



MegaRAID®
Remote Kit for the LSiBBU06,
LSiBBU07, and LSiBBU08 Intelligent
Battery Backup Units
Quick Installation Guide

Version A
July 2010

Revision History

Version and Date	Description of Changes
Version A, July 2010	Initial release of document.

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Document Number: 48117-00
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Quick Installation Guide

MegaRAID Remote Kit for the LSIiBBU06, LSIiBBU07, and LSIiBBU08 Intelligent Battery Backup Units

The MegaRAID LSIiBBU06/07/08 Remote Kit allows you to connect your MegaRAID battery backup unit to select MegaRAID controller cards remotely. This quick installation guide explains how to install the LSIiBBU06 and the LSIiBBU07 remotely to the controller using the included remote cable and, if necessary, the interposer board. In addition, it identifies which MegaRAID SAS RAID controllers can use the LSIiBBU06, LSIiBBU07, and LSIiBBU08.

The LSIiBBU06 connects remotely to the following SAS RAID controllers using a 27-inch cable and an interposer board:

- MegaRAID SAS 8704EM2
- MegaRAID SAS 8708EM2

The LSIiBBU07 connects remotely to the following SAS RAID controllers using a 27-inch cable and an interposer board (where noted by *):

- MegaRAID SAS 8880EM2
- MegaRAID SAS 9260-4i*
- MegaRAID SAS 9260-8i*
- MegaRAID SAS 9260-16i
- MegaRAID SAS 9261-8i
- MegaRAID SAS 9280-4i4e
- MegaRAID SAS 9280-8e
- MegaRAID SAS 9280-16i4e
- MegaRAID SAS 9280-24i4e

1.0 MegaRAID Battery Backup Units and Compatible RAID Controllers

The following table shows which MegaRAID SAS RAID controllers use the LSIiBBU06, LSIiBBU07, and LSIiBBU08. The iBBUs can connect directly or remotely to some controllers, and only remotely to other controllers, as indicated in the table.

Table 1: MegaRAID Battery Backup Units and Compatible RAID Controllers

Controller	LSIiBBU06	LSIiBBU07	LSIiBBU08
MegaRAID SAS 8704EM2	x		
MegaRAID SAS 8708EM2	x		
MegaRAID SAS 8880EM2		x	

Table 1: MegaRAID Battery Backup Units and Compatible RAID Controllers (Continued)

Controller	LSIiBBU06	LSIiBBU07	LSIiBBU08
MegaRAID SAS 9260-4i		x	x
MegaRAID SAS 9260-8i		x	x
MegaRAID SAS 9260-16i		x (remote only)	x (remote only)
MegaRAID SAS 9261-8i		x	x
MegaRAID SAS 9280-4i4e		x	x
MegaRAID SAS 9280-8e		x	x
MegaRAID SAS 9280-16i4e		x (remote only)	x (remote only)
MegaRAID SAS 9280-24i4e		x (remote only)	x (remote only)

2.0 Connecting the LSIiBBU06 Remotely to the MegaRAID SAS RAID Controller

The procedures in this section show how to connect the LSIiBBU06 to the MegaRAID SAS 8704EM2 and 8708EM2 RAID controllers remotely.

To connect the LSIiBBU06 remotely to the MegaRAID SAS 8704EM2 and the MegaRAID SAS 8708EM2 RAID controllers, you must use the supplied interposer card. To connect the LSIiBBU06 to the interposer card on the RAID controller, perform the following tasks in order.

1. Install the interposer card on the RAID controller.
2. Mount the LSIiBBU06 to the chassis.
3. Connect the controller to the LSIiBBU06 using the 27-inch, 20-pin cable and the interposer.
4. Install the controller.

Because server and workstation chassis vary from vendor to vendor, no standard mounting option is compatible with the various system configurations. Therefore, the LSIiBBU06 battery kit contains only the battery, interposer card, and standoff, which enables authorized resellers and chassis manufacturers to customize the location of the remote battery to provide the most flexibility within various environments.

Follow these steps to install the interposer card on the RAID controller as shown in [Figure 1](#).

1. With the controller on a flat, clean, static-free surface, ground yourself. Remove the interposer card, standoff, and screws from the remote kit package.
2. Place the standoff on the controller so that the bottom side is over the screw hole next to the J1 connector on the controller.
3. Use one of the screws to secure the standoff to the controller.

NOTE: Center the screwdriver carefully to avoid stripping the screw head. Do not overtighten the screws.

4. Hold the interposer card so that the J2 board-to-board connector on the interposer card lines up with the J1 board-to-board connector on the RAID controller.
5. Carefully press the J2 connector on the interposer card into the J1 connector on the RAID controller so that the two connectors are firmly joined.

The connectors fit only when they are in correct alignment.

6. Use the other screw to secure the interposer card to the controller and continue with the next procedure.

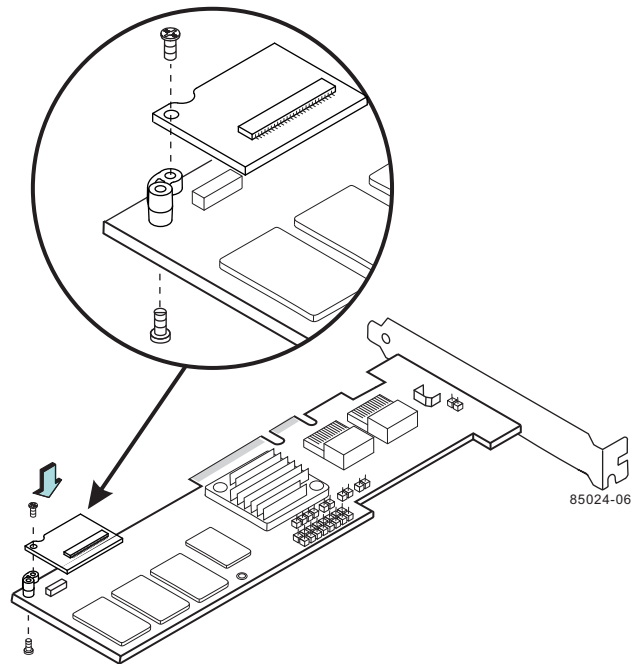


Figure 1: Connecting the Interposer Card to the RAID Controller

Follow these steps to connect the cable between the interposer card and the LSIiBBU06.

1. Mount the LSIiBBU06 to the chassis of your computer based on the location and the type of mounting option.
2. Make sure you are grounded and then remove the 27-inch cable from the remote kit package.
3. Insert one end of the cable into the 20-pin J2 connector on the LSIiBBU06 and the other end into the 20-pin J1 connector on the interposer card, as shown in [Figure 2](#).

Align the black triangles on the connectors to make sure they are connected properly.

NOTE: The cable connectors are polarized and can be inserted into the connectors on the interposer card and the LSIiBBU06 only if the rails on the cable connectors align with the slots on the other connectors. *Do not* force the cable into the 20-pin connectors. The cable end inserts into the connector with minimal resistance.

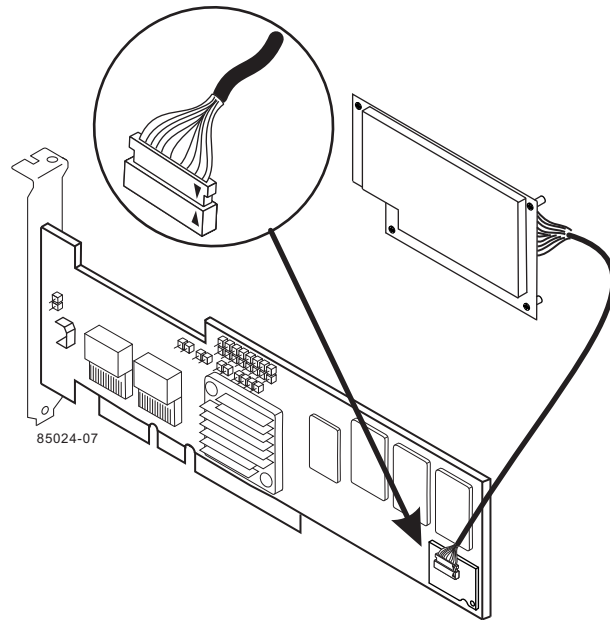


Figure 2: Connecting the LSIiBBU06 Remotely to the MegaRAID SAS Controller

Follow these steps to install the RAID controller in the computer.

NOTE: Some PCI Express slots support only PCI Express graphics cards; if a RAID controller is installed in one of these slots, it does not function. Refer to your computer documentation for information about the PCI Express slot.

1. Turn off the power to the computer, and disconnect the AC power cord.
2. Remove the computer cover.

Refer to the system documentation for instructions. Before you install the controller, make sure that the computer is disconnected from the power and from any networks.

3. Select a PCI Express slot on the motherboard, align the controller's PCI Express bus connector to the slot, and then insert the RAID controller in the slot, as shown in the following figure.

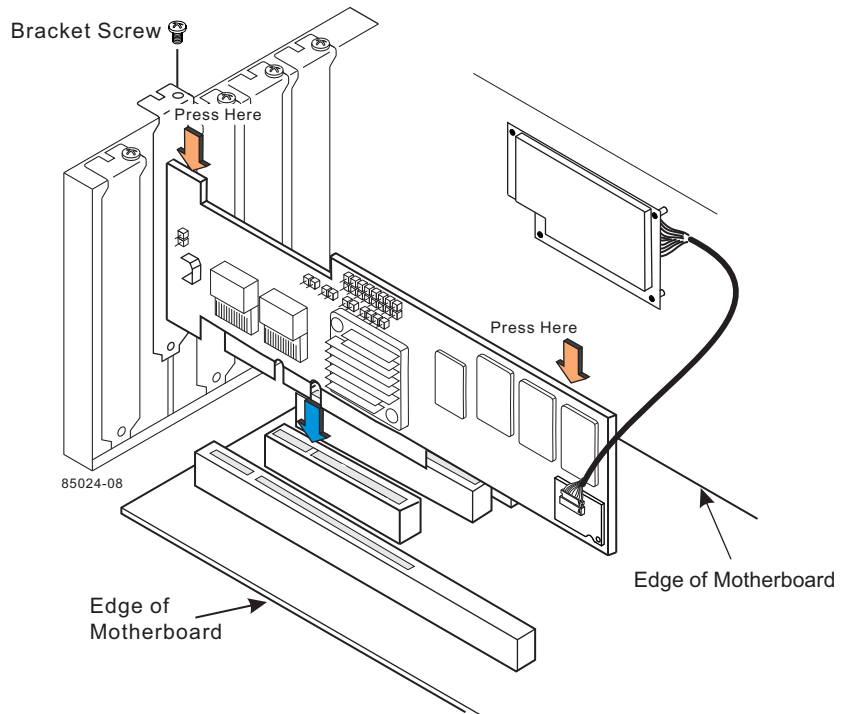


Figure 3: Installing the MegaRAID SAS Controller

4. Press down gently but firmly to seat the card correctly in the slot.
5. Secure the controller to the computer chassis with the bracket screw.
6. Reinstall the computer cover and reattach the power cords.
7. Turn on the power to the computer.

NOTE: Refer to the *MegaRAID SAS Software User's Guide* for information about running the RAID configuration utility and installing software drivers.

3.0 Connecting the LSiBBU07 Remotely to the MegaRAID SAS RAID Controller

The procedures in this section show how to connect the LSiBBU07 to the MegaRAID 8880EM2 RAID controller remotely. You can connect the LSiBBU07 remotely to other MegaRAID SAS RAID controllers in the same way. For information about which controllers use the LSiBBU07, see [Table 1](#). For information about the BBU connectors on these controllers, see the *MegaRAID 1078-Based SAS RAID Controllers User Guide* or the *MegaRAID 6Gb/s SAS RAID Controllers User Guide*.

This section describes the two methods you can use to connect the LSiBB07 remotely to your SAS RAID controller using the supplied 12-inch, 20-pin cable:

- Use the cable to connect the remote LSiBBU07 to the BBU connector on the RAID controller.
- Use the cable to connect the remote LSiBBU07 to an interposer card that is connected to the RAID controller.

3.1 Connecting the Remote LSIiBBU07 to the BBU Connector on the RAID Controller

Because server and workstation chassis vary from vendor to vendor, no standard mounting option is compatible with the various system configurations. Therefore, the LSIiBBU07 battery kit contains only the battery, the interposer card, and the standoff, which enables authorized resellers and chassis manufacturers to customize the location of the remote battery to provide the most flexibility within various environments.

Follow these steps to connect the remote LSIiBBU07 to the BBU connector on the RAID controller and install the controller in the system.

1. Ground yourself, and remove the LSIiBBU07 from the package.
2. Use the three Phillips screws that are provided to secure the LSIiBBU07 to the motherboard or the server chassis.
3. Insert the battery pack harness connector into the J4 connector on the rear side of the LSIiBBU07.
4. Connect one end of the 12-inch, 20-pin cable to the J2 connector on the LSIiBBU07 and the other end to the J10 battery backup connector on the SAS 8880EM2 RAID controller, as shown in [Figure 4](#).

Black triangles on the connectors help you install them properly. Insert the cable connectors so that the black triangles are aligned.

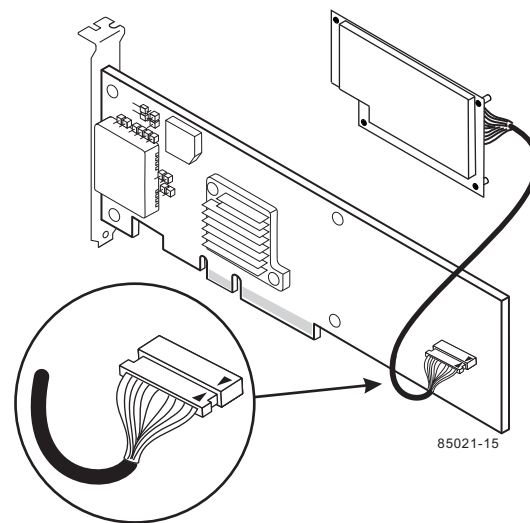


Figure 4: Connecting the LSIiBBU07 Remotely to the BBU Connector on the SAS 8880EM2 RAID Controller

5. Turn off the power to the computer, and disconnect the AC power cord.
6. Remove the computer cover.

Refer to the system documentation for instructions. Before you install the controller, make sure that the computer is disconnected from the power and from any networks.

7. Select a PCI Express slot on the motherboard, align the controller's PCI Express bus connector to the slot, and then insert the RAID controller in the slot, as shown in [Figure 5](#).

NOTE: Some PCI Express slots support only PCI Express graphics cards; if a RAID controller is installed in one of these slots, it does not function. Refer to your computer documentation for information about the PCI Express slot.

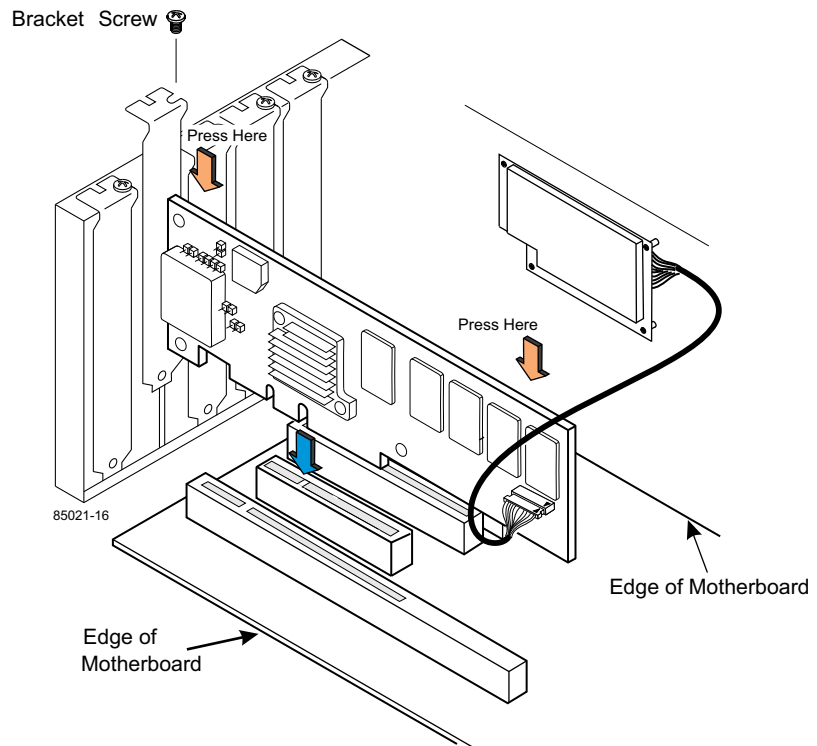


Figure 5: Installing the MegaRAID SAS 8880EM2 Controller

8. Press down gently but firmly to seat the card correctly in the slot.
9. Secure the controller to the computer chassis with the bracket screw.
10. Reinstall the computer cover and reattach the power cords.
11. Turn on the power to the computer.

3.2 Connecting the Remote LSIiBBU07 to the Interposer Card on the RAID Controller

To connect the remote LSIiBBU07 to a interposer card on the RAID controller, perform the following tasks in order.

1. Install the interposer card on the RAID controller.
2. Mount the LSIiBBU07 to the chassis.
3. Connect the controller to the remote LSIiBBU07 using the 27-inch, 20-pin cable and the interposer.
4. Install the controller.

Because server and workstation chassis vary from vendor to vendor, no standard mounting option is compatible with the various system configurations. Therefore, the LSIiBBU07 battery kit contains only the battery, interposer card, and standoff, which enables authorized resellers and chassis manufacturers to customize the location of the remote battery to provide the most flexibility within various environments.

Follow these steps to install the interposer card on the RAID controller, as shown in [Figure 6](#).

1. With the controller on a flat, clean, static-free surface, ground yourself. Remove the interposer card, standoff, and screws from the package.
2. Place the standoff on the controller so that the bottom side is over the screw hole next to the J1 connector on the controller.
3. Use one of the screws to secure the standoff to the controller.

CAUTION: Center the screwdriver carefully to avoid stripping the screw head. Do not overtighten the screws.

4. Hold the interposer card so that the J2 board-to-board connector on the interposer card lines up with the J1 board-to-board connector on the controller.
5. Carefully press the J2 connector on the interposer card into the J1 connector on the controller so that the two connectors are firmly joined.

The connectors fit only when they are in the correct alignment.

6. Use the other screw to secure the interposer card to the controller and continue with the next procedure.

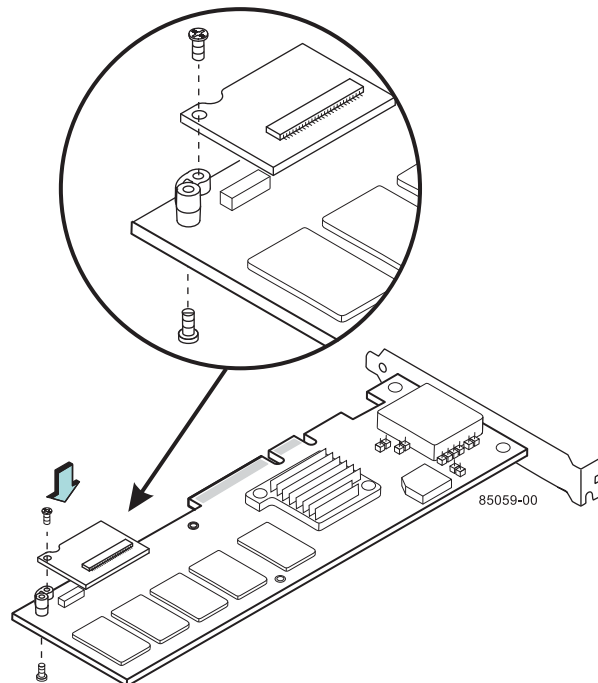


Figure 6: Connecting the Interposer Card to the RAID Controller

Follow these steps to connect the cable between the interposer card and the LSIiBBU07.

1. Mount the LSIiBBU07 to the chassis of your computer based on the location and the type of mounting option.
2. Make sure you are grounded and then remove the 27-inch cable from the remote kit package.
3. Insert one end of the cable into the 20-pin J2 connector on the LSIiBBU07 and the other end into the 20-pin J1 connector on the interposer card, as shown in [Figure 7](#).
Align the black triangles on the connectors to make sure they are connected properly.

NOTE: The cable connectors are polarized and can be inserted into the connectors on the interposer card and the LSIiBBU07 only if the rails on the cable connectors align with the slots on the other connectors. *Do not* force the cable into the 20-pin connectors. The cable end inserts into the connector with minimal resistance.

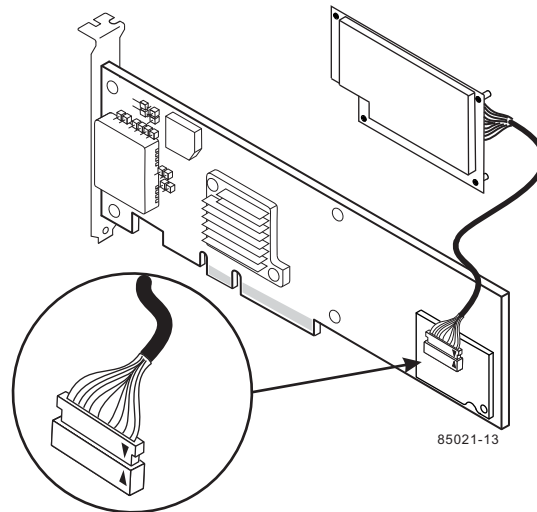


Figure 7: Connecting the LSIiBBU07 Remotely to the MegaRAID SAS Controller

Follow these steps to install the controller in the computer.

NOTE: Some PCI Express slots support only PCI Express graphics cards; if a RAID controller is installed in one of these slots, it does not function. Refer to your computer documentation for information about the PCI Express slot.

1. Turn off the power to the computer, and disconnect the AC power cord.
2. Remove the computer cover.
Refer to the system documentation for instructions. Before you install the controller, make sure that the computer is disconnected from the power and from any networks.
3. Select a PCI Express slot on the motherboard, align the controller's PCI Express bus connector to the slot, and then insert the RAID controller in the slot, as shown in [Figure 8](#).

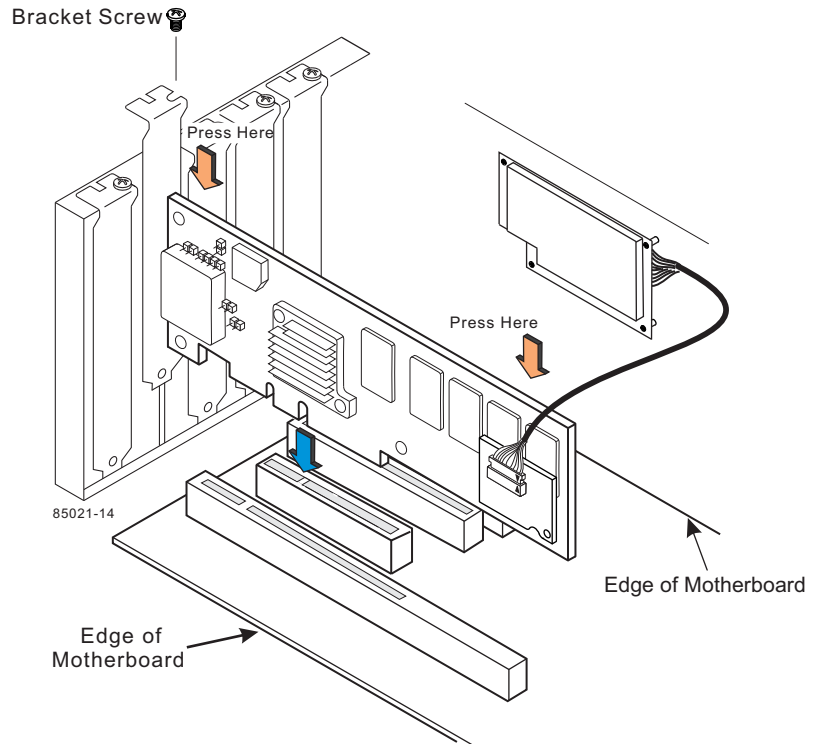


Figure 8: Installing the MegaRAID SAS Controller

4. Press down gently but firmly to seat the card correctly in the slot.
5. Secure the controller to the computer chassis with the bracket screw.
6. Reinstall the computer cover and reattach the power cords.
7. Turn on the power to the computer.

NOTE: Refer to the *MegaRAID SAS Software User's Guide* for information about running the RAID configuration utility and installing software drivers.

4.0 Technical Support

For assistance installing the LSIiBBU06 or the LSIiBBU07, contact an LSI Technical Support representative.

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

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

http://www.lsi.com/support/storage/tech_support/index.html

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

Email:

http://www.lsi.com/support/support_form.html

Phone Support:

http://www.lsi.com/support/storage/phone_tech_support/index.html

NOTE: The international toll-free number does not require country-specific access codes.



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