

Jet Line

Heat Pump for swimming Pool



JetLine 3.5 Kw



Relation, Operation and service guide





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Important Instructions

These installation instructions are an integral part of the product and must be given to the installer and kept by the user.

The warnings and indications contained in the present handbook must be carefully read and understood as they provide important information relative to handling and operating safety. This handbook must therefore always be kept available for later consultation.

Installation must be carried out in compliance with valid regulations and the manufacture's instructions by a qualified professional.

An installation error could result in physical injury to persons or animals as well as mechanical damage for which the manufacturer may under no circumstances be held responsible.

After having unpacked the heat pump, the content should be checked for possible damage. Before connecting the heat pump, ensure that the data provided by Poolstar is compatible with the true installation conditions and does not exceed the maximum authorized limits for the product in question. In the case of a fault and/or operating error on the heat pump, the electrical power supply must be isolated and no attempt should be made to repair the fault.

Repair work may only be carried out by an authorized technical assistance service using original spare parts only. Non-respect of the aforementioned clauses may have a negative influence on the operating safety of the heat pump.

To guarantee the efficiency and correct operation of the heat pump, it is important to ensure it is regularly maintained in compliance with the instructions provided by Poolstar.

In the case where a heat pump is sold or transferred to another user, always ensure that all technical documentation is sent with the equipment to be used by the new user or installer.

This heat pump may only be used for the purpose for which it was designed: to heat a swimming pool; all other uses must be considered inappropriate, incorrect or even dangerous.

All contractual or extra-contractual responsibilities of Poolstar will be considered nil and void for any damage caused by installation or operating errors, or due to non-respect of the instructions provided by Poolstar or valid installation standards for the equipment object of the present document.

Products Features

- ➤ High efficiency, COP up to 5.5, which can save as much as 80% of cost compared to regular water heating equipment. Easy for installation and low running cost for maintenance.
- Green refrigerant R410A---environment-friendly
- > Word-known brand compressor---Mitsubishi or Toshiba
- > Durable and reliable Titanium heat exchanger, which can resist chloride ion corrosion in water.
- Good quality Evaporator with superior hydrophilic alum foil, inbuilt threaded pipe, which provides good performance in water skiing and anti-defrost.
- > LCD wired controller, allowing all operation parameters to be set.
- > Circuit board in line with CE & ROHS standards.
- > Automatic control, adopted auto control thermostatic apparatus, it is very intelligent.
- > The system has an excellent insulation for water and electricity.
- > Monoblock design, beautiful and compact plastic cabinet, with winter cover.

Winter cover

- > It is specially designed for Poolstar heat pump, which can protect the heat pump during winter period.
- > EVA materials, anti-dust, anti-UVA, anti-UVB.
- > This dust cover is proposed as an optional extra.

Enjoy Poolstar air source swimming pool heat pump is a wise choice for you.

Safety Precaution

! NOTE !

It is required to read the safety precautions in details before operation. The precautions listed below are all-important for safety. Please follow the instructions strictly.

General

Make sure that the fixed ground wire in the building is securely connected to earth.

Wiring tasks should be carried out by qualified electricians only, In addition, they should check the safety conditions of power utilization, for example, check if the cable capacity is adequate, and check the power cable is damaged.

Horne users must not install, repair or relocate the unit. Improper treatment might lead to the accidents e.g. persona! injury caused by fire, electrical shock or unit's falling-off, and water leakage in the machine. Please contact professionals for repair.

The unit shall not be installed at a spot with potential hazard of leakage of inflammable gas. In case the leaked gas is congregated around the machine, there might be the risk of explosion.

Make sure that the foundation of installation is stable . If the foundation is unstable, the outdoor unit may drop and cause a casualty.

Make sure that the electric leakage protection switch is fixed . If no electric leakage protection switch is fixed at the beginning of the electric supply, it may cause electric shocks or fires .

If any abnormity occurs in the unit (such as burned smell in side the unit), cut off the power supply immediately, and contact professionals for repair.

Please follow the instruction below when cleaning the unit :

- a. Before cleaning, eut off the electric supply of the unit firstly to avoid injuries caused by fan in operation.
- b. Do not rinse the unit by water because the rinsed unit may cause electric shock.

Make sure to cut off the electric supply before maintaining the unit.

Please do not insert fingers or sticks into air outlet or air inlet.

Transport and storage

The unit must be transported and stored vertically.

The unit must always be stored and transported upright on a pallet and in the original packag ing.

If the unit is stored or transported laying down, wait atleast 12 hours before switching on.

Technical data

Model		POOLEX	POOLEX	POOLEX	POOLEX	POOLEX	POOLEX	POOLEX		
	Heating Capacity(W)	3550	4880	6810	8530	10120	12050	15020		
	Heating Capacity(BTU)	12106	16641	23222	29087	34509	41091	51218		
Air15/°C	Heating Input(W)	615	873	1250	1394	1719	2060	2650		
[1]	Normal Current(A)	2.81	4.00	5.72	6.38	8.71	9.95	12.80		
	СОР	5.77	5.59	5.45	6.12	5.89	5.85	5.67		
	Heating Capacity(W)	3905	5368	7490	9380	11090	13200	16520		
A1-24/90	Heating Capacity(BTU)	13316	18305	25541	31986	37817	45012	56333		
Alr24/ C Water20°C	Heating Input(W)	707	1004	1440	1600	1982	2370	3050		
[2]	Normal Current(A)	3.24	4.59	6.59	7.32	10.02	10.85	13.96		
	СОР	5.52	5.35	5.20	5.86	5.60	5.57	5.42		
	Cooling Capacity(W)	2450	3360	4905	5930	6820	9700	12400		
Air35/°C	Cooling Capacity(BTU)	8355	11458	16726	20221	23256	33077	42284		
Water27°C	Cooling Input(W)	780	1060	1520	1870	2210	2990	4070		
[3]	Normal Current(A)	3.57	4.85	6.96	8.56	11.17	14.44	19.66		
	EER	3.14	3.17	3.23	3.17	3.09	3.24	3.05		
Max Current(A)		5.7	7.8	10	14	20	25	30		
Power cable cross section(MM ²)		3*1.5	3*2.5	3*2.5	3*2.5	3*2.5	3*3.5	3*3.5		
Power Supply			230V~50Hz							
Setting temperature range		15℃~40℃								
Runnir	ng gemperature range	-5℃~43℃								
Unit din	nensions W×H×D(mm)	715x565x290	930x630x350	930x630x350	930x630x350	930x630x350	1025x380x805	1025x380x805		
	Net Weight (KG)	39	47	50	57	60	85	98		
Sound	pressure level at 1m[4]	≤51	≤52	≤52	≤54	≤54	≤55	≤55		
Sound	pressure level at 4m[4]	≤38	≪40	≪40	≪42	≪42	≪44	≪44		
Sound p	ressure level at 10m[4]	≤30	≤32	≤32	≤33	≤33	≤34	≤34		
Water	inlet/outlet dimension	1.5″	1.5″	1.5″	1.5″	1.5″	1.5 ″	1.5 ″		
Hy	draulic connection	PVC 50mm								
Wa	ter Heat Exchanger	Titanium PVC Tank								
co	MPRESSOR TYPE	MITSUBISHI	MITSUBISHI	TOSHIBA	TOSHIBA	TOSHIBA	TOSHIBA	TOSHIBA		
Min.	water flow (M3/h)	1.8	1.8	2.4	3.6	3.6	4.8	6		
Refrigerant charged (KG)		0.6	0.75	1.05	1.75	1.65	2.4	3		
Load loss(mCE)		1.5	1.6	1.6	1.68	1.68	1.71	1.75		
Max.	pool volume(M ³)[5]	0-23 20-33 30-45 40-65 55-80 75-95 90-120								
Refrigerant		R410A								
Display					LCD					
Mode		Heating/Cooling/AUTO								

[1]Ambient air temperature $15^{\circ}(DB)/12^{\circ}(WB)$, water temperature $13^{\circ}C$;

[2]Ambient air temperature 24 $^\circ\!\mathrm{C}(DB)/19\,^\circ\!\mathrm{C}$ (WB), water temperature 20 $^\circ\!\mathrm{C};$

[3]Ambient air temperature 35 $^\circ C(DB)/27 \,^\circ C$ (WB), water temperature 27 $^\circ C$.

[4]Noise from 1m + from 5m + from 10m (in DBA) (As in the directives EN ISO 3741 & EN ISO 354...)

[5]Calculated for private inground swimming pool, with a bubles cover.

No.	POOLEX JETLINE 35	POOLEX JETLINE 48	POOLEX JETLINE 65	POOLEX JETLINE 85	POOLEX JETLINE 100	POOLEX JETLINE 120	POOLEX JETLINE 150
A(mm)	565	630	630	630	630	805	805
B(mm)	715	850	850	850	850	1025	1025
C(mm)	290	300	300	300	300	365	365
D(mm)	313	313	313	313	313	380	380
E(mm)	500	530	530	530	530	640	640

- 1. Top cover
- 2. Internal clapboard
- 3. Back cover
- 4. Manometer
- 5. Four-way valve
- 6. Water pipe head
- 7. Inlet/outlet O-ring seal
- 8. Water switch
- 9. Titanium PVC tank
- 10. Bottom cover
- 11. Compressor
- 12. Wire control
- 13. Lifting handle
- 14. Evaporator

- 15. Electric control box cover
- 16. Motor frame
- 17. Fan motor
- 18. Fan
- 19. Electric control box
- 20. Front cover
- 21. High pressure switch
- 22. Low pressure switch
- 23. Needle valve
- 24. Fan motor capacitor
- 25. Compressor capacitor
- 26. Circuit board
- 27. Transformer
- 28. Terminal blocks

Exploded view

Construction of POOLEX JETLINE 48 and 65.

- 1. Top cover
- 2. Internal clapboard
- 3. Back cover
- 4. Manometer
- 5. Four-way valve
- 6. Water pipe head
- 7. Inlet/outlet O-ring seal
- 8. Water switch
- 9. Titanium PVC tank
- 10. Bottom cover
- 11. Compressor
- 12. Wire control
- 13. Lifting handle
- 14. Evaporator

- 15. Motor frame
- 16. Fan motor
- 17. Fan
- 18. Electric control box
- 19. Front cover
- 20. High pressure switch
- 21. Low pressure switch
- 22. Needle valve
- 23. Fan motor capacitor
- 24. Compressor capacitor
- 25. Circuit board
- 26. Transformer
- 27. Terminal blocks

Exploded view Construction of POOLEX JETLINE 85

- 1. Top cover
- 2. Internal clapboard
- 3. Back cover
- 4. Manometer
- 5. Four-way valve
- *6. Water pipe head*
- 7. Inlet/outlet O-ring seal
- 8. Water switch
- 9. Titanium PVC tank
- 10. Bottom cover
- 11. Compressor
- 12. Wire control
- 13. Lifting handle
- 14. Evaporator

- 15. Electric control box cover
- 16. Motor frame
- 17. Fan motor
- 18. Fan
- 19. Electric control box
- 20. Front cover
- 21. High pressure switch
- 22. Low pressure switch
- 23. Needle valve
- 24. Fan motor capacitor
- 25. Compressor capacitor
- 26. Circuit board
- 27. Transformer
- 28. Terminal blocks

- 1. Top cover
- 2. Internal clapboard
- 3. Back cover
- 4. Manometer
- 5. Four-way valve
- 6. Water pipe head
- 7. Inlet/outlet O-ring seal
- 8. Water switch
- 9. Titanium PVC tank
- 10. Bottom cover
- 11. Compressor
- 12. Wire control
- 13. Lifting handle
- 14. Evaporator

- *15. Electric control box cover*
- 16. Motor frame
- 17. Fan motor
- 18. Fan
- 19. Electric control box
- 20. Front cover
- 21. High pressure switch
- 22. Low pressure switch
- 23. Needle valve
- 24. Fan motor capacitor
- 25. Compressor capacitor
- 26. AC contactor
- 27. Circuit board
- 28. Transformer
- 29. Terminal blocks

- 1. Top cover
- 2. Internal clapboard
- 3. Water switch
- 4. Water pipe head
- 5. Inlet/outlet O-ring seal
- 6. Back cover
- 7. Titanium PVC tank
- 8. Four-way valve
- 9. Right supporting frame
- 10. Right cover
- 11. Manometer
- 12. Bottom cover
- 13. Compressor
- 14. Gas/liquid separator
- 15. Top supporting frame
- 16. Left cover
- 17. Left supporting frame
- 18. Evaporator

- 19. Moter frame
- 20. Fan motor
- 21. Fan
- 22. Electric control box cover
- 23. Electric control box
- 24. Front cover
- 25.Wire Mesh
- 26. wire control
- 27. Needle valve
- 28. Low pressure switch
- 29. High pressure switch
- *30. Run capacitor*
- 31. Circuit board
- 32. Transformer
- 33. Fan motor capacitor
- 34. AC contactor
- 35. Terminal blocks

- 1. Top cover
- 2. Internal clapboard
- 3. Water switch
- 4. Water pipe head
- *5. Inlet/outlet O-ring seal*
- 6. Back cover
- 7. Titanium PVC tank
- 8. Four-way valve
- 9. Right supporting frame
- 10. Right cover
- 11. Manometer
- 12. Bottom cover
- 13. Compressor
- 14. Gas/liquid separator
- 15. Top supporting frame
- 16. Left cover
- 17. Left supporting frame
- 18. Evaporator

- 19. Moter frame
- 20. Fan motor
- 21. Fan
- 22. Electric control box cover
- 23. Electric control box
- 24. Front cover
- 25.Wire Mesh
- 26. wire control
- 27. Needle valve
- 28. Low pressure switch
- 29. High pressure switch
- 30. Run capacitor
- 31. Start capacitor
- 32. Circuit board
- 33. Soft starter
- 34. Transformer
- 35. Fan motor capacitor
- 36. AC contactor
- 37. Terminal blocks

Titanium heat exchanger

1.Standard connectors, reliable, easy installation;

2.Sensitive water flow switch, detect water flow precisely.

3.Double spirale titanium tubes in heat exchanger, high effeciency;

4.PVC inner-tube design, make better heat exchanging.

Installation

! ATTENTION !

1.During installation, do not pick up the unit by the top panel, use the base to lift the unit.

2.Installation must be carried out by professional.

Selection of installation site

- 1. installation must be simple and allow easy access for later work.
- **2.** If the unit is to be installed on the floor, its undercarriage should be heightened, to avoid ingression of accumulated water in rainy season. In snowy areas, it is important to prevent accumulated snow from blocking up the air-out. The recommended height is 20cm to 30cm.
- **3.** Drain ditch or other facilities should be arranged under the outdoor unit, to avoid the environment influence because of water discharge.
- **4.** To install the unit at balcon or top of building, the installation site must meet the allowable bearing capacity of building structure, without affecting the structural safety.
- **5.** Ensure the unit is well vetilated, direction of air exhaust is kept away from windows of neighboring buildings, and the exhaust air cannot flow back. Moreover, adequate service clearance should be kept around the unit.
- 6. The unit should not be installed at places accompanied with oil, Inflammable gas, corrosive components, e.g. Sulfur compound, or high-frequency equipment.
- 7. The unit must be installed on reliable base or framework. Weight capacity of framework should be 3 times of the body weight, and safeguard measures should be taken to avoid malfunction of fastenings.
- 8. The unit should not be installed at sites with typhoon/earthquake hazards. Midair installation should be avoided as much as possible as machine falling down may result in severe accident.
- 9. Do not install the heat pump close to a road or path to avoid mud splashing on the unit.
- 10. Keep, wherever possible, the unit out of reach of children.

Installation in exceptional circumstances(unit:mm)

No obstacle in front of unit

Obstacle above the unit

Installation

Valve 1\Valve 2\Valve 3 : Bypass valves. Valve 4\Valve 5 :Setting valves*.

* Recommended to facilitate adjustments close to the machine.

Installation diagram

Installation diagram for combination

The filter connected with pipes should be cleaned regularly to make sure the water inside systems clean, and also avoid other troubles of unit caused of dirty or blocked filter.

Winter anti-freezing instruction

The heat pump unit has auto antifreeze program. When the unit is working normally, there will not be freezing.
 When the ambient temperature is minus, and the unit stops for over 3 hours, or the unit stops long term when power off. the user is advised to drain all the water inside pipes through the valve which connected to water outlet, to avoid frost crack.

3. If the unit is under off season, should cut off power and take the protection cover outside of unit when necessary.

4. Before restart the unit which has drained out all the water inside, the user is advised to reinstall the unit and adjust program. further more need complete check of the system.

Wire controller installation

The wired controller is originally fixed on the maintenance door of the machine; please refer to below steps if you want to install it on the wall:

1. Take down the controller from the machine. Please pay attention that the communication wire is connected with The circuit board, separate them from where they match.

2. Use a screwdriver to open the clip as picture 1, separate the controller as 2 parts, as picture 2.

3. On the wall that you are going to install the controller, drill 2 holes at a level parallel to the sight line as picture

3. The hole distance is 60mm, diameter is 8mm.

4. Place the plastic screws of the enclosure into the hole, and use the tapping screw (ST4*16 D-1) enclosed to fix the back cover of controller on the wall, as picture 4

5. Match the front and back covers perfectly, as picture 5, make sure that it is fixed firmly on the wall.

6. Connect the communication wire well.

! Attention !

Please don't use keen-edged things to hit the controller face and keys, or it may cause damage. When the controller is fixed on the wall, don't pull the communication wire, or it may cause poor contact.

Noise Level

To reduce noise interference to your neighbors, please install the heat pump in a position that faces the least sound sensitive neighboring area. Below table shows the noise level of our pool heat pump at different distance. But they are only guide values because they will be further affected by obstacles.

Noise Level

Madal	POOLEX	POOLEX	POOLEX	POOLEX	POOLEX	POOLEX	POOLEX
Model	JETLINE 35	JETLINE 48	JETLINE 65	JETLINE 85	JETLINE 100	JETLINE 120	JETLINE 150
Noise level at 1m dB(A)	51	52	52	54	54	55	55
Noise level at 4m dB(A)	38	40	40	42	42	44	44
Noise level at 10m dB(A)	30	32	32	33	33	34	34

SCALE OF NOISE LEVELS

Electrical connection

! ATTENTION !

- a. This section is an indication only and must be checked and adapted when neces sary according to installation conditions.
- b. Electrical installation and service must be carried outunder the supervision of a qualified electrician.

1. The electrical power supply to the heat pump must be protected with a fuse and isolator switch (not provided) in compliance with standards and regulations valid in the country in which the system is to be installed.

2. The unit is designed for connection to a general power supply with full earth and neutral or neutral earth systems.

3. The power supply cable must be connected to a circuit-breaker with at least a 3mm breaking gap. Inco ming supply must be 220~240V/1/50Hz, via a distribution board with fuses.

4. If an insulation test is to be carried out in the building, please make sure to disconnect the heat pump.

5. The communication wire must be STP(Shielded Twisted Pair), the size should not less than 0.5 mm²

Important remarks:

- \blacktriangleright A voltage variation of ±10% during operation is acceptable.
- > The electrical supply conduits must be securely fastened.
- > The cable must be suitable for outdoor use.
- Use a cable gland to pass the power supply cable into the unit.

Circuit drawing

POOLEX JETLINE 35 | POOLEX JETLINE 48 | POOLEX JETLINE 65 | POOLEX JETLINE 85

Circuit drawing

POOLEX JETLINE 100 POOLEX JETLINE 120

Circuit drawing

POOLEX JETLINE 150

Illustration for the keys

ON/OFF Press it to switch on or off heat pump.

MODE SELECTION

Press it to select the mode. The sequence is: automatic-cooling-heating-automatic. During parameter setting, press it to adjust parameters; During clock and timer setting, press it to choose the hour value or minute value.

UP AND DOWN

Press them to adjust the value of water temperature, clock, timer, parameters; During failure checking and parameter checking, press any of them to exit checking.

SETTING AND CONFIRM

Long press it for more than 6 seconds, you can check and adjust the parameters. Press the UP/DOWN key to exit operation.

When a failure occurs, press it for no more than 2 seconds, you can check the failure code. Press it again you can check the other failure code if more than one occurs. Press the UP/DOWN key to exit checking.

CLOCK AND TIMER KEY

Press it to set clock and timer. Detailed operation will be described in following pages. During parameter setting, press it to change the rolling direction of parameters.

Illustration for LCD Display

Top area

- \triangle Automatic mode symbol.
- Cooling mode symbol.
- Defrosting symbol.
- ✤ Heating mode symbol.

Middle area

- **SET** Temperature setting symbol, the figure under is the temperature value.
- Inlet water temperature symbol, the figure under is the temperature value.
- NO. Parameter number symbol, the figure under is the parameter number .

Comound Outdoor ambient temperature symbol, the figure under is the temperature value.

- **VALUE** Parameter value symbol, the figure under is the parameter value.
 - ***** Failure symbol.

Bottom area

- **ON** Turning on timer symbol. It appears when setting turn on timer.
- Turning off timer symbol. It appears when setting turn off timer.
- Clock symbol. It appears when setting time.
- AUTO Timer circulation symbol.
- Timer number symbol. The number of segments represents the number of timer.

Water temperature setting

When the heat pump is switched on, just press or v to adjust water temperature.

Fonctionnement de la télécommande

Clock setting

Set the system time according to the local time as follows:

- **Step 1 :** press 🕑 to start clock setting, the symbol 🖓 flashes.
- **Step 2 :** press **M** to select hour and the corresponding value flashes.
- **Step 3 :** press or to adjust the hour value.
- **Step 4:** press **M** to select minute and the corresponding value flashes.
- **Step 5 :** press or to adjust the value.
- **Step 6 :** press **SET** to confirm the value.

ON/OFF timer setting

With this function, the heat pump can turn on or turn off automatically at the set time. ON/OFF timer setting as follows:

Press to return to normal display

How to set an OFF time point

OFF timer setting

- **Step 1 :** press (D) for 3 times to start OFF time setting.
- **Step 2 :** press MODE to select hour and the corresponding value flashes.
- **Step 3 :** press or to adjust the hour value.
- **Step 4:** press MODE to select minute and the corresponding value flashes.
- **Step 5 :** press or to adjust the minute value.
- **Step 6**: press **SET** to confirm the value.
- **Step 7 :** press (1) to return to normal display.

Totally 3 ON/OFF timers can be set. And they can be applied to use for every day or only one day. In timer setting status, the figure below NO represents the timer sequence. If it shows "--:---" on bottom, it means timer invalid.

Below examples show how to set the heat pump to switch on at 9:10 and switch off at 12:30, and switch on again at 14:10 and switch off at 17:30, and switch on again at 19:10 and switch off at 23:30.

The 1 st ON/OFF time setting:

The 2nd ON/OFF timer setting:

The 3rd ON/OFF timer setting:

Timer mode setting:

The default mode is timer recurrence. Please refer to following steps to set one-day timer:

Timer cancelling:

To cancel the timer, please refer to the instruction for timer setting and set it to be "---:---" via the M key. Please check below example for cancelling timer.

Failure code Checking

When a failure occurs, it will show failure symbol on the screen.Press the failure code. You can press it again to check another failure code if more than one occurs. Press ▲ or ▼ to exit.

Common failures and maintenance

	Failure	Cause	Action
Р9	Low pressure protection/ pressure valve break down/Refrigerant leak	1 The ambient temperature is too low 2 The expansion valve can not open. 3 Refrigerant leak.	 Wait until ambient is higher than permitted value. Change the expansion valve. Check out and mend the leak, recharge refrigerant.
E4	High pressure protection	 The ambient temperature is too high. Too high water temperature setting. Refrigerant overcharge. 	 Wait until ambient is lower than permitted value. Set the water temp lower . Discharge some refrigerant.
Р3	Water temp sensor failure	 The sensor is damaged. The sensor is not well connected with the circuit board. 	 Change the sensor. Reconnected the sensor with the circuit board.
P1	Coil temp sensor failure	1 The sensor is damaged. 2 The sensor is not well connected with the circuit board.	 Change the sensor. Reconnected the sensor with the circuit board.
P2	Discharge air sensor failure	 The sensor is damaged. The sensor is not well connected with the circuit board. 	 Change the sensor. Reconnected the sensor with the circuit board.
E3	Discharge temp protection (Discharge temp is too high)	 No water flow through the heat exchanger Refrigerant leak The expansion valve can not open. 	 Change the filter or flush the pipe or Check the circulation pump. Check out and repair the leak, recharge refrigerant. Change the expansion valve.
PD	Water flow switch failure		

Maintenance & Troubleshooting

Parameter checking and adjustment

The system parameters can be checked and adjusted via the controller. But they should not be changed casually, especially by house owners.

! Warning ! This operation is reserved to facilitate future service and maintenance. All parameters should not be changed casually, especially by house owners!

How to check and adjust parameters:

- **Step 1 :** long press SET (≥6 seconds) to enter parameter checking mode.
- **Step 2 :** short press **SET** again and again to choose parameter that needs adjusting. If press **●**, the rolling direc tion will be converted(+ to or to +)
- **Step 3 :** press M to start parameter setting and the parameter flashes.
- **Step 4:** press **v** or **a** to adjust the value.
- **Step 5 :** press **SET** to confirm the value.
- **Step 6 :** press **v** or **a** to return to normal display.

Maintenance & Troubleshooting

Parameter number and description are listed in the following table.

No.	Content	Scope	Default	Memorized station	
0	The incoming electric memorized sign	0-no effective 1-effective	1	The main bo	oard
1	Daily circulation sign	0-no effective 1-effective	1	the wire panel	control
2	the setting area X	$2^{\circ}C \sim 10^{\circ}C$, Unit: $^{\circ}C$	3	The main	board
3	the setting area Y	0° C \sim 3 $^{\circ}$ C, Unit: $^{\circ}$ C	0	The main	board
4	The interval for defrosting	$15 \sim 99$, Unit: minute	45	The main	board
5	Defrosting-on temperature	-9 \sim 5°C, Unit: °C	-3	The main	board
6	Defrosting-off temperature	$5\sim 20^{\circ}$ C, Unit: °C	10	The main	board
7	Compressor's exhaust air protection -30	90~120℃, Unit: ℃	118(show 88, but it means 118 ℃)	The main	board
8	Pipe temperature	Unit: °C Scope: -9°C-80°C		No Setting	
9	Exhaust air temperature-30	Unit: °C		No Setting	
10	ambient temperature	Unit: °C Scope: -9°C-80°C		No Setting	
11	Compressor continuous running time	Unit: minute Scope: 0-99		No Setting	
12	Fan continuous running time 1/4	Unit: Second		No Setting	
13	Compressor auto-off code			No Setting	
14	On-off imported state	Especial: sixteen		No Setting	
15	Fixed temperature's upper limit	Unit: °C Scope: 35°C-60°C	40	The main	board
16	Water-pump running mode	0/1/2Normal/especial 1/especial 2)	0	The main	board

Remark : the machine off code

- 1: Power off
- **2**: meet set temperature
- 3: Water-switch breakdown
- 4: Antifreeze finishing. then stop the machine
- 5: Defrosting preparation
- 6: Defrosting off
- 7: Mode change

The manometer instruction

- 8: Exhaust air temp is too high, then stop the machine.
- **9**: Low-pressure switch cutting
- **10:** High-pressure switch cutting
- **11**: Water-temperature resistance's breakdown
- **12:** Pipe-temperature resistance's breakdown

13 : Ambient temperature resistance's breakdown

The manometer is a ki nd of high pressure equipment, wh en the heat pump is on, the manometer pointer would point to the pressure value of refrigerant, the max. value of protection is 42kg/Cm² · Wh en the he at pump is off, the pointer would point to the same value as actual ambient temperature (e.g. 28 'C) and related air pressure (e.g. 18kg/ cm²).

Please check the manometer wh en y ou res tart the he at pump after not using for a long time, if it shows ambient temperature valve is smaller than 2 'C, it me ans that refrigerant has leaked a lot, and y ou need to confirm with professional engineer as soon as possible.

CIMITED WARRANTY

POOLEX HEAT PUMP-POOL HEATERS

POOLSTAR warrants to the original owner, the POOLEX HEAT PUMP POOL HEATER to be free of defects in materials and workmanship for a period of **two (2) years**.

Compressor part has a limited five (5) year warranty

The TITANIUM tube portion Exchanger carries a "**LIFETIME**" Warranty against failure due to chemical corrosion

Other parts and components' of the condenser are covered for a period of two (2) years.

THE EFFECTIVE DATE OF WARRANTY is the date of installation, THIS WARRANTY WILL NOT APPLY TO :

A) Malfunction or damage resulting from installation, operation, maintenance, or service not in accordance to the basic safety consideration.

B) Malfunction or damage due to improper pool chemistry.

C) Malfunction or damage due to conditions not intended for the original use of the unit.

- D) Damage due to negligence, accident, or acts of Force Majeur.
- E) Malfunction or damage from the attachment of accessories not authorized.

SERVICE PERFORMED WITHIN THE WARRANTY PERIOD must be approved PRIOR to service being performed and performed by an authorized technician. The warranty is void if unit repaired by anyone unauthorized by POOLSTAR company.

WARRANTY PARTS will be replaced or repaired at the discretion of Poolstar. Defective parts must be returned to POOLSTAR within the warranty period for validation. The warranty is not liable for the labor involved with unauthorized repair or replacement costs, the direct replacement cost does not include shipping of warranty parts.

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