

Warm up with an Everlast™ electric water heater. Unlike traditional glasslined models, its unique stainless steel cylinder makes it everlasting, everstrong and ever so hot. Backed by a full 10 year warranty.



EVERLAST™

SERIES 2000

OWNERS MANUAL AND INSTALLATION GUIDE

Unique stainless steel design and construction delivers more hot water than traditional Glasslined models.

'THE NAME YOU CAN TRUST TO FORGET THE RUST'

EVERLAST™ SERIES 2000
Electric Water Heater

EVERLAST™ - SERIES 2000

Information regarding your EVERLAST™ Series 2000, Electric Water Heater.

Congratulations for choosing an Everlast™ Water Heater. The unit has been manufactured to Australian Standards AS 1056.1 and AS/NZS 60335.2.21, and incorporates a **STAINLESS STEEL CYLINDER** produced from premium grade 316 stainless steel and which is covered by a 10 year warranty as per the enclosed warranty conditions. The stainless steel cylinder gives longevity of service and also less maintenance because there is no sacrificial anode. The Everlast™ Series 2000 Electric Water Heater will provide continuous hot water for many years to come.

1 Features of your Everlast™ Water Heater

The Everlast™ Series 2000 is an electric storage water heater that can be heated using standard or "off peak" electricity. Your electricity supply authority can provide you with information in relation to the "off peak" tariff applicable to your particular location.

The Everlast™ Series 2000 incorporates the latest aspects of design and material selection including :

- Marine Grade 316 stainless steel cylinder,
- Control of thermal stratification,
- Dual Positive Domed Cylinder resulting in optimum location of element(s), water supply and delivery and flushing-through of suspended solids.
- Highest level of insulation due to the use of a polymeric external casing combined with thick polyurethane insulation.

The Everlast™ Series 2000 heats potable water in the storage cylinder by one or more immersion elements (depending upon model).

A thermostatically controlled electric element in the bottom of the cylinder can be connected to normal or "Off Peak" power supply. A second optional booster in the top half of the cylinder (in twin element models) is used to add additional hot water as required. The heated water rises up the cylinder by natural convection to the top where it is ready for use. As hot water leaves the storage cylinder, it is replaced by cold water, which enters at the bottom of the cylinder.

Everlast™ recommends flushing the water heater at regular intervals as advised by your licensed plumber, and to assist this operation, the cold water inlet has a large opening for flushing any built up solids that have escaped the line strainer.

Hot Water Safety

In accordance with Australian Standard AS 3500.4, it is recommended that where required a temperature control device or mixing valve be fitted between the water heater and bathroom and ensuites to reduce the risk of scalding. This is achieved by controlling water temperature to below 50 degrees C.

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 that they can use the appliance safely. Young children should be supervised to ensure that they do not play with the appliance.

Pressure and temperature relief valve (P&T)

The Everlast™ Series 2000 is fitted with an 850 kPa P&T valve, which is located on the side of the water heater and is essential for its safe operation. We recommend you operate the easing lever on the P&T valve once every 6 months. It is important you raise and lower the lever gently. The P&T valve is designed to allow small quantities of hot water to discharge during heating to allow for hot water expansion. The P&T valve discharge should be directed away by a downwards oriented discharge pipe which is protected by location from possible frost restriction. This pipe must be left open to atmosphere and suitably located to not become blocked.

Should a continuous discharge occur, we recommend that you consult your licensed plumber as this may indicate a defective P&T valve, defective thermostat, or abnormal high mains water pressure and that a pressure limiting valve has not been fitted during installation.

Everlast™ recommends that a 500 kPa pressure reducing valve be fitted at time of installation. (refer to the water heater label and Mains Water Supply in Section 2). This is an Installation Warranty condition. (refer to Warranty). The valve should be installed in the Cold Water Inlet Piping as shown in the schematic adjacent to Fig 2.

2 Installation, almost anywhere !

Most electric hot water heaters require a sacrificial anode inside the cylinder, however, **anodes are not necessary with a stainless steel storage cylinder.** As anode replacement is not required, **headroom** above the cylinder only needs to accommodate convenient installation rather than the one metre or more required to remove/replace the anode. Low eaves ? No problem for Everlast™.

The Everlast™ Series 2000 may be used either indoors or outdoors and should be installed by and located in accordance with your licensed plumbers recommendation, but usually close to the outlet where there is the greatest usage of hot water. Installation must comply with Australian Standard AS 3500.4 and any local authority regulations.

In accordance with AS/NZS 60335 Cl.7, the following recommendations are made in regard to both internal and external installation.

The Minimum space to be provided for Internal installation is 600 mm x 600 mm. The installation may be freestanding on the floor/sub-floor structure in the enclosed area.

The clearance required needs to be adequate for service/replacement of cold water inlet piping devices, PTR valve and tempering valves (where fitted), elements and thermostats. This may be facilitated by correct orientation of the cover positions when installing. There are no operational clearance limitations to surrounding structure. PTR valve removal requires approximately 150 mm for withdrawal.

Building-in acceptable provided that removable panels are able to facilitate Unit replacement without major alteration to piping or to structural elements. It is recommended to provide 25 mm hardwood slats under the unit to allow free air movement and also a vent grille if the unit is to be fully built-in. This will ensure that any moisture discharge from PTR drain pipe is evaporated if directed to safety tray drain point.

Combustible Material

It is recommended to not place combustible material on or adjacent to the water heater.

Internal Installation Safe Tray

For internal (indoor) installations, a safe tray is recommended in accordance with Australian Standard AS 3500.4 clause 4.4, and as shown in Figure 1. This is necessary to prevent damage associated with water loss during element replacement.

External Installation Plinth

For external installation a plinth or concrete base pad is recommended in accordance with Australian Standard AS 3500.4 clause 4.5.3. as shown in Figure 2. Whilst this is necessary to ensure that the sheetmetal base of conventional water heaters does not corrode; wet conditions do not effect the Everlast™ polymeric casing which is corrosion proof. A base pad is optional and will ensure even support. There is no need for any external weather protection for your Everlast™ Series 2000 water heater.

Mains Power supply connections

Electrical work must be carried out by a licenced tradesman and in accordance with AS 3000 SAA Wiring Rules. The circuit isolation and Fixed Appliance regulations of the Wiring Rules Sec 4.3.9 shall be complied in regard to connection to Supply and circuit isolation. Refer to Electrical Connection for appliance to wiring connection and disconnection.

Mains water supply

As mains pressure commonly exceeds 500 – 550 kPa, a pressure limiting valve should be installed set to 500 kPa maximum. Note : In some States a cold water expansion valve must be installed by regulation. This valve must be set at 700 kPa maximum.

As shown in figure 1 and 2, an approved isolating valve, line strainer and union are recommended between the cold water supply main and the cold water inlet of the Everlast™ Series 2000 water heater.

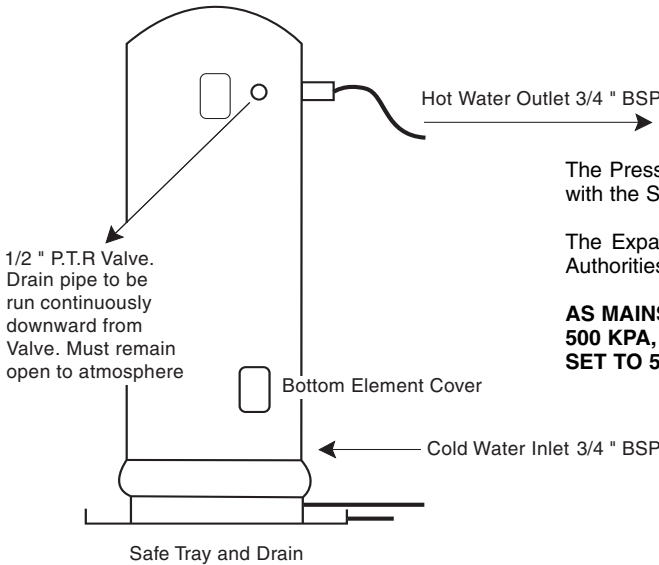
The Everlast™ Series 2000 water heater is designed to ensure total drainage for flushing if required. It is recommended that a drain cock be installed on the cold water inlet pipe adjacent to the heater to facilitate flushing annually in poor water quality areas.

Hot water connection should be as shown in figure 1 and 2. It is recommended that hot water outlet pipes are fully insulated with weatherproof insulation, and that the hot water outlet pipe is slightly curved or stepped down adjacent to the water heater outlet to provide a positive heat trap and avoid thermal siphoning from the heater.

REFER TO FIGURES 1 and 2 FOR THE RECOMMENDED INSTALLATION LAYOUT.

FIGURE 1. INSTALLATION DIAGRAM

INTERNAL INSTALLATIONS



The Pressure & Temperature Relief Valve supplied with the Series 2000 is set at 850 kPa and 99 C.

The Expansion Control Valve if required by some Authorities is set to 700 kPa (max).

AS MAINS PRESSURE COMMONLY EXCEEDS 500 KPA, FIT A PRESSURE LIMITING VALVE SET TO 500 KPA.

RECOMMENDED COLD WATER INLET PIPING CONFIGURATION FOR INTERNAL & EXTERNAL INSTALLATIONS

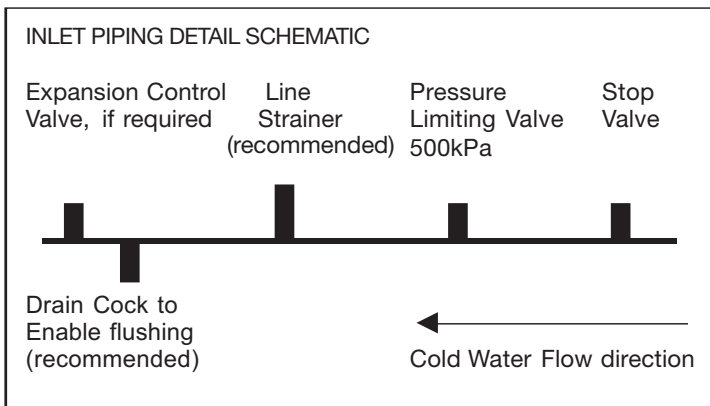
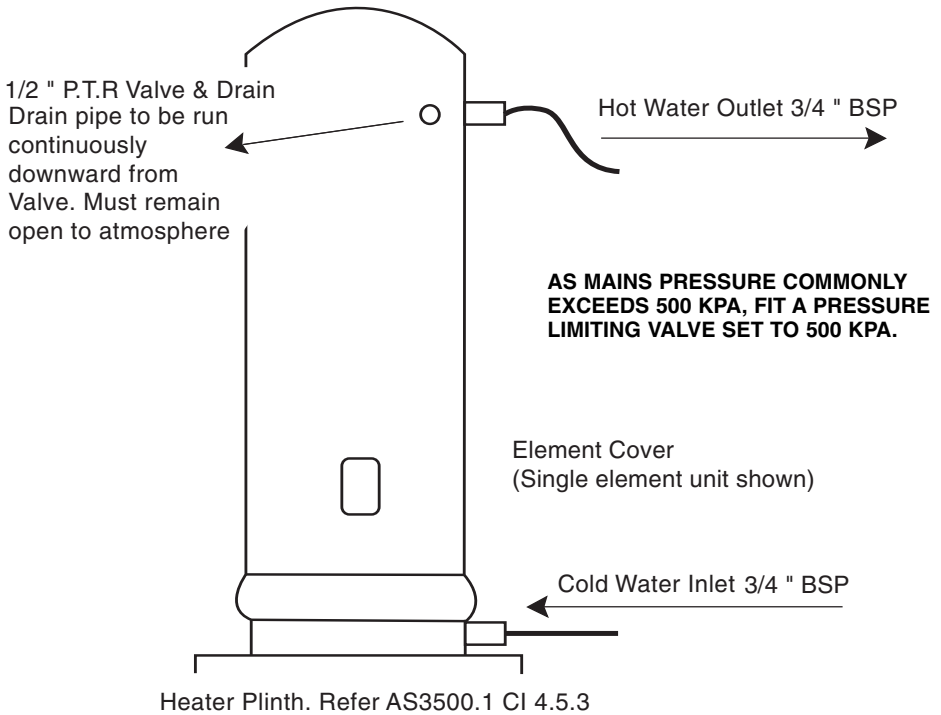


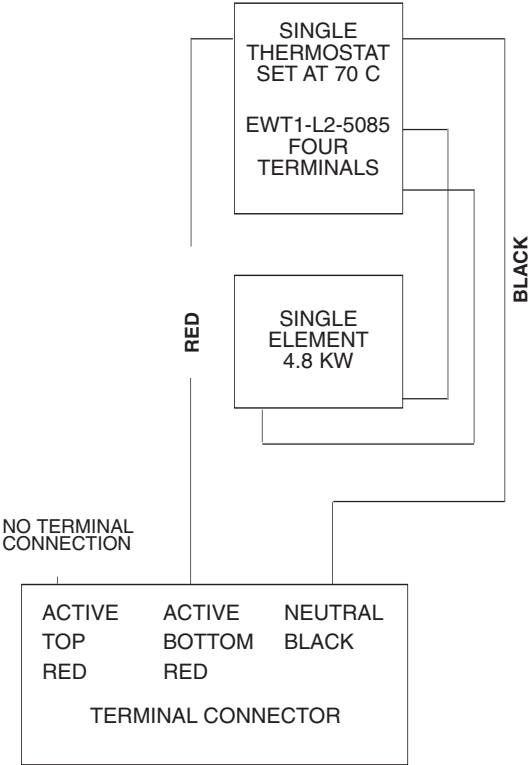
FIGURE 2. EXTERNAL INSTALLATIONS



INSTALLED TEMPERATURE CONTROL DEVICES

EVERLAST HEATER THERMOSTATS	INVENSY'S MODEL NUMBER	NORMAL THERMOSTAT SETTING	MAXIMUM THERMOSTAT SETTING	THERMAL CUT OUT
NON SOLAR APPLICATIONS				
Top Thermostat	EWT2-L2-601	Fixed at 60 C	Fixed at 60 C	88 C
Bottom Thermostat	EWT1-L2-5085	65 - 70 C	80 C	86 C
SOLAR APPLICATIONS				
Top Thermostat	EWT2-L2S-806	Fixed at 60 C	Fixed at 60 C	83 C * Auto resets
Bottom Thermostat	EWT1-L2S-206	65 C	80 C	83 C * Auto resets

* Solar thermostats are designed for auto-reset and the Solar Installation, or Solar panel retrofit to existing installation, will include thermostatic bypass in the solar panel return piping design to ensure that thermal cut-out does not operate in normal use.

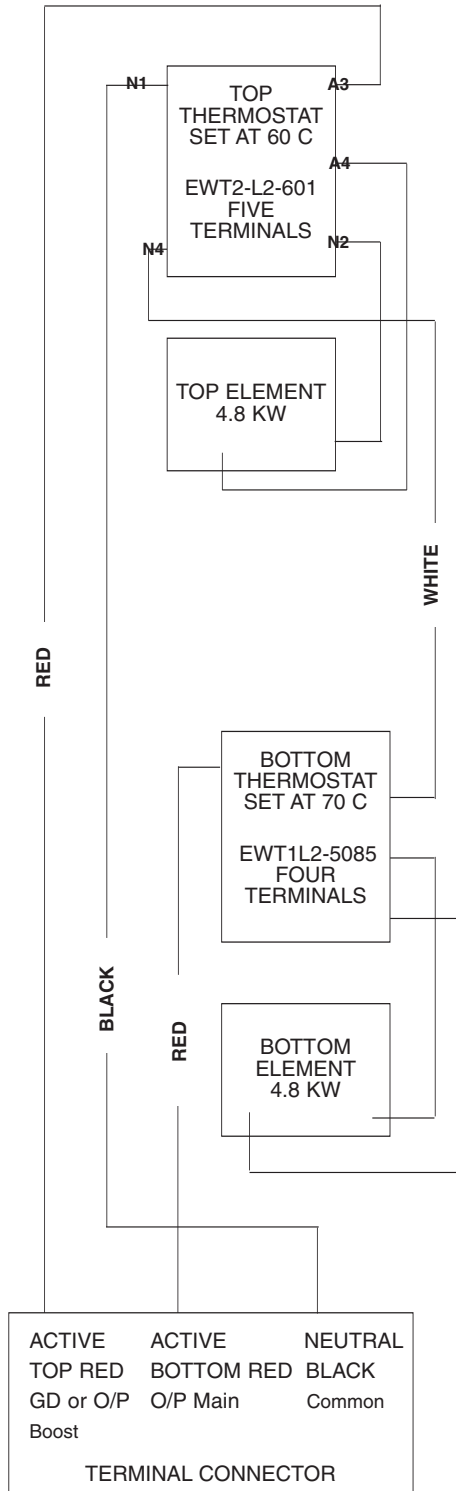


EVERLAST HYDRO SYSTEMS

SERIES 2000

TWIN ELEMENT WIRING PLAN

TESTING: The circuit may be tested between Active top red and Neutral black at terminal connector. Note that between Neutral black at top thermostat N1 and white at top thermostat N4, will be OPEN CIRCUIT, with CLOSED CIRCUIT between N1 and N2, until bottom element has heated water above 60 C. Above 60 C, N1/N4 is now CLOSED CIRCUIT AND N1/N2 is now OPEN CIRCUIT. Therefore Wiring Test is only ensuring that the top circuit is electrically correct. The bottom circuit will be able to energise when top element heating results in N1/N4 closing at top thermostat reaching 60 C. Therefore always test the bottom thermostat at assembly by testing across Active red and element terminals. Bottom element can also be tested across terminations.



Electrical Connection

The Everlast™ Series 2000 water heater is designed for single phase 240 V. A.C. supply only. Australian Standard AS 3000 – (Wiring Code), and local supply authority regulations apply. Electrical safety requirements of AS/NZS 60335 apply. The Wiring Plans shown at Figure 3 and 4 indicate the correct connection for single and twin element water heaters.

Connection for either single or twin element water heaters is made at the terminal location points under the weatherproof element covers.

Note : Wiring entry to the connection point is made through the blanked-off standard conduit port adjacent to the bottom element cover, by removal of the blanking plug. Always install a standard 20 mm conduit elbow to the port to ensure conduit support.

Everlast™ Series 2000 water heaters are supplied with thermostat models which incorporate manually re-settable over temperature thermal safety cut-outs. Under no circumstances should the water heater be operated without the devices being in circuit. Replacement should only be undertaken by a qualified electrician or the manufacturer. The thermostat model numbers are noted on the Wiring Plans Figures 3 & 4.

DANGER: The operation of the over temperature safety 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.

Supplementary Heat Source. Water Heaters that are manufactured with Solar Return Port for connection to unregulated supplementary heat source such as Solar Collector panels or combustion heater, are normally fitted with Solar thermostats which do not have nuisance operation due to supplementary heating. The bottom thermostat Model No. is EWT1-L2S-206 and the top thermostat (where applicable) is included when connected to a supplementary heat source.

These thermostats may be substituted for the conventional; thermostats where a non Solar unit is undergoing a Solar retrofit package.

3 Operation of your Everlast™ Water Heater

Filling:

Fill the water heater by opening all hot water taps and opening the cold water inlet to allow the water heater to fill and air in the system to be expelled. Close each hot water tap, as the flow becomes free of air. Check all piping for leaks.

Power should not be turned on until the water heater is completely filled with water.

Flushing and Draining:

To flush or to drain the Everlast™ Series 2000 water heater, power must be turned off and then turn off the cold water supply to the water heater. The lever on the pressure and temperature relief valve should be opened but care should be taken so the lever does not snap back as it could damage the valve seat. The pressure in the water heater will be released when the lever is opened.

The union at the cold water inlet to the water heater should be undone and a hose should be attached to the water heater side of the union. The other end of the hose should go to a drain.

Installations including a drain cock, as shown in inlet piping schedule, are recommended as this allows for draining and for periodic flushing of the water heater without piping disconnection at unions, and without the need for rechecking for leaks after reconnection.

Opening the pressure and temperature relief valve allows air into the water heater and for the water to drain. Following complete draining of the water heater, the closest hot water taps may be opened fully and the pressure and temperature relief valve closed with care. The cold water inlet stop valve is now opened fully and the water heater may be filled with cold water and flushed through to ensure the cylinder contains no sediment and is clean. Finally the closest hot taps are closed and power may be turned on again to the completely filled water heater.

4 Warranty Conditions

1. The system must be installed by a licensed plumber and/or electrician in accordance with Everlast™ installation instructions; and all relevant statutory and local requirements of the State or Territory in which the system is installed.
2. The Everlast™ Series 2000 water heater must be operated and maintained in accordance with instructions supplied by Everlast™.
3. This warranty only applies to the water heater product and does not apply to any additional electrical and/or plumbing parts supplied by the installer.
4. The system is covered for the indicated period from the date of the original purchase. Should a part of the complete water heater component be replaced during this period, only the balance of the original warranty will continue to remain effective. Proof of purchase is required.

5. The system is installed in a domestic household. (for 10 year Warranty period).
6. Should this system be installed in a regional location where regular flushing is required due to sediment build-up, then the drain cock for flushing must be fitted at the time of installation. If in doubt consult your plumber.
7. Where the heater is installed outside the boundaries of a Capital Cities Metropolitan area i.e. those areas on STD, the cost of transport, insurance and travelling between the nearest Everlast™ accredited Service Agent's premises will be charged to the owner.
8. EVERLAST™ Hydro Systems is excluded to the extent allowable by law from responsibility for any consequential loss including; injury to persons, injury to property, economic loss, pain and suffering or legal or other damages flowing from any manufacturing fault/defect.

Warranty Exclusions

The following warranty exclusions may cause the system warranty to become void. This may incur a service charge and cost for parts should they be necessary.

1. Where service is required to reconnect the water heater operation due to problems related with abnormal water supply (i.e. high water pressure), faulty plumbing and/or electrical wiring, or major variations in electrical energy supply.
2. Where the system fails due to misuse, accidental damage, flood, acts of God, incorrect installation or unlicensed service repair work attempts.
3. Where system service is required due to the non-conformance with this warranty's recommended maintenance in certain water quality conditions (refer installation to facilitate flushing, Sec. 2 above).
4. Claims for damage to walls foundations (outside), furnishings (inside), roofs or other losses, directly or indirectly due to leakage from the water heater.
5. Damage or breakage is not covered by this warranty, and should be added separately to your general household insurance policy.

6. This warranty does not cover the effects of sludge/sediment as a result of connection to a water supply from unfiltered or mineral content sources i.e. spring, dam, bore, river or other.
7. This warranty does not cover the effects of the connection of the appliance to bore waters and highly mineralised waters.
8. Where water stored in the cylinder exceeds the following levels :

Total dissolved solids	600 mg/litre or p.p.m.
Electrical conductivity	850 μ S/cm
Total hardness	200 mg/litre or p.p.m.
Chloride	250 mg/litre or p.p.m.
Magnesium	10 mg/litre or p.p.m.
Sodium	150 mg/litre or p.p.m.
pH	Min 6.5 and Max 8.5
9. The benefits conferred by this warranty are in addition to all other rights and remedies in respect of the product, which the purchaser has under the Trade Practices Act (Commonwealth) 1975, and similar State or Territory Laws.

Warranty Cover*	Single Domestic Application	Single/Multi Commercial Application
<p>Free replacement of major components Stainless Steel Water Heater, or, where applicable, free replacement of faulty minor components : Including labour *</p>	One year	One year
<p>Should the heater stainless steel storage cylinder rupture, a new water heater will be supplied free of charge, excluding labour *</p>	Year two to year ten inclusive	Year two to year five inclusive

*Where the heater is installed outside the boundaries of a Capital Cities Metropolitan area i.e. those areas STD, the cost of transport, insurance and travelling between the nearest Everlast accredited Service Agent's premises will be charged to the owner.



EVERLAST™

SERIES 2000

10 YEAR WARRANTY PLAN – REGISTRATION FORM

Owners Name _____ **(Retain)**

Installation Address _____

Town/Suburb _____ State _____ Postcode _____

Date Purchased _____ Installation Date _____

Heater Serial Number _____

Installed by:

Plumber _____ Licence No. _____

Address _____

Town/Suburb _____ State _____ Postcode _____

Electrician _____ Licence No. _____

Address _____

Town/Suburb _____ State _____ Postcode _____

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everlasthydro@everlastwaterheaters.com

*10 YEAR WARRANTY PLAN – REGISTRATION FORM

***Please return this coupon immediately following installation.**
Thankyou

Owners Name _____ Phone _____

Address _____

Town/Suburb _____ State _____ Postcode _____

Purchased from:

Business Name _____

Address _____

Town/Suburb _____ State _____ Postcode _____

Date Purchased _____ Heater Serial Number _____

Installed by:

Plumber _____ Licence No. _____

Address _____

Town/Suburb _____ State _____ Postcode _____

Electrician _____ Licence No. _____

Address _____

Town/Suburb _____ State _____ Postcode _____

Installation Date _____

RETURN TO :

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