



The right TV for each room

Which? reveals the Best Buy TVs for the kitchen, bedroom and living room

Choosing a new TV can be bewildering, and one of the most important decisions you'll make is choosing the right screen size. LCD and plasma technology has led to an explosion in choice but, before you opt for a massive screen, it's worth bearing in mind some pros and cons.

If you want a small TV for the kitchen or bedroom, check out our Sony Best Buys on p62. For most average living rooms, 32-inch LCD TVs are ideal. Which? testers have found that 32-inch sets are the best size compromise for watching in both standard and high definition – and the Best Buy 32-inch Panasonic TVs currently deliver the best all-round picture quality that we've seen.

Huge screens (more than 37 inches) do justice to the extra detail of high-definition pictures, but may not be the

wisest choice if you just want to tune into regular, standard-definition Freeview broadcasts. They are less forgiving to the digital processing side effects that are more apparent on standard definition – especially if you sit too close.

Sitting 2.8 metres from the TV has traditionally been the typical viewing distance, but the bigger the screen, the further away you should sit. As tempting as it is, if you have an average-sized living room, opting for a large TV set can result in a less-than-stellar viewing experience. If you have a large living room set aside for movie watching, turn to p64 for big screen Best Buys.

Sound quality also has a link to the size of the screen, as bigger displays can house larger speakers, which tend to give a better audio performance. Whatever the size of the display, you'll always get

Before you opt for a massive screen, it's worth bearing in mind some pros and cons

better sound by hooking up to a hi-fi or surround-sound system.

All the TVs featured have an integrated digital tuner, and are capable of displaying high-definition pictures. New developments are in the works, with high-definition Freeview set-top boxes and integrated TVs launching onto the market soon. While details are scarce, we do know that HD programmes will begin broadcasting over Freeview in the Granada region in November. The technology required to get high definition onto the terrestrial airwaves means that none of the current generation of IDTVs, set-top boxes or PVRs would be able to decode the Freeview HD signal.



Which.co.uk 200 TVs rated by Which?

There are currently more than 200 in-depth TV reviews online at www.which.co.uk/tvs. Every review includes bags of extra specification details and far more ratings than we can fit in the magazine – everything from the quality of the EPG (electronic programme guide) to the efficiency of power-saving light sensors is tested and rated by our experts.



You can also read all about the latest models being tested at our lab, including the 2009 Panasonic Viera line-up, and find our first look reviews of the diminutive Sony 11-inch OLED XEL-1 and enormous super-widescreen Philips Cinema 21:9. And finding a great deal on a Best Buy has never been easier, with thousands of retailer prices updated all day, every day, at www.whichcompare.co.uk.

Contacts

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www.environment-agency.gov.uk

Freesat 0845 313 0052; www.freesat.co.uk

Freesat from Sky 0870 240 5651
www.freesatfromsky.co.uk

Freeview 0870 1111270; www.freeview.co.uk
LG 0870 607 5544; <http://uk.lge.com>

Ofcom 0845 456 3000; www.ofcom.org.uk

Panasonic 0870 535 7357;
www.panasonic.co.uk

Samsung 0870 242 0303; www.samsung.com

Sky 0870 240 4040; www.sky.com

Sony 0870 511 1999; www.sony.co.uk

Toshiba 0870 442 4424; www.toshiba.co.uk

Virgin Media 0845 840 7777;
www.virginmedia.com

What to look for

LCD OR PLASMA?

Plasma TV pictures have traditionally sported deeper, richer blacks and superior viewing angles – but LCD screens have improved enormously, and differences in picture quality between the two technologies is not the issue it once was. The quality of the digital processing software, and not the screen type itself, is more likely to dictate the quality of the picture. We recommend shopping by brand rather than technology.

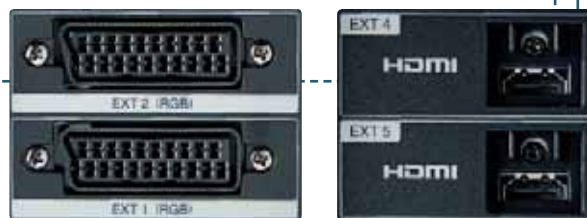


STAND OR WALL MOUNT

Most TVs come with a table-top stand, but be wary of models that wobble precariously – this is a problem on some smaller sets. If you want to mount the set on a wall, wall-mounting kits are usually sold separately. Prices vary according to screen size, but can range from £30 to £300.

VIDEO INPUTS

Scart sockets are the best way to connect equipment such as DVD players and VCRs to your television. For the best picture, look for Scarts that support the high-standard RGB signal. HDMI sockets are designed for connecting high-definition equipment such as Blu-ray players and HD PVRs. Connecting standard DVD players with HDMI will rarely improve the picture.



AUDIO OUTPUTS

Space for speakers is restricted in slimline flat-panel TVs, and our expert testers often feel that built-in speakers lack punch. For better results, look for red and white phono sockets or digital audio outputs to connect to your hi-fi. The latter can also carry surround sound and be connected to a multichannel amplifier.



FEATURES EXPLAINED

The basics

Screen resolution This is the number of pixels or lines displayed on the television screen. Expressed as width x height, the highest screen resolution currently available is 1,920x1,080. This is desirable for use with HD material, but it may not give the best pictures when watching standard definition.

Contrast ratio The contrast ratio is the difference between how dark and light the display will go. A high contrast ratio should mean deeper blacks and purer whites. Just like screen resolution, higher numbers do not necessarily mean better pictures. Contrast ratio is not a linear value, so 12,000:1 is not 'twice as good' as 6,000:1.



Digital tick, Freeview or DVB

The digital tick is an assurance that the TV will work after the digital switchover. In reality, using the logo costs manufacturers money, so it's not widely used. DVB and Freeview logos mean the TV has a digital tuner built in. For more on the digital switchover, see our TV aeriels report, p36.



High definition

HD-ready This label means the TV meets the minimum criteria for displaying 1080i HDTV signals – so is ideal for watching HDTV from Sky, Virgin or Freesat. Most new HD-ready television sets

will also process the 1080p HD signal – the marginally more detailed HD format recorded on Blu-ray discs. If the TV does not support 1080p, it switches to 1080i.



HD-ready 1080p

This logo means the TV can process a 1080p signal, but also has a high screen resolution of 1,080 horizontal lines (1,920x1,080). In theory, this should mean even better HD pictures, but in practice the quality of the TV picture has a lot more to do with the picture-processing software.

Picture processing

Picture engines Many of the fancy-sounding labels found on a TV display in stores refer to the digital-

processing software used by the TV. Decent processing software usually equals good pictures. For instance, many Sony LCD TVs use the Bravia2 processing engine, resulting in good pictures.

100Hz Most TV pictures are broadcast or recorded at 50Hz – that's 50 fields, or 25 frames, per second. In an attempt to reduce motion blur, many TVs feature 100Hz processing software. This basically doubles the number of frames on screen.

200Hz The latest TV sets boast 200Hz processing software, quadrupling the original frame rate. We've tested a Sony 200Hz TV, the KDL-40Z4500 and were impressed with the way it handled fast-moving scenes.

TVs for kitchen and bedroom

78% Sony Bravia KDL-20S3000 £341

The 20-inch HD-ready KDL-20S3000 from Sony is one of the best smaller screened LCD TVs around. In standard definition, DVDs are a little soft but have a natural feel and sense of depth. High-definition pictures are great, offering clean images with natural colour and depth. The only major fault is the TV's limited viewing angles – you need to be watching square on for the best picture.

Sound is generally clear. The remote control is well laid out and the TV has a simple design, with black and silver casing. A pedestal stand is supplied, and the TV can be wall mounted if you buy a bracket. When we checked, it was cheapest at John Lewis.

WORTH KNOWING You can pick up this set in a variety of colours including fuchsia pink, powder blue or black.



which? **BEST BUY**

SD picture ★★★★★ HD picture ★★★★★
Sound ★★★★★ Ease of use ★★★★★ Power use ★★★★★
Versatility ★★★★★
Screen size 20 Aspect ratio 16:9 HD-ready Yes
1080p/24fps No Scarts Two RGB HDMI One

69% Sony Bravia KDL-20B4050 £349

The quality gap in the small-screen LCD market is on the Grand Canyon scale – thankfully this 20-inch HD-ready TV is on the right side of the divide. Both the standard and high-definition pictures are about as good as we've seen on smaller LCDs. Sound quality was also a pleasant surprise for our panel – we're used to the speakers on smaller LCDs sounding awful, but this Sony

wasn't bad at all. It is pretty straightforward to use, and though we don't expect to see many sockets or features on TVs this size, this one is more versatile than most. If it's aesthetics you're after, the curved speaker grille at the base adds a nice touch of styling. It was cheapest at John Lewis.

WORTH KNOWING The TV is supplied with a sturdy integrated stand but is not wall mountable.



which? **BEST BUY**

SD picture ★★★★★ HD picture ★★★★★ Sound ★★★★★
Ease of use ★★★★★ Power use ★★★★★
Versatility ★★★★★
Screen size 20 Aspect ratio 16:9 HD-ready Yes
1080p/24fps No Scarts Two RGB HDMI One

TV advice

View angle & aspect ratio

The colour on LCD TVs can start to fade when not viewed head-on. This isn't a big problem if you're on the sofa in front of the TV – but it could be apparent when watching a portable in the kitchen and moving around the bedroom.

The shape of the screen can be an issue with many smaller sets. The vast majority of TVs are widescreen, with an aspect ratio of 16:9. However, many small LCD TVs are not true widescreen models and can slightly stretch or squash the picture to fit the screen. Typical sizes include computer-monitor standards 16:10 and 14:9, or even the old 4:3 box shape reminiscent of traditional CRT sets.



How we test

Both aspect ratio and viewing angles are taken into account by our independent five-member expert viewing panel. We line up the TVs, conceal each brand name and watch a series of standard and high-definition clips. The lights are dimmed and reference sets included, ensuring consistency between each batch.

More on Which.co.uk

To help you get the best picture out of your new TV, we list our ideal picture settings for every model we test at www.which.co.uk/tvs. If you fancy having a go yourself, take a look at our guide to getting the best picture and advanced settings at www.which.co.uk/setupyourtv.

ALTERNATIVE TVs Go to www.which.co.uk/tvs for more

64% Panasonic Viera TX-19LXD8 £250

Small-screen Panasonic LCD TVs are few and far between, so we were excited to get our hands on this 19-inch HD-ready LCD. It isn't a million miles away from a Best Buy and, as long as you can put up with the slightly dull 16:10 picture, the trade-off is a wonderfully easy-to-use TV crammed with features. Power use isn't especially low, but the LXD8 does include an ambient light sensor (see 'TV advice', p64). It also has an SD-card slot and audio description. It was cheapest at Richer Sounds.



46% Samsung Series 6 LE19A656A1DXXU £219

Poor sound quality brings down this HD-ready 19-inch Samsung's overall score, but the crisp standard and high-definition pictures and its stylish deep red gloss finish make it worth considering, as the sound can be improved by connecting the optical output to a surround-sound system. The display has an aspect ratio of 16:10, so a widescreen digital picture (16:9) is slightly stretched to fit unless you watch with black bands at the top and bottom of the picture. It was cheapest at John Lewis.



TVs for the living room

72% Panasonic Viera TX-32LXD80 £489

Forget all the hype about higher resolutions and full HD – this standard HD-ready set delivers an excellent picture without the highest specification. Panasonic's relatively affordable 32-inch LCD is crammed with versatile features, and is easy to use. The standard-definition picture is a triumph – the superior depth, detail and

clarity of the picture really make it stand out. Unfortunately, Panasonic hasn't repeated the trick for audio performance. When we checked, it was cheapest at Argos.

WORTH KNOWING The EPG features a ratings system for programmes, but the inclusion of on-screen ads will irritate some.



SD picture ★★★★★ HD picture ★★★★★
Sound ★★ Ease of use ★★★★★ Power use ★★★★★ Versatility ★★★★★
Screen size 32 Screen resolution 1,366x768
HD-ready 1080p No Scarts Two RGB HDMI
Three Light sensor Yes

70% Sony Bravia KDL-26E4000 £585

If looks are important to you, then the stylish picture frame design of this 26-inch Sony LCD TV might appeal. But it's not just a pretty face – it has lots of features, and if it's outstanding natural picture quality you want, look no further. Standard-definition pictures are superb, with an almost high-definition feel. For its size, this set

is also one of the best we've tested for HDTV. The smooth audio performance delivers detailed higher frequencies and good clarity. It's fairly straightforward to set up and use. It was cheapest at John Lewis.

WE LIKE You can watch a slideshow of your digital pictures via the USB Photo Viewer.



SD picture ★★★★★ HD picture ★★★★★
Sound ★★★★★ Ease of use ★★★★★ Power use ★★★★★ Versatility ★★★★★
Screen size 26 Screen resolution 1,366x768
HD-ready 1080p No Scarts Two RGB HDMI
Three Light sensor Yes

69% Sony Bravia KDL-32W4000 £685

Sony has produced another top TV with this 32-inch LCD with analogue and digital tuners. It's an HD-ready 1080p model, and is among the best TVs we've tested. Our viewing panel was impressed by the standard-definition picture quality and the extra sharpness and level of detail in HD. Audio is mostly clear and open, though

occasionally lacking in punch – our listening panel called it 'a good performance trapped in a small box'. This set is fairly easy to use, though a bad remote control layout lets it down. It was cheapest from Tesco Direct.

WE LIKE Its radio screen blanking feature cuts power use from over 100 watts to around 21 watts.



SD picture ★★★★★ HD picture ★★★★★
Sound ★★★★★ Ease of use ★★★★★ Power use ★★★★★ Versatility ★★★★★
Screen size 32 Screen resolution 1,920x1,080
HD-ready 1080p Yes Scarts Two RGB HDMI
Three Light sensor Yes

TV advice

The latest features

SD/USB ports Many of the latest TVs are equipped with memory card slots or USB ports that let you plug equipment such as digital cameras directly into the TV. Picture quality is typically excellent. Some USB ports also allow playback of video and music files.

HDMI CEC Consumer Electronics Control (CEC) allows you to control other CEC-enabled AV equipment, connected together by HDMI, via just one remote control. Basic CEC functionality (on/off) usually works between brands, but more advanced functions may only work with own-brand products.

How we test

We check these features work as they should. We rate the image quality of digital photos viewed via USB and SD, and check to see if the advanced HDMI CEC functions work with products from other brands.

More on Which.co.uk

Confused by the sockets and cables on your new TV? Check out our connection wizard at www.which.co.uk/setupyourtv. For more on features, try our new interactive features tool at www.which.co.uk/tvfeatures.

ALTERNATIVE TVs Go to www.which.co.uk/tvs for more

81% Panasonic Viera TX-32LZD80 £599

The LZD range is the high-resolution HD-ready 1080p equivalent of the LXD series, and comes equipped with a digital optical output for connecting to a surround-sound system. But in terms of performance there's not much between them. It was cheapest at John Lewis.



75% Panasonic Viera TX-32LZD85 £749

The priciest of our four featured Panasonic 32-inch LCDs, the LZD85 delivers on every front. Like the others, it's crammed with versatile features, and the depth and detail of standard definition and HD make it an outstanding choice. It was cheapest at John Lewis.



75% Panasonic Viera TX-32LXD85 £547

The entire Panasonic 32-inch LCD range is a triumph, and this souped-up version of the LXD80 is no exception. For the extra £50 you get some upgraded speakers that deliver an improved sound that's clean and dynamic, if sometimes synthetic. It was cheapest at Argos.



Home cinema TVs

75% Panasonic Viera TX-37LZD81 £799

This outstanding 37-inch LCD delivers superbly sharp pictures, is easy to use and brimming with useful features. The LZD81 range is one of the first to come with both digital Freeview and digital Freesat tuners built in. Picture quality is among the best and, though the sound quality lacks some warmth, the speakers still

deliver a decent performance. Like all Panasonics, this TV is easy to set up and use, but power consumption isn't great. It was cheapest at Currys, Comet and John Lewis.

WE LIKE Like all the featured Panasonic TVs, the volume for the headphones and the speakers can be adjusted independently.



which? **BEST BUY**

SD picture ★★★★★ HD picture ★★★★★
Sound ★★★★★ Ease of use ★★★★★ Power use ★★★★★
Versatility ★★★★★
Screen size 37 Screen resolution 1,920x1,080
HD-ready 1080p Yes Scarts Two RGB HDMI
Three Light sensor Yes

73% Sony Bravia KDL-40W4500 £1,075

This 40-inch LCD is bristling with useful features and has beautifully textured picture quality. Standard definition on this HD-ready 1080p TV is superb, with rich colours, excellent depth and fine detail, and the impressive HD picture looks sharp and natural. On the downside, the viewing angle is poor. In terms of audio perfor-

mance, the W4500 produces a good dynamic stereo effect, but lost marks in our tests for the lack of low frequencies. It's generally straightforward to use and set up. It was cheapest at John Lewis.

WORTH KNOWING Power use is relatively low, but the quick-start standby option gobbles up an unforgivable 14.9 watts if selected.



which? **BEST BUY**

SD picture ★★★★★ HD picture ★★★★★
Sound ★★★★★ Ease of use ★★★★★ Power use ★★★★★
Versatility ★★★★★
Screen size 40 Screen resolution 1,920x1,080
HD-ready 1080p Yes Scarts Two RGB HDMI
Three Light sensor Yes

70% Samsung LE46A786R2FXXU £1,460

Standard-definition pictures on this 46-inch HD-ready 1080p LCD look clean and detailed, but the advanced picture-setting adjustments required to get there are complicated, so we recommend using the optimum settings advice listed at www.which.co.uk/tvs for this model. HD pictures are above average, but the viewing angle is

poor. Sound quality is OK, and this TV has some handy features, such as illuminated touch-sensitive front panel controls. It was cheapest at John Lewis.

WORTH KNOWING The traditional six to eight backlight lamps have been replaced by hundreds of smaller LEDs, which are more energy efficient.



which? **BEST BUY**

SD picture ★★★★★ HD picture ★★★★★ Sound ★★★★★
Ease of use ★★★★★ Power use ★★★★★
Versatility ★★★★★
Screen size 46 Screen resolution 1,920x1,080
HD-ready 1080p Yes Scarts Two (one RGB) HDMI
Four Light sensor No

TV advice

Power saving features

The bigger the TV the more power it uses, and plasmas require significantly more power to achieve the same brightness level as an LCD TV.

A 40-inch LCD screen typically costs around £45 a year to run, while a 42-inch plasma TV typically costs around £75 a year – £30 more.

To save money on bills, check for power-saving features, such as ambient light sensors and radio screen-blanking. The most efficient sensors can slash a typical 100 watt reading for a 32-inch TV in half. A TV with radio screen-blanking activated consumes around 20-30 watts.

How we test

We measure power consumption for each TV in various viewing modes, in standby and even when switched off. To assess the efficiency of any light sensor, we take measurements in two typical living-room environments; bright daylight and in the dark.

More on Which.co.uk

Take a look at our power saving tips video at www.which.co.uk/cuttpoweruse to find out when 'off' doesn't actually mean 'off'.



ALTERNATIVE TVs Go to www.which.co.uk/tvs for more

73% Sony Bravia KDL-40Z4500 £1,800

If you want a Best Buy LCD TV brimming with features and superb picture quality, this innovative 200Hz 40-inch HD-ready 1080p set could be the one for you. The Z4500 series has decent viewing angles. It was cheapest at Comet.



which? **BEST BUY**

71% Panasonic Viera TH-37PX80B £500

Stunning picture quality and great usability make this affordable HD-ready 37-inch plasma TV worth a second look. The only real fly in the ointment is the shouty sound quality. It was cheapest at Tesco Direct.



which? **BEST BUY**

66% Samsung LE46A956D1MXXU £1,600

This feature-packed 46-inch LCD includes a USB port and HD network capability, which means you can link to a computer and access all your media files. Tech fans will love the touch-sensitive front panel controls and keys on the remote that light up when pressed. It was cheapest at Comet.



which? **BEST BUY**

which? **EXCEPTIONAL VALUE**

Bag a bargain TV

They might not all make the Best Buy grade, but this selection of low-priced alternatives are worth a second look

65% LG 32LG5000

Korean manufacturers Samsung and LG both seem to be upping their game – and this 32-inch HD-ready LCD is another example of rising standards. Both SD and HD picture quality deserve praise, and the power-saving light sensor is astonishingly effective – and all for just £340 online.



65% Panasonic Viera TH-42PX80

It only just makes Best Buy grade, but this easy-to-use 42-inch HD-ready plasma TV still boasts stunning picture quality. Relatively high power use and below-par sound aside, there are not many displays of this size or quality at this price – just £600 at Currys.



54% LG 37LG3000

This HD-ready LCD may not be up there with the best performers from Sony or Panasonic, but if you're after a 37-inch display on a budget then it's worth checking out. The picture can look a little artificial, but depth, clarity, resolution and motion are all impressive. It's £538 from Currys, Comet and Tesco Direct.



52% Samsung LE32A457

At £379 from John Lewis, this glossy 32-inch HD-ready LCD is one of the best-selling TVs in the country. For the price, you may be willing to overlook the harshly delivered sound and overly complex on-screen menus and concentrate on the finely detailed picture. It's also available as the A456 from Currys.



OLDER MODELS

New TV ranges hit the shelves every year, but apart from the addition of an extra socket or a tweak to the picture processing software, changes are rarely huge. All the models in this report were launched in 2008 (2009 models will hit the shelves soon), but if you fancy tracking down an older model and potentially saving some cash, the clue is all in the model number. The 2008 Panasonic ranges are all part of the 8 series (LXD80, PX80 etc). For 2007 models simply replace the 8 with a 7. Similarly, Sony's 2008 4000 series superseded 2007's 3000 range.

DON'T BUY

More often than not, you get what you pay for, and a low price often means low quality. Take the LT19T1CBW 19-inch LCD from Wharfedale – a bargain at £190, right? Wrong. We found poor picture and sound quality were just the icing on a badly put-together cake. Scoring just 25%, it's difficult to use and lacks basic features.



Expert view: your questions answered

Which? TV expert Mike Briggs explains how to keep your telly clean and what to do if it breaks down

What do I do with my old set?

Waste Electrical and Electronic Equipment (Weee) regulations mean retailers have to ensure that customers can return their TVs free of charge. Ask the retailer if it offers an in-store take-back scheme or works with your local authority to collect old equipment. As an individual, you're under no legal obligation to dispose of your old telly in this way.

How should I clean my TV screen?

The best method is with a soft, slightly damp cloth. It's difficult to justify the cost of expensive proprietary screen cleaners, and household cleaning products should generally be avoided. But the golden rule (especially for LCD displays) is to apply very little pressure.

Is it worth getting an extended warranty?

TVs do break down and develop faults, but they're still fairly reliable products, with Panasonic, Samsung and Sony faring especially well in our annual reliability survey. Given the low risk, we wouldn't recommend shelling out on retailer extended warranties. **For example, not buying an extended three-year warranty from Comet for the Best Buy Panasonic 37LZD81 will save you £175.**

My TV isn't under warranty, can I get it repaired?

If it's simply gone dead or is stuck in standby it could be a power supply fault, and is probably

fixable. However, if it's an obscure picture problem it is more likely to be a digital processing glitch, which is a much bigger problem. You can get a dealer to assess the problem for around £50. For major brands, it's worth checking the manufacturer's website to see if common problems, fixes and even software updates have been listed. Even if your TV isn't under warranty when it breaks down, you may be able to get it fixed free under the Sale of Goods Act (see p79).

Does my home insurance cover my TV?

If your TV develops a fault, it's highly unlikely to be covered by your home contents policy. However, if your TV is damaged, it may be covered by an accidental damage policy.

