



**Rheem**

THERMAL SYSTEMS GROUP

## **RPH SERIES SWIMMING POOL HEAT PUMP**



**USER MANUAL**

**⚠ Warning:** Upon completion of the installation and commissioning of the heat pump, leave this guide with the premises householder or responsible officer. **DO NOT** leave this guide inside of the cover of the heat pump, as it may interfere with the safe operation of the heat pump or ignite when the heat pump is turned on.

## Heat Pump & Installation Information

Date of installation:

\_\_\_\_\_

Model N°:

\_\_\_\_\_

Serial N°:

\_\_\_\_\_

Installed by:

\_\_\_\_\_

Purchased from:

\_\_\_\_\_

1 Allan Street,  
Rydalmere NSW 2116  
ABN: 21 098 823 511

Rheem Australia PTY Limited  
Phone: 1300 132 950  
Email: [sales@rheemthermal.com.au](mailto:sales@rheemthermal.com.au)  
[www.rheemthermal.com.au](http://www.rheemthermal.com.au)

## PATENTS

This heat pump may be protected by one or more patents or registered designs.

® Registered trademark of Rheem Australia Pty Ltd.

™ Trademark of Rheem Australia Pty Ltd.

\_\_\_\_\_

## **Table of contents**

<b>A. Foreword</b>	<b>1</b>
<b>B. Safety Precautions</b>	<b>1</b>
1. Warning	1
1. Attention	2
2. Safety	3
3. Service	3
<b>C. About Your Heat Pump</b>	<b>4</b>
1. Transportation	4
2. Accessories	4
3. Features	5
4. Operating condition and range	5
5. Introduction of different modes	5
6. Technical parameter	6
7. Dimension	7
<b>D. Installation Guidance</b>	<b>8</b>
1. Installation reminder	8
2. Wiring	10
3. Electric wiring diagram	11
4. References for protecting devices and cable specification	11
<b>E. Operation Guide</b>	<b>12</b>
1. Key functions	12
<b>F. Testing</b>	<b>15</b>
1. Inspect the heat pump before use	15
2. Leakage detection notice and method	15
3. Trial & Start Up	15
<b>G. Maintenance</b>	<b>16</b>
<b>H. Trouble Shooting for Common Faults</b>	<b>17</b>
<b>I. Hard Wired - Methods of Water Pump Control Connections</b>	<b>19</b>
<b>J. Water Pump connection using the Rheem IQ Link – Pump Controllers</b>	<b>22</b>
<b>K. Wi-Fi Connection Instructions</b>	<b>27</b>
<b>L. RHEEM THERMAL WARRANTY – RPH SERIES POOL HEAT PUMPS</b>	<b>33</b>

---

---

## A. Foreword

---

Thank you for choosing our Rheem Thermal inverter pool heat pump, which is designed for ease of operation, quietness and efficiency. The low electrical use of your new heater minimises greenhouse impact, providing a very green solution to pool heating.

## B. Safety Precautions

---

Your heat pump is supplied as a package unit, being a closed refrigeration system, connected directly to your pool either via the pool's filtration or a standalone heating circuit and suitable for outdoor installation only. This Manual includes important safety messages please always read and obey all safety messages.

### 1. Warning

---



The WARNING sign denotes a hazard. It calls attention to a procedure, practice, or the like, which, if not correctly performed or adhered to, could result in personal injury or injury to a third party. These signs are rare but are extremely important.

	a. Keep the heat pump away from a fire source.
	b. The heat pump is suitable for outdoor installation only.
	c. Repairs and disposal must be carried out by trained service personnel
	d. Vacuumise all R32 gas completely before welding pipes. Welding can only be carried out by professional personnel in a service center.

## 1. Attention

---




- a. The specific instructions below related to the safe operation of the heat pump are set out below in accordance with AS/NZS60335-1 and AS/NZS60335-2-40.
- b. Installation requirements are detailed in the Installation Guidance section of this Manual.
- c. The heat pump must be installed by 1. A qualified person, 2. In accordance with the installation instructions and 3. In compliance with Standards AS/NZS 3000, AS/NZS 3500.4 as applicable under local regulations and all local codes and regulatory authority requirements.
- d. In New Zealand, the installation must also conform with NZS 5261, as applicable under local regulations, and the NZ Building Code.
- e. The heat pump is supplied as a package unit, ready for immediate operation after installation with the provision of power supply and direct connection to your swimming pool via PVC piping as outlined in the hydraulic sections of this Manual.
- f. It is suitable for outdoor installation only and clearance guidelines are outlined in this Manual.
- g. Connection to water mains is not intended.
- h. For electrical connection, the selection of type and rating of fuses should be in accordance with the Installation Guidance Section of this Manual.
- i. The heat pump is a closed refrigeration system using the low GWP Refrigerant R32. As such, compliance with national gas regulations shall be observed.
- j. Do not pierce or burn.
- k. Be aware that refrigerants may not contain an odour.
- l. Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.
- m. The heat pump should be located to prevent the risk of mechanical damage from external sources.
- n. If a repair is required, please contact the nearest after-sales service center. The repair process must be strictly in accordance with manual. All repair practice by non-professional is prohibited.
- o. Any person who is involved with working on or breaking into a refrigerant circuit should hold a current valid certificate from an industry-accredited assessment authority, which authorises their competence to handle refrigerants safely in accordance with an industry recognised assessment specification. Servicing shall only be performed as recommended by the equipment manufacturer. Maintenance and repair requiring the assistance of other skilled personnel shall be carried out under the supervision of the person competent in the use of flammable refrigerants.
- p. A leakage test must be performed after installation.
- q. Please don't stack substances, which will block air flow near inlet or outlet area, otherwise the efficiency of the heat pump will be reduced or even stopped.

- r. Don't use or stock combustible gas or liquid such as thinners, paint and fuel in the vicinity of the heat pump to avoid the risk of ignition.
- s. In order to optimise the heating effect, please install heat preservation insulation on pipes between swimming pool and the heat pump, and please use a recommended cover on the swimming pool.
- t. Connecting pipes of the swimming pool and the heat pump should be  $\leq 10\text{m}$ .

## 2. Safety

- a. This heat pump is only intended to be operated by persons who have the experience or knowledge and the capabilities to do so.
- b. This heat pump 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 or play with or at the heat pump.
- c. If electrical supply conduit to the heat pump is damaged, it must be replaced by a qualified person in order to avoid a hazard. Phone Rheem or the nearest Accredited Service Agent to arrange for an inspection.
- d. Please keep the main power supply switch far away from the children.
- e. If power supply is disrupted during operation, the heat pump will start again when power is restored.
- f. Please switch off the main power supply in lightning and storm weather to prevent from machine damage that caused by lightning.
- g. Installation and any repairing should be conducted in the area with good ventilation. The ignition source is prohibited during the operation.
- h. Safety inspection must be carried before the maintenance or repair for heat pumps with R32 gas in order to minimize the risk.
- i. If R32 gas leaks during the installation process, all operations must be stopped immediately and call the service center.

## 3. Service

- a. This heat pump must be maintained and serviced in accordance with the Maintenance Guidelines Section of this Manual.
- b. For peak performance, it is suggested that the heat pump is serviced by your nearest Rheem Thermal Service Department or Accredited Service Agent every four months for commercial installations or annually for residential installations.
-  c. Warning: Servicing of a heat pump must only be carried out by a refrigeration mechanic.

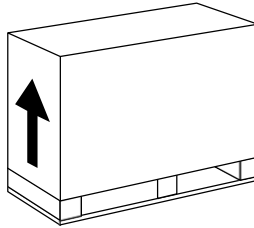
## C. About Your Heat Pump

---

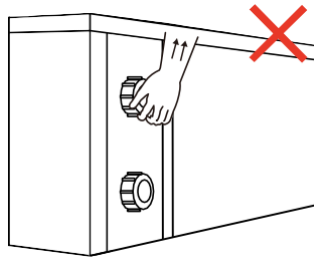
### 1. Transportation

---

- a. Always keep upright

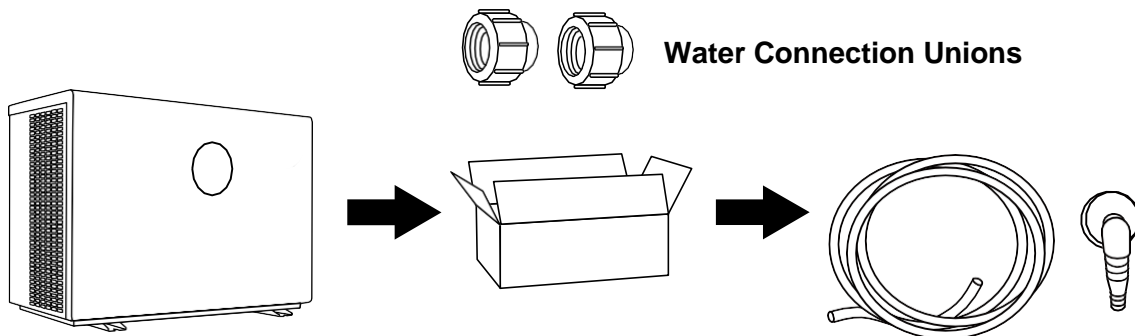


- b. Do not lift the unit by the water unions (Otherwise the titanium heat exchanger inside the heat pump may be damaged)



### 2. Accessories

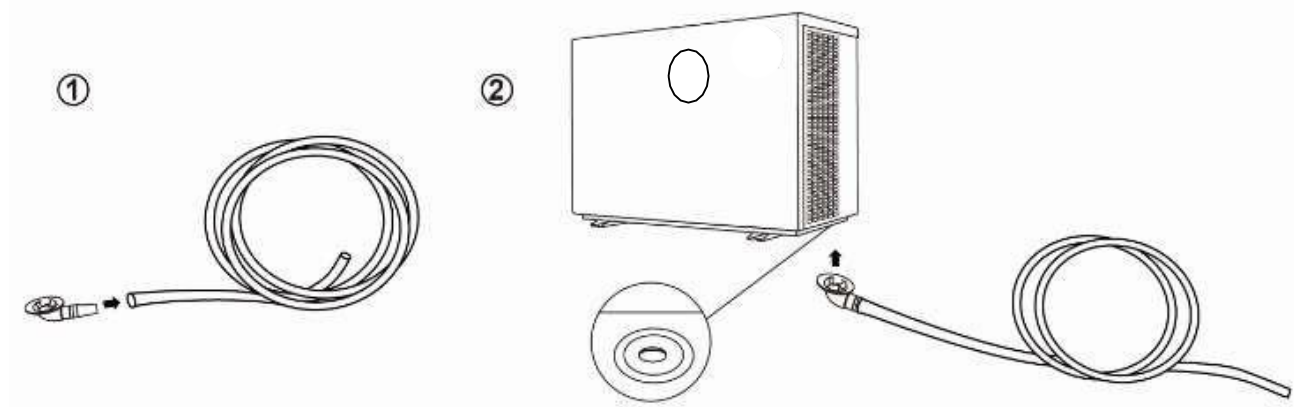
---



Water Connection Unions

Drainage kit

Connection for the condensate drainage kit:



### 3. Features

---

- a. Mitsubishi - DC Twin-rotary inverter compressor
- b. DC Brushless fan motor
- c. EEV Technology
- d. Reverse cycle defrost
- e. High efficiency twisted titanium heat exchanger
- f. Sensitive and accurate temp control and water temp display
- g. High pressure and low-pressure protection
- h. Full protection on electrical system

### 4. Operating condition and range



---

The heat pump RPH009-1A, RPH013-1A, RPH016-1A, RPH021-1A, RPH024-1A can work between ambient air temperatures of  $-5^{\circ}\text{C} \sim 43^{\circ}\text{C}$  and the RPH028-1A, RPH028-3A can work between ambient air temperatures of  $-10^{\circ}\text{C} \sim 43^{\circ}\text{C}$  and their ideal operation range is between  $15^{\circ}\text{C} \sim 25^{\circ}\text{C}$ .

### 5. Introduction of different modes

---

- a. The heat pump has two modes: Boost and Silence.
- b. They have different strengths under different conditions.

Mode	Modes	Strength
	Boost mode	Heating capacity: 20% to 100% Intelligent optimisation Fast heating
	Silence mode	Heating capacity: 20% to 80% Sound level: 3dB (A) Lower than Boost mode



## 6. Technical parameter

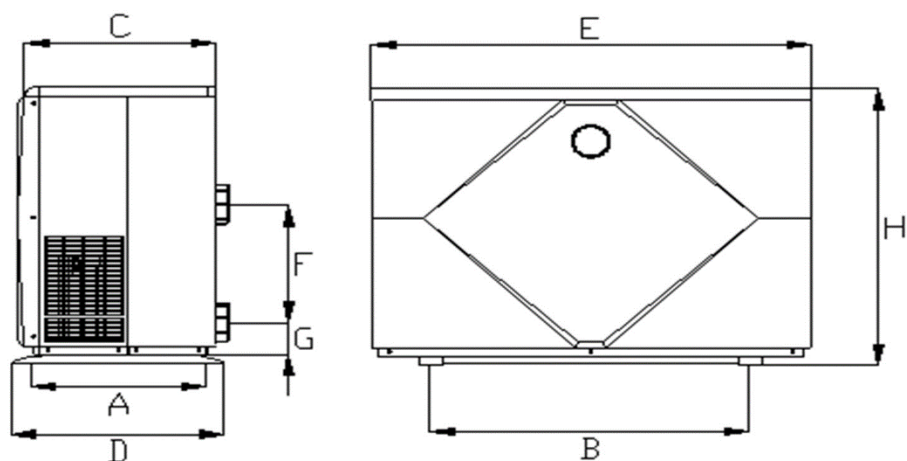
Model	RPH009-1A	RPH013-1A	RPH016-1A	RPH021-1A	RPH024-1A	RPH028-1A	RPH028-3A
<b>PERFORMANCE CONDITION: Air 27°C/ Water 27°C/ Humid. 80%</b>							
Heating capacity (kW)	8.6	13	15.5	21	23.5	27.8	27.8
COP Range	14~6.5	14~6.4	15~6.5	15~6.5	14.5~6.4	15.8~7.2	15.6~7.1
Average COP at 50% Speed	9.0	9.5	9.6	9.3	9.6	11.0	10.7
<b>PERFORMANCE CONDITION: Air 15°C/ Water 26°C/ Humid. 70%</b>							
Heating capacity (kW)	6.4	9.0	10.9	14.5	16.1	18.8	18.8
COP Range	6.8~4.5	7~4.4	7~4.5	7~4.6	7.2~4.5	7.8~4.9	7.8~4.9
Average COP at 50% Speed	6.2	6.3	6.3	6.2	6.3	6.5	6.4
<b>TECHNICAL SPECIFICATIONS</b>							
Advised pool volume (m <sup>3</sup> ) *	20~50	30~60	40~75	50~90	60~110	60~120	60~120
Operating air temperature (°C)	-5°C ~43°C					-10°C ~43°C	
Power supply	240V 1Ph					415V 3Ph	
Rated input power (kW)	0.21~1.42	0.31~2.10	0.37~2.42	0.47~3.20	0.54~3.60	0.50~3.84	0.5~3.84
Rated input current (A)	0.93~6.20	1.34~8.90	1.60~10.60	2.06~13.70	2.34~15.60	2.17~16.70	0.72~5.56
<b>Recommended circuit breaker size (A)</b>	<b>10</b>	<b>16</b>	<b>20</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>10</b>
Sound level at 10m dB (A)	19.0~28.4	22.2~30.8	21.2~34.4	23.4~34.1	21.8~36.0	21.5~32.9	21.5~32.9
Refrigerant charge (kgs)	0.5	0.75	0.8	1.0	1.2	2.0	2.0
Advised water flow (L/sec)	0.5~1.2	1.2~1.7	1.7~2.3	2.0~2.8	2.8~3.4	2.8~3.4	2.8~3.4
Water Connections mm)	48.3						

### Remarks:

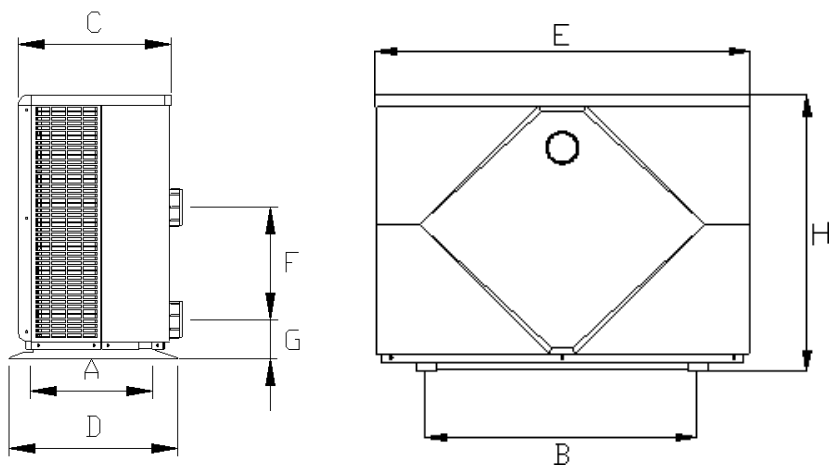
The heat pump RPH009-1A, RPH013-1A, RPH016-1A, RPH021-1A, RPH024-1A are all able to perform normally within air temp -5°C~+43°C and the RPH028-1A, RPH028-3A can perform normally within air temp -10°C~+43°C. Efficiency cannot be guaranteed out of this range. Please take into consideration that the pool heat pump performance and parameters are different under various conditions.

Related parameters are subject to adjustment periodically for technical improvement without further notice. For further details please refer to the nameplate on the side of the unit.

## 7. Dimension



Size (mm) Model	A	B	C	D	E	F	G	H
RPH009-1A	410	645	387	430	890	250	75	657
RPH013-1A	410	645	387	430	890	290	75	657
RPH016-1A	410	645	387	430	890	280	75	657
RPH021-1A	410	710	387	430	1060	390	75	657
RPH024-1A	410	710	387	430	1060	390	75	757



Size(mm) Model	A	B	C	D	E	F	G	H
RPH028-1A	410	710	390	430	1060	640	75	957
RPH028-3A	410	710	390	430	1060	640	75	957

※ The above product data is subject to change without notice.

**Note:** The product pictures and dimensions above are specification diagrams for use by technician's installers and for layout reference only.

## D. Installation Guidance

---

### 1. Installation reminder

---

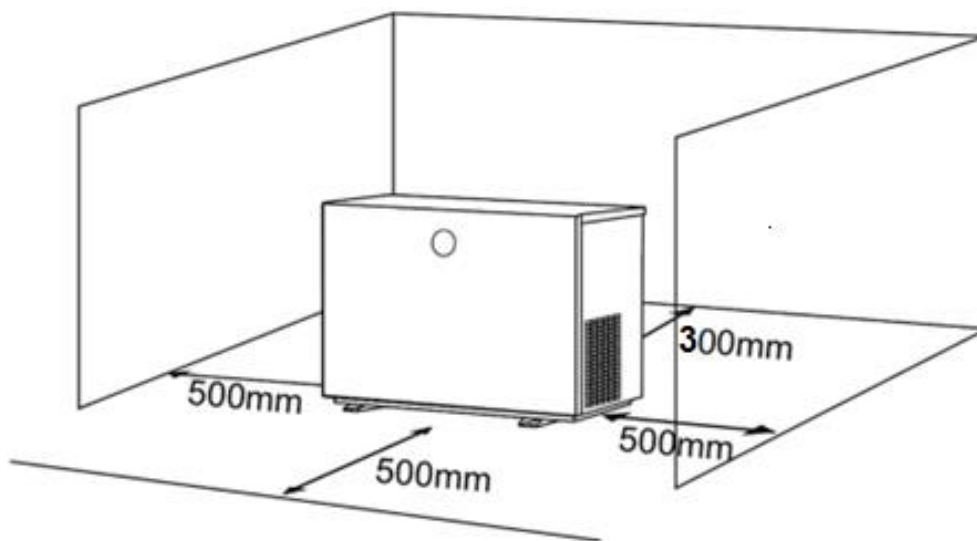
Only use a qualified electrician and pool plumber to install the heat pumps. The consumer, (unless qualified), is not to install the unit/s themselves, otherwise this could void warranty and potentially risk the users' safety.

#### a. Location and clearances

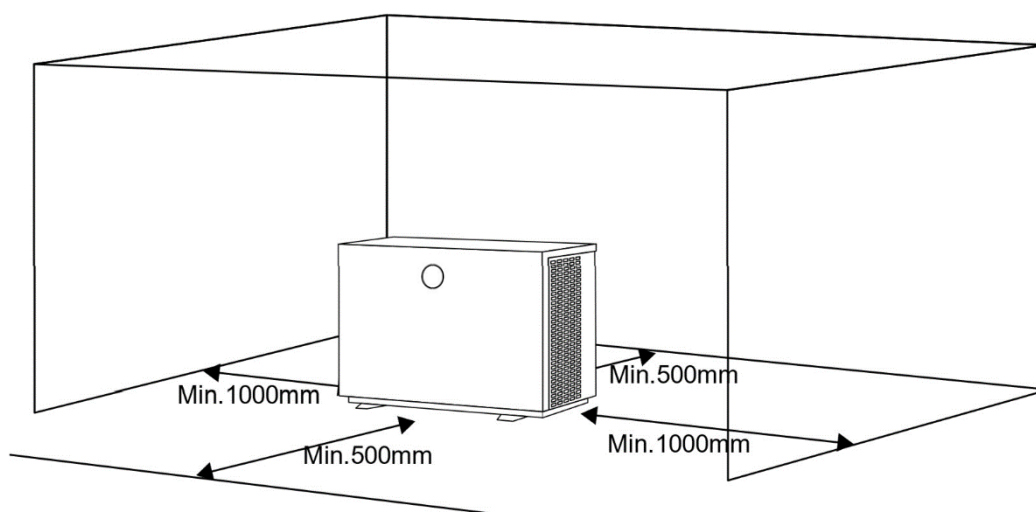


The heat pump is suitable for outdoor installation only and requires the following clearances to ensure the correct movement of air and for service access:

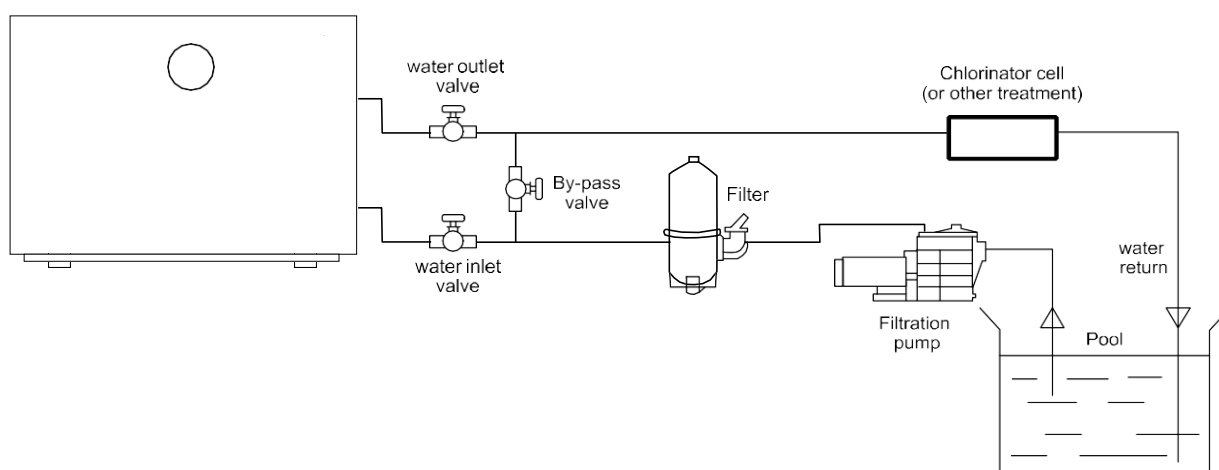
#### For the 16kw unit and below models



#### For the 21kw unit and above models




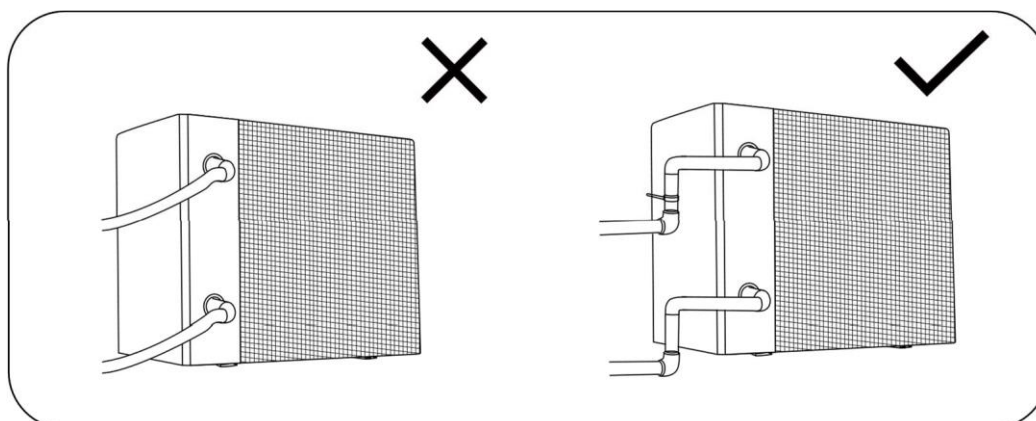
- 1) The provision of the clearances shown in 1.a above are important to achieving the maximum heating performance and efficiency of your heat pump. If clearances are compromised, this creates the potential for the cold air discharged at the rear of the unit (through the evaporator) to recirculate so that the air being used for heat capture is cooler than the true ambient (outside) temperature. This issue of recirculation is particularly worsened if the surrounding area is not open or if the heat pump position is for example, directly under the eave of your home. The intent in selecting the installation position and in considering the potential to place other plant nearby is to achieve the maximum open area around the heater. As such, the clearance guidelines given should be understood as the minimum recommended and wider spacing will be beneficial in terms of minimizing the risk of air recirculation.



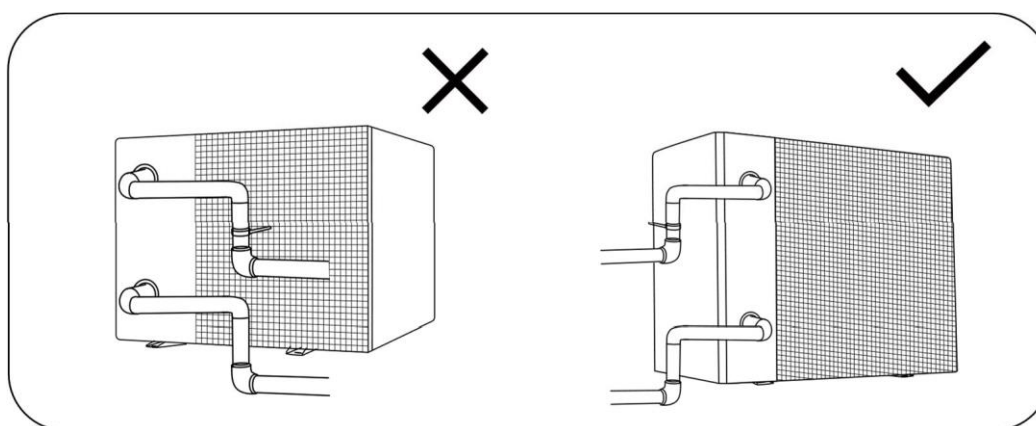
- 2) The frame of the unit must be fixed by bolts (M10) to a solid or concrete foundation. The foundation must be secure.
- 3) Do not stack obstacles near the inlet or outlet area of the heater fan/s or evaporator coil/s and ensure there is a minimum of 500mm behind the main machine's evaporator coil, otherwise the efficiency of the unit may be compromised. It may also cause the unit to stop working.
- 4) The machine needs a circulation pump (supplied by the others) to operate. The heat pump unit can be energised by either a main filter pump or separate circulation pump. This will depend on the preferred method of installation. Please refer to the minimum flow rate of the unit being installed to select a pump for the required water flowrates.
- 5) When the machine is running, there will be condensate water discharging from the bottom of the unit, please pay attention to this. There is a condensate drainage nozzle (accessory) supplied. Please ensure this is placed into the condensate drainage hole on the bottom of unit and clipped in. Then connect a PVC pipe to this and run it to an approved plumbing drainage point.

b. **Water pipe connection**

 The inlet and outlet water unions are to be connected by approved PVC pipes used for pool & spa plumbing!



- DO NOT install water pipes in a way that they pass behind the heat pump's evaporator coil. If this cannot be avoided, ensure the pipes are covered with thermal insulation.

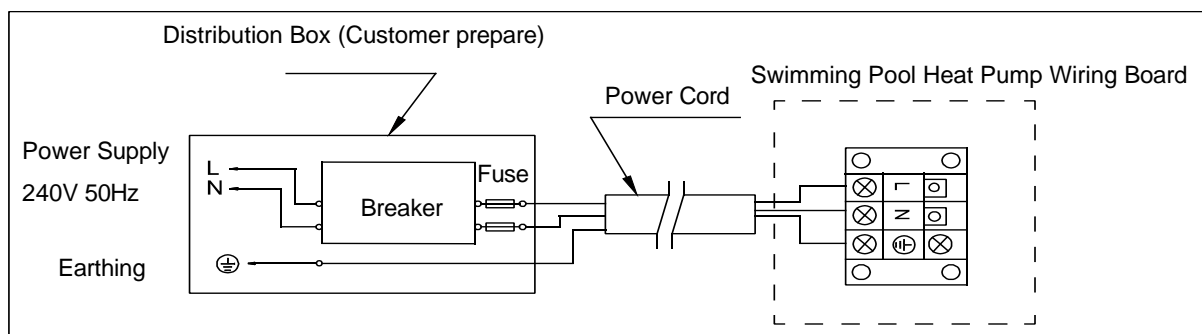


## 2. **Wiring**

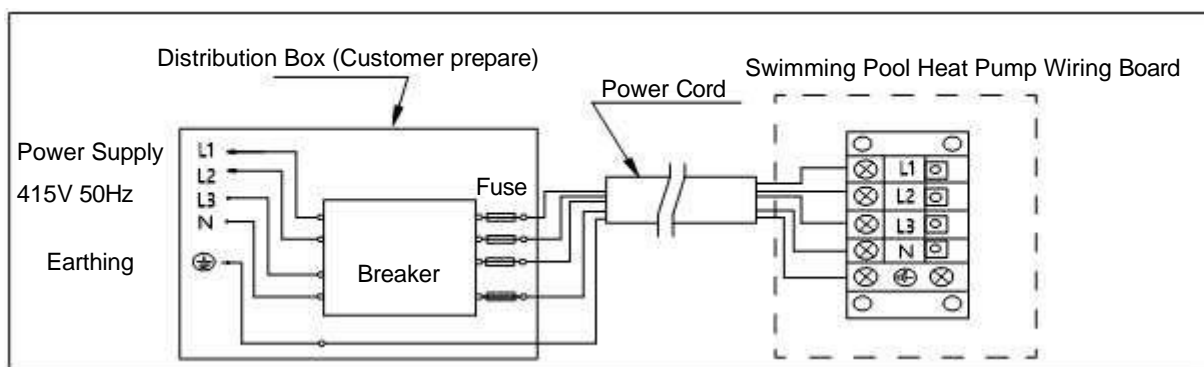
- 
- Connect this device to an appropriate power supply, the voltage should comply with the rated voltage of the product.
  - Earth the machine well.
  - Wiring must be handled by a professional electrician according to the circuit diagram.
  - Set leakage protection according to the local authority for wiring (i.e.: leakage operating current  $\leq 30\text{mA}$ ).
  - The laying of power and signal cables should be such that they do not affect each other.

### 3. Electric wiring diagram

#### a. For power supply: 240V 50Hz



#### b. For power supply: 415V 50Hz



#### Note:



The electrical installation must comply with Standards AS/NZS 3500.4, AS/NZS 3000 and all local codes and regulatory authority requirements. Models RPH009-1A and RPH013-1A may be connected by an electrical plug. All other models must be hard wired.

### 4. References for protecting devices and cable specification

MODELS	RPH009-1A	RPH013-1A	RPH016-1A	RPH021-1A	RPH024-1A	RPH028-1A	RPH028-3A
Breaker Rated Current (A)	10	13	18	21	24	24	10
Breaker Rated Residual Action Current (mA)	30	30	30	30	30	30	30
<b>Circuit Breaker (A)</b>	<b>10</b>	<b>16</b>	<b>20</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>10</b>
Power Cord (mm <sup>2</sup> )	3 x 1.5	3 x 2.5	3 x 2.5	3 x 4	3 x 6	3 x 6	5 x 2.5
Signal Cable (mm <sup>2</sup> )	3 x 0.5	3 x 0.5	3 x 0.5	3 x 0.5	3 x 0.5	3 x 0.5	3 x 0.5
Max Pressure of Inlet Water (Mpa)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Min Pressure of Inlet Water (Mpa)	0.5	0.5	0.5	0.5	0.5	0.5	0.5

※ The above data is subject to change without notice.

**Note:** The above data is adapted to power cord ≤10m. If power cord is >10m, wire diameter must be increased. The signal cable can be extended to a maximum of 50m.

# E. Operation Guide

## 1. Key functions



Symbol	Heating & Cooling models
	1. Power On/Off 2. Wi-Fi settings
	1. Lock/Unlock Screen 2. Heating mode (18-40°C) 3. Cooling mode (12-30°C) 4. Auto mode (12-40°C)
	1. Boost 2. Silence
	Temperature Setting

## 1. Temperature display

Press and together for 5 second to switch temperature display.

### 1. Celsius display:



means 28°C

### 2. Fahrenheit display: (only the temperature number). For USA and some parts of Europe only:




means 104°F



## 2. Operation instruction

---

### a. Screen Lock

- 1) Press  for 3 seconds to lock or unlock the screen.
- 2) The screen will automatic lock again after 30 seconds if there has been no action.




### b. Power On

Press  for 3 seconds to unlock the screen. Press  to power on the unit.

### c. Temperature Setting




When the unit is on, press  and  to set the desired temperature.

### d. Boost/Silence Mode

Press  to switch between boost mode  and silence mode   
(Please choose boost mode for initial heating).

### e. Heating / Cooling /Auto Mode

Press  to switch among Heating  Cooling  and Auto Mode 


- Heating mode:  Water temperature setting range (18-40°C)
- Cooling mode:  Water temperature setting range (12~30°C)
- Auto mode:  Water temperature setting range (12~40°C)





\* When the water inlet temperature is **higher** than the set point, automatic cooling mode starts.

\* When the water inlet temperature is **lower** than the set point, automatic heating mode starts.






#### f. Defrost

- 1) Automatic defrosting: When the unit is in auto defrosting mode this symbol  will flash until it is finished. Once finished it will go back to normal operating mode.
- 2) Manual Defrost: To enter the forced defrosting mode, the compressor must have been operating for more than 10 minutes.





In heating mode, press  and  buttons together simultaneously for 5 seconds to start the forced defrost mode and this symbol  is flashing the defrost function starts. Once  stops flashing the defrosting mode stops and the unit will resume normal operation.

(**Note:** the intervals between forced defrosting should be more than 30 minutes)

#### g. Wi-Fi Setting

When the screen is on, press  for 3 seconds, when this symbol  starts to flash, enter the Wi-Fi connection. Connect the Wi-Fi on your mobile device and input the password, and then control equipment by Wi-Fi. When the Wi-Fi APP successfully connects the Wi-Fi symbol  light stays on.

#### h. Running Status Checking

- 1) Press  symbol for 5 seconds, the unit will then start to run the checking status
- 2) During this time, the display will show the status symbol "C0" and its corresponding value.
- 3) Change status by pushing the  and  arrows to the corresponding value.
- 4) Press  to quit the "Running Status Checking" mode.
- 5) Running status checking table:

Symbol	Content	Unit
C0	Inlet water temp	°C
C1	Outlet water temp	°C
C2	Ambient temp	°C
C3	Exhaust gas temp	°C
C4	Evaporator coil pipe temp	°C
C5	Return gas temp	°C
C6	Cooling coil pipe temp	°C
C9	Cooling plate temp	°C
C10	EEV opening angle	P
C11	DC fan speed	r/min

## F. Testing

---

### 1. Inspect the heat pump before use

---

- a. Ensure the ventilating device and outlets are operating adequately and are not obstructed.
- b. It is prohibited to install refrigeration pipe or components in corrosive environment.
- c. Inspect all the electrical wiring and earthing connections by referencing the electrical wiring diagram.
- d. Double check that the main power isolation switch is off.
- e. Inspect the air inlet and outlet vent/s, coil/s and fan/s.

### 2. Leakage detection notice and method

---



- a. Leakage checks are prohibited in closed area.
- b. Any ignition source is prohibited during a leakage inspection. A halide torch (or any other detector using a naked flame) should not be used.
- c. Leakage detection fluids can be applied with most refrigerants, but the use of detergents containing chlorine shall be avoided as the chlorine may react with the refrigerant and corrode the copper pipes.
- d. Vacuumise completely before welding. Welding can only be carried out by professional personnel in a well-ventilated area.
- e. Please stop using the heat pump if gas leakage occurs. Contact Rheem or one of their qualified service agents.

### 3. Trial & Start Up

---

- a. The user must "Start" the circulation pump before the heat pump is turned on and "Turn" off the heat pump before the pump is stopped, or the unit could be damaged.
- b. Before starting the heat pump, check for any water leaks around the plumbing fittings.
- c. Set the desired temperature on the heater thermostat, and then switch on the power supply.
- d. To protect the heat pump, the unit is equipped with a time lag starting function. The fan will run for 1 minute before the compressor starts and it will stop running 1 minute after the compressor stops when the unit switches off.
- e. When running the startup trial, check for any abnormal noises and leaks from the unit.
- f. Please note that condensation will form at the bottom of the unit when it is running and will leak from the condensate drain hole if the condensation drainage kit and hose are not fitted. Condensation is normal during operation.

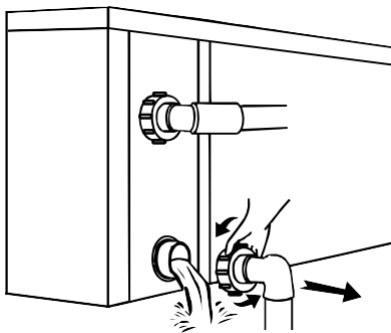
## G. Maintenance

---



CUT OFF the power supply to the heat pump before cleaning, examination and carrying out any repair works on the unit.

1. In the winter and frost prone areas when you don't swim and heat your pool or spa:
  - a. Cut off the power supply.
  - b. Drain any water out of the unit. Ensure the water isolating valves to the unit are closed to prevent the unit from filling again once drained.
  - c. Cover the machine body.



**!! Important:**

Shut off the water supply to the unit. Unscrew the union of the inlet pipe to let the water flow out. Once drained reconnect the union and pipe.

*If the water in the machine freezes in winter season, the titanium heat exchanger may be damaged.*

2. Please clean the unit with biodegradable household detergents or clean water, NEVER use harsh or corrosive chemicals.
3. Check bolts, cables and connections regularly.
4. If repairs are required, contact Rheem or one of their authorised service agents.
5. Do not attempt to work on the heat pump by yourself. Improper operation may cause danger, damage and void warranty.
6. In case of risk, proper safety equipment must be worn before carrying out any maintenance or repairs on heat pump units with R32 gas.

## H. Trouble Shooting for Common Faults

### 1. Repairing Guidance

**WARNING:**

If repairs are required, contact Rheem or one of their authorised service agents.

#### Requirements for Service Personnel

- Any person who is involved with working on or breaking into a refrigerant circuit should hold a current valid certificate from an industry-accredited assessment authority, which authorises their competence to handle refrigerants safely in accordance with an industry recognised assessment specification.
- Do not attempt to work on the heat pump unit by yourself. Improper repairs may cause damage and danger to you.
- Strictly comply with the manufacturer's requirements when charging R32 gas. This chapter focuses on special maintenance requirements for swimming pool heat pump with R32 gas. Please refer to the technical service manual for detailed maintenance operation.
- Vacuumise the refrigerant circuit completely before carrying out any welding. Welding can only be carried out by a professional person who is a qualified refrigeration mechanic.

### 2. Failures, solutions and fault codes

Failure	Reason	Solution
<b>Heat pump doesn't run</b>	No power	Wait until the power recovers
	Power switch is off	Switch on the power
	Fuse burned	Check and change the fuse
	The breaker is off	Check and turn on the breaker
<b>Fan running but with insufficient heating</b>	Evaporator blocked	Remove the obstacles & any debris
	Air outlet blocked	Remove the obstacles & any debris
	There is a 3-minute start delay	Wait patiently. This is normal on start up
<b>Display normal, but no heating</b>	Set temperature. too low	Set proper heating temp.
	There is a 3-minute start delay	Wait patiently. This is normal on start up
If above solutions don't work, please contact Rheem or your installer with detailed information and your model number. Do not try to repair the unit yourself.		

**Note:** If the following conditions happen, please stop the machine immediately, and cut off the power supply immediately, then contact your dealer:

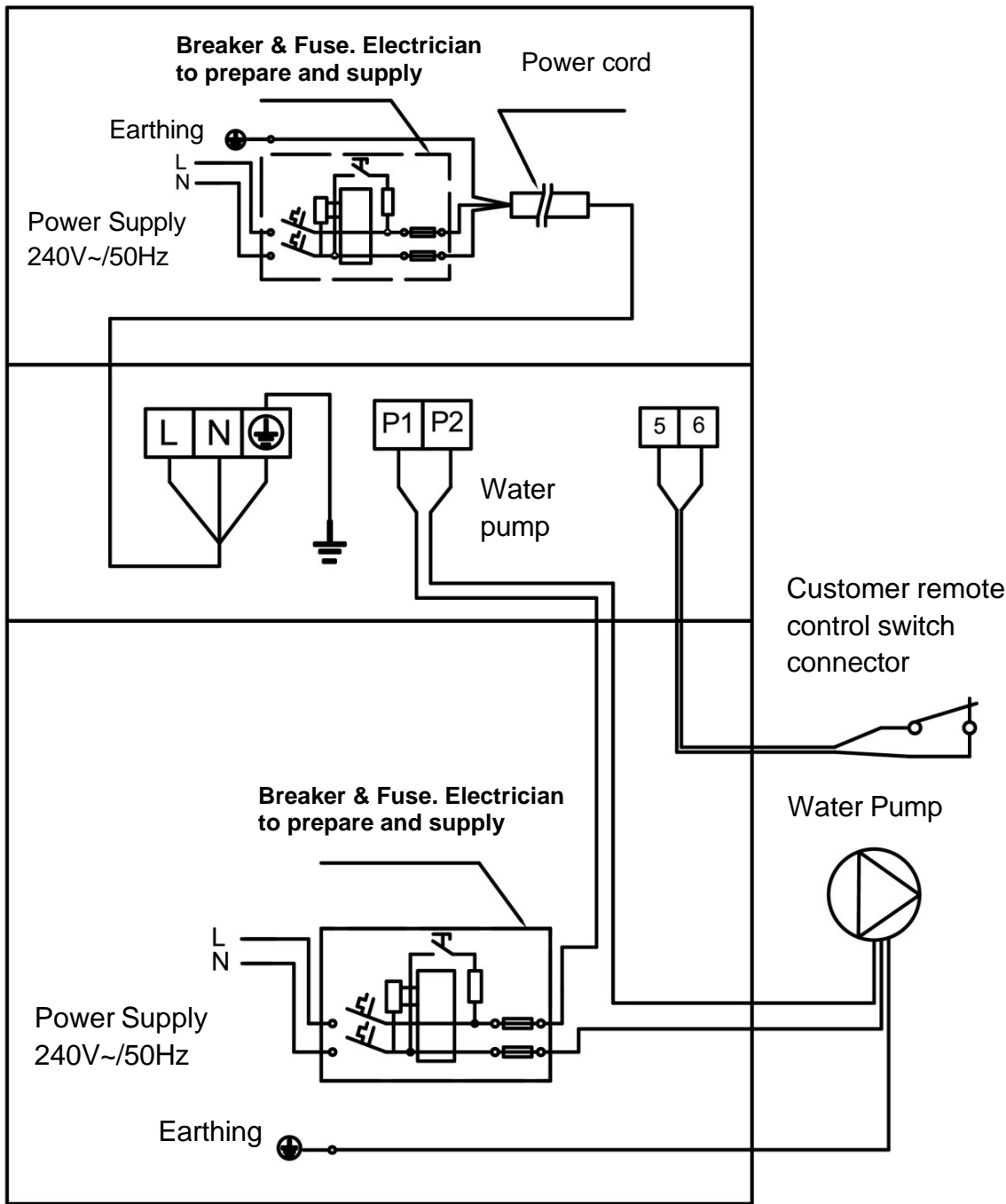
- Inaccurate switch action.
- The fuse is frequently broken, or the leakage circuit breaker tripped.

## Protection & Failure codes

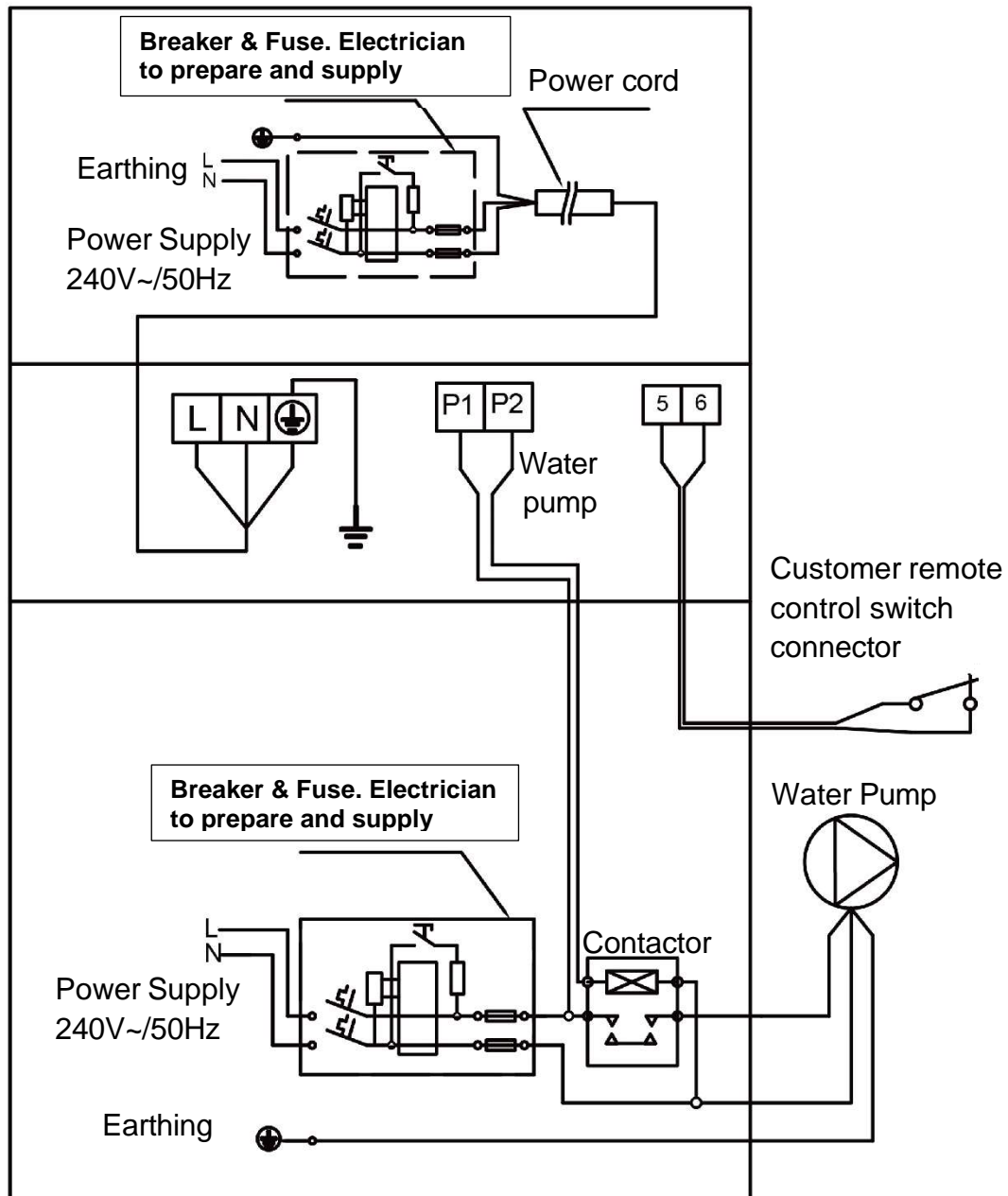
NO.	Display	Protection code description
1	E3	No water protection
2	E5	Power supply excesses operation range
3	E6	Excessive temp difference between inlet and outlet water(Insufficient water flow protection)
4	Eb	Ambient temperature too high or too low protection
5	Ed	Anti-freezing reminder
NO.	Display	Failure code description
1	E1	High pressure protection
2	E2	Low pressure protection
3	E4	3 phase sequence protection (three phase only)
4	E7	Water outlet temp too high or too low protection
5	E8	High exhaust temp protection
6	EA	Evaporator overheat protection (only in cooling mode)
7	P0	Controller communication failure
8	P1	Water inlet temp sensor failure
9	P2	Water outlet temp sensor failure
10	P3	Gas exhaust temp sensor failure
11	P4	Evaporator coil pipe temp sensor failure
12	P5	Gas return temp sensor failure
13	P6	Cooling coil pipe temp sensor failure
14	P7	Ambient temp sensor failure
15	P8	Cooling plate sensor failure
16	P9	Current sensor failure
17	PA	Restart memory failure
18	F1	Compressor drive module failure
19	F2	PFC module failure
20	F3	Compressor start failure
21	F4	Compressor running failure
22	F5	Inverter board over current protection
23	F6	Inverter board overheat protection
24	F7	Current protection
25	F8	Cooling plate overheat protection
26	F9	Fan motor failure
27	Fb	Power filter plate No-power protection
28	FA	PFC module over current protection

I. Hard Wired - Methods of Water Pump Control Connections

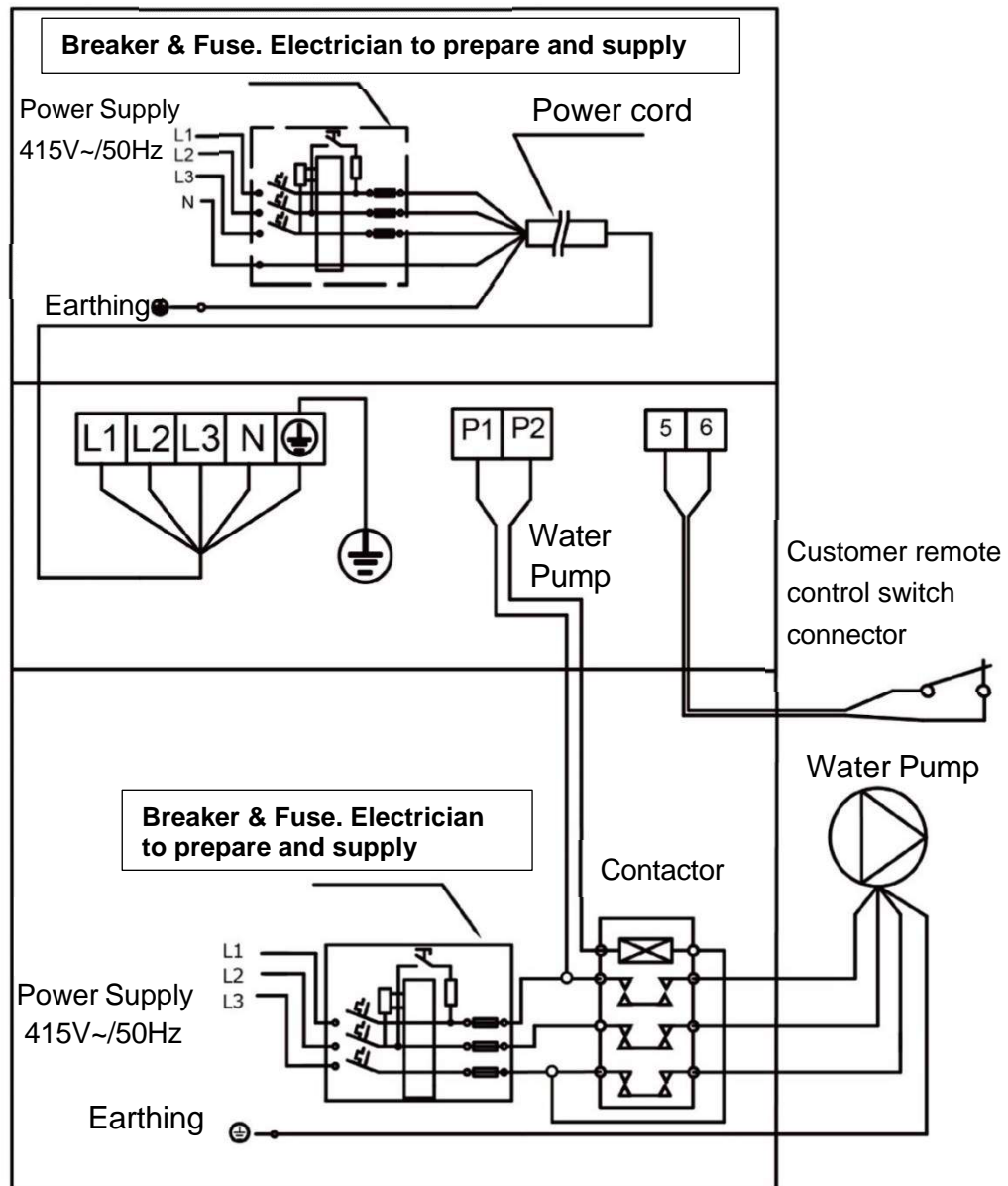
Water pump: 240V volt,  $\leq 500W$  capacity



Water pump: 240V volt, > 500W capacity



## Water pump: 415V volt, 3 phase



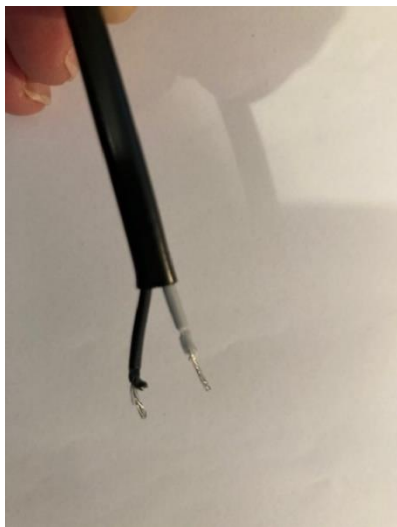


## J. Water Pump connection using the Rheem IQ Link – Pump Controllers

1. Firstly, mount the Dpi Link pump controller in a suitable place, preferably out of direct sunlight and weather near the pool equipment and circulation pump. Fix the mounting bracket to a solid structure using the screws and wall plugs kit provided. Then slide the controller on to the mounting bracket locking it into place. Adjust the screws on the back of Dpi unit to ensure a snug fit. To remove the unit, lift and gently pull it away from the mounting bracket. (Refer to the Dpi Link installations instruction manual supplied with the controller for further details)
2. Then plug in the (supplied) “heater interlock” lead with the green terminal plug into the Dpi pump controller. **Check to make sure this is secure.**



3. Once this is done, cut the female socket off the other end of the lead.  
**(Note:** The female socket is for the **RTHP** – series heat pump models only)



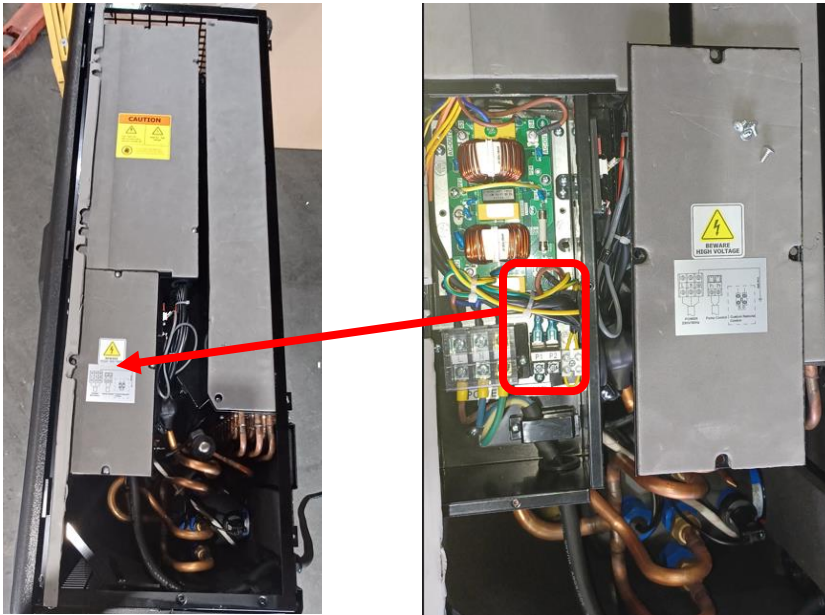
4. Then peel the sheath back to expose the inner 2 wires and strip these back, as per the photo on the right.



5. Warning: Ensure all the power is switched off to the Rheem Heat Pump unit.

6. Then remove the top casing of the heat pump to reveal the panel where the terminal block is housed for connecting the Dpi Link controller wires. (As shown below).

**Note:** Access to this terminal block will vary by model.



7. Once done feed the end of the cable with the exposed wires, through one of the electrical access holes and cable glands on the unit as shown in (Figure 1). Then into the electrical connection and terminal block housing as shown in (Figure 2).



Figure 1.

#### Terminal Block Housing



Figure 2.

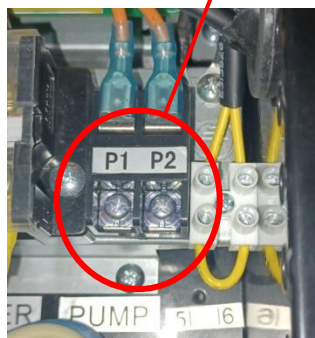




Figure 3.



8. After this is done and you have safely wired the Dpi Link Controller onto P1 & P2, replace the terminal block cover and top casing of the heat pump.
9. Once safe to do so, turn the heat pump on and access the “Changing Parameters” program on the RPH heat pump controller. Then change the default setting to No: 2. (Time/Water Temp Control) (Note: Default will be set to 0).




## 10. Changing parameters

- 10.1 Press  and  together for 5 seconds to enter “parameter checking” status, parameter code NO. “P0” will blink on the left and parameter value “0” will display on the right, as per below.

No:	Content	Adjust Range	Step Length	Default
P0	Water Pump Running Mode	0. 0: Continuation 1. Water Temp Control 2. Time/Water Temp Control	1	0

- 10.2 Then Press  key or  key to change the parameter “P0” to Default No 2.

No:	Content	Adjust Range	Step Length	Default
P0	Water Pump Running Mode	0. 0: Continuation 1. Water Temp Control 2. Time/Water Temp Control	1	2



- 10.3 Once this is done press  key to confirm and exit "parameter checking" status.

Ensure you have plugged the Dpi pump controller power leads in as per the instructions provided and switch it on.


Your heat pump is now ready to communicate and operate with your Rheem Dpi Link Pump Controller.

**Once this is done refer to the installation manual supplied for further instructions on setting up the “Wi-Fi connection with a mobile device.”**


## 11. "P" Parameters Checking

11.1 Press  and  together for 5 seconds to enter "parameter checking" status, parameter code "NO. P0" will blink on the left, parameter value "2" will display on the right.



11.2 Press  Key and  Key to check the parameters.

11.3 Press  key to exit "parameter checking" status.

## 12. Modify parameters

12.1 In "parameter checking" status, press  to enter "parameter setting" status. At this moment the "parameter value" will blink.

12.2 In "parameter setting" state, press  and  to change the parameters value

12.3 Press  to confirm and return to the previous status; Or press  key to quit and return to the previous status.



## 13. Parameter Table

NO.	Content	Adjust range	Step length	Default
P0	Water pump running way	0: Continuation 1: Water temp control 2: time/water temp control	1	2
P1	Time setting (only available when the water pump running way is set to "2")	10 ~ 120min	5 min	60 min
P2	Compressor continuously running time in defrosting mode	30 ~ 90min	1min	35min
P3	Defrosting start temp	-17 ~ 0°C	1°C	-7°C
P4	Defrosting running time	1 ~ 12min	1min	12 min
P5	Defrosting quit temp	8 ~ 30°C	1°C	13°C
P6	Single pump option	On/off 50 ~ 100	1	off
P10	Compressor speed control	0 : Auto , 1 : Manual	1	0
P12	Electronic expansion valve overheat level (heating)	-10 ~ 20	1	3
P13	Electronic expansion valve overheat level (cooling)	-10 ~ 20	1	5
P14	Electronic expansion valve manual/auto	0 : Auto , 1 : Manual	1	0
P15	Electronic expansion valve opening setting (heating )	50 ~ 240	2P	175 ( H5 )
P16	Electronic expansion valve opening setting (cooling )	50 ~ 240	2P	175 ( H5 )
P20	Power off memory function	0 — NO , 1 — YES	1	1


## K. Wi-Fi Connection Instructions

---



### 1) Wi-Fi connection

When the screen is on, press  for 3 seconds, after  flashing, enter Wi-Fi connection.

Connect Wi-Fi on mobile phone and input password, and then control equipment by Wi-Fi.

When the APP connects Wi-Fi successfully,  light will be on.

### 2) WIFI reset (WIFI password change or the network configuration change)

Press  for 10 seconds, after  is slowly flashing for 60s, and light is off. Clear configuration records and repeat step 1).

### 3) will always be on after connection.

Please see picture on the next page for detailed instructions:

## 1 InverGo Download



Android

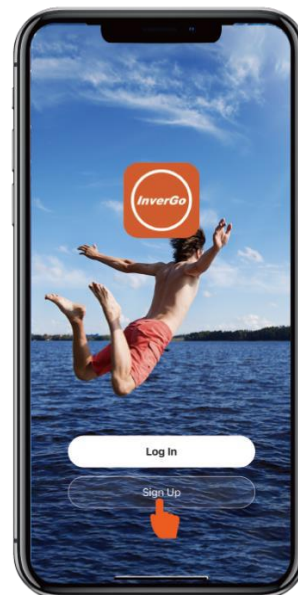


iOS

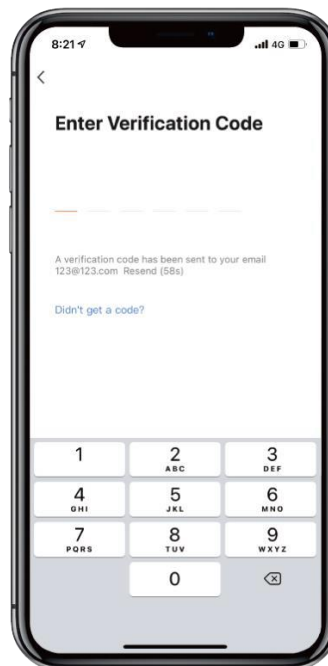
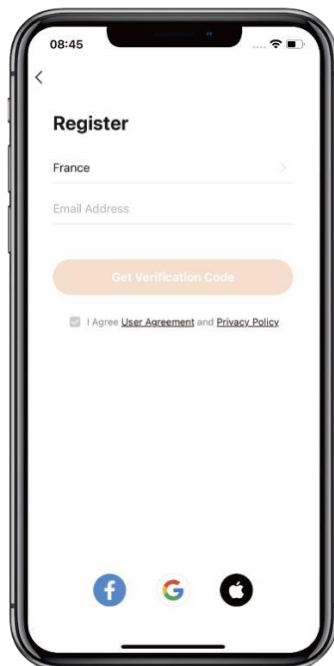


## 2 Account Registration

Register by e-mail or third-party application.

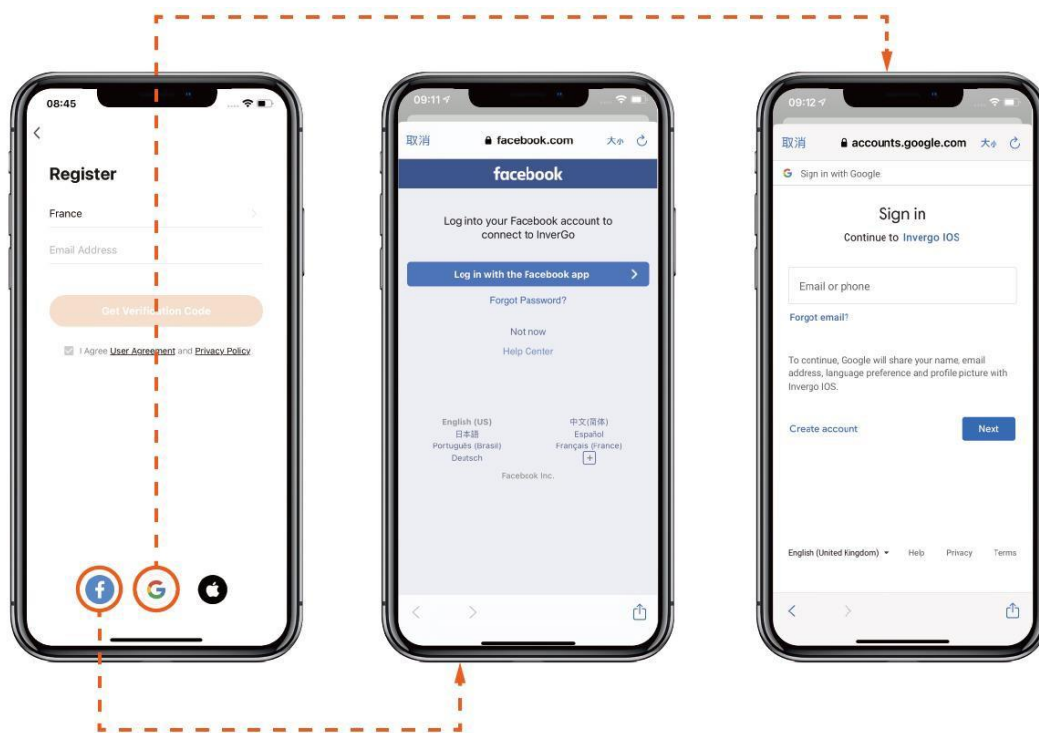


a. E-mail registration.



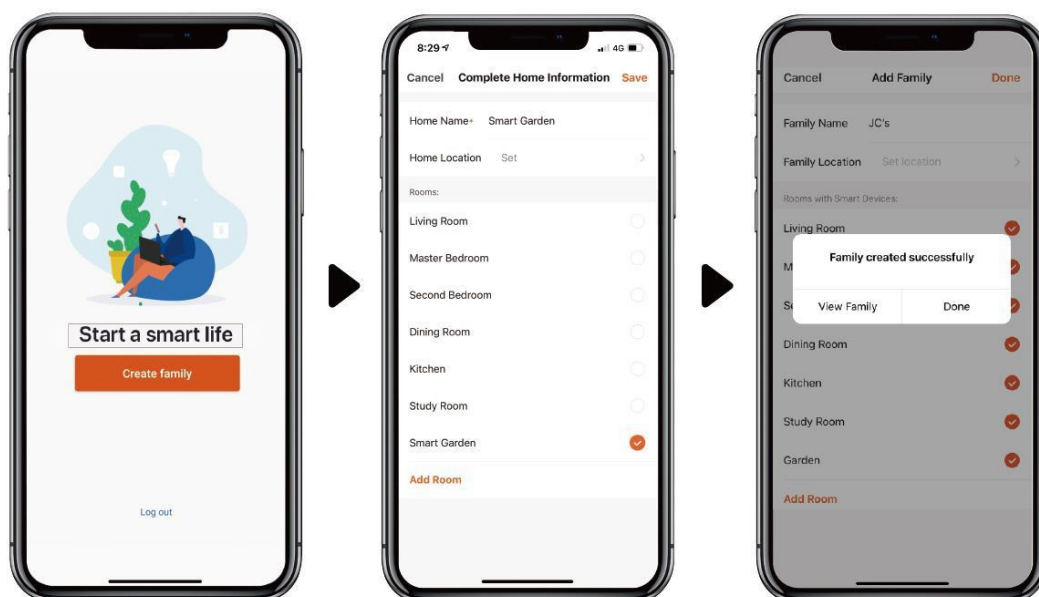


## b. Register through third-party application



## 3 Create Family

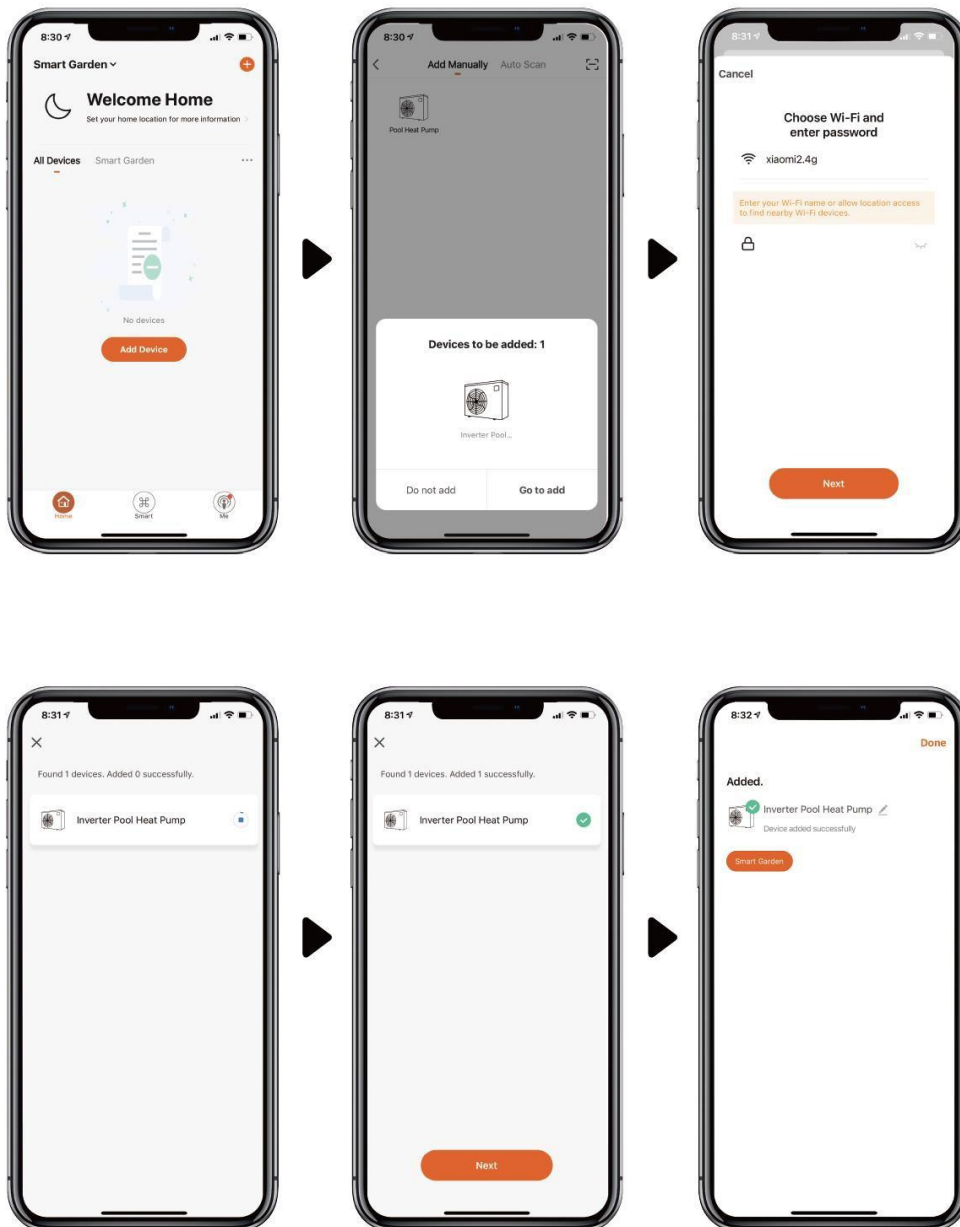
Please set family name and choose location of device.



## 4 APP Pairing

### a. With Bluetooth

1. Please confirm that you're connected to Wi-Fi and your Bluetooth is on.
2. Click "Add Device", and then follow the instructions to pair device.





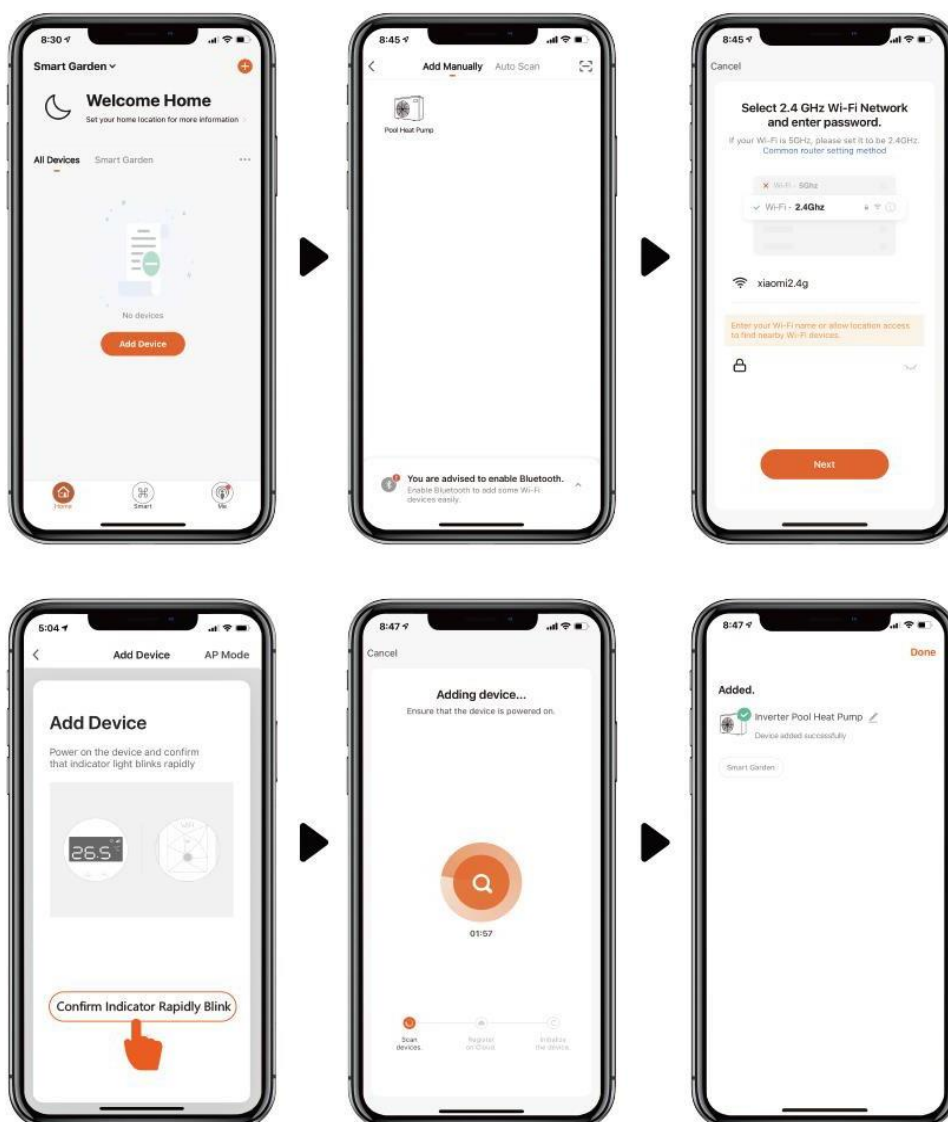
## b. With Wi-Fi

1. Please make sure you are connected to Wi-Fi.

2. Press "M" for 3 seconds to unlock the screen. Press "P" for 3 seconds and release. After hearing "Beep", enter Wi-Fi password in app. During connection, "Wi-Fi" will flash. Once the app connects to Wi-Fi successfully, "Wi-Fi" will display.



3. Click "Add Device", and then follow the instructions to pair device.



5

## Operation

1. For heat pump with Heating function only:

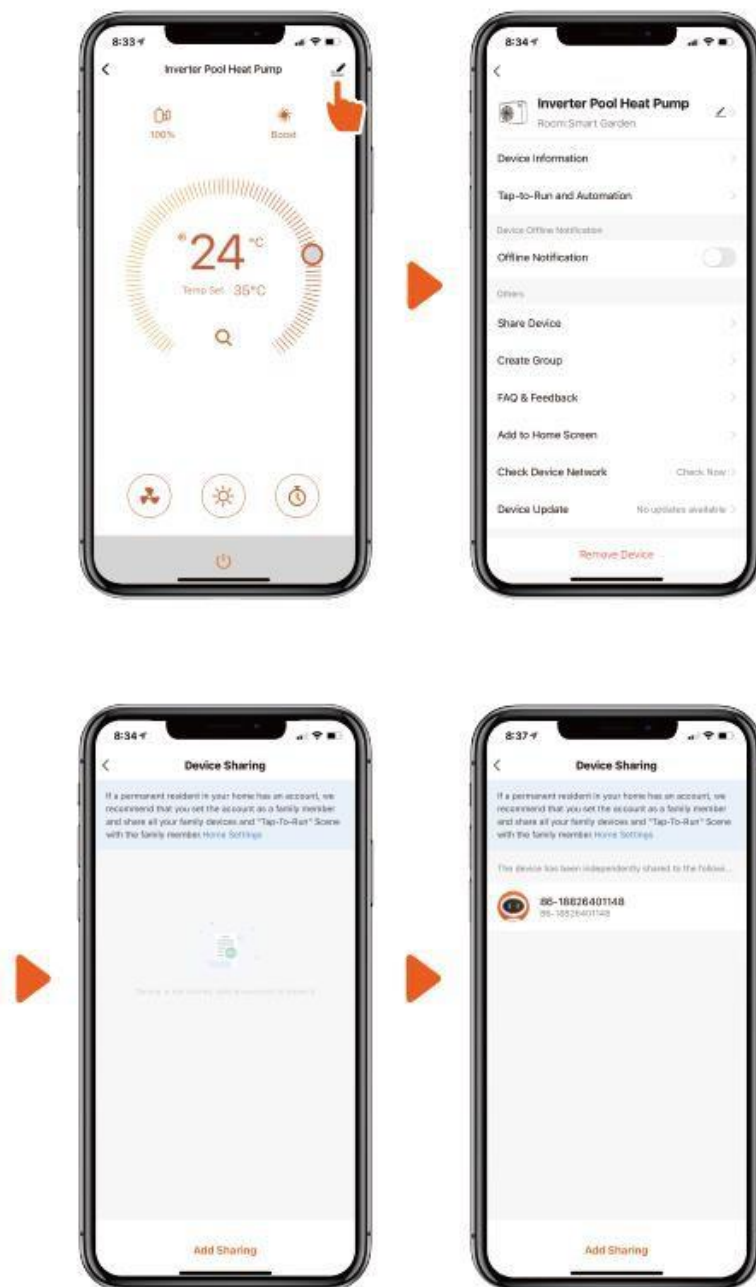


2. For heat pump with Heating & Cooling function:



## 6 Share Devices to Your Family Members

After pairing, if your family members also want to control the device, please let your family members register “InverGo” first, and then the administrator can operate as below:



Notice:

1. Weather forecast is just for reference.
2. App is subject to updates without notice.

## **L. RHEEM THERMAL WARRANTY – RPH SERIES POOL HEAT PUMPS**

### **1. GENERAL**

- 1.1 This warranty is given by Rheem Australia PTY Limited ABN 21 098 823 511 1 Allan Street Rydalmere NSW
- 1.2 For the purposes of this document, the Rheem Thermal heat pump water heater is referred to as the “unit”.
- 1.3 Rheem offer a trained and qualified national service network who will repair or replace components at the address of the heat pump subject to the terms of the Rheem Thermal warranty. Rheem Thermal Service, in addition can provide preventative maintenance and advice on the operation of the unit. The Rheem Thermal Service contact number is **1300 132 950** with service personnel available to take your call from 9am to 4pm Monday to Friday, (hours subject to change).
- 1.4 For details about this warranty, you can contact us on **1300 132 950**
- 1.5 If a subsequent version of this warranty is published, the terms of that warranty will apply to units manufactured after the date specified in the subsequent version.
- 1.6 The application of the Warranty is dependent on payment for the unit being made in accordance with the Company's Standard Terms and Conditions.

### **2. TERMS OF THE RHEEM THERMAL WARRANTY AND EXCLUSIONS TO IT**

- 2.1 The warranty period will commence from the end user's date of purchase.
- 2.2 The decision of whether to repair or replace a faulty component is at Rheem Thermal's sole discretion.
- 2.3 If you require a call out and we find that the fault is not covered by the Rheem Thermal warranty, you are responsible for our standard call out charge. If you wish to have the relevant component repaired or replaced by Rheem Thermal that service will be at your cost
- 2.4 Where a failed component is replaced under this warranty, the balance of the original warranty period will remain effective. The replacement does not carry a new Rheem Thermal warranty.
- 2.5 Where the unit is installed outside the boundaries of a metropolitan area as defined by Rheem Thermal or further than 25 km from either a regional Rheem Thermal branch office or an Accredited Rheem Thermal Service Agent's office, the cost of transport, insurance and travelling between the nearest branch office or Rheem Thermal Accredited Service Agent's office and the installed site shall be the owner's responsibility.
- 2.6 Where the unit is installed in a position that does not allow safe or ready access, the cost of that access, including the cost of additional materials handling and/or safety equipment, shall be the owner's responsibility. In other words, the cost of dismantling or removing cupboards, doors or walls and the cost of any special equipment to bring the pool heater to floor or ground level or to a serviceable position is not covered by this warranty.
- 2.7 This warranty only applies to the original and genuine Rheem Thermal unit in its original installed location and any genuine Rheem Thermal replacement parts.
- 2.8 The Rheem Thermal warranty does not cover faults that are a result of:
  - a) Accidental damage to the unit or any component (for example: (i) Acts of God such as floods, storms, fires, lightning strikes and the like; and (ii) third party acts or omissions).
  - b) Misuse or abnormal use of the unit.

- c) Installation not in accordance with the Owner's Guide and Installation Instructions or with relevant statutory and local requirements in the State or Territory in which the unit is installed.
  - d) Connection at any time of the unit in anyway which does not comply with the guidelines as outlined in the Owner's Guide and Installation Instructions.
  - e) Repairs, attempts to repair or modifications to the unit by a person other than Rheem Thermal Service or a Rheem Thermal Accredited Service Agent.
  - f) Faulty plumbing or faulty power supply.
  - g) Failure to maintain the unit in accordance with the Owner's Guide and Installation Instructions.
  - h) Transport damage where freight is arranged by others.
  - i) Fair wear and tear from adverse conditions (for example, corrosion).
  - j) Cosmetic defects.
- 2.9 Subject to any statutory provisions to the contrary, this warranty excludes any and all claims for damage to furniture, carpet, walls, foundations or any other consequential loss either directly or indirectly due to leakage from the unit, or due to leakage from fittings and/ or pipe work of metal, plastic or other materials caused by water temperature, workmanship or other modes of failure.
- 2.10 This warranty is not applicable if the installation of the unit is carried out by an installer not approved by Rheem Thermal or persons who are not qualified to do so in the opinion of Rheem Thermal.
- 2.11 The warranty as applied to the unit's internal heat exchanger protects against failure due to water imbalance. The warranty is not applicable if failure is caused due to hydraulic damage, such as excess pressure. The extended parts warranty covers the cost of a replacement heat exchanger but excludes labour or associated costs or the cost of any subsequent damage, of any type.
- 2.12 This warranty does not cover the replacement or replenish of refrigerant within the unit.
- 2.13 It is a condition of warranty that the customer has stipulated correctly and precisely the capacity and performance required of the System and the conditions under which the System shall operate. Any performance figures given by us in the Quotation or mentioned or referred to in or prior to the contract are such as we expect to obtain on test but are not guaranteed. All such performance figures whether analytical or financial are estimates only and the customer must independently satisfy itself as to their accuracy and completeness.

Failure to perform as duly specified shall be notified to us in writing and we shall be given every reasonable facility to investigate the cause of the failure and to recommend remedial action.

If it is clearly established that the fault is due to an error in calculation by us or failure by our employees to carry out instructions, the fault shall be rectified by us in as reasonable a period of time as possible and at no cost to the Customer. Should the remedial action fail to achieve the designed performance the limit of our liability either the negligence or for breach of statutory duty or otherwise shall be for us to remove the equipment at our expense or to refund to the buyer the purchase price in full.

In New Zealand this warranty excludes to the extent permissible all implied warranties set out in the Sale of Goods Act 1908 (New Zealand) and all guarantees set out in the Consumers Guarantees Act 1993 (New Zealand) to the extent that the goods are acquired for the purpose of resupply in trade consumption in the course of a process of production or manufacture or repairing or treating in trade other goods or fixtures on land.

### 3. WHAT IS COVERED BY THE RHEEM THERMAL WARRANTY FOR THE UNITS DETAILED IN THIS DOCUMENT

- 3.1 Rheem Thermal will repair or replace a faulty component of your unit if it fails to operate in accordance with its specifications.
- 3.2 For the full warranty terms and conditions for the RPH series unit, scan the QR Code below.



### 4. ENTITLEMENT TO MAKE A CLAIM UNDER THIS WARRANTY

- 4.1 To be entitled to make a claim under this warranty you need to:
- a) Be the owner of the unit or have consent of the owner to act on their behalf
  - b) Contact Rheem Thermal Service without undue delay after detection of the defect and, in any event, within the applicable warranty period.
- 4.2 You are **not** entitled to make a claim under this warranty if your unit:
- a) Does not have its original serial numbers or rating labels.
  - b) Is not installed in Australia.

### 5. HOW TO MAKE A CLAIM UNDER THIS WARRANTY

- 5.1 If you wish to make a claim under this warranty, you need to:
- a) Contact Rheem Thermal on 1300 132 950 and provide owner's details, address of the unit, a contact number and date of installation of the heater or if that's unavailable, the date of manufacture, model and serial number (from the rating label on the heater)
  - b) Rheem Thermal will arrange for the heater to be tested and assessed on-site.
  - c) If Rheem Thermal determines that you have a valid warranty claim, Rheem Thermal will repair or replace the heater in accordance with this warranty
- 5.2 Any expenses incurred in the making of a claim under this warranty will be borne by you.

### 6. THE AUSTRALIAN CONSUMER LAW

- 6.1 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.
- 6.2 **The Rheem Thermal warranty (set out above) is in addition to any rights and remedies that you may have under the *Australian Consumer Law*.**

## **7. THE CONSUMER GUARANTEES ACT 1993 (NEW ZEALAND)**

- 7.1 Our goods come with guarantees that cannot be excluded under the Consumer Guarantees Act 1993 (New Zealand). If the goods fail to comply with the applicable guarantees set out under the Consumer Guarantees Act 1993 (New Zealand) being the guarantee as to acceptable quality, the guarantee as to correspondence with description or the guarantee as to repair and parts, or if the goods fail to comply with any express guarantee given by Rheem, then you are entitled to a replacement or refund and for compensation for any other reasonably foreseeable loss or damage.
- 7.2 The Rheem warranty (set out above) is in addition to any rights and remedies that you may have under the Consumer Guarantees Act 1993 (New Zealand).

## **8. INTERNATIONAL WARRANTY PROVISIONS**

- 8.1 Contact Rheem Thermal for international warranty terms and conditions.

1 Allan Street,  
Rydalmere NSW 2116

ABN: 21 098 823 511

Rheem Australia PTY Limited  
Phone: 1300 132 950  
Email: [sales@rheemthermal.com.au](mailto:sales@rheemthermal.com.au)

[www.rheemthermal.com.au](http://www.rheemthermal.com.au)

**NOTE:** Every care has been taken to ensure accuracy in preparation of this publication. No liability can be accepted for any consequences which may arise as a result of its application.

AQ116CS-R32-V23-1  
Revision Date: June 29, 2023