



## StorNext QM1200/QS1200/QS2400 Expansion Unit

# Replacing a Power-Fan Canister



StorNext QM1200/QS1200/QS2400 Expansion Unit, Replacing a Power-Fan Canister, 6-67554-02 Rev B, April 2015, Product of USA.

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# Replacing a Power-Fan Canister in the StorNext QM1200/QS1200/QS2400 Expansion Unit

Use these procedures to replace a failed power-fan canister in the StorNext QM1200/QS1200/QS2400 Expansion Unit.

Before you start to replace the power-fan canister in the StorNext QM1200/QS1200/QS2400 Expansion Unit, gather antistatic protection and the appropriate replacement power-fan canister (AC power or DC power)

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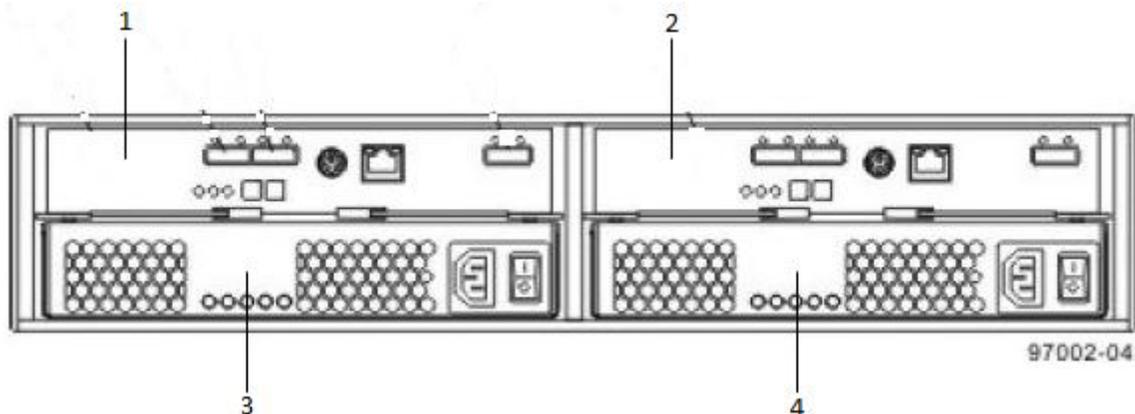
**Possible equipment damage** – If you perform this procedure with the power turned on, you must complete it within three minutes to prevent the possibility of overheating the equipment.

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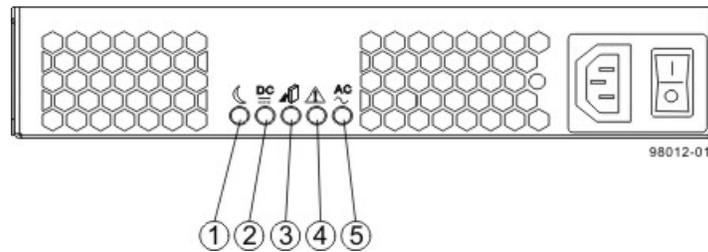
## Locating the Failed Power-Fan Canister

1. Refer to [Figure 1](#) to locate the power-fan canisters within the expansion unit.

**Figure 1 Power-Fan Canister Locations**



1. ESM A
  2. ESM B
  3. Power-fan canister A
  4. Power-fan canister B
2. Check the Power-Fan Service Action Required LED to locate the failed power-fan canister ([Figure 2](#)).  
If a fault is detected, the amber Power-Fan Service Action Required LED is on. If you can safely remove the power-fan canister, the blue Power-Fan Service Action Allowed LED is on.

**Figure 2 LEDs on a Power-Fan Canister**

1. Standby Power LED (Green)
2. Power-Fan Output DC Power LED (Green)
3. Power-Fan Service Action Allowed LED (Blue)
4. Power-Fan Service Action Required LED (Amber)
5. Power-Fan Input AC Power LED (Green)

## Gathering Support Data/Unpacking Power-Fan Canister

Before you start to replace the power-fan canister in the expansion unit, gather antistatic protection and a replacement AC power-fan canister.

You can determine whether you have a failed power-fan canister in two ways:

- The Recovery Guru directs you to replace a failed power-fan canister.
  - You locate the failed power-fan canister by checking the amber Power-Fan Service Action Required LED.
1. Gather support data through one of the following methods:

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**ATTENTION Possible hardware damage** – To prevent electrostatic discharge damage to the tray, use proper antistatic protection when handling tray components.

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- Use the storage management software to collect and save a support bundle of your storage array. From the Array Management Window, select **Monitor >> Health >> Collect Support Data**. Then name and specify a location on your system where you want to store the support bundle.
  - Use the command line interface (CLI) to run the `save storageArray supportData` command to gather comprehensive support data about the storage array. For more information about this command, refer to *Command Line Interface and Script Commands*. Running this command can temporarily impact performance on your storage array.
2. Did the Recovery Guru direct you to replace a failed power-fan canister?
    - **Yes** – Go to step 4.
    - **No** – Run the Recovery Guru to identify the failed component, and go to step 3.
  3. If the Recovery Guru has directed you to replace the power-fan canister and the blue Power-Fan Service Action Allowed LED is not on, use either the command line or the GUI to prepare the power-fan canister for removal
    - a. On the command line, type this command and press Enter:

```
SMcli <ctrl_IP1> -c "Set tray [trayID] powerfanCanister [left|right] service
Allowed Indicator=on;"
```

In this command:

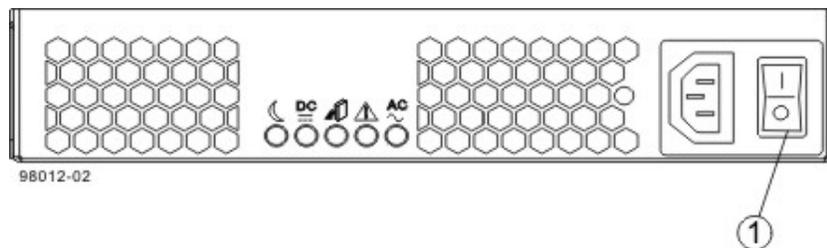
- `<ctrl_IP1>` is the identifier of the controller to which the expansion unit is assigned.

- `[trayID]` is the identifier of the expansion unit that contains the power-fan canister that you want to replace. Drive tray ID values are 0 to 99. Be sure to type the square brackets around the identifier.
  - `[left|right]` is the identifier of the power-fan canister you want to replace. Valid values are `left` or `right`. Be sure to type the square brackets around the value.
- b. On the GUI, click on the image of the tray that contains the power-fan canister you want to replace. From the Array Management Window toolbar, select **Hardware >> Prepare for Removal**.
4. Put on antistatic protection.
  5. Unpack the new power-fan canister.
    - a. Set the new power-fan canister on a flat, static-free surface near the expansion unit.
    - b. Save all packing materials in case you need to return the power-fan canister.

## Removing the Power-Fan Canister

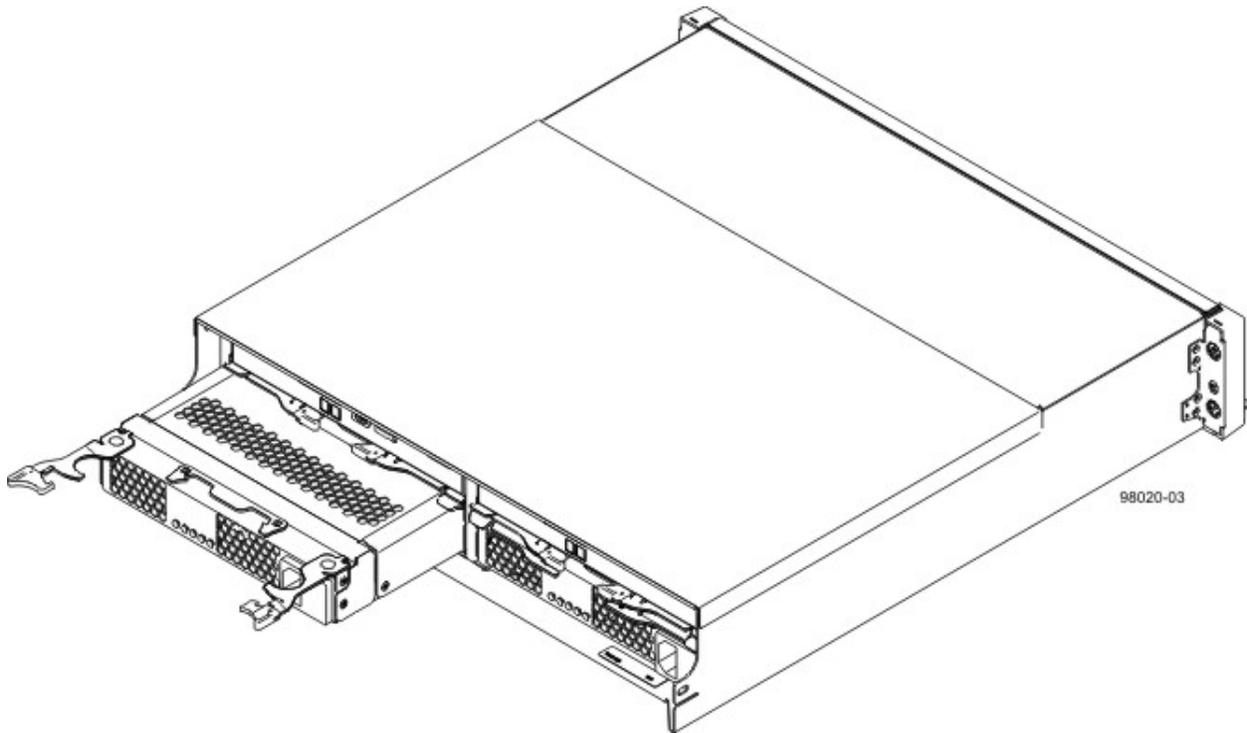
1. Turn off the Power switch on the power-fan canister that has failed (**Figure 3**).

**Figure 3 AC Power Switch on the Drive Tray**



1. AC Power Switch
2. Remove the plastic strain relief from the power cord.
3. Unplug the power cord from the failed A power-fan canister.
4. Remove the power-fan canister from the expansion unit (**Figure 4** on page 4).
  - a. Rotate the latches outward to disengage the power-fan canister.
  - b. Use the latches as handles to pull the power-fan canister out of the expansion unit.

**NOTE** While removing the power-fan canister, you might notice an increase in fan speed. The fan speed returns to normal after you have replaced the power-fan canister.

**Figure 4 Removing a Power-Fan Canister**

## Installing the Power-Fan Canister

1. Slide the replacement power-fan canister all the way into the expansion unit. Rotate the latches towards the center to lock the power-fan canister into place.
2. Make sure that the Power switch on the replacement power-fan canister is turned off, and plug in the power cord.
3. Attach the plastic strain relief to the power cord, and make sure that it fits snugly up against the power-fan canister.
4. Turn on the Power switch on the replacement power-fan canister.
5. Check the Power-Fan Input AC Power LED, and the Power-Fan Service Action Required LED on the new power-fan canister ([Figure 2](#) on page 2).
6. Based on the LED status, perform one of these actions:
  - **The Power-Fan Input AC Power LED are on and the Power-Fan Service Action Required LED is off** – Go to step 8.
  - **The Power-Fan Output DC Power LED and the Power-Fan Input AC Power LED are off or the Power-Fan Service Action Required LED is on** – Check that the power-fan canister is installed correctly. Reinstall the power-fan canister. Go to step 7.
7. Did this action correct the problem?
  - **Yes** – Go to step 8.
  - **No** – If the problem has not been resolved, contact your Customer and Technical Support representative.
8. Using the LEDs and the storage management software, check the status of all of the trays in the storage array.
9. Does any component have a Needs Attention status?

- **Yes** – Click the **Recovery Guru** toolbar button in the Array Management Window, and complete the recovery procedure. If the problem has not been resolved, contact your Customer and Technical Support representative.
  - **No** – Go to step 10.
10. Remove the antistatic protection.
11. Gather support data on your updated storage array through one of the following methods:
- Use the storage management software to collect and save a support bundle of your storage array. From the Array Management Window, select **Monitor >> Health >> Collect Support Data**. Then name and specify a location on your system where you want to store the support bundle.
  - Use the CLI to run the `save storageArray supportData` command to gather comprehensive support data about the storage array. For more information about this command, refer to *Command Line Interface and Script Commands*. Running this command can temporarily impact performance on your storage array.