SAMSUNG

SPLIT-TYPE AIR CONDITIONER

	INDOOR UNIT	OUTDOOR UNIT
Basic Code:	AR24HVSSAWKNED	AR24HVSSAWKXED
Model Code:	AR24JVSSAWKNED	AR24JVSSAWKXED

SERVICE Manual

AIR CONDITIONER

AR24JVSSAWKNED

AR24JVSSAWKXED

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1. Precautions

1-1 Installing the air conditioner

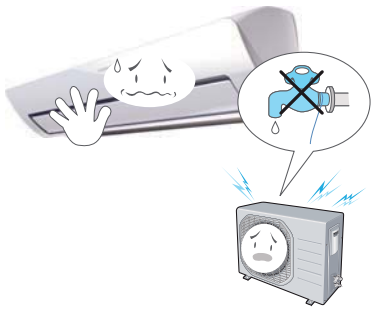
- Uses should not install the air conditioner by themselves.
  Ask the dealer or authorized company to install the air conditioner except window-type air conditioner in U.S.A and Canada.
- If you don't install the air conditioner properly, it may cause a fire, a water leakage or an electric shock.
- You must install the air conditioner according to the national wiring regulations and safety regulations.
- Install the indoor unit higher than 2.5m from the floor to avoid the injury caused by the operation of the fan.
  (except the window-type air conditioner)
- The manufacturer is not responsible for any accidents or injury caused by an incorrect installation.
- When installing the built-in type air conditioner, keep all electric cables such as the power cable and the connection cord in pipes, ducts, or cable channels to protect them from the danger of impact or any other incidents.

1-2 Power supply and circuit breaker

- If the power cord of the air conditioner is damaged, it must be replaced by the manufacturer or a qualified person in order to avoid a hazard.
- The air conditioner must be plugged into an independent circuit if applicable or connect the power cable to the auxiliary circuit breaker.
  An all pole disconnection form the power supply must be incorporated in the fixed wiring with a contact opening of>3mm.
- Do not extend an electric cord to the air conditioner.
- The air conditioner must be plugged in after you complete the installation.

1-3 During operation

- Do not repair the air conditioner at your discretion.
  It is recommended to contact a service center directly.
- Never spill any kind of liquid on the air conditioner.
  If this happens, turn off the air conditioner and contact an authorized service center.
- Do not insert anything between the airflow blades to prevent damage of the inner fan and consequent injury.
  Keep children away from the air conditioner.
- Do not place any obstacles in front of the air conditioner.
- Do not spray any kind of liquid into the indoor unit. If this happens, turn off the air conditioner and contact a service center.
- Make sure that the air conditioner is well ventilated at all times.
  Do not place a cloth or other materials over it.
- Remove the batteries if you don't use the remote control for a long time. (If applicable)
- Use the remote control within 7 meters from the indoor unit. (If applicable)

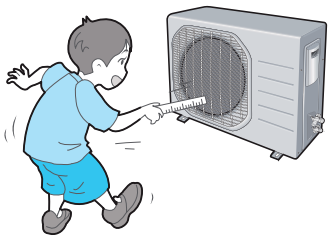


1-4 Disposing of the unit

- Before the throwing out the air conditioner, remove the batteries from the remote control.
- When you dispose of the air conditioner, consult your dealer. If pipes are removed incorrectly, refrigerant may blow out and cause air pollution. When it contacts with your skin, it can cause skin injury.
- The package of the air conditioner should be recycled or disposed of properly for environmental reasons.

1-5 Others

- Never store or load the air conditioner upside down or sideways to prevent the damage to the compressor.
- Young children or infirm persons should be always supervised when they use the air conditioner.
- Max current is measured according to IEC standard for safety.
- Current is measured according to ISO standard for energy efficiency.



2. Product Specifications

2-1 The Feature of Product

■ 2 step cooling
- Get cool quickly and keep cool comfortably without shivering

■ Single user mode
- No worrying about the electricity bill, even using it when you're alone.

■ Crystal gloss design
- Uniquely stylish and innovative design to enhance your life and home

■ Smart Installation
- Get the confidence that it's perfectly installed

■ Smart Check
- Don't worry about the trouble-shooting in your home

■ Triple Protector Plus
- Use longer without damage in unsuitable conditions

■ Easy Installation
- Secure the easy Installation of Indoor unit and pipe connection

■ Easy Filter
- Quick and easy to clean filter saves time and effort

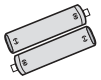
2-2 Product Specifications

ITEM \ Model				AR24JVSSAWK/ED	
				Indoor Unit	Outoor Unit
Type				Wall-mounted	
Performance	Capacity	Cooling	KW (Low/Std/Max)	1.80/7.03/8.25	
	Running Frequency	Cooling	Hz (Low/Std/Max)	15/67/85	
	Noise	Cooling	dB (H/L)	51/60	
	Energy Efficiency Ratio	Cooling	W/W (Std)	3.21	
	Power		ph-V-Hz	1phase, 220V, 60Hz	
Power	Power Consumtion	Cooling	W (Low/Std/Max)	380/2190/2850	
	Operating Current	Cooling	A (Low/Std/Max)	2.3/10.0/13.0	
	Power Factor	Cooling	% (Std)	90	
Size	Outer Dimension	Width*Height *Depth	mm	1123*354*384	1023*911*413
	Weight(Net)		kg	13	47.5
	Refrigerant Pipe	Liquid	mm	6.35	
		Gas	mm	15.88	
	Drain Hose		D*L	20*550	
	Compressor	Type		UG4T200FUAE4SS	
		Motor	Type	BLDC	
			Rated Output(W)	-	
	Oil Type			-	
	Blower	Type		Cross-flow	Propeller
		motor	Type	Resin/steel/AC	Resin/steel/AC
			Rated Output(W)	-	-
Heat Exchanger				2Row 16Step	1Row 75Step
Refrigerant Control Unit				EEV	
Freezer Oil Capacity			cc	-	
Refrigerant to Change(R410A)			g	1150	
Proterction Device(OLP)				None	
Operation condition range		Cooling		16~46℃	

2-3 The Comparative Specifications of Product

ITEM \ MODEL		Develop Model
		AR24JVSSAWK/ED
Design	Indoor Unit	
	Outdoor Unit	
Net Weight	Indoor Unit (kg)	13
	Outdoor Unit (kg)	47.5
Outer Dimension	Indoor Unit (mm*mm*mm)	1123*354*384
	Outdoor Unit (mm*mm*mm)	1023*911*413
Noise	Indoor Unit (dB)	51
	Outdoor Unit (dB)	60
Air Purifying System	Filter	FULL HDFILTER

2-4 Accessory and Option Specifications

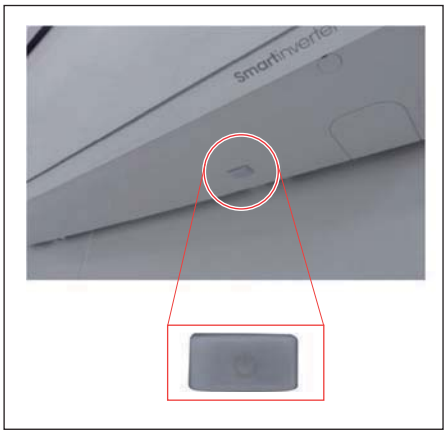
Item	Descriptions	Code-No.	Q'TY	Remark
	Installation Plate	DB90-07731A	1	Indoor unit case
	ASSY WIRELESS REMOCON	DB93-15169D	1	
	Batteries for Remote controller	4301-000121	2	
	User's & Installation Manual	DB68-05069A	1	
	CAP-SCREW	DB67-01404B	2	

3. Alignment and Adjustments

3-1 Test Mode

■ How to Approach Test Mode

You can approach the test mode by pressing the on/off switch of indoor unit for 5 seconds.



■ Test mode operation option

After installing the air conditioner, check whether each subordinate is normally operated or not by operating the test mode.

- **When an Error occurs, display the Error Mode.**
- **Operation Mode :** Cool mode. operate the cool mode by operating the compressor by force without the compressor ON/OFF according to the set temperature/indoor temperature. (Do not follow the antifreeze control)
- **Up-down louver :** Up-down swing mode
- **Indoor Fan :** Turbo

Note

- Because the teat mode operate the cool mode by force not related to the set temperature / indoor temperature, check whether each subordinate is operated normally or not after completing installation and must turn off the power of the air conditioner.

3-2 Display Error and Check Method

3-2-1 Indoor Display Error and Check Method

ERROR MODE				DESCRIPTION
7-SEG	LED1	LED2	LED3	
	OPERATION	TIMER	OPTION	
E101,E102	○	◑	◑	Communication error (indoor <-> outdoor)
E121	○	◑	○	ROOM TH sensor error
E122,E123	◑	◑	○	INDOOR MID,INDOOR IN PIPE-TH sensor error
E154	○	○	◑	Fan error(indoor)
E162	◑	◑	◑	EEPROM error
E163	◑	◑	◑	Option error
FROM E200	◑	○	◑	Outdoor error display
E203	◑	●	●	Time out Comm.(Inv Micom <-> Main Micom)
E422/E554	●	○	◑	EEV or Valve Close error-Self diagnosis /Gas Leak Error
E458	●	●	◑	Out door Fan Error
E461	◑	●	◑	Comp Starting Error
E464	○	●	◑	IPM Over Current(O.C) Error
E465	◑	●	○	Comp V_limit/I_limit Error
E500				Heatsink overheat or IPM overheat

● : LAMP ON ○ : LAMP OFF ◑ : LAMP BLINK

* Note *

If the Set doesn't work (No power), check the Thermal fuse of Terminal block OPEN or SHORT with Multimeter.

* Measure the Thermal fuse housing PIN#1 ~ 2 :
OPEN(disconnection) -> defective product

Outdoor LED Display Error and Check Method

LED PATTERN			DESCRIPTION
YEL	GRN	RED	
○	○	○	Power off/VDD NG
●	●	●	Power ON reset(1sec)
○	⊙	●	Normal Operation
○	○	●	Abnormal Communication (Indoor↔Outdoor)
○	●	●	
○	○	⊙	IPM Over Current(O.C) Error
○	⊙	○	Comp Starting Error
○	●	○	EEPROM Data Error (no data)
○	●	⊙	DC-Link Voltage Under/Over Error
			PFC Over Load Error
			Over Voltage Protection Error
⊙	○	⊙	OUT-TH(Outdoor Temperature) Sensor Error
⊙	○	●	DIS-TH(Discharge Temperature) Over Error
⊙	⊙	○	DIS-TH(Discharge Temperature) Sensor Error
⊙	⊙	●	Current Sensor Error
			Heatsink Sensor Error
			Input Current Sensor Error
⊙	●	○	Comp V_limit/I_limit Error
			Heatsink Over Temperature Error
⊙	●	⊙	CON-TH(Cond Temperature) Sensor Error
⊙	●	●	Time out Comm. (Inv Micom↔Main Micom)
●	○	○	Fan Error(Outdoor)
●	○	⊙	EEPROM Data Error (Main Micom↔Inv Micom)
●	○	●	Comp Wire Missing Error
●	⊙	○	Prohibit Operation Condition Error (Heating)
			Prohibit Operation Condition Error (Cooling)
●	⊙	⊙	DC-Link Voltage Sensor Error
			AC Input Voltage Sensor Error
●	⊙	●	AC Input I_Limit Trip Error
●	●	○	Gas Leak Error
			EEV or Valve Close error-Self diagnosis
○	⊙	⊙	Test Operation at Cooling Mode
⊙	⊙	⊙	Test Operation at Heating Mode

● LED ON, ○ LED OFF, ⊙ LED BLINKING

3-3 Setting Option Setup Method

ex) Option No. :

Note :

SEG1, SEG7, SEG13, SEG19 need not to be pressed in, so in fact the Option No. we should press in is as below.

30 00 07 C2 6C 83 10 00 00 00 20 00 00 00 00 00 00 10 00 00

SEG1	SEG2	SEG3	SEG4	SEG5	SEG6	SEG7	SEG8	SEG9	SEG10	SEG11	SEG12	SEG13	SEG14	SEG15	SEG16	SEG17	SEG18	SEG19	SEG20	SEG21	SEG22	SEG23	SEG24
0	3	0	0	0	0	1	7	C	2	6	C	2	8	3	1	0	0	3	0	0	0	0	0
SEG25	SEG26	SEG27	SEG28	SEG29	SEG30	SEG31	SEG32	SEG33	SEG34	SEG35	SEG36	SEG37	SEG38	SEG39	SEG40	SEG41	SEG42	SEG43	SEG44	SEG45	SEG46	SEG47	SEG48
0	2	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0	1	3	0	0	0	0	0

Step 1

Enter the Option Setup mode.

1. Tack out the batteries of remote control.

2. Press the temperature (+ Temp −) button simultaneously and insert the battery again.

3. Make sure the remote control display shown as . 

Step 2

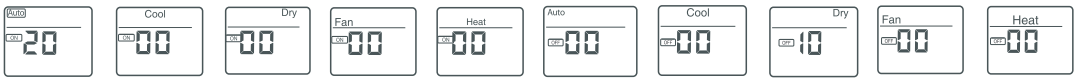
Enter the Options Setup mode and select your options asscording to the following procedure.

	Feature	Display
1	The default value is  . Every time you push the Mode button, the display panel reads ON Auto ➡ Cool ➡ Dry ➡ Fan ➡ Heat , OFF Auto ➡ Cool ➡ Dry ➡ Fan ➡ Heat repeatedly.	
2	Push the Fan button to set the display panel to 3. Every time you push the Fan button, the display panel reads 0➡1➡2➡ 3➡ ..... ➡9➡A➡b➡c➡d➡E➡F repeatedly.	
3	Push the Mode button to  Every time you push the Fan button, the display panel reads 0➡1➡2➡ 3➡ ..... ➡9➡A➡b➡c➡d➡E➡F repeatedly.	
4	Push the Mode button to  . Push the Fan button to set the display panel to 7. Every time you push the Fan button, the display panel reads 0➡1➡2➡ 3➡ ..... ➡9➡A➡b➡c➡d➡E➡F repeatedly.	
5	Push the Mode button to  . Push the Fan button to set the display panel to C . Every time you push the Fan button, the display panel reads 0➡1➡2➡ 3➡ ..... ➡9➡A➡b➡c➡d➡E➡F repeatedly.	
6	Push the Fan button to set the display panel to 2 . Every time you push the Fan button, the display panel reads 0➡1➡2➡ 3➡ ..... ➡9➡A➡b➡c➡d➡E➡F repeatedly.	

	Feature	Display
7	Push the Mode button to Heat 00 . Push the Fan button to set the display panel to 6. Every time you push the Fan button, the display panel reads 0➡1➡2➡3➡ ..... ➡9➡A➡b➡c➡d➡E➡F repeatedly.	Heat 60
8	Push the Fan button to set the display panel to 8. Every time you push the Fan button, the display panel reads 0➡1➡2➡3➡ ..... ➡9➡A➡b➡c➡d➡E➡F repeatedly.	Heat 6C
9	Push the Mode button to Auto 00 . Push the Fan button to set the display panel to 8. Every time you push the Fan button, the display panel reads 0➡1➡2➡3➡ ..... ➡9➡A➡b➡c➡d➡E➡F repeatedly.	Auto 80
10	Push the Fan button to set the display panel to 3. Every time you push the Fan button, the display panel reads 0➡1➡2➡3➡ ..... ➡9➡A➡b➡c➡d➡E➡F repeatedly.	Auto 83
11	Push the Mode button to Cool 00 . Push the Fan button to set the display panel to 1. Every time you push the Fan button, the display panel reads 0➡1➡2➡3➡ ..... ➡9➡A➡b➡c➡d➡E➡F repeatedly.	Cool 10
12	Push the Mode button to Dry 00 .	Dry 00
13	Push the Mode button to Fan 00 .	Fan 00
14	Push the Mode button to Heat 00 .	Heat 00

Step 3 Upon completion of the selection, check you made right selections.

Press the Mode (Mode) Selection key to set the display part and check the display part.
→ The display part shows like below when each time you press Mode button.



Step 4 Pressing the ON/OFF button ( ) .

When pressing the operation ON/OFF key with the direction of remote control for unit, the sound ''ding'' or '' and the OPERATION ICON( ) lamp of the display is flickering at the same time, then the input of option is completed. (If the deriving sound isn't heard, try again pressing the ON/OFF button.)

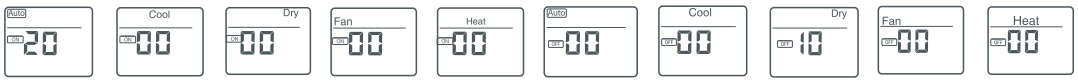
Step 5

Enter the Options Setup mode and select your options asscording to the following procedure.

	Feature	Display
1	Step 1 (Enter the Option Setup mode) is executed. (Seg25 ~ 48 for setting remote control Setup)	
2	Push the Mode button to set the display panerl to 2. Every time you push the button, the display panel reads 0 → 1 → 2 → 3 → ··· 9 → A → b → c → d → E → F repeatedly.	Auto ON 20
3	Push the Mode button to	Cool ON 00
4	Push the Mode button to	Dry ON 00
5	Push the Mode button to	Fan ON 00
6	Push the Mode button to	Heat ON 00
7	Push the Mode button to .	Auto OFF 00
8	Push the Mode button to .	Cool OFF 00
9	Push the Mode button to .	Dry OFF 00
10	Push the Mode button to set the display panerl to 1. Every time you push the button, the display panel reads 0 → 1 → 2 → 3 → ··· 9 → A → b → c → d → E → F repeatedly.	Dry OFF 10
11	Push the Mode button to .	Fan OFF 00
12	Push the Mode button to .	Heat OFF 00

Step 6 Upon completion of the selection, check you made right selections.

Press the Mode (Mode) Selection key to set the display part and check the display part.
→ The display part shows like below when each time you press Mode button.



Step 7 Pressing the ON/OFF button ( ) .

When pressing the operation ON/OFF key with the direction of remote control for unit, the sound'' Ding'' or '' Diriring'' is heard and the OPERATION ICON(≋) lamp of the display is flickering at the same time, then the input of option is completed.
(If the deriving sound isn't heard, try again pressing the ON/OFF button.)

Step 8 Unit operation test-run.

First: Remove the battery from the remote control.
Second : Re-insert the battery into the remote control.
Third : Press ON/OFF key with the direction of remote control for set.

■ Error mode

1. If all lamps of indoor unit are flickering, Plug out, plug in power plug again and press ON/OFF key to retry.
2. If the unit is not working properly or all lamps are continuously flickering after setting the option code, see if the correct option code is set up for its model.

☐ Option Items

Model	SEG 1-6	SEG 7-12	SEG 13-18	SEG 19-24	SEG 25-30	SEG 31-36	SEG 37-42	SEG 43-48	SEG 49-54	SEG 55-60	SEG 61-66	SEG 67-72
AR24JVSSAWK/ED	010045	10628C	274600	37F644	020000	100000	200000	300000	034500	104300	200000	300001

3-4 EEPROM Download (485 communication model)

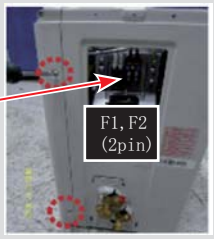
■ Method#1 : Using Communication line

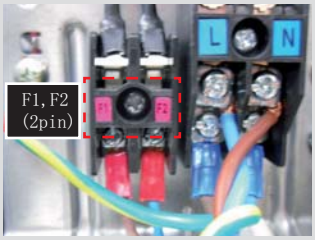
1) Power off

2) Take off the side cover

3) Connect PC-Download Jig-PBA

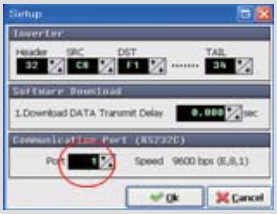
RS 232 to 485 Converter



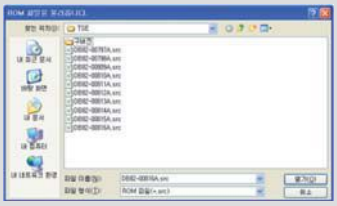


4) Execute the Inverter Download program

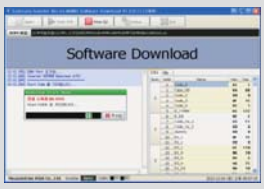
5) Select COM Port and connect



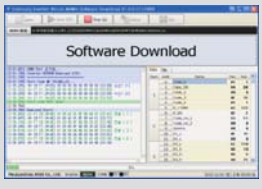
6) Open the file (*.src)



7) Click the Start button and reset the power

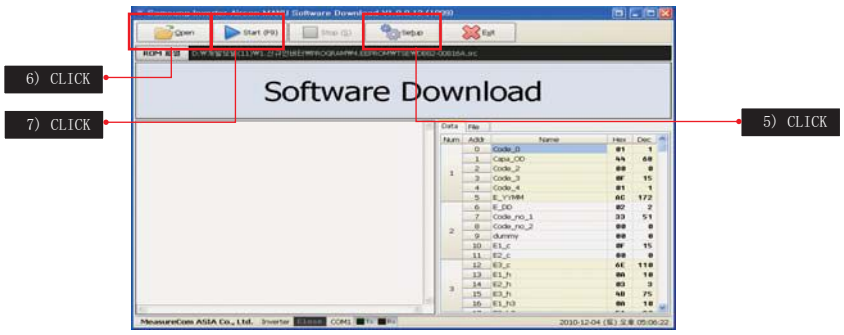


Reset power



Waiting down load

Download

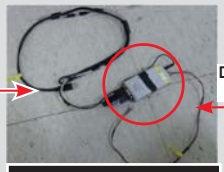


■ Method#2 : Using Serial line

1) Power off

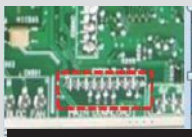
2) Take off the Cabinet : Check the LED off

3) Connect PC-Download Jig-PBA



RS 232 to Serial Download Converter

Download connector (10pin)

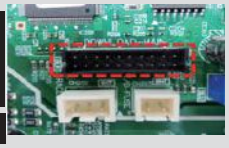


PIN# 1:RXD, 2:TXD, 9:GND, 10:VCC

Download connector (10pin,Black)
1)DB41-01010A : CN201
2)DB41-01129A : CN201
3)DB41-01023A : CN512
4)DB41-01081B : CN37

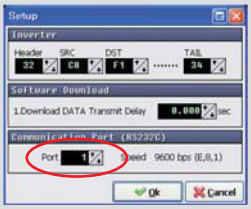
Download connector (20pin, Black)
1)DB41-01227A : CN201
2)DB41-01228A : CN201

PIN# 1:RXD, 2:TXD, 9:GND, 10:VCC

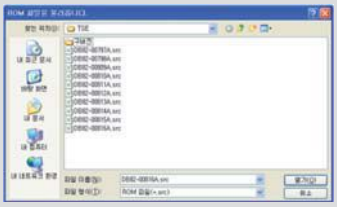


4) Execute the Inverter Download program

5) Select COM Port and connect



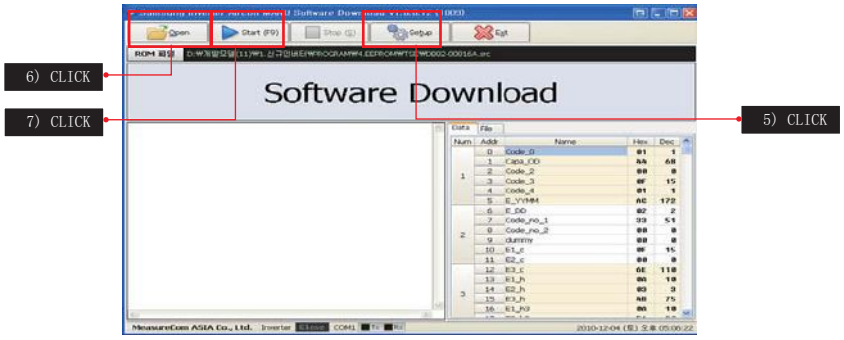
6) Open the file(*.src)



7) Click the Start button

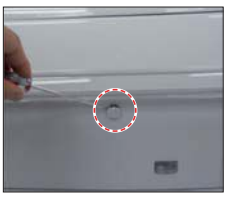
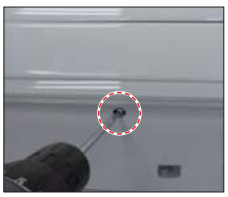
Waiting down load

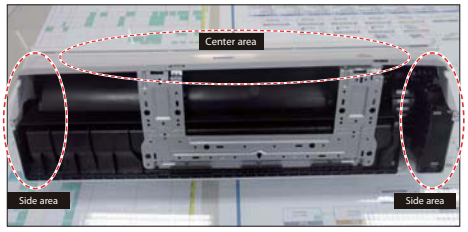
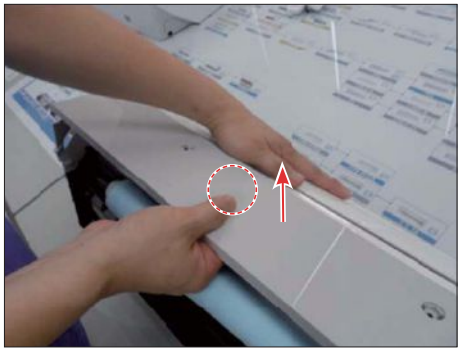
Download

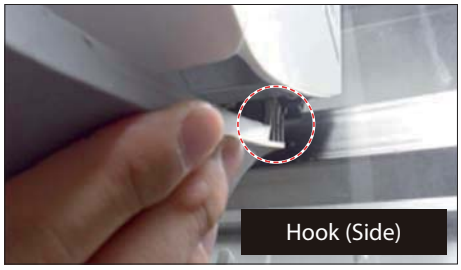
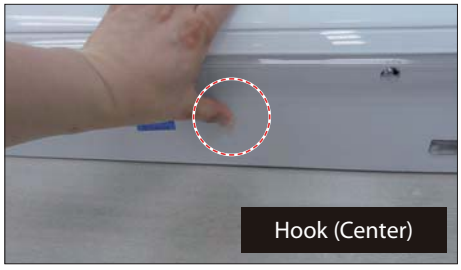
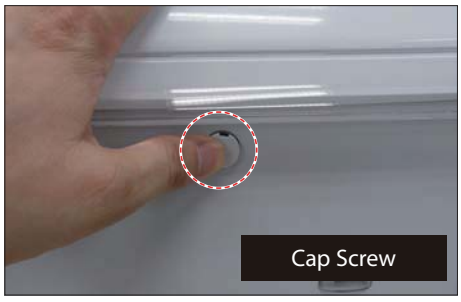


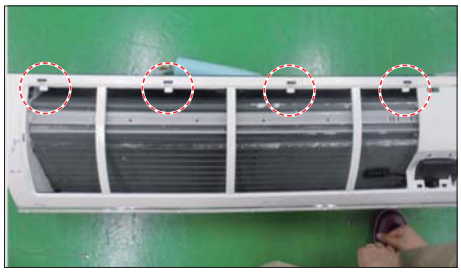
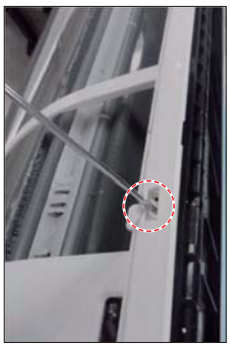
4. Disassembley and Reassembly

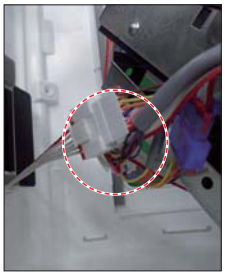
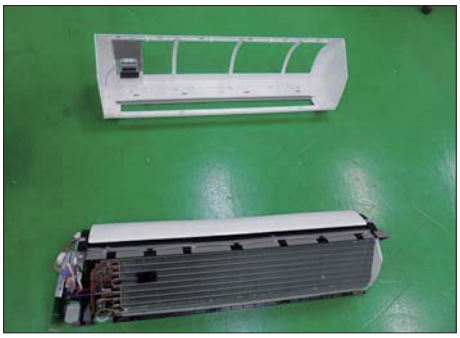
4-1. Indoor Unit

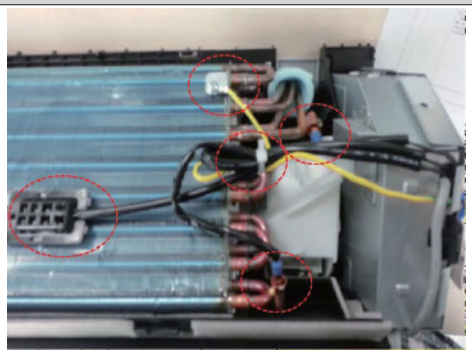
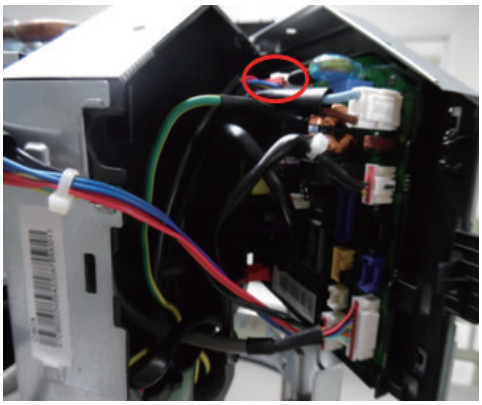
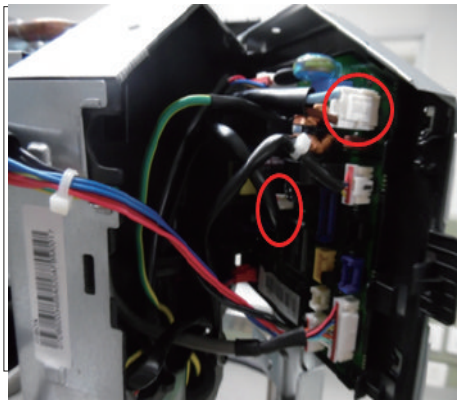
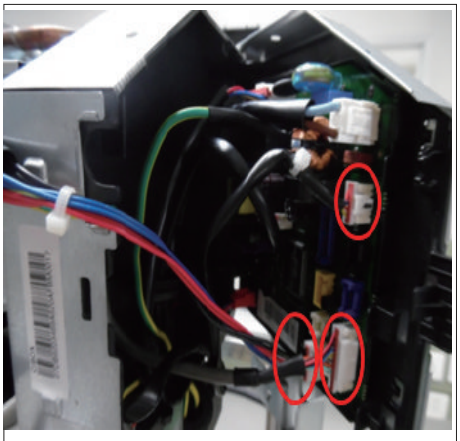
No	Parts	Produre	Remark
1	PANEL- FRONT	1) Stop the driving of air conditioner and shut of main power supply	
		2) Detach FILTER PRE from the PANEL FRONT.	
		3) Cover Panel is assembled on bottom of indoor unit as shown in the figure. Remove the Cap Screw as shown on the right side and then remove the screw and separate the Cover Panel.	  

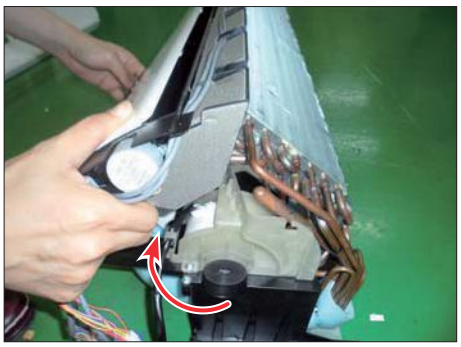
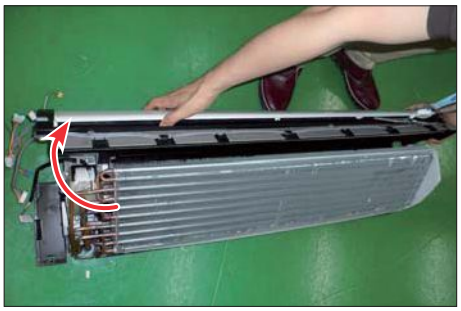
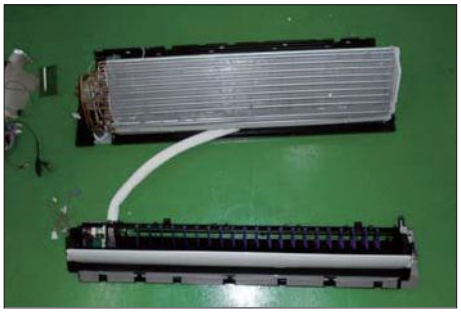
No	Parts	Procedure	Remark
		4) Cover Panel is fixed to body by Hook in center area and side area.	
			<table><tr><td></td><td>HOOK</td></tr><tr><td>9/12K</td><td>  </td></tr><tr><td>18/24/30K</td><td>  </td></tr></table>
		5) Separate the hook after pushing both end of Cover Panel as shown in the figure. (Watch out for the damage of the hook)	
		6) Raise front part upward obliquely as shown in the figure and then remove the hooks.	
			

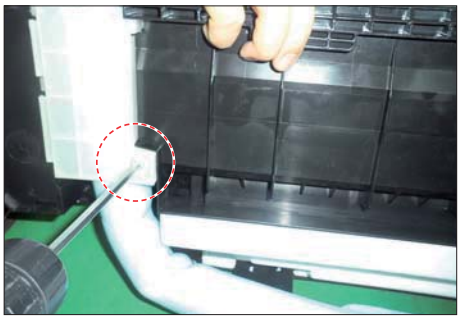
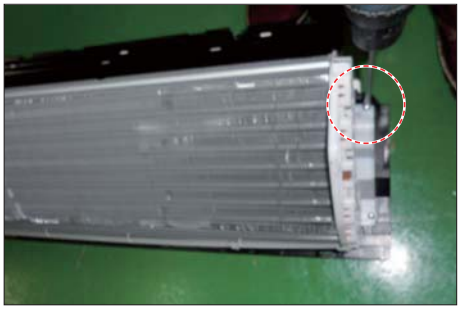
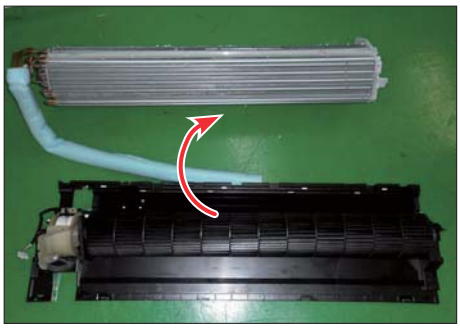
No	Parts	Procedure	Remark
		Caution: Assembly of Cover Panel after service end. - Reassembly is in the reverse order of the removal. - Piping and drain hose must be careful not to damage and Progress must be done with both hands.	    

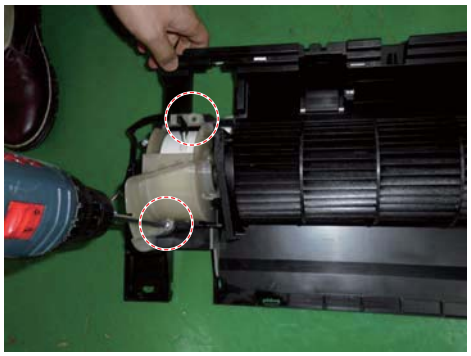
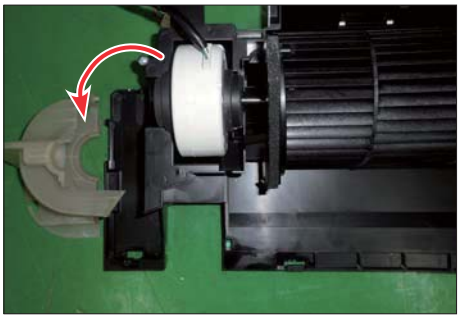
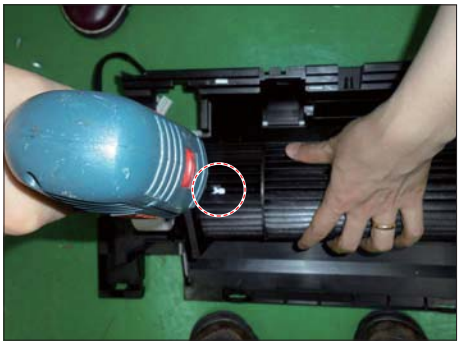
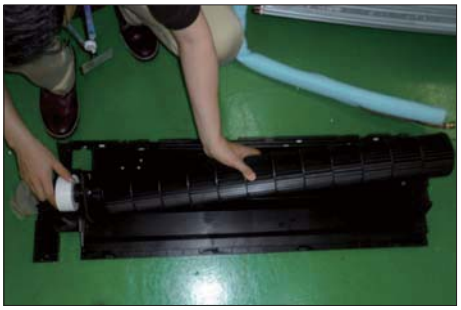
No	Parts	Procedure	Remark
		7) To detach the PANEL-FRONT from the main frame, unfasten 2 screws at the bottom. (use + Screw Driver)	
			
		8) To detach the COVER-PANEL from the main frame, loosen 4 HOOK Structures. When separate the hook : Use the (-) screw Driver. (-)Screw Driver Insert the hook and then pull the hook as shown on the right side. (Watch out for the damage of the hook)	
			 

No	Parts	Procedure	Remark
		9) Remove the Panel Frame from the Main Frame as shown on the right side.	
			
		10) Remove the WIFI KIT connector. WIFI KIT connector is located of Panel Front. (For model with WIFI KIT)	 
			

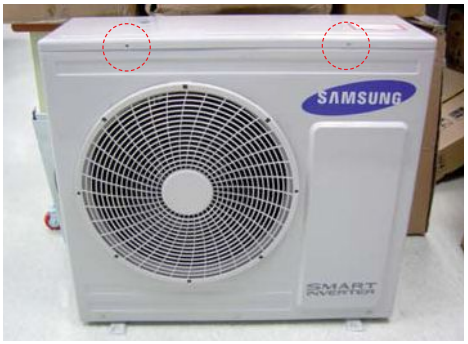
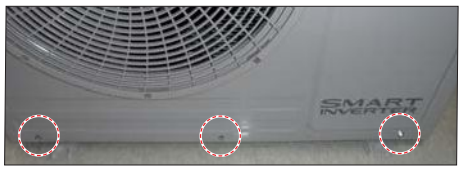
No	Parts	Procedure	Remark
7	CONTORL IN	5) Cut off CABLE TIE, take off SENSOR WIRE and Screw	
		6) Loosen MOTOR Wire ⚠ Caution: When you separate the connector, pull pressing the locking button.	
		7) Loosen the POWER wire and T/B fuse wire ⚠ Caution: When you separate the connector, pull pressing the locking button.	
		8) Loosen the step motor wire, sensor wire and display wire connector ⚠ Caution: When you separate the connector, pull pressing the locking button.	

No	Parts	Procedure	Remark
	E VAPORATOR	9) Take off the CASE-CONTROL from the main frame after loosen the remaining connector. ⚠ Caution: When you separate the connector, pull pressing the locking button.	
3	TRAY DRAIN	1) To detach TRAY-DRAIN from the main frame, pull the bottom of the TRAY-DRAIN towards you.	  

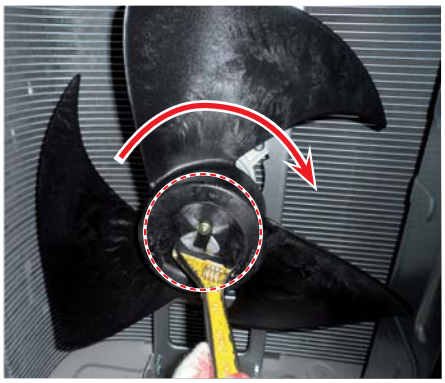
No	Parts	Procedure	Remark
4	Evaporator	1) Detach the HOLDER PIPE.	
		2) Unfasten the screw at the left side. (use + Screw Driver)	
		3) Unfasten the screw at the right side. (use + Screw Driver)	
		4) To detach Evaporator from the main frame, pull the bottom of the Evaporator towards you.	

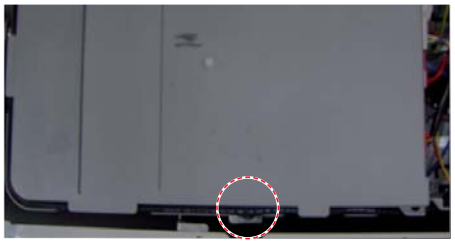
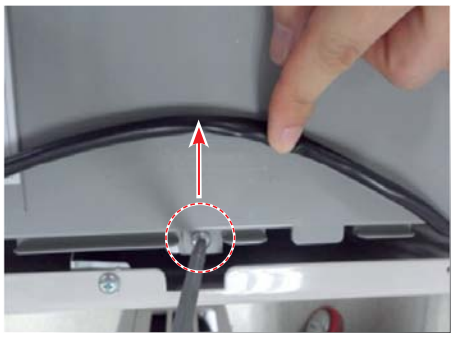
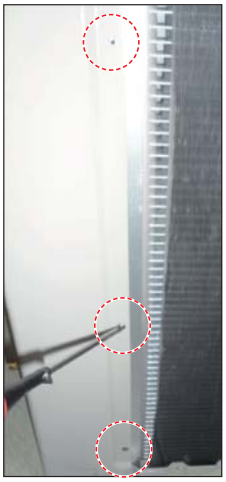
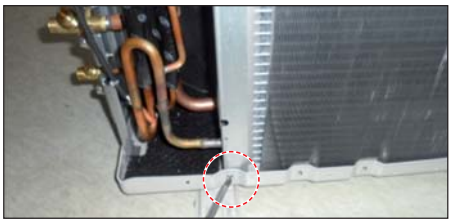
No	Parts	Procedure	Remark
5	FAN MOTOR & CROSS FAN	1) Unfasten the screw. (use + Screw Driver)	
		2) Detach the FAN Motor case.	
		3) Unfasten the screw a little. (use + Screw Driver)	
		4) Pull the CROSS-FAN to the left side.	

4-2. Outdoor Unit

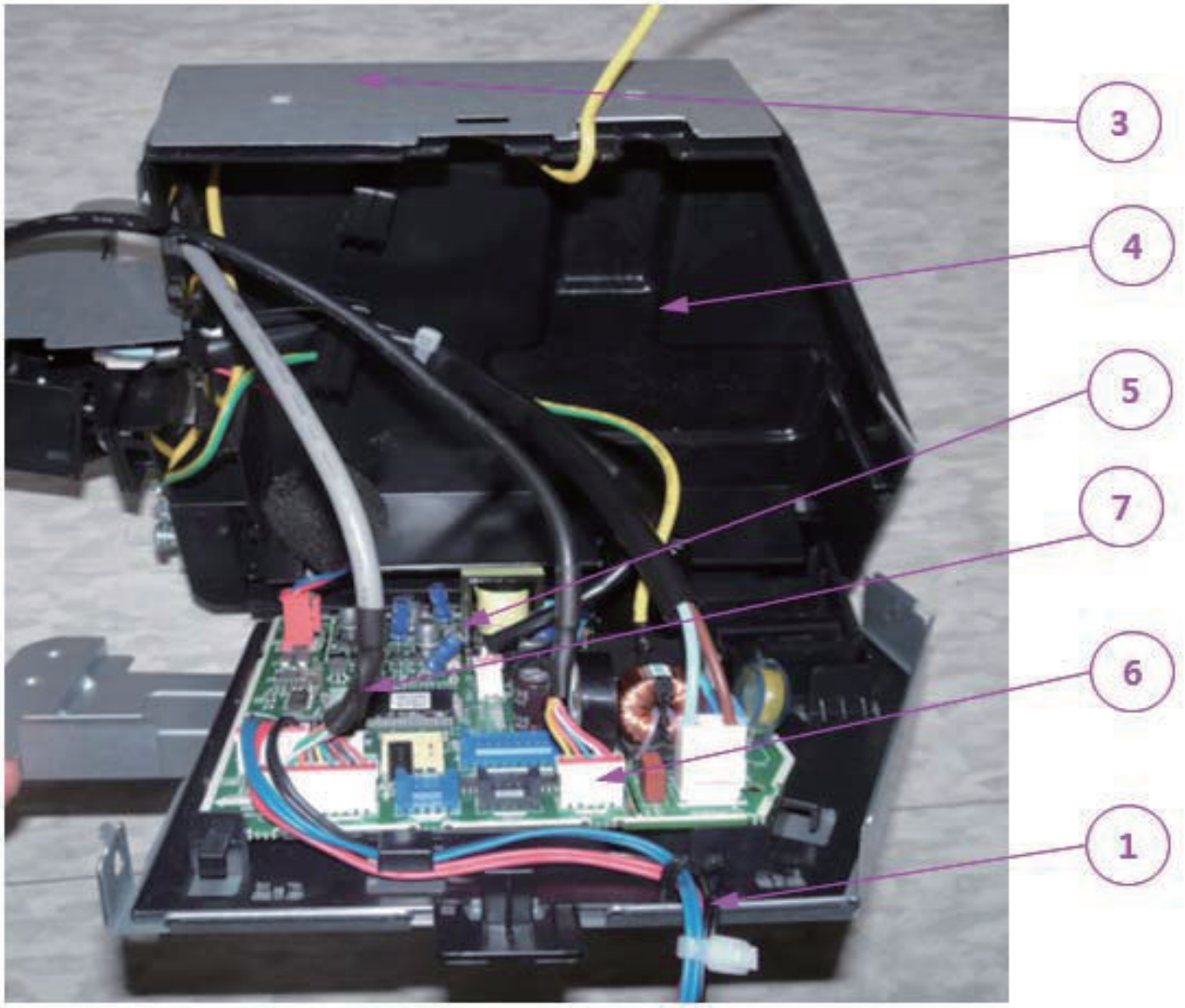
No	Parts	Produre	Remark
1	Common Wor	1) Loosen each screws and detach the Cabi Top Cover.	
		2) Loosen screws of the Cabi Front and detach it.	
			
			
			

No	Parts	Procedure	Remark
		3) Loosen the 4 screws and detach the condbar.	
		4) Loosen fixing screws from the Cabi Front Lh and detach it.	
		5) Loosen fixing screws from the Cabi Side Rh and detach it.	   

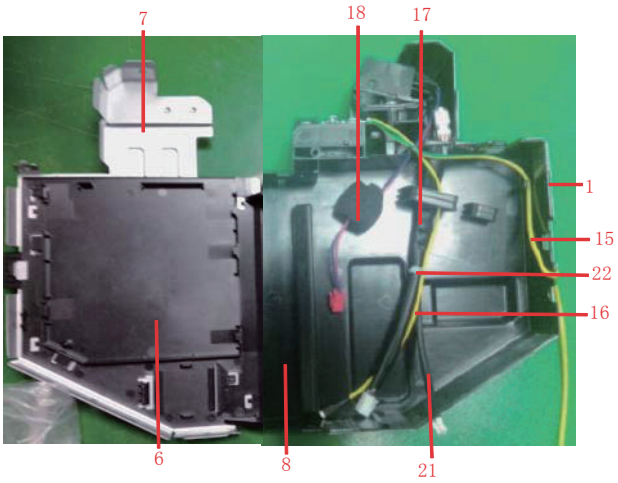
No	Parts	Procedure	Remark
2	Fan & Motor	1) Detach the Nut Flange like the picture on the right side.(Turn clockwise because the screw is left-handed.) (Use Monkey Spanner.)	
		2) Detach the Fan Propeller. 3) Loosen 4 fixing screws to detach the Motor. (Use Monkey Spanner.)	
		4) Disconnect the wire between Ass'y Control Out and Motor.	
		5) Loosen 2 fixing bolts and detach the Bracket Motor.(Use Monkey Spanner	

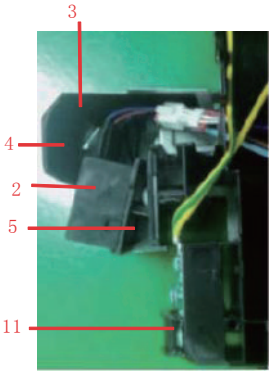
No	Parts	Procedure	Remark
3	Ass'y Control Out	1) To remove the Cover control box : Pull the motor wire is allow sufficient space as shown on the right side and then remove the screw. 2) Detach several connectors from the Ass'y Control Out. 3) Detach several connectors from the PCB of Ass'y Control Out.	  
4	Heat Exchanger	1) Release the refrigerant at first. 2) Loosen fixing screw on both sides. 3) Disassemble the pipes in both inlet and outlet with welding torch. 4) Detach the Heat Exchanger.	  

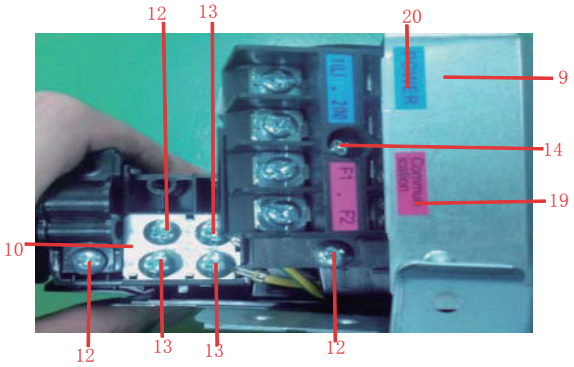
No	Parts	Procedure	Remark
5	Compressor	1) Loosen the fixing nut and detach the Compressor Lead Wire. (Use Monkey Spanner.)	
		2) Loosen the bolts at the bottom of Compressor like the picture on the right side. (Use Monkey Spanner.)	



No	Description	CODE	Q'TY
1	SENSOR TEMP	DB95-05163A	1
2	SENSOR TEMP	DB32-00205A	0
3	LABEL BAR CODE	DB68-02809A	1
4	ASSY CASE CONTROL IN	DB90-08726B	1
5	ASSY PCB MAIN	DB92-03467C	1
6	ASSY CONNECTOR WIRE-MOTOR	DB93-15322A	1
7	ASSY CONNECTOR WIRE-DISPLAY	DB93-15359A	1

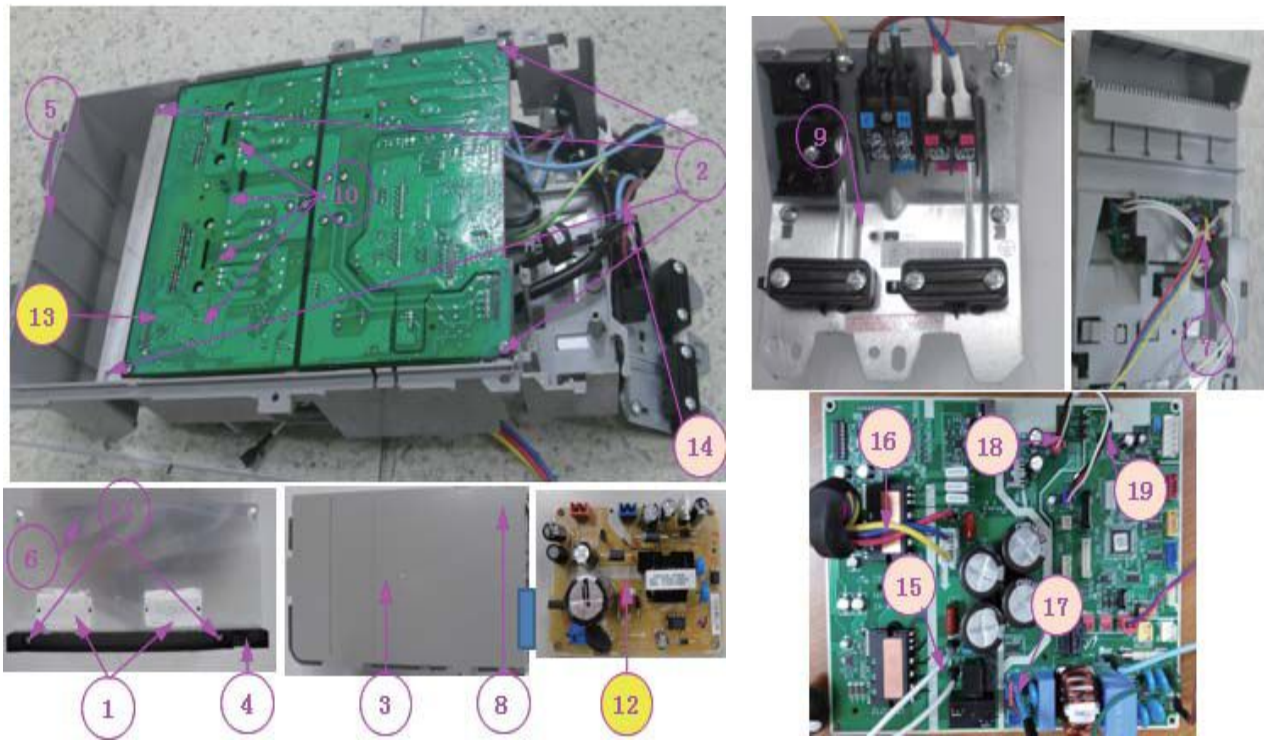






No	NAME	CODE	Q'ty
1	LABEL BAR CODE	DB68-02809A	1
2	TERMINAL BLOCK-THERMAL FUSE	DB65-00326A	1
3	SEAL CONTROL	DB62-11670B	1
4	SEAL CUTT	DB62-11656C	1
5	CASE CONTROL-RIGHT	DB61-05963A	1
6	PLATE CONTROL-RIGHT	DB61-06291A	1
7	CASE CONTROL-LEFT	DB61-06297A	1
8	PLATE CONTROL-LEFT	DB61-06290A	1
9	PLATE CONTROL-SUB	DB61-06296A	1
10	PLATE CONTROL-SUB	DB61-05812A	1
11	HOLDER-WIRE	DB61-05871A	1
12	SCREW-TAPPING	6002-000231	3
13	SCREW-SPECIAL	6009-001001	3
14	ASSY-SCREW TAPPING	DB91-00309A	1
15	ASSY CONNECTOR WIRE	DB93-14245A	1
16	ASSY CONNECTOR WIRE	DB93-06676B	1
17	ASSY CONNECTOR WIRE	DB93-10942A	1
18	ASSY CONNECTOR WIRE	DB93-14238A	1
19	ASSY-LABEL CAUTION	DB98-33292A	1
20	ASSY-LABEL CAUTION	DB98-33293A	1
21	ASSY CONNECTOR WIRE	DB93-13688C	1
22	TIE	DB65-10088D	1

5-3 Assy Control Out (DB93-14373A) -24K



NO.	NAME	CODE	Q'TY	UNIT
	ASSY CONTROL OUT	DB93-14373A		
1	GREASE-SILICON	0205-000178	0.003	KG
2	SCREW-TAPPING	6002-000536	4	PC
3	CASE CONTROL-UPPER	DB61-04910A	1	PC
4	SUPPORT-HEAT SINK	DB61-05790A	1	PC
5	CASE CONTROL	DB61-05917A	1	PC
6	HEAT SINK	DB62-10653A	1	PC
7	CABLE TIE	DB65-10088B	1	PC
8	LABEL BAR CODE	DB68-02809A	1	PC
9	ASSY CASE CONTROL OUT	DB90-06309M	1	PC
10	ASSY-SCREW MACHINE	DB91-00933A	4	PC
11	ASSY-SCREW MACHINE	DB91-00933A	2	PC
12	ASSY MODULE	DB92-02862A	1	PC
13	ASSY PCB MAIN	DB92-02867A	1	PC
14	ASSY CONNECTOR WIRE-4W	DB93-10821C	1	PC
15	ASSY CONNECTOR WIRE	DB93-10987A	1	PC
16	ASSY CONNECTOR WIRE	DB93-10988E	1	PC
17	ASSY CONNECTOR WIRE-P	DB93-14275A	1	PC
18	ASSY CONNECTOR WIRE-D	DB93-14276A	1	PC
19	ASSY CONNECTOR WIRE-D	DB93-14277A	1	PC

6. Electrical Parts List

6-1 INDOOR MAIN PCB - DB92-03467C

Level	Parts Code	Design Loc	Quantity	Parts Description	Spec.	Unit
. . 1	0201-002354	-	0.004	ADHESIVE-COM	1-2577, Translucent, 950	KG
. . 1	0202-001463	SOLDER-WIRE	4	SOLDER-WIRE	LFC2-W3.0, -, D3, 99.79Sn/0.2Cu/0.01P, -	G
. . 1	0202-001608	SOLDER-WIRE FLUX	0.2	SOLDER-WIRE FLUX	LFC7- 107, D0.8, 99.3Sn/0.7Cu/0.01P, Flux3-4%	G
. . 1	0204-004665	FLUX	2	FLUX	KSP-70M-S, 14%, FLUX	G
. . 1	0402-000324	BD71	1	DIODE-BRIDGE	D3SB60, 600V, 4A, SIP-4, ST	PC
. . 1	1203-002722	REG701	1	IC-POSI.FIXED REG.	KA78R15, TO- 220F, 4P, 10x15mm, PLASTIC, 14.6/15.4V, 1.5 W, -20to+80C, 1A, -, ST	PC
. . 1	1203-006089	PW101	1	IC-PWM CONTROLLER	TOP253PN, DIP, 7P, 6.35x9.57mm, PLASTIC, - 0.3V/700V, 15W, -40Cto+150C, 1.37A, ST	PC
. . 1	1203-007320	IC102	1	IC-POSI.FIXED REG.	KIA78D12PI, TO- 220IS, 3P, 10.3X15.3mm, PLASTIC, 11.7/12.3 V, 2W, -40to+85C, 1A, ST	PC
. . 1	1404-001413	NTC1	1	THERMISTOR-NTC	18ohm, 3A, 3200K, 19MWC, 15mm, BK, 17x6mm	PC
. . 1	1405-000160	VA71	1	VARISTOR	680V, 560Vdc, 4500A, 17.5x6.5mm, TP, 1120V, 250pF	PC
. . 1	2201-000987	C703	1	C-CERAMIC, DISC	2.2nF, 20%, 400V, Y5U, TP, 12.5x6mm, 10mm	PC
. . 1	2201-000987	C704	1	C-CERAMIC, DISC	2.2nF, 20%, 400V, Y5U, TP, 12.5x6mm, 10mm	PC
. . 1	2301-002032	XC71	1	C-FILM, LEAD-PPF	100nF, 10%, 275V, TP, 12.5X6X12.0	PC
. . 1	2401-004393	CE101	1	C-AL	100uF, 20%, 500V, -, BK, 25.4x30mm, 10mm	PC
. . 1	3002-001129	BZ61	1	BUZZER-PIEZO	85dB, 2KHz, BK	PC
. . 1	3711-000177	CNS21	1	HEADER-BOARD TO CABLE	1WALL, 2P, 1R, 3.96MM, STRAIGHT, SN, RED	PC
. . 1	3711-000203	CNP71	1	HEADER-BOARD TO CABLE	1WALL, 2P/3P, 1R, 7.92mm, STRAIGHT, SN, WHT, 11.82x8.6x9.4mm	PC
. . 1	3711-000296	CNP72	1	HEADER-BOARD TO CABLE	1WALL, 6P, 1R, 3.96MM, STRAIGHT, SN, WHT	PC
. . 1	3711-000941	CNS81	1	HEADER-BOARD TO CABLE	BOX, 4P, 1R, 2.5mm, STRAIGHT, SN, YEL	PC
. . 1	3711-002001	CNS31	1	HEADER-BOARD TO CABLE	BOX, 20P, 2R, 2.0mm, STRAIGHT, SN, BLK, 5.0X2 2.0X6.6mm	PC
. . 1	3711-003942	CNS11	1	HEADER-BOARD TO CABLE	BOX, 2P, 1R, 2mm, STRAIGHT, SN, WHT, 5.98x5.1 x7.7mm	PC
. . 1	3711-004182	CNS91	1	HEADER-BOARD TO CABLE	BOX, 10P, 1R, 2mm, STRAIGHT, SN, WHT	PC
. . 1	3711-004236	CNS43	1	HEADER-BOARD TO CABLE	BOX, 6P, 1R, 2mm, STRAIGHT, SN, WHT	PC
. . 1	3711-004349	CNS42	1	HEADER-BOARD TO CABLE	BOX, 3P, 1R, 2mm, STRAIGHT, SN, WHT	PC
. . 1	3711-004484	CNS61	1	HEADER-BOARD TO CABLE	BOX, 5P, 1R, 2mm, STRAIGHT, SN, WHT	PC
. . 1	3711-005096	CNS63	1	HEADER-BOARD TO CABLE	BOX, 5P, 1R, 2MM, STRAIGHT, SN, BLK	PC
. . 1	3711-005097	CNS62	1	HEADER-BOARD TO CABLE	BOX, 5P, 1R, 2MM, STRAIGHT, SN, BLU	PC
. . 1	3711-006678	CNS32	1	HEADER-BOARD TO CABLE	BOX, 10P, 1R, 2mm, STRAIGHT, SN, BLU	PC
. . 1	3712-001047	CNP73	1	CONNECTOR-TERMINAL	TAB, MALE, N, 0.5/4.75mm	PC
. . 1	DB27-00096A	FT71	1	COIL CHOKE	CV1615280, COIL CHOKE, 28.0mH, +50~- 30%, 268.0m ohm, 1.5A, 66.21*22*15.5*4	PC
. . 1	DB67-00942A	VA71-1	1	CAP	VIVALDI- P/J, SHP2, 1, 5.2, 11.5, 18.5, GREEN, SSEC	PC
. . 1	DB68-02809A	LABEL BAR CODE	1	LABEL BAR CODE	ART, 45, 15, E-PASS	PC
. . 1	DB94-05443A	-	1	ASSY PCB AUTO	MAIN, AR5000, 120mmX120mm, 220V-240V, 5V, 12V, 15V, 9W, RAC, STD#5, BLDC, AR5000, DB92-03467C	PC
. . . . 2	0501-000362	Q801	1	TR-SMALL SIGNAL	KSC2328A-Y, NPN, 1000mW, TO-92L, TP, 160-	PC
. . . . 2	1203-003318	IC101	1	IC-POSI.ADJUST REG.	KIA431A, TO- 92, 3P, 4.7x4.8mm, PLASTIC, 700mW, - 40to+85, 1mA, 2.47/2.52V, TP, Marking:3B, Shunt	PC
. . . . 2	1404-001194	PT1	1	THERMISTOR-PTC	39ohm, 20%, 220/240V, 270Vac, 1.2A, TP	PC
. . . . 2	2003-002406	R105	1	R-METAL OXIDE(S)	300Kohm, 5%, 2W, AA, TP, 3.8x12mm	PC
. . . . 2	2201-000285	C102	1	C-CERAMIC, DISC	1nF, 10%, 1000V, Y5P, TP, 8x5mm, 5mm	PC
. . . . 2	2401-000480	C706	1	C-AL	10uF, 20%, 50V, GP, TP, 5x11, 5	PC
. . . . 2	2401-000480	CE104	1	C-AL	10uF, 20%, 50V, GP, TP, 5x11, 5	PC
. . . . 2	2401-000480	CE107	1	C-AL	10uF, 20%, 50V, GP, TP, 5x11, 5	PC
. . . . 2	2401-001415	CE111	1	C-AL	470uF, 20%, 35V, GP, TP, 10x20, 5	PC
. . . . 2	2401-001838	CE108	1	C-AL	470uF, 20%, 25V, WT, TP, 10x16, 5mm	PC
. . . . 2	2401-001838	CE113	1	C-AL	470uF, 20%, 25V, WT, TP, 10x16, 5mm	PC
. . . . 2	3601-001209	F702	1	FUSE-RADIAL LEAD	250V, 1A, TIME-LAG, -, 8.5x8mm	PC
. . . . 2	3601-001765	F701	1	FUSE-RADIAL LEAD	250V, 3.15A, TIME- LAG, Thermoplastic, 8.5x8mm	PC
. . . . 2	DB94-05445A	-	1	ASSY PCB SMD	MAIN, AR5000, 120mmX120mm, 220V-240V, 5V, 12V, 15V, 9W, RAC, STD#5, BLDC, AR5000, DB92-03467C	PC
. 3	0202-001459	SOLDER-CREAM	1	SOLDER-CREAM	D20~38um, 96.5Sn/3Ag/0.5Cu, FLUX 5%	G
. 3	0402-001192	D103	1	DIODE-RECTIFIER	ES2D, 200V, 2A, SMB, TP	PC
. 3	0402-001192	D104	1	DIODE-RECTIFIER	ES2D, 200V, 2A, SMB, TP	PC
. 3	0402-001741	D701	1	DIODE-RECTIFIER	S1M, 1000V, 1A, SMA, TP	PC
. 3	0402-001795	D101	1	DIODE-RECTIFIER	US1M, 1000V, 1A, SMA, TP	PC
. 3	0402-001795	D102	1	DIODE-RECTIFIER	US1M, 1000V, 1A, SMA, TP	PC
. 3	0406-001204	CD81	1	DIODE-TVS	SMBJ5.0CA, 6.4/-/7.25V, 600W, SMB	PC
. 3	0406-001204	CD82	1	DIODE-TVS	SMBJ5.0CA, 6.4/-/7.25V, 600W, SMB	PC
. 3	0406-001204	CD83	1	DIODE-TVS	SMBJ5.0CA, 6.4/-/7.25V, 600W, SMB	PC

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6-1 INDOOR MAIN PCB - DB92-03467C

.....3	0501-000465	Q601	1	TR-SMALL SIGNAL	MMBT3904,NPN,350mW,SOT-23,TP,30-300	PC
.....3	0501-000465	Q702	1	TR-SMALL SIGNAL	MMBT3904,NPN,350mW,SOT-23,TP,30-300	PC
.....3	0501-000465	Q802	1	TR-SMALL SIGNAL	MMBT3904,NPN,350mW,SOT-23,TP,30-300	PC
.....3	0501-002296	Q701	1	TR-SMALL SIGNAL	MMST2907A,PNP,200MW,SMT3,TP,100-300	PC
.....3	0506-000175	IC05	1	TR-ARRAY	2003,NPN,7,1000mW,SOP-16,ST,1000	PC
.....3	0506-000175	IC10	1	TR-ARRAY	2003,NPN,7,1000mW,SOP-16,ST,1000	PC
.....3	0604-001002	PC03	1	PHOTO-COUPLER	TR,100-600%,170mW,SOP-4,TP	PC
.....3	0604-001002	PC04	1	PHOTO-COUPLER	TR,100-600%,170mW,SOP-4,TP	PC
.....3	0604-001002	PC05	1	PHOTO-COUPLER	TR,100-600%,170mW,SOP-4,TP	PC
.....3	0604-001002	PC101	1	PHOTO-COUPLER	TR,100-600%,170mW,SOP-4,TP	PC
.....3	0801-000393	IC08	1	IC-CMOS LOGIC	74HC86,OR GATE,SOP,14P,150MIL,QUAD,ST,-,2.0/6.0V,0.26V,-	PC
.....3	1006-001325	IC07	1	IC-BUS TRANSCEIVER	SO,8P,4.9x3.8 mm,SINGLE,ST,PLASTIC,5V,-	PC
.....3	1202-000104	IC12	1	IC-VOLTAGE COMP.	393,SOP,8P,150MIL,DUAL,36V,CMOS,PLASTIC,18V,780mW,0to+70C,18V,5mV,250nA,50NA	PC
.....3	1203-006245	IC03	1	IC-VOL. DETECTOR	KIA7033AT,TSM,3P,2.9x1.6x0.7mm,PLASTIC,3.3V,350mW,-30to+85C,TP	PC
.....3	2007-000040	R113	1	R-CHIP	150ohm,1%,1/10W,TP,1608	PC
.....3	2007-000070	R717	1	R-CHIP	0ohm,5%,1/10W,TP,1608	PC
.....3	2007-000076	R601	1	R-CHIP	330ohm,5%,1/10W,TP,1608	PC
.....3	2007-000076	R602	1	R-CHIP	330ohm,5%,1/10W,TP,1608	PC
.....3	2007-000076	R716	1	R-CHIP	330ohm,5%,1/10W,TP,1608	PC
.....3	2007-000078	R703	1	R-CHIP	1Kohm,5%,1/10W,TP,1608	PC
.....3	2007-000078	R706	1	R-CHIP	1Kohm,5%,1/10W,TP,1608	PC
.....3	2007-000078	R805	1	R-CHIP	1Kohm,5%,1/10W,TP,1608	PC
.....3	2007-000080	R107	1	R-CHIP	2Kohm,5%,1/10W,TP,1608	PC
.....3	2007-000084	R707	1	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	PC
.....3	2007-000087	R708	1	R-CHIP	6.8Kohm,5%,1/10W,TP,1608	PC
.....3	2007-000090	R604	1	R-CHIP	10Kohm,5%,1/10W,TP,1608	PC
.....3	2007-000090	R701	1	R-CHIP	10Kohm,5%,1/10W,TP,1608	PC
.....3	2007-000090	R704	1	R-CHIP	10Kohm,5%,1/10W,TP,1608	PC
.....3	2007-000090	R705	1	R-CHIP	10Kohm,5%,1/10W,TP,1608	PC
.....3	2007-000090	R723	1	R-CHIP	10Kohm,5%,1/10W,TP,1608	PC
.....3	2007-000090	R801	1	R-CHIP	10Kohm,5%,1/10W,TP,1608	PC
.....3	2007-000090	R802	1	R-CHIP	10Kohm,5%,1/10W,TP,1608	PC
.....3	2007-000090	R803	1	R-CHIP	10Kohm,5%,1/10W,TP,1608	PC
.....3	2007-000090	R804	1	R-CHIP	10Kohm,5%,1/10W,TP,1608	PC
.....3	2007-000090	R806	1	R-CHIP	10Kohm,5%,1/10W,TP,1608	PC
.....3	2007-000116	R825	1	R-CHIP	120ohm,5%,1/10W,TP,1608	PC
.....3	2007-000124	R603	1	R-CHIP	2.2Kohm,5%,1/10W,TP,1608	PC
.....3	2007-000130	R715	1	R-CHIP	39Kohm,5%,1/10W,TP,1608	PC
.....3	2007-000138	R515	1	R-CHIP	100ohm,5%,1/16W,TP,1005	PC
.....3	2007-000138	R516	1	R-CHIP	100ohm,5%,1/16W,TP,1005	PC
.....3	2007-000138	R518	1	R-CHIP	100ohm,5%,1/16W,TP,1005	PC
.....3	2007-000138	R519	1	R-CHIP	100ohm,5%,1/16W,TP,1005	PC
.....3	2007-000138	R520	1	R-CHIP	100ohm,5%,1/16W,TP,1005	PC
.....3	2007-000138	R539	1	R-CHIP	100ohm,5%,1/16W,TP,1005	PC
.....3	2007-000138	R542	1	R-CHIP	100ohm,5%,1/16W,TP,1005	PC
.....3	2007-000138	R809	1	R-CHIP	100ohm,5%,1/16W,TP,1005	PC
.....3	2007-000140	R538	1	R-CHIP	1Kohm,5%,1/16W,TP,1005	PC
.....3	2007-000140	R545	1	R-CHIP	1Kohm,5%,1/16W,TP,1005	PC
.....3	2007-000140	R815	1	R-CHIP	1Kohm,5%,1/16W,TP,1005	PC
.....3	2007-000140	R901	1	R-CHIP	1Kohm,5%,1/16W,TP,1005	PC
.....3	2007-000141	R814	1	R-CHIP	2.2Kohm,5%,1/16W,TP,1005	PC
.....3	2007-000143	R511	1	R-CHIP	4.7Kohm,5%,1/16W,TP,1005	PC
.....3	2007-000143	R512	1	R-CHIP	4.7Kohm,5%,1/16W,TP,1005	PC
.....3	2007-000143	R513	1	R-CHIP	4.7Kohm,5%,1/16W,TP,1005	PC
.....3	2007-000148	R111	1	R-CHIP	10Kohm,5%,1/16W,TP,1005	PC
.....3	2007-000148	R501	1	R-CHIP	10Kohm,5%,1/16W,TP,1005	PC
.....3	2007-000148	R502	1	R-CHIP	10Kohm,5%,1/16W,TP,1005	PC

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..... 3	2007-000148	R507	1	R-CHIP	10Kohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-000148	R514	1	R-CHIP	10Kohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-000148	R521	1	R-CHIP	10Kohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-000148	R522	1	R-CHIP	10Kohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-000148	R523	1	R-CHIP	10Kohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-000148	R524	1	R-CHIP	10Kohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-000148	R525	1	R-CHIP	10Kohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-000148	R526	1	R-CHIP	10Kohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-000148	R527	1	R-CHIP	10Kohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-000148	R528	1	R-CHIP	10Kohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-000148	R529	1	R-CHIP	10Kohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-000148	R534	1	R-CHIP	10Kohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-000148	R543	1	R-CHIP	10Kohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-000148	R544	1	R-CHIP	10Kohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-000148	R807	1	R-CHIP	10Kohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-000148	R808	1	R-CHIP	10Kohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-000148	R810	1	R-CHIP	10Kohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-000148	R813	1	R-CHIP	10Kohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-000148	R816	1	R-CHIP	10Kohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-000148	R903	1	R-CHIP	10Kohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-000148	R904	1	R-CHIP	10Kohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-000157	R902	1	R-CHIP	47Kohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-000303	R702	1	R-CHIP	10Kohm, 5%, 1/4W, TP, 3216	PC
..... 3	2007-000385	R724	1	R-CHIP	14.3Kohm, 1%, 1/4W, TP, 3216	PC
..... 3	2007-000455	R712	1	R-CHIP	18Kohm, 1%, 1/10W, TP, 1608	PC
..... 3	2007-000475	R709	1	R-CHIP	1Mohm, 1%, 1/10W, TP, 1608	PC
..... 3	2007-000476	R101	1	R-CHIP	1Mohm, 1%, 1/4W, TP, 3216	PC
..... 3	2007-000476	R102	1	R-CHIP	1Mohm, 1%, 1/4W, TP, 3216	PC
..... 3	2007-000476	R103	1	R-CHIP	1Mohm, 1%, 1/4W, TP, 3216	PC
..... 3	2007-000476	R104	1	R-CHIP	1Mohm, 1%, 1/4W, TP, 3216	PC
..... 3	2007-000583	R714	1	R-CHIP	22Kohm, 1%, 1/10W, TP, 1608	PC
..... 3	2007-000614	R112	1	R-CHIP	24Kohm, 1%, 1/10W, TP, 1608	PC
..... 3	2007-000924	R720	1	R-CHIP	470Kohm, 1%, 1/4W, TP, 3216	PC
..... 3	2007-000924	R721	1	R-CHIP	470Kohm, 1%, 1/4W, TP, 3216	PC
..... 3	2007-000924	R722	1	R-CHIP	470Kohm, 1%, 1/4W, TP, 3216	PC
..... 3	2007-000939	R711	1	R-CHIP	47Kohm, 1%, 1/10W, TP, 1608	PC
..... 3	2007-000979	R713	1	R-CHIP	5.6Kohm, 1%, 1/10W, TP, 1608	PC
..... 3	2007-001313	R404	1	R-CHIP	330ohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-001313	R405	1	R-CHIP	330ohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-001313	R406	1	R-CHIP	330ohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-001313	R505	1	R-CHIP	330ohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-001313	R811	1	R-CHIP	330ohm, 5%, 1/16W, TP, 1005	PC
..... 3	2007-001433	R618	1	R-CHIP	12Kohm, 1%, 1/10W, TP, 1608	PC
..... 3	2007-007313	R401	1	R-CHIP	6.8Kohm, 1%, 1/16W, TP, 1005	PC
..... 3	2007-007313	R402	1	R-CHIP	6.8Kohm, 1%, 1/16W, TP, 1005	PC
..... 3	2007-007313	R403	1	R-CHIP	6.8Kohm, 1%, 1/16W, TP, 1005	PC
..... 3	2007-007455	R110	1	R-CHIP	24.9Kohm, 1%, 1/10W, TP, 1608	PC
..... 3	2007-009922	R301	1	R-CHIP	300Kohm, 1%, 1/4W, TP, 3216	PC
..... 3	2007-009922	R302	1	R-CHIP	300Kohm, 1%, 1/4W, TP, 3216	PC
..... 3	2007-009922	R303	1	R-CHIP	300Kohm, 1%, 1/4W, TP, 3216	PC
..... 3	2007-010635	R106	1	R-CHIP	6.8ohm, 1%, 1/10, TP, 1608	PC
..... 3	2203-000257	C705	1	C-CER, CHIP	10nF, 10%, 50V, X7R, TP, 1608	PC
..... 3	2203-000257	C801	1	C-CER, CHIP	10nF, 10%, 50V, X7R, TP, 1608	PC
..... 3	2203-000438	C516	1	C-CER, CHIP	1nF, 10%, 50V, X7R, TP, 1005	PC
..... 3	2203-000438	C520	1	C-CER, CHIP	1nF, 10%, 50V, X7R, TP, 1005	PC
..... 3	2203-000438	C901	1	C-CER, CHIP	1nF, 10%, 50V, X7R, TP, 1005	PC
..... 3	2203-000440	C715	1	C-CER, CHIP	1nF, 10%, 50V, X7R, TP, 1608	PC
..... 3	2203-001071	C519	1	C-CER, CHIP	0.056nF, 5%, 50V, C0G, TP, 1608	PC
..... 3	2203-001083	C711	1	C-CER, CHIP	0.005nF, 0.1pF, 50V, NP0, TP, 1608	PC
..... 3	2203-005249	C101	1	C-CER, CHIP	100nF, 10%, 50V, X7R, TP, 1608	PC

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.....3	2203-005249	C103	1	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	PC
.....3	2203-005249	C104	1	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	PC
.....3	2203-005249	C106	1	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	PC
.....3	2203-005249	C510	1	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	PC
.....3	2203-005249	C514	1	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	PC
.....3	2203-005249	C702	1	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	PC
.....3	2203-005249	C710	1	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	PC
.....3	2203-005249	C712	1	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	PC
.....3	2203-005249	C802	1	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	PC
.....3	2203-005249	C803	1	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	PC
.....3	2203-005249	C805	1	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	PC
.....3	2203-005249	C806	1	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	PC
.....3	2203-005249	C807	1	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	PC
.....3	2203-005249	C902	1	C-CER,CHIP	100nF,10%,50V,X7R,TP,1608	PC
.....3	2203-006158	C401	1	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,0.5T	PC
.....3	2203-006158	C402	1	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,0.5T	PC
.....3	2203-006158	C403	1	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,0.5T	PC
.....3	2203-006158	C517	1	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,0.5T	PC
.....3	2203-006158	C522	1	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,0.5T	PC
.....3	2203-006158	C529	1	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,0.5T	PC
.....3	2203-006158	C530	1	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,0.5T	PC
.....3	2203-006158	C531	1	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,0.5T	PC
.....3	2203-006158	C533	1	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,0.5T	PC
.....3	2203-006158	C809	1	C-CER,CHIP	100nF,10%,16V,X7R,TP,1005,0.5T	PC
.....3	2203-006460	C512	1	C-CER,CHIP	2200nF,10%,16V,X5R,TP,1608,-	PC
.....3	2203-006496	C707	1	C-CER,CHIP	2.2nF,10%,50V,X7R,1608	PC
.....3	2203-006960	C708	1	C-CER,CHIP	1000nF,10%,50V,X7R,TP,2012	PC
.....3	2203-007456	C509	1	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005(1106),0.5T	PC
.....3	2203-007456	C515	1	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005(1106),0.5T	PC
.....3	2203-007456	C518	1	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005(1106),0.5T	PC
.....3	2203-007456	C521	1	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005(1106),0.5T	PC
.....3	2203-007456	C523	1	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005(1106),0.5T	PC
.....3	2203-007456	C526	1	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005(1106),0.5T	PC
.....3	2203-007456	C528	1	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005(1106),0.5T	PC
.....3	2203-007456	C551	1	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005(1106),0.5T	PC
.....3	2203-007456	C552	1	C-CER,CHIP	1000nF,10%,25V,X5R,TP,1005(1106),0.5T	PC
.....3	2203-007486	C804	1	C-CER,CHIP	1000nF,10%,50V,X5R,TP,1608	PC
.....3	2402-001145	C701	1	C-AL,SMD	47uF,20%,50V,GP,TP,6.3X7.7mm	PC
.....3	2402-001145	CE102	1	C-AL,SMD	47uF,20%,50V,GP,TP,6.3X7.7mm	PC
.....3	2802-001211	X501	1	RESONATOR-CERAMIC	8MHZ,0.1%,TP,3.2X1.3X0.9 MM	PC
.....3	DB41-01296A	PCB MAIN	1	PCB MAIN	FR-4,2Layer,T1.6,120X120,2,STD#5,1Oz,240X142	PC
.....3	DB91-01696A	MIC04	1	ASSY MICOM	15R_AR5000_Inv,STM-1458-0A,Hart-m310,100MQFP,ROM 256KB	PC
.....4	0903-001864	-	1	IC-MICROCONTROLLER	HART-M310,QFP,100P,20x14mm,8MHz,5V,600mW,-40to+85C,24KB,256KB,MAIN PBA SOC	PC
..1	DC26-00043A	TRAN1	1	TRANS SWITCHING	ECO2020SEO-K01V017,85V-240V,W41xL18,50Hz/60Hz,770uH,5V-25V	PC

6-3 OUTDOOR MAIN PBA(DB92-02867A)-24K

Parts Code	Design Loc	Spec.	Quantity
0201-001528	ADHESIVE-SIL	LDC2577D,Y/GRN,175CPS,-	1.612
0202-001338	SOLDER-BAR	LeeD-free Solder BAR,W20L350H8,99.3Sn/0.7Cu/0.01P	0.879
0202-001463	SOLDER-WIRE	LFC2-W3.0,-,D3,99.79Sn/0.2Cu/0.01P,-	7.98
0204-004665	FLUX	KSP-70M-S,14%,FLUX	0.738
0204-005794	SOLVENT	S-1000,(CH3)2CHOH,100%,0.79	1
1404-001498	PTC001	40ohm,25%,290Vac,7A,TR	1
1405-000154	VA002	560V,460Vdc,4500A,17.5x7.5mm,BK,920V,600pF	1
1405-000154	VA003	560V,460Vdc,4500A,17.5x7.5mm,BK,920V,600pF	1
1405-001239	VA001	680V,560Vdc,6000A,17x7.3mm,BK,1120V,350pF	1
1405-001239	VA004	680V,560Vdc,6000A,17x7.3mm,BK,1120V,350pF	1
2009-001145	R408	0.005ohm,5%,5W,AA,BK,14.5x5.0x18.0mm	1
2009-001145	R409	0.005ohm,5%,5W,AA,BK,14.5x5.0x18.0mm	1
2009-001145	R410	0.005ohm,5%,5W,AA,BK,14.5x5.0x18.0mm	1
2201-000446	C001	3.3nF,20%,400V,Y5U,TP,15x6mm,10mm	1
2201-000446	C002	3.3nF,20%,400V,Y5U,TP,15x6mm,10mm	1
2201-000446	C005	3.3nF,20%,400V,Y5U,TP,15x6mm,10mm	1
2201-000446	C006	3.3nF,20%,400V,Y5U,TP,15x6mm,10mm	1
2201-000540	C056	4.7nF,20%,2000V,Y5U,12x5mm,10mm	1
2301-001285	C004	680nF,10%,275V,BK,31x11x21mm	1
2301-001949	C003	3300nF,10%,275V,BK,31x21x31mm	1
2306-000123	C055	100nF,5%,630V,BK,26x16.5x8.5mm	1
2306-000123	C413	100nF,5%,630V,BK,26x16.5x8.5mm	1
2401-004929	CE053	390uF,20%,400V,BK,10mm	1
2401-004929	CE054	390uF,20%,400V,BK,10mm	1
2401-004929	CE055	390uF,20%,400V,BK,10mm	1
2401-004929	CE056	390uF,20%,400V,BK,10mm	1
3501-001154	RY001	12V,200mW,3000mA,1FormA,10ms,10ms	1
3501-001154	RY030	12V,200mW,3000mA,1FormA,10ms,10ms	1
3501-001268	RY002	12V,0.9W,25000mA,1FormA,20ms,10ms	1
3601-001652	F001	250V,30A,TIME-LAG,CERAMIC,6.35x31.8mm	1
3711-000177	CN301	1WALL,2P,1R,3.96MM,STRAIGHT,SN,RED	1
3711-000203	CN030	1WALL,2P/3P,1R,7.92mm,STRAIGHT,SN,WHT	1
3711-000760	CN551	BOX,20P,2R,2MM,ANGLE,SN,BLK	1
3711-002001	CN201	BOX,20P,2R,2MM,STRAIGHT,SN,BLK	1
3711-003404	CN150	1WALL,2P,1R,7.92mm,STRAIGHT,SN,BLU	1
3711-003846	CN251	BOX,8P,1R,2mm,ANGLE,SN,WHT	1
3711-004019	CN901	1WALL,6P,1R,3.96mm,ANGLE,SN,WHT	1
3711-006337	CN701	BOX,5P,1R,2.5mm,ANGLE,SN,RED	1
3711-007817	CN202	3WALL,7P,1R,2mm,STRAIGHT,SN,WHT	1
3712-001047	CN003	TAB,MALE,N,0.5/4.75mm	1
3712-001139	CN001	TAB,MALE,6.35x0.8mm	1
3712-001139	CN002	TAB,MALE,6.35x0.8mm	1
3712-001139	CN051	TAB,MALE,6.35x0.8mm	1
3712-001139	CN052	TAB,MALE,6.35x0.8mm	1
3712-001139	CN401	TAB,MALE,6.35x0.8mm	1
3712-001139	CN402	TAB,MALE,6.35x0.8mm	1

OUTDOOR MAIN PBA(DB92-02867A)

2203-005249	C252	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C253	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C254	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C302	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C303	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C304	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C305	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C306	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C307	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C401	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C407	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C408	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C409	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C431	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C503	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C509	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C511	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C514	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C520	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C525	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C526	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C527	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C541	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C701	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C702	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C703	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C704	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C705	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C706	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C903	100nF, 10%, 50V, X7R, TP, 1608	1
2203-006158	C201	100nF, 10%, 16V, X7R, TP, 1005, 0.5T	1
2203-006158	C203	100nF, 10%, 16V, X7R, TP, 1005, 0.5T	1
2203-006158	C204	100nF, 10%, 16V, X7R, TP, 1005, 0.5T	1
2203-006158	C206	100nF, 10%, 16V, X7R, TP, 1005, 0.5T	1
2203-006158	C207	100nF, 10%, 16V, X7R, TP, 1005, 0.5T	1
2203-006158	C208	100nF, 10%, 16V, X7R, TP, 1005, 0.5T	1
2203-006158	C210	100nF, 10%, 16V, X7R, TP, 1005, 0.5T	1
2203-006158	C211	100nF, 10%, 16V, X7R, TP, 1005, 0.5T	1
2203-006158	C212	100nF, 10%, 16V, X7R, TP, 1005, 0.5T	1
2203-006348	C051	1000nF, 10%, 25V, X5R, TP, 1608, 0.8T	1
2203-006348	C402	1000nF, 10%, 25V, X5R, TP, 1608, 0.8T	1
2203-006460	C522	2200nF, 10%, 16V, X5R, TP, 1608, -	1
2203-007456	C202	1000nF, 10%, 25V, X5R, TP, 1005, 0.5T	1
2203-007456	C205	1000nF, 10%, 25V, X5R, TP, 1005, 0.5T	1
2203-007456	C209	1000nF, 10%, 25V, X5R, TP, 1005, 0.5T	1
2203-007456	C213	1000nF, 10%, 25V, X5R, TP, 1005, 0.5T	1
2203-007456	C214	1000nF, 10%, 25V, X5R, TP, 1005, 0.5T	1
2203-007456	C226	1000nF, 10%, 25V, X5R, TP, 1005, 0.5T	1
2203-007456	C227	1000nF, 10%, 25V, X5R, TP, 1005, 0.5T	1
2203-007456	C228	1000nF, 10%, 25V, X5R, TP, 1005, 0.5T	1
2203-007456	C229	1000nF, 10%, 25V, X5R, TP, 1005, 0.5T	1

OUTDOOR MAIN PBA(DB92-02867A)

2007-010245	R065	0.01ohm, 1%, 2W, TP, 6432	1
2203-000236	C052	0.1nF, 5%, 50V, C0G, TP, 1608	1
2203-000257	C222	10nF, 10%, 50V, X7R, TP, 1608	1
2203-000257	C223	10nF, 10%, 50V, X7R, TP, 1608	1
2203-000257	C224	10nF, 10%, 50V, X7R, TP, 1608	1
2203-000257	C225	10nF, 10%, 50V, X7R, TP, 1608	1
2203-000257	C301	10nF, 10%, 50V, X7R, TP, 1608	1
2203-000257	C351	10nF, 10%, 50V, X7R, TP, 1608	1
2203-000257	C352	10nF, 10%, 50V, X7R, TP, 1608	1
2203-000440	C053	1nF, 10%, 50V, X7R, TP, 1608	1
2203-000440	C403	1nF, 10%, 50V, X7R, TP, 1608	1
2203-000440	C404	1nF, 10%, 50V, X7R, TP, 1608	1
2203-000440	C405	1nF, 10%, 50V, X7R, TP, 1608	1
2203-000440	C410	1nF, 10%, 50V, X7R, TP, 1608	1
2203-000440	C411	1nF, 10%, 50V, X7R, TP, 1608	1
2203-000440	C412	1nF, 10%, 50V, X7R, TP, 1608	1
2203-000440	C435	1nF, 10%, 50V, X7R, TP, 1608	1
2203-000440	C501	1nF, 10%, 50V, X7R, TP, 1608	1
2203-000440	C504	1nF, 10%, 50V, X7R, TP, 1608	1
2203-000440	C505	1nF, 10%, 50V, X7R, TP, 1608	1
2203-000440	C506	1nF, 10%, 50V, X7R, TP, 1608	1
2203-000440	C507	1nF, 10%, 50V, X7R, TP, 1608	1
2203-000440	C508	1nF, 10%, 50V, X7R, TP, 1608	1
2203-000440	C510	1nF, 10%, 50V, X7R, TP, 1608	1
2203-000440	C512	1nF, 10%, 50V, X7R, TP, 1608	1
2203-000440	C523	1nF, 10%, 50V, X7R, TP, 1608	1
2203-000440	C904	1nF, 10%, 50V, X7R, TP, 1608	1
2203-001634	C406	33nF, 10%, 50V, X7R, TP, 1608	1
2203-002002	C432	0.033nF, 5%, 50V, NP0, TP, 1608	1
2203-002002	C433	0.033nF, 5%, 50V, NP0, TP, 1608	1
2203-002002	C434	0.033nF, 5%, 50V, NP0, TP, 1608	1
2203-002002	C515	0.033nF, 5%, 50V, NP0, TP, 1608	1
2203-002002	C516	0.033nF, 5%, 50V, NP0, TP, 1608	1
2203-002002	C517	0.033nF, 5%, 50V, NP0, TP, 1608	1
2203-002002	C518	0.033nF, 5%, 50V, NP0, TP, 1608	1
2203-002002	C519	0.033nF, 5%, 50V, NP0, TP, 1608	1
2203-002180	C902	1000nF, 10%, 50V, X7R, TP, 3216	1
2203-002398	C524	22nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C054	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C061	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C071	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C151	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C152	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C153	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C154	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C155	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C162	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C163	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C220	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C221	100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C251	100nF, 10%, 50V, X7R, TP, 1608	1

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2007-000239	R443	1. 5Kohm, 1%, 1/10W, TP, 1608	1
2007-000300	R901	10Kohm, 5%, 1/8W, TP, 2012	1
2007-000385	R062	14. 3Kohm, 1%, 1/4W, TP, 3216	1
2007-000385	R105	14. 3Kohm, 1%, 1/4W, TP, 3216	1
2007-000455	R073	18Kohm, 1%, 1/10W, TP, 1608	1
2007-000455	R251	18Kohm, 1%, 1/10W, TP, 1608	1
2007-000455	R253	18Kohm, 1%, 1/10W, TP, 1608	1
2007-000491	R072	2. 2Kohm, 1%, 1/10W, TP, 1608	1
2007-000491	R074	2. 2Kohm, 1%, 1/10W, TP, 1608	1
2007-000491	R076	2. 2Kohm, 1%, 1/10W, TP, 1608	1
2007-000491	R561	2. 2Kohm, 1%, 1/10W, TP, 1608	1
2007-000536	R444	200ohm, 1%, 1/10W, TP, 1608	1
2007-000537	R154	200ohm, 1%, 1/4W, TP, 3216	1
2007-000537	R155	200ohm, 1%, 1/4W, TP, 3216	1
2007-000537	R156	200ohm, 1%, 1/4W, TP, 3216	1
2007-000537	R157	200ohm, 1%, 1/4W, TP, 3216	1
2007-000537	R158	200ohm, 1%, 1/4W, TP, 3216	1
2007-000614	R252	24Kohm, 1%, 1/10W, TP, 1608	1
2007-000614	R254	24Kohm, 1%, 1/10W, TP, 1608	1
2007-000869	R432	4. 7Kohm, 1%, 1/10W, TP, 1608	1
2007-000869	R433	4. 7Kohm, 1%, 1/10W, TP, 1608	1
2007-000869	R436	4. 7Kohm, 1%, 1/10W, TP, 1608	1
2007-000869	R437	4. 7Kohm, 1%, 1/10W, TP, 1608	1
2007-000869	R440	4. 7Kohm, 1%, 1/10W, TP, 1608	1
2007-000869	R441	4. 7Kohm, 1%, 1/10W, TP, 1608	1
2007-000872	R801	4. 7Kohm, 5%, 1/8W, TP, 2012	1
2007-000872	R802	4. 7Kohm, 5%, 1/8W, TP, 2012	1
2007-000872	R803	4. 7Kohm, 5%, 1/8W, TP, 2012	1
2007-000924	R059	470Kohm, 1%, 1/4W, TP, 3216	1
2007-000924	R060	470Kohm, 1%, 1/4W, TP, 3216	1
2007-000924	R061	470Kohm, 1%, 1/4W, TP, 3216	1
2007-000924	R106	470Kohm, 1%, 1/4W, TP, 3216	1
2007-000924	R107	470Kohm, 1%, 1/4W, TP, 3216	1
2007-000924	R108	470Kohm, 1%, 1/4W, TP, 3216	1
2007-000939	R071	47Kohm, 1%, 1/10W, TP, 1608	1
2007-000939	R075	47Kohm, 1%, 1/10W, TP, 1608	1
2007-000939	R431	47Kohm, 1%, 1/10W, TP, 1608	1
2007-000939	R434	47Kohm, 1%, 1/10W, TP, 1608	1
2007-000939	R435	47Kohm, 1%, 1/10W, TP, 1608	1
2007-000939	R438	47Kohm, 1%, 1/10W, TP, 1608	1
2007-000939	R439	47Kohm, 1%, 1/10W, TP, 1608	1
2007-000939	R442	47Kohm, 1%, 1/10W, TP, 1608	1
2007-001071	R902	6. 8Kohm, 5%, 1/8W, TP, 2012	1
2007-001175	R053	8. 2Kohm, 1%, 1/10W, TP, 1608	1
2007-001175	R055	8. 2Kohm, 1%, 1/10W, TP, 1608	1
2007-001175	R541	8. 2Kohm, 1%, 1/10W, TP, 1608	1
2007-008261	R056	150Kohm, 1%, 1/2W, TP, 5025	1
2007-008261	R057	150Kohm, 1%, 1/2W, TP, 5025	1
2007-008261	R058	150Kohm, 1%, 1/2W, TP, 5025	1
2007-010245	R063	0. 01ohm, 1%, 2W, TP, 6432	1
2007-010245	R064	0. 01ohm, 1%, 2W, TP, 6432	1

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2007-000084	R404	4.7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R501	4.7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R506	4.7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R507	4.7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R510	4.7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R511	4.7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R517	4.7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R518	4.7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R520	4.7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R521	4.7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R523	4.7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R524	4.7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R525	4.7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R526	4.7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R527	4.7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R534	4.7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R535	4.7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R536	4.7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R903	4.7Kohm, 5%, 1/10W, TP, 1608	1
2007-000090	R203	10Kohm, 5%, 1/10W, TP, 1608	1
2007-000090	R204	10Kohm, 5%, 1/10W, TP, 1608	1
2007-000090	R206	10Kohm, 5%, 1/10W, TP, 1608	1
2007-000090	R301	10Kohm, 5%, 1/10W, TP, 1608	1
2007-000090	R302	10Kohm, 5%, 1/10W, TP, 1608	1
2007-000090	R304	10Kohm, 5%, 1/10W, TP, 1608	1
2007-000090	R305	10Kohm, 5%, 1/10W, TP, 1608	1
2007-000090	R445	10Kohm, 5%, 1/10W, TP, 1608	1
2007-000090	R446	10Kohm, 5%, 1/10W, TP, 1608	1
2007-000090	R528	10Kohm, 5%, 1/10W, TP, 1608	1
2007-000090	R532	10Kohm, 5%, 1/10W, TP, 1608	1
2007-000090	R533	10Kohm, 5%, 1/10W, TP, 1608	1
2007-000090	R551	10Kohm, 5%, 1/10W, TP, 1608	1
2007-000090	R552	10Kohm, 5%, 1/10W, TP, 1608	1
2007-000090	R553	10Kohm, 5%, 1/10W, TP, 1608	1
2007-000090	R554	10Kohm, 5%, 1/10W, TP, 1608	1
2007-000090	R555	10Kohm, 5%, 1/10W, TP, 1608	1
2007-000090	R559	10Kohm, 5%, 1/10W, TP, 1608	1
2007-000090	R565	10Kohm, 5%, 1/10W, TP, 1608	1
2007-000109	R531	1Mohm, 5%, 1/10W, TP, 1608	1
2007-000116	R306	120ohm, 5%, 1/10W, TP, 1608	1
2007-000124	R564	2.2Kohm, 5%, 1/10W, TP, 1608	1
2007-000140	R202	1Kohm, 5%, 1/16W, TP, 1005	1
2007-000140	R205	1Kohm, 5%, 1/16W, TP, 1005	1
2007-000143	R221	4.7Kohm, 5%, 1/16W, TP, 1005	1
2007-000143	R222	4.7Kohm, 5%, 1/16W, TP, 1005	1
2007-000143	R223	4.7Kohm, 5%, 1/16W, TP, 1005	1
2007-000143	R224	4.7Kohm, 5%, 1/16W, TP, 1005	1
2007-000143	R225	4.7Kohm, 5%, 1/16W, TP, 1005	1
2007-000143	R226	4.7Kohm, 5%, 1/16W, TP, 1005	1
2007-000143	R229	4.7Kohm, 5%, 1/16W, TP, 1005	1
2007-000170	R201	1Mohm, 5%, 1/16W, TP, 1005	1

OUTDOOR MAIN PBA(DB92-02867A)

2402-001144	CE403	68uF, 20%, 25V, LZ, TP, 6.3*5.8mm	1
2402-001144	CE404	68uF, 20%, 25V, LZ, TP, 6.3*5.8mm	1
2402-001144	CE405	68uF, 20%, 25V, LZ, TP, 6.3*5.8mm	1
2402-001183	CE071	22UF, 20%, 16V, WT, TP, 5.3X5.3X6MM	1
2402-001268	CE051	100uF, 20%, 25V, WT, TP, 8x6.3mm	1
2402-001268	CE052	100uF, 20%, 25V, WT, TP, 8x6.3mm	1
2402-001268	CE401	100uF, 20%, 25V, WT, TP, 8x6.3mm	1
2402-001268	CE402	100uF, 20%, 25V, WT, TP, 8x6.3mm	1
2802-001165	X201	4MHz, 0.5%, TP, 4.5x2.0x1.15mm	1
2802-001211	X501	8MHZ, 0.1%, TP, 3.2X1.3X0.9 MM	1
DB41-01228A	PCB MAIN	FR-4, 2Layer, 197*242, PF#3, OUTDOOR, 2Oz, 197*242	1
DB91-01517A	IC501	Soc 1Phase PF2, PF3, STM-125F-OA, HART-I910, 64LQFP, ROM 64KB	1
0903-001843	-	HART-I910, LQFP, 64Z30, 12x12mm, 8MHz, 5V, 600mW, -40to+85C, 12KB, 64KB, Inverter SOC, Inverter SOC	1
DB98-31449A	ASSY-LABEL MICOM	QFP, 64P, WHT, 9*9	1
DB91-01534A	IC201	RAC A3050 Outdoor Micom, STM-130C-OS, S3FM02G, 128TQFP, ROM 384KB	1
DB09-00596A	-	S3FM02G, 128P, DC3V, TQFP, -40~+85, 384K	1
DB98-31449A	ASSY-LABEL MICOM	QFP, 64P, WHT, 9*9	1
DB94-04315A	IC154	A3050, 7805, DB92-02867A	1
1203-002560	-	NJM7805, TO-220F, 3P, PLASTIC, 5V, 16W, -30to+150, 1A, -, ST	1
6002-000630	SCREW-TAPPING	PH, +, NO, 2S, M3, L8, ZPC(WHT), SWRCH18A	1
DB62-04148B	HEAT SINK	A6063, 11mm, 15mm, 20mm	1
DB94-04316A	IC155	A3050, 7812, DB92-02867A	1
1203-000242	-	7812, TO-220, 3P, -, PLASTIC, 11.5/	1
6002-000630	SCREW-TAPPING	PH, +, NO, 2S, M3, L8, ZPC(WHT), SWRCH18A	1
DB62-04148B	HEAT SINK	A6063, 11mm, 15mm, 20mm	1
DC68-02310A	LABEL-BAR CODE	SEW-6HR128ATC, ART, W45, L15, PCB PARTS, PGJI2, DBS4000	1

OUTDOOR MAIN PBA(DB92-02867A)

2007-000074	R227	100ohm, 5%, 1/10W, TP, 1608	1
2007-000074	R228	100ohm, 5%, 1/10W, TP, 1608	1
2007-000074	R401	100ohm, 5%, 1/10W, TP, 1608	1
2007-000074	R402	100ohm, 5%, 1/10W, TP, 1608	1
2007-000074	R403	100ohm, 5%, 1/10W, TP, 1608	1
2007-000074	R405	100ohm, 5%, 1/10W, TP, 1608	1
2007-000074	R406	100ohm, 5%, 1/10W, TP, 1608	1
2007-000074	R407	100ohm, 5%, 1/10W, TP, 1608	1
2007-000074	R447	100ohm, 5%, 1/10W, TP, 1608	1
2007-000074	R516	100ohm, 5%, 1/10W, TP, 1608	1
2007-000074	R519	100ohm, 5%, 1/10W, TP, 1608	1
2007-000074	R562	100ohm, 5%, 1/10W, TP, 1608	1
2007-000076	R153	330ohm, 5%, 1/10W, TP, 1608	1
2007-000076	R255	330ohm, 5%, 1/10W, TP, 1608	1
2007-000076	R256	330ohm, 5%, 1/10W, TP, 1608	1
2007-000076	R257	330ohm, 5%, 1/10W, TP, 1608	1
2007-000076	R258	330ohm, 5%, 1/10W, TP, 1608	1
2007-000076	R352	330ohm, 5%, 1/10W, TP, 1608	1
2007-000076	R353	330ohm, 5%, 1/10W, TP, 1608	1
2007-000076	R542	330ohm, 5%, 1/10W, TP, 1608	1
2007-000076	R904	330ohm, 5%, 1/10W, TP, 1608	1
2007-000078	R303	1Kohm, 5%, 1/10W, TP, 1608	1
2007-000078	R307	1Kohm, 5%, 1/10W, TP, 1608	1
2007-000078	R308	1Kohm, 5%, 1/10W, TP, 1608	1
2007-000078	R351	1Kohm, 5%, 1/10W, TP, 1608	1
2007-000078	R354	1Kohm, 5%, 1/10W, TP, 1608	1
2007-000078	R503	1Kohm, 5%, 1/10W, TP, 1608	1
2007-000078	R504	1Kohm, 5%, 1/10W, TP, 1608	1
2007-000078	R505	1Kohm, 5%, 1/10W, TP, 1608	1
2007-000078	R508	1Kohm, 5%, 1/10W, TP, 1608	1
2007-000078	R509	1Kohm, 5%, 1/10W, TP, 1608	1
2007-000078	R515	1Kohm, 5%, 1/10W, TP, 1608	1
2007-000078	R529	1Kohm, 5%, 1/10W, TP, 1608	1
2007-000078	R530	1Kohm, 5%, 1/10W, TP, 1608	1
2007-000078	R556	1Kohm, 5%, 1/10W, TP, 1608	1
2007-000078	R557	1Kohm, 5%, 1/10W, TP, 1608	1
2007-000078	R558	1Kohm, 5%, 1/10W, TP, 1608	1
2007-000078	R560	1Kohm, 5%, 1/10W, TP, 1608	1
2007-000078	R563	1Kohm, 5%, 1/10W, TP, 1608	1
2007-000080	R522	2Kohm, 5%, 1/10W, TP, 1608	1
2007-000082	R051	3. 3Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R207	4. 7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R211	4. 7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R212	4. 7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R214	4. 7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R215	4. 7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R216	4. 7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R217	4. 7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R218	4. 7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R219	4. 7Kohm, 5%, 1/10W, TP, 1608	1
2007-000084	R220	4. 7Kohm, 5%, 1/10W, TP, 1608	1

OUTDOOR MAIN PBA(DB92-02867A)

0401-001099	D904	1N4148WS, 75V, 150mA, SOD-323, TP	1
0401-001099	D905	1N4148WS, 75V, 150mA, SOD-323, TP	1
0402-001795	D903	US1M, 1000V, 1A, SMA, TP	1
0403-001499	ZD051	MMSZ5252B, 22.8/25.2V, 500mW, SOD-123, TP	1
0403-001499	ZD401	MMSZ5252B, 22.8/25.2V, 500mW, SOD-123, TP	1
0404-001020	D071	BAT54C, 30V, 200mA, SOT-23, TP	1
0404-001020	D435	BAT54C, 30V, 200mA, SOT-23, TP	1
0404-001020	D436	BAT54C, 30V, 200mA, SOT-23, TP	1
0406-001204	CD301	SMBJ5.0CA, 6.4/-/7.25V, 600W, SMB	1
0406-001204	CD302	SMBJ5.0CA, 6.4/-/7.25V, 600W, SMB	1
0406-001204	CD303	SMBJ5.0CA, 6.4/-/7.25V, 600W, SMB	1
0501-000465	Q551	MMBT3904, NPN, 350mW, SOT-23, TP, 30-300	1
0504-001008	Q351	RN2427, PNP, 200mW, 2.2K/10Kohm, SOT-23, TP	1
0504-001008	Q352	RN2427, PNP, 200mW, 2.2K/10Kohm, SOT-23, TP	1
0504-001008	Q901	RN2427, PNP, 200mW, 2.2K/10Kohm, SOT-23, TP	1
0504-001008	Q903	RN2427, PNP, 200mW, 2.2K/10Kohm, SOT-23, TP	1
0504-001080	Q902	KRC246S, NPN, 200mW, 2.2K/10Kohm, SOT-23, TP	1
0506-000175	IC061	2003, NPN, 7, 1W, SOP-16, ST, 1000	1
0506-000175	IC701	2003, NPN, 7, 1W, SOP-16, ST, 1000	1
0506-000175	IC702	2003, NPN, 7, 1W, SOP-16, ST, 1000	1
0601-002423	LED801	SMD(REVERSE), RED, 3.2x1.6mm, 639nm, 3.2x1.6x1.1mm	1
0601-002955	LED803	SMD(REVERSE), YEL, 1.6x1.5mm, 588nm, 3.2x1.6x1.1mm	1
0601-002956	LED551	SMD(REVERSE), GRN, 1.6x1.5mm, 3.2x1.6x1.1mm	1
0601-002956	LED802	SMD(REVERSE), GRN, 1.6x1.5mm, 3.2x1.6x1.1mm	1
0604-001172	PC151	TR, 150-300, 200mW, SOP, TP	1
0604-001172	PC351	TR, 150-300, 200mW, SOP, TP	1
0604-001172	PC352	TR, 150-300, 200mW, SOP, TP	1
0801-000393	IC302	74HC86, OR GATE, SOP, 14P, 150MIL, QUAD, ST, -, 2.0/6.0V, 0.26V, -40to+85C, 180mW, 4.2V, 1uA,	1
1006-001325	IC301	ISL81487LIBZ, SO, 8P, 4.9x3.8 mm, SINGLE, ST, PLASTIC, 5V, -40to+85C, 520mW, 1, 1, 1.5/5.0V	1
1201-002946	IC071	TSSOP, TR, 14P, 5x4.4x1.2mm, 100, 5.5V, -40to+85C, 63dB, 1, 1nA, 1nA, 1.7mV	1
1201-002946	IC431	TSSOP, TR, 14P, 5x4.4x1.2mm, 100, 5.5V, -40to+85C, 63dB, 1, 1nA, 1nA, 1.7mV	1
1203-004967	IC502	KIA7042AT, TSM, 3P, 2.9x1.6mm, PLASTIC, 4.2V, 350mW, -30to+75C, 20mA, -, -	1
1404-001544	NTC001	10K, 3435K, 3.7mW/C	1
2007-000033	R160	0ohm, 5%, 1/4W, TP, 3216	1
2007-000033	R161	0ohm, 5%, 1/4W, TP, 3216	1
2007-000033	R162	0ohm, 5%, 1/4W, TP, 3216	1
2007-000043	R054	1Kohm, 1%, 1/10W, TP, 1608	1
2007-000070	R208	0ohm, 5%, 1/10W, TP, 1608	1
2007-000070	R309	0ohm, 5%, 1/10W, TP, 1608	1
2007-000074	R052	100ohm, 5%, 1/10W, TP, 1608	1
2007-000074	R152	100ohm, 5%, 1/10W, TP, 1608	1
2007-000074	R210	100ohm, 5%, 1/10W, TP, 1608	1
2007-000074	R213	100ohm, 5%, 1/10W, TP, 1608	1

OUTDOOR MAIN PBA(DB92-02867A)

3712-001139	CN403	TAB,MALE,6.35x0.8mm	1
4719-002485	IC401	Smart Power Module,FSBB30CH60C,600V,30A,106W,20kHz	1
4719-002486	IC051	Smart Power Module,FPAB30BH60B,600V,30A,104W,20kHz,PFCM	1
DB27-00078A	FT001	MALDIVE,12mH,22m,20A	1
DB27-00090A	L301	CV040031J,31uH,+50~-30%,21mohm,4.0A,10pi,16*15,2.5mm,2,BK,-25℃~+105℃,4A 31uH	1
DB61-05296A	SUPPORT-IPM	AFX-HD233A,PA66,FR50,BLACK	1
DB61-05296A	SUPPORT-PFCM	AFX-HD233A,PA66,FR50,BLACK	1
DB67-00942A	C001-1	VIVALDI-P/J,SHP2,1,5.2,11.5,18.5,GREEN,SSEC	1
DB67-00942A	C002-1	VIVALDI-P/J,SHP2,1,5.2,11.5,18.5,GREEN,SSEC	1
DB67-00942A	VA002-1	VIVALDI-P/J,SHP2,1,5.2,11.5,18.5,GREEN,SSEC	1
DB67-00942A	VA003-1	VIVALDI-P/J,SHP2,1,5.2,11.5,18.5,GREEN,SSEC	1
DB94-04087A		OUTDOOR,A3050,242*197,PF#3,DB92-02867A	1
0504-001044	Q151	KRA226M,PNP,400MW,2.2K/10K,TO-92M,TP	1
2201-002427	C901	2.2nF,K(10%),2000V,Y5P,12.5x5mm,7.5mm	1
2401-000303	CE162	100uF,20%,25V,WT,TP,6.3x11mm,5mm	1
2401-000303	CE163	100uF,20%,25V,WT,TP,6.3x11mm,5mm	1
2401-000481	CE431	10uF,20%,50V,WT,TP,5x11,5	1
2401-001838	CE151	470uF,20%,25V,WT,TP,10x16,5mm	1
2401-001838	CE153	470uF,20%,25V,WT,TP,10x16,5mm	1
2401-002438	CE902	47uF,20%,50V,WT,TP,6.3x11,5mm	1
2401-003224	CE152	470uF,20%,16V,WT,TP,8X11.5,5mm	1
2401-003585	CE901	220uF,20%,35V,WT,TP,8x11.5mm,5	1
3711-000015	CN203	BOX,2P,1R,2.5MM,STRAIGHT,SN,WHT	1
3711-000024	CN200	BOX,3P,1R,2.5MM,STRAIGHT,SN,WHT	1
3711-000879	CN152	BOX,3P,1R,2.5mm,STRAIGHT,SN,BLU	1
3711-000880	CN153	BOX,3P,1R,2.5MM,STRAIGHT,SN,RED	1
3711-000999	CN204	BOX,5P,1R,2.5mm,STRAIGHT,SN,WHT	1
4715-001093	DSA001	3600V,20%,2000A,-,AXIAL	1
DB94-04088A		OUTDOOR,A3050,242*197,PF#3,DB92-02867A	1
0202-001459	SOLDER-CREAM	S3X58-M405,D20~38um,96.5Sn/3Ag/0.5Cu,FLUX 5%	1
0401-001099	D001	1N4148WS,75V,150mA,SOD-323,TP	1
0401-001099	D002	1N4148WS,75V,150mA,SOD-323,TP	1
0401-001099	D030	1N4148WS,75V,150mA,SOD-323,TP	1
0401-001099	D152	1N4148WS,75V,150mA,SOD-323,TP	1
0401-001099	D153	1N4148WS,75V,150mA,SOD-323,TP	1
0401-001099	D241	1N4148WS,75V,150mA,SOD-323,TP	1
0401-001099	D431	1N4148WS,75V,150mA,SOD-323,TP	1
0401-001099	D501	1N4148WS,75V,150mA,SOD-323,TP	1
0401-001099	D502	1N4148WS,75V,150mA,SOD-323,TP	1
0401-001099	D503	1N4148WS,75V,150mA,SOD-323,TP	1
0401-001099	D504	1N4148WS,75V,150mA,SOD-323,TP	1
0401-001099	D505	1N4148WS,75V,150mA,SOD-323,TP	1
0401-001099	D506	1N4148WS,75V,150mA,SOD-323,TP	1

INDOOR DISPLAY PBA(DB92-02876) - 3-LED

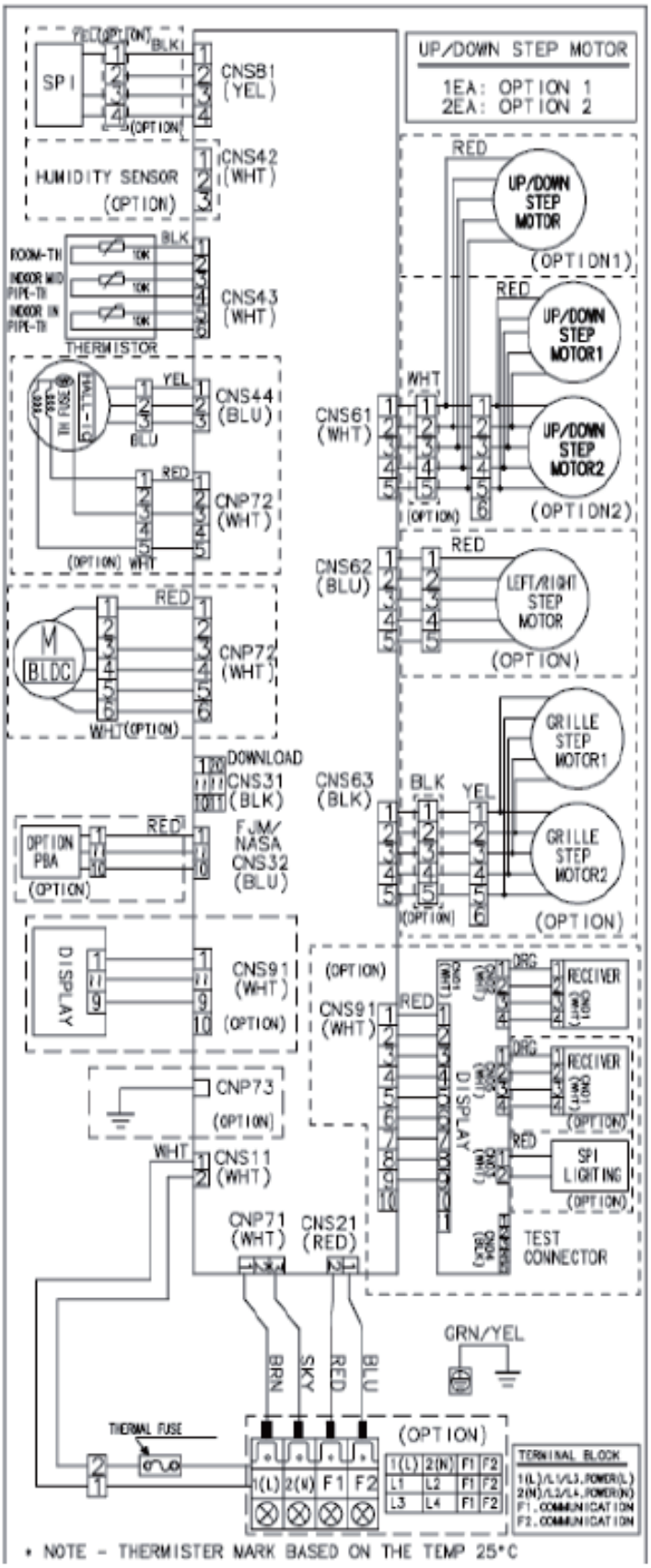
Parts Code	Design Loc	Parts Description	Spec.	Quantity
3711-003848	CN01	HEADER-BOARD TO CABLE	BOX, 11P, 1R, 2mm, ANGLE, SN, WHT	1
3711-004379	CN02	HEADER-BOARD TO CABLE	BOX, 4P, 1R, 2mm, STRAIGHT, SN, WHT	1
3711-005096	CN04	HEADER-BOARD TO CABLE	BOX, 5P, 1R, 2MM, STRAIGHT, SN, BLK	1
DB94-04103A		ASSY PCB SMD	GOOD, A3050, 64*36, DB92-02876A	1
0504-001080	Q01	TR-DIGITAL	KRC246S, NPN, 200mW, 2.2K/10Kohm, SOT-	1
0504-001080	Q02	TR-DIGITAL	KRC246S, NPN, 200mW, 2.2K/10Kohm, SOT-	1
0504-001080	Q03	TR-DIGITAL	KRC246S, NPN, 200mW, 2.2K/10Kohm, SOT-	1
2007-000029	J1	R-CHIP	0ohm, 5%, 1/8W, TP, 2012	1
2007-000029	J2	R-CHIP	0ohm, 5%, 1/8W, TP, 2012	1
2007-000029	J3	R-CHIP	0ohm, 5%, 1/8W, TP, 2012	1
2007-000029	J5	R-CHIP	0ohm, 5%, 1/8W, TP, 2012	1
2007-000029	J6	R-CHIP	0ohm, 5%, 1/8W, TP, 2012	1
2007-000300	R10	R-CHIP	10Kohm, 5%, 1/8W, TP, 2012	1
2007-000468	R04	R-CHIP	1Kohm, 5%, 1/8W, TP, 2012	1
2007-000468	R05	R-CHIP	1Kohm, 5%, 1/8W, TP, 2012	1
2007-000468	R6	R-CHIP	1Kohm, 5%, 1/8W, TP, 2012	1
2007-000468	R7	R-CHIP	1Kohm, 5%, 1/8W, TP, 2012	1
2007-000468	R8	R-CHIP	1Kohm, 5%, 1/8W, TP, 2012	1
2007-000468	R9	R-CHIP	1Kohm, 5%, 1/8W, TP, 2012	1
2007-000872	R11	R-CHIP	4.7Kohm, 5%, 1/8W, TP, 2012	1
2203-000206	C1	C-CER, CHIP	100nF, 10%, 50V, X7R, TP, 2012	1
DB94-04102A		ASSY PCB AUTO	GOOD, A3050, 64*36, DB92-02876A	1
0601-003285	LED1	LED	ROUND, BLUE, 3.1mm, 3.9x5.4mm	1
0601-003285	LED2	LED	ROUND, BLUE, 3.1mm, 3.9x5.4mm	1
0601-003285	LED3	LED	ROUND, BLUE, 3.1mm, 3.9x5.4mm	1
DB41-01224A	PCB DISPLAY	PCB DISPLAY	FR-1, 1Layer, 64*36, GOOD, 1Oz, 165*192	1

INDOOR RECEIVE PBA (DB92-02874)

Parts Code	Design Loc	Parts Description	Spec.	Quantity
0609-001377	RM01	MODULE REMOCON	VERTICAL, 5.85mm, BK	1
3711-004067	CN01	HEADER-BOARD TO CABLE	BOX, 4P, 1R, 2mm, ANGLE, SN, WHT	1
DB63-03547A	COVER-SENSOR	COVER-SENSOR	A3050, PA66, T1.2, -, NATURAL, S834S1	1
DB94-04100A	-	ASSY PCB SMD	RECEIVER, A3050, 24*40, DB92-02874A	1
0406-001005	CD01	DIODE-TVS	SM05, 6/-/-V, 300W, SOT-23	1
2007-000029	J1	R-CHIP	0ohm, 5%, 1/8W, TP, 2012	1
2007-000290	R01	R-CHIP	100ohm, 5%, 1/8W, TP, 2012	1
2203-000206	C03	C-CER, CHIP	100nF, 10%, 50V, X7R, TP, 2012	1
2203-000444	C02	C-CER, CHIP	1nF, 10%, 50V, X7R, TP, 2012	1
DB94-04099A	-	ASSY PCB AUTO	RECEIVER, A3050, 24*40, DB92-02874A	1
2401-003107	C01	C-AL	47uF, 20%, 16V, GP, TP, 5x7, 5	1
3404-001220	SW01	SWITCH-TACT	12V, 50mA, 160gf, 6x6x5, SPST	1
DB41-01222A	PCB SUB	PCB SUB	FR-1, 1Layer, 24*40, RECEIVER, 1Oz, 142*125	1

7. Wiring Diagram

Indoor Unit



ERROR MODE				DESCRIPTION
7-SEG	LED1 OPERATION	LED2 TIMER	LED3 OPTION	
E101, E102	○	◑	◑	Communication error (indoor <-> outdoor)
E121	○	◑	○	ROOM TH sensor error
E122, E123	◑	◑	○	INDOOR MID, INDOOR IN PIPE-TH sensor error
E154	○	○	◑	Fan error(indoor)
E162	◑	◑	◑	EEPROM error
E163	◑	◑	◑	Option error
FROM E200	◑	○	◑	Outdoor error display
E203	◑	●	●	Time out Comm.(Inv Micom <-> Main Micom)
E422/E554	●	○	◑	EEV or Valve Close error-Self diagnosis /Gas Leak Error
E458	●	●	◑	Out door Fan Error
E461	◑	●	◑	Comp Starting Error
E464	○	●	◑	IPM Over Current(O.C) Error
E465	◑	●	○	Comp V_limit/I_limit Error
E500				Heatsink overheat or IPM overheat

● : LAMP ON ○ : LAMP OFF ◑ : LAMP BLINK

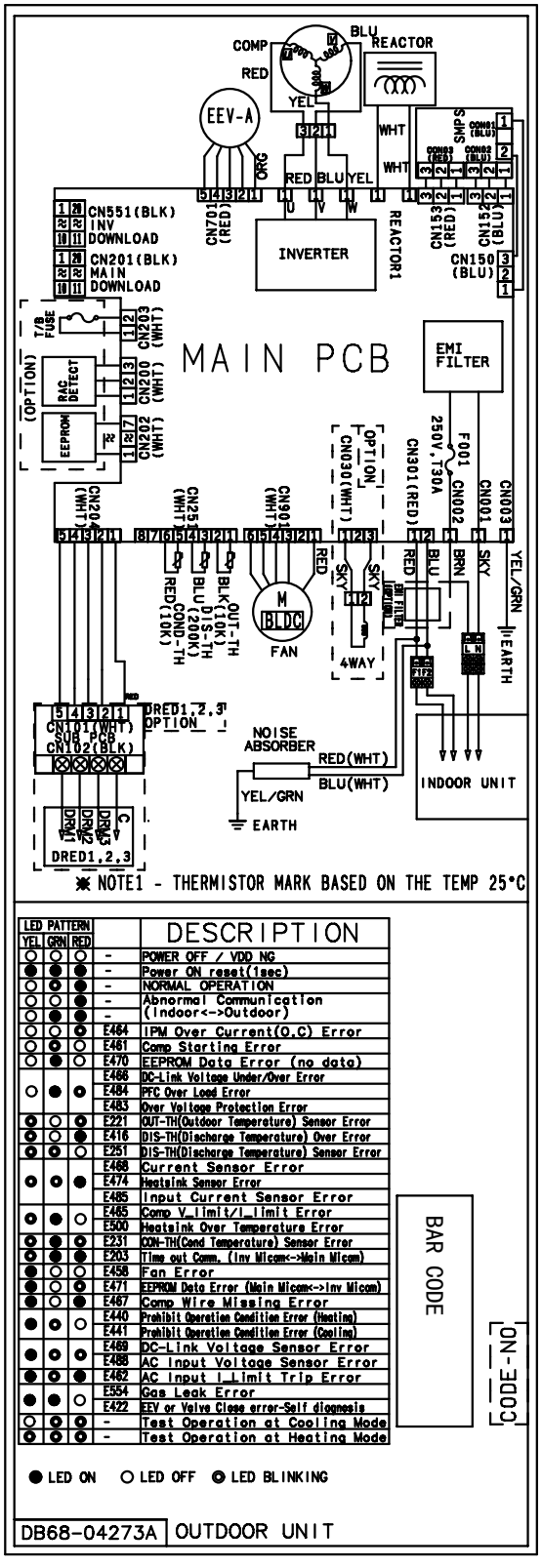
* Note *

If the Set doesn't work (No power), check the Thermal fuse of Terminal block OPEN or SHORT with Multimeter.

* Measure the Thermal fuse housing PIN#1 ~ 2 :
OPEN(disconnection) -> defective product

CODE NO:DB68-05092A | INDOOR-UNIT

7-2 Outdoor Unit



LED PATTERN YEL	GRN	RED		DESCRIPTION
○	○	○	-	POWER OFF / VDD NG
●	●	●	-	Power ON reset(1sec)
○	◎	●	-	NORMAL OPERATION
○	○	●	-	Abnormal Communication (Indoor<->Outdoor)
○	●	●	-	
○	○	◎	E464	IPM Over Current(O.C) Error
○	◎	○	E461	Comp Starting Error
○	●	○	E470	EEPROM Data Error (no data)
○	●	◎	E466	DC-Link Voltage Under/Over Error
			E484	PFC Over Load Error
			E483	Over Voltage Protection Error
◎	○	◎	E221	OUT-TH(Outdoor Temperature) Sensor Error
◎	○	●	E416	DIS-TH(Discharge Temperature) Over Error
◎	◎	○	E251	DIS-TH(Discharge Temperature) Sensor Error
◎	◎	●	E468	Current Sensor Error
			E474	Heatsink Sensor Error
			E485	Input Current Sensor Error
◎	●	○	E465	Comp V_limit/I_limit Error
			E500	Heatsink Over Temperature Error
◎	●	◎	E231	CON-TH(Cond Temperature) Sensor Error
◎	●	●	E203	Time out Comm. (inv Micom<->Main Micom)
●	○	○	E458	Fan Error
●	○	◎	E471	EEPROM Data Error (Main Micom<->Inv Micom)
●	○	●	E467	Comp Wire Missing Error
●	◎	○	E440	Prohibit Operation Condition Error (Heating)
			E441	Prohibit Operation Condition Error (Cooling)
●	◎	◎	E469	DC-Link Voltage Sensor Error
			E488	AC Input Voltage Sensor Error
●	◎	●	E462	AC Input I_Limit Trip Error
●	●	○	E554	Gas Leak Error
			E422	EEV or Valve Close error-Self diagnosis
○	◎	◎	-	Test Operation at Cooling Mode
◎	◎	◎	-	Test Operation at Heating Mode

BAR CODE

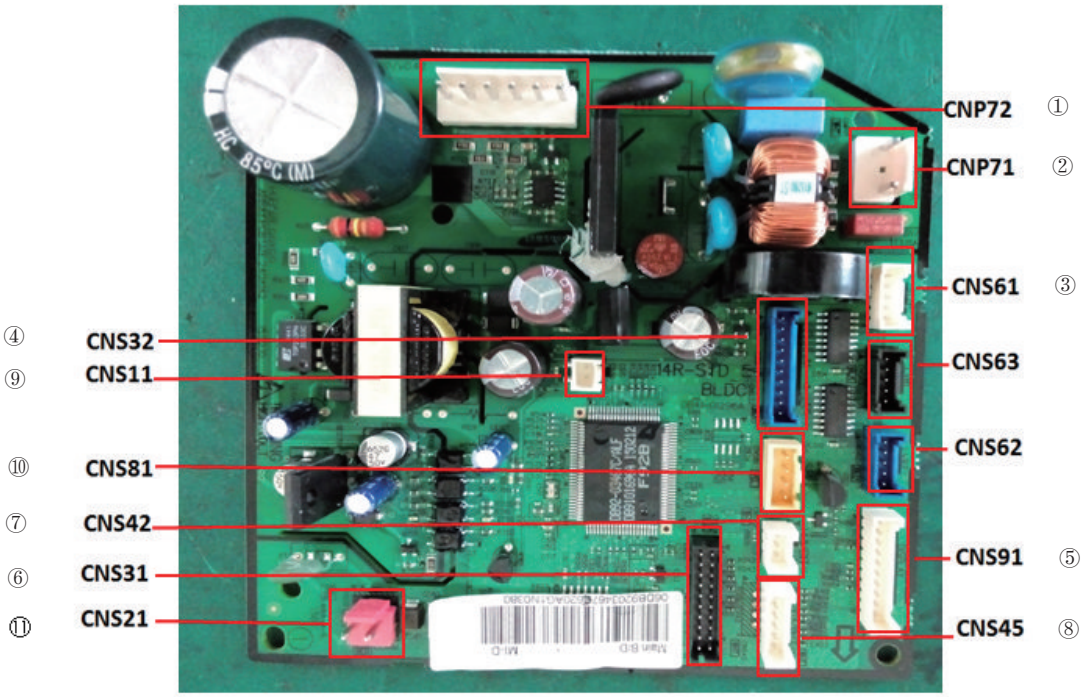
CODE-NO

● LED ON ○ LED OFF ◎ LED BLINKING

DB68-04273A | OUTDOOR UNIT

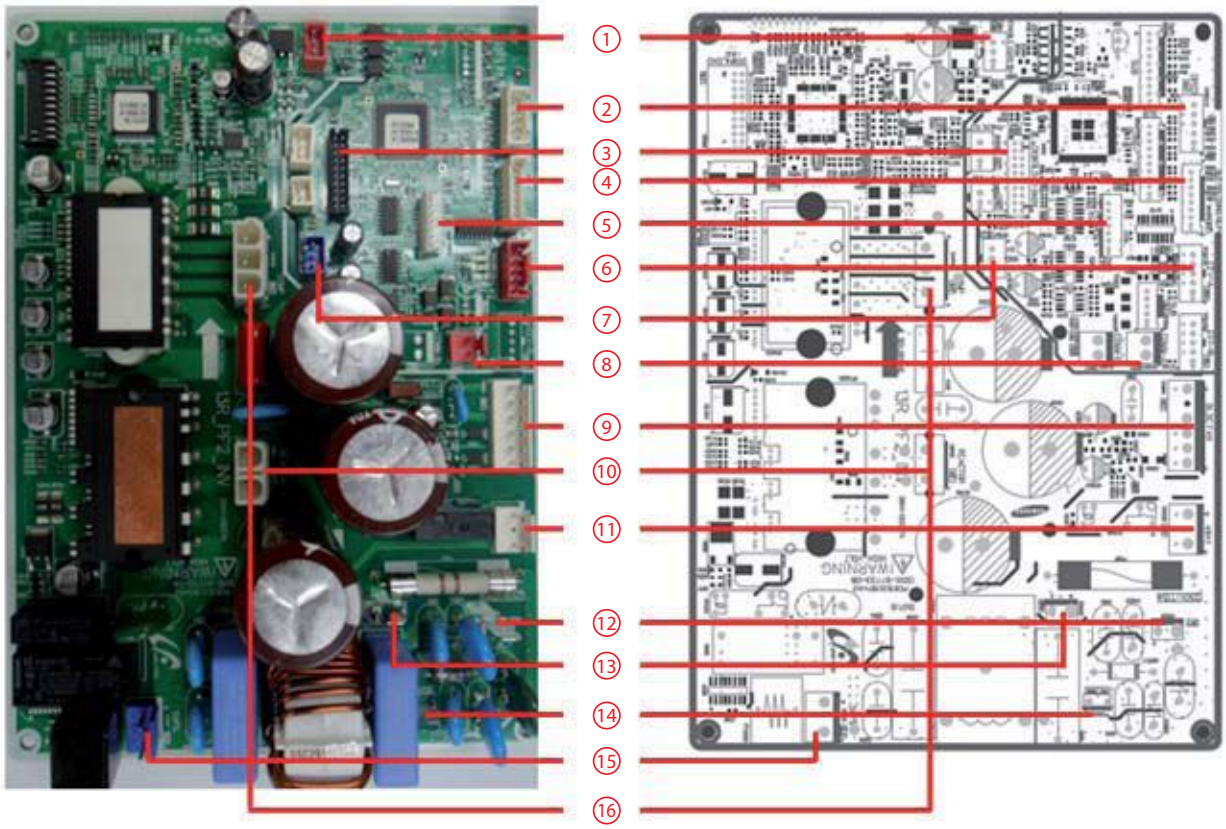
8. PCB Diagram

8-1 Indoor Main PCB--DB92-03467C



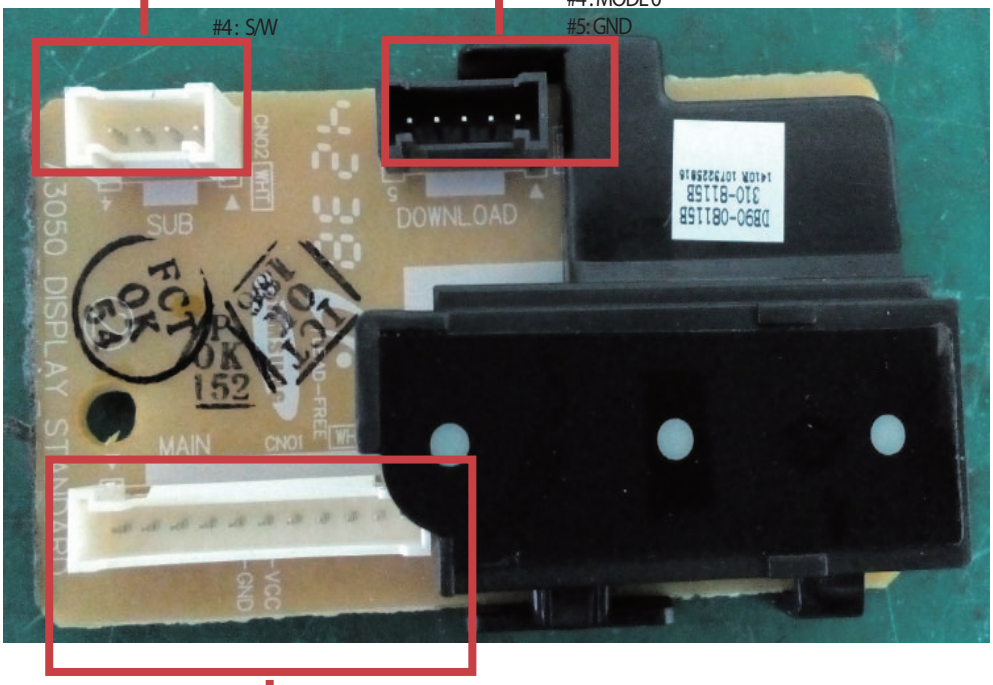
① CNP72 - BLDC-MOTOR #1 : DC 310V #3 -6 : Bldc driving singal output	② CNP71 - -N/OUTFAN/4-WAY #1 : POWER-N #3 : OUTFAN RELAY signal #5 : 4-WAY RELAY signal	③ CNS61 -63 STEP MOTOR #1 : GND #2 -5 : STEP MOTOR signal	④ CNS32 - FJM/NASA #1~#7, #11~ #14 : FJM/NASA SIGNAL #8 : DC 5V #9 : GND #10 : DC 12V
⑤ CNS91 - DISPLAY #1- #4 : DIO ; CLK ; STB ; IRQ #5 : GND #6 : VCC #7 : Vout #8 : PWM_LED #9 : ROOM_TEMP	⑥ CNS31 - DOWNLOAD #1,4,5,6: Download Signal #2 : VCC #3: GND	⑦ CNS42 - HUMIDITY SENSOR #1: EVA_TEMP #2: GND	⑧ CNS45 - TEMPERATURE SENSOR #1,#2 : ROOM SENSOR #3,#4 : EVA MID SENSOR #5,#6 : EVA IN SENSOR
⑨ CNS11 - 12V #1: 12V Signal	⑩ CNS81 -SPI #1 : SPI Signal #2 : GND #3 : DC 12V	⑪ CNS21--COMMUNICATION #1 -#2: 485 COMM SIGNAL	

8-2. Outdoor PCB



① **CN151 - SMPSINV** #1 : 15V #2 : GND #3 : ENABLE	② **CN204 - DRED** #1 : DRED1 #2 : DRED2 #3 : DRED3 #4 : GND #5 : 5V	③ **CN201- DOWNLOAD-MAIN** #1 ~ #20 : DOWNLAOD	④ **CN251 - SENSOR** #1,#2 : OUT SENSOR #3,#4 : DISCHARGE SENSOR #5,#6 : COND SENSOR
⑤ **CN501 - EEPROM** #1 : GND #3 : 5V #4 : EEP CS #5 : EEP_SO/MICOM RX #6 : EEP_SI_MICOM_TX #7 : EEP CLK	⑥ **CN701 - EEV-A** #1~#4 : EEV SIGNAL #5 : 12V	⑦ **CN152 - SMPSMAIN** #1 : 12V #2 : GND #3 : 5V	⑧ **CN301 - COMMUNICATION** #1 : F1 #2 : F2
⑨ **CN901 - FAN** #1 : DC 310~340V #2 : N.C #3 : AGND #4 : DC 15V #5 : FAN RPM #6 : FAN FEEDBACK	⑩ **CN401- REACTOR** #1 : REACTOR1 #2 : REACTOR2	⑪ **CN030 - 4WAY** #1,#3 : AC220~240V	⑫ **CN001 - POWER-IN** #1 : N
⑬ **CN002 - POWER-L** #1 : L	⑭ **CN003 - EARTH** #1 : EARTH	⑮ **CN150 - SMPSAC** #1,#3 : AC220~240V	⑯ **CN402 - COMP** #1 : W #2 : V #3 : U

8-3 ASSY CASE PCB-DISPLAY DB90-08115B



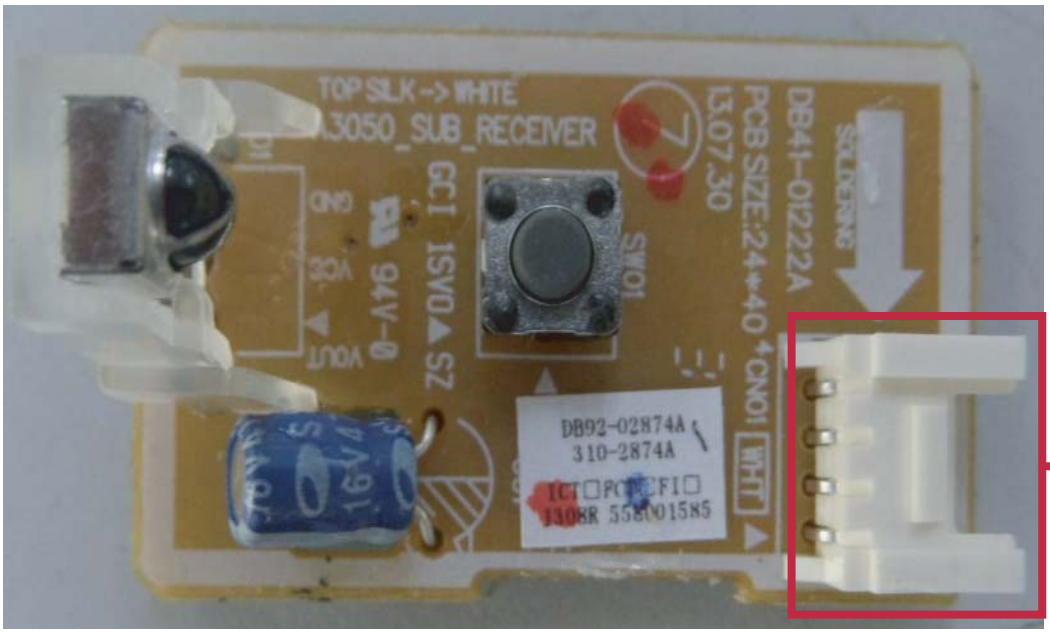
CN01

CN91 - DISPLAY

#1-#4 : DIO ; CLK ; STB ; IRQ
#5 : GND
#6-#7 : DC 5V ; Vout
#8 : PWM_LED
#9-#10 : TEST_RX ; TEST_TX
#11 : MODE 0

8. PCB Diagram

SUB PCB--RECEIVE-DB92-02874



CN01

CN01 - RECEIVE #1 : GND #2 : Vout #3 : Vcc #4 : S/W			

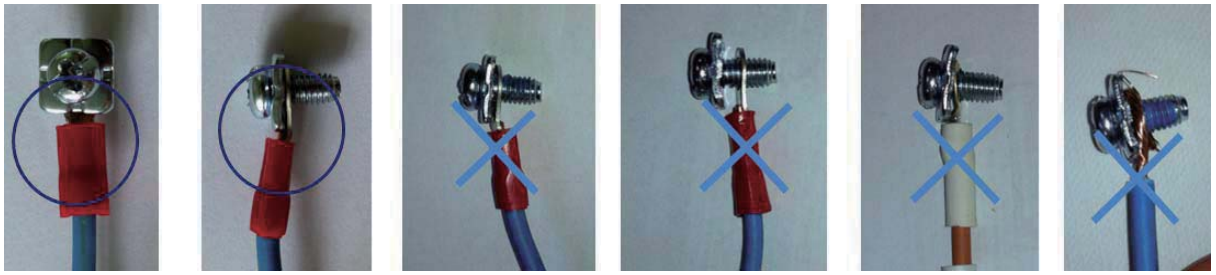
8-3 Wire connecting the indoor unit terminal blocks

1. Terminal press of Ring terminal shall be set facing up before connecting wire.

Is inverted

Terminalhasbeencut.

2. There shall be no empty space between Ring terminal and Screw after Clamp.
   If not, there exists a possibility of fire which can be caused by electric heat in the connecting part.



① ② ③ ④ ⑤ ⑥

①, ② : Good
③ Bad : Ring terminal is connected reversely
④ Bad : Not clamped Screw
⑤ Bad : In the gap between Ring terminal & Screw
⑥ Bad : Unused Ring Terminal

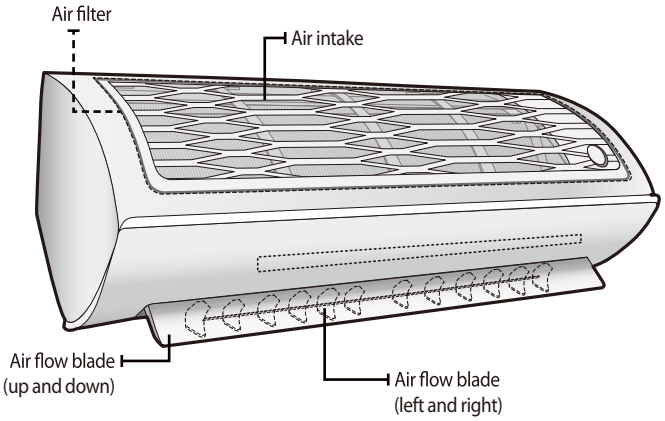
9. Operating Instructions

9-1 Name of Each Part

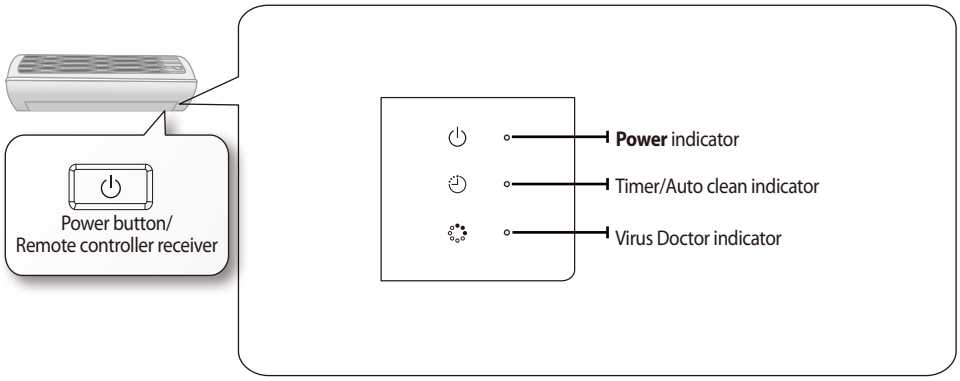
9-1-1 Indoor Unit

The design and shape are subject to change according to the model.

Main parts



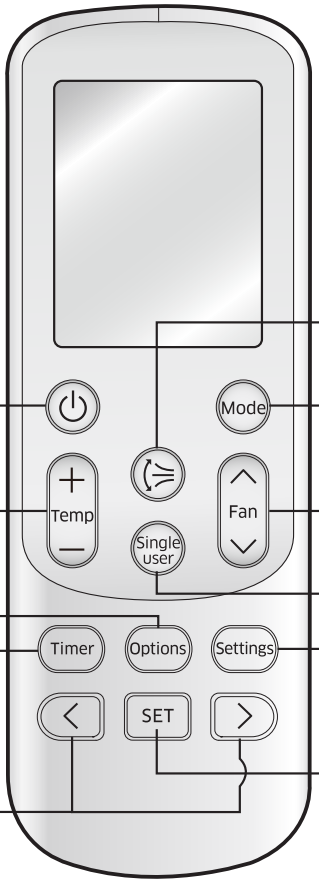
Display



Checking the remote controller

- Point the remote controller towards the remote controller receiver of the indoor unit.
- When you properly press the button on the remote controller, you will hear beep sound from the indoor unit and a transmit indicator( ) appears on the remote controller display.

Remote controller buttons



Power
Turn on/off the air conditioner

Temp + −
Increase/Decrease the temperature by 1 ˚C.

Options
Select options during operation

Timer
Select Timer option

Directional < >
Move through the Timer, Options or Settings menu to make a selection

Vertical air swing
Activate/Deactivate vertical air flow blade movement automatically

Mode
Set one of the 4 operating modes

Fan
Adjust the fan speed

Single User
Turn on/off the Single User function which reduces energy usage while operating in cool mode.

Settings
Select settings

SET
Set/Cancel the selected option or setting

NOTE

- In case you wish to cancel the options or settings that you have just set, press the Options or Setting button again, then the most recently selected item will blink and you may simply cancel it by pressing the SET button while selected item is blinking.

10. Troubleshooting

10-1 Items to be checked first

1. The input voltage should be rating voltage ±10% range.
   The air conditioner may not operate properly if the voltage is out of this range.

2. Is the line cable linking the indoor unit and the outdoor unit linked properly?
   The indoor unit and the outdoor unit shall be linked by 5 cables.
   Check the terminals if the indoor unit and outdoor unit are properly linked by the same number of cables.
   Otherwise the air conditioner may not operate properly.

3. When a problem occurs due to the contents illustrated in the table below it is a symptom not related to the malfunction of the air conditioner.

NO	Operation of air conditioner	Explanation
1	The OPERATION indication LED(BLUE) blinks when a power plug of the indoor unit is plugged in for first time.	It indicates power is on. The LED stops blinking if the operation ON/OFF button on the remote control unit is pushed.
2	In a COOL operation mode, the compressor does not operate at a room temperature higher than the setting temperature that the INDOOR FAN should operate. **[In case of heat pump model]** In a HEAT operation mode, the compressor does not operate at a room temperature lower than the setting temperature that indoor fan should operate.	In happens after a delay of 3 minutes when the compressor is reoperated. The same phenomenon occurs when a power is on. As a phenomenon that the compressor is reoperated after a delay of 3 minutes, the indoor fan is adjusted automatically with reference to a temperature of the air blew.
3	Fan speed setting is not allowed in DRY mode.	The speed of the indoor fan is set to LL in DRY mode. Fan speed is selected automatically in AUTO mode.
4	Compressor stops operation intermittently in Dry mode.	Compressor operation is controlled automatically in DRY mode depending on the room temperature and humidity.
5	Timer LED(ORANGE) of the indoor unit lights up and the air conditioner does not operate.	Timer is being activated and the unit is in ready mode. The unit operates normally if the timer operation is cancelled.
6	The compressor stops intermittently in a COOL mode or DRY mode, and fan speed of the indoor unit decreases.	The compressor stops intermittently or the fan speed of the indoor unit decreases to prevent inside/outside air frozen depending on the inside/outside air temperature.
7	**[In case of heat pump model]** Compressor of the outdoor unit is operating although it is turned off in a HEAT mode.	When the unit is turned off while de-ice is activated, the compressor continus operation for up to 9 minutes(maximum) until the deice is completed.
8	**[In case of heat pump model]** The compressor and indoor fan stop intermittenly in HEAT mode.	The compressor and indoor fan stop intermittently if room temperature exceeds a setting temperature in order to protect the compressor from overheated air in a HEAT mode.
9	**[In case of heat pump model]** Indoor fan and outdoor fan stop operation intermittently in a HEAT mode.	The compressor operates in a reverse cycle to remove exterior ice in a HEAT mode, and indoor fan and outdoor fan do not operate intermittently for within 20% of the total heater operation.

10-2 Communication Error

10-2-1 Communication Error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E101/E102	Communication error(Indoor<->outdoor)
◎	●	●		

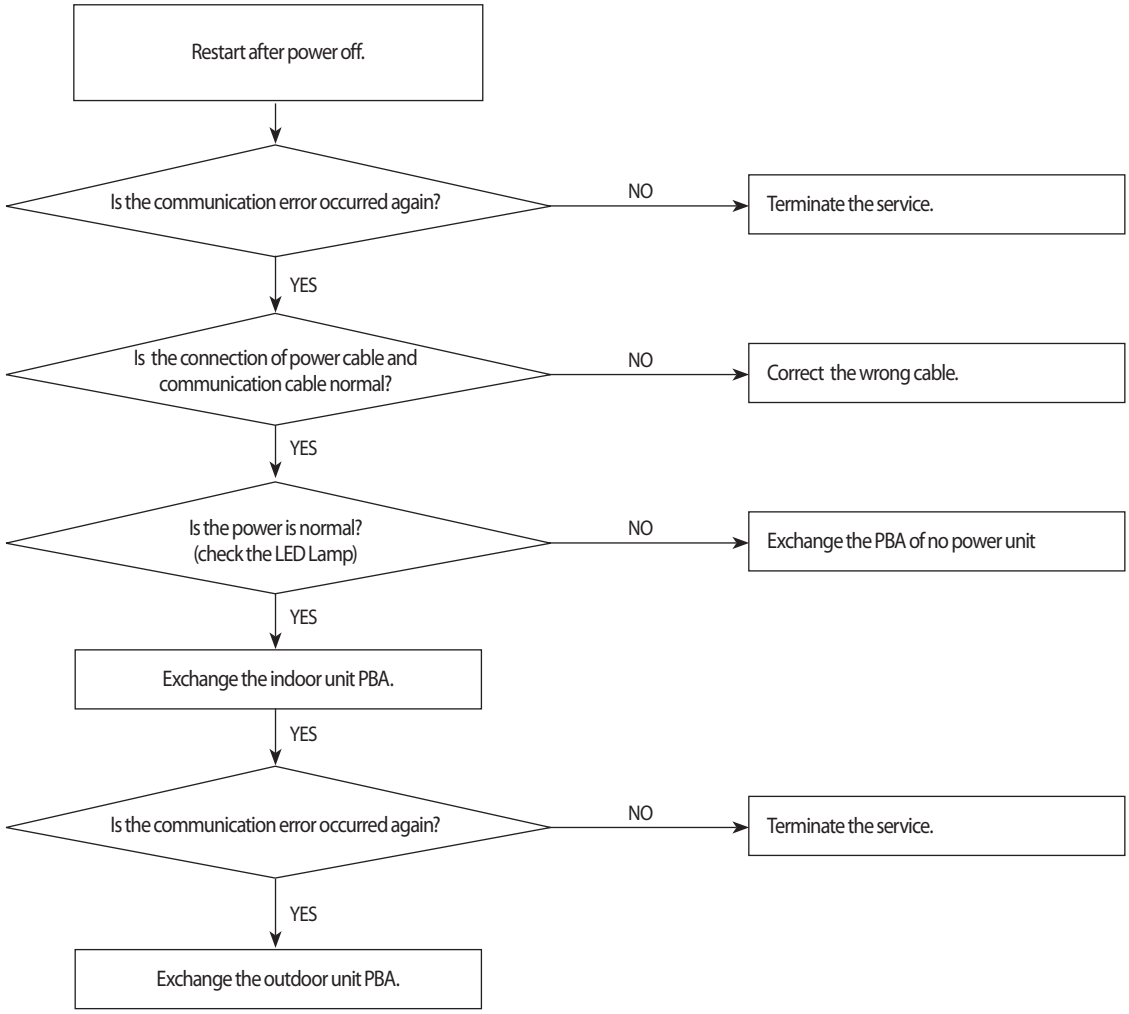
Outdoor display

◎	●	●	1min. Time out Comm.
○	○	●	Abnormal Communication
○	●	●	

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the cable between the indoor unit and outdoor unit connected correctly?
   2) Isn't the power cable and communication cable cross?

2. Troubleshooting procedure



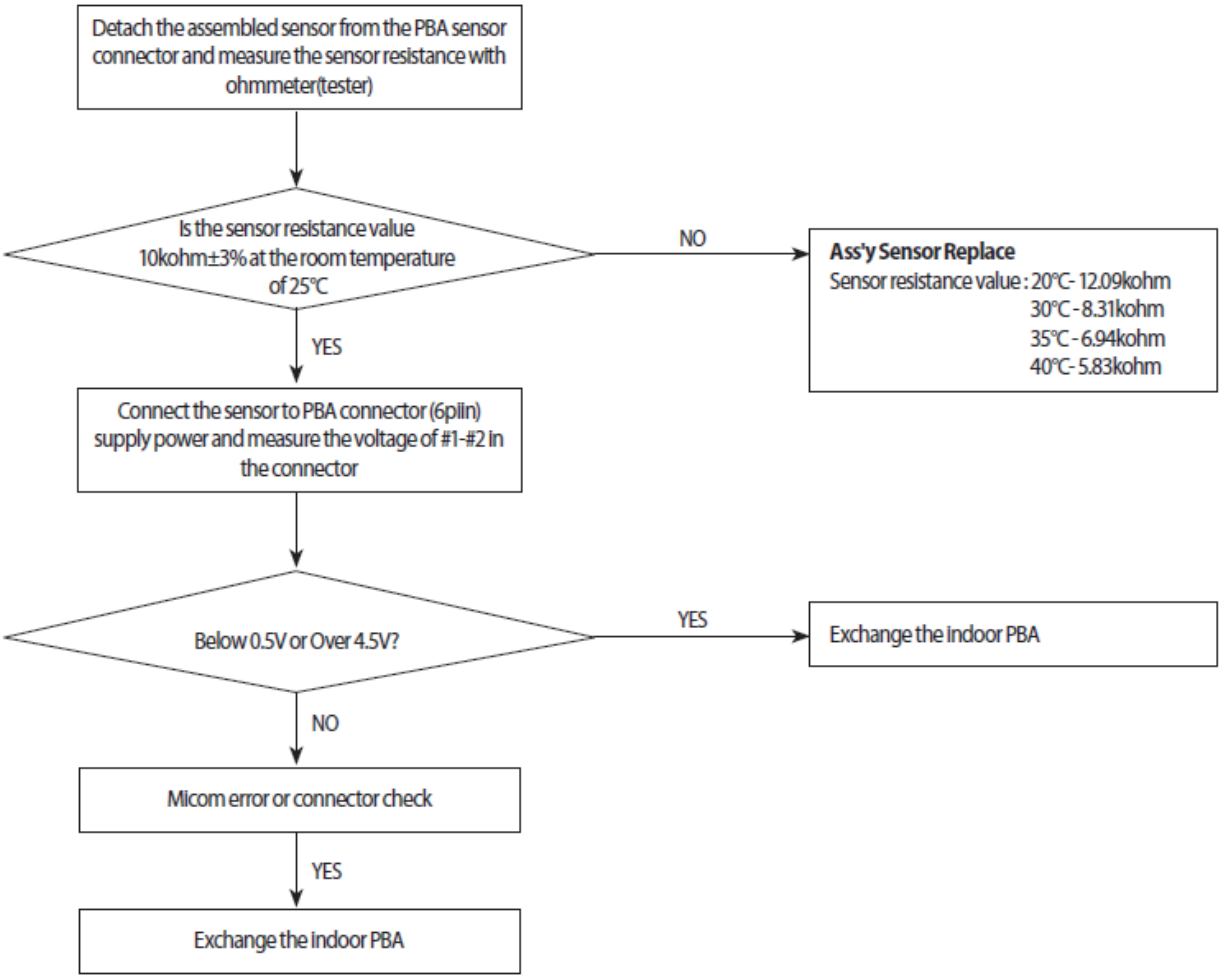
10-2-2 Indoor temperature sensor Error

Indoor display

7-SEG	LED1	LED2	LED3	DESCRIPTION
	OPERATION	TIMER	OPTION	
E121	○	◑	○	ROOM TH sensor error
● LED ON	○ LED OFF	◑ LED BLINKING		

1. Checklist :
   1) Is the indoor units temperature sensor connected correctly?
   2) Is the sensor placed correctly?
   3) Does the both terminal of sensor satisfy the resistance value in accordance with temperature?

2. Troubleshooting procedure



10-2-3 Indoor Eva-in temperature sensor error

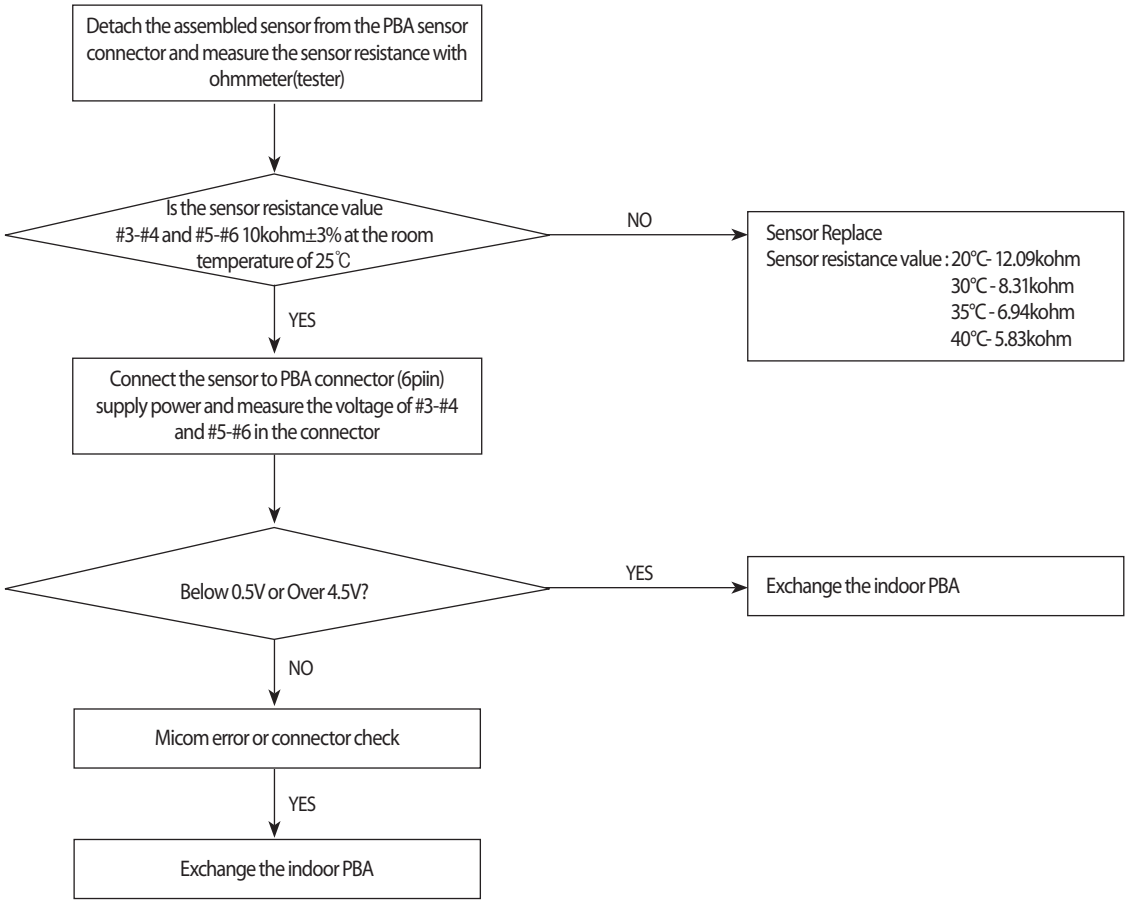
Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E122,E123	Indoor MID, Indoor IN PIPE-TH sensor error
◎	◎	○		

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the indoor units temperature sensor connected correctly?
   2) Is the sensor placed correctly?
   3) Does the both terminal of sensor satisfy the resistance value in accordance with temperature?

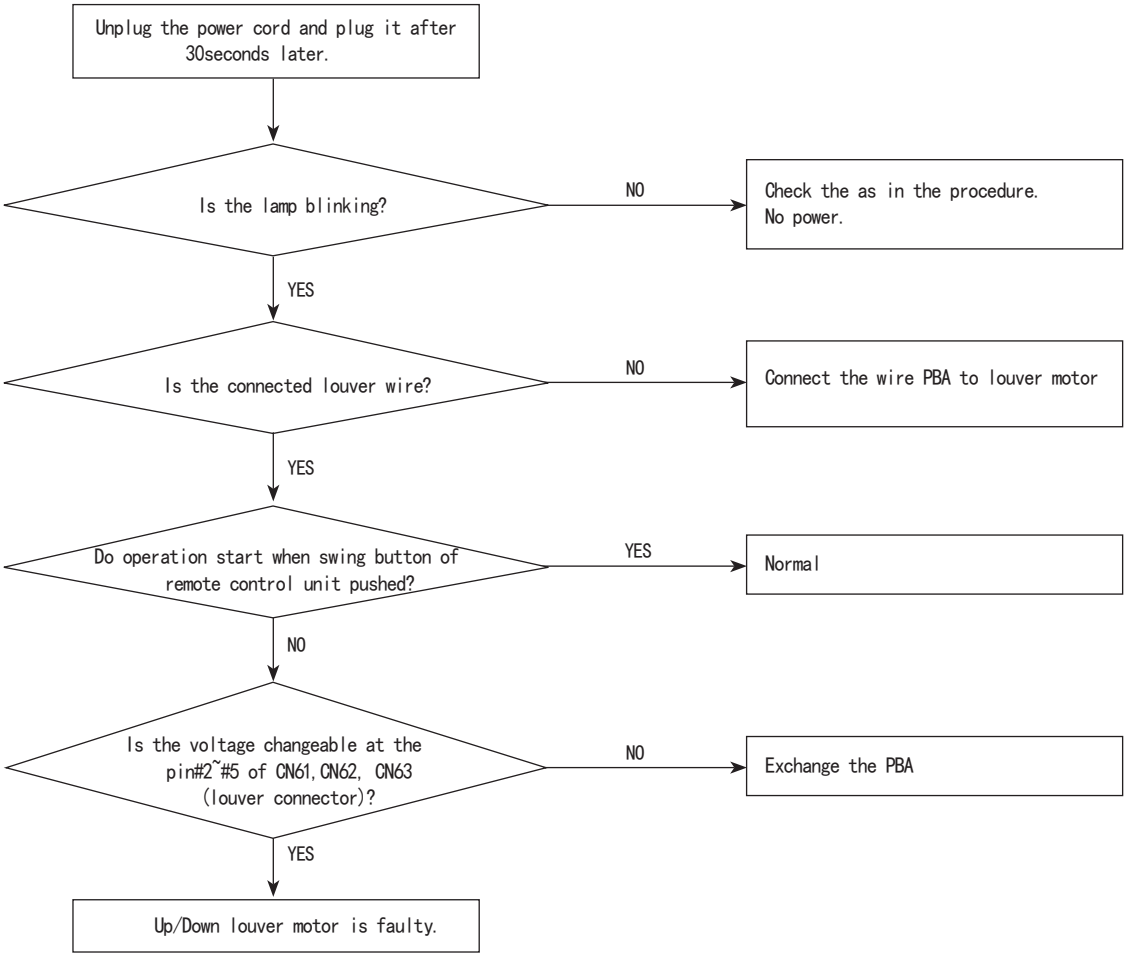
2. Troubleshooting procedure



10-2-4 When the Up/Down,Left/Right,Grille louver motor does not opreate(Initial Diagnosis) (Not displayed)

1. Checklist :
   1) Is the input power voltage normal?
   2) Is the Up/Down louver motor properly connected with the connector? (CN61, CN62, CN63)

2. Troubleshooting procedure

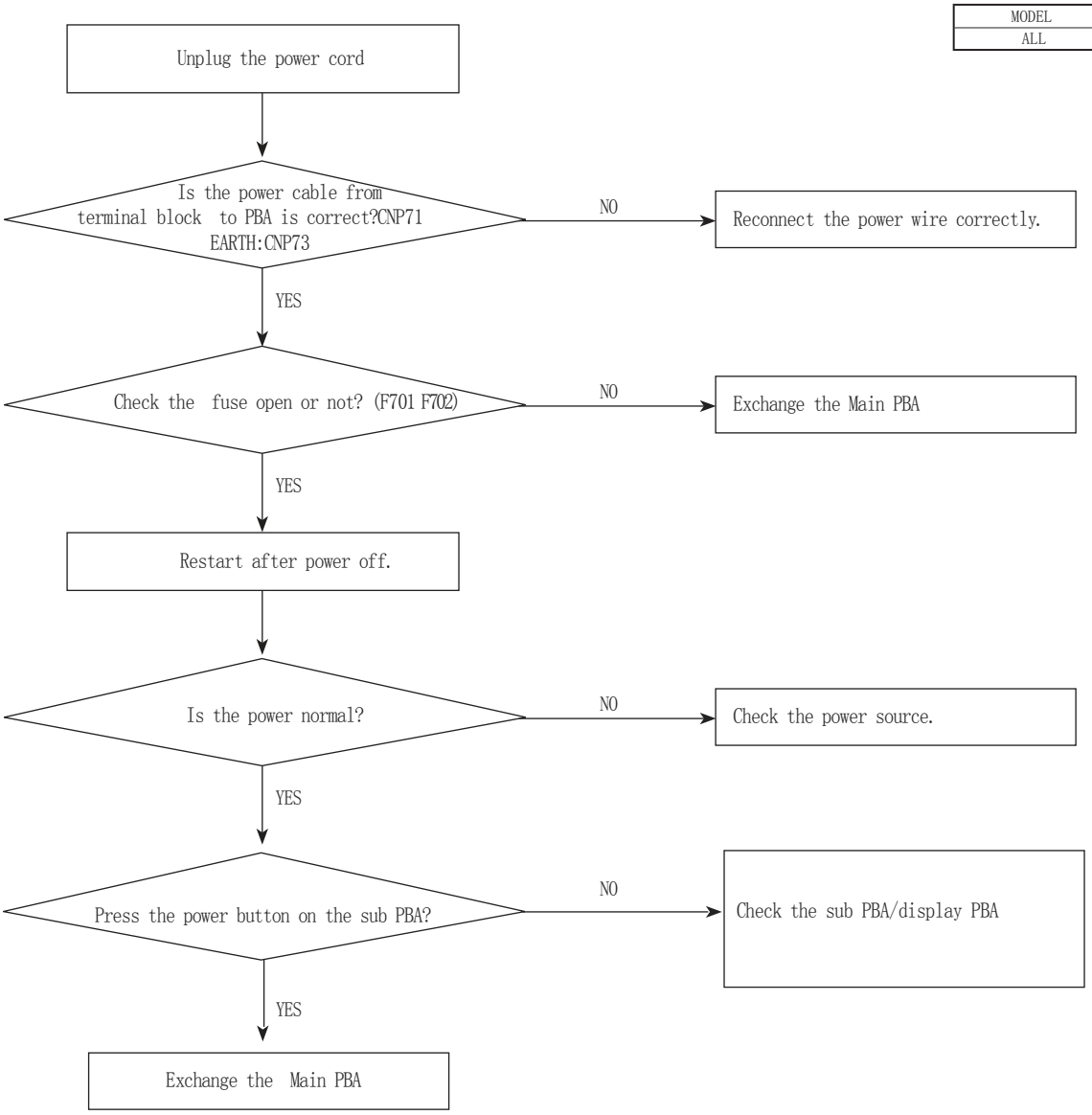


102-24 No power outdoor (Initial Diagnosis) (Not displayed)

1. Checklist :
   1) Is input power normal?
   2) Is AC power linked correctly? (L,N,E)
   3) Is mis-wiring between communication wire and Power wire?

2. Troubleshooting procedure

MODEL
ALL



10-2-6 Out door temperature sensor error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E221	Outdoor temperature sensor error
◎	○	◎		

Outdoor display

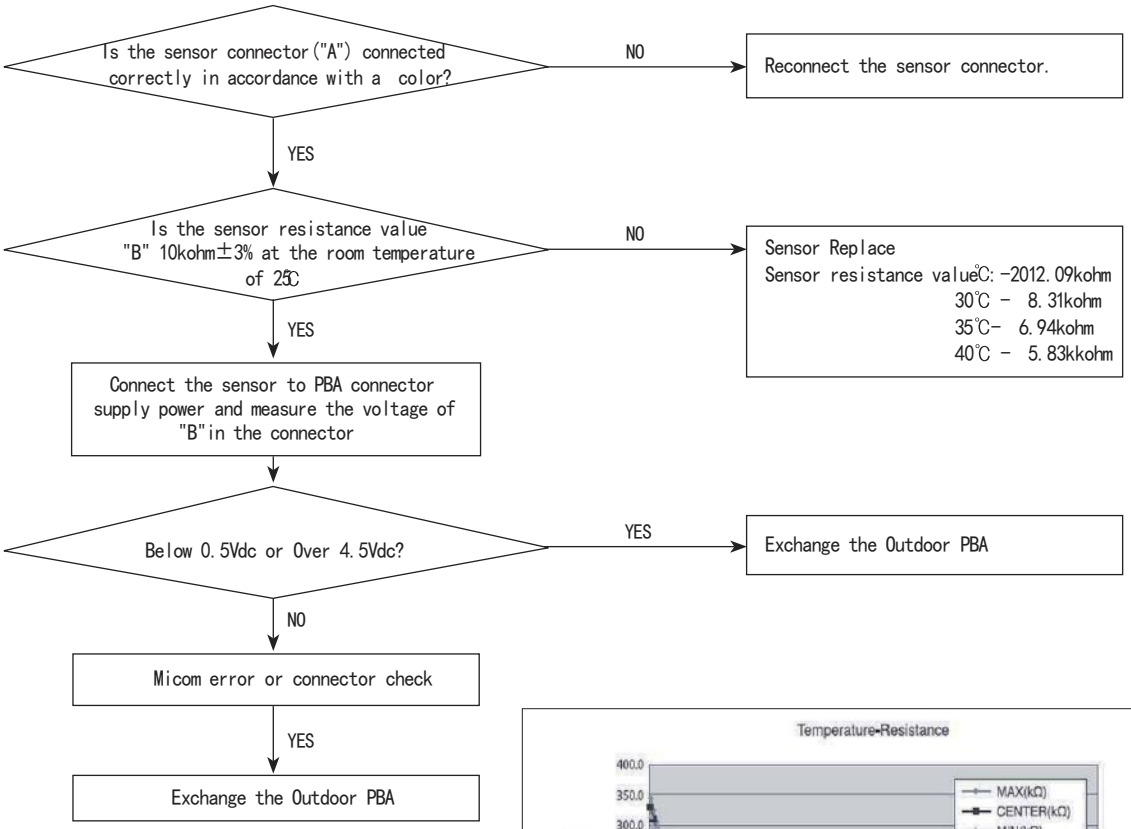
◎	○	◎	Outdoor temperature sensor error

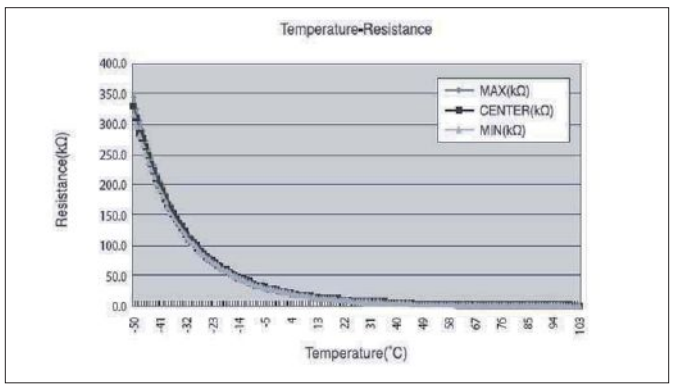
● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the sensor connected correctly?
   2) Is the sensor placed correctly?
   3) Does the both terminal of sensor satisfy the resistance value in accordance with temperature?
   4) Is the resistance value of sensor connection pull-up correct?

MODEL	"A"	"B"
ALL	CN251	CN251 #1-#2

2. Troubleshooting procedure





10-2-7 Outdoor Cond temperature sensor error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E231	Outdoor Cond temperature sensor error
◎	○	◎		

Outdoor display

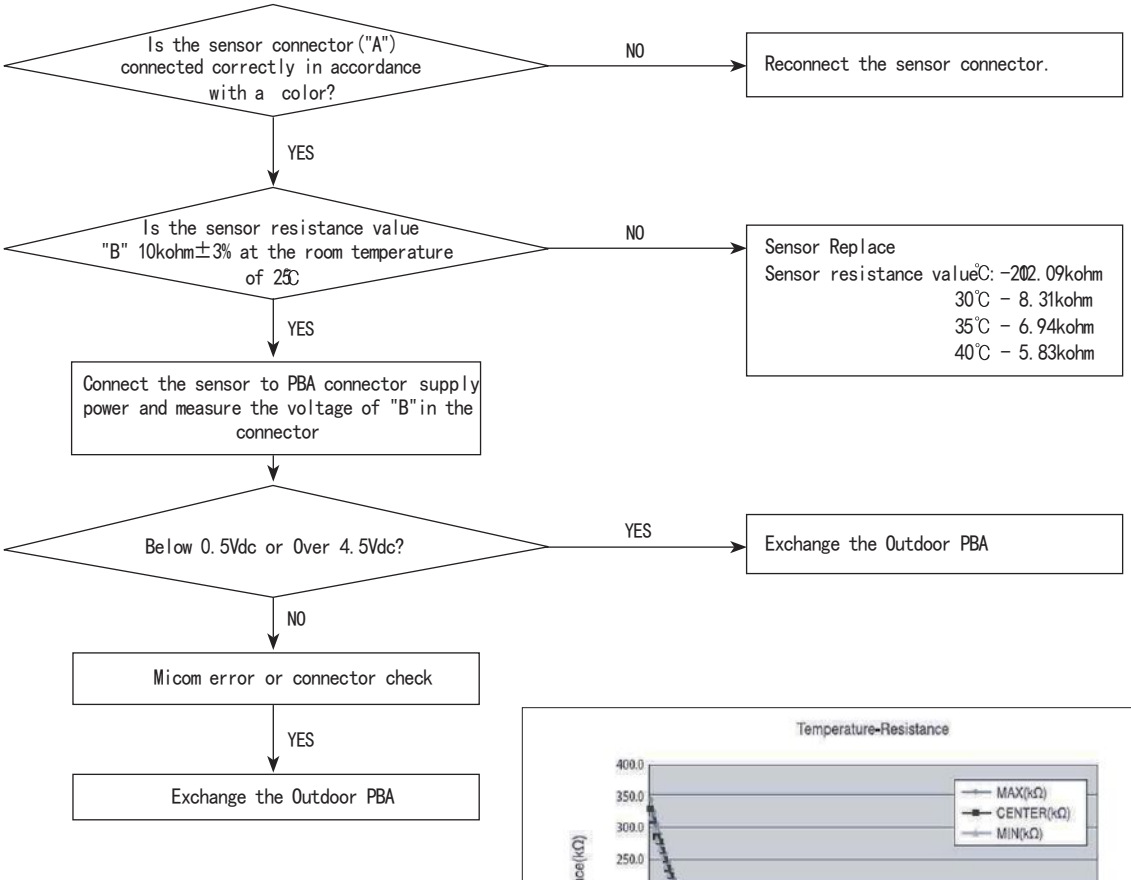
◎	●	◎	Outdoor Cond temperature sensor error

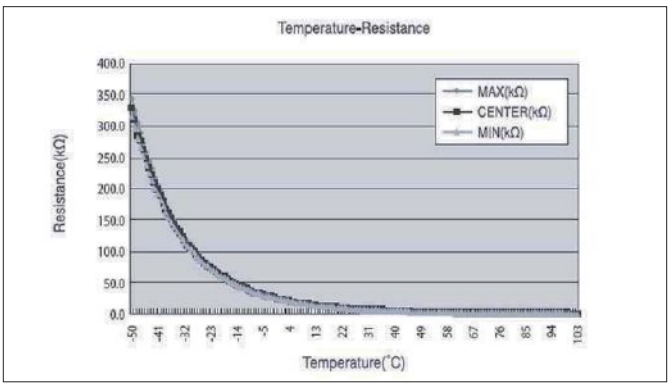
● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the sensor connected correctly?
   2) Is the sensor placed correctly?
   3) Does the both terminal of sensor satisfy the resistance value in accordance with temperature?
   4) Is the resistance value of sensor connection pull-up correct?

MODEL	"A"	"B"
ALL	CN251	CN251 #5-#6

2. Troubleshooting procedure





10-2-8 Outdoor Discharge temperature sensor error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E251	Outdoor Discharge temperature sensor error
◎	○	◎		

Outdoor display

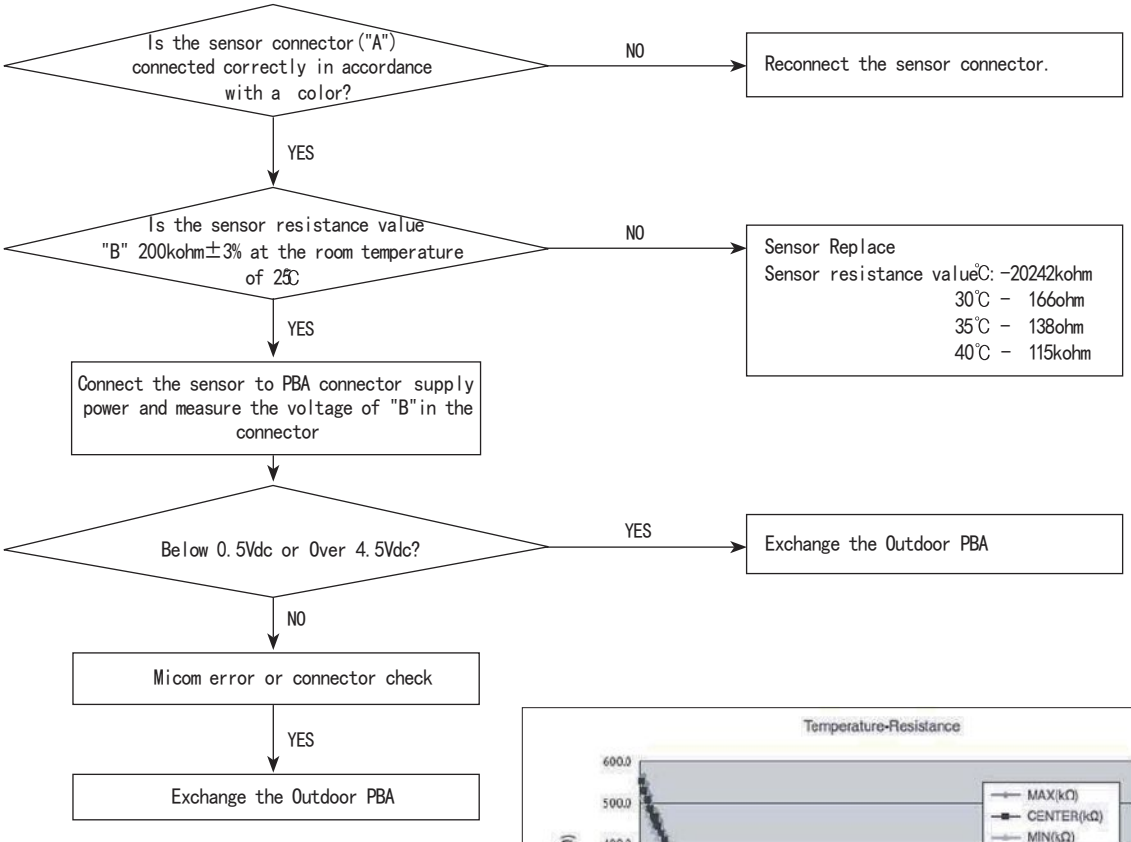
◎	◎	○	Outdoor Discharge temperature sensor error

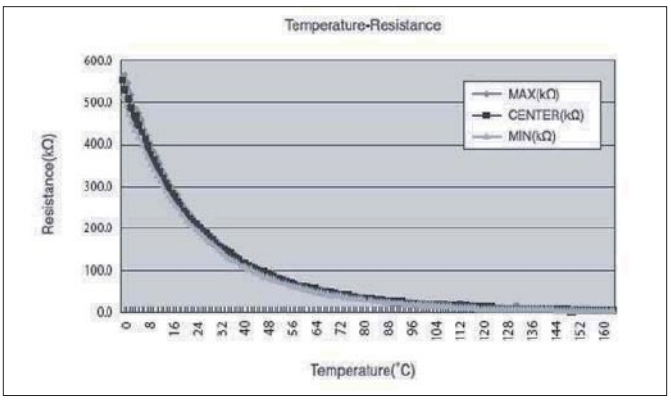
● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the sensor connected correctly?
   2) Is the sensor placed correctly?
   3) Does the both terminal of sensor satisfy the resistance value in accordance with temperature?
   4) Is the resistance value of sensor connection pull-up correct?

MODEL	"A"	"B"
ALL	CN251	CN251 #3-#4

2. Troubleshooting procedure





10-2-9 Outdoor Discharge over temperature error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E416	Outdoor Discharge over temperature error
◎	○	◎		

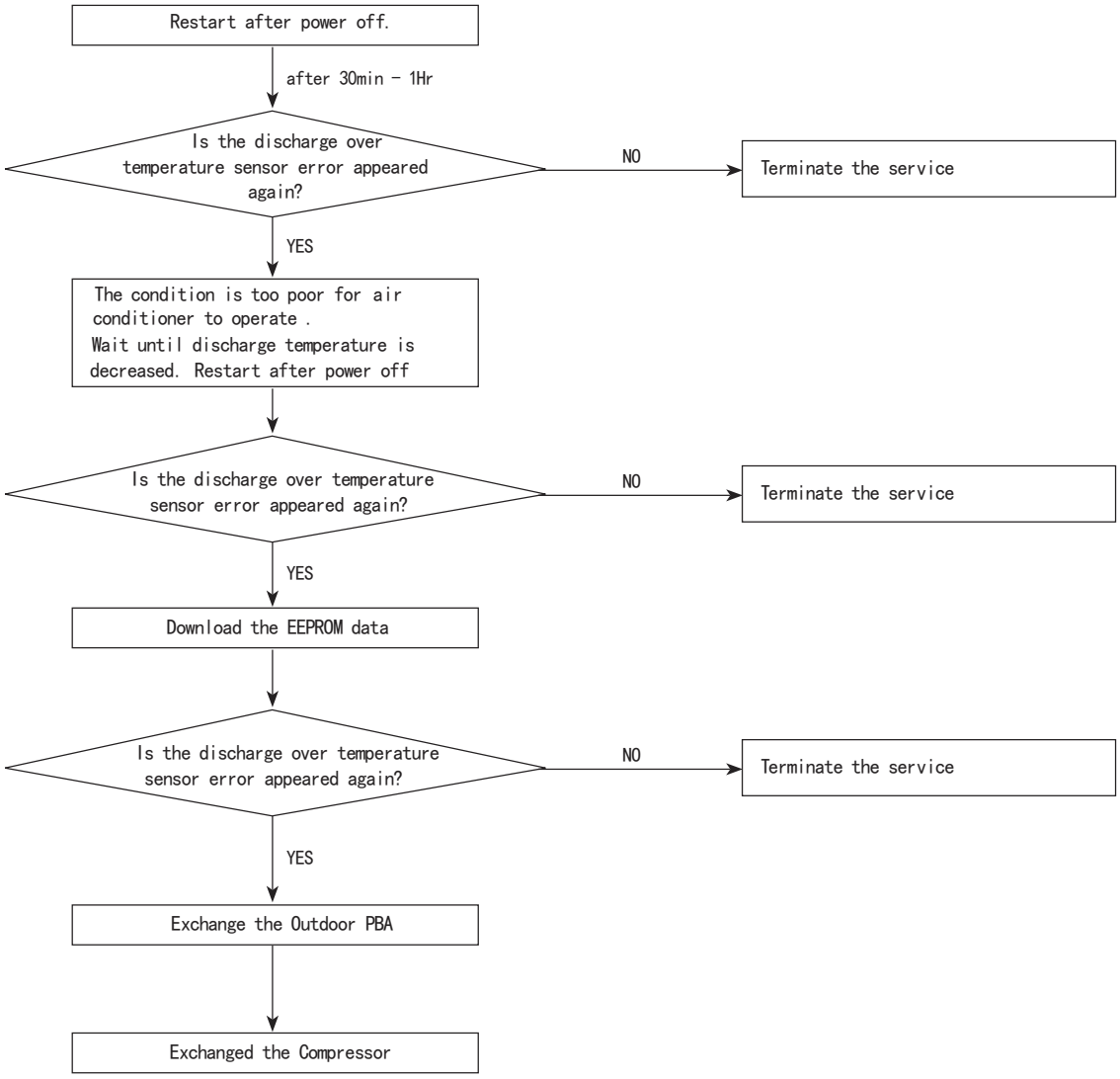
Outdoor display

◎	◎	●	Outdoor Discharge over temperature error

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Check the discharge temperature in the outdoor unit
   2) Check the compressor locking or gas leak
   3) Download the EEPROM data

2. Troubleshooting procedure



10-2-10 Outdoor Fan motor error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E458	Outdoor Fan error
◎	○	◎		

Outdoor display

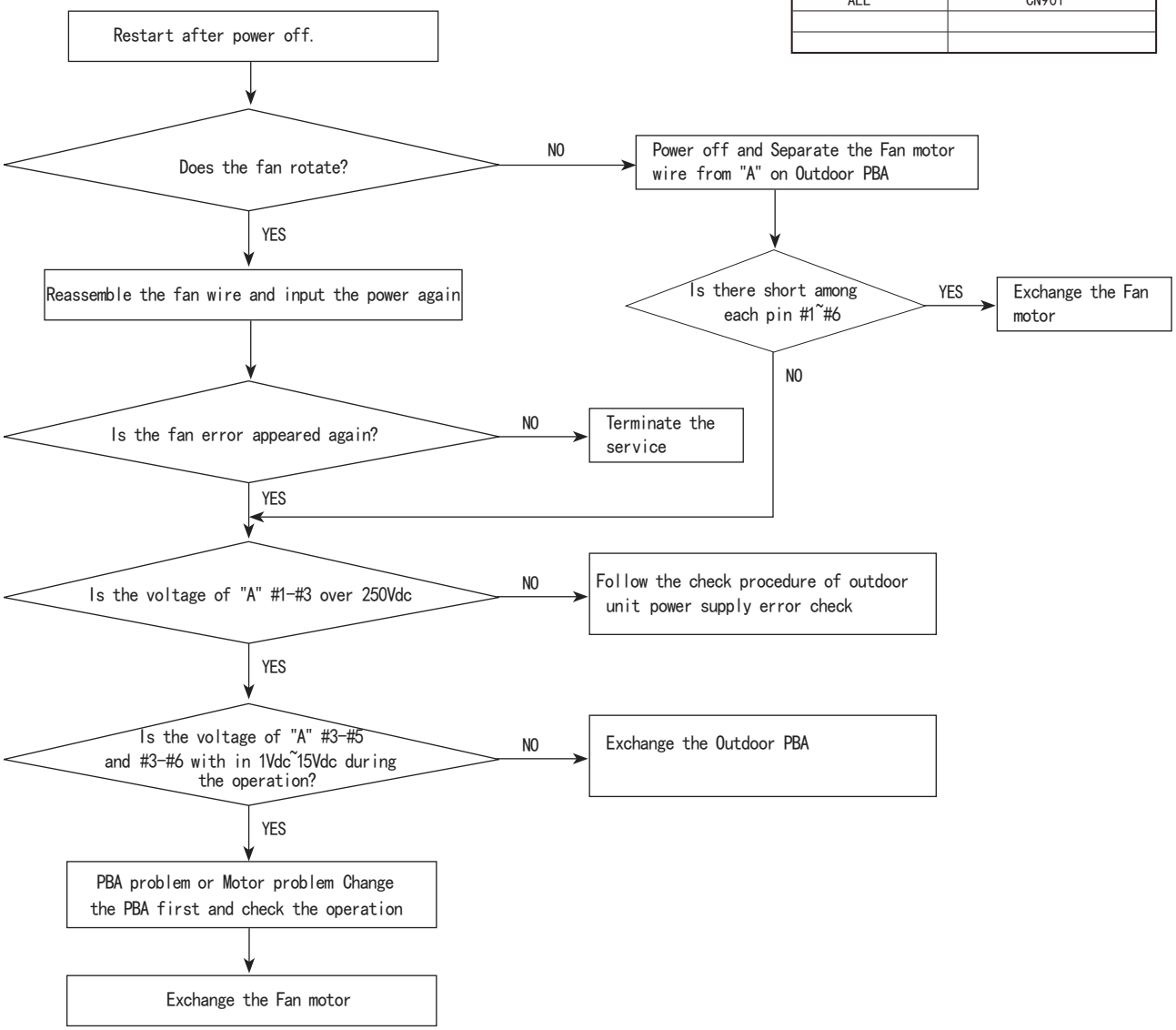
●	○	○	Outdoor fan error

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Are the input power voltage and the power connection correct?
   2) Is the motor wire connected to the outdoor PBA correctly?
   3) Is there no assembly error or non-assembly in the terminal of motor wire connector?
   4) Is there no obstacle at the surrounding of motor and propeller?

2. Troubleshooting procedure

MODEL	"A"
ALL	CN901



10-2-11 Compressor starting error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E461	Comp starting error
◎	○	◎		

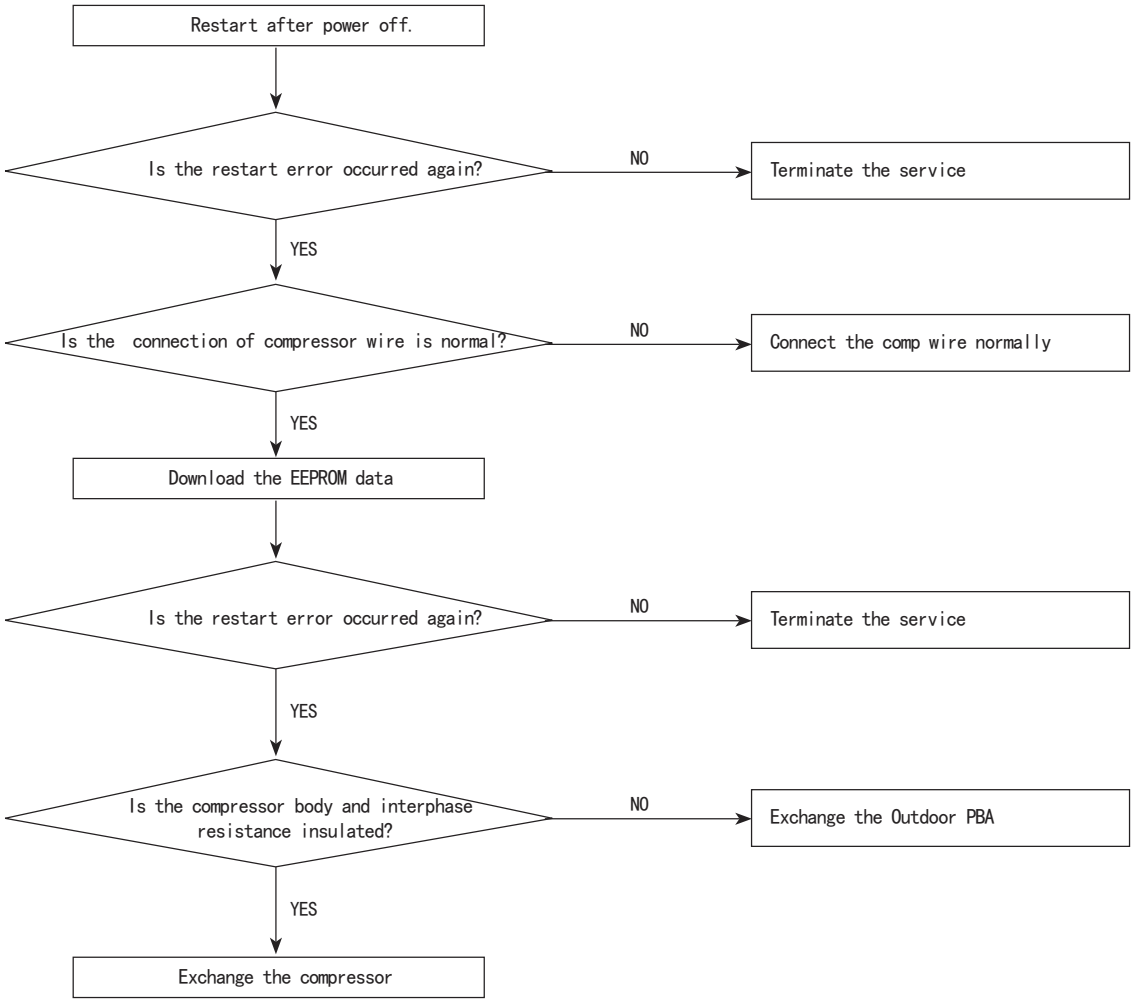
Outdoor display

○	◎	○	Comp starting error

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the connection of cable for the compressor?
   2) Is the compressor wire is connected clockwise? U(RED)-V(BLU)-W(YEL)
   3) Is the interphase resistance of compressor normal?

2. Troubleshooting procedure



10-2-12 Compressor wire missing error/rotation error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E467	Compressor wire missing errorr/rotation error
◎	○	◎		

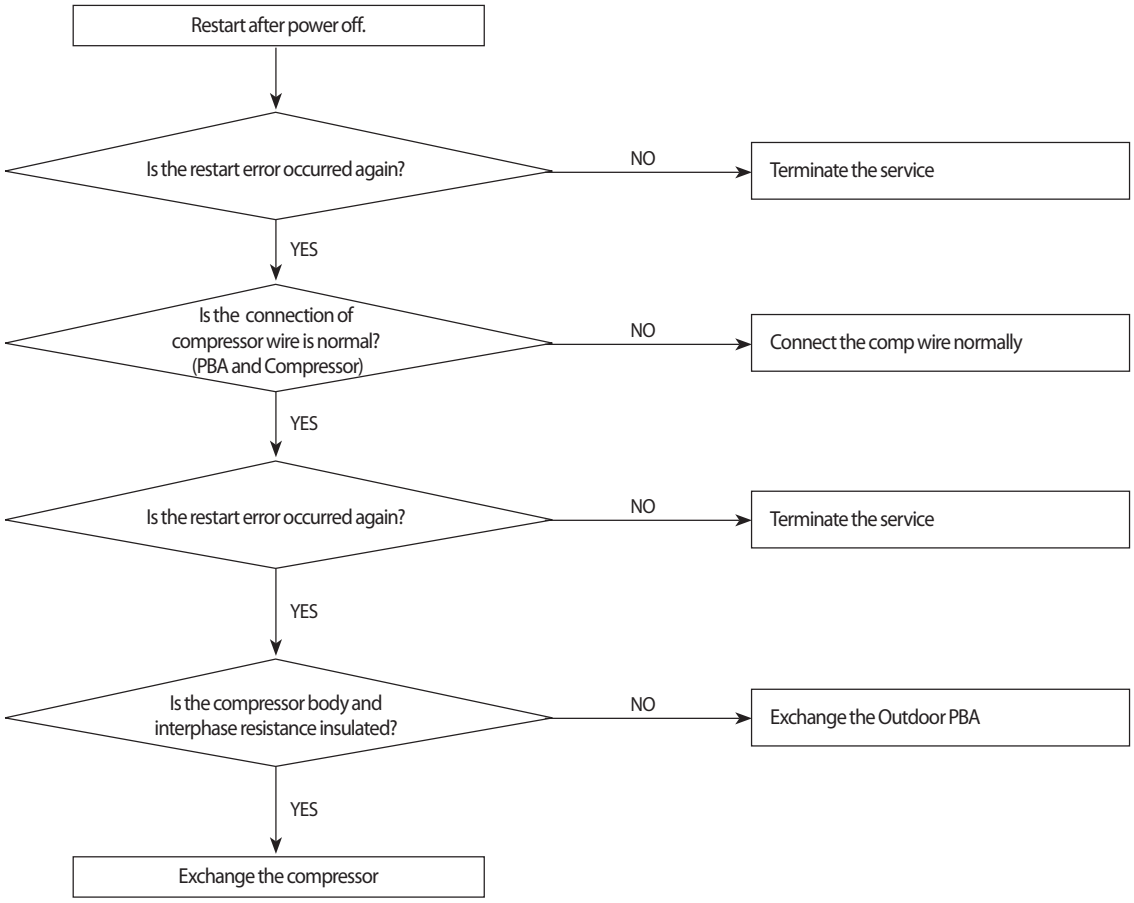
Outdoor display

●	○	●	Compressor wire missing error/rotation error

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the connection of cable for the compressor?
   2) Is the compressor wire is connected clockwise? U(RED)-V(BLU)-W(YEL)
   3) Is the interphase resistance of compressor normal?

2. Troubleshooting procedure



10-2-13 O.C(Over Current) error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E464	IPM Over Current(O.C) Error
◎	○	◎		

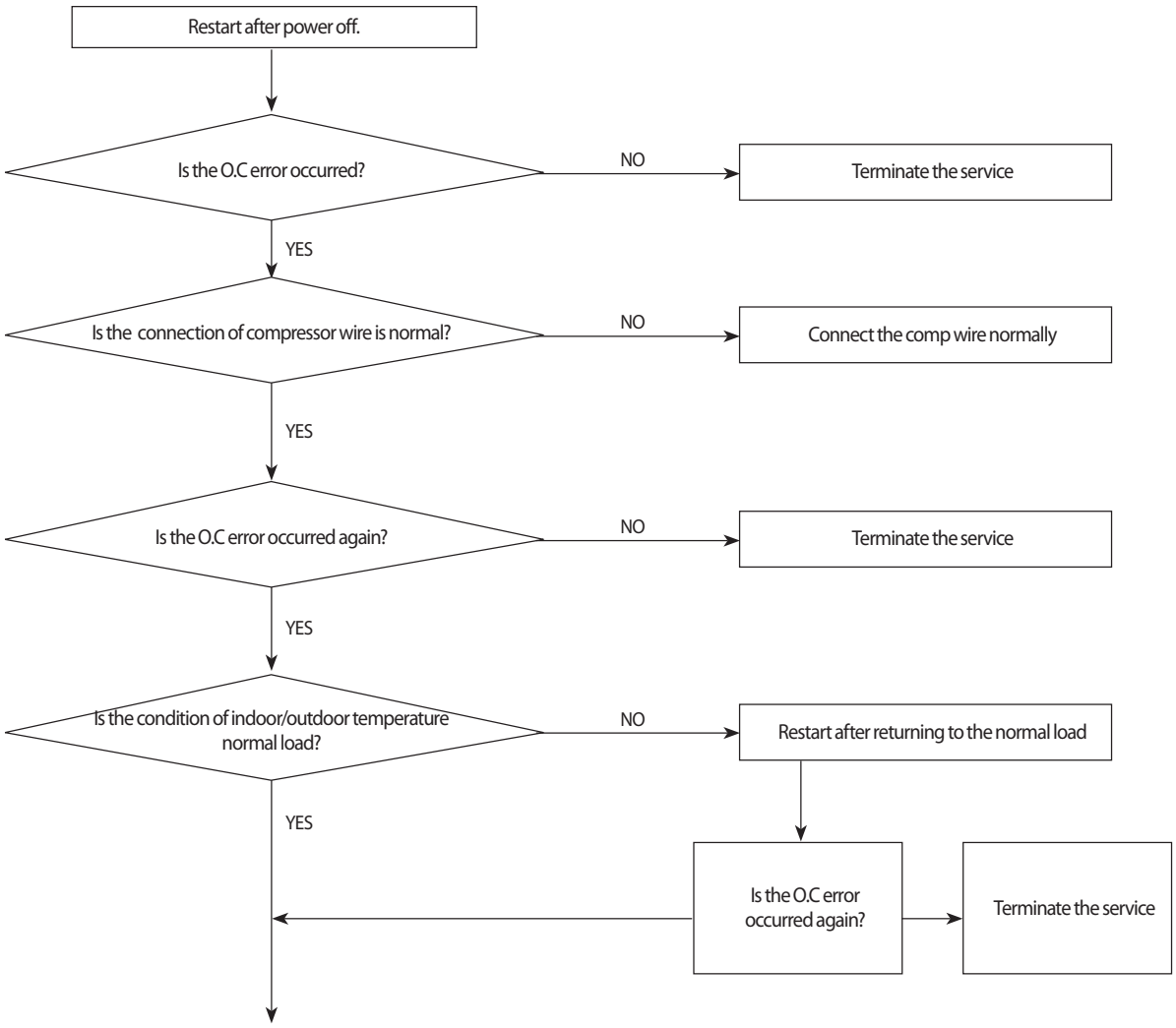
Outdoor display

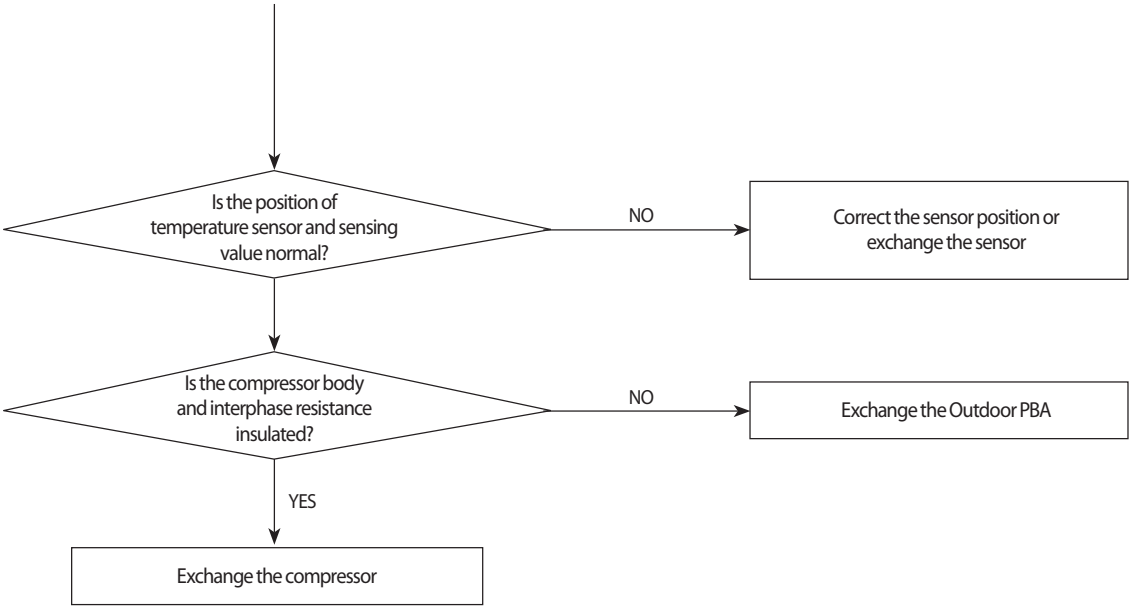
○	○	◎	IPM Over Current(O.C) Error

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the IPM Shunt resistance value correct? Check the resistor is opened
   2) Is the condition of surrounding temperature abnormal overload?
   3) Is there any problem as like the temperature sensor separation or measurement value error?
   4) Is the interphase resistance of compressor normal?

2. Troubleshooting procedure




Is the position of temperature sensor and sensing value normal?
NO
Correct the sensor position or exchange the sensor
Is the compressor body and interphase resistance insulated?
NO
Exchange the Outdoor PBA
YES
Exchange the compressor

10-2-14 DC_link voltage sensor error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E469	DC_link voltage sensor error
◎	○	◎		

Outdoor display

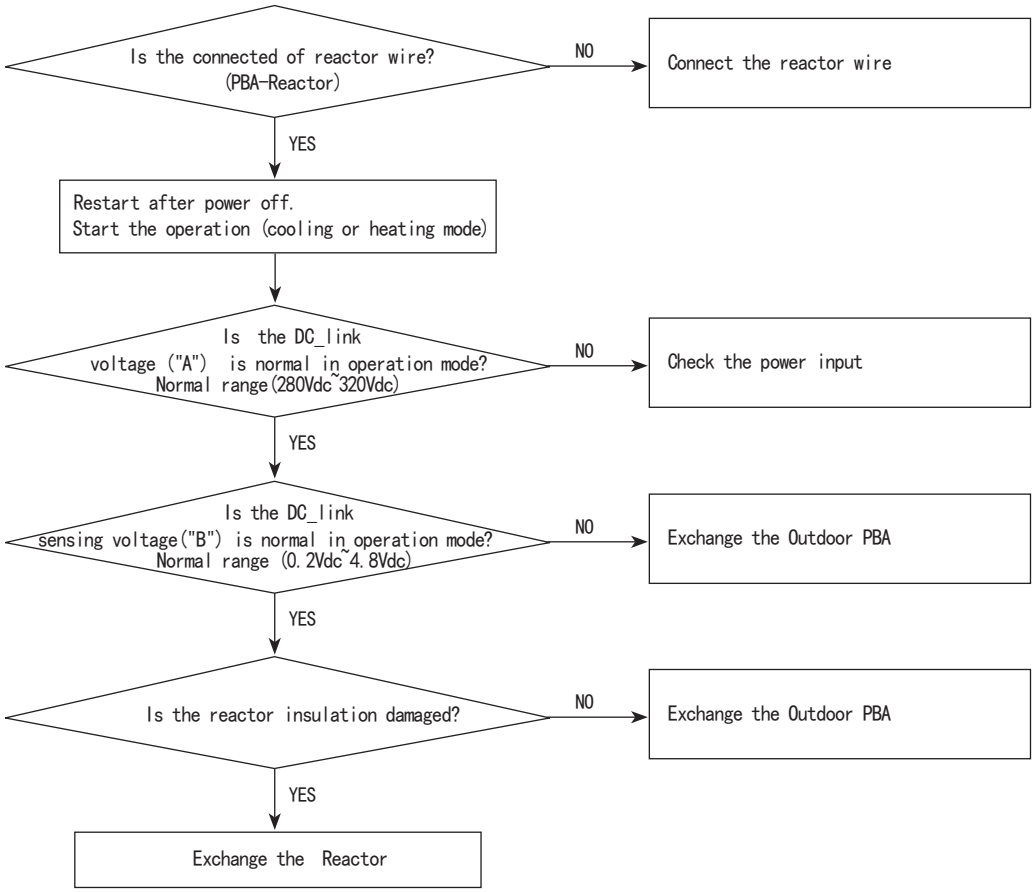
●	◎	◎	DC_link voltage sensor error

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the input voltage of outdoor terminal block is normal?
   2) Is the reactor wire connected?
   3) Is the DC_link capacitor("A") assembled in accordance the specification? (Outdoor PBA)
   4) Is the DC_link resistor("B") value is normal? (Outdoor PBA)

2. Troubleshooting procedure

Model	" A "	" B "
DB92-02866A	CE101, CE102, CE103	R101
DB92-02867A	CE053, CE054, CE055, CE056	R062



10-2-15 DC_link voltage sensor error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E488	AC Input Voltage Sensor Error
◎	○	◎		

Outdoor display

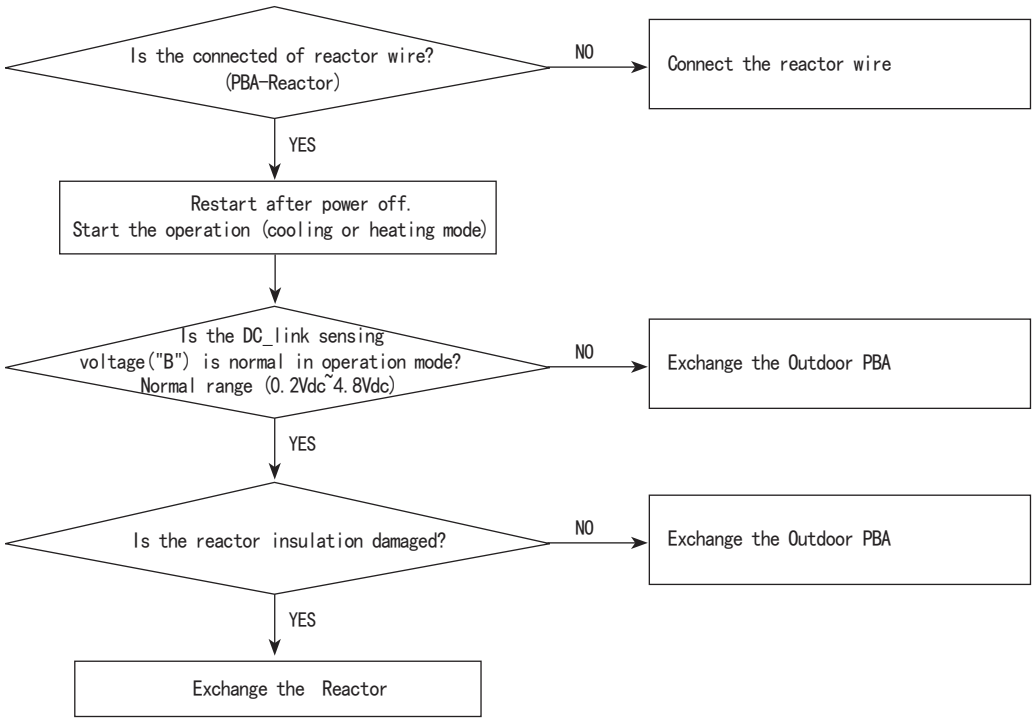
●	◎	◎	AC Input Voltage Sensor Error

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the input voltage of outdoor terminal block is normal?
   2) Is the reactor wire connected?
   3) Is the PFC resistor("A") value is normal? (Outdoor PBA)

2. Troubleshooting procedure

Model	" A "	" B "
DB92-02866A/2867A	R105, R106, R107, R108	R105



10-2-16 DC_link voltage under/over error,H/W DC-link Over voltage protection error/PFC load

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E466	DC-Link voltage under/over error
◎	○	◎	E483	Over Voltage Protection Error
			E484	PFC Over load

Outdoor display

○	●	◎	DC-Link voltage under/over error
			PFC over load
			Over Voltage Protection Erro

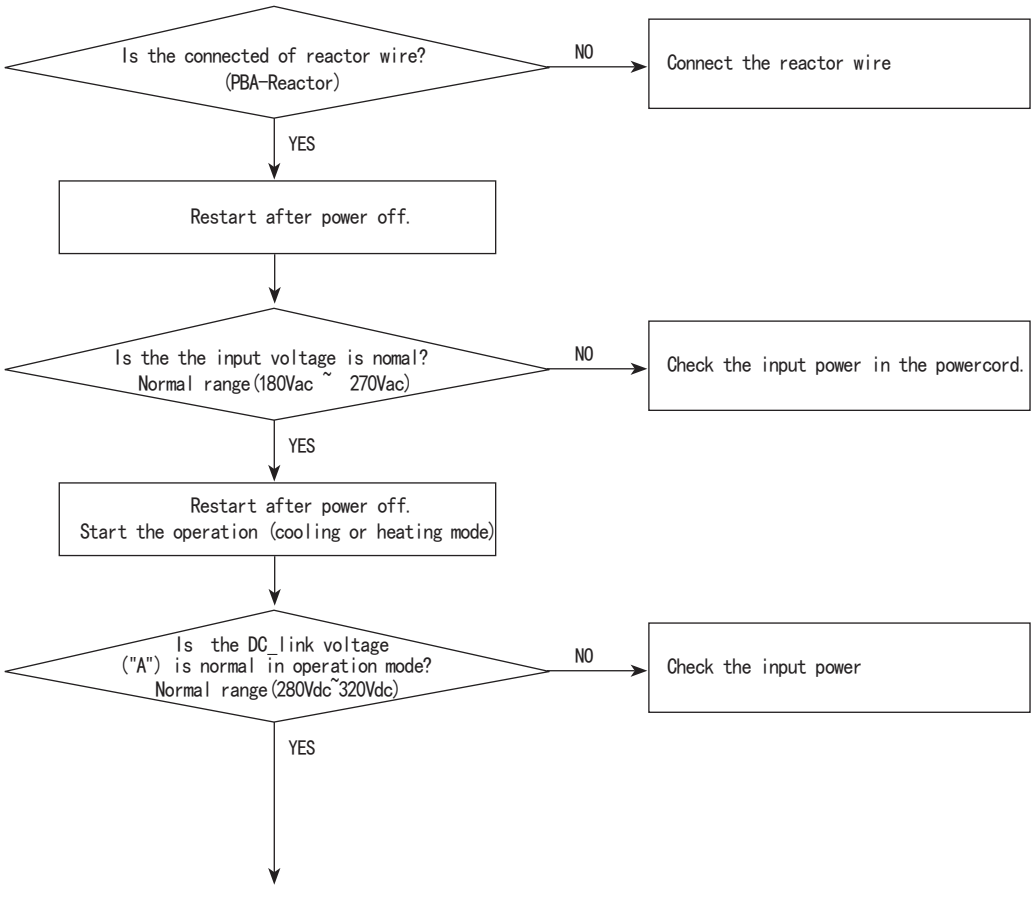
● LED ON ◎ LED BLINKING ○ LED OFF

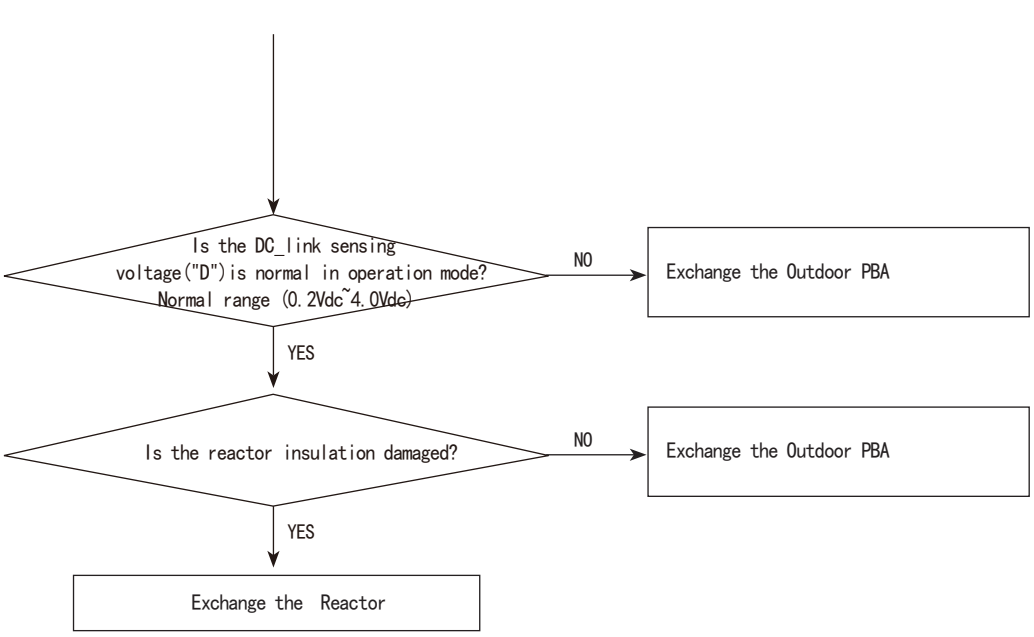
1. Checklist :
   1) Is the input voltage of outdoor terminal block is normal?
   2) Is the input voltage is higher than 300Vac?
   3) Is the reactor wire connected?
   4) Is the DC_link capacitor(A") assembled in accordance the specification? (Outdoor PBA)
   5) Is the DC_link resistor("B") value is normal? (Outdoor PBA)
   6) Is the PFC resistor("C") value is normal? (Outdoor PBA)

Model	" A "	" B "
DB92-02866A	CE101, CE102, CE103	R101, R102, R103, R104
DB92-02867A	CE053, CE054, CE055, CE056	R059, R060, R061, R062

Model	" C "	" D "
DB92-02866A/2867A	R105, R106, R107, R108	R105

2. Troubleshooting procedure




Is the DC_link sensing voltage("D") is normal in operation mode? Normal range (0.2Vdc~4.0Vdc)
NO
Exchange the Outdoor PBA
YES
Is the reactor insulation damaged?
NO
Exchange the Outdoor PBA
YES
Exchange the Reactor

10-2-17 I_trip error, PFC over current

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E462	AC Input I_Limit Trip Error
◎	○	◎		

Outdoor display

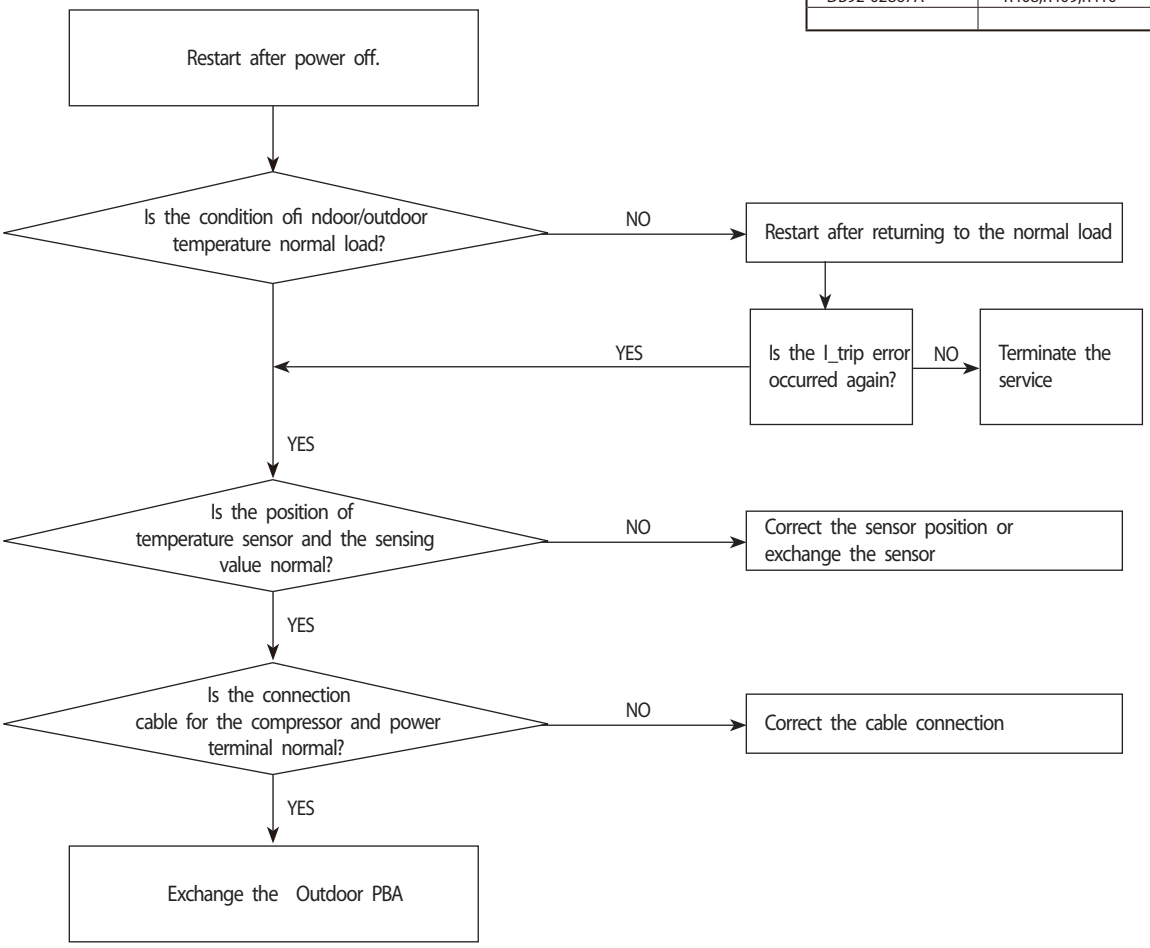
●	◎	●	AC Input I_Limit Trip Error

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the PFC Shunt("A") resistance value correct? Check the resistor is opened
   2) Is the condition of surrounding temperature abnormal overload?
   3) Is there any problem as like the temperature sensor separation or measurement value error?
   4) Is the interphase resistance of compressor normal?

2. Troubleshooting procedure

MODEL	"A"
DB92-02866A	R410,R411,R412
DB92-02867A	R408,R409,R410



10-2-18 Current sensor error/Input current sensor error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E462	AC Input I_Limit Trip Error

Outdoor display

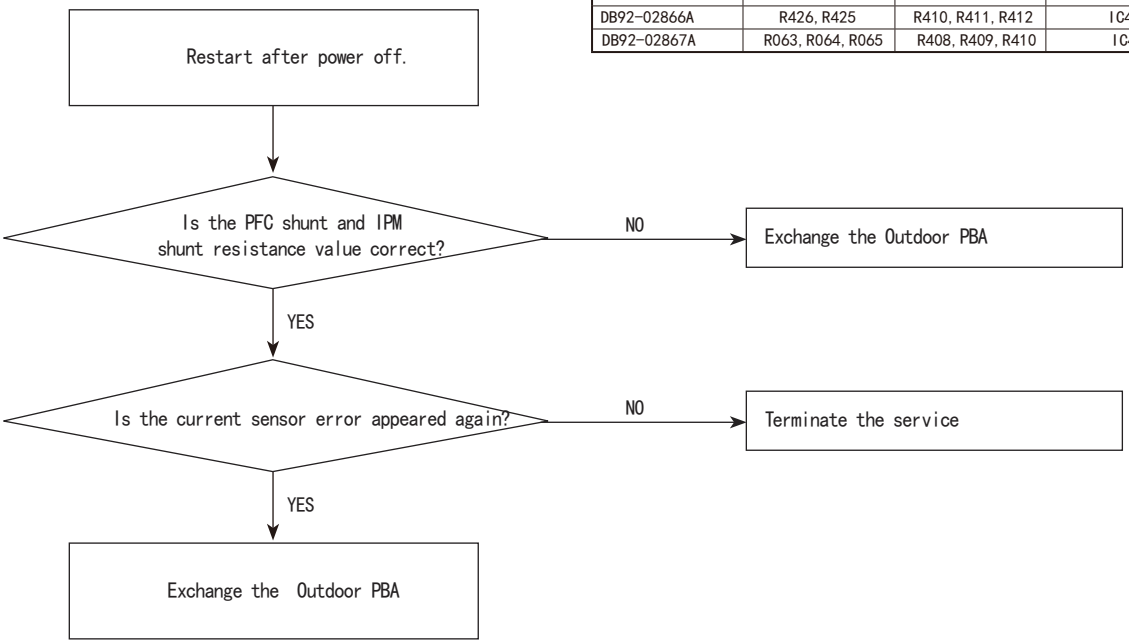
◎	◎	●	Current sensor error
			Input current sensor error

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the PFC Shunt("A") resistance value correct? Check the resistor is opened
   2) Is the IPM Shunt("B") resistance value correct? Check the resistor is opened
   3) Is there no short or open around "C"?

2. Troubleshooting procedure

MODEL	"A"	"B"	"C"
DB92-02866A	R426, R425	R410, R411, R412	IC451
DB92-02867A	R063, R064, R065	R408, R409, R410	IC451



10-2-19 Heatsink sensor error/Heatsink over heat

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E474	Heatsink sensor error
			E500	Heatsink Over Temperature Error

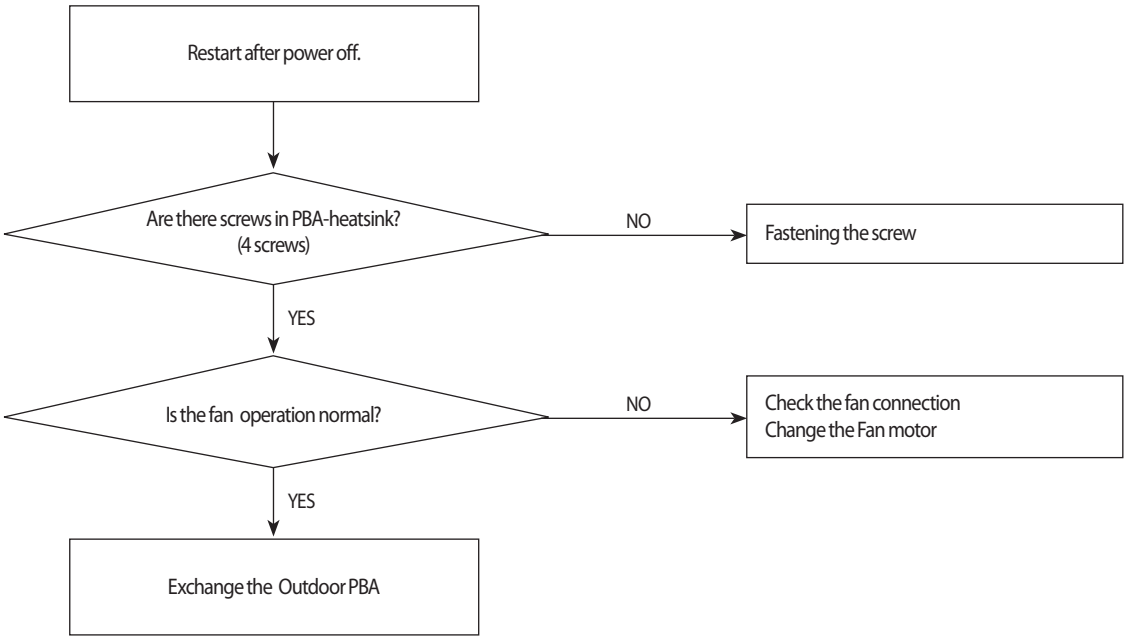
Outdoor display

◎	◎	●	Heatsink sensor error
◎	●	○	Heatsink Over Temperature Error

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Are there screws assembly in PBA-heatsink?
   2) Is the gap PBA-heatsink
   3) Is the fan operation normal?
   4) Is the cover assembly in control-box normal?

2. Troubleshooting procedure



10-2-20 Comp Vlimit error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E465	Comp V_limit/I_limit Error

Outdoor display

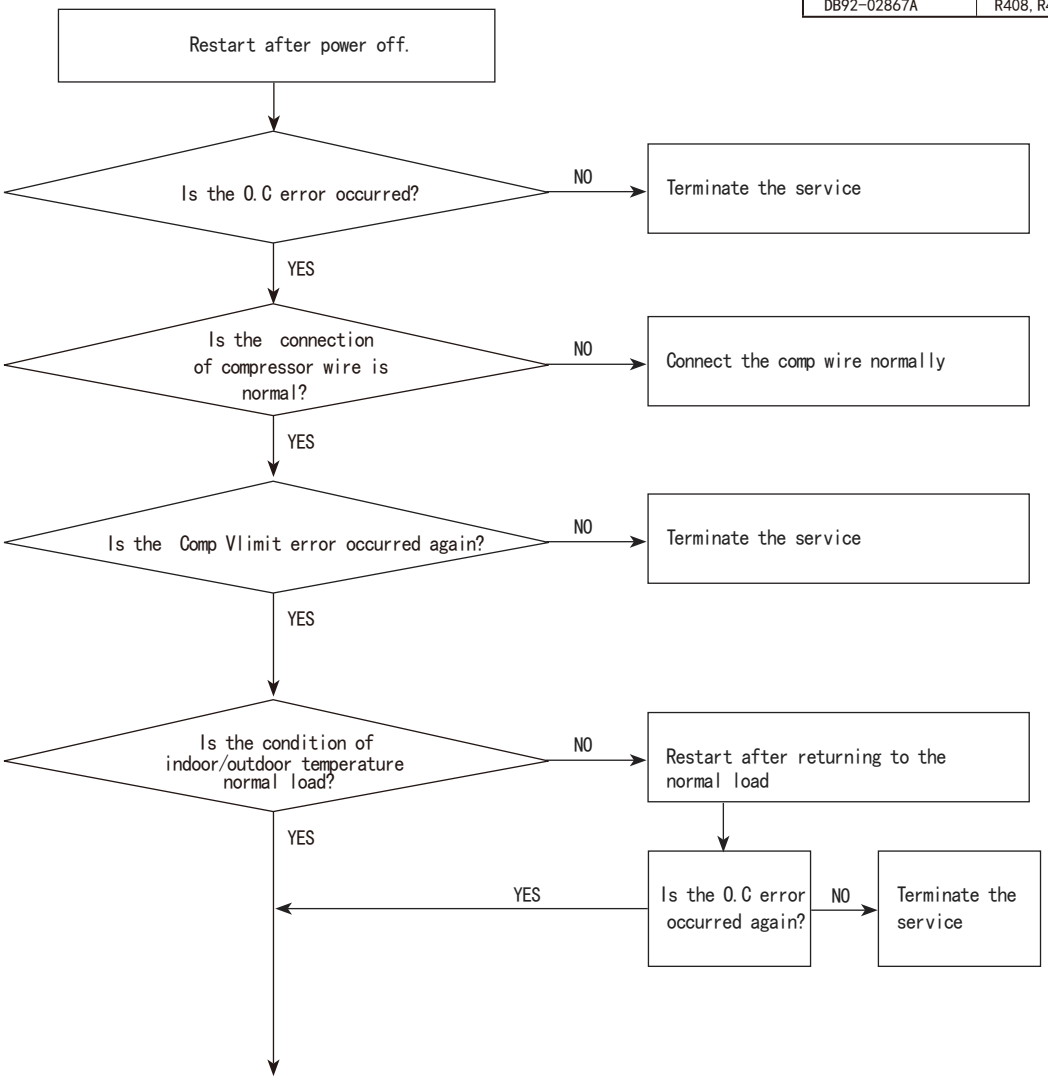
◎	●	○	Comp V_limit/I_limit Error

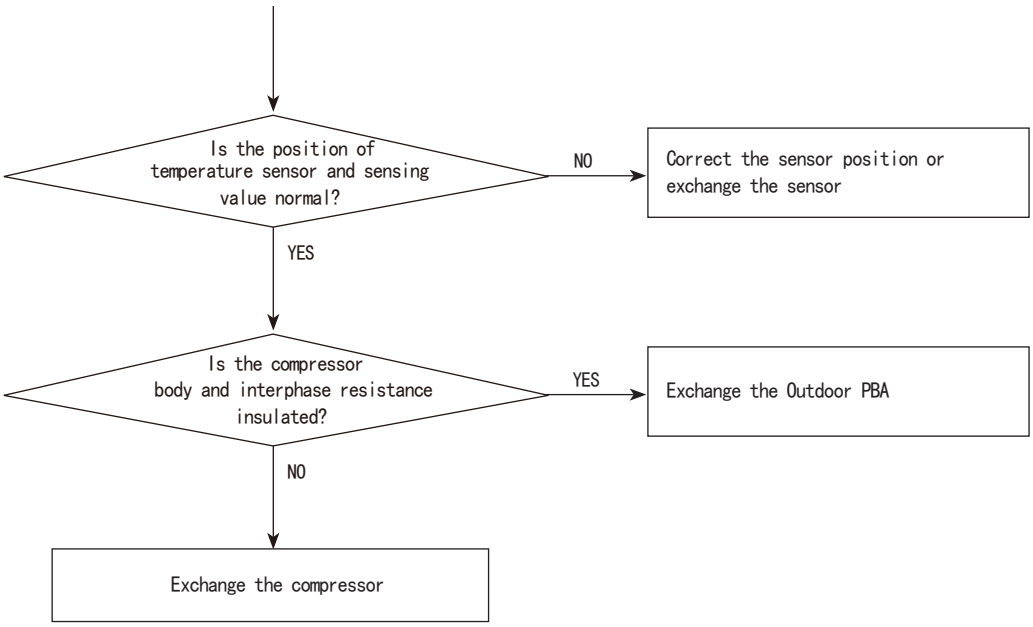
● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the IPM Shunt("A") resistance value correct? Check the resistor is opened
   2) Is the condition of surrounding temperature abnormal overload?
   3) Is there any problem as like the temperature sensor separation or measurement value error?
   4) Is the interphase resistance of compressor normal?

2. Troubleshooting procedure

MODEL	"A"
DB92-02866A	R410, R411, R412
DB92-02867A	R408, R409, R410




Is the position of temperature sensor and sensing value normal?
NO
Correct the sensor position or exchange the sensor
YES
Is the compressor body and interphase resistance insulated?
YES
Exchange the Outdoor PBA
NO
Exchange the compressor

10-2-21 EEPROM error/OTP error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E470	EEPROM Data Error (no data)
			E471	OTP errorEEPROM Data Error (Main Micom↔Inv Micom)

Outdoor display

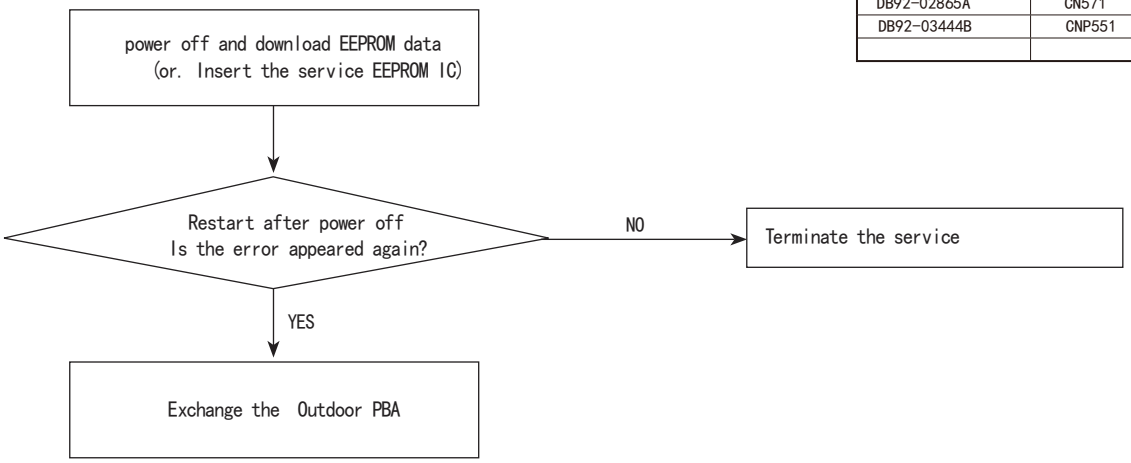
○	●	○	EEPROM Data Error (no data)
●	○	◎	OTP errorEEPROM Data Error (Main Micom↔Inv Micom)

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is there a short around micom?
   2) Is there a short around "A"?
   3) Did you download or insert EEPROM IC, after changing outdoor PBA?

2. Troubleshooting procedure

MODEL	"A"
DB92-02865A	CN571
DB92-03444B	CNP551



10-2-22 Operation condition secession error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E440	Prohibit Operation Condition Error (Heating)
			E441	Prohibit Operation Condition Error (Cooling)

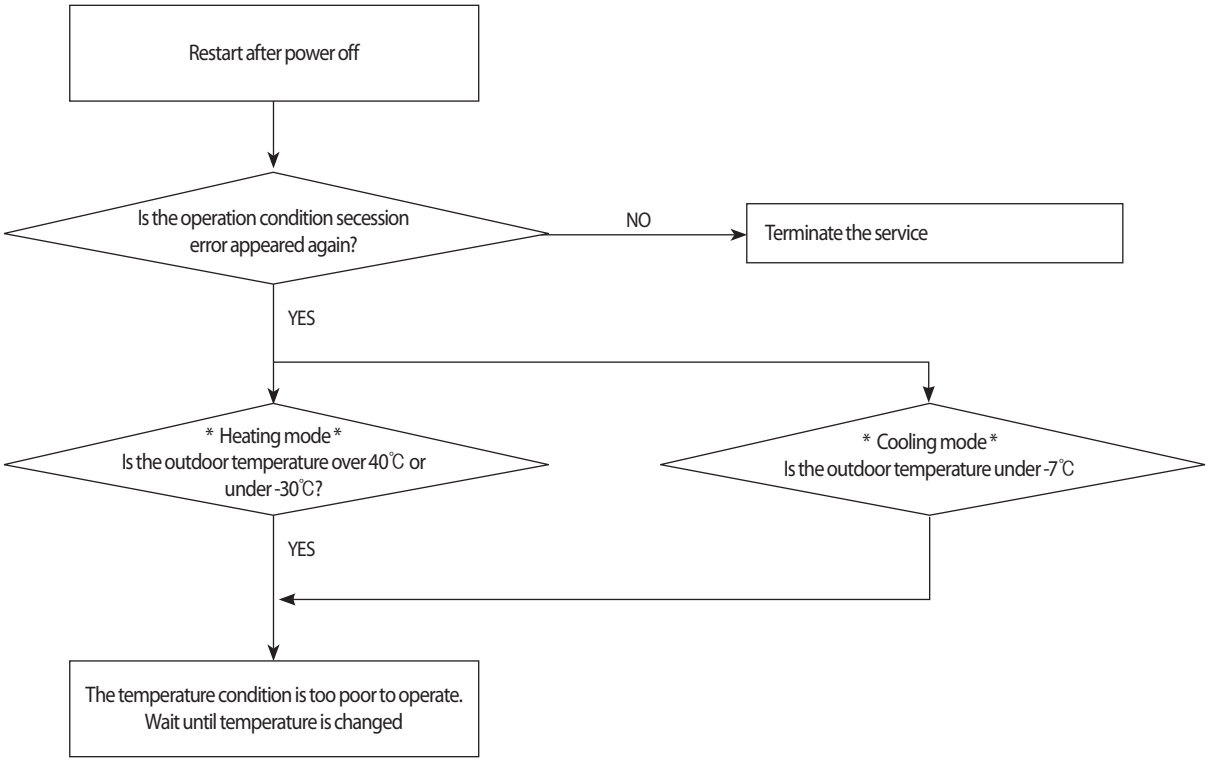
Outdoor display

●	◎	○	Operation condition secession

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Check the temperature around the outdoor unit.

2. Troubleshooting procedure



10-2-23 Gas leak error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E554	GAS Leak error

Outdoor display

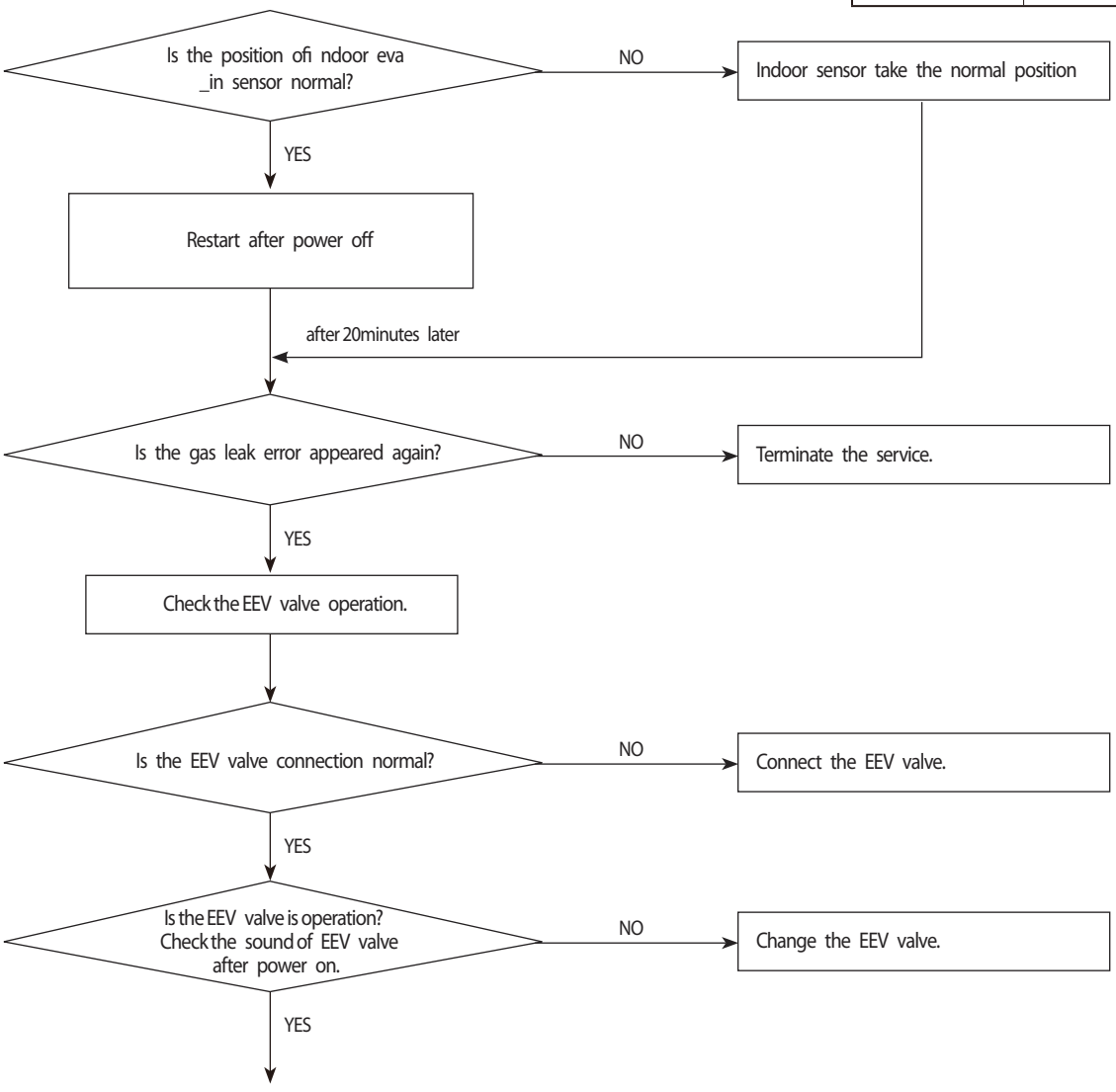
●	●	○	GAS Leak error

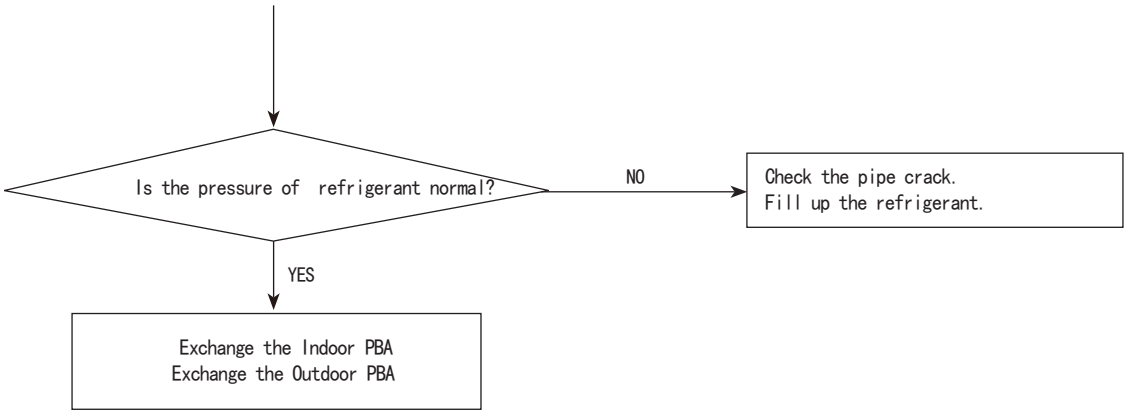
● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the position ofi ndoor Eva_in sensor normal?
   2) Check the pipe crack
   3) Check the EEV valve connection("A") in Outdoor unit
   4) Check the refrigerant was charged

MODEL	"A"
DB92-02866A	CN701
DB92-02867A	CN701

2. Troubleshooting procedure



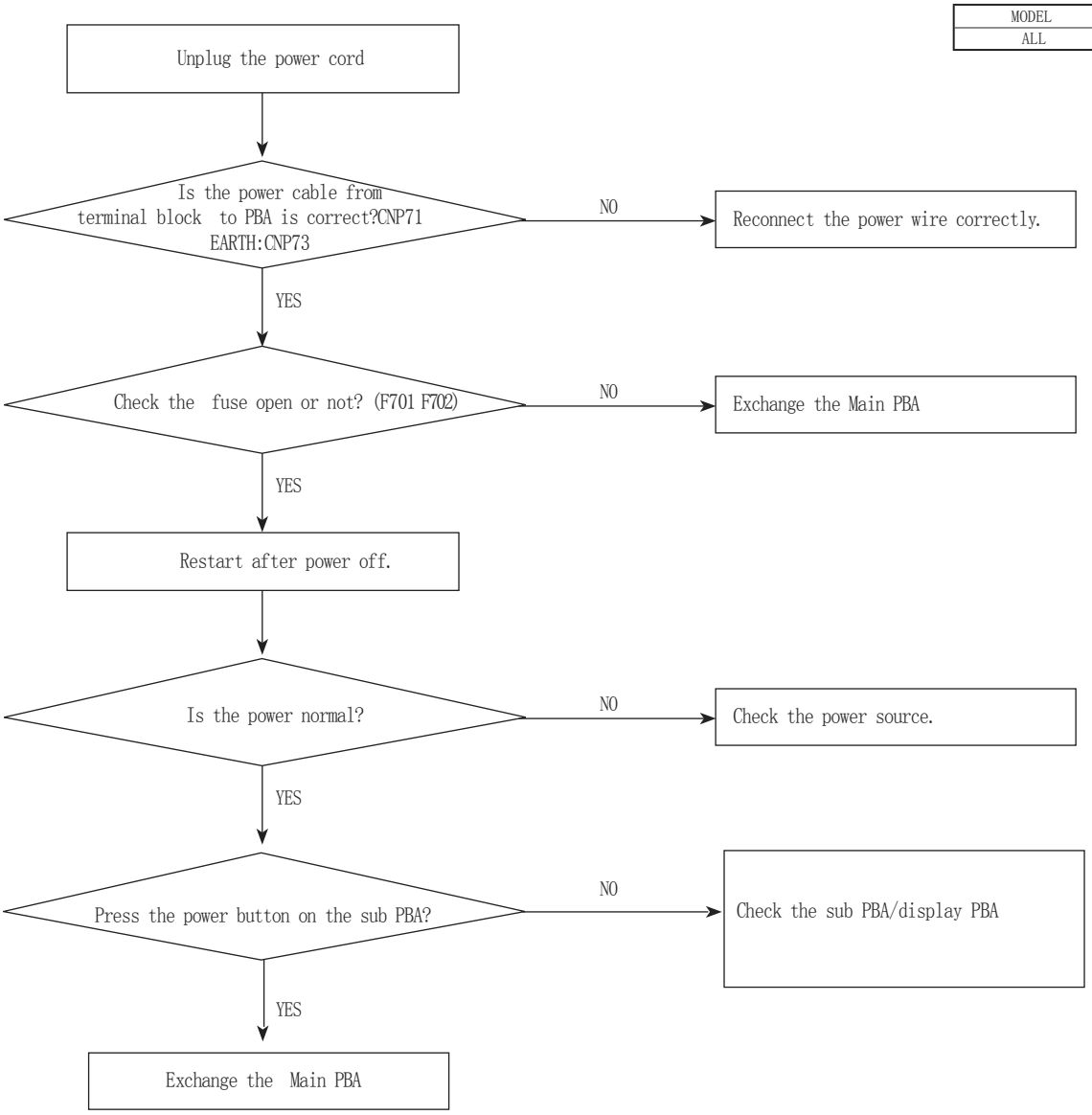

Is the pressure of refrigerant normal?
NO
Check the pipe crack.
Fill up the refrigerant.
YES
Exchange the Indoor PBA
Exchange the Outdoor PBA

102-24 No power outdoor (Initial Diagnosis) (Not displayed)

1. Checklist :
   1) Is input power normal?
   2) Is AC power linked correctly? (L,N,E)
   3) Is mis-wiring between communication wire and Power wire?

2. Troubleshooting procedure

MODEL
ALL



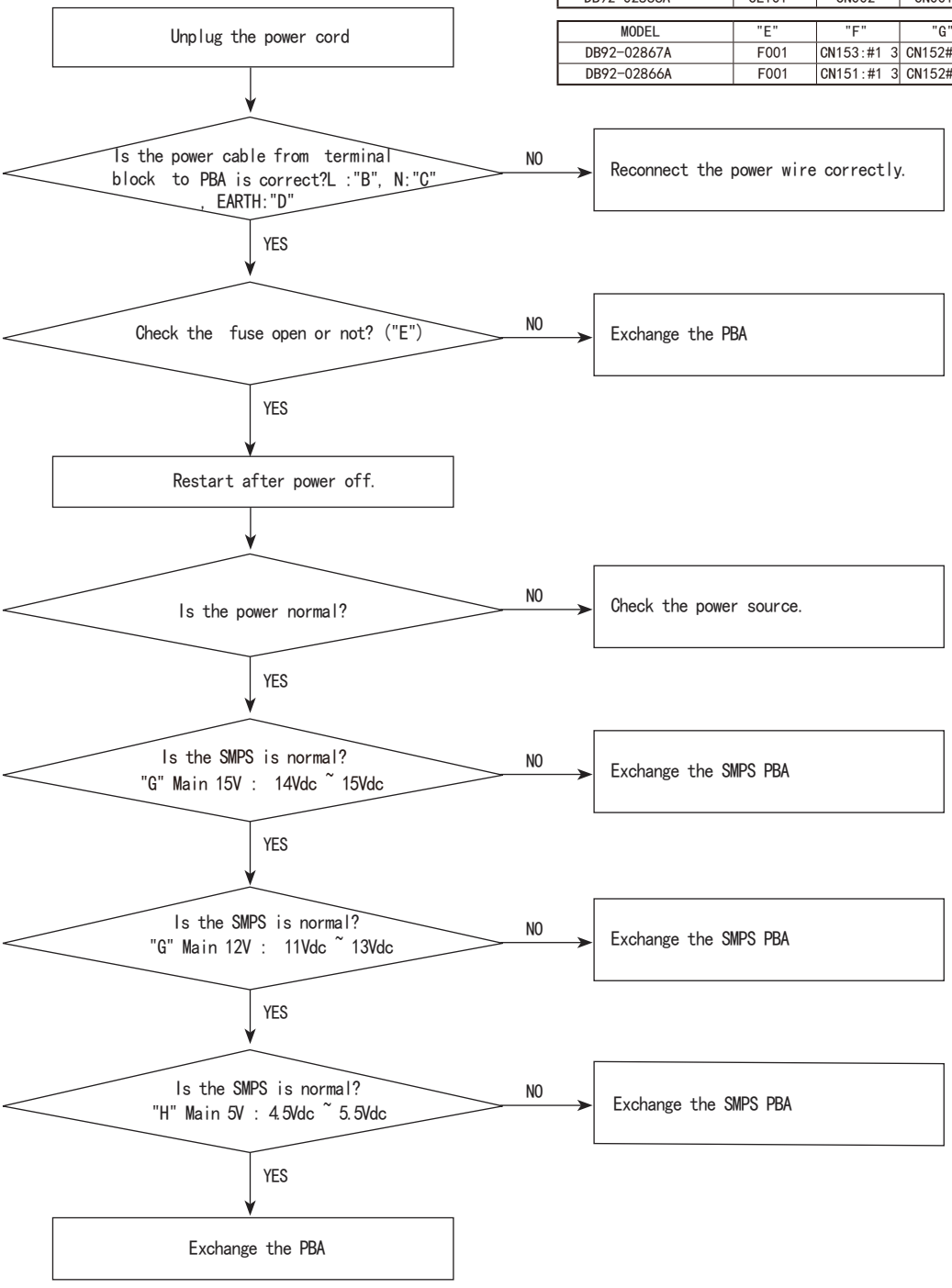
10-2-25 No power outdoor (Initial Diagnosis) (Not displayed)

1. Checklist :
   1) Is input power normal?
   2) Is AC power linked correctly? (L,N,E)
   3) Is mis-wiring between communication wire and Power wire?
   4) Is input voltage of SMPS DC-link capacitor("A") normal?
   5) Is the voltage of SMPS DC normal?

MODEL	"A"	"B"	"C"	"D"
DB92-02867A	CE101	CN002	CN001	CN003
DB92-02866A	CE101	CN002	CN001	CN003

MODEL	"E"	"F"	"G"	"H"
DB92-02867A	F001	CN153:#1 3	CN152#1 2	CN152#2 3
DB92-02866A	F001	CN151:#1 3	CN152#1 2	CN152#2 3

2. Troubleshooting procedure



10-2-26 AC zero cross signal error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E472	AC zero cross signal error

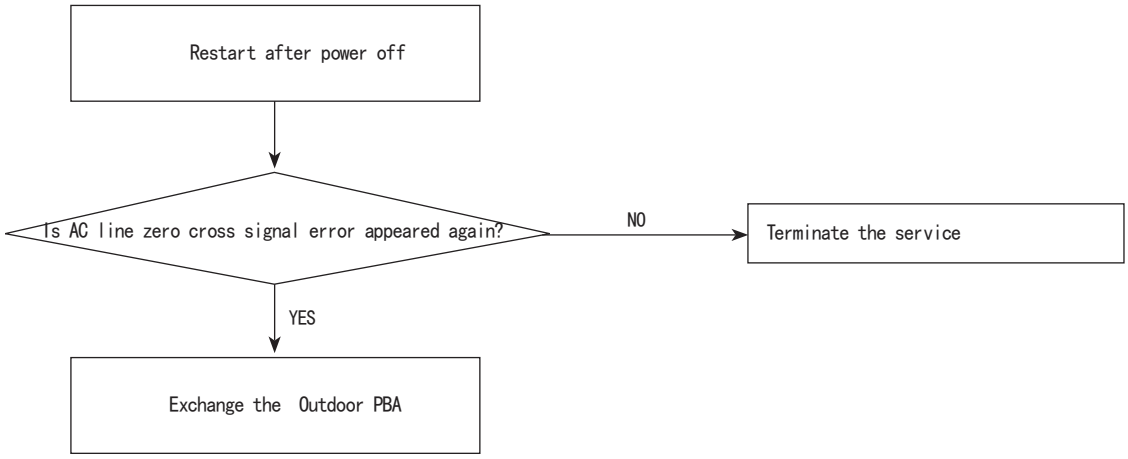
Outdoor display

●	●	◎	AC zero cross signal error

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Check the power condition at customer's house (Is there any power noise?)
   2) Have been there power failure?

2. Troubleshooting procedure



10-2-27 AC zero cross signal error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E556	Capacity miss match error

Outdoor display

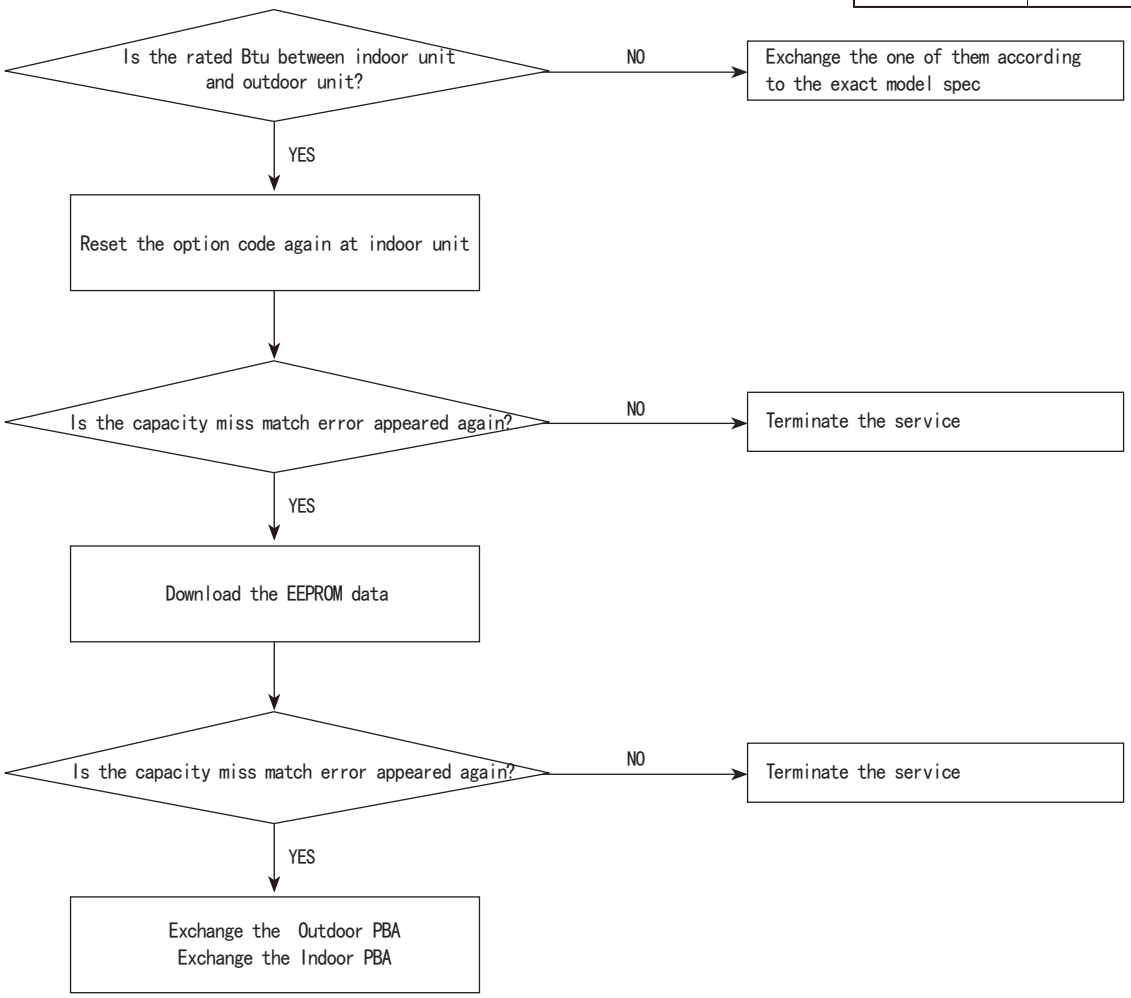
◎	○	○	Capacity miss match error

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Check the Btu between indoor and outdoor unit
   2) Check the indoor unit option and outdoor unit EEPROM data

MODEL	Error display
DB92-02866A/2867A	0

2. Troubleshooting procedure



10-2-28 When the remote control is not receiving

1. Checklist :
    1) Check if the connector was normally assembled.
    2) Check the battery in remote control
    3) All the lights out and check again : Change electronic typed to a fluorescent light
    4) Put the set in operation and check the voltage of display PBA
    5) Replace the display PBA

10-2-29 EEV or Valve Close error-Self diagnosis

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E42	EEV or Valve Close error-Self diagnosis

Outdoor display

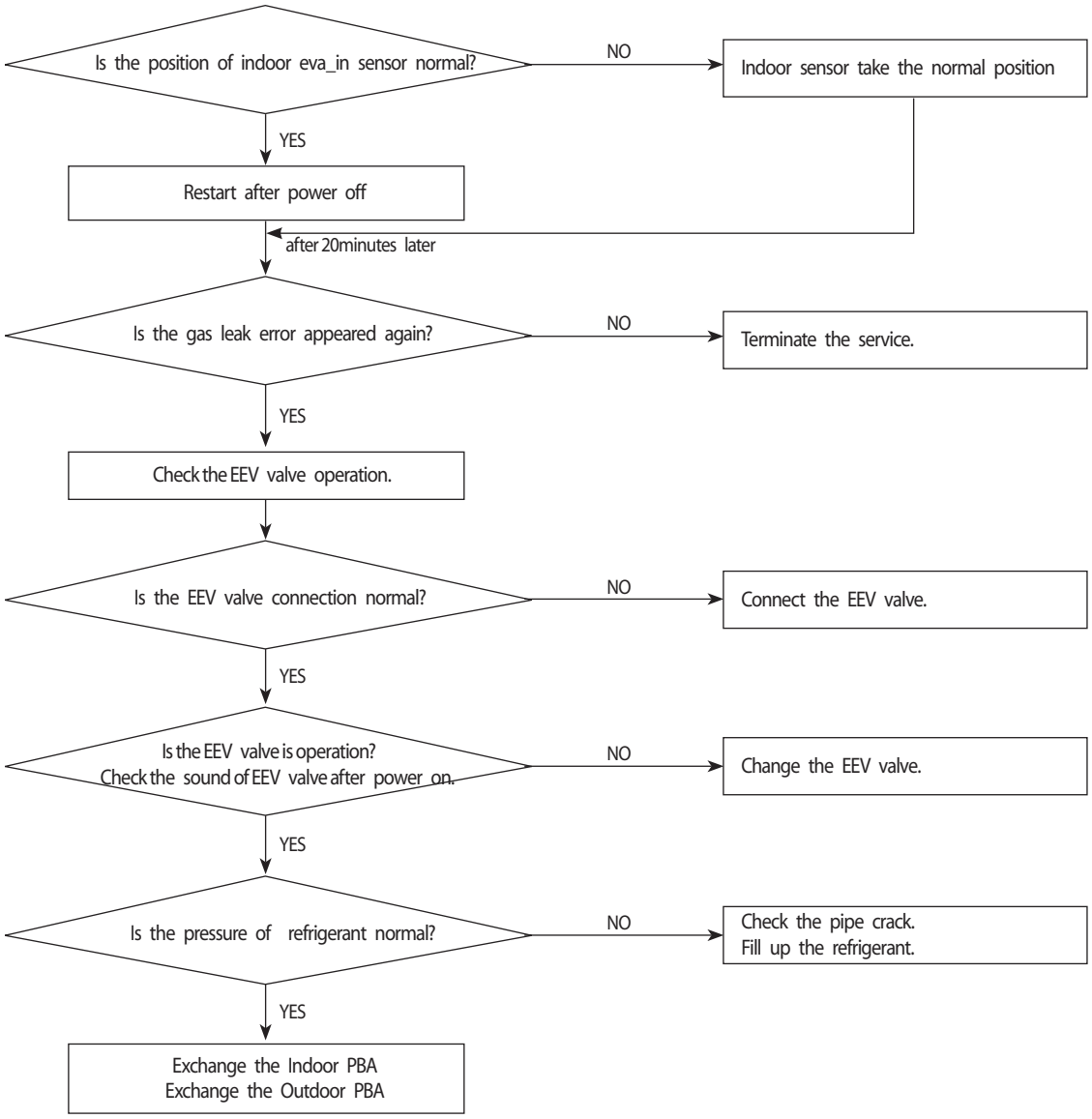
●	●	○	EEV or Valve Close error-Self diagnosis

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the position of indoor Eva_in sensor normal?
   2) Check the pipe crack
   3) Check the EEV valve connection("A") in Outdoor unit
   4) Check the refrigerant was charged

MODEL	"A"
DB92-02866A/2867A	CN701

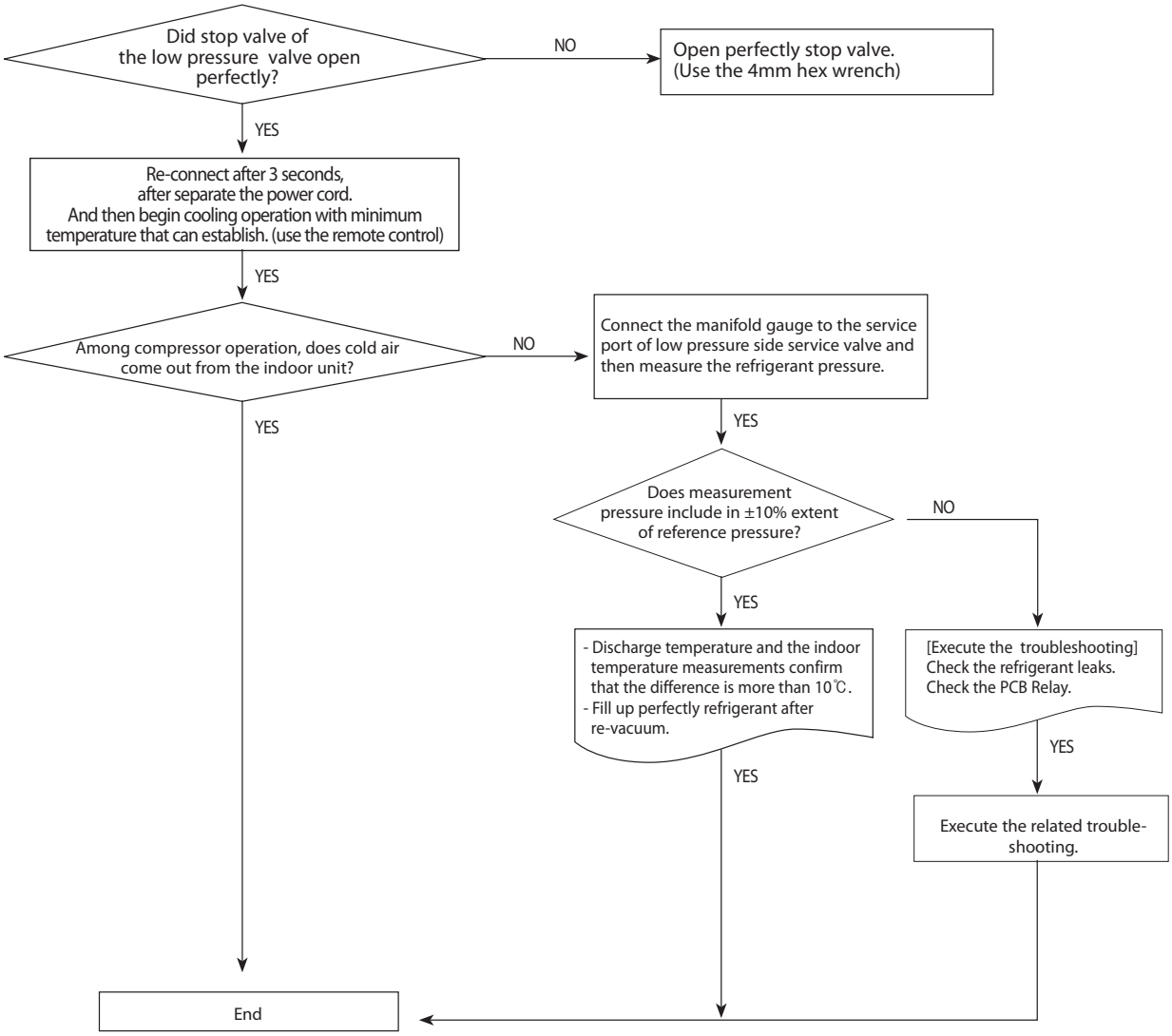
2. Troubleshooting procedure



10-2-30 10-3-18 Smart Install error

1. Checklist :
   1) Check the leakage region.(Use leakage detection liquid or soapy water)
   2) When leakage region is found from service valve and piping connection flare nut part : After the related measures to check the refrigerant supplements and operation.
   3) If the leakage region is pipe welding part : Weld leakage region after refrigerant gas release.(Brass parts should only apply)
   4) If the leakage region is surface area (Heat exchanger or pipe welding region is not) : Replace parts.
   5) Check the PBA Relay
      - Display of indoor unit : Ensure that the operating pilot lamp has been lighted.
      - Ensure that the Relay input voltage of indoor unit PBA is normally.(If the PBA is defective, replace)

2. Troubleshooting procedure



10-3 PCB Inspection Method

10-3-1 Pre-inspection Notices

1. Check if you pulled out the AC power plug when you eliminate the PCB or front panel.
2. Don't hold the PCB side not impose excessive force on it to eliminate the PCB.
3. Don't pull the lead wire but hold the whole housing to connect or disconnect a connector to the PCB.
4. In case of outdoor PCB disassembly, check first the complete discharge of condenser after 1 minute power off.

10-3-2 Inspection procedure

1. Check connector connection and peeling of PCB or bronze coating pattern when you think the PCB is broken.
2. The PCB is composed of 3 parts.

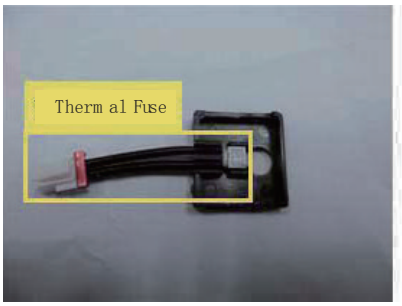
. Indoor Main part : MICOM and surrounding circuit, relay, fan motor sensing and driving circuit, temperature sensing circuit power circuit of SMPS, buzzer circuit. Communication circuit.
. Display part : LED lamp, Switch, Remote-control module.
. Outdoor Main part : MICOM and surround circuit, fan motor sensing and driving circuit, compressor driving circuit power circuit of SMPS, PFC control circuit, 4way circuit, communication circuit, OPTION.(EEV control circuit, temperature sensing circuit)

10-3-3 Indoor detailed inspection procedure

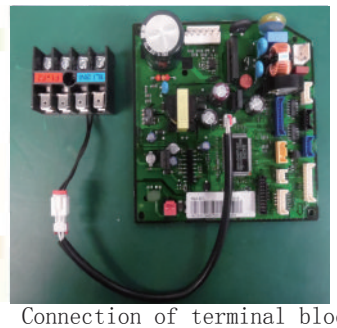
No	procedure	Inspection Method	Cause
1	Plug out and pull the PCB out of the control box Check the PCB fuse.	1) Is 1st fuse disconnected? 2) Is 2nd fuse disconnected?	. Over current. . Indoor Fan motor short. . AC part and pattern short of Indoor PBA.
2	Supply power If the operating lamp twinkles at this time , the above 1) ~ 3) have no relation.	Check the power voltage	
		1) Is the BD71 input voltage 200Vac ~240Vac?	. Power cord is fault, Fuse open, Wrong Power cable Wiring, AC part is faulty.
		2) Is the voltage between both terminal of CE113(+)-(-) 12Vdc?	. Switching Trans of Power circuit is faulty.
		3) Is the voltage between both terminal of CE108(+)-(-) 5Vdc?	. Power circuit is faulty, Load short.
3	Press the ON/OFF button. 1. Fan speed(high) 2. Continuous Operation	1) Is the voltage over DC 270V being imposed on terminal #1 ~#3 of fan motor connector(CNP72)?	. Fan motor of the indoor is faulty.
		2) The fan motor of the indoor unit doesn't run.	. Fan motor connector(CNP72) is faulty.
		3) The power voltage between terminal #1-#3 of the connector(CNP72) is 0V.	. PBA is faulty.

■ New Function [Indoor Terminal Block Safety Device]

1. Thermal Fuse is installed in Terminal Block as below.
(Thermal Fuse is used to prevent PL caused by a defective connection of indoor and outdoor units)

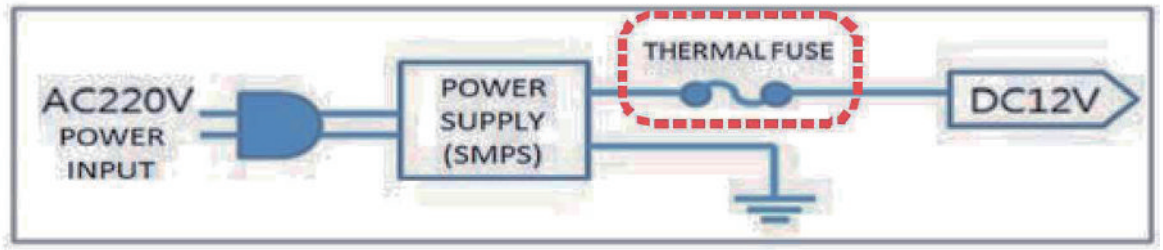


Terminal Block Internals


Connection of terminal block and Main PBA

2. Thermal Fuse is opened when internal temperature of Terminal Block goes to a certain point due to Tracking caused by a defective connection of indoor and outdoor units.

- When Thermal Fuse is opened, Main PBA (DC12V) is turned off and the indoor unit does not operate.
(There is no problem with Main PBA in this case)
- In the above case, the change of all-in-one Terminal Block will make Main PBA operate again.



Circuit Block

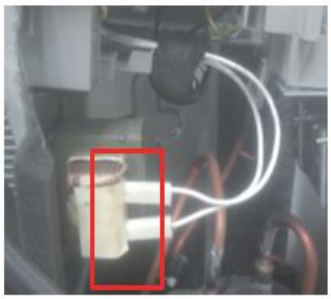
3. Measurement method of fair/defective thermal fuse

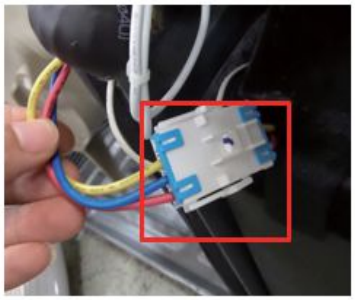
Fail

Defective

■ OUTDOOR PBA CHANGE--ATTENTION

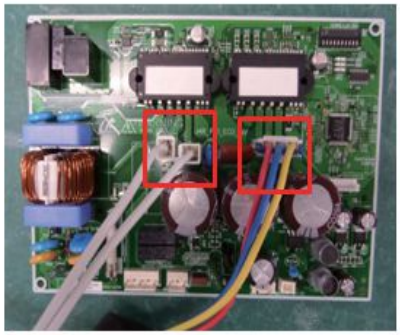
1.if you want to check the reactor or the comp, pls release the REACTOR WIRE and the COMP wire, not release the wire on the PBA.





2.if you want to change the PBA, pls remove the heatsink first, and remove the comp wire and reactor wire secondly.

1.remove the heatsink



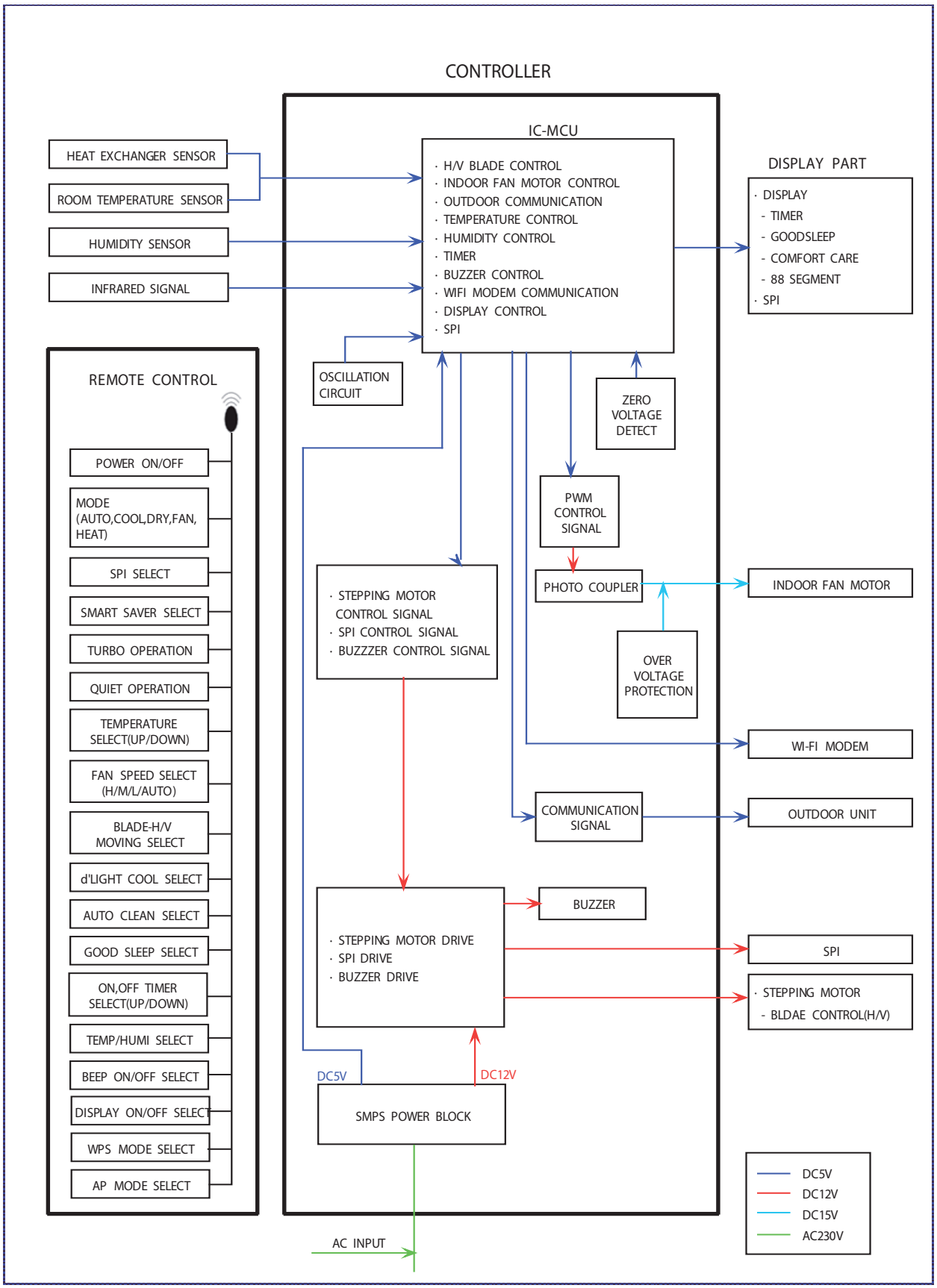
pls hold the conector ,remove the reactor connector as left picture.

2.remove the reactor wire and the comp wire

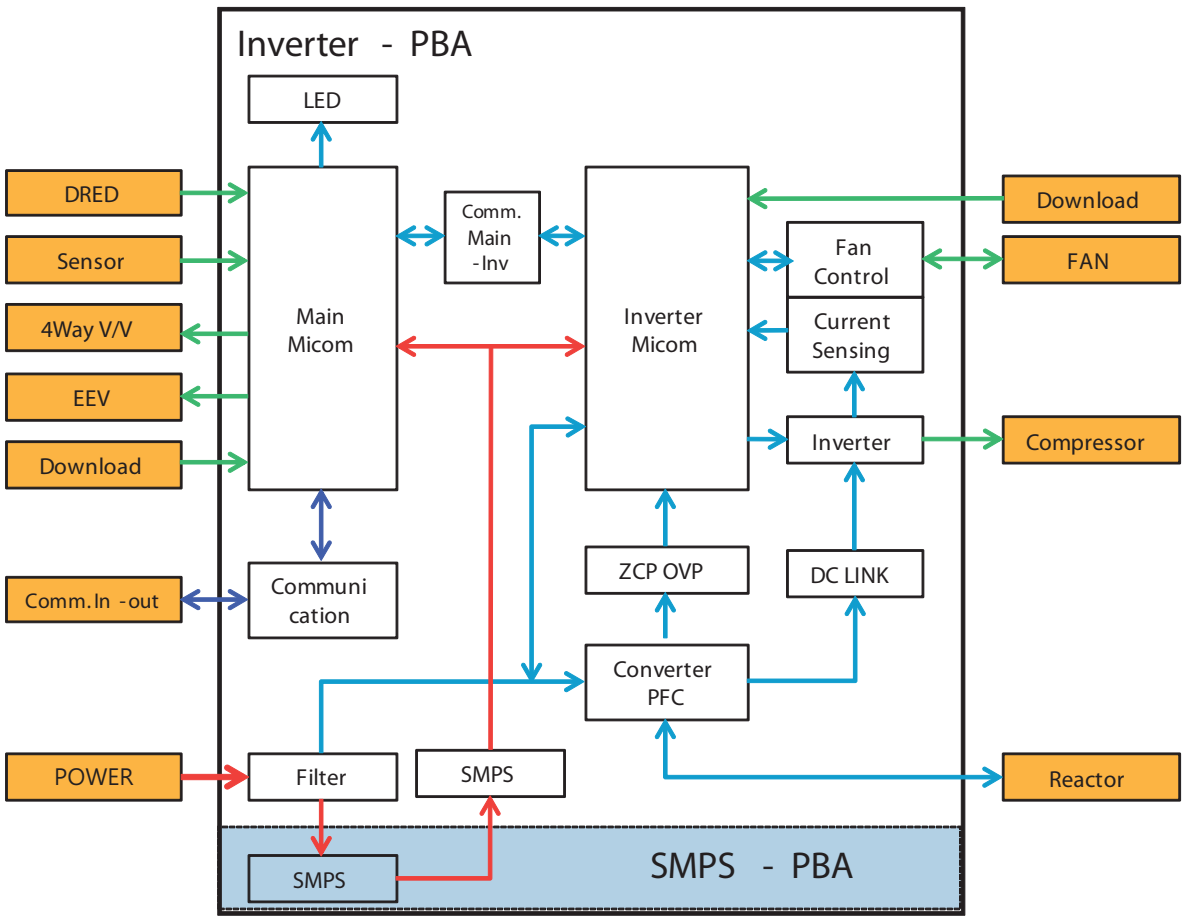
3.change the pba

11. Block Diagram

11-1 Indoor unit



11-2 Outdoor unit



11-2-1 Pre-inspection Notices

1. Check if you pulled out the AC power plug when you eliminate the PCB or front panel.
2. Don't hold the PCB side not impose excessive force on it to eliminate the PCB.
3. Don't pull the lead wire but hold the whole housing to connect or disconnect a connector to the PCB.
4. In case of outdoor PCB disassembly, check first the complete discharge of condenser after 1 minute power off.

11-2-2 Inspection procedure

1. Check connector connection and peeling of PCB or bronze coating pattern when you think the PCB is broken
2. The PCB is composed of 3 parts.

. Indoor Main part : MICOM and surrounding circuit, relay, fan motor sensing and driving circuit, temperature sensing circuit power circuit of SMPS, buzzer circuit. Communication circuit.
. Display part : LED lamp, Switch, Remote-control module.
. Outdoor Main part : MICOM and surround circuit, fan motor sensing and driving circuit, compressor driving circuit power circuit of SMPS, PFC control circuit, 4way circuit, communication circuit, OPTION.(EEV control circuit, temperature sensing circuit)

No	procedure	Inspection Method	Cause
1	Plug out and pull the PCB out of the control box Check the PCB fuse.	1) Is 1st fuse disconnected? 2) Is 2nd fuse disconnected?	. Over current. . Indoor Fan motor short. . AC part and pattern short of Indoor PBA.
2	Supply power If the operating lamp twinkles at this time , the above 1) ~ 3) have no relation.	Check the power voltage	
		1) Is the BD71 input voltage 200Vac ~240Vac?	. Power cord is fault, Fuse open, Wrong Power cable Wiring, AC part is faulty.
		2) Is the voltage between both terminal of CE113(+)-(-) 12Vdc?	. Switching Trans of Power circuit is faulty.
		3) Is the voltage between both terminal of CE108(+)-(-) 5Vdc?	. Power circuit is faulty, Load short.
3	Press the ON/OFF button. 1. Fan speed(high) 2. Continuous Operation	1) Is the voltage over DC 270V being imposed on terminal #1 ~#3 of fan motor connector(CNP72)?	. Fan motor of the indoor is faulty.
		2) The fan motor of the indoor unit doesn't run.	. Fan motor connector(CNP72) is faulty.
		3) The power voltage between terminal #1-#3 of the connector(CNP72) is 0V.	. PBA is faulty.

11-2-4 Outdoor detailed inspection procedure

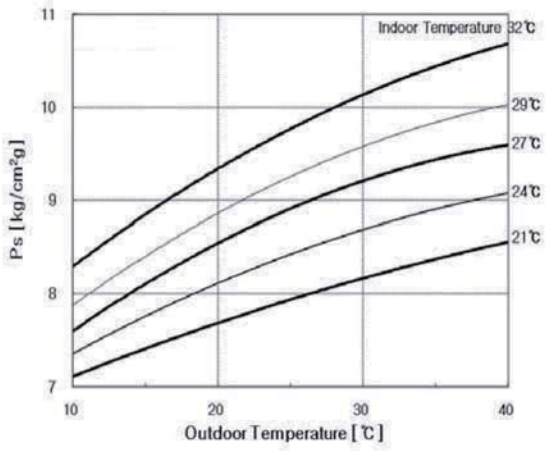
No	Procedure	Inspection Method	Cause
1	Plug out and pull the PCB out of the control box Check the PCB fuse (Wait 3 minutes after power off)	1) Is 1st fuse disconnected?	. Over current . AC part and pattern short of Outdoor PBA
2	Check the Wiring	1) Is the Compressor wire connected clock-wise? 2) Is the Reactor wire connected normal? 3) Is the Fan wire connected normal? 4) Is the 4way wire connected normal? 5) Is the sensor wire connected normal? 6) Is the EEV wire connected normal?	. Wrong assembly . Installation(service) condition is bad
3	"Supply power and operate the set (Use Remote-control, button in indoor set)"	Check the power voltage	
		1) Is the voltage between Terminal block L-N 200Vac~240Vac?	. Power cord is faulty, Wrong Power cable Wiring
		2) Is the C006 voltage 200Vac~240Vac?	. Fuse open . L,N,F1,F2 wire wrong wiring (Terminal Block-PBA)
		2) Is the CN150 voltage 200Vac~240Vac?	. Power circuit is faulty . Load short
		4) Is the PFC050(#26-#27) voltage 200Vac~240Vac after 3 minutes later?	. Fuse open . L,N,F1,F2 wire wrong wiring (Terminal Block-PBA) . PTC020 open . RY021, RY022 is faulty . Outdoor Micom(IC201) error
		5) Is the CE101 voltage 280Vdc~320dc after 3 minutes later?	. PFC050 is faulty . Reactor wire is wrong connection . Power circuit is faulty, Load short . BLDC Fan motor error
		6) Is the voltage CN151 #1-#2 voltage 15Vdc?	. Switching Trans of Power circuit is faulty . Load short
		7) Is the voltage CN152 #1-#2 voltage 12Vdc?	. Switching Trans of Power circuit is faulty . Load short
		8) Is the voltage CN151 #3-#2 voltage 5Vdc?	. Switching Trans of Power circuit is faulty . Load short
4	Check the LED lamp display	1) Normal : RED on, GRN blink, YEL off 2) Abnormal - All off : check no power - abnormal display : check error mode	. F1,F2 wire wrong wiring . Outdoor PBA is faulty

12. Reference Sheet

12-1 Low Refrigerant Pressure Distribution

Note : Please measure the refrigerant pressure after the air conditioner operates on testing cooling mode during more than 10 minutes.

■ **Indoor Temp. Variation : 20°C ~ 32°C**
■ **Outdoor Temp. Variation : -5°C ~ 45°C**



12-2 Pressure & Capacity mark

■ **Power/Heat**

W	cal/s	kcal/h	Btu/h	HP	kg.m/s	lb.m/s
1	0.23885	0.85985	3.4121	0.001341	0.10197	0.73756
4.1868	1	3.6	14.286	0.0056146	0.42693	3.088
1.163	0.27778	1	3.9683	0.0015596	0.11859	0.85778
0.29307	0.06999	0.252	1	3.9302×10^{-4}	0.029885	0.21616
745.7	178.11	641.19	2,544.4	1	76.04	550
9.8067	2.3423	8.4322	33.462	0.013151	1	7.233
1.3558	0.32383	1.0658	4.6262	0.0018182	0.13826	1

12-3 Q & A for Non-trouble

Classification	Class	Description
Cooling	Q	**The cooling is weak.**
	A	When it is hot outside, its cooling capacity decreases due to the increase of the ambient temperature. When the dust filter gets blocked or warm outside air gets in, the cooling capacity will decrease. So, make sure to clean the dust filter frequently, prevent heat loss by closing the doors and insulate the cooling area by using curtains, blinds, shades or window tinting.
	Q	**The cooling is good generally. But, it gets weak when it is considerably hot.**
	A	It occurs when the outdoor unit is exposed to direct sun light and heat-up air is not ventilated well. So, set up a sunblind over the outdoor unit and keep stuff away from the unit to increase the ventilation. When the cooling capacity decreases during a heat wave, clean the heat exchanger of the outdoor unit or spray some cold water to the heat exchanger to increase the cooling capability.
	Q	**The cooling is weak. Does it need refrigerant charging?**
	A	It is not correct charging refrigerant regularly. Except that you have moved in several times or the connection pipes are broken, the refrigerant does not run low. So, when refrigerant is additionally charged, it could be costly and cause a product's failure. When the refrigerant leaks, all of it will escape in a short time resulting in cooling failure and no water coming out of the drain hose. So, if water comes out from the drain hose, it indicates the normal operation of the product and it does not need refrigerant charging.
	Q	**It fails to do cooling.**
	A	When the air conditioner is set to ventilation or the desired temperature is set higher than the current temperature, it fails to do cooling. In this case, select cooling or set the desired temperature lower.
Leakage	Q	**It floods the floor.**
	A	Place the drain hose properly. When it is not placed properly, the drain water would flow back flooding the floor. So, straighten out the drain hose for the water to be drained well.
	Q	**Water drips at the drain connection (service valve) of the outdoor unit.**
	A	When a glass bottle is taken out of the refrigerator, moisture gets condensed on its surface due to the temperature differences. The same principle applies to the air conditioner. When cold refrigerant goes through the copper tube, moisture gets condensed on the surface of the tube and the connection areas. To prevent the water condensation, the pipes are insulated. But, the connection areas of the outdoor unit are not insulated for the purpose of maintenance or repair, and water gets condensed due to the temperature differences and drips down. Generally, it evaporates right away. But, when it drips much during muggy days, put a water pan on the floor.
	Q	**It leaks even though a drain pump is used.**
	A	It occurs when the drain pump is plugged out or it is out of order. Check the power of the drain pump and the position of the drain hose, and when the pump is faulty, contact the drain pump manufacturer. Samsung Electronics do not manufacture drain pumps. So, we are not able to correct the drain pump problems.
Smells	Q	**Whenever the air conditioner is turned on, it irritates my eyes and gives me a headache.**
	A	There are no components in the air conditioner irritating the eyes and sending out chemical smells. But, when the air conditioner is turned on, other smell sources are sucked into the air conditioner and get out of it. So find and root out the smell sources. Generally, it occurs at a interior renovated place, a pharmacy, a gasoline handling place, a tire shop, a second-hand book shop or an electronic component handling place, when its chemical or musty smells are sucked in and sent out, it can be misled that the air conditioner generates them.

Classification	Class	Description
Smells	Q	**Whenever the air conditioner is turned on, it stinks.**
	A	When are no components in the air conditioner sending out chemical smells. But, when the air conditioner is turned on, other smell sources are sucked into the air conditioner and get out of it. So, find and root out the smell sources. Generally, when the drain hose is taken out to the washing room or there are sources of smells such as a diaper bin, a shoe shelf or a socks bin, bad smells generate. Also, it occurs where glass cleaners or air fresheners are used; when they are sucked in interacting with dusts and moistures inside, bad smells generate. these kinds of organic materials noxious to human bodies. So, we recommend against the use of them.
	Q	**Whenever the air conditioner is turned on, it smells sour.**
	A	When the room is papered recently, its paste smells would be sucked inside. Also, when the air conditioner is installed in the study room of young boys loving sweat-generating activities such as the basketball, excessive sweats evaporate and get sucked into the air conditioner resulting in bad smells. So, find and root out problem or refresh the room frequently.
	Q	**Whenever the air conditioner is turned on, it smells musty.**
	A	It is due to the improper keeping of the product after its use. When keeping the product, dry up the inside with the operation of ventilation to prevent must. When the product is kept without drying up the inside with ventilation, mold would grow inside resulting in must. So, open the windows and switch on the ventilation function to get rid of the saturated smell inside.
	Q	**Whenever the air conditioner is turned on, it sends out bad smells such as stale smells.**
	A	It occurs generally when there are pet animals in the house. Their smells stay at the same place. But, when the air conditioner is turned on, the air gets circulated resulting in the circulation of the smells. So, find and root out the problem or refresh the room frequently.
	Q	**It sends out bad smells.**
	A	When the air filter is filthy, it could send out bad smells. So, clean the filter and ventilate the room with the windows open while operating the ventilation function.
Operation	Q	**It won't start.**
	A	There is a power failure or it is plugged out. Also, check if the power distribution panel is switched off.
	Q	**It goes off during operation.**
	A	When the hot air does not escape properly, it goes off during operation. it occurs when it does not ventilate properly because the outdoor unit is covered, the back of the outdoor unit is blocked by a cardboard or a plywood panel, and the front of the outdoor unit is blocked by the closed window or other obstacles. Clear the above obstacles from the outdoor unit.
	Q	**It generally works properly. But, when it's considerably hot, it goes off during operation.**
	A	It occurs when the outdoor unit is exposed to direct sunlight and the hot air does not escape properly. Set up a sun blind over the outdoor unit and clear the neighboring obstacles from the outdoor unit to provide good ventilation. When it goes off frequently during a heat wave, it would prevent the turn-off and increase the cooling capacity cleaning the outdoor unit or spraying some water to the heat exchanger.
	Q	**The remote controller won't operate.**
	A	When the batteries run out or the transmitter or receiver of the remote controller is blocked by obstacles, change the batteries or keep the obstacles away from the controlling area. Also, the remote controller may mot work under intensive light from a 3-wave length lamp or a neon sign due to the EMI. In this case, take the remote controller closer to the receiver.

Classification	Class	Description
Installation	**Q**	**Who installs the air conditioner? (Relocation/Re-installation)**
	A	When relocating or re-installing the air conditioner, make sure to contact Samsung Electronics Service Center or Authorized Service Agent and have them to do the job. (If not, it could cause personal injury or product damage.) The cost for the relocation/re-installation of the air conditioner is subject to the customer's expense. There is a cost table. But, our service engineer needs to visit to total up the cost correctly. When you move in, make sure to contact Samsung Electronics Service Center or Authorized Service Agent in advance to streamline the process.
	Q	**Is it possible to install the outdoor unit outside?**
	A	It is possible to install it at a designated place in the apartment or on the rooftop nearby. But, it's illegal hanging an angle iron case with the outdoor unit in it outside the apartment. Also, it is illegal obstructing passers-by with the outdoor unit installed outside.
	Q	**What can be done to install the outdoor unit facing the road because it is a commercial building?**
	A	The following is an excerpt from building code going into effect from JUNE 1 st 2005. "The exhaust pipe of a cooling or ventilation facility installed in a building adjacent to the streets of commercial or residential areas shall bel installed higher than 2 m to prevent the exhaust air from blowing directly to passers-by and the current facilities shall be corrected by MAY 31 st 2005." So, please install it higher than 2 m or not to blow the hot exhausting air directly to passers-by.
	Q	**What about installing a windscreen during installation not to blow hot air directly to passers-by?**
	A	When the hot air from the front of the outdoor unit is blocked, the product's performance will be affected and it will fail to operate properly. So, keep it at least 300mm away from its surrounding walls and give it good ventilation.

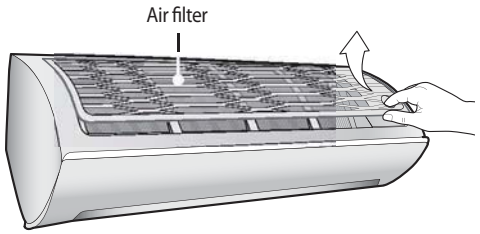
12-4 Cleaning /Filter Change

12-4-1 Cleaning your Air Conditioner

To get the best possible use out of your air conditioner, you must clean it regularly to remove the dust that accumulates on the air filter.

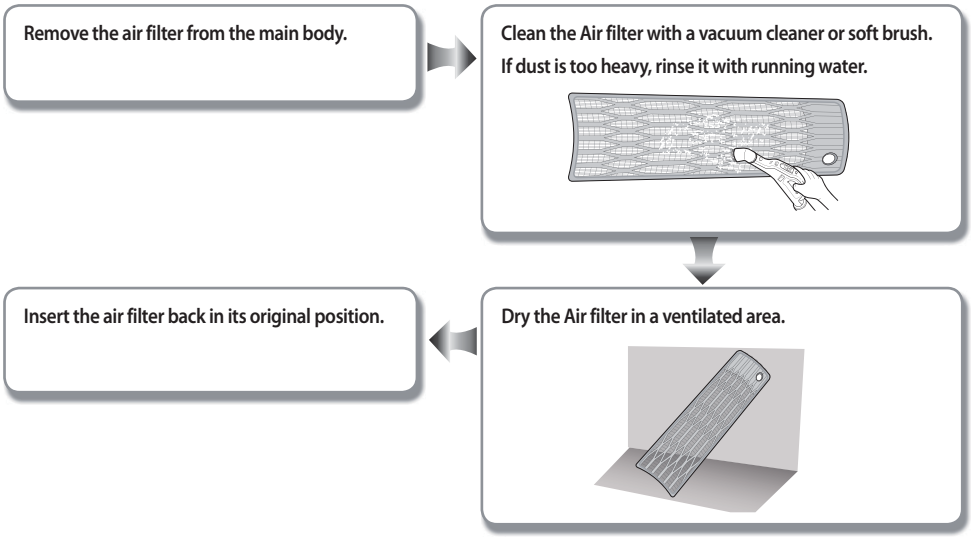
Removing the Air filter

There is a hole on the bottom right side of the filter. Put your finger in that hole to get a grip on the filter and slightly push it up to release the hooks from the bottom side. Then, pull it down to remove the filter from the main body.



Cleaning the air filter

Washable foam based air filter captures large particles from the air. The filter is cleaned with a vacuum or by hand washing.



NOTE

- Clean the Air filter every 2 weeks. Cleaning term may differ depending on the usage and environmental conditions. In dusty area, clean it once a week.
- If the Air filter dries in a confined (or humid) area, odors may generate. If it occurs, re-clean and dry it in a well-ventilated area.
- When the filter clean reminder is on, please press the 2nd F button and then press the ECO Run button on remote controller.

12-5 Installation

12-5-1 Before Installation

Keep the air conditioner outlet and inlet free from its surroundings.
In case of installation, keep the symmetry and fix it to prevent vibration.
The pipe length shall meet the standard as far as possible.

12-5-2 Installation Procedure

■ Location

Install the product in an area to guarantee the best cooling effect, convenience of piping and electric work, and inexistence of vibration or wind.

■ Wall Drilling

Drill the wall downward in a diameter of 60 to 65mm.

■ Fixing Indoor Unit & Outdoor Unit

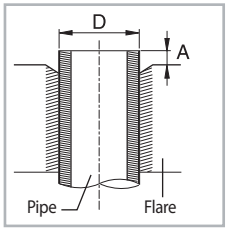
Fix the air conditioner indoor unit securely to the wall. Secure the outdoor unit in a suitable position.

■ Pipe Spooling & Connectingt

You shall cut the pipe with a pipe cutter and grind all the burrs of the cut surface.
pipe expansion may continue until the pipe surface becomes uneven or torn apart.
Be sure to use a torque wrench to tighten pipes or flare nuts.

<Torque & Depth>

Outer Diameter (D)	Torque(kgf·cm)	Depth(A)
ø6.35 mm(1/4")	140~170	1.3 mm
ø9.52 mm(3/8")	250~280	1.8 mm
ø12.70 mm(1/2")	380~420	2.0 mm
ø15.88 mm(5/8")	440~480	2.2 mm
ø19.05 mm(4/4")	9900~1,210	2.2 mm



■ Leak Test

Put an inset gas like nitrogen in the outdoor unit pipe and put soap bubbles or other test liquids on the pipe surface for the leak test.

■ Drain Hose Connecting

Install the drain hose downward to drain water naturally. Be sure to pour water into the hose to check if it drains well.

■ Electric & Earth Work

Electric and earth work shall meet the "Electric Facility Technology Standard" and the "Internal Wire Regulation" of the Electric Business Laws.

■ Inspection & Trial Run

Upon completion of the tests, you shall make a trial run while you explain the main functions of the air conditioner to finish the installation.

12-6 Installation Diagram of Indoor Unit and Outdoor Unit

12-6-1 Air-Purge Procedure

1) Connect each assembly pipe to the appropriate valve on the outdoor unit and tighten the flare nut.

2) Connect the charging hose of low pressure side of manifold gauge to the packed valve having a service port (3/8" Packed valve) as shown at the figure.

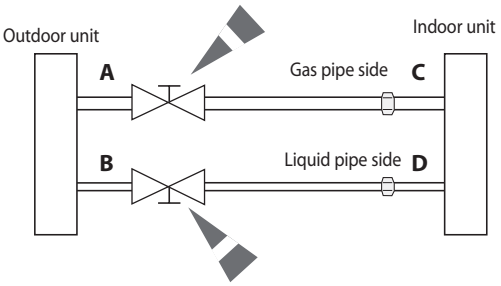
3) Open the valve of the low pressure side of manifold gauge counter-clockwise.

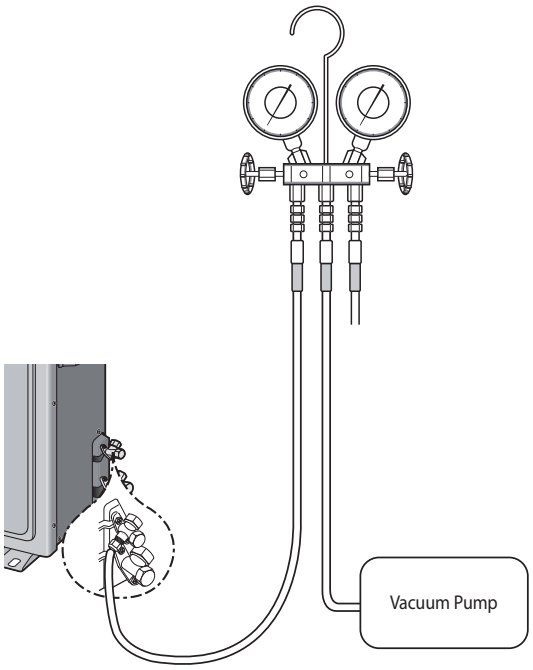
4) Purge the air from the system using vacuum pump for about 30 minutes.
   - After that, please recheck that pressure is stabilized.
   - Close the valve of the low pressure side of manifold gauge clockwise.
   - Remove the hose of the low pressure side of manifold gauge.

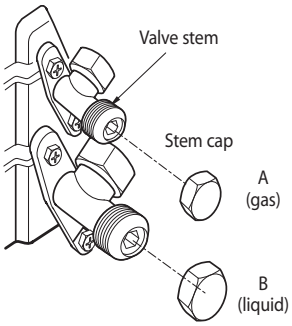
5) Set valve cork of both liquid side and gas side of packed valve to the open position.

6) Mount the valve stem nuts to the 2 way and 3 way valve. And mount the service port cap to 3 way valve.

7) Check for gas leakage.
   - At this time, especially check for gas leakage from the 3 way valve's stem nuts, and from the service port cap.







12-6-2 "Pump down" Procedure

Pump down will be carried out when an evaporator is replaced or when the unit is relocated in another area.

1) Remove the caps from the 3 way valve and the 3 way valve.

2) Turn the 3 way valve clockwise to close and connect a pressure gauge (low pressure side) to the service valve, and open the 3 way valve again.

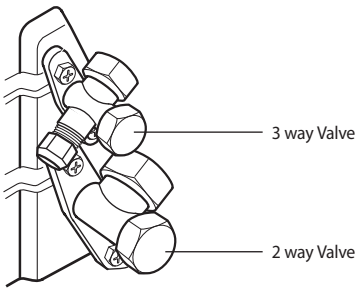
3) Set the unit to cool operation mode. (Check if the compressor is operating.)

4) Turn the 3 way valve clockwise to close.

5) When the pressure gauge indicates "0" turn the 3 way valve clockwise to close.

6) Stop operation of the air conditioner.

7) Close the cap of each valve.



Remarks

Relocation of the air conditioner

- Refer to this procedure when the unit is relocated.
- Carry out the pump down procedure (refer to the details of 'pump down').
- Remove the power cord.
- Disconnect the assembly cable from the indoor and outdoor units.
- Remove the flare nut connecting the indoor unit and the pipe.
- At this time, cover the pipe of the indoor unit and the other pipe using a cap or vinyl plug to avoid foreign material entering.
- Disconnect the pipe connected to the outdoor unit.
  At this time, cover the valve of the outdoor unit and the other pipe using a cap or vinyl plug to avoid foreign material entering.
- Make sure you do not bend the connection pipes in the middle and store together with the cables.
- Move the indoor and outdoor units to a new location.
- Remove the mounting plate for the indoor unit and move it to a new location.

12-7.Reference Sheet

Index for Model Name

✳ Project model code for overseas from 2007(For RAC Export Models)

Model Code

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th
Project		Capacity		Sell	Feature		Series		Color		Unit	Export	
A	R	1	8	J	S	F	S	M	W	K	N/X	F	A

ITEM	1ST	2ND
RAC	A	R
FAC	A	F
WAC	A	W

Item	Reference	3TH	4TH
1	Export	0	9
2	Export	1	2
3	Export	1	8
4	Export	2	4
5	Export	3	0

Item	5TH
12Year	E
13Year	F
14Year	H
15Year	J
16Year	K

Item	6TH
INVERTER HP	S
INVERTER CO	V

Item1	Item2	7TH
Export	The virus doctor (The India / Latin America A / PAC K besides)	S
Export	NO virus doctor (the India / Latin America A / PAC K besides)	F
Special instructions: About AR**FSSSCUR/SA ,the 7TH is "S", but there is no virus doctor in these models.		

9TH DIGIT		
Export	1st MODEL	A
Export	2nd	B
Export	3rd MODEL	C
Export	4th MODEL	D
Export	5th MODEL	E

Item 1	Item 2	Item 3	8TH	9TH
Export	RAC	FMC FLG (Best)	1ST MODEL	F
Export	RAC	FMC DLX (Better)	1ST MODEL	D
Export	RAC	FMC STD (Good1)	1ST MODEL	S
Export	RAC	FMC ENT (Good2)	1ST MODEL	N

Division	Series	Project	Color Name	Division component	Sinkeolreo code (10TH,11TH)	Remark
A3050	F	Best	Twilight	Grille	WK	
	F	Best	TBD	Grille	TBD	
	D	Better	Twilight	Grille	WK	
	D	Better	TBD	Grille	TBD	
	S	Good1	Twilight	Grille	WK	Deco : Transparency
	S	Good1	Midnight Blue	Deco	UR	Grille : Twilight
	N	Good2	Twilight	Grille	WK	
	N	Good2	TBD	Grille	TBD	Grille : Metalic Gray

Item1	Item2	12TH
Export	SET	/
Export	IN	N
Export	OUT	X

Item	The existing code	The sales area	CIS Desription	The integrated code (13TH,14TH)
1	FA	South Africa	South Africa (FA)	FA

● Except the RAC Export Models for China.

GSPN (GLOBAL SERVICE PARTNER NETWORK)

Code No. AC-00045K_1