Product End-of-Life Disassembly Instructions

Product Category: Storage Enclosures
Marketing Name / Model [List multiple models if applicable.]
HP 3Par V400 Storage System (QR584A, QR632A, QR633A)
HP 3Par V800 Storage System (QR585A, QR637A)
Name / Model #4
Name / Model #5

Purpose: The document is intended for use by end-of-life recyclers or treatment facilities. It provides the basic instructions for the disassembly of HP products to remove components and materials requiring selective treatment, as defined by EU directive 2002/96/EC, Waste Electrical and Electronic Equipment (WEEE).

1.0 Items Requiring Selective Treatment

1.1 Items listed below are classified as requiring selective treatment.
1.2 Enter the quantity of items contained within the product which require selective treatment in the right column, as applicable.

Item Description	Notes	Quantity of items included in product
Printed Circuit Boards (PCB) or Printed Circuit Assemblies (PCA)	With a surface greater than 10 sq cm	V400: 70 to138 V800: 70 to 260
Batteries	All types including standard alkaline and lithium coin or button style batteries	V400: 6 to 12 V800: 6 to 24
Mercury-containing components	For example, mercury in lamps, display backlights, scanner lamps, switches, batteries	0
Liquid Crystal Displays (LCD) with a surface greater than 100 sq cm	Includes background illuminated displays with gas discharge lamps	0
Cathode Ray Tubes (CRT)		0
Capacitors / condensers (Containing PCB/PCT)		0
Electrolytic Capacitors / Condensers measuring greater than 2.5 cm in diameter or height		V400: 32 to 64 V800: 32 to 128
External electrical cables and cords		V400: 4 to 8 V800: 4 to 16

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Gas Discharge Lamps		0
Plastics containing Brominated Flame Retardants weighing > 25 grams (not including PCBs or PCAs already listed as a separate item above)		0
Components and parts containing toner and ink, including liquids, semi-liquids (gel/paste) and toner	Include the cartridges, print heads, tubes, vent chambers, and service stations.	0
Components and waste containing asbestos		0
Components, parts and materials containing refractory ceramic fibers		0
Components, parts and materials containing radioactive substances		0

2.0 Tools Required

List the type and size of the tools that would typically be used to disassemble the product to a point where components and materials requiring selective treatment can be removed.

Tool Description	Tool Size (if applicable)
Phillips Screwdriver	#1 & 2
Screwdriver	Slot tip
Diagonal Cutter	small
Nut Driver	7mm, 8mm
Description #5	

3.0 Product Disassembly Process

3.1 List the basic steps that should typically be followed to remove components and materials requiring selective treatment:

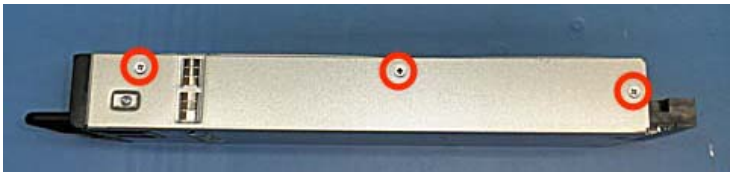
1. V400/V800 Storage System
2. Remove the power supplies from Back side
3. Remove the BBU from the front side
4. Remove the Fan Assemblies from the Front side
5. Remove the Controller Node(s) from Back side
6. Remove the LED status PCBA from the Front side
7. Remove the Center Plane from chassis
8. Remove HBA PCBA from carrier
9.
10.
11.

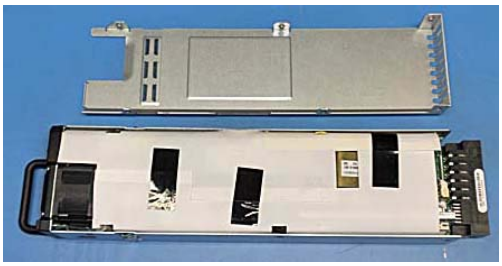
3.2 Optional Graphic. If the disassembly process is complex, insert a graphic illustration below to identify the items contained in the product that require selective treatment (with descriptions and arrows identifying locations).

Disassembly Instructions:
Insure the system is shut down, and power cables disconnected.

Disassembling V400/V800 Node Power Supplies (PS):

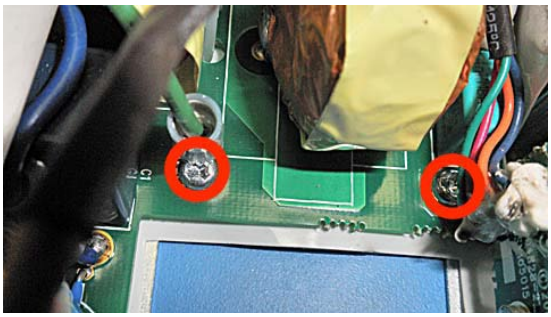
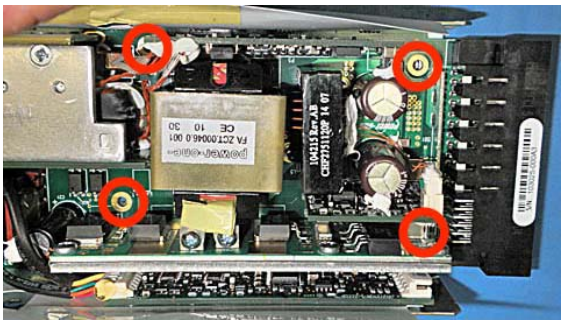
Remove the three screws on each side of the power supply and remove the top cover



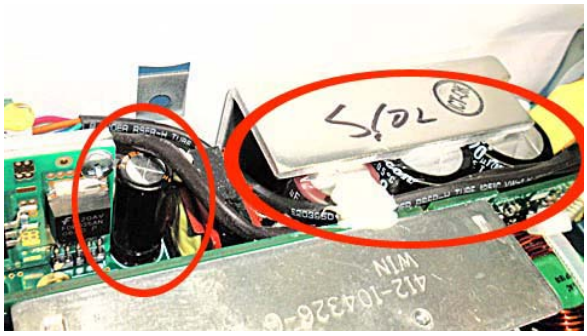


Remove four screws from the front side and one screw on the side. Disconnect connector to remove the fan.


Remove six screws securing the main PCBA.

Remove the capacitors

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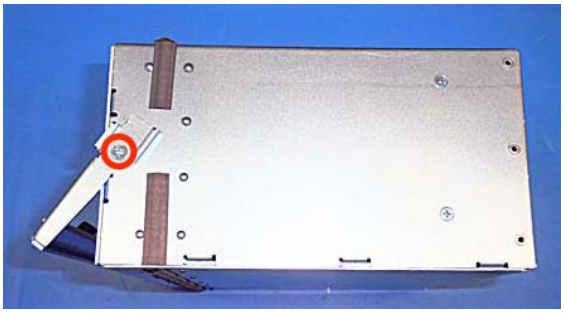
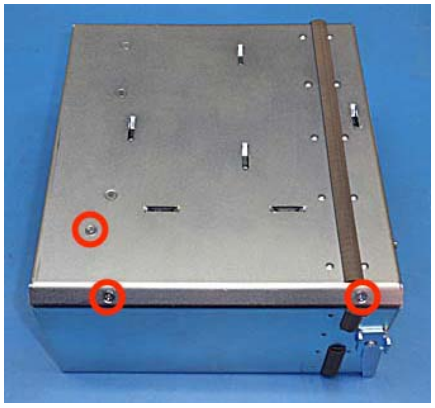
Disassembling V400/V800 BBU (Battery Backup Unit)

Remove two screws, one on each side, securing the handle.



Remove screws securing the top cover.



Remove Ribbon cable at each connector ends, disconnect Red (+) battery cable, and the fan connector.

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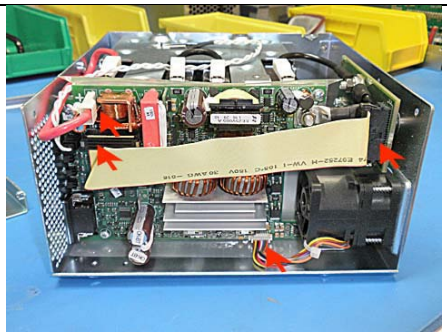
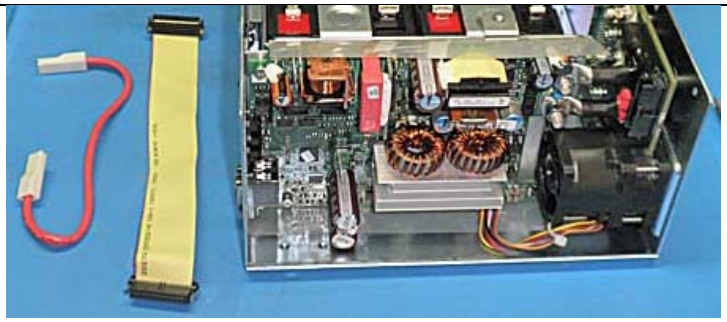
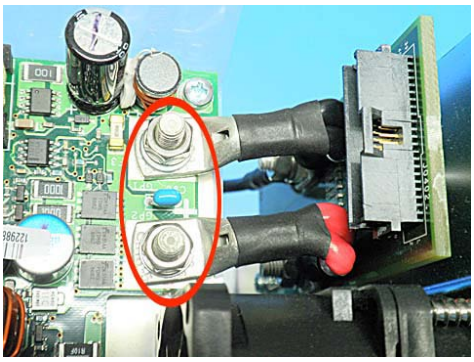
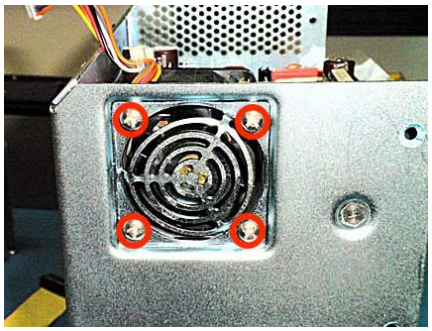




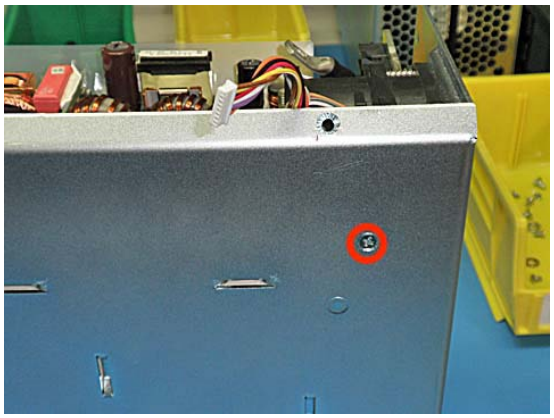
Disconnect power cables to the PCBA.



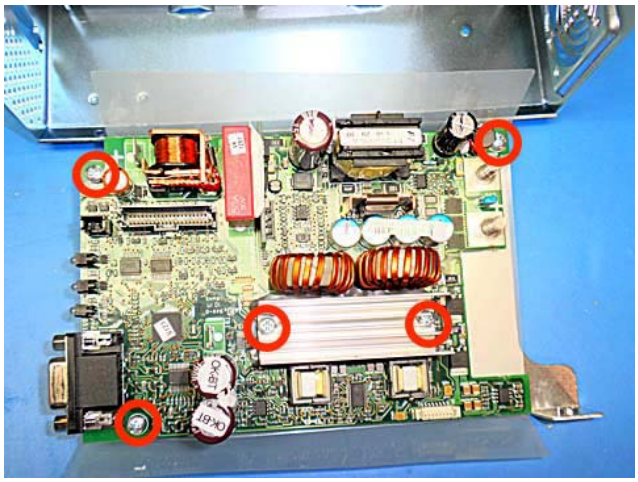
Remove the four fan screws and remove the fan assy.



Remove PCBA bracket screw from bottom.



Remove the PCBA w/ Bracket Assy, and remove the PCBA screws.



Remove the capacitors.

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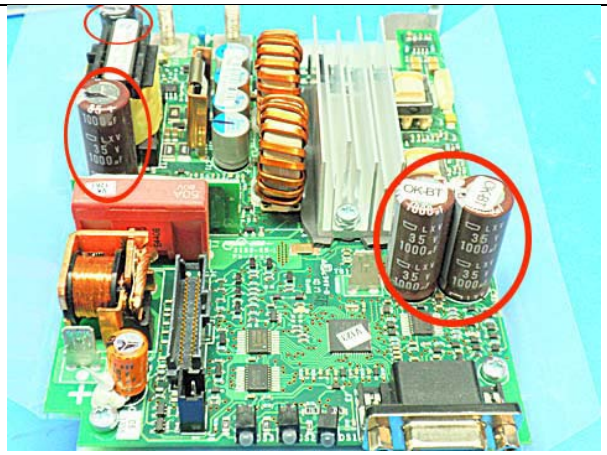
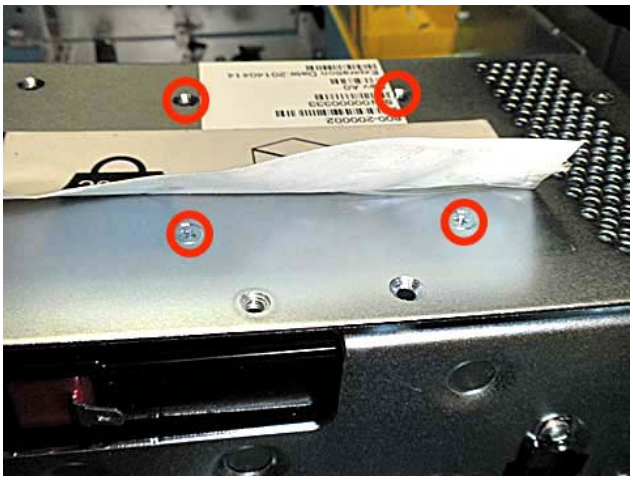
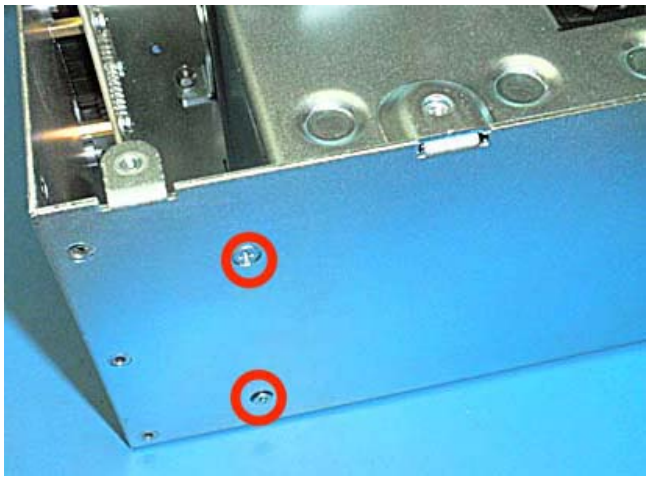
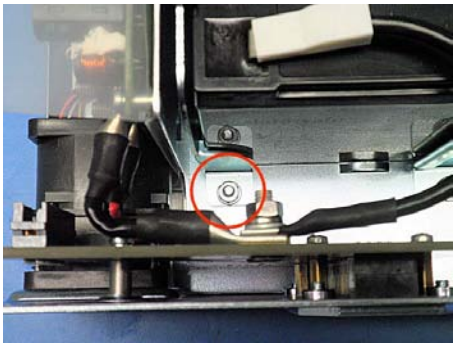
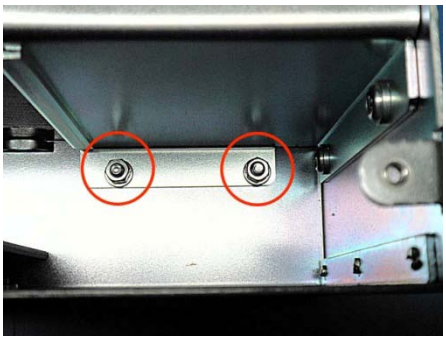


Remove the following screws to remove the Battery Captive Cage.









Disconnect battery cables and remove Batteries.	Remove the four PCBA screws and remove the board.

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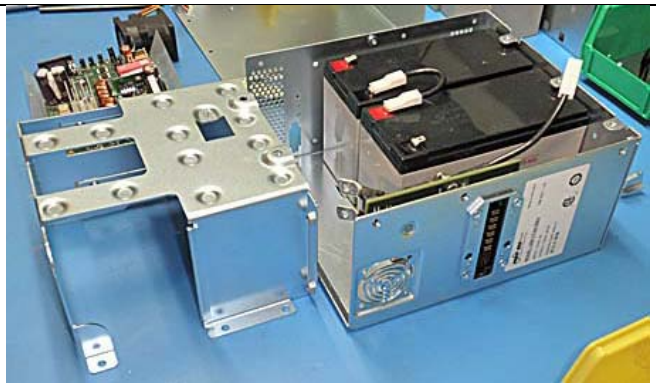	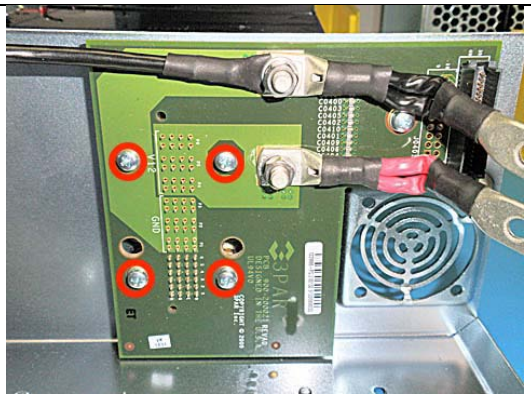

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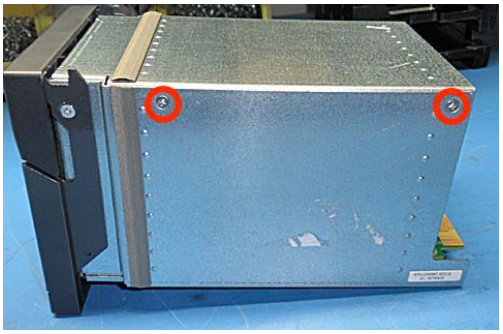
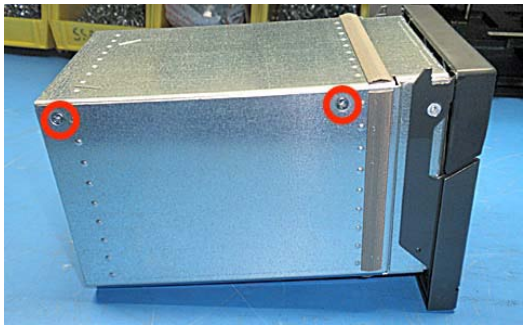
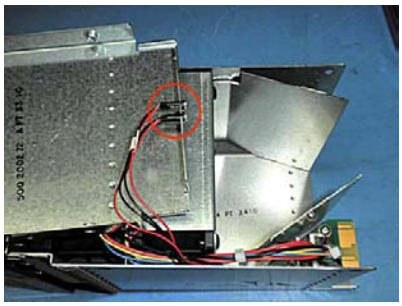
Disassembling V400/V800 Fan Module

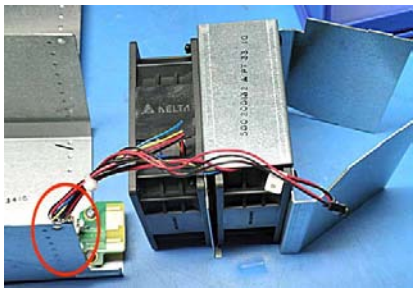
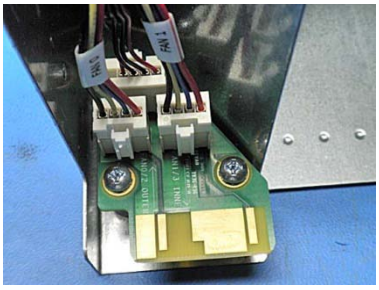
Remove the four screws from the fan module cover.

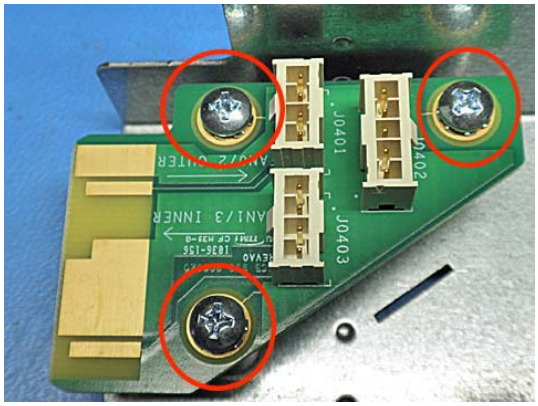
Remove the LEDs and holders.



Remove Fan Assembly and disconnect all three fans at the PCBA.

Remove three screws securing the PCBA.



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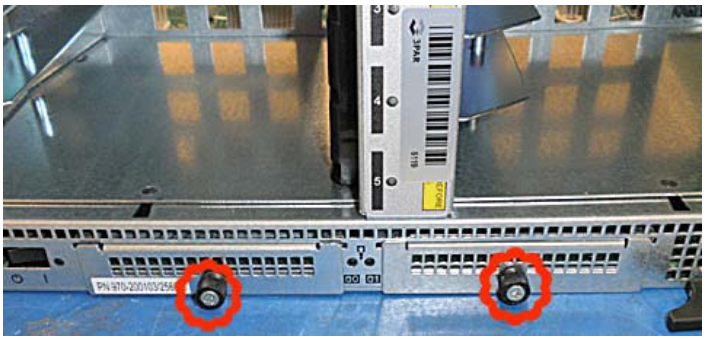
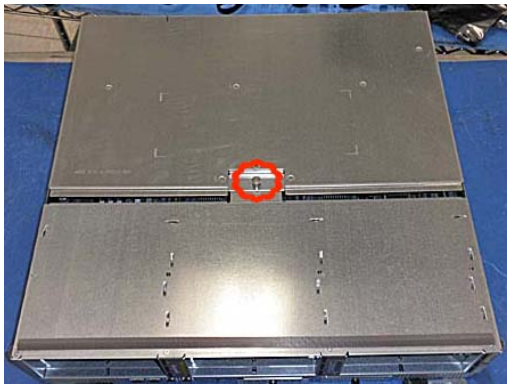
Disassembling V400/V800 Controller Node	
Remove all HBA cards from the Node by pulling out the bottom handle. 	Remove all Node Drives, the right Node drive is an optional drive. 
Un-screw the Rear Node Cover screw. 	Remove side screws holding front Node Cover.  
Remove the EMI gasket from the front, and remove six screws holding front Node Cover.	Remove the HBA PCBA interface boards by pulling up on the rear of the cards and pulling forward.

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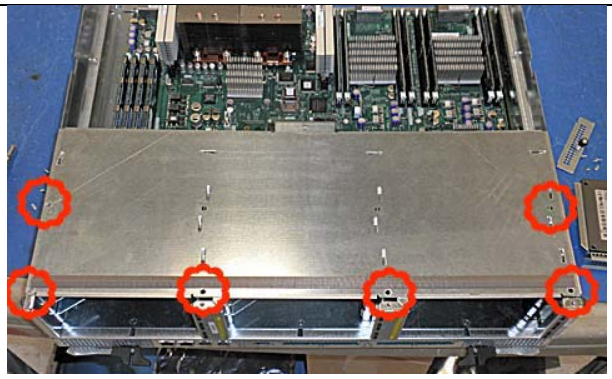
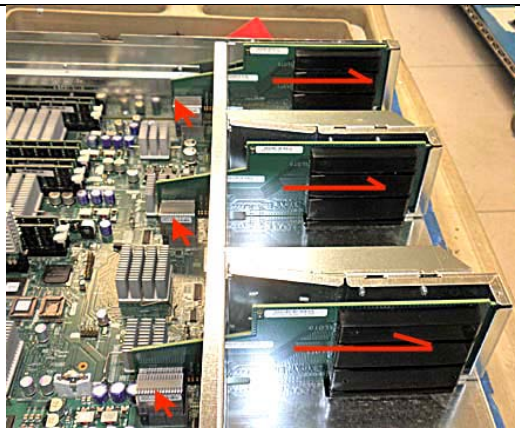
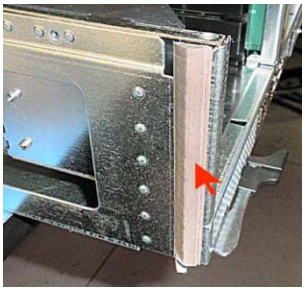
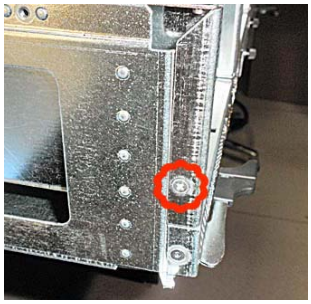


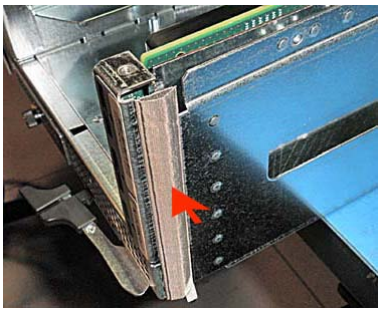


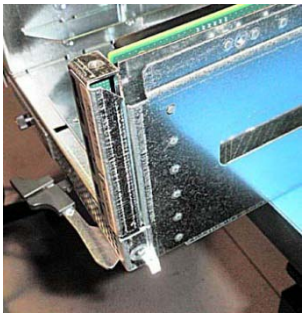
Remove the HBA sheet metal cage screw. There's a screw on one side underneath the EMI gasket. Need to remove the EMI gasket to remove the cage screw.



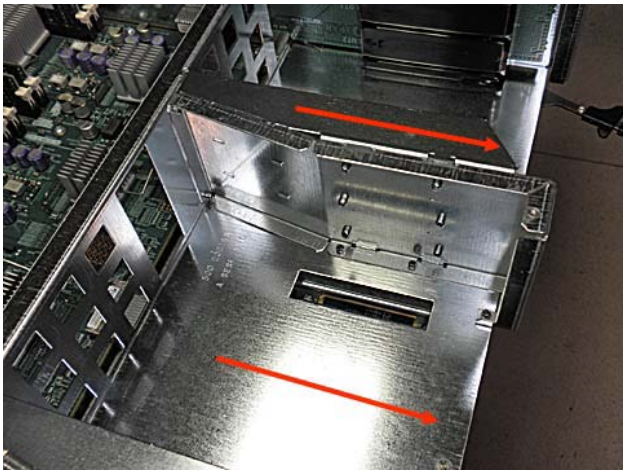


Remove the EMI gasket on the other side.

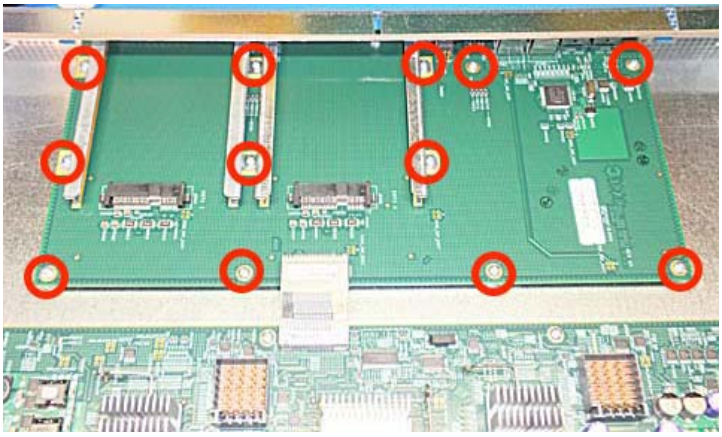




Slide the Card cage forward and remove from chassis.

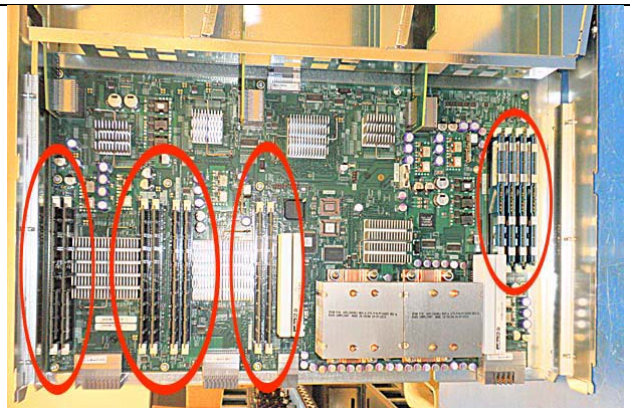


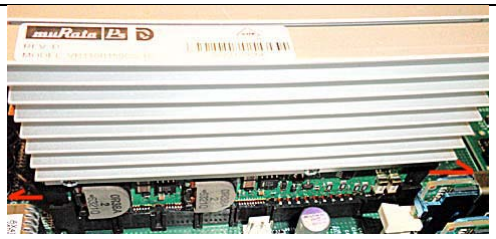
Remove the Drive interface PCBA screws to remove the interface board.



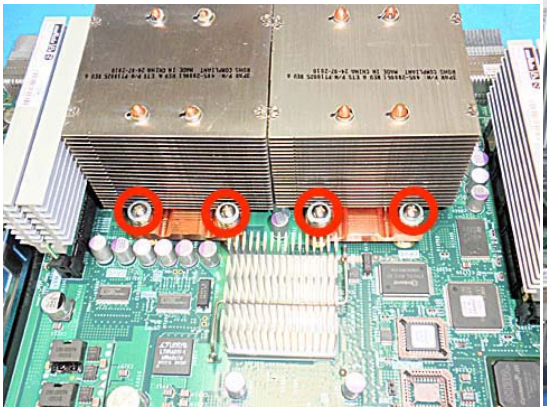
Remove all of the DIMMs

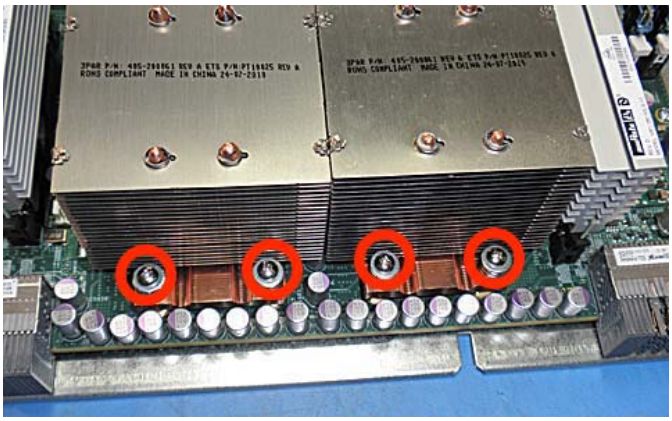
Remove the PCBAs with Heat Sinks by pulling out release latches.



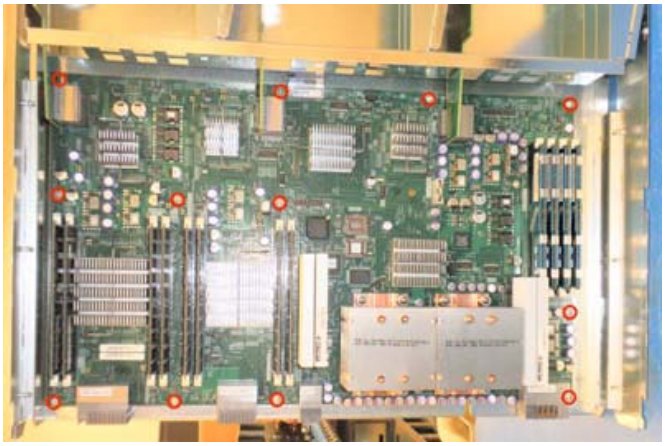


Remove the heat sink securing screws and remove the heat sinks.

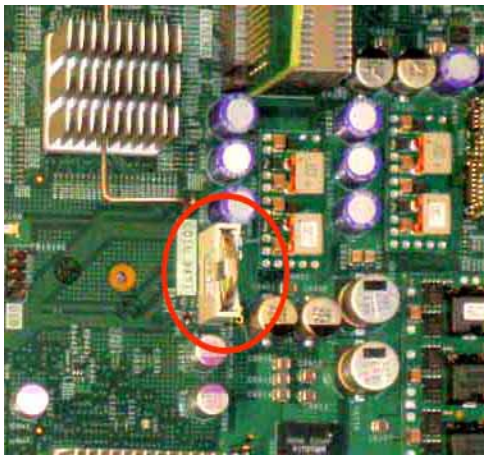




Remove the PCBA fastening screws to remove the PCBA.



Remove the Coin Battery.



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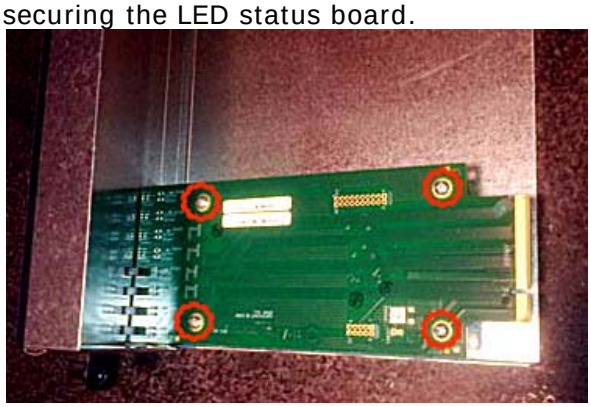
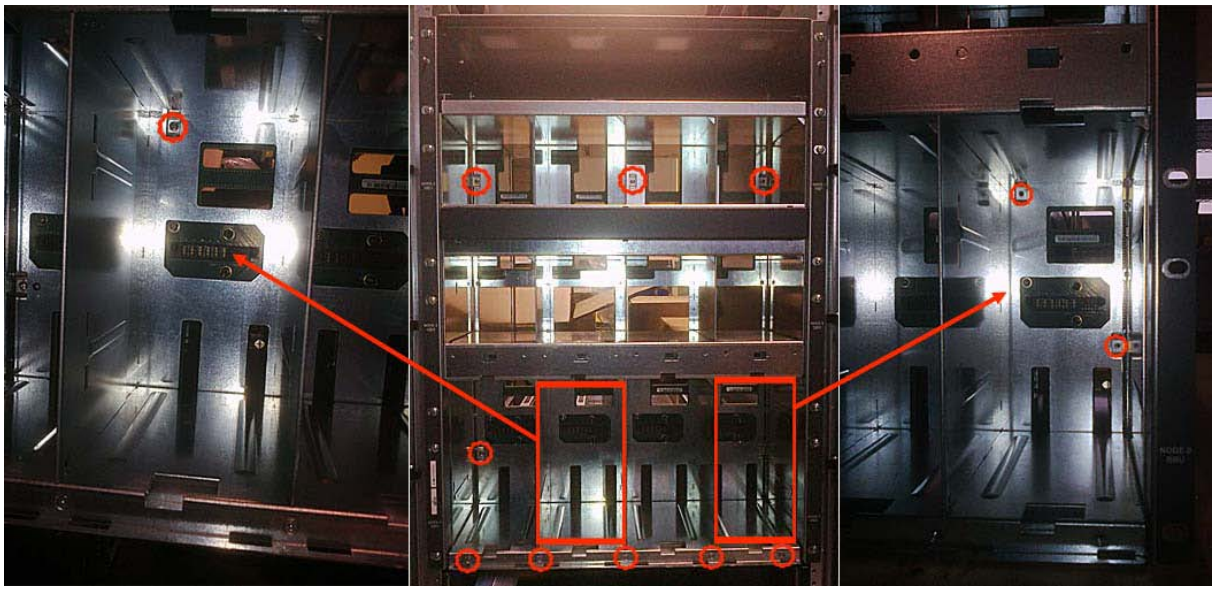
Disassembling V400 CenterPlane

Remove the LED Status board Panel by un-screwing the two thumb screws.

Pull out the Panel and remove the four screws securing the LED status board.

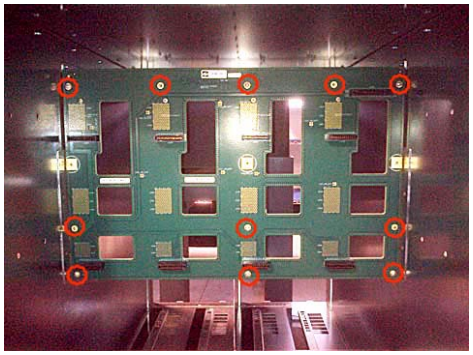


Remove the 12 screws securing the Fan Module and BBU Cage.



Pull out the Fan Module and BBU Cage.

Remove the 12 upper center plane PCBA screws and remove the PCBA



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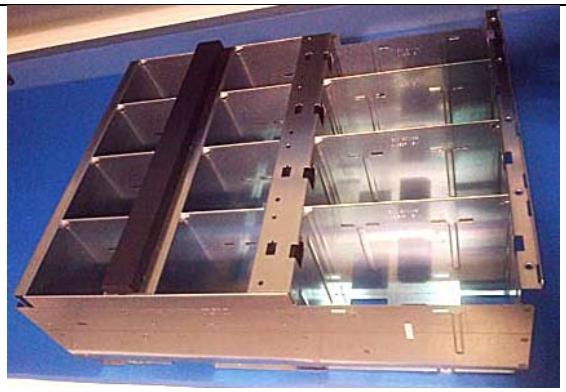
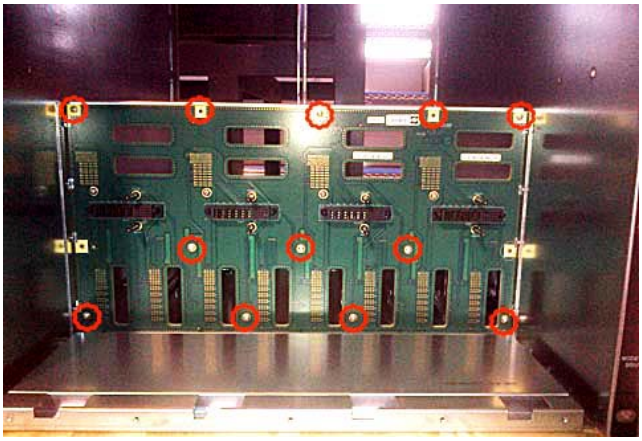


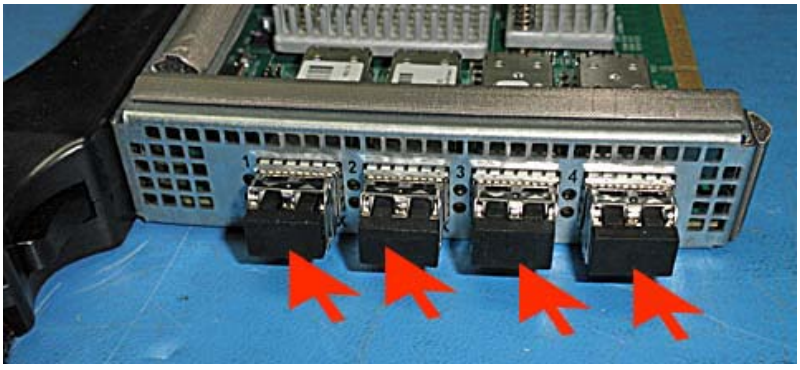
Remove the 11 lower center plane PCBA screws and remove the PCBA



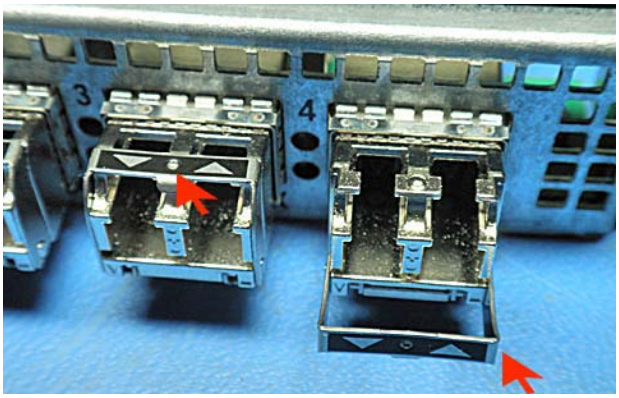
For V800, the Chassis is a horizontal mirror or the V400 chassis.

Disassembling HBA Card from Sled

Remove the SFP rubber caps.

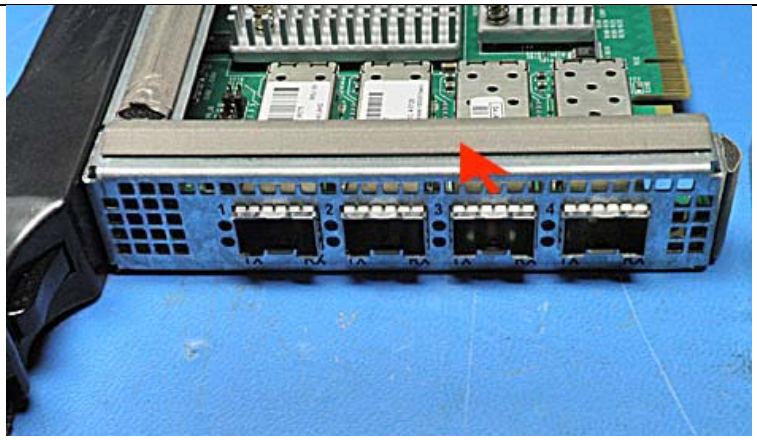


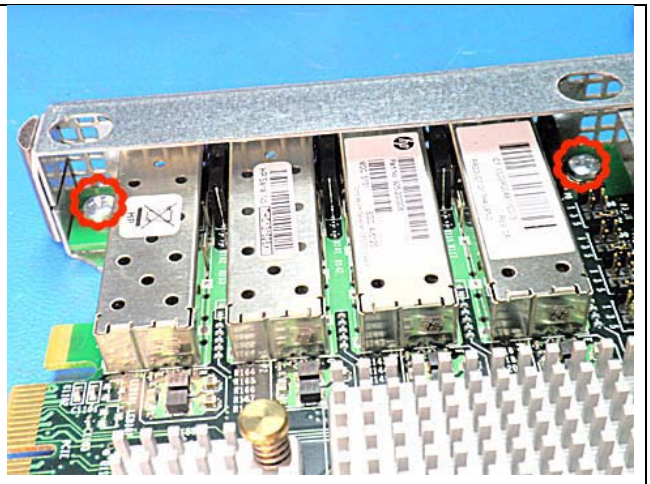
Lift and pull down at the same time on the SFP handle. Pull out the SFPs.



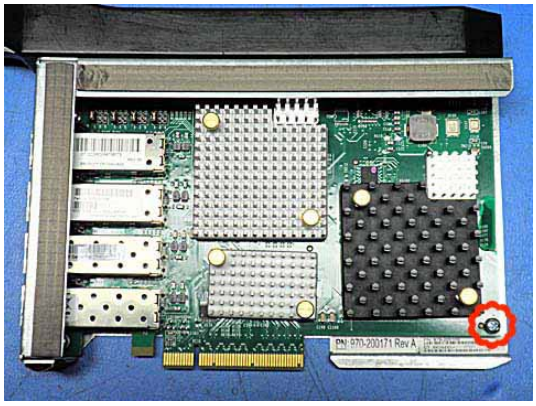
Remove the EMI gasket as shown.

Remove the two PCBA screws.

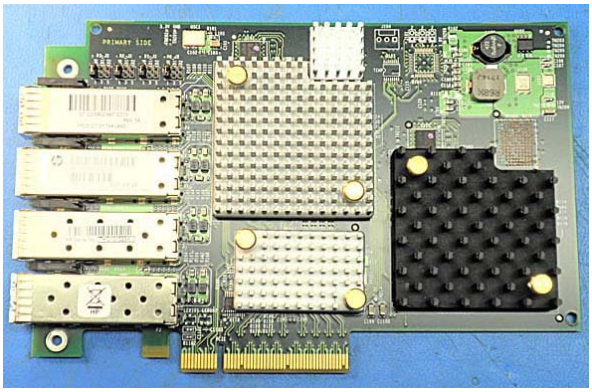




Remove the last PCBA screw at the back.



HBA PCBA



PSG instructions for this template are available at EL-MF877-01