITECT System that allows you to make onscreen selections by touching text areas and graphics, icons and menu items, and function bar buttons.

Trigger Solution *i* System; Sodium hydroxide solution used to produce the chemiluminescent reaction that provides the final read.

trigger level sensor *i* System; Assembly with a magnetic float sensor that indicates when the liquid level in the trigger bottle is low.

two-point adjust *c* System; Calibration type that uses the absorbance data for the reagent blank and a calibrator to adjust the calibration curve.

UPS Uninterruptible power supply; Optional component that provides a temporary, continuous flow of power to the processing module during a power failure.

unreleased result Control or patient result that has not been reviewed and released. You can view unreleased results from the QC result review and Results review screens.

user defined reagent *c* System; Non-bar coded reagents or reagents not supplied by Abbott, which must be configured and manually assigned to positions in the reagent supply centers.

user ID String of characters entered during logon that may be used in conjuction with a password to provide access to SCC (system control center) functionality.

vortexer *i* System; Device that mixes the sample and reagents in an RV (reaction vessel) to suspend the microparticles.

wash buffer *i* System; Solution containing phosphate buffered saline. Wash buffer is used throughout assay processing and is pumped to the sample and reagent pipetting assemblies and the two wash zones.

wash buffer level sensor *i* System; Assembly containing a tube with three magnetic float sensors that indicate when the wash buffer reservoir is full, needs to be filled by the ARCHITECT ARM (automatic reconstitution module) accessory, or is empty.

wash buffer reservoir *i* System; Onboard container in the supply and waste center that holds up to 25 liters of wash buffer.

wash buffer storage area *i* System; Location in the supply and waste center for onboard storage of wash buffer, which is used in test processing.

wash buffer filter *i* System; Assembly containing material used to eliminate particulates that might damage the fluidics components of the system.

wash solution pump *c* System; Syringe drive pump that aspirates and dilutes Alkaline and Acid Wash Solutions to wash cuvettes during daily operation and maintenance procedures.

wash zone diverter *i* System; Device that directs RVs to one of two paths. One path moves RVs through the wash zone where a wash occurs. The other path moves RVs around the wash zone.

wash zone manifold *i* System; Device that removes and discards unbound analyte from the reaction mixture in an RV.

waste chute and trap door *i* System; Device in the supply and waste center that receives used RVs by gravity and directs them into the solid waste container. The trap door holds up to 50 RVs when you remove the solid waste container during processing.

water bath *c* System; Incubator that surrounds the reaction cuvettes and maintains the reaction temperature.

Water Bath Additive *c* System; Antimicrobial solution used to minimize bacterial growth in the water bath. During the daily maintenance procedure, the solution is dispensed into the water bath.

Westgard rules Control rules that use various standard deviation limits to monitor the performance of the system by detecting trends or shifts.

window Software display that provides additional information or functions related to the active screen. You access windows by selecting a button on the screen. The window displays on top of, or in front of, the screen.

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