

The sale of CD ROM products has picked up speed after a slow start. Equipment development languished because of the lack of software while software development languished because of the lack of hardware. Sometime during the past year the dam broke. Now many hard disk manufacturers sell a CD ROM drive and the number of software products for those drives has grown dramatically.

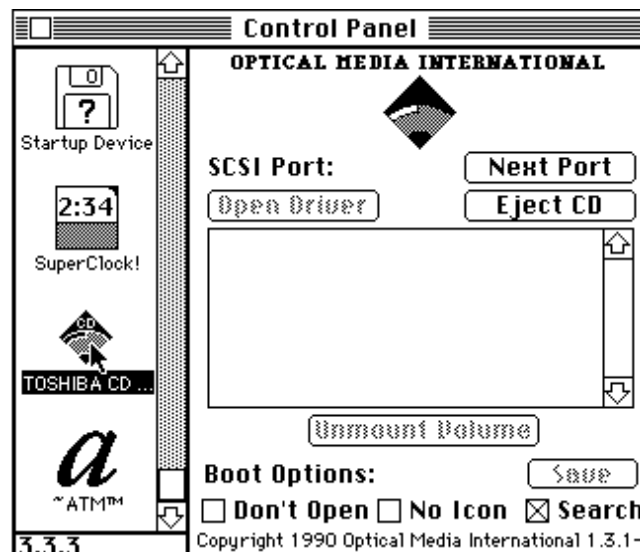
Hard Drives International, HDI, of Tempe, makers of PowerDrive hard disks drives, sells a CD ROM drive manufactured by Toshiba. This no-frills model comes with a SCSI cable, SCSI terminator, power cord, 3.5" floppy containing the CD ROM driver, HyperCard stack and associated files, caddy, demo CD, and instruction manual.

The unit measures 8" x 9 3/8" x 2 3/4". The front panel controls are an eject button, busy indicator (disk activity light), volume control and mini headphone jack. It has no power light so it's difficult to tell if the unit has been switched on. (There is no hum, vibration, squeak, whistle, snap, crackle or pop when the drive is inactive. When accessing the disk there is a slight "teacup rattle". Other than this you'll have to look in back or feel for the position of the power switch to tell if it's on.) The back panel controls are a power switch, power cord connector, 2 SCSI connectors and DIP switches

Setup of the drive is straightforward. Plug the SCSI cable into the drive and the computer, plug the SCSI terminator into the remaining SCSI port, attach the power cord, plug it in and turn on the drive.

The only problem you might have is with the dip switches. If you need to change the SCSI address because of a conflict with other hardware, you'll have to change DIP switch settings. The back of the drive has a round 1" opening through which you access the switches. They are recessed approximately 1/4" from the back surface plane. What makes this difficult is that there is a second opening measuring approximately 3/4" wide and 3/16" high through which you have to manipulate the switches. The manual states that you can flip the switches with a pen or pencil. Not likely! You'll need a long thin tool, such as a nail file or ice pick, and a strong light source because the opening is so small and recessed. (I don't like dealing with DIP switches so when I got the drive I just plugged it in and turned it on. It wasn't worth the frustration to try and change the address.) If you want to change the factory settings, the manual has a chart explaining how to configure the switches to obtain a particular address.

Before using the drive you must copy the CDEV driver, Foreign File Access and Audio CD Access files to the System folder and reboot. When you open the drive's CDEV you see the following:



From this window you can cycle to other SCSI ports, eject the CD and caddy or unmount specific partitions (if the CD has been partitioned).

To use the drive, place a CD into the caddy then insert the caddy into the front slot. The drive will automatically draw the caddy in when it reaches a certain point. The caddy has a metal shutter, similar to a 3.5" floppy disk, which slides sideways to expose the disk to the laser. The disk is read and then appears on the desktop like any other disk (and in a reasonable amount of time—actually no more time than a fully loaded floppy). Also, opening files on the CD ROM disk took no longer than it takes to access them on an 800K floppy.

The HDI CD ROM player drive was tested on a Macintosh IIsi with a math coprocessor on the Nubus adapter, 5 megs of RAM, and a 40 meg hard drive running System 6.0.7 under Finder and Multifinder.

The manual says to first turn on the CD drive, then the computer. I found this to wasn't always necessary. If I had a CD in the drive and turned on the computer, the computer would refuse to boot until the CD was ejected and the computer restarted. The computer would boot normally if a disk was not in the drive. From this point, you use the CD drive like any other disk based software.

There have been complaints that ROM drives are slow but I found the HDI player to be, at times, no slower than a floppy and, on average, about equal in speed to an internal SE 20 meg hard disk. The only long delays occurred when using Get Info on folders containing several megs, and using the Find File DA to locate a particular file. Both operations took a long time, a couple of minutes, as will most operations that deal with files totaling several megabytes.

On several occasions, the screen and cursor froze up while trying to access files on the CD. I'm inclined to believe this was caused by older software clashing with the Mac IIsi and System 6.0.7, not as a result of the CD technology.

As a bonus, the drive will also play audio CDs. To use the ROM drive as a audio CD player requires a set of headphones, and the "playCD" stack which is provided on the included floppy. The stack has a set of controls similar to a tape or CD deck through which you control playback, forward and reverse search, pause and stop functions. It allows you to listen to the entire disk or to construct a playlist and listen only to desired tracks. To control the volume to the headphones you must slide the volume control which has only three positions, low, medium, and high. If you like to crank the volume up you'll be disappointed in the volume level of the high setting plus there are no audio jacks for connecting the unit to a set of speakers or a stereo.

The documentation is relatively skimpy, and appeared to be cheaply done. I believe the manual was produced by Toshiba because nowhere on it did I see HDI's name, only Toshiba's. The same applies to the drive itself, it carried only Toshiba's name, not HDI.

I would recommend the HDI CD ROM player because it worked well which is all you could ask of a CD ROM drive. If you want to use it as your primary audio compact disc player you'll be wasting your money. That feature is an extra since the principal purpose of the drive is information retrieval. Even so, I hope future versions will replace the 3 position volume control with a variable volume control and also include a power light.