

Owner's Guide and Installation Instructions



Rheem Heat Pump Water Heater

3805 Series

270,340 Models



*This water heater must be installed and serviced by a qualified person.
Please leave this guide with the householder.*

Dear Homeowner:

Thank you for selecting the Rheem residential heat pump water heater.

NOTE: For continual safe operation of this water heater it must be installed, operated and maintained in accordance with these instructions. This manual provides instruction regarding both installation and operation. After installation is completed please ensure the manual is given to the end-user for future reference.

This water heater is designed for use in a single family domestic dwelling for the purpose of heating potable water.

The main features of the water heater include: automatic operation whilst power and water supplies available; simultaneous delivery of hot water to multiple outlets; automated temperature control to maintain tank temperature to constant level; inclusion of a number of safety protections such as thermostat, over temperature cut-off device, temperature/pressure relief valve and earth protective device (these devices must not be tampered with or removed. The water heater must not be operated unless each of these devices is fitted and is in working order).

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Precautions

Please read these precautions carefully, failure to follow these instructions may damage your Heat Pump water heater or endanger the safety of persons and property in the vicinity of the water heater.

This water heater is only intended to be operated by persons who have the experience or the knowledge and the 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 they do not interfere with the water heater.

The water heater must be directly connected to a 220 V AC ($\pm 10\%$) mains power supply. The water heater must be on its own circuit with an isolating switch installed at the switchboard. A secondary isolating switch may be installed within reach of the water heater.

- The removal of the access cover(s) will expose 220 Volt wiring. They must only be removed by a qualified technician.

This water heater can deliver water at temperatures which can cause scalding. Check the water temperature before use, such as when entering a shower or filling a bath or basin, to ensure it will not cause scald injury.

- We recommend and it may also be required by regulations that an approved temperature limiting device be fitted. This will ensure the water temperature does not exceed 50°C and the risk of scald injury will be reduced.
- Do not use **aerosols, stain removers and household chemicals** near the water heater whilst it is working. Gases from some aerosol sprays, stain removers and household chemicals are corrosive to the materials used in the heat pump system.
- Do not store swimming pool chemicals, household cleaners, etc near the water heater.
- Ensure the air inlet and outlet louvres are not obstructed in any way at any time. Do not lean any objects against water heater and ensure all trees and shrubbery are well clear of air intakes and exhaust.
- Discharge of water from relief valve and condensate drain is normal during heat pump operation therefore provision must be made to drain this water away. A suitable floor drain that enables water to be drained away to a safe location must be installed near the storage tank location. The continual presence of moisture around base of heater will lead to premature failure.
- The water heater is suitable for both indoor and outdoor installation. Take care to ensure all electrical components are protected from effects of humidity and rain.
- The power supply to the water heater must not be switched on until the water heater is filled with water.
- Do not attempt to install, repair or remove the water heater, all work must be carried out by a qualified technician.

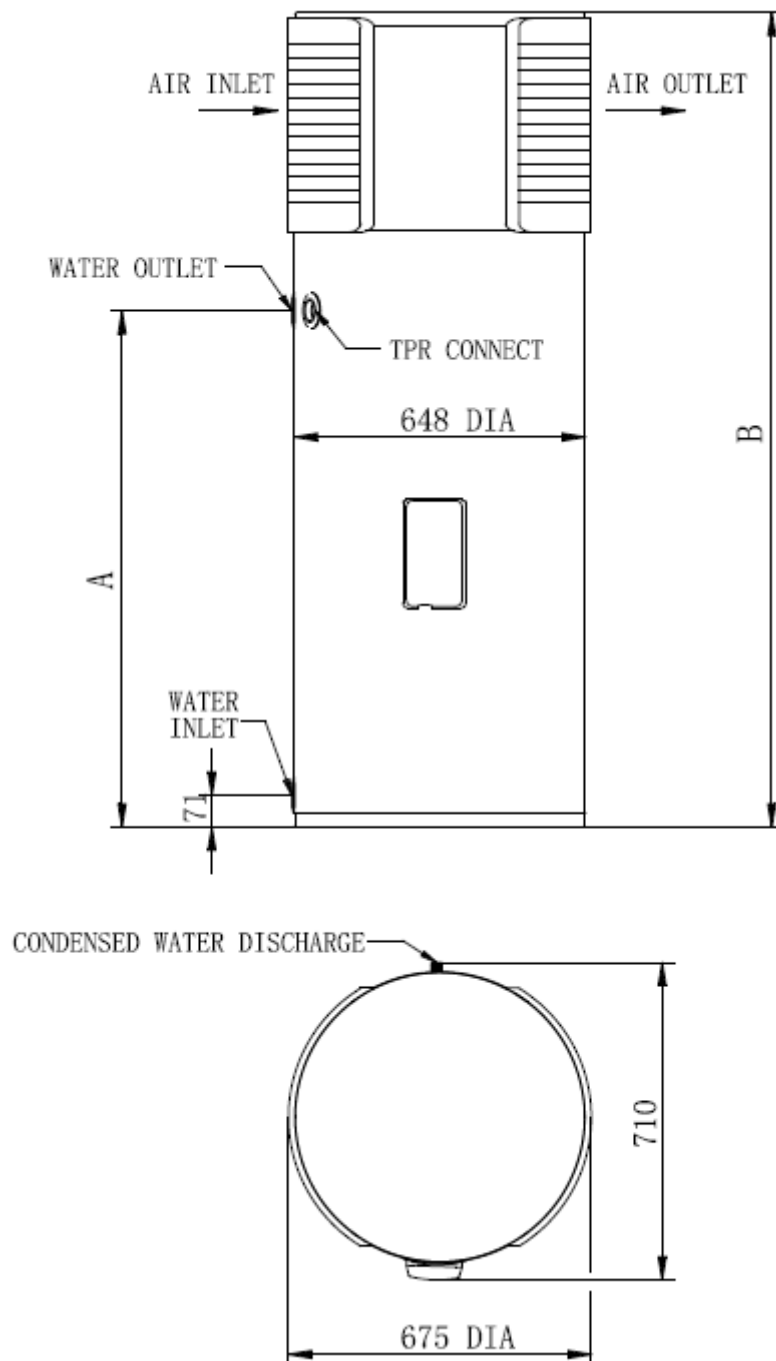
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- Do not attempt to insert any foreign object (e.g. hand, screwdriver, stick) into the air inlet or outlet of the outdoor unit. Rotating fan blades may cause injury.
 - If the water heater begins to operate abnormally (e.g. excessive noise, emit smoke, peculiar smell, etc) stop operation of the equipment, isolate power supply promptly and contact the Service Department. Do not attempt to repair the unit.
 - Operate the easing lever on the temperature & pressure relief valve at least once every 6 months. It is very important you raise and lower the lever gently.
 - Ensure that the drain line is clear and free of any obstructions and discharge water can freely flow from drain line. If water does not discharge please contact Service Department immediately.

Specifications

Model		RHP270-3805	RHP340-3805
Power Supply		220V~50Hz	
Circuit Fuse - Model Number		50T T16AL250V	
Circuit Fuse - Parameters		16A/250V	
Rated heating volume*		3250 W	
HP heating rated input	Power (watts)	900	
	Current (amps)	4.1	
Auxiliary heating input	Power (watts)	2400	
	Current (amps)	10.9	
Maximum Input	Power (watts)	3800	
	Current (amps)	17.3	
Rated Hot water output (litres/hr)		70	
Water temperature setting (°C)		30~65 (Preset 55)	
Suitable ambient temperature (°C)		-7~43	
Refrigerant quantity		R134a (1.35 Kg)	
Water Side	Heat exchanger type	Copper Pipe coiled outside the tank	
	Tank capacity (L)	270	340
	Cold/ hot water connection	RP ¾" / 20	
	relief valve connection	RP ¾" / 20	
	Maximum Pressure (MPa)	0.85	
Air Side	Heat exchanger type	Female fitting hydrophilic aluminium foil	
	Air outlet	Side Exhaust	
Storage Tank	Diameter (mm)	ø648	
	Height (mm)	1815	2125
	Net weight (kg)	115	130

*Working conditions: Dry bulb temperature: 20°C, Wet bulb Temperature: 15°C,
Tank water inlet: 15°C, tank water outlet: 55°C.

Dimensions



MODEL	A mm	B mm
RHP270-3805	1151	1815
RHP340-3805	1461	2125

Installation

The water heater must be installed:

- by a qualified person, and
- in accordance with the installation instructions, and
- in compliance with all relevant standards, local codes and regulatory authority requirements.

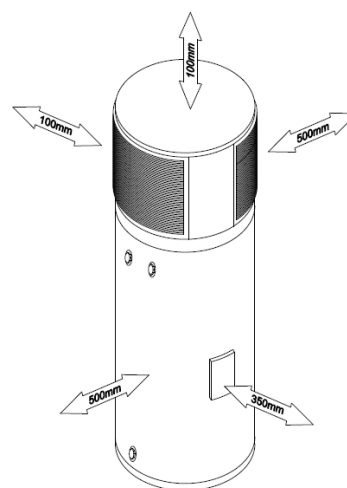
This product is not suitable for installation in an area where frost is likely to occur.

The water heater should be installed close to the most frequently used outlet and its position chosen with noise, safety and service in mind.

It is advisable to install the water heater away from bedroom or living room windows as the system controls can generate a level of noise whilst they are operating. Consider the location in relation to neighbours' bedrooms and living room windows.

The water heater must be installed with a clearance of at least 100mm from a wall. A clearance of at least 500mm is required perpendicular from both the air inlet and outlet louvres to any wall or obstruction.

Clearance must also be allowed for servicing of the water heater. Make sure the temperature pressure relief valve lever is accessible and the top and front cover, air inlet and outlet louvres, system controls and thermostat can be removed for servicing. You must be able to read the information on the rating plate. If possible leave headroom of one water heater height so the anode can be inspected or replaced.



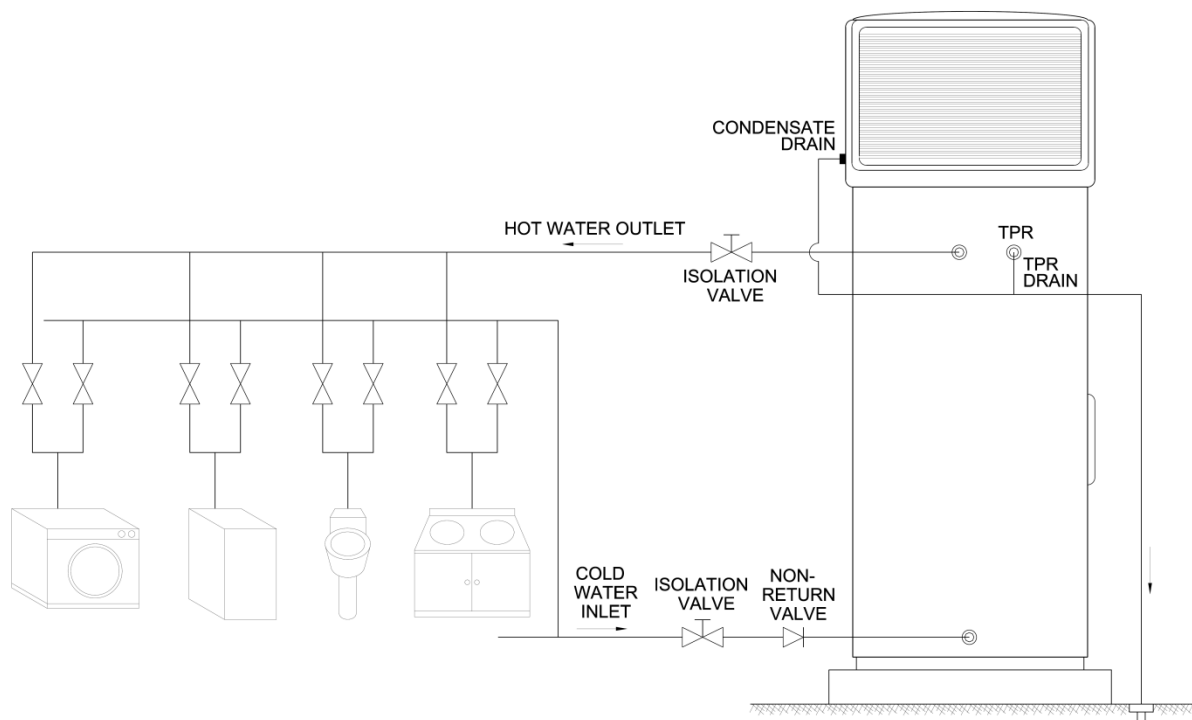
It is recommended the heat pump water heater be installed at ground or floor level and must stand vertically upright, supported by a fireproof level slab or solid base (minimum thickness 50mm).

Where damage to property can occur in the event of the water heater leaking, the water heater must be installed in a safe tray. Construction, installation and draining of a safe tray must comply with all local codes and regulatory authority requirements.

- Drain must have a high thermal resistance to handle high temperature water otherwise damage may result.

The water heater must not be installed in an area with a corrosive atmosphere where chemicals are stored or where aerosol propellants are released. The air may be safe to breathe, but the chemicals may attack the materials used in the heat pump system.

Plumbing Connection



All plumbing work must be carried out by a qualified person and in accordance with all local codes and regulatory authority requirements.

Material Specifications

All piping used must be capable of withstanding the temperature and pressure conditions that may exist within the system. The pipe used must be suitable for high temperature (99°C) and high pressure applications (850kPa). The pipe material must also be of a type that will not corrode when in contact with potable water.

Connection Sizes

- Cold water inlet: RP ¾" / 20 (English system Sealed cylindrical inner thread)
- Hot water outlet: RP ¾" / 20 (English system Sealed cylindrical inner thread)
- TPR valve: RP ¾" / 20 (English system Sealed cylindrical inner thread)

Pipe Sizing

To achieve true mains pressure operation, the cold water line to the water heater should be the same size or bigger than the hot water line from the water heater. The pipe sizing for hot water supply systems should be carried out by persons competent to do so, choosing the most suitable pipe size for each individual application. The following suggestion is a guide only:

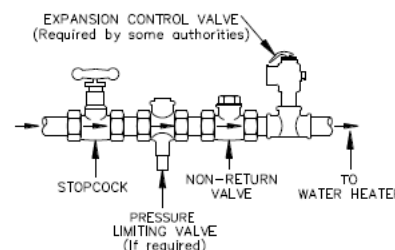
- Main pipe 20mm (¾"); branch pipe not smaller than 15mm (½").

Water Connections

This water heater has either a dip tube or fitting liner in the inlet and outlet fittings. These must be in place for the water heater to function properly. Do not remove or damage them by using heat nearby. They will be pushed into the correct position as the fitting is screwed in.

An isolation valve and non return valve must be installed on the cold water line to the water heater. An acceptable arrangement is shown in the diagram.

An expansion control valve (ECV) must be installed if required by the local regulations or if the water quality is scaling in nature.



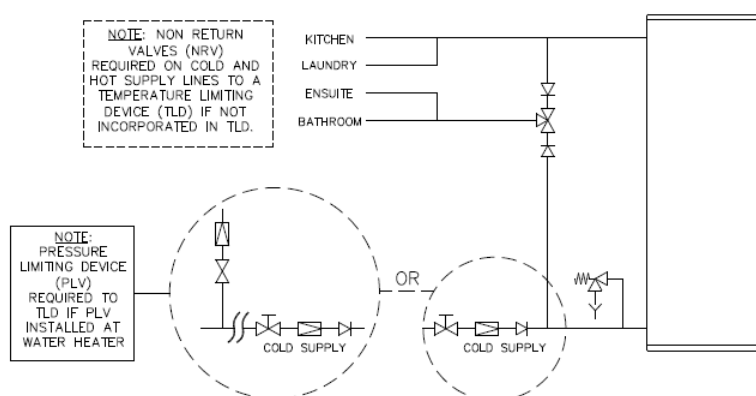
A pressure limiting valve must be fitted after the non-return valve if the incoming water supply pressure is higher than 550kPa with ECV fitted or 680kPa without ECV fitted.

A disconnection union must always be provided at the cold water inlet and hot water outlet on the water heater to allow for disconnection of the water heater.

Hot Water Delivery

This water heater can deliver water at temperatures which can cause scalding.

It is necessary and we recommend that a temperature limiting device be fitted between the water heater and the hot water outlets in any ablution area such as a bathroom or ensuite, to reduce the risk of scalding. The installing plumber may have a legal obligation to ensure that scalding water temperatures are not delivered to a bathroom, ensuite or other ablution area.



Temperature & Pressure Relief Valve

The temperature and pressure relief valve (TPR) is fitted near the top of the water heater and is essential for its safe operation. The TPR valve protects the tank from the adverse effects of high temperature and pressure. The TPR will open and discharge water when temperatures above 93°C or pressures in excess of 850kPa are experienced.

It is possible for the valve to release a little water through the drain line during each heating period. This occurs as the water is heated and expands by approximately 1/50 of its volume.

The temperature pressure relief valve must be fitted before the water heater is operated. Before fitting the relief valve, make sure the probe has not been bent. Seal the thread with Teflon tape - never hemp. Make sure the tape does not hang over the end of the thread.

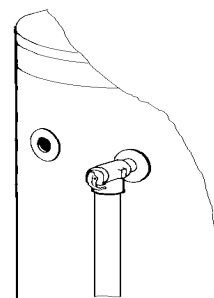
Screw the valve into the correct opening leaving the valve drain pointing downwards. Do not use a wrench on the valve body - use the spanner flats provided. A copper drain line must be fitted to the temperature pressure relief valve.

Expansion Control Valve (ECV)

Local regulations may make it mandatory to install an expansion control valve (ECV) in the cold water line to the water heater. In other areas, an ECV is required if the saturation index is greater than +0.4. The expansion control valve must always be installed after the non-return valve and be the last valve installed prior to the water heater. A copper drain line must be fitted to the expansion control valve.

Relief Valve Drain

DN15 copper drain lines must be fitted to the temperature pressure relief valve and expansion control valve (if one is installed) to carry the discharge clear of the water heater. Connect the drain lines to the valves using disconnection unions. The drain line from the valve to the point of discharge should be as short as possible, have a continuous fall all the way from the water heater to the discharge outlet and have no tap, valves or other restrictions in the pipe work.



A drain line from a relief valve must comply with all relevant standards, local codes and regulatory authority requirements.

A drain line must be no longer than 9 metres with no more than three bends greater than 45° before discharging at an outlet or air break. The maximum length of 9 metres for a drain line is reduced by 1 metre for each additional bend required of greater than 45°, up to a maximum of three additional bends. Where the distance to the point of final discharge exceeds this length, the drain line can discharge into a tundish.

Subject to local regulatory authority approval, the drain lines from the temperature pressure relief valve and expansion control valve from an individual water heater may be interconnected.

The outlet of a drain line must be in such a position that flow out of the pipe can be easily seen, but arranged so discharge will not cause injury, damage or nuisance. The termination point of a drain line must comply with the local regulations. Drain lines must not discharge into a safe tray.

In locations where water pipes are prone to freezing, drain lines must be insulated, must not exceed 300mm in length and are to discharge into a tundish through an air gap of between 75mm and 150mm.

If a drain line discharges into a tundish, the drain line from the tundish must be not less than DN20. The drain line from a tundish must meet the same requirements as for a drain line from a relief valve.

For multiple installations the drain lines from several water heaters can discharge into a common tundish.

Warning: As the function of the temperature pressure relief valve on this water heater is to discharge high temperature water under certain conditions, it is strongly recommended the pipe work downstream of the relief valve be capable of carrying water exceeding 93°C. Failure to observe this precaution may result in damage to pipe work and property.

Condensation Drain

A drain line must be fitted to the condensate drain to carry the discharge clear of the water heater. The drain line can be extended using 13 mm rigid hose or conduit. The pipe work from the condensate drain should be as short as possible, and fall all the way from the water heater with no restrictions. It should have no more than three right angle bends in it. The outlet of the drain line must be in such a position that flow out of the pipe can be easily seen - but arranged so water discharge will not cause damage or nuisance.

The condensate drain line must not be connected to the relief valves drain lines but may discharge at the same point.

Reducing Heat Losses

The pipe work of the water heater must be insulated in compliance with all relevant standards, local codes and regulatory authority requirements. The insulation must be weatherproof and UV resistant if exposed.

Water supplied by storage tank on the roof

Please note the following if the incoming water is supplied from a roof mounted water tank:

- The minimum acceptable inlet water pressure is 0.05MPa.
- The tank must be at least 1 metre higher than the highest point in the plumbing system.
- If the vertical distance between the bottom of tank and highest hot water outlet is within 5 metres take care to avoid an air lock.
- The cold water line from the supply tank should be adequately sized and fitted with a full flow gate valve or ball valve to ensure full flow.

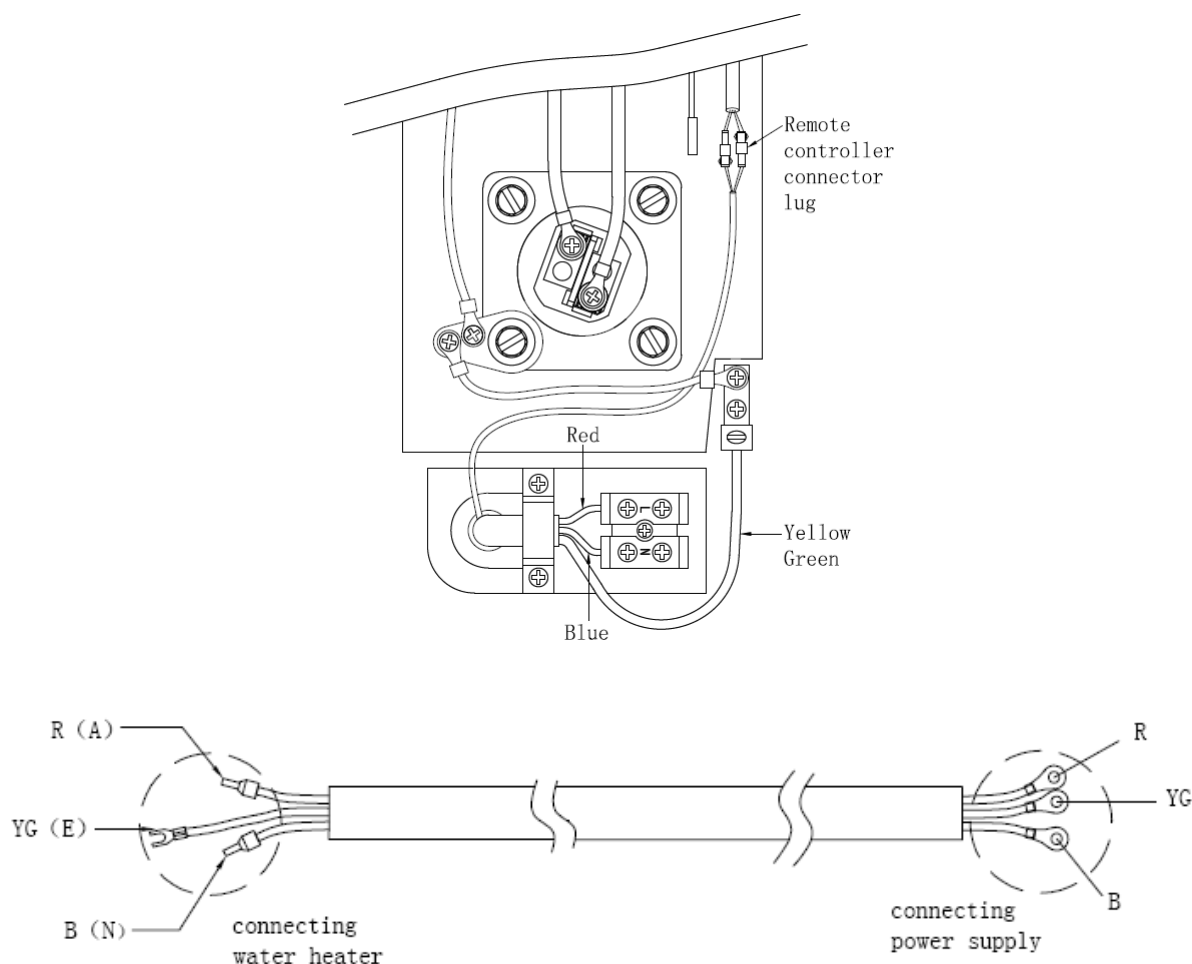
Electrical connection

NOTE: The power supply to the heater must not be switched on until the water heater is filled with water.

All electrical work and permanent wiring must be carried out by a qualified person and in accordance with the Wiring Rules and all local codes and regulatory authority requirements.

The water heater must be directly connected to a 220V AC (+/-10%), 50 Hz mains power supply. The water heater must be on its own circuit with an isolating switch installed at the switchboard. A secondary isolating switch may be installed within reach of the water heater.

A flexible 20 mm conduit is required for the electrical cable to the water heater. The conduit is to be connected to the unit with a 20 mm terminator. Connect the power supply wires directly to the terminal block and earth tab connection, ensuring there are no excess wire loops inside the front cover.



Electrical Connection - external cable to heater.

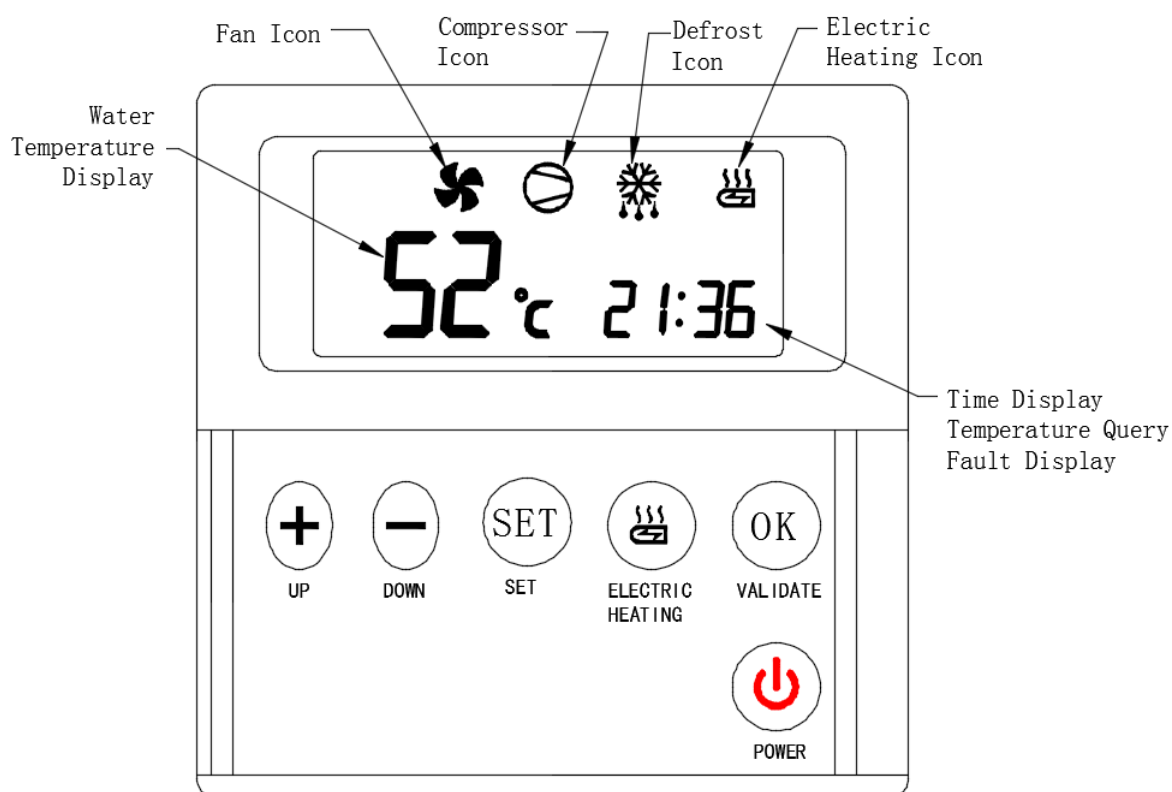
Operation and usage

To Fill And Turn On The Water Heater

NOTE: The power supply to the water heater must not be switched on until the water heater is filled with water.

- Open all of the hot water taps in the house (don't forget the shower).
- Open the cold water isolation valve fully to the water heater.
- Air will be forced out of the taps.
- Close each tap as water flows freely from it.
- Check the pipe work for leaks.
- Switch on the electrical supply at the isolating switch to the water heater.
- Program the remote controller.

Remote Controller



During normal operation the remote controller display provides real time information such as current tank temperature and time of day. Additionally, any component or function that is currently operational such as the fan, compressor, heating element and/or defrost mode will appear as an icon on the remote display to indicate operation.

The clock is on 24 hour notation. When a fault occurs an error code will be displayed in place of the clock.

During controller setup the temperature display will flash. This indicates the current set point temperature rather than current tank temperature.

1. Buttons

- a. **Power:** To switch on /off the system.
- b. **Up “▲”button:** Each press of the up button will increase the setting value of the parameter by one increment, while pressing and holding up the up button will scroll setting value up.
- c. **Down “▼”button:** Each press of the down button will decrease the setting value of the parameter by one increment, while pressing and holding up the down button will scroll the setting value down.
- d. **Electric Heating button:** activate/deactivate the supplementary electric heating element (in some cases).
- e. **OK button:** Press to confirm the setup and the content of inquiry.
- f. **Set button:** Press to begin programming of set-up parameters.

2. Functions

- a. **ON/OFF:** Press the ON/OFF button to switch on /off the system. When the system is switched off the remote control will display the time only.
- b. **Temperature Setting:** Switch on the system (factory preset temperature is 55°C).
 - i. Press the UP or DOWN button to adjust the temperature setting (selectable temperature range is 30~65°C).
 - ii. Press the OK button to confirm the temperature setting.
- c. **Time setting:** Time can be set with system on or off.
 - i. Press the SET button once to enter setup mode.
 - ii. Press SET again, the hour figure will flash.
 - iii. Press UP or DOWN button to adjust the hour (adjustable between 00 and 23).
 - iv. Press the SET button once again to set the minutes, press UP button or DOWN button to adjust the minutes (adjustable between 00 and 59).
 - v. When finished, press the SET button to exit setup mode.
- d. **Supplementary electric heating:** The electric heating system is set to operate automatically when the ambient temperatures drop below 5°C (when in this mode the element cannot be switched off manually); when ambient temperature exceeds 5°C the electric heating will automatically be deactivated and Heat Pump will begin to operate normally.

During normal heat pump operation it is possible to manually activate the supplementary electric heating unit if a faster recovery rate is required.

- i. Press the ELECTRIC HEATING button to start the electric heating system. Its corresponding symbol will glow on the remote controller display.
- ii. At anytime during the heating cycle the Electric heating can be manually stopped by pressing the ELECTRIC HEATING button again.
- iii. Once the temperature setting is reached the heating unit is automatically switched off and the Electric Heating symbol on the remote will no longer be illuminated.

NOTE: When the desired temperature setting is in excess 55°C it is recommended that the electric heating element is used in place of the Heat Pump.

e. **Parameter Query:** Turn on the system.

- i. Press the OK button 3 times, Cxx (which stands for the exhaust temperature of compressor) will appear on the time area;
- ii. Press OK again, hxx (ambient temperature) appears;
- iii. Press OK again, Pxx (Temperature of Evaporator Coil) appears.

f. **System Component Checks:**

- i. During the time delay phase (at start-up) or when system is switched off, press and hold the up button for 5 seconds, the compressor will be forced to operate;
- ii. Press and hold the down button for 5 seconds, operating compressor will be forced to stop.
- iii. Press and hold the down button for 5 seconds, defrosting valve and liquid injecting valve will be forced to activate for 10 seconds (after 10 seconds they will close automatically).

3. **Frost protection:** When ambient temperature drops below the point when evaporator could freeze, or in the event of freezing conditions occurs, the system will automatically start defrosting.

4. **Anti-freeze:** When the temperature of the tank water drops below 2°C the anti-freeze function will activate the supplementary electric heating system to heat up stored water to 9°C. This procedure will repeat if water drops below 2°C again.

To Turn Off The Water Heater

If it is necessary to turn off the water heater:

- a. Switch off the electrical supply to the water heater.
- b. Close the cold water isolation valve.

Note: if it is necessary to switch the power off to the water heater and there is a risk of freezing, then it is recommended to drain the water heater; failure to do so may result in damage if freezing occurs.

Draining the Water Heater

When carrying out maintenance or when going on long holidays during the winter time it may be necessary to drain the water heater. Drain the heater as follows:

Warning: Exercise care, as water discharged from the water heater may be of a very high temperature.

1. Switch off the electrical supply to the water heater.
2. Close the cold water isolation valve.
3. Close all hot water taps.
4. Operate the relief valve release lever - do not let the lever snap back or you will damage the valve seat. Operating the lever will release the pressure in the water heater.
5. Disconnect the cold water inlet and connect a flexible hose to tank. Place the other end of flexible hose in drain.
6. Open a hot tap or relief valve. This will let air into the water heater and allow the water to drain through the hose.

Water Quality

- Poor water quality will have a detrimental effect on the water heater and its operation and /or life expectancy. If you are unsure of your water quality, information can be obtained from your local water supply authority.
- This water heater is manufactured to suit the water conditions of most public reticulated water supplies. The total dissolved solid content (TDS) of the water supply is to be less than 2500mg/L. Note if the TDS level exceeds 600mg/L the consumption of the sacrificial anode rod will be accelerated and the life span of water heater will be shortened accordingly.

Anode inspection and replacement

- The anode installed in your water heater will dissipate whilst protecting the cylinder. The life of the cylinder may be extended by replacing the anode.
- For water supplies which are either of a poor quality, softened, desalinated or where the water supply may alternate between a water tank and a reticulated public supply or another supply, it is recommended the anode be checked regularly and replaced as necessary.

CAUTION

- If the water supply has a TDS of less than 150 mg/L or greater than 600 mg/L there is the possibility the anode may become overactive and hydrogen gas could accumulate in the top of

the water heater during long periods of no use. In areas where this is likely to occur the installer should instruct the householder on how to dissipate the gas safely.

- If, under these conditions, the water heater has not been used for two or more weeks the following procedure should be carried out before using any electrical appliances (automatic washing machines and dishwashers) which are connected to the hot water supply.
- The hydrogen, which is highly flammable, should be vented safely by opening a hot tap and allowing the water to flow. There should be no smoking or naked flame near the tap whilst it is turned on. Any hydrogen gas will be dissipated. This is indicated by an unusual spurting of the water from the tap. Once the water runs freely, any hydrogen in the system will have been released.

Saturation Index:

- The saturation index (SI) is used as a measure of the water's corrosive or scaling properties.
- Where the saturation index is less than -1.0 , the water is very corrosive and warranty does not apply to the water heater. In a corrosive water supply, the water can attack copper parts and cause them to fail.
- Where the saturation index exceeds $+0.40$, the water is very scaling and warranty does not apply to the water heater.
- In a scaling water supply the calcium carbonate is deposited out onto any hot metallic surface. Where the saturation index exceeds $+0.4$ it is necessary to install an expansion valve between the non-return valve and the water heater on the cold water line.
- Reducing the temperature setting of the water heater can alleviate the scale deposition to the inner surface of the tank cylinder, and so increase the life expectancy of water heater.
- Water which is scaling may be treated with a water softening device to reduce the saturation index of the water.

Maintenance

Minor six month maintenance

It is recommended minor maintenance be performed every six months by the dwelling occupant.

The minor maintenance includes:

- Operate the easing lever on the temperature pressure relief valve. It is very important you raise and lower the lever gently.

Warning: Exercise care to avoid any splashing of water, as water discharged from the drain line will be hot. Stand clear of the drain line's point of discharge when operating the valve's lever.

- Operate the easing lever on the expansion control valve (if fitted). It is very important you raise and lower the lever gently.

-
- Check the drain line from the safe tray (if one is installed) is not blocked.

Major five year service

It is recommended a major five year service be conducted on the water heater. The service must be conducted by a qualified person.

Note: The five year service and routine replacement of any components, such as the anode and relief valve(s), are not included in the Rheem warranty. A charge will be made for this work. Only genuine replacement parts should be used on this water heater.

The major service should include:

- Replace the temperature pressure relief valve.
- Inspect and flush the expansion control valve (if fitted). If required, replace the valve.
- Inspect and if required, replace the anode.
If the anode is not replaced at this time it should be inspected regularly from this time.
- Check the electric heating unit for excessive calcium build up or corrosion and replace if necessary.
- Check and inspect the heat pump module for operation.
- Visually check the unit for any potential problems.
- Inspect all connections.
- Check the condensate drain.
- Check the drain line from the safe tray (if one is installed) is not blocked.

Note: The water heater may need to be drained during this service. After the completion of the service, the water heater will take some time to reheat the water. Depending upon the power supply connection, hot water may not be available until the next day.

Heat pump system

It is recommended the evaporator and refrigeration system is checked every five years. In particularly dusty environments, it may be necessary to have the heat pump system checked and cleaned of dust and residue on a more regular basis.

Troubleshooting

Error Code:

Code	Failure type	Reset method
E01	Open or short circuit - water temperature sensor	Auto
E02	Open or short circuit - outlet opening sensor cable	Auto
E03	Open or short circuit - Evaporator sensor cable	Auto
E04	Outlet opening over-temperature protection ($\geq 95^{\circ}\text{C}$)	Auto
E05	Outlet opening over-temperature protection ($\geq 105^{\circ}\text{C}$)	Reset power
E06	Open or short circuit - ambient temperature sensor cable	Auto
E07	Data wire connection	Auto
E08	Sub-controller and main board to be separated	Reset power or press "SET" on Mainboard
E09	High pressure protection	Auto
E10	Low pressure protection	Auto

"Auto" means the heater will automatically begin to work once the failure is resolved;

Reset power means technician must isolate power supply and restore once the failure is fixed to reset error code.

Failure and Solution

Control Panel

Failure	Possible reason	Solution
Remote display is blank; buttons do not work.	No power available	Check power supply. Over-temperature device activated; determine cause and manually reset.
	Loose connection of remote wires	Repair/replace the remote connecting wires.
Remote display is blank; buttons do work	Dusty or damp conditions at remote wiring.	Clean area and use air dryer to eliminate presence of moisture.
"E01" displayed	Water temperature sensor cable open or short circuit	Check water temperature sensor cable; make sure it is plugged in and lead is not severed. Repair or replace sensor cable as necessary.
"E02" displayed	Outlet opening temperature sensor cable open or short circuit	Check outlet opening temperature sensor cable; make sure it is plugged in and lead is not severed. Repair or replace sensor cable as necessary.
"E03" displayed	Evaporator sensor cable open or short	Check evaporator sensor cable; make sure it is plugged in and lead is not severed. Repair or replace

	circuit failure	as necessary.
"E06" displayed	Ambient sensor cable open or short circuit failure	Check ambient sensor cable; make sure it is plugged in and lead is not severed. Repair or replace sensor cable as necessary.
"E07" displayed	Loose connection between the remote control and main board.	Repair/replace remote connection cable.
"E09" displayed	Water volume is not enough and water temperature is too high.	Ensure tank is full of water; decrease the water temperature setting.
	Refrigerant overcharge	Refer to refrigeration technician.
	Non-condensing gas in system	Refer to refrigeration technician.
"E10" displayed	TX valve setting	Refer to refrigeration technician.
	Ambient temperature is too low and the inlet water temperature is too low	Auxiliary heating required.
	Lack of refrigerant	Refer to refrigeration technician. Check pipe work, TX valve.
	Refrigerant blockage	Refer to refrigeration technician. Clean pipe work and replace dryer/filter.
	TX valve setting	Refer to refrigeration technician.
	Heavy dust/debris build-up on evaporator.	Clean the evaporator fins.

Using Hot Water

Failure	Possible reason	Solution
No hot water or insufficient hot water	No power supply	No power supply, connect power supply.
		Over-temperature device activated; determine cause and manually reset.
	Excessive draw of hot water	Wait for heater to reheat tank.
	Water heater component failure	Contact distributor to arrange repair.
TPR valve draining	It is normal for 3-5% of tank volume to be discharged everyday	Normal operation.

	during heating cycle	
	Blockage/debris inside the TPR causing continual leaking	Lift the hand lever to discharge water, repeat. Replace T&PR if necessary
	High water supply pressure	Ask plumber to install pressure reduction valve.
Noise inside water heater or pipes.	It is normal for slight noise to be produced while heating;	Normal
	Sediment built-up at bottom of cylinder	Flush storage tank



WARRANTY

1. WHAT IS COVERED BY THE WARRANTY

What components are covered	The period in which the fault must appear in order to be covered	What coverage you receive
All components	Year 1	Replacement of the faulty component at exwork price ONLY
The cylinder	Years 2	Replacement of the faulty cylinder at exwork price ONLY.

