

SWIFT HOT WATER

INSTALLATION AND OPERATING INSTRUCTIONS

MODELS

GHW-GAS STORAGE HOT WATER, EHW- ELECTRIC STORAGE HOT WATER

GEHW- DUAL ELECTRIC HOT WATER

AUSTRALIAN MADE, DESIGNED AND OWNED

BUILT TO TRAVEL MADE TO LAST

## TO THE INSTALLER

### **SAFETY INFORMATION**

If you smell gas –

- Open windows and doors
- Extinguish any open flame
- Do not touch electrical switches
- Call your gas supplier immediately – If in doubt who to call ring '000'

**SAFETY AFTER INSTALLATION** The purpose of this section is to direct your attention to the possibility of accidents that can be avoided.

- Remember the appliance produces heat.
- DO NOT STORE OR USE PETROL OR OTHER FLAMMABLE VAPORS OR LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER GAS APPLIANCE.
- The appliance is not to be used by persons (including children) with reduced physical sensory or mental capabilities or lack of experience and knowledge, unless they have been given supervision or instruction.
- The appliance is not intended to be operated by means of an external timer or separate remote control system.
- WARNING Accessible parts may become hot during use. Young children should be kept away.
- Children being supervised not to play with the appliance.
- The Water may drip from the discharge pipe of the pressure-relief device and that this pipe must be left open to the atmosphere. The discharge pipe must be plumbed to the exterior of the installation.
- The pressure-relief device is to be operated regularly to remove lime deposits and to verify that it is not blocked.
- If the Supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- PTR 500Kpa 99°C
- A Discharge pipe connected to the pressure-relief device is to be installed in a continuously downward direction and in a frost-free environment.
- **DANGER:** Failure to operate the relief valve easing gear at least once every six months may result in the water heater exploding, Continuous leakage of water from the valve may indicate a problem with water heater.
- Products must be installed and disconnection incorporated in the fixed wiring is in accordance with AS/NZS 3000

### **WARNINGS**

1. DO NOT SPRAY AEROSOLS IN THE VICINITY OF THIS APPLIANCE WHILE IT IS IN OPERATION. The use of aerosol cans of insect spray, deodorants, repellents, stove cleaners, hair spray paint etc. must be avoided in the proximity of burners to avoid explosion or rapid corrosion of finishes.
2. This appliance must be installed by an authorized person.
3. **IF YOU SUSPECT THAT THERE IS A GAS LEAK TURN OFF SUPPLY AND VENT THE AREA.** Seek professional help to fix the leak before operating again.
4. DO NOT STORE OR USE PETROL OR OTHER FLAMMABLE VAPORS OR LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER GAS APPLIANCE.
5. DO NOT MODIFY THIS APPLIANCE
6. DO NOT USE AS A POOL HEATER

This booklet contains important safety instructions and advice on operating the appliance for best performance. Safety First – Read the instructions to ensure that you understand its operation. Always keep this booklet with the appliance for future reference.

Do not use this appliance unless it is in a level position. Level your RV before using this appliance. Gas or Electricity can be used singularly or together to heat the hot water. (GEHW). Ensure that the gas is turned on when required and start the system using the wall mounted switch. The red led will flash. The ignition cycle incorporates three cycles before lockout if the gas flame is not established. It will spark for up to 5 seconds until a flame is established or stop for another 5 seconds before repeating and once more at the end of which it will shut off and needs to be manually turned off before any further attempts could be made. This is to assist bleeding gas through when a gas bottle has been changed. The LED (Gas only) will remain on when the unit is operating. This hot water system is designed so that hot water can be extracted even before it has reached full temperature. As a rule wait until the gas turns off automatically. It will cycle on and off depending on water usage and time. The unit will stop when the water reaches 78°C. This is then reduced in temperature using a water tempering valve for sanitary purposes.

The tank is made from stainless steel which resists corrosion with water above 60°C. This grade of stainless steel has been chosen because other materials can corrode when subjected to these higher temperatures. In Australia bore water can harbor a bacteria that can eat through metals particularly in North Western Australia and across the top of Australia. **DO NOT FILL YOUR TANKS DIRECTLY FROM BORE WATER THAT HAS NOT BEEN TREATED OR EXPOSED TO DIRECT SUN LIGHT FOR A NUMBER OF DAYS.** The appliance is fitted with an anode to protect against bacterial corrosion. It does not need to be changed like a traditional anode because it is only there if you accidentally fill up with unsafe bore water.

**This product is to be installed by an authorized person.**

The Swift Hot Water System must be installed in accordance with this instruction book, all the relevant clauses of AS/NZ5601, AS/NZS3500.4, the National Installation Code for gas appliances and any other State or Regulatory requirements where applicable. Check AS/NZ 5601 for correct pipe sizing and flueing requirements.

The hot water is designed to operate at a maximum inlet pressure of 400kPa. A pressure limiting valve must be fitted in the supply line to the tank. All gas and water connections are made from the outside of the van. Refer to AS/NZ 5601 for clearances to window openings etc.

- Install in an RV or dwelling. To be installed on an exterior wall. The door must be open to the outside
- The tank must be supported to prevent movement.
- To be used with an approved two stage regulator 2.75kPa for LPG.
- All combustion air is supplied from the outside of the installation.
- Do not vent into an enclosed area.
- It is recommended to mount the appliance on the driver side of the vehicle.
- Do not modify the water heater in any way.
- Do not use a battery charger to supply power to the water heater.
- Do not Hi pot the water heater unless the electronic ignition has been disconnected

ELECTRICAL 240V AC

A switch GPO must be located in an adjacent area which is accessible when the appliance is installed. After installation leave the plug out of the GPO until hand over of the RV to the customer. If the plug is left in prior to hand over the power switch may be accidentally turned on by a prospective buyer or the switch could be turned on when the vans batteries are being recharged. This will result in the element being burnt out if there is no water in the tank. **Unit is supplied with a lead and needs to be hard wired. Means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules**

## **GAS CONTROL CONNECTION**

The gas system is controlled by a flame monitor which lights the gas and monitors the flame. In the event of a flame failure it will automatically shut off the gas until the system is reset. There are four wires located at the bottom right corner which should be connected as follows: Red is 12V DC Positive, Black is 12V DC Negative, Yellow is positive to LED and white is Negative to LED.

**WARNING** This appliance is not suitable for use as a pool heater.

**The gas system is suitable for Propane or ULP**

## **INSTALLING THE ELECTRIC STORAGE HOT WATER UNIT (MODEL EHW)**

This unit is not suitable for outside installation. Position the appliance in a cupboard or under a bed where there is easy access for future service. Fix in position through the bottom flange. Provide a drain point for customer purging of the PTR valve. Install a TEE fitting in the inlet pipe with a stop cock on the outlet and connect its outlet to outside the van.

PTR Valve (500Kpa 99°C)

- Water may drip from the discharge pipe of the pressure-relief device and that this pipe must be left open to the atmosphere.
- The pressure relief valve device is to be operated regularly to remove lime deposits and to verify that it is not blocked.
- A discharged pipe connected to the pressure relief device is to be installed in a continuously downward direction and in frost-free environment.

**WARNING:** The valve or drain valve outlet pipe must not be sealed or blocked.

**DANGER:** The operation of the thermal cut-out indicates a possibly dangerous situation. Do not reset the thermal cut-out until the water heater has been serviced by a qualified person.

**DANGER:** Failure to operate the relief valve easing gear at least once every six months may result in the water heater exploding. Continuous leakage of water from the valve may indicate a problem with the water heater

If the water supply pressure exceeds the rated pressure, a pressure reducing valve is to be fitted in the installation.

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified person in order to avoid a hazard.

**LOCATION** Choose a location to allow the body of the Hot water tank to sit on the floor of the RV with the cut out to allow the appliance to slide in from the outside. Ensure that it is clear of windows and openings into the RV and that the clearances are permitted in AS/NZ5601-2 Fit a strap or rear fixing bracket to prevent the tank moving during travel.

**INSTALLING** Push the unit in from the outside engaging the copper supply pipe and the hot and cold water lines through the rubber grommet. Connect the 12V DC supply with the switch provided to the positive wire. Connect the yellow and white wires to the LED mounted on the switch.

Use foam tape or other suitable flexible material to caulk around the perimeter of the body and also where the gas and water inlet are to completing the seal hole. Connect the hot water line (Red) to the top connection. The cold water line (black/blue) is connected to the lower connection. For the customer's convenience it is recommended that a TEE fitting be placed in the inlet pipe with a stop cock so that the tank can be easily drained when the van is in storage. Extend the outlet of the PTR valve out through the bottom of the body by drilling a hole clear of any chassis rail or other obstruction and extend to a safe location. Place the two lugs on the door through the two slots in the flange of the body on the left side. The door must be screwed shut for travelling.

Carry out gas and water leak tests

Turn on the gas supply and check the unit for correct operation as follows:

1. Fill the tank with water.
2. Turn on gas supply at bottle
3. Turn on 12V DC supply
4. Turn on isolating valve in cupboard adjacent to the water heater.
5. Turn on the gas ignition switch on the wall. Appliance will light automatically.

Note if the water does not heat check that the tank is full with water by turning on a hot tap to see if there is any air pausing out. When the water flow, I steady press the two buttons on the central cover (pie shaped dish).

**General service note.** The thermostats for the electric and the gas system as mounted behind the pie shape dish If the water fails to heat press the two buttons on the pie dish cover (See diagram at rear of booklet.

## **TO THE CUSTOMER**

Thank you for choosing an Australian made hot water system and of course we thank you once again if you have chosen any of the Swift cookers, range hoods and BBQ`s. We have continued to offer quality product designed for the purpose of travel yet functioning like the appliance in your other home.

Very little maintenance is required for this appliance but you should as a matter of course always familiarize yourself with any appliance so that you can identify any change in operation or condition.

Gas connection is 5/16 tube nut (1/2 UNF – 20TPI) compression located along the bottom edge close to the right hand corner. Bring the copper tube along the left hand side of the tank and pass through the rubber grommet. Bend tube to suit the inlet connection and tighten using a 5/16 Tube nut.

**GAS PRESSURE** Connect to the gas bottle using an approved two stage regulator set to supply 2.75kPa to the appliance inlet. Check pressure using pressure point mounted on regulator.

**WATER CONNECTION** This appliance has been tested and is fitted with DLuxx and/or Nurgun 12mm push fit connectors for use with LLDPE pipe 12mm OD x 9mmID or 12mm OD x 8mm ID hose connected to the inlet and the outlet of the appliance. Code type CS9X1.5LLDPE.

This Appliance is not be connected by hose set.

It is recommended that the pipes be color coded for hot and cold. I.e Red to top hot connection and black/blue to the bottom cold connection. Bring the two pipes along the left hand side of tank passing through the rubber grommet and then fit to 12mm swivel connectors. Ensure that the release ring is pulled away from the elbow.

**GAS INPUT** 7Mj. Inlet connection 5/16 tube nut (1/2UNF x 20TPI) compression 2.75kPa.

You should check your appliance to ensure that there has been no damage or movement to its installation before starting and at the completion of any trip. In any case have your appliance should be checked by a service agent as recommended by the Safety Regulators every 2 years and refer to the Swift Web site for any notices or changes that may occur from time to time. The appliance has been designed so that all water connections are on the outside of the vehicle. This means that if a leak occurs in the connections it will drain outside of the van.

When you are about to use your RV after a prolonged period check inside the cover of the appliance to ensure that it is clean and that no foreign matter has been posted into the unit through the flue outlets.

If the water has not been used in the van for some time turn on the pump and flush out the water and then replace with fresh water.

Never operate the appliance before filling the tank with water and checking that water flows from one of the hot taps. In freezing conditions check that water flows from the hot tap before turning the appliance on. Failure to ensure that the water tank is full may cause the element to burn out which would not be covered by warranty.

This appliance is fitted with a type of anode designed to protect the tank from Bacterial attack should untreated bore water enter the tank. (Search Bacterial corrosion on the internet for information regarding this). The anode does not need to be changed on a regular basis.

### **ROOM HEATER**

The Swift Ecotherm Heater has been designed to connect to the Swift Hot Water unit so that it can utilize the heat from the tank while still giving hot water for showing or washing. There is no flue required for the heater and you have the added bonus that it can operate off the gas or the electric system. The heater increases the capacity of the hot water unit because it constantly circulates the water with in the hot water unit.



## **TECHNICAL SPECIFICATIONS**

Capacity 28 litres

Dimensions Overall length 545mm, width 375mm, height 363mm

Voltage for electric element 240V AC 50Hz

Voltage for gas burner 12V DC

Weight 5.0 kg (Dry)

Heating element: 1kw

Pressure Relief Valve. 500kPa

Maximum inlet water pressure 400kPa

Cut out Dimensions. 330- 340mm wide, 320 – 325 mm high, Minimum depth clearance required is 550mm

Gas connection location. 5/16 Tube Nut (1/2 UNF – 20TPI) 200mm from left hand side 20mm up

Water connection location. Hot 260mm up and 80mm from left, Cold 50mm up and 130mm from left

Pipe Access. Lower left corner along side of tank.

## **OPERATING INSTRUCTIONS**

**Electric Heating.** Turn on the switch at the GPO. The heating element will bring the water to the preset temperature and automatically cut off. The element will then automatically switch on and off to maintain the temperature. It will reach a usable temperature in approximately 40 minutes and full temperature in 1 hour. Running both the gas and the electric at the same time will heat the water quicker.

**Gas Heating.** Turn on the gas switch and the LED light will flash rapidly until the gas lights. The light will then remain constant, If the gas fails to light or the gas bottle has been changed the system may have air in the line so the it is designed to repeat three times to ensure that the flame sensor monitors the gas correctly. If the gas fails or it senses a fault in the system it will turn off the gas and the LED will flash at a constant rate until the switch is turned off to reset the unit.

**Care and Maintenance** When storing your van it is recommended that you drain the tank or when you next use the van run out at least 40 liters of water to refresh the water quality. (Drain through the ball valve located in the cold line near the hot water tank. The tank is made of corrosion resistant stainless steel and it does not require an anode to prevent corrosion. There is a sacrificial tube (anode) which is there to protect against bacterial attack from some types of bore water. It only needs to be replaced if you have been running the hot water on this type of water for long periods. To replace the lower cold water elbow must be removed and the tube pulled out.

For parts and service contact Swift on 03 93593068 or an authorized service agent.