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## CD/DVD Disc and Drive

### Optical Disc Drive



In computing, an optical disc drive (ODD) is a disc drive that uses laser light or electromagnetic waves within or near the visible light spectrum as part of the process of reading or writing data to or from optical discs. Some drives can only read from certain discs, but recent drives can both read and record, also called burners or writers (since they physically burn the organic dye on write-once CD-R, DVD-R and BD-R discs). Compact discs, DVDs, and Blu-ray discs are common types of optical media which can be read and recorded by such drives.

Optical disc drives that are no longer in production include CD-ROM drive, CD writer drive, combo (CD-RW/DVD-ROM) drive, and DVD writer drive supporting certain recordable and rewritable DVD formats (such as DVD-R(W) only, DVD+R(W) only, DVD-RAM only, and all DVD formats except DVD-R DL). As of 2020, very commonly computers, escpecially laptops, do not include any optical drive (while can be had to plug in). Before DVD writer drive supporting all existing recordable and rewritable DVD and CD formats was the most common type. There are also the DVD-ROM drive (used on DVD players and some game consoles), BD-ROM drive (used on Blu-ray players and some game consoles), Blu-ray Disc combo (BD-ROM/DVD±RW/CD-RW) drive, and Blu-ray Disc writer drive available.



Optical disc drives are an integral part of standalone appliances such as CD players, DVD players, Blu-ray disc players, DVD recorders, certain desktop video game consoles, such as Sony PlayStation 4, Microsoft Xbox One, Nintendo Wii U, upcoming consoles Sony PlayStation 4 and Xbox Series X and also in older consoles, Sony

PlayStation 3, and certain portable video game consoles, such as Sony PlayStation Portable (using proprietary now discontinued UMDs). They are also very commonly used in computers to read software and consumer media distributed on disc and to record discs for archival and data exchange purposes. Floppy disk drives, with capacity of 1.44 MB, have been made obsolete: optical media are cheap and have vastly higher capacity to handle the large files used since the days of floppy discs, and the vast majority of computers and much consumer entertainment hardware have optical writers. USB flash drives, high-capacity, small, and inexpensive, are suitable where read/write capability is required.

## Compatibility of Optical disc on optical drive

| Disc | Optical Drive | | | |
|---|---|---|---|---|
| | CD-R | CD-RW | DVD-R | DVD-RW |
| **CD-R** | Read Many | Write once Read Many | Read Many | Write once Read Many |
| **CD-RW** | Read Many | Write Many Read Many | Read Many | Write Many Read Many |
| **DVD-R** | - | - | Read Many | Write once Read Many |
| **DVD-RW** | - | - | Read Many | Write Many Read Many |

## Burning Software Nero

Nero Burning ROM, commonly called Nero, is an optical disc authoring program from Nero AG. The software is part of the Nero Multimedia Suite but is also available as a stand-alone product. It is used for burning and copying optical discs such as CDs, DVDs, Blu-rays. The program also supports label printing technologies LightScribe and LabelFlash and can be used to convert audio files into other audio formats.

## Features of Nero Express

Nero Burning ROM is only available for Microsoft Windows. A Linux-compatible version was available from 2005 to 2012, but it has since been discontinued.[3] In newer versions, media can be added to compilations via the Nero MediaBrowser. Nero AirBurn, a new feature in Nero 2015, enables users to burn media straight from their mobile devices. The latest version is Nero Burning ROM 2017 released in October 2016 including SecurDisc 4.0 with 256-bit encryption.

The software supports the creation of a variety of media formats:

- Disk image files
- Audio CD discs
- DVD-Video discs
- Blu-ray Discs
- AVCHD video discs
- Bootable data discs

- ISO/UDF data discs
- SecurDisc discs

**Additional functions include:**

- Printing on discs with LightScribe and LabelFlash technology
- Erasing rewritable discs
- Copying audio CD tracks in a choice of audio formats onto a hard disk drive
- Converting audio files to other audio file formats
- Connection to the online music database Gracenote

**Exercise:**

**1: What is Optical Disc Drive?**

**2: What is Nero Application software?**

**3: List the features of Nero.**