

Vision Radio Network Reception Guide



Anyone can tune in!

Wherever you are in Australia you can tune in to the Vision Radio Network, if you have the necessary equipment. Depending on where you are, you will need either;

1. An AM/FM radio tuner

If you are within reception range of a Vision relay station you may be able to listen in on your radio receiver. This isn't available everywhere, but the number of locations is significant and is always growing. See below for a listing of all our frequencies and locations go to our website www.vision.org.au. *Note: The transmission power varies from site to site – see below for tips on gaining the best possible reception.*

2. A computer connected to the internet (preferably broadband)

You can listen to Vision online at our website www.vision.org.au

3. A satellite dish and receiver

If the above options aren't suitable or applicable for you, Vision is available nationally direct from satellite using a receiver and dish. Consult your local satellite system installer for further information (note details on which satellite service to tune in to are at the end of this document).

Tips on getting good FM reception

Tuning to most radio stations is pretty easy – turn the dial and there it is. In many locations, this is the case with Vision.

However, for some listeners, tuning to Vision requires a little extra effort (which is well worth it!).

The use of the "air" (radio spectrum) is regulated by the Government and many of Vision's relay stations are restricted to low power output. These are typically assigned to 87.6, 87.8 or 88.0 FM.

In relatively flat terrain you can expect to have a maximum effective broadcast reception range of up to about 10 km from the transmitter using a radio with an external antenna – like a car radio. The reception inside a building will be more limited and unpredictable due to variations in factors such as:

- The relative height of the broadcast antenna
- The distance from the relay station
- The nature of the terrain
- The location of trees, buildings and other obstacles
- The type of building construction materials used
- The location of the radio receiver within the building
- The sensitivity of radio receiver used
- The type of aerial attached to the radio receiver

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The right equipment can make all the difference!

Car radios typically have a more sensitive tuner and an external antenna, so they are better able to pick up weak signals than most portable radios.

If you can receive a Vision station on your car radio parked outside your home, you can generally also receive Vision inside the building, provided that you have a good radio tuner and an appropriate, correctly installed antenna.

Portable radios will only be useful when you are reasonably close to a transmitter. The antenna on many smaller radios is inside the unit, but if there is an external one, fully extend it before moving the radio around the house to find where the signal is strongest, then adjust the angle of the antenna for best reception.

Good results have been reported with *Sangean* brand radios which are available from specialist electronics stores such as Tandy and Dick Smith. These can cost over \$100 so before you part with your money, ask if you can return the unit if it doesn't work out for you.

Clock radios and other cheap portable units generally have very insensitive tuners and will therefore have difficulty picking up a weak signal. You may need to try a more sensitive radio receiver.

Non-portable radio tuners (for example, a component in a home stereo) are generally more sensitive, and will usually have the necessary connection for one of the following types of external aerials;

- 1. Indoor ribbon-type FM antenna** – These are often supplied with the radio tuner unit and when correctly installed can be very effective.
- 2. Outdoor TV antenna** - To receive a weaker signal you will need to connect your tuner to an antenna designed for reception of TV channels 3, 4 and 5. Install the antenna on the outside of the building with the bars in a vertical position. Increasing the number of bars on the antenna improves its ability to receive a weak or distant signal. Point the antenna in the direction of the transmitter and use RG6 quad-shield coax cable to connect to your radio receiver.

The ABC website has an excellent, detailed explanation of FM and AM radio reception issues. Go to www.abc.net.au/reception/radio

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Tuning a satellite receiver to Vision

Vision is available nationally direct from satellite using a receiver (commonly called a “receiver”, “decoder” or “set top box”) and dish. There is a large range of equipment on the market.

The following is intended to assist equipment suppliers and installers.

Tuning in

Vision broadcasts via the Optus Aurora service on the C1 satellite (156 deg E), which covers all of Australia. We can be heard on channel 18, described as “UCB radio”.

Our signal is unencrypted (“in the clear”), so a smartcard is NOT required.

Antenna (dish) and LNB (Low Noise Block down converter)

A Ku band dish is required. In most eastern coastal regions reasonable domestic grade reception can be obtained from a dish as small as 85 cm in diameter. However a larger dish will provide better performance during very heavy rain. The antenna must be pointed at Optus C1 and optimised for reception of the vertically polarised signals.

Pay TV signals are located on the same satellite but are horizontally polarised. If fitted with an ortho-mode transducer (OMT) and a second LNB, an antenna can receive signals from both polarisations. A modern Ku band LNB suitable for digital signals is required.

