⚠ **Note:**

(1) Add insulating pipe in the indoor drain hose in order to prevent condensation.
(2) The plastic expansion particles are not provided.
(As show in Fig.10)

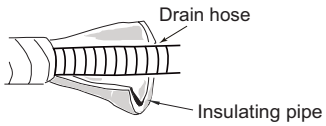


Fig.10

7. Connect Wire of Indoor Unit

(1) Open the panel, remove the screw on the wiring cover and then take down the cover.(As show in Fig.11)

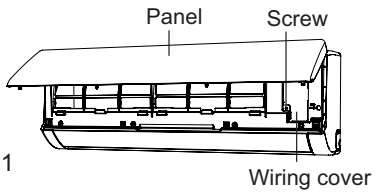


Fig.11

(2) Make the power connection wire go through the cable-cross hole at the back of indoor unit and then pull it out from the front side.(As show in Fig.12)

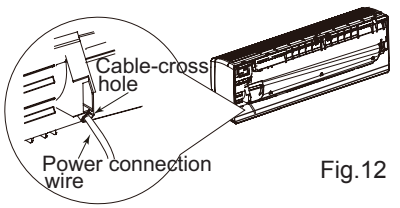
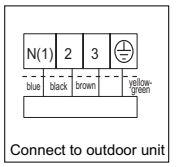
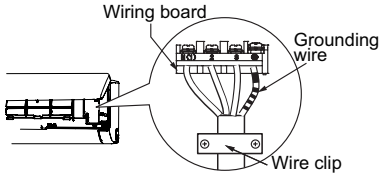


Fig.12

(3) Remove the wire clip; connect the power connection wire to the wiring terminal according to the color; tighten the screw and then fix the power connection wire with wire clip.(As show in Fig.13)

Fig.13





Note: The wiring connect is for reference only, please refer to the actual one

(4) Put wiring cover back and then tighten the screw.
(5) Close the panel.

⚠ **Note:**

(1) All wires of indoor unit and outdoor unit should be connected by a professional.
(2) If the length of power connection wire is insufficient, please contact the supplier for a new one. Avoid extending the wire by yourself.
(3) For the air conditioner with plug, the plug should be reachable after finishing installation.
(4) For the air conditioner without plug, an air switch must be installed in the line. The air switch should be all-pole parting and the contact parting distance should be more than 3mm.

8. Bind up pipe

(1) Bind up the connection pipe, power cord and drain hose with the band.(As show in Fig.14)
(2) Reserve a certain length of drain hose and power cord for installation when binding them. When binding to a certain degree, separate the indoor power and then separate the drain hose.(As show in Fig.15)
(3) Bind them evenly.
(4) The liquid pipe and gas pipe should be bound separately at the end.

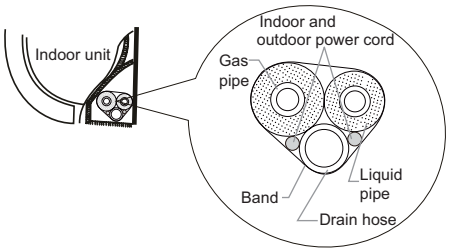


Fig.14

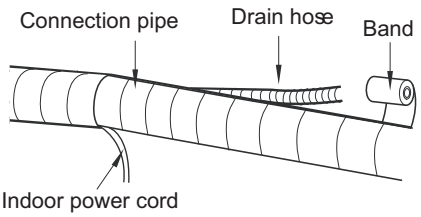


Fig.15

⚠ **Note:**

(1) The power cord and control wire can't be crossed or winding.
(2) The drain hose should be bound at the bottom.

9. Hang the indoor unit

(1) Put the bound pipes in the wall pipe and then make them pass through the wall hole.
(2) Hang the indoor unit on the wall-mounting frame.
(3) Stuff the gap between pipes and wall hole with sealing gum.
(4) Fix the wall pipe.
(As show in Fig.16)
(5) Check if the indoor unit is installed firmly and closed to the wall.(As show in Fig.17)

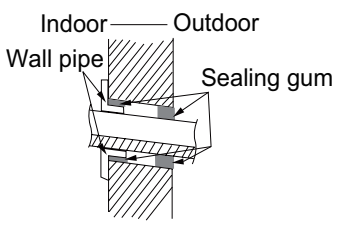
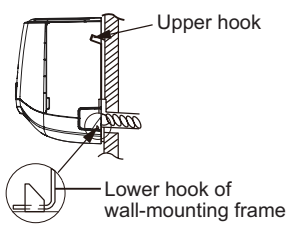


Fig.16

Fig.17



⚠ **Note:**

Do not bend the drain hose too excessively in order to prevent blocking.

8.6 Installation of Outdoor Unit

1. Fix the support of outdoor unit(select it according to the actual installation situation)

(1) Select installation location according to the house structure.
(2) Fix the support of outdoor unit on the selected location with expansion screws.

⚠ **Note:**

(1) Take sufficient protective measures when installing the outdoor unit.
(2) Make sure the support can withstand at least four times the unit weight.
(3) The outdoor unit should be installed at least 3cm above the floor in order to install drain joint.(As show in Fig.18)
(4) For the unit with cooling capacity of 2300W~5000W, 6 expansion screws are needed; for the unit with cooling capacity of 6000W~8000W, 8 expansion screws are needed; for the unit with cooling capacity of 10000W~16000W, 10 expansion screws are needed.

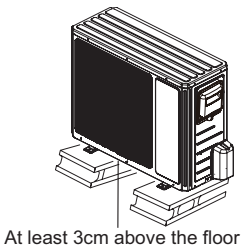


Fig.18

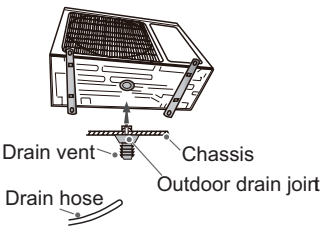


Fig.19

2. Install drain joint(only for cooling and heating unit)

(1) Connect the outdoor drain joint into the hole on the chassis.
(2) Connect the drain hose into the drain vent.
(As show in Fig.19)

3. Fix outdoor unit

(1) Place the outdoor unit on the support.
(2) Fix the foot holes of outdoor unit with bolts.
(As show in Fig.20)

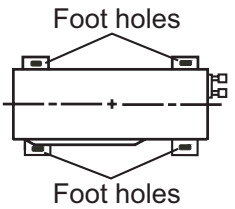


Fig.20

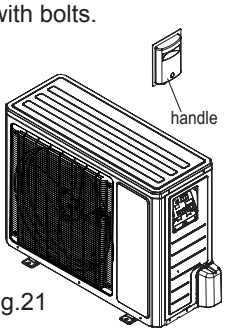


Fig.21

4. Fix outdoor unit

(1) Remove the screw on the right handle of outdoor unit and then remove the handle.(As show in Fig.21)
(2) Remove the screw cap of valve and aim the pipe joint at the bellmouth of pipe.(As show in Fig.22)

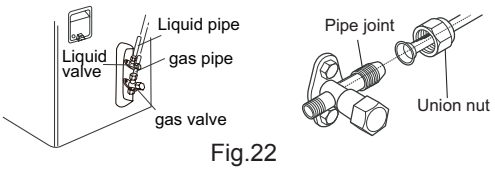


Fig.22

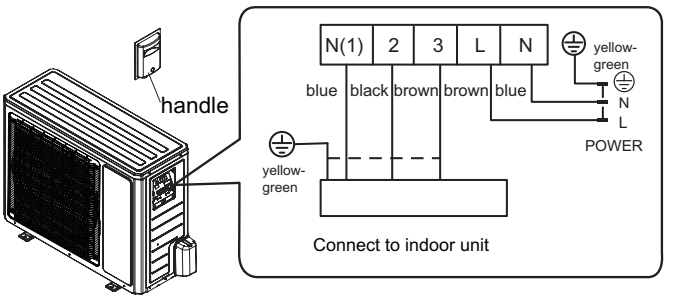
(3) Pretightening the union nut with hand.
(4) Tighten the union nut with torque wrench .

Refer to the following table for wrench moment of force:

Hex nut diameter(mm)	Tightening torque(N.m)
Φ6	15~20
Φ9.52	30~40
Φ12	45~55
Φ16	60~65
Φ19	70~75

5. Connect outdoor electric wire

(1) Remove the wire clip; connect the power connection wire to the wiring terminal according to the color; fix them with screws. (As show in Fig.23)



Note: the wiring connect is for reference only, please refer to the actual one.

Fig.23

(2) Fix the power connection wire with wire clip .

⚠ **Note:**

(1) After tightening the screw, pull the power cord slightly to check if it is firm.
(2) Never cut the power connection wire to prolong or shorten the distance.

6. Neaten the pipes

(1) The pipes should be placed along the wall, bent reasonably and hidden possibly. Min. semidiameter of bending the pipe is 10cm.
(2) If the outdoor unit is higher than the wall hole, you must set a U-shaped curve in the pipe before pipe goes into the room, in order to prevent rain from getting into the room.(As show in Fig.24)

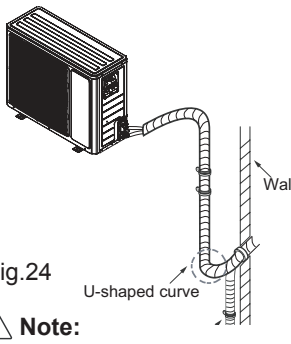


Fig.24

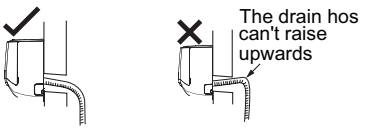


Fig.25

⚠ **Note:**

(1) The through-wall height of drain hose shouldn't be higher than the outlet pipe hole of indoor unit.(As show in Fig.25)
(2) Slant the drain hose slightly downwards. The drain hose can't be curved, raised and fluctuant, etc.(As show in Fig.26)

(3) The water outlet can't be placed in water in order to drain smoothly.(As show in Fig.27)

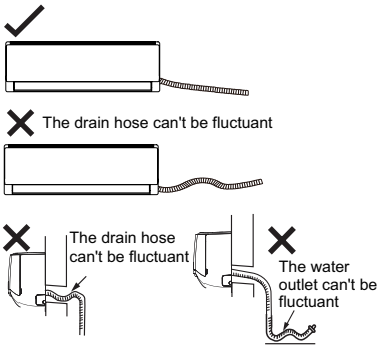


Fig.26

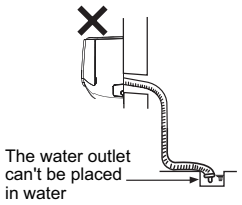


Fig.27

8.7 Vacuum Pumping and Leak Detection

1. Use vacuum pump

(1) Remove the valve caps on the liquid valve and gas valve and the nut of refrigerant charging vent.

(2) Connect the charging hose of piezometer to the refrigerant charging vent of gas valve and then connect the other charging hose to the vacuum pump.

(3) Open the piezometer completely and operate for 10-15min to check if the pressure of piezometer remains in -0.1MPa.

(4) Close the vacuum pump and maintain this status for 1-2min to check if the pressure of piezometer remains in -0.1MPa. If the pressure decreases, there may be leakage.

(5) Remove the piezometer, open the valve core of liquid valve and gas valve completely with inner hexagon spanner.

(6) Tighten the screw caps of valves and refrigerant charging vent.

(As show in Fig.28)

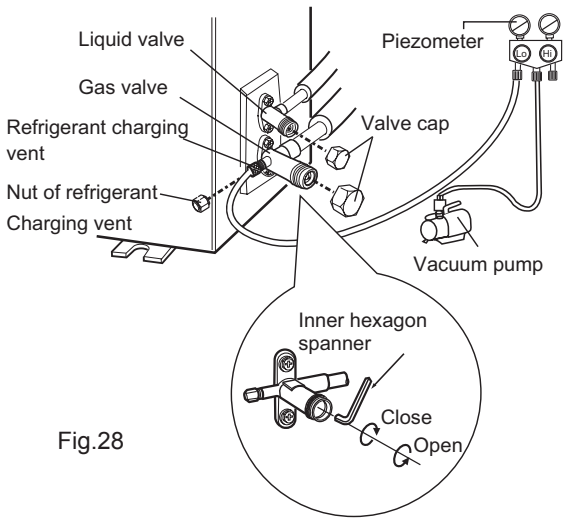


Fig.28

2. Leakage detection

(1) With leakage detector:

Check if there is leakage with leakage detector.

(2) With soap water:

If leakage detector is not available, please use soap water for leakage detection. Apply soap water at the suspected position and keep the soap water for more than 3min. If there are air bubbles coming out of this position, there's a leakage.

8.8 Check after Installation and Test Operation

1. Check after installation

Check according to the following requirement after finishing installation.

No.	Items to be checked	Possible malfunction
1	Has the unit been installed firmly?	The unit may drop, shake or emit noise.
2	Have you done the refrigerant leakage test?	It may cause insufficient cooling (heating) capacity.
3	Is heat insulation of pipeline sufficient?	It may cause condensation and water dripping.
4	Is water drained well?	It may cause condensation and water dripping.
5	Is the voltage of power supply according to the voltage marked on the nameplate?	It may cause malfunction or damage the parts.
6	Is electric wiring and pipeline installed correctly?	It may cause malfunction or damage the parts.
7	Is the unit grounded securely?	It may cause electric leakage.
8	Does the power cord follow the specification?	It may cause malfunction or damage the parts.
9	Is there any obstruction in air inlet and air outlet?	It may cause insufficient cooling (heating) capacity.
10	The dust and sundries caused during installation are removed?	It may cause malfunction or damaging the parts.
11	The gas valve and liquid valve of connection pipe are open completely?	It may cause insufficient cooling (heating) capacity.
12	Is the inlet and outlet of piping hole been covered?	It may cause insufficient cooling (heating) capacity or waster eletricity.

2. Test operation

(1) Preparation of test operation

● The client approves the air conditioner installation.

● Specify the important notes for air conditioner to the client.

(2) Method of test operation

● Put through the power, press ON/OFF button on the remote controller to start operation.

● Press MODE button to select AUTO, COOL, DRY, FAN and HEAT to check whether the operation is normal or not.

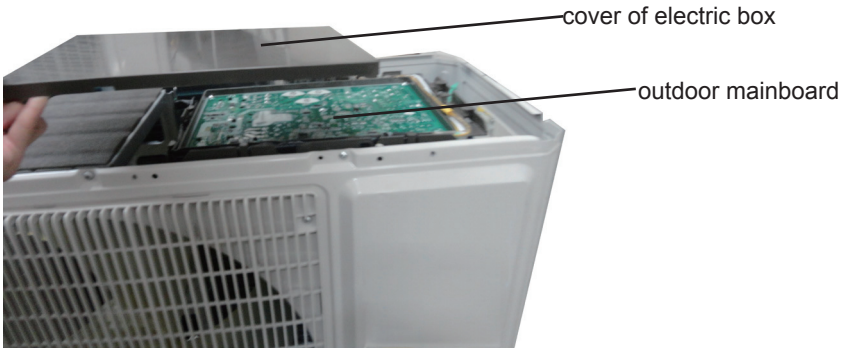
● If the ambient temperature is lower than 16℃ , the air conditioner can't start cooling.

9. Maintenance

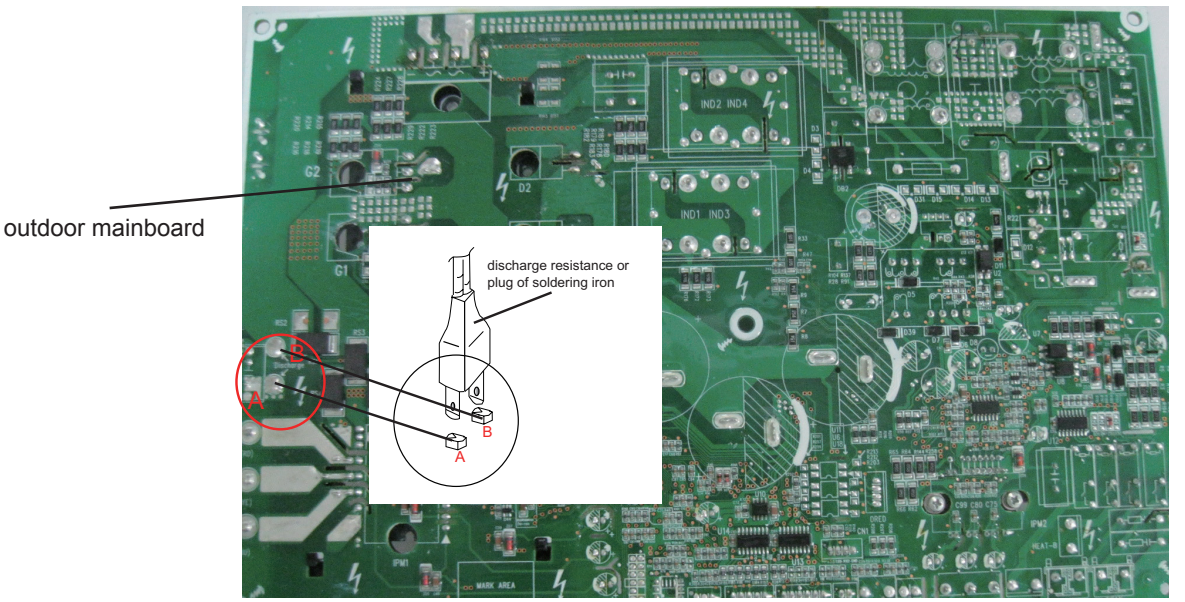
9.1 Precautions before Maintenance

There are high-capacity electrolytic capacitors on the outdoor mainboard. Thus, even the power is cut off, there is high voltage inside the capacitors and it needs more than 20min to reduce the voltage to safety value. Touching the electrolytic capacitor within 20min after cutting the power will cause electric shock. If maintenance is needed, follow the steps below to discharge electricity of electrolytic capacitor after power off.

(1) Open the top cover of outdoor unit and then remove the cover of electric box.



(2) As shown in the fig below, connect the plug of discharge resistance (about 100ohm, 20W) (if there is no discharge resistance, you can use the plug of soldering iron) to point A and B of electrolytic capacitor. There will be sparks when touching them. Press them forcibly for 30s to discharge electricity of electrolytic capacitor.



(3) After finish discharging electricity, measure the voltage between point A and B with universal meter to make sure if electricity discharging is completed, in order to prevent electric shock. If the voltage between the two points is below 20V, you can perform maintenance safely.

9.2 Error Code List

NO.	Malfunction Name	Dual-8 Code Display	A/C status	Possible Causes
1	High discharge temperature protection of compressor	E4	During cooling and drying operation, compressor and outdoor fan stop while indoor fan operates. During heating operation, all loads stop.	Please refer to the malfunction analysis (discharge protection, overload).
2	Overcurrent protection	E5	During cooling and drying operation, compressor and outdoor fan stop while indoor fan operates. During heating operation, all loads stop.	1. Supply voltage is unstable; 2. Supply voltage is too low and load is too high; 3. Evaporator is dirty.
3	Communi-cation Malfunction	E6	During cooling operation,compressor stops while indoor fan motor operates. During heating operation, the complete unit stops.	Refer to the corresponding malfunction analysis.
4	High temperature resistant protection	E8	During cooling operation: compressor will stop while indoor fan will operate. During heating operation, the complete unit stops.	Refer to the malfunction analysis (overload, high temperature resistant).
5	PG motor (indoor fan motor) does not operate	H6	Indoor fan, outdoor fan, compressor and electric heat tube stop operation. Horizontal louver stops at the current position.	1. The feedback terminal of PG motor is not connected tightly. 2. The control terminal of PG motor isnot connected tightly. 3. Fan blade rotates unsmoothly. 4. Malfunctionof moto.r 5. Controller is damaged.
6	Malfunction protection of jumper cap	C5	Operation of remote controller or control panel is available, but the unit won't act.	1. There's not jumper cap on the controller. 2. Jumper cap is not inserted properly and tightly 3. Jumper cap is damaged. 4. Controller is damaged.
7	Indoor ambient temperature sensor is open/short circuited	F1	During cooling and drying operation, indoor unit operates while other loads will stop; during heating operation, the complete unit will stop operation.	1. The wiring terminal between indoor ambient temperature sensor and controller is loosened or poorly contacted; 2. There's short circuit due to trip-over of the parts on controller; 3.Indoor ambient temperature sensor is damaged(Please check it by referring to the resistance table for temperature sensor) 4. Main board is broken.
8	Indoor evaporator temperature sensor is open/short circuited	F2	The unit will stop operation as it reaches the temperature point. During cooling and drying operation, except indoor fan operates, other loads stop operation; During heating operation, the complete unit stops operation.	1. The wiring terminal between indoor evaporator temperature sensor and controller is loosened or poorly contacted; 2. There's short circuit due to the trip-over of the parts on controller; 3.Indoor evaporator temperature sensor is damaged (Please check it by referring to the resistance table for temperature sensor) 4. Main board is broken.
9	Outdoor ambient temperature sensor is open/short circuited	F3	During cooling and drying operating, compressor stops while indoor fan operates; During heating operation, the complete unit will stop operation	Outdoor temperature sensor hasnt been connected well or is damaged. Please check it by referring to the resistance table for temperature sensor)

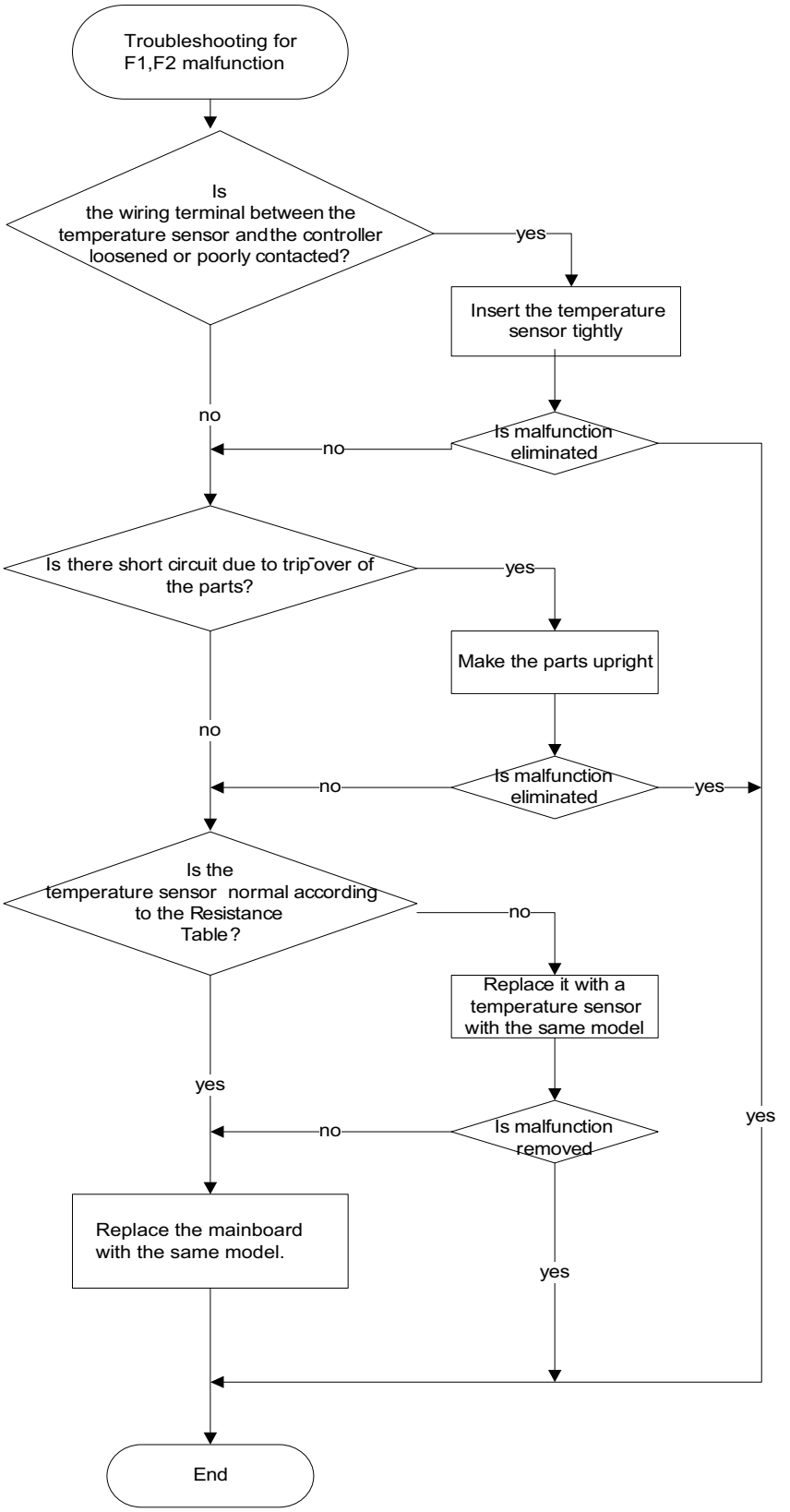
10	Outdoor condenser temperature sensor is open/short circuited	F4	During cooling and drying operation, compressor stops while indoor fan will operate; During heating operation, the complete unit will stop operation.	Outdoor temperature sensor hasnt been connected well or is damaged. Please check it by referring to the resistance table for temperature sensor)
11	Outdoor discharge temperature sensor is open/short circuited	F5	During cooling and drying operation, compressor will sop after operating for about 3 mins, while indoor fan will operate; During heating operation, the complete unit will stop after operating for about 3 mins.	1.Outdoor temperature sensor hasnt been connected well or is damaged. Please check it by referring to the resistance table for temperature sensor) 2.The head of temperature sensor hasnt been inserted into the copper tube
12	Voltage for DC bus-bar is too high	PH	During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop operation.	1. Measure the voltage of position L and N on wiring board (XT), if the voltage is higher than 265VAC, turn on the unit after the supply voltage is increased to the normal range. 2.If the AC input is normal, measure the voltage of electrolytic capacitor C on control panel (AP1), if its normal, theres malfunction for the circuit, please replace the control panel (AP1)
13	Malfunction of complete units current detection	U5	During cooling and drying operation, the compressor will stop while indoor fan will operate; During heating operating, the complete unit will stop operation.	Theres circuit malfunction on outdoor units control panel AP1, please replace the outdoor units control panel AP1.
14	Overcurrent protection of phase current for compressor	P5	During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop operation.	Refer to the malfunction analysis (IPM protection, loss of synchronism protection and overcurrent protection of phase current for compressor.
15	Defrosting	Heating indicator off for 0.5s and then blinks for 10s	Defrosting will occur in heating mode. Compressor will operate while indoor fan will stop operation.	Its the normal state
16	Overload protection for compressor	H3	During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop operation.	1. Wiring terminal OVC-COMP is loosened. In normal state, the resistance for this terminal should be less than 1ohm. 2.Refer to the malfunction analysis (discharge protection, overload)
17	IPM protection	H5	During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop operation.	Refer to the malfunction analysis (IPM protection, loss of synchronism protection and overcurrent protection of phase current for compressor.
18	PFC protection	HC	During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop operation.	Refer to the malfunction analysis
19	Desynchron-izing of compressor	H7	During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop operation.	Refer to the malfunction analysis (IPM protection, loss of synchronism protection and overcurrent protection of phase current for compressor.
20	Failure start-up	LC	During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop operation.	Refer to the malfunction analysis
21	Malfunction of phase current detection circuit for compressor	U1	During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop	Replace outdoor control panel AP1
22	EEPROM malfunction	EE	During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop	Replace outdoor control panel AP1
23	Charging malfunction of capacitor	PU	During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop	Refer to the part three—charging malfunction analysis of capacitor

24	Malfunction of module temperature sensor circuit	P7	During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop	Replace outdoor control panel AP1
25	Module high temperature protection	P8	During cooling operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop	After the complete unit is de-energized for 20mins, check whether the thermal grease on IPM Module of outdoor control panel AP1 is sufficient and whether the radiator is inserted tightly. If its no use, please replace control panel AP1.
26	Malfunction of voltage dropping for DC bus-bar	U3	During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop	Supply voltage is unstable
27	Voltage of DC bus-bar is too low	PL	During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop	1. Measure the voltage of position L and N on wiring board (XT), if the voltage is higher than 150VAC, turn on the unit after the supply voltage is increased to the normal range. 2.If the AC input is normal, measure the voltage of electrolytic capacitor C on control panel (AP1), if its normal, theres malfunction for the circuit, please replace the control panel (AP1)
28	Limit/ decrease frequency due to high temperature of module	EU	All loads operate normally, while operation frequency for compressor is decreased	Discharging after the complete unit is de-energized for 20mins, check whether the thermal grease on IPM Module of outdoor control panel AP1 is sufficient and whether the radiator is inserted tightly. If its no use, please replace control panel AP1.
29	The four-way valve is abnormal	U7	If this malfunction occurs during heating operation, the complete unit will stop operation.	1.Supply voltage is lower than AC175V; 2.Wiring terminal 4V is loosened or broken; 3.4V is damaged, please replace 4V.
30	Fan module protection	L3	Cooling:outdoor fan motor,compressor stop running;indoor fan works. Heating:outdoor fan motor,compressor,indoor fan motor stop running.	1.The wire terminal of outdoor fan motor is loosed,fix the terminal. 2.Motor damaged,replace the motor. 3.Fan motor module on mainboard is damaged;replace the mainboard AP1.
31	Malfunction of detecting plate(WIFI)	JF		

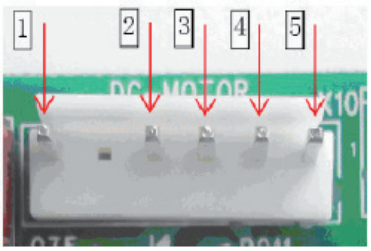
9.3 Troubleshooting for Main Malfunction

●Indoor unit:

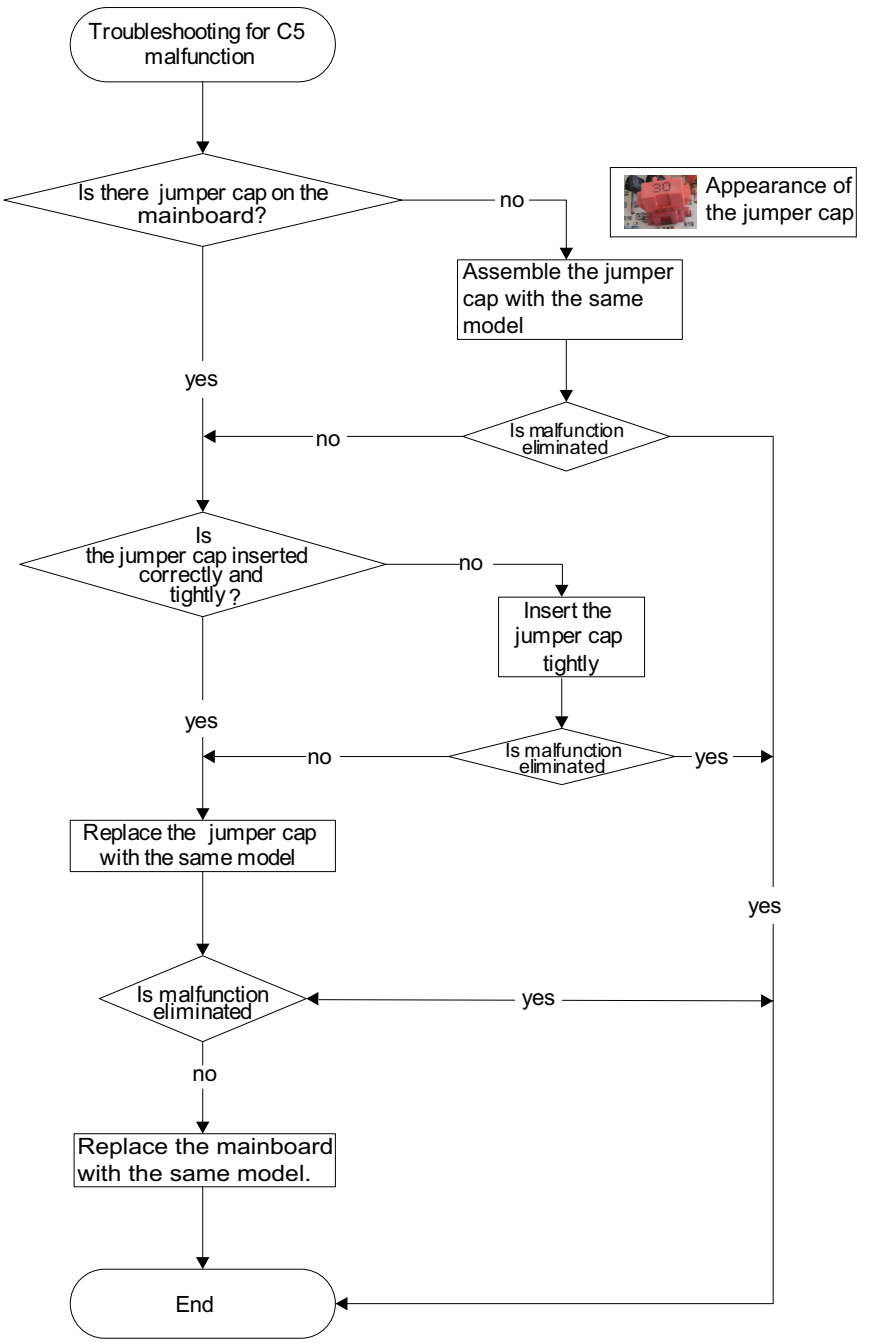
1. Malfunction of Temperature Sensor F1, F2



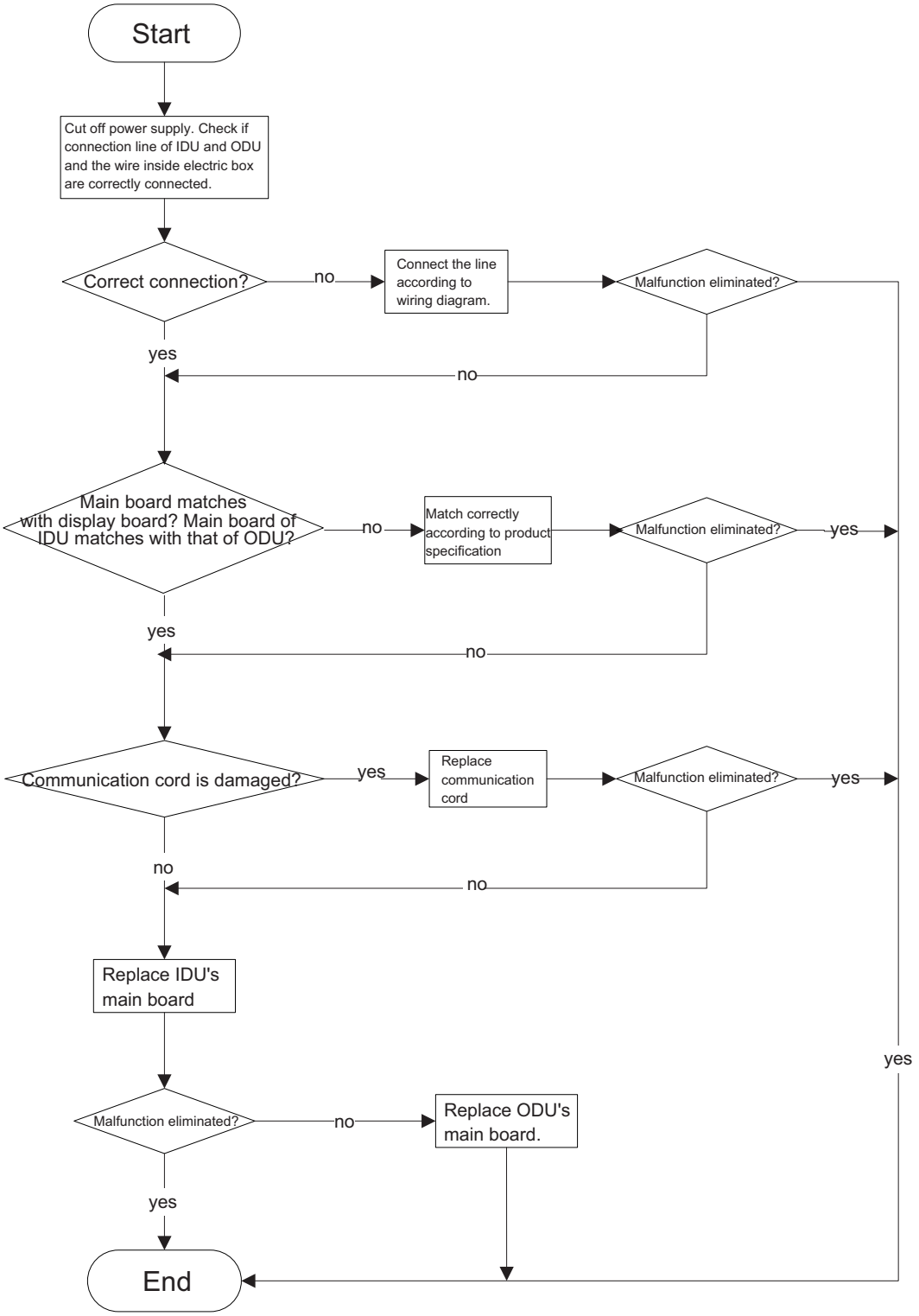
2. Malfunction of Blocked Protection of IDU Fan Motor H6



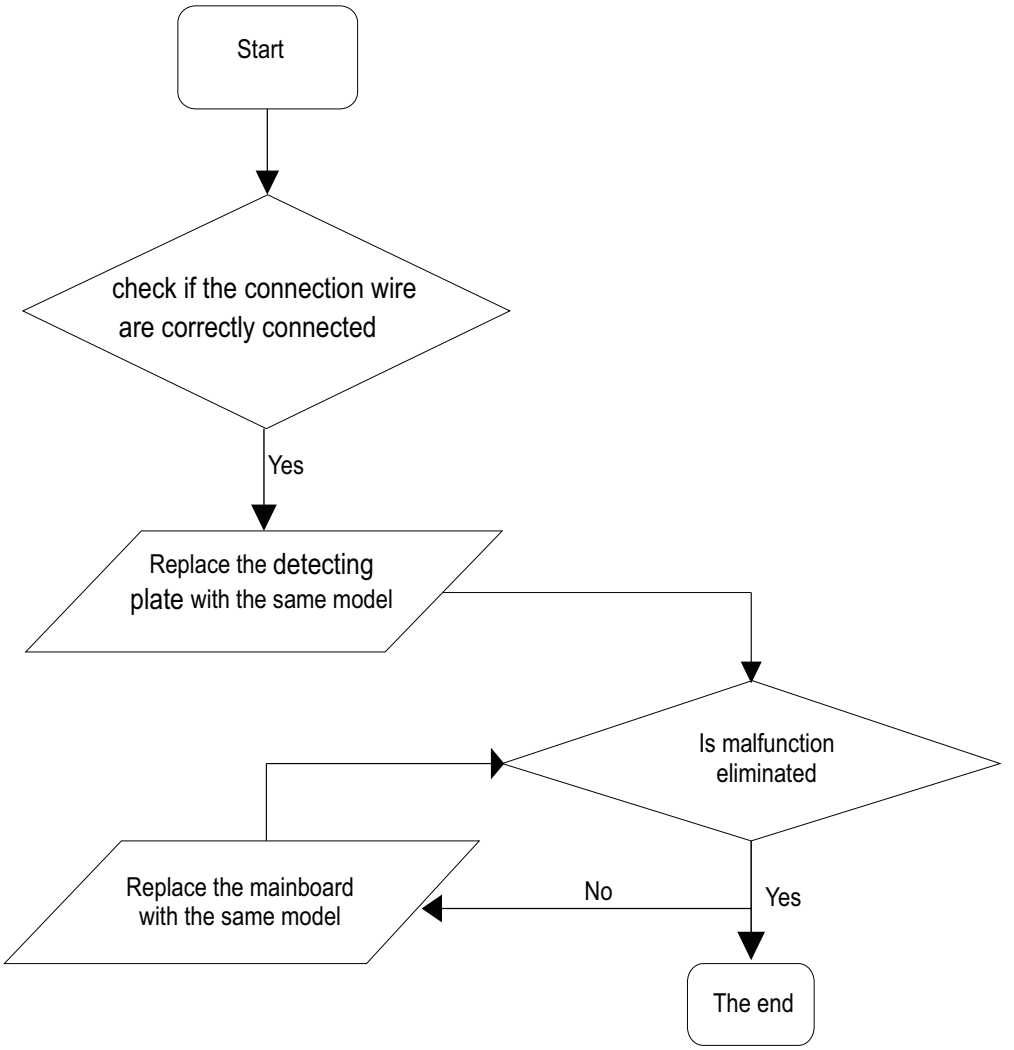
3. Malfunction of Protection of Jumper Cap C5



4. Communication malfunction E6

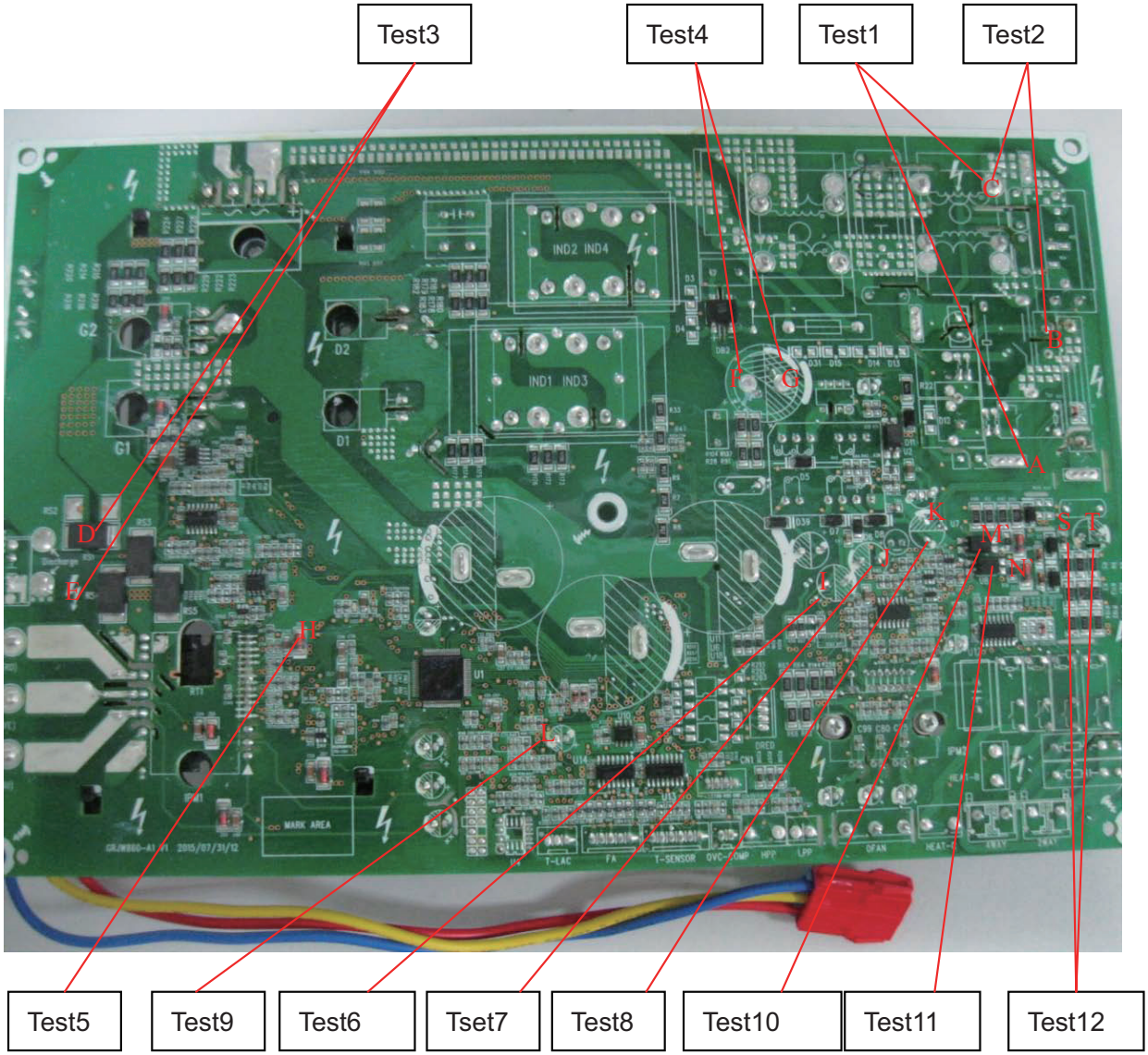


5. Malfunction of detecting plate(WIFI) JF



●Outdoor unit:

1.Key detection point



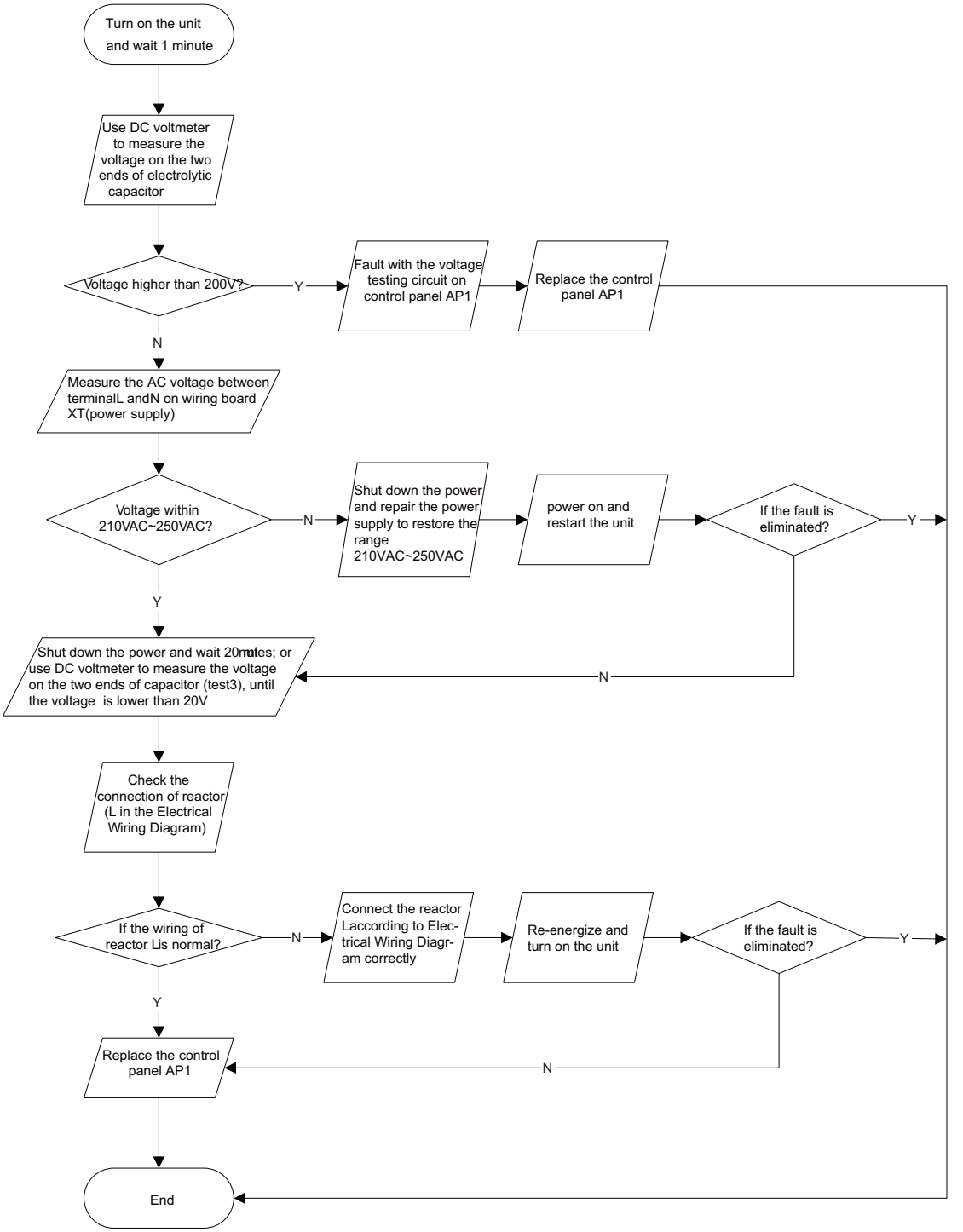
Test point No.	Test point	Related elements	Test value under normal condition
Test 1	Between A and C	Neutrawire，live wire	AC 160V~265V
Test 2	Between B and C	Neutrawire，live wire	AC 160V~265V
Test 3	Between D and E	Electrolytic capacitor of DC bas bar	DC 180V~380V
Test 4	Between F and G	Electrolytic capacitor of switch power	DC 180V~380V
Test 5	Both ends of diode ZD8	ZD8(IPM module +15V)	DC 15V
Test 6	Both ends of electrolytic capacitor C37	C37(+15V power)	DC 15V
Test 7	Both ends of electrolytic capacitor C20	C20(+12V power)	DC 12V
Test 8	Both ends of electrolytic capacitor C24	C24(+5V power)	DC 5V
Test 9	Both ends of electrolytic capacitor C22	C22(+3.3V power)	DC 3.3V
Test 10	U7	Between 3 and 4 at leading foot of U7	Jumping between 0V and 3.3V
Test 11	U8	Between 1 and 2 at leading foot of U8	Jumping between 0V and 3.3V
Test 12	Between S and T	Communication circuit capacitor C14	DC 56V

2.Capacity charging malfunction (outdoor unit malfunction) (AP1 below is control board of outdoor unit)

Main detection point:

- Detect if the voltage of L and N terminal of wiring board is between 210AC-240AC by alternating voltage meter;
- Is reactor (L) well connected? Is connection wire loosened or pull-out? Is reactor (L) damaged?

Malfunction diagnosis process:

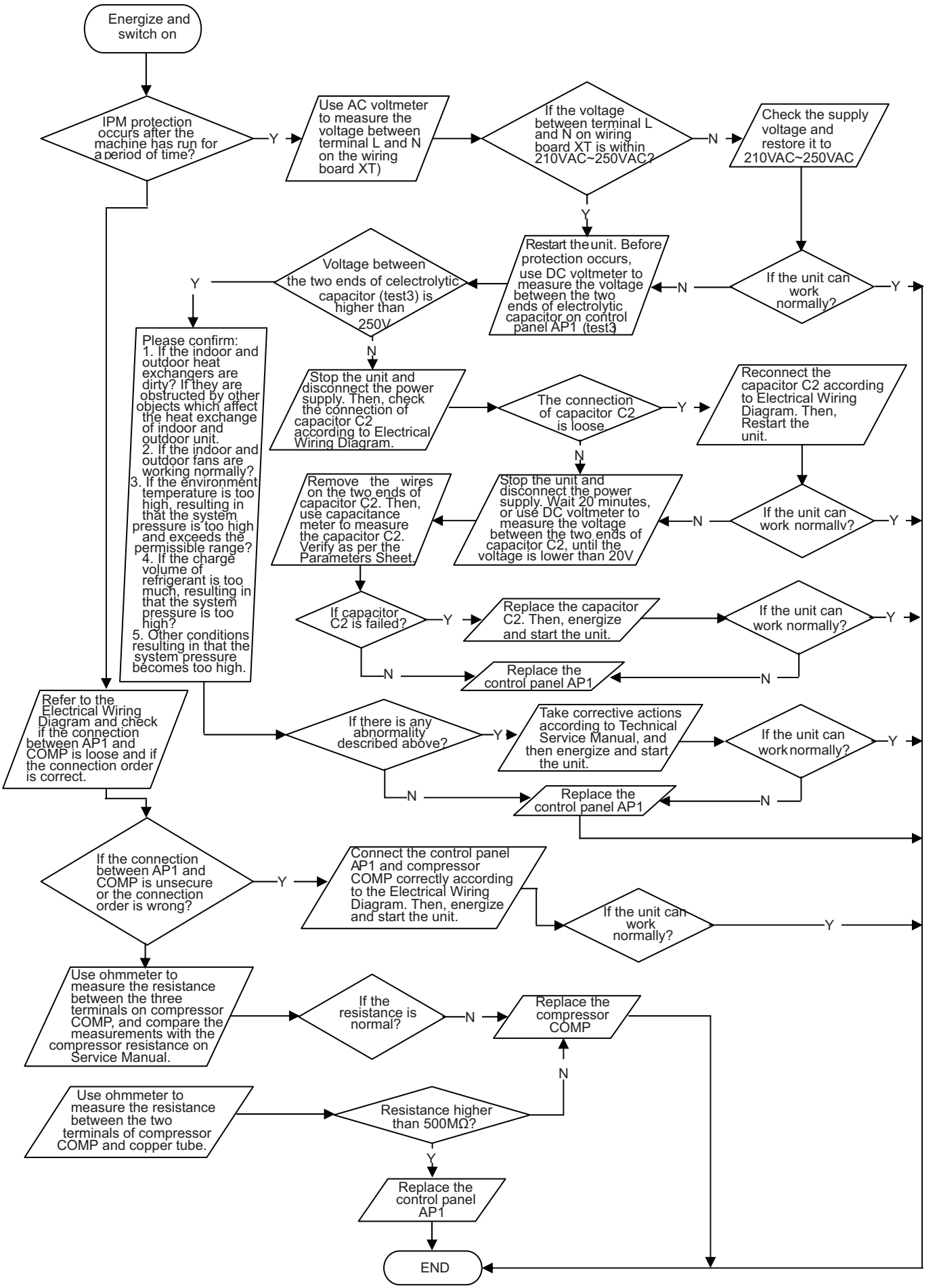


3.IPM protection, desynchronizing malfunction, phase current of compressor is overcurrent (AP1 below is control board of outdoor unit)

Main detection point:

- If control board AP1 and compressor COMP is well connected? If they are loosened? If the connection sequence is correct?
- Is voltage input in the normal range (Test the voltage between L, N of wiring board XT by DC voltage meter)?
- If coil resistance of compressor is normal? Is compressor coil insulating to copper pipe well?
- If the work load of unit is heavy? If radiating of unit is well?
- If the refrigerant charging is appropriate?

Malfunction diagnosis process:

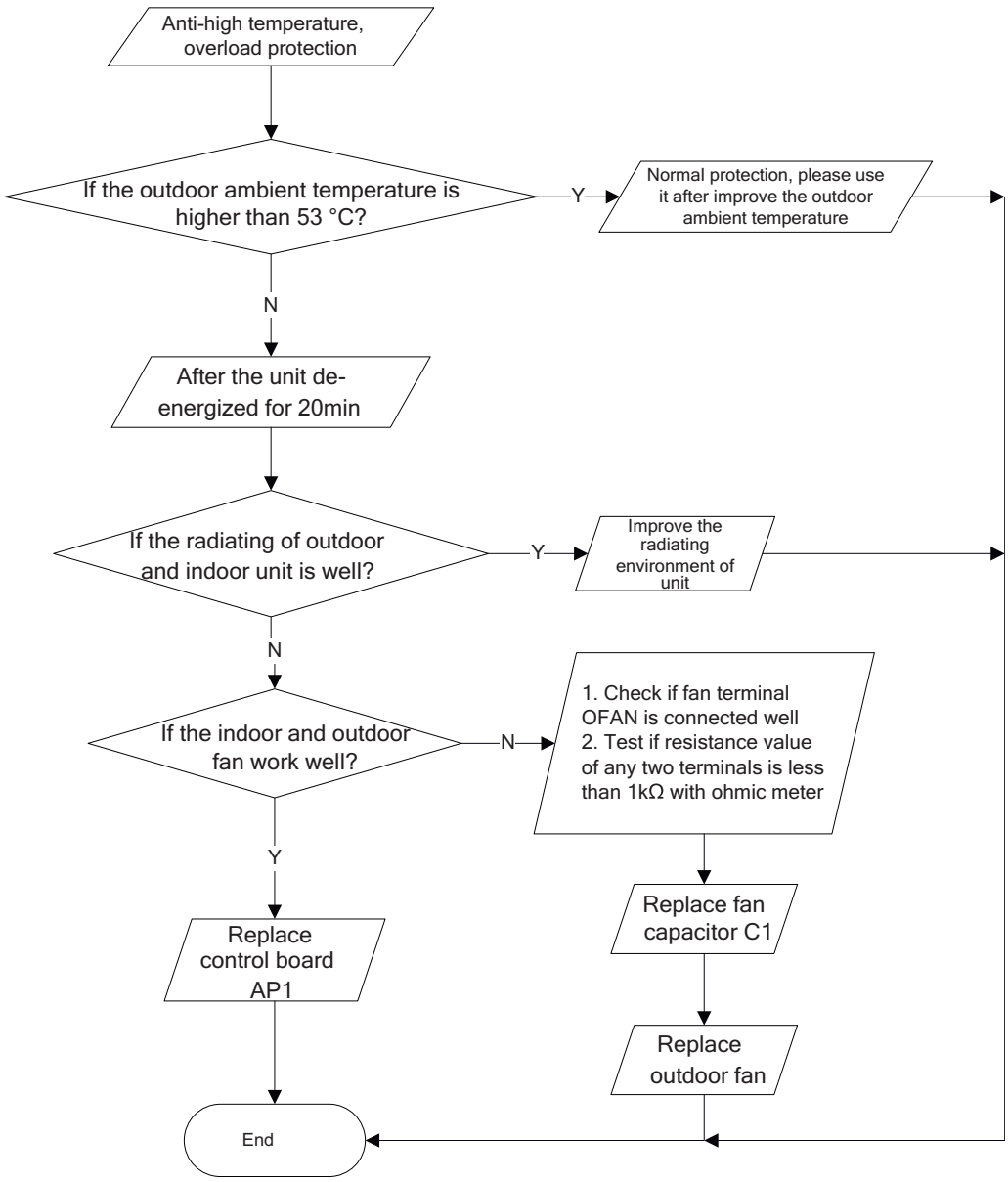

Energize and switch on
IPM protection occurs after the machine has run for a period of time?
Y
Use AC voltmeter to measure the voltage between terminal L and N on the wiring board XT)
If the voltage between terminal L and N on wiring board XT is within 210VAC~250VAC?
N
Check the supply voltage and restore it to 210VAC~250VAC
Y
Restart the unit. Before protection occurs, use DC voltmeter to measure the voltage between the two ends of electrolytic capacitor on control panel AP1 (test3)
N
If the unit can work normally?
Y
Voltage between the two ends of celectrolytic capacitor (test3) is higher than 250V
Y
N
Please confirm:
1. If the indoor and outdoor heat exchangers are dirty? If they are obstructed by other objects which affect the heat exchange of indoor and outdoor unit.
2. If the indoor and outdoor fans are working normally?
3. If the environment temperature is too high, resulting in that the system pressure is too high and exceeds the permissible range?
4. If the charge volume of refrigerant is too much, resulting in that the system pressure is too high?
5. Other conditions resulting in that the system pressure becomes too high.
Stop the unit and disconnect the power supply. Then, check the connection of capacitor C2 according to Electrical Wiring Diagram.
The connection of capacitor C2 is loose
Y
Reconnect the capacitor C2 according to Electrical Wiring Diagram. Then, Restart the unit.
N
Stop the unit and disconnect the power supply. Wait 20 minutes, or use DC voltmeter to measure the voltage between the two ends of capacitor C2, until the voltage is lower than 20V
N
If the unit can work normally?
Y
Remove the wires on the two ends of capacitor C2. Then, use capacitance meter to measure the capacitor C2. Verify as per the Parameters Sheet.
If capacitor C2 is failed?
Y
Replace the capacitor C2. Then, energize and start the unit.
If the unit can work normally?
Y
N
Replace the control panel AP1
N
Refer to the Electrical Wiring Diagram and check if the connection between AP1 and COMP is loose and if the connection order is correct.
If there is any abnormality described above?
Y
Take corrective actions according to Technical Service Manual, and then energize and start the unit.
If the unit can work normally?
Y
N
Replace the control panel AP1
If the connection between AP1 and COMP is unsecure or the connection order is wrong?
Y
Connect the control panel AP1 and compressor COMP correctly according to the Electrical Wiring Diagram. Then, energize and start the unit.
If the unit can work normally?
Y
Use ohmmeter to measure the resistance between the three terminals on compressor COMP, and compare the measurements with the compressor resistance on Service Manual.
If the resistance is normal?
N
Replace the compressor COMP
N
Use ohmmeter to measure the resistance between the two terminals of compressor COMP and copper tube.
Resistance higher than 500MΩ?
Y
Replace the control panel AP1
END

4.Diagnosis for anti-high temperature, overload protection (AP1 below is control board of outdoor unit)

Main detection point:

- If the outdoor ambient temperature is in normal range;
- If the indoor and outdoor fan is running normal;
- If the radiating environment of indoor and outdoor unit is well.

Malfunction diagnosis process:

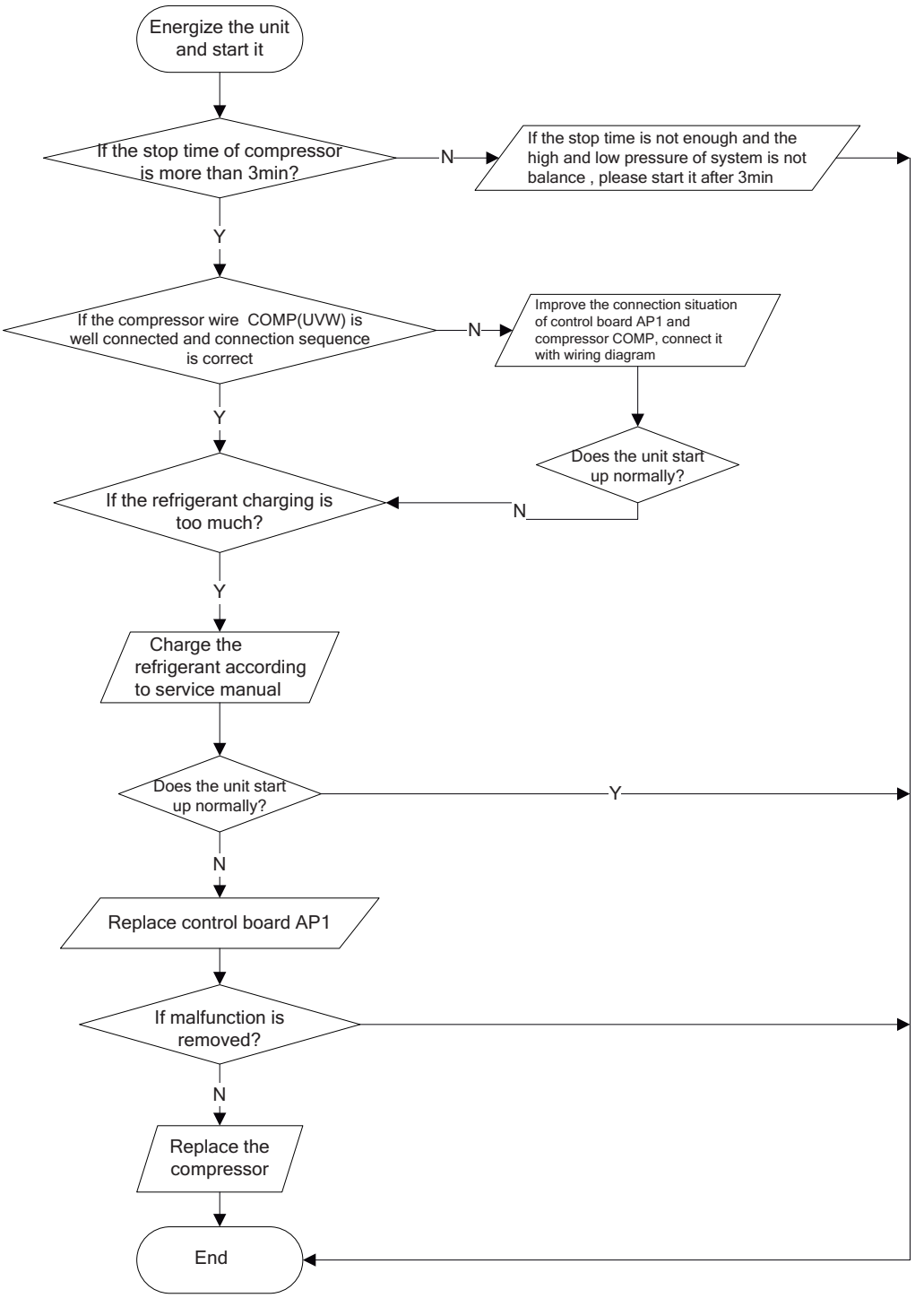


5.Diagnosis for failure start up malfunction (AP1 below is control board of outdoor unit)

Main detection point:

- If the compressor wiring is correct?
- If the stop time of compressor is enough?
- If the compressor is damaged?
- If the refrigerant charging is too much?

Malfunction diagnosis process:

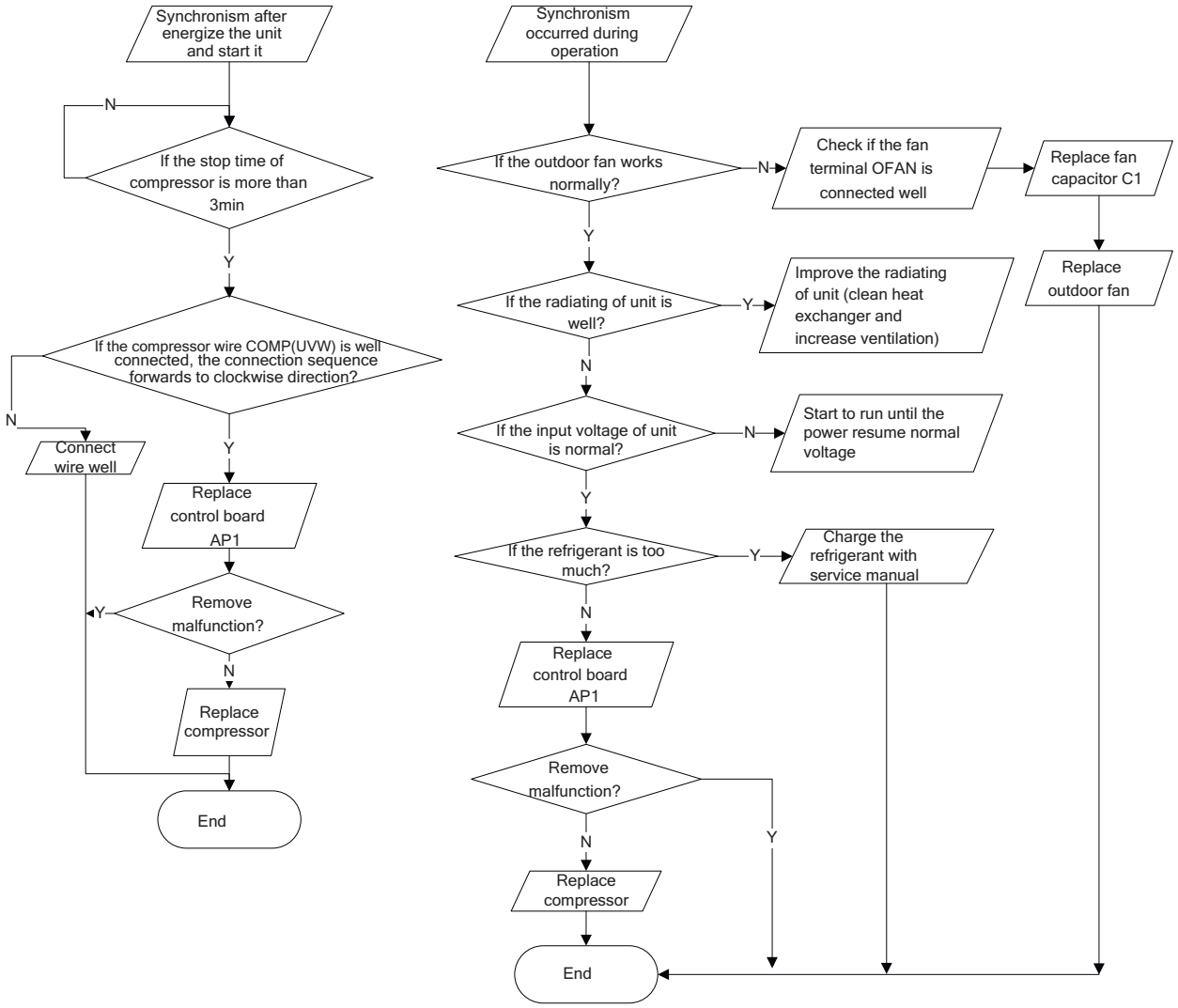


6. Diagnosis for compressor synchronism (AP1 below is control board of outdoor unit)

Main detection point:

- If the system pressure is over-high?
- If the work voltage is over-low?

Malfunction diagnosis process:

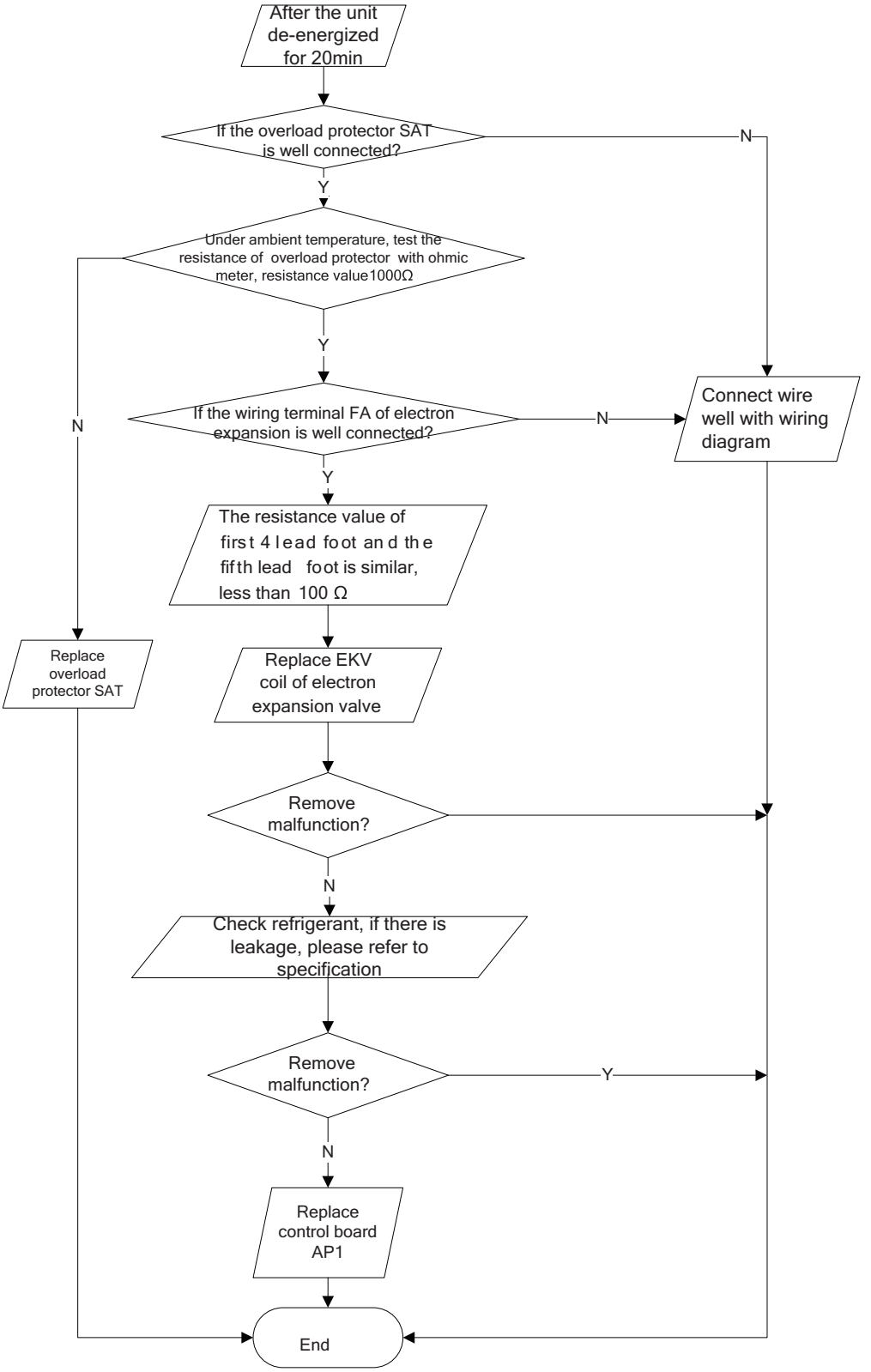


7.Diagnosis for overload and discharge malfunction (AP1 below is control board of outdoor unit)

Main detection point:

- If the electron expansion valve is connected well? Is the expansion valve damaged?
- If the refrigerant is leakage?
- If the overload protector is damaged?

Malfunction diagnosis process:

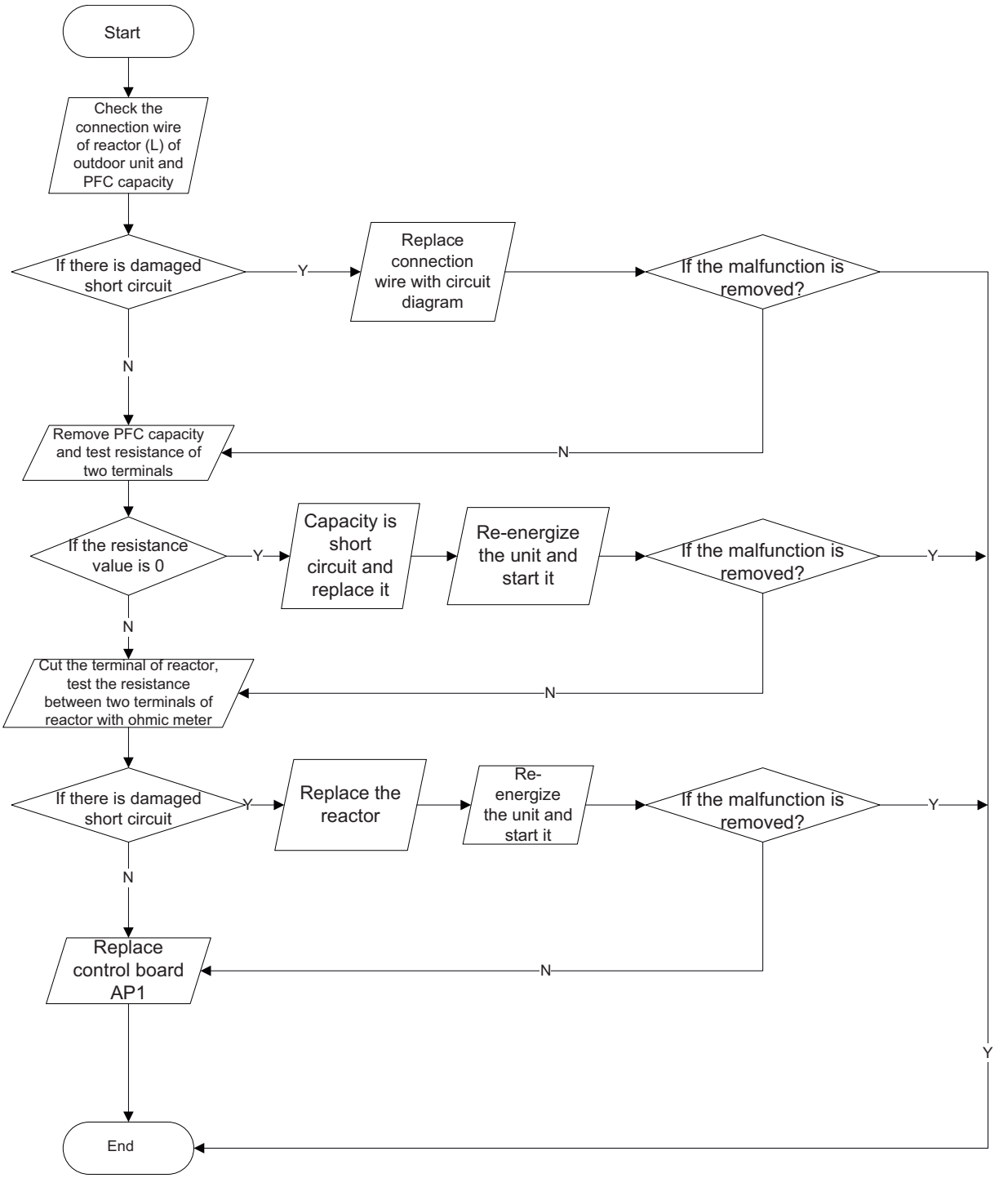


8.PFC (correction for power factor) malfunction (outdoor unit malfunction) (AP1 below is control board of outdoor unit)

Main detection point:

● Check if reactor (L) of outdoor unit and PFC capacity are damaged.

Malfunction diagnosis process:

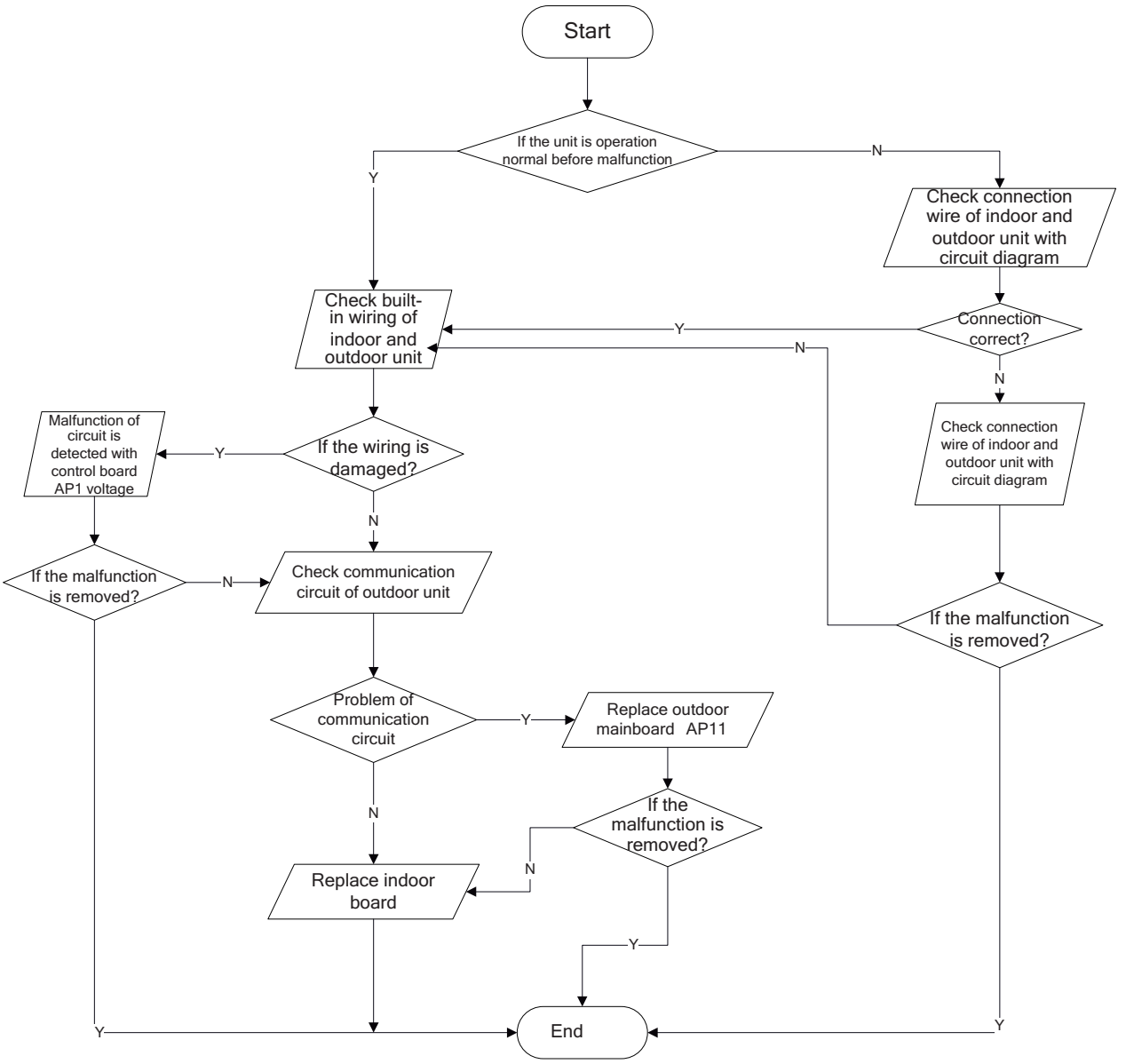


9.Communication malfunction (AP1 below is control board of outdoor unit)

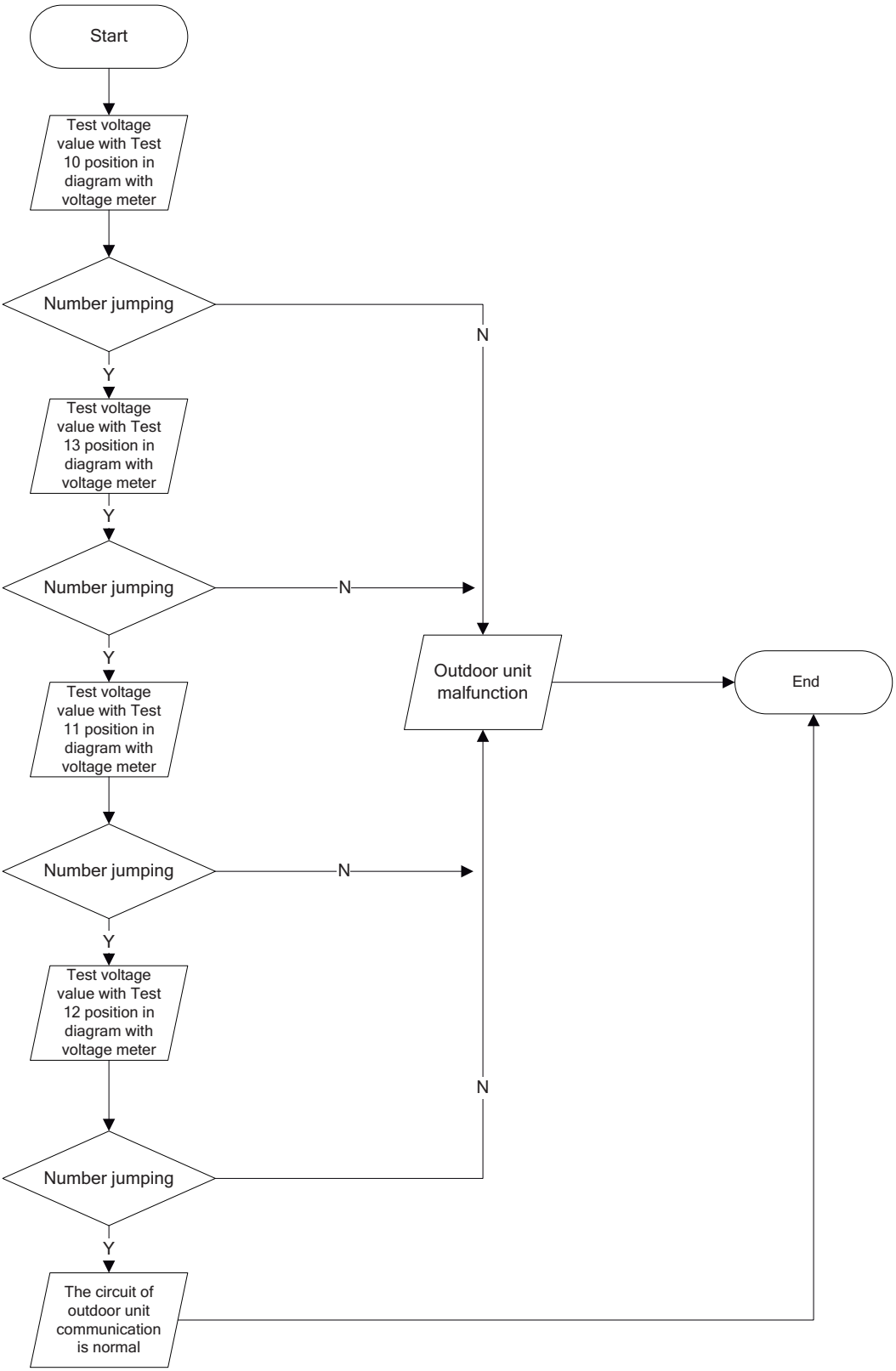
Main detection point:

● Check if the connection wire and the built-in wiring of indoor and outdoor unit is connected well and no damaged;
● If the communication circuit of indoor mainboard is damaged? If the communication circuit of outdoor mainboard (AP1) is damaged

Malfunction diagnosis process:



10.Diagnosis process for outdoor communication circuit



9.4 Troubleshooting for Normal Malfunction

1. Air conditioner can't be started up

Possible Causes	Discriminating Method (Air conditioner Status)	Troubleshooting
No power supply, or poor connection for power plug	After energization, operation indicator isn't bright and the buzzer can't give out sound	Confirm whether it's due to power failure. If yes, wait for power recovery. If not, check power supply circuit and make sure the power plug is connected well.
Wrong wire connection between indoor unit and outdoor unit, or poor connection for wiring terminals	Under normal power supply circumstances, operation indicator isn't bright after energization	Check the circuit according to circuit diagram and connect wires correctly. Make sure all wiring terminals are connected firmly
Electric leakage for air conditioner	After energization, room circuit breaker trips off at once	Make sure the air conditioner is grounded reliably Make sure wires of air conditioner is connected correctly Check the wiring inside air conditioner. Check whether the insulation layer of power cord is damaged; if yes, place the power cord.
Model selection for air switch is improper	After energization, air switch trips off	Select proper air switch
Malfunction of remote controller	After energization, operation indicator is bright, while no display on remote controller or buttons have no action.	Replace batteries for remote controller Repair or replace remote controller

2. Poor cooling (heating) for air conditioner

Possible Causes	Discriminating Method (Air conditioner Status)	Troubleshooting
Set temperature is improper	Observe the set temperature on remote controller	Adjust the set temperature
Rotation speed of the IDU fan motor is set too low	Small wind blow	Set the fan speed at high or medium
Filter of indoor unit is blocked	Check the filter to see it's blocked	Clean the filter
Installation position for indoor unit and outdoor unit is improper	Check whether the installation postion is proper according to installation requirement for air conditioner	Adjust the installation position, and install the rainproof and sunproof for outdoor unit
Refrigerant is leaking	Discharged air temperature during cooling is higher than normal discharged wind temperature; Discharged air temperature during heating is lower than normal discharged wind temperature; Unit's pressure is much lower than regulated range	Find out the leakage causes and deal with it. Add refrigerant.
Malfunction of 4-way valve	Blow cold wind during heating	Replace the 4-way valve
Malfunction of capillary	Discharged air temperature during cooling is higher than normal discharged wind temperature; Discharged air temperature during heating is lower than normal discharged wind temperature; Unit't pressure is much lower than regulated range. If refrigerant isn't leaking, part of capillary is blocked	Replace the capillary
Flow volume of valve is insufficient	The pressure of valves is much lower than that stated in the specification	Open the valve completely
Malfunction of horizontal louver	Horizontal louver can't swing	Refer to point 3 of maintenance method for details
Malfunction of the IDU fan motor	The IDU fan motor can't operate	Refer to troubleshooting for H6 for maintenance method in details
Malfunction of the ODU fan motor	The ODU fan motor can't operate	Refer to point 4 of maintenance method for details
Malfunction of compressor	Compressor can't operate	Refer to point 5 of maintenance method for details

3. Horizontal louver can't swing

Possible Causes	Discriminating Method (Air conditioner Status)	Troubleshooting
Wrong wire connection, or poor connection	Check the wiring status according to circuit diagram	Connect wires according to wiring diagram to make sure all wiring terminals are connected firmly
Stepping motor is damaged	Stepping motor can't operate	Repair or replace stepping motor
Main board is damaged	Others are all normal, while horizontal louver can't operate	Replace the main board with the same model

4. ODU fan motor can't operate

Possible causes	Discriminating method (air conditioner status)	Troubleshooting
Wrong wire connection, or poor connection	Check the wiring status according to circuit diagram	Connect wires according to wiring diagram to make sure all wiring terminals are connected firmly
Capacity of the ODU fan motor is damaged	Measure the capacity of fan capacitor with an universal meter and find that the capacity is out of the deviation range indicated on the nameplate of fan capacitor.	Replace the capacity of fan
Power voltage is a little low or high	Use universal meter to measure the power supply voltage. The voltage is a little high or low	Suggest to equip with voltage regulator
Motor of outdoor unit is damaged	When unit is on, cooling/heating performance is bad and ODU compressor generates a lot of noise and heat.	Change compressor oil and refrigerant. If no better, replace the compressor with a new one

5. Compressor can't operate

Possible causes	Discriminating method (air conditioner status)	Troubleshooting
Wrong wire connection, or poor connection	Check the wiring status according to circuit diagram	Connect wires according to wiring diagram to make sure all wiring terminals are connected firmly
Capacity of compressor is damaged	Measure the capacity of fan capacitor with an universal meter and find that the capacity is out of the deviation range indicated on the nameplate of fan capacitor.	Replace the compressor capacitor
Power voltage is a little low or high	Use universal meter to measure the power supply voltage. The voltage is a little high or low	Suggest to equip with voltage regulator
Coil of compressor is burnt out	Use universal meter to measure the resistance between compressor terminals and it's 0	Repair or replace compressor
Cylinder of compressor is blocked	Compressor can't operate	Repair or replace compressor

6. Air conditioner is leaking

Possible causes	Discriminating method (air conditioner status)	Troubleshooting
Drain pipe is blocked	Water leaking from indoor unit	Eliminate the foreign objects inside the drain pipe
Drain pipe is broken	Water leaking from drain pipe	Replace drain pipe
Wrapping is not tight	Water leaking from the pipe connection place of indoor unit	wrap it again and bundle it tightly

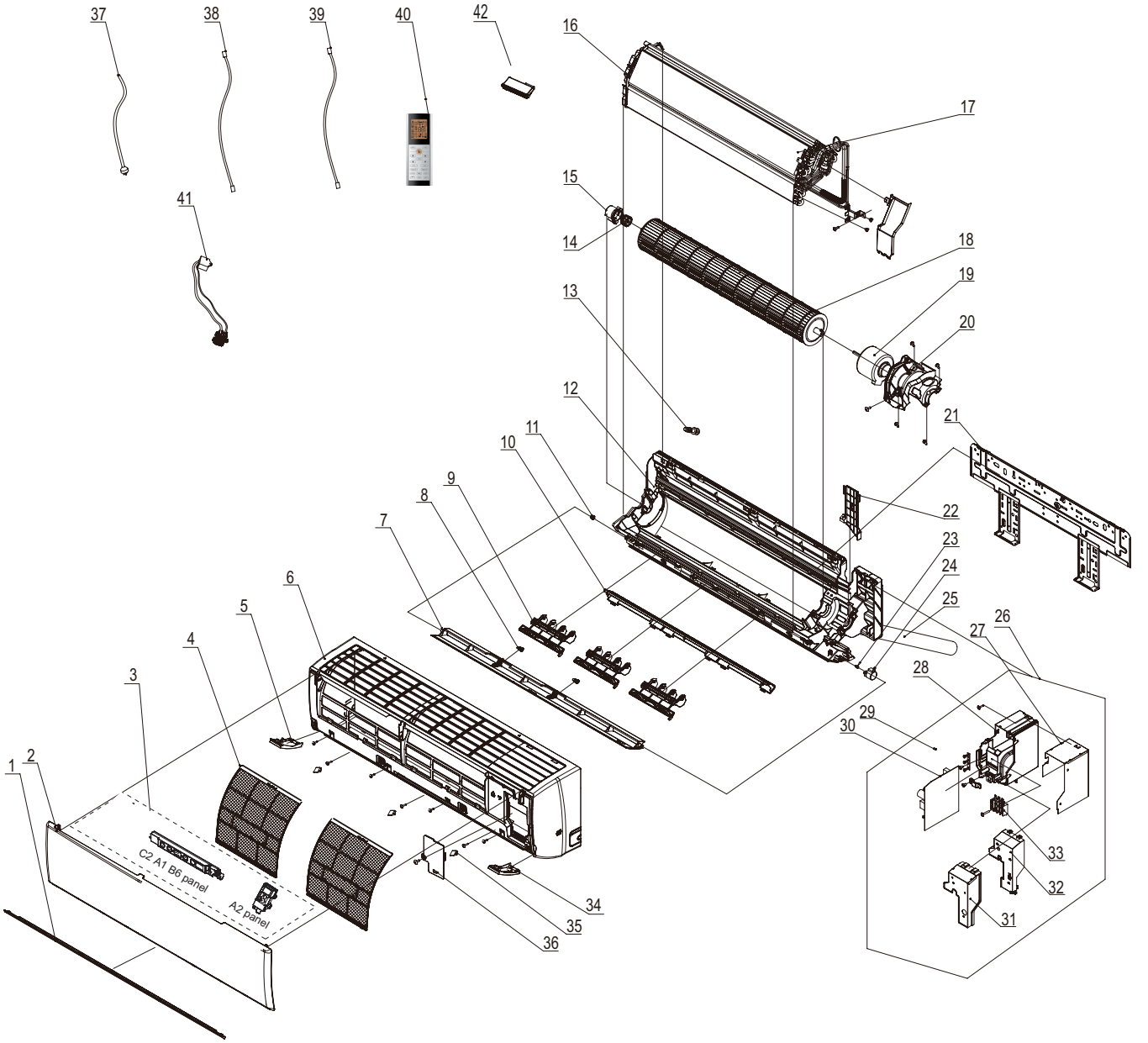
7. Abnormal sound and vibration

Possible causes	Discriminating method (air conditioner status)	Troubleshooting
When turn on or turn off the unit, the panel and other parts will expand and there's abnormal sound	There's the sound of "PAPA"	Normal phenomenon. Abnormal sound will disappear after a few minutes.
When turn on or turn off the unit, there's abnormal sound due to flow of refrigerant inside air conditioner	Water-running sound can be heard	Normal phenomenon. Abnormal sound will disappear after a few minutes.
Foreign objects inside the indoor unit or there're parts touching together inside the indoor unit	There's abnormal sound fro indoor unit	Remove foreign objects. Adjust all parts' position of indoor unit, tighten screws and stick damping plaster between connected parts
Foreign objects inside the outdoor unit or there're parts touching together inside the outdoor unit	There's abnormal sound fro outdoor unit	Remove foreign objects. Adjust all parts' position of outdoor unit, tighten screws and stick damping plaster between connected parts
Short circuit inside the magnetic coil	During heating, the way valve has abnormal electromagnetic sound	Replace magnetic coil
Abnormal shake of compressor	Outdoor unit gives out abnormal sound	Adjust the support foot mat of compressor, tighten the bolts
Abnormal sound inside the compressor	Abnormal sound inside the compressor	If add too much refrigerant during maintenance, please reduce refrigerant properly. Replace compressor for other circumstances.

10. Exploded View and Parts List

10.1 Indoor Unit

GWH15QD-K6DNC8A/I GWH15QD-K6DNA1A/I



The component is only for reference;please refer to the actual product.

No.	Description	Part Code			Qty
		GWH15QD-K6DNC8A/I	GWH15QD-K6DNA1A/I	GWH15QD-K6DNC8A/I	
	Product Code	CB456N01500	CB419N13200	CB456N01501	
1	Decorative Strip	/	20192613	/	1
2	Front Panel	20000300153T	20022481S	20000300153T	1
3	Display Board	300001000144	300001000139	300001000144	1
4	Filter Sub-Assy	11122089	11122089	11122089	2
5	Decorative Board (Left)	20190013	20192612	20192662	1
6	Front Case	2002248401	20022484	2002248401	1
7	Guide Louver	1051276501	10512734	1051276501	1
8	Axile Bush	10542036	10542036	10542036	2
9	Air Louver(Manual)	10512732	10512732	10512732	3
10	Helicoid tongue	26112512	26112512	26112512	1
11	Left Axile Bush	10512037	10512037	10512037	1
12	Rear Case assy	22202571	22202571	22202571	1
13	Rubber Plug (Water Tray)	76712012	76712012	76712012	1
14	O-Gasket sub-assy of Bearing	7651205102	7651205102	7651205102	1
15	Ring of Bearing	26152025	26152025	26152025	1
16	Evaporator Support	24212177	24212177	24212177	1
17	Evaporator Assy	01002000014	01002000014	01002000014	1
18	Cross Flow Fan	10352060	10352060	10352060	1
19	Fan Motor	15012136	15012136	15012136	1
20	Motor Press Plate	26112511	26112511	26112511	1
21	Wall Mounting Frame	01362026	01362026	01362026	1
22	Connecting pipe clamp	2611218801	2611218801	2611218801	1
23	Crank	73012005	73012005	73012005	1
24	Stepping Motor	1521240212	1521240212	1521240212	1
25	Drainage hose	05230014	05230014	05230014	1
26	Electric Box Assy	100002001937	100002001885	100002002465	1
27	Lower Shield of Electric Box	01592139	01592139	01592139	1
28	Electric Box	20112211	20112211	20112211	1
29	Jumper	4202021925	4202021917	4202021925	1
30	Main Board	300002000418	300002000418	300002000421	1
31	Shield Cover of Electric Box	01592139	01592139	01592139	1
32	Electric Box Cover	20112209	20112209	20112209	1
33	Terminal Board	42011233	42011233	42011233	1
34	Decorative Board (Right)	20192662	20192611	20192662	1
35	Screw Cover	2425201726	242520179	2425201726	3
36	Electric Box Cover2	20112210	20112210	20112210	1
37	Power Cord	/	/	/	/
38	Connecting Cable	4002052317	4002052317	4002052317	0
39	Temperature Sensor	3900031302	3900031302	3900031302	1
40	Remote Controller	305001000069	305001000067	305001000069	1
41	Cold Plasma Generator	1114001602	1114001602	/	1
42	Detecting plate(WIFI)	000409000006	300018000039	300018000039	1

Above data is subject to change without notice.