

# All you need to know about



Backed by Sony, Panasonic, Pioneer, Philips, Toshiba and other leading manufacturers, the 12cm discs can offer superior sound and picture quality compared to previous formats, with instant access and less chances of wearing out. Below are some of the key points of interest.

## Regional Coding

DVDs are coded with one of six regional codes. Region 1 is USA, Region 2 is Europe and Japan, Region 3 is Asian Pacific, Region 4 is Australia, New Zealand and Latin America, Region 5 is Africa, Russia and Eastern Europe and Region 6 is China and Hong Kong. A Region 1 DVD player will not play discs from other regions, but you can get fixes for the machines (or enter codes in the handset) to get around this. PC DVD ROM drives can get software fixes. There is also Region 0, which should play on any machine, and some older films are released with this coding. The video signal is also coded for the television format, so Region 1 discs are usually coded with NTSC, and Region 2 discs with PAL. This only effects DVD players as DVD ROM drives will not worry about the signal format, only the region setting.

## Compatibility

DVDs can hold 25 times as much digital information than a standard CD, and are slightly thicker. As the data is stored in thinner tracks, DVDs are not compatible with CD players, but Audio CDs and Video CDs can be played on DVD players. Films are encoded using MPEG-2, which is an improvement on MPEG-1, which was used for Video CD. It only encodes what the viewer can see, and notes the changes in a scene rather than the complete picture.

## Quality

Apart from the fact that most DVDs are coded with Dolby Pro Logic or Dolby Digital, offering fantastic surround sound, the picture quality is also better. Normal VHS tape uses around 250 horizontal lines, but DVD uses 576. In addition, DVDs do not need to be rewound, and cannot stretch or snap in the machine. Some older films are digitally restored before being transferred to DVD. Discs like the **Thunderbirds** DVDs have had the audio track remixed adding surround sound effects, although the strings have been left in! Most discs are encoded with Macrovision, a system that prevents you from recording the DVD onto video. The picture is fine until you press record, and then the picture signal will vary, altering the brightness or colour levels. Macrovision can be disabled with software, either on your PC (if you play DVDs from your DVD ROM drive and plug the output through to your television) or by a chip or remote control hack on your DVD player.

## Sound

Discs come encoded with a variety of sound options. Dolby Surround has four channels (left, right, centre and surround) encoded into two channels. You can use four speakers (the centre channel is created using the front speakers) although you can play it using a normal stereo setup. Dolby Pro-Logic was an improvement on Dolby Surround, giving a real centre channel, which requires a centre speaker. The rear surround sound is a mono signal shared by the two speakers. Dolby Digital 5.1 is the most common sound option on DVDs at the moment. With this format you get left, centre, right, rear left and rear right. There is also a subwoofer channel (the .1 bit) for bass sounds and so requires five speakers plus a subwoofer (placed anywhere in the room). Digital Theater System, or DTS, is the main rival to Dolby Digital, giving better sound separation and less digital compression. Seen more on US discs than UK ones, you need a dedicated DTS decoder to get the best results.

## Size Format

Apart from being able to be double sided, DVDs can be dual layered, so the capacity of the disc can be 4.7Gb (Single layer, single side), 8.5Gb (Dual layer, single side), 9.4Gb (Single layer, double side) or 17Gb (Dual layer, double side). This can relate to the following maximum times on a disc:

133 minutes on a single-sided, single layer disc  
242 minutes on a single-sided, dual layer disc  
266 minutes on a double-sided, single layer disc  
484 minutes on a double-sided, dual layer disc

Using the double-sided format you can have a standard 4:3 TV Ratio version of the film on one side and a 16:9 widescreen ratio version on the other (like **Beetlejuice**). Some discs put the extra features on the second side (like **Lethal Weapon 4**). Some companies decide to make discs double-sided for one version of the film (known as a 'flipper') rather than make a dual layer disc, which is more expensive to make. A recent disc was Armageddon, but customers who bought it were so fed up with having to turn the disc

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over half way through the film, that the film company made a dual layer version, and people can return their 'flipper' disc for a new single-sided one.

### Extras

With the capacity available, DVDs can have several extra features. You are not limited to the one soundtrack, so you can have a commentary of the director, special effects crew or actors running in the background. Dubbed languages and subtitles are another feature. Scenes deleted from the original release, and original trailers with music videos are popular (like **Lost In Space**), along with 'making of' documentaries. Production notes and cast biographies are usually written text on the screen, although interviews and clips of other films they have starred in can also be included. Some features will only work when the disc is used on a PC, such as screensavers, games or screenplays.

### US versus UK versions

Part of the reason behind the regional coding was that films are released at different times in different countries. A film coming out on DVD in the US may not have been seen in the cinema in the UK, so the coding was used to prevent films being seen too soon. Unfortunately, when the DVD disc for the same film comes out in the UK, several differences can occur. The first is that they are not released in this country at all. As of June 1999, there are about 350 titles available in the UK, compared to 3000 in the US. If your DVD player can play Region 1 discs, then you can get a better choice of films, but UK shops cannot sell these discs without British Board of Film Classification approval. Films can be imported for personal use, and buying over the Internet makes this very easy. The extras also seem to get 'lost' between the versions. The UK edition of *Scream* has English subtitles and scene access only, but the US version has four trailers, audio commentary, production documentary, TV commercials, special effects gallery, film facts and a question and answer with the cast and crew. The US also have standard and special editions, whereas the UK gets one version.

### DVD Players

The output sockets from DVD players can vary, and most do not have an RF out. This connection is the same used for your aerial signal, and is found on video recorders because they can record from the aerial. DVD players are playback only, so they do not have one. Composite video (three phono sockets, left, right and video) is the most common output. Scart is a 21-pin socket which carries sound and vision, and a Scart socket that uses RGB (Red, Green, Blue) separate components has a better picture quality. S-Video handles video only, and is better than composite. To connect to a television you will need to use an audio output as well as S-Video. Sound output from a DVD player can be analogue stereo out (two phono sockets), Dolby 5.1 out (four or five phono sockets, front left, front right, surround or rear left, surround or rear right, centre and possibly a subwoofer socket), optical digital out (fibre optical digital audio output) or coaxial digital out (one phono socket). Some offer a headphone socket at the front of the player as well.

Picture size from a player can be either standard (4:3 ratio) or widescreen (16:9, 1.85:1, 2.35:1). Anamorphic enhanced means that a widescreen picture uses all 576 lines available on a PAL format, stretching the picture vertically. When played on a standard television, the player squashes the picture and puts a black bar at the top and bottom. Some televisions have a 16:9 button which will do the same. The quality of the picture in either case is better than a normal screen. Widescreen televisions will display the picture correctly. Most DVD films are widescreen, unless the film is very old (or in the case of *Eyes Wide Shut*, filmed in 4:3 ratio anyway) and television series on DVD are usually 4:3 TV ratio.

DVD players come with a multitude of functions and extra features, some of them being:

*3D spatial, virtual surround* – creates a virtual surround sound effect from a stereo signal. Not as good as a proper Dolby Digital 5.1 decoder and multiple speaker setup.

*Scene mark, bookmark, last position* – Even though the DVD discs are divided into chapters, you may want to stop at a particular point in the film. This feature marks this position, so you can play disc from where you stopped it.

*2x, 4x zoom* – enlarges the picture by a certain. Usually the quality of the zoomed image is lower than the original.

*CD-R, MP3 compatible* – these players can read MP3 files from CD-R discs burn on a computer. You can fit 8 hours of music on a standard CD if you saved the tracks as MP3 files, so this would be useful if you wanted music for a party.

*Multi-Region* – If you want to view region 1 discs from America as well as region 2 discs from the UK, the player will need to be multi-region. This can be done by secret combination of keys on the remote control

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(although some have a limit for the number of times it can be done) or by adding a chip inside the player. Existing DVD players can be modified to be multi-region, but it can invalidate the warranty. Shops cannot sell Region 1 discs in this country, but they are easy to get through the Internet, as are the multi-region players.

*Macrovision disable* – usually part of the hack to play multi-region, this will allow you to tape a DVD onto videotape.

### **Prices of DVD Players:**

Budget models (under £200) – LG DVD-3200, Matsui DVD-110, Proline DVD 1000.

Entry level models (£200-£300) – Encore DV-450, Panasonic DVD-RV20, Samsung DVD-709, Pioneer DV-525, Sony DVP-S325.

Mid range (£300-£500) – Samsung DVD-909, Panasonic A160, JVC XV-701BK, Pioneer DV-717, Sony DVP 525P.

Top range (£500-£1600) – Denon DVC-3000, Toshiba SD-9000, Sony DVP-S7700.

### **Web sites:**

#### **[www.dvdmagic.net](http://www.dvdmagic.net)**

Multi-region players like Sony 335 £275, Toshiba SD100 £229.

#### **[www.multiregionmagic.co.uk](http://www.multiregionmagic.co.uk)**

Multi-region players like Pioneer DVD525 £239, Phillips 711 £199.

#### **[www.linkonline.co.uk](http://www.linkonline.co.uk)**

Multi-region players like Samsung 511 £199, Panasonic RV20 £259.

#### **[www.blackstar.co.uk](http://www.blackstar.co.uk), [www.hmv.co.uk](http://www.hmv.co.uk), [www.encoredirect.co.uk](http://www.encoredirect.co.uk), [www.dvdplus.co.uk](http://www.dvdplus.co.uk), [www.dvdworld.co.uk](http://www.dvdworld.co.uk), [www.dvdstreet.co.uk](http://www.dvdstreet.co.uk)**

Region 2 UK DVD films.

#### **[www.disceporium.com](http://www.disceporium.com), [www.admitone-dvd.com](http://www.admitone-dvd.com), [www.play247.com](http://www.play247.com), [www.futureent.com](http://www.futureent.com), [www.video-now.com](http://www.video-now.com)**

Region 1 US DVD films (import service).

### **Magazines:**

DVD Review, What DVD, Total DVD, DVD Monthly.

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For DVD reviews and other stuff, visit Laurence's Orchard of Oddities at <http://www.lfenn.co.uk>