

THERMANN™

OWNER'S GUIDE

Electric and Gas Storage Water Heaters

Safety Information
Owner's Information
Warranty



IMPORTANT SAFETY INFORMATION

WARNING - THIS APPLIANCE MAY DELIVER WATER AT HIGH TEMPERATURE. REFER TO THE PLUMBING CODE OF AUSTRALIA (PCA), LOCAL REQUIREMENTS AND INSTALLATION INSTRUCTIONS TO DETERMINE IF ADDITIONAL DELIVERY TEMPERATURE CONTROL IS REQUIRED.

WARNING - FOR CONTINUED SAFETY OF THIS APPLIANCE IT MUST BE INSTALLED, OPERATED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

This water heater is not intended for use 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 concerning use of the water heater by a person responsible for their safety.

Children should be supervised to ensure they do not interfere with the water heater. Ensure animals are supervised so they do not interfere with the water heater.

DO NOT SPRAY AEROSOLS IN THE VICINITY OF THIS APPLIANCE WHILE IT IS IN OPERATION.

DO NOT USE OR STORE FLAMMABLE MATERIALS IN OR NEAR THIS APPLIANCE.

DO NOT STORE ANY COMBUSTIBLE MATERIAL NEAR THIS WATER HEATER.

DO NOT PLACE ARTICLES ON OR AGAINST THIS APPLIANCE.

DO NOT MODIFY THIS APPLIANCE.

DO NOT OPERATE THE WATER HEATER WITH ANY PANELS OR COVERS REMOVED.

If the water heater is not used for two weeks or more, a quantity of hydrogen (which is highly flammable) may accumulate inside the water heater tank.

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 a sound similar to air escaping.

RELIEF VALVE:

The Pressure & Temperature Relief (PTR) Valve must be installed either into the RP $\frac{1}{2}$ " (DN15) or RP $\frac{3}{4}$ " (DN20) with the brass reducer, directly into the socket marked "RELIEF VALVE".

The PTR valve rating is 1,000 kPa and 10 kW on electric water heaters.

The PTR valve rating is 1,400 kPa and 10 kW on gas storage water heaters.

The valve must not be tampered with or removed. The water heater must not be operated unless this valve is fitted and in working order.

IMPORTANT SAFETY INFORMATION

The drain line from the PTR Valve must be installed in a continuously downward direction in a frost free environment.

The PTR Valve is to be operated regularly to remove lime deposits and to verify it is not blocked. The drain line fitted to the PTR Valve must be left open to the atmosphere.

DANGER - FAILURE TO OPERATE THE PTR VALVE EASING LEVER 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.

The PTR Valve should be checked by a licensed tradesperson for adequate performance, or replaced at intervals not exceeding 5 years, or less in areas where local regulations apply.

It is normal for water to drip from the drain line fitted to the PTR Valve during heating cycles.

Continuous leakage of water from the PTR Valve may indicate a problem with the water heater. This may be caused by excessive water supply pressure, a faulty PTR Valve or a faulty thermostat.

Turn off the water heater and contact Customer Service for advice if required:

- 1300 412 612 (Australia);
- 0800 081 909 or contact your local Reece branch (New Zealand).

OVER-TEMPERATURE ENERGY CUT-OUT:

The operation of the over-temperature energy cut-out indicates a possibly dangerous situation. Do NOT reset the over-temperature energy cut-out until the water heater has been serviced by a licensed tradesperson.

ELECTRICAL SAFETY:

These electric water heaters are designed for single phase 230-240V a.c. supply. The electrical connection must comply with Local Supply Authority Regulations and AS/NZS 3000 (known as the Wiring Rules). A means for disconnection must be incorporated in the fixed wiring in accordance with the Wiring Rules.

Any electrical covers should be removed only by a licensed tradesperson, and only after the electrical supply to the water heater has been isolated.

When the supply wiring has been connected, ensure the wires are kept lower than the terminal block.

Excess wire is not to be looped close to the thermostat or tank.

In addition to the Pressure & Temperature Relief Valve, electric storage water heaters are fitted with a combination thermostat and over-temperature energy cut-out.

This device must not be tampered with or removed. Replacement of this device must only be carried out by a licensed tradesperson or the manufacturer.

IMPORTANT SAFETY INFORMATION

The water heater must not be operated unless this device is fitted and in working order.

PRE-WIRED ELECTRIC STORAGE WATER HEATERS:

Electric storage water heaters with the letter "P" at the end of their model number are factory fitted with a power supply cord. These water heaters may be plugged into a standard general purpose power outlet.

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

GAS STORAGE WATER HEATERS:

In addition to the PTR Valve, gas storage water heaters are fitted with a gas control valve. As well as acting as a thermostat, the gas control valve is fitted with over temperature energy cut-outs.

The gas control valve must not be tampered with or bypassed.

Replacement of the gas control valve must only be carried out by a licensed tradesperson or the manufacturer.

Your water heater must not be operated unless the gas control valve is fitted and in working order.

WATER HEATER APPEARS TO BE LEAKING:

If your water heater is heating a large quantity of cold water, condensation may form inside the water heater and drip down onto the burner.

This is NOT an indication the water heater is leaking, but is the result of an efficient gas combustion process.

LIGHTING A GAS WATER HEATER:

Follow the Lighting Procedure steps on page 3 for lighting the gas water heater.

Important Safety Note:



Do not look directly into the burner area. Keep your head above the top of the access cover opening. Use a mirror to observe the flame

COLD WATER CONNECTION:

The water heater is intended to be permanently connected to the water supply main, and not connected by a hose-set.

Electric water heaters are designed for direct connection to water supply pressures of up to 800 kPa.

Gas storage water heaters are designed for direct connection to water supply pressures of up to 1,120 kPa.

Where the mains pressure can exceed or fluctuate beyond this pressure, a pressure reducing valve must be fitted in the cold water inlet supply.

Instructions explaining how the water heater can be drained can be found on page 4.

IMPORTANT SAFETY INFORMATION

INSTALLATION REQUIREMENTS

GENERAL:

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

- In Australia, the Plumbing Code of Australia (PCA);
- In New Zealand, Clause G12 of the New Zealand Building Code (NZBC);
- AS/NZS 3000 Electrical Installations (known as the Australian / New Zealand Wiring Rules);
- AS/NZS 5601.1 Gas Installations - General Installations (for gas storage water heaters); and
- Local authority regulations.

Failure to comply with these requirements may affect the warranty.

AS/NZS 3500.4 Plumbing and Drainage - Heated Water Services provides a Deemed-to-Satisfy Solution for the PCA and a Verification Method for Clause G12 of the NZBC. Other methods of compliance are available. Dux recommends that installations conform with AS/NZS 3500.4.

NOTE FOR VICTORIAN CUSTOMER:

This water heater must be installed by a licensed person as required by the Victorian Building Act (1993).

Only a licensed person will provide a compliance certificate, showing that the work complies with all the relevant Standards. Only a licensed person will have insurance protecting their workmanship.

LOCATION:

The water heater should be located as close as possible to the most frequently used hot water outlet.

Ensure the compliance plate and associated warnings are clearly visible. The water heater must be accessible without the use of a ladder or scaffold. Adequate clearance must be available for service to the element, thermostat, relief valve and anode. All models are equipped with a sacrificial anode, allow half of the height of the water heater to provide access through the top cover.

Electric storage water heaters may be installed indoors. A properly drained safe tray must be installed where property damage could occur from water spillage.

Refer to AS/NZS 3500.4 for further information.

Refer to local regulations before installing the water heater in a roof space.

WATER HEATER SUPPORT:

The water heater must be installed on a flat, solid supporting surface. The pipework must not be used to support the water heater.

Where the water heater is subjected to wet conditions, a plinth should be installed under the water heater.

POOL HEATING:

This water heater must **not** be used for pool heating.

Thermann Owner's Guide

Electric and Gas Storage Water Heaters

Specifications and materials may change without notice.
Effective for all Thermann Electric and Gas Storage Water Heaters
manufactured and sold after 1st September 2021.

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WATER SUPPLY & CONNECTION

Water Supply:

Your water heater has been manufactured to suit the water conditions of most Australian & New Zealand metropolitan supplies.

Please note certain water supplies can have a detrimental effect on your water heater and its life expectancy. If you are unsure about the water supply you can obtain information from your local water supply authority.

Your water heater is designed for use in areas where the Total Dissolved Solids (TDS) content of the water supply is less than 2500 mg/L. The Tank Failure Warranty does not apply in areas where the TDS exceeds 2500 mg/L.

In areas where the TDS exceeds 600mg/L, it is possible the magnesium alloy anode (supplied in standard water heaters) may become over-reactive. To alleviate this, a hard-water model is recommended or the magnesium alloy anode should be replaced with an aluminium alloy anode. Aluminium alloy anodes are available from your local Reece branch.

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. If the index is greater than 0.80, the electrical heating element (fitted to electric storage water heaters) should be replaced with a low power density Incoloy heating element.

Please consult Customer Service for advice if required:

- 1300 412 612 (Australia);
- 0800 081 909 or contact your local Reece branch (New Zealand)

Hot Water Connection:

It is recommended that all hot water pipes are insulated. Hot water pipes installed outdoors should be insulated with UV stabilised insulation.

Cold Water Connection:

An approved isolating valve, non-return valve, line strainer (optional but recommended) and union must be fitted between the water supply main and the water heater.

Water Supply Pressure:

Your water heater is designed for direct connection to water supply pressures of up to:

Electric Storage Water Heaters:
- 800 kPa.

Gas Storage Water Heaters:
- 1,120 kPa.

Where the mains pressure can exceed or fluctuate beyond this pressure, a pressure reducing valve must be fitted in the cold water inlet supply.

Note for New Zealand, South Australia and Western Australia:

It is a requirement in these locations that an expansion control valve be fitted on the cold water supply line between the non-return valve and the water heater.

LIGHTING GAS WATER HEATERS

Caution:

Do not light the water heater until it has been filled with water (see Filling the Water Heater on page 4).

Do not attempt to light the water heater if the pilot is out and the knob is in the "ON" position (one of the number settings). Follow the steps below.

Important Safety Note:

Do not look directly into the burner area. Keep your head above the top of the access cover opening. Use a mirror to observe the flame



Lighting Procedure:

The diagram on the next page shows the location of the control knob and the igniter button on the gas control valve.

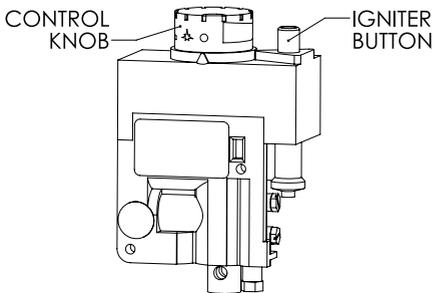
1. Remove the access cover. (A copy of the lighting procedure can also be found on the inside of the access cover).
2. Turn the control knob fully clockwise to the "•" (off) position.
3. Wait five (5) minutes so any build-up of unburnt gas can escape.
4. Turn the control knob to the ★ (pilot) position.
5. Depress the control knob fully (until ★ disappears below housing) and after thirty (30) seconds, whilst keeping the control knob depressed, repeatedly press the igniter button (for up to 40 seconds) until the pilot flame ignites.
Note - it is not possible to depress the control knob fully if the gas control valve has activated its safety shutoff feature. In this case, wait sixty (60) seconds for the gas control valve to reset.
6. Keep the control knob depressed for twenty (20) seconds after the pilot flame lights. Use a mirror to observe the pilot flame. Do not attempt to observe the flame directly.
7. Release the control knob and check the pilot is still alight.
8. If the pilot has failed to light or has not remained alight, turn the control knob to "•" (off). Wait five (5) minutes for the escape of unburnt gas, then begin again at step 4.
9. When the pilot flame remains alight with the control knob released, turn the control knob anticlockwise to one of the number settings. A minimum setting of "6" is recommended and this will give a water temperature of about 60°C.
10. Turn the control knob to a higher number for higher water temperatures.
11. If the main burner does not light at the selected setting, the water may already be at the selected temperature.
12. Replace the access cover and ensure it is firmly in position.

FILLING, SHUT DOWN & DRAINING

Filling the Water Heater:

Your water heater must be filled with water before turning on the electrical supply or lighting the gas.

1. Open all hot water taps.
2. Open the isolating valve at the cold water inlet slowly and allow the water heater to fill until water flows through the system.
3. Close each hot water tap after the air is expelled from its line.
4. Open the Pressure & Temperature Relief Valve for approximately 10 seconds by lifting the easing lever on the valve. Confirm water drains to waste through the relief valve drain pipe.
5. Lower the lever gently and check it closes correctly.



GAS CONTROL VALVE DIAGRAM

Shutting Down a Gas Storage Water Heater:

1. Remove the access cover and turn the control knob to the “•” (off) position.
2. Turn off the gas isolation valve. **Never turn off the gas supply without turning the control knob to the off position first.**
3. Turn off the cold water supply isolation valve.
4. Replace the access cover.

Draining the Water Heater:

1. Turn off the electrical supply to an electric storage water heater or shut down a gas storage water heater.
2. Gently operate the easing lever on the Pressure & Temperature Relief (PTR) Valve to release the pressure in the water heater.
3. Disconnect the cold water inlet union to the water heater and attach a drain hose.
4. Gently operate the easing lever on the PTR Valve to let air into the water heater and allow water to escape through the hose.

SYSTEM MAINTENANCE

Regular servicing will help to extend the life of the water heater, and keep it operating safely and efficiently.

Your water heater warranty is not conditional on completing the regular servicing recommended in this manual. The conditions applying to your water heater warranty are set out on page 7 of this manual.

Six Month Service (All Water Heaters):

This service may be carried out by the owner.

1. Stand clear of the Pressure & Temperature Relief (PTR) Valve drain pipe outlet.
2. Open the PTR Valve for approximately 10 seconds by lifting the easing lever on the valve. Confirm water discharges to waste through the drain pipe.
3. Lower the easing lever gently and check it closes correctly.
4. Repeat the above process for the expansion control valve (if installed).

Other than this, personally inspecting or servicing any part of your water heater is not recommended.

Annual Service (Gas Storage Water Heaters):

This service should only be carried out by a licensed tradesperson.

The service should include the following:

- Inspect and flush the PTR Valve and expansion control valve (if installed).
- Check the spark gap, gas control valve and thermocouple.
- Check and if necessary adjust the main burner pressure.
- Clean and check the main burner and the pilot light.

Five Year Service (All Water Heaters):

This service should only be carried out by a licensed tradesperson.

In locations where the water has Total Dissolved Solids (TDS) exceeding 600 mg/L, this service is recommended every 3 years.

The service should include the following:

- Replace the PTR Valve.
- Inspect and flush the expansion control valve (if installed).
- Replace the anode.
- Drain and flush the water heater.

Gas Storage Water Heaters:

In addition to the items above, the service should include the items listed in the Annual Service.

CONSIDERING A SERVICE CALL?

It is recommended that the following points be reviewed before making a service call:

No Hot Water:

- If you have a gas storage water heater, confirm the gas burner and/or pilot is on and operating. If not, see Lighting Gas Water Heaters on page 3.
- If you have an electric storage water heater, ensure that the power supply circuit breaker has not “tripped”. If your water heater is on a timed tariff such as off-peak, ensure this is operating correctly.

High Gas or Electricity Bills or Insufficient Hot Water:

- Often the hot water usage of showers, washing machines and dishwashers can be under estimated. Review these appliances to determine if your daily usage is greater than the capability of your water heater.
- If necessary check the shower flow rates with a bucket, measuring the amount of water used over that period of time. If it is not possible to adjust water usage patterns, an inexpensive flow control valve can easily be fitted to the shower outlet.
- Do you have the correct size water heater for your requirements? Sizing details are available from your local Reece branch.

- 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 washers and have your plumber rectify any leaking pipe work.
- Is the Pressure & Temperature Relief Valve discharging too much water? See below.

Continuous Trickle of Water from Pressure & Temperature Relief (PTR) Valve:

This is most likely due to a build up of foreign matter. In this case, try gently raising the easing lever on the PTR Valve for a few seconds, then release gently.

This may dislodge a small particle of foreign matter and rectify the fault.

Water Discharge from PTR Valve:

It is not unusual for a small quantity of water to discharge during the heating of water in your storage tank. The amount of discharge will depend on hot water usage and size of the storage tank.

As a guide, it will discharge about 2% of the volume of the water heated.

Continuous leakage of water from the PTR Valve may indicate a problem with the water heater. Turn off or shut down the water heater and contact Customer Service.

If after checking the above points, the problem has not been identified, please consult Customer Service:

- **1300 412 612 (Australia);**
- **0800 081 909 or contact your local Reece branch (New Zealand).**

WARRANTY

Thermann Electric or Gas Storage Water Heater - Warranty Summary:

Manufactured by Dux Manufacturing Limited (“Dux”).

Your water heater is specified with a warranty as set out in the table below.

The fault must appear within the defined time period, which commences from the date of installation (or manufacturing date of the unit if proof of the date of installation is not available) in order to be covered.

Small Electric Water Heater Warranty

Small Electric 25L – 50L Water Heater Warranty	Tank Warranty	Parts & Labour
Single Family Dwelling	7 years	1 year
All Other Applications	3 years	1 year

Large Electric Water Heater Warranty

Large Electric 80L – 400L Water Heater Warranty	Tank Warranty	Parts & Labour
Single Family Dwelling	10 years	1 year
All Other Applications	3 years	1 year

4 Star Gas Storage Water Heater Warranty

4 Star Gas Storage 135L & 170L Water Heater Warranty	Tank Warranty	Parts & Labour
Single Family Dwelling	7 years	1 year
All Other Applications	3 years	1 year

The benefits provided to you by this warranty are in addition to any other rights and remedies available to you under the Australian Consumer Law.

One Year Parts and Labour Warranty:

Dux Manufacturing Limited (“Dux”) warrants against defects in the water heater arising from faulty materials or workmanship.

During the period (as specified in the table above), Dux will repair or replace any failed component or where necessary, in the absolute discretion of Dux, replace the water heater, free of charge including reasonable labour costs incurred during normal business working hours.

Tank Failure Warranty:

Dux warrants against failure of the storage tank, in accordance with its application (as specified in the table above). Conditions apply.

During the first year of warranty, Dux will provide a replacement water heater free of charge including installation and labour costs.

Installation and other labour costs are the responsibility of the owner if the water heater is outside parts and labour warranty.

Warranty Conditions:

The warranty only applies to the water heater itself and the components supplied with the water heater by Dux. The warranty does not cover components supplied by others, including the installer.

The tank failure warranty does not apply if the water heater has been

WARRANTY

connected to a water supply where the Total Dissolved Solids content is greater than 2500 mg/L.

These warranties do not apply to defects that are a result of, without limitation, the following:

- failure to install the water heater in accordance with the installation instructions or statutory requirements;
- faulty plumbing or water supply including excessive pressure;
- faulty power or gas supply;
- use of the water heater in a manner contrary to this manual;
- alterations or repair of the water heater other than by a suitably qualified tradesperson;
- accidental damage or abuse.

If the water heater is installed in a position that does not comply with the installation instructions or statutory requirements, then this warranty does not cover major dismantling or removal of cupboards, doors, walls or special equipment and/or excessive labour, at the determination of Dux, to make the water heater accessible for repair or replacement.

Where the water heater is located outside the metropolitan area of a capital city and is more than 100km from a Dux office or service agent, the Owner will be responsible under the warranty for paying the costs of transporting the water heater and or any component in the water heater to and from an approved service agent

or Dux office (including any insurance associated with that transport), or paying the travelling time of an approved service agent to and from the owners premises.

Commencement of Warranty:

The warranty period commences from the date of installation of the water heater. Where proof of the date of installation is not available, the warranty period commences on the date of manufacture of the water heater. This is shown on the compliance plate on the outside of the water heater.

The replacement of the water heater, or a component of it, under this warranty does not change the warranty commencement date. The original commencement date continues to apply.

Exclusion and Limitation of Liability:

In addition to any other provisions set out in this document and to the maximum extent permitted by any applicable law or regulation, Dux will not be liable for any claim:

1. for consequential loss to any property arising directly or indirectly out of or connected to the installation of the water heater. This includes but is not limited to furnishings, carpets, foundations, housing effects and buildings.
2. for any direct or indirect economic or financial loss of any nature.
3. arising out of or connected to a

WARRANTY

water heater that has been resold or moved from its original installation location.

4. arising out of or connected to any misuse, or other use, installation or maintenance that is not in accordance with the procedures and requirements set out in this document.

To the extent permitted by law the liability of Dux shall be limited to the cost of the repair or replacement of the water heater.

The Australian Consumer Law (“ACL”):

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

If Dux fails to meet a guarantee under the ACL, your remedy for such failure may be limited to any one or more of the following:

- replacement of the water heater;
- repair of the water heater;
- refunding the cost of the water heater;
- payment of the reasonable costs of having the water heater repaired;
- payment in respect of the reduced value of the water heater.

How to Make a Warranty Claim:

Warranty claims can be placed by completing the following steps:

Please consult Customer Service:

- 1300 412 612 (Australia);
- 0800 081 909 or contact your local Reece branch (New Zealand).
- Provide the serial number and model number of the water heater. This can be found on the compliance plate on the outside of the water heater.
- Provide your full name, address and contact number.
- Provide proof of date of installation for warranty to commence from that date, rather than from the date of manufacture. See Commencement of Warranty on page 8.

Please note, if the defect or fault is not covered by the warranty or guarantee, you will be responsible for the costs incurred by the service agent or technician.

Contact Details:

Dux Manufacturing Limited
Lackey Road, Moss Vale, NSW, 2577
Australia

1300 412 612 (Australia)

0800 081 909 or contact your local Reece branch (New Zealand)

Email: duxaftersales@dux.com.au

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