SAMSUNG

SPLIT-TYPE AIR CONDITIONER

	INDOOR UNIT	OUTDOOR UNIT
Basic Model :	AR18HCFSMWKNXL	AR18HCFSMWKXXL
	AR24HCFSMWKNXL	AR24HCFSMWKXXL
Model Code :	AR18JCFSMWKNXL	AR18JCFSMWKXXL
	AR24JCFSMWKNXL	AR24JCFSMWKXXL

SERVICE Manual

AIR CONDITIONER

AR18JCFSMWKNXL
AR24JCFSMWKNXL

AR18JCFSMWKXXL AR24JCFSMWKXXL

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1. Precautions

1-1 Installing the air conditioner

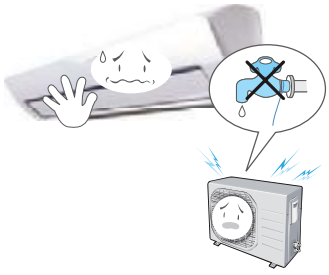
- Uses should not install the air conditioner by themselves.
  Ask the dealer or authorized company to install the air conditioner except window-type air conditioner in U.S.A and Canada.
- If you don't install the air conditioner properly, it may cause a fire, a water leakage or an electric shock.
- 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)

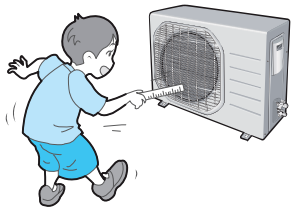


1-4 Disposing of the unit

- 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

2-step cooling function will quickly cool the room to reach the desired temperature and then it will adjust the fan speed and air flow direction automatically to help you stay comfortable and refreshing.

Fast cooling

If you want the strong and cool air, just select Fast function! It will get you the strongest air!

Comfort cooling

If you want the comfortable and refreshing air, Comfort function will spread the cool air indirectly to you, so that you can stay comfortable.

Single User

Use Single User function when you are alone at home. Single User function will minimize the energy consumption with inverter technology and reduce your electricity bill by adjusting the maximum operating capacity of the compressor.

Easy Filter

There is no grille to remove before separating the filter from the air conditioner! Therefore, filter can be cleaned easily, more frequently! Frequent filter cleaning will prevent dust from entering into the product or accumulating on the filter.

good'sleep function

good'sleep function will allow you to have deep, good night's sleep by adjusting the temperature, fan speed and air flow direction.

Smart Install

When the installation is done, your product will examine itself through trial operation to check if it was installed properly.

Easy Installation

It's so easy to install! You can easily hang the product on the wall and connect the pipes and wires by opening the cover on the bottom of the product. Now you won't have to tilt the product to connect the pipe and the wires!

2-2 Product Specifications

Item				Model	Development Model
				AR18JCFSMWK/XL	AR24JCFSMWK/XL
Type				WALL MOUNTED	WALL MOUNTED
Performance	Cooling(ISO)		W	5280	7030
	Heating(ISO)		W	-	-
	Noise	Indoor/Outdoor	dB(H/L)	48/ 58	48 / 61
	EER	Cooling(ISO)	W/W	2.87	2.87
		Heating(ISO)	Btu/h•W	-	-
	Power		V/Hz	220V / 60Hz	220V / 60Hz
Power	PowerConsumption	Cooling(ISO)	W	1840	2450
		Heating(ISO)	W	-	-
	Operating Current	Cooling(ISO)	A	8.0	10.5
		Heating(ISO)	A	-	-
Size	Outer Dimension	Indoor	W*H*D(mm)	1063*294*317	1063*294*317
		Outdoor		720*548*265	880*638*310
	Weight(net)	Indoor	Kg	13.2	13.5
		Outdoor		32.5	46.5
	Refrigerant Pipe	Liquid	D*L(mm)	6.35*4000	6.35*4000
		Gas		12.7*4000	15.875*4000
	Drain Hose		D*L(mm)	-	-
Heat Exchanger		Indoor	EVAP	Φ7.0(Cu), 2R*16S*840㎜, 15Hairpin 5-5pass, H-Fin, FP-1.3, Hydrophilic	Φ7.0(Cu), 2R*16S*840㎜, 15Hairpin 5-5pass, H-Fin, FP-1.3,Hydrophilic
		Outdoor	COND	WW-PFC[Anti-corrosionT0.34] 1R*49S*L703mm, FP1.4	Q- PFC[Anti-corrosionT0.34] 1R*59S*890mm, FP1.4
Refrigerant			g	750(R22)	900(R22)
Refrigerant Control Unit				Capillary Tube	Capillary Tube
Compressor				UR8D185INEEH	UR5A240INEEM
Protection device(OLP)				Internal	Internal
Air purifying system				FULL HDFILTER	FULL HDFILTER
Cooling Test Condition				INDOOR UNIT:DB27℃/WB19℃ OUTDOOR UNIT:DB35℃/WB24℃	
Cooling Operating Condition				INDOOR UNIT:16℃ to 32 ℃ OUTDOOR UNIT:15℃ to 43 ℃	
Heating Operating Condition				INDOOR UNIT:16℃ or less OUTDOOR UNIT:-5℃ to 24 ℃	

2-3 The Comparative Specifications of Product

Item \ Model		Development Model	
		AR18JCFSMWK/XL	AR24JCFSMWK/XL
Design	Indoor		
	Outdoor		
Net Weight	Indoor (Kg)	13.2	13.5
	Outdoor(Kg)	32.5	46.5
Outer Dimension (Width x Height x Depth)	Indoor(mm)	1063*294*317	1063*294*317
	Outdoor(mm)	720*548*265	880*638*310
Noise	Indoor(dB)	48	48
	Outdoor(dB)	58	61
Air purifying system	Filter	FULL HDFILTER	FULL HDFILTER

2-4 Accessory and Option Specifications

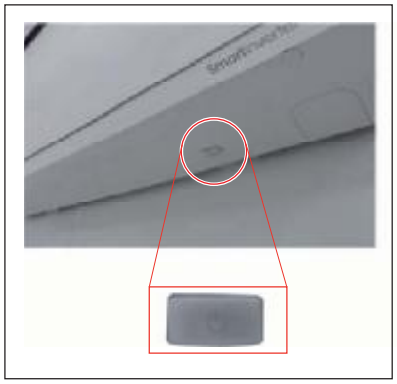
Item	Descriptions	Code-No.	Q'TY	Remark
	Installation Plate (05 frame)	DB90-07731A	1	Indoor unit case
	Remote controller	DB93-14195B	1	
	Batteries for Remote controller	4301-000121	2	
	Manual Users & Install	DB68-04138A	1	
	Wi-Fi Manual	DB68-03984A	-	
	Remote Control Holder	DB61-04899A	-	
	M4x10 Tapped Screws	DB97-23032A	1	
	M4 x 16 Tapped Screws	DB97-11984A	1	

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

7-SEG	LED1	LED2	LED3	DESCRIPTION
	OPERATION	TIMER	OPTION	
E121	○	◑	○	ROOM TH sensor error
E122,E123	◑	◑	○	INDOOR MID,INDOOR IN PIPE-TH sensor error
E154	○	○	◑	Fan error
E162	◑	◑	◑	EEPROM error
E163	◑	◑	◑	OPTION error
E422	●	○	◑	EEV or Valve Close error-Self diagnosis
● LED ON ○ LED OFF ◑ LED BLINKING				

3-3 Setting Option Setup Method

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

Step 1

Enter the Option Setup mode.

1. Tack out the batteries of remote control.
2. Press the temperature button simultaneously and insert the battery again.
3. Make sure the remote control display shown as 00 .

Step 2

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

	Feature	Display
1	The default value is 00 . Every time you push the Mode button, the display panel reads ON Auto ➡ Cool ➡ Dry ➡ Fan ➡ Heat , OFF Auto ➡ Cool ➡ Dry ➡ Fan ➡ Heat repeatedly.	Auto 00
2	Push the button to set the display panel to 3 . Every time you push the button, the display panel reads 0➡1➡2➡3➡ ..... ➡9➡A➡b➡c➡d➡E➡F repeatedly.	Auto 30
3	Push the Mode button to Cool 00 . Every time you push the button, the display panel reads 0➡1➡2➡3➡ ..... ➡9➡A➡b➡c➡d➡E➡F repeatedly.	Cool 00
4	Push the Mode button to Dry 00 . Push the button to set the display panel to 7. Every time you push the button, the display panel reads 0➡1➡2➡3➡ ..... ➡9➡A➡b➡c➡d➡E➡F repeatedly.	Dry 07
5	Push the Mode button to Fan 00 . Push the button to set the display panel to C . Every time you push the button, the display panel reads 0➡1➡2➡3➡ ..... ➡9➡A➡b➡c➡d➡E➡F repeatedly.	Fan C0
6	Push the button to set the display panel to 2 . Every time you push the button, the display panel reads 0➡1➡2➡3➡ ..... ➡9➡A➡b➡c➡d➡E➡F repeatedly.	Fan C2

	Feature	Display
7	Push the Mode button to . Push the Temp button to set the display panel to 5. Every time you push the Temp 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 . Push the Temp button to set the display panel to 8. Every time you push the Temp 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 . Push the Temp button to set the display panel to 1. Every time you push the Temp 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
13	Push the Mode button to .	Fan 00
14	Push the Mode button to .	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 "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 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 panel 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 20
3	Push the Mode button to	Cool 00
4	Push the Mode button to	Dry 00
5	Push the Mode button to	Fan 00
6	Push the Mode button to	Heat 00
7	Push the Mode button to .	AUTO 00
8	Push the Mode button to .	Cool 00
9	Push the Mode button to .	Dry 00
10	Push the Mode button to set the display panel 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 10
11	Push the Mode button to .	Fan 00
12	Push the Mode button to .	Heat 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	1~6	7~12	13~18	19~24
AR18JCFSMWK/XL	000000	17823C	280109	300000
AR24JCFSMWK/XL	000000	178229	280109	300000

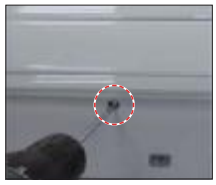
4. Disassembly and Reassembly

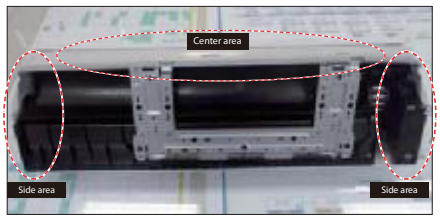
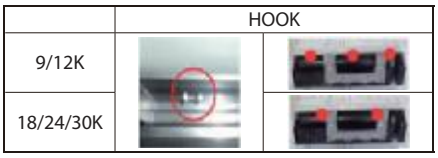
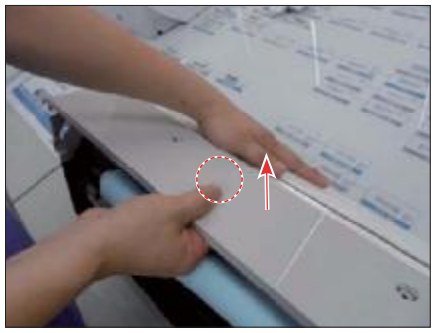
■ Necessary Tools

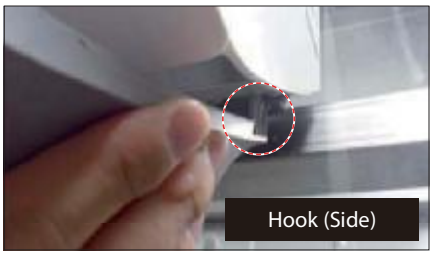
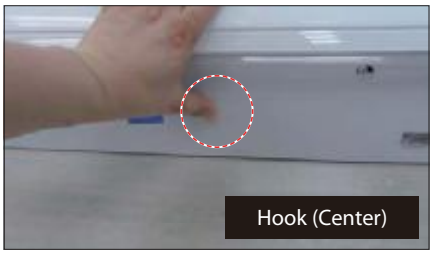
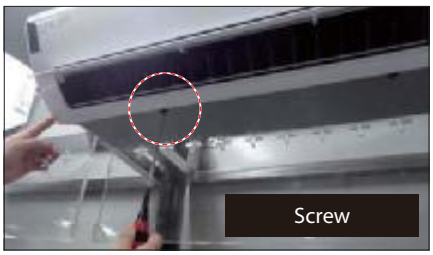
Item	Remark
+SCREW DRIVER	
MONKEY SPANNER	
- SCREW DRIVER	

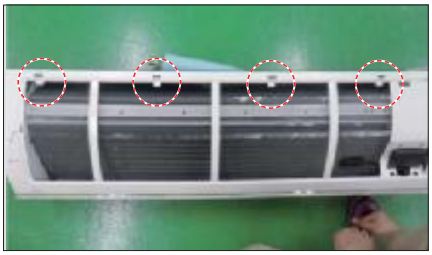
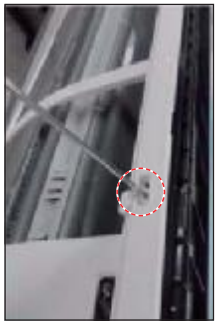
4. Disassembly and Reassembly

4-1. Indoor Unit

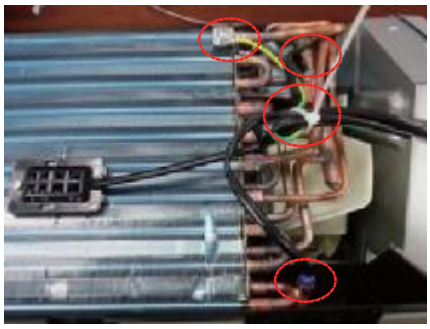
No	Parts	Procedure	Remark
1	PANEL-FRONT	1)Stop the driving of air conditioner and shut off main power supply.	
		2)Detach FILTER PRE from the PANEL FRONT.	
		3)Cover Panel is assembled on bottom of indoor unit as shown in the figure. Remove the Cap Screw as shown on the right side and then remove the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

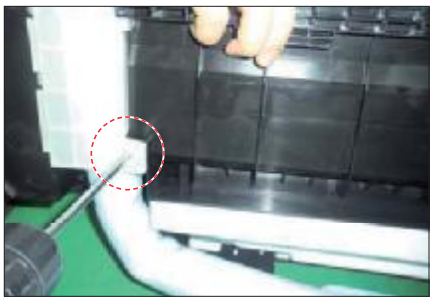
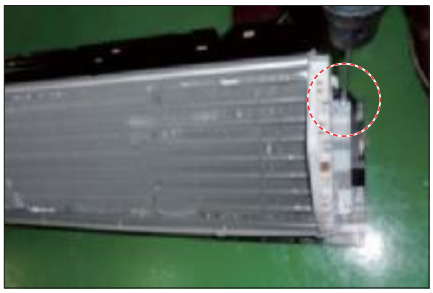
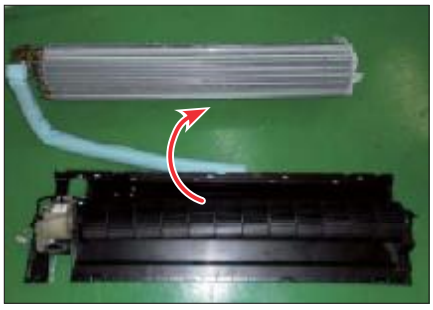
No	Parts	Procedure	Remark
		Caution: Assembly of Cover Panel after service end. - Reassembly is in the reverse order of the removal. - Piping and drain hose must be careful not to damage and Progress must be done with both hands.	    

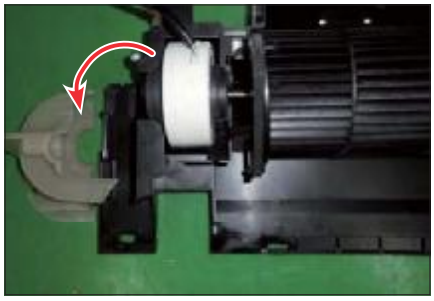
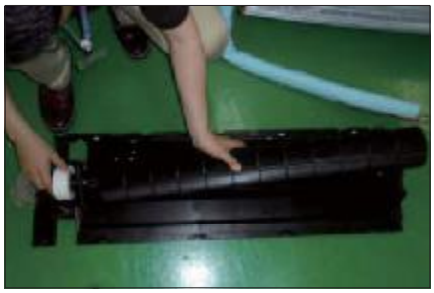
No	Parts	Procedure	Remark
		7) To detach the PANEL-FRONT from the main frame, unfasten 2 screws at the bottom. (use + Screw Driver)	 
		8) To detach the COVER-PANEL from the main frame, loosen 4 HOOK Structures. When separate the hook : Use the (-) screw Driver. (-)Screw Driver Insert the hook and then 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)	 
			

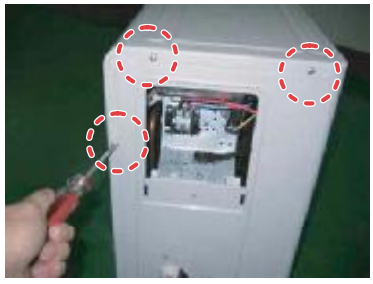
No	Parts	Procedure	Remark
2	CONTORL IN	5) Cut off CABLE TIE, take off SENSOR WIRE and Screw	
		6) Loosen MOTOR Wire ⚠ Caution: When you separate the connector, pull pressing the locking button.	
		7) Loosen the Relay wire and Terminal Block fuse wire. ⚠ Caution: When you separate the connector, pull pressing the locking button.	
		8) Loosen the Motor step wire connector, Display wire connector ⚠ Caution: When you separate the connector, pull pressing the locking button.	

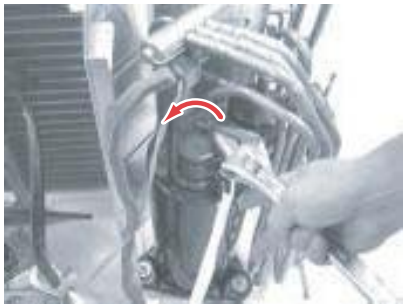
No	Parts	Procedure	Remark
5	EVAPORATOR	9) Take off the CASE-CONTROL from the main frame after loosen the remaining connector. ⚠ Caution: When you separate the connector, pull pressing the locking button.	
3	TRAY DRAIN	1) To detach TRAY-DRAIN from the main frame, pull the bottom of the TRAY-DRAIN towards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

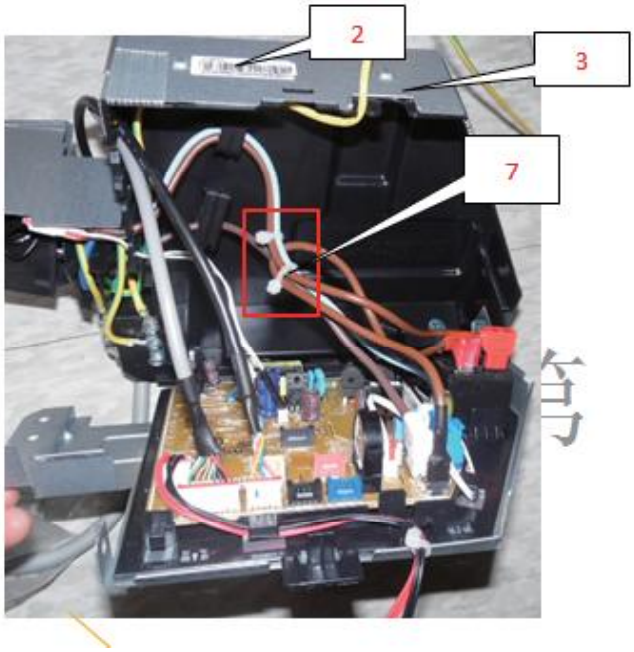
No	Parts	Procedure	Remark
1	Common Work	1) Loosen the fixing screw of the Cover Control.	
		2) Loosen the fixing screws on right and left, back Cabinet-Side edge and a fixing screw on the Cabinet-Front lower to detach the Cabinet-Front.	
		3) Loosen the fixing screws of the Ass'y-Control out.	
		4) Loosen the fixing screws of the Cabinet-Side RH.	
		5) Loosen the fixing screws of the Cabinet-Side LF.	

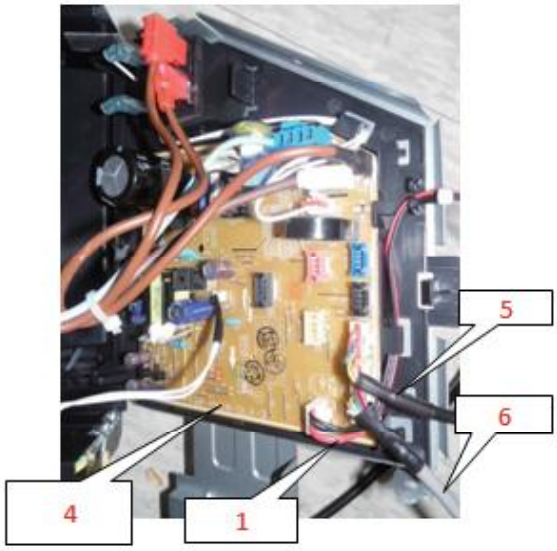
No	Parts	Procedure	Remark
2	Fan & Motor	1) Detach the Nut Flange.(Turn counterclock-wise because the screw is right-handed) 2) Detach the Fan. 3) Loosen 4 fixing screws to detach the Motor.	 
3	Heat Exchanger	1) Loosen 3 fixing screws of the Bar Steel. 2) Loosen 2 fixing screws on both sides. 3) Disassemble the pipe in both inlet and outlet with welding torch. 4) Detach the Heat Exchanger. ⚠ Before you disassemble the pipes and Condenser, be sure that there should be no refrigerant remained in the unit.	 
4	Compressor	1) Loosen the Terminal Cover nut to open the Terminal Cover. 2) Disassemble the cloth sound felt. 3) Disassemble the pipe in both inlet and outlet of the Compressor with welding torch. 4) Loosen the 3 bolts at the bottom. 5) Detach the Compressor.	 

5. ASSY CONTROL IN

5-1 ASSY KIT (DB92-03466D)

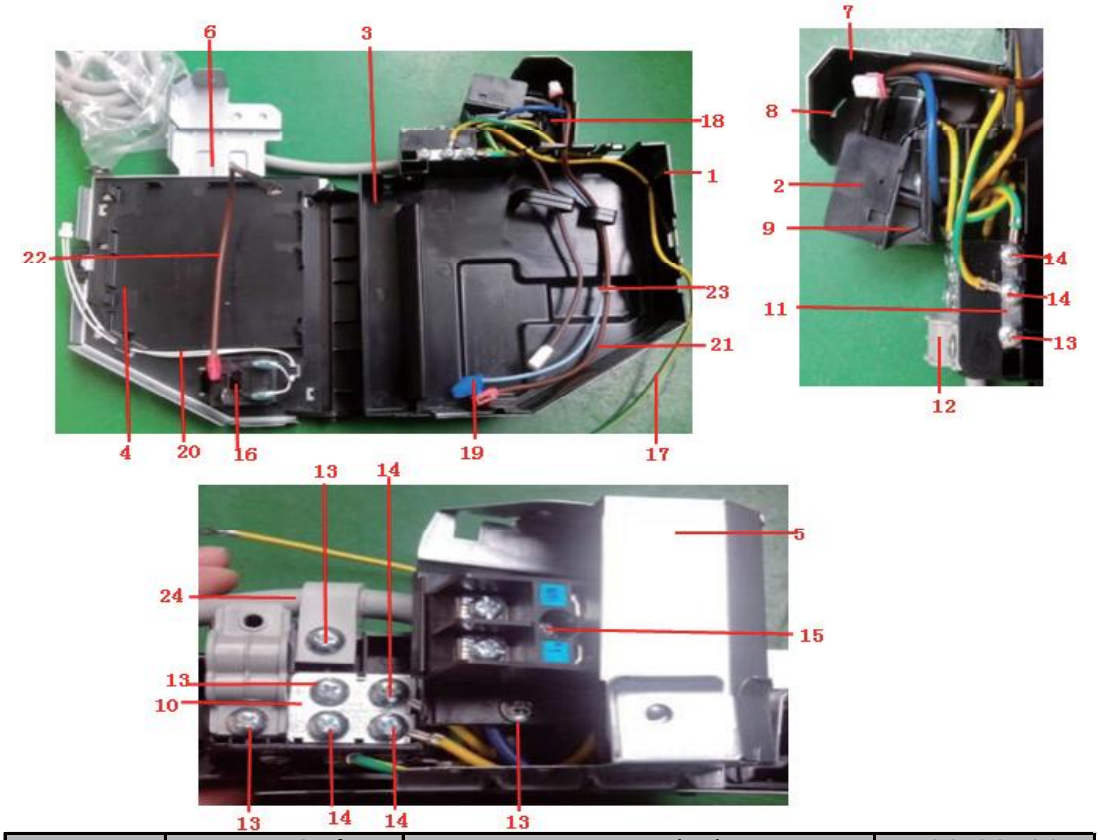
18K





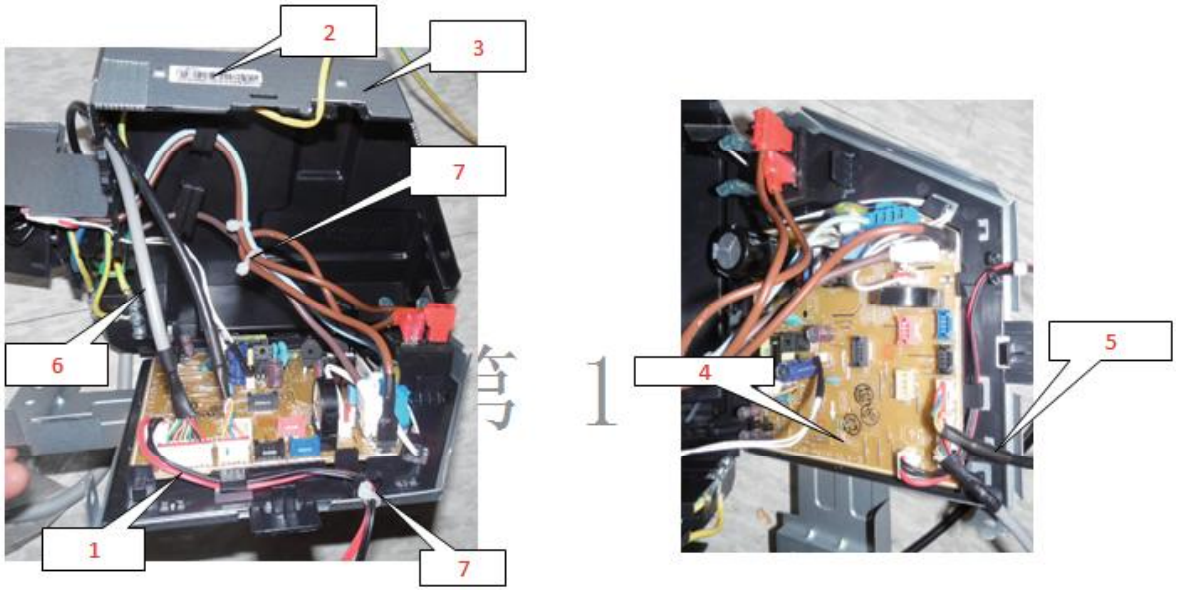
NO	Parts Code	Parts Description	DB92-03466D
1	DB32-00205A	SENSOR TEMP	1
2	DB68-02809A	LABEL BAR CODE	1
3	DB90-08720D	ASSY CASE	1
4	DB92-03443B	ASSY PCB MAIN	1
5	DB93-15322A	ASSY CONNECTOR WIRE-DC SIGNAL	1
6	DB93-15325A	ASSY CONNECTOR WIRE-DISPLAY	1
7	DB65-10088D	CABLE TIE	2

ASSY CASE (DB90-08720D)



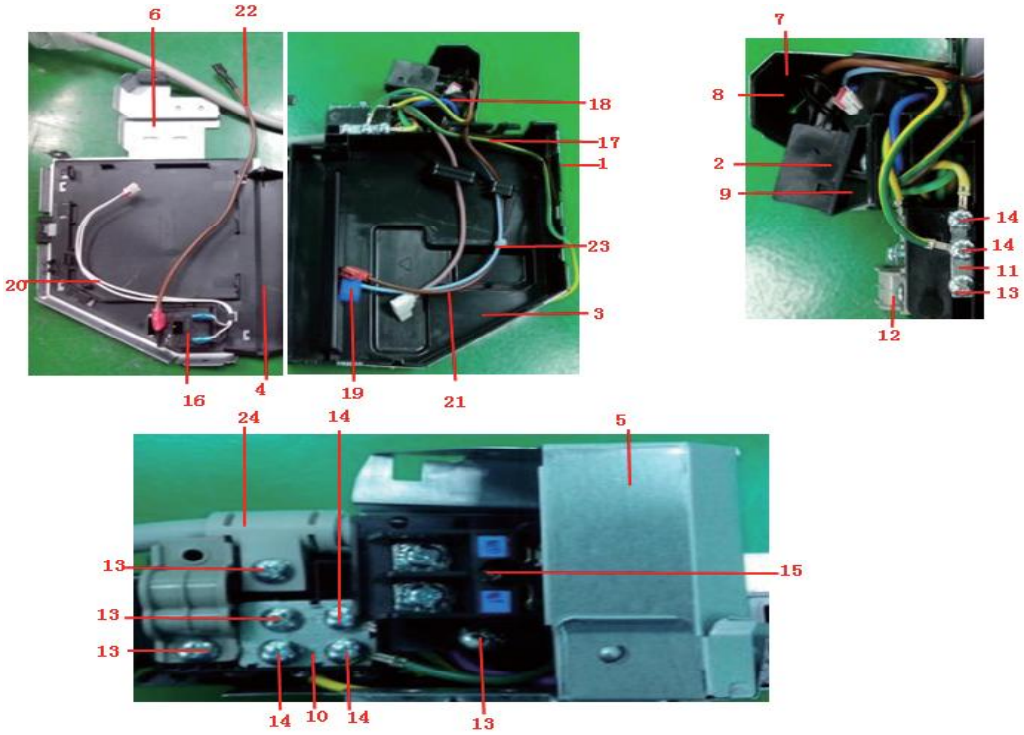
No	Parts Code	Parts Description	DB90-08720D
1	DB68-02809A	LABEL BAR CODE	1
2	DB65-00324A	TERMINAL BLOCK-THERMAL FUSE	1
3	DB61-06290A	CASE CONTROL-LEFT	1
4	DB61-06291A	CASE CONTROL-RIGHT	1
5	DB61-06296A	PLATE CONTROL-LEFT	1
6	DB61-06297A	PLATE CONTROL-RIGHT	1
7	DB62-11670B	SEAL CONTROL-A	1
8	DB62-11656C	SEAL CUTT	1
9	DB61-05963A	SUPPORT-CONTROL	1
10	DB61-05812A	PLATE CONTROL-SUB	1
11	DB61-05890A	PLATE CONTROL-SUB	1
12	DB61-06088A	HOLDER-WIRE	1
13	6002-000231	SCREW-TAPPING	5
14	6009-001001	SCREW-SPECIAL	5
15	DB91-00309A	ASSY-SCREW TAPPING	1
16	3501-001432	RELAY-POWER	1
17	DB93-14245A	ASSY CONNECTOR WIRE-EARTH	1
18	DB93-14245B	ASSY CONNECTOR WIRE-EARTH	1
19	DB93-14214B	ASSY CONNECTOR WIRE-POWER	1
20	DB93-15321A	ASSY CONNECTOR WIRE-DC SIGNAL	1
21	DB93-14224B	ASSY CONNECTOR WIRE-POWER	1
22	DB93-14224A	ASSY CONNECTOR WIRE-POWER	1
23	DB65-10088D	CABLE TIE	1
24	DB93-03038D	ASSY POWER CORD	1

ASSY KIT (DB92-03449B)



NO	Parts Code	Parts Description	DB92-03449B
1	DB32-00205A	SENSOR TEMP	1
2	DB68-02809A	LABEL BAR CODE	1
3	DB90-08528B	ASSY CASE	1
4	DB92-03443B	ASSY PCB MAIN	1
5	DB93-15322A	ASSY CONNECTOR WIRE-DC SIGNAL	1
6	DB93-15325A	ASSY CONNECTOR WIRE-DISPLAY	1
7	DB65-10088D	CABLE TIE	2

ASSY CASE (DB90-08528B)



NO	Parts Code	Parts Description	DB90-08528B
1	DB68-02809A	LABEL BAR CODE	1
2	DB65-00324A	TERMINAL BLOCK-THERMAL FUSE	1
3	DB61-06290A	CASE CONTROL-LEFT	1
4	DB61-06291A	CASE CONTROL-RIGHT	1
5	DB61-06296A	PLATE CONTROL-LEFT	1
6	DB61-06297A	PLATE CONTROL-RIGHT	1
7	DB62-11670B	SEAL CONTROL-A	1
8	DB62-11656C	SEAL CUTT	1
9	DB61-05963A	SUPPORT-CONTROL	1
10	DB61-05812A	PLATE CONTROL-SUB	1
11	DB61-05890A	PLATE CONTROL-SUB	1
12	DB61-06088A	HOLDER-WIRE	1
13	6002-000231	SCREW-TAPPING	5
14	6009-001001	SCREW-SPECIAL	5
15	DB91-00309A	ASSY-SCREW TAPPING	1
16	3501-001432	RELAY-POWER	1
17	DB93-14245A	ASSY CONNECTOR WIRE-EARTH	1
18	DB93-14245B	ASSY CONNECTOR WIRE-EARTH	1
19	DB93-14214B	ASSY CONNECTOR WIRE-POWER	1
20	DB93-15321A	ASSY CONNECTOR WIRE-DC SIGNAL	1
21	DB93-14224B	ASSY CONNECTOR WIRE-POWER	1
22	DB93-14224A	ASSY CONNECTOR WIRE-POWER	1
23	DB65-10088D	CABLE TIE	1
24	DB93-01638D	ASSY POWER CORD	1

6. Electrical Parts List

6-1 INDOOR MAIN PBA(DB92-03443B)

Parts Code	Design Loc	Description / Spec	Quantity
DB92-03443B	MAIN PBA	MAIN, AR5000, 120*120, 220-240V, 15V, 12V, 5V, 11W, ON-OFF, CO	1
0402-001227	BD71	DIODE-BRIDGE;D3SBA60, 600V, 2.3A, SIP-4, BK	1
1203-000274	IC02	IC-POSI.FIXED REG.;7805, TO-220, 3P, -, PLASTIC, 4.8/5	1
1203-006089	IC01	IC-PWM CONTROLLER;TOP253PN, DIP, 7P, 6.35x9.57mm, PLASTIC, -0.3V/700V, 15W, -40Cto+150C, 1.37A, ST	1
1404-001413	NTC1	THERMISTOR-NTC;18ohm, 3A, 3200K, 19MWC, 15mm, BK, 17x6mm	1
1405-000160	VA71	VARISTOR;680V, 560Vdc, 4500A, 17.5x6.5mm, TP, 1120V, 250pF	1
2201-000987	C107	C-CERAMIC, DISC;2.2nF, 20%, 400V, Y5U, TP, 12.5x6mm, 10mm	1
2201-000987	C108	C-CERAMIC, DISC;2.2nF, 20%, 400V, Y5U, TP, 12.5x6mm, 10mm	1
2301-002032	XC71	C-FILM, LEAD-PPF;100nF, 10%, 275V, TP, 12.5X6X12.0	1
2301-002032	XC72	C-FILM, LEAD-PPF;100nF, 10%, 275V, TP, 12.5X6X12.0	1
2401-004393	C101	C-AL;100uF, 20%, 500V, -, BK, 25.4x30mm, 10mm	1
3002-001129	BZ61	BUZZER-PIEZO;85dB, 2KHz, BK	1
3601-001336	F701	FUSE-AXIAL LEAD;250V, 3.15A, TIME-LAG, CERAMIC, 5.2x20mm	1
3711-000015	CN74	HEADER-BOARD TO CABLE;BOX, 2P, 1R, 2.5mm, STRAIGHT, SN, WHT, 5.8X7.4X7.0mm	1
3711-000260	CN71	HEADER-BOARD TO CABLE;1WALL, 3P, 1R, 7.92mm, STRAIGHT, SN, BLU	1
3711-000296	CN72	HEADER-BOARD TO CABLE;1WALL, 6P, 1R, 3.96MM, STRAIGHT, SN, WHT	1
3711-000941	CN81	HEADER-BOARD TO CABLE;BOX, 4P, 1R, 2.5mm, STRAIGHT, SN, YEL	1
3711-004379	CN43	HEADER-BOARD TO CABLE;BOX, 4P, 1R, 2mm, STRAIGHT, SN, WHT	1
3711-004484	CN61	HEADER-BOARD TO CABLE;BOX, 5P, 1R, 2mm, STRAIGHT, SN, WHT	1
3711-004712	CN91	HEADER-BOARD TO CABLE;BOX, 9P, 1R, 2mm, STRAIGHT, SN, WHT	1
3711-005096	CN63	HEADER-BOARD TO CABLE;BOX, 5P, 1R, 2MM, STRAIGHT, SN, BLK	1
3711-005097	CN62	HEADER-BOARD TO CABLE;BOX, 5P, 1R, 2MM, STRAIGHT, SN, BLU	1
3711-005098	CN64	HEADER-BOARD TO CABLE;BOX, 5P, 1R, 2MM, STRAIGHT, SN, RED	1
3711-007067	CN31	HEADER-BOARD TO CABLE;BOX, 6P, 1R, 2mm, STRAIGHT, SN, BLK	1
3712-001139	CN78	CONNECTOR-TERMINAL;TAB, MALE, 6.35x0.8mm	1
3712-001139	CN79	CONNECTOR-TERMINAL;TAB, MALE, 6.35x0.8mm	1
DB26-00116A	ST11	TRANS SWITCHING;230V	1
DB27-00017A	FT71	COIL CHOKE;15mH	1
DB67-00942A	VA71-1	CAP;VIVALDI-P/J, SHP2, 1, 5.2, 11.5, 18.5, GREEN, SSEC	1
DB68-02809A	LABEL BAR CODE	LABEL BAR CODE;ART, 45, 15, E-PASS	1
DB93-11027A	CN73	ASSY PCB SUB-HVPS;SUB, MALDIVES-P/J, 21*15, 5V, 5V, -, SUB BORACAY[-], Non-Standard	1
DB93-12128A		ASSY PCB MANUAL;MALDIVE-PJT, SSEC	1
3711-005658	CN72	CONNECTOR-HEADER;NOWALL, 4P, 1R, 2mm, ANGLE, SN, WHT	1
DB93-12129A		ASSY PCB SMD;MALDIVE-PJT, SSEC	1
0501-000465	Q702	TR-SMALL SIGNAL;MMBT3904, NPN, 350mW, SOT-23, TP, 30-300	1
1202-000104	IC11	IC-VOLTAGE COMP.;393, SOP, 8P, 150MIL, DUAL, 36V, CMOS, PLASTIC, 18V, 780mW, 0to+70C, 18V, 5mV, 250nA, 50NA, 30	1
2007-000052	R710	R-CHIP;10Kohm, 1%, 1/10W, TP, 1608	1
2007-000130	R715	R-CHIP;39Kohm, 5%, 1/10W, TP, 1608	1
2007-000455	R712	R-CHIP;18Kohm, 1%, 1/10W, TP, 1608	1
2007-000475	R709	R-CHIP;1Mohm, 1%, 1/10W, TP, 1608	1
2007-000583	R714	R-CHIP;22Kohm, 1%, 1/10W, TP, 1608	1
2007-000939	R711	R-CHIP;47Kohm, 1%, 1/10W, TP, 1608	1
2007-000979	R713	R-CHIP;5.6Kohm, 1%, 1/10W, TP, 1608	1
2203-000440	C709	C-CER, CHIP;1nF, 10%, 50V, X7R, TP, 1608	1
2203-001083	C711	C-CER, CHIP;0.005nF, 0.1pF, 50V, NP0, TP, 1608	1
2203-005249	C710	C-CER, CHIP;100nF, 10%, 50V, X7R, TP, 1608	1
2203-005249	C712	C-CER, CHIP;100nF, 10%, 50V, X7R, TP, 1608	1
DB41-01021A	PCB	PCB SUB-HVPS;FR-1, T1.6, 25	1

6-1 INDOOR MAIN PBA(DB92-03443B)

Parts Code	Design Loc	Description / Spec	Quantity
DB93-12824A	CN11	ASSY CONNECTOR WIRE;2,1007,26,WHT,25045HP-02B/WHT,YBNH200-02P/WHT,-,150,2.5pi /UL125/BLK,30,-,-,PBA-TERMINAL BLOCK,BORACAY,N,-,BORACAY,AWG 2	1
DB94-05353A		ASSY PCB SMD;MAIN,AR5000,120*120,220-240V,15V,12V,5V,11W,ON-OFF,CO,DB92-03443B	1
0402-001192	D103	DIODE-RECTIFIER;ES2D,200V,2A,SMB,TP	1
0402-001427	D102	DIODE-RECTIFIER;ES1D,200V,1A,DO-214AC,TP	1
0402-001741	D201	DIODE-RECTIFIER;S1M,1000V,1A,SMA,TP	1
0403-000258	ZD02	DIODE-ZENER;BZX84C5V6,5.2-6V,225mW,SOT-23,TP	1
0403-001285	ZD01	DIODE-ZENER;BZX84-C11,10.4-11.6V,350mW,SOT-23,TP	1
0501-000534	Q601	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SOT-23,TP,180-390	1
0504-001064	Q101	TR-DIGITAL;DTC114EKA,NPN,200mW,10K/10K,SOT-23,TP	1
0506-000175	IC05	TR-ARRAY;2003,NPN,7,1000mW,SOP-16,ST,1000	1
0506-000175	IC06	TR-ARRAY;2003,NPN,7,1000mW,SOP-16,ST,1000	1
0506-000175	IC08	TR-ARRAY;2003,NPN,7,1000mW,SOP-16,ST,1000	1
0604-001002	PC01	PHOTO-COUPLER;TR,100-600%,170mW,SOP-4,TP	1
0604-001002	PC03	PHOTO-COUPLER;TR,100-600%,170mW,SOP-4,TP	1
0604-001002	PC04	PHOTO-COUPLER;TR,100-600%,170mW,SOP-4,TP	1
0604-001002	PC05	PHOTO-COUPLER;TR,100-600%,170mW,SOP-4,TP	1
0604-001172	PC02	PHOTO-COUPLER;TR,150-300,200mW,SOP,TP	1
1103-001431	IC03	IC-EEPROM;AT24C08C-SSHM-T,8Kbit,x8,SOP,8P,4.9x3.9mm,1.8/5.5,-40to+85,18uA,TP	1
1203-006245	IC09	IC-VOL. DETECTOR;KIA7033AT,TSM,3P,2.9x1.6x0.7mm,PLASTIC,3.3V,350mW,-30to+85C,TP	1
2007-000033	J10	R-CHIP;0ohm,5%,1/4W,TP,3216	1
2007-000033	J11	R-CHIP;0ohm,5%,1/4W,TP,3216	1
2007-000033	J14	R-CHIP;0ohm,5%,1/4W,TP,3216	1
2007-000033	J17	R-CHIP;0ohm,5%,1/4W,TP,3216	1
2007-000033	J2	R-CHIP;0ohm,5%,1/4W,TP,3216	1
2007-000033	J29	R-CHIP;0ohm,5%,1/4W,TP,3216	1
2007-000033	J30	R-CHIP;0ohm,5%,1/4W,TP,3216	1
2007-000033	J32	R-CHIP;0ohm,5%,1/4W,TP,3216	1
2007-000033	J41	R-CHIP;0ohm,5%,1/4W,TP,3216	1
2007-000033	J45	R-CHIP;0ohm,5%,1/4W,TP,3216	1
2007-000033	J46	R-CHIP;0ohm,5%,1/4W,TP,3216	1
2007-000033	J49	R-CHIP;0ohm,5%,1/4W,TP,3216	1
2007-000033	J51	R-CHIP;0ohm,5%,1/4W,TP,3216	1
2007-000033	J7	R-CHIP;0ohm,5%,1/4W,TP,3216	1
2007-000033	J9	R-CHIP;0ohm,5%,1/4W,TP,3216	1
2007-000074	R110	R-CHIP;100ohm,5%,1/10W,TP,1608	1
2007-000076	R403	R-CHIP;330ohm,5%,1/10W,TP,1608	1
2007-000076	R404	R-CHIP;330ohm,5%,1/10W,TP,1608	1
2007-000076	R408	R-CHIP;330ohm,5%,1/10W,TP,1608	1
2007-000076	R601	R-CHIP;330ohm,5%,1/10W,TP,1608	1
2007-000076	R602	R-CHIP;330ohm,5%,1/10W,TP,1608	1
2007-000077	R116	R-CHIP;470ohm,5%,1/10W,TP,1608	1
2007-000078	R206	R-CHIP;1Kohm,5%,1/10W,TP,1608	1
2007-000078	R303	R-CHIP;1Kohm,5%,1/10W,TP,1608	1
2007-000078	R304	R-CHIP;1Kohm,5%,1/10W,TP,1608	1
2007-000078	R305	R-CHIP;1Kohm,5%,1/10W,TP,1608	1
2007-000078	R706	R-CHIP;1Kohm,5%,1/10W,TP,1608	1
2007-000078	R901	R-CHIP;1Kohm,5%,1/10W,TP,1608	1
2007-000081	R111	R-CHIP;2.7Kohm,5%,1/10W,TP,1608	1

6-1 INDOOR MAIN PBA(DB92-03443B)

Parts Code	Design Loc	Description / Spec	Quantity
2007-000084	R205	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1
2007-000084	R301	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1
2007-000084	R302	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1
2007-000084	R502	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1
2007-000084	R503	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1
2007-000084	R504	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1
2007-000084	R707	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1
2007-000090	R306	R-CHIP;10Kohm,5%,1/10W,TP,1608	1
2007-000090	R701	R-CHIP;10Kohm,5%,1/10W,TP,1608	1
2007-000090	R702	R-CHIP;10Kohm,5%,1/10W,TP,1608	1
2007-000090	R704	R-CHIP;10Kohm,5%,1/10W,TP,1608	1
2007-000090	R705	R-CHIP;10Kohm,5%,1/10W,TP,1608	1
2007-000097	R902	R-CHIP;47Kohm,5%,1/10W,TP,1608	1
2007-000109	R501	R-CHIP;1Mohm,5%,1/10W,TP,1608	1
2007-000385	R115	R-CHIP;14.3Kohm,1%,1/4W,TP,3216	1
2007-000476	R101	R-CHIP;1Mohm,1%,1/4W,TP,3216	1
2007-000476	R102	R-CHIP;1Mohm,1%,1/4W,TP,3216	1
2007-000476	R103	R-CHIP;1Mohm,1%,1/4W,TP,3216	1
2007-000591	R500	R-CHIP;22ohm,1%,1/10W,TP,1608	1
2007-000781	R106	R-CHIP;33ohm,5%,1/8W,TP,2012	1
2007-000924	R112	R-CHIP;470Kohm,1%,1/4W,TP,3216	1
2007-000924	R113	R-CHIP;470Kohm,1%,1/4W,TP,3216	1
2007-000924	R114	R-CHIP;470Kohm,1%,1/4W,TP,3216	1
2007-001011	R211	R-CHIP;51Kohm,5%,1/4W,TP,3216	1
2007-001011	R212	R-CHIP;51Kohm,5%,1/4W,TP,3216	1
2007-001011	R213	R-CHIP;51Kohm,5%,1/4W,TP,3216	1
2007-001011	R214	R-CHIP;51Kohm,5%,1/4W,TP,3216	1
2007-001011	R215	R-CHIP;51Kohm,5%,1/4W,TP,3216	1
2007-001011	R216	R-CHIP;51Kohm,5%,1/4W,TP,3216	1
2007-001068	R401	R-CHIP;6.8Kohm,1%,1/10W,TP,1608	1
2007-001068	R402	R-CHIP;6.8Kohm,1%,1/10W,TP,1608	1
2007-001068	R409	R-CHIP;6.8Kohm,1%,1/10W,TP,1608	1
2007-001074	R107	R-CHIP;6.8ohm,5%,1/8W,TP,2012	1
2007-001093	R703	R-CHIP;620ohm,5%,1/10W,TP,1608	1
2007-001179	R708	R-CHIP;8.2Kohm,5%,1/10W,TP,1608	1
2007-002758	R730	R-CHIP;620Kohm,5%,1/4W,TP,3216	1
2007-002758	R731	R-CHIP;620Kohm,5%,1/4W,TP,3216	1
2007-002758	R732	R-CHIP;620Kohm,5%,1/4W,TP,3216	1
2007-007385	R117	R-CHIP;1.2Mohm,1%,1/4w,TP,3216	1
2203-000257	C501	C-CER,CHIP;10nF,10%,50V,X7R,TP,1608	1
2203-000257	C705	C-CER,CHIP;10nF,10%,50V,X7R,TP,1608	1
2203-000440	C901	C-CER,CHIP;1nF,10%,50V,X7R,TP,1608	1
2203-005249	C104	C-CER,CHIP;100nF,10%,50V,X7R,TP,1608	1
2203-005249	C110	C-CER,CHIP;100nF,10%,50V,X7R,TP,1608	1
2203-005249	C112	C-CER,CHIP;100nF,10%,50V,X7R,TP,1608	1
2203-005249	C113	C-CER,CHIP;100nF,10%,50V,X7R,TP,1608	1
2203-005249	C201	C-CER,CHIP;100nF,10%,50V,X7R,TP,1608	1
2203-005249	C301	C-CER,CHIP;100nF,10%,50V,X7R,TP,1608	1

6-1 INDOOR MAIN PBA(DB92-03443B)

Parts Code	Design Loc	Description / Spec	Quantity
2203-005249	C302	C-CER,CHIP;100nF,10%,50V,X7R,TP,1608	1
2203-005249	C303	C-CER,CHIP;100nF,10%,50V,X7R,TP,1608	1
2203-005249	C401	C-CER,CHIP;100nF,10%,50V,X7R,TP,1608	1
2203-005249	C402	C-CER,CHIP;100nF,10%,50V,X7R,TP,1608	1
2203-005249	C404	C-CER,CHIP;100nF,10%,50V,X7R,TP,1608	1
2203-005249	C502	C-CER,CHIP;100nF,10%,50V,X7R,TP,1608	1
2203-005249	C503	C-CER,CHIP;100nF,10%,50V,X7R,TP,1608	1
2203-005249	C504	C-CER,CHIP;100nF,10%,50V,X7R,TP,1608	1
2203-005249	C505	C-CER,CHIP;100nF,10%,50V,X7R,TP,1608	1
2203-005249	C506	C-CER,CHIP;100nF,10%,50V,X7R,TP,1608	1
2203-005249	C702	C-CER,CHIP;100nF,10%,50V,X7R,TP,1608	1
2203-005249	C704	C-CER,CHIP;100nF,10%,50V,X7R,TP,1608	1
2203-006104	C708	C-CER,CHIP;1000nF,10%,50V,X7R,TP,3225,2.5T	1
2203-006496	C707	C-CER,CHIP;2.2nF,10%,50V,X7R,1608	1
DB91-01657A	IC04-1	ASSY MICOM;15R A3050 RAC Const Speed Good3 Model BLDC Motor Heat Pump,STM-1430-OA,S3F8S6B,64QFP,ROM 64KB	1
0903-002055	IC04	IC-MICROCONTROLLER;S3F8S6B,QFP,64P,14.0x20.0mm,12MHz,QFP,Plastic,5V,-40to+85C,2KB,64KB,8BIT MICROCONTROLLER	1
DB94-05351A		ASSY PCB AUTO;MAIN,AR5000,120*120,220-240V,15V,12V,5V,11W,ON-OFF,CO,DB92-03443B	1
0402-000137	D101	DIODE-RECTIFIER;1N4007,1000V,1A,DO-41,TP	1
0402-000137	D701	DIODE-RECTIFIER;1N4007,1000V,1A,DO-41,TP	1
0501-000294	Q701	TR-SMALL SIGNAL;KSA708-Y,PNP,800mW,TO-92,TP,12	1
1203-001238	IC07	IC-POSI.FIXED REG.;78L15,TO-92,3P,-,PLASTIC,14.4/	1
2002-001104	R108	R-COMPOSITION;12Mohm,5%,1/2W,AA,TP,3.4x9mm	1
2002-001104	R109	R-COMPOSITION;12Mohm,5%,1/2W,AA,TP,3.4x9mm	1
2003-000706	R105	R-METAL OXIDE(S);47Kohm,5%,2W,AA,TP,3.8x12mm	1
2201-000983	C103	C-CERAMIC,DISC;1nF,10%,2000V,Y5P,TP,9x5mm,7.5mm	1
2401-000027	C706	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	1
2401-000480	C106	C-AL;10uF,20%,50V,GP,TP,5x11,5	1
2401-000832	C111	C-AL;220uF,20%,25V,GP,TP,8x11.5,5	1
2401-001998	C109	C-AL;1000uF,20%,25V,GP,TP,10x20,5mm	1
2401-002300	C701	C-AL;47uF,20%,50V,GP,TP,6.3x11,5mm	1
2401-002300	C703	C-AL;47uF,20%,50V,GP,TP,6.3x11,5mm	1
2401-002619	C105	C-AL;47uF,20%,25V,GP,TP,5x11,5	1
2802-001198	X501	RESONATOR-CERAMIC;10MHz,0.5%,BK,8x3x5.5mm	1
3601-001209	F702	FUSE-RADIAL LEAD;250V,1A,TIME-LAG,-,8.5x8mm	1
3812-001283	J1	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J12	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J13	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J15	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J16	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J18	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J19	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J20	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J21	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J23	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J24	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J25	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J26	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J27	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1

6-1 INDOOR MAIN PBA(DB92-03443B)

Parts Code	Design Loc	Description / Spec	Quantity
3812-001283	J28	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J3	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J31	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J33	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J35	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J36	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J37	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J38	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J39	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J4	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J42	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J43	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J44	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J47	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J5	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J50	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J6	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J8	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J81	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
3812-001283	J82	WIRE-NO SHEATH CU;FE+CU+SN,300V,52mm(TAPING),1/0.6mm	1
6042-000001	EC101-1	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1
6042-000001	EC101-2	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1
6042-000001	ECN71-1	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1
6042-000001	ECN71-2	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1
6042-000001	ECN78-1	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1
6042-000001	ERY71-1	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1
6042-000001	ERY71-2	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1
6042-000001	ERY71-3	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1
6042-000001	ERY71-4	EYELET;ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1
6042-000002	EF701-1	EYELET;ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1
6042-000002	EF701-2	EYELET;ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1
DB41-01292A	PCB	PCB MAIN;FR-1,1Layer,T1.6,120*120,2,1Oz,242X142	1

6-2 INDOOR DISPLAY PBA(DB92-02876A) - 3-LED

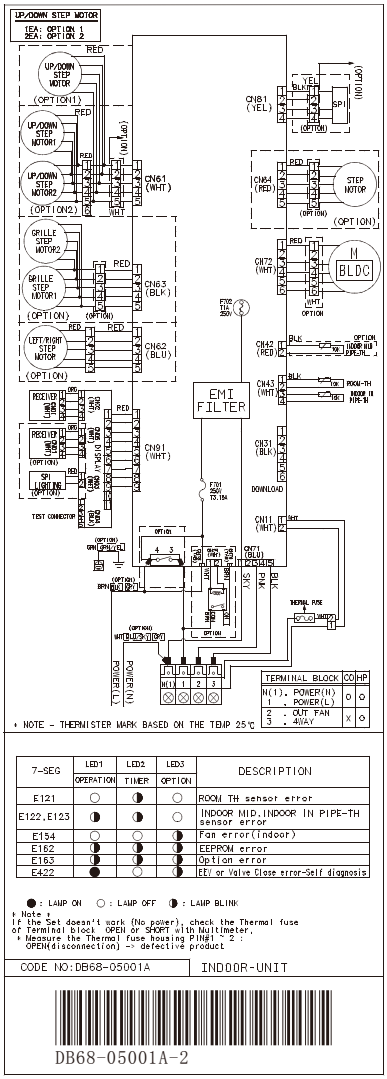
Parts Code	Design Loc	Parts Description	Spec.	Quantity
3711-003848	CN01	HEADER-BOARD TO CABLE	BOX, 11P, 1R, 2mm, ANGLE, SN, WHT	1
3711-004379	CN02	HEADER-BOARD TO CABLE	BOX, 4P, 1R, 2mm, STRAIGHT, SN, WHT	1
3711-005096	CN04	HEADER-BOARD TO CABLE	BOX, 5P, 1R, 2MM, STRAIGHT, SN, BLK	1
DB94-04103A		ASSY 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

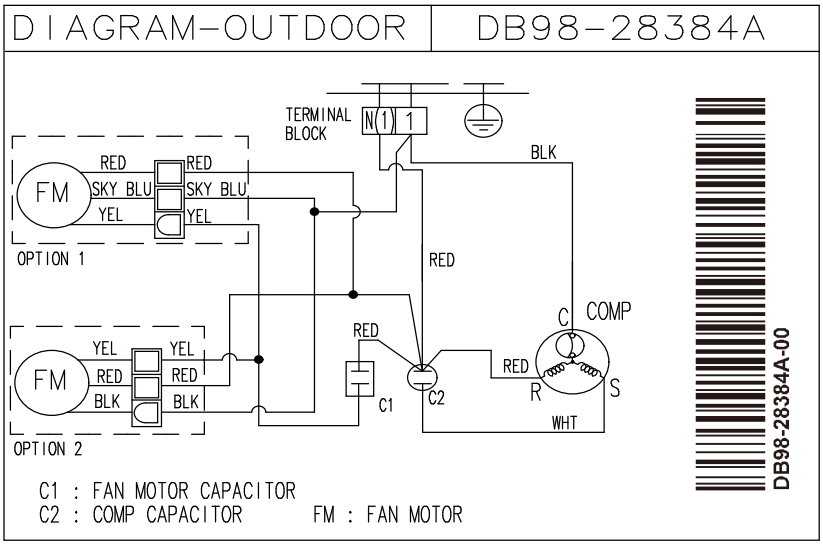
6-4 INDOOR RECEIVE PBA (DB92-02874A)

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

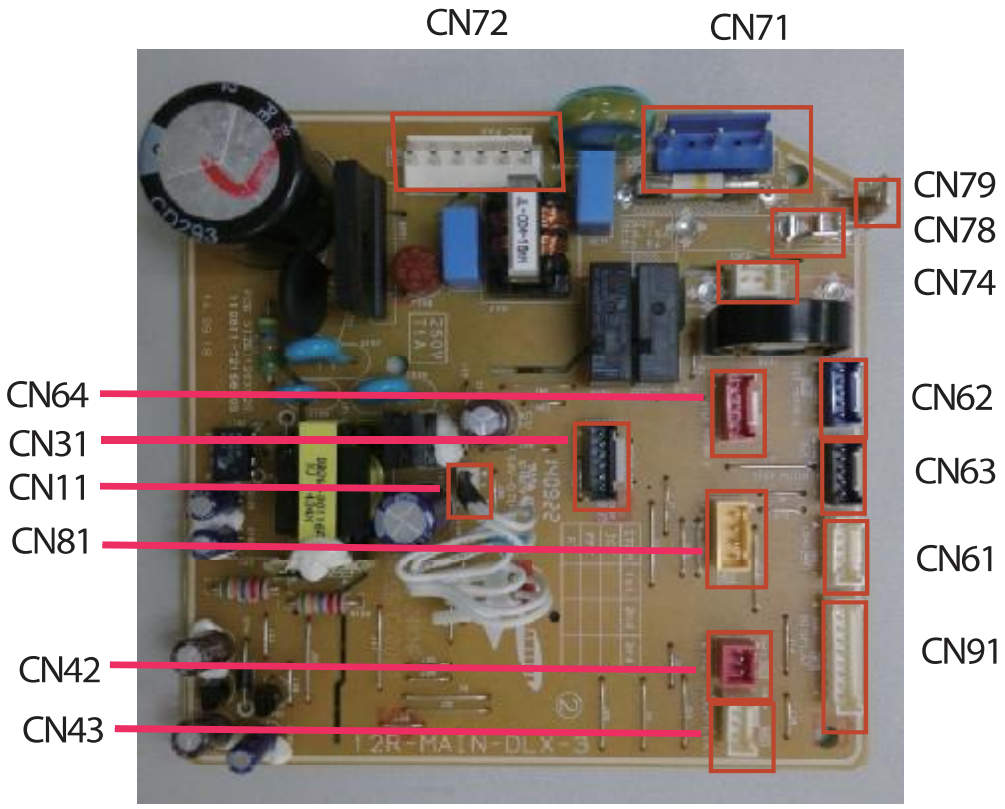
7-1 Indoor Unit





8. PCB Diagram

8-1 Indoor Main PCB--DB92-03443 SERIES

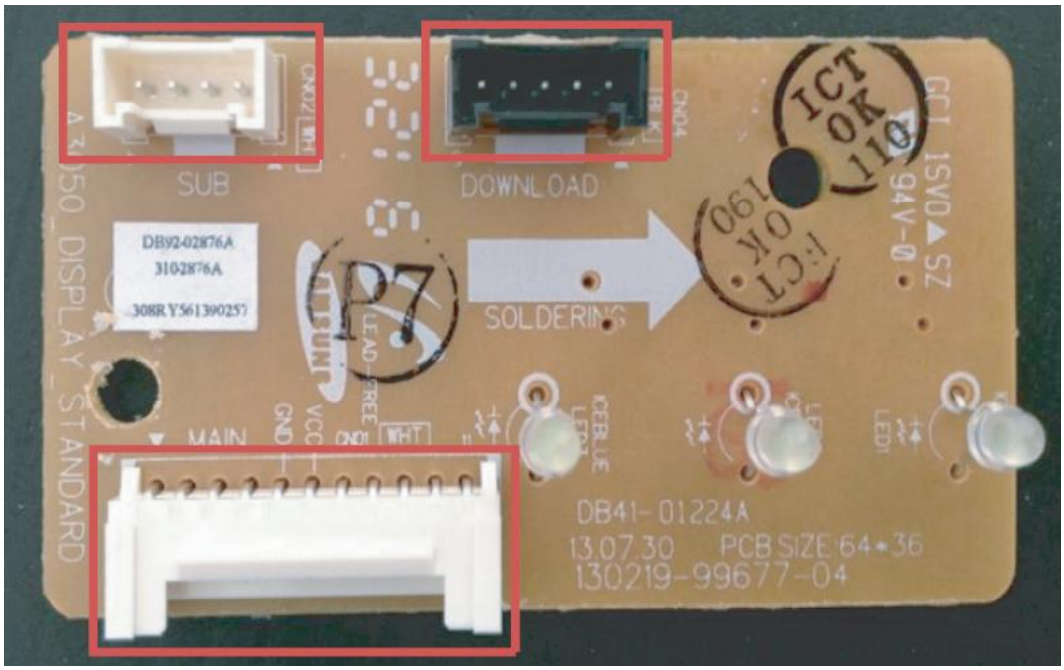


CN72 - BLDC-MOTOR #1 : DC 310V #3-6 : Bldc driving singal output	**CN71 - -N/OUTFAN/4-WAY** #1 : POWER-N #3 : OUTFAN RELAY signal #5 : 4-WAY RELAY signal	**CN78,CN79 - POWER L** #1 : Power L	**CN74 -30A Relay Control** #1,2: 12V Control
CN91 - DISPLAY #1-#4 : DIO ; CLK ; STB ; IRQ #5 : GND #6 : VCC #7 : Vout #8 : PWM_LED #9: ROOM_TEMP	**CN31 - DOWNLOAD** #1,4,5,6: Download Signal #2 : VCC #3: GND	**CN42 - TEMPERATURE SENSOR** #1: EVA_TEMP #2: GND	**CN43 - TEMPERATURE SENSOR** #1: ROOM_TEMP #3: EVA_TEMP #2-4: GND
CN11 - 12V #1: 12V Signal	**CN81 - SPI** #1 : SPI Signal #2 : GND #3 : DC 12V	**CN61--64-STEP MOTOR** #1 : GND #2-5 : STEP MOTOR signal	

8. PCB Diagram

8-2 DISPLAY PCB--3 LED

CN02 CN04

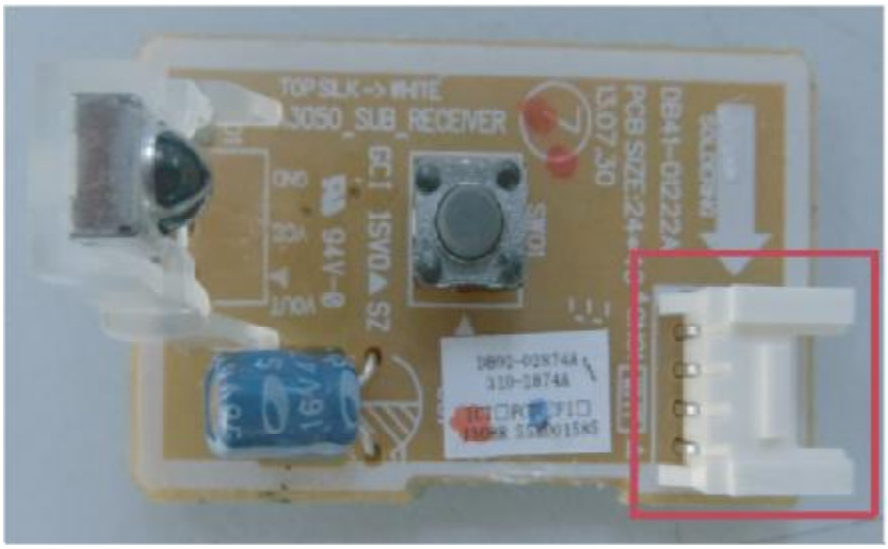


CN01

CN04 - DOWNLOAD	CN02 - POWER IN	CN01 - DISPLAY	
#1 : 5V #2 : TEST_RX #3 : TEST_TX #4 : MODE 0 #5 : GND	#1 : GND #2 : Vout #3 : DC 5V #4 : S/W	#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

8-3 SUB PCB--RECEIVE



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

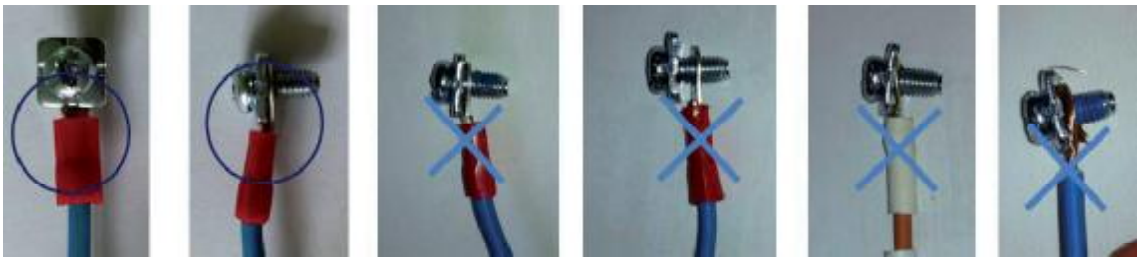
8-4 Wire connecting the indoor unit terminal blocks

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

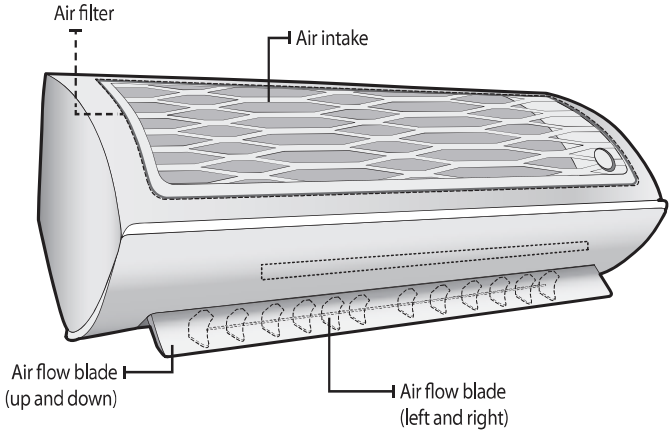
9. Operating Instructions

9-1 Name of Each Part

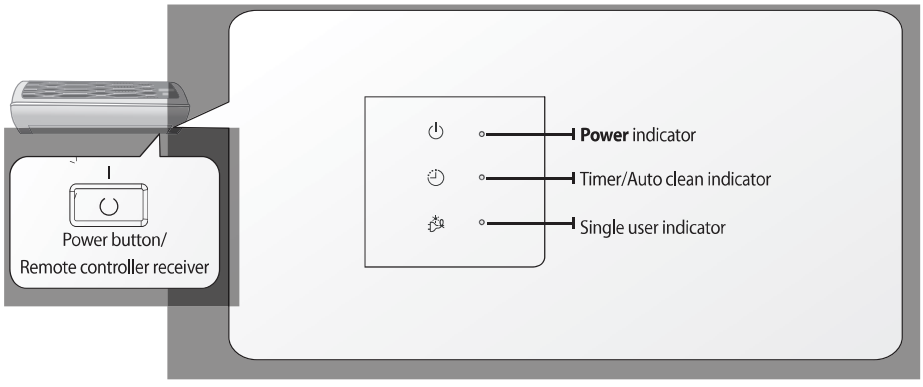
9-1-1 Indoor Unit

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

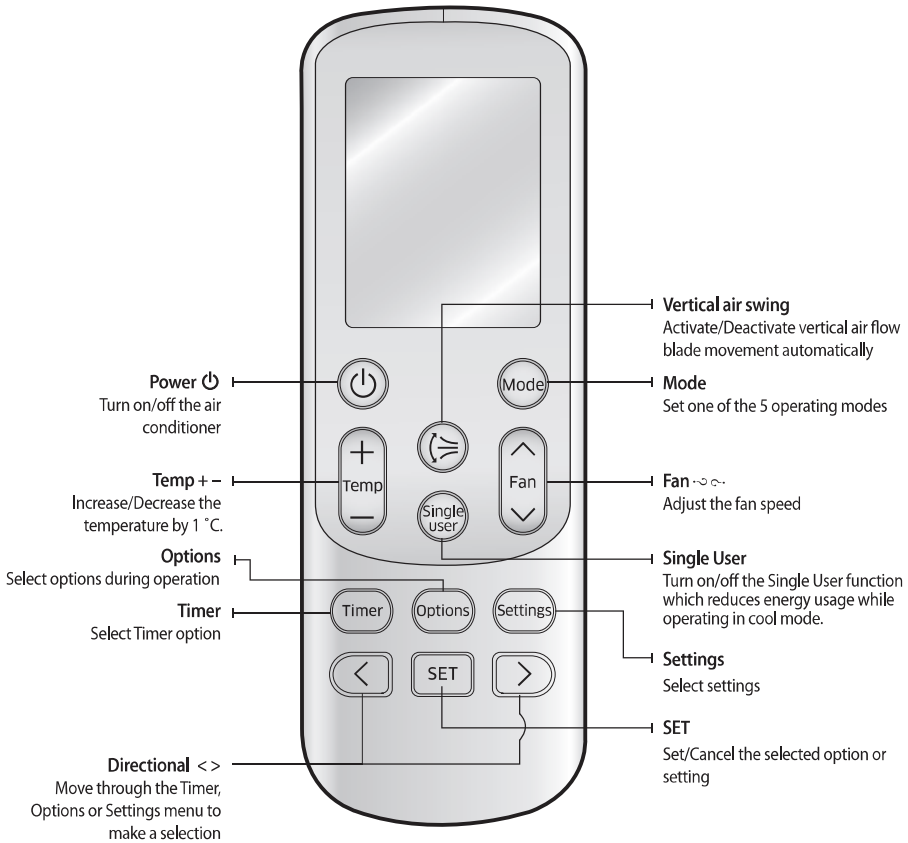
■ Main Parts



■ Display



9-2 Wireless Remote Control-Buttons and Display



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 Indoor Eva-in temperature sensor error

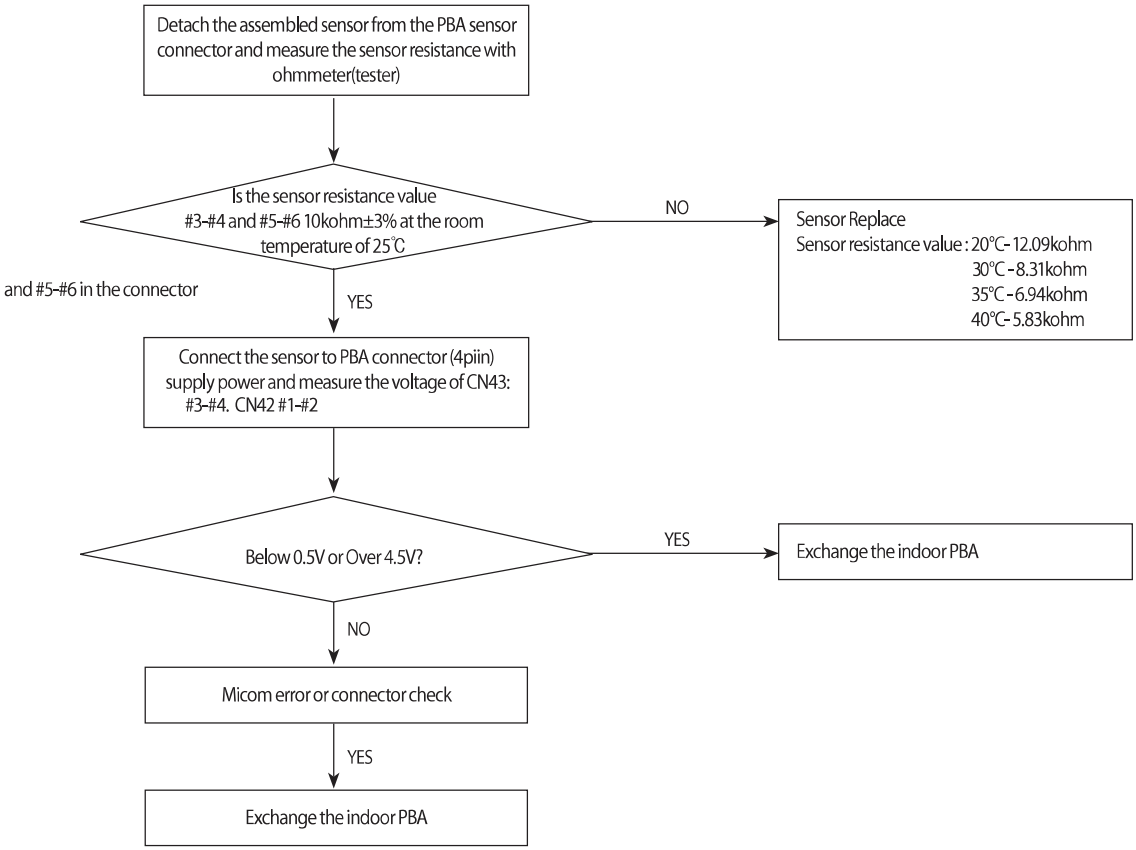
Indoor display

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 Indoor temperature sensor Error

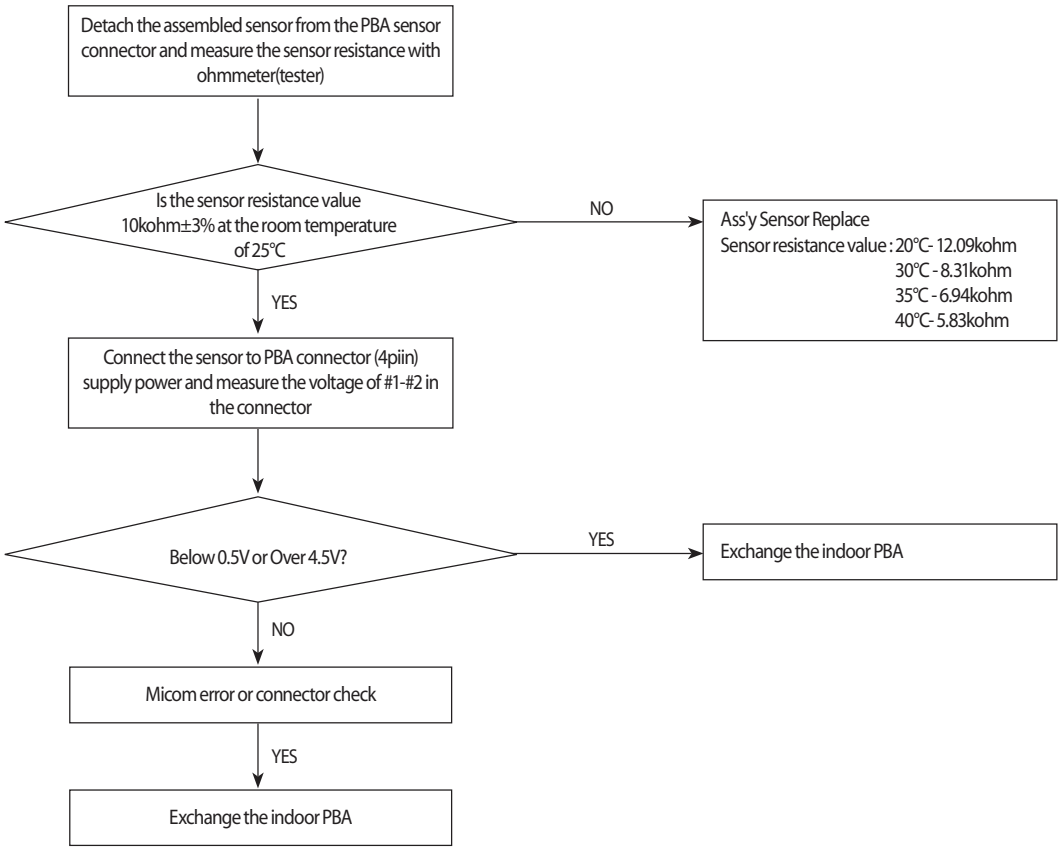
Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E121	ROOM TH ensor 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 EEPROM Error Or Option Error E162/E163

7-SEG	LED1	LED2	LED3	DESCRIPTION
	OPERATION	TIMER	OPTION	
E162	◑	◑	◑	EEPROM error
E163	◑	◑	◑	Option error

● LED ON ◑ LED BLINKING ○ LED OFF

1. Check list:
   1) If all lamps of indoor unit blinking or E162/E163 is displayed. plug out in power plug again and press ON/OFF keyto retry

   2) If the unit is not working properly or all lamps are continuously blinking or E162/E163 is displayed after resetting the option code, see if the corrent option code is set up for its model

   3) Nevertheless , if all lamps are blinking re E162/E163 is displayed, exchange the main PBA.

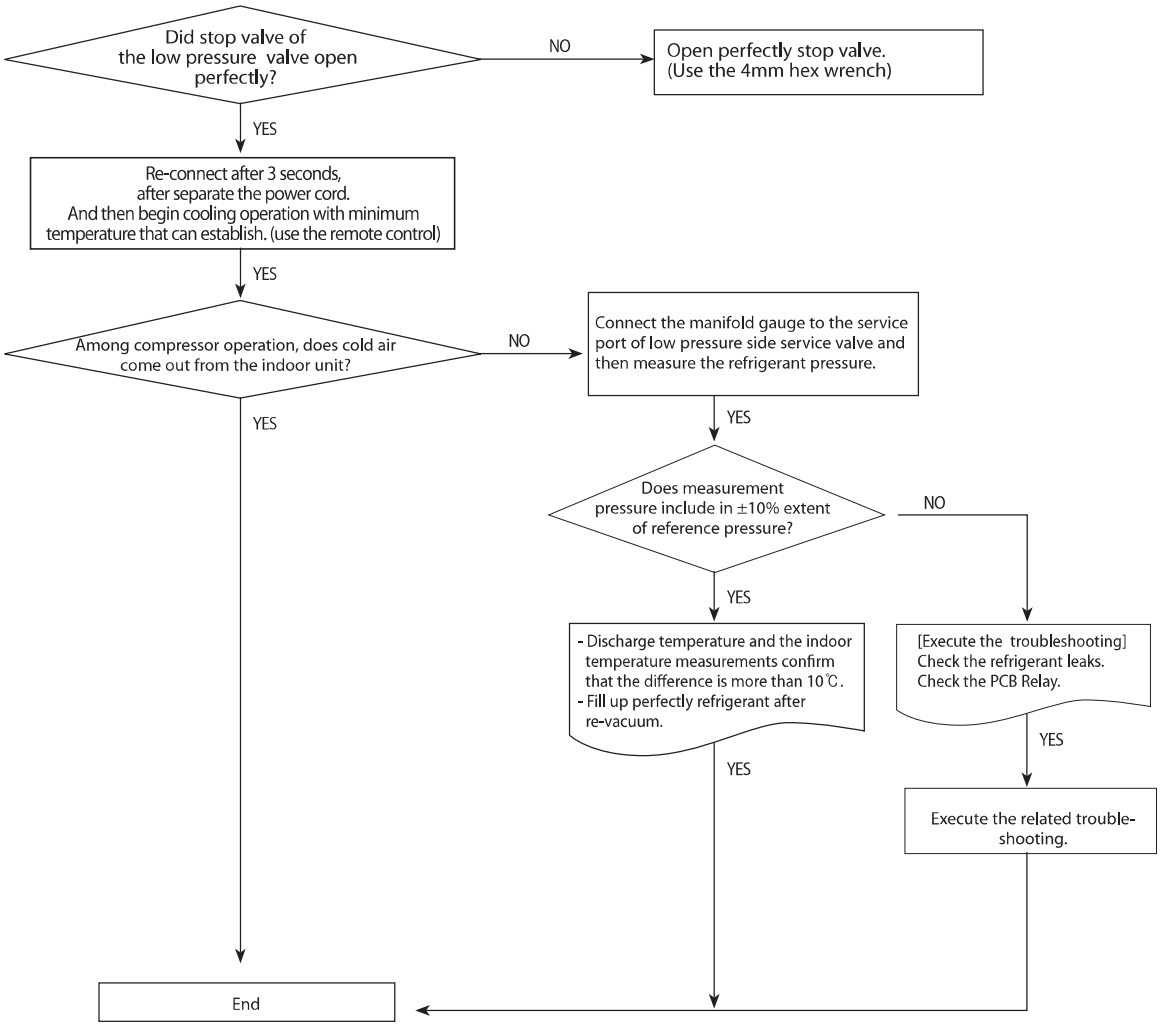
10-2 SmartInstallerror E422

7-SEG	LED1	LED2	LED3	DESCRIPTION
	OPERATION	TIMER	OPTION	
E422	●	○	◑	EEV or Valve Close error-Self diagnosis

● LED ON ◑ LED BLINKING ○ LED OFF

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



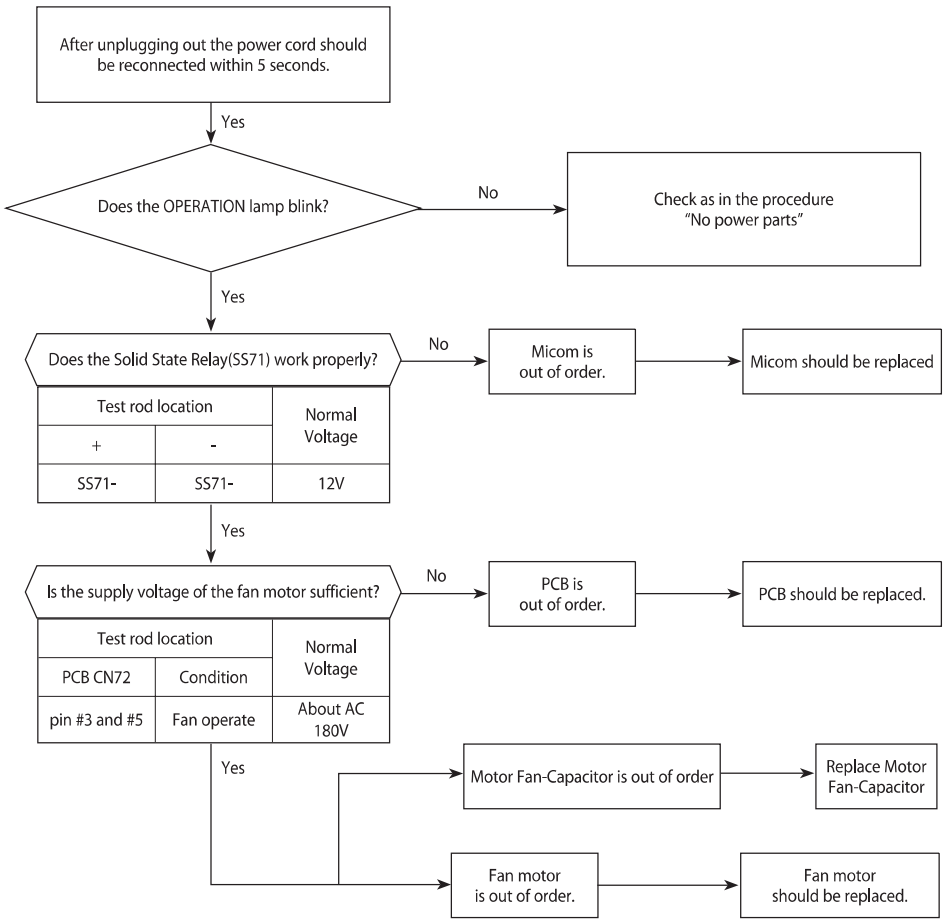
10-2 Indoor Fan Motor Speed Detecting Error↔When E 154 is diplayed

7-SEG	LED1	LED2	LED3	DESCRIPTION
	OPERATION	TIMER	OPTION	
E154	○	○	◑	Fan error(indoor)

● LED ON ◑ LED BLINKING ○ LED OFF

1. Checklist :
   1) Is the indoor unit fan motor properly connected with the connector (CN72)?
   2) Is the AC voltage correct?
   3) Is HALL IC in indoor fan motor properly connected with the connector (CN44)?
   4) Is the running capacitor (CR71) properly connected with PCB board?

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

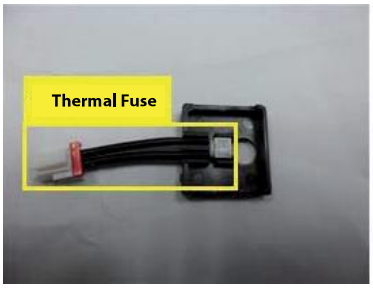
1. Check connector connection and peeling of PCB or bronze coating pattern when you think the PCB is broken.
2. The PCB is composed of 3 parts.
   . Indoor Main part : MICOM and surrounding circuit, relay, fan motor sensing and driving circuit, temperature sensing circuit power circuit of SMPS, buzzer circuit. Communication circuit.
   . Display part : LED lamp, Switch, Remote-control module.

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 C109(+)-(-) 12Vdc?	. Switching Trans of Power circuit is faulty.
		3) Is the voltage between both terminal of C111(+)-(-) 5Vdc?	. Power circuit is faulty, Load short.

■ 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)

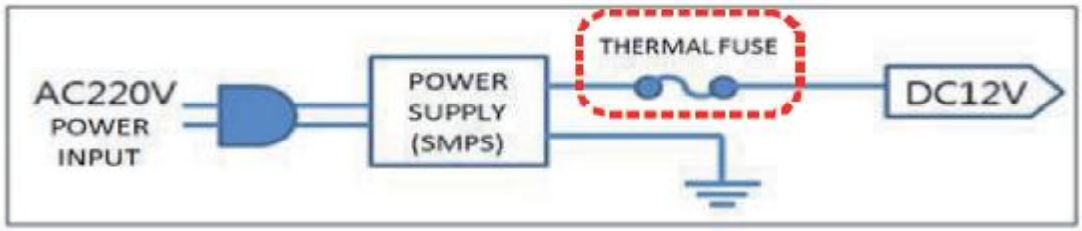


Terminal Block Internals


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

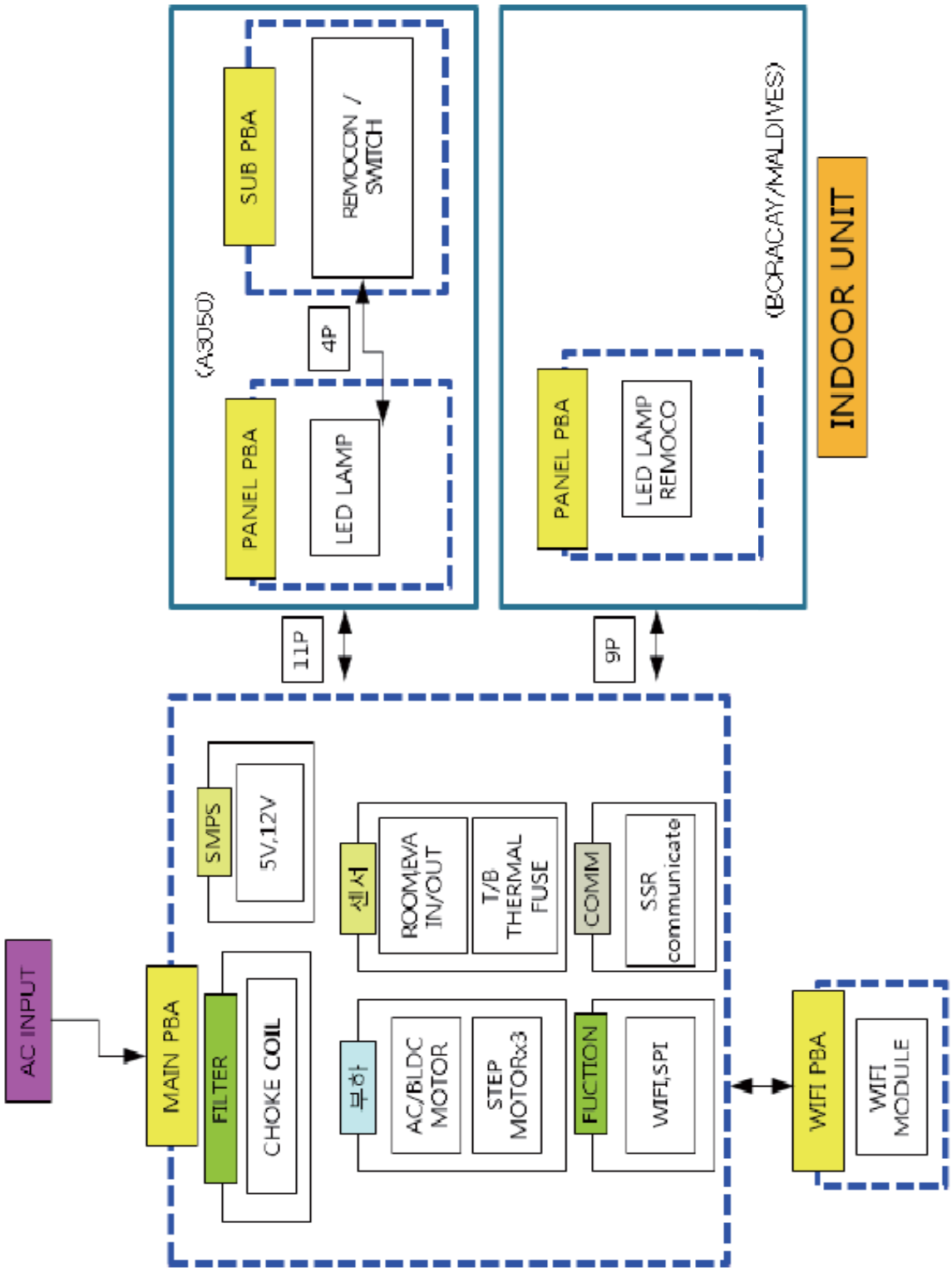
3. Measurement method of fair/defective thermal fuse

Fail

Defective

11. Block Diagram

11-1 Indoor and Outdoor unit



11-2 Inspection

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)

11-2-3 Indoor detailed inspection procedure

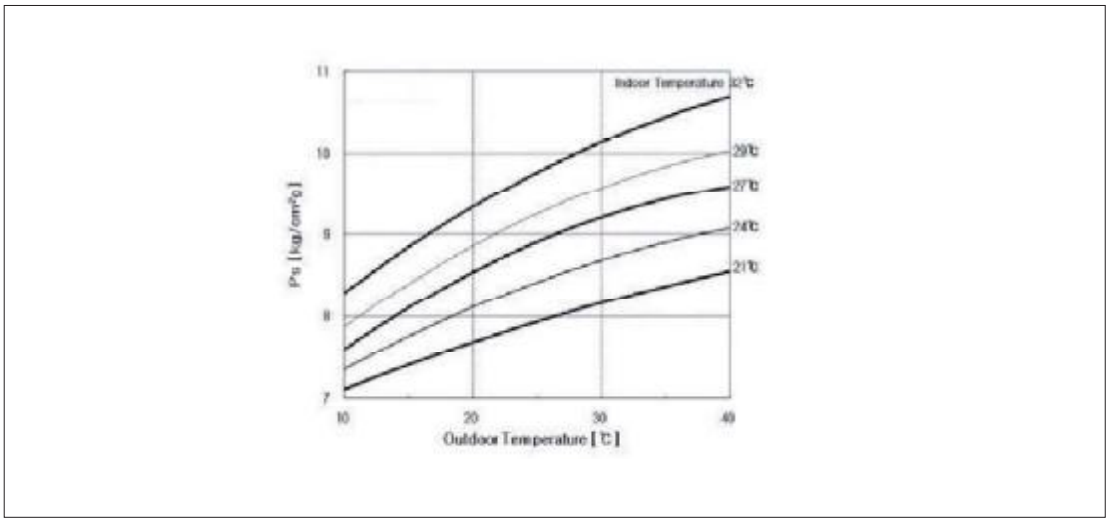
No	Procedure	Inspection Method	Cause
1	Plug out and pull the PCB out of the control box Check the PCB fuse	1) Is 1st fuse disconnected? 2) Is 2nd fuse disconnected?	. Over current . Indoor Fan motor short . AC part and pattern short of Indoor PBA
2	Supply power If the operating lamp twinkles at this 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 IC02 pin #1-#2 12Vdc?	. Switching Trans of Power circuit is faulty
		3) Is the voltage between both terminal of IC02 pin #2-#3 5Vdc?	. Power circuit is faulty, Load short

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.

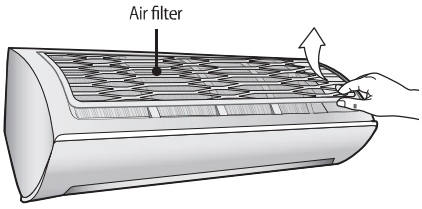
12-4 Cleaning /Filter Change

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.

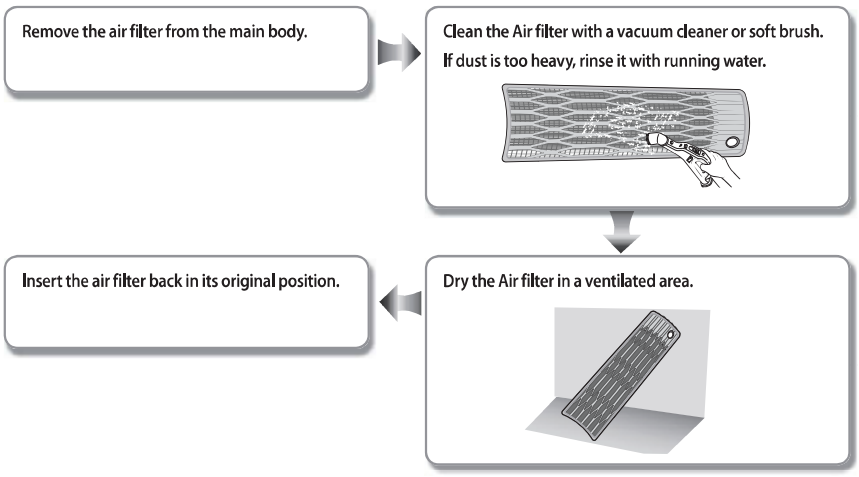
Removing the Air filter

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

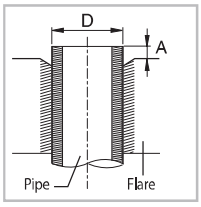
Fix the air conditioner indoor unit securely to the wall. Secure the outdoor unit in a suitable position.

■ 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.

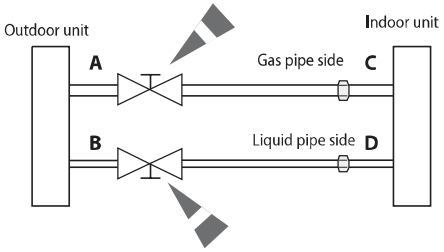
3) Open the valve of the low pressure side of manifold gauge counter-clockwise.

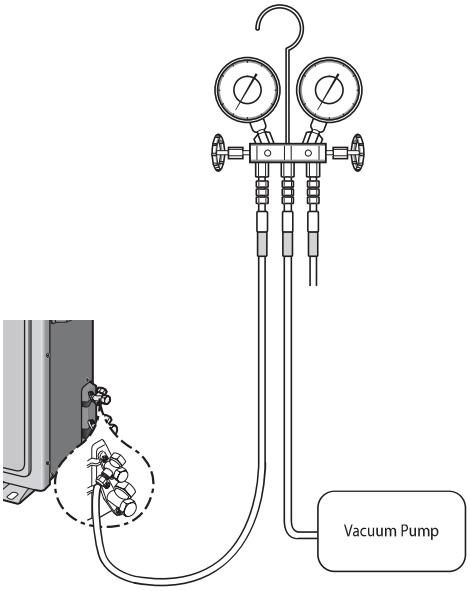
4) Purge the air from the system using vacuum pump for about 30 minutes.
   - After that, please recheck that pressure is stabilized.
   - Close the valve of the low pressure side of manifold gauge clockwise.
   - Remove the hose of the low pressure side of manifold gauge.

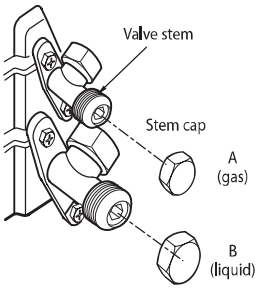
5) Set valve cork of both liquid side and gas side of packed valve to the open position.

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.

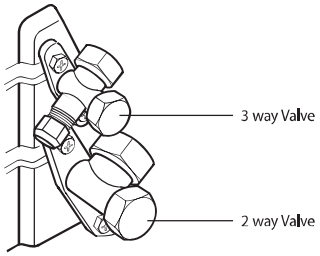
3) Set the unit to cool operation mode. (Check if the compressor is operating.)

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	C	F	S	M	W	K	N/X	X	L

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
Non Inverter HP R410a	Q
Non Inverter CO R410a	R
Non Inverter HP R22	P
Non Inverter CO R22	C

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	New color 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 exiting code	The sales area	CIS Description	The intergrated code (13TH,14TH)
2	XLA	PANAMA	PANAMA(XLA)	XL

● Except the RAC Export Models for China.

Code No. AC-00045K_1