

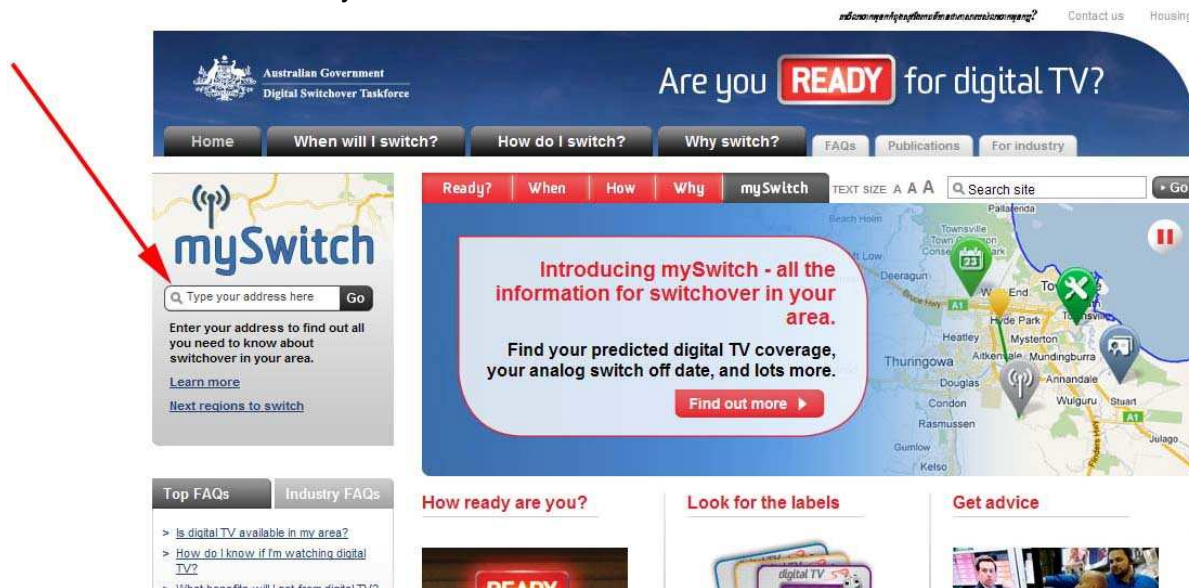
## Reception Issues – Antenna, cabling and the Set Top Box

A digital set top box (stb) is only as good as the signal it receives. An stb can only store information for the signals received. There are a number of links in the chain from the broadcaster to the set top box / TV that can affect that signal. Your coverage area, the strength of the signal and your equipment to receive and decode the signal (ie antenna, cabling and set top box) are all critical links.

### Signal Coverage

It is good to know who broadcasts in your local area, what the coverage is and whether there are any black spots in the area.

The best source for information about coverage (and many other issues) is the Australian Government Digital Ready site ( [www.digitalready.gov.au](http://www.digitalready.gov.au) ). The new My Switch service has information directly connected to the address you enter in:



This excellent service provides information on:

- channels you should be able to receive.
- signal coverage and a prediction on the coverage strength (ie Good, Moderate, none etc).
- Nearest transmitters and the direction from the address to help set the antenna to face the best way.
- Closest Government Endorsed Antenna Installers to help you diagnose local reception problems.

Many of the broadcasters will have information on their websites on where they broadcast and what the broadcast area looks like. Most broadcasters are very helpful in offering advice on digital coverage. Example is the ABC site: <http://www.abc.net.au/reception/freq/> . Maps on this link suggest “This coverage is indicative only. Reception will also be affected by external factors such as local terrain and quality of receiving equipment.” The receiving equipment includes antenna, cabling and the set top box.

## Signal Reception

Coverage tells you what you expect to be able to receive. Your antenna and cabling box do the receiving. The set top box decodes the received data streams.

The type of antenna or the quality of the cable affects the signal quality before it gets to the set top box. Extract from **The Digital TV Antenna Systems for Homes Handbook** published by DBCDE (Department of Broadband, Communications and the Digital Economy) (see link to pdf in the Resources and links section):

### **Improving reception**

*Problems in receiving digital services may be improved by one or more of the following:*

- **Antenna Repositioning**

*Raising the height or position of the antenna may improve signal level and picture quality.*

- **Antenna Gains and Types**

*Changing to a different type of antenna when accessing a digital service may provide for:*

- *higher gain on the available channels where there is insufficient signal levels or signal quality; or*
- *greater rejection of echoes and interference such as local impulse noise sources or reflections produced from aircraft (or 'aircraft flutter').*

- **Alternate Transmissions**

*Changing antennas from VHF to UHF to take advantage of alternate digital services from local area translators or gap fillers may be required, or at least a re-pointing of a UHF antenna.*

- **Cabling and Connections**

*Using quality quad shielded coaxial cable and high quality flyleads can reduce interference (especially from household appliances). Using good quality F connectors for the system wiring will help minimise interference in domestic installations.*

- **Digital Receiver Scanning**

*Digital receivers acquire channels by scanning through the broadcast bands and collecting available services. Changes to the available channels, with the introduction of new services, or changes in the frequency of channels already being watched by the consumer will occasionally require re-scanning which may, depending upon receiver design, take some time.*

The age of antenna can also be an issue:

refer to **The Digital TV Antenna Systems for Homes Handbook Appendix D Old Antennas** and <http://www.digitalready.gov.au/how-do-i-switch/digital-ready-products/do-i-have-the-right-antenna.aspx>

### **Boosting the signal**

Signal boosters and amplifiers are available from many retail stores. On marginal antenna / cable combinations, these boosters help enhance the signal to an adequate level that is suitable for the set top box. Your local electronics retailer or TV antenna installer can advise if this is a suitable option for your antenna / cable system.

## Reception issue symptoms on the set top box

### **Scanning but not picking up any channels.**

Usually this is a sign that there is a missing “link in the chain”.

- Check your coverage through systems like DigitalReady mySwitch
- Recheck your connections. Antenna? Cables?
- If you have two connections, try the other connection.
- Try your set top box on another system you know works.

### **Not picking up all channels / Channels previously working no longer work / Picture is pixellated or broken up.**

Indicates something may have changed in the environment. Note: if some channels are working, it would suggest the set top box is OK. Again, a digital set top box is only as good as the signal it receives. Try the steps as above – plus:

- Try auto rescanning from the set top box. If any channels are still missing, try to manual scan for any missing channels.
- If still not there, check with the local broadcaster if signal is still being transmitted, they are making any changes to the transmission or if there is any work being carried out on the transmitters etc.
- Other environmental factors can also interfere eg weather conditions, local building works etc. Try waiting a day or two and see if there is any difference.
- Note: If it is a Standard Definition (SD) set top box it will not display High Definition (HD) channels. Onscreen messages such as “HDTV Not Support” will appear when on a HD channel.

## Further advice

Your **local TV antenna installer** can advise on issues related to reception. The DigitalReady mySwitch service is a great source to find your nearest Government Endorsed Antenna Installers. They can inspect and advise on antennas, cables, boosters and amplifiers to best suit your environment. They will also be aware of local issues such as signal coverage and black spots.

Your **local broadcasters** are also very helpful in advice such as area coverage and any work or changes they are making to the system. Many have inquiry forms on their websites.

And, of course, **your retailer** and **Westwell** are always available to discuss reception issues on your Olin set top box.

## Resources and links:

### **DBCDE (Department of Broadband, Communications and the Digital Economy)**

- Digital Ready home page including mySwitch - <http://www.digitalready.gov.au/index.aspx>
- FAQ - <http://www.digitalready.gov.au/help/frequently-asked-questions.aspx>
- The Digital TV Antenna Systems for Homes Handbook - covers those who live in single dwellings with their own antenna or aerial, which includes houses - <http://www.digitalready.gov.au/media/AntennaHandbookHomes.pdf>
- The Digital TV Antenna Systems Handbook – covers multi-dwelling units (MDUs) with master or communal (shared) TV antenna systems - <http://www.digitalready.gov.au/media/AntennaHandbookMDUs.pdf>

### **ACMA (Australian Communications and Media Authority)**

- Home page - <http://www.acma.gov.au/WEB/HOMEPAGE/PC=HOME>
- Search for broadcasters by postcode (also by place name) - [http://www.acma.gov.au/postcode/postcode\\_acma.shtml](http://www.acma.gov.au/postcode/postcode_acma.shtml)
- Better TV & Radio: Antennas - [http://www.acma.gov.au/WEB/STANDARD/pc=PC\\_310198](http://www.acma.gov.au/WEB/STANDARD/pc=PC_310198)
- Better Television and Radio booklet - [http://www.acma.gov.au/webwr/assets/main/lib100342/btr\\_handbook.pdf](http://www.acma.gov.au/webwr/assets/main/lib100342/btr_handbook.pdf)
- Masthead & distribution amplifiers fact sheet - [http://www.acma.gov.au/WEB/STANDARD/pc=PC\\_1744](http://www.acma.gov.au/WEB/STANDARD/pc=PC_1744)

**Freeview** - TV Channels - <http://www.freeview.com.au/channels/>

**FreeTV Australia** - TV Station contact details (incl websites) – [http://www.freetv.com.au/Content\\_Common/pg-TV-Station-Members.seo](http://www.freetv.com.au/Content_Common/pg-TV-Station-Members.seo)

**ABC** - Introduction to Digital TV - <http://www.abc.net.au/reception/digital/>

**Imparja Television** - <http://www.imparja.com/content/view/6/7/>

**Prime Television** - [primetv.com.au/i-cms.isp](http://primetv.com.au/i-cms.isp)

**SBS** - SBS Digital TV channels - <http://www20.sbs.com.au/transmissions/>

**Southern Cross Media** - Southern Cross Ten, Southern Cross Television, Tasmanian Digital Television and Darwin Digital Television - <http://www.scmmedia.com.au/content/digitaltv.aspx>

**WIN TV** - Digital TV FAQ - <http://www.wintv.com.au/national/digitaltv/page/windigitaltv#afaq8>