



AcceleRAID™ Quick Installation Guide

**AcceleRAID 170
PCI to Ultra 160 SCSI
RAID Controller**





AcceleRAID™ Quick Installation Guide

AcceleRAID 170 Ultra 160 SCSI to PCI RAID Controller

Part Number 775065-01
08P4094

© Copyright 2000 Mylex Corporation.
All Rights Reserved.

All contents of this manual are copyrighted by Mylex Corporation. The information contained herein is the exclusive property of Mylex Corporation and shall not be copied, transferred, photocopied, translated on paper, film, electronic media, or computer-readable form; or otherwise reproduced in any way, without the express written permission of Mylex Corporation.

Greetings

Thank you for purchasing the Mylex AcceleRAID™ 170 controller. This manual describes the installation of the Mylex AcceleRAID 170 controller. Requests for technical information about this and other Mylex Corporation products should be made to your Mylex authorized reseller or Mylex sales representative.

Please Notice

IBM, Mylex, AcceleRAID, and RAID EzAssist are trademarks or registered trademarks of International Business Machines Corp. and its subsidiaries. Microsoft, MS-DOS, Windows, and Windows NT are registered trademarks of Microsoft Corporation. Novell is a registered trademark of Novell Corporation. Symbios Logic is a registered trademark of Symbios Logic Corporation. Other names that are trademarks may be used herein for the purpose of identifying the products or services of their respective owners. Unless otherwise noted, companies, names and data used in examples herein are fictitious.

Our Policy

Although reasonable efforts have been made to assure the accuracy of the information contained herein, this publication could include technical inaccuracies or typographical errors. Mylex Corporation expressly disclaims liability for any error in this information, and for damages, whether direct, indirect, special, exemplary, consequential or otherwise, that may result from such error, including but not limited to loss of profits resulting from the use or misuse of the manual or information contained therein (even if Mylex Corporation has been advised of the possibility of such damages). Any questions or comments regarding this document or its contents should be addressed to Mylex Corporation at the address shown on the cover.

The following paragraph does not apply to the United Kingdom or any country where such provisions are inconsistent with local law:

MYLEX CORPORATION PROVIDES THIS PUBLICATION “AS IS” WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Some states do not allow disclaimer of express or implied warranties or the limitation or exclusion of liability for indirect, special, exemplary, incidental or consequential damages in certain transactions; therefore, this statement may not apply to you. Also, you may have other rights which vary from jurisdiction to jurisdiction.

Information in this publication is subject to change without notice and does not represent a commitment on the part of Mylex Corporation. Changes may be made periodically to the information herein; these changes will be incorporated in new editions of the publication. Mylex Corporation reserves the right to make improvements and/or changes at any time in the product(s) and/or program(s) described in this publication.

It is possible that this publication may contain reference to, or information about, Mylex Corporation products (machines and programs), programming or services that are not announced in your country. Such references or information must not be construed to mean that Mylex Corporation intends to announce, provide, or make available such Mylex products, programming, or services in your jurisdiction.

Regulatory Information

The AcceleRAID™ 170 complies with the following regulatory agencies:

FC Federal Communications Commission

The FCC information statements are in Appendix E of the AcceleRAID 170 Installation Guide.

CE Community of Europe

The CE information statements are in Appendix E of the AcceleRAID 170 Installation Guide.

Underwriters Laboratories



Table of Contents

Hardware Installation

Introduction	1
Performing an Installation	1
PCI Hot Plug.....	1
Connectors, LEDs, and Jumpers.....	1
Installing the AcceleRAID 170 into the System Board.....	4
What to Do Next	6

Hardware Installation

Introduction

The AcceleRAID 170 is a versatile PCI to single 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 C in the *AcceleRAID 170 Installation Guide* for instructions on how to use the PCI Hot Plug feature.

Connectors, LEDs, and Jumpers

There is one external connector and one internal connector supported on the AcceleRAID 170 controller. The locations of the SCSI connectors are shown in Figure 1 and are labeled as CH 0.

The front side of the controller has three LEDs that are described in Figure 2 and in Table 1.

All the jumpers should normally be set to their default settings. Jumper locations are shown in Figure 3; jumper descriptions are detailed in Table 2.

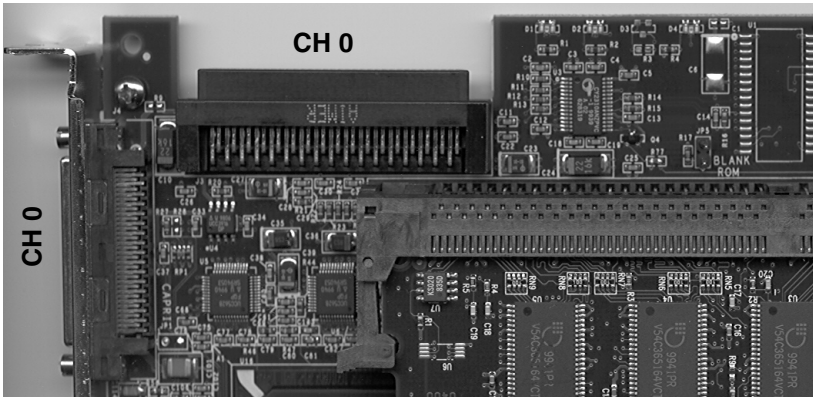


Figure 1. AcceleRAID 170 Controller Channel Connectors

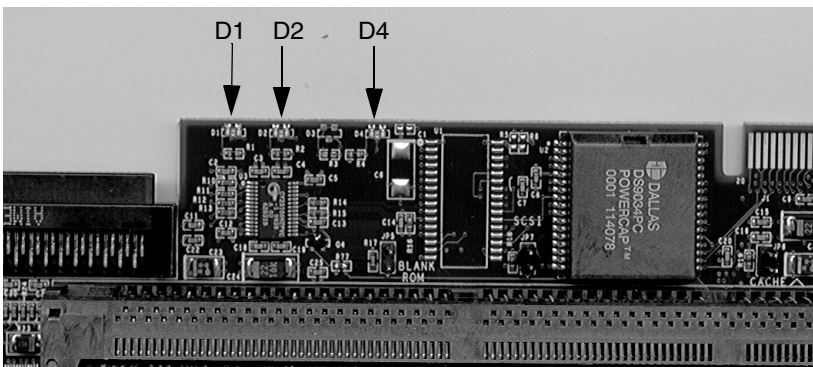


Figure 2. AcceleRAID 170 LEDs (front)

Table 1. LED Descriptions (front)

D 1	SE, Single Ended
D 2	LVD, Low Voltage Differential
D 4	Fail (processor self test)

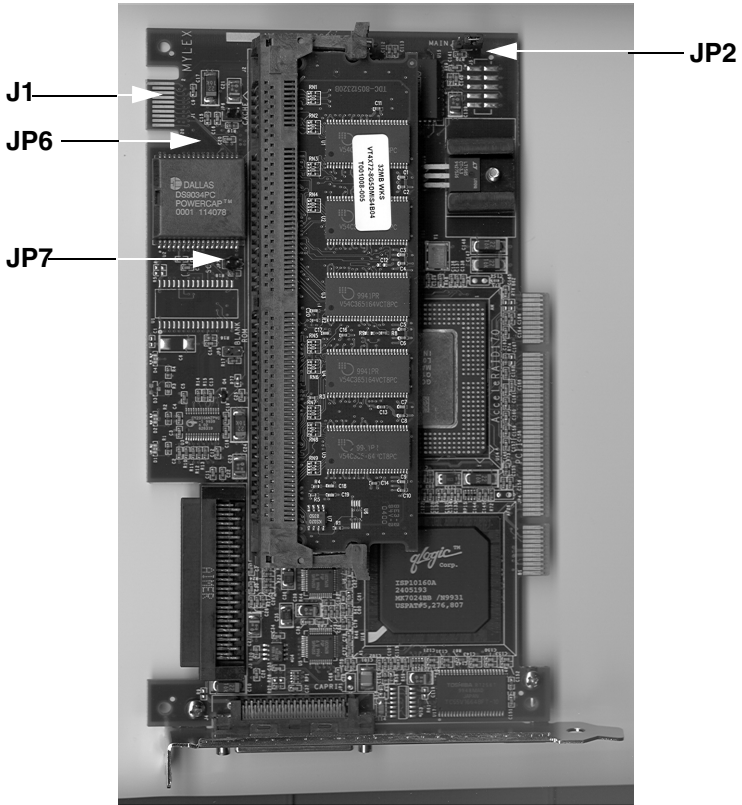


Figure 3. AcceleRAID 170 Jumper Locations

Table 2. AcceleRAID 170 Jumper Descriptions

J1	Manufacturing test point
JP2	Maintenance mode
JP6	Cache dirty (monitor cache write back) — LED header
JP7	BSY (SCSI activity) — LED header

Installing the AcceleRAID 170 Onto the System Board

Caution

Be sure to wear a ground wrist strap at all times.

1. With the power off, plug the AcceleRAID 170 controller into an available 32-bit PCI slot (see Figure 4); the 32-bit slot is short.

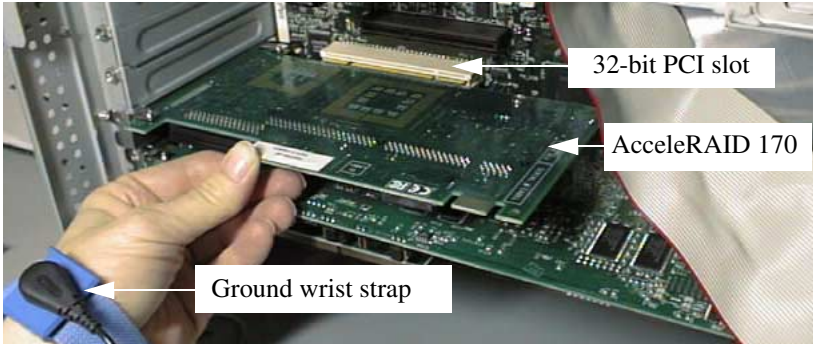


Figure 4. Plugging the AcceleRAID 170 into a PCI Slot

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.

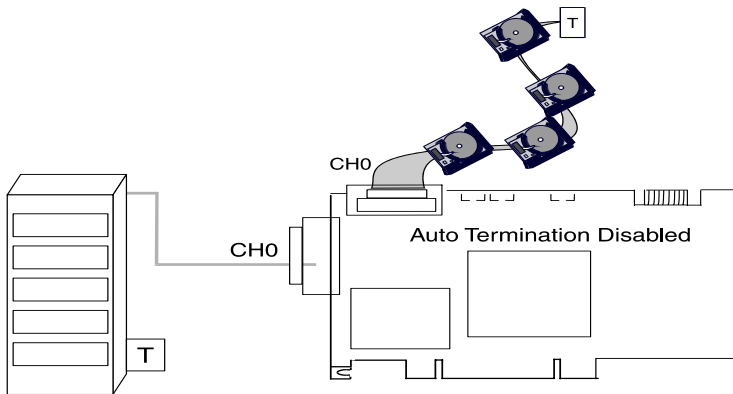
Caution

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.

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



Internal – External Drive Configuration

Figure 5. Connecting Internal and External Drives

Connecting Internal SCSI Devices

- Connect a wide, high-density, 68-pin SCSI ribbon cable to the internal SCSI connector on the AcceleRAID 170 controller and connect the other cable connectors to any SCSI devices as required (see Figure 5). Termination is automatic on the AcceleRAID 170.
- Connect an active terminator to the last device at the end of the SCSI ribbon cable (see Figure 5).

Connection External SCSI Devices

- Connect a cable, with the 68 pin VHDCI, to the external connector on the AcceleRAID 170 controller. Connect the other end of the cable connector to other devices or to a SAF-TE external drive cabinet, as required (see Figure 5).

- 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.

Note

AcceleRAID 170 termination is enabled by default, but will be automatically disabled if necessary.

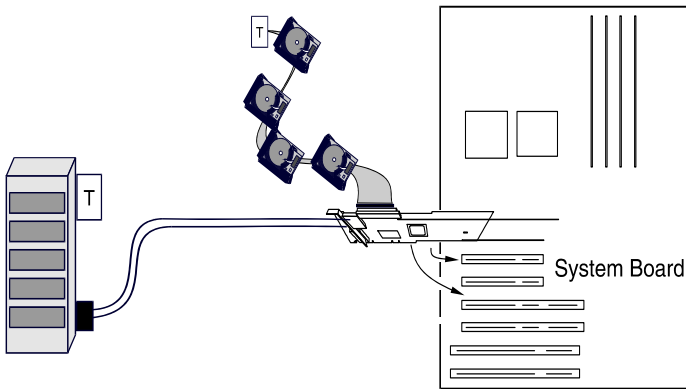


Figure 6. AcceleRAID 170 in a Typical Installation

The hardware portion of the installation is complete.

The AcceleRAID 170 may be used in either a 32-bit or 64-bit PCI slot, although a 32-bit PCI slot is preferred.

A typical installation with the internal channel connected to a ribbon cable with the last device terminated and the external channel connected to an external drive cabinet is illustrated in Figure 6.

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 User Reference Guide*.

2. Install the AcceleRAID 170 controller drivers appropriate for your server's network operating system.

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



CORPORATE OFFICE

34551 Ardenwood Boulevard, Fremont, CA 94555-3607

Tel: 510.796.6100

Domestic Sales Fax: 510.745.8016

International Sales Fax: 510.745.7521

www.mylex.com

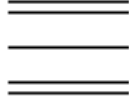
WARRANTY REGISTRATION CARD

To validate your warranty and receive any future updates concerning your product, you must complete and return this Warranty Registration Card within 10 days of purchase. (Please Print)

NAME: _____ COMPANY: _____
ADDRESS: _____ CITY: _____
STATE: _____ ZIP CODE: _____ COUNTRY: _____
TELEPHONE: _____ FAX NO: _____ E-MAIL: _____
DATE PURCHASED: _____ MODEL NO: _____ SERIAL NO: _____
PURCHASED FROM: _____
ADDRESS: _____ CITY: _____
STATE: _____ ZIP CODE: _____ COUNTRY: _____

In order for Mylex to better serve your needs, please complete the following:

- How did you first learn about MYLEX products?
 Advertisement (Name of Pub) _____ Article Review Friend
 Retailer _____ Salesperson Other _____
- Where will this product be used?
 Home Workplace _____
- What other brands, if any, did you consider? _____
- Please indicate the most common uses of your system:
 Personal Business Graphics (CAD/CAM or Business Graphics) Accounting Digital Video
 Data Retrieval Multi-User Multi-Tasking Database
- Which factor most influenced your purchase?
 Company Reputation Price Features (List) _____ Performance
- What does your computer system include? (Please specify brand and model)
 System Unit _____ Peripherals _____
 Monitor _____ Operating System _____
- What add-ons or peripherals are you most considering for future purchase? _____
- What best describes your occupation?
 Management/Administration Sales/Service Technical-Scientific/Engineering MIS Other _____
- Do you have any comments or suggestions? _____



Place
Postage
Here

MYLEX

Mylex Corporation
Customer Service Dept.
34551 Ardenwood Blvd.
Fremont, CA 94555-3607

