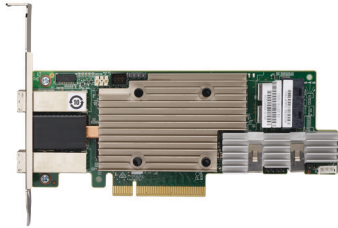


## Quick Installation Guide

### MegaRAID<sup>®</sup> SAS 9380-8i8e RAID Controller



**Thank you for purchasing this controller. Please take a few minutes to read this quick installation guide before you install the controller.**

---

**ATTENTION:** Perform all installation work at an electrostatic discharge (ESD)-safe workstation that meets the requirements of EIA-625, *Requirements for Handling Electrostatic Discharge Sensitive Devices*. You must perform all actions in accordance to the latest revision of the IPC-A-610 ESD-recommended practices.

---

#### Overview

The MegaRAID SAS 9380-8i8e RAID controller is a PCI Express<sup>®</sup> (PCIe<sup>®</sup>) 3.0, low-profile controller with RAID control capability, based on the LSI SAS3316 RAID On-a-Chip (ROC) device. The controller uses 2 GB of DDR3 1866-MHz memory. In addition, it controls eight internal Serial Attached SCSI (SAS)/Serial Advanced Technology Attachment (SATA) ports through two SFF-8643 mini-SAS HD-4i internal connectors and eight external SAS/SATA ports through two SFF-8644 mini-SAS HD-4e external connectors.

The MegaRAID SAS 9380-8i8e RAID controller supports data retention by using NAND flash memory down on the controller, backed up by a CacheVault Power Module 02 (CVPM02). The CVPM02 module is a super-capacitor pack that provides power for the backup of your data in case of host power loss or server failure. The CVPM02 module is connected to the controller remotely by cable. The data is backed up to NAND flash memory available on the MegaRAID controller board. For more information on the CVPM02 module, refer to the *CVPM02 Kit Quick Installation Guide*.

#### Installing the MegaRAID SAS 9380-8i8e RAID Controller

To install the MegaRAID SAS 9380-8i8e RAID controller, follow these steps:

**1. Unpack the controller.** Unpack the controller in a static-free environment. Remove it from the anti-static bag, and inspect it for damage. A low-profile bracket is included with the controller. If you notice any damage, contact Broadcom or your reseller support representative.

---

**ATTENTION:** To avoid the risk of data loss, back up your data before you change your system configuration.

---

**2. Prepare the host computer.** Turn off the host computer, and unplug the power cords from the rear of the power supply.

---

**CAUTION:** Disconnect the computer from the power supply and from any networks to which you will install the controller, or you risk damaging the system and experiencing electrical shock.

---

**3. Remove the cover from the host computer.**

**4. Check the mounting bracket on the board (system-dependent).** If required for your system, replace the full-height mounting bracket that ships on the controller with the low-profile bracket supplied. Complete the following steps to attach the low-profile bracket.

- Using a No.1 Phillips screwdriver that is ESD safe, remove the two Phillips screws that connect the full-profile bracket to the board. Unscrew the two screws located at the top and bottom edges of the board. Avoid touching any board components with the screwdriver or bracket.
- Remove the full-profile bracket. Do not damage the controller.
- Place the controller on top of the low-profile bracket. Position the bracket so that the screw holes in the tabs align with the openings in the board.
- Using a No.1 Phillips torque screwdriver that is ESD safe, set to a maximum torque of  $4.8 \pm 0.5$  inch-pounds. Replace the two Phillips screws removed in step a.

---

**ATTENTION:** Exceeding this torque specification can damage the controller, connectors, or screws, and can void the warranty on the board.

---

**5. Insert the board into an available PCIe slot.** Locate an empty x8 PCIe slot adequate for your board. Remove the blank bracket panel on the rear of the computer that aligns with the empty PCIe slot. Save the bracket screw, if applicable. Align the controller to the PCIe slot. Press down gently, but firmly, to seat the board correctly in the slot. The following figure shows how to insert the board into a PCIe slot.

---

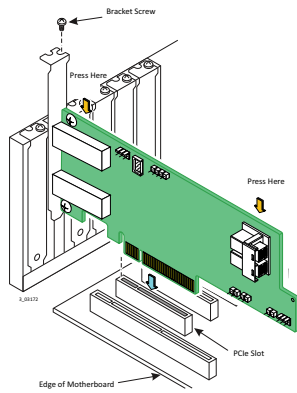
**NOTE:** The shape, size, and locations of the components on the controller and its bracket might vary from this illustration. The board requires a PCIe x8 slot.

---



5972-4864-P0002

Figure 1. Installing the MegaRAID SAS 9380-8i8e RAID Controller in a PCIe Slot



**6. Connect SAS cables between the board and the SAS backplane or any other SAS or SATA device.** To avoid the risk of data loss, back up your data before you change your system configuration. This 12Gb/s SAS controller has two SFF-8643, internal x4, mini-SAS HD connectors, and two SFF-8644 mini-SAS HD-4e external connectors. For the internal connections, use cables with an internal mini-SAS HD connector on one end (to connect to the controller) and the appropriate connector on the other end to attach to the backplane or SAS/SATA devices. For the external connections, use cables with an external mini-SAS HD-4e connector on one end (to connect to the controller) and the appropriate connector on the other end to attach to the drive enclosure or SAS/SATA devices.

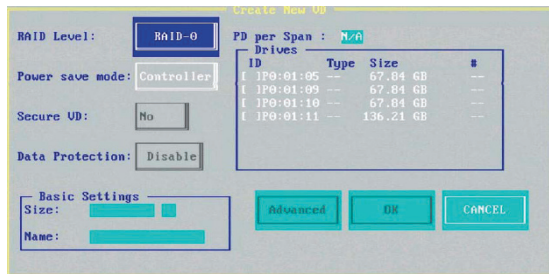
**7. Make sure the system provides the required airflow for the controller.** Airflow must be at least 300 linear feet per minute (LFM) at 55 °C inlet temperature to avoid operating the LSI SAS3316 processor above the maximum junction temperature.

**8. Replace the cover, reconnect any cords and cables, and power up the system.** Replace the chassis's cover, reconnect any power cords, and reconnect any network cables. Turn on the power.

**9. Run the MegaRAID BIOS Configuration Utility.** Run the MegaRAID BIOS Configuration Utility to configure the groups and the virtual drives. When the message about the configuration utility appears on the screen, immediately press Ctrl+R to run the utility. The following screen is an example of this utility.

NOTE: Refer to the *12Gb/s MegaRAID SAS Software User Guide* for detailed steps on configuring drive groups and virtual drives.

Figure 2. Create New Virtual Drive Screen



## Driver Installation

The firmware and drivers are routinely updated and made available on the Support and Download center. Visit <http://www.broadcom.com/support/download-search>, and download the latest firmware and driver for the controller.

For product information and a complete list of distributors, please go to our website: [www.broadcom.com](http://www.broadcom.com).

Broadcom, the pulse logo, Connecting everything, Avago Technologies, Avago, the A logo, and MegaRAID are among the trademarks of Broadcom in the United States, certain other countries and/or the EU.

Copyright © 2017 Broadcom. All Rights Reserved. pub-005165.

The term "Broadcom" refers to Broadcom Limited and/or its subsidiaries. For more information, please visit [www.broadcom.com](http://www.broadcom.com).

Broadcom reserves the right to make changes without further notice to any products or data herein to improve reliability, function, or design.

Information furnished by Broadcom is believed to be accurate and reliable. However, Broadcom does not assume any liability arising out of the application or use of this information, nor the application or use of any product or circuit described herein, neither does it convey any license under its patent rights nor the rights of others.

**Corporate Headquarters**  
San Jose, CA

**Website**  
[www.broadcom.com](http://www.broadcom.com)

## TECHNICAL SUPPORT

For assistance installing, configuring, or running the controller, contact Broadcom Technical Support:

**Website:** [www.broadcom.com](http://www.broadcom.com)

## WARRANTY NOTICE

1. The warranty does not cover the return of parts damaged by changing the bracket.
2. The warranty does not cover ESD damage to the controller. Controllers returned without a bracket mounted on the board will be returned without return merchandise authorization (RMA) processing.

