

FRIDGE WIRING: Some Advice

(The following has been contributed by Howard Jones, a fellow Coromal owner and enthusiast. It is the contents of an email to our editor in Sept. 2007.)

"I read with interest your item on Fridge wiring & agree with your comments on using 6mm wiring for the fridge in the car. We have owned a Princeton 701 for 2.5yrs & have nearly got it sorted out.

However, the concept needs to be extended to the Van wiring as well. The fridge draws 15A & needs **8mm** or greater right through to the fridge terminals. The 12pin plug on the car is only designed to carry 10A on the large pins & I have seen a number of cars including our own where the pins have burnt & melted the plastic plug or socket due to the screw becoming loose in the connection.

Last year our fridge was not holding temp on 12V across the Nullarbor so when we got to Norseman we went to the local garage & they completely rewired the car & van & fitted an Anderson Plug for the fridge wiring. It is critical to rewire the van as only 4mm is used & too much voltage drop occurs between the plug & fridge terminals. It is also critical to run both a positive & negative lead from the car battery as you mentioned via a VSR or through a relay only activated in the engine ON condition.

In order to explain the situation a little more clearly the following figures may help.

Fridge Voltage	Wattage (fridge)	% of Heating Power
12v	175	100
11.5	161	92
11.0	147	84
10.5	134	77
10.0	122	70

In most vans that I have measured the voltage has been around 10V which means that it is only getting about three quarters of the heating power required to hold temp. I have contacted Dometic & they claim that the fridge **MUST** have 12V to work according to specifications. In my case I now get 12.1V with the engine running at 13.5V & it just holds temp while ON during the day depending on the ambient temp.

After touring around WA we were still not happy with the fridge performance & so we called in at the Adel service agent, Dario, & he discovered that the ducting at the top rear of the fridge was not installed correctly. There is a sheet of metal which is supposed to deflect the heat off the coil to the outside Vent. However this was not located correctly & the heat was allowed to circulate on the top of the fridge & between the cabinet. Consequently the plastic cover over the front controls was all deformed due to the heat & effectiveness of the fridge was reduced as heat was not escaping. The control cover was replaced & a new curve sheet of Aluminium was fitted from the top back edge of fridge to the top of the vent frame. The Aluminium is the full width of the fridge. This appears to work more effectively now.

After discussing all these issues with our local Coromal Dealer & Coromal HQ in Perth, they agreed to refund half the cost of all my expenses. I raised these issues as I hoped that they would implement improvements in production but I am not sure if this has happened.

We are currently in Darwin & the fridge is certainly not coping well with 40°C & high humidity.

We are still very proud of our Coromal & our comments are given in order to improve quality & ensure that it is the best brand on the market."