

User Manual

No User Manual and no other type of documentation is provided along with the EUT. Instructions for use are contained in a Compact Disk that is included in the packaging of the Personal Computer.

Consequently, no FCC statement available for the EUT except for the wording shown on the rating label.

Code 2683671S (00)

Server Line

Connecting a Storage PEM

Index on fully eliminated images pages. The index is
provided with the set, and is intended to be used for
reference.
Index on paper technology grant application. The
index is provided to the client for reference. The
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CONNECTING A STORAGE PEM

What is a Storage PEM?

The Storage PEM (Peripheral Expansion Module) is similar to the main system cabinet and has the same dimensions. It features the same power supply, fans and system monitoring. This cabinet hosts two ranks of 6 disks each for a total of 12 HDUs: in this way two SCSI channels are available for each PEM.

Consequently, the system can connect up to 6 PEM (4 RAID controllers, 3 channels). Duplexing is also allowed between the two disk ranks. Each rank of disks is made up of the same components of the system's disk cage (SAF-TE board, SCSI WIDE back plane). The PEM connection to the system can be only done in WIDE mode, despite of the ULTRA WIDE controller present in the system.

The Storage PEM also contains one hot pluggable power supply unit, one set of two fans and one set of three fans in the standard configuration, and two hot pluggable power supply units with two sets of two fans, each one, and two sets of three fans, each one, in the redundant configuration as shown in the following left and right views.

An appropriate kit must be ordered to upgrade a PEM from the standard configuration to the redundant configuration.



The installation of the "Redundant kit" on the PEM must be performed by the technical services.

The PEM has two series of LEDs (one for each back plane). The LEDs on the right hand side of the front panel show the status of the 1st back plane area; the LEDs on the left hand side show the status of the 2nd back plane.

The LEDs light up to indicate the following situations:

- SYS ON (green LED): PEM powered-on.
- SCSI BUSY (green LED): SCSI channel active.
- HDU FAULT (amber LED): faulty hard disk.
- Hot swapping allows the faulty disk to be easily replaced.
- SYS FAULT (amber LED on the left hand side): high temperature of hard disks
- SYS FAULT (amber LED on the right hand side): power supply and fans in fault condition and high temperature of hard disks.

PEM connection procedures



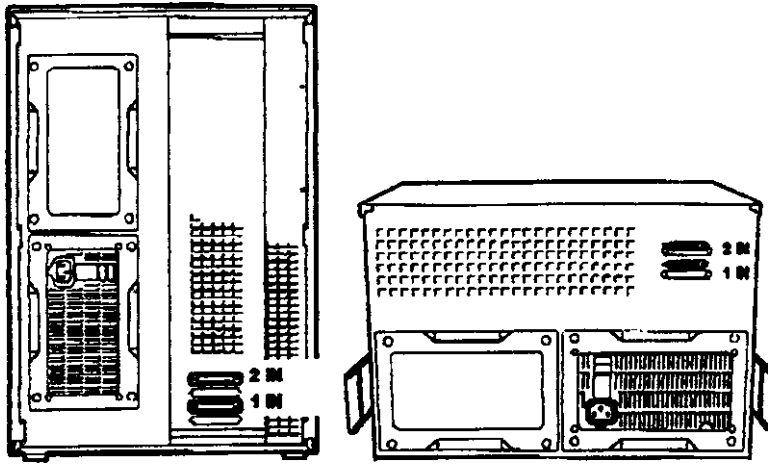
To connect a PEM carry out the following steps:

1. Locate one or two free external SCSI connectors on the system module back panel that corresponds to a RAID controller that is not connected internally.



The number of SCSI connectors depends on the number of back planes that are to be connected.

2. Locate the back plane connectors on the rear of the PEM. The 1st back plane connector is labelled 1 IN, the 2nd 2 IN.



3. Connect the external SCSI signal cables to the connectors located at the previously stated points.

[I] The SCSI cables to connect the PEM to the system module are not supplied with the PEM, but must be ordered separately. The PEM back plane connectors and the external PCI RAID Ultra Wide board connectors are 68-pin SCSI connectors.

4. Connect the PEM's power cables to the external AC power outlets as shown for the system module (see the Getting Started manual supplied with the system). The power-supply cables are supplied with both the PEM and the redundancy kit.

Using a PEM

[I] The user must perform the following operations on the PEM:

1. Switch the module on and off using the On/Off switch.

[I] It is advisable that the PEMs be switched on/off before the system module.

2. Install/remove a hard disk drive.

The first group of hard disks can be accessed by opening the door on the right; the second group by opening the door on the left. See section Opening and Removing the Front Doors and the Side Panels.

[I] To install a new hard disk or substitute a faulty hard disk, see Installing 3.5" SCSI Hot Swap Hard Disks.

3. Check the control panel LEDs. See above in this topic.

[I] Do not access the internal parts of the PEM through the side panels without having consulted the technical services first.

NOTE: To remove power from the power supply, unplug the power cord from the power input socket on the power supply itself and set the system's main power button to OFF. Refer to the "Hardware Advanced Guide" manual on the Orchestra CD for further details.

Technical Data and Safety Regulations

Characteristics

Power supply

Factory voltage settings: autotransforming AC
Input: 100-120 Vac (7A, 50/60Hz),
220-240 Vac (3A, 50/60Hz)
Output: +3.3V, $\pm$ 5V, $\pm$ 12V, +5V aux

Dimensions of the Floor Standing PEM

Width	360 mm (14.4")
Depth	548mm (22.2")
Height	525 mm (21")

Dimensions of the Rackmountable PEM

Width	483 mm (19")
Depth	500 mm (20")
Height	6U (1U = 44.45mm)

Operating Environment

Temperature	10°C (50°F) to 30°C (86°F) for Rackmountable System and 10°C (50°F) to 30°C (86°F) for 10,000 RPM HDU
Relative humidity	20% to 80%, non condensing
Altitude	sea level to 3000 m (about 10,000 ft)

Non-Operating Environment

Temperature (packaged unit)	-40°C (-40°F) to +60°C (140°F)
Relative humidity (packaged unit)	5% to 95%, non condensing
Altitude	sea level to 9000 m (about 30,000 ft)

Acoustic Disturbance

Emitted from system module (standard configuration)	$\leq$ 44 dBA, Operating
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Safety and Radio Interference Approvals

This product satisfies the basic requirements of Electromagnetic Compatibility and Safety required by the Directives:

- 89/336/CEE of 3 May 1989 with subsequent modifications (Directive 92/31/CEE of 28 April 1992 and Directive 93/68/CEE of 22 July 1993);
- 73/23/CEE of 19 February 1973 with subsequent modifications (Directive 93/68/CEE of 22 July 1993);

as it has been designed in conformity with the requirements of the following Reference Norms:

- EN 55022 (Limits and methods of measurements of radio interference characteristics of Information Technology Equipment);
- EN 50082-1 (Electromagnetic Compatibility - Generic Immunity Standard - Part 1: Residential, commercial and light industry);
- EN 60950 (Safety of Information Technology equipment, including electrical business equipment).

Conformity with the above basic requirements is certified by means of the
CE Marking on the product.

Manufacturer's Disclaimer



All liability is declined:

- If the computer is stored, transported, installed, modified, or used in a way that is different from that described in the documentation.
- If the computer is used in conditions different from those described in the documentation.
- If any repair is carried out by unauthorised personnel.
- For any damage caused by normal wear and tear, uncontrollable events and/or connection to devices that are not original.



The manufacturer reserves the right to carry out modifications to the product described in this documentation at any time and without notice.

U.S.A.

U.S. FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT INFORMATION TO THE USER



This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet of a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for assistance.
- Changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- Connecting of peripherals requires the use of grounded shielded signal cables.

CANADA

EMI REQUIREMENTS FOR CANADIAN MARKET

This digital apparatus does not exceed the Class (B) limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus", ICES-003 of the Industry of Canada.

SPÉCIFICATIONS EMI POUR LE MARCHÉ CANADIEN

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe (B) prescrites dans la norme sur le matériel brouilleur : "Appareils Numériques", NMB-003 édictée par le Ministère des Communications.

GS-Zeichen

Ihr Computer ist nach dem Gerätesicherheitsgesetz (GSG) geprüft.

Technische Daten und Sicherheitsbestimmungen

Eigenschaften	
Netzteil	Wertestufig eingestellter Spannungsbereich: selbsteinregelnder Wert am Eingang: 100 - 120 V Wechselspannung (7A, 50/60 Hz), 220 - 240 V Wechselspannung (3A, 50/60 Hz) Ausgänge: +3,3, ± 5 V, ± 12 V, +5 V aux
Abmessungen der PEM Floor Standing	
Breite	360 mm
Tiefe	548 mm
Höhe	525 mm
Abmessungen der PEM Rackmountable	
Breite	438 mm
Tiefe	500 mm
Höhe	6U (1U = 44.45mm)
Betriebsumgebung	
Temperatur	10°C bis 35°C und 10°C bis 30°C für 10.000 RPM HDU
Rel. Luftfeuchtigkeit	20% bis 80%, nicht kondensierend
Höhe	NN bis 3000 m
Lagerungsbedingungen	
Temperatur (in Verpackung)	-40°C bis +60°C
Rel. Luftfeuchtigkeit (in Verpackung)	5% bis 95%, nicht kondensierend
Höhe	NN bis 9000 m
Geräuschpegel	
Emission der Systemeinheit (Standardkonfiguration)	≤ 44 dBA, bei Betrieb

NEMKO standard

Din datamaskin er i samsvar med den norske NEMKO kvalitetsstandard.