



SDMS™ Host Adapter Flash Utility

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Description

This utility allows you to update the SDMS SCSI BIOS on an LSI Logic host adapter board based on the LSI53C815, LSI53C825, LSI53C825A, LSI53C875, LSI53C876, LSI53C885, LSI53C895, LSI53C895A, LSIC53C896, and LSI53C1010 SCSI chips. New versions of the SCSI BIOS are released periodically. Your host adapter must have a flash ROM on board to use this utility.

Building the Flash Diskette

The SDMS Software Device Drivers and Utilities CD-ROM contains the flash utility program (FLASH8X5.EXE) in this directory:

```
{CD-ROM Drive Letter}:\DRIVERS\8XX-1010\BIOS
```

To create the diskette, **either**:

1. Create a DOS-bootable diskette by formatting it with the /s option (for example, `FORMAT A: /s`) using DOS 5.0 or higher. Do not install any memory managers or SCSI drivers on the diskette. A minimum of 200 Kbytes of conventional memory is needed to execute the Flash Utility. Add the DOS mouse driver to `AUTOEXEC.BAT` for mouse control of the utility, if desired.
2. Copy all of the files in this directory to the DOS-bootable diskette.

Note: Power down any hard disk drives attached to the host adapter you are updating before continuing onto step 3.

3. Insert the diskette into drive A:. Boot the system to the DOS prompt, and type:

```
FLASH8X5
```

and press **Enter**.

or

1. Use the [Disk Image](#) to copy all the DOS Flash Utility files to a diskette.
2. From DOS, execute the following command to copy the DOS system files to the

diskette:

sys A: (or sys B: if your diskette drive is B:)

3. Insert the diskette into drive A:. Boot the system to the DOS prompt, and type:

FLASH8X5

and press **Enter**.

Important: Some systems are designed around a PCI bus implementation, called a Peer Bus design. This design provides an expanded PCI bus capacity by means of a secondary PCI bus. This implementation may cause issues with this Flash Utility's ability to correctly identify host adapter boards installed on this secondary PCI bus.

For example, an error could occur or the system could hang (wait forever) after executing this Flash Utility. Two alternatives are provided to correct these issues if your system contains a Peer Bus implementation:

1. Reboot the computer, and try typing `FLASH8X5 /q` at the prompt to invoke an optional mode of identifying host adapter boards in a secondary PCI bus environment.
2. If step 1 fails, move the host adapter boards to be flashed over to the primary PCI bus.

The first screen displayed indicates what files are necessary to upgrade and general instructions to upgrade. Press **Enter** to continue to the next window.

The Main Menu for the Flash Utility appears and displays these six choices:

1. Update the EEPROM.
2. Back up the current BIOS image.
3. View board summary.
4. Exit to DOS.
5. Reboot.
6. About Flash8x5.

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LSI Logic recommends that you view the board summary (option 3) and perform a backup (option 2) before updating the flash ROM. The view identifies the SCSI controller(s), its Device ID, the Flash Chip, and the current BIOS version. The backup will store the BIOS image currently residing in the flash ROM of the first board only to the diskette. In the event that there are problems with the new image, you can restore the original one.

To update the current SCSI BIOS, follow these steps:

1. Choose option 1 to give you a summary of installed boards.
2. Press the spacebar to mark/select the board (even if there is only one choice).

A new window appears asking for the BIOS file name to upgrade.

3. Type the filename in manually at the prompt, and press **Enter**.

or

Press **F2** to view the available files on the diskette.

If you press **F2**, the available files should be the BIOS file just backed up and 8XX BIOS image files. Highlight an 8XX BIOS image file (*.ROM) and press **Enter**.

The utility displays the file name and notifies you when the file has been successfully read.

4. Press **Enter** to continue.

The system asks you whether or not to overwrite the BIOS that is currently flashed in.

5. Select **Y** to upgrade. This erases and updates the flash ROM.

The system displays the card information and verifies that the new BIOS is flashed.

6. Press any key to get back to the Main Menu.

7. Choose option 5 to reboot.

8. Remove the diskette if you want to boot from your hard drive.

To verify the new BIOS installation, watch carefully during boot and look at the third line of the SDMS banner when displayed.

or

Rerun the Flash Utility from the diskette and choose the view option to see the current BIOS version.

Note: Due to the smaller flash ROMs on some host adapters, it may not be possible to upgrade earlier host adapters with newer versions of the BIOS. The flash ROM size can be determined by the part's description displayed in the Flash Chip Column on the Summary of Boards Installed screen. Flash ROM part numbers and corresponding sizes are show below.

Flash ROM part numbers

- 256/256A - 32 Kbytes capacity
- 512 - 64 Kbytes capacity
- 101/010 - 128 Kbytes capacity
- 201/020 - 256 Kbytes capacity

Host adapters supported

- LSI8150SP LSI8750SP
- LSI8250ASP LSI8751SP
- LSI8251ASP LSI8751D
- LSI8251AD LSI8751SPE
- LSI8951U LSI8952U
- LSI22801 LSI22802

- LSI8953U LSI8955U
- LSI21002 LSI22910
- LSI21040 LSI22915
- LSI22902 LSI22903
- LSI21003
- Previous versions of the host adapters use the format NCR8150S, NCR8250S, etc.

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