IBM TotalStorage

SAN Volume Controller

IBM

Service Guide - Errata

Version 3.1.0
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About this guide

This guide provides errata information that pertains to release 3.1.0 of the *IBM TotalStorage SAN Volume Controller Service Guide.*

This guide contains the corrections and additions on a per chapter basis. The chapter numbers in this guide correspond directly with the chapter numbers in the *Service Guide* supplied with your SAN Volume Controller.

Who should use this guide

Before using the IBM TotalStorage SAN Volume Controller, you should review the errata contained within this guide and note the details with respect to the copy of the *Service Guide* supplied with you SAN Volume Controller.

Last Update

This document was last updated: March 7, 2006

Chapter 6. Diagnosing problems with the SAN Volume Controller, the uninterruptible power supply, and the master console

This Chapter replaces the existing procedure for boot code 180.

Understanding the boot codes

180

Explanation

There is a fault in the communications cable, the serial interface in the uninterruptible power supply (UPS), or SAN Volume Controller.

Action

If the CMOS battery on a model 8F2 is replaced or temporarily disconnected during service activity the default BIOS will fail to enable Serial Port A. This will result in a boot error code 180 because the SAN Volume Controller software will be unable to communicate the UPS. If you have replaced or temporarily disconnected the CMOS battery go to "Replacing the SAN Volume Controller 2145-8F2 CMOS battery" and follow the procedure to restore the BIOS settings.

If the CMOS battery has not been replaced or disconnected perform the following procedure to resolve the communications problem:

Check that the communications cable is correctly plugged in to the SAN Volume Controller and the UPS. If the cable is plugged in correctly, replace the FRUs in the order shown.

Possible Cause-FRUs or other:

SAN Volume Controller 2145-8F2
- SAN Volume Controller power cable assembly (40%)
- 2145 UPS-1U electronics assembly (30%)
- SAN Volume Controller frame assembly (30%)

SAN Volume Controller 2145-4F2
- SAN Volume Controller power cable assembly (40%)
- UPS electronics assembly (30%)
- SAN Volume Controller system board assembly (25%)
- SAN Volume Controller disk drive assembly (5%)

Chapter 8. Removing and replacing parts

This Chapter replaces the existing procedure for replacement of the CMOS batter on a SAN Volume Controller model 8F2.

Replacing the SAN Volume Controller 2145-8F2 CMOS battery

You must replace the system board complementary metal-oxide semiconductor (CMOS) battery after you perform routine maintenance.

IBM has designed this product with your safety in mind. The lithium battery must be handled correctly to avoid possible danger. If you replace the battery, you must adhere to all safety instructions. In the U.S.A., call 1-800-IBM-4333 for information about battery disposal.

CAUTION:

When replacing the lithium battery, use only IBM Part Number 33F8354 or an equivalent type battery recommended by the manufacturer. If your system has a module containing a lithium battery, replace it only with the same module type made by the same manufacturer. The battery contains lithium and can explode if not properly used, handled, or disposed of. Do not:

• **Throw or immerse into water**

• **Heat to more than 100° C (212° F)**

• **Repair or disassemble**

Dispose of the battery as required by local ordinances or regulations.

Perform the following steps to replace the SAN Volume Controller 2145-8F2 CMOS battery:

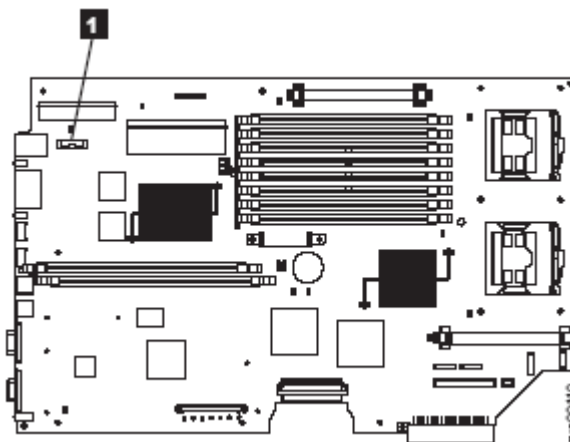**1.** Insert the new battery in the battery socket [1]. See Figure 1.

Figure 1. Location of the CMOS battery on the SAN Volume Controller 2145-8F2

a. Hold the battery so that the positive (+) side of the battery is facing toward the center of the server.

b. Pull the retainer tab out of the way so that you can slide the battery into its socket.

c. Slide the battery down until it snaps into place.
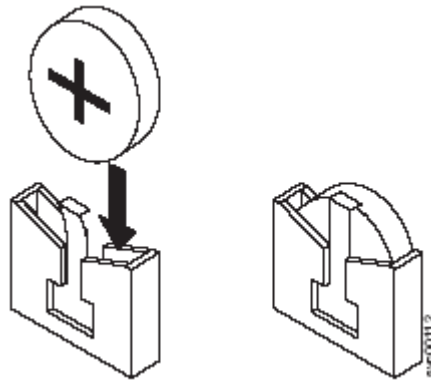

Figure 2. CMOS battery socket

2. Reinstall the SAN Volume Controller 2145-8F2 cover.

3. Replace the SAN Volume Controller 2145-8F2 in the rack.

4. Restore the BIOS default settings as follows:

   a. Locate a keyboard and display that can be connected to the keyboard and display ports on the rear of the SAN Volume Controller.

   b. Connect the keyboard and display and power on the SAN Volume Controller.

   c. When the IBM server logo appears, press F1. The node should continue to boot and load the Setup Utility.

   d. Select "Continue" and press Enter to start the Setup Utility.

   e. If the error message "The configuration settings are invalid. Select one of the following:" is displayed select "Continue with the corrupted values." and press Enter.

   f. If a "Configuration Error" message is displayed select "Continue" and press Enter.

   g. When the Configuration/Setup Utility menu is displayed select "Load Default Settings" and press Enter. Press Enter again to confirm.

   h. From the Configuration/Setup Utility menu select "Start Options" and press Enter.

   i. From the Start Options menu select "Startup Sequence Options" and press Enter.

   j. Use the up/down keys to select the options in turn. Use the left/right keys to select the following values:

Primary Starting Sequence:

First Startup Device	[CD ROM]
Second Startup Device	[Hard Disk 0]
Third Startup Device	[Hard Disk 1]
Fourth Startup Device	[Diskette Drive 0]

Wake on LAN	[Disabled]

k. When these settings are complete press Esc to return to the "Start Options" menu.

l. Use the up/down keys to select the options in turn. Use the left/right keys to select the following values:

Planar Ethernet PXE/DHCP	[Disabled]
PCI Device Boot Priority	[Planar SCSI]
Disketteless Operation	[Enabled]
Keyboardless Operation	[Enabled]
Keyboard NumLock State	[Off]
USB Legacy	[Disabled]
USB Disk	[Enabled]
Boot on POST/BIOS Error	[Enabled]
Boot Fail Count	[Enabled]
Rehook INT 19H	[Enabled]
Virus Detection[	[Disabled]

m. Press ESC to return to the Configuration/Setup Utility menu.

n. Select "Save Settings" and press Enter. Press Enter again to confirm.

o. Select "Exit Setup" and press Enter.

p. Select "Yes, exit the Setup Utility" and press Enter.

q. The SAN Volume Controller will continue to boot. Disconnect the keyboard and display.

Appendix A. Parts catalog

This contains a correction for the Fibre-Channel Adapter FRU part number.

Assemby 1: SAN Volume Controller 2145-8F2

Table 21. Itmes not included in the frame assembly

Index Item 2. Fibre-channel HBA (full height)

Change Part Number to **64P7783**