

RAID-500UW/U2 Ultra Wide / Ultra2 SCSI RAID Subsystem

Features At A Glance

- ✓ 5U, Eight Half-height Disk Cartridges
- ✓ Hot-swap Redundant Power Supply
- ✓ Fault Detection/ Alarm Notification
- ✓ Hot-swap, Hot-spare, Auto-rebuild
- ✓ On-line Capacity Expansion



Specifications

Enclosure

Disk cartridge	8 x front-accessible half-height drives
Power	300 W AC/DC redundant hot-swap power supply
Cooling Fan	2 x 49 CFM cooling fans
LED Indicators	Power failure, fan failure and overheating
Drive Indicators	Two indicators for drive data access and failure
Fault Detection	Advanced fault detection and alarm notification for power failure, fan failure and overheating

RAID Controller

RAID Level	0, 1, (0+1), 3 or 5, 30, 50
Interface	Ultra Wide(RAID-500UW) Ultra2 (RAID-500U2) (68-pin connector)
LCD Status	Indicator on the front panel
SCSI Channels	4 (up to 8 optional channels)
Data Cache	32 MB DRAM(up to 128M)

Standalone SubSystem

Host-independent RAID Solution

The RAID-500UW/U2 disk array is a stand-alone subsystem. You can handle the RAID-500 series as easily as handling a single SCSI HDD. It can be driven by any standard Ultra Wide / Ultra 2 SCSI adapter card, with no compatibility problems.

The independent storage subsystem provides data availability. For redundant host applications, the storage system to functions normally even if one of the system hosts fails.



The RAID controller provides four operation buttons and an LCD display window for users to easily configure the RAID parameters.

Expansion Tips

Data Security

Hot-swap, auto-rebuild, hot-spare

The RAID-500 series provides several configurations designed for high data availability. The failed HDD can be hot-swapped and replaced with a new HDD. The system will dynamically reconfigure the drives and auto-rebuild the lost data in the background, with no need for rebooting.

Users can specify some of the HDDs as spare in advance, thus enabling the RAID-500 to use the spare HDDs to recover data automatically (hot-spare). Other functions include hot stand-by, auto drive failure detection, and so on.



The RAID-500 UW/U2 comes with a 300 W hot-swap redundant power supply providing greater reliability and minimized downtime.

System Monitoring

Real-time, remote alarm notification

The RAID-500 is equipped with an alarm board for automatically detecting and notifying you of a power failure, fan failure and overheating (over 65°C) within the chassis. Audible and visual alarms enable users to locate the problems immediately.

You can also set your system to send the alarm notification to a remote host, or a pager via a modem, and to provide real-time and intelligent management of the server system.

Heat-Dissipation

Ideal heat-dissipation disk cartridge

The disk cartridge chassis of the RAID-500 series, being made of aluminum, does not heat up as much as other material. It delivers ideal heat-dissipation for stable operation.



Comparison of RAID-500UW & RAID-500U2

Specifications	RAID-500UW	RAID-500U2
Interface	Ultra Wide SCSI	Ultra2 SCSI
Data Transfer	40MB/Sec	80MB/Sec
Cabling Interface	Single-ended	LVD
Cable length	1.5M	12M

The on-line expandability of the RAID-500UW/U2 will save you time and give you the flexibility to easily upgrade and scale your system whenever required. This gives efficient and predictable growth to meet the demands of even the fastest-expanding data storage requirements.

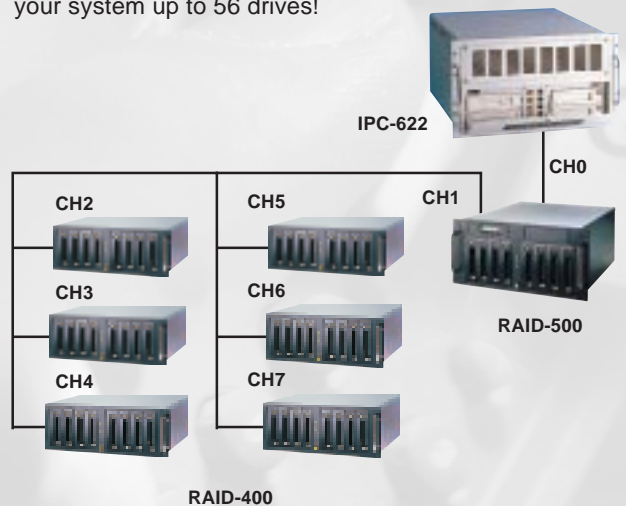
On-line Expansion for Single RAID-500UW/U2 Unit

New HDDs can be added to the RAID-500UW/U2 spare disk cartridge on-line and can be scanned and identified automatically. The system will update the configuration in the background.



Scalability for Huge Capacity RAID Subsystem

To upgrade your system, the RAID-500UW/U2 provides 8 optional 8 SCSI channels for connecting multiple drives. Each SCSI channel supports up to 8 drives, enabling you to expand your system up to 56 drives!



RAID-400: Expansion Enclosure



The RAID-400 is the ideal choice as your drive expansion enclosure. Only 4U in height, it offers high storage capacity and greater storage density.

High-end RAID Configuration for Non-stop Systems

More and more applications require high-availability solutions for non-stop systems. Systems, such as computer telephony and network servers, must be capable of operating around the clock without failure. Here is how Advantech's IPC and RAID-500/400 Series deliver server-level fault-tolerance, reliability and availability.



Redundant host - NT clustering systems

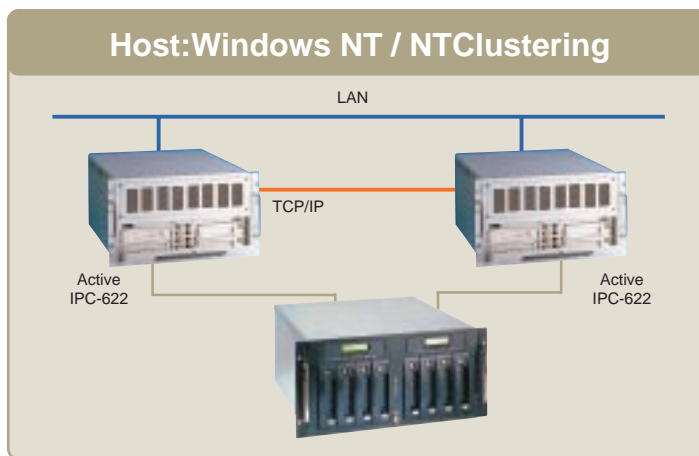
The dual-host clustering solution keeps server-based applications highly available, regardless of individual host failures.

The RAID-500 Series can be connected to two network NT servers simultaneously, and configure them as two active servers (mutual backup) or as hot-standby servers (one active and one backup). It protects your servers and data storage from component and application failures.

Redundant controller - RAID controller upgrade

RAID-500UW/U2 also supports the hot-swap, redundant RAID controller. Both controllers are attached to the drives in an active-standby or dual-active mode. If the primary controller fails, the secondary controller immediately assumes command of the drive array with no interruption to operation or loss of data. The two controllers can monitor each other's status.

This configuration delivers higher protection from controller failure and data loss.



The above special configuration is not a standard offer of Advantech. Please contact our regional application engineer at <http://support.advantech.com> for further information.

Selection Guide



	Redundant RAID Subsystem (5U)		RAID Subsystem (5U)	
Ordering Information				
P/N	RAID-500U2-R8	RAID-500UW-R8	RAID-500U2	RAID-500UW
Specifications				
RAID Controller	Yes (Dual)	Yes (Dual)	Yes (Single)	Yes (Single)
SCSI Interface	Ultra2 Wide	Ultra Wide	Ultra2 Wide	Ultra Wide
RAID Level	Level 0, 1(0+1), 3 or 5, 30, 50			
SCSI Bandwidth	80 MB/S	40 MB/S	80 MB/S	40 MB/S
SCSI Cabel	LVDS	Single-End	LVDS	Single-End
DRAM for RAID controller	64 MB	64 MB	32 MB	32 MB
Disk Cartridges Installed	8	8	8	8
General Features				
Dimemions	482mm(W) x 222.25mm(H) x 482mm(D) 19"(W) x 8.75"(H) x 19"(D)		482mm(W) x 177.8mm(H) x 482mm(D) 19"(W) x 7"(H) x 19"(D)	
Redundant Power Supply	Hot-swappable, 300-watt, AC toDC Power On/Off Switch on each Power Module Output voltage: +5V@32A, +12V@11A, Min. load: +5 V@3A, +12V@1A MTBF:100,000hrs, UL/C-UL/TUV/CE approved			
Cooling Fans	Two 49CFM Cooling Fans			
Fault Detection System	Fault Detection & Alarm Notification : Power / Fan / Temperature			
LED Indicators	Bi-Colors LEDs for Power / Fan / Temperature : Normal is green color, innormal is red with audible buzzle			
Controls	Alarm Reset Botton			
CE Compliant	YES			
Operating Temperature	0° - 50° C (32° -122° F)			
Relative Humidity	20 - 90% @ 50° C (122° F) non-condensing			
Fault-Resilient Features				
Components	Redundant Power Supply, Redundant RAID Controller, Hot-swappable Hard Drive, Fault Detection and Alarm system			

RAID Enclosure (No Controller & Cartridges Included)

P/N	RAID-500	RAID-400
Height	5U	4U
Dimension	482 x 222.25 x 482 mm	482 x 177.8 x 482 mm

Optional Storage Devices

CD-FDD COMBO	Slim-type CD-ROM/FDD Fits into One Half-height Disk Drive
RHC-U2-BLK	SCSI Ultra2 Wide Removable HDD Cartridge, black