INSTALLATION GUIDE AND WARRANTY INFORMATION

Please read these installation instructions thoroughly, paying particular notice to the points listed in **"Important Installation Requirements."**

Once commissioning has been finalised, the owner should familiarise themselves with the **Operation and Maintenance** that is required to maintain this cylinder in good working order and to satisfy the guaranteed conditions. The installer, please leave these notes with the owner.

Should any fault develop with this water heater during its guarantee period, the owner should immediately contact the installing plumber or electrician in the first instance, or Peter Cocks* (PC) **who will provide contact details of a service agent who is authorised to perform this work**. Refer to details on **www.petercocks.co.nz** or by phoning **0800 555 048**.

UNTIL A CLAIM HAS BEEN AUTHORISED TO PROCEED BY PETER COCKS*, THE OWNER IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE CLAIM.

*Rheem New Zealand Limited t/a Peter Cocks (PC)

OPERATION AND MAINTENANCE

⚠ WARNING

This water heater is only intended to be operated by persons who have the experience or knowledge and capabilities to do so. This water heater is not intended to be operated by persons with reduced physical, sensory or mental capabilities i.e. the infirm, or by children. Children should be supervised to ensure that they do not play with the appliance.

Mains Pressure cylinders are fitted with a TPR (Temperature/Pressure Relief Valve) which should be manually operated once every 6 months to remove lime deposits and to verify that it is not blocked. This valve is located at the top of the cylinder and has a lever/ knob that you carefully lift/turn (hot water will flow) until water flows out of the valve and along the drain fitting. Releasing the lever/knob will seal the valve and stop the flow.

It is very important that you raise and lower the lever gently.

⚠ 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.

Water may drip from the discharge pipe and this pipe must be left open to atmosphere.

The drain line from the TPR valve must be in copper. Under no circumstances block the outlet of this valve or its drainpipe.

⚠ WARNING

A discharge pipe connected to the pressure-relief device is to be installed in a continuously downward direction and in a frost-free environment. The valve or drain valve outlet pipe must not be sealed or blocked.

This cylinder and accompanying valves must be inspected and serviced on an annual basis to ensure correct working and peak efficiency. This must be carried out by a competent person and a log kept verifying this event. Failure of this cylinder due to lack of maintenance will invalidate the guarantee. The cost of maintenance is the responsibility of the owner.

⚠ WARNING

For closed water heaters and low-pressure water heaters not designed for connection to a supplementary heat source.

The operation of the thermal cut-out indicates a possible dangerous situation. The thermostat and thermal cut-out is to only be adjusted or reset by an authorized service person.

These safety devices must not be tampered with, or removed, and under no circumstances operate the cylinder unless both devices are fitted.

⚠ WARNING

Cistern-fed water heaters and low-pressure heaters designed for connection to a supplementary heat source

WARNING: Do not connect any restrictor or pressure relief device to the vent pipe of this water heater.

⚠ WARNING

How hot should the water be? Regulations require an approved temperature limiting device (tempering valve) be fitted into the hot water pipe work to the bathroom(s) and ensuite(s) to provide safety protection from potential scalding. This will keep the hot water supply temperature to the bathroom(s) and ensuite(s) below 50°C which will reduce the risk of scald injury whilst still allowing hotter water (60°C+) to the kitchen and laundry.

IMPORTANT INSTALLATION REQUIREMENTS

1. This water heater is supplied with blanking plug(s) and a TPR valve (if required), located in the lower Element and Thermostat cavity. The blanking plugs are for spare inlets or outlets (if any) and as such vary in quantity for each model. Refer to installation diagrams and building regulations to see whether your model requires a TPR valve.
2. If the base of the water heater is higher than the lowest hot water outlet by 2.0m or more, the tank may be subject to a negative pressure (partial vacuum) which can cause damage to the water heaters storage cylinder. In this instance, an approved vacuum break valve (RMC #AV50A or equivalent) must be installed at the highest point in the hot water line. Damage to the cylinder caused by incorrect installation is not covered by the PC warranty.
3. To be considered for a guarantee claim the cylinder must be installed complying with NZS4603, NZS4605 or NZS4607, The NZ Building Code G12 and relevant municipal building codes applicable at the time of installation.
4. All installation work must be carried out in accordance with the Plumbers, Gas Fitters and Drain Layers Act 1976 and performed by suitable persons as defined in this Act.
5. The electrical installation must comply with AS/NZS 3000:2007 and any other local authority regulations. A means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules. The recommended and minimum thermostat setting is 60°C.
6. This water heater is intended to be connected to the water mains and not connected by a hose-set.
7. The water heater must be installed with a properly drained safe tray where there is the possibility of water damage to furniture, carpets or building.
8. All water heaters must be restrained to protect against seismic forces (refer to the New Zealand Building Code for acceptable solutions).
9. This water heater is fitted with an electrical thermostat that controls the running temperature and on electrical heat only cylinders, an over temperature cut off device that will permanently disconnect power from the element should it be activated.
10. This water heater is suitable for internal installation only (unless otherwise stated) and should be placed to achieve a central proximity to the main draw off points.
11. Accessibility conditions to this water heater are defined under G12 of the Building Code and cover servicing, maintenance and inspection.
12. When fitting the temperature and pressure relief valve, ensure the probe has not been bent. Seal the thread with PTFE tape, or similar, as recommended by the valve manufacturer. The drain line from the TPR valve must be in copper. Under no circumstances block the outlet of this valve or its drainpipe.
13. The drain must run downwards to a visible point outside the house, preferably over a gully trap. In some setups or circumstances, such as if freezing could occur, an air break must be provided in the drain within 300 mm of the TPR valve, refer to the New Zealand Building Code - Clause G12 for requirements and acceptable solutions for the running of hot water drain line(s).
14. For mains pressure coiled wetback water heaters, the wetback fire energy rating must be appropriate, otherwise the TPR may activate frequently. It is recommended not to exceed 3.5kW rating for the wetback fire. A mechanism to redirect excess heat can be used to allow higher energy rated wetback fires to be connected.
15. If the water supply pressure exceeds the rated pressure, a pressure reducing valve is to be fitted in the installation.

LOW OR MEDIUM PRESSURE

This water heater can be installed as a valve vented or open vented system **unless it is connected to an uncontrolled heat source, in which case it must be open vented.**

In a valve vented system select a suitable pressure reducing valve, pressure relief valve and cold-water expansion valve. Ensure that pressure ratings do not exceed the maximum working pressure marked on the heater.

In open vented systems select the correct pressure reducing valve, vent pipe height and height of cistern feed tank if used.

This water heater must not be operated with any of these devices working incorrectly, disconnected or altered in any way. Failure to observe this rule may cause serious harm and will not comply with NZS4607 or the New Zealand Building Code G12.

MAINS PRESSURE

This water heater must be installed with a 500kPa or less pressure limiting valve and appropriate cold water expansion valve. The supplied TPR valve must be fitted and sealed with Teflon tape. Do not use paste and hemp.

If the water supply pressure exceeds the requirements of Table 5.2 AS/NZS 3500.4, a pressure limiting valve with a maximum setting of 500 kPa is to be fitted in the installation.

Maximum permitted mains water pressure - refer product label and Table 5.2 AS/NZS 3500.4. Note inlet pressure control valve is required where maximum permitted mains pressure is likely to be exceeded. Minimum inlet pressure: 60 kPa

WATER SUPPLY CHEMISTRY

Water quality can have a detrimental effect on water heater operation, components and life expectancy and may affect warranty.

⚠ WARNING

This water heater must be installed in accordance with this advice to be covered by the PC warranty.

This water heater is manufactured to suit the water conditions of most public reticulated water supplies. However, there are some known water chemistries which can have detrimental effects on the water heater, element and its operation and/or life expectancy. This water heater must only be connected to a water supply which complies with these specifications for the PC warranty to apply. If you are unsure of your water chemistry, you may be able to obtain information from your local water supply authority or you can contact PC and we will provide you with contact details of a suitable test lab capable of testing your water for compliance with PC standards. Water quality tests must be carried out at the owner's cost.

Water Chemistry Levels Affecting Warranty

The PC warranty of this water heater will **NOT** cover resultant faults on components (e.g. element, TPR valve) including the storage cylinder where water stored in the storage cylinder exceeds at any time any of the following levels:

Total dissolved solids	600 mg/Litre
Total hardness	200 mg/Litre
Chloride	250 mg/Litre
Magnesium	10 mg/Litre
pH	8.5 and not less than 6.5
Calcium	20 mg/Litre
Sodium	150 mg/Litre
Iron	1 mg/Litre

Note on Total Dissolved Solids (TDS)

The PC warranty will **NOT** cover resultant faults to the storage cylinder (or components including the element) if this water heater is connected at any time to a water supply where the TDS content of the water exceeds 600 mg/L. Some water analysis reports may state the conductivity of the water rather than the level of total dissolved solids. Conductivity, measured in micro siemens per centimeter (µS/cm), is directly proportional to the TDS content of the water. TDS, in mg/L, is approximately 70% of the conductivity in µS/cm.

In locations where TDS approaches 600 mg/L, e.g. due to sediment, we strongly recommend fitting an appropriate filter to ensure water entering, or in the water heater, does not exceed this level at any time i.e. due to sediment build up.

Scaling Water

Scaling water contains levels of calcium carbonate (total hardness more than 200 mg/Litre at any time when the water heater is operating). Scaling water can block and prevent the TPR valve from operating (if fitted), resulting in damage to the water heater storage cylinder and water heater components.

An expansion control valve must be fitted in ALL areas with scaling water to assist in preventing blockage of the pressure and temperature relief valve (if fitted).

⚠ WARNING

Failure to install an expansion control valve where scaling water conditions occur may result in the water heater storage cylinder failing, or under certain circumstances, exploding.

To avoid damage to the storage cylinder and water heater components, PC strongly recommends scaling water be treated before entering the water heater by fitting appropriate water filters/conditioners etc. Refer to your Local Water Authority for information on water in your area. A buildup of white sediment on hot water taps or shower roses can be indicative of scaling water. Contact PC if this condition is observed.

⚠ WARNING

Damage caused by scaling water can affect the PC warranty.

Spring, Dam, Bore & River Water Supplies

The PC warranty of this water heater will not cover resultant faults on components including the storage tank due to the effects of sludge and/or sediment as a result of connection to a water supply from silted or untreated sources i.e. springs, dams, bores, rivers or towns supplied from a bore.

Saturation Index

The saturation index is used as a measure of the water's corrosive or scaling properties. In a scaling water supply calcium carbonate is deposited out of the water onto any hot metallic surface. When scaling water has a saturation index greater than +0.40 an expansion control valve must be fitted on the cold-water line after the non-return valve.

Where the saturation index exceeds +0.80, low watts density elements should be used. Where the saturation index is less than -1.0, a corrosive resistant heating element should be used.

Contact PC for further information.

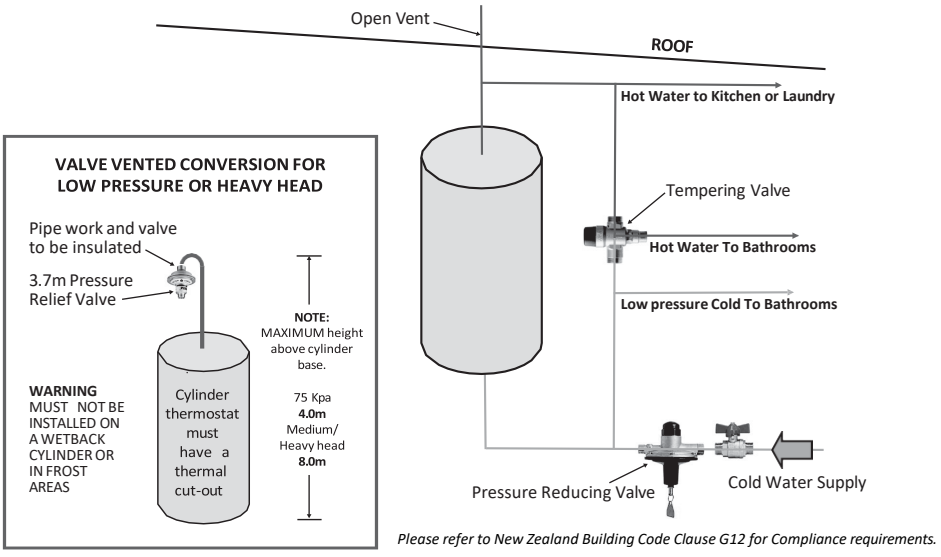
COMMISSIONING

1. The water heater must be full of water and all electrical components, connections and wiring must have been checked and certified by a qualified person, including factory installed element and loom wiring, before power is applied to the unit.
2. Check the operation of the Temperature and Pressure Relief Valve (TPR) (if fitted) by manually lifting the lever or rotating the knob on the valve and checking for water flow at the outlet.
3. Check that all fittings are tight, including factory installed element for leaks and ensuring the system is operating correctly, then switch on the power.
4. Check that the cylinder heats to the set thermostat temperature and then controls power to the element correctly.
5. Once the cylinder temperature has stabilized recheck all plumbing and electrical connections for tightness.

Draining the cylinder:

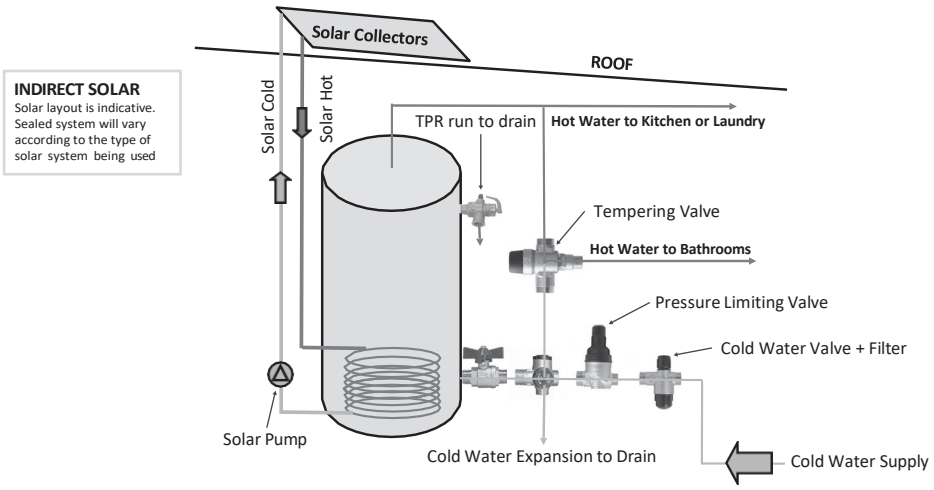
- Switch off the electrical supply at the isolation switch to the cylinder.
- Close the cold-water isolation valve.
- Operate the relief valve easing lever to release the pressure in the cylinder.
- Drain the cylinder through the drain valve or plug.
- Undo the top outlet union or operate the relief valve easing lever again to let air into the cylinder and allow the water to drain.

INSTALLATION DIAGRAMS



Please refer to New Zealand Building Code Clause G12 for Compliance requirements.

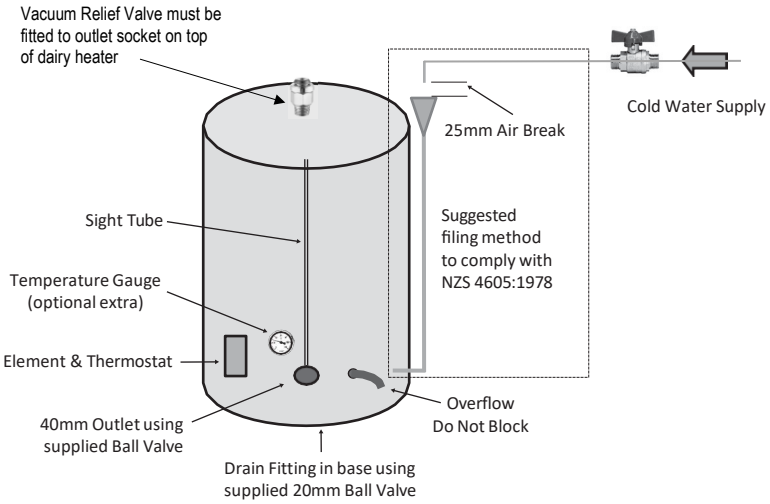
Low Pressure - Typical Installation



Please refer to New Zealand Building Code Clause G12 for Compliance requirements.

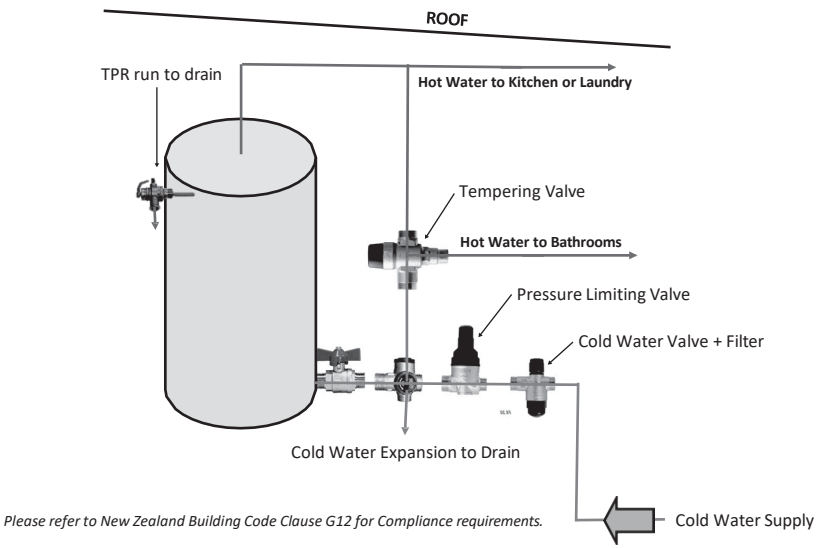
Solar Coil - Typical Installation

INSTALLATION DIAGRAMS



Please refer to New Zealand Building Code Clause G12 for Compliance requirements and NZS 4605:1978 Code of practice for The Installation of Dairy Type Thermal Storage Electric Water Heaters.

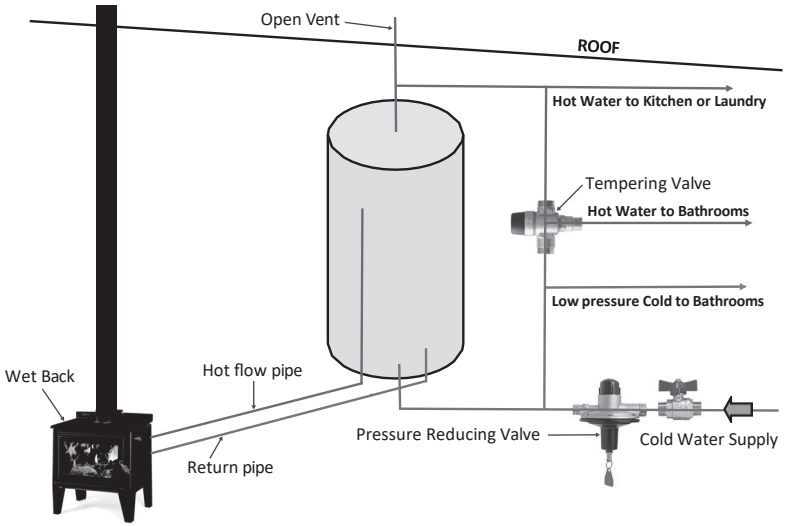
Dairy Cylinder - Typical Installation



Please refer to New Zealand Building Code Clause G12 for Compliance requirements.

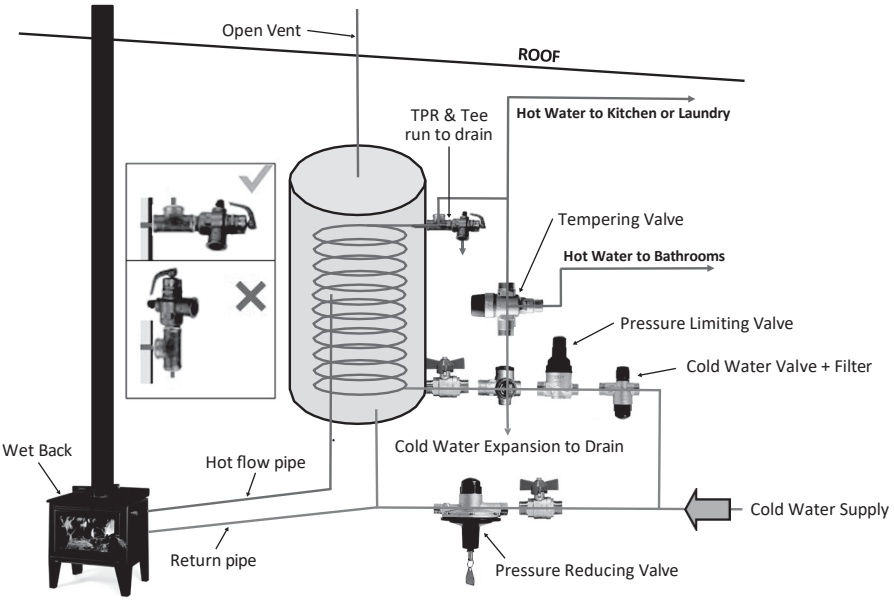
Mains Pressure - Typical Installation

INSTALLATION DIAGRAMS



Please refer to New Zealand Building Code Clause G12 for Compliance requirements.

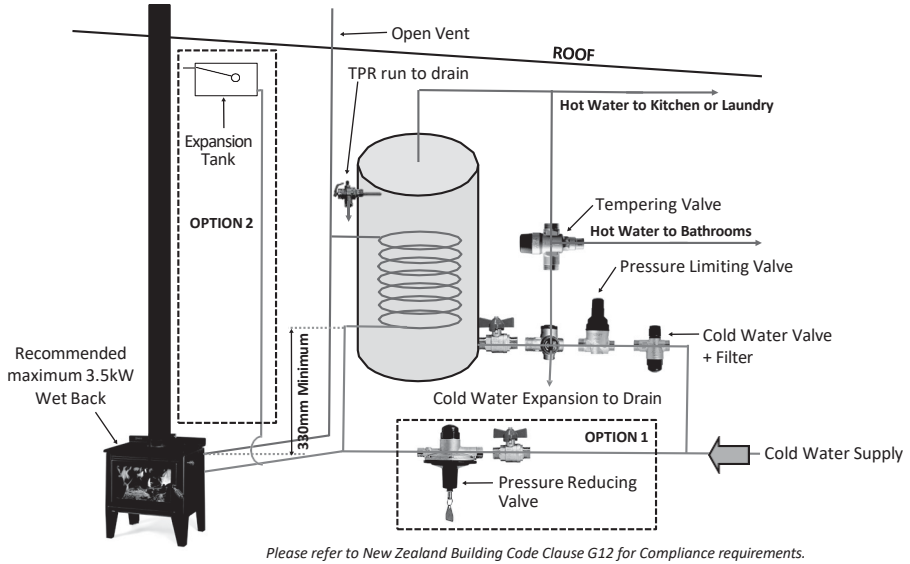
Low Pressure Wetback - Typical Installation



Please refer to New Zealand Building Code Clause G12 for Compliance requirements.

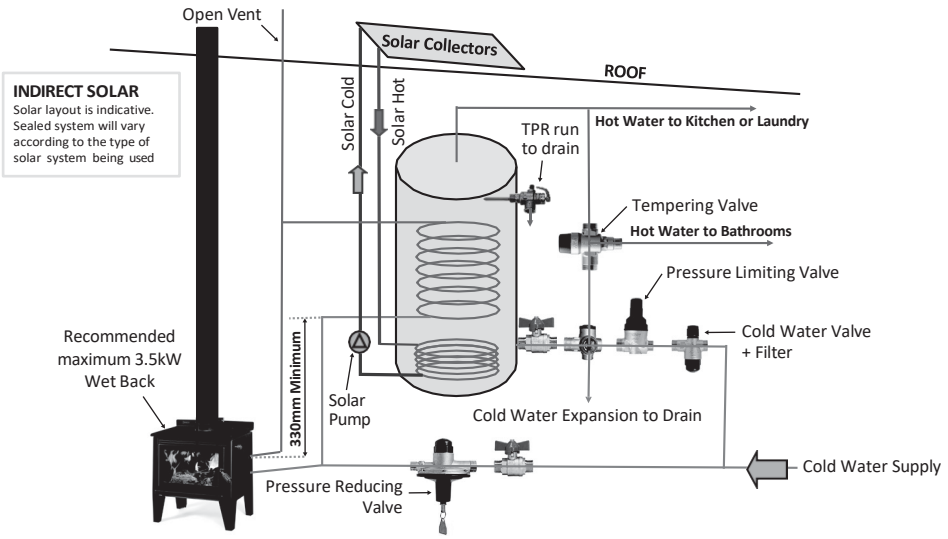
Jumbo Cylinder - Typical Installation

INSTALLATION DIAGRAMS



Please refer to New Zealand Building Code Clause G12 for Compliance requirements.

Wetback Coil (Valve Tank Supply) - Typical Installation



Please refer to New Zealand Building Code Clause G12 for Compliance requirements.

Wetback Solar - Typical Installation

WARRANTY

1.1 Rheem New Zealand Limited t/a Peter Cocks (PC) warrants to the owner of the hot water cylinder manufactured by PC ("the Hot Water Cylinder") (or its successors in ownership) to repair or replace (at PC's sole discretion) defects in the Hot Water Cylinder or a part manufactured by PC arising solely and directly due to faulty materials or manufacture for the warranty period and on the terms set out in the summary table below and subject to the terms and conditions set out in this warranty.

1.2 Hot Water Cylinder Warranty Summary		
Application	Warranty Period (from installation)	Warranty
All	Year 1	Repair or replace (at PC's sole discretion) the defective Hot Water Cylinder or part (as applicable) without cost to the owner for; parts or replacement hot water cylinder, direct repair or replacement labour, or freight costs (if any).
Any 'Standard' stainless steel cylinder (inner)*, used with up to the rated inlet pressure/head	Years 2- 3 (effective from DOM 1/10/17)	Repair or replace (at PC's sole discretion) the defective Hot Water Cylinder without cost to the owner for; replacement Hot Water Cylinder only, direct repair or replacement labour, or freight costs (if any).
Any copper cylinder (inner)* (including dairy), used with up to the rated inlet pressure/head	Years 2 - 5	Repair or replace (at PC's sole discretion) the defective Hot Water Cylinder only without cost to the owner. Installation, labour and freight costs (if any) are the responsibility of the owner.
Any 'Custom' stainless steel cylinder (inner)*, used with up to the rated inlet pressure/head		
Any Hot Water Cylinder (inner)* used in a non-domestic application, see 3.4		
Any 'Standard' stainless steel cylinder (inner)*, used with up to the rated inlet pressure/head.	Years 4 - 10	
*'Cylinder (inner)' is only the inner cylinder shell not including the outer jacket, insulation, fittings etc.		

1.3 PC warrants to the owner to repair or replace (at PC's sole discretion) defects in all parts of the Hot Water Cylinder not manufactured by PC (including, without limitation, all electrical parts, the element, element seal and valves) arising solely due to faulty materials or manufacture for the period of one (1) year from installation and subject to the terms and conditions set out in this warranty. After one (1) year such parts are covered by the respective manufacturer's warranties (if any).

2. TERMS AND CONDITIONS

2.1 For this warranty to be effective:

2.1.1 The Hot Water Cylinder must be installed and maintained by a licensed plumber and electrician in accordance with the PC installation instructions supplied, the New Zealand Building Code, NZS4603, NZ4605, NZS4607 and all relevant statutory and local requirements of the area in which the Hot Water Cylinder is installed; and

2.1.2 This water heater must be installed with a drained safety tray in situations where there is the potential for water damage to fixtures and fittings of the home. Failure to do so may void any warranty claim.

2.2 That part of the warranty set out in clauses 1.1 and 1.2 applies to the Hot Water Cylinder and those parts that are manufactured by PC and for the avoidance of doubt does not cover any plumbing, gas fittings or electrical parts, including but not limited to, pipe work, pressure limiting or release valves, stopcocks, non-return valves, electric switches, pumps and fuses.

2.3 The warranty does not cover any additional costs (including labour costs) associated with fault finding or gaining acceptable service access to the Hot Water Cylinder including costs of removing other materials such as cupboards, walls or roofs to obtain access or removing the Hot Water Cylinder.

2.4 The Hot Water Cylinder is covered under warranty for the period indicated in the summary table from the date of installation. Where a failed component or Hot Water Cylinder is repaired or replaced under warranty, the balance of the original warranty will remain effective. The replacement part or equipment does not carry any warranty.

2.5 Where the Hot Water Cylinder is installed outside the metropolitan area or further than 25kms from an installing contractor or service agent the cost of travel, insurance and freight may be charged to the owner.

2.6 The repair or replacement of the Hot Water Cylinder shall be performed during normal business hours by PC, or a repair agent authorized by PC. Any costs incurred by PC in performing work outside normal business hours may be charged to the owner at PC's discretion.

2.7 Cylinders returned to Peter Cocks for testing will be held for 20 days after the cylinder has been tested. After 20 days the cylinder will be disposed of.

3. WARRANTY EXCLUSIONS AND LIMITATIONS

3.1 The warranty does not cover repair or replacement work to the Hot Water Cylinder, or its parts caused directly or indirectly by:

3.1.1 Damage to the casing, installation or inner shell of the Hot Water Cylinder caused by external leaks.

3.1.2 Incorrect installation or repairs including installation by an unqualified person or failure to comply with the PC instructions and the requirements of the NZ Building Code, NZS4603, NZ4605, NZS4607 and the relevant statutory and local requirements.

3.1.3 Failure to maintain the equipment in accordance with the PC instructions and the requirements of the NZ Building Code, NZS4603, NZ4605, NZS4607 and the relevant statutory and local requirements.

3.1.4 Connection to a non-potable water supply, connection to a private plumbing system if valves vented, abnormal temperature, negative pressure, stress or strain, harsh or adverse water conditions, contamination or corrosion from particles in the water supply, excessive water pressure or water temperature or electrolysis; or

3.1.5 Acts of God, earthquake, war, storm, fire, flood, vandalism, misuse, abuse, negligence, accidental damage, maltreatment, vermin, foreign matter entering the equipment or any outside agency.

3.2 PC is not liable for any damage to furniture, carpets, walls, foundations, electrical fittings and wirings or any other loss or damage of any kind (including, for the avoidance of doubt, consequential loss and loss of profits) resulting directly or indirectly from a breach of warranty or services provided (either by PC or a repair agent authorized by PC) under the warranty.

3.3 If clause 3.2 or any part of it or the warranty is found by a court to be invalid and unenforceable, PC's liability for loss or damage resulting directly or indirectly from a breach of warranty or the provision of services under the warranty is limited at all times to the purchase price of the Hot Water Cylinder.

3.4 This water heater is designed for use by a single family in a domestic installation. It is designed for a domestic installation and where used in a non-domestic installation its lifespan may be shorter.

4. CONSUMER GUARANTEES ACT 1993

4.1 If the Hot Water Cylinder has been acquired for personal, domestic or household use, this warranty does not limit any consumer rights or guarantees that may apply under the Consumer Guarantees Act 1993. If the Hot Water Cylinder has been acquired for the purposes of a business, the provisions of the Consumer Guarantees Act 1993 do not apply.

4.2 For the purposes of s12 of the Consumer Guarantees Act 1993, PC only guarantees that it will take reasonable action to ensure that facilities for repair of the Hot Water Cylinder and supply of parts for the Hot Water Cylinder are reasonably available for the express warranty periods recorded in the warranty summary table in clause 1.2 and clause 1.3. PC does not undertake to provide repair facilities and parts for the Hot Water Cylinder after the expiry of the period specified in the warranty summary table.

This section to be filled out by the installer and this manual to be supplied to the homeowner:

Model _____

Serial _____

Date of install _____

Installer Details _____

_____

114 Maces Rd, Christchurch 8062 New Zealand

p: (03) 384 1360 f: (03) 384 5903

e: info@petercocks.co.nz

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