

How can I avoid interference?

Television and radio reception problems are mostly caused by:

- faulty receiving equipment
- interference

Experience has shown that often the cause of interference will be found in the household affected, and can be solved by the householder.

Are your reception problems caused by interference?

The two main categories of interference are:

- transmitter interference caused by communications systems transmitting radio waves
- electrical interference caused by electric or electronic devices or power lines

[What does my interference look or sound like?](#)

You can reduce the risk of interference within your home by only buying [compliant electrical products](#) and by carefully following installation instructions when setting up equipment.

The secret to avoiding interference is to:

- Buy good equipment
- Install it properly in accordance with manufacturers installation instructions and sound installation practices
- Operate it properly
- On occasions you may receive interference you can do nothing about

Are your reception problems caused by faulty devices or connections?

- Check your receiving equipment.
- Check your aerial connections.
- Check your aerial to receiving equipment (e.g. television) cable connections.

Look for the C-Tick on your electrical and electronic equipment

The C-Tick is a mark indicating an electrical or electronic product is declared by the supplier to comply with New Zealand's electromagnetic standards for radio interference. This means the product has been tested to international standards and is unlikely to cause or receive interference.

Replace or modify your audio equipment

Interference caused by a land mobile transmitter to telephones and associated PABX units, computers, and other electronic equipment or to land mobile receivers is normally seen to be a deficiency of the audio equipment and the responsibility of the owner/provider of the audio equipment to resolve. This may involve the replacement of inferior equipment with equipment known to have immunity to high levels of radio frequency radiation.

Move your aerial away from electrical noise

Electrical noise from electrical and electronic apparatus (including domestic appliances and powerlines) may interfere with reception. Locating the aerial away from these sources will assist in reducing interference. These devices are normally required to meet international standards aimed at limiting the radiation of noise.

Install radio receivers in vehicles with care

It is possible, when in close proximity to transmitters, for transmissions to be heard by the other parties. In such situations, it is likely that receiver performance will be severely affected, resulting in poor reception of the wanted signal.

Good installation practices will minimise the effects of interference from motor vehicle electrical systems. Diesel powered vehicles are less likely to cause interference than petrol powered vehicles. Apparatus using the narrow band FM mode of transmission will increase immunity to this type of interference.

Interference from other vehicles is not so easy to eliminate but may be minimised by appropriate aerial placement (for example, aerials in radio control bases should be located remote from noisy situations) and close attention to aerial cabling. Often the noise is transient and will cease when

the offending vehicle moves on.

Ensure your microphone is turned off

Complete jamming of a channel can occur when a microphone is accidentally turned on by being stuck between seats or left on a seat and covered with an object. The microphone must always be correctly returned to the microphone holder. Some transmitters are fitted with "transmitter time limiting" which turns the transmitter off after being locked on for a predetermined period.

Check the parameters of your land mobile transmitter

Interference to and from channels operating on the same frequency in adjacent geographical areas can occur when a land mobile transmitter is used beyond the limits of a designated coverage area. Care must be taken by operators when transmitting from high altitudes, as they may cause interference to distant channels on the same frequency.

From time to time interference may be experienced from distant transmitters through a naturally occurring effect known as anomalous propagation. For example, it is not unusual to receive transmissions from Australian FM broadcast stations during periods of stable summer weather. There is little that can be done to alleviate these occasional problems, which usually last for only a short time.

The use of one of the forms of coding will assist in reducing any annoyance caused by interference.