

THE DIGITAL TV REVOLUTION

Not certain what digital switchover is all about or how it's going to affect you? We answer your questions so that you know what you'll need to do to be ready

Over the next six years the way people watch television will change. The government is going to switch off the current analogue broadcast signal so that you'll be able to watch television only if you have digital TV. This will be known as 'digital switchover' and it will happen across the UK region by region, between 2008 and 2012.

This change will affect us all but not everyone's convinced about the wisdom of the move. Just a quarter of people think digital switchover's a 'great idea' and 60 per cent think it's wrong that we have no choice. Nine per cent even claim they'd rather give up television completely than be forced to go digital.

WHAT IS DIGITAL TV?

Since 1936 programmes have been transmitted to our aerials as analogue signals. This method gives us five channels – BBC1, BBC2, ITV1, Channel 4 and Channel 5. But since 1998, digital technology has enabled us to receive TV in a new way.

With digital, pictures and sound are compressed into computer code before transmission, taking up less airwave space and allowing room for more channels.

To watch digital television you need equipment that can decode these digital signals. There are three main options – satellite from Sky, cable from NTL and Telewest, and digital terrestrial television (DTT), better known as Freeview. There's also broadband, but availability is limited.

With DTT, digital signals are received by your aerial; with satellite, the signal is received by an outside dish; and with cable, the signal comes through wires in the ground. Whatever way you receive the digital signals, you'll need special equipment to decode them, such as a set-top box or an integrated digital TV.

The cheapest ways to receive digital are with Freeview or Freesat (Sky's satellite

USING THE TABLE

We've shown basic packages from major providers. Kingston Communications and Wight Cable aren't shown due to limited coverage.

Service details

Type How the digital signal is received. See 'What is digital TV?', left, for more details.

UK coverage The percentage of homes that can currently

receive the service.

Basic package The approximate number of channels on cheapest package.

Set-up cost The charge for equipment and/or installation.

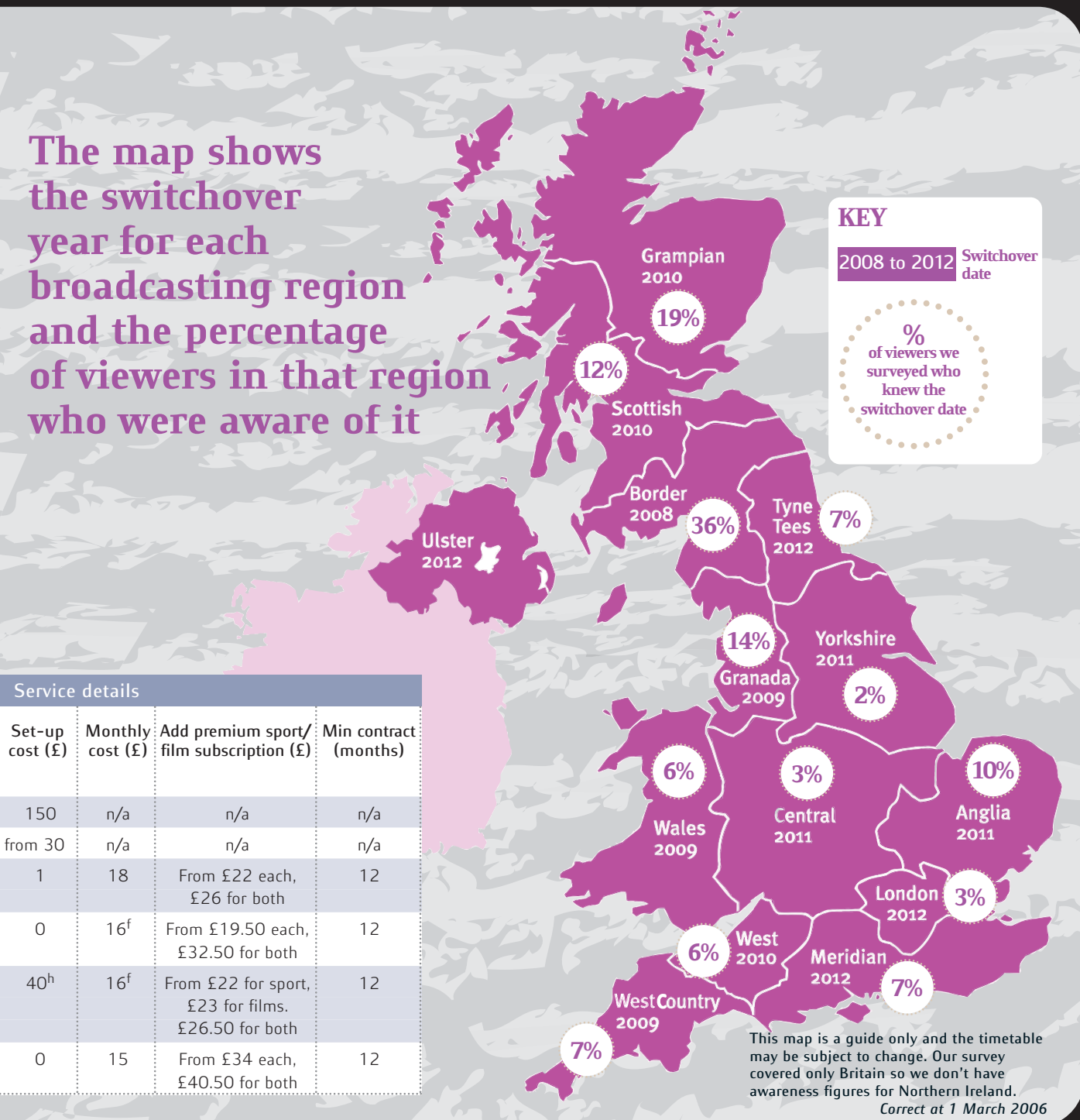
Your digital TV options

SERVICE

	Type	UK coverage (%)	Basic package (channels)
Freesat by Sky	Satellite	98	120
Freeview	DTT	73 ^a	30 ^b
Homechoice	Broadband	see ^c	35 ^d
NTL	Cable	32	70 ^e
Telewest	Cable	19	40 ^g
Sky	Satellite	98	40-100 ⁱ

^a Due to rise to 98.5 per cent after switchover ^b You can add 11 channels with Top-Up TV for £8 a month. ^c 2.4m homes in London and Stevenage. National roll-out planned this year ^d Base pack. You can add 2Mbps broadband (capped at 30GB a month) at no additional cost ^e Select pack ^f Includes compulsory phone line rental at £10.50 a month ^g Starter pack ^h Price for installing phone line ⁱ Includes choice of two out of six channel bundles

The map shows the switchover year for each broadcasting region and the percentage of viewers in that region who were aware of it



equivalent). Both require a one-off payment for the equipment that lets you receive a basic range of digital channels. Other options involve a monthly fee.

There's a wide range of digital service packages available and costs vary. To help you decide, we've summarised the options in the table on p10 and answered some common questions in 'Still have questions?', opposite.

WHY THE SWITCH?

The government is switching off the analogue signal because it wants more of us to have access to Freeview. Freeview is currently available to only three quarters of UK homes because there's not enough airspace to deliver strong analogue and digital signals simultaneously. Digital UK, the body set up to raise consumer awareness of digital television, says that once the analogue signal is turned off, the digital signal will be boosted so that the 98.5 per cent of homes that currently receive analogue will receive Freeview.

This still means that 1.5 per cent of homes won't be able to get Freeview even after this boost. Digital UK says that most of these homes will have access to satellite or cable services. But there will be a very small number of areas that won't receive any digital signal at all.

Once the analogue signal is switched off, the government will raise an estimated £1.1 billion to £2.2 billion by selling the surplus airspace to 3G and mobile phone companies and to TV companies for additional channels.

THE PROS AND CONS OF DIGITAL

There's no doubt that digital offers a bigger choice of channels, from CBBC and CBeebies for children, to 24-hour news on BBC News 24, and additional entertainment channels, such as E4, More4, as well as ITV2, ITV3 and ITV4, and BBC3 and BBC4.

But our research shows that not everyone is happy with the quality of programmes – some talking about 'endless repeats' – and 56 per cent saying they don't use all the channels. As one reader put it: 'It's funny; we have more choice of channels and there's still nothing to watch on TV.'

Signal quality is an issue for others. Some people will see an improvement in picture quality with digital. But if you have a good analogue picture, there's a risk that digital might look worse because it compresses pictures and electronically removes details it thinks you won't notice.

Many of you wrote to us complaining about interference to your Freeview signal, causing pictures to break up, sometimes making programmes 'unwatchable'. Mobile phones, heavy rain and even passing traffic affected digital reception, according to those who contacted us.

The quality should improve when analogue is switched off. But until then, digital signals in some areas will be weak and patchy. For some, this can be solved with a better rooftop aerial. See 'Still have questions?', opposite, for more information.

In addition to offering more channels, digital television offers enhanced features. For example, most set-top boxes support an

Jargon buster

Analogue broadcast

The original method of delivery that gives us BBC1, BBC2, ITV1, and channels 4 and 5 down our aerial.

Audio description

Words are spoken over a programme to describe what is going on for visually-impaired people.

Digital broadcast

Sound and pictures are sent as a stream of data, which is decoded back into sound and pictures by a set-top box or integrated digital TV.

Digital terrestrial television (DTT)

Often called Freeview. This type of digital signal is received through a TV aerial.

Electronic programme guide (EPG)

An on-screen TV guide that is regularly updated with listings for the next week or so.

Freesat

The name of Sky's alternative to Freeview. For a one-off fee of £150 you receive a satellite dish and box to decode the digital signals. A similar service planned by BBC and ITV has the same name.

High-definition television (HDTV)

A high-quality format that some television programmes are made in. When these programmes are broadcast in high-definition format and

watched on a television that is HD-ready, viewers see improved picture clarity and detail.

Integrated digital television (IDTV)

A TV with a built-in set-top box that will decode digital signals received by the aerial.

Pay-per-view (PPV)

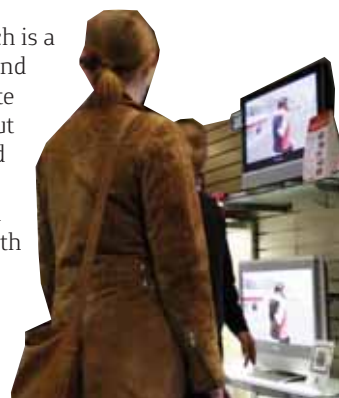
Programmes that you pay to watch on a case by case basis, rather than by paying a regular subscription.

Personal video recorder (PVR)

An alternative to a VCR or DVD recorder. It records programmes on to its internal hard disk, rather than on to tapes or discs.

electronic programme guide (EPG), which is a regularly updated on-screen TV guide; and by pressing the red button on your remote control, you can often find out more about the programme you're watching. Sky and cable offer further interactive services, such as TV shopping, emails, games and banking. But less than half the people with digital we questioned said they make 'good use' of interactive services.

There are some useful features for people who are hard of hearing or



'Digital UK will be developing a training programme.

Staff can wear a badge to let customers

know that they are knowledgeable on switchover'

Digital UK

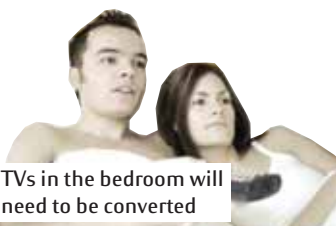
visually impaired. Audio description, for example, is a narrative that explains what is happening on the screen for people who can't see it clearly. Other services include talking EPGs, on-screen signing and recordable subtitles.

But charities that represent these groups, including the Royal National Institute for the Blind (RNIB) and the Royal National Institute for the Deaf (RNID), told us they're concerned that not all digital channels or equipment offer or support these features. For example, the only Freeview set-top

Still have questions?

Q I already have digital television. Do I need to do anything?

A If you can watch and record digital programmes on every TV, VCR and DVD recorder, you won't need to do anything. But we found that 79 per cent of people can't do this yet.



TVs in the bedroom will need to be converted

Q Will we still be able to watch TV in other rooms after switchover?

A Yes. But to watch different channels in different rooms, each TV will need to be set up to receive a digital signal, either via its own Freeview box or via a Sky or cable multi-room subscription.

If you're happy to watch the same channel on all TVs, you can network several to one digital receiver using cables or a wireless transmitter and receiver set.

Q Do I need to get started with the switch now?

A Only if you want to, but we suggest starting a few months before your region switches, to iron out any glitches. If you need new equipment now, it's worth upgrading to digital.

Q Which is the best way to get digital TV – a one off payment or a subscription?

A A subscription service, such as is offered by Sky



A subscription lets you add sports bundles

or cable companies, gives you the flexibility to add sports or film bundles and use interactive services. But a one-off payment for Freeview or Freesat will work out cheaper. Freesat gives you the option to upgrade to a Sky subscription package using the same equipment.

Q Is Top-Up TV the same as Sky and cable?

A No. Some Freeview boxes have a slot for adding a Top-Up TV card, giving you 11 more channels. It's £8 a month, with no minimum contract, plus £20 connection.

Q I have one TV in the living room. What's the cheapest way to go digital?

A If you're in a Freeview area – find out at www.freeview.co.uk – the cheapest option is to buy a Freeview box for around £30 to £100. See p58 for Best Buys. If you need a new aerial, this will bump up the cost, so look at the other options in the table on p10.

Q I'm in an area that can't get Freeview. Will my only option be a subscription?

A Most of us will be able to receive Freeview after switchover. If you want a non-subscription digital service before then, consider Freesat, Sky's alternative, which can be received by 96 to 98 per cent of properties. For a one-off fee of £150, it's pricier than a Freeview box. If you're prepared to wait, the BBC and ITV are co-operating to launch a low-cost, satellite service (also called Freesat), but they haven't confirmed timings.

Q What is an integrated digital television (IDTV)?

A A digital television is a TV with a built-in digital receiver. IDTVs are becoming cheaper – see our new Best Buy TVs in next month's issue. If your current TV is in good

working order, you don't need to replace it with a digital television unless you want to.

Q Is high-definition television (HDTV) the same as digital television?

A No. HDTV is a high-quality format that some programmes are made in. When these are broadcast in this format and watched on a TV that is HD-ready, viewers will see improved clarity and detail. The BBC's *Bleak House* and *Rome* were filmed in HDTV. Some providers will start HD broadcasts this year.



BBC's *Bleak House*: filmed in HD format

Q Will I need a new rooftop aerial? What will it cost?

A With satellite or cable, you won't need an aerial to receive digital broadcasts. You will need one to receive Freeview. Ofcom estimates that 10 per cent of aerials need upgrading to get Freeview, dropping to about 2 per cent after switchover. An aerial and installation will be about £80 to £150. If you need a new one now, you could wait until switchover to see if the signal improves.

Q Where can I find an honest aerial installer?

A Choose an installer who belongs to the Confederation of Aerial Industries, the Independent Digital Standards Commission or one whose company carries the digital switchover logo – see the final picture in 'A history of TV', p15.

Q What should I do if I live in a flat with a shared rooftop aerial?



Shared aerial? Discuss it with your landlord

A If you don't get a signal with a shared aerial, you'll need to speak to your landlord. A simple way to check for a signal is to borrow a friend's Freeview box.

Q Will I still be able to use my old VCR and DVD recorder?

A Yes, you'll be able to use them to record digital programmes. You won't be able to watch one digital channel while recording another with your VCR; you'll be able to do this with a DVD recorder only if it has a built-in digital tuner. One way round it is to buy a second set-top box to attach to your VCR or DVD recorder. Another solution is to replace your VCR with a digital TV recorder – see p55.



Q Will I still have to buy a TV licence if I have a subscription such as Sky?

A Whatever way you receive digital TV, you will still have to buy a licence.

Q I've heard about TV via broadband. Is this an alternative to digital TV?

A Yes, but we haven't covered it in detail because availability is limited. You can get it in London and Stevenage, from Home Choice, and in East Yorkshire from Kingston Communications. It lets you download television programmes on demand.

Q Is it true that the analogue radio signal is being switched off, too?

A The government has no plans to switch off the analogue radio signal at this stage, so you don't have to buy a digital radio.

Retailer advice

If you want more advice about digital services, speak to your local retailer. But don't rely on advice from one retailer alone, or be pushed into buying anything too fast or into spending more than you planned.

To assess the advice being given, we visited a handful of electrical retailers – seven in the Borders, which will switch in 2008, and seven in London, due to switch in 2012.

In the Borders, all the retailers gave decent advice about what switchover means and what the cheapest option is. But in London advice was far more patchy; some didn't even mention Freeview, and two staff gave us dud information.

In both regions, we got mixed signals about when to buy new equipment. One retailer suggested we wait as long as possible, since new products and services would appear in the next few years,

and three assured us there was no rush. But two said the opposite. One said: 'If you're looking to go digital, go now, because prices will skyrocket closer to switchover.'

We think that prices will drop, and leading electrical retailers agree. Comet said it believes there will be enough stock to meet demand and Dixons Group said: 'Equipment prices will certainly come down as the deadline approaches.'

Retailers we spoke to in London were far less likely to know the year of switchover than those in the Borders. Only one in the Borders got the year wrong, compared with six in London; two of these had no idea, and one thought it was due to happen in London 'later this year'.

Retailer knowledge should improve. Digital UK said: 'Most major retailers are already training staff. During 2006 Digital UK will

be developing an accredited staff training programme. Once trained, staff can wear a badge with a logo to let customers know that they are knowledgeable on switchover.'

All switchover-ready equipment carries a digital tick logo (see '2008 to 2012' in the timeline, below) so look for this. And do some planning before making a decision by using 'Still have questions?', p13.



box we've found that can support audio description is the £100 Netgem I-playerAD. We agree with the RNIB and RNID that more companies should offer services to help people who are visually impaired or hard of hearing. We would also like to see improvements in the usability and availability of digital equipment for these groups.

ARE WE READY?

Two thirds of UK households already receive digital programmes on at least one television, according to the latest figures from regulator Ofcom. Despite this, we found that awareness about digital switchover is surprisingly low. Less than half the people in our survey spontaneously knew about it, and only 7 per cent of people knew when it was happening in their region.

Half the people we questioned didn't know that to carry on watching television as they do now, they'll need a Freeview box, Sky or cable for each television, including those sets in kitchens and

OUR RESEARCH

In January 2006 we surveyed 1,952 adults with a TV across Britain to ask them about their awareness of and readiness for analogue switch-off.

Between December 2005 and February 2006, we also posed as uninformed consumers in 14 electrical retailers to assess how well they advised us on what we should do to prepare for digital switchover.

A HISTORY OF TV

1925

John Logie Baird gives first public demo of television



1946

The BBC's television service is resumed. TV licence fee introduced

1936

First public broadcast of the BBC Television Service from Alexandra Palace. The broadcast radius is 40 to 100 miles and received by about 400 homes in London. The service is ended by the onset of war in 1939

1953

The Queen's coronation is watched by 22 million UK TV viewers. The event prompts many to buy their own sets



1955

A second channel, Independent Television, is launched (later known as ITV)

1967

First colour transmission: a four-hour live broadcast of day six of the Wimbledon Tennis Championships



1964
BBC2 launched

bedrooms. Ofcom says there are still 26 million TV sets that need converting, but 17 per cent of people we spoke to said they won't convert all of their televisions.

And it's not just televisions that will need converting. Other equipment, such as VCRs and aerials, might also need replacing or upgrading. We explain more about this in 'Still have questions?', p13.

The cost of all these upgrades in preparing to go digital will worry some. Ofcom estimates that it will cost each household about £132 to prepare for switch-off. Its figures are based on the projected cost of equipment at the time of switchover and the price is for converting two televisions to receive Freeview and for buying a personal video recorder for recording digital programmes. But this is a conservative estimate because it assumes that people will pick the cheapest equipment; if you opt for better or more equipment, the price will be much higher, especially if you need a new aerial.

Whatever digital option we choose, most of us will have to foot the bill ourselves. The Department for Culture, Media and Sport justified

Ofcom estimates it will cost each household £132 to switch

this by saying: 'Digital television is affordable for the vast majority of people, and the number who have voluntarily adopted digital shows it's a product people like and want.'

A limited number of us will receive financial and practical assistance from the government to convert just one television to receive and display digital broadcasts. You'll qualify for this only if you're aged over 75 or have a significant disability and are receiving attendance allowance or disability living allowance. If this applies to you, you'll receive free or subsidised equipment

Next steps

- 1 Find out when switchover is happening in your region by using the map on p10.
- 2 Read our Q&A section 'Still have questions?', p13, to work out how switchover affects you.
- 3 Speak to your local retailer if you want more information. But don't rely on the advice of one shop alone. Eventually, staff who have been trained will wear a badge with a switchover logo.
- 4 Decide how you want to receive digital TV by using our table 'Your digital TV options', p10. To see which services are available in your area, visit the website www.digitaluk.co.uk and enter your postcode.
- 5 Decide what new equipment you will need and want and when you'll need to buy it. Switchover-ready equipment will display the digital tick logo – see the final picture in 'A history of TV', below.
- 6 If you want more details about the financial assistance available, or have any other questions, contact Digital UK on 08456 50 50 50.

depending on your individual circumstances – as well as help with installation. There are no plans for other low-income groups to receive financial assistance.

Charities, including Age Concern, RNIB and RNID, say that the planned support doesn't go far enough. The government's own trials have shown that almost as many people aged over 65 need technical help as those aged 75 and over. But under the current plans, 65- to 74-year-olds won't be eligible.

With the first region due to be switched in just two years, the government should already have clear plans about how to implement this help. But it's still conducting trials to assess the form the assistance should take and how to communicate with those who are eligible. In the meantime, the government advises people in these groups to contact Digital UK with any questions.

USEFUL WEBSITES

Digital UK
(general advice on switchover)
www.digitaluk.co.uk

Freeview
(to check coverage in your area)
www.freeview.co.uk

See p64 for a full list of phone numbers.

