



NOVAER Polar Fehlercodes

DIAGNOSE

MONO-SPLIT- UND MULTI-SPLIT-GERÄTE

Alarm am Außengerät Anzeige / LED	Beschreibung des Alarms	Beschreibung / Ursache	Innengerät e: Kanal / Kasette / D ecke-Boden / Konsole Timer (gelb)	Innengerät e: Kanal / Kasette / D ecke-Boden / Konsole Betrieb (grün)	Anzeige Innengeräte-Panel: Decke-Boden / Konsole	Anzeige Kanalkassette	Wandgerät Anzeige	Wandgerät Power	Wandgerät Timer	Wandgerät Betrieb	Alarm am Kabelregler YR-E17A / HW-SA201ABK / HW-BA116ABK / HW-BA101ABT	Alarm am Kabelregler YR-E16B / HW-PA201ABK	Fehler an Innen-/Außengerät
	Raumtemperaturfühler des Innengeräts fehlerhaft	Fühler defekt oder länger als 2 Minuten in Folge kurzgeschlossen.	0	1	E1	01	E1	L	S	S	01	1	Innengerät
	Wärmetauscher-Temperaturfühler des Innengeräts fehlerhaft	Fühler defekt oder länger als 2 Minuten in Folge kurzgeschlossen.	0	2	E2	02	E2	L	A	A	02	2	Innengerät
	Anomalie der Versorgungsspannung	Spannung fehlt, liegt außerhalb des zulässigen Bereichs oder Platine des Innengeräts ist fehlerhaft.	0	13	E3 / C1	0D					0D	13	Innengerät
	EEPROM auf der Platine des Innengeräts fehlerhaft	EEPROM der Innengeräteplatine fehlerhaft.	0	4	E4	04	E4	L	A	L	04	4	Innengerät
	Kommunikationsfehler zwischen Kabelregler und Innengerät	Keine Kommunikation länger als 4 Minuten in Folge.	0	8	E8	08	E8				07 Lampe	8	Innengerät
	DC-Lüftermotor des Innengeräts fehlerhaft**	DC-Motorleitung unterbrochen, Motorfehler oder Elektronikplatine beschädigt.	0	14	E14	0E	E14	S	A	L	0E	14	Innengerät
	Allgemeiner Alarm des Außengeräts	Außengerät auf weitere Alarme prüfen.			E20		E20	S	L	A			Außengerät
1	EEPROM des Außengeräts fehlerhaft	EEPROM der Hauptplatine des Außengeräts fehlerhaft.	2	1	F12	15	F12	S	L	S	15	21	Außengerät
2	Schutz des Leistungsmoduls	Der Alarm tritt dreimal innerhalb einer Stunde auf und verriegelt das Gerät.	2	2	F1	16	F1	A	L	L	16	22	Außengerät
3	Wechselstrom-Überstromschutz / falsche Phasenfolge	Überstrom, fehlerhafte Stromregelung oder vertauschte Phasenfolge (ON/OFF-Modelle).	2	3	F22	17	F22	L	L	S	17	23	Außengerät
4	Kommunikationsfehler zwischen Hauptplatine und SPDU/SPM-Leistungsmodul	Kommunikationsausfall länger als 4 Minuten zwischen Hauptplatine und SPDU/SPM-Leistungsmodul.	2	4	F3	18	F3	S	L	S	18	24	Außengerät
5	Verdichter-Überstrom / Hochdruck	Der Alarm tritt dreimal innerhalb einer Stunde auf und verriegelt das Gerät.	2	5	F20	19	F20	S	L	A	19	25	Außengerät
6	Spannung über niedrig / zu hoch	Spannung über 270 V oder unter 187 V.	2	6	F19	1A	F19	S	L	A	1A	26	Außengerät
7	Verdichter blockiert	Der Alarm tritt dreimal innerhalb einer Stunde auf und verriegelt das Gerät.	2	7	F27	1B	F27	S	L	S	1B	27	Außengerät
8	Schutz wegen zu hoher Verdichtertemperatur	Austrittstemperatur über 120 °C. Der Alarm tritt dreimal innerhalb einer Stunde auf und verriegelt das Gerät.	2	8	F4	1C	F4	S	L	S	1C	28	Außengerät
9	DC-Lüftermotor des Außengeräts fehlerhaft	Der Alarm tritt dreimal innerhalb einer Stunde auf und verriegelt das Gerät.	2	9	F8	1D	F8	S	L	A	1D	29	Außengerät
10	Abtau-Temperaturfühler des Außengeräts fehlerhaft	Temperaturfühler innerhalb der letzten 60 Sekunden kurzgeschlossen oder Stromkreis offen.	3	0	F21	1E	F21	A	A	L	1E	30	Außengerät
11	Ansaugtemperaturfühler des Verdichters fehlerhaft	Temperaturfühler innerhalb der letzten 60 Sekunden kurzgeschlossen oder Stromkreis offen.	3	1	F7	1F	F7	S	L	S	1F	31	Außengerät
12	Außentemperaturfühler des Außengeräts fehlerhaft	Temperaturfühler innerhalb der letzten 60 Sekunden kurzgeschlossen oder Stromkreis offen.	3	2	F6	20	F6	A	L	S	20	32	Außengerät
13	Austrittstemperaturfühler des Verdichters fehlerhaft	Temperaturfühler innerhalb der letzten 60 Sekunden kurzgeschlossen oder Stromkreis offen.	3	3	F25	21	F25	L	A	S	21	33	Außengerät
15	Kommunikationsfehler zwischen Innen- und Außengeräten	Keine Kommunikation länger als 4 Minuten in Folge.	3	5	E7	23	E7	S	S	L	07	35	Außengerät
16	Kältemittelmangel / Verstopfung der Kältemittel-Druckleitung	Fehler und Stopp, wenn im Kühlbetrieb 10 Minuten nach Verdichterstart Td-Tci $\geq$ 25 für 1 Minute erkannt wird. Nach dreimaligem Auftreten in einer Stunde wird das Gerät verriegelt.	3	6	F13	24	F13	S	L	A	24	36	Außengerät
17	Umschaltfehler des 4-Wege-Ventils	Spule des 4-Wege-Ventils beschädigt, getrennt oder ohne Spannung, mechanischer Fehler des Ventils.	3	7	F14	25	F14				25	37	Außengerät
18	Verlust der Verdichtersynchronisierung erkannt	Fehler im Inverter- oder Verdichterstromkreis.	3	8	F11	26	F11	S	L	S	26	38	Außengerät
19	Verdichter-Überstrom bei fester Frequenz (Softwaregrenzwert)	Der Alarm tritt dreimal innerhalb einer Stunde auf und verriegelt das Gerät.	3	9	F28	27	F28	S	L	S	27	39	Außengerät
20	Rohrtemperaturschutz des Innengeräts zu hoch	Wärmeaustausch, Kältemittelfüllung, Fühler und Elektronikplatine prüfen.	4	0	E9	28	E9				28	40	Innengerät
20	Überhitzungsschutz Platine / Klemmen	Kurzschluss oder Überhitzung von Bauteilen.	4	0	F15	28	F15	S	L	A	28	40	Außengerät

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21	Rohrtemperaturschutz des Innengeräts zu hoch	Wärmeaustausch, Kältemittelfüllung, Fühler und Elektronikplatine prüfen.	4	0	E9	28	E9	A	S	L	28	40	Innengerät
22	Vereisungsschutz des Innengeräts	Temperatur am Wärmetauscher des Innengeräts zu niedrig.	0	16	E5	10	E5	A	S	L	10	16	Innengerät
23	Temperaturschutz des SPDU/SPM-Leistungsmoduls	Temperatur des SPDU/SPM-Moduls zu hoch. Der Alarm tritt dreimal innerhalb einer Stunde auf und verriegelt das Gerät.	4	3	F5	28	F5				28	43	Außengerät
24	Verdichterstart fehlgeschlagen / Überstrom	Der Alarm tritt dreimal innerhalb einer Stunde auf und verriegelt das Gerät.	4	4	F2	2C	F2	S	L	A	2C	44	Außengerät
25	U-V-W-Phasenüberstrom des Verdichters / Eingangsüberstrom des Moduls	Phasen unsymmetrisch, Verdichterwicklungen oder Leistungsmodul beschädigt.	4	5	F23	2D	F23	S	L	A	2D	45	Außengerät
26	Leistungsmodul zurückgesetzt	Fehlerhaftes System bzw. Leistungsmodul zurücksetzen.	4	6	F9	2E	F9				2E	46	Außengerät
27	Kein Stromsignal / fehlerhafte Strommessregelung	Verdichterkabel getrennt oder Strommessregelung fehlerhaft.	4	7	F24	2F	F24	L	S	L	2F	47	Außengerät
*28	Gasmangel oder Rohrleitungsverstopfung	Kältemittelfüllung und Kältemittelkreis auf Verstopfungen prüfen.											
28	Temperaturfühler Flüssigkeitsleitung Kreis A fehlerhaft	Fühler getrennt, beschädigt oder falsch positioniert.	4	8	F10	30	F10	S	L	A	30	48	Außengerät
29	Temperaturfühler Flüssigkeitsleitung Kreis B fehlerhaft	Fühler getrennt, beschädigt oder falsch positioniert.	4	9	F16	31	F16	S	L	A	31	49	Außengerät
30	Temperaturfühler Flüssigkeitsleitung Kreis C fehlerhaft	Fühler getrennt, beschädigt oder falsch positioniert.	5	0	F17	32	F17	S	L	A	32	50	Außengerät
31	Temperaturfühler Flüssigkeitsleitung Kreis D fehlerhaft	Fühler getrennt, beschädigt oder falsch positioniert.	5	1	F18	33	F18	S	L	A	33	51	Außengerät
32	Temperaturfühler Gasleitung Kreis A fehlerhaft	Fühler getrennt, beschädigt oder falsch positioniert.	5	2	F29	34	F29	S	L	A	34	52	Außengerät
33	Temperaturfühler Gasleitung Kreis B fehlerhaft	Fühler getrennt, beschädigt oder falsch positioniert.	5	3	F30	35	F30	S	L	A	35	53	Außengerät
34	Temperaturfühler Gasleitung Kreis C fehlerhaft	Fühler getrennt, beschädigt oder falsch positioniert.	5	4	F31	36	F31	S	L	A	36	54	Außengerät
35	Temperaturfühler Gasleitung Kreis D fehlerhaft	Fühler getrennt, beschädigt oder falsch positioniert.	5	5	F32	37	F32	S	L	A	37	55	Außengerät
36	Temperaturfühler Gasleitung Kreis E fehlerhaft	Fühler getrennt, beschädigt oder falsch positioniert.	5	6	F26	38	F26	S	L	A	38	56	Außengerät
37	Temperaturschutz des Außenwärmetauschers	Probleme beim Wärmeaustausch oder Temperaturfühler fehlerhaft.	5	7	F34	39	F34				39	57	Außengerät
38	Temperaturfühler des Leistungsmoduls fehlerhaft	Fühler getrennt, beschädigt oder falsch positioniert; Leistungsmodul fehlerhaft.	5	8	F35	3A	F35	S	L	A	3A	58	Außengerät
39	Rohrtemperaturfühler „TC“ fehlerhaft	Fühler getrennt, beschädigt oder falsch positioniert.	5	9	F36	3B	F36	S	L	A	3B	59	Außengerät
40	Temperaturfühler Flüssigkeitsleitung Kreis E fehlerhaft	Fühler getrennt, beschädigt oder falsch positioniert.	6	0	F33	3C	F33				3C	60	Außengerät
42	Alarm Hochdruckschalter	Hochdruckschalter nicht angeschlossen oder fehlerhaft; zu viel Kältemittel.	6	2	F39	3E	F39	S	L	A	3E	62	Außengerät
43	Alarm Niederdruckschalter	Niederdruckschalter nicht angeschlossen oder fehlerhaft; Kältemittelmangel.	6	3	F40	3F	F40	S	L	A	3F	63	Außengerät
44	Temperaturschutz Außenwärmetauscher TC zu hoch	Betriebstemperatur zu hoch, Probleme beim Wärmeaustausch oder zu viel Kältemittel.	6	4	F41	40	F41				40	64	Außengerät
45	Schutz bei zu niedrigem Systemdruck	Betriebstemperatur zu niedrig, Probleme beim Wärmeaustausch oder zu wenig Kältemittel.	6	5	F42	41	F42				41	65	Außengerät
46	Kommunikationsprotokoll zwischen Innen- und Außengerät falsch	Kommunikationsproblem zwischen Innen- und Außengerät; Kompatibilität von Außen- und Innengerät prüfen.	6	6	F43	42	F43				42	66	Außengerät

10.4.1 Thermistor or Related Abnormality

Indoor Display	E1: Room temperature sensor failure E2: Heat-exchange sensor failure
Outdoor display	LED1 flash 10 times: Defrost temperature sensor failure LED1 flash 11 times: Suction temperature sensor failure LED1 flash 12 times: Ambient temperature sensor failure LED1 flash 13 times: Discharge temperature sensor failure

Method of Malfunction Detection

The temperatures detected by the thermistors are used to determine thermistor errors

Malfunction Decision Conditions

When the thermistor input is more than 4.92V or less than 0.08V during compressor operation.

- Note: The values vary slightly in some models

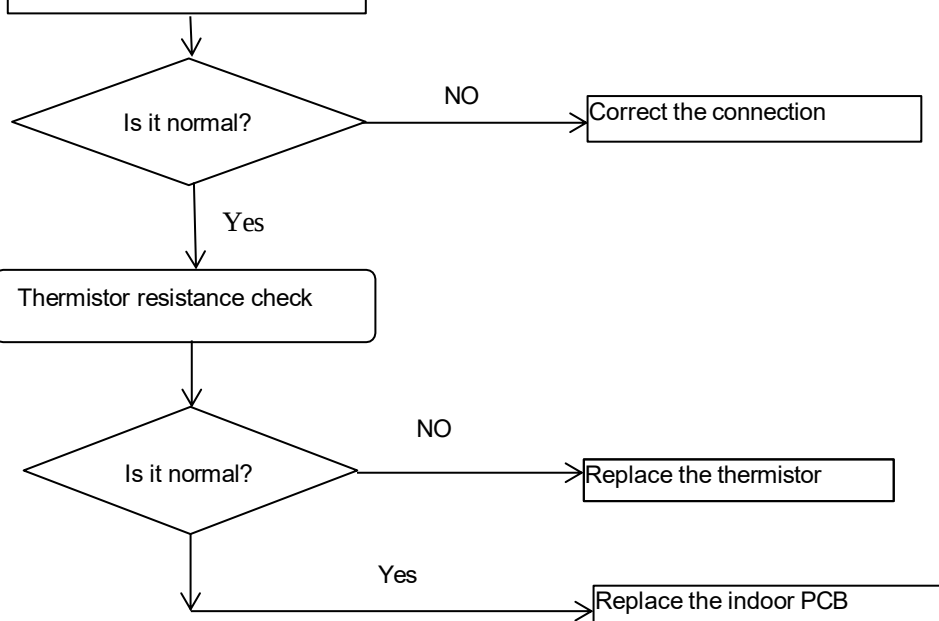
Supposed Causes

- Faulty connector connection
- Faulty thermistor
- Faulty PCB

Trouble shooting

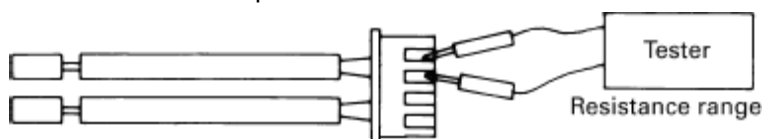
* Caution: Be sure to turn off power switch before connect or disconnect connector, or else parts damage may be occurred.

Check the connector connection.



Thermistor resistance inspection method:

Remove the connector of the thermistor on the PCB, and measure the resistance of thermistor using tester. The relationship between normal temperature and resistance is shown in the value of indoor thermistor.



10.4.2 EEPROM abnormal

Indoor Display
Indoor display

E4: Indoor EEPROM error

F12: Outdoor EEPROM error; Outdoor LED1 flash 1 times

Method of
Malfunction
Detection

The Data detected by the EEPROM are used to determine MCU

Malfunction
Decision
Conditions

When the data of EEPROM is error or the EEPROM is damaged

Supposed
Causes

- Faulty EEPROM data
- Faulty EEPROM
- Faulty PCB

Trouble
shooting

* Caution: Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.

Replace the indoor or outdoor mainboard.

10.4.3 Indoor DC fan motor malfunction

Indoor Display

E14 Indoor DC fan motor malfunction

Method of
Malfunction
Detection

When the fan motor is running, the speed detected by the Hall IC is used to judge the abnormal operation of the fan motor

Malfunction
Decision
Conditions

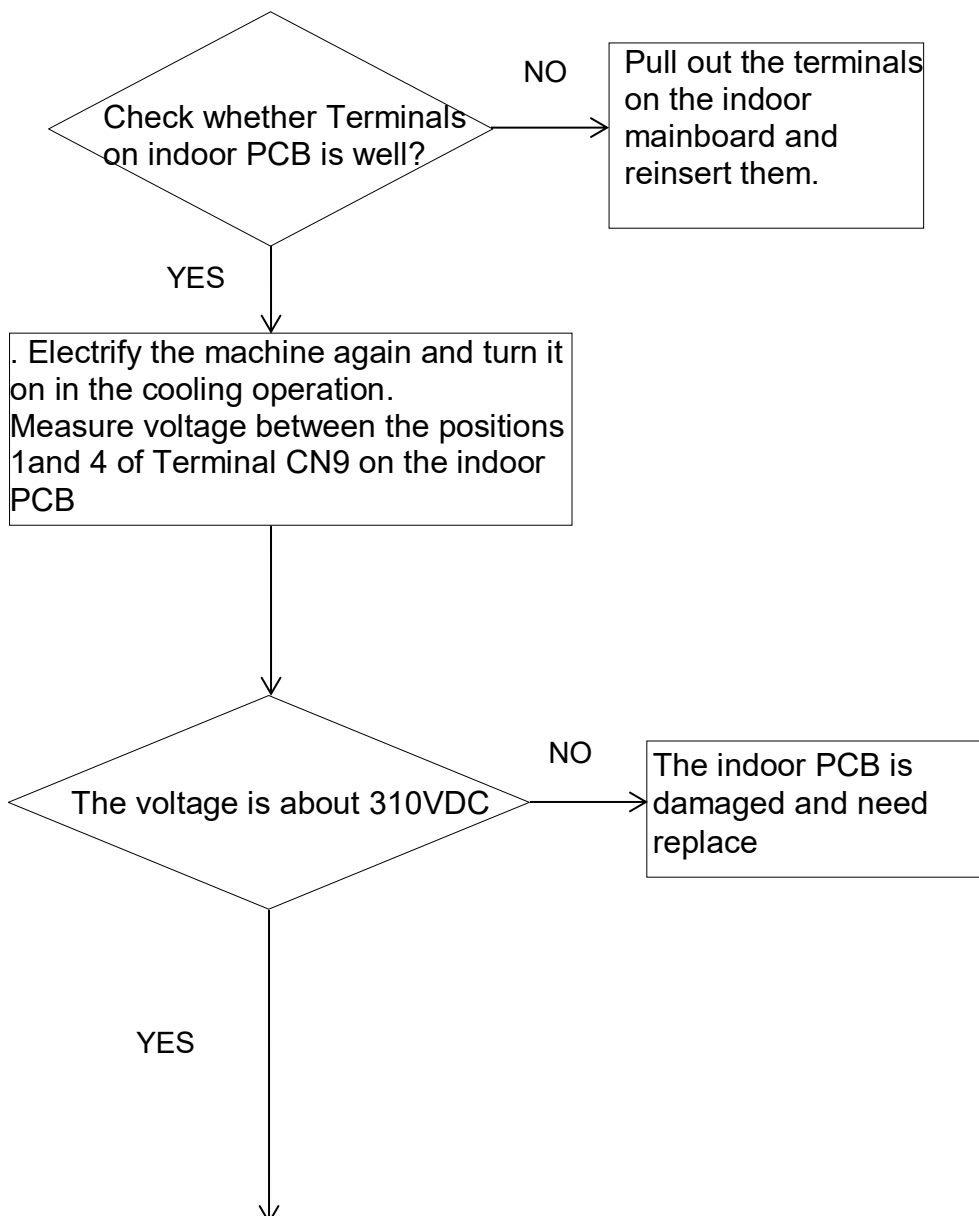
When the detected rotation feedback signal don't received in 2 minutes

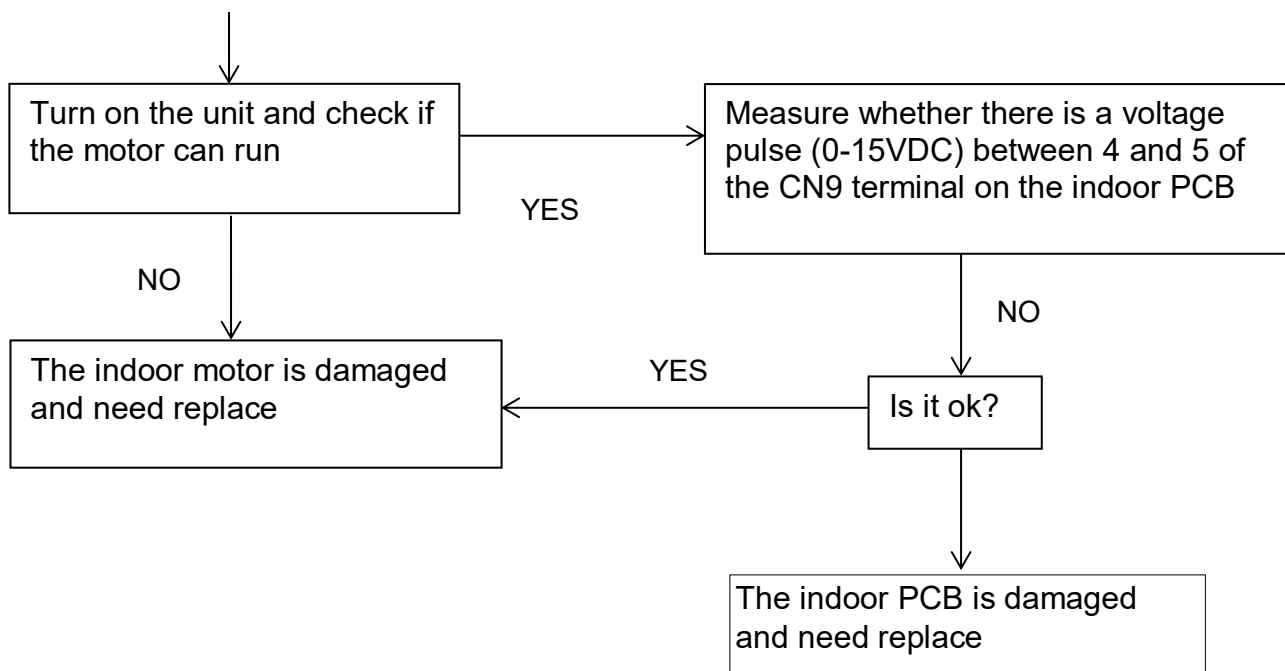
Supposed
Causes

- Operation halt due to breaking of wire inside the fan motor.
- Operation halt due to breaking of the fan motor lead wires
- Detection error due to faulty indoor unit PCB

Trouble
shooting

* Caution: Be sure to turn off power switch before connect or disconnect connector, or else parts damage may be occurred.





	Color	Signal	Voltage
1	Red	VDC	310V
2	---	---	---
3	---	---	---
4	Black	GND	0V
5	White	VCC	15v
6	Blue	FG	15V
7	Yellow	Vsp	0-6.5V



10.4.4 Outdoor DC fan motor fault

Outdoor display F8 LED1 flash 9 times

Method of
Malfunction
Detection

DC fan motor is detected by checking the fan running condition and so on

Malfunction
Decision
Conditions

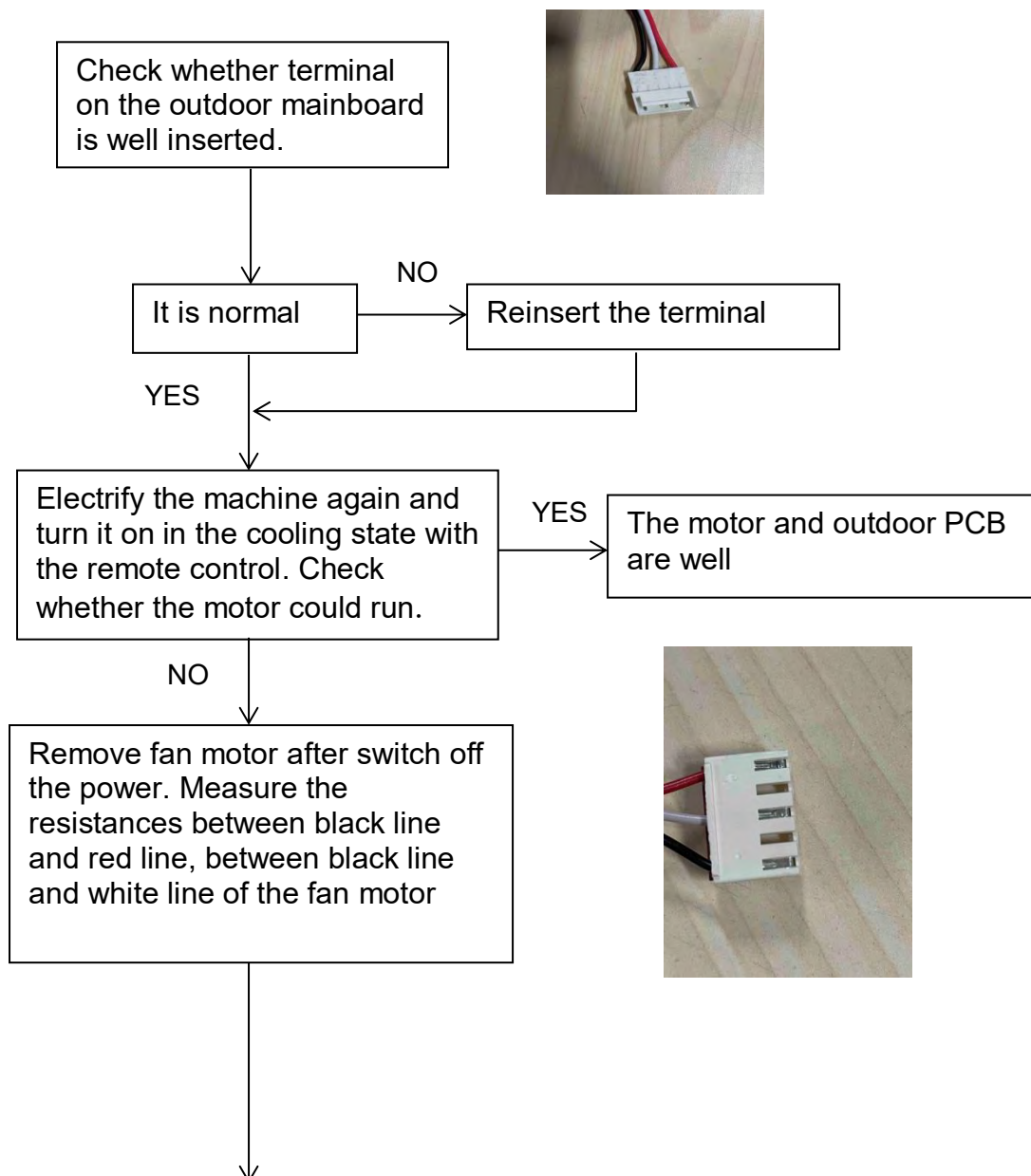
When the detected rotation feedback signal don't received in 2 minutes

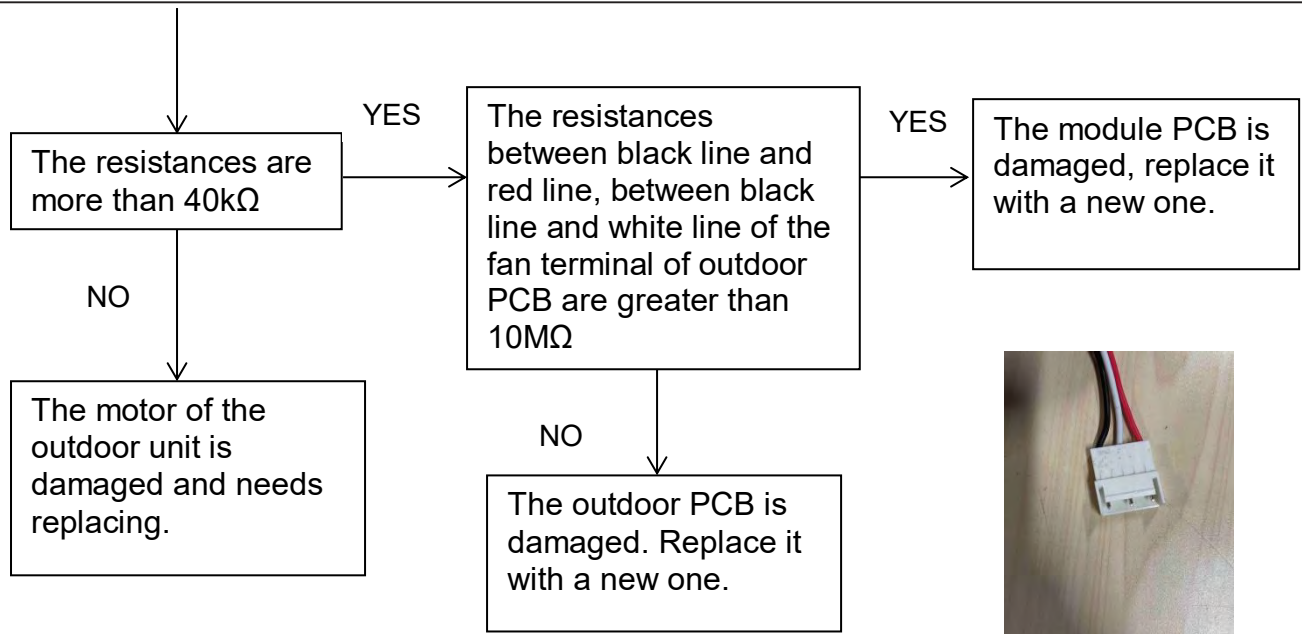
Supposed
Causes

- DC fan motor protection dues to the DC fan motor faulty
- DC fan motor protection dues to faulty PCB

Trouble
shooting

* Caution: Be sure to turn off power switch before connect or disconnect connector, or else parts damage may be occurred.

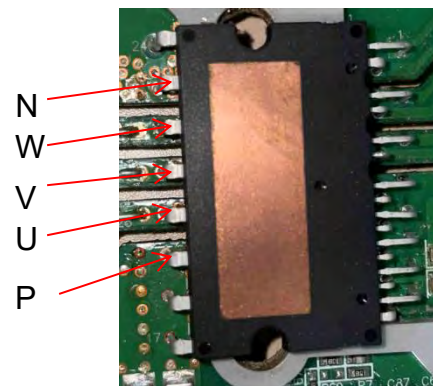
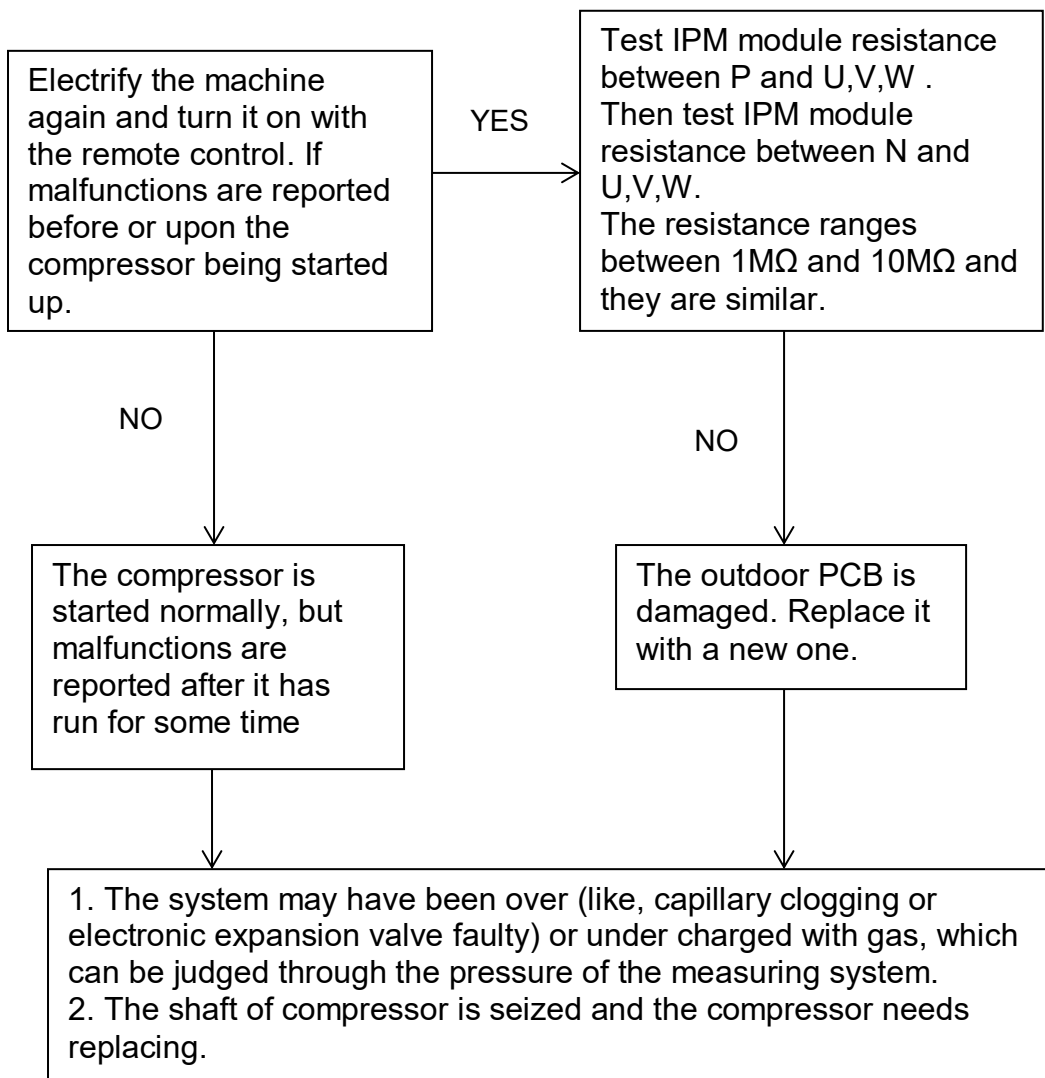




10.4.5 IPM protection

Outdoor display: F1 LED1 flash 2 times

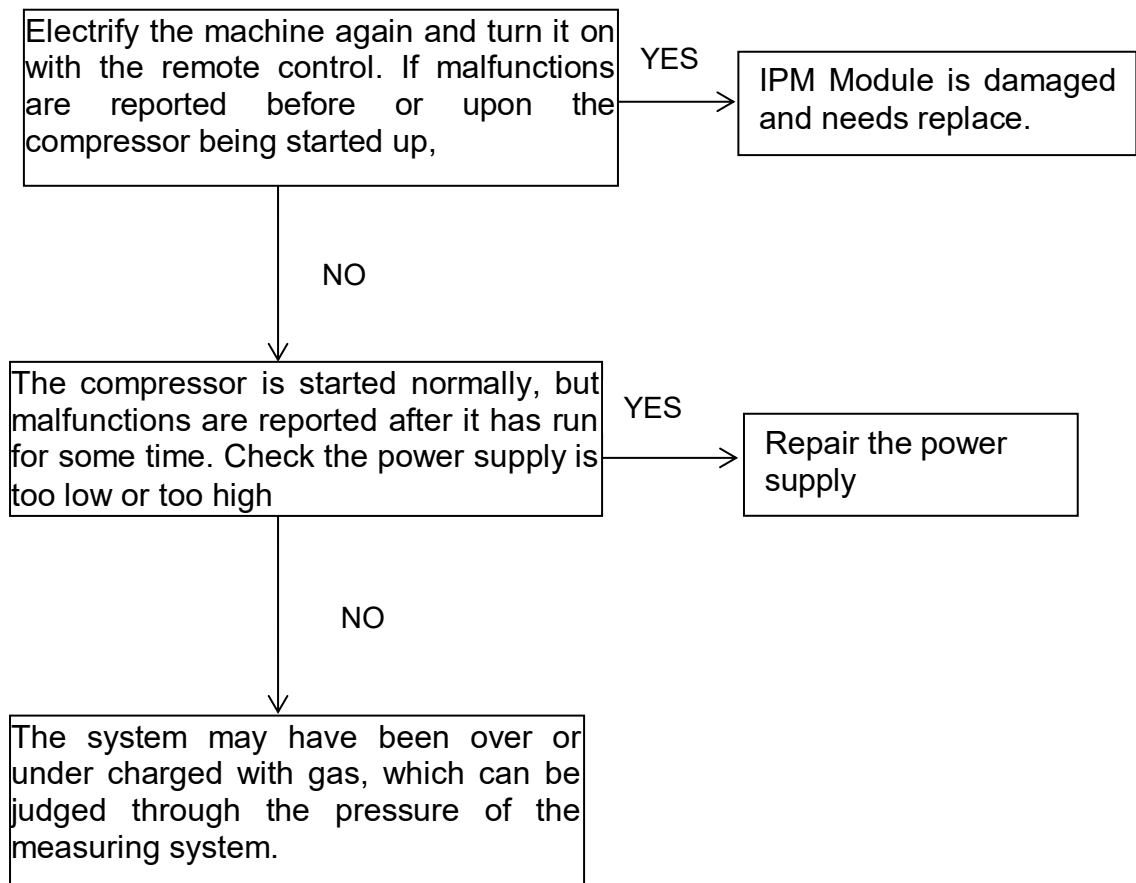
Method of Malfunction Detection	IPM protection is detected by checking the compressor running condition and so on
Malfunction Decision Conditions	The system leads to IPM protection due to over current The compressor faulty leads to IPM protection Circuit component of IPM is broken and led to IPM protection
Supposed Causes	■ IPM protection dues to the compressor faulty ■ IPM protection dues to faulty PCB of IPM module ■ Compressor wiring disconnected
Trouble shooting	* Caution: Be sure to turn off power switch before connect or disconnect connector, or else parts damage may be occurred



10.4.6 Over-current of the compressor

Outdoor Display F22, F2, F23 LED1 flash 3 or 24 or 25 times

Method of Malfunction Detection	The current of the compressor is too high
Malfunction Decision Conditions	When the IPM Module is damaged or the compressor is damaged. Power supply voltage is too low or too high
Supposed Causes	■ Faulty IPM Module ■ Faulty compressor ■ Faulty power supply
Trouble shooting	* Caution: Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



10.4.7 The communication fault between IPM and outdoor PCB

Outdoor display: F3 LED1 flash 4 times

Method of
Malfunction
Detection

Communication is detected by checking the IPM module and the outdoor PCB

Malfunction
Decision
Conditions

- The outdoor PCB broken leads to communication fault
- The IPM module broken leads to communication fault

Supposed
Causes

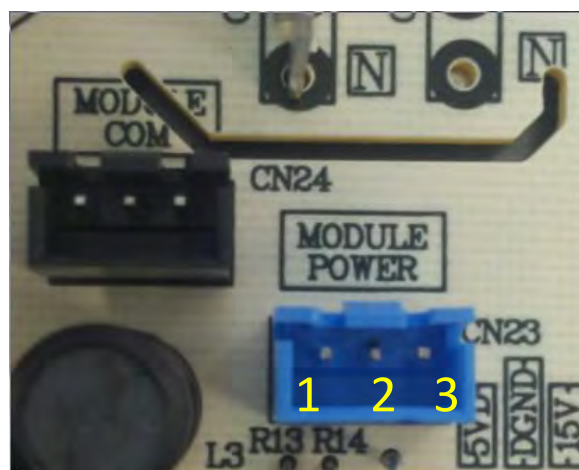
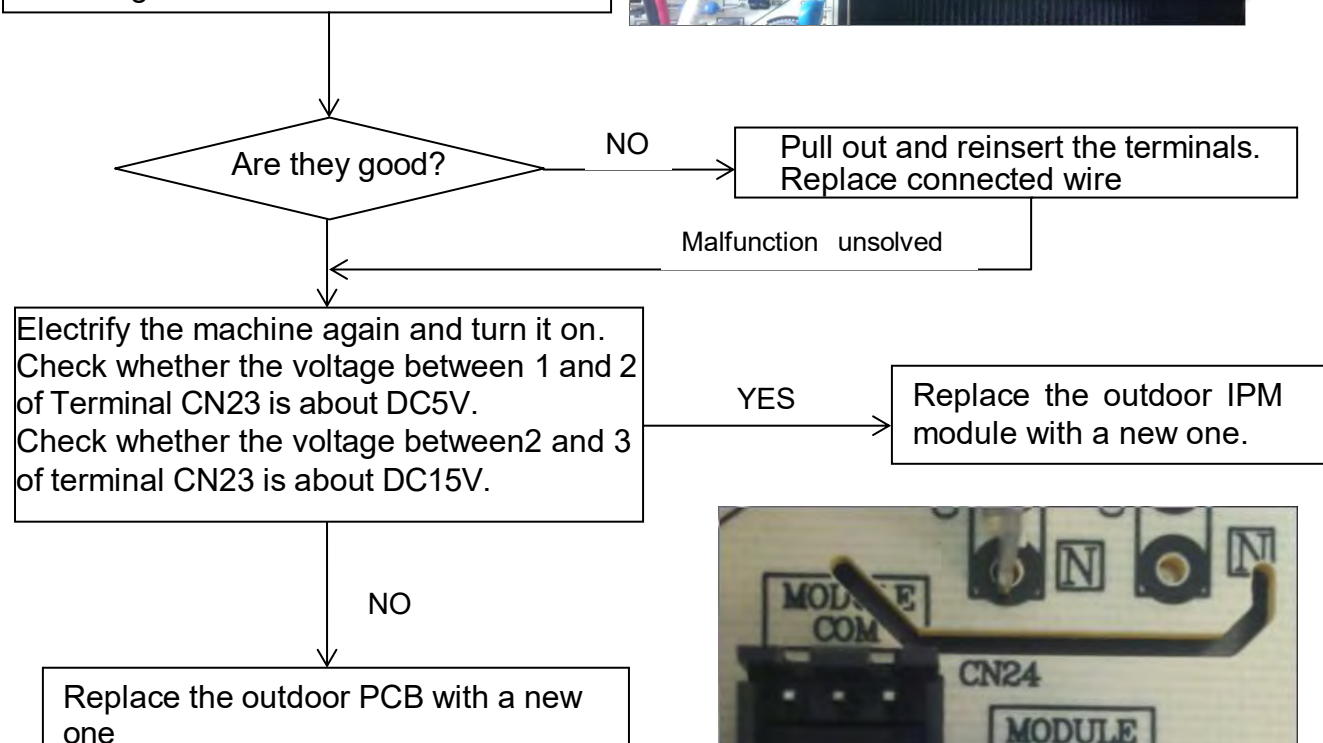
- The outdoor PCB is broken
- The IPM module is broken
- Communication wiring disconnected

Trouble
shooting

* Caution: Be sure to turn off power switch before connect or disconnect connector, or else parts damage may be occurred.

Check whether the CN23 and CN24 terminals of the outdoor PCB and the CN10 and CN11 terminals of the IPM module are tightly connected.

Check whether the connection between the power module and the outdoor P&N line is tight



10.4.8 Power Supply Over or under voltage fault

Outdoor display: F19 LED1 flash 6 times

Method of
Malfunction
Detection

An abnormal voltage rise or fall is detected by checking the specified voltage detection circuit.
The power supply is over voltage

Malfunction
Decision
Conditions

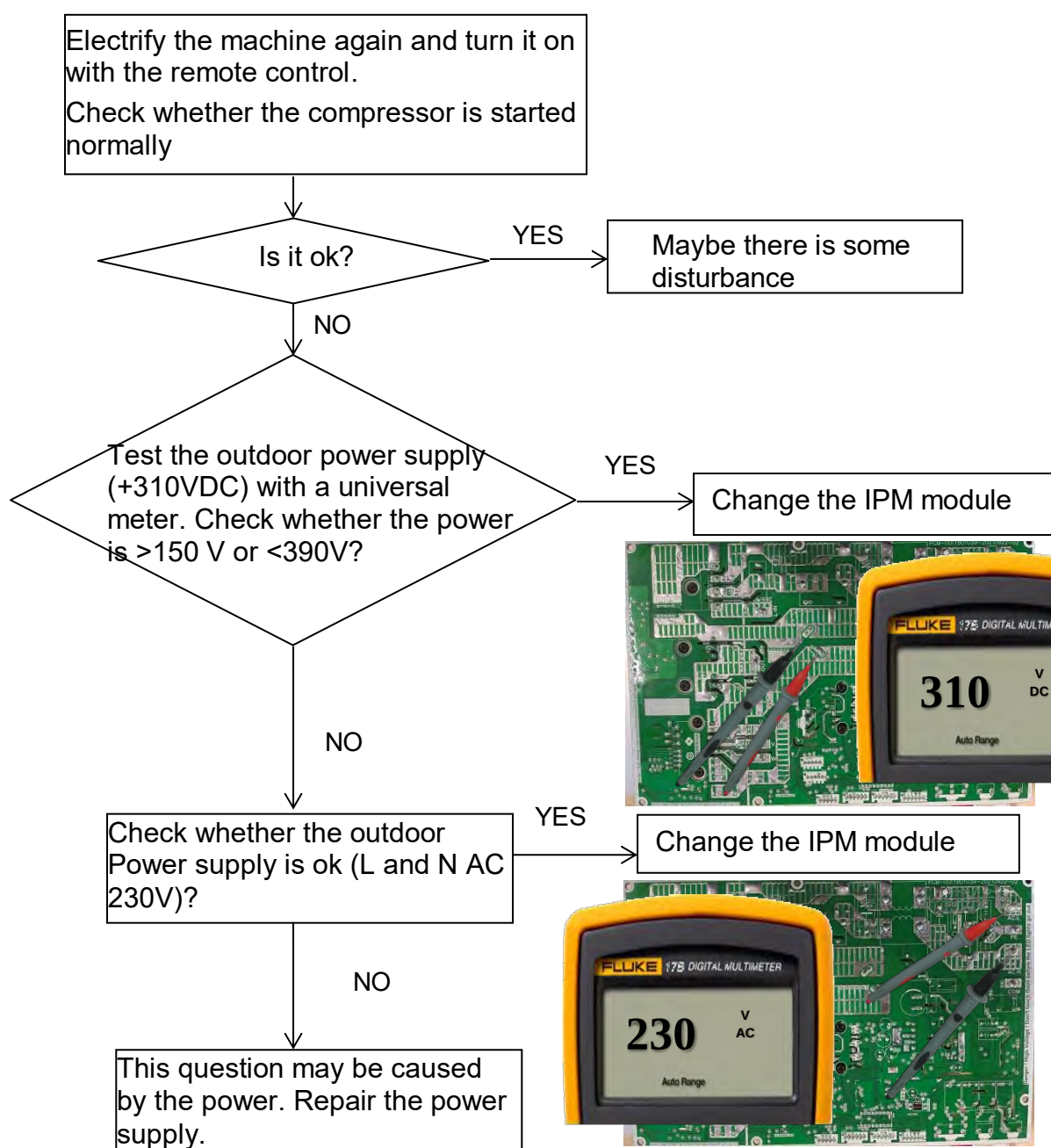
The voltage signal is fed from the voltage detection circuit to the microcomputer

Supposed
Causes

- Supply voltage not as specified
- the IPM module is broken
- the outdoor PCB is broken

Trouble
shooting

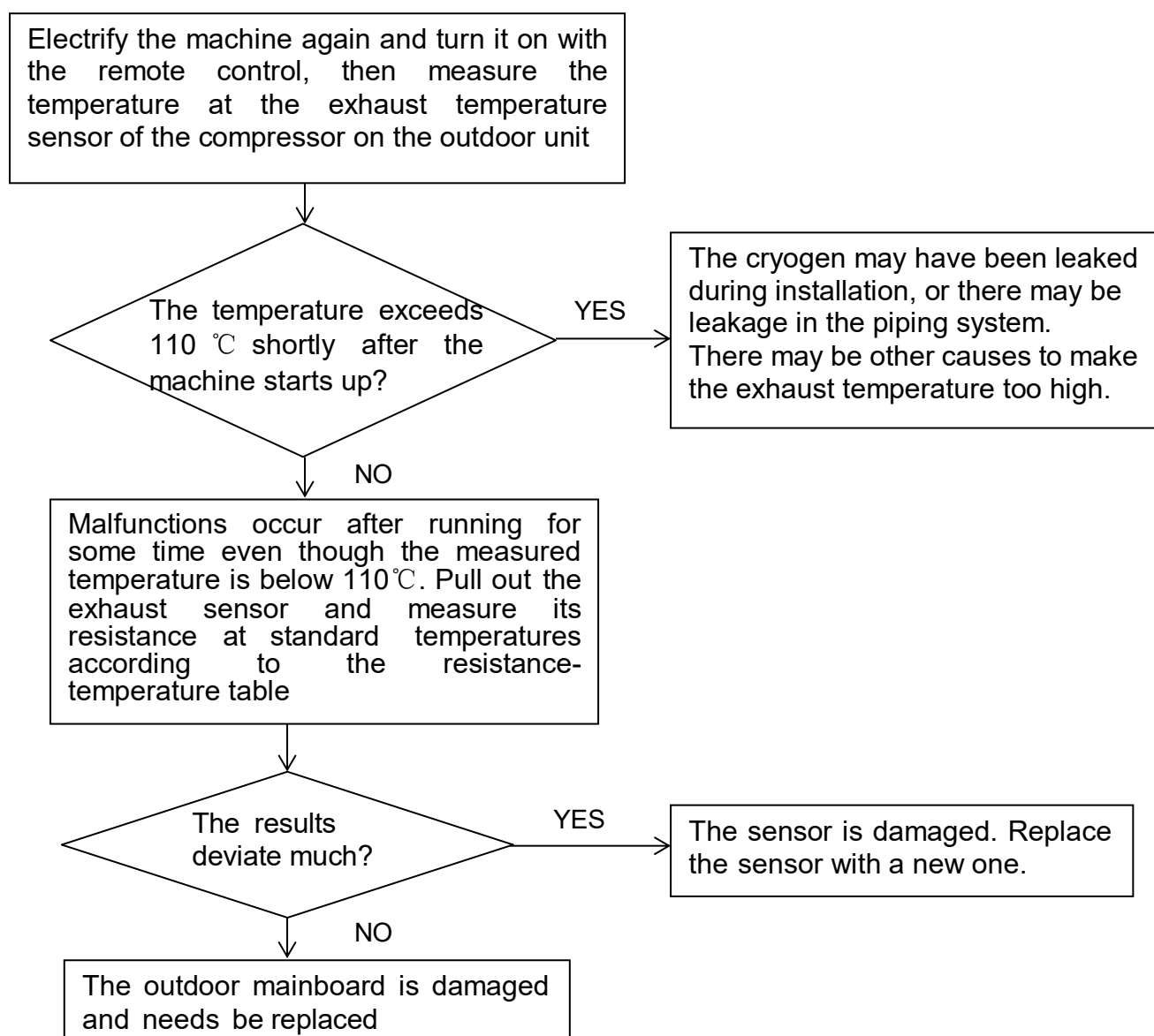
* Caution: Be sure to turn off power switch before connect or disconnect connector, or else parts damage may be occurred.



10.4.9 Overheat Protection for Discharge Temperature

Outdoor display: F4 LED1 flash 8 times

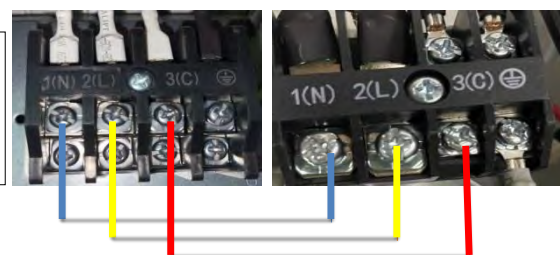
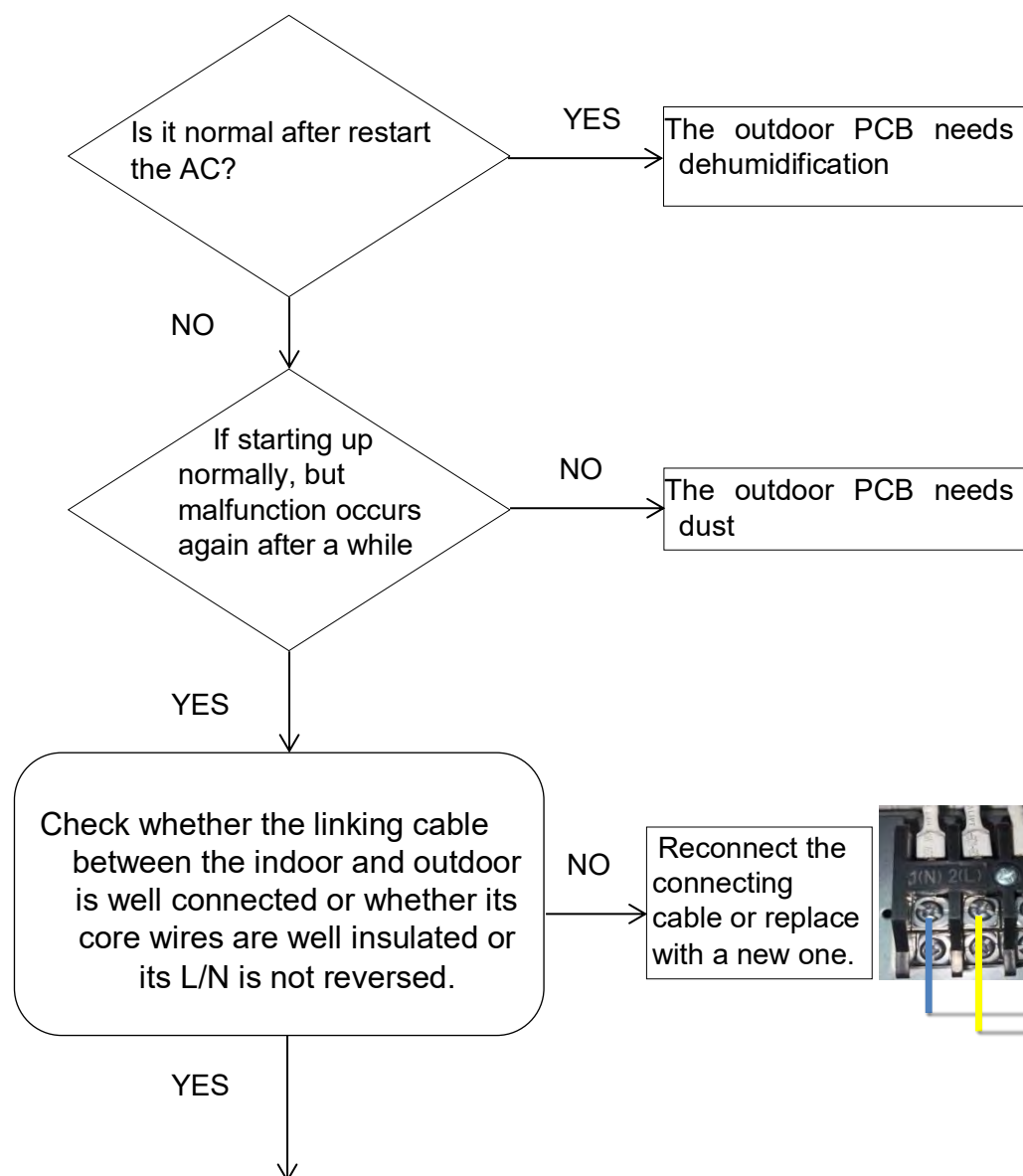
Method of Malfunction Detection	Check the control of the discharge temperature by the temperature detected by the discharge pipe thermistor
Malfunction Decision Conditions	When the compressor discharge temperature is above 110℃
Supposed Causes	■ Electronic expansion valve defective ■ Faulty thermistor ■ Faulty PCB
Trouble shooting	* Caution: Be sure to turn off power switch before connect or disconnect connector or else parts damage may be occurred.



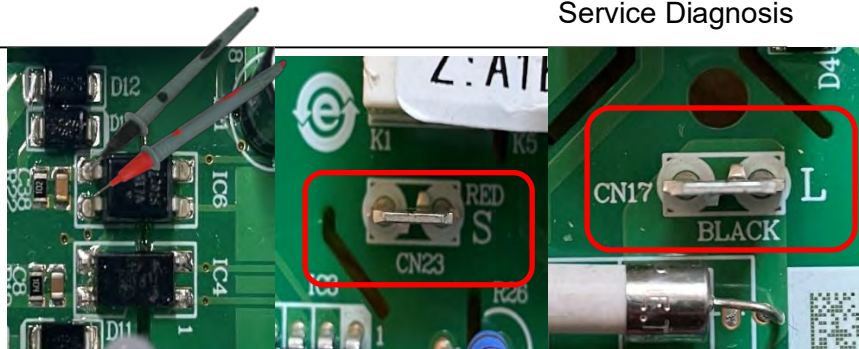
10.4.10 The communication fault between indoor and outdoor

Split board Indoor display E7 outdoor display LED1 flash 15 times

Method of Malfunction Detection	Communication is detected by checking the indoor PCB and the outdoor PCB.
Malfunction Decision Conditions	The outdoor PCB broken leads to communication fault. The indoor PCB broken leads to communication fault.
Supposed Causes	■ Communication wiring disconnected. ■ The indoor PCB is broken. ■ The outdoor PCB is broken. ■ The Power Module is broken.
Trouble shooting	* Caution: Be sure to turn off power switch before connect or disconnect connector, or else parts damage may be occurred.



Check the indoor PCB: only indoor charged measure the voltage between 3 and 4 of IC6 on the indoor PCB with a universal meter. And measure the voltage between CN23(S) and CN17 (L) with a universal meter.



If the voltage is a constant value from DC 0V to DC 5V. Or the voltage between communication line (red) and N (white line) is not close to 18V DC when only indoor charged.

YES

The indoor PCB is damaged; replace it with a new one.

NO

Test the outdoor power is supply 230VAC with a universal meter when indoor and outdoor are charged.

NO

Check the cable between outdoor and power



YES

LED2 light of the outdoor

NO

The module PCB is damaged. Replace it with a new one.

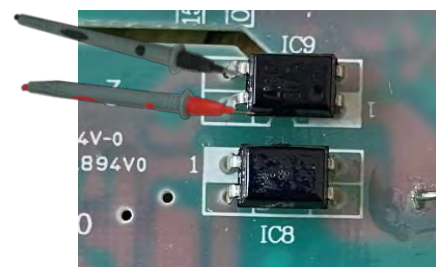


YES

LED 1 light

YES

Measure the voltage between 3 and 4 of IC9 on the Outdoor mainboard with a universal meter. The voltage is a constant value of 0V DC to 5V DC

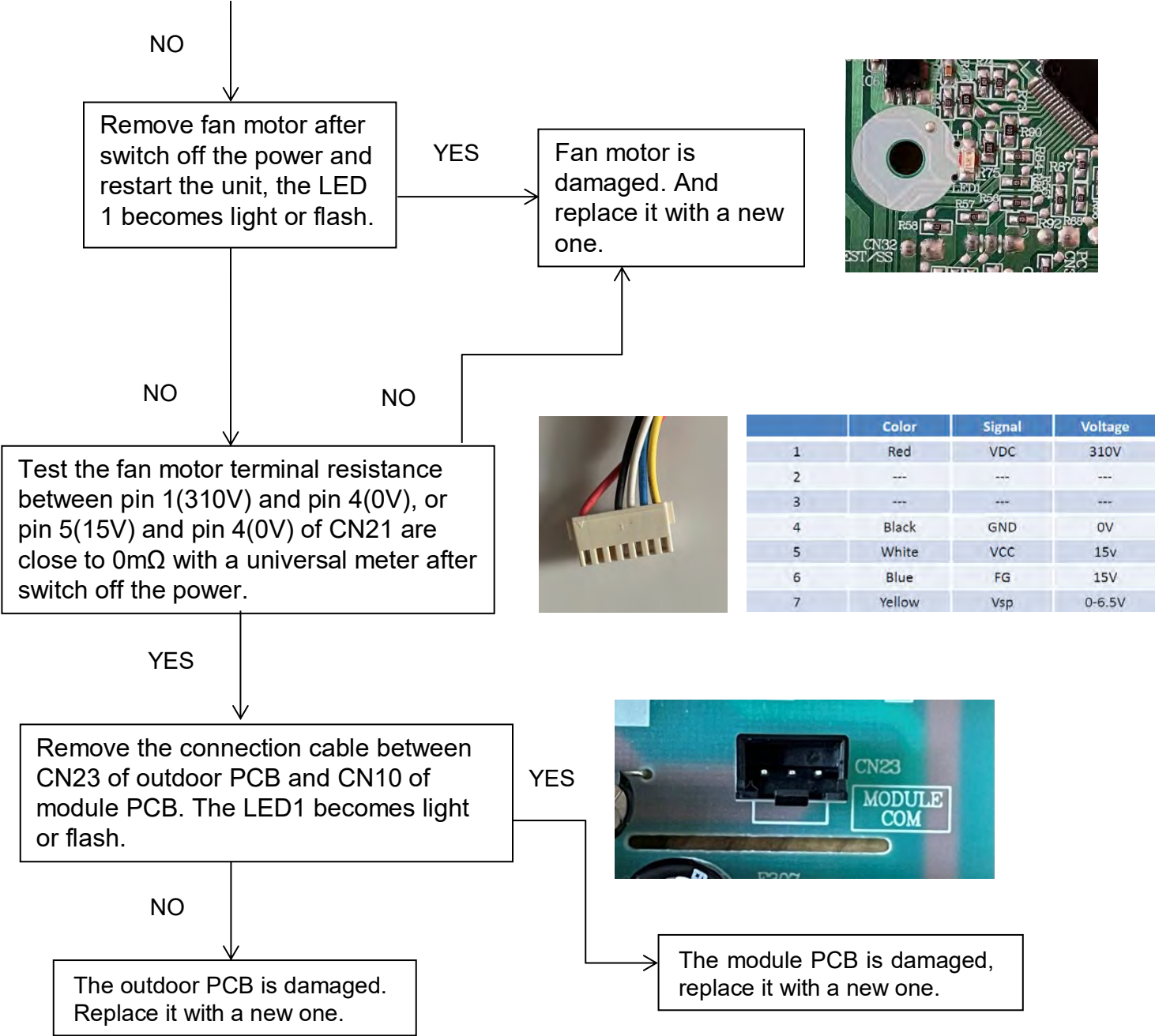


YES

The outdoor PCB is damaged. Replace it with a new one.

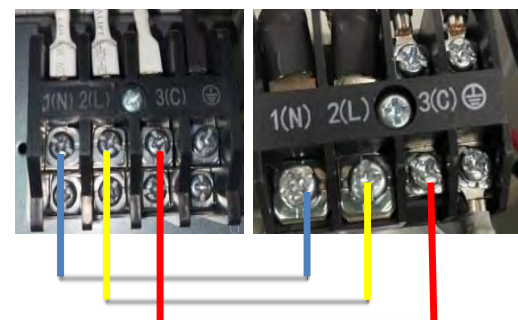
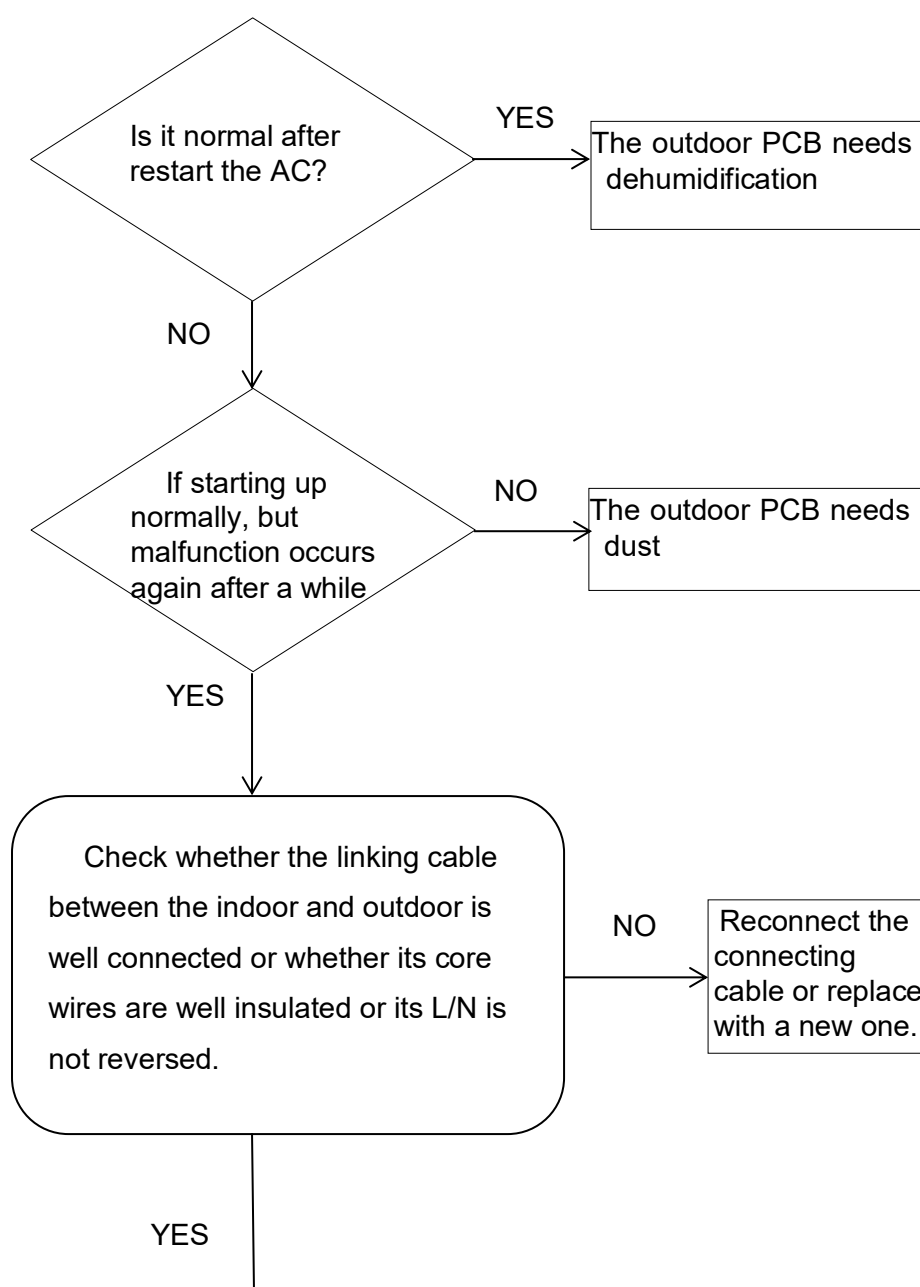
NO

Outdoor PCB is ok then check cable.

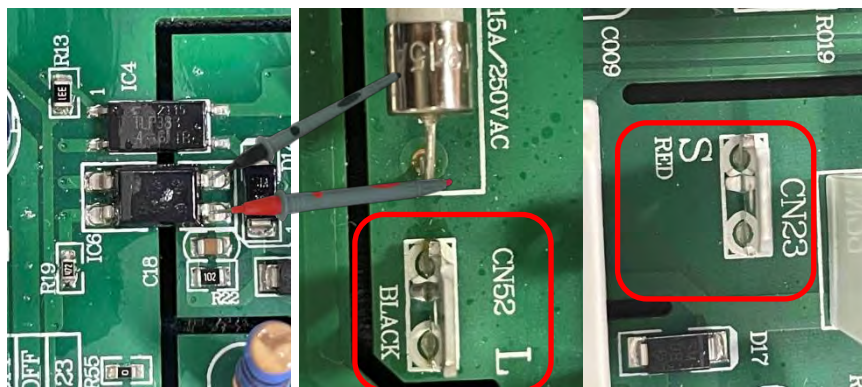


All-in-one board Indoor display E7 outdoor display LED2 flash 15 times

Method of Malfunction Detection	Communication is detected by checking the indoor PCB and the outdoor PCB.
Malfunction Decision Conditions	■ The outdoor PCB broken leads to communication fault. ■ The indoor PCB broken leads to communication fault.
Supposed Causes	■ Communication wiring disconnected. ■ The indoor PCB is broken. ■ The outdoor PCB is broken.
Trouble shooting	* Caution: Be sure to turn off power switch before connect or disconnect connector, or else parts damage may be occurred.



Check the indoor PCB: Only indoor charged measure the voltage between 3 and 4 of IC6 on the indoor mainboard with a universal meter. And measure the voltage between CN23(S) and CN52 (L) with a universal meter.



If the voltage is a constant value of 0V DC to 5V DC .Or the voltage between communication line (red) and N (white line) is not close to 18V DC when only indoor charged.

YES

The indoor PCB is damaged; replace it with a new one.

NO

Test the outdoor power is supply 230VAC with a universal meter when indoor and outdoor are charged.

NO

Check the cable between outdoor and power



YES

LED2 light

YES

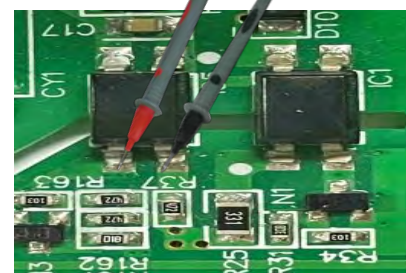
Measure the voltage Between 3 and 4 of IC5 on the Outdoor mainboard with a universal meter. The voltage is a constant value of 0V DC to 5V DC

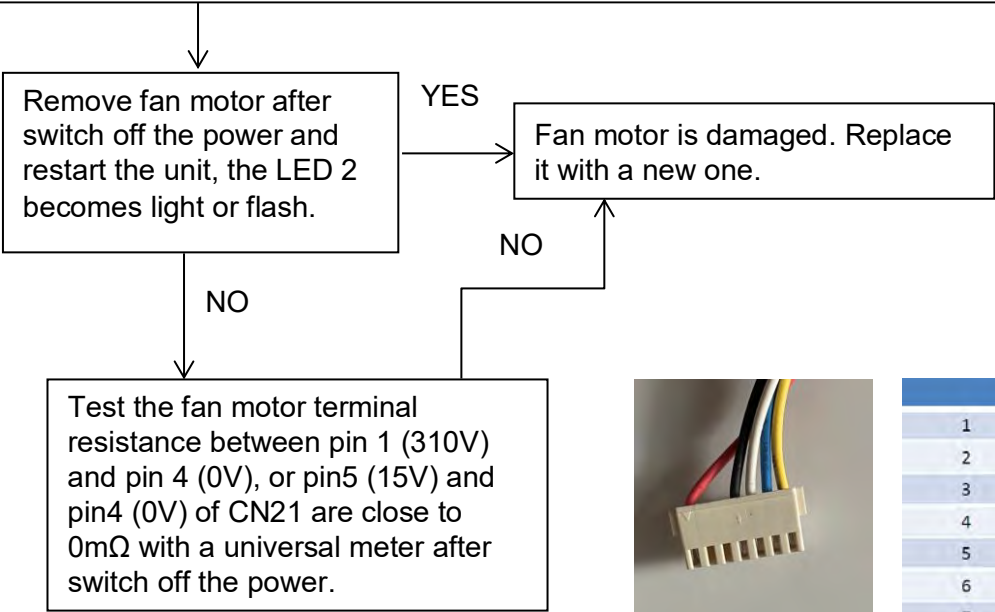
YES

The outdoor PCB is well, and then check the cable

NO

The outdoor PCB is damaged. Replace it with a new one.

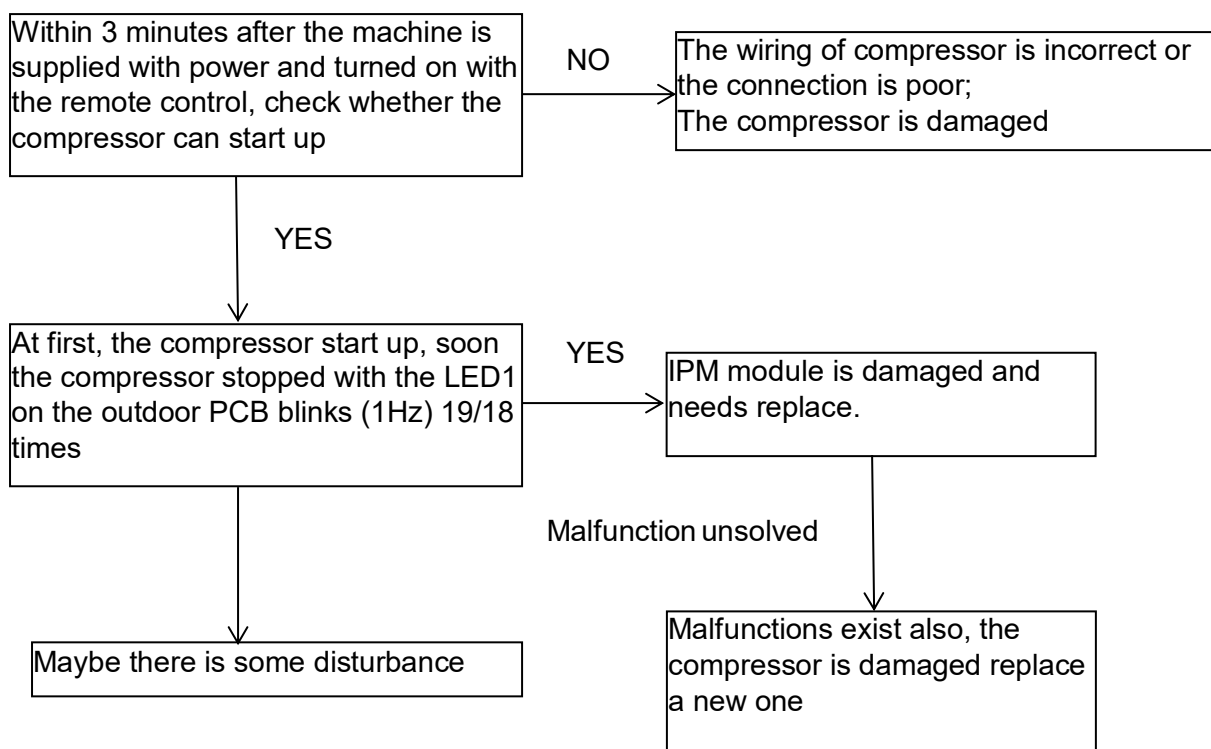




	Color	Signal	Voltage
1	Red	VDC	310V
2	---	---	---
3	---	---	---
4	Black	GND	0V
5	White	VCC	15v
6	Blue	FG	15V
7	Yellow	Vsp	0-6.5V

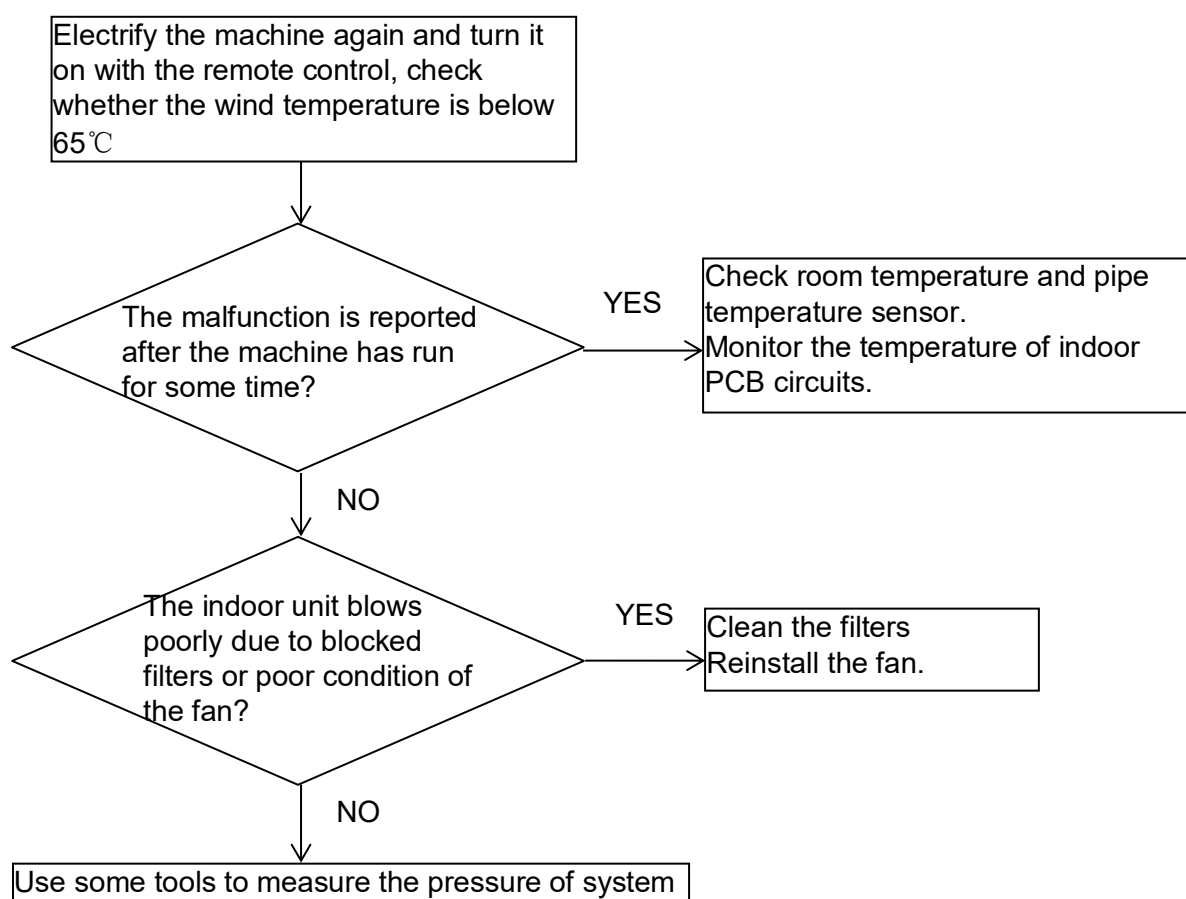
10.4.11 Loss of synchronism detection (Compressor position detection circuit fault)

Outdoor Display	F11 LED1 flash 18 times F28 LED1 flash 19 times
Method of Malfunction Detection	The position of the compressor rotor can't detected normally
Malfunction Decision Conditions	When the wiring of compressor is wrong or the connection is poor; Or the compressor is damaged
Supposed Causes	■ Faulty The wiring of compressor ■ Faulty compressor ■ Faulty PCB
Trouble shooting	* Caution: Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



10.4.12 High work-intense protection

Outdoor display	E 9 LED1 flash 21 times
Method of Malfunction Detection	High work-intense control is activated in the heating mode if the temperature being sensed by the heat exchanger thermistor exceeds the limit.
Malfunction Decision Conditions	Activated when the temperature being sensed by the heat exchanger rises above 65°C twice in 30 minutes
Supposed Causes	■ Faulty electronic expansion valve ■ Dirty heat exchanger ■ Faulty heat-exchange sensor ■ Insufficient gas
Trouble shooting	* Caution: Be sure to turn off power switch before connect or disconnect connector, or parts damage may be occurred.



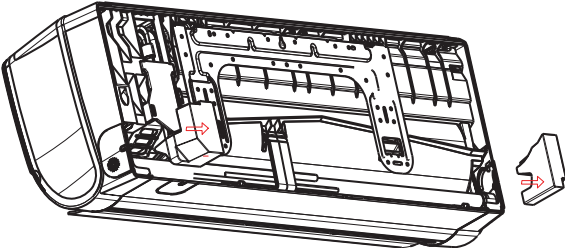
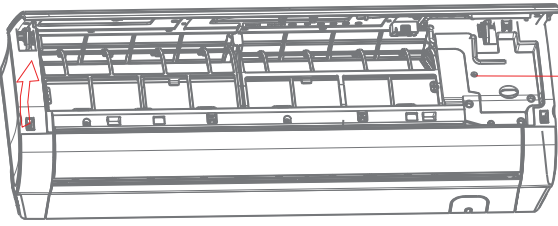
12. Removal Procedure

Removal of front panel

Indoor unit

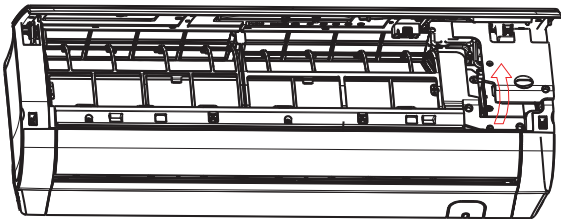
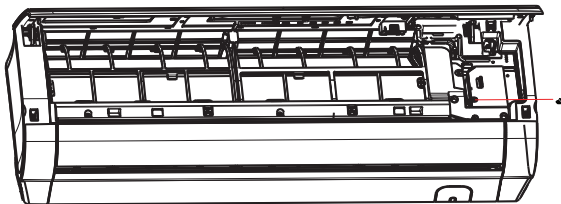
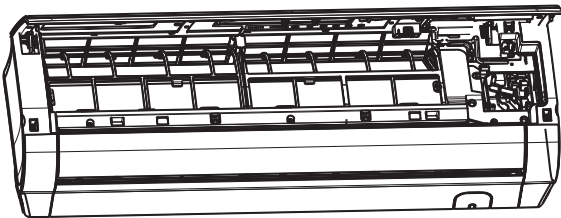
Procedure

 **Warning** Be sure to wait 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Points
1. Features		
2. Remove the front panel	 	
1 Remove the foam cushion		
2 Hold the front panel by the tabs on the both sides and lift it until it stops with a click. Loosen the screw		

Procedure

 **Warning** Be sure to wait 10 minutes or more after turning off all power supplies before disassembling work.

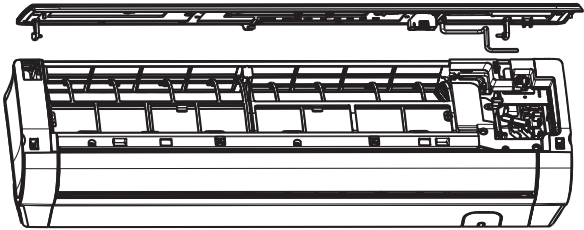
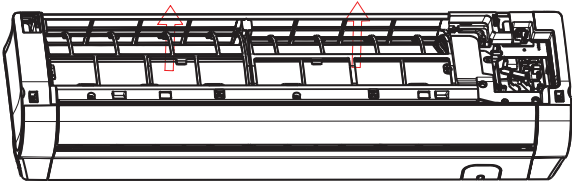
Step	Procedure		Points
3	Lift up the control box cover		
4	Loosen the screw		
5	Lift up the control box cover		

Removal of front panel

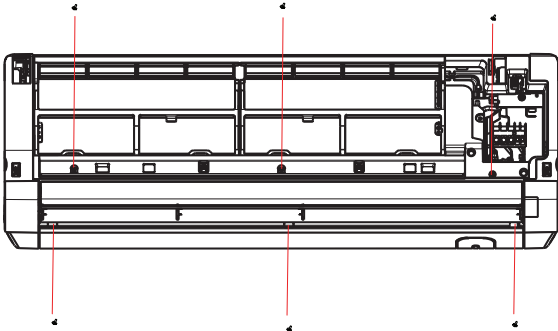
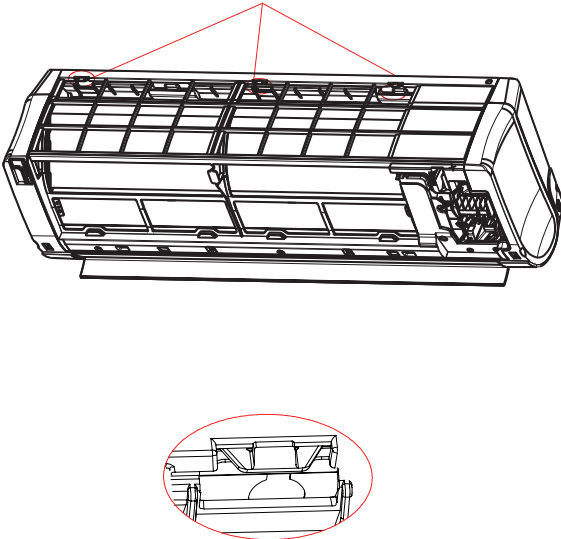
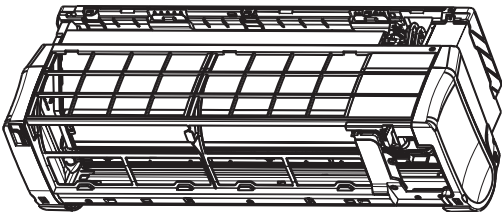
Procedure



Warning Be sure to wait 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure		Points
6	Pull the wires out of the control box and then release the pivots on both sides of the unit to remove the front panel.		
Remove the air filters			
1	Lift an air filter upwards slightly and then pull it out downwards.		

Remove the casing

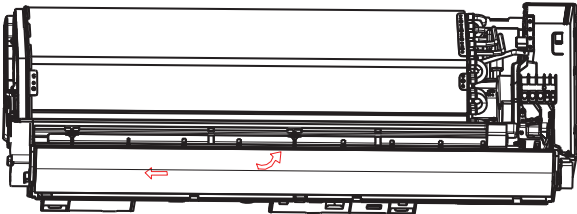
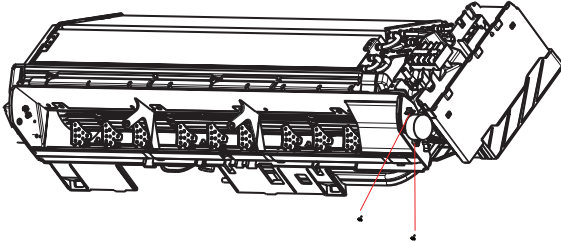
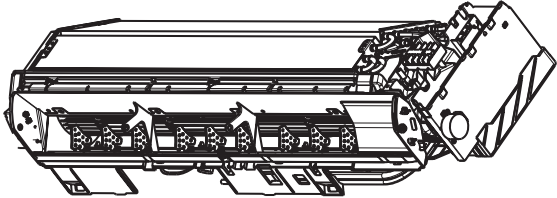
Step		Procedure	Points
1	Loosen the marked 6 screws		
2	Release the marked three hooks.		
3	Pull the front grille out horizontally and remove it.		■ When assembling, install the front grille horizontally so as not to stuff the flap inside. ■ When assembling, make sure the three hooks are caught properly.

Removal of horizontal flap and the stepper motor

Procedure



Warning Be sure to wait 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Points
1	Release the center pivot. Bend the horizontal blade slightly and remove it. 	■ The horizontal flap is single.
2	Loosen the screws and remove the stepper motor  	

Removal of horizontal louver and control box

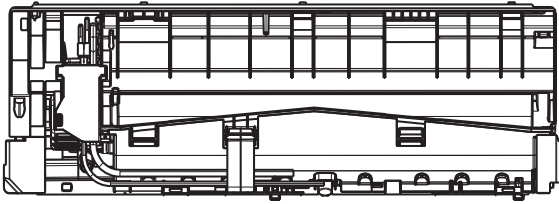
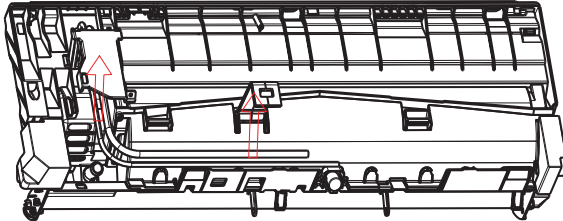
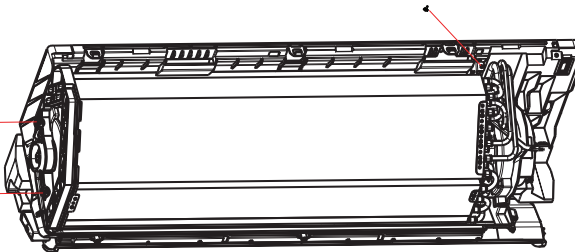
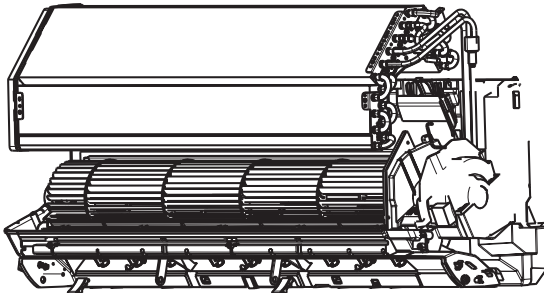
Procedure



Warning Be sure to wait 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Points
1.	Every blade go round and round,then move it	
2.	Loosen the screws	

Removal of Heat Exchanger

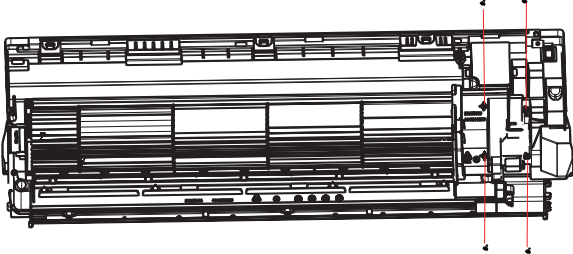
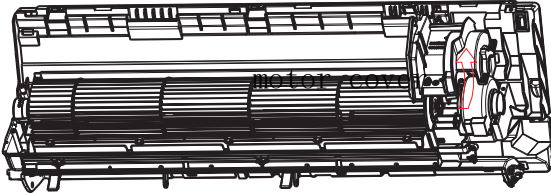
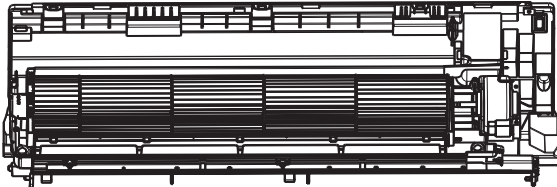
Step	Procedure	Points
		
1	Loosen the hook and the service Cover 	
2	Loosen the screw 	
3	Lift up the exchanger and remove it 	

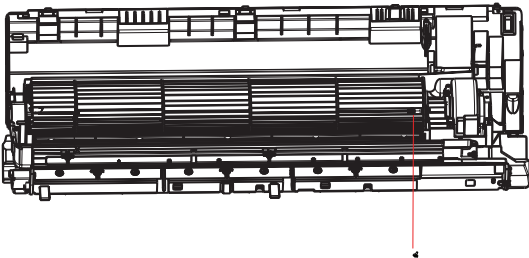
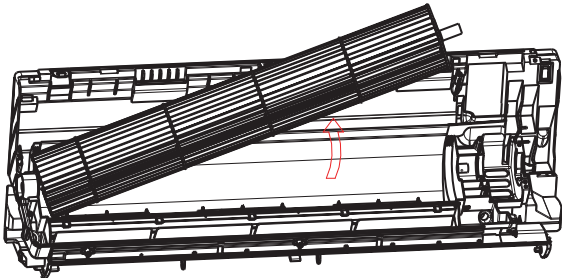
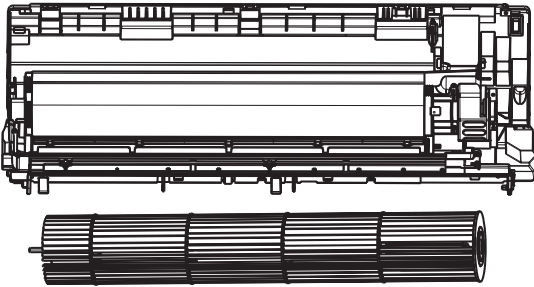
Removal of Fan Rotor and Fan Motor

Procedure

Warning

Be sure to wait 10 minutes or more after turning off all power supplies before disassembling work.

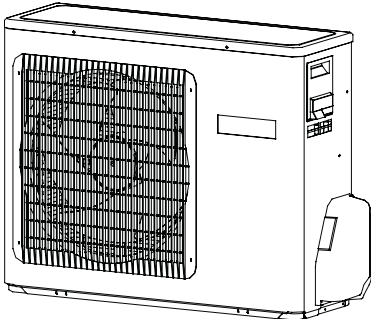
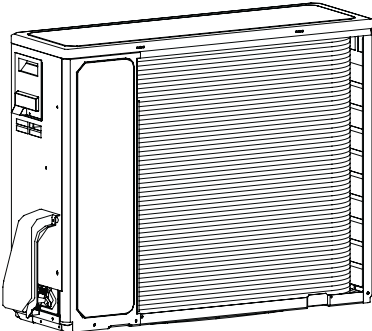
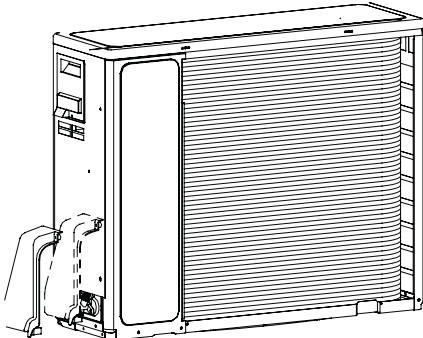
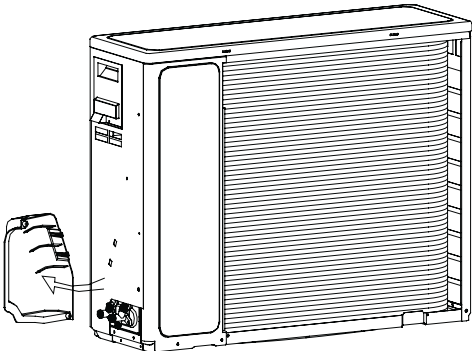
Step	Procedure		Points
1	Loosen the screws.		
2	Remove the motor cover	 	

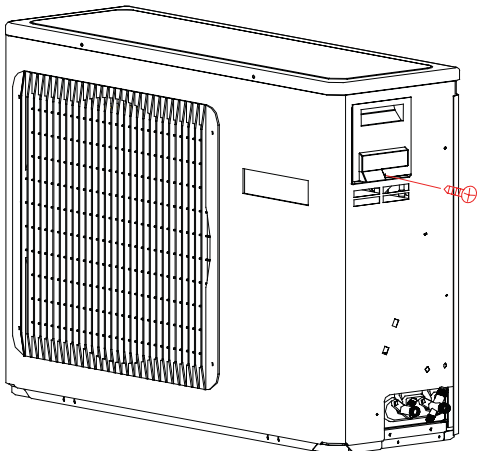
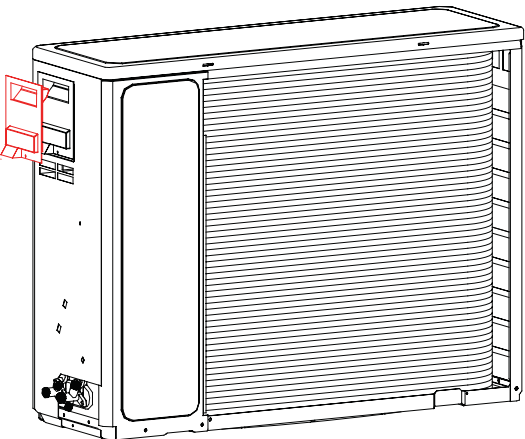
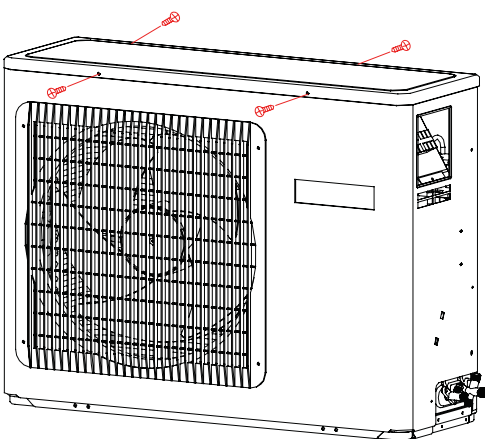
Step	Procedure	Points
1	Loosen the marked screw. 	
2	Lift up the right part of the fan motor and slide it to the rightward to remove. 	
3	Lift up the right part of the fan and remove it  	

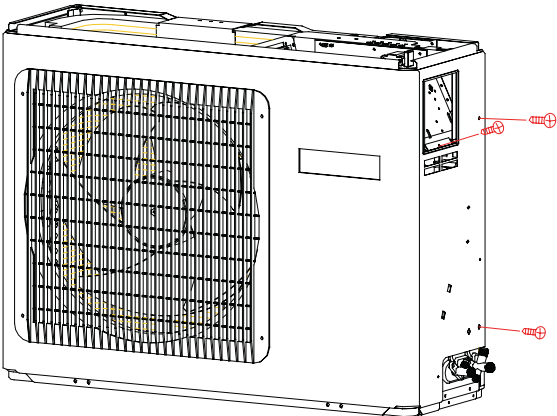
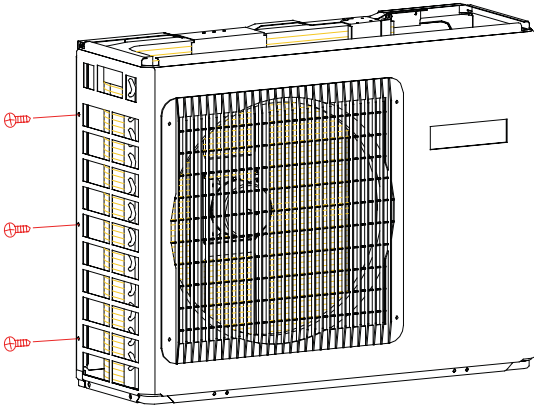
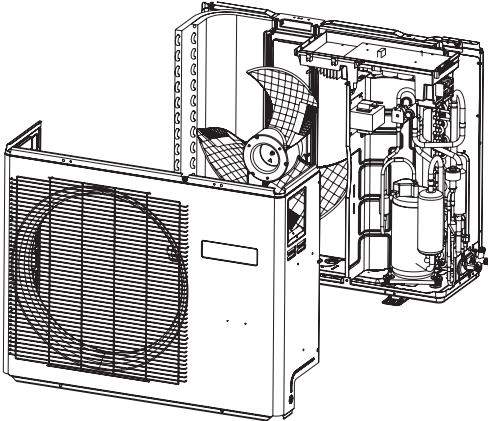
1.Removal of Outdoor panel

Procedure

 **Warning** Be sure to wait 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Points
1. Features		
1	Loosen the screw of the stop valve cover. Pull down the stop valve cover and remove it.    	■ Be careful not to cut your finger by the fins of the heat exchanger. ■ The stop valve cover is united with the shelter. ■ When assembling, make sure to fit the 5 hooks.

Step	Procedure	Points
2. Remove the panels.		
1	Loosen the service cover screw and remove the service cover.	
		
		
2	Loosen the 4 screws and lift the top panel	
		

Step	Procedure	Points
		
3	Loosen the screws of the panel.	
		
4	Pull and remove the front panel.	
		

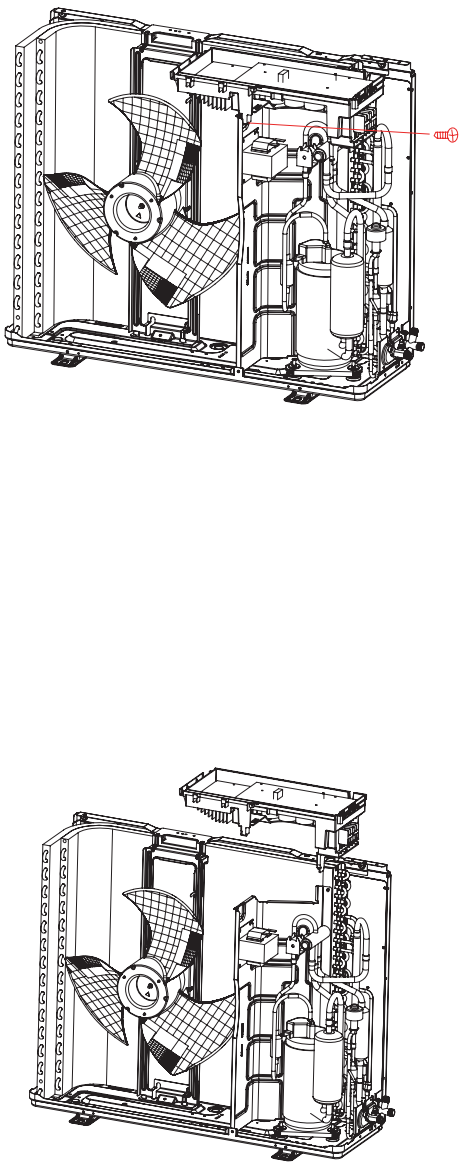
2. Removal of Electrical Box

Procedure



Warning

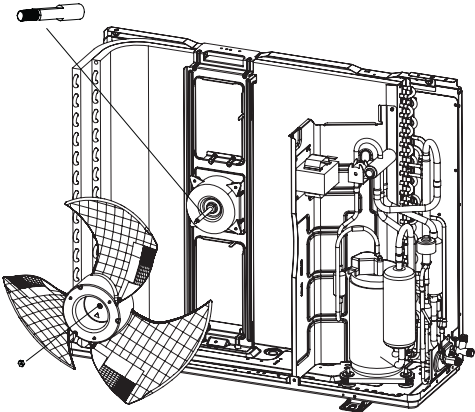
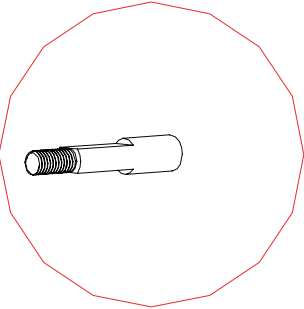
Be sure to wait 10 minutes or more after turning off all power supplies before disassembling work.

Step	Procedure	Points
1	Remove the fixing screws Then lift the electrical box 	

3. Removal of Fan and Fan Motor

Procedure

 **Warning** Be sure to wait 10 minutes or more after turning off all power supplies before disassembling work.

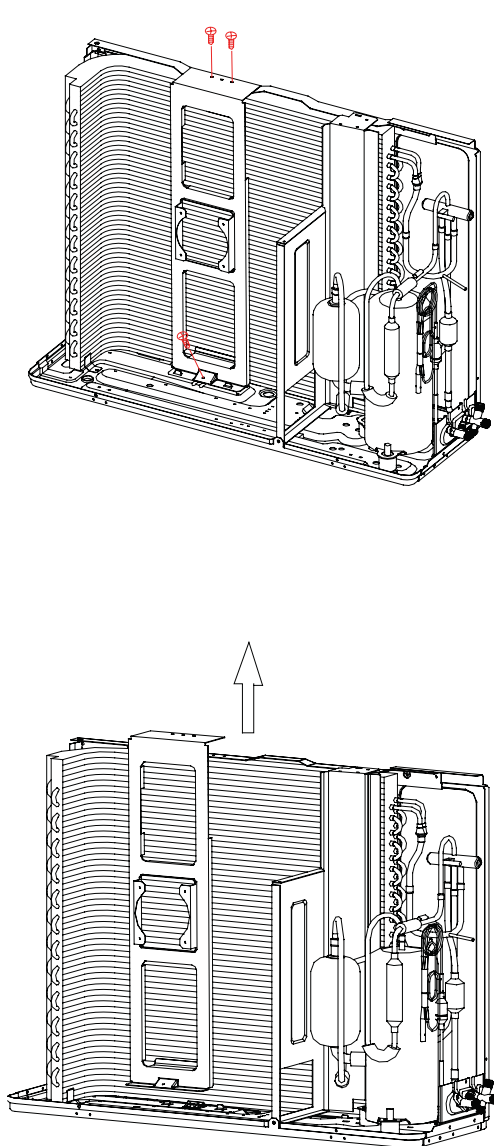
Step	Procedure	Points
1	Loosen the fixing screw and remove the fan 	 ■ Put the lead wire through the back of the motor when assembling. (so as not to be entangled with the propeller fan)

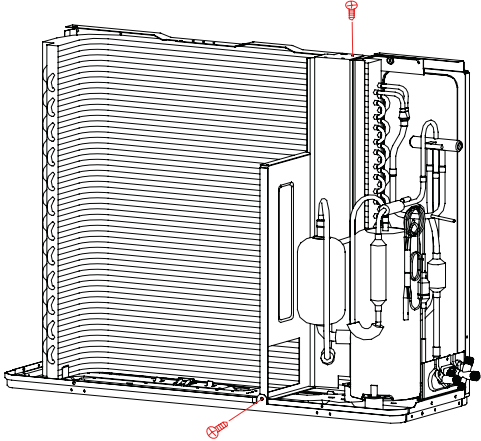
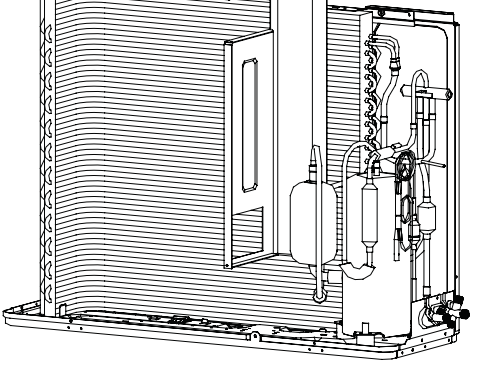
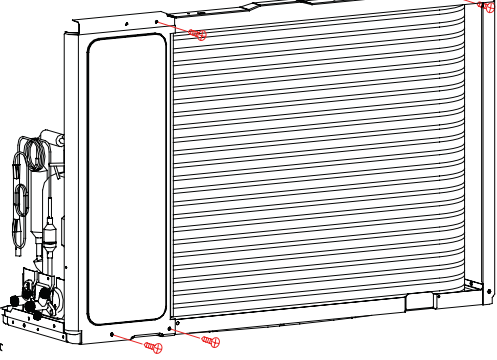
4. Removal of fan motor bracket and partition

Procedure



Warning Be sure to wait 10 minutes or more before disassembling work.

Step	Procedure	Points
1	Loosen the fixing screws and lift the fan motor bracket. 	

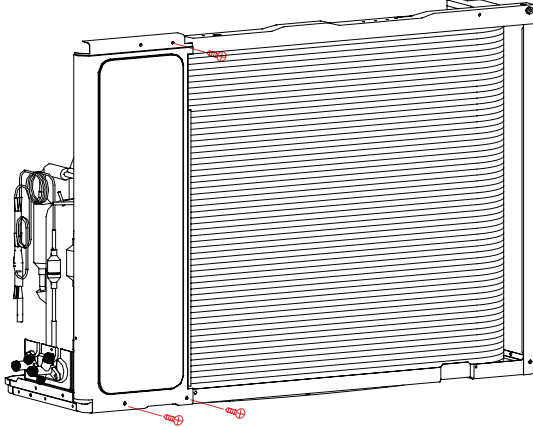
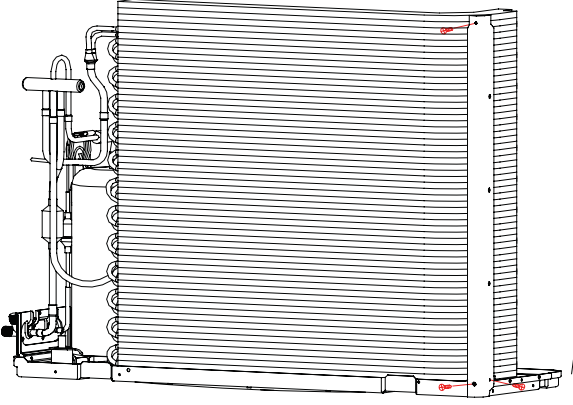
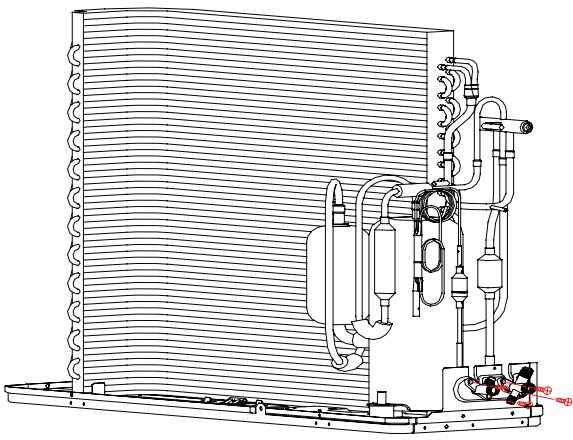
Step		Procedure	Points
3	Loosen the 2 screws		
4	The partition plate has a hook on the lower side. Lift and pull the partition plate to remove.		■ When assembling ,fit the lower hook into the bottom frame .
5	Loosen the marked fixing screws		

5. Removal of compressor and heat exchanger

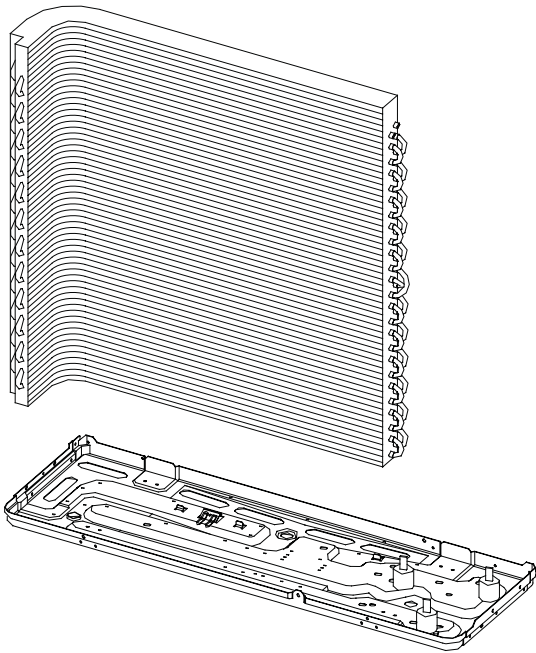
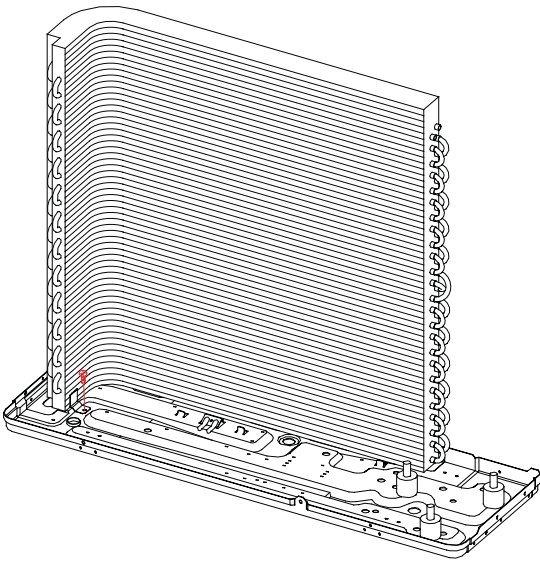
Procedure



Warning Be sure to wait 10 minutes or more after tu
before disassembling work.

Step	Procedure	Points
1	Loosen the marked screw .	
	 	
2	Cut down the connecting pipe and pull out the compressor and remove the valve bracket .	
		

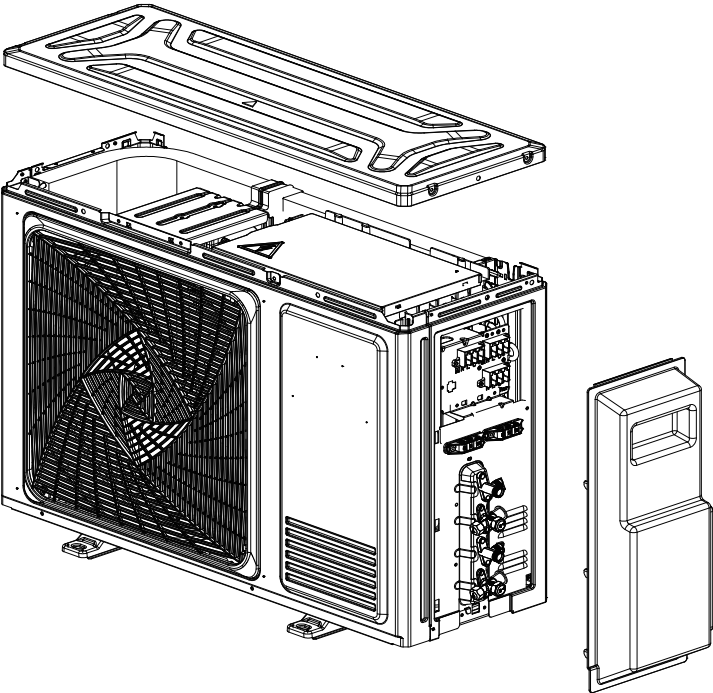
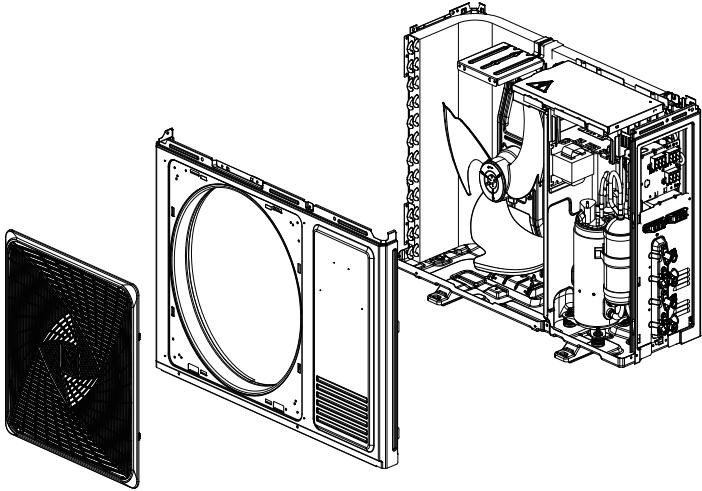
Step	Procedure	Points
3	Loosen the marked fixing screw .	
4	Loosen the fixing hook and remove the heat exchanger .	

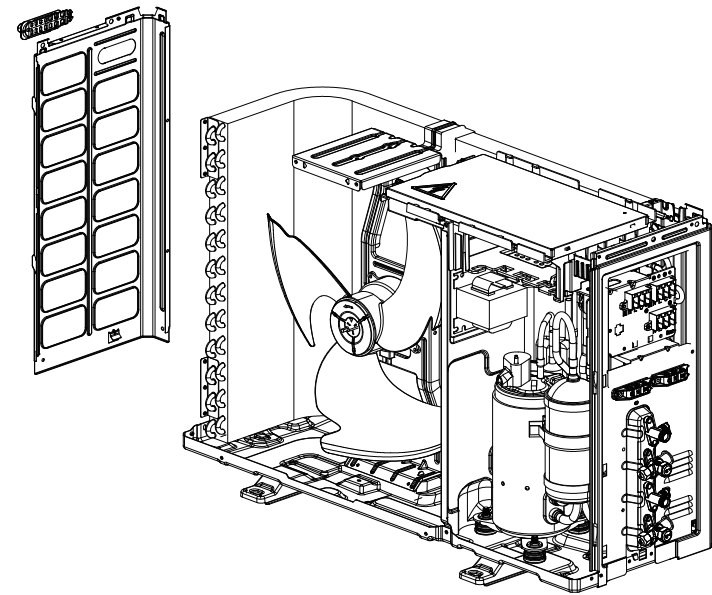
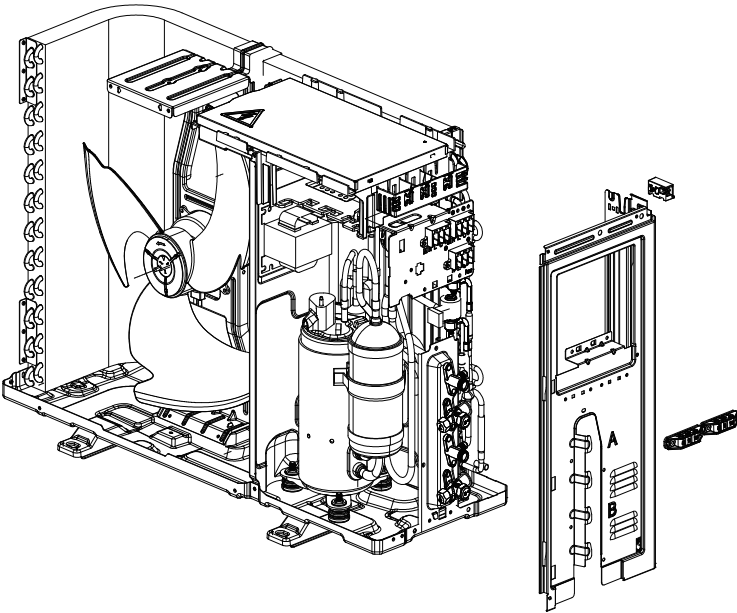


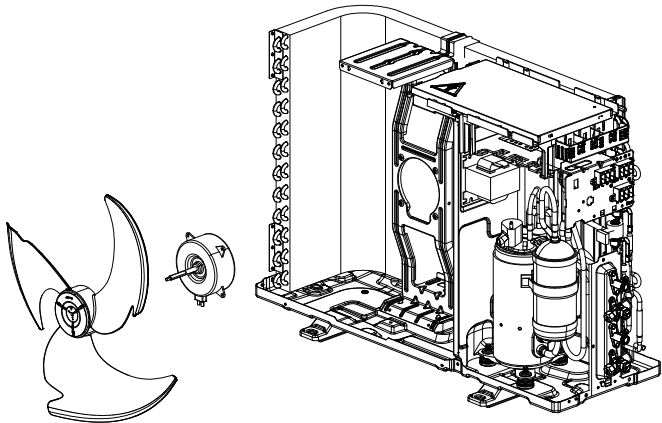
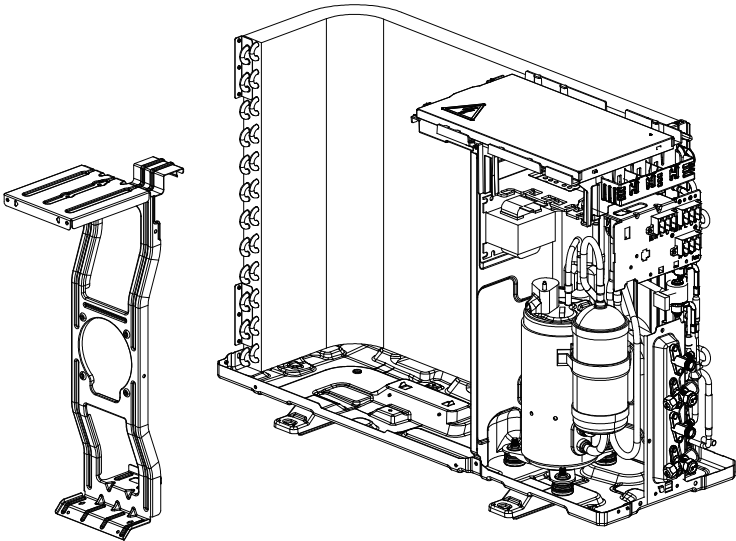
13. Removal Procedure

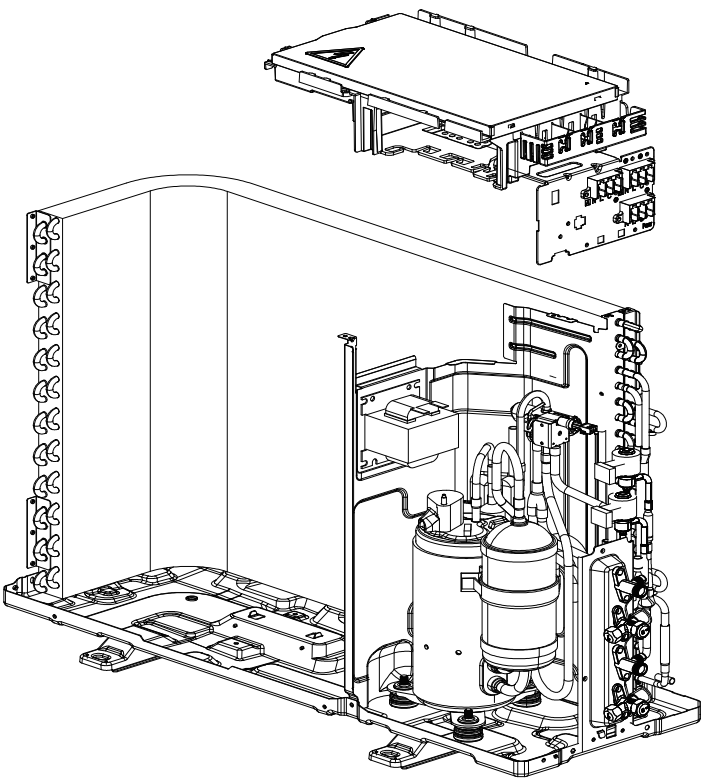
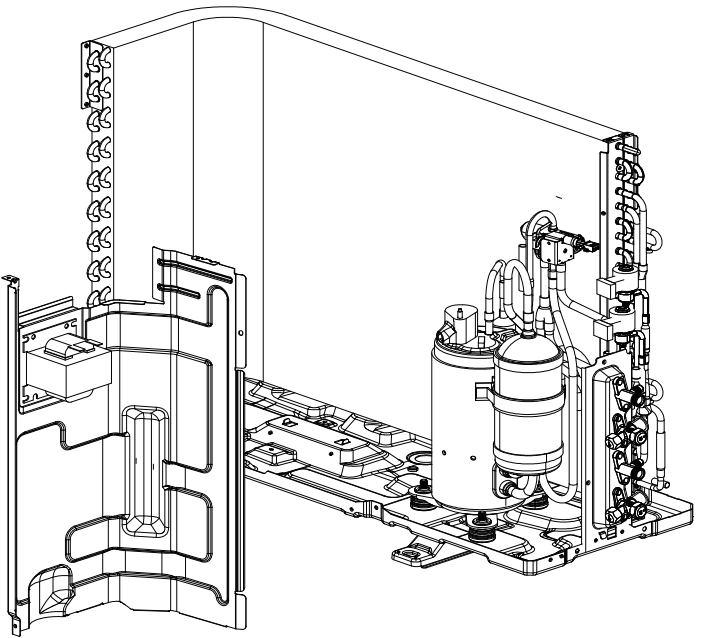
Removal of front panel

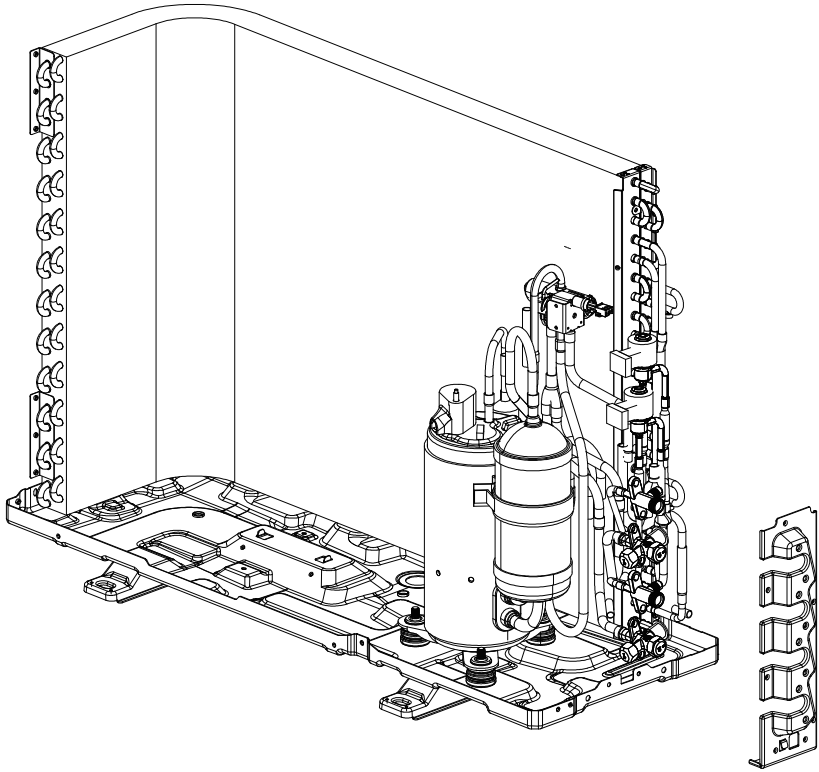
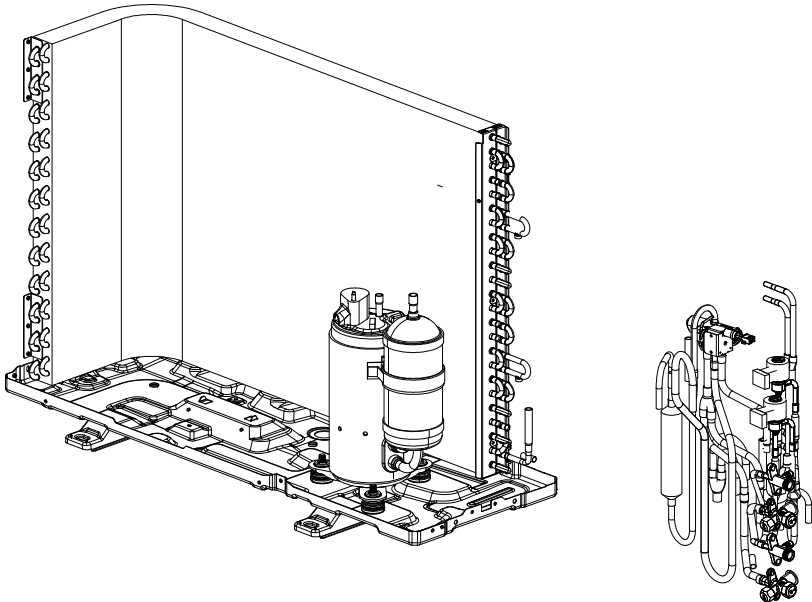
Outdoor unit

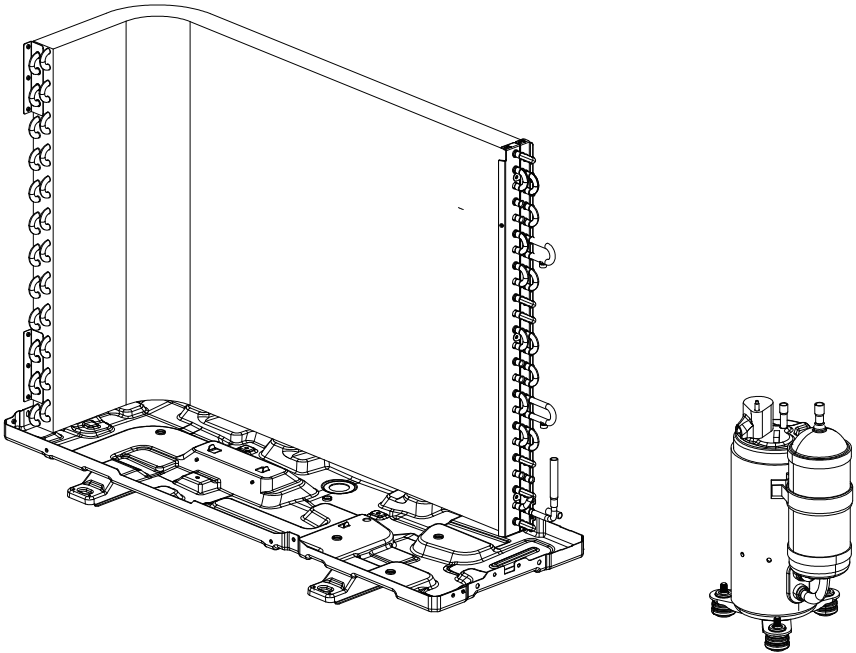
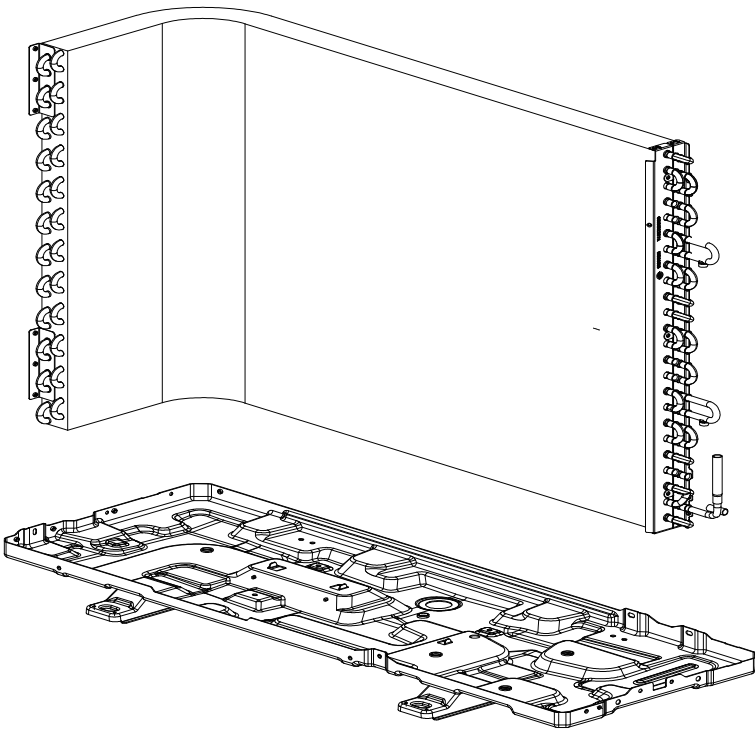
Step		Procedure	Points
1	Loosen the screws to lift the top panel and remove the valve housing		
2	Loosen panel screws, pull and remove front panel		

3	Loosen the screwdriver and remove the left panel	 A technical line drawing of an air conditioner's internal components. The left panel, which has a grid of rectangular openings, is shown detached and floating to the left of the main unit. The main unit is shown from a three-quarter perspective, revealing the fan, compressor, and various electrical components. The panel is being removed from the left side of the unit.	
4	Loosen the screwdriver and remove the right panel	 A technical line drawing of the same air conditioner unit. The right panel, which has a grid of rectangular openings and is labeled with 'A' and 'B' at the bottom, is shown detached and floating to the right of the main unit. The main unit is shown from a three-quarter perspective, revealing the fan, compressor, and various electrical components. The panel is being removed from the right side of the unit.	

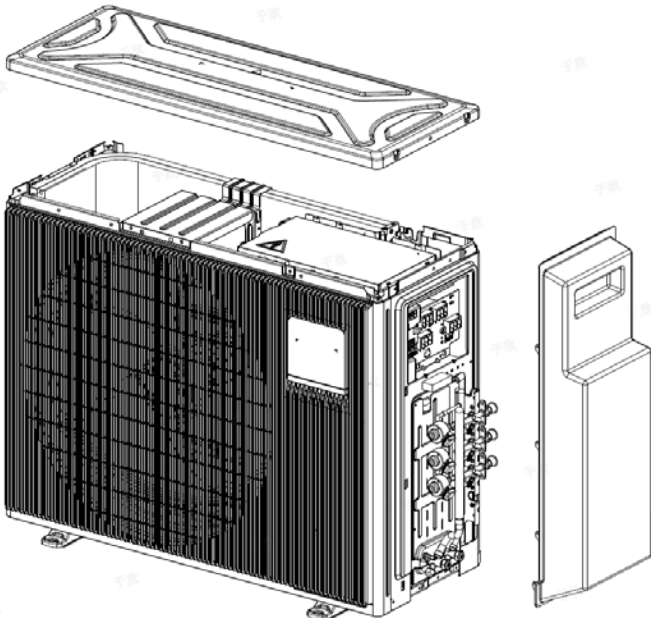
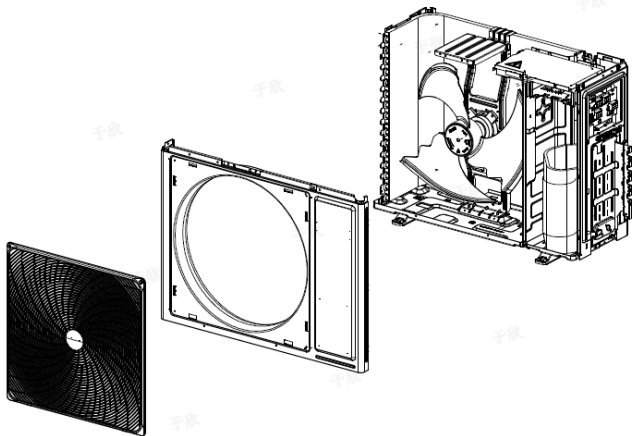
5	Loosen the screwdriver and remove the fan		
6	Loosen the screws and remove the motor bracket		

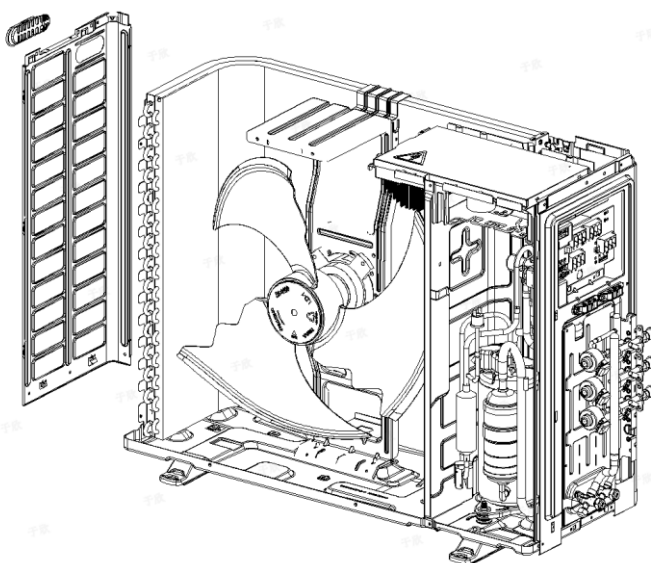
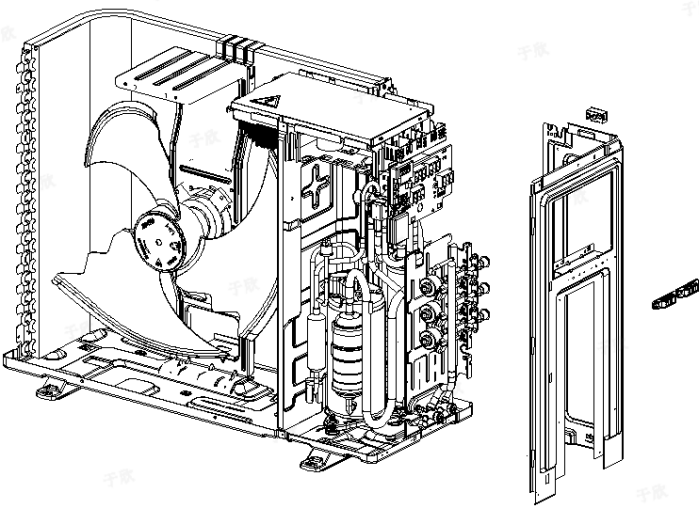
7	Loosen the screwdriver and lift the electronic control box	 This diagram illustrates the removal of the electronic control box. The control box is shown being lifted away from the main unit. The main unit's internal components, including the compressor, condenser coils, and evaporator coils, are visible. The control box is a rectangular unit with various electrical connections and a fan.	
8	Loosen the screwdriver and remove the baffle	 This diagram illustrates the removal of the baffle. The baffle is shown being lifted away from the main unit. The main unit's internal components, including the compressor, condenser coils, and evaporator coils, are visible. The baffle is a rectangular unit with a curved top and various electrical connections.	

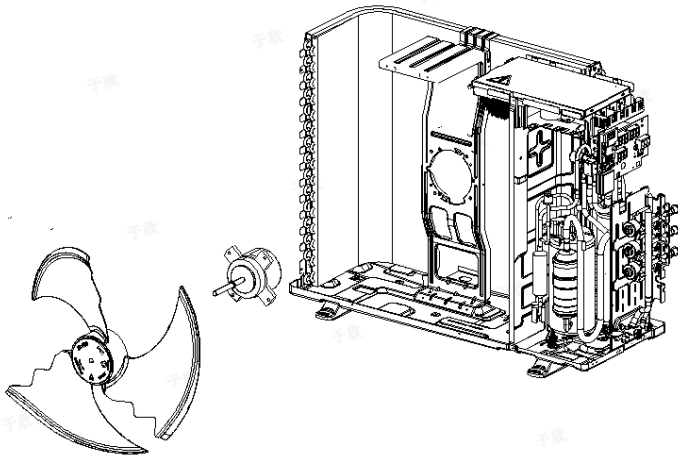
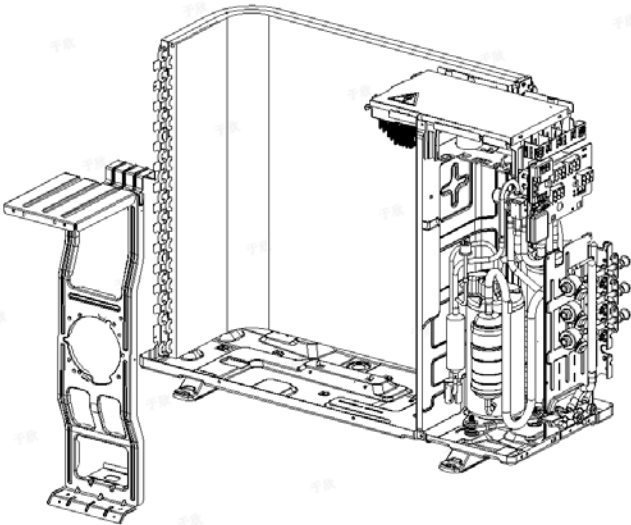
9	Loosen the screws and remove the base		
10	Weld off line module and remove		

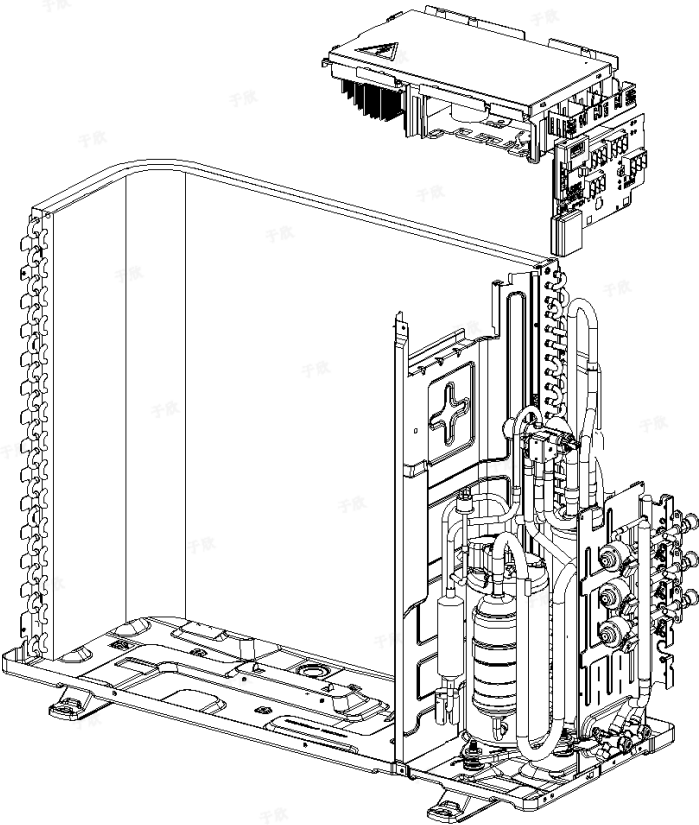
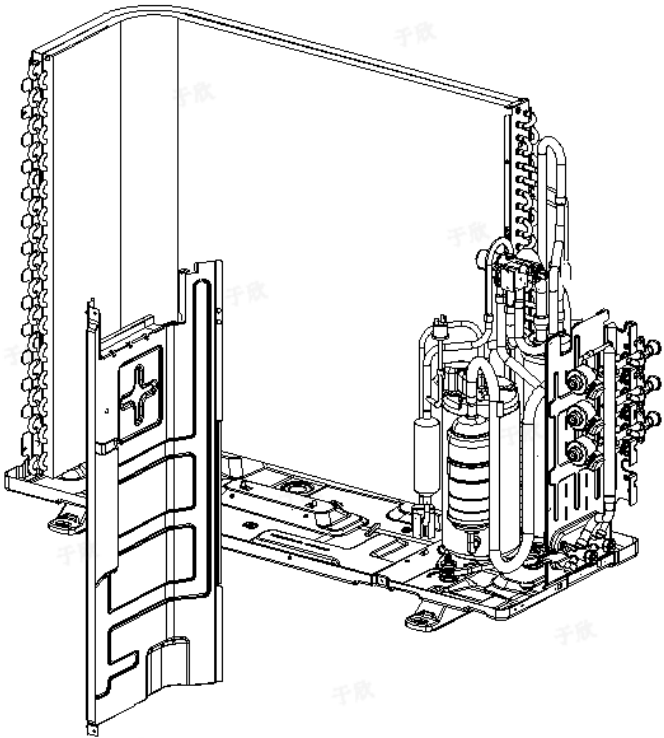
11	Weld off compressor and remove	 A technical line drawing of an indoor unit chassis. The chassis is shown from a perspective view. On the right side, there is a vertical panel with a series of screws. A compressor unit is attached to the bottom of this panel. The diagram illustrates the process of welding off the compressor from the chassis. To the right of the chassis, there is a separate drawing of the compressor unit, which is a cylindrical component with various ports and a mounting bracket.	
12	Loosen the screws and remove the condenser	 A technical line drawing of the same indoor unit chassis. The vertical panel on the right side is shown being removed from the chassis. The panel is tilted away from the chassis, revealing the internal components and the screws that were holding it in place. The chassis is shown from a perspective view, highlighting the internal structure and the location of the condenser.	

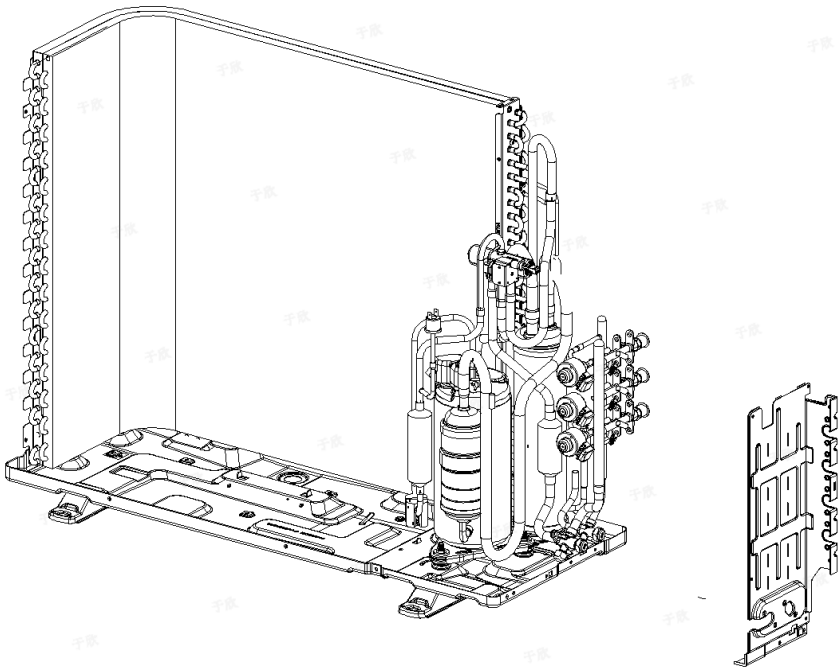
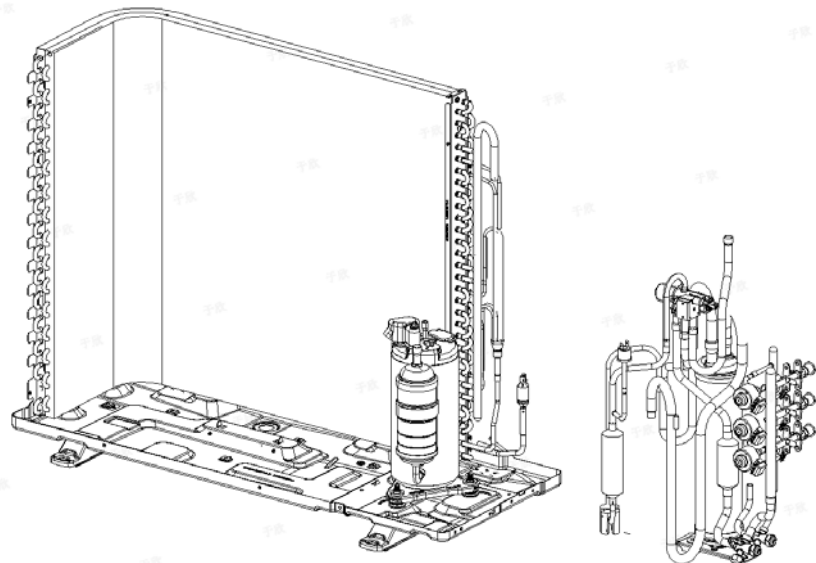
Outdoor unit

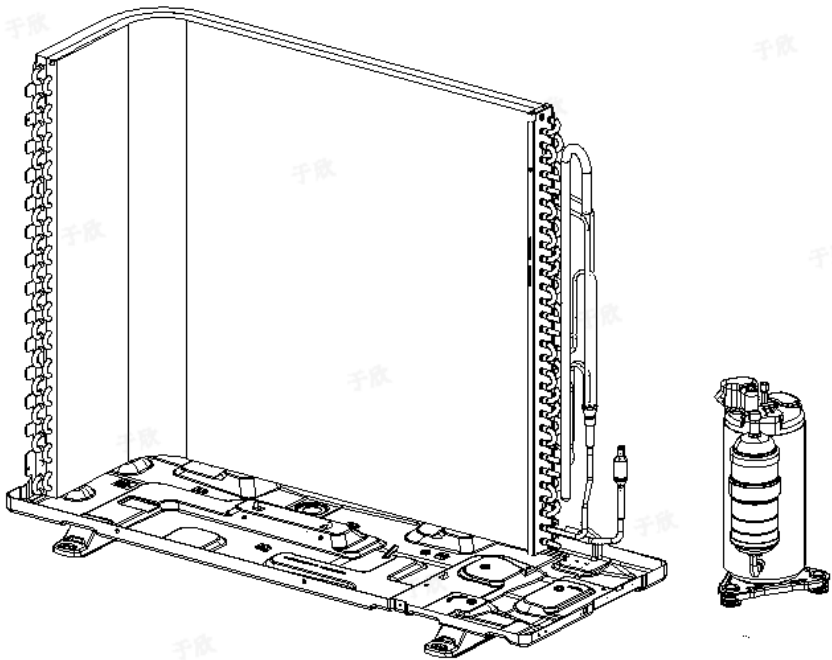
Step		Procedure	Points
1.Features			
1	Loossen the screws to lift the top panel and remove the valve housing.		
2	Loosen the screws of the panel. Pull and remove the front panel.		

3	Loosen the fixing screws and remove the left side panel.		
4	Loosen the fixing screws and remove the right side panel.		

5	Loosen the fixing screws remove the fan Loosen the fixing screws and lift the fan motor.	 This diagram illustrates the removal of the fan and fan motor. On the left, a three-bladed fan is shown detached from its motor. To the right, the fan motor is shown being lifted out of the main unit's chassis. The unit's internal components, including the compressor and condenser coils, are visible within the open frame.	
6	Remove the fixing screws, then lift the fan motor bracket	 This diagram shows the removal of the fan motor bracket. The bracket, which is a vertical metal plate with a circular cutout, is shown being lifted away from the main unit. The unit's internal components are visible through the opening where the bracket was attached.	

7	Remove the fixing screws, then lift the electrical box.	 This diagram illustrates the process of removing the electrical box. The box is shown being lifted away from the main unit, which is mounted on a wall bracket. The box is connected to the unit by a cable. The main unit features a large condenser coil and various internal components.	
8	Loosen the marked fixing screws	 This diagram shows the next step in the process, where the marked fixing screws on the side panel of the unit are being loosened. The side panel is shown partially detached from the main unit, revealing the internal components and the condenser coil.	

9	Remove the fixing screw, then lift the valve set		
10	Cut open the solder joint and pull out the 4-way valve pipes, and remove the gas-liquid separator		

11	Loosen the fastening nut and remove the compressor		
12	Loosen the screws and remove the outdoor heat exchanger	