

# DVD writers

So you're planning to add a DVD writer to your computer setup? Then welcome to a club with a rapidly expanding membership. Scott Colvey smoothes out any confusion caused by the numerous standards that are now on the market



DVD technology is a hot technology right now. But would-be buyers face a perplexing number of competing and often incompatible standards. You might like the idea of creating your own DVD discs to share with friends and family, but which of the five available formats should you adopt? Unless you buy carefully, you could find that the discs your drive produces cannot be used on your kith and kin's DVD players. Over the next few pages we'll explore both the compatibilities and, perhaps more pertinently, the incompatibilities of the various standards. We've also kitted out test computers with some DVD writers to find out which drives read which formats. The results proved both heartening and maddening (see our *DVD burners* results table below).

### Format wars

The full list of DVD technologies reads as follows: DVD-RAM, DVD-R, DVD-RW, DVD+R and DVD+RW. The first entry in our list, DVD-RAM, mimics the operation of a hard disk, with drives able to locate blank spaces on discs to store data as and when required. A DVD-RAM

drive can juggle reading and writing operations, so files can be read from a disc at the same time as information is recorded to it. In this respect the technology is perfect for applications such as recording video. DVD-RAM drives are therefore contenders in the 'domestic' DVD-recorders market - the likes of which you might be thinking of buying to replace that ageing VHS player under your telly. While DVD-RAM discs are rewritable, the format is also the least likely to prove compatible with other drives. This situation may resolve itself over time. Or not. Some domestic DVD players now support playback of DVD-RAM media in addition to the more popular standards. But the trend in PC-based writer drives is toward multiformat support - drives that will play just about any kind of digital disc. Indeed, two of the drives we tested claim compatibility with all five recordable DVD standards.

### Plus and minus points

Better known are the so-called minus (-) and plus (+) formats. Proponents of the '-' standard - specifically the group of manufacturers comprising

the dash-format-promoting DVD Forum ([www.dvdforum.org](http://www.dvdforum.org)) - prefer to call it 'dash', considering the use of the 'minus' moniker disparaging. The wider industry uses the dash and minus terms interchangeably. But whatever name you choose to use, the dash/minus format, which came into existence in 1997, was, until recently, the primary choice for most people wanting a PC-based DVD writer drive. However, the format suffered from a lack of compatibility with early domestic DVD players. The problem has now all but evaporated, however its existence prompted the formation of a rival industry group called the DVD+RW Alliance. Its raison d'être was to make life simpler for consumers. Realising that users wanted maximum compatibility with all types of DVD drive, the Alliance came up with the plus (+) format. It proclaimed plus-format discs usable in up to 95 percent of current players and drives. Today, the plus and minus formats are equally adept at burning DVD video and data discs and both rely on sequential-writing technology, as opposed to the more versatile random-access method employed by DVD-RAM discs.

### It's all write

Like CD-recorder drives before them, the disc-creation abilities of plus- and minus-format DVD-burners are denoted by either an R suffix (indicating 'record only' or write-once) or an RW (for 'rewritable' or record over and over again). When a DVD writer drive offers both capabilities, as most new models do, the label R/RW is applied. The amount of data that can be written to disc depends on several factors, not least of which is the media. The cheapest and therefore most popular disc formats are write-once DVD-R and DVD+R, which are able to store 4.38GB of data. And just for added confusion, be aware that such discs are usually labelled as having a capacity of 4.7GB. The figure is derived from the 1GB = one billion bytes definition favoured by some.

### Come together

The latest multiformat DVD-burner drives can focus their lasers to read from or write to DVD-RAM, DVD-R, DVD-RW, DVD+R and DVD+RW discs. However, we've not yet come across a multiformat drive that can handle DVD-RAM discs housed in a caddy, which is a physical rather than a technical restriction. Manufacturers of these drives summarise such capabilities as DVD-RAM/DVD+RW (or DVD+RW, if DVD-RAM support isn't included). The marketplace is clearly in a bit of a mess. It's too early to predict which - if any - of the existing recordable formats will win out. Invest in a multiformat drive for maximum flexibility in the future. ☒

## Burn tests

Our simple tests show even drives claiming to be compatible with all formats can sometimes struggle with certain discs. And a DVD that works fine in 10 players might refuse to operate in the eleventh. We used three DVD burners in our format-compatibility tests: Freecom's FX-50, LG's GSA-4081B and Iomega's Super DVD 4x All-Format drive. The Freecom doesn't support DVD-RAM discs but the Iomega and LG both claim compatibility with all five formats. We used the Iomega to burn a data DVD+RW disc, the Freecom to make a video DVD-R and the LG to copy a few files to DVD-RAM. We then tried each disc in the other drives and in the DVD-ROM drives of three other PCs. Obviously, the Freecom could not read the DVD-RAM disc but it fared well with the DVD+RW burned by the Iomega and, naturally, the DVD-R it created itself. Similarly, the Iomega and LG drives successfully read the information from the DVD-RAM and DVD+RW discs as well as the video burned to the DVD-R. Next we turned to the DVD-ROM drives in our test PCs. The first refused to read the DVD+RW disc burned by the Iomega although, bizarrely, a subsequent test with a fresh disc proved positive. The second drive dealt with both DVD-R and DVD+RW discs without bother. Very few DVD-ROM drives can read DVD-RAM discs; not unexpectedly, all three DVD-ROM drives struggled to recognise the DVD-RAM media.



Freecom FX-50



LG Electronics GSA-4081B



Iomega Super DVD 4x All-Format

DVD burners	Freecom FX-50	LG Electronics GSA-4081B	Iomega Super DVD 4x All-Format
Telephone	01423 704 700	0870 607 5544	020 7365 9527
Website	<a href="http://www.freecom.com">www.freecom.com</a>	<a href="http://www.lge.co.uk">www.lge.co.uk</a>	<a href="http://www.iomega-europe.com">www.iomega-europe.com</a>
Price (inc VAT)	£206	£99	£145
Formats supported	DVD-R/+R/-RW/+RW	DVD-R/+R/-RW/+RW/-RAM	DVD-R/+R/-RW/+RW/-RAM
Drive type	external	internal	external