IBM

ThinkPad 760
CD-ROM Drive Option

Installation Instructions

Contents

About This Book

This book contains user information for the ThinkPad CD-ROM drive
option. This book is divided into three parts:

- Part 1 contains abbreviated installation instructions for the option
  in the following languages:

English	French
Brazilian	Italian
Portuguese	Japanese
German	
Spanish	

- Part 2 provides information on how to prepare for and install the
  option.

- Part 3 contains help and service information, specifications,
  warranty, notices, and trademark information.

> **Note:** The illustrations in this book might be slightly different
> from your hardware.

Part 1. Quick Installation Guide

Quick Installation

The following is an overview of the option installation instructions.
For more detailed information and a list of supported systems, go to
Part 2.

Use the following instructions to install the drive:

1. Installation depends on your operating system.

   - *If you are installing under OS/2 :*

     a. Double-click on **Selective Install** in the **System Setup**
        folder.
     b. Select **Non-listed IDE CD-ROM** and click on **OK**.
     c. At the OS/2 Setup and Configuration menu, select
        Install.
     d. Follow the instructions on the screen to complete the
        installation.

   - *If you are installing under Microsoft Windows 95:*

     a. Comment out the line
        `DEVICE=C:\`*xxxxxx*`\IBMTPCD.SYS /D:TPCD001 /P:170`
        `/R` in the CONFIG.SYS file.
     b. Comment out the line `C:\`*xxxxxx*`\MSCDEX.EXE`
        `/D:TPCD001 /M:15` in the AUTOEXEC BAT file.
     c. Reboot the system.

   - *If you are installing under DOS/WIN 3.1:*

     a. Insert the Option Diskette into the diskette drive.
     b. Type `A:`.
     c. Type `UINSTALL`.
     d. Follow the instructions on the screen.

Chapter 1.
Product Description

This ThinkPad CD-ROM drive is a standard IDE device.

The applicable systems for the drive are:

- IBM ThinkPad SelectaDock I
- IBM ThinkPad SelectaDock II
- IBM ThinkPad 760 models that support a CD-ROM drive (See the *User's Guide* supplied with your computer.)

Chapter 2.
Installing Device Drivers

The following table provides additional information to help you determine which device driver to use when you install the CD-ROM drive, depending on the operating system that you will be using:

Operating System	What You Need to Do
• OS/2 V2.11	You need to install a CD-ROM device driver. See "OS/2 V2.11" on page 2-2.
• OS/2 Warp • Windows 95	The device driver that is a part of the operating system works with this CD-ROM drive. See "OS/2 Warp" on page 2-3 or "Windows 95" on page 2-4.
• PC DOS V7.0 • MS-DOS V6.22 • Windows for Workgroups V3.11	You need to install a CD-ROM device driver. See "DOS/WIN 3.1" on page 2-5.

When you turn your computer on after installing the IBM ThinkPad CD-ROM drive, your system recognizes the drive. Before using the drive with your application programs, you must first install device drivers. The following table lists the names of the affected files:

Device Driver for OS/2	IBMIDECD.FLT OS2CDROM.DMD IBM1S506.ADD
File System for OS/2	CDFS.IFS
Device Driver for DOS and Windows	IBMTPCD.SYS
File System for DOS and Windows	MSCDEX.EXE (MS-DOS CD-ROM Extensions)

Install the CD-ROM device driver required by your operating system.

Note: If you want to use the CD-ROM drive to install the operating system, refer to the operating system documentation.

OS/2 V2.11

This section describes how to install the CD-ROM device driver for OS/2 V2.11. Have the Option Diskette that came with this option ready; then do the following:

1. Turn on the computer; then start OS/2.
2. Double-click on the **OS/2 System** icon.
3. Double-click on the **System Setup** icon.
4. Double-click on the **Selective Install** icon.
5. Select **CD-ROM Device Support**; then click on **OK**.
6. Select **Non-listed IDE CD-ROM** and click on **OK**; then click on **OK** again at the System Configuration menu.
7. At the OS/2 Setup and Configuration menu, select **Install**.
8. Follow the instructions on the screen.

Note: However, do not shut down the system when the screen instructions prompt you to. Do the following steps instead.

9. Insert the Option Diskette shipped with this option into the diskette drive.
10. Double-click on the **Device Driver Install** icon in the **System Setup** menu screen.
11. Verify the source directory for the device driver (A:); then follow the instructions on the screen to complete the installation.

You have completed the modifications required for the CD-ROM device driver.

OS/2 Warp

> **Note:** Do not use the Option Diskette shipped with this option for installing device drivers for OS/2 Warp. Use the device drivers included with OS/2 Warp.

To install the CD-ROM device driver for OS/2 Warp, do the following:

1. Turn on the computer; then start OS/2 Warp.
2. Double-click on the **OS/2 System** icon.
3. Double-click on the **System Setup** icon.
4. Double-click on the **Selective Install** icon.
5. Select **CD-ROM Device Support**; then click on **OK**.
6. Select **Non-listed IDE CD-ROM** and click on **OK**; then click on **OK** again at the System Configuration menu.
7. At the OS/2 Setup and Configuration menu, select **Install**.
8. Follow the instructions on the screen to complete the installation.

Software Parameters in the CONFIG.SYS File

When the CD-ROM device driver is installed in your computer, OS/2 automatically modifies the CONFIG.SYS file. The following describes the parameters for the CD-ROM device driver:

- `DEVICE=OS2CDROM.DMD [options]`

  This is the CD-ROM device class driver, where *options* can be:

  [/V]   Displays messages on the computer screen during the installation.

  [/Q]   Does not display messages on the computer screen during the installation.

- `BASEDEV=IBMIDECD.FLT [options]`

  This is the IDE adapter device driver for ATA Packet Interface devices, where *options* can be:

  [/V]   Displays messages on the computer screen during the installation.

- `IFS=[drive]:[path]CDFS.IFS [options]`

  This is the ISO9660/HSG file system for OS/2. All CD data discs are recorded with this file format. *Options* can be:

  [/C:n]   Indicates how many 64KB segments to use for the sector cache. The default is n=2, two 64KB segments.

  [/M:n]   Indicates the maximum number of file sectors to be read at a time. The default is n=8, eight sectors.

  [/V]   Displays messages on the computer screen during the installation.

  [/Q]   Does not display messages on the computer screen during the installation.

You have completed the modifications required for the CD-ROM device driver.

Windows 95

Windows 95 comes with a generic ATAPI CD-ROM device driver that
works with your ThinkPad's CD-ROM. The generic Windows 95
CD-ROM device driver is automatically installed if you do not
upgrade from DOS or Windows, or if you upgrade from DOS or
Windows *but* without the IBM CD-ROM device driver. If you are
upgrading from DOS or Windows 3.1 to Windows 95, the original
device driver for DOS or Windows must be disabled for the Windows
95 device driver to become effective.

To enable the Windows 95 generic ATAPI CD-ROM device driver, do
the following:

1. Go to the MS-DOS command prompt.

2. Open the CONFIG.SYS file.

3. Find the following line:

   ```
   DEVICE=C:\xxxxxx\IBMTPCD.SYS /D:TPCD001 /P:170 /R
   ```

   xxxxxx is the subdirectory where you have installed the CD-ROM
   device driver. If you cannot find the line, quit the file and go to
   step 5.

4. Comment out the line to change it as follows:

   ```
   REM DEVICE=C:\xxxxxx\IBMTPCD.SYS /D:TPCD001 /P:170 /R
   ```

   If the line is already commented out, quit the file and go to the
   next step.

5. Open the AUTOEXEC.BAT file.

6. Find the following line:

   ```
   C:\xxxxxx\MSCDEX.EXE /D:TPCD001 /M:15
   ```

   xxxxxx is the subdirectory where you have installed the CD-ROM
   device driver. If you cannot find the line, quit the file and go to
   step 8.

7. Comment out the line to change it as follows:

   ```
   REM C:\xxxxxx\MSCDEX.EXE /D:TPCD001 /M:15
   ```

   If the line is already commented out, quit the file and go to the
   next step.

8. Exit the MS-DOS command prompt; then reboot the system.

You have completed the modifications required for the CD-ROM
device driver.

DOS/WIN 3.1

To install the CD-ROM device driver for DOS V6.3 or later:

1. Turn on the computer.

2. Insert into the diskette drive the Option Diskette shipped with the CD-ROM drive.

3. Type A:; then type UINSTALL.

4. Follow the instructions on the screen to complete the installation.

5. After the installation is complete, remove any diskette from the diskette drive and restart the system.

You have completed the installation of the CD-ROM device driver for DOS.

Software Parameters in the CONFIG.SYS File

When the CD-ROM device driver is installed in your computer, UINSTALL automatically modifies the CONFIG.SYS file or the AUTOEXEC.BAT file. The following are the parameters for the CD-ROM device driver:

- DEVICE=[*drive*:][*path*]IBMTPCD.SYS [/C] [/S]

  IBMTPCD.SYS is the CD-ROM device driver. Make sure this line is inserted after the EMM386 statement. If you are using the Multiple Configurations option, copy or move the DEVICE= line to the configuration blocks to enable or disable the CD-ROM drive according to the configurations.

[/C]   Sets the cache size in the XMS memory. When this parameter is set, the cache size in the XMS memory is 512 sectors. When it is not set, the default is 0.

[/S]   Sets the power-saving mode to OFF. When using DOS with another operating system (for example, when using it with OS/2 in dual boot), set the power-saving mode to OFF using this parameter.

Note: Do not specify the [/R] parameter for this option.

- [*drive*:][*path*]MSCDEX.EXE /D:TPCD001 [/M:*n*][/E][/V][/L:*x*]

  The Microsoft CD-ROM Extensions program (MSCDEX.EXE) for MS-DOS Version 3.1 or later works with the IBMTPCD.SYS device driver to allow your computer to access the CD-ROM drive, where the options can be:

/D   Specifies the name of the CD-ROM drive, TPCD001.

[/M:*n*]   Specifies the number of sector buffers to store the most recent disc data temporarily. The default is *n*=4.

[/E]   Specifies that the computer will use expanded memory, if available.

[/V]   Displays on the computer screen a summary of RAM allocation and expanded memory usage at power-on.

[/L:*x*]   Specifies the drive letter (represented here by *x*) for the CD-ROM drive. Be sure not to assign a drive letter already used by another drive; otherwise, the computer cannot access the CD-ROM drive.

If you are using the Multiple Configurations option, copy or move the MSCDEX.EXE statement to the configuration blocks to enable or disable the CD-ROM drive according to the configurations.

- SMARTDRV

  If you are using DOS SMARTDRV caches and planning to use a photo CD or multiple session discs, you have to add the /U parameter to the SMARTDRV line in the AUTOEXEC.BAT file. This is because photo CDs or multiple session discs are not compatible with the SMARTDRV caches.

  If you are planning to play CD-I movies, do not cache the CD-ROM drive with the SMARTDRV Version 5.0 or 5.1, which is supplied with PC DOS Version 7.0.

Chapter 3.
Playing a CD Using the Eject Button

Before playing a CD using the eject button, the sound features must be enabled in your operating system. To enable the features, refer to the documentation that came with your operating system.

You can play and stop the CD in the drive using the eject button as follows:
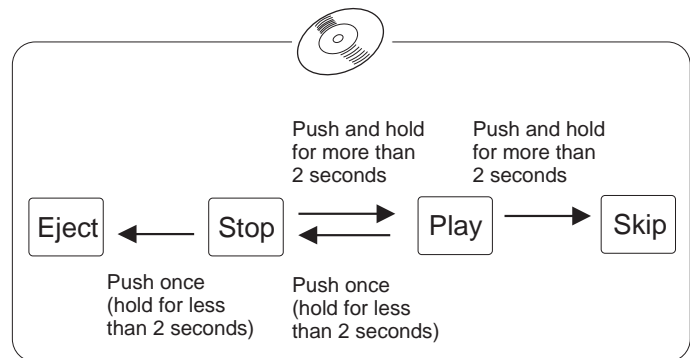
Function	Operation by the CD-ROM drive eject button
To play a CD	Push and hold the button for more than 2 seconds
To skip to the next track	Push and hold the button for more than 2 seconds
To stop playing the CD	Push and hold the button for less than 2 seconds
To eject the CD	Push and hold the button for less than 2 seconds

Part 3.   Appendixes

Appendix A.
Help and Service Information

Before calling, please prepare for your call by following these steps.

Step 1: Troubleshooting

You might be able to solve the problem yourself. Before calling IBM, you might want to try some or all of the following troubleshooting procedures:

1. Remove and reattach all option cables.

2. Remove and reseat the option.

3. Place the option in a different slot, if one is available.

4. If your option contains jumpers or switches, check that they are set as specified.

5. Reread any software instructions; verify that software settings are correct.

6. Inspect the option for damage, such as bent pins.

7. Check the computer manual for instructions about the installation of upgrades. Look for a section about system setup or system configuration. Follow all procedures.

8. After completing these steps, reassemble the computer and connect the power cord.

Step 2: Preparing for the Call

To assist the technical support representative, have available as much of the following information as possible:

1. Computer manufacturer and computer model

2. Option name: IBM ThinkPad 760 CD-ROM Drive

3. Proof of purchase

4. Exact wording of the error message (if any)

5. Description of the problem

6. Hardware and software configuration information for your system

If possible, be at your computer. Your technical support representative might want to walk you through the problem during the call.

Step 3: Placing the Call to IBM

Technical support is available during the warranty period to answer any questions about your new IBM option[1].

For the support telephone number and support hours by country, use the following table. For other countries, contact your IBM reseller or IBM marketing representative.

Support 24 hours a day, 7 days a week	
Canada	1-800-565-3344
Puerto Rico	1-800-772-2227
United States	1-800-772-2227

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[1] *Response time will vary depending on the number and nature of calls received.*

Appendix B.
Product Warranty

The following warranty information applies to products purchased in the United States, Canada, and Puerto Rico. The warranty terms and conditions for products purchased in other countries are available from IBM or your reseller.

International Business Machines Corporation   Armonk, New York, 10504

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    Machine: IBM ThinkPad 760 CD-ROM Drive

    Warranty Period*: One Year

    *Contact your place of purchase for warranty service information.

Production Status

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If you transfer a Machine to another user, warranty service is available to that user for the remainder of the warranty period. You should give your proof of purchase and this Statement to that user. However, for Machines which have a life-time warranty, this warranty is not transferable.

Warranty Service

To obtain warranty service for the Machine, you should contact your reseller or call IBM. In the United States, call IBM at **1-800-426-7299**. In Canada, call IBM at **1-800-565-3344**. You may be required to present proof of purchase.

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