



# Prime viewing

There's no point having a flash TV and playing ropey old video – get better pictures with the latest DVD recorders

DVD recorder prices are plummeting. A Best Buy now costs just £170, so it's a good time to replace your old video recorder. A DVD recorder offers sharper pictures with more realistic colours for a similar price. And it will even sound better.

It's a particularly good time to buy if you watch Freeview. Until now, few recorders have let you record one digital TV channel while the Freeview box is receiving another one, but three of our new Best Buys offer this.

However, there is one development that might be worth waiting longer for –

high-definition DVD recorders will hit the shelves this summer. They use impressive new technology that vastly improves the clarity and impact of moving pictures.

As with all new technology, prices will be high initially. You're looking at around £600 for a recorder. And you'll need a high-definition TV (see p37) and a subscription to high-definition channels.

If you're already hankering after high-definition, wait at least a few months. Our advice, though, is to hold off until any teething problems are ironed out of high-definition DVD and prices have fallen.

**High-definition DVD recorders will hit the shelves this summer**



**We put each DVD recorder through a series of exacting tests and checks before we give the final score**

## The panel

A panel of five experts drawn from the retail, broadcast and music industries carefully marks each DVD recorder.

We put the panel in a room that's specially designed to recreate conditions in a typical living room. Then we play them footage and sounds which we've chosen to highlight any flaws – fast-moving sports and films with heavy detail.

## Secret scores

There's no conferring among the panel and we mask brand names – so no one knows what they're rating and no bias sneaks in. We slip in the same models twice, to make sure that each expert is giving consistent marks; if they don't, they'll be out on their ear.

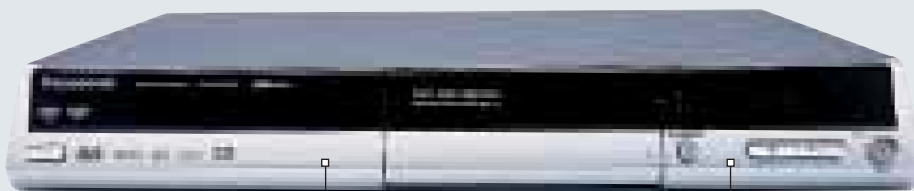
Once the scores are in, our statisticians analyse the ratings, to ensure that the differences we highlight aren't down to chance variations in the ratings.

## Laboratory tests

We carry out more than 100 technical tests to explore the recorders' capabilities and limits. For example, we measure the level of unwanted interference in the picture signal.

Then we check for 250 possible features before handing the recorders over to our ergonomists. They hunt down fiddly buttons or cluttered remotes.

## What you should look for

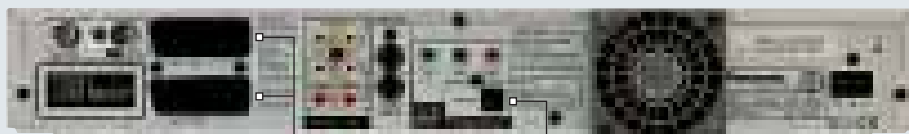


### VideoPlus

This handy feature lets you program recordings by typing in the VideoPlus number found in TV guides such as *Radio Times*. It saves you the hassle of messing with the timer when you record non-digital channels

### A digital-TV tuner

If you've made the switch to Freeview digital TV, buy a DVD recorder with a built-in Freeview tuner. This will let you record one digital channel at the same time as you watch another



### Connections to TV equipment

You connect the recorder to equipment such as a TV, a digital TV receiver or a VCR via Scart sockets. So if you have lots of TV equipment, then the more of these, the better

### Connections to surround sound

There are two types of digital surround-sound connection – coaxial (top) or optical (bottom). If you already have a surround-sound system, buy a recorder which has the same connections





## 1 DVD RECORDER

## 72% Panasonic DMR-ES20 £170

A great advantage of this Panasonic is its digital tuner – if you already have Freeview channels, it will let you record one channel while you watch another.

On a related note, it makes good use of Freeview's guide to what's on TV in the coming week. To set up a recording, all you have to do is highlight the programme you want from the on-screen list using the remote control.

There's also a normal tuner for recording non-digital TV, though you have to use the conventional timer to record non-digital channels.

It works with DVD-Ram discs, which can play one part of a disc while recording on another – so you can catch up on recent recordings at the same time as making a new one.

**WE LIKE** The picture quality in long play is better than the other Best Buys. (Long play gives four hours' recording time a disc, rather than two.)

**Cheapest stores** Widely available **Discs used for recording** DVD-R, DVD-RW and DVD-Ram **Tuners** Analogue and Freeview **Surround-sound output** Optical **Digital photos** From CD **Resume** No **VideoPlus** Yes



## 2 DVD RECORDER

## 72% Pioneer DVR-230-S £170

Our second Best Buy makes recordings with exceptional picture quality – they're almost indistinguishable from commercially recorded DVDs.

Sadly, it's the only Best Buy that doesn't have a Freeview tuner. But it does have some other useful touches.

There's a resume feature that remembers where you got to in a film. If you can't slog your way through the whole of *Das Boot*, you can turn the DVD recorder off and pick it up again

tomorrow. The only catch is that you have to leave the machine on standby and the disc in the drawer.

And like the Panasonic Best Buy, it has VideoPlus for non-digital TV – simply type in numbers from the TV magazines to set up a recording.

**WATCH OUT** This model doesn't have a digital tuner – you won't be able to watch one Freeview channel while you record another.

**Cheapest store** Richer Sounds **Discs used for recording** DVD-R, DVD-RW **Tuners** Analogue only **Surround-sound output** Coaxial **Digital photos** No **Resume** Yes **VideoPlus** Yes



## 3 DVD RECORDER

## 69% Sony RDR-GX310 £300

Here's another superb recorder with a digital tuner; it's ideal for people who receive Freeview channels and want to record one while they watch another.

It's also an interesting option if you're into recreating cinema-style surround sound in your living room. There's a choice of the type of digital connection to a surround-sound amplifier. That means it will work with whatever system

you have now – and any you want to buy in the future.

It uses a wider range of recordable discs than our first two Best Buys, so there's more chance that you'll be able to play your recordings on other DVD players.

As with the Pioneer Best Buy, this Sony has a resume feature, so you can restart a film from the point you'd got to when you headed off to bed.

**WE LIKE** This model will read digital photographs that you've stored on a DVD or CD and display them on TV.

**Cheapest stores** Argos, Comet and Woolworths **Discs used for recording** DVD-R, DVD-RW, DVD+R and DVD-RW **Tuners** Analogue and Freeview **Surround-sound output** Optical or coaxial **Digital photos** From CD or DVD **Resume** Yes **VideoPlus** No

You can start a film from the point you got to when you headed off to bed

## End-of-line model

### A GOOD BUY THAT'S ONLINE ONLY

It takes a while to test as much as we do, so sometimes a model is discontinued while we're testing. Happily, such models usually stay on sale on the internet for a while after they disappear from the high-street shops. Here's a DVD recorder that would have been a Best Buy but was withdrawn shortly before we went to press. Go to [www.which.co.uk/dvdrecorders](http://www.which.co.uk/dvdrecorders) to see detailed test results.

### PANASONIC DMR-EH60DEBS £500

This is a space-saving combination of DVD recorder and personal video recorder (PVR), much like the Best Buy Sony RDR-HXD710 (p44). It's an excellent DVD recorder. It's also a good PVR but wouldn't be a Best Buy PVR for the same reasons as the Sony. **SCORE 72%**



## How to buy

### A few tips to help you make your buying decision

#### ■ BUYING DISCS

Don't forget the blank discs. And get the right kind – your player won't work with them all.

There's DVD+R and DVD-R (which record once only), DVD+RW, DVD-RW and DVD-Ram.

#### ■ BUILT-IN VCRs

You can buy DVD recorders that have

a video cassette recorder (VCR) built into the same box.

These save a bit of space under your TV. And they make it easier to dub your old tapes on to DVD – there are no cables involved and there's often a dedicated button for direct dubbing.

The problem is that the VCR part

tends to be below par. The picture is woollier compared with a separate DVD recorder and VCR (see p45).

#### ■ BUILT-IN PVRs

Models with built-in PVRs (personal video recorders) are more interesting.

One of the first is the Best Buy Sony, reviewed on p44.



#### 10 DVD/PVR COMBINATION

## 72% Sony RDR-HXD710 £500

This is really two products squeezed into one box: a DVD recorder and a personal video recorder (PVR).

Let's deal with the DVD recorder first. This machine makes brilliant DVDs – not only are the pictures really clear, but it also has marginally more realistic sound than any other model on test.

There's a host of useful features, such as a Firewire link for recording digital camcorder footage to DVD at high quality. And there's a resume mode.

Now for the PVR. There are some good things going for it – notably, it stores about 80 hours of TV at a time, which is roughly twice the average.

However, it's not as good as the best standalone PVRs for two reasons. It's more complicated to use, with a cluttered remote control and 123-page manual. And it has only one Freeview digital tuner. The lack of a second digital tuner is fine if you already have digital TV; if you don't, you won't be able to watch one channel while recording another.

Still, there's no denying that this is a groundbreaking combination product. If you want to save a bit of space under your TV, it will serve you well.

**WATCH OUT** This is one of the first products of its type, so it's expensive. You'll save money with a separate Best Buy DVD recorder (from £170) and Best Buy PVR (from £180; see April 2006, p55).

**Cheapest stores** Currys and Argos **Discs used for recording** DVD-R, DVD-RW, DVD+R and DVD+RW **Tuners** Freeview only **Surround-sound output** Optical or coaxial **Digital photos** From CD or DVD **Resume** Yes **VideoPlus** No

## Facts & scores

A quick guide to the information in our table

### Remember where you got to

The resume feature on most models stops when you turn the recorder off or remove the disc. But not on this JVC – it remembers where you stopped watching up to 30 DVDs.

### Falling prices

Prices for DVD recorders are falling – for example, this Goodmans is less than £100. And there are more obscure brands in the supermarkets for similar prices. (We don't recommend the less well-known brands, which often lack important features.)

### Reliability

Our annual survey of how often models need repairing found that Philips was the only brand in the below-average category. Sony was average and Panasonic was in the above-average category.

MODEL	SPECIFICATION		
	PRICE (£)	SIZE (cm) WXHXD	RECORDING FORMATS
DVD RECORDER			
1 PANASONIC DMR-ES20	170	43x6x37	-R, -RW, -Ram
2 PIONEER DVR-230-S	170	42x7x39	-R, -RW
3 SONY RDR-GX310	300	43x7x38	+R, +RW, -R, -RW
4 PHILIPS DVDR3305 /05	130	44x7x30	+R, +RW, -R, -RW
5 JVC DR-M100SEK	180	44x7x32	-R, -RW, -Ram
6 TOSHIBA D-R150SB	150	43x7x32	-R, -RW, -Ram
7 GOODMAN'S GDVD306R	80	43x6x39	+R, +RW
8 DAEWOO DR-2100P	100	42x5x33	+R, +RW, -R, -RW
9 GOODMAN'S GDVDR305DVBT	140	42x8x39	+R, +RW
DVD/PVR COMBINATION			
10 SONY RDR-HXD710	500	43x7x38	+R, +RW, -R, -RW
DVD/VCR COMBINATION			
11 PANASONIC DMR-ES30VEBS	220	43x9x39	+R, -R, -RW, -Ram
12 PHILIPS DVDR3320V/05	250	43x8x37	+R, +RW
13 PIONEER DVR-RT501-S	260	43x9x34	-R, -RW

### USING THE TABLE

We tested every DVD recorder from the main brands that we hadn't already tested for previous articles.

### Specification

**Price** For Best Buys, we give the cheapest widely available high-street price as we went to press. Prices for other models are a guide to what you should expect to pay. **Recording formats** The different types of DVD on to which the machine can record. Check that they're compatible with any DVD players you use (and with friends' players if you lend out recordings).

### Features

**Freeview tuner** If you've made the switch to Freeview digital TV, this lets you record one channel while you watch another. **VideoPlus** This is a system for recording non-digital channels by typing in a number given in TV listings magazines. **Resume** Remembers where you stopped watching a film and starts the disc again at that point. **Photos from CD/DVD** Displays digital photos which you've transferred to CD or DVD. **Surround-sound digital output** Check that the type of connection is compatible with your surround-sound system.

## Why go for a PVR?

There's good reason to buy a personal video recorder

■ **SIMPLE TO USE** A PVR picks up and records digital television signals. You set recordings by selecting shows from an on-screen TV guide. The recordings are saved inside the machine until you delete them or transfer them to DVD. They also let you 'pause' TV broadcasts.

The combination DVD recorder and PVR on test works with Freeview TV – simply plug it into your rooftop aerial and you can pick up digital channels. (For a few people, though, it's not as simple as

that – see 'Digital TV recorders', April 2006, p55, for more information.)

■ **SATELLITE AND CABLE** You can buy PVRs for cable and satellite digital TV. These are particularly useful because no DVD recorder can record one satellite or cable channel while you watch another on your set-top box.

The PVR can record one channel while showing another and then transfer the recording to a DVD recorder or VCR.

FEATURES							WHICH? TEST PERFORMANCE						SCORE %
FREEVIEW TUNER	VIDEOPLUS	RESUME	PHOTOS FROM CD	PHOTOS FROM DVD	SURROUND-SOUND DIGITAL OUTPUT	FIREWIRE	PLAYBACK PICTURE	PLAYBACK SOUND	RECORDED PICTURE (STANDARD PLAY)	RECORDED PICTURE (LONG PLAY)	RECORDED SOUND	EASE OF USE	
✓	✓		✓		Optical		★★★★★	★★★★	★★★★	★★★★	★★★★	★★★	72
	✓	✓			Coaxial		★★★★★	★★★★	★★★★★	★★★	★★★★	★★★	72
✓		✓	✓	✓	Optical, coaxial		★★★★★	★★★★	★★★★	★★★	★★★★	★★★	69
	✓		✓	✓	Coaxial		★★★★★	★★★★	★★★★	★★★	★★★★	★★	59
	✓	✓	✓		Coaxial	✓	★★★★	★★★	★★★	★★	★★★★	★★★★	58
		✓	✓		Coaxial		★★★★★	★★★★	★★★	★★	★★★★	★★	58
			✓	✓	Optical, coaxial		★★★★	★★★★	★★★★	★★	★★★★	★★	53
	✓		✓	✓	Coaxial		★★★★	★★★	★★	★	★★★★	★★★★	51
✓			✓		Optical, coaxial		★★★★	★★★★	★	★	★★	★★	42
✓		✓	✓	✓	Optical, coaxial	✓	★★★★★	★★★★★	★★★★	★★	★★★★★	★★★	72
	✓		✓		Optical		★★★★★	★★★	★★★★	★★★★	★★★★	★★★	67
	✓	✓	✓	✓	Coaxial	✓	★★★★	★★★	★★★★	★★★	★★★★	★★★	62
	✓	✓	✓	✓	Coaxial		★★★★	★★★★	★★	★	★★★★	★★★	55

**Firewire** Allows you to transfer camcorder footage to DVD without loss of picture quality.

#### Which? test performance

##### Playback picture/sound

Ratings are for pre-recorded DVDs, like those you'd buy in the shops. **Recorded picture (standard play)** Ratings are for recordings made on the DVD recorder itself. Standard play gives two hours of recording time per disc. **Recorded picture (long play)** Four hours of recording time per disc. **Recorded sound** Sound quality in standard-play and long-play modes.

**Ease of use** How easy it is to set up, play DVDs, record programmes, access features, read the front panel and follow the instructions.

#### Score

**30%** Picture quality  
**30%** Sound quality  
**20%** Ease of use  
**15%** Features  
**5%** Power consumption

#### WHICH? EXTRA

We've tested many more DVD recorders for previous articles and lots are still available. You can find the detailed test results for all of them on our readers-only website, **Which? Extra**, at [www.which.co.uk/dvdrecorders](http://www.which.co.uk/dvdrecorders)

## Choosing a DVD/VCR combo

We also took a close look at how well they play video tapes

#### VCR SCORES

We repeated our viewing and listening tests with tape recordings instead of DVDs and found some disappointing results.

These models are good DVD recorders but video pictures are fuzzier than those from a good separate VCR.



#### PANASONIC DMR-ES30VEBS

Picture (standard play) ★★★  
 Picture (long play) ★★  
 Sound ★★



#### PHILIPS DVDR3320V/05

Picture (standard play) ★★  
 Picture (long play) ★★  
 Sound ★★★



#### PIONEER DVR-RT501-S

Picture (standard play) ★★  
 Picture (long play) ★★  
 Sound ★★★