

# **Recycling Server Components**

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### **Server Recycling and E-Waste**

The server has various components that can be recycled. When recycling the server and its components, always comply with your local laws governing recycling and e-waste.



**Warning** The procedures in this chapter are destructive and can render the server unusable, so this content is not for standard use or FRU procedures! These procedures are for recyclers only.

# **Battery Warning**

The server has a round button-style battery which is used for the real-time clock.



**Warning** Recyclers: Do not shred the battery! Make sure you dispose of the battery according to appropriate regulations for your country or locale.

For information about removing the battery, see Replacing the RTC Battery.

### **Recycling the Main Motherboard PCB Assembly (PCBA)**

The PCBA is secured to the server's sheet metal. You must disconnect the PCBA from the tray before recycling the PCBA. The PCBA is secured by different types of fasteners.

#### Before you begin



**Note** For Recyclers Only! This procedure is not a standard field-service option. This procedure is for recyclers who will be reclaiming the electronics for proper disposal to comply with local eco design and e-waste regulations.

To remove the printed circuit board assembly (PCBA), the following requirements must be met:

- The server must be disconnected from facility power.
- The server must be removed from the equipment rack.
- The server's top cover must be removed. See Removing the Server Top Cover.

Gather the following tools before beginning this procedure:

- Pliers
- T10 Torx screwdriver
- #2 Phillips screwdriver

**Step 1** Locate the PCBA's mounting screws.

The following figure shows the location of the mounting screws.

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Figure 1: Screw Locations for Removing the UCS C240 M7 PCBA

**Step 2** Using the appropriate tools, remove the screws.

Lavender circle  $(\bigcirc)$ 

**Step 3** Remove the PCBA from the sheet metal and dispose of each in compliance with your local e-waste and recycling regulations.

M3.5 Thumb screw (1), on the air duct #2 Phillips screwdriver

### **Recycling the Front Mezzanine Module PCBA (NVMe Backplane)**

The server's front mezzanine module contains one PCBA, which is the vertical PCB for the NVMe drive backplane. The PCBA is attached to the server's sheetmetal by 13 T10 screws.

You must disconnect the PCBA from the sheetmetal before recycling the PCBA.

#### Before you begin

![](_page_3_Picture_6.jpeg)

**Note** For Recyclers Only! This procedure is not a standard field-service option. This procedure is for recyclers who will be reclaiming the electronics for proper disposal to comply with local eco design and e-waste regulations.

To remove the printed circuit board assembly (PCBA), the following requirements must be met:

- The server must be disconnected from facility power.
- The server must be removed from the equipment rack.
- The server's top cover must be removed. See Removing the Server Top Cover.

Gather a T10 Torx screwdriver.

**Step 1** Remove the front mezzanine top cover.

- a) Using a T10 Torx driver, remove the two screws on the top of the front mezzanine module.
- b) Grasp the top of the front mezzanine module, and slide it off of the server chassis.

![](_page_3_Figure_16.jpeg)

**Step 2** Disconnect the vertical drive backplane.

- a) Using a T10 Torx driver, remove the two screws on the top of the vertical drive backplane near the server chassis sidewalls.
- b) Grasp the drive backplane and disconnect it from the sheetmetal frame.

![](_page_4_Picture_4.jpeg)

- **Step 3** Disconnect the PCBA from the sheetmetal frame.
  - a) Using a T10 Torx screwdriver, remove the nine screws that secure the PCBA to the sheetmetal frame.

![](_page_4_Picture_7.jpeg)

b) Grasp the PCBA and detach it from the frame.

![](_page_5_Picture_2.jpeg)

![](_page_5_Figure_3.jpeg)

# **Recycling the Front Mezzanine Module PCBA (SAS Backplane)**

The server's front mezzanine module contains one PCBA, which is the vertical PCB for the SAS drive backplane. The PCBA is attached to the server's sheetmetal by 13 T10 screws.

You must disconnect the PCBA from the sheetmetal before recycling the PCBA.

![](_page_5_Picture_7.jpeg)

![](_page_5_Picture_8.jpeg)

**Note** For Recyclers Only! This procedure is not a standard field-service option. This procedure is for recyclers who will be reclaiming the electronics for proper disposal to comply with local eco design and e-waste regulations.

To remove the printed circuit board assembly (PCBA), the following requirements must be met:

- The server must be disconnected from facility power.
- The server must be removed from the equipment rack.
- The server's top cover must be removed. See Removing the Server Top Cover.

Gather a T10 Torx screwdriver.

### **Step 1** Remove the front mezzanine top cover.

- a) Using a T10 Torx driver, remove the two screws on the top of the front mezzanine module.
- b) Grasp the top of the front mezzanine module, and slide it off of the server chassis.

![](_page_6_Picture_5.jpeg)

- **Step 2** Disconnect the vertical drive backplane.
  - a) Using a T10 Torx driver, remove the two screws on the top of the vertical drive backplane near the server chassis sidewalls.
  - b) Grasp the drive backplane and disconnect it from the sheetmetal frame.

![](_page_6_Figure_9.jpeg)

- **Step 3** Disconnect the PCBA from the sheetmetal frame.
  - a) Using a T10 Torx screwdriver, remove the nine screws that secure the PCBA to the sheetmetal frame.

![](_page_7_Figure_2.jpeg)

b) Grasp the PCBA and detach it from the frame.

![](_page_7_Figure_4.jpeg)

**Step 4** Remove the PCBA and dispose of it properly in accordance with your local recycling and e-waste laws.

# **Recycling the Server KVM PCBA**

The server contains a KVM port, which is vertically mounted in the front right mounting ear. The KVM has a small PCB attached to a flat ribbon cable.

- Two size 2.5 slotted screws on the face of the tray.
- One #1 Phillips-head screw.
- One T10 Torx screws that secure the PCBA to the interior of the tray.

You must disconnect the PCBA from the server before recycling the PCBA.

### Before you begin

**Note** For Recyclers Only! This procedure is not a standard field-service option. This procedure is for recyclers who will be reclaiming the electronics for proper disposal to comply with local eco design and e-waste regulations.

To remove the printed circuit board assembly (PCBA), the following requirements must be met:

- The server must be disconnected from facility power.
- The server must be removed from the equipment rack.
- The server's top cover must be removed. See Removing the Server Top Cover.

Gather the following tools:

- A size 2.5 slotted screwdriver.
- A #1 Phillips screwdriver
- A T10 Torx screwdriver.

**Step 1** Disconnect the KVM port from the front panel.

a) Using a 2.5 Phillips screwdriver, remove the two screws on the face of the front panel.

![](_page_8_Figure_15.jpeg)

- b) On the back of the front panel, use a #1 Phillips head screwdriver to remove the 1 screw that secures the KVM port to the front panel.
- c) On the side of the chassis, use a T10 Torx driver to remove the one T10 screw.
- d) Grasp the side trim piece and remove it.

![](_page_9_Figure_2.jpeg)

- **Step 2** Disconnect the KVM port from the server.
  - a) Grasp the cable and pull it backwards.
  - b) Grasp the rear of the KVM port and slide it backwards through the opening in the front panel.

![](_page_10_Figure_2.jpeg)

c) Continue to peel the cable off of the server to remove the PCBA.

![](_page_11_Picture_2.jpeg)

**Step 3** Remove the PCBA and dispose of it properly in accordance with your local recycling and e-waste laws.

## **Recycling the Server Front Panel PCBA**

The server contains a front panel PCBA, which is vertically mounted in the front left mounting ear. The front panel has a small PCBA that is attached to the server by two flat ribbon cables. To recycle the PCBA, you will need to remove the following

- One #1 Phillips-head screw.
- One T10 Torx screws that secure the PCBA to the interior of the tray.

You must disconnect the PCBA from the server before recycling the PCBA.

#### Before you begin

![](_page_11_Picture_10.jpeg)

**Note** For Recyclers Only! This procedure is not a standard field-service option. This procedure is for recyclers who will be reclaiming the electronics for proper disposal to comply with local eco design and e-waste regulations.

To remove the printed circuit board assembly (PCBA), the following requirements must be met:

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- The server must be disconnected from facility power.
- The server must be removed from the equipment rack.
- The server's top cover must be removed. See Removing the Server Top Cover.

Gather the following tools:

- A #1 Phillips screwdriver
- A T10 Torx screwdriver.

**Step 1** Disconnect the front panel from the server.

- a) On the back of the front panel, use a #1 Phillips head screwdriver to remove the 1 screw that secures the KVM port to the front panel.
- b) On the side of the chassis, use a T10 Torx driver to remove one T10 screw.

![](_page_12_Figure_11.jpeg)

c) Grasp the side trim piece and remove it.

**Step 2** Remove the front panel PCBA.

a) Grasp the PCBA and slide it backwards until it is halfway out of the front panel.

![](_page_13_Figure_2.jpeg)

- b) Grasp the top cable and simultaneously lift it up and pull it toward the front panel to disconnect the cable.
- c) Grasp the bottom cable and simultaneously lift it up and pull it away from the front panel to disconnect the cable.
- d) When both cables are disconnected, completely slide the PCBA out of the front panel.

![](_page_14_Figure_2.jpeg)

**Step 3** Dispose of the PCBA properly in accordance with your local recycling and e-waste laws.

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