ABBOTT
ADD

INDEX
TECHNICAL SERVICE BULLETIN

PRODUCT:
AEROSET (TM) (125)

DATE:
27-AUG-1999

TSB #	IMPLEMENTATION	SUBJECT	EFFECTIVITY DATE
125-011	M - A9552084 & below	AEROSET (TM) System Software Version 1.00ER005	28-APR-1999
125-009	M - A9552084 & below	AEROSET (TM) System Software Version 1.00ER004	CANCELLED
125-007	Cancelled	Document never released - number not reusable	CANCELLED
125-006	N - A9522067 & below	New Style Sample Carrier and Sample Handler Adjustment	12-JUL-1999
125-005A	N - A9572059 & below	Sample Arm Dampener Plate Upgrade	30-JUN-1999
125-005	N - A9572059 & below	Sample Arm Dampener Plate Upgrade	OBSOLETE
125-004	N - A8602046 & below	New Aeroset (R) FastTrack (TM) Center Plate	20-AUG-1999
125-003	N - A8542001- A8590044	Carousel Sampler Cover	22-APR-1999
125-002	N - See TSB	DAQ-FG Jumper Update	31-DEC-98
125-001	I - A8542001 & above	AEROSET (TM) Market Release Software version 1.00ER002	OBSOLETE

PENDING - TSB index number has been reserved for a future TSB.
CANCELLED - TSB index number is cancelled.
INCORPORATED - TSB was incorporated into another document or manual.
OBSOLETE - TSB no longer applies.
COMPLETE - TSB implementation is complete.

END OF DOCUMENT

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TECHNICAL SERVICE BULLETIN

SUBJECT:
DAQ-FG Jumper Upgrade

TSB#: **125-002**

ORIGINATOR: **Albert Blanco**
APPROVED: **Christie McCain 12/18/98**

PRODUCT:
AEROSET (TM) (125)

REF. ECO:

IMPLEMENTATION: ○ **Immediate** ● **Next Service Call** ○ **Next Failure** ○ **Optional** Instruments Requiring Modification: **A8542001-A8542015**	TSB Part/Kit #: **2-89572-01** TSB Effectivity/ Part(s) Availability: **31-DEC-98** **TSB Tracking by Serial # required (IMMEDIATE TSB's ONLY)** ○ YES ● NO	Upgrade Time: **1** Validation Time: **.5** Total Mod. Time: **1.5** ****NOTE** The instrument must be at TSB Level n/a prior to performing this TSB.**

I. DISTRIBUTION:

Worldwide

II. PURPOSE:

The upgrade to the DAQ-FG PCB will prevent the error code 315; "Photometer Error, DAC Interrupt", from occurring.

III. ADMINISTRATIVE NOTES:

All DAQ-FG PCBs in Field Service Parts stock have been reworked to the new configuration. Aerosets with S/N A8542015 and below require the modification.

IV. SPECIAL TOOLS:

The following tools are recommended to perform the upgrade to the DAQ-FG PCB:

1. Phillips screwdriver
2. Soldering iron
3. Solder
4. Wire stripper
5. Digital Volt Meter

V. PARTS:

Catalog Number	Description	Quantity
2-89572-01	TSB Kit, 125-002, DAQ Bd. Jumper	1

REPLACED PARTS:
none

COMPATIBILITY:
N/A

VI. PROCEDURE:

NOTE: Wear gloves, lab coat, and safety glasses while in the laboratory.
NOTE: Refer to the Parts Lists (PL), Verification Procedures (VP), and Removal and Replacement Procedures (RR) in the Aeroset Service Manual as noted.

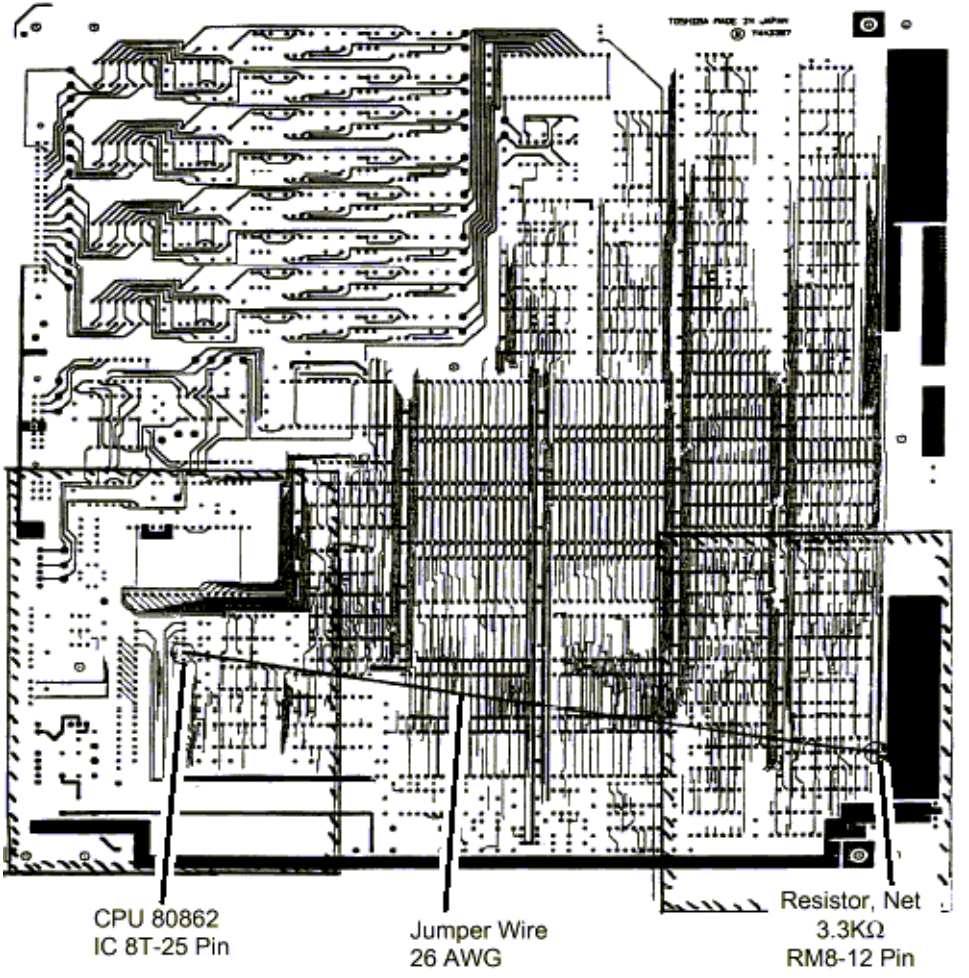
MODIFICATION STEPS:
Observe the TSB sticker on the Aeroset. If TSB 2 is already marked off, no further action is needed.

Potential Biohazard & Voltage Hazard. Observe Proper Safety Precautions.

If the TSB sticker is **not** marked off, visual confirmation of rework of the DAQ-FG PCB is required.

Visual Confirmation

1. Refer to the Removal section of RR-C1.12 for the DAQ-FG PCB in the Aeroset Service Manual.
2. Inspect the DAQ-FG PCB for a jumper wire soldered from pin 25 of IC 8T to pin 12 of the module resistor RM8 (Figure 1) on the solder side of the board.



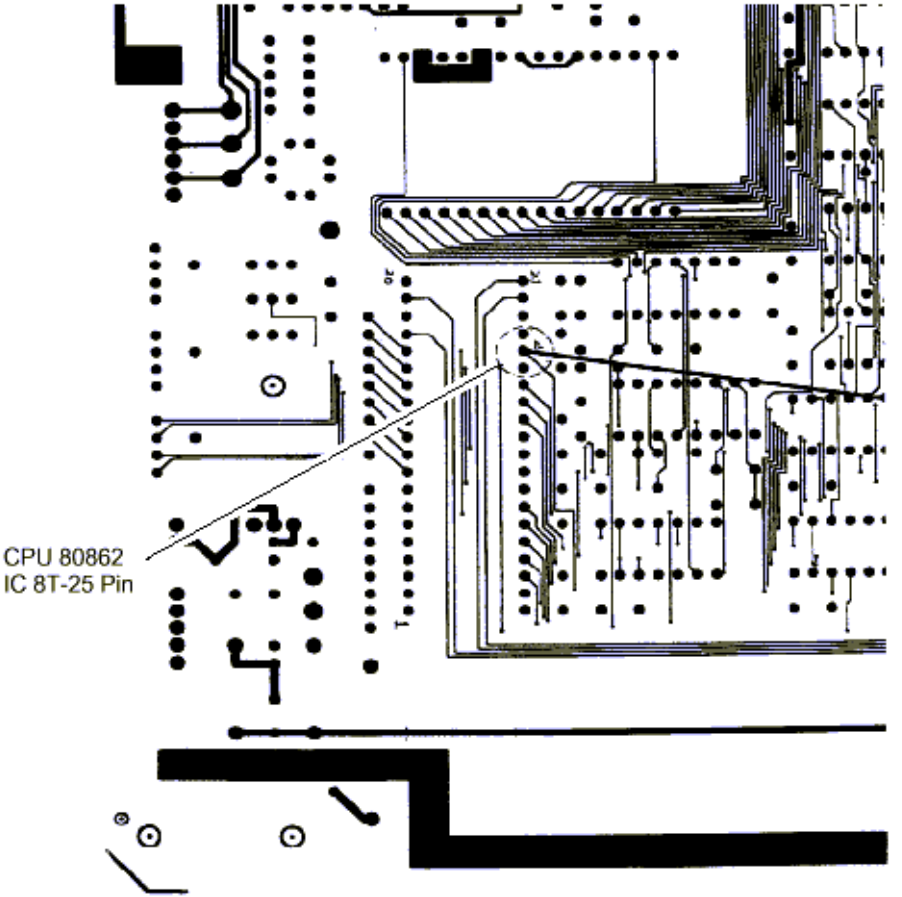
Potential Biohazard & Voltage Hazard. Observe Proper Safety Precautions.

Figure 1 DAQ-FG PCB with modification.

3. If the jumper wire is present, the DAQ-FG upgrade is complete and TSB 2 can be checked off on the TSB sticker. No further action is needed. If the jumper has not been soldered to the DAQ-FG PCB, proceed to Re-Work Procedure.

Re-Work Procedure

1. Lay the DAQ-FG PCB on an anti-static mat component side down.
2. Remove the shield plate from the DAQ-FG PCB.
3. On the DAQ-FG PCB, solder pin 25 on IC 8T to pin 12 of the module resistor RM8 using the wire supplied in DAQ-FG upgrade wire kit (C/N 2-89572-01) (Figure 2 and Figure 3).



Potential Biohazard & Voltage Hazard. Observe Proper Safety Precautions.

Figure 2 Pin 25 on IC 8T

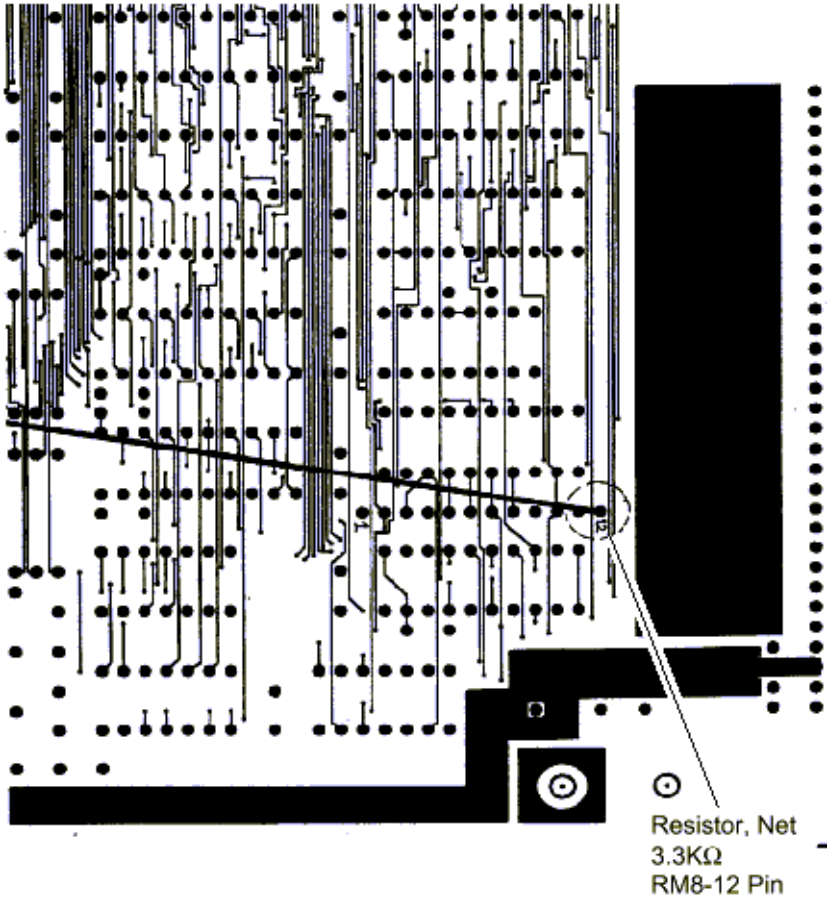
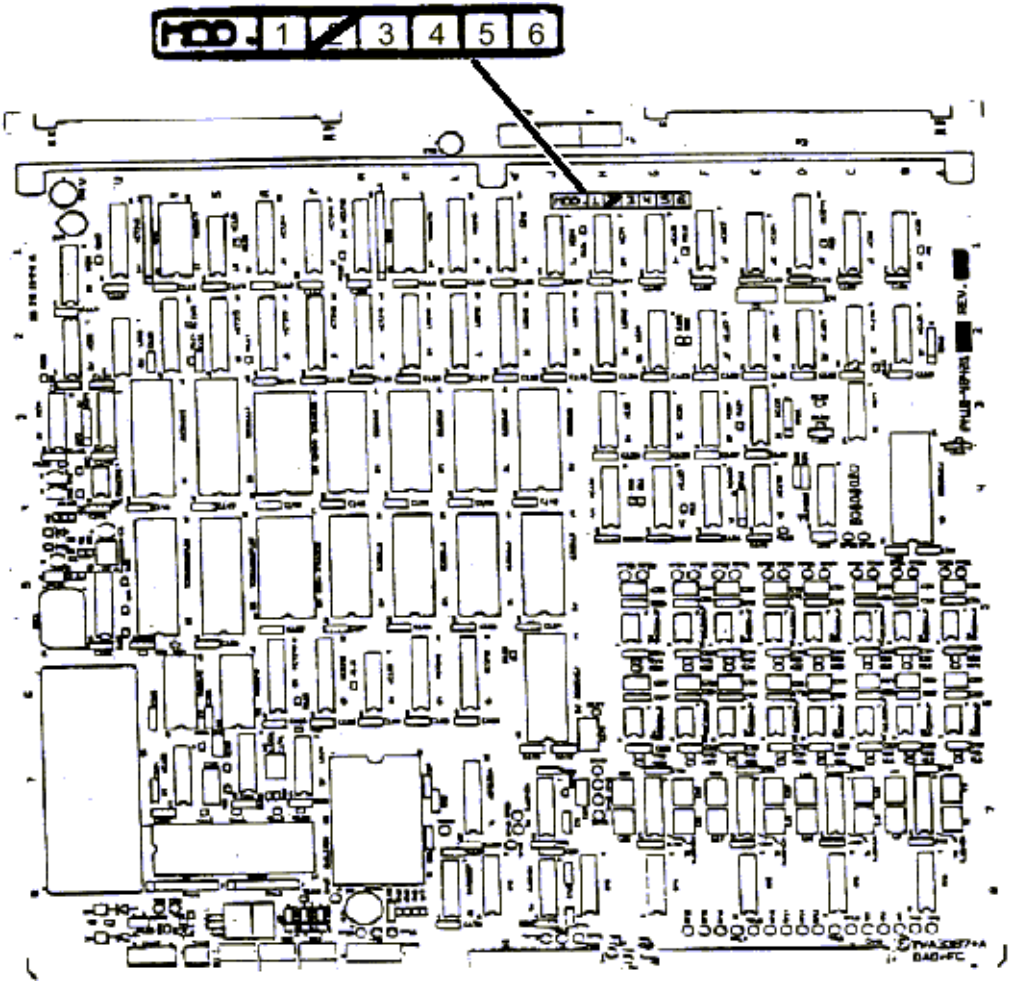


Figure 3 Pin 12 on RM8

Potential Biohazard & Voltage Hazard. Observe Proper Safety Precautions.

4. After completing the wiring, test the continuity of the connection between the pin 25 on IC 8T and pin 12 on RM8 using a digital voltmeter. Continuity will signal correct wiring.
5. Using a permanent black marker, mark off the number 2 on the PCB (Figure 4).



Potential Biohazard & Voltage Hazard. Observe Proper Safety Precautions.

Figure 4 MOD numbers on the DAQ-FG PCB

6. Replace the board according to the Replacement and Verification section of RR-C1.12 in the Aeroset Service Manual.

CHECKOUT:
Perform Total Service Call and update the Technical Service Bulletin Modification Control Sticker for TSB 2.

MODIFICATION CONTROL STICKER UPDATE:
Mark off box number 2 on the Technical Service Bulletin Modification Control Sticker with a permanent black marker.

END OF DOCUMENT

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TECHNICAL SERVICE BULLETIN

SUBJECT:
Carousel Sampler Cover

TSB#: **125-003**

ORIGINATOR: **Albert Blanco**
APPROVED: **Christie McCain 22-APR-1999**

PRODUCT:
AEROSET (TM) (125)
REF. ECN: KEM10-2463/KSM10-2369

IMPLEMENTATION:	TSB Part/Kit #: **2-89153-02**	Upgrade Time: **0.5 hrs**
○ **Mandatory**	TSB Part(s) Availability: **18-MAR-1999**	VerificationTime: **0.5 hrs**
● **Next Service Call**	**TSB Tracking by Serial # required (MANDATORY TSB's ONLY)**	Total Mod. Time: **1.0 hrs**
○ **Optional**	○ YES ● NO	****NOTE** The instrument must be at TSB Level n/a prior to performing this TSB.**
Instruments Requiring Modification: **A8542001-A8590044**		

I. DISTRIBUTION:
Worldwide

II. PURPOSE:
Technischer Ueberwachungs Verein (TÜV), a standards organization, requires protection on the Carousel Sampler. The upgraded Carousel Sampler Cover will prevent finger tip damage by the sample probes from occurring.

III. ADMINISTRATIVE NOTES:
Aerosets with S/N A859044 and below require the modification.

IV. SPECIAL TOOLS:
The following tools are recommended to install Carousel Sampler Cover:

1. Phillips screwdriver

V. PARTS:
1. 2-89153-02 Cover, Carousel Sampler, TSB Kit

REPLACED PARTS:
Dispose of per local regulation.

COMPATIBILITY:
N/A

VI. PROCEDURE:
Note: Wear gloves, lab coat, and safety glasses while in the laboratory.

MODIFICATION STEPS:
1. Re-position the sample probes away from the Carousel Sampler.
2. Remove the existing cover to the Carousel Sampler.
3. Remove the Sample Carousel from the Carousel Sampler.
4. Remove the 4 Phillips screws holding the top layer of the Sample Carousel from the standoffs (Figure 1).
5. Invert the separated top layer of the Sample Carousel and remove 2 Phillips screws from each Sample Carousel Handle.

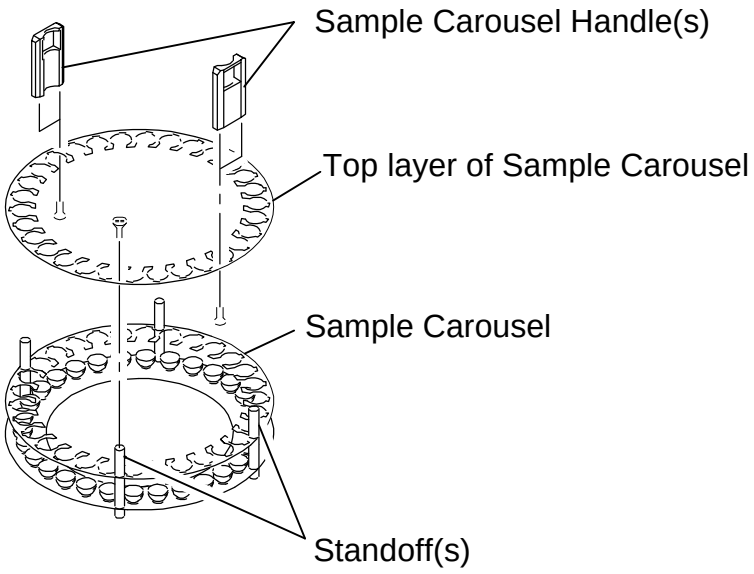

Figure 1. Components of the Sample Carousel

6. Replace the existing Sample Carousel Handles with the shorter handles included in the TSB Kit.

Note: The new handles will accommodate the dimensions of the new Carousel Sampler Cover.

7. Reconnect the top layer of the Sample Carousel to the standoffs.
8. Install the Sample Carousel into the Carousel Sampler.
9. Install the upgraded Carousel Sampler Cover (Figure 2) on the Carousel Sampler.

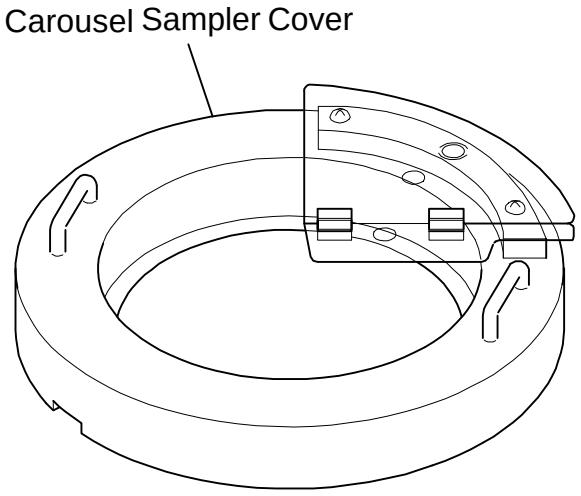

Figure 2. Upgraded Carousel Sampler Cover.

CHECKOUT:
Confirm that the sample probes do not hit the Carousel Sampler Cover by moving the probes over to the Carousel Sampler Control/Calibrator position, Sample position, and the Reserved STAT position and verify proper alignment. Perform Total Service Call.

MODIFICATION CONTROL STICKER UPDATE:
Mark off box number 3 on the Technical Service Bulletin Modification Control Sticker with a permanent black marker.

END OF DOCUMENT

ABBOTT ADD

TECHNICAL SERVICE BULLETIN

SUBJECT:
New Aeroset (R) FastTrack (TM) Center Plate

TSB#: **125-004**

ORIGINATOR: **Patrick Wood**
APPROVED: **Christie McCain 20-AUG-1999**

PRODUCT:
AEROSET® (125)
REF. ECN: ECR KEM10-2375

IMPLEMENTATION:	TSB Part/Kit #: **2-89277-02**	Upgrade Time: **1.5 hrs**
○ **Mandatory** ● **Next Service Call** ○ **Optional**	TSB Part(s) Availability: **09-JUL-1999**	VerificationTime: **0.5 hrs**
	TSB Tracking by Serial # required (MANDATORY TSB's ONLY)	Total Mod. Time: **2.0 hrs**
Instruments Requiring Modification: **S/N A8602046 and below**	○ YES ● NO	****NOTE** The instrument must be at TSB Level n/a prior to performing this TSB.**

I. DISTRIBUTION:
World Wide

II. PURPOSE:
To prevent failures of the current plastic Sample Handler Center Plate and to increase system reliability, the Center Plate is now constructed out of aluminum.

III. ADMINISTRATIVE NOTES:
This TSB is to be incorporated as a "Next Service Call" upgrade.

United States: Upgrade kits will be shipped to the FSRs through normal weekly parts shipments.

Rest of World: Forecasts for the correct number of upgrade kits should be submitted through normal channels.

IV. SPECIAL TOOLS:
The Aeroset FastTrack removal bars are required to perform this upgrade, as well as the standard Field Service Tool Kit

V. PARTS:

REPLACED PARTS:
Discard old center plate per local country regulations.

COMPATIBILITY:
All.

VI. PROCEDURE:

MODIFICATION STEPS:

1. Open Hood.
2. Remove Patient Samples from FastTrack.
3. Perform System Power Off Procedure. (VP-03)
4. Remove Left Side Panel. (2 screws)
5. Remove Right Side Panel (2 screws)
6. Remove Left Front Deck Cover:

Potential Biohazard & Voltage Hazard. Observe Proper Safety Precautions.

a. Remove 2 screws on side cover.
b. Remove screw on top of cover
c. Disconnect cable "DLED".
d. Remove cover.

7. Remove Right Front Deck Cover:
   a. Remove Center Deck Cover.
   b. Remove 3 screws holding cover.
   c. Move Reagent Arms R1A and R1B if necessary to provide clearance.
   d. Lift cover enough to reach cable connector.
   e. Disconnect cable "Key".
   f. Remove Deck Cover.
8. Remove FastTrack Cover:
   a. Remove the six screws on FastTrack Cover:
      - 2 screws at each end (4 total)
      - 2 screws on top of FastTrack Cover
   b. Loosen the 2 screws on the bottom of the FastTrak Cover. (Do not remove screws)
   c. Open all bottom doors.
   d. Pull FastTrack Cover out enough to reach connectors on left side.
   e. Disconnect R-LED and P-LED ribbon cables.
   f. Remove FastTrack Cover.
9. Place FastTrack into the maintenance position, refer to figure #1.

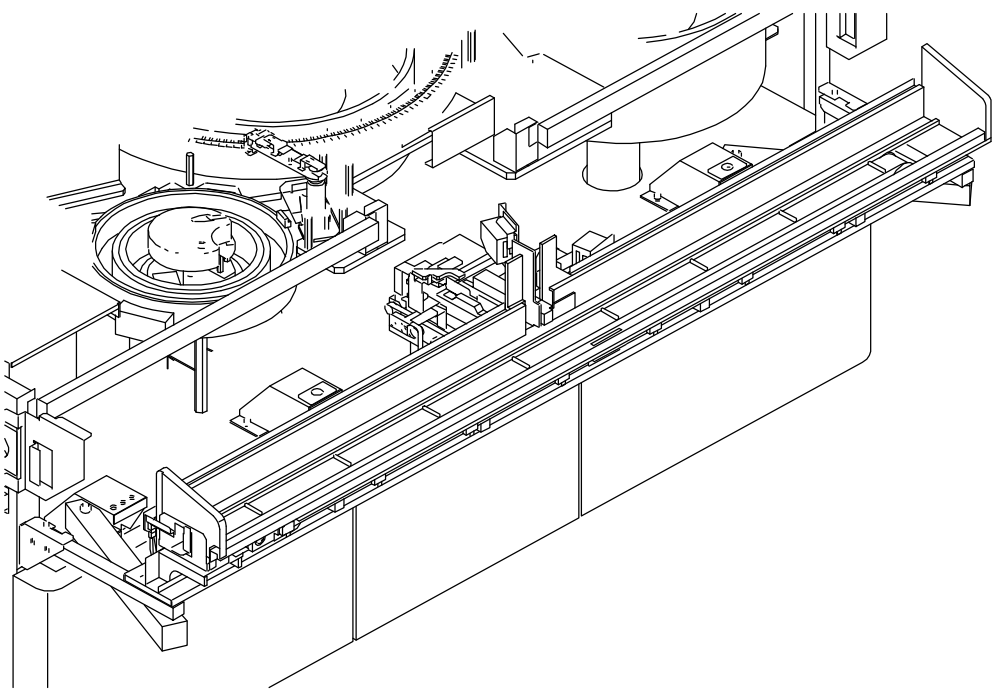

Figure #1

10. Remove Sample ID Barcode Reader Bracket. (2 screws) Refer to figure #2.
11. Remove Center Plate. (2 screws)

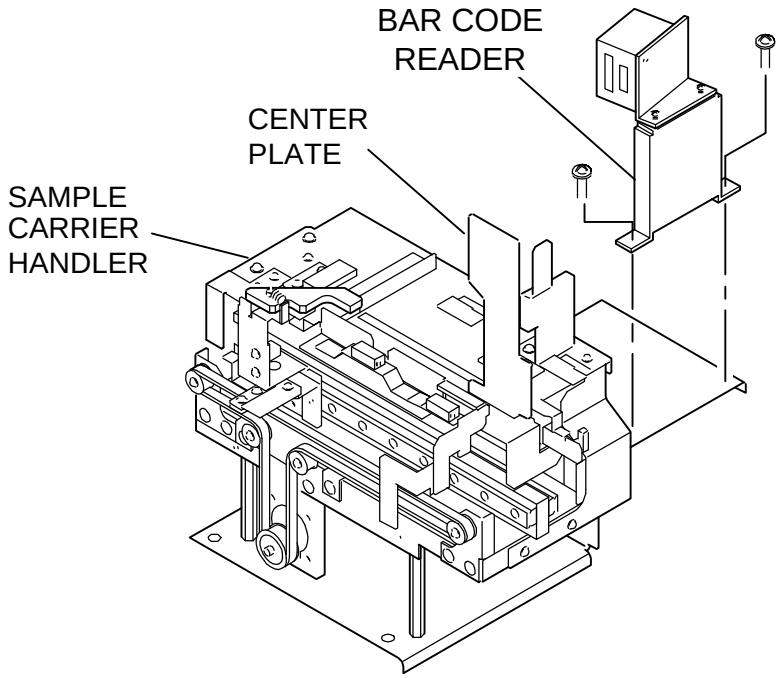

Figure # 2

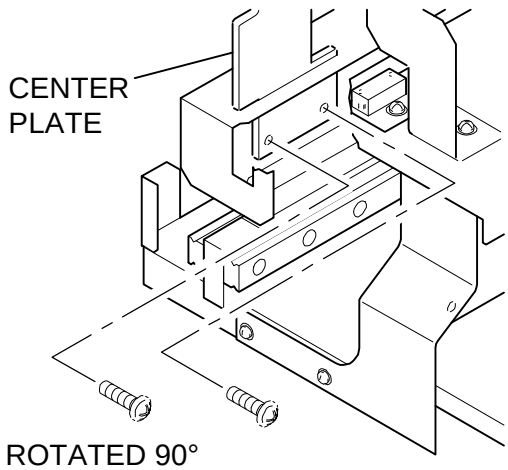

Figure #3

12. Install the new aluminum center plate in reverse order from the above instructions.
13. Take the FastTrack out of the maintenance position.
14. Replace all of the covers removed during the upgrade.

CHECKOUT:

1. Verify Sample Arm Track Position Alignment.
2. Verify Sample Bar Code Reader Alignment.
3. Perform Total Call.

MODIFICATION CONTROL STICKER UPDATE:

Mark off the # 4 on the TSB Modification Control Sticker after the Analyzer has been upgraded. The TSB Modification Control Sticker is located behind the front left door on the power supply access panel.

END OF DOCUMENT

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TECHNICAL SERVICE BULLETIN

SUBJECT:
Sample Arm Dampener Plate Upgrade

TSB#: **125-005A**

ORIGINATOR: **Steve Lincoln**
APPROVED: **Christie McCain 30-JUN-1999**

PRODUCT:
AEROSET® (125)
REF. ECN: KEM10-2402, KSM10-2497

IMPLEMENTATION:	TSB Part/Kit #: **2-89880-01**	Upgrade Time: **1.0 Hour**
○ **Mandatory** ● **Next Service Call** ○ **Optional**	TSB Part(s) Availability: **14-MAY-1999**	VerificationTime: **0.5 Hour**
Instruments Requiring Modification: **S/N A9512059 and below**	**TSB Tracking by Serial # required (MANDATORY TSB's ONLY)** ○ YES ● NO	Total Mod. Time: **1.5 Hours** ****NOTE** The instrument must be at TSB Level n/a prior to performing this TSB.**

I. DISTRIBUTION:
World Wide

II. PURPOSE:
This upgrade is to replace the Sample Arm Dampener Plate with an upgraded Dampener Plate in order to avoid premature failure of the current configuration. This TSB supersedes TSB 125-005 to correct a typographical error to the serial number effectivity.

III. ADMINISTRATIVE NOTES:
This TSB is to be incorporated as a "Next Service Call" upgrade on analyzers with S/N A9512059 and below.

IV. SPECIAL TOOLS:
None

V. PARTS:
Sample Arm Dampener Plate Upgrade Kit 2-89880-01

Kit consists of:

Item #	Part Name	Reference	Quantity
1	Dampener Plate	(refer to fig. #1)	1
2	Spacer	(refer to Fig #1 and 2)	1
3	Spacer	(refer to fig. #1 and 2)	1
4	Spacer	(refer to fig. #1 and 2)	2
5	Slide Bracket	(refer to fig. #1)	1
6	Tie Wrap	(refer to fig. #1)	1

7	10 mm Screw with captive washers.	(refer to fig. #1)	2
8	10 mm Screw no captive washers.	(refer to fig. #1)	2
9	6 mm Screw with with captive washers.	(refer to fig. #1)	2

United States:

Parts will be shipped to FSR s through the normal weekly parts shipment.

Rest of World:

Service locations should forecast TSB parts via their regular parts channels.

REPLACED PARTS:
Dispose of the replaced parts in accordance with local regulations.

COMPATIBILITY:
All

VI. PROCEDURE:

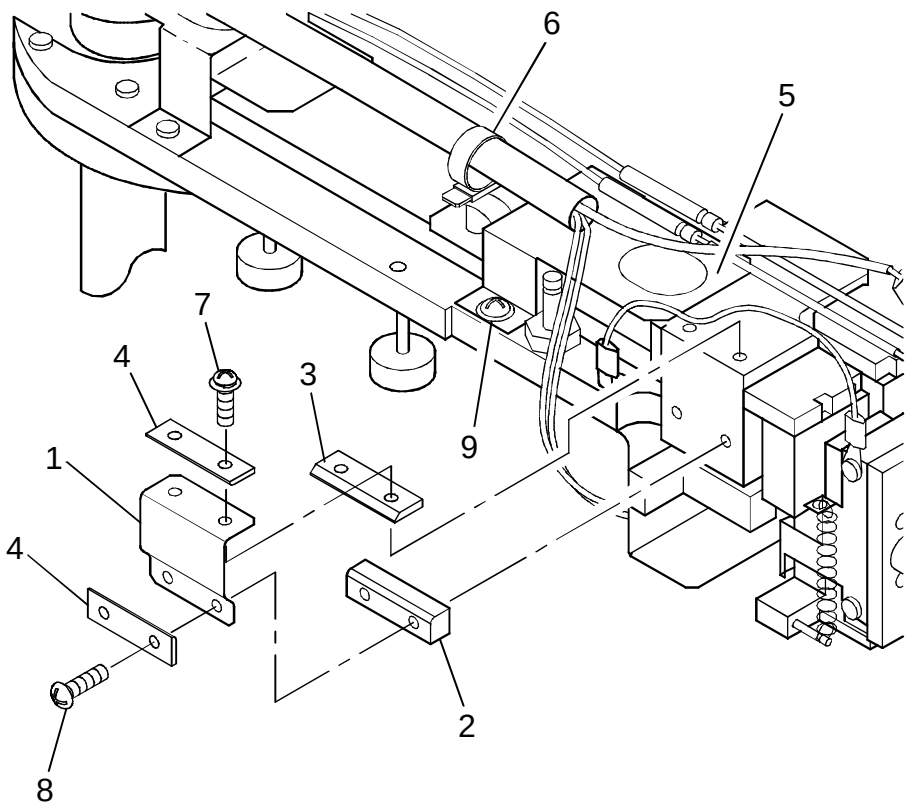

Figure 1

MODIFICATION STEPS:

1. Power the analyzer down.
   a. touch the exit system software icon.
   b. when the log on screen appears enter "BYE" for the User Code and press enter on the keyboard.
   c. when the screen displays "Please Power System Off" turn the Rotary Power Control Switch to the "Off" position.
2. Remove the Sample Arm Cover.
3. Remove Sample probes A and B.
4. Remove four screws securing the Dampener Plate (refer to figure 1) to the Sample Arm Head.
5. Cut the Tie Wrap (item #6, figure 1) located on the Slide Bracket (item #5, figure 1).
6. Remove the Slide Bracket (item #5, figure 1) by removing two 6mm screws (item #9, figure 1).
7. Remove the tie wrap from the Sample Arm Level Sense Cable (refer to figure 1).
8. Manually rotate the Sample Arm to the position where the probes are spread apart as far as possible, the cuvette sample position.
9. Mount the new Slide Bracket (item #5, figure 1) using two 6mm screws with captive washers (item #9, figure 1).
10. Install the new Tie Wrap (item #6, figure 1) and secure the Sample Arm Level Sense Cable.
11. Install the new Sample Arm Dampener Plate (item #1, figure 1) using the four spacers (items #2, #3, and #4, figure 1) two 10 mm screws (item #8, figure 1) and two 10 mm screws with captive washers (item #7, figure 1).
12. Secure each spacer so that it is perpendicular to the Dampener Plate and the Dampener Plate is held firmly. Refer to figure 2 for correct Spacer placement.
13. Ensure the fillets and chamfer on the Spacers are oriented correctly as shown in figure 2.

CHECKOUT:

1. Replace the Sample A probe and the Sample B probe.
2. Rotate the Sample Arm manually and confirm that the sample probes move together and apart smoothly.
3. Power the instrument up.
4. Check Sample Arm alignment for all Sample Arm positions.
5. Replace the Sample Arm Cover. Ensure that the Sample Probe Tubing doesn't become pinched between the cover and the arm assembly.
6. Run two A Line and B Line tests with controls to confirm correct instrument operation.

Potential Biohazard & Voltage Hazard. Observe Proper Safety Precautions.

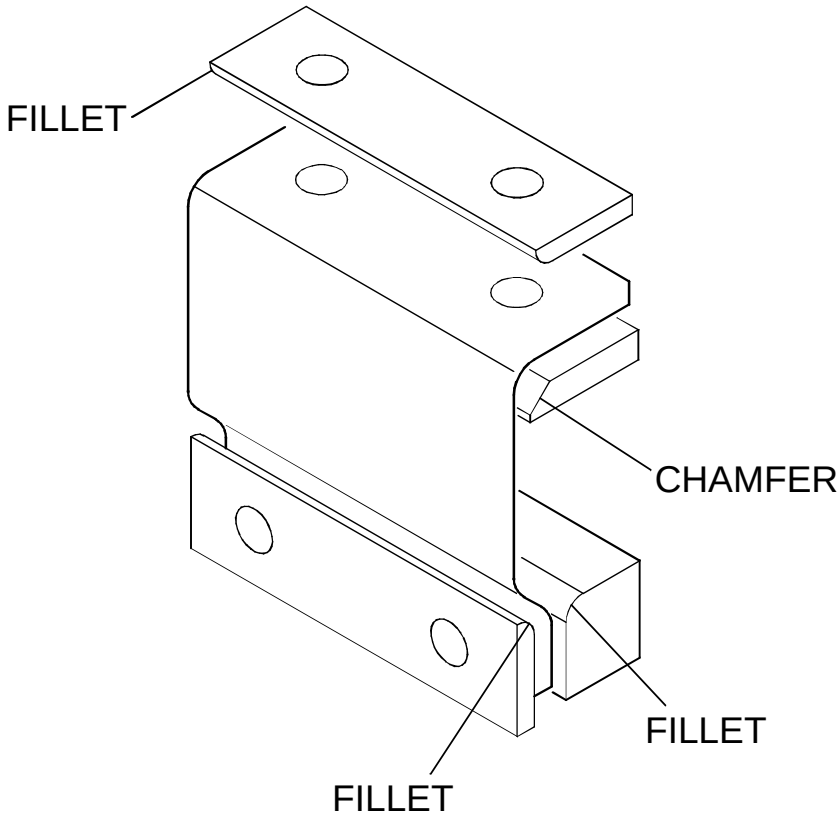

Figure 2

MODIFICATION CONTROL STICKER UPDATE:

Mark the TSB control sticker to show that TSB 005 is completed.

END OF DOCUMENT

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TECHNICAL SERVICE BULLETIN

SUBJECT:
New Style Sample Carrier and Sample Handler Adjustment

TSB#: **125-006**

ORIGINATOR: **Steve Lincoln**
APPROVED: **Christie McCain 12-JUL-1999**

PRODUCT:
AEROSET® (125)
REF. ECN: 14218-009

Trademark: Aeroset® is a registered trademark of Abbott Laboratories.

IMPLEMENTATION: ○ **Mandatory** ● **Next Service Call** ○ **Optional** Instruments Requiring Modification: **S/N A9522067 and below**	TSB Part/Kit #: **2-89900-01** TSB Part(s) Availability: **01-JUL-1999** **TSB Tracking by Serial # required (MANDATORY TSB's ONLY)** ○ YES ● NO	Upgrade Time: **2.0 hrs** VerificationTime: **0.5 hr** Total Mod. Time: **2.5 hrs** ****NOTE** The instrument must be at TSB Level n/a prior to performing this TSB.**

I. DISTRIBUTION:
World Wide

II. PURPOSE:
The new style Sample Carriers and adjustment of the Sample Carrier Handler will help reduce the number of error 294, Sample Carrier Pull in error, and 295, Sample Carrier Push out error. These errors are due to "Crosstalk" between sensor 5 and sensor 6 in the Sample Carrier Handler.

III. ADMINISTRATIVE NOTES:
This TSB is to be incorporated as a "Next Service Call" upgrade.

- The Field Service Representative must have an accurate census of the number of Sample Carriers each customer has before performing this upgrade.
- It is the individual Field Service Representatives responsibility to order any Sample Carriers and numbering labels, above the TSB Kit level, needed for each customer.
- Some accounts may have more Sample Carriers than the eighty that normally ship with the analyzer. The Field Representative should order the additional Carriers and Labels required to replace the customer's entire stock. When ordering additional replacement parts use the List Numbers provided below.

  Sample Carriers LN 09D21-02 1 package of 40

  Note: Sample Carriers can only be ordered in packages of 40.

  Barcode and Name Plate Labels LN 09D21-51 Numbered 201 thru 400

  Barcode and Name Plate Labels LN 09D21-52 Numbered 401 thru 600

- United States: Upgrade Kits will be shipped to the FSRs through normal weekly parts shipments. If additional parts were ordered during this upgrade include the part numbers on the service order and notify the Field Service Logistic Manager of the parts usage at call close out.
- Rest of World: Forecasts for the correct number of Upgrade Kits should be submitted through normal channels.

IV. SPECIAL TOOLS:
Standard Tool Kit

V. PARTS:

TSB Upgrade Kit **2-89900-01**

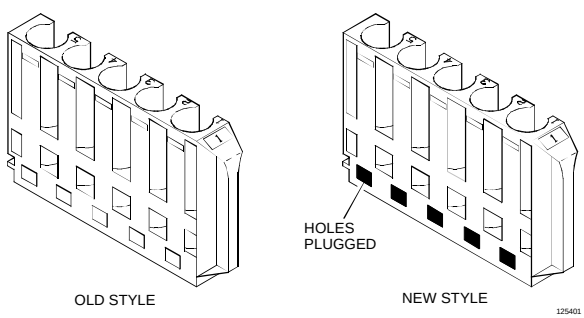
Kit consists of:

Description	Part No	Nomenclature	Qty
Sample Carriers	89901-101	Package of forty	2 each
Barcode Labels	89827-101	numbered 001 thru 100	1 each
Barcode Labels	89828-101	numbered 101 thru 200	1 each
Name Plate	89829-101	numbered 1 thru 100	1 each
Name Plate	89830-101	numbered 101 thru 200	1 each

REPLACED PARTS:
Dispose of all old style Sample Carriers in accordance with local regulations.

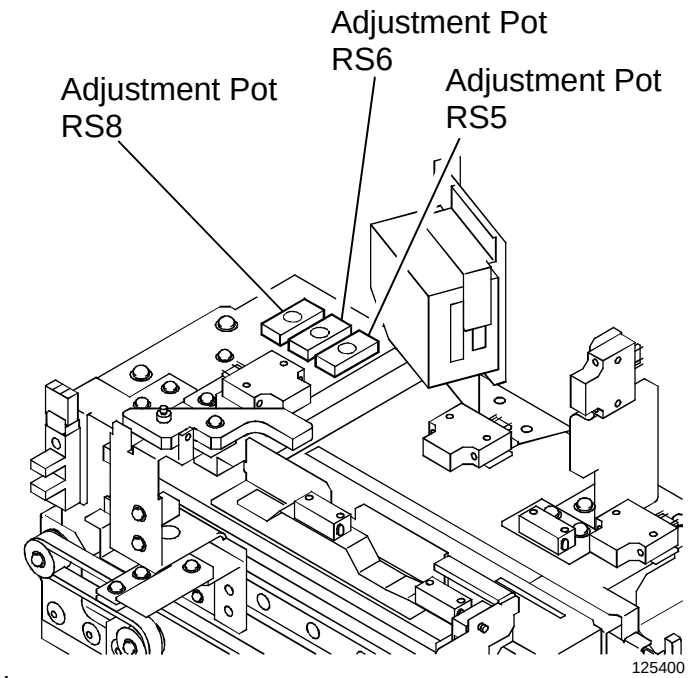
COMPATIBILITY:
All Aeroset analyzers, upward compatible only.

VI. PROCEDURE:

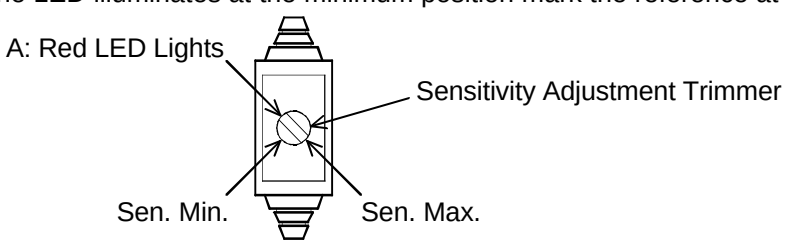


MODIFICATION STEPS:

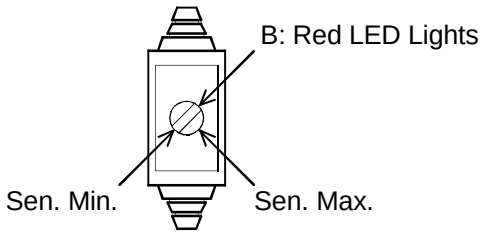
1. Place the number labels and Barcode labels on the new Style Sample Carriers so that they reflect the customer's configuration.
2. Dispose of all the old style Sample Carriers on site according to local regulations.



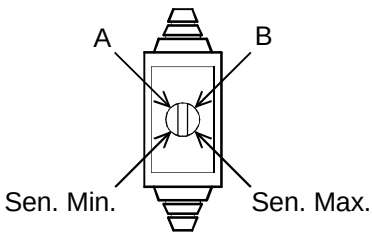
3. Sensor Adjustment.
   A. Remove the Front Center Deck Cover.
   B. Install a Sample Carrier on a Sample Carrier Tray in position 1 and set in the home position on the FastTrack(TM).
   C. From the Main Screen select:
      1. Maintenance Utilities (icon).
      2. Sampling.
   D. Initialize the Sample Handler.
      1. Track Sampler-step.
   E. Move the pull hook forward and pull the Sample Carrier in by selecting:
      1. Step (6 times with a pause between each step).
   F. Adjust the RS5 sensor in the sample handler.
      1. Pull up gently on the carrier to disengage the pull hook.
      2. Slide the Sample Carrier toward the front of the instrument until the light path is blocked by the bottom of the Sample Carrier between tube positions.
      3. Starting from the furthest counterclockwise position rotate the adjustment potentiometer clockwise until the red LED on the sensor is illuminated.
      4. Mark this position for future reference (position A in the drawing below). If the LED illuminates at the minimum position mark the reference at that point.



      4. Reposition the Carrier so that the sensor is centered at a tube position (black plug).
      5. Rotate the adjustment potentiometer clockwise until the red LED illuminates.
      6. Mark this position for future reference (position B in the drawing below).



7. Center the adjustment potentiometer between positions A and B as indicated in the drawing below.



G. Adjust the RS6 sensor in the sample handler.
   1. Install a Sample Carrier on a Sample Carrier Tray in position 1 and set in the home position on the FastTrack.

H. From the Main Screen select:
   1. Maintenance Utilities (icon).
   2. Sampling.

I. Initialize the Sample Handler.
   1. Track Sampler-step.

J. Move the pull hook forward and pull the Sample Carrier into the Sample Handler by selecting:
   1. Step
   2. Use "Step" function repeatedly until the Sample Carrier is pulled all of the way into the right side of the handler and push to the left with the push hook returning to a position behind the carrier.

K. Repeat steps F1 thru F 7 to complete the adjustment of RS6.

L. Replace the Front Center Deck Cover.

CHECKOUT:

1. Place two full trays on the FastTrack.
   A. Do not place any tubes in the Sample Carriers.
2. From the main screen select **RUN.**
   A. Do not schedule any patients, controls, or calibrations.
3. Press the **START** button. 4. Ensure that all 10 Carriers pass through the Sample Handler with no errors.
6. Run controls on at least two A Line assays and two B Line assays and verify results.

MODIFICATION CONTROL STICKER UPDATE:
Mark the TSB sticker to indicate TSB 006 is completed.

END OF DOCUMENT

ABBOTT ADD

TECHNICAL SERVICE BULLETIN

SUBJECT:
AEROSET (TM) System Software Version 1.00ER005

TSB#: **125-011**

ORIGINATOR: **Chris Barton/Pat Wood**
APPROVED: **Christie McCain 28-APR-1999**

PRODUCT:
AEROSET (TM) (125)
REF. ECN: ECR KEM10-2417

IMPLEMENTATION:	TSB Part/Kit #: **2-89996-01**	Upgrade Time: **2.0 Hours**
● **Mandatory** ○ **Next Service Call** ○ **Optional**	TSB Part(s) Availability: **30-APR-1999**	VerificationTime: **0.5 Hours**
Instruments Requiring Modification: **Serial Number A9552084 and below.**	**TSB Tracking by Serial # required (MANDATORY TSB's ONLY)** ● YES ○ NO	Total Mod. Time: **2.5 Hours** ****NOTE** The instrument must be at TSB Level 1 prior to performing this TSB.**

I. DISTRIBUTION:
Worldwide

II. PURPOSE:
Release AEROSET system software version 1.00ER005, which replaces the 1.00ER002 software version.

III. ADMINISTRATIVE NOTES:
Upon completion of the upgrade:

1. Use the normal procedures for notification of the TSB.
2. Remove all previous version software disks in your kit, in the warehouse, and at the customer site and dispose of them.
3. Update any Configuration, Assay 1-50, Assay >50, or Library Backup Disks at the customer site.
4. **The completion date of this TSB is the end of 3rd Quarter 1999.**

IV. SPECIAL TOOLS:
One Blank Formatted 1.44Mb Floppy Disk (Windows® 95, or DOS 5.0 (or higher))

V. PARTS:
1. Software Version 1.00ER005 Catalog Number 2-89996-01

REPLACED PARTS:
Remove all previous version software disks and dispose of them.
COMPATIBILITY:
All

VI. PROCEDURE:

MODIFICATION STEPS:

A. SYSTEM PREPARATION

NOTE: This procedure describes the steps required to upgrade an existing AEROSET™ System. If performing a new installation, review the following two modifications to this procedure:

1. Verify the software version of the System Control Center shipped with the instrument.
   - If the software revision is 1.00ER002, begin at procedure 2.1 (Loading System Software) of this TSB.
   - If the software revision is 1.00ER005 begin at procedure 2.2 (Loading Flash Memory) of this TSB.
2. The Robotics Step Tables disk supplied with the instrument must be loaded in procedure 3.1 (Restoring Robotics Step Tables).

1.1. Robotics Step Tables Backup

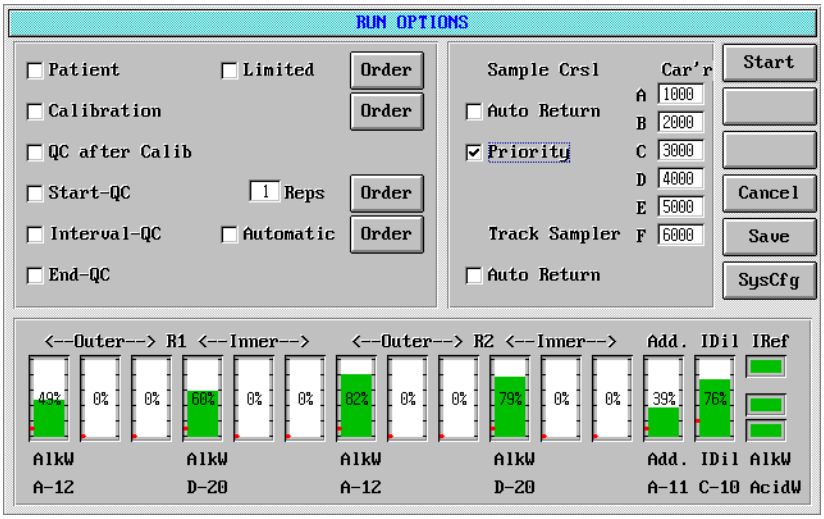
1. Log On to the system using "extra" as the User Code and "ex_tra" as the password.
2. Select the **Maintenance Utilities** icon. 
3. Select the **SCC** tab.
4. Insert a blank, formatted disk in the SCC floppy disk drive.
5. In the **Backup to Disk** section of the screen, select the **<Robotics>** button and select **<OK>**. (The Robotics backup will take less than 10 seconds).
6. When robotics backup is complete select the **Sampling** tab.
7. Select the **<StepEdit>** button on the right hand-side of the screen. The step table values are displayed.
8. Select the **<Print>** button to print a paper copy of the Step Tables.
9. Remove the floppy disk from the SCC floppy disk drive and label the floppy disk “ Robotics Step Tables”.
10. Select **<OK>** to exit from Maintenance Utilities.

1.2. Print Configuration Screens

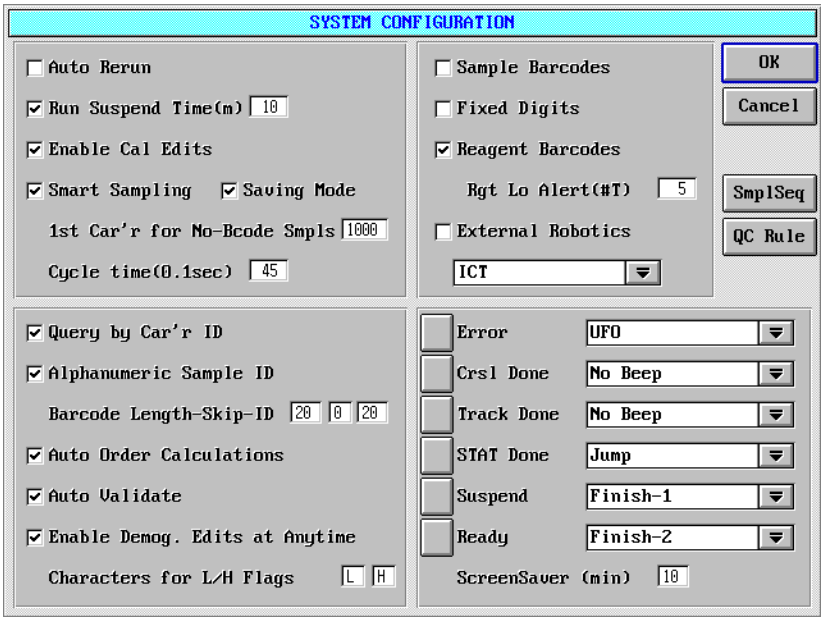
CAUTION: *These screen printouts will be used to manually re-enter the Configuration parameters. Do Not use a Configuration Backup disk made with the previous version of software to restore configuration after installing the new version of software. There are changes made to some of these files in the new software, and these changes will be overwritten if a previous version disk is restored.*

RUN OPTIONS and SYSTEM CONFIGURATION

1. Select the **<RUN>** button. The **RUN OPTIONS** screen is displayed.



2. Press the **[Print Screen]** key to print a paper copy of the RUN OPTIONS settings. Label the printout with "**002**".
3. Select the **<SysCfg>** button on the right-hand column of the **RUN OPTIONS** screen. The **SYSTEM CONFIGURATION** screen is displayed.



4. Press the **[Print Screen]** key to print a paper copy of the SYSTEM CONFIGURATION settings. Label the printout with "**002**".
5. Select **<Cancel>** to exit.

PRINTER CONFIGURATION

1. Select the **Printer A** icon. The **PRINTER A** screen is displayed.
2. Select the **<Config>** button. The **Printer Configuration** screen is displayed.
3. Press the **[Print Screen]** key to print a paper copy of the PRINTER A configuration. Label the printout with "**002**".
4. Select **<Cancel>** to exit.
5. Repeat steps 1-4 for the **Printer B** icon.

HOST CONFIGURATION

1. Select the **Host Communication** icon. The **HOST COMMUNICATION** screen is displayed.
2. Select the **<Config>** button. The **ONLINE CONFIGURATION** screen is displayed.
3. Press the **[Print Screen]** key to print a paper copy of the ONLINE CONFIGURATION settings. Label the printout with "**002**".
4. Select **<Cancel>** to exit.

UNIT CONFIGURATION

1. Perform the steps in the following table to access the Unit Configuration screen.

Step	Action	The system will display...
1	Press the **[Alt]** + **[Print Screen]** buttons on the keyboard at the same time.	A **Control Box** Pop-up dialog window
2	Press the [down-arrow] key to highlight the "**Special**" option and press **[Enter]**.	A DOS window with a "**C:**" prompt
3	Type "**unitconf**" and press **[Enter]**.	The **Unit Configuration** screen

2. Press the **[Print Screen]** key to print a paper copy of the UNIT CONFIGURATION settings. Label the printout with "**002**".
3. Select **<Cancel>** to exit and return to the "**C:**" prompt.
4. Type "**exit**" and press **[Enter]**.

B. LOADING THE NEW SOFTWARE VERSION

2.1. Loading System Software

1. Perform the Power OFF procedure.
2. Perform the steps in the following table:

Step	Action	The system will display...
1	Insert the System Software Disk 1 of 3 into the SCC floppy disk drive. Power ON the system by using the Rotary Power Switch on the left side of the instrument.	"**Enter new date (mm-dd-yy):**"
2	Press the **[Enter]** key.	"**Enter new time**:"
3	Press the **[Enter]** key.	an "**A:**" prompt
4	Type "**upgrade**" and press **[Enter]** .	an "**A:**" prompt (after the installation of Disk 1 is complete)
5	Insert Disk 2 of 3 into the SCC floppy disk drive. Type "**upgrade**" and press **[Enter]**.	an "**A:**" prompt (after the installation of Disk 2 is complete)
6	Insert Disk 3 of 3 into the SCC floppy disk drive. Type "**upgrade**" and press **[Enter]** .	an "**A:**" prompt (after the installation of Disk 3 is complete)

3. Remove Disk 3 from the floppy disk drive.
4. Proceed to the Loading Flash Memory procedure.

2.2. Loading Flash Memory

1. Power OFF the Analyzer using the Rotary Power Switch.
2. Remove the Left Side Panel.
3. Place the Flash Memory Switch (located below the Rotary Power Switch) in the ON position.
4. Perform the steps in the following table:

Step	Action	The system will display...
1	Power ON the system by using the Rotary Power Switch on the left side of instrument.	"**Enter Password**"
2	Type "**!6393**" and press **[Enter]**.	"**Rewrite Flash-ROM's are you ready START STOP**"
3	Select **<Start>** and press **[Enter]**.	"**Completed Cycle power on the Analyzer and the System Control Center**"

5. Power OFF the Analyzer using the Rotary Power Switch.
6. Place the Flash Memory Switch in the OFF position.
7. Replace the Left Side Panel.
8. Power ON the Analyzer using the Rotary Power Switch.

2.3. Checksum Verification

1. Log On to the system using "extra" as the User Code and "ex_tra" as the password.
2. Select the **Maintenance Utilities** icon. 
3. Select the **SW Info** tab.
4. Verify that the checksums are same as displayed below:

Check Sum Software Version 1.00ER005.990412 2/24/99 16:24

	1	2	3	4	5	6	7
2	be07/be07	d691/d691	ff02/ff02	0000/0000	0000/0000	b25b/b25b	
3	389a/389a	d7d1/d7d1	19e3/19e3	60c4/60c4	e106/e106	8771/8771	366e/366e
4	5920/5920	4e8b/4e8b	ff02/ff02	0000/0000	0000/0000	865d/865d	

NOTE: If the checksums are not correct, repeat procedure 2.1 (Loading System Software) and procedure 2.2 (Loading Flash Memory).

C. RESTORING ROBOTICS AND CONFIGURATION

3.1. Restore Robotics Step Tables

1. Log On to the system using "extra" as the User Code and "ex_tra" as the password.
2. Select the **Maintenance Utilities** icon. 
3. Select the **SCC** tab.
4. Insert the Robotics Step Tables Disk in the SCC floppy disk drive.
   - If you are installing a new AEROSET™ System, use the Robotics Disk supplied with the instrument.
   - If you are upgrading an existing system, use the Robotics Step Tables disk created in section 1.1 of this TSB.
5. In the **Restore from Disk** section of the screen, select the **<Robotics>** button and select **<OK>**. (The Robotics restore will take less than 10 seconds).
6. When robotics restore is complete select **<OK>** to exit from Maintenance Utilities.

NOTE: The Power OFF procedure will be performed as the last step of procedure 4.2. The restoration of the Robotics Step Tables will not be completed until after the power is cycled.

3.2. Restore Configuration

CAUTION: *Use the screen printouts made before the upgrade to manually re-enter the Configuration parameters. Do Not use a Configuration Backup disk made with the previous version of software to restore configuration after installing the new version of software. There are changes made to some of these files in the new software, and these changes will be overwritten if a previous version disk is restored.*

RUN OPTIONS and SYSTEM CONFIGURATION

1. Log On to the system using "extra" as the User Code and "ex_tra" as the password.
2. Select the **<RUN>** button. The **RUN OPTIONS** screen is displayed.
3. Using the screen printout generated in procedure 1.2, confirm the RUN OPTIONS settings and edit if necessary.
4. Select the **<Save>** button to save the changes and select **<OK>** to confirm the save option.
5. Press the **[Print Screen]** key to print a paper copy of the RUN OPTIONS settings. Label the printout with "**005**".
6. Select the **<SysCfg>** button on the right-hand column of the **RUN OPTIONS** screen. The **SYSTEM CONFIGURATION** screen is displayed.
7. Using the screen printout generated in procedure 1.2, confirm the SYSTEM CONFIGURATION settings and edit if necessary.
8. After the edits are complete, press the **[Print Screen]** key to print a paper copy of the SYSTEM CONFIGURATION settings. Label the printout with "**005**".
9. Select **<OK>** to exit and save the changes.
10. Select **<OK>** on the **Save Settings** confirmation dialog window.

PRINTER CONFIGURATION

1. Select the **Printer A** icon. The **PRINTER A** screen is displayed.
2. Select the **<Config>** button. The **Printer Configuration** screen is displayed.
3. Using the screen printout generated in procedure 1.2, confirm the PRINTER A settings and edit if necessary.
4. After the edits are complete, press the **[Print Screen]** key to print a paper copy of the PRINTER A settings. Label the printout with "**005**".
5. Select **<OK>** to exit and save the changes.
6. Select **<OK>** on the **Save Settings** confirmation dialog window.
7. Repeat steps 1-5 for the **Printer B** configuration.

HOST CONFIGURATION

1. Select the **Host Communication** icon. The **HOST COMMUNICATION** screen is displayed.
2. Select the **<Config>** button. The **ONLINE CONFIGURATION** screen is displayed.
3. Using the screen printout generated in procedure 1.2, confirm the ONLINE CONFIGURATION settings and edit if necessary.
4. After the edits are complete, press the **[Print Screen]** key to print a paper copy of the ONLINE CONFIGURATION settings. Label the printout with "**005**".
5. Select **<OK>** to exit and save the changes.
6. Select **<OK>** on the **Save Settings** confirmation dialog window.

D. ADDITIONAL CONFIGURATION

4.1. Selecting the Multiple Reagent Cartridges option and confirming the settings in the Unit Configuration screen

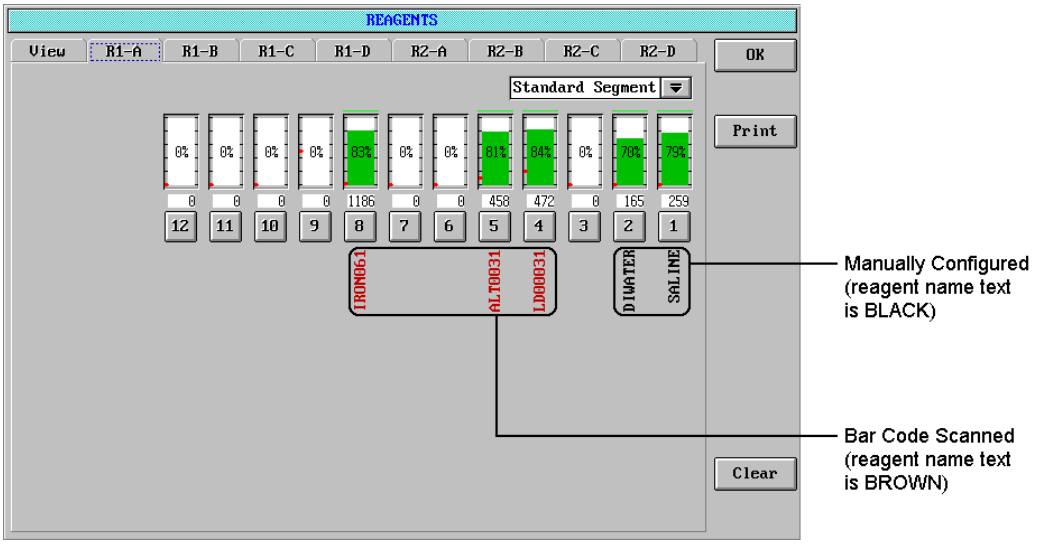
1. Perform the steps in the following table to access the Unit Configuration screen.

Step	Action	The system will display...
1	Press the **[Alt]** + **[Print Screen]** buttons on the keyboard at the same time.	A **Control Box** Pop-up dialog window
2	Press the [down-arrow] key to highlight the "**Special**" option and press **[Enter]**.	A DOS window with a "**C:**" prompt
3	Type "**unitconf**" and press **[Enter]**.	The **Unit Configuration** screen

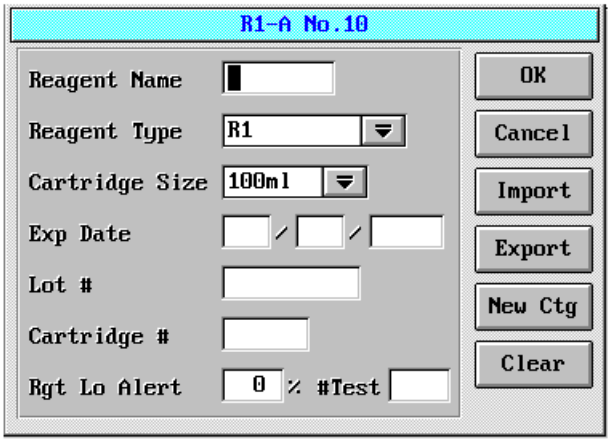
2. Using the screen printout generated in procedure 1.2, confirm the UNIT CONFIGURATION settings and edit if necessary.
3. Select the "**Multiple Rgt Ctgs**" checkbox in the lower right-hand corner of the screen.
4. After the edits are complete, press the **[Print Screen]** key to print a paper copy of the UNIT CONFIGURATION settings. Label the printout with "**005**".
5. Select **<OK>** to exit and save the changes.
6. Select **<OK>** on the **Save Paramters** confirmation dialog window to return to the "**C:**" prompt.
7. Type "**exit**" and press **[Enter]**.

4.2. Update the Reagent Configuration

1. Select the **<RGT SCAN>** button from the Main Display and select **<OK>** on the confirmation dialog window to initiate the scan.
2. When the reagent scan is completed, select the **<Reagents>** button. The **REAGENTS** screen is displayed.
3. Select the **R1-A** tab at the top of the screen. The **R1-A** page is displayed.



4. If the reagent name text is black, the cartridge was manually configured (if the reagent name text is brown, the cartridge was loaded by scanning the bar code). For each manually configured reagent (black reagent name text), perform the following steps:
5. Select the number button corresponding to the position where the manually configured reagent is located. The dialog window associated with that position is displayed.



6. Select the **<New Ctg>** button and select **<OK>** on the **Reset Reagent Volume** dialog window.
7. Select **<OK>** to exit and save the changes.
8. Select **<OK>** on the **Save Reagent** confirmation dialog window.
9. Repeat steps 5-8 for each manually configured reagent in the R1-A, R1-B, R1-C, R1-D, R2-A, R2-B, R2-C, and R2-D tabs.

4.3. Edit I-Index values in the CALIBRATOR/CONTROL screen

1. Select the **<Cal/Control>** button. The **CALIBRATOR/CONTROL** screen is displayed.
2. Select the Position 42 **<I-Index>** button. The **Position 42** dialog window is displayed.
3. Type the number "0" for all of ICT™ assays (Na, K, Cl, Na-U, K-U, and Cl-U).
4. Press the **[Tab]** or **[Enter]** key after entering the last number "0".
5. Select **<OK>** to exit and save the changes.
6. Select **<OK>** on the **Save Configuration** dialog window.
7. Perform the Power OFF procedure.

4.4. Keyboard Language Selection

NOTE: The default keyboard language is English. This procedure should only be performed to change to a different language keyboard. The Analyzer language will still be English.

1. Perform the steps in the following table:

Step	Action	The system will display...
1	Insert the PC-DOS System Disks V7.0/V: Volumes 1 of 2 disk into the SCC floppy disk drive. Power ON the system by using the Rotary Power Switch.	"**Enter new date (mm-dd-yy):**"
2	Press the **[Enter]** key.	"**Enter new time**:"
3	Press the **[Enter]** key.	an "**A:**" prompt

2. Insert System Software Disk 2 of 3 into the SCC floppy disk drive.

3. Type one of the following batch file commands:

Type this command	For a keyboard of this language
"german"	German
"france"	French
"italy"	Italian
"spain"	Spanish
"english"	English

4. Press the **[Enter]** key.
5. Remove the System Software Disk 2 of 3 from the SCC floppy disk drive.
6. Power OFF the Analyzer using the Rotary Power Switch.
7. Remove the current keyboard and install the new language keyboard.
8. Power ON the Analyzer using the Rotary Power Switch.

NOTE: If there is an error while the system is booting up, verify that the keyboard is connected correctly and then cycle the power.

CHECKOUT:

E. SOFTWARE VERIFICATION AND COMPLETION

5.1. Cycle Power to Implement All Configuration Edits

NOTE: If procedure 4.4 (Keyboard Language Selection) was performed, the system power was cycled as part of that procedure and does not need to be repeated. Proceed to procedure 5.2 (Checksum Verification).

1. Perform the Power OFF procedure.
2. Wait 15 seconds and then Power ON the system.

5.2. Robotics Step Tables and Configuration Verification

1. Select the **Sampling** tab.
2. Select the **<StepEdit>** button on the right-hand column of the screen.
3. Using the Robotics Step Tables printout generated in procedure 1.1, confirm the Step Table values.
4. Compare the screen printouts of the following screens that were made before (labeled "002") and after (labeled "005") the installation and confirm that the edits were made correctly.
   - RUN OPTIONS
   - SYSTEM CONFIGURATION
   - PRINTER A
   - PRINTER B
   - ONLINE CONFIGURATION
   - UNIT CONFIGURATION

5.3. Updating Backup Disks

1. For each Configuration, Assay 1-50, Assay >50 and Library Backup disk at the customer site, perform the following steps to update the disks to the new software version.
2. Select the **Maintenance Utilities** icon. 
3. Select the **SCC** tab.
4. Insert the Backup disk in the SCC floppy disk drive.
5. In the **Backup to Disk** section of the screen, select the desired option (Config, Assay 1-50, Assay >50, or Library) and select **<OK>** on the confirmation dialog window.

   NOTE: The approximate duration of the backup is:
   - Config = 3 minutes
   - Assay 1-50 = less than 15 minutes
   - Assay >50 = less than 15 minutes
   - Library = dependent upon the data stored in the library

6. When the backup is complete, remove the disk from the floppy disk drive and label the disk with the current date and new software version.
7. Repeat steps 4-6 for each Backup disk.
8. Select **<OK>** to exit from Maintenance Utilities.

5.4. System Operation Verification

1. Run QC for several assays to verify instrument performance.

MODIFICATION CONTROL STICKER UPDATE:

5.6. Modification Control Sticker Update

1. Mark off number 11 on the modification control sticker upon completion of this procedure. The TSB modification control sticker is located behind the front left door, on the power supply access panel.

NOTE: Do not leave the AEROSET System with the Log On password of "extra". The "extra" password level is for Abbott Support Personnel only. Inform the customer that all the super and user level passwords that they had defined previously were deleted when the new software version is installed. They must reconfigure all passwords. The procedure for configuring a Log On Password is in the **AEROSET™ *System Operations Manual***, *Section 2 - Installation Procedures and Special Requirements*.

END OF DOCUMENT