AcceleRAID™
Quick Installation Guide

AcceleRAID 352
PCI to Ultra 160 SCSI
RAID Controller

P/N: 775052-01
08P4090

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Ultra 160 SCSI to PCI RAID Controller

Part Number 775052-01
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Greetings

Thank you for purchasing the Mylex AcceleRAID™ 352 controller. This manual describes the installation of the Mylex AcceleRAID 352 controller. Requests for technical information about this and other Mylex Corporation products should be made to your Mylex authorized reseller or Mylex sales representative.

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Regulatory Information

The AcceleRAID™ 352 complies with the following regulatory agencies:

Federal Communications Commission

The FCC information statements are in Appendix F of the AcceleRAID 352 Installation Guide.

Community of Europe

The CE information statements are in Appendix F of the AcceleRAID 352 Installation Guide.

Underwriters Laboratories

WARNING

This controller is furnished with a nonvolatile RAM (NVRAM) chip that uses a sealed lithium battery/crystal module. Replace the module only with the same or equivalent type recommended by the manufacturer. Dispose of the used battery/ crystal module according to the manufacturer's instructions. Never incinerate a battery as it could explode and cause serious injury.

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Hardware Installation

Introduction

The AcceleRAID 352 is a versatile PCI to a dual channel Ultra 160 SCSI, Low Voltage Differential (LVD) RAID controller. There are many possible hardware configurations. This quick installation guide assumes that the user is familiar with controller, disk drive, and RAID terminology.

Performing an Installation

WARNING

To avoid electrical shock, do not attempt to perform this hardware installation with power on. Disconnect the system from the electrical wall outlet.

PCI Hot Plug

Please refer to Appendix D in the *AcceleRAID 352 PCI to Ultra 160 SCSI RAID Controller Installation Guide* for instructions on how to use the PCI Hot Plug feature.

Connectors, Jumpers, and LEDs

There are two Ultra 160 SCSI external channels and two Ultra 160 SCSI internal channels supported on the controller. The SCSI connector locations are shown in Figure 1.

All the jumpers should normally be set to their default settings. See Table 1 for default jumper settings. Jumper locations are shown in Figure 2.

The front side of the controller has one LED that is described in Figure 3 and in Table 2. The back side of the controller has four LEDs that are mode indicators while the controller is running. These LEDs indicate single-ended mode and LVD mode and are described in Figure 4 and in Table 3.

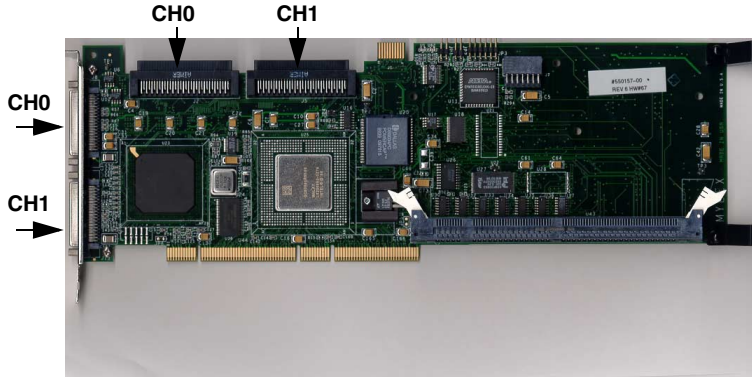

Figure 1. AcceleRAID 352 Controller with Channel Connectors

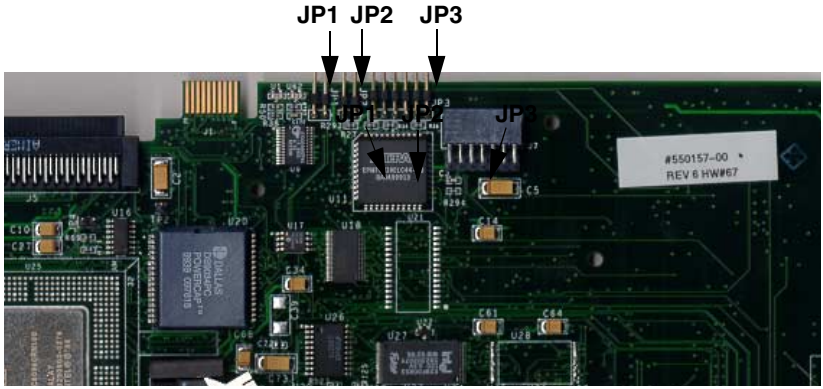

Figure 2. AcceleRAID 352 Default Jumper Identification (front)

Table 1. AcceleRAID 352 Default Jumper Descriptions

JP1	Blank ROM mode; do not use
JP2	Maintenance mode; do not use
JP3	6-pin header

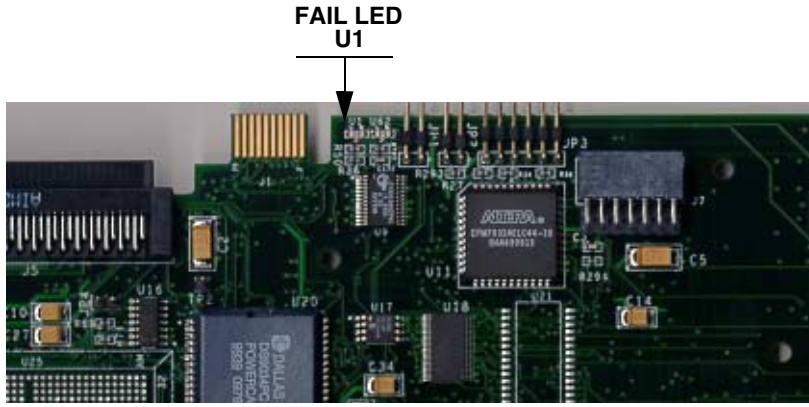

Figure 3. AcceleRAID 352 Controller with LED (front)

Table 2. LED Description (front)

U1	FAIL LED

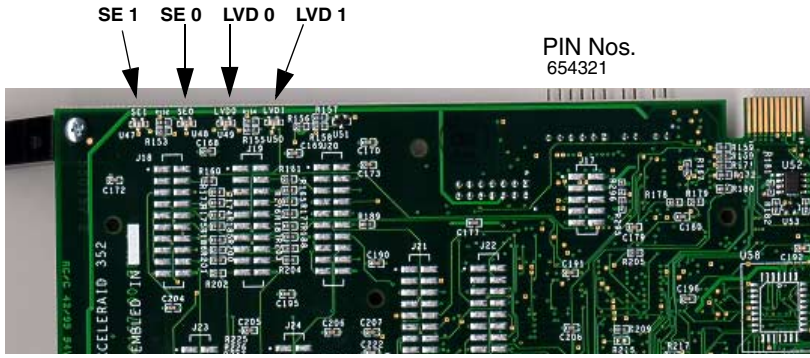

Figure 4. AcceleRAID 352 with LEDs and PIN Numbers (back)

Table 3. LED Descriptions (back)

SE 1	Single-ended LED, Channel 1
SE 0	Single-ended LED, Channel 0
LVD 0	LVD LED, Channel 0
LVD 1	LVD LED, Channel 1

Table 4. Six-Pin Header Identification (JP3)

Pin 1	3.3V power
Pin 2	Channel 0 SCSI activity
Pin 3	Channel 1 SCSI activity
Pin 4	Not used, not connected
Pin 5	Cache Dirty and SCSI activity
Pin 6	Ground pin

Installing the AcceleRAID 352 into the System Board

1. With the power off, plug the AcceleRAID 352 controller into an available 32-bit or 64-bit PCI slot on the system board (refer to Figure 5). The 32-bit slot is short, the 64-bit slot is longer.

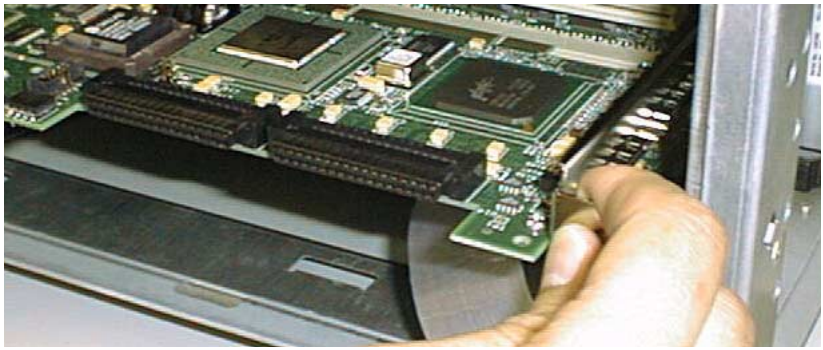

Figure 5. Plugging the AcceleRAID 352 into a PCI Slot

2. Set the SCSI ID on each internal drive to a unique address between 0 and 15, but do not use address 7, as it is reserved for the controller. See the documentation that comes with your drives for instructions on how to do this.

   ⚠ ***Caution***

   If internal and external drives are used, be sure that no drive addresses are duplicated. External SCSI cabinets usually automatically assign drive addresses according to the drives' location in the cabinet.

3. *Disable* termination on all SCSI drives connected to the controller. See the documentation that comes with your drives for instructions on how to do this. (Termination must be enabled on the last device, if applicable.)
4. *Enable* termination power on all SCSI drives connected to the controller. See the documentation that comes with your drives for instructions on how to do this.

5. Set the SCSI ID for each external disk drive to a unique address between 0 and 15, but do not use 7 (reserved for the controller). Do not duplicate SCSI IDs used by internal drives designated for the same channel. For more information on how to set SCSI IDs, refer to the disk drive documentation.

   If you are using an external SCSI cabinet, see the ***Caution*** note above.

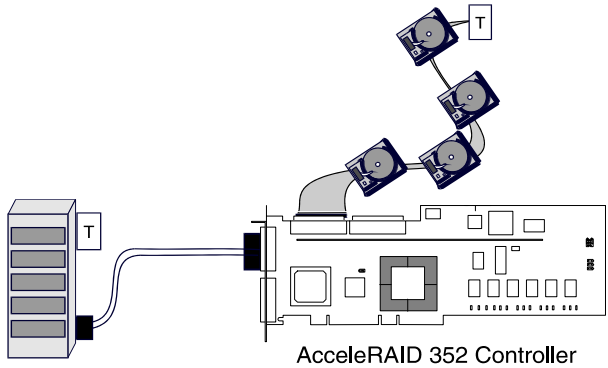

Figure 6. Connecting Internal and External Drives

6. Connect a wide, high-density, 68-pin SCSI ribbon cable to the internal SCSI connector on the AcceleRAID 352 controller and connect the other cable connectors to any SCSI devices as required (see Figure 6). Termination is automatic on the AcceleRAID 352.
7. Connect an active terminator to the end of the SCSI ribbon cable at the end farthest from the controller (see Figure 6).

   External drive cabinets usually have termination built into the end of the SCSI bus. Check the documentation that comes with your drive cabinet to be sure this is the case. If not, use an active terminator at the end of the bus.
8. Connect a cable(s), with the 68 pin VHDCI, to either one or both of the external connector(s) on the AcceleRAID 352 controller. Connect the other end of the cable connector, to other devices or to a SAF-TE external drive cabinet, as required (see Figure 6).

Note

The AcceleRAID 352 terminator is ON by default. It is automatically terminated and will be disabled automatically if necessary.

An example of a typical, completed installation of the AcceleRAID 352 is shown in Figure 7.

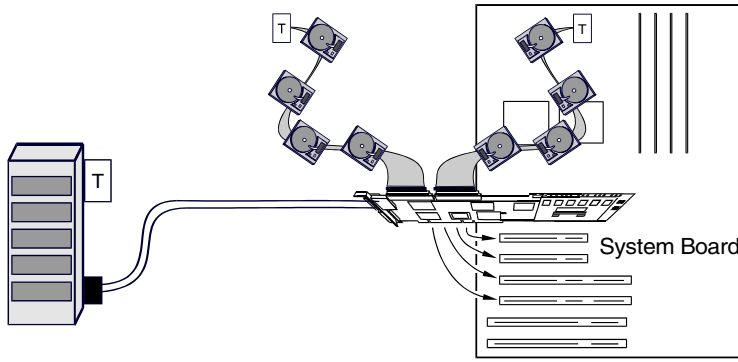

Figure 7. AcceleRAID 352 in a Typical Installation and SCSI Connectors

The hardware portion of the installation is complete.

Please see the following section titled “What to Do Next”.

What to Do Next

1. Use RAID EzAssist to create an automatic or a custom RAID configuration.

   Refer to the *RAID EzAssist Configuration Utility Quick Configuration Guide* or *RAID EzAssist Configuration Utility User Reference Guide.*

2. Install the AcceleRAID 352 controller drivers appropriate for your server’s network operating system.

   Refer to the *PCI Disk Array Controller Drivers Installation Guide and User Manual.*

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