

6643A-07

# Modification Recommended Service Note

Supersedes:  
NONE

## 6643A DC power supply, 0-35 V, 0-6 A, 210 W. GPIB

Serial Numbers: "MY53000140 to MY53000698 and SG53000101 to SG53000108"

The Problem – 6643A exhibited out of specification values for 17.5V to 17.9V at front panel read back readings.

### Parts Required:

P/N	Description	Qty.
06643-61030	PCA-Tested,Control	1

### ADMINISTRATIVE INFORMATION

ACTION	<input checked="" type="checkbox"/> ON SPECIFIED FAILURE	STANDARDS			
CATEGORY:	<input type="checkbox"/> AGREEABLE TIME	LABOR:	1.0 Hours		
LOCATION	<input type="checkbox"/> CUSTOMER INSTALLABLE	SERVICE:	<input checked="" type="checkbox"/> RETURN	USED	<input checked="" type="checkbox"/> RETURN
CATEGORY:	<input type="checkbox"/> ON-SITE (active On-site contract required)	INVENTORY:	<input type="checkbox"/> SCRAP	PARTS:	<input type="checkbox"/> SCRAP
	<input checked="" type="checkbox"/> SERVICE CENTER		<input type="checkbox"/> SEE TEXT		<input type="checkbox"/> SEE TEXT
	<input type="checkbox"/> CHANNEL PARTNERS				
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	NO CHARGE AVAILABLE UNTIL:	31 March 2018		
	<input checked="" type="checkbox"/> Calibration Required	PRODUCT LINE:	SP		
	<input type="checkbox"/> Calibration NOT Required	AUTHOR:	KT		

ADDITIONAL INFORMATION:



**Situation:**

6643A exhibited out of specification values for 17.5V to 17.9V at front panel read back readings. Other ranges and remote programming's behaved normally.

**Solution/Action:**

User/SSU to verify the affected model and serial number in the following procedure as below. Turn on the unit and warm-up for 30 minutes.

User/SSU Verification Procedure

1. Set voltage to 17.7V and turn on the output. If the unit is good, the front panel will show voltage value (read back voltage) that is within the specification to 17.7V (+/- 0.03V).
2. Any front panel voltage value reading out of 17.67V ~ 17.73V range is consider out of specification and need to send back to nearest SSU for PCA board replacement.

SSU Rework Procedure

1. Remove 2 screws from each side as shown.



2. Slide cover out over chassis and remove the top cover. Then, remove the screw and ground cable.



GND CABLE  
SCREW

3. Disconnect cables.

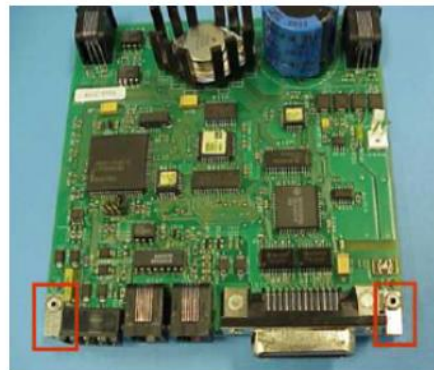
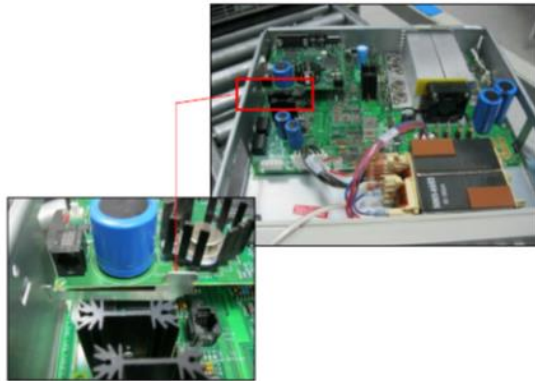
- a. Disconnect the cable assembly 5080-2206 from PCA J401 location
- b. Disconnect cable from transformer to PCA location J600 and J452.
- c. Disconnect cable from switch J450



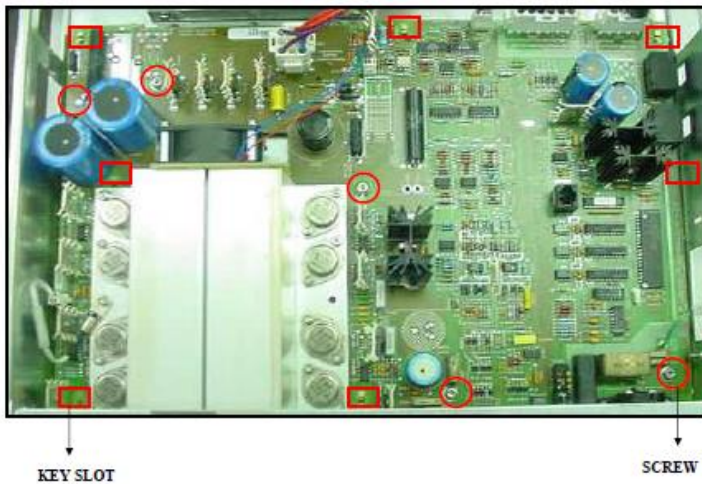
4. Remove 5 screws as shown.



5. Remove bracket and GPIB PCA as shown.



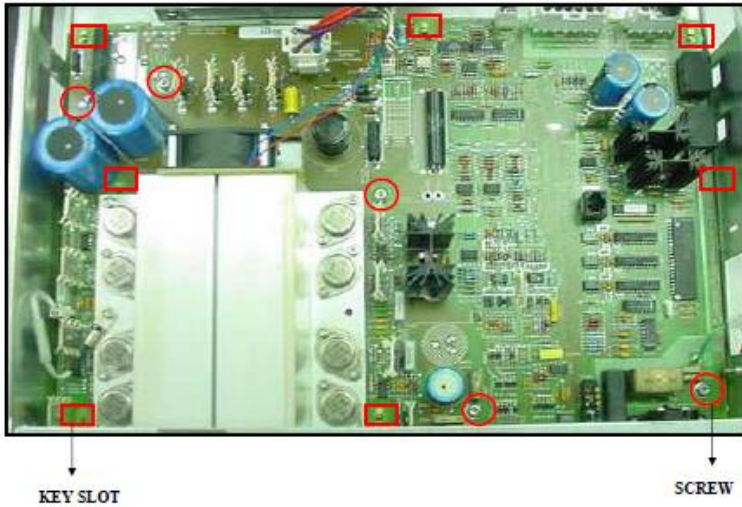
6. Remove 5 screws from the main board and slide out the PCA from the 7 slots, then remove the main PCA from chassis.



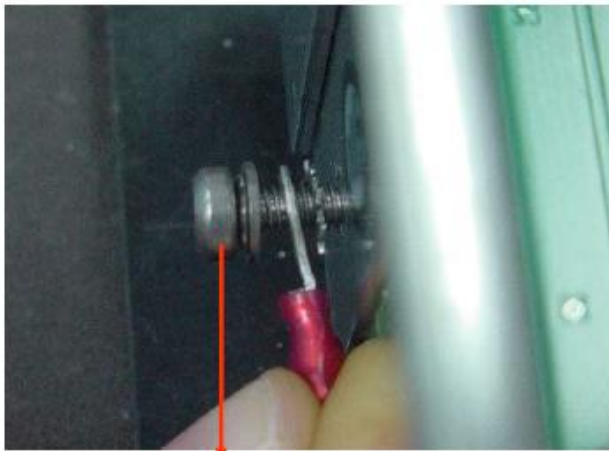
7. Replace with a new PCA board (06643-61030)



- Place PCA into chassis on key slot 7 positions and push to lock in position at 7 locations. Use 5 screws to secure the board to chassis.

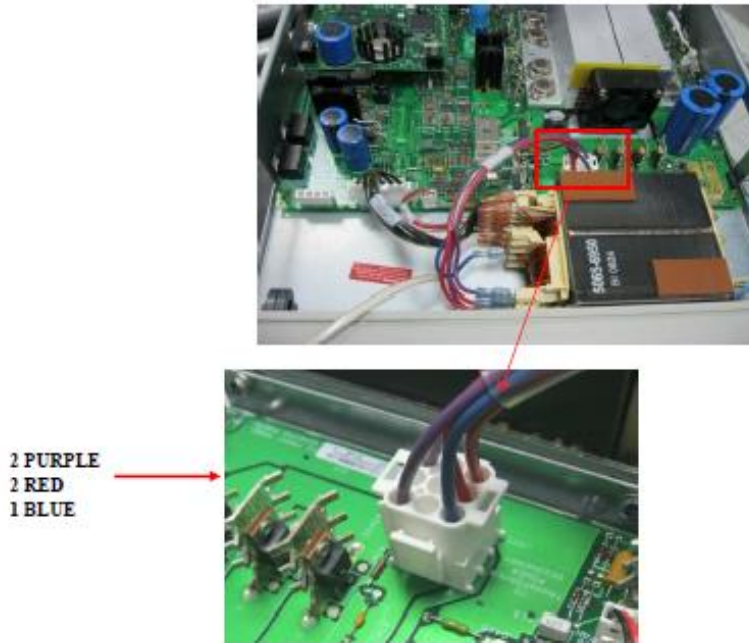


- Attach ground wire on chassis follow the order of screw, connector and washer as shown. Tighten the screw into PEM nut in chassis.



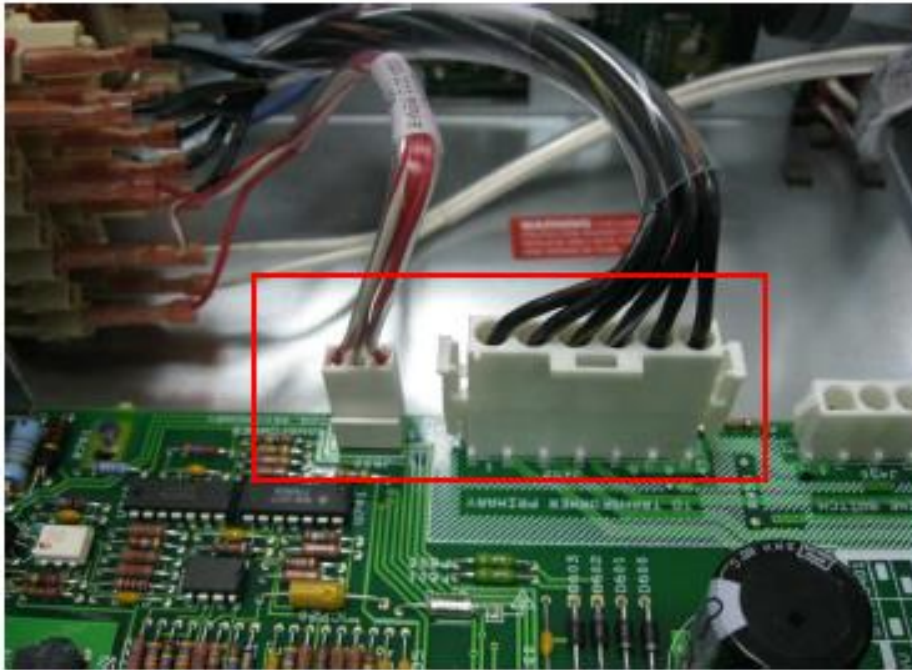
**SCREW, CONNECTOR AND WASHER**

10. Connect cable assembly (5080-2206) from transformer to J401 PCA as shown.

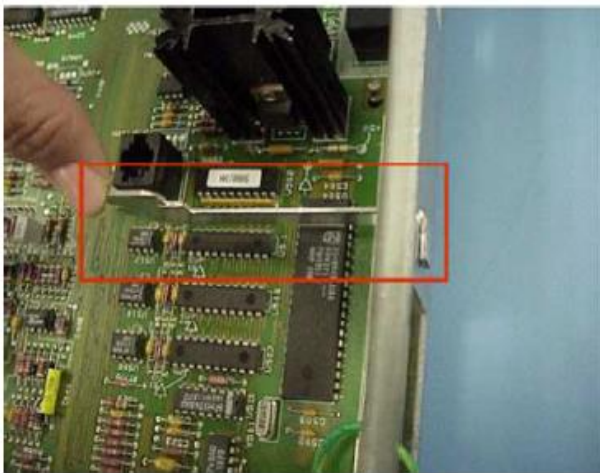


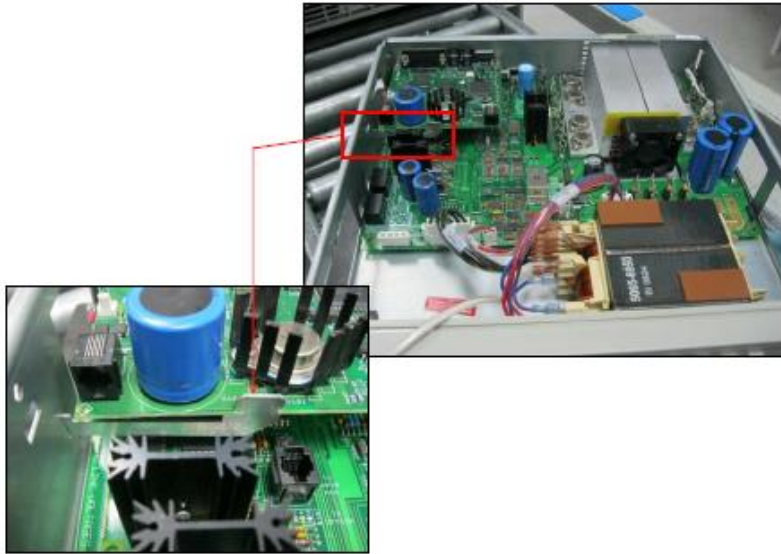
11. Connect cables.

- a. Connect transformer cable to PCB as shown.
- b. Connect 5080-2213(red and red/white) to J600.
- c. Connect 5080-2205(1 black/green,1 black/yellow, 1 black/red, 1 black/orange, 1 black white, 1black to J452)



12. Slide bracket into side of chassis as shown. Place GPIB board in unit, swing TAB into notch in PCB as shown.





13. Use 2 flat washers, 2 split washers and 2 nuts and mount the GPIB board to rear panel.



14. Secure with 2 screws as shown.





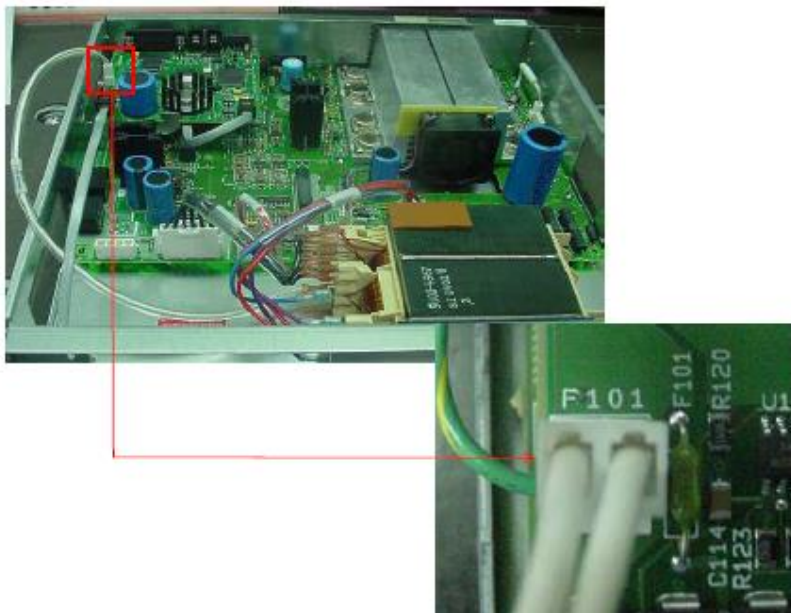
15. Connect long phone cable to J108 GPIB board as shown.



16. Connect short phone cable from J107 GPIB to J501 main PCA.



17. Connect cable (5080-2209) to F101 GPIB from the transformer.



18. Insert the cable to J450 main PCA.



19. Slide in the cover to chassis.



20. Tighten 2 screws of each side of the unit as shown.



21. Lastly, perform the hipot test, calibration and final test as stated in the service guide.

**Revision History:**

Date	Service Note Revision	Author	Reason for Change
29 Sep 2016	01	KT	As Published