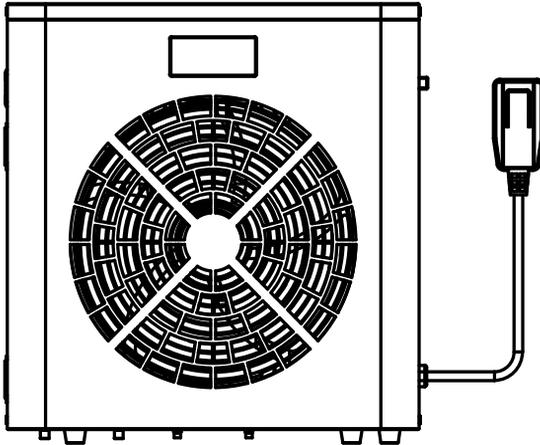


Installation&Operation Manual

Varminpool



Customer Service Email: varminpool_service@163.com

Customer Service Phone: (978) 736-6880

(Our customer service working hours are from 9 a.m. to 6 p.m. Eastern Time)

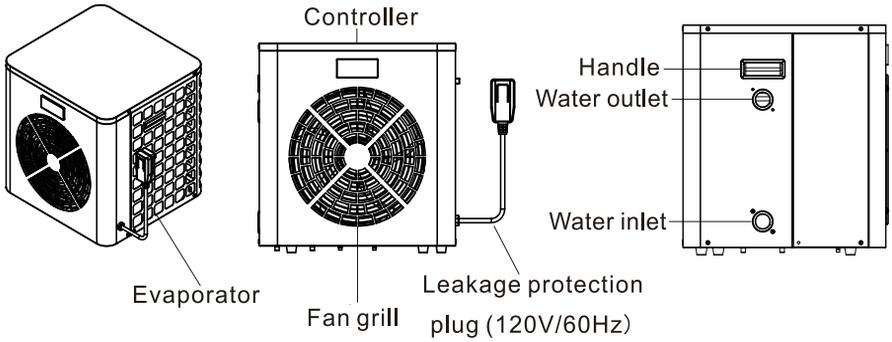
Thank you very much for purchasing our product, please keep this installation manual carefully and read this manual carefully before you install heat pump.

CATALOGUE

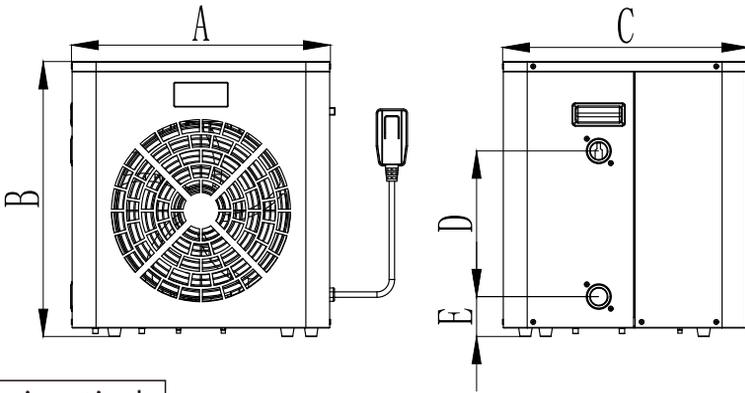
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1.Product Size Specifications

1.1 Product Diagram



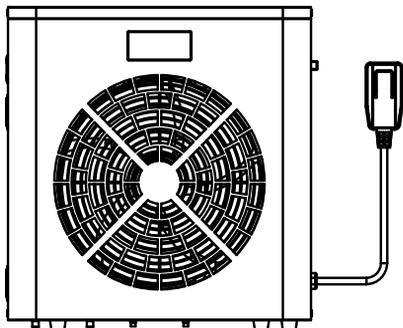
1.2 Product Size



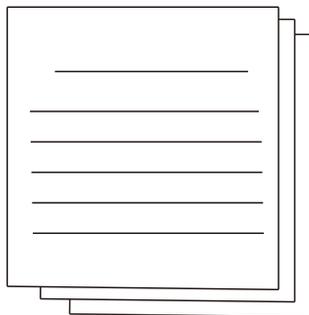
Dimensions:inch

A	17.0	E	2.6
B	17.8	Water Inlet	1"
C	16.0	Water Outlet	1"
D	9.5		

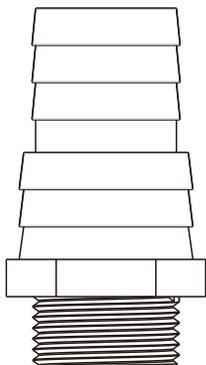
1.3 Product Components



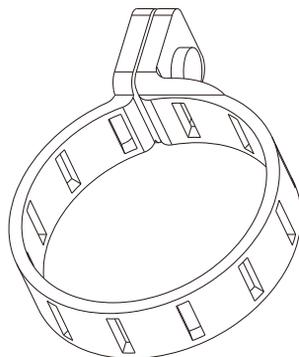
Heat Pump Unit (1 PCS)



Instruction Guide (2 PCS)



PVC Hose Fittings (2 PCS)

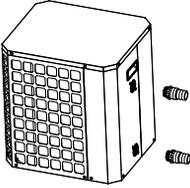


Hose Clamps (2 PCS)

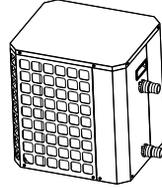
After receiving the goods, please confirm whether your package contains:
Warmblu Heat pump, installation and user manual, 2 PVC hose adapters, 2 hose clamps.
If there is any missing, please contact customer service email:

varminpool_service@163.com

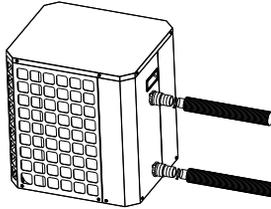
2.Product Accessories & Installation Instructions



Step 1: Take out the 1-inch hose connector in the attachment

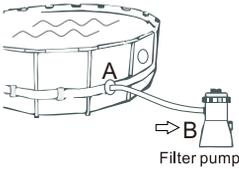


Step 2: Connect the 1-inch hose connector to the main unit's water inlet and outlet

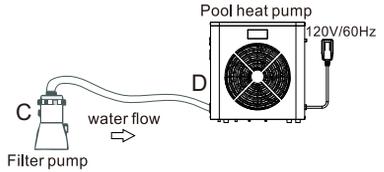


Step 3: Connect the 1-inch hose to the hose connector and secure with a hose clamp

Above ground pool

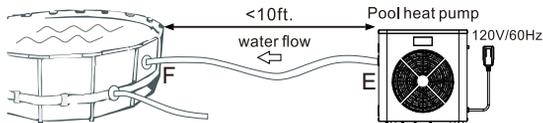


Step 1: Connect the water pipe to the water pump inlet and swimming pool. Form A to B.



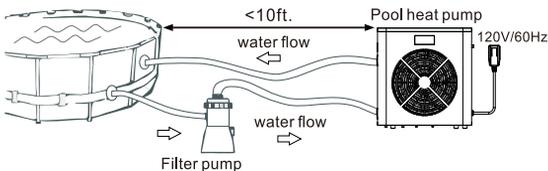
Step 2: Connect the water pump outlet to the swimming pool heat pump inlet. Form C to D.

Above ground pool



Step 3: Connect the pool heat pump outlet to the pool. Form E to F.

Above ground pool



Step 4: The installation is completed as shown in the figure.

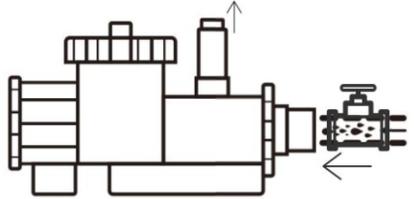
Precautions for installation and use of heat pump

Note:

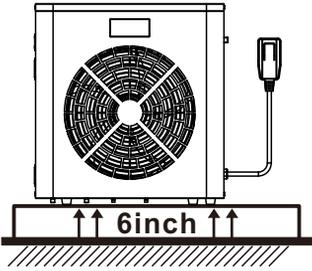
1. The heat pump unit should be installed in an open area, away from the bedroom, with no obstructions on all sides.
2. For optimal pool heating efficiency, the pipe length between the heat pump outlet and the pool should be less than 10 feet.
3. For swimming pool installation, it is recommended to use a 1-inch hose connection.



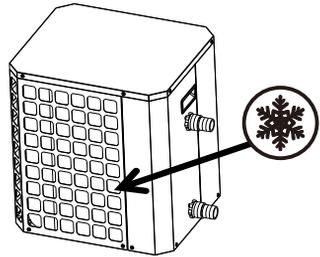
To improve swimming pool heating efficiency, adding a thermal cover is recommended.



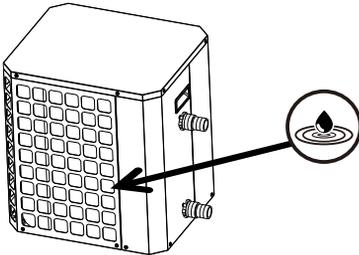
To enhance swimming pool heating efficiency, it is recommended to install a manual isolation valve on the pump suction line, with a pump flow rate maintained at 700-1000 GPH.



The heat pump shall be mounted on a 6-inch elevated base with rubber anti-vibration pads installed between all unit feet and foundation.



Frost may form on the unit during heating operation. This is normal. The unit will automatically initiate the defrost cycle. Do not power off the unit.

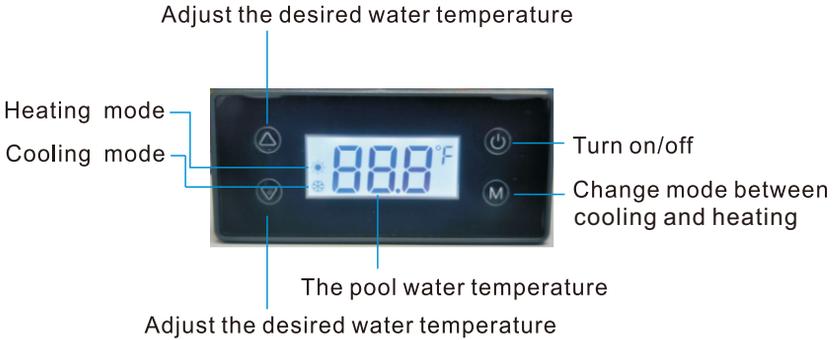


During heating operation, condensate will form. Ensure the condensate drain line is properly connected.



The initial heating process requires 48-72 hours. Please allow normal operation during this period and refrain from turning off the unit.

3.Controller Operating Instructions



To turn the heat pump on/off, just press the , Display time  ,The heat pump is switched on.



Temperature setting: Press  

Adjust the temperature, The adjusted temperature will be set after 3 seconds, and then the heat pump will operate according to the temperature you set. operate according to the temperature you set.

4. Troubleshooting

Issues	Fault Resolution	Trouble Shooting
Slow Heating	<ol style="list-style-type: none"> 1. Check the local temperature, the altitude of the area, whether the pool has insulation measures? 2. Ask about the actual capacity of the pool, is the surface area of the pool too large? 3. Pump flow rate size 4. Is the actual running time of the equipment long enough? 5. Connecting pipeline is too long, generally recommended that the total length of the pipeline should not exceed 10-15 meters. 	<ol style="list-style-type: none"> 1. The surface area of the pool is too large, the temperature difference between day and night is large, need to add the insulation cover, (elevation areas will lead to equipment heat loss) 2. Pool capacity is too large, need to drain part of the water, it is best to ensure that the 4000 gallons or less. 3. For this equipment, the reasonable operating range of the water pump flow is 700GPH to 1000GPH. (If the water pump flow rate is too fast, install a valve at the water pump inlet to reduce the flow rate) 4. If you set the timing or running time is not long enough, the first heating time needs to be heated for at least 48 hours to 72 hours, you need to ensure that the equipment is not disconnected, do not turn off the machine to observe the warming situation. 5. Shorten the distance between each device to reduce heat loss.
Equipment Tripping	<ol style="list-style-type: none"> 1. How many amperes are the circuit breaker specifications? The circuit used in the equipment is a dedicated circuit. You need to check whether the power cable specifications of this circuit are overcurrent. 2. Whether the dedicated circuit has loads other equipment. 3. Is the power supply voltage too high or too low? 	<ol style="list-style-type: none"> 1. The circuit breaker and power cord for this equipment must ensure that the power supply 25A is allowed. 2. If there are other loads, it needs to be removed and ensure that the dedicated line is used for the dedicated line. 3. If the power supply voltage is too high or too low, a voltage regulator needs to be installed.
Equipment E3 Failure	<ol style="list-style-type: none"> 1. Check whether the flow rate of the water outlet of the host is sufficient. 2. Whether there is air in the pipeline operation. 3. Dirty blockage in the pipeline (valve not open and filter clogging) 4. Water flow switch is clogged or damaged. 	<ol style="list-style-type: none"> 1. Observe whether the flow from the host out of the water to the swimming pool is sufficient. 2. When the water pump is started, drain and exhaust gas at the water pump or the main machine outlet. 3. Check whether the valve is open; clean pipeline impurities, backflush the filter or replace the filter element. 4. All the above problems have been investigated and contact the customer service email address

Equipment Frosting	<ol style="list-style-type: none"> 1. Check the local temperature and air humidity. 2. Check the installation environment of the equipment. 3. Check whether the equipment can frost normally. 4. Check whether the fan motor runs normally during the normal heating process of the equipment. 	<ol style="list-style-type: none"> 1. If the temperature is too low and the air humidity is too high, it will cause severe frost on the host. The host can defrost normally and determine that the host is normal. 2. The host must not be installed in a closed environment, there must be no obstructions around it, and the installation location needs to be changed. 3. After the frost is severe, you can switch to refrigeration mode to check whether you can defrost normally. 4. If the host fan motor cannot work normally in normal heating mode, contact the customer service email.
Water leakage	Check the leakage area of the mainframe, and check whether there is water leakage in the joints of pipeline connections and heat exchangers.	The bottom of the host is running condensate, which is a normal phenomenon of heating. If it is the host inlet and outlet fittings leak, you need to tighten the fittings. If the heat exchanger is leaking, request the customer to take a picture of the leakage point, and change the machine processing.
Mobile APP Distribution Network	<ol style="list-style-type: none"> 1. Check whether the distribution process is correct. 2. WIFI signal is poor. 	<ol style="list-style-type: none"> 1. Contact the customer service email address and send the correct distribution process. 2. Shorten the distance between the host line controller and WIFI
Heat Pump Not Working	<ol style="list-style-type: none"> 1. Check whether the power supply is electric. 2. Whether the device is set to timer whether the power is on. 3. Whether the device has just been turned on. 4. The current set temperature. 	<ol style="list-style-type: none"> 1. Whether the control panel screen is lit. 2. Is the timer set and not in the power up period. 3. The unit just turned on and needs to run for a few minutes before it fully starts. 4. The current set temperature is lower than the water inlet temperature, in standby mode, need to adjust the temperature.
Noise Problem	<ol style="list-style-type: none"> 1. Check whether the ground of the equipment is level 2. Whether the surrounding environment is empty 3. Whether the equipment installation position is far away from the bedroom 	<ol style="list-style-type: none"> 1. Place the equipment on a flat and firm ground to work. 2. Equipment needs to be installed in an open space, not in confined and semi-confined spaces. 3. Equipment installation location needs to be away from the bedroom.
Control Panel Does Not Display	<ol style="list-style-type: none"> 1. Check if the power supply is energized. 2. Remove the top sheet metal to see if the controller connector is off. 3. Remove the top sheet metal to see if the main board is lighted. 	<ol style="list-style-type: none"> 1. If the power supply does not pass through, check the home circuit. 2. The plug of the controller connection cable falls off and you need to plug the plug tightly again. 3. Make sure that the power supply is powered but the motherboard does not light, so it is determined that the motherboard is damaged. Contact customer service email
Sensor Failure		<ol style="list-style-type: none"> 1. Reconnect the equipment after 30 seconds of power failure, if the fault is not restored, need to do a replacement.
High Voltage Switch Failure	<ol style="list-style-type: none"> 1. Check the water pipe, whether the water flow is smooth. 2. Check whether the filter sand cylinder is dirty and clogged. 3. Whether the water pump flow meets the use of equipment. 	<ol style="list-style-type: none"> 1. Clean the impurities of the pipeline to ensure smooth pipelines. 2. Clean the filter sand cylinder. 3. Check the water pump parameters. For this equipment, the reasonable operating range of the water pump flow is 700GPH < Equipment <1000GPH. None of the above situations occur, please contact the customer service email.

6. PRODUCT NAMEPLATE

Air-source Swimming Pool Heat Pump		
Model	KSPF-005L3R1A1	
80°F Air 80°F Water 63% RH	Heating capacity (Btu/h)	16000
	Power input (Btu/h)	3720
	COP	4.30
50°F Air 80°F Water 63% RH	Heating capacity (Btu/h)	8400
	Power input (Btu/h)	2800
	COP	3.00
Power supply	110-120V/60Hz	
Max power input (Btu/h)	4623	
Max current (A)	12.0	
Setting temperature range (Heating)	59°F~104°F	
Setting temperature range (Cooling)	36°F~82°F	
Running (Air) temperature range	23°F~109.4°F	
Refrigerant type/quantity (Oz)	R410A/15.90 Ozs	
Air side heat exchanger	Hydrophilic fin exchanger	
Water side heat exchanger	Titanium tube heat exchanger	
Water flow (gpm)	7.2	
Net dimension L×W×H (inch)	17.0×16.0×17.8	
Packing dimension L×W×H (inch)	20.7×19.9×20.9	
Net weight (lbs)	65	
Packing weight (lbs)	73	
Maximum working pressure of heat exchanger	4.4 MPa	
Maximum working pressure of exhaust side	4.4 MPa	
Maximum working pressure of suction side	2.5 MPa	
Noise	50dB(A)	