# 1、AL001 Too many mem writings、AL002 Retain mem write error

<u>Cause analysis:</u> Frequently modify parameters <u>Detection method:</u> Visual inspection <u>Solution:</u> Stop operating the controller for 3 minutes or power off for 3 minutes before restarting

## 2、AL003 Inlet probe error

Cause analysis:

The wires of inlet probe are loose / broken, or the probe is broken

Detection method:

Check whether the two wires of the water inlet probe are connected to B1 and GND, whether they are pressed to the wire skin, and whether they are pressed tightly.



#### Solution:

After confirming that the wires are connected correctly, cut off some skin of the inlet probe wire to expose a longer copper wire and re-press it. If the fault is still reported, replace the temperature probe directly.

## 3、AL004 Outlet probe error

Cause analysis:

The wires of outlet probe are loose / broken, or the probe is broken

Detection method:

Check whether the two wires of the water probe are connected to B2 and GND, whether they are pressed to the wire skin, and whether they are pressed tightly



#### Solution:

After confirming that the wires are connected correctly, cut off some skin of the outlet probe wire to expose a longer copper wire and re-press it. If the fault is still reported, replace the temperature probe directly.

#### 4、AL005 Ambient probe error

Cause analysis:

The wires of ambient probe are loose / broken, or the probe is broken Detection method:

Check whether the two wires of the ambient probe are connected to B3 and GND, whether they are pressed to the wire, and whether they are pressed tightly



#### Solution:

After confirming that the wires are connected correctly, cut off some skin of the ambient probe wire to expose a longer copper wire and re-press it. If the fault is still reported, replace the temperature probe directly

## 5、AL006 Condenser coil temp

# Cause analysis:

The wires of condenser coil tempt probe are loose / broken, or the probe is broken Detection method: Check whether the two wires of the condenser coil tempt probe are connected to B9 and GND, whether they are pressed to the wire skin, and whether they are pressed tightly



#### Solution:

After confirming that the wires are connected correctly, cut off some skin of the condenser coil tempt probe wire to expose a longer copper wire and re-press it. If the fault is still reported, replace the temperature probe directly.

#### 6、AL007 Water flow switch , AL137 Flow switch alarm

Cause analysis:

- The filter is clogged, resulting in a small flow
- There is air in the pipe, which causes the water flow to be unsmooth
- The pump is not emptied out, resulting in a small flow
- A valve in the water system is closed or not fully opened
- The water pump is not big enough, resulting in a small flow
- The water flow switch is broken
- The water pump is broken

#### Judgment method:

- Air is discharged from the exhaust valve, and the water flow is small by visual inspection.
- Check if any valve is not fully opened.
- The output of the water pump on the main board has electricity, but the water pump does not rotate, then the water pump is broken.
- If the above are excluded, pls short-circuit the water flow switch (connect the Water flow and COM with a wire), and force the heat pump to start. When the outlet water temperature is more than 10 degrees above the water tank temperature, it means that the flow is small and needs to be emptied or replaced with a larger water pump. If the temperature difference is within 10 degrees and there is no fault when starting up, the water flow switch is broken.



#### Solution:

 If the filter is blocked, pls remove the cap of the filter as shown in Figure 1, and clean the filter as shown in Figure 2



If there is air in the pipeline, the air in the pipeline must be exhausted from the exhaust valve or union



 If the water pump is not emptied, the air needs to be exhausted from the exhaust port of the water pump



- Check all valves and open them all
- If it is determined that there is no air in the pipeline, and the temperature difference exceeds 10 degrees after the water flow switch is short-circuited, then pls replace with another water pump with a larger head and flow rate
- After the water flow switch is short-circuited, there is no fault when it is turned on. Then the water flow switch is broken and pls replace it.
- If the water pump is broken, pls replace the water pump.

# 7、AL008 Phase sequ.prot.alarm

<u>Cause analysis:</u> Abnormal parameter setting <u>Solution:</u> Set DI5 of Ot6 page in M09 to NO

in a mail air a 1 F ontac SWI SW1 ase.

## 8、AL013 Low superheat - VIv.A

Cause analysis:

- The unit has heavy frost.
- The unit has been operating at low frequency for a long time.

Judgment method:

- Visually check whether the unit is severely frosted.
- Check whether the operating frequency of the unit in the user parameters is consistent with low frequency operation

Solution:

 If the frost is severe, pls move the ambient temperature sensor on the evaporator away from the evaporator.



 If there is no frost on the unit, pls change the Alarm delay parameter on the EEV n 1 page in the factory parameter M07 to 18000s



# 9、AL028 Battery discharge EVD

Cause analysis:

The unit has strong electric interference

Judgement method:

There are other electrical equipment nearby that have large electromagnetic interference <u>Solution</u>:

Isolate the power equipment and restart after 3 minutes of power failure.

## 10、AL037 BLDC-alarm:Out of Envelope

Cause analysis:

The water temperature is too high or the ambient temperature is too low.

Judgement method:

Check whether the user parameter B3 is lower than -25 degrees, and whether B1 exceeds 61 degrees. <u>Solution:</u>

Operate within the allowable operating range

# 11、AL038 BLDC-alarm:Starting fail wait、AL039 BLDC-alarm:Starting fail exceeded

Cause analysis:

- Wrong program
- Inverter parameter selection error
- The inverter driver is broken

Judgement method:

• Check whether the program version is lower than 1.1.9, if it is lower, then it is the old program.



Check whether the inverter parameters correspond to the compressor.



 Check if there are burnt marks on the wiring of the inverter 380V Inverter driver



220V Inverter driver



#### Solution :

•

- If it is an old program, you need to refresh the program
- If the inverter parameters are not correct, you need to re-insert the inverter parameters (or refresh the program). Change the NO on the Ot10 page in M08 to YES. If there is no such option (must be confirmed), change the NO on the Power+ page in M06. become Yes.



# 12、AL041 BLDC-alarm:High discharge gas temp

Cause analysis:

- Lack of refrigerant
- The exhaust probe is broken

# Judgement method:

The low pressure is low, the temperature corresponding to the pointer of the low pressure meter is more than 15 degrees lower than the current ambient temperature, and the exhaust temperature B4 is higher than 115 degrees, indicating a lack of refrigerant



• The exhaust probe temperature B4 still shows more than 115 degrees after shutdown, which means that the probe is broken

# Solution :

If there is a shortage of refrigerant and need to find the leakage point, re-evacuate after repairing the leakage, and charge the refrigerant according to the weight required on the nameplate. If the probe is broken, replace the probe directly

## 13、AL051 Power+ alarm:01-Overcurrent

Cause analysis:

- Lose compressor or inverter wiring leads to high current
- The wire diameter is too small, resulting in low voltage
- The power supply voltage is low
- Compressor coil short circuit
- Judgement method:
- Check whether the power cord, the wiring of the compressor, the incoming and outgoing wires of the

inverter are loose, and whether there are burnt marks

Check whether the wiring of the 380V inverter has burnt marks and whether it is tightly pressed .



Check whether the 220V inverter wiring has burnt marks and whether it is pressed tightly



Remove the compressor cover and check whether the compressor wiring has burnt marks and whether it is tightly pressed



- Use a multimeter to measure the voltage change after the compressor is started. The voltage will
  gradually decrease. The voltage displayed by the multimeter is lower than the rated voltage by more
  than 10%. This phenomenon is caused by the wire diameter being too small
- Use a multimeter to measure the voltage during standby, and it is 10% lower than the rated voltage. This phenomenon is a low voltage
- Excluded from the above, measure the resistance between the three coils of the compressor. If the resistance is small or large, the difference is more than 20%, or the resistance of the terminal to the ground indicates that the compressor is broken.Excluded from the above, measure the resistance between the three coils of the compressor. If the resistance is too small or too large, and the difference is more than 20%, or the resistance of the terminal to the ground indicates that the compressor is broken.



Solution:

- If the cable is loose, re-tighten the connector of the cable
- If the wire diameter is too small, replace the appropriate wire
- If the voltage is too low, you can add a voltage stabilizer, or look for a power supply bureau to keep the voltage stable
- If the compressor is broken, replace the compressor

## 14、AL053 Power+ alarm:03-DCbus overvoltage

Cause analysis:

The voltage is too high

Judgement method:

Use a multimeter to measure the actual voltage exceeding the rated voltage by more than 20% <u>Solution:</u>

Add a voltage regulator, or find a power supply bureau to keep the voltage stable

## 15、AL054 Power+ alarm:04-DCbus undervoltage

<u>Cause analysis:</u> Voltage is too low <u>Judgement method:</u> Excessive voltage <u>Solution:</u> Add a voltage regulator, or find a power supply bureau to keep the voltage stable

## 16、AL114 Power+ alarm:Power+ offline

Cause analysis:

- The interval between power-off and power-on of the host is too short
- The position of the inverter's dialing switch is wrong, and the direction of the inverter's dialing must be the same



- Inverter cable is loose
- Main control board connection line



380V frequency converter communication line



220V frequency converter communication line

## Solution:

- If the power-on interval is too short, it can be powered off again. If the interval is 3 minutes, it can be
  powered on again. If it still fails, it can be powered off for 10 minutes
- Dial the dip code on the converter to the same level
- Re-tighten the converter connection cable

#### 17、AL115 EEV alarm:Low superheat

Cause analysis:

The unit runs at low frequency for a long time beyond the operating range <u>Solution:</u>

Change the Alarm delay value of EEV N 1 in M07 to 18000



# 18、AL128 Low press alarm

Cause analysis:

- The main engine fin is seriously frosted
- Bad blades result in insufficient air flow
- Cables to the low pressure sensor are loose
- System refrigerant leakage
- Low pressure sensor is broken

#### Solutions:

Main fin frost serious: frost serious need to force defrost, and the environmental probe from the fin as far as possible to prevent being covered by snow, and check whether the defrost parameters have been adjusted, to maintain the original parameters



• Broken blades: replace the blades

Check the wiring of the low-pressure pressure sensor on B7, cut off some of the wire skin of the water inlet probe wire to expose the longer copper wire, and re-press it



- Refrigeran leakage of the system: If the refrigerant leakage is happened, the leakage point must be found. After the leakage is repaired, the heat pump needs to be re-vacuumized, and shall be recharged with the refrigerant according to the weight required on the nameplate
- If all above are eliminated, it should be from the broken low pressure pressure sensor. Please replace the low pressure pressure sensor directly.

#### 19、AL129 High press alarm

Cause analysis:

- The clogged filter results in a smaller flow;
- There is air in the pipe, which causes the water flow to be unsmooth;
- The pump not emptied results in a smaller flow;
- The valve of the water system is closed or not fully opened;
- The hot water probe or the underfloor heating probe is not placed in the corresponded return pipe or the blind pipe of the water tank;
- The pump head or the flow is too small, so as to result in a smaller flow;
- Scaling of the water-side heat exchanger causes a higher pressure;
- There is air in the fluorine circuit system, resulting in a higher pressure;
- The switch of the high voltage sensor is broken;
- Broken electronic expansion valve leads to higher pressure;

#### Solution:

• If the filter is clogged, please remove the cap of the filter as shown in Figure 1, and clean the filter net as shown in Figure 2



• If there is air in the pipeline, the air must be exhausted from the exhaust valve or union;



If the water pump is not emptied, the air needs to be exhausted from the exhaust port of the water pump



- Check all valves and open them all
- If the probe sensor falls out, pls place the probe sensor to the corresponding position according to the wiring artwork
- If no air in the pipeline after checking, and the temperature difference exceeds 10 degrees after the water flow switch is short-circuited, it is necessary to replace the pump with a larger head and flow rate
- Check whether the water pipe has scale. If there is a lot of scale, clean the water-side heat exchanger and add water for treatment
- The vacuum of the repaired machine is less than 1 hour, not full vaccum, there is air in the system, the pointer of the pressure gauge will shake, Then have to do the vacuum again and filled with refrigerant
- If the pointer of the pressure gauge shows normal pressure, and the pressure in the Carel controller shows high pressure, the high pressure pressure sensor may be broken. PLS replace the high pressure sensor.



If the temperature difference between 2 ends of the electronic expansion valve by hand is small, which may be broken, and it have to be replaced

#### 20、AL130 Disc.temp.probe error - Exhaust probe failure

Cause analysis:

Exhaust probe wire is loose/wire broken/probe is broken

Judgement method:

Check whether the two cables of the exhaust probe are connected to B4 and GND, whether they are pressed to the wire skin, and whether they are pressed tightly



#### Solution:

After correct wiring, cut off some of the wire skin of the exhaust probe cable to expose a longer copper wire, and re-fasten it. If the fault is still reported, replace a new temperature probe.

## 21、AL131 Suct.temp.probe error - return gas probe failure

Cause analysis:

Return gas probe cable is loose/cable broken/probe is broken Judgement method:

Check whether the two wires of the return gas probe are connected to B5 and GND, whether they are pressed to the wire skin, and whether they are fasten tightly



#### Solution:

After correct wiring , cut off some of the wire skin of the return gas probe cable to expose a longer copper wire and fasten it. If the fault is still reported, replace a new temperature probe directly.

22、 AL134 Tank temp.probe error water tank probe failure Cause analysis: Water tank probe cable is loose/cable broken/probe is broken

# Judgement method:

Check whether the two wires of the water tank probe are connected to B8 and GND, whether they are fasten to the wire skin, and whether they are fasten tightly



#### Solution:

After confirming the wiring is correct, cut off some of the wire skin of the water tank probe wire to expose the longer copper wire, and re-press it. If the fault is still reported, replace the temperature probe directly.

# 23、AL138 High temp. (Alarm Outlet water temperature is too high protection)

Cause analysis:

- The filter is clogged, resulting in a small flow
- There is air in the pipe, which causes the water flow to be unsmooth
- The pump is not emptied, resulting in a small flow
- The valve in the water system is not fully opened
- The set temperature is too high and the flow is too small
- The water pump is too small, resulting in a small flow

Solution:

- Clean the filter;
- The pipeline is drained, and the automatic exhaust valve is installed at the highest point of the system;
- Water pump discharges the air;
- Open the valve;
- Reduce the set temperature;
- Replace the pump with a larger head flow.

## 24、AL139 Low temp. Alarm (Cooling subcooling protection)

#### Cause analysis:

- The filter is clogged, resulting in a small flow;
- There is air in the pipe, which causes the water flow to be unsmooth;
- The pump is not emptied, resulting in a small flow;
- The valve in the water system is not fully opened;
- The set temperature is too low and the flow is too small;
- The water pump is too small, resulting in a small flow.

Solution:

- Clean the filter;
- The pipeline is drained, and the automatic exhaust valve is installed at the highest point of the system;
- Water pump discharges the air;
- Open the valve;
- Reduce the set temperature;
- Replace the pump with a larger head flow.

## 25、 AL153 Fan1/2 fault speed control fan 1/2 fault;

#### AL155 Fans Offline speed control fan communication offline.

Cause analysis:

- The fan drive dial switch is abnormal;
- The fan wiring is loosing;
- The program version is too old;
- The fan drive is broken;
- The motor is broken.

Solution:

• The fan drive dial switch needs to be dialed again, 1 on the digital side, 2 on the ON side



• Insert the fan wiring socket tightly



If the program version is lower than 1.1.9, the program needs to be refreshed

	Internetion (1846) Code:	
Press ENTER to	Ver.:	5211 01
OTHER PARAMETERS	Date:	2021_04_20
	OS:	4.4.004

- Replace the fan drive
- Replace the motor

#### 26、The point of failure: the compressor is broken

#### Cause analysis:

(1) The compressor is damaged due to the voltage fluctuation caused by the power supply voltage being too large, too small or the power line diameter is too small;

(2) The compressor is damaged due to the excessive current caused by the loose connection of the power line or the compressor line;

(3) The compressor is damaged due to poor lubrication caused by compressor liquid return.

Fault phenomenon:

(1) Unit starting current is too large or current protection;

(2) Unit operating current is too large or current protection;

(3) The compressor runs but does not heat or cool, and the high and low pressure gauges have no change or little change (less than 0.2MPa in normal use).

Judgement method:

(1) After power off, remove the compressor cover 4, adjust the resistance to  $200\Omega$  with a multimeter, measure the resistance between the three terminals of the compressor, measure the resistance between 1 and 2, and between 2 and 3. Resistance, the resistance between 3 and 1, if the difference between the three resistances and the actual resistance exceeds 10% at 20 degrees, it is judged that the compressor coil is short-circuited and damaged.

(2) After the power is cut off, use a multimeter to adjust the resistance to  $200\Omega$ , and measure the resistances of the three terminals of the compressor and the grounding wire. If one of the resistances is 0 or the resistance is within  $100\Omega$ , it is judged that the compressor is damaged due to the first group of compressors. The machine is damaged.



#### Steps to replace the compressor:

Disconnect the refrigerant (put the pressure gauge to 0), remove the compressor wiring, weld the compressor exhaust pipe, weld the compressor return pipe, remove the compressor screws, remove the old compressor, install the new compressor, Install the compressor screws, weld the exhaust pipe, weld the return pipe, connect the compressor line, vacuum with a vacuum pump (pump for more than 1 hour and ensure that the pressure of the pressure gauge reaches -1), and charge the refrigerant (according to the weight indicated on the nameplate) Weigh the weight with an electronic scale together with the

specifications), and use detergent to easily drip to the soldering point and check for leaks again.

## 27、Leaking refrigerant

Cause analysis:

(1) Refrigerant leakage due to the lack of tightening of the connections (such as pressure gauges, pressure sensors, connections between the internal and external units of the split unit);

(2) The pipe cracking caused by the relatively bumpy transportation process causes refrigerant leakage;

(3) Due to the weak welding, the copper tube was shattered after a long time of operation, resulting in leakage of refrigerant;

(4) Due to the power outage, the unit cannot enter the antifreeze, causing the heat exchanger to freeze and crack;

(5) The leakage of refrigerant due to the quality of the accessories.

Fault phenomenon:

(1) The unit reports a low-voltage fault;

(2) The unit reports a fault that the exhaust is too high.

Judgement method:

(1) When the refrigerant leaks out, the pressure values of the high and low pressure gauges are lower than 0.1MPa after the shutdown;

(2) When a part of the refrigerant leaks, when the water temperature is lower than 50 degrees, the exhaust temperature is higher than 105 degrees. At this time, an aqueous solution of detergent is needed to pour into each weld and connection, and bubbles can be seen. You can confirm the missing point;

(3) If the welding port, connection port and fin can not find any leaks, it may be internal leakage. Remove the machine inlet and outlet pipes and reconnect the 90-degree elbow upwards and keep the inlet and outlet pipes. The water pipe is at the same height. Fill the heat exchanger with water from the water pipe, and then fill the fluorine circuit with high-pressure nitrogen into the machine. If bubbles emerge from the elbow of the water circuit, it is an internal leak.



#### Solution:

(1) Steps to solve the leakage of the welding port -release the refrigerant (put the pressure gauge to 0, if there is no refrigerant, omit this step), charge Nitrogen pressure, use detergent solution to pour the welding port or fin of the machine to find leaks (the place where you can see the bubbling is the leaky point), leak repair, vacuum with a vacuum pump (pump for more than 1 hour and ensure that the pressure of the pressure gauge reaches -1), and fill with refrigerant (use an electronic scale to weigh the weight and specifications of this as indicated on the rating plate), and use a detergent solution to pour it onto the solder joints and check for leaks again.

(2) Steps to solve the leakage of the connection port - tighten the connection port again and vacuum it with a vacuum pump (pump it for more than 1 hour and ensure the pressure gauge force to -1), fill refrigerant (according to the weight and specifications marked on the rating plate and use an electronic scale to weigh the weight), and pour detergent solution into welding point again leak detection.

(3) Internal leakage for plate replacement procedures - release the refrigerant (put the pressure gauge to 0, if there is no refrigerant, omit this step), remove the probe on the heat exchanger, weld the inlet and outlet fluorine pipes of the heat exchanger, weld the inlet and outlet pipes of the heat exchanger, remove the old heat exchanger, install the new heat exchanger, install the heat exchanger screws, weld the inlet and outlet fluorine pipes, weld the inlet and outlet pipes, and connect them. The probe line of the heat exchanger, vacuum with a vacuum pump (pump for more than 1 hour and ensure that the pressure of the pressure gauge is -1), charge refrigerant (according to the weight and specifications indicated on the rating plate and weigh it with an electronic scale). It is easy to drip to the welding point and check the leak again with detergent solution.

## 28、Water leakage

#### Cause analysis:

(1) Water leakage due to not tightening the connection;

(2) Water leakage caused by pipe cracking caused by relatively bumpy transportation;

(3) Due to the weak welding, the copper pipe shattered after a long time of operation and caused water leakage;

(4) Due to the power outage, the unit cannot enter the antifreeze, causing the heat exchanger to crack and leak;

(5) Water leakage due to quality problems of the accessories.

Fault phenomenon:

no fault output.

Judgement method:

Visually observe that there is water flowing out.

Solution:

1. Steps to solve the leakage of the threaded connection port: re-add the raw material tape to the threaded port and tighten it;

2. Steps to solve the leakage of welding port: drain the water of the heat exchanger and directly repair the welding;

3. Steps to solve the leakage of accessories: replace the accessories.

#### 29、The four-way valve is broken

Cause analysis:

(1) The four-way valve body is stuck due to insufficient cleanliness of the system;

(2) The four-way valve body cannot be moved due to damage to the four-way valve coil.

Fault phenomenon:

(1) After the unit switches the cooling mode, it is still heating;

(2) The frost cannot be removed after the unit enters the defrost.

Judgement method:

(1) When there is a malfunction, touch the four pipes of the four-way valve by hand, there is no obvious difference in temperature, and the high pressure is low and the low pressure is high;

(2) When a malfunction occurs, use iron to test the magnetism of the four-way valve coil. If the four-way valve coil is non-magnetic, the four-way valve coil is broken.

Solution:

Replace the four-way valve coil. Solution steps: power off the host, unplug the four-way valve on the main board, remove the four-way valve coil screw, replace the new four-way valve coil, tighten the four-way valve coil screw, and connect the four-way valve coil. The output line and the neutral line of the valve coil. Solution steps for replacing the four-way valve body:

Release the refrigerant (put the pressure gauge to 0), remove the four-way valve coil, weld the four copper pipes of the four-way valve, remove the old four-way valve, and install the new four-way valve Valve, four copper pipes welded to the four-way valve (wet cloth must be covered when welding the four-way valve body to ensure that the temperature of the valve body does not exceed 120 degrees), connect the four-way valve coil, and vacuum with a vacuum pump (pump for 1 hour) Above and ensure that the pressure of the pressure gauge reaches -1), charge refrigerant (according to the weight and specifications indicated on the nameplate and weigh the weight with an electronic scale), and use detergent to easily drip onto the welding point and check for leaks again.

## 30、The electronic expansion valve is broken

#### Cause analysis:

The electronic expansion valve is stuck due to insufficient cleanliness of the system;

The electronic expansion valve cannot be operated due to the damage of the electronic expansion valve coil.

Fault phenomenon:

The water flow is normal, and the unit reports a high pressure or low pressure fault.

Judgement method:

When the refrigerant and water flow are both normal, touch the two ends of the electronic expansion valve by hand, and there is no obvious temperature difference.

Solution:

(1) Replace the electronic expansion valve coil. Solution steps: power off the host, unplug the electronic

expansion valve interface of the main board, remove the electronic expansion valve coil, replace the new electronic expansion valve coil (note that it must be clamped), and connect the electronic expansion valve. The connecting wire of the valve coil.

(2) The solution steps for replacing the valve body of the electronic expansion valve: release the refrigerant (put the pressure gauge to 0), remove the electronic expansion valve coil, and weld it down

(3) The two copper tubes of the electronic expansion valve, remove the old electronic expansion valve body, install the new electronic expansion valve body, and weld the two copper tubes of the electronic expansion valve body (when the electronic expansion valve body is welded) It must be wrapped with a damp cloth to ensure that the temperature of the valve body does not exceed 120 degrees), connect the electronic expansion valve coil (note that it must be clamped), use a vacuum pump to vacuum (pump for more than 1 hour and ensure that the pressure of the pressure gauge reaches -1), and fill with refrigerant (According to the weight and specifications indicated on the nameplate and weigh it with an electronic scale), it is easy to use detergent to drip to the welding point and check the leak again.

## 32、 The motor is broken

Cause analysis:

Motor quality problems lead to damage.

Fault phenomenon:

Heating low pressure failure, refrigeration high pressure failure.

Judgement method:

After eliminating the problem of loose wiring, the controller has a motor output but the motor does not rotate. <u>Solution:</u>

Disconnect the power supply, remove the fan wiring (the wiring of the variable frequency fan is a five-core socket, and the wiring of the fixed frequency fan has a live wire, a neutral wire, two capacitor wires and a ground wire), disassemble the net cover, and Remove the broken motor, replace it with a new one, and connect the wires in the same way as before.

## 33、The motherboard burns out

Cause analysis:

(1) The main board burned out due to the unstable voltage;

(2) The motherboard burns out due to wrong wiring;

(3) Burn out due to the quality of the controller itself.

Fault phenomenon:

(1) The panel cannot be displayed;

(2) It does not run according to the set parameters.

Judgement method:

(1) Visually inspect the motherboard fuse, driver or other components for burnout marks;

(2) The panel has output, but there is no output or the panel has no output. There is actual output. <u>Solution:</u>

Disconnect the power supply, take pictures and record the wiring of the motherboard or driver, remove the motherboard or driver's fixing screws or brackets, remove the old motherboard or driver, replace the new motherboard or driver, install the fixing screws or brackets, and connect the wires .

## 34、 The water flow switch is broken

Cause analysis:

The quality of the water flow switch.

Fault phenomenon:

Report water flow failure.

Judgement method:

In the case that the pipe has air and the filter is blocked, the water flow fault has been reported, and the unit can operate normally after the water flow switch is short-circuited (the temperature difference between the inlet and outlet water is within 8 degrees).

Solution:

Disconnect the power supply, remove the wiring of the water flow switch, remove the water flow switch, install the replaced water flow switch, and connect the water flow switch wire.



## 35、Linkage does not turn on

Cause analysis:

Report linkage failure or air conditioning linkage failure <u>Solution:</u>

(1) Change the wiring of DI2 on the main board to DI3, check whether the linkage switch is short-circuited. If not, short-circuit the linkage switch, and check the internal factory parameters of the unit. DI2 in normally open and normally closed should be normal Closed, DI3 should be normally closed, if not, it needs to be changed;

#### Change from DI2 to DI3

Short Linkage



# The parameters checking



## 36、The three-way valve is reversed

#### Fault phenomenon:

The hot water temperature cannot be customized to produce hot water or heating when it is adjusted to the hot water mode; the hot water temperature increases or decreases when it is adjusted to the heating or cooling mode, actually in the hot water or cooling water mode.

Solution: Replace the wiring of the floor heating valve and hot water valve of the three-way valve