
README.TXT

Adaptec ASR-4000/ASR-4800SAS/ASR-4805SAS RAID Controllers
Adaptec AAR-2420SA/AAR-2820SA SATA RAID Controller
Adaptec ASR-2130SLP/ASR-2230SLP SCSI RAID Controller

as of October 20, 2006

Please review this file for important information about issues
and erratas that were discovered after completion of the standard
product documentation. In the case of conflict between various
parts of the documentation set, this file contains the most
current information.

NOTE: The latest BIOS and documentation can be downloaded
from www.adaptec.com.when they become available.

The following information is available in this file:

---
1. Software and Documentation

1.1. Controller & Utility Software

Note: The latest versions of BIOS and driver software

can be downloaded from www.adaptec.com when they become available.

- BIOS

- ACU

- Windows Drivers

  o Windows 2000 Server, Advanced Server, Professional
  o Windows 2003 Server, Standard, Enterprise
  o Windows XP Professional, Home Edition

- Linux Drivers

  o Red Hat Enterprise 3.0, IA-32 and x64
  o Red Hat Enterprise 4.0, IA-32 and x64
  o SuSE Linux Enterprise Server 8.0, 9.0, 10 IA-32 and x64

- Netware Drivers

  o NetWare 6.5

- FreeBSD Drivers

  o FreeBSD 5.3, 5.4, and 6.0

- SCO Drivers

  o OpenServer 5.0, 6.0
  o UnixWare 7.1.4

- Sun Solaris Drivers

  o Solaris 10

1.2. Documentation on this CD

- Adaptec SAS, SATA, and SCSI RAID Controllers Installation and User's Guide

- Adaptec SAS, SATA, and SCSI RAID Controllers README.TXT file

---

2. Installation Instructions

- The Adaptec SAS, SATA, and SCSI RAID Controllers Installation and User's Guide contains complete installation information for the controllers and drivers, as well as complete instructions for all utilities. The Adaptec Storage Manager User's Guide contains complete installation information for the Adaptec Storage Manager software.

---

3. General Cautions

- While an array is being built or cleared, DO NOT remove and reinsert any drive from that array. Doing so may cause unpredictable results for any of the controller's arrays.

- While a drive is being cleared, DO NOT try to include it in a new array. Doing so may cause unpredictable results.

- DO NOT move drives containing an array or volume from one controller to another while the power is on. Doing so could cause the loss of the array configuration or data, or both. Instead, power off both affected controllers, move the drives, and then restart.

---

4. Known Limitations

4.1 Connecting to Adaptec Storage Enclosure 335SAS

The ASR-4000 controller does not support this product.

4.2 Booting to a bootable CD

A system cannot boot to a bootable CD in a SCSI CDRW drive connected to the ASR-2230SLP SCSI RAID controller.

4.3 ASR-4000/ ASR-2130SLP/ ASR-2230SLP controllers

Use only the utilities/flash tools included with this release. Upgrade any existing tools to those included with this release, as this release supports additional features that were not available with previous releases

4.4 ASR-2230SLP controller

With an Intel Pro/1000 MT 32-bit PCI NIC on the system, after controller POST the controller goes to a BLED 0xEF NMI_HANDLER_FAILURE.

4.5 ASR-4800 controller

When the controller is connected to an external enclosure, only the internal SAS connector closest to the bracket is available for use with internal SAS or SATA disk drives. The other internal SAS connector shares the SAS bus with the external connector, which is occupied.

This controller does not support Hitachi DeskStar 500 GB SATA disk drives.

Various devices on the serial bus can negotiate at different speeds. To determine the speed at which a particular device is negotiating, view the device properties in Adaptec Storage Manager. (Click on the device, then click the Properties

button.)

4.6 Using the controller in a Dell Precision 530

When using the controller in a Dell Precision 530 with Diskercise and Diskstress, data corruption/miscompares may occur.

4.7 ACU utility

On some Intel and IBM systems, when you try to run the ACU, this message appears:
“Not enough free memory to load the utility!
Press any key to attempt loading the utility forcibly
OR Wait for the system initialization to be completed
[Default]”
This is normal. On Intel systems, wait for the system initialization to be completed. Then the ACU will run. On IBM systems, press any key when prompted to load the utility forcibly.

The ACU /C0 buildall command does not start a build/verify on RAID 1 or RAID 10 arrays that are being created using the quick init method.

When connected to an 4800SAS or 4805SAS, hard drive information is not seen in ACU. If the system is rebooted, then the drives are seen during the controller post.

4.8 FreeBSD

Adaptec Storage Manager is not supported in FreeBSD; storage management must be done through the Adaptec Configuration Utility.

To enable enhanced features with a feature key, insert the Adaptec RAID Installation CD into your CD drive, launch Adaptec Storage Manager, then unlock the enhanced features, following the instructions provided in the online Help or in the Adaptec Storage Manager User’s Guide.

4.9 Adaptec Storage Manager

After a rebuild and waking up from hibernation, a controller may be detected incorrectly in Adaptec Storage Manager. Press F5 to correct the problem.

4.10 ASR-4805 controller

When the controller is installed in PCI-E slot 2 of a Dell PE 1800 system, there is no BIOS POST.

When the controller is installed in PCI-E slot 3 in a Dell PE 1800 system, the system halts and the keyboard locks up.

When the controller is set to boot from a RAID array and a

second RAID array is created, the controller may no longer be able to find the boot drive.

When the controller is installed in the primary PCIe slot of an Intel 955X or nVidia nForce4 (Intel edition) motherboard, if you use the Adaptec Flash Utility to perform a Mode0 flash, the controller will show incorrectly and cannot be flashed. If a Mode0 flash is required, install the controller in an alternate PCIe slot or alternate computer.

4.11 SAS and SATA controllers and Adaptec 335SAS enclosure

When the Adaptec 335SAS enclosure is attached to an Adaptec SAS controller, such as ASR-4800SAS or ASR-4805SAS, the enclosure numbering nomenclature starts with "0". For example, if two Adaptec 335SAS enclosures are connected to a ASR-4800SAS SAS controller, management tools such as Storage Manager will denote the enclosures as "Enclosure 0" and "Enclosure 1". When the Adaptec 335SAS enclosure is attached to an Adaptec SATA controller, such as AAR-2420SA or AAR-2820SA, the enclosure numbering nomenclature starts with "14". For example, if two Adaptec 335SAS enclosures are connected to an AAR-2820SA SATA controller, management tools such as Storage Manager will denote the enclosures as "Enclosure 14" and "Enclosure 15".

4.12 Installing ASR-2420SA/ASR-2820SA controller on NetWare

When NetWare is installed to an array controlled by an ASR-2420SA or ASR-2820SA controller, the server will not start after reboot.

To work around this issue:

During installation, after creating the DOS partition there is a menu screen labeled "Server Settings" opens. One of the options on this screen is "Boot OS". "DOS" is the default Boot OS option, but select "NetWare" as the Boot OS option instead.

If a DOS boot must be used, pre-configure the bootable DOS partition using MS-DOS 6.22, then install using the existing DOS partition; or, boot from an MS-DOS 6.22 floppy, then change to C:\NWSERVER and execute SERVER.EXE.

4.13 OpenServer 6.0

Arrays may not be displayed correctly, even after you restart your computer.

To resolve the problem:

As root, run 'resmgr -r -m vtoc' until it fails. Then, as root, run '/etc/conf/bin/idconfupdate -f'. Then, reboot.

4.14 Using the ASR-4800 in a Gateway 920

When more than one ASR-4800 controllers are installed in a Gateway 920 server, the system will not POST.

4.15 Netware

If you are using a previous-generation Adaptec RAID controller as a boot controller, the AACRAID.HAM driver must be updated before a new RAID controller is installed.

Back up and replace the current driver using the NetWare file browser or DOS copy. Power down your system and install the new RAID controller. Power on your system, then check for correct driver load on both controllers.

4.16 Creating an Array from the Adaptec Storage Manager CD

When you create an array with the Adaptec Storage Manager bootable CD, the maximum size of the array is 2 TB.

4.17 Using the controller with an Adaptec S50 JBOD Enclosure

Temperature warnings from Adaptec S50 JBOD Enclosure (firmware version T016) are not shown in Adaptec Storage Manager (or on the enclosure).

4.18 SMART errors on SATA controllers

During POST, SMART errors for disk drives connected to SATA controllers are indicated as follows:

- N = No SMART errors reported
- Y = SMART errors reported
- N/A = Disk drive does not support SMART error reports

4.19 Firmware upgrades

Check your controller BIOS settings after upgrading the controller firmware/BIOS, as the BIOS may have been reset to its default settings during the upgrade.

4.20 RAID 10/50/60 array leg limitations

A RAID 10, RAID 50, or RAID 60 array cannot have more than 32 legs when created using the Build method. Maximum disk drive count is only limited by RAID level. For instance, a RAID 10 array built with 32 RAID 1 legs (64 disk drives) is supported; a RAID 5 array built with 32 RAID 5 legs (96 disk drives) is also supported. Although you can create a RAID 10 array with more than 64 drives using the Quick Init method, the maximum number of build/verify operations that can happen at any one time is 32; therefore, such an array could not be verified.

4.21 Microsoft VDS Storage Manager LUN Error

On some systems when creating a new LUN, the Microsoft VDS Storage Manager for SANs snap-in may not work properly and crash with an MMC snap-in error.

4.22 ASR-4805 controller

On Intel 945X or 955X motherboards with Mode0 set, the controller is not recognized when installed in the primary 16x PCIe slot.

4.23 UnixWare and OpenServer

Adding or moving controllers in an existing UnixWare or OpenServer system may cause some device resources to change, which may lead to the operating system being unable to boot. Currently, there is no workaround available in the operating system. Before installing the operating system, make sure all PCI devices are either enabled or installed.

The individual behavior and affected devices will vary from system to system. This is due to the different ways in which motherboards may handle their PCI bus layouts, and how those layouts could be changed when installing or rearranging devices. If the bus layout changes and affects a critical system device (video, boot controller, etc.) then the operating system may be unable to recover from that change and be non-bootable.

4.24 Using the Clear initialization method to partition an array

When partitioning an array using the Clear initialization method under UnixWare, OpenServer 6, and Solaris after the Clear has completed, you must reboot the system and then manually run the utility to make the array available to the operating system.

For UnixWare and OpenServer, use the following command:

/sbin/sdiadd

For Solaris, use the following command:

Devfsadm –I sd

4.25 Cannot install Solaris 10 Update 2 using console mode on ASR-2230SLP Controller

Work Around:
When installing the driver, select item #5 which loads driver disks. The problem using
option #5 is after you load the driver disk it will automatically time out and go to the GUI
mode setup. Bypass the GUI mode setup, when the text mode screen “Proposed Window
System Configuration For Installation:” displays, immediately press the <ESC> key to change
the proposed configuration . A text screen kdmconfig- View and Edit Window System Configuration
displays, press the F3 key (Quit) without saving. A command line will display, install the OS now
(the driver is already loaded). For more information about installing the operating system, see the

Adaptec SAS, SATA, and SCSI RAID Controllers Installation and User's Guide on this CD.
