

Installation & Operation Manual

Alliance Domestic Inverter Pool Heat Pump

Models:

ALLPH90R410 – INV
ALLPH120 R410 – INV
ALLPH160 R410 – INV
ALLPH190 R410 – INV



Thank you very much for purchasing our product.
Before using your heat pump, please read this manual carefully and keep it for future reference.

Contents

Preface.....	1
Specifications – ALLPH90R410-INV / ALLPH120R410-INV ALLPH160R410-INV / ALLPH190R410-INV.....	2
Dimensions	3
Installation and connection	4
• Heat pump location 4	
• How close to your pool 4	
• Installation illustration 5	
• Installation of check valve 5	
Electrical wiring	6
Initial start-up of unit	7
Condensation	7
Controller operation	8-17
Error code list.....	18-19
PC Board wiring diagram	20
Maintenance and inspection.	21
Exploded view	22
Parts list.....	23
Appendix.....	24
Warranty	25-27
Contact Information	28

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To provide our customers with quality, reliability and versatility, this product has been made to strict production standards. This manual includes all the necessary information about installation, debugging, discharging and maintenance. Please read this manual carefully before you open or maintain the unit. The manufacture of this product will not be held responsible if someone is injured or the unit is damaged, because of improper installation, debugging, or unnecessary maintenance. It is vital that the instructions within this manual are always adhered to. The unit must be installed by qualified personnel.

The unit can only be repaired by qualified personnel or an authorized dealer.

Maintenance and operation must be carried out according to the recommended time and frequency, as stated in this manual.

Use genuine standard spare parts only. Failure to comply with these recommendations will invalidate the warranty.

Swimming Pool Heat Pump Unit heats the swimming pool water and keeps the temperature constant.

Our heat pump has the following characteristics:

- **Durable**
The heat exchanger is made of PVC & Titanium tube which can withstand prolonged exposure to swimming pool water.
- **Quiet operation**
The unit comprises an efficient inverter compressor and fan motor, which guarantees its quiet operation.
- **Advanced control**
The unit includes micro-computer controlling, allowing all operation parameters to be set. Operation status can be displayed on the LCD wired controller.

Specifications

Performance data

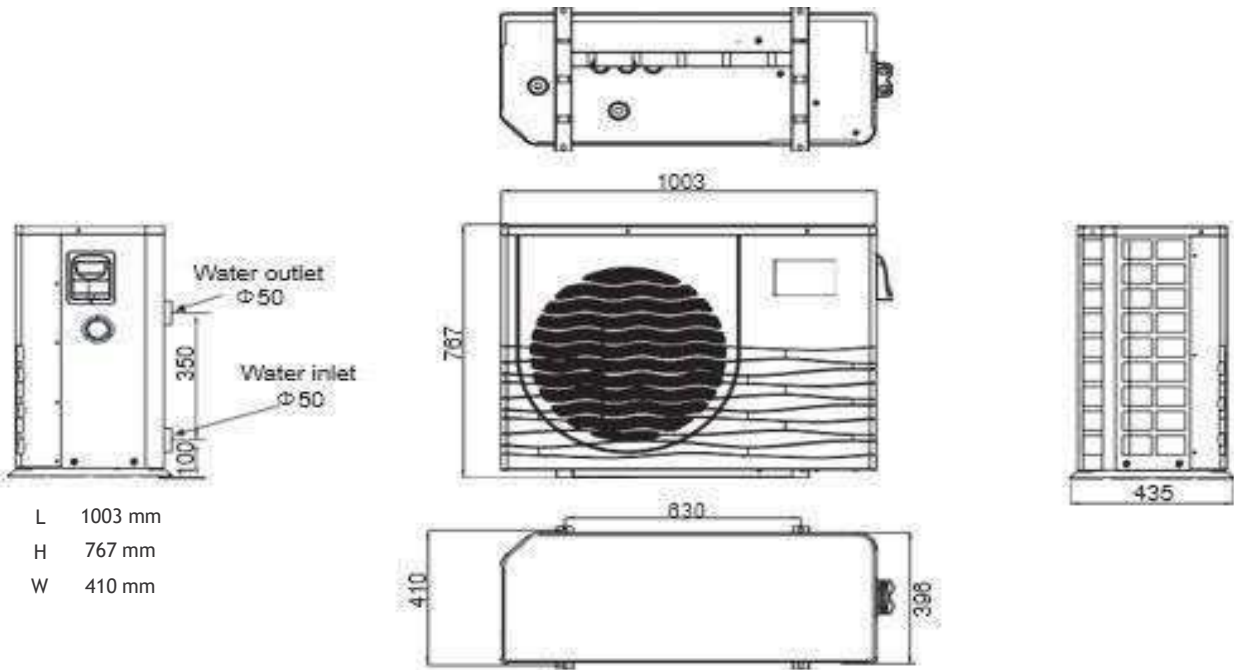
UNIT		ALLPH90R410 - INV	ALLPH120R410 - INV
Heating Capacity	kW	2.1 – 9	2.7 – 12.2
Consumed power	kW	0.19 – 1.82	0.25 – 2.32
COP		11 – 4.9	10.8 – 5.2
Operating air temperature	°C	-15 to 43	-15 to 43
Power supply		230V~/ 50Hz	230V~/ 50Hz
Max power input	kW	2.2	3
Current range	A	0.8 – 7.1	1.3 – 13.1
Max Current	A	9.7	13
Compressor quantity		1	1
Compressor type		Rotary	Rotary
Refrigerant		R410a	R410a
Fan quantity		1	1
Fan power input	W	100	120
Fan rotary speed	RPM	500 - 700	500 - 700
Fan direction		Horizontal	Horizontal
Noise	dB(A)	40 - 51	43 - 53
Water connection	mm	50	50
Nominal water flow	m3/h	3.2	4.1
Water pressure drop (max)	kPa	3	3
Unit net dimensions (L*W*H)	mm	1003*410*767	1048*441*770
Net weight	kg	52	60
Test conditions - Air 27°C / Water 26°C / Humidity 80%			

Performance data

UNIT		ALLPH160R410 - INV	ALLPH190R410 - INV
Heating Capacity	kW	2.8 – 15.9	3.4 – 18.9
Consumed power	kW	0.24 – 3.13	0.38 – 3.86
COP		12.57 – 5.63	8.9 – 4.89
Operating air temperature	°C	-15 to 43	-15 to 43
Power supply		230V / 50Hz	230V / 50Hz
Max power input	kW	3.9	4.88
Current range	A	1.5 – 12	1.6 – 17.1
Max Current	A	17.2	16.6
Compressor quantity		1	1
Compressor type		Rotary	Rotary
Refrigerant		R410A	R410A
Fan quantity		1	1
Fan power input	W	120	120
Fan rotary speed	RPM	600 - 750	600 - 900
Fan direction		Horizontal	Horizontal
Noise	dB(A)	40 - 56	42 - 57
Water connection	mm	50	50
Nominal water flow	m3/h	5.2	6.3
Water pressure drop (max)	kPa	5	6
Unit net dimensions (L*W*H)	mm	1117*430*868	1117*430*868
Unit shipping dimensions (L*W*H)	mm	1210*510*880	1210*510*880
Net weight	kg	68	75
Test conditions - Air 27°C / Water 26°C / Humidity 80%			

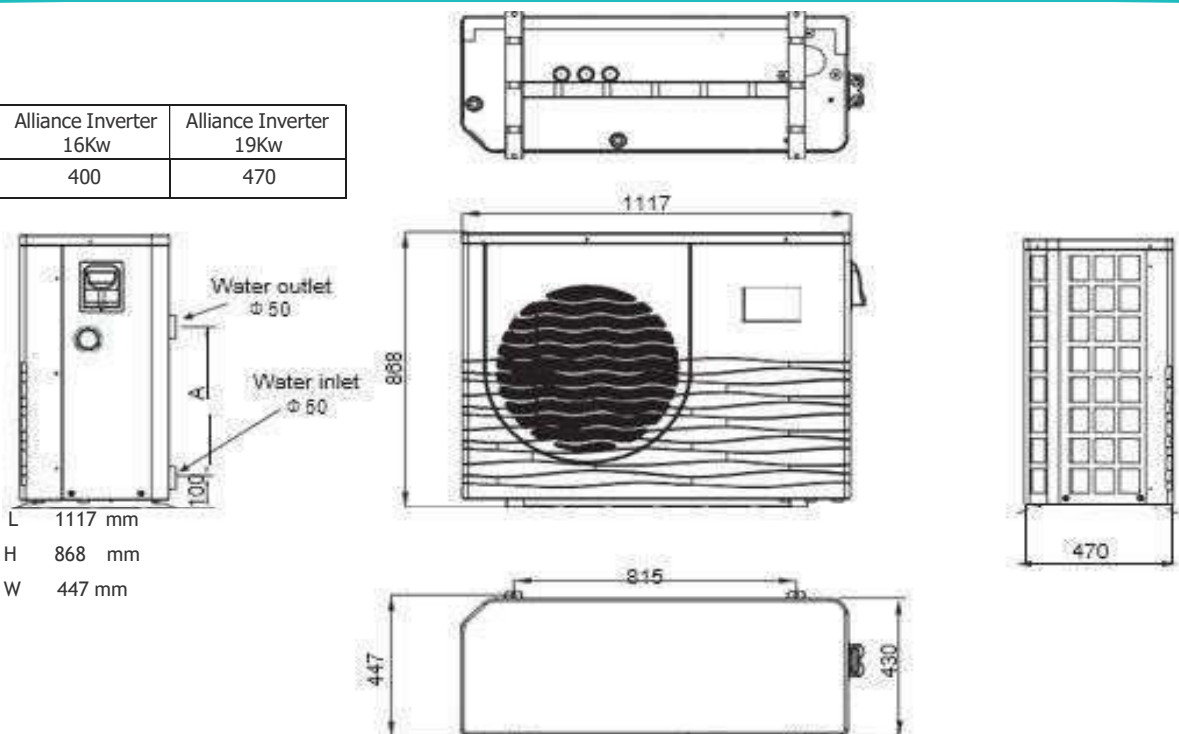
Dimensions

Alliance Inverter 9kW / 12kW



Alliance Inverter 16kW / 19kW

	Alliance Inverter 16Kw	Alliance Inverter 19Kw
A	400	470



Heat Pump Location

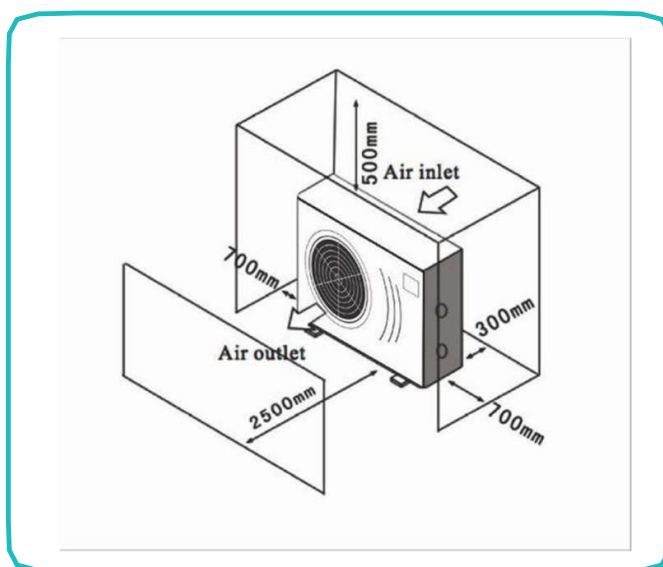
The unit will perform well in any outdoor location provided that the following three factors are presented:

1. Fresh Air - 2. Electricity - 3. Pool filter piping

The unit may be installed virtually anywhere outdoors. For indoor pools please consult the supplier. Unlike a gas heater, it has no draft or pilot light problem in a windy area.

DO NOT place the unit in an enclosed area with a limited air volume, where the units discharge air will be re-circulated.

DO NOT place the unit close to bushes or shrubs which can block air inlet / outlet. These locations deny the unit of a continuous source of fresh air which reduces its efficiency and may prevent adequate heat delivery.

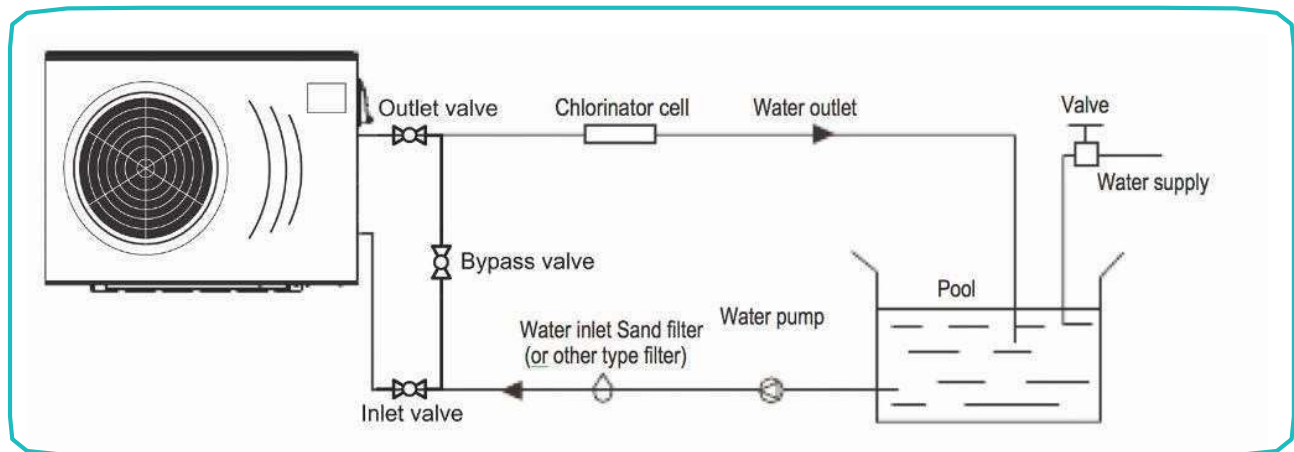


How close to your pool?

Normally, the pool heat pump is installed within 7.5 meters of the pool. The longer the distance from the pool, the greater the heat loss from the piping. For the most part, the piping is buried. Therefore, the heat loss is minimal for runs of up to 15 meters (15 meters to and from the pump = 30 meters total), unless the ground is wet, or the water table is high.

A very rough estimate of heat loss per 30 meters is 0.6 kW-hour, (2000BTU) for every 5°C difference in temperature between the pool water and the ground surrounding the pipe, which translates to about 3% to 5% increase in run time.

Installation illustration



Remarks:

The factory only provides the heat pump. Other parts, including a by-pass are to be provided by the user or installer.

Attention:

Please take the following steps when installing the heat pump:

1. Each addition of chemicals must be performed through the conduits located AFTER the heat pump.
2. Install a by-pass for easy maintenance.
3. Always place the heat pump on a solid base and use the supplied silent blocks to avoid vibrations and noise.
4. Always keep the heat pump in upright position. If the unit has been tilted, you should wait for at least 24 hours before turning it on.

Installation of a check valve

When using automatic chlorine and pH dosage systems, it is of extremely import to protect the heat pump from high concentrations of these chemicals that could corrode the heat exchanger. Therefore, such systems should add the chemicals in the conduits located DOWNSTREAM of the heat pump and it is recommended to install a check-valve in order to prevent backflow when there is no water circulation. Damage to the heat pump caused by disregarding any of these recommendations will invalidate the warranty.

Important - Although the heat pump is electrically isolated from the rest of the unit, this only prevents the passage of electricity to or from the pool water. Grounding the unit is still required to protect yourself from short circuits inside the unit. Make for adequate ground connection.

Check if the electrical mains voltage corresponds with the operating voltage of the heat pump prior to hooking up the unit.

It is recommended to use a separate fuse (C-curve) as well as adequate wiring (see table below). Connect the electrical wires with the terminal block labelled 'TO POWER SUPPLY'.

Next to this connection, there is a second terminal block labelled 'TO PUMP', to which the pool pump (max. 5A/240V) or an electrical relay for a filtration pump can be connected. This connection makes it possible to control the pool pump operation with the heat pump.

However, we do not recommend that you wire the pool circulation pump to the heat pump. Run separate power supplies to the heat pump and the pool circulation pump. This allows the pool circulation pump to be put on a time clock and operated for the required time to give adequate filtration for the pool and the pool circulation pump can be manually operated when required to backwash the filter etc.

Model	Voltage (V)	Fuse (C-curve)	Max current (A)	Cable section*
ALLPH90R410 - INV	220-240V	20	7.9	2.5 mm
ALLPH120R410 - INV	220-240V	20	13	2.5 mm
ALLPH160R410 - INV	220-240V	20	13.96	2.5 mm
ALLPH190R410 - INV	220-240V	32	21.17	4 mm

* For a maximum cable length of 50m

Note: Due to the unstable and unreliable power supply in South Africa, Under / Over voltage protection is required to protect electronic components inside the heat pumps. Failure to install Under / Over voltage protection will void the warranty.

Initial startup of the unit

NOTE- For the unit to heat the pool or spa, the filter pump must be running to circulate water through the heat exchanger.

Startup Procedure - After installation is completed, you should follow these steps:

1. Turn on your pool pump. Check for water leaks and verify flow to and from the pool.
2. Turn on the electrical power supply to the heat pump, then press the key ON/OFF on the wire controller. It should start in several seconds.
3. After running a few minutes make sure the air leaving the fan opening of the unit is cooler (between 5-10°C)
4. With the unit operating turn, the pool pumps off. The unit should also turn off automatically,
5. Allow the unit and pool pump to run 24 hours per day until desired pool water temperature is reached. When the desired pool water temperature reaches the setting, the unit just shuts off.
6. The unit will now automatically restart (if your pool pump is running) when the pool temperature drops more than 2°C below set temperature.

Time Delay- The unit is equipped with a 3-minute built-in solid state restart delay included to protect control circuit components and to eliminate restart cycling and contactor chatter.

This time delay will automatically restart the unit approximately 3 minutes after each control circuit interruption. Even a brief power interruption will activate the solid state 3-minute restart delay and prevent the unit from starting until the 3-minute countdown is completed. Power interruptions during the delay period will have no effect on the 3-minute countdown.

Condensation

Since the Heat pump cools down the air about 5°C, water may condense on the fins of the evaporator. If the relative humidity is very high, this could be as much as several litres an hour. The water will run down the fins into the base pan and drain out through the barbed plastic condensation drain fitting on the side of the base pan.

This fitting is designed to accept 20mm clear vinyl tubing which can be pushed on by hand and run to a suitable drain. It is easy to mistake the condensation for a water leak inside the unit.

TIP:

A quick way to verify that the water is condensation is to shut off the unit and keep the pool pump running. If the water stops running out of the base pan, it is condensation. AN EVEN QUICKER WAY IS TO TEST THE DRAIN WATER FOR CHLORINE - if there is no chlorine present, then it is condensation.

Controller display



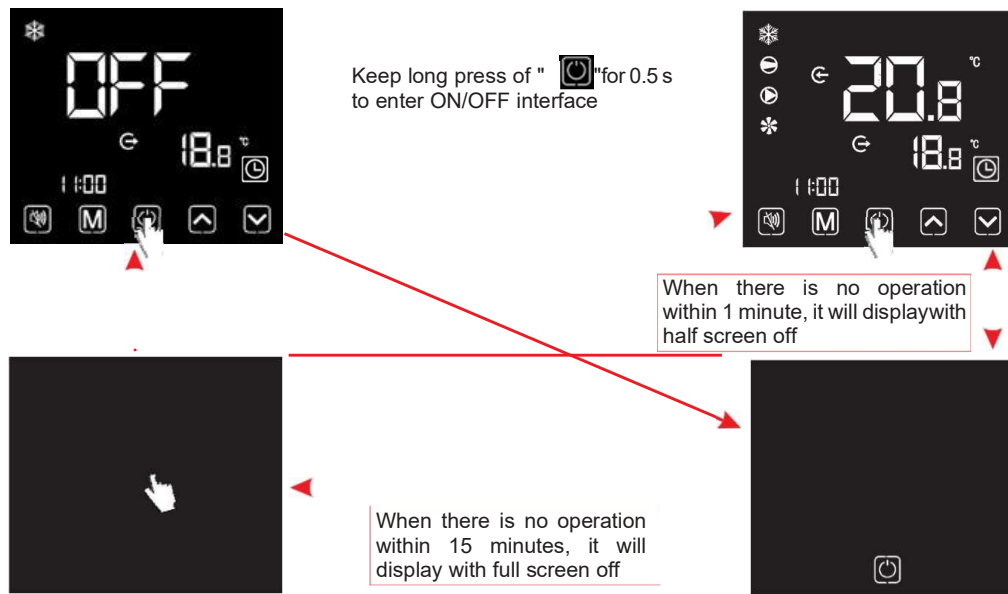
Key and icon function instruction

Key symbols	Designation	Function
	Mute key	Under the heating mode or heating mode under the automatic mode, the mute key operation is effective and used to enter and exit the mute mode with one click.
	Mode key	It is used to switch the unit mode, temperature setting, and parameter setting.
	On-off key	It is used to carry out start-up & shutdown, cancel current operation and return to the last level of operation.
	Up key	It is used to page up and increase variable value.
	Down key	It is used to page down and decrease variable value.
	Clock key	It is used as user clock, and to carry out timing setting.

Icon function instruction

Icon symbol	Designation	Function
	Cooling symbol	It will display during cooling (there is no limit to startup & shutdown, and it is optional when the unit is cooling-only unit or heating-and-cooling unit).
	Heating symbol	It will display during heating (there is no limit to startup & shutdown, and it is optional when the unit is heating-only unit or heating-and-cooling unit).
	Automatic symbol	It will display under the automatic mode (there is no limit to startup & shutdown, and it is optional when the unit is heating- and-cooling unit).
	Defrosting symbol	It will display in the defrosting process of the unit.
	Compressor symbol	It will display when compressor is started.
	Water pump symbol	It will display when water pump is started.
	Fan symbol	It will display when fan is started.
	Mute symbol	When the timing mute function is started, it keeps bright for a long time. When it is in mute state, it will flash. Or else, it is off.
	Timing symbol	It will display after the user sets the timing, and multiple timing intervals can be set.
	Water outlet symbol	When the axillary display area displays the water outlet temperature, the light is on.
	Water inlet symbol	When the main display area displays the water inlet temperature the light is on.
	Locking key symbol	When the keyboard is locked, it is on.
	Fault symbol	In case of unit fault, it is on.
	Wireless signal symbol	When the unit is connected to WIFI module, it will display according to the strength of WIFI signal.
	Degrees Celsius symbol	When main display area or auxiliary display area displays degrees Celsius, it is on.
	Degrees Fahrenheit symbol	When main display area or auxiliary display area displays degrees Fahrenheit, it is on.
	Setting symbol	When the parameter is adjustable, it is on
	Second symbol	When main display area displays second digit, it is on.
	Minute symbol	When main display area displays minute digit, it is on.
	Hour symbol	When main display area displays hour digit, it is on.
	Pressure symbol	When main display area displays pressure, it is on.
	Flow symbol	When main display area displays flow, it is on.

Start-up & shutdown



Notes:

Startup & shutdown operation can only be conducted in the main interface.

When it displays with half screen off or full screen off, click any key for returning to ON/OFF main interface.

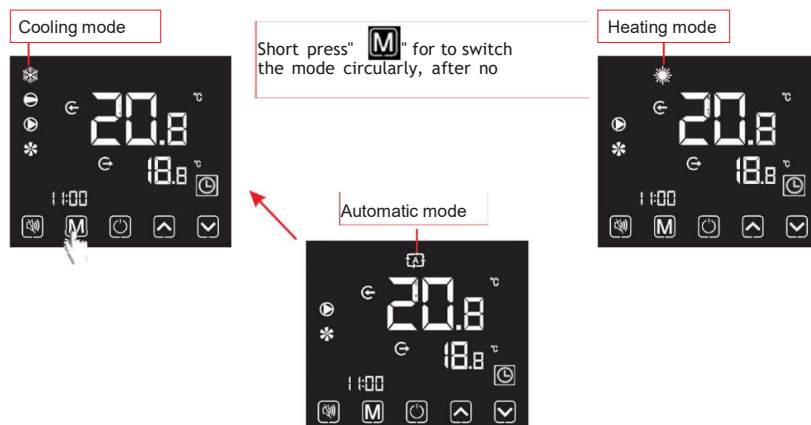
When the unit is started under the control of wire controller, if using the emergency switch to shut down, the wire controller will display as follows:

Operations are the same as under ON/OFF main interface



Change mode

Under the main interface, Short press "  " to switch the unit among heating "  ", cooling "  " and automatic mode "  ".



Operation description

- 1). Mode switch operation can only be conducted in the main interface.
- 2). When the unit is under the defrosting state, the defrosting symbol is on, with the display interface as follows:

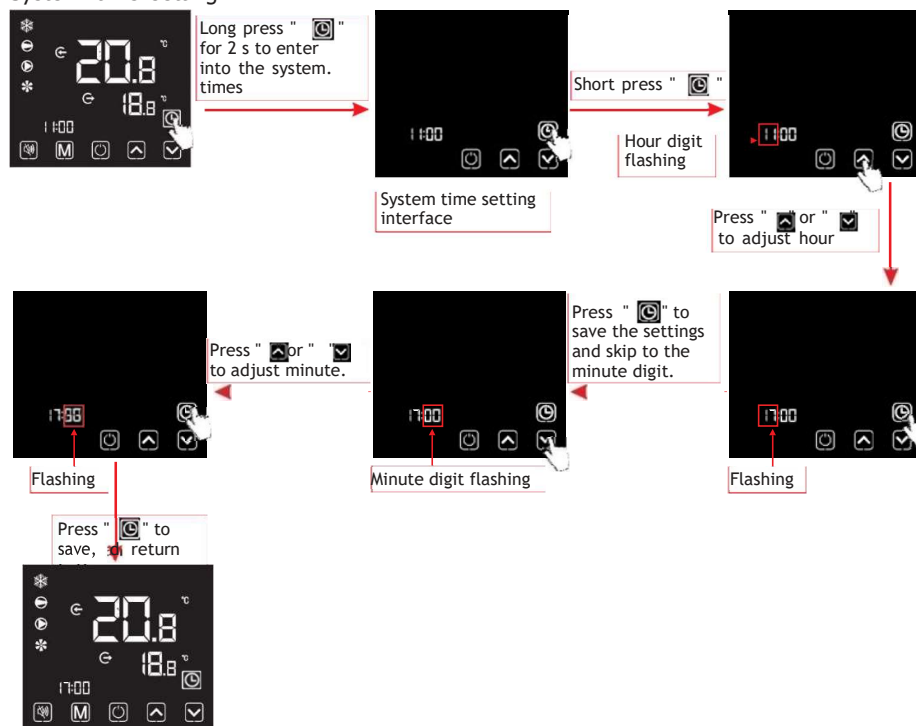


Notes:

- 1) After completing the defrosting, the unit will be automatically switched to the heating/ automatic mode (keeping consistent with the mode before defrosting).
- During the defrosting, mode switch is available. And when switching the mode, the unit will not work under a new mode until defrosting is completed.

Clock setting

System time setting



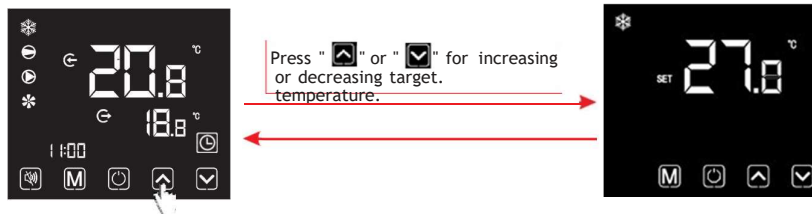
Notes: Under the clock setting interface, if there is no operation for 20 s, the system will automatically memorize use's settings and return to the main interface; if short press  during any operating steps, the changes will not be saved and return to the main interface.

Setting and cancelling the Timer ON/OFF function

The wire controller can set up a two-stage timing function: Timer ON1~ OFF1; Timer ON2~OFF2.
Select **ON 1** **OFF1** **ON 2** **OFF** timer setting interface:



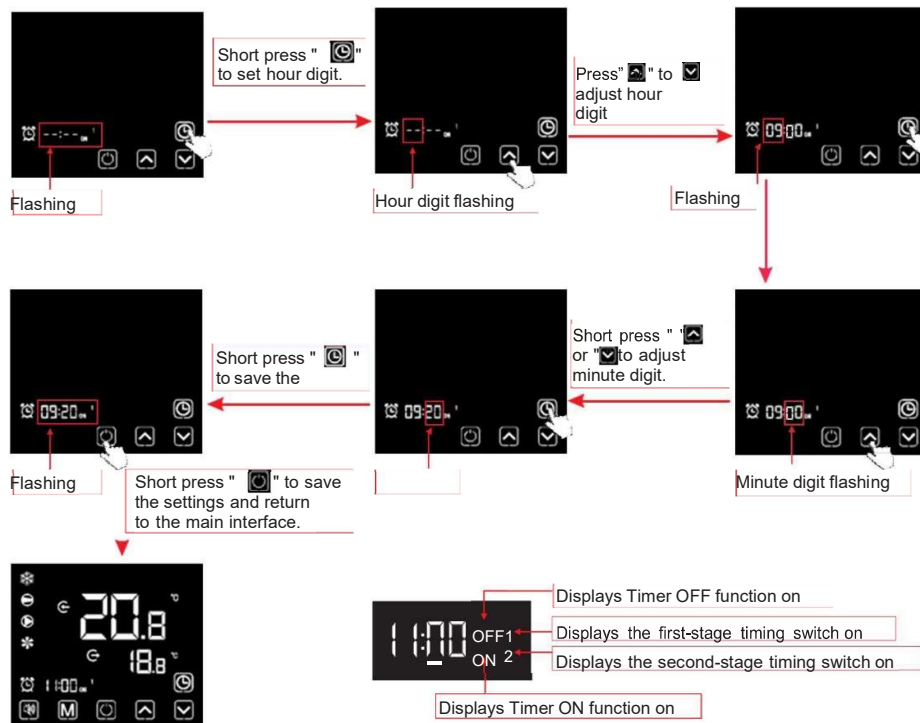
Temperature setting



Notes: Under the temperature setting interface, if short press "⌚", the system will return to the main interface without any changes saved. If there is no operation for 5 s or short press

Setting the Timer ON/OFF function: Set the ON/OFF timer as below.

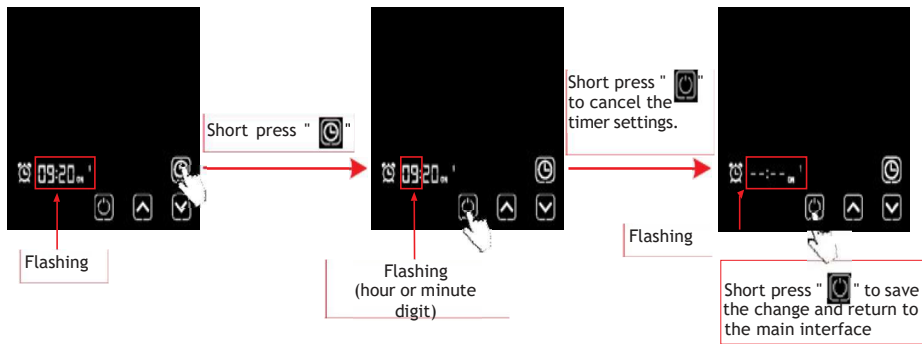
Take ON1 for example



Canceling the Timer ON/OFF function:

Cancel the timer ON/OFF as below.

Take Cancel Timer On for example



Silent setting

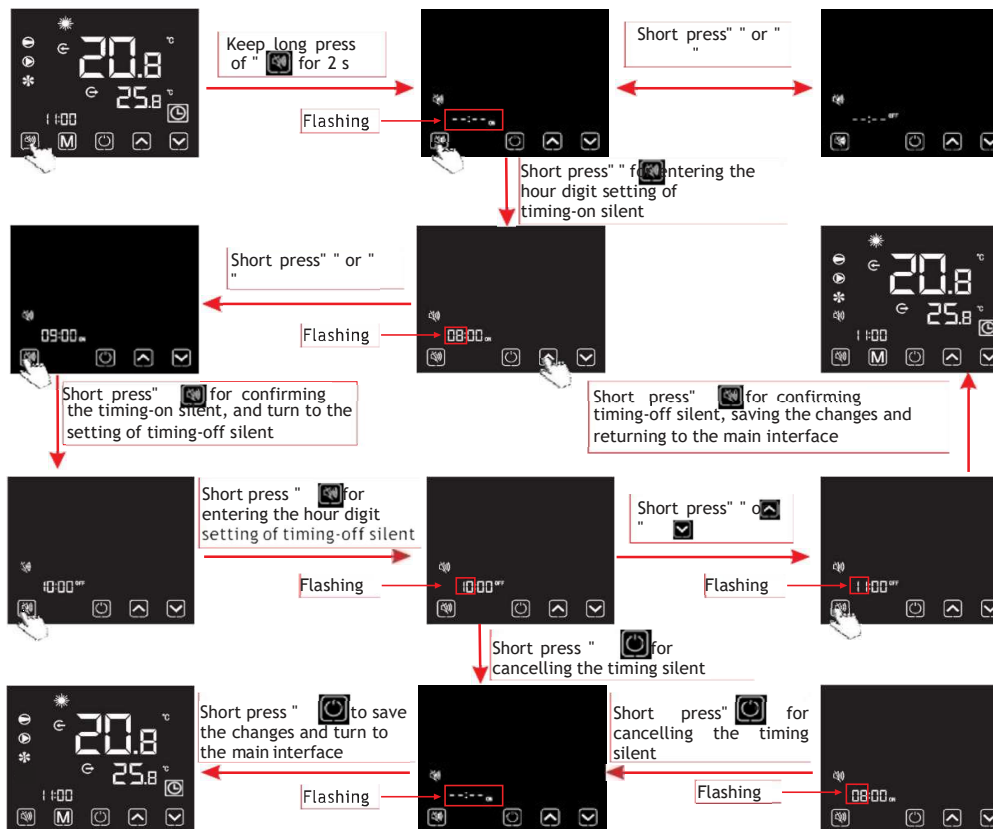
One-click silent function



Notes:

- 1). If one-click silent and timing silent are started at the same time, short press "Silent" for canceling one-click silent and quitting the timing silent for this time.
- 2). At night, the user can start one-click silent or timing silent function to reduce the noise.

Setting and cancelling the silent function

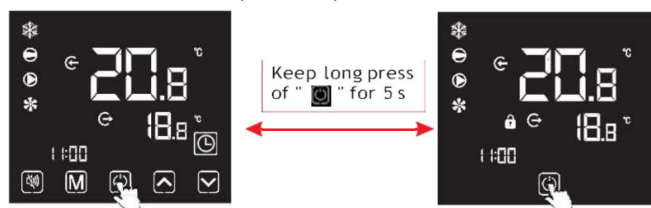


Notes:

- 1). When the silent icon " [Silent Icon] " is illuminated. The timing mute has been set, but it is not under silent status. "
- 2). When the silent icon " [Silent Icon] " flash: It's under the silent status.
- 3). When the silent icon " [Silent Icon] " disappear: The timing silent is not set.

Keyboard lock

To avoid others' mis operation, please lock the wire controller after completing the setting.

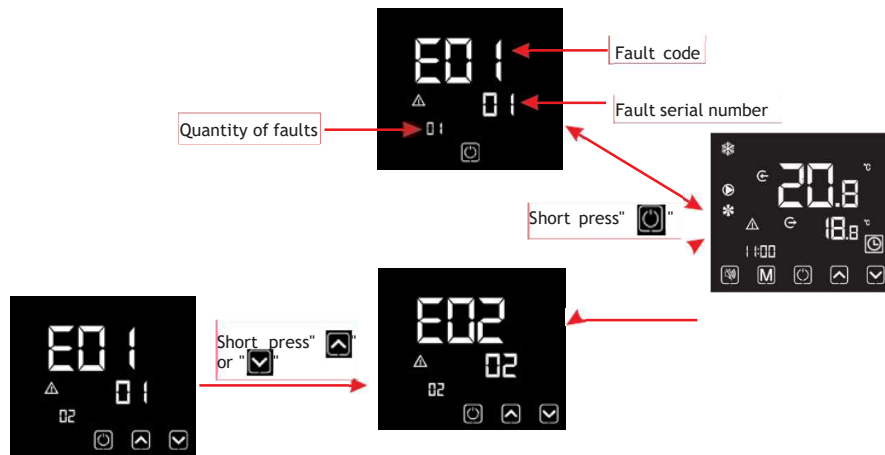


Notes:

- 1) Under the locked screen interface, only unlocking operation is available, and the screen will be lightened after other operations conducted.
- 2) Under the OFF interface, locking operation is available, and the operation method is the same as locking screen under the ON interface.

Fault Interface

When the unit fails, the wire controller can display the corresponding code according to the fault reason. Refer to the fault table for the specific definition of the fault codes.



Remark:

The wire controller can display the temperature unit as "°F" or "°C" according to the unit model you bought.

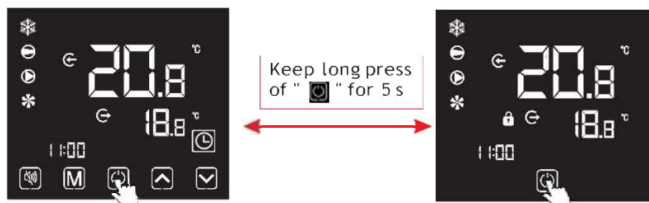
Display interface introduction

Notes:

- 1). When the silent icon " " is on: The timing mute has been set, but it's not under silent status. "
- 2). When the silent icon " " flashes: It's under the silent status.
- 3). When the silent icon " " not there: The timing silent is not set.

4.8. Keyboard lock

To avoid others' mis-operation, please lock the wire controller after completing the setting.



Notes:

- 1) Under the locked screen interface, only unlocking operation is available, and the screen will be illuminated after other operations conducted.
- 2) Under the OFF interface, locking operation is available, and the operation method is the same as locking screen under the ON interface.

Error code list

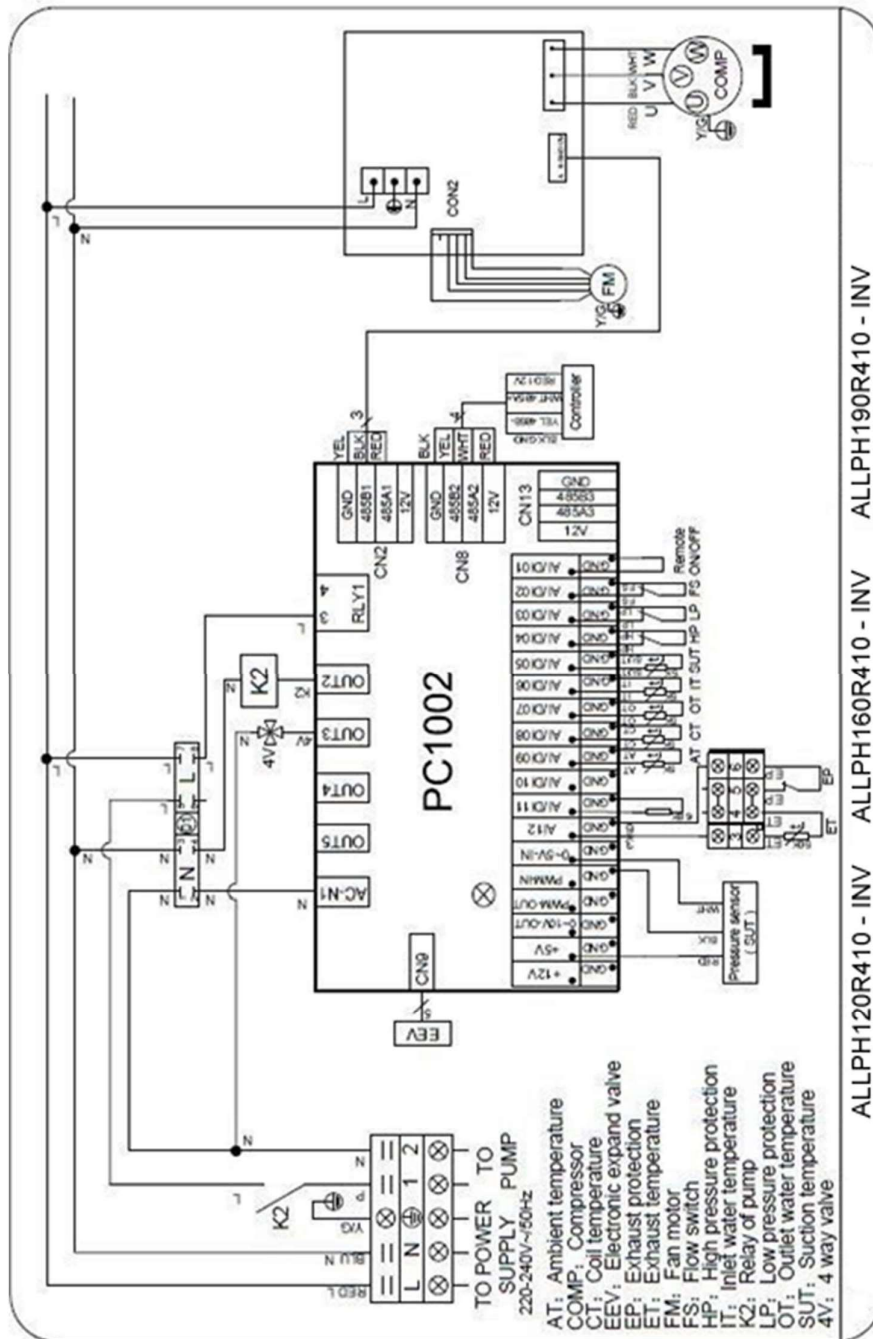
Protection/fault	Fault display	Reason	Elimination methods
Drv1 MOP alarm	F01	MOP drive alarm	Recovery after the 150s
Inverter offline	F02	Frequency conversion board and main board communication failure	Check the communication connection
IPM protection	F03	IPM modular protection	Recovery after the 150s
Comp. Driver Failure	F04	Lack of phase, step, or drive hardware damage	Check the measuring voltage check frequency conversion board hardware
DC Fan Fault	F05	Motor current feedback open circuit or short circuit	Check whether current return wires connected motor
IPM Overcurrent	F06	IPM Input current is large	Check and adjust the current measurement
Inv. DC Overvoltage	F07	DC bus voltage > Dc bus over-voltage protection value	Check the input voltage measurement
Inv. DC Low voltage	F08	DC bus voltage < Dc bus over-voltage protection value	Check the input voltage measurement
Inv. Input Low voltage.	F09	The input voltage is low, causing the input current is high	Check the input voltage measurement
Inv. Input Overvoltage.	F10	The input voltage is too high, more than outage protection current RMS	Check the input voltage measurement
Inv. Sampling Volt.	F11	The input voltage sampling fault	Check and adjust the current measurement
Comm. Err DSP-PFC	F12	DSP and PFC connect fault	Check the communication connection
Input Over Cur.	F26	The equipment load is too large	
PFC fault	F27	The PFC circuit protection	Check the PFC switch tube short circuit or not
IPM Over heating	F15	The IPM module is overheat	Check and adjust the current measurement
Weak Magnetic Warning	F16	Compressor magnetic force is not enough	
Inv. Input Out Phase	F17	The input voltage lost phase	Check and measure the voltage adjustment
IPM Sampling Cur.	F18	IPM sampling electricity is fault	Check and adjust the current measurement
Inv. Temp. Probe Failure	F19	Sensor is short circuit or open circuit	Inspect and replace the sensor
Inverter Overheating	F20	Transducer overheat	Check and adjust the current measurement
Inv. Overheating Warning	F22	Transducer temperature is too high	Check and adjust the current measurement
Comp. Over Current. Warning	F23	Compressor electricity is large	The compressor over-current protection
Input Over Cur. Warning	F24	Input current is too large	Check and adjust the current measurement
EEPROM Error Warning	F25	MCU error	Check whether the chip is damaged Replace the chip
V15V over/undervoltage fault	F28	The V15V is overload or undervoltage	Check the V15V input voltage in range 13.5v~16.5v or not
Fan Motor2 Fault	F032	1. Motor is in locked-rotor state. 2. The wire connection between DC-fan motor module and fan motor are in bad contact	Change a new fan motor. Check the wire connection and make sure they are in good contact
Communication Fault (speed control module)	E081	Speed control module and main board communication fail	Check the communication connection

Protect/fault	Fault display	Reason	Elimination methods
Inlet Temp. Sensor Fault	P01	The temp. Sensor is broken or short circuit	Check or change the temp. Sensor
Outlet Temp. Sensor Fault	P02	The temp. Sensor is broken or short circuit	Check or change the temp. Sensor
Ambient Temp. Sensor Fault	P04	The temp. Sensor is broken or short circuit	Check or change the temp. Sensor
Coil 1 Temp. Sensor Fault	P05	The temp. Sensor is broken or short circuit	Check or change the temp. Sensor
Coil 2 Temp. Sensor Fault	P15	The temp. Sensor is broken or short circuit	Check or change the temp. Sensor
Suction Temp. Sensor Fault	P07	The temp. Sensor is broken or short circuit	Check or change the temp. Sensor
Discharge Temp. Sensor Fault	P081	The temp. Sensor is broken or short circuit	Check or change the temp. Sensor
Exhaust Air over Temp Prot.	P082	The compressor is overload	Check whether the system of the compressor running normally
Antifreeze Temp. Sensor Fault	P09	Antifreeze temp sensor is broken or short circuited	Check and replace this temp sensor
Pressure sensor Fault	PP	The pressure Sensor is broken	Check or change the or pressure sensor
High Pressure Prot.	E01	The high-pressure switch is broken	Check the pressure switch and cold circuit
Low Pressure Prot.	E02	Low pressure1 protection	Check the pressure switch and cold circuit
Flow Switch Prot.	E03	No water/little water in water system	Check the pipe water flow and water pump
Waterway Anti-freezing Prot.	E05	Water temp. or ambient temp. is too low	
Inlet and outlet temp. too big	E06	Water flow is not enough and low differential pressure	Check the pipe water flow and whether water system is jammed or not
Anti-freezing Prot.	E07	Water flow is not enough	Check the pipe water flow and whether water system is jammed or not
Winter Primary Anti-Freeze Protection.	E19	The ambient temp. Is low in winter	
Winter Secondary Anti-freezing Prot.	E29	The ambient temp. Is low in winter	
Comp. Overcurrent Prot.	E051	The compressor is overload	Check whether the system of the compressor running normally
Communication Fault	E08	Communication failure between wire controller and mainboard	Check the wire connection between remote wire controller and main board
Communication Fault (speed control module)	E081	Speed control module and main board communication failure	Check the communication connection
Low AT Protection	TP	Ambient temp is too low	
EC fan feedback Fault	F051	There is something wrong with fan motor and fan motor stops running	Check whether fan motor is broken or locked or not
Fan Motor 1 Fault	F031	1. Motor is in locked-rotor state 2.The wire connection between DC-fan motor module and fan motor are in bad contact	Change a new fan motor. Check the wire connection and make sure they are in good contact

Wire control interface diagram and definition

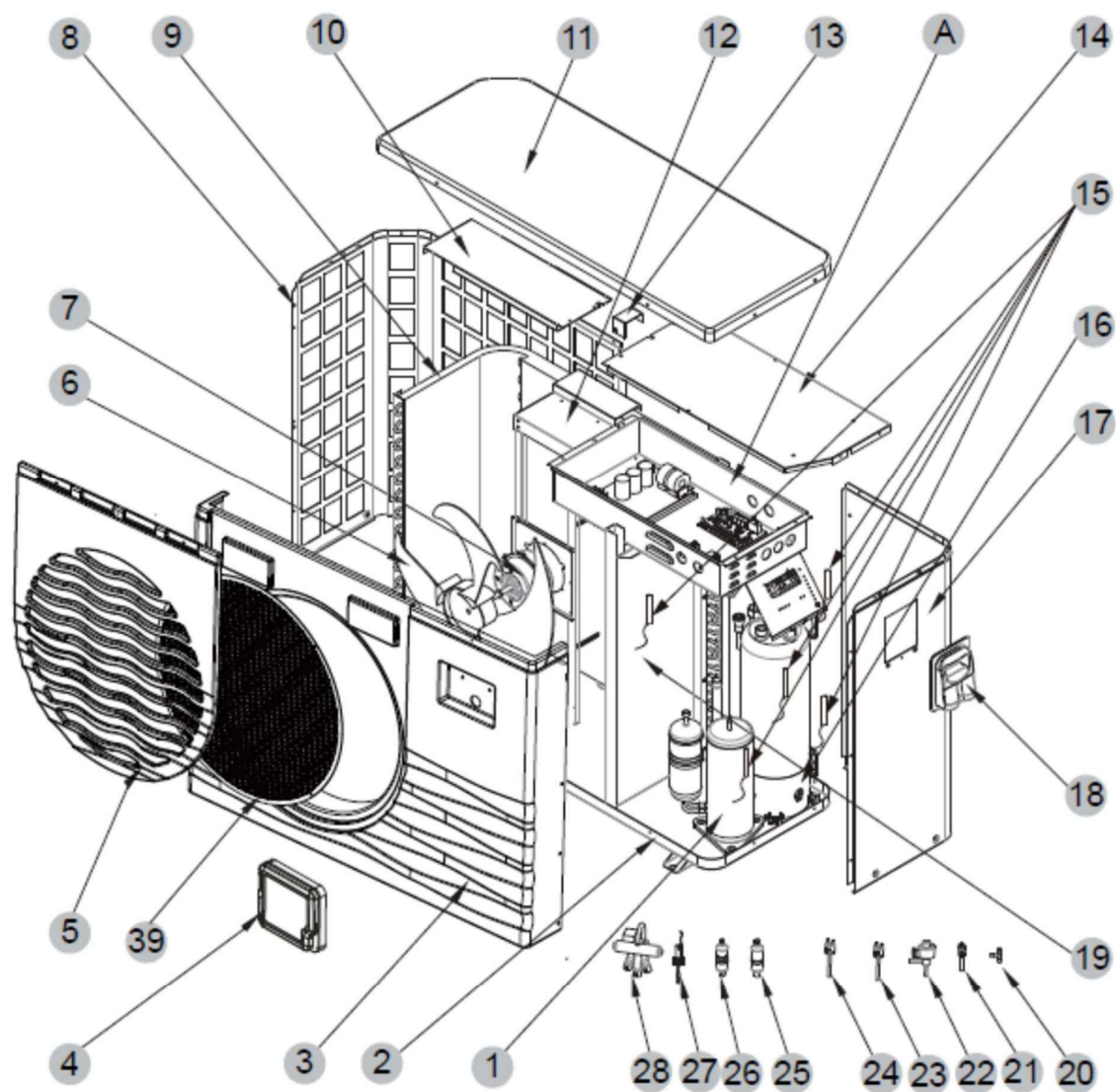
V
R
T
A
B
G

Terminal	Function
V	12V power +
R	Not used
T	Not used
A	485A
B	485B
G	GND (power -)

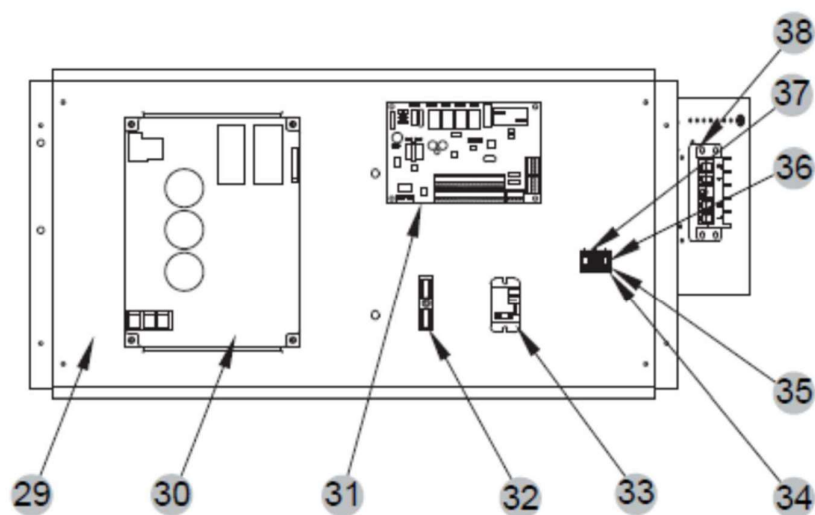


- Check the water inlet and drainage often. The water and air inflow into the system should be sufficient so that its performance and reliability does not get compromised. You should clean the pool filter regularly to avoid damage to the unit caused by clogging of the filter.
- The area around the unit should be spacious and well ventilated. Clean the sides of the heat pump regularly to maintain good heat exchange and to save energy.
- Check if all processes in the unit are operational and pay special attention to the operation pressure of the refrigerant system.
- Check the power supply and cable connections regularly. Should the unit begin to function abnormally or should you notice a smell from an electrical component, arrange for timely repair or replacement.
- Winterizing: make sure to drain all the water from the heat pump and other systems to prevent frost damage. Damage caused by freezing is not covered by the warranty.
- You should also purge the water if the unit will not work for an extended period. You should check all parts of the unit thoroughly and completely fill the system with water before turning it on again afterwards.

Exploded view



A



No.	Part Code ALLPH16-INV	Part Code ALLPH19-INV	Description
1	20000-110433	20000-110217	Compressor
2	80709913	80709913	Chassis assembly
3	80900919	80900921	Front box
4	72200077	72200077	CM404 Controller
5	80900081	80900081	Fan net
6	20000-270004	20000-270004	Axial fan blade
7	20000-330132	20000-330132	DC fan motor
8	80704749	80704749	Left side panel
9	80600891	80600642	Evaporator
10	32009-210663	32009-210663	Support plate
11	80900528	80900528	Top cover
12	32009-210662	32009-210662	Fan motor bracket assembly
13	32008-210167	32008-210167	Condenser splint
14	32009-210658	32009-210658	Electrical box cover
15	2000-3242	2000-3242	Sensor
16	32009-120088	32009-120492	Titanium heat exchanger
17	80704748	80704748	Right side panel
18	32009-220029	32009-220029	Junction box cover
19	32009-210664	32009-210664	Middle partition
20	2000-1460	2000-1460	Three links
21	20000-140150	20000-140150	Needle valve
22	20000-140485	20000-140485	EEV
23	20000-360157	20000-360157	Low pressure switch
24	2001-3605	2001-3605	High pressure switch
25	2004-1444	2004-1444	Filter
26	20000-140618	20000-140618	Filter
27	20000-360005	20000-360005	Flow switch
28	20000-140485	20000-140485	Four-way valve
29	32009-210651	32009-210651	Electrical box assembly
30	20000-310170	20000-310170	Variable frequency drive
31	95005-310569	95005-310569	PC1002
32	2000-3909	2000-3909	2-position terminal block
33	20000-360297	20000-360297	Relay
34	20000-390047	20000-390047	Terminal block
35	20000-390046	20000-390046	Terminals
36	20000-390048	20000-390048	Terminals
37	20000-390049	20000-390049	Terminals
38	4000-3901	4000-3901	5-position terminal block
39	32018-210143	32018-210143	Inline network

Caution & Warning

1. The unit can only be repaired by qualified installer center personnel or an authorized dealer.
2. This appliance is not intended for use by persons (including children) with reduced physical sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
3. Please make sure that the unit and power connection have good earthing, otherwise may cause electrical shock.
4. If the power supply cord is damaged, it must be replaced by the manufacturer or our service agent or similarly qualified person to avoid a hazard.
5. Directive 2002/96/EC (WEEE):
The symbol depicting a crossed-out waste bin that is underneath the appliance indicates that this product, at the end of its useful life, must be handled separately from domestic waste, must be taken to a recycling centre for electric and electronic devices or handed back to the dealer when purchasing an equivalent appliance.
6. Directive 2002/95/EC (RoHS): This product is compliant with directive 2002/95/EC (RoHS) concerning restrictions for the use of harmful substances in electric and electronic devices.
7. The unit CANNOT be installed near flammable gas.
8. Make sure that there is a circuit breaker for the unit, lack of a circuit breaker can lead to electrical shock or fire.
9. The heat pump is equipped with an over-load protection system. It does not allow for the unit to start for at least 3 minutes from a previous stoppage.
10. Caution: Single wall heat exchanger, not suitable for potable water connection.

PLEASE READ CAREFULLY BEFORE FILLING IN AND STORING IN A SAFE PLACE.

Terms of our comprehensive Warranty are as follows:

1.	Subject to the stated terms and conditions, warranty is given to the purchaser in respect of the Alliance Heat Pump, Model No and Serial No. as listed on the back of this card for 12 months on the unit, 12 months on the heat exchanger and 36 months on the compressor, from date of installation. This warranty is subject to servicing being maintained in line with the servicing standard as set out in the schedule on the back of this warranty card. Should the equipment not be serviced as per the schedule, this warranty will become null and void.	5.	This warranty will lapse if any repairs are carried out by any dealer other than any dealer authorised by Alliance. An authorised dealer is a company that deals with Fourways Airconditioning. The warranty will also lapse if any unauthorised alteration to this warranty card is affected.
2.	This warranty covers defects caused by original manufacturing faults, defective manufacturing assembly, or faulty material. It does not cover defects as a result of incorrect installation but is a parts only warranty and excludes labour costs. It also does not extend to repairs, replacement of parts, maintenance or service necessitated by normal wear and tear, incorrect operation, failure to properly maintain, improper cleaning methods, infestation by insects or vermin, maltreatment of the product, misuse, connection to an incorrect voltage, power surges, damage caused by lightning, accidents, flooding, fire, Acts of God, public disturbances, accidental damage, rust and corrosion, work carried out by persons other than an authorised Alliance dealer, or being incorrectly sized for the application required, according to authorised dealer's recommendations. In cases of dispute, repairs, replacement of spare parts, maintenance and service shall be deemed to be beyond the scope of this warranty unless the purchaser can prove to the contrary.	6.	This warranty is not transferable and is only valid in South Africa. It is valid only for the original purchaser of the Product. This purchaser will be the person who owns the machine once installation is completed.
3.	During the period of the warranty, faults covered by the warranty will be repaired as per the schedule by the installing dealer (or other authorised Alliance dealer), with only the cost of the parts covered. These will be supplied by the relevant Alliance Service Centre.	7.	Any repairs carried out under this warranty will not extend the period of the warranty in any way.
4.	Alliance shall not be responsible, without limitation, for any charges for dismantling or reassembling the heat pump for repair, any transportation or storage expenses, injury to persons or property, work stoppage, impairment of other goods, breach of contract, negligence or other such action as may be deemed or alleged to be cause of a loss or damage to buyer, its agents, or customers.	8.	Neither Alliance nor authorised Alliance service agents shall be responsible at any time during or after the period of this warranty for any loss or damage of whatsoever nature, whether general, special, or consequential which may be caused or sustained by the purchaser, whether arising from, connected with, or relating to any defect, fault, or lack in the Product, whether such inability is complete or partial.
		9.	This warranty replaces all common law and other rights or remedies which may otherwise be available to the purchaser.
			Should repairs become necessary DURING THE WARRANTY PERIOD, please phone the installation dealer as noted on the back of this warranty card. For any repairs after the warranty period is over, contact your nearest authorised Alliance Dealer.



PLEASE COMPLETE AND STORE IN A SAFE PLACE

Customer Name.....

Customer Address.....

Model No:

Serial No:

Company Name of Installer:Date:

Name of installer: Tel. Number.....

WARRANTY:

Period	Covered
Two years	Electronic (Parts only after 1 st year)
Three years	Compressor (Parts only after 1 st year)
Five years	Heat Exchanger (Parts only after 1 st year)

TERMS AND CONDITIONS OF WARRANTY:

1. This warranty is applicable only to the original purchaser and to units serviced by an authorised Alliance dealer.
2. This warranty is only valid if the unit is serviced every year as per the schedule below (or more frequently as advised by authorised Alliance installer).
3. Should the equipment be installed in very dusty or dirty environments, servicing should be done every three months (or a minimum of twice a year depending on environment). The installing dealer will advise you as to the servicing intervals required, and may contact the Alliance distributor to get advice on this.
4. For export: Warranty applicable on a parts basis only, for collection in South Africa.
5. Should a fault occur on a new Heat Pump following installation and initial satisfactory operation, the Heat Pump will be repaired, not replaced with a new unit.
6. ALLIANCE domestic swimming pool heat pumps must be installed by a qualified installer that has received heat pump installation training from ALLIANCE.
7. Any unauthorized installation, alteration or repair will void this Warranty. All repairs are to be carried out by a qualified refrigeration technician who is registered in the Safe Handling of Refrigerants. (Further information in this regard may be obtained from ALLIANCE).
8. The installer must ensure that the installation fully complies with ALLIANCE'S recommendations in the installation manual concerning installation, water piping and electrical work including electrical earthing of the unit.
9. All electrical installations must comply with current specifications. Failure to **install over / under voltage protection** on the heat pumps power supply will void this warranty.
10. ALLIANCE heat pumps MUST always be installed outdoors, with unrestricted air flow around the heat pump.
11. The size and model of the ALLIANCE domestic swimming pool heat pump selected must be appropriate to the specific application and sized using Alliance's swimming pool sizing calculator.
12. For coastal and corrosive environment installations, BluChem or similar treatment against corrosion is required for warranty claims to remain valid.
13. Not maintaining a proper chemical balance in your pool (pH level between 7.0 and 7.8 Total Alkalinity (TA) between 80 and 150ppm. Free Chlorine between 0.5 – 1.2mg/l. Total dissolved solids 9 (TDS) less than 1200ppm. Slat maximum 8g/L) will void this warranty.
14. Overheating, incorrect wire runs, improper electrical supply, collateral damage caused by failure of O-Rings or damage cause by running the pump with insufficient water flow will void this Warranty.

15. Parts and warranty details:

Controller, PC boards, Capacitor, Relays, Sensors – 2 Year warranty (Part only after first year)

High pressure / low pressure switch – 2 Year warranty (Part only after first year)

Water flow switch. EEV / Solenoid – 2 Year warranty (Part only after first year)

Compressor – 3 Year warranty (Part only after first year)

Titanium heat exchanger – 5 Year warranty (Part only after first year)

ALLIANCE reserves the right to update or modify this warranty (including terms and conditions) any time without prior notice.

Service Schedule:

- Clean evaporator coil (High Pressure Washer)
- Check outdoor fan motors.
- Check fan blades for damage / out of balance.
- Check all electrical connections.
- Check for oil spots on refrigerant piping.
- Check & clean condensate drains.
- Check heating operation.
- Check refrigerant standing and running pressures.
- Check running current.
- Measure on & off coil temperatures
- Clean unit cabinets

Service No	Date	Technician Name	Technician Sign
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

By signing this service record the authorised Alliance dealer technician confirms that the service has been carried out and that the unit is in a satisfactory working condition and performing to specification.

Alliance

Alliance
EXPERIENCE THE ***DIFFERENCE***

 **AC *DIRECT*** 
Online Store