



# 12 Bay RAID 4U Subsystem Dual Host (2Gb Fibre or Ultra3) to IDE

### With Support for:

- RAID Levels 0, 1 (0+1), 3, 5
- Two Ultra3 SCSI Host Channels
- Two 2Gb Fibre Host Channels
- 12 Ultra DMA 100 Disk Channels

*FAULT DETECTION  
HOT-SWAP MAINTENANCE  
UNINTERRUPTED OPERATION*

### Enclosure

- Attractive Low Profile, 4U Enclosure, in Rackmount or Tower Configurations.
- Includes One RAID Controller and 12 ATA-100 IDE Hard Disk Drive Trays.
- Three 300W, Hot-Swappable, Redundant, Load Sharing Power Supplies
- Three Hot-Swappable, Redundant Dual Fan Assemblies Provide Front-to-Rear Cooling.
- Easy Hot-Swappable Replacement of Drives, Power Supplies and Fans While System Remains Online
- Hot Spare for Stand-by Disk Drive Automatically Takes Over in the Event of a Disk Failure
- System Status Visual Indicators and Audible Alarms for Individual Components - Drive Trays, Power Supplies and Fans
- Aluminum Drive Trays for Heat Dissipation and Emissions Protection.
- Cableless Design Utilizes Backplane and Connectors to Improve Signal Quality and System Reliability.
- Automatic Drive Failure Detection and Automatic Drive Online Rebuilding
- Audible Alarm, Pager and Fax Notification
- Agency Approved
- One Year Warranty

### Management Software

- GUI Software for Windows 2000 / NT, Solaris, Linux Available
- Firmware Embedded Manager via RS-232C (Platform Independent)



TR Series



RM Series

### Controller

- Twelve UltraDMA 100 Disk Channel's
- Power Intel i80303 64 Bit RISC CPU
- Standard 128Mb Cache Memory on One SDRAM
- Upgradable up to 512Mb
- Firmware in Flash ROM for Easy Upgrades
- Automatic Bad-Sector Reassignment

### Host Interface

- Dual Ultra3 SCSI or 2Gb Fibre Host Channels
- Transfer Rate up to 160Mbps/Channel with Ultra3
- Transfer Rate up to 2Gb/Sec per Loop with Fibre





**ELECTRICAL**

**AC Input Power**

Voltage 110-230VAC ± 15% (Switch Selectable)  
Frequency 46 to 63Hz  
Protection 10A/250V Fuse  
Efficiency PFC Function

**DC Output Power**

Continuous (Three Units - Load Sharing)  
300W Each, 900W Total

**ENVIRONMENTAL**

**Temperature**

Operating 10 to 35° C  
Storage -40 to 60° C

**Humidity**

20% to 80%  
Non-Condensing

**Altitude**

Operating 0 to 10,000 Feet  
Storage 0 to 30,000 Feet

**PHYSICAL**

**Installation**

Tower or Rackmount Configurations Available

**Dimensions (RM12)**

17" (w/o Handle) 19"w (w/Handle), 19.5"d x 7"h

**(TR12)**

8"(w/o Stand) 9.5"w (w/Stand) 20"d x 18.5"h

**Weight**

RM12 - 55 Lbs (w/o Disk Drives)  
TR12 - 66 Lbs (w/o Disk Drives)

**CONFIGURATION**

**Drive Trays**

Twelve 3.5 x 1 Inch Low Profile Drive Trays  
(Supports up to ATA 133 HDD's)

**Power Supplies**

Three 300W Power Supplies with PFC

**RAID Controller**

Fixed Mount

**HOST & COMMUNICATION**

**Ultra3 Host**

Two Standard 68 pin Connections

**Fibre Host**

Two HSSDC

**Terminal**

One RS232

**Modem**

One RS232

**COOLING**

Three Fan Modules Provide Front to Rear Cooling  
Dual Fans Within Individual Power Supplies  
All-Metal Construction with Aluminum Drive Trays

**ACCESS**

**Peripherals**

Fast-Disconnect Trays - Hot- Swappable

**Power Supplies**

Mounted on Rear Panel, Secured by Captive  
Screws - Hot-Swappable

**Fans**

Mounted on Rear Panel, Secured by Captive  
Screws - Hot-Swappable

**FAULT INDICATORS**

**Drive Power**

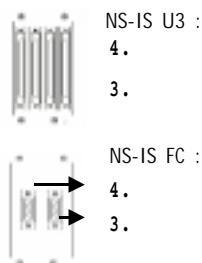
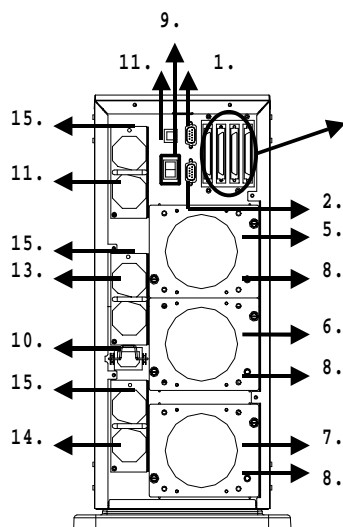
Amber LED - Access, Red LED - Error,  
Green LED - Online

**Power Supplies**

Red LED on Front of Enclosure and Audible  
Alarm  
LEDs on each Power Supply Module  
Identifying Specific Failed Power Supply  
LEDs on Front Panel and Audible Alarm

**ADDITIONAL OPTIONS**

Tower or Rackmount Configurations  
OEM Logo Silkscreening  
Local/Remote Critical Component Monitor - Power Supplies,  
Fans, Environmental Temperature



- 1. RS232 Port (For Terminal)
- 2. Modem Port
- NS-IS TR12 / RM12 U3 :
  - 3. Host SCSI Channel Port
  - 4. Second Host SCSI Channel Port
- NS-IS TR12 / RM12 FC :
  - 3. 1st Fibre Channel Loop
  - 4. 2nd Fibre Channel Loop
- 5. System Cooling Module 1.
- 6. System Cooling Module 2.
- 7. System Cooling Module 3.
- 8. System Cooling Module Fail Indicator.
- 9. Power Switch
- 10. AC Inlet with the Latch
- 11. Power Supply "Alarm" Reset Button.
- 12. Power Module 1.
- 13. Power Module 2.
- 14. Power Module 3.
- 15. Power Indicator LED on Module.

