

# FM Reception Problems? Solutions for poor radio reception in Japanese import cars

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### Background

New Zealand has started to use radio frequencies above 100 MHz for FM broadcasting, which means we can make better use of the available radio spectrum. For most radio listeners, this means an increase in the number of services available.

But if you own a Japanese second-hand import car which has been fitted with a "band expander" you may experience some problems with your reception, such as sudden switching between two different radio stations.

This leaflet sets out why you could experience these types of problems and what you can do about it.

For further advice on band expanders, contact your car dealer, car stereo dealer or car stereo installer.

### Why there could be a problem

Japan uses a different FM broadcasting band to that used in almost all other countries, including New Zealand. Second-hand Japanese import cars are often sold in New Zealand with the car radio designed for use in Japan still in place. These radios are unable to receive all available FM stations in New Zealand. Because of this, the car is sometimes fitted with a "band expander" so it can receive more FM stations. This is a less than ideal solution, which, as more FM stations become available in New Zealand, will become increasingly unsatisfactory for listeners.

The normal tuning range of a car radio designed for use in Japan is from 76 to 90 MHz. The international FM band (which is used in New Zealand) is from 87 to 108 MHz. Band expanders shift the New Zealand FM stations down to the tuning range of the Japanese car radio. But, because the Japanese FM band has a narrower frequency range than the international band, sometimes the band expander shifts two stations to exactly the same point in the tuning range, causing poor reception of both stations.

As more radio stations start broadcasting above 100 MHz, it is likely that you will experience poorer reception, even for long-established stations operating on frequencies below 100 MHz.

### How to tell if you may be affected

The problem is only likely to affect second-hand Japanese imported cars that have been fitted with a band expander.

You can identify whether you have a band expander fitted in your Japanese import car by looking at the tuning range of your car radio:

- If the numbers range from 76 - 90 on the FM band, your car radio is designed for use in Japan, and not New Zealand. If the car radio can receive most stations being broadcast in New Zealand, it has been fitted with a band expander
- If the numbers range from 88 - 108 on the FM band, your car radio is designed for the international FM band, which is used in New Zealand, and you need take no further action.

If in doubt, contact the dealer who sold you your car or a car stereo installer.

### What to do

The best, and only long-term, solution is to replace your Japanese specification car radio with one designed to work in New Zealand.

If you are unable to replace your car radio, you could wait and see whether the radio stations you listen to will be affected. If you do get poorer reception of a station you would like to receive, you could replace your band expander for one that shifts the frequencies by a different amount. This can sometimes improve the reception. For example, a 10MHz expander may work better in your area than a 12 MHz one. However, sometimes this will just cause reception problems for other radio stations.

Changing the length of your antenna might also help a bit.

If you decide not to replace your car stereo, you should talk to a car radio dealer about which band expander shift frequency or aerial length would allow you to receive more of the stations you want in your area.

## Buying a second-hand Japanese import car?

If you are thinking of buying a second-hand Japanese import car, check the car radio frequency range. If the numbers range from 76-90 on the FM band, the radio is not designed for use in New Zealand. You should also check with the person selling the car if a band expander has been fitted.

You may wish to request that the car radio be replaced with one designed for use in New Zealand or factor the cost of a new car radio into your purchase.

## For more information

For further advice on band expanders, contact your car dealer, car stereo dealer or car stereo installer.

For more [technical information](#) about the issues in this brochure or for further copies, phone free: 0508 RSM INFO (0508 776 463). Overseas callers please call +64-3-962 2603.