ABBOTT
ADD

INDEX
INSTRUMENT SERVICE ADVISORY

PRODUCT:	DATE:
COMMANDER® PPC(TM) (50)	**11-AUG-1999**

ISA #	SUBJECT	EFFECTIVITY DATE
50-073	Enabling the Abbott HIV 1/2 gO EIA Assay Protocol	18-AUG-1999
50-070	PPC(TM) PM/Total Service Call Procedure	12-AUG-98
50-069	PPC(TM) Wash Head Gap Setting Procedure	18-DEC-97
50-068	PPC®(TM) Instrument Wash Manifold Gasket Upgrade	14-NOV-97
50-067	Enabling and Editing Procedure for the -A-HIVAG-1 MC EIA Assay Protocol	17-JUN-96
50-066	Release of New PPC(TM) 8.0/8.1 CE Mark Service Manual	02-APR-96
50-065	NEW PPC ASSAY PROTOCOL LINKING PROCEDURE	15-JUN-95
50-064	PPC Keyboard/Display Software Update	PENDING
50-063	RELEASE OF NEW PPC SERVICE AND REFERENCE MANUALS	21-FEB-95
50-062	PPC CPU BOARD KIT REPLACEMENT	12-MAY-94
50-061B	PASSWORD FOR HIDDEN MENU	22-JUN-98
50-061A	PASSWORD FOR HIDDEN MENU	OBSOLETE
50-061	PASSWORD FOR HIDDEN MENU	OBSOLETE
50-060	STAR ERROR TROUBLESHOOTING	Superseded by Service Manual
50-059	WATER CANISTER DISINFECTING PROCEDURE	PENDING
50-058	ANTIFOAM AGENT	Superseded by Service Manual
50-057	PPC FILTER CLEANING/REPLACEMENT PROCEDURE	Superseded by Service Manual
50-056	READ A/D PCB CALIBRATION - MANUAL SUPPLEMENT	18-FEB-93
50-055	WATER LEVEL SENSING CABLES	25-JAN-93
50-054	MAIN TRANSPORT CLEANING AUGER TRAY	03-AUG-92
50-053	WATER DROPLETS SPECIFICATION	20-DEC-91
50-052	SERVICE MANUAL SUPPLEMENT	22-NOV-91
50-051	BALL ACTUATOR CLEANING PROCEDURE	01-NOV-91
50-050	NEW STYLE EXIT HOUSING	25-NOV-91
50-049	CPU BOARD BATTERY REPLACEMENT PROCEDURE	28-OCT-91
50-048	DISPLAY/KEYBOARD CLEANING PROCEDURE	06-SEP-91
50-047	PPC HARDWARE KIT	07-OCT-91
50-046	IRREGULAR LOAD URGE BELTS	09-AUG-91
50-045	WARPED REACTION TRAY JAMS	12-JUL-91
50-044	NEW SERIAL I/O SOFTWARE (VERSION 2.2)	07-JUN-91
50-043	NEW TRAY AT WASH SWITCH ASSEMBLY	07-JUN-91
50-042	PARALLEL PROCESSOR SERVICE MANUAL SUPPLEMENTS	07-JUN-91
50-041	ADDITIONAL INFORMATION FOR 5.00/5.01 SOFTWARE (Hidden Menu Password Change)	OBSOLETE
50-040	WASH ACTUATOR ALIGNMENT	12-APR-91
50-039B	ADDITION TO FIELD SERVICE KIT & CATALOG NUMBERS	01-NOV-91
50-038	NEW LOAD/URGE MODULE	30-NOV-90
50-037	PARALLEL PROCESSOR SERVICE MANUAL SUPPLEMENT	06-JUL-90
50-036	PARALLEL PROCESSOR SERVICE MANUAL SUPPLEMENT	15-JUN-90
50-035	PPC SOFTWARE RELEASE (4.01/4.02)	15-JUN-90
50-034	DISPLAY BACKLIGHT CHANGE	18-MAY-90
50-033	PARALLEL PROCESSING SERVICE KIT ADDITION (5-TIP Dispense Holder)	19-JAN-90
50-032	PARALLEL PROCESSOR SERVICE KIT ADDITION (INTERNAL AND EXTERNAL TUBING CLAMPS)	05-JAN-90
50-031	PPC WASTE LINE PRESSURE SWITCH	21-SEP-90
50-030	PARALLEL PROCESSOR SOFTWARE RELEASES (VERSIONS 3.00/3.01/3.02)	OBSOLETE
50-029	WASTE FITTING LEAKAGE	12-OCT-89

50-028	PARALLEL PROCESSOR SERVICE MANUAL SUPPLEMENT	04-OCT-89
50-027	PARALLEL PROCESSOR SERVICE MANUAL SUPPLEMENT	27-SEP-89
50-026B	PARALLEL PROCESSOR SERVICE KIT UPGRADES	OBSOLETE
50-025	PARALLEL PROCESSOR SERVICE MANUAL SUPPLEMENT	22-SEP-89
50-024A	NEW LOAD/URGE ASSEMBLY EXTENSION	27-OCT-89
50-023	PARALLEL PROCESSOR SERVICE MANUAL SUPPLEMENT	22-SEP-89
50-022	PARALLEL PROCESSOR ALIGNMENT TOOL KIT ADDITIONS	29-AUG-89
50-021	PPC SOFTWARE VERSION RELEASES 1.16 AND 1.17	OBSOLETE
50-020	ADDITIONS TO PPC FSE KIT	24-JUL-89
50-019	PPC ERROR CODE 2.1.1.30	09-JUN-89
50-018	NEW COMMANDER PREVENTIVE MAINTENANCE FORM	01-JUN-89
50-017	PPC/CNC SOFTWARE RELEASE VERSION 1.15 (INTL. BLOOD BANKS ONLY)	OBSOLETE
50-016	PPC/CNC SOFTWARE RELEASE VERSION 1.14 (INTL. BLOOD BANKS ONLY)	OBSOLETE
50-015	PPC/CNC INTRODUCTION (U.S. BLOOD BANKS ONLY)	OBSOLETE
50-014	NEW WEB SWITCH ASSY FOR FSE KITS	OBSOLETE
50-013	PPC MANUAL CORRECTIONS/UPDATES	20-DEC-88
50-012	DEFECTIVE LOAD MODULE URGE BELTS	OBSOLETE
50-011	CLEANING OF THE LOAD MODULE URGE BELTS	18-OCT-88
50-010	PPC FSE KIT ADDITION (EXTERNAL TUBING)	30-DEC-88
50-009	LUBRICATION OF MAIN TRANSPORT ASSEMBLY	26-AUG-88
50-008	PPC SOFTWARE RELEASE (VERSION 1.09 EUROPE)	OBSOLETE
50-007	PPC SOFTWARE RELEASE (VERSION 1.08 U.S.)	OBSOLETE
50-006	PPC LOAD MODULES/SLIDE ASSEMBLY CHANGES	OBSOLETE
50-005	SOFTWARE RELEASE (1.04 U.S.)	OBSOLETE
50-004	SOFTWARE RELEASE (1.07 EUROPE)	OBSOLETE
50-003	PPC TIME CLOCK FAILURE	OBSOLETE
50-002	PPC INSTRUMENT LOCKUPS	29-APR-88
50-001A	PPC ALIGNMENT UPDATE	10-JAN-90

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

END OF DOCUMENT

ABBOTT ADD	INSTRUMENT SERVICE ADVISORY

SUBJECT: **Enabling the Abbott HIV 1/2 gO EIA Assay Protocol**	ISA#: **50-073**
ORIGINATOR: **Thomas A. Owusu**	PRODUCT: **COMMANDER® PPC(TM) (50)**
APPROVED: **Dan Armstrong 10-AUG-1999**	EFFECTIVITY DATE: **18-AUG-1999**

I. DISTRIBUTION:

R.O.W only

II. PURPOSE:

To inform the R.O.W Field Service Organization of the procedure for enabling Abbott HIV 1/2 gO EIA Assay Protocol on PPC Version 9.10 instruments. This procedure is designed to implement ABBOTT HIV 1/2 gO EIA, List number 1D89 on the PPC. This assay is labelled HIV 1-2 gO and is stored in assay location 10 on the PPC instrument.

III. DESCRIPTION:

This document provides the procedure for enabling the HIV 1-2 gO Assay Protocol on the PPC systems with software version 9.10. The procedure is to be performed by an Abbott Representative. The information provided is for Abbott use only and is not to be shared with or distributed to the customer. Software must be downloaded upon instrument installation and when the Flash Memory Interface Board (1-43645-02) is replaced on the PPC™ instrument. Because the HIV 1-2 gO Assay Protocol is hidden on PPC instrument version 9.10, the assay protocol must be enabled after software is downloaded. Once the assay is enabled the Abbott representative must review the assay protocol with the laboratory supervisor. Reference section VI for further details.

IV. PROCEDURE:

Note: On PPC 9.10 the assay is titled "HIV 1-2 gO" List #1D89. This is the ROW version. There is no -A- prefix.

ENABLING HIV 1-2 gO ASSAY PROTOCOL ON PPC INSTRUMENT VERSION 9.10:

1. Print a PPC Assay Directory. If there is a RAM assay, designated with an "**R**" after the assay name, it should be Saved or Deleted using the Special Modes Assay Tools Edit Protocol function.
2. Enter Special Modes by pressing "#" from the Insert tray screen.
3. Press the **ALPHA** key.
4. Enter the following 4-character password: "**DAVE**".
5. The PPC system will beep as each of the first 3 letters is entered.
6. The PPC™ screen will display the following:

   Enter Code:_____

Note: If the screen does not show the above display for code entry, Exit by pressing "#" and go back to the Insert Tray screen and repeat Steps 3 through 5.

7. Enter the following 2-character code "**IH**" followed by the "ENTER" key. The system will pause for about 10 to 20 seconds after the "ENTER" key has been pressed while the new assay is being saved.
   a) If an **Error 6.1.4.1** (Invalid Entry) is momentarily displayed, the incorrect 2 character code was entered. Go to step 8.
   b) If an **Error 6.1.6.1** (Current RAM Assay Must be Saved or Deleted) is displayed, go to Step 1 and save or delete the RAM assay. It MUST be saved or deleted prior to unlocking this assay.
8. After entering the 2-character code, the PPC system will automatically reinitialize regardless of whether or not the code was correct. After reinitialization is complete, print the Assay Directory to verify that this respective assay has been enabled. If it is not in the Assay Directory, repeat the procedure and verify that the correct 2 character code is entered.

If the HIV 1-2 gO Assay Protocol has not been enabled after two or more attempts, call your local Abbott Customer Support Center.

V. CHECKOUT/VERIFICATION:

Print an Assay Directory and Assay Protocol Listing of the new assay. Verify the printouts includes the HIV 1-2 gO Assay Protocol and give printouts to the Laboratory Supervisor. This completes the procedure for enabling the HIV 1-2 gO Assay Protocol on the COMMANDER PARALLEL PROCESSING CENTER Version 9.10.

END OF DOCUMENT

ABBOTT ADD	INSTRUMENT SERVICE ADVISORY

SUBJECT: **PPC(TM) PM/Total Service Call Procedure**	ISA#: **50-070**
ORIGINATOR: **Scott A. Childs**	PRODUCT: **COMMANDER® PPC(TM) (50)**
APPROVED: **Bob Schabel 08/12/98**	EFFECTIVITY DATE: **12-AUG-98**

I. DISTRIBUTION:

Worldwide

II. PURPOSE:

This ISA is to notify the field of the COMMANDER PPC Preventive Maintenance (PM)/Total Call (TC) Procedure (found in the PM/Total Call section of the PPC Service Manual) has been revised to address various customer issues.

III. PARTS:

None.

IV. PROCEDURE:

PM/TOTAL CALL REPORT

TC	PM	PROCEDURE
___	___	Check Modification Sticker for TSB level.
___	___	Decontamination procedure completed (VP-39).
N/A	___	Print out protocols and database as necessary.
___	___	Check and Replace tubing if necessary.
___	___	Check Wash Manifold and Check Valve (VP-5).
___	___	Perform manual wash on two 60 well reaction trays.
___	___	Verify water residue (VP-51).
___	___	Clean Tray Entered and Tray Ready Switch Ball Actuator (VP-38).
N/A	___	Check Urge-to-Main Transport Drive alignment (VP-15).
___	___	Clean Load/Urge Module belts.
___	___	Check for smooth operation of Main Transport (no binding or excessive noise).
___	___	Clean Transport Augers (VP-50).
___	___	Perform Urge/Transport Diagnostics (VP-3 and VP-4). If

		necessary, refer to Alignment Procedures (VP-15, 20, 33, 46).
___	___	Verify Tray at Barcode Switch operation and alignment (VP-16).
___	___	Verify Barcode Reader reads labels consistently (VP-2).
___	___	Clean Drip Cup.
___	___	Perform Bottle Select, Pump Arm, and Dispense Well Diagnostics to ensure proper operation (VP-6).
___	___	Check Bottle Select, Pump Arm, and Dispense Well Alignments (VP-23, 25, 26).
___	___	Check Dispense Actuator to ensure Tri-Continent moves full distance to bottom of stroke.
___	___	Check for broken Dispense Boom Tip or Tri-Continent Bottle Holders.
N/A	___	Replace O-ring on Dispense Boom Upgrade Kit.
___	___	Verify all Bottle Select Backlights are operating (VP-6).
___	___	Clean Optics Glass Barrier.
___	___	Check Red and Blue Filter counts (VP-7).
___	___	Verify Lamp is properly installed in Spring Retainer.
___	___	Check Lamp Voltages (VP-35).
___	___	Perform Filter Diagnostics (VP-7).
___	___	Perform Filter cleaning and replacement (VP-47).
___	___	Perform Linearity/Repeatability Tests (VP-40 and VP-42).
___	___	Verify Drift Test (VP-41).
___	___	Check system air pressure (VP-31).
___	___	Perform Pressure Leak Check (VP-32).
___	___	Check sensor operation (VP-11).
___	___	Verify fluids are not leaking from waste container.
___	___	Check Main Power Supply voltages (VP-1).
___	___	Perform all Printer Diagnostics (VP-10).

N/A	___	Measure CPU Board Battery voltage (VP-54).
___	___	Perform Calibration (VP-56).

END OF DOCUMENT

ABBOTT ADD	INSTRUMENT SERVICE ADVISORY

SUBJECT: **PPC(TM) Wash Head Gap Setting Procedure**	ISA#: **50-069**
ORIGINATOR: **Thomas A. Owusu**	PRODUCT: **COMMANDER® PPC(TM) (50)**
APPROVED: **Robert Schabel 21-NOV-97**	EFFECTIVITY DATE: **18-DEC-97**

I. DISTRIBUTION:

WorldWide

II. PURPOSE:

To inform the Field Service organization of the release of a new tool and procedure for setting the Wash Head gap when new gaskets (LN 6208-57) are installed in the Wash Manifold of PPC

instruments.

III. DESCRIPTION:

The new style gaskets (LN 6208-57) are thicker than the old gaskets (LN 6208-25). Upon the installation of the new gaskets, the setting of the Wash Head gap (Wash Actuator Sensor Flag adjustment) may require an adjustment to insure proper sealing. This reduces or eliminates water leaks and spraying. The new Wash Head gap setting for the new style gaskets is 0.020-inch (0.5mm) or a range of 0.015-inch (0.3mm) to 0.035-inch (0.9mm). Setting the gap to this new specification is required after the new style gaskets and/or the Wash Actuator Assy are installed.

NOTE: This new gap setting supersedes the gap setting (VP-27; Sensor Flag-Wash Actuator Alignment) found in the current version of PPC Service manual (1-43990-03). All PPC instruments in the field should have the gap routinely checked when the next scheduled Preventative Maintenance (PM) is performed to insure that the gap setting is set to the new specifications.

IV. PARTS:

PPC Service Tool Kit Impact:

U.S. - PPC instrument trained FSRs will receive the tool (marked TQ43864-102) to add to their service tool kits.

ROW - It will be the responsibility of the individual Area/Country to forecast, order, and distribute the new tool to all PPC trained FSEs as an addition to their service tool kits.

Depot Inventory:

U.S.: - Tool will be added to FSR Tool Kit.

ROW: - It will be the responsibility of the individual Area/Country to forecast and order the required quantities of the tool to add to service tool kits in depot inventory.

V. WASH HEAD GAP SETTING PROCEDURE:

Required Tools:

- Wash Head Gap Setting Tool (C/N 1-43864-01). See Figure 1.
- Phillips Head Screw Driver.

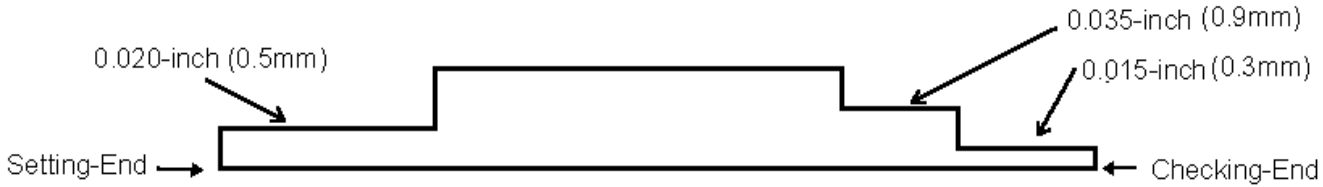
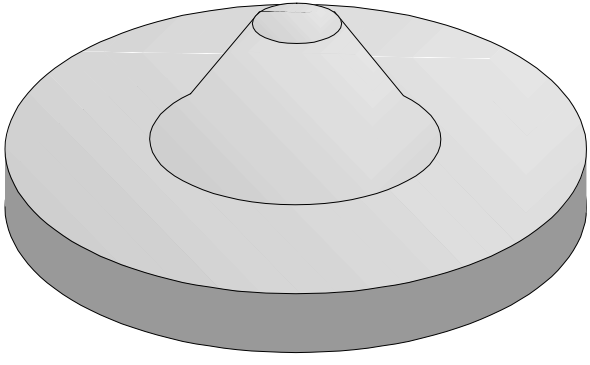
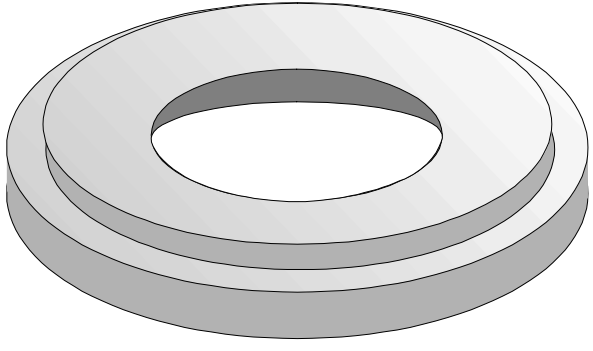


Figure 1. Wash Head Gap Setting Tool (side view)

1. Turn off the power switch of the PPC instrument.
2. Verify the Wash Manifold has new gaskets installed. The new (6208-57) and old style (6208-25) gaskets are illustrated below (Figure 2) to show the difference in appearance. Apart from the difference in shape, the old style gaskets are a light-to-medium shade of gray while the new style gaskets are nearly black in appearance.

NOTE: The new style gaskets are thicker. This increase in thickness necessitates a change to the Wash Actuator Sensor Flag adjustment specification in VP-27 of the current revision of the PPC Service Manual (1-43990-03).





New Style
(6208-57)

Old Style
(6208-25)

Figure 2. New Style and Old Style Gaskets

3. Install new gaskets if the Wash Manifold has the old style gaskets installed. Refer to the installation, verification, and maintenance procedures for the new gaskets provided to PPC customers.
4. Turn the power switch ON. Allow the PPC instrument to initialize and warm up until "Insert Tray ---->" displays on the screen.
5. Raise or tilt back the right side (Card Cage Assy) of the instrument to get access to the Wash Actuator Assy and the Sensor Flag. (See Figure 3.)
6. Verify the Wash Head is at Home position by checking LED 102 on the Cable Interface Bd and verify it is ON.
7. Select and press <#> on the Keypad.
8. Select and press <4> (DIAGNOSTICS).
9. Select and press <2> (URGE).
10. Insert a clean 60 well tray into the entrance of the Load/Urge Module. (Bar code label is not needed on the tray.)
11. Press <ENTER> three times. The 60 well tray moves to the entrance of the Main Drive Assy under the Wash Head Assy with the screen displaying the following:

TRANSPORT HOME SWITCH HOME

ENTER THE NUMBER OF WEBS TO MOVE (1-9)

12. Press <1> to place "A" row under the Wash Manifold.
13. Press <#> to return to DIAGNOSTICS screen.
14. Select and press <4> WASH.
15. Select and press <1> HEAD MOVEMENT. The Wash Head Sensor Flag moves from Home position to READY position with LED 102 OFF and LED 107 OFF.
16. Press <ENTER> to move Wash Head to Down position.
17. Verify LED 107 is ON.
18. Perform an initial check of the gap setting. With the Wash Head in the down position, insert the *setting-end* of the tool to enter the gap between the top of the Wash Actuator Carriage (black plastic block) and the bottom of the Drive Screw/Nut Assy (brown plastic block). (Refer to Figure 3.)

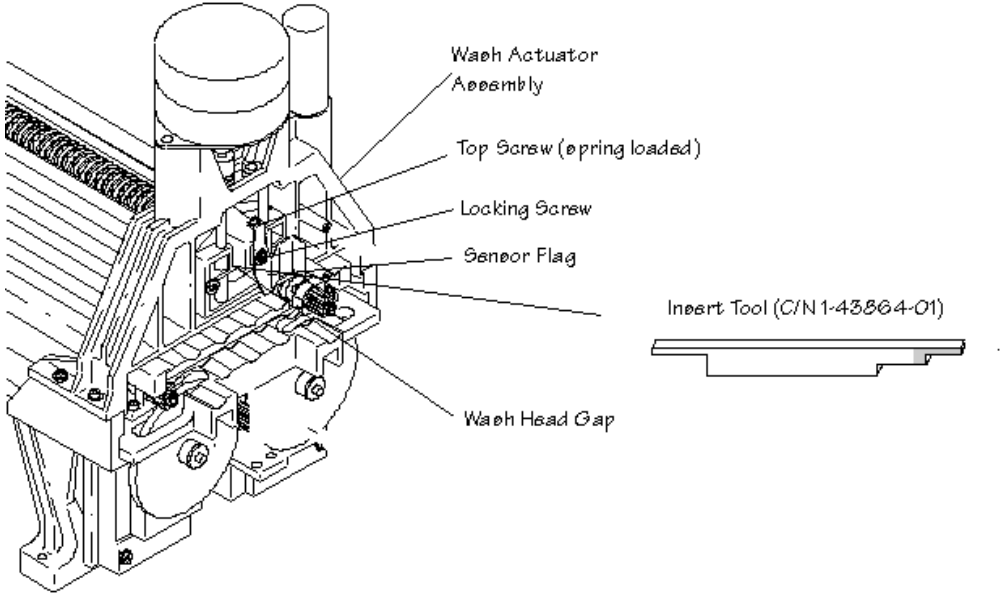


Figure 3. Wash Actuator Assembly

Note: Always use the tool with the part number side facing up.

19. With the Wash Head in the down position, the desired condition is for the *setting-end* of the tool to enter the gap with a slight resistance. The final condition requires the first step (0.015-inch) on the *checking-end* of the

tool must enter the gap but the second step (0.035-inch) must not enter the gap.

20. If adjustments must be made, use the <ENTER> key to move the Wash Head between Home and Down position to perform the adjustments and checks.
21. If the setting-end of the tool enters the gap with excessive play, make adjustments by performing the following procedure. With the Wash Head in the Home position, use the Phillips Head screw driver to loosen the locking screw on the side of the Sensor Flag. Turn the spring loaded adjusting screw on the top of the flag counterclockwise to reduce the gap.

NOTE: This is a very sensitive adjustment. The total adjustment range is only 0.020 inch. One full turn of the screw will move the flag approximately 0.032 inch. Adjust the screw in small amounts, each about 1/8 or 1/4 turn.

22. After each adjustment, tighten the locking screw. Run the Wash Head to the down position and recheck the gap. See Step 19 for the desired and final setting conditions.
23. When the gap setting is within the required range, press <#> to exit from the Wash Head Movement Test. The Wash Head will move to Home position and the screen will display the following:

```
TRANSPORT HOME SWITCH HOME
ENTER THE NUMBER OF WEBS TO MOVE (1-9)
```

24. Press <3> TRANSPORT and press <9> (number of webs to move). This will move the 60-well tray from the Wash Head area towards the exit. The screen will display the following:

```
WEB SWITCH OFF
ENTER THE NUMBER OF WEBS TO MOVE (1-9)
```

25. Press <9> and repeat for the screen to display the following:

```
EXIT SWITCH OFF
ENTER THE NUMBER OF WEBS TO MOVE (1-9)
```

26. Remove the 60-well tray from the Exit chute.
27. Perform a Manual Wash (Wash Cycle Verification) Test.

VI. DOCUMENTATION:

Service manual:

1. Update the Wash Head gap setting referenced in VP-27 (Sensor Flag-Wash Actuator Alignment) in the

current version of the PPC Service manual (1-43990-03) per this ISA.

2. A new version of the PPC Service manual (1-43990-04) to be released for the upcoming PPC Software version 9.00/9.10 will have the new gap setting procedure incorporated.

END OF DOCUMENT

ABBOTT ADD	INSTRUMENT SERVICE ADVISORY

SUBJECT: **PPC®(TM) Instrument Wash Manifold Gasket Upgrade**	ISA#: **50-068**
ORIGINATOR: **Tim Kitzmiller**	PRODUCT: **COMMANDER® PPC(TM) (50)**
APPROVED: **Bob Schabel 10-NOV-97**	EFFECTIVITY DATE: **14-NOV-97**

I. DISTRIBUTION:

WorldWide

II. PURPOSE:

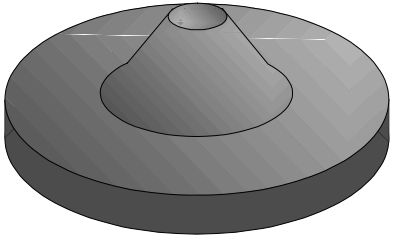
To inform the Field Service organization of the release of a new wash manifold gasket design for the PPC and Qwik Wash instruments.

III. DESCRIPTION:

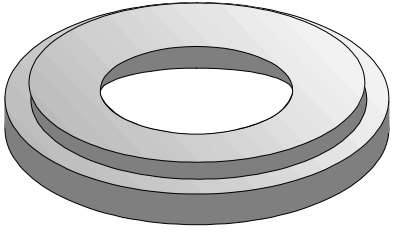
To improve the sealing point, a new wash manifold gasket has been designed that provides greater surface area across the rim of the reaction tray well to reduce or eliminate leaks and spraying. The improved gasket design is also curved more to the contours of the manifold to eliminate air space above the gasket. This reduces the potential for a suctioning affect that allows water to become trapped above the gasket, then squirted out in subsequent wash cycles. The new gasket design improves overall wash efficiency.

The old (6208-25) and new style (6208-57) gaskets are illustrated below to show the difference in appearance. Aside from the obvious difference in shape, the old style gaskets are a light to medium shade of gray while the new style gaskets are almost black in appearance.

NOTE: The new style gaskets are thicker requiring a change in the Wash Actuator Sensor Flag adjustment specification in VP-27, in the current PPC Service Manual (1-43990-03). Refer to the documentation section in this ISA for details.



New Style
(6208-57)



Old Style
(6208-25)

IMPLEMENTATION STRATEGY

INSTALLATION

The new style wash manifold gaskets will be shipped directly to and installed by all PPC/QwikWash ® instrument customers WorldWide based on individual Area/Country specific implementation plans. Installation, verification and maintenance procedures related to the new gaskets will be provided to the customers at time of launch. Customers who experience problems after the installation of the new gaskets should contact the Customer Support Center (US) or their local Abbott Representative.

NOTE: ISA #50-069 (PPC Wash Head Gap Setting Procedure) will be released soon after the release of the new gaskets.

U.S. LAUNCH PLAN

- All PPC and Qwik Wash instrument customers will receive a letter prior to shipment of the gaskets containing appropriate details related to the gasket upgrade.
- A set of the new style gaskets will be shipped directly to all PPC/QwikWash instrument customers.

ROW Launch Plan

- Area/Country Managers will receive an advanced copy of a PPC and QwikWash instrument customer letter through normal distribution channels, containing appropriate details related to the gasket upgrade. The letter will be translated if required, then distributed by the individual Area/Country to their customers prior to launch of the gasket upgrade.
- Each country will be responsible for forecasting, ordering and distributing the new style gaskets to their customers, based on their own country specific prioritization plan. The gasket upgrade will be mandatory for all customers.

V. PARTS:

PPC Service Kit Impact:

U.S. - A set of the new style gaskets (6208-57) will be automatically shipped to each PPC instrument trained FSR at the time of launch to upgrade the 6208-76 manifold currently in their service kits.

ROW - It will be the responsibility of the individual Area/Country to forecast, order and distribute the new style gaskets (6208-57) to all PPC trained FSE's to upgrade the 6208-76 manifold currently in their service kits.

Depot Inventory: (Dallas Rework Strategy)

U.S. - When the new gaskets become available:

- All old style gaskets will be scrapped and new style gaskets cut-in to inventory.
- All PPC Wash manifolds in inventory with old style gaskets installed will be scrapped.
- The List Number (LN) of the PPC Manifold assembly will change from 6208-76, to 6208-58 to reflect the upgrade to the new style gaskets.

ROW -

- It will be the responsibility of the individual Area/Country to forecast and order the required quantity of gasket sets (6208-57) to upgrade all PPC manifolds to the 6208-58 configuration, to replace scrapped inventory of the old style gaskets (6208-25) and to rework any service kits in depot inventory.

VI. DOCUMENTATION:

Operators Manual:

All PPC 8.00/8.10/8.11 customers will receive an update to the operations manual covering installation, verification and maintenance procedures linked with the new gaskets. Customers still at revision 6.00/6.01/6.11 will only receive the original letter as documentation.

Service manual:

1) The new style gaskets are thicker than the current design requiring a change to the "gap" setting referenced in VP-27, in the current version of the PPC Service manual (1-43990-03). The current setting calls to set the gap at 0.050-inch (+/- 0.020-inch), or 1.27mm (+/- 0.508). The new gap setting for the new style gaskets calls to set the gap at 0.5mm (+ 0.4mm/-0.2mm) for a total range of 0.3mm to 0.9mm. When setting the gap to this new specification you MUST have the new style gaskets installed. **This new gap setting supersedes the gap setting in the current version PPC Service manual (1-43990-03) for the new style gaskets. All PPC's in the field should be routinely checked when the next scheduled Preventative Maintenance (PM) is performed to insure that the gap setting is set to the new specifications.**
2) A new version of the PPC Service manual (1-43990-04) will be released around QTR. 4, 1997 for the upcoming release of PPC Software version 9.0 and will incorporate the new gap setting into VP-27.

END OF DOCUMENT

ABBOTT ADD	INSTRUMENT SERVICE ADVISORY

SUBJECT: **Enabling and Editing Procedure for the -A-HIVAG-1 MC EIA Assay Protocol**	ISA#: **50-067**
ORIGINATOR: **Timothy Kitzmiller**	PRODUCT: **COMMANDER® PPC(TM) (50)**
APPROVED: **Bob Schabel 17/JUN/96**	EFFECTIVITY DATE: **17-JUN-96**

I. DISTRIBUTION
Worldwide

II. PURPOSE:
To inform the Field Service Organization of the procedure for enabling and editing the assay protocol for -A-HIVAG-1 MC EIA.

III. DESCRIPTION:

Software must be downloaded upon instrument installation and when the Flash Memory Interface Board (1-43645-02) is replaced on the PPC™ instrument. Because the -A-HIVAG-1 MC EIA assay protocol (30) is hidden on PPC instrument version 8.00/8.10, the assay protocol must be enabled after software is downloaded. Once the assay is enabled, the protocol must be edited because the protocol parameters in the software are different than those listed in the reagent package enclosure. Once the protocol has been edited, the FSR must review the assay protocol with the laboratory supervisor. Reference section VI for further details.

IV. ENABLING -A-HIVAG-1 MC EIA ON PPC Instrument Version 8.00./8.10

1. If there is an assay in the Assay 30 slot, it MUST be deleted prior to enabling the new assay.

   NOTE: Before deleting, list the assay protocol to re-edit into another slot. The assay 30 will be identified as -A-HIVAG-1 MC after this procedure has been performed.

2. Enter "Special Modes" by pressing "#" from the "Insert Tray" screen.
3. Press the "ALPHA" key.
4. Enter the 4-character password, "OHME". The PPC instrument will beep as each of the first 3 letters are entered.
5. The PPC instrument screen should now display the text "Enter Code:___". If it does not, go back to the "Insert Tray" screen and repeat Steps 2-4.
6. Enter the 2-digit code "LP" followed by the <ENTER> key. (There will be a 10 to 20 second pause after "ENTER" has been pressed while the new assay is being saved).

   * If an Error 6.1.4.1 (Invalid Entry) is momentarily displayed, the incorrect 2-digit code was entered. Go to step 7.

* If an Error 6.1.6.1 (Current RAM Assay Must be Saved or Deleted) is displayed, go to Step 1 and save or delete the RAM assay. It MUST be saved or deleted prior to unlocking this assay.

* If an Error 6.1.6.2 (No New Assay Locations Available) is displayed, there are NO additional assay positions available and this assay cannot be enabled. A new set of software must be ordered prior to enabling this assay (6.0/6.1 software). If this error is displayed on a PPC with 8.0/8.10 software, the flash card must be re-downloaded to clear the condition.

  NOTE: Download procedure located in PPC Service Manual: 1-43990-03, TSB 50-033A, and Hardware Installation / Software Download Instructions under 66-7694/R5.

7. After entering the 2-digit code, the PPC™ instrument will automatically reinitialize regardless of whether the code was correct. After reinitialization is complete, list the Assay Directory to verify that this respective assay has been enabled. If it is not in the Assay Directory, repeat the procedure and verify that the correct 2-digit code is entered.

8. If the -A-HIVAG-1 MC assay protocol has not been enabled after the 2nd or 3rd attempt, contact the Customer Systems Engineering group.

V. -A-HIVAG-1 MC EIA EDITING INSTRUCTIONS ON PPC Instrument 8.0/8.10

1. An edited assay must be created from the PPC instrument Abbott assay protocol number 30. Follow the listing below to get into the edit mode.

   At the Insert Tray prompt:

- Press # (Special Modes)
- Select 2 (Assay Tools)
- Select 1 (Edit Protocols)
- If required, enter the user established password
- Press 1 (Add Assay)
- The screen will prompt for an assay template, press 30 followed by <ENTER>.

2. Change the following parameters of the assay protocol.

Line 02	Assay Name	-A-HIVAG-1 MC 2A81
Line 06	Assay Procedure	LC
Line 50	Neg. Min. Absorbance	0.000
Line 51	Neg. Max. Absorbance	0.100
Line 52	Negative Aberrant (%)	35.0
Line 57	Pos. Min. Absorbance	0.800
Line 59	Positive Aberrant (%)	25.0
Line 67	Min. Cntl. Diff. (P-N)	0.650
Line 73	Cutoff Offset	0.040

3. To end the editing session, first verify the ALPHA light is off and press #. Key in a new assay protocol number and press <ENTER> to save the assay protocol.

VI. -A-HIVAG-1 MC 2A81 ASSAY PROTOCOL VERIFICATION

U.S.:

After completing the editing procedure, the edited protocol and Assay Directory must be verified by Product Quality Assurance (PQA). PQA can be contacted between 7:00am-5:00pm Central Daylight

Time Monday-Friday. For after hours verification, contact the Customer Support Center at 1-800-323-9100.

1. Print the Assay Directory and the newly created -A-HIVAG-1 MC 2A81 Assay Protocol and label each with:
   - Instrument Serial Number
   - Site Name
   - Abbott Representative signature and date
   - Site Representative signature and date
   - Abbott Representative Voicecom number
2. Call the Product Quality Assurance organization prior to faxing edit verification data at 1-800-225-6668. Identify yourself as an FSR and leave a phone number where you can be reached.
3. Fax the printouts to Product Quality Assurance at 1-800-225-6405. To facilitate the verification process, ensure all tape printouts are labeled and legible.
4. Product Quality Assurance will call back with the status of the verification.

ROW:

1. Print the assay directory and the newly created -A-HIVAG-1 MC 2A81 Assay Protocol and label each with:

- Instrument Serial Number
- Site Name
- Abbott Representative signature and date
- Site Representative (Lab Supervisor) signature and date
- Abbott Representative Voicecom number

2. The FSE should sign the protocol printed in step 1, and the original kept at the Abbott country offices for documentation purposes.

VII. INSTALLATION/VALIDATION PROTOCOL EXECUTION

After the software has been downloaded and the -A-HIVAG-1 MC EIA assay protocol edited, the I/V Protocol must be executed. The TSS may be contacted for I/V execution or the customer may perform this function. Notify the customer that the instrument cannot be put back into use until the I/V protocol has been successfully executed.

PPC™ 8.0 I/V protocol 66-7934/R6
PPC™ 8.1 I/V protocol 66-7935/R6

END OF DOCUMENT

ABBOTT ADD	INSTRUMENT SERVICE ADVISORY

SUBJECT: **Release of New PPC(TM) 8.0/8.1 CE Mark Service Manual**	ISA#: **50-066**
ORIGINATOR: **Timothy Kitzmiller**	PRODUCT: **COMMANDER® PPC(TM) (50)**
APPROVED: **Bob Schabel 2/April/96**	EFFECTIVITY DATE: **02-APR-96**

I. PURPOSE:

To inform all Worldwide Service organizations that a new PPC 8.0/8.1 CE Mark Service Manual has been released, and will be available to order starting March 29, 1996.

II. DESCRIPTION OF CHANGES:

The PPC Service manual was updated to include changes resulting from the release of 8.0/8.1 Total Process Control™ software, and associated hardware changes designed to bring the PPC instrument into compliance with specific CE Mark EMC, and Low Voltage Directives.

III. ADMINISTRATIVE NOTES:

The new PPC 8.0/8.1 CE Mark Service Manual can be ordered by Catalog Part Number: 1-43990-03.

The PPC 8.0/8.1 CE Mark version of the service manual will not be automatically shipped to all PPC trained FSEs/FSRs Worldwide. It will be up to the individual country's to forecast and order manuals through normal parts channels.

END OF DOCUMENT

ABBOTT ADD	INSTRUMENT SERVICE ADVISORY

SUBJECT: **New PPC Assay Protocol Linking Procedure**	ISA#: **50-065**
ORIGINATOR: **Tom Jacobson**	PRODUCT: **COMMANDER® PPC (50)**
APPROVED: **John Buckland 6/15/95**	EFFECTIVITY DATE: **15-JUN-95**

I. DISTRIBUTION:

Worldwide

II. PURPOSE:

To inform the Field Service Organization of the procedure for assigning Pipettor (SMC) Test Numbers to the corresponding PPC Protocol Numbers.

III. DESCRIPTION:

It is the customers responsibility to perform any assay linking procedures required after the PPC has been serviced. Due to the fact that many customers will be switching over to the new HTLV-I 2.0 assay, which utilizes an edited assay protocol, the customer will be responsible for verifying the correct Pipettor Test number to PPC protocol assignments. In a situation where the FSR must perform the linking, due to the customer not being present, he must follow the procedure below and have the assignments verified by the customer before the instrument is put back in use.

IV. ASSAY LINKING PROCEDURE:

1. Before replacing the PPC CPU Board or CPU Battery, print out the following Parameters:
   a. DMS Port Assignment
   b. Port Characteristics
   c. Port Assignments
   d. Barcode Reader Setup
   e. QC Database (if used)
   f. Assay Directories/Protocols
   g. **Current PPC/SMC Protocol Assignments**
2. To reassign the PPC/SMC Protocol Assignments press:
   # Special Modes
   2 Assay Tools
   4 Protocol Select
   2 Assign Primary Protocol
3. The PPC will now ask for an operator set password, or for a new password if one has not yet been set.
4. After the password has been entered, the PPC will ask for the SMC test number followed by the corresponding PPC assay number.
5. Using the printout from step 1.g. as a guide, enter the appropriate SMC test numbers and

corresponding PPC Assay Protocol numbers for the assay processed in the laboratory. **If the customer uses the HTLV-I 2.0 EIA (LN 9A20), ensure that the test number for the HTLV-I 2.0 is linked to the edited PPC assay protocol number.**

6. Print the PPC/SMC Protocol assignments and verify against the printout obtained in step 1g.

   NOTE: The SMC test number is the same as the FPC Analyzer Test Number.

7. **U.S. Only: If the FSR performs this procedure, enter into the Fieldwatch call text that PPC/SMC Protocol linking was performed, and the customer must validate proper assignments before placing the instrument back into service. Leave a copy of the service report with the customer.**

END OF DOCUMENT

ABBOTT ADD	INSTRUMENT SERVICE ADVISORY

SUBJECT: **Release of New PPC Service and Reference Manuals**	ISA#: **50-063**
ORIGINATOR: **Tim Kitzmiller**	PRODUCT: **COMMANDER® PPC (50)**
APPROVED: **Tim Kitzmiller for John Buckland 2-21-95**	EFFECTIVITY DATE: **21-FEB-95**

I. PURPOSE:

To inform the field that a new version Parallel Processing Center (PPC) Service Manual, and PPC Reference Manual (Product Code 50) have been released, and will be available to order by March 1, 1995.

II. DESCRIPTION OF CHANGES:

The PPC Service Manual was re-formatted to the Directed Troubleshooting (DT) style for ease of use. The schematics, theory of operation and circuit description sections were transferred to the new PPC Reference Manual.
All previously released ISAs/TSBs were incorporated, up through and including ISA 50-60, and TSB 50-29.

III. ADMINISTRATIVE NOTES:

The new PPC Service and Reference Manuals can be ordered by the following Catalog Part numbers:

1-43990-01	PPC Service Manual
1-73400-01	PPC Reference Manual

Manuals will not be automatically shipped to all PPC trained FSEs/FSRs Worldwide. It will be up to the individual countries to forecast and order manuals through WorldWide Service Logistics Planning, Main Business Operations, in Dallas.

END OF DOCUMENT

ABBOTT ADD	INSTRUMENT SERVICE ADVISORY

SUBJECT: **PPC CPU BOARD KIT REPLACEMENT**	ISA#: **50-062**
ORIGINATOR: **ALICIA L. HEMPHILL**	PRODUCT: **COMMANDER® PPC (50)**
APPROVED: **Tim Kitzmiller for John Buckland 5-12-94**	EFFECTIVITY DATE: **12-MAY-94**

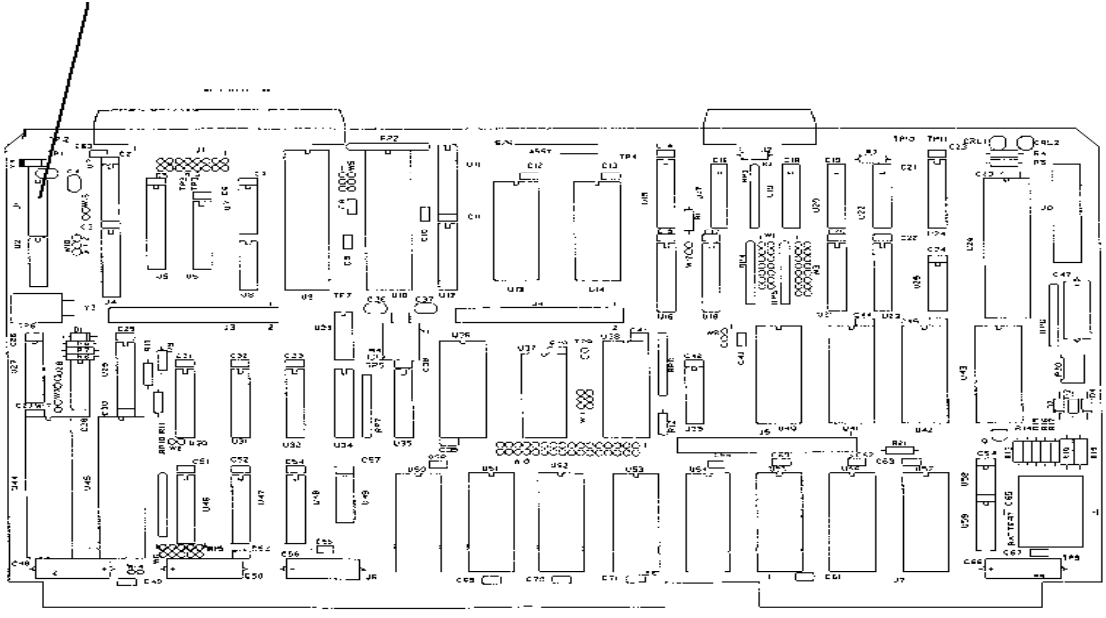
PURPOSE:
To notify the field to replace **CPU** boards with clock chip part number MM58274BN.

DESCRIPTION:
The manufacturer of the PPC clock chip has recalled the device for intermittent failures. Under certain voltage and temperature conditions, the device will fail to maintain current time. Observed failures are that

the 24 hour mode cannot be maintained. During the failure the "2" cannot be supported in the tens of hours position and it becomes a zero. The result usually looks like a gain of 4 hours.

REPLACEMENT:
Examine clock chip on CPU board in FSR PPC kit. The clock chip is located (**U1**) on the CPU board. All CPUs that must be replaced have clock chips with serial number MM58274**B**N.

Clock Chip (U1)



PPC CPU Board (Clock Chip Location - U1)

ADMINISTRATIVE:

U.S. - FSRs should return any CPU PCB with a "BN" chip Serial Number, open a 0DEF call and show

usage as A6 to receive 100% credit.

ROW - Return defective boards to Worldwide Service Logistics in Dallas to receive 100% credit.

END OF DOCUMENT

ABBOTT ADD	INSTRUMENT SERVICE ADVISORY

SUBJECT: **Password for Hidden Menu**	ISA#: **50-061B**
ORIGINATOR: **Scott A Childs**	PRODUCT: **COMMANDER® PPC(TM) (50)**
APPROVED: **Bob Schabel (6/22/98)**	EFFECTIVITY DATE: **22-JUN-98**

I. DISTRIBUTION

Worldwide

II. PURPOSE:

To provide the field with all the passwords used for entering into the hidden menu.

III. DESCRIPTION:

The passwords for the different versions of software:

Version	Password
5.00 and 5.01	Pass
6.00 and 6.01	Star
8.0 and 8.1	Mary
9.0 and 9.1	Joan

Entering the Hidden Menu.

To enter the hidden menu, perform the following steps;

The screen should be at the following display prompt:

Insert Tray ---------->

Date: MM/DD/YY Time: HH/MM/SS

Special Mode screen is accessed by Pressing # key when "INSERT TRAY" is displayed.

Version 5.00 & 5.01 and 6.00 & 6.01, the screen should display:

1. Database
2. Assay Tool
3. Configuration
4. Diagnostics
5. Verification

Select Option OR < # > To Exit

Press the Alpha key followed by the password for the version of software in use.

Version 8.0,8.1, 9.0 and 9.1 software, the screen should display:

1. Database	2. Assay Tools	3. Config
4. Diagnostics	5. Verification	6. Download
7. Setup	8. Reconstitution	9. Bead Drop

Select Option OR < # > To Exit

Press the Alpha key followed by the password for the version of software in use.

For Version 8.0 & 8.1 software, the screen should display:

1. Clear Data	2. Reset Ram	3. Alt Data
5. Print Well Counts	6. Clear Well Counts	
7. Op Log	8. Print/DMS Raw Cnt	9. Mem Dump

Select Option OR < # > To Exit

For Version 9.0 & 9.1 software, the screen should display:

1 Clear Data	2 Reset Ram	3 Alt Data
4 Well Counts	5 Print ADE Calib Data	
6 Op Log	7 Print/DMS Raw Cnt	8 Mem Dump

Select Option OR < # > To Exit

You are now in the hidden menu.

Option 1 Clear Data, will clear memory locations containing batch, tray and sample ID's (DATA BASE) only.

NOTE: You will need to power the instrument down for approximately 30 seconds, than back up again to restore normal operations.

Option 2 Reset Ram, will clear all memory locations: (**If these locations are cleared, the FSR must reconfigure all of the system parameters**)

System Parameters

PPC (TM) port characteristics
Protocol select link information
Barcode characteristics

END OF DOCUMENT

ABBOTT ADD	INSTRUMENT SERVICE ADVISORY

SUBJECT: **Password for Hidden Menu**	ISA#: **50-061A**
ORIGINATOR: **Tom Jacobson**	PRODUCT: **COMMANDER® PPC(TM) (50)**
APPROVED: **Mark C. Cooney 12/13/95**	EFFECTIVITY DATE: **13-DEC-95**

THIS ISA OBSOLETED BY ISA 50-061B.

ABBOTT ADD	INSTRUMENT SERVICE ADVISORY

SUBJECT: **Password for Hidden Menu**	ISA#: **50-061**
ORIGINATOR: **Ruben Dario Cortez**	PRODUCT: **COMMANDER® PPC (50)**
APPROVED: **John Buckland - 2/18/94 *(signature on file)***	EFFECTIVITY DATE: **18-FEB-94**

OBSOLETE. SUPERSEDED BY ISA 50-061A.

ABBOTT ADD	INSTRUMENT SERVICE ADVISORY

SUBJECT: **STAR ERROR TROUBLESHOOTING**	ISA#: **50-060**
ORIGINATOR: **KIMBERLI MARTIN**	PRODUCT: **COMMANDER® PPC (50)**
APPROVED: **John Buckland - 9/21/93 *(signature on file)***	EFFECTIVITY DATE: **21-SEP-93**

PURPOSE:
This ISA defines star errors more clearly and provides the field with a list of possible solutions.

STAR ERROR DEFINITION:
Each read taken by the COMMANDER Parallel Processing Center (PPC) actually consists of three reads:

dark (no filter), blue (460nm), and red (600nm). The value returned from the Read A/D Board is in the range of 0 to 4096 counts.

For the red, blue and no filter reads, the following checks are made:

1) If Dark Counts > (Blue or Red)
2) If Dark Counts < 20 counts
3) If (Blue or Red) > 4000 counts

If any of these conditions are met, the read is invalid and a *ERROR optical density (OD) will be generated.

If the read is valid, an OD is calculated (OD = LOG10(Red/Blue)).

* ERRORs will also occur if:

1) Final OD < -0.029
2) Final OD > 4.400

The final OD is a combination of the blanks, 300ul (sample and OPD), and 600ul (sample, OPD, and acid) reads.

TROUBLESHOOTING:

1) Replace the lamp. Verify the lamp is a 12V, 20W, GE. Do not use OSRAM® Lamps.

2) Make sure the lamp fits securely in the lamp holder. Otherwise, any vibration can cause erratic readings and possible *ERRORs.

3) Check for correct lamp power supply voltage (12V+/-0.1V). If possible, verify the AC ripple is less than 50mV.

4) Check the filter counts as described in the Diagnostics Section of the Field Service Manual. For best results, the blue filter counts should be 1500 +/- 300, and the red filter counts should be between 1000 - 2500.

   If the filter counts are not within specification, clean the following with DI water as described in ISA 50-057 Filter Cleaning/Replacement Procedure: the filters, the main fiber optics bundle, clear filter wheel lenses, reader window in the Main Transport, and the five lenses on the bottom of the Sensor Enclosure Assembly. If necessary, adjust the potentiometer on the Read A/D Board as described in the Alignment & Calibration Procedures in the Field Service Manual and check the counts again.

   If the blue and red counts are still not balanced within the given specifications, the neutral density filter behind the red filter can be taken out. If the counts are still not balanced, the red and/or blue filter can be replaced as described in ISA 50-057 Filter Cleaning/Replacement Procedure.

5) Verify that the wash system is functioning properly by checking the wash volume verification, wash cart air pressure (25 +/- 1 psi), and low pressure switch (21 +/- 1 psi).

6) Check for proper dispense alignment over all five wells. Make sure TSB 50-023 Dispense Boom Upgrade Kit is installed. Verify that all five positions on the Tip Holder secure the tricontinent dispense tip tightly.

7) Check the tricontinent bottle holders for broken white tips and replace with the new style bottle holder if necessary.

8) Replace the following assemblies in order:

Shelf & Bezel Assembly (Lamp Power Supply),
Sensor Enclosure Assembly (Read A/D Board),
Digital I/O Board,
Main Transport Assembly.

If * ERRORs still persist, contact Transfusion Diagnostics CSEs at 1-800-527-1869 #60 (U.S. only).

END OF DOCUMENT

ABBOTT ADD	INSTRUMENT SERVICE ADVISORY

SUBJECT: **PPC FILTER CLEANING/REPLACEMENT PROCEDURE**	ISA#: **50-057**
ORIGINATOR: **ALICIA L. HEMPHILL**	PRODUCT: **COMMANDER® PPC (50)**
APPROVED: **John Buckland - 4/27/93 *(signature on file)***	EFFECTIVITY DATE: **27-APR-93**

PURPOSE

This ISA will inform the Field Service Engineer of the new procedure to clean and or replace the Optics Assembly filters.The frequency of Star Errors and Read Fault Errors may be reduced by cleaning tray dust and grime from the fiber optic bundles, red, blue, clear plastic filters, and from the glass enclosure on the Main Drive platform.

PARTS

The following items have been included into the COMMANDER (PPC) Kit:

Filter Holders	C/N 1-42449-01
Neutral Density Filters	P/N 14842-038
Red Filter	C/N 1-36117-01
Blue Filter	C/N 1-36117-02

The following items are recommended for use during the cleaning procedure, however, they have not been included into the kit. These items are not available through Abbott parts:

Optical lens cleaning solution.	Standard over the counter brands.**DO NOT USE SALINE OR ALCOHOL.**
Optical lens paper.	P/N 0103953. International locations and US FSEs may order this part. This part is available through the Hematology Division. **DO NOT USE CHEM OR INDUSTRIAL TYPE WIPES.**
Cotton tip applicator	

CLEANING PROCEDURE:

1. Turn the power switch off and unplug the power cable on the left side of the instrument.
2. Lift top side cover

3. Remove the two screws that secure the metal cover on top of dispense bottle holders.
4. Remove the two screws securing lower left front cover to the main unit. Slide the cover to the left.
5. Disconnect the cable connections to the Backlight PCB assembly.
6. Place the lower left front cover away from the PPC.

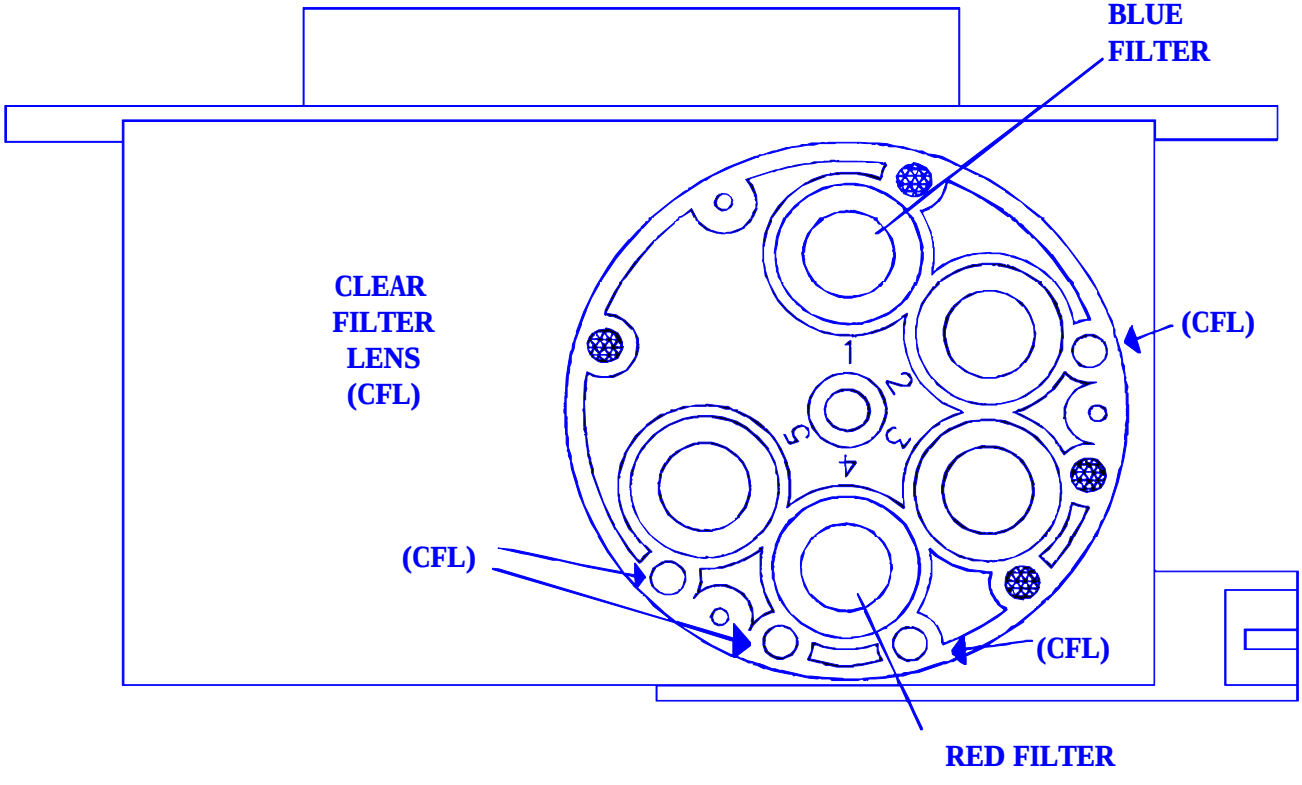
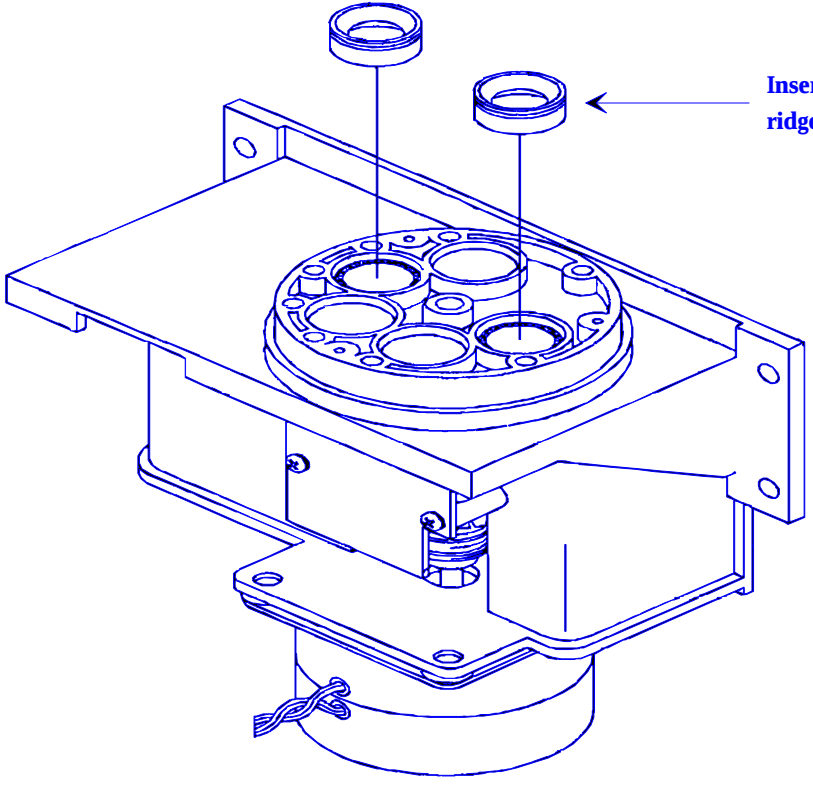

BLUE
FILTER
CLEAR
FILTER
LENS
(CFL)
(CFL)
(CFL)
(CFL)
RED FILTER
1
2
3
4
5

DIAGRAM 2-1

7. Identify Blue and Red filters. Remove filters from the filter wheel per the following: By hand, rotate the filter wheel to the HOME position. (Home is 11:00 o'clock position on the whee. It does NOT have a filter and holder in place) Move the wheel to the Blue Filter position by rotating the filter wheel, counter clockwise, to the first filter after the HOME position. (Refer to Diagram 2-1) The Red filter is located at filter position 4 or the 4th filter location after the HOME position.



NOTE:
DO NOT REMOVE OPTICS ASSEMBLY FROM THE MAIN TRANSPORT.

DIAGRAM 2-2

8. Using a flat head screw driver, insert the screwdriver into the ridged slot on the red or blue filter holder. (Refer to diagram 2-2) Gently pry the filter holder away from the filter wheel assembly. When the filter holder is separated from the filter wheel, the red or blue filter will be nestled within the filter holder.

9. Gently remove the filters from the filter holders and place on a lint free tissue. Frequently, the Neutral Density filter (a thin, clear plastic) will accompany the Red filter. It will rest between the red filter and the fiber optic bundle. In instances, where a Neutral Density filter is included in the Red filter holder, remove and discard it.

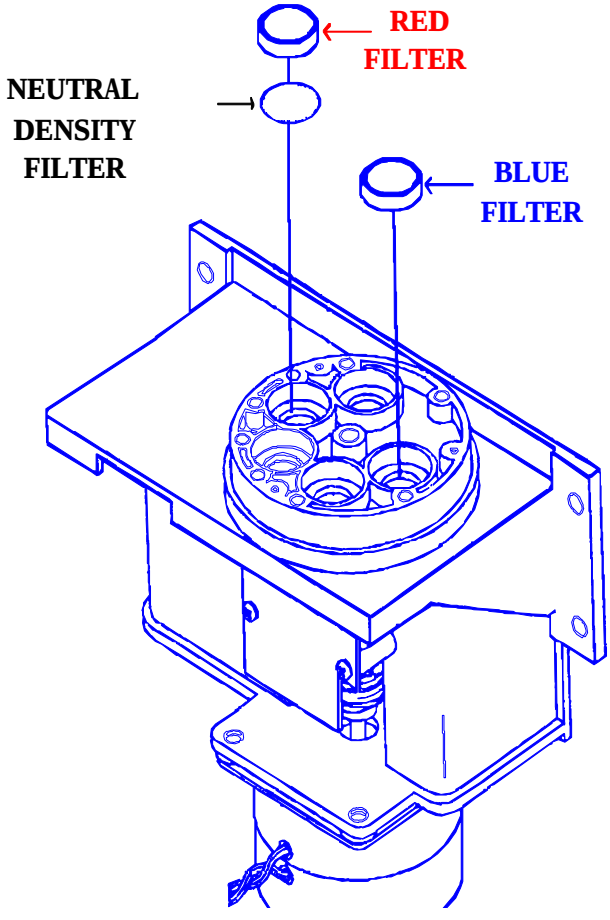
10. To clean the filters, deposit several drops of the chosen optical lens solution onto lint free tissue. Hold the filter between your finger and thumb along the outer edges of the filter. Gently wipe any grime and dust from both flat sides of the filter. **Do not touch the flat smooth surface of the filter.** Wipe off dust and grime from the 4 clear plastic lenses (Refer to Diagram 2-1).

11. Next, clean the fiber optic bundle fibers. Locate Position 1 or Blue filter position on the filter wheel. With the filter holder and Blue filter removed, rotate, by hand, the empty holder until the fiber optic bundle is visible (It rests behind the Home position on the filter wheel at the 11:00 o'clock position.) Moisten the tip of a cotton tip applicator with DI water. Squeeze out all excess water. The cotton tip applicator should be moist but it should not drip water. Gently rub the moistened cotton tip appliator across the surface area of the bundle until all grime and dirt is removed.

12. Discard the old black filter holders. Remove two new filter holders that are included in the kit. (Inspect the Blue and Red filters you removed from the filter wheel. Place Red and Blue filters

into the new filter holders. (Note: The Red Filter will look orange in appearance. The Blue Filter will look green in appearance) When installing the filters, ensure that the mirrored side is facing up. If both sides have a mirrored effect, the side with the colored band around the outer edge of the lens will face the lamp housing.. Replace the discarded neutral density filter with one supplied from the kit. Place neutral density filter in between the red filter and the fiber optic bundle.

13. Obtain red and blue filter counts by performing the Read A/D PCB test. The details on performance of this test may be found in Section 5, Main Transport Drive Alignment. Average Blue filter counts should be 1500+/-300 and Red filter counts between 1000 - 2500.


RED
FILTER
NEUTRAL
DENSITY
FILTER
BLUE
FILTER

14. Adjustments to the average readings may be performed by removing the sensor enclosure top cover to the Read A/D PCB potentiometer (VR1). If the Blue filter is in the acceptable range but, the red filter is below or at the lower limit of it's acceptable range, the FSE should remove the neutral density filter. After adjustments are made to the filters and potentiometer, repeat the Read A/D PCB test as detailed in step 13. If the counts are still not in the acceptable range, replace the optical source lamp and repeat Step 13 to obtain acceptable counts.

15. Replace the filters if any of the following conditions occur. 1) If the filters are delaminated. 2) If after performing the cleaning procedure and performing the Read A/D adjustment, the Blue filter counts are not within the 1500 +/-300 range and the Red filter counts are not within the 1000 - 2500 range. (Refer to the following Filter Removal and Changing Procedure)

FILTER REMOVAL AND CHANGING PROCEDURE:

1. Turn the power switch off and unplug the power cable on the left side of the instrument.

2. Lift top side cover.

3. Remove the two screws that secure the metal piece on top of dispense bottle holders.

4. Remove the two screws securing lower left front cover to the main unit. Slide the cover to the Left.

5. Disconnect the cable connections to the Backlight PCB assembly.

6. Place the lower left front cover away from the PPC.

7. Identify Blue and Red filters. Remove filters from the filter wheel per the following: Rotate the filter wheel to the HOME position. (The Home position is the location on the wheel that does NOT have a filter and holder in place) Move the wheel to the Blue Filter position by rotating the filter wheel, counter clockwise, to the first filter after the HOME position. (Refer to Diagram 2-1) The Red filter is located at filter position 4 or the 4th filter location after the HOME position.

8. Using a flat head screw driver, insert the screwdriver into the ridged slot on the red or blue filter holder. (Refer to Diagram 2-2) Gently pry the filter holder away from the filter wheel assembly. When the filter holder is separated from the filter wheel, the red or blue filters will be nestled within the filter holder.

9. Discard the Red, Blue, and Neutral Density filters. Also, discard the two black Filter Holders.

10. Replace discarded filters with a new Red, Blue, and Neutral Density filter located in your kit. The two black Filter holders will also be in your kit. (Note: The Red Filter will look orange in appearance. The Blue Filter will look green in appearance) When installing the filters, ensure that the mirrored side is facing up. If both sides have a mirrored effect, the side with the colored band around the outer edge of the lens will face the lamp housing. Replace the discarded neutral density filter with one supplied from the kit. Place neutral density filter in between the red filter and the fiber optic bundle.

11. Obtain red and blue filter counts by performing the Read A/D PCB test. The details on performance of this test may be found in Section 5, Main Transport Drive Alignment. Average Blue filter counts should be 1500+/-300 and Red filter counts between 1000 - 2500.

12. Adjustrnents to the average readings may be performed by removing the sensor enclosure top cover to the Read A/D PCB potentiometer (VR1). If the Blue filter counts are in the

acceptable range but, the red filter counts are below or at the lower limit of it's acceptable range, the FSE should remove the neutral density filter. After adjustments are made to the filters and potentiometer, peat the Read A/D PCB test as detailed in step 11. If the counts are still not in the acceptable range, replace the optical source lamp and Repeat Step 11 to obtain acceptable counts.

13. **For the United States.** If Red and blue Filters cannot be obtained, contact Dallas TD CSE at 1-800-527-1869 Code 60 for additional assistance.

END OF DOCUMENT

ABBOTT ADD	INSTRUMENT SERVICE ADVISORY

SUBJECT: **READ A/D PCB CALIBRATION - MANUAL SUPPLEMENT**	ISA#: **50-056**
ORIGINATOR: **KIMBERLI I. MARTIN**	PRODUCT: **COMMANDER® PPC (50)**
APPROVED: **John Buckland - 2/18/93 *(signature on file)***	EFFECTIVITY DATE: **18-FEB-93**

n/a

The purpose of this ISA is to release the PPC Field Service Manual supplement contained in this ISA:

1.0 FIELD SERVICE MANUAL SUPPLEMENT ADDITION

Replace pages 5-47 and 5-48 in section 5 labeled "Alignment & Calibration Procedures" with pages 2 and 3 of this ISA.

Replace pages 3-32 and 3-33 in section 3 labeled "Diagnostics" with pages 4 and 5 of this ISA.

2.0 MANUAL SUPPLEMENT ADDITION COMPLETED ☐

Place an "X" in the box above after the manual supplements are inserted. Place this cover sheet with previous PPC ISAs.

READ A/D PCB

The following procedure should be followed to insure the gain is adjusted correctly on the Read A/D PCB. After installing a replacement Read A/D PCB in the sensor enclosure, the gain will need to be checked and adjusted if necessary.

1. Remove the hardware that secure the Reader Sensor assembly above the Main Transport assembly and set the Reader Sensor assembly on the cabling panel interface PCB. Clean the glass window of the Main Transport assembly with a swab or lint free soft cloth and Dl water.

2. Re-install the Reader Sensor assembly above the Main Transport assembly.

3. Power the instrument ON and allow Initialization to complete.

4. Check the Power One (lamp) supply for +12 volts +/ - 0.1 volts. Adjust if needed.

5. Enter Special MODES by pressing the # key. Press number 4 to select DIAGNOSTICS. Press 2 to select URGE .

6. When the screen displays TRANSPORT HOME SWITCH HOME and INSERT TRAY AT BARCODE, place the standards tray in the entrance of the Load Module (bar code label not needed). Press ENTER.

7. When the screen displays BARCODE SWITCH ON and ENTER SOLENOID DOWN, press ENTER. The entry gate solenoid will lift to allow the tray to pass. The tray will proceed through the Load Module assembly and stop against the wash gate solenoid.

8. When the screen displays TRAY READY SWITCH ON and GATE SOLENOID DOWN, press ENTER. The wash gate solenoid will lift and allow the tray to enter the Main Transport assembly.

9. When the screen displays TRANSPORT HOME SWITCH HOME and ENTER THE NUMBER OF WEBS TO MOVE (1-9), press 8. The first row of the standards tray (A) will be moved under the reader.

10. Return to the DIAGNOSTICS menu by pressing the # key once. Press 6 to select READER test. Press 3 to select GAIN SELECT. Press 1 to select 1X for the detector output. Press the # key to exit and return to the READER test.

11. Press 1 to select FILTER test. Press the ENTER key to cycle the filter wheel until the BLUE FILTER is showing in the display. Press the # key to exit and return to the READER test.

12. Press 2 to select the ANALOG TEST. Pressing the ENTER key will display a digital representation for each of the five (5) optical sensors and three (3) reference channels. Read and record the five (5) sensors with the standards tray in the light path. Acceptable ranges for the Blue Filter are 1500 +/ - 300 counts. If all five (5) optical sensors are within this range, close the sensor enclosure with the necessary hardware. No further action is required.

13. If the five (5) optical sensors are outside the acceptable range, remove the sensor enclosure top cover to gain access to the Read A/D PCB potentiometer (VR 1). Adjust the potentiometer so the display for the lowest of the five sensors is not less than 1200 counts. After any adjustment to VR 1, lower the sensor enclosure top cover to block any stray light. Take two (2) readings of each optical sensor until the average reading is within the 1500 + / - 300 counts. If the average counts are still outside the acceptable range, repeat Step 13 until the acceptable counts are displayed for each of the five (5) optical sensors. If unable to adjust the counts within the specified range, refer to Step 16. Press the # key to exit and return to the READER test.

14. Press 1 to select the FILTER TEST. Press the ENTER key to cycle the filter wheel until the RED FILTER is showing in the display. Press the # key to exit and return to the READER test.

15. Press 2 to select the ANALOG TEST. Pressing the ENTER key will display a digital representation for each of the five (5) sensors and three (3) reference channels. Read and record the five (5) sensors with the standards tray in the light path. Acceptable ranges for the Red Filter are 1000 - 2500 counts.

16. If the average counts in Step 13 or 15 are still outside the acceptable range, replace the source lamp and repeat Steps 11 through 15 to obtain acceptable counts.

17. Press # key twice to return to the DIAGNOSTICS menu. Press # key once more to exit. The PPC will reinitialize. Remove the standards tray from the exit.

DRY TEST (CONT.)

NOTE:
For proper performance use the Standards Tray ROW A. Insure all covers are closed to prevent admittance of external light.

From the Main Diagnostic Menu, press the "2" Key to Enter the Urge Diagnostic Test. Place the **STANDARDS TRAY** at the entrance of the Load Module. Press the Enter Key three times to advance the tray to the Main Transport Augers. Press the "8" Key to advance row A (1-5) over the Fiber Optic window. Press the < # > Key to exit the Transport Test.

Press "6" to Enter the Reader Diagnostic Menu. Press "1" to select the Filter Test. Note which Filter position is selected and shown on the display. Press the < # > Key to exit the Filter Test and press the "3" Key to select the Gain Select Test. Press "1" to select the X1 option. Press < # > to exit the Gain Select Test. Press "2" to select the Analog Test.

Press the Enter Key to select wells 1 through 5 and references 1 through 3. The Counts for wells 1 through 5 and the three references must be as follows:

FOR A GAIN OF 1

Filter Position	wells (1-5)	ref 1	ref 2	ref 3
Home (no filter)	30-60	0	114-258	35-45
Red (460 nm filter)	1000-2500	0	114-258	35-45
Blue (600 nm filter)	1500 + /-300	0	114-258	35-45

Using the instructions from the previous step, switch the Gain Select to X16. The counts for wells 1 through 5 and the three references must be as follows:

FOR A GAIN OF 16

Filter Position	wells (1-5)	ref 1	ref 2	ref 3
All Filters	>32000	36863	33992-36296	32783-32833

If the Counts are not correct for either X1 or X16 Gain Selections, reference the Service Manual Section 5, A/D Board Alignment Procedure.

CONSOLE TEST

The console subsystem consists of the following:
1. Serial Keyboard/Display Assembly
2. Keyboard LEDs

The display is tested by blanking it with white spaces for 5 seconds and then blanking it with black spaces for an additional 5 seconds.

DISPLAY TEST

When the Display Test is run, the screen displays:

```
CONSOLE TEST


DISPLAY WILL BE BLANK FOR 5 SECONDS
```

After 5 seconds the screen will display:

```
CONSOLE TEST


DISPLAY WILL BE FILLED FOR 5 SECONDS
```

Take note that the "box" in the lower right hand corner will not be Lit due to a Bug, in the software program.

After the 5 seconds are up for the "Fill" test, the LED test will automatically begin. Each Keypad LED will be turned on and off, one at a time, to minimize power supply drain. The test will repeat itself until the Enter Key is pressed.

During the LED test the screen will display:

```
LED                                              X


RUNNING LED TEST
<ENTER> TO CONTINUE OR < # > TO EXIT
```

END OF DOCUMENT