HydraHeat Split Hot Water Heat Pump

Operation guide

Rinnai

Important

This hot water system shall be installed in accordance with:

- Manufacturer’s installation instructions

Current:

- AS/NZS 3000 Electrical Standards
- AS/NZS 3500 Plumbing and Drainage Standards
- AS/NZS 5149 Refrigerating Systems Operation
- New Zealand Building Code Clause G12 Water Supplies

Appliance must be installed, commissioned, serviced, and removed by authorised personnel.

Not suitable as a spa or swimming pool heater.
Not suitable for hydronic applications.

Warning
Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life.

For more information about buying, using, and servicing of Rinnai appliances call: 0800 RINNAI (0800 746 624).

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For reliable operation the Rinnai HydraHeat should be serviced **every two years**. A typical service would include checking (and replacing if needed) the real time clock battery, examining and clearing the check valve of any debris, cleaning the evaporator, checking and clearing the condensate drain (if necessary), cylinder connections, and ensuring there are no water leaks. Regular servicing will help extend the life of the system.

Safety and important messages

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 should be supervised to ensure they do not play with the appliance.

- DO NOT modify this appliance
- DO NOT touch power connections
- DO NOT operate the unit unless the cylinder is full of water
- DO NOT operate unless all covers are secured in place and isolating valves are open
- DO NOT store items on top of or against the unit
- DO NOT install with incompatible cylinders
- Avoid touching exposed pipework and fittings connected to the unit as they can be HOT

Maintain the necessary clearances around the unit to ensure continued safe operation.

Warning about hot water

Excessively hot water is dangerous. The Rinnai HydraHeat is set to operate in ‘Standard’ mode, heating water to a minimum of 60 °C. The system, if installed correctly, is equipped with a tempering valve to ensure hot water is delivered to the outlets at a safe temperature.

Always

Test the water temperature with your elbow before placing your child in the bath, and feel the water yourself before bathing or showering.

Supervise children whenever they are in the bathroom.

Make sure the hot water tap is turned off.

Consider
Installing child proof tap covers or child resistant taps, both will prevent a child from being able to turn on a tap.

Never
Leave a toddler in the care of another child. They may not understand the need to have the water temperature set at a safe level.

Hot pipe work
Care should be taken not to touch the pipe work from the cylinder as this could be very hot.

Risk of fire

The unit uses R290 (propane) refrigerant, a class 3 flammable gas according to AS/NZS ISO 817. The refrigerant can only be handled by a refrigeration technician with the appropriate refrigerant handling license.

- If the refrigerant leaks[1], there is a possibility of a fire with an external ignition source
- DO NOT store chemicals or flammable materials near this unit
- DO NOT place the unit near any ignition sources
- DO NOT use a flammable spray such as hair spray, spray paint etc. near this unit as it may cause a fire

[1] The Rinnai HydraHeat has a sealed refrigerant system, leaks will not be common unless the internal components of the unit have been punctured. If punctured a hissing sound could occur indicating a leak. Contact your installer or Rinnai as soon as possible if this occurs.

Safety devices
Your hot water system, if installed correctly, will be fitted with the following safety devices:

- Temperature & Pressure Relief (TPR) valve on the cylinder that ensures the water remains at a safe pressure and temperature.
- Automatic thermostat to maintain water temperature.
- Temperature override cutout for the heating element.

  DANGER
  The operation of the thermal cutout can indicate a serious situation. Do not reset the thermal cutout until the system has been serviced by a qualified person.

Do not operate the system unless all the safety devices are fitted and are in working order.
It is also important that you do not tamper or remove any of these devices.

Electrical covers
Do not remove the cylinder element cover, or the HydraHeat Split electrical cover as this will expose 230 V wiring. It must only be removed by an authorised person.

Damaged components
If any component is damaged, it must only be replaced by an authorised person using Rinnai replacement parts.

Hydrogen gas (in enamel cylinders)
If hot water is not used for two weeks or more, for example after a holiday, a hot water cylinder with an anode can produce hydrogen gas, which is highly flammable. To remove any potential gas buildup it is recommended a hot tap be turned on for two minutes at a sink, basin, or bath. During this procedure there must be no smoking, open flame, or other appliance operating nearby.

Location and positioning
The HydraHeat is designed primarily for outdoor installations. It may be possible to install the HydraHeat internally if the proposed location is **not an occupied space** as defined by AS/NZS 5149. Please note that internally installed units will need adequate ventilation as the appliance has a cooling effect on the installed space, operating noise should also be considered. Rinnai strongly recommends discussing the installation with a qualified installer prior to installation.

- DO NOT install the unit in a location that may be exposed to combustible gas leaks. If combustible gas accumulates around the unit, it may cause a fire.
- DO NOT install the unit where noise may be a nuisance, such as near bedrooms or neighbouring properties. Do not place any objects on top of the unit, this could cause excessive vibration and increase noise levels.
- DO NOT install the unit where it will be directly exposed to sea wind and salt spray, this will significantly reduce the durability of the unit.

Draining and filling the system
This normally occurs during installation or servicing and must be carried out by an authorised person. Draining water from the heat pump unit is necessary if the power will be shut off to the unit, and snow or frost conditions are expected. Arrange for an authorised person to carry out this task.

Installation by a licensed tradesperson
Only a licensed tradesperson can install, adjust, maintain, and remove this hot water system. Any work carried out by a non-licensed tradesperson is illegal and will void any warranty.

Legionella
To comply with the NZ Building Code requirement[1] for legionella[2] disinfection, the system incorporates a built-in disinfection cycle. In this cycle, the water in the cylinder is heated above 60 °C for one hour each week. Depending on the mode of operation, this can be achieved using either the electric element, or the heat pump.

During legionella disinfection, ‘L’ will appear on the main display.

1 Clause G12.3.9, Acceptable Solution G12/AS1 6.14.32
2 Legionella is a bacterium that can cause Legionnaires’ disease—a severe form of pneumonia

General information

The heat pump must be installed in an upright position on a level, stable and water impervious base. The base must be capable of withstanding the weight of a full system. The structure must not shift. The system is suitable for residential applications only.

Unit orientation
The heat pump is designed for open air operation, requiring sufficient air supply to maintain operating efficiency. The air inlet and outlet of the heat pump must be positioned away from prevailing winds, and be provided with sufficient clearances as shown in the installation guide.

Genuine Rinnai parts
Only use the included accessories, and specified parts for installation. Using non-standard parts can cause water leaks, electrical shock, fire, and cause the unit to fail.

Defrost function and freeze protection
The HydraHeat has a defrost function that operates automatically, as long as the appliance is connected to the power supply, to remove ice from the evaporator when the outside air temperature is between -10 and 5 °C. When in defrost, 'D' will appear on the main display.

The HydraHeat also activates freeze protection when temperature sensors detect < 1 °C to stop the pipes from freezing. In Standard and Eco55 modes, this initiates an additional heat pump cycle to warm the pipes. In element mode, the circulating pump is activated .The pump stops once the sensors detect temperatures above 3 °C.

If you live in a frost-prone area and will be away for an extended period with the power supply disconnected, Rinnai recommends having your system drained by an authorised tradesperson to prevent frost damage. Please note that frost damage is not covered by warranty.

Snow zone locations
If the location is prone to snow the system must be in a covered location. The system will not effectively operate if snow is allowed to build up around and on top of the appliance.

Disposal guidelines
The heat pump contains refrigerant oil and other potentially hazardous materials. Do not dispose of this system as household waste. Contact Rinnai for more information.

Electrical connection
The heat pump will control the element in the cylinder via the heat pump main PCB. A registered electrician will handle the electrical installation and termination of the heat pump to the hot water cylinder.

It MUST have the electric terminals connected to an independent, fused AC 230 V 50 Hz power supply. An isolating switch (lockable) must be installed in accordance with AS/NZS 3000 clause 4.19.

All electrical work and permanent wiring must be carried out by a licensed electrical person in accordance with AS/NZS 3000 Wiring Rules.

Note about water / water blasting
The HydraHeat system has an IPX4 rating which means it's protected against splashing water, for example rain. It is **not protected** from sustained low or high pressure water, for example water blasting.

Power supply disruption
If the power goes off the system will retain all of its settings, including the day and time. When power is restored the system will come back on as normal in the operation mode that was previously set.

Condensation
During normal operation condensation occurs in the heat pump as air across the evaporator is cooled. In high humidity locations a large volume of condensate can be generated. The installer will ensure condensate, from the hole in the bottom of the units is plumbed to a suitable drain.

R290 refrigerant
R290 refrigerant, also known as propane, is praised for its positive environmental aspects due to its low global warming potential (GWP) and zero ozone depletion potential (ODP). R290 is a natural hydrocarbon that has minimal environmental impact. Additionally, it is energy efficient which can result in lower energy consumption and operational costs over the long term.

About your HydraHeat Split hot water heat pump

Designed and assembled in New Zealand

We hope you love this product as much as we do, and on the off chance that something does go wrong, or if you need help, we're only a phone call away.

Designed and manufactured in NZ
Designed to operate efficiently in NZ climates with a wide temperature range of -10 °C to 42 °C.

Sleek Cod Grey
Grey powder coated design with a permissible LRV[1], able to be installed in areas like Queenstown.

Easy to use controls
A user-friendly control interface ensuring convenience and ease of use.

Split design
Offers installation flexibility, allowing the heat pump unit to be connected to either a new or existing cylinder[2], which can be located indoors or outdoors.

[2] Must comply with cylinder compatibility criteria

Low operating noise
An ideal choice for built-up residential areas due to its low operating sound level of 48 dB(A), making it one of the quietest options available.

Energy efficient performance and natural R290 refrigerant
The HydraHeat Split boasts an impressive coefficient of performance (COP) of 4.6, resulting in highly efficient water heating that minimises energy consumption and lowers operating costs.

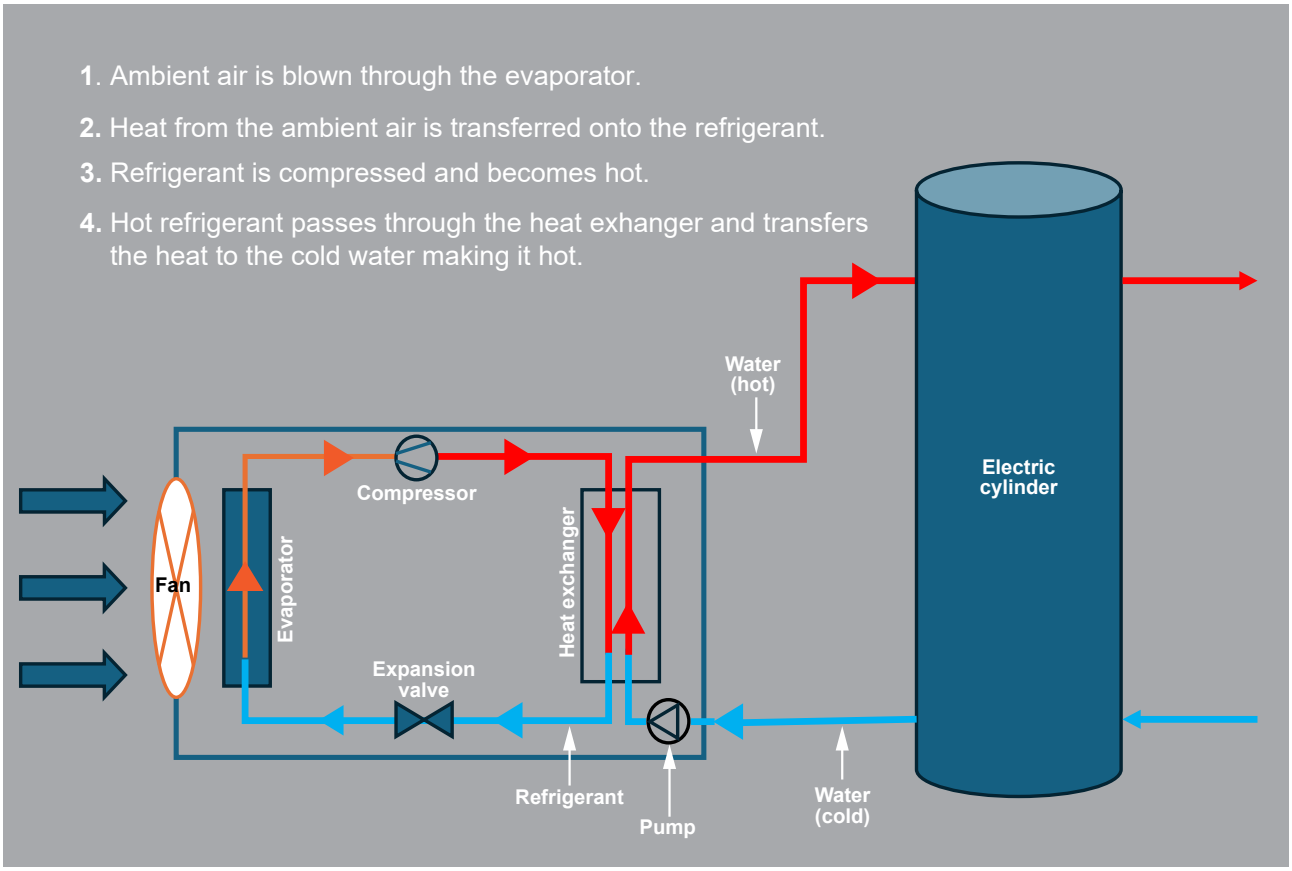
R290, with a 150 g charge, is a natural hydrocarbon refrigerant that offers minimal environmental impact, while the reduced charge ensures system safety.

[1] LRV - light reflectance value, refers to the percentage of light a paint color reflects

How it works

A heat pump operates by transferring heat from the ambient outside air into the water. Electricity is used to operate the compressor, but not to directly heat the water. Because of this, energy consumption is significantly reduced when compared to a traditional hot water cylinder with an electric element.

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



There are four indicators on the control panel which display the current operational mode of the heat pump. These are:

1. **Standard**: Water heated to, and delivered to the cylinder at 60 °C
2. **Eco 55**: Water heated to, and delivered to the cylinder at 55 °C
3. **Element only**: Heat pump turned off, cylinder element heats water to thermostat setting of cylinder (should be 70 °C[1])
4. **Shutdown:** In standby, heat pump and element are turned off

[1] Required for operation and compliance of Legionella disinfection

Operation modes

Standard (default setting)
The heat pump unit is preset to operate in ‘Standard’ mode, heating the water to at least 60°C before delivering it to the cylinder.

Eco 55
Cost saving mode. The system continually heats the water to 55 °C by the heat pump before delivering it to the cylinder.

Element only
Water in the cylinder is heated only by the electric element, the heat pump does not run. This mode would only be used if there was a fault with the system[1], or if the homeowner wanted the heat pump not to activate at night due to noise (timer to be set). It will still allow the homeowner to have hot water.

Please note: When a fault occurs, the system automatically switches to ‘element only’ mode until the issue is resolved. Once fixed, it will revert to its previous operating mode.

Shutdown
The system is completely off and in standby mode, ideal for when away on holiday or to prevent the heat pump from activating at night due to noise.

If switched to SHUTDOWN (standby), keep in mind that when the system is turned back on, it may take 4–8 hours to reheat the water, depending on the ambient air temperature.

Summary table

Mode	Temperature (°C)	Heat pump on	Element on
Standard	60	✓[2]	
Eco 55	55	✓[3]	
Element only	65-70	-	✓
Shutdown	N/A	-	-

When the heat pump is operating it runs at slightly lower temperatures than a traditional cylinder. If lots of hot water is being used this may result in a reduced amount of available hot water. The installer is responsible for ensuring the hot water system is sized correctly.

We do not recommend switching the system off (without power connected) in areas where frost could occur or in the middle of winter. Damage to the system if not continually connected to the electricity supply is not covered by warranty.

[1] If there is a fault an error code will appear on the display and the unit will beep once every 5 seconds. Refer p.13 for more information. **Please note**: If there is a main PCB error with the heat pump, there will be no hot water, as the PCB communicates to the cylinder what it should be doing. If the fault cannot be rectified quickly, an electrician can bypass the system to restore power directly to the heating element.

[2] Under extremely low ambient air conditions, the element may be briefly used to complete the legionella disinfection heating cycle.

[3] Element will be used for the legionella disinfection cycle.

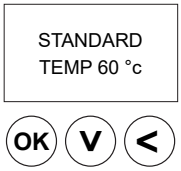
Controller interface

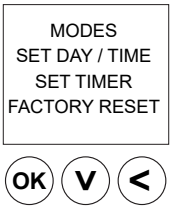
The HydraHeat controller uses a compact OLED display with three capacitive touch buttons to enable easy access to the operation menus. When a button is pressed there will be an audible beep.

Home screen and navigation

To access the home screen press OK for approximately 3-5 seconds. The screen will show the current operating mode, which is set to ‘Standard’ by default.

The display will automatically turn off after 30 seconds, but can be reactivated again by pressing any of the buttons.





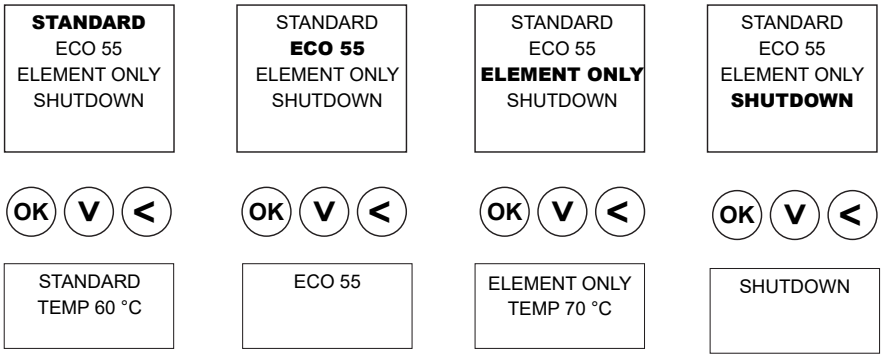
V Down button: Scrolls through the different menu options

OK OK button: Selects the option

< Back button: Returns to the previous screen

Operation modes

Press the down button to cycle through the screens to select the mode of operation required. Select OK to confirm. Once the mode is selected, the screen will display the modes in the order shown below.



Day and time

This only needs to be done during daylight savings, or if the factory set day and time settings are lost, for example if a ‘Factory reset’ has been done. The clock is a 24-hour clock.

Once in ‘Set Day / Time’ press and hold the down button to scroll through the day, hour, and minutes to edit, press OK to confirm selection at each stage.

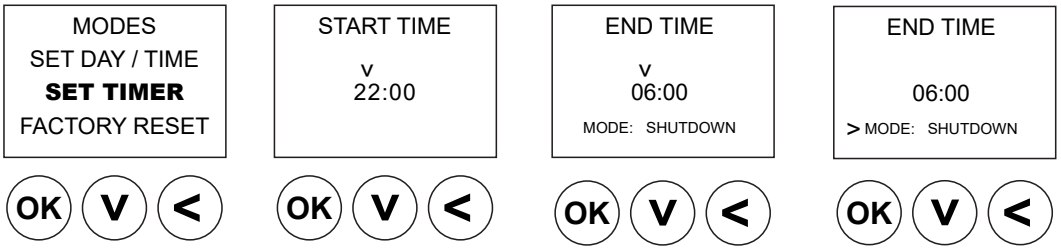
Set and forget timer

The timer can be used to lock out the system so it does not operate. Once set it will continue to operate at the programmed times until ‘Timer Reset’ is selected.

Scenario: Dave wants to reduce the operating noise of the system at night as it’s located near a neighbouring boundary where bedrooms are located. He sets the system to go off from 10pm to 6am.

How to set

1. Select ‘SET TIMER’, and press OK.
2. Press and hold the down button to scroll through the hours / minutes you want to edit, and press OK.
3. Once the time is set, select the mode of operation by using the down button, press OK to confirm.

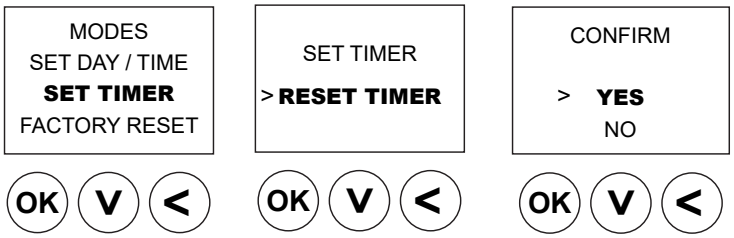


IMPORTANT

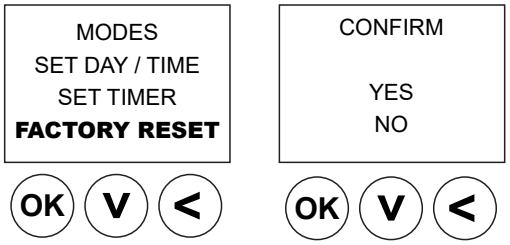
When timers are activated, they can prevent the system from operating, which may lead to insufficient hot water or a complete lack of hot water. The impact will depend on the amount of hot water being used.

Reset timer

1. Select ‘SET TIMER’, and press OK.
2. Use the down button to select ‘RESET TIMER’, and press OK.
3. Confirm ‘YES’, and press OK.



Factory reset



A factory reset clears the date, time, and any set timers, retaining only the default ‘STANDARD’ mode setting. After a factory reset, you will need to reconfigure the date and time for the timer functionality to work properly.

Maintenance and servicing

For reliable operation the Rinnai HydraHeat should be serviced **every two years**. A typical service would include checking (and replacing if needed) the real time clock battery, examining and clearing the check valve of any debris, cleaning the evaporator, checking and cleaning the condensate drain (if necessary), cylinder connections, and ensuring there are no water leaks. Regular servicing will help extend the life of the system. In addition to this we also recommend the following.

Period	What needs to be done
Every six months	TPR (temperature & pressure relief) operate the easing gear on the cylinder
Year five	Inspection and service of the entire system, including element[1]. Cylinder anode may need replacing (if an enamel cylinder).
Every 24 months after year five	Inspection and service of the entire system, including element[1]

[1] In hard water areas the element must be periodically descaled. To do this the cylinder must be drained and the element removed

TPR valve
This valve is located near the top of the cylinder. It is essential for safe operation. The TPR valve works by automatically venting hot water if the temperature or pressure of the water in the cylinder gets too high.

Every six months operate the easing gear to remove lime deposits and to check that it is not blocked. Easing the lever discharges hot water, ensure no one is near the drain line.

WARNING

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. It is important that you raise and lower the easing gear GENTLY.

During the operation, if the valve does not discharge water when the easing gear is lifted, or does not seal again when closed arrange for an authorised person to come and inspect the system immediately.

IMPORTANT

During servicing of your cylinder the TPR valve needs to be checked and/or replaced. This needs to be done by an authorised person at intervals not exceeding five years, or more frequently in areas where the water is classified as hard.

A TPR valve must not be replaced with one that has a higher pressure rating than that specified for the cylinder.

Anodes in enamel tanks
Storage tanks manufactured from enamel can be susceptible to corrosion. The combined effects of water pressure, temperature and water chemistry can create an aggressive environment for corrosion of some materials. For this reason anodes are placed in enamel tanks so as to corrode first. Anodes should be changed every five years, or more frequently in hard or aggressive water areas.

Clearing debris and pooling water
Ensure that water does not pool around the heat pump, and that debris around the system is regularly cleared and does not build up.

Regular visual inspection
Regularly check your system to ensure there is no buildup around or on top of the unit, and that there are no water leaks. The exterior needs to be kept clean.

Maintenance and servicing
Rinnai has a maintenance, service and spare parts network, with personnel who are fully trained and equipped to give the best advice on your Rinnai product. Regular maintenance and servicing is not covered by the Rinnai warranty.

For help locating a service person in your area call 0800 RINNAI (0800 746 624).

TPR position - top of cylinder

How to operate the easing gear

Error codes

When the system encounters an error, the error code will display on the screen, for example S6, the unit will beep once every 5 seconds, and the system will automatically enter into ‘Element Only’ mode until the fault has been fixed. ‘Element Only’ mode will ensure a continued supply of hot water until someone is able to come and check the unit.

Take a note of the error code and contact Rinnai or your installer.

IMPORTANT

Element Only, means water in the cylinder is heated only by the electric element, like a traditional storage cylinder. If this isn’t addressed quickly it may result in a larger than normal power bill.

To mute the error code beep, press and hold the back button (<) on the display for three seconds.

Troubleshooting

Do not attempt to carry out any work other than that mentioned in this troubleshooting section. If you have any other faults or problems, please contact your installer, or contact Rinnai.

INSUFFICIENT OR NO HOT WATER	
T1 fault	Check to see the ball valves on the hot / cold supply lines to the heat pump are open. Open if closed. Turn off the unit for ten seconds and then back on to reset the fault. Has water to the house or the hot water cylinder been turned off? If yes, turn on water and reset the unit as above.
Heat pump unit not powered	Please note, the compressor will not start up for five minutes after the power is turned on.
No hot water from backup element	Ensure that there is power to the heat pump, by touching one of the display buttons to illuminate the display. If there is power to the heat pump, and the unit is in element only mode or in a fault condition, then contact Rinnai Service to arrange for a technician to visit and resolve the issue. Note: A call-out fee may apply.
Timers operating for too long	Have timers been activated to lock out the system. If yes, turn the timers off or reduce the time in which they operate.
Heat pump unit undersized for hot water demand	The HydraHeat heat pump water heater is designed to supply a single family dwelling with a specified number of people. It is the responsibility of the hot water system designer to ensure that the hot water delivery of the heat pump unit is sufficient to meet the demand of the particular installation. If the heat pump is insufficient to meet demand, contact the system designer or installer.
Excessive hot water consumption (short term)	If the amount of hot water used during the day exceeds the storage capacity of the cylinder, in the short term, then the hot water will run out. Either the hot water consumption must be reduced, or a larger cylinder installed.
Temperature & Pressure Relief (TPR) valve continually discharging water	It is normal that this valve allows a small quantity of water to be discharged during the heating cycle. If the valve dribbles continuously, try easing the valve gear for a few seconds as described on p.12. This may dislodge any foreign matter and alleviate the problem. If the valve discharges at high flows, especially at night, it may be as a result of the water pressure exceeding the design pressure of the system. Contact your installer about fitting a Pressure Limiting Valve (PLV).
Expansion Control Valve (ECV) continually discharging water	It is normal that this valve allows a small quantity of water to be discharged during the heating cycle. If it discharges more than a bucket of water during a 24 hour period or discharges continuously there may be another problem. If the valve dribbles continuously, try easing the valve gear for a few seconds. This may dislodge any foreign matter and alleviate the problem. If this does not solve the problem contact your installer, there may be a issue with the PLV or the ECV may need replacing.
Ambient conditions too hot	It is not recommended to operate the heat pump outside its maximum operating temperature of 43 °C Doing so may limit the lifespan of the product.
Ambient conditions too cold	In cold ambient conditions, particularly below 6 °C, the heat output will drop. This may cause a short term deficiency in hot water supply, refer notes on system sizing.
NO WATER FROM THE TAP	
Restriction in the hot tap or failure of the cold water supply to the water heater	Check for water flow at the other taps and that the cold water isolation valve is fully open.
HIGH ELECTRICITY BILLS	
Unit has faulted for an extended period	If a fault condition occurs the system will automatically go into element only mode. If this isn't addressed quickly it may result in a larger than normal power bill.

WATER FLOW FLUCTUATIONS	
One or more taps opened at the same time	More than one or two hot taps in use at the same time may cause a decrease in the hot water flow. Is there more than one or two hot taps open, or are appliances such as a dishwasher or washing machine, in use at the same time.
WATER HAMMER	
Hot and cold water plumbing in the premises	Have a plumber check clipping of hot and cold water pipe work and install a pressure limiting valve and water hammer arrestor as required.
HEAT PUMP ICING UP	
Defrosting function	The heat pump has an inbuilt defrost function which will operate when temperatures drop below 6 °C to remove any ice. Normally the inbuilt defrost function will remove ice every 30 minutes. If ice buildup becomes excessive, and affects the operation of the heat pump, call Rinnai Service for advice.
HEAT PUMP ERROR INDICATOR	
LED indicator is flashing on the display	This will flash if an error is detected with the heat pump, contact Rinnai for assistance.
ERROR CODE AFTER A POWER DISRUPTION	
Error code appearing after a power disruption	If there is a power cut while the unit is running an error code may appear on the display. If this occurs try powering off the system, wait for approximately ten seconds, then turn on again. If the error code reappears contact Rinnai for assistance.
TIMERS NOT WORKING	
Date and time not showing	Perform a factory reset. If this does not fix the problem then the coin cell battery in the PCB may be flat. Contact Rinnai for assistance as replacing the battery requires an authorised person. The PCB battery has an expected life of approximately ten years.
DISPLAY NOT VISIBLE	
Timeout may have occurred, press the OK button. If this doesn’t work the screen may be ‘locked’ in the operation mode, press and hold the OK button for 3-5 seconds to unlock.	

Limited Warranty - HydraHeat Split

Rinnai HydraHeat Split warranty summary

	HydraHeat heat pump unit
Product	Residential - 5 years
Labour	1 year

All terms of the warranty are effective from the first date of installation. Proof of installation will be required. Where the date of installation is not known or cannot be proven, the warranty will be based on the date of manufacture. Any warranty claim must be made within a reasonable time of discovery of the potential fault or defect. The HydraHeat Split is suitable for residential applications only.

General warranty terms

Rinnai reserves the right to make modifications and change specifications and its parts without notice.

For the purposes of the Consumer Guarantees Act 1993, Rinnai only guarantees the availability of repair facilities and spare parts for the express warranty periods recorded in the Rinnai warranty summary table.

If the Rinnai HydraHeat is being 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 product is being acquired for the purposes of a business, the provisions of the Consumer Guarantees Act 1993 do not apply and no other warranties (either express or implied by law), apart from those stated in this warranty, apply.

*A residential application is defined as an installation where the water heater, with the thermostat set at 70 °C and below, delivers hot water to a single family dwelling, not used for commercial purposes. Examples where a residential dwelling is used for commercial purposes: hair salon, catering kitchen, communal care facility etc. These installations would be considered commercial applications. An exception would be an accommodation business such as a motel, where the water heater serves the equivalent of a single family dwelling, this would be a residential application.

Warranty terms and conditions

- All terms of this warranty are effective from the date of first installation. The attending service person reserves the right to verify this date.
- The Rinnai HydraHeat Split heat pump hot water system must be installed, commissioned, serviced, repaired and removed in accordance with the manufacturer’s instructions, local regulations, and municipal building codes by persons authorised by local regulations to do so.
- All appliances must be operated and maintained in accordance with the manufacturer’s operating instructions. For reliable operation the Rinnai HydraHeat Split should be serviced every two years. Regular servicing will help extend the life of the system.
- This warranty applies only to the components supplied by Rinnai. It does not apply to components supplied by others, such as, isolating valves, electrical switches, pipe work, electrical cables, fuses, hot water cylinder but not limited to these items.
- Where the appliance has not been sited in accordance with the installation instructions or installed such that normal service access is difficult, a service charge will apply. If at the discretion of the attending service person the installation is deemed illegal or access is dangerous, service will be refused. Any work required to gain access to the appliance will be chargeable by the attending service person (for example, removal of walls, or the use of special equipment to move components, but not limited to these).

- Where a failed component for the heat pump is replaced under warranty, the balance of the original appliance warranty will remain effective. The replacement part or appliance does not carry a new warranty.
- Rinnai reserve the right to transfer functional components from defective appliances if they are suitable.
- Rinnai reserve the right to have installed product returned to the factory for inspection.
  - The decision of whether to repair or replace a faulty component of the heat pump unit is at the sole discretion of Rinnai.
  - Where Rinnai determines that the heat pump unit needs to be removed for repair, Rinnai may undertake such removal and may permanently replace the defective heat pump unit with a substitute unit that is in the reasonable opinion of Rinnai, in a better or equal condition to the repaired unit.
- This warranty covers only the heat pump and connection kit.
- Water quality must be within the water quality limits specified, refer page 18.
- Where the heat pump is installed outside the metropolitan area or further than 40 km from a Rinnai authorised service centre, travel costs shall be the owner's responsibility.

Warranty exclusions

The following exclusions may cause the warranty to become void and will result in a service charge and costs of parts (if required).

- Accidental damage, defects or failure caused by acts of nature (fire, wind, lightning, flood, storm, hail storm fallout), vandalism, earthquake, war, civil unrest, pests, animals, insects, or entry of foreign objects or matter into the product such as dirt, debris or moisture.
- Faults occurring from the manufacturing of the hot water cylinder.
- Defects or failure due to environmental damage such as corrosion.
- Failure due to abuse or misuse, improper maintenance or improper storage.
- Failure due to incorrect or unauthorised installations.
- Failure or damage caused by alterations, service or repair work carried out by persons other than a Rinnai authorised service person or service centre.
- Hot water cylinders are not covered under this warranty as the heat pump does not compromise the structural integrity or purpose of the cylinder in any way.
- Where the heat pump or cylinder has failed directly or indirectly as a result of poor water quality outside the limits specified (refer next page).
- Where it is found that there is no fault with the appliance and the issue is related to the installation or is due to power failure.
- Subject to any statutory provisions to the contrary, Rinnai does not accept:
  - Liability for consequential damage or any incidental expenses resulting from any breach of the warranty.
  - Claims for damage to buildings or any other consequential loss either directly or indirectly due to leaks from the heat pump or any other faults.

Water quality

Water chemistry has a direct impact on hot water heaters, affecting corrosion protection measures, or causing scale buildup.

Water quality MUST:

1. Meet the Water Services (Drinking Water Standards for New Zealand) Regulations 2022 and the Aesthetic Values for Drinking Water Notice 2022, or the water standards as statutorily defined at the time; AND
2. Be within the limits shown in the table below.

Water quality outside these limits will void this warranty.

Water quality and impurity limits

TDS (Total Dissolved Solids)	<600 mg/L	**Manganese**	<0.01 mg/L
Total Hardness $CaCO_3$	<200 mg/L	**Sodium**	<150 mg/L
Alkalinity	150-200 mg/L	**Iron**	<0.1 mg/L
Dissolved (free) CO_2	<25 mg/L	**Sulphate**	<100 mg/L
pH	6.8-7.5	**Nitrate**	<11 mg/L
Chlorides	<150 mg/L	**Alkalinity/Sulphate ratio**	>1
Free Chlorine	<1 mg/L	**LSI**[1]	-1.0-0.8 @20 °C
[1] Langelier Saturation index—scaling potential of water.			

Water quality warranty guidelines

Filtration

Where there is discolouration, debris, or silt present in the water, an inline filter must be fitted into the water supply to protect the copper in the heat pump unit from corrosion. Particulates and deposits in hot water systems are corrosive to copper and stainless steel and can lead to premature pitting. The filters must be periodically replaced to maintain the integrity of the system.

Stagnation

Leaving water stagnant in the system will promote corrosion. It is recommended that systems, if not in use, are flushed on an eight week cycle.

Bore and tank water

Bore and tank water supplies should be considered to be corrosive and should be tested prior to using the system. Bore and tank water must meet the water quality parameters stated in the above table.

Purchase details

Record your purchase details below

ATTACH YOUR PROOF OF PURCHASE HERE:

Retailer:

Retailer address:

Date of purchase:

Product details:

Please keep these details in a safe place for future reference.

Register your system online: **www.rinnai.co.nz/register/** for service reminders, product updates, and special offers. You can unsubscribe at any time.

Installer details

Company name:

Installer name:

Address:

Phone:

Mobile:

Signed:

Date:

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