

## Case Ds27 mounted in a 19-in. equipment rack

# Safety and operating instructions

Read and follow all instructions marked on the computer Case Ds27 and in the documentation before you assemble your system (Product). Retain all safety and operating instructions for future use.

**WARNING:** *This device is intended to be professionally installed.*

### 1. Electrical Safety Precautions

Basic electrical safety precautions should be followed to protect yourself from harm and the Product from damage:

- The Product should be operated only from the type of power source indicated on the rating label.
- Do not connect the Product to an AC outlet without an earth (ground) connection.
- The Product must be connected to an earthed (grounded) outlet to comply with international safety standards.
- The appliance coupler must have a configuration for mating with an EN60320/IEC320 appliance inlet.

#### **France and Peru only**

*The Case Ds27 cannot be powered from IT (Impedance a la terre) supplies. If your supplies are of IT type, the Case Ds27 must be powered by 230V (2P+T) via an isolation transformer ratio 1:1, with the secondary connection point labeled Neutral, connected directly to Earth (ground).*

- Be aware of the locations of the power on/off switch on the rack as well as the room's emergency power-off switch, disconnection switch or electrical outlet. If an electrical accident occurs, you can then quickly remove power from the Product.
- Do not work alone when working with high voltage components.
- To avoid electrical shock, always unplug all power cables and modem cables from the wall outlets before removing covers.
- Always disconnect the power from the Product when removing or installing main system components, such as the motherboard, memory modules, hard disk/floppy drives and other. When disconnecting power, shut down the Product with the operating system first and then unplug the power cords of all the power supply units in the Product.
- When working around exposed electrical circuits, another person who is familiar with the power-off controls should be nearby to switch off the power if necessary.
- Use only one hand when working with powered-on electrical equipment. This is to avoid making a complete circuit, which will cause electrical shock. Use extreme caution when using metal tools, which can easily damage any electrical components or circuit boards they come into contact with.
- Do not use mats designed to decrease static electrical discharge as protection from electrical shock. Instead, use rubber mats that have been specifically designed as electrical insulators.
- The power supply cords must include a grounding plug and must be plugged into grounded electrical outlets.

#### **Power Cord Set**

This must be approved for the country where it will be used.

Europe:

- The supply plug must comply with CEE7/7("SCHUKO").
- The mains cord must be <HAR> or <BASEC> marked and be of type HO3VVF3G0.75 (minimum).

United Kingdom:

- The supply plug must comply with BS1363(3-pin 13-amp) and be fitted with a 5A fuse which complies with BS1362.
- The mains cord must be <HAR> or <BASEC> marked and be of type HO3VVF3G0.75 (minimum)

Switzerland:

- The supply plug must comply with SEV/ASE 1011.

### 2. Precaution for Product with Modems, Telecommunications, or Local Area Network Options

Observe the following guidelines when working with options:

- Do not connect or use a modem or telephone during a lightning storm. There may be a risk of electrical

shock from lightning.

- To reduce the risk of fire, use only No. 26 AWG or larger telecommunications line cord.
- Do not plug a modem or telephone cable into the network interface controller (NIC) receptacle.
- Disconnect the modem cable before opening a product enclosure, touching or installing internal components, or touching an uninsulated modem cable or jack.
- Do not use a telephone line to report a gas leak while you are in the vicinity of the leak.

### **3. General Safety Precautions**

Follow these rules to ensure general safety:

- Do not use the Product near water or a heat source.
- Keep the area around Product clean and free of clutter.
- Openings in the Case Ds27 are provided for cooling. Do not block or cover these openings. Make sure you provide adequate space around the Product for cooling when you set up your work area. Never insert objects of any kind into the cooling openings.
- Set up the Product on a stable work surface or so as to ensure stability of the system.
- While working on the Product, do not wear loose clothing such as neckties and unbuttoned shirt sleeves, which can come into contact with electrical circuits or be pulled into a cooling fan.
- Remove any jewelry or metal objects from your body, which are excellent metal conductors that can create short circuits and harm you if they come into contact with printed circuit boards or areas where power is present.
- Allow the Product to cool before removing cover or touching internal components.

### **4. ESD Precautions**

To protect your equipment from ESD:

- Use a grounded wrist strap designed to prevent static discharge.
- Keep all components and printed circuit boards (PCBs) in their anti-static bags until ready for use.
- Touch a grounded metal object before removing the board from the anti-static bag.
- Do not let components or PCBs come into contact with your clothing, which may retain a charge even if you are wearing a wrist strap.
- Handle a board by its edges only; do not touch its components, peripheral chips, memory modules or contacts.
- When handling chips or modules, avoid touching their pins.
- Put the motherboard and peripherals back into their anti-static bags when not in use.
- For grounding purposes, make sure Case Ds27 provides excellent conductivity between the power supply, the chassis, the mounting fasteners and the motherboard.

### **5. Cooling Precautions**

To allow effective cooling and to protect your equipment from overheating:

- Both fans should be constantly powered from the motherboard.
- Never use Case Ds27 with unclosed cover. Closed cover is a condition for efficient cooling airflows.
- Leave airflows inside the Product free from wires, memory modules etc.
- Adjust the airflows of cool and warm air outside of the Case with corresponding airflows inside the Case.

### **6. Installing finished Product into a rack**

The Case Ds27 is designed for mounting into 19-inch rack that is conformed to the specifications IEC297-1.

- Mounting brackets of the Case Ds27 are located on the cheek side of cover as folded lugs. The Case Ds27 has two-way mounting cover with possibility to have the rack brackets either on the front or back Product sides.
- Due to the small depth (270mm, i.e. twice as little as a regular chassis) two Products can be mounted back-to-back in the same 2U bay in the standard 24-in. deep rack with safe airflow spaces and good cooling.
- Hold Product by the handle when installing in a rack. When Product is completely pushed into the rack bay, finish mounting by inserting and tightening of the four retention screws to fasten the front (back) of Product to the rack.