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Release Notes
Adaptec Serial ATA RAID Controller - 2810SA
Adaptec Storage Manager-Browser Edition
as of November 2003
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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 firmware and documentation will be available
for download at http://www.adaptec.com.

The following information is available in this file:

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1. Software Versions and Documentation on CD

    1.1. Controller & Utility Software
        - Firmware Version: 7211
        - ACU Version: 7211
        - Storage Manager Version-Browser Edition: 1.23.006

    1.2. Documentation
        - Serial ATA RAID 2810SA Quick Installation Guide (printed)
        - Serial ATA RAID 2810SA Installation and User's Guide
           (see file on CD: AAR-2810SA_IUG.PDF)
        - Serial ATA RAID 2810SA RAID Command Line Interface (CLI)
           Software Reference Guide (see file on CD: RAIDSWRG.PDF)
        - Adaptec Storage Manager-Browser Edition Online Help
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2. Installation Instructions

    2.1. Software
         The storage management software distributed with the Adaptec
         2810SA is Adaptec Storage Manager-Browser Edition. Install
         Adaptec Storage Manager-Browser Edition on Windows or
         Linux platforms as detailed in the product documentation
         provided on the CD in PDF format.

    2.2. Hardware
         Hardware installation instructions are also detailed in the
         product documentation.

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3. General

    - The Adaptec 2810SA allows you to import arrays or
      legacy volumes created using the Adaptec 1210SA and 2410SA
      RAID controllers.

    - Although the Adaptec management utilities allow the creation
      of RAID-50's with the Adaptec 2810SA, this RAID level is not
      supported at this time.

    - RAID 10 with 16k stripe size is not supported. An attempt to
      create a RAID 10 with a 16k stripe size results in an error.

    - RAID 10 with two or more degraded legs will rebuild the legs
      sequentially, not simultaneously.

    - When morphing a RAID 1 or RAID 5 to a RAID 0, and the original
      array had a spare drive attached, the RAID 0 that results after
      the morphing operation continues to have the spare drive
      attached.

    - The Adaptec 2810SA does not support PCI-Hotplug.

    - Adaptec recommends that you do not run Adaptec Storage Manager-
      Browser Edition and CLI (Command Line Interface) at the same
      time.

    - After pulling a hot spare and successfully building it into a
      redundant array, information about the hot spare drive may not
      display as expected. Adaptec Storage Manager-Browser Edition
      may continue to display it as a global hot spare. CLI may
      continue to display it as a global spare, but the array will
      not have a spare attached. ARC (the BIOS utility) displays the
      spare attached to the array as expected.

    - Attach only new drives to the Adaptec 2810SA.  New drives are
      either drives that are being used for the first time, or used
      drives that have been initialized or low-level formatted.
      Attaching used drives may result in problems such as (but not
      limited to):
      ° Existing/rebuilding arrays may go off line

° Interrupted rebuilds may continue on the wrong drive

- Removing and reinserting an array's drive while the array is
  still building/clearing may result in unpredictable status
  being reported for any and all of the controller's arrays.

- You cannot move drives containing an array/volume from one
  controller to another while power is on. Move drives by
  powering off both affected controllers; relocating the drives;
  and powering on the controller/drives at the new location.
  Failure to do this can result in loss of configuration or
  data or both.

- When you display information on a physical device,the vendor
  and model information may be displayed incorrectly.

- After building or verifying a leg of a second level array,
  the status of the second-level array displays as a Quick
  Initialized array.

- In a situation where a RAID-10 is degraded, the BIOS reports
  an error message that says degraded RAID-0 and degraded
  RAID-1 (instead of degraded RAID-10).

- You can not change the priority of a RAID-10 verify. Setting
  the priority at the start of a verify has no effect. The
  priority is still shown as high. Changing the priority of
  a running verify on a raid-10 changes the displayed priority
  until a rescan is done, then the priority shows as high again.

- SATA events are displayed with SCSI nomenclature.

- If you experience problems with your video display or mouse
  when using the Adaptec CD as the boot media for a system,
  you'll need to specify your hardware by typing the following
  at the command prompt:

  bootcd [options] <Enter> or lowres [options] <Enter>

  lowres forces the bootcd to use a generic framebuffer of 640x480
  fbdev forces the bootcd to use a generic framebuffer of 800x600

  options:
  ° m=<mouse type>
  ° s=<video server type>
  ° mon=<monitor value>
  ° p=<port> fbdev

  ° <mouse type>
    man (for manual configuration, or
    serial:    generic, thinking, logitech, logitechcc, msnew,
               msintelli, mousesystems, mmseries, mmhittab
    non-serial:      alpsps/2, atibm, geniusnmps/2, geniusnsps/2,
                     thinkingps/2, logibm, logimman+ps/2,
                     msintellips/2, msbm, usb

  ° <port> is a number from 1 to 4 representing com1..com4

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     for serial mice)

  ° <video server type>
     man (for manual configuration), or
     vga16 svga s3 mach32 mach8 8514 p9000 agx w32 mach64 i128
     s3V 3dlabs

  ° <monitor value> can be a number from 0 to 11:

     0 - 640x480  @ 60 Hz
     1 - 800x600  @ 56 Hz
     2 - 1024x768 @ 87 Hz int (no 800x600)
     3 - 1024x768 @ 87 Hz int, 800x600 @ 56 Hz
     4 - 800x600  @ 60 Hz, 640x480 @ 72 Hz
     5 - 1024x768 @ 60 Hz, 800x600 @ 72 Hz
     6 - 1024x768  @ 70 Hz
     7 - 1280x1024 @ 60 Hz
     8 - 1280x1024 @ 74 Hz
     9 - 1280x1024 @ 76 Hz
     10 - 1600x1200 @ 70 Hz
     11 - 1600x1200 @ 76 Hz
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4. ACU (Adaptec Configuration Utility)

   In the ACU, a RAID 10 created using CLEAR mode shows as
   "UNPROTECTED" until it is cleared. Drive status is also
   shown as Not Busy, even though they are clearing.

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5. AFU (Adaptec Flash Utility)

   - The Adaptec 2810SA's AFU.EXE does not support the
     /reset command.

   - AFU does not display the correct Build number of firmware that
     is flashing. It always displays build 0 during flashing,
     verifying, and displaying flash information.

   - When you execute AFU and choose the "Save Flash Image" you'll
     see a message that asks you to insert the disk labelled AA2161
     firmware. Please insert a "blank" disk and label it "AA2161
     Firmware Disk 1. Ensure that the blank disk is formatted and
     has enough space. If it is not formatted you will receive an
     error message telling you that the disk cannot be opened. If
     disk does not have enough space to save the flash image, the
     error message will tell you that an error occurred while
     saving the image and will save an incomplete image file.

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6. CLI (Command Line Interface)

   CLI, a command line storage management utility, allows you to
   create and manage your disk arrays from a command prompt on all
   supported operating systems.

   - No Readme items for this feature

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7. Adaptec Storage Manager-Browser Edition

    - To use Adaptec Storage Manager-Browser Edition in Internet
      Explorer (IE), you must have IE's active scripting feature
      (Javascript) enabled in its Tools > Internet Options area.

    - Adaptec Storage Manager-Browser Edition includes an
      enhancement called Down a Drive. This allows you to treat a
      drive as if it had failed. By doing so, the firmware behaves
      as if the drive had failed on its own. This can be useful to
      force failover to a spare, etc.

    - Blink LED feature - In situations where SATA devices are
      contained in an enclosure that is supported by the Adaptec
      2810SA, this feature can be used to blink the LEDs on all
      members of an array.

    - Starting Adaptec Storage Manager-Browser Edition using
      Internet Explorer on a system not attached to a network
      results in a dialog box showing:
           Work Offline
           No connection to the internet is currently available. To
           view internet content that has been saved on your computer,
           click Work Offline.
           Click Try Again to attempt to connect.
           [ Work Offline ] [ Try Again ]
      Click 'Try Again' to continue using Adaptec Storage Manager-
      Browser Edition. 'Work Offline' does not continue as
      expected.

    - Staying logged on to Adaptec Storage Manager-Browser Edition
      and using the Refresh function increases memory comsumption.
      Eventually, the application could use up virtual memory,
      slowing the system down, and finally causing it to hang. To
      avoid this, Adaptec recommends closing the browser window
      after every session in which you create or manage arrays.

    - When managing a remote system, you'll receive no overt
      notification if the remote system has been restarted or
      rebooted. This is problematic only if you leave a connection
      session open for a period of time while not making use of it.
      When managing a remote managed system, Adaptec recommends
      re-logging onto that system.

    - When running Adaptec Storage Manager-Browser Edition on a
      remote client, it is possible that information related to
      both physical and logical devices will stop being displayed.
      If this happens, you must log out, close the current browser
      window, run Adaptec Storage Manager-Browser Edition and then
      log in again.

    - Some versions of Internet Explorer may refuse to acknowledge
      session cookies when the server name being used to point to a
      system is an alias. An alias is a name stored in a nameserver
      to associate commonly used names on a network to the actual
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name or IP number of a server or system on that network. Use either the primary name referenced in the nameserver, or an IP address.

- Adaptec Storage Manager-Browser Edition requires the browser to have session level cookies enabled. Session cookies do not store information on your hard drive and are destroyed when you close the browser window. Adaptec Storage Manager-Browser Edition uses a session cookie to establish a relationship between your browser and your system login information on the web server.

- While Adaptec Storage Manager-Browser Edition does support and control earlier Adaptec RAID products, it does not operate with arrays on those products having a stripe size larger than 64kB. You can not expand arrays using stripe sizes greater than 64kB or smaller than 16kB. To convert older arrays that use these unsupported stripe sizes:
  ° back up data on the old arrays while connected to the older controller
  ° create new arrays on the new controller
  ° restore the backed-up data to the new arrays

- It is possible to log onto a Web-server only system that is part of a RAID controller network. Using a web-server system to attempt to log on to another system not having Adaptec Storage Manager-Browser Edition installed will fail as expected, but the web-server will allow you to log into localhost. The web-server-only system will show no controllers installed.

- Editing the *.conf files may affect the file's permissions. This could require overtly setting the owner to Administrators-Only. Possible impact:
  ° Web-Server only installations responding to managed system requests
  ° Managed-System only responding to web server requests
  ° Host filter lists being ignored
  ° Permitted user lists being ignored

- When Adaptec Storage Manager-Browser Edition is installed on Linux, an icon/shortcut is installed in the root/system folder hierarchy. It also adds an entry in Mozilla's bookmarks.

- When using Adaptec Storage Manager-Browser Edition on a system that also uses Adaptec Storage Manager Pro, uninstalling Adaptec Storage Manager-Browser Edition causes Adaptec Storage Manager Pro to malfunction. You must uninstall Adaptec Storage Manager Pro, then reinstall it.

- When a browser window is open and attached to an active Adaptec Storage Manager-Browser Edition session, opening another window in the browser creates another browser window automatically attached to the same Adaptec Storage Manager-Browser Edition session. If the second session logs off of the Adaptec Storage Manager-Browser Edition service, other browser sessions lose their attachments.

- When Adaptec Storage Manager-Browser Edition is installed on
  a FAT32 partition that is changed to an NTFS partition,
  Adaptec Storage Manager-Browser Edition no longer functions.
  To repair it, use the repair function in Add/Remove programs,
  or uninstall and reinstall it.

- Performing a Verify or Verify/Fix on an RAID 10 displays the
  same message text in the event log. The message is similar to:

  Build/Verify started on second level array of array "Array_0"

  You may see the message three times for a verify, but only
  once for a verify/fix.

- Task priority is not retained after rebooting. If you change
  a priority to LOW or MEDIUM, and reboot, the priority always
  turns back to the default priority of HIGH.

- When an array fails, the array name returns to its default
  name.

- Do not attempt to include a drive that is clearing in a
  new array. Doing so causes Adaptec Storage Manager-Browser
  Edition to crash and you'll need to restart.

- The Adaptec 2810SA is not listed as a supported controller
  in the online Help files. However, Adaptec Storage
  Manager-Browser Edition fully supports the Adaptec 2810SA.

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8. Operating System Issues

    8.1. Linux (General)

        This release supports the following Linux distributions:

        Red Hat 8.0 and 9.0
        Red Hat Advanced Server 2.1
        SuSE 8.1 and 8.2
        SuSE SLES 8.0

        When you delete an array on Linux, the operating
        system can no longer see the last array either. To allow
        the operating system to see the last array, reboot your
        system.

    8.2. Red Hat Linux

        Using Adaptec Storage Manager-Browser Edition on RedHat
        to create arrays on previous generation Adaptec RAID
        controllers is supported. However, the system hangs if you
        try to create a size-limited array with that combination.

    8.3. Windows

        - To format a logical volume in Windows 2000, Windows XP, or
          Windows Server 2003, it is recommended that you use the

operating system's Disk Management or Disk Manager tools
instead of right-clicking the drive listed in My Computer.
Formatting using the My Computer function, may result in an
incomplete format which would make it necessary to reformat
the drive.

- On Windows 2000, be sure you have installed the most recent
  service pack. At a minimum, you should use Service Pack 3.

- On Windows 2000, more event notificatins are generated
  than arrays degraded. For example, in a configuration with
  four Raid 5's sharing three drives, failing one drive
  produces six notifications--one for each of the arrays
  affected, plus two extra for the second array.

- When using Adaptec Storage Manager-Browser Edition on
  Windows you may experience significant delays in the
  notification of events. In some cases, events are not
  reported until another action is performed that affects
  the drives or arrays. Also, when you reinsert a failed
  or new drive into an array, you may find that the
  notification/request to rescan for the new configuration
  is either extremely delayed or never occurs. A manual
  rescan at this point fails, and you must reboot to
  successfully run Adaptec Storage Manager-Browser Edition.

9.0 Motherboards and System-Specific Compatability Issues

   9.1. BBS (BIOS Boot Specification)

       On motherboard BIOSes supporting BBS, BBS support is usually
       enabled on the Adaptec 2810SA. However, if the system has
       problems booting with that configuration, disable BBS.

   9.2. ASUS

       On the ASUS P4PE motherboard, the system generates many
       event 15's. The system operates normally and you ignore it.
       However, to avoid filling up the event log, Adaptec
       recommends deleting them.

       On the ASUS P3C-2000 and P2B motherboard families, the
       system will hang during BIOS initialization when an
       Adaptec 2810SA is installed.

   9.3. HP

       On systems running HP's OpenView Network Node Manager, you
       can not uninstall Adaptec Storage Manager-Browser Edition
       using the regular uninstall script. If you attempt to do so,
       you'll see a message indicating that the SNMP service must
       be stopped manually. This is because OpenView installs its
       own master SNMP agent. Stop the service manually, then
       uninstall Adaptec Storage Manager-Browser Edition.

   9.4. IBM

If you install the Adaptec 2810SA in a 64-bit slot on an
IBM E-Server XSeries 220 systems, you may experience
problems booting. When installed in a 64-bit slot and the
on-board SCSI controller is enabled, the system freezes
when POST scans the Adaptec 2810SA. The controller card's
banner displays, immediately followed by BIOS NOT INSTALLED,
and the system freezes. Controller card settings do not have
any effect on the failure. To resolve the problem, either
install the Adaptec 2810SA in a 32-bit slot or disable the
onboard SCSI controller.

On the IBM Netfinity 5000, the system generates many
Event 9's. The system will contiunue to operate normally.
However, to avoid filling up the event log, Adaptec
recommends deleting them.

9.5. Microstar

On the Microstar MS-6321, do not install the Adaptec 2810SA
into the PCI 5 slot. Using this slot may result in a system
POST error in which the system stops responding to user
input after displaying the "Controller Started" message.

9.6. Tyan Trinity 400

On these motherboards running Windows Server 2003 (and
possibly other Windows systems), the Adaptec 2810SA can
not be installed in Slot #5 or Slot #6. Also, on Windows
Server 2003 (and possibly other Windows versions), the
Adaptec 2810SA fails to boot from other devices if
installed in either Slot 5 or Slot 6.

9.7 SOYO KT333 Dragon Ultra

The Adaptec 2810SA driver can not coexist wih the
sound driver (system's onboard C-Media 8738). The
system reboots then locks up when the OS is started.
Either do not install the sound driver or disable
sound hardware in the system's BIOS.

9.8 SuperMicro

The Adaptec 2810SA does not support Mode 0 flash on the
SuperMicro P3T-DDE motherboard.