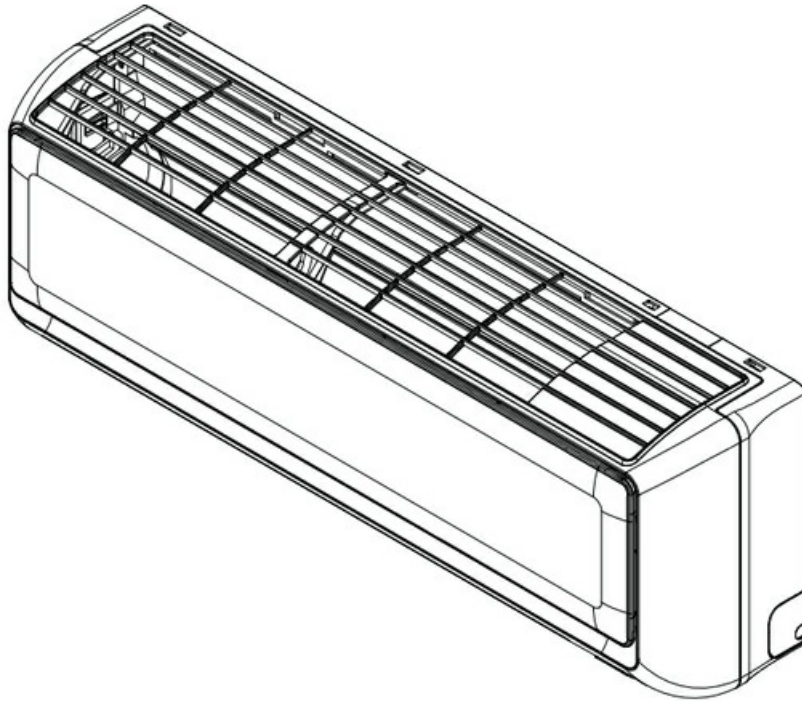


SAMSUNG AQ09 SERIES SERVICE MANUAL



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SPLIT-TYPE AIR CONDITIONER

Basic : AQ09UGBN/AQ09UGBX

AQ12UGBN/AQ12UGBX

Model: AQ09** AQ12**

Model Code : AQ09UGEN(X) AQ09UGFN(X)

AQ12UGEN(X) AQ12UGFN(X)

AQ09TSAN(X) AQ09TSBN(X)

AQ12TSAN(X) AQ12TSBN(X)

AQ09TSBN(X)SER

AQ12TSBN(X)SER

AQ09UGFN(X)SER

AQ12UGFN(X)SER

AQ09EWFN(X)SER

AQ12EWFN(X)SER

SERVICE Manual

AIR CONDITIONER



AQ09UG**



AQ12UG**



AQ09TS**



AQ12TS**



AQ09EW**



AQ12EW**



AQ09UGEX



AQ12UGEX

CONTENTS

- good' sleep Mode
- Catechin Filter
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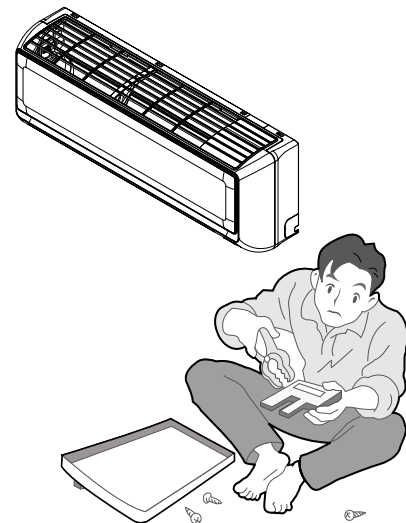
1. Precautions

1-1 Precautions for the Service

- **Use the standard parts when replacing the electric parts.**
 - Confirm the model name, rated voltage, rated current of the electric parts.
- **Repair the disconnection of HARNESS securely when repairing the break down.**
 - If there is any connection error, it causes an abnormal noise and incorrect operation.
- **In case that you assemble or disassemble the products with laying it on the side, do work on the work cloth.**
 - If not, the exterior of products can be scratched.
- **Remove dust and foreign materials from harness, connection part, and inspection part thoroughly when repairing the break down.**
 - It protects the danger of fire such as tracking and short.
- **Tighten tightly the service valve of outdoor unit and the cap of charging valve with a monkey spanner.**
- **Check the assembly status of parts after repairing the break down.**
 - It should be same as the status before repairing.

1-2 Precautions for the Static Electricity and PL

- **As the PCB power terminal has a weakness for the static electricity, pay attention to it during the repair and measurement.**
 - Work with insulation gloves during the repair and measurement of PCB.
- **Check the distance between the product and the other electronic appliances such as TV, Video, and audio. It should be over 2m.**
 - If not, it causes a bad picture quality or a noise.
- **Repairing the products by consumer should be strictly prohibited.**
 - There is a danger of electric shock or fire due to incorrect disassembly.



1-3 Precautions for the Safety

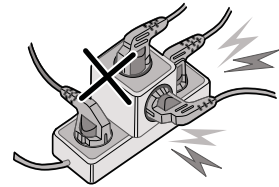
- Do not pull any electric wires and do not touch an auxiliary power switch with a wet hand.
- There is a danger of electric shock or fire.



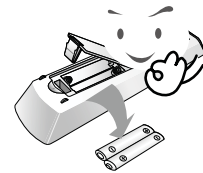
- In case any wire or power plug has been damaged, replace it to eliminate any possible danger.
- Do not bend the power cord by force and do not put any heavy object on the power cord.
- There is a danger of electric shock or fire.



- Do not use multi socket.
- There is a danger of electric shock or fire.



- Ground the product if necessary.
- Be sure to ground the product if there is any danger of electric leakage due to water or moisture.
- Be sure to turn off the auxiliary power switch or pull out the power plug during replacement or repair of electric parts.
- There is a danger of electric shock.
- In case the product will not be in use for a long time, the battery of remote control should be kept separately.
- Leakage of inside fluid can cause break down of remote control.



2. Product Specifications

2-1 The Feature of Product

2-1-1 The Feature of Product

■ **good' sleep Mode**

good'sleep mode can help you sleep quickly and soundly and wake up refreshed.

■ **Catechin Filter**

Catechin,extracted from the green tea,is contained in the filter and deactivates captured bacteria and unpleasant odors.













■ **Silver Nano Evaporator**













■ **Deodorizing Filter**

Activated carbon is incorporated in the filter,efficiently absorbing cigarette smoke, pet odors, and other unpleasant smells, replacing them with clean,refreshing air.













■ **Anti-Bacterial Cross Fan**

2-1-2 Modified items compared with Basic model







Modified part	New contents and characteristic	Basic model		New model	
		AQ09UGB	AQ12UGB	AQ09UGE(F) AQ09UGFSER	AQ12UGE(F) AQ12UGFSER
Indoor	Indoor Design changed				
	Front Display changed				
Outdoor	chassis changed				

Modified part	New contents and characteristic	Basic model		New model	
		AQ09UGB	AQ12UGB	AQ09TSA(B) AQ09TSBSER	AQ12TSA(B) AQ12TSBSER
Indoor	Indoor Design changed				
	Front Display changed				
Outdoor	chassis changed				


2-1-2 Modified items compared with Basic model

Modified part	New contents and characteristic	Basic model		New model	
		AQ09UGB	AQ12UGB	AQ0EWF5ER	AQ12EWF5ER
Indoor	Indoor Design changed				
	Front Display changed				
Outdoor	chassis changed				







2-2 The Comparative Specifications of Product

ITEM		MODEL		Development Model		Comparative Mode	
				AQ09UGE AQ09UGF AQ09UGFSE	AQ12UGE AQ12UGF AQ12UGFSE	AS09NSA	
type		WALL MOUNTED		WALL MOUNTED		WALL MOUNTED	
Design	Indoor Unit						
	Outdoor Unit						
performance	Cooling(ISO)	KW	2.75/2.9	3.5/3.8	2.75/2.98		
	Cooling(SASO)	BTU/h	-	-	-		
	Dehumidifying	kcal	-	-	-		
	Noise	l/h	-	-	-		
	EER	Indoor/outdoor	dB(H/L)	40/55	41/56	40/55	
		Cooling/Heating (ISO)	W/W	3.22/3.41	3.21/3.41	3.22/3.41	
Power	Cooling/Heating (SASO)	W/W	-	-	-		
power	Power consumption	ph/V/HZ	220~240V / 50Hz	220~240V / 50Hz	115V/60Hz		
		Cooling/Heating (ISO)	W/W	855/850	1090/1115	980/900	
	Operating current	Cooling/Heating SASO	W	-	-	-	
		Cooling/Heating (ISO)	A	4.1/3.7	5.4/5.1	4.6/4.1	
	Power factor	Cooling/Heating (SASO)	A	-	-	-	
		Cooling/Heating	%	97	97	92.6/95.4	
	Starting current	A	21	21	21		
	Power cord	Length	m	2	2	2	
		Number of core wires	-	3	3	3	
	size	Outer Dimension	Capacity	A	10	10	
Cooling/Heating (ISO)			W*H*D(mm)	820*285*190	820*285*210	825*285*192.5	
weight(net)		Outdoor	kg	660*242*475	660*242*475	660*242*475	
		Indoor	kg	7.8	8.4	7.8	
Refrigerant pipe		Outdoor	kg	22.5	26.5	25	
		liquid	D*L(mm)	9.52*4850	9.52*4850	9.52*4850	
Drain Hose		gas	D*L(mm)	6.35*4850	6.35*4850	6.35*4850	
		Indoor	D*L(mm)	18*2000	18*2000	18*2000	
Heat exchanger	Outdoor	D*L(mm)	18*2000	18*2000	18*2000		
Refrigerant	Indoor	g	Φ7.0,2R*10S*650	Φ7.0,2R*10S*600	Φ7.0,2R*14S*640/620		
Freezer oil capacity	Outdoor	g	Φ7.0,1R*20S*667	Φ7.0,2R*20S*680	Φ7.0,1R*20S*667		
Refrigerant Control unit	cc	g	R410a 550	R410a 720	R410a 830		
Compressor	cc	cc	340	340	340		
Protection device(OLP)	Capillary tube		Capillary tube		Capillary tube		
Air purifying system	UG4A091JUBEP, Rotary		UG4B124JXCEL, Rotary		44B102DXCEL, Rotary		
Cooling Test Condition	INTERNAL,1stage		Internal		RBC12131-12510,2stage		
Cooling operating condition	-		-		-		
Heating operating condition	-		-		-		
Cooling Test Condition		INDOOR UNIT: DB27°C/WB19°C , OUTDOOR UNIT: DB35°C/WB24°C					
Cooling operating condition		INDOOR UNIT: 16°C to 32°C , OUTDOOR UNIT: 15°C to 43°C					
Heating operating condition		INDOOR UNIT: 27°C or less , OUTDOOR UNIT: -5°C to 3.					

2-2 The Comparative Specifications of Product

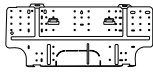

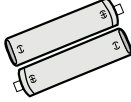

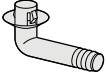

ITEM		MODEL		Development Model		Comparative Mode	
				AQ09TSA AQ09TSBSER	AQ09TSB AQ09TSBSER	AQ12TSA AQ12TSBSE	AQ12TSB AQ12TSBSE
type				WALL MOUNTED	WALL MOUNTED	WALL MOUNTED	
Design	Indoor Unit						
	Outdoor Unit						
performance	Cooling(ISO)		KW	2.75/2.9	3.5/3.8	2.75/2.98	
			BTU/h	-	-	-	
	Cooling(SASO)		kcal	-	-	-	
	Dehumidifying		l/h	-	-	-	
	Noise	Indoor/outdoor	dB(H/L)	40/55	41/56	40/55	
	EER	Cooling/Heating (ISO)	W/W	3.22/3.41	3.21/3.41	3.22/3.41	
		Cooling/Heating (SASO)	W/W	-	-	-	
Power			ph/V/HZ	220~240V / 50Hz	220~240V / 50Hz	115V/60Hz	
power	Power consumption	Cooling/Heating (ISO)	W/W	855/850	1090/1115	980/900	
		Cooling/Heating (SASO)	W	-	-	-	
	Operating current	Cooling/Heating (ISO)	A	4.1/3.7	5.4/5.1	4.6/4.1	
		Cooling/Heating (SASO)	A	-	-	-	
	Power factor	Cooling/Heating	%	97	97	92.6/95.4	
	Starting current			A	21	21	21
	Power cord	Length	m	2	2	2	
		Number of core wire	-	3	3	3	
Capacity		A	10	10	10		
size	Outer Dimension	Indoor	W*H*D(mm)	820*285*190	820*285*210	825*285*192.5	
		Outdoor	660*242*475	660*242*475	660*242*475		
	weight(net)	Indoor	kg	7.8	8.4	7.8	
		Outdoor	22.5	26.5	25		
	Refrigerant pipe	liquid	D*L(mm)	9.52*4850	9.52*4850	9.52*4850	
		gas	6.35*4850	6.35*4850	6.35*4850		
Drain Hose			D*L(mm)	18*2000	18*2000	18*2000	
Heat exchanger		Indoor	Φ7.0,2R*10S*650		Φ7.0,2R*10S*600	Φ7.0,2R*14S*640/620	
		Outdoor	Φ7.0,1R*20S*667		Φ7.0,2R*20S*680	Φ7.0,1R*20S*667	
Refrigerant				g	R410a 550	R410a 720	R410a 830
Freezer oil capacity				cc	340	340	340
Refrigerant Control unit				Capillary tube			
Compressor				UG4A091JUBEP, Rotary	UG4B124JXCEL, Rotary	44B102DXCEL, Rotary	
Protection device(O LP)				INTERNAL,1stage	Internal	RBC12131-12510,2stage	
Air purifying system				-	-	-	
Cooling Test Condition				INDOOR UNIT: DB27°C/WB19°C, OUTDOOR UNIT: DB35°C/WB24°C			
Cooling operating condition				INDOOR UNIT: 16°C to 32°C, OUTDOOR UNIT: 15°C to 43°C			
Heating operating condition				INDOOR UNIT: 27°C or less, OUTDOOR UNIT: -5°C to 3.			

2-2 The Comparative Specifications of Product




ITEM		MODEL		Development Model		Comparative Mode	
				AQ09EWFSE	AQ12EWFSE	AS09NSA	
type				WALL MOUNTED	WALL MOUNTED	WALL MOUNTED	
Design	Indoor Unit						
	Outdoor Unit						
performance	Cooling(ISO)	KW	2.75/2.9	3.5/3.8	2.75/2.98		
		BTU/h	-	-	-		
	Cooling(SASO)	kcal	-	-	-		
	Dehumidifying	l/h	-	-	-		
	Noise	Indoor/outdoor	dB(H/L)	40/55	41/56	40/55	
	EER	Cooling/Heating (ISO)	W/W	3.22/3.41	3.21/3.41	3.22/3.41	
	Cooling/Heating (SASO)	W/W	-	-	-		
Power		ph/V/Hz	220~240V / 50Hz	220~240V / 50Hz	115V/60Hz		
power	Power consumption	Cooling/Heating (ISO)	W/W	855/850	1090/1115	980/900	
		Cooling/Heating (SASO)	W	-	-	-	
	Operating current	Cooling/Heating (ISO)	A	4.1/3.7	5.4/5.1	4.6/4.1	
		Cooling/Heating (SASO)	A	-	-	-	
	Power factor	Cooling/Heating	%	97	97	92.6/95.4	
	Starting current		A	21	21	21	
	Power cord	Length	m	2	2	2	
		Number of core wire	-	3	3	3	
Capacity		A	10	10	10		
size	Outer Dimension	Indoor	W*H*D(mm)	820*285*190	820*285*210	825*285*192.5	
		Outdoor		660*242*475	660*242*475	660*242*475	
	weight(net)	Indoor	kg	7.8	8.4	7.8	
		Outdoor		22.5	26.5	25	
	Refrigerant pipe	liquid	D*L(mm)	9.52*4850	9.52*4850	9.52*4850	
		gas		6.35*4850	6.35*4850	6.35*4850	
Drain Hose		D*L(mm)	18*2000	18*2000	18*2000		
Heat exchanger	Indoor		Φ7.0,2R*10S*650	Φ7.0,2R*10S*600	Φ7.0,2R*14S*640/620		
	Outdoor		Φ7.0,1R*20S*667	Φ7.0,2R*20S*680	Φ7.0,1R*20S*667		
Refrigerant		g	R410a 550	R410a 720	R410a 830		
Freezer oil capacity		cc	340	340	340		
Refrigerant Control unit			Capillary tube	Capillary tube	Capillary tube		
Compressor			UG4A091JUBEP, Rotary	UG4B124JXCEL, Rotary	44B102DXCEL, Rotary		
Protection device(O LP)			INTERNAL,1stage	Internal	RBC12131-12510,2stage		
Air purifying system			-	-	-		
Cooling Test Condition	INDOOR UNIT: DB27°C/WB19°C, OUTDOOR UNIT: DB35°C/WB24°C						
Cooling operating condition	INDOOR UNIT: 16°C to 32°C, OUTDOOR UNIT: 15°C to 43°C						
Heating operating condition	INDOOR UNIT: 27°C or less, OUTDOOR UNIT: -5°C to 3.						

2-3 Accessory and Option Specifications

2-3-1 Accessories

Item	Descriptions	Code-No.	Q'TY	Remark
	Plate-hanger	DB97-02851B	1	Indoor Unit
	Remote Control	DB93-11115K DB93-11489C (AQ09EWF5ER) DB93-11489C (AQ12EWF5ER)	1	
	Batteries for Remote Control	DB47-90024A	2	
	User And Installation Manual	DB98-32706A DB98-32707A(AQ09/12UGF5ER) DB98-32707A(AQ09/12TSB5ER) DB98-32708A(AQ09/12EWF5ER)	1	
	Drain Plug	DB67-20011A	1	
	Rubber Leg	DB73-20134A	4	

2-3-2 Filter

image	part name	Code no.	Remark
	Pre-Filter	DB63-02143C(Left) DB63-02144C(right) DB63-02755A(2 EA) (AQ09/12T****)	wash in water
	Catechin Filter (Optionable)	DB63-00615B (AQ09/12EWF5ER)	Clean with vaccum cleaner or soft brush
	Deodorizing Filter (Optionable)	DB63-00616A (AQ09/12EWF5ER)	

2-4 Details for Operation Property

1 AUTO MODE : In this mode, operation mode (COOL,HEAT) is selected automatically by the room temperature of initial operation.
(Set Temp. : 24°C)

2 COOL MODE : The unit operates according to the difference between the setting and room temperature.(16°C ~ 30°C)

3 HEAT MODE : The unit operates according to the difference between the setting and room temperature.(16°C ~ 30°C)
*Prevention against cold wind : In order to prevent the cool air from flowing out at the heat mode, the indoor fan does not operate or operates very slowly in the following cases. At this time, the indoor heat exchanger will be preheating.
- For 3~5 minutes after the initial operation
- For deicing operation
- The operation of an indoor fan in accordance with the temperature of an indoor heat exchanger.

The temperature of indoor heat exchanger	indoor fan speed
below 28°C	off
28°C~below 34°C	LL speed
34°C~below 40°C	L speed
above 40°C	Setting speed

*High temperature release function: It is a function to detect an outdoor overload by the sensor of an indoor exchanger and to turn the outdoor fan or the compressor ON/OFF for safety.

*Deice : Deicing operation is controlled by indoor unit's heat exchanger temperature and accumulating time of compressor's operation. Deice ends by sensing of the processing time by deice condition.

4 DRY MODE : Has 3 states, each determined by room temperature.
The unit operates in DRY mode.
*Compressor ON/OFF time is controlled compulsorily (can not set up the fan speed, always breeze)
*Protective function : Low temperature release. (Prevention against freeze)

5 TURBO MODE : This mode is available in AUTO, COOL,HEAT,DRY,FAN MODE.

When this button is pressed at first, the air conditioner is operated "powerful" state for 30 minutes regardless of the set temperature, room temperature.

When this button is pressed again, or when the operating time is 30 minutes, turbo operation mode is canceled and returned to the previous mode.

*But, if you press the TURBO button in DRY or FAN mode that is changed with AUTO mode automatically.

6 GOOD'SLEEP MODE : Default good'sleep time is set to 8 hours. But the good'sleep time can be set up to 12 hours, increasing in 30 minute unit up to first 3 hours and in hourly unit after first 3 hours.

*Temperature/Fan speed/Air swing can be adjusted after setting good'sleep in HEAT MODE.

*Temperature can be adjusted and the air conditioner automatically adjusts Fan speed/Air swing after setting good'sleep in COOL MODE.

7 FAN SPEED : Manual (3step),Auto (4 step)

Fan speed automatically varies depending on both the difference between setting and the room temperature.

8 COMPULSORY OPERATION : For operating the air conditioner without the remote control.

*The air conditioner starts up in the most suitable mode for the room temperature.

Option	Mode
Heat pump option selected	Auto mode
Cooling only option selected	Cooling mode

9 EVAP. CLEAN MODE : The unit operates according to the below.

*When the air conditioner is turned off.

The Evaporator clean indicator on the indoor unit display appears and the Evaporator cleaning function runs.

*When the air conditioner is turned on.

The Evaporator clean indicator on the indoor unit display appears and the Evaporator cleaning function runs after stopping the air conditioner operation.



*Evaporator cleaning time can vary, depending on the previously used mode.

1) Auto(COOL),COOL,DRY MODE :
approximately 30 minutes.




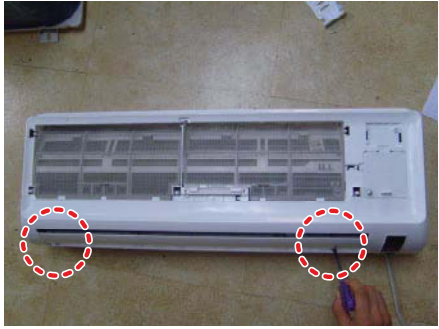
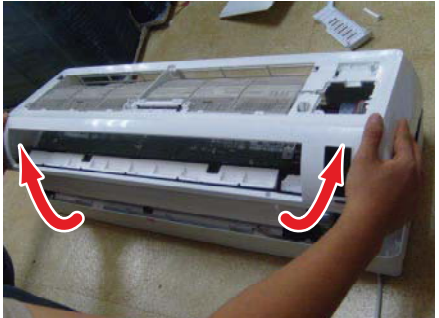
2) Auto(HEAT),HEAT,FAN MODE :
approximately 15 minutes.



3. Disassembly and Reassembly


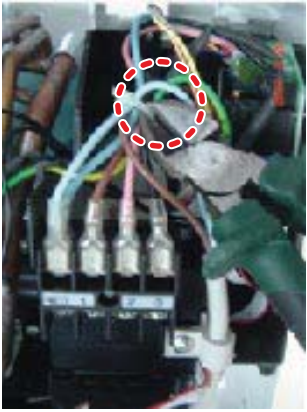
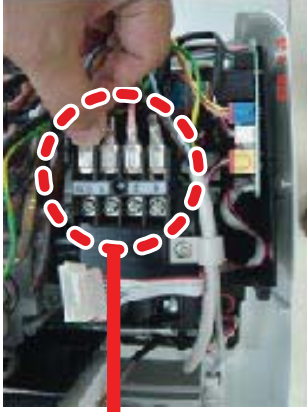
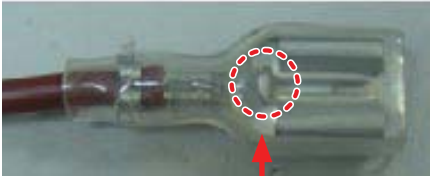
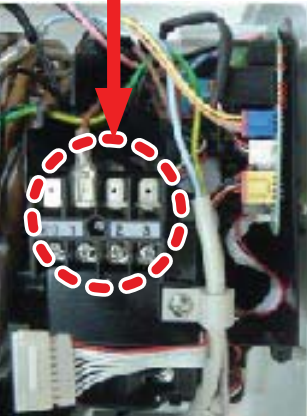
■ Necessary Tools

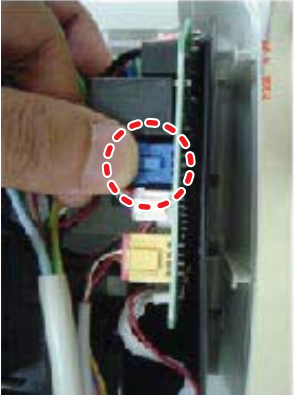
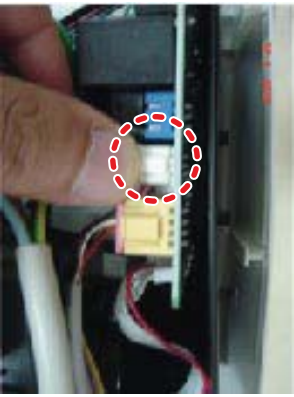
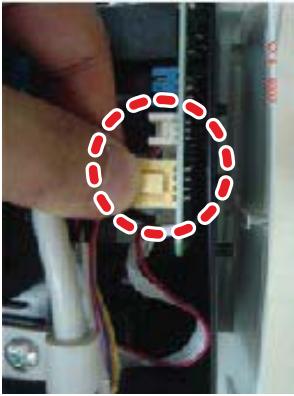

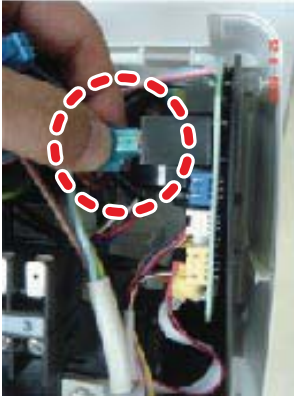
Item	Remark
+SCREW DRIVER	
MONKEY SPANNER	

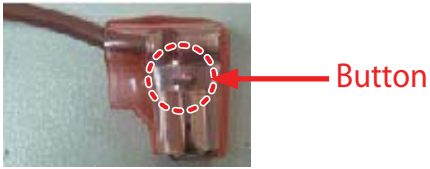
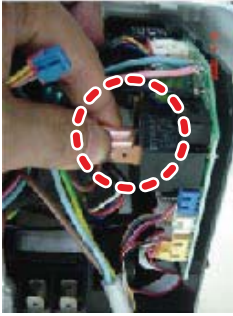




3-1 Indoor Unit





No	Parts	Procedure	Remark
1	PANEL-FRONT	<p>1) Stop the driving of air conditioner and shut off main power supply.</p> <p>2) Open the FRONT-GRILLE and pull out from the PANEL-FRONT.</p> <p>3) Detach COVER-TERMINAL from the PANEL-FRONT.(use + Screw Driver)</p> <p>4) Loosen connector wire(white) and detach the temperature sensor wire.</p> <p>5) To detach the FRONT-PANEL the main frame, unfasten 2 screw at the bottom.(use + Screw Driver)</p> <p>6) Take off the FRONT-PANEL,lifting up the bottom.</p>	    


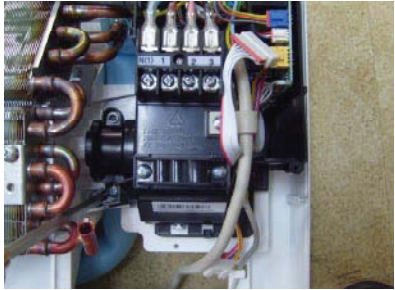
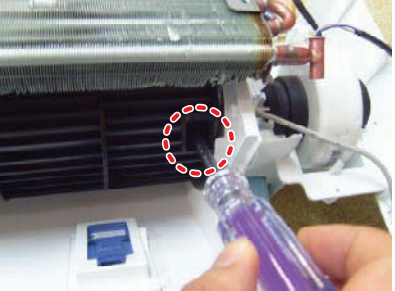

No	Parts	Procedure	Remark
2	TRAY DRAIN	<p>1) Loosen stepping motor wire and detach the hook of main frame.</p> <p>2) To detach TRAY-DRAIN from the main frame, pull the bottom of the TRAY-DRAIN towards you.</p>	
3	CONTROL IN	<p>1) Unfasten the earth screw.(use + Screw Driver)</p> <p>2) Detach the temperature sensor and Humidity sensor.</p> <p>3) Detach COVER-CONTROL from the CASE-CONTROL.</p> <p>4) Loosen MPI connector wire(yellow), and MOTOR wires(white,blue).</p> <p>5) Take off the CASE-CONTROL from the main frame.</p>	

No	Parts	Procedure	Remark
4	PBA	1) Unfasten the screw.	
		2) Cut the cable tie.	
		3) Loosen the terminal block wires. (Total 4EA: #N(1)-2EA, #2-1EA, #3-1EA) ※ Caution: The terminal is the locking type. So, when you separate terminals, pull pressing the button.	  <p style="text-align: center; color: red;">Button</p> 


No	Parts	Procedure	Remark
4	PBA	4) Loosen the Motor Feedback connector(CN44). * Caution: When you separate the connector, pull pressing the locking button.	
		5) Loosen the Humidity sensor connector(CN42). → Option connector. * Caution: When you separate the connector, pull pressing the locking button.	
		6) Loosen the MPI connector(CN81). → Option connector. * Caution: When you separate the connector, pull pressing the locking button.	
		7) Loosen the Relay #4 blue-connector(RY71). * Caution: The terminal is locking type. So, when you separate terminals, pull pressing the button.  Button	

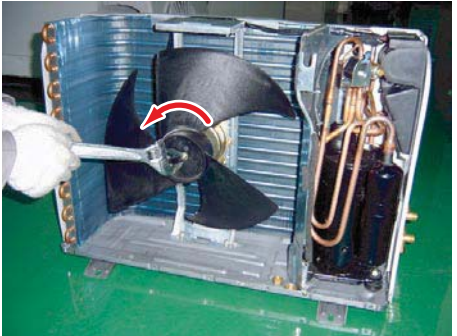

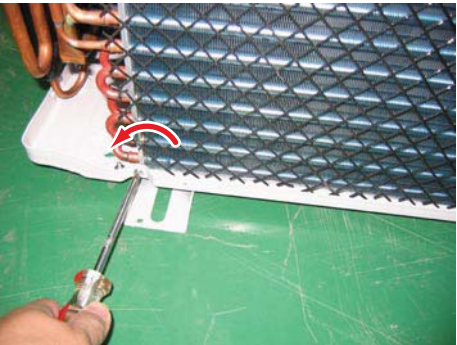
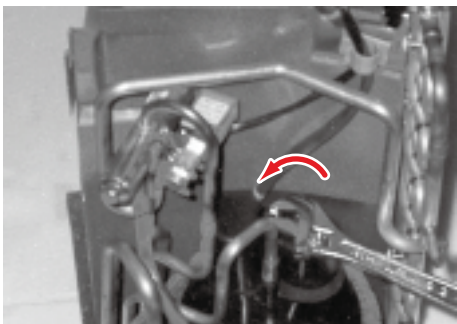

No	Parts	Procedure	Remark
4	PBA	8) Loosen the Relay #3 red-connector(RY71). * Caution: The terminal is locking type. So, when you separate terminals, pull pressing the button. 	
		9) Loosen the Step motor connector. * Caution: When you separate the connector, pull pressing the locking button.	
		10) Loosen the Thermistor wire connector(CN43). * Caution: When you take off the PBA, don't touch the components. Please hold the PBA both side.	
		11) Loosen the Motor connector(CN71). * Caution: When you separate the connector, pull pressing the locking button.	
		12) Take off the main PBA from the ASS'Y Control in. * Caution: When you take off the PBA, don't touch the components. Please hold the PBA both side.	

No	Parts	Procedure	Remark
5	EVAPORATOR	<p>1) Unfasten the screw at the right side. (use + Screw Driver)</p> <p>2) Unfasten the screw at the left side. (use + Screw Driver)</p> <p>3) Detach the HOLDER PIPE.</p> <p>4) Take off the EVAPORATOR from the main frame.</p>	   

No	Parts	Procedure	Remark
6	FAN MOTOR & CROSS FAN	<p>1) Unfasten the screw in the HOLDER-EVAP on the left side of evaporator.(use + Screw Driver)</p> <p>2) unfasten the 3 points screws in the CASE-CONTROL, and then detach the CASE. (use + Screw Driver)</p> <p>3) unfasten the screw a little.(use + Screw Driver)</p> <p>4) Lift up the evaporator slightly and pull the CROSS-FAN to the left side.</p>	   

3-2 Outdoor Unit

No	Parts	Procedure	Remark
1	Common Work	<p>1) Loosen 2 fixing screws and separate the Cover Terminal.</p> <p>2) Loosen 2 fixing screws and separate the Cover Control.</p> <p>3) Separate the connection wire from the Terminal Block.</p> <p>4) Loosen 6 fixing screws and separate the Cabinet Front.</p> <p>5) Loosen 1 fixing screw of Ass'y E-part.</p> <p>6) Loosen 12 fixing screws and separate the Cabinet-Side</p>	    



No	Parts	Procedure	Remark
2	Fan & Motor	1) Remove the Nut Flange. (Turn to the clockwise) 2) Separate the Fan.	
		3) Loosen 4 fixing screws to separate the Motor. 4) Loosen 2 fixing screws and separate the Motor Bracket from the Base.	
3	Heat Exchanger	1) Loosen 2 fixing screws of left and right side. 2) Disassemble the inlet and outlet pipe by welding. 3) Separate 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) Open the Terminal Cover of Compressor and unscrew the Connection Terminal. 2) Disassemble the inlet and outlet pipe of Compressor by welding. 3) Loosen 3 bolts of the lower part. 4) Separate the Compressor.	 

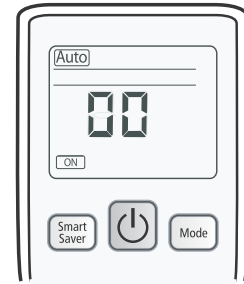
4. Troubleshooting

4-1 Setting Option Setup Method



























ex) Option No. : 30 00 07 C2 6C 83 10 00 00 00

Step 1 : Enter the Option Setup mode.






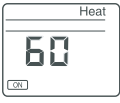

























- 1st Take out the batteries of remote control.
- 2nd Press the temperature  button simultaneously and insert the battery again.
- 3rd Make sure the remote contr display shown as .




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

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

4-1 Setting Option Setup Method(continue)

	Feature	Display
	<p>7 Push the  button to  . Push the  button to set the display panel to 6. Every time you push the  button, the display panel reads 0→1→2→3→.....→9→A→b→c→d→E→F repeatedly.</p>	
	<p>8 Push the  button to set the display panel to 8. Every time you push the  button, the display panel reads 0→1→2→3→.....→9→A→b→c→d→E→F repeatedly.</p>	
	<p>9 Push the  button to  . Push the  button to set the display panel to 8. Every time you push the  button, the display panel reads 0→1→2→3→.....→9→A→b→c→d→E→F repeatedly.</p>	
	<p>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.</p>	
	<p>11 Push the  button to  . Push the  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.</p>	
	<p>12 Push the  button to  .</p>	
	<p>13 Push the  button to  .</p>	
	<p>14 Push the  button to  .</p>	


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

Press the 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 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 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
AQ09UGE AQ09UGF AQ09UGFSER	0	0	3	8	2	4	1	7	C	2	6	C
	SEG13	SEG14	SEG15	SEG16	SEG17	SEG18	SEG19	SEG20	SEG21	SEG22	SEG23	SEG24
	2	8	0	1	0	0	3	0	0	0	0	0

REMOCON MODEL	SEG1	SEG2	SEG3	SEG4	SEG5	SEG6	SEG7	SEG8	SEG9	SEG10	SEG11	SEG12
AQ12UGE AQ12UGF AQ12UGFSER	0	0	3	A	2	5	1	7	C	2	3	B
	SEG13	SEG14	SEG15	SEG16	SEG17	SEG18	SEG19	SEG20	SEG21	SEG22	SEG23	SEG24
	2	8	0	1	0	0	3	0	0	0	0	0

REMOCON MODEL	SEG1	SEG2	SEG3	SEG4	SEG5	SEG6	SEG7	SEG8	SEG9	SEG10	SEG11	SEG12
AQ09TSA AQ09TSB AQ09TSBSER	0	0	3	8	2	4	1	7	C	2	6	C
	SEG13	SEG14	SEG15	SEG16	SEG17	SEG18	SEG19	SEG20	SEG21	SEG22	SEG23	SEG24
	2	8	1	1	0	0	3	0	0	0	0	0

REMOCON MODEL	SEG1	SEG2	SEG3	SEG4	SEG5	SEG6	SEG7	SEG8	SEG9	SEG10	SEG11	SEG12
AQ12TSA AQ12TSB AQ12TSBSER	0	0	3	A	2	5	1	7	C	2	3	B
	SEG13	SEG14	SEG15	SEG16	SEG17	SEG18	SEG19	SEG20	SEG21	SEG22	SEG23	SEG24
	2	8	1	1	0	0	3	0	0	0	0	0

■ OPTION ITEMS

REMOCON MODEL	SEG1	SEG2	SEG3	SEG4	SEG5	SEG6	SEG7	SEG8	SEG9	SEG10	SEG11	SEG12
	AQ09EWFSE	0	0	3	8	2	4	1	7	0	2	6
	SEG13	SEG14	SEG15	SEG16	SEG17	SEG18	SEG19	SEG20	SEG21	SEG22	SEG23	SEG24
	2	8	0	5	0	0	3	0	0	0	0	0

REMOCON MODEL	SEG1	SEG2	SEG3	SEG4	SEG5	SEG6	SEG7	SEG8	SEG9	SEG10	SEG11	SEG12
	AQ12EWFSE	0	0	3	A	2	5	1	7	0	2	3
	SEG13	SEG14	SEG15	SEG16	SEG17	SEG18	SEG19	SEG20	SEG21	SEG22	SEG23	SEG24
	2	8	0	5	0	0	3	0	0	0	0	0

4-2 Display Error and Check Method

4-2-1 Display Error mode

Error Mode				Cause
AS09/12/18E **	AS09/12/18 U,R **			
7-SEG	OPRATION	TIMER	SMART SAVER	
E 121	○	◎	○	INDOOR TEMPERATURE SENSOR ERROR
E 122	◎	◎	○	INDOOR HEAT EXCHANGER TEMPERATURE SENSOR ERROR
E 154	○	○	◎	INDOOR FAN MOTOR SPEED DETECTING ERROR
E162,LED BLINKING	◎	◎	◎	EEPROM ERROR (LED RANDOM BLINKING)
7-SEG,LED BLINKING	◎	◎	◎	OPTION ERROR (LED RANDOM BLINKING)
E 142	NO USED			HUMIDITY SENSOR ERROR(IN TEST MODE)
E 186				MPI FEED BACK ERROR

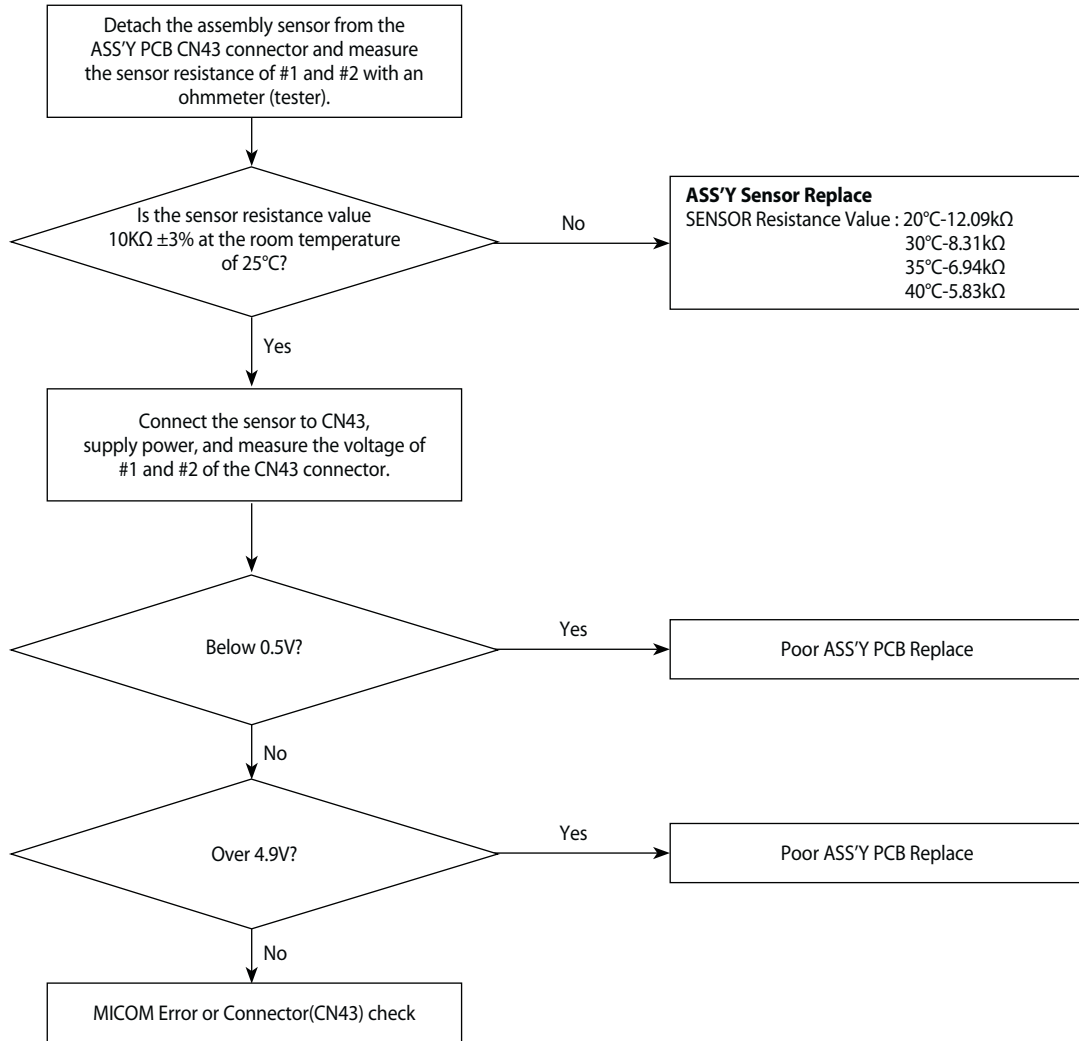
● LED ON ○ LED OFF ◎ LED BLINKING

* " E162 " Error is displayed only in test mode. So, if you want to check,please push the power button of indoor unit.

4-3 Fault Diagnosis by Symptom

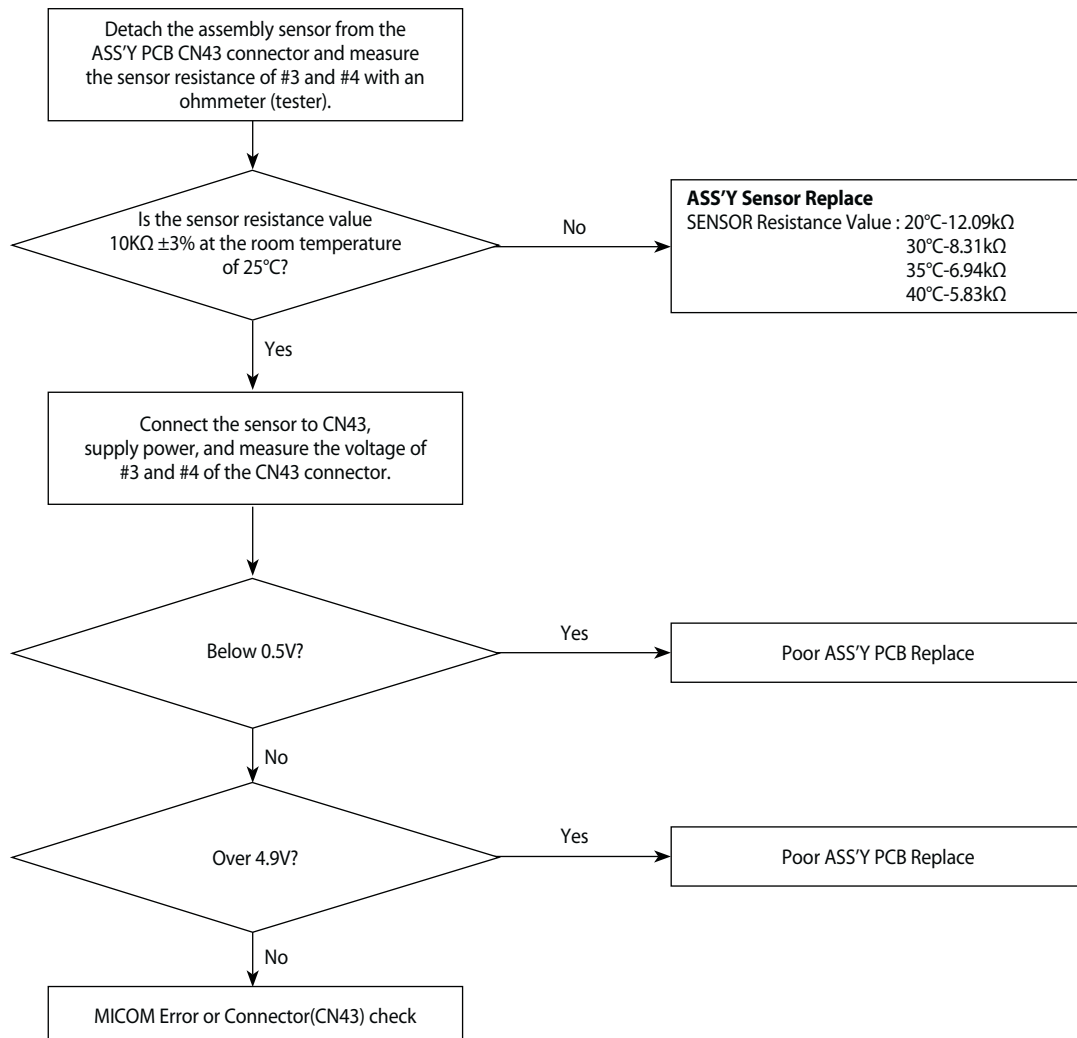
4-3-1 Indoor Temperature Sensor Error ↔ When $E 12 1$ is displayed

1. Checklist :
 - 1) Is the indoor units temperature sensor connected correctly?
2. Troubleshooting procedure



4-3-2 Indoor Heat Exchanger Temperature Sensor Error ↔ When E 122 is displayed

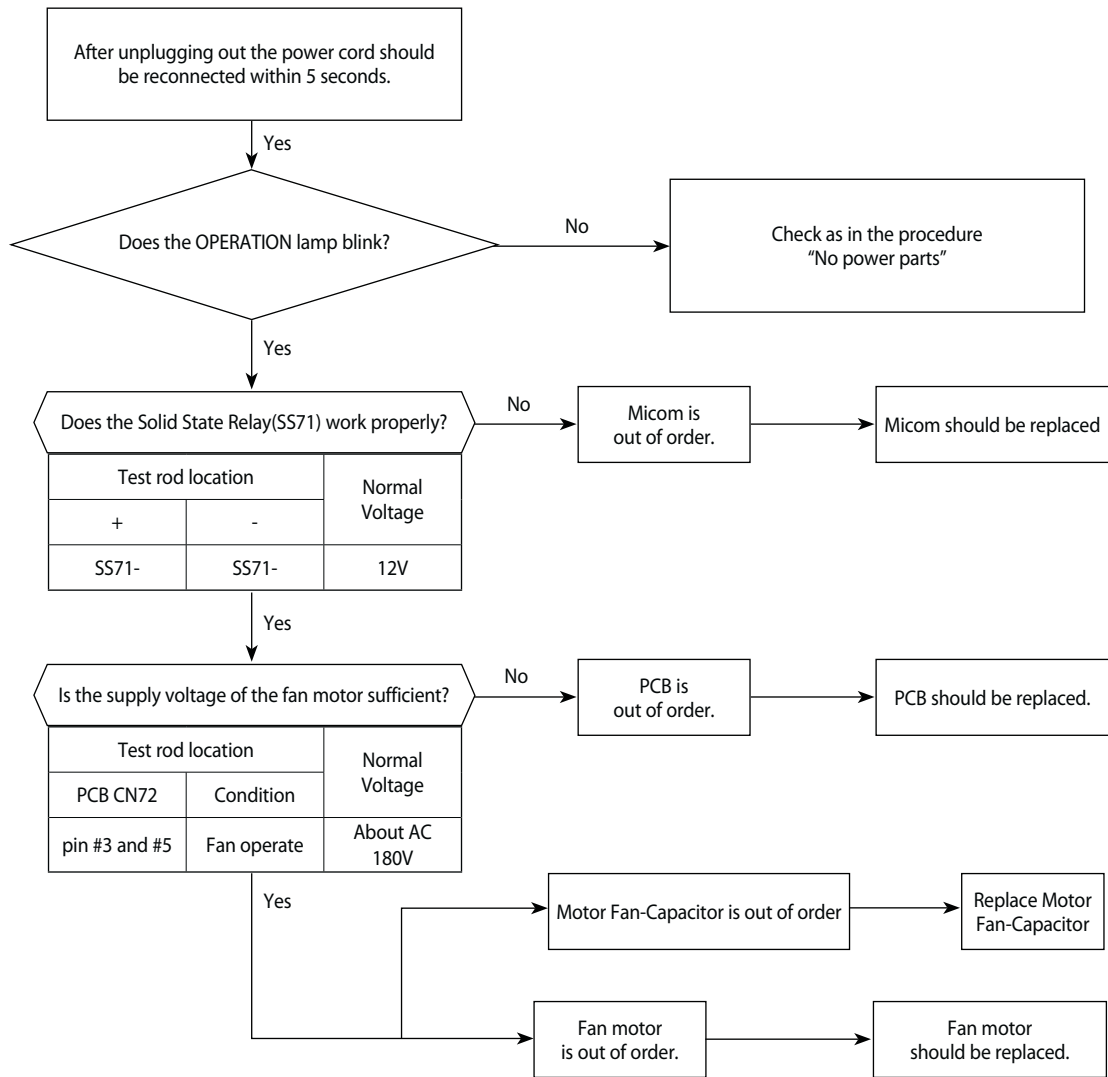
1. Checklist :
 - 1) Is the indoor units temperature sensor connected correctly?
2. Troubleshooting procedure



4-3-3 Indoor Fan Motor Speed Detecting Error ↔ When E 154 is displayed

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



4-3-4 EEPROM Error or Option Error

1. Checklist :

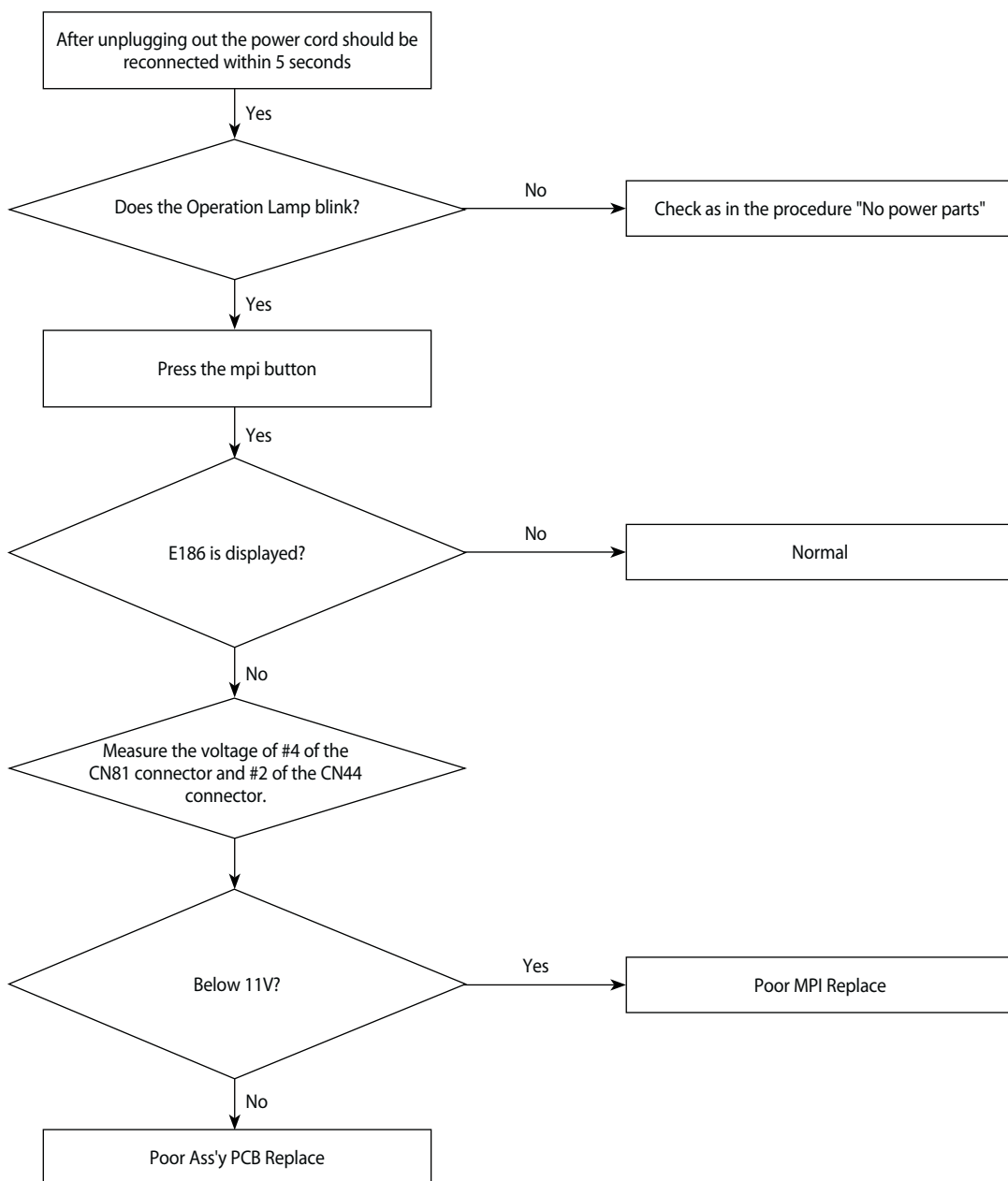
- 1) If all lamps of Indoor unit are blinking or E162 is displayed, plug out, plug in power plug again and press ON/OFF key to retry.
- 2) If the unit is not working properly or all lamps are continuously blinking or E162 is displayed after resetting the option code, see if the correct option code is set up for its model.
- 3) Nevertheless, if all lamps are blinking or E162 is displayed, exchange the main PBA.

4-3-5 MPI Feedback Error ↔ When E186 is displayed

1. Checklist :

- 1) Is the mpi connector properly connected with the connector(CN81)?

2. Troubleshooting procedure

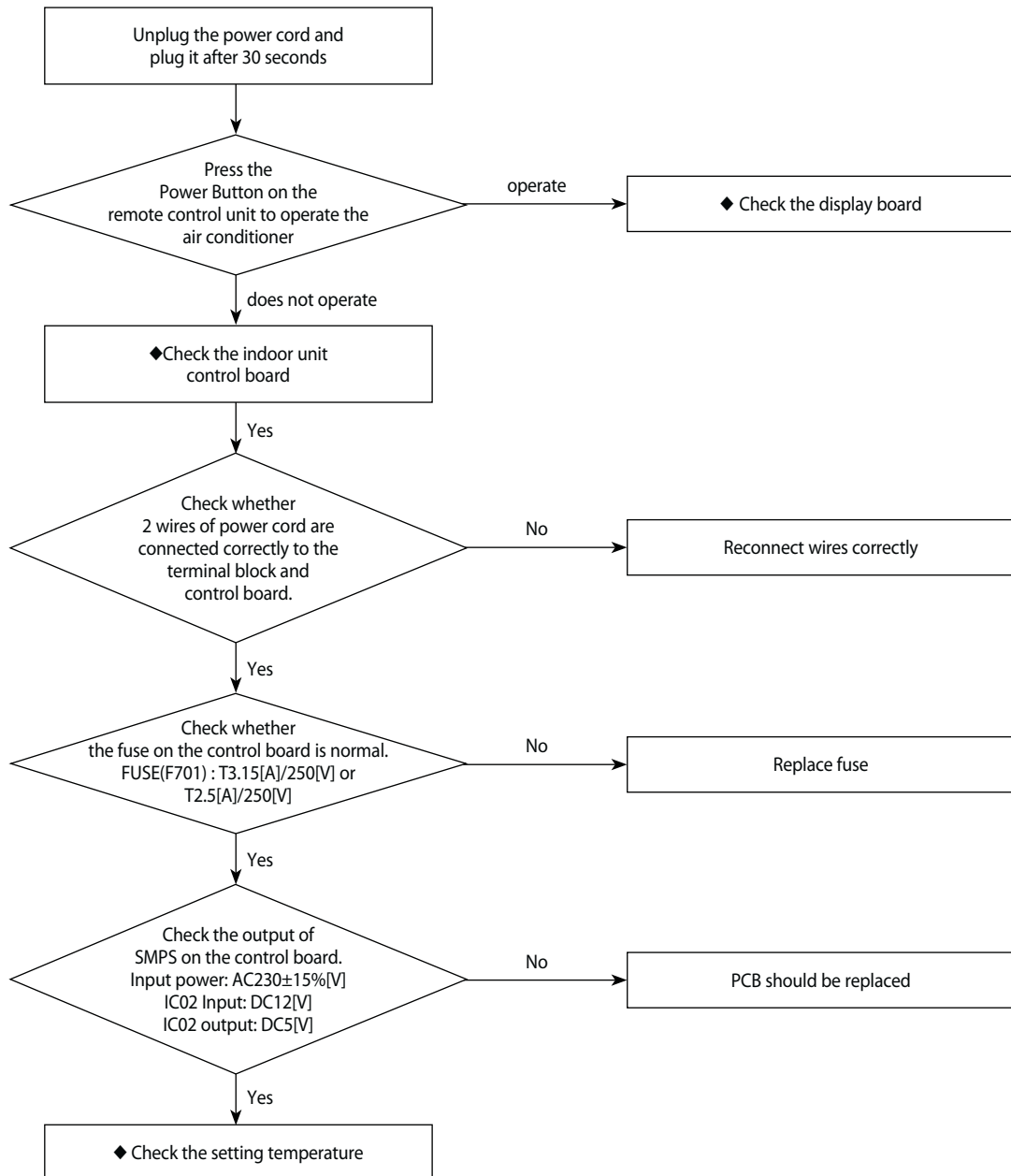


4-3-6 No Power (completely dead)-Initial diagnosis (Not displayed)

1. Checklist :

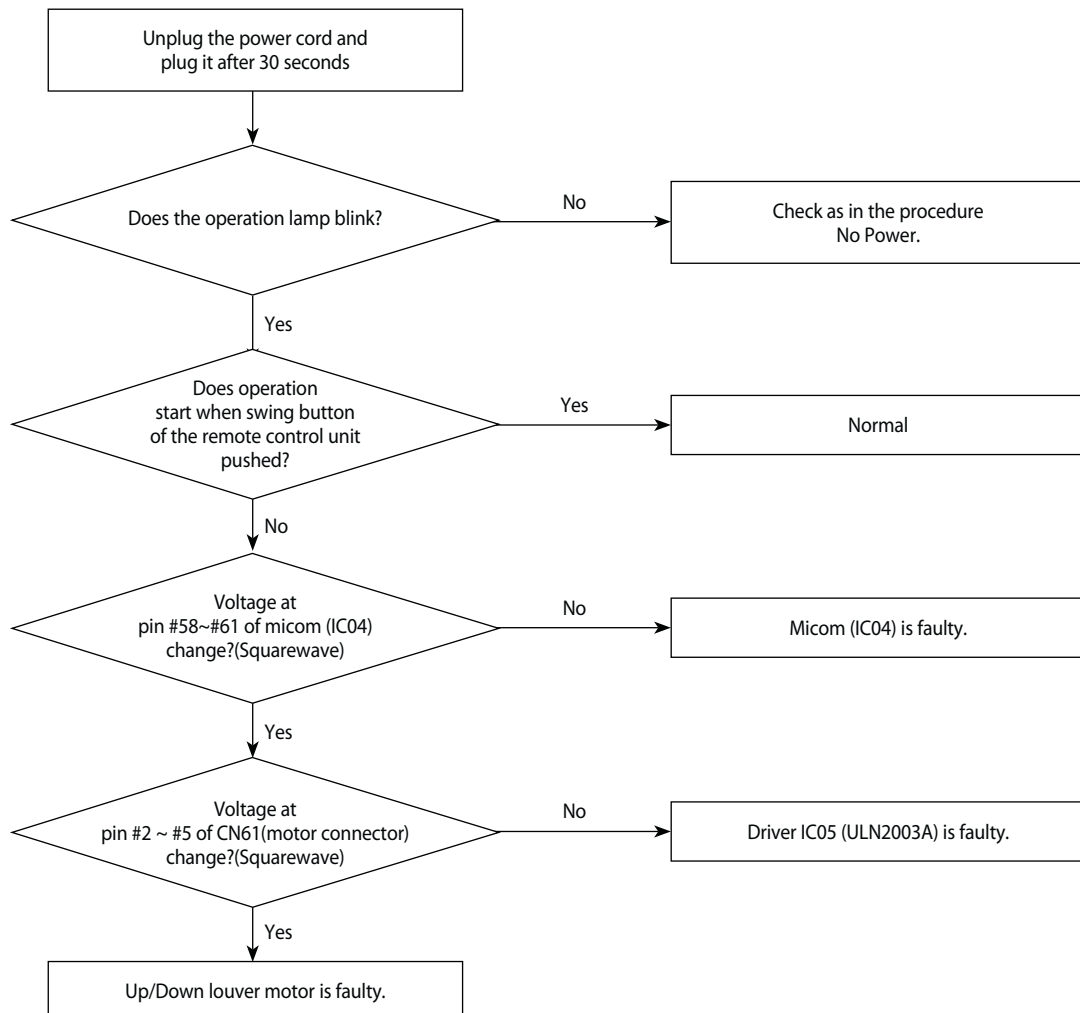
- 1) Is input voltage normal?
- 2) Is AC power linked correctly?
- 3) Is input voltage of DC regulator IC KA7805 (IC02) normal? (11VDC-12.5VDC)
- 4) Is output voltage of DC regulator IC KA7805 (IC02) normal? (4.5VDC-5.5VDC)

2. Troubleshooting procedure



4-3-7 When the Up/Down Louver Motor Does Not Operate. (Initial Diagnosis) (Not displayed)

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



4-3-8 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. 7(+) and No. 5(-) 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. 7~5 of CN91 maintains 5V after the remote control starts operation.

4-4 PCB Inspection Method

4-4-1 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.

4-4-2 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 2 parts.
 - Indoor 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

4-4-3 Indoor 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?	<ul style="list-style-type: none"> • Over current • 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 BD71 input voltage AC200V~AC240V?	<ul style="list-style-type: none"> • Power Cord is fault, Fuse open. Wrong Power Cable Wiring, AC Part is faulty.
		2) Is the voltage between both terminals of the C109 on the 2 side of the transformer DC12V \pm 0.5V?	<ul style="list-style-type: none"> • Switching Trans or Power Circuit is faulty
		3) Is the voltage between both terminals of OUT and GND of IC02(KA7805) DC5V \pm 0.5V?	<ul style="list-style-type: none"> • Power Circuit is faulty, Load Short
3	Press the ON/OFF button.	Checking the power voltage.	
		1) Is the voltage over AC180V being imposed on terminal #3 and #5 of the fan motor connector(CN72)?	<ul style="list-style-type: none"> • Fan Motor of the indoor is faulty
		2) Check the voltage of both terminals of terminal block 1 and N(1) after 3 minute operation.: AC220V	<ul style="list-style-type: none"> • 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)?	<ul style="list-style-type: none"> • Fan Motor of the indoor is faulty
		2) The fan motor of the indoor unit doesn't run.	<ul style="list-style-type: none"> • Fan Motor Connector(CN72) is faulty
		3) The power voltage between terminal #3 and #5 of the connector(CN72) is 0V.	<ul style="list-style-type: none"> • ASS'Y Main PCB is faulty • Connection is faulty

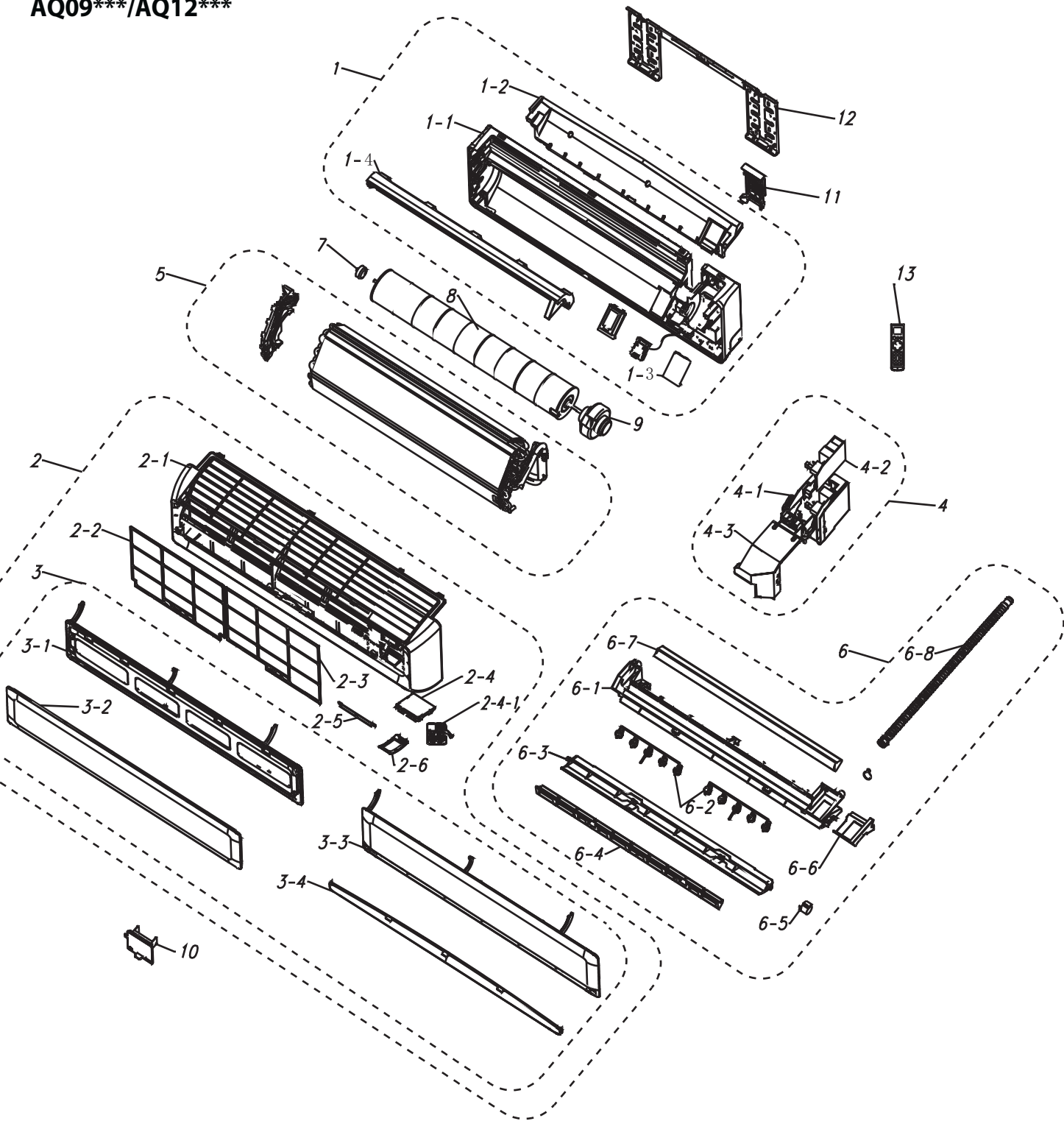
4-5 Main Part Inspection Method

Part	Breakdown Inspection Method				
Room Temperature Sensor	Measure resistance with a tester				
	Normal	At the normal temperature 37kΩ~ 8.3kΩ(-7°C~+30°C) .			
	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°C ~ 30°C)			
			Compare terminal	Resistance	Remark
		STEP MOTOR	Red-Pink,Yel,Blu,Org	120±7%	GRILLE
		STEP MOTOR	Red-Pink,Yel,Blu,Org	300±7%	BLADE
FAN MOTOR	Yellow, Blue	385Ω±10%	main		
	Yellow, Red	388Ω±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°C ~ 30°C)			
	Abnormal	∞, 0Ω . . . Open or Short			

5. Exploded Views and Parts List

5-1 Indoor Unit

AQ09***/AQ12***



■ Parts List

No.	Code No.	Description	Specification	Q' TY		SA/SNA
				AQ09UGEN	AQ12UGEN	
				AQ09UGFN	AQ12UGFN	
1	DB94-01921D	ASSY BODY BACK	ASSY	1	-	SA
	DB94-01921B			-	1	
1-1	DB61-03656A	BODY BACK	HIPS	1	1	SA
1-2	DB62-05888A	SEAL-INSUL BODY REAR	EPS (30)	1	1	SA
1-3	DB67-00845B	CAP-BODY	HIPS	1	1	SA
1-4	DB97-11561A	ASSY-INSU EVAP UP	EPS (30)	1	-	SA
2	DB92-01904T	ASSY PANEL FRONT	ASSY	1	1	SA
2-1	DB64-02124A	PANEL FRONT	HIPS	1	1	SA
2-2	DB63-02143C	FILTER-PRE L	PP	1	1	SA
2-3	DB63-02144C	FILTER-PRE R	PP	1	1	SA
2-4	DB90-05969A	ASSY CASE PCB	HIPS	1	1	SA
2-5	DB93-07043A	ASSY DISPLAY-MPI	ASSY	-	-	SA
2-6	DB90-04305E	ASSY COVER DISPLAY	ASSY	1	1	SA
3-1	DB64-02126A	GRILLE FRAME	ABS	-	-	SA
3-2	DB64-02125F	GRILLE WINDOW	ABS	-	-	SA
3-3	DB64-02127A	GRILLE-AIR INLET	ABS	1	1	SA
3-4	DB64-02543B	DECO-GRILLE	HIPS	1	1	SA
4	DB93-10853A	ASSY CONTROL IN	ASSY	1	1	SA
4-1	DB61-04578A	CASE CONTROL IN	ABS (5V)	1	1	SA
4-2	DB93-10859A	ASSY PCB MAIN IN	ASSY	1	1	SA
4-3	DB90-06302A	ASSY CASE CONTROL IN	ASSY	1	1	SA
5	DB96-12152F	ASSY EVAP TOTAL	ASSY	1	-	SA
	DB96-11109E			-	1	
6	DB94-01922A	ASSY TRAY DRAIN	ASSY	1	1	SA
6-1	DB63-02118A	TRAY DRAIN	ABS	1	1	SA
6-2	DB61-03672A	BLADE-V	PP	2	2	SA
6-3	DB61-03649A	BLADE-H	ABS	1	1	SA
6-4	DB62-05892A	INSULATION-TRAY FR	EPS	1	1	SA
6-5	DB31-00371A	MOTOR STEP	DC12V, 600gf. cm	1	1	SA
6-6	DB69-00839A	CUSHION EPS-TRAY-RH	EPS	1	1	SA
6-7	DB63-02121A	TRAY-STABILIZER	ABS	1	1	SA
6-8	DB94-01975A	ASSY DRAIN HOSE	ASSY	1	1	SA
7	DB94-00455B	ASSY RUBBER-BEARING	RUBBER	1	1	SA
8	DB94-01874A	ASSY CROSS FAN	ASSY (AS+GF20%)	1	1	SA
9	DB31-00531D	MOTOR FAN	50HZ	1	1	SA
10	DB90-04385A	ASSY COVER CONTROL IN	SGCC-M	1	1	SA
11	DB61-03666A	HOLDER-PIPE	HIPS	1	1	SA
12	DB97-02851C	ASSY PLATE HANGER	SGCC-M	1	1	SA
13	DB93-11115K	ASSY REMOCON	ASSY	1	1	SA

■ Parts List

No.	Code No.	Description	Specification	Q' TY		SA/SNA
				AQ09UGFNSER	AQ12UGFNSER	
1	DB94-01921D	ASSY BODY BACK	ASSY	1	-	SA
	DB94-01921B			-	1	
1-1	DB61-03656A	BODY BACK	HIPS	1	1	SA
1-2	DB62-05888A	SEAL-INSUL BODY REAR	EPS (30)	1	1	SA
1-3	DB67-00845B	CAP-BODY	HIPS	1	1	SA
1-4	DB97-11561A	ASSY-INSU EVAP UP	EPS (30)	1	-	SA
2	DB92-01904T	ASSY PANEL FRONT	ASSY	1	1	SA
2-1	DB64-02124A	PANEL FRONT	HIPS	1	1	SA
2-2	DB63-02143C	FILTER-PRE L	PP	1	1	SA
2-3	DB63-02144C	FILTER-PRE R	PP	1	1	SA
2-4	DB90-05969A	ASSY CASE PCB	HIPS	1	1	SA
2-5	DB93-07043A	ASSY DISPLAY-MPI	ASSY	-	-	SA
2-6	DB90-04305E	ASSY COVER DISPLAY	ASSY	1	1	SA
3-1	DB64-02126A	GRILLE FRAME	ABS	-	-	SA
3-2	DB64-02125F	GRILLE WINDOW	ABS	-	-	SA
3-3	DB64-02127A	GRILLE-AIR INLET	ABS	1	1	SA
3-4	DB64-02543B	DECO-GRILLE	HIPS	1	1	SA
4	DB93-10853B	ASSY CONTROL IN	ASSY	1	1	SA
4-1	DB61-04578A	CASE CONTROL IN	ABS (5V)	1	1	SA
4-2	DB93-10859A	ASSY PCB MAIN IN	ASSY	1	1	SA
4-3	DB90-06302A	ASSY CASE CONTROL IN	ASSY	1	1	SA
5	DB96-12152F	ASSY EVAP TOTAL	ASSY	1	-	SA
	DB96-11109E			-	1	
6	DB94-01922A	ASSY TRAY DRAIN	ASSY	1	1	SA
6-1	DB63-02118A	TRAY DRAIN	ABS	1	1	SA
6-2	DB61-03672A	BLADE-V	PP	2	2	SA
6-3	DB61-03649A	BLADE-H	ABS	1	1	SA
6-4	DB62-05892A	INSULATION-TRAY FR	EPS	1	1	SA
6-5	DB31-00371A	MOTOR STEP	DC12V, 600gf. cm	1	1	SA
6-6	DB69-00839A	CUSHION EPS-TRAY-RH	EPS	1	1	SA
6-7	DB63-02121A	TRAY-STABILIZER	ABS	1	1	SA
6-8	DB94-01975A	ASSY DRAIN HOSE	ASSY	1	1	SA
7	DB94-00455B	ASSY RUBBER-BEARING	RUBBER	1	1	SA
8	DB94-01874A	ASSY CROSS FAN	ASSY (AS+GF20%)	1	1	SA
9	DB31-00531D	MOTOR FAN	50HZ	1	1	SA
10	DB90-04385A	ASSY COVER CONTROL IN	SGCC-M	1	1	SA
11	DB61-03666A	HOLDER-PIPE	HIPS	1	1	SA
12	DB97-02851C	ASSY PLATE HANGER	SGCC-M	1	1	SA
13	DB93-11115K	ASSY REMOCON	ASSY	1	1	SA

■ Parts List

No.	Code No.	Description	Specification	Q' TY		SA/SNA
				AQ09TSAN	AQ12TSAN	
				AQ09TSBN	AQ12TSBN	
1	DB94-01921D	ASSY BODY BACK	ASSY	1	-	SA
	DB94-01921B			-	1	
1-1	DB61-03656A	BODY BACK	HIPS	1	1	SA
1-2	DB62-05888A	SEAL-INSUL BODY REAR	EPS (30)	1	1	SA
1-3	DB67-00845B	CAP-BODY	HIPS	1	1	SA
1-4	DB97-11561A	ASSY-INSU EVAP UP	EPS (30)	1	-	SA
2	DB92-02267B	ASSY PANEL FRONT	ASSY	1	1	SA
2-1	DB64-02559A	PANEL FRONT	HIPS	1	1	SA
2-2	DB63-02755A	FILTER-PRE L	PP	1	1	SA
2-3	DB63-02755A	FILTER-PRE R	PP	1	1	SA
2-4	DB90-05969A	ASSY CASE PCB	HIPS	-	-	SA
2-5	DB93-07043A	ASSY DISPLAY-MPI	ASSY	-	-	SA
2-6	DB90-06117A	ASSY COVER DISPLAY	ASSY	1	1	SA
3-1	DB64-02126A	GRILLE FRAME	ABS	-	-	SA
3-2	DB64-02125F	GRILLE WINDOW	ABS	-	-	SA
3-3	DB64-02556A	GRILLE-AIR INLET	ABS	1	1	SA
3-4	DB64-02549B	DECO-GRILLE	HIPS	1	1	SA
4	DB93-10853A	ASSY CONTROL IN	ASSY	1	1	SA
4-1	DB61-04578A	CASE CONTROL IN	ABS (5V)	1	1	SA
4-2	DB93-10859A	ASSY PCB MAIN IN	ASSY	1	1	SA
4-3	DB90-06302A	ASSY CASE CONTROL IN	ASSY	1	1	SA
5	DB96-12152F	ASSY EVAP TOTAL	ASSY	1	-	SA
	DB96-11109E			-	1	
6	DB94-02951A	ASSY TRAY DRAIN	ASSY	1	1	SA
6-1	DB63-02118A	TRAY DRAIN	ABS	1	1	SA
6-2	DB61-03672A	BLADE-V	PP	2	2	SA
6-3	DB66-01561A	BLADE-H	ABS	1	1	SA
6-4	DB62-05892A	INSULATION-TRAY FR	EPS	1	1	SA
6-5	DB31-00371A	MOTOR STEP	DC12V, 600gf. cm	1	1	SA
6-6	DB69-00839A	CUSHION EPS-TRAY-RH	EPS	1	1	SA
6-7	DB63-02121A	TRAY-STABILIZER	ABS	1	1	SA
6-8	DB94-00458D	ASSY DRAIN HOSE	ASSY	1	1	SA
7	DB94-00455B	ASSY RUBBER-BEARING	RUBBER	1	1	SA
8	DB94-01874A	ASSY CROSS FAN	ASSY (AS+GF20%)	1	1	SA
9	DB31-00531D	MOTOR FAN	50HZ	1	1	SA
10	DB90-04385A	ASSY COVER CONTROL IN	SGCC-M	1	1	SA
11	DB61-03666A	HOLDER-PIPE	HIPS	1	1	SA
12	DB97-02851C	ASSY PLATE HANGER	SGCC-M	1	1	SA
13	DB93-11115K	ASSY REMOCON	ASSY	1	1	SA

■ Parts List

No.	Code No.	Description	Specification	Q' TY		SA/SNA
				AQ09TSBNSER	AQ12TSBNSER	
1	DB94-01921D	ASSY BODY BACK	ASSY	1	-	SA
	DB94-01921B			-	1	
1-1	DB61-03656A	BODY BACK	HIPS	1	1	SA
1-2	DB62-05888A	SEAL-INSUL BODY REAR	EPS (30)	1	1	SA
1-3	DB67-00845B	CAP-BODY	HIPS	1	1	SA
1-4	DB97-11561A	ASSY-INSU EVAP UP	EPS (30)	1	-	SA
2	DB92-02267B	ASSY PANEL FRONT	ASSY	1	1	SA
2-1	DB64-02559A	PANEL FRONT	HIPS	1	1	SA
2-2	DB63-02755A	FILTER-PRE L	PP	1	1	SA
2-3	DB63-02755A	FILTER-PRE R	PP	1	1	SA
2-4	DB90-05969A	ASSY CASE PCB	HIPS	-	-	SA
2-5	DB93-07043A	ASSY DISPLAY-MPI	ASSY	-	-	SA
2-6	DB90-06117A	ASSY COVER DISPLAY	ASSY	1	1	SA
3-1	DB64-02126A	GRILLE FRAME	ABS	-	-	SA
3-2	DB64-02125F	GRILLE WINDOW	ABS	-	-	SA
3-3	DB64-02556A	GRILLE-AIR INLET	ABS	1	1	SA
3-4	DB64-02549B	DECO-GRILLE	HIPS	1	1	SA
4	DB93-10853B	ASSY CONTROL IN	ASSY	1	1	SA
4-1	DB61-04578A	CASE CONTROL IN	ABS (5V)	1	1	SA
4-2	DB93-10859A	ASSY PCB MAIN IN	ASSY	1	1	SA
4-3	DB90-06302A	ASSY CASE CONTROL IN	ASSY	1	1	SA
5	DB96-12152F	ASSY EVAP TOTAL	ASSY	1	-	SA
	DB96-11109E			-	1	
6	DB94-02951A	ASSY TRAY DRAIN	ASSY	1	1	SA
6-1	DB63-02118A	TRAY DRAIN	ABS	1	1	SA
6-2	DB61-03672A	BLADE-V	PP	2	2	SA
6-3	DB66-01561A	BLADE-H	ABS	1	1	SA
6-4	DB62-05892A	INSULATION-TRAY FR	EPS	1	1	SA
6-5	DB31-00371A	MOTOR STEP	DC12V, 600gf. cm	1	1	SA
6-6	DB69-00839A	CUSHION EPS-TRAY-RH	EPS	1	1	SA
6-7	DB63-02121A	TRAY-STABILIZER	ABS	1	1	SA
6-8	DB94-00458D	ASSY DRAIN HOSE	ASSY	1	1	SA
7	DB94-00455B	ASSY RUBBER-BEARING	RUBBER	1	1	SA
8	DB94-01874A	ASSY CROSS FAN	ASSY (AS+GF20%)	1	1	SA
9	DB31-00531D	MOTOR FAN	50HZ	1	1	SA
10	DB90-04385A	ASSY COVER CONTROL IN	SGCC-M	1	1	SA
11	DB61-03666A	HOLDER-PIPE	HIPS	1	1	SA
12	DB97-02851C	ASSY PLATE HANGER	SGCC-M	1	1	SA
13	DB93-11115K	ASSY REMOCON	ASSY	1	1	SA

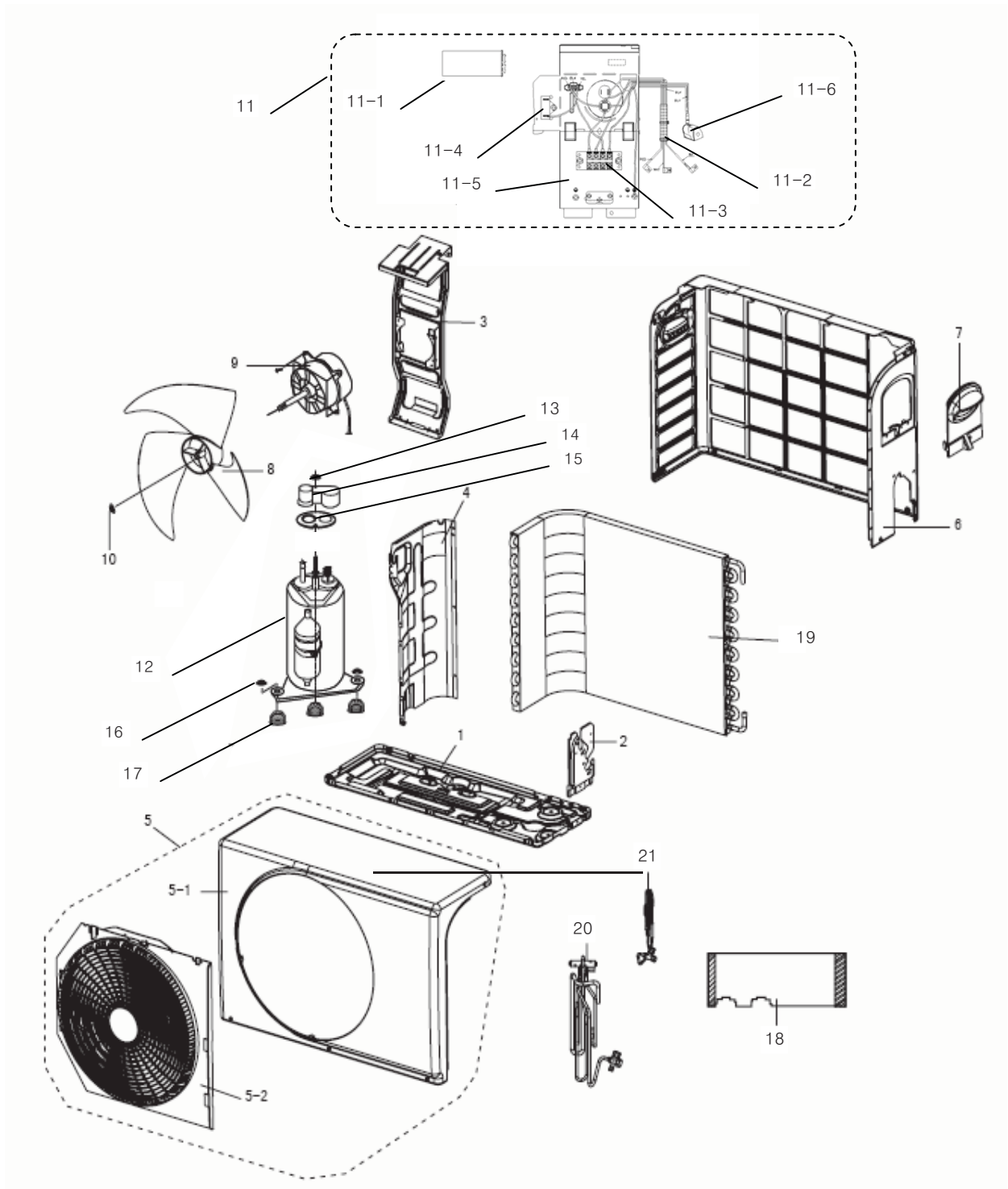
■ Parts List

No.	Code No.	Description	Specification	Q' TY		SA/SNA
				AQ09EWFNSER	AQ12EWFNSER	
1	DB94-02534B	ASSY BODY BACK	ASSY	1	-	SA
	DB94-02534A			-	1	
1-1	DB61-03656A	BODY BACK	HIPS	1	1	SA
1-2	DB62-05888A	SEAL-INSUL BODY REAR	EPS (30)	1	1	SA
1-3	DB67-00845B	CAP-BODY	HIPS	-	-	SA
1-4	DB97-11561A	ASSY-INSU EVAP UP	EPS (30)	1	-	SA
2	DB92-02248B	ASSY PANEL FRONT	ASSY	1	1	SA
2-1	DB64-02124A	PANEL FRONT	HIPS	1	1	SA
2-2	DB63-02143C	FILTER-PRE L	PP	1	1	SA
2-3	DB63-02144C	FILTER-PRE R	PP	1	1	SA
2-4	DB90-05917A	ASSY CASE PCB	HIPS	1	1	SA
2-5	DB93-07043A	ASSY DISPLAY-MPI	ASSY	1	1	SA
2-6	DB90-04305C	ASSY COVER DISPLAY	ASSY	1	1	SA
3-1	DB64-02126A	GRILLE FRAME	ABS	-	-	SA
3-2	DB64-02125C	GRILLE WINDOW	ABS	-	-	SA
3-3	DB64-02127A	GRILLE-AIR INLET	ABS	1	1	SA
3-4	DB64-02543B	DECO-GRILLE	HIPS	-	-	SA
4	DB93-10853L	ASSY CONTROL IN	ASSY	1	1	SA
4-1	DB61-04578A	CASE CONTROL IN	ABS (5V)	1	1	SA
4-2	DB93-10859A	ASSY PCB MAIN IN	ASSY	1	1	SA
4-3	DB90-06302A	ASSY CASE CONTROL IN	ASSY	1	1	SA
5	DB96-12152F	ASSY EVAP TOTAL	ASSY	1	-	SA
	DB96-11109E			-	1	
6	DB94-01922A	ASSY TRAY DRAIN	ASSY	1	1	SA
6-1	DB63-02118A	TRAY DRAIN	ABS	1	1	SA
6-2	DB61-03672A	BLADE-V	PP	2	2	SA
6-3	DB61-03649A	BLADE-H	ABS	1	1	SA
6-4	DB62-05892A	INSULATION-TRAY FR	EPS	1	1	SA
6-5	DB31-00371A	MOTOR STEP	DC12V, 600gf. cm	1	1	SA
6-6	DB69-00839A	CUSHION EPS-TRAY-RH	EPS	1	1	SA
6-7	DB63-02121A	TRAY-STABILIZER	ABS	1	1	SA
6-8	DB94-01975A	ASSY DRAIN HOSE	ASSY	1	1	SA
7	DB94-00455B	ASSY RUBBER-BEARING	RUBBER	1	1	SA
8	DB94-01874A	ASSY CROSS FAN	ASSY (AS+GF20%)	1	1	SA
9	DB31-00531D	MOTOR FAN	50HZ	1	1	SA
10	DB90-04385A	ASSY COVER CONTROL IN	SGCC-M	1	1	SA
11	DB61-03666A	HOLDER-PIPE	HIPS	1	1	SA
12	DB97-02851C	ASSY PLATE HANGER	SGCC-M	1	1	SA
13	DB93-11489C	ASSY REMOCON	ASSY	1	1	SA

5-2 Outdoor Unit

AQ09****

AQ12****



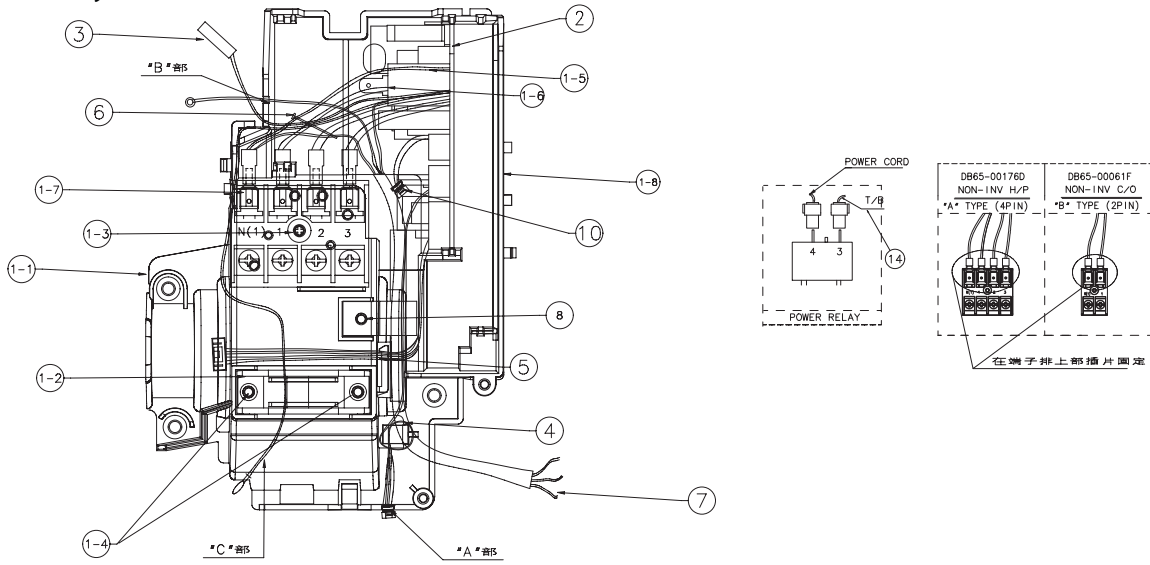
■ Parts List

No.	Code No.	Description	Specification	Q' TY		SA/SNA
				AQ09UGEX	AQ12UGEX	
				AQ09UGFX	AQ12UGFX	
				AQ09UGFXSER	AQ12UGFXSER	
				AQ09TSAX	AQ12TSAX	
				AQ09TSBX	AQ12TSBX	
				AQ09TSBSER	AQ12TSBSER	
				AQ09EWFSE	AQ12EWFSE	
1	DB90-01875A	ASSY-BASE OUT PAINT	ASSY	1	1	SA
2	DB94-00927A	ASSY BRACKET VALVE	ASSY	1	1	SA
3	DB90-04423B	ASSY BRACKET MOTOR	ASSY	1	-	SA
	DB90-04435C	ASSY BRACKET MOTOR	ASSY	-	1	SA
4	DB94-00431J	ASSY PARTION	ASSY	1	1	SA
5	DB90-02372E	ASSY CABI FRONT	ASSY	1	1	SA
5-1	DB64-01517A	CABINET FRONT	PP	1	1	SA
5-2	DB81-00650A	BELL MOUSE	PP	1	1	SA
6	DB90-04293C	ASSY CABI SIDE	ASSY	1	1	SA
7	DB63-01428A	COVER CONTROL OUT	PP	1	1	SA
8	DB67-00971B	FAN PROPELLER	AS+GF30%	1	1	SA
9	DB31-00426C	MOTOR FAN	Y5L613B512L	1	1	SA
10	DC02-10009A	SCREW MACHINE	M6*L12	1	1	SA
11	DB93-07293V	ASSY CONTROL OUT	ASSY	1	-	SA
	DB93-07293W	ASSY CONTROL OUT	ASSY	-	1	SA
11-1	2501-001237	C-OIL	35uF/450V	1	-	SA
	2501-001240	C-OIL	50uF/450V	-	1	SA
11-2	DB93-11257A	ASSY CONNECTOR WIRE	ASSY	1	1	SA
11-3	DB65-00230D	TERMINAL BLOCK	2P	1	1	SA
11-4	2301-001910	C-FILM, LEAD	1. 5uF/450VAC	1	1	SA
11-5	DB61-03752A	CASE CONTROL OUT	SGCC-M	1	1	SA
11-6	DB96-06803B	ASSY SOLENOID	ASSY	1	1	SA
12	UG4A091JUBEP	COMPRESSOR, , SET, , R410,	R410	1	-	SA
	UG4B124JXCEL	COMPRESSOR, , SET, , R410,	R410	-	1	SA
13	6021-001142	NUT-HEXGON FLANGE	M5, ZPC (YEL)	1	1	SA
14	DB63-02310A	COVER TERMINAL	NORYL	1	1	SA
15	DB63-00817B	GASKET	EPDM, RUBBER	1	1	SA
16	DB60-00319A	FLANGE-NUT	M8, ZPC (WHT)	3	3	SA
17	DB63-02296A	GROMMET ISOLATOR	44A, NR35	3	3	SA
18	DB63-02059K	FELT-COMP	-	1	-	SA
	DB63-02059L	FELT-COMP	-	-	1	SA
19	DB96-08337A	ASSY COND	ASSY	1	-	SA
	DB96-14572A	ASSY COND	ASSY	-	1	SA
20	DB96-14545A	ASSY-VALVE 4WAY	ASSY	1	-	SA
	DB96-14506A	ASSY-VALVE 4WAY	ASSY	-	1	SA
21	DB96-14508A	ASSY TUBE CAPILLARY	ASSY	-	1	SA
	DB96-08726G	ASSY TUBE CAPILLARY	ASSY	1	-	SA

6. PCB Diagram and Parts List

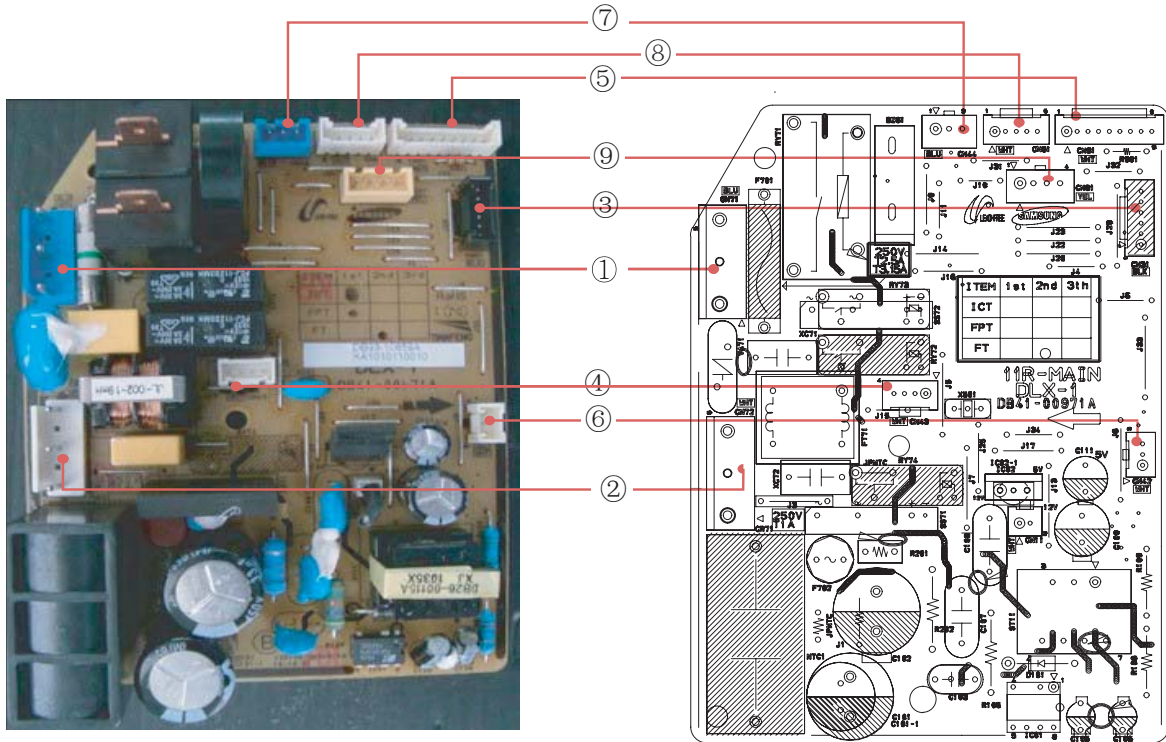
6-1. Block Diagram

6-1-1. Ass'y Control In



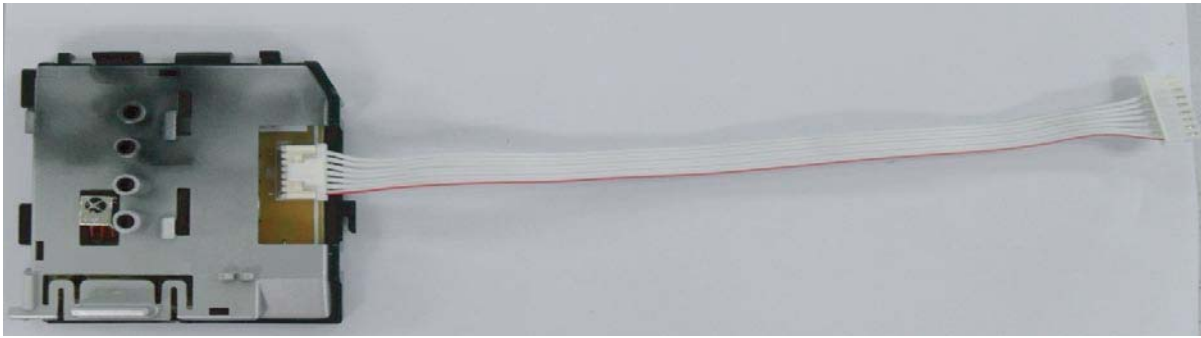
ASSY CONTROL IN CODE	DB93-10853A	DB93-10853B	DB93-10853C	DB93-10853D	DB93-10853E	DB93-10853F	DB93-10853G	DB93-10853H	DB93-10853J	DB93-10853K	DB93-10853L	DB93-10853M	DB93-10853N													
MAX 9/12K H/P	MAX 9/12K H/P	MAX 9/12K C/O	MAX 9/12K C/O	MAX 9/12K C/O	MAX 9/12K C/O	BORACAY 9/12K H/P	CRYSTAL 9/12K H/P	BORACAY 9/12K H/P	BORACAY 9/12K C/O	BORACAY 9/12K C/O	DLX型号 (有SP1灯, 有SP1按钮)	A 电源 AQ12UUAENXAX	AQ12TUBANXAX													
1.2UF	1.2UF	1.2UF	1.2UF	1.2UF	1.2UF	1.2UF	1.2UF	1.2UF	1.2UF	1.2UF	1.2UF	1.2UF	1.2UF													
EUR 欧洲 AQ09UGEN	俄罗斯 AQ12UJENSER	YCH 智利 AS12UGENSCH	XAX 墨西哥 AS12UUBENXAX	XAX 墨西哥 AS12UAENXAX	XAX 墨西哥 AS12UAENXAX	CHINA 中国 KFR-25G/TA43	XAX 墨西哥 AQ12ESBENXAX	CHINA 中国 AQ09TUANGAR	CHINA 中国 AQ12TUANGAR	CHINA 中国 AQ12TUANGAR	CHINA 中国 AQ12EWNSER	CHINA 中国 AQ12EWNSER	CHINA 中国 AQ12EWNSER													
NO	NAME	SPEC	CODE-NO	QTY	CODE-NO	QTY	CODE-NO	QTY	CODE-NO	QTY	CODE-NO	QTY	CODE-NO	QTY	CODE-NO	QTY	CODE-NO	QTY	CODE-NO	QTY	CODE-NO	QTY	CODE-NO	QTY		
1	ASSY CASE CONTROL IN	ABS+PC+5V	DB80-06302A	1	DB90-06302A	1	DB90-06302B	1	DB90-06302C	1	DB90-06302A	1	DB90-06302A	1	DB90-06302B	1	DB90-06302B	1	DB90-06302A	1	DB90-06302D	1	DB90-06302A	1		
1-1	CASE CONTROL IN		DB61-04578A	1	DB61-04578A	1	DB61-04578A	1	DB61-04578A	1	DB61-04578A	1	DB61-04578A	1	DB61-04578A	1	DB61-04578A	1	DB61-04578A	1	DB61-04578A	1	DB61-04578A	1	DB61-04578A	1
1-2	HOLDER WIRE CLAMP		DB61-01097A	1	DB61-01097A	1	DB61-01097A	1	DB61-01097A	1	DB61-01097A	1	DB61-01097A	1	DB61-01097A	1	DB61-01097A	1	DB61-01097A	1	DB61-01097A	1	DB61-01097A	1	DB61-01097A	1
1-3	SCREW	端子固定螺钉	DB91-00309A	1	DB91-00309A	1	DB91-00309A	1	DB91-00309A	1	DB91-00309A	1	DB91-00309A	1	DB91-00309A	1	DB91-00309A	1	DB91-00309A	1	DB91-00309A	1	DB91-00309A	1	DB91-00309A	1
1-4	SCREW	卡座固定	6002-000231	2	6002-000231	2	6002-000231	2	6002-000231	2	6002-000231	2	6002-000231	2	6002-000231	2	6002-000231	2	6002-000231	2	6002-000231	2	6002-000231	2	6002-000231	2
1-5	WIRE-POWER(OUT/IN,AW)	AWG #20 150mm H/P	DB93-10916A	1	DB93-10916A	1	DB93-10916A	1	DB93-10916A	1	DB93-10916A	1	DB93-10916A	1	DB93-10916A	1	DB93-10916A	1	DB93-10916A	1	DB93-10916A	1	DB93-10916A	1	DB93-10916A	1
1-5	WIRE-POWER(C/O)	AWG #20 150mm C/O	DB93-10916B	0	DB93-10916B	0	DB93-10916B	0	DB93-10916B	0	DB93-10916B	0	DB93-10916B	0	DB93-10916B	0	DB93-10916B	0	DB93-10916B	0	DB93-10916B	0	DB93-10916B	0	DB93-10916B	0
1-5	WIRE-POWER(OUT/IN,AW)	AWG #18 150mm 18K H/P AWG#	DB93-10916C	0	DB93-10916C	0	DB93-10916C	0	DB93-10916C	0	DB93-10916C	0	DB93-10916C	0	DB93-10916C	0	DB93-10916C	0	DB93-10916C	0	DB93-10916C	0	DB93-10916C	0	DB93-10916C	0
1-5	WIRE-POWER(C/O)	AWG #18 150mm 18K C/O AWG#	DB93-10916D	0	DB93-10916D	0	DB93-10916D	0	DB93-10916D	0	DB93-10916D	0	DB93-10916D	0	DB93-10916D	0	DB93-10916D	0	DB93-10916D	0	DB93-10916D	0	DB93-10916D	0	DB93-10916D	0
1-6	1/8(1) TO RY7(3)	SPH,AWG #18	DB93-08572A	1	DB93-08572A	1	DB93-08572A	1	DB93-08572A	1	DB93-08572A	1	DB93-08572A	1	DB93-08572A	1	DB93-08572A	1	DB93-08572A	1	DB93-08572A	1	DB93-08572A	1	DB93-08572A	1
1-6	1/8(1) TO RY7(3)	SPH,AWG #14 18K AWG#	DB93-05803B	0	DB93-05803B	0	DB93-05803B	0	DB93-05803B	0	DB93-05803B	0	DB93-05803B	0	DB93-05803B	0	DB93-05803B	0	DB93-05803B	0	DB93-05803B	0	DB93-05803B	0	DB93-05803B	0
1-7	TERMINAL BLOCK	[N(1),1,2,3]	DB65-00176D	1	DB65-00176D	1	DB65-00176D	1	DB65-00176D	1	DB65-00176D	1	DB65-00176D	1	DB65-00176D	1	DB65-00176D	1	DB65-00176D	1	DB65-00176D	1	DB65-00176D	1	DB65-00176D	1
1-7	TERMINAL BLOCK	[N(1),1]	DB65-00061F	0	DB65-00061F	0	DB65-00061F	0	DB65-00061F	0	DB65-00061F	0	DB65-00061F	0	DB65-00061F	0	DB65-00061F	0	DB65-00061F	0	DB65-00061F	0	DB65-00061F	0	DB65-00061F	0
1-8	LABEL BAR CORD	W75 L115	DB68-02808A	1	DB68-02808A	1	DB68-02808A	1	DB68-02808A	1	DB68-02808A	1	DB68-02808A	1	DB68-02808A	1	DB68-02808A	1	DB68-02808A	1	DB68-02808A	1	DB68-02808A	1	DB68-02808A	1
2	ASSY PCB MAIN		DB93-10859A	1	DB93-10859A	1	DB93-10859A	1	DB93-10859A	1	DB93-10859A	1	DB93-10859A	1	DB93-10859A	1	DB93-10859A	1	DB93-10859A	1	DB93-10859A	1	DB93-10859A	1	DB93-10859A	1
3	ASSY TERMINAL STOP	9/12K 24K	DB93-04570A	1	DB93-04570A	1	DB93-04570A	1	DB93-04570A	1	DB93-04570A	1	DB93-04570A	1	DB93-04570A	1	DB93-04570A	1	DB93-04570A	1	DB93-04570A	1	DB93-04570A	1	DB93-04570A	1
4	WIRE STOP MOTOR	250mm, WHITE CONNECT	DB93-04680B	1	DB93-04680B	1	DB93-04680B	1	DB93-04680B	1	DB93-04680B	1	DB93-04680B	1	DB93-04680B	1	DB93-04680B	1	DB93-04680B	1	DB93-04680B	1	DB93-04680B	1	DB93-04680B	1
5	WIRE MAIN TO DISPLAY	SPIN 200mm	DB93-10916C	1	DB93-10916C	1	DB93-10916C	1	DB93-10916C	1	DB93-10916C	1	DB93-10916C	1	DB93-10916C	1	DB93-10916C	1	DB93-10916C	1	DB93-10916C	1	DB93-10916C	1	DB93-10916C	1
6	CABLE TIE	100mm	DB65-10088C	1	DB65-10088C	1	DB65-10088C	1	DB65-10088C	1	DB65-10088C	1	DB65-10088C	1	DB65-10088C	1	DB65-10088C	1	DB65-10088C	1	DB65-10088C	1	DB65-10088C	1	DB65-10088C	1
7	ASSY POWER CORD	9/12K EUR 欧洲用:NB-PLC	DB93-06553D	1	DB93-06553D	1	DB93-06553D	1	DB93-06553D	1	DB93-06553D	1	DB93-06553D	1	DB93-06553D	1	DB93-06553D	1	DB93-06553D	1	DB93-06553D	1	DB93-06553D	1	DB93-06553D	1
7	ASSY POWER CORD	9/12K SER 俄罗斯用:20K 中国	DB93-06009B	0	DB93-06009B	0	DB93-06009B	0	DB93-06009B	0	DB93-06009B	0	DB93-06009B	0	DB93-06009B	0	DB93-06009B	0	DB93-06009B	0	DB93-06009B	0	DB93-06009B	0	DB93-06009B	0
7	ASSY POWER CORD	9/12K YAK 墨西哥用:18P 日本用	DB93-01071A	0	DB93-01071A	0	DB93-01071A	0	DB93-01071A	0	DB93-01071A	0	DB93-01071A	0	DB93-01071A	0	DB93-01071A	0	DB93-01071A	0	DB93-01071A	0	DB93-01071A	0	DB93-01071A	0
7	ASSY POWER CORD	9/12K CHINA 中国	DB93-00771C	0	DB93-00771C	0	DB93-00771C	0	DB93-00771C	0	DB93-00771C	0	DB93-00771C	0	DB93-00771C	0	DB93-00771C	0	DB93-00771C	0	DB93-00771C	0	DB93-00771C	0	DB93-00771C	0
7	ASSY POWER CORD	18K SER 俄罗斯用:12K 智利	DB93-03038B	0	DB93-03038B	0	DB93-03038B	0	DB93-03038B	0	DB93-03038B	0	DB93-03038B	0	DB93-03038B	0	DB93-03038B	0	DB93-03038B	0	DB93-03038B	0	DB93-03038B	0	DB93-03038B	0
7	ASSY POWER CORD	9/12K YAK 墨西哥用:18P 日本用	DB93-05185C	0	DB93-05185C	0	DB93-05185C	0	DB93-05185C	0	DB93-05185C	0	DB93-05185C	0	DB93-05185C	0	DB93-05185C	0	DB93-05185C	0	DB93-05185C	0	DB93-05185C	0	DB93-05185C	0
7	ASSY POWER CORD	9/12K QP 韩国	DB93-05185C	0	DB93-05185C	0	DB93-05185C	0	DB93-05185C	0	DB93-05185C	0	DB93-05185C	0	DB93-05185C	0	DB93-05185C	0	DB93-05185C	0	DB93-05185C	0	DB93-05185C	0	DB93-05185C	0
8	SCREW	电源线固定	6002-000231	1	6002-000231	1	6002-000231	1	6002-000231	1	6002-000231	1	6002-000231	1	6002-000231	1	6002-000231	1	6002-000231	1	6002-000231	1	6002-000231	1	6002-000231	1
9	LABEL BAR CORD	W75 L115	DB68-02808A	1	DB68-02808A	1	DB68-02808A	1	DB68-02808A	1	DB68-02808A	1	DB68-02808A	1	DB68-02808A	1	DB68-02808A	1	DB68-02808A	1	DB68-02808A	1	DB68-02808A	1	DB68-02808A	1
10	MP1 CONNECTOR WIRE	MP1 CONNECTOR WIRE	DB93-04695B	0	DB93-04695B	0	DB93-04695B	0	DB93-04695B	0	DB93-04695B	0	DB93-04695B	0	DB93-04695B	0	DB93-04695B	0	DB93-04695B	0	DB93-04695B	0	DB93-04695B	0	DB93-04695B	0

6-1-2. Indoor MAIN PCB



<p>①CN71(L -terminal) Power Input #1:NCD #2:LOAD CONTROL signal #3:LOAD CONTROL signal</p>	<p>②CN72-FAN MOTOR #1:Motor start Capacitor connect #3:AC phase control signal #5:Power</p>	<p>③CN31-DOWNLOAD #1:TEST #2:Vcc #3:GND #4:RESET #5:SDAT #6:SCLK</p>	<p>④CN43-TEMPERATURE SENSOR #1:Room temperature sensing #2:GND #3:Pipe temperature sensing #4:GND</p>
<p>⑤CN91-DISPLAY #1:DIO #2:CLK #3:STB #4:IRQ #5:GND #6:Vcc #7:Vovt #8:PWMLLED #9: ROOM-TEMP</p>	<p>⑥CN42-Humidity sensor #1:Output(P1) #2:Input #3:Output(P2)</p>	<p>⑦CN44-FAN MOTOR FEEDBACK #1:DC5V #2:GND #3:Feedback signal input</p>	<p>⑧CN61-STEPMOTOR #1:DC12V #2:Motor driving signal output_1 #3:Motor driving signal output_2 #4:Motor driving signal output_3 #5:Motor driving signal output_4</p>
<p>⑨CN81-SPI #1:MPI driving signal output (-) output (+) #3:DV12V</p>			

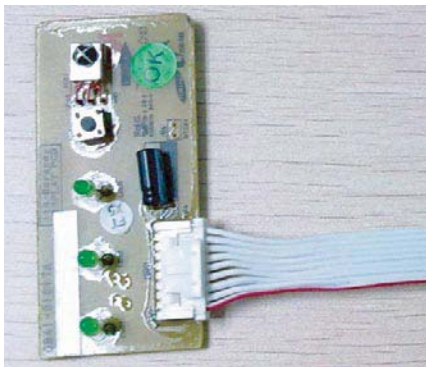
6-1-3. Indoor Display PCB



- #1: DIO
- #2: CLK
- #3: STB
- #4: IRQ
- #5: GND
- #6: Vcc
- #7: Vout



- #1: DIO
- #2: CLK
- #3: STB
- #4: IR Q
- #5: GND
- #6: Vcc
- #7: Vout
- #8: PWM-LED



- # 1: DIO
- # 2: CLK
- # 3: STB
- # 4: IRQ
- # 5: GND
- # 6: Vcc
- # 7: Vout
- # 9: NTC01

6-2. Electrical Part List

☒ Ass'y Control In PCB

LEVEL	CODE	DESC_SPEC	PARA1	PARA2	9-12K	9-12K	9-12K
					H/P	H/P	H/P
					1.2UF	1.2UF	1.2UF
					EUR 欧洲	SER 俄罗斯	XAX 墨西哥
					Q09UGE AQ12UG	AQ12UGENSER	
					Q09TSBN AQ12TSB	TSBNSER AQ09UGF	ENSER AQ12EWENSER
					DB93-10853A	DB93-10853B	DB93-10853L
1		ASSY PACKING BOX			DB90-06302A	DB90-06302A	DB90-06302A
2	*	CASE CONTROL IN			DB61-04578A		
2	DB61-01097A	HOLDER WIRE CLAMP			1		
2	DB91-00309A	SCREW	端子固定螺钉		1		
2	6002-000231	SCREW	卡座固定螺钉		2		
2	DB93-10916A	WIRE-POWER(N, OUTFAN, 4WAY)	AWG #20 150mm H/P 使用		1		
2	DB93-10916D	WIRE-POWER(N)	AWG #20 150mm C/O 使用		0		
2	DB93-10916B	WIRE-POWER(N, OUTFAN, 4WAY)	AWG #18 150mm 18K, A电源使用 H/P 使用		0		
2	DB93-10916E	WIRE-POWER(N)	AWG #18 150mm 18K, A电源使用 C/O 使用		0		
2	DB93-08572A	T/B(1) TO RY71(3)	BRN, AWG #18		1		
2	DB93-05803B		BRN, AWG #14 18K, A电源使用		0		
2	DB65-00176D	TERMINAL BLOCK	[N(1), 1, 2, 3]		1		
2	DB65-00061F		[N(1), 1]		0		
2	DB68-02809A	LABEL BAR CODE			1		
1	*	ASS'Y PCB MAIN			DB93-10859A	DB93-10859A	DB93-10859A
1	6002-000231	SCREW	电源线		1	1	1
1	*	ASS'Y DISPLAY PCB			无	无	无
1	DB63-02149B	COVER LAMP			0	0	0
1	DB95-04570A	ASS'Y THERMISTOR	9/12K 24K 使用		1	1	1
1	DB95-04570B	ASS'Y THERMISTOR	18K SMART 使用		0	0	0
1	DB93-10943G	WIRE-DISPLAY TO MAIN	VIVALDI SMART 使用		0	0	0
1	DB93-04688B	WIRE-STEP MOTOR	250mm, WHITE CONNECT		1	1	1
1	DB93-04688F	WIRE-STEP MOTOR	150mm, WHITE CONNECT		0	0	0
1	DB93-10918C	WIRE-MAIN TO DISPLAY	9PIN 200mm		1	1	1
1	DB95-01703A	ASS'Y HUMIDITY			0	0	0
1	DB93-04695B	MPI CONNECTOR WIRE	100mm		0	0	1
1	DB65-10088D	CABLE TIE	100mm		1	1	1
1	DB93-06555D	POWER CARD	9/12K EUR 欧洲向 NO-PLUG	250V/10A	1	0	0
1	3903-000095		9/12K SER 俄罗斯;XCH 智利;	250V/10A	0	1	1
1	DB39-01071A		9/12K XAX 墨西哥;XAP 巴拿马;	250V/10A	0	0	0
1	DB39-00771G		9/12K CHINA 中国;	250V/10A	0	0	0
1	DB93-03038B		18K SER 俄罗斯;XCH 智利;	250V/	0	0	0
1	DB93-03038D		XAX 墨西哥; B 电源		0	0	0
1	DB93-05185S		9/12K XAX 墨西哥;XAP 巴拿马; ;18K, A电源使用	250V/15A	0	0	0
1	DB93-05185G		9/12K GAR 阿根廷向	250V/10A	0	0	0
1	DB68-02809A	LABEL BAR CODE			1	1	1

MAIN PCB

NO	CODE	DESC. SPEC	PARA1	PARA2	LOCATION	BLOCK	DB93-10855A	DB93-10856D	DB93-10859F	SA/SNA
1	DB41-00917A	PCB, 60°120mm FR.1		PCB	MAIN PCB		1	1	1	SNA
2	3711-004379	BOX 4P, 1R, 2mm, STRAIGHT, SN, WH	SMW200-04P		CONNECT	CN43	1	1	1	SNA
3	2007-000076	6.8kohm, 1%, 1/10W, TP, 1608	6.8kohm, 1608		R-CHIP	R401	1	1	1	SNA
4	2007-000168	6.8kohm, 1%, 1/10W, TP, 1608	6.8kohm, 1608		R-CHIP	R402	1	1	1	SNA
5	2007-000076	330ohm, 5%, 1/10W, TP, 1608	330ohm, 1608		R-CHIP	R403	1	1	1	SNA
6	2007-000076	330ohm, 5%, 1/10W, TP, 1608	330ohm, 1608		R-CHIP	R404	1	1	1	SNA
7	2203-005249	100nf, 10%, 50V, X7R, TP, 100nf	100nf, 1608		C-CHIP	C401	1	1	1	SNA
8	2203-005249	100nf, 10%, 50V, X7R, TP, 100nf	100nf, 1608		C-CHIP	C402	1	1	1	SNA
9	1103-001283	124C0888, BRN, 1Kx8, SOP, 4P, 4.9k	124C0888, BRN, 1Kx8, SOP, 4P, 4.9k		IC-EEPROM	R503	1	1	1	SNA
10	2007-000084	4.7kohm, 5%, 1/10W, TP, 1608	4.7kohm, 1608		R-CHIP	R502	1	1	1	SNA
11	2007-000084	4.7kohm, 5%, 1/10W, TP, 1608	4.7kohm, 1608		R-CHIP	R503	1	1	1	SNA
12	2007-000084	4.7kohm, 5%, 1/10W, TP, 1608	4.7kohm, 1608		R-CHIP	R504	1	1	1	SNA
13	3002-001129	BUZZER, PIEZO, 85DB, ... 2KHZ	CBE220BPC / TDP-2020P		BUZZER	B261	1	1	1	SNA
14	2007-000076	R-CHIP, 330ohm, 5%, 1/10W, TP, 1608	330-J, 1608		R-CHIP	R601	1	1	1	SNA
15	2007-000076	R-CHIP, 330ohm, 5%, 1/10W, TP, 1608	330-J, 1608		R-CHIP	R602	1	1	1	SNA
16	0901-000834	TR-SMALL SIGNAL, ZSC2412K, NPN	ZSC2412K		TR-SMALL SIGNAL	Q801	1	1	1	SNA
17	3711-000879	SMW250-03	AC, 1.5(3.0V, 1)		CONNECT	CN44	1	1	1	SNA
18	2007-000076	R-CHIP, 1Kohm, 5%, 1/10W, TP, 1608	1K-J		R-CHIP	R405	1	1	1	SNA
19	2007-000076	R-CHIP, 6.8kohm, 5%, 1/10W, TP, 1608	6.8K-J		R-CHIP	R406	1	1	1	SNA
20	2007-000076	R-CHIP, 1Kohm, 5%, 1/10W, TP, 1608	1K-J		R-CHIP	R407	1	1	1	SNA
21	0901-000834	TR-SMALL SIGNAL, ZSC2412K, NPN	ZSC2412K		TR-SMALL SIGNAL	Q401	1	1	1	SNA
22	2203-005249	C-CER, CHIP, 100nf, 10%, 50V, X7R, TP, 100nf	100nf		C-CHIP	C403	1	1	1	SNA
23	0506-000175	TR-ARRAY, 2003, NPN, 7, 1W, SOP-16	SULN2003D013TR		TR-ARRAY	IC05	1	1	1	SNA
24	2203-005249	C-CER, CHIP, 100nf, 10%, 50V, X7R, TP, 100nf	100nf, 1608		C-CHIP	C504	1	1	1	SNA
25	3711-000879	SMW250-03	STEP MOTOR CONNECTOR		CONNECT	CN63	1	1	1	SNA
26	2203-005249	100nf, 10%, 50V, X7R, TP, 100nf	100nf, 1608		C-CER, CHIP	C201	1	1	1	SNA
27	0604-001172	PHOTO-COUPLER	TLP181-GRH-TPL		PHOTO-COUPLER	PC02	1	1	1	SNA
28	2007-000084	R-CHIP, 1.5K	1.5K-J		R-CHIP	R206	1	1	1	SNA
29	2007-000076	R-CHIP, 1Kohm, 5%	1Kohm, 5%		R-CHIP	R207	1	1	1	SNA
30	3711-000879	SMW250-03	CONNECT		CONNECT	CN61	1	1	1	SNA
31	2203-005249	100nf, 10%, 50V, X7R, TP, 1608	100nf, 1608		C-CHIP	C301	1	1	1	SNA
32	2203-005249	100nf, 10%, 50V, X7R, TP, 1608	100nf, 1608		C-CHIP	C303	1	1	1	SNA
33	2203-005249	4.7kohm, 5%, 1/10W, TP, 1608	4.7kohm, 1608		R-CHIP	R301	1	1	1	SNA
34	2007-000084	4.7kohm, 5%, 1/10W, TP, 1608	4.7kohm, 1608		R-CHIP	R302	1	1	1	SNA
35	2007-000076	1Kohm, 5%	1.0kohm, 1608		R-CHIP	R304	1	1	1	SNA
36	2007-001318	R-CHIP, 1Kohm, 5%, 1/4W, TP, 3216	1.0kohm, 3216		R-CHIP	R305	1	1	1	SNA
37	2007-000090	10kohm, 5%, 1/10W, TP, 1608	10kohm, 1608		R-CHIP	R306	1	1	1	SNA
38	1203-006249	IC-VOL. DETECTOR	KIA7033AT, TSM, SP		RESET IC	IC06	1	1	1	SNA
39	2007-000076	1Kohm, 5%	1.0kohm, 1608		R-CHIP	R303	1	1	1	SNA
40	2203-005249	100nf, 10%, 50V, X7R, TP, 100nf	100nf, 1608		C-CHIP	C302	1	1	1	SNA
41	2007-000168	R-CHIP, 1Mohm, 5%, 1/10W, TP, 1608	1Mohm, 1608		R-CHIP	R307	1	1	1	SNA
42	2802-001198	RESONATOR-CERAMIC, 10MHZ, 0.5%	10MHZ		RESONATOR-C	X501	1	1	1	SNA
43	DB91-01167A	NICOM	ASSY-MIC		IC04	1	1	1	1	SNA
44	DB93-00088A	IC-MICOM	S3F84VBXZ2-QT8B		IC-MICOM	IC04-1	1	1	1	SNA
45	2203-005249	10nf, 10%, 50V, X7R, TP, 1608	10nf, 1608		C-CHIP	C501	1	1	1	SNA
46	2203-005249	100nf, 10%, 50V, X7R, TP, 100nf	100nf, 1608		C-CHIP	C502	1	1	1	SNA
47	2203-005249	100nf, 10%, 50V, X7R, TP, 100nf	100nf, 1608		C-CHIP	C503	1	1	1	SNA
48	3501-001268	RELAY-POWER, 12V, 0.9W, 25000mA, SPST, 20mS, 10mS			RELAY	RY71	1	1	1	SNA
49	3711-000262	AC MOTOR CONNECT	VW396-05AV		CONNECT	CN72	1	1	1	SNA
50	3502-000115	SSR	AOQ2212-12		SSR	SS71	1	1	1	SNA
51	2001-000429	1Kohm, 5%, 1/8W, AA, TP, 1.8x3.2mm	1Kohm, 3216		R-CARBON	R901	1	1	1	SNA
52	2007-000076	R-CHIP, 1Kohm, 5%, 1/10W, TP, 1608	1Kohm, 1608		R-CHIP	R902	1	1	1	SNA
53	2203-000440	C-CER, CHIP, 1nf, 10%, 50V, X7R, TP, 16	1nf, 1608		C-CHIP	C801	1	1	1	SNA
54	1405-000180	VARISTOR-80V, 4500A, 17.5x5.5mm	80V, 4500A, 17.5x5.5mm		VARISTOR	VA71	1	1	1	SNA
55	DB93-00088A	RESONATOR-CAP	RESONATOR-CAP, 7-CAP		RESONATOR-CAP	CA71	1	1	1	SNA
56	2301-000232	100nf, 10%, 275V	12.5X6X12.0		C-FILM	KC72	1	1	1	SNA
57	DB27-00017A	COIL, CHOKER, JL-504, 15mH	6-004-15MH		COIL, CHOKER	FT71	1	1	1	SNA
58	3001-001298	USIB, RADIAL, LEAD, 250V, 1A, TIME, L&D	L1-5101H		FUSE, RADIAL	FR02	1	1	1	SNA
59	0402-001298	DIODE-BRIDGE, DF06S, 600V, 1A, SMD	DF06S		DIODE-BRIDGE	BD71	1	1	1	SNA
60	2003-000706	4.7kohm, 5%, 2W, AA, TP, 4.3x12mm	4.7kohm, 1608		R-META, OXIDE	R105	1	1	1	SNA
61	2007-000983	C-CERAMIC, DISC	1NF, 10%, 2KV		C-CERAMIC	C103	1	1	1	SNA
62	2007-000781	R-CHIP, 33ohm, 5%, 1/8W, TP, 2012	33-J		R-CHIP	R106	1	1	1	SNA
63	0402-000029	DIODE-RECTIFIER, 1N4007, 10V, 1A	1N4007		DIODE-RECTIF	D101	1	1	1	SNA
64	0402-001427	DIODE-RECTIFIER, ESTD, 200V, 1A, DIES	200V/1A		D102	1	1	1	1	SNA
65	0402-001192	ES2D, 200V, 2A, SMD, TP	200V, 2A		D103	1	1	1	1	SNA
66	2201-000987	C-CERAMIC, DISC	2.2nf		C-CHIP	C107	1	1	1	SNA
67	2201-000987	C-CERAMIC, DISC	2.2nf		C-CHIP	C108	1	1	1	SNA
68	2401-001998	C-AL	1000uf, 20%, 25V, GP, TP, 10x20.5mm		C-AL	C109	1	1	1	SNA
69	2007-000076	100nf, 10%, 50V, X7R, TP, 100nf	100nf, 1608		C-CER, CHIP	C110	1	1	1	SNA
70	2401-000607	C-AL	220nf, 20%, 16V, GP, TP, 8x11.5, 5.0		C-CER, CHIP	C111	1	1	1	SNA
71	2203-005249	100nf, 10%, 50V, X7R, TP, 100nf	100nf, 1608		C-CER, CHIP	C112	1	1	1	SNA
72	2203-005249	100nf, 10%, 50V, X7R, TP, 100nf	100nf, 1608		C-CER, CHIP	C113	1	1	1	SNA
73	2203-005249	100nf, 10%, 50V, X7R, TP, 100nf	100nf, 1608		C-CER, CHIP	C104	1	1	1	SNA
74	2401-000618	C-AL	10uf, 20%, 20V, GP, TP, 8x11.5		C-AL	IC05	1	1	1	SNA
75	2401-000640	C-AL	10uf, 20%, 50V, GP, TP, 8x11.5		C-AL	C106	1	1	1	SNA
76	2007-001074	6.8ohm, 5%, 1/8W, TP, 2012	6.8ohm, 2012		R-CHIP	R107	1	1	1	SNA
77	2007-000076	100ohm, 5%, 1/10W, TP, 1608	100ohm, 1608		R-CHIP	R110	1	1	1	SNA
78	2007-000081	2.7kohm, 5%, 1/10W, TP, 1608	2.7kohm, 1608		R-CHIP	R111	1	1	1	SNA
79	2007-000077	R-CHIP	470-J		R-CHIP	R112	1	1	1	SNA
80	1203-000608	IC-CONTROL	IC23-233N, DIP, TP, 6.35x9.57mm, PLAS		IC-CONTROL	IC21	1	1	1	SNA
81	DB26-00115A	TRANS			ST11	1	1	1	1	SNA
82	0604-001052	PHOTO-COUPLER, TR, 100-600%, 200	TLP181-GB		CONNECT	CN71	1	1	1	SNA
83	0504-001054	TR, DIGITAL	DTC114EKA	200mW		G101	1	1	1	SNA
84	0403-001285	DIODE-ZENER	BZX84-C11	11V/350mW		ZD01	1	1	1	SNA
85	0403-000291	DIODE-ZENER	BZX84C39B	8.2V/225mW		ZD02	1	1	1	SNA
86	DB93-10917A	2 PIN HARNESS				CN11	1	1	1	SNA
87	3711-000260	AC MOTOR CONNECT	VW396-05AV		BLU	CN71	1	1	1	SNA
88	2007-000076	R-CHIP	0ohm, 5%, 1/4W, TP, 3216		JUMPER WIRE	J2	1	1	1	SNA
89	3812-001283	JUMPER WIRE			JUMPER WIRE	J3	1	1	1	SNA
90	3812-001283	JUMPER WIRE			JUMPER WIRE	J4	1	1	1	SNA
91	3812-001283	JUMPER WIRE			JUMPER WIRE	J5	1	1	1	SNA
92	3812-001283	JUMPER WIRE			JUMPER WIRE	J6	1	1	1	SNA
93	3812-001283	JUMPER WIRE			JUMPER WIRE	J7	1	1	1	SNA
94	3812-001283	JUMPER WIRE			JUMPER WIRE	J8	1	1	1	SNA
95	3812-001283	JUMPER WIRE			JUMPER WIRE	J9	1	1	1	SNA
96	3812-001283	JUMPER WIRE			JUMPER WIRE	J10	1	1	1	SNA
97	3812-001283	JUMPER WIRE			JUMPER WIRE	J11	1	1	1	SNA
98	2007-000033	R-CHIP	0ohm, 5%, 1/4W, TP, 3216		JUMPER WIRE	J12	1	1	1	SNA
99	3812-001283	JUMPER WIRE			JUMPER WIRE	J13	1	1	1	SNA
100	3812-001283	JUMPER WIRE			JUMPER WIRE	J14	1	1	1	SNA
101	3812-001283	JUMPER WIRE			JUMPER WIRE	J15	1	1	1	SNA
102	3812-001283	JUMPER WIRE			JUMPER WIRE	J16	1	1	1	SNA
103	3812-001283	JUMPER WIRE			JUMPER WIRE	J17	1	1	1	SNA

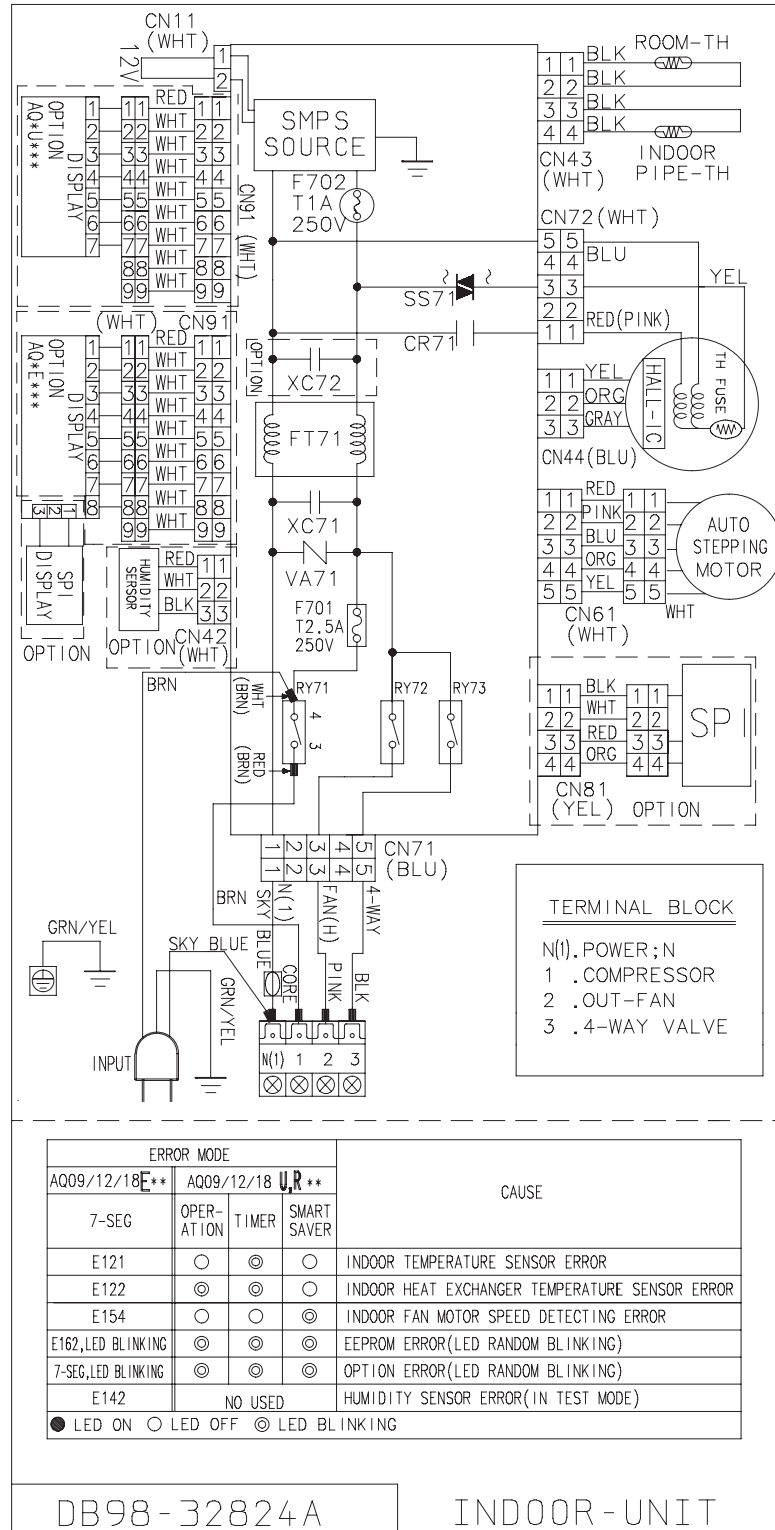
■ Display PCB

NO	REF	CODE	DESC_SPEC	在DB93-08490A上变	在DB93-08490B上	VENDOR
				更CN01, LED	变更CN01, LED	
				DB90-05969A	无	
				DB93-11009A	DB93-11009B	
1	C01	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	1	WALSIN
2	C02	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	1	WALSIN
3	C03	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	1	WALSIN
4	C04	2401-002619	47uF,20%,25V,GP,TP,5x11,5	1	1	SAMY
5	R01	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	1	UNI-OHM
6	R02	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	1	UNI-OHM
7	R03	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	1	UNI-OHM
8	R04	2007-001318	R-CHIP;1Kohm,5%,1/4W,TP,3216	1	1	UNI-OHM
9	R05	2007-001318	R-CHIP;1Kohm,5%,1/4W,TP,3216	1	1	UNI-OHM
10	R06	2007-001318	R-CHIP;1Kohm,5%,1/4W,TP,3216	1	1	UNI-OHM
11	R07	2007-001318	R-CHIP;1Kohm,5%,1/4W,TP,3216	1	1	UNI-OHM
12	R08	2007-001318	R-CHIP;1Kohm,5%,1/4W,TP,3216	1	1	UNI-OHM
13	R09	2007-001318	R-CHIP;1Kohm,5%,1/4W,TP,3216	1	1	UNI-OHM
14	J1	2001-000436	JUMPER	1	1	吴江永昌
15	J2	2001-000436	JUMPER	1	1	吴江永昌
16	J3	2001-000436	JUMPER	1	1	吴江永昌
17	J4	2001-000436	JUMPER	1	1	吴江永昌
18	J5	2001-000436	JUMPER	1	1	吴江永昌
19	J6	2001-000436	JUMPER	1	1	吴江永昌
20	LED4	0601-003048	ROUND,GRN,3 PI,573mm,3.0x5.0mm	0	1	DIGITECH
21	LED5	0601-003048	ROUND,GRN,3 PI,573mm,3.0x5.1mm	1	1	DIGITECH
22	LED6	0601-003048	ROUND,GRN,3 PI,573mm,3.0x5.2mm	1	1	DIGITECH
23	LED7	0601-003048	ROUND,GRN,3 PI,573mm,3.0x5.0mm	1	0	DIGITECH
24	SW01	3404-001220	12V,50mA,160gf,6.1x6.1x5.0mm	1	1	HUAJIE
25	D01	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-3	1	1	SEMTECH
26	IC01	0609-001393	346HF10AP (16.4mm)	1	1	AUK
27	Q01	0504-000127	TR,FJV3102RMTF,NPN,200MW,10K/10K,SOT-	1	1	KEC/FAIRCHILD
28	Q02	0504-000127	TR,FJV3102RMTF,NPN,200MW,10K/10K,SOT-	1	1	KEC/FAIRCHILD
29	Q03	0504-000127	TR,FJV3102RMTF,NPN,200MW,10K/10K,SOT-	1	1	KEC/FAIRCHILD
30	CN01	DB93-11002B	PCB 处7PIN,空中对接 9 PIN 200±10 (直接焊接	0	0	JIULI
30	CN01	DB93-11002D	PCB 处7PIN,非空中对接 9 PIN 200±10 (直接焊	0	0	JIULI
30	CN01	3711-005223	SMAW200-07,WHT	1	0	JIULI
30	CN01	3711-005223	SMAW200-07,WHT	0	1	JIULI
31	PCB BOARD	DB41-00866A	FR-1,T1.6 ,Vivaldi VE Display	1	1	DAZHAN
32	CASE-PCB	DB61-03648A	CASE PCB	1	X	YAJING/ YUEFE
33	BUTTON-POWE	DB64-02139A	BUTTON POWER CASE	1	X	HENGMA/YUEFE
30	CN01	DB93-10943F	DISPLAY TO MAIN 200mm	1	0	JIULI

NO	REF	CODE	DESC_SPEC	PARA1	PARA2	Deluxe	VENDOR
						MPI Lamp 有 Humidity Filter clean 在DB93-06984W的基础上, 变更线束和LED DB90-05917A DB93-11010A	
1	7-SEG	DB07-00185A	DGD-E7220W-21,Vivaldi-P/J,-,-,-,-	WHT	*	1	DIGITEK
2	LED1	0601-003048	ROUND,GRN,3 PI,573mm,3.0x5.0f	3mm	GRN	1	DIGITECH
3	LED2	0601-003048	ROUND,GRN,3 PI,573mm,3.0x5.0f	3mm	GRN	1	DIGITECH
4	LED3	0601-003048	ROUND,GRN,3 PI,573mm,3.0x5.0f	3mm	GRN	1	DIGITECH
5	LED4	0601-003048	ROUND,GRN,3 PI,573mm,3.0x5.0f	3mm	GRN	0	DIGITECH
6	LED5	0601-003048	ROUND,GRN,3 PI,573mm,3.0x5.0f	3mm	GRN	0	DIGITECH
7	LED6	0601-003048	ROUND,GRN,3 PI,573mm,3.0x5.0f	3mm	GRN	1	DIGITECH
8	LED7	0601-003048	ROUND,GRN,3 PI,573mm,3.0x5.0f	3mm	GRN	1	DIGITECH
9	C05	2401-002619	47uF,20%,25V,GP,TP,5x11,5	*	25V	1	SAMY
10	CN02	3711-004386	HEADER-BOARD TO CABLE,BOX	SMAW200-03	WHT	1	YEONHO
11	Q01	0501-002296	TR-SMALL SIGNAL,MMST2907A,PNP,200MW,SMT3,TP,100-300			1	ROHM
12	R05	2007-000293	100ohm,5%,1/4W,TP,3216	*	1/4W, 3216	1	UNI-OHM
13	I01	2001-000436	12.5mm	JUMPER	12.5mm	0	吴江永昌
14	I02	2001-000436	12.5mm	JUMPER	12.5mm	0	吴江永昌
15	CN01	DB93-11002A	PCB 处8PIN,空中对接 9 PIN	200mm	8PIN	0	JIULI
15	CN01	3711-003846	BOX,8P,1R,2mm,ANGLE,SN,WHT	SMAW200-08	WHT	1	JIULI
16	C01	2401-002619	47uF,20%,25V,GP,TP,5x11,5	*	25V	1	SAMY
17	C02	2203-000192	C-CER,CHIP:100nF,+80-20%,50V,*	*	50V, 2012	1	WALSIN
18	C03	2203-000192	C-CER,CHIP:100nF,+80-20%,50V,*	*	50V, 2012	1	WALSIN
19	C04	2203-000444	C-CER,CHIP:1nF,10%,50V,X7R,20*	*	50V, 2012	1	WALSIN
20	C06	2203-000444	C-CER,CHIP:1nF,10%,50V,X7R,20*	*	50V, 2012	1	WALSIN
21	C07	2203-001562	C-CER,CHIP:10nF,+80-20%,50V,Y*	*	50V, 2012	1	WALSIN
22	C08	2203-001562	C-CER,CHIP:10nF,+80-20%,50V,Y*	*	50V, 2012	1	WALSIN
23	D01	0401-000133	DIODE-SWITCHING;RLS4148,75V	RLS4148	100V/200mA	1	SEMTECH
24	D02	0401-000133	DIODE-SWITCHING;RLS4148,75V	RLS4148	100V/200mA	1	SEMTECH
25	IC01	1003-002078	IC-LED DRIVER;STLED316S,SO2*	*	*	1	STM
26	IC02	0609-001393	346HF10AP (16.4mm)	346HF10A	38KHz	1	AUK
27	ZD01	0403-000258	DIODE-ZENER;BZX84C5V6,5.2-6V	BZX84C5V6	5.6V/225mW	1	VISHAY
28	R01	2007-000300	R-CHIP;10Kohm,5%,1/8W,TP,2012*	*	1/8W, 2012	1	UNI-OHM
29	R02	2007-000300	R-CHIP;10Kohm,5%,1/8W,TP,2012*	*	1/8W, 2012	1	UNI-OHM
30	R03	2007-000468	R-CHIP;1Kohm,5%,1/8W,TP,2012*	*	1/8W, 2012	1	UNI-OHM
31	R04	2007-000947	R-CHIP;47ohm,5%,1/8W,TP,2012*	*	1/8W, 2012	1	UNI-OHM
32	R06	2007-000300	10Kohm,5%,1/8W,TP,2012*	*	1/8W, 2012	1	UNI-OHM
33	SW01	3404-001220	SWITCH-TACT;12V,50mA,160gf,6	TSTB-2	12V/50mA	1	HUALIE
34	PCB	DB41-01050A	DISPLAY PCB,FR1,64*74	FR1		1	Dazhan
35	I1	2001-000436	10mm	JUMPER	10mm	1	吴江永昌
36	I2	2001-000436	10mm	JUMPER	10mm	1	吴江永昌
37	I3	2001-000436	12.5mm	JUMPER	12.5mm	1	吴江永昌
38	I4	2001-000436	10mm	JUMPER	10mm	1	吴江永昌
39	I5	2001-000436	10mm	JUMPER	10mm	1	吴江永昌
40	I6	2001-000436	10mm	JUMPER	10mm	1	吴江永昌
41	I7	2001-000436	10mm	JUMPER	10mm	1	吴江永昌
42	I8	2001-000436	7.5mm	JUMPER	7.5mm	1	吴江永昌
43	I9	2001-000436	10mm	JUMPER	10mm	1	吴江永昌
44	I10	2001-000436	12.5mm	JUMPER	12.5mm	1	吴江永昌
45	I11	2001-000436	10mm	JUMPER	10mm	1	吴江永昌
46	BUTTON-PO	DB64-02139A	BUTTON POWER CASE	Standard	*	0	HENGMA/YUEFEI
47	BUTTON-PO	DB64-02122A	BUTTON POWER CASE	Deluxe	*	1	YUEFEI
48	CASE-PCB	DB61-03648A	CASE PCB	ALL	*	1	YALING/ YUEFEI
49	COVER LAM	DB63-02149B	COVER LAMP			0	LANBO/TONGHU
50	TAPE-AL	DB74-00056A	TAPE-AL (数量为2EA)			0	JTCHEN2
51	CN01	DB93-10943E	BOX,8P,1R,2mm,ANGLE,SN,WHT	SMAW200-08	WHT	1	JIULI

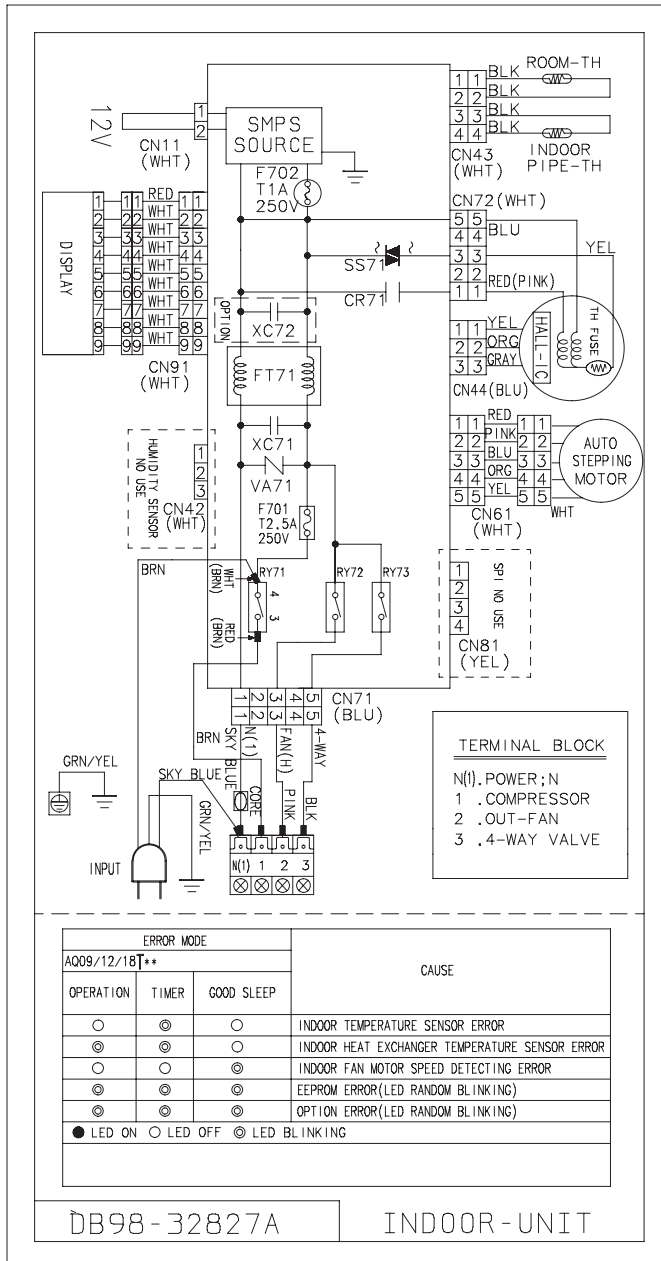
7. Wiring Diagram

■ AQ09UGEN AQ09UGFN AQ09UGFNSER AQ09EWFNSER
AQ12UGEN AQ12UGFN AQ12UGFNSER AQ12EWFNSER

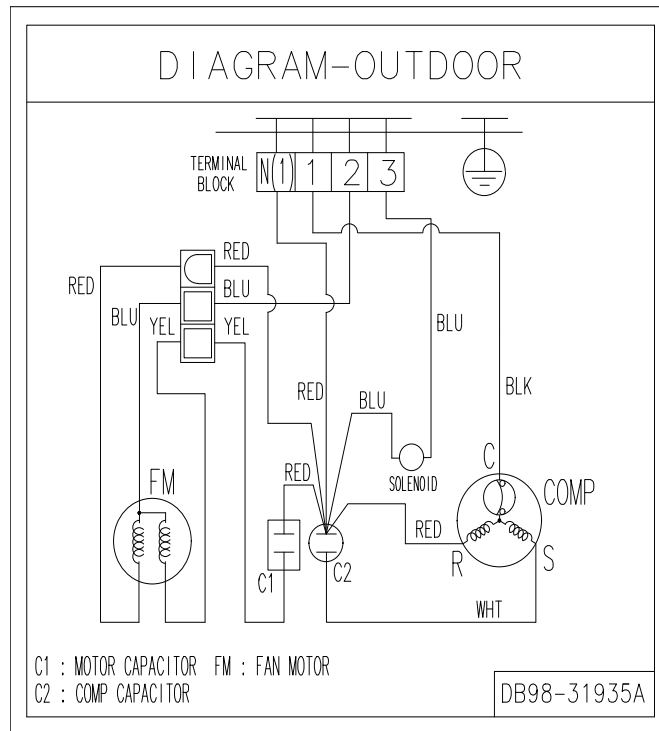


7. Wiring Diagram

- AQ09TSAN AQ09TSBN AQ09TSBNSER
- AQ12TSAN AQ12TSBN AQ12TSBNSER



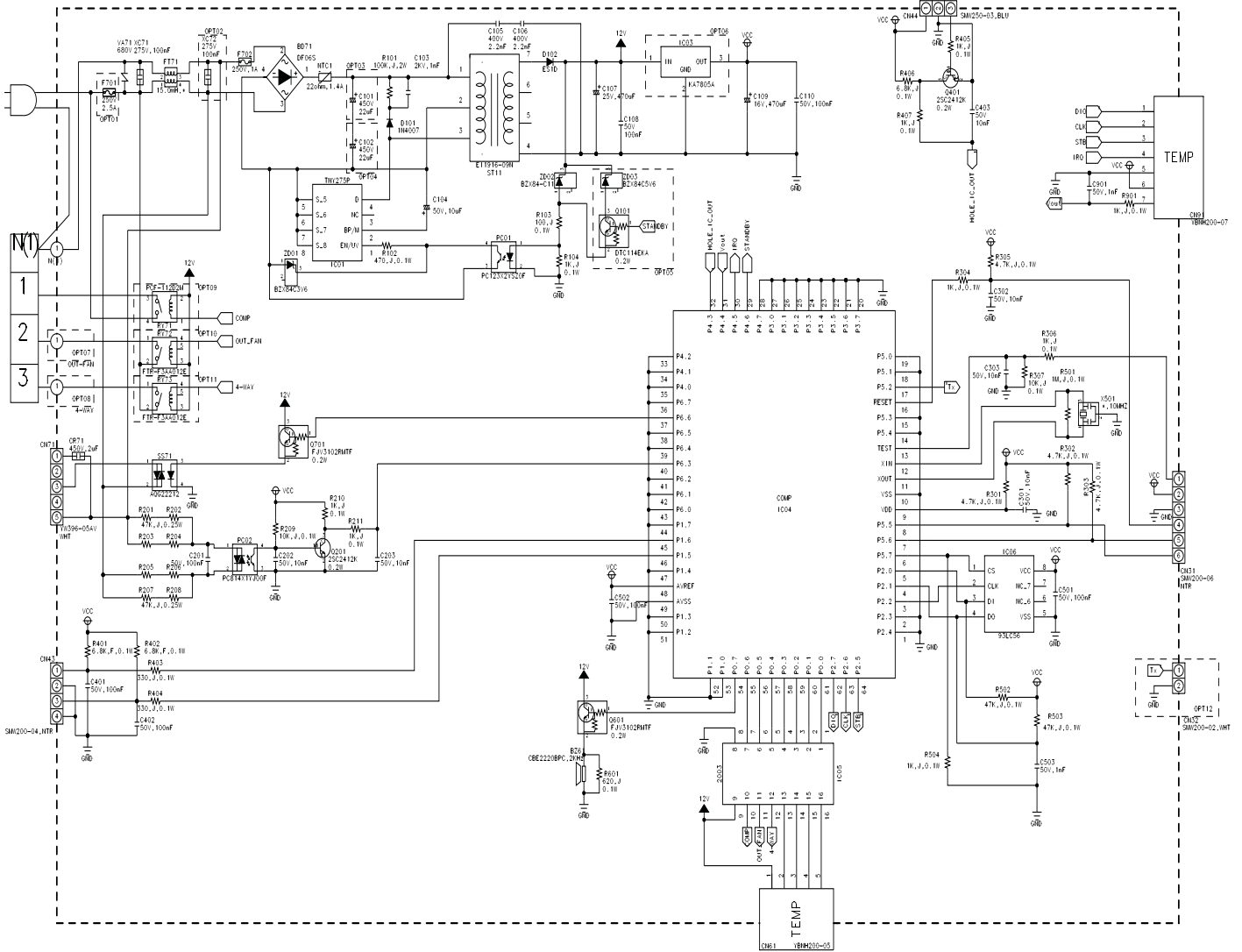
■ AQ09****
 AQ12****



8.Schematic Diagram

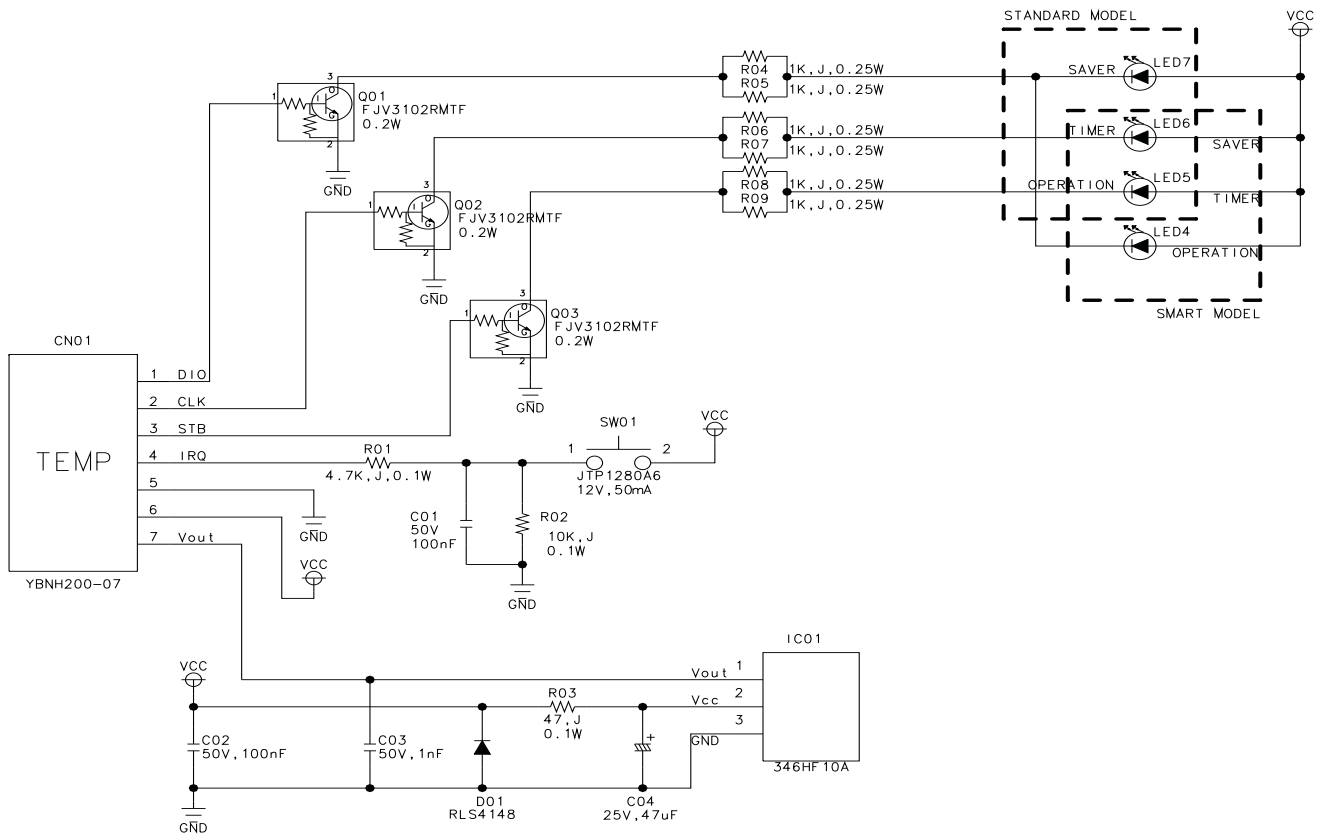
8-1.PCB Circuit Description

8-1-1.Indoor Unit



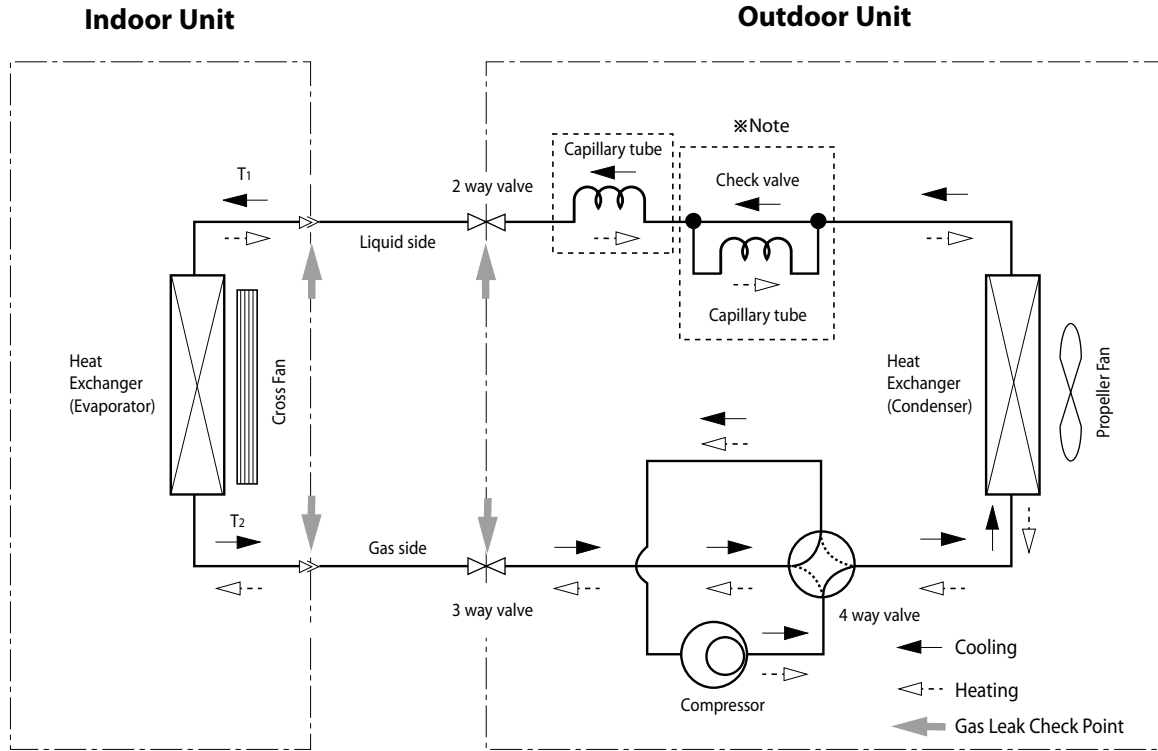
8-1.PCB Circuit Description

8-1-2.Display



9. Reference Sheet

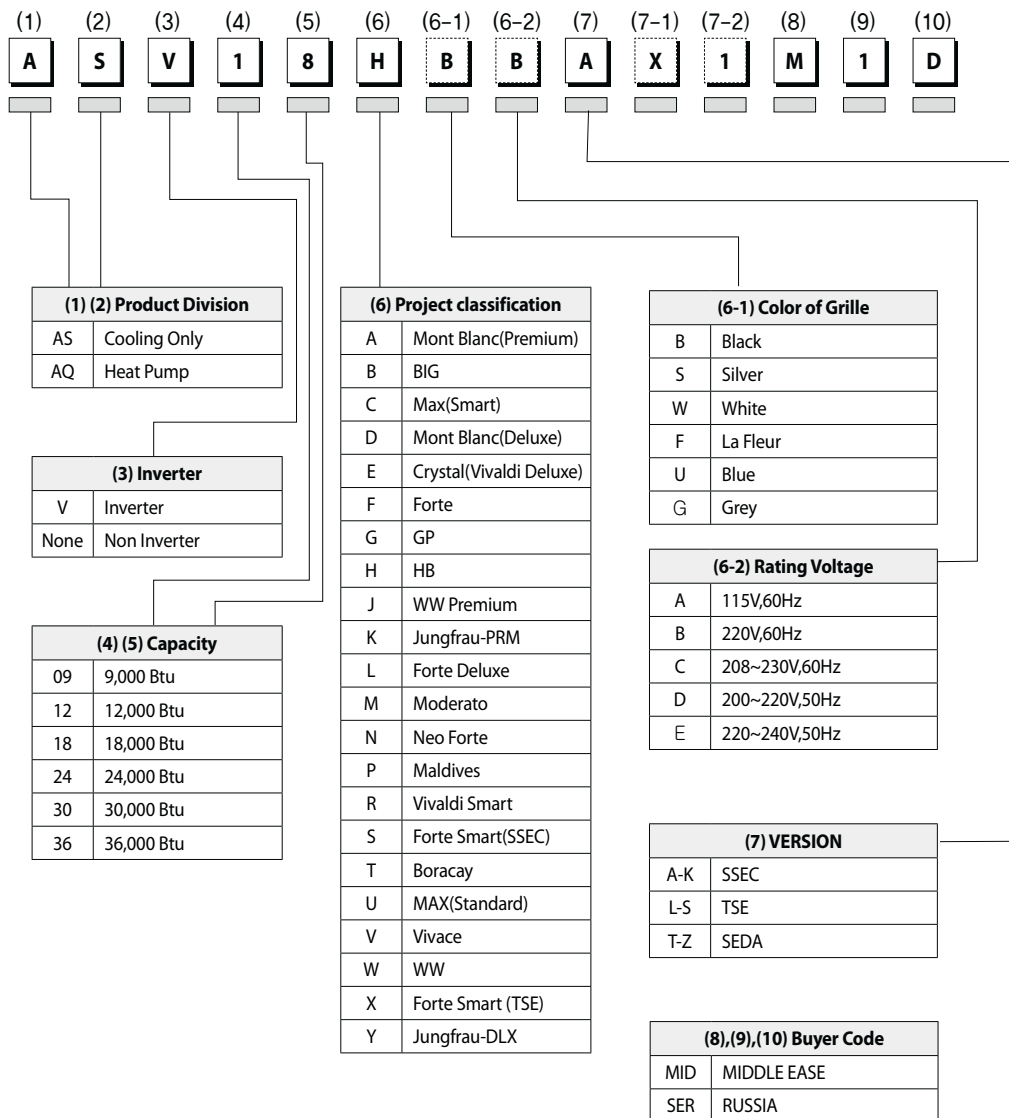
9-1 Refrigerating Cycle Diagram



9-2 Index for Model Name

* Project model code for overseas from 2008(For RAC Export Models)

Model Code



9-3 Pressure & Capacity mark

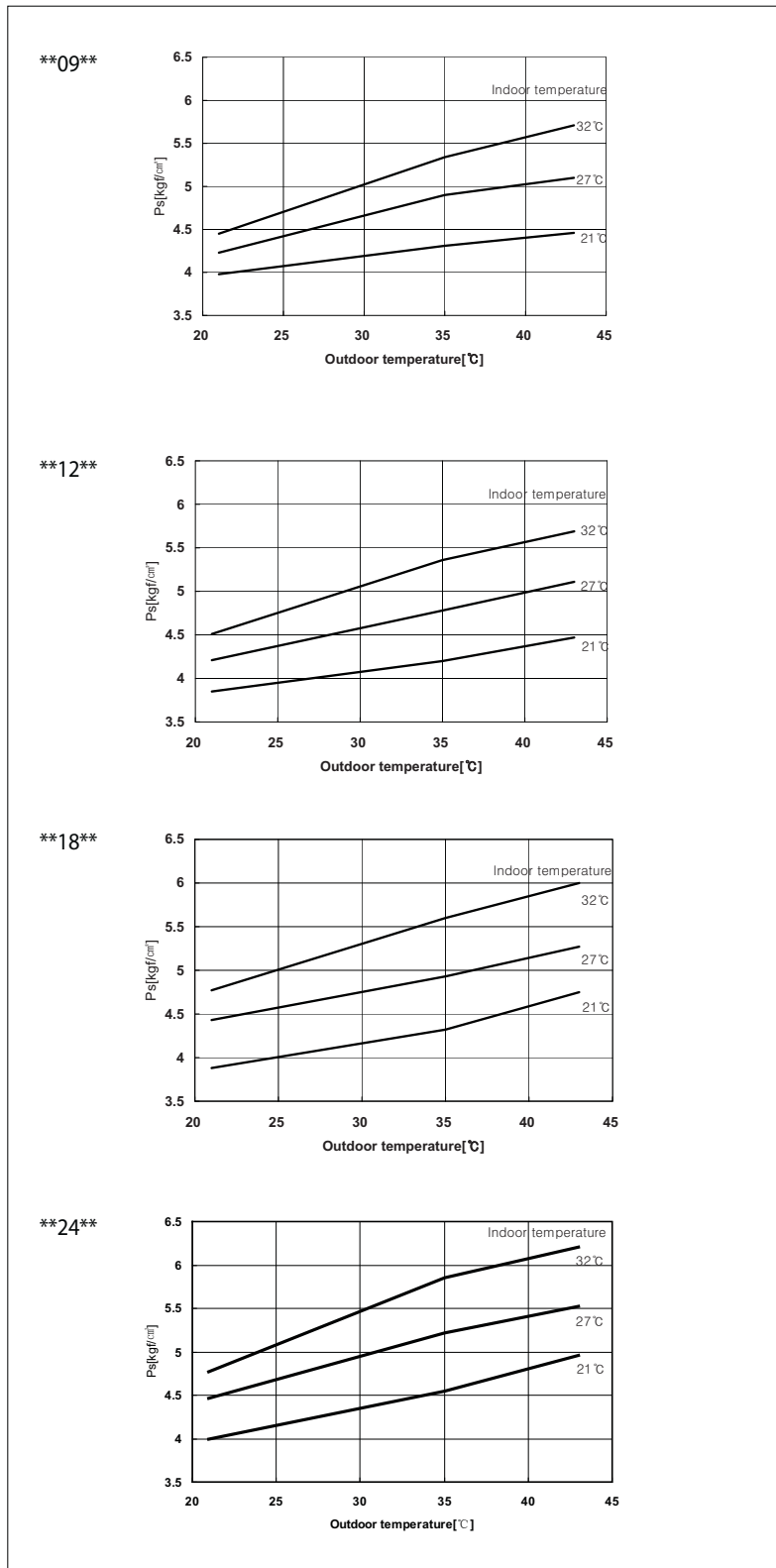
■Power/Heat

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	1.1658	4.6262	0.0018182	0.13826	199

9-4 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 : 21°C ~ 32°C
- Outdoor Temp. Variation : 20°C ~ 45°C



9-5 Installation Diagram of Indoor Unit and Outdoor Unit

9-5-1 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 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.
 - Make sure that pressure gauge show $-0.1\text{MPa}(-76\text{cmHg})$ after about 30 minutes.
 - This procedure is very important in order to avoid gas leak.
 - Turn off the vacuum pump.
 - Close the valve of the low pressure side of manifold gauge clockwise.
 - Remove the hose of the low pressure side of manifold gauge.



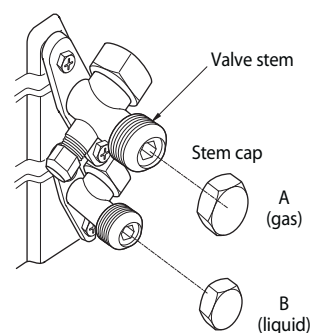
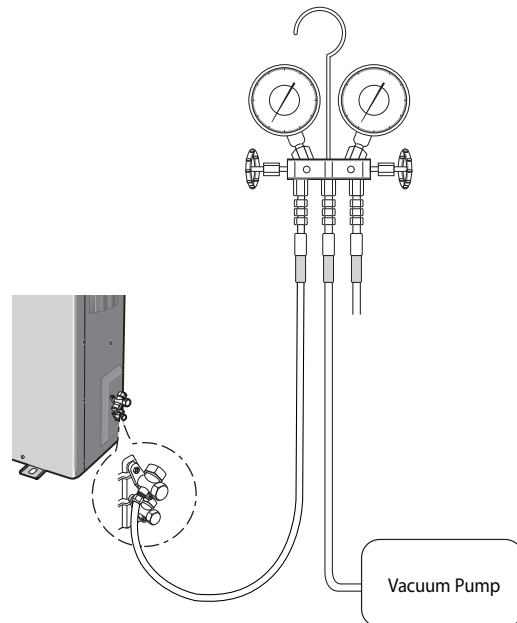
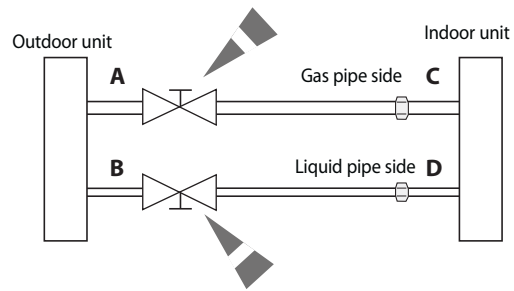
- 5) Set valve cork of both liquid side and gas side of packed valve to the open position.



- 6) Mount the valve stem nuts and the service port cap to the valve, and tighten them at the torque of $183\text{kgf}\cdot\text{cm}$ with a torque wrench.



- 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.



9-5-2 "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.



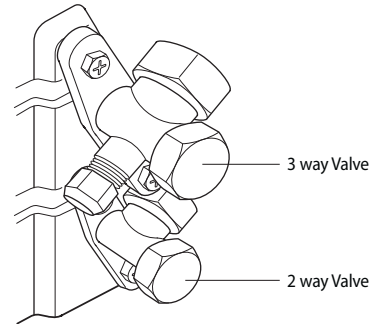
5) When the pressure gauge indicates "0" turn the 3-Way valve clockwise to close.



6) Stop operation of the air conditioner.



7) Close the cap of each valve.



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.



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