

PX-740UF

**Model PX-740UF External
USB/FireWire Drive**

**DVD±R DL (DOUBLE LAYER/DUAL LAYER),
DVD±R/RW, CD-R/RW DRIVE**

INSTALLATION AND USERS MANUAL



JULY 2005

Plextor reserves the right to make improvements in the products described in this manual at any time without prior notice.

Plextor makes no representation or warranties with respect to the contents hereof and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose. Further, Plextor Corp. reserves the right to revise this manual and to make changes in its content without obligation to notify any person or organization of such revision or change.

This manual is copyrighted, all rights reserved. It may not be copied, photocopied, translated, or reduced to any electronic medium or machine-readable form without Plextor's prior permission.

Manual copyright ©2005 Plextor Corp.
First edition, July 2005.

Licenses and Trademarks

Plextor and the Plextor logo are registered trademarks of Plextor Corp. All other licenses and trademarks are property of their respective owners.

Record Your Serial Number

For future reference, record the serial number and the TLA code (found on your drive's label) in the space provided below.

--

TLA/Firmware Revision Number

--

FEDERAL COMMUNICATIONS COMMISSION STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

CANADIAN DEPARTMENT OF COMMUNICATIONS STATEMENT

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

This class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

LASER INFORMATION

These products have been designed and manufactured according to IEC 60825-1 on the Safety of Laser products. This product comes under "Class 1 Laser Products."

CAUTION: Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

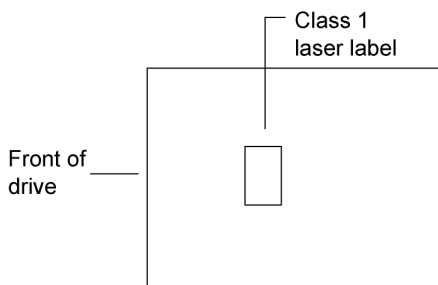
A Laser Caution Label is attached on the bottom of the external drive model.

The laser beam emitted from the optical pickup is visible and invisible. Accordingly:

- Do not open the optical pickup housing.
- Obtain service only from Plextor-authorized personnel.

CAUTION: To disconnect the external DVD/CD drive from an electrical current, pull out the AC adapter power plug.

Bottom View of External Drive, Showing Caution Label Location



Detail of PX-740UF Laser Caution Label



Table of Contents

1. Getting Started	1
About this Manual.....	1
What's In This Manual.....	1
Printing the Manual	1
Meet Your PX-740UF	2
What the PX-740UF Does.....	2
Features of the PX-740UF.....	3
Minimum Configuration to Use the PX-740UF	5
What You Can Do with the PX-740UF.....	6
About Software	6
Precautions	7
Where to Go From Here.....	7
2. Installing the PX-740UF External USB/FireWire Drive.....	9
PX-740UF Drive Features and Controls	9
Front Panel—PX-740UF External Drive	9
Rear Panel—PX-740UF External Drive.....	11
What Else Is In the PX-740UF Box	13
Save Your Box!.....	13
Mount the PX-740UF Drive.....	14
Determine Your Computer's Operating System	15
Determine What Interface to Use	15
Connect the PX-740UF Drive	16
Record the Serial Number and TLA Code	16
Install the Drive in Your Windows Computer.....	16
Identifying Cables and Ports	18
Switching Between USB and IEEE 1394 Interfaces	19
If You're Using FireWire.....	19
If You Have a Macintosh	20

3. Using Your PX-740UF	21
What Media to Use	21
DVD Media.....	21
CD-ROM Media	22
Tray Loading and Operation	23
Handling DVD and CD Media.....	23
Cleaning Discs	24
Mounting Position.....	25
Playing DVDs	25
Writing to DVD Media	26
Specifying +R/RW or -R/RW	26
Writing to CD-R and CD-RW Media	26
Using the Disc/Busy Indicator	27
4. Maintenance and Troubleshooting	29
Cleaning the PX-740UF Drive.....	29
Upgrading Firmware	30
Emergency Eject	31
Troubleshooting	32
Make Sure the Drive Is Recognized.....	32
5. Frequently Asked Questions	35
Appendix A: PX-740UF Specifications	37
Appendix B: Technical Support	51
How to Contact Plextor Technical Support.....	52
Before You E-mail or Call for Support.....	52
Returns	53
Contacting Plextor's RMA Department.....	53
Packing Your Drive	53
Shipping Your Drive to Plextor	54
Appendix C: Warranty.....	55
If You're Outside the U.S. or Canada	56
Index.....	57
Notes.....	63

1. Getting Started

Congratulations! Thank you for purchasing the Plextor® PX-740UF, a reliable, high-performance recordable DVD and CD writer, rewriter, and player. We appreciate the confidence you have shown in us. Our goal is to put you—and keep you—on the leading edge of DVD and CD technology.

About this Manual

Please read this manual carefully and keep it handy for easy reference. Use the manual for installation, operation and troubleshooting. If your drive needs service, see your dealer or call Plextor's Technical Support Department.

What's In This Manual

In this manual you should find all the information you need to successfully install, operate and troubleshoot your drive. If you run into a problem that doesn't seem to be covered, however, please contact us. (See “Appendix B: Technical Support” for the different ways you can reach us.) You will be connected to our friendly, helpful band of tech support engineers. What might seem like an uncooperative drive to you could very well be a 30-second fix to them. But we will never know unless you contact us.

Printing the Manual

This manual has been sized for viewing on a computer monitor screen.

To print a hard copy of this manual:

1. In Adobe Reader, select File | Print. You see the Print dialog box.
2. In the Print dialog box, choose the printer.
3. If you want to print on standard 8-1/2 x 11 paper, select Page scaling and Fit to paper. This expands the manual's pages so they nearly fill up a standard-sized page.
4. When you have made your selections, click OK. The manual is printed.

Meet Your PX-740UF

The PX-740UF is a DVD ReWritable/CD ReWritable drive that provides professional quality DVD and CD performance for writing, rewriting and reading.

What the PX-740UF Does

For DVDs, the PX-740UF:

- Writes DVD+R (recordable DVD, “plus” format) media at up to 16X speed on recommended 16X media.
- Writes DVD+R DL (double layer) media at up to 8X speed.
- Writes DVD-R DL (dual layer) media at up to 4X speed.
- Writes DVD-R (recordable DVD, “dash” format) media at up to 16X speed on recommended 16X media.
- Writes DVD+RW (rewritable DVD, “plus” format) media at up to 8X speed. (Requires 8X media for 8X writing.)
- Writes DVD-RW (rewritable DVD, “dash” format) media at up to 6X speed.
- Supports DVD±VR format for read and write.
- Reads stamped DVD discs at up to 16X.
- Reads DVD-Video discs with CSS at up to 4X CAV.

NOTE: Depending on the USB chipset used in your computer, the PX-740UF's DVD read speed may be limited to 14X maximum with USB 2.0 only. Maximum IEEE 1394/FireWire read speed remains 16X.

For CDs, the PX-740UF:

- Writes to CD-R (recordable CD) media at up to 48X speed.
- Writes to CD-RW (rewritable CD) media at up to 32X speed.
- Reads all CD-ROM and CD-R data media at a maximum of 48X speed.
- Reads CD-RW data media at a maximum of 40X speed.
- Reads CD-DA (audio) and CD-R audio media at up to 48X speed .
- Reads CD-RW audio media at up to 32X speed.

Features of the PX-740UF

- *USB 2.0 and FireWire interface:* Features both USB 2.0 and FireWire® (IEEE 1394), to connect to a PC or Macintosh computer with either of these high-speed interfaces. Supports both Hi-Speed USB 2.0 (480 megabits per second) and Full-Speed USB 1.1 (12 megabits per second).
- *MMC compliance:* Supports the MMC-4 command set.
- *Flash memory:* Allows upgrading the PX-740UF to the latest firmware revision (available free from the Plextor web site) without opening the computer or physically accessing the drive.
- *Black tray:* Reduces the effect of optical distortion by absorbing reflections from the laser beam, enhancing read quality.
- *Plug and Play:* Supports Windows Plug and Play.
- *CPRM support:* The PX-740UF supports Content Protection for Recordable Media, so you can play CPRM copy-controlled media.

DVD Features

- *Lossless linking for DVD+R/RW and DVD+R DL:* Allows DVD+RW discs to be edited and still play on DVD-ROM players.
- *Zero Link for DVD-R/RW, DVD-R DL:* Has 0 byte gap between sessions so the discs are compatible with all players. This allows DVD-RW discs to be edited and still play on DVD-ROM players.
- *Double layer and dual layer DVD discs:* Reads and writes DVD+R DL (double layer) and DVD-R DL (dual layer) discs, so you can burn up to 4 hours of high quality MPEG-2/DVD video on a single 8.5-gigabyte DVD disc.
- *Wide DVD+R/RW and DVD-R/RW media compatibility:* Compatible with a wide range of DVD±R and DVD±RW media.
- *Multiple DVD types:* Supports DVD-ROM, DVD-Video, multi-border, multi-session and DVD±VR, for read and write.

- *Versatile recording modes for DVD+R/RW*: Including disc-at-once (DAO) and multi-session, for DVD+R DL (double layer) and DVD+R; and sequential write for DVD+RW.
- *Recording versatility for DVD-R/RW, too*: DAO and multi-session write for DVD-R DL (dual-layer); DAO and multi-border recording for DVD-R; and DAO, multi-border recording, and restricted overwriting for DVD-RW.

CD-R and CD-RW Features

- *Variety of recording modes*: Supports track-at-once, disc-at-once, session-at-once, and variable and fixed packet writing.
- *Buffer Underrun Proof Technology*: Eliminates buffer underrun errors, so you can safely use your computer for other tasks while you're writing to a CD-R or CD-RW disc.
- *Wide compatibility*: Wide CD-R and CD-RW media compatibility.
- *Orange Book compatibility*: Compatible with Orange Book, Parts II and III.
- *OPC and ROPC*: Optimum Power Control and Running Optimum Power Control, which adjust the laser power for the optimum write strategy.
- *CD-TEXT, CD+G*: Supports CD-TEXT and CD+G reading.

Minimum Configuration to Use the PX-740UF

Here's what you'll need in order to install and use the PX-740UF drive.

- **Computer:**
 - ❑ **PC:** Pentium 4, 1.6-GHz or faster CPU.
 - ❑ **Macintosh:** Power Macintosh G3 or later (G4 or higher recommended)
- **Minimum RAM:** 256 MB.
- **Interface:** USB (2.0 or 1.1) or IEEE 1394 (FireWire) interface. (On-board USB 2.0 or IEEE 1394 host controller recommended.)
- **Hard disk size:** To write to a CD in image mode (that is, to write an image of a CD to your hard disk), you need 1 GB of free space. For a DVD, 10 GB of free space is recommended. (For more accurate guidelines, see the help files or documentation for the recording software you're using.)
- **Operating System:**
 - ❑ **PC:** Windows XP, XP 64-bit, 2000, Me.
 - ❑ **Macintosh:** Mac OS X.

NOTE: You cannot use the PX-740UF with Windows 98 or Mac OS 9.

MACINTOSH NOTE: The PX-740UF drive is compatible with Macintosh computers running Mac OS X or higher. Note that Apple Computer applications generally do not support non-Apple CD or DVD recorders. A Macintosh-compatible third-party recording application, such as Roxio Toast Titanium 6, will provide authoring and recording capability. See Roxio.com, for example.

What You Can Do with the PX-740UF

Just look at some of the things you can do with your PX-740UF:

- Record slide shows or digital video onto DVD+R DL, DVD-R DL, DVD+R, DVD-R, DVD+RW and DVD-RW discs.
- Play DVD-ROM, DVD+R DL, DVD-R DL, DVD+R, DVD+RW, DVD-R, and DVD-RW discs.
- Record data or audio onto writable or rewritable CD media.
- Play music CDs.
- Save photos and other images on rewritable or writable CDs.
- Create a CD or DVD “sneakernet” to share information with colleagues—just use software such as Ahead Software’s InCD 4 to drag and drop files onto DVD+R, DVD+RW, CD-R or CD-RW media, then continue adding files and sharing the same disc.
- Archive images and video to DVD or CD.
- Master new software programs on DVD or CD.

About Software

In order to record on DVD±R DL, DVD±R/RW, and CD-R/RW discs you will need to have mastering, packet writing, or duplication software installed on your computer system. If you purchased a retail kit from Plextor, you’ll get software packages that include such software.

Ahead’s Nero software is one software suite that lets you burn DVDs and CDs. The software lets you burn and share anything on CD or DVD, including music, photos, and videos; and you can easily back up your critical data to a CD or DVD. One component of Nero is InCD 4, which makes the Plextor PX-740UF drive as easy to use as a hard disk drive. (For more information about Nero, install this application and examine the help files.)

For details on other software that is available for writing to DVDs or CDs, please visit the web sites of the companies whose software you are interested in, refer to their user’s manuals, or look at the help option within the software. A list of various software that you can use with your Plextor drive can be found in the Support/Compatibility section of www.plextor.com.

Precautions

Like the rest of your computer system, your PX-740UF requires reasonable care in its installation and use.

- Keep the area around your drive clean from dust, smoke, and other contaminants.
- Do not allow moisture or liquids, including water or cleaning fluids, to touch the drive. Thinner, benzene, or alcohol-based solvents can mar your drive's surface.
- Do not drop or jolt the drive.
- Do not move, carry or transport a disc in the drive because this can cause damage.
- Do not attempt to open the drive and service it yourself. Removing the cover may expose you to harmful electrical voltages or the laser beam. For your safety, entrust service to experienced service personnel only.
- Keep your DVDs and CDs free of dirt or other contaminants, by storing them in jewel cases. Use only industry-standard discs. Do not insert dirty, warped, poorly balanced, or cracked discs into the drive.
- Do not clean discs using a circular motion. Instead, using a soft, dry cloth, wipe gently in a radial motion; start at the center of the disc and proceed to the outer edge.
- Do not attempt to clean your drive using solvent-based cleaners or an air compressor.
- Do not attempt to clean your drive using a CD cleaning disc. These discs can damage your drive permanently.

Where to Go From Here

- See Section 2, beginning on page 9, to learn how to install your drive.

This page intentionally left blank.

2. Installing the PX-740UF External USB/FireWire Drive

This section explains how to physically connect your PX-740UF external USB/FireWire drive to your computer.

PX-740UF Drive Features and Controls

Before proceeding, become familiar with the controls and features of your Plextor drive. Match the parts of your drive to the illustrations below.

Front Panel—PX-740UF External Drive

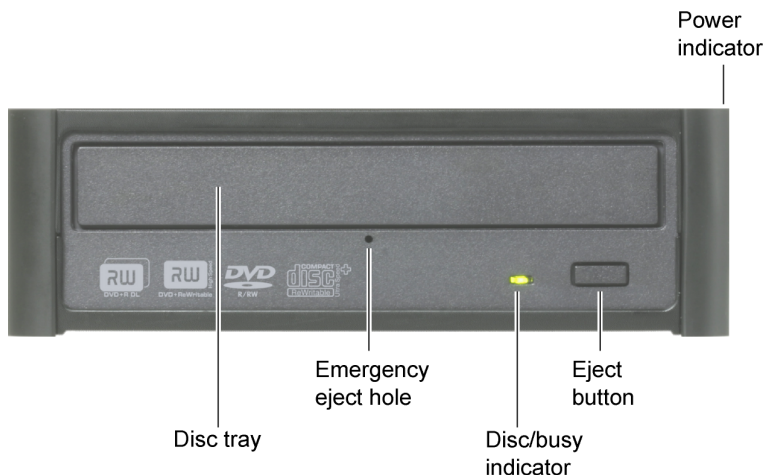


Figure 1: Front panel of the PX-740UF external drive

- **Disc tray:** Slides out to allow you to insert a disc.
- **Emergency eject hole:** If the automatic eject button does not work, turn the power switch to OFF, then insert the emergency eject tool, paper clip, or other thin, rigid object in this hole to eject the disc tray manually.
- **Disc/busy indicator:** Illuminated green for disc reading, blinking green for writing.
- **Eject button:** Push once to eject the tray. Push again to load the tray back into the PX-740UF. To prevent wear on the drive, always use the eject button to load the tray.
- **Power indicator:** (On top and right side of enclosure.) Illuminated blue when power is on.

Rear Panel—PX-740UF External Drive

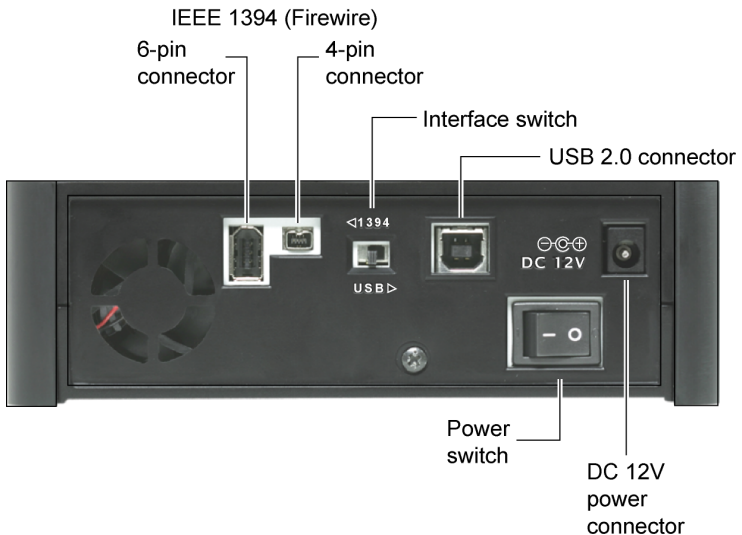


Figure 2: Rear panel of the PX-740UF external drive

- **IEEE 1394 6-pin connector:** Connect an IEEE 1394 (FireWire) cable with a 6-pin connector here.
- **IEEE 1394 4-pin connector:** Connect an IEEE 1394 (also known as FireWire) cable with a 4-pin connector here.

NOTE: The PX-740UF does not include an IEEE 1394 cable. To use IEEE 1394 (FireWire), you must purchase this cable separately.

NOTE: The PX-740UF does not get its power from the IEEE 1394 bus or the USB bus. It must be connected to the AC adapter.

CAUTION: If using the PX-740UF with other IEEE 1394 devices in a daisy-chain configuration, do not connect or disconnect devices while operating the PX-740UF.

PX-740UF performance cannot be guaranteed if the drive is connected in an IEEE 1394 daisy chain.

- **Interface switch:** Switch the PX-740UF drive to operate with a different interface (USB, IEEE 1394). This allows you to connect the drive to either interface, depending on the requirements of your computer. If you change interfaces with this switch, you must also cycle the PX-740UF power. (That is, turn the rear-panel power switch off, then on again.)
- **USB 2.0 connector:** Connect the USB cable here. You can use a USB 2.0 or USB 1.1 interface.

CAUTION: Use only the USB cable shipped with your PX-740UF.

- **DC 12V power connector:** Connect the AC adapter here.

CAUTION: Use only the AC adapter shipped with your PX-740UF.

- **Power switch:** Press this switch to turn the power on or off. Press the “0” down to turn power off. Press the “1” down to turn power on. The power indicator is illuminated when power is on.

What Else Is In the PX-740UF Box

What you find in your Plextor box depends on what the company that sold you the box put in—or took out—while the Plextor drive was in their possession. Plextor currently sells the PX-740UF drive in this configuration:

- PX-740UF DVD±R DL, DVD±R/RW and CD-R/RW drive
- USB 2.0 cable
- AC adapter and power cord
- Emergency eject tool
- Plextor software disc with a PDF file of the *PX-740UF Installation and Users Manual*. Also contains Ahead Software's Nero OEM Suite.
- Drive Installation Guide

Save Your Box!

Be sure to save the box after you have installed your drive. The box and its packaging material were designed and drop tested to ensure your drive can endure rough treatment and still arrive in working order. If you have to ship your drive back to Plextor, you'll want to send it in the original box. (For more details about returning your drive to Plextor, see page 53.)

If the security sticker on top of your box is cut, there may be a good reason: for example, a dealer may have added other components or software. Carefully check the contents to ensure nothing has been removed. If something is missing, contact the party from whom you purchased the box for an explanation.

NOTE: This applies to the Plextor retail box. Your drive may have been shipped in a different box with other contents, depending on whom you purchased the drive from and what they included inside the box.

If your drive came pre-installed, some or all of the items above may have been installed and may not be separately available. See the Plextor web site for locations to purchase additional or replacement accessories.

Mount the PX-740UF Drive

This section explains how to physically connect the PX-740UF external drive to your computer. In general, this is what you'll do:

1. Determine what operating system your computer is running. Your computer must be running Windows XP, XP 64-bit, 2000 or Me; or the Macintosh Mac OS X operating system.
2. Determine which interface you want to use: FireWire (IEEE 1394) or USB.
3. Set the PX-740UF interface switch for IEEE 1394 or USB.
4. Connect the AC adapter to an electrical outlet and to the PX-740UF.
5. Turn the drive's power switch ON (the "I" position).
6. Connect the USB cable or a FireWire cable (corresponding to the setting of the interface switch) from your PX-740UF drive to the computer.

That's all there is to it! We'll go over the procedure in more detail in the next few pages.

If you have a PC, start here. If you have a Macintosh, go to "If You Have a Macintosh" on page 20.

Determine Your Computer's Operating System

To determine which operating system your personal computer uses:

1. In Windows, select the Start menu, then select Settings, then Control Panel, and choose the System icon. You see the System Properties window.
2. In the System Properties window, make sure the General tab is selected. The System line shows details about your operating system. (For example, "Windows 2000.")

NOTE: Your computer must be running Windows 2000, Windows Me or Windows XP (or Mac OS X). If you are not running one of these operating systems you cannot use the PX-740UF. You cannot use the PX-740UF with Windows 98 or Mac OS 9.

Determine What Interface to Use

You can use either USB 2.0 or FireWire. The built-in USB ports on older computers (and even on inexpensive new ones) provide only USB 1.1—that is, Full-Speed (12 Mbps) USB.

For optimum performance:

- If your PC does not have built-in USB 2.0, use the FireWire port, if available.
- If you have neither USB 2.0 or FireWire, you can purchase and install a third-party PCI USB 2.0 or FireWire plug-in host adapter card.
- If you don't want to purchase a separate card, you can use your PC's built-in USB 1.1 port. However this limits the CD-RW drive performance of the Plextor PX-740UF to 4X write, 4X rewrite, and 6X read. DVD performance with USB 1.1 is 0.7X.

Connect the PX-740UF Drive

This section explains how to install your drive (that is, how to connect it to your computer).

Record the Serial Number and TLA Code

Before proceeding to connect the Plextor PX-740UF drive to your personal computer, record the serial number and TLA number of your drive on the inside front cover of this manual.

Install the Drive in Your Windows Computer

If you have a computer with Windows XP, Windows 2000 or Windows Me, use the following procedure to install your PX-740UF drive.

To install the PX-740UF drive in a Windows-based computer:

1. Turn ON your computer system.
2. Set the interface switch at the rear of the PX-740UF drive to USB (switch to the right) if you are using a USB cable; or to 1394 (switch to the left) if you are using IEEE 1394 (FireWire).
3. Connect the AC adapter to your PX-740UF as shown in Figure 3.
4. Turn the drive's power switch ON (the "1" side is down). The power indicator is illuminated when power is on.
5. Connect the USB or IEEE 1394 (FireWire) cable from your PX-740UF drive to the computer.

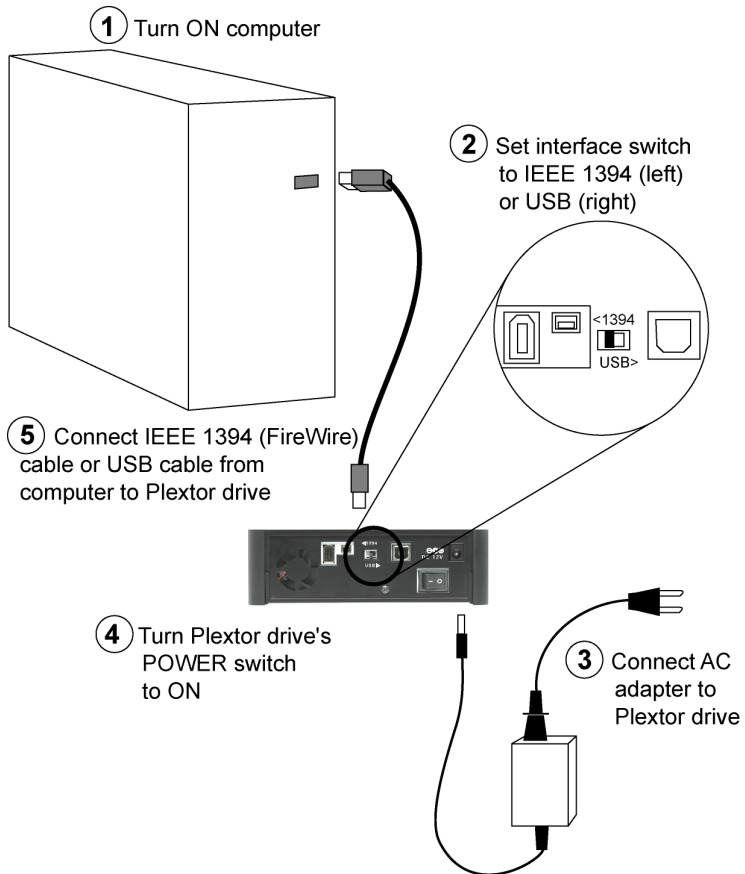


Figure 3: Connecting the AC adapter and USB or FireWire cable

The drive should be automatically recognized by the computer. In some cases, you may have to reboot (turn the computer off, then on again) for the PX-740UF to be recognized.

CAUTION FOR USB: If possible, always connect the PX-740UF directly to the computer's USB port. Connecting the PX-740UF to a USB hub is not recommended. Connecting through a USB hub may reduce the drive's performance.

CAUTION FOR IEEE 1394: To guarantee rated performance with IEEE 1394/FireWire, the PX-740UF should be the only device on the cable. Daisy-chaining the PX-740UF with other IEEE 1394/FireWire devices may reduce performance.

Identifying Cables and Ports

This illustration will help you identify the cables and computer ports and make the necessary connections.

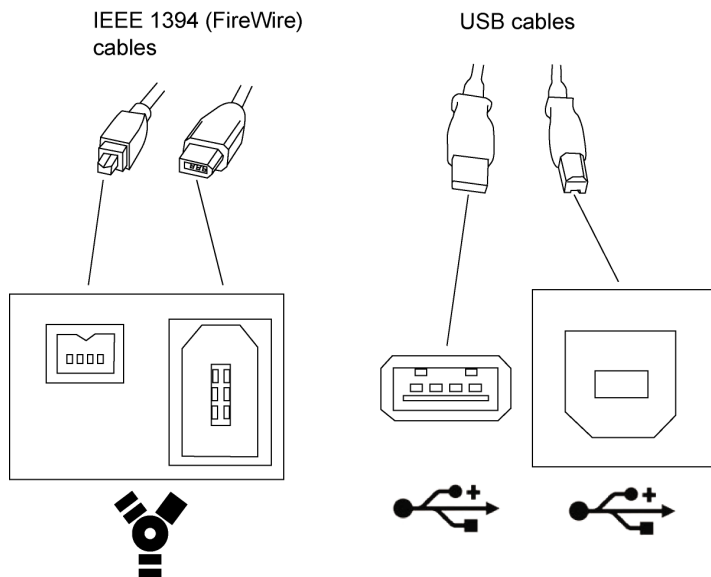


Figure 4: Identifying cables and ports on your computer

Switching Between USB and IEEE 1394 Interfaces

You can connect any or all of the interface cables (USB, IEEE 1394 4-pin, and IEEE 1394 6-pin) and switch between them. You can even have different cables attached at the same time, allowing more than one computer to share the PX-740UF.

To switch between interfaces attached to the PX-740UF:

1. Ensure an interface cable for the desired USB or IEEE 1394 interface is attached to the PX-740UF and to the computer.
2. At the rear of the PX-740UF, set the interface switch to the desired interface.
3. Cycle the PX-740UF power. (That is, turn the PX-740UF's power switch off, then on again.)

If You're Using FireWire

If you are using FireWire (IEEE 1394), remember these hints for better operation:

- Do not daisy-chain the PX-740UF; that is, do not connect it to the same cable along with other FireWire devices.
- The PX-740UF is not bus powered—that is, it doesn't get its power from the IEEE 1394 cable—so you have to use the bundled AC adapter.

If You Have a Macintosh

If you have a Macintosh, use the following procedure to install your PX-740UF drive:

1. Turn on the Macintosh.
2. Check the minimum system requirements for your Macintosh recording application and ensure you are running the required Mac OS version.
3. On the PX-740UF, set the rear-panel interface switch to USB or IEEE 1394, corresponding to the interface you will be using.
4. Connect the AC adapter to your PX-740UF.
5. Turn the drive's power switch ON (the "1" is depressed). The power indicator is illuminated when power is applied.
6. Connect the USB cable or an IEEE 1394 cable from your PX-740UF drive to the Macintosh computer.

The Macintosh automatically recognizes the PX-740UF (if the base extensions are loaded), and you should be ready to use the drive as a CD-ROM. To use the recording capabilities of the drive, a recording application must be installed.

NOTE: For optimum performance, if your Macintosh computer does not have built-in USB 2.0, use the FireWire port. Or you can install a third-party PCI USB 2.0 plug-in host adapter card.

3. Using Your PX-740UF

This section explains how to use your PX-740UF drive and how to load, handle and care for your DVDs and CDs.

What Media to Use

Use the right media! Your PX-740UF drive's capabilities change depending on which type of compact disc you use.

DVD Media

DVD recordable media is available in two different, non-compatible formats:

- DVD+R, DVD+R DL (double layer) and DVD+RW
- DVD-R, DVD-R DL (dual layer) and DVD-RW

Your PX-740UF can *read* and *write* either media format, in single layer or double layer media. It supports all these types of DVD media:

- **Digital Video Discs:** You can immediately play pre-recorded DVD discs, including movies and other DVDs.
- **DVD+R DL, DVD-R DL, DVD+R, DVD-R:** Recordable DVD. You can record on these discs, but only once. You can also read them.
- **DVD+RW, DVD-RW:** ReWritable DVD. You can record and re-record (up to 1,000 times) on these discs. You can also read them.



Figure 5: The logo identifies the type of DVD media

With double layer media, you don't need to turn the disc over to record on side 2.

CD-ROM Media

In addition, you can use these types of CD media:

- **CD-ROM:** You can immediately play or read prerecorded compact discs, such as audio CDs and data discs.
- **CD-R:** Recordable CD. You can record on these discs, but only once. You can also read them.
- **CD-RW:** Normal Speed, High Speed, Ultra Speed, and Ultra Speed Plus ReWritable CD. These discs support recording and re-recording (up to 1,000 times). You can also read them.

To achieve a certain writing speed, you must use the appropriate media. To achieve 48X CD-R writing speed you must use certified 48X media; and to achieve 32X CD-RW writing speed you must use Ultra Speed Plus CD-RW media.

Remember:

- Using Normal Speed CD-RW discs (that is, NS-RW media) you can rewrite at 4X.
- Using High Speed CD-RW discs (HS-RW media), you can rewrite at 4X or 10X.
- Using Ultra Speed CD-RW discs (US-RW media) in this drive, you can rewrite at up to 24X.
- With Ultra Speed Plus CD-RW discs (US-RW+ media) you can rewrite at up to 32X.

You can write to Ultra Speed CD-RW discs only on drives that support this media. Drives that are capable of writing to Ultra Speed ReWritable media, such as the Plextor PX-740UF, are identified by a “Compact Disc ReWritable Ultra Speed” logo.



Figure 6: The logo also identifies the type of CD-RW media

See “Recommended Media” on page 40 for a list of Plextor-approved media at the time this manual was printed, and see the Plextor web site at www.plextor.com for an updated list.

Tray Loading and Operation

To load and unload the tray:

1. While the drive is powered up, push the eject button on the front panel. The tray drawer slides out in 3–4 seconds.

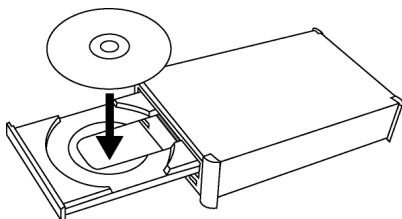


Figure 7: Loading the tray

2. Lay a CD or DVD disc in the depression in the tray, label side up.
3. Press the eject button again and the tray will slide shut within seconds.

NOTE: Always use the eject button to close the tray in a smooth and secure manner. Closing the tray by pressing the front of the drawer using your hand is not recommended and risks damage or premature wearing of the mechanism.

Handling DVD and CD Media

Take care when handling blank CD and DVD media. Dust, scratches, and fingerprints on either side of the disc can cause write errors during recording. When picking up or holding blank media you can either place your fingers along the outer edge of the disc, or place one finger through the center hole and one finger on the outer edge. Once you have finished creating a disc, label it by writing on the top using permanent ink.

CAUTION: We recommend using a “non-toxic” marker, such as a Sharpie® pen, that conforms to the ASTM D-4236 standard. Some permanent markers will damage the media. Also, do not press too hard when writing on the disc.

NOTE: We do not recommend placing self-sticking CD-R labels on the disc. The weight of the label may unbalance the disc and cause write errors during recording or read errors during reading. Also, attempting to remove the label may permanently damage the disc.

Cleaning Discs

For proper read and write performance, your discs must be clean. Trying to record on a dirty disc may result in a failed session and ruin the disc.

To clean the disc, wipe the disc using a clean, soft cotton cloth to remove surface dirt such as fingerprints. Use a straight-line motion, wiping from the center out. Do not wipe the disc in a circular motion.

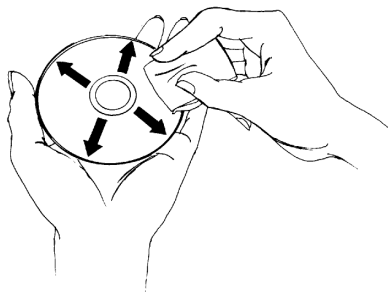


Figure 8: *Wipe the disc from the center outward*

HINT: Keep your frequently used discs in jewel cases at all times to prevent them from becoming dirty or damaged.

Mounting Position

You can operate your PX-740UF drive in either a horizontal or a vertical position.

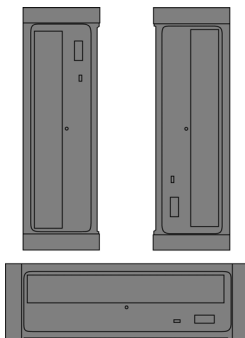


Figure 9: Operate the PX-740UF either horizontally or vertically

CAUTION: In the vertical position, the PX-740UF is more susceptible to shock. If using the drive in a vertical position, be careful not to disturb it.

Playing DVDs

To play a digital video disc, insert the DVD as you would any other disc. The drive plays both single layer and double layer discs.

The first time: A code on each DVD allows it to be played only on players designed for a certain regional area, such as North America, Europe, etc. When the drive ships from the factory there is no region code set. The first time a DVD that has a region setting is inserted into the drive, the drive is automatically set to that region code.

If you later insert a DVD with a different region code, you are prompted to either accept changing the new region code or not. If you don't accept the change, then that DVD will not play. If you do accept the change, then the region code setting is changed. But remember: you can change the drive's region code only 5 times. After that, you can't change it any more.

Writing to DVD Media

You need special software that supports writing to DVD+R, DVD+R DL, and DVD+RW discs; or to DVD-R DL, DVD-R and DVD-RW discs. Ahead Software's Nero 6 OEM Suite (on the CD that accompanies your PX-740UF) contains this software.

Specifying +R/RW or -R/RW

You don't need to specify whether to write to +R/RW or -R/RW. The selection is automatically made for you, based on the media you insert in the drive.

Writing to CD-R and CD-RW Media

In conjunction with your drive, mastering and packet writing software such as Ahead Software's Nero or Roxio Easy Media Creator 7 allows you to write audio, video, data, or other information to writable (CD-R) or rewritable (CD-RW) media. The PX-740UF writes to all types of CD-RW media.

Using the Disc/Busy Indicator

The color and blink rate of the front-panel disc/busy indicator give you information about the drive's operation.

Operation	Disc/busy indicator color	On/Off/Blink	Blinking interval
No disc	—	Off	—
Loading	Green	On until ready	—
Disc in, drive in power save mode	—	Off	—
Error	—	Off	—
Read or verify activity	Green	On	—
CD/DVD write	Green	Blink	2 blinks/sec
Test write CD/DVD	Green	Blink	2 blinks/sec
Tray locked and eject button pushed (during write/read)	Green	Blink	1 blink/sec
Tray locked and eject button pushed	—	Off	—

This page intentionally left blank.

4. Maintenance and Troubleshooting

This section explains maintenance and troubleshooting procedures for your PX-740UF drive.

With proper maintenance, you can prevent problems. If trouble arises, you can often solve many simple problems on your own, rather than wait for assistance from a Plextor representative.

Cleaning the PX-740UF Drive

Plextor drives are sealed against external contamination, so in a normal computer environment and with normal use, your drive should not require internal cleaning. However, if your drive has been in use for some time and has just recently started to exhibit read/write problems, it is possible that dust has accumulated on the laser lens. In this case:

- If your drive is still in warranty and you are experiencing problems, send the drive to Plextor. (See “Returns” on page 53.)
- If your drive is out of warranty, before returning the drive for repair you may want to try a short blast of canned air aimed at the center of the drive. Use only electronics-grade canned air: sterile, filtered, and moisture-free. If you notice no improvements after this step, you will need to return the drive for repair.

CAUTION: Do not attempt to clean your drive using any solvent-based cleaners. Also, do not use an air compressor, because the high-pressure blast can damage the drive.

ANOTHER CAUTION: Do not use a CD cleaning disc. Cleaning discs that use a felt pad can scratch the laser lens surface and render the drive inoperable. Cleaning discs with brushes may also scratch the lens. Moreover, these cleaning discs are often out of balance, making their operation very noisy.

Upgrading Firmware

Plextor creates firmware revisions to meet the particular needs of large computer manufacturers. It is rare that these revisions will impact the performance or operation of your drive. However, we advise that you always update your drive with the latest available firmware. Among other benefits, updating firmware ensures that your drive has the latest media catalog. Before troubleshooting a possible problem with your PX-740UF drive please visit our web site at www.plextor.com to check if you have the latest firmware.

To obtain new firmware for your drive:

1. Go to the Plextor web site at www.plextor.com.
2. Look for firmware upgrades in the Support area, on the Downloads page. There is a description of the latest firmware revision and its intended use.
3. Download the firmware to your computer.

To upgrade firmware in your drive's flash memory:

1. Run the executable file that you downloaded from Plextor's web site.
2. Accept all defaults by continuing to click on the Next button until you see the message:
Firmware update has completed.
3. Restart your system.

Emergency Eject

If the computer power is turned off or the automatic eject button at the front of the drive does not work, use this procedure to open the drive.

To use the emergency eject tool to open the drive:

1. Make sure power to the drive is OFF. (That is, turn off your computer.)
2. At the front of the drive, insert the emergency eject tool, or a paper clip or other thin, rigid object, into the emergency eject hole.

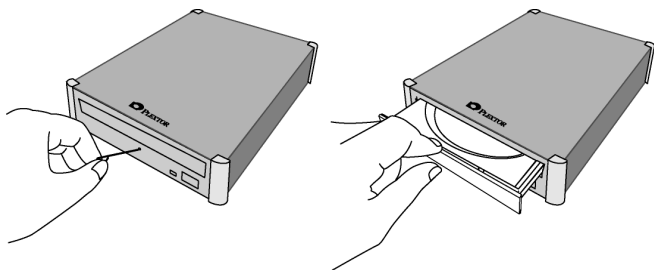


Figure 10: Emergency eject

3. Push the tool or other object straight in, until the disc tray clicks open.
4. Carefully continue to slide the disc tray open.
5. Remove the CD from the disc tray.
6. Carefully push the disc tray shut.

Troubleshooting

If you have problems during or right after installation of your drive, first make sure the drive is recognized. If you still have problems, visit the Plextor web site for tips and troubleshooting help.

Make Sure the Drive Is Recognized

If you're having trouble after installation, make sure the PX-740UF drive is recognized by your computer.

To see whether the drive is recognized:

1. Turn the computer ON. After the computer boots up, you should see the Windows display.
2. Open Windows Explorer or My Computer and ensure there is an icon for the Plextor drive. The Plextor icon may be D: or E: or another designator.
3. In Windows XP or 2000, right-click on the My Computer icon and select Properties. Click on the Hardware tab, then click on the Device Manager button. Click the + sign next to the DVD/CD-ROM drives heading and look at the PLEXTOR DVDR PX-740A device entry underneath.

-or-

In Windows Me, once the computer starts click the Start button, then Settings, then Control Panel, then double-click on System icon, then click on the Device Manager tab. Click the + sign next to the CD-ROM heading and look at the PLEXTOR DVDR PX-740A device entry underneath.

4. If you have a PX-740UF drive that is not recognized in Windows:
 - a) If your USB or IEEE 1394 controller has a yellow diamond with an exclamation point (!), contact your PC or motherboard manufacturer for help, and to troubleshoot your controller for driver compatibility or conflicts. It may just be a matter of obtaining the latest driver, or a motherboard BIOS update, from the manufacturer.
 - b) If the USB or IEEE 1394 controller is listed and does not have a yellow diamond with an exclamation point, but the Plextor drive is listed as a “USB” or “IEEE 1394 Storage device,” select the “Storage device” and then select the “Remove” button. Reboot your system. The system will do another hardware scan and should install the driver properly.
5. If you still have problems, or if the USB or IEEE 1394 controller is listed and does not have a yellow diamond with an exclamation point, but you do not see the Plextor drive listed as one of the devices, contact Plextor Technical Support. (See “Appendix B: Technical Support” for the different ways you can contact us.)

This page intentionally left blank.

5. Frequently Asked Questions

Q: Which is better, DVD+R and DVD+RW? Or DVD-R and DVD-RW?

A: Neither is “better” or “worse.” They’re just different standards, like English versus metric measurement.

Different manufacturers support different standards. The DVD+R and DVD+RW formats are supported by Plextor, Philips, Sony, Hewlett-Packard, Dell, Ricoh, Yamaha and other manufacturers. DVD-R, DVD-RW and DVD-RAM are also supported by Plextor, as well as Panasonic, Toshiba, Apple Computer, Hitachi, NEC, Pioneer, Samsung and Sharp.

No matter which format a DVD disc is recorded in, it can be read by most commercial DVD-ROM players.

Q: What's the difference between "double layer" and "dual layer"?

A: Nothing, really. It's simply a difference of opinion within the industry about how to label media and drive capabilities. DVD+R DL (as named by the DVD+RW Alliance) stands for DVD+R Double Layer. DVD-R DL (from the DVD Forum) stands for DVD-R Dual Layer. Whether your DL media is labeled "double layer" or "dual layer," the PX-740UF can handle it.

Q: What is “recommended media”?

A: Recommended media are recordable or rewritable CD and DVD media that have been tested by Plextor and found to operate well consistently, from one manufacturing lot to another. For each drive, Plextor engineers test media from many different manufacturers and manufacturing facilities, creating a recommended media list and determining the optimum write strategy for that particular media type. The results are listed as “recommended media,” and are also assembled into a media catalog and stored in firmware in Plextor drives. (See page 40 for a list of recommended media for the PX-740UF at the time this manual was printed, and see the Plextor web site at www.plextor.com for an updated list.)

From time to time, the media catalog is updated with new manufacturers and part numbers as Plextor tests additional media. When this happens, Plextor makes new drive firmware available. You can download this new firmware and update your drive.

Q: In the list of Recommended Media, what's the difference between "rated," "compatible," and "recommended" speeds?

A: "Rated" is the manufacturer's rated write speed for the media; it's what you see on the box. "Compatible" is a looser term that indicates the maximum safe writing speed according to the manufacturer.

"Recommended" is the Plextor-recommended speed for ensuring top-quality writing using this media. Plextor tests media and enters the "compatible" and "recommended" speeds into the drive's media catalog.

For example, 8X-rated media listed as "12X writing recommended" and "16X compatible" indicates the manufacturer believes this 8X-rated media can be written at 16X. Plextor factory testing has determined you will achieve the highest quality write at 12X. Plextor's testing also indicates you can write this media at 16X and still achieve good quality, although perhaps not as high as at the recommended speed.

Just because the vendor rates a disc for a certain speed doesn't mean that the disc will give you a high-quality write at that speed. However, the PowerRec technology in your Plextor drive ensures you will write at the highest possible speed that still achieves high quality.

Q: What are the transfer rates for the different interfaces?

A: Different interfaces have different maximum transfer rates. The following table compares the transfer rates for the different interfaces.

Interface	Maximum Transfer Rate
USB 2.0 (Hi-Speed)	480 Mbps max.
USB 1.1 (Full-Speed)	12 Mbps max.
IEEE 1394 (FireWire)	400 Mbps max.

Actual transfer rates in the real world depend on the type of media and software you're using, and on the type of data being transferred.

Appendix A: PX-740UF Specifications

Minimum System Requirements—PX-740UF External

USB/FireWire Drive

Computer	PC: Pentium 4, 1.6-GHz or equivalent Macintosh: Power Macintosh G3 or later (G4 or higher recommended)
Minimum RAM	256 MB
Hard Disk Size	1 GB of free space to write to a CD in image mode, or 10 GB of free space to create DVD images. (For more accurate guidelines, see the help files or documentation for the recording software you're using.)
Interface	USB 1.1 or 2.0 supported IEEE 1394/FireWire supported (On-board USB 2.0 or IEEE 1394/FireWire controller suggested)
Operating System	PC: Windows XP, XP 64-bit, 2000 or Me Macintosh: Mac OS X

Usable Formats

Logical DVD Read/Write	DVD-ROM, DVD-Video, Multi-Border, Multi-Session, DVD+VR, DVD-VR
Logical CD Read/Write	CD-DA, CD-ROM Mode-1, CD-ROM Mode-2, CD-Extra, CD-ROM XA, Photo CD, Video CD, Multi-Session, CD-TEXT, CD-I, Mixed CD. Also CD+G (read only).
Write Methods, DVD+R/RW, DVD+R DL	<ul style="list-style-type: none"> ▪ DVD+R: Disk-At-Once (DAO), Multi-Session ▪ DVD+RW: Sequential Write ▪ DVD+R DL: Disk-At-Once (DAO), Multi-Session
Write Methods, DVD-R/RW, DVD-R DL	<ul style="list-style-type: none"> ▪ DVD-R: DAO, Multi-Border Recording ▪ DVD-RW: DAO, Multi-Border Recording, Restricted Overwrite ▪ DVD-R DL: Sequential Write, Layer Jump Write
Write Methods, CD-R/RW	Track-At-Once (TAO), Disk-At-Once (DAO), Packet Write (variable and fixed), Session-At-Once (SAO)

Supported Media

Supported Media, DVD	<ul style="list-style-type: none">▪ Stamped DVDs: Single layer / Double layer▪ DVD-R: For General Part 1 Physical Specification Version 2.1▪ DVD-RW: Part 1 Physical Specification Version 1.1/1.2▪ DVD-R DL: Information not available at time this manual was published. See www.plextor.com for updates.▪ DVD+R: Part 1 Volume 1 Basic Format Specification Version 1.3▪ DVD+R DL: Part 2 Basic Format Specification Version 1.0▪ DVD+RW: Part 1 Volume 1 Basic Format Specification Version 1.3; Part 1 Volume 2 Basic Format Specification Version 1.0
Supported Media, CD	<ul style="list-style-type: none">▪ Stamped CDs: Discs compliant with Red/Yellow/Green/White/Blue Book▪ CD-R: Orange Book Part II Volume 1, Volume 2▪ CD-RW: Orange Book Part III Volume 1, Volume 2, Volume 3
Supported Media Size	CD: 12 cm. DVD±R/RW: 12 cm, 8cm

Recommended Media

Recommended media are recordable or rewritable CD and DVD media that have been tested by Plextor. For the latest updated list of recommended media for the PX-740UF, see the Plextor web site at www.plextor.com.

NOTE: For the media below:

Rated means the maximum write speed established by the media vendor.

Recommended is the Plextor-recommended speed, which means that testing by Plextor engineers indicates the media will achieve top quality when written with the PX-740UF at that speed.

Compatible means the manufacturer indicates the disc can be written at this higher-than-rated speed, although an increase in errors may occur.

PowerRec in the Plextor drive performs real-time monitoring of write quality and adjusts the write speed up and down to ensure the best quality possible.

DVD+R media 16X recommended DVD+R media:

- Mitsubishi Chemical/Verbatim
- Taiyo Yuden

8X recommended DVD+R media:

- Maxell
- Mitsubishi/Verbatim
- Ricoh
- Taiyo Yuden

4X recommended DVD+R media:

- Maxell
- Mitsubishi/Verbatim
- Taiyo Yuden

DVD+R DL media 2.4X, 4X, 8X recommended DVD+R DL media:

- Mitsubishi Chemical/Verbatim

Recommended Media (continued)

DVD+RW media	<p>4X, 8X recommended DVD+RW media:</p> <ul style="list-style-type: none">▪ Mitsubishi Chemical/Verbatim▪ Ricoh <p>NOTE: All DVD+RW media are rewritable up to 1,000 times.</p>
DVD-R media	<p>16X, 12X, 8X, 4X recommended DVD-R media:</p> <ul style="list-style-type: none">▪ Taiyo Yuden▪ Maxell▪ TDK▪ Mitsubishi Chemical/Verbatim
DVD-R DL media	<p>4X recommended DVD-R DL media:</p> <ul style="list-style-type: none">▪ Mitsubishi Chemical/Verbatim
DVD-RW media	<p>6X recommended DVD-RW media:</p> <ul style="list-style-type: none">▪ Victor <p>4X, 2.4X recommended DVD-RW media:</p> <ul style="list-style-type: none">▪ Victor▪ Mitsubishi Chemical/Verbatim▪ TDK <p>NOTE: All DVD-RW media are rewritable up to 1,000 times.</p>
CD-R media	<p>48X recommended CD-R media:</p> <ul style="list-style-type: none">▪ Maxell 74min, 80 min▪ TDK 80 min▪ Taiyo Yuden 80 min <p>40X recommended CD-R media:</p> <ul style="list-style-type: none">▪ Ricoh 80 min (16X max write speed recommended) <p>32X recommended CD-R media:</p> <ul style="list-style-type: none">▪ Taiyo Yuden 80 min

Recommended Media (continued)

CD-RW media 32X recommended CD-RW media:

- Information not available at time this manual was published. See www.plextor.com for updates.

24X recommended CD-RW media:

- Mitsubishi/Verbatim 74min

10X recommended CD-RW media:

- Mitsubishi/Verbatim 74min, 80 min
- Ricoh 74 min, 80 min

4X recommended CD-RW media:

- Mitsubishi/Verbatim 74min, 80 min
- Ricoh 74 min, 80 min
- Ritek 74 min, 80 min

Performance Specifications

Read Speed,
DVD

Speed	Stamped DVD		DVD ±R	DVD ±RW	DVD ±R DL
	SL	DL			
16X CAV	✓	—	✓	—	—
12X CAV	✓	✓	✓	✓	✓
8X CAV	✓	✓	✓	✓	✓
6X CAV	✓	✓	✓	✓	✓
4X CAV	✓	✓	✓	✓	✓

NOTE: SL = Single layer disc, DL = Double layer disc.

NOTE: Depending on the USB chipset used in your computer, the PX-740UF's DVD read speed may be limited to 14X maximum with USB 2.0 only. Maximum IEEE 1394/FireWire read speed remains 16X.

Performance Specifications (continued)Read Speed,
CD

Speed	Mode-1 Discs	Mode-2 Discs	CD-DA Discs
48X CAV	Stamp,R	Stamp,R	Stamp,R
40X CAV	Stamp,R, RW	Stamp,R, RW	Stamp,R, RW
32X CAV	Stamp,R, RW	Stamp,R, RW	Stamp,R, RW
24X CAV	Stamp,R, RW	Stamp,R, RW	Stamp,R, RW
16X CAV	Stamp,R, RW	Stamp,R, RW	Stamp,R, RW
10X CAV	Stamp,R, RW	Stamp,R, RW	Stamp,R, RW

NOTE: "Stamp" indicates commercially pressed "silver" discs.

Write Speed,
DVD \pm R/RW

Speed	+R	+RW	+R DL	-R DL	-R	-RW
16X CAV	✓	-	-	-	✓	-
12X PCAV	✓	-	-	-	✓	-
8X PCAV	✓	-	✓	-	✓	-
8X ZZCAV	-	✓	-	-	-	-
6X ZCAV	-	-	-	-	-	✓
4X ZCAV	✓	✓	✓	✓	✓	✓
2.4X ZCAV	✓	✓	✓	✓	✓	✓

NOTE: ZZCAV = Zone Zone CAV. The drive writes ZCAV in one zone (6X), then completes writing ZCAV in a higher zone (8X).

Performance Specifications (continued)Write
Speed,
CD-R/RW

Speed	CD-R	Ultra Speed Plus CD- RW Media	Ultra Speed CD- RW Media	High Speed CD- RW Media	Normal Speed CD- RW Media
48X CAV	✓		–	–	–
40X CAV	✓		–	–	–
32X PCAV	✓	✓	–	–	–
24X PCAV	✓	✓	✓	–	–
16X ZCAV	✓	✓	✓	–	–
12X ZCAV	✓	–	–	–	–
10X ZCAV	–	–	–	✓	–
4X ZCAV	–	–	–	✓	✓

DVD
Transfer
Rate

Speed	Write (KB/s)	Read (KB/s)
16X	22160 (CAV)	22160 (CAV)
12X	16620 (PCAV)	16620 (CAV)
8X	11080 (PCAV)	11080 (CAV)
8X	11080 (ZCAV) (DVD+RW only)	–
6X	8310 (ZCAV)	8310 (CAV)
4X	5540 (ZCAV)	5540 (CAV)
2.4x	3324 (ZCAV)	–

Performance Specifications (continued)

CD Transfer Rate	Speed	Write (KB/s)	Read (KB/s)
	48X	7200 (CAV)	7200 (CAV)
	40X	6000 (CAV)	6000 (CAV)
	32X	4800 (PCAV)	4800 (CAV)
	24X	3600 (PCAV)	3600 (CAV)
	16X	2400 (ZCAV)	2400 (CAV)
	12X	1800 (ZCAV)	1800 (CAV)
	10	1500 (ZCAV)	1500 (CAV)
	4X	600 (ZCAV)	–

Initialization Time Time measured from power on until disc is available to read: 30 sec maximum (DVD or CD)

Access Time Time measured from command phase until bus free (no disconnect):

- DVD: 150 msec. (Typical)
- CD: 150 msec. (Typical)

Sleep Mode Entered after 90 sec of no access to drive

Wake Mode 4 sec to wake up after sleep mode

Environmental Conditions

Mounting Position	Horizontal or vertical orientation: <ul style="list-style-type: none"> Horizontal: 0 degrees \pm 15 degrees Vertical: 0 degrees \pm 15 degrees: <ul style="list-style-type: none"> Eject button up +5/-0 degrees tilt Eject button down +0/-5 degrees tilt
Operating Temperature	5 to 35 degrees Celsius
Operating Humidity	20 to 80% (non-condensing)
Transportation or Storage Temperature	-40 to 60 degrees Celsius
Transportation or Storage Humidity	20 to 95% (non-condensing)
Acoustic Noise	<ul style="list-style-type: none"> Balanced disc: Maximum 47.5dB Unbalanced disc: Maximum 47.5dB Eject: Maximum 60 dB
Vibration, Operating	Sine sweep 5 minutes: <ul style="list-style-type: none"> CD/DVD read: $0.15G_{0-Pk}$ (5-300Hz) CD-R write: $0.15G_{0-Pk}$ (5-300Hz) CD-RW rewrite: $0.10G_{0-Pk}$ (5-300Hz) DVD write: $0.10G_{0-Pk}$ (5-300Hz)
Vibration, Non-operating	Transportation vibration test specification

Environmental Conditions (continued)

Shock, Operating	11 msec half sine with 10 sec interval: <ul style="list-style-type: none"> ▪ CD read (horizontal orientation): $5.0G_{0-Pk}$ ▪ CD read (vertical orientation): $2.5G_{0-Pk}$ ▪ DVD read (horizontal orientation): $5.0G_{0-Pk}$ ▪ DVD read (vertical orientation): $2.5G_{0-Pk}$ ▪ CD-R write: $1.5G_{0-Pk}$ ▪ CD-RW write: $0.5G_{0-Pk}$ ▪ DVD-RW write: $0.5G_{0-Pk}$
---------------------	---

Shock, Non- Operating	Permissible acceleration change (G): <ul style="list-style-type: none"> ▪ Bottom: 110 ▪ Top: 110 ▪ Left: 110 ▪ Right: 100 ▪ Front: 110 ▪ Rear: 110
--------------------------	--

Electrostatic Discharge	$\pm 8KV$ aerial discharge $\pm 4KV$ contact discharge Both with no hard errors, no damage
----------------------------	--

Reliability

MTBF	125,000 hours
Tray Loading	35,000 load/unload cycles
Read Error Rate	CD-ROM Mode 1: 1 block/ 10^{12} bits CD-ROM Mode 2: 1 block/ 10^9 bits DVD-ROM: 1 block/ 10^{12} bits

Front Panel

Eject	Eject button; manual emergency eject; software eject.
Disc/Busy Indicator	<ul style="list-style-type: none"> ▪ Steady green when reading disc ▪ Blinking green when writing to disc
Disc Loading	Auto

Rear Panel

DC 12V AC 100~240V, 50/60 Hz
Connector
(Power
Supply)

Power 21.6 W
Consumption
(Typical)

Current		USB	IEEE 1394
	Typical standby current	400 mA	400 mA
	Typical DVD read current (at max speed)	1.6 A	1.6 A
	Typical CD read current (at max speed)	1.6 A	1.6 A
	Typical DVD write current (at max speed)	1.8 A	1.8 A
	Typical CD write current (at max speed)	1.8 A	1.8 A
	Typical pause current	1.0 A	1.0 A
	Peak current	2.9 A	2.9 A

Power Switch Turns power on and off. Power OFF is O;
power ON is |.

1394-USB Interface switch: switches the PX-740UF drive to
Switch operate with a different interface (USB or IEEE 1394)

IEEE 1394 4-pin and 6-pin connectors for attaching an IEEE
Connectors 1394 (FireWire) cable.

USB Connector for attaching USB cable. Use only the USB
Connector cable shipped with your PX-740UF. You can connect
to a USB 2.0 or USB 1.1 interface.

Top Panel

Power Indicator	Blue when power is on
-----------------	-----------------------

Dimensions and Weight, PX-740UF External USB/FireWire Drive

Dimensions (W/H/D) (including front bezel)	6.58" x 2.09" x 9.98" 167.1 mm x 53 mm x 253.5 mm
--	--

Weight	<3.5 lbs. (1.6 kg)
--------	--------------------

Host Interface, PX-740UF External USB/FireWire Drive

Type	USB: B-type IEEE 1394: 6pin/4pin
------	-------------------------------------

Data Connector	USB: B-type IEEE 1394: 6pin/4pin
----------------	-------------------------------------

USB 2.0 Transfers	Hi-Speed; 480 Mbps (max)
-------------------	--------------------------

USB 1.1 Transfers	Full-Speed; 12 Mbps (max)
-------------------	---------------------------

IEEE 1394 Transfers	IEEE Std 1394-1995, IEEE 1394a-2000 400 Mbps (max)
---------------------	---

Inquiry String	PLEXTOR sp DVDR sp sp sp PX-740A sp sp (where "sp" is one space)
----------------	---

ATAPI Commands	Refer to Plextor ATAPI command manual
----------------	---------------------------------------

DVD Regional Setting

Compatibility RPC phase-2-compatible

Changing regional setting Max. 5 times

Other Features

Data Buffer 2 MB

Safety, Laser, and EMC Standards

Country/ Region	Type	Agency	Standard
USA	Safety	UL	UL 60950-1 (AC adapter and drive in enclosure)
	Laser	FDA	CDRH Class 1
	EMC	FCC	FCC Part 15 Class B
Canada	Safety	UL (C-UL)	CSA 22.2 No. 60950-1 (AC adapter and drive in enclosure)
Europe	Safety	CE (CB)	EN60950-1 (AC adapter) EN60950-1 (Drive in enclosure)
	Laser	CE (CB)	EN60825-1 (Drive in enclosure)
	EMC	CE	EN50022 Class B

Appendix B: Technical Support

Store Plextor's e-mail, web site, phone, and fax numbers in a convenient location. Keep your drive's serial number and a copy of your sales receipt handy as well.

If you experience a problem while installing or operating your drive, please refer first to the relevant sections of this manual regarding setup and installation (Sections 1–3). If you do not uncover the solution there, please refer next to the maintenance and troubleshooting section that begins on page 29. You may also wish to refer to the Frequently Asked Questions (FAQ) section of our web site to assist you in troubleshooting the problem on your own.

NOTE: We encourage you to go the Plextor web site (www.plextor.com) before attempting to contact Technical Support. The answers to the most common questions callers ask can be found quickly in the support area. Select PlexHelper for online troubleshooting or FAQs for answers to common questions.

If you have not been successful in your quest, our Technical Support Department will help you solve problems that relate specifically to your PX-740UF drive. In many cases, a problem that appears to be caused by your Plextor drive actually originates in another part of your computer. In such instances, our technical support staff will try to help you identify the part at fault and will refer you to the manufacturer of that part for further assistance.

How to Contact Plextor Technical Support

There are several ways for you to contact Plextor's Technical Support Department:

- Visit our web site (www.plextor.com) for answers to Frequently Asked Questions.
- Send us e-mail (techsupport@plextor.com). Include your telephone number and the hours during which you can be reached. Be as detailed as possible in describing your problem. Please include system configuration, hardware and software, as well as versions of drivers used.
- Call 1-800-204-0332 or 937-615-1610 and select the tech support option.

Before You E-mail or Call for Support

Please gather as much of the following information as possible before contacting us.

- The serial number and TLA (top level assembly) number of your PX-740UF drive. Your serial number and TLA number appear on the drive label.
- The latest version of firmware you loaded onto the drive, if applicable.
- The version of the Windows operating system you are using.
- The brand name and model number of your computer (e.g., Dell 466/NP, Hewlett-Packard Pavilion 752n, etc.).
- The type of VGA, Super VGA, or other graphics board you use.
- Brand name and model number of any other peripherals you have installed or connected to your computer (e.g., CD-ROM, scanner, fax board, network board).

Returns

In the unlikely event that you need to return a drive to Plextor, you need an RMA (Returned Materials Authorization) number. You will need this number before any Plextor drive can be returned for replacement. Here's how you get an RMA number and return your drive:

1. Contact Plextor Technical Support. You will receive assistance in troubleshooting your system. If the drive is determined to be defective, you will receive an RMA number.
2. Plextor will e-mail you with the RMA number and shipping information.
3. When you receive the RMA number, pack the Plextor drive securely in a box, and include the RMA number with the drive.
4. Write the RMA number in large bold numbers on the outside of the box, and ship it to Plextor.

Contacting Plextor's RMA Department

You can contact our RMA Department and request an RMA number at:

- rmasupport@plextor.com
- Or by calling us at 1-800-204-0332 or 937-615-1610.

Packing Your Drive

Check the drive to make sure there is no disc inside, and if possible, pack your drive in the original box. Some of our customers have not held on to their boxes and have had to resort to less-than-secure methods to get drives back to us.

Do not include the AC adapter when you ship the drive.

CAUTION: Never ship the drive with a CD or DVD disc inside it.

If you did not receive a box (for example, your drive came pre-installed in a computer), we recommend you pay a packaging store (such as The UPS Store) to ship your drive. If you don't have a packaging store in your area, ask for packaging pointers when you contact us to get an RMA number before returning any drive.

Shipping Your Drive to Plextor

Be sure to write the RMA number on the outside of the shipping box. Any drive sent to Plextor without an RMA number will not be accepted.

NOTE: The RMA number must be clearly visible on the outside of the shipping box.

Drives must be sent postage prepaid. We recommend that you insure your shipment, as Plextor cannot be held responsible for any damage that may occur during shipment.

Appendix C: Warranty

PLEXTOR CORP. (“Plextor”) warrants your PX-740UF drive against any defect in material and workmanship, under normal use, for a period of one year following its date of purchase. In the event this product is found to be defective within the warranty period, PLEXTOR will, at its option, repair or replace the defective unit.

This warranty is void: a) if the unit is operated or stored under abnormal use and/or conditions; b) if the unit is repaired, modified or altered, unless such repair, modification or alteration is expressly authorized in writing by PLEXTOR; c) if the unit is subjected to abuse, neglect, lightning strike, electrical fault, improper packaging, or accident; d) if the unit is installed improperly; or e) if the serial number of the unit is defaced or missing.

PLEXTOR will not, under any circumstances, be liable for direct, special, or consequential damages such as, but not limited to, damage or loss of property or equipment, loss of profits or revenues, cost of replacement goods, or expense or inconvenience caused by service interruptions. Under no circumstances will any person be entitled to any sum greater than the purchase price paid for the unit.

To obtain warranty service, you must contact PLEXTOR’s Technical Support Department by e-mail (techsupport@plextor.com) or by calling 1-800-204-0332 or 937-615-1610. The Technical Support Department will attempt to diagnose and correct your problem. If the unit does not function properly, they will provide you with a Return Material Authorization (RMA) number. You may be asked to furnish proof of purchase to confirm that the unit is still under warranty.

All product returns must be authorized in advance by PLEXTOR. Authorization is confirmed by issuance of the RMA number, which must be written prominently on the outside of the box in which the defective unit is returned to PLEXTOR.

All drives returned to PLEXTOR must be securely packaged and shipped postage prepaid.

The drive will be returned to the customer at Plextor's expense when originating within the United States. For a drive originating outside of the United States, the customer is responsible for shipping costs in both directions.

NOTE: Warranty validity is limited to that applicable in the location where the drive was originally purchased.

If You're Outside the U.S. or Canada

Note that the warranty and RMA policy only apply to the United States and Canada. If you are in South America, contact your dealer or reseller for all warranty and RMA claims.

Index

A

- ac adapter · 13
 - connecting · 12, 16
 - using with PX-740UF · 12
- access time · 45

B

- black tray · 3
- blue book · 39
- box contents, PX-740UF · 13
- buffer · 4, 50
- Buffer Underrun Proof Technology · 4

C

- cable
 - identifying · 18
 - IEEE 1394 · 16, 18
 - USB · 12, 13, 16, 18
- CD
 - formats supported · 38
 - reading speed · 43
 - recording modes · 4, 38
 - write methods · 4, 38
- CD cleaning disc, don't use · 7, 29
- CD reading speed · 43
- CD-DA reading speed · 2
- CD-R
 - compatibility · 4
 - media · 22
 - reading speed · 2
 - writing · 26
 - writing speed · 2, 44
- CD-R/RW software · 6

- CD-ROM, playing · 22
- CD-RW
 - compatibility · 4
 - high speed · 44
 - media · 22
 - normal speed · 44
 - reading speed · 2
 - ultra speed · 44
 - ultra speed plus · 44
 - writing · 26
 - writing speed · 2, 44
- cleaning disc · 24
- cleaning your drive · 29
 - precautions · 7, 29
- closing tray · 23
- compatibility
 - CD-R · 4
 - CD-RW · 4
 - DVD · 3
 - DVD+R · 35
 - DVD+RW · 35
- computer, minimum, PX-740UF · 37
- computer, PX-740UF minimum · 5
- configuration, PX-740UF
 - minimum · 5, 37
- connecting multiple IEEE 1394/FireWire devices · 19
- connector
 - IEEE 1394 · 11, 48
 - power · 12
 - USB · 12, 48
- connectors and jumpers, rear-panel · 11, 48
- controls, front-panel · 9, 47

D

- daisy-chain, don't · 19
- data buffer · 50
- data connector · 49
- DC 12V connector · 12, 16, 48
- dimensions, PX-740UF · 49
- disc
 - cleaning · 24
 - labels · 24
 - loading · 47
- disc tray · 10
- disc/busy indicator · 10, 47
 - blink rate · 27
 - color · 27, 47
- double layer · 35
 - side 2 · 21
- dual layer · 35
- DVD
 - compatibility · 3
 - formats compared · 35
 - formats supported · 3, 38
 - media · 21, 40
 - playing · 25
 - reading speed · 2, 42
 - recording modes · 4, 38
 - regional setting · 25, 50
 - write methods · 4, 38
- DVD+R
 - compatibility · 35
 - media · 21, 40
 - software · 6
 - writing · 26
 - writing speed · 2, 43
- DVD+R DL
 - lossless linking · 3
 - writing speed · 43
- DVD+RW
 - compatibility · 35
 - editing · 3
 - media · 21, 41
 - software · 6
 - writing · 26

- writing speed · 43
- DVD-R · 35
 - drive capabilities · 21
 - writing speed · 2, 43
- DVD-R DL
 - writing speed · 43
 - zero link · 3
- DVD-RW · 35
 - drive capabilities · 21
 - media · 41
 - writing speed · 43
 - zero link · 3

E

- Easy Media Creator · 26
- editing DVD+RW · 3
- eject
 - emergency · 31
 - methods for · 47
- eject button · 10
 - closing tray · 23
- electrostatic discharge
 - specification · 47
- EMC standards · 50
- emergency eject hole · 10, 31
- emergency eject tool · 10, 13, 31
- error rate specification · 47

F

- FAQs · 35
- features · 3
 - CD-R · 4
 - DVD · 3
- FireWire
 - hints · 19
 - switching to USB · 19
- firmware
 - obtaining · 30
 - upgrading · 3, 30, 35
- flash memory · 3, 30

formats · 38
 CD · 4, 38
 DVD · 3, 35, 38
frequently asked questions · 35
front panel controls · 9, 47

H

hard disk size · 5, 37
high speed CD-RW
 media · 22
 write speed · 44
host interface, PX-740UF · 49
humidity
 specification · 46
 storage · 46

I

IEEE 1394
 cable · 18
 connector · 11, 48
 not bus powered · 11
 PX-740UF interface switch · 12,
 16
 transfer rate · 36, 49
IEEE 1394 cable not supplied · 11
InCD 4 · 6
initialization time · 45
inquiry string · 49
installation · 9
interface · 5, 37
 choosing · 15
 IEEE 1394 · 3
 switch · 12, 16
 transfer rates · 36
 USB · 3

L

label, disc · 24
laser standards · 50

lossless linking · 3

M

Macintosh
 installing the PX-740UF · 20
 minimum requirement · 5
maintenance · 29
manual, printing · 1
media · 21
 care and handling · 23
 CD-R · 22
 CD-RW · 22
 DVD · 21, 40
 DVD+R · 40
 DVD+R DL · 21
 DVD+RW · 21, 41
 DVD-R DL · 21
 DVD-RW · 41
 high speed CD-RW · 22
 recommended · 35, 36, 41, 42
 size · 39
 supported · 4, 39
 ultra speed CD-RW · 22
 ultra speed plus CD-RW · 22
memory, minimum · 5, 37
minimum computer · 37
minimum configuration · 5, 37
minimum RAM · 5, 37
MMC-4 command set · 3
mounting position · 25, 46
MTBF · 47

N

Nero · 6, 26
noise specification · 46
normal speed CD-RW
 media · 22
 write speed · 22, 44

O

OPC · *See* optimum power control
operating system · 5
 requirement for PX-740UF · 37
optimum power control · 4
orange book · 4, 39

P

packing for shipment · 53
PC, minimum · 5
playing DVD · 25
plug and play, support for · 3
position, mounting · 25, 46
power
 connector · 12, 48
 supply · 48
 switch · 12, 16
power indicator · 10, 49
PoweRec · 36
precautions · 7
printing the manual · 1
PX-740UF
 contents of box · 13
 dimensions · 49
 host interface · 49
 minimum computer · 37
 minimum configuration · 37
 power requirements · 48
 rear-panel connectors · 48
 system requirements · 37
 weight · 49
PX-740UF installation · 9
 Macintosh · 20
 Windows · 16
PX-740UF operating system
 requirement · 37

Q

questions, frequently asked · 35

R

RAM, minimum · 5, 37
read specification
 CD · 43
 DVD · 42
reading speed
 CD-R · 2
 CD-RW · 2
 digital audio · 43
 DVD · 2
 USB 2.0 · 2, 42
reading, disc/busy indicator and ·
 10
rear-panel connectors · 11
recommended media · 36
 definition · 35
recording modes
 CD · 4, 38
 DVD · 4, 38
red book · 39
region code · 25, 50
regional setting · 25, 50
reliability · 47
returns · 13, 53
RMA number · 53, 54
ROPC · *See* running optimum
 power control
running optimum power control · 4

S

safety standards · 50
security sticker · 13
serial number · 16
shipping your drive · 13, 53, 54
shock specification · 47
sleep mode · 45

software · 6
 CD-R/RW · 6
 DVD+R · 6
 DVD+RW · 6
 Easy Media Creator · 26
 InCD 4 · 6
 Nero · 6, 26
specifications · 37
speed
 monitoring · 27
 reading CD-R · 2
 reading CD-ROM · 43
 reading CD-RW · 2
 reading digital audio · 43
 reading DVD · 2, 42
 writing CD-R · 2
 writing DVD+R · 2
 writing DVD+R DL · 2
 writing DVD+RW · 2
 writing DVD-R · 2
 writing DVD-R DL · 2
 writing DVD-RW · 2
support · 51

T

technical support · 51, 52
temperature
 specification · 46
 storage · 46
TLA code · 16
top panel · 49
transfer rate
 CD · 45
 DVD · 44
 IEEE 1394 · 36, 49
 USB · 36, 49
tray · 10
 closing · 23
 loading and unloading · 23
 loading specification · 47
troubleshooting · 32

U

ultra speed CD-RW
 media · 22
 write speed · 22, 44
ultra speed plus CD-RW
 media · 22
 write speed · 22, 44
upgrading firmware · 3, 30, 35
USB
 cable · 12, 13, 16, 18
 connector · 12, 48
 switching to FireWire · 19
 transfer rate · 36, 49
USB 2.0 · 3
 reading speed · 2, 42
USB cable shipped with PX-740UF · 12

V

vibration specification · 46

W

wake mode · 45
warranty · 55
web site, Plextor · 51
weight, PX-740UF · 49
white book · 39
write methods
 CD · 4, 38
 DVD · 4, 38
writing a CD image · 5, 37

writing speed

achieving · 22

CD-R · 2, 44

CD-RW · 2, 44

compatible · 36

DVD+R · 2, 43

DVD+R DL · 2, 43

DVD+RW · 43

DVD-R · 2, 43

DVD-R DL · 2, 43

DVD-RW · 43

high speed CD-RW · 22

max · 36

monitoring · 27

normal speed CD-RW · 22

recommended media and · 36

ultra speed CD-RW · 22

ultra speed plus CD-RW · 22

writing to CD-R · 26

writing to CD-RW · 26

writing to DVD+R · 26

writing to DVD+RW · 26

writing, disc/busy indicator and ·
10

Y

yellow book · 39

Z

zero link · 3

Notes

PLEXTOR CORP.
48383 Fremont Blvd.
Suite 120
Fremont CA 94538-6509

Phone: **510-440-2000**
Fax: 510-651-9755
E-mail: info@plextor.com

www.plextor.com