



SFA 10K Controller Coin Cell Battery Replacement Procedure

The SFA 10K contains a coin cell battery which maintains ROM-stored configuration information. Like many Li-Ion batteries, it must be replaced every two to three years.

Identifying When the Battery Should be Replaced

The SFA operating system identifies the coin cell battery as VBAT. When the controller detects an under- or overvoltage associated with the battery, it will present one or both of the following messages.

VBAT under-voltage:

```
LOG_ES_VOLTAGE_SENSOR_ERROR      ES  Enclosure 0x1ff0900630000 voltage sensor 3 reported
error condition. SES status = 2, V = 2603 (mV), OverV = 0, UnderV = 1.
```

A change in SES status:

```
LOG_ES_VOLTAGE_SENSOR_ERROR      ES  Enclosure 0x1ff0900630000 voltage sensor 3 reported
error condition. SES status = 2, V = 2603 (mV), OverV = 0, UnderV = 1.
```

After seeing either message, a check should be made of the VBAT's condition with the command SHOW VOLTAGE (see partial output below).

		Voltage		Indicators						
Idx	Encl	Pos	Voltage (mV)	Present	Warning	Failure	Failure	Locate	Location	SES Status
13	0	13	3120	TRUE	FALSE	FALSE	OFF	OFF		VBAT CRITICAL

Note: The coin cell battery is NOT a customer replaceable part. Only DDN technicians can perform this replacement.

Replacing the Battery

1. Obtain a replacement battery (CR2032). This is a common battery type and can be purchased locally.
2. Identify the controller with the failing battery using the command LOCATE CONTROLLER.
3. Log into that controller and gracefully shut down the controller: SHUTDOWN CONTROLLER LOCAL.

4. When the controller has completely powered down, disconnect all cables from the rear of the controller. Make note of the correct port for each cable. The disk cables should have numbered labels that correspond to the cabling guide found in either the Quick Start Guide or the User Guide (available for download from DDN). Be careful when unplugging all cables – especially the USB – and plugging them back in.
5. Slide the controller out on its rails until the rear of the unit clears the rack.
6. Move it completely from the rack to a static-free work surface.
7. Remove the warranty stickers from either side of the controller cabinet.
8. On the back end of the controller, remove the two screws that secure the top of the controller cabinet. One is located on the left top (Figure 1) and the other on the right top (Figure 2).



Figure 1



Figure 2

9. With the two screws removed, slide the top towards the back and lift away (Figure



3).

Figure 3

10. The battery is located all the way to the back, on the right side of the controller motherboard.
11. The battery holder positions the battery on its edge (Figure 4). Press the catch back to free the old battery and remove.

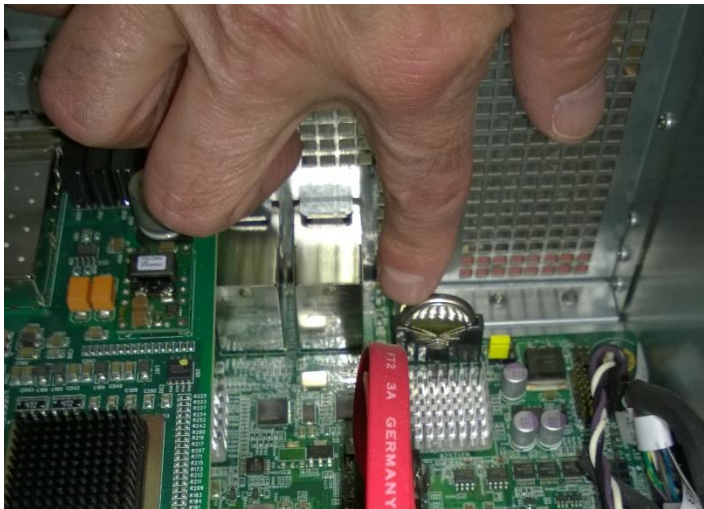


Figure 4

12. Slip the new battery into the holder, making certain that the catch latches. *The negative side of the battery should face the back of the controller cabinet.*
13. Replace the top cover.
14. Secure with the two screws.
15. Place two new warranty stickers on either side of the controller cabinet matching the location of the originals.
16. Slide the controller back into the rack.

- 17. Replace all cables.
- 18. Power up the controller.

Confirm that the battery is seen and shows a normal state with the command SHOW VOLTAGE (excerpted example below).

```
          | Voltage | Indicators |  
Idx|Encl|Pos|Voltage (mV) | Present|Warning|Failure|Failure|Locate|Location|SES Status  
-----  
| 13  | 0   | 13  |    3120     | TRUE  | FALSE | FALSE | OFF  | OFF  | VBAT  | OK
```