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## Instructions for using the Recovery CD

The Recovery CD package consists of a CD with a copy of the software that was preinstalled on your IBM(R) ThinkPad(R) computer (all the applications and disk-based settings that your computer came with), a startable diskette (if your computer does not have an internal CD-ROM drive), and these user instructions.

**Note:** If your Recovery CD package includes two Recovery CDs, one CD is startable and the other is not. You cannot start your computer with the CD labeled Non-bootable.

If you have an internal drive, it is the only supported drive. If you do not have an internal CD-ROM drive, you will need one of the following supported external drives.

### TransNote(TM) models

IBM Portable Drive Bay (2000) PCMCIA  
IBM USB CD  
IBM 20x PCMCIA  
IBM 8x PCMCIA

### X20 models

Ultrabase(TM) X2 CD/DVD  
ThinkPad Dock  
IBM USB CDROM  
IBM Portable Drive Bay (2000) PCMCIA

If you do not have one of the supported CD-ROM drives, see this section of this publication: "External CD-ROM drives not supported by the startable diskette."

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## Using the Recovery CD

**Important:** During the recovery process, all data saved on the primary partition of the hard disk will be deleted, including any personal data and configuration settings. If possible, back up on removable media the personal files currently on the primary partition before using the Recovery CD.

To recover your pre-installed software using the Recovery CD, you must first change the boot sequence by doing the following:

### Starting IBM BIOS Setup Utility

1. Shut down and turn off your computer, then turn it on.
2. Press the F1 key when the following message is displayed on your screen:

Press F1 for IBM BIOS Setup Utility

3. The following message will then display on the screen:

Entering BIOS Setup Utility

4. Check the items displayed in the IBM BIOS Setup Utility main menu. If you see **Startup**, select this menu item and follow the "Selecting Startup" instructions below. If you see **Startup Configuration**, select this menu item and follow the "Selecting Startup Configuration" instructions below.

### Selecting Startup

1. Use the arrow keys to select **Boot** from the Startup menu.
2. Use the arrow keys to select **ATAPI CD-ROM Drive** from the Boot menu.
3. Press F6 repeatedly until the ATAPI CD-ROM Drive item has moved to the top of the device listing.

4. Press F10 to save and exit the IBM BIOS Setup Utility.
5. When prompted, select **Yes** in the Setup Confirmation window and then press Enter.
6. Complete the recovery process by following the "Completing the recovery process" instructions below.

### Selecting Startup Configuration

1. Use the left and right arrow keys to move the items listed in the boot drive sequence, until **CD-ROM** is displayed at the top of the listing.
2. Press Esc to exit the IBM BIOS Setup Utility.
3. When prompted, select **Yes** to save changes.
4. Complete the recovery process by following the "Completing the recovery process" instructions below.

### Completing the recovery process

After changing the boot sequence, complete the recovery process by doing the following:

1. Insert the Recovery CD into the CD-ROM drive, and do the following.
2. Restart your computer by pressing Ctrl+Alt+Delete. You should see the Product Recovery Program, or CD-ROM Drive Option startup screen.

**Note:** If you do not see this startup screen, you will need to use the startable diskette provided. Insert the diskette into the diskette drive and restart the computer. If you still do not see the screen, make sure that you are using a supported drive and that you have changed the boot sequence, as described above.

3. Select the appropriate options from the recovery menu screen.
4. Wait until a message notifies you that the recovery process is complete.

5. Remove the Recovery CD and startable diskette, if appropriate, from their respective drives.
6. Follow the instructions on the screen to restart your computer.
7. After recovery has completed, you can restore the original boot sequence by restarting your computer and entering BIOS Setup Utility again. Use the BIOS Setup Utility and refer to the on-screen menu to load your default settings.

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## **External CD-ROM drives not supported by the startable diskette**

The following are technical instructions for advanced users. These instructions are provided "as is." Refer to the documentation that came with your external CD-ROM drive for installation instructions of the DOS drivers and technical support.

If you have an external CD-ROM drive that is not supported by the startable diskette, do the following to add the DOS drivers for your CD-ROM drive to the startable diskette:

1. Make a backup copy of the Recovery Boot Diskette and store the original diskette in a safe place.
2. With the copy of the Recovery Boot Diskette, create a diskette that can start the computer and provide access to your external CD-ROM drive. This will create a diskette that contains all the files that your CD-ROM drive requires. To create this diskette follow these steps:

**Note:** If your CD-ROM drive is a parallel-port "backpack CD-ROM drive," do not follow the instructions in step 2a. The DOS drivers for these devices need to be added to all the CONFIG.\* files on the startable diskette. Refer to the documentation that came with your CD-ROM drive for set-up instructions.

- a. On the Recovery Boot Diskette copy there are files that you will not need, because they are required only for the CD-ROM drives that IBM supports. Delete these files from the Recovery Boot Diskette copy, if they are present:

PCMCD20X.SYS	IBMTPCD.SYS
CTCFCD.SYS	CMDATPCD.SYS
KMECD.SYS	ASPIOMGR.SYS
USB_CD.SYS	DEBAYCD.EXE

- b. Copy the CD-ROM drivers to the Recovery Boot Diskette copy. Do not forget any card service drivers that might be needed for using the CD-ROM drive.
- c. Edit the AUTOEXEC.BAT file. Locate any lines in the file that load the CD-ROM drivers. These lines will be in such sections as : INTERNAL, IBM20X, or PANASONIC. (Computers with internal CD-ROM drives do not have these sections.) Replace the lines with the commands that load your CD-ROM drivers. Remember the section in which you include your drivers, as you will select the drive specified in that section when you are prompted to choose drives in the recovery process.

3. On the Recovery Boot Diskette copy, look for a line similar to the line below:

LH A: \MSCDEX.EXE /D:PCMCD001 /M:15 /L:X

Make sure it has the LH (Load High) parameter and /L:X where X becomes the CD-ROM drive letter. The Recovery program requires that X be the letter of the CD-ROM drive.

4. Edit the CONFIG.SYS file and add any drivers that your CD-ROM drive requires. Remove the following line:

DEVICEHIGH=A:\IBMTPCD.SYS /D:IBMCD001

This line is for an internal CD-ROM drive.

5. If your CD-ROM drive requires a point enabler, include the point enabler in the same section of the CONFIG.SYS or AUTOEXEC.BAT file.
6. Follow the instructions in "Using the Recovery CD." When prompted, select the CD-ROM drive you set up in step 2c above.

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