



G+D
Currency Technology

User Manual

BPS® C5



Original operating
instructions

Art.-No. 524592001
Issue 09/2019

Note

The information, knowledge, and graphic material contained in this documentation are the sole property of Giesecke+Devrient Currency Technology GmbH and may not be reproduced or otherwise distributed without the prior written consent of Giesecke+Devrient Currency Technology GmbH.

Giesecke+Devrient Currency Technology GmbH reserves the right to enforce all rights in this connection, especially in the event that patents are granted. Provision of the documentation does not establish grounds for any claim to a license or right of use.

Trademarks

BPS® is a registered trademark of Giesecke+Devrient Currency Technology GmbH.

Product names, company names, and descriptions in this manual may be trademarks or registered trademarks of other companies. Such terms in this manual are used for explanatory purposes only and no infringement on rights is intended.

WINDOWS® is a registered trademark of Microsoft Corporation.

Disclaimer

The specifications stated in this documentation do not represent guaranteed characteristics.

This documentation is based on the machine type BPS® C5, hardware release 2.1 and software release 3.0.

Subject to technical changes.



This product meets the safety requirements of the relevant EU directives and complies with the EN standards as listed in the EU Declaration of Conformity.

Manufacturer

Giesecke+Devrient Currency Technology GmbH
Prinzregentenstraße 159
D-81677 Munich, Germany
Tel. +49 (0) 89 4119-0
Fax +49 (0) 89 4119-1535
<http://www.gi-de.com>

Technical support

→ *Chapter E “Technical Support”, p. 157*

Printed for

Giesecke+Devrient Currency Technology GmbH
© 2019

Item number

524592001

Issue date

09/2019

Table of Contents

Legal Notice	III
1 About This Manual	1
1.1 Overview of All Manuals for the BPS C5 System Operating Instructions.....	1
1.2 Target Group of this Manual.....	2
1.3 Content and Structure of This Manual.....	2
1.4 Conventions Used in this Manual.....	3
1.4.1 General Document Conventions.....	3
1.4.2 Document Conventions for Procedures (Instructions).....	5
1.4.3 Figures Used.....	6
2 Safety.....	7
2.1 Safety Information Symbols.....	7
2.2 Symbols Used to Identify Specific Hazards	8
2.3 Safety Information.....	9
2.3.1 Proper Use.....	9
2.3.2 Prohibition of Unauthorized Modifications or Changes.....	9
2.3.3 Circumstances Under Which the Product May Not Be Operated.....	10
2.3.4 Safety Information to Protect Persons.....	10
2.3.5 Safety Information on LED Radiation.....	10
2.3.6 Safety Information on Laser Radiation.....	11
2.3.6.1 Barcode Reader	11
2.3.7 Information on Special Dangers for the Operator.....	11
3 General Information on the Product BPS C5.....	13
3.1 Design and Function	14
3.2 Important Terms.....	17
4 User Interface.....	19
4.1 Graphical User Interface (GUI) Design.....	21
4.2 Operator.....	21
4.2.1 Operating Mode Selection Screen.....	22
4.2.2 Operator Menu.....	23
4.3 Banknote Processing Results Screen.....	25
4.3.1 Summary View.....	26
4.3.2 Reject/Unfit View.....	27
4.3.3 Detail View.....	29
4.4 Supervisor.....	30
4.4.1 System Settings Menu.....	33
4.4.2 Installation Menu.....	35
4.5 Service.....	36

5	General Operating Information	37
5.1	Banknotes, Tickets and Other Transport Objects	37
5.2	Operating Modes	37
5.3	Multi Deposit Operating Mode	43
5.4	Fast Deposit (FDP) Operating Mode	43
5.5	Favorite Operating Modes	44
5.6	Delivery Stacker Capacity	45
5.7	Emptying the Stackers	45
5.8	Logs, Traces, Raw Data, and Self Test Levels	46
5.9	Printing/Sending/Copying Report	47
5.10	Video Surveillance Interface (VSI)	50
5.11	Remote Software Update	51
5.12	Configuration Package	52
5.13	Language Package	53
5.14	Machine Status Information	54
5.15	Serial Number Storage	55
6	Starting the BPS C5	57
6.1	Switching the BPS C5 On and Off	57
6.2	Logging in	58
6.2.1	Logging in as an Operator	58
6.2.2	Logging in as Supervisor	59
6.3	Changing the GUI Language	60
7	Operation	63
7.1	Selecting a Currency	63
7.2	Setting Processing Speed	64
7.3	Changing the Delivery Stacker Capacity	65
7.4	Preparing Banknotes	65
7.5	Inserting Banknotes	69
7.6	Counting Banknotes/Tickets	71
7.7	Sorting Banknotes in Batch Mode	72
7.8	Processing Banknotes with Deposit	73
7.9	Processing Banknotes in Multi Deposit	75
7.10	Processing Banknotes in Fast Deposit Mode (FDP)	78
7.11	Performing Online Reconciliation in Deposit Mode	82
7.12	Processing Banknotes in Payout Mode	83
7.13	Emptying the Delivery Stackers	84
7.14	Reprocessing the Rejected Banknotes	85
7.15	Emptying the Reject Stacker	86
7.16	Exporting Raw Data	86
7.17	Manually Printing/ Sending Reports	87

7.18	Printing Reports Using the Function Button.....	87
7.19	Reprinting/Re-sending Reports.....	88
7.20	Copying Reports to USB Stick.....	89
7.21	Copying Log Files to USB Stick.....	89
7.22	Viewing the Software Version Details.....	90
7.23	Adjusting Screen Brightness.....	91
7.24	Enabling/Disabling the Favorite Operating Mode Name View.....	91
7.25	Searching the Banknote Data.....	92
7.26	Logging Out from the Operator Mode.....	94
8	Banknote Processing with a Cash Management System (CMS).....	95
8.1	Connecting the BPS C5 to the Cash Management System.....	95
8.2	Processing the Banknotes.....	96
9	System Administration.....	97
9.1	Setting Date and Time.....	97
9.2	Setting the Machine ID.....	99
9.3	Changing the File Transfer Protocol (FTP) Settings.....	100
9.4	Setting the Machine IP Address.....	101
9.5	Changing the Simple Network Time Protocol (SNTP) Settings	102
9.6	Activating the Video Surveillance Interface Switch.....	103
9.7	Configuring the Video Surveillance Interface.....	104
9.8	Enabling/Disabling the Automatic Installation Switch.....	105
9.9	Enabling the Three Inch Printer.....	105
9.10	Activating Remote Desktop (RDP) Switch	106
9.11	Enabling/Disabling the Reject Count View.....	108
9.12	Viewing Operation Details.....	110
9.13	Changing the Fitness Threshold.....	110
9.14	Updating Configuration Package.....	112
9.15	Updating Language Package.....	113
9.16	Setting the Favorite Operating Mode.....	114
9.17	Exporting the Configuration Package.....	116
9.18	Setting the Self Test Level.....	116
9.19	Setting the Trace Level.....	117
9.20	Enabling the Serial Number Storage Switch.....	118
9.21	Deleting the Banknote Data.....	119
10	Opening and Closing the BPS C5.....	121
10.1	Opening the Input Module (IM).....	122
10.2	Opening the Horizontal Transport Path of the Standard Delivery Module (SDM) ..	123
10.3	Opening the Vertical Transport Path of the Standard Delivery Module (SDM)	124
10.4	Opening the Fail-safe Compartment.....	126
10.5	Closing the BPS C5	127

11	Banknote Jam	129
11.1	Removing the Jammed Banknotes	131
11.2	Getting Additional Information	136
12	Cleaning	139
12.1	Cleaning the Display Module	142
12.2	Cleaning the Dust Tray	142
Appendix		145
A	Technical Data	145
B	Reports	147
C	Description of the Criteria for Fitness Sorting	149
D	Symbols Used	153
E	Technical Support	157
Glossary		161
Table of Figures		163
Index		165

1 About This Manual

This chapter contains the following information:

- Overview of all manuals in the BPS C5 operating instructions
- Target group of this manual
- Content and structure of this manual
- A description of the conventions used in this manual

1.1 Overview of All Manuals for the BPS C5 System Operating Instructions

Site and Facility Requirements

This manual forms part of the System Operating Instructions. The following manuals form part of the System Operating Instructions:

The Site and Facility Requirements contain the technical data for the product and describe the conditions that must be met at the installation site for safe operation of the product.

Transport Instructions

The Transport Instructions are intended for employees of logistics companies. They contain outline information for secure transportation of the product to the installation location.

Quick Start Guide

These quick instructions are intended for all users of the product. They describe the first steps without using text so that the user can operate the product. The quick instructions are supplied with the product.

Safety Information

The safety information is intended for all users of the product. It describes all the necessary safety measures for hazard-free use of the product. The safety information is supplied with the product.

Installation Manual

The Installation Manual describes how to set up and connect the product.

User Manual

The user manual is intended for all users of the product and contains the following information about:

- Operating the product and straightforward cleaning and maintenance work that is not performed by Service
- Installing and using the software applications

Service Manual

The Service Manual describes maintenance work carried out on the product by field engineers.

The maintenance work includes:

- The replacement of parts for repairs (corrective measures) including the necessary adjustment work
- Installing and using the software application for Service

You will only receive a service manual after you or your staff have received training from G+D to become a field engineer.

Troubleshooting Manual

The Troubleshooting Manual offers an interactive troubleshooting including links to detailed procedures and video tutorials.

The Troubleshooting Manual is only available as part of the electronic documentation library EB Suite. The contents of the Troubleshooting Manual depend on your access rights.

Spare Parts Catalog

Please use the electronic spare parts catalog for Banknote Processing Systems on CD/DVD to order spare parts.

1.2 Target Group of this Manual

The manual is intended for the operator.

1.3 Content and Structure of This Manual

This manual contains the following:

- The → "Safety" chapter contains important safety information.
- In the → "*General Information about the Product BPS C5*" chapter, you will find an overview of the product.
- The → "User Interface" chapter contains the describes the user interface and various users and the corresponding menu options available to operate the product.
- The → "Starting the BPS C5" chapter contains information on how to switch on and log in as different users in the product.
- The → "*Operation*" chapter contains the following information:
 - Important terms
 - Operating controls
 - Operating unit and user interface
 - Default settings
 - Banknote processing operating procedures
 - System settings
 - System faults
 - Cleaning
- The → "Banknote Jam" chapter provides you with all the information required for recover banknote jam.
- The → *Appendix* contains useful additional information. Examples:
 - Technical data
 - Description of reports
 - A description of the criteria for fitness sorting
 - Symbols used

- Contact addresses
- A list of abbreviations and glossary of terms
- Table of figures
- Index

1.4 Conventions Used in this Manual

1.4.1 General Document Conventions

The following formatting styles are used as standard to identify certain information:

Conventions	Definition
<u>This text is important.</u>	Underlined text indicates important information.
Mechanical operating control	Names of mechanical operating controls like keys or switches are written in bold. Example: Press Start on the device.
GUI Text	Objects in the graphical user interface (GUI), e. g. a button, are in bold. Example: Click OK .
Menu option > Menu option	Menu names are in bold. Angle brackets indicate navigation through menus. Example: Select File > Print from the menu.
'User input'	User inputs are in single quotes. Example: Enter port = '8080' .
<Placeholder>	Placeholders for display text or user input are in angle brackets. Example: Enter <Password>.
[Key]	Keys on the keyboard are in square brackets. Example: Press [Alt] + [p] to print the file.
<i>File or path</i>	File names or paths are in italics.

Conventions	Definition
	Example: Open <i>readme.txt</i> .
Command	Commands are in Courier font. Example: Open an input window and enter <code>ping</code> .
Code	Codes are in courier font.
"Title"	Titles of reports, logs, modes, windows, etc. are in quotation marks. Example: The "xy" window appears.
→ " <i>Manual title</i> "	References to other manuals are in italics. The manual title is also in quotation marks. Example: → " <i>Service Manual</i> "
→ <i>Chapter "Chapter heading"</i>	References to other chapters/sections are in italics. The title of the chapter/section is also in quotation marks. For example, → " <i>Jam Recovery</i> " chapter
<i>Homepage Giesecke +Devrient</i>	References to a website address are in italics.
1. list entry 2. list entry	In numbered lists, make sure you follow the sequence of list entries.
• list entry • list entry	In unnumbered lists, the sequence of list entries is not important.
a) list entry b) list entry	In alphabetical lists, the list entries give alternatives.
	This symbol identifies important information.
*	* indicates optional components.

Conventions	Definition
	Inquire if the option is available on your machine.
[1]	Numbers in square brackets indicate individual operational steps. You must carry out these steps in the sequence indicated.
⇒	An arrow as shown after a step indicates the result of that step.

1.4.2 Document Conventions for Procedures (Instructions)

This section explains how procedures (instructions) are set out.
Follow procedures step by step in the specified order.

Requirements for the Procedure

- Requirement 1
- Requirement 2



DANGER

Safety information before the procedure

Applies to the whole procedure

Observe the measures to prevent risks at each step.

Procedure

- [1] Perform this step.



- [2] Perform this step. Note the image above.

⇒ Result of this step



Figure 1: Image of a Result

Secondary Steps

- [3] To perform this step:
- [3-1] Perform this secondary step.
- [3-2] Perform this secondary step.

Prompts to Skip or Repeat Steps

- [4] Prompt, e.g. has the error been rectified?
No: → [5]
Yes: → [6]
- [5] Only carry out this step if you answered the above prompt with No.
Continue with: → [7]
- [6] Only carry out this step if you answered the above prompt with Yes.
Continue with: → [7]
- [7] Perform this step.

Alternative Steps

- [8] Select the appropriate alternative:
For variant A: → [8a]
For variant B: → [8b]
- [8a] Variant A**
- [8a-1] Perform this step for variant A.
- [8a-2] Perform this step for variant A.
- [8b] Variant B**
- [8b-1] Perform this step for variant B.

Result

⇒ Result of the procedure

1.4.3 Figures Used

The screenshots used are examples and may differ from what is actually shown on the display.

2 Safety

Before you work with our product, you must have previously read and understood the system operating instructions and especially the safety instructions they contain. You may only then operate and maintain our product if you are trained and authorized to do so. Remain conscious of safety as you work.

2

This chapter contains the following information:

- Overview of the general symbols for safety information
- Overview of the symbols identifying specific hazards
- Safety instructions for BPS C5

2.1 Safety Information Symbols



DANGER

The symbol together with the signal word DANGER indicates an immediate risk to life or health.

Ignoring this warning will result in death or serious injury.

The safety information tells you about the type and source of the risk, the consequences if it is not observed, and the measures to take to prevent the risk.



WARNING

The symbol together with the signal word WARNING indicates a possible risk to life or health.

Ignoring this warning may result in death or serious injury.

The safety information tells you about the type and source of the risk, the consequences if it is not observed, and the measures to take to prevent the risk.



CAUTION

The symbol together with the signal word CAUTION indicates a possible hazard to health.

Ignoring this warning may result in minor injury.

The safety information tells you about the type and source of the risk, the consequences if it is not observed, and the measures to take to prevent the risk.

**NOTICE**

This symbol, with the signal word **NOTICE**, is used to identify warning information.

Ignoring this information may result in damage to parts of the product or jeopardize data consistency.

The safety information tells you about the type and source of the risk, the consequences if it is not observed, and the measures to take to prevent the risk.

2.2 Symbols Used to Identify Specific Hazards

**DANGER**

Risk of crushing

This symbol indicates a danger from crushing by moving parts.

The safety information tells you about the type and source of the risk, the consequences if it is not observed, and the measures to take to prevent the risk.

**DANGER**

Risk of electric shock

This symbol indicates a danger of electric shock.

The safety information tells you about the type and source of the risk, the consequences if it is not observed, and the measures to take to prevent the risk.

**DANGER**

Risk of laser radiation

This symbol indicates a danger from laser radiation.

The safety information tells you about the type and source of the risk, the consequences if it is not observed, and the measures to take to prevent the risk.

**DANGER**

Risk from LED radiation

This symbol indicates a danger from LED radiation.

The safety information tells you about the type and source of the risk, the consequences if it is not observed, and the measures to take to prevent the risk.

**DANGER**

Risk of burns

This symbol indicates a danger from burns from hot parts.

The safety information tells you about the type and source of the risk, the consequences if it is not observed, and the measures to take to prevent the risk.

**DANGER**

Risk of tripping

This symbol indicates a risk of tripping.

The safety information tells you about the type and source of the risk, the consequences if it is not observed, and the measures to take to prevent the risk.

2.3 Safety Information

2.3.1 Proper Use

Our product has been constructed using the latest technology and is safe for operation. For your safety, you must use it appropriately and properly.

You must comply with the necessary safety measures for hazard-free use of the product. Failure to follow these instructions can put lives at risk or can damage the product.

Always take notice of the safety warnings, even if you are an experienced user with good system knowledge.

Proper Use

A banknote processing system may only be used to check banknotes for denomination, authenticity, and condition, to count and to sort them.

Fast Deposit Processing (FDP) is permitted.

The processing of tickets is permitted.

Improper Use

Improper use, for example, the singling of hard objects such as coins, paper clips and staples, is not permitted and will result in the invalidation of the warranty.

2.3.2 Prohibition of Unauthorized Modifications or Changes

For safety reasons, no changes may be made to the product without informing and receiving written approval from the manufacturer.

Any unauthorized structural changes or additions invalidate the EU Declaration of Conformity for the product.

Only genuine spare parts may be used for repair.

2.3.3 Circumstances Under Which the Product May Not Be Operated

The product may not be operated if the ambient and operating conditions listed in the → "BPS C5 Site and Facility Requirements" section of the system operating instructions are not fulfilled.

If the product is not in an operational state for technical or other reasons, you must prevent the product from being started up.

2.3.4 Safety Information to Protect Persons

Be sure to comply with national accident prevention regulations.

When working on the product, respect the following:

- Avoid wearing loose-fitting or open clothing.
- Remove ties, rings, watches, and jewelry before beginning work.
- Protect long hair with a scarf or hair net.

Refrain from any working method that may impair the operational safety of the product. Proceed in accordance with the safety information specified in the system operating instructions.

Ensure that unauthorized persons are kept away from the product.

Check the product for any externally identifiable damage and faults at least once a day. Immediately report any safety-related changes (including in the operating behavior) to the internal department responsible.

Only operate the product when it is in perfect working condition.

Do not remove any safety devices. Do not disable any safety devices. This can put lives at risk or cause damage to the product.

2.3.5 Safety Information on LED Radiation

This section contains safety information on optional components or external equipment containing LED radiation sources.

These components or devices are classified under IEC 62471 as LED devices.



WARNING

LED radiation

can cause damage to the eyes.

The ban on unauthorized alterations or changes applies universally to the mechanical, optical, and electronic parts of these components.

Improper usage can be hazardous due to dangerous LED radiation.

Opening the BPS C5 product does not increase the LED risk group or the risk to the operator.

2.3.6 Safety Information on Laser Radiation

This section contains safety information on optional components or external equipment containing laser radiation sources.

These components or devices are classified as laser products under DIN EN 60825-1, Safety of Laser Products.



WARNING

Laser radiation

can cause damage to the eyes.

The following section contains information on whether the product is equipped with components that are a source of laser radiation. If it is, it is necessary to observe the respective safety information in this section.

The ban on unauthorized alterations or changes applies universally to the mechanical, optical, and electronic parts of these components.

Improper usage can be hazardous due to dangerous invisible laser radiation.

Opening the BPS C5 product does not increase the laser risk group or the risk to the operator.

2.3.6.1 Barcode Reader



CAUTION

Laser radiation

The use of controls, settings, or procedures other than those described here may result in hazardous laser radiation.

Customers should under no circumstances attempt to perform maintenance on the laser scanner themselves.

Never look into the laser beam, even if you think that the scanner is not active.

Never open the scanner to look inside the device. If you do this, you may expose yourself to a dangerous laser beam.

The use of optical devices with this laser equipment increases the risk of visual impairment.

2.3.7 Information on Special Dangers for the Operator

During operation of the product, observe the following information:

Electrical Voltage/Current

Work on live parts and assemblies carries the risk of electric shocks. Only carry out this work if you are authorized to do so.

Ergonomics

Stand or sit in a comfortable manner. Arrange your workstation so that you can work ergonomically.

- Set your chair to the optimum position.
- Correct the height of the work surface if possible.
- Tilt the touch screen to the optimum position if possible.

Non-Specified Materials

Dangers may arise from the use of non-specified materials such as cleaning material, sprays, lubricants, etc. If you use these materials, follow the manufacturer's safety instructions.

High Temperatures

Do not touch any parts that have warnings in the system operating instructions alerting you to high temperatures. These can cause severe burns.

Risk of Crushing

- When closing flaps, doors, transport sections, etc., be careful that your hands or fingers are not crushed between the closing edges. Use the operating equipment provided.
- When starting the singler, make sure that your hand is not in the singler area.

Dust

Never use compressed air to clean the product. Breathing in dust can lead to health problems. Dust in the air can also damage the bearings and electronic parts. No claims can be made under the warranty for parts that are damaged in this way. Always vacuum up any dust with a suitable vacuum device, fitted with a micro-filter.

3 General Information on the Product BPS C5

The BPS C5 is a system for processing banknotes, which offers a variety of functions and application possibilities. Depending on the configuration, the BPS C5 can be used to read the serial number of banknotes, count and sort banknotes and check their authenticity, denomination, value, and fitness. The banknotes are placed unbundled in the singler. After singling, they are checked and evaluated by the sensors. Based on the sensor results, the banknotes are sorted either to the delivery stacker or the reject stacker.

The system is controlled via the operating unit.

This manual describes all the available options. The availability of these options depends on the configuration of the BPS C5.

Machine Variant	Number of Standard Delivery Modules
BPS C5-5	1
BPS C5-9	2
BPS C5-13	3
BPS C5-17	4
BPS C5-21	5
BPS C5-25	6



Important!

The technical data for external devices supplied by G+D is not included in this documentation.

Important Notice for
the USA/Canada

The serial number reading options are not available in the USA/Canada.

3.1 Design and Function

Modules

3

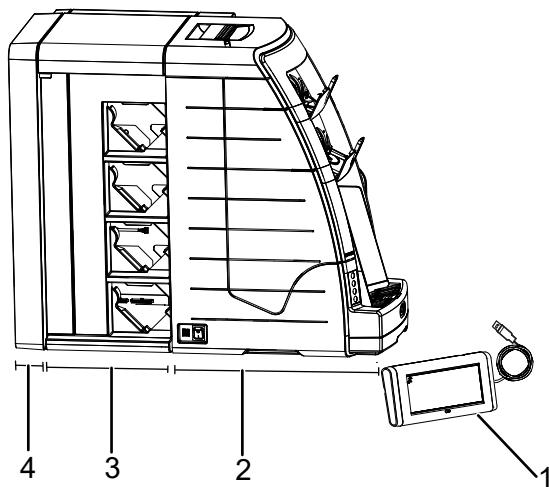


Figure 2: BPS C5

- 1 GUI Display
- 2 Input Module (IM)
- 3 Standard Delivery Module (SDM)
- 4 Fail-safe Module

Input Module

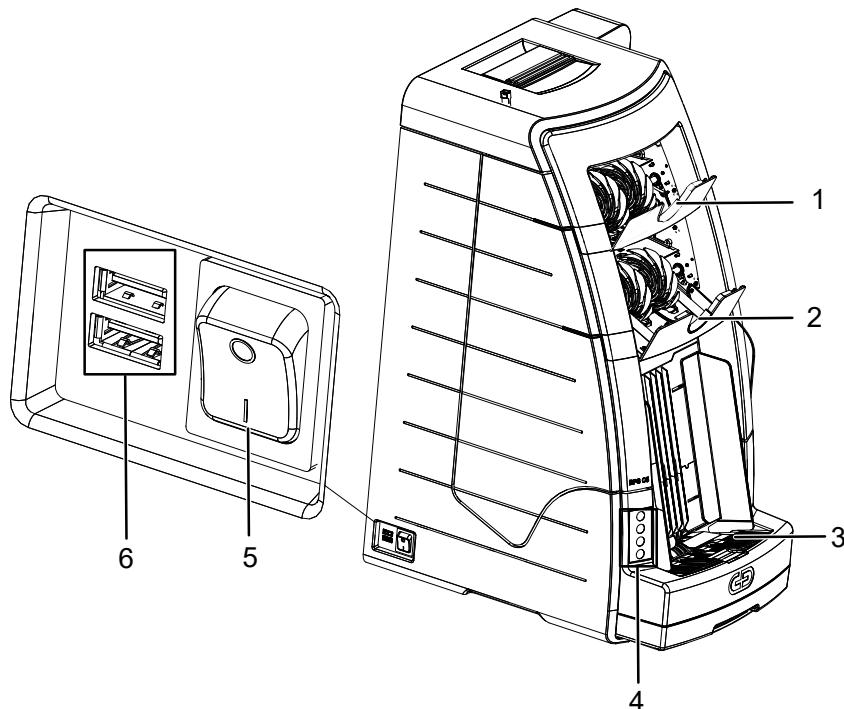


Figure 3: Input Module

- 1 Input Module (IM) Standard Stacker
- 2 Reject Stacker
- 3 Singler
- 4 Key Pad

- 5 Power Switch
- 6 USB 2.0 A Interface for Printer/Mouse/Barcode Reader/ Keyboard

Key Pad



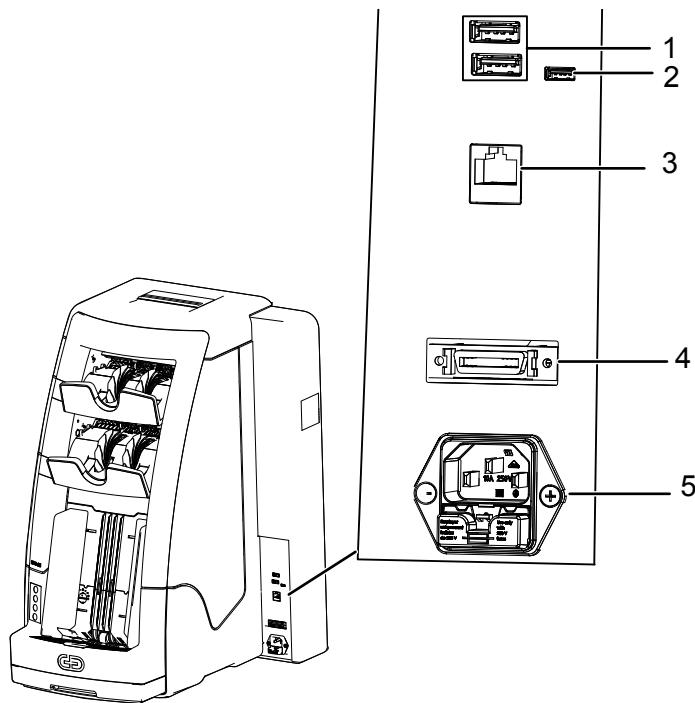
3

Figure 4: Key Pad

	Function button → Section 7.6 “Counting Banknotes/Tickets”, p. 71
	Function button → Section 7.18 “Printing Reports Using the Function Button”, p. 87
	Function button → Section 7.3 “Changing the Delivery Stacker Capacity”, p. 65
	Power button

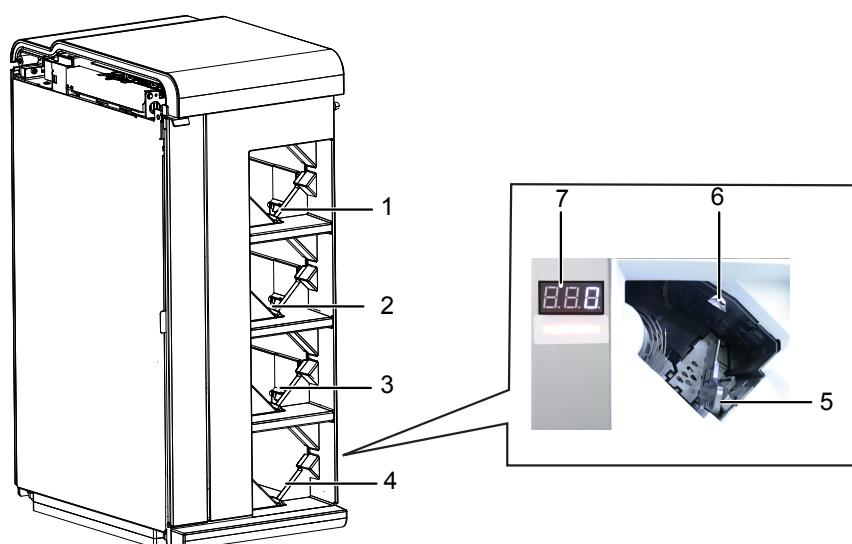
Connectors

3

**Figure 5: Connectors**

- 1 USB 2.0 A Interface for Printer/Mouse/Barcode Reader/ Keyboard
- 2 Micro USB Port
- 3 LAN Interface
- 4 GUI display connector
- 5 Connection for power supply

Standard Delivery Module

**Figure 6: Standard Delivery Module**

- 1 SDM Delivery Stacker 1
- 2 SDM Delivery Stacker 2
- 3 SDM Delivery Stacker 3

- 4 SDM Delivery Stacker 4
- 5 Banknote Pusher
- 6 Stacker LED
- 7 Stacker Count Display

→ BPS C5 User Manual

3

3.2 Important Terms

The most important terms for working with the machine are explained below.

Batch	<ul style="list-style-type: none">● The value of banknotes is not known;● accounting based on counted banknotes;
Deposit	<ul style="list-style-type: none">● Value of banknotes is given;● accounting against target value of deposit;
Difference	For the accounting units “Deposit” and “Input Package”, the machine counts against a given banknote value or a given number of banknotes. In the case of a shortfall, the machine outputs an error message.
Emission	Emissions (issue) are different issues of the same denomination.
Manual Inspection	If the machine repeatedly sends rejects to the reject stacker, you must inspect these banknotes manually.
Rerun	You can have rejects reprocessed automatically. For a rerun you remove the rejects from the reject stacker and place these banknotes in the singler again.
Rejects	Rejects are banknotes or objects that the machine cannot sort automatically or which it cannot positively identify. The machine sends rejects to the reject stacker.

4 User Interface

4

The BPS C5 has three user types:

- Operator:
 - Performs banknote processing and related operations.
 - Select currency
 - Process banknotes
 - Print/export reports
 - Dump service logs
 - View software version
 - Export raw data
 - Adjust screen brightness
- Supervisor:
 - Performs various system administration operations.
 - View operation details
 - Print/export reports
 - View software version
 - Update software (configuration package and language only)
 - Change system settings
 - Set fitness threshold
- Service:
 - Performs the service-related tasks.

For more information on the various service-related tasks, see
→ *BPS C5 Service Manual*.

4

When you start the BPS C5, the login screen is launched.

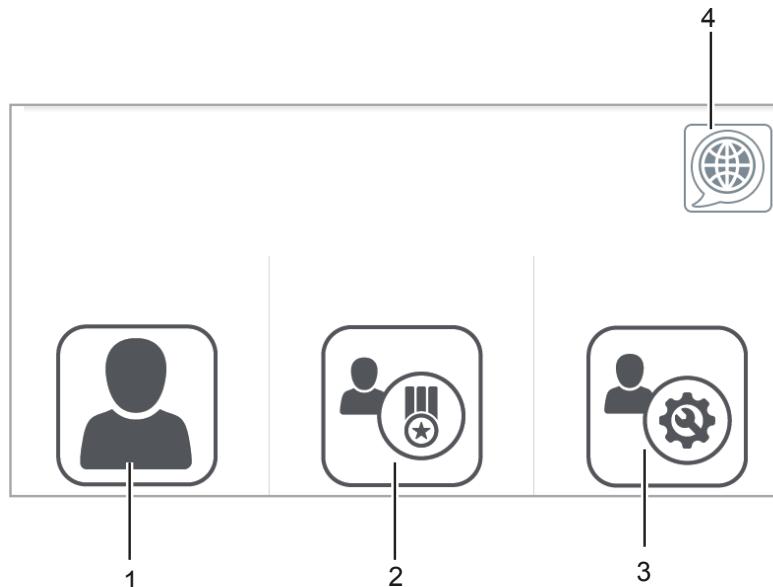


Figure 7: Main Screen

- 1 Operator
To log in as an operator.
- 2 Supervisor
To log in as a supervisor.
- 3 Service
To log in as service engineer.
- 4 Language
To set the language.
→ *Section 6.3 “Changing the GUI Language”, p. 60*

An overview of all the symbols can be found in the Appendix.

→ *Chapter D “Symbols Used”, p. 153*

4.1 Graphical User Interface (GUI) Design

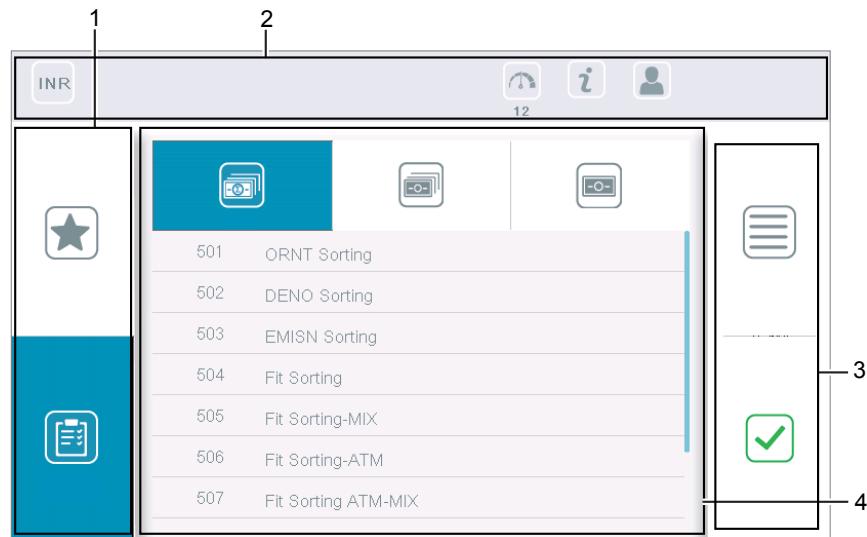


Figure 8: GUI Design

The BPS C5 GUI is structured into four areas as shown in the above image.

- 1 - View bar
- 2 - Header
- 3 - Action bar
- 4 - Menu/Content

4.2 Operator

The operator has access to various banknote processing option. Once you select the operator user, you are prompted to enter your operator ID.

The operator ID is an optional field. You can use the ID assigned to you. If you do not have an ID, you can select  and proceed.

→ *Section 6.2.1 “Logging in as an Operator”, p. 58*

The following banknote processing operating modes are available:

- Orientation sorting
- Denomination sorting
- Fitness sorting
- Emission sorting
- Deposit processing
- Payout processing
- Count Mode

There are 11 default operating modes. Each operating mode has a numeric code. You can select an operating mode from the  or .

→ *Section 5.2 “Operating Modes”, p. 37*

4.2.1 Operating Mode Selection Screen

4



Figure 9: Operating Mode Screen

1 Currency

Displays the selected currency.

Use the currency button to change the currency.

→ *Section 5.1 “Banknotes, Tickets and Other Transport Objects”, p. 37*

2 Favorite OP Mode

Displays the favorite operation modes.

→ *Section 5.5 “Favorite Operating Modes”, p. 44*

3 List

Lists the selected operating modes.

a) All OP Mode List: Selects all operating modes.

b) Multi-Denomination List: Selects the multi-denomination operating modes.

c) Single Denomination List: Selects the single denomination operating modes.

4 Processing Speed

Displays the processing speed at which the banknotes are processed.

You can also change the banknote processing speed by selecting the processing speed button.

There are two banknote processing speeds:

- High speed

At a high speed, up to 17.5 banknotes are processed per second.

- Low speed

At a low speed, up to 12 banknotes are processed per second.

→ *Section 7.2 “Setting Processing Speed”, p. 64*

5 Info

The info button is enabled when there is a startup error. When enabled, this button changes its color to red.

Use this button to view the startup errors, if any.

→ *Section 5.14 “Machine Status Information”, p. 54*

6 User

Displays the current user mode (e.g. operator).

7 Menu

Use the menu button to navigate to the menu items.

8 OK

4.2.2 Operator Menu

In the operator menu, there are two screens with the following menu options. You can navigate from one screen to another by swiping.

The following menu options are available for the operators:

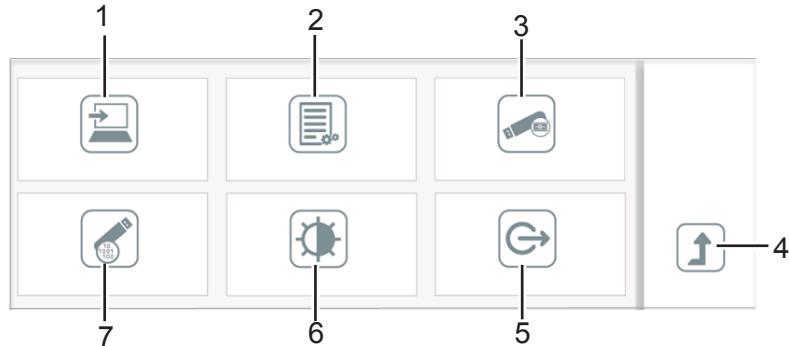


Figure 10: Operator Menu Screen 1

- 1 Software version
Displays software version.
→ *Section 7.22 “Viewing the Software Version Details”, p. 90*
- 2 Reporting
→ *Section 5.9 “Printing/Sending/Copying Report”, p. 47*
- 3 Exporting logs
→ *Section 7.21 “Copying Log Files to USB Stick”, p. 89*
- 4 Back
Use the back button to navigate to the previous screen.
- 5 Logout
Use the logout menu option to logout from the operator mode.
→ *Section 7.26 “Logging Out from the Operator Mode”, p. 94*
- 6 Brightness
Adjusts the display screen brightness.
→ *Section 7.23 “Adjusting Screen Brightness”, p. 91*
- 7 Export Raw data
→ *Section 5.8 “Logs, Traces, Raw Data, and Self Test Levels”, p. 46*
→ *Section 7.16 “Exporting Raw Data”, p. 86*

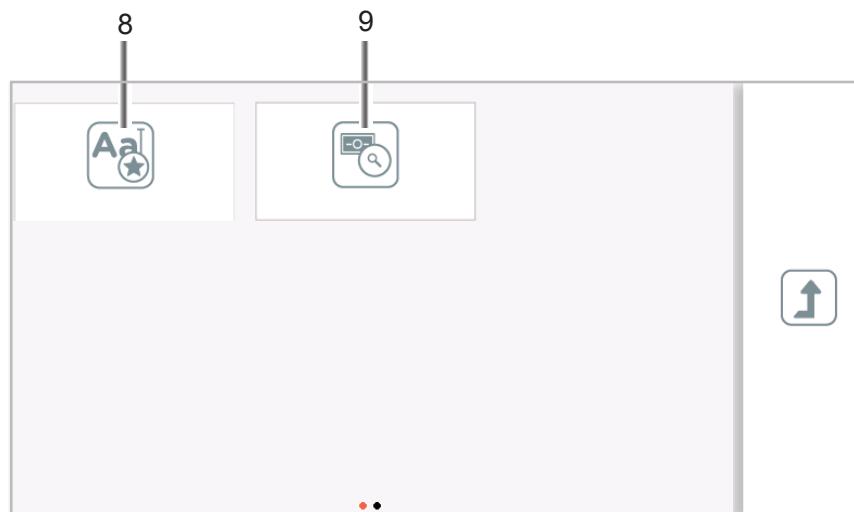


Figure 11: Operator Menu Screen 2

- 8 Enable Op Mode Name/Number
 - *Section 7.24 “Enabling/Disabling the Favorite Operating Mode Name View”, p. 91*
 - *Section 5.5 “Favorite Operating Modes ”, p. 44*
- 9 Serial Number Search
 - *Section 5.15 “Serial Number Storage”, p. 55*
 - *Section 7.25 “Searching the Banknote Data”, p. 92*

4.3 Banknote Processing Results Screen

The following result lists are available during banknote processing in the operator mode:

- Summary

Displays value, quantity, and the difference for different processing steps.

→ *Section 4.3.1 “Summary View”, p. 26*
- Reject/Unfit

Displays value, quantity and details of the rejected banknotes for different processing steps.

→ *Section 4.3.2 “Reject/Unfit View”, p. 27*
- Detail

Displays denomination wise quantity, value and total count for different processing steps.

→ *Section 4.3.3 “Detail View”, p. 29*

4.3.1 Summary View

The **Summary** displays the value and quantity of banknotes for different banknote processing operations. The **Summary** has different view for different accounting units:

Batch Processing

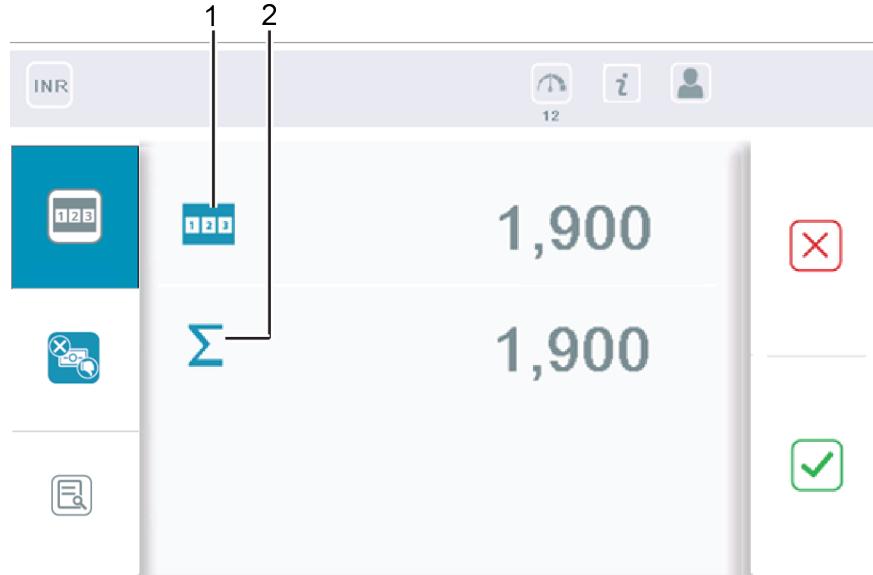


Figure 12: Summary View for Batch Processing

1 Processed banknote count

2 Value

Deposit Processing

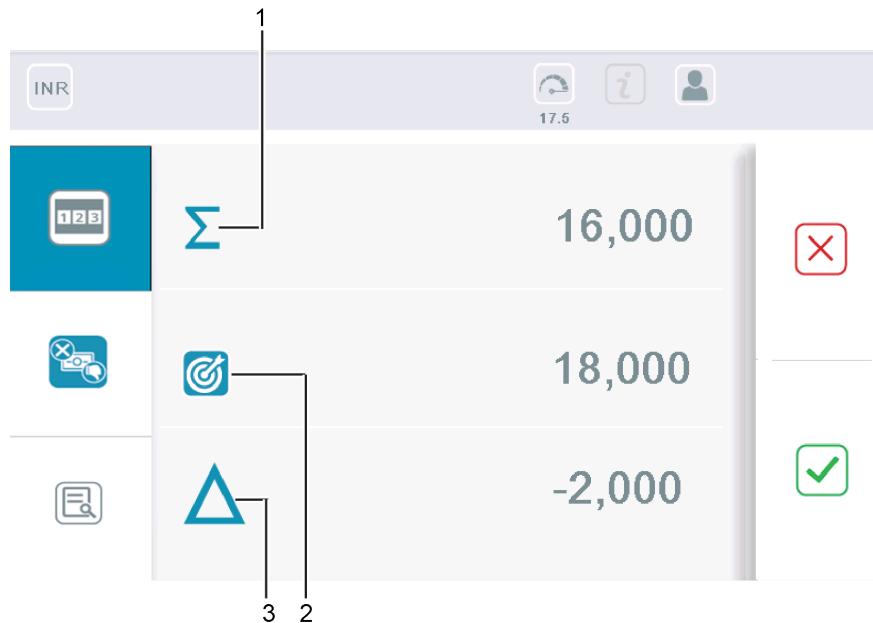


Figure 13: Summary for Deposit Processing

1 Processed banknote value

2 Declared amount

3 Difference between declared amount and actual processed value

Payout processing

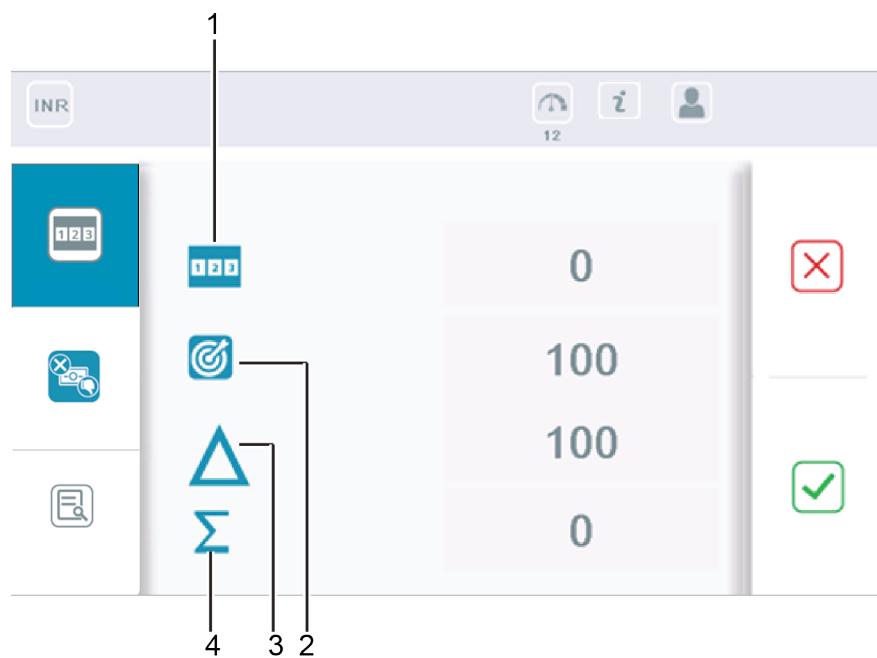


Figure 14: Summary for Payout Processing

- 1 Processed banknote count
- 2 Declared amount
- 3 Difference between declared amount and actual processed value
- 4 Total value

4.3.2 Reject/Unfit View

The **Reject/Unfit** displays quantity and reject reasons of the rejected banknotes for different processing steps in two categories:

- Reject reasons
- Unfit reasons (only for the fitness related operating modes)

Reject Tab

In the **Reject/Unfit** view, the rejected banknotes are sorted on the basis of their reject reason.

4

Reject Count

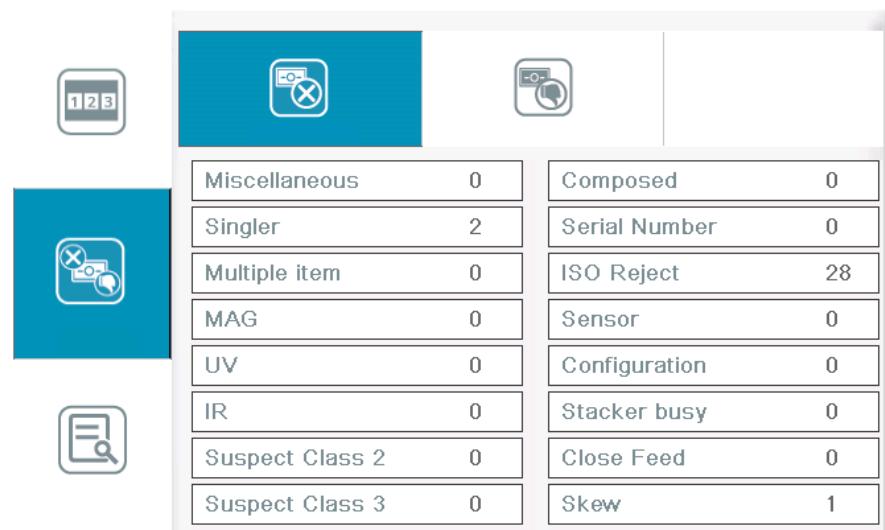


Figure 15: Reject View

When the reject count switch is enabled, the number of rejected banknotes is displayed in the banknote processing results.

→ Section 9.11 “Enabling/Disabling the Reject Count View”, p. 108

Unfit Tab

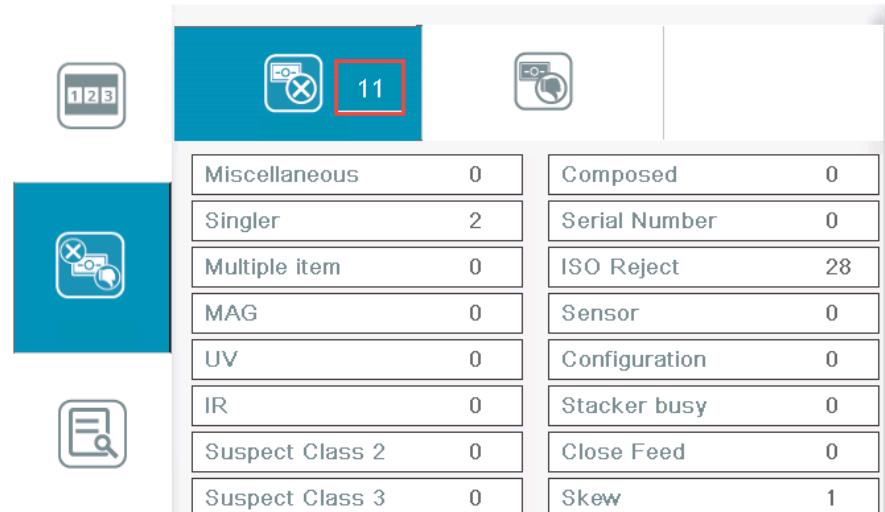


Figure 16: Reject Count View

In **Unfit** view, the banknotes are sorted to various unfit category. The **Unfit** tab is visible only for the fitness operating modes.

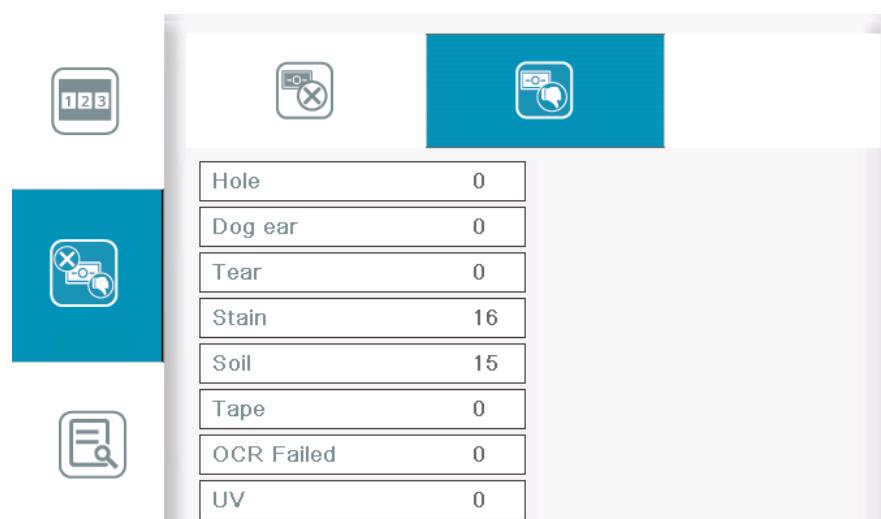


Figure 17: Unfit View

Counterfeit Indicator

When the BPS C5 detects counterfeit or suspect banknotes, the counterfeit indicator  appears on **Reject/Unfit tab**.

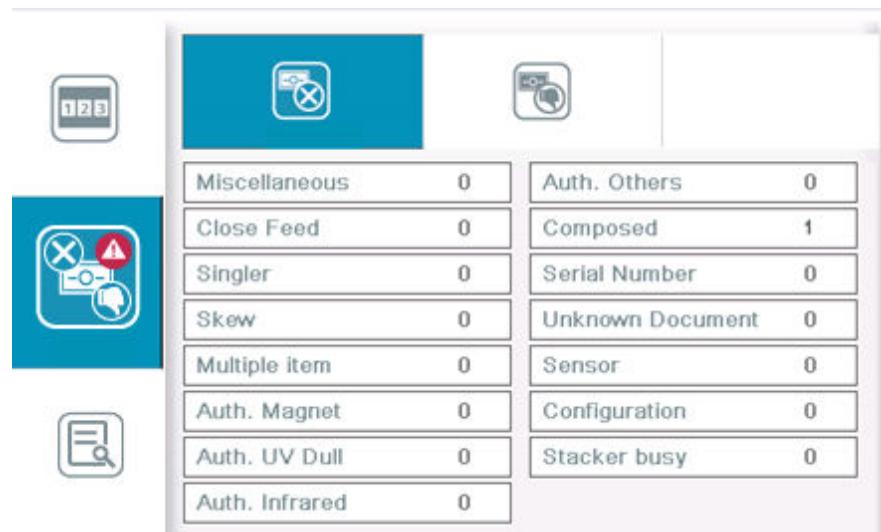


Figure 18: Counterfeit Indicator View

The suspect/counterfeit banknotes are sorted to the reject stacker. The counterfeit indicator will disappear when the reject stacker is empty and the next banknote is singled.

4.3.3 Detail View

The **Details** view displays denomination wise quantity of banknotes for different processing steps.

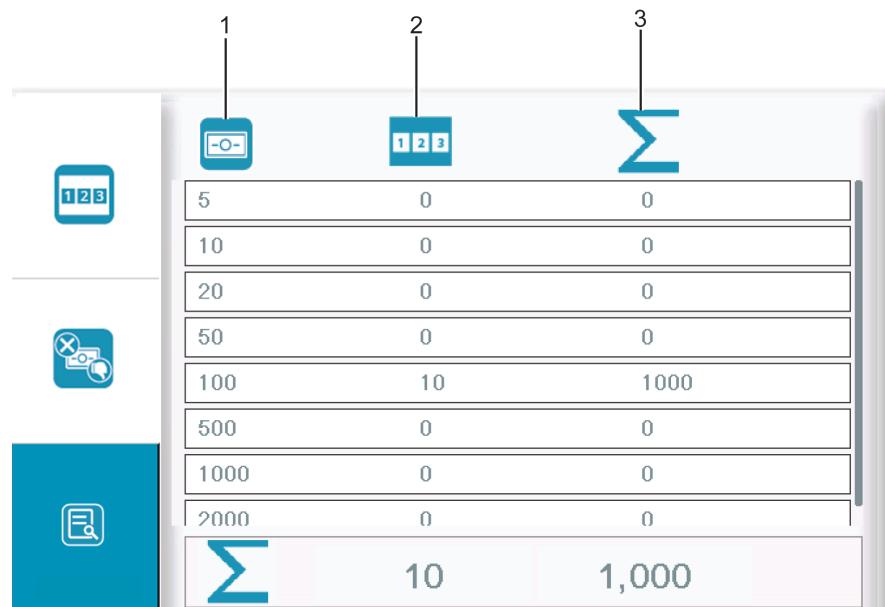


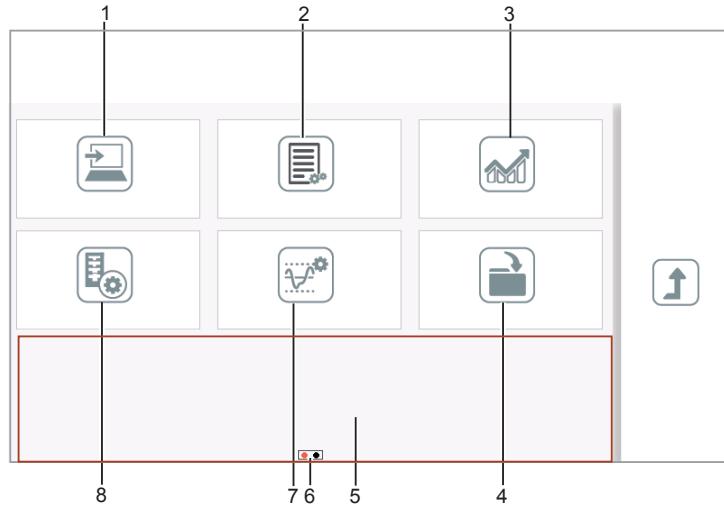
Figure 19: Detail view

- 1 Denomination
- 2 Count
- 3 Total value

4.4 Supervisor

The supervisor menu provides various system administration options.

In the supervisor menu, there are two screens with the following menu options. You can scroll from one screen to another by swiping.



4

Figure 20: Supervisor Menu Screen 1

1 Software Versions

Displays the software version.

→ *Section 7.22 “Viewing the Software Version Details”, p. 90*

2 Reporting

→ *Section 5.9 “Printing/Sending/Copying Report”, p. 47*

3 Operation Details

Displays system health information.

→ *Section 9.12 “Viewing Operation Details”, p. 110*

4 Installation

→ *Section 4.4.2 “Installation Menu”, p. 35*

5 Swipe area

Scroll/Tap in this area to swipe to the next screen for more menu items as shown in the following figure.

6 Screen Indicator

Indicates the screen when scrolling from one screen to another. The red dot indicates the current screen status.

7 Fitness Threshold Settings

Use the fitness threshold settings menu option to set the sorting thresholds for fitness sorting.

→ *Chapter C “Description of the Criteria for Fitness Sorting”, p. 149*

The set values apply to all operating modes. Depending on the adaptation, you may change the sorting threshold for every denomination that is based on emission and every property/quality of the banknotes.

→ *Section 9.13 “Changing the Fitness Threshold”, p. 110*

8 System Settings

Use the system settings option to set various system settings.

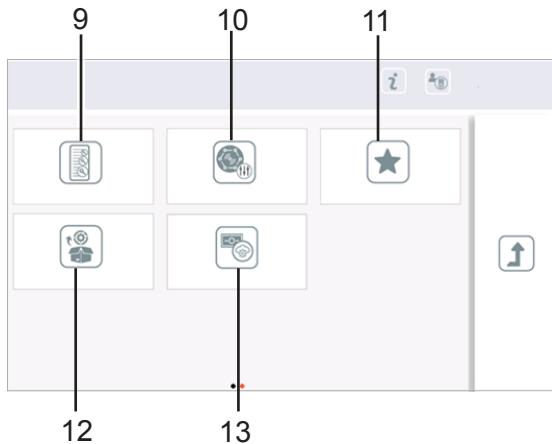


Figure 21: Supervisor Menu Screen 2

9 Trace Level

→ *Section 5.8 “Logs, Traces, Raw Data, and Self Test Levels”, p. 46*

→ *Section 9.19 “Setting the Trace Level”, p. 117*

10 Self-Test Level

→ *Section 5.8 “Logs, Traces, Raw Data, and Self Test Levels”, p. 46*

→ *Section 9.18 “Setting the Self Test Level”, p. 116*

11 Favorites

→ *Section 5.5 “Favorite Operating Modes ”, p. 44*

→ *Section 9.16 “Setting the Favorite Operating Mode”, p. 114*

12 Export Config Package

→ *Section 5.12 “Configuration Package”, p. 52*

→ *Section 9.17 “Exporting the Configuration Package”, p. 116*

13 Serial Number Storage Settings

→ *Section 5.15 “Serial Number Storage”, p. 55*

→ *Section 9.20 “Enabling the Serial Number Storage Switch”, p. 118*

4.4.1 System Settings Menu

The  menu provides the following options.

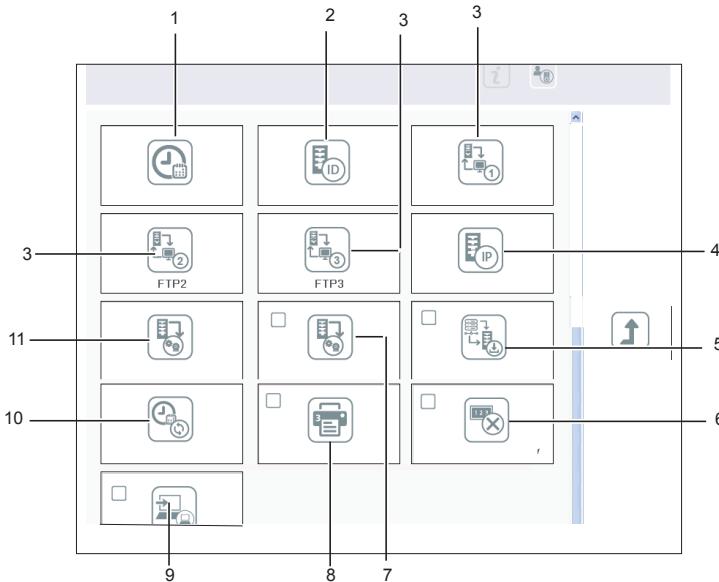


Figure 22: System Settings Menu

1 Date/Time

Sets date/time/time-zone of the BPS C5.

→ *Section 9.1 “Setting Date and Time”, p. 97*

2 Machine ID

You can set a machine ID for each machine. It appears in all the reports and in the name of the files transferred via the data interface.

The machine ID is independent of the serial number that the manufacturer provided.

→ *Section 9.2 “Setting the Machine ID”, p. 99*

3 FTP 1/FTP 2/FTP 3

To transmit reports over FTP, you must set the FTP IP address in the BPS C5.

The BPS C5 allows you to configure up to three FTP server for data transmission.

→ *Section 9.3 “Changing the File Transfer Protocol (FTP) Settings”, p. 100*

4 Machine IP

The IP address of BPS C5 is set by default to 192.168.2.1. The subnet mask is set to 255.255.255.0.

You can change this IP address, the subnet mask and the gateway IP address directly at the BPS C5. Alternatively, you can assign the network settings for the BPS C5 dynamically through the DHCP protocol.

If using user management, you must connect the BPS C5 to a BPS gateway. The BPS gateway transfers user management data to all the BPS C5 on site. This BPS gateway should not be confused with the gateway IP address that you configure for the machine.

→ *Section 9.4 “Setting the Machine IP Address”, p. 101*

5 Auto Install

The **Auto Install** switch is used to activate/deactivate automatic installation/upgrade of the following software packages on the BPS C5.

When the **Auto Install** switch is enabled, the BPS C5 automatically installs the software package, without user intervention, on the first non-erroneous shutdown after receiving the package. The BPS C5 must be connected to network via LAN.

→ *Section 5.11 “Remote Software Update”, p. 51*

→ *Section 9.8 “Enabling/Disabling the Automatic Installation Switch”, p. 105*

6 Reject Count

→ *Section 4.3.2 “Reject/Unfit View”, p. 27*

→ *Section 9.11 “Enabling/Disabling the Reject Count View”, p. 108*

7 VSI

Activates/deactivates the video surveillance interface.

→ *Section 5.10 “Video Surveillance Interface (VSI)”, p. 50*

→ *Section 9.6 “Activating the Video Surveillance Interface Switch”, p. 103*

8 3" Printer

Toggles between three inch and two inch print width.

→ *Section 5.9 “Printing/Sending/Copying Report”, p. 47*

→ *Section 9.9 “Enabling the Three Inch Printer”, p. 105*

9 Remote Desktop (RDP)

The remote desktop switch is used to access the BPS C5 user interface from a remote operating PC. The PC and the BPS C5 must be on the same network. Machine IP address of the BPS C5 is used to start the RDP connection.

→ *Section 9.10 “Activating Remote Desktop (RDP) Switch”, p. 106*

10 SNTP

You can synchronize the BPS C5 date and time with the video surveillance system via SNTP. When the BPS C5 is started, time synchronisation between server and the BPS C5 is performed if the SNTP is connected.

The connection status is displayed on the  screen.

The SNTP is enabled by default.

→ *Section 9.5 “Changing the Simple Network Time Protocol (SNTP) Settings”, p. 102*

Use the **Date Time** menu to set the time-zone.

→ *Section 9.1 “Setting Date and Time”, p. 97*

11 VSI

Configures the video surveillance interface server.

→ *Section 5.10 “Video Surveillance Interface (VSI)”, p. 50*

→ *Section 9.7 “Configuring the Video Surveillance Interface”, p. 104*

4.4.2 Installation Menu

Use the **Installation** menu item to update the configuration package or language software.

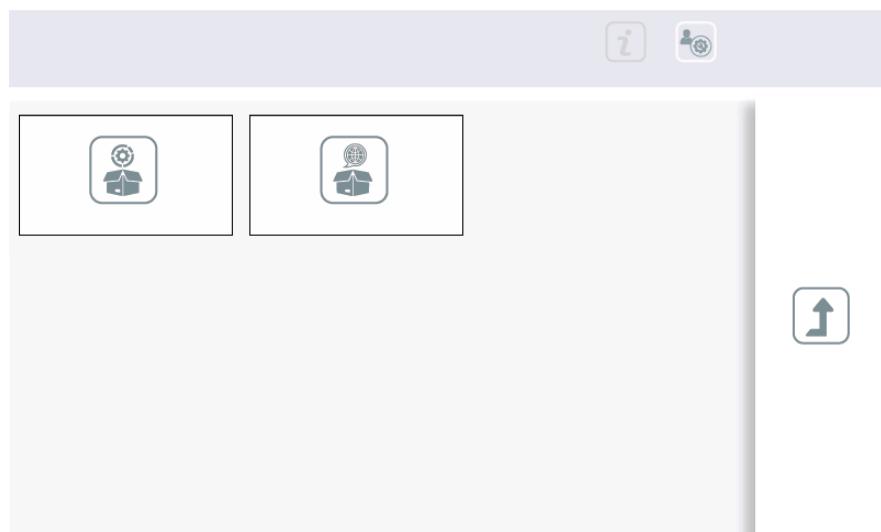


Figure 23: Installation Menu

The **Software** menu provides the following options:

- Configuration package ()
 - *Section 5.12 “Configuration Package”, p. 52*
 - *Section 9.14 “Updating Configuration Package”, p. 112*
- Languages package ()
 - *Section 5.13 “Language Package”, p. 53*
 - *Section 9.15 “Updating Language Package”, p. 113*

Software update can be performed in either of the following ways:

- Automatically
 - *Section 5.11 “Remote Software Update”, p. 51*
- Manually
 - *Section 9.14 “Updating Configuration Package”, p. 112*
 - *Section 9.15 “Updating Language Package”, p. 113*

4.5 Service

The service mode provides service related menu options.

→ *BPS C5 Service Manual*

5 General Operating Information

5.1 Banknotes, Tickets and Other Transport Objects

Banknotes	You can select different currencies depending on the factory settings. The currently selected currency is visible at the top left of the screen.
Ticket Reading Options	The BPS C5 can process banknotes and tickets mixed together. Tickets have abbreviation DOC instead of the currency abbreviation. Selecting tickets for banknote processing is similar to the process of selecting currencies. You can process banknotes and tickets mixed together by selecting the MIX currency. The BPS C5 allows one currency and one ticket to be processed together. The BPS C5 records the processing data for the tickets and banknotes in reports. On completion of each accounting unit, the BPS C5 sends a report with a list of all Ticket IDs assigned to the accounting unit.
BLK Currency	You can process tickets in single or mixed operating mode. <ul style="list-style-type: none">● Single mode: Process only tickets by selecting the DOC adaptation.● Mixed mode: Process any one currency and one ticket by selecting the MIX adaptation. If you select the BLK currency, the Count Mode will be activated. You can count objects in order to check the number of banknotes/tickets/transport objects. You can count objects in order to check the number of banknotes/ tickets. → <i>Section 7.1 “Selecting a Currency”, p. 63</i>

5.2 Operating Modes

The banknote processing procedure in the different operation modes differs depending on:

- Denomination: one or multiple
- Sorting operations
- Currency
- Orientation of the banknotes (one or several)
- Assignment of the sorting classes to the delivery stackers
- Stackers allocation (simple/tandem)
- Orientation of the banknotes (one or several)
- Accounting Units

The following table lists all the default operating modes available for the BPS C5

OP Code	Operation Name	Description
501	ORNT Sorting	<p><u>Orientation Sorting:</u></p> <p>In this operating mode, you can sort banknotes separately according to their orientation for a single denomination.</p> <p>The banknotes have the following four orientation</p> <ul style="list-style-type: none"> ● Front upright ● Front upside down ● Back upright ● Back upside down <p>The banknote whose denomination and orientation is recognized first by the sensor (if not rejected) acts as the reference for sorting, and are sorted to SDM delivery stacker 1.</p> <p>The orientation, of the first detected denomination, recognized next by the sensors acts as the second reference and are sorted to SDM delivery stacker 2.</p> <p>Similarly, the orientation detected next goes to stacker 3 and the last detected orientation is sorted to stacker 4 of the SDM.</p> <p>The rejects, which includes mechanical rejects and authenticity failure, are sorted to the reject stacker.</p> <p>OP mode 501 is a batch accounting unit. → <i>Section 7.7 “Sorting Banknotes in Batch Mode”, p. 72</i></p>
502	DENO Sorting	<p><u>Denomination Sorting:</u></p> <p>In this operating mode, you can sort banknotes according to denomination.</p> <p>The denomination that the sensor recognizes first acts as the first reference for sorting. The denomination that the sensor recognizes next acts as the second reference.</p> <p>The banknotes that match the first, second, third and fourth reference are sorted to delivery stacker 1, stacker 2 , stacker 3 and stacker 4 of the SDM respectively.</p>

OP Code	Operation Name	Description
		<p>The BPS C5 sorts banknotes of other denominations to the reject stacker along with the other rejects, which includes mechanical rejects and authenticity failure.</p> <p>OP mode 502 is a batch accounting unit. → <i>Section 7.7 “Sorting Banknotes in Batch Mode”, p. 72</i></p>
503	EMISN Sorting	<p><u>Emission Sorting:</u></p> <p>In this operating mode, you can sort a denomination according to emission (series).</p> <p>The banknote whose denomination and series is recognized first by the sensor then acts as the reference for sorting. The BPS C5 sort these banknotes to SDM delivery stacker 1.</p> <p>The next three recognized series of the banknotes of the denomination recognized first are sorted to delivery stacker 2 , stacker 3 and stacker 4 of the SDM respectively.</p> <p>The BPS C5 sorts banknotes with other denomination/emission (series) and suspect banknotes into the reject stacker.</p> <p>OP mode 503 is a accounting unit. → <i>Section 7.7 “Sorting Banknotes in Batch Mode”, p. 72</i></p>
504	Fit Sorting	<p><u>Fitness Sorting for Single Denomination:</u></p> <p>In this operating mode, the banknotes are sorted according to the fitness criterion for single denomination.</p> <p>The BPS C5 takes the first detected banknote denomination as a reference for sorting. The fit and ATM fit banknotes are sorted to SDM delivery stacker 1 .</p> <p>The unfit banknotes are sorted to SDM delivery stacker 2.</p> <p>The counterfeit banknotes and the other rejected banknotes, which includes mechanical rejects and authenticity failure, are sorted to reject stacker.</p> <p>OP mode 504 is a batch accounting unit.</p>

5

OP Code	Operation Name	Description
		→ <i>Section 7.7 “Sorting Banknotes in Batch Mode”, p. 72</i>
505	Fit Sorting - MIX	<p><u>Fitness Sorting for Mixed Denomination:</u> In this operating mode, the banknotes are sorted according to the fitness criterion for mixed denomination.</p> <p>The BPS C5 sorts the fit and ATM fit banknotes of the first detected denominations to SDM delivery stacker 1.</p> <p>The unfit banknotes of the first detected denomination are sorted to SDM delivery stacker 2.</p> <p>The counterfeit banknotes and the other rejected banknotes, which includes mechanical rejects and authenticity failure, are sorted to reject stacker.</p> <p>OP mode 505 is a batch accounting unit. → <i>Section 7.7 “Sorting Banknotes in Batch Mode”, p. 72</i></p>
506	Fit Sorting ATM	<p><u>ATM Fitness Sorting for Single Denomination:</u> In this operating mode, the banknotes are sorted according to the ATM fitness criterion for single denomination.</p> <p>The BPS C5 takes the first detected denomination as a reference for the sorting.</p> <p>The ATM fit banknotes of the first detected denomination are delivered to the SDM delivery stacker 1.</p> <p>The fit and the unfit banknotes of the first detected denomination are sorted to SDM delivery stacker 2.</p> <p>The banknotes of other denominations, counterfeit banknotes and other rejected banknotes, which includes mechanical rejects and authenticity failure, are sorted to the reject stacker.</p> <p>OP mode 506 is a batch accounting unit. → <i>Section 7.7 “Sorting Banknotes in Batch Mode”, p. 72</i></p>
507	Fit Sorting ATM - MIX	<u>ATM Fitness Sorting for Mixed Denomination:</u>

OP Code	Operation Name	Description
		<p>In this operating mode, the banknotes are sorted according to the ATM fitness criterion for mixed denomination.</p> <p>The BPS C5 sorts the ATM fit banknotes of the first detected denominations to SDM delivery stacker 1.</p> <p>The fit and unfit banknotes of the same denomination are sorted to SDM delivery stacker 2.</p> <p>The counterfeit banknotes and the other rejected banknotes, which includes mechanical rejects and authenticity failure, are sorted to reject stacker.</p> <p>OP mode 507 is a batch accounting unit. → <i>Section 7.7 “Sorting Banknotes in Batch Mode”, p. 72</i></p>
509	Deposit	<p><u>Deposit Mode for Single Denomination:</u></p> <p>In this operating mode, the banknotes are processed in deposit mode for single denomination without any fitness detection. The banknotes of the single denomination are processed in tandem mode.</p> <p>You can enter the deposit parameters. It is mandatory to enter the amount of deposit. All the authentic banknotes of the selected denomination goes to delivery stacker in tandem mode.</p> <p>An optional online reconciliation is also available for the deposit.</p> <p>The banknotes of other denomination and other rejected banknotes, which includes mechanical rejects and authenticity failure, are sorted to the reject stacker.</p> <p>OP mode 509 is a deposit accounting unit. → <i>Section 7.8 “Processing Banknotes with Deposit”, p. 73</i></p>
510	Deposit - MIX	<p><u>Deposit Mode for Mixed Denomination:</u></p> <p>In this operating mode, the banknotes are processed in deposit mode for mixed denomination without any fitness detection. The banknotes of multiple denomination are processed in tandem mode.</p>

OP Code	Operation Name	Description
		<p>You can enter the deposit parameters. It is mandatory to enter the amount of deposit. All the authentic banknotes goes to delivery stacker 1 and 2 of the SDM in tandem mode.</p> <p>An optional online reconciliation is also available for the deposit.</p> <p>The rejected banknotes, which includes mechanical rejects and authenticity failure, are sorted to the reject stacker.</p> <p>OP mode 510 is a deposit accounting unit. → <i>Section 7.8 “Processing Banknotes with Deposit”, p. 73</i></p>
508	Payout Mode	<p><u>Payout Mode:</u></p> <p>You can use payout mode to prepare pay-outs for customer with a target value specified. It is mandatory to enter the payout count as an input.</p> <p>The BPS C5 will stop once the payout count is reached. The BPS C5 counts and sorts the banknotes of the first detected denomination in delivery stacker 1 and 2 of the SDM in tandem mode until the payout count value is reached.</p> <p>You can validate the deposit and then empty the singler and both the delivery stackers.</p> <p>The banknotes of all the other denominations and the rejected banknotes, which includes mechanical rejects and authenticity failure, go to the reject stacker.</p> <p>OP mode 508 is a payout accounting unit. → <i>Section 7.12 “Processing Banknotes in Payout Mode”, p. 83</i></p>
512	Count Mode	<p><u>Count Mode:</u></p> <p>You can count objects in order to check the number of banknotes/tickets in count mode. If you select the BLK currency, the Count Mode will be activated. Alternatively, the  button is used to process banknotes in the count mode.</p> <p>The BPS C5 does not check the objects for authenticity, currency, denomination, or orientation.</p>

OP Code	Operation Name	Description
		<p>The currency does not affect the counting process. The BLK currency will be selected by default. The banknote whose size and thickness is recognized first by the sensor (if not rejected) acts as the reference for sorting. The banknotes are sorted in tandem mode. There is a size tolerance of (+/-) 2% and thickness tolerance of (+/-) 40%. The banknotes that do not match the reference, including tolerance, are rejected .</p> <p>→ <i>Section 7.6 “Counting Banknotes/Tickets”, p. 71</i></p>

Table 1: Operating Modes

5


Important!

Regardless of adaptation, various operating modes with multiple sorting combinations are available.

5.3 Multi Deposit Operating Mode

The multi deposit accounting unit allows you to perform multiple deposit within one operating mode without emptying the delivery stackers.

The banknotes of multiple denomination are processed in tandem mode. You can enter the deposit parameters. It is mandatory to enter the amount of deposit. All the authentic banknotes go to delivery stackers in tandem mode. An optional online reconciliation is also available for the deposit. The rejected banknotes, which includes mechanical rejects and authenticity failure, are sorted to the reject stacker.

Use the multiple deposit operating mode for preparing packets.


Important!

Reports are automatically printed, if set to do so in the configuration package.

5.4 Fast Deposit (FDP) Operating Mode

The FDP accounting unit is used for high speed accounting deposits without interruptions.

In FDP, you can enter the **Deposit ID** and **Customer ID** of the next deposit while the BPS C5 is processing a deposit. The deposit id is a mandatory field.

For example, while processing deposit 1, you can enter the details of deposit 2 either by entering the values or by scanning the barcode, in case you are using safebags. :



Important!

Reports are automatically printed, if set to do so in the configuration package.

→ Section 7.10 “Processing Banknotes in Fast Deposit Mode (FDP)”, p. 78

5.5 Favorite Operating Modes

5

Favorite Operating Mode Selection

The operating mode selection screen displays the list of favorite operating modes.

You can add the frequently used operating modes to **Favorites** list. In the **Supervisormenu**, the **Favorites** menu displays the list of the favorite operating mode along with the respective identity numbers (ID) in the ascending order of operating mode IDs. You can select and set up to nine operating modes as favorite.

You can also set/change the favorite operating mode ID in the **Favorites** menu.

→ Section 7.24 “Enabling/Disabling the Favorite Operating Mode Name View”, p. 91

Favorite Operating Mode Name/Number Switch

You can toggle between operating mode name and operating mode number view in the  tab in operating mode selection screen.

Use the **Enable Opmode Name/Disable Opmode Name** switch in the **Operator** menu to toggle between operating mode name view and operating mode number view.

Switch Icon	Name	Function
	Enable switch	Operating mode name view is enabled.
	Disable switch	Operating mode number view is enabled.

→ Section 7.24 “Enabling/Disabling the Favorite Operating Mode Name View”, p. 91

5.6 Delivery Stacker Capacity

Use the  function button to change the delivery stacker capacity or the strap size. The maximum capacity of any delivery stacker is 250 banknotes. If strap size is successfully set to a non-zero value, the same limit is applied to all delivery stackers.

When you set the strap size to a non-zero value, the  icon appears on the  tab as well as on the  tab to indicate that **Strap Size** mode is active. If the strap size is set to "0" or "" (blank), the default delivery stacker capacity as per the configuration package is applied on each stacker.

→ *Section 7.3 “Changing the Delivery Stacker Capacity”, p. 65*

5

5.7 Emptying the Stackers

As soon as the delivery stacker is full, the corresponding delivery stacker LEDs start glowing white, and the **Stacker Count Display** starts blinking white. The stacked banknotes are pushed out in the SDM. glowing white, blinking stacker count display is also white.

Single Delivery
Stacker

When a delivery stacker is full, the transport stops automatically. The BPS C5 sends the singled banknotes that follow from the same sorting class into the reject compartment if the delivery stacker is full.

Tandem Delivery
Stacker

If two or more delivery stackers are defined for the same sorting class, these stackers operate in tandem. When the first delivery stacker is full, the BPS C5 sorts the banknotes from the same sorting class into the next delivery stacker.

When all tandem stackers are full, the transport stops automatically. The remaining banknotes in the transport are stacked to the reject stacker.

If the final tandem delivery stacker is full and the first has yet to be emptied, the transport automatically stops. The BPS C5 directs the singled banknotes that are assigned to these stackers into the reject compartment. The transport automatically starts after one of the tandem stackers has been emptied.

→ *Section 7.13 “Emptying the Delivery Stackers”, p. 84*

Reject Stackers

During the banknote processing, you can remove the banknotes from the reject stacker all the time. The singler stops once the reject stacker is full.

The user guidance LED in the reject stacker indicates the following:

- 1 bar - at least one banknote is sorted to the reject stacker
- 2 bars - the reject stacker is almost full
- 3 bars - the reject stacker is full and the singling is stopped

You may rerun the rejected banknotes within the recommended accounting unit as frequently as you wish to reduce the number of rejected banknotes.

- *Section 7.15 “Emptying the Reject Stacker”, p. 86*
- *Section 7.14 “Reprocessing the Rejected Banknotes”, p. 85*

5.8 Logs, Traces, Raw Data, and Self Test Levels

Logs

You can create troubleshooting traces and logs, and transfer the logs to a USB stick plugged. The log contains the troubleshooting data of the current software status.

- *Section 7.21 “Copying Log Files to USB Stick”, p. 89*

There is also an option of creating log files from the error message.

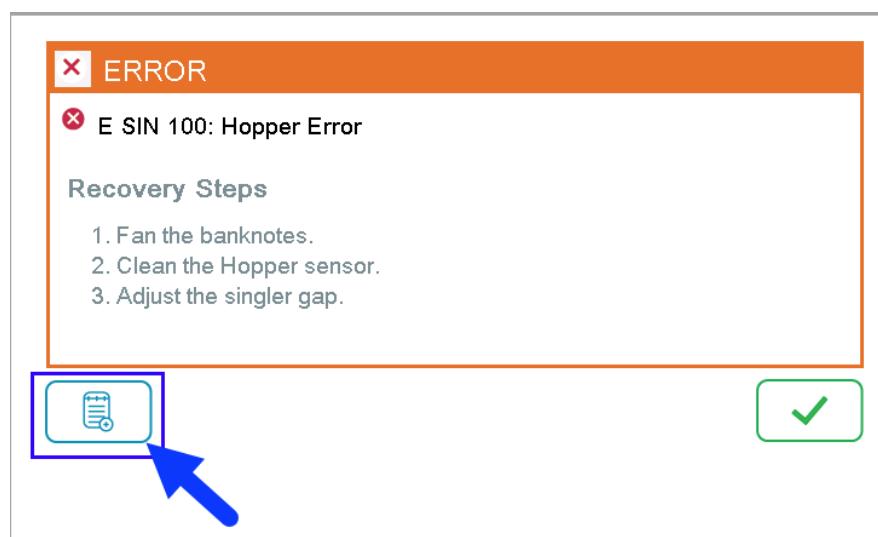


Figure 24: Logs Button in Error Messages

If you select the  button, the log files are created.

Raw Data

The **Export Raw data** menu is used to capture banknote raw data (.nif) file for:

- MTS Calibration
- Sensor Function Test

You can capture raw data for maximum 100 processed banknotes in one singling cycle from start to end.

- *Section 7.16 “Exporting Raw Data”, p. 86*

Traces

The **Trace Level** menu option is used to set the level of details to be included in the log files for the DP (data processing) software.

The default trace level setting is **ERROR**. The trace level can be changed as required depending upon the issue that will be analyzed. However, the changes will be valid only till the BPS C5 is shutdown. The trace level changes to the default value on restart.

There are three levels:

- **ERROR**
- **INFO**
- **DEBUG**

The trace logs are used for debugging the DP software.

→ *Section 9.19 “Setting the Trace Level”, p. 117*

Sensor Self-Test Levels

The **Self Test** menu option is used to set the severity level of the dump logs for the sensor software. These logs are used to debug any sensor software-related errors.

There are four levels:

- **Level 0**
- **Level 1**
- **Level 2**
- **Default**

The default self-test level is **Default**. The self-test level can be changed as required depending upon the severity of the issue that is being analyzed.

→ *Section 9.18 “Setting the Self Test Level”, p. 116*

5

5.9 Printing/Sending/Copying Report

In the appendix, you can find an overview of all available reports.

→ *Chapter B “Reports”, p. 147*

→ *Section 4.2.2 “Operator Menu”, p. 23*

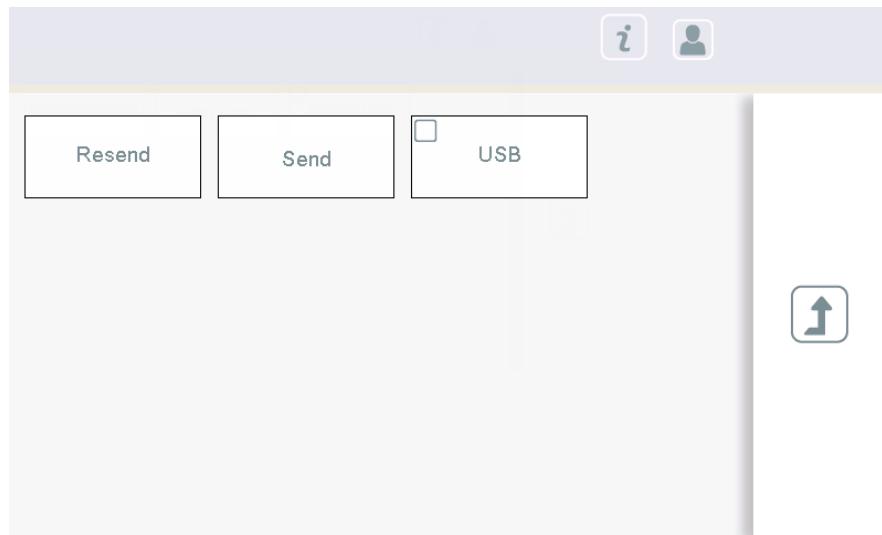


Figure 25: Reporting Menu

The **Reporting** menu provides the following options:

- Print/Send: The **Send** menu option provides the list of reports, which are triggered by a user request. User trigger is available on the following reports
 - Daily Balance Report
 - Operator Report
 - Reject Report
 - Service Report
 - Version Report
 - Machine Balance Report
 - Deposit Balance ReportThese report are displayed in **Reporting** menu as configured in the configuration package. You can print the reports manually.
→ *Section 7.17 “Manually Printing/ Sending Reports”, p. 87*
- Reprint/Resend: The **Resend** menu option provides the list of reports, which have been already printed/sent to any target or missed in printing/sending due to the mis-communication or any other reason. You can print/send the reports again from here.
The list of available reports in the above menu options depends upon the configuration settings.
→ *Section 7.19 “Reprinting/Re-sending Reports”, p. 88*
- Copy to USB: The **USB** menu option allows you to copy any report to the USB stick. Use this option if you have not configured the USB target for reports, and you need a report in USB.
A copy of the reports are copied in the *copy to USB* folder of the USB drive.
→ *Section 7.20 “Copying Reports to USB Stick”, p. 89*

You can print the result of banknote processing in report form or send the report to any target. There are two printing/sending options.

Automatic Printing/ Sending

You can set the target and trigger for the reports via the BPS Eco Configurator tool in your configuration package. The report is delivered through printer, USB or FTP automatically.

Manual Printing/Send- ing

You can also print/send the report manually. When you set the trigger as user request, you must print/send report manually.

Reports can be printed manually using:

- **Reporting** menu
- Function button 

The list of printable reports for a particular user depends upon the configuration settings. Applicable for following print reports either Deposit balance can be triggered or daily balance

Based on the configured package, either of the following reports can be printed using  :

- Daily balance report (priority 1)
- Deposit balance report (priority 2)

The daily balance report has priority one, which means if both deposit balance report and daily balance report are configured with user request trigger, only the deposit balance report will be printed. If not deposit balance report is not configured, then only the daily balance report (if configured) will be printed. If none of the reports are configured, the following error message will appear when

 is pressed:

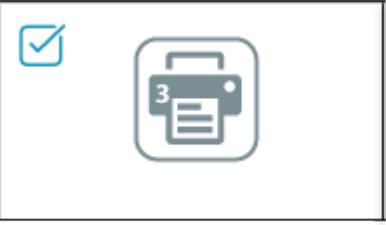
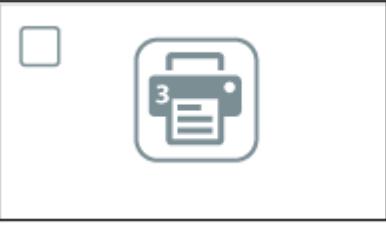
Report is not configured

→ *Section 7.18 “Printing Reports Using the Function Button”, p. 87*

Print Width

The **3"** **Printer** switch is used to toggle between printing on a two inch or a three inch printer.

Switch State	Description
--------------	-------------

 Figure 26: Switch Enabled	3 inch printer is active. The print width is 80 mm.
 Figure 27: Switch Disabled	2 inch (58 mm printer is active. The print width is 58 mm.)

→ *Section 9.9 “Enabling the Three Inch Printer”, p. 105*

5.10 Video Surveillance Interface (VSI)

The VSI supports the synchronization between the BPS C5 and the video surveillance system of the installation site. To monitor the processing of banknotes on the BPS C5, the associated accounting data can be linked to the external video surveillance system. The video surveillance interface (VSI) must be configured accordingly.

The synchronization between the BPS C5 and the video surveillance is possible with respect to:

- Time
- Accounting information provided by the BPS C5 (e.g. Machine ID, customer ID, deposit ID, Start-End Time)

You can enable/disable the VSI using **VSI** switch. By default, the VSI is disabled.

When the VSI is enabled and configured, the connection is established between the external video surveillance system and the BPS C5. The BPS C5 sends the *Start Deposit* report to the video surveillance system every time an accounting unit is opened. The VSI checks the connection and sends the *Keep Alive* report at a regular interval with the connection status.

The BPS C5 sends an *End* report to the video surveillance system every time an accounting unit is closed.

The interaction between the CMS, VSI and the BPS C5 is illustrated below (IP addresses used here are examples).

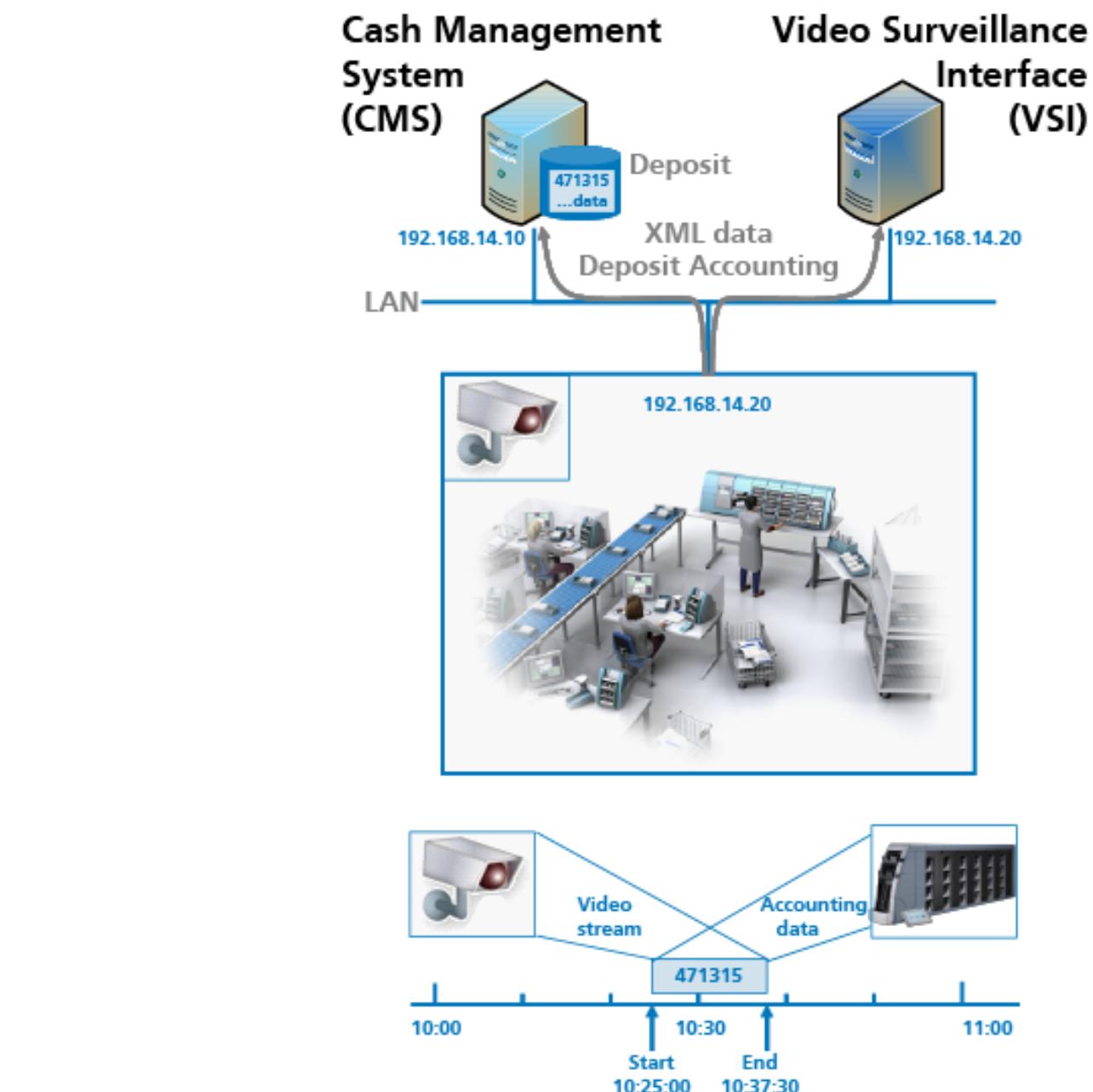


Figure 28: Overview of Video Surveillance

- *Section 9.6 “Activating the Video Surveillance Interface Switch”, p. 103*
- *Section 9.7 “Configuring the Video Surveillance Interface”, p. 104*

5.11 Remote Software Update

The Mass Management System (MMS) provides a back-end functionality for BPS C5 to provide the remote mass upgrade services.

**Important!**

This is an on demand feature. Separate installation packages are provided to demonstrate or use this feature.

The MMS agents in the BPS C5 connects to the MMS server and downloads the software update packages once it is available.

The downloaded software update can be installed:

- Manually
- Automatically

The following image illustrates the MMS.

5

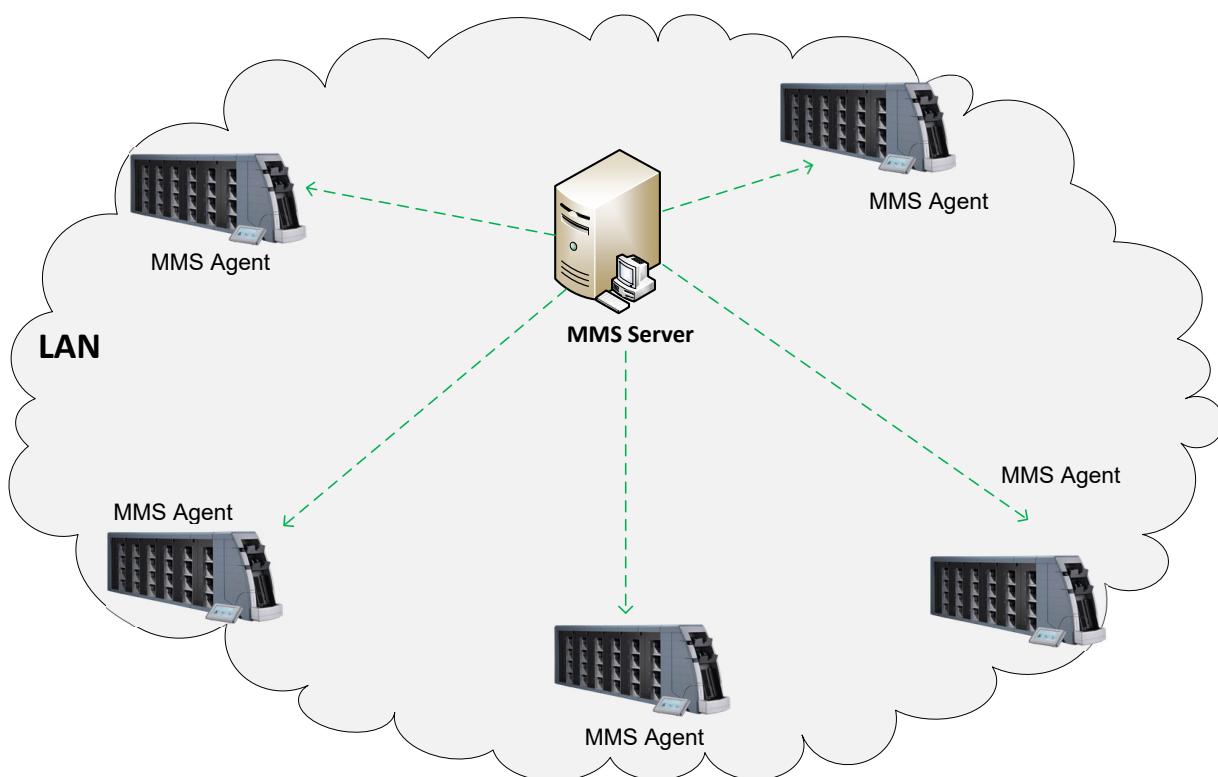


Figure 29: Mass Management System

→ *Section 9.8 “Enabling/Disabling the Automatic Installation Switch”, p. 105*

5.12 Configuration Package

You can configure the BPS C5 in different ways as per requirement by installing/updating configuration package. The standard configuration package contains several default configurations.

The configuration packages are created/customized using the BPS Eco Configurator tool (→ *BPS Eco Configurator Software Manual*). The following features can be customized in a configuration package:

- Adding currency
- SDM configuration
- Grouping/customizing reject reasons
- Creating OP modes
- Customize/set reports targets/triggers

→ *Section 9.14 “Updating Configuration Package”, p. 112*

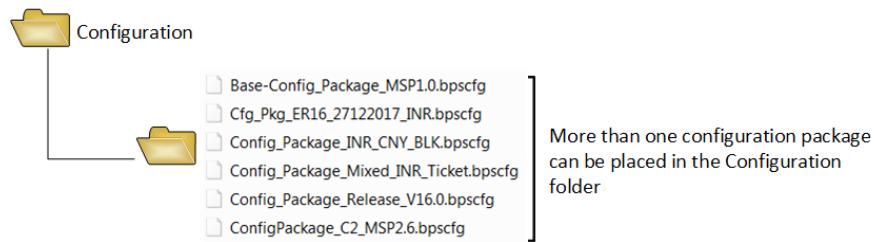


Figure 30: Configuration Package Folder Structure in the USB

You can export the configuration package installed in the BPS C5 to a USB stick. The configuration package is exported with the modifications in the favorite operating modes list and changes in threshold settings.

Use the **Export Config Package** menu if you want to implement the same modifications in threshold\switch settings and favorite operating mode list in more than one BPS C5 machines. You can make the change the settings in one BPS C5, and export the configuration package in a USB stick. The exported configuration package can be installed in other BPS C5 machines.

→ *Section 9.17 “Exporting the Configuration Package”, p. 116*

→ *Section 9.14 “Updating Configuration Package”, p. 112*

5.13 Language Package

You can update the language package to install new languages or an updated version of the language package software.

The new version of the language package replaces the existing version.

→ *Section 9.15 “Updating Language Package”, p. 113*

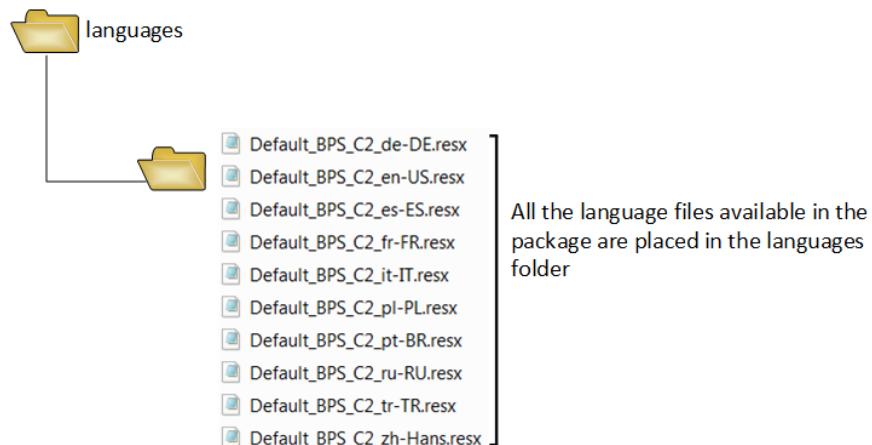


Figure 31: Language Package Folder Structure in the USB

5

5.14 Machine Status Information

The machine status icon appears in header of the screen to indicate the BPS C5 status.

Info Icon State	BPS C5 Status
	Startup error
	Startup warning
	Machine information inaccessible
	Machine information accessible with no errors/warnings

You can use the  button to view various system information, such as:

- Status

The **Status** tab displays the status of the peripheral devices connected to the BPS C5, and server connections.

- Green: The green status indicates the device/server is connected.

- Red: The red status indicates that the device/server is disconnected.
- Startup errors
 - The **Startup Errors** tab displays the list of startup errors, if any. There are two types of startup errors:
 - Recoverable errors - The recoverable errors are fixed by just selecting the clear. When you select clear, the banknotes are processed as desired.
 - Non-recoverable - The non-recoverable errors must be fixed in the BPS C5. After fixing the error, the BPS C5 must be restarted before banknote processing.
 - Settings
 - The **Settings** tab display the trace level settings and sensor self test settings information.
 - *Section 9.18 “Setting the Self Test Level”, p. 116*

5

A disabled  button indicates that there are no start-up error messages.

→ *Section 11.2 “Getting Additional Information”, p. 136*

5.15 Serial Number Storage

The BPS C5 stores the processed banknote data based on the serial number. When the serial number storage is enabled, the BPS C5 stores the banknote data of the last processed one million banknotes. In the **Supervisor** menu, there is switch to enable/ disable the serial number storage.

When the switch is disabled , the BPS C5 does not store the banknote details. However, you can still view the banknote details based on the serial number.

→ *Section 9.20 “Enabling the Serial Number Storage Switch”, p. 118*

The BPS C5 stores following details of the banknotes:

- Banknote serial number
- Currency
- Denomination
- Emission

By default, the serial number storage switch is disabled. However, once the switch is enabled, the serial number storage remains enabled even after software update. The serial number storage remains enabled, until you select disable.

You can perform the following operations based on the banknote serial number:

- Search the banknote data
 - *Section 7.25 “Searching the Banknote Data”, p. 92*
- Delete the banknote data
 - *Section 9.21 “Deleting the Banknote Data”, p. 119*

Important Notice for
the USA/Canada

The serial number reading options are not available in the USA/Canada.

6 Starting the BPS C5

6.1 Switching the BPS C5 On and Off

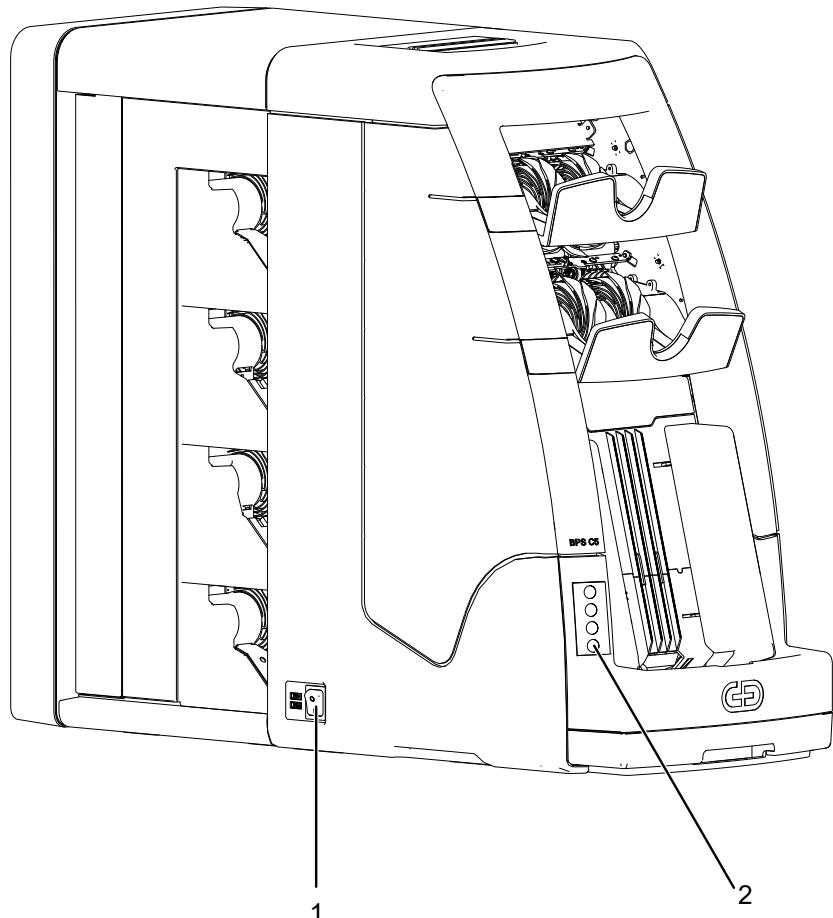


Figure 32: Power Switch

- 1 Power Switch
- 2 Power Soft Key

Requirements

- The BPS C5 is connected to the power supply.
→ *BPS C5 Installation Manual*

Switching On

[1] Switch on the power (1).

[2] Press  (2).

Result

⇒ After the BPS C5 starts, the login screen is displayed.

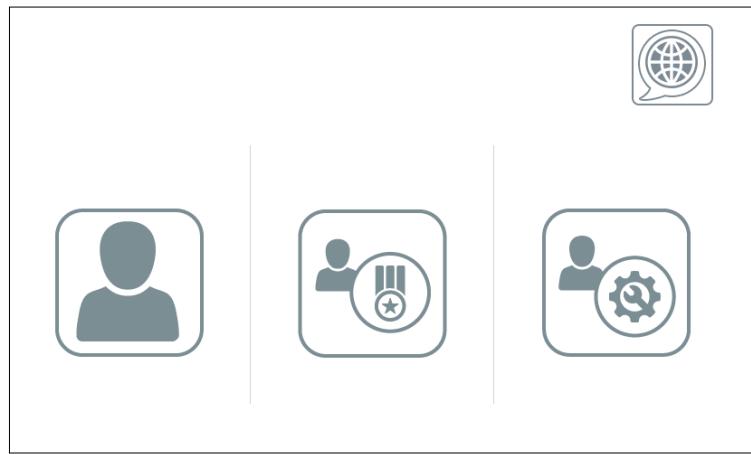


Figure 33: Login Screen

Switching Off

6



Important!

All unsaved results will be deleted when the BPS C5 is switched off.

[1]

Press the  (2).

⇒ The power soft key starts blinking.

[2]

Switch off the power (1).

Result

⇒ The BPS C5 is switched off.

6.2 Logging in

Operator

You can log in as an operator with your operator ID. However, the operator ID is an optional field.

If you have an operator ID, you can enter your ID through an initial login window. The operator ID appears in the various operation reports.

Supervisor

To carry out system administration tasks, you must be logged in as a supervisor. If an operator is logged in, then first close all deposits and log off as an operator.

There is only one supervisor PIN set up in the default configuration.

6.2.1 Logging in as an Operator

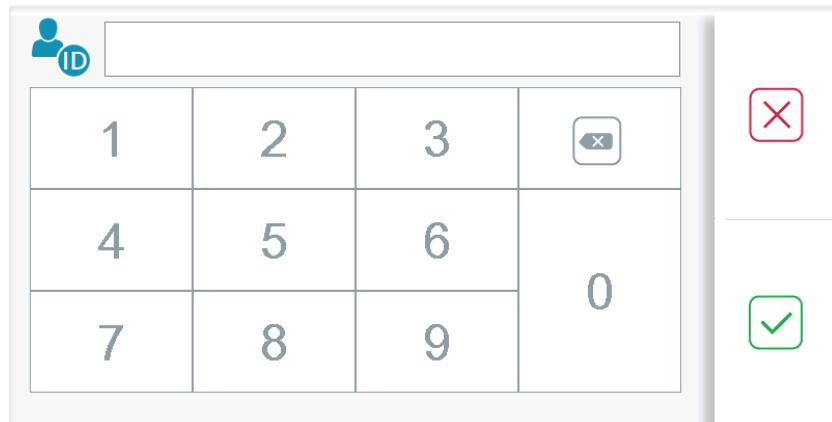
Requirements

- The BPS C5 switched on

→ *Section 6.1 “Switching the BPS C5 On and Off”, p. 57*

Procedure

- [1] In the main screen, select .



- [2] Enter your operator ID.
In case, you do not have an operator ID, leave the entry field blank.

- [3] Select .

Result  You have successfully logged in as an operator.

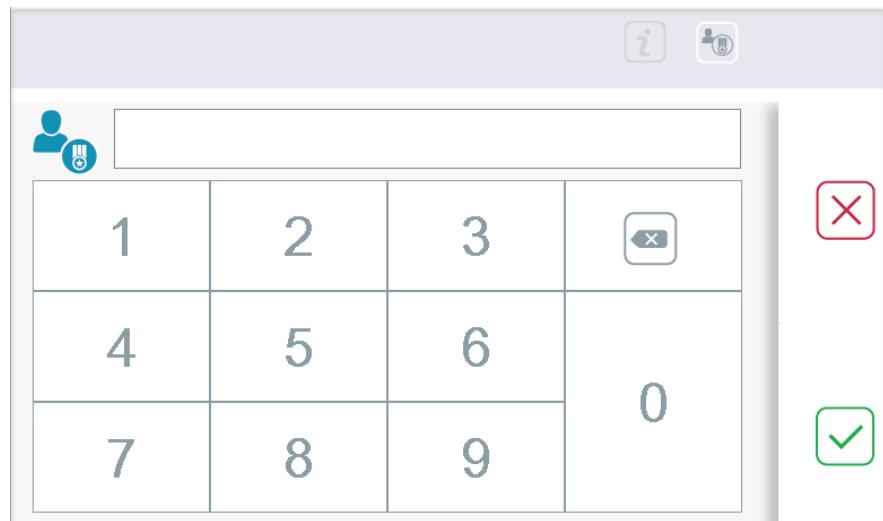
6

6.2.2 Logging in as Supervisor

- Requirements
- The BPS C5 switched on
→ *Section 6.1 "Switching the BPS C5 On and Off", p. 57*

Procedure

- [1] In the main screen, select .



[2] Enter the Supervisor PIN.

[3] Select .

Result

⇒ You have successfully logged in as a supervisor.

6.3 Changing the GUI Language

Requirements

- The BPS C5 is switched on
→ *Section 6.1 “Switching the BPS C5 On and Off”, p. 57*

Procedure

[1] In the main screen, select .



[2] Select the desired language.

[3] Select 

Result ⇒ The language is changed.

7 Operation

This chapter contains information on how to operate the machine.
Please note the following:



NOTICE

Ensure that no metal objects (for example, staples) and/or liquids find their way into the machine/device.

The machine/device may be damaged.

If metal objects and/or liquids get into the machine/device:

1. Switch off the machine/device.
- 2.
3. Have the machine/device checked by qualified personnel before continuing work.

7.1 Selecting a Currency

→ *Section 4.2.1 “Operating Mode Selection Screen”, p. 22*

→ *Section 5.1 “Banknotes, Tickets and Other Transport Objects”, p. 37*

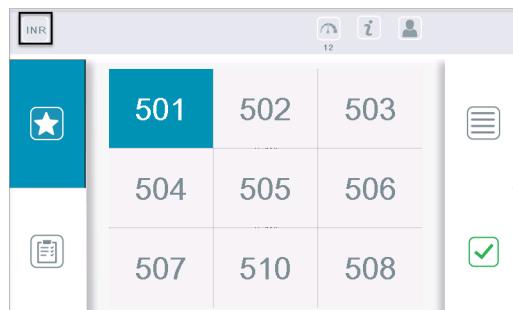
7

Requirements

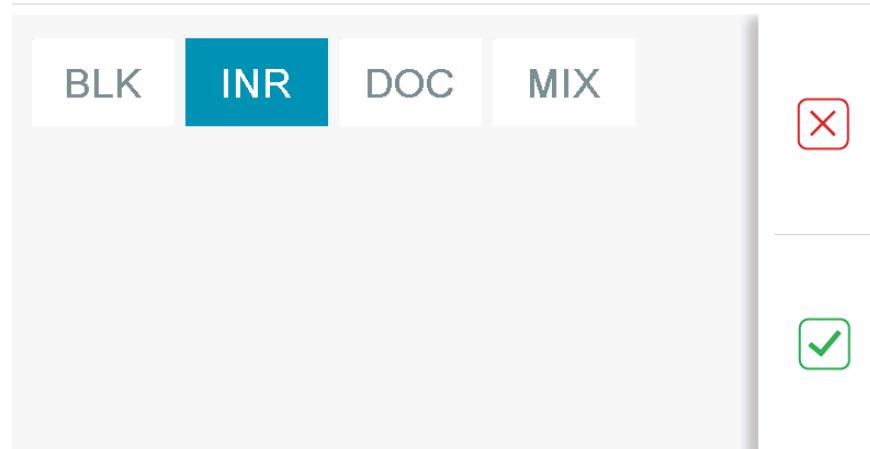
-  login

→ *Section 6.2.1 “Logging in as an Operator”, p. 58*

Procedure



- [1] Select the currency button.



[2] Select the desired currency.

[3] Select .

Result

⇒ The desired currency is selected for processing.

7

7.2 Setting Processing Speed

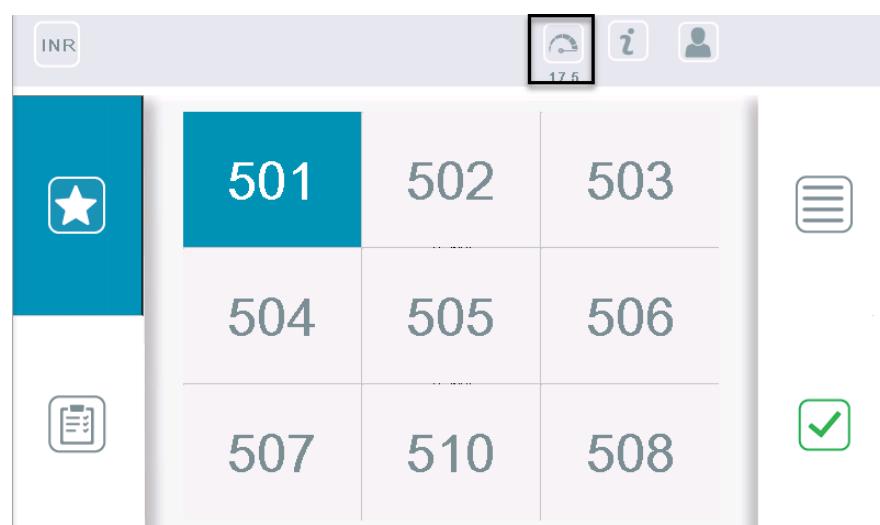
→ Section 4.2.1 “Operating Mode Selection Screen”, p. 22

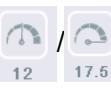
Requirements

-  login

→ Section 6.2.1 “Logging in as an Operator”, p. 58

Procedure



[1] Select  /  to switch between the processing speed 12/17.5.

Result



The selected speed is displayed next to



7.3 Changing the Delivery Stacker Capacity

→ Section 5.6 “Delivery Stacker Capacity”, p. 45

Requirements

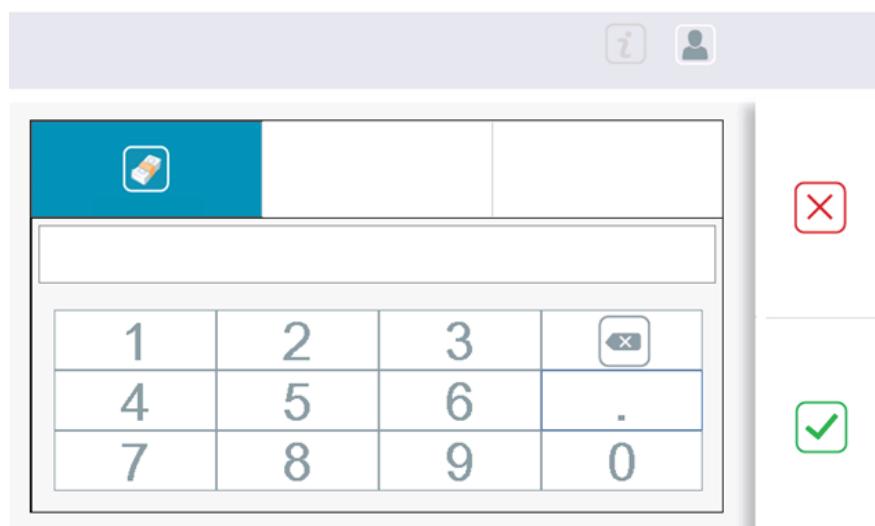
- login

→ Section 6.2.1 “Logging in as an Operator”, p. 58

- Operating mode selection screen active

Procedure

- [1] Press the function key.



- [2] Enter the non-zero strap size.

The maximum value is 250. The keypad does not accept any value greater than 250.

To change the strap size to default, enter zero.

- [3] Select .

Result



The strap size is changed. The icon appears in the operating mode selection screen.

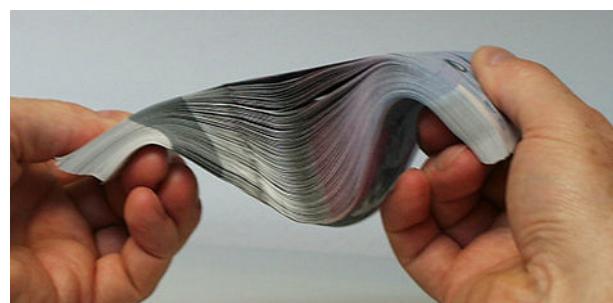
7.4 Preparing Banknotes

- [1] If necessary, remove the straps.

- [2] Proceed according to internal regulations.



- [3] Fan the banknotes up.



- [4] Fan the banknotes down.



- [5] Straighten the banknote stack.

- [6] Make sure that the edges are flush.

- [7] Smooth the banknotes and remove dog-ears.

**Important!**

Proper banknote preparation improves the banknote processing and increases the throughput.

**NOTICE**

Objects such as clips, paperclips, or rubber bands can damage the machine/device.

Make sure that there are no objects on the banknotes.

Only banknotes may be placed in the singler!

Only banknotes and tickets may be placed in the singler during ticket operation!

- [8] Before inserting the banknotes in the singler, sort out banknotes with the following characteristics:

- Extreme damage
- Heavy soiling
- Folded/kinked banknotes
- Very creased banknotes
- Folded banknotes



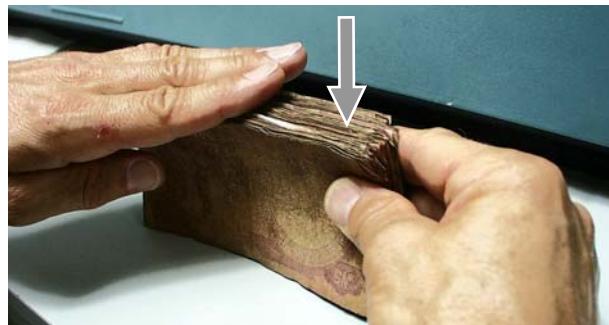
Figure 34: Poor quality banknote

- [9] Place these banknotes to one side for manual inspection.

- [10] Before placing the banknotes in the singler, make sure that the banknotes are not arched downward along their length.

Particularly poor quality banknotes

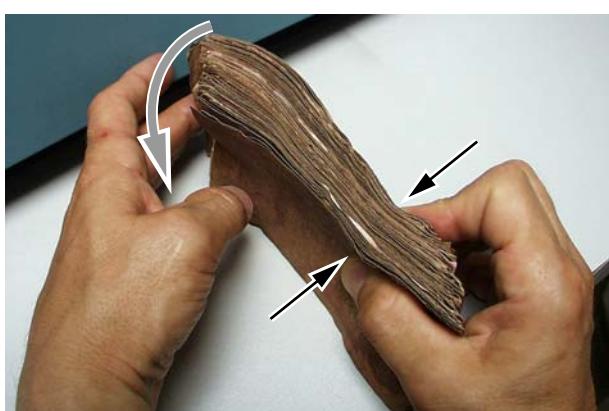
The following procedure is recommended in addition:



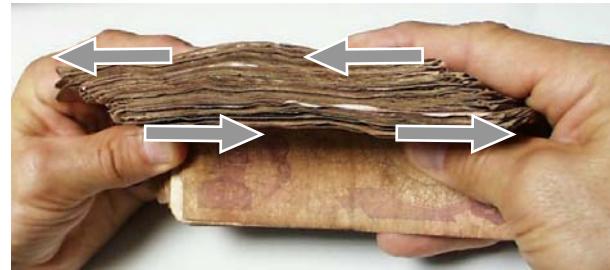
[11] Straighten the BN lengthwise.



[12] Fan the right side of the BN package.



[13] Fan the left side of the BN package.



[14] Shift the BN sideways.

[15] Bend the BN in the middle.



[16] Smooth any bent leading edges and dog-ears.

7

7.5 Inserting Banknotes

Requirements

- Packet of banknotes



CAUTION

Risk of crushing from moving parts

Moving parts can injure hands and fingers

Make sure that you do not put your fingers in the immediate vicinity of the singler gap when inserting banknotes or when remedying a fault in the singler.

Procedure

7



Figure 35: Inserting Banknotes

- [1] Insert a stack of banknotes into the singler.
Maintain at least 20 mm of gap from the upper edge of the singler compartment to the topmost surface of the stacked banknotes.



- [2] Push the fanned banknote package into the singler area as far as possible until it touches the butting surface.

Adjusting the Feeder Plates

The banknote size may vary based on the currency/denomination. You are required to adjust the feeder plates according to the length to avoid skew/tilt of the banknotes.

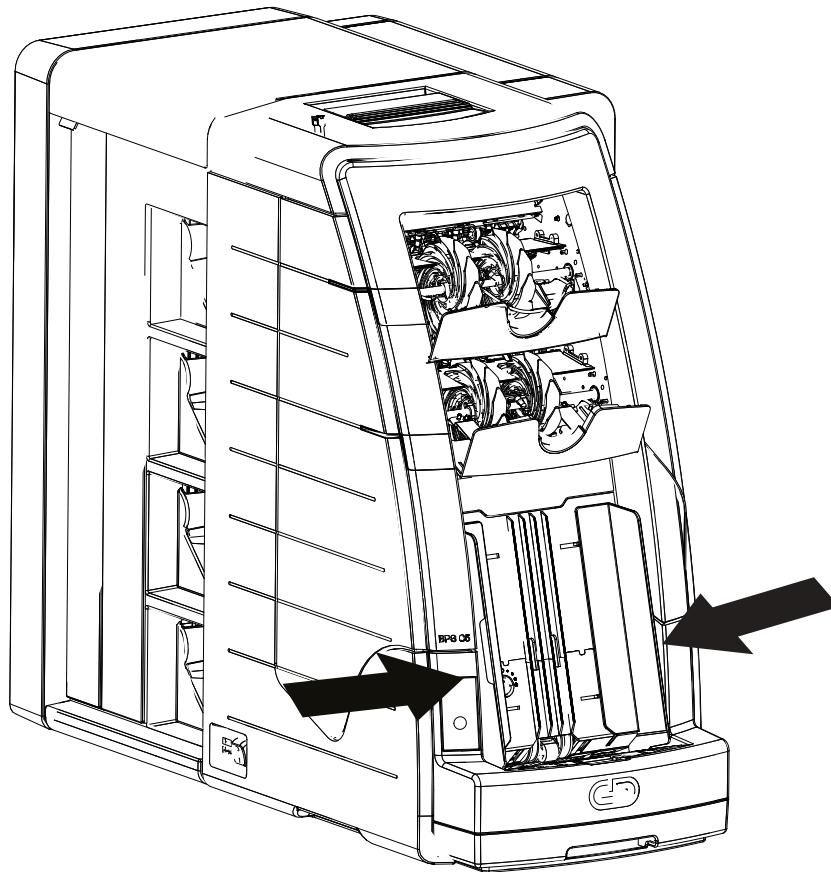


Figure 36: Adjusting Feeder Plate

- [3] Adjust the feeder plate by pushing the feeder plates apart/together.
 Adjust the feeder plate according to the size of the bank-note as shown in the above figure.
- Result ⇒ Depending on the operating mode selected, the singling starts automatically.

7.6 Counting Banknotes/Tickets

- Section 5.2 “Operating Modes”, p. 37
- Section 4.2.1 “Operating Mode Selection Screen”, p. 22

Requirements

-  login
 → Section 6.2.1 “Logging in as an Operator”, p. 58
- Packet of banknotes/tickets

Procedure

- [1]** Press the  function button.
 You can alternatively select **BLK** to activate the **Count Mode**.
- [2]** Insert banknotes into the singler.
 ⇒ The BPS C5 counts the objects. The count of the objects appears on the screen as result.
- [3]** Select 
 ⇒ The **Reject** view displays the reject reasons. The BPS C5 rejects objects for the mechanical reasons only.
- [4]** Select 
 ⇒ The **Stackers** view displays the count of objects in each delivery stacker.
- [5]** Re-run the rejects.
- [6]** Empty the stackers.
- Result
 ⇒ The banknotes/tickets counting is complete and closed. The report is automatically printed/sent via FTP/copied to USB if the BPS C5 is configured to automatic print/send/copy.

7

7.7 Sorting Banknotes in Batch Mode

- *Section 5.2 “Operating Modes”, p. 37*
- *Section 4.2.1 “Operating Mode Selection Screen”, p. 22*

Requirements

-  login
 → *Section 6.2.1 “Logging in as an Operator”, p. 58*
- A packet of banknotes

Procedure

- [1]** Select the desired OP mode.
- [2]** Insert banknotes into the singler.
 ⇒ The machine sorts the banknotes. The count and the value of the banknotes appear on the screen as result.

The banknotes count in each stacker appears in the respective Stacker Count Display.

- | | |
|---|--|
| [3]
[4]

Result | Re-run the rejects.
→ <i>Section 7.14 “Reprocessing the Rejected Banknotes”, p. 85</i>

Empty the stackers.
→ <i>Section 7.13 “Emptying the Delivery Stackers”, p. 84</i>

⇒ The banknote processing is complete and closed.
The report is automatically printed/sent via FTP/copied to USB if the BPS C5 is configured to automatic print/send/copy. |
|---|--|

7.8 Processing Banknotes with Deposit

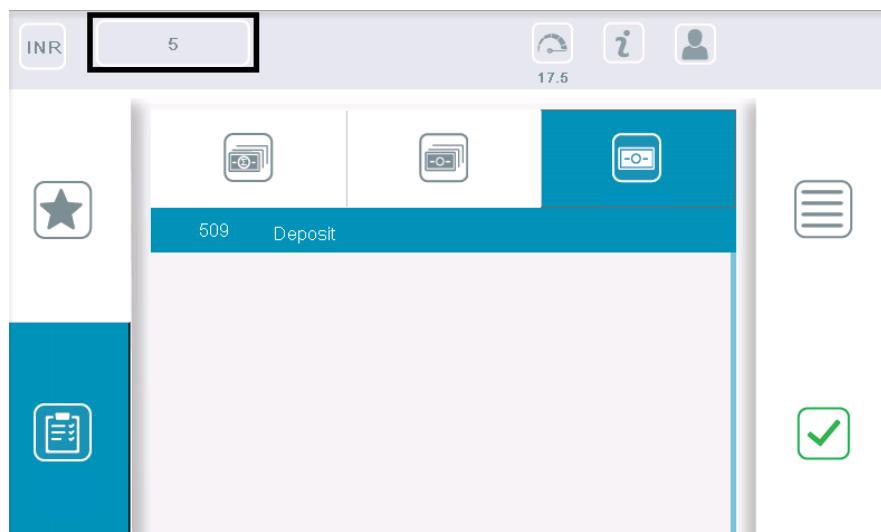
- *Section 5.2 “Operating Modes”, p. 37*
- *Section 4.2.1 “Operating Mode Selection Screen”, p. 22*

Requirements

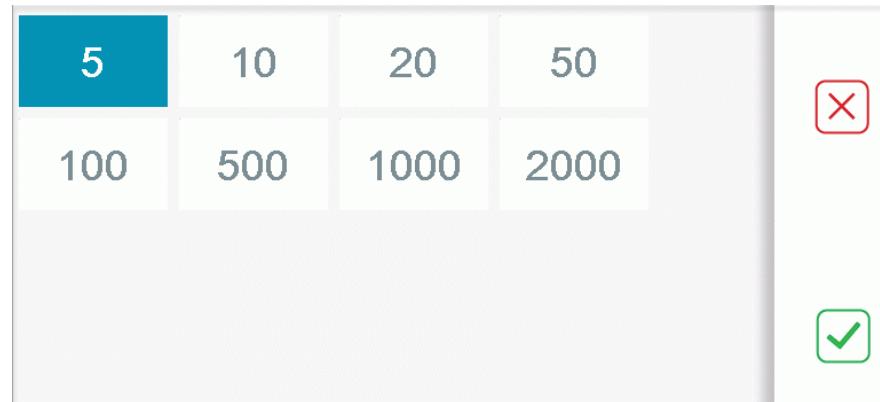
-  login
 → *Section 6.2.1 “Logging in as an Operator”, p. 58*
- Packet of banknotes

Procedure

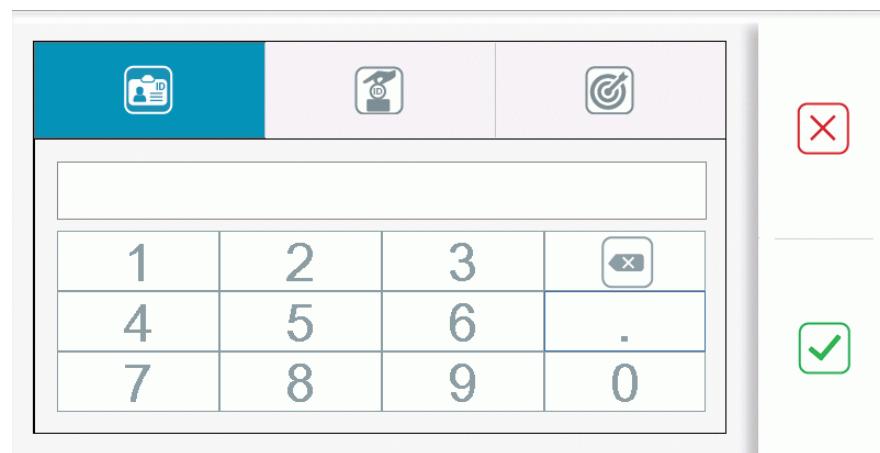
- [1]** Single denomination deposit: select the **509** OP mode.



- [1-1]** Select the denomination button shown in the above image.
 ⇒ The denomination screen is launched.



- [1-2] Select the desired denomination.
- [1-3] Select .
- [1-4] Proceed to → [3].
- [2] Multiple denomination deposit: select the **510 OP mode**.
- [3] Select .



- [4] Enter the deposit data.
- Customer number: Enter the customer identification number.
 - Deposit ID: Enter the deposit identification number.
 - Amount: Enter the declared amount. **Amount** is a mandatory field.
- [5] Select .
- [6] Insert the banknotes into the singler.
⇒ The BPS C5 counts the banknotes and displays the result.

At the end of the deposit, you can manually enter the amount of rejected banknotes to perform an online reconciliation.

→ *Section 7.11 “Performing Online Reconciliation in Deposit Mode”, p. 82*

- [7] Remove the banknotes from the delivery and reject stackers to close the deposit.

Result

- ⇒ The deposit is complete and closed.
The quantity, total of banknotes and the difference is displayed in the result.
The deposit report is automatically printed/sent via FTP/copied to USB if the BPS C5 is configured to automatic print/send/copy.

7.9 Processing Banknotes in Multi Deposit

→ *Section 5.3 “Multi Deposit Operating Mode”, p. 43*

Requirements

-  login
- *Section 5.4 “Fast Deposit (FDP) Operating Mode”, p. 43*
- Operating mode selection screen active
 - Packet of banknotes

Procedure



NOTICE

If banknotes from different accounting units (for example, deposits) are mixed in the singler, correct accounting is not possible.

Never place banknotes from different accounting units into the singler at the same time.

- [1] Select the **Multi Deposit** operating mode.

First deposit

**CAUTION**

Laser radiation

The use of controls, settings, or procedures other than those described here may result in hazardous laser radiation.

Customers should under no circumstances attempt to perform maintenance on the laser scanner themselves.

Never look into the laser beam, even if you think that the scanner is not active.

Never open the scanner to look inside the device. If you do this, you may expose yourself to a dangerous laser beam.

The use of optical devices with this laser equipment increases the risk of visual impairment.

1	2	3	.
4	5	6	
7	8	9	0

[2] Enter the deposit data.

Enter the following values:

- Customer ID - Enter the customer identification number.
- Deposit ID - Enter the deposit identification number.
- Amount - Enter the declared amount. **Amount** is a mandatory field.

[3] Select .

[4] Insert the banknotes in to the singler.

⇒ The BPS C5 counts the banknotes and displays the result.

→ *Section 4.3 “Banknote Processing Results Screen”, p. 25*

The BPS C5 sends the rejects from the current deposit to the reject stacker. If required, rerun the rejects.

→ *Section 7.14 “Reprocessing the Rejected Banknotes”, p. 85*



Important!

The BPS C5 accounts the current deposit as soon as the singler and the reject compartment are empty and you have entered a new deposit ID.

Before starting the next deposit



NOTICE

If banknotes from different accounting units (e. g. deposits) are placed in the singler together, correct accounting is not possible.

Only place the banknotes from the next deposit into the singler once all the banknotes from the first deposit have been singled and “Next deposit” is displayed on the operating unit.

If you have manually interrupted processing of the current deposit with the **Start/Stop** key, proceed as follows:

1. Start the singler.
2. Read in the next deposit number.

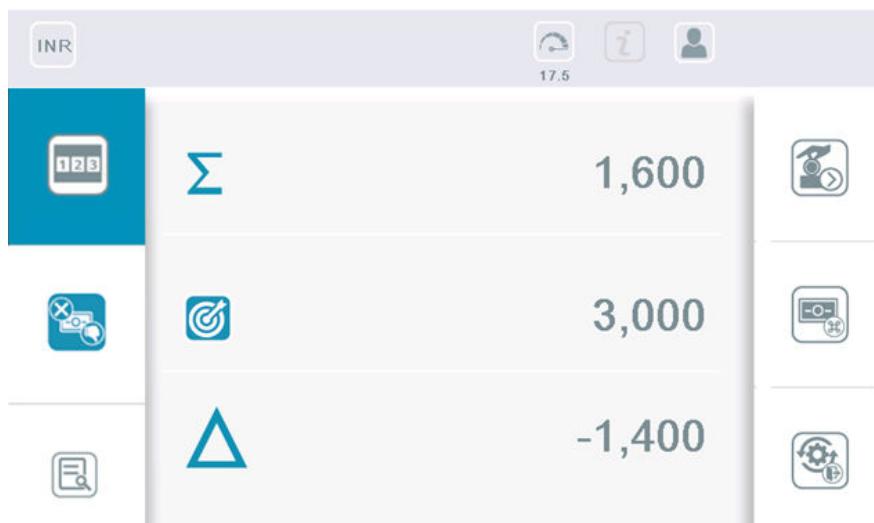
[5]

Remove the rejects from the reject stacker.

Place the rejected banknotes for the deposit separately.

→ *Section 7.15 “Emptying the Reject Stacker”, p. 86*

Next deposit



[6]

Select

- [7] Enter the deposit data.
 → “*First deposit*”, p. 76
- [8] Insert the banknotes for the next deposit in the singler compartment.

**Important!**

If the reject compartment is not empty, the BPS C5 displays an error message. You cannot start the next deposit.

- [9] Empty the reject stacker.
 ⇒ The BPS C5 accounts the deposit as soon as the singler and the reject compartment are empty.
 To continue banknote processing, repeat step 6 - 10.

To exit, select .

At the end of the deposit, you can manually enter the amount of rejected banknotes to perform an online reconciliation. You can enter the amount of rejected banknotes manually.

→ *Section 7.11 “Performing Online Reconciliation in Deposit Mode”, p. 82*

7.10 Processing Banknotes in Fast Deposit Mode (FDP)

→ *Section 5.4 “Fast Deposit (FDP) Operating Mode”, p. 43*

Requirements

-  login

→ *Section 5.4 “Fast Deposit (FDP) Operating Mode”, p. 43*

- Operating mode selection screen active
- Packet of banknotes/safebag

Procedure

- [1] Select the FDP operating mode.

First deposit



CAUTION

Laser radiation

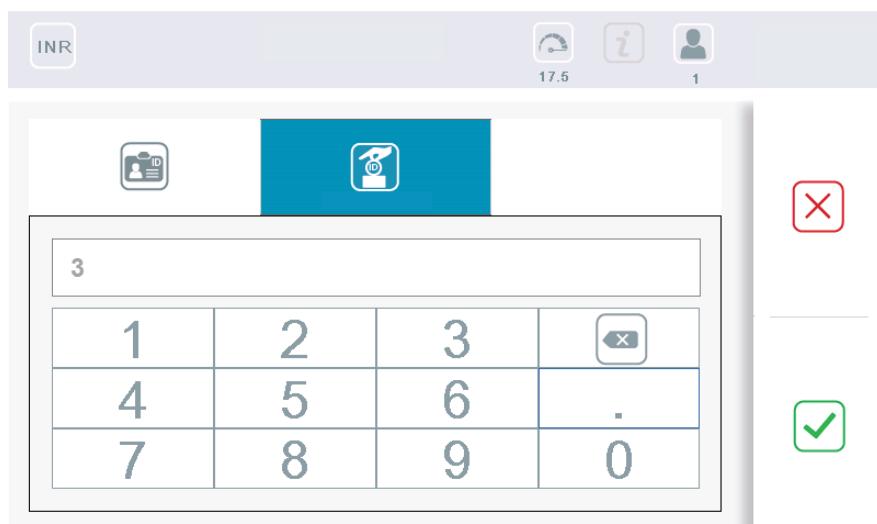
The use of controls, settings, or procedures other than those described here may result in hazardous laser radiation.

Customers should under no circumstances attempt to perform maintenance on the laser scanner themselves.

Never look into the laser beam, even if you think that the scanner is not active.

Never open the scanner to look inside the device. If you do this, you may expose yourself to a dangerous laser beam.

The use of optical devices with this laser equipment increases the risk of visual impairment.



7

[2] Enter the deposit data.

If you are using safebags, scan the barcode

Enter the following values:

- Customer ID - Enter the customer identification number.
- Deposit ID - Enter the deposit identification number.



Important!

Deposit ID is a mandatory field.

[3] Select .

[4] Insert the banknotes in to the singler.

While the banknotes are being processed, you can select



and enter data for the next deposit.

⇒ The BPS C5 counts the banknotes and displays the result.

→ *Section 4.3 “Banknote Processing Results Screen”, p. 25*

The BPS C5 sends the rejects from the current deposit to the reject stacker. If required, rerun the rejects.

→ *Section 7.14 “Reprocessing the Rejected Banknotes”, p. 85*



Important!

If you have already scanned a new deposit number but want to carry out a rerun for the current deposit, you can delete the number in the **Deposit ID** field.



Important!

The BPS C5 accounts the current deposit as soon as the singler and the reject compartment are empty and you have entered a new deposit ID.

At the end of the deposit, you can manually enter the amount of rejected banknotes to perform an online reconciliation. You can enter the amount of rejected banknotes manually.

→ *Section 7.11 “Performing Online Reconciliation in Deposit Mode”, p. 82*

Before starting the next deposit



NOTICE

If banknotes from different accounting units (e. g. deposits) are placed in the singler together, correct accounting is not possible.

Only place the banknotes from the next deposit into the singler once all the banknotes from the first deposit have been singled and “Next deposit” is displayed on the operating unit.

If you have manually interrupted processing of the current deposit with the **Start/Stop** key, proceed as follows:

1. Start the singler.
2. Read in the next deposit number.

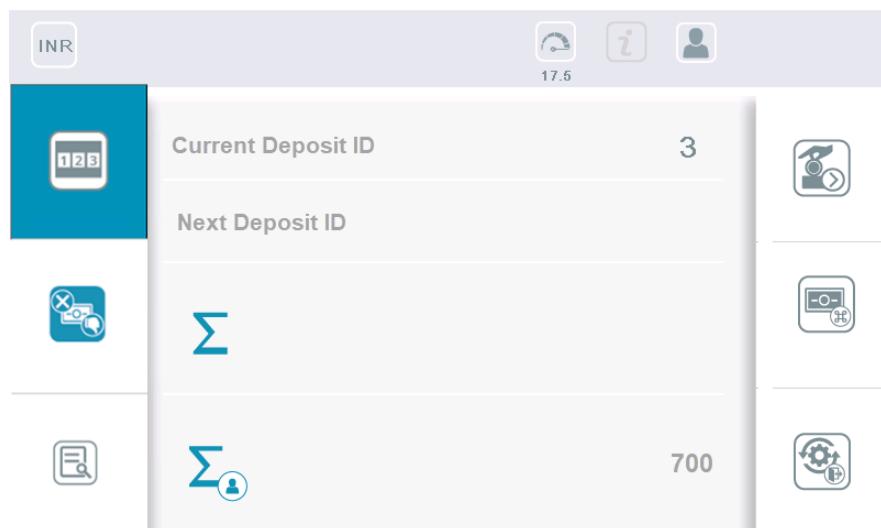
[5] Remove the rejects from the reject stacker.

Place the rejected banknotes for the deposit separately.

→ *Section 7.15 “Emptying the Reject Stacker”, p. 86*

Next deposit

[6] Select 



[7] Select 

[8] Enter the deposit data.

→ *“First deposit”, p. 79*

⇒ The deposit ID is copied to the Current deposit ID. field as soon as the singler and reject compartment are empty.

As soon as the singler and the reject compartment are empty, the first deposit is accounted and the next deposit opened. The deposit no. from the "Next deposit no." field is now displayed in the "Current deposit no." field.

[9] Insert the banknotes for the next deposit in the singler compartment.

**Important!**

If the reject compartment is not empty, the BPS C5 displays an error message. You cannot start the next deposit.

INR	17.6	
123	Current Deposit ID 3	
Σ	Next Deposit ID 5	
Σ	900	
Σ	1600	

7

- [10] Empty the reject stacker.

⇒ The BPS C5 accounts the deposit as soon as the singler and the reject compartment are empty.

To continue banknote processing, repeat step 6 - 10.

To exit, select

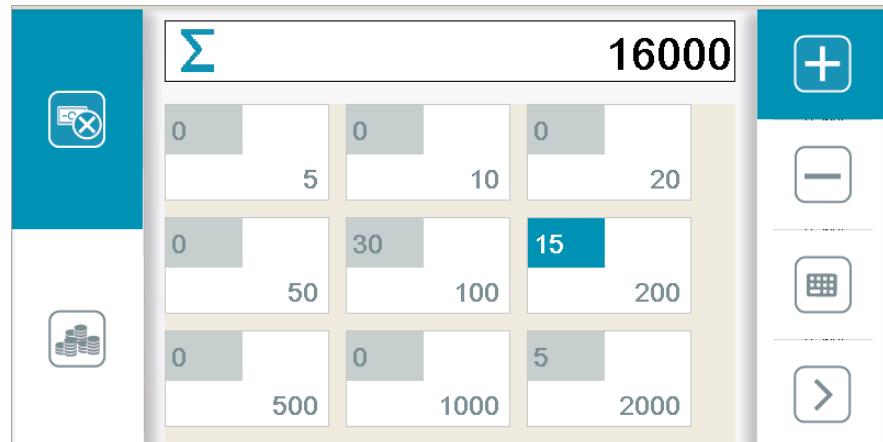
7.11 Performing Online Reconciliation in Deposit Mode

Requirements

- login
→ *Section 6.2.1 “Logging in as an Operator”, p. 58*
- Complete a deposit in either single denomination mode or mixed denomination mode.
→ *Section 7.8 “Processing Banknotes with Deposit”, p. 73*

Procedure

- [1] Remove the banknotes from the delivery and reject stackers.
Manually count the rejected banknotes.
- [2] Select .
- ⇒ The reconciliation screen appears:



- [3] Enter the count of rejected banknotes for each denomination.

For example, if there are 50 rejected banknotes; out of which there are:

- 30 banknotes of denomination 100
- 5 banknotes of denomination 2000
- 15 banknotes of denomination 200

You can enter these values as shown in the figure above using / / .

- [4] For deposits with coins, select the tab.

- [4-1] Enter the count of the coins.

- [5] Select .

Result

- ⇒ The deposit is complete and closed.
The quantity, total of banknotes and the difference is displayed in the result.

7

7.12 Processing Banknotes in Payout Mode

→ *Section 5.2 “Operating Modes”, p. 37*

→ *Section 4.2.1 “Operating Mode Selection Screen”, p. 22*

Requirements

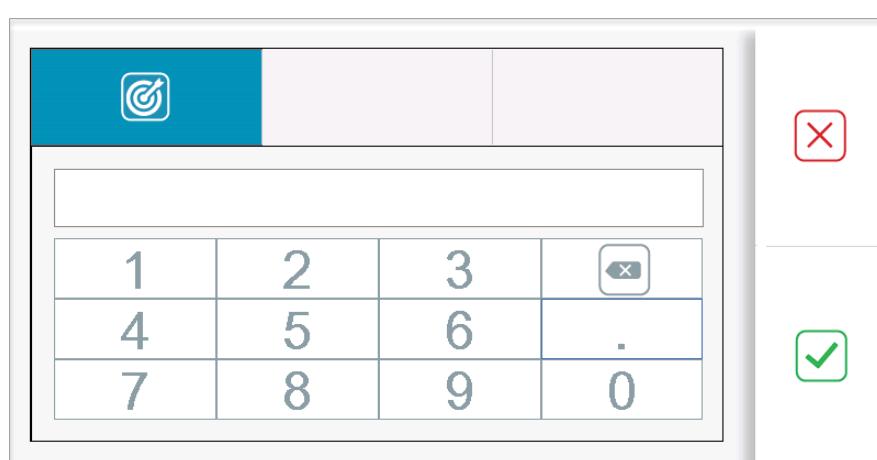
- login

→ *Section 6.2.1 “Logging in as an Operator”, p. 58*

- Packet of banknotes

Procedure

- [1] Select the OP mode **508** and select 
 → *Section 5.2 “Operating Modes”, p. 37*



- [2] Enter the target count (mandatory) and select 
- [3] Insert the banknotes into the singler.
 ⇒ The machine stops when the target count is reached.
 The quantity and total of banknotes appears in the result.
- [4] Remove all the banknotes from the stackers and the singler.
 ⇒ The deposit is complete and closed.
 The deposit report is automatically printed/sent via FTP/copied to USB if the BPS C5 is configured to automatic print/send/copy.

7.13 Emptying the Delivery Stackers

→ *Section 5.7 “Emptying the Stackers”, p. 45*

- Requirements
- Delivery stacker within an accounting unit
 or
 - Banknote processing complete for the accounting unit

Procedure



- [1] Remove the banknotes pushed out from the full delivery stacker.

The banknote pusher pushes the banknotes out of the full stacker for better grip. Collect the banknotes and process them according to your internal regulations. For example, band and bundle the banknotes or fill the banknotes into ATM cassettes.

Result

- ⇒ Banknote transport starts automatically.


Important!

If you have accidentally removed banknotes, the display for the corresponding delivery stacker flashes. You then receive a command to re-insert the banknotes.

7

7.14 Reprocessing the Rejected Banknotes

→ Section 5.7 “Emptying the Stackers”, p. 45

Requirements

- Banknotes present in the reject stacker within an accounting unit

Procedure

- [1] Remove the rejects from the reject stacker(s).
- [2] Smooth the rejected banknotes and remove dog-ears.
- [3] Rerun the rejects.
- ⇒ The banknotes are singled and either sorted into the delivery sorted or sent to the reject stacker.

**Important!**

Do not re-insert banknotes that will in all likelihood be rejected again into the singler. This avoids jams. Seriously damaged or creased banknotes or banknotes with large amounts of tape for example are rejected.

7.15 Emptying the Reject Stacker

→ Section 5.7 “Emptying the Stackers”, p. 45

Requirements

- Banknotes present in the reject stacker within an accounting unit

Procedure

- [1] Remove the rejects from the reject stacker(s).
- [2] Remove the rejects before the maximum filling level is reached.
Empty the reject compartment at the end of each deposit.
- [3] Smooth the rejected banknotes and remove dog-ears.
- [4] Place the rejected banknotes from each deposit separately.
In case you are using safebags, place the rejected banknotes in the transport box with the associated safebag.



- [5] Handle the rejects and safebags according to your internal regulations.

7.16 Exporting Raw Data

→ Section 5.8 “Logs, Traces, Raw Data, and Self Test Levels”, p. 46

Requirements

- USB stick plugged into the BPS C5
- Process banknotes as desired

Procedure

- [1] Log in.
→ *Section 6.2.1 “Logging in as an Operator”, p. 58*
 - [2] Select .
 - [3] Select .
 - [4] Select .
- ⇒ You will receive the success message.

Result

⇒ Raw data is exported to the USB stick.

7.17 Manually Printing/ Sending Reports

→ *Section 5.9 “Printing/Sending/Copying Report”, p. 47*

Requirements

- Printer connected
 - FTP address configured
- *Section 9.3 “Changing the File Transfer Protocol (FTP) Settings”, p. 100*

7

Procedure

- [1] Log in.
→ *Section 6.2.1 “Logging in as an Operator”, p. 58*
→ *Section 6.2.2 “Logging in as Supervisor”, p. 59*
- [2] Operator: select  to navigate to the menu items.
- [3] Select .
- [4] Select **Send**.
- [5] Select the desired report.
- [6] Select .

Result

⇒ The report is printed/sent.

7.18 Printing Reports Using the Function Button

→ *Section 5.9 “Printing/Sending/Copying Report”, p. 47*

Requirements

-  /  login
 - Section 6.2.1 “Logging in as an Operator”, p. 58
 - Section 6.2.2 “Logging in as Supervisor”, p. 59
- Printer connected

Procedure

[1] Press .

⇒ The report printing is initiated. The following information will appear in the screen:

Print command has initiated..

Result

⇒ The report is printed.

7.19 Reprinting/Re-sending Reports

→ Section 5.9 “Printing/Sending/Copying Report”, p. 47

Requirements

- Printer is connected.
- FTP is configured.
 - Section 9.3 “Changing the File Transfer Protocol (FTP) Settings”, p. 100

Procedure

[1] Log in.

→ Section 6.2.1 “Logging in as an Operator”, p. 58

→ Section 6.2.2 “Logging in as Supervisor”, p. 59

[2] Operator: select  to navigate to menu items.

[3] Select .

[4] Select **Resend**.

[5] Select the desired report.

[6] Select .

Result

⇒ The report is reprinted/resent.

7.20 Copying Reports to USB Stick

→ *Section 5.9 “Printing/Sending/Copying Report”, p. 47*

Requirements

- The USB stick is plugged into the BPS C5.

Procedure

[1] Log in.

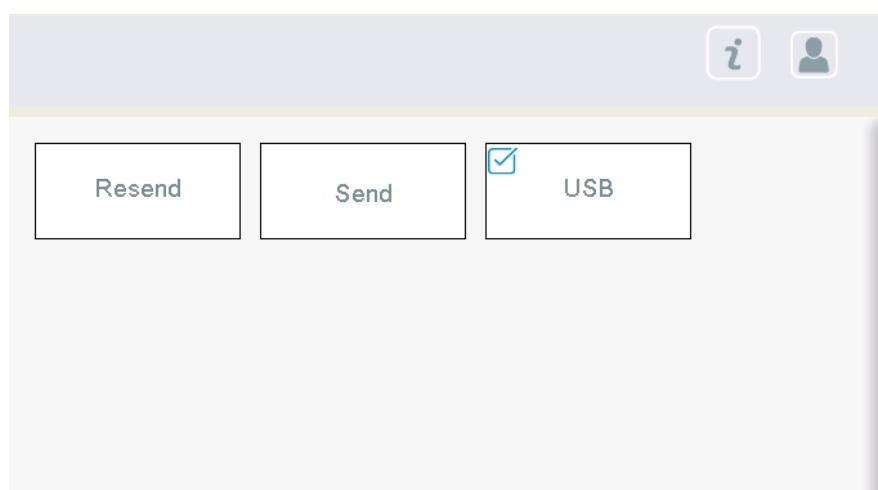
→ *Section 6.2.1 “Logging in as an Operator”, p. 58*

→ *Section 6.2.2 “Logging in as Supervisor”, p. 59*

[2] Operator only: select  to navigate to menu items.

[3] Select .

[4] Check the **USB** check box.



[5] Select .

Result

⇒ You have successfully enabled the Copy to USB function.
A copy of the configured report is copied to the USB stick.

7.21 Copying Log Files to USB Stick

→ *Section 5.8 “Logs, Traces, Raw Data, and Self Test Levels”, p. 46*

Requirements

- USB stick plugged to the BPS C5

Procedure

[1] Log in.

→ *Section 6.2.1 “Logging in as an Operator”, p. 58*

- [2] Select 
- [3] Select 
- ⇒ Following message is displayed:
Logs extraction successful
- [4] Select 
- Result ⇒ The troubleshooting traces and logs are created, and transferred to a USB stick

7.22 Viewing the Software Version Details

→ *Section 4.2.2 “Operator Menu”, p. 23*

Requirements

-  /  login

→ *Section 6.2.1 “Logging in as an Operator”, p. 58*

→ *Section 6.2.2 “Logging in as Supervisor”, p. 59*

Procedure

- [1] Operator: select  and select .

Result

- ⇒ The software version details are displayed.

1	DP S/W	00.25.03
2	DP OS	00.09.17
3	DP db	1.0.0
4	MC S/W	0.13.18.4
5	Sensor S/W	00.16.00
6	FPGA	0.1.0
7	Boot - Loader	0.1.0
8	Configuration Package	Config_Package_Release_V16.0
9	LanguagePackageVersion	01.00.00
10	CNY Version	01.04.000
	BL Version	00.12.000

Figure 37: Software Version

- 1 Software version
- 2 Operating system version
- 3 Database version
- 4 Machine control software version
- 5 Sensor software version

- 6 Field programmable gate array software version
- 7 Boot-Loader version
- 8 Configuration package version
- 9 Language package version
- 10 Currency version

Use the scroll bar to view the version information of rest of the currencies.

7.23 Adjusting Screen Brightness

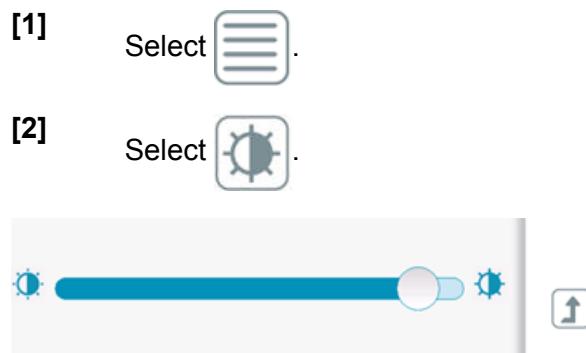
→ *Section 4.2.2 “Operator Menu”, p. 23*

Requirements

-  login

→ *Section 6.2.1 “Logging in as an Operator”, p. 58*

Procedure



- [3] Adjust the brightness.

Select  to decrease brightness.

Select  to increase brightness.

- [4] Select .

Result

⇒ The screen brightness is adjusted.

7

7.24 Enabling/Disabling the Favorite Operating Mode Name View

→ *Section 4.2.2 “Operator Menu”, p. 23*

Requirements

-  login

→ *Section 6.2.1 “Logging in as an Operator”, p. 58*

Procedure

- [1] Select .
- [2] Swipe to screen 2.
- [3] Select .
- ⇒ The operating mode number switch is enabled. Select  to switch to operating mode number view.
- Result ⇒ The operating mode name view is enabled in the  tab.

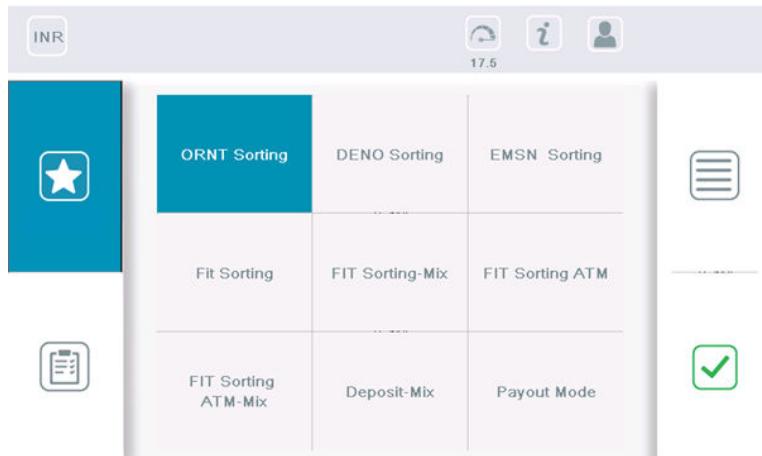


Figure 38: Operating Mode Name View

7.25 Searching the Banknote Data→ *Section 5.15 “Serial Number Storage”, p. 55*

Important Notice for the USA/Canada

The serial number reading options are not available in the USA/Canada.

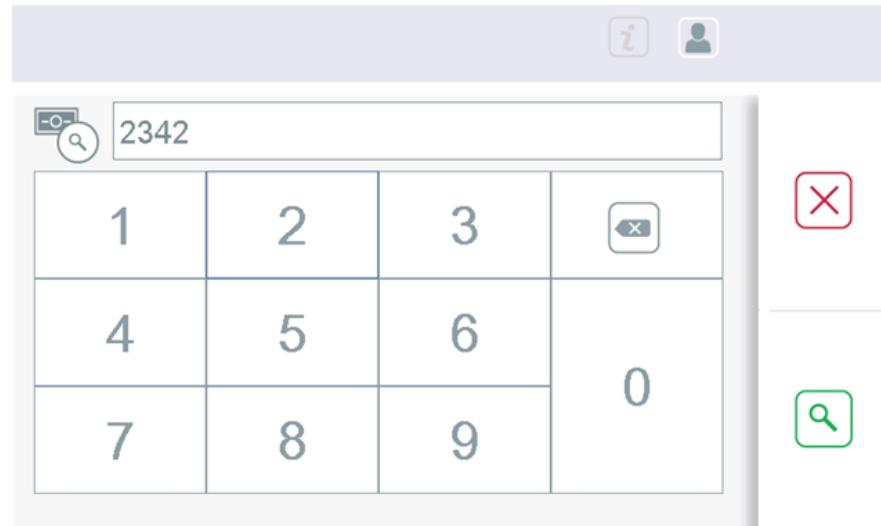
Requirements

-  login

→ *Section 6.2.1 “Logging in as an Operator”, p. 58*

Procedure

- [1] Navigate to screen 2.
- [2] Select .

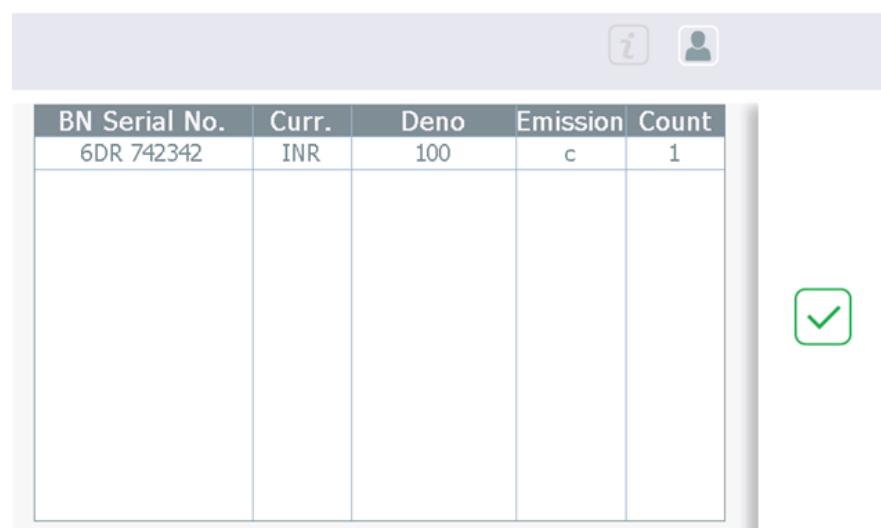


[3] Enter the last four digit of the banknote serial number.

⇒ The BPS C5 displays the data of all the banknotes matching the last four digit of the serial number.

The following information is displayed

- Banknote serial number
- Currency
- Denomination
- Emission
- Number of times the banknote has been processed



BN Serial No.	Curr.	Deno	Emission	Count
6DR 742342	INR	100	c	1

[4] Select 

Result

⇒ The banknote data of the searched serial number is displayed.

7.26 Logging Out from the Operator Mode

Requirements

-  login

Procedure

[1] Select 

[2] Select 

Result

⇒ The main screen is launched.

8 Banknote Processing with a Cash Management System (CMS)

This feature is used when you are connecting the BPS C5 to any CMS. The BPS C5 is connected to the PC, in which the CMS is installed, using serial communication over USB.

To process banknotes with a cash management system (CMS):

- The serial interface for a CMS must be configured
- A CMS, which supports this interface, must be connected to the serial interface

8.1 Connecting the BPS C5 to the Cash Management System

Requirements

- PC with the CMS software installed
- USB 2.0 Type A to Mini-B
- The BPS C5 switched on
→ *Section 6.1 “Switching the BPS C5 On and Off”, p. 57*
-  login
→ *Section 6.2.1 “Logging in as an Operator”, p. 58*
- The operating mode selection screen active on the BPS C5

Procedure

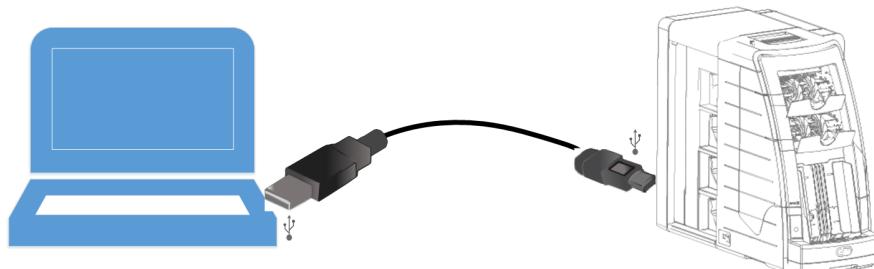
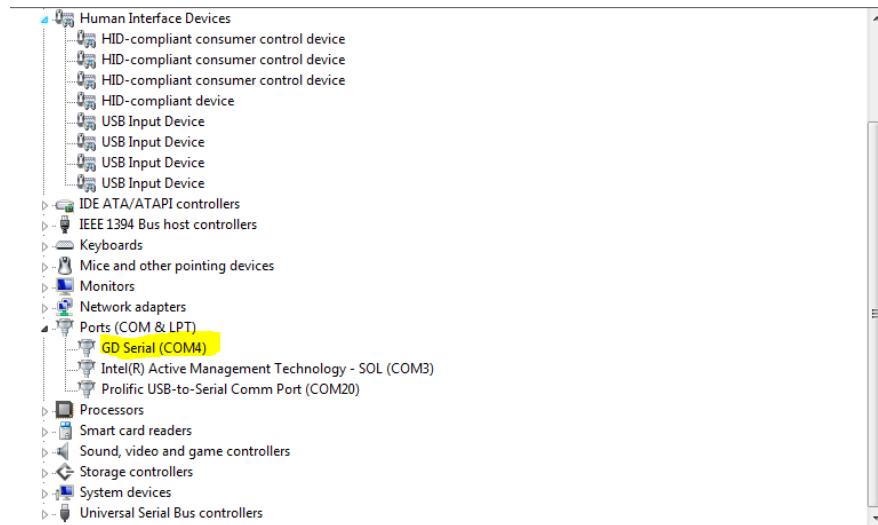


Figure 39: Connection Between the PC and the BPS C5

- [1] Connect the PC to the BPS C5.
- [2] In the PC, open the **Device Manager**.



- [3] Check the COM port to which the BPS C5 is connected.
 - [4] In the CMS, set the baud rate to 9600 and stop bit to One. Refer to your CMS manual for instructions.
- Result**
- ⇒ The BPS C5 is connected to the CMS. Once the connection is established, the BPS C5 user interface freezes. The user interface will be active in the CMS.

8

8.2 Processing the Banknotes

To process banknotes, insert the banknotes in to the BPS C5 singler and use the CMS user interface. The banknotes are processed and accounted according to the corresponding operating mode behavior.

→ *Section 5.2 “Operating Modes”, p. 37*

9 System Administration

To carry out system administration tasks, you must be logged in as a supervisor. If an operator is logged on, then first close all deposits and log off as an operator.

There is only one supervisor ID set up in the default configuration.
 → *Section 6.2.2 “Logging in as Supervisor”, p. 59*

9.1 Setting Date and Time

→ *Section 4.4.1 “System Settings Menu”, p. 33*

Requirements

-  login

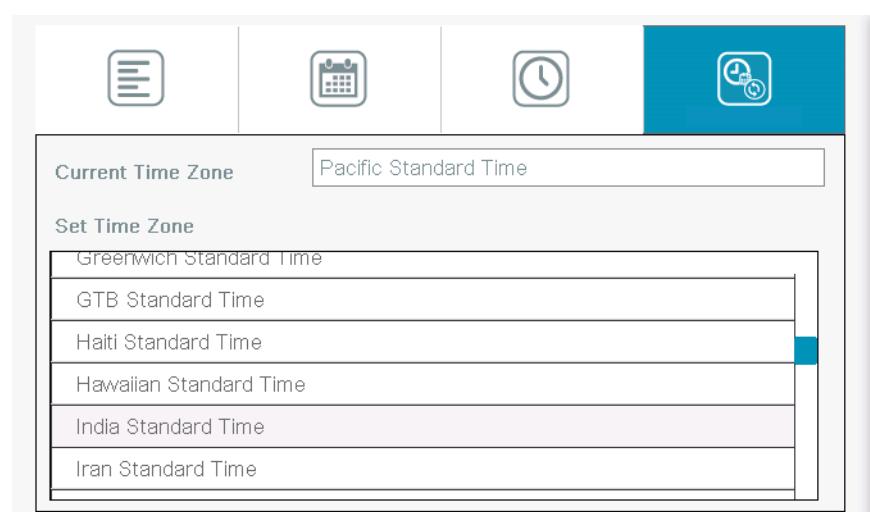
→ *Section 6.2.2 “Logging in as Supervisor”, p. 59*

Procedure

[1] Select 

Changing the Time Zone

[2] Select 

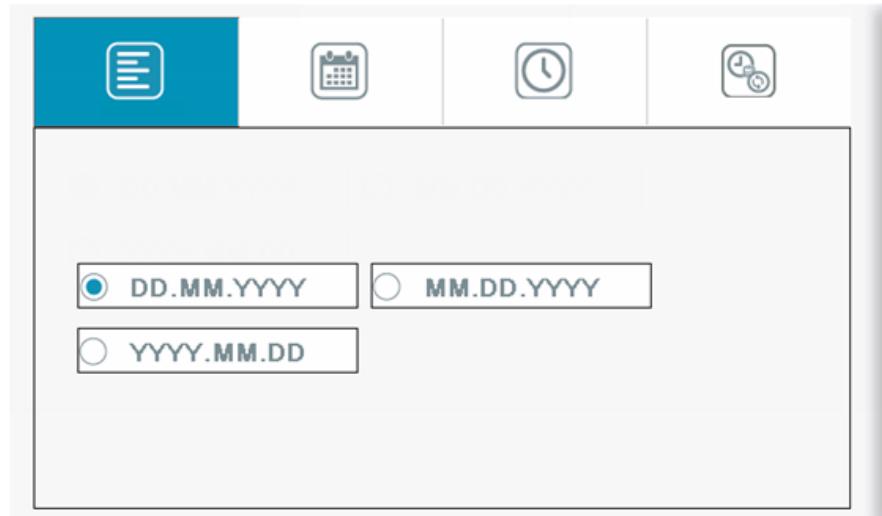


[3] Scroll and select the desired time zone.

⇒ The time zone is set successfully. For example, in the above image, the time zone is changed from Pacific Standard Time to Indian Standard Time.

Changing the Date Format

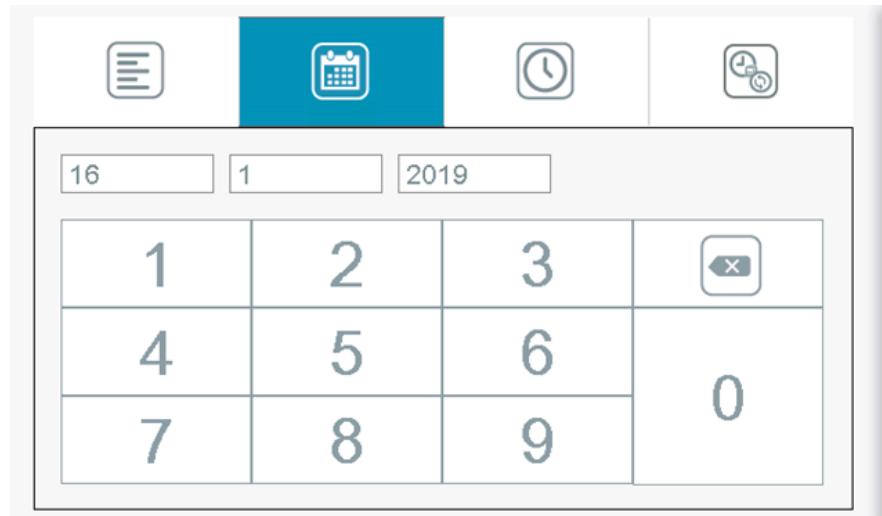
[4] Select .



[5] Select the desired date format.

Changing the Date

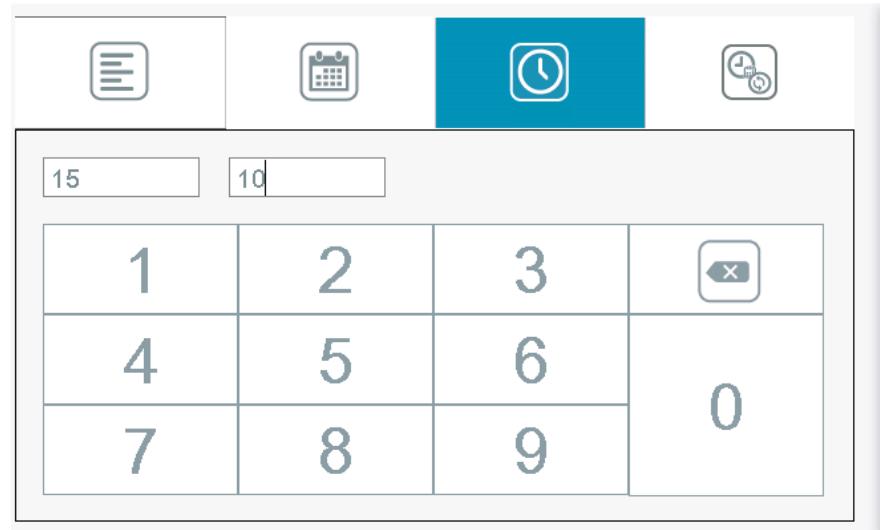
[6] Select .



[7] Enter the current date.

Changing the Time

[8] Select .



[9] Enter the current time.

[10] Select .

Result

⇒ The updated date and time appears on the header (status bar) of the screen.

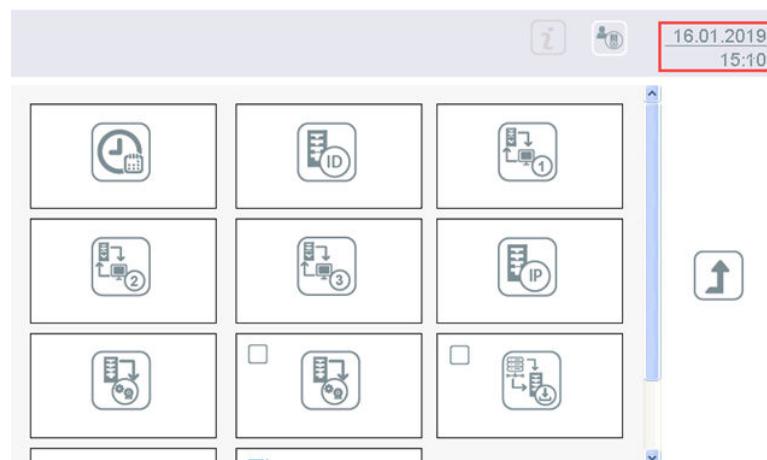


Figure 40: Updated Date/Time

9.2 Setting the Machine ID

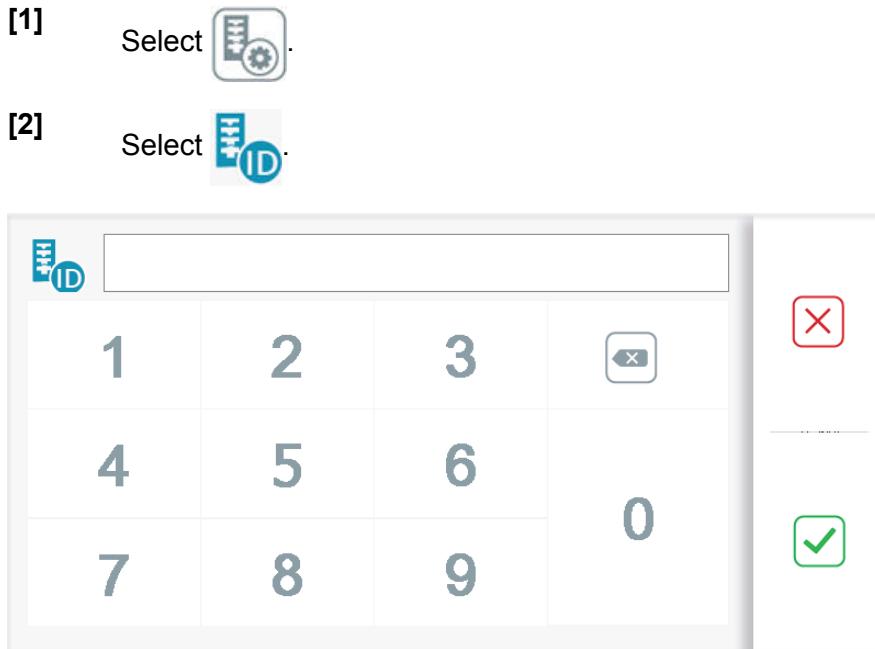
→ Section 4.4.1 “System Settings Menu”, p. 33

Requirements

-  login

→ Section 6.2.2 “Logging in as Supervisor”, p. 59

Procedure



[3] Enter the new machine ID.

**Important!**

It is recommended not to use the same machine ID more than once.

[4] Select .

Result

⇒ The machine ID is set.

9

9.3 Changing the File Transfer Protocol (FTP) Settings

→ *Section 4.4.1 “System Settings Menu”, p. 33*

Requirements

-  login

→ *Section 6.2.2 “Logging in as Supervisor”, p. 59*

- Correct network settings from the network administration.

Procedure

- [1] Select .
- [2] Select the FTP server by selecting  /  / .



[3] Enter the FTP IP address.

Enter the following values:

- **IP Address**
- **Directory**
- **Port**
- **Username**
- **Password**

[4] Select 

[5] Restart the BPS C5 for the changes to take effect.

Result

⇒ The FTP IP address is set.

9

9.4 Setting the Machine IP Address

→ *Section 4.4.1 “System Settings Menu”, p. 33*

Requirements

-  login

→ *Section 6.2.2 “Logging in as Supervisor”, p. 59*

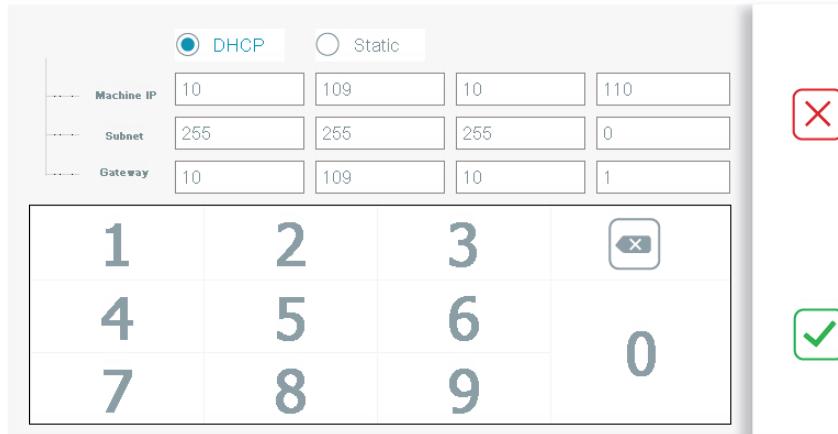
- The correct network settings from the network administration.

Procedure

[1] Select 

[2] Select 

Static IP Address



[3a] Select **Static**.

Enter the following values:

- **IP Address**
- **Subnet**
- **Gateway**

DHCP IP Address

The following alternative to dynamic IP configuration requires an available and correctly configured DHCP server. Contact your network administrator for further information.

[3b] For dynamic IP configuration over DHCP, select **DHCP** and enter the values.

⇒ The IP settings are automatically assigned when the machine is next started up.

[4] Select .

[5] Restart the machine for the changes to take effect.

Result

⇒ The machine IP address is changed.

9.5 Changing the Simple Network Time Protocol (SNTP) Settings

→ *Section 4.4.1 “System Settings Menu”, p. 33*

Requirements



→ *Section 6.2.2 “Logging in as Supervisor”, p. 59*

- The correct network settings from the network administrator

Procedure

[1] Select 

[2] Select 



[3] Enter the SNTP address.

Enter the following values:

- IP
- Port

[4] Select 

Result

⇒ The SNTP IP is set.

9

9.6 Activating the Video Surveillance Interface Switch

→ *Section 4.4.1 “System Settings Menu”, p. 33*

→ *Section 5.10 “Video Surveillance Interface (VSI)”, p. 50*

Requirements

-  login

→ *Section 6.2.2 “Logging in as Supervisor”, p. 59*

- Correct network settings from the network administrator

Procedure

[1] Select 

- [2] Check the  check box.

⇒ The VSI switch is activated.

9.7 Configuring the Video Surveillance Interface

→ *Section 5.10 “Video Surveillance Interface (VSI)”, p. 50*

Requirements

-  login
→ *Section 6.2.2 “Logging in as Supervisor”, p. 59*
- Correct network settings from the network administrator

Procedure

- [1] Select .

⇒ The VSI configuration input fields will then appear on the screen.



Important!

The information you now need may be obtained from the VSI server administrator.

IP	10	108	5	38												
...-Directory	ftp															
...-Port	54621															
...-Username	test		Password	****												
<table border="1"> <tr><td>1</td><td>2</td><td>3</td><td></td></tr> <tr><td>4</td><td>5</td><td>6</td><td></td></tr> <tr><td>7</td><td>8</td><td>9</td><td>0</td></tr> </table> 					1	2	3		4	5	6		7	8	9	0
1	2	3														
4	5	6														
7	8	9	0													

- [2] **IP**
Enter the IP address for the VSI server.
- [3] **Directory**
Displays the active directory of the VSI.
The default directory is FTP.

- [4] **Port**
Enter the VSI port.
- [5] **Username**
Enter the FTP user name.
- [6] **Password**
Enter the FTP password.
- [7] Select .
- ⇒ All changes become effective after the BPS C5 is restarted.

9.8 Enabling/Disabling the Automatic Installation Switch

→ *Section 4.4.1 “System Settings Menu”, p. 33*
→ *Section 5.11 “Remote Software Update”, p. 51*

Requirements

-  login
 - *Section 6.2.2 “Logging in as Supervisor”, p. 59*
- The BPS C5 connected to LAN



Important!

Separate installation packages are provided to demonstrate or use this feature on demand.

9

Procedure

- [1] Select .
- *Section 4.4 “Supervisor”, p. 30*
- [2] Check the  check box to enable automatic installation.
Uncheck the check box to disable automatic installation.

Result

- ⇒ The automatic installation switch is enabled/disabled.

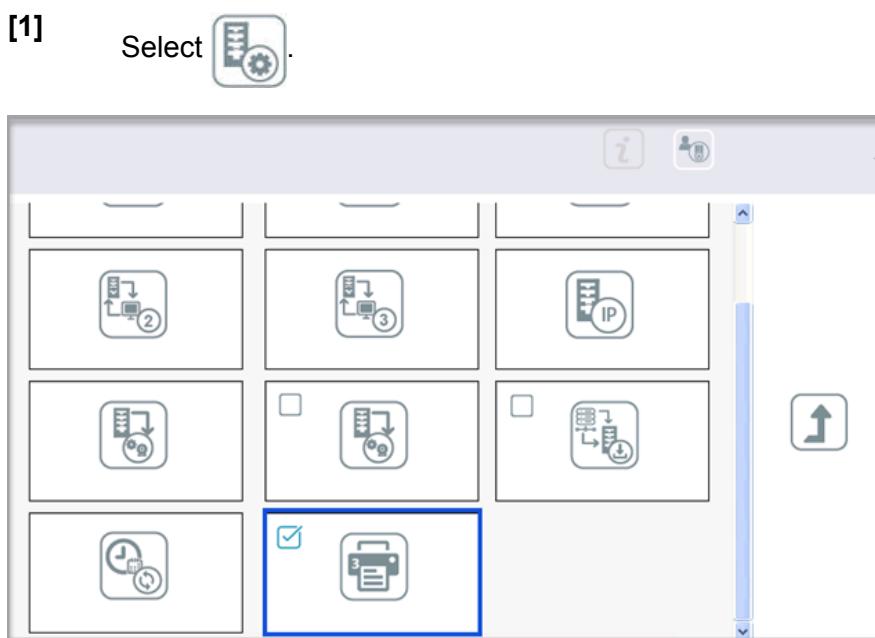
9.9 Enabling the Three Inch Printer

→ *Section 4.4.1 “System Settings Menu”, p. 33*
→ *Section 5.9 “Printing/Sending/Copying Report”, p. 47*

Requirements

- 
→ Section 6.2.1 “Logging in as an Operator”, p. 58
- Printer Connected

Procedure



- [2] Check the  check box.

Result

⇒ The three inch printer is enabled.

To switch to two inch printer, uncheck the  checkbox.

9

9.10 Activating Remote Desktop (RDP) Switch

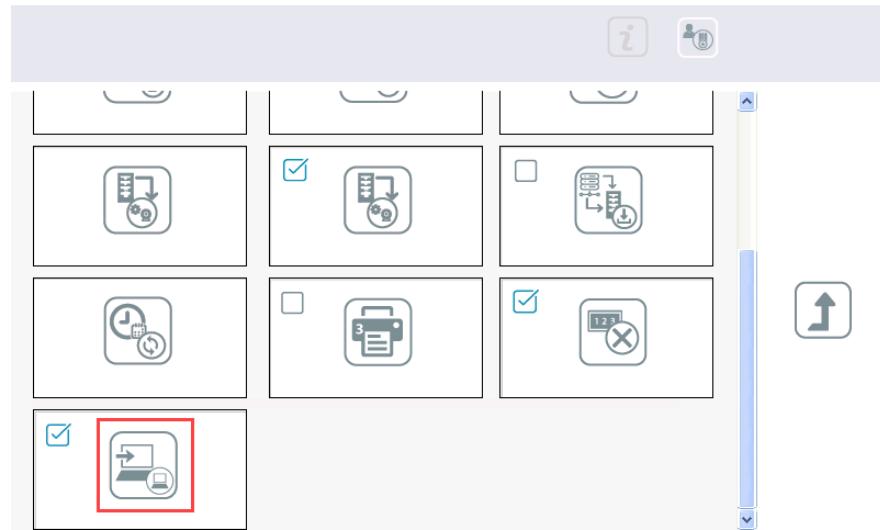
→ Section 4.4.1 “System Settings Menu”, p. 33

Requirements

- The PC_RemoteDesktop.exe available on the PC
- The BPS C5 connected to LAN
- The PC connected to LAN
- The BPS C5 and PC are on the same network
- Supervisor login in the BPS C5

Procedure

- [1] In the BPS C5, select **Supervisor> System Settings**.



[2] Check the RDP switch.

The following message is displayed:

RDP is enabled.

[3] Select 

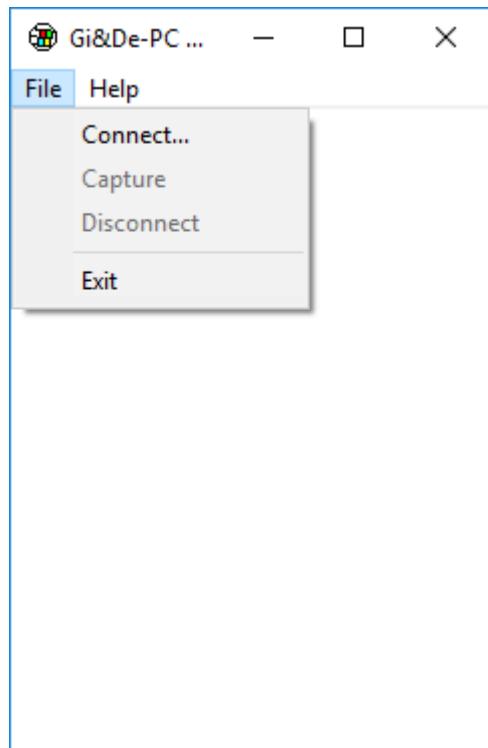
Note the DHCP IP Address. Use the same IP address in the remote desktop application on the PC.

	<input checked="" type="radio"/> DHCP	<input type="radio"/> Static	
Machine IP	10	109	10
Subnet	255	255	255
Gateway	10	109	10

1	2	3	
4	5	6	
7	8	9	0

[4] In the PC, start the PC_RemoteDesktop.exe application





- [5] Select **File > Connect**.
[6] Enter the BPS C5 machine IP address.
⇒ The BPS BPS C5 is connected to the PC.

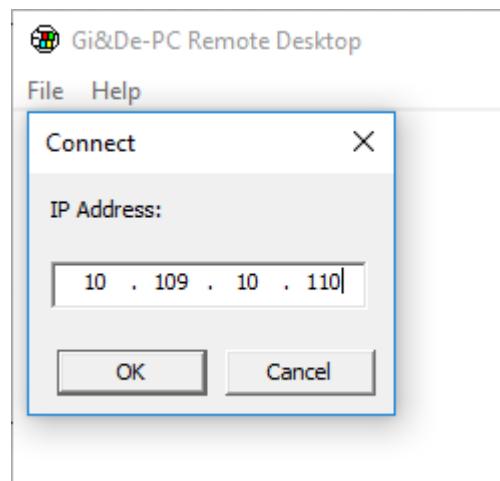


Figure 41: RDP Connect Screen

Result ⇒ You can access the BPS C5 from the connected PC.

9.11 Enabling/Disabling the Reject Count View

- *Section 4.4.1 “System Settings Menu”, p. 33*
→ *Section 4.3.2 “Reject/Unfit View”, p. 27*

Requirements

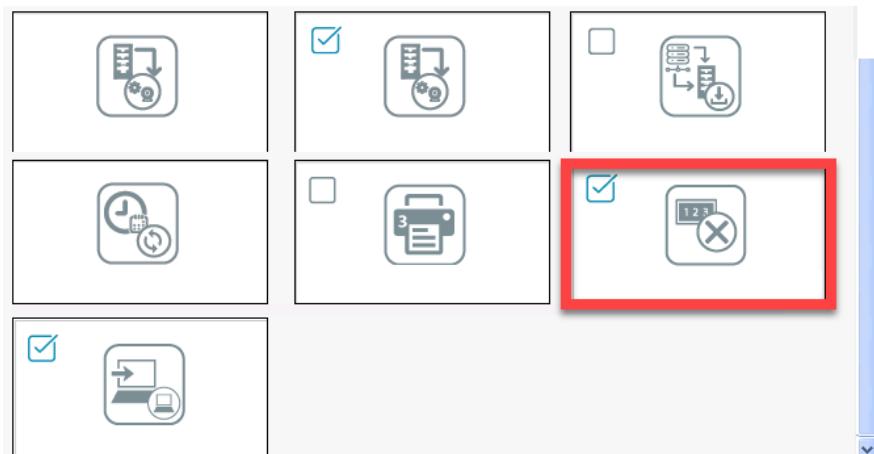
-  login

→ *Section 6.2.2 “Logging in as Supervisor”, p. 59*

Procedure

- [1] Select .

→ *Section 4.4 “Supervisor”, p. 30*



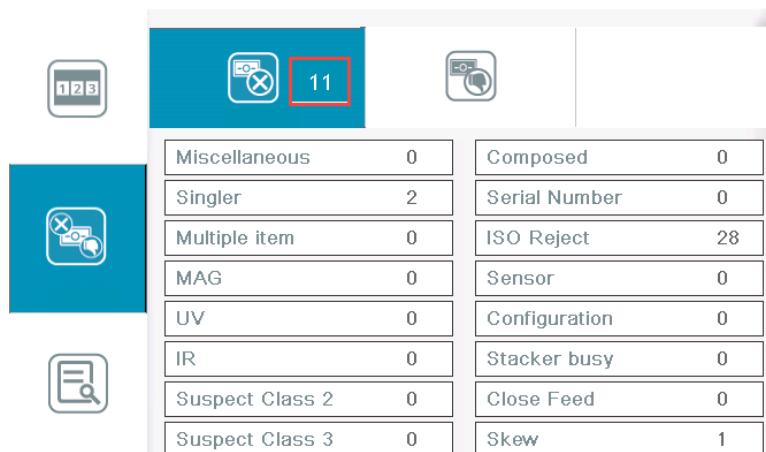
- [2]

Check the  check box to enable the reject count display.

Uncheck the check box to disable the reject count display.

Result

- ⇒ The number of rejected banknote appears in the **Reject/Unfit** tab of banknote processing result screen.



Type	Count
Singler	2
Multiple item	0
MAG	0
UV	0
IR	0
Suspect Class 2	0
Suspect Class 3	0
ISO Reject	28
Sensor	0
Configuration	0
Stacker busy	0
Close Feed	0
Skew	1

Figure 42: Reject Count View

9.12 Viewing Operation Details

→ Section 4.4 “Supervisor”, p. 30

Requirements

-  login

→ Section 6.2.2 “Logging in as Supervisor”, p. 59

Procedure

- [1] Select .

Result

⇒ The following screen displays the operation details.

	Details	Cumulative	Resettable
Date/Time	17.10.2017 15:56	09.04.2018 12:00	
General Info			
System ID	MachinelID		
Serial Number	17ST41021		
Global Counters			
BN Counter	1581626		
Power On Time	1117:17:50		
Transport On Time	124:02:40		
Singler On Time	221:13:56		
Missed Feed Ratio	4.52%	0.00%	

Figure 43: Operation Details Screen

Figure 44: Operation Details Screen

Scroll down the screen for more operation details.

9

9.13 Changing the Fitness Threshold

→ Section 4.4 “Supervisor”, p. 30

Requirements

-  login

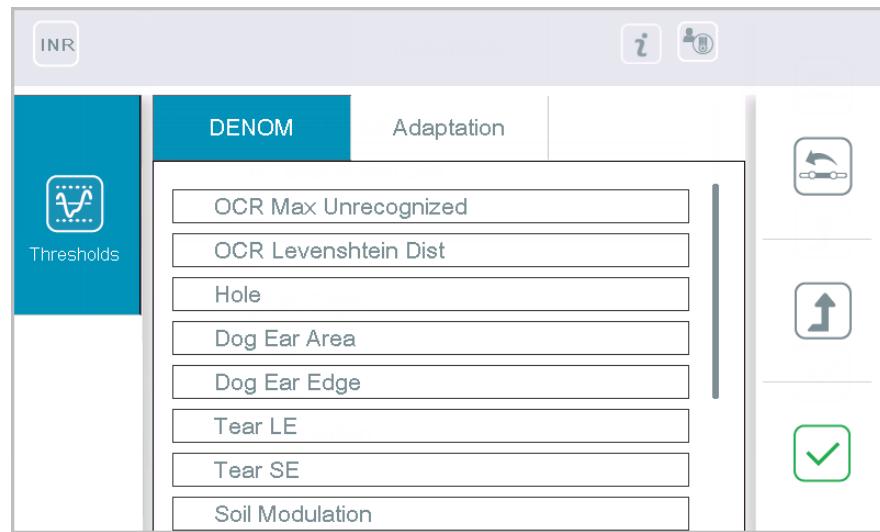
→ Section 6.2.2 “Logging in as Supervisor”, p. 59

- The desired currency is selected.

→ Section 7.1 “Selecting a Currency”, p. 63

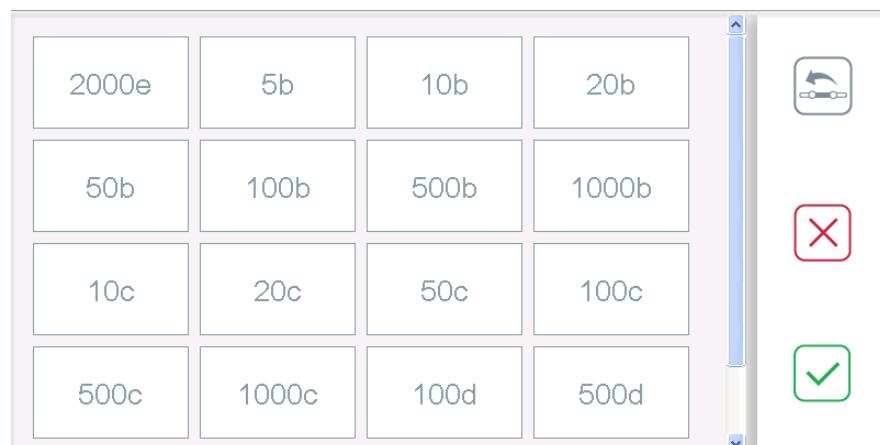
Procedure

- [1] Select .



- [2] In the **Deno Wide** tab, select the mechanical sorting threshold that you wish to change.
To reset the threshold across all denomination/emission for all the mechanical threshold value, select .

- [3] Select .



- [4] Select the desired denomination/emission.
The numeric value stands for the denomination and the character stands for emission.
To reset the selected mechanical threshold value for all denomination/emission, select .

- [5] Select .



[6] Change the threshold value using / .

You can also move the button to the desired value.

To reset the selected threshold value for the selected denomination/emission, select .

[7] Select .

[8] Select .

Result ⇒ The fitness threshold is set.

9.14 Updating Configuration Package

→ *Section 5.12 “Configuration Package”, p. 52*

→ *Section 4.4.2 “Installation Menu”, p. 35*

Requirements

- login
 - *Section 6.2.2 “Logging in as Supervisor”, p. 59*
-
- The USB stick with the configuration package, placed in the *Configuration* folder, is plugged to the BPS C5/ Configuration package downloaded remotely.

**Important!**

When you update the configuration package, the existing data, OP modes, and reports are deleted.

Procedure

[1] Select

[2] Select

[3] Select the desired installation file and version.

[4] Select

⇒ You will receive a warning.

Warning Statistical data, OPmodes and reports will be deleted for the deleted adaptation. 1. Press Ok to continue. 2. Press Cancel to stop installation.

[5] Select

The BPS C5 will automatically reboot after the installation is complete. The following message is displayed:

Config Package Updated Successfully.

Result

⇒ The installation is complete. The BPS C5 saves a copy of the configuration package, which can be exported to a USB stick.
→ *Section 9.17 “Exporting the Configuration Package”, p. 116*

The screen appears.

9

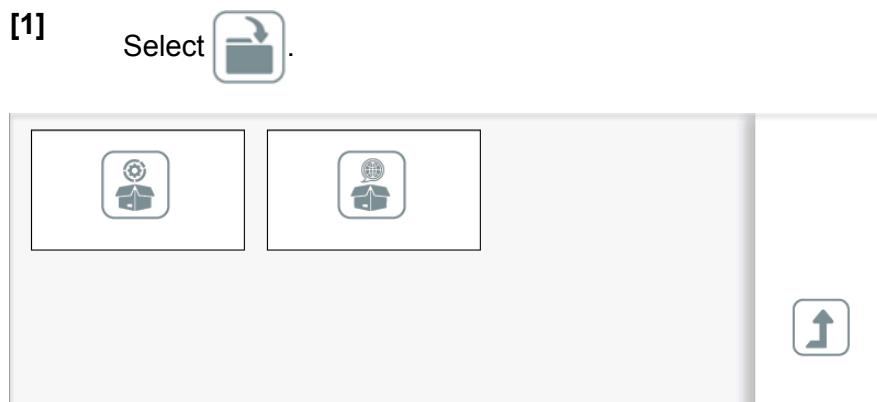
9.15 Updating Language Package

- *Section 5.13 “Language Package”, p. 53*
- *Section 4.4.2 “Installation Menu”, p. 35*

Requirements

-  login
→ *Section 6.2.2 “Logging in as Supervisor”, p. 59*
- The USB stick with the language package, placed in the *languages* folder, is plugged to the BPS C5 or Language package downloaded remotely.

Procedure



[2] Select .

[3] Select the desired language package.

[4] Select .

Result

⇒ After installation, you will receive the following message:
— **Installation Status: Successful**

9

9.16 Setting the Favorite Operating Mode

→ *Section 5.5 “Favorite Operating Modes ”, p. 44*

→ *Section 4.4 “Supervisor”, p. 30*

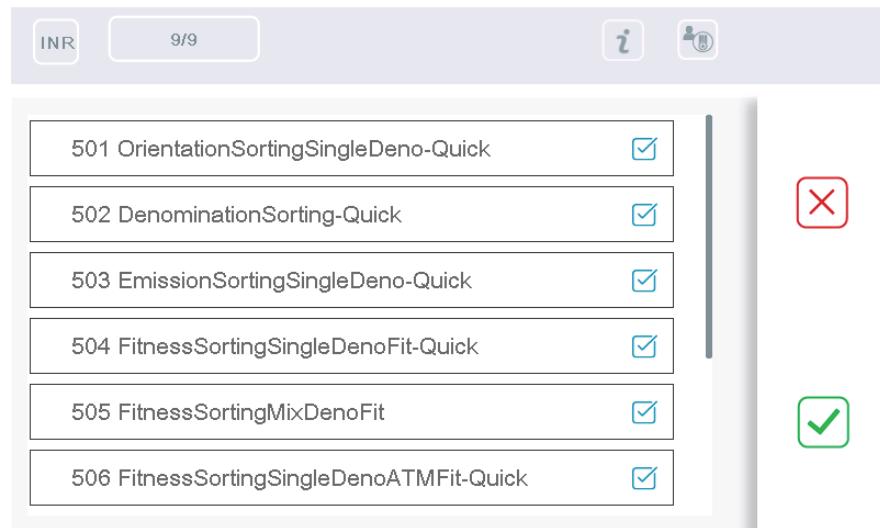
Requirements

-  login
→ *Section 6.2.2 “Logging in as Supervisor”, p. 59*

Procedure

[1] Select .

[2] Select .



- [3] Check the operating modes you want to set as favorite.
 You can set up to nine operating modes as favorite. Use the scroll bar for more operating modes.

Setting the Favorite Operating Mode Identity Number (ID)

[4] Select 



- [5] Select the operating mode ID.
 Use  /  to select the ID.
 Note that two operating mode can not have same ID.
 ⇒ The operating mode appears in the **Favorite** list in Operator menu.

9.17 Exporting the Configuration Package

→ *Section 5.12 “Configuration Package”, p. 52*

→ *Section 4.4 “Supervisor”, p. 30*

Requirements

-  login
 - *Section 6.2.2 “Logging in as Supervisor”, p. 59*
- A valid configuration package installed in the BPS C5
 - *Section 9.14 “Updating Configuration Package”, p. 112*
- USB stick plugged to the BPS C5

Procedure

- [1] Select .

Result

- ⇒ The installed configuration package is exported to the connected USB stick. The following message is displayed:
Export Config Package Successful
You can install the configuration package in other BPS C5 machines.

9.18 Setting the Self Test Level

→ *Section 5.8 “Logs, Traces, Raw Data, and Self Test Levels”, p. 46*

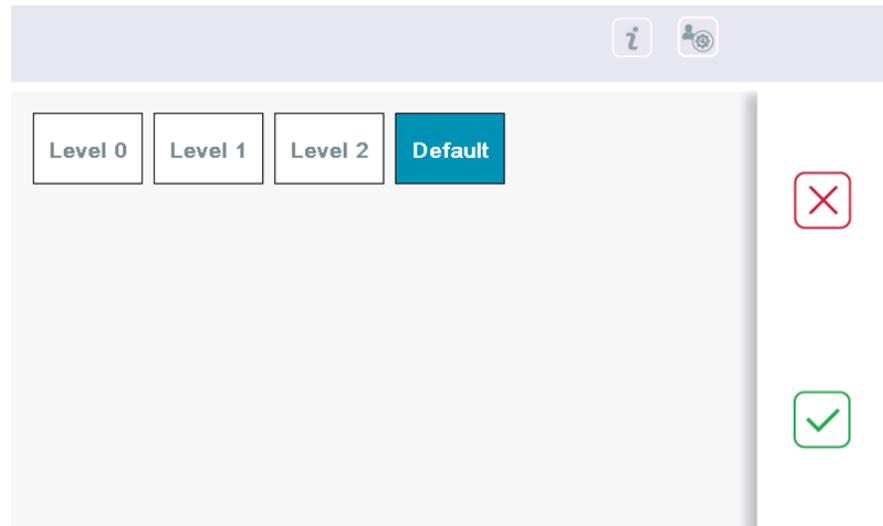
→ *Section 4.4 “Supervisor”, p. 30*

Requirements

-  login
 - *Section 6.2.2 “Logging in as Supervisor”, p. 59*

Procedure

- [1] Select .



[2] Select the desired test level as desired.

[3] Select .

Result

⇒ The self-test level has been set.

9.19 Setting the Trace Level

→ *Section 5.8 “Logs, Traces, Raw Data, and Self Test Levels”, p. 46*

→ *Section 4.4 “Supervisor”, p. 30*

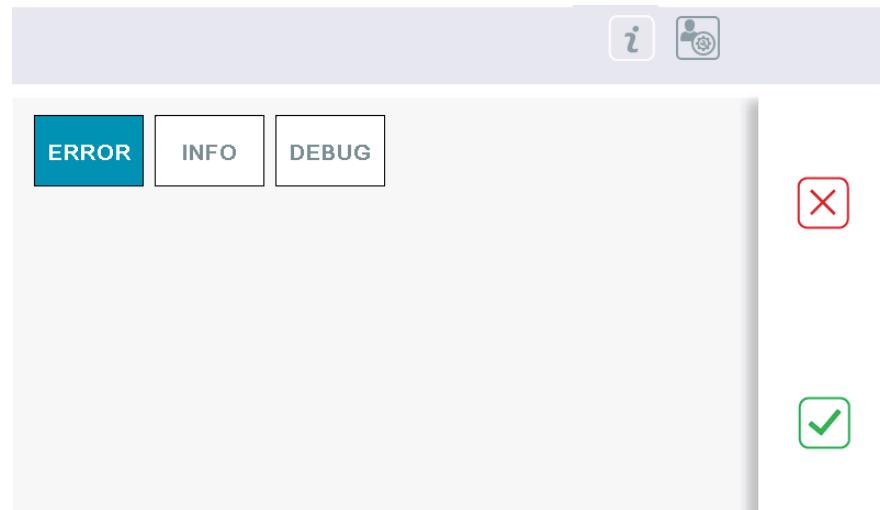
Requirements

-  login

→ *Section 6.2.2 “Logging in as Supervisor”, p. 59*

Procedure

[1] Select .



[2] Select the level as desired.

[3] Select .

Result

⇒ The trace level setting is updated.

9.20 Enabling the Serial Number Storage Switch

→ *Section 5.15 “Serial Number Storage”, p. 55*

Important Notice for the USA/Canada

The serial number reading options are not available in the USA/Canada.

9

Requirements

-  login

→ *Chapter 6 “Starting the BPS C5”, p. 57*

[1] Navigate to screen 2.

[2] Select .

[3] Select the  check box.

Result

⇒ The serial number storage switch is enabled. The data of the processed banknotes are saved in BPS C5.

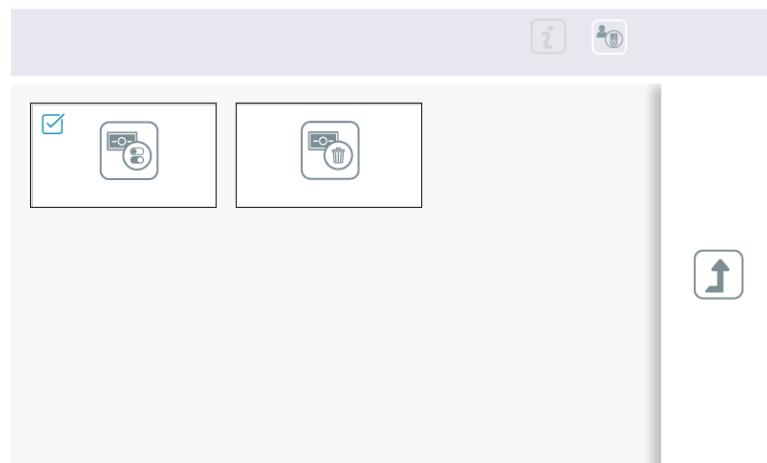


Figure 45: Serial Number Storage Menu

9.21 Deleting the Banknote Data

→ *Section 5.15 “Serial Number Storage”, p. 55*

Important Notice for
the USA/Canada

The serial number reading options are not available in the USA/
Canada.

Requirements

-  login

→ *Chapter 6 “Starting the BPS C5”, p. 57*

[1] Navigate to screen 2.

[2] Select 

[3] Select 

⇒ The following message is displayed:

Are you sure you want to delete all banknote data?

[4] Select  to confirm deletion.

Result

⇒ All the banknote data stored in the BPS C5 is deleted .

10 Opening and Closing the BPS C5

You are required to open the BPS C5 for cleaning or banknote jam recovery.

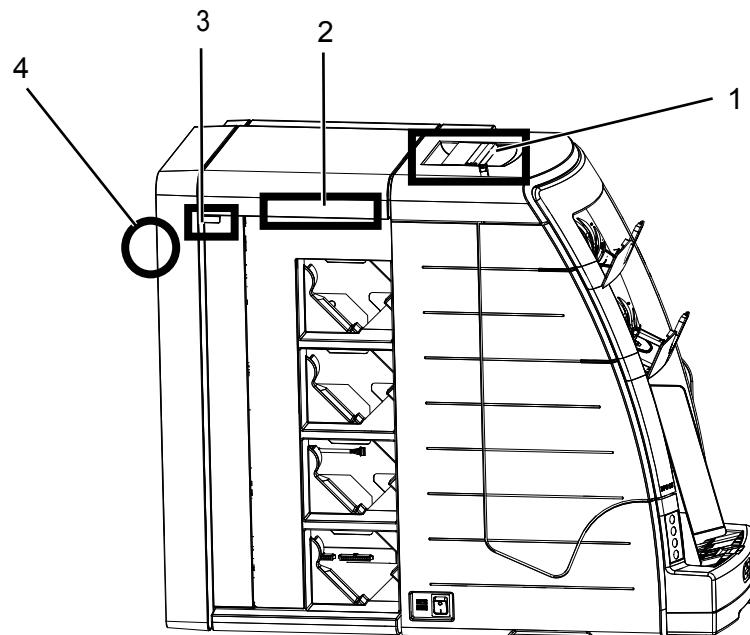


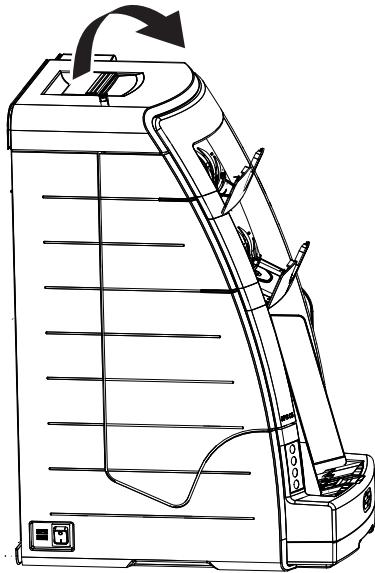
Figure 46: BPS C5 Opening Areas

There are four areas of opening the BPS C5:

1. Input Module
2. SDM horizontal transport path
3. SDM vertical gate
4. Fail-safe module

10.1 Opening the Input Module (IM)

Procedure



- [1] Pull up the latch handle and pull the front module forward.

Result

- ⇒ The IM is open.

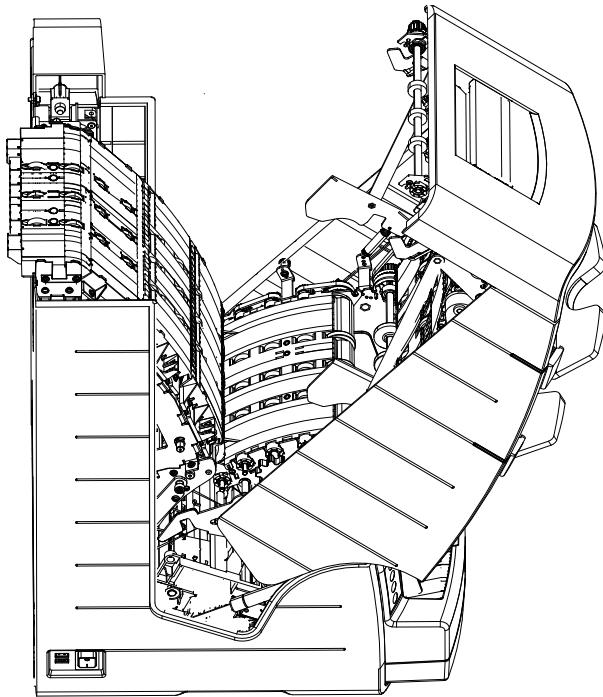


Figure 47: IM Opened

10.2 Opening the Horizontal Transport Path of the Standard Delivery Module (SDM)

Procedure



NOTICE

System malfunction caused by opening the transport door

Opening the transport door during banknote processing causes to banknote jam.

Never open the transport door during banknote processing.

- [1] Open the **Horizontal Transport Door** of the SDM.

Result

- ⇒ The horizontal transport path is opened.

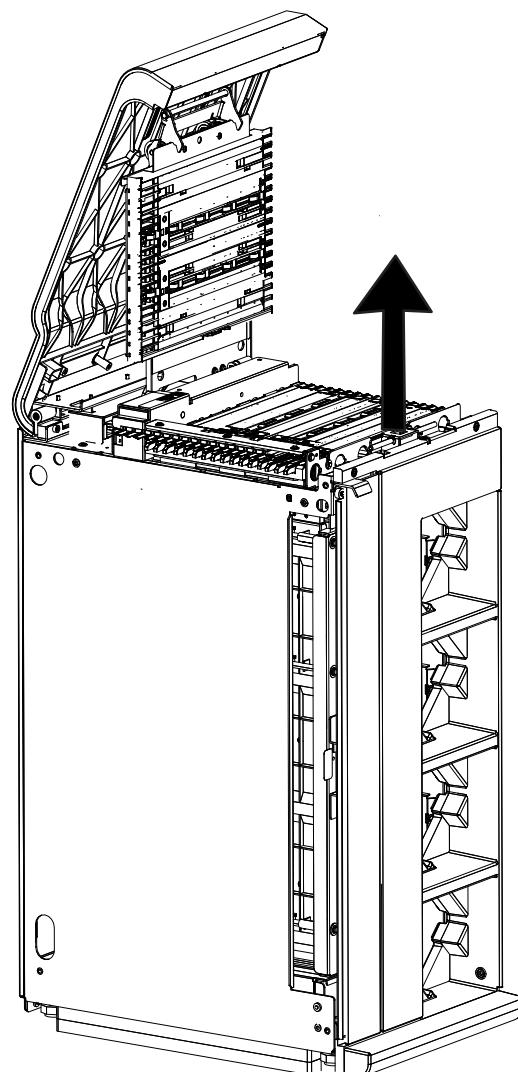


Figure 48: Horizontal Path Opened

10.3 Opening the Vertical Transport Path of the Standard Delivery Module (SDM)



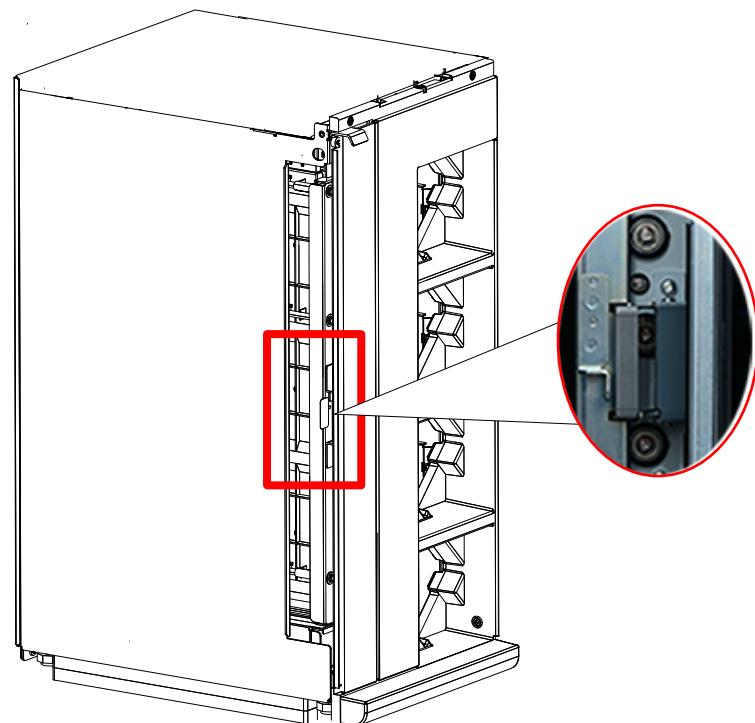
NOTICE

System malfunction caused by opening the transport door
Opening the transport door during banknote processing causes to banknote jam.
Never open the transport door during banknote processing.

Procedure



- [1] Open the **Vertical Transport Door** of the SDM.



- [2] Unlock the lever to pull the transport path out.
Result ⇒ The vertical transport path is opened.

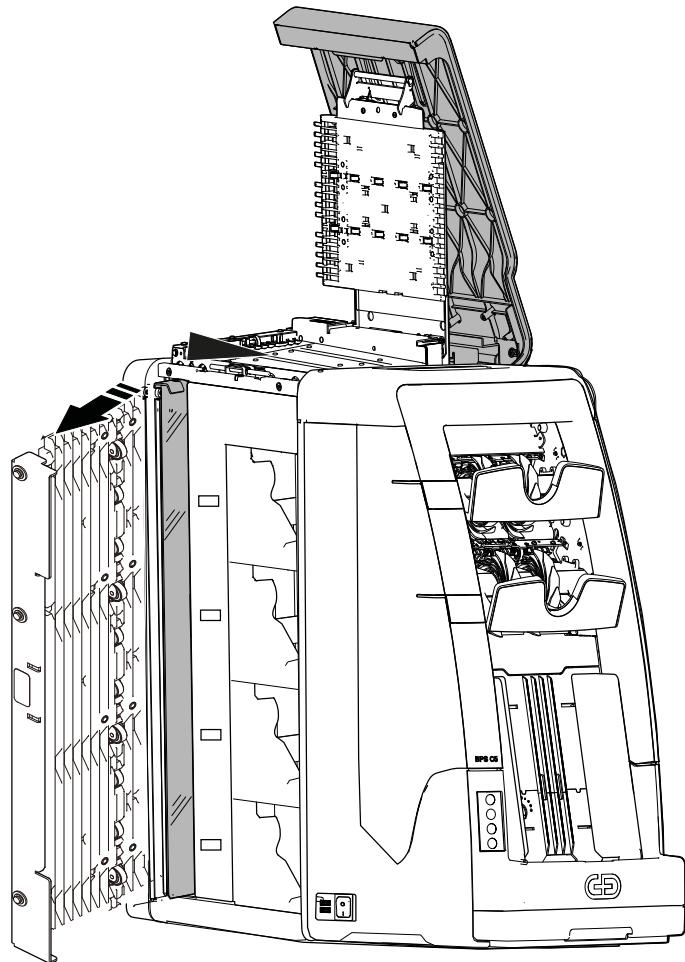


Figure 49: Vertical Path Opened

10

10.4 Opening the Fail-safe Compartment

Procedure

- [1] Open the fail-safe cover.

Result

- ⇒ The fail-safe compartment is open.

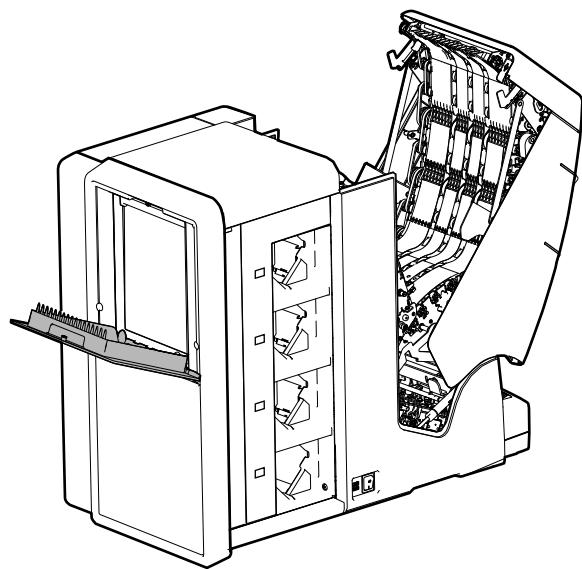


Figure 50: Failsafe Opened

10.5 Closing the BPS C5

Requirements

- The BPS C5 opened
→ *Section 10.1 “Opening the Input Module (IM)”, p. 122*



CAUTION

There is a risk of crushing when closing the machine.
You may trap your fingers.
When closing, be careful not to crush your fingers.

Procedure

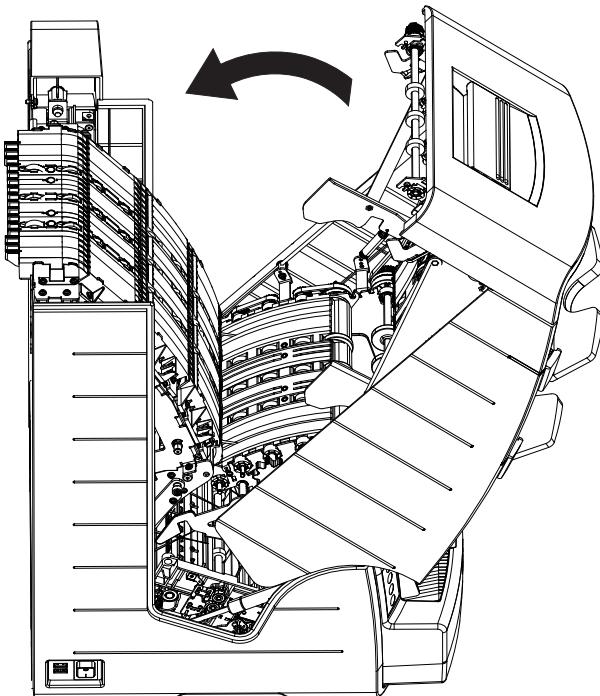
- [1] Close the fail-safe compartment.
- [2] Insert the vertical transport path.
- [3] Lock the vertical transport path lever.



CAUTION

There is a risk of crushing when closing the flap or door.
You may trap your fingers.
When closing the flap or door, be careful not to crush your fingers.

- [4] Close the **Vertical Transport Door**.
- [5] Close the **Horizontal Transport Door**.



[6] Push the front module of the IM back.



Important!

Ensure that the front module engages properly, not until you hear the latch click sound.

Result

⇒ The BPS C5 is closed when you hear a click sound.

11 Banknote Jam

Causes of a Banknote Jam

Causes of a banknote jam may be:

- Mechanical defects of the banknotes (dog ear, folded edges, limpness, hole, tear, stains, adhesive tape, soiling)
- Gate or picker errors
- Faulty or dirty transport photo detectors
- Jammed objects (banknotes, header cards, foreign materials like rubber band, stapler pin etc.)
- Power failure during banknote processing
- Stacker disturbances

Overview of Banknote Jam Recovery

Jam recovery can be divided into the following phases:

- Empty critical delivery modules and the fail-safe compartment
- Recount delivery stacker

Individual steps or entire phases are optional. Which steps actually have to be carried out depends on the location of the jam:

- Input module
- Delivery module

Depending on the transport sub-section affected, special measures must be taken when removing and processing the banknotes removed further. The steps required for jam recovery also depend on whether the data of jammed objects deviates from the registered data and whether the jam recovery takes place after a power failure.

The jam error message displaying the location of the jam appears in the screen.

Banknote Jam in Transport Path

The BPS C5 shows the transport path location of the jam.



Figure 51: Transport Path Jam Error Example

Critical Stacker Error in
Multi Deposit Operat-
ing Modes

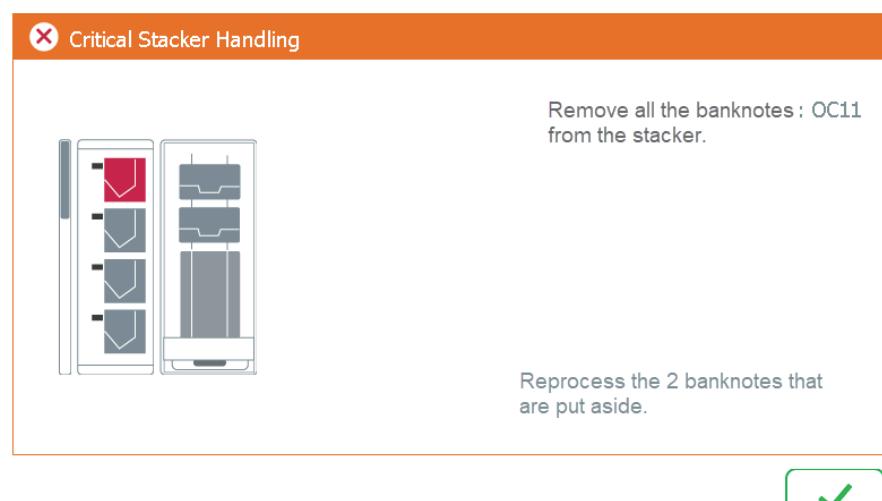


Figure 52: Critical Stacker Error

If the serial number feature is supported in your BPS C5 , the mes-
sage displays the serial number of the banknote after which the
error has occurred. You are prompted to remove all the banknotes
placed above the banknote with this serial number.

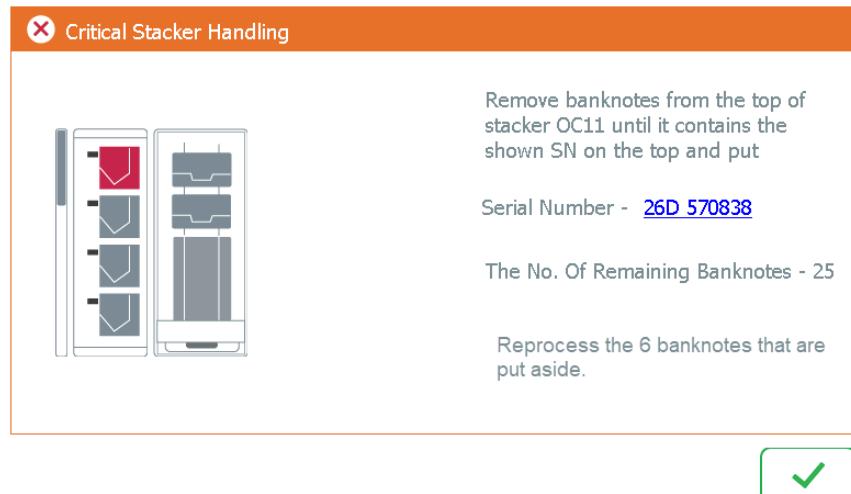


Figure 53: Critical Stacker Error Message with Serial Number

The SDMs are reset after recovering an event of banknote jam.

11.1 Removing the Jammed Banknotes



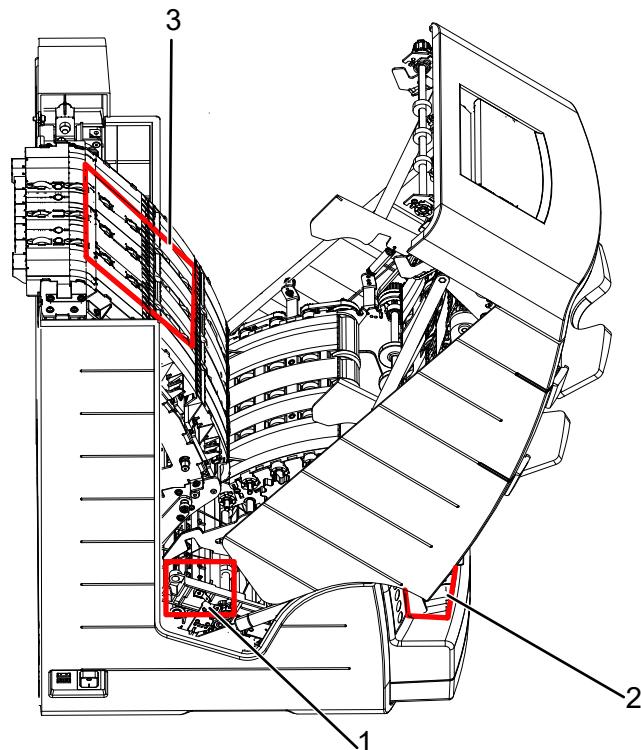
CAUTION

There is a risk of crushing when closing the machine.

You may trap your fingers.

When closing, be careful not to crush your fingers.

- [1] Pull up the latch handle and pull the front module forward.
→ *Section 10.1 “Opening the Input Module (IM)”, p. 122*



- [2] Remove the banknotes from the transport paths.
- [2-1] Remove the jammed banknotes from the singler area (2), if any.
- [2-2] Remove the jammed banknotes from the transport area (1, 3), if any.
- [3] Push the front module back to close the IM.
→ *Section 10.5 "Closing the BPS C5", p. 127*



Important!

Ensure that the front module engages properly not until you hear the latch click sound.

Removing the Jammed Banknotes from the Horizontal Transport Path

- [4] Open the **Upper Door**.
→ *Section 10.2 "Opening the Horizontal Transport Path of the Standard Delivery Module (SDM)", p. 123*

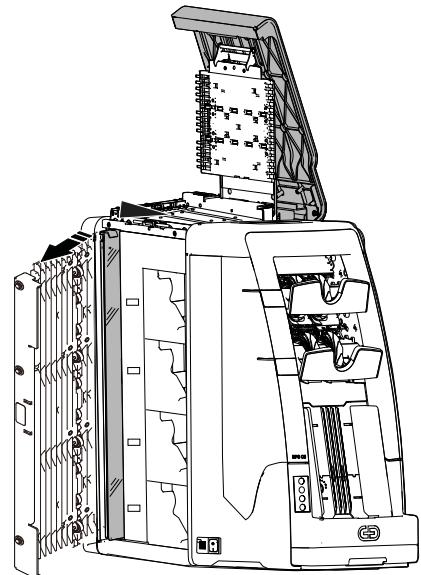


- [5] Remove the banknotes from the transport paths.
- [6] Close the **Upper Door**.

Removing the Jammed Banknotes from the Vertical Transport Path



[7] Open the **Front Door**.



- [8] Unlock the lever and pull the transport path out.
- [9] Remove the jammed banknotes from the transport area, if any.



11

- [10] Rotate the vertical transport hand wheel.

⇒ If there are jammed banknotes, they will fall freely.
Remove the fallen banknotes, if any.

- [11] Open the fail-safe cover.
→ *Section 10.4 “Opening the Fail-safe Compartment”, p. 126*



- [12] Remove banknotes from the fail-safe, if any.
[13] Close all the doors.
→ *Section 10.5 “Closing the BPS C5”, p. 127*
[14] In the GUI, select .

11

11.2 Getting Additional Information

→ *Section 5.14 “Machine Status Information”, p. 54*

Requirements

- The BPS C5 is switched on
→ *Section 6.1 “Switching the BPS C5 On and Off”, p. 57*
-  enabled

Procedure

[1]

 Select 

⇒ The status of the peripheral devices connected to the BPS C5 are displayed.

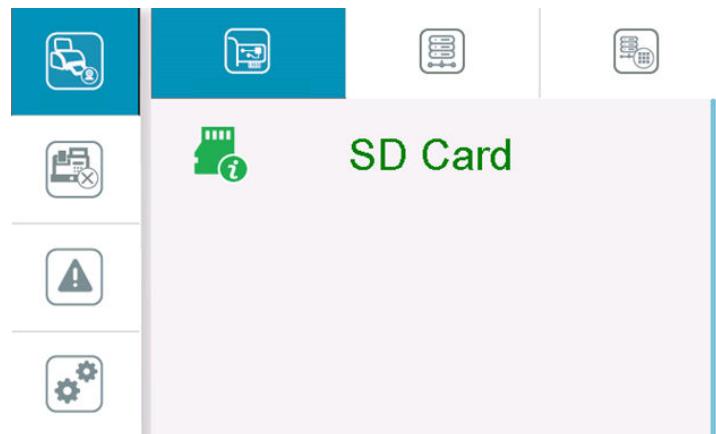


Figure 54: Peripheral Devices Status

[2]

 Select 

⇒ The status of the various server connections are displayed.



Figure 55: Server Status

[3]

 Select 

⇒ The list of start-up errors is displayed.



Figure 56: Startup Error Screen

- [4] Select .
- ⇒ The trace level and sensor self test settings information are displayed.

	Settings Name	Status
	Trace Level	ERROR
	Sensor Self-Test Level	Default

Figure 57: Settings Information

12 Cleaning

To keep the machine in perfect condition and operating correctly, you must clean the machine at regular intervals.

Take note of the following recommendations depending on the banknote quality and application:

- Clean once a day
- Clean when looking soiled

Always switch off the machine before cleaning it.

The dust tray is at the bottom of the machine.



Important!



DANGER

Risk of electric shock

Electric shock may cause death or serious injury.

1. Before starting any work, switch off the machine/device.
3. Secure the machine/device against being switched back on.

Note also the following safety warnings.



DANGER

Risk of electric shock

Electric shock may result in death or serious injury.

Only field engineers are permitted to remove panel sections screwed in place on the machine/device.



WARNING

Do not perform any maintenance and service work.

There is a risk of serious injury.

Have maintenance and service work carried out by specially trained maintenance personnel and field engineers.



CAUTION

Risk from raised dust

Inhaling dust can be hazardous to your health.

Dust in the air can also damage bearings and electronic parts.

Use a vacuum cleaner with a micro-filter.

Never use compressed air for cleaning purposes.

**NOTICE**

Incorrect cleaning materials
can damage the machine/device.
Do not use cleaning material with a corrosive or scouring effect.

**NOTICE**

Contaminated cleaning cloth
may damage the measurement window.
Always use a new cleaning cloth. Grit contamination from previous
cleaning may damage the measurement window.
Use each cleaning cloth once only.

**Important!**

Ensure that no fluid leaks into the inside of the machine.

Cleaning Aids

Use the following tools for cleaning:

- Commercially available cleaning solutions
- Clean, lint-free cloths (for cleaning and drying)
- Cleaning set MTS (Art.-No. 518493001) for heavy soiling
- Commercially available vacuum device with micro filter

To clean the machine, proceed as follows:

Procedure

- [1] Switch off the machine.

→ *Section 6.1 "Switching the BPS C5 On and Off", p. 57*

**DANGER**

Risk of electric shock

Electric shock may result in death or serious injury.

Always unplug the machine by pulling on the plug and never by
pulling on the cable.

- [2] Unplug the mains plug from the power socket.

- [3] Check the machine for damage.

**Important!**

If safety-relevant damage is visible (damaged or broken network
cables or plugs, sharp-edged parts) contact your service partner or
local service organization.

- [4] Thoroughly wring out the moistened cleaning cloth.

Cleaning Machine

- [5] Clean the housing with circular movements.

[6] Remove the cleaning fluid with a clean, damp cloth.

[7] Dry the housing with a clean, dry cloth.

Cleaning the Transport Section

[8] Open both transport sections.

→ *Chapter 10 “Opening and Closing the BPS C5”, p. 121*

[9] Remove the dust using a cleaning cloth.

[10] If the soiling is heavy, vacuum the banknote transport paths, singler area, and measurement windows. Do not blow conductive particles into the machine.

[11] Clean the singler area with a clean, damp cloth.

[12] Dry the singler area with a clean, dry cloth.



Important!

Use cleaning set MTS to remove heavy soiling.

[13] Thoroughly wring out the moistened cleaning cloth.

[14] Clean the transport sections, rollers, and measurement window.

[15] Dry the transport section, rollers, and measurement window using a dry, lint-free cloth.

Cleaning the Sensor Area

[16] Clean both the sensor measurement windows (glass plates PIS1, PIS2, UV radiation) using the cleaning set.

[17] Clean the MTS roller if you observe dust accumulation.



Important!

Ensure that all parts are dry and without residues.

[18] Close the machine.

→ *Section 10.5 “Closing the BPS C5”, p. 127*

Result

⇒ The machine is cleaned.



Important!

With single-shift operation and normal operating conditions clean the machine once a day, or more frequently if needed.

12.1 Cleaning the Display Module

This procedure shows how to clean the touchscreen display module.

Requirements

- Commercially available mild cleaning solutions
- Clean, lint-free clothes (for cleaning)



NOTICE

Incorrect cleaning materials
can damage the machine/device.
Do not use cleaning material with a corrosive or scouring effect.

Procedure

- [1] Switch off the BPS C5.
- [2] If the touchscreen is soiled, first clean it with a clean, lint-free cloth.
- [3] Apply a mild cleaning solution to a clean, lint-free cloth and carefully remove fingerprints and other residue.



Important!

Never apply sprays or cleaning fluids directly to the touchscreen.

Result

⇒ The display module is cleaned.

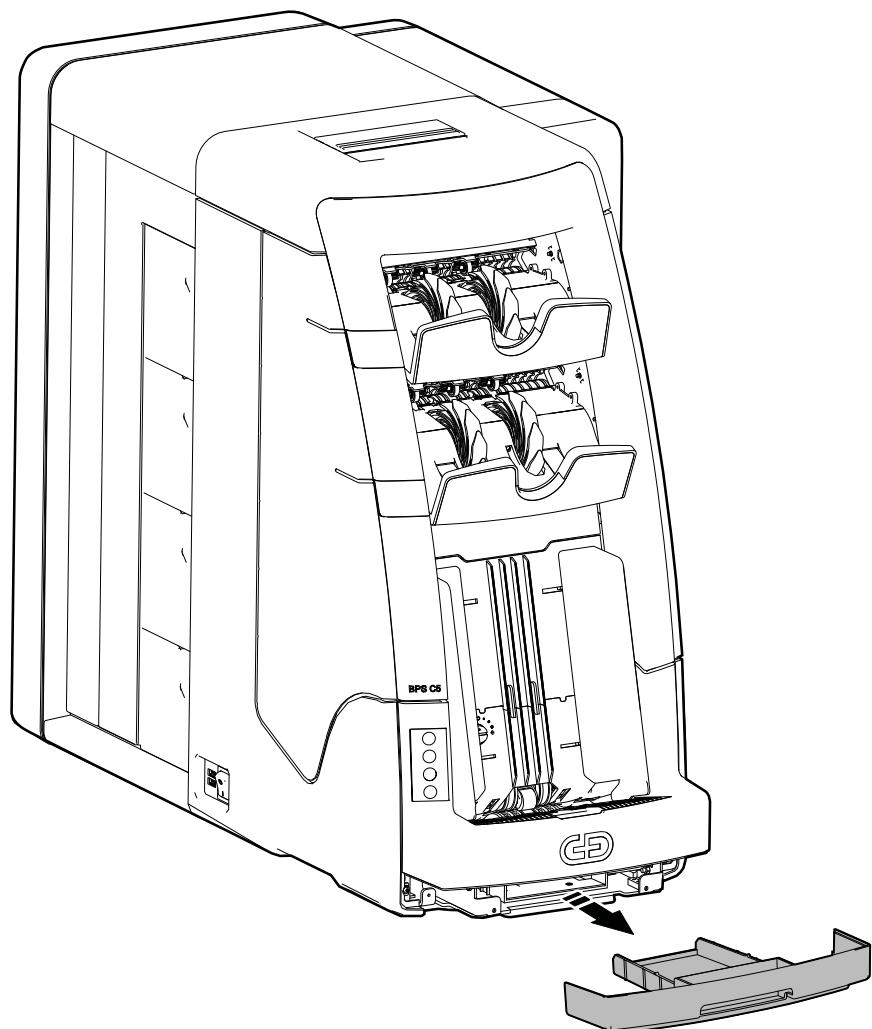
12.2 Cleaning the Dust Tray

The dust tray, located at the bottom of the BPS C5, is a receptacle that collects all the dust from the machine.

You must clean the dust tray at regular intervals.

Requirements

- The BPS C5 is switched off.
→ *Section 6.1 “Switching the BPS C5 On and Off”, p. 57*



- [1] Remove the dust tray.
- [2] Empty the tray if it is full of dust.
- [3] Remove the dust using a clean cloth.
- [4] Reattach the dust tray.

Result

⇒ The dust tray is cleaned.

12

A Technical Data

	Values
Maximum transport speed	1,050 BNs/min for counting, authenticity detection, fitness sorting, serial number reading You can also set two different speed levels: <ul style="list-style-type: none">• High (1050 BNs/min)• Low (720 BNs/min)
Singler capacity	up to 1500 BNs depending on the banknote quality
Stacker capacity	up to 250 BN each
Banknote formats handled	Length: 100 - 181 mm Width: 60 - 85 mm Thickness: Approx 50 - 130 micro meter
Relative humidity of the processed banknotes	35% to 65% r.h.
Moisture content of the banknotes	4.5 g/kg at 20 °C (water/kg per banknote)
Number of adaptations	Up to 10 adaptations
Display	7" LCD display for GUI 3-digit, 7-segment LED display for standard stacker
Power supply connection	Fully molded mains lead plug to IEC Socket C14 Rated: 100/240 V
Frequency	50/60 Hz
Electrical power consumption	1000 W (max for 25 stacker system)
Fuse protection	10 A
Maximum current consumption	10 A
System heat waste	1000 W (max for 25 stacker system)
Dimensions (depth x width x height)	<ul style="list-style-type: none"> • BPS C5-5: 420 x 790 x 660 mm • BPS C5-9: 420 x 1060 x 660 mm

	Values
	<ul style="list-style-type: none"> ● BPS C5-13: 420 x 1330 x 660 mm ● BPS C5-17: 420 x 1600 x 660 mm ● BPS C5-21: 420 x 1870 x 660 mm ● BPS C5-25: 420 x 2140 x 660 mm
Weight	<ul style="list-style-type: none"> ● BPS C5-5: 74 kg ● BPS C5-9: 104 kg ● BPS C5-13: 141 kg ● BPS C5-17: 178 kg ● BPS C5-13: 215 kg ● BPS C5-13: 252 kg
Relative humidity of installation area	30% to 80% r.h.
Ambient temperature of installation area	+15 °C to +35 °C
Transport system	Friction roller
External devices (optional)	<ul style="list-style-type: none"> ● Printer ● Barcode reader ● Mouse ● Keyboard
Sensors	PIS sensor MTS sensor MAG sensor UV sensor
Maximum permitted temperature range for storage	-10 °C to +60 °C
Optimum temperature range for storage	15 °C to +35 °C
Permissible humidity for storage	30% to 80% RH (non-condensing)

Table 2: Technical Data

B Reports

The following table lists all available reports.

Type of Report	Report Content
Deposit report	Accounting of the deposit with date, accounting period, sorting criteria (if set), expected value, information on non-recognized banknote, for each issue.
Customer report	Account report with the accumulated processing data for the last customer's deposit: customer no., number and value of the processed banknote (total and per denomination) information about sorting for each issue.
Operator report	Statistics of the accumulated processing data for the last registered user: operator ID, number and value of the banknote processed (total and per denomination) and information about sorting for every banknote series.
Machine report	Statistics about the accumulated processing data for the machine (since the counter was last reset): Time of the last reset of the machine's accounting data, machine no., number and value of the banknote processed (total and per denomination) and information about sorting for each issue.
XML deposit report	Report with date and time, time of processing of a customer, header card numbers, deposit IDs, denomination (for multi entries of the largest denomination), time of the deposit processing, information about whether there were any rejects.
Daily result	<p>Report for daily result:</p> <p>Machine ID, generation time, start time of first deposit, end time of last deposit, reject rate, reject reasons, coin value, value of cashless deposit, deposit data (sorting criteria of quality, currency, denomination, number, value, rejects, destroyed banknote*), total deposit and sum, name of currency</p> <p>The report contains the difference since the last time a report was automatically generated. If the report is manually requested, it is not reset.</p>

*The serial number reading options are not available in the USA/ Canada.

** For CNY Only

Type of Report	Report Content
Sorting statistics report (ECB)	This report contains all the processing data required by ECB guidelines (denomination, number and total of notes accepted and rejected) since the last sorting statistic log printout.
Ticket Report	Report of ticket IDs, date and time, accounting period, header card number, deposit data, rejections, denomination, banknote series, value and number of banknotes, quality sorting criteria.
VSI Open Deposit Report	This report is automatically sent at the start of the deposit and contains video surveillance report, machine ID, customer ID, deposit ID, declared amount, start time.
VSI Close Deposit Report	This report is automatically sent at the end of the deposit and contains video surveillance report, machine ID, customer ID, deposit ID, declared amount, start/end time, deposit data (currency, denomination, number of banknotes, etc).
VSI Keep Alive Report	Report of connection status during video surveillance, serial number, data and time, machine status.
SN List*	This report contains the list of serial numbers of the processed banknote as recognized by OCR.
PBoC**	This reports contains the details of serial number of CNY (Chinese Yuan) currency. The report contains all the reject reason.

*The serial number reading options are not available in the USA/ Canada.
** For CNY Only

C Description of the Criteria for Fitness Sorting

You can select the following criteria for every currency, banknote denomination and sorting quality:

- Dog ear
- Hole
- Tear
- Stains
- Adhesive Tape
- Soiling

C

You can select a value from 0 – 10 for every criterion. See below for a description of what the machine checks for every criterion and the fundamental significance of the values.

Dog Ear

The machine checks in defined areas of the banknote at the four corners whether dog ears are present.



Figure 58: Areas of Banknote Checked for Dog Ears

The dog ear in the defined area may be greater or smaller in size depending on the value set.

The values have the following significance:

- | | |
|----|---|
| 0 | The size of the dog ear is immaterial. |
| 10 | There must be no dog ears in the defined areas. |

As regards the values in-between, the greater the value, the smaller the dog ear must be.

Hole

The machine checks in a defined area whether a hole is present.



Figure 59: Area of Banknote Checked for Holes

The hole in the defined area may be greater or smaller depending on the value set.

The values have the following significance:

- 0 The size of the hole is immaterial.
- 10 There must be no hole in the defined area.

As regards the values in-between, the greater the value, the smaller the hole must be.

Tear

The machine checks in defined areas whether tears are present.



Figure 60: Areas of Banknote Checked for Tears

The tear in the defined areas may be greater or smaller depending on the value set.

The values have the following significance:

- 0 The size of the tear is immaterial.
- 10 There must be no tear in the defined area.

As regards the values in-between, the greater the value, the smaller the tear must be.

Stains

Stains cause additional dark areas on banknotes. The machine compares the image of the banknote in a defined area with a stored image of a freshly printed banknote.

Adhesive Tape

As regards the values, the greater the value, the more closely the image of the banknote must match the stored image of a freshly printed banknote.

Adhesive tape increases the thickness of a banknote. The machine checks the thickness of the banknote in defined areas.

Soiling

As regards the values, the greater the value, the smaller the thicker areas must be.

Soiling makes the image of the banknote look darker. The machine compares the image of the banknote in a defined area with a stored image of a freshly printed banknote.

As regards the values, the greater the value, the more closely the image of the banknote must match the stored image of a freshly printed banknote.

C

C

D Symbols Used

This chapter contains an overview of all the icons which appear on the user interface on the screen.

Symbol	Name	Symbol	Name
	Language		Skew
	Operator		Health
	Supervisor		Singler
	Service		Switches
	PIN		Software Package
	Cancel		Self-Test Level
	Ok		Trace Level
	Menu		System Test Fail
	Favorites		System Test status
	List		System Test Pass
	Processing speed		Raw Data Capture
	INFO		IRT Settings

Symbol	Name	Symbol	Name
	Software Version		System Test
	Reporting		MTS Cal Install
	Export logs		Service OpMode
	Export Raw data		Coins
	Brightness		Logout
	Next		Summary
	Stackers		Reject/Unfit
	Details		Denomination
	Delta		Time
	Virtual Keyboard		Thresholds
	System Settings		Startup Errors
	Installation		Single Denomination OP Mode
	Reset		Print
	OP Details		Plus

Symbol	Name	Symbol	Name
	Multi Denomination OP mode		Machine IP
	Machine ID		Language Package
	INFO		Plus
	Next		FTP1
	FTP2		FTP3
	SNTP		Date/TimeFormat
	Strap Size active		Auto Install
	Counterfeit Rejects		3" Printer
	Server Status		Function Button 1
	Startup Errors		Function Button 2
	Peripherals		Function Button 3
	VSI		Enable Opemode Name
	Disable Opemode Name		Time Zone

D

Symbol	Name	Symbol	Name
	SD Card		Settings
	Export Config Package		Configuration Package
	Customer ID		Deposit ID
	Amount		Strap Size

E Technical Support

Germany	Giesecke+Devrient Currency Technology GmbH Prinzregentenstraße 159 81677 Munich Germany Phone: +49 89 4119 3737 E-mail: CSS.HelpDesk@gi-de.com
United Kingdom	G+D Currency Technology GB Ltd. Unit 7 Torc MK Chippenham Drive Milton Keynes, MK10 0BZ United Kingdom GDGB Helpdesk Phone: +44 (0)1908 926184 E-mail: gdgb.helpdesk@gi-de.com
Spain	Giesecke & Devrient Currency Technology Iberia, S.L. Calle Verano 15 Pol. Ind. Las Monjas E-28850 Torrejón de Ardoz (Madrid) Spain Phone: +34 91 627 0000 Phone: +34 91 627 7200
Russia	Giesecke & Devrient - LOMO, ZAO Torfjanaja doroga, 8 197374 Sankt Petersburg Russia Phone: +7 812 324 1862
Turkey	Giesecke+Devrient Currency Technology Istanbul Ticaret ve Servis Ltd.Sti. Yenibosna Merkez Mahallesi, 29 Ekim Caddesi, İstanbul Vizyon Park Plazaları No:7, 3.Blok, Kat:8, No:84 34196 Çobançeşme-Bahçelievler / İSTANBUL / TÜRKİYE Phone: +90 212 347 2827 E-mail: destek@gi-de.com
USA	Giesecke+Devrient Currency Technology America, Inc. 45925 Horseshoe Drive Dulles, V.A. 20166 USA

E

	Phone: +1 888 292 4324
Canada	Giesecke & Devrient America, Inc. 3700 Steeles Ave West, Suite 202 Vaughan, ON, L4L 8K8 Canada
	Phone: +1-866-333-6693
Mexico	Giesecke y Devrient Currency Technology de México, S.A. de C.V. Av. Santa Rosa No. 11 Col. La Joya Ixtacala Piso 1, Edificio Administrativo B CP-54160 Tlalnepantla de Baz, Estado de México Mexico
	Phone: +52 55 5039 9944
Brazil	Giesecke & Devrient Brazil Ltda. Praça General Gentil Falcão 108, 16º.andar Brooklin Novo 04571-150 São Paulo Brazil
	Phone: +55 11 5105 6182
United Arab Emirates	Giesecke+Devrient Currency Technology FZE Building No: 6W, B Block, 7th Floor Dubai Airport Free zone P.O. Box 54325, Dubai United Arab Emirates
	Phone: +971 4 601 7250
	Fax: +971 4 299 6849
	Hotline: helpdesk_gdfze@gi-de.com
South Africa	Giesecke & Devrient Southern Africa (Pty.) Ltd. Block E - Crownwood Office Park 100 Northern Parkway Road 2001 Ormonde, Johannesburg South Africa
	Phone: +27 11 3094 900 (from abroad)
	Phone: +27 0860000 gdsa (4372) (local toll free number)
	E-mail: helpdesk-gdsaf@gi-de.com
India	Giesecke & Devrient India Pvt. Ltd. Plot No. 02, EHTP, Sector 34 Gurugram – 122 001, Haryana India
	Service hotline:

China

Phone: +91 1800 1021 206
E-mail: bnservice.gdindia@gi-de.com
Technical hotline:
Phone: +91 1800 4193 150
E-mail: hotlinesupport.gdindia@gi-de.com
Shenzhen Giesecke+Devrient Currency Automation Co., Ltd.
4/F, IC Design and Application Industry Zone
1089 Chaguang Rd. Shenzhen 518055
People's Republic of China
Phone: +86 800 830 7667 (local toll free number)
E-mail: custhotline@cn1.gi-de.com
Phone: +86 755 2650 7841 (from abroad)
E-mail: techhotline@cn1.gi-de.com
Giesecke & Devrient Asia Pacific Ltd.
2901 Hysan Place
500 Hennessy Road, Causeway Bay
Hong Kong
Phone: +852 3766 7300
E-mail: gdap.hotline@gi-de.com

Hong Kong

E

E

Glossary

B

BN banknote

C

CD compact disk
digital storage medium

CMS cash management system

D

DIN German institute for standardization

DVD digital versatile disk
digital storage medium

E

EN European standard

EU European Union (since December 1, 2009)

F

FDP fast deposit processing
fast processing of deposit with predefined values

G

GUI graphical user interface

I

IEC International Electrotechnical Commission

L

LAN local area network
computer network limited to a company or campus site

LED light emitting diode

P

PC personal computer

S

SDM	standard delivery module
SNTP	simple network time protocol standard protocol for synchronizing clocks in computer systems

U

UV radiation	ultraviolet radiation electromagnetic radiation in the range between 100 nm and 400 nm
--------------	---

V

VSI	video surveillance interface
-----	------------------------------

Table of Figures

Figure 1	Image of a Result	5
Figure 2	BPS C5	14
Figure 3	Input Module	14
Figure 4	Key Pad	15
Figure 5	Connectors	16
Figure 6	Standard Delivery Module	16
Figure 7	Main Screen	20
Figure 8	GUI Design	21
Figure 9	Operating Mode Screen	22
Figure 10	Operator Menu Screen 1	24
Figure 11	Operator Menu Screen 2	25
Figure 12	Summary View for Batch Processing	26
Figure 13	Summary for Deposit Processing	26
Figure 14	Summary for Payout Processing	27
Figure 15	Reject View	28
Figure 16	Reject Count View	28
Figure 17	Unfit View	29
Figure 18	Counterfeit Indicator View	29
Figure 19	Detail view	30
Figure 20	Supervisor Menu Screen 1	31
Figure 21	Supervisor Menu Screen 2	32
Figure 22	System Settings Menu	33
Figure 23	Installation Menu	35
Figure 24	Logs Button in Error Messages	46
Figure 25	Reporting Menu	48
Figure 26	Switch Enabled	50
Figure 27	Switch Disabled	50
Figure 28	Overview of Video Surveillance	51
Figure 29	Mass Management System	52
Figure 30	Configuration Package Folder Structure in the USB	53
Figure 31	Language Package Folder Structure in the USB	54
Figure 32	Power Switch	57
Figure 33	Login Screen	58
Figure 34	Poor quality banknote	67
Figure 35	Inserting Banknotes	70
Figure 36	Adjusting Feeder Plate	71
Figure 37	Software Version	90
Figure 38	Operating Mode Name View	92
Figure 39	Connection Between the PC and the BPS C5	95
Figure 40	Updated Date/Time	99
Figure 41	RDP Connect Screen	108
Figure 42	Reject Count View	109
Figure 43	Operation Details Screen	110
Figure 44	Operation Details Screen	110
Figure 45	Serial Number Storage Menu	119
Figure 46	BPS C5 Opening Areas	121
Figure 47	IM Opened	122
Figure 48	Horizontal Path Opened	123

Figure 49	Vertical Path Opened	126
Figure 50	Failsafe Opened	127
Figure 51	Transport Path Jam Error Example	130
Figure 52	Critical Stacker Error	130
Figure 53	Critical Stacker Error Message with Serial Number	131
Figure 54	Peripheral Devices Status	137
Figure 55	Server Status	137
Figure 56	Startup Error Screen	138
Figure 57	Settings Information	138
Figure 58	Areas of Banknote Checked for Dog Ears	149
Figure 59	Area of Banknote Checked for Holes	150
Figure 60	Areas of Banknote Checked for Tears	150

Index

A

accident prevention regulations 10
accounting
 fast deposit 77, 80
adjusting screen brightness 91
automatic software update 51

B

banknote processing
 deposit for single denomination 73
 inserting banknotes 69
 payout mode 83
 printing reports 47, 87
 processing speed 64
 re-sending reports 88
 reprinting reports 88
 results 25–27
 selecting currency 37, 63
 sending reports via FTP 47, 87
 sorting 72
banknotes
 inserting 69, 70
 poor quality 68
 preparing 66
 separating out 67
 sorting 72
barcode reader
 safety information 11
batch 17
batch processing 72

C

cash management system 95
cleaning 139
 aids 140
 cleaning agents 140
 machine 140
 Safety Information 139
 transport section 141
cleaning agents 140
cleaning machine 140
closing the machine 127
CMS 95

commissioning
 requirements 10
configuration package 36
 updating 112
configuring video surveillance 50, 103, 104
conventions 3
copy to USB 89
count mode 71
counting banknotes 71
currency
 selecting 37, 63

D

date 97
delivery stacker 45
delivery stacker capacity 65
deposit 17
 reconciliation 82
 single denomination 73
detail 29
DHCP IP address 102
difference 17
disable op mode name 91
display module
 cleaning 142
document conventions 3
dust tray
 cleaning 142

E

emission 17
enable op mode name 91
error information
 info button 54, 136
export raw data 46

F

fast deposit
 accounting 77, 80
 incorrect accounting 77, 80
favorite op mode 44, 91
favorite operating mode 44

fitness threshold 110
 FTP IP Address 100

G

general document conventions 3
 GUI design 21
 GUI language
changing 60

I

improper use 9
 installation manual 1

L

language package 36
 language package
update 113
 laser radiation 11
 LED
radiation 10
safety information 10
 logs 89

M

machine
closing 127
opening 122
 machine ID 99
 machine configuration: configuring video surveillance 50, 103, 104
 machine IP address
DHCP IP address 102
static IP address 102
 machine IP address 101
 manual inspection 17
 manual printing 87
 manual sending 87
 menu
operator 23
supervisor 30

O

online reconciliation 82

opening the IBM 122
 operating mode
display favorites 114
 operating mode screen 22
 operation
notes 63
 operation mode
results 25
 operation details 110
 operation mode
results 26, 27
 operator
logging on 58
logging out 94
 operator screen 22

P

personal security 10
 photobiological safety 10
 printing reports 47, 87
 printing reports
automatic 49
manual 49
 processing speed 64
 product liability 9
 proper use 9

Q

quick instructions 1
 quick start guide 1

R

raw data export 86
 re-sending reports 88
 reconciliation 82
 rejects 17
 report
sending via FTP 47, 87
 reports
automatic printing/sending 49
automatic report printout 147
automatic report printout time 147
contents 147
copy to USB 89
manual printing/sending 49
printing 47, 87

re-sending 88
re-sending via FTP 88
 reprinting reports 88
 rerun 17
 result 25–27
detail view 29
reject view 27
unfit view 28

S

safety 7
 safety information 1, 9, 10
barcode reader 11
dust 12
electrical voltage/current 12
ergonomics 12
high temperatures 12
laser radiation 11
LED radiation 10
non-specified materials 12
operator 11
risk of crushing 12
 safety information for cleaning 139
 safety information symbols 7
 self test level 116
 sending reports via FTP
automatic 49
 sending reports via FTP 47, 87
manual 49
 serial number search 92
 service manual 1
 service mode 36
 setting processing speed 64
 shortfall 17
 site and facility requirements 1
 SNTP IP address
setting 102
 software version
viewing 90
 software update 35
configuration package 52, 112
language package 53, 113
 software version 90
 sorting criteria
adhesive tape 151
description of criteria 149
dog ear 149
hole 149

soiling 151
stains 150
tear 150
 spare parts catalog 2
 static IP address 102
 strap size 45
 strap size 65
setting 65
 structure of the manual 2
 supervisor
logging in 59
 supervisor mode
changing the fitness threshold 110
systems settings 33
 supervisor mode 97
 supervisor mode
setting data and time 97
setting FTP IP address 100
setting the machine id 99
setting the machine IP address 101
 switch off 57
 switch on 57
 symbols 153
 symbols used to identify specific hazards 8
 system administrator 97
 system data 1
 system operating instructions 1
 system setting
machine IP address 101
 system setting
machine ID 99
 system settings 33
date and time 97
FTP IP Address 100

T

target group 2
 technical data 145
adaptations 145
banknote formats 145
deposit capacity 145
display 145
sensors 146
stacker capacity 145
transport speed 145
transport system 146
 time 97

trace level
 setting 47, 117
transport instructions 1
transport section
 clean 141
troubleshooting manual 2

U

user
 operator 21
user interface 19

user manual 1
user mode
 service 36
user types 58

V

vsi 50, 103, 104
 activating 50, 103, 104

W

warranty 9



Art.-Nr.:
Ident-No.:



524592001

User Manual

BPS C5 English 07/2019

61542

Charge:



QTY:



Stck: