



Installation and Owner's Manual

Electric Heat Pump

Model: RIN250EHP

Installation Details

Owner's Information

Warranty

For advice, repairs and service, call:

1300 555 545



Carefully remove all packaging and transit protection from the heater before installation. Dispose of the packaging responsibly using re-cycling facilities where they exist.



Specifications and materials may change without notice.
Effective for Heat Pump water heaters manufactured and sold after 1st May 2011.

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About the Rinnai Heat Pump

The Rinnai Heat pump is a very efficient water heater that can significantly reduce energy consumption as compared to an electric storage system.

The principle of its operation is very similar to the operation of a refrigerator, but in reverse. There is latent heat energy in the air and this is transferred to the heating system and the water.

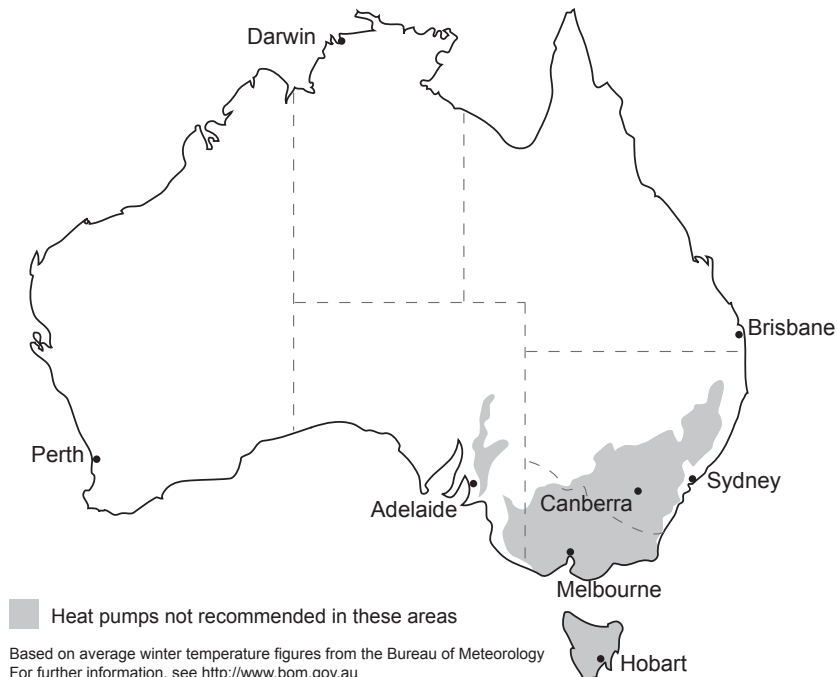
The warmer the climate in which it is installed, the more efficient the heat pump system will be at heating water.

Heat Pump Installation

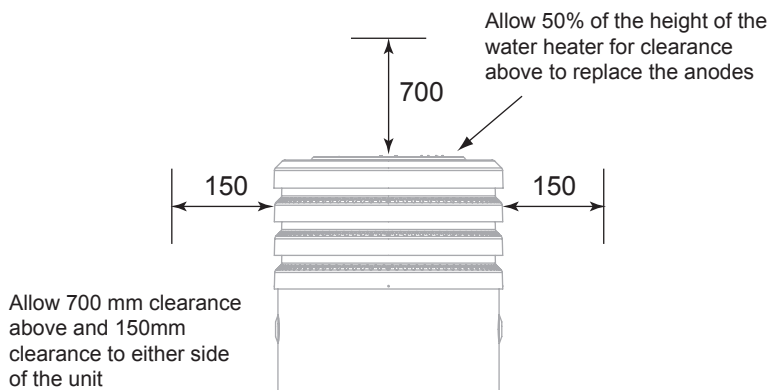
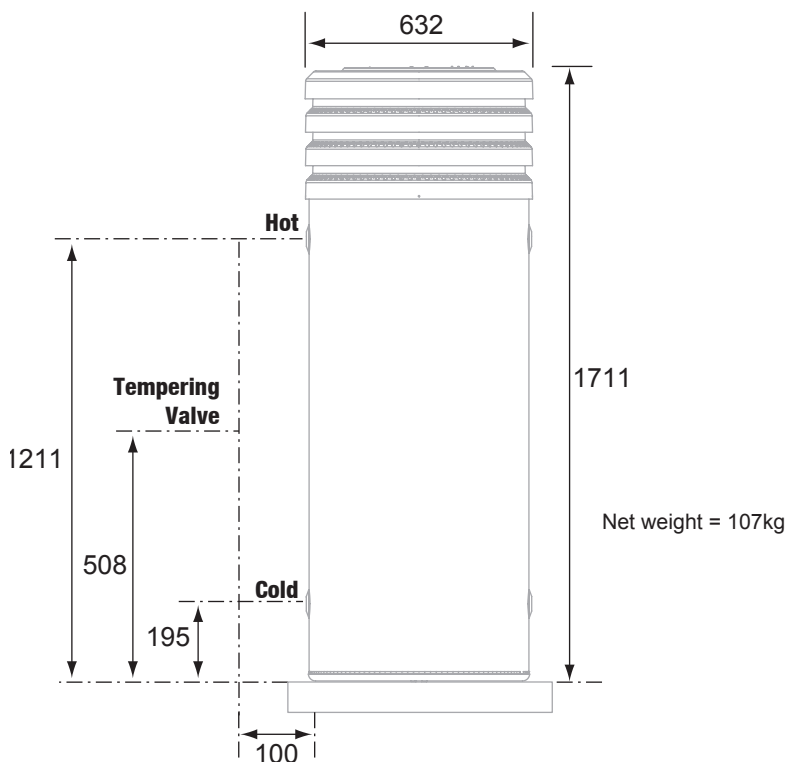
While heat pumps work best in warmer climates, they will continue to work in cooler areas.

The map below shows the cooler areas of Australia shaded in gray.

In these cooler areas, consumers may experience longer hot water heat-up times in winter. Because the efficiency benefits of heat pumps in these conditions is reduced compared to other hot water systems, installation of heat pumps in these areas is not recommended.



Rough-In Diagram



Installation Instructions

Regulatory Requirements

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”.
- AS/NZS3000.
- Local authority regulations.
- Outside Australia and New Zealand, please refer to local plumbing and building codes and regulations.
- Notice to Victorian customers from the Victorian Plumbing Industry Commission – this water heater must be installed by a licensed person as required by the *Victorian Building Act* (1993). Only a licensed person will give you a compliance certificate, showing that the work complies with all the relevant Standards and only a licensed person will have insurance protecting their workmanship for 6 years.



Note: This water heater and heat pump components are not suitable for pool heating.

Specifications

The net weight of the heat pump is 107kg.

Dimensions are shown in the rough in diagram in this manual.

Installation Instructions

Transport and Handling

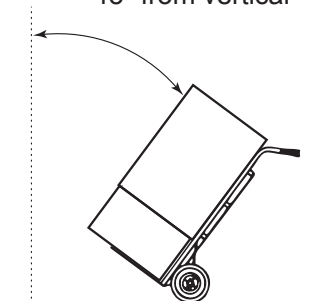


Critical: When moving the unit, it must be close to vertical at all times.

When using a trolley to move the unit, ensure it is not tilted more than 45° from the vertical.

Non-compliance will void warranty and severely affect product performance and operation.

Never tilt unit more than 45° from vertical



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.
- Unload all materials in a safe manner.
- Position all materials in a convenient position near the work area.
- The existing tank (if applicable) should be drained and removed in a responsible manner.



Note: Do not commence a job where the risks cannot be controlled.



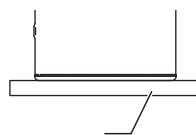
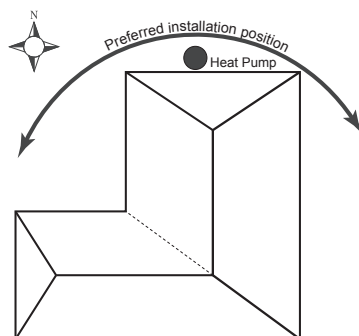
Note: Do not drain on to grass or garden beds.

Installation Instructions

Placement of New Tank

Step 2

- The water heater **must** be installed outdoors, close to the most frequently used hot water outlet.
- Optimum installation location is on the warmest side of house.
- The location must consider noise impact on living areas. Avoid positioning near bedrooms or neighbours' bedrooms. Although the running noise level is very low (51 dB(A)) it can be expected that the heat pump will run during the night.
- Adequate access must be available to the relief valve and anodes.
- Safely position the new unit on a level surface in accordance with all plumbing and building regulations.
- A properly drained overflow tray must be used where property damage could occur from water spillage. (See AS/NZS3500.4.2 for further details.)



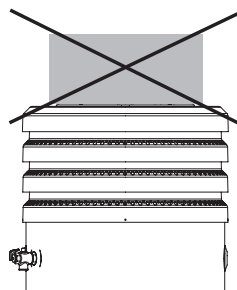
Install a plinth under the water heater where the water heater is subjected to wet conditions



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

Installation Instructions

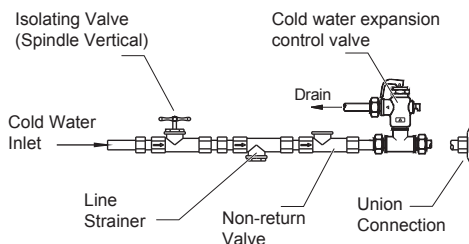
- Allow 200m³ of free space surrounding the unit. This provides clear ambient airflow assisting the product's performance.
- The area must also be clear of debris such as leaves and tree branches.
- Allow 700 mm clearance above and 150mm clearance to either side of the unit as shown in the Rough-In Diagram on page <?>.
- Ensure there are no obstructions placed on top of the unit.
- Total clearance required from ground to install unit is approximately 2410mm.



Plumbing Connections

Step 3

- Refer to the Rough-In Diagram on page <?> for detailed information on position of plumbing.
- An approved isolating valve, non-return valve, line strainer (optional but recommended), and union must be fitted between the supply main and the RP¾/20 socket in the water heater.
- All fittings must be approved by the relevant installation Authority.



Note: For S.A. and W.A., it is a state requirement that a cold water expansion control valve be fitted on the cold water supply line between the non-return valve and the water heater.

Installation Instructions

- This water heater is designed for direct connection to water supply pressures of no greater than **800kPa**.
- Where the mains pressure can exceed or fluctuate beyond 800kPa, a pressure limiting device (complying with AS1357) must be fitted.

PTR Valve

- Connect the supplied PTR valve into the top socket marked "RELIEF VALVE" and discharge according to plumbing regulations.
- PTR Valves for the unit are rated at **1000kpa**.
- The drain line from this valve must run in a continuously downward direction with the discharge end left permanently open to atmosphere.



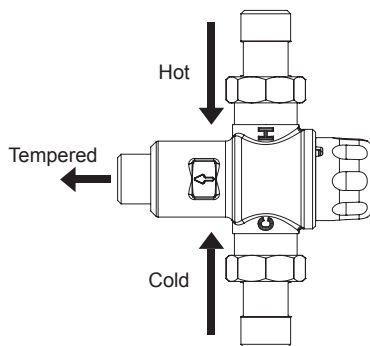
Warning: A separate drain line must be run for this relief valve. It is not permitted to couple drain lines from relief valves into a single common drain line.

- The PTR Valve is not intended to enable connection of the water heater to supplementary energy sources such as solar panels or slow combustion stoves (refer AS/ NZS 3500.4.2 for guidance on these types of installations)

Installation Instructions

Cold and Hot Water Connections

- Connect the cold water pipe to the storage tank, according to local regulations and the Plumbing Code.
- The hot water line should be connected to the hot water outlet.



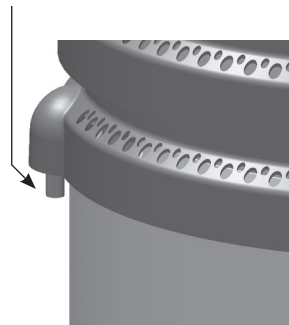
Tempering Valve

- A tempering valve is **mandatory**.
- Ensure it is commissioned correctly. Incorrect commissioning can lead to a lack of hot water.
- We recommend using an **orange top** Reliance brand tempering valve.

Condensation Drain Line

- A condensation drain line is required to be fitted to carry discharge clear of water heater.
- Condensate drain line should **not** be connected to the PTR Valve drain line but can exit to the same point.

Drain pipe



Insulation

- It is recommended that all hot water lines are insulated with high temperature, UV resistant 13mm closed cell insulation.

Installation Instructions

Electrical Connections

Step 4

- A properly authorised electrical contractor must connect the unit.
- The unit is rated at 10 amps (2 core and earth) so the power mains supplying the unit must have a 10 amp minimum double pole circuit breaker fitted.
- The electrical connection must comply with local supply authority regulations and AS3000.
- The unit must be connected to:
 - CONTINUOUS TARIFF, single phase 240 volt AC supply.
 - Tariff 33 (QLD only), single phase 240 volt AC supply.



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

Installation Instructions

Commissioning The System

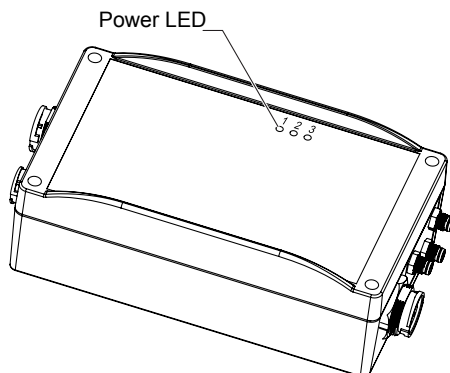
Step 5

- Fill and pressurise the unit with water **BEFORE** switching on.



Critical: Switching on the unit without water will damage it.

- Turn on the power supply. The Hotlogic control system will then check the unit's operating parameters. If conditions are suitable and there is enough energy available in the surrounding air, the fan and compressor will turn on.
- There will be a delay of approximately **30 seconds** from the time the main power is switched on before the compressor and fan begin operating.
- The unit is self regulating so there are no internal adjustments to be made during commissioning.
- Bleed air from system through a hot water tap **not** via the PTR Valve.
- Ensure the Hotlogic® unit is displaying the green power LED once unit has been switched on.
- If the Hotlogic® unit is not displaying the green power LED, refer to the table of Hotlogic Operational Codes on page <?>.
- Contact Rinnai if problems arise.



Installation Instructions

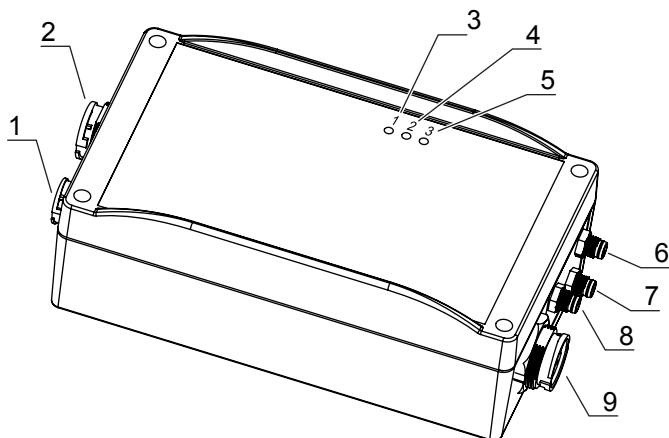
Conditioning Cycle

Step 6

- When the unit is operated for the first time, it runs through a conditioning cycle.
- Once this has occurred, it is important to conduct a draw off of hot water, and allow the unit to re-heat prior to testing water temperature.
- Do the following:
 - After filling the tank with water, allow time for the initial heat up cycle.
 - Once its first heat up cycle is complete, empty approximately 60 litres of hot water from the tank through the PTR valve outlet.
 - Then allow the water in the tank to re-heat.
 - Once the re-heat cycle is complete, measure the water temperature at the PTR outlet again.
 - The temperature will be approximately 60° C.
- If for any reason the unit does not start, the water is cold and the Hotlogic unit is not displaying any LED lights, an electrician should test that power is available to the heat pump.
- Note: There are no installer serviceable parts within the heat pump module.

Owner's Manual

Hotlogic Operational Codes

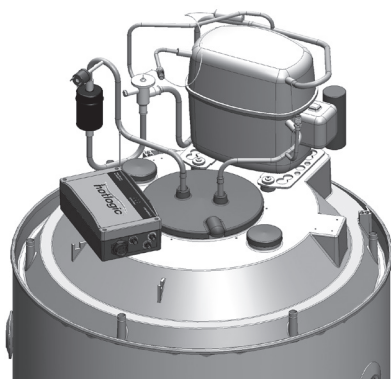


Hotlogic Components

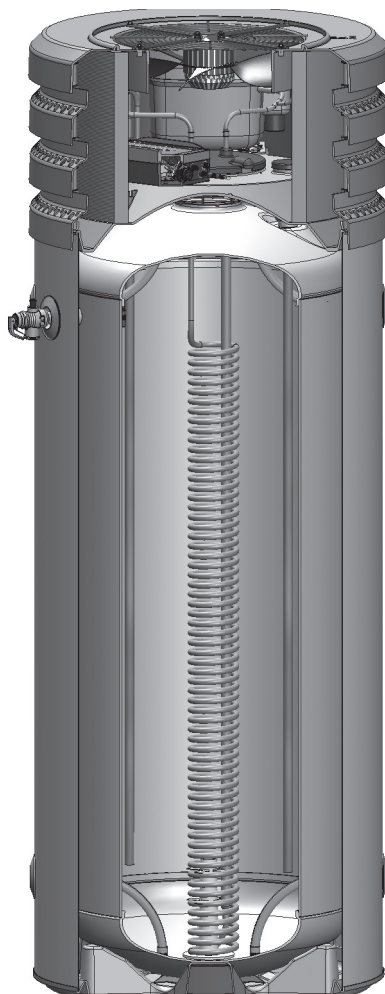
1	To power
2	To compressor
3	Power LED
4	Sensor LED
5	Output LED
6	To ambient sensor
7	To pressure switch
8	To tank sensor
9	To fan

LED 1 (Power)	LED 2 (Sensor)	LED 3 (Output)	Explanation
Alternating		Off	Power on initialisation (LEDs blink Red-Green alternately)
Green	Green	Green	Fan on (Compressor on/off)
Green	Flashing Red	Off	Sensor error (1 blink = ambient sensor, 2 blinks = tank sensor)
Green	Green	Red	Over Pressure Switch tripped

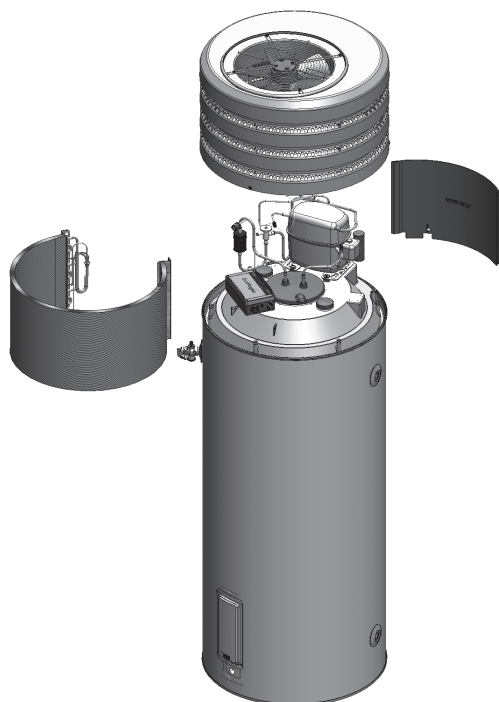
Owner's Manual



Refrigeration View



Cut-through View



Main Component View

Owner's Manual

Safety

This appliance 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 appliance by a person responsible for their safety.

Children and animals should be supervised to ensure that they do not interfere with the appliance.

How Does The Heat Pump Module Work?

A heat pump uses complex thermodynamic principles to extract energy from ambient air and transfer this energy to water that is in contact with the unit's immersed heat exchanger. The heat pump's operational principles are similar to those used in a normal domestic refrigerator, except in reverse. In a refrigerator, heat energy is drawn from inside the refrigerator (making things cold), concentrated by the compressor then dissipated to the atmosphere via the condenser coil located on the back of the refrigerator cabinet.

In a heat pump system, outside air is drawn into the unit and across an evaporator coil by a fan. The evaporator coil captures the energy in the air and transfers that to cold liquid refrigerant, contained inside the evaporator, causing the refrigerant to increase in temperature and evaporate into a warm gas.

The warm gas on exiting the evaporator passes into a compressor where compression causes the temperature of the gas to increase further, becoming a superheated (hot) gas.

The superheated gas is pumped from the compressor to a water immersed condenser coil, where it gives up its heat energy to the water. When the superheated gas gives up energy, it condenses back to a liquid, and on exiting the condenser coil, it passes through an expansion control valve (TX valve).

The TX valve acts as an automatically adjusting tap that controls the amount of liquid refrigerant that is allowed to pass, once more, into the evaporator. This is necessary to constantly match the amount of liquid entering the evaporator to the available energy in the air passing through the evaporator so that the entire liquid refrigerant that enters evaporates and exits as a gas only.

How Do I Operate The System?

The operation of your water heater is fully automatic, so you only need to connect the water and electricity supply and then turn on the electricity.

The heat pump module is electrically connected to the storage tank and will start automatically when the water temperature in the storage tank falls below 55°C and continue to run until the water temperature of the complete tank

Owner's Manual

has been increased to 60°C or slightly above. To condition the unit properly allow the heat pump to go through one heat up cycle, before use, then wait 24 hours before using the hot water.

Water Quality

Your water heater has been manufactured to suit all water conditions in "All Water Areas" present in Australia. Please note that harsh water supplies can have a detrimental effect on a water heater and its life expectancy. If you are unsure about your water quality, you can obtain information from your local water supply authority.

Water can also contain material known to create lime scale where lime scale can build up and block safety fittings. One measure of this water quality is known as the saturation index. If the saturation index is greater than 0.40 and therefore subject to lime scale, a cold water expansion control valve should be fitted to the unit, as shown in the diagram on page <?>.

How Long Will The Heat Pump Run Each Day?

The length of time that the unit will run each day will vary dependent upon the amount of hot water being used by the household and the average outdoor ambient temperature and humidity.

Generally the unit will run longer in winter and at night when the outside air temperature contains less energy.

What Is Subzero (De-icing Function)?

During colder temperatures (below 0°C), and dependant on the level of humidity, ice can begin to form on the evaporator coil, which has the potential to affect the system's performance.

Operating through the patented Hotlogic controller, the system instinctively determines when conditions conducive to icing exist. At this time the de-icing process commences, removing ice from the evaporator and allowing the unit to continue to heat water.

The de-icing cycle interrupts the flow of heated refrigerant, whilst still allowing the fan to run, continuing to draw air through the louvres. It is this airflow which de-ices the evaporator. Once de-icing has occurred the system allows the refrigerant to flow, and heating continues.

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Does The Heat Pump Need Sunlight To Operate?

Heat pump water heaters extract their energy from the surrounding air and not from sunlight. For this reason they can efficiently produce hot water any time day or night and even on cloudy or overcast days. It is not uncommon for your system to operate during the night.



Caution: All water heaters have the ability to produce hot water in a surprisingly short time.

To reduce the risk of scald injury, it is mandatory under the requirements of Australian Standards AS3500 that an Australian Standards approved temperature control valve be fitted to the hot water supply pipe work. This valve should be checked at regular intervals to ensure its operation and settings remain correct.

Why Is There Condensation Coming From The Unit?

Condensation production is normal for all devices that use refrigeration principles. Air conditioners are a good example of systems that produce water condensation.

Condensation occurs when relatively warm moist air passes through the cold evaporator. Moisture contained in the air condenses (deposits) onto the evaporator fins, then runs down into the drainage

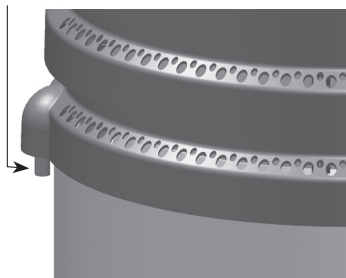
system located under the evaporator. It is this water that you see flowing from the condensate drain of the system.

The amount of condensation will vary with the humidity of the location, so the amount of condensate that flows from the module will also vary.

When condensate is created, it runs into the “Condensate Tray” which sits on top of the storage tank. This then runs out through the “Condensate Drain” which is a feature of the tray.

A plastic drain pipe is attached to this drain allowing easy access for the plumber to attach the condensate drain line away from the heater. The louvre incorporates a condensate drain cover, to offer protection to the drain.

Drain pipe



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What Should I Do During Holidays?

If you are going to be away for a week or more, it is advisable to turn off the electricity supply to the system. While there is no damage likely if the electricity is left on, you will consume energy through storage tank heat losses which can be avoided.

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 similar to air escaping.

Troubleshooting

What Should I Check Before Making A Service Call?

If, after checking the troubleshooting points in the following section, the problem has not been identified, please contact the distributor from whom you purchased the system.

Note: It is important to know that there are no user serviceable components in the system, so it is recommended that no covers be removed and no adjustments made to the system settings by anyone other than an authorised representative.

Water Discharge From Pressure & Temperature Relief Valve (PTR)

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 3% of the storage capacity of water in the heating period.

Continuous Trickle From PTR

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.

Steady Flow From PTR

This may be caused by excessive water supply pressure, a faulty PTR Valve, or a

faulty thermostat. Turn off the electricity supply, turn off the water, and contact your Rinnai agent.

No Hot Water

- Is the Pressure & Temperature Relief Valve discharging too much water?
- Do you have the correct size water heater for your requirements? Sizing details are available from your Rinnai supplier.
- Is one outlet (such as the shower) using more hot water than you think?
- Carefully review the family's hot water usage and 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.
- Consider that during night time heating, the time taken to heat the tank can take longer (less energy in the air) so you may find that the tank has not fully recovered from a period of heavy usage the previous evening.
- Consider that 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 storage volume of your water heater. For example, if

Troubleshooting

you have a 250 litre storage tank and you are using 390 litres of water, it is possible that there will be certain times of the day where there is insufficient hot water. It is also advisable to inspect tap washers etc. for leakage and replace if necessary.

High Electricity Bills

- Is the Pressure & Temperature Relief Valve discharging too much water?
- Is one outlet (e.g. the shower) using more hot water than you think?
- 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.

The Unit Does Not Run

Check that the power supply is turned on and that the house circuit breakers or fuses are on and operational.

System Maintenance

The heat pump water heater is designed to eliminate system maintenance other than that detailed in this manual.

Personally inspecting or servicing any part of the system is not recommended.

Should you decide to personally inspect the system, it is essential that you observe all normal safety practices.

Most importantly, the electricity supply must be turned OFF.

Every 5 years, you should contact the local service agent to replace all safety valves and anodes to ensure continued system life and operational safety.

Six Monthly Service – By Owner

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

Five Year Service – By Authorised Personnel Only

The five yearly services should be carried out by a licensed tradesperson where it is recommended that this service be carried out by your local Rinnai agent.

The service should include the following:

- Replace the Pressure & Temperature Relief Valve.
- Replace the anodes (in locations

where the potable water has a TDS greater than 600 ppm, this service is recommended every 3 years). All models are equipped with 2 sacrificial anodes, accessible through the top cover.

- Flush the water heater by doing the following:
 - (i) Turn off the power.
 - (ii) Turn off the cold water supply to the water heater at the isolating valve.
 - (iii) Gently operate the easing lever on the Pressure & Temperature Relief Valve to release the pressure in the water heater.
 - (iv) Disconnect the cold water inlet union to the heater and attach a drain hose.
 - (v) Gently operate the Pressure & Temperature Relief Valve to let air into the heater and allow water to escape through the hose.
 - (vi) To flush the heater, carry out steps (i) to (iv) above. Disconnect the hot water inlet union and attach a water supply hose to the heater. Turn on the water supply.
 - (vii) Flush the heater until clear water appears, then reconnect all fittings, fill the heater and restore the electricity supply.

Draining the Water Heater

To drain the water heater, follow steps i to v above until no more water escapes from the appliance.

Safety Information

For safe performance this water heater is fitted with:

- a Hotlogic controller
- a refrigerant over-pressure cut-out
- a compressor thermal cut-out
- a combination Pressure & Temperature Relief (PTR) Valve.



Important: These devices must not be tampered with or removed. The water heater must not be operated unless these devices are fitted and in working order.

The electrical cover should be removed only by an electrician. The electrical power supply switch must be turned off and the fuse removed at the main electrical supply switchboard before the water heater's electrical cover is removed.

PTR Valve

The PTR Valve 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 should be pulled to operate the valve at least once every six months.



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.

Note: The PTR valve and the drain outlet pipe must not be sealed or blocked. It is normal for the valve to overflow during heating cycles.

Warranty

Rinnai Hotflo Heat Pump

Model RIN250EHP

Terms of Warranty and Replacement Guarantee

Applies only to models where the model number commences with RIN, for example RIN250EHP.

The benefits to the consumer given by this warranty are in addition to all other rights and remedies of the consumer under a law in relation to the goods or services to which the warranty relates.

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 for 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.

The Rinnai Hotflo Heat Pump (referred to as “water heater” in this document) and its components are covered by a comprehensive 1 year parts and labour warranty, a 2 year refrigerant component replacement guarantee, and a 5 year cylinder replacement guarantee, under domestic use. Domestic use is defined as follows:

1. Water heaters installed to supply heated water to domestic dwellings.
2. Water heaters installed to supply heated water to commercial installations such as motel units, hotel

rooms, caravans, mobile homes, nursing homes, retirement village complexes and other care institutions and like accommodation.

This water heater comes with a comprehensive one year parts and labour warranty under commercial use. Commercial use is defined as water heaters used in applications other than domestic use and include premises such as commercial and industrial buildings, cafes, caravan parks and sporting complexes, but not limited to these.

“Commercial Use” warranty applies to:

1. Water heater(s) supplying central shower blocks.
2. Water heater(s) supplying kitchens used for the bulk preparation of food.
3. Water heater(s) used in commercial or industrial heating processes.
4. Water heater(s) used in hydronic space heating installations.
5. Any application that uses Rinnai water heater(s) in conjunction with building flow and return systems.
6. Water heater(s) installed as component(s) of centralised bulk hot water system(s).

The terms of the Warranty and replacement guarantees are set out below.

This warranty applies to products which are manufactured on or after the date of publication of this warranty but before the next date of publication of this warranty.

Warranty

No warranties except those implied and that by law cannot be excluded are given by Rinnai in respect of Goods supplied. Where it is lawful to do so, the liability of Rinnai for a breach of a condition or warranty is limited to the repair or replacement of the Goods, the supply of equivalent Goods, the payment of the cost of repairing or replacing the Goods or acquiring equivalent Goods as determined by Rinnai.

Rinnai is responsible for reasonable costs associated with legitimate warranty claims, including call-out of an authorised Rinnai service provider to inspect the faulty product. Rinnai is not responsible for:

- a. costs for tradespeople that are not authorised Rinnai service providers; or
- b. any costs, including call-out costs for an authorised Rinnai service provider, associated with a product which is determined upon inspection not to be covered by this warranty.

The consumer will be reimbursed by Rinnai for any reasonable costs associated with making a legitimate warranty claim against Rinnai which are not otherwise specified above.

Enquiries relating to Warranty claims for Rinnai products or services must be made by contacting Rinnai Australia. Contact details are on the back of this document.

Warranty (Domestic and Commercial use)

1. Your hot water unit and its

components are covered by a 1 year warranty against defective factory parts or workmanship from the date your hot water unit is installed. If the date of installation is unknown, the warranty commences 2 months after the date of manufacture (which can be found on the data plate on the hot water unit).

2. This warranty is for normal use of the hot water unit and covers the repair and/or replacement of any failed component in the hot water unit or where necessary, the hot water unit itself. Under this warranty Rinnai will repair or replace the component or hot water unit free of charge.
3. The warranty only applies to defects in the hot water unit which have arisen solely due to faulty materials or workmanship.

2 Year Refrigerant Components Replacement Guarantee (domestic use only)

4. If a refrigerant component fails on this water heater, within a further 1 year after the end of the initial warranty period, Rinnai will provide a full refrigerant parts and labour replacement guarantee for these components, at the nearest approved Rinnai agent or Rinnai office to the owner's home. Under this replacement guarantee, the transport, installation and labour costs of delivering the replacement components are included.

Warranty

5 Year inner cylinder Replacement Guarantee (domestic use only)

5. If the inner cylinder fails on this water heater, within a further 4 years after the end of the 1 year warranty period, Rinnai will provide a free replacement water heater at the nearest approved Rinnai agent or Rinnai office to the owner's home. Under this replacement guarantee, the transport, installation and labour costs of delivering the replacement water heater and removing the existing water heater will be the responsibility of the owner of the existing hot water unit.

Scope Of Warranty And Guarantee

6. The warranty and replacement guarantee do not apply if the water heater is stored, transported and installed in a horizontal position. The water heater **MUST** be stored, transported and installed in a vertical position.
7. The warranty and replacement guarantee do not apply to any defects or damage not due to faulty factory parts or workmanship, installation / system selection, including but not limited to defects or damage caused by or resulting from:
 - a. accidental damage, abuse, misuse, maltreatment, abnormal stress or strain, harsh or adverse water conditions, contamination or corrosion from particles in the water supply, excessive water pressure, over temperature or neglect of any kind to the water heater or components.
- b. alteration or repair of the water heater other than by an approved Rinnai agent or a Technician of a gas or electricity utility approved by Rinnai.
- c. attachment of any parts or accessories other than those manufactured or approved by Rinnai.
- d. faulty or improper installation of the water heater, including installation otherwise than in accordance with the instructions contained in the owner's manual supplied by Rinnai.
- e. The cold water temperature or pressure relief valve, expansion valve, check valve and strainer have not been fitted in areas where mains pressure is likely to exceed 1200 kPa.
- f. Freeze damaged systems when installed in freeze prone areas.
8. The warranty only applies to the water heater or components in the water heater and does not cover any plumbing or associated parts, including but not limited to, pressure limiting valves, stop cocks, non-return valves, electrical switches, pumps or fuses, supplied by any person installing the hot water unit.
9. Where a water heater or a component in the water heater is replaced by Rinnai, the balance of any original warranty or replacement guarantee period will remain effective.

The replacement part or water heater unit does not carry any additional warranty or replacement guarantee.

10. Where the warranty applies but the water heater is installed or located in a position that does not comply with the Rinnai installation instructions or any relevant statutory requirements, the owner of the water heater will be responsible for the costs of:
 - a. the dismantling or removal of cupboards, doors, walls of special equipment and
 - b. any labour required

to gain access to and to bring the water heater to a position that complies with the installation instructions or relevant statutory requirements.
11. Any claim under the warranty or replacement guarantee must include full details of the defect and/or damage to the water heater or components. All claims must be made within one month of the detection of the defect.

12. This warranty applies to water heaters connected to a water supply where the water chemistry and impurity levels do not exceed the limits specified in Table 1 below. The water supply from water utilities is deemed to comply with these requirements.

This warranty does not apply to water heaters connected to water supplies if the water chemistry and impurity levels exceed the limits specified in Table 1.

Examples of water supplies where chemistry and impurity levels may exceed the limits specified in Table 1 include but are not limited to private bores, private dams and water from water utilities where the chemistry is deliberately altered by parties other than the water utility before supplying the water heater.

This warranty does not apply to damage caused by sludge and/or sediment in the water supply.

Table 1

Total Dissolved Solids (TDS) mg/Litre or ppm	Hard-ness (as CaCO₃) mg/Litre or ppm	Saturation Index (Langelier)	pH	Dissolved CO₂ mg/Litre or ppm	Chlorides mg/Litre or ppm
600	200	+0.4 to – 1.0 @ 65°C	5.5 to 9.5	Not Applicable	Not Applicable

Rinnai

HOTFLO HEATPUMP

Installation and Owner's Manual – Heat Pump



Serial Number

Rinnai Australia Pty. Ltd. ABN 74 005 138 769

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Rinnai has a Service and Spare Parts network with personnel who are fully trained and equipped to give the best service on your Rinnai appliance. If your appliance requires service, please call our Hot Water Service Line.

Internet: www.rinnai.com.au E-mail: enquiry@rinnai.com.au

National Help Line

Customer Care Centre
Tel: 1300 555 545* Fax: 1300 555 655*

**Cost of a local call higher from mobile or public phones.*
Hot Water Service Line
Tel: 1800 000 340