



Advancing Water Heat Pump Technology

SINCE 1980



**P** PERFORMANCE  
**+** PLUS

# Heat Pump Manual



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## Company Information

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# 1. Safety Precautions



## 1.1. Operation Safety Information

- DO NOT install or operate the unit before reading the user manual.
- The unit MUST be installed, commissioned, and serviced by a competent and qualified person with the appropriate knowledge. The installations must comply with the AS/NZS 5149 standards. The installation must comply with all applicable local rules and regulations. Where necessary, the relevant electrical and plumbing work must be certified to the satisfaction of the local regulatory authorities.
- The unit MUST be operated by a competent person. Persons without the ability or knowledge to operate the unit SHOULD NOT operate it. Children MUST be supervised around the unit.
- Any removal or alteration of any components or refrigerants in the unit MUST be performed by a competent and qualified person. The unit contains high voltage electrical components that can cause electric shock, serious injuries or death.
- The unit contains fan(s) with fast moving blades. DO NOT remove the fan grille or attempt to touch the fan.
- AVOID touching the pipework connected to the unit while it is operating. The pipes can be HOT enough to cause burns.
- DO NOT store items above the unit. DO NOT lean items against the unit.
- Ensure sufficient clearances around the unit to avoid impeding airflow.
- DO NOT operate the unit unless all of the covers are secured in place.



## 1.2. Risk of Fire

Performance Plus Heat Pumps work with either R32 or R410A refrigerants. The R32 heat pumps have a low risk of causing fires.

- R32 is an A2L refrigerant with a low risk of causing a fire. Therefore, units with R32 must be installed according to AS/NZS 5149 to prevent fires.
- R410A is an A1 refrigerant and is classed as non-flammable.
- If R32 leaks, there is a possibility of fire with an external ignition source.
- DO NOT store chemicals or flammable materials near the unit.
- DO NOT place the unit near any ignition sources.
- DO NOT use flammable sprays such as hair spray, aerosols, and spray paints near the unit.

**Note:** The refrigerant type is specified on the product sticker on the unit.

## 1.3. Refrigerant Safety Information

Performance Plus Heat Pumps work with either R32 or R410A refrigerants. The table below lists the safety information of these refrigerants according to AS/NZS 5149.1. Refer to the online refrigerants' Material Safety Data Sheet (MSDS) for more information.

Refrigerant	Chemical Formula	Safety Group	Flammability	Toxicity	Maximum Pressure (PSI)	Minimum Pressure (PSI)
R410a (R32/R125 mixture)	CH <sub>2</sub> F <sub>2</sub> / CHF <sub>2</sub> CF <sub>3</sub>	A1	No Flame	Low	650	20
R32	CH <sub>2</sub> F <sub>2</sub>	A2L	Low	Low	650	20

The Performance Plus Heat Pumps have high-pressure and low-pressure switches that automatically turn off the unit if either of the pressure limits is breached.

### Emergency Shut Down

In case of emergencies, shut down the unit by **TURNING OFF** the power switch or isolation switch at the wall. The unit will shut down without the electrical supply.

For any enquiries, please contact Hot Water Heat Pumps Ltd (HWHP) at **0800 33 66 33**

## 2. Performance Plus Basic Information

Thank you for purchasing a Performance Plus Heat Pump Water Heater. This machine is designed and manufactured in New Zealand to provide hot water for pools, domestic hot water, and underfloor heating. The Performance Plus Heat Pump Water Heater heats your water sustainably by transferring free energy from the ambient air to your hot water supply.

### 2.1. Heat Pump Water Heater Operating Principles

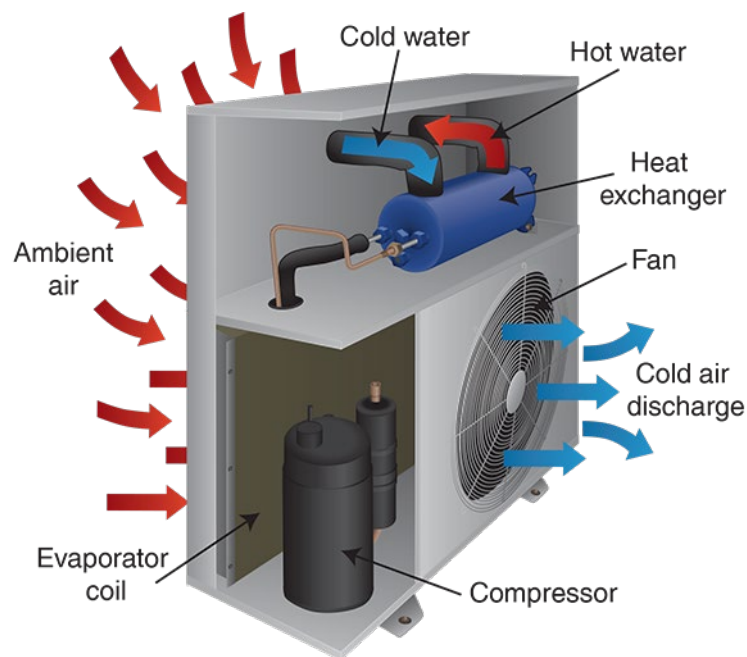


Figure 1: Heat Pump Operating Principles

A heat pump water heater heats the hot water supply by transferring energy from the ambient air to the water using electricity, as shown in Figure 1. The heat pump has four key components; the compressor, expansion valve, evaporator, and condenser. The compressor uses electricity to pump the refrigerant around the cycle to transfer energy from the evaporator to the condenser. In the evaporator, the refrigerant extracts energy from the ambient air. Next, the condenser transfers the energy to the water supply to heat it.

Therefore, the Performance Plus Heat Pumps heat the water effectively using free energy from the ambient air. In addition, the heat pump also works throughout the colder months with lower ambient temperatures as the refrigerant in the evaporator will continue to extract energy from the ambient air. The Performance Plus Heat Pumps will help you meet your hot water needs sustainably at a low cost.

## 3. Installation and Transportation

The Performance Plus Heat Pumps must be installed appropriately to ensure maximum efficiency and reliability. The unit MUST be installed by a competent and qualified person according to AS/NZS 5149 Units for domestic hot water must comply with NZBC G12. For the R32 units, the installation must also comply with AS/NZS 5149.

### 3.1. Transportation requirements

- The unit MUST be kept in a near-vertical position at all times. During transportation, DO NOT tilt the unit more than 30° from the vertical position.
- DO NOT remove the packaging during transportation.
- The unit MUST be moved by at least two people to avoid injuries and damages.
- The unit MUST be handled with care. DO NOT pierce or puncture any piping in the unit.

### 3.2. Installation requirements

- The unit MUST be installed with sufficient clearances on all sides. Refer to the unit's technical brochure for its' dimensions and clearances.
- The unit MUST be installed in a location with sufficient airflow. Good airflow is crucial to ensure high operating efficiency and reliability.
- Ensure that the air inlet and outlet are free of obstructions.
- Avoid installation in areas with debris, such as leaves, that could block the air intake.
- Ensure that pipework containing hot water is insulated to increase energy efficiency.
- For installation in cold areas where the temperature falls below 0°C, care must be taken to avoid frost and ice formation in the pipes connected to the unit.
- For installation in corrosive environments listed below or in NZS 3604, please consult HWHP to inquire about suitable treatments.
  - Seaside with salty air
  - Air with high sulphur gas concentration

### 3.3. Noise considerations

- Ensure that the installation location complies with all local noise regulations regarding neighbouring properties. In New Zealand, Section 16 of the Resource Management Act 1991 can be referenced.



## 4. Operating Instructions

This general user manual includes operating instructions for pool, underfloor, and domestic hot water applications. The instruction includes starting up, setting, and shutting down the heat pump.

A separate E-35 controller user manual is also provided for users wishing to access and modify other operating parameters.

### 4.1. Swimming Pool and Spa Heating Operating Instructions

**Note:** The Spa Pool and Swimming Pool heat pumps have the same operating instructions.

The Performance Plus Swimming Pool Heat Pump is designed to function automatically throughout the swimming season. The user only has to start up the unit at the start of the swimming season and shut down the unit at the end of the swimming season.

**Note:** Once installed, the Performance Plus Heat Pump WILL NOT function if:

1. The isolation switch is turned OFF.
2. There is no water flowing through the heat pump.
3. The water is already up to the desired temperature.

To check if there is flow in the heat pump or if water is to temperature, refer to instructions in the E-35 controller manual. Please ensure that the isolation switch remains ON throughout its operating period.

#### 4.1.1. Start-Up Heat Pump

The Performance Plus Swimming Pool Heat Pump must be turned on at the start of the swimming season. The unit can be installed in a pool WITH OR WITHOUT a “Pool Management” or “Timeclock Bypass” system that manages the filtration system. The heat pump start-up process differs for these 2 scenarios. Please make sure to follow the appropriate instructions.

##### WITH Pool Management/Timeclock Bypass

1. Turn ON the Performance Plus Swimming Pool Heat Pump at the isolation switch.
2. Set the time-clock settings for the desired filtration cycle on the Pool Management or Timeclock Bypass System.
3. Turn ON the “AUTO HEAT” switch at the Pool Management or Timeclock Bypass System.

Your Pool Management or Timeclock Bypass System will now maintain your pool heating without further alterations to the system.

For more detailed instructions or technical information, please see your Pool Management or Timeclock Bypass System Manual.

##### WITHOUT Pool Management/Timeclock Bypass

1. Turn OFF the chlorination system completely.
2. Set the filtration system to run 24 hours/day.

3. Turn ON the Performance Plus Swimming Pool Heat Pump at the isolation switch.
4. Turn ON the chlorination system manually for the required duration per day only.
5. Once the pool has reached its desired temperature, reduce the filtration cycle to achieve the desired result. This process will take a few days of adjustment to achieve the desired result. Our suggestions are:
  - (a) 12 hours cycle at the beginning of the swimming season while the ambient temperatures are still low.
  - (b) Reduce the filtration cycle time as the swimming season progresses.



**Caution:** For water treatment systems that DO NOT actively monitor chemical levels without a Time-clock Bypass or Pool Management system, turn the water treatment system off during the initial heat-up period. Overriding the time clock may cause excessively high chlorine levels.

#### 4.1.2. Setting Pool Temperature

The swimming pool temperature can be adjusted if necessary. The default pool temperature is 28°C, and the Performance Plus is designed to operate optimally at this temperature. To adjust the temperature setpoint, follow the procedure below.

1. Locate the controller pictured on the right

**Note:** For Duoheat heat pumps, locate the controller labelled POOL or SPA.

2. Press and hold the **SET** button for **3 seconds**. The display will change from reading the current water temperature to reading the current set point.
3. Use the **UP** and **DOWN** arrow keys to change the desired temperature setpoint.
4. Press **SET** to confirm the new value and resume normal operation.



#### 4.1.3. Shut Down the Heat Pump

The Performance Plus Heat Pump should be turned off at the end of the swimming season.

1. Turn OFF the Performance Plus Swimming Pool Heat Pump at the isolation switch.
2. The heat pump will shut down and remain idle until the next swimming season.



**Caution:** In regions where standing water can freeze, drain the water from the Performance Plus Swimming Pool Heater at the end of the season to avoid the risk of damage due to freezing.

## 4.2. Underfloor Heating Operating Instructions

The Performance Plus Underfloor Heat Pump is designed to operate automatically throughout the heating season. The user only needs to START-UP the heat pump at the start of the heating season and SHUT DOWN the heat pump at the end of the heating season.

For optimal heating, please follow the instructions to set the temperature for your underfloor heating system correctly.

### 4.2.1. Start-Up Heat Pump

The Performance Plus Underfloor Heat Pump must be turned ON at the start of the heating season to operate. Carefully follow these steps and check if they are met before turning on the heat pump.

1. Ensure that the buffer tank is full, as indicated in Figure 2 for the 7GU series and Figure 3 for the 7GUB series.
2. Set any room thermostats (if available) to the desired temperature.
3. Turn ON the underfloor heating system according to your unit:
  - (a) Single Purpose (underfloor only) heat pump: Turn ON the unit at the isolation switch.
  - (b) Duoheat Dual Purpose heat pump: Turn ON the switch labelled "Underfloor Heating" at the control box (either on the heat pump OR mounted on the wall). The isolation switch should already be ON.

**Note:** If unsure if the unit is a Single or Duoheat Dual Purpose heat pump, please refer to the unit's technical brochure.



1. Locate the Buffer Tank and Underfloor Controller. This will normally be next to the underfloor heating manifold.



2. Ensure that the underfloor controller is switched OFF. (Refer to step 3 to locate the control box)



3. Carefully fill the buffer tank with tap water. This should take no more than 10 Litres of water unless the Low Water Level Light is on.



4. Turn the Underfloor Switch ON when ready. Refer to steps 2 and 3.

Figure 2: 7GU Series Buffer Tank Filling Procedure



1. Make sure the unit is turned OFF at the isolation switch. Remove the 4 screws (pictured above) holding the lid in place.



2. Locate the buffer tank inside the unit and remove the black cap located at the centre of the tank.



3. Carefully fill the buffer tank with tap water. This should take no more than 5 Litres of water unless the Low Water Level Light is on.



4. Replace the lid and screw it back on. Turn the isolation switch ON when ready. Refer to steps 2 and 3.

Figure 3: 7GUb Series Buffer Tank Filling Procedure

## 4.2.2. Configuring Underfloor Heating Temperatures

The Performance Plus Underfloor Heat Pump must be turned ON at the start of the heating season to operate. Carefully follow these steps and check if they are met before turning on the heat pump.

### Heat Pump Controller Location

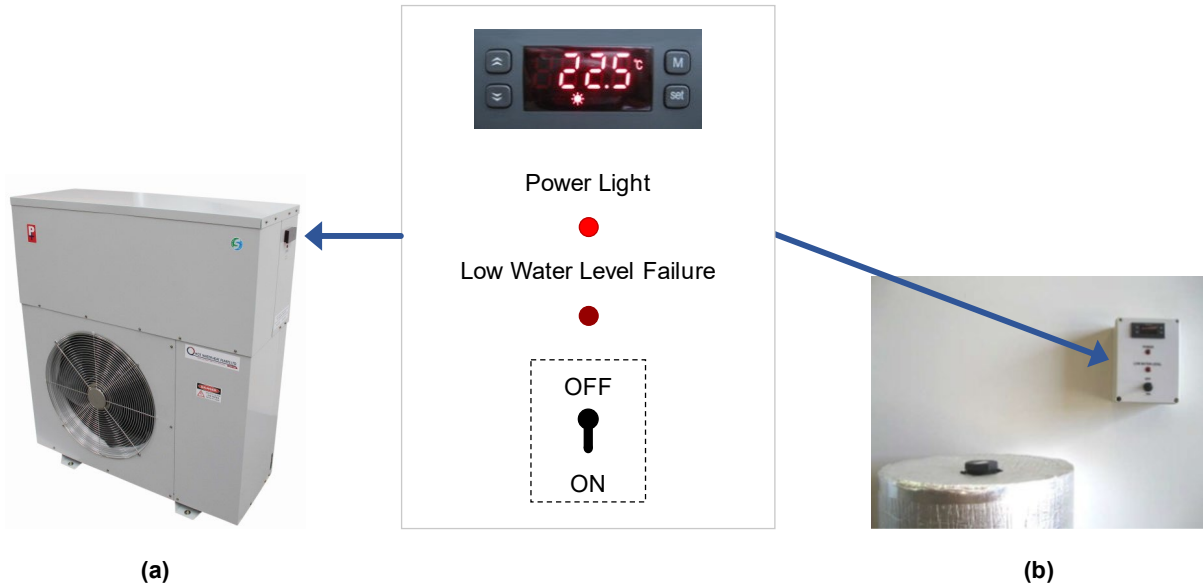


Figure 4: Onboard and Remote Controller Locations

Figure 4 (a) shows the location of the Onboard Controller on the heat pump unit.

Figure 4 (b) shows the location of the Remote Controller. This is normally wall-mounted near the buffer tank or manifold location.

**Note:** ON/OFF Switch is only available on the Remote Controller. For heat pumps with Onboard Controller, use the isolation switch instead.

### Manual Tap Systems (no water solenoids on the manifolds)

1. Ensure all taps are fully open to the highest balanced water flow rate.
2. Set the desired water temperature to between 30 to 35°C. Follow the “Temperature Control” steps below to set the temperature.
3. Adjust the water temperature UP or DOWN to achieve the highest room temperature you require.
4. Once satisfied, adjust taps to achieve the desired temperatures in all zones.

### Solenoid Systems (Air thermostats or Floor thermostats)

1. Set the thermostats to their uppermost SENSIBLE limit. DO NOT exceed 26°C.
2. Set the desired water temperature to between 30 to 35°C. Follow the “Temperature Control” steps below to set the temperature.

3. Adjust the water temperature UP or DOWN to achieve the highest room temperature you require.
4. Once satisfied, set room thermostats to the desired temperatures in all zones. The heating system will adjust itself accordingly.

### Temperature Control

1. Locate the controller pictured on the right

**Note:** For Duoheat heat pumps, locate the controller labelled DOMESTIC or UNDERFLOOR.

2. Press and hold the **SET** button for **3 seconds**. The display will change from reading the current water temperature to reading the current set point.
3. Use the **UP** and **DOWN** arrow keys to change the desired temperature setpoint.
4. Press **SET** to confirm the new value and resume normal operation.



#### 4.2.3. Shut Down the Heat Pump

The Performance Plus Underfloor Heat Pump should be turned OFF at the end of the heating season to avoid excessive energy consumption. To shut down the heat pump:

1. For Single Purpose (Underfloor only) Heat Pump: Turn OFF the unit at the isolation switch.
2. For Duoheat Dual Purpose Heat Pump. Turn OFF the “Underfloor Heating” switch on the control box. DO NOT turn OFF the isolation switch.

**Note:** Refer to the Configure Underfloor Heat Pump section if you cannot locate the control box.

## 4.3. Domestic Hot Water Heating Instructions

The Performance Plus Domestic Hot Water Heat Pump is designed to operate automatically after it is turned ON.

**Note:** The installer completes the START UP procedures for Performance Plus Domestic Hot Water Heat Pumps. The user does not have to turn it on manually.

**Note:** The SHUTDOWN procedures are not required for Performance Plus Domestic Hot Water Heat Pumps. The unit operates all year round to supply hot water to the property.

### 4.3.1. Setting Domestic Hot Water Temperature

For legionella control purposes, your domestic hot water cylinder must maintain a minimum temperature of 60°C or conform to one of the alternative control methods as per NZBC G12.

55°C is the maximum water temperature setting for the Performance Plus Heat Pump. For temperatures above this, the electric element will be required to boost the temperature.

To change the hot water temperature setpoint, follow these steps.

1. Locate the controller pictured on the right

**Note:** For Duoheat heat pumps, locate the controller labelled DOMESTIC or UNDERFLOOR.

2. Press and hold the **SET** button for **3 seconds**. The display will change from reading the current water temperature to reading the current set point.
3. Use the **UP** and **DOWN** arrow keys to change the desired temperature setpoint.
4. Press **SET** to confirm the new value and resume normal operation.



**Note:** The controller should be wall-mounted near the Hot Water Cylinder.



## 5. Troubleshooting Guide

This troubleshooting guide lists potential solutions for common user problems. This guide is intended for end-users and operators. Please refer to the relevant sections for your heat pump unit.

**Note:** Ice and frost formation on the heat pump in low ambient temperatures is normal. The Performance Plus Heat Pumps have a built-in defrost system to de-ice the heat pump. Please do not attempt to remove ice without a heat pump technician.

**Note:** If you suspect a serious fault not listed in the troubleshooting guide, please contact HWHP at 0800 33 66 33 for servicing.



### Warning:

In the event of suspected refrigerant leaks indicated by:

- The air around the heat pump smells bad or smells like chemicals.
- Hissing sound when the heat pump is not running.
- Heat pump pipes are noticeably punctured.

TURN OFF the heat pump at the isolation switch. DO NOT attempt to cover the leak yourself. DO NOT have any open flames near the heat pump.

Please contact HWHP at 0800 33 66 33 or your local service agent to fix the leakage. The service technicians will perform a thorough leakage test and repair/replace the faulty components.

## 5.1. Swimming Pool Heat Pump Troubleshooting

Fault	Cause	Potential Solution
No red power light	No power supply.	Check the fuse/circuit breaker or isolating switch.
The red light is on, but the display is not functioning	No water flow through the heat pump.	Check if the filter pump is running and if the flow is directed through the heat pump.
The pool never reaches the desired temperature	The controller is set too low.	Adjust the controller set point.
	The desired temperature is higher than what the heat pump was sized to achieve.	Keep the pool cover on for longer periods.
The pool is hot, but the heat pump fails to turn off	The probe is not properly placed or seated.	Contact Hot Water Heat Pumps Ltd or your nearest service agent.
	The controller set point is above the required temperature.	Adjust the controller set point down to the required temperature.
The water is cold	No power supply.	Check the fuse/circuit breaker or isolating switch.
	The controller is set too low.	Adjust the controller set point.
	The heat pump has stopped on a safety device.	Check water flow through the heat pump flow switch.
There is ice on the fins at the back of the heat pump	The ambient temperature is very low.	This is a natural function in cold weather. The active defrost function should melt the ice within minutes of the de-ice control automatic activation.
	If the weather is warm, the heat pump may be low on refrigerant.	Contact Hot Water Heat Pumps Ltd or your nearest service agent.

Fault	Cause	Potential Solution
There is water around the heat pump	Condensation. Small puddles around the heat pump.	This is a natural function of the heat pump in humid conditions; a drain tray could be placed below the unit to catch this water to be piped away.
	Possible water leak from connections to the heat exchanger at the top of the unit.	<p>Check under the lid of the unit for any sign of water. Condensation should only be forming on the coil in the lower part of the heat pump. If there is A LOT of water in the unit, contact Hot Water Heat Pumps Ltd or your nearest service agent.</p> <p>This should be checked immediately as prolonged exposure to water could cause damage to the unit.</p>

**Note:** If you suspect a serious fault or the issue persists, please contact Hot Water Heat Pumps Ltd at 0800 33 66 33 for servicing.

## 5.2. Underfloor Heat Pump Troubleshooting

Fault	Cause	Potential Solution
No red power light	No power supply.	Check the fuse/circuit breaker or isolating switch.
The red light is on, but the display is not functioning	Low water level.	Check to see if the low water level light is on. If yes, top up the water in the buffer tank.
The temperature in the house is too low	The thermostat in the house is set too low.	Set the thermostat temperature higher.
	The water temperature is set too low.	Adjust the water setpoint 1 – 2°C higher.
	The low water flow rate through the floor.	Make sure that valves are not closed on the manifolds.
The underfloor system is hot but the heat pump fails to turn off	The probe is not properly placed or seated.	Contact Hot Water Heat Pumps Ltd or your nearest service agent.
	The controller set point is above the required temperature.	Adjust the water setpoint 1 – 2°C lower.
There is ice on the fins at the back of the heat pump	The ambient temperature is very low.	This is a natural function in cold weather. The active defrost function should melt the ice within minutes of the de-ice control automatic activation.
	If the weather is warm, the heat pump may be low on refrigerant.	Contact Hot Water Heat Pumps Ltd or your nearest service agent.
There is water around the heat pump	Condensation. Small puddles around the heat pump.	This is a natural function of the heat pump in humid conditions; a drain tray could be placed below the unit to catch this water to be piped away.

Fault	Cause	Potential Solution
	Possible water leak from connections to the heat exchanger at the top of the unit.	<p>Check under the lid of the unit for any sign of water. Condensation should only be forming on the coil in the lower part of the heat pump. If there is A LOT of water in the unit, contact Hot Water Heat Pumps Ltd or your nearest service agent.</p> <p>This should be checked immediately as prolonged exposure to water could cause damage to the unit.</p>

**Note:** If you suspect a serious fault or the issue persists, please contact Hot Water Heat Pumps Ltd at 0800 33 66 33 for servicing.

### 5.3. Multi-Pass Domestic Hot Water Heat Pump Troubleshooting

Fault	Cause	Potential Solution
No red power light	No power supply.	Check the fuse/circuit breaker or isolating switch.
Water in the cylinder never reaches 60°C	The controller is set below 60°C without other controls.	Adjust the water temperature set point.
	The heat pump is switching off due to high-pressure safety.	Consult with a plumber to confirm there is no restriction in the pipework.
The water in the cylinder is hot but the heat pump fails to turn off	The probe is not properly placed or seated.	Contact Hot Water Heat Pumps Ltd or your nearest service agent.
	The controller set point is above 60°C.	Adjust the controller set point down to 60°C.
	The heat pump has a low refrigerant charge.	Contact Hot Water Heat Pumps Ltd or your nearest service agent.
The water is cold	No power supply.	Check the fuse/circuit breaker or isolating switch.
	The set point is not at 60°C.	Set the temperature to 60°C.
Heat pump continuously stopping on high-pressure error	There is a water flow problem	Make sure the water circulation pump is at high speed. Check for potential obstructions in the water pipes. If not, contact Hot Water Heat Pumps Ltd.
There is ice on the fins at the back of the heat pump	The ambient temperature is very low.	This is a natural function in cold weather. The active defrost function should melt the ice within minutes of the de-ice control automatic activation.
	If the weather is warm, the heat pump may be low on refrigerant.	Contact Hot Water Heat Pumps Ltd or your nearest service agent.

Fault	Cause	Potential Solution
There is water around the heat pump	Condensation. Small puddles around the heat pump.	This is a natural function of the heat pump in humid conditions; a drain tray could be placed below the unit to catch this water to be piped away.
	Possible water leak from connections to the heat exchanger at the top of the unit.	<p>Check under the lid of the unit for any sign of water. Condensation should only be forming on the coil in the lower part of the heat pump. If there is A LOT of water in the unit, contact Hot Water Heat Pumps Ltd or your nearest service agent.</p> <p>This should be checked immediately as prolonged exposure to water could cause damage to the unit.</p>

**Note:** If you suspect a serious fault or the issue persists, please contact Hot Water Heat Pumps Ltd at 0800 33 66 33 for servicing.

## 6. General Maintenance Notes

All Performance Plus Heat Pumps are factory tested and commissioned. All functionalities and features are tested and verified to ensure optimal functionality.

The Performance Plus Heat Pumps should be **serviced annually** to maintain their performance and longevity. The unit's maintenance **MUST** be carried out by a competent and qualified person to ensure that all components are in good working order. A sample maintenance checklist is included in Section 9 of this Heat Pump User Guide.

General maintenance notes:

- All repairs and replacements **MUST** be carried out by competent and qualified technicians.
- The electrical diagram of the unit is included in the supplied product documentation.
- End users and operators can remove debris blocking the air inlets of the unit.
- If necessary, all new refrigerant charges **MUST** be inserted into the discharge line connected to the compressor's outlet.

**Note:** If you suspect a serious fault or the issue persists, please contact Hot Water Heat Pumps Ltd at 0800 33 66 33 for servicing.

All installers must prepare a maintenance logbook according to AS/NZS 1549.2. The logbook should be used to track:

- Details of all maintenance and repair work.
- The quantities and kind of refrigerant have been charged on each occasion.
- The results of all periodic routine tests.
- The changes and replacements of components in the unit.
- All maintenance notes.
- All maintenance checklists.

Service technicians must fill in the logbooks during servicing.



## 7. Decommissioning and Disposal

The Performance Plus Heat Pumps are designed to last at least 10 years and can last up to 20 years. The heat pumps must be professionally decommissioned and disposed of at the end of their life cycle. The decommissioning and disposal must be completed by a competent and qualified person.

During the decommissioning process, the refrigerant must be recovered, stored, transported, and tested according to AS/NZS 5149.4. Reusing, recycling, and disposal of the refrigerant MUST also comply with AS/NZS 5149.4.

If necessary, please contact Hot Water Heat Pumps Ltd at 0800 33 66 33 for decommissioning and disposal advice.

## 8. Performance Plus Heat Pump Safety Features

All Performance Plus Heat Pumps come with safety features up to industrial standards. These functionalities are tested when commissioning the products.

The safety features include:

- High and Low-Pressure switches
- Flow switches
- Compressor overload safety feature
- Electrical surge protectors

## 9. Maintenance Sheet Sample

Below is a *guideline* for the maintenance of your Performance Plus Heat Pump. Depending on the application being heated, the need for servicing may vary, e.g. for Single Purpose Swimming Pool Heat Pumps and Single Purpose Underfloor Water Heat Pumps, we recommend a seasonal start-up service.

### Six Monthly Checklist

- Electrical connections are secure and no sign of deterioration
- Compressor delay on make/break timer is operating correctly
- Compressor run current is within the expected range
- Refrigerant operating pressures are within the expected range
- Fan motor run current is within the expected range
- Condition of fan capacitors
- Fan motors rotating in the correct direction
- Fan motor bearings do not show signs of excessive wear and they rotate freely
- Flow switch functions correctly
- No water leaks from the condenser or associated internal pipework
- Condensate drain holes are clear and the unit base is clean and free from debris
- Temperature controller configuration is correct
- Panel/chassis does not show excessive deterioration or is repaired as required

**Yearly Checklist**

- Fan bracket assemblies are tight and free of excessive corrosion
- Crankcase heater operates correctly
- Compressor compartment wiring is free of signs of chafing
- Compressor compartment is free of any oil stains indicating refrigerant leaks
- Refrigeration pipe work does not show signs of vibration or chafing
- Evaporator coil is free of dirt, dust or mildew and is cleaned appropriately
- Any damaged evaporator fins are repaired/straightened with a fin comb

	LP	HP	Current AMPS	Current AMPS	Current AMPS	Water °C
System 1						
System 2						

**Comments**

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## 10. Warranty Terms

Thank you for choosing to purchase a Performance Plus Heat Pump. The Performance Plus Heat Pump is covered by our Performance Plus warranty as specified in this document.

### 10.1. Warranty Claims

Please contact Hot Water Heat Pumps Ltd at 0800 33 66 33 or [info@waterheating.co.nz](mailto:info@waterheating.co.nz) for all warranty issues. Please prepare your invoice number or unit serial number for a quick and easy call.

### 10.2. Warranty Period

The Performance Plus Heat Pump is covered by a parts and labour warranty for the duration listed in the table below.

Component	Warranty Period
Residential	2 years parts and labour
Commercial	2 years parts and labour
Residential Titanium Heat Exchanger	30 years
Commercial Heat Exchanger	10 years

Hot Water Heat Pumps Ltd will cover the parts and labour cost according to the terms and conditions specified in this document for all applicable claims.

### 10.3. Warranty Registration

To be able to claim this warranty, the owner must send a COMPLETED "Warranty Registration Installation Declaration" supplied with the product within 4 weeks of installation to:

- Address: Hot Water Heat Pumps Ltd, PO Box 21586, Henderson, Auckland 0650.
- OR email: [info@waterheating.co.nz](mailto:info@waterheating.co.nz)

### 10.4. Warranty Terms

1. The Performance Plus Heat Pump must be installed and certified by licensed and qualified installers according to instructions in the manual and all relevant local requirements.
2. The warranty only applies to Performance Plus Heat Pump components supplied by Hot Water Heat Pumps Ltd. Other parts supplied by the installers are not covered by this warranty.
3. The Performance Plus Heat Pump must only be used for the intended water heating purpose.

4. The decision to repair or replace any components in the Performance Plus Heat Pump will be entirely at the discretion of technicians authorised by Hot Water Heat Pumps Ltd.
5. After any parts or heat pump replacement, the balance of the original warranty period will remain effective. The replaced parts or heat pump does not have a new warranty.
6. Travelling costs for repairs over one hour's drive from the service agent's designated place of business shall be the owner's responsibility.
7. If the unit is installed in a position that is unsafe and difficult to access, the cost to relocate the Performance Plus Heat Pump shall be the owner's responsibility.
8. The warranty does not cover aesthetic defects such as minor dents, scratches, and minor rust after the installation.
9. The warranty does not cover consequential losses arising from the failure of the Performance Plus Heat Pump.
10. This warranty service is only applicable to the original owner of the Performance Plus Heat Pump.

## 10.5. Warranty Exclusions

This warranty does not apply to defects, failures and damages caused by:

- vandalism, accidents, and acts of God,
- faulty installation that deviates from the standards and local requirements,
- hard or corrosive water,
- blockages due to foreign materials such as dust or debris,
- parts that are not supplied by Hot Water Heat Pumps Ltd,
- attempts to repair the Performance Plus Heat Pump by a person not authorised by Hot Water Heat Pumps Ltd,
- faulty plumbing that caused problems such as high-water pressures and blockages,
- faulty electrical supply with bad wiring that caused problems such as voltage fluctuations and power surges,
- external plumbing issues,
- poor maintenance such as blocked pressure relief valves,
- harsh environmental conditions such as salty, sulphurous and corrosive air,
- and other issues not directly attributed to defects in the Performance Plus Heat Pump.

The owner will be liable for any repair and replacement costs required by the Performance Plus Heat Pump if the damages are caused by the events listed in this section.

# Warranty Registration Installation Declaration

Installer to complete the customer warranty record.

\_\_\_\_\_  
Owner's Name

\_\_\_\_\_  
Product Serial Number

\_\_\_\_\_  
Installation Date

\_\_\_\_\_  
Installation Address

**Declaration:** I have installed and commissioned this Performance Plus Heat Pump at the above address in compliance with the manufacturer's instruction manual.

COC No: \_\_\_\_\_

\_\_\_\_\_  
Installer Company Name/Trading Name

\_\_\_\_\_  
Installer Name

\_\_\_\_\_  
Installer Email Address

\_\_\_\_\_  
Signed

\_\_\_\_\_  
Date

\_\_\_\_\_  
Secondary Installer Company Name/Trading Name

\_\_\_\_\_  
Secondary Installer Name  
(electrician or plumber)

\_\_\_\_\_  
Installer Email Address

\_\_\_\_\_  
Signed

\_\_\_\_\_  
Date

0800 33 66 33 | [www.waterheating.co.nz](http://www.waterheating.co.nz) | 09 838 9444 | [info@waterheating.co.nz](mailto:info@waterheating.co.nz)  
3 Corban Avenue, Henderson, Auckland 0612 | PO Box 21586, Henderson, Auckland 0650

**Notes:**

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