

SAMSUNG

SPLIT-TYPE AIR CONDITIONER

Basic : SH18AP0(D)/SH24AP6(D)

Model : AS18HPBN/AS24HPBN

SERVICE ***Manual***

AIR CONDITIONER



AS18HPBN/AS24HPBN



AS18HPBX/AS24HPBX

THE FEATURE OF PRODUCT

- Energy Saving Function
- High Impressive & Elegant Design
- Excellent Dust Collection Filter
: The metallic dust filter is used.
- Multi Functional Cleaning System
: The anti allergy filter and activated deodorizing filter are adopted.
- Human Touch Remote control

Refer to the K-Zone service manual for the more information.

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1. Precautions

1-1 Installing the air conditioner

- Users should not install the air conditioner by themselves.
Ask the dealer or authorized company to install the air conditioner except the 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 from 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 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

■ **Energy saving function**

Makes a room cool with and energy saving and arises the efficiency of air conditioner.

■ **High impressive & elegant design**

With a Smart and fashionable style, the high impressive interior design allow this product to set place in anywhere.

■ **Excellent dust collection filter**

With a metallic dust filter that upgrades the dust collection function than a common plastic filter, you can enjoy the best cleanliness.

■ **Multi functional cleaning system**

With an anti-allergy filter and activated deodorizing filter, it removes an allergy antigen as well as a tobacco odor.

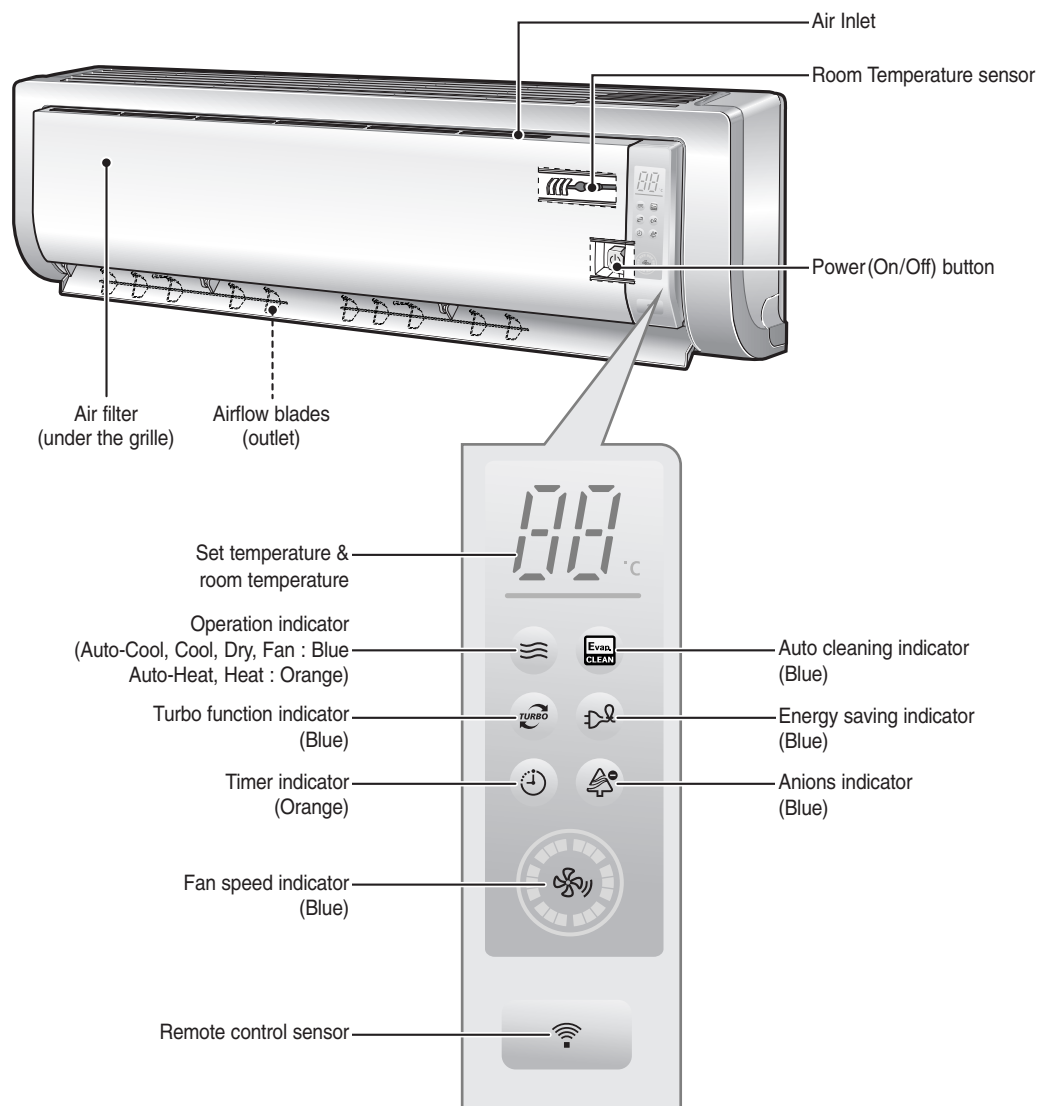
■ **Human touch remote control**

The use of air conditioner is easier and more convenient by the human touch remote control of new design.

2-2 Name of Each Part

2-2-1 Indoor Unit

The design and shape can be changed according to the model.

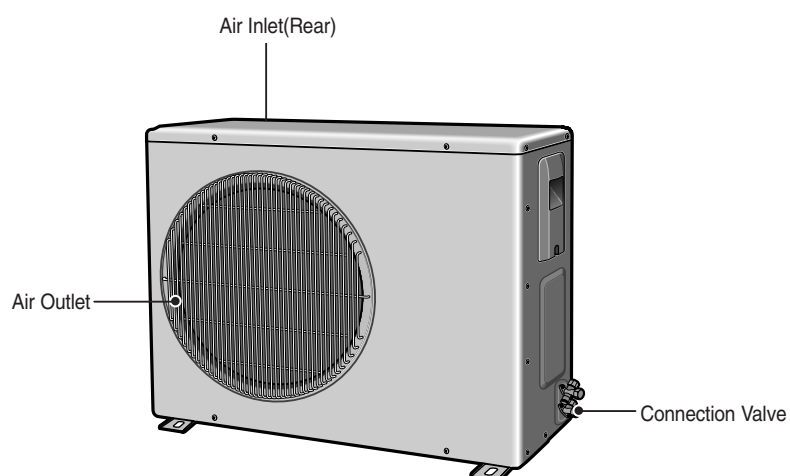


- Note :**
- In the Auto mode, 2 fan indicators increase and decrease continuously and turn round.
 - In the modes except the Auto mode, the fan speed indicator increases and decreases continuously and turn round each time you press the  button. If you set the Turbo function, the fan speed indicator turns round with the maximum setting and speed.
 - If you want to turn on/off the Display during operation, press the  button on the remote control.
 - The room temperature sensor senses air temperature around the sensor, and shows the temperature on the display.

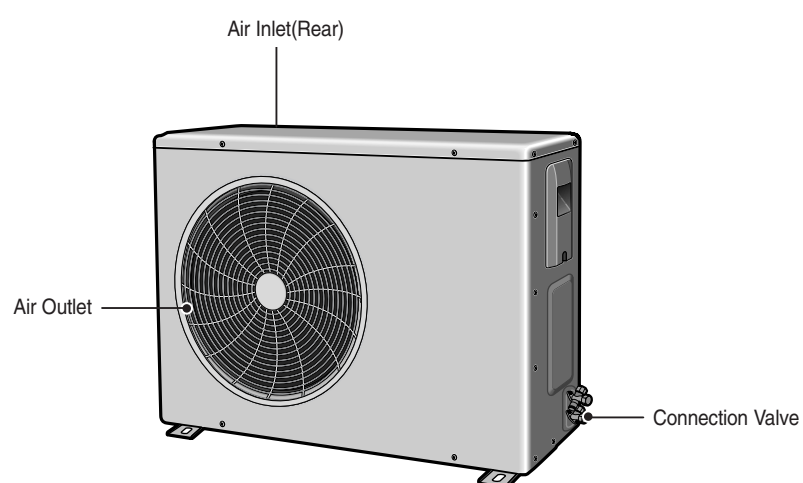


2-2-2 Outdoor Unit

■ AS18HPBX



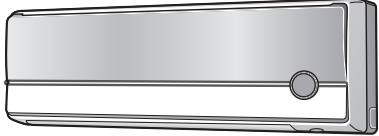
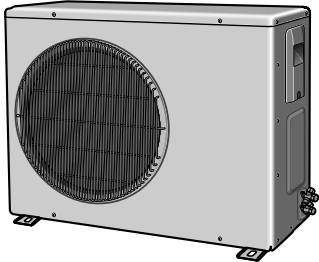
■ AS24HPBX

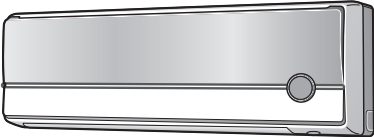
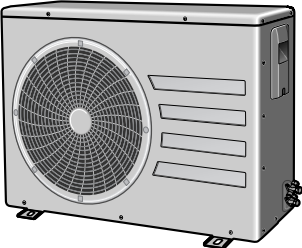


2-3 Product Specifications

Model				AS18HPBN		AS24HPBN	
				Indoor unit	Outdoor unit	Indoor unit	Outdoor unit
Type				Wall-mounted		Wall-mounted	
Performance	Cooling		kW	5.10		6.80	
	Heating		kW	5.80		7.00	
	Dehumidifying		ℓ/h	1.94		2.9	
	Air Volume	Cooling	m³/min (H/M/L)	13.9/13.1/11.7	25	13.7/11.9/9.8	25
		Heating		14.7/13.8/12.5	25	14.7/13.1/11.5	25
	Noise	Cooling	dB (H/L)	48/40	58	48/40	61
		Heating		48/40	58	48/40	61
	Energy Efficiency Ratio	Cooling	W/W	2.82		2.81	
		Heating		3.22		2.81	
Power		ph-V-Hz	1-220/240-50		1-220/240-50		
Power	Power Consumption	Cooling	W	1,810		2,420	
		Heating		1,800		2,490	
	Operating Current	Cooling	A	8.3		10.8	
		Heating		8.1		11.2	
	Power Factor	Cooling	%	94.8		97.4	
		Heating		96.6		96.7	
	Starting Current		A	21		28	
	Power Cord	Length	m	2.1		2.1	
		Number of Core Wire		5G		5G	
Capacity		A	250V-15A		250V-20A		
Size	Outer Dimension	Width x Height x Depth	mm	1,099 x 315 x 200	787 x 620 x 320	1,099 x 315 x 200	880 x 638 x 310
			inch	43.3 x 12.4 x 7.9	31.0 x 24.4 x 12.6	43.3 x 12.4 x 7.9	34.6 x 25.1 x 12.2
	Weight(Net)		kg	13.0	46.0	13.0	64.0
	Refrigerant Pipe	Liquid	mm x L(m)	ø6.35 x 7.5		ø6.35 x 7.5	
		Gas	mm x L(m)	ø12.70 x 7.5		ø15.88 x 7.5	
	Drain Hose		D x L(mm)	ø18 x 550		ø18 x 550	
	Compressor	Type		Rotary, G8D190JU1EH		Rotary, G5A240JU1EM	
		Motor	Type	Induction Motor(PSC)		Induction Motor(PSC)	
			Rated Output	2,000		2,470	
	Oil Type			POE(FREOL α68ES-T)		POE(FREOL α68ES-T)	
	Blower	Type		Cross-flow	Propeller	Cross-flow	Propeller
		Motor	Type	Resin / steel	steel	Resin / steel	steel
Rated Output			W	15	50	15	50
Heat Exchanger				2ROW 16STEP	2ROW 28STEP	2ROW 16STEP	2ROW 28STEP
Refrigerant Control Unit				CAPILLARY TUBE		CAPILLARY TUBE	
Freezer Oil Capacity			cc	600		800	
Refrigerant to Change(R410A)			g	1,250		1,600	
Protection Device(OLP)				Internal		Internal	
Cooling Test Condition				INDOOR UNIT : DB27°C WB19°C		OUTDOOR UNIT : DB35°C WB24°C	
Maximum Operation Condition				INDOOR UNIT : DB32°C WB23°C		OUTDOOR UNIT : DB43°C WB26°C	

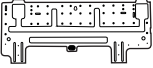
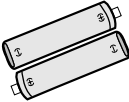
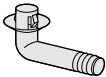
2-4 The Comparative Specifications of Product

Item		AS18HPBN	SH18AP0
Design	Indoor Unit		
	Outdoor Unit		
Net Weight	Indoor Unit	13.0kg	13.0kg
	Outdoor Unit	46.0kg	46.0kg
Outer Dimension	Indoor Unit	1,099 x 315 x 200mm	1,080 x 315 x 205mm
	Outdoor Unit	787 x 620 x 320mm	787 x 620 x 320mm
Noise	Indoor Unit	48dB↓	48dB↓
	Outdoor Unit	58dB↓	58dB↓
Air Purifying System	Filter	Silver Nano Metallic Filter Anti-Allergy Filter Deodorizing Filter	Silver Nano Filter Bio Green Filter Deodorizing Filter
Indoor Display		Detachable Display Rotation Blue LED Display	Circular-shaped Display Green LED Display

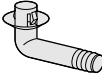
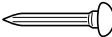
Item		AS24HPBN	SH24AP6
Design	Indoor Unit		
	Outdoor Unit		
Net Weight	Indoor Unit	13.0kg	13.0kg
	Outdoor Unit	64.0kg	64.0kg
Outer Dimension	Indoor Unit	1,099 x 315 x 200mm	1,080 x 315 x 205mm
	Outdoor Unit	880 x 638 x 310mm	880 x 638 x 310mm
Noise	Indoor Unit	48dB↓	48dB↓
	Outdoor Unit	61dB↓	61dB↓
Air Purifying System	Filter	Silver Nano Metallic Filter Anti-Allergy Filter Deodorizing Filter	Silver Nano Filter Bio Green Filter Deodorizing Filter
Indoor Display		Detachable Display Rotation Blue LED Display	Circular-shaped Display Green LED Display

2-5 Accessory and Option Specifications

2-5-1 Accessories

Item	Descriptions	Code-No.	Q'TY	Remark
	Installation Plate	DB70-00536A	1	Indoor Unit
	Remote Control	DB93-03016R	1	
	Batteries for Remote Control	DB47-90024A	2	
	User's Manual	DB98-20305A	1	
	Installation Manual	DB98-21276A	1	
	3-wire Power Cable	-	1	Outdoor Unit
	2-wire Assembly Cable	-	1	
	5-wire Assembly Cable	-	1	
	Drain Plug	DB67-20011A	1	
	Rubber Leg	DB73-00179A	4	

Accessories(cont.)

Item	Descriptions	Code-No.	Q'TY	Remark
	Assembly Pipe, ø6.35mm	DB96-10453B	1	Accessory Box
	Assembly Pipe, ø12.70mm(**18**)	DB62-70003E	1	
	Assembly Pipe, ø15.88mm(**24**)	DB96-10221C	1	
	PE T3 Foam Tube Insulation	DB72-50165A	1	
	Vinyl Tape, Width 50mm	DB72-00459A	1	
	Drain Plug	DB67-20011A	1	
	Rubber Leg	DB73-00179A	4	
	Pipe Clamps A	DB39-20224A	3	
	Pipe Clamps B	DB39-20224B	3	
	Cement Nail	-	6	

Accessories(cont.)

Item	Descriptions	Code-No.	Q'TY	Remark
	M4x16 Tapping Screws	6002-000215	10	Accessory Box
	Drain Hose, length 2m	DB62-00487A	1	
	Putty 100g	DB98-10568A	1	

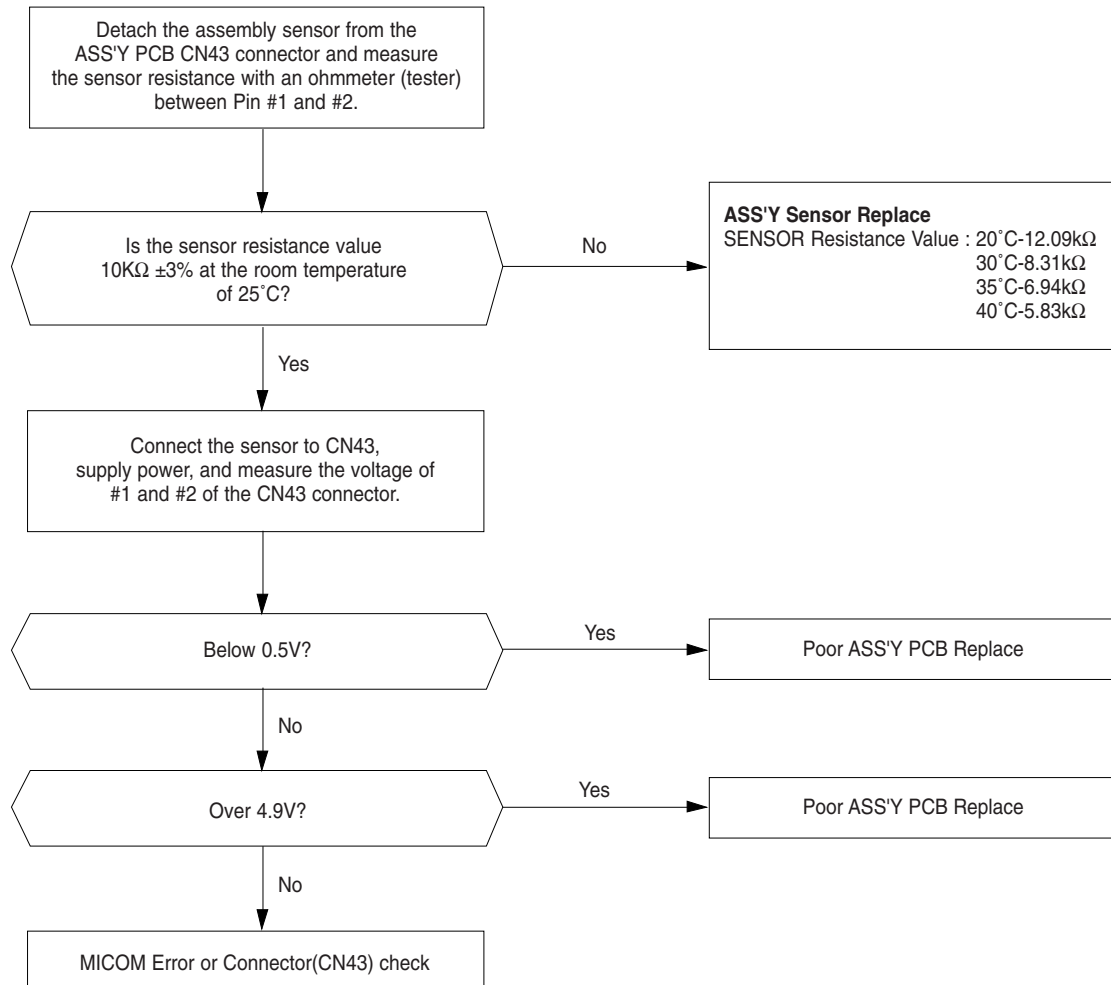
3. Alignment and Adjustments

3-1 Error mode and check method

Error Mode	LAMP	7-segment Display
Indoor unit room temperature sensor error (open or short)		<i>E 1</i>
Indoor unit heat exchanger temperature sensor error (open or short)		<i>E 2</i>
Indoor fan motor malfunction		<i>E 3</i>
EEPROM error		<i>E 6</i>
Option error (option wasn't set up or option data error)		Display Flickering

3-1-1 Room temperature sensor Error

Error Mode	LAMP	7-segment Display
Indoor unit room temperature sensor error(open or short)		<i>E 1</i>



3-1-2 Room Pipe sensor Error

Error Mode	LAMP	7-segment Display
Indoor unit heat exchanger temperature sensor error (open or short)		E2

1. Check the assembly condition of the sensor connector(CN43) on the indoor unit Main PCB and if not assembled, reassemble the connector accurately.
2. Detach the room pipe sensor connector(CN43) and check the resistance between Pin #3 and #4.

Temperature(°C)	Resistance Value(Kohm)	Temperature(°C)	Resistance Value(Kohm)	Others
15	14.68	30	8.31	The data tolerance is ±3%.
20	12.09	35	6.94	
25	10	40	5.83	

If the above data is not met, replace the room pipe sensor.

3. Assemble the room pipe sensor to PCB, plug in, and check the voltage of connector 3 and 4. If the resistance is below 0.5V or over 4.9V, replace the indoor Main PCB. (short or disconnected in the PCB board)

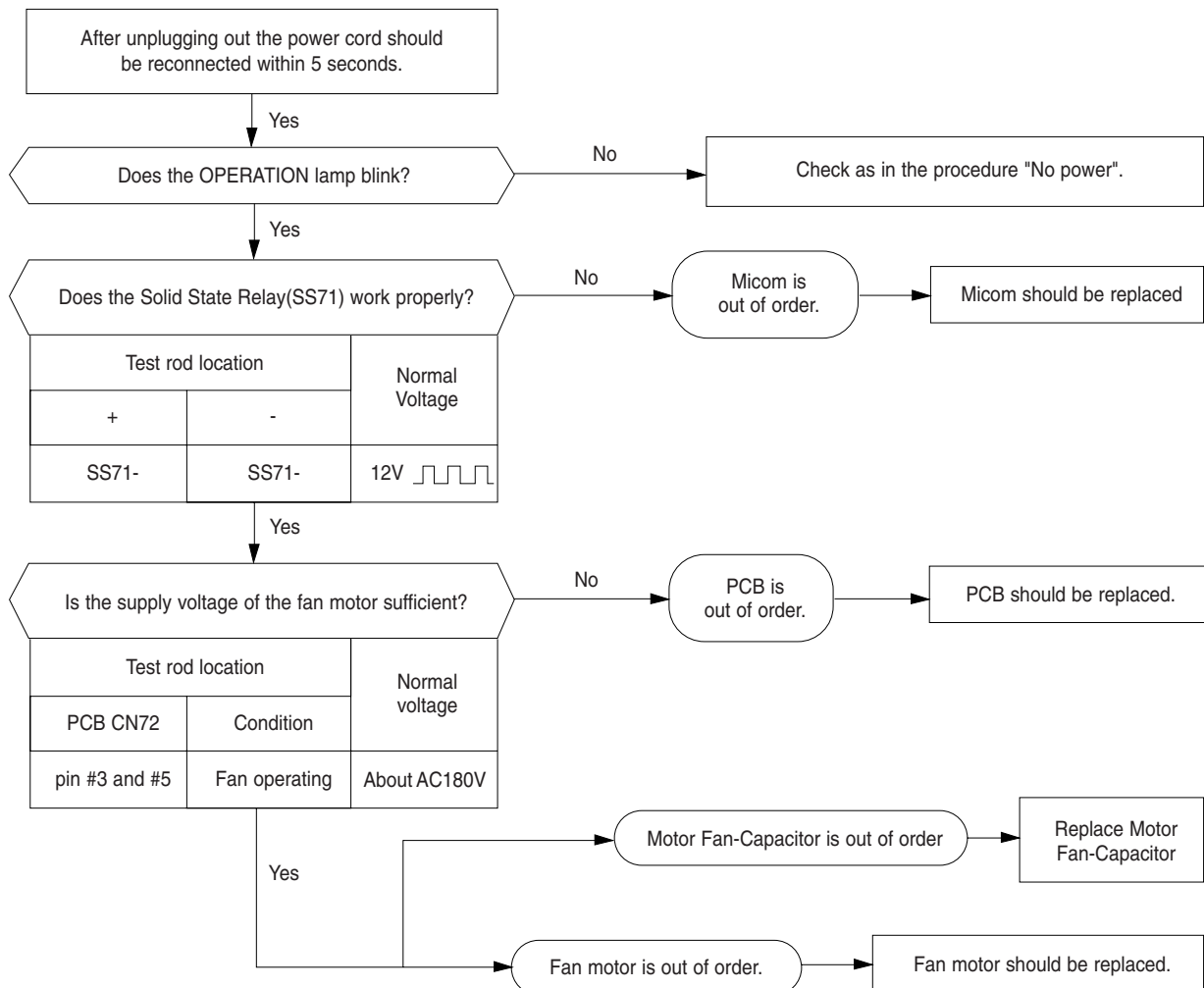
3-1-3 Indoor Unit Fan Motor Error

Error Mode	LAMP	7-segment Display
Indoor Unit Fan Motor Malfunction		<i>E3</i>

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

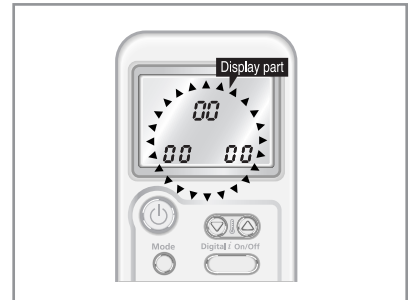


3-2 Setting Option Setup Method

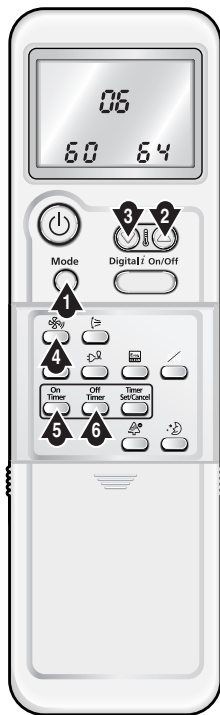
ex) Option No. : 066064- 170373

Step 1 : Enter the Option Setup mode.

- 1st Take out the batteries of remote control.
- 2nd Press the temperature  button simultaneously and insert the battery again.
- 3rd Make sure the remote display shown as .

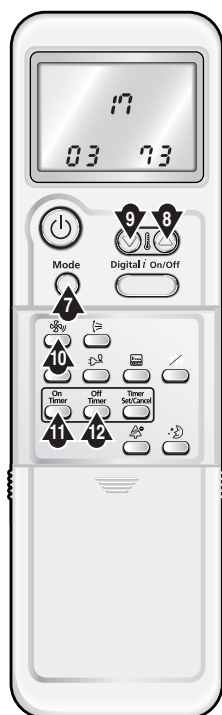


Step 2 : Enter the Option Setup mode and select your option according to the following procedure.



* Setting is not required if you must  a value which has a  default.

- 1 The default value is  .
Otherwise, push the  button to  .
Every time you push the button, the display panel reads 1 or  repeatedly.
- 2 Push the  button to set the display panel to  .
Every time you push the button, the display panel reads  → 1 → 2 → 3 → ... 9 → A → b → c → d → E → F repeatedly.
- 3 Push the  button to set the display panel to  .
Every time you push the button, the display panel reads  → 1 → 2 → 3 → ... 9 → A → b → c → d → E → F repeatedly.
- 4 Push the  button to set the display panel to  .
Every time you push the button, the display panel reads  → 1 → 2 → 3 → ... 9 → A → b → c → d → E → F repeatedly.
- 5 Push the  button to set the display panel to  .
Every time you push the button, the display panel reads  → 1 → 2 → 3 → ... 9 → A → b → c → d → E → F repeatedly.
- 6 Push the  button to set the display panel to  .
Every time you push the button, the display panel reads  → 1 → 2 → 3 → ... 9 → A → b → c → d → E → F repeatedly.



* Setting is not required if you must 0 a value which has a 0 default.

- 7 Press button, then the default value is 00 10 00 .
- 8 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.
- 9 Push the button to set the display panel to 0 .
Every time you push the button, the display panel reads 0 → 1 → 2 → 3 → ... 9 → A → b → c → d → E → F repeatedly.
- 10 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.
- 11 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.
- 12 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.

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

Press the Mode Selection key, to set the display part to 0 and check the display part.
→ The display part shows 00 00 00 .

Press the Mode Selection key, to set the display part to 1 and check the display part.
→ The display part shows 03 17 73 .

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 diriring sound isn't heard, try again pressing the ON/OFF button.)

Step 5 : 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

1st If all lamps of indoor unit are flickering, plug out, plug in power plug again and press the ON/OFF key to retry.

2nd 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

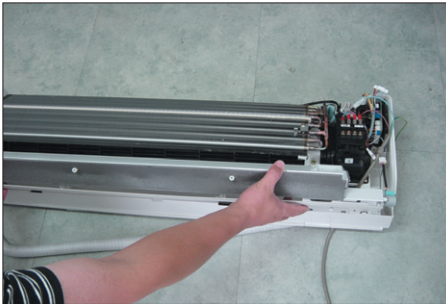
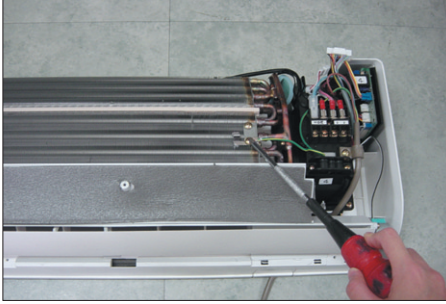
REMOCON MODEL	SEG1	SEG2	SEG3	SEG4	SEG5	SEG6	SEG7	SEG8	SEG9	SEG10	SEG11	SEG12
AS18HPBN	0	6	7	0	1	3	1	7	0	2	4	E
AS24HPBN	0	6	7	1	1	4	1	d	0	2	6	E

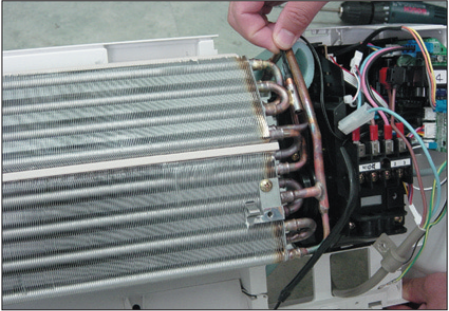
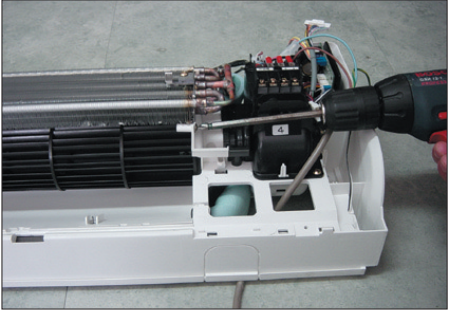
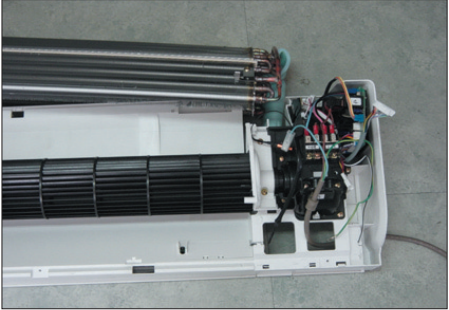
4. Disassembly and Reassembly

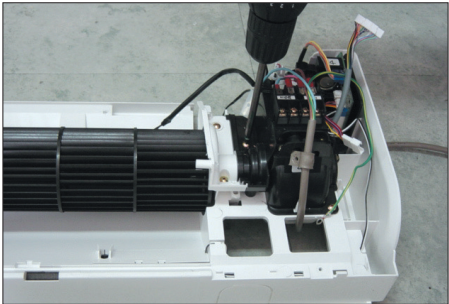
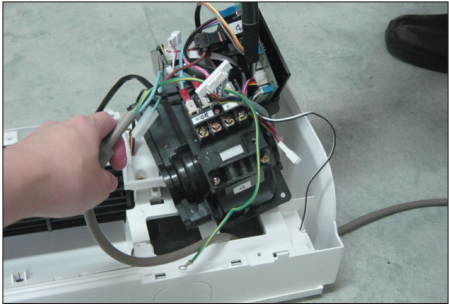
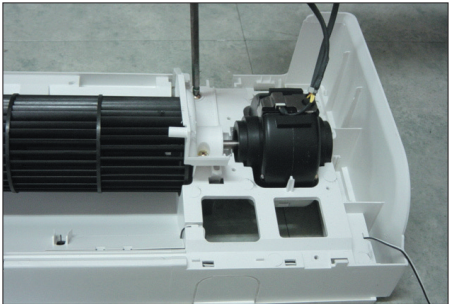
Stop operation of the air conditioner and remove the power cord before repairing the unit.

4-1 Indoor Unit

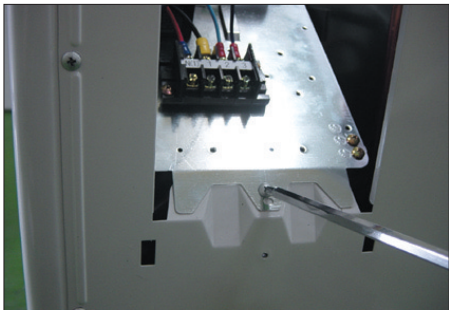
No	Parts	Procedure	Remark
1	Panel Front	1) Stop the air conditioner operation and shut off the main power. 2) Detach the Front Grille after pushing out it. 3) Loosen 1 of the right screw and detach the Ass'y display. 4) Loosen 1 of the right screw and detach the Terminal Cover. 5) Detach the cover PCB-DVM and thermistor from the Panel Front.	   

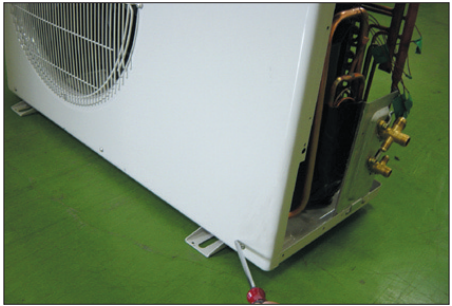
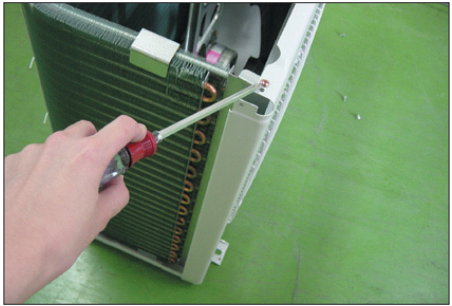
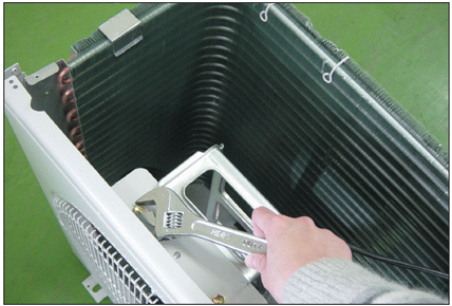
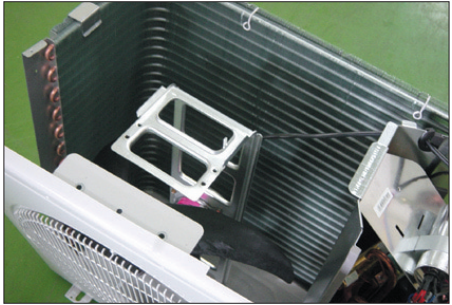
No	Parts	Procedure	Remark
		6) Loosen 5 fixing screws of Panel Front. 7) Unlock 2 hooks to fix Panel Front and Tray Drain. 8) Unlock 2 hooks to fix Panel Front and Back Body.	 
2	Tray Drain	1) Detach the connected wire of Stepping Motor. 2) Pull Tray Drain out from the Back Body.	
3	Heat Exchanger	1) Loosen 1 fixing earth screw of right side.	

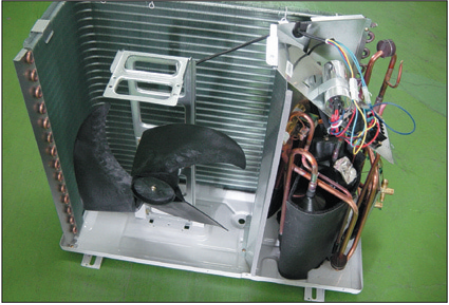
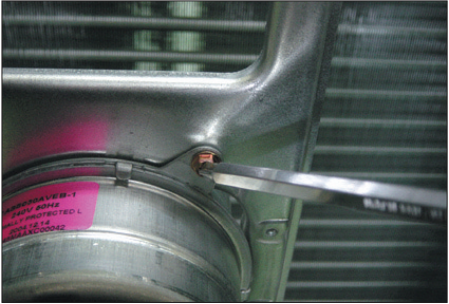
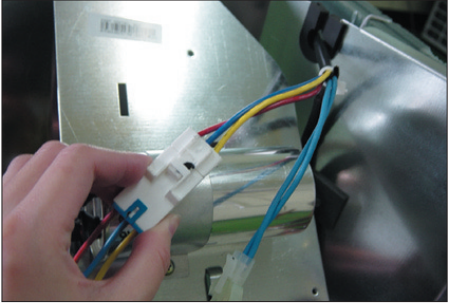
No	Parts	Procedure	Remark
		2) Detach the Room Sensor. 3) Detach the Holder Pipe at the rear side of the unit. 4) Loosen 3 fixing screws of left Holder Evap. 5) Loosen 1 fixing screw of right Holder Motor. 6) Detach the Heat Exchanger from the indoor unit.	    

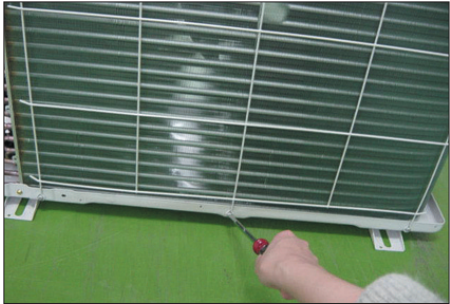
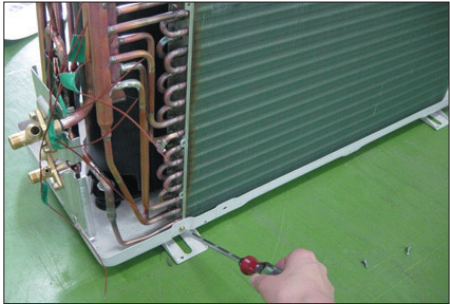
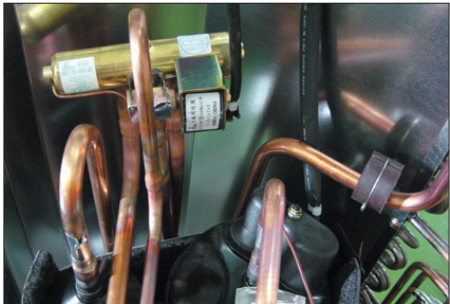
No	Parts	Procedure	Remark
4	Electrical Parts (Main PCB)	1) Loosen 4 fixing screws of right Holder control. 2) Take all the connector of PCB upper side out.(Including Power Cord) 3) Detach the outdoor unit connection wire from the Terminal Block. 4) Pull the PCB up to detach.	 
5	Fan Motor & Cross Fan	1) Loosen 2 fixing screws and detach the Motor Holder. 2) Loosen 1 fixing screw of Fan Motor. 3) Detach the Fan Motor from the Fan. 4) Detach the Fan from the left Holder Bearing.	

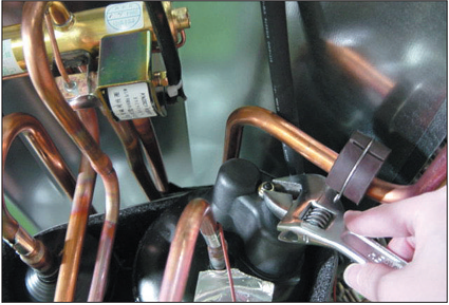
4-2 Outdoor Unit

No	Parts	Procedure	Remark
1	Common Work	1) Unplug the electric power before disassembling. 2) Loosen the fixing screws of the Cabinet-Upper. 3) Loosen the fixing screws of the Cover Control. 4) Loosen the fixing screws of the Plate Control. 5) Loosen the fixing screws of the Cabinet-Side RH.	    

No	Parts	Procedure	Remark
		6) Loosen the fixing screws of the Cabinet-Side LF.	
		7) Loosen the fixing screws of the Cabinet-Front.	   

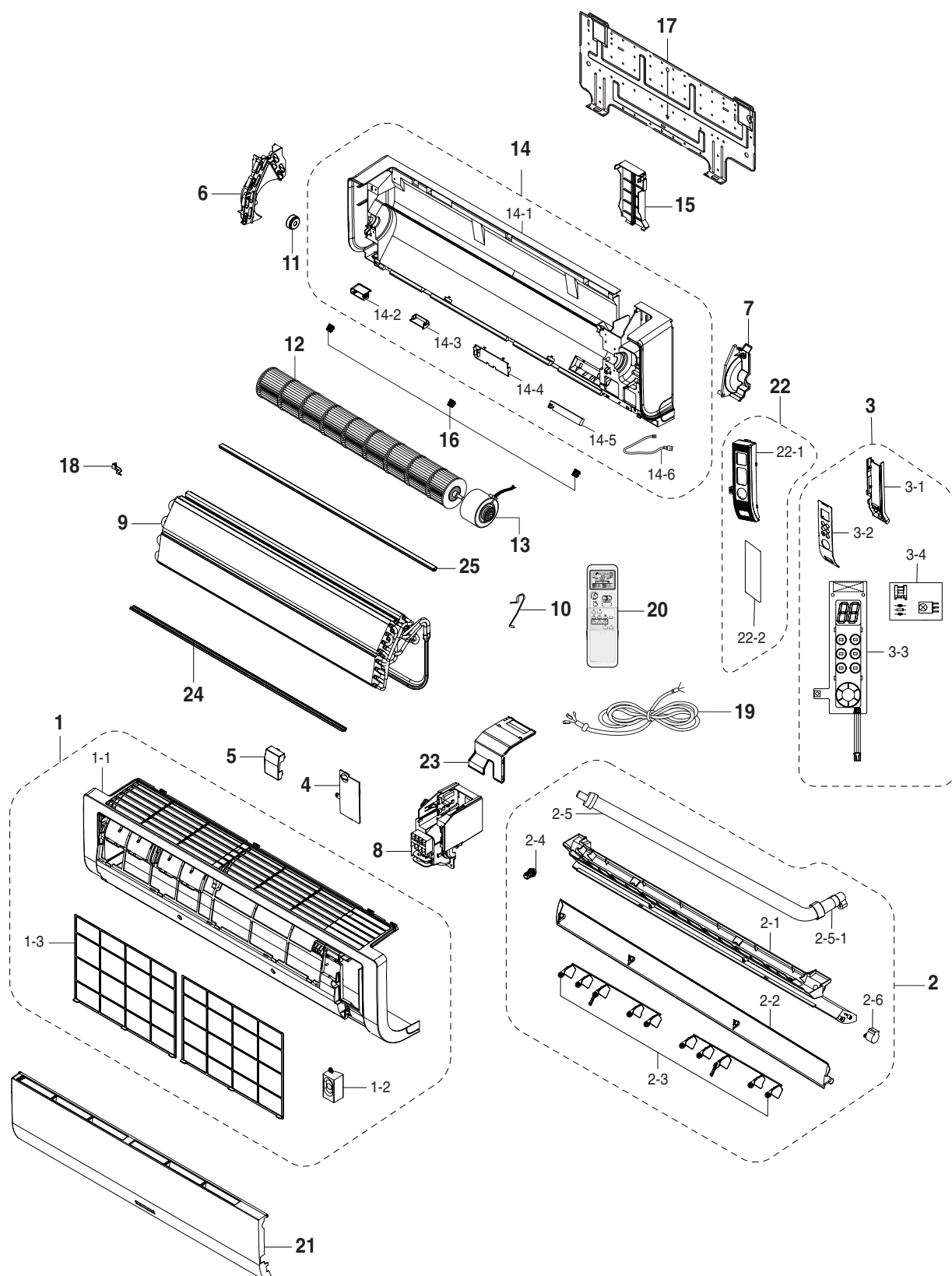
No	Parts	Procedure	Remark
			
2	Fan & Motor	1) Remove the Nut Flange. (Turn to the clockwise.) 2) Detach the Fan. 3) Loosen 4 fixing screws to detach the Motor. 4) Disconnect the wire between Ass'y Control Out and Fan.	  

No	Parts	Procedure	Remark
3	Common Work	1) Loosen the fixing screws of the Bracket Motor. 2) Loosen 3 fixing screws of Bar Steel.	  
4	Heat Exchanger	1) Loosen 2 fixing screws on both sides. 2) Disassemble the pipe in both inlet and outlet with welding torch. 3) Detach the Heat Exchanger.	 

No	Parts	Procedure	Remark
5	Compressor	1) Loosen the 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 3 bolts at the bottom of the Compressor. 5) Detach the Compressor.	 

5. Exploded Views and Parts List

5-1 Indoor Unit



■ Parts List

No.	Code No.	Description	Specification	Q'TY		SA/SNA	Remark
				AS18HPBN	AS24HPBN		
1	DB92-00658B	ASS'Y PANEL FRONT	ASS'Y	1	1	SA	
1-1	DB64-01263B	PANEL FRONT	HIPS	1	1	SNA	
1-2	DB93-02831A	ASS'Y-SPEAKER UNIT	ASS'Y	1	1	SA	
1-3	DB63-01192A	FILTER-PRE	PP	2	2	SNA	
2	DB94-00653A	ASS'Y TRAY DRAIN	ASS'Y	1	1	SA	
2-1	DB63-01193A	TRAY DRAIN	ABS	1	1	SNA	
2-2	DB61-02198A	BLADE-H	ABS	1	1	SA	
2-3	DB61-02197A	BLADE-V	PP	2	2	SA	
2-4	DB73-00234A	RUBBER-CAP DRAIN	CR	1	1	SNA	
2-5	DB94-00062L	ASS'Y DRAIN-HOSE	ASS'Y	1	1	SA	
2-5-1	DB67-00510A	DRAIN-CUFF	ABS	1	1	SNA	
2-6	DB31-00285A	MOTOR STEPPING	35BYJ46-276	1	1	SA	
3	DB93-02960B	ASS'Y DISPLAY	ASS'Y	1	1	SA	
3-1	DB61-02196A	HOLDER-DISPLAY	HIPS	1	1	SNA	
3-2	DB64-01302A	WINDOW-DISPLAY	HIPS	1	1	SNA	
3-3	DB93-02806A	ASS'Y PCB DISPLAY	ASS'Y	1	1	SA	
3-4	DB93-01369A	ASS'Y PCB-MODULE	ASS'Y	1	1	SA	
4	DB63-01195A	COVER TERMINAL	HIPS V0	1	1	SA	
5	DB63-01194A	COVER PCB	HIPS	1	1	SA	
6	DB61-02194A	HOLDER-EVAP	ABS	1	1	SA	
7	DB94-00727A	ASS'Y HOLDER-MOTOR	ASS'Y	1	1	SA	
8	DB93-02922D	ASS'Y CONTROL IN	ASS'Y	1	-	SA	
	DB93-02922C	ASS'Y CONTROL IN	ASS'Y	-	1	SA	
9	DB96-03976B	ASS'Y EVAP-TOTAL	ASS'Y	1	-	SA	
	DB96-03976A	ASS'Y EVAP-TOTAL	ASS'Y	-	1	SA	
10	DB67-60030A	SPRING-SENSOR	STS 301	1	1	SNA	
11	DB94-00674A	ASS'Y RUBBER BEARING	ASS'Y	1	1	SA	
12	DB94-00040X	ASS'Y-CROSS FAN	ASS'Y	1	1	SA	
13	DB31-10151E	MOTOR-FAN IN	220/240V, 60/50Hz	1	1	SA	
14	DB94-00652A	ASS'Y BACK BODY	ASS'Y	1	1	SA	
14-1	DB61-02190A	BODY BACK	HIPS	1	1	SNA	
14-2	DB61-02191A	BUSH-BODY LF	HIPS	1	1	SNA	
14-3	DB61-02199A	BUSH-BODY RH	HIPS	1	1	SNA	
14-4	DB63-01105A	COVER-IONIZER	HIPS	1	1	SNA	
14-5	DB91-00287A	ASS'Y ELECTRIC-IONIZER	ASS'Y	1	1	SA	
14-6	DB93-01383E	ASS'Y CONNECTOR WIRE	ASS'Y	1	-	SNA	
15	DB61-02195A	HOLDER-PIPE	HIPS	1	1	SA	
16	DB67-00540A	CAP-SCREW	HIPS	3	3	SA	
17	DB70-00536A	PLATE-HANGER	SGCC-M, T0.8	1	1	SA	
18	DB70-00515A	PLATE-CONTACT	SUS 304	2	2	SNA	
19	DB93-01549C	ASS'Y CONNECTOR WIRE-POWER	ASS'Y	1	-	SA	

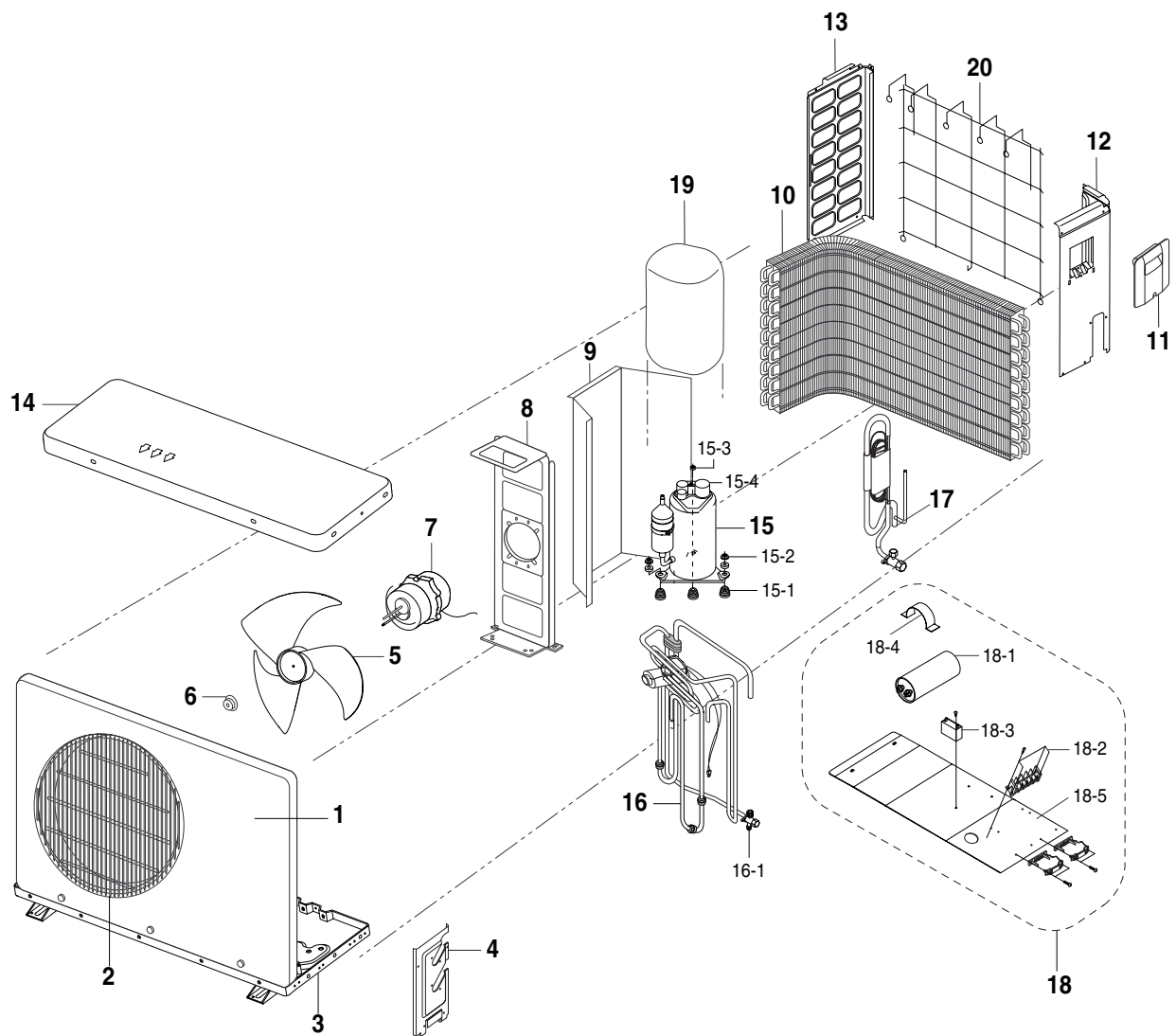
■ Parts List(cont.)

No.	Code No.	Description	Specification	Q'TY		SA/SNA	Remark
				AS18HPBN	AS24HPBN		
20	DB93-03016R	ASS'Y REMOCON	ARH-1315	1	1	SA	
21	DB92-00657A	ASS'Y GRILLE	ASS'Y	1	1	SA	
22	DB90-01869E	ASS'Y COVER-DISPLAY	ASS'Y	1	1	SA	
22-1	DB63-01196A	COVER DISPLAY	PC	1	1	SNA	
22-2	DB64-01276A	INLAY-DISPLAY	ACRYL	1	1	SNA	
23	DB90-01932A	ASS'Y COVER CONTROL	ASS'Y	1	1	SA	
24	DB60-00204A	SPACER-EVAP MID	PVC	1	1	SNA	
25	DB94-00724A	ASS'Y SPACER-EVAP UP	ASS'Y, PVC	1	1	SNA	

MEMO

5-2 Outdoor Unit

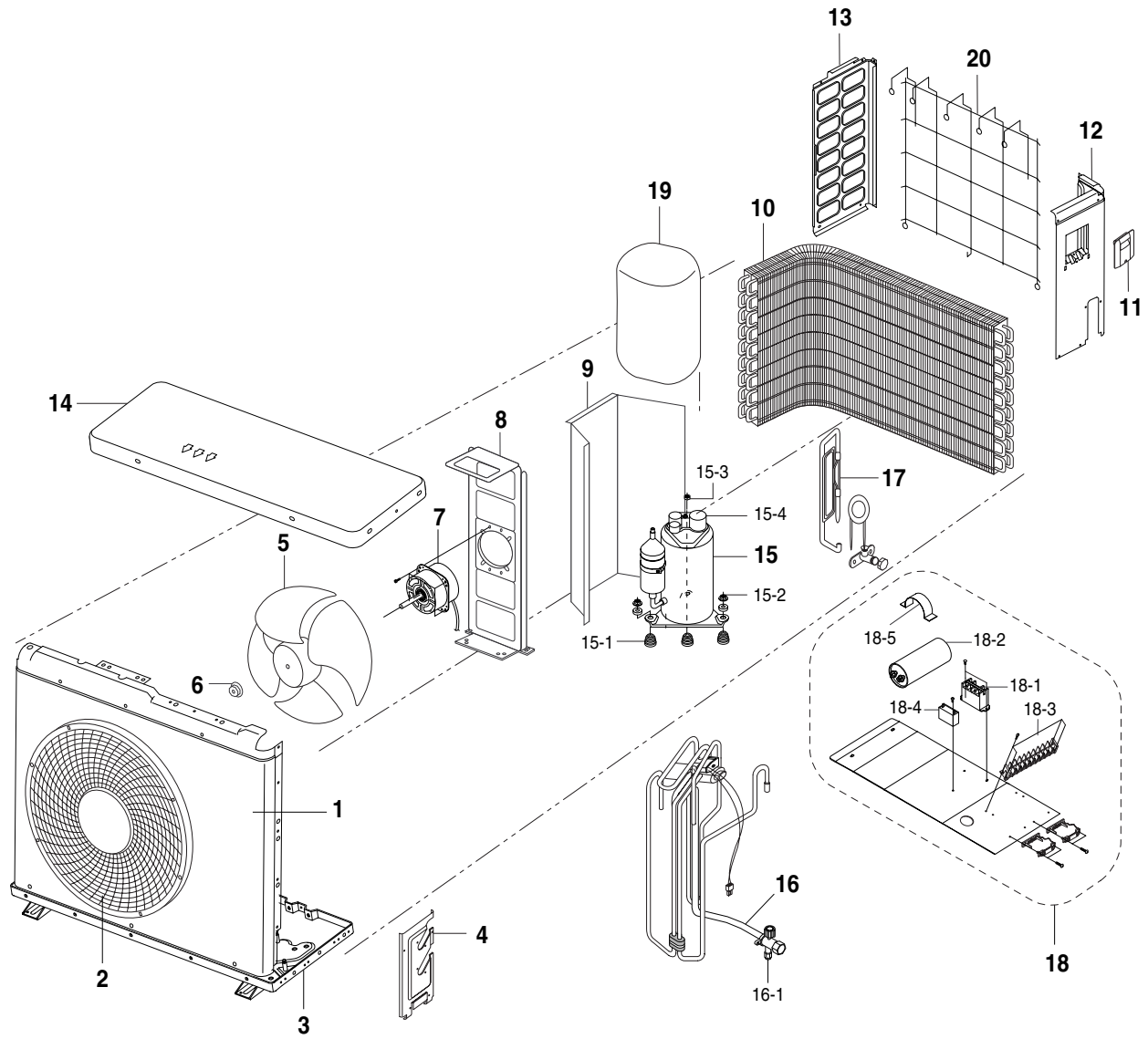
■ **18**



■ Parts List

No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
1	DB90-01877B	ASS'Y CABI-FRONT	ASS'Y	1	SA	
2	DB63-00385D	GUARD FAN	HSWR	1	SA	
3	DB90-01753A	ASS'Y BASE OUT	ASS'Y	1	SA	
4	DB61-01593A	BRACKET VALVE	GALVANIZED STEEL	1	SA	
5	DB67-50063A	FAN-PROPELLER	AS+G/F20%,ø405	1	SA	
6	DB60-30020A	NUT-FLANGE	M6,CCW	1	SA	
7	DB31-00056F	MOTOR FAN OUT	ASS-030AVEB-1	1	SA	
8	DB94-00705A	ASS'Y BRACKET MOTOR	ASS'Y	1	SA	
9	DB94-00165D	ASS'Y PARTITION	ASS'Y	1	SA	
10	DB96-04019A	ASS'Y COND UNIT	ASS'Y	1	SA	
11	DB90-40176B	ASS'Y-COVER CONTROL	ASS'Y	1	SA	
12	DB90-01813D	ASS'Y CABINET-SIDE RH	SC-90073T	1	SA	
13	DB90-01349A	ASS'Y CABINET-SIDE LF	SC-90073T	1	SA	
14	DB90-01878A	ASS'Y-CABI UPPER	ASS'Y	1	SA	
15	G8D190JU1EH	COMPRESSOR	ROTARY	1	SA	
15-1	DB73-00067A	GROMMET ISOLATOR	NR	3	SA	
15-2	DB60-30028A	NUT-WASHER	M8	3	SA	
15-3	DB60-30018A	NUT-FLANGE	M5	1	SA	
15-4	DB63-10165D	COVER-TERMINAL	NOTYL	1	SA	
16	DB99-00390B	ASS'Y-4WAY V/V	ASS'Y	1	SA	
16-1	DB62-02285A	VALVE SERVICE	1/2"	1	SNA	
17	DB99-00392A	ASS'Y VALVE CHECK	ASS'Y	1	SA	
18	DB93-02977B	ASS'Y CONTROL-OUT	ASS'Y	1	SA	
18-1	2501-001239	COMP-CAPACITOR	45uF/450VAC	1	SNA	
18-2	DB65-00166A	TERMINAL BLOCK	4P	1	SNA	
18-3	2301-001370	MOTOR CAPACITOR	2.5uF/450VAC	1	SNA	
18-4	DB65-10046A	CLIP-CAPACITOR	SGCC-M	1	SNA	
18-5	DB70-00524A	PLATE-CONTROL OUT	SGCC-M,T0.8	1	SNA	
19	DB63-01223A	CLOTH-COMP SOUND	FELT+EVAR	1	SA	
20	DB71-00087A	BAR-STEEL	HSWR	1	SA	

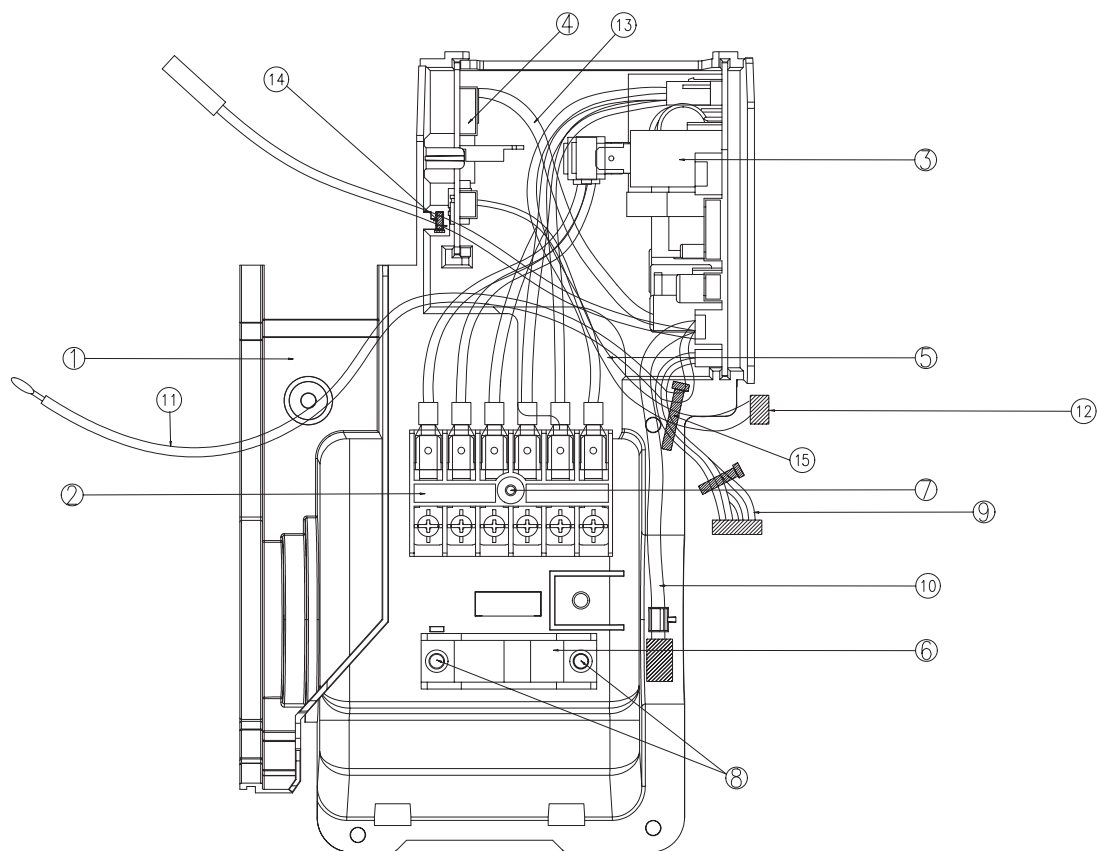
■ **24**



■ Parts List

No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
1	DB90-01772A	ASS'Y CABI-FRONT	ASS'Y	1	SA	
2	DB63-00831A	GUARD FAN	PP	1	SA	
3	DB90-01752A	ASS'Y BASE OUT	ASS'Y	1	SA	
4	DB61-01593A	BRACKET VALVE	GALVANIZED STEEL	1	SA	
5	DB67-00243A	FAN-PROPELLER	AS+G/F20%,ø420	1	SA	
6	DB60-30020A	NUT-FLANGE	M6,CCW	1	SA	
7	DB31-00264B	MOTOR FAN OUT	230V/50Hz	1	SA	
8	DB94-00719A	ASS'Y BRACKET MOTOR	ASS'Y	1	SA	
9	DB94-00685B	ASS'Y PARTITION	ASS'Y	1	SA	
10	DB96-04019B	ASS'Y COND-UNIT	ASS'Y	1	SA	
11	DB90-40176B	ASS'Y-COVER CONTROL	ASS'Y	1	SA	
12	DB90-01350E	ASS'Y CABINET-SIDE RH	SC-90073T	1	SA	
13	DB90-01351A	ASS'Y CABINET-SIDE LF	SC-90073T	1	SA	
14	DB90-01881B	ASS'Y-CABI UPPER	ASS'Y	1	SA	
15	G5A240JU1EM	COMPRESSOR	ROTARY	1	SA	
15-1	DB73-00082A	GROMMET-MOUNT	EPDM	3	SNA	
15-2	DB60-30028A	NUT-WASHER	M8	3	SA	
15-3	DB60-30018A	NUT-FLANGE	M5	1	SA	
15-4	DB63-10165D	COVER-TERMINAL	PBT	1	SA	
16	DB99-00587A	ASS'Y-4WAY V/V	ASS'Y	1	SA	
16-1	DB62-02342A	VALVE SERVICE	5/8"	1	SNA	
17	DB99-00393D	ASS'Y VALVE CHECK	ASS'Y	1	SA	
18	DB93-02975C	ASS'Y CONTROL OUT	ASS'Y	1	SA	
18-1	3501-000305	RELAY	30A(EL200/240A1-F)	1	SNA	
18-2	2501-001238	COMP-CAPACITOR	40uF/450VAC	1	SNA	
18-3	DB65-00164A	TERMINAL BLOCK	8P	1	SNA	
18-4	2301-001379	MOTOR-CAPACITOR	4.0uF/450VAC	1	SNA	
18-5	DB65-10046A	CLIP-CAPACITOR	SGCC-M	1	SNA	
19	DB62-03111A	CLOTH-COMP SOUND	FEL+EVAR	1	SA	
20	DB71-00088A	BAR-STEEL	HSWR	1	SA	

5-3 Ass'y Control In



■ Parts List

No.	Code No.	Description	Specification	Q'TY		SA/SNA	Remark
				AS18HPBN	AS24HPBN		
1	DB61-02193A	CASE-CONTROL	ABS	1	1	SNA	
2	DB93-03300A	ASS'Y-TERMINAL BLOCK	ASS'Y	1	-	SNA	
	DB93-03264A	ASS'Y-TERMINAL BLOCK	ASS'Y	-	1	SNA	
3	DB93-02808K	ASS'Y-MAIN PCB	ASS'Y	1	-	SA	
	DB93-02808L	ASS'Y-MAIN PCB	ASS'Y	-	1	SA	
4	DB93-02809A	ASS'Y-MELODY PCB	ASS'Y	1	1	SA	
5	DB70-00516A	PLATE-TERMINAL LOW	SGCC-M,T1.2	1	1	SNA	
6	DB61-00171A	HOLDER-WIRE CLAMP	ABS	1	1	SA	
7	6001-000929	SCREW-MACHINE	PH M3xL22	1	1	SNA	
8	6001-001054	SCREW-MACHINE	TH M4xL10	2	2	SNA	
9	DB93-02827A	C/W MAIN TO DISPLAY	ASS'Y	1	1	SNA	
10	DB39-00643N	C/W STEP MOTOR UP/DOWN	ASS'Y	1	1	SNA	
11	DB32-00020H	ASS'Y THERMISTOR	4P(103AT)	1	1	SA	
12	DB93-02881A	C/W MELODY TO SPEAKER	ASS'Y	1	1	SNA	
13	DB93-02828A	C/W MELODY TO MAIN	ASS'Y	1	1	SNA	
14	DB65-10088D	CABLE TIE	100mm	1	1	SNA	
15	DB65-10088D	CABLE TIE	100mm	1	1	SNA	

6. Electrical Parts List

■ MAIN PCB : DB93-02808K(AS18HPBN)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
BD71	0402-001298	DIODE-BRIDGE	DF06S,600V,1A,SMD-4,TP	1	SNA	
BZ61*	3002-001129	BUZZER-PIEZO	85DB,-,2KHz,-	1	SNA	
C101*	2401-003895	C-AL	15uF,20%,450V,GP,TP,13x20mm,5	1	SNA	
C102	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C103	2401-000151	C-AL	1000uF,20%,25V,GP,TP,10x20,5	1	SNA	
C104	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C105	2401-001363	C-AL	470uF,20%,16V,GP,TP,10x12.5,5	1	SNA	
C106	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C107	2201-000987	C-CERAMIC,DISC	2.2nF,20%,400V,Y5U,BK,12.5X6mm,10	1	SNA	
C108	2201-000987	C-CERAMIC,DISC	2.2nF,20%,400V,Y5U,BK,12.5X6mm,10	1	SNA	
C201	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C202	2203-001562	C-CER,CHIP	10nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C203	2203-001562	C-CER,CHIP	10nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C204	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C301	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C302	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C401	2203-000444	C-CER,CHIP	1nF,10%,50V,X7R,TP,2012,-	1	SNA	
C402	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C403	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C404	2203-001562	C-CER,CHIP	10nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C405	2203-000444	C-CER,CHIP	1nF,10%,50V,X7R,TP,2012,-	1	SNA	
C501	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C502	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C503	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C504	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C601*	2401-002300	C-AL	47uF,20%,50V,GP,TP,6.3x11,5	1	SNA	
C901	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
CD11	0406-001086	DIODE-TVS	ST02D-200,185/200/215V,200W,DO-214	1	SNA	
CN43	3711-004379	CONNECTOR-HEADER	BOX,4P,1R,2mm,STRAIGHT,SN	1	SNA	
CN44	3711-000879	CONNECTOR-HEADER	BOX,3P,1R,2.5mm,STRAIGHT,SN	1	SNA	
CN61*	3711-004484	CONNECTOR-HEADER	BOX,5P,1R,2mm,STRAIGHT,SN	1	SNA	
CN71*	3711-000260	CONNECTOR-HEADER	1WALL,5P,1R,7.92mm,STRAIGHT,SN,	1	SNA	
CN72	3711-000262	CONNECTOR-HEADER	1WALL,5P,1R,7.92mm,STRAIGHT,SN,W	1	SNA	
CN82*	3711-005206	CONNECTOR-HEADER	BOX,3P,1R,2mm,STRAIGHT,SN,BLU	1	SNA	
CN83*	3711-005378	CONNECTOR-HEADER	BOX,6P,1R,2mm,STRAIGHT,SN	1	SNA	
CN91*	3711-004352	CONNECTOR-HEADER	BOX,15P,1R,2mm,STRAIGHT,SN	1	SNA	
CR71*	2301-001371	C-FILM,LEAD-PPF	2.0uF,10%,450Vac,BK,38x18x30,3	1	SNA	
D101	0402-001194	DIODE-RECTIFIER	SHG2D,200V,2A,-,TP	1	SNA	
D701	0402-000012	DIODE-RECTIFIER	UF4007,1KV,1A,DO-41,TP	1	SNA	

MAIN PCB : DB93-02808K(AS18HPBN)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
F701	3602-000147	FUSE-CLIP	250V,7.5A,30mohm	1	SNA	
	3601-000263	250V,3.15A				
FT71	DB27-00020A	COIL CHOKE	SSU10V-1500,15mH,+50,-30%,1.5A	1	SNA	
IC01	1203-002545	IC-PWM CONTROLLER	266,DIP,8P,300MIL,PLASTIC,-0.3	1	SNA	
IC02	1203-000429	IC-POSI.ADJUST REG.	78L05A,TO-92,3P,-,PLASTIC,4.6	1	SNA	
IC04	DB09-00296A	IC MICOM	S3C848AXZZ-QTRA,-,64P,+5V,10MHz,STM-0241	1	SNA	
IC05	0506-000175	TR-ARRAY	2003,NPN,7,1W,SOP-16,ST,1000	1	SNA	
IC06	0506-000175	TR-ARRAY	2003,NPN,7,1W,SOP-16,ST,1000	1	SNA	
IC07	1003-001462	IC-SOURCE DRIVER	TD62783AFW,SOL,18P,-,8,-500mA,TP	1	SNA	
IC09	1103-001175	IC-EEPROM	93LC56,128x16,SOP,8P,5x4mm,2.5/6.0V,-40	1	SNA	
NTC1	1404-001274	THERMISTOR-NTC	22ohm,1.4A,3100K,9.5mW/C,-,7.0,-	1	SNA	
PC01	0604-001038	PHOTO-COUPLER	TR,130-260%,200mW,DIP-4,ST	1	SNA	
PC02	0604-001003	PHOTO-COUPLER	TR,50-150%,200mW,DIP-4,ST	1	SNA	
Q201	0501-000534	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SOT-23,TP,1	1	SNA	
Q401	0501-000534	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SOT-23,TP,1	1	SNA	
Q601*	0501-000534	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SOT-23,TP,1	1	SNA	
Q602*	0501-002296	TR-SMALL SIGNAL	MMST2907A,PNP,200mW,SOT-23,TP,100	1	SNA	
Q603*	0501-000534	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SOT-23,TP,1	1	SNA	
R101	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R102	2007-000493	R-CHIP	2.2Kohm,5%,1/8W,TP,2012	1	SNA	
R103*	2002-001104	R-COMPOSITION	12Mohm,5%,1/2W,AA,TP,3.4x9mm	1	SNA	
R104*	2002-001104	R-COMPOSITION	12Mohm,5%,1/2W,AA,TP,3.4x9mm	1	SNA	
R105	2007-000931	R-CHIP	470ohm,5%,1/8W,TP,2012	1	SNA	
R201	2007-000944	R-CHIP	47Kohm,5%,1/4W,TP,3216	1	SNA	
R202	2007-000944	R-CHIP	47Kohm,5%,1/4W,TP,3216	1	SNA	
R203	2007-000944	R-CHIP	47Kohm,5%,1/4W,TP,3216	1	SNA	
R204	2007-000944	R-CHIP	47Kohm,5%,1/4W,TP,3216	1	SNA	
R205	2007-000944	R-CHIP	47Kohm,5%,1/4W,TP,3216	1	SNA	
R206	2007-000944	R-CHIP	47Kohm,5%,1/4W,TP,3216	1	SNA	
R207	2007-000944	R-CHIP	47Kohm,5%,1/4W,TP,3216	1	SNA	
R208	2007-000944	R-CHIP	47Kohm,5%,1/4W,TP,3216	1	SNA	
R209	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R210	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R211	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R212	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R301	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R302	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R401	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	

MAIN PCB : DB93-02808K(AS18HPBN)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
R402	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R403	2007-001071	R-CHIP	6.8Kohm,5%,1/8W,TP,2012	1	SNA	
R404	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R405	2007-000766	R-CHIP	330ohm,5%,1/8W,TP,2012	1	SNA	
R406	2007-000766	R-CHIP	330ohm,5%,1/8W,TP,2012	1	SNA	
R407	2007-001067	R-CHIP	6.8Kohm,1%,1/8W,TP,2012	1	SNA	
R408	2007-001067	R-CHIP	6.8Kohm,1%,1/8W,TP,2012	1	SNA	
R409	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R410	2007-000477	R-CHIP	1Mohm,5%,1/8W,TP,2012	1	SNA	
R501	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R502	2007-000477	R-CHIP	1Mohm,5%,1/8W,TP,2012	1	SNA	
R602*	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R604*	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R605*	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R606*	2007-000872	R-CHIP	4.7Kohm,5%,1/8W,TP,2012	1	SNA	
R607*	2007-000931	R-CHIP	470ohm,5%,1/8W,TP,2012	1	SNA	
R608*	2007-000931	R-CHIP	470ohm,5%,1/8W,TP,2012	1	SNA	
R609*	2007-000030	R-CHIP	560ohm,5%,1/8W,TP,2012	1	SNA	
R610*	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R611*	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R908	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R909	2007-000872	R-CHIP	4.7Kohm,5%,1/8W,TP,2012	1	SNA	
RY71	3501-001268	RELAY-POWER	12VDC,0.9W,25A,SPST,20mS,10mS	1	SNA	
RY72*	3501-001154	RELAY-MINIATURE	12VDC,200MW,3000mA,1FORmA,10mS,10	1	SNA	
RY73*	3501-001154	RELAY-MINIATURE	12VDC,200mW,3000mA,1FORmA,10mS,10	1	SNA	
SS71	3502-000115	SSR	12Vdc,-,2A,1mS,1mS	1	SNA	
ST11	DB26-00015A	TRANS SWITCHING	-,JT1916-09,-,310V,FERRITE,-,EI19	1	SNA	
VA71	1405-000154	VARISTOR	560V,2500A,17.5x7.5mm,TP	1	SNA	
X501	2802-001198	RESONATOR-CERAMIC	10MHz,0.5%,BK,8X3X5.5mm	1	SNA	
XC71*	2301-001220	C-FILM,LEAD-PPF	100nF,10%,275V,BK,18x6x12,15	1	SNA	
XC72	2301-001220	C-FILM,LEAD-PPF	100nF,10%,275V,BK,18x6x12,15	1	SNA	
ZD11	0403-000252	DIODE-ZENER	BZX84C3V6,3.4-3.8V,350mW,SOT-23,TP	1	SNA	
ZD12	0403-001285	DIODE-ZENER	BZX84-C11,10.4-11.6V,350mW,SOT-23,TP	1	SNA	

MAIN PCB : DB93-02808L(AS24HPBN)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
PCB	DB41-00307A	PCB MAIN	FR-4,1X2,W250*L216,T1.6,REV No.-40531A7	1	SNA	
BD71	0402-001298	DIODE-BRIDGE	DF06S,600V,1A,SMD-4,TP	1	SNA	
BZ61	3002-001129	BUZZER-PIEZO	85DB,-,-,2KHz,-	1	SNA	
C101	2401-003895	CAP-AL	15uF,20%,450V,GP,TP,13x20mm,5m	1	SNA	
C102	2203-000192	CAP-CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C103	2401-000151	CAP-AL	1000uF,20%,25V,GP,TP,10x20.5	1	SNA	
C104	2203-000192	CAP-CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C105	2401-001363	CAP-AL	470uF,20%,16V,GP,TP,10x12.5,5	1	SNA	
C106	2203-000192	CAP-CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C107	2201-000987	C-CERAMIC,DISC	2.2nF,20%,400V,Y5U,TP,12.5x6mm,10	1	SNA	
C108	2201-000987	C-CERAMIC, DISC	2.2nF,20%,400V,Y5U,TP,12.5x6mm,10	1	SNA	
C201	2203-000192	CAP-CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C202	2203-001562	CAP-CHIP	10nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C203	2203-001562	CAP-CHIP	10nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C204	2203-000192	CAP-CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C301	2203-000192	CAP-CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C302	2203-000192	CAP-CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C401	2203-000444	CAP-CHIP	1nF,10%,50V,X7R,TP,2012	1	SNA	
C402	2203-000192	CAP-CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C403	2203-000192	CAP-CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C404	2203-001562	CAP-CHIP	10nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C405	2203-000444	CAP-CHIP	1nF,10%,50V,X7R,TP,2012	1	SNA	
C501	2203-000192	CAP-CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C502	2203-000192	CAP-CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C503	2203-000192	CAP-CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C504	2203-000192	CAP-CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C601	2401-002300	CAP-AL	47uF,20%,50V,GP,TP,6.3x11,5	1	SNA	
C801	2203-000192	CAP-CHIP	10nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
C901	0406-001086	CAP-CHIP	100nF,+80-20%,50V,Y5V,TP,2012	1	SNA	
CD11	3711-004379	DIODE-TVS	ST02D-200,185/200/215V,200W,DO-214	1	SNA	
CN43	3711-000879	CONNECTOR-HEADER	BOX,4P,1R,2mm,STRAIGHT,SN	1	SNA	
CN44	3711-004484	CONNECTOR-HEADER	BOX,3P,1R,2.5mm,STRAIGHT,SN	1	SNA	
CN61	3711-000313	CONNECTOR-HEADER	BOX,5P,1R,2mm,STRAIGHT,SN	1	SNA	
CN71	3711-000262	CONNECTOR-HEADER	1WALL,3P,1R,7.92mm,STRAIGHT,SN,BL	1	SNA	
CN72	3711-005206	CONNECTOR-HEADER	1WALL,3P,1R,7.92mm,STRAIGHT,SN,WH	1	SNA	
CN82	3711-005378	CONNECTOR-HEADER	BOX,3P,1R,2mm,STRAIGHT,WHT	1	SNA	
CN83	3711-004352	CONNECTOR-HEADER	BOX,6P,1R,2mm,STRAIGHT,WHT	1	SNA	
CN91	2301-001363	CONNECTOR-HEADER	BOX,15P,1R,2mm,ANGLE,SN	1	SNA	
CR71	0402-001194	C-FILM,MPPF	2.0uF,10%,450Vac,BK,38x18x30,3	1	SNA	
D101	0402-000012	DIODE-RECTIFIER	SHG2D,200V,2A,DO-204AC,TP	1	SNA	

MAIN PCB : DB93-02808L(AS24HPBN)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
D701	3602-000147	DIODE-RECTIFIER	UF4007,1KV,1A,DO-41,TP	1	SNA	
F701	3601-000263	FUSE	250VAC/3.15A	1	SNA	
F701	DB27-00020A	FUSE-CLIP	250V,7.5A,30mohm	2	SNA	
FT71	1203-002545	SSU10V-1500	15mH,+50,-30%	1	SNA	
IC01	1203-000429	IC-PWM CONTROLLER	TNY266,DIP,8P,300MIL,PLASTIC,-0.3/7	1	SNA	
IC02	DB09-00296B	IC-POS1.ADJUST REG	78L05A,TO-92,3P,-,PLASTIC,4.6	1	SNA	
IC04	0506-000175	IC MICOM	S2C848AXZZ-QTRA,-,64,+5V,10MHz,STM-0309-OA,32	1	SNA	
IC05	0506-000175	TR-ARRAY	ULN2003AFW,NPN,7,1W,SOP-16,ST,1000	1	SNA	
IC06	1003-001462	TR-ARRAY	ULN2003AFW,NPN,7,1W,SOP-16,ST,1000	1	SNA	
IC07	1103-001175	IC-SOURCE DRIVER	TD62783AFW,SOL,18P,500mA,TP	1	SNA	
IC09	1404-001274	IC-EEPROM	93LC56,128x16Bit,SOP,8P,150MIL,-,2.5V,-	1	SNA	
NTC1	0604-001038	THERMISTOR-NTC	22ohm,1.4A,3100K,9.5mW/C,-,7.0-	1	SNA	
PC01	0604-001003	PHOTO-COUPLER	TR,130-260%,200mW,DIP-4,ST,PC123YB2J00F	1	SNA	
PC02	DB41-00298A	PHOTO-COUPLER	TR,50-150%,200mW,DIP-4,ST,PC814X1YJ00F	1	SNA	
Q201	0501-000534	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SOT-23,TP,1	1	SNA	
Q401	0501-000534	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SOT-23,TP,1	1	SNA	
Q601	0501-000534	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SOT-23,TP,1	1	SNA	
Q602	0501-002296	TR-SMALL SIGNAL	MMST2907A,PNP,200mW,SOT-23,TP,100-	1	SNA	
Q603	0501-000534	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SOT-23,TP,1	1	SNA	
R101	2007-000290	R-CHIP	100ohm,5%,1/10W,DA,TP,2012	1	SNA	
R102	2007-000493	R-CHIP	2.2K,5%,1/10W,DA,TP,2012	1	SNA	
R103	2002-001104	R-COMPOSITION	12Mohm,5%,1/2W,AA,TP,3.4x9mm	1	SNA	
R104	2002-001104	R-COMPOSITION	12Mohm,5%,1/2W,AA,TP,3.4x9mm	1	SNA	
R105	2007-000931	R-CHIP	470ohm,5%,1/10W,DA,TP,2012	1	SNA	
R201	2007-000944	R-CHIP	47Kohm,5%,1/4W,DA,TP,3216	1	SNA	
R202	2007-000944	R-CHIP	47Kohm,5%,1/4W,DA,TP,3216	1	SNA	
R203	2007-000944	R-CHIP	47Kohm,5%,1/4W,DA,TP,3216	1	SNA	
R204	2007-000944	R-CHIP	47Kohm,5%,1/4W,DA,TP,3216	1	SNA	
R205	2007-000944	R-CHIP	47Kohm,5%,1/4W,DA,TP,3216	1	SNA	
R206	2007-000944	R-CHIP	47Kohm,5%,1/4W,DA,TP,3216	1	SNA	
R207	2007-000944	R-CHIP	47Kohm,5%,1/4W,DA,TP,3216	1	SNA	
R208	2007-000944	R-CHIP	47Kohm,5%,1/4W,DA,TP,3216	1	SNA	
R209	2007-000300	R-CHIP	10Kohm,5%,1/10W,DA,TP,2012	1	SNA	
R210	2007-000468	R-CHIP	1Kohm,5%,1/10W,DA,TP,2012	1	SNA	
R211	2007-000468	R-CHIP	1Kohm,5%,1/10W,DA,TP,2012	1	SNA	
R212	2007-000468	R-CHIP	1Kohm,5%,1/10W,DA,TP,2012	1	SNA	
R301	2007-000468	R-CHIP	1Kohm,5%,1/10W,DA,TP,2012	1	SNA	
R302	2007-000468	R-CHIP	1Kohm,5%,1/10W,DA,TP,2012	1	SNA	
R409	2007-000468	R-CHIP	1Kohm,5%,1/10W,DA,TP,2012	1	SNA	
R410	2007-000477	R-CHIP	1Mohm,5%,1/10W,DA,TP,2012	1	SNA	

MAIN PCB : DB93-02808L(AS24HPBN)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
R401	2007-000468	R-CHIP	1Kohm,5%,1/10W,DA,TP,2012	1	SNA	
R402	2007-000468	R-CHIP	1Kohm,5%,1/10W,DA,TP,2012	1	SNA	
R403	2007-001071	R-CHIP	6.8Kohm,5%,1/10W,DA,TP,2012	1	SNA	
R404	2007-000468	R-CHIP	1Kohm,5%,1/10W,DA,TP,2012	1	SNA	
R405	2007-000766	R-CHIP	330ohm,5%,1/10W,DA,TP,2012	1	SNA	
R406	2007-000766	R-CHIP	330ohm,5%,1/10W,DA,TP,2012	1	SNA	
R407	2007-001067	R-CHIP	6.8Kohm,1%,1/10W,DA,TP,2012	1	SNA	
R408	2007-001067	R-CHIP	6.8Kohm,1%,1/10W,DA,TP,2012	1	SNA	
R501	2007-000300	R-CHIP	10Kohm,5%,1/10W,DA,TP,2012	1	SNA	
R502	2007-000477	R-CHIP	1Mohm,5%,1/10W,DA,TP,2012	1	SNA	
R602	2007-000468	R-CHIP	1Kohm,5%,1/10W,DA,TP,2012	1	SNA	
R604	2007-000468	R-CHIP	1Kohm,5%,1/10W,DA,TP,2012	1	SNA	
R605	2007-000300	R-CHIP	10Kohm,5%,1/10W,DA,TP,2012	1	SNA	
R606	2007-000872	R-CHIP	4.7Kohm,5%,1/10W,DA,TP,2012	1	SNA	
R607	2007-000931	R-CHIP	470ohm,5%,1/10W,DA,TP,2012	1	SNA	
R608	2007-000931	R-CHIP	470ohm,5%,1/10W,DA,TP,2012	1	SNA	
R609	2007-000030	R-CHIP	560ohm,5%,1/10W,DA,TP,2012	1	SNA	
R610	2007-000468	R-CHIP	1Kohm,5%,1/10W,DA,TP,2012	1	SNA	
R611	2007-000468	R-CHIP	1Kohm,5%,1/10W,DA,TP,2012	1	SNA	
R908	2007-000300	R-CHIP	10Kohm,5%,1/10W,DA,TP,2012	1	SNA	
R909	2007-000872	R-CHIP	4.7Kohm,5%,1/10W,DA,TP,2012	1	SNA	
RY71	3501-001268	RELAY-POWER	12VDC,0.9W,2500mA,SPST,20mS,10mS	1	SNA	
RY72	3501-001154	RELAY-MINIATURE	12VDC,200mW,3000mA,1FORmA,10MS,5mS	1	SNA	
RY73	3501-001154	RELAY-MINIATURE	12VDC,200mW,3000mA,1FORmA,10MS,5mS	1	SNA	
RY74	3501-001154	RELAY-MINIATURE	12VDC,200mW,3000mA,1FORmA,10MS,5mS	1	SNA	
SS71	3502-000115	SSR	12Vdc,-,2A,1mS,1mS	1	SNA	
ST11	DB26-00015A	SW-TRANS	TRANS SWITCHING;JT1916-09,-,200V~240V,-,-	1	SNA	
VA71	1405-000154	VARISTOR	560V,2500A,17.5x7.5mm,TP	1	SNA	
X501	2802-001198	RESONATOR-CERAMIC	10MHz,0.5%,BK,8x3x5.5mm	1	SNA	
XC71	2301-001220	C-FILM,MPPF	100nF,10%,275V,BK,24.5x6x14.5	1	SNA	
XC72	2301-001220	C-FILM,MPPF	100nF,10%,275V,BK,24.5x6x14.5	1	SNA	
ZD11	0403-000252	DIODE-ZENER	BZX84C3V6,3.6,350mW,SOT-23,TP	1	SNA	
ZD12	0403-001285	DIODE-ZENER	BZX84-C11,10.4-11.6V,350mW,SOT-23,TP	1	SNA	

MELODY PCB : DB93-02809A

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
C801	2202-000780	C-CERAMIC,MLC-AXIAL	100nF,+80-20%,50V,Y5V,TP,3.5x1	1	SNA	
C802	2401-001907	C-AL	10uF,20%,16V,BP,TP,5x11mm,5mm	1	SNA	
C803	2202-000780	C-CERAMIC,MLC-AXIAL	100nF,+80-20%,50V,Y5V,TP,3.5x1	1	SNA	
C804	2202-000780	C-CERAMIC,MLC-AXIAL	100nF,+80-20%,50V,Y5V,TP,3.5x1	1	SNA	
C805	2401-000832	C-AL	220uF,20%,25V,GP,TP,8x11.5,5	1	SNA	
C806	2202-000780	C-CERAMIC,MLC-AXIAL	100nF,+80-20%,50V,Y5V,TP,3.5x1	1	SNA	
C807	2202-000128	C-CERAMIC,MLC-AXIAL	10nF,+80-20%,50V,Y5V,TP,2.5x4.	1	SNA	
C808	2401-000832	C-AL	220uF,20%,25V,GP,TP,8x11.5,5	1	SNA	
C809	2202-000780	C-CERAMIC,MLC-AXIAL	100nF,+80-20%,50V,Y5V,TP,3.5x1	1	SNA	
CN85	3711-003874	CONNECTOR-HEADER	BOX,6P,1R,2mm,ANGLE,SN	1	SNA	
CN86	3711-004386	CONNECTOR-HEADER	BOX,3P,1R,2mm,ANGLE,SN	1	SNA	
IC06	1204-002088	IC-SPEECH SYNTHESIZE	MLC1043D,DIP,24P,300MIL,PLASTICS	1	SNA	
IC07	1201-000416	IC-AUDIO AMP	386,DIP,8P,300MIL,SINGLE,26V/m	1	SNA	
IC08	1203-000274	IC-POSI.FIXED REG.	7805,TO-220,3P,-,PLASTIC,4.8/5	1	SNA	
R801	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R802	2001-000786	R-CARBON	47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R803	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R804	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R805	2001-000449	R-CARBON	2.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R806	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	
R807	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	SNA	

■ DISPLAY PCB : DB93-02806A

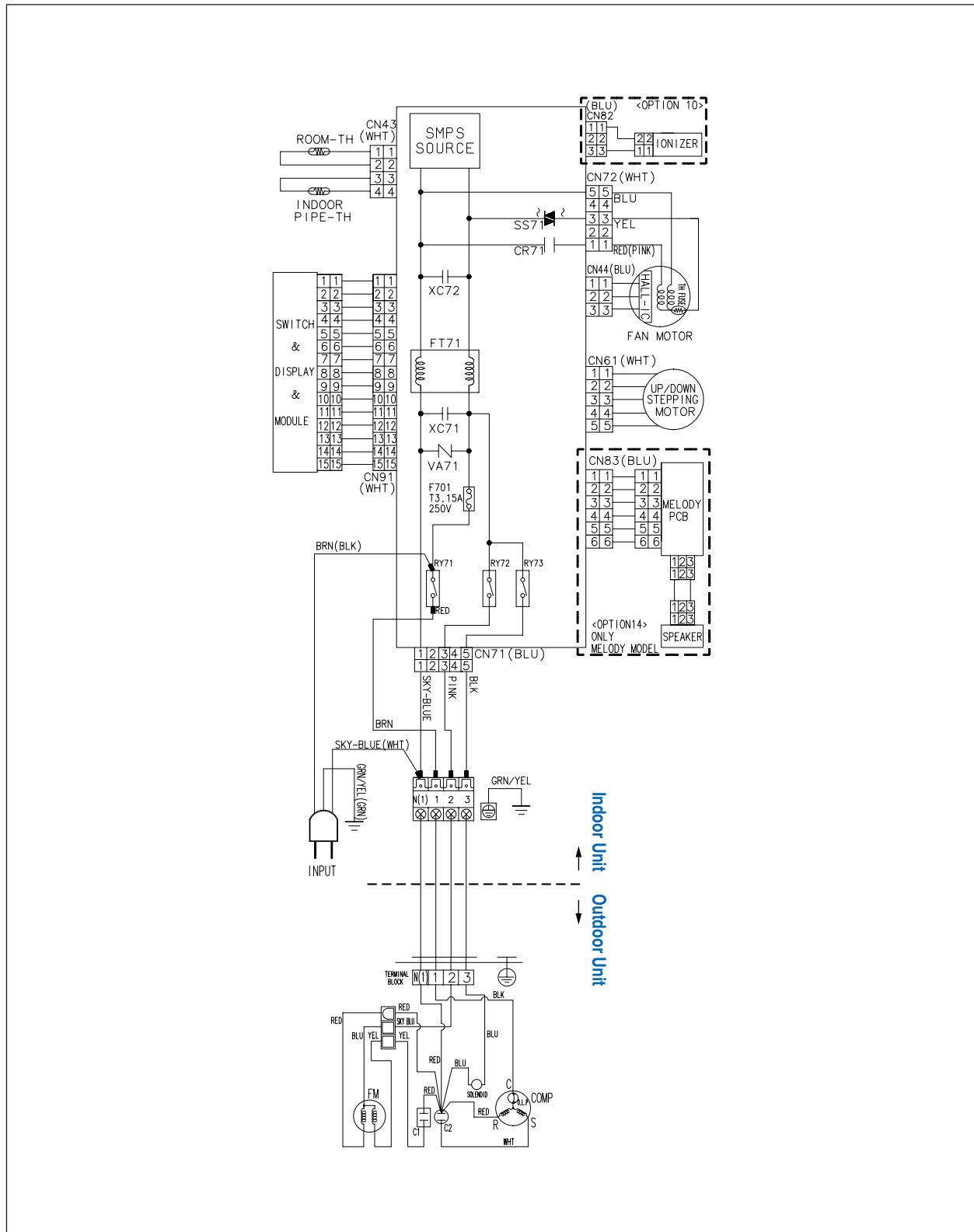
Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
1	DB93-03138A	ASS'Y DISPLAY REFLECTOR		1	SNA	
2	DB41-00321A	PCB-DISPLAY	FR-4 T1.6	1	SNA	
3	3404-000176	TACT SWITCH	KPT-1105A	1	SNA	
4	2003-002111	RESISTOR	200ohm, 2W	4	SNA	
5	-	CONNECTOR WIRE	3P	1	SNA	
6	3711-004352	CONNECTOR	SMW200-15P	1	SNA	

■ MODULE PCB : DB93-01369A

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
1	DB41-00102A	PCB MODULE	FR1 T1.6	1	SNA	
2	3711-004386	CONNECTOR-HEADER	BOX, 3P, 1R, 2mm, ANGLE, SN	1	SNA	
3	2202-000173	C-CERAMIC, MLC-AXIAL	1nF, 10%, 50V, Y5P, TP, 1.9 x 3.5, -	1	SNA	
4	0401-000005	DIODE-SWITCHING	1N4148, 100V, 200mA, DO-35, TP	1	SNA	
5	2202-000780	C-CERAMIC, MLC-AXIAL	100nF, +80-20%, 50V, Y5V, TP, 3.5 x 1	1	SNA	
6	6909-001204	MODULE	346HF12N	1	SA	

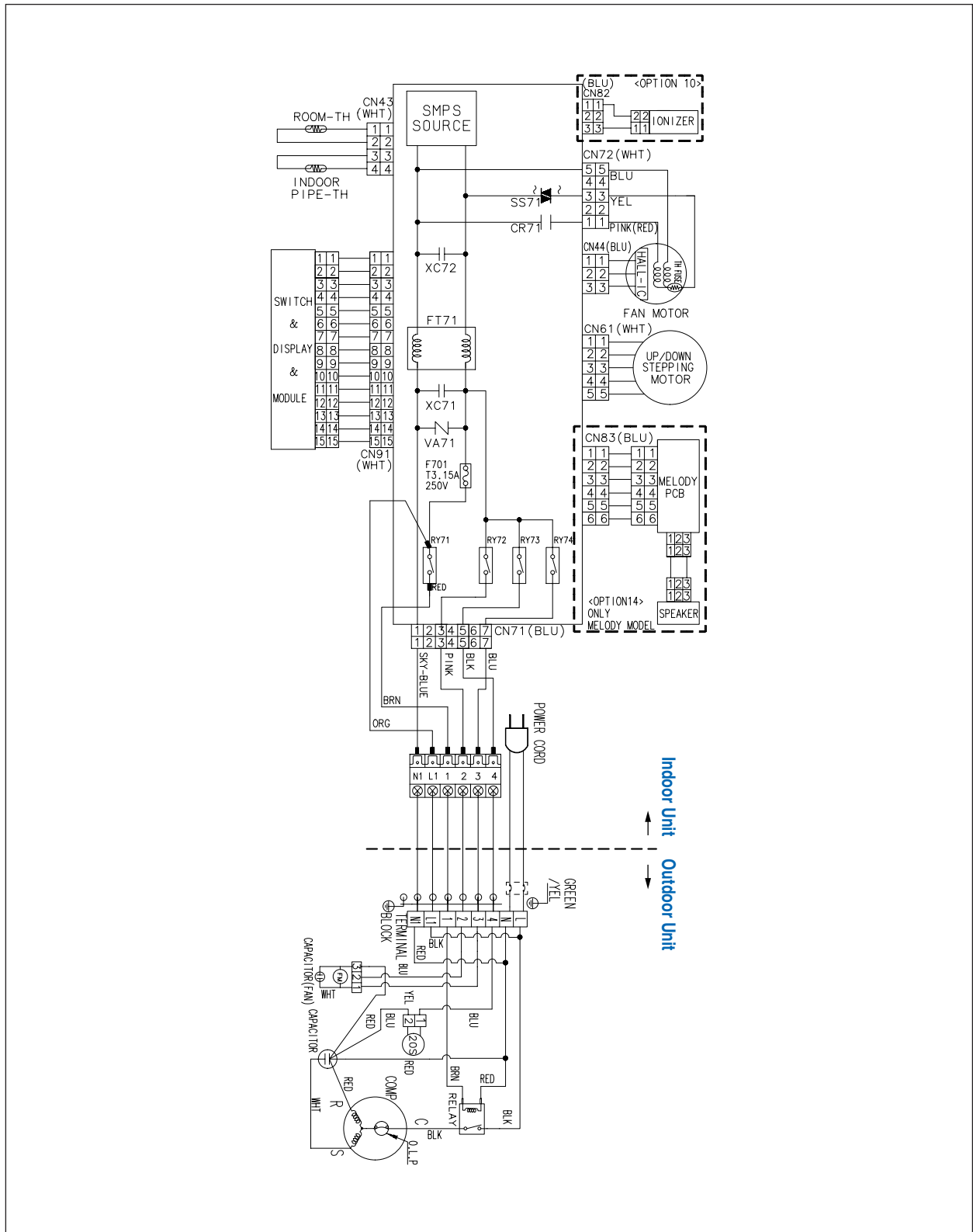
7. Wiring Diagram

■ AS18HPBN



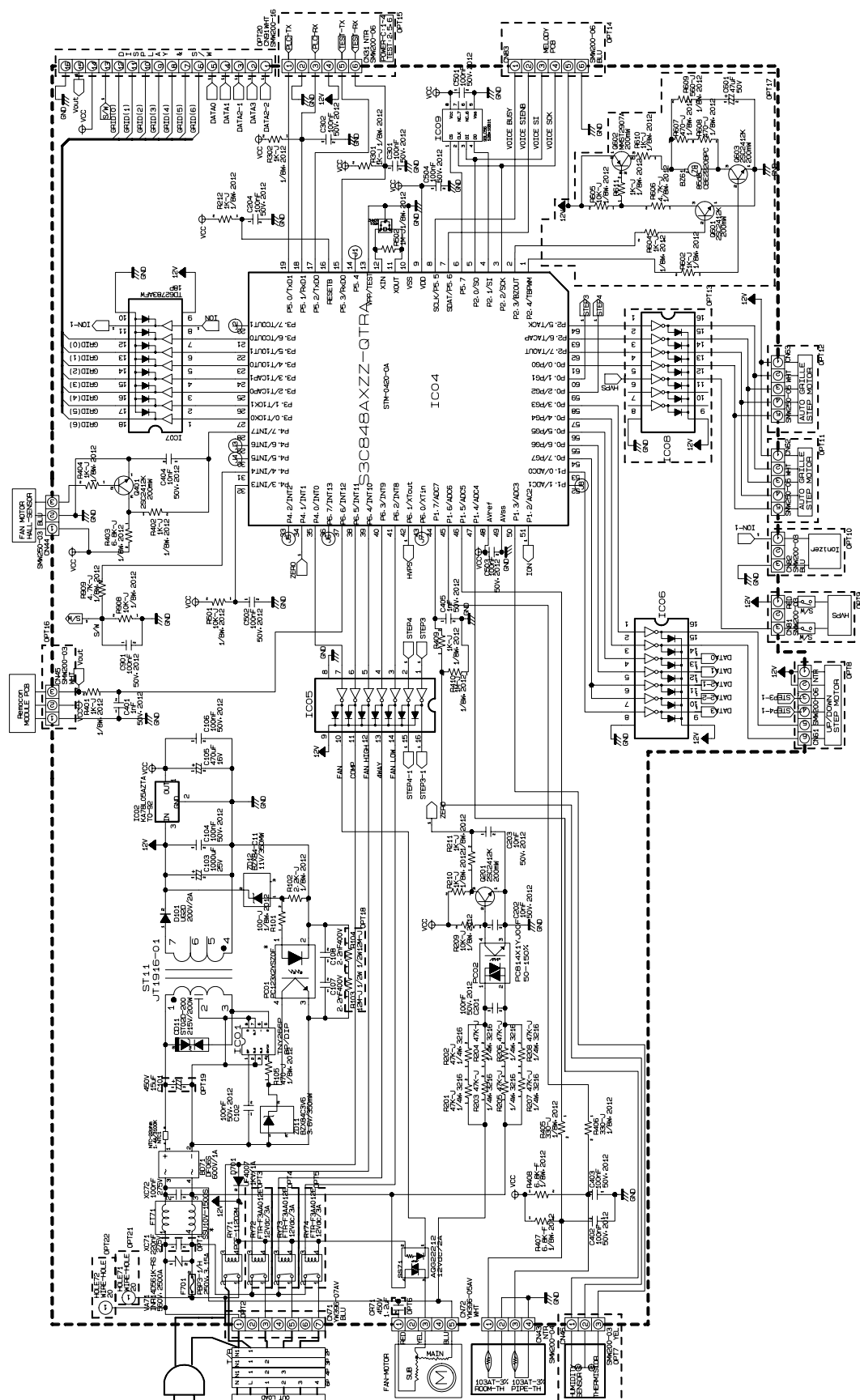
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■ AS24HPBN



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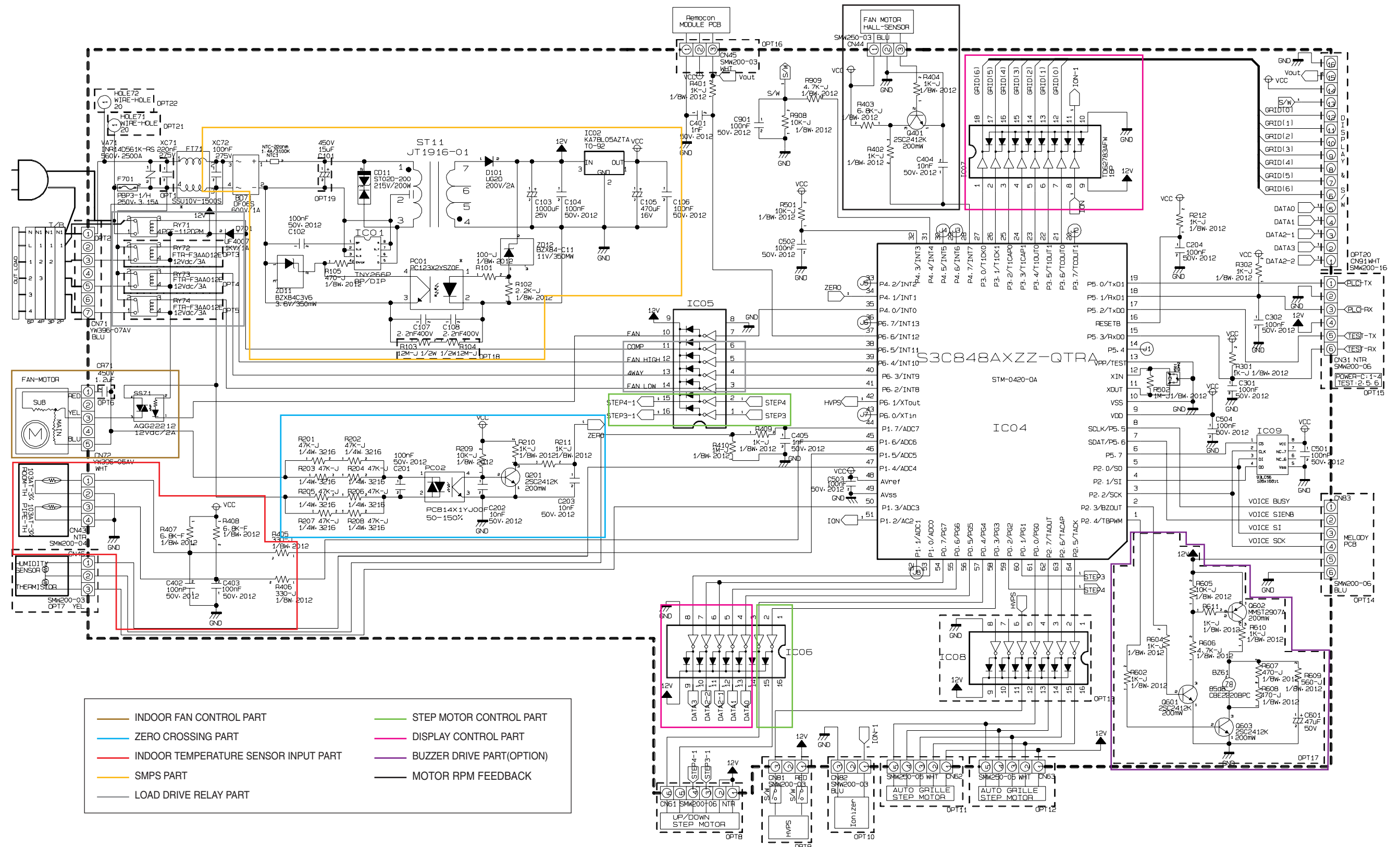
8. Schematic Diagram



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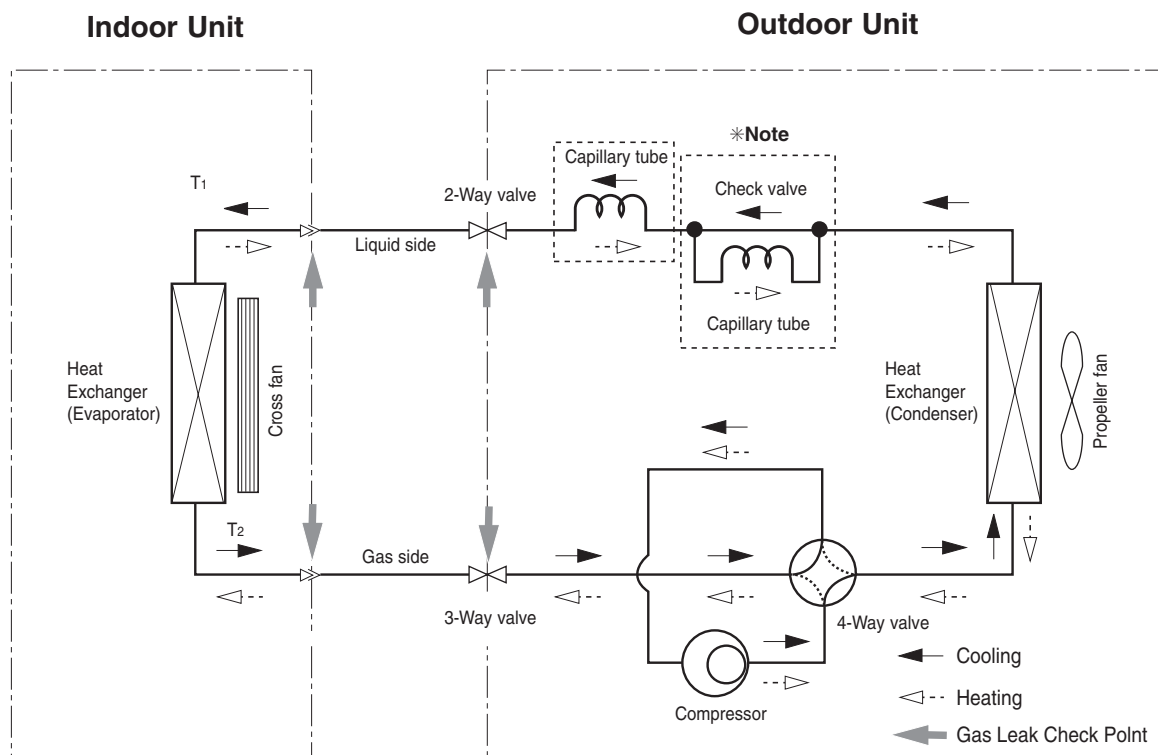
9. Circuit Descriptions

9-1 PCB Circuit Descriptions

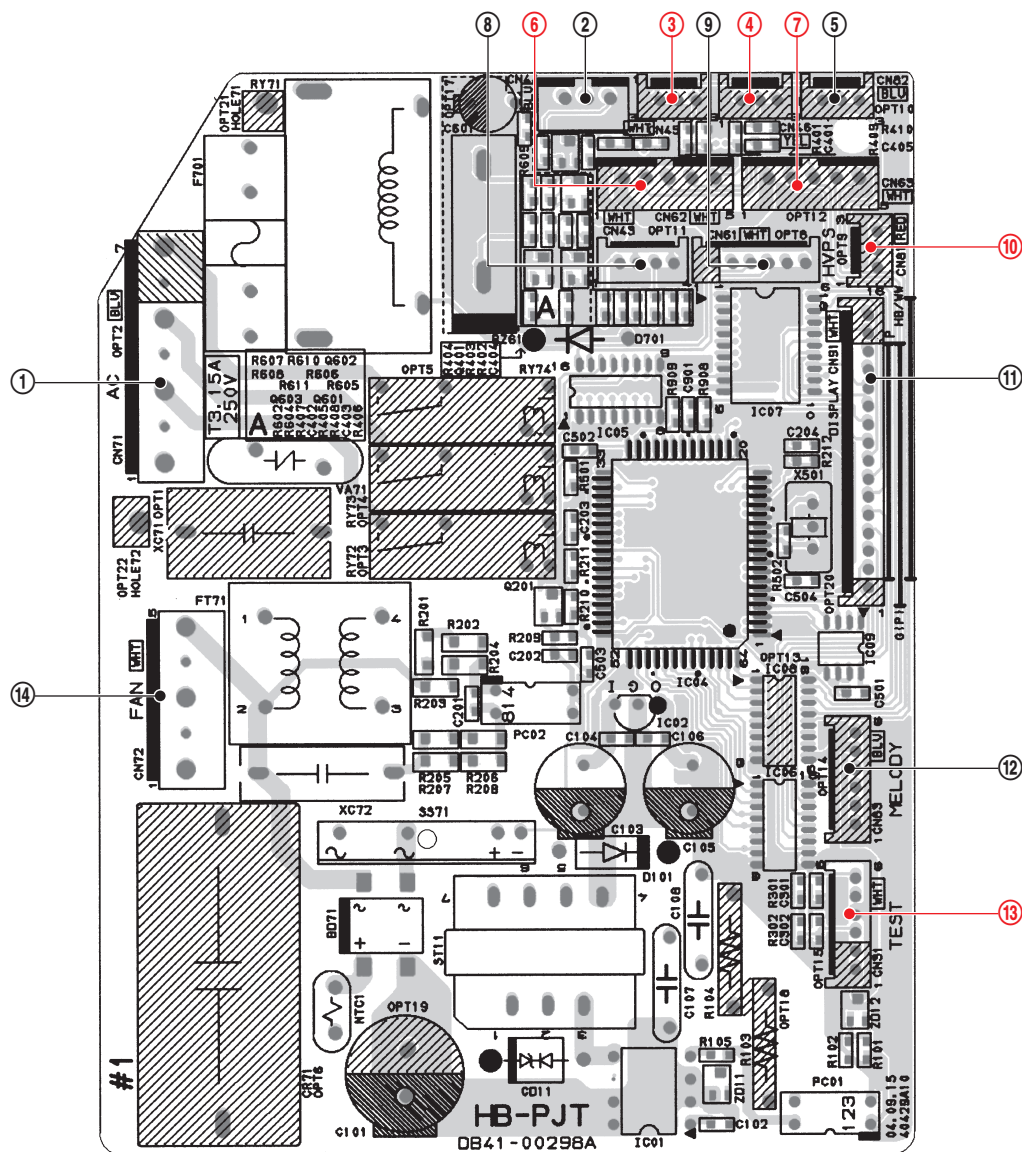


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9-2 Refrigerating Cycle Diagram



10. PCB Diagram



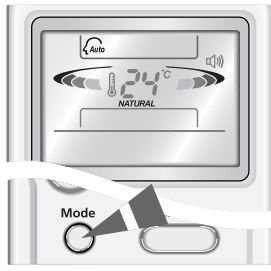
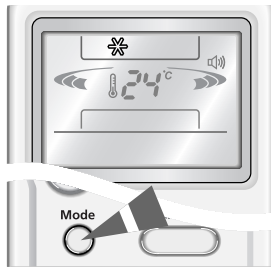
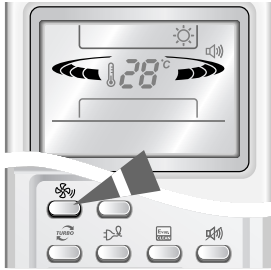
Caution : The red number connector is not used.

①	Power	⑧	Temperature Sensor
②	Motor RPM Feedback	⑨	BLADE-H Step Motor
③	Remocon Module	⑩	HVPS(High voltage Generator)
④	Humidity Sensor	⑪	DISPLAY PCB Connection
⑤	Anions	⑫	Melody PCB Connection
⑥	Auto grill 1	⑬	Test Board Connection
⑦	Auto grill 2	⑭	Indoor Fan Motor

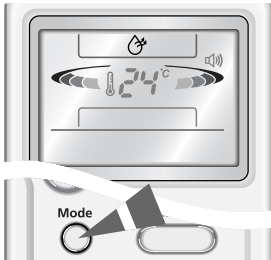
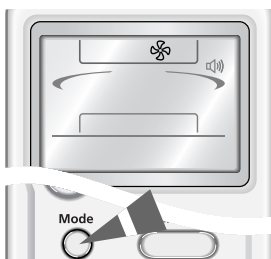
11. Operating Installation and Installation

11-1 Main Function

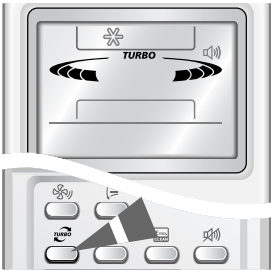
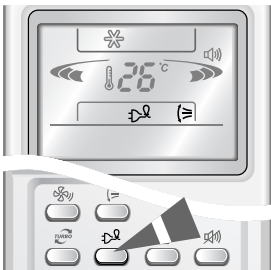
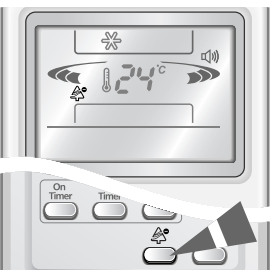
11-1-1 Basic Function

Mode	Explanation	Remark
Auto Mode	Press the  button on the remote control until  is displayed.	
Cool Mode	Press the  button on the remote control until  is displayed. Press the  button to select the fan speed until the required setting is displayed.  Automatic (rotated : )  Low  Medium  High	 
Heat Mode	Press the  button on the remote control until  is displayed. Press the  button to select the fan speed until the required setting is displayed.  Automatic (rotated : )  Low  Medium  High	 

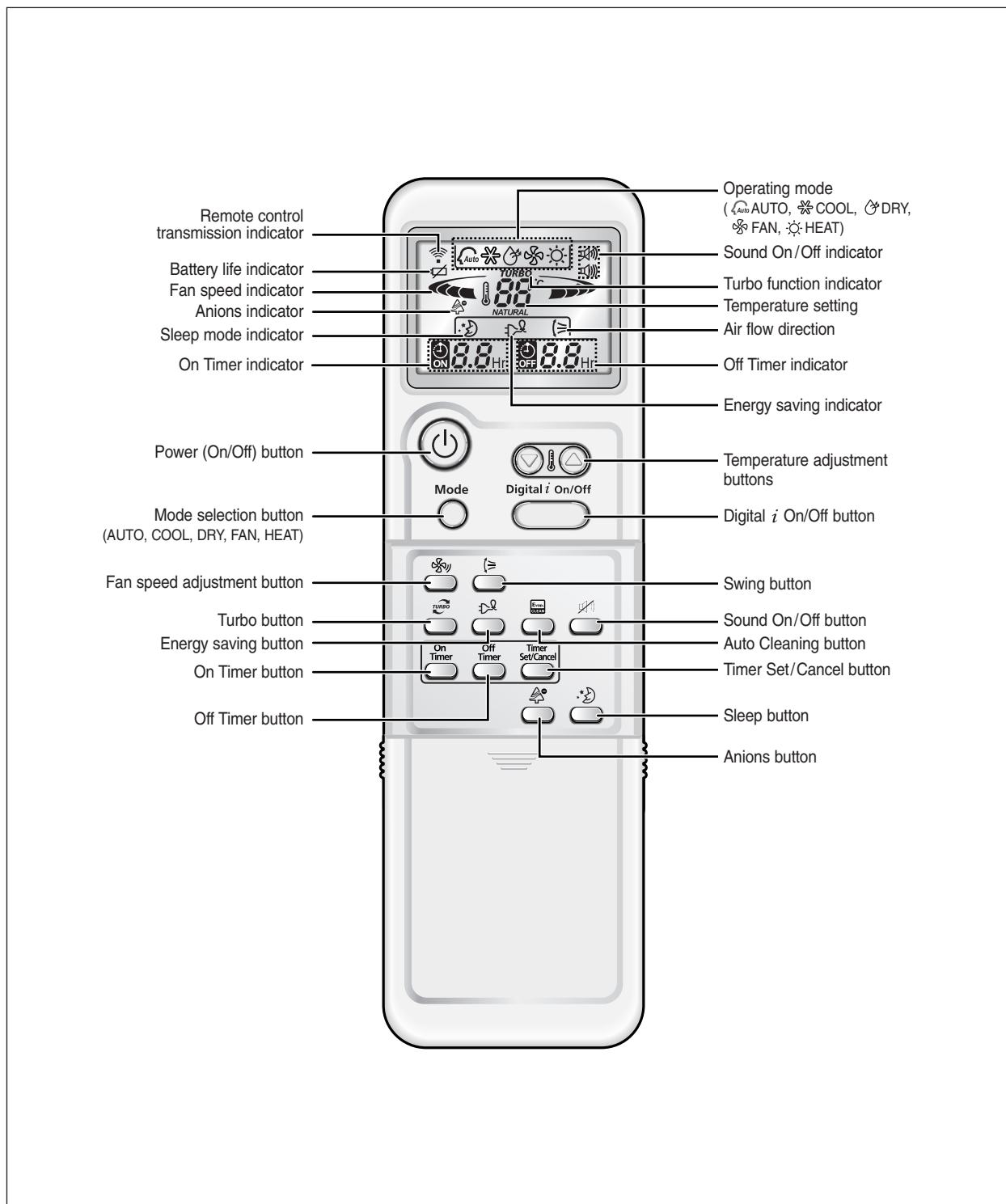
Basic Function(cont.)

Mode	Explanation	Remark
Dry Mode	Press the  button on the remote control until  is displayed.	
Fan Mode	Press the  button on the remote control until  is displayed.	

11-1-2 Applied Function

Mode	Explanation	Remark											
Turbo Function	Press the  button. - After 30 minutes, the air conditioner is reset automatically to the previous setting. - You can select the Turbo function in the Auto, Cool and Heat mode. If you select this function in the Dry or Fan mode, the mode changes to the Auto mode.												
Energy Saving Function	Press the  button.												
Auto Cleaning Function	Press the  button. <table border="1" data-bbox="395 1097 1037 1281"> <thead> <tr> <th>When the air conditioner is turned</th><th>Mode</th><th>Operating time</th></tr> </thead> <tbody> <tr> <td rowspan="2">On</td><td>Auto, Cool, Dry</td><td>30 minutes</td></tr> <tr> <td>Heat, Fan</td><td>15 minutes</td></tr> <tr> <td>Off</td><td></td><td>30 minutes</td></tr> </tbody> </table> * There is no extra mark on the remote control, LED is on at the main body display. Press the button one more time for cancel.	When the air conditioner is turned	Mode	Operating time	On	Auto, Cool, Dry	30 minutes	Heat, Fan	15 minutes	Off		30 minutes	
When the air conditioner is turned	Mode	Operating time											
On	Auto, Cool, Dry	30 minutes											
	Heat, Fan	15 minutes											
Off		30 minutes											
Sound On/Off Function	Press the  button to turn off the sound.												
Anions Function	Press the  button. If you press the  button when the air conditioner is off, the air conditioner turns on automatically and generates anions in the Fan mode with Low fan speed.												

11-2 Remote Control-Buttons and Display



12. Troubleshooting

12-1 Items to be checked first

1. The input voltage should be rating voltage $\pm 10\%$ range.
The air conditioner may not operate properly if the voltage is out of this range.
2. Is the link 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 the 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 continues 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 intermittently 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

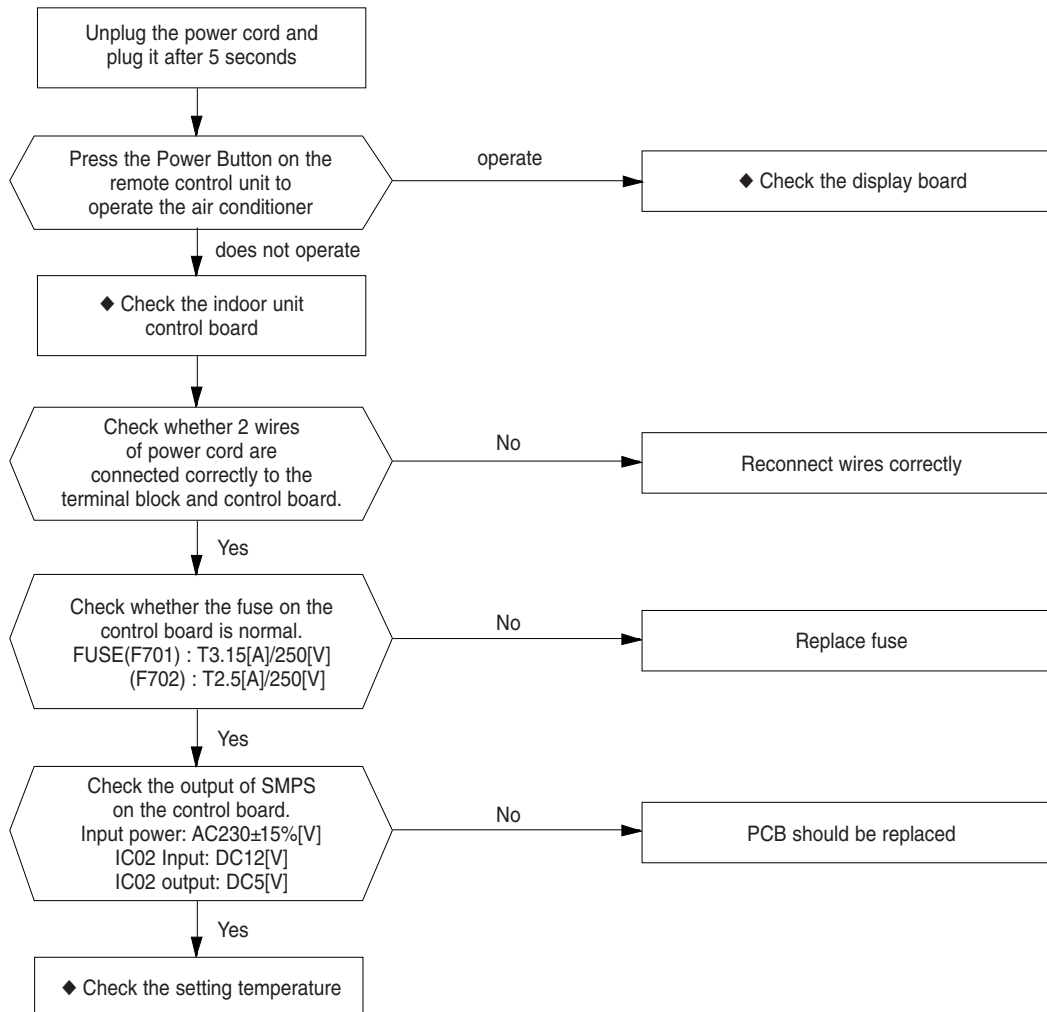
12-2 Fault Diagnosis by Symptom

12-2-1 No Power (completely dead)-Initial diagnosis

1. Checklist :

- 1) Is input voltage normal?
- 2) Is AC power linked correctly?
- 3) Is input voltage of DC regulator IC KA7805 (IC02) normal? (11VDC-12.5VDC)
- 4) Is output voltage of DC regulator IC KA7805 (IC02) normal? (4.5VDC-5.5VDC)

2. Troubleshooting procedure

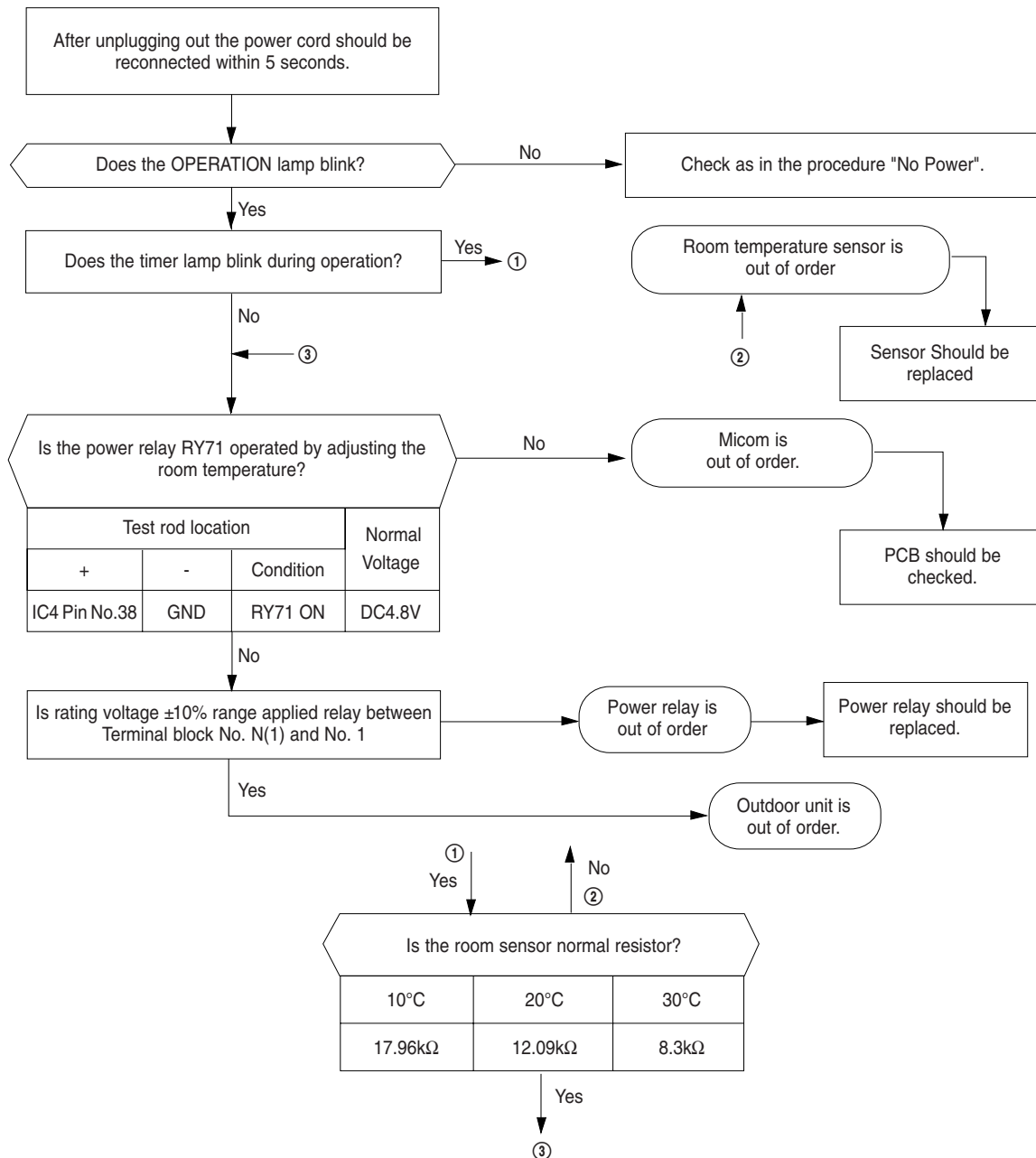


12-2-2 When the Outdoor Unit Does Not Operate. (Initial Diagnosis)

1. Checklist :

- 1) Is input voltage normal?
- 2) Is the set temperature of the remote control higher than room temperature in COOL mode?
- 3) Is the set temperature of the remote control lower than room temperature in HEAT mode?
- 4) Is the POWER IN connector (CN71) linked correctly?
- 5) Is the outdoor unit properly connected with the TERMINAL BLOCK connector(N(1), 1, 2, 3) or (N1, L1, 1, 2, 3, 4)?

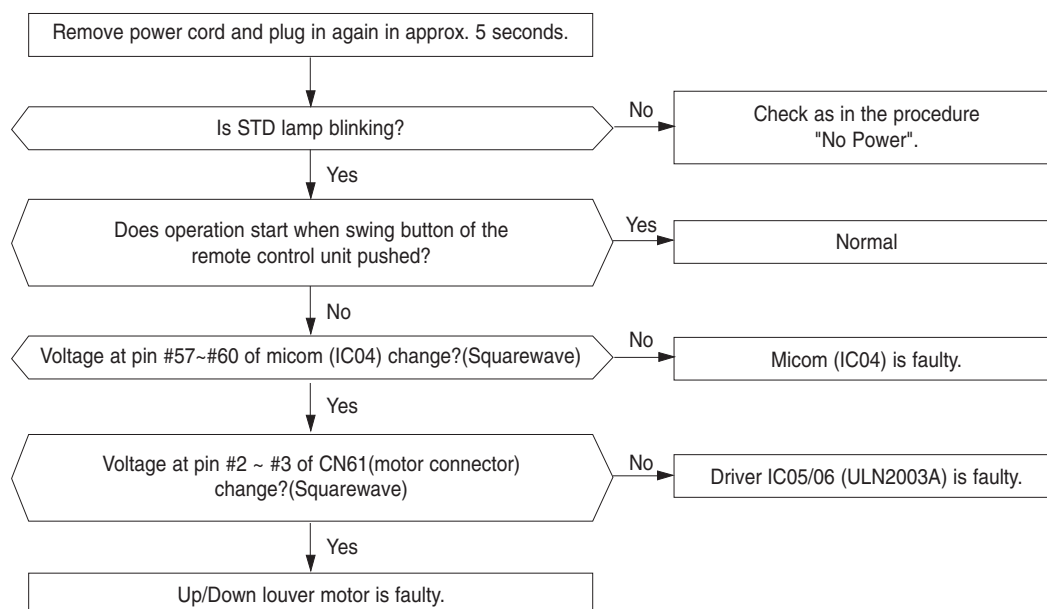
2. Troubleshooting procedure



12-2-3 When the Up/Down Louver Motor Does Not Operate. (Initial Diagnosis)

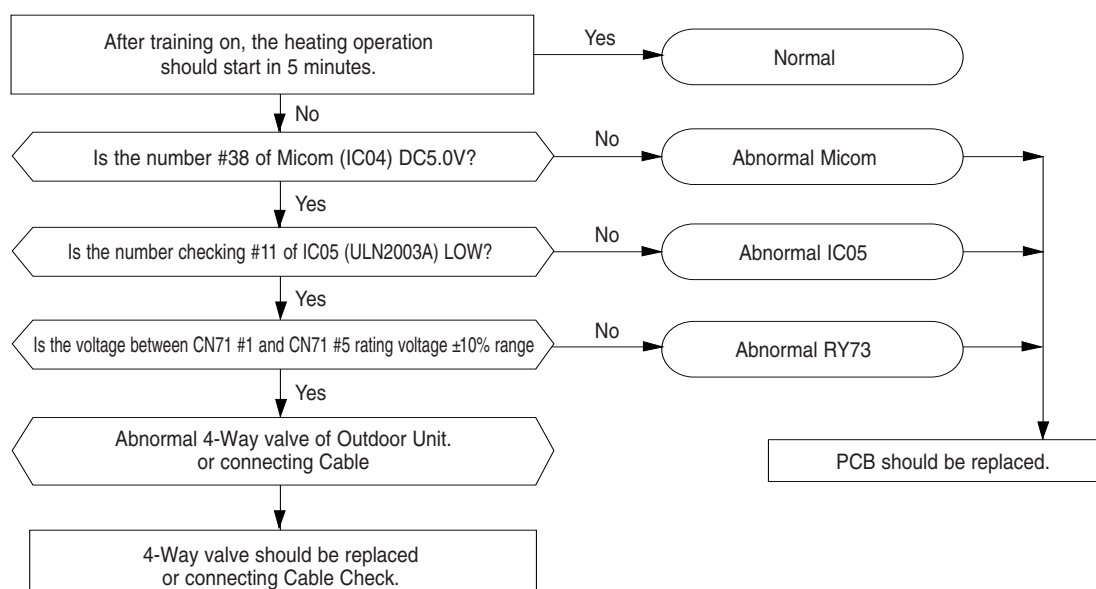
1. Checklist :
 - 1) Is input voltage normal?
 - 2) Is the Up/Down louver motor properly connected with the connector (CN61)?

2. Troubleshooting procedure



12-2-4 In the HEAT mode, When there is no warm air current. Check this first;

1. Is the set temperature of Remote Control lower than room temperature in Heat mode?
2. Is the Indoor PCB properly connected with the CN71 connector?



12-2-5 When the remote control is not receiving

1. Check if the connector was normally assembled.
2. Put the set in operation and check the voltage of No. 15(+) and No. 16(-) of the main PCB CN91 while operating the remote control. When the voltage descends below 3V, the assembly module PCB is normal and the main PCB is poor. Then replace the main PCB.
3. Replace the assembly display PCB because the module PCB is poor if the voltage between No. 15~16 of CN91 maintains 5V after the remote control starts operation.

12-3 PCB Inspection Method

12-3-1 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.

12-3-2 Inspection Procedure

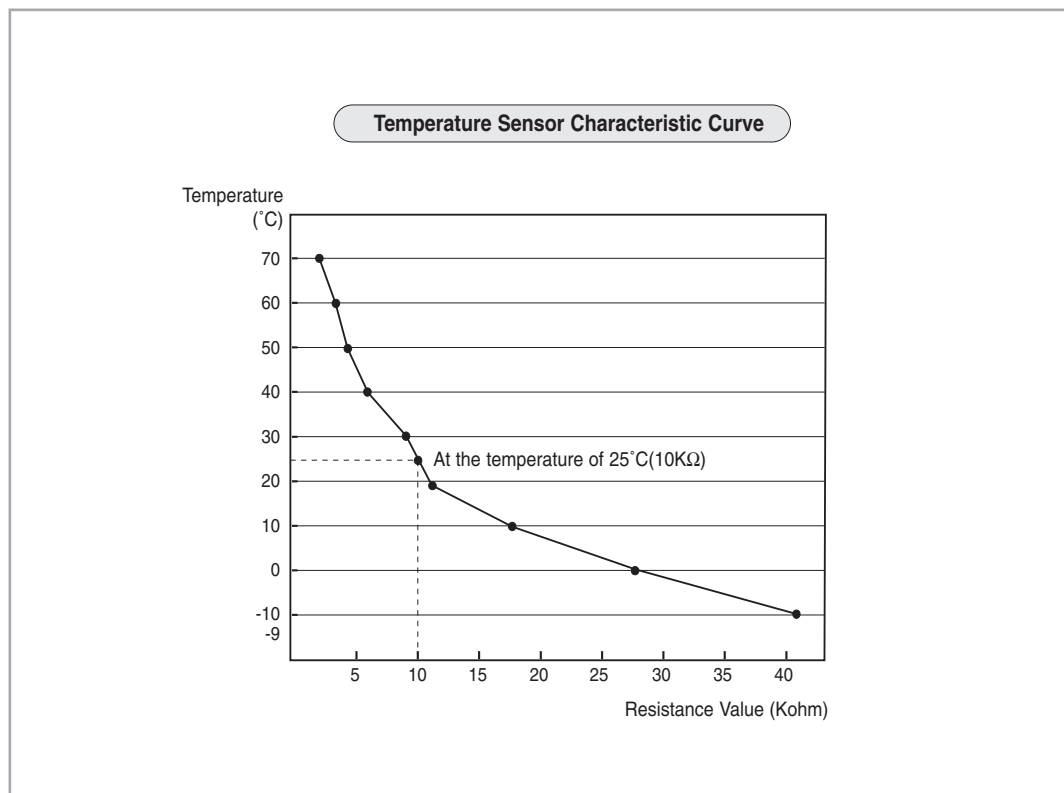
1. Check connector connection and peeling of PCB or bronze coating pattern when you think the PCB is broken.
2. The PCB is composed of the 3 parts.
 - **Main PCB Part** : MICOM and surrounding circuit, relay, room fan motor driving circuit and control circuit, sensor driving circuit, power circuit of DC12V and DC5V, and buzzer driving circuit.
 - **Display part** : LED lamp, Switch, Remocon module

12-3-3 Detailed Inspection Procedure

No	Procedure	Inspection Method	Cause
1	Plug out and pull the PCB out of the electronic box. Check the PCB fuse.	1) Is the fuse disconnected? (F701)	• Overcurrent • Indoor Fan Motor Short • AC Part Pattern Short of the MAIN PCB
2	Supply power. If the operating lamp twinkles at this time, the above 1)~3) have no relation.	Checking the power voltage.	
		1) Is the DB71 input voltage AC200V~AC240V?	• Power Cord is fault, Fuse open. Wrong Power Cable Wiring, AC Part is faulty.
		2) Is the voltage between both terminals of the C103 on the 2 nd side of the transformer DC12V $\pm 0.5V$?	• Switching Trans or Power Circuit is faulty
		3) Is the voltage between both terminals of OUT and GND of IC02(KA78L05) DC5V $\pm 0.5V$?	• Power Circuit is faulty, Load Short
3	Press the ON/OFF button and operate TURBO mode. But, exclude the RESERVE operation.	Checking the power voltage.	
		1) Check the voltage of the relay(RY71) coil(IC05 PIN #11 and GND : 0V, PIN#6 and GND : 5V) during operation(3 minutes after TURBO operation).	• Relay(RY71) Coil Disconnection, IC05 is faulty
		2) Check the voltage of both terminals of terminal block 1 and N(1) after 3 minute operation.: AC220V	• Relay(RY71) Contact is faulty
4	Press the ON/OFF button. 1. FAN Speed [High] 2. Continuous Operation	1) Is the voltage over AC180V being imposed on terminal #3 and #5 of the fan motor connector(CN72)?	• Fan Motor of the indoor is faulty
		2) The fan motor of the indoor unit doesn't run.	• Fan Motor Connector(CN72) is faulty
		3) The power voltage between terminal #3 and #5 of the connector(CN72) is 0V.	• ASS'Y Main PCB is faulty • Connection is faulty

12-3-4 Temperature Sensor Feature Conversion Table(Room Temperature Sensor); 103AT

Temperature [°C]	Sensor Resistance [Kohm]	Temperature [°C]	Sensor Resistance [Kohm]	Temperature [°C]	Sensor Resistance [Kohm]	Temperature [°C]	Sensor Resistance [Kohm]
70	2.229	49	4.300	29	8.622	9	18.700
69	2.296	48	4.444	28	8.944	8	19.480
68	2.365	47	4.594	27	9.281	7	20.290
67	2.437	46	4.749	26	9.632	6	21.150
66	2.512	45	4.912	25	10	5	22.050
65	2.589	44	5.080	24	10.380	4	22.990
64	2.669	43	5.256	23	10.780	3	23.900
63	2.752	42	5.439	22	11.200	2	25.030
62	2.838	41	5.630	21	11.630	1	26.130
61	2.928	40	5.828	20	12.090	0	27.280
59	3.116	39	6.033	19	12.560	-1	28.470
58	3.216	38	6.246	18	13.060	-2	29.720
57	3.319	37	6.468	17	13.570	-3	31.040
56	3.426	36	6.699	16	14.120	-4	32.430
55	3.537	35	6.941	15	14.680	-5	33.890
54	3.652	34	7.192	14	15.280	-6	35.430
53	3.772	33	7.455	13	15.900	-7	37.050
52	3.897	32	7.729	12	16.550	-8	38.760
51	4.026	31	8.015	11	17.240	-9	40.560
50	4.161	30	8.313	10	17.960		

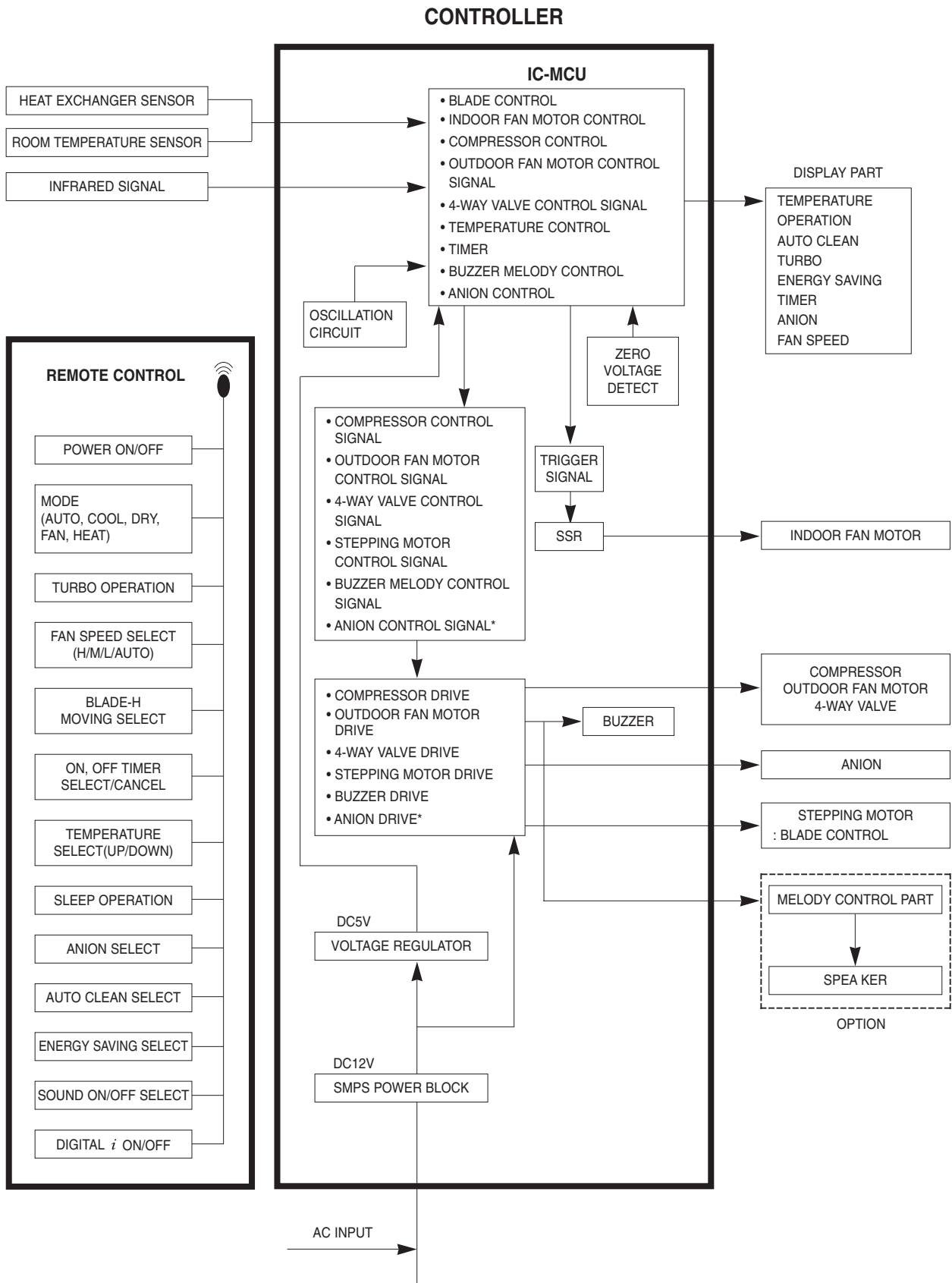


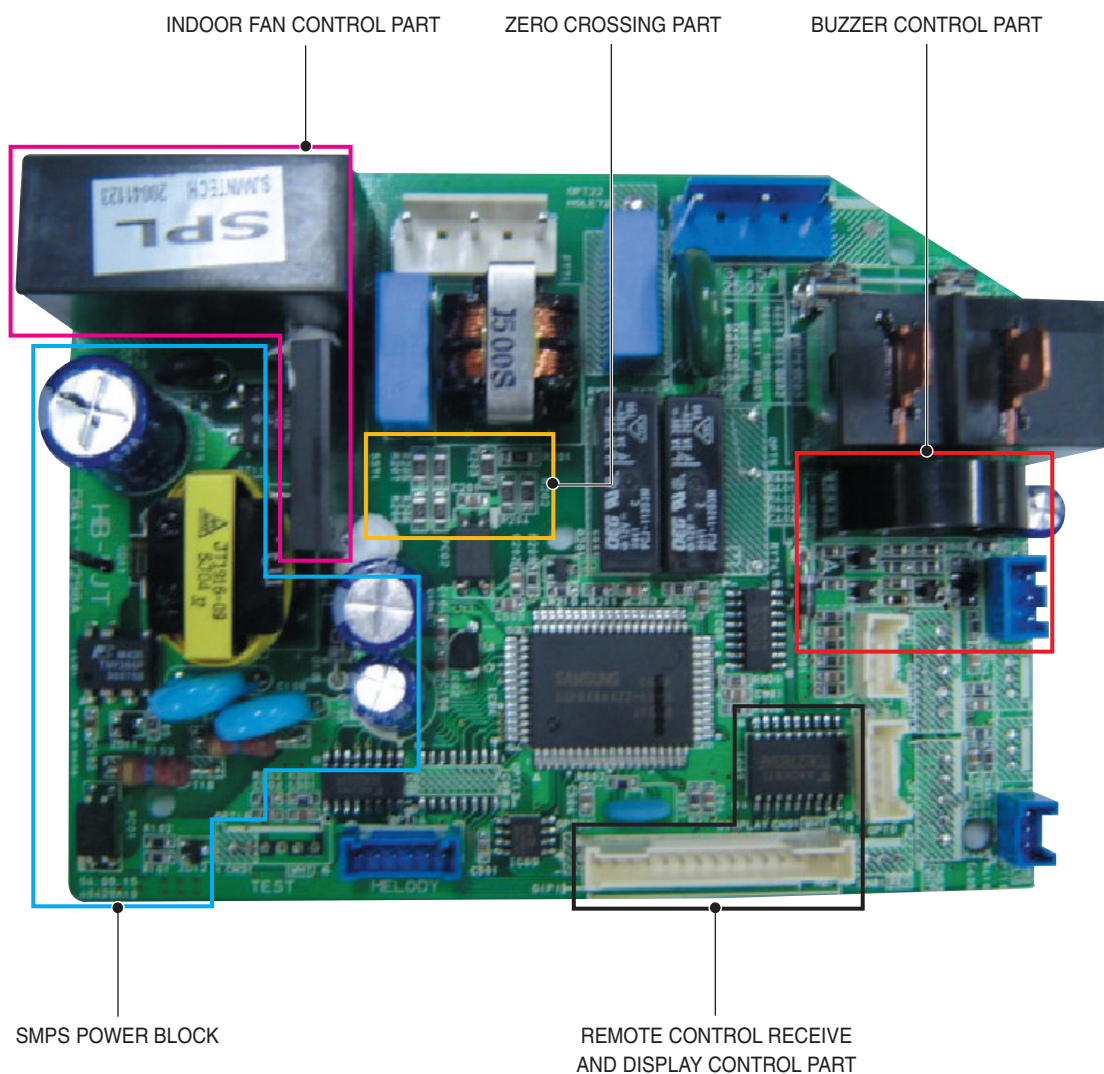
12-4 Main Part Inspection Method

Part	Breakdown Inspection Method			
Room Temperature Sensor	Measure resistance with a tester			
	Normal	At the normal temperature 37kΩ~ 8.3kΩ(-7℃~+30℃) *Refer to Table 12-3-4.		
	Abnormal	∞, 0Ω · · · Open or Short		
Room Fan Motor	Measure the resistance between terminals of the connector (CN72) with a tester.			
	Normal	At the normal temperature (10℃ ~ 30℃)		
		Compare terminal	Resistance	Remark
		Yellow, Blue	404.4Ω ± 10%	Main
Yellow, Red		340Ω ± 10%	Sub	
Abnormal	∞, 0Ω · · · Open or Short			
Outdoor Fan Motor	Measure the resistance between motor wires with a tester.			
	Normal	At the normal temperature (10℃ ~ 30℃)		
		Compare terminal	Resistance	Remark
		Yellow, Red	360Ω ± 10%	Main
Black, Yellow		328Ω ± 10%	Sub	
Abnormal	∞, 0Ω · · · Open or Short			
Stepping Motor	Measure the resistance between the red wire and each terminal wire with a tester.			
	Normal	About 300Ω at the normal temperature (20℃ ~ 30℃)		
	Abnormal	∞, 0Ω · · · Open or Short		

13. Block Diagram

* : OPTION





MEMO



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