MegaRAID® Advanced Software Options Hardware Key

Quick Installation Guide

July 2011

46305-00, Rev. C

Revision History

Version and Date	Description of Changes
46305-00 Rev. C, July 2011	Updated Figure 2 and the links to the LSI web site.
46305-00 Rev. B, March 2010	Revised the guide, and updated the graphics. Added the MegaRAID SAS 9280-4i4e RAID controller.
46305-00 Rev. A, February 2010	Initial release of the document.

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MegaRAID Advanced Software Options Hardware Key Quick Installation Guide

This guide describes the LSI® MegaRAID® Advanced Software Options and shows how to install the MegaRAID Advanced Software Options Hardware Key on your 6Gb/s MegaRAID SATA+SAS RAID controller.

Thank you for purchasing the MegaRAID Advanced Software Options Hardware Key. Before you install the key on your RAID controller, take a few minutes to read this quick installation guide. If you need more information about any topic covered in this guide, refer to the related documents on your *MegaRAID Universal Software Suite* CD.

The MegaRAID Advanced Software Options Hardware Key enables support for the MegaRAID Advanced Software Options, which are available with the following RAID controllers:

- MegaRAID SAS 9260-4i
- MegaRAID SAS 9260-8i
- MegaRAID SAS 9280-4i4e

NOTE Record your controller serial number in a safe location in case you need to contact LSI.

NOTE Back up your data before changing your system configuration; otherwise, you might lose data.

MegaRAID Advanced Software Options

The MegaRAID Advanced Software Options include the following options, which are described in this section:

- MegaRAID Recovery Software
- MegaRAID CacheCade™ Software
- MegaRAID Fast Path™ Software
- LSI SafeStore™ Software Encryption Services

For more information about these options, refer to the *MegaRAID SAS Software User Guide*.

MegaRAID Recovery Software

The Recovery Software feature, also known as Snapshot, offers a simplified way to recover data and provides automatic protection for the boot volume. You can use the Recovery Software feature to take a snapshot of a volume and to restore a volume or file. Snapshot functionality allows you to capture data changes to the volume, and, if data is deleted accidentally or maliciously, you can restore the data from the view or roll back to a snapshot at a previous point-in-time (PiT).

Click this link to access more information about the Recovery Software feature:
http://www.lsi.com/products/storagesw/Pages/MegaRAIDRecoverySoftware.aspx.

MegaRAID CacheCade Software

The CacheCade Software feature improves I/O performance to meet the needs of high-performing Solid State Drives (SSDs). In addition, this feature benefits hard disk drives (HDDs). To support full-throughput for multiple direct-attached SSDs, CacheCade Software reduces I/O-processing overhead for the RAID controllers. CacheCade Software offers performance equivalent to Flash-based controllers, and better performance for RAID 5 and RAID 6 compared to Fusion I/O.

Click this link to access more information about the CacheCade Software feature:
http://www.lsi.com/products/storagesw/Pages/MegaRAIDCacheCadeSoftware.aspx.

MegaRAID Fast Path Software

The Fast Path Software feature allows you to recover lost data from a disk within minutes. A high-performance I/O accelerator for SSD drive groups connected to a MegaRAID controller card dramatically boosts storage subsystem bandwidth and overall application performance when deployed with a 6Gb/s MegaRAID SATA+SAS RAID controller. This feature is faster and more cost-effective than current Flash-based adapter card solutions.

Click this link to access more information about the Fast Path Software feature:
http://www.lsi.com/products/storagesw/Pages/MegaRAIDFastPathSoftware.aspx.

LSI SafeStore Software Encryption Services

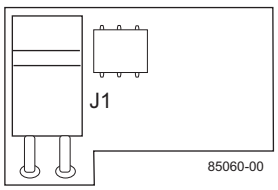
The SafeStore Software Encryption Services feature offers the ability to encrypt data on self-encrypting drives and use disk-based key management to provide data security. This solution provides data protection in the event of theft or loss of physical drives. If you remove a self-encrypting drive from its storage system or the server in which it is housed, the data on that drive is encrypted and useless to anyone who attempts to access it without the appropriate security authorization.

Click this link to access more information about the SafeStore Software feature:
http://www.lsi.com/products/storagesw/Pages/MegaRAIDSafeStoreSoftware.aspx.

Installing the MegaRAID Advanced Software Options Hardware Key on the MegaRAID SAS 9260 RAID Controllers

The MegaRAID Advanced Software Options Hardware Key mounts directly to the JT8 header on the MegaRAID SAS 9260-4i RAID controller and the MegaRAID SAS 9260-8i RAID controller. The following figure shows the hardware key.

Figure 1 MegaRAID Advanced Software Options Hardware Key

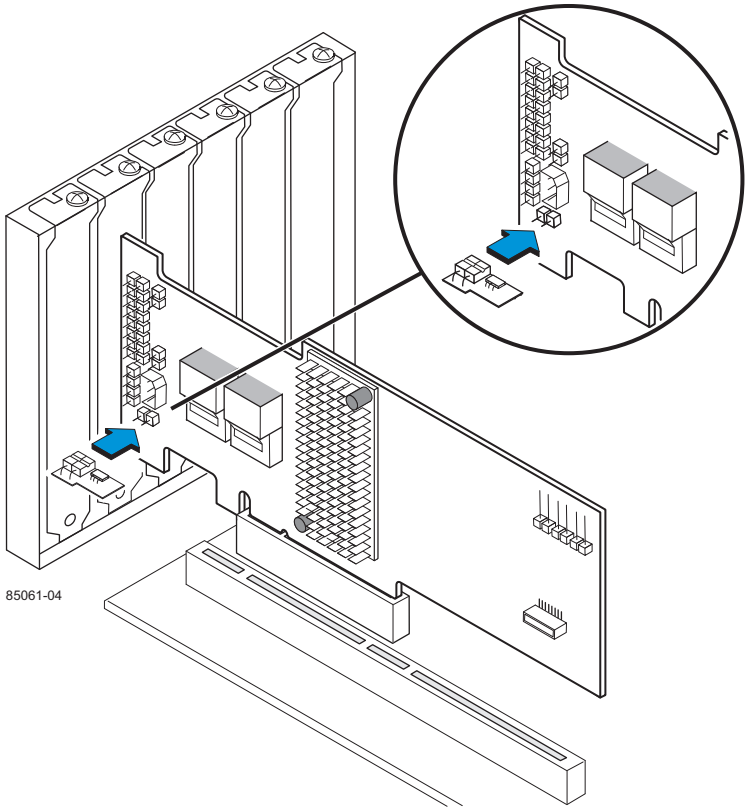


Perform these steps to install the MegaRAID Advanced Software Options Hardware Key directly on the controller.

This procedure shows installation of the hardware key on the MegaRAID SAS 9260-8i RAID controller; you can install the key on the MegaRAID SAS 9260-4i RAID controller in the same way.

1. Turn off the computer, and unplug the power cords from the rear of the power supply.
2. Remove the cover from the computer according to the instructions in the system user's manual so that you can access the controller.
3. Ground yourself before you touch the controller or the MegaRAID Advanced Software Options Hardware Key.
4. Remove the hardware key from the package.
5. Hold the hardware key so that the J1 connector on the key lines up with the JT8 RAID key header on the controller, as shown in the following figure.

Figure 2 Installing the MegaRAID Advanced Software Options Hardware Key on the MegaRAID SAS 9260-8i RAID Controller



6. Insert the J1 connector into the JT8 header so that the two connectors are firmly attached.

CAUTION Before you install the RAID controller, make sure that the computer is disconnected from the power and from any networks.

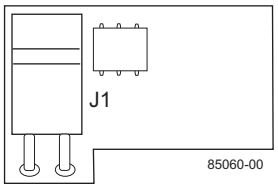
7. Reinstall the cover on the computer.
8. Reconnect the power cords, and turn on the power to the computer.

NOTE Make sure you turn on the power to the SAS devices and the SATA II devices before or at the same time that you turn on the power to the host computer. If you turn on the power to the computer before you turn on the power to the devices, the computer might not recognize the devices.

Installing the MegaRAID Advanced Software Options Hardware Key on the MegaRAID SAS 9280-4i4e RAID Controller

The MegaRAID Advanced Software Options Hardware Key mounts directly to the J1A5 2-pin shielded header on the MegaRAID SAS 9280-4i4e RAID controller. The following figure shows the hardware key.

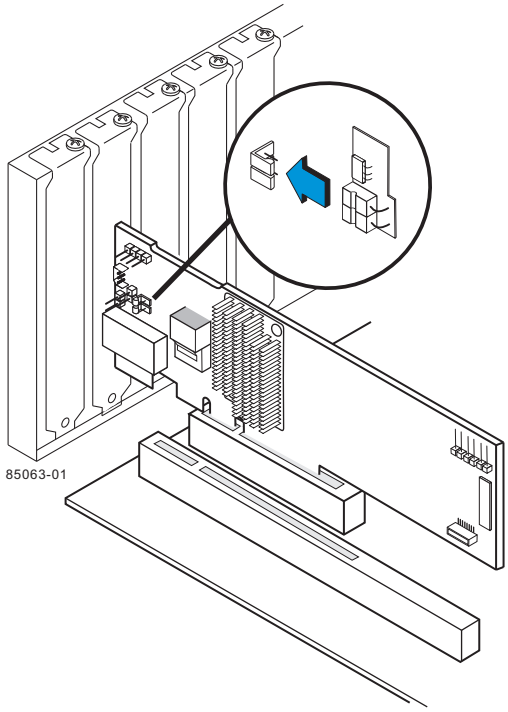
Figure 3 MegaRAID Advanced Software Options Hardware Key



Perform these steps to install the MegaRAID Advanced Software Options Hardware Key directly on the RAID controller.

1. Turn off the computer, and unplug the power cords from the rear of the power supply.
2. Remove the cover from the computer according to the instructions in the system user's manual so that you can access the controller.
3. Ground yourself before you touch the controller or the MegaRAID Advanced Software Options Hardware Key.
4. Remove the hardware key from the package.
5. Hold the hardware key so that the J1 connector lines up with the J1A5 header on the controller, as shown in the following figure.

Figure 4 Installing the MegaRAID Advanced Software Options Hardware Key on the MegaRAID SAS 9280-4i4e RAID Controller



6. Insert the J1 connector into the J1A5 header so that the two connectors are firmly attached.

CAUTION Before you install the RAID controller, make sure that the computer is disconnected from the power and from any networks.

7. Reinstall the cover on the computer.
8. Reconnect the power cords, and turn on the power to the computer.

NOTE Make sure you turn on the power to the SAS devices and the SATA II devices before or at the same time that you turn on the power to the host computer. If you turn on the power to the computer before you turn on the power to the devices, the computer might not recognize the devices.

Technical Support

For assistance in installing your MegaRAID Advanced Software Options Hardware Key, contact an LSI Technical Support representative.

Click this link to access the LSI Technical Support page for storage and board support:

http://www.lsi.com/about/contact/pages/support.aspx

From this page, you can send an email or call LSI Technical Support, or you can submit a new service request and view the status of the request.

E-mail:

http://www.lsi.com/support/email/Pages/default.aspx

Telephone Support:

http://www.lsi.com/support/Pages/call-us.aspx

1-800-633-4545 (North America)

00-800-5745-6442 (International)

NOTE The international toll-free number does not require a country-specific access code.

Support Request:

http://www.lsi.com/support/Pages/submitsupportrequest.aspx

Documents and Downloads:

http://www.lsi.com/support/Pages/downloads.aspx?k=*

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