Product End-of-Life Disassembly Instructions

Product Category: Storage Enclosures

Marketing Name / Model
[List multiple models if applicable.]
HPE 3PAR StoreServ 8xx0A

**Purpose:** The document is intended for use by end-of-life recyclers or treatment facilities. It provides the basic instructions for the disassembly of HPE products to remove components and materials requiring selective treatment, as defined by EU directive 2012/96/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.

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Notes</th>
<th>Quantity of items included in product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Printed Circuit Boards (PCB) or Printed Circuit Assemblies (PCA)</td>
<td>With a surface greater than 10 sq cm</td>
<td>24</td>
</tr>
<tr>
<td>Batteries</td>
<td>All types including standard alkaline and lithium coin or button style batteries</td>
<td>4</td>
</tr>
<tr>
<td>Mercury-containing components</td>
<td>For example, mercury in lamps, display backlights, scanner lamps, switches, batteries</td>
<td>0</td>
</tr>
<tr>
<td>Liquid Crystal Displays (LCD) with a surface greater than 100 sq cm</td>
<td>Includes background illuminated displays with gas discharge lamps</td>
<td>0</td>
</tr>
<tr>
<td>Cathode Ray Tubes (CRT)</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Capacitors / condensers (Containing PCB/PCT)</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Electrolytic Capacitors / Condensers measuring greater than 2.5 cm in diameter or height</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>External electrical cables and cords</td>
<td>PVC insulation</td>
<td>4</td>
</tr>
<tr>
<td>Gas Discharge Lamps</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plastics containing Brominated Flame Retardants weighing &gt; 25 grams (not including PCBs or PCAs already listed as a separate item above)</td>
<td>6 Heat sink clips; 11 connector housings; 7 misc structural parts</td>
<td>46</td>
</tr>
<tr>
<td>Components and parts containing toner and ink, including liquids, semi-liquids (gel/paste) and toner</td>
<td>Include the cartridges, print heads, tubes, vent chambers, and service stations.</td>
<td>0</td>
</tr>
<tr>
<td>Components and waste containing asbestos</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Components, parts and materials containing refractory ceramic fibers</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>
### 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.

<table>
<thead>
<tr>
<th>Tool Description</th>
<th>Tool Size (if applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Torx Driver</td>
<td>T6/T10/T15</td>
</tr>
<tr>
<td>Philips Driver</td>
<td>#0, #1, #2</td>
</tr>
<tr>
<td>Diagonal cutter</td>
<td>Medium size</td>
</tr>
<tr>
<td>Pry Bar</td>
<td>Small</td>
</tr>
</tbody>
</table>

### 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. Remove unit from System rack by removing Torx T15 mounting screws
2. Pull release handles on Drives sleds to remove Hard drives / SSD modules; separate plastics and hard drives from frame using philips screw driver.
3. Pull release handle on Node(s) to remove from Drive bay. Remove heat pipe and/or heat sinks using T10 Torx driver; Remove PCBA from Frame.
4. Remove coin cell battery from node board.
5. Remove Power Cooling Modules by depressing on the latch, the unit will slide out of the drive bay. Remove Lithium Ion battery pack.(see step 6) Uses Phillips #1 to remove screws on the enclosure, remove PCBAs from housing, remove electrolytic capacitors 1 4cm high; 10, 2.4 cm 10, 1cm.
6. Remove cover of lithium ion battery pack, using phillips #1, remove battery pack from enclosure; do not short batteries! Carefully remove Lithium ion batteries by severing the metal tabs with a diagonal cutter.
7. Using phillips #1 Screw driver remove plastic sections from the drive bay; Then remove the mid-plane PCBA; this board has several 1cm electrolytic capacitors.
8. 
9. Node Steps:  
   10. 2. Remove top cover from array node.
   11. 3. Remove DIMM's, and BOOT drive from node assembly.
   12. 4. Use pry bar to remove capacitors.
   13. 5. Remove coin battery from motherboard.
   14. 6. Remove torx screws

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).
Attachment 1 – removing midplane PCA from drive chassis.
Attachment 2—removing battery pack from Power Cooling Module.
Attachment 3—removing electrolytic caps from Power Cooling Module.
Attachment 4—removing coin cell from Node PCA.

Attachment 1 - Removing Midplane PCA from drive chassis

Remove Mid plane board using Phillips driver

Remove electrolytic caps
Attachment 2 - Removing battery from Power Cooling Module

Remove the battery pack PCA from the enclosure

Carefully Remove the lithium Ion batteries avoid shorting terminals
Attachment 3 - Removing Electrolytic Capacitors from Power Cooling Module
Attachment 4 - Removing coin cell, capacitors and screws from the motherboard.
HPE instructions for this template are available at MF877-01
**Dismantling an I/O Module**

Using slits and screwdrivers as appropriate to remove rails and screws, dismantle the I/O module as indicated in Figure 9.

**Dismantling a Blank I/O Module**

Using slits and screwdrivers as appropriate to remove rails and screws, dismantle the module as indicated in Figure 10.

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HPE instructions for this template are available at [MF877-01](#).
1 Safety

- Local/Material Regulations: All recycling must be performed in accordance with local/national/industry standards and safety regulations.

- The enclosure can weigh up to 50kg (110lb). Do not try to lift by yourself.

- Before moving the enclosure, always remove all Power Cooling Modules (PCMs) to remove weight.

- Do not lift the enclosure by the handle on the PCM. They are not designed to support the weight.

Caution: Shock-hazard batteries can cause an explosion.

2 Overview

A 2U12 enclosure contains up to 12 drive carriers which can vary depending on the model, contain a PCM.

The enclosure also contains up to two Power Cooling Modules (PCMs) and at least one IO module, which will contain at least one PCI.

3 Removal of Drives

1. Release the carrier handle by pressing the latch in the handle towards the right (see Figure 3).
   Note: The front trim must be off.

2. Withdraw the module from the drive bay (see Figure 2).

4 Removal of PCMs

1. Grasp the latch and the side of the PCM handle between thumb and index finger, squeeze together and open the handle to release the handle out of the enclosure (see Figure 4).

2. Drop the handle and remove the module.

6 Dismantling a Drive Carrier Module

Using drills and screwdrivers as appropriate to remove screws and screws, dismantle the Drive Carrier Module as indicated in Figure 6.

Item | Material | Remarks
---|---|---
A | Acme metal | All screws, nuts and washers are zinc plated steel.
B | Polypropylene | The module contains several polypropylene based labels.
C | Steel | The module contains several polypropylene based labels.
D | Zinc alloy 3 | The module contains several polypropylene based labels.

Figure 1: 2U12 enclosure showing main components.
Figure 2: Removing a drive module (1).
Figure 3: Removing a drive module (2).
Figure 4: Removing a Power Cooling Module.
Figure 5: Removing an IO Module.
Figure 6: Exploded view of Drive Carrier Module.
HPE instructions for this template are available at MF877-01
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1 Safety
- Local/ National regulations for recycling must be performed in accordance with local/National laws.
- Any batteries should be removed before recycling.
- Caution: Sharp cutting battery can cause an explosion.

2 Overview
A 2U24 enclosure contains up to 24 drive carriers which may, depending on the model, contain 4 PCBs.

3 Removal of Drives
1. Release the carrier handle by pressing the latch in the handle streamers (see Figure 2).
   Note: The anti-tamper lock must be off.
2. Withdraw the module from the drive bay (see Figure 3).

4 Removal of PCMs
1. Place the latch and slide the handle out to remove the module out of the enclosure (see Figure 4).
2. Open the handle and withdraw the module.

5 Removal of I/O Modules
1. Release the latch and slide the handle out to remove the module out of the enclosure (see Figure 5).
2. Open the handle and withdraw the module.

6 Dismantling a Drive Carrier Module
Using drills and screwdrivers as appropriate to remove screws, dismantle the Drive Carrier Module as indicated in Figure 6.

Material | Hazards
--- | ---
A. Mild Steel
B. Polyvinylidene
C. Stainless Steel (solid)
D. Zinc alloy
E. Other.

All screws, nuts and washers are zinc-plated steel.

The module contains several polyvinylidene-based labels.
HPE instructions for this template are available at MF877-01
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