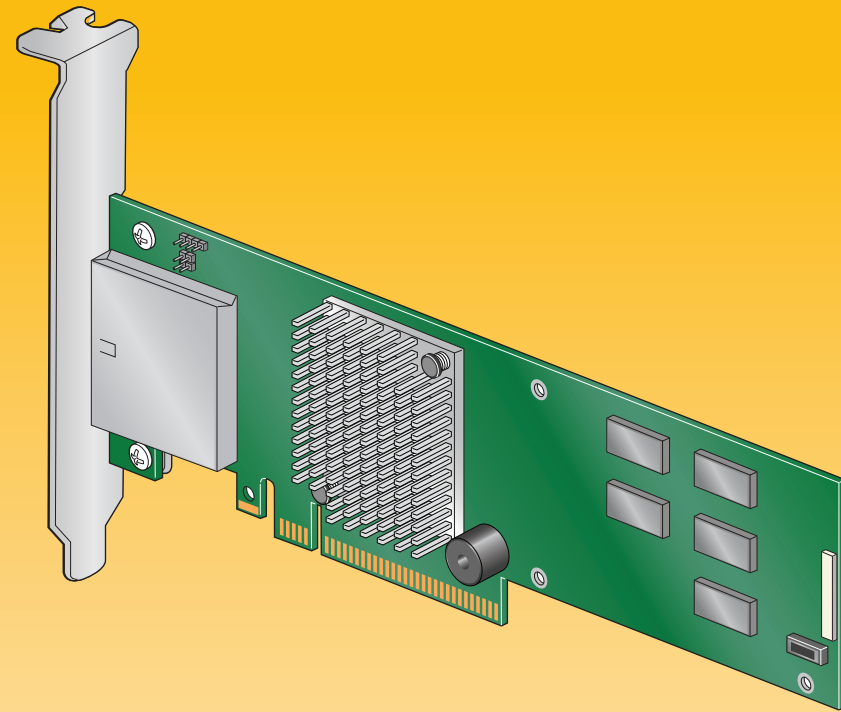


# Intel® RAID Controller RS2PI008 Quick Start User's Guide



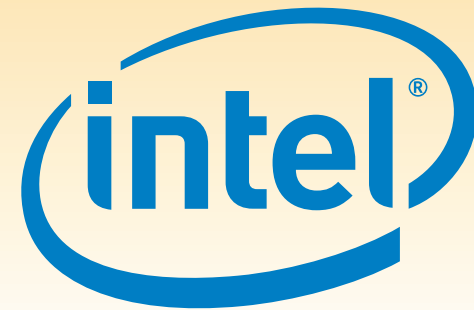
This guide contains step-by-step instructions for installing the Intel® RAID Controller RS2PI008 and information on using the BIOS setup utility to configure a single logical drive array and install the driver into the operating system.

For more advanced RAID configurations, or to install with other operating systems, please refer to the Hardware User's Guide.

These guides and other supporting documents (including a list of supported server boards) are also located on the web at: <http://support.intel.com/support/motherboards/server>.

If you are not familiar with ESD (Electrostatic Discharge) procedures used during system integration, see your Hardware Guide for complete ESD procedures. For more details on Intel® RAID controllers, see: [www.intel.com/go/serverbuilder](http://www.intel.com/go/serverbuilder).

Read all cautions and warnings first before starting your RAID Controller integration.



## Choosing the Right RAID Level

RAID	Minimum Physical Drives	Fail PDs Allowed	Method	Capacity	Read Speed	Write Speed	Good Usage
0	2	NONE	Striping (speed)	100%	Excellent	Excellent	High throughput workstation
1	2	1	Mirroring (redundancy)	50%	Very Good	Good	OS, apps entry level
5	3	1	Striping & Distributed Parity (fault tolerance)	n-1 (67-94%)	Very Good	Good	Data, web/media server
6	4	2	Striping with dual distributed parity	n-2 (50-88%)	Good	Good	High fault tolerance
10	4	1 per mirror set	Striping across mirrors	50%	Very Good	Good	General purpose SBS
50	6	1 per R5 set	Striping across R5 Arrays	n-2 (67-94%)	Excellent	Very Good	Database, file, mail servers
60	8	2 per R6 Set	Striping across R6 arrays	n-4 (50-88%)	Very Good	Good	Critical data

### Warning

Read all caution and safety statements in this document before performing any of the instructions. Also see the *Intel® Server Board and Server Chassis Safety Information* document at: <http://support.intel.com/support/motherboards/server/sb/cs-010770.htm> for complete safety information.

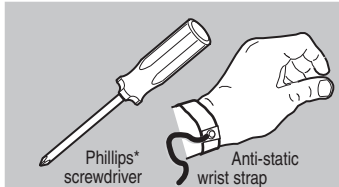
### Warning

Installation and service of this product should only be performed by qualified service personnel to avoid risk of injury from electrical shock or energy hazard.

### Caution

Observe normal ESD (Electrostatic Discharge) procedures during system integration to avoid possible damage to server board and/or other components.

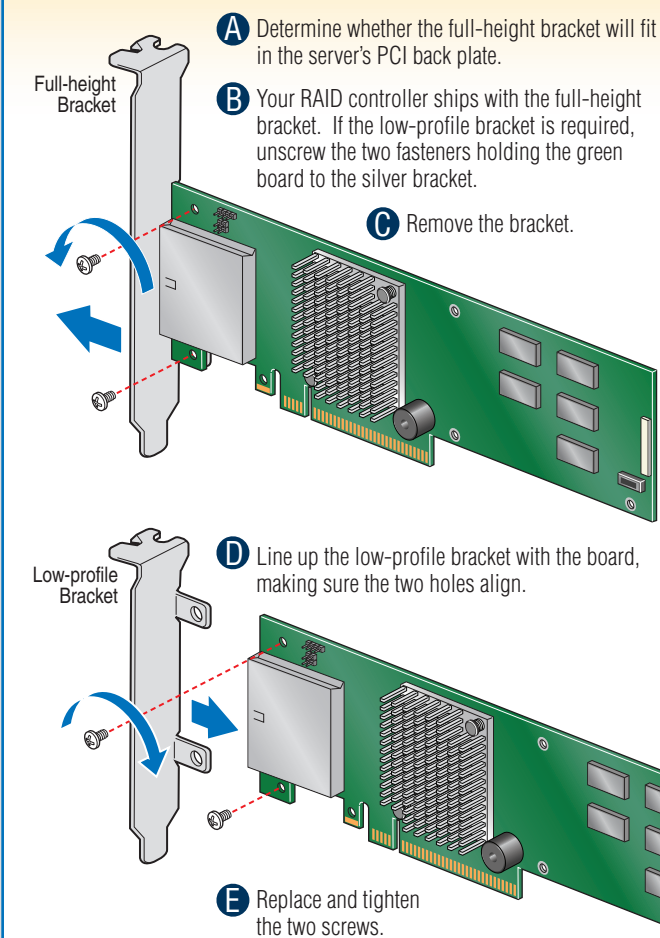
### Tools Required



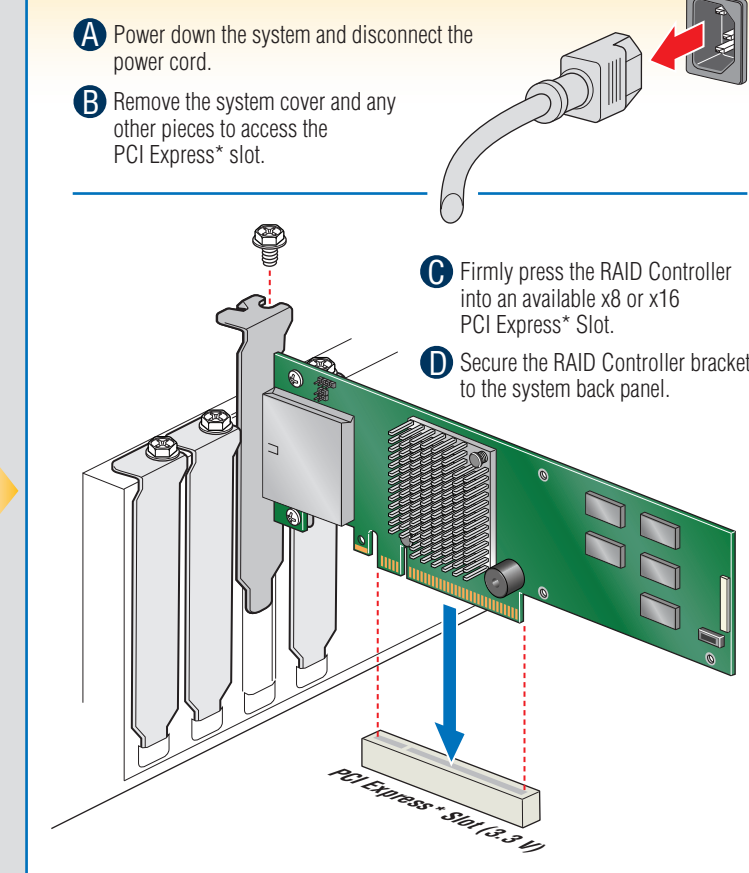
### What you will need to begin

- SAS 2.0 or SATA II hard disk drives (backward compatible to support SAS 1.0 hard disk drives)
- Intel® RAID Controller RS2PI008
- Server board with an x8 PCI Express\* Generation 2 slot (backward compatible to support an x8 or x16 PCI Express\* Generation 1 slot)
- Intel® RAID Controller RS2PI008 Resource CD
- Operating system installation media: Microsoft Windows Server 2003\*, Microsoft Windows Server 2008\*, Microsoft Windows Vista\*, Red Hat\* Enterprise Linux, or SUSE\* Linux Enterprise Server

## 1 Check the Bracket Height



## 2 Install the RAID Controller



### Audible Alarm Information

For information about the audible alarm and how to silence or disable it, see the reverse side of this document.

## 3 Connect the RAID Controller

- Configure and install the external SAS Devices, SATA II Devices, or both. Refer to the target device documentation for any preinstallation configuration requirements.
- Connect the RAID Controller to the external SAS Devices, SATA II Devices, or both. Refer to the target device documentation for devices to select the correct SAS cable for the SAS Devices, SATA II Devices, or both.
- Push the cable into the external connector until it makes a slight click. The SAS Cable is not shipped together with the controller.

Go to Step 4 on Side 2

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- High-quality server building blocks
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- Solutions and tools to enable e-Business

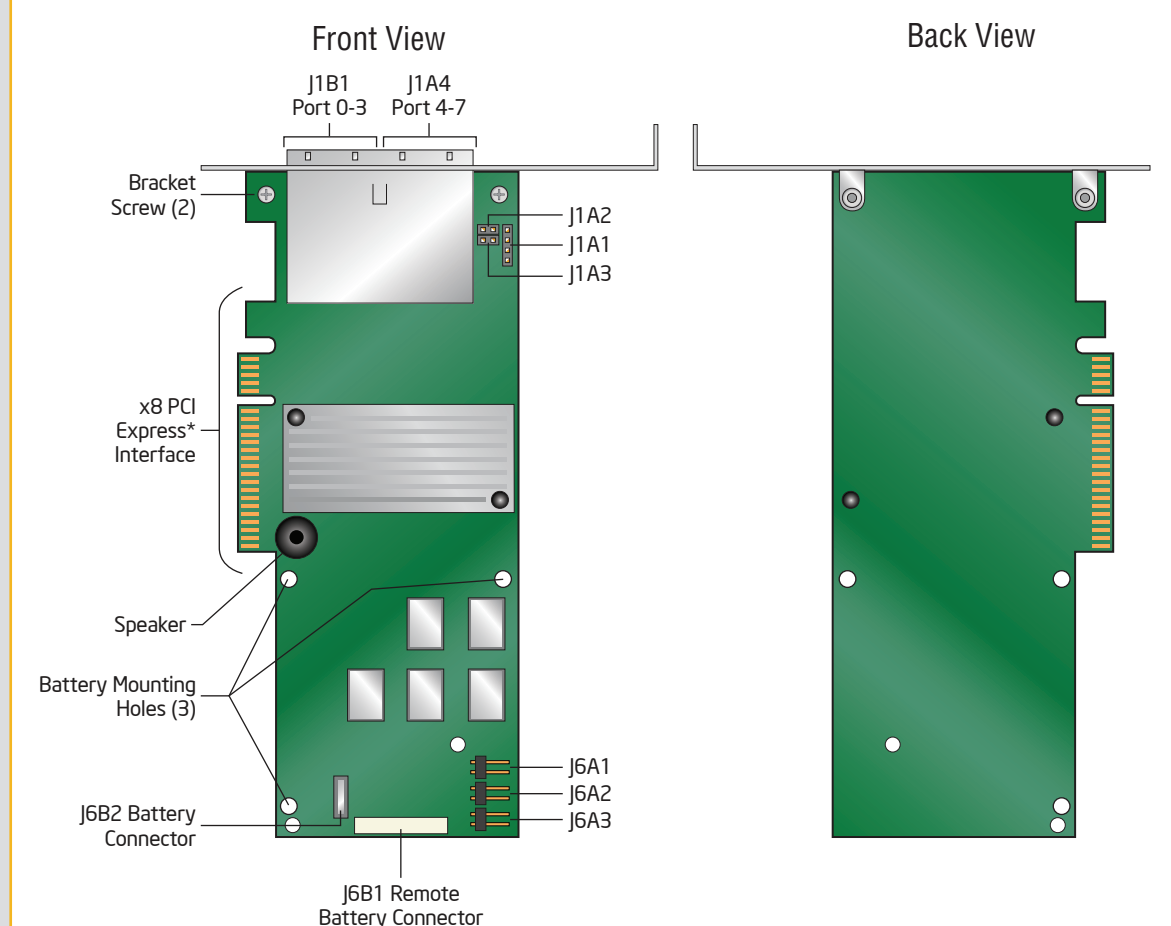
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- World-class service, including a three-year limited warranty and Advanced Warranty Replacement<sup>1</sup>

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- Product information, including product briefs and technical product specifications
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- Training information, such as the Intel® Online Learning Center
- Support Information and much more

## Intel® RAID Controller RS2PI008 Reference Diagram



For more information on the jumpers referenced in this diagram, refer to user guide located on the web at: <http://support.intel.com/support/motherboards/server>.

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