

2) Rear Panel

SCSI Interface Connector

Connects to the SCSI interface board by using 50-pin to 50-pin flat ribbon cable. Set red wire of the ribbon cable to No. 1 pin of this connector.

Audio Output Connector

Use this to connect the sound board.

TERM

PRTY

SCSI-ID

RGL

AUDIO OUT

TEST

BLOCK

FLASH

50

SCSI

DC INPUT

+5V

GRID

+12V

1

Power Connector

Gives your computer power supply (DC +5V and +12V). Never connect with the reversed polarity because it will damage the drive (Voids the warranty).

SCSI-ID Setting

Jumpers

Use to select SCSI-ID number, parity, terminator, test, block size and flash options.

SCSI-ID Number

The drive is delivered with a SCSI-ID that has been set to 4. If you already use another SCSI peripheral and its SCSI-ID is also set on 4, you must change the SCSI-ID number of this peripheral or of the CD-R drive. For Windows 95 Plug & Play (SCAM), it is not necessary to change this setting.

Parity

Set this on ON. The parity check provided by the ON setting enhances the reliability of the SCSI bus with no effect on performance.

Terminator

If only the PX-R412C CD-R drive is connected as a SCSI peripheral to the PC, you need to set the Terminator on ON. Also if several peripherals are connected and the final peripheral is the PX-R412C CD-R drive, set the Terminator on ON. This is priority set to ON for shipment.

Test

Leave this on OFF. It is only for factory use.

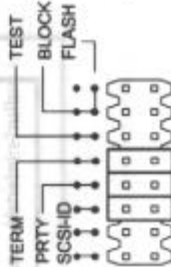
Block Size

Leave this on OFF unless you are working in an UNIX environment.

Flash

Used for firmware version upgrades. For more details read Chapter 8 "Firmware Version Upgrades", page 32.

SCSI-ID	PIN 1	PIN 2	PIN 3	Notes
0	OFF	OFF	OFF	
1	ON	OFF	OFF	
2	OFF	ON	OFF	
3	ON	ON	OFF	
4	OFF	OFF	ON	Default Setting
5	ON	OFF	ON	
6	OFF	ON	ON	
7	ON	ON	ON	SCSI Board



Termination

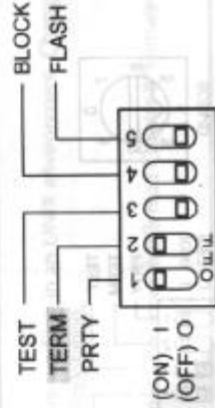
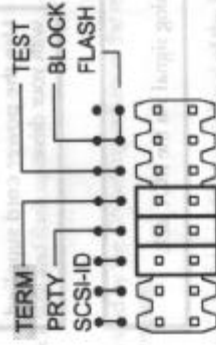
You need a terminator if your PX-R412C CD-R drive is the only SCSI peripheral on your computer. Use only a terminator if you are working with multiple SCSI peripherals, and the CD-R drive is positioned as the last attached peripheral to your computer.

Only the last SCSI peripheral in this series should have a terminator turned on. If you have any SCSI devices chained after your PX-R412C CD-R drive, you must put the CD-R drive's termination on OFF.

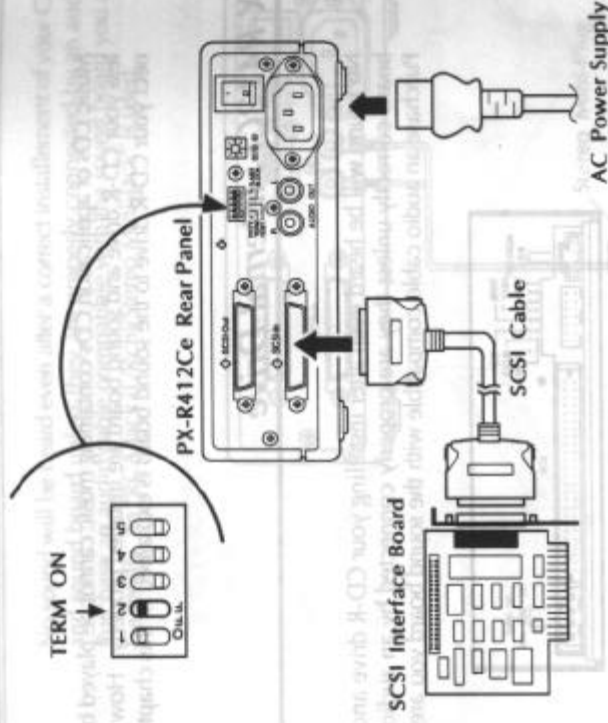
If an external SCSI peripheral is already connected and you want to install your PX-R412C CD-R drive internally, set its SCSI board's terminator on OFF.

Terminators of the internal SCSI peripheral and the last external peripheral should be set on ON.

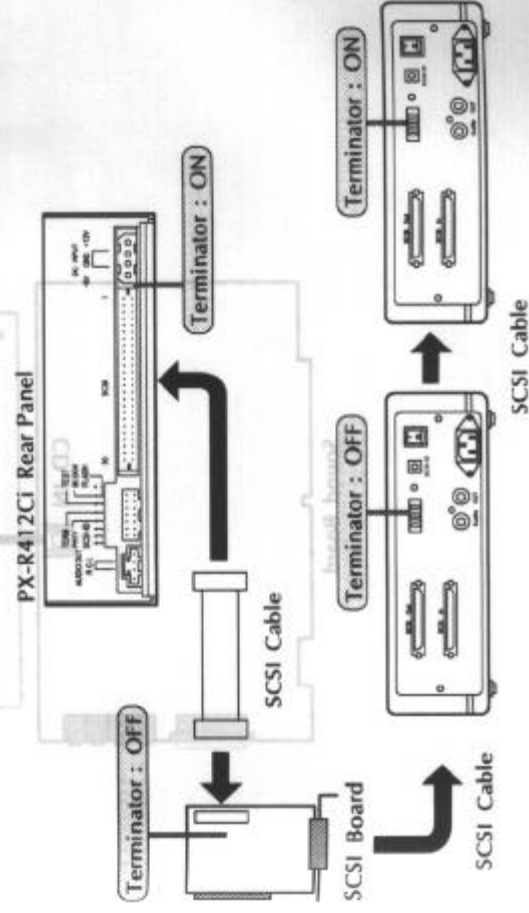
PC and terminator connections are as follows,



Connections when only a PX-R412C is connected to the SCSI board



Connections when multiple SCSI peripherals are connected

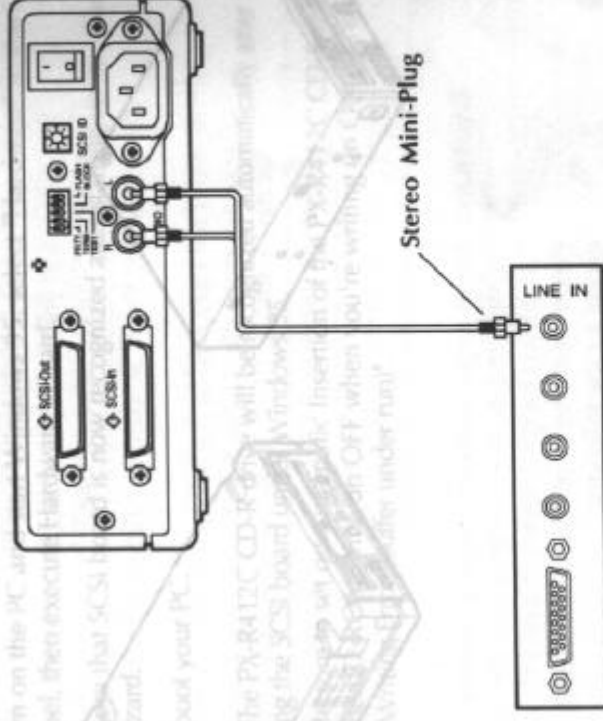


Installation

Installation for Windows 95

- 1) Install the SCSI board in your PC and connect the PX-R412C CD-R drive.
- 2) Turn on the PC and start Windows 95, select "Hardware" in the Control Panel, then execute Hardware Wizard.
- 3) Ensure that SCSI board is now recognized after starting up the Hardware Wizard.
- 4) Reboot your PC.
 - The PX-R412C CD-R drive will be recognized automatically after installing the SCSI board under Windows 95.
 - Be sure to set on Automatic Insertion of the PX-R412C CD-R drive and the CD-ROM drive on OFF when you're writing on ON you can get a "Writing Error (buffer under run)".

No sound will be heard even after a correct installment of your CD-R drive and sound board unless they are properly connected by an audio cable. Purchase an audio cable compatible with the sound board you are using. Generally, an "RCA Jack (L/Rch)/Stereo Mini-Plug" is used.



1) Verify that your SCSI board is supported by NT. If not, contact your board's manufacturer and request an NT software device driver.

2) Install the SCSI board in your PC and boot NT.

3) Click on the "Start Menu" and select "SCSI Adapter" in the "Control Panel".

4) Select "Driver" page and click on the "Add button" after selecting the "Manufacturer" and "SCSI Adapter" that you use.

5) If you cannot find your SCSI interface board on the list, use the diskette supplied by the SCSI board manufacturer.

6) After completing the SCSI board installation, reboot the system.

- SCAM is not supported by the NT device driver, so the SCSI-ID does not change automatically. Verify that there is no problem between the SCSI-Ids for the PX-R412C CD-R driver and other SCSI peripherals.

- Set Automatic Insertion of PX-R412C CD-R drive and CD ROM drive to OFF. When you're writing on ON, it may result in a "Writing Error (buffer under run)". In Windows NT 4.0, Automatic Insertion is cancelled if the registry has been changed as follows :

CAUTION!: Never forget to make a back up when you're rewriting the registry, and do not change any of the following registries.

When you change a registry it is on your own responsibility. Plextor bears no responsibility for results of registry changes except for the following.

Autorun in HKEY_LOCAL_MACHINE\ControlSet00*\Service\Cdrom

Autorun in HKEY_LOCAL_MACHINE\CurrentControlSet\Service\Cdrom

Set each value to "0" (Hexadecimal)

6.3 Authoring Software Installation

CD-R drive can write data only after the authoring software is installed. For information on installing procedures and how to use the software, use the manual delivered separately. If you want to use another type of authoring software not bundled with PX-R412C, please refer to each manual how to install and operate. Please note that some authoring software or version of authoring software does not support PX-R412C.

Firmware Version Upgrades

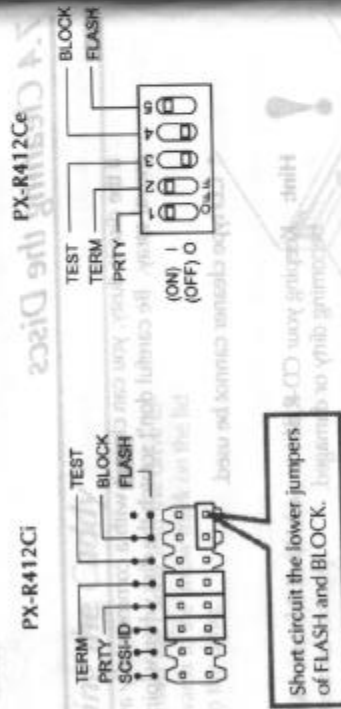
8.1 Obtaining the Newest Firmware

You can download the newest version via Internet when the firmware has been updated.

<http://www.plextor.be>

8.2 Preparation for Firmware Upgrade

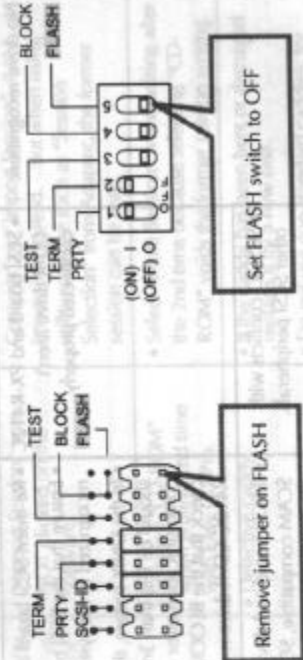
- 1) Turn off the PC and PX-R412C CD-R drive, set the flash switch on the rear panel of the CD-R drive on ON.



- 2) Turn on the power of the PC and PX-R412C CD-R drive and the all LED indicators of PX-R412C CD-R drive will light up. Now you notice that the display message appearing at booting of the SCSI board BIOS has changed from PX-R412C to *** Program Mode1 ***.
- 3) Run Windows 95/NT 4.0, open "My Computer", then the PX-R412C CD-R drive indicates "CD-ROM Drive", but any command like read and write is NOT able to accept in this mode..

8.3 Take Firmware Upgrade

- 1) Start "Firmware Rewriting Program". You can download the Firmware Rewriting Program via Internet.
- 2) After downloading from the directory, input as follows and press Enter Key.
- 3) Turn off the PC and PX-R412C CD-R drive after quitting the system.
- 4) Make sure that the PX-R412C CD-R drive power is off, and return the FLASH switch to the former setting as follows.



- 5) Verify that FLASH switch is on the former position and that the cables are wired properly, it's save then to reboot the PC.



CAUTION! Don't insert the caddy during FLASH mode. Never forth the caddy into the PX-R412C CD-R drive because it will cause a malfunction.

Troubleshooting

! If you have trouble with your PX-R412C CD-R drive, follow the guidelines below.

9.1 Read Problems

Symptom	Possible Causes	Solutions
No drive recognition.	• SCSI board and PX-R412C CD-R drive aren't connected properly. • In the UNIX system, the total cable length should be less than 3m. If not, communication error may occur. Also check that the BIOS switch of PX-R412C CD-R drive is off. • If SCSI board and device driver are not SCAM compatible, SCSI-ID of PX-R412C CD-R drive cannot change automatically. Change manually the SCSI-ID to an available number. • Terminator setting incorrect. • Power is not switched on.	• Re-insert SCSI board and cables. • Ensure that the SCSI board is properly recognized in the system. • Enable the terminator on the last SCSI device. See page 24, "Chapter 3, Termination". • Check if LED of PX-R412C CD-R drive is lit. If not there is no power.
No sound from external speaker when you're playing a music CD.	• The Sound board isn't working properly.	• Play a music CD in PX-R412C drive and connect speakers to the headphone jack of the drive. If you hear sound from the speaker, the drive is working fine. • Ensure that the PX-R412C CD-R drive is correctly linked to the sound board. • Check if the (MCI) CD-Audio driver is installed.
Low sound level from CD-R drive.	• Improper audio cable connection between CD-R drive and sound board.	• Check if masters, CD and line levels of the audio mixer are correct. • Check the above mentioned levels also when several audio mixers are installed.

Symptom	Possible Causes	Solutions
• Cannot view photo CD discs. • Can read only first session of a multi session disc. • Receive error messages while reading photo CD images.	• Device driver isn't compatible with photo CD. • Bad photo CD disc.	• Contact your SCSI board / device driver manufacturer and have them checked and updated. • Try to play another photo CD disc and see if it reads fine. If it works, you should replace the defective disc.
• Cannot read the former session of the CD-R disc which has been written at least twice. • Read error occurs.	• "Load Contents" or "Import Session" was NOT clicked on the Software. • Selected "CD-ROM" when writing 2nd time with Easy CD Pro. • Defective caddy.	• If recorded without checked "Load Contents" or "Import Session", it is impossible to read. But when using utility software such as "Session Selection" from Adaptec, the former session can be read. • Select "Multi Session" when writing after the 2nd time because selecting "CD-ROM" voids the former session writing. • If the caddy has been bent or damaged replace it by a new one. • Do not use non-standard caddies, for example this one that's made of plastic ones without metal shutters covering their openings.
	• Defective CD-ROM disc.	• Deep scratches, fingerprints or other contaminants on the disc's surface can disable the drive from reading data. Always keep it clean.
	• Music CD inserted.	• Because audio compact discs do not have computer data, typing computer commands while an audio CD is in your drive will result in an error message.
	• Disc inserted upside down.	• Remove the disc from caddy and reinsert it with the label side up.
	• Terminator not connected properly.	• The last SCSI peripheral connected in series should have its terminator turned on.
	• Jumper switch, DIP switch sets wrong.	• Ensure that the jumper switch or DIP switch is set properly. You'll get read errors when it isn't correctly set.

9.2 Write Problems

Symptom	Possible Causes	Solutions
Cannot write.	- Using another authoring software bundled with PX-R412C. - CD-R media not appropriate. - CD-RW media used. - Disc inserted upside down. - Short of HD capacity. - Flash switch on the rear panel sets on ON. - No power. - SCSI cable isn't connected properly.	- Use the authoring software provided with the unit. When using other types, ensure that PX-R412C CD-R drive is supported by contacting the software supplier. - Use the CD-R media designated by Plextor. - PX-R412C CD-R drive does not support CD-RW writing. - Reinsert the disc label right side up. - Generally 1.2 to 2 times the size of the write data is required. This may vary according to the write method. - Set the switch on OFF. It is only for firmware version upgrades. - Check if the power cord is securely connected to the connector. - Ensure that the cable or interface board are not damaged, bent or dented. Check especially the pins.
Writing errors occur (Buffer under-runs).	- Network used. - Mouse moved or window screen saver activated while writing. - Other application running. - Short of PC memory.	- When running mouse, screen saver moving or other applications or writing in a network environment, errors may occur due to lack of CPU resources in PC. - Rewrite after log-off from the network. - Deactivate the screen saver or power save mode. - Quit other applications other than the authoring software. - Due to short of main memory in PC, swapping of hard disc space may have occurred. If swapped, data from the hard disc may cut off causing buffer under-runs. - Increase main memory capacity.

Symptom	Possible Causes	Solutions
- Excessive noise when reading. - No operation.	- Eccentric disc loaded. - Seal attached on the surface. - Flash switch on the rear panel sets on. - No power. - SCSI cable isn't connected properly.	- Replace it by another one. - Detach the seal very carefully. Don't make any scratches. - Set the switch off. It is only for firmware version upgrades. - Check if the power cord is connected securely to the connector. - Ensure that the cable or interface board are not damaged, bent or dented. Check especially the pins.
Cannot eject caddy.	Eject locked by software.	When you're working under Windows95/NT4.0, check if locked on the CD-ROM property.
CD set incorrectly into caddy.	CD set incorrectly into caddy.	Insert emergency eject stick into the emergency eject hole and eject the caddy. Use a pair of tweezers or pliers if it won't eject with emergency eject stick.
Can read only the first session of a multi session disc.	"Close Disc" was selected at the previous writing.	Additional session cannot read because the session of former data writing closed. Rewrite on other CD-R media.