



Apricus Australia Glass Lined Steel Solar Water Storage Tank  
Electric and Gas Boosted

GLS

GLNGS

**Owners Manual**

## Thank You

Thank you for choosing Apricus.

We sincerely hope that you enjoy your solar powered showers, sound in the knowledge that you are a part of the SOLUTION to climate change.

### Customer Service is Important to Apricus

It is important that this tank is installed professionally.

You should expect the installation officer to:

- Be on time
- Be polite
- Answer any questions you may have about the tank
- Explain the basic operation of the system to you
- Clean up after the installation

If you have any comments about the service provided by the installation officer  
please contact Apricus Australia:

**1300 APRICUS (1300 277 428)**

For more information about Apricus products please visit [www.apricus.com](http://www.apricus.com)

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## 1. Important Information

**Please refer to the *Apricus Solar Collector Installation and Operation Manual* when installing this system with the *Apricus Solar Hot Water System*.**

### **Authorized Person(s)**

- a) Installation must be completed by a qualified tradesperson, who holds relevant industry licenses or certificates required for the work completed during the installation process.
- c) The term “Authorized Person(s)” used throughout this document refers to a suitably qualified professional.
- d) Unless otherwise specified in section 2.2.7 and 3.2.8, no part of the Apricus solar system may be inspected, repaired or maintained by anybody other than an authorized person(s).

## 2. APRICUS GLES

### 2.1. Solar Connections

Refer to Appendix 6.1 – 6.3 for details of connection to the solar collector circulation lines.

### 2.2 Installation Details

This unit is to be installed in conjunction with the Apricus Solar hot water system.

Please refer to the Apricus Solar Collector Installation and Operation Manual when installing this unit with the Apricus Solar Hot Water System.

This water heater must be installed by a licensed tradesperson, and in accordance with:

AS/NZS3500.4.2 “National Plumbing and Drainage Code Hot Water Supply Systems – Acceptable Solutions”.

Local authority regulations.

*Note:* This Solar water heater is not suitable for pool heating.

Where the mains pressure can exceed or fluctuate beyond the pressure shown above a pressure limiting device (complying with AS 1357) must be fitted to the cold water inlet supply. This device must be installed after the isolation valve and set at or below the pressure shown above.

### **LOCATION**

The water heater storage tank should be located as close as possible to the most frequently used hot water outlet. Adequate access must be made for service to the element, thermostat, relief valve and anode. Ensure that the data plate is clearly visible.

*Note:* This model is equipped with a sacrificial anode, accessible through the top cover cap. Ensure water level is at 50% of the height of the water heater for above clearance to replace the anode.

The unit *should not* be installed in the roof area as a mains pressure unit.

*Note:* The warranty does not cover damage due to leakage of the water heater.

#### **2.2.1) Safety Information**

*Warning:* For safe performance this water heater is fitted with:

- i. Thermostat.
- ii. Over-temperature energy cut out.
- iii. Combination Pressure and Temperature relief valve.

These devices must not be tampered with or removed.

The water heater must not be operated unless each of these devices is fitted and in good working order.

***THE ELEMENT COVER MUST ONLY BE REMOVED BY A QUALIFIED ELECTRICIAN.***

The Pressure & Temperature Relief Valves should be checked for adequate performance or replaced at intervals not exceeding 5 years, or less in areas where local regulations apply. The lever on the relief valve must be pulled to operate the valve at least once every 6 months. Failure to operate the relief valve-easing gear at least once every six months may result in the water heater exploding.

This appliance is not intended for use by young children or infirm persons unless they have been adequately supervised by a responsible person to ensure they can use the appliance safely.

### **IMPORTANT**

The pressure and temperature relief valve and the drain outlet pipe must not be sealed or blocked. It is normal for the valve to overflow during heating cycles.

### **PACKING REMOVAL**

All cardboard and foam packaging should be recycled where ever possible, all other materials should be disposed of in a responsible manner.

### **2.2.2) Water Quality**

Your Apricus Solar hot water heater has been manufactured to suit water conditions of most Australian metropolitan supplies. Please note that harsh water supplies can have a detrimental effect on the water heater and its life expectancy. If you are unsure about your water quality you can obtain information from your local water supply authority.

The water heater is designed for use in areas where the Total Dissolved Solids (TDS) contents of the water supply is less than 2500mg/L. In areas where the TDS exceeds 750mg/L it is possible that the magnesium alloy anode (supplied in the heater) may become over reactive. To alleviate this, the magnesium alloy anode should be replaced with an aluminium alloy anode available from your Apricus agent.

#### *FLUSHING THE STORAGE TANK:*

Flushing the storage tank at regular intervals is recommended in areas that have high sediment levels in the water. To assist this process, the heater has been designed to fully flush out any built up solids. To make flushing easy we recommend that a drain cock be fitted at the cold-water inlet pipe.

When flushing out the storage tank follow steps 1 to 6 in draining and refilling above then repeat the operations until all sediment is flushed from the storage tank. The system is clear of sediments when clear water is observed going down the drain.

#### **CAUTION:**

If the water heater is left in an operating condition and unused for two weeks or more, a quantity of hydrogen (which is highly flammable) may accumulate in the top of the water cylinder. To dissipate this gas safely it is recommend that a hot water tap be turned on for several minutes at a sink, basin or bath but not a dishwasher, clothes washer or other appliance. During this process there must be no smoking or open flame or any other electrical appliance operating nearby. If hydrogen is discharged through the tap it usually sounds like air escaping.

### **2.2.3) Pressure and Temperature Relief Valve**

The Pressure and Temperature Relief Valve is supplied loose with the water heater. The valve rating is – 850 kPa.

The relief valve must be installed directly into the top socket marked “RELIEF VALVE”.

From time to time the Pressure and Temperature Relief valve may discharge a small amount of water. It is important that the discharge pipe is open to the atmosphere, pointing in a downward direction and in a frost-free environment in order for the water to drip.

The Pressure and Temperature Relief Valve must be opened regularly to remove lime deposits and to verify the valve is not blocked.

*Warning:* The Pressure and Temperature Relief or tube must not be sealed or blocked.

#### **COLD WATER CONNECTIONS:**

*Note:* Where supply water pressure is above 750Kpa, a pressure-limiting valve is to be installed before the unit to limit the inlet pressure to 750Kpa.

An approved isolation valve, approved non return valves, line strainer (optional but recommended), and union must be fitted between the supply main and the RP3/4/20 socket in the water heater.

All fittings must be approved by the relevant Authority. See the installation diagram for details.

*Note for SA and WA:* It is a requirement that a pressure relief valve be fitted on the cold water supply line between the non-return valve and water heater.

*Warning:* A separate drain line must be run for this relief valve. It is not possible to couple drain lines from relief valves into a single common drain.

#### **HOT WATER CONNECTIONS:**

The hot water pipe should be connected to the solar hot water system as shown in the included diagram. The Apricus Solar Hot Water System must be fitted in accordance with the Apricus Solar Collectors Installation and Operation Manual.

### **2.2.4) Solar Water Temperature Controls**

The solar hot water temperature is controlled by the temperature controller located beside the tank. Through temperature sensors located in the storage tank unit and solar collector the recirculation pump is turned on and off to control the tank temperature to around 70 °C.

It is important that tank temperatures do not exceed 70 °C as this could affect the life of the unit and or possible warranty.

#### **ELECTRICAL CONNECTION:**

This water heater is designed for single phase 240V A.C supply only. The means of disconnection must be incorporated in the fixed wiring rules and all poles disconnected from the supply.

For models non pre-wired with a flexible lead, connections are made at the terminal block inside the water heater. Entry to the connections is through a small hole beneath the element cover, designed to accept a 20mm conduit. The element cover may be removed by undoing the two screws on the cover and sliding the cover downwards to

disengage the top edge. Ensure that the conduit entry is well sealed to achieve correct weatherproofing.

*Note:* This water heater is fitted with a thermostat and over temperature energy cut-out. Under no circumstances should the water heater be operated without both of these devices being in the circuit. Replacement must only be carried out by a qualified electrician or manufacturer.

**Caution:** The unit must be filled with water before turning on the electricity supply.

*OPERATING INSTRUCTIONS:*

*THERMOSTAT*

The model is equipped with an adjustable thermostat. The temperature may be adjusted as follows:

- i. Remove the plastic cover from the element cover.
- ii. Adjust the temperature using a screwdriver.
- iii. Ensure the plastic plug is replaced.

**Electrician:** Press reset button on the thermostat(s) to ensure over-temperature cut-out is set.

**2.2.5) Filling the water heater**

Open all hot water taps, and isolation valve at the cold water inlet and allow water heater to fill until water flows through the system. Close each hot water tap after the air is expelled from its line.

*DRAINING THE WATER HEATER:*

- i. Disconnect power to the solar recirculating pump.
- ii. Disconnect the power supply to the tank heating element.
- iii. Open the lever on the Pressure & Temperature Relief Valve (care should be taken to ensure that the lever does not snap back as this could damage the valve seat). Opening the Pressure and Temperature Relief Valve allows air into the water heater and the water to drain out of it.
- iv. Allow the tank temperature to drop to where it can be emptied without burning or scolding, in hot weather this can take up to 48 hours.
- v. Disconnect the cold water supply at mains or isolation source.
- vi. Disconnect the cold water supply connection into the tank and allow the water to drain from the unit.



### **2.2.6) Abnormal Operation**

#### *PRESSURE AND TEMPERATURE RELIEF VALVE RUNNING:*

It is usual for this to allow a small quantity of water to escape during the heating cycle. The amount of discharge will depend on hot water usage. As a guide, if it discharges more than 20 litres in 24 hours there may be a problem.

Continuous trickle:

Likely build up of foreign matter. Try gently raising lever on the Pressure & Temperature Relief Valve for a few seconds. This may dislodge any small particles of foreign matter and rectify the fault. Release lever gently.

Steady flow:

Likely causes are excessive water supply pressure, a faulty Pressure & Temperature relief valve or a faulty thermostat. Turn off the electricity supply and contact your Apricus agent.

#### *NO HOT WATER:*

Is the Pressure and Temperature Relief Valve discharging too much water? See “Pressure and Temperature Relief Valve Running”

Is one outlet (such as the shower) using more hot water than you think? See “No Hot Water”

Is there a leaking hot water pipe or dripping hot water tap? A small leak can waste a large quantity of water.

Replace faulty tap washers and have your plumber rectify any leaking pipe work.

### **2.2.7) Service Information**

#### **SIX MONTHLY SERVICE (BY OWNER);**

Operate the Pressure and Temperature Relief Valve for approximately 10 seconds by easing the lever on the valve to ensure water is relieved to waste through the relief drainpipe. Check to ensure the valve closes correctly.

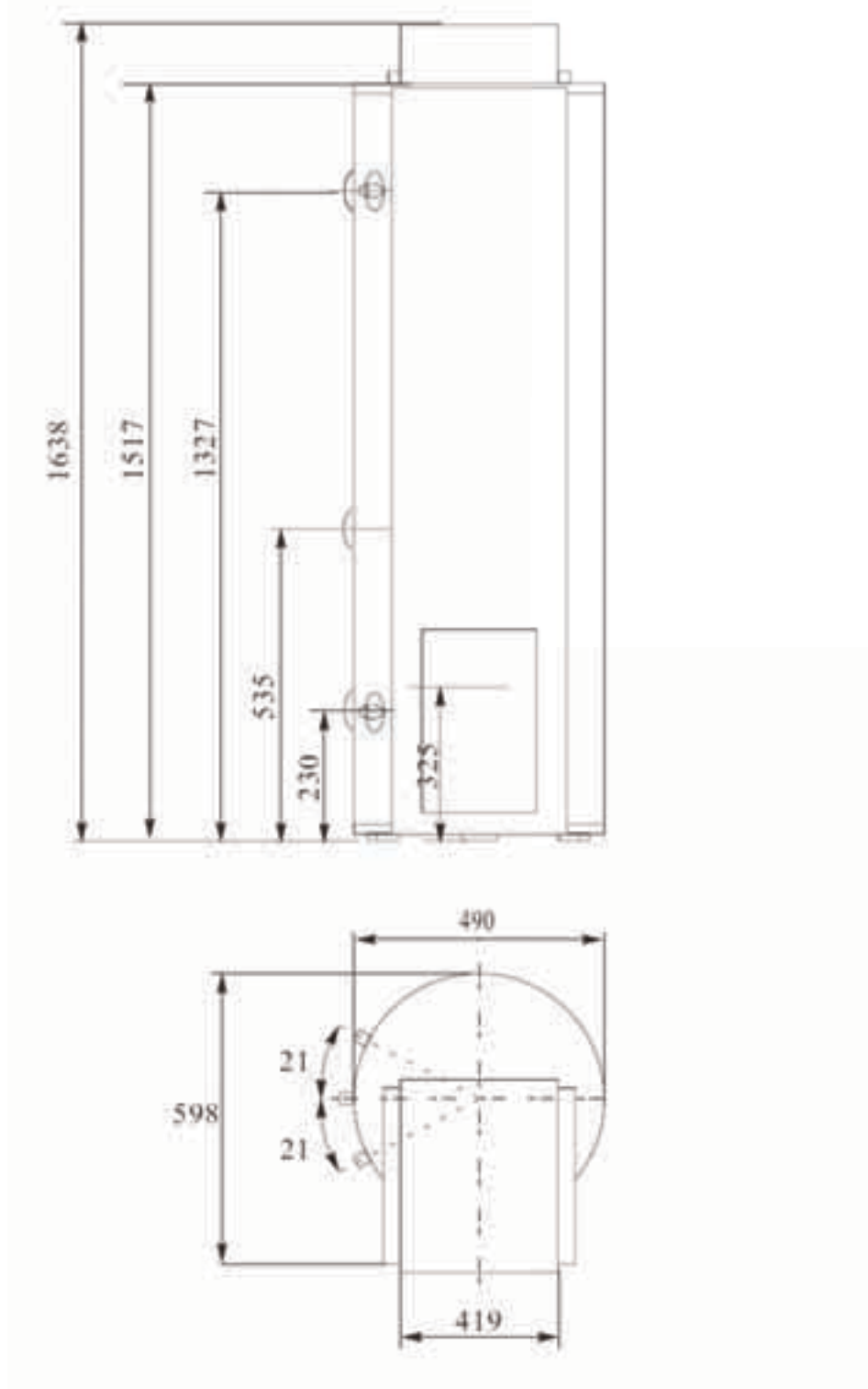
#### **FIVE YEAR SERVICE (BY AUTHORISED PERSONNEL ONLY):**

The five yearly service should be carried out by a licensed tradesperson. It is recommended that this service is carried out by your local Apricus agent. The service should include the following:

- i. Replace the Pressure & Temperature Relief Valve
- ii. Replace the anode
- iii. Flush the water heater

### 3. APRICUS GLNGS

#### 3.1 Rough In Dimensions



### 3.2. Installation Details

This water heater must be installed by a licensed tradesperson, and in accordance with:

- AS/NZS 3500.4 – Plumbing and drainage code. Part 4 heater water services
- AS5601/AG601 Installation Code for Gas Burning Appliances and Equipment
- Local authority regulations

*Notice to Victoria customers from the Victorian Plumbing Industry Commission:*

The water heater must be installed by a licensed person as required by the Victoria Building Act 1993. Only a licensed person will give you a certificate of compliance showing that work complies with the relevant standards. Only a licensed person will have insurance protecting their workmanship for 6 years. Ensure you use a licensed person to install this water heater and ask for a compliance certificate.

This water heater is designed for direct connection to water supply pressures up to 750kPa. Where the mains pressure is above this pressure and 750kPa pressure limiting valve must be installed in accordance with AS1357. The pressure limiting valve must be fitted on the cold water inlet after the isolation valve and before the tank.

*Note: This water heater is only suitable for Natural Gas and NOT LPG.*

#### **CAUTION:**

This unit will provide hot water between 50°C and 80°C. Refer to AS/NZS3500 and local regulations regarding the need for additional hot water delivery temperature control.

#### **Collector Installation**

Please refer to the Apricus Solar Collector Installation and Operation Manual. (AS-1.5.3-PB-1.6)

#### **Connections at the Ground Mounted Storage Tank**

*Note:* The tank has been pre configured for the hot solar collector return to be connected to the right hand side of the tank (as marked). The left hand hot outlet is for the hot water supply to the house.

Finally, take the collector temperature sensor cable and pass them through the bottom of the Solar Matrix Controller, then up into the upper section. Connect the collector temperature sensor cables to the vacant terminals (see Figure 2). The polarity of the connections is not important.

## OUTDOOR Installation

The water heater should be installed with the minimum clearances as shown in Figure 1. The water heater should be installed on a level, fireproof plinth at least 50 mm above the surrounding ground level. Minimum clearance (as per the plumbing code for each state) should be maintained around the windows and doors.



Figure 1

## COLD WATER CONNECTION

An approved isolating valve, non-return valve, line strainer (optional but recommended) and union must be fitted between the supply main and the RP (3/4)/20 socket in the water heater. All fittings must be approved by the relevant Authority. See Figure 2 for details.

*Note for S.A and W.A. (recommended for all states):*

It is a state requirement that a pressure relief valve be fitted on the cold water supply line between the non return valve and the water heater (see Figure 2).

### **Warning:**

*A Separate drain line must be used for this relief valve. It is not permitted to couple drain lines from relief valves into a single common drain line.*

## HOT WATER CONNECTION

A relief valve is supplied with a 3/4 “reducing bush to fit into the RP (3/4)/20 tank socket. The hot water drain pipe and relief drain line are to be installed as per Figure 2. For the most economical operation of the water heater, it is recommended that all hot water lines are insulated.

## PRESSURE AND TEMPERATURE RELIEF VALVE

The Pressure and Temperature Relief Valve (rated at 850kPa) is supplied loose within the foam packing at the top of the heater. The valve must be installed into the top socket marked “RELIEF VALVE”.

## **GAS CONNECTION**

Gas piping should be connected through the side of the case. The cover plate should be installed over the gas pipe and then secured to the outside cover. The gas control is fitted with a RC1/2/15 socket. A union connection should be used.

## **PACKING REMOVAL**

All cardboard and foam packaging should be recycled where ever possible, all other materials should be disposed of in a responsible manner.

## **TESTING THE WATER HEATER**

Test operation by lighting the water heater (see *Lighting the Water Heater*). Check that the test point pressure of water heater complies with the Data Plate.

*Note:* Instruct owner in water heater operation before leaving.

The appliance is not intended for use by young children or infirm persons without supervision. Young children should be supervised to ensure that they do not play with the appliance.

### **WARNING:**

It is essential for the safe operation of this gas heater that clothing of any other flammable material should be placed against or on top of the water heater. In addition, do not store flammable or corrosive materials, such as dry cleaning fluids, pool chemicals, etc. in close proximity to the heater.

The use of aerosol sprays in the vicinity of the heater should be avoided. The propellant gases used in these devices, e.g. fly-spray, hair spray and laundry aids, can breakdown in the flames of the burner and produce corrosive agents.

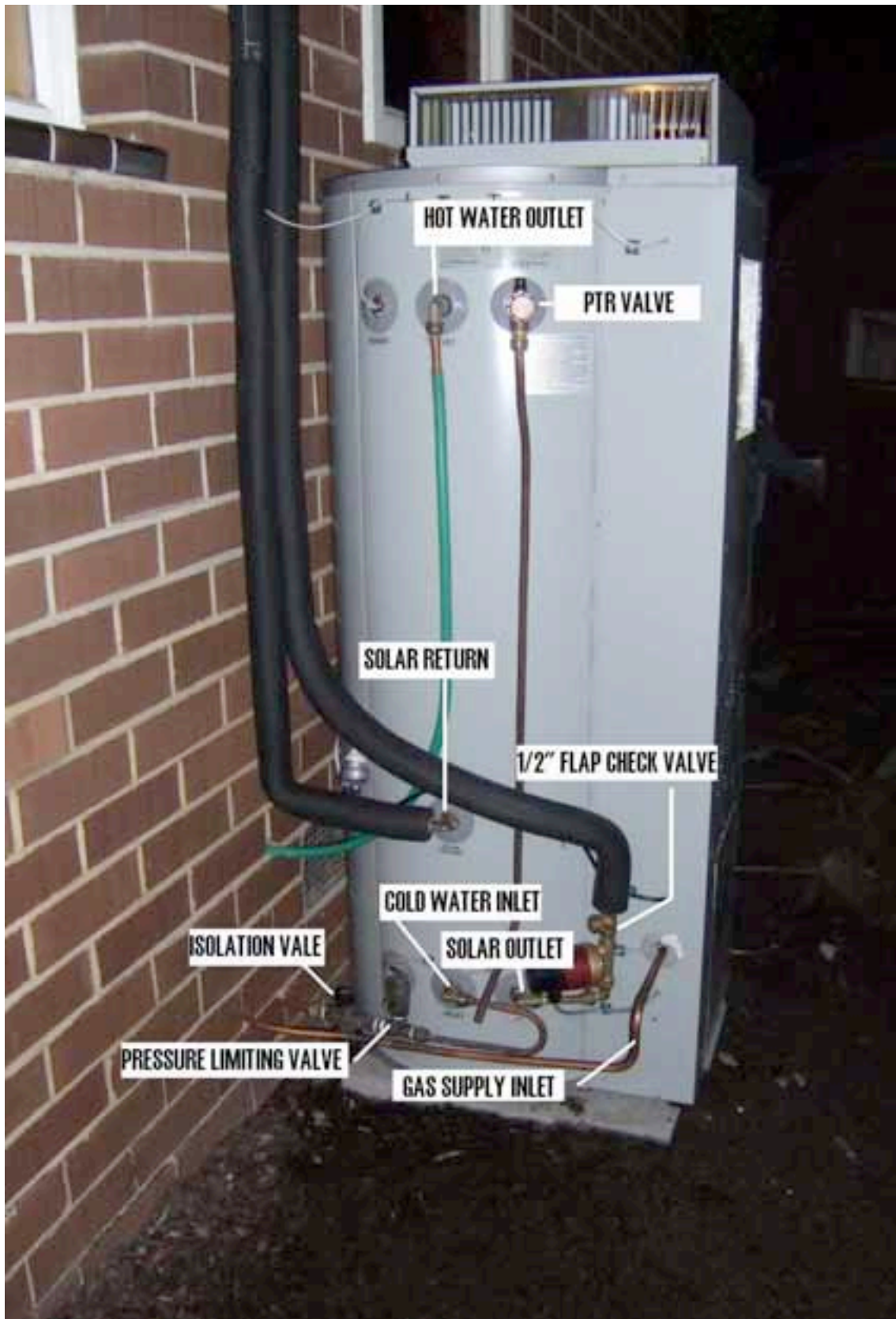


Figure 2

### **3.2.1) Safety Information**

**WARNING:**

For safe performance this water heater is fitted with:

1. Over-temperature energy cut-out.
2. Pressure & temperature operated relief valve.

These devices must not be tampered with or removed.

The water heater must not be operated unless each of these devices is fitted and in working order.

Relief valves should be checked for adequate performance or replaced at intervals not exceeding 5 years, or less in areas where there is a high incidence of water deposits. The lever on the relief valve must be pulled to operate the valve at least once every 6 months. Failure to operate the relief valve easing gear at least once every six (6) months may result in the water heater exploding.

**IMPORTANT**

The relief valve and its drain outlet pipe must not be sealed or blocked. If the water is not used over the period of a few days it is normal for the Temperature Pressure Relief Valve to discharge a small amount of water.

**WARNING:**

This water heater should be checked on installation and the test pressure set in accordance with that marked on Data Plate (see "*Testing the Water Heater*" in the Installation Details). Failure to accurately set the pressure can result in damage to the water heater and automatically voids the Manufacturers Warranty. This water heater must only be installed by an Authorized Person. This water heater must be installed on a fireproof base (see Figure 1).

**USER SAFETY INFORMATION:**

*DO NOT* place articles on or against this appliance

*DO NOT* use or store chemicals, flammable materials, or aerosols near appliance

*DO NOT* operate with panels or covers removed from the appliance

### **3.2.2) Water Quality**

The Apricus water heater has been manufactured to suit water conditions of most Australian metropolitan supplies. Please note that harsh water supplies can have a detrimental effect on the water heater and its life expectancy. If you are unsure about your water quality you can obtain information from your local water supply authority.

The water heater is designed for use in areas where the Total Dissolved Solids (TDS) content of the water supply is less than 2500mg/L. In areas where the TDS exceeds 600mg/L it is possible that the magnesium alloy anode (supplied in the heater) may become over reactive. To alleviate this, the magnesium alloy anode should be replaced with an aluminium alloy anode, available from your local Apricus supplier, by removing the plastic cap in the case top to gain access to the anode socket.

Water can also be very corrosive, the measure of this is the saturation index, if the water saturation index is greater than 0.40 an expansion control valve should be fitted and where the index is greater than 0.80 the water heater installed should be Hard Water Model. Please consult our Service Department for advice if required.

### **3.2.3) Filling the system with water**

Open all hot taps. Open stopcock at the cold water inlet and allow water heater to fill until water flows through the system. Close each hot water tap after the air is expelled from its line. Ensure to bleed air from the solar collector as per the Apricus Solar Collector Installation and Operation Manual.

#### **TEMPERING VALVE**

As per local regulations, a tempering valve when fitted to an Apricus gas solar water heater must be commissioned to ensure maximum allowable hot water when solar gain is minimised. To do this turn the temperature adjustment mechanism in the direction that ensures maximum temperature is supplied through the tempering valve. This still ensures that the maximum hot water to the premises does not exceed 50°C.


### **3.2.4) Lighting the water heater**

The water heater must be filled with water before lighting.

Instructions for lighting procedure are on the inside of the access cover and shown below:

- Before lighting, please check if the water boiler is full of water. If it is the first lighting or it has not been lit for a period of time, there will be air in the pipe and the fire will not light.
- The gas control knob for the water boiler is part number 610AC3. Lighting method is as follows:
  - Depress the top button on top of the gas control device and turn to “●” (off) position. Turn the temperature control knob to the end, waiting for 5 minutes to let the gas escape.
  - Depress the top button and turn to “★” (ever bright – fire) position, waiting for around 10 seconds. Then depress the ignite button repeatedly.
  - Check the watching window to see if the pilot light is lit.



- **WARNING: Keep your face clear of the combustion chamber opening while pressing the ignition.**
- Depress the top button for 30 seconds. Then release the button, the pilot should remain lit, if the pilot light dies out, repeat lighting steps.
- Depress and turn the top button to “

**WARNING:**

Before lighting please ensure no gas smells exist.

If the heater fails to light the pilot wait five minutes before repeating ignition process.

### 3.2.5) Shutting Down

Instructions for shutting down gas controls:

1. Turn gas control knob to position “**OFF**”
2. Turn off the water supply.

## ELECTRICAL CONNECTIONS

*NOTE:*

1. All electrical work must comply with local regulations.
2. All electrical work must be conducted by a suitably licensed electrician.
3. **The electrical supply to the Solar Matrix pump module must be continuously available. Off peak power must not be used.**

### 3.2.6) Solar Matrix Controller

The circulation pump is a simple device used to circulate the water in the collector circuit. This, in turn, enables solar energy from the collectors to be transferred to the storage tank location. The pump consumes only a very small amount of electrical energy (less than 25 watts) to perform this task.

The Solar Matrix electronic control device used to control the circulation pump has a complex set of activities. It is the brain of the system and ensures optimum system efficiency and safety. The basic functions are:

1. *Detecting availability of useful solar energy in the solar collectors.* When the temperature of the solar collector is 8°C higher than the bottom of the storage tank temperature, the circulation pump is initiated. If the difference in temperature falls to less than 4°C the circulation pump is stopped.
2. *Controlling maximum storage tank temperature.* If the top of the storage tank temperature reaches 80°C, the circulation pump is stopped to prevent excessive temperatures in the storage tank.
3. *Frost protection.* When the temperature of ambient conditions adjacent to the collector sensor drops to 4°C the circulation pump will start and run until the collector temperature reaches 5°C when the pump will shut off.

*Note:* The settings on the controller should not be altered other than the time of timing of the auxiliary heating function. Changes to other settings could void warranty.

#### SOLAR MATRIX CONTROLLER CODES FAULT:

The AAE solar matrix controller will come preset from the factory however your installer can assist to change the boost times to suit your usage patterns.

#### ADDITIONAL SOLAR COMMISSIONING CHECK LIST:

- Have you checked that the sensor wire is not in contact with the return pipes from the collector to the tank?
- Have you inserted the sensor in the collector correctly?
- Have you made sure that there is no excess water discharge from valves?
- Did you ensure that the pump and controller is plugged into the weather-proof socket?

### 3.2.7) Abnormal Operation

#### **SAFETY – A WORD OF CAUTION:**

All solar water heaters have the ability to produce hot water very quickly. To reduce the risk of scald injury, it is mandatory under the requirements of Australian Standard AS/NZS3500.4.2 that a suitably approved temperature control device be fitted to the hot water supply to outlets used. This valve should be checked at regular intervals to ensure its operation and settings remain correct.

#### WHAT SHOULD I DO DURING HOLIDAYS?

*The power supply to the solar Matrix controller pump module must be left ON so that the system can monitor and control the solar collector temperature while you are away. Whilst the system is safe with the power turned OFF, the collector temperatures can reach very high temperatures, causing high stress to their internal components.*

#### **WARNING:**

*If the hot water system is not used for two weeks or more, a quantity of hydrogen gas, which is highly flammable, may accumulate in the water heater. To dissipate this gas safely, it is recommended that a hot tap be turned on for several minutes at a sink, basin or bath but NOT a dishwasher, clothes washer, or other appliance. During this procedure there must be no smoking, open flame or any other electrical appliance operating nearby. If hydrogen is discharged through the tap, it will probably make an unusual noise as with air escaping.*

#### WHAT SHOULD I CHECK BEFORE MAKING A SERVICE CALL?

If there is not enough hot water, it is recommended that the following points be considered before making a service call. If after checking the following points the problem has not been identified, please contact your nearest Apricus agent

**It is important to take note that there are no user serviceable components in the system, and as such, it is recommended that no covers be removed and no adjustments are made to the system settings by anyone other than an authorised Apricus representative.**

1. Make sure the power is switched on.
2. Low Solar Energy Input: During prolonged periods of cloudy weather or winter, the boosting may be on for longer periods. This may account for slightly higher gas bills than normal.
3. Solar Collector Shading: Often trees or other buildings can shade the solar collectors, or there can be dirt build up on the glass cover. Trees should be cut back if possible, or the system relocated if removal of the shading is not possible in the present location.
4. Gas boosting not operating: **Do not open or adjust any electrical covers or devices yourself. Any changes, adjustments or inspections must be completed by an Authorized person.**
5. Are you using more hot water than you think? Often the hot water usage of showers, washing machines and dishwashers is under estimated. Review these

appliances to determine if your daily usage is greater than the storage volume of your water heater.

6. It is also advisable to inspect tap washers, etc. for leakage and replace if necessary.

#### *PRESSURE AND TEMPERATURE RELIEF VALVE RUNNING*

It is usual for this to allow a small quantity of water to escape during the heating cycle. The amount of discharge will depend on hot water usage. As a guide, if it discharges more than 20 litres in 24 hours there may be a problem.

Continuous trickle:

Likely build up of foreign matter. Try gently rotating the knob on the relief valve for a few seconds. This may dislodge a small particle of foreign matter and rectify the fault. Release lever gently.

Steady flow:

Likely causes are excessive water supply pressure or a faulty pressure valve. Contact your Apricus representative.

#### *NO HOT WATER*

Is the relief valve discharging too much water? See *"Pressure & Temperature Relief Valve Running"*

Do you have the correct size water heater for your requirements? Sizing details are available from your Apricus Supplier.

Is one outlet (especially the shower) using more hot water than you think?

Carefully review the family's hot water usage: an inexpensive flow control valve can easily be fitted to the shower outlet.

Is there a leaking hot water pipe or dripping hot water tap? A small leak can waste a large quantity of hot water.

Replace faulty tap washes and have your plumber rectify any leaking pipe work.

### **3.2.8) Service Information**

#### *SYSTEM MAINTENANCE*

The Apricus solar water heater is designed such that there is little to do regarding system maintenance. Personally inspecting or servicing any part of the system is not recommended.

Should you decide to personally inspect the roof-mounted system, it is essential that you use all safety devices required to ensure your safety.

In locations where the water has a TDS (Total Dissolved Solids) greater than 600ppm, this service is recommended each 3 years.

#### **SIX MONTHLY SERVICE (BY OWNER):**

Operate the Pressure & Temperature Relief Valve for approximately 10 seconds by rotating the knob on top of the valve to ensure water is relieved to waste through the relief drainpipe. Check to ensure the valve closes correctly.

#### **SIX MONTHLY SERVICE (BY AUTHORISED PERSON):**

Clean and service the gas burner and pilot.

#### **FIVE YEAR SERVICE (BY AUTHORISED PERSONNEL ONLY):**

The five yearly service should be carried out by a licensed tradesperson. It is recommended that this service be carried out by your local plumber.

This service should include the following:

- Replace the Pressure & Temperature Relief Valve
- Replace the anode (in areas of harsh or adverse water conditions it is recommended that you carry out a more frequent check of your anode conditions, refer Operating Instructions “Water Quality” (we suggest a 3 year service interval in poor quality water areas.)
- Clean and service the gas burner and pilot.
- Flush the cylinder.

### **COMMISSIONING ADJUSTMENTS**

#### *Adjusting the outlet pressure.*

This adjustment must be made with the thermostat bulb cold and the knob in position number 5.

1. Take off the temperature adjustment knob.
2. Check that the pressure adjustment override screw (NO P.R) is screwed out completely.
3. Screw in the screw (P.R Adjust) to increase the outlet pressure or screw it out to reduce it

#### *Overriding the pressure adjuster.*

Screw the screw (NO P.R) fully in.

#### *Adjusting the gas flow rate to the pilot.*

Screw in the screw (Pilot Adj) to reduce the flow, or screw it out to increase it. To put the pilot gas flow adjuster out of service, fully screw in the screw (Pilot Adj) and then screw it back two turns.

*IMPORTANT: At the end of all setting and adjustment operations, check gas tightness and the appliance is working properly.*

*Note: Pilot light spark ignition gap should be set to 38mm*



### **STEP 1**

- Arrive at site and conduct a safety audit.
- Safety audits can also be known as Work Method Statements (WMS) or Job Site Analysis (JSA)
- Park your vehicle as close as allowable to your installation.

*Note: DO NOT COMMENCE A JOB WHERE THE RISKS CANNOT BE CONTROLLED.*

### **STEP 2**

- Please ensure all items are available.
- Please note panel compression fittings: check to ensure fittings are correct.
- Check all items against the checklist contained in the connections box.

### **STEP 3**

- The existing tank can now be drained and removed in a responsible manner.

*Note: DO NOT DRAIN ONTO GRASS OR GARDEN BEDS*

### **STEP 4**

- Safely position new storage tank on a level surface in accordance with all plumbing and building regulations.

### **STEP 5**

- Use correct plumbing methods to connect the cold water pipe to the storage tank.

*Note: According to local regulations and the Plumbing Code, fit any and all valves that are necessary e.g. tempering valves, pressure limiting valves, duo valves, cold water expansion valves, etc. We recommend the use of new valves.*

### **STEP 6**

- Connect flow pipe to the collectors.
- Ensure a minimum of ten (10) turns of plumbing tape.

### **STEP 7**

- Connect return pipe from collectors to tank.

### **STEP 8**

- Connect the PTR valve and discharge accordingly to plumbing regulations.

## 4. Warranty Information

### TERMS OF WARRANTY

1. Apricus warrants the glass lined steel storage tanks (shell and outer case) for a period of five (5) years after the date of installation of the hot water unit. The unit (glass lined steel tank) is free from all defects in factory materials or workmanship under normal use. All parts, pump, controller, anode, are warranted for a period of 12 months from the date of purchase.
2. The warranty covers replacement of any failed components or where necessary replacement of the unit free of charge including reasonable labour in normal working hours.

Note: Where the date of completion of installation is not known, then the warranty will commence one (1) month after the date of manufacture (refer details on the data plate).

3. This warranty only applies to defects which have arisen solely from faulty materials or workmanship and does not apply to other defects including, without limitation, the following:
  - (a) Accidental damage, abuse, misuse, maltreatment, abnormal stress or strain, harsh or adverse water conditions including excessive water pressure or temperature, or neglect of any kind of the unit.
  - (b) Alterations or repair of the unit other than by an accredited service agent or technician.
  - (c) Attachment of accessories other than those manufactured or approved by Apricus.
4. The units must be installed in accordance with the information supplied in the Apricus Owners Manual.
5. System components such as solar recirculating pumps and controllers are warranted for a period of 12 months after installation.
6. In addition to this warranty, certain legislation (including the Trade Practices Act 1974) may give you certain rights which cannot be excluded, restricted or modified. The under mentioned clauses must be read subject to such legislation and nothing in the warranty has the effect of excluding, restricting or modifying those rights.
7. Apricus' limited liabilities for the breach of a condition or warranty implied by division 2 of part V of the Trade Practices Act 1974 (other than S69) and any equivalent State or Territory legislation is hereby limited to the following as determined by Apricus Australia.
  - a. The replacements of the unit
  - b. The repair of the unit
  - c. The payment of the cost of replacing the unit or of acquiring an equivalent unit
  - d. The payment of costs of having the unit repaired.



8. Apricus' liability under section 74H of the Trade Practices Act 1974 and any equivalent State or Territory legislation is expressly limited to pay to you an amount equal to:
  - (a) the cost of replacing the unit
  - (b) the cost of obtaining an equivalent unit: or
  - (c) the cost of having the unit repaired:which ever is the lowest amount.
9. Subject to clause 4 above to the extent permitted by law, all expressed and implied warranties, guarantees, conditions under statute or merchantability, description, quality, sustainability, or fitness of goods for the purpose or as designed, assembly, materials, workmanship or otherwise, are hereby expressly excluded and Apricus shall not be liable for any physical or financial injury, loss or damage, or for consequential loss or damage of any kind arising out of the supply, layout, assembly, installation or operation of the unit or arising out of Apricus' negligence in any way whatsoever.
10. Repair or replacement is provided within the metropolitan area of Australian capital cities as defined by Apricus or within 25km of Apricus branch office or service accredited service agent.

NOTE:

- (a) Where the unit is located in a position that does not comply with the Apricus installation instructions or relevant statutory requirements free labour does not cover major dismantling or removal of cupboards, doors, walls, special equipment and/or excessive labour time to bring the unit to floor level.
- (b) Subject to any statutory provisions to the contrary, claims for damage to furniture, carpets, walls, foundations or any consequential loss either directly or indirectly due to defects of any kind in the unit will not be met by Apricus.

**WARRANTY CARD**  
**Glass Lined Steel Storage Tank**

Please ensure you fill in the details and return it to Apricus Australia immediately. This will ensure prompt service under warranty, if required

OWNERS DETAILS:

Surname:..... Given Names (s).....

Address:.....

Town/Suburb:.....

State/Territory..... Post code:.....

Date of purchase:.....

Purchased from:.....

Model:..... Serial Number:.....

(details are on the label on the tank)

INSTALLER'S DETAILS:

Date of installation:..... Installers Name:.....

Company Name:.....

Address:.....

Installers Signature:.....

Return to:     Apricus Australia Pty Ltd  
                  PO Box 1288  
                  Rozelle  
                  New South Wales 2039

## **5. Contact Apricus Australia**

ANY SYSTEM INSPECTION, MAINTENANCE, OR REPAIR SHOULD ONLY BE COMPLETED BY AN EXPERIENCED TRADE PROFESSIONAL. THE SOLAR COLLECTOR WARRANTY COVERAGE MAY BE VOID IF NON-AUTHORISED PERSONS ATTEMPT TO MAINTAIN OR REPAIR THE SOLAR COLLECTOR OR ASSOCIATED COMPONENTS.

### **Apricus Australia Pty Ltd**

**PO Box 1288, Rozelle, New South Wales 2039**

**Ph: 1300 277 428**

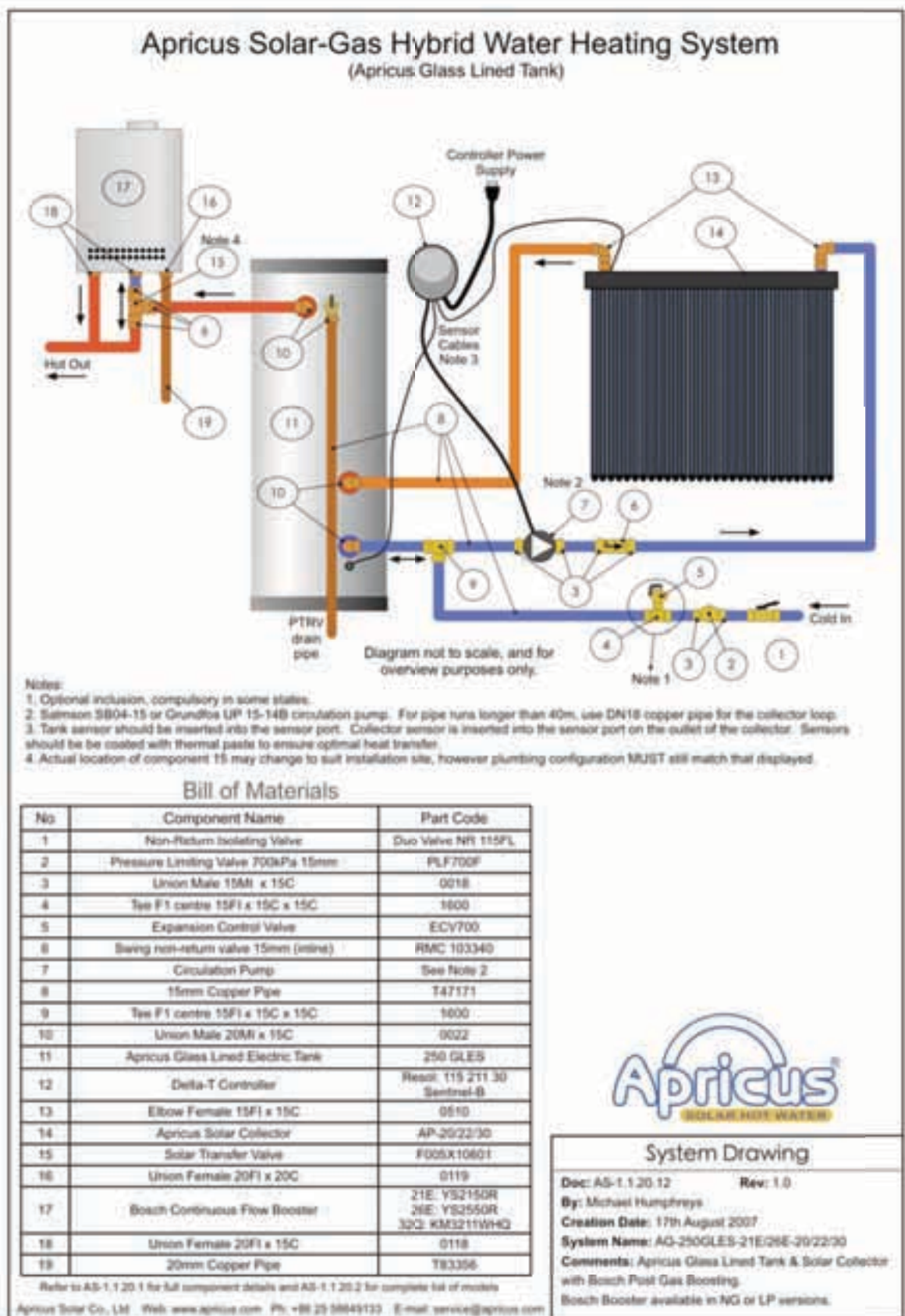
**Fax: 02 9475 0092**

**Email: [Australia@apricus.com](mailto:Australia@apricus.com)**

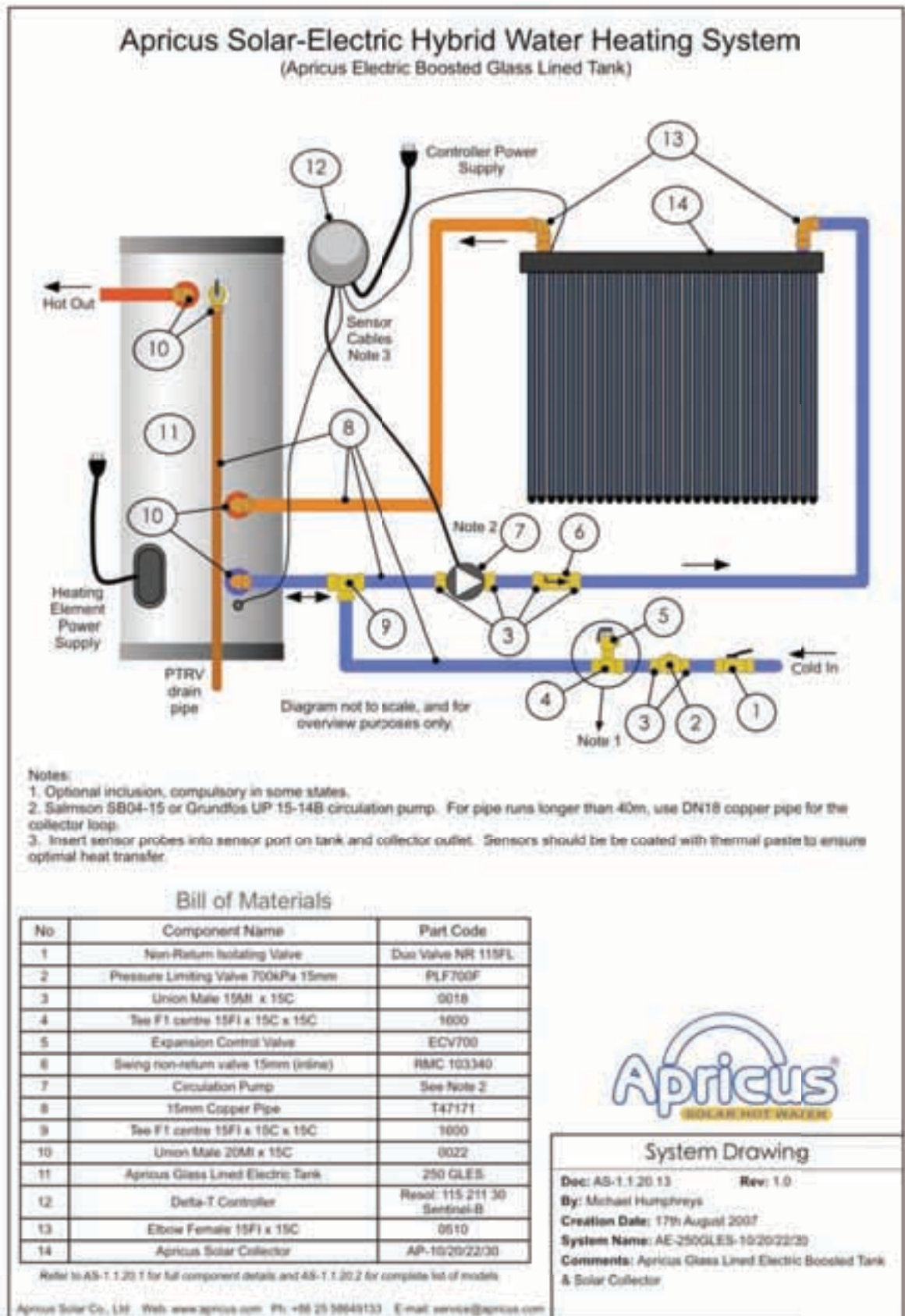
**Web: [www.apricus.com.au](http://www.apricus.com.au)**

## 6. Appendices

### 6.1 Apricus Glass Lined Tank



## 6.2 Apricus Electric Boosted Glass Lined Tank



### 6.3. Apricus Gas Boosted Glass Lined Tank

