Installation of Swift Ecotherm Caravan Heater (I have no affiliation with Swift or its associates)

Part 1 posted on Grey Nomads Website

The Ecotherm works in a similar manner to a car heater, hot water from the hot water service is circulated through a small radiator (like a miniature cooling radiator on a car but in this case we use the hot air not take it away as would be the case in a car). A fan behind the radiator blows air through the heated fins and into the van.(As the unit re-circulates the air in the room gradually warms.) The water temperature from a van water heater is usually 60-65 C so room temp won't go much above 30C.

A thermostat with internal thermometer can be set to turn the water pump and fan off when target temperature is reached.

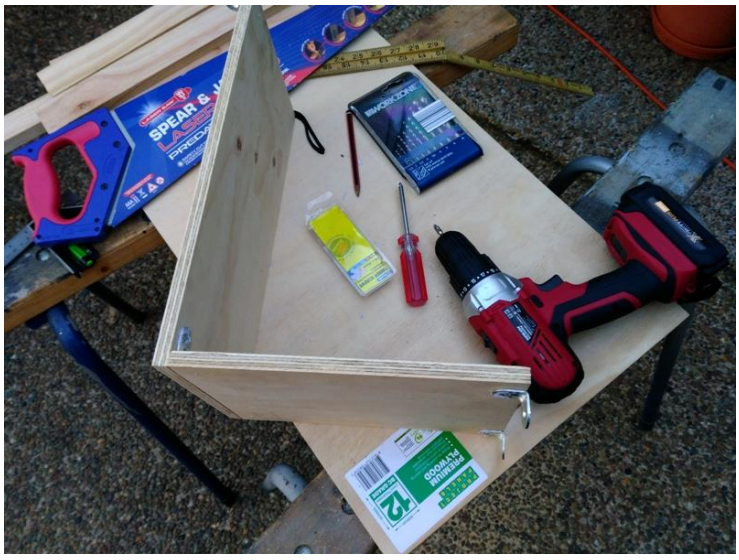
This short note is to help a friend install his unit so I thought I would share with others.

Planning

I have a 16.5 ft Jayco Starcraft Outback with a double bed, my water heater, power and pump are located under the bed and this was a good location for our van.

When planning however be aware that the unit will need to be protected by a small box from other items shifting around under the bed, my satellite dish is stored under the bed and needed to be clear of the heater.

Materials for Box



The photo below shows the location I chose for my installation, with a box made from 12mm ply in position.

The unit will need to be about 50mm or so above floor level to allow fitting of the hot air duct, I have a couple of 4"x2" bits of pine under the heater as well a bit of rubber strip from Clarke Rubber for Insulation.

Some of the Items required include enough 12mm PE tubing for the installation (90C specification is recommended however difficult to obtain) I used LDPE red and blue spec'ed as 65C @90psi with John Guest inserts to protect against tubing collapse. You will need two 12mm "T" connectors, I also used an elbow to allow the tubing to have an easier path to the Ecotherm. (little red clip stop fittings coming loose.)

You will need to trial fit the unit with the vent cover to mark out and drill the four corners prior to sawing out the hole.

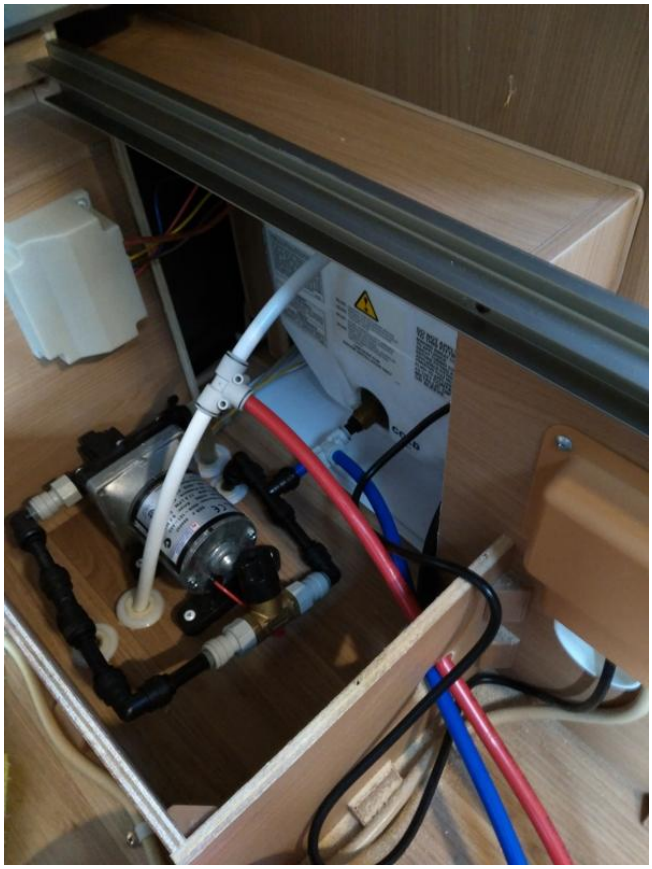
I fitted the vent back to the heater the drilled the holes for the vent mounting and marked out and drilled the location of the holes for each corner or the cutout.

A jig saw was then used to cut out the square hole for the vent.

It is important to cut out and fit the vent in line with the fixtures at the outlet of the airflow from the heater first so the heater can be mounted the correct distance from the vent. (The height also need to be set prior to fitting the vent to save a need to "pack up" the heater unit to suit.

The rubber mat was used to help minimise any vibration from the pump.

Below is the installation of the "T" pieces and tubing.



Note in the next photo every effort has been made to minimise sharp bends in the tube and bracket stop them moving around. (sharp bends can become kinks in the heated tubing)

The next part will deal with 12volt wiring. (maybe Jayco specific but will translate to most vans)

Brian Walker June 2016