AUDIO-VISUAL GOODS TO RELY ON

We name the brands that provide years of faithful service and those that are more likely to cause endless repair headaches

OUR SURVEY

In November 2004, we sent questionnaires to 30,000 *Which?* readers. We received 14,296 replies. We asked whether particular audio-visual products in their home up to six years old had ever needed repairs.

Each brand is grouped into best, average or worst for reliability. Older products are more likely to fail than younger ones, so we took their age into account. Brands for which we had fewer than 30 replies were not included.

For some newer product categories, such as DVD recorders, we don't have six years' worth of information, so we've assessed reliability over the longest period possible.

We also asked people whether they would definitely recommend their brand of audio-visual goods (whatever its age) to a friend. Thanks to the 14,000 of you who've told us about the reliability of the audio-visual products in your homes, we can now tell you which brands are most and least likely to let you down.

The good news is that, on the whole, the products we asked about – widescreen TVs, digital camcorders and cameras, DVD players and recorders, and VCRs and set-top boxes – are pretty dependable. On average, they have reliability rates of around 90 per cent or more.

WINNERS AND LOSERS

Just as last year, Sony is the only brand with aboveaverage reliability ratings for digital camcorders and cameras, and it is the brand you can rely on the most. It's among the most reliable brands in six out of the seven products we looked at. Sony is also the brand that owners are most likely to definitely recommend. It's high on the recommendation list for VCRs, DVD players, digital cameras, digital camcorders, widescreen IDTVs and Freeview set-top boxes.

In stark contrast, Philips owners aren't so impressed with its products. Philips is among the brands that owners are least likely to definitely recommend in five out of our seven categories.



WIDESCREEN TVs

Widescreen IDTVs are much more reliable than standard widescreen TVs

With cathode-ray technology widescreens you can choose an integrated digital TV (IDTV) or nonintegrated digital TV. An IDTV has a built-in tuner to pick up Freeview digital channels. Non-IDTVs need an additional set-top box to receive digital channels. IDTVs seem

especially reliable; overall, only 4 per cent up to six years old needed a repair in our survey, while 10 per cent of non-IDTVs needed to be repaired in the same period.

We'll be reporting on the reliability of newer TV technology such as LCD and plasma screens in the future.

IDTVs

IDTVs are likely to become the norm as more people switch to digital TV.

All four brands in our

Widescreen IDTVs

Percentage of owners who would definitely recommend their brand of widescreen IDTV to a friend



Overall, 96% of widescreen IDTVs up to six years old haven't needed repair

BEST	None
AVERAGE	JVC, Panasonic, Philips, Sony
WORST	None
Total number of widescreen IDTVs 645	

survey are very reliable – for example, just 1 per cent of Philips IDTVs up to six years old needed a repair.

Choose a model with good sound and picture quality and one with an easy-to-use electronic programme guide (EPG).

Buying the most reliable brands

Our Best Buy IDTV, the Sony KD28DX200, £950, has high-quality picture and sound and an easy-to-use sevenday EPG.

What do readers recommend?

Fifty-nine per cent of Sony IDTV owners would definitely recommend the brand. It's the only one to score above average. Only 37 per cent of Philips IDTV owners would definitely recommend them; it's the only brand to score below average on recommendations.

NON-IDTVs

JVC, Panasonic, Sony and Toshiba are the most reliable brands for widescreen non-IDTVs. Just 4 per cent of Sony non-IDTVs up to six years old needed fixing.

Goodmans, Hitachi, Loewe, Philips and Thomson have belowaverage reliability.

Nearly a third of Loewe's widescreen non-IDTVs up to six years old needed a repair. Loewe TVs have appeared in our Best Buy guides in the past before we had enough data to gauge their reliability. But they won't be branded Best Buys again until Loewe's reliability improves.

Buying the most reliable brands Our Best Buys include the 32-inch Panasonic

TX-32PD50, £1,300, which has fast, easy-touse Teletext. Toshiba's 32ZP48, £900, is cheaper and intuitive to use. Sony's KV32FQ86, £732 online, is a good model to go for, too. Sony's KV28CS70,

£500 online, is our top 28-inch widescreen non-IDTV. Panasonic's TX-28PM11F, £350, comes close for picture quality. Panasonic's TX-28PM1, £260, is a good cheaper choice.

What do readers recommend? Over two thirds of

Bang & Olufsen owners would definitely recommend their widescreen non-IDTV. Loewe, Panasonic, Sony and Toshiba also come highly recommended.

Brands less likely to be recommended are Bush, Goodmans, Grundig, Hitachi, JVC, LG, Matsui, Philips, Samsung, Sanyo, Sharp and Thomson.

Widescreen non-IDTVs

Percentage of owners who would definitely recommend their brand of non-IDTV to a friend

Bang & Olufsen	70% (30)
Loewe	65% (49)
Sony	63% (971)
Panasonic	56% (896)
Toshiba	53% (416)
JVC	40% (289)
Philips	38% (579)
LG	36% (45)
Matsui	32% (44)
Sanyo	32% (98)
Thomson	30% (121)
Sharp	30% (81)
Goodmans	29% (87)
Samsung	28% (100)
Hitachi	26% (154)
Bush	25% (93)
Grundig	22% (65)

Overall, 90% of widescreen non-IDTVs up to six years old haven't needed repair

BEST	JVC, Panasonic, Sony, Toshiba
AVERAGE	Bush, Sanyo, Sharp
WORST	Goodmans, Hitachi, Loewe, Philips, Thomson
Total number of widescreen non-IDTVs 3,917	

DVD MACHINES

DVD players may not play some discs; others have trouble playing home-made recordings. Another common failure is in the laser unit that reads the disc information. Some DVD recorders won't play the recordings they make

DVD PLAYERS

A DVD player is one of the most dependable audio-visual products. Overall, only 3 per cent of players up to six years old needed to be fixed. In terms of reliability it's hard to go wrong with any of the brands in our survey. In our tests, we found only small variation in picture and sound quality. So choose one that's easy to use and that plays lots of disc formats.

Buying the most reliable brands

We've tested several models by the most reliable brands including Panasonic, Philips, Samsung and

DVD players

Percentage of owners who would definitely recommend their brand of DVD player to a friend



Overall, 97% of DVD players up to six years old haven't needed repair

BEST	None	
AVERAGE	LG, Panasonic, Philips, Pioneer, Samsung, Sony, Toshiba	
WORST	None	
Total number of DVD players 6,552		

PRODUCT RELIABILITY

Toshiba. These all do well in tests of picture and sound quality. The best of the bunch is the Panasonic DVD-S47. £69 online.

What do readers recommend?

IVC, Panasonic, Pioneer, Sonv and Toshiba are the brands owners are most likely to definitely recommend to friends. For example, 53 per cent of Sony owners would definitely put in a good word for them. The brands owners are least likely to definitely recommend include Alba/Bush, Goodmans, LG, Matsui and Philips.

DVD RECORDERS

This is the first appearance of DVD recorders in our reliability survey. These machines look set to become as popular as DVD players have in recent years, especially as the playback compatibility of machines with different DVD formats is starting to improve.

DVD players can be choosy about which discs they play, whatever the manual says.

Generally they're reliable, but not as dependable as the more basic DVD player. Overall, 92 per cent of DVD recorders up to three years old didn't need a repair.

DVD

The widely owned Panasonic takes the title of most reliable brand. In our survey only 1 per cent of Panasonic DVD recorders up to three years old needed a repair. Philips is the only brand with belowaverage reliability - 18 per cent of its recorders up to three years needed fixing.

The picture and sound quality on most recorders tend not to

DVD recorders

Percentage of owners who would definitely recommend their brand of DVD recorder to a friend



Overall, 92% of DVD recorders up to
three years old haven't needed repair

BEST	Panasonic
AVERAGE	Sony
WORST	Philips
Total number of DVD recorders 619	

DVD PLAYERS

vary much so it's best to go for one that's easy to set up and use.

Buying the most reliable brands

The Panasonic DMR-E55EB-S, £160, is easy to use and can play DVD-Ram or DVD-R discs. The picture and sound quality of its recordings is very good.

The Sony RDR-GX3, £299. can record in several disc formats. including DVD-RW. A bonus with this model is that you can plug a digital camcorder into it to edit footage.

The Sony RDR-GXD500, £370, has excellent picture quality and is the first DVD recorder to have a builtin Freeview tuner. This makes it easy to watch one Freeview channel while recording another. The Sony RDR-GX300, £300, uses both DVD+RW and DVD-RW recording formats.

What do readers recommend?

Panasonic is by far the brand most likely to get the thumbs-up from owners - 61 per cent would definitely recommend it. Owners of Philips DVD recorders are less enthusiastic. Less than a third would definitely recommend their DVD recorder to friends.

VCR MACHINES

A worn tape head is a common cause of mechanical failure, but it's often the crayons, pens, keys and tiny toys posted through the tape door that do the real damage. So if you've got young children, buy a video guard to protect against this

Despite the fact that many manufacturers, such as Panasonic, Sharp and Toshiba, are drastically cutting back their ranges, a VCR is still one of the cheapest ways to record TV.

Overall, VCRs are verv reliable. In our survey, only 6 per cent up to six years old needed a repair. Buying a dependable model

should ensure that you can enjoy your video collection for many years to come.

As was the case last year, Sharp is above average for reliability again. Aiwa, Alba/Bush and Daewoo are the other most durable brands this year.

For the third year in a row Toshiba is the only below-average brand.

VCRs

Percentage of owners who would definitely recommend their brand of VCR to a friend



Overall, 94% of VCRs up to six years old haven't needed repair

BEST	Aiwa, Alba/Bush, Daewoo, Sharp
AVERAGE	Goodmans, Hitachi, JVC, LG, Matsui, Panasonic, Philips, Samsung, Sanyo, Sony
WORST	Toshiba
Total number of VCRs 6,512	

In the current survey 11 per cent of Toshiba VCRs up to six years old needed to be fixed.

Buying the most reliable brands

Unfortunately, none of our Best Buy VCRs is among the most reliable brands. The highest-scoring model from this group is the Sharp VC-MH 705HM, £71 online. It's a basic model with no VideoPlus but the picture quality is excellent. Although Panasonic is only average for VCR reliability, the Panasonic NV-HV61EB, £70, is our best VCR on test. Its picture quality is good and its sound quality is excellent. It's also easy to operate.

Alternatively, if you can afford it, you might be interested in the JVC HM-HDS4EK, £550 online, which combines a VCR with a hard-disk recorder. Its picture and sound quality are excellent.

What do readers recommend?

As was the case last year, Sony and Panasonic are the brands that are high on VCR owners' mostrecommended lists. As the table, opposite, shows, 47 per cent of owners would definitely recommend Panasonic VCRs to their friends.

Despite Toshiba being in the worst reliability category, a third of its owners would definitely recommend the brand.

VCR owners are less keen on recommending brands such as Alba/Bush, Hitachi, Matsui, Philips, Samsung, Sanyo and Sharp.

SET-TOP BOXES

Set-top boxes use software to update the electronic programme guide and decode digital channels. The software is prone to crashing or freezing but unplugging the box to reboot it usually fixes this

FREEVIEW BOXES

It costs as little as £50 to buy a Freeview settop box, so no wonder they're popular.

Overall, 94 per cent of set-top boxes up to four years old haven't played up. Nokia and Sony are this year's champions. In our survey only 1 per cent of Sony set-top boxes needed to be repaired.

All the digital set-top boxes we've tested deliver good picture and sound quality and there's not much variation in price so go for a conveniently sized box that provides a seven-day electronic programme guide (EPG) service. The EPG shows programme listings for the week ahead and makes recording much easier.

Buying the most reliable brands Sony's VTXD800, £100, has been around

for a while now. Its EPG is easy to follow and the remote control works with many different brands of TV. It's the only current Best Buy from the most reliable brands.

The Humax F2 Fox T, £85, is our best Freeview set-top box. It has lots of features and is easy to use. However, we didn't receive enough survey responses from Humax set-top box owners to be able to rate the brand's reliability.

What do readers recommend?

Sony, Humax and Daewoo owners are more likely than average to tell their friends to opt for the same brand.

At the other end of the recommendations, Ferguson and Philips owners are least likely to recommend their brand of set-top box.

Freeview set-top boxes

Percentage of owners who would definitely recommend their brand of Freeview set-top box to a friend

Sony	52% (158)
Humax	48 % (109)
Daewoo	34% (104)
Panasonic	27% (372)
Nokia	25% (370)
Goodmans	24% (188)
Pioneer	23% (98)
Thomson	22 % (232)
Grundig	20% (162)
Philips	19% (223)
Ferguson	16% (98)

Sky set-top boxes

Percentage of owners who would definitely recommend their brand of Sky set-top box to a friend



Overall, 89% of Sky-supplied set-top boxes up to four years old haven't needed repair

BEST	None
AVERAGE	Panasonic, Sony, Thomson
WORST	Amstrad
Total number of Sky set-ton hoxes 1,482	

SKY BOXES

Seven million Sky subscribers have a settop box provided by the company. Within the first 12 months of installation, Sky will fix your set-top box free of charge. After that subscribers become responsible for the costs of any repairs.

Overall, the reliability of the Sky digital boxes is the lowest of any product we've looked at in our survey. The least reliable make is Amstrad – 18 per cent up to four years old needed a repair. Usually, customers aren't given a choice of set-top box but, if possible, ask for one made by one of the other manufacturers that Sky uses.

If your Sky box does go wrong after a year, Sky will repair it for £65 but you'll probably find other repairers who will fix it for less.

Overall, 94% of Freeview set-top boxes up to four years old haven't needed repair		
BEST	Nokia, Sony	
AVERAGE	Daewoo, Grundig, Panasonic, Philips, Thomson	
WORST	None	
Total number of Freeview set-top boxes 2,767		

DIGITAL CAMERAS AND CAMCORDERS

Protect digital cameras and camcorders from rain and sand, which can cause electrical short-circuits. The monitor can easily be scratched by sharp items, such as keys. Adding a UV light filter will help protect camcorders from heavy knocks and the effects of the sun

DIGITAL CAMERAS

All the makes of digital camera in our survey are reliable. Overall, only 4 per cent of digital cameras up to six years old needed fixing. Sony is the most reliable brand for a second year. Ninety-eight per cent of its cameras up to six vears old have not needed any repairs.

As reliability isn't a big issue for digital cameras, it's worth noting that many models have a couple of common weaknesses. First, power-hungry electronics for imageprocessing rapidly drain a battery. Second, shutter delay is a real pain as it often spoils your photos. The best

Digital cameras

Percentage of owners who would definitely recommend their brand of digital camera to a friend

Canon	<mark>68%</mark> (1,122)
Sony	62 % (694)
Pentax	61% (168)
Nikon	59% (707)
Casio	57% (129)
Panasonic	53% (51)
Olympus	52% (902)
Fujifilm	51% (1,140)
Konica	49 % (76)
Minolta	47 % (234)
Traveller	44% (36)
Kodak	37% (470)
Ricoh	35% (34)
HP	32% (82)
Samsung	30% (61)
Vivitar	25% (44)

Overall, 96% of digital cameras up to six years old haven't needed repair

BEST	Sony
AVERAGE	Canon, Fujifilm, HP, Kodak, Olympus
WORST	None
Total number of digital cameras 6,232	

digital cameras in our tests minimise the effect of these problems.

Buying the most reliable brands

We've tested a good selection of reliable Sony cameras recently. The model that stands out is the Sony Cybershot DSC-V3, £500. It's a great performer that's compact and lightweight. It's also crammed with features including manual focus and a decent (x4) optical zoom.

What do readers recommend?

Digital cameras are the audio-visual goods that owners are most likely to definitely recommend. Overall, 53 per cent of people who own one would definitely recommend their brand to a friend.

The brands that get above-average levels of recommendation by their owners are Canon. Nikon, Pentax and Sony. Sixty-eight per cent of Canon owners would definitely recommend them to a friend. In contrast the brands you're least keen on recommending are HP, Kodak, Ricoh, Samsung and Vivitar. Only a quarter of Vivitar digital camera owners would definitely advise their friends to buy this make.

DIGITAL **CAMCORDERS**

Most digital camcorder makes are reliable. Overall, only 6 per cent of camcorders up to six years old have needed a

Digital camcorders

Percentage of owners who would definitely recommend their brand of digital camcorder to a friend



Overall, 94% of digital camcorders up to six years old haven't needed repair

BEST	Sony
AVERAGE	Canon, Panasonic, Sharp
WORST	JVC
Total numbers of digital camcorders 2.210	

repair. The brand that stands head and shoulders above the others is Sony. This year, it pulls off a stunning treble act. It's the only brand that has aboveaverage reliability, and it is the one whose owners would recommend it most. The icing on the cake is that it has a clean sweep of our Best Buys.

In recent years digital camcorders with added functions have made filming a cinch. Our tip is to choose a model that fits snugly in your hand. The more comfortable it feels to hold, the steadier you're likely to film with it.

Buying the most reliable brands

Two Sony camcorders feature in our Best Buy guide. The Sony DCR PC109E, £600, is

lightweight and small, its battery life is good, and it records with great picture and sound quality.

Despite its cheaper price tag, the Sony DCR HC40ES, £480, nearly matched the DCR PC109E in our tests. The only difference is that its picture quality isn't quite as sharp as the pricier version, but it's still a good option.

What do readers recommend?

Sony is the only brand with an above-average recommendation score. Sixty per cent of Sony digital camcorder owners would definitely sing its praises to a friend. JVC, Samsung and Sharp are the brands that owners are least likely to definitely recommend to friends.