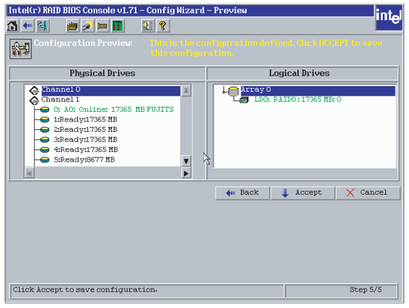
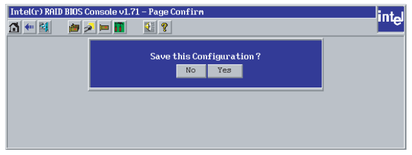
Side 2

5 (Cont.) Use the Intel® RAID BIOS Console to Create a RAID Volume

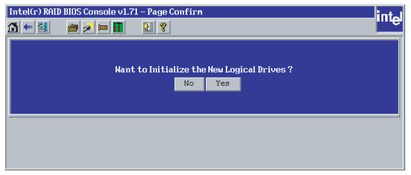
10. Click on **Accept.**



11. Click **Yes.**



12. Click **Yes**, then **Exit**.



Creation of a RAID Volume is now complete.

6 Install the Server Operating System

Microsoft Windows* Server 2003/ Microsoft* Windows* 2000 Advanced Server Installation*

Step A: Install Microsoft Windows Server 2003 or Microsoft Windows 2000 Advanced Server

IMPORTANT: When the blue setup screen first appears, press **<F6>**.

1. Boot the system with the Windows* Server 2003 or Windows* 2000 Advanced Server CD-ROM.
2. Press **<F6>** as soon as the first blue screen appears to bypass mass storage detection.
3. When prompted to specify a mass storage controller:
   - Select **"S"** to specify additional storage devices.
   - Insert Microsoft Windows Server 2003 or Microsoft Windows 2000 Advanced Server installation driver diskette (created in Step 1 of this Quick Start User's Guide).
   - Press **<Enter>** to select the "Installation Driver" and continue with Windows installation.

Step B: Install the Intel® RAID Web Console Package

Install the Intel® RAID Web Console Package from the Resource CD. For more details, see the Software Guide.

Step C: To manage a RAID array from within Microsoft* Windows*

Open your Web browser and point to http://localhost:3570. For more information, see the Software Guide.

OR

Red Hat Linux Installation*

IMPORTANT: Complete the steps on the reverse side before beginning your OS installation. If you are installing a version other than Red Hat* Linux, refer to http://support.intel.com/support/motherboards/server for installation instructions.

Step A: Install Red Hat Linux

Read the Red Hat documentation to understand the disk space / size requirements for Red Hat Linux.

1. Boot the system with the Red Hat Linux CD-ROM
2. At the boot prompt, press **<Enter>.**
3. Follow the on-screen instructions to complete the installation. The RAID controller driver will be automatically detected and installed.

Step B: To manage a RAID array from within Red Hat Linux

Open your Web browser and point to http://localhost:3570. For more information, see the Software Guide.

Understanding the Audible Alarm

The audible alarm will beep under two conditions: When a drive has failed, and during and following a rebuild.

The drive failure alarms are as follows:

- Degraded Array: Short tone, one second on, one second off
- Failed Array: Long tone, three seconds on, one second off
- Hot Spare Commissioned: Short tone, one second on, three seconds off

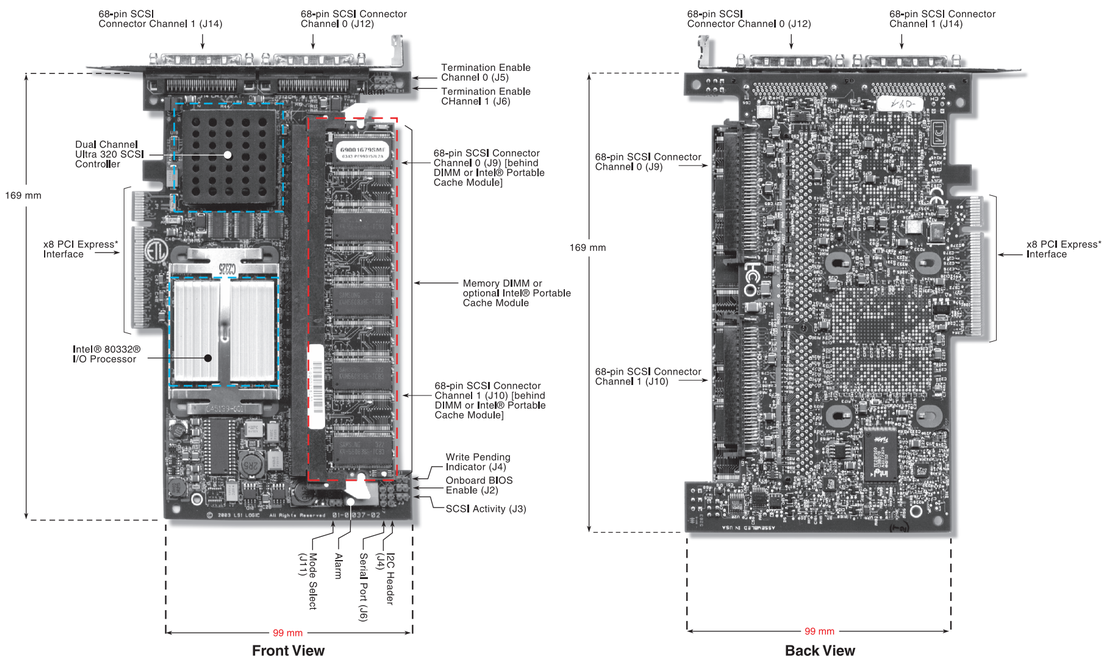
The drive failure tones will repeat until the problem is corrected or until the alarm is silenced or disabled.

The rebuild alarm tone remains on during the rebuild. After the rebuid completes, an alarm with a different tone will sound, signaling the completion of the rebuild. This is a one-time (non-repeating) tone.

The alarm can be *disabled* either in the BIOS Console or in the Web Console management utilities. When disabled, the alarm will not sound unless it is re-enabled in one of the utilities.

The alarm can be *temporarily silenced* either in the BIOS Console or in the Web Console management utilities. The alarm is not disabled and will sound again if another event occurs. The temporarily silenced alarm will be enabled if the system is power cycled.

Intel® RAID Controller SRCU42E Board Diagram



Note: The Intel RAID Controller SRCU42E comes with the firmware installed on the board. If for any reason the firmware becomes corrupt, the jumpers are used for firmware recovery. Refer to the Hardware and Software Guides for detailed instructions on the firmware recovery procedure.

Choosing the Right RAID Level

RAID 0

Minimum Disks: 2
Read performance: Excellent
Write performance: Excellent
Fault tolerance: None

Striping of data across multiple drives in an array. This provides high performance, but no data protection.

RAID 1

Number of Disks: 2
Read performance: Excellent
Write performance: Good
Fault tolerance: Excellent

Disk mirroring, meaning that all data on one disk is duplicated on another disk. This is a high availability solution, but only half the total disk space is usable.

RAID 5

Minimum Disks: 3
Read performance: Excellent
Write performance: Fair
Fault tolerance: Good

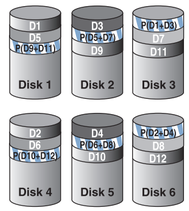
Striping with parity. Data and parity information are spread among each drive in the array. A good compromise of performance, fault tolerance, and drive space utilization.

RAID 10

Minimum Disks: 4
Read performance: Excellent
Write performance: Good
Fault tolerance: Excellent

Disk mirroring and data striping that achieves a balance between the increased data availability inherent in RAID 1 and RAID 5 and the increased read performance inherent in disk striping (RAID 0).
Each drive in the array is duplicated. This level array offers high data transfer advantages of striped arrays and increased data accessibility.

RAID 50



Minimum Disks: 6
Read performance: Excellent
Write performance: Very Good
Fault tolerance: Excellent

A RAID 50 array is a RAID 0 array striped across RAID 5 elements. Data striping of RAID 5 arrays provides increased read performance inherent in disk striping (RAID 0), and improved write performance along with better fault tolerance than a single RAID 5 array.