

Pool Heat Pump Installation and Operating Instructions





Please pass on these instructions to the operator of this equipment.

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1. FOREWARD

The Davey heat pump uses eco-friendly R32 gas and step-less DC inverter technology which allows heat to be extracted from the surrounding air more efficiently. This heat is transferred to the pool water by a twisted titanium heat exchanger. This method generates substantial energy savings compared to: a conventional electric resistance heater, and natural, or propane gas pool heaters.

2. SAFETY PRECAUTIONS

We have provided important safety messages in this manual and on your heat pump.

Please always read and obey all safety messages.

Environmentally friendly R32 Refrigerant is used for this heat pump.

2.1 Warning



WARNING: Low velocity burning material.



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.



WARNING: Do not use means to accelerate the defrosting process or to clean other than those recommended by the manufacturer.

The appliance shall not be stored near any ignition sources (for example; open flames, an operating gas appliance or an operating electric heater.

Do not pierce or burn.

Be aware that refrigerants may not contain an odour.

INSTALLATION REMINDERS:

The installation of any pipework should be kept to a minimum.

Pipework should be protected from physical damage and shall not be installed in an unventilated place.

The heat pump should not be installed indoor.

Any mechanical connections need to be kept accessible for maintenance purposes.

The heat pump requires 50cm clear space on each side to be clear from obstructions for ventilation purposes.

Any maintenace or service needs to be carried out in compliance with national gas regulations.



QUALIFICATION OF WORKERS: A technician with a Refrigerant Handling Licence should carry out any service or maintenance carried out on the heat pump refrigerant equipment. A registered electrician should carry out any service or maintenance required for the heat pump electrical equipment.

2.2 Attention

- a. Please read the following instructions before installation, use and maintenance.
- b. Installation must be done by professional staff only in accordance with this manual and any local regulations.
- c. Leakage test must be performed after installation.
- d. 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.

- e. Set proper temperature in order to get a comfortable water temperature to avoid overheating or overcooling.
- f. In order to optimize 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.
- g. Connecting pipes of the swimming pool and the heat pump should be ≤10m.
- h. Except for the methods recommended by the manufacturer, do not use any methods to accelerate the defrosting process or clean the frosted parts.
- i. If a repair is required, please contact the nearest after-sales service centre. The repair process must be strictly in accordance with manual. All repair practice by non-licensed personnel is prohibited.
- j. Don't use or stock combustible gas or liquid such as thinners, paint and fuel to avoid fire.

2.3 Safety

- a. Please keep the main power supply switch far away from children.
- b. When a power outage happens during operation, the heat pump will start when the power is restored..
- c. Please switch off the main power supply in lightening and storm weather to prevent from damage caused by lightning.
- d. Safety inspection must be carried before the maintenance or repair of heat pumps with R32 gas in order to minimize the risk.
- e. Installation and any repairing should be conducted in an area with adequate ventilation and with no nearby ignition sources.
- f. If R32 gas leaks during the installation process, all operations must be stopped immediately and call the service centre.

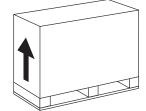
WARNING: Do not use means to accelerate the defrosting process or to clean other than those recommended by the manufacturer.

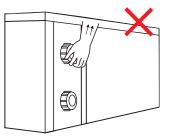
The appliance shall not be stored near any ignition sources (for example; open flames, an operating gas appliance or an operating electric heater. Do not pierce or burn.

Be aware that refrigerants may not contain an odour.

3. ABOUT YOUR HEAT PUMP

3.1 Transportation

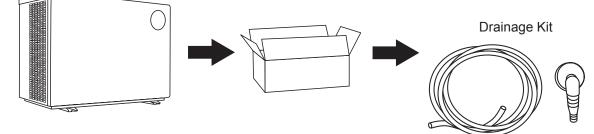




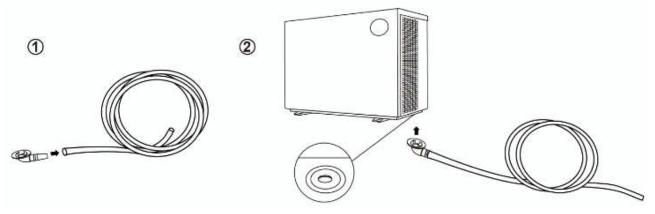
- a. Always keep upright
- b. Do not lift the water union (Otherwisethe titanium heat exchangermay be damaged)

3.2 Accessories





Connection of the condensate drainage kit:



3.3 Features

- a. DC Twin-rotary inverter compressor of Mitsubishi
- b. DC Brushless fan motor
- c. EEV Technology
- d. Reverse cycle defrosting with 4-way valve
- 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 systemea

3.4 Operating Range

To get the best results from your Davey heat pump please set swimming pool water temperature efficiently and economically.

The heat pump can operate in temperatures between $-10^{\circ}C - 43^{\circ}C$, and its ideal operation range is between air $15^{\circ}C - 25^{\circ}C$.

During installation and operation of the Davey heat pump, its important to ensure that the flow rate in set to the advised water flow rate in section 3.6 and that the pressure does not exceed 500kPa.

In accordance with AS/NZS 60335.2.40 we are obligated to inform you that this Davey heat pump is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience or knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

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

3.5 Introduction of different modes

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

| MODE | MODES | STRENGTH |
|------|--------------|--|
| h | Boost mode | Heating capacity: 20% to 100% capacity Intelligent optimization Fast heating |
| 1 | Silence mode | Heating capacity: 20% to 80% capacity Sound level: 3dB (A) lower than Boost mode |

3.6 Technical parameter

| MODEL | DHP90 | DHP130 | DHP170 | DHP210 | DHP280 | DHP3503 |
|---|---|-------------|--------------|------------|------------|-----------|
| PERFORMANCE CONDITION: Air 27°C/ Water 27°C/ Humid. 80% | | | | | | |
| Heating capacity(kW) | 9 | 13 | 17.5 | 21 | 28 | 35.2 |
| COP range | 14.0~7.2 | 14.5~7.0 | 15.6~7.0 | 14.8~7.1 | 16.0~7.2 | 15.5~7.0 |
| Average COP at 50% speed | 10.5 | 10.5 | 11 | 11 | 11.1 | 10.5 |
| PERFORMANCE CONDITION: Air | · 15°C/ Wate | r 26°C/ Hun | nid. 70% | | | |
| Heating capacity(kW) | 6.6 | 9 | 12.5 | 14.5 | 19 | 24.2 |
| COP range | 7.5~4.8 | 7.5~5.0 | 7.7~5.0 | 7.1~5.0 | 8.0~5.0 | 7.5~5.0 |
| Average COP at 50% speed | 6.5 | 6.4 | 6.6 | 6.6 | 6.6 | 6.6 |
| TECHNICAL SPECIFICATIONS | | | | | | |
| Advised pool volume (m ³) * | 20~45 | 35~65 | 40~80 | 50~95 | 60~120 | 85~160 |
| Operating air temperature (°C) | -10°C – 43°C | | | | | |
| Compressor | Twin-rotary Mitsubishi DC Compressor | | | | | |
| Casing | Aluminum-alloy Casing | | | | | |
| Heat exchanger | | Twis | ted Titanium | Heat Excha | anger | |
| Power supply | | | 230V 1Ph | | | 400V 3Ph |
| Rated input power (kW) | 0.19~1.38 | 0.26~1.80 | 0.33~2.50 | 0.38~2.90 | 0.49~3.80 | 0.65~4.84 |
| Input power at 50% speed (kW) | 0.51 | 0.7 | 0.95 | 1.1 | 1.44 | 1.84 |
| Rated input current (A) | 0.83~5.98 | 1.13~7.83 | 1.44~10.90 | 1.66~12.7 | 2.15~16.53 | 0.95~7.01 |
| Sound level at 1m dB(A) | 36.8~46.2 | 40.1~48.7 | 41.1~51.8 | 38.9~52.2 | 41.5~52.9 | 40.6~52.6 |
| Sound level 50% at 1m dB(A) | 39.4 | 43.7 | 44.5 | 44.4 | 46.4 | 46.1 |
| Sound level at 10m dB(A) | 16.8~26.1 | 20.1~28.7 | 21.1~31.8 | 18.9~32.2 | 21.5~32.9 | 20.6~32.6 |
| Advised water flow (I/min) | 30-70 70-100 100-130 130-170 170-200 200- | | | | 200-300 | |
| Water connection (mm) | 40 | | | | | |
| Gas Weight (g) | 650 | 800 | 1000 | 1200 | 2000 | 2700 |

Remarks:

This heat pump is able to perform normal within air temp $-10^{\circ}C - +43^{\circ}C$, efficiency will not 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 details please refer to nameplate.

| DIMENSIONS (mm) | | | | | | |
|-----------------|--------|---------|--------|--------|--------|---------|
| MODEL | DHP90 | DHP130 | DHP170 | DHP210 | DHP280 | DHP3503 |
| LENGTH (mm) | 8 | 90 | 1060 | | | 1314 |
| WIDTH (mm) | | 430 512 | | | 512 | |
| HEIGHT (mm) | 657 95 | | | 57 | | |
| NET WEIGHT (Kg) | 53 | 57 | 66 | 72 | 91 | 135 |

* Above data is subject to modification without notice.

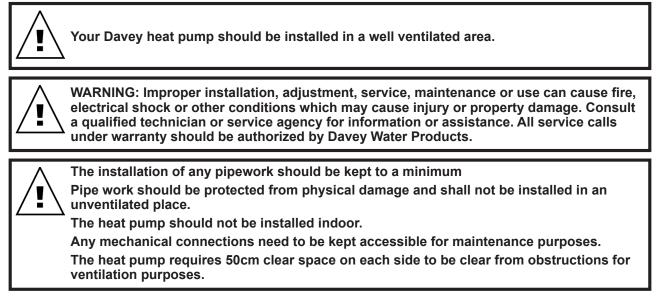
NOTE: The picture above is the specification diagram of the pool heat pump, for technician's installation and layout reference only. The product is subject to adjustment periodically for improvement without further notice.

4. INSTALLATION GUIDANCE

4.1 Installation reminder

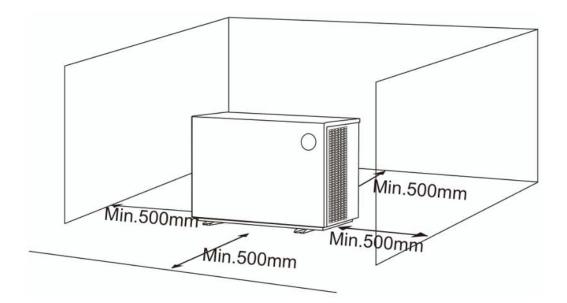
The installation of this product should be carried out by a person knowledgeable in swimming pool plumbing requirements following the installation instructions provided in this manual.

To get the best results from your Davey heat pump, its location is critical. The Davey heat pump takes hot air from its surroundings and transfers this heat through its heat exchanger, to the pool water.

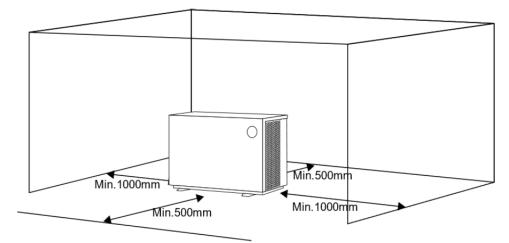


The heat pump draws air in through each side of the heat pump and out through the rear. Please consider this during installation.

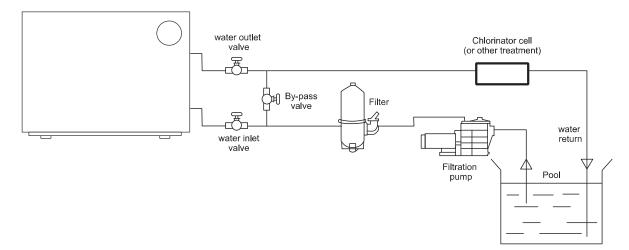
For installations up to 17kW



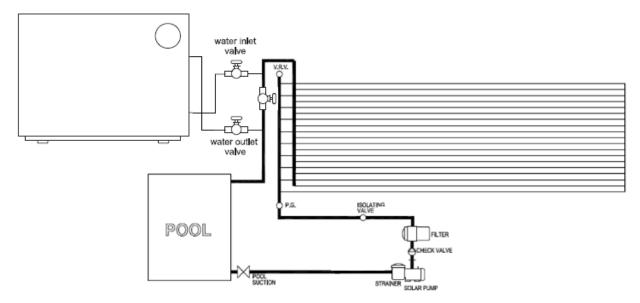
For installations 21kW and over



Installing into main filtration system

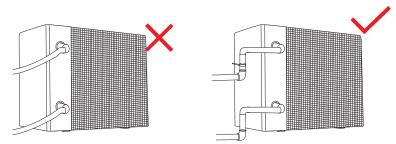


Installing into existing solar heating system



- 1) The frame must be fixed by bolts (M10) to concrete foundation or brackets. The concrete foundation must be solid and fastened; the bracket must be strong enough and antirust treated;
- 2) Please ensure 50cm of clearance around each side of the Davey heat pump or the efficiency of the heat pump will be reduced;
- Although a bypass system is not necessary for your Davey heat pump to operate properly, we strongly recommend the installation of a bypass system to regulate the flow rate and make the maintenance and winterising of the Davey heat pump easier.;

- 4) When the heat pump is running, there will be condensation water discharged from the bottom. Please use the drainage kit supplied.;
- 5) Your Davey heat pump must be connected with hard pipes.
- 6) Any pipework installation should be kept to a minimum and protected from physical damage.
- 7) If the Davey heat pump will be in operation over winter, Davey recommends it is installed on the main filtration system to avoid heat loss through the solar heating system.



4.2 Wiring

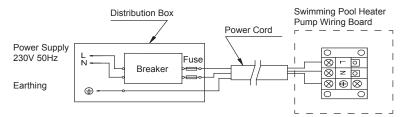
WARNING: The electrical connection should be done by a qualified electrician according to national, state and local city codes, regulations or standards.

The unit should be connected to a compatible RCD (Residual Current Device).

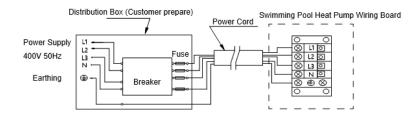
Means for full disconnection of the power supply must be incorporated in the fixed wiring in accordance with the wiring rules.

4.3 Electric wiring diagram

a. For power supply: 230V 50Hz



b. For power supply: 400V 50Hz



NOTE:

Your Davey heat pump must be hard wired and correctly earthed.

4.4 References for protecting devices and cable specification

| MODEL | DHP90 | DHP130 | DHP170 | DHP210 | DHP280 | DHP3503 |
|---|---------|---------|--------|--------|--------|---------|
| Breaker Rated Current (A) | 10.5 | 14.5 | 18 | 21 | 24 | 12 |
| BreakerRated Residual Action Current (mA) | A) 30 | | | | | |
| Fuse (A) | 10.5 | 14.5 | 18 | 21 | 24 | 12 |
| Power Cord (mm ²) | 3 x 2.5 | 3 x 2.5 | 3 x 4 | 3 x 4 | 3 X 6 | 5 X 2.5 |
| Signal cable (mm ²) | 3 x 0.5 | | | | | |

* Above data is subject to modification without notice.

NOTE: The above data is adapted to power cord \leq 10m. If power cord is >10m, wire diameter must be increased. The signal cable can be extended to 50mm maximum.

5. OPERATION GUIDANCE

5.1 Key Function



| SYMBOL | HEATING ONLY MODELS |
|--------|--|
| Ċ | 1. Power On/Off 2. Wi-Fi setting |
| am | Lock/Unlock screen |
| 63 | 1. Boost ▲ 2. Silence ▲ |
| | Temperature Setting From 18 – 40°C |

ATTENTION:

- i. The controller has power-down memory function.
- ii. The buttons will turn dark when it's locked.

5.2 Operation Instruction

a. Screen Lock

- 1) Press for 3 seconds to lock or unlock the screen.
- 2) Automatic Lock Period: 30 seconds if no operation.
- b. Power On

Press for 3 seconds to unlock screen. Press (1) to power on machine.

c. Temperature Setting

Press **O** to display and set temperature.

d. Mode Selection

1) Silence/Boost mode selection.

Press 🔂 to switch among boost mode 📶, silence mode 🛋.

Default mode: boost

Please choose boost mode **II** for initial heating

e.Wi-Fi 🔶

When the screen is on, press of for 3 seconds, after $\widehat{\uparrow}$ flashing, enter Wi-Fi connection. Connect Wi-Fi on mobile phone and input password, and then control equipment via Wi-Fi. When APP connects Wi-Fi successfully $\widehat{\uparrow}$ lights on.

f. Defrosting

- 1) Automatic defrosting: When machine is auto defrosting, 🔆 will flash, and return to previous working mode when it finishes.
- Manual Defrosting: To enter forced defrosting mode, the compressor must be on for more than 10 minutes. In heating mode, hold and on touch controller simultaneously for 5 seconds to start forced defrosting, is flashing and defrost starts, stop flashing and defrosting stops.

(Remarks: the interval between manual defrosting should be more than 30 minutes).

g. Heat Pump Status Checking

Make sure the heat pump is running.

Press 🔂 for 5 seconds until you hear a beep, it will enter into running status check, the display

alternately shows the status point C0 and its corresponding value.

Use up and down arrows to show the other values.

Press 🔂 to exit status check mode.

| SYMBOL | CONTENT | UNIT |
|--------|------------------------------------|-------|
| C0 | Inlet water temp | °C |
| C1 | Outlet water temp | °C |
| C2 | Ambient temp | °C |
| C3 | Exhaust temp | °C |
| C4 | Outer coil pipe temp | °C |
| C5 | Gas return temp | °C |
| C6 | Inner coil pipe temp | °C |
| C9 | Radiator temp | °C |
| C10 | Electronic expansion valve opening | Р |
| C11 | DC fan speed | r/min |

6. TESTING

6.1 Inspect heat pump before use

- a. Ensure the ventilation is adequate and there are no obstructions.
- b. Ensure your Davey heat pump is not close to any corrosive substances.
- c. Verify that the electrical wiring has been completed as per instructions.

6.2 Leakage detection notice and method

a. Keep away from any sources of ignition. A halide torch (or any other detector using a naked flame) shall not be used. R32 Gas



- b. 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 pipe.
- c. If a gas leak occurs, cease operation and contact a Davey service centre.

6.3 Trial

a. Your water circulation pump must be running before your Davey heat pump starts and needs to continue running until after your heat pump stops. This will avoid damage to your heat pump.

- b. Please check for any water leaks before starting your Davey heat pump.
- c. For protection, your Davey heat pump is equipped with a time lag starting function, the fan will run 1 minute earlier than the compressor on start-up, and it will stop running 1 minute later than the compressor when your heat pump is stopped.
- d. If you notice any abnormal noises from your heat pump, please turn it off and contact Davey.

7. MAINTENANCE



Disconnect the power to the heat pump before any inspection, cleaning or service.



Any maintenance on the refrigeration circuit including handling, installation, cleaning and servicing and disposal must be carried out by licensed personnel ^{*} and in compliance with national gas regulations.

1. Winterising your heat pump:

Winterising is required in conditions where any water inside the heater can drop below 0°C. In this situation, if not carried out, severe damage is likely to occur to the Davey heat pump.

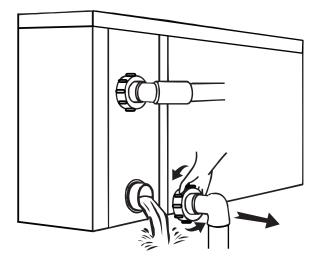
- a. Turn off the circuit breaker, or isolation switch;
- b. Drain the Davey heat pump. Loosen all water connections;
- c. Rinse the interior of the heat exchanger cylinder with a stream of tap water for about 15 minutes to remove any chlorine residue that could cause damage to the heat exchanger.
- d. Tilt the unit towards the back to remove all water from the unit.
- e. Block water inlet and outlet with a cloth or plastic to prevent mice, or other animals from entering the unit.



WARNING: All water connections to the pool should be disconnected for winter to allow complete drainage of the Davey heat pump. The winterising must be done before air temperatures reach freezing point.



WARNING: The Davey heat pump should never be tilted more than 30-35°, even during transportation. Should this occur, allow the Davey heat pump to sit for 4 hours before turning on.



- 2. Please clean this machine with household detergents or clean water, NEVER use gasoline, thinners or any similar fuel.
- 3. Always disconnect the Davey heat pump before:

Opening the access door;

Cleaning the cabinet, or evaporator.

To avoid the risk of injuries, or damage to the unit, never:

Sit on the Davey heat pump, or place a heavy object on it;

Put objects in, or on the protective grid.

The Davey heat pump requires professional maintenance and repair. Any "do-it-yourself" repairs on a unit within warranty period, may void the remainder of the manufacturer's warranty. Maintenance, or adjustments other than those recommended in this owner's manual should not be attempted. Contact Davey for any questions, or problem you may have with your unit.

8. TROUBLE SHOOTING FOR COMMON FAULTS

8.1 Repairing Guidance

- Please refer to the technical service manual for more information on service and maintenance procedures.



WARNING: Improper installation, adjustment, service, maintenance or use can cause fire, electrical shock or other conditions which may cause injury or property damage. Consult a qualified technician or service agency for information or assistance. All service calls under warranty should be authorized by Davey Water Products.

Prior to servicing

- 1. Servicing shall be performed only as recommended by the manufacturer and in accordance with this manual.
- 2. Ensure there are no potential ignition sources near the work area.

All maintenance staff and others working in the local area should be instructed on the nature of work being carried out. Work in confined spaces should be avoided. The area around the workspace should be sectioned off. Ensure that all conditions within the area have been made safe by control of flammable material.

- 3. Always check the work area with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially toxic or flammable atmospheres.
- 4. Ensure that the leak detection equipment being used is suitable to use with R32 gas.
- 5. If any hot work is to be conducted of the refrigeration equipment or any associated parts, appropriate fire extinguishing equipment should be available. A dry powder or CO2 fire extinguisher should be adjacent to the charging area.



Any maintenance or service needs to be carried out in compliance with national gas regulations.

Qualification of workers

A technician with a Refrigerant Handling Licence should carry out any service or maintenance carried out on the heat pump refrigerant equipment.

A registered electrician should carry out any service or maintenance required for the heat pump electrical equipment.

8.2 Failure solution and code

| Failure | Reason | Solution |
|--|-----------------------|-------------------------------|
| | No power | Wait until the power recovers |
| Heat nump dooon't rup | Power switch is off | Switch on the power |
| Heat pump doesn't run | Fuse burned | Check and change the fuse |
| | The breaker is off | Check and turn on the breaker |
| | Evaporator blocked | Remove the obstacles |
| Fan running but with insufficient heating | Air outlet blocked | Remove the obstacles |
| insumoient neuting | 3 minutes start delay | Wait patiently |
| Display normal, but no heating | Set temp. too low | Set proper heating temp. |
| | 3 minutes start delay | Wait patiently |

If above solutions don't work, please contact your installer or Davey service agent with detailed information and your model number. Don't try to repair it yourself.

- **NOTE:** If the following conditions happen, please stop the machine immediately, and cut off the power supply immediately, then contact your dealer or Davey:
 - 1. Inaccurate switch action.
 - 2. The fuse is frequently broken or leakage circuit breaker jumped.

Guidance for flammable gas maintenance.

Please refer to the technical service manual for more information on service and maintenance.

Any maintenance on the refrigeration circuit including handling, installation, cleaning and servicing and disposal must be carried out by licensed personnel and in compliance with national gas regulations

1. Detection of flammable refrigerants

Under no circumstances should potential sources of ignition be used in the searching for or detection of refrigerant leaks. A halide torch (or any other detector using a naked flame) should not be used.

2. Leak detection method

Electronic leak detectors may be used to detect refrigerant leaks but, in the case of flammable refrigerants, the sensitivity may not be adequate, or may need re-calibration.

Any calibration of detection equipment should be done in a refrigerant free area.

Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used.

Leak detection equipment should be set at a percentage of the LFL of the refrigerant and should be calibrated to the refrigerant used, and the appropriate percentage of gas (25% maximum) is confirmed.

Leak detection fluids are suitable for use with most refrigerants but the use r of detergents containing chlorine shall be avoided as the chlorine may react with the refrigerant and corrode the copper pipework.

If a leak is suspected, all naked flames should be removed or extinguished.

If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system, or isolated (by means of shut off valves) in a part of the system remote from the leak. For appliances containing flammable refrigerants, oxygen free nitrogen (OFN) should be purged through the system both before and during the brazing process.

3. Refrigerant removal and evacuation

When breaking into the refrigerant circuit to make repairs, or for any other purpose, conventional procedures should be followed. For flammable refrigerants, it is important that best practice is followed since flammability is a consideration.

The following procedure should be adhered to; Remove refrigerant Purge the circuit with inert gas Evacuate Purge again with inert gas Open the circuit by cutting or brazing

The refrigerant charge should be recovered into the correct recovery cyclinders. For flammable refrigerants, the system should be flushed with Oxygen Free Nitrogen (OFN) to render the unit safe. This process may need to be repeated several times. Compressed air or oxygen cannot be used for purging refrigerant systems.

For appliance containing flammable refrigerants, flushing should be achieved by breaking the vacuum in the system with OFN and continuing to fill until the working pressure is achieved, then venting to atmosphere, and finally fulling down to a vacuum. This process should be repeated until no refrigerant is within the system. When the final OFN charge is used, the system should be vented down to atmospheric pressure to enable work to take place. This operation is vital if brazing operations on pipework are to take place.

Ensure that the outlet for the vacuum pump is not close to any ignition sources and that ventilation is available.

4. Refrigerant charging procedure

In addition to conventional charging procedures, the following requirements shall be followed; Ensure that contamination of different refrigerants does not occur when using charging equipment. Hoses or lines should be as short as possible to minimise the amount of refrigerant contained in them.

Cylinders should be kept upright.

Ensure that the refrigeration system is earthed prior to charging the system with refrigerant.

Label the system when changing is complete (if not already).

Extreme care should be taken to not overfill the refrigeration system.

Prior to recharging the system, it should be pressure tested with the appropriate purging gas. The system shall be leak tested on completion of changing but prior to commissioning. A follow up leak test should be carried out prior to leaving the site.

Protection and Failure Codes

| No. | Display | Protection Code Description |
|-----|---------|---|
| 1 | E3 | No water protection |
| 2 | E5 | Power supply exceeds 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 at 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 |

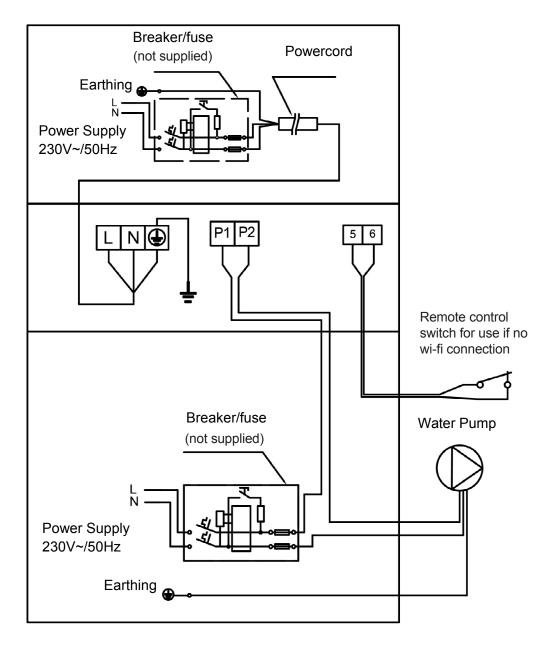
9. WATER PUMP CONTROL CONNECTION

For flexibility there are 3 options of running the water pump when connected to the heat pump via the wiring diagrams in this instruction.

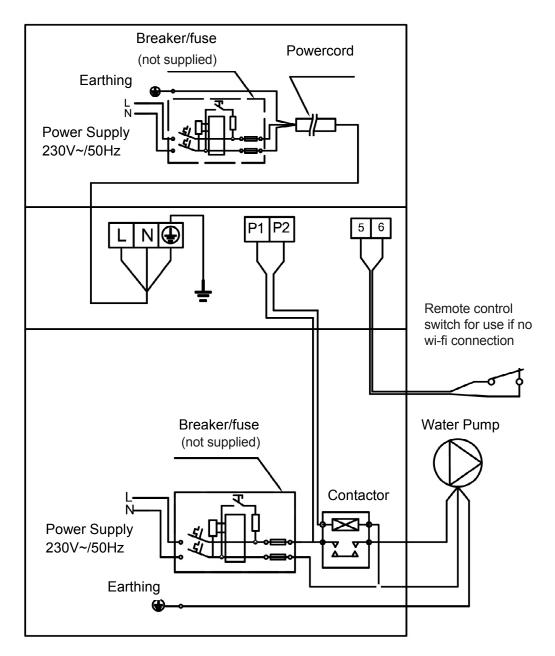
- P0 Water pump will run continuously when the heat pump is turned on.
- P1 Heat pump and water pump will run until temperature is reached and then shut off.
- P2 Heat pump and water pump will run until temperature is reached and then shut off, the water pump will restart every hour to see if there is a temperature difference, then either restart the heat pump or go back into standby.

The default setting is P2. To change these parameters please contact your nearest Davey dealer.

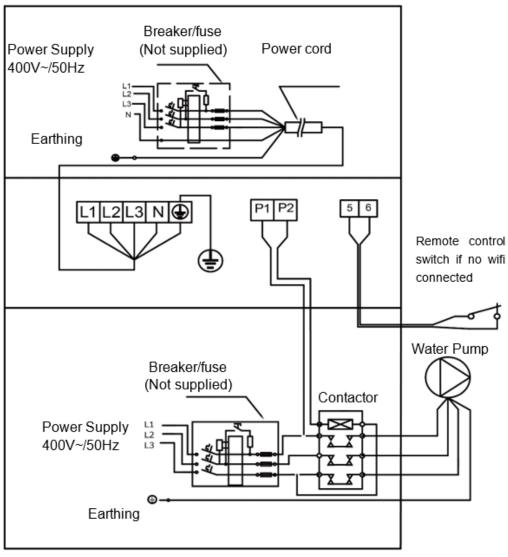
Water pump: 230V voltage, \leq 500W capacity



Water pump: 230V voltage, >500W capacity

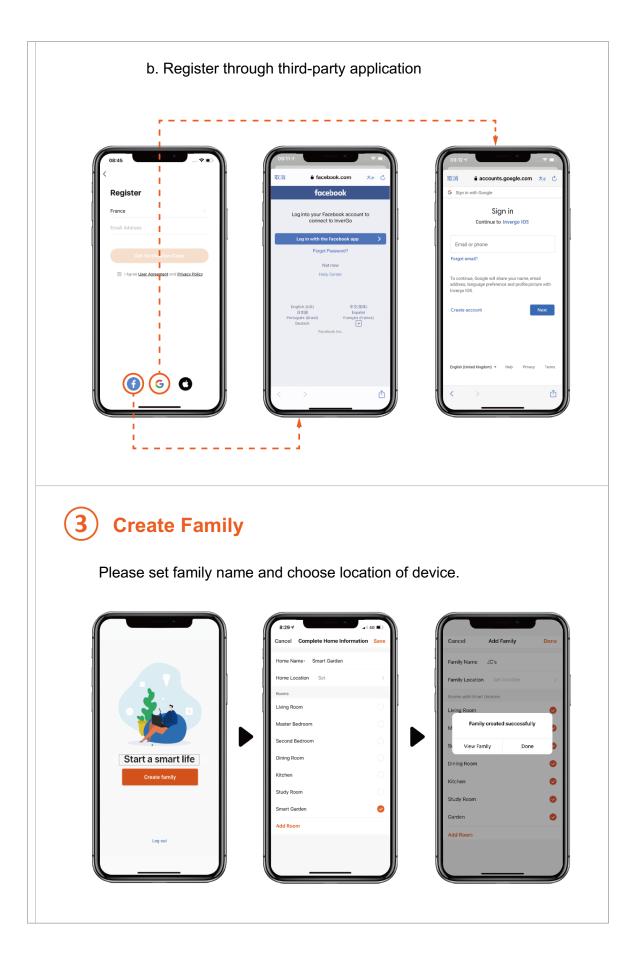


Water pump: 400V voltage



10. Wi-Fi OPERATION

| 1 InverGo Download | 2 Account Registration |
|---|--|
| DAVEY Heat Pump | Register by e-mail or third-party application. |
| Android | |
| Google play | |
| iOS | |
| Available on the App Store | Register Log in with evening account |
| a. E-mail registration. | |
| 08:45 | 8:21√ ail 40 ■ |
| Register | Enter Verification Code |
| France > | |
| Get Verification Code | A verification code has been sent to your email 123⊛123.com Resend (58s) |
| I Agree User Agreement and Privacy Policy | Didn't get a code? |
| | |
| | 1 2 3 DEF 4 5 6 |
| | 7 7 8 9 wxvz 0 3 3 3 3 3 3 3 3 3 3 3 3 3 |
| | |
| | |

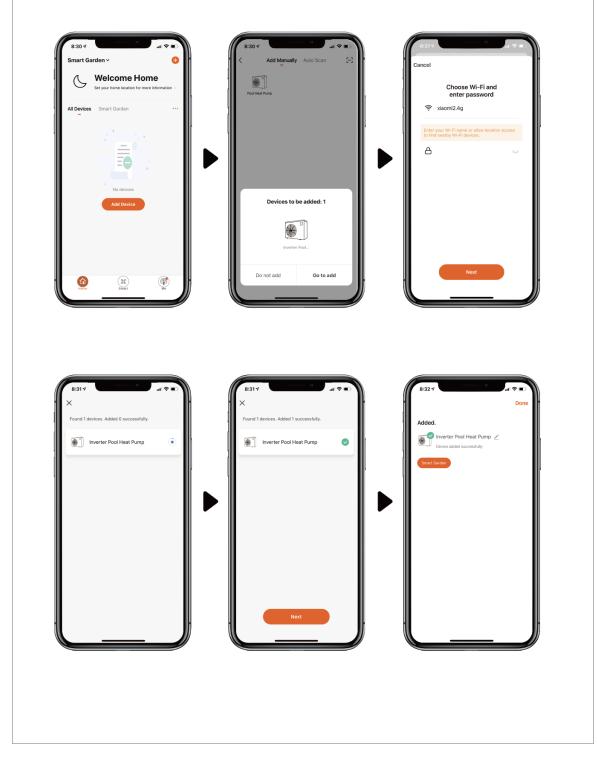


APP Pairing

(4)

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.

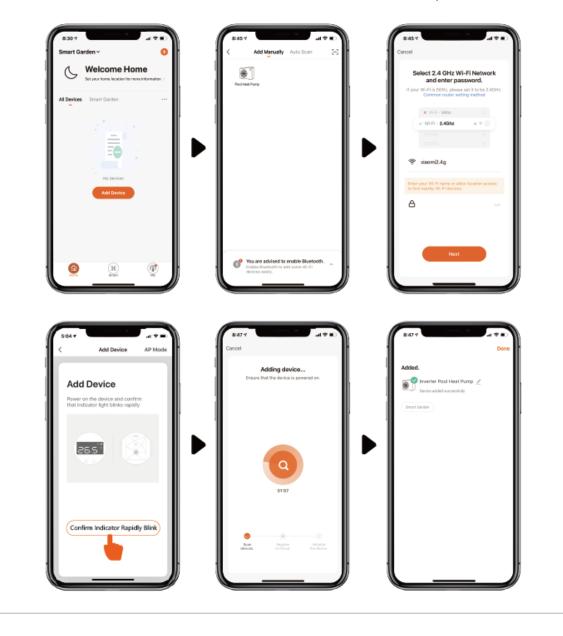


b. With Wi-Fi

- 1. Please make sure you are connected to Wi-Fi.
- Press " (●)" for 3 seconds to unlock the screen. Press " (●)" for 3 seconds and release. After hearing "Beep", enter Wi-Fi password in app. During connection, " ?" will flash. Once the app connects to Wi-Fi successfully, "?" will display.



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



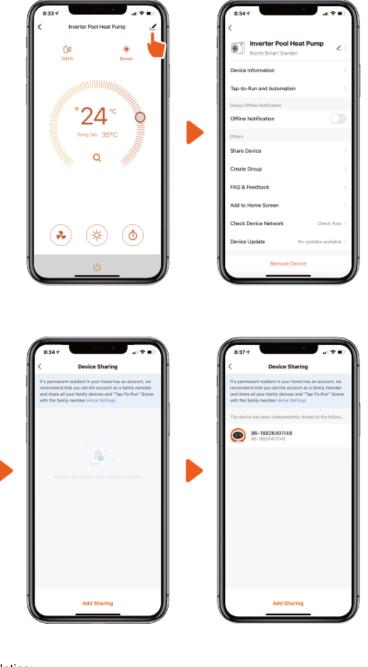


2. For heat pump with Heating&Cooling function:

| Compressor speed | 8:34.7 | Indicate Boost/Silence mode |
|-------------------------------|--------|--------------------------------------|
| | | °C/°F switch |
| Setting temperature | °24°C | Inlet water temperature |
| | | Query |
| | | Select Heating/ Cooling/Auto mode |
| Select Boost/ Silence Mode | | Timer |
| | | On/Off |
| , | | , |
| | | |
| | | |

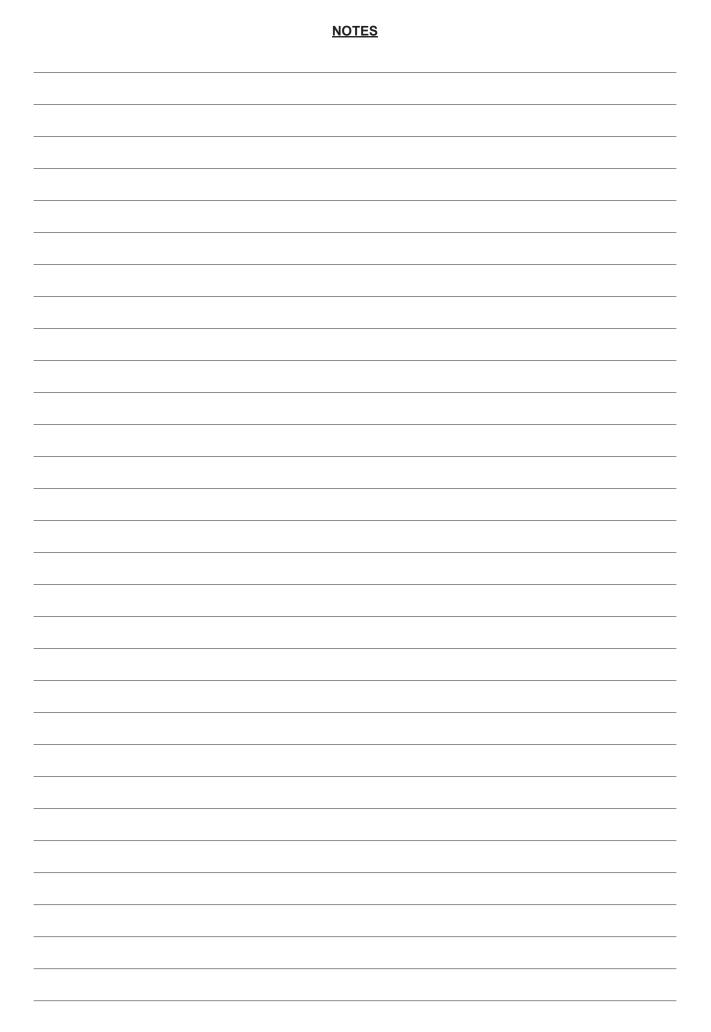
6 Share Devices to Your Family Members

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.





Davey Warranty

Davey Water Products Pty Ltd (Davey) warrants all products sold will be (under normal use and service) free of defects in material and workmanship for a minimum period of one (1) year from the date of original purchase by the customer as marked on the invoice, for specific warranty periods for all Davey products visit daveywater.com.

This warranty does not cover normal wear and tear or apply to a product that has:

- · been subject to misuse, neglect, negligence, damage or accident
- been used, operated or maintained other than in accordance with Davey's instructions
- not been installed in accordance with the Installation Instructions or by suitably qualified personnel
- been modified or altered from original specifications or in any way not approved by Davey
- had repairs attempted or made by other than Davey or its authorised dealers
- been subject to abnormal conditions such as incorrect voltage supply, lightning or high voltage spikes, or damages from electrolytic action, cavitation, sand, corrosive, saline or abrasive liquids,

The Davey warranty does not cover replacement of any product consumables or defects in products and components that have been supplied to Davey by third parties (however Davey will provide reasonable assistance to obtain the benefit of any third-party warranty).

To make a warranty claim:

- If the product is suspected of being defective, stop using it and contact the original place of purchase. Alternatively, phone Davey Customer Service or send a letter to Davey as per the contact details below
- Provide evidence or proof of date of original purchase
- If requested, return the product and/or provide further information with respect to the claim. Returning the product to the place of purchase is at your cost and is your responsibility.
- The warranty claim will be assessed by Davey on the basis of their product knowledge and reasonable judgement and will be accepted if:
 - a relevant defect is found
 - the warranty claim is made during the relevant warranty period; and
 - none of the excluded conditions listed above apply
- The customer will be notified of the warranty decision in writing and if found to be invalid the customer must organise collection of the product at their expense or authorise its disposal.

If the claim is found to be valid Davey will, at its option, repair or replace the product free of charge.

The Davey warranty is in addition to rights provided by local consumer law. You are entitled to a replacement or refund for a major failure and 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.

For any internet connected products the consumer is responsible for ensuring a stable internet connection. In the event of a network failure the consumer will need to address the concern with the service provider. Use of an App is not a substitute for the User's own vigilance in ensuring the product is working to expectation. Use of a Smart Product App is at the User's own risk. To the fullest extent permitted by law Davey disclaims any warranties regarding the accuracy, completeness or reliability of App data. Davey is not responsible for any direct or indirect loss, damage or costs to the User arising from its reliance on internet connectivity. The User indemnifies Davey against any claims or legal actions from them or others relying on internet connectivity or App data may bring in this regard.

Products presented for repair may be replaced by refurbished products of the same type rather than being repaired. Refurbished parts may be used to repair the products. The repair of your products may result in the loss of any user-generated data. Please ensure that you have made a copy of any data saved on your products.

To the fullest extent permitted by law or statute, Davey shall not be liable for any loss of profits or any consequential, indirect or special loss, damage or injury of any kind whatsoever arising directly or indirectly from Davey products. This limitation does not apply to any liability of Davey for failure to comply with a consumer guarantee applicable to your Davey product under local laws and does not affect any rights or remedies that may be available to you under local laws.

For a complete list of Davey Dealers visit our website (daveywater.com) or call:



Davey Water Products Pty Ltd Member of the GUD Group ABN 18 066 327 517

daveywater.com

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P/N DWP1982-5

* Installation and operating instructions are included with the product when purchased new. They may also be found on our website.