EXTERNAL PCMCIA
CD-ROM

User's Manual

FCC COMPLIANCE STATEMENTS

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the Distance between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

CAUTION
CHANGE OR MODIFICATIONS NOT EXPRESSLY APPROVED BY PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER AUTHORITY TO OPERATE THE EQUIPMENT.

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INTRODUCTION

The external CD-ROM is a high performance external drive. It can be easily connected to computer by using PCMCIA interface, and can even be disconnected and re-connected while the computer is running.

SYSTEM REQUIREMENTS

♦ Notebook or desktop computer with PCMCIA 2.1 Type II or III socket.

♦ Windows 95/98/Me/2000 or Windows XP (The Hot Insert/Remove function is reachable with these OS).

♦ Windows NT, DOS/Windows 3.1 or OS/2 WARP (These OS don't support Hot Insert/Remove function).

PART NAMES AND FUNCTIONS

Your external CD-ROM may differ slightly from the figures shown, however the controls will operate as described below.

Front Panel Of The CD-ROM Drive

1. **Eject Button:**

   Press this button to open the disc tray. To close the disc tray, just gently push the front of the tray.

2. **Disc Tray:**

   This disc tray is used to insert the CD media.

3. **Disc Ready/Read LED:**

   This LED is used to indicate the disc access status.

4. **Emergency Eject:**

   In case you cannot supply power to the drive but want to remove a disc from the tray, push a small rod (paperclip) about 5cm long, through the Emergency Eject hole to disengage the gears inside. Then pull the tray out manually. After removing the disc, gently push the tray back to its original position. This procedure is only to be used in the case of an emergency and is not meant for normal operation.

Rear Panel Of The CD-ROM Drive

1. **Power Jack (DC IN):**

   Connect the AC adapter lead here.

2. **Power Source Switch:**

   PC: Means this CD-ROM is powered by the PCMCIA socket of computer.

   DC: Means this CD-ROM is powered by the AC adapter.

   Usually, when the external CD-ROM get the power from the PCMCIA socket of computer, and it should work properly. But, with some models of computer, the supplied power from the PCMCIA socket is poor to drives the CD-ROM drive. In this situation, an AC adapter is needed. If you experience this problem, please contact dealer for the AC adapter.

3. **Interface Connector:**

   Connect the PCMCIA interface cable here.

4. **Power Button:**

   Press this button to manually power on/off the drive.
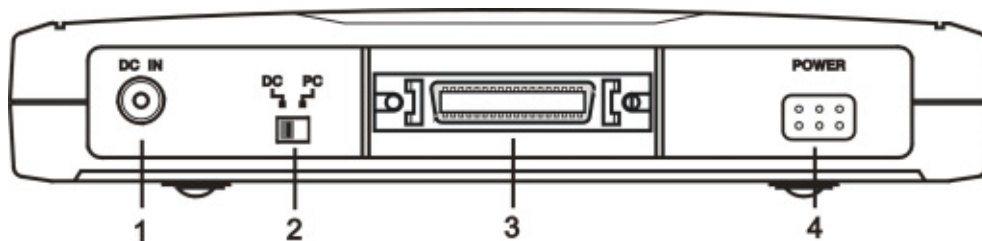
HARDWARE INSTALLATION

Note:

♦ *If you want to use an AC adapter to powers the external CD-ROM, please use the AC adapter provided by manufacturer, using an incorrect AC adapter could result in permanent and unpredictable damage to the drive.*

♦ *This external CD-ROM supports Hot Insert/Remove function only under Windows 95/98/Me/2000/XP, with the other operating systems, please insert the PC Card of interface cable before power-on computer, and remove this card after power-off computer.*

1. Insert the plug of the PCMCIA interface cable into the Interface Connector of drive. Press firmly until the interface connector is seated correctly.

2. **Make sure the Power Source Switch is at the correct position.**

    PC: get power from the PCMCIA socket of computer.
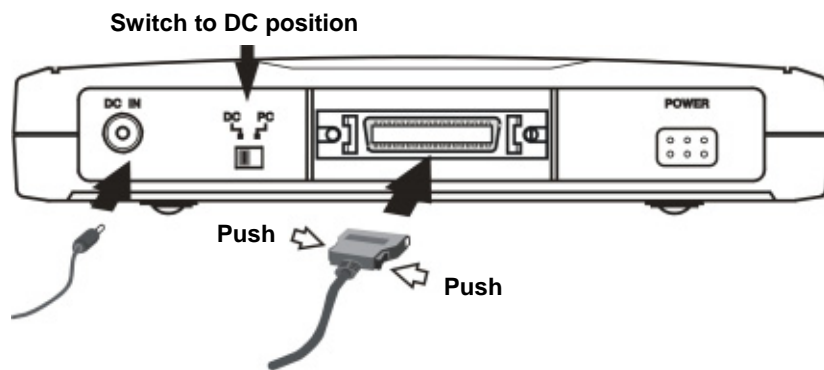
    DC: get power from the AC adapter.

    Note: If you are using an AC adapter to powers the external CD-ROM, make sure the Power Source Switch is at the 'DC' position, then connect the AC adapter to the Power Jack (DC IN) of the drive, and attach the AC adapter to the outlet.

3. Place the CD-ROM drive in the horizontal position. This drive is designed to operate only in the horizontal position. Operating the CD-ROM drive in any abnormal position is not recommended.

4. You are now ready to install the device drivers, please follow the related software installation guide to install the device driver.
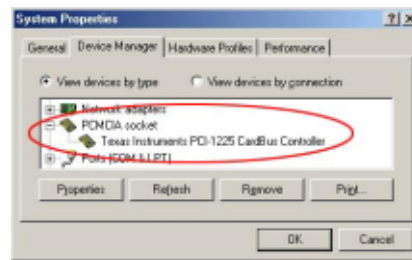
Get power from PCMCIA socket

Switch to PC position

DC IN · DC PC · POWER

Push

Push
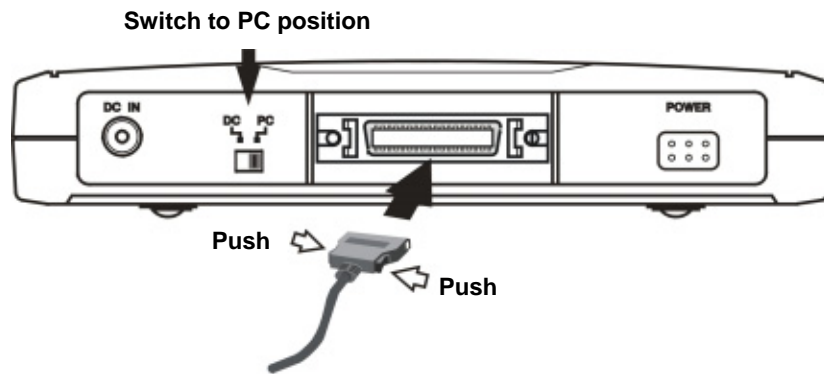
Get power from AC adapter

Switch to DC position

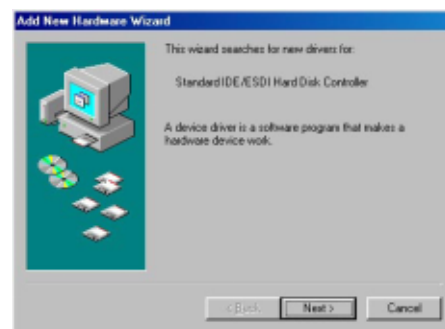DC IN · DC PC · POWER

Push

Push

SOFTWARE INSTALLATION FOR WINDOWS 95/98

The following installation procedures are extracted from the Windows 98SE installation. The installation for Windows 95 is almost same.

1. Boot-up your computer into Windows 98, making sure the device driver for 'PCMCIA Socket' has been installed and is available. To check this, right-click 'My Computer', click 'Properties' and then 'Device Manager' to open the 'Device Manager' window. Refer to the figure shown alongside to see if the PCMCIA Controller is installed without error.

2. Ensure the PCMCIA interface cable and then the AC adapter connections (if you are using the AC adapter) are made as described in Hardware Installation. Slowly insert the PC Card of interface cable into the PCMCIA socket of computer and press firmly until the connector is seated (Please note that the PC Card is keyed to guide for proper insertion).

3. If this is the very first time you are connecting the drive to computer, the 'Add New Hardware Wizard' dialog box appears as shown.

4. Click *Next*, then select 'Search for the best driver for your device' box, and click *Next*.

5. Select 'Floppy disk drives' box and insert the device driver diskette into floppy drive. Click *Next*.
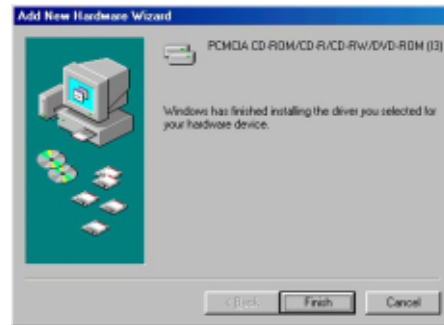
6. Select 'The updated driver (Recommended) – PCMCIA CD-ROM/CD-R/CD-RW/DVD-ROM (I3)', and click *Next*.

7. Wait for few seconds, Windows will find a driver from the floppy diskette, make sure the file that Windows found is 'A:\ PCMCDI.INF'. Click *Next*.
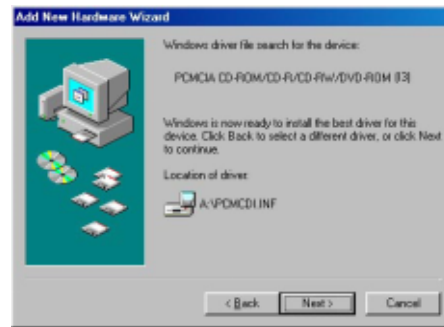

8. After the necessary files are copied into your internal hard disk, a screen will appear as the figure, click *Finish*.

9. Windows will then detect the CD-ROM drive, you will find a new drive letter has been assigned for the drive in 'My Computer'.

10. If the external CD-ROM doesn't appear in 'My Computer' or doesn't work properly, please go into 'Device Manager' to check whether the devices are installed as the table and figure.
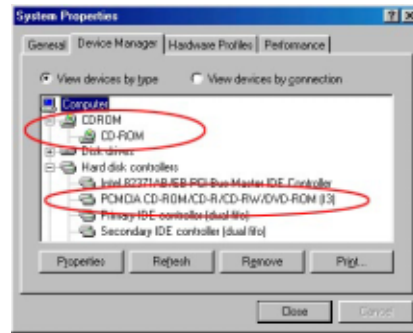
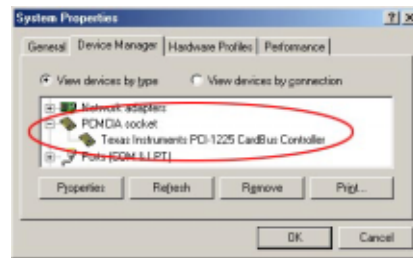| Installed Device Drivers	Location
PCMCIA CD-ROM/CD-R/CD-RW/DVD-ROM (I3)	Installed under 'Hard Disk Controllers'.
The real name of the CD-ROM drive	Installed under 'CDROM' (the name list in the figure may differ from your CD-ROM drive).

SOFTWARE INSTALLATION FOR WINDOWS Me

Windows Me will install the external CD-ROM with its resident driver, please do not insert the device driver diskette insert floppy drive during the installation.

1. Boot-up your computer into Windows Me, making sure the device driver for 'PCMCIA Socket' has been installed and is available. To check this, right-click 'My Computer', click 'Properties' and then 'Device Manager' to open the 'Device Manager' window. Refer to the figure shown alongside to see if the PCMCIA Controller is installed without error.

2. Ensure the PCMCIA interface cable and then the AC adapter connections (if you are using the AC adapter) are made as described in Hardware Installation. Slowly insert the PC Card of interface cable into the PCMCIA socket of computer and press firmly until the connector is seated (Please note that the PC Card is keyed to guide for proper insertion).

3. If this is the very first time you are connecting the drive to computer, the 'Add New Hardware Wizard' dialog box appears as shown. Select 'Automatic search for a better driver (Recommended), do not insert the device driver diskette, click *Next* to continue.
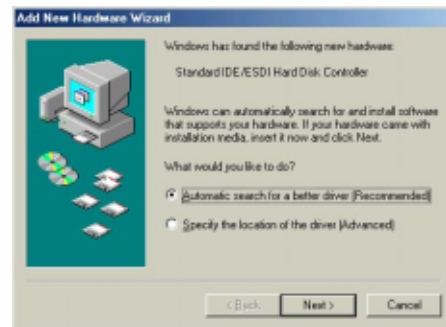
4. Windows will install its resident driver – 'Standard IDE/ESDI Hard Disk Controller' for the external CD-ROM. After the necessary files are copied into your internal hard disk, a screen will appear as the figure, click *Finish*.
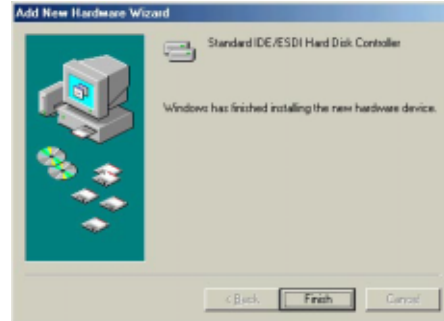
5. Windows will then detect the CD-ROM drive, you will find a new drive letter has been assigned for the drive in 'My Computer'.

6. If the external CD-ROM doesn't appear in 'My Computer' or doesn't work properly, please go into 'Device Manager' to check whether the devices are installed as the table and figure.
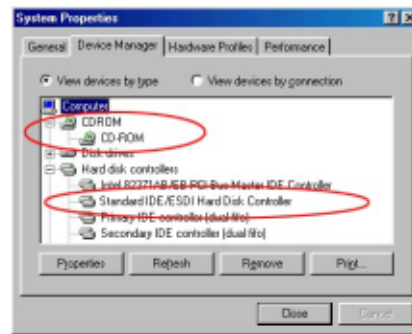
Installed Device Drivers	Location
Standard IDE/ESDI Hard Disk Controller	Installed under 'Hard Disk Controllers'.
The real name of the CD-ROM drive	Installed under 'CDROM' (the name list in the figure may differ from your CD-ROM drive).

SOFTWARE INSTALLATION FOR WINDOWS 2000/XP

1. Boot-up your computer into Windows, making sure the device driver for 'PCMCIA Adapters' has been installed and is available. To check this, right-click 'My Computer', click 'Properties' then 'Hardware' and then 'Device Manager' to open the 'Device Manager' window. Refer to the figure shown alongside to see if the PCMCIA Controller is installed without error.
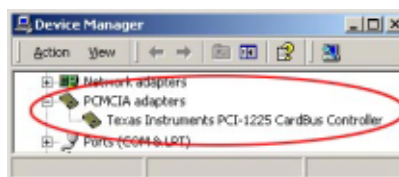
2. Ensure the PCMCIA interface cable and then the AC adapter connections (if you are using the AC adapter) are made as described in Hardware Installation. Slowly insert the PC Card of interface cable into the PCMCIA socket of computer and press firmly until the connector is seated (Please note that the PC Card is keyed to guide for proper insertion).

3. Windows will detect the external CD-ROM and install its resident driver automatically. After the installation, you will find a new drive letter has been assigned for the drive in 'My Computer'.
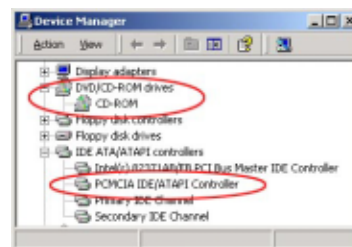
4. If the external CD-ROM doesn't appear in 'My Computer' or doesn't work properly, please go into 'Device Manager' to check whether the devices are installed as the table and figure.

Installed Device Drivers	Location
PCMCIA IDE/ATAPI Controller	Installed under 'IDE ATA/ATAPI Controllers'.
The real name of the CD-ROM drive	Installed under 'DVD/CD-ROM Drives' (the name list in the figure may differ from your CD-ROM drive).

SOFTWARE INSTALLATION FOR WINDOWS NT

Note:

♦ *Make sure the Windows NT system is version 3.51 or higher.*

♦ *Since Windows NT does not support 'Hot Insert/Remove' feature, this external CD-ROM should be connected to computer prior to starting Windows NT. Likewise, do not remove this drive before you shut down the computer.*

♦ *In Windows NT, the I/O and IRQ settings of PCMCIA IDE device cannot be changed. Therefore, if the setting of this CD-ROM conflicts with other device, change the I/O or IRQ of other device to avoid conflicts.*

♦ *We recommend you install a Card Service program, e.g. SystemSoft's CardWizard for Windows NT. This kind of program will help Windows NT to assign resource for PCMCIA device properly, and reduce the conflict situation.*

1. Do not connect the external CD-ROM to computer, just power-on the computer and boot into Windows.

2. Click on Start ⇨ Settings ⇨ Control Panel ⇨ SCSI Adapter. The 'SCSI Adapter' dialog box appears.

3. Click *Drivers* tab, and then click *Add* button.
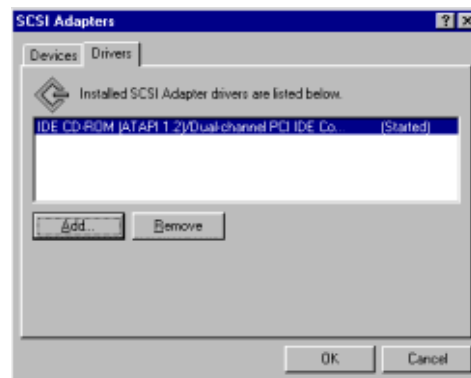
4. Click *Have Disk* button to continue. Windows NT will then prompt you to insert the manufacturer's driver diskette. Insert the devi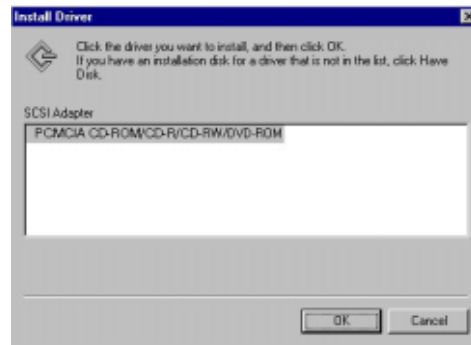ce driver diskette into floppy drive. Specify the directory as A:\WINNT (or B:\WINNT whichever contains the diskette) and click *OK*.

5. Select 'PCMCIA CD-ROM/CD-R/ CD-RW/DVD-ROM' and then click *OK*.

6. Follow the on-screen instruction to continue. After the installation is complete, Windows will prompt you to restart to activate the new device driver. Restart and power-off the computer.

7. Ensure the PCMCIA interface cable and then the AC adapter connections (if you are using the AC adapter) are made as described in Hardware Installation. Slowly insert the PC Card of interface cable into the PCMCIA socket of computer and press firmly until the connector is seated (Please note that the PC Card is keyed to guide for proper insertion).

8. Power-on the computer, after boot into Windows, the external CD-ROM will be assigned a drive letter in 'My Computer', the drive is ready for use.

SOFTWARE INSTALLATION FOR DOS/WINDOWS 3.1

Automatic Installation

Follow the instructions below to proceed with automatic installation.

1. Insert the device driver diskette into a floppy disk drive on your computer.

2. Change the working directory to the floppy drive containing the device driver diskette by typing **A:** then press *ENTER*.

3. At the DOS prompt (A:\>), type **INSTALL** followed by the *ENTER* key.

4. Press *ENTER* or click *OK* button to continue. The screen will display as the following:

   1) **Directory to install driver:** Type the directory that you want the driver files are copied to, and then press the *TAB* key to forward to the next field.

   2) **DOS directory:** To specify the directory containing the file MSCDEX.EXE. Type the directory, then press the *TAB* key to forward to the next field.

   3) **Set I/O port to:** The default setting is (170-177, 376-377). Set to (168-16F, 36E-36F) is recommended. Press the *TAB* key to forward to the next field.

   4) **Set IRQ to:** The default setting is 15. Set to 9, 10, or 11 is recommended.

5. After completing the selection, press *TAB* key to the Install button, and press *ENTER* to continue.

6. The rest of the installation should proceed automatically, the CONFIG.SYS and AUTOEXEC.BAT files on your computer will be updated automatically.

7. Reboot your computer and the CD-ROM drive will be defined as the next available drive letter. For example, if the last hard drive of the computer is drive C, the CD-ROM drive will be assigned to drive D.

Manual Installation

You may also manually install the external CD-ROM device driver if the default setting conflicts with your system. Perform the following procedures to complete the manual installation.

Note: The filename of the DOS device driver is different with the different version of driver package, it could be ARICDI.EXE or NVICDI.EXE. However, you can find this driver in the root folder of the diskette, the filename will be present as xxxCDI.EXE. The following example is assumed the filename is ARICDI.EXE, replace the filename if you get the different driver file.

1. Copy the file ARICDI.EXE from the device driver diskette to your hard disk.

2. Add the following line to the TOP of your CONFIG.SYS file. If there is already a LASTDRIVE line with a letter other than Z, change it to Z.

    LASTDRIVE=Z

3. Add the following line to the BOTTOM of your CONFIG.SYS file:

    DEVICE=*drive:\path***\ARICDI.EXE /P:3 /I:9 /D:MSCD001**

    Where *drive:\path* specifies the directory containing ARICDI.EXE.

    Note: If your CONFIG.SYS file is already loaded with PCMCIA software, such as Cardsoft of SystemSoft or Cardtalk of Databook, it is necessary to add the above line after the PCMCIA software. Otherwise, the PCMCIA interface card will not be initialized properly.

ARICDI.EXE is the device driver for the PCMCIA CD-ROM. The parameters of ARICDI.EXE are described below:

/P   is used to set the I/O ports, and the valid numbers are 1, 2, and 3. Each number represents the I/O port pairs of (170-177, 376-377), (1E8-1EF, 3EE-3EF), and (168-16F, 36E-36F) respectively. The default setting is **/P:1**.

/I   is used to set the IRQ number. The valid IRQs are 3, 4, 5, 7, 9, 10, 11, 12 and 15, and the default setting is **/I:15**.

/D   is used to set the device name. It can be any name up to 8 characters. This name must be the same as the name specified in the MSCDEX.EXE option /D:*name* in the next step.

4. Add the following line at the TOP of your AUTOEXEC.BAT:

    *drive:\path***MSCDEX.EXE /D:MSCD001 /M:4**

    Where *drive:\path* specifies the DOS directory or the directory containing the file MSCDEX.EXE.

    Note: If your AUTOEXEC.BAT file loads a menu program such as DOSSHELL or Windows, you have to add the above line in front of your menu program. Otherwise, MSCDEX will not have a chance to load before your menu program begins.

    The example above shows the default setting. The **/D:** switch indicates the device name. It MUST be the same name specified by the **/D:** switch of ARICDI.EXE in your CONFIG.SYS file. The **/M:** switch indicates how much memory to allocate for caching information on the CD-ROM. The default **/M:4** caches 8KB.

    For more information about the switches of MSCDEX, please type **'help MSCDEX'** at the DOS prompt.

5. Now, reboot your computer to activate the external CD-ROM drive.

Explanation Of The Error Messages

This section explains the most common error messages that DOS/Windows 3.1 users may encounter.

After rebooting your computer, the following messages will be displayed on your screen, which are generated by ARICDI.EXE and MSCDEX.EXE.

Configure card to:

I/O Port: 170-177, 376-377

IRQ number: 15

Device Name: MSCD001

PCMCIA CD-ROM card is present in socket 1

:

Drive D: = Driver MSCD001 unit 0

If any errors occur or the external CD-ROM does not work, you should reboot your computer again. When the system displays 'Starting MS-DOS...', press the *F8* key to execute CONFIG.SYS and AUTOEXEC.BAT step by step. You can consistently press the *Y* key to see each command's message.

Error Messages Generated By ARICDI.EXE:

♦ **Error: PCMCIA CD-ROM card is not present!**

If the above message appears, it means ARICDI can't find the PCMCIA interface card in your PCMCIA sockets. Make sure the PCMCIA interface card is inserted firmly.

♦ **Error: Illegal arguments! For help, type "aricdi /?"**

The above error message means that there are invalid arguments in the ARICDI line of CONFIG.SYS. Please refer to the section titled 'Manual Installation' for the usage of ARICDI.EXE.

♦ **Error: I/O port and IRQ number must be specified!**

The above message means you have not specified the I/O port and IRQ number argument in the ARICDI line of CONFIG.SYS.

♦ **Error: Illegal I/O port!**

The above message means invalid I/O ports in the ARICDI line of CONFIG.SYS have been selected. The legal I/O port numbers are: 1, 2, and 3.

- **Error: Illegal IRQ number!**

  The above message means invalid IRQ number in the ARICDI line of CONFIG.SYS have been selected. The legal IRQ numbers are: 3, 4, 5, 7, 9, 10, 11, 12 and 15.

- **Error: There is no available 4K memory for mapping!**

  The above message means ARICDI can't find available 4K memory between C000:0 to EFFF:0. This error can be corrected by changing the EMM386 line of CONFIG.SYS to exclude at least 4K memory for mapping. For example,

  DEVICE=C:\DOS\EMM386.EXE ... X=D000-D3FF

- **Error: The INTEL 82365SL PCMCIA controller is not detected in your system. You should contact your dealer to get PCMCIA support software.**

  The above message means the PCMCIA controller of your computer is not INTEL 82365SL compatible. In this case, you should install PCMCIA support software that should be supplied by the notebook manufacturer.

- **CD-ROM Drive is not found!**

  The above message means ARICDI.EXE can't find the external CD-ROM drive. Please make sure the CD-ROM drive is properly connected to the PCMCIA interface card cable, and if use AC adapter, ensure it is connected properly, and the Power Source Switch must at 'DC' position.

Error Messages Generated By MSCDEX.EXE:

- **Device driver not found: 'MSCD001'**

  This means that ARICDI.EXE is not installed properly or you have entered a different **/D:** switch in the MSCDEX line of AUTOEXEC.BAT. The device name specified by the **/D:** switch must be the same as the **/D:** switch in the ARICDI.EXE line of CONFIG.SYS.

SOFTWARE INSTALLATION FOR OS/2 WARP

Before installing the external CD-ROM device driver for OS/2 WARP, make sure your computer is PCMCIA supported. If you are not sure about this, please refer to the last part of this chapter for 'Adding PCMCIA Support'.

Automatic Installation

1. Insert the device driver diskette into floppy drive on your computer.

2. Open 'OS/2 WARP', and then open 'Drives'.

3. Select Drive A or B depending on which floppy drive contains the device driver diskette.

4. Open 'OS2WARP' folder. Then double-click on 'INSTALL2.EXE'.

5. A dialog box will be displayed for you to specify the OS/2 directory, the I/O address for the CD-ROM and the IRQ number. After specifying the OS/2 directory, press *TAB* to set the I/O port and then the IRQ. The default setting of the I/O ports is (170-177, 376-377), and the default IRQ is 15. After completing the selection, press *TAB* to the Install button and press *ENTER* to continue.

6. The rest of the installation will proceed automatically. At the end, the on-screen instruction will prompt you to restart your computer to activate the external drive for OS/2 Warp.

Manual Installation

You may also manually install the external CD-ROM OS/2 device driver if the default setting conflicts with your system. Perform the following procedures to complete the manual installation.

1. Copy the ARICD2.FLT file from A:\OS2WARP to the BOOT subdirectory of the OS/2 directory (for example: C:\OS2\BOOT.)

2. Add the following line to the BOTTOM of your CONFIG.SYS file:

    BASEDEV=ARICD2.FLT /P:3 /I:11

    The parameters of ARICD2.FLT are described below:

    /P   is used to set the I/O ports. The valid ports are 1, 2, and 3. Each number represents the I/O ports group of (170-177, 376-377), (1E8-1EF, 3EE-3EF), and (168-16F, 36E-36F) respectively. The default setting is **/P:1**. Set to **/P:3** is recommended.

    /I   is used to set the IRQ number, the valid IRQs are 3, 4, 5, 7, 9, 10, 11, 12 and 15, and the default setting is **/I:11**.

    /V   verbose mode, displays the initialization message. The default is quiet mode.

3. Meanwhile, check if the following lines exist in CONFIG.SYS, if not, add the following lines:

    DEVICE=C:\OS2\BOOT\OS2CDROM.DMD /Q

    IFS=C:\OS2\BOOT\CDFS.IFS /Q

    DEVICE=C:\OS2\MDOS\VCDROM.SYS

Adding PCMCIA Support

PCMCIA Support can be automatically installed during OS/2 installation or it can be installed through Selective Install after OS/2 installation.

To check or install PCMCIA support, perform the following steps:

1. Open OS/2 System ⇨ Open System Setup ⇨ Open Selective Install.

2. Check if PCMCIA Support has been installed in the System Configuration window, if yes, you may exit now, otherwise, perform the following steps to continue.

3. Select the check box to the left of PCMCIA Support to display the Select PCMCIA system window.

4. Select the appropriate system (this should either be a direct match with your target install system or a known compatible system).
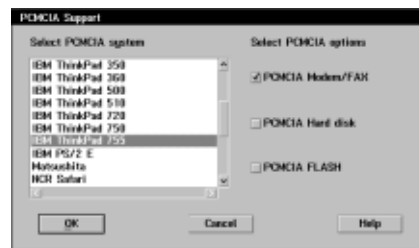
5. Select OK ⇨ Select Install, then, follow the on-screen instructions to finish the installation

USING CD-ROM WITH PCMCIA INTERFACE

To Connect The PCMCIA CD-ROM To Your Computer

♦ **Windows 95/98/Me/2000, and WindowsXP:**

1. Boot into the Windows system.

2. Insert the plug of the PCMCIA interface cable into the Interface Connector of drive.

3. **Make sure the Power Source Switch is at the correct position:**

   PC: get power from the PCMCIA socket of computer.

   DC: get power from the AC adapter.

4. If you are using the AC adapter, connect the AC adapter lead to the Power Jack (DC IN) at the rear panel of the drive. And then attach the AC adapter to the AC power outlet.

5. Slowly insert the PC Card of interface cable into the PCMCIA socket of computer and press firmly until the connector is seated. Your PCMCIA CD-ROM is now ready for use in few seconds.

♦ **Windows NT, DOS/Windows 3.1 and OS2 WARP:**

1. Power-off the computer.

2. Insert the plug of the PCMCIA interface cable into the Interface Connector of drive.

3. **Make sure the Power Source Switch is at the correct position:**

   PC: get power from the PCMCIA socket of computer.

   DC: get power from the AC adapter.

4. If you are using the AC adapter, connect the AC adapter lead to the Power Jack (DC IN) at the rear panel of the drive. And then attach the AC adapter to the AC power outlet.

5. Slowly insert the PC Card of interface cable into the PCMCIA socket of computer and press firmly until the connector is seated.

6. Power-on computer, the PCMCIA CD-ROM will ready for use after boot into the operating system.

To Disconnect The PCMCIA CD-ROM From Your Computer

♦ **Windows 95/98, and Windows Me:**

1. Click on the icon (or) on system tray and a dialog box appears beside this icon.

2. Click 'Stop PCMCIA CD-ROM/CD-R/CD-RW/DVD-ROM (I3)' (or 'Stop Standard IDE/ESDI Hard Disk Controller ') in the dialog box.

3. Wait for few seconds until the system prompts 'The device can now be safely removed from the system'. Click *OK*, and then remove the PC Card of the cable from computer.

♦ **Windows 2000 and Windows XP:**

1. Click on the icon (or) on system tray and a dialog box appears beside this icon.

2. Click 'Stop PCMCIA IDE/ATAPI Controller' in the dialog box.

3. Wait for few seconds until the system prompts 'The PCMCIA IDE/ATAPI Controller can now be safely removed from the system'. Click *OK*, and then remove the PC Card of the cable from computer.

♦ **Windows NT, DOS/Windows 3.1 and OS2 WARP:**

1. Power-off the computer.

2. Remove the PC Card of the cable from computer.