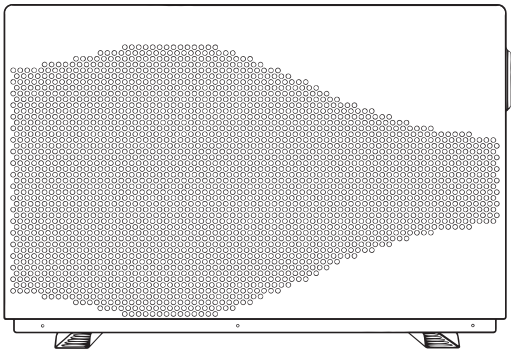
USER MANUAL

TURBRO

SWIMMING POOL HEAT PUMP

MODEL NO.: B33V/B58V



IMPORTANT NOTE

Thank you very much for purchasing our product.

Before using your unit, please read this manual carefully and keep it for future reference.



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SAFETY INSTRUCTIONS

To keep users under safe working conditions and property safety, please follow the instructions below:

- Wrong operation may result in injury or damage;
- Please install the unit in compliance with local laws, regulations, and standards;
- Confirm power voltage and frequency;
- The unit is only used with grounding sockets;
- An independent switch must be offered with the unit.

Safety Factors

The following safety factors need to be considered:

- Please read the following warnings before installation;
- Be sure to check the details that need attention, including safety factors;
- After reading the installation instructions, be sure to save them for future reference.

⚠ Warning

- **This appliance is not to be used or have maintenance performed by persons with reduced physical, sensory, or mental capabilities, or a lack of experience and knowledge, unless they have been given strict supervision or instruction concerning the use of the appliance by a person responsible for their safety.**

- **Make sure that the unit is installed safely and reliably.**

  If the unit is not secure or not installed, it may cause damage.

  If the unit was installed in a closed area or limited space, please consider the size of the room and ventilation to prevent suffocation caused by refrigerant leakage.

- **Use professional tools for doing electrical work.**

  If the power supply capacity is insufficient or the circuit is not completed, it may cause fire or electric shock.

- **Please connect the power wire accurately according to the wiring diagram in the manual to avoid burnout of the unit or fire.**

Use a specific wire and fasten it to the terminal block so that the connection will prevent pressure from being applied to parts.

Wrong wiring will cause a fire.

- **Be sure to use the correct material during installation.**
  Wrong parts or wrong materials may result in fire, electric shock, or falling of the unit.
- **Install on the ground safely, please read the installation instructions.**
  Improper installation may result in fire, electric shock, falling of the unit, or water leaking.
- **The installation of the external unit must be flat and firm.**
  Avoid abnormal vibration and noise.
- **The unit should be only removed and repaired by a professional technician.**
  Improper movement or maintenance of the unit may cause water leakage, electric shock, or fire. Please find a professional technician to do it.
- **Don't unplug or plug power during operation. It may cause fire or electric shock.**
- **Don't touch or operate the unit when your hands are wet. It may cause fire or electric shock.**
- **Don't place heaters or other electrical appliances near the power wire. It may cause fire or electric shock.**
- **The water must not be poured directly from the unit. Do not let water permeate into the electrical components.**
- **Do not install the unit in a location where there may be flammable gas.**
  If there is flammable gas around the unit, it will cause an explosion.
- **According to the instructions to carry out drainage system and pipeline work. If the drainage system or pipeline is defective, water leakage will occur. It should be disposed of immediately to prevent other household products from getting wet and damaged.**
- **Do not clean the unit while the power is on. Turn off the power before cleaning the unit. If not it may result in injury from a high-speed fan or electric shock.**
- **Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.**
  The appliance shall be stored in a room without continuously operating 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 odor.

- **Stop operating the unit once there is a problem or a fault code.**

  Please turn off the power and stop running the unit. Otherwise, it may cause electric shock or fire. Do not modify the unit by yourself.

- **Be careful when the unit is not packed or not installed.**

  Pay attention to the sharp edges and fins of the heat exchanger.

- **After installation or repair, please confirm refrigerant is not leaking.**

  If refrigerant is not enough, the unit will not work properly.

- **Don't put your fingers into the fan and evaporator.**

  High-speed running fans will result in serious injury.

- **If the power wire is damaged, it must be replaced by a professional technician to avoid danger.**

- **Have fire extinguishers available.**

  If any hot work is to be conducted on the refrigerating equipment or any associated parts, appropriate fire extinguishing equipment shall be available to hand. Have a dry powder or CO2 fire extinguisher adjacent to the charging area.

- **No ignition sources**

  No person carrying out work in relation to a refrigeration system that involves exposing any pipe work that contains or has contained flammable refrigerant shall use any sources of ignition in such a manner that it may lead to the risk of fire or explosion. All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repair, removal, and disposal, during which flammable refrigerant can possibly be released into the surrounding space. Prior to work taking place, the area around the equipment is to be surveyed to make sure that there are no flammable hazards or ignition risks. "No Smoking" signs shall be displayed.

Other Safety Notices

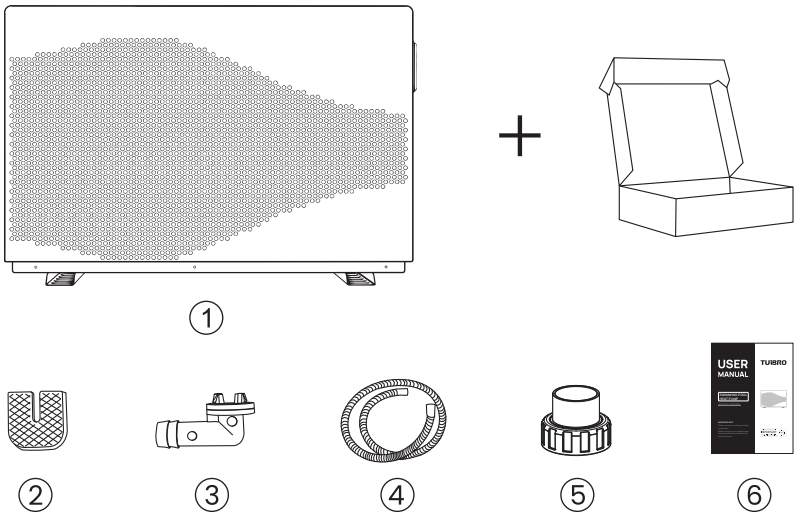
1. Unit antifreeze: When the unit is running at an ambient temperature below 32°F (0°C), the unit will automatically enter antifreeze protection:
   1) In the standby state, the compressor or circulating water pump of the unit will operate automatically. This is normal.
   2) If a power outage exceeds 15 minutes (duration measured at 23°F ambient temperature; permitted outage time shortens as temperature drops), immediately drain all residual water from the unit's water inlet, outlet, and drain ports to prevent freeze damage and ensure normal operation.

2. The machine needs to use a separate power switch to avoid sharing the same circuit with other electrical appliances, supply the power to the machine via the designated power cable, and use the proper breaker with the electric leakage protection required.
3. The machine must be installed with a designated grounding wire. Do not connect the grounding wire to the gas pipe, water pipe, lightning conductor, or telephone. The machine must be grounded reliably to avoid any electric shock.
4. Do not disconnect the power supply when the machine is running.
5. When the machine is not used for a long time, please disconnect the main power switch to avoid accidents.
6. If the ambient temperature is below 0°C, it is forbidden to cut off the power supply. If the power is turned off unexpectedly under these conditions, drain the water inside the pipeline.

SYSTEM SPECIFICATION

Accessories

After unpacking, please check if you have all the following components.



NO.	Components	Quantity	NO.	Components	Quantity
①	Pool Heat Pump	1	④	Drain Pipe	1
②	Rubber Blanket	4	⑤	Water Pipe Joint	2
③	Drain Connector	1	⑥	User Manual	1

Specification

Model	Beluga B33V	Beluga B58V
Heating Capacity at Air 80°F, Humidity 80%, Water 80°F		
Heating Capacity Max.	32,412 Btu/h	58,004 Btu/h
Consumed Power	974-4,766 Btu/h	819-8,530 Btu/h
COP - AHRI Standard 1160(I-P)	Up to 15.8	Up to 15.8
Heating Capacity at Air 59°F, Humidity 70%, Water 80°F		
Heating Capacity Max.	24,453 Btu/h	53,909 Btu/h
Consumed Power	1,375-5,035 Btu/h	1,569-10,986Btu/h
COP	Up to 7.6	Up to 7.6
General Information		
Power Supply	110-120 V/60 Hz	220-240 V/50-60 Hz
Rated Power	285-1,397 W	240-2,500 W
Max. Input Current	16.5 A	14.7 A
Min. Breaker	20 A	20 A Double Pole
Water Temp. in Heating	59-104°F	
Water Temp. in Cooling	46.4-82.4°F	
Working Temp. Range	5-109.4°F	12 AWG
Recommended Wire Gauge	/	30A Double Pole
Breaker Min.	/	R32/1.87 lbs
Refrigerant	R32/1.59 lbs	
Compressor	MITSUBISHI ELECTRIC (DC Inverter)	
Rated Water Flow	17.92 GPM	32.14 GPM
Water Pipe Connection	2.00"	2.00"
Waterproof Level	IPX4	IPX4

Refrigerant Safety Information

- The R32 refrigerant used in this appliance is a specially processed, odorless, flammable gas that poses a low risk of ignition, typically only by direct flame. While it can potentially lead to explosive reactions under specific conditions, these scenarios are not typically a concern under standard operational conditions.
- R32 is an environmentally friendly choice as it does not deplete the ozone layer and has a minimal impact on global warming relative to common refrigerants. It is also thermodynamically efficient, promoting high energy performance and requiring less refrigerant volume compared to other refrigerants.

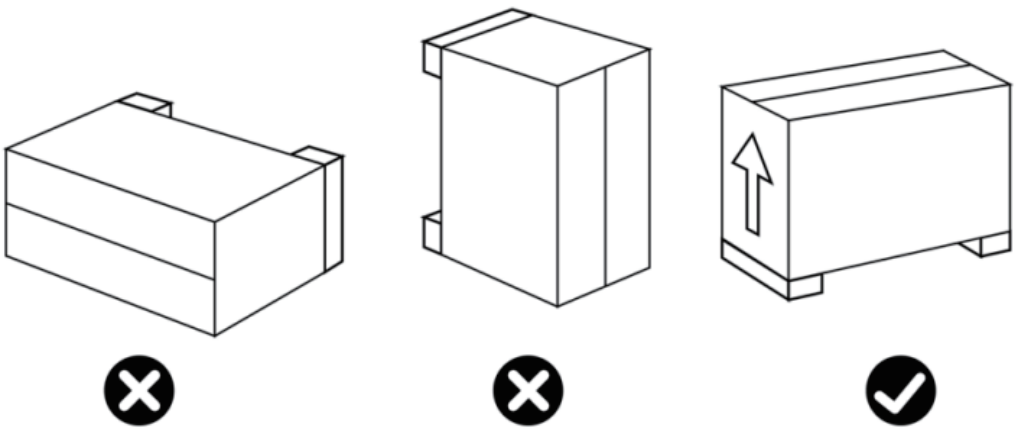
INSTALLATION AND CONNECTION

⚠ **WARNING:** The heat pump must be installed by a professional team. The users are not qualified to install it by themselves, otherwise, the heat pump might be damaged and risky for users' safety.

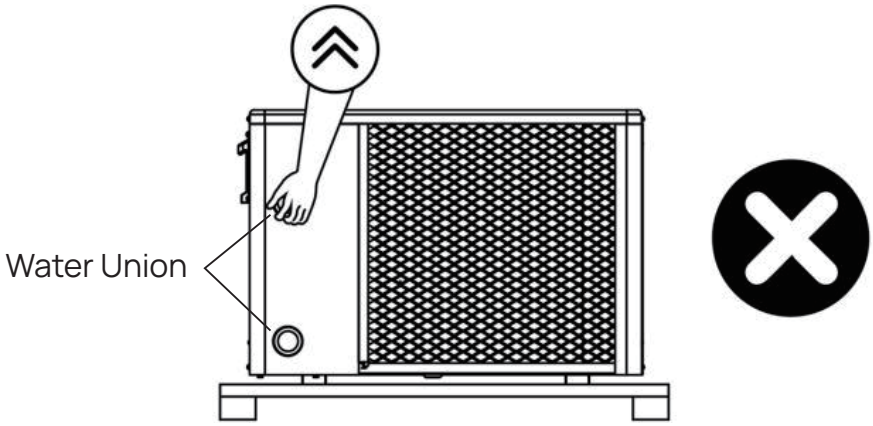
This section is provided for information purposes only and must be checked and adapted if necessary according to the actual installation conditions.

Transportation

A. When storing or moving the heat pump, the heat pump should be at the upright position.

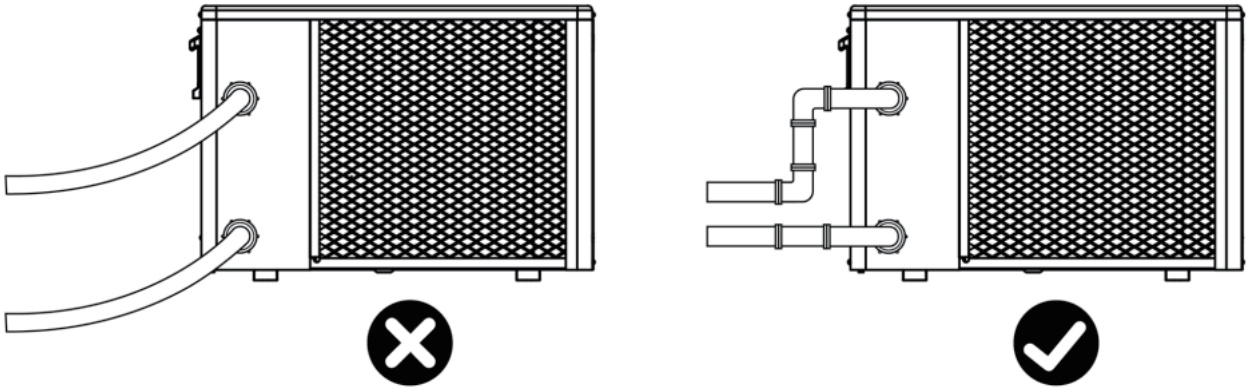


B. When moving the heat pump, do not lift the water union, or the titanium heat exchanger inside the heat pump will be damaged.



Notice Before Installation

A. The inlet and outlet water unions can't bear the weight of soft pipes. **The heat pump must be connected with hard pipes!**



B. In order to guarantee the heating efficiency, the water pipe length should be ≤32.8 feet between the pool and the heat pump.

Installation Instruction

● Pre-requirements

Equipment necessary for the installation of your heat pump:

1. Power supply cable suitable for the unit's power requirements.
2. A By-Pass kit and an assembly of PVC tubing suitable for your installation as well as stripper, PVC adhesive, and sandpaper (not included).
   (We recommend that you connect the unit to your installation by means of flexible PVC pipes in order to reduce the transmission of vibrations)
3. A set of wall plugs and expansion screws suitable to attach the unit to your support (not included).
4. This unit needs to be elevated, leaving spaces at the bottom for drainage. Suitable fastening studs may be used during this process.

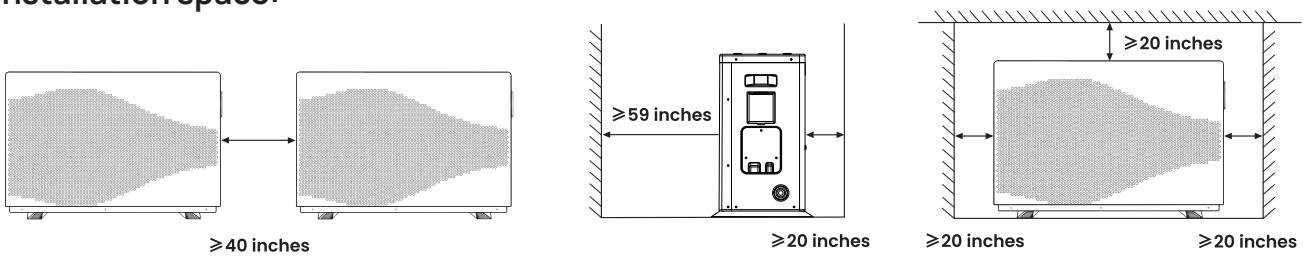
● Location and Space

Avoid installing the unit in areas where leaks could damage adjacent spaces or lower building floors. Installing a floor drain near the unit is recommended to prevent major damage in case of leakage.

Please comply with the following rules concerning the choice of heat pump location.

1. The unit's future location must be easily accessible for convenient operation and maintenance.
2. It must be installed on the ground, fixed ideally on a level concrete floor. Ensure that the floor is sufficiently stable and can support the weight of the unit.
3. A water drainage device must be provided close to the unit in order to protect the area where it is installed.
4. If necessary, the unit may be raised by using suitable mounting pads designed to support its weight.
5. The unit must not be installed in an area exposed to oil, flammable gas, corrosive products, sulfur compounds, or close to high-frequency equipment.
6. To prevent mud splashes, do not install the unit near a road or track.
7. To avoid causing a nuisance to neighbors, make sure the unit is installed so that it is positioned towards the area that is least sensitive to noise.
8. Keep the unit out of reach of children and pets.
9. Check that the unit is properly ventilated, that the air outlet is not facing the windows of neighboring buildings, and that the exhaust air cannot return. In addition, provide sufficient space around the unit for servicing and maintenance operations.

Installation space:



If two units are placed side by side, there should be a minimum gap of 40 inches between them.
Do not put anything within 59 inches in front of the heat pump. Leave 20 inches of empty space on the sides and back of the heat pump.
Do not place any obstacles above the device to ensure free ventilation.

● Heat Pump Installation

Notice: The filter must be cleaned regularly to ensure that water in the system is clean and avoid blocking the filter. The drainage valve must be fixed on the lower water pipe. If the unit is not running during winter months, please disconnect the power supply and let out water from the unit through the drainage valve. If the ambient temperature of the running unit is below 32°F, please keep the water pump running.

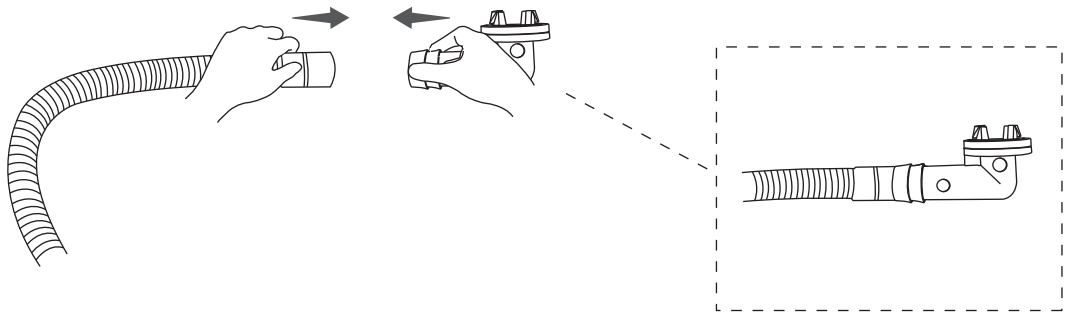
● Condensate Drainage

Caution

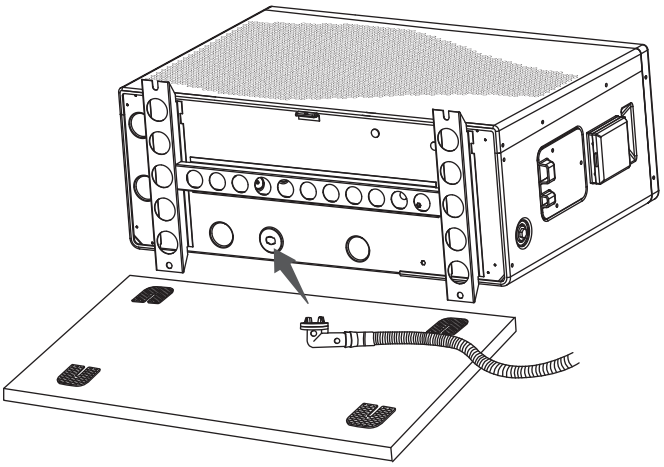
- As the heat pump operates to heat the pool water, the air drawn into the unit is significantly cooled, which may cause condensation to form on the evaporator fins. In conditions of high humidity, the amount of condensation can reach several liters per hour. **This is a normal phenomenon and should not be mistaken for a water leak.**

Condensate Pipe Installation Method

Step 1: Assemble the drain pipe and drain connector.

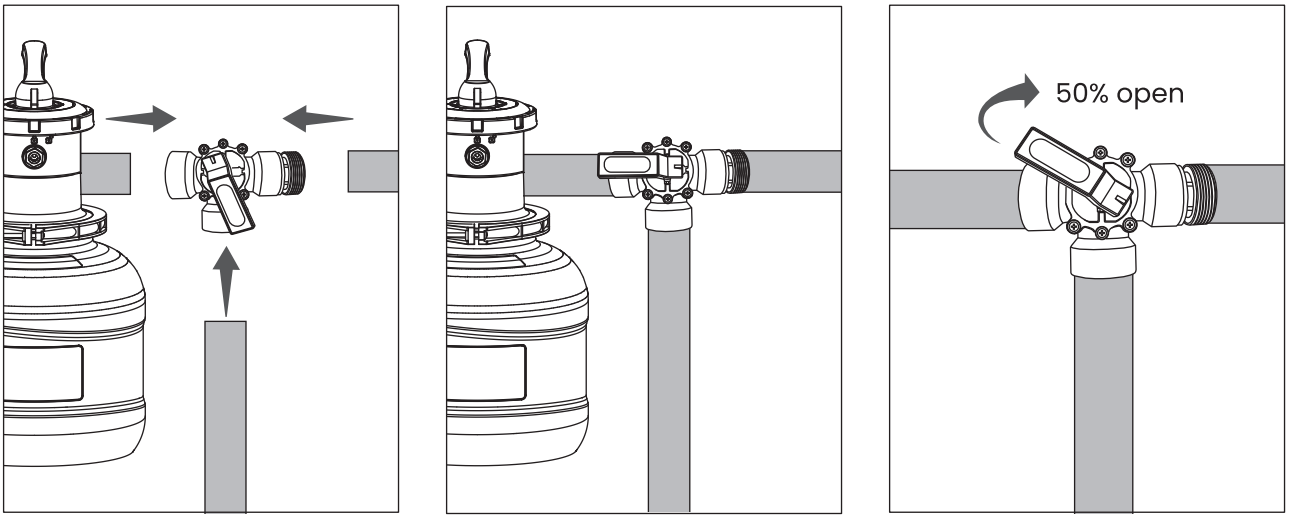


Step 2: Connect the condensate pipe to the bottom drain hole.



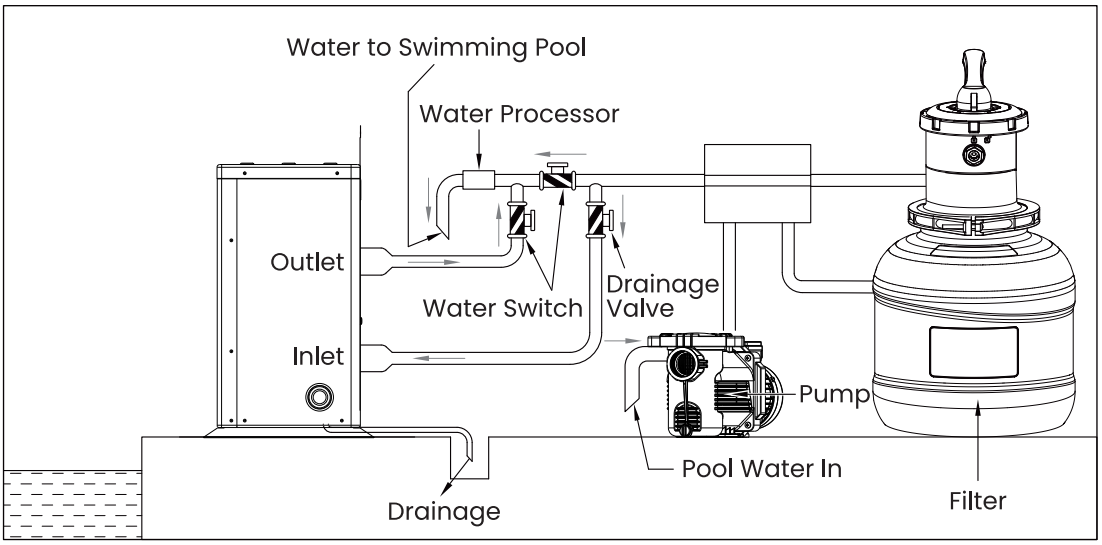
Plumbing

1. Select a water pump (not included) based on the heat pump's rated water flow and your pool's total volume capacity to ensure proper system operation.
2. A bypass system is not necessary for above-ground pools.
3. If the heat pump is connected to a filtration circuit with a bypass valve, we suggest opening the bypass valve by 50% and then turning it down to achieve the lowest flow rate into the heater without triggering error messages. This will provide sufficient water to the heater without restricting the flow. The difference between the input and output temperature should be 1-5°F. If the difference is too great, increase the water flow through the heater for optimal heating.
4. The old system bypass path typically consists of 3 valves. The new bypass valve uses just 1 valve. This makes it possible to regulate the water flow passing through the heat pump.

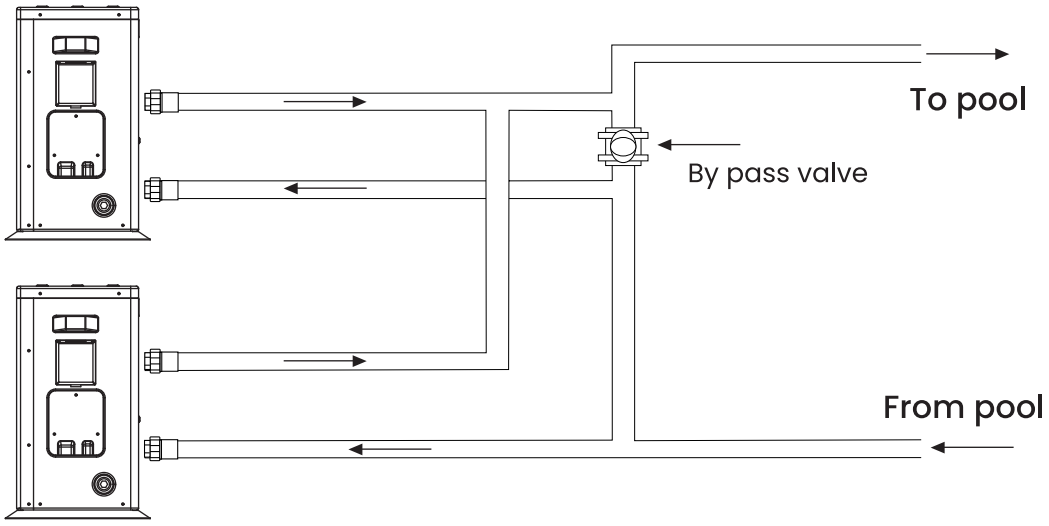


The installation diagram is shown in the following figure:

A. Single Heater Installation



B. Dual Heater Installation



1. The bases must be fixed by bolts (M10) to the concrete foundation or brackets. The concrete foundation must be solid; the bracket must be strong enough and anti-rust treated.
2. The heat pump needs a water pump (to be supplied by the user). Please select the pump according to your pool's total volume capacity and the rated water flow specified in our technical data sheet above.

● Electrical Installation

To function safely and maintain the integrity of your electrical system, the unit must be connected to a general electricity supply in accordance with the following regulations:

1. Upstream, the general electricity supply must be protected by a 30mA differential switch.
2. The heat pump must be connected to a suitable D-curve circuit breaker in accordance with current standards and regulations in the country where the system is installed.
3. The electricity supply cable must be adapted to match the unit's rated power and the length of wiring required by the installation. The cable must be suitable for outdoor use.
4. For a three-phase system, it is essential to connect the phases in the correct sequence. If the phases are inverted, the heat pump's compressor will not work.
5. In places open to the public, it is mandatory to install an emergency stop button close to the heat pump.

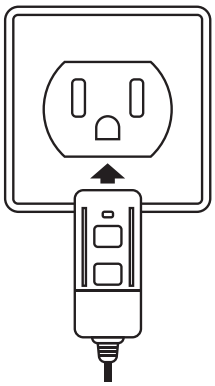
Model	Power Supply Wires		
	Electricity Supply	Cable Diameter	Specification
Beluga B33V	110-120 V/60 Hz	/	/
Beluga B58V	220-240 V/50-60 Hz	3G 4.0mm²	AWG 12

● Electrical Connection

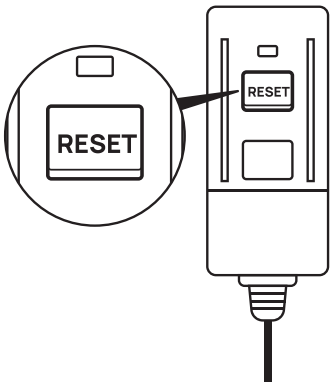
⚠ **WARNING:** The power supply of the pump must be disconnected before any operation.

Model: B33V

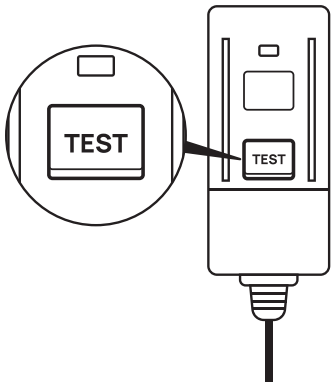
Step 1
Plug into the receptacle.



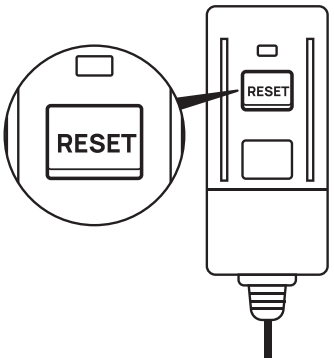
Step 2
Press the "reset" button, the indicator will light red.



Step 3
Press the "test" button, the indicator should be off.



Step 4
Press the "reset" button to turn on the heat pump.



Note: Do not use it if the test fails (the light does not turn off after pressing the "test" button).

Model: B58V

Connect Step:

Step 1: Detach the electrical side panel with a screwdriver to access the electrical terminal block.

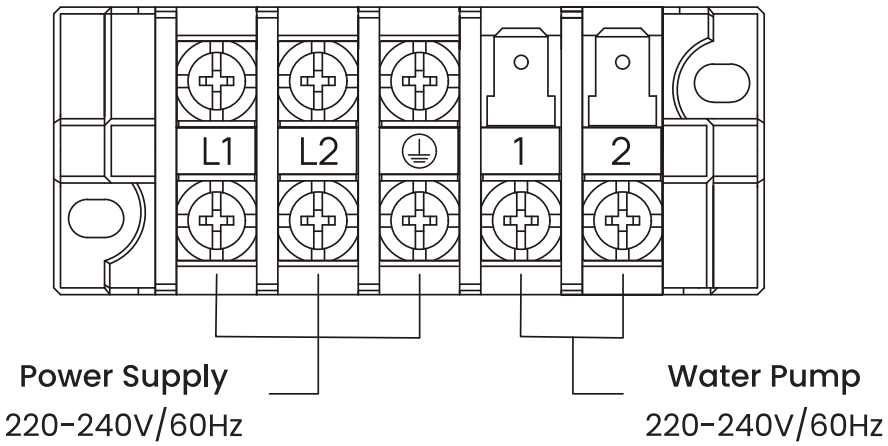
Step 2: Insert the cable into the heat pump unit port.

Step 3: Connect the power supply cable to the terminal block according to the diagram below.

L1 : Live

L2 : Live

⏚ : Ground

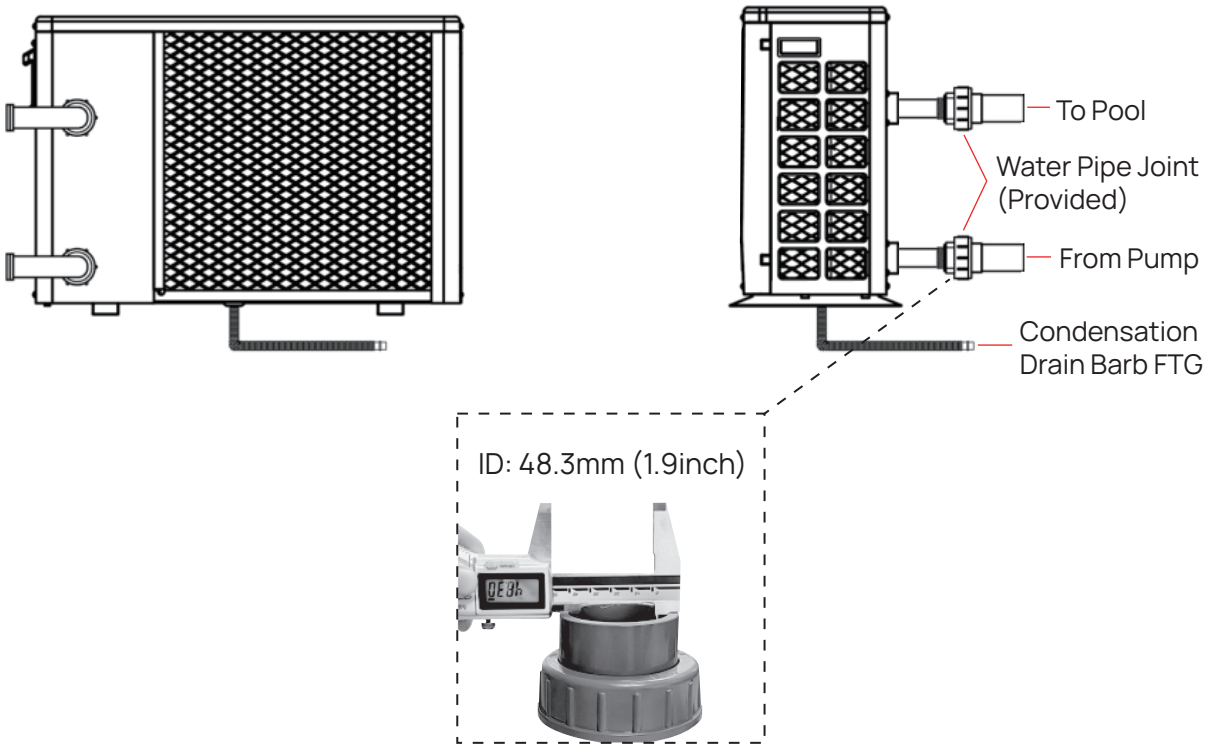


Pipe Connections

Reminder: Make sure all water lines are tightly connected to avoid water leakage.

When the heat pump is running, condensation will discharge from the bottom. Please pay attention to it. After installing the heat pump, elevate it at least 4 inches with sturdy water-resistant pads, then connect the drainage pipe (included) to the hole at the bottom of the pump and secure it to ensure smooth condensation drainage.

Use the water pipe joint (included) to connect the inlet and outlet water unions of the heat pump with the water pipe (not included), and tighten them.



Trial After Installation

⚠ **WARNING:** Please check all the wiring carefully before turning on the heat pump.

- **Initial Safety Checks Shall Include:**

1. That capacitors are discharged: this shall be done in a safe manner to avoid the possibility of sparking;
2. That no live electrical components and wiring are exposed while charging, recovering or purging the system;
3. That there is continuity of earth bonding.

● Pre-Operational inspection:

1. Confirm the installation has been completed correctly.
2. Verify that the power supply voltage matches the unit's rated voltage.
3. Check all plumbing and electrical connections for proper installation.
4. Ensure the air intake and exhaust ports are unobstructed.
5. Confirm that drainage systems are clear and there are no leaks.
6. Verify that the leakage protector and pipe insulation are functioning properly.
7. Check that the ground wire is securely connected.

● Trial Running

Step 1: Running test can begin after completing all installations;

Step 2: All wiring and piping should be connected well and carefully checked, then fill the water tank with water before power is switched on;

Step 3: Empty all air within the pipes and the water tank, press the "on-off" button on the control panel to run the unit at the set temperature;

Step 4: Items need to be checked during the running test:

1. During the first run, the unit current is normal or not;
2. Each function button on the control panel is normal or not;
3. The display screen is normal or not;
4. Are there any leaks in the whole heating circulation system;
5. Condensate drain is normal or not;
6. Are there any abnormal sounds or vibrations during running.

REMOTE CONTROLLER OPERATION GUIDANCE

Control Panel Diagram

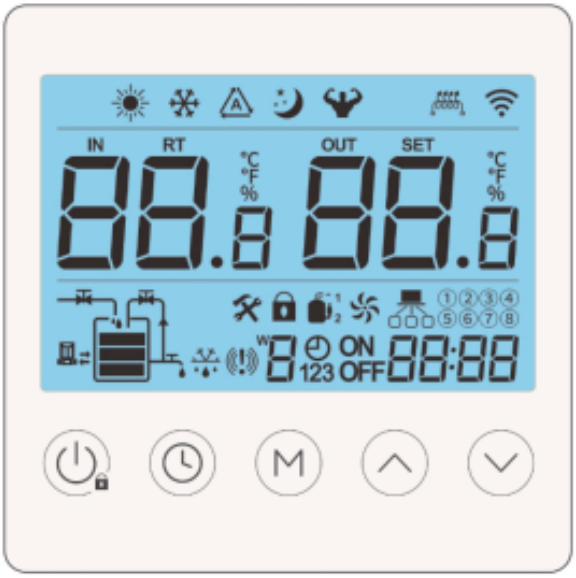


Table 1

No.	Key	Function	No.	Key	Function
1		Turn On/Off	4		Up
2		Timer	5		Down
3		Mode			

Table 2

Icon	Function	Meaning
	Heating Mode	Working in heating mode
	Cooling Mode	Working in cooling mode
	Auto Mode	Working in auto mode

Table 2

Icon	Function	Meaning
	Water Pump	Showing that the water pump can be connected
	Freeze-Proof Operation	Flashing when freeze-proof operation is running
	Fan	At high speed
	Fan	At low speed
	Compressor	The compressor is working
	Lock	The LCD is locked
	Error	Error occurred; Inspection required
	Power Mode	Working in heating power/cooling power mode
	Silent Mode	Working in heating silent/coiling silent mode
	Wifi Connection	Successful Wifi connection
	Defrost	Working in defrost mode; Flashing in refrigerant recovery state
IN	Water Inlet Temp	Representing the water inlet temperature
	Maintenance	Entering maintenance status
	Timer	Enabling timed working mode
123	Timer Setting Group	Timer groups 1, 2, 3, always on when set, off in the rest of the case
	Week	Showing the current day of the week, such as 1, 2, 3, 4, 5, 6, 7

Key Operating Instruction

No.	Item	Operation Way
1	Lock/Unlock	● Press and hold ⏻ for 3 seconds to lock/unlock. When the lock icon appears on the screen, it means that the display is locked. ● The screen automatically locks after 60 seconds by default
2	ON/OFF	On the main interface, press and hold "⏻" for 2 seconds to control the system on/off. (The device will display the working mode, indicating that it is turned on.)
3	Up/Down	On the main interface, press the keys to adjust the current target water temperature.
4	Select Mode	On the main interface, short-press "Ⓜ" to switch mode between heating mode, cooling mode, and auto mode.
5	Set Clock	● Press "🕒" on the main interface to enter the current time hour setting. The hour part flashes. Press "∧" and "∨" to adjust. ● Then press "🕒" to enter the current time minute setting. The digital pipe minute part flashes.Press "∧" and "∨" to adjust. ● Long press "🕒" to set the week. Long-press again to cancel it.
6	Timer	● Hold and press "🕒" for 3 seconds on the main interface to enter the "1 ON" timer setting. The "ON" icon will display, and the hour part will flash. Press "∧" and "∨" to adjust. Then press "🕒" to set the minute part. The minute part will flash. Press "∧" and "∨" to adjust. Then press "🕒" again to confirm this setting. ● After timer 1 ON is completed, it will automatically enter the timer 1 OFF setting state, and the "OFF" icon will display. ● Press "🕒" next to enter the timer 2/3 setting state. The following steps are the same as timer 1. ● Press and hold "🕒" for 3 seconds during the setting process, and all timings will be invalid.
7	Wi-Fi	● Press and hold ⏻ + ∧ for 5 seconds to enter the Wi-Fi intelligent distribution mode
8	Manual Defrosting	Press "Ⓜ + ∨" for 5 seconds to enter the manual defrosting function. ❄ icon will light. The main board will determine whether to enter the manual defrosting function according to the conditions.

No.	Item	Operation Way
10	Refrigerant Charging Mode	Press "Ⓜ+⌄" for 10 seconds to enter the refrigerant charging mode. icon will flash.
11	Water Pump Emptying Function	Press and hold for ⏻ + ⌃ + ⌄ for 5 seconds to enter the water pump emptying function. **(When the system is running for the first time or has not been running for a long time, please perform this function first to empty the air inside the water system.)**
12	Status Query Mode	Press and hold "▲" or "▼" keys for 3 seconds to enter the status query mode.
13	Parameter Interface	On the main interface, press and hold Ⓜ for 5 seconds to enter the parameter interface.
14	Factory Reset	Press and hold "▼" keys for 3 seconds to enter the status query mode, the display will show icon, and then press ⏻ for 5 seconds to reset.

APP CONTROL

Step 1

Preparation before connecting:

- Make sure your Wi-Fi router supports 2.4GHz (NOT 5GHz) and 802.11b/g/n bands.

Note: Most 5GHz routers can also be set to a 2.4GHz band or dual band.

- Make sure the Wi-Fi name and password are correct.
- Make sure your smartphone or tablet supports a 2.4GHz network.
- Download the App named **AIR.ai** from the App Store (iOS devices) or Google Play (Android devices)

AIR.ai

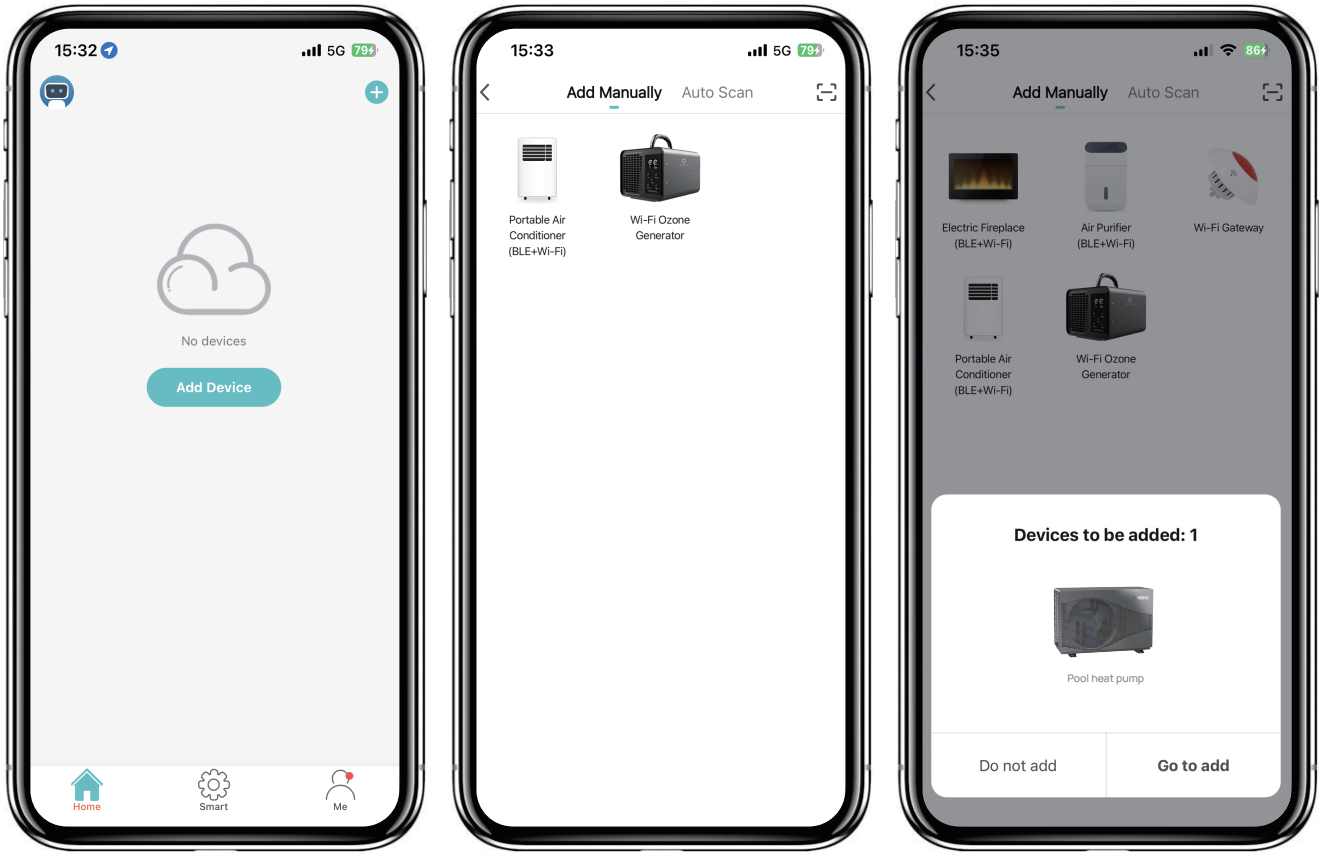
GET IT ON Google Play

Download on the App Store

Step 2

Connect your phone to the 2.4 GHz wireless network of your Pool Heat Pump.

- Press and hold the " ⌃ " + " ⏻ " keys at the same time for 3 seconds to enter the distribution network. The " 📶 " icon will flash rapidly.
- Open AIR.ai and tap the "+" icon in the top right corner.
- The add device page will appear. Tap "Go to add."



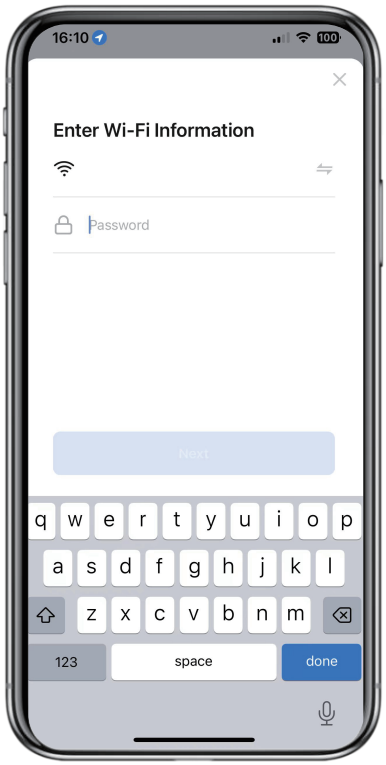
Step 3

Tap "Next."

Enter the password of your Wi-Fi network (the same Wi-Fi network to which your smartphone is connected) when prompted, then click "Next".

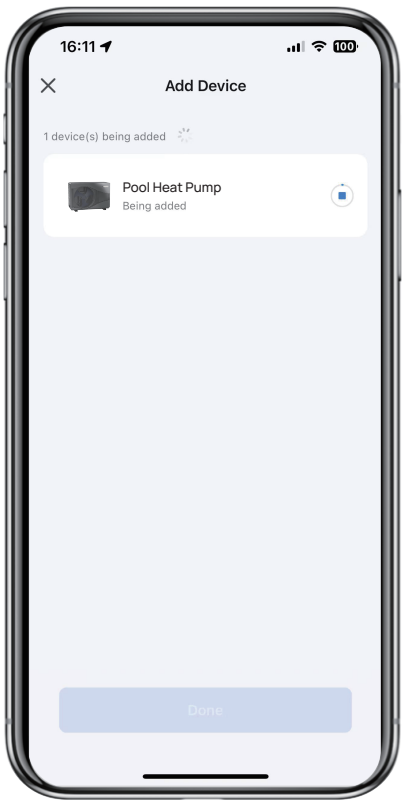
Important note:

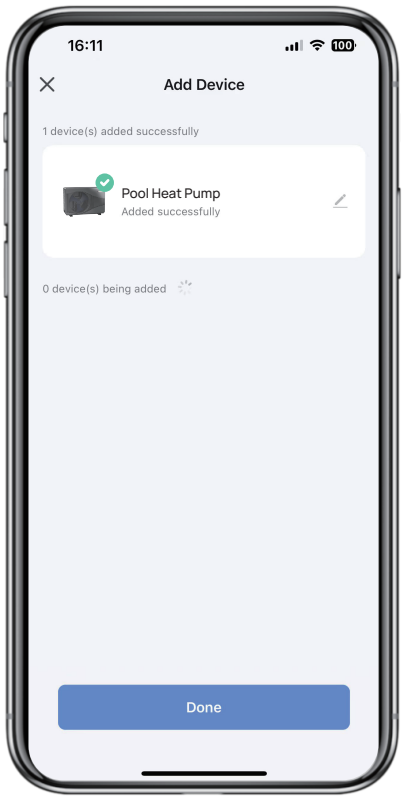
The ice bath water chiller must be connected to a 2.4 GHz Wi-Fi network. If your router broadcasts 2 Wi-Fi bands (2.4GHz and 5GHz), consult your router user manual to learn how to select the 2.4 GHz Wi-Fi band.



Step 4

Your device is now connected. You can find the pool heater pump in the device list.

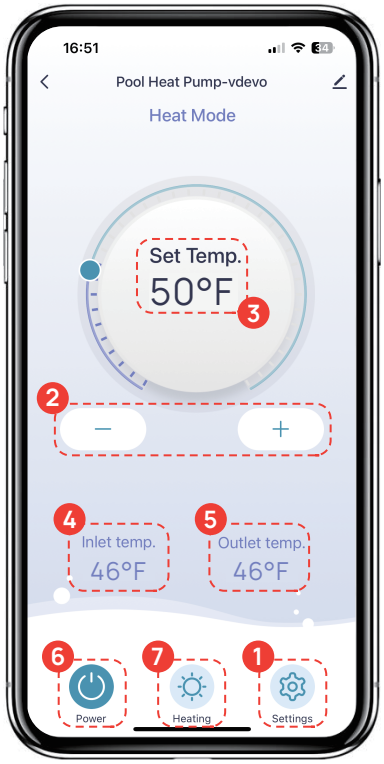




Software Function Operation

● Home Page

In the main interface, click “Pool Heat Pump” to enter the operation interface.



1 More Settings

2 Setting Temperature

3 Target Temperature

4 Inlet Temperature

5 Outlet Temperature

6 ON/OFF

7 Mode Switching

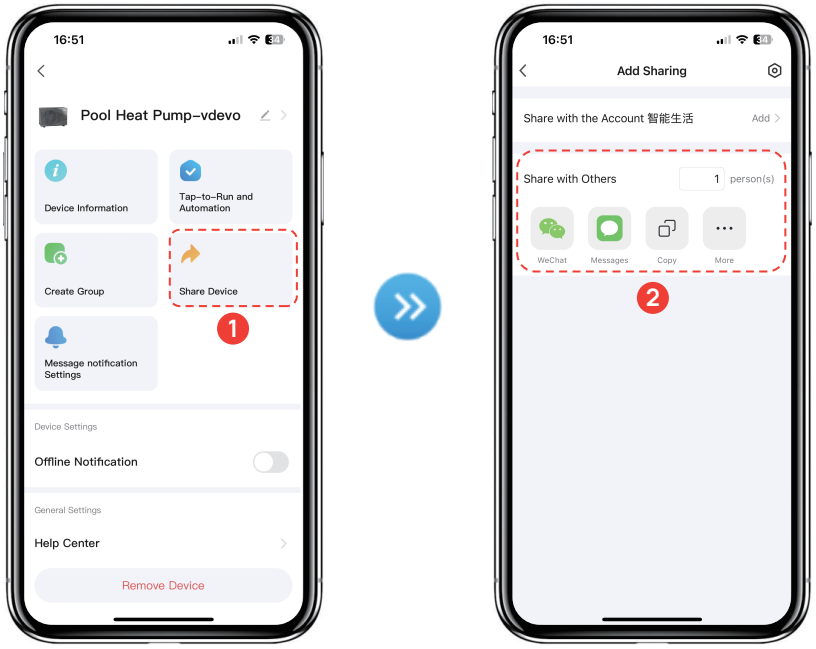
● Modify Device Name

Click in the following order to enter device details, and click "Device Name" to rename the device



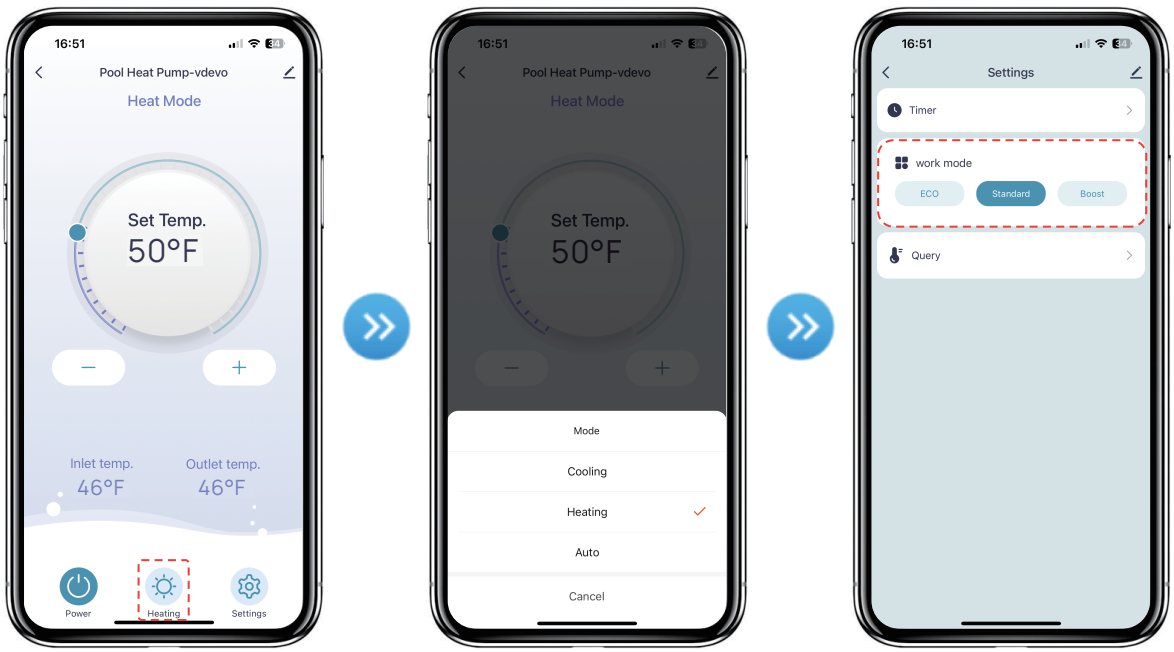
● Device Sharing

1. To share a bound device, the user should do so in the following order.
2. After successful sharing, the list will be added to show the sharer.



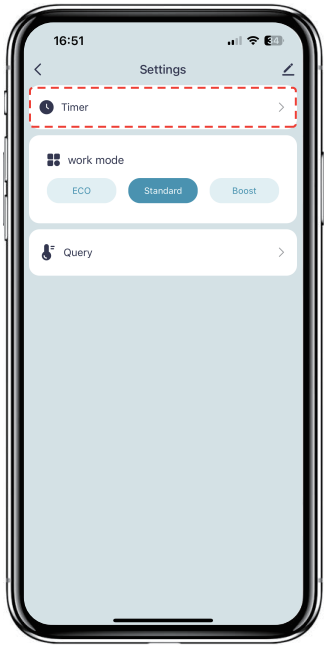
● Mode Settings

Click the follow buttons on the main interface to switch modes, and select what you need. After selecting a mode, you can click "Settings" to select more modes: ECO/Standard/Boot.

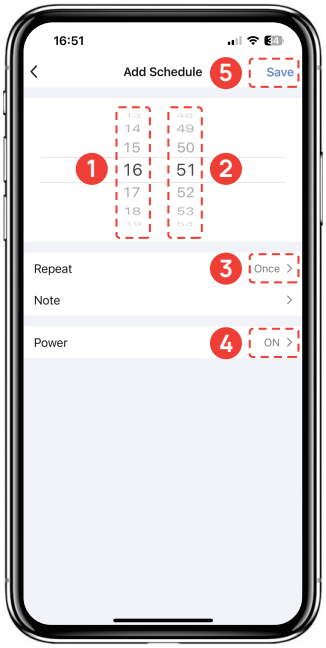


● Timer Setting

Click " Settings " on the main interface to enter the timer setting interface, as shown below, and click to add the timer.



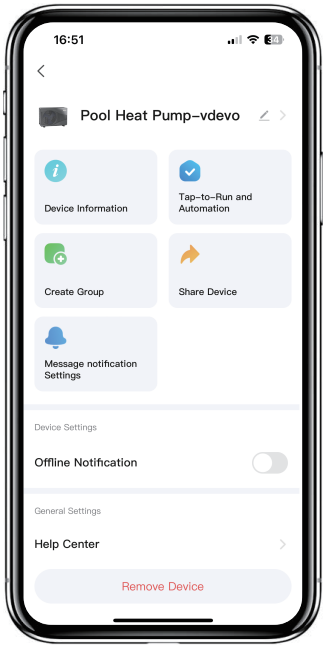
After entering the timer setting, swipe up/down to set the timer, set up repeat weeks and on/off, then click "save" to save your settings as follows.



1. Hours
2. Minutes
3. Set the Repetition
4. Set Power ON/OFF
5. Save Your Modification

● Device Removal

Click " " on the top right corner of the main interface to enter the device details interface, and click "Remove Device".



MAINTENANCE AND WINTERZING

Maintenance

⚠ **WARNING:** Before undertaking maintenance work on the unit, ensure that you have disconnected the electrical power supply.

● Cold Weather Conditions

Your heat pump is designed to operate in rainy weather conditions and withstand frost using specially created anti-frost technology. However, it is not recommended to leave it outside in the cold for long periods of time (e.g., over winter). After draining the pool for the winter, store the heat pump in a dry place.

● Restarting The Heat Pump After Long-term Storage

If your heat hump has been stored for a long time, perform the following steps when re-starting the system:
Inspect the system for any debris or damage to the case.
1. Inspect the system for any debris or damage to the case.
2. Clean the evaporator fins if necessary. Ensure the evaporator fins are clean. Blocking the air intake will cause insufficient operation and result in lower heat production.
3. Check the fan for blockages.
4. Connect the water inlet and outlet.
5. Turn on the pool water circulation pump to start the water flow to the heat pump.
6. Restore electrical power to the heat pump and press the REST button on the RCD.

● Restarting The Heat Pump After Long-term Storage

CAUTION: Turn off its power supply before service work, including cleaning, examination, or repair. Do not touch any electronic components until the LED indicator lights are off.

a. The heat pump's casing must be cleaned with a damp cloth. The use of detergents or other household products could damage the surface of the casing and affect its properties.
b. The evaporator at the rear of the heat pump must be carefully cleaned with a vacuum cleaner and soft brush attachment.
c. Clean your pools and filtration system regularly to avoid damage to the unit because of a dirty or clogged filter.
d. Under extreme weather conditions (e.g., snow drifts), ice may form on the air intake and exhaust air outlet grids. If this happens, the ice must be removed in the vicinity of the air intake and exhaust air outlet grids to ensure that the minimum air flow rate is maintained.

● Annual Maintenance

The following operations must be undertaken by a qualified person at least once a year.

a. Carry out safety checks.
b. Check the integrity of the electrical wiring.
c. Check the earthing connections.
d. Monitor the state of the pressure gauge and the presence of refrigerant. If you need to replace the refrigerant or repair the machine, please contact professional maintenance personnel to handle it.
e. At any other moment, check the water flow to confirm there is enough water before the unit starts to run again.

Note:

a. You should check the water supply system regularly to avoid air entering the system and the occurrence of low water flow, because it would reduce the performance and reliability of the heat pump Unit.
b. You should discharge the water from the heat pump if it stops running for a long time (especially during the winter season).
c. In another way, you should check that the unit is fully charged with water before the unit starts to run again.
d. When the unit is running, there is always a little water discharge under the unit.

TROUBLESHOOTING

Fault & Protections

Error Code	Fault Description	Failure Causes
E01	Wrong-Phase Protection	Wrong power supply phase sequence
E02	Power Supply Lack Of Phase	Seek help from customer service
E03	Outside Water Flow Switch Fault	1. Circulation pump failure or water system blockage 2. Water flow switch failure, or the installation direction is reversed 3. Insufficient circulation pump head 4. Circulation pump is installed in the reverse direction
E04	Abnormal Communication Between the Main Control Board and Remote Module	Seek help from customer service
E05	High-Pressure Switch One Fault	1. High-voltage switch failure 2. Excessive refrigerant 3.A bnormal fan operation or water circulation 4. Air or other objects mixed into the refrigeration system 5. Too much scale in the water heat exchanger
E06	Low-Pressure Switch One Fault	1. Low-voltage switch failure 2. Lack of refrigerant 3. Abnormal fan operation 4. Blockage in the refrigeration system
E09	Line Controller and Motherboard Communication Failure	Seek help from customer service
E11	Limited Time Protection	

Error Code	Fault Description	Failure Causes
E12	Exhaust Gas Temperature One Too High Fault	Lack of refrigerant in the fluorine circuit system or damaged sensor
E14	Hot Water Tank Temperature Failure	Seek help from customer service
E15	Water Inlet Temperature Sensor Failure	
E16	Coil Sensor One Failure	
E18	Exhaust Gas Sensor One Fault	
E21	Environmental Sensor Failure	
E22	User Return Water Sensor Failure	
E29	Return Air Sensor One Fault	
E38	DC Fan One Failure	
E94	Water Pump Feedback Failure	
E96	Abnormal Communication between Compressor One Driver and Main Control Board	
E98	Abnormal Communication between Fan Motor One Driver and Main Control Board	

WARRANTY INFORMATION

This 1-year limited warranty is extended to the original purchaser of this product and warrants against any defect in materials and workmanship under normal use and conditions, for a period of one year from the date of the original purchase, subject to the conditions and limitations outlined below.
This warranty is non-transferable to any subsequent owner of the product regardless of whether the product is transferred during the specified term of the warranty.
THIS LIMITED WARRANTY IS GIVEN TO THE PURCHASER IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE.

What is covered?

- TURBRO's warranty extends only to products purchased from authorized sellers that are subject to TURBRO's quality controls and have agreed to follow its quality controls.
- This warranty is limited to the repair or replacement of part(s) proved to be defective in material or workmanship after said defect is confirmed by the manufacturer's inspection.
- The manufacturer may, at its discretion, fully discharge all obligations with respect to this warranty by refunding the wholesale price of the defective part(s).

UPON THE EXPIRATION OF THIS WARRANTY, ALL SUCH LIABILITY WILL TERMINATE. NO OTHER WARRANTIES ARE EXPRESSED OR IMPLIED ANYMORE.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

What is not covered?

- Damage or losses caused by any alterations or unauthorized repair made to the product by the owner.
- Damage or losses caused by accident, neglectful operation, misuse, abuse, or use contrary to the user manual and safety guidelines.
- Damage or losses occurring during commercial use, rental use, or any use for which the product is not intended.
- Damage or losses caused by improper or inadequate maintenance.

- Failure to perform general maintenance (including cleaning).
- Use of non-standard parts or accessories.
- Natural depreciation and normal wear and tear.

TURBRO SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT, EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW.

Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you.

How to request warranty services?

To obtain the benefit of this warranty please leave a message online (**www.turbro.com/contact**), or send an email to **support@turbro.com**.

To express our gratitude to you for choosing us, we are giving you a 1-year warranty extension to the original 1-year manufacturer's limited warranty, extending the coverage period to two years in total.

- Complete the registration of your new product at **https://www.turbro.com/warranty** within 90 days from the date of package delivery (inclusive of the 90th day).
- Any registration beyond this stipulated period will be deemed invalid.
- The ultimate interpretation of the terms and conditions related to the extended warranty service rests solely with TURBRO.

If you discover that your product is defective within the specified warranty period, please contact our Customer Support via **support@turbro.com**.

- Order ID and invoice, or bill of sale should be provided. Such payment record must be kept to verify the purchase date and establish a warranty period.
- Model and issue description should be provided in detail, preferably with pictures and videos.
- DO NOT dispose of your product before contacting us.
- DO NOT return the product unless instructed by our customer service.
- The original carton should be kept in case of warranty return of the unit.

What will TURBRO do?

- Replace certain parts.
- Replace the item.
- Refund the item under certain circumstances.

In no event shall liability exceed the purchase price paid by the original purchaser of the product.

Any instructions or warranty included in this manual may be subject to change without notice. For the most up-to-date instructions and warranty information, please contact us via **support@turbro.com**.

FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference

2. This device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment o and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Connect the equipment into an outlet on a circuit dierent from that to which the receiver is connected.
- Increase the separation between the equipment and receiver.
- Consult the dealer or an experienced radio/TV technician for help.

FCC RADIATION EXPOSURE STATEMENT

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. To maintain compliance with FCC RF exposure compliance requirements, please follow operation instructions as documented in this manual. This transmitter must not be co located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body. The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

ATTRIBUTIONS

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WARNING:
Cancer and Reproductive Harm
www.P65Warnings.ca.gov



FCC Caution

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

TURBRO

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