

# HP StorageWorks

## Disk enclosure power supply/blower replacement instructions

These instructions apply to the MSA30, MSA1000, EVA3000/5000, and EVA4x00/6x00/8x00 product families. The part may also be used in other HP products. See the documentation for your product for detailed replacement instructions.

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## About this document

This document describes the procedure for replacing the power supply/blower assembly in MSA30, MSA1000, EVA3000/5000, and EVA4x00/6x00/8x00 products.

### NOTE:

Because this component is used in several products, the drawings may reflect a different enclosure than the one you have. The removal and replacement procedure is the same for each product.

## Warranty information

If the product in which this part is being replaced is still under HP warranty, then the replacement part(s) referred to in these Replacement Instructions is provided under the terms and conditions of the Hewlett-Packard Company Limited Warranty for that product. A copy of this Limited Warranty may be viewed at: <http://h18006.www1.hp.com/products/storageworks/warranty.html>

If this is a trade sale part (product out of warranty), then the replacement part(s) referred to in these Replacement Instructions is provided under HP's express limited warranty statement, which may be viewed at: [http://customerops.corp.hp.com/1sw/pdm\\_om/warranty\\_support/policies/2330100.doc](http://customerops.corp.hp.com/1sw/pdm_om/warranty_support/policies/2330100.doc)

The replacement part takes on either the Limited Warranty Period of the part being replaced or a ninety-day period that begins upon installation of the replacement part, whichever is greater.

The only warranty for this replacement product is as noted above. Nothing in these replacement instructions should be construed as constituting an additional warranty. The information provided in these replacement instructions is provided "AS IS" and HP is not liable for technical or editorial errors or omissions contained herein.

## Before you begin

Observe the following precautions when replacing the power supply/blower:

- **You have only seven minutes to perform the replacement procedure!** Both power supplies must be installed for the enclosure to cool properly. If a power supply fails, leave it in place in the enclosure until a new power supply is available to install. The enclosure could shut down due to overheating unless the power supply is replaced within seven minutes of removal of the failed/failing power supply.
- If cabling is obstructing access to the power supply/blower, carefully move the cables out of the way to avoid loosening any connections.
- Parts can be damaged by electrostatic discharge. Use proper anti-static protection.
- Have a copy of the product user guide available for reference. You can download a copy of the user guide from the product support page on the HP website.

## Verifying component failure

The power supply and blower are separately replaceable components. Before replacing a power supply or blower, use the following methods to verify component failure.

### MSA products

- Check the power supply/blower status indicator (Figure 1). It should be off.

- On the front of the MSA1000, use the controller display buttons to scroll through the messages displayed on the controller LCD panel and locate the following message:

409 STORAGE BOX #<n> POWER SUPPLY FAILED


The <n> value in the message identifies which enclosure has the failed power supply.

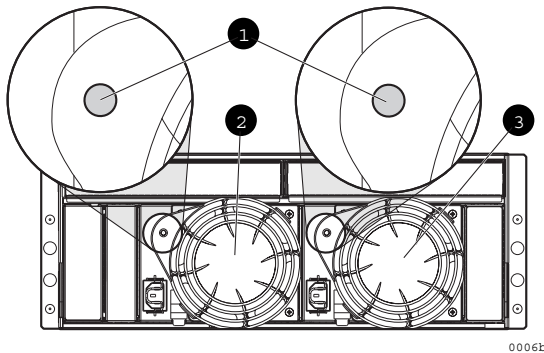
- Box 1: MSA enclosure
- Box 2: Disk enclosure attached to Port A of the MSA
- Box 3: Disk enclosure attached to Port B of the MSA

## EVA products

### △ CAUTION:

If HP Command View EVA does not present a status consistent with the power supply/blower status indicator, or if either HP Command View EVA or your system monitoring tool indicates multiple hardware failures, contact HP support for assistance (<http://www.hp.com/support>).

- Analyze any failure messages received.
- Check status using HP Command View EVA:
  - In the Navigation pane, select **Storage system > Hardware > Rack > Disk enclosure**.
  - In the Content pane, select the **Power** tab or the **Cooling** tab then the appropriate component (1 or 2). The Operational state should be  Failed.
  - To help identify the correct enclosure, click **Locate > Locate On** to flash the status indicators on the front of the disk enclosure.
- Check the power supply/blower status indicator (Figure 1). It should be off.



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- Status indicator
- Power supply/blower 1
- Power supply/blower 2

**Figure 1 Power supply/blower status indicator**

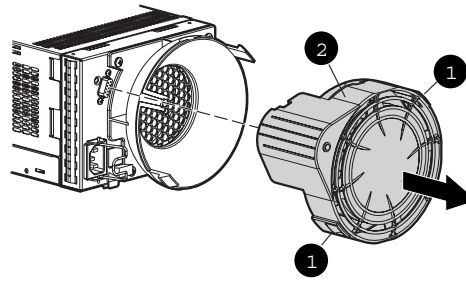
## Removing a blower

It is not necessary to remove the power supply to replace a failed blower.

### △ WARNING!

The blower motor does not stop immediately when the blower is removed. Keep your fingers away from the blower blades until the motor stops.

While pushing in on the two wine-colored mounting tabs (1, Figure 2), pull the blower (2) away from the power supply.



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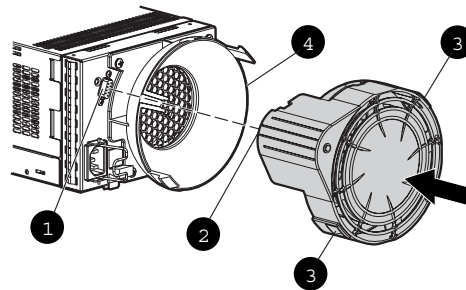
**Figure 2 Removing a blower**

## Installing a blower

### △ CAUTION:

Pressing on the center section of the blower can damage the blades or the housing. Only press on the outer edge of the blower when installing it.

- Align the blower guide post (2, Figure 3) with the mounting hole next to the power supply connector (1).
- Slide the blower onto the power supply (4) until the mounting tabs (3) snap into place.



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**Figure 3 Installing a blower**

## Removing a power supply

### △ CAUTION:

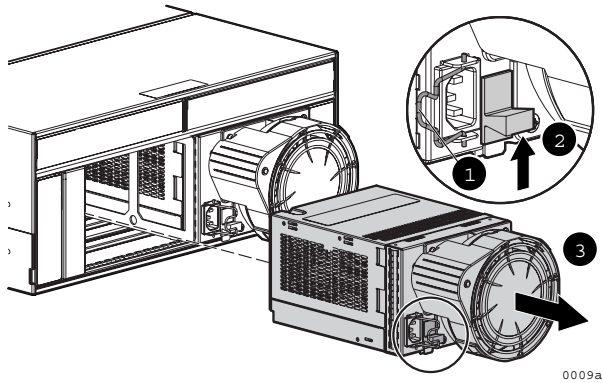
When a power supply is removed, the enclosure could shut down due to overheating within seven minutes unless the power supply is replaced.

- Disengage the power cord lock (1, Figure 4) and disconnect the power cord from the power supply.

### △ CAUTION:

When removing the left power supply, ensure the cord lock on the right power supply is engaged. This will avoid inadvertently disconnecting the right power supply. Also take care to avoid disrupting the cables on the I/O module to left of the power supply.

2. Lift up on the wine-colored mounting latch (2), then grasp the blower (3) and pull the power supply out of the enclosure.
3. Remove the blower from the defective power supply and install it on the replacement power supply.



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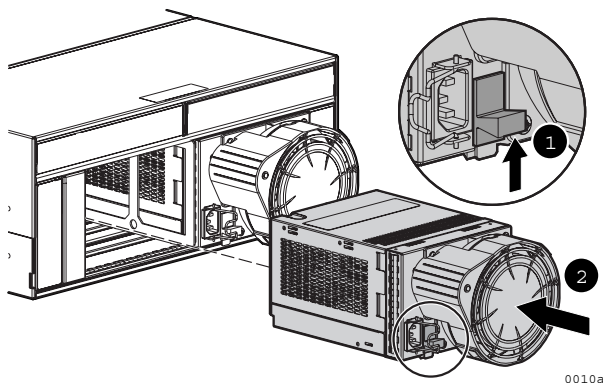
**Figure 4 Removing a power supply**

## Returning the failed component

Follow the return instructions provided with the new component.

## Installing a power supply

1. Lift up on the module latch (1, Figure 5) and slide the power supply into the enclosure until it is fully seated.
2. Connect the power cord to the power supply and engage the cord lock.



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**Figure 5 Installing a power supply**

## Verifying proper operation

After replacing the power supply or blower, check the following to verify that the component is operating properly:

### NOTE:

It may take up to 10 minutes for the component to display good status.

- Ensure the blower begins operating immediately.
- Verify that the status indicator is on.
- On an MSA1000, the controller LCD panel should no longer indicate a power supply/blower failure.
- From HP Command View EVA on an EVA product:
  - Navigate to the component and check the status. It should be .
  - Turn off the locate function by clicking **Locate > Locate Off**.