9. Maintenance

9.1 Error Code List

	Display Method of Indoor Unit						
	Malfunction Name		Indicator Display (during blinking, ON 0.5s and OFF				
NO.		Dual-8 Code	0.5s)		u 01 1	A/C status	Possible Causes
	Italiic		Operation	Cool	Heating		
			Indicator	Indicator	Indicator		
1	High pressure protection of system	E1				During cooling and drying operation, except indoor fan operates, all loads stop operation. During heating operation, the complete unit stops.	Possible reasons: 1. Refrigerant was superabundant; 2. Poor heat exchange (including filth blockage of heat exchanger and bad radiating environment); Ambient temperature is too high.
2	Antifreezing protection	E2				During cooling and drying operation, compressor and outdoor fan stop while indoor fan operates.	Poor air-return in indoor unit; Fan speed is abnormal; Evaporator is dirty.
3	In defect of refrigerant	F0				The Dual-8 Code Display will show F0 and the complete unit stops.	In defect of refrigerant; Indoor evaporator temperature sensor works abnormally; The unit has been plugged up somewhere.
4	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).
5	Overcurrent protection	E5				During cooling and drying operation, compressor and outdoor fan stop while indoor fan operates. During heating operation, all loads stop.	Supply voltage is unstable; Supply voltage is too low and load is too high; Evaporator is dirty.
6	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.
7	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).
8	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
9	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.
10	Malfunction protection of jumper cap	C5				Wireless remote receiver and button are effective, but can not dispose the related command	1. No jumper cap insert on mainboard. 2. Incorrect insert of jumper cap. 3. Jumper cap damaged. 4. Abnormal detecting circuit of mainboard.

		Die	play Matha	d of Indoo	r I Init		1
		DIS	play Metho				
		lfunction Dual-8 blinking, ON 0.5s and OFF		Indicator Display (during			
NO.	Malfunction			A/C status	Possible Causes		
INO.	Name	Code	0.5s)	1	1	A C status	1 Ossible Gauses
		Display	Operation	Cool	Heating		
			Indicator	Indicator	Indicator		
11	Gathering refrigerant	Fo				When the outdoor unit receive signal of Gathering refrigerant ,the system will be forced to run under cooling mode for gathering refrigerant	Nominal cooling mode
12	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. Loosening or bad contact of indoor ambient temp. sensor and mainboard terminal. 2. Components in mainboard fell down leads short circuit. 3. Indoor ambient temp. sensor damaged.(check with sensor resistance value chart) 4. Mainboard damaged.
13	Indoor evaporator temperature sensor is open/short circuited	F2				AC stops operation once reaches the setting temperature. Cooling, drying: internal fan motor stops operation while other loads stop operation; heating: AC stop operation	1. Loosening or bad contact of Indoor evaporator temp. sensor and mainboard terminal. 2. Components on the mainboard fall down leads short circuit. 3. Indoor evaporator temp. sensor damaged.(check temp. sensor value chart for testing) 4. Mainboard damaged.
14	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)
15	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)
16	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
17	Limit/ decrease frequency due to overload	F6				All loads operate normally, while operation frequency for compressor is decreased	Refer to the malfunction analysis (overload, high temperature resistant)
18	Decrease frequency due to overcurrent	F8				All loads operate normally, while operation frequency for compressor is decreased	The input supply voltage is too low; System pressure is too high and overload

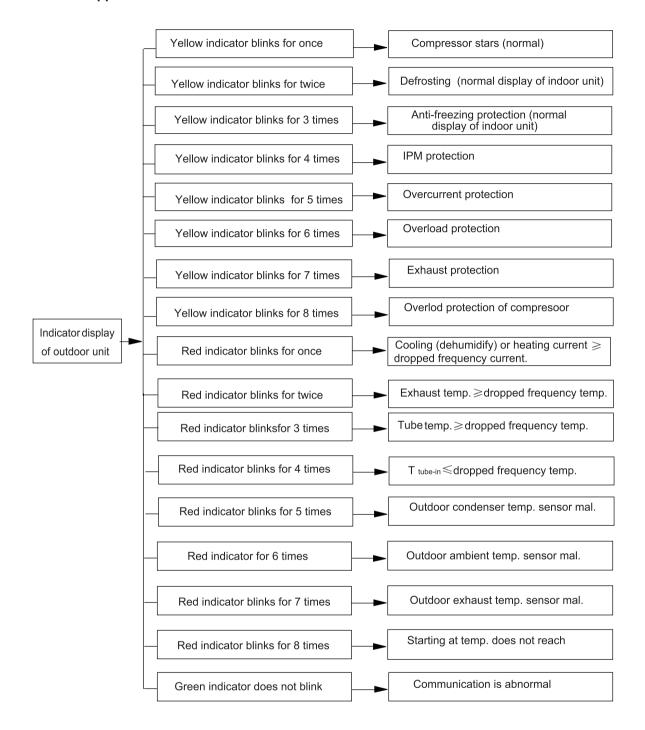
		Dist	olay Method	d of Indoo	r Unit			
			Indicator E					
NO.	Malfunction	Dual-8	al-8 blinking, ON 0.5s and OFF					
	Name	Code	0.5.			A/C status	Possible Causes	
		Display	Operation Indicator	Cool Indicator	Heating Indicator			
19	Decrease frequency due to high air discharge	F9				All loads operate normally, while operation frequency for compressor is decreased	Overload or temperature is too high; Refrigerant is insufficient; Malfunction of electric expansion valve (EKV)	
20	Limit/ decrease frequency due to antifreezing	FH				All loads operate normally, while operation frequency for compressor is decreased	Poor air-return in indoor unit or fan speed is too low	
21	Voltage for DC bus-bar is too high	РН				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)	
22	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)	
23	Compressor Min frequence in test state	P0					Showing during min. cooling or min. heating test	
24	Compressor rated frequence in test state	D1					Showing during nominal cooling or nominal heating test	
25	Compressor maximum frequence in test state	P2					Showing during max. cooling or max. heating test	

NO.	Malfunction	Dual-8	play Metho Indicator E	Display (dı	ıring	A/C status	Possible Causes
NO.	Name	1 0000	0.5s) Operation Indicator	1	Heating Indicator		Possible Causes
26	Compressor intermediate frequence in test state	P3					Showing during middle cooling or middle heating test
27	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.
28	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
29	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
30	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.
31	Overload protection for compressor	Н3				During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop operation.	Wiring terminal OVC-COMP is loosened. In normal state, the resistance for this terminal should be less than 10hm. Refer to the malfunction analysis (discharge protection, overload)
32	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.
33	Malfunction of zero-cross detection circuit	U8				The complete unit stops	1.Power supply is abnormal; 2.Detection circuit of indoor control mainboard is abnormal.

			play Metho				
	NA alformations		Indicator Display (during blinking, ON 0.5s and OFF 0.5s)				
NO.	Malfunction Name				10 01 1	A/C status	Possible Causes
	T tame		Operation	Cool	Heating		
			Indicator	Indicator	Indicator		
							Bad contact of DC motor
							feedback terminal. 2. Bad contact of DC motor
	Internal motor					Internal fan motor, external fan motor, compressor and electric heater stop	control end.
34	(fan motor) do	H6				operation,guide louver stops at present	3. Fan motor is stalling.
	not operate					location.	4. Motor malfunction.
							5. Malfunction of mainboard rev
						During cooling and drying	detecting circuit. Refer to the malfunction analysis (IPM
	Desynchro-					operation, compressor will stop	protection, loss of synchronism protection
35	nizing of	H7				while indoor fan will operate; During heating operation, the	and overcurrent protection of phase current
	compressor					complete unit will stop operation.	for compressor.
						During cooling and drying operation, compressor will stop	
36	PFC	HC				while indoor fan will operate;	Refer to the malfunction analysis
	protection					During heating operation, the complete unit will stop operation.	
						complete unit will stop operation.	
27	Outdoor DC	1.0				Outdoor DC fan motor malfunction lead to	DC fan motor malfunction or system blocked
37	fan motor malfunction	L3				compressor stop operation,	or the connector loosed
	mananotion						
38	power	L9				compressor stop operation and Outdoor fan motor will stop 30s latter , 3 minutes latter	To protect the electronical components when
	protection					fan motor and compressor will restart	detect high power
	Indoor unit and outdoor					compressor and Outdoor fan motor cant	
39	unit doesnt	LP				work	Indoor unit and outdoor unit doesnt match
	match				-	During cooling and drying	
	Failure start-					operation, compressor will stop	
40	up	LC				while indoor fan will operate; During heating operation, the	Refer to the malfunction analysis
						complete unit will stop operation.	
	Normal						
41	communica-						
	tion				OFF 3S		
					and blink	Defrosting will occur in heating	
					once (during	mode. Compressor will operate	
42	Defrosting				blinking,		Its the normal state
					ON 10s and OFF	operation.	
					0.5s)		
	Malfunction of					During cooling and drying	
43	phase current detection	U1				operation, compressor will stop while indoor fan will operate;	Replace outdoor control panel AP1
.5	circuit for	•				During heating operation, the	
	compressor					complete unit will stop	
	Malfunction of					During cooling and drying	
44	voltage	U3				operation, compressor will stop while indoor fan will operate;	Supply voltage is unstable
	dropping for					During heating operation, the	
	DC bus-bar					complete unit will stop	

NO.	Malfunction	Dual-8	- \			A/C status	Possible Causes
	Name	0000	Operation	Cool Indicator	Heating Indicator		
45	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.
46	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.
47	Frequency limiting (power)						
48	Compressor is open-circuited						
49	The temperature for turning on the unit is reached						
50	Frequency limiting (module temperature)						
51	Malfunction of detecting plate(WIFI)						

If malfunction occurs, corresponding code will display and the unit will resume normal until protection or malfunction disappears.



Analysis or processing of some of the malfunction display:

1. Compressor discharge protection

Possible causes: shortage of refrigerant; blockage of air filter; poor ventilation or air flow short pass for condenser; the system has noncondensing gas (such as air, water etc.); blockage of capillary assy (including filter); leakage inside four-way valve causes incorrect operation; malfunction of compressor; malfunction of protection relay; malfunction of discharge sensor; outdoor temperature too high.

Processing method: refer to the malfunction analysis in the above section.

2. Low voltage overcurrent protection

Possible cause: Sudden drop of supply voltage.

3.

Processing method: Check if communication signal cable is connected reliably.

4. Sensor open or short circuit

Processing method: Check whether sensor is normal, connected with the corre sponding position on the controller and if damage of lead wire is found.

5. Compressor over load protection

Possible causes: insufficient or too much refrigrant; blockage of capillary and increase of suction temp.; improper running of compressor, burning in or stuck of bearing, damage of discharge valve; malfunction of protector.

Processing method: adjust refrigerant amount; replace the capillary; replace the compressor; use universal meter to check if the contactor of compress or is fine when it is not overheated, if not replace the protector.

6. System malfunction

i.e.overload protection. When tube temperature (Check the temperature of outdoor heat exchanger when cooling and check the temperature of indoor heat exchanger when heating) is too high, protection will be activated.

Possible causes: Outdoor temperature is too high when cooling; insufficient outdoor air circulation; refrigerant flow malfunction. please refer to the malfunction analysis in the previous section for handling method.

7. IPM module protection

Processing method:Once the module malfunction happens, if it persists for a long time and can not be selfcanceled, cut off the power and turn off the unit, and then re-energize the unit again after about 10 min. After repeating the procedure for sever times, if the malfunction still exists, replace the module.

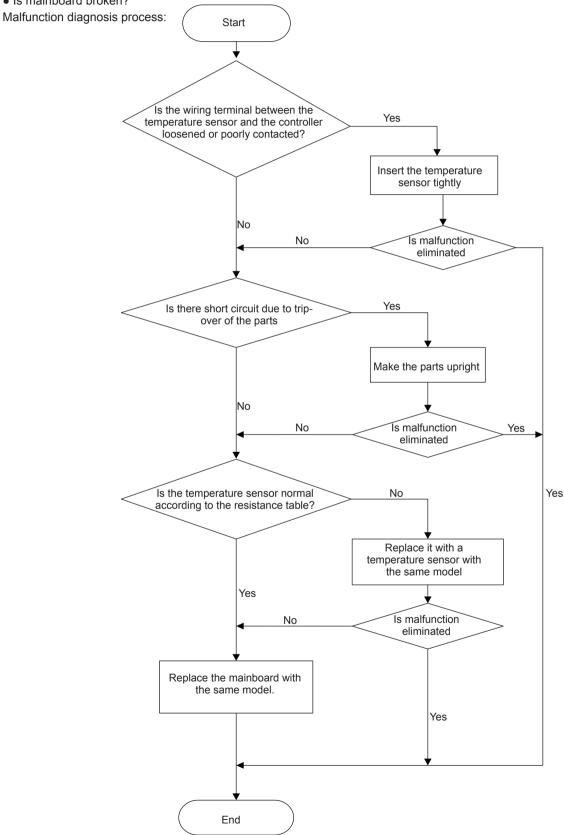
9.2 Procedure of Troubleshooting

Indoor unit

(1) Malfunction of Temperature Sensor F1, F2

Main detection points:

- Is the wiring terminal between the temperature sensor and the controller loosened or poorly contacted?
- Is there short circuit due to trip-over of the parts?
- Is the temperature sensor broken?
- Is mainboard broken?



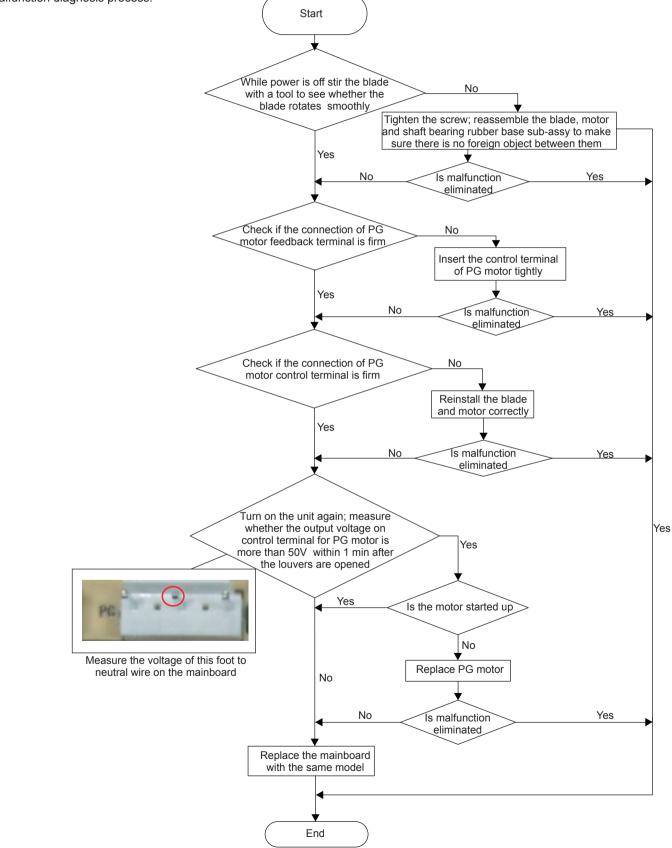
(2) Malfunction of Blocked Protection of IDU Fan Motor H6

Main detection points:

- SmoothlyIs the control terminal of PG motor connected tightly?
- SmoothlyIs the feedback interface of PG motor connected tightly?
- The fan motor cant operate?
- The motor is broken?

• Detectioncircuit of the mainboard is defined abnormal?

Malfunction diagnosis process:

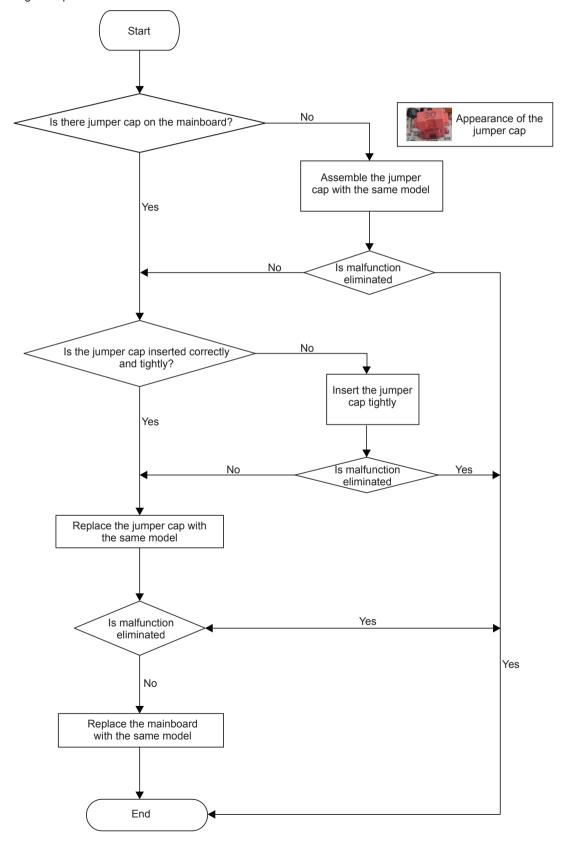


(3) Malfunction of Protection of Jumper Cap C5

Main detection points:

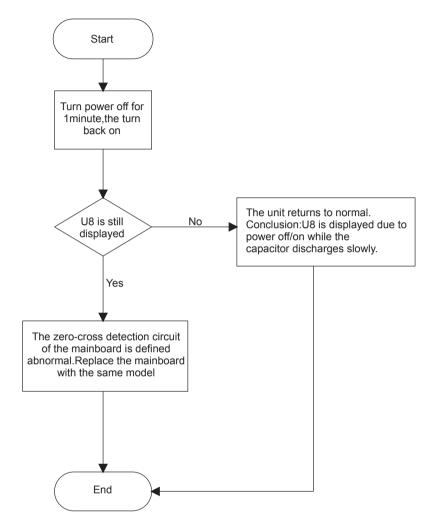
- Is there jumper cap on the mainboard?
- Is the jumper cap inserted correctly and tightly?
- The jumper is broken?
- The motor is broken?
- Detection circuit of the mainboard is defined abnormal?

Malfunction diagnosis process:

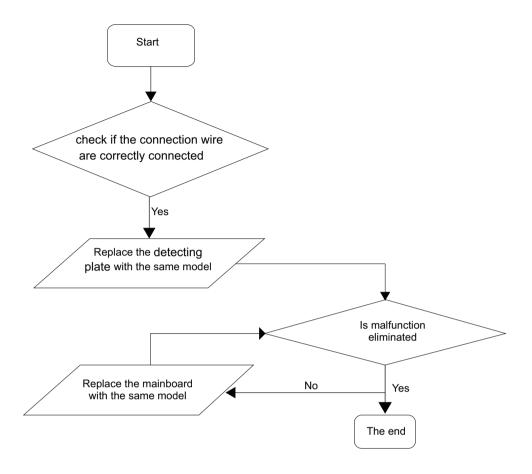


(4) Malfunction of Zero-crossing Inspection Circuit Malfunction of the IDU Fan Motor U8 Main detection points:

- Instant energization afte de-energization while the capacitordischarges slowly?
- The zero-cross detectioncircuit of the mainboard is defined abnormal? Malfunction diagnosis process:

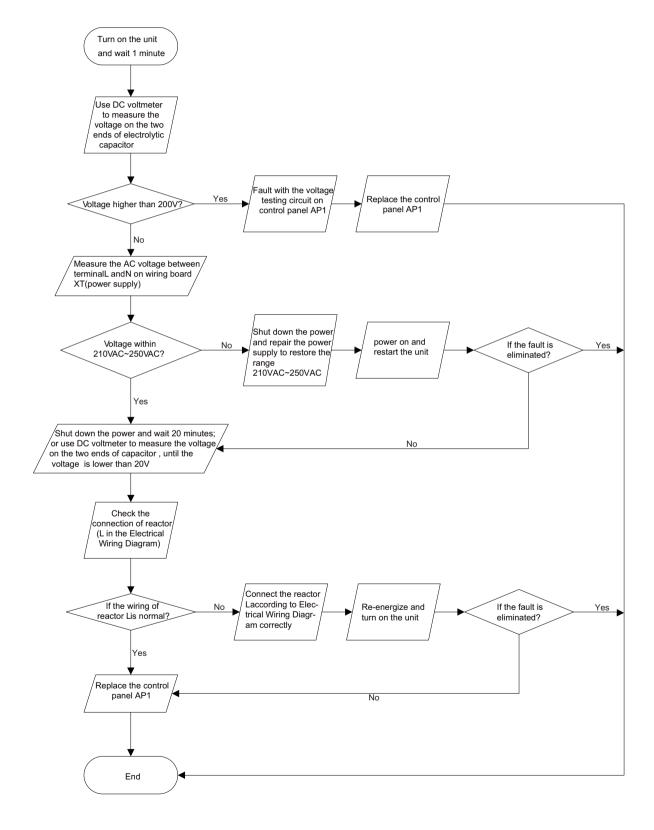


(5) Malfunction of detecting plate(WIFI) JF



Outdoor unit:

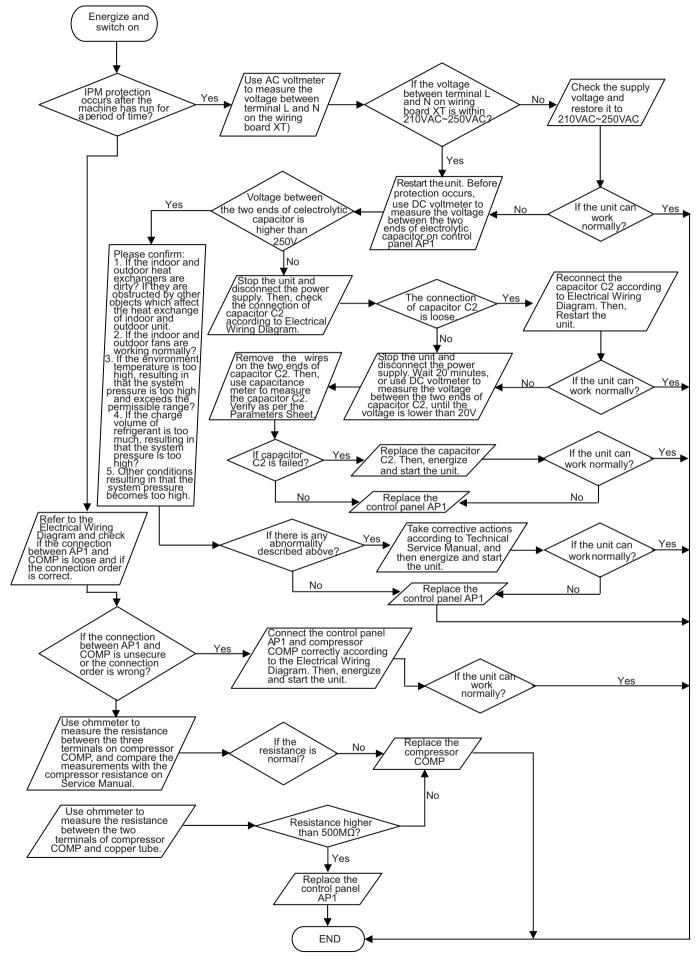
- (1) Capacitor charge fault (Fault with outdoor unit) (AP1 below refers to the outdoor control panel)
- Main Check Points:
- •Use AC voltmeter to check if the voltage between terminal L and N on the wiring board is within 210VAC~240VAC.
- •Is the reactor (L) correctly connected? Is the connection loose or fallen? Is the reactor (L) damaged? Fault diagnosis process:



(2) IPM Protection, Out-of-step Fault, Compressor Phase Overcurrent (AP1 below refers to the outdoor control panel) Main check points:

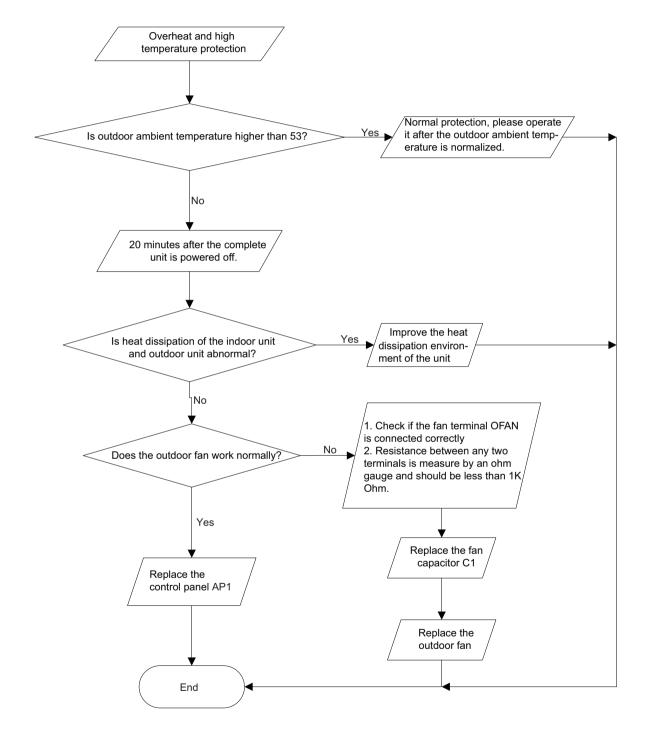
- •Is the connection between control panel AP1 and compressor COMP secure? Loose? Is the connection in correct order?
- •Is the voltage input of the machine within normal range? (Use AC voltmeter to measure the voltage between terminal L and N on the wiring board XT)
- •Is the compressor coil resistance normal? Is the insulation of compressor coil against the copper tube in good condition?
- •Is the working load of the machine too high? Is the radiation good?
- •Is the charge volume of refrigerant correct?

Fault diagnosis process:



- (3) High temperature and overload protection diagnosis (AP1 hereinafter refers to the control board of the outdoor unit) Mainly detect:
- •Is outdoor ambient temperature in normal range?
- Are the outdoor and indoor fans operating normally?
- •Is the heat dissipation environment inside and outside the unit good?

Fault diagnosis process:

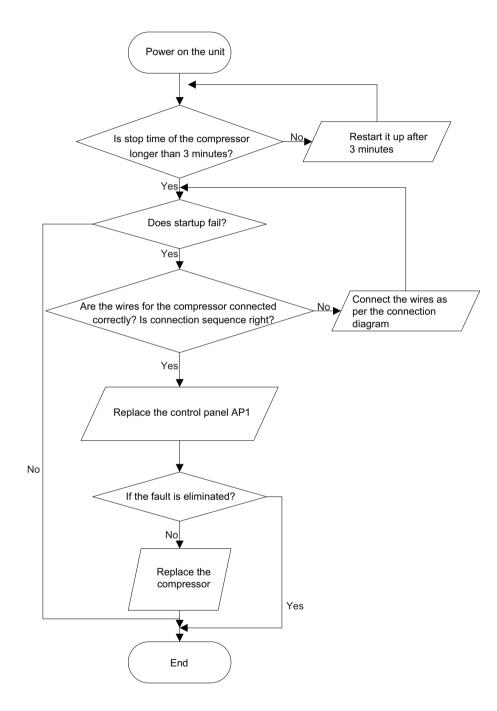


(4) Start-up failure (following AP1 for outdoor unit control board)

Mainly detect:

- •Whether the compressor wiring is connected correct?
- •Is compressor broken?
- •Is time for compressor stopping enough?

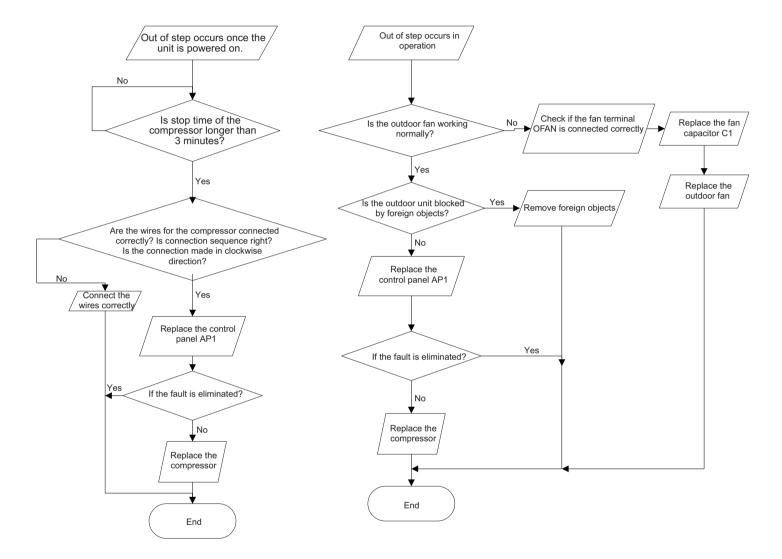
Fault diagnosis process:



(5) Out of step diagnosis for the compressor (AP1 hereinafter refers to the control board of the outdoor unit) Mainly detect:

- •Is the system pressure too high?
- •Is the input voltage too low?

Fault diagnosis process:

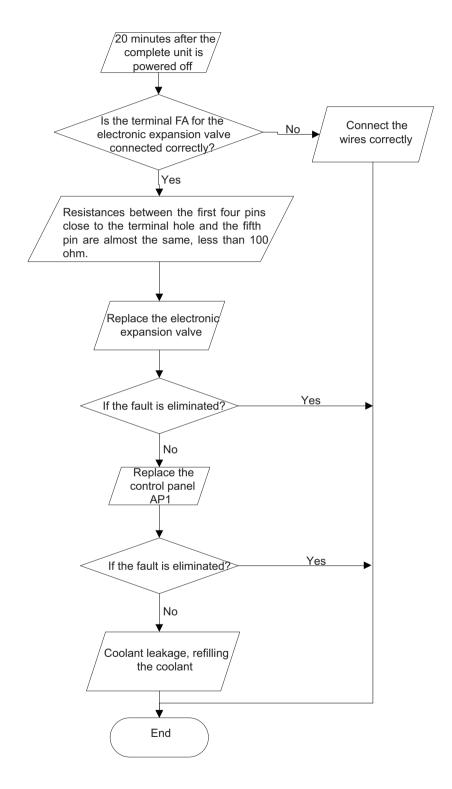


(6) Overload and air exhaust malfunction diagnosis (following AP1 for outdoor unit control board)

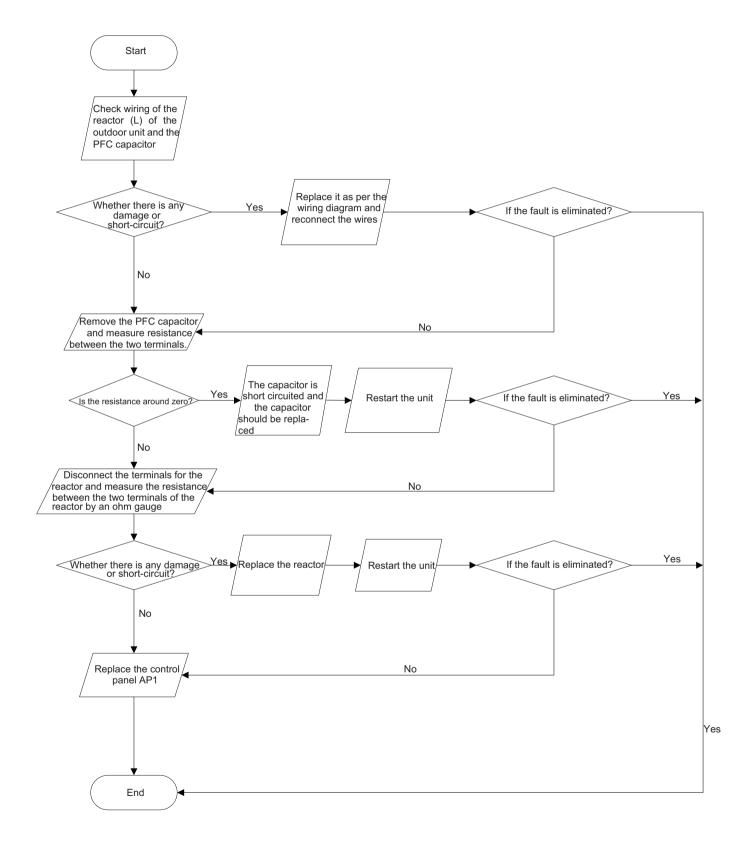
Mainly detect:

- •Is the PMV connected well or not? Is PMV damaged?
- •Is refrigerant leaked?

Fault diagnosis process:



- (7) Power factor correct or (PFC) fault (a fault of outdoor unit) (AP1 hereinafter refers to the control board of the outdoor unit) Mainly detect:
- •Check if the reactor (L) of the outdoor unit and the PFC capacitor are broken Fault diagnosis process:

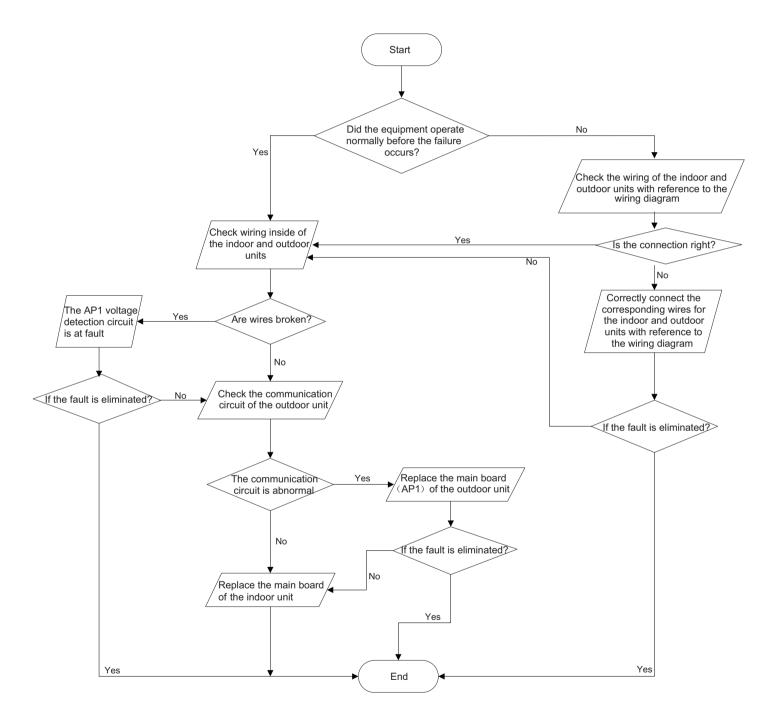


(8) Communication malfunction: (following AP1 for outdoor unit control board)

Mainly detect:

- •Is there any damage for the indoor unit mainboard communication circuit? Is communication circuit damaged?
- •Detect the indoor and outdoor units connection wire and indoor and outdoor units inside wiring is connect well or not, if is there any damage?

Fault diagnosis process:

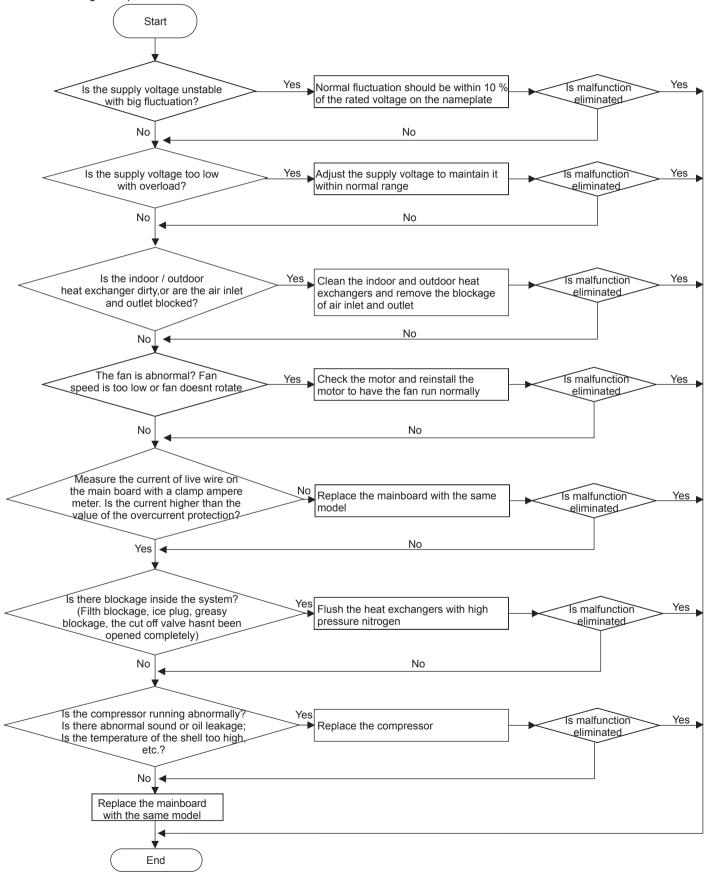


(9) Malfunction of Overcurrent Protection

Main detection points:

- Is the supply voltage unstable with big fluctuation?
- Is the supply voltage too low with overload?
- Hardware trouble?

Malfunction diagnosis process:



9.3 Troubleshooting for Normal Malfunction

1. Air Conditioner Cant be Started Up

Possible Causes	Discriminating Method (Air conditioner Status)	Troubleshooting
1 1 2 1	After energization, operation indicator isnt bright	Confirm whether its 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,	Check the circuit according to circuit diagram and connect wires correctly. Make sure all wiring terminals are connected firmly
Electric leakage for all 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	while no dishlay on temple controller of hillions	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 its 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; Units 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; Unitt pressure is much lower than regulated range. If refrigerant isnt 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 cant swing	Refer to point 3 of maintenance method for details
Malfunction of the IDU fan motor	The IDU fan motor cant operate	Refer to troubleshooting for H6 for maintenance method in details
Malfunction of the ODU fan motor	The ODU fan motor cant operate	Refer to point 4 of maintenance method for details
Malfunction of compressor	Compressor cant operate	Refer to point 5 of maintenance method for details

3. Horizontal Louver Cant Swing

· · · · · · · · · · · · · · · · · · ·								
Possible Causes	Discriminating Method (Air conditioner Status)	Troubleshooting						
Wrong wire connection, or poor connection	diagram	Connect wires according to wiring diagram to make sure all wiring terminals are connected firmly						
Stepping motor is damaged	Stepping motor cant operate	Repair or replace stepping motor						
Main board is damaged	Others are all normal, while horizontal louver cant operate	Replace the main board with the same model						

4. ODU Fan Motor Cant Operate

Possible causes	Discriminating method (air conditioner status)	Troubleshooting
-	check the wiring status according to circuit	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.	
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
		Change compressor oil and refrigerant. If no better, replace the compressor with a new one

5. Compressor Cant Operate

Possible causes	Discriminating method (air conditioner status)	Troubleshooting				
Wrong wire connection, or poor connection	diagram	Connect wires according to wiring diagram to make sure all wiring terminals are connected firmly				
	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.					
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 its 0	Repair or replace compressor				
Cylinder of compressor is blocked Compressor cant operate Repair or replace compressor						

6. Air Conditioner is Leaking

Possible causes	Discriminating method (air conditioner status)	Troubleshooting
Drain nine is blocked	Water leaking from indoor unit	Eliminate the foreign objects inside the drain
Drain pipe is blocked		pipe
Drain pipe is broken	Water leaking from drain pipe	Replace drain pipe
ivvranning 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 theres abnormal sound	II heres the soling of "PAPA"	Normal phenomenon. Abnormal sound will disappear after a few minutes.
When turn on or turn off the unit, theres abnormal sound due to flow of refrigerant inside air conditioner	IVVater_riinning soling can ne nearg	Normal phenomenon. Abnormal sound will disappear after a few minutes.
Foreign objects inside the indoor unit or therere parts touching together inside the indoor unit	Theres 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 therere parts touching together inside the outdoor unit	Theres 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	Ulitaaar linit alves olit annarmal salina	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.