

DVD FORMATS

DVD-ROM (Digital Versatile Disc - Read Only Memory)

A disc that is physically the same size as the CD-ROM, or Compact Disc, but can store information at much higher densities giving a greater capacity. DVD-ROMs can currently be made in four physical formats named DVD-5, DVD-9, DVD-10 and DVD-18. DVD-5 has a 4.7GB storage capacity (versus the 650MB standard for a CD-ROM) and stores the data on one side of the disc in a single layer. This data can be in the form of software, video (DVD-Video) or audio (DVD-Audio). The DVD-9 format stores data in dual layers on a single side of the disc while the DVD-10 and DVD-18 formats use both sides of the disc to store data in single and dual layers respectively. DVD-ROM discs can be accessed in set top DVD players and computers equipped with DVD-ROM drives. These discs cannot be written to by the user.

DVD-R (Digital Versatile Disc - Recordable)

A disc that is equivalent to the DVD-ROM but it can also be recorded to. Some DVD burners can record on 4.7GB single-sided and 9.4GB double-sided DVD-R discs. DVD-R discs can be accessed in set top DVD players and computers equipped with DVD-ROM drives. These discs can only be written to once by the user. There are two types of DVD-R drives and media. DVD-R for Authoring is appropriate for someone who wants to create a disc that can be used as a master at a duplication house. This is called the Cutting Master Format (a.k.a. CMF). It supports setting region codes and using copy protection. DVD-R for General is supported by the DVR-A05U and is appropriate for someone who only wants to create a few copies of a disc and doesn't need to send the disc to a duplication house or set region codes. The correct media must be used with the appropriate drive (i.e. DVD-R for Authoring discs with a DVD-R for Authoring compatible drive).

DVD-RAM (Digital Versatile Disc - Random Access Memory)

Differs from the DVD-R in that it is re-writable many times. Discs are available in capacities of 2.6GB or 4.7GB for single sided discs and 5.2GB or 9.4GB for double sided discs. The Panasonic LF-D521U drive can record to and read from these media. DVD-RAM discs can only be accessed in a DVD-RAM drive. They cannot be used in set top DVD players or computers equipped with DVD-ROM drives.

DVD-RW (Digital Versatile Disc - Re-recordable)

A version of the write-once DVD-R format that can be written to up to 1,000 times. DVD-RW discs can be accessed in set top DVD players and computers equipped with DVD-ROM drives.

DVD+R (Digital Versatile Disc + Recordable)

A specification put forward by the DVD+RW Alliance to complement the DVD+RW format. DVD+R discs can be recorded in 4.7GB capacities. These discs can only be written to once by the user. DVD+R discs can be accessed in set top DVD players and computers equipped with DVD-ROM drives.

DVD+RW (Digital Versatile Disc + Rewritable)

A different version of a re-writable DVD-R format that is designed to be more suitable for both real-time video recording and random data recording. DVD+RW discs can be recorded in 4.7GB capacities. DVD+RW discs can be accessed in set top DVD players and computers equipped with DVD-ROM drives.

Pros & Cons of the different DVD formats:

DVD-ROM

- 4.7GB storage capacity
- can be accessed in set top DVD players and computers
- cannot be written to by the user

DVD-R

- can record on 4.7GB and 9.4GB DVD-R discs
- can be accessed in set top DVD players and computers
- can only be written to once by the user

DVD-RAM

- is re-writable many times
- available in capacities up to 9.4GB
- can only be accessed in a DVD-RAM drive
- cannot be used in set top DVD players or computers equipped with DVD-ROM drives

DVD-RW

- can be written to up to 1,000 times
- can be accessed in set top DVD players and computers
- DVD-RW discs may not play back on some older or entry-level DVD systems

DVD+R

- can record on 4.7GB DVD+R discs
- can be accessed in set top DVD players and computers equipped with DVD-ROM drives

DVD+RW

- can record on 4.7GB DVD+RW discs
- can be accessed in set top DVD players and computers equipped with DVD-ROM drives
- DVD+RW discs may not play back on some older or entry-level DVD systems