

Breaker, Breaker - 10/4 good buddy.

■ Words & photos: Ron Diprose

Yeek! Except for Smokey and the Bandit fans, thank goodness all that nonsense in the heading is history.

So why the weird title? Read on ...

Navigator and I have always used a hand-held UHF for Club runs, and although it is a low-powered unit it has always provided plenty of listening entertainment. Plus having the ability to throw in some amusing banter on occasion, even if only amusing myself.

Having for years planned to do a huge around-Australia trip with the Navigator, friends and two mobile chicanes and with that trip rapidly approaching, the subject of intra-vehicle communications was raised.

We decided that an in-vehicle unit with an external antenna would be best, giving a far greater range than the hand-held units we currently use. I also wanted to be able to move the radio from the four wheel drive tow car to the MX-5 play car.

Having asked a lot of questions, checked out the internet, and had some liquidenhanced discussions, both touring parties decided on the smallest 80-channel Uniden or GME units (77 channels, if you wish to be pedantic).

The next challenge was figuring out where to fit the unit, so that it was accessible to both the Navigator and me, was away from prying eyes in the Prado (despite the obvious antenna mount on the bull-bar) and could be heard clearly.

The centre console bin in the Prado works well, using Velcro to mount the unit and the microphone and with a small modification to allow the console lid to remain ajar when needed.

The only issue was found when running the antenna coaxial cable through the engine bay.

Our car has an electric brake controller for the caravan which uses a self-resetting fuse under the bonnet. As I poked the cable past the fuse, I discovered that the exposed contacts show their displeasure at have a metal object touching them by producing some impressive sparks.

Yes ... you should disconnect the battery first!!

A couple of dabs of sealant should stop a repeat of that incident.

The Mazda presented some different challenges.

The recommended way to power the radio is directly from the battery; the problem is that if you forget to turn it off and don't use the car for a week or two, eventually you will flatten the battery.

I wanted the UHF to work at the same time as the car radio, when the key is at the accessory position. I found that the cigarette lighter works then, too, which was very helpful.

To make this work I needed a relay, which uses a small electrical current to turn on a much higher current. So I bought a standard 12-volt relay and used a thin wire, running from the centre cigarette lighter contact to do the switching.

I removed the centre console, first removing the gear knob, then the five screws as pictured.







I lifted the console a little and disconnected the electrical connector for

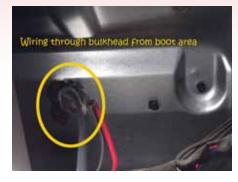
the windows and the harness clip. This allows access to the two screws for the radio surround. With these removed the surround was gently pried off, to access the cigarette lighter.



The control wire was then fed under the centre carpet. Not having Mazda special tool Byz78236 or equivalent I used a trusty coat hangar, suitably bent, to grab the wire.



To allow all the wires to access the battery in the boot I used a hole saw to cut a hole large enough to feed the antenna connector through into the bulkhead behind the driver's seat.



Once the antenna connector was through, the other wires were inserted. And to stop the wires chaffing this hole was sealed once everything else was in

The relay was mounted behind the boot lining. I did not want to drill any unnecessary holes, so I used neutral cure

Kojak with a Kodak ...

silicone sealant to glue the bracket to the boot floor.

Using neutral cure sealant has a lot to do with grease and holidays which I will digress and explain ...

In the early '70s one of my jobs as an apprentice was to grease the undercarriages of Boeing 707s.

Two people were needed to do this – one to pump the grease gun and the other to direct the fitting to the correct spot. This was a long job as, believe me, the 707 had lots of grease points.

Then a wonderful thing happened: new pneumatic grease guns appeared. They attached to 20-litre drums and made the job much quicker with only one person.

Should a fellow apprentice be foolish enough to go on holiday, they would return to find a grease fitting screwed into their toolbox and the box filled with grease. These new guns made that procedure much better as they could empty the 20-litre drum in seconds.

Then another wonderful thing occurred: Silastic brand silicone sealant appeared. This made a lot of sealing jobs easy, and worked very well with aluminium alloy material. We now had something new to play with and soon found that it made an excellent glue. Rather than use grease, we decided that gluing the next holiday maker's spanners together with silicone would be very funny.

Unfortunately when the victim returned we discovered the effects of acid cure silastic. Not only were his tools firmly glued, but they were very very rusty. We also had one very very upset holiday maker and a lesson learned.

So. back to the radio: I used a GME MB409B bracket to mount the antenna on to the boot lid.





It clamps on using two grub screws and has rubber pads which sit on the outside. To avoid damaging the paint inside and to provide a good earth, I use a metal strip between the screws and the boot lid. This has a wire attached which goes to the body earth.





The bracket is black to match the antenna, but also comes in stainless steel, if you like bling – part number MB409. Trusty Velcro was attached to the radio

and to the microphone mount. The rough type sticks to the carpet in the car and allows for varying mounting positions.



I mount the radio between the seats on the rear bulkhead and the microphone on the passenger side of the transmission





This works well, although for safety you have to pull over to make any adjustments. This is not a problem as once the channel is set there is no need to change anything when driving.

I have tried the set-up out on a couple of Club runs, and so far the only issue, which is the same for all 80-channel units, is that the transmission is very quiet to 40-channel sets so the person receiving has to turn their volume up to hear.

The next challenge is to work out how to fit the MX-5 into the caravan because I am sure to miss the fun driving. Big roof racks and some long ramps maybe ???■