

# ASUS® PCI SCSI Cards

## Symbios SCSI BIOS and Drivers

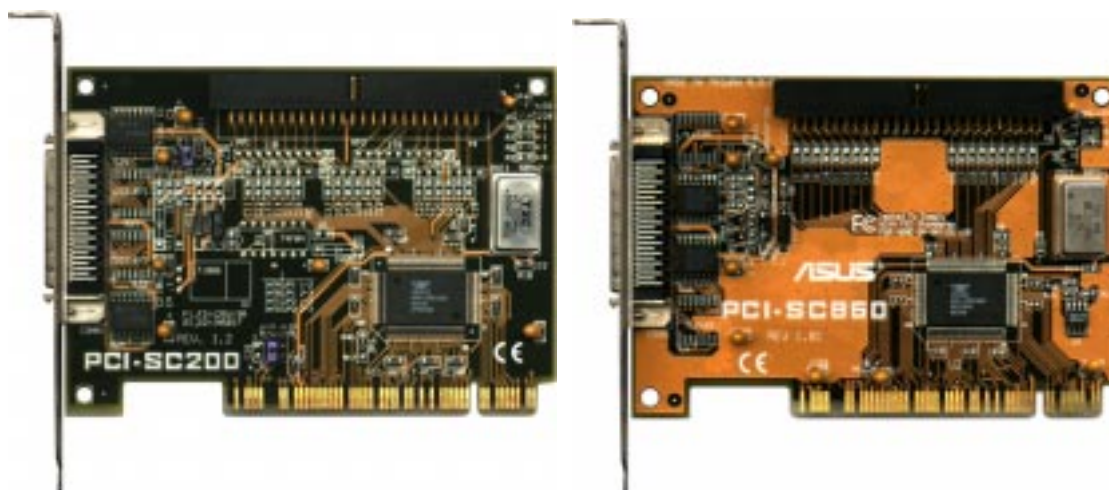
Aside from the system BIOS, the Flash memory chip on the motherboard also contains the Symbios SCSI BIOS. This Symbios SCSI BIOS works in conjunction with the optional ASUS PCI-SC200 controller card to provide Fast SCSI-2 (up to 10MB/Sec) interface when using compatible Fast SCSI-2 devices or the ASUS PCI-SC860 SCSI controller cards to provide Ultra-Fast SCSI-2 (up to 20MB/Sec) interface when using Ultra-Fast SCSI-2 devices.

All SCSI devices you install on your system require driver software to function. The Symbios SCSI BIOS directly supports SCSI hard disks under the DOS, Windows and OS/2 environments. It also uses device drivers from the DOS floppy disk included in the ASUS PCI-SC200 and ASUS PCI-SC860 controller card packages to support hard disks and other SCSI devices working under DOS, Microsoft Windows, Microsoft Windows NT, Novell NetWare and IBM OS/2. These drivers provide higher performance than the direct BIOS support. To use these drivers, you must install them into your system and add them to your system configuration files. Driver support for SCSI devices used with SCO UNIX is also provided on a separate diskette. Windows 95 support is also available using the device drivers included within the Windows software. The ASUS PCI-SC200 and ASUS PCI-SC860 are Plug and Play adapters that are auto detected by BIOS and current operating systems that support Plug and Play features.

For information about these drivers and their usage, view the Readme files included with each driver on the provided diskettes.

## ASUS PCI-SC200 & PCI-SC860 SCSI Cards

The ASUS PCI-SC200 or the ASUS PCI-SC860 may be bundled with your motherboard or purchased separately. Both cards provide the option of connecting internal or external SCSI devices for a total of 7 devices on each SCSI card.

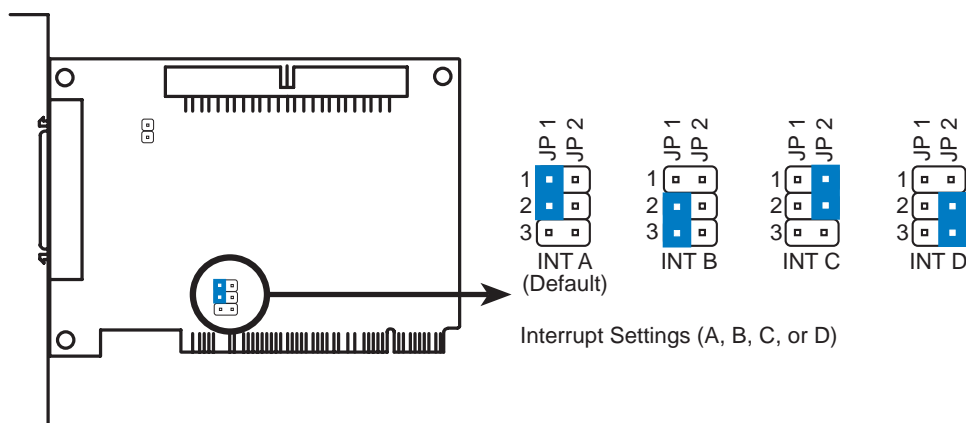


## Setting Up the ASUS PCI-SC200 & PCI-SC860

There are two jumper settings you may need to make on the ASUS PCI-SC200. One setting assigns the PCI interrupt, the other sets the card's termination. The ASUS PCI-SC860 has no jumper settings but you should read the "Terminator Requirements" for SCSI connection information.

### Setting the PCI Interrupt for the ASUS PCI-SC200

You must use PCI INT A setting in order to properly assign the ASUS PCI-SC200's interrupt. On the ASUS PCI-SC200, you assign the INT by setting jumper JP1 or JP2. The default setting for the card already is INT A, so you do not need to change the setting to use the ASUS PCI-SC200 with ASUS motherboards.



## Terminator Requirements for SCSI Devices

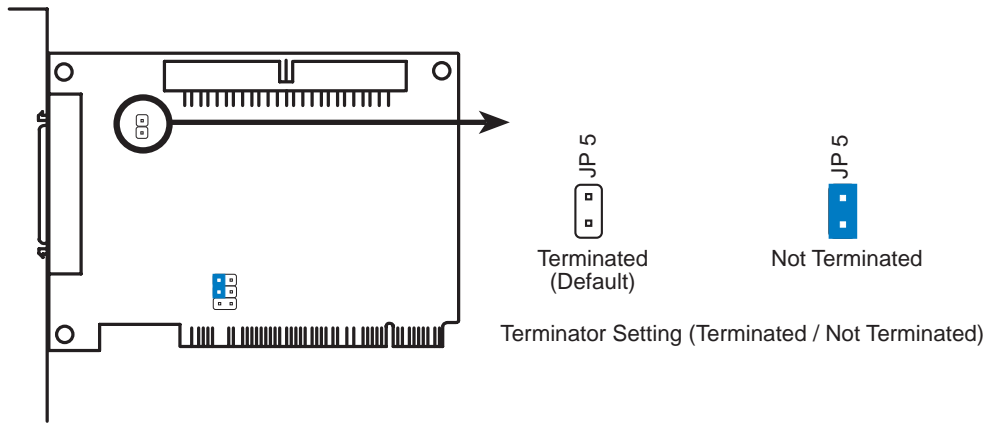
SCSI devices are connected together in a "chain" by SCSI cables. Internal devices connect to the ASUS PCI-SC200 or ASUS PCI-SC860 with a fifty-pin flat ribbon cable. External devices connect to the external port with a SCSI-2 cable. If there are more than one internal or external devices, additional devices are connected with cables to form a "daisy chain." Terminating the devices on the ends of the SCSI Bus "chain" is necessary for SCSI devices to work properly. Termination of the devices between the ends must be *Disabled*.

### Terminator Settings for the ASUS PCI-SC860

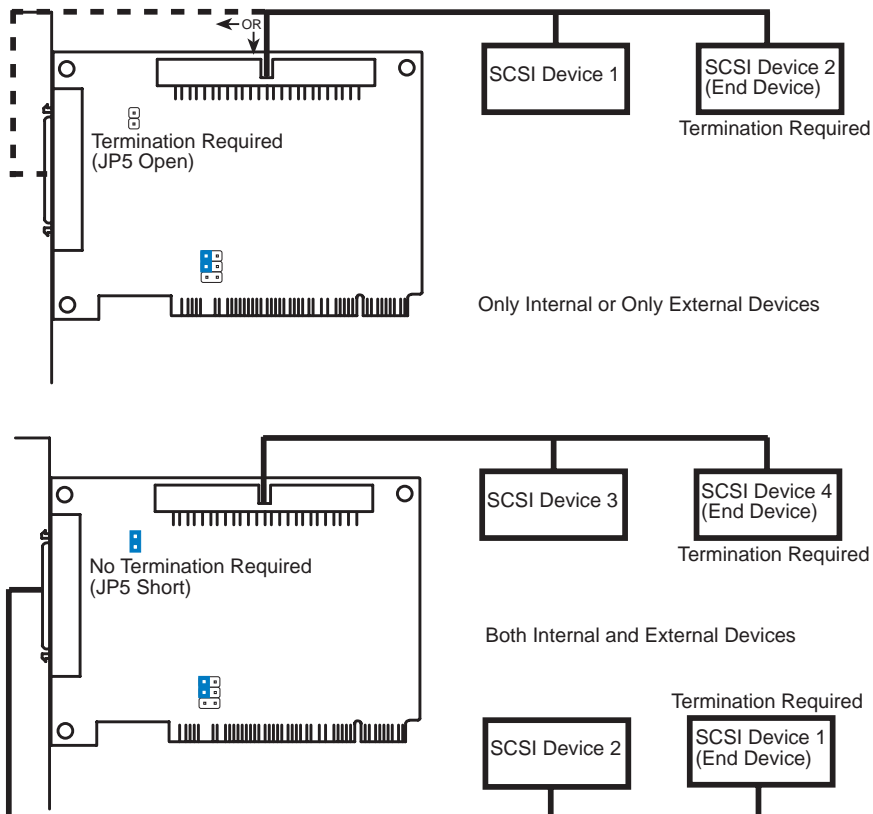
Many SCSI devices including the ASUS PCI-SC860 use a set of onboard active resistors to terminate the devices at the ends automatically. Automatic termination requires that the SCSI devices be connected in a straight linear connection or "chain." Connect SCSI devices to one or two of the SCSI connectors in a linear "chain" for auto termination of the ASUS PCI-SC860 to be effective. Other formations will cause your SCSI devices to not mount properly. You must use the **end** of the ribbon cable when using the internal connector(s) to keep a linear path.

## Terminator Settings for the ASUS PCI-SC200

The ASUS PCI-SC200, on the other hand, has “passive” termination that you must set using jumper JP5. There are two settings, “terminated” and “not terminated,” as shown below.



Decide whether or not you need to terminate the ASUS PCI-SC200 based on its position in the SCSI chain. Only the devices at each end of the chain need to be terminated. If you have **only** internal or **only** external devices connected to the ASUS PCI-SC200, then you **must** terminate the ASUS PCI-SC200. If you have **both** internal and external devices connected, you **must not** terminate the card. See the following two examples which illustrate this concept.



## SCSI ID Numbers for SCSI Devices

All SCSI devices, including the ASUS PCI-SC200 and ASUS PCI-SC860 interface card must have a unique SCSI identification number that is not in use by another SCSI device on the same channel. There are eight possible ID numbers, 0 through 7. The ASUS PCI-SC200 and ASUS PCI-SC860 cards have fixed SCSI IDs of 7, therefore only ID0-ID6 are available for user-installed SCSI devices.

## SCSI ID Priority for SCSI Devices

The ASUS PCI-SC200 and ASUS PCI-SC860 are 8bit single-channel SCSI cards. SCSI ID 7 has the highest priority, and SCSI ID 0 has the lowest priority.

## SCSI Configuration Utility

A SCSI configuration utility is programmed into both SCSI cards. The SCSI configuration utility is used for viewing and configuring SCSI devices. Follow the boot menu for instructions on entering the utility.

**IMPORTANT:** The Symbios Logic SCSI Configuration Utility is a powerful tool. If, while using it, you somehow disable all your controllers or cannot enter the configuration utility, pressing “Ctrl-A” after memory count during reboot allows you to enter the configuration utility for reconfiguration.