

Handling Precautions

IN THIS GUIDE

This guide provides practical advice on handling computers to help avoid personal injury or damage to components.

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Static Electricity

Static electricity is a build-up of free electrons on an unearthed surface. The electrons are static until an opportunity arises for them to travel to earth (ground). Although the effect of Electro-Static Discharge (ESD) on a human is relatively minor, it is lethal to computer equipment which generally operate at 3 or 5 volts or less. Much equipment would be destroyed by exposure to 30 volts. You will not feel a shock of less than 2500V, yet will destroy a device by touching it with no sensation at all.

Electric Shock

The output voltages from the power supply are relatively safe and should cause you no harm. Never dismantle the actual PSU in your PC. They are not user-repairable. This unit contains potentially lethal mains voltages, even when it is disconnected from the supply. If it fails, buy another one.

Whilst most computer components operate at low voltages the computer monitor is an exception. Voltages in the order of 25,000V are generated in a monitor and are still present (as it is stored in capacitors) long after the monitor is switched off and disconnected from the mains.

NOTE

When you turn off your computer an ATX motherboard still receives power from the power supply unit. Therefore, before working on a PC ensure you isolate the electrical supply at the mains.

Sharp Edges

Beware of sharp edges inside PC cases and the small solder pins on boards. Case edges can be as sharp as a razor.

Connections

When making cabling connections of any kind, use firm, even pressure but never excessive force. Small signal pins are very easily damaged if connected incorrectly. Most connectors have some kind of 'alignment' to prevent incorrect connection. Always remember to switch off the power before connecting/disconnecting any cables.

Handling

PC devices/peripherals are generally very delicate in nature. Handle them with extreme care and always employ some method to disperse static electricity.

Cleaning

With the exception of the exterior of the case, never try to clean any part of your system with any liquid detergents or cloths.