Getting the most out of your digital TV reception

Now’s the time to get your antenna serviced

With the recent completion of the digital retune at the end of 2014, the major changes to TV spectrum are now complete. Adequate TV coverage is almost universal, whether via terrestrial signals or satellite. A clear picture should be available in your area, so make sure your antenna isn’t coming between you and good reception. Please visit www.acma.gov.au/tvreception for more information.

If you’re experiencing reception difficulties, chances are it’s the antenna on your roof or the cables, connectors and equipment between the antenna and your TV. Most reception issues are caused by an inadequate antenna set-up, old or broken antennas and cabling, or inappropriate use of masthead amplifiers—so now’s a good time to get your antenna serviced.

The first step is to get your TV antenna inspected to see if it’s in good working order, optimised for your best available channels, up to the current digital TV standards or to identify if other issues are affecting your reception.

Do you need to use an antenna installer?

DIY antenna installers may not be aware of all aspects of digital TV and good TV reception, and can buy antennas, cables, connector and amplifiers that are not appropriate for good reception. Installation practices are also much more stringent with a digital TV setup than for analog TV.

Importantly, DIY installers need to be aware of the risks of climbing on roofs and working at heights.

You should seek the services of an experienced antenna installer to ensure that your receiving system is optimised for digital TV reception at your location. If it’s not optimised, your system may deliver degraded reception quality or be susceptible to interference, resulting in poor reception. An experienced antenna installer can help to fix the common problems outlined in this fact sheet. The installer can test both the signal strength and quality of the signals to determine how reliable your reception is likely to be.

Reception issues that could be affecting you

Inadequate or inappropriate antenna system

Issue: You’ve had reception difficulties ever since you started watching digital TV.

Possible causes:

- Antenna not directed towards the best TV tower.
- Low-performance antenna not suitable for your area.
- Antenna not mounted high enough to clear obstructions.
- Antenna not designed for, or located in, best position for current frequencies.
- Broken, loose or corroded connections or components, including damaged antenna elements.
- Low-quality cable—use RG6 quad-shield coaxial cable.
- You’re using a masthead amplifier (signal booster) that is not needed, is not designed for digital TV, is inappropriately set up or does not include a 4G filter.

Possible fixes:

- Get your antenna checked by an antenna installer to minimise the possibility of reception difficulties.
- Check out the mySwitch website (http://myswitch.digitalready.gov.au) for information on the best available TV signals for your location, including signal level, frequencies and the best TV tower at which to point your antenna.

New frontiers in television

The switch to digital TV has given us an array of new channels to enjoy. It has also led to a reshuffle of channels, as the top end of the TV spectrum was vacated.

Households can now use a much simplified antenna system—a single VHF or UHF-only antenna—to make reception more consistent and reliable. This means you can either remove the unused antenna or upgrade to a single-band high-gain antenna to achieve better performance, if required.

The TV spectrum vacated as part of these changes has enabled the latest technology—4G mobile broadband services—to be deployed in the 700 MHz band. The mobile carriers are rapidly rolling out these mobile broadband networks, greatly improving the mobile data capabilities in both metropolitan and regional Australia.
**Not watching the best available channels**

*Issue:* You notice one or more channels are affected intermittently, problems started after the retune, and you receive TV from two or more TV towers.

*Possible cause:*

> - You’re not tuned to the best available signals—using the ‘auto scan’ function does not guarantee that your TV selects the best available services.

*Suggested fix:*

> - Perform a ‘manual tune’ and select the best available services. For information for your location, go to: [http://myswitch.digitalready.gov.au](http://myswitch.digitalready.gov.au).

**Overload from 4G mobile broadband base stations**

Mobile carriers started rolling out their 4G networks in late 2014 and accelerated the rollout from 1 January 2015 when spectrum previously used for TV broadcasting became more widely available.

Reception problems can occur when masthead amplifiers pick up strong signals and are overloaded from frequencies outside of those designated for current TV broadcasting. This is only likely to occur for households that are within 1 km of a base station providing 4G mobile services, have a masthead or distribution amplifier, and the TV antenna has a direct line of sight to the mobile base station.

If you’re affected by amplifier overload, you’ll most likely have no TV reception at all or may experience pixelation on all channels. Your immediate neighbours may also be affected if they also have a masthead or distribution amplifier.

*Possible fixes that an antenna installer can implement:*

> - Installing a 4G filter at the input to the existing masthead amplifier or replacing the antenna with one that has a 4G filter built-in.
> - Removing the masthead amplifier altogether or replacing it with one that has a 4G filter built-in.

You may need to contact your antenna installer to implement one of these fixes, as installation and maintenance of appropriate reception equipment is your responsibility. The ACMA has no authority under the Radiocommunications Act 1992 to require mobile carriers to compensate affected viewers whose systems are susceptible to masthead amplifier overload from 4G services.


**Atmospheric ducting (seasonal phenomenon)**

*Issue:* You notice one or more channels are affected intermittently, typically during warm days, and often around sunrise and sunset.

*Possible causes:*

> - Distant services are interfering with the channels on local services during certain weather conditions.

*Suggested fixes that an antenna installer can implement:*

> - Repoint antenna and retune receiver to alternative TV tower, if available.
> - Use higher performance antenna to minimise interference.

**Localised interference**

*Issue:* You notice one or more channels are affected intermittently and affecting your neighbours at the same time.

*Possible causes:*

> - Interference from sources including faulty masthead amplifiers, power lines, LED globes and domestic appliances.

*Suggested fix:*

> - Turn off lights or appliances (if safe to do so) and check if the interference has gone from your TV.

The ACMA may investigate if your antenna installer identifies interference and records measurement results on Interference Investigation Request form (R202). You then complete and submit this form to the ACMA. Go to [www.acma.gov.au/tvreception](http://www.acma.gov.au/tvreception) for more information.

**Community-wide issues**

If you believe a number of people in your community are being affected by reception problems, you should initially report it to the broadcaster, as sometimes they have equipment failures. If reception problems continue, report them to the ACMA.

**Alternative reception**

While adequate TV coverage is almost universal, whether via terrestrial signals or satellite, good reception requires an appropriate external (rooftop) antenna. If you’re unable to receive reliable reception, you can apply for the government’s Viewer Access Satellite Television (VAST) service. VAST provides an alternative reception option for individual households who are unable to receive terrestrial digital TV services.

**General information about TV reception**

> Call the ACMA’s Customer Service Centre on 1300 850 115 or email info@acma.gov.au.