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BULLETIN 5001 DIGITAL TV RECEPTION – HOUSES/SINGLE UNITS

Houses and Single Units

Houses and single units (residential or commercial) are properties that have their own specific TV antenna. The TV antenna is not shared or common with any other party. For example, residences have their own specific TV antenna and in some blocks of units, every unit may have it's own TV antenna. This can be contrasted with a master antenna system (MATV) in which the one TV antenna is shared by numerous users.

Digital Transmission

All "free-to-air" TV stations are now transmitting "free-to-air" television in digital form, as well as the traditional analog transmission. The coverage and variety of digital transmission will increase progressively over the next few years. The Australian Government has set a deadline for analog "free-to-air" transmission to be terminated (switched off) by December 2013. After analog transmission is ceased in 2013, TV transmission will be in digital form only.

Is a new TV set required for Digital Television?

No, a new TV set is not required in order to receive digital television. However, because existing TV sets have an analog tuner, a digital tuner/receiver (commonly known as a set-top-box) will be required in order to receive digital transmission.

Even after the analog transmission signal is turned off, the combination of an existing analog TV set plus a digital set-top-box will ensure that digital "free-to-air" TV can be received.

If a new TV set over is purchased during the next few years, it will most likely have an in-built digital tuner. If it does have an in-built digital tuner a set-top-box will not be required.

Is a new TV Antenna required for Digital Television?

No, receiving "free-to-air" digital TV should not require a new antenna, provided the existing TV antenna is in good condition (with good quality coaxial antenna cable) and relatively new.

However, “free-to-view” digital TV reception is only as good as the weakest link in the reception chain. A faulty antenna or poor cabling may lead to “free-to-view” digital TV pictures breaking-up or pixilating and loss of sound. Some older TV antennas may not be able to pick-up all the channels allocated to new digital services (eg channels 11 and 12). Salt air, birds and windy conditions can also limit the useful life of an antenna.

What is required to receive good quality viewing of Digital TV?

In order to receive good quality digital “free-to-air” TV reception, the following is required:

- Either a TV set that has a in-built digital tuner or an analog TV set with a digital set-top-box;
- The correct VHF and/or UHF antenna for your area that is in good condition;
- Use of quad-shield coaxial cable and F type connectors.

The above-mentioned items will need to be place prior to the analog signal being turned off by 2013 or it will not be possible to receive any “free-to-air” TV reception.

What should be done if there is no Digital TV reception; the picture is breaking-up or pixilating; or assistance is required with the Digital TV Installation?

If assistance is required installing a digital TV set or digital set-top-box; or if there is no digital TV signal or reception; or if the picture is breaking-up or pixilating, it is recommended that advice is sought from an experienced TV antenna installer.

The TV antenna service provider will be able to test the digital signal strength using a digital signal meter and examine the TV antenna, cabling and associated equipment to assess the effectiveness of the TV antenna system in receiving digital transmission.

The installer will then be in a position to best advise regarding any changes required to the TV antenna or associated equipment in order to receive good quality digital reception in your area.

What is a Digital Cliff or Threshold?

With analog TV, as the signal strength is reduced, so the picture quality deteriorates. With digital transmission, the quality of the pictures remains unaffected until quite suddenly the picture will fail altogether. This point is known as the digital cliff or threshold.

It is important to ensure that a digital receiver is normally operating well above the threshold, so that variations in signal level (due to say the antenna moving in the wind or blockages moving between the antenna and the transmitter) do not tip the signal over the cliff.

What is the Operating Window of a digital receiver/set-top-box?

Two main factors limit the range of signal levels that should be present at the input to a digital receiver/set-top-box. The first is the minimum level of the digital signal, which must not fall below the threshold. The second is the maximum level of signal that can be applied before the receiver overloads.

All digital and analog signals at the input to the digital receiver/set-top-box must fall within this operating window. An experienced TV antenna technician with the appropriate digital signal strength meter can test these signal issues.

For further information or to have your TV antenna system assessed for good quality digital reception, contact Unitech Antennas (a division of Unitech Services) on 9725 2222 or 1300 736 142 or by email at enquiry@unitech-services.com.au.

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