

6653A-12

# Modification Recommended Service Note

Supersedes:  
NONE

## 6653A DC power supply, 0-35 V, 0-15 A, 525 W. GPIB

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

The Problem – 6653A exhibited out of specification values for 17.0V to 18.5V at front panel read back readings.

### Parts Required:

P/N	Description	Qty.
06653-61020	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:**

6653A exhibited out of specification values for 17.0V to 18.5V at front panel read back readings. Other ranges and remote programming's behaved normally.

**Solution/Action:**

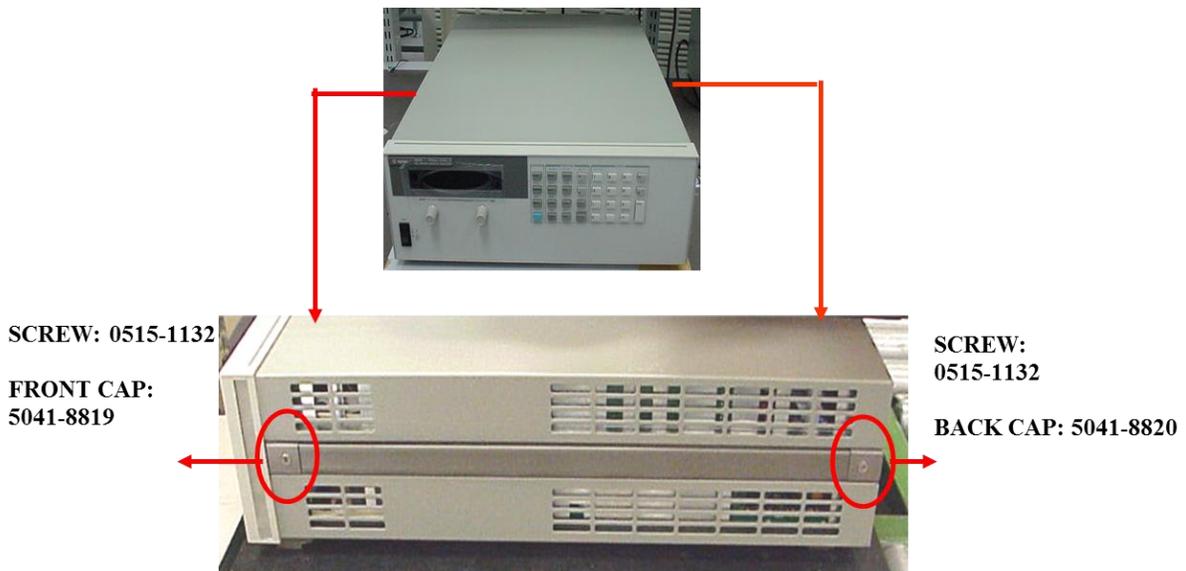
User/SSU to verify the affected model and serial number in the following procedure as below.  
Turn on the unit and warm-up for 30 minutes

User/SSU Verification Procedure

1. Set voltage to 17.5V 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 17.5V (+/- 0.03V).
2. Any front panel voltage value reading out of 17.47V ~ 17.53V range is consider out of specification and need to send back to nearest SSU for PCA board replacement.

SSU Rework Procedure

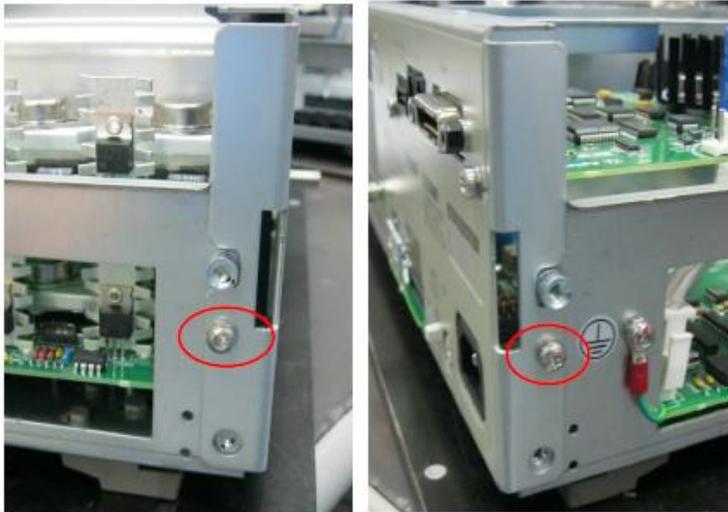
1. Remove the handle, front cap and back cap from both side of the cover with removing 2 screws from each side as shown in the following picture as below.



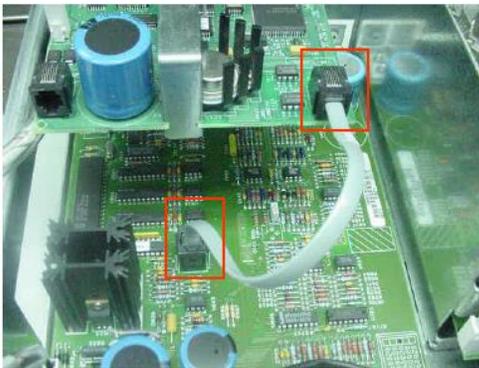
2. Remove cover block from the back cover and chassis after removed the screw at each side.



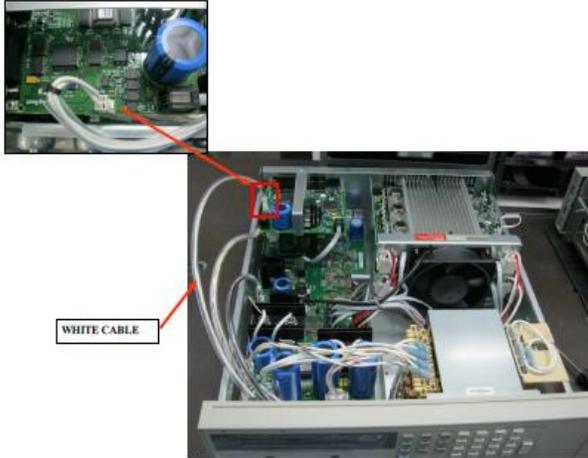
3. Remove the screw at each side of the chassis.



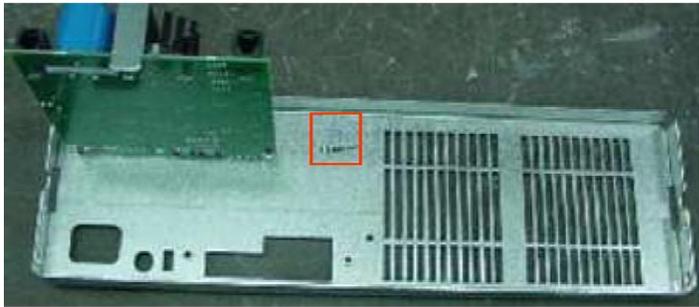
4. Disconnect phone cable from GPIB to the main PCA as shown.



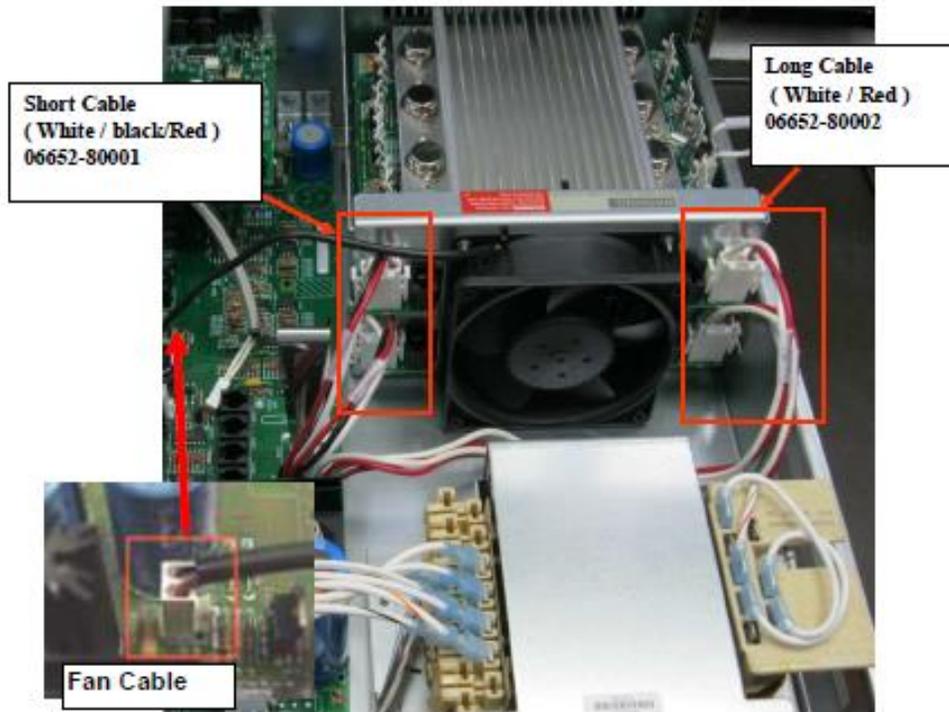
5. Disconnect white cable from transformer to the GPIB board as shown.



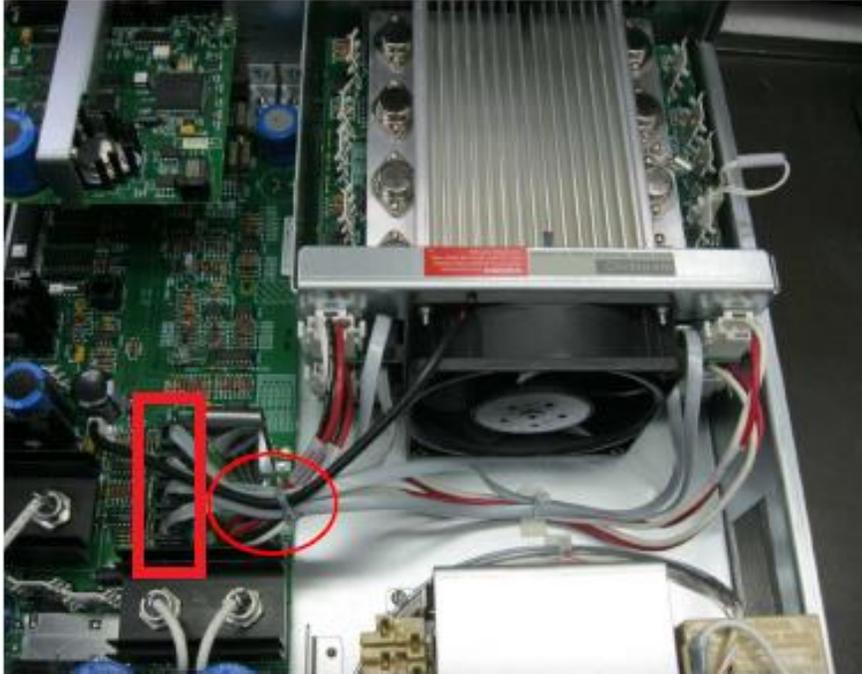
6. Remove the rear cover from chassis.



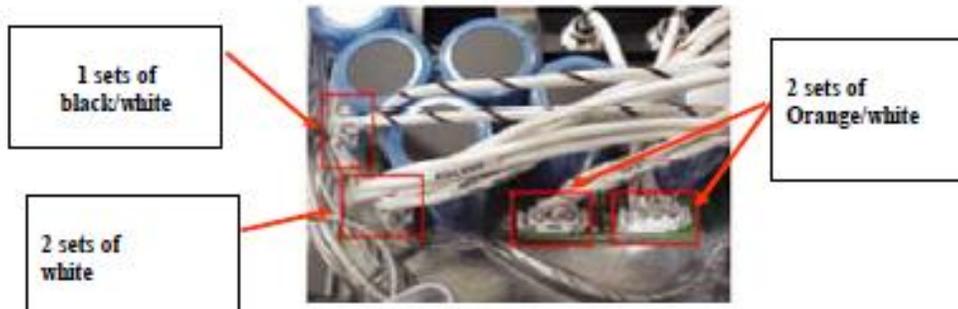
7. Disconnect the cables.
  - a. Disconnect 2 white/red cables (06652-80002) from the main PCA to connector J302 on heatsink.
  - b. Disconnect 2 white/black/red cables (06652-80001) from the main PCA to connector J202 on heatsink.
  - c. Disconnect fan cable



d. Disconnect 4 phone cables and cut the cable tie



- e. Disconnect cables from transformer, the number of cables varies base on model 6x51A, 6x52A, 6x53A, 6x54A and 6x55A.



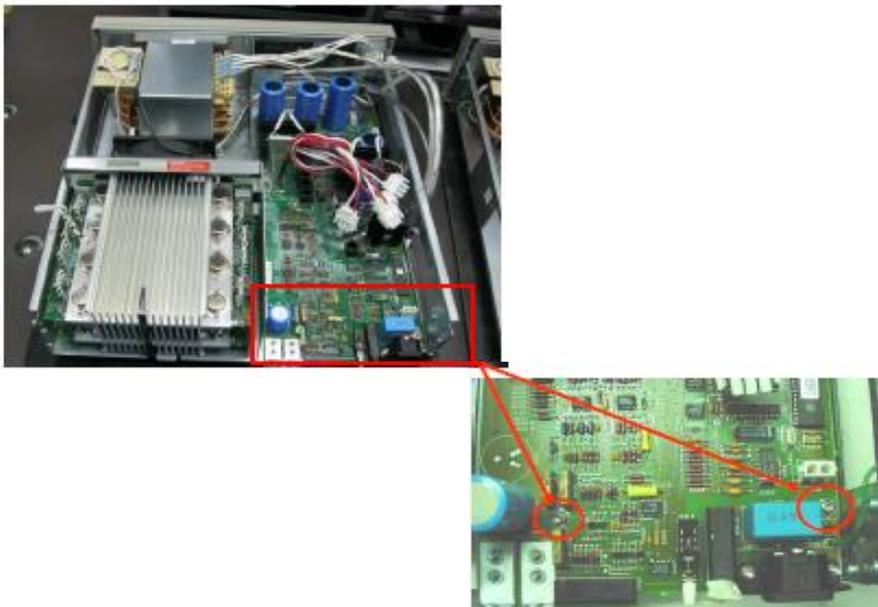
- f. Disconnect cable J450 on PCA.



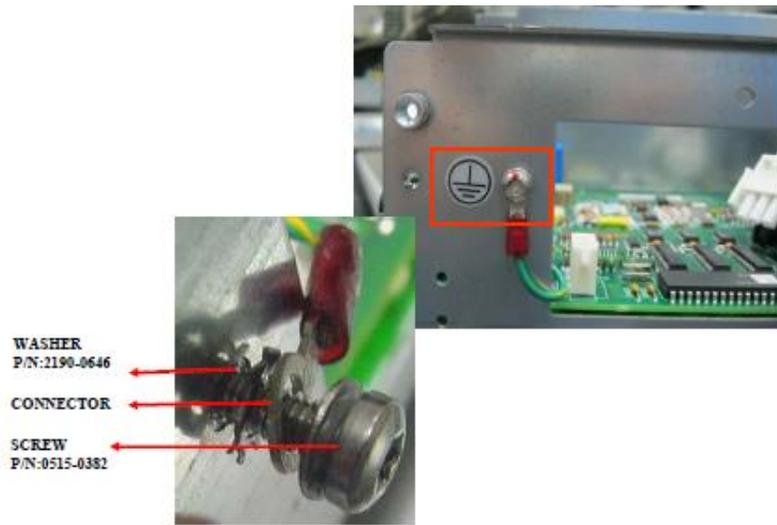
g. Disconnect J600 on PCA input as shown.



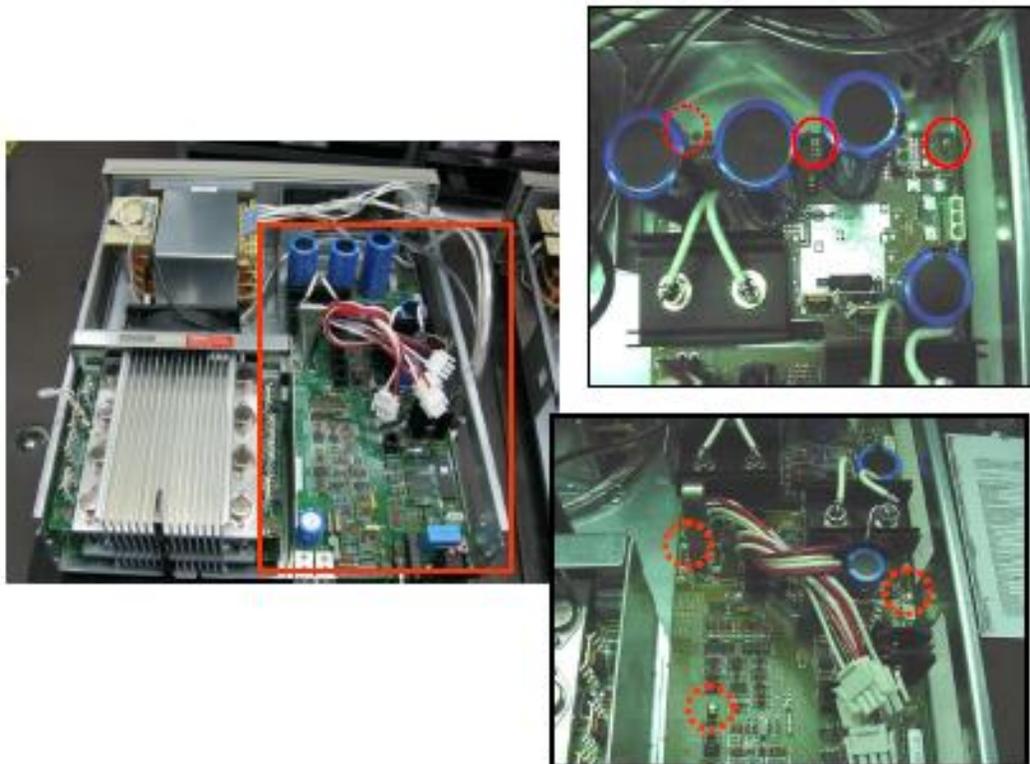
h. Remove 2 screws



8. Remove the ground screw.



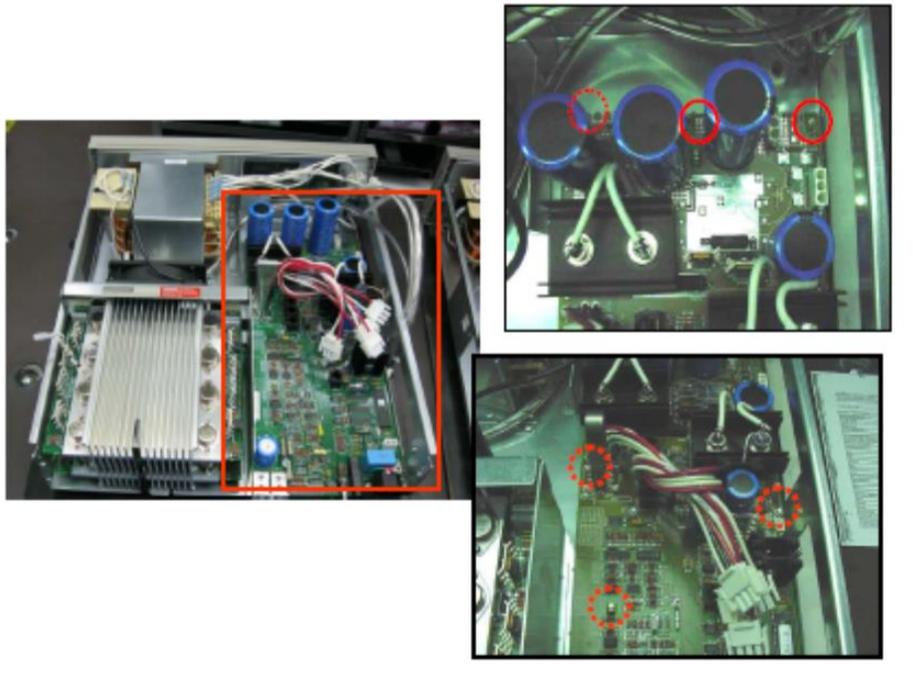
9. Dislodge the PCA board from the 6 key pin, then remove it from the chassis.



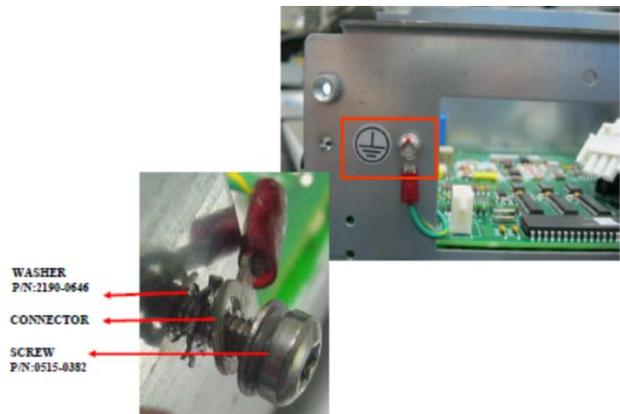
10. Replace with a new PCA board (06653-61020)



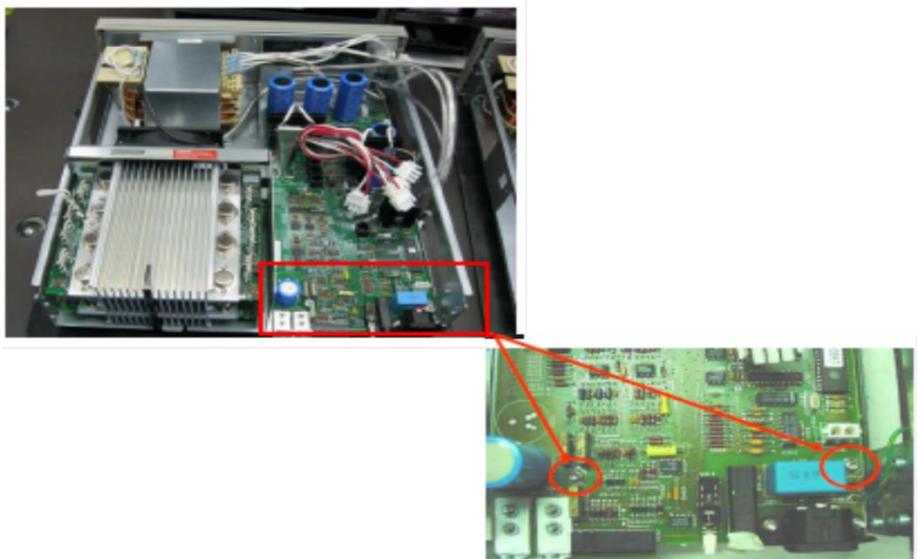
11. Lodge the PCA into the 6 key pin, then slide to lock it to the chassis.



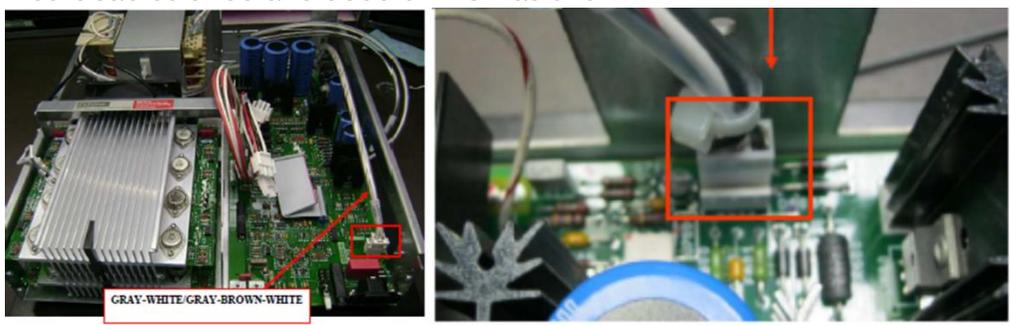
12. Tighten the ground screw.



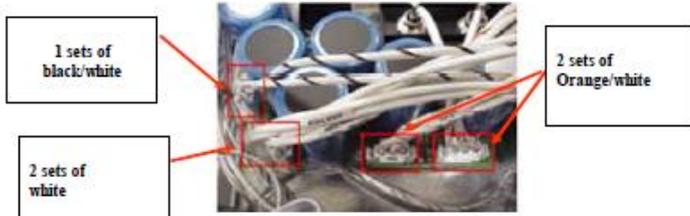
13. Tighten 2 screw as shown.



14. Insert cables J450 and J600 on PCA as shown.

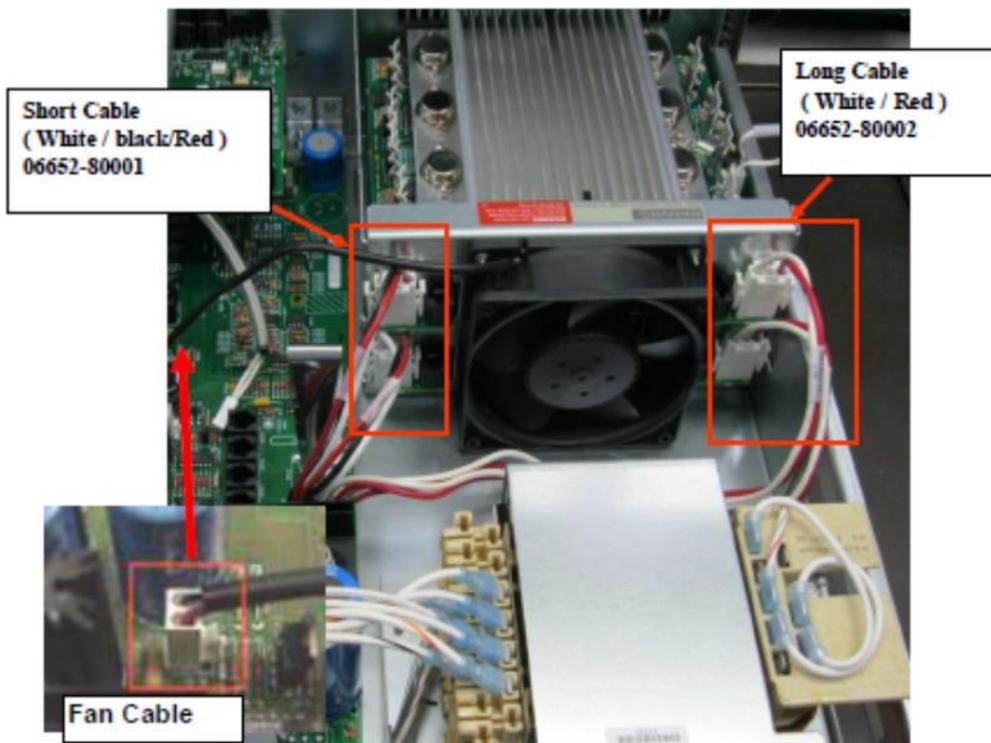


15. Connect cables from transformer, the number of cables varies base on model 6x51A, 6x52A, 6x53A, 6x54A and 6x55A.

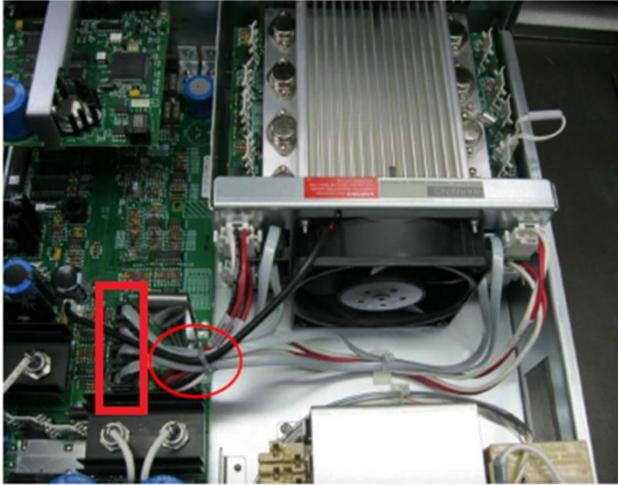


16. Connect cables.

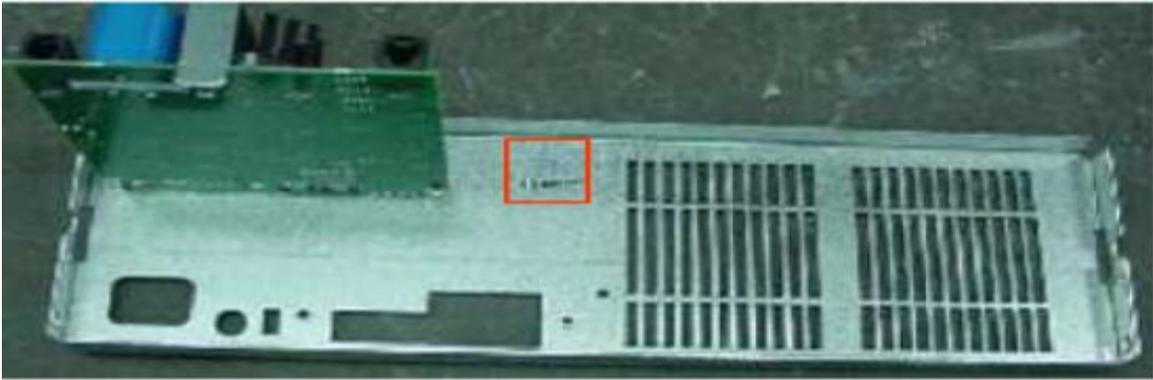
- a. Connect 2 white/red cables (06652-80002) from the main PCA to connector J302 on heatsink.
- b. Connect 2 white/black/red cables (06652-80001) from the main PCA to connector J202 on heatsink.
- c. Connect fan cable



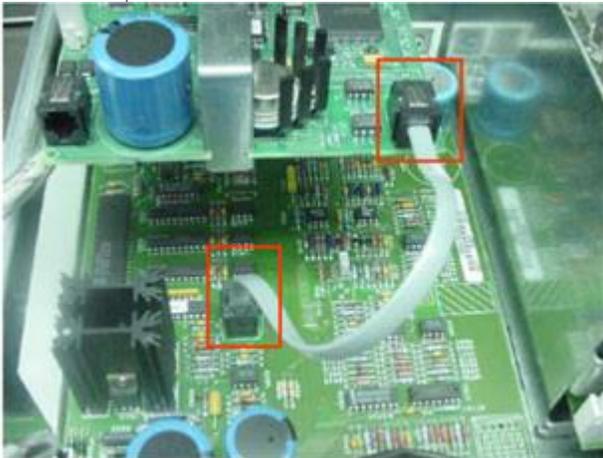
d. Connect 4 phone cables and tie all the cables with cable tie



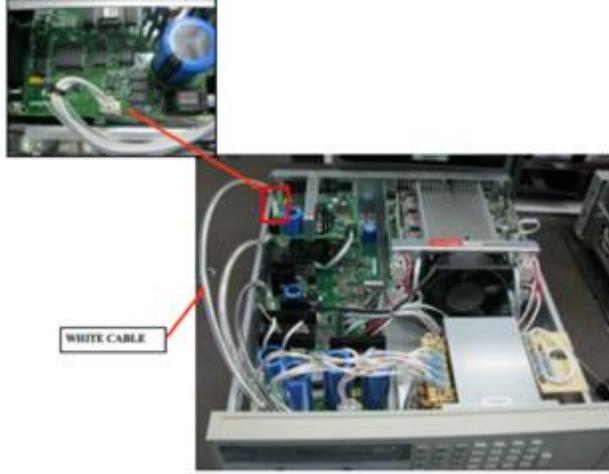
17. Assemble the rear cover to chassis.



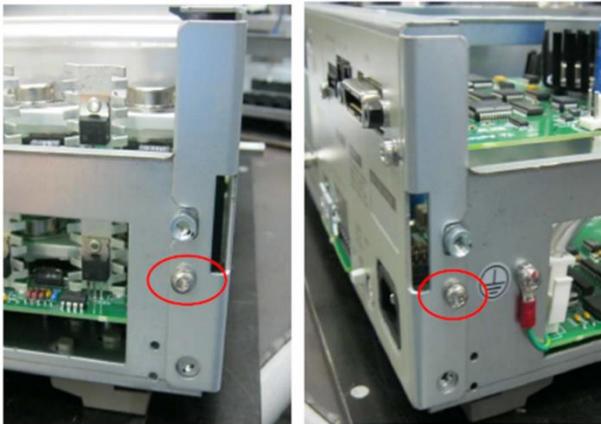
18. Connect phone cable from GPIB to the main PCA as shown.



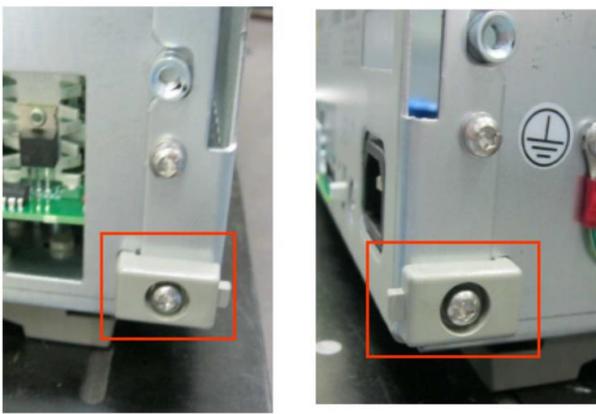
19. Connect white cable from transformer to the GPIB board as shown.



20. Tighten the screw at each side of the chassis.



21. Attach cover block to the back cover and chassis by tighten the screw at each side.



22. Mount the handle, front cap and back cap to both sides of cover with 2 screws as shown in the

following picture as below



23. 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