



SCSI IS EASY!

Give your computer a burst of speed in 10 simple steps

So you went against your better judgement and brought home a SCSI scanner, but now are flummoxed about the installation procedure. Have a heart! Installing a SCSI device is not so difficult, provided you understand the procedure.

Like the earlier IDE devices, SCSI devices need to be connected to a controller card, they cannot be directly

'plugged' into your computer. This means that you will need to use the controller card that came bundled with your device (which may not always be the case, thereby requiring you to acquire it separately) and install it in your computer.

SCSI devices come primarily in two varieties, Wide and Ultra Wide. The installation procedure for the two types

is the same, but the connecting cable used with one type will not work with the other.

SCSI devices logically operate like a chain, each device forming a link in this chain. The last device needs to be 'terminated' to indicate the end of the chain. Termination is automatically achieved with present-day devices, but some older devices require a special procedure.

Check-

Before you begin the task of installing the SCSI device, make sure you have the following items handy:

4 A screwdriver for opening the computer cabinet.

4 The SCSI controller card (also called the SCSI card).

4 The SCSI device to be installed and its manual. The manual will be handy in case your device uses any non-standard setting.

4 Spare jumpers. Jumpers are little black rectangular things that are used to connect two bare points on a circuit board, for the purpose of changing a setting. Almost every piece of computer equipment that fits into your cabinet requires at least one jumper.

Caution!

Ground Yourself: Before you try opening the computer, ground yourself.

Grounding is necessary to remove harmful static electricity from your body. The simplest way to do this is to work barefoot on an uncarpeted floor. A

1 Open your PC

You need to open your computer's case to install the SCSI controller card. This step is as simple as removing the screws at the back of your cabinet.

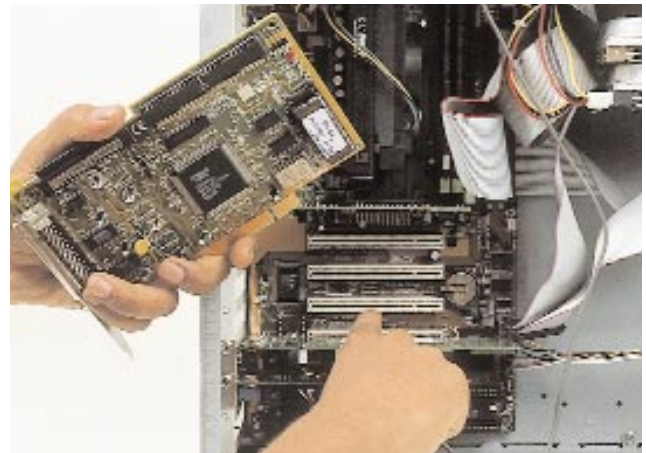
Necessary tools include a screwdriver and some courage (especially if this is the first time you are looking inside your PC).



2 Find a free slot for your controller card and insert it

Most SCSI cards today are PCI-based, but if you have an older device, you might find that you have the now obsolete ISA card. Whatever the type, locate a free slot on your motherboard and insert the card.

For first timers: cards will not smoothly slide into the slot, you need to apply a little force. You cannot damage anything by doing this, unless you try to play tough with the card.

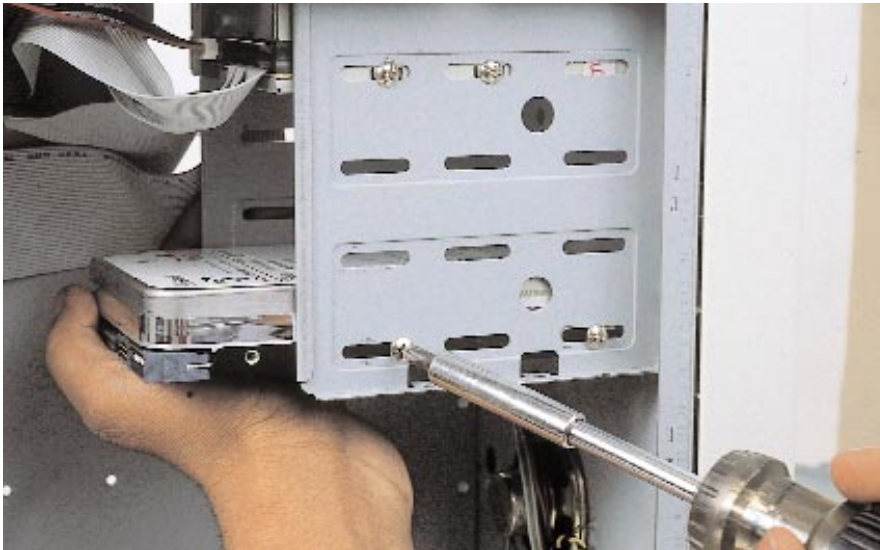


3 For internal devices, first set the ID number

If you are installing an internal SCSI device such as a hard disk or a CD-ROM drive, you will need to set the ID first (also called LUN). This is usually achieved by adjusting a jumper block or setting DIP switches (small switches, usually white in colour) at the rear of the device. For hard disks, use a number close to 7 (not 7 itself, any number above or below) as this helps speed up data transfer. Hard disks usually come with a default ID number of 5 or 6.

Note: Two SCSI devices cannot have the same LUN. Also avoid using LUN 7 because it is normally reserved for the controller card itself.





4 Install internal device

Insert your SCSI device into its bay, then fix the screws. Most computer cabinets are designed such that the device can only be inserted from the front, so remove the protective front panel if necessary.

This panel can be easily prised out with a screwdriver, there is little danger of damaging anything. Snap the panel back into place when you are done with installing the device (unless it is a CD-ROM drive or other such device that requires direct interaction with the user).



5 Attach cables

There are primarily two types of SCSI cards, Ultra Wide SCSI, and the older (vanilla) Wide SCSI. Ultra Wide uses a 68-wire cable while Wide SCSI uses 50 wires. The choice of the cable will depend upon the type of card you have. Using the cable, connect the card to your new device.

Hint: If you have an UltraWide SCSI card and a Wide-SCSI device, you can obtain a converting connector. This conversion is possible because Ultra Wide SCSI is backward compatible with Wide SCSI.



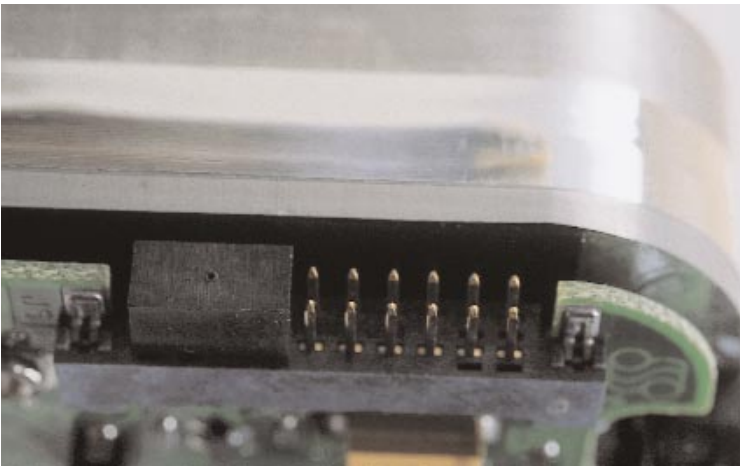
6 For external, set LUN

For external devices, such as scanners, you will again need to choose a device ID or LUN. Scanners and other such SCSI devices have a thumb-wheel switch (see picture) at the rear-end which lets you set the device ID number. This method of setting the LUN is standard, but if your device thinks otherwise, carefully read every bit of text written on the device. There will usually be an indication of how to set the LUN somewhere on the device.



7 Attach cables

Connecting external SCSI devices is very similar to connecting internal SCSI devices. However, you now need an 'external' type SCSI cable that is unlike the flat, wide cables used internally. External cables are very similar to the other cables sticking out of your cabinet. Connect one end of the cable to your device, and the other end to your card.



8 Terminate SCSI chain

The SCSI chain needs to be 'terminated' at the last device in the chain (most people will usually have only one device). Termination is achieved by placing (shorting) a jumper on the device. Instructions regarding the type of jumper required, and how to short it are usually indicated on the device itself.

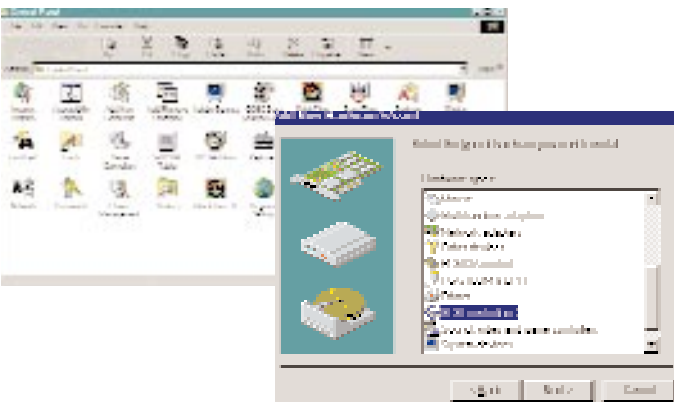
Note: Termination is automatic with all present-day devices. You will most probably not need to configure jumper settings at all.



9 Power 'on' your machine

Boot up your machine. (It is safe to boot up your PC with the cover off, provided you take the standard precaution of keeping your surroundings clean).

The BIOS of your SCSI card will automatically load after the system BIOS and scan for SCSI devices. At this point, you have the option of accessing the BIOS for manual configuration of specific devices. This is where you change the settings if you want to boot off your SCSI hard disk.



10 The final closedown

Once your BIOS is configured, switch off the machine and close the cabinet cover. Boot up your PC again. Windows will automatically detect and install drivers for your new device, or prompt you for the driver disk/CD-ROM. If not, select the Add New Hardware wizard from the Control Panel.

There! Now that you have installed a SCSI device on your machine, go ahead and impress your friends with your enhanced computer.