S E R V I C E N O T E

SUPERSEDES: None

HP 71612A/B 12 Gb/s HSBER System
Affects 70843A/BA Module

Serial Numbers of 70843A/B affected: 3331U00101/GB99999999

To Be Performed By: HP-Qualified Personnel

Parts Required:

HP P/N	Description	Quantity
70843-69008	PSU Module	1
	Roll Copper Tape	1
	Service Note 70843A/B-01	1

PSU REPLACEMENT

Situation

This service note describe's how to replace the A8 Power Supply Unit (PSU) in the 70843A/B section of the 71612 12 Gb/s HSBER system.

NOTE:

The procedures below should be performed in an appropriately equiped ESD area.

Continued

DATE: September 1999

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:

INFORMATION ONLY

AUTHOR:	ENTITY:	ADDITIONAL INFORMATION:
PC	E600	

HEWLETT® PACKARD

Solution

HP 70843A/B Power Supply Replacement

Switch off the power and disconnect all cables from the HP 70843A/B.

CAUTION:

THE 70843A/B IS A TWO MAN LIFT.

1. Install the 70843A/B front handles (if they are not already installed).
2. From FIG 1, identify which particular version of rear panel metalwork is fitted to the customer's unit and proceed to the ORIGINAL METALWORK or REVISED METALWORK section of this service note as appropriate.

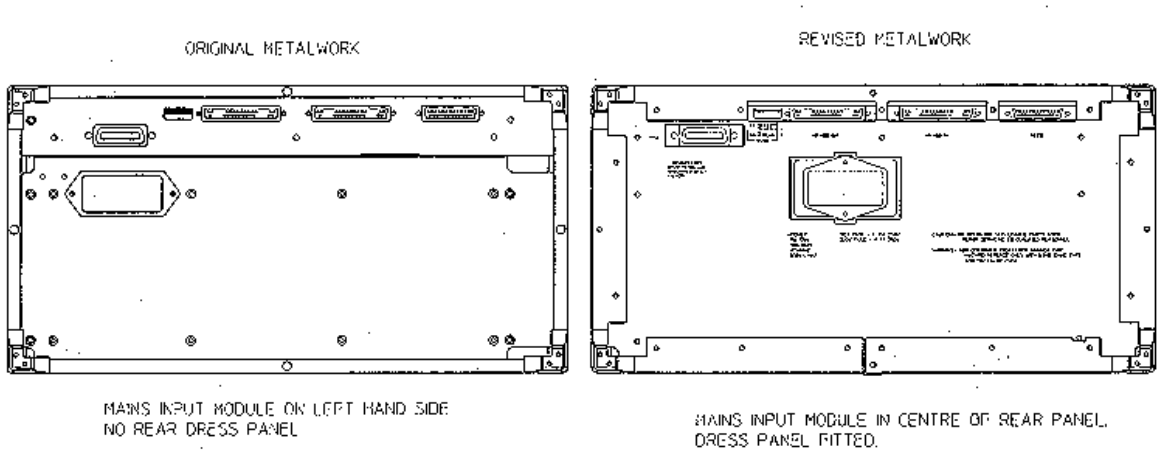

Figure 1

ORIGINAL METALWORK

1. Remove the 4 rear feet and undo screws marked A, B and C to remove the side, top and bottom covers as shown in FIG 2.

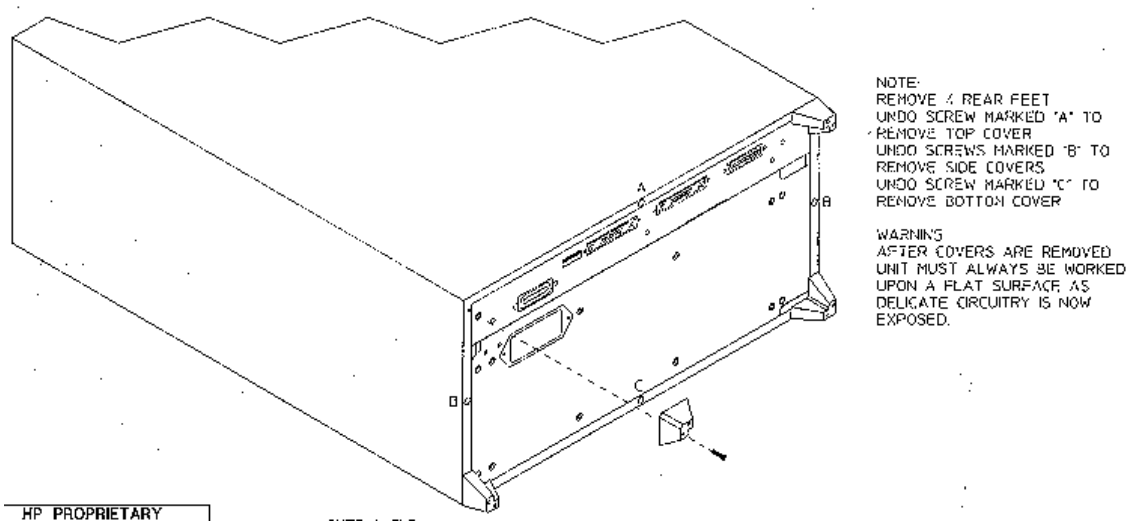

Figure 2

2. Remove screws A (or B in some units) as shown in FIG 3. This will allow removal of the PSU unit.

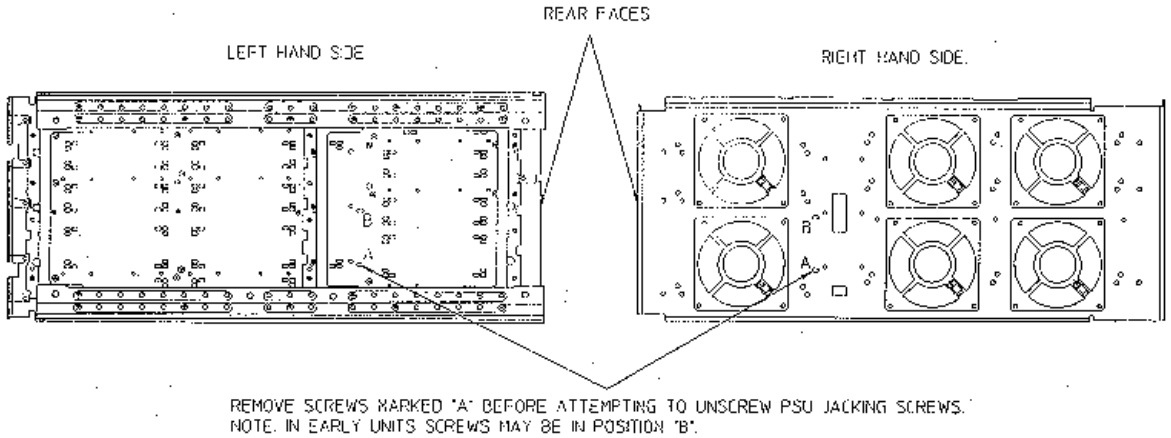

Figure 3

3. Refer to FIG 4 and note screws B1 and B2. These screws should be lossened a few turns each alternately until the Processor assembly can be removed from the 70843A/B chassis (FIG 5).

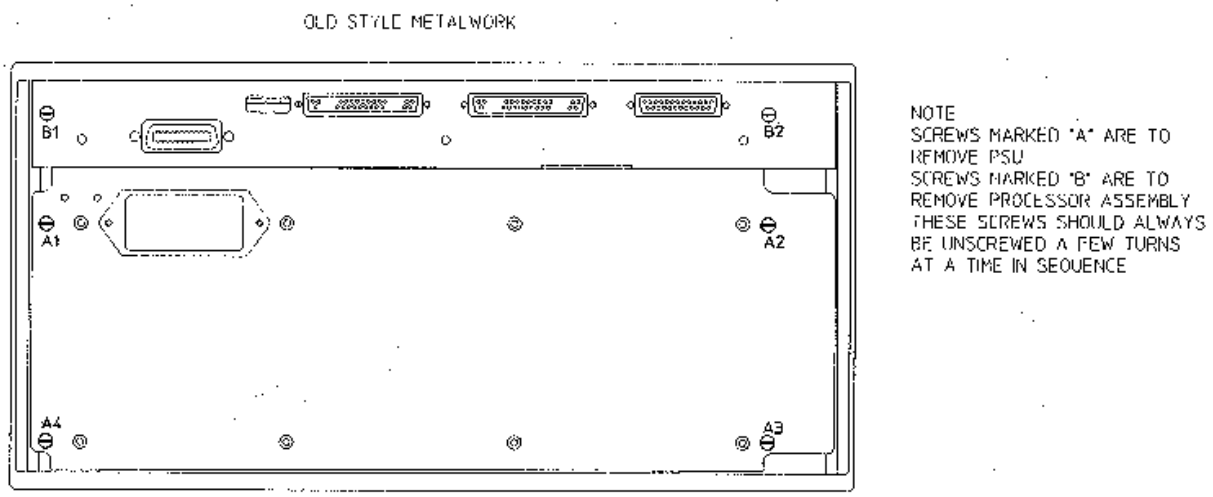

Figure 4

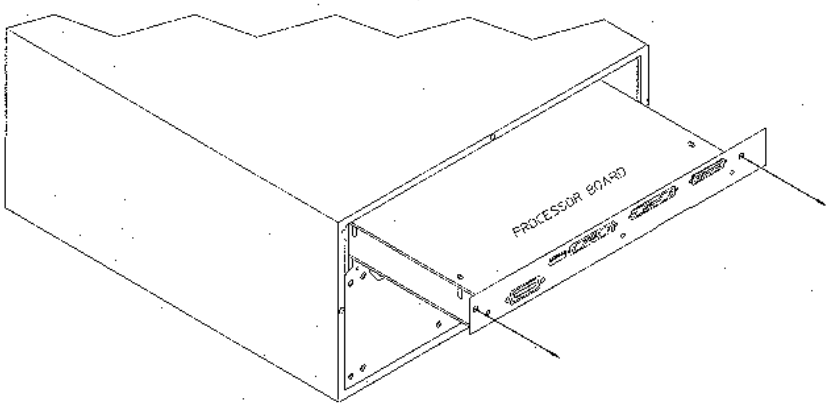

Figure 5

4. Refer to FIG 4 and note screws A1 thru A4. These screws should be lossened a few turns each in sequence until the PSU module can be removed from the 70843A/B chassis (FIG 6).

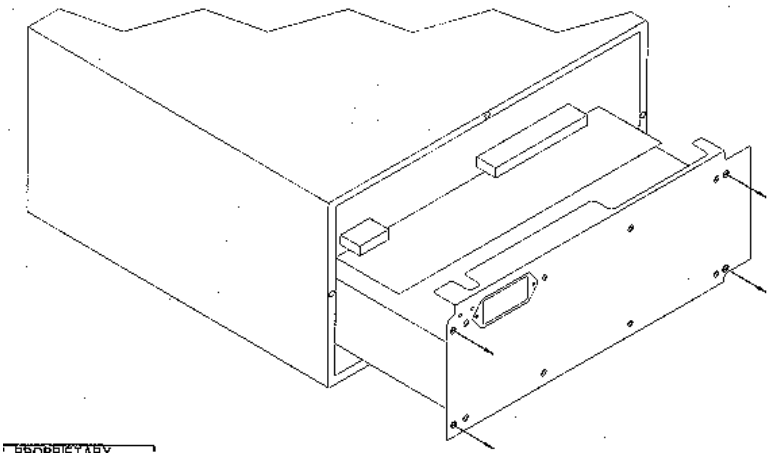

Figure 6

5. Refer to FIG 7 and remove the 8 screws marked A and the 4 screws marked B (from the underside) of the Processor assembly.

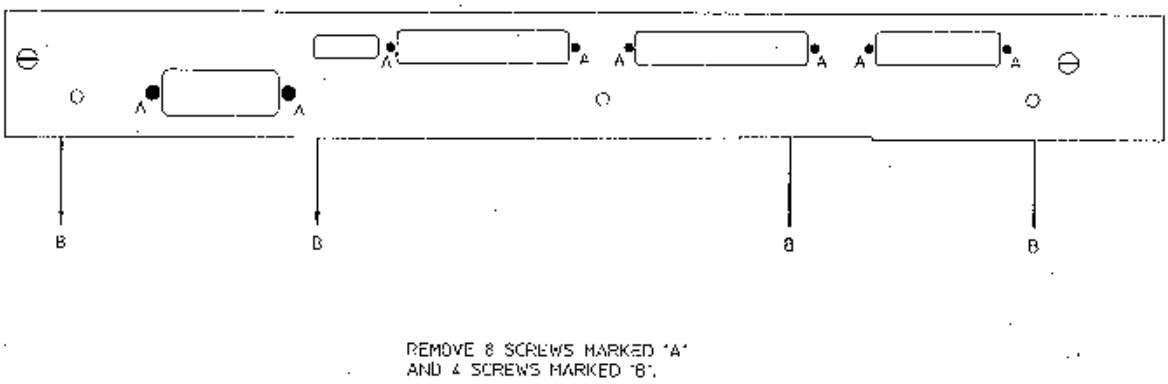

Figure 7

6. Refit 2 of the A screws using the BLUE torque wrench as shown in FIG 8. Refit 6 of the B screws using the RED torque wrench as shown in FIG 8.

7. Fit 4 C screws to the underside as shown in FIG 8.

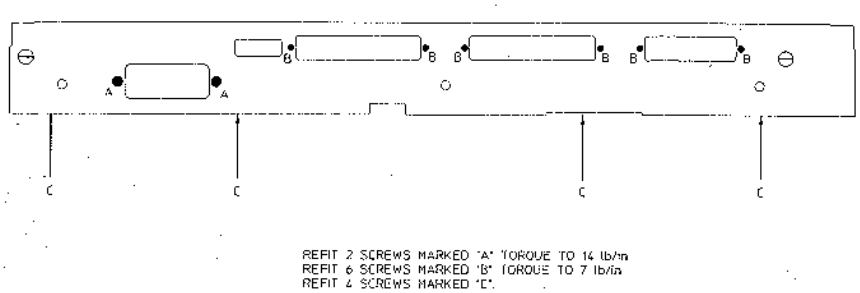

Figure 8

8. Install the new PSU module into the 70843A/B chassis, locating it as shown in FIG 9.

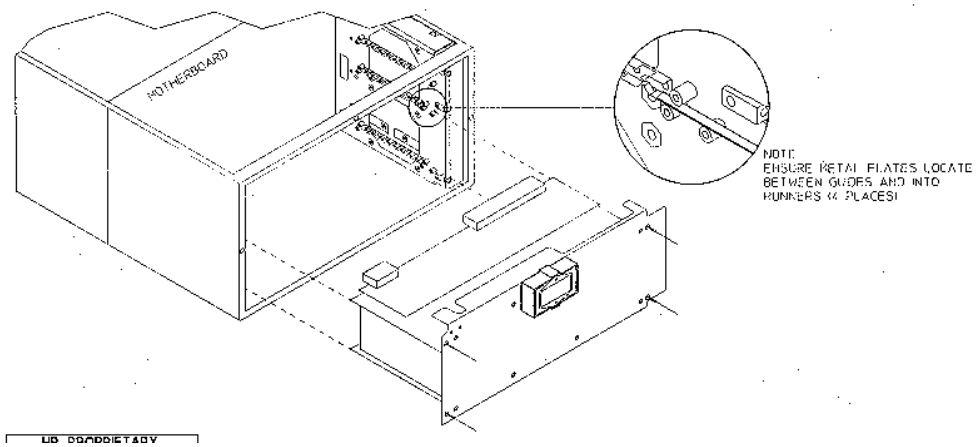

Figure 9

9. Re-install the Processor assembly as shown in FIG 10.

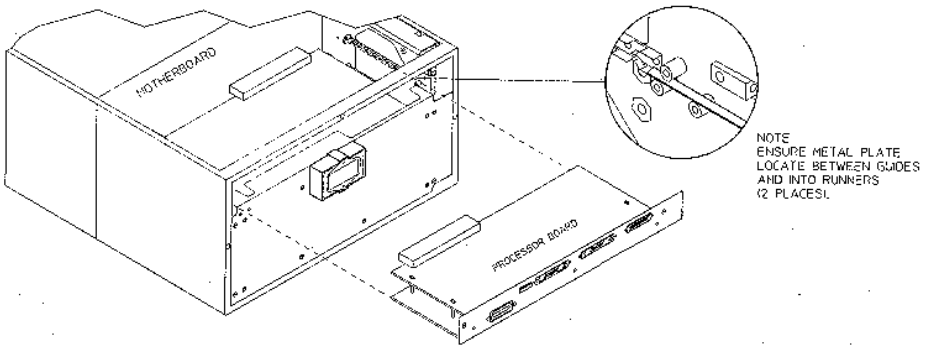

Figure 10

10. Re-fit screws into positions A ,as shown in FIG 11, to secure the power supply assembly.

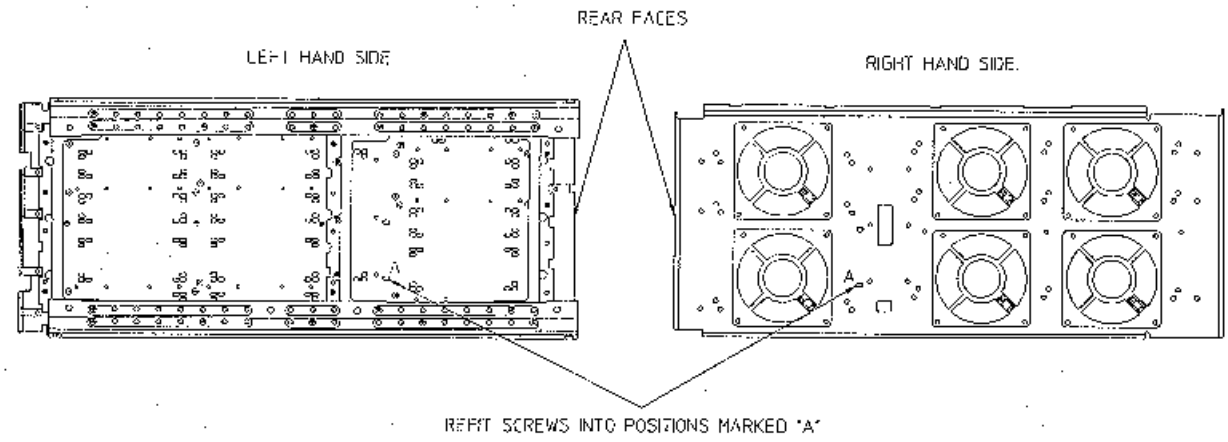

Figure 11

11. Re-fit the bottom, side and top covers and secure by tightening the screws into holes A, B and C as shown in FIG 12.

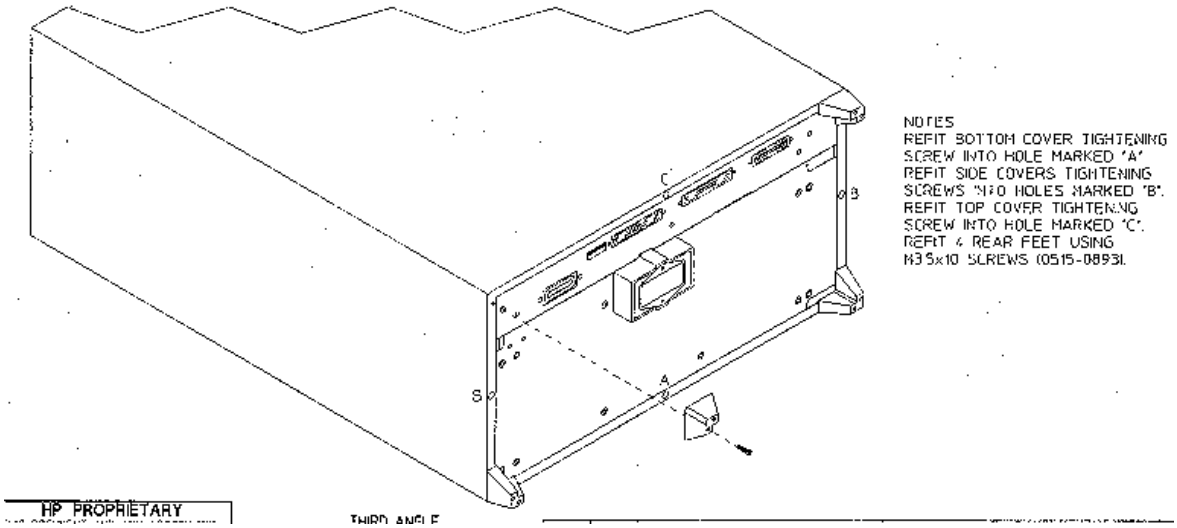

Figure 12

12. Re-fit the rear feet to the unit, as shown in FIG 12, using 0515-0893 screws supplied with the refurb kit.

13. Write the 70843A/B serial number on the new serial plate label on the new PSU. Add any options which may be labelled in the original unit (e.g UHF,UHJ, 809 etc) to this label.

14. The replacement procedure is now complete and you should now proceed to the Operational Verification section of this service note.

REVISED METALWORK

1. Remove the 4 rear feet and 19 screws around the rear of the cover as shown in FIG 13. Remove the bottom feet and store the information card and tray in a safe place.

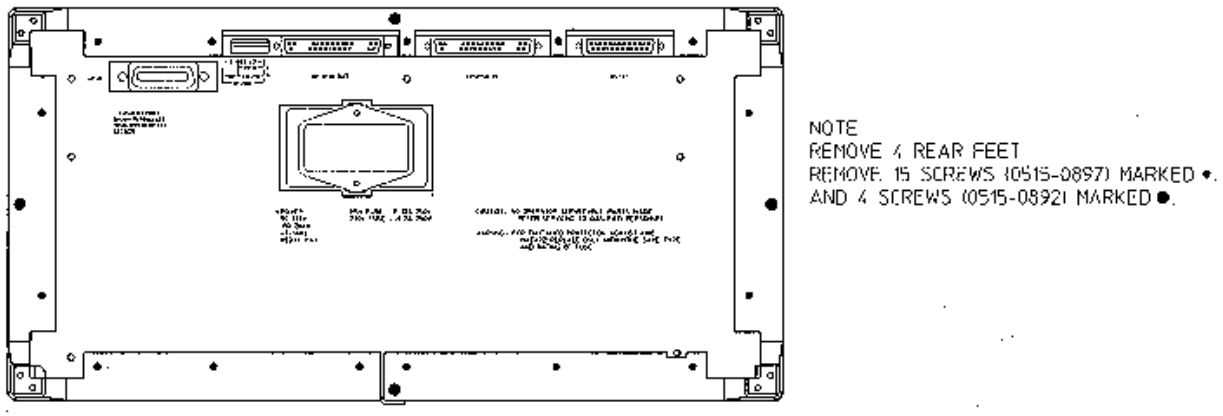

Figure 13

2. Fit the front handles to the instrument if not already fitted and position the unit vertically as shown in FIG 14. Carefully remove the cover by pulling it up and over the rear of the instrument.

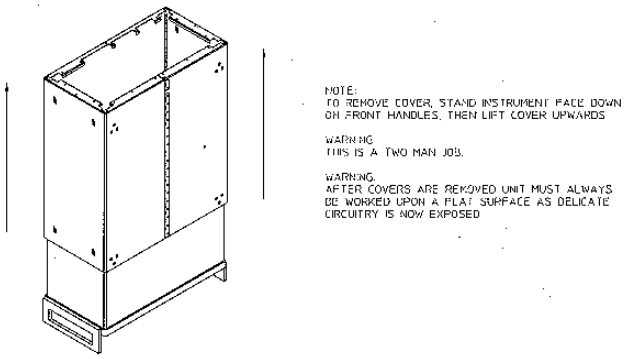

Figure 14

NOTE:

One person should hold down the handles while another person pulls on the sides of the cabinet cover from the rear of the unit.

3. Lower the 70843A/B to normal working position on the bench.

4. Refer to FIG 15 and remove the two screws marked "A", holding the power supply module to the side-frames of the main chassis.

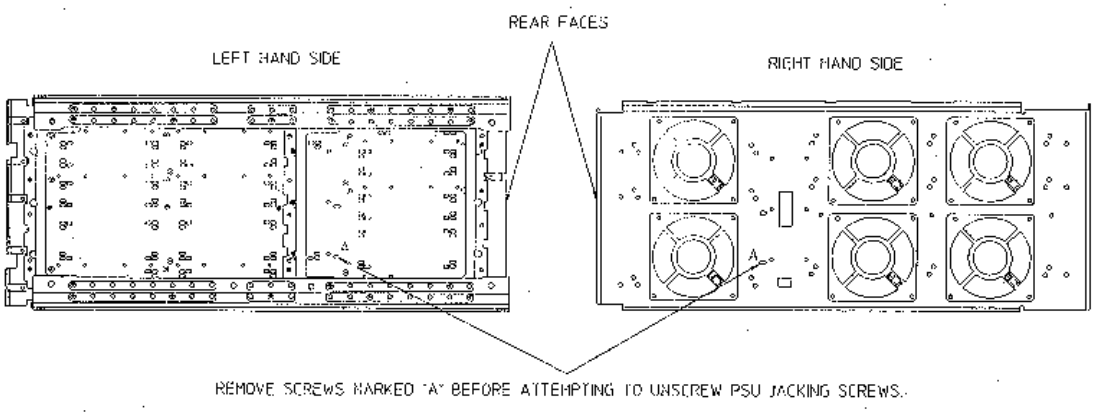

Figure 15

5. Remove the rear dress panel by removing the seven screws as shown in FIG 16.

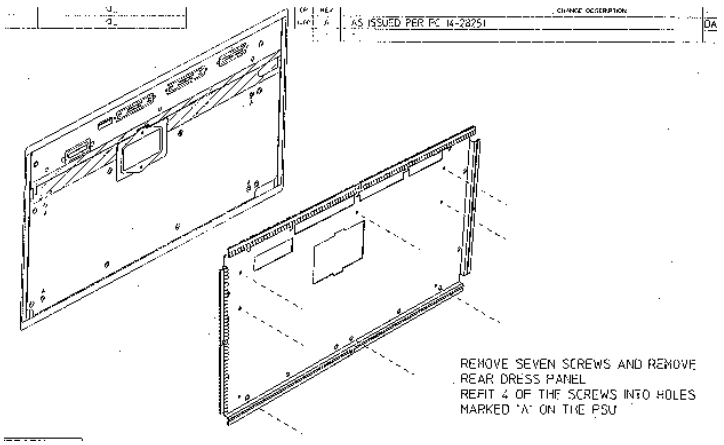

Figure 16

6. Insert 4 of the cover screws into the holes marked "A" at each corner of the power supply unit as shown in FIG 17. This will prevent the panel from distorting when the power supply assembly is being removed. (These holes are already countersunk for screws).

7. Carefully remove the copper adhesive tape (shown hatched in FIG 17) covering the join between the Processor assembly connector panel and the PSU module rear sub-panel.

WARNING

Care should be taken when handling the copper tape as personal injury could occur.

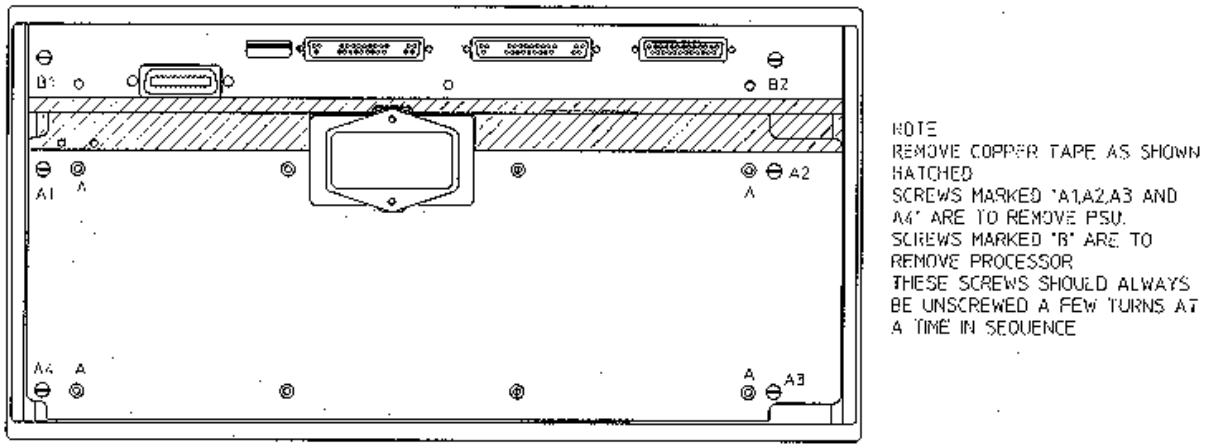

Figure 17

8. Remove the two screws marked "B" in FIG 17 , securing the Processor assembly (one turn at a time alternatively) and carefully withdraw the Processor assembly as shown in FIG 18.

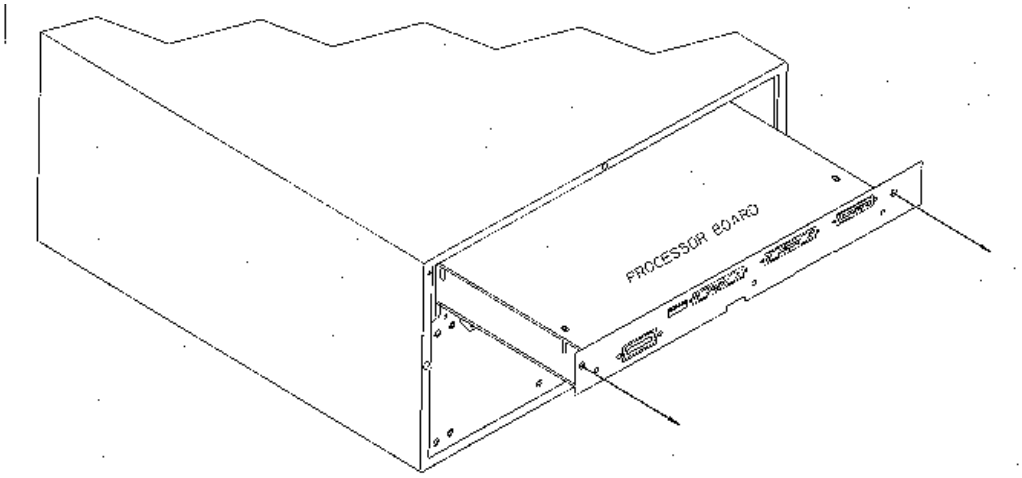

Figure 18

9. Loosen the 4 screws marked A1 thru A4 in FIG 17 which secure the PSU module (2 turns each in sequence untill all 4 are loosened). Withdraw the PSU assembly from the rear of the 70843A/B as shown in FIG 19.

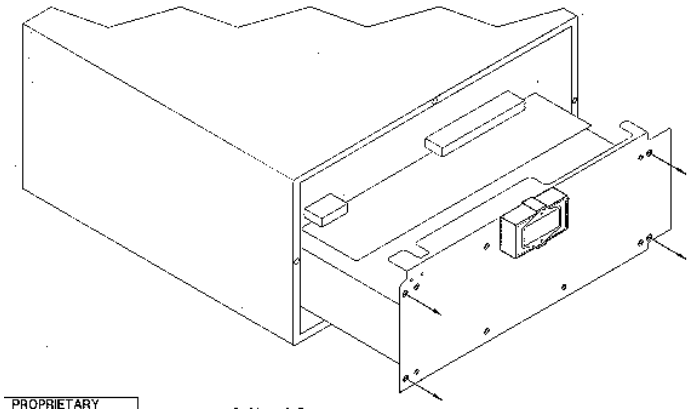

Figure 19

CAUTION

Care should be taken when removing the PSU as it is a heavy assembly.

10. Install the new PSU module into the 70843A/B chassis, locating it as shown in FIG 20.

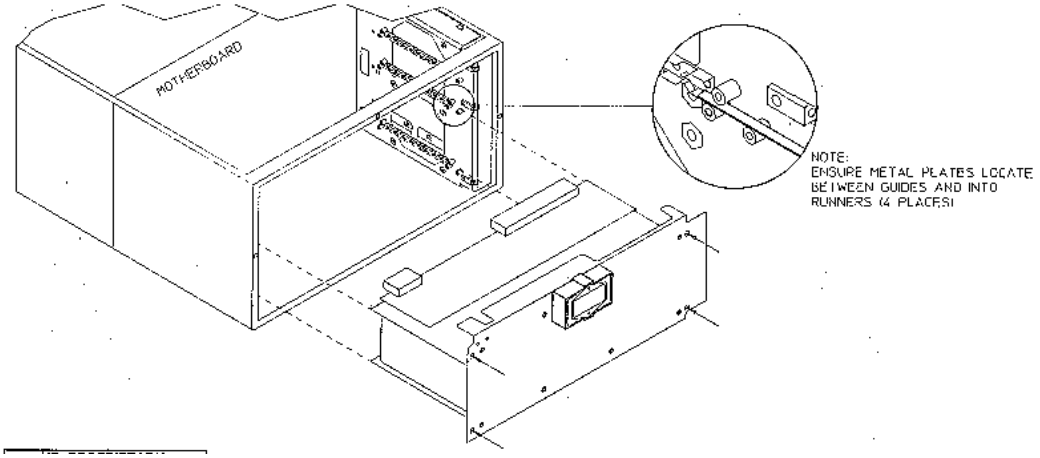

Figure 20

11. Re-install the A11 assembly as shown in FIG 21.

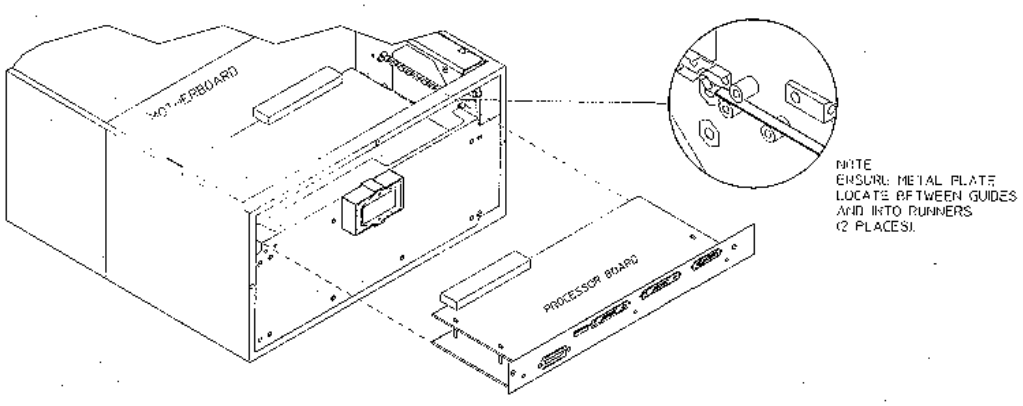

Figure 21

12. Re-fit screws into positions A ,as shown in FIG 22, to secure the power supply assembly.

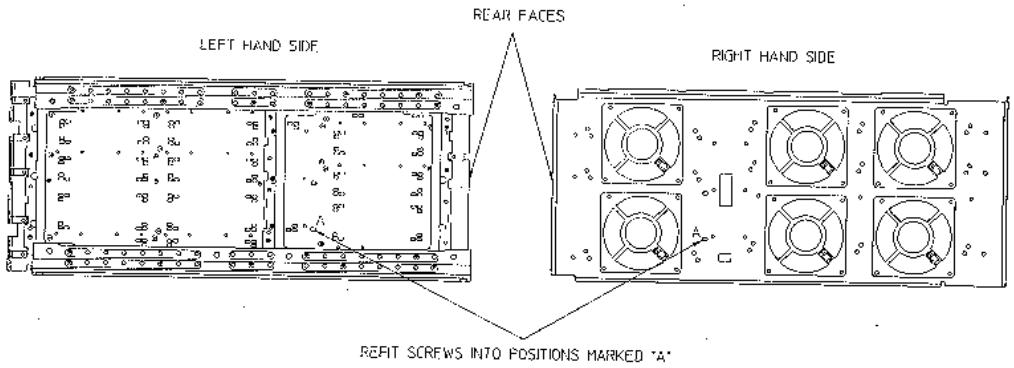

Figure 22

13. Use the copper adhesive tape supplied to seal the join between the Processor assembly connector panel and the rear sub-panel of the PSU module as shown hatched in FIG 23. Note that the tape will require to be cut/shaped with scissors to accomodate the HP-IB connector on the Processor assembly and the mains input to the PSU module..

14. Remove the screws from positions A in FIG 23, previously fitted to the PSU module.

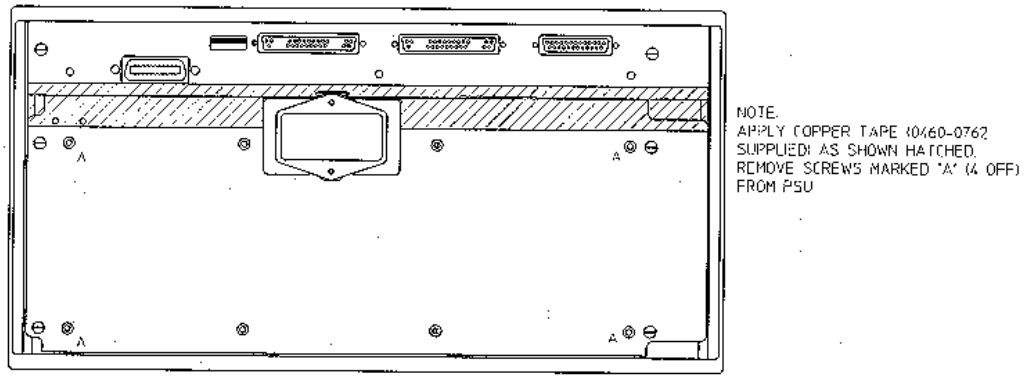

Figure 23

15. Re-fit the rear dress panel as shown in FIG 24, using seven screws 0515-0897 supplied with the refurb kit.

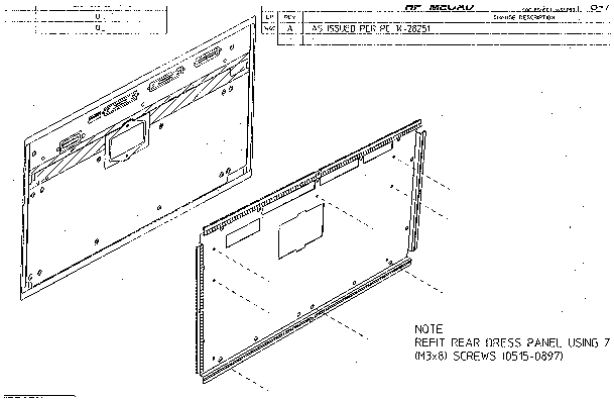

Figure 24

16. Position the 70843A/B as shown in FIG 25 and re-fit the cover. It may be useful to use a small flat blade screwdriver or similar tool to aid the front of the cover into it's recess at the front of the instrument. Take care not to force the cover home as this can cause damage to the EMC protection strip at the recess.

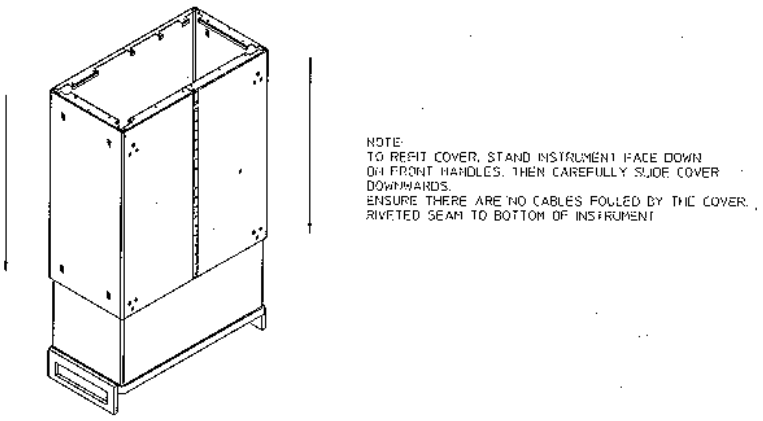

Figure 25

CARE MUST BE EXERCISED TO PREVENT DAMAGE TO RIBBON CABLES.

17. Replace all screws and the rear feet as shown in FIG 26.

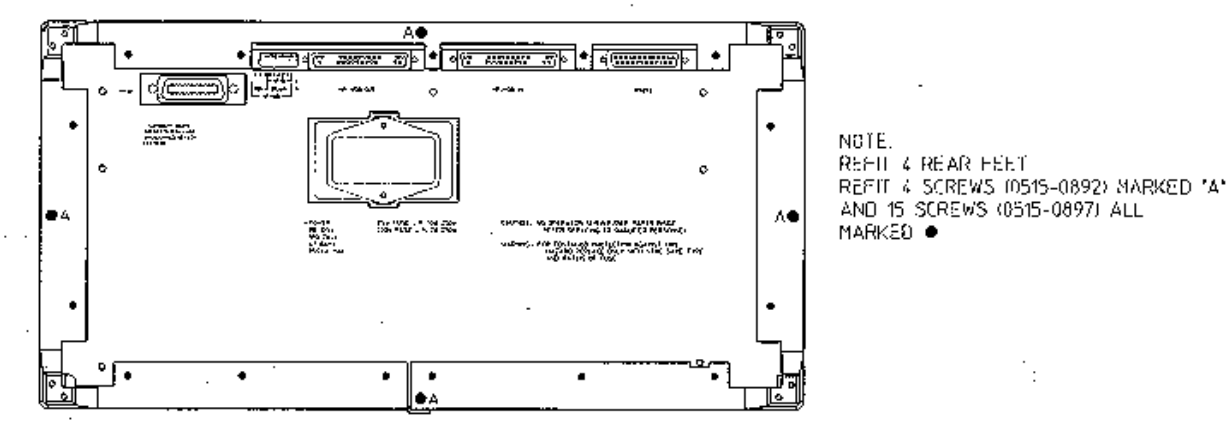

Figure 26

18. Apply the modification label (PSU REV 2) to the rear panel of the 70843A/B ensuring it does not obscure any other labeling or marking.

OPERATIONAL VERIFICATION

Re-connect all cables between the 70843A/B and 70004A display as shown in Page 2-17 of the Operating Manual.

Power up the system and press the DISPLAY key on the 70004A followed by the REPORT ERRORS softkey. There should be no errors reported. Perform the System Verification check on page 2-17 of the Operating Manual.

This completes the modification and the system is now ready for use.