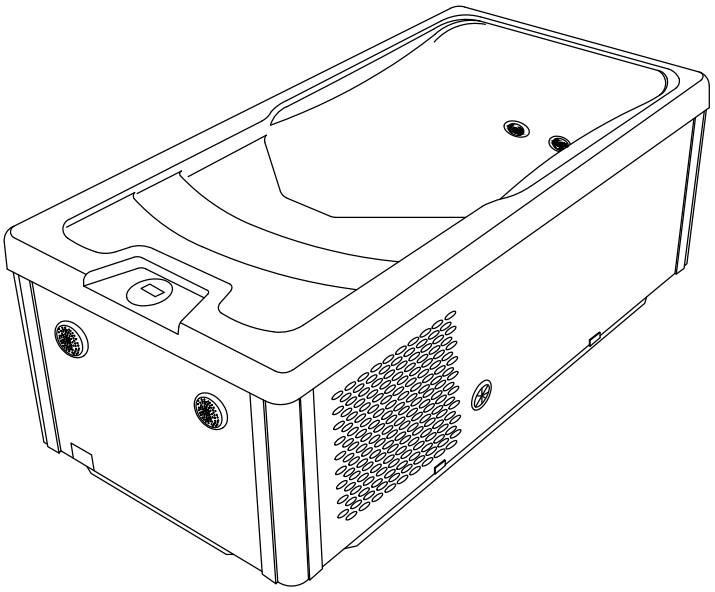
COLD PLUNGE USER GUIDE

MODELS

CP-CH7939BL
CP-CH7939WH



DON'T WAIT! REGISTER NOW!

Register your product within 90 days to ensure your cold plunge is recognized as an official purchase and is eligible for warranty coverage.

register online at www.saunaspa.com/register or scan the QR code at Page 2.

KPLUNGE.

PRODUCT REGISTRATION*

IMPORTANT: Warranty will not be recognized unless product is registered.

Register online at www.saunaspa.com/register. or Scan the QR code below.

Registering online is fast, secure, and ensures we receive your information.

1

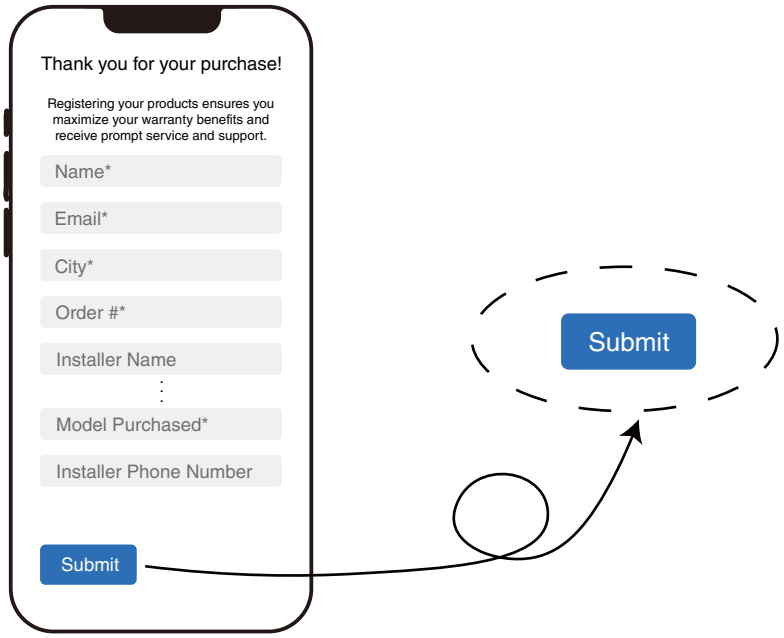
USE YOUR PHONE CAMERA TO SCAN THE QR CODE

2

FILL IN A QUICK REGISTRATION FORM

3

CLICK SUBMIT AND ENJOY PEACE OF MIND



WARRANTY AND REPAIR GUIDELINES

KPLUNGE warrants that this cold plunge unit will be free from manufacturer defects and malfunctions. For terms and conditions please refer to latest KPLUNGE Warranty at www.saunaspa.com/warranty.

Please be advised failure to comply with any of the following will VOID the warranty.

1. Sauna must registered within 90 days of delivery. See www.saunaspa.com/register.

Warranty Period:
This product is covered under warranty for a period of 12 months for cold plunge, commencing from the date of purchase.

For further information or assistance, visit www.saunaspa.com/warranty or call 866-733-4043.

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IMPORTANT!

- Malfunctions, damages, part replacements and labor resulting from improper installation, negligence, or lack of care and maintenance will NOT be covered under the KPLUNGE Warranty.
- PRIOR TO INSTALLATION,ENSURE THAT YOUR COLD PLUNGE IS POWERED OFF.

KPLUNGE PHONE:866-733-4043 FAX:866-560-1060 http://saunaspa.com info@saunaspa.com

Thank You for choosing KPLUNGE for health, beauty and relaxation. Now you can enjoy your own private sanctuary in the comfort of your own home.

USER INSTRUCTIONS

1. Check for visible damages upon delivery of cold plunge. Any damages to packaging should be reported immediately to shipping company delivery representative and KPLUNGE's Customer Service Dept.
2. Check model and accessories are correct, including voltage input. Any discrepancies are to be reported to KPLUNGE's Customer Service Dept. within 48 hours of delivery.
3. Read installation instructions in detail for a secure and effective installation of KPLUNGE cold plunge.
4. KPLUNGE shall not be responsible for product damage or malfunction caused by self-installation or installation procedures which do not comply with user manual.

WARNING

Please read carefully before using cold plunge

- DANGER: RISK OF INJURY OR DROWING
  a) Take precautions to prevent unauthorized access by children.
  b) Ensure children do not use the cold plunge unless accompanied by an adult.
  c) When not in use, secure the cover with straps and clips to prevent children from entering the cold plunge.
  d) Ensure the cover is properly secured during high wind conditions.

- DANGER: RISK OF INJURY OR DEATH
  a) Prolonged immersion in the cold plunge may harm your health.
  b) When using the cold plunge, observe a reasonable time limit.
  c) Prolonged exposure to high temperatures may cause the body to overheat.
  d) Symptoms may include dizziness, nausea, fainting, drowsiness, and reduced awareness. These effects can lead to drowning or serious injury.
  e) Avoid using the cold plunge immediately after high-intensity training.
  f) Enter and exit the cold plunge slowly, as wet surfaces can pose a slipping hazard.
  g) Keep hair, loose clothing, and jewelry away from suction fittings to prevent entrapment, drowning, or injury.
  h) Ensure the suction system is properly installed before using the cold plunge to prevent body or hair entrapment.

- WARNING: RISK OF INJURY OF DEATH
  a) If you are pregnant or may be pregnant, consult your doctor before using the cold plunge and limit the water temperature to 100°F (38°C).
  b) Individuals who are obese or have a medical history of low or high blood pressure, circulatory problems, diabetes, heart disease, infectious diseases, or immune deficiency syndromes should consult their doctor before using the cold plunge.

1.Long

WARNING

Please read carefully before using cold plunge

- c) If you experience difficulty breathing while using or operating the cold plunge, stop immediately and consult your doctor.
  d) Individuals taking medication should consult their doctor before using the cold plunge, as some medications may cause drowsiness or affect heart rate, blood pressure, and circulation.
  e) Using the cold plunge after consuming alcohol, drugs, or medication may result in unconsciousness and drowning.
  f) Do not dive or jump into the cold plunge, as slipping and falling may lead to unconsciousness, drowning, or injury.
  g) Avoid sitting, walking, or standing on top of the cold plunge.
  h) Never allow children to play near or approach the suction area.

- WARNING: RISK OF HYPERTHERMIA
  a) Water temperatures above 104°F (40°C) may harm your body.
  b) Always test the water temperature before entering the cold plunge. Use an accurate thermometer to measure the temperature, as water temperature adjustment devices may have a tolerance of ±5°F (2°C).
  c) Body temperature below 98.6°F (37°C) may lead to hypothermia:
    - Prolonged exposure to cold water (temperatures below 70°F/21°C) may be harmful to your health.
    - It is recommended to limit your time in the cold plunge to no more than ten minutes.
    - If you experience hypothermia or feel cold after using the cold plunge, take steps to raise your body temperature.
    - Children are not recommended to use the cold plunge at lower water temperatures.
    - Always test the water temperature in the cold plunge before entering.

  Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6°F (37°C). The symptoms of hyperthermia include an increase in the internal temperature of the body, dizziness, lethargy, drowsiness, and fainting. The effects of hyperthermia include:

  a. Failure to preceive heat
  b. Failure to reconize the need to exit, or Physical inability to exit the room
  c. Unawareness of impending hazard
  d. Fetal damage in pregnant women
  e. Unconsciousness

SAFETY INSTRUCTIONS

Please take note of the following warnings to ensure safety during the installation or use of the heat pump:
WARNING: Ensure the power to the heat pump is turned off before installation or maintenance.

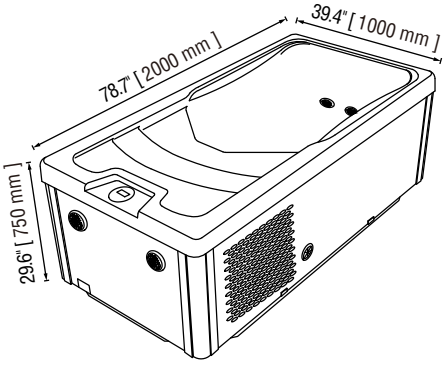
- To ensure personal safety and prevent damage to components, follow all safety instructions provided in the manual.
- Read the manual carefully and adhere to the instructions during installation or maintenance.
- The manufacturer is not responsible for any harm to people, damage to objects, or errors caused by installations that disregard the manual's guidelines.
- The warranty may be void if the cold plunge is not installed, maintained, or serviced properly.
- Repairs or servicing of the heat pump must be conducted by a qualified HVAC dealer.
- A grounding terminal marked as "G," "Ground," or with a grounding symbol is located inside the cold plunge. To reduce the risk of electric shock, this terminal must be connected to the grounding lug on the chiller using a continuous copper wire of a size equivalent to the circuit conductors supplying this equipment.

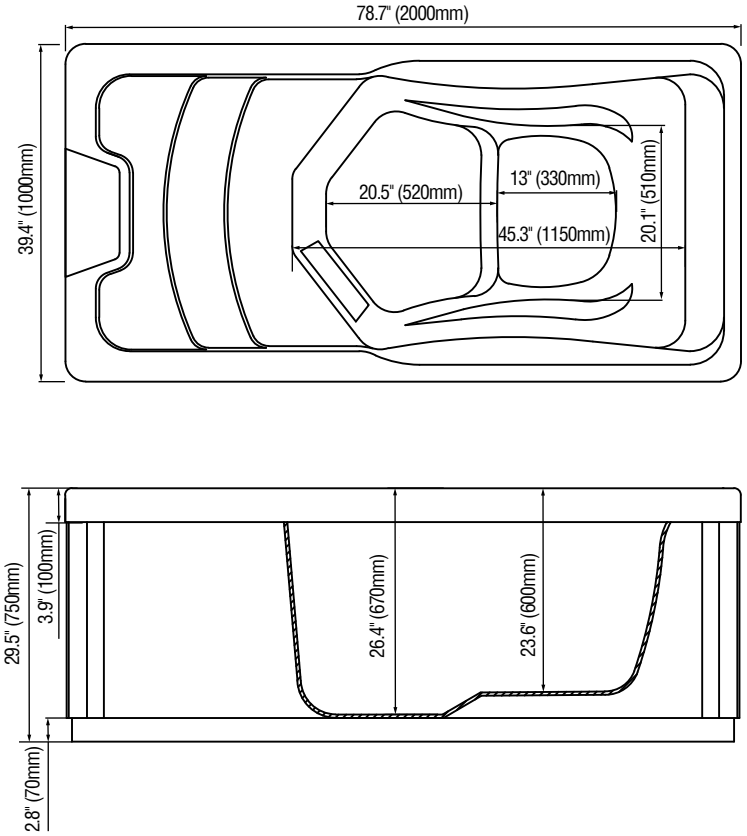
- WARNING:
  a) Install the cold plunge at least 5 feet (1.5 meters) away from all metal surfaces. If this is not possible, any metal surfaces within 5 feet must be permanently connected using a solid copper conductor (≥10 AWG).
  b) Installation and repairs must be performed by a qualified technician.
  c) The heat pump contains pressurized refrigerant. Repairs to the refrigerant circuit must not be conducted by untrained or unqualified individuals.
  d) The refrigerant used has an A2L flammability rating and is odorless. Keep the room well-ventilated and ensure it is stored in a location without ignition sources, such as open flames, gas appliances, or electric heaters.
  e) Do not use unauthorized methods to accelerate the defrosting process or for cleaning.
  f) Do not allow any electrical appliances (e.g., lights, televisions, radios, etc.) within 5 feet (1.5 meters) of the cold plunge.
  g) Never bring electrical appliances into the cold plunge.
  h) Avoid operating any electrical appliances while wet.
- DANGER:
  a) The heat pump with rotating equipment works with high voltage, caution when servicing.
  b) Before opening the cabinet to access the interior, alway turn off the power.
  c) This heat pump is equipped with capacitance, store electricity even after the power off, at least wait for 5 minutes before servicing.

SPECIFICATIONS

SPECS	CP-CH7939BL/CP-CH7939WH
Assembled Tent Dimensions(L x W x H)	78.7" x 39.4" x 29.5" (2000 x 1000 x 750mm)
Power Output	1600 Watts
Operating Temperature Range	37°F (3°C) - 104°F (40°C)
Ambient Temperature Range	0°F (-18°C) - 104°F (40°C)
Voltage	120V AC / 60Hz
Function	Control panel, Bluetooth Audio, Color LED light, Ozone Disinfection, APP remote control

PRODUCT SIZE CHART





INSTALLATION

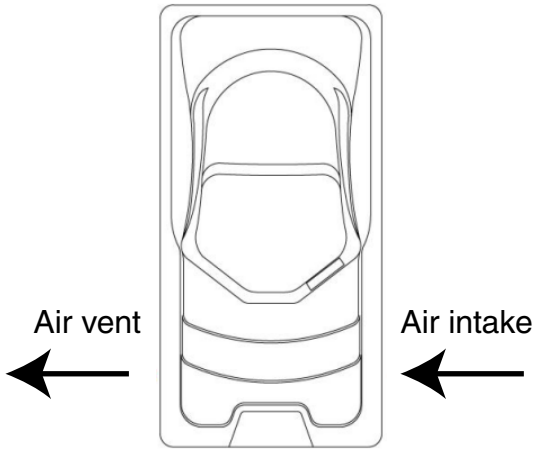
Install location

Due to the combined weight of the cold plunge, water, and user, it is crucial that the base supporting the cold plunge is smooth, flat, level, and capable of evenly supporting the weight without shifting or settling. This stability must be maintained for as long as the cold plunge remains in place. It is the owner's responsibility to ensure the base's integrity at all times.

WARNING!
Proper drainage is essential. The installation must ensure that the cold plunge equipment bay remains protected from flooding or exposure to external water. It is your responsibility, as well as that of any installation contractor you hire, to ensure compliance with all applicable codes and local construction requirements. If you are uncertain, consult the building authority responsible for approving the installation site.

NOTICE:
Never install the unit in an enclosed space with limited airflow where the expelled air could recirculate, or near shrubbery that might block the air intake. These conditions can restrict the flow of fresh air, reduce efficiency, and potentially prevent the unit from producing adequate heat.

CAUTION:
When the cold plunge is located indoors or in an enclosed space, it is essential to consult a qualified engineer or an experienced authority to determine the appropriate ventilation requirements. This ensures condensation, moisture, heated air, and chemical odors are properly directed outdoors. During operation, the cold plunge generates substantial moisture and condensation, which may lead to the development of mold and mildew. Such conditions can pose health hazards and, over time, cause damage to surfaces, surroundings, and equipment.



Outdoor installation
For the outdoor installation, the following recommendations should be considered.
1. Ensure the cold plunge sits flat on its intended foundation without shimming to provide proper support.
2. Position the cold plunge away from reflective surfaces or glass to prevent potential damage.
3. Plan for full access to the cold plunge for servicing by ensuring a minimum clearance of 3 feet around all sides, particularly when placing it on a deck or within an enclosure.
4. Avoid installing the cold plunge under an unguttered roof overhang, as runoff water can shorten the lifespan of the cover.
5. Avoid placing the cold plunge too close to trees or shrubbery, as leaves and birds may create additional cleaning requirements.
6. Maintain a clear pathway to and from the cold plunge, free of debris to prevent dirt and leaves from being tracked into the cold plunge.
7. Ensure proximity to a changing area and shelter, particularly in colder weather.

Indoor installation
For the indoor installation, the following recommendations should be considered.
1. Ventilation: Adequate ventilation should be addressed with a qualified engineer or a knowledgeable authority to

ensure appropriate measures are in place for venting moist or heated air, managing the drainage of the condensation line, and directing air with chemical odors outdoors. During operation, significant moisture may escape, or condensation may drain, potentially leading to mold and mildew over time, which can damage surrounding surfaces and materials. A minimum clearance of 3 feet, particularly around the vents, is essential.

2. Foundation: A Structural Engineer should be consulted to ensure the foundation can adequately support the cold plunge for the duration of its use. Proper support is especially critical if the cold plunge is to be installed on a second story or higher. For installations on a balcony, roof, or any platform not directly tied to the primary structural support, consulting a professional Structural Engineer with expertise in such applications is strongly recommended.
3. Drainage: Adequate measures must be in place to effectively manage water spillage. The flooring beneath the cold plunge should have sufficient drainage capacity to handle the entire volume of water it contains. Additionally, provisions should be made to protect ceilings and other structures located below the cold plunge installation. Since areas around the cold plunge may become wet or damp, all flooring, furniture, walls, and nearby structures must be water-resistant or capable of withstanding moisture exposure. The condensation line exits from the side of the cold plunge, and it is strongly recommended to direct the condensation away to a suitable drainage area.
4. Don't shim the cold plunge. To ensure adequate support, the cold plunge must rest evenly on the designated foundation.

Electrical Requirements

DANGER! To decrease the risk of shock, product damage or electrical fire, the cold plunge must operate on the supplied 120V GFCI cord at its original length. Under no circumstances should an extension cord be used!

1. The electrical circuit supplying the cold plunge must include a ground fault circuit interrupter (GFCI).
2. The electrical supply must also include a suitably rated isolating switch and circuit breaker to meet local electrical regulations. This RCD/GFCI circuit breaker must be installed at the house's main electrical panel.
3. The electrical supply for this product must include a suitably rated switch or circuit breaker capable of disconnecting all ungrounded supply conductors.
4. To access equipment area of the cold plunge, please refer to the illustrations below. It is recommended that two people perform the c step to prevent potential injuries.
   a) Use a hex wrench to remove the hex screws from the strip, then detach the strip. (Figure a)
   b) Locate the two switches at the bottom of the skirt door and set them to the "OPEN" position. (Figure b)
   c) Lift the skirt door upward by a certain distance; Pull the bottom of the skirt door outward at an angle; Allow the skirt door to slide down to remove it. (Figure c)

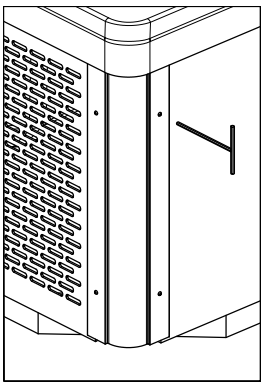


Figure a

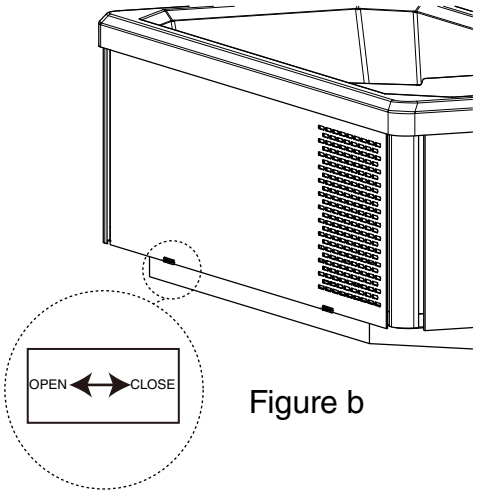


Figure b

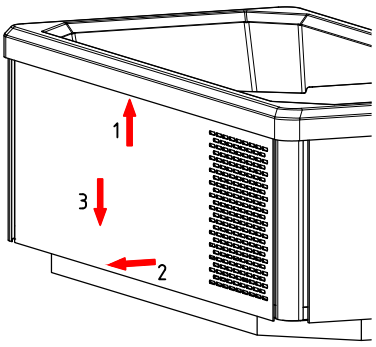
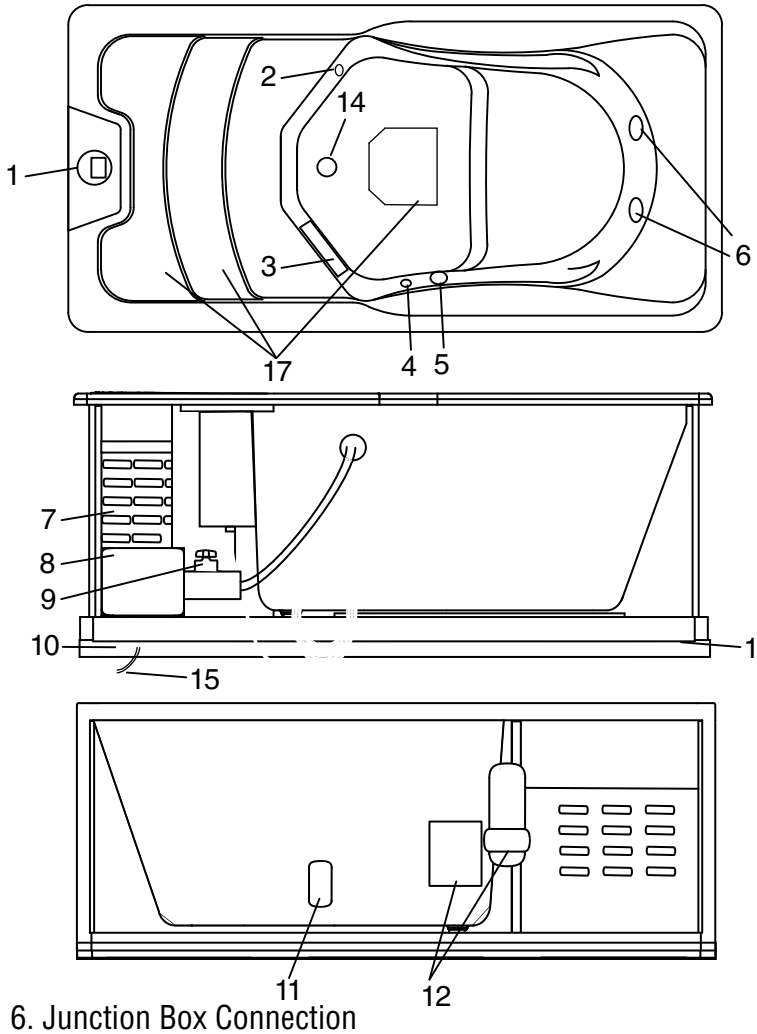


Figure c

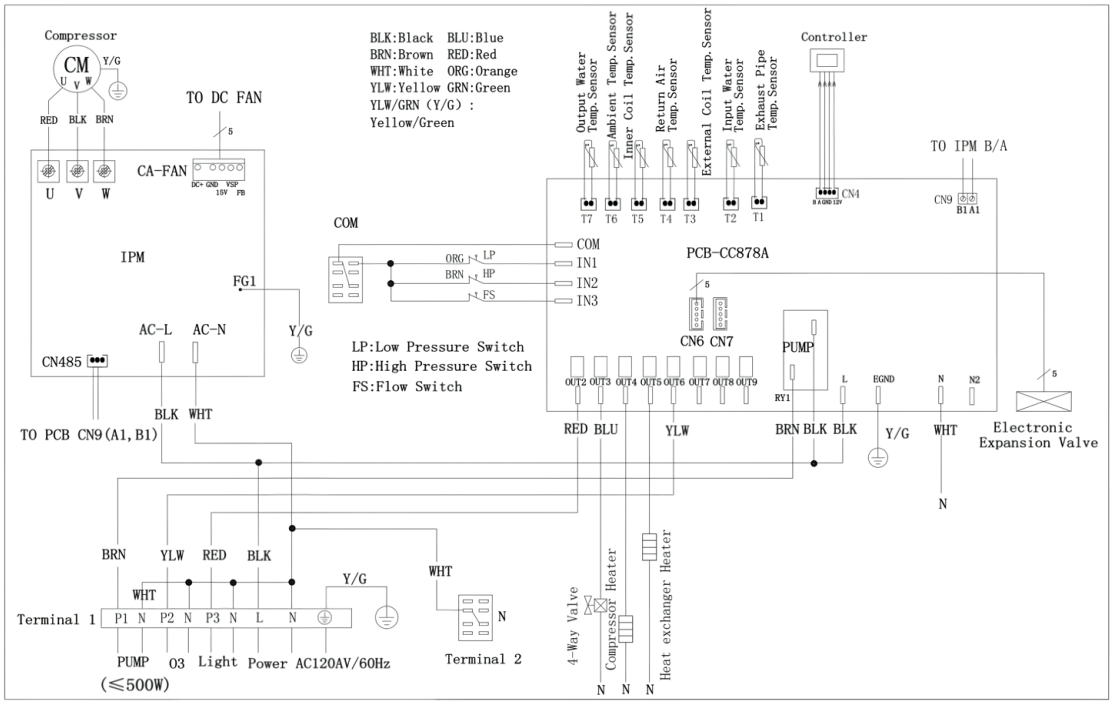
5. Equipment Area



1. Control Panel
2. Auxiliary Suction
3. Water Filter(Main Suction)
4. Ozone / Water Jet
5. Color Light
6. Water Jet
7. Chiller with built-in Junction Box
8. Water Pump
9. Ball Valve
10. Drain
11. Bluetooth Adapter
12. Ozone Sterilizer
13. Speakers(On Skirt Door)
14. Drain Cover
15. Condensation Line
16. Atmosphere light
17. Non-slip Pads

6. Junction Box Connection

WARNING: The junction box is inside the chiller and must be disassembled and repaired by professional maintenance personnel to avoid the risk of electric shock.



Trial After Installation

WARNING: Please ensure all wiring is thoroughly checked before turning on the bath chiller.

Inspection before trial running

Before trial running, confirm below item:

1. Correct unit installation.
2. Power supply voltage is the same as unit rated voltage.
3. Correct piping and wiring.
4. Air inlet & outlet port of unit is unblocked.
5. Drainage and venting is unblocked and no water leaking.
6. GFCI is working.
7. Ground wire is connected correctly.

Trial running

1. The running test can begin after all installations are completed.
2. Ensure all wiring and piping are properly connected and carefully checked. Then, fill the water tank with water before switching on the power (Water injection: Inject water into the skimmer port as needed until the water level line is reached).
3. Press the "on-off" button on the control panel to operate the unit at the set temperature.
4. Items to be checked during the running test:
   a)Check if the unit's current is normal during the first operation.
   b) Verify that each function button on the control panel is working properly.
   c) Ensure the display screen is functioning correctly.
   d) Check for any leaks in the entire heating circulation system.
   e) Confirm that the condensate drain is working properly.
   f) Listen for any abnormal sounds or vibrations during operation.

The water level mark is located near the filter.

INSTRUCTIONS FOR USE

Control Panel

No.	Item	Icon	No.	Item	Icon
1	" -"key and check parameters		11	Defrosting	
2	Light key		12	Light	
3	Timing key		13	Ozone	
4	" + " key and turn on/off pump		14	Water pump	
5	ON/OFF key		15	Wi-Fi	
6	Auto mode		16	Child lock	
7	Silent mode		17	Blinking	
8	Smart mode		18	Fan	
9	Powerful mode		19	Compressor	
10	Water temperature				

Key Operation Instruction

1. Temperature Setting

Long press 3s to turn on. (Figure A)

Press “▼” or “▲” to active setting mode(temperature flashing), then press again to adjust temperature. (Figure B & C)

Press “⏻” or wait until the temperature stops flashing.

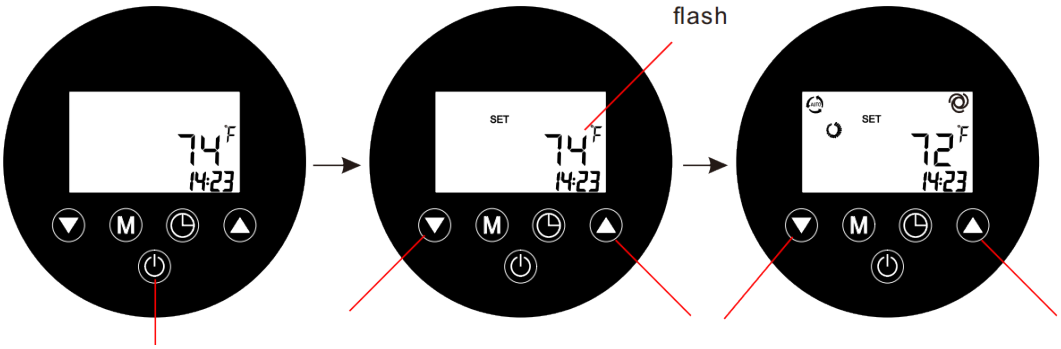


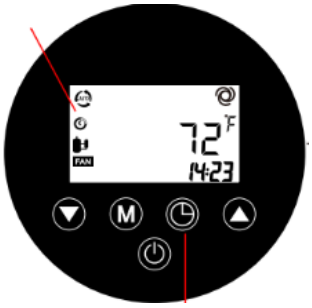
Figure A Figure B Figure C

2. Light

At the startup interface, short press"M" to turn the color light and atomosphere light on or off.

3. Operating Mode

At the startup interface, short press"◷" to adjust operating mode, The noise level and cooling/heating speed can be adjusted according to actual needs..



Silent mode:
Low power mode, reduced noise and with slower cooling and heating speeds..

Smart mode:
Medium power mode, standard noise level with normal cooling and heating speeds.

Powerful mode:
Medium power mode, higher noise and faster cooling/heating speed.

4. Cycle Pump Manual Operation

When system is shut down, press and hold “ ▲ ” for 3 seconds to manually turn the water pump on or off. This function will automatically deactivate after running 15 minutes.

5. Clock Setting

When system is started, press and hold “ ▲ + 🕒 ” for 3 seconds to adjust time. Use " ▲ " or " ▼ " to adjust the hour, press " 🕒 " to switch to minute adjustment, press " ▲ " or " ▼ " to adjust the minute, and finally press " 🕒 " to confirm or exit.

6. Adjust Temperature Unit

When system is shut down, press and hold “ ⏻ + M ” for 3 seconds to switch the temperature unit. (Celsius or Fahrenheit)

7. Child Lock Setting

When system is started, press and hold “ ▲ + ▼ ” for 3 seconds to lock or unlock the control panel.

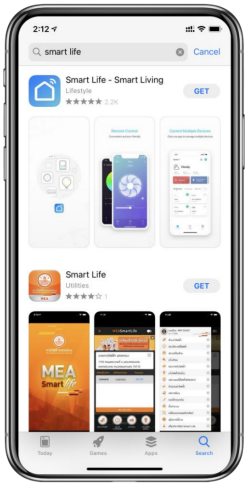
Bluetooth Control

Use a Bluetooth audio playback device (e.g., smartphone), locate the Bluetooth device named "JOYONWAY," and click to connect. Once connected, use the device to control playback and adjust the volume.

WI-FI Control Instruction (Add Device)

1. APP installation

   Search for “Smart Life” in App Store(iPhone) or Google Play Store(Android), or scan the QR code below to install the APP.

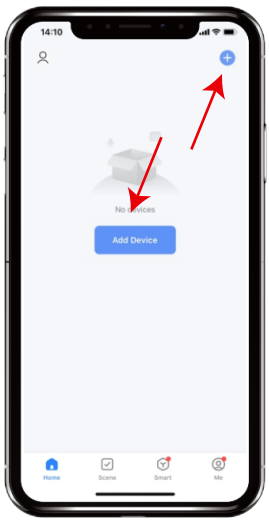


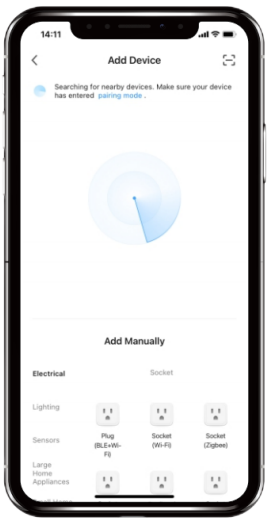
2. Set the control panel to pairing mode

   When system is started, press and hold “M + ▲” for 5 seconds to activate pairing mode, the icon “ ” will begin flash rapidly.

3. Add device in APP

   Use your smartphone to connect to a Wi-Fi hotspot (2.4G only), then open the “Smart Life” app.
   Click “+” or “Add Device” on homepage.





3. Find the device

The device named “Pool Heat Pump” will appear on the Add Device page. (Figure A)
Click on it to begin pairing. (Figure B)
Enter the hotspot password and click “Next”. (Figure C)

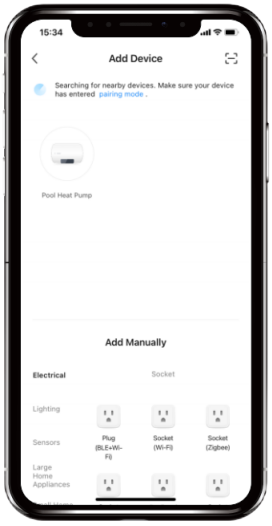


Figure A

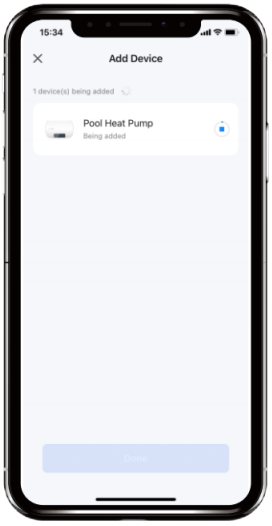


Figure B

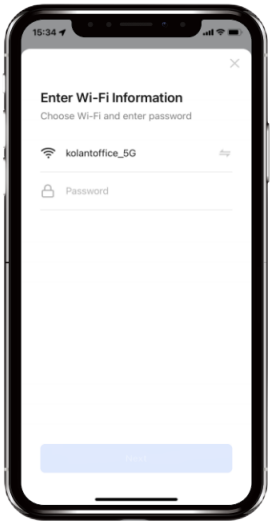
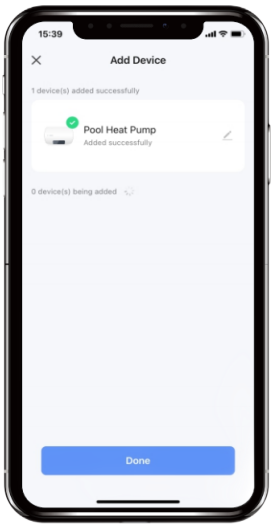


Figure C

4. Finish Pairing

When the Add Device page displays “Added sucessfully”, click “Done”.



WI-FI Control Instruction (Function Operation)

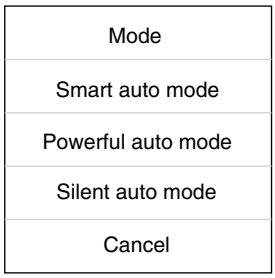
After pairing, the icon named “Pool Heat Pump” will appear on the homepage of the “Smart Life” APP.

Click “Pool Heat Pump” icon to access the operation page.

1. Return to homepage.
2. Access the device menu to change the device name, select device location in home, check network status, share device, and more.
3. Slide the circle to adjust the temperature.
4. Target temperature.
5. Current temperature.
6. Change the operating mode.
7. Power switch
8. Go to timer menu to set the ON/OFF time.

Change the operating mode

Click icon “ ” on the operation page to switch operating mode.

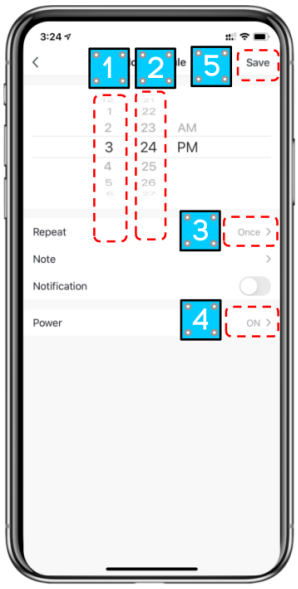


Timer setting

Click icon “ ” on the operation page to access timer settings page.

Click “Add” icon on timer setting page.

1. Swipe to set the hours.
2. Swipe to set the minutes.
3. Choose the repeat mode.
4. Set the power switch(ON/OFF).
5. Save this schedule.



MAINTENANCE

Cleaning the Filter

Filtration occurs when the pump operates, causing water to flow through the pleated filter cartridge. During this process, suspended particles are trapped on the filter's surface. To maintain optimal performance, it is essential to remove and clean the filter cartridge at least once a month or more frequently, depending on usage and water quality.

To Clean Filter:

1. Turn off the cold plunge, unplug the GFCI cord from the outlet.
2. Use a flathead screwdriver to remove the screws on the top of the filter cover. (Figure A)
3. Lift the filter cover upwards to remove it. (Figure B)
4. Pull out the internal baffle of the filter. (Figure C)
5. Turn the cartridge counterclockwise to remove it for cleaning or replacement. (Figure D)

Figure A

Figure B

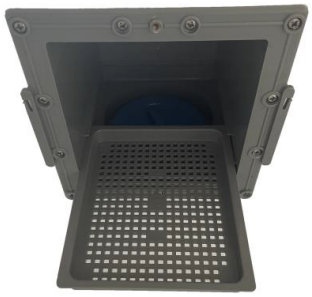


Figure C

Figure D

Draining

Approximately every 2 months, you will want to replace the cold plunge's water. The exact frequency depends on various factors, such as usage and the level of attention given to water quality maintenance. You'll know it's time for a water change when you are unable to control sudsing or restore the normal clarity and feel of the water, even if all key water balance measurements are within the proper parameters.

CAUTION! Turn off the cold plunge and unplug the GFCI cord from the outlet before draining.

1. Turn off the cold plunge at the breaker and unplug the GFCI cord from the outlet.
2. Pull the drain valve outward to the first stage (a noticeable click will indicate it is in place). (Figure A)
3. Turn the valve counterclockwise to open the cap, and the water will begin draining immediately. (Figure B)
4. If you need to connect a drain pipe, after completing the first step, gently rotate the valve left and right while applying an outward pulling force. Find the appropriate locking position, and then pull the valve outward to the second stage. (Figure C)
5. Turn the valve counterclockwise to open the cap. At this point, the valve is in the closed position, and no water will drain out.
6. Use the connector provided by us and install it clockwise onto the valve. The other end should be connected to the extended drain pipe (apply adhesive if necessary for the connection). (Figure D)
7. Gently rotate the valve left and right while applying inward pressure to find the proper locking position. Push the valve inward to the first stage (the state described in Step 2 above). At this point, the water will begin draining immediately. (Figure E)

Figure A

Figure B

Figure C

Figure D

Figure E

Shell

To maintain the sheen of your cold plunge surface, it is essential to avoid using abrasive cleaners or those with chemicals that may damage the surface. If you're unsure about the suitability of a particular cleaner, consult your authorized dealer. Regardless of the cleaner used, ensure that no soap residue remains on the surface, as this could result in excessive sudsing when the cold plunge is refilled.

Condensation Line

The cold plunge is equipped with a condensation line that allows water to drain from the side of its base. The foundation of the cold plunge must be capable of supporting proper drainage and ensuring the water flows away from the unit. It is strongly recommended to route the condensation away from the cold plunge to an appropriate drainage area.

1. Locate the white hose at the base of the cold plunge. (Figure A)
2. Pull the hose to the drainage area, or connect an extension pipe to direct the water to another location. (Figure B)

Figure A

Figure B

Winterzing

During freezing temperatures, periodically check to ensure that the electrical supply to the cold plunge has not been interrupted. In extreme cold weather below 32°F (0°C), set the temperature to a warmer level to prevent freezing. If you do not plan to use the cold plunge or if there is a prolonged power outage during freezing conditions, it is crucial to remove all water from the cold plunge and the heat pump to prevent damage caused by freezing.

System Antifreeze

During Standby or Shutdown Protection:

When the ambient temperature is ≤ 41°F (5°C), the system enters first-level antifreeze protection. The water pump runs for 30 seconds every 10 minutes in a cycle. When the ambient temperature rises to ≥ 46°F (8°C), the system exits the first-level antifreeze protection.

When the ambient temperature is ≤ 41°F (5°C) and the outlet water temperature is ≤ 34°F (1°C), the system enters second-level antifreeze protection and automatically starts heating. When the ambient temperature rises to ≥ 46°F (8°C) or the outlet water temperature reaches ≥ 37°F (3°C), the system exits second-level antifreeze protection.

After entering the antifreeze mode, the control panel will display fault code E04.

TROBLESHOOTING

When the cold plunge encounters a malfunction, the fault code will be displayed on the control panel. You can refer to this table to troubleshoot the issue based on the fault code.

Error Code	Problem	Possible Causes	Recommend Action
E03	Water flow protection	1. Poor connection between the water flow switch and the main board. 2. Incorrect installation of the water flow switch. 3. Water flow switch malfunction. 4. Main board failure. 5. Low water flow: 5.1 The water system is blocked. 5.2 The water pump is not suitable. 5.3 The water pipe is too small. 5.4 The water flow switch is stuck and cannot reset. 6. No water flow: 6.1 The valve is not open. 6.2 The water pump is not working. 6.3 Water pump failure.	1. Reconnect the water flow switch cable. 2. Install the water flow switch correctly. 3. Replace the water flow switch. 4. Replace the motherboard. 5.1 Clean or replace the blocked part. 5.2 Replace the pump with one that meets the required water flow and head. 5.3 Replace the water pipe. 5.4 Manually reset the water flow switch. 6.1 Open the valve. 6.2 Turn on the pump. 6.3 Replace the water pump.
E04	1. Low ambient temp running. 2. Low water temp.	1. When the ambient temperature is ≥ 8°C, the system exits the anti-freeze state. 2. When the inlet water temperature is > 15°C, the system exits the anti-freeze state.	Anti-freeze protection.
E05	High pressure protection	1. Loose wiring or poor connection of the high-pressure switch. 2. Malfunction of the high-pressure switch. 3. Main board failure. 4. Poor condensing: 4.1 Water temperature is too high (operation beyond the acceptable range). 4.2 Low water flow: 4.2.1 The valve in the water system is not open. 4.2.2 Waterway blockage, possibly in the heat exchanger or valve area. 4.2.3 Improper water pump selection. 4.2.4 The water pump is broken. 5. Refrigerant system blockage, possibly in the throttle area. 6. Air mixed into the refrigerant system, potentially due to insufficient vacuuming.	1. Reconnect the wire. 2. Replace the high-pressure switch. 3. Replace the main board. 4.1 Operate within the allowable range. 4.2.1 Open the valve. 4.2.2 Clean the blocked part or replace it. 4.2.3 Replace the pump according to the water flow and water head requirements. 4.2.4 Replace the water pump. 5. Clean or replace the clogged part. 6. Vacuum and refill the refrigerant.

Error Code	Problem	Possible Causes	Recommend Action
E06	Low pressure protection	1. Loose wiring or poor connection of the low-pressure switch. 2. Malfunction of the low-pressure switch. 3. Main board failure. 4. Refrigerant leak. 5. Expansion valve malfunction.	1. Reconnect the wire. 2. Replace the low-pressure switch. 3. Replace the main board. 4. Vacuum and refill the refrigerant. 5. Correct the function of the expansion valve.
E09	Main board - control panel communication fault.	1. Poor connection. 2. Faulty wire controller. 3. Faulty main board. 4. Power interference due to mixed communication and high-voltage wires.	1. Reconnect cables. 2. Replace the wire controller. 3. Replace the main board. 4. Separate communication wires from high-voltage wires.
E10	Communication failure of frequency conversion module	1. Voltage out of range. 2. Low voltage from high-power appliances. 3. Poor connections. 4. Faulty frequency module or main board. 5. Power interference.	1. Improve power supply. 2. Avoid high-power appliances. 3. Reconnect cables. 4.Replace the faulty module or main board. 5. separate communication wires.
E12	Exhaust protection	1. Faulty temperature sensor. 2. Faulty water flow switch. 3. Refrigerant leakage. 4. Low water flow, or no water flow.	1. Replace faulty sensor. 2. Replace faulty switch. 3. Repair leakage and refill the refrigerant according to the nameplate. 4. Change the water pump, check water flow and valves.
E15	Inlet water temp sensor fault	1. Poor connection. 2. Faulty sensor. 3. Faulty sensor resistance.	1. Reconnect cables. 2. Replace faulty sensor. 3. Replace the main board.
E16	External coil temp sensor fault		
E18	Exhaust pipe temp sensor fault		
E21	Ambient temp sensor fault		
E27	Outlet water temp sensor fault		
E29	Suction sensor fault		
E42	Inner coil sensor fault		

Error Code	Problem	Possible Causes	Recommend Action
E19	DC Fan failure	Poor connection or faulty fan.	Check motor and connections, replace the fan if necessary.
E20	Abnormal protection of frequency conversion module	1. Voltage out of range. (85-127V) 2. Low voltage from high-power appliances. 3. Faulty frequency module.	1. Improve power supply or use voltage stabilizing devices. 2. Avoid high-power appliances. 3. replace frequency module.
E44	Protection against low ambient temperature in cooling mode	Ambient temperature is too low during cooling mode.	Wait for temperature to rise and the system will return to normal operation.
E45	Protection against low ambient temperature in heating mode	Ambient temperature is too low during heating mode.	Wait for temperature to rise and the system will return to normal operation.