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In regards to the installation of the Broadband router and antenna system for the NZMCA members, firstly the operational requirements are considerably different to those of a fixed site environment as the modem has no internal suppression or polarity protection.

At home for instance, the router is plugged into the mains via an AC to DC adaptor power supply. This not only converts the input supply to 12V DC it also offers over voltage and AC spike protection for the modem, i.e. a steady regulated voltage supply. In the mobile environment such as a motorhome or caravan the DC voltage can be unstable as it fluctuates due to battery condition, age, solar input, house charger input and circuit voltage drop.

As well as the above, the DC supply can be subject to considerable “noise” or spikes caused by water pumps, fridges, charger, inverters and unsuppressed solar regulators.

As the modem has no protection against this environment, it is important to protect the investment with a DC to DC filter, this ensures a stable operating voltage that meets the manufacturer’s specifications under all mobile operating conditions.

The installation process involves supplying and connecting the DC to DC filter to a 12 Volt supply within the motorhome or caravan and then simply plugging it in to the modem.

The other important consideration for the optimum performance of the modem is an external antenna. Again in a fixed position within a good coverage area (such as your home) the modem’s internal antenna will provide adequate operation.

However, due to the large coverage area required by NZMCA members as they travel around NZ, they will require strong signal capability even when they are on the fringe of the 3G/4G network. As they will not know whether they are on the fringe of that signal network or not, with an external antenna installed the effect of the amplification of the antenna in any and all fringe locations will ensure great signal and modem operation. An important consideration is that should you require 0800 support from Wireless Nation when on the road, the support tech will need to know that you have the ability to receive maximum signal strength at your given location so he can further assist you.

The antenna selected is a high gain PUCK antenna that has been specifically designed for the mobile market. It is very very low profile, omni directional LTE antenna with a 5dBi gain on the 3G/4G network. The manufacturer has been awarded the contract to supply a marine version of this for the Olympics at Rio, so the quality and ongoing operation is ensured.

The antenna comes with the necessary cable to allow connection to the modem via a roof entry port and the antenna itself is mounted on the roof. The installer will make and/or supply a simple bracket for mounting purposes that suits the particular individual installation. It is certainly an advantage to mount the unit externally to obtain maximum signal gain. It can be mounted inside and whilst this will give some improved benefits, the materials that the motorhome or caravan are constructed of can and will effect signal quality.

The installation can take from 1 hour up to 3 depending on make, model and layout of your vehicle. Your local installer will have a better idea once he either:

- a) sights the vehicle or caravan
- b) knows the make and model info which the system is to be installed in.