

## SWIFT ECOTHERM HEATER



### INSTALLATION INSTRUCTIONS

#### GENERAL

This heater is designed to operate with the swift gas/electric hot storage hot water unit. The heater takes heat from the water in the storage tank and blows it out into the van. The water is returned to the main tank where it is mixed and reheated as required. The circulating pump is mounted beside the heater and does not replace the pressure pump used by the storage hot water unit. The water can run on either gas or electric supply. The Ecotherm does not produce fumes and does not require any flue or outside venting. It takes a small amount of heat from the water as it passes through and still leaves the water hot enough for showering and washing when required. When not in use turn off the ball valves B and C.

The heater is designed to operate at a pressure of 400kPa. It does not replace the pressure pump used for the storage hot water. The discharge temperature is approximately 40°C.

#### LOCATION

Mount the heater close to the floor with its discharge facing a large open region. Usually at the end of the bed is the best location. Cut an opening to suit the discharge register and fix register in position. Slide the heater into the rear of the register and pack underside so that it is level. Use rubber mat or a resilient material to absorb any shock or vibration. Connect the pump in line with the heater and fix in position using a resilient material to absorb vibration. Fit a return air opening.

#### PLUMBING

Connect the heater as per the attached diagram. The installation commences from the two Tees marked on the diagram. The storage heater and its connections are shown to illustrate where to fit the heater. All fittings must comply with relevant regulations and AS/NZ5601.

#### ELECTRICAL

12V DC 1.0A. Join the two red wires from the pump and heater and connect in series to a switch or the wall thermostat. The wall thermostat has three terminals, use the two outer terminals only. There is no neutral (-ve) connection to this thermostat. Join the two black wires and connect to the -ve of the 12V DC supply.

#### COMMISSIONING

Connect the heater as per the diagram. The ball valves, check valves, tee's and 12mm hoses are not supplied with the Ecotherm heater. They can be obtained from a caravan service centre or if it is more convenient please order and installation kit Part Number ECOK from the dealer where you purchased the heater from. This installation kit includes the following: 3 x 12mm Tees, 3 x Ball valves, 1 x Check valves, 5m 12mm red hose, 5 x 12mm black hose.

#### PURGING AIR FROM PUMP

The heater pump requires the air to be bled from the lines before it will circulate the water. When there is air in the lines the pump will vibrate. The fitting of the ball valve D is important to remove air in the line and it also ensures that the storage tank can be checked that it is full.

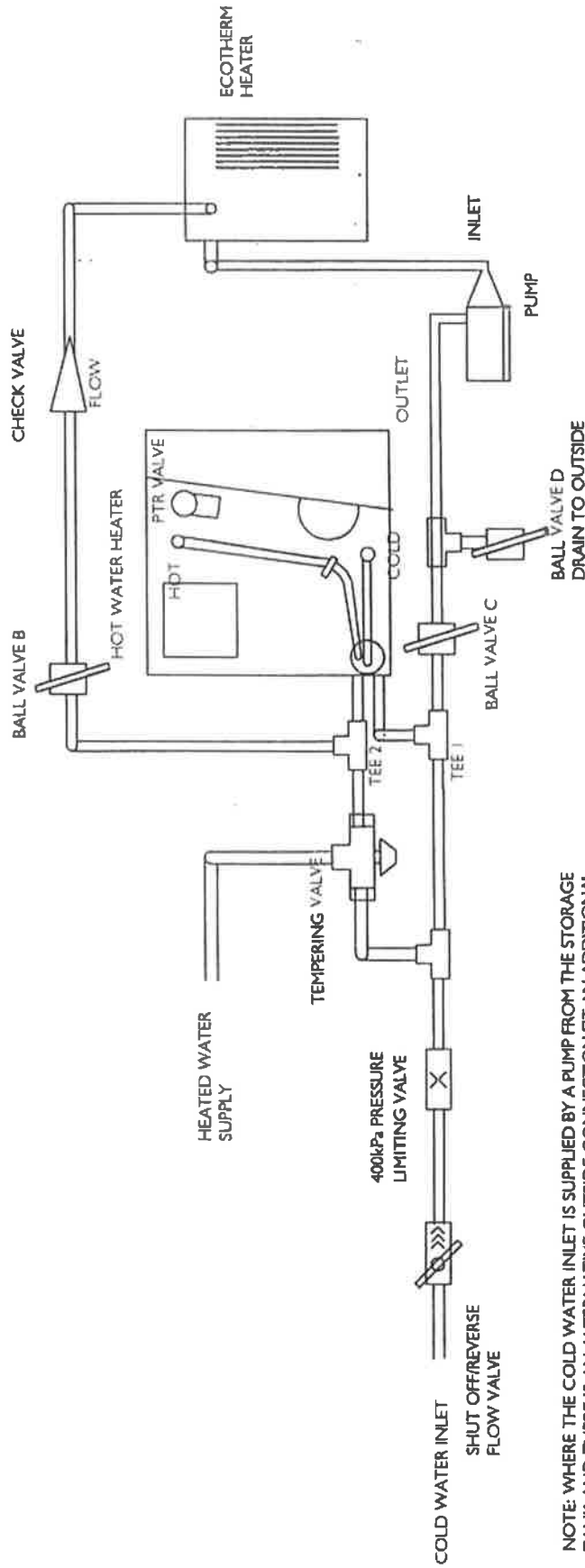
To purge turn off the call valve C then open ball valve D until water flows freely without bubbles. Close D and open C. Heater is now ready to run.

#### DRAINING THE SYSTEM FOR STORAGE

Turn off the caravan pressure pump, disconnect and remove the 240V AC lead of the storage hot water from the GPO. Leave the hot water tap in the sink open and open ball valve D. When drained turn off D and do not reconnect the 240V lead until after you next refill the system.

**ISOLATOR SWITCH MUST BE INSTALLED IN FRONT OF THERMOSTAT**

PLUMBING LAYOUT WITH OPTIONAL HEATER CONNECTED THROUGH TEE1 AND 2



NOTE: WHERE THE COLD WATER INLET IS SUPPLIED BY A PUMP FROM THE STORAGE TANK AND THERE IS AN ALTERNATIVE OUTSIDE CONNECTION FIT AN ADDITIONAL REVERSE FLOW VALVE UNLESS INCORPORATED IN THE PUMP.

CABLE TIE PTR OUTLET TUBE TO HOT WATER OUTLET PIPE TO CLEAR METAL EDGES AND BURNER

NOTE 2 12mm PUSH IN FITTINGS AND LLDPE HOSE HAS BEEN TESTED AND CERTIFIED AS PART OF THE APPLIANCE

NOTE CONNECT THE HOT WATER FROM BALL VALVE B LINE TO THE TOP OF THE PUMP AFTER GOING THROUGH THE CONECTOR AND CONNECT THE OUTLET OF THE PUMP BACK TO THE COLD WATER CONNECTION VIA BALL VALVE C