

Replacing a Power Canister in E5760 or E2860 Shelves

Each 60-drive controller shelf or drive shelf includes two power canisters for power redundancy. If a power canister fails, you must replace it as soon as possible to ensure that the shelf has a redundant power source.

Before you begin

- You have a replacement power canister that is supported for your controller shelf or drive shelf model.
- You have one power canister that is installed and running.
- You have an ESD wristband, or you have taken other antistatic precautions.

About this procedure

Use this procedure to replace a power canister in the following shelves:

- E5760 and E2860 controller shelves
- DE460C drive shelf

These instructions do not describe how to replace a failed power canister in a DE6600 drive tray, which might be connected to the controller shelf.

The following figure shows the back of a DE460C drive shelf with the two power canisters:



The following figure shows a power canister:



You can replace a power canister while your storage array is powered on and performing host I/O operations, as long as the following conditions are true:

- The other power canister in the shelf has Optimal status.
Note: While you perform the procedure, the other power canister supplies power to both fans to ensure that the equipment does not overheat.
- The **OK to remove** field in the Details area of the Recovery Guru in SANtricity System Manager displays **Yes**, indicating that it is safe to remove this component.

Attention: If the second power canister in the shelf does not have Optimal status or if the Recovery Guru indicates that it is not OK to remove the power canister, contact technical support.

Steps

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Related information

[NetApp E-Series Systems Documentation Center](#)
[NetApp Support](#)

Preparing to remove a power canister

Before you remove a power canister, use SANtricity System Manager to collect support data about your storage system and to locate the failed component.

About this task

You can determine if you have a failed power canister in these ways:

Steps

1. You can determine if you have a failed power canister in these ways:
 - a. The Recovery Guru in SANtricity System Manager directs you to replace a failed power canister. Before replacing a power canister, select **Recheck** from the Recovery Guru to ensure that no other items must be addressed first.
 - b. The amber Attention LED on the power canister is on, indicating that the component has a fault.

Attention: If both power canisters in the shelf have their Attention LEDs on, contact technical support for assistance.

2. Collect support data for your storage array.

Collecting support data before and after replacing a component ensures you can send a full set of logs to technical support in case the replacement does not resolve the problem.

Option	Description
SANtricity System Manager	- Select Support > Support Center > Diagnostics. - Select Collect Support Data. - Click Collect. The file is saved in the Downloads folder for your browser with the name <i>support-data.7z</i>.
Script editor in the EMW	- Open the Enterprise Management Window (EMW) in SANtricity Storage Manager on your local host. - Select the storage array. - Select Tools > Execute Script. - Type the following command in the text box. <pre>save storageArray supportData file="filename";</pre> In this command, <i>filename</i> is the file path and the file name to which you want to save the support data. Enclose the file path and the file name in double quotation marks (" "). For example: <pre>file="C:\Program Files\CLI\logs\support-data.7z"</pre> - Select Tools > Verify and Execute.

3. From SANtricity System Manager, determine which power canister has failed.

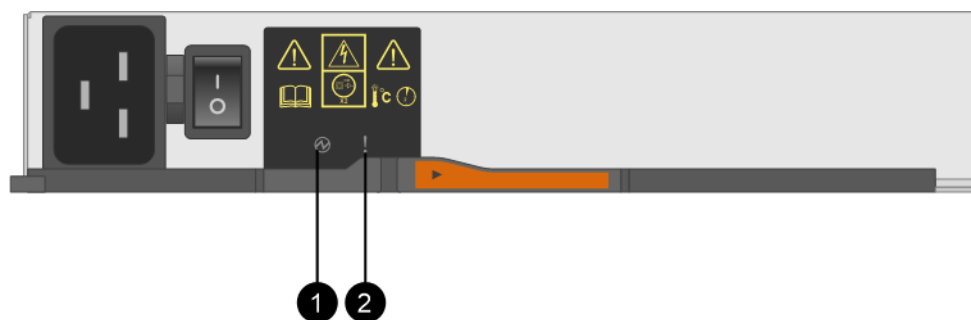
- Select **Hardware**.
- Look at the power  icon to the right of the **Shelf** drop-down lists to determine which shelf has the failed power canister.
If a component has failed, this icon is red.
- When you find the shelf with a red icon, select **Show back of shelf**.
- Select either power canister or the red power icon.
- On the **Power Supplies** tab, look at the statuses of the power canisters to determine which power canister must be replaced.

A component with a **Failed** status must be replaced.

Attention: If the second power canister in the shelf does not have **Optimal** status, do not attempt to hot-swap the failed power canister. Instead, contact technical support for assistance.

4. From the back of the storage array, look at the Attention LEDs to locate the power canister you need to remove.

You must replace the power canister that has its Attention LED on.



Item	LED name	State	Description
1	Power	Solid green	The power canister is functioning correctly.
		Off	The power canister failed, the AC switch is turned off, the AC power cord is not properly installed, or the AC power cord input voltage is not within margin (there is a problem at the source end of the AC power cord).
2	Attention	Solid amber	The power canister has a fault, or there is no input power to this power canister, but the other power canister is operating.

Removing a power canister

When you remove a power canister, you turn off power, disconnect the power cord, and slide the component out of the shelf.

Steps

1. Put on antistatic protection.
2. Unpack the new power canister, and set it on a level surface near the shelf.
Save all packing materials for use when returning the failed power canister.
3. Turn off the power switch on the power canister that you need to remove.
4. Open the power cord retainer of the power canister that you need to remove, and then unplug the power cord from the power canister.
5. Press the orange latch on the power canister cam handle, and then open the cam handle to fully release the power canister from the mid plane.
6. Use the cam handle to slide the power canister out of the shelf.

Attention: When removing a power canister, always use two hands to support its weight.

Installing a power canister

When you install a power canister, you slide the component into the shelf, close the cam handle, reconnect the power cord, and reapply power.

Before you begin

- You have unpacked the replacement power canister.
- You have checked that the on/off switch of the new power canister is in the Off position.

Steps

1. Using both hands, support and align the edges of the power canister with the opening in the system chassis, and then gently push the power canister into the chassis using the cam handle until it locks into place.

Attention: Do not use excessive force when sliding the power canister into the system; you can damage the connector.

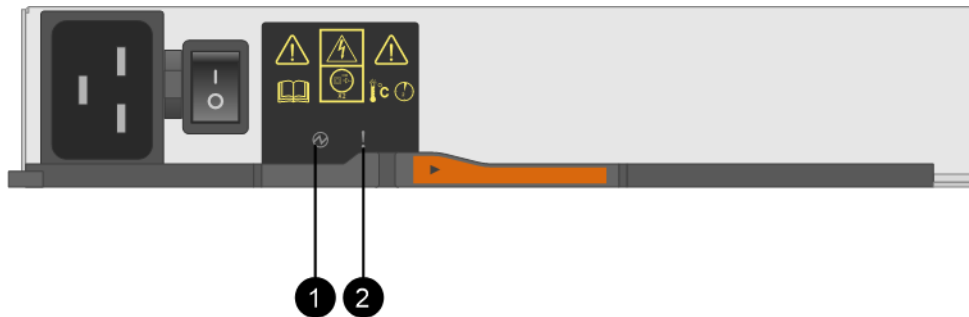
2. Close the cam handle so that the latch clicks into the locked position and the power canister is fully seated.
3. Reconnect the power cord to the power canister, and secure the power cord to the power canister using the power cord retainer.
4. Turn on the power to the new power canister.

After replacing a power canister

After replacing a power canister, you must confirm that the new power canister is working correctly. Then, you can gather support data and resume operations.

Steps

1. Check the green Power LED and the amber Attention LED on the new power canister.



Item	LED name	State	Description
1	Power	Solid green	The power canister is functioning correctly.
		Off	The power canister failed, the AC switch is turned off, the AC power cord is not properly installed, or the AC power cord input voltage is not within margin (there is a problem at the source end of the AC power cord).
2	Attention	Solid amber	The power canister has a fault, or there is no input power to this power canister, but the other power canister is operating.

The green LED should be on and the amber LED should be off.

2. From the Recovery Guru in SANtricity System Manager, select **Recheck** to ensure the problem has been resolved.
3. If a failed power canister is still being reported, repeat the steps in [Removing a power canister](#) on page 4 and [Installing a power canister](#) on page 4. If the problem continues to persist, contact technical support.
4. Remove the antistatic protection.

5. Collect support data for your storage array.

Collecting support data before and after replacing a component ensures you can send a full set of logs to technical support in case the replacement does not resolve the problem.

Option	Description
SANtricity System Manager	a. Select Support > Support Center > Diagnostics. b. Select Collect Support Data. c. Click Collect. The file is saved in the Downloads folder for your browser with the name <i>support-data.7z</i>.
Script editor in the EMW	a. Open the Enterprise Management Window (EMW) in SANtricity Storage Manager on your local host. b. Select the storage array. c. Select Tools > Execute Script. d. Type the following command in the text box. <pre>save storageArray supportData file="filename";</pre> In this command, <i>filename</i> is the file path and the file name to which you want to save the support data. Enclose the file path and the file name in double quotation marks (" "). For example: <pre>file="C:\Program Files\CLI\logs\support-data.7z"</pre> e. Select Tools > Verify and Execute.

6. Return the failed part to NetApp, as described in the RMA instructions shipped with the kit.

Contact technical support at [NetApp Support](#), 888-463-8277 (North America), 00-800-44-638277 (Europe), or +800-800-80-800 (Asia/Pacific) if you need the RMA number.

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