CD-Type HOWTO

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1 Introduction

It is important to know what type of interface your CD-ROM drive has. This is so you can properly make choices regarding how to install your system.

The best way to find out what type of CD-ROM you have is to read the documentation that came with it. Failing that, this document should provide some help.

Here are most of the more popular types of CD-ROMs:

- IDE/ATAPI
- SCSI
- Sony CDU31A and CDU33A
- Sony 535
- Sound Blaster type interface (Panasonic, Matsushta, Kotobuki)
- Reveal
- Goldstar
- Sanyo 3 CD changer
- Other ("Aztech, Wearnes, Orchid")

2 IDE Drives

The most common type of CD-ROM these days is IDE. Most of the drives on the market are IDE/ATAPI. They usually come with their own interface card, but can be connected to a standard EIDE interface if you have available ports. The only real way to tell if your drive is a true IDE/ATAPI compliant drive is to read it's documentation. One sign is a 40 pin connector.

2.1 Configuring IDE Drives

If your IDE drive isn't properly detected by the kernel, you first need to try entering command line parameters. IDE drives are labeled by linux starting with "hd" and followed by another letter depending on where they are in the chain. If you have a drive configured as the “master” on the first IDE interface, that drive is hda. If you have a drive configured as “slave” on the first interface, it would be hdb. A “master” on the second interface would be hdc, and so on. So, if your CD-ROM drive isn’t properly detected, you may have to force detection using command line parameters. An example of a command line parameter for a “slave” CD-ROM on the second interface would be:

```
LILO boot:  linux hdd=cdrom
```

If you don’t know exactly how your drive is configured, it is safe to try the above parameter using a, b, c, and d until it works.

3 SCSI Drives

The next most common type of CD-ROM drive is SCSI. Basically, if your drive connects to a SCSI interface card, it’s SCSI. It should have a 50 pin connector going to it.

3.1 Configuring SCSI Drives

SCSI drives require only that the SCSI card be configured first. If the controller is properly detected, 99% of the time the drive is detected as well. If you are having trouble getting your SCSI controller detected, see the Hardware-HOWTO:

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http://sunsite.unc.edu/linux
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4 Sony Drives

It is very important to note that just because your drive may be made by Sony, it may not be one of these drives. It could still be SCSI or IDE. Only use this section if you have model numbers CDU31, CDU33, or 535.

To identify these drives, you must use the part numbers on the drives themselves or in the documentation that came with it. You may also find them when watching the drivers load under DOS or other OS’s.

5 Sound Blaster Type Drives

A large part of the CD-ROM drive market used to be dominated by the proprietary Sound Blaster type interface drive. Noticeable drives that fit this designation are Panasonic 56x, Matsushta, and Kotobuki drives. It is worth noting that not all of these drives must be connected to a Sound Blaster. Some “compatible” sound cards have this type of interface attached. There are interface cards that are not part of a sound card at all that will work with this driver too (one in particular is the “Sun Moon Star” board).

These drives also have a 40 pin connector, just like an IDE drive. The cannot, however, be connected to a normal IDE or EIDE interface.

6 Reveal Drives

The “Reveal” drives are really one of the other types listed. But, it could really be any of those. The early Reveal drives (circa 1994) are usually Sound Blaster type. Later ones are usually IDE, but could be proprietary. The IDE ones are supported, but the proprietary ones are not. The bad part is that there isn’t a good way to tell if you have the proprietary one.

7 Goldstar Drives

The Goldstar drives seem to not be supported at all at this time. If yours claims to be IDE you can try it, but it may not work.

8 Sanyo 3 CD changers

The Sanyo 3 CD changers ship with many Gateway systems. I suppose they can be purchased separately, but I’ve never seen one. Anyway, this drive should work under a stock Red Hat kernel, but *only* the first slot will be recognized. There is work underway for a driver for it to use all the slots, however. Folks willing to try it can look in kernel sources 2.1.x.

9 Other Drives

Most other drives use a proprietary interface. To know if they are compatible with Linux, please see the Hardware-HOWTO:

`http://sunsite.unc.edu/linux`

The Aztech, Wearnes, Okano, and Orchid drives are supported. Each can be identified by manufacturer on the drive itself or in the documentation.