



SAMSUNG

SYSTEM AIR CONDITIONER

Basic : CH105EAMC/CH140EAMC

Model : CH105EAV/CH140EAV

Model Code : CH105EAV/CH140EAV

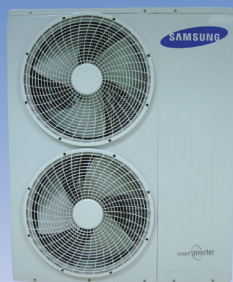
UH105GAV/UH140GAV

SERVICE Manual

AIR CONDITIONER



CH105EAV/CH140EAV



UH105GAV/UH140GAV

THE FEATURE OF PRODUCT

- **Built-in Cassette Type**
- **High Performance & Energy Saving**
- **Long Piping(Length & Height)**
: Max. 75m Long & 30m Height
- **Long Ambient Operation(In Low Temp.)**
: Up to -20°C(Heating), Up to -15°C(Cooling)
- **Eco-friendly Product**
(Lead-Free, RoHS, WEEE)

Refer to the service manual in the GSPN(see the rear cover) 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

■ **Built-in Cassette Type**

After installed, the air conditioner can be harmonized with a room interior.

■ **High Performance & Energy Saving**

With the advanced BLDC inverter technology, it makes a room cool with highly energy saving and arises the efficiency of air conditioner.

■ **Long Piping(Length & Height)**

It can give the benefit to the installers and arises the reliability of the air conditioner.

■ **Long Ambient Operation(In Low Temperature)**

It can arise the reliability and the capacity of the air conditioner, especially operated in low temperature.

■ **Eco-friendly Product(Lead-Free, RoHS, WEEE)**

2-2 Product Specifications

Item				Model	CH105EAV	
					Indoor unit	Outdoor unit
Type				Cassette-type		
Performance	Cooling(MIN/STD/MAX)		kW	3.20/10.5/12.0		
	Heating(MIN/STD/MAX)		kW	2.60/11.2/15.5		
	Dehumidifying		ℓ/h	4.76		
	Air Volume	Cooling	m³/min (H/M/L)	22.2/18.1/14.1	110	
		Heating		25.7/21.3/17.2	110	
	Noise	Cooling	dB (H/M/L)	41/36/37	56	
		Heating		41/36/37	56	
	Energy Efficiency Ratio	Cooling	W/W	3.21		
		Heating		3.61		
Power			ph-V-Hz	3-380/415-50		
Power	Power Consumption	Cooling	W	3,270		
		Heating		3,100		
	Operating Current	Cooling	A	5.0		
		Heating		5.0		
	Power Factor	Cooling	%	9.2		
		Heating		9.2		
Size	Outer Dimension	WidthxHeightxDepth	mm	840x298x840	930x1,135x370	
			inch	33.1x9.1x33.1	34.6x31.4x12.2	
	Weight(Net)		kg	29.0	95.0	
	Compressor	Model		GST360FUBEK-SG		
		Motor	Type		BLDC	
			Rated Output		-	
	Oil Type			POE		
	Blower	Type	TURBO-FAN		Propeller	
			AL		AL	
		Motor	Type	100		130
Piping	Pipe O.D Size	Liquid	mm(inch)xL(m)	9.52(3.8")x7.5		
		Gas	mm(inch)xL(m)	15.88(5/8")x7.5		
	Connection Method			Flare		
	Between	Height	m	Max.30		
		Pipe Length	m	Max.75		
Heat Exchanger				2ROW 13STEP	2ROW 52STEP	
Refrigerant Control Unit				EEV		
Freezer Oil Capacity			cc	1,100		
Refrigerant to Change(R410A)			g	2,800(40g/m)		
Protection Device(OLP)				-		
Cooling Test Condition				INDOOR UNIT : DB27℃ WB19℃ OUTDOOR UNIT : DB35℃ WB24℃		
Heating Test Condition				INDOOR UNIT : DB20℃ WB15℃ OUTDOOR UNIT : DB7℃ WB6℃		

Item				Model		CH140EAV				
						Indoor unit		Outdoor unit		
Type						Cassette-type				
Performance	Cooling(MIN/STD/MAX)			kW		3.8/1.4/15.4				
	Heating(MIN/STD/MAX)			kW		3.45/1.6/19.5				
	Dehumidifying			ℓ/h		5.61				
	Air Volume		Cooling	m³/min (H/M/L)	24.9/22.3/19.9		110			
			Heating		30.3/27.7/24.6		110			
	Noise		Cooling	dB (H/M/L)	45/42/40		60			
			Heating		45/42/40		60			
	Energy Efficiency Ratio		Cooling	W/W	3.01					
			Heating		3.41					
Power			ph-V-Hz		3-380/415-50					
Power	Power Consumption		Cooling	W	4,650					
			Heating		4,690					
	Operating Current		Cooling	A	7.2					
			Heating		7.3					
	Power Factor		Cooling	%	9.2					
			Heating		9.2					
Size	Outer Dimension		WidthxHeightxDepth		mm	840x298x840		930x1,135x370		
					inch	33.1x9.1x33.1		34.6x31.4x12.2		
	Weight(Net)			kg		29.0		98.0		
	Compressor		Model		GST450FUBEK-SG					
			Motor		Type		BLDC			
					Rated Output		-			
	Oil Type					POE				
	Blower		Type		TURBO-FAN		Propeller			
					AL		AL			
			Motor		Type		AL		AL	
		Rated Output		W		100		130		
Piping	Pipe O.D Size		Liquid	mm(inch)xL(m)		9.52(3/8")x7.5				
			Gas	mm(inch)xL(m)		19.05(3/4")x7.5				
	Connection Method					Flare				
	Between		Height	m		Max.30				
			Pipe Length	m		Max.75				
Heat Exchanger						2ROW 13STEP		2ROW 52STEP		
Refrigerant Control Unit						EEV				
Freezer Oil Capacity				cc		1,100				
Refrigerant to Change(R410A)				g		2,800(40g/m)				
Protection Device(OLP)						-				
Cooling Test Condition						INDOOR UNIT : DB27℃ WB19℃ OUTDOOR UNIT : DB35℃ WB24℃				
Heating Test Condition						INDOOR UNIT : DB20℃ WB15℃ OUTDOOR UNIT : DB7℃ WB6℃				

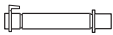
2-3 The Comparative Specifications of Product

Item		Development Model	Comparative Model
		CH105EAV	CH105EAMC
Design	Indoor Unit		
	Outdoor Unit		
Net Weight	Indoor Unit	29.0kg	29.0kg
	Outdoor Unit	95.0kg	121.0kg
Outer Dimension (WidthxHeightxDepth)	Indoor Unit	840x298x840(mm)	840x298x840(mm)
	Outdoor Unit	930x1,135x370(mm)	1,128x932x375(mm)
Noise	Indoor Unit	41dB↓	47dB↓
	Outdoor Unit	56dB↓	65dB↓

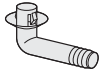
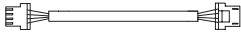
Item		Development Model	Comparative Model
		CH140EAV	CH140EAMC
Design	Indoor Unit		
	Outdoor Unit		
Net Weight	Indoor Unit	29.0kg	29.0kg
	Outdoor Unit	98.0kg	121.0kg
Outer Dimension (WidthxHeightxDepth)	Indoor Unit	840x298x840(mm)	840x298x840(mm)
	Outdoor Unit	930x1,135x370(mm)	1,128x932x375(mm)
Noise	Indoor Unit	45dB↓	47dB↓
	Outdoor Unit	60dB↓	65dB↓

2-4 Accessory and Option Specifications

2-4-1 Accessories

Item	Descriptions	Code-No.	Q'TY	Remark
	Pattern sheet	DB69-01490A	1	Indoor Unit
	Insulation drain in	DB62-03440H	1	
	Insulation drain out	DB62-03439H	1	
	Insulation Pipe Joint In 1/4	DB72-00143E	1	
	Insulation Pipe Joint In 1/2	DB72-00143G	1	
	Insulation Pipe joint out 1/4	DB62-03439J	2	
	Cable-tie	DB65-10088C	8	
	Flexible hose	DB94-01065A	1	
	Pad stopper	DB69-00165A	1	
	Safety net	DB63-01480A	1	
	M4x12 tapped Screw	6002-000231	4	
	Installation manual	DB98-26918A	1	

Accessories(cont.)

Item	Descriptions	Code-No.	Q'TY	Remark
	Drain Plug	DB67-00806A	1	Outdoor Unit
	Cap Drain	DB63-10355C	2	
	Connect Wire External	DB73-01264A	1	
	Installation manual	DB98-27306A	1	

Accessories(cont.)**■ Receiver & display unit & Wire kit**

Item	Descriptions	Code-No.	Q'TY	Remark
	Receiver & display unit	DB93-01066A	1	Concealed type
	STS 2S-2x10 tapped screw	-	4	
	2S-4x12 tapped screw	-	2	
	Owner's instructions	DB98-05160A	1	
	Installation manual	DB98-05186A	1	
	Wire kit	DB39-00223A	1	
	Receiver & display unit	DB93-01066A	5	Standard type
	M4x16 tapped screw	-	7	
	Cable-tie	-	2	
	User's manual	DB98-05160A	1	
	Installation manual	DB98-05186A	1	
	Wire kit	DB39-00223A	1	

Accessories(cont.)

■ Wireless Remote Controller Accessories

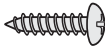
Item	Descriptions	Code-No.	Q'TY	Remark
	Wireless remote controller	DB93-00251G	1	
	Battery	DB47-90024A	2	
	Remote control holder	DB61-00204A	1	
	STS 2S-2x10 tapped screw	6002-000581	2	
	User's manual	DB98-05156A	1	
	Installation manual	DB98-05184A	1	

Accessories(cont.)

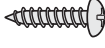
■ Wired Remote Controller Accessories

Item	Descriptions	Code-No.	Q'TY	Remark
	Wired remote controller	DB93-01766C	1	
	Cable-tie	DB65-10088B	2	
	Cable clamp	DB65-10074E	5	
	M4x16 tapped screw	6002-000474	7	
	Indoor unit power drawing cable	DB39-00221A	1	
	Communication cable of the wired remote controller	DB39-00933A	1	
	Wire joint	DB39-90020A	1	
	User's manual	DB98-15731A	1	
	Installation manual	DB98-15770A	1	

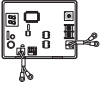
■ Centralized Controller Accessories

Item	Descriptions	Code-No.	Q'TY	Remark
	Centralized controller	DB97-00874B	1	
	Cable-tie	DB65-10088B	2	
	Cable clamp	DB65-10074E	5	
	M4x16 tapped screw	6002-000474	7	
	User's manual	DB98-12721A	1	
	Installation manual	DB98-12722A	1	

■ Function Controller Accessories

Item	Descriptions	Code-No.	Q'TY	Remark
	Function controller	DB93-00757G	1	
	Cable-tie	DB65-10088B	2	
	Cable clamp	DB65-10074E	6	
	M4x16 tapped screw	6002-000474	7	
	User's manual	DB98-05164A	1	
	Installation manual	DB98-05190A	1	

■ Transmitter Accessories

Item	Descriptions	Code-No.	Q'TY	Remark
	Transmitter	-	1	
	Transmitter power cable	-	1	
	Transmitter communication cable	-	1	
	Installation manual	-	1	

■ 7-day Scheduler Accessories

Item	Descriptions	Code-No.	Q'TY	Remark
	7-day Scheduler	-	1	
	Cable-tie	-	2	
	Cable clamp	-	2	
	M4x16 tapped screw	-	4	
	User's manual	-	1	
	Installation manual	-	1	

3. Alignment and Adjustments

3-1 Indoor Display Error and Check Method

■ Error detection and reoperation

- If error occurs during the operation, badness is indicated by LED flickering and all operation is stopped except LED.
- When reoperating by remote control and switch determine the error mode after normal operation.

■ Indoor unit LED lamp display at error detecting

Error type	LED lamp display					Remarks
	Operation	Defrost	Timer	Air flow	Filter	
Power reset	●	X	X	X	X	
Error of temperature sensor in the indoor unit(Open/Short)	X	X	●	X	X	
Error of heat exchanger sensor in the indoor unit	●	X	●	X	X	
Error of the outdoor temperature sensor Error of the condensor temperature sensor Error of the discharge temperature sensor	●	X	X	●	X	
1. No communication for 2 minutes between indoor units (Communication error for more than 2 minutes) 2. Indoor unit receiving the communication error from outdoor unit 3. Outdoor unit tracking 3 minutes error 4. When sending the communication error from the outdoor unit, the mismatching of the communication numbers and installed numbers after completion of tracking (Communication error for more than 2 minutes)	X	X	●	●	X	
1. Error of electronic expansion valve close 2. Error of electronic expansion valve open 3. 2'nd detection of high temperature cond 4. 2'nd detection of high temperature discharge 5. Error of reverse phase 6. Compressor down due to 6'th detection of freezing	X	X	●	●	●	
Detection of the float switch	X	X	X	●	●	
Error of setting option switches for optional accessories	X	X	●	X	●	
EEPROM option error	●	●	●	●	●	

● : On, ● : Flickering, X: OFF

◆ If you turn off the air conditioner when the LED is flickering, the LED is also turned off.

3-1-1 Wired Remocon Error Display(COM2)

- If an error occurs,  is displayed on the wired remote controller.
If you would like to see an error code, press the Test button.

Display	Explanation	Remark
101	Indoor unit Communication Error	Communication Error
102	Indoor/Outdoor unit Communication Time Out Error 60 Packet Over data	
201	Indoor unit is not connected	
203	Communication Error between Outdoor Main and Inverter Micom (Occurred after 1 minute detection in Main and Inverter)	
121	Indoor Temp. Sensor(Open/Short Error)	Indoor Sensor Error
122	Indoor Unit Eva in Sensor(Open/Short Error)	
128	Indoor Unit Eva in Sensor Separation	
221	Outdoor Temp. Sensor Error(Open/Short Error)	Outdoor Sensor Error
230	COND Temp. Sensor Error(Open/Short Error)	
251	Inverter Compressor Discharge Temp. sensor Error(Open/Short Error)	
425	Power cable miss connection error	
453	Indoor Float Switch 2nd Detection	Self Diagnosys Error
460	Outdoor unit - indoor unit communication wire miss connection (Connected to Power terminal)	
554	Outdoor unit refrigerant Full leakage(Gas leak)	
458	Outdoor Fan 1 Error	
475	Outdoor Fan 2 Error	
476	Discharge over temperature	Outdoor Unit Protetion Control Error
461	[Inverter] Compressor starting error	
462	Primary Current Over Trip error	
464	[Inverter] DC PEAK error(O.C)	
467	[Inverter] Compressor Rotation error	
468	[Inverter] Current Sensor error	
469	[Inverter] DC LINK Sensor error	
477	[Inverter] EEPROM Read/Write Error	

Display	Explanation	Remark
474	[Inverter] Heatsink temperature over Error	Outdoor Unit Protection Control Error
556	Outdoor unit Capacity Setup option error	
601	Communication error between Indoor unit and wired remote control	Wired remote control error
602	Communication error between Master and Slave wired remote control	
606	COM1/COM2 Cross-installed error	
8EA	Error of setting option for wired remote control COM2	

3-2 Outdoor LED Error Display and Check Method

No.	LED Display			Explanation	Error Code
	Yellow	Green	Red		
1	○	○	○	Power off/VDD NG	-
2	○	○	◎	IPM Over Current(O.C)	464
3	○	○	●	Abnormal Serial communication/ Power Cable Miss Connection	203
	○	●	●		
4	○	◎	○	Compressor Starting error	468
5	○	◎	●	Normal Operation	-
6	○	●	○	Compressor Lock error	403
7	○	●	◎	DC-Link voltage under/over error	466
8	◎	○	◎	Outdoor temperature sensor error	228
9	◎	○	●	Discharge over temperature	406
10	◎	◎	○	Discharge temperature sensor error	258
11	◎	◎	●	Current sensor error	468
12	◎	●	○	Compressor Limit error	465
13	◎	●	◎	Coil temperature sensor error	230
14	◎	●	●	1min. Time out Communication	202
15	●	○	○	Fan error	458 (FAN1)
					405 (FAN2)
16	●	○	◎	OTP error	408
17	●	○	●	Compressor rotation error	460
18	●	◎	○	Operation condition secession	440 (Heating)
					441 (Cooling)
19	●	◎	◎	DC-Link voltage sensor error	469
20	●	◎	●	I_Trip error	462
21	●	●	○	GAS Leak error	554
22	●	●	◎	Power Cable miss connection	425
23	●	●	●	Power ON reset(1sec)	-
24	◎	○	○	Capacity miss match	556
25	○	◎	◎	Test Operation at Cooling Mode	-
26	◎	◎	◎	Test Operation at Heating Mode	-

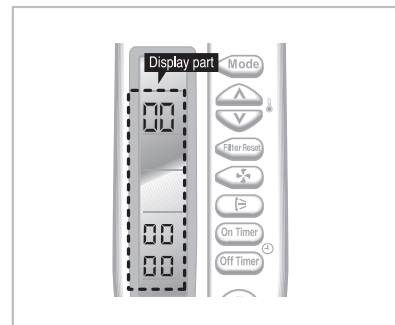
● : LED ON, ○ : LED OFF, ◎ : LED BLINK

3-3 Setting Option Setup Method

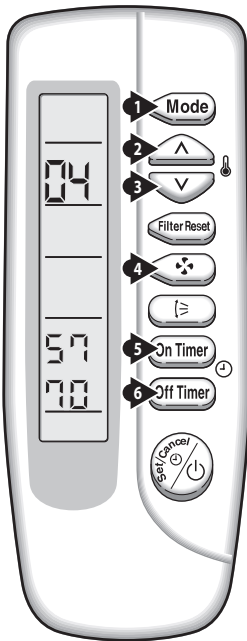
Option No. : 045770-128000

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 .

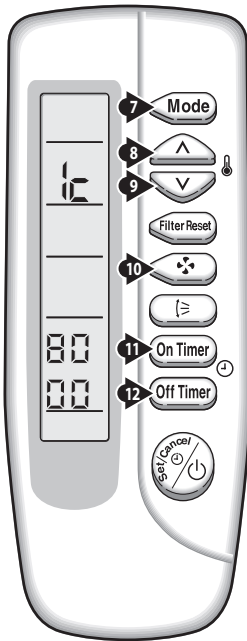


Step 2 : Enter the Option Setup mode and select your option according to the following procedure.



* 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  or  repeatedly.
- 2
Push the  button to set the display panel to .
Every time you push the button, the display panel reads  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$...  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  repeatedly.
- 3
Push the  button to set the display panel to .
Every time you push the button, the display panel reads  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$...  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  repeatedly.
- 4
Push the  button to set the display panel to .
Every time you push the button, the display panel reads  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$...  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  repeatedly.
- 5
Push the  button to set the display panel to .
Every time you push the button, the display panel reads  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$...  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  repeatedly.
- 6
Push the  button to set the display panel to .
Every time you push the button, the display panel reads  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$...  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  $\Rightarrow$  repeatedly.



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

7

Press **Mode** button, then the default value is $\begin{smallmatrix} 1\emptyset \\ 80 \end{smallmatrix}$.

8

Push the **Up** button to set the display panel to c .

Every time you push the button, the display panel reads $\emptyset \Rightarrow 1 \Rightarrow 2 \Rightarrow 3 \Rightarrow \dots 9 \Rightarrow A \Rightarrow b \Rightarrow c \Rightarrow d \Rightarrow E \Rightarrow F$ repeatedly.

9

Push the **Down** button to set the display panel to 8 .

Every time you push the button, the display panel reads $\emptyset \Rightarrow 1 \Rightarrow 2 \Rightarrow 3 \Rightarrow \dots 9 \Rightarrow A \Rightarrow b \Rightarrow c \Rightarrow d \Rightarrow E \Rightarrow F$ repeatedly.

10

Push the **Filter Reset** button to set the display panel to $\emptyset$.

Every time you push the button, the display panel reads $\emptyset \Rightarrow 1 \Rightarrow 2 \Rightarrow 3 \Rightarrow \dots 9 \Rightarrow A \Rightarrow b \Rightarrow c \Rightarrow d \Rightarrow E \Rightarrow F$ repeatedly.

11

Push the **On Timer** button to set the display panel to $\emptyset$.

Every time you push the button, the display panel reads $\emptyset \Rightarrow 1 \Rightarrow 2 \Rightarrow 3 \Rightarrow \dots 9 \Rightarrow A \Rightarrow b \Rightarrow c \Rightarrow d \Rightarrow E \Rightarrow F$ repeatedly.

12

Push the **Off Timer** button to set the display panel to $\emptyset$.

Every time you push the button, the display panel reads $\emptyset \Rightarrow 1 \Rightarrow 2 \Rightarrow 3 \Rightarrow \dots 9 \Rightarrow A \Rightarrow b \Rightarrow c \Rightarrow d \Rightarrow E \Rightarrow F$ repeatedly.

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

Press the Mode Selection key, **Mode** to set the display part to $\emptyset$ and check the display part.

→ The display part shows $\begin{smallmatrix} 04 \\ 57 \\ 70 \end{smallmatrix}$.

Press the Mode Selection key, **Mode** set the display part to 1 and check the display part.

→ The display part shows $\begin{smallmatrix} 1c \\ 80 \\ 00 \end{smallmatrix}$.

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 button() 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

MODEL	SEG1	SEG2	SEG3	SEG4	SEG5	SEG6	SEG7	SEG8	SEG9	SEG10	SEG11	SEG12
CH105EAV	0	4	5	7	7	7	1	1	C	2	2	A
CH140EAV	0	4	6	7	7	7	1	3	C	2	4	E

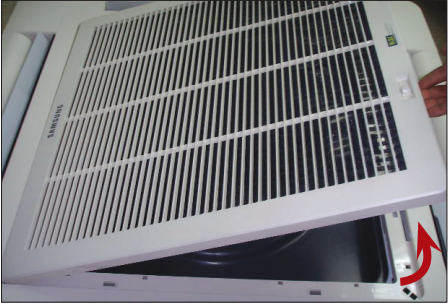
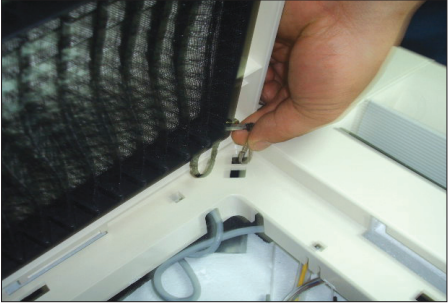
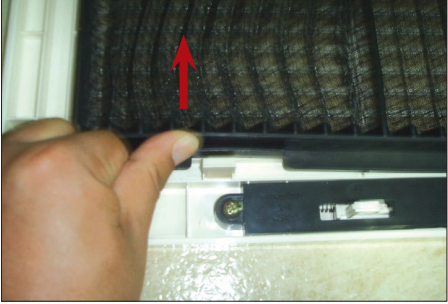
4. Disassembly and Reassembly

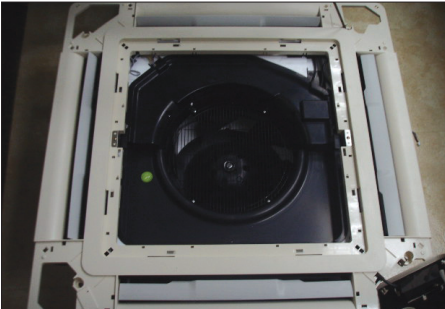
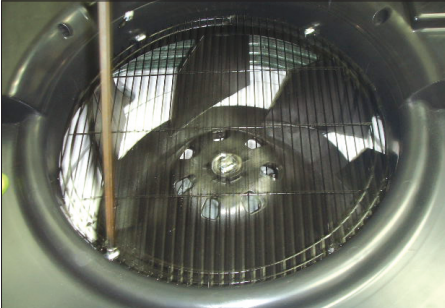
■ Necessary Tools

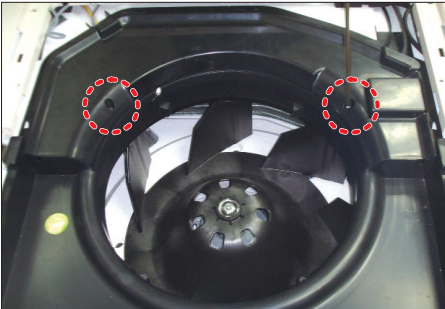
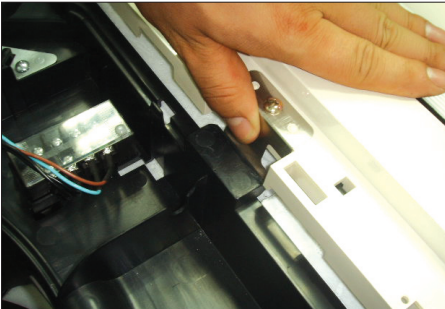
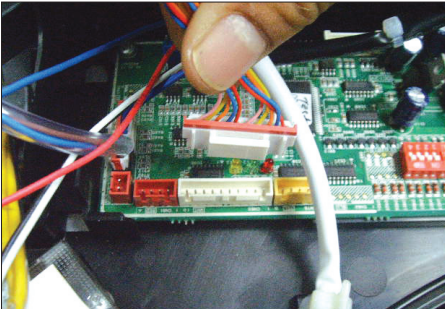
Item	Remark
+SCREW DRIVER	
MONKEY SPANNER	

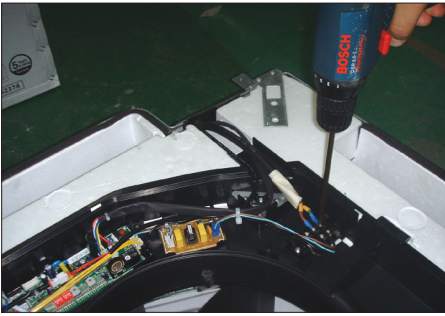
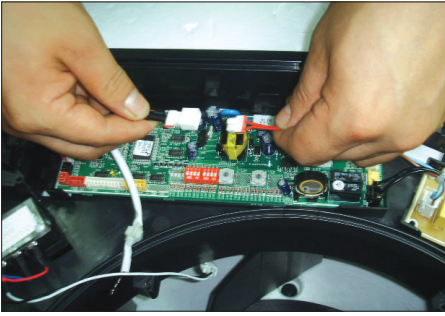
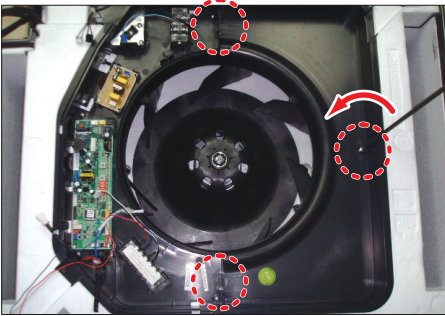
4-1 Indoor Unit

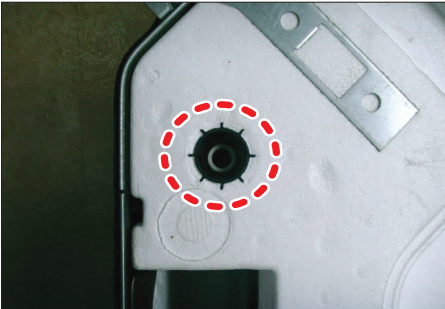
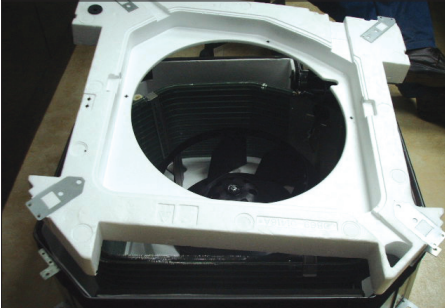
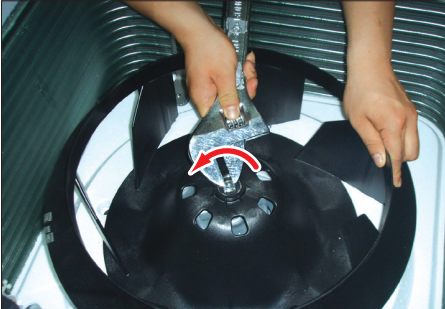
■ CH140/105EAMC

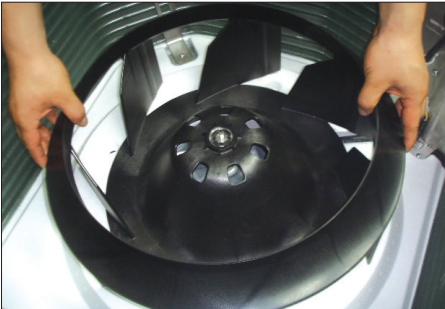
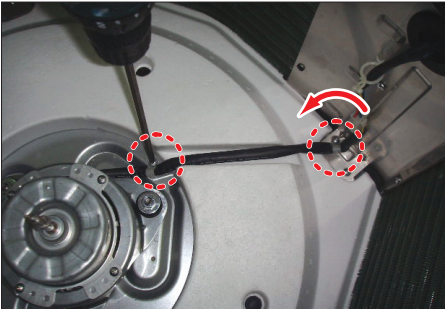
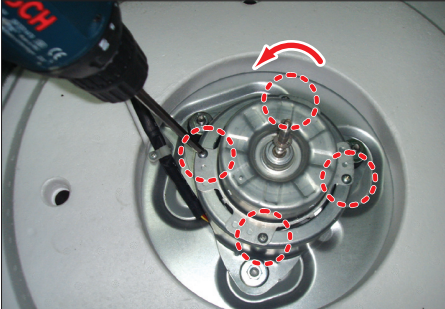
No	Parts	Procedure	Remark
1	Front Grille -Dust-Collecting Filter	1) Push the tap on the Front Grille to open it. 2) Disassembly of Front Grille. (1) Open the Front Grille at about 45° degrees and draw it forward. (2) Disassemble the Safety Clip. 3) Filter Disassembly (1) Draw the Dust-Collecting Filter forward. (2) Disassemble the Filter.	    

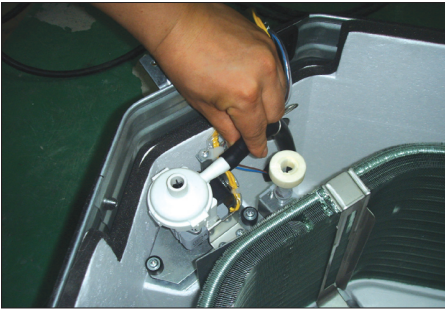
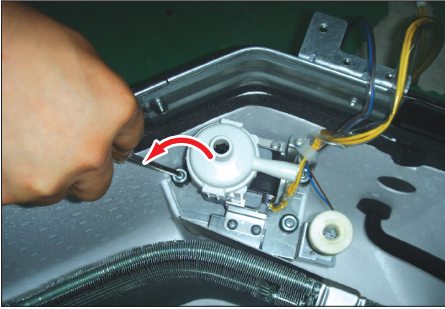
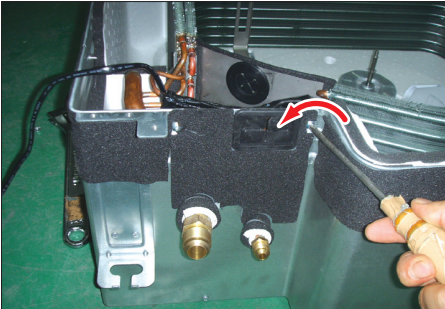
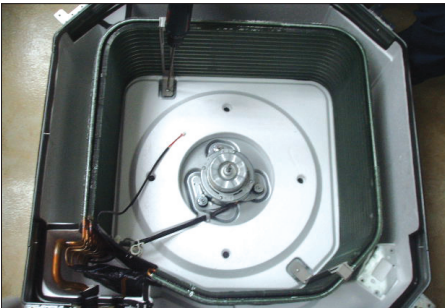
No	Parts	Procedure	Remark
		4) Open the corner cover slowly to disassemble it.(There are three hooks.) 5) Pull the corner cover forward carefully by using 2 hands. 6) Loosen 4 bolts of the front panel slowly. 7) Loosen 4 screws of the safety net to disassemble it.(Use +Screw Driver.)	    

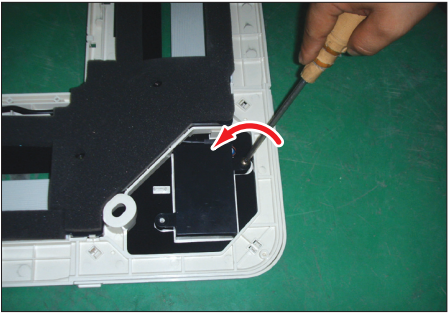
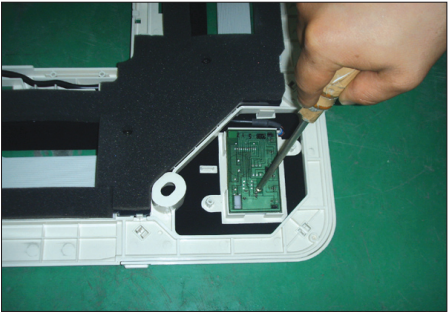
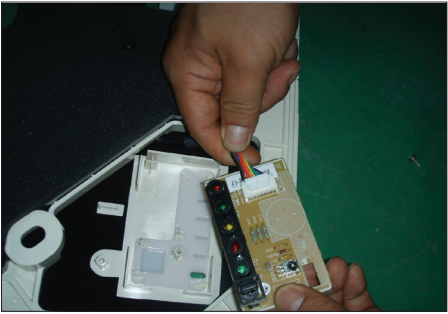
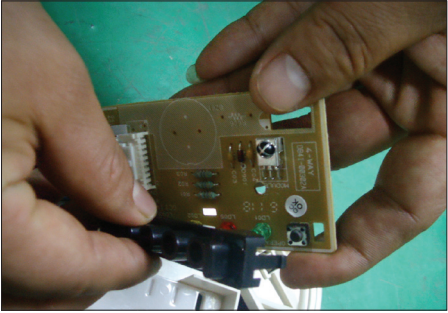
No	Parts	Procedure	Remark
		8) To uncover the Component Electronic Box cover. (1) Loosen two screws in the mark  . (Use +Screw Driver.) (2) Draw the both side hooks toward the arrow direction. 9) Disassemble 2 cables between the indoor unit and Panel. -Stepping motor connector. -Receiving & display unit connector wire. 10) Hold on 2 hooks on both sides of the indoor unit and disassemble the Front Panel. 11) Take away the disassembled Panel out of the Main Body.	    

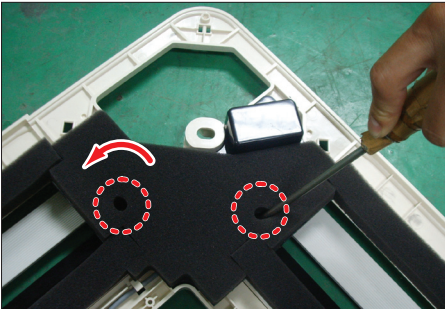
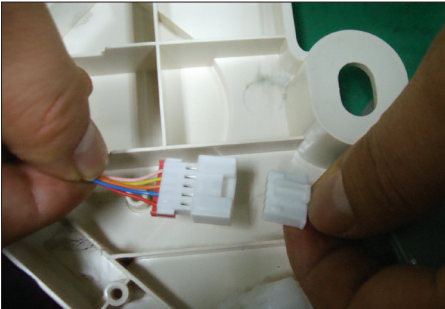
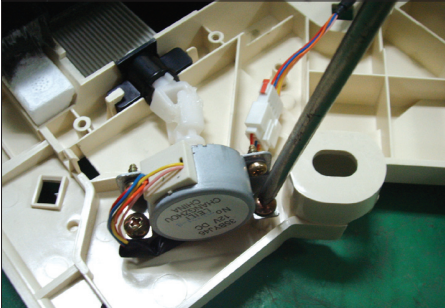
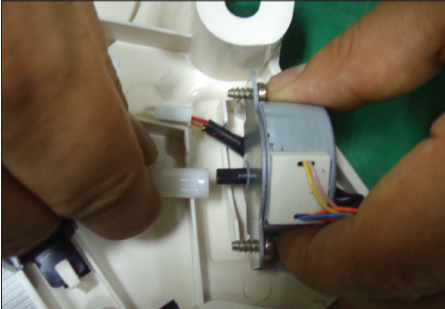
No	Parts	Procedure	Remark
	Electronic Part Indoor & Outdoor Connecting Cable	1) Disconnect all Indoor and Outdoor Cables connected to the Terminal Board. (Use +Screw Driver.)	
4	Fan& Motor	1) Disassemble the Fan Motor Wire Connector, Thermistor Wire Connector, Drain Pump Wire Connector and Float Switch Wire Connector. 2) Loosen 4 screws in the mark . (Use +Screw Driver.) 3) Disassemble the Base Control from the Main Body.	   

No	Parts	Procedure	Remark
		4) Disassemble the Rubber Cap Drain Socket to remove the water on the Cushion Drain.(Prepare something like a gutter to put the water in.) * In this point, you can check the Drain Pump Impeller operates well or not. 5) Loosen 8 bolts in the mark  . (Use +Screw Driver.) * At first, there are 2 bolts per one corner and when reassembly, there should be at least 1 bolt per one corner fastened. * 2 Bolts per one corner recommended. 6) Disassemble the Drain Cushion from the Main Body. 7) Loosen the nut.(Use Monkey Spanner.)	    

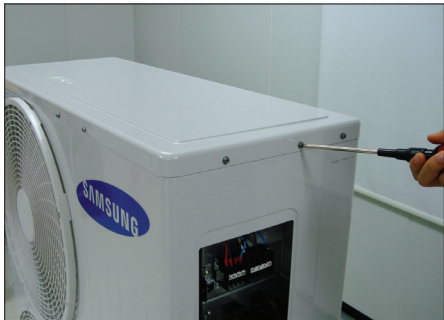
No	Parts	Procedure	Remark
		8) Take out the Washer. 9) Lift the Fan to disassemble from the Motor. 10) Loosen the screw and disassemble the Motor Connector to disassemble Motor.(Use +Screw Driver.) 11) Loosen 4 screws in the mark . Use +Screw Driver.)	    

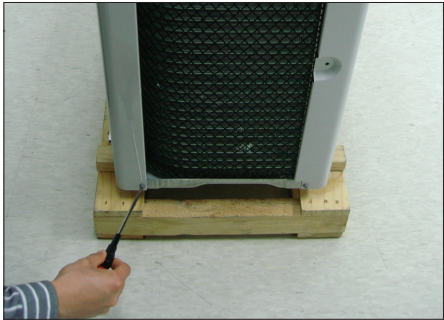
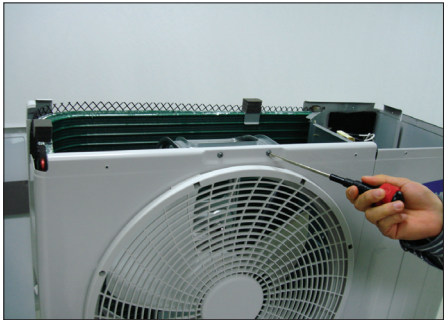
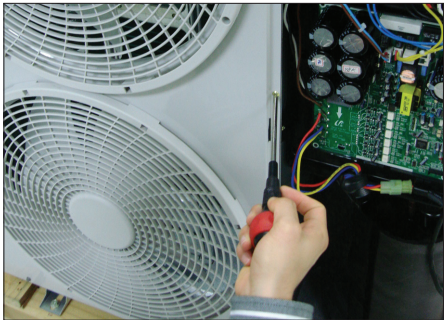
No	Parts	Procedure	Remark
4	Drain Pump	1) Disassemble the Hose from the Drain Pump. 2) Loosen the 3 bolts to disassemble the Drain Pump from the Main Body. (Use +Screw Driver.)	  
5	Heat Exchanger	1) Loosen 2 screws to disassemble the Cover Pipe beside the Main Body. (Use +Screw Driver.) 2) Loosen 2 screws fixing the Holder Evap to disassemble the Heat Exchanger. (Use +Screw Driver.)	 

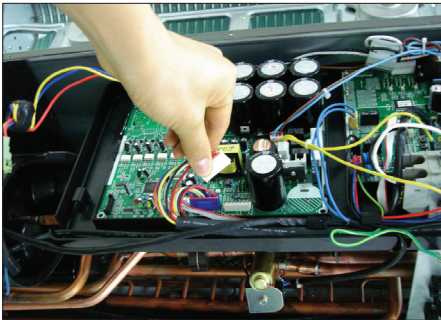
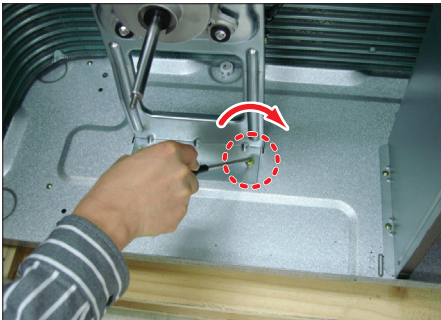
No	Parts	Procedure	Remark
6	Front Panel (PCB Part)	1) Loosen 2 screws to disassemble the Cover PCB.(Use +Screw Driver.) 2) Loosen the screw fixing the PCB to disassemble it.(Use +Screw Driver.) 3) Disassemble the PCB Wire from the PCB. 4) Disassemble the Button PCB from the PCB.	   

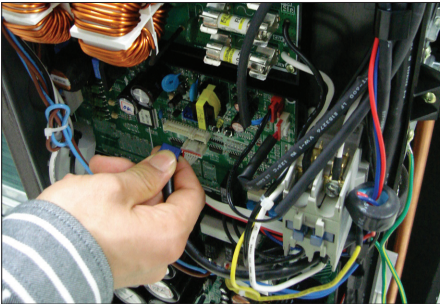
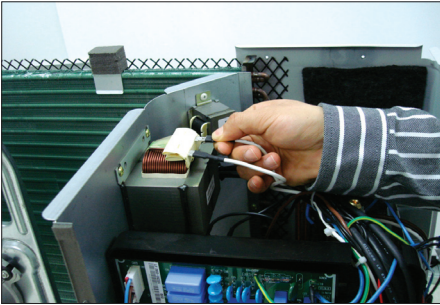
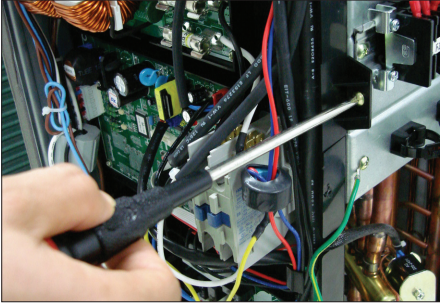
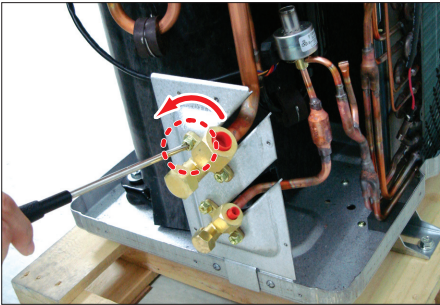
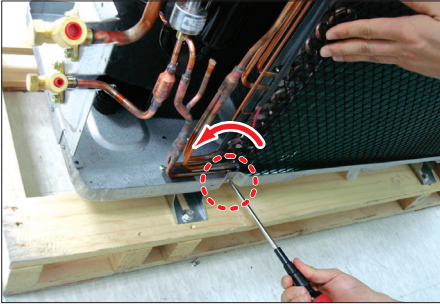
No	Parts	Procedure	Remark
7	Panel Front (Stepping Motor)	1) Loosen the 2 screws fixing the Cover Side.(Use +Screw Driver.) There are 4 Cover Side. 2) Draw 2 hooks then lift up the Cover Side. 3) Disassemble the Stepping Motor Wire Connected. 4) Disassemble the Stepping Motor from the Panel Front. 5) Disassemble the link and bracket from the Stepping Motor.	    

4-2 Outdoor Unit

No	Parts	Procedure	Remark
1	Common Work	1) Loosen 1 fixing screw of the Cover-Control and detach the Cover Control. 2) Loosen each 8 fixing screws and detach the Cabinet-Upper. 3) Loosen 1 screw fixed to assemble Control Box with Cabinet-Side RH. 4) Loosen fixing screws and detach the Cabinet-Side RH.	   

No	Parts	Procedure	Remark
		5) Loosen 2 screws fixed on the Guide Condenser.	
		6) Loosen fixing screws of the Cabinet Front.	  

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

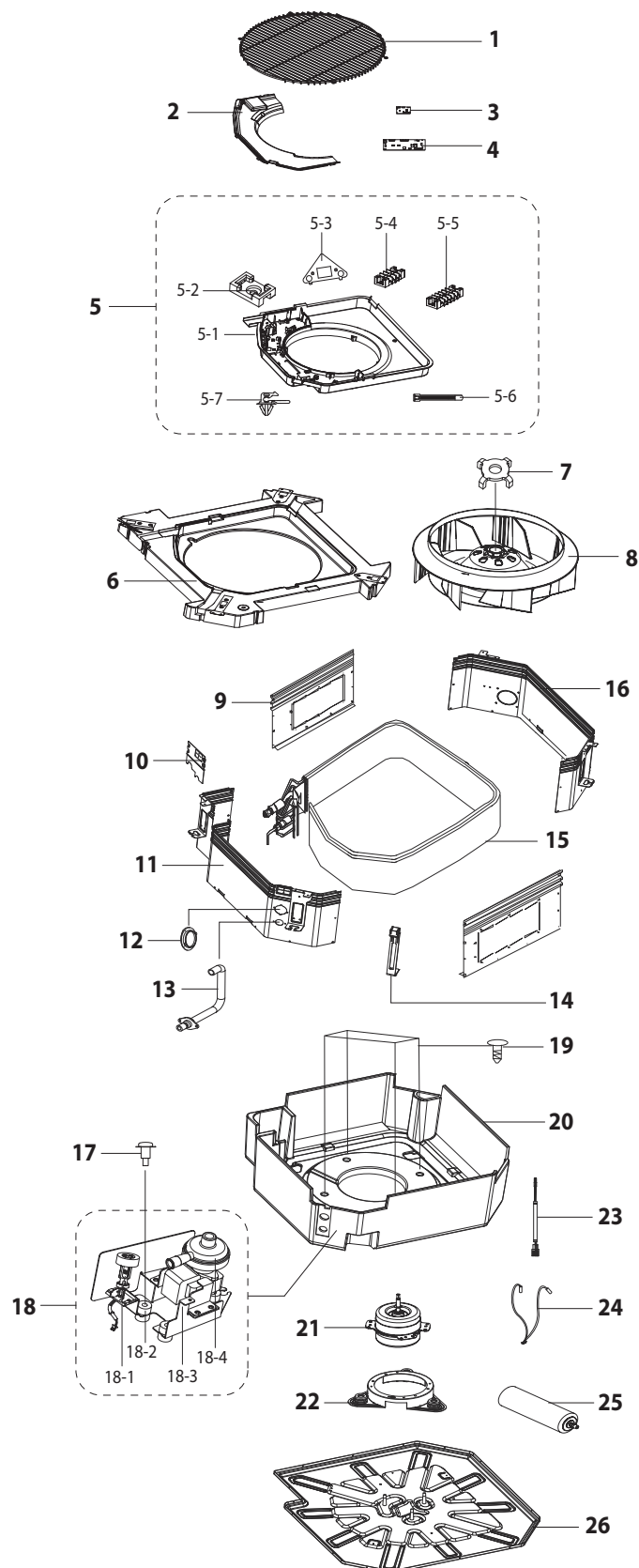
No	Parts	Procedure	Remark
3	Ass'y Control Out	1) Detach several connectors from the Ass'y Control Out. 2) Detach several connectors from the PCB of Ass'y Control Out. 3) Pull up the Ass'y Control Out.	  
4	Heat Exchanger	1) Release the refrigerant at first. 2) Loosen fixing screw on both sides. 3) Disassemble the pipes in both inlet and outlet with welding torch. 4) Detach the Heat Exchanger.	 

No	Parts	Procedure	Remark
5	Compressor	1) Loosen the fixing nut and detach the Compressor Lead Wire. (Use Monkey Spanner.) 2) Disassemble the Felt Comp Sound. 3) Loosen the 3 bolts at the bottom of Compressor like the picture on the right side.(Use Monkey Spanner.)	  

MEMO

5. Exploded Views and Parts List

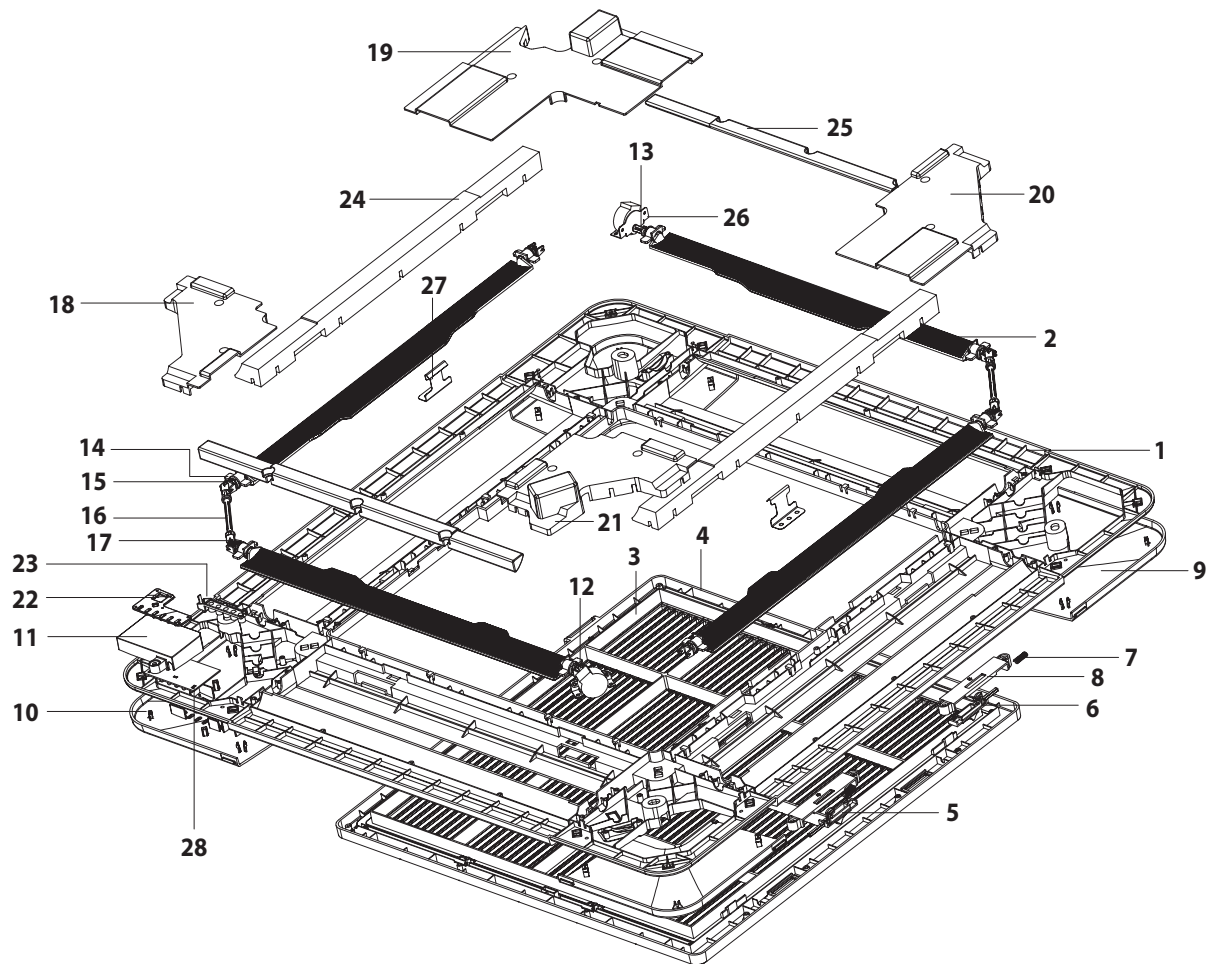
5-1 Indoor Unit



■ Parts List

No.	Code No.	Description	Specification	Q'TY		SA/SNA
				CH105EAMC	CH140EAMC	
1	DB63-01480A	ASS'Y-GUARD SAFETY	CH140EAMC,SSEC	1	1	SA
2	DB63-01481A	COVER-CONTROL	CH140EAMC,ABS	1	1	SNA
3	DB93-04120A	ASS'Y- MAIN PCB	CH140EAMC	1	1	SA
4	DB93-04119A	ASS'Y POWER PCB	CH140EAMC	-	1	SA
	DB93-04119B	ASS'Y POWER PCB	CH105EAMC	1	-	SA
5	DB93-04137A	ASS'Y CONTROL IN	ASS'Y	-	1	SA
	DB93-04376A	ASS'Y CONTROL IN	ASS'Y	1	-	SA
5-1	DB61-02706A	BASE CONTROL	ABS,V0	1	1	SNA
5-2	DB61-02501A	TIE MOUNTS	NYLON66	2	2	SNA
5-3	DB61-02700A	BRACKET EARTH WIRE	SGCC-M	1	1	SNA
5-4	DB65-00029M	TERMINAL BLOCK	ASS'Y ,6P	1	1	SNA
5-5	DB65-00029X	TERMINAL BLOCK	CH094EAM	1	1	SNA
5-6	DB61-02765A	HOLDER SENSOR	PP	1	1	SNA
5-7	6501-001052	REUSABLE CABLE TIES	NYLON66	2	2	SNA
6	DB94-01062A	ASS'Y CUSHION DRAIN	ASS'Y,EPS,V0	1	1	SA
7	DB61-01783A	BRACKET- WASHER FAN	SGCC-M	1	1	SNA
8	DB67-00682A	FAN-TURBO	ABS+GF20%	1	1	SA
9	DB64-01562A	CABI SIDE	SGCC-M	2	2	SA
10	DB90-02692A	ASS'Y COVER-PIPE	ASS'Y	1	1	SA
11	DB90-02690A	ASS'Y CABI FRONT	ASS'Y,SGCC-M	1	1	SA
12	DB90-01950B	ASS'Y COVER-DRAIN PUMP	ASS'Y	1	1	SA
13	DB94-01078A	ASS'Y HOSE DRAIN	ASS'Y	1	1	SA
14	DB61-02701A	HOLDER EVAP	STS301	2	2	SA
15	DB96-06221A	ASS'Y EVAP UNIT	ASS'Y	-	1	SA
	DB96-06405A	ASS'Y EVAP UNIT	ASS'Y	1	-	SA
16	DB90-02688A	ASS'Y CABI BACK	ASS'Y,SGCC-M	1	1	SA
17	DB97-02090B	ASS'Y-PACKING SCREW	M5X30	3	3	SNA
18	DB94-01064A	ASS'Y DRAIN PUMP	ASS'Y	1	1	SA
18-1	DB34-00059A	SWITCH FLOAT	ASS'Y	1	1	SNA
18-2	DB73-00345A	RUBBER PUMP	NBR	3	3	SNA
18-3	DB61-02709A	BRACKET DRAIN PUMP	SGCC-M	1	1	SNA
18-4	DB67-00615B	DRAIN PUMP	ASS'Y	1	1	SNA
19	DB61-02349A	CLIP BRUSH	NYLON 66	4	4	SA
20	DB90-02693A	ASS'Y CUSHION BASE	ASS'Y,EPS,V0	1	1	SA
21	DB31-00364A	MOTOR FAN	BLDC	1	1	SA
22	DB94-01059A	ASS'Y BRACKET MOTOR	ASS'Y	1	1	SA
23	DB39-01259A	CONNECT WIRE	ASS'Y	1	1	SA
24	DB32-00169A	THERMISTOR	ASS'Y	1	1	SA
25	DB94-01065A	ASS'Y DRAIN HOSE	ASS'Y	1	1	SNA
26	DB90-02689A	ASS'Y CABINET-BASE	ASS'Y,SGCC-M	1	1	SA

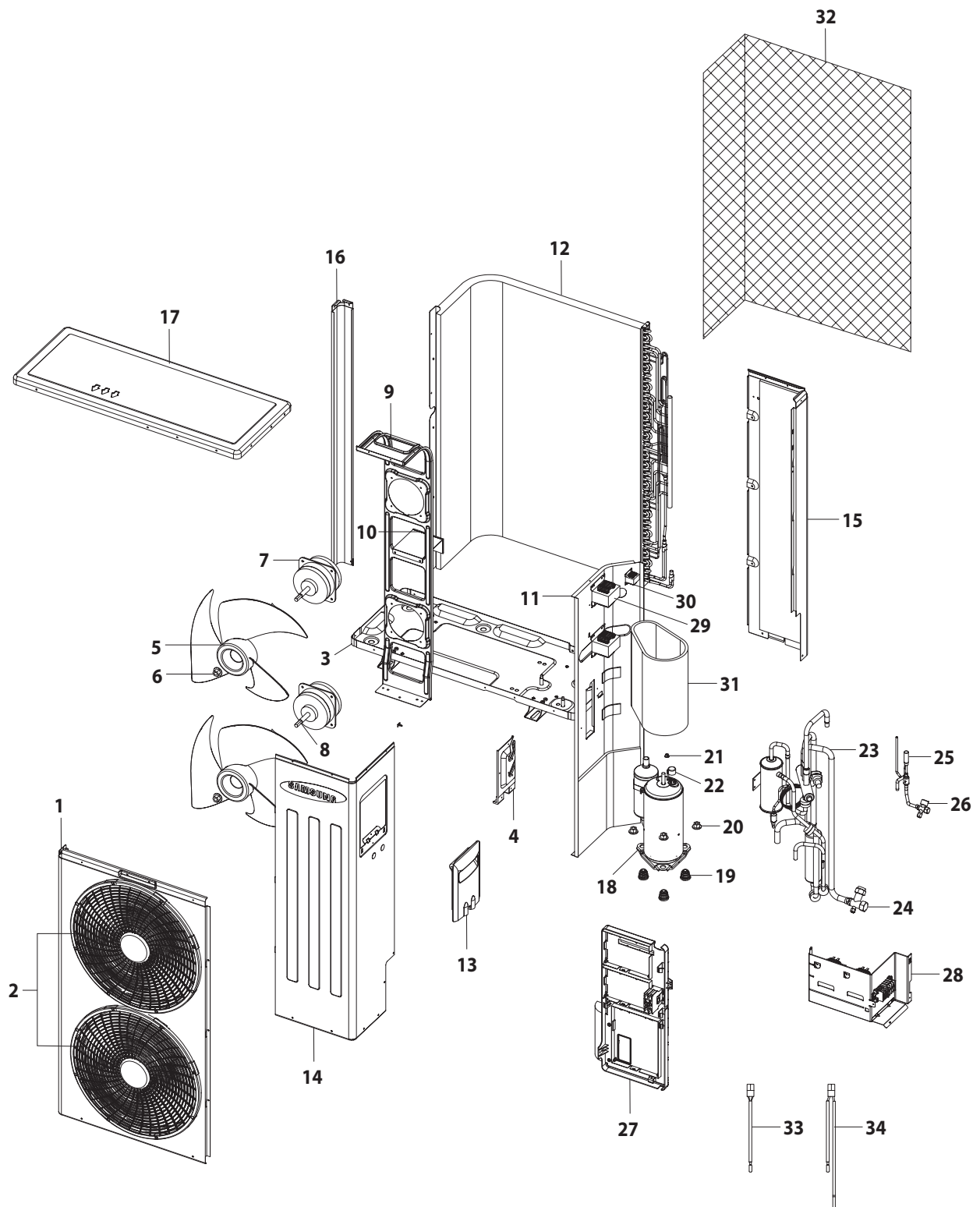
5-2 Panel



■ Parts List

No.	Code No.	Description	Specification	Q'TY	SA/SNA
1	DB64-01564A	PANEL FRONT	HF ABS(KOREA)	1	SA
2	DB66-01102A	BLADE	PBT+20%GF(KOREA)	4	SA
3	DB64-01565A	GRILLE AIR INLET	HF ABS(KOREA)	1	SA
4	DB63-01491A	FILTER AIR	P.P(BLK)+40%	1	SNA
5	DB64-01566A	KNOB SLIDE A	HF ABS(KOREA)	1	SA
6	DB64-01567A	KNOB SLIDE B	HF ABS(KOREA)	1	SA
7	DB61-02714A	SPRING KNOB	STS304,T0.5	2	SNA
8	DB63-01483A	COVER KNOB	HIPS	2	SNA
9	DB63-01484A	CORNER COVER	HF ABS(KOREA)	3	SA
10	DB63-01485A	CORNER COVER PCB	HF ABS(KOREA)	1	SA
11	DB63-01500A	COVER PCB	HIPS	1	SNA
12	DB66-01103A	LINK MOTOR A	POM	1	SNA
13	DB66-01104A	LINK MOTOR B	POM	1	SNA
14	DB61-02711A	HOLDER LINK BLADE	ABS(BLK)	8	SNA
15	DB66-01105A	LINK BLADE	POM	7	SNA
16	DB66-01106A	LINK UNIVERSAL JOINT	POM	2	SNA
17	DB66-01107A	JOINT UNIVERSAL	POM	5	SNA
18	DB63-01486A	COVER SIDE A	HIPS(BLK)	1	SNA
19	DB63-01487A	COVER SIDE B	HIPS(BLK)	1	SNA
20	DB63-01488A	COVER SIDE C	HIPS(BLK)	1	SNA
21	DB63-01489A	COVER SIDE D	HIPS(BLK)	1	SNA
22	DB64-01558A	INLAY PCB	PC	1	SNA
23	DB64-01559A	BUTTON PCB	ABS	1	SNA
24	DB69-01419A	CUSHION IN	EPS,25	4	SNA
25	DB69-01420A	CUSHION OUT	EPS,25	4	SNA
26	DB61-02704A	BRACKET STEPPING MOTOR	SGCC-M,T1.0	2	SNA
27	DB61-02705A	PLATE HANGER	STS304,T0.5	2	SNA
28	DB93-04220A	ASS'Y PCB DISPLAY	ASS'Y	1	SNA

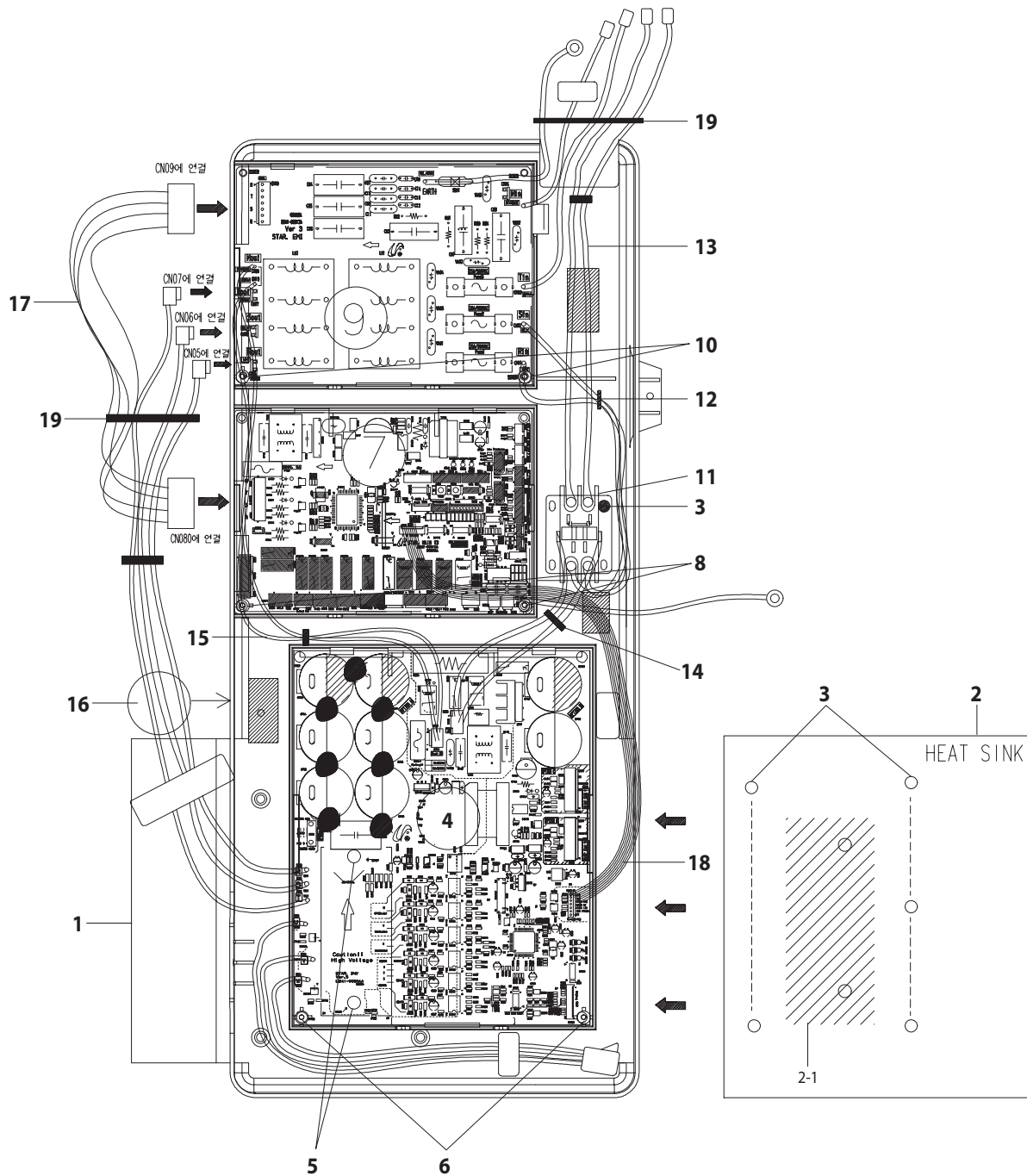
5-3 Outdoor Unit



■ Parts List

No.	Code No.	Description	Specification	Q'TY		SA/SNA
				UH105GAV	UH140GAV	
1	DB64-01012B	CABINET FRONT LF	SECC-P,0.8T	1	1	SA
2	DB63-00831A	GUARD FAN	PP	2	2	SA
3	DB90-01394E	ASS'Y BASE OUT	ASS'Y	1	1	SA
4	DB61-02960A	BRACKET VALVE	GALVANIZED STEEL	1	-	SA
	DB61-01671A	BRACKET VALVE	GALVANIZED STEEL	-	1	SA
5	DB67-00438A	FAN PROPELLER	PP	2	2	SA
6	DB60-30020A	NUT-FLANGE	M6,CCW	2	2	SA
7	DB31-00386D	MOTOR FAN OUT UP	BLDC,DC220V	1	1	SA
8	DB31-00386E	MOTOR FAN OUT LOW	BLDC,DC220V	1	1	SA
9	DB90-01429C	ASS'Y BRACKET MOTOR	ASS'Y	1	1	SA
10	DB90-01891C	ASS'Y BRACKET MOTOR SUB	ASS'Y	1	-	SA
	DB90-01891A	ASS'Y BRACKET MOTOR SUB	ASS'Y	-	1	SA
11	DB94-01395A	ASS'Y PARTITION	ASS'Y	1	-	SA
12	DB96-06967A	ASS'Y COND UNIT	ASS'Y	1	-	SA
	DB96-06968A	ASS'Y COND UNIT	ASS'Y	-	1	SA
13	DB90-03251A	ASS'Y COVER CONTROL	ASS'Y	1	1	SA
14	DB90-02950A	ASS'Y CABINET FRONT RH	ASS'Y	1	1	SA
15	DB90-02951A	ASS'Y CABINET BACK RH	ASS'Y	1	1	SA
16	DB64-01016A	CABINET BACK LF	SECC-P,1.2T	1	1	SA
17	DB90-01395D	ASS'Y COVER TOP	ASS'Y	1	1	SA
18	G5T360FUBEX-SG	COMPRESSOR	ROTARY,BLDC	1	-	SA
	G5T450FUBEX-SG	COMPRESSOR	ROTARY,BLDC	-	1	SA
19	DB63-00801A	GROMMET	NR	3	3	SA
20	DB60-30028A	NUT-WASHER	M8	3	3	SA
21	6021-001142	NUT-FLANGE	M5	1	1	SA
22	DB63-00947B	COVER TERMINAL	PBT	1	-	SA
23	DB96-07484A	ASS'Y 4WAY VALVE	ASS'Y	-	1	SA
	DB99-00839A	ASS'Y 4WAY VALVE	ASS'Y	1	-	SA
24	DB62-02342A	VALVE SERVICE	5/8"	1	-	SA
	DB62-03173A	VALVE SERVICE	3/4"	-	1	SA
25	DB96-07388B	ASS'Y EEV VALVE	ASS'Y	1	-	SA
	DB96-07388A	ASS'Y EEV VALVE	ASS'Y	-	1	SA
26	DB62-02284A	VALVE SERVICE	3/8"	1	1	SA
27	DB93-04389B	ASS'Y CONTROL OUT	ASS'Y	1	-	SA
	DB93-04389A	ASS'Y CONTROL OUT	ASS'Y	-	1	SA
28	DB93-04538A	ASS'Y PLATE CONTROL OUT	ASS'Y	1	1	SA
29	DB27-00044A	REACTOR	27mmH	4	4	SA
30	DB93-04527A	REACTOR	12mmH	1	1	SA
31	DB63-01728B	FELT-COMP SOUND	FELT+EVAR	1	-	SA
	DB63-01728A	FELT-COMP SOUND	FELT+EVAR	-	1	SA
32	DB63-30110L	GUARD SCREEN	P.E.H	1	1	SA
33	DB32-00177A	THERMISTOR-COND	ASS'Y	1	1	SA
34	DB32-00178A	THERMISTOR-AIR/DISCHARGE	ASS'Y	1	1	SA

5-4 Ass'y Control Out



■ Parts List

No.	Code No.	Description	Specification	Q'TY	SA/SNA
1	DB61-02940A	CASE CONTROL		1	
2	DB62-04478A	HEAT SINK		1	
2-1	0205-000178	THERMAL GREASE		1~1.5g	
3	6001-000706	SCREW MACHINE	PH M4x16	6	
4	-	ASS'Y PCB INV	FR4,190x240,10Z	1	
5	6006-000186	SCREW MACHINE	PH WSP ZPC(WHT) M5x16	2	
6	6002-000635	SCREW TAPPING	PH M4x8	2	
7	DB93-04231A	ASS'Y PCB MAIN	FR4,190x130,10Z	1	
8	6002-000635	SCREW TAPPING	PH M3x8	2	
9	DB93-04232B	ASS'Y PCB EMI	FR4,190x140,10Z	1	
10	6002-000635	SCREW TAPPING	PH M3x8	2	
11	DB35-00045A	MAGNETIC CONTACTOR		1	
12	DB39-01299B	C/W RS2		1	
13	DB39-01299A	C/W RS1		1	
14	DB39-01292B	C/W MC		1	
15	DB39-01292A	C/W POWER		1	
16	DB39-01296B	C/W RST2		1	
17	DB39-01293A	C/W POWER		1	
18	DB39-01194D	S/W SUB PCB		1	
19	DB65-10088B	CASBLE TIE		2	

6. Electrical Parts List

■ INDOOR MAIN PCB : DB93-02833E

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	
C10	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C101	2401-002216	C-AL	2200uF,20%,35V,GP,TP,16x25,7.5	1	SNA	
C102	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C103	2401-000711	C-AL	2200uF,20%,25V,GP,TP,16x25,7.5	1	SNA	
C104	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C105	2401-000037	C-AL	470uF,20%,16V,GP,TP,8x11.5,5	1	SNA	
C12	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C201	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C202	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C203	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C204	2203-001562	C-CER,CHIP	10nF,+80-20%,50V,Y5V,2012	1	SNA	
C205	2203-001562	C-CER,CHIP	10nF,+80-20%,50V,Y5V,2012	1	SNA	
C301	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,1608	1	SNA	
C302	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	SNA	
C303	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	SNA	
C304	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C305	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C306	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C307	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C311	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,1608	1	SNA	
C312	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	SNA	
C313	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	SNA	
C314	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C315	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C316	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C401	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C402	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C403	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C413	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C441	2203-001562	C-CER,CHIP	10nF,+80-20%,50V,Y5V,2012	1	SNA	
C504	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C505	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C506	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C601	2401-002300	C-AL	47uF,20%,50V,GP,TP,6.3x11,5	1	SNA	
C801	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C802	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	

■ INDOOR MAIN PCB : DB93-02833E(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
C806	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C807	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C808	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C815	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C816	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C817	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C818	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C819	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C901	2203-000444	C-CER,CHIP	1nF,10%,50V,X7R,2012	1	SNA	
C902	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,2012	1	SNA	
C911	2203-001562	C-CER,CHIP	10nF,+80-20%,50V,Y5V,2012	1	SNA	
C912	2203-001562	C-CER,CHIP	10nF,+80-20%,50V,Y5V,2012	1	SNA	
C913	2203-001562	C-CER,CHIP	10nF,+80-20%,50V,Y5V,2012	1	SNA	
C914	2203-001562	C-CER,CHIP	10nF,+80-20%,50V,Y5V,2012	1	SNA	
CD312	0406-001204	DIODE-TV5	SMBJ5.0CA,6.4/-7.07V,600W,SMB	1	SNA	
CD334	0406-001204	DIODE-TV5	SMBJ5.0CA,6.4/-7.07V,600W,SMB	1	SNA	
CN10	3711-005716	HEADER-BOARD TO CABLE	BOX,10P,1R,2mm,STRAIGHT,SN,BLK	1	SNA	
CN11	3711-000880	HEADER-BOARD TO CABLE	BOX,3P,1R,2.5mm,STRAIGHT,SN,RED	1	SNA	
CN31	3711-000177	HEADER-BOARD TO CABLE	1WALL,2P,1R,3.96mm,STRAIGHT,SN,RED	1	SNA	
CN32	3711-000178	HEADER-BOARD TO CABLE	1WALL,2P,1R,3.96mm,STRAIGHT,SN,WHT	1	SNA	
CN33	3711-000176	HEADER-BOARD TO CABLE	1WALL,2P,1R,3.96mm,STRAIGHT,SN,BLU	1	SNA	
CN41	3711-000940	HEADER-BOARD TO CABLE	BOX,4P,1R,2.5mm,STRAIGHT,SN,WHT	1	SNA	
CN51	3711-000794	HEADER-BOARD TO CABLE	BOX,2P,1R,2.5mm,STRAIGHT,SN	1	SNA	
CN60	3711-000577	HEADER-BOARD TO CABLE	BOX,10P,1R,2.5mm,STRAIGHT,SN,WHT	1	SNA	
CN71	3711-003404	HEADER-BOARD TO CABLE	1WALL,2P,1R,7.92mm,STRAIGHT,SN,BLU	1	SNA	
CN72	3711-000203	HEADER-BOARD TO CABLE	1WALL,2P/3P,1R,7.92mm,STRAIGHT, SN,WHT	1	SNA	
CN73	3711-000357	HEADER-BOARD TO CABLE	1WALL,5P,1R,7.92mm,STRAIGHT,SN,WHT	1	SNA	
CN74	3711-003406	HEADER-BOARD TO CABLE	1WALL,2P,1R,7.92mm,STRAIGHT,SN,YEL	1	SNA	
CN76	3711-001000	HEADER-BOARD TO CABLE	BOX,5P,1R,2.5mm,STRAIGHT,SN	1	SNA	
CN81	3711-000939	HEADER-BOARD TO CABLE	BOX,4P,1R,2.5mm,STRAIGHT,SN	1	SNA	
CN83	3711-000796	HEADER-BOARD TO CABLE	BOX,2P,1R,2.5mm,STRAIGHT,SN,RED	1	SNA	
CN91	3711-004712	HEADER-BOARD TO CABLE	BOX,9P,1R,2mm,STRAIGHT,SN,WHT	1	SNA	
D105	0402-000137	DIODE-RECTIFIER	1N4007,1kV,1A,DO-41,TP	1	SNA	
D900	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D901	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D902	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D903	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	

INDOOR MAIN PCB : DB93-02833E(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
D904	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D905	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D906	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D907	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D908	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D909	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D910	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D911	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D912	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D913	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D914	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D915	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D916	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D917	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D918	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D919	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D920	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D921	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D922	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D923	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D924	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D925	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D926	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D927	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
F701	3602-001012	FUSE-BLOCK	500V,-,100m	1	SNA	
F701_1	3601-000263	FUSE-CARTRIDGE	250V,3.15A,TIME-LAG,GLASS,5x20mm	1	SNA	
F702	3601-001308	FUSE	250V,1.6A,TIME-LAG,PLASTIC,8.4x7.6mm	1	SNA	
FT71	DB27-00019A	COIL CHOKE	SSC1905200B,Line Filter,20mH,+50%, -30%,-,0.3ohm,2.5A,20x28 mm,-,13x18, -,-,-,25	1	SNA	
HEAT-SINK	DB62-03581A	HEAT SINK	DPM,A6063,1.3,15,15,WHT,-,HEIGHT : 25.5	1	SNA	
IC01	1203-000243	IC-POS.FIXED REG.	7812,TO-220,3P,-,PLASTIC,11.5/12.5V,16W, 0TO+125C,1A,-,ST,-	1	SNA	
IC02	1203-000274	IC-POS.FIXED REG.	7805,TO-220,3P,-,PLASTIC,4.8/5	1	SNA	
IC03	1203-003334	IC-RESET	S-801,SOT-23,5P,2.9x1.6mm,PLASTIC, 3.716/4.284V,256mW,-,2.5mA,-,TP	1	SNA	
IC04	DB09-00395D	IC MICOM	MB90F823,-,80 P,5 V,24 MHz,STM-0519-DS, 24,16,QFP,QFP,14x20 mm,16,-40~85	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	

INDOOR MAIN PCB : DB93-02833E(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
IC07	0506-000175	TR-ARRAY	2003,NPN,7,1W,SOP-16,ST,1000	1	SNA	
IC08	0506-000175	TR-ARRAY	2003,NPN,7,1W,SOP-16,ST,1000	1	SNA	
IC09	0506-000175	TR-ARRAY	2003,NPN,7,1W,SOP-16,ST,1000	1	SNA	
IC18	1006-001325	IC-BUS TRANSCEIVER	1487,SO,8P,4.9x3.8 mm,SINGLE,ST, PLASTIC,5V,-40to+85CC,520mW, 1,1,1.5/5.25V,-	1	SNA	
IC19	1006-001325	IC-BUS TRANSCEIVER	1487,SO,8P,4.9x3.8 mm,SINGLE,ST, PLASTIC,5V,-40to+85CC,520mW, 1,1,1.5/5.25V,-	1	SNA	
IC20	0801-000393	IC-CMOS LOGIC	74HC86,OR GATE,SOP,14P,150MIL, QUAD,ST,-2.0/6.0V,0.26V,-40to+85C, 180mW,4.2V,1uA	1	SNA	
IC51	1103-001175	IC-EEPROM	93LC56,128x16,SOP,8P,5x4mm,2.5/6.0V, -40to+85C	1	SNA	
PCB	DB41-00303A	PBA LOGIC BOARD	uni 4-way,-,FR-4 ,T-1.6,-,-,-	1	SNA	
Q201	0501-000534	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SOT-23,TP,180-390	1	SNA	
Q202	0501-000534	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SOT-23,TP,180-390	1	SNA	
Q441	0501-000534	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SOT-23,TP,180-390	1	SNA	
Q601	0501-000534	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SOT-23,TP,180-390	1	SNA	
Q602	0501-002296	TR-SMALL SIGNAL	MMST2907A,PNP,200mW,SMT3,TP,100-300	1	SNA	
Q603	0501-000534	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SOT-23,TP,180-390	1	SNA	
Q901	0504-000001	TR-DIGITAL	DTA114EKA,PNP,200mW,10K/10K,SOT-23,TP	1	SNA	
Q902	0504-000001	TR-DIGITAL	DTA114EKA,PNP,200mW,10K/10K,SOT-23,TP	1	SNA	
Q904	0504-000001	TR-DIGITAL	DTA114EKA,PNP,200mW,10K/10K,SOT-23,TP	1	SNA	
Q905	0504-000001	TR-DIGITAL	DTA114EKA,PNP,200mW,10K/10K,SOT-23,TP	1	SNA	
Q906	0504-000001	TR-DIGITAL	DTA114EKA,PNP,200mW,10K/10K,SOT-23,TP	1	SNA	
Q907	0504-000001	TR-DIGITAL	DTA114EKA,PNP,200mW,10K/10K,SOT-23,TP	1	SNA	
Q908	0504-000001	TR-DIGITAL	DTA114EKA,PNP,200mW,10K/10K,SOT-23,TP	1	SNA	
Q909	0504-000001	TR-DIGITAL	DTA114EKA,PNP,200mW,10K/10K,SOT-23,TP	1	SNA	
Q910	0504-000001	TR-DIGITAL	DTA114EKA,PNP,200mW,10K/10K,SOT-23,TP	1	SNA	
R10	2007-000023	R-CHIP	120ohm,5%,1/8W,TP,2012	1	SNA	
R11	2007-000023	R-CHIP	120ohm,5%,1/8W,TP,2012	1	SNA	
R12	2007-000023	R-CHIP	120ohm,5%,1/8W,TP,2012	1	SNA	
R201	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R202	2007-000686	R-CHIP	3.3Kohm,5%,1/8W,TP,2012	1	SNA	
R204	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R205	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R206	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R207	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R302	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	

INDOOR MAIN PCB : DB93-02833E(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
R303	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R304	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R305	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R306	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R307	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R312	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R313	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R350	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R401	2007-001067	R-CHIP	6.8Kohm,1%,1/8W,TP,2012	1	SNA	
R402	2007-001067	R-CHIP	6.8Kohm,1%,1/8W,TP,2012	1	SNA	
R403	2007-001067	R-CHIP	6.8Kohm,1%,1/8W,TP,2012	1	SNA	
R404	2007-000766	R-CHIP	330ohm,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	
R413	2007-000613	R-CHIP	24Kohm,1%,1/8W,TP,2012	1	SNA	
R416	2007-000766	R-CHIP	330ohm,5%,1/8W,TP,2012	1	SNA	
R440	2007-001071	R-CHIP	6.8Kohm,5%,1/8W,TP,2012	1	SNA	
R441	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R443	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R502	2007-000766	R-CHIP	330ohm,5%,1/8W,TP,2012	1	SNA	
R503	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R509	2007-000766	R-CHIP	330ohm,5%,1/8W,TP,2012	1	SNA	
R511	2007-000938	R-CHIP	47Kohm,1%,1/8W,TP,2012	1	SNA	
R512	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R513	2007-000938	R-CHIP	47Kohm,1%,1/8W,TP,2012	1	SNA	
R601	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R602	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R603	2007-000300	R-CHIP	10Kohm,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	
R803	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R804	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R805	2007-000477	R-CHIP	1Mohm,5%,1/8W,TP,2012	1	SNA	

■ INDOOR MAIN PCB : DB93-02833E(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
R901	2007-000766	R-CHIP	330ohm,5%,1/8W,TP,2012	1	SNA	
R902	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	1	SNA	
R903	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R911	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R912	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R913	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R914	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
RY01	3501-001248	RELAY-MINIATURE	12V,-,11.7mA,DPDT,4mS,4mS	1	SNA	
RY70	3501-001264	RELAY-POWER	12VDC,200mW,5000mA,1FormA,10mS,10mS	1	SNA	
RY75	3501-001264	RELAY-POWER	12VDC,200mW,5000mA,1FormA,10mS,10mS	1	SNA	
RY76	3501-001264	RELAY-POWER	12VDC,200mW,5000mA,1FormA,10mS,10mS	1	SNA	
RY77	3501-001264	RELAY-POWER	12VDC,200mW,5000mA,1FormA,10mS,10mS	1	SNA	
RY78	3501-001264	RELAY-POWER	12VDC,200mW,5000mA,1FormA,10mS,10mS	1	SNA	
SCREW	6002-000630	SCREW-TAPPING	PH,+, -,2S,M3,L8,ZPC(YEL),SWRCH18A,-	1	SNA	
SW02	3406-001098	SWITCH-ROTARY	240V AC,25A,6P(10C),L14mm	1	SNA	
SW04	DB34-00009A	SWITCH-DIGITAL	PT65 103,ROTARY DIP,-,DC24V Max,0.4VA, 50mOhm Max,-,BULK,10mmx10mm,straight,-,-,-	1	SNA	
SW05	3407-000121	SWITCH-DIP	24V,300mA,SLIDE,STANDARD	1	SNA	
SW06	3407-000121	SWITCH-DIP	24V,300mA,SLIDE,STANDARD	1	SNA	
SW07	3407-000121	SWITCH-DIP	24V,300mA,SLIDE,STANDARD	1	SNA	
VA71	1405-000154	VARISTOR	460Vdc,2500A,17.5x7.5mm,TP	1	SNA	
X301	2802-001179	RESONATOR-CERAMIC	4MHz,0.5%,BK,8x3x5.5mm	1	SNA	
X701	2301-001220	C-FILM,LEAD-PPF	100nF,10%,275V,BK,18x6x12,15	1	SNA	
X702	2301-001220	C-FILM,LEAD-PPF	100nF,10%,275V,BK,18x6x12,15	1	SNA	

■ INDOOR SUB PCB : DB93-03048B

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
C302	2203-000189	C-CER,CHIP	100nF	1	SNA	
C303	2203-000189	C-CER,CHIP	100nF	1	SNA	
C304	2203-000192	C-CER,CHIP	100nF	1	SNA	
C305	2203-000192	C-CER,CHIP	100nF	1	SNA	
C306	2203-000192	C-CER,CHIP	100nF	1	SNA	
C307	2203-000192	C-CER,CHIP	100nF	1	SNA	
CD312	0406-001204	DIODE-TVS	SMBJ5.0CA	1	SNA	
CN11	3711-006040	HEADER-BOARD TO BOARD	NOWALL,10P,ANGLE,BLK	1	SNA	
CN12	3711-003847	HEADER-BOARD TO CABLE	BOX,12P,ANGLE	1	SNA	
CN31	3711-000058	HEADER-BOARD TO CABLE	BOX,4P,WHT	1	SNA	
IC18	1006-001312	IC-BUS TRANSCEIVER	LMS1487	1	SNA	
IC20	0801-000393	IC-CMOS LOGIC	74HC86	1	SNA	
IC31	0604-001003	PHOTO-COUPLER	PC814	1	SNA	
PCB	DB41-00454A	PCB SUB-INDOOR 485	PCB-2L	1	SNA	
R201	2007-000084	R-CHIP	4.7Kohm	1	SNA	
R202	2007-000084	R-CHIP	4.7Kohm	1	SNA	
R203	2007-000084	R-CHIP	4.7Kohm	1	SNA	
R204	2007-000078	R-CHIP	1Kohm	1	SNA	
R205	2007-000078	R-CHIP	1Kohm	1	SNA	
R206	2007-000078	R-CHIP	1Kohm	1	SNA	
R302	2007-000300	R-CHIP	10Kohm	1	SNA	
R303	2007-000300	R-CHIP	10Kohm	1	SNA	
R304	2007-000300	R-CHIP	10Kohm	1	SNA	
R305	2007-000300	R-CHIP	10Kohm	1	SNA	
R309	2007-000656	R-CHIP	27Kohm	1	SNA	
R310	2007-000656	R-CHIP	27Kohm	1	SNA	
R311	2007-000656	R-CHIP	27Kohm	1	SNA	
R312	2007-000656	R-CHIP	27Kohm	1	SNA	
R315	2007-000090	R-CHIP	10Kohm	1	SNA	
R350	2007-000468	R-CHIP	1Kohm	1	SNA	
RY01	3501-001248	RELAY-MINIATURE	G6S-2	1	SNA	
SW01	3407-000121	SWITCH-DIP	SLIDE	1	SNA	

■ INDOOR DISPLAY PCB : DB93-02806A

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
1	2003-002111	R-METAL OXIDE(S)	200ohm,5%,2W,AF,TP,4.3x12mm	4	SNA	
2	3404-000176	SWITCH-TACT	12V,50mA,120gf,6x6mm,DPST	1	SNA	
3	3711-004352	HEADER-BOARD TO CABLE	BOX,15P,1R,2mm,STRAIGHT,SN,NTR	1	SNA	
4	DB41-00321A	PCB SUB-DISPLAY	HB-P/J,FR-4,2,1,1.6T,132.5x53.5x1.6t,BLU/ORG,4,-,EPOXY	1	SNA	
5	DB61-02033A	HOLDER DISPLAY	HB-P/J,Noryl,7mm,25mm,107.5mm,WHT,EPOXY TYPE	1	SNA	
6	DB93-03138A	ASS'Y CONNECTOR WIRE-DISPLAY	HB1/2-PJT,70mm±5,3P	1	SNA	

■ MODULE PCB : DB93-01369A

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
1	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,TP	1	SNA	
2	0609-001204	MODULE REMOCON	HORIZONTAL,6.5mm,TR	1	SA	
3	2202-000173	C-CERAMIC,MLC-AXIAL	1nF,10%,50V,Y5P,-,1.9x3.5mm,-	1	SNA	
4	2202-000780	C-CERAMIC,MLC-AXIAL	100nF,+80-20%,50V,Y5V,-,3.5x19mm,-	1	SNA	
5	3711-004386	HEADER-BOARD TO CABLE	BOX,3P,1R,2mm,ANGLE,SN,NTR	1	SNA	
6	DB41-00102A	PCB-BOARD	G1-P/J,FR1,1,-,T1.6,-,-,-,MOUDLE PCB	1	SNA	

■ OUTDOOR EMI PCB : DB93-04232B

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
C01	2301-001285	C-FILM.LEAD-PPF	680nF,275V	1	SNA	
C02	2301-001285	C-FILM.LEAD-PPF	680nF,275V	1	SNA	
C03	2301-001285	C-FILM.LEAD-PPF	680nF,275V	1	SNA	
C04	2301-001285	C-FILM.LEAD-PPF	680nF,275V	1	SNA	
C05	2301-001285	C-FILM.LEAD-PPF	680nF,275V	1	SNA	
C06	2301-001285	C-FILM.LEAD-PPF	680nF,275V	1	SNA	
C07	2201-000322	C-CERAMIC,DISC	2.2nF,2KV	1	SNA	
C08	2201-000322	C-CERAMIC,DISC	2.2nF,2KV	1	SNA	
C09	2201-000322	C-CERAMIC,DISC	2.2nF,2KV	1	SNA	
C10	2201-000322	C-CERAMIC,DISC	2.2nF,2KV	1	SNA	
C11	2201-000322	C-CERAMIC,DISC	2.2nF,2KV	1	SNA	
C12	2201-000322	C-CERAMIC,DISC	2.2nF,2KV	1	SNA	
C13	2201-000322	C-CERAMIC,DISC	2.2nF,2KV	1	SNA	
C14	2201-000322	C-CERAMIC,DISC	2.2nF,2KV	1	SNA	
CN01	3712-001139	CONNECTOR-TERMINAL	TAB,YTR250	1	SNA	
CN05	3712-001139	CONNECTOR-TERMINAL	TAB,YTR250	1	SNA	
CN06	3712-001139	CONNECTOR-TERMINAL	TAB,YTR250	1	SNA	
CN07	3712-001139	CONNECTOR-TERMINAL	TAB,YTR250	1	SNA	
CN09	3711-000315	CONNECTOR-HEADER	1WALL,4P,1R,7.92mm,STRAIGHT,SN,WHT, YW396-07AV	1	SNA	
FUSE01	3601-001426	FUSE-CARTRIDGE	FLQ25,500V,25A	1	SNA	
FUSE02	3601-001426	FUSE-CARTRIDGE	FLQ25,500V,25A	1	SNA	
FUSE03	3601-001426	FUSE-CARTRIDGE	FLQ25,500V,25A	1	SNA	
Fuse1	3602-001040	FUSE-CLIP	1250003,250V/30A	1	SNA	
Fuse2	3602-001040	FUSE-CLIP	1250003,250V/30A	1	SNA	
Fuse3	3602-001040	FUSE-CLIP	1250003,250V/30A	1	SNA	
L01	DB27-00039A	COIL CHOKE	SSC5122010B,1mH	1	SNA	
L02	DB27-00039A	COIL CHOKE	SSC5122010B,1mH	1	SNA	
PCB	DB41-00512A	PCB EMI	FR4,1.6T	1	SNA	
R01	2003-002038	R-CARBON(S)	1M-J,2W	1	SNA	
R02	2003-002038	R-CARBON(S)	1M-J,2W	1	SNA	
R03	2003-002038	R-CARBON(S)	1M-J,2W	1	SNA	
R04	2003-002038	R-CARBON(S)	1M-J,2W	1	SNA	
SB01	DB47-00016A	DSA	DSA-332mA	1	SNA	
VA01	1405-000160	VARISTOR	INR14D681,680V,4500A	1	SNA	
VA02	1405-000160	VARISTOR	INR14D681,680V,4500A	1	SNA	
VA03	1405-000160	VARISTOR	INR14D681,680V,4500A	1	SNA	
VA04	1405-000154	VARISTOR	INR14D561K-RS,560V,4500A	1	SNA	
VA05	1405-000154	VARISTOR	INR14D561K-RS,560V,4500A	1	SNA	

■ OUTDOOR EMI PCB : DB93-04232B(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
VA07	1405-000154	VARISTOR	INR14D561K-RS,560V,4500A	1	SNA	
WIRE_EARTH	DB39-00514F	CBF LEAD WIRE-EARTH	AWG #16, YEL/GRN	1	SNA	
WIRE_N	DB39-01290E	CONNECT WIRE-N4	AWG #18, SKY/BUE	1	SNA	
WIRE_POWER	DB39-01292A	CONNECT WIRE-POWER	AWG #18, SKY/BUE, BRN	1	SNA	
WIRE_RS1	DB39-01299A	CONNECT WIRE-RS1	AWG #14, BLK	1	SNA	
WIRE_T	DB39-01290C	CONNECT WIRE-T	AWG #14, BRN	1	SNA	

OUTDOOR MAIN PCB : DB93-04231A

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
BAR_CODE	DC68-02310A	LABEL-BAR CODE	SEW-6HR128ATC,-,ART,-,W45,L15,...	1	SNA	
BD700	0402-000324	DIODE-BRIDGE	D35B60,600V,4A,SIP-4,ST	1	SNA	
C100	2401-003861	C-AL	68uF,20%,400V,WT,TP,18x25mm,7,...	1	SNA	
C101	2401-002438	C-AL	47?F,20%,50V,WT,TP,6.3x11,5mm	1	SNA	
C102	2201-000879	C-CERAMIC,DISC	2.2nF,10%,1KV,Y5P,BK,10x4mm,10	1	SNA	
C103	2203-001414	C-CER,CHIP	330nF,10%,50V,X7R,2012	1	SNA	
C104	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C105	2201-000879	C-CERAMIC,DISC	2.2nF,10%,1KV,Y5P,BK,10x4mm,10	1	SNA	
C106	2401-003585	C-AL	220uF,20%,35V,WT,TP,8x11.5mm,5	1	SNA	
C107	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C108	2203-000477	C-CER,CHIP	1000nF,+80-20%,16V,Y5V,TP,2012	1	SNA	
C109	2401-000151	C-AL	1000uF,20%,25V,GP,TP,10x20,5	1	SNA	
C110	2401-003861	C-AL	68uF,20%,400V,WT,TP,18x25mm,7,...	1	SNA	
C200	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C201	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C300	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C301	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C302	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C303	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C304	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C305	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C306	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C307	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C308	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C309	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C400	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C401	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C402	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C403	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C404	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C405	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C406	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C407	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C408	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C409	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C500	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C501	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C502	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C503	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	

OUTDOOR MAIN PCB : DB93-04231A(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
C504	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C505	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C507	2201-000154	C-CERAMIC,DISC	10nF,+80-20%,2KV,Y5P,TP,20x5mm...	1	SNA	
C508	2201-000154	C-CERAMIC,DISC	10nF,+80-20%,2KV,Y5P,TP,20x5mm...	1	SNA	
C509	2201-000154	C-CERAMIC,DISC	10nF,+80-20%,2KV,Y5P,TP,20x5mm...	1	SNA	
C510	2201-000154	C-CERAMIC,DISC	10nF,+80-20%,2KV,Y5P,TP,20x5mm...	1	SNA	
C600	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C601	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C700	2306-001034	C-FILM,LEAD-PPF	100nF,10%,275V,TP,17.5x8.5x15,	1	SNA	
C702	2306-001034	C-FILM,LEAD-PPF	100nF,10%,275V,TP,17.5x8.5x15,	1	SNA	
C800	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C801	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C802	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C900	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C901	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C902	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C903	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C904	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
CD500	0406-001109	DIODE-TVS	SAC5.0,7.6/-/-V,500W,DO-15	1	SNA	
CD501	0406-001109	DIODE-TVS	SAC5.0,7.6/-/-V,500W,DO-15	1	SNA	
CN20	OMIT			1	SNA	
CN21	OMIT			1	SNA	
CN22	3711-003405	HEADER-BOARD TO CABLE	1WALL,2P,1R,7.92mm,STRAIGHT,SN...	1	SNA	
CN23	3711-003406	HEADER-BOARD TO CABLE	1WALL,2P,1R,7.92mm,STRAIGHT,SN...	1	SNA	
CN24	OMIT			1	SNA	
CN25	OMIT			1	SNA	
CN26	OMIT			1	SNA	
CN27	OMIT			1	SNA	
CN28	OMIT			1	SNA	
CN30	3711-005716	HEADER-BOARD TO CABLE	BOX,10P,1R,2mm,STRAIGHT,SN,BLK	1	SNA	
CN31	3711-003873	HEADER-BOARD TO CABLE	BOX,7P,1R,2mm,STRAIGHT,SN,NTR	1	SNA	
CN40	OMIT			1	SNA	
CN41	OMIT			1	SNA	
CN42	OMIT			1	SNA	
CN43	OMIT			1	SNA	
CN44	3711-000940	HEADER-BOARD TO CABLE	BOX,4P,1R,2.5mm,STRAIGHT,SN,WH...	1	SNA	
CN45	OMIT			1	SNA	
CN46	3711-000939	HEADER-BOARD TO CABLE	BOX,4P,1R,2.5mm,STRAIGHT,SN	1	SNA	

OUTDOOR MAIN PCB : DB93-04231A(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
CN47	OMIT			1	SNA	
CN50	3711-000177	HEADER-BOARD TO CABLE	1WALL,2P,1R,3.96mm,STRAIGHT,SN...	1	SNA	
CN51	3711-000176	HEADER-BOARD TO CABLE	1WALL,2P,1R,3.96mm,STRAIGHT,SN...	1	SNA	
CN60	3711-000997	CONNECTOR-HEADER	BOX,5P,1R,2.5mm,STRAIGHT,SN	1	SNA	
CN61	OMIT			1	SNA	
CN62	OMIT			1	SNA	
CN80	3711-000315	HEADER-BOARD TO CABLE	1WALL,4P,1R,7.92mm,STRAIGHT,SN...	1	SNA	
CN90	OMIT			1	SNA	
CN91	OMIT			1	SNA	
CN92	3711-004484	HEADER-BOARD TO CABLE	BOX,5P,1R,2mm,STRAIGHT,SN,NTR	1	SNA	
D100	0402-000351	DIODE-RECTIFIER	1N4937,600V,1A,DO-41,TP	1	SNA	
D101	0402-001427	DIODE-RECTIFIER	ES1D,200V,1A,DO-214AC,TP	1	SNA	
D102	0402-001427	DIODE-RECTIFIER	ES1D,200V,1A,DO-214AC,TP	1	SNA	
D103	0402-001427	DIODE-RECTIFIER	ES1D,200V,1A,DO-214AC,TP	1	SNA	
D400	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D401	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D402	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D403	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D405	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D406	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D800	0402-000137	DIODE-RECTIFIER	1N4007,1KV,1A,DO-41,TP	1	SNA	
D801	0402-000137	DIODE-RECTIFIER	1N4007,1KV,1A,DO-41,TP	1	SNA	
D802	0402-000137	DIODE-RECTIFIER	1N4007,1KV,1A,DO-41,TP	1	SNA	
D900	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D901	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
F702	3602-001012	FUSE-BLOCK	500V,-,100M	1	SNA	
FLUX	0204-002978	FLUX	KSP-70M,-,84%,FLUX,SPRAY	1	SNA	
FUSE02	3601-000003	FUSE-CARTRIDGE	250V,5A,FAST-ACTING,GLASS,5.2x...	1	SNA	
IC100	1203-003527	IC-PWM CONTROLLER	TOP243,DIP,7P,9.83x6.6mm,PLAST...	1	SNA	
IC101	1203-000340	IC-VOL. REFERENCE	431,TO-92,3P,-,PLASTIC,36V,770	1	SNA	
IC200	0506-000175	TR-ARRAY	2003,NPN,7,1W,SOP-16,ST,1000	1	SNA	
IC201	OMIT			1	SNA	
IC300	1203-003334	IC-RESET	S-801,SOT-23,5P,2.9x1.6mm,PLAS...	1	SNA	
IC301	DB91-00384A	ASSY-MIC	STAR, mAIN MICOM,MB90F823, 80P...	1	SNA	
IC302	OMIT			1	SNA	
IC500	1006-001325	IC-BUS TRANSCEIVER	1487,SO,8P,4.9x3.8 mm,SINGLE,S...	1	SNA	
IC501	0801-000393	IC-CMOS LOGIC	74HC86,OR GATE,SOP,14P,150MIL,...	1	SNA	
IC600	0506-000175	TR-ARRAY	2003,NPN,7,1W,SOP-16,ST,1000	1	SNA	

■ OUTDOOR MAIN PCB : DB93-04231A(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
IC601	OMIT			1	SNA	
IC901	0506-000175	TR-ARRAY	2003,NPN,7,1W,SOP-16,ST,1000	1	SNA	
IC902	0506-000175	TR-ARRAY	2003,NPN,7,1W,SOP-16,ST,1000	1	SNA	
K1	3404-000164	SWITCH-TACT	12V,50mA,160gf,6x6mm,SPST	1	SNA	
K2	3404-000164	SWITCH-TACT	12V,50mA,160gf,6x6mm,SPST	1	SNA	
LED900	0601-000575	LED	ROUND,RED,3mm,690nm	1	SNA	
LED901	0601-000552	LED	ROUND,GRN,3mm,570nm	1	SNA	
LED902	0601-000188	LED	ROUND,ORG,3mm,630nm	1	SNA	
NTC700	1404-001377	THERMISTOR-NTC	10ohm,4A,3100K,20mW/C-,15,BK	1	SNA	
PC100	0604-001002	PHOTO-COUPLER	TR,100-600%,200mW,SOP-4,TP	1	SNA	
PC500	0604-001148	PHOTO-COUPLER	TR,50-600%,200mW,SMD-4,TP	1	SNA	
PC800	0604-001002	PHOTO-COUPLER	TR,100-600%,200mW,SOP-4,TP	1	SNA	
PC801	0604-001002	PHOTO-COUPLER	TR,100-600%,200mW,SOP-4,TP	1	SNA	
PC802	0604-001002	PHOTO-COUPLER	TR,100-600%,200mW,SOP-4,TP	1	SNA	
PCB	DB41-00513A	PCB-MAIN	UH140EAV,FR4, 1oz,2,01,1.6t,20...	1	SNA	
Q901	0504-000001	TR-DIGITAL	DTA114EKA,PNP,200mW,10K/10K,SO...	1	SNA	
Q902	0504-000001	TR-DIGITAL	DTA114EKA,PNP,200mW,10K/10K,SO...	1	SNA	
Q903	0504-000001	TR-DIGITAL	DTA114EKA,PNP,200mW,10K/10K,SO...	1	SNA	
Q904	0504-000001	TR-DIGITAL	DTA114EKA,PNP,200mW,10K/10K,SO...	1	SNA	
R100	2007-001074	R-CHIP	6.8ohm,5%,1/8W,TP,2012	1	SNA	
R101	2007-000023	R-CHIP	120ohm,5%,1/8W,TP,2012	1	SNA	
R102	2007-000682	R-CHIP	3.3Kohm,1%,1/8W,TP,2012	1	SNA	
R103	DB98-20665A	ASSY-RESISTOR	KFR-35(25)GW/GPI,1.8k F 1608	1	SNA	
R104	DB98-20665A	ASSY-RESISTOR	KFR-35(25)GW/GPI,1.8k F 1608	1	SNA	
R105	2003-000855	R-METAL OXIDE(S)	47Kohm,5%,3W,AA,TP,6x16mm	1	SNA	
R106	2007-007459	R-CHIP	470Kohm,5%,1/2W,TP,5025	1	SNA	
R107	2007-007459	R-CHIP	470Kohm,5%,1/2W,TP,5025	1	SNA	
R108	2007-007459	R-CHIP	470Kohm,5%,1/2W,TP,5025	1	SNA	
R109	2007-007459	R-CHIP	470Kohm,5%,1/2W,TP,5025	1	SNA	
R110	2007-000924	R-CHIP	470Kohm,1%,1/4W,TP,3216	1	SNA	
R111	2007-000924	R-CHIP	470Kohm,1%,1/4W,TP,3216	1	SNA	
R112	2007-000924	R-CHIP	470Kohm,1%,1/4W,TP,3216	1	SNA	
R113	2007-000924	R-CHIP	470Kohm,1%,1/4W,TP,3216	1	SNA	
R300	2007-000465	R-CHIP	1Kohm,1%,1/8W,TP,2012	1	SNA	
R301	2007-000465	R-CHIP	1Kohm,1%,1/8W,TP,2012	1	SNA	
R302	2007-000465	R-CHIP	1Kohm,1%,1/8W,TP,2012	1	SNA	
R303	2007-000465	R-CHIP	1Kohm,1%,1/8W,TP,2012	1	SNA	
R304	2007-000938	R-CHIP	47Kohm,1%,1/8W,TP,2012	1	SNA	
R305	2007-000938	R-CHIP	47Kohm,1%,1/8W,TP,2012	1	SNA	

OUTDOOR MAIN PCB : DB93-04231A(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
R400	2007-000465	R-CHIP	1Kohm,1%,1/8W,TP,2012	1	SNA	
R401	2007-000076	R-CHIP	330ohm,5%,1/10W,TP,1608	1	SNA	
R402	2007-000076	R-CHIP	330ohm,5%,1/10W,TP,1608	1	SNA	
R403	2007-000465	R-CHIP	1Kohm,1%,1/8W,TP,2012	1	SNA	
R404	2007-000076	R-CHIP	330ohm,5%,1/10W,TP,1608	1	SNA	
R405	2007-000076	R-CHIP	330ohm,5%,1/10W,TP,1608	1	SNA	
R406	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R407	2007-000076	R-CHIP	330ohm,5%,1/10W,TP,1608	1	SNA	
R408	2007-000076	R-CHIP	330ohm,5%,1/10W,TP,1608	1	SNA	
R409	2007-000076	R-CHIP	330ohm,5%,1/10W,TP,1608	1	SNA	
R410	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R411	2007-000076	R-CHIP	330ohm,5%,1/10W,TP,1608	1	SNA	
R412	2007-000076	R-CHIP	330ohm,5%,1/10W,TP,1608	1	SNA	
R413	2007-000076	R-CHIP	330ohm,5%,1/10W,TP,1608	1	SNA	
R414	2007-000613	R-CHIP	24Kohm,1%,1/8W,TP,2012	1	SNA	
R415	2007-000455	R-CHIP	18Kohm,1%,1/10W,TP,1608	1	SNA	
R416	2007-000613	R-CHIP	24Kohm,1%,1/8W,TP,2012	1	SNA	
R417	2007-000613	R-CHIP	24Kohm,1%,1/8W,TP,2012	1	SNA	
R418	2007-000455	R-CHIP	18Kohm,1%,1/10W,TP,1608	1	SNA	
R419	2007-000613	R-CHIP	24Kohm,1%,1/8W,TP,2012	1	SNA	
R420	2007-000455	R-CHIP	18Kohm,1%,1/10W,TP,1608	1	SNA	
R421	2007-000455	R-CHIP	18Kohm,1%,1/10W,TP,1608	1	SNA	
R500	2007-000944	R-CHIP	47Kohm,5%,1/4W,TP,3216	1	SNA	
R501	2007-000944	R-CHIP	47Kohm,5%,1/4W,TP,3216	1	SNA	
R502	2007-000944	R-CHIP	47Kohm,5%,1/4W,TP,3216	1	SNA	
R503	2007-000944	R-CHIP	47Kohm,5%,1/4W,TP,3216	1	SNA	
R504	2007-000944	R-CHIP	47Kohm,5%,1/4W,TP,3216	1	SNA	
R505	2007-000944	R-CHIP	47Kohm,5%,1/4W,TP,3216	1	SNA	
R506	2007-000944	R-CHIP	47Kohm,5%,1/4W,TP,3216	1	SNA	
R507	2007-000944	R-CHIP	47Kohm,5%,1/4W,TP,3216	1	SNA	
R508	2007-000023	R-CHIP	120ohm,5%,1/8W,TP,2012	1	SNA	
R509	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R510	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R511	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R512	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R513	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R514	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R800	2003-002114	R-METAL OXIDE(S)	200Kohm,5%,2W,AA,TP,4x12mm	1	SNA	

OUTDOOR MAIN PCB : DB93-04231A(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
R801	2003-002114	R-METAL OXIDE(S)	200Kohm,5%,2W,AA,TP,4x12mm	1	SNA	
R802	2003-002114	R-METAL OXIDE(S)	200Kohm,5%,2W,AA,TP,4x12mm	1	SNA	
R803	2003-002114	R-METAL OXIDE(S)	200Kohm,5%,2W,AA,TP,4x12mm	1	SNA	
R804	2003-002114	R-METAL OXIDE(S)	200Kohm,5%,2W,AA,TP,4x12mm	1	SNA	
R805	2003-002114	R-METAL OXIDE(S)	200Kohm,5%,2W,AA,TP,4x12mm	1	SNA	
R806	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R807	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R808	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R809	2007-000766	R-CHIP	330ohm,5%,1/8W,TP,2012	1	SNA	
R810	2007-000766	R-CHIP	330ohm,5%,1/8W,TP,2012	1	SNA	
R811	2007-000766	R-CHIP	330ohm,5%,1/8W,TP,2012	1	SNA	
R812	2007-000033	R-CHIP	0ohm,5%,1/4W,TP,3216	1	SNA	
R900	2007-000964	R-CHIP	5.1Kohm,5%,1/8W,TP,2012	1	SNA	
R901	2007-000964	R-CHIP	5.1Kohm,5%,1/8W,TP,2012	1	SNA	
R902	2007-000964	R-CHIP	5.1Kohm,5%,1/8W,TP,2012	1	SNA	
R903	2007-001318	R-CHIP	1Kohm,5%,1/4W,TP,3216	1	SNA	
R904	2007-001318	R-CHIP	1Kohm,5%,1/4W,TP,3216	1	SNA	
R905	2007-001318	R-CHIP	1Kohm,5%,1/4W,TP,3216	1	SNA	
R906	2007-001318	R-CHIP	1Kohm,5%,1/4W,TP,3216	1	SNA	
R907	2007-001318	R-CHIP	1Kohm,5%,1/4W,TP,3216	1	SNA	
R908	2007-001318	R-CHIP	1Kohm,5%,1/4W,TP,3216	1	SNA	
R909	2007-001318	R-CHIP	1Kohm,5%,1/4W,TP,3216	1	SNA	
R910	2007-001177	R-CHIP	8.2Kohm,5%,1/8W,TP,2012	1	SNA	
R911	2007-001177	R-CHIP	8.2Kohm,5%,1/8W,TP,2012	1	SNA	
R912	2007-001177	R-CHIP	8.2Kohm,5%,1/8W,TP,2012	1	SNA	
RY200	3501-001154	RELAY-MINIATURE	12Vdc,200mW,3000mA,1FORmA,10mS...	1	SNA	
RY201	OMIT			1	SNA	
RY202	OMIT			1	SNA	
RY203	OMIT			1	SNA	
RY205	3501-001163	RELAY-MINIATURE	12Vdc,200mW,5000mA,1FORmA,10mS...	1	SNA	
RY206	OMIT			1	SNA	
RY207	OMIT			1	SNA	
RY208	OMIT			1	SNA	
RY209	OMIT			1	SNA	
RY210	OMIT			1	SNA	
RY211	OMIT			1	SNA	
RY501	3501-001248	RELAY-MINIATURE	12V,-,11.7mA,DPDT,4mS,4mS	1	SNA	
SOLDER BAR	0202-000176	SOLDER-BAR	VACULOY,-,22x337x16,96.55N/3AG...	1	SNA	

OUTDOOR MAIN PCB : DB93-04231A(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
SOLDER CREAM	0202-001459	SOLDER-CREAM	S3X58-M405,-,D20~38?,96.5SN/3A...	1	SNA	
SOLDER WIRE	0202-001476	SOLDER-WIRE	-,D3.0,96.5SN/3AG/0.5CU,-	1	SNA	
SOLVENT	0204-003174	SOLVENT	S-E70,SOLVENT,-,0.790	1	SNA	
T100	DB26-00073A	TRANS FBT-PT60	PT60,PT60,700uH,EI2218B,PL-5 o...	1	SNA	
T700	DB27-00033A	COIL CHOKE	FILTER,S50,-,-,-,5A,14mH,-,-...	1	SNA	
WIRE EARTH	DB39-00514G	CONNECT WIRE-EARTH	UL1015 AWG #16,GRN/YEL 170mm	1	SNA	
X301	2802-001179	RESONATOR-CERAMIC	4mHZ,0.5%,BK,8x3x5.5mm	1	SNA	

OUTDOOR INVERTER PCB : DB93-04234B(UH105GAV)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
BAR_CODE	DC68-02310A	LABEL-BAR CODE	SEW-6HR128ATC,-,ART,-,W45,L15	1	SNA	
C/W-COMP	DB39-00746E	CONNECT WIRE-COMP	AWG #14,RED/BLU/YEL	1	SNA	
C/W-RST2	DB39-01296B	CONNECT WIRE-RST2	AWG #14,WHT/BRN/BLK	1	SNA	
C100	2306-001034	C-FILM,LEAD-PPF	100nF,10%,275V,TP,17.5x8.5x15,	1	SNA	
C101	2306-001034	C-FILM,LEAD-PPF	100nF,10%,275V,TP,17.5x8.5x15,	1	SNA	
C102	2401-004279	C-AL	470?F,+20%,450V,WT,-,50x35,10	1	SNA	
C103	OMIT			1	SNA	
C104	2401-003541	C-AL	10uF,20% ,450V,WT,TP,12.5x20mm	1	SNA	
C105	2203-000389	C-CER,CHIP	0.015nF,5%,50V,C0G,2012	1	SNA	
C106	2401-003585	C-AL	220uF,20%,35V,WT,TP,8x11.5mm,5	1	SNA	
C107	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C108	2201-000551	C-CERAMIC,DISC	0.47nF,10%,1KV,Y5P,TP,6.3x5mm	1	SNA	
C109	2201-000551	C-CERAMIC,DISC	0.47nF,10%,1KV,Y5P,TP,6.3x5mm	1	SNA	
C110	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C111	2201-000551	C-CERAMIC,DISC	0.47nF,10%,1KV,Y5P,TP,6.3x5mm	1	SNA	
C112	2401-000353	C-AL	100uF,20%,50V,GP,TP,8x11.5mm,5	1	SNA	
C114	2201-000551	C-CERAMIC,DISC	0.47nF,10%,1KV,Y5P,TP,6.3x5mm	1	SNA	
C115	2201-000551	C-CERAMIC,DISC	0.47nF,10%,1KV,Y5P,TP,6.3x5mm	1	SNA	
C116	2401-000353	C-AL	100uF,20%,50V,GP,TP,8x11.5mm,5	1	SNA	
C117	2201-000551	C-CERAMIC,DISC	0.47nF,10%,1KV,Y5P,TP,6.3x5mm	1	SNA	
C118	2401-000353	C-AL	100uF,20%,50V,GP,TP,8x11.5mm,5	1	SNA	
C119	2401-000353	C-AL	100uF,20%,50V,GP,TP,8x11.5mm,5	1	SNA	
C120	2201-000551	C-CERAMIC,DISC	0.47nF,10%,1KV,Y5P,TP,6.3x5mm	1	SNA	
C121	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C122	2401-000353	C-AL	100uF,20%,50V,GP,TP,8x11.5mm,5	1	SNA	
C123	2401-001200	C-AL	33uF,20%,50V,WT,TP,6.3x11,2.5	1	SNA	
C124	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C200	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C300	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	SNA	
C301	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C302	2401-002438	C-AL	47?F,20%,50V,WT,TP,6.3x11,5mm	1	SNA	
C303	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C305	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	SNA	
C306	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C308	2203-002002	C-CER,CHIP	33pF,5%,50V,NPO,BK,1608,-	1	SNA	
C309	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	SNA	
C311	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C312	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C313	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C315	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	SNA	

OUTDOOR INVERTER PCB : DB93-04234B(UH105GAV)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
C316	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C317	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	SNA	
C318	2203-002002	C-CER,CHIP	33pF,5%,50V,NPO,BK,1608,-	1	SNA	
C319	2203-002002	C-CER,CHIP	33pF,5%,50V,NPO,BK,1608,-	1	SNA	
C320	2203-002002	C-CER,CHIP	33pF,5%,50V,NPO,BK,1608,-	1	SNA	
C321	2203-002002	C-CER,CHIP	33pF,5%,50V,NPO,BK,1608,-	1	SNA	
C322	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	SNA	
C323	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C324	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C325	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	SNA	
C327	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C400	2203-006104	C-CER,CHIP	1000nF,10%,50V,X7R,3225	1	SNA	
C402	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	SNA	
C403	2203-006104	C-CER,CHIP	1000nF,10%,50V,X7R,3225	1	SNA	
C405	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	SNA	
C406	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C407	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C408	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C409	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C500	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C501	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C502	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C600	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C601	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C602	2203-000239	C-CER,CHIP	0.1nF,5%,50V,COG,2012	1	SNA	
C603	2203-000239	C-CER,CHIP	0.1nF,5%,50V,COG,2012	1	SNA	
C604	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C605	2203-000239	C-CER,CHIP	0.1nF,5%,50V,COG,2012	1	SNA	
C606	2203-000239	C-CER,CHIP	0.1nF,5%,50V,COG,2012	1	SNA	
C607	2203-000239	C-CER,CHIP	0.1nF,5%,50V,COG,2012	1	SNA	
C608	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C609	2203-000239	C-CER,CHIP	0.1nF,5%,50V,COG,2012	1	SNA	
C610	2203-000239	C-CER,CHIP	0.1nF,5%,50V,COG,2012	1	SNA	
C611	2203-000239	C-CER,CHIP	0.1nF,5%,50V,COG,2012	1	SNA	
C612	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C613	2203-000239	C-CER,CHIP	0.1nF,5%,50V,COG,2012	1	SNA	
C614	2203-000239	C-CER,CHIP	0.1nF,5%,50V,COG,2012	1	SNA	
C615	2203-000239	C-CER,CHIP	0.1nF,5%,50V,COG,2012	1	SNA	
C616	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C617	2203-000239	C-CER,CHIP	0.1nF,5%,50V,COG,2012	1	SNA	

OUTDOOR INVERTER PCB : DB93-04234B(UH105GAV)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
C618	2203-000239	C-CER,CHIP	0.1nF,5%,50V,C0G,2012	1	SNA	
C619	2203-000239	C-CER,CHIP	0.1nF,5%,50V,C0G,2012	1	SNA	
C620	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C621	2203-000239	C-CER,CHIP	0.1nF,5%,50V,C0G,2012	1	SNA	
C622	2203-000239	C-CER,CHIP	0.1nF,5%,50V,C0G,2012	1	SNA	
C623	2203-000239	C-CER,CHIP	0.1nF,5%,50V,C0G,2012	1	SNA	
C624	2203-000239	C-CER,CHIP	0.1nF,5%,50V,C0G,2012	1	SNA	
C625	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C626	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C627	2203-000361	C-CER,CHIP	0.15nF,5%,50V,C0G,2012	1	SNA	
C628	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C629	2203-000361	C-CER,CHIP	0.15nF,5%,50V,C0G,2012	1	SNA	
C630	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C631	2203-000361	C-CER,CHIP	0.15nF,5%,50V,C0G,2012	1	SNA	
C632	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C633	2203-000361	C-CER,CHIP	0.15nF,5%,50V,C0G,2012	1	SNA	
C634	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C635	2203-000361	C-CER,CHIP	0.15nF,5%,50V,C0G,2012	1	SNA	
C636	2203-000361	C-CER,CHIP	0.15nF,5%,50V,C0G,2012	1	SNA	
C637	2401-002438	C-AL	47?F,20%,50V,WT,TP,6.3x11,5mm	1	SNA	
C638	2401-002438	C-AL	47?F,20%,50V,WT,TP,6.3x11,5mm	1	SNA	
C639	2401-002438	C-AL	47?F,20%,50V,WT,TP,6.3x11,5mm	1	SNA	
C640	2401-002438	C-AL	47?F,20%,50V,WT,TP,6.3x11,5mm	1	SNA	
C641	2401-002438	C-AL	47?F,20%,50V,WT,TP,6.3x11,5mm	1	SNA	
C642	2401-002438	C-AL	47?F,20%,50V,WT,TP,6.3x11,5mm	1	SNA	
C700	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C701	2301-001830	C-FILM,MPEF	1000nF,20%,1000V,TP,32x18x33	1	SNA	
C702	2401-004278	C-AL	560?F,+20%,400V,LGU,-,50x35,1	1	SNA	
C703	2401-004278	C-AL	560?F,+20%,400V,LGU,-,50x35,1	1	SNA	
C704	2401-004278	C-AL	560?F,+20%,400V,LGU,-,50x35,1	1	SNA	
C705	2401-004278	C-AL	560?F,+20%,400V,LGU,-,50x35,1	1	SNA	
C706	2401-004278	C-AL	560?F,+20%,400V,LGU,-,50x35,1	1	SNA	
C707	2401-004278	C-AL	560?F,+20%,400V,LGU,-,50x35,1	1	SNA	
C708	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C709	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C710	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C713	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C801	2203-000444	C-CER,CHIP	1nF,10%,50V,X7R,2012	1	SNA	
C802	2203-000444	C-CER,CHIP	1nF,10%,50V,X7R,2012	1	SNA	
C803	2203-000444	C-CER,CHIP	1nF,10%,50V,X7R,2012	1	SNA	

INVERTER PCB : DB93-04234B(UH105GAV)(cont.)

Code No.	Description	Specification	Q'TY	SA/SNA	Remark
2203-000444	C-CER,CHIP	1nF,10%,50V,X7R,2012	1	SNA	
2203-000444	C-CER,CHIP	1nF,10%,50V,X7R,2012	1	SNA	
2203-000444	C-CER,CHIP	1nF,10%,50V,X7R,2012	1	SNA	
2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
2203-000444	C-CER,CHIP	1nF,10%,50V,X7R,2012	1	SNA	
2203-000925	C-CER,CHIP	470nF,+80-20%,50V,Y5V,2012	1	SNA	
2203-000925	C-CER,CHIP	470nF,+80-20%,50V,Y5V,2012	1	SNA	
2203-000444	C-CER,CHIP	1nF,10%,50V,X7R,2012	1	SNA	
2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
2203-000444	C-CER,CHIP	1nF,10%,50V,X7R,2012	1	SNA	
2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
2203-000444	C-CER,CHIP	1nF,10%,50V,X7R,2012	1	SNA	
2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
2401-002438	C-AL	47?F,20%,50V,WT,TP,6.3x11,5mm	1	SNA	
0201-001354	ADHESIVE-A.C.F	IR-100 BOND-EPOXY	0.5g	SNA	
3711-003406	HEADER-BOARD TO CABLE	1WALL,2P,1R,7.92mm,STRAIGHT,SN	1	SNA	
3711-005852	HEADER-BOARD TO CABLE	BOX,2P,1R,5mm,STRAIGHT,SN,WHT	1	SNA	
3711-004182	CONNECTOR-HEADER	BOX,10P,1R,2mm,STRAIGHT,SN,NTR	1	SNA	
OMIT			1	SNA	
3711-000179	HEADER-BOARD TO CABLE	1WALL,2P,1R,3.96mm,STRAIGHT,SN	1	SNA	
3711-000321	HEADER-BOARD TO CABLE	1WALL,7P,1R,3.96mm,STRAIGHT,SN	1	SNA	
3711-000319	CONNECTOR-HEADER	1WALL,7P,1R,3.96mm,STRAIGHT,SN	1	SNA	
0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
0402-000324	DIODE-BRIDGE	D3SB60,600V,4A,SIP-4,ST	1	SNA	
0402-000012	DIODE-RECTIFIER	uF4007,1KV,1A,DO-41,TP	1	SNA	
0402-001427	DIODE-RECTIFIER	ES1D,200V,1A,DO-214AC,TP	1	SNA	
0402-001427	DIODE-RECTIFIER	ES1D,200V,1A,DO-214AC,TP	1	SNA	
0402-001427	DIODE-RECTIFIER	ES1D,200V,1A,DO-214AC,TP	1	SNA	
0402-001427	DIODE-RECTIFIER	ES1D,200V,1A,DO-214AC,TP	1	SNA	
0402-001427	DIODE-RECTIFIER	ES1D,200V,1A,DO-214AC,TP	1	SNA	
0402-001427	DIODE-RECTIFIER	ES1D,200V,1A,DO-214AC,TP	1	SNA	
DB98-16592A	ASSY-DIODE RECTIFIER	~ ~ ~ ~ ~ ~ ~ ~ ~ ~	1	SNA	
DB98-16592A	ASSY-DIODE RECTIFIER	~ ~ ~ ~ ~ ~ ~ ~ ~ ~	1	SNA	
DB98-16592A	ASSY-DIODE RECTIFIER	~ ~ ~ ~ ~ ~ ~ ~ ~ ~	1	SNA	
DB98-16592A	ASSY-DIODE RECTIFIER	~ ~ ~ ~ ~ ~ ~ ~ ~ ~	1	SNA	
DB98-16592A	ASSY-DIODE RECTIFIER	~ ~ ~ ~ ~ ~ ~ ~ ~ ~	1	SNA	
DB98-16592A	ASSY-DIODE RECTIFIER	~ ~ ~ ~ ~ ~ ~ ~ ~ ~	1	SNA	
DB98-16592A	ASSY-DIODE RECTIFIER	~ ~ ~ ~ ~ ~ ~ ~ ~ ~	1	SNA	
DB98-16592A	ASSY-DIODE RECTIFIER	~ ~ ~ ~ ~ ~ ~ ~ ~ ~	1	SNA	
DB98-16592A	ASSY-DIODE RECTIFIER	~ ~ ~ ~ ~ ~ ~ ~ ~ ~	1	SNA	

OUTDOOR INVERTER PCB : DB93-04234B(UH105GAV)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
D609	DB98-16592A	ASSY-DIODE RECTIFIER	~~~~~	1	SNA	
D610	DB98-16592A	ASSY-DIODE RECTIFIER	~~~~~	1	SNA	
D611	DB98-16592A	ASSY-DIODE RECTIFIER	~~~~~	1	SNA	
D700	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D701	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D702	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D703	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
EEPROM PGM	DB46-00040A	S/W FIRMWARE	Star_Inv_36K,Star_Inv,1.0,Euro	1	SNA	
FLUXX	0204-002978	FLUX	KSP-70M,-,84%,FLUX,SPRAY	5g	SNA	
fuse	3601-000003	FUSE-CARTRIDGE	250V,5A,FAST-ACTING,GLASS,5.2x	1	SNA	
FUSE-1	3602-001012	FUSE-BLOCK	500V,-,100M	1	SNA	
HEATSINK	DB62-04178A	HEAT SINK-BRIDGE DIODE	ALP PJT,ALUMINIUM,2,27.3,11,-	1	SNA	
IC101	1203-002662	IC-PWM CONTROLLER	TNY268P,DIP,8P,9.65x6.35mm,PLA	1	SNA	
IC103	1203-000340	IC-VOL. REFERENCE	431,TO-92,3P,-,PLASTIC,36V,770	1	SNA	
IC105	1203-000242	IC-POS.FIXED REG.	7812,TO-220,3P,-,PLASTIC,11.5/	1	SNA	
IC106	1203-002735	IC-POS.FIXED REG.	KIA7815API,TO-220IS,3P,10.3x15	1	SNA	
IC107	0604-001002	PHOTO-COUPLER	TR,100-600%,200mW,SOP-4,TP	1	SNA	
IC200	0506-000175	TR-ARRAY	2003,NPN,7,1W,SOP-16,ST,1000	1	SNA	
IC301	DB91-00385A	ASSY-MIC	STAR??? INVERTER MICOM,MN103F	1	SNA	
IC303	1103-001038	IC-EEPROM	93LC66,4KBIT,256x16BIT,SOP,8P	1	SNA	
IC501	0604-001002	PHOTO-COUPLER	TR,100-600%,200mW,SOP-4,TP	1	SNA	
IC502	0604-001002	PHOTO-COUPLER	TR,100-600%,200mW,SOP-4,TP	1	SNA	
IC600	0604-001343	PHOTO-COUPLER	TTL,-,750mW,smd-ic-1.27-11.7,-	1	SNA	
IC601	0604-001343	PHOTO-COUPLER	TTL,-,750mW,smd-ic-1.27-11.7,-	1	SNA	
IC602	0604-001343	PHOTO-COUPLER	TTL,-,750mW,smd-ic-1.27-11.7,-	1	SNA	
IC603	0604-001343	PHOTO-COUPLER	TTL,-,750mW,smd-ic-1.27-11.7,-	1	SNA	
IC604	0604-001343	PHOTO-COUPLER	TTL,-,750mW,smd-ic-1.27-11.7,-	1	SNA	
IC605	0604-001343	PHOTO-COUPLER	TTL,-,750mW,smd-ic-1.27-11.7,-	1	SNA	
IC700	DB32-00173A	SENSOR MAG-CT SENSOR	ACS712,5HP INVERTER,-,40~150	1	SNA	
IC701	DB32-00173A	SENSOR MAG-CT SENSOR	ACS712,5HP INVERTER,-,40~150	1	SNA	
IC800	1201-000471	IC-OP AMP	324,SOP,14P,232MIL,QUAD,100V/m	1	SNA	
IC900	1201-000166	IC-OP AMP	LM358,SOP,ST,8P,150MIL,DUAL,10	1	SNA	
IC901	0604-001342	PHOTO-COUPLER	DIODE,100,-,-,-	1	SNA	
IC902	1201-000166	IC-OP AMP	LM358,SOP,ST,8P,150MIL,DUAL,10	1	SNA	
IGBT_MODULE	DB95-01041A	ASSY-IGBT	UH140GAV,1200V/25A	1	SNA	
Jumper0	3812-000219	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/0.6mm	1	SNA	
Jumper1	3812-000219	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/0.6mm	1	SNA	
Jumper2	3812-000219	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/0.6mm	1	SNA	
Jumper3	3812-000219	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/0.6mm	1	SNA	
L101	DB27-00033A	COIL CHOKE	FILTER,S50,-,-,-,5A,14mH,-,-	1	SNA	

■ OUTDOOR INVERTER PCB : DB93-04234B(UH105GAV)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
LED201	0601-000575	LED	ROUND,RED,3mm,690nm	1	SNA	
LED202	0601-000552	LED	ROUND,GRN,3mm,570nm	1	SNA	
LED203	0601-000188	LED	ROUND,ORG,3mm,630nm	1	SNA	
PCB	DB41-00514A	PCB-INV	UH140EAV,FR4, 2oz,2,01,1.6t,23	1	SNA	
PT100	DB26-00074A	TRANS FBT-PT70	PT70,PT70,1500uH,EI 3329 PM5,P	1	SNA	
Q400	DB13-00003A	IC DRIVER GATE	-,SOT-23,-,-,1P,1P,0.2mm,2.93x	1	SNA	
Q401	0504-000127	TR-DIGITAL	FJV3102RMTF,NPN,200mW,10K/10K	1	SNA	
Q402	DB13-00003A	IC DRIVER GATE	-,SOT-23,-,-,1P,1P,0.2mm,2.93x	1	SNA	
Q403	0504-000127	TR-DIGITAL	FJV3102RMTF,NPN,200mW,10K/10K	1	SNA	
R100	2006-001080	R-CEMENT(S)	200ohm,5%,5W,CB,BK,13x9x25.5mm	1	SNA	
R101	2007-001318	R-CHIP	1Kohm,5%,1/4W,TP,3216	1	SNA	
R102	2007-000465	R-CHIP	1Kohm,1%,1/8W,TP,2012	1	SNA	
R103	2007-000481	R-CHIP	1Mohm,5%,1/4W,TP,3216	1	SNA	
R104	2003-002114	R-METAL OXIDE(S)	200Kohm,5%,2W,AA,TP,4x12mm	1	SNA	
R105	2007-000481	R-CHIP	1Mohm,5%,1/4W,TP,3216	1	SNA	
R106	2007-000682	R-CHIP	3.3Kohm,1%,1/8W,TP,2012	1	SNA	
R107	2007-000263	R-CHIP	1.82Kohm,1%,1/8W,TP,2012	1	SNA	
R108	2007-000263	R-CHIP	1.82Kohm,1%,1/8W,TP,2012	1	SNA	
R109	2007-007025	R-CHIP	4.75Kohm,1%,1/4W,TP,3216	1	SNA	
R110	2007-007025	R-CHIP	4.75Kohm,1%,1/4W,TP,3216	1	SNA	
R111	2007-007025	R-CHIP	4.75Kohm,1%,1/4W,TP,3216	1	SNA	
R112	2007-007025	R-CHIP	4.75Kohm,1%,1/4W,TP,3216	1	SNA	
R113	2007-007025	R-CHIP	4.75Kohm,1%,1/4W,TP,3216	1	SNA	
R200	2006-001149	R-CEMENT,NON	1Kohm,5%,15W,CA,BK,48x12.5x12.	1	SNA	
R201	2007-000493	R-CHIP	2.2Kohm,5%,1/8W,TP,2012	1	SNA	
R202	2007-000493	R-CHIP	2.2Kohm,5%,1/8W,TP,2012	1	SNA	
R203	2007-000493	R-CHIP	2.2Kohm,5%,1/8W,TP,2012	1	SNA	
R302	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R308	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R309	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R310	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R311	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R312	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	SNA	
R313	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R314	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R315	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	SNA	
R316	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R317	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R318	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R319	2007-000872	R-CHIP	4.7Kohm,5%,1/8W,TP,2012	1	SNA	

■ OUTDOOR INVERTER PCB : DB93-04234B(UH105GAV)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
R320	2007-000872	R-CHIP	4.7Kohm,5%,1/8W,TP,2012	1	SNA	
R321	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	SNA	
R322	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	SNA	
R323	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	SNA	
R324	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	SNA	
R325	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	SNA	
R326	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	SNA	
R327	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	SNA	
R328	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	SNA	
R329	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R330	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R331	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R332	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R333	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R334	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R335	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R336	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R337	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R338	2007-000872	R-CHIP	4.7Kohm,5%,1/8W,TP,2012	1	SNA	
R339	2007-000872	R-CHIP	4.7Kohm,5%,1/8W,TP,2012	1	SNA	
R340	2007-000872	R-CHIP	4.7Kohm,5%,1/8W,TP,2012	1	SNA	
R341	2007-000872	R-CHIP	4.7Kohm,5%,1/8W,TP,2012	1	SNA	
R342	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	SNA	
R344	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R345	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R400	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R401	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R402	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	SNA	
R403	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	SNA	
R404	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R405	2007-001067	R-CHIP	6.8Kohm,1%,1/8W,TP,2012	1	SNA	
R406	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R407	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	SNA	
R408	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	SNA	
R409	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R410	2007-001067	R-CHIP	6.8Kohm,1%,1/8W,TP,2012	1	SNA	
R411	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R500	2007-000766	R-CHIP	330ohm,5%,1/8W,TP,2012	1	SNA	
R501	2007-000465	R-CHIP	1Kohm,1%,1/8W,TP,2012	1	SNA	
R502	2007-000766	R-CHIP	330ohm,5%,1/8W,TP,2012	1	SNA	

OUTDOOR INVERTER PCB : DB93-04234B(UH105GAV)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
R503	2007-000465	R-CHIP	1Kohm,1%,1/8W,TP,2012	1	SNA	
R601	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R602	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R603	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R604	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R605	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R606	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R607	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R608	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R609	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R610	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R611	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R612	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R613	2007-000950	R-CHIP	47ohm,5%,1/4W,TP,3216	1	SNA	
R614	2007-000950	R-CHIP	47ohm,5%,1/4W,TP,3216	1	SNA	
R615	2007-000950	R-CHIP	47ohm,5%,1/4W,TP,3216	1	SNA	
R616	2007-000950	R-CHIP	47ohm,5%,1/4W,TP,3216	1	SNA	
R617	2007-000950	R-CHIP	47ohm,5%,1/4W,TP,3216	1	SNA	
R618	2007-000950	R-CHIP	47ohm,5%,1/4W,TP,3216	1	SNA	
R619	2007-000938	R-CHIP	47Kohm,1%,1/8W,TP,2012	1	SNA	
R620	2007-001067	R-CHIP	6.8Kohm,1%,1/8W,TP,2012	1	SNA	
R621	2007-000938	R-CHIP	47Kohm,1%,1/8W,TP,2012	1	SNA	
R622	2007-000553	R-CHIP	20ohm,5%,1/4W,TP,3216	1	SNA	
R623	2007-001067	R-CHIP	6.8Kohm,1%,1/8W,TP,2012	1	SNA	
R624	2007-000938	R-CHIP	47Kohm,1%,1/8W,TP,2012	1	SNA	
R625	2007-000553	R-CHIP	20ohm,5%,1/4W,TP,3216	1	SNA	
R626	2007-000553	R-CHIP	20ohm,5%,1/4W,TP,3216	1	SNA	
R627	2007-001067	R-CHIP	6.8Kohm,1%,1/8W,TP,2012	1	SNA	
R628	2007-000938	R-CHIP	47Kohm,1%,1/8W,TP,2012	1	SNA	
R629	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R630	2007-001067	R-CHIP	6.8Kohm,1%,1/8W,TP,2012	1	SNA	
R631	2007-000938	R-CHIP	47Kohm,1%,1/8W,TP,2012	1	SNA	
R632	2007-000553	R-CHIP	20ohm,5%,1/4W,TP,3216	1	SNA	
R633	2007-000553	R-CHIP	20ohm,5%,1/4W,TP,3216	1	SNA	
R634	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R635	2007-001067	R-CHIP	6.8Kohm,1%,1/8W,TP,2012	1	SNA	
R636	2007-000938	R-CHIP	47Kohm,1%,1/8W,TP,2012	1	SNA	
R637	2007-000553	R-CHIP	20ohm,5%,1/4W,TP,3216	1	SNA	
R638	2007-001067	R-CHIP	6.8Kohm,1%,1/8W,TP,2012	1	SNA	
R639	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	

■ OUTDOOR INVERTER PCB : DB93-04234B(UH105GAV)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
R640	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R641	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R642	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R700	2007-007617	R-CHIP	2.49Kohm,1%,1/10W,TP,1608	1	SNA	
R701	2007-008023	R-CHIP	100Kohm,5%,1W,TP,6432	1	SNA	
R702	2007-008023	R-CHIP	100Kohm,5%,1W,TP,6432	1	SNA	
R703	2007-008023	R-CHIP	100Kohm,5%,1W,TP,6432	1	SNA	
R704	2007-008023	R-CHIP	100Kohm,5%,1W,TP,6432	1	SNA	
R705	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	SNA	
R711	2007-008023	R-CHIP	100Kohm,5%,1W,TP,6432	1	SNA	
R712	2007-008023	R-CHIP	100Kohm,5%,1W,TP,6432	1	SNA	
R713	2007-008023	R-CHIP	100Kohm,5%,1W,TP,6432	1	SNA	
R714	2007-008023	R-CHIP	100Kohm,5%,1W,TP,6432	1	SNA	
R715	2007-008023	R-CHIP	100Kohm,5%,1W,TP,6432	1	SNA	
R716	2007-008023	R-CHIP	100Kohm,5%,1W,TP,6432	1	SNA	
R717	2007-008023	R-CHIP	100Kohm,5%,1W,TP,6432	1	SNA	
R718	2007-008023	R-CHIP	100Kohm,5%,1W,TP,6432	1	SNA	
R800	2007-000586	R-CHIP	22Kohm,5%,1/8W,TP,2012	1	SNA	
R801	2007-000586	R-CHIP	22Kohm,5%,1/8W,TP,2012	1	SNA	
R802	2007-000586	R-CHIP	22Kohm,5%,1/8W,TP,2012	1	SNA	
R803	2007-000586	R-CHIP	22Kohm,5%,1/8W,TP,2012	1	SNA	
R806	2007-000766	R-CHIP	330ohm,5%,1/8W,TP,2012	1	SNA	
R807	2007-000282	R-CHIP	100Kohm,5%,1/8W,TP,2012	1	SNA	
R808	2007-000282	R-CHIP	100Kohm,5%,1/8W,TP,2012	1	SNA	
R900	2007-000282	R-CHIP	100Kohm,5%,1/8W,TP,2012	1	SNA	
R907	2007-000238	R-CHIP	1.5Kohm,1%,1/8W,TP,2012	1	SNA	
R908	2007-000282	R-CHIP	100Kohm,5%,1/8W,TP,2012	1	SNA	
R909	2007-002667	R-CHIP	90.9Kohm,1%,1/4W,TP,3216	1	SNA	
R910	2007-007025	R-CHIP	4.75Kohm,1%,1/4W,TP,3216	1	SNA	
R917	2007-007025	R-CHIP	4.75Kohm,1%,1/4W,TP,3216	1	SNA	
R918	2007-000279	R-CHIP	100Kohm,1%,1/4W,TP,3216	1	SNA	
R919	2007-000279	R-CHIP	100Kohm,1%,1/4W,TP,3216	1	SNA	
R920	2007-000279	R-CHIP	100Kohm,1%,1/4W,TP,3216	1	SNA	
R921	2007-000279	R-CHIP	100Kohm,1%,1/4W,TP,3216	1	SNA	
R922	2007-000279	R-CHIP	100Kohm,1%,1/4W,TP,3216	1	SNA	
R923	2007-000279	R-CHIP	100Kohm,1%,1/4W,TP,3216	1	SNA	
R924	2007-000938	R-CHIP	47Kohm,1%,1/8W,TP,2012	1	SNA	
R925	2007-000938	R-CHIP	47Kohm,1%,1/8W,TP,2012	1	SNA	
RY10	3501-001163	RELAY-MINIATURE	12Vdc,200mW,5000mA,1FORmA,10mS	1	SNA	
RY11	3501-001163	RELAY-MINIATURE	12Vdc,200mW,5000mA,1FORmA,10mS	1	SNA	

■ OUTDOOR INVERTER PCB : DB93-04234B(UH105GAV)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
RY20	3501-001154	RELAY-MINIATURE	12Vdc,200mW,3000mA,1FORmA,10mS	1	SNA	
RY21	3501-001154	RELAY-MINIATURE	12Vdc,200mW,3000mA,1FORmA,10mS	1	SNA	
SCREW	6002-000630	SCREW-TAPPING	PH,+,-,2S,M3,L8,ZPC(WHT),SWRCH	1	SNA	
SOLDER BAR	0202-000176	SOLDER-BAR	VACULOY,-,22x337x16,96.5SN/3AG	5g	SNA	
SOLDER CREAM	0202-001459	SOLDER-CREAM	S3X58-M405,-,D20~38?,96.5SN/3A	3g	SNA	
SOLDER WIRE	0202-000176	SOLDER-BAR	VACULOY,-,22x337x16,96.5SN/3AG	10g	SNA	
SOLVENT	0204-003174	SOLVENT	S-E70,SOLVENT,-,0.790	5g	SNA	
VA100	1405-000154	VARISTOR	460Vdc,2500A,17.5x7.5mm,TP	1	SNA	
WIRE-11	DB39-01194D	C/W-SUB	AWG #26, WHT	1	SNA	
Y30	2802-000105	RESONATOR-CERAMIC	10mHz,0.5%,TP,10.0x5.0x10.0mm	1	SNA	
ZD100	0403-000461	DIODE-ZENER	PTZ18A,16.8-19.1V,1000mW,PSM,T	1	SNA	
ZD101	0403-000461	DIODE-ZENER	PTZ18A,16.8-19.1V,1000mW,PSM,T	1	SNA	
ZD102	0403-000461	DIODE-ZENER	PTZ18A,16.8-19.1V,1000mW,PSM,T	1	SNA	
ZD103	0403-000461	DIODE-ZENER	PTZ18A,16.8-19.1V,1000mW,PSM,T	1	SNA	
ZD300	0403-000282	DIODE-ZENER	mmBZ5232B,5%,225mW,SOT-23,TP	1	SNA	
ZD600	0403-000461	DIODE-ZENER	PTZ18A,16.8-19.1V,1000mW,PSM,T	1	SNA	
ZD601	0403-000461	DIODE-ZENER	PTZ18A,16.8-19.1V,1000mW,PSM,T	1	SNA	
ZD602	0403-000461	DIODE-ZENER	PTZ18A,16.8-19.1V,1000mW,PSM,T	1	SNA	
ZD603	0403-000461	DIODE-ZENER	PTZ18A,16.8-19.1V,1000mW,PSM,T	1	SNA	
ZD604	0403-000461	DIODE-ZENER	PTZ18A,16.8-19.1V,1000mW,PSM,T	1	SNA	
ZD605	0403-000461	DIODE-ZENER	PTZ18A,16.8-19.1V,1000mW,PSM,T	1	SNA	
ZD700	0403-000282	DIODE-ZENER	mmBZ5232B,5%,225mW,SOT-23,TP	1	SNA	
ZD701	0403-000282	DIODE-ZENER	mmBZ5232B,5%,225mW,SOT-23,TP	1	SNA	
ZD800	0403-000579	DIODE-ZENER	BZX84C5V1,4.8-5.4V,200mW,SOT-2	1	SNA	
ZD801	0403-000579	DIODE-ZENER	BZX84C5V1,4.8-5.4V,200mW,SOT-2	1	SNA	
ZD802	0403-000579	DIODE-ZENER	BZX84C5V1,4.8-5.4V,200mW,SOT-2	1	SNA	
ZD900	0403-000579	DIODE-ZENER	BZX84C5V1,4.8-5.4V,200mW,SOT-2	1	SNA	

OUTDOOR INVERTER PCB : DB93-04234A(UH140GAV)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
BAR_CODE	DC68-02310A	LABEL-BAR CODE	SEW-6HR128ATC,-,ART,-,W45,L15	1	SNA	
C/W-COMP	DB39-00746E	CONNECT WIRE-COMP	AWG #14, RED/BLU/YEL	1	SNA	
C/W-RST2	DB39-01296B	CONNECT WIRE-RST2	AWG #14, WHT/BRN/BLK	1	SNA	
C100	2306-001034	C-FILM,LEAD-PPF	100nF,10%,275V,TP,17.5x8.5x15,	1	SNA	
C101	2306-001034	C-FILM,LEAD-PPF	100nF,10%,275V,TP,17.5x8.5x15,	1	SNA	
C102	2401-004279	C-AL	470?F,+20%,450V,WT,-,5035,10	1	SNA	
C103	OMIT			1	SNA	
C104	2401-003541	C-AL	10uF,20% ,450V,WT,TP,12.5x20mm	1	SNA	
C105	2203-000389	C-CER,CHIP	0.015nF,5%,50V,C0G,2012	1	SNA	
C106	2401-003585	C-AL	220uF,20%,35V,WT,TP,8x11.5mm,5	1	SNA	
C107	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C108	2201-000551	C-CERAMIC,DISC	0.47nF,10%,1KV,Y5P,TP,6.3x5mm	1	SNA	
C109	2201-000551	C-CERAMIC,DISC	0.47nF,10%,1KV,Y5P,TP,6.3x5mm	1	SNA	
C110	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C111	2201-000551	C-CERAMIC,DISC	0.47nF,10%,1KV,Y5P,TP,6.3x5mm	1	SNA	
C112	2401-000353	C-AL	100uF,20%,50V,GP,TP,811.5mm,5	1	SNA	
C114	2201-000551	C-CERAMIC,DISC	0.47nF,10%,1KV,Y5P,TP,6.3x5mm	1	SNA	
C115	2201-000551	C-CERAMIC,DISC	0.47nF,10%,1KV,Y5P,TP,6.3x5mm	1	SNA	
C116	2401-000353	C-AL	100uF,20%,50V,GP,TP,811.5mm,5	1	SNA	
C117	2201-000551	C-CERAMIC,DISC	0.47nF,10%,1KV,Y5P,TP,6.3x5mm	1	SNA	
C118	2401-000353	C-AL	100uF,20%,50V,GP,TP,811.5mm,5	1	SNA	
C119	2401-000353	C-AL	100uF,20%,50V,GP,TP,811.5mm,5	1	SNA	
C120	2201-000551	C-CERAMIC,DISC	0.47nF,10%,1KV,Y5P,TP,6.3x5mm	1	SNA	
C121	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C122	2401-000353	C-AL	100uF,20%,50V,GP,TP,811.5mm,5	1	SNA	
C123	2401-001200	C-AL	33uF,20%,50V,WT,TP,6.3x11,2.5	1	SNA	
C124	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C200	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C300	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	SNA	
C301	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C302	2401-002438	C-AL	47?F,20%,50V,WT,TP,6.3x11,5mm	1	SNA	
C303	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C305	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	SNA	
C306	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C308	2203-002002	C-CER,CHIP	33pF,5%,50V,NPO,BK,1608,-	1	SNA	
C309	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	SNA	
C311	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C312	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C313	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C315	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	SNA	

■ OUTDOOR INVERTER PCB : DB93-04234A(UH140GAV)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
C316	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C317	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	SNA	
C318	2203-002002	C-CER,CHIP	33pF,5%,50V,NPO,BK,1608,-	1	SNA	
C319	2203-002002	C-CER,CHIP	33pF,5%,50V,NPO,BK,1608,-	1	SNA	
C320	2203-002002	C-CER,CHIP	33pF,5%,50V,NPO,BK,1608,-	1	SNA	
C321	2203-002002	C-CER,CHIP	33pF,5%,50V,NPO,BK,1608,-	1	SNA	
C322	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	SNA	
C323	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C324	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C325	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	SNA	
C327	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C400	2203-006104	C-CER,CHIP	1000nF,10%,50V,X7R,3225	1	SNA	
C402	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	SNA	
C403	2203-006104	C-CER,CHIP	1000nF,10%,50V,X7R,3225	1	SNA	
C405	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	SNA	
C406	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C407	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C408	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C409	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C500	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C501	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C502	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C600	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C601	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C602	2203-000239	C-CER,CHIP	0.1nF,5%,50V,COG,2012	1	SNA	
C603	2203-000239	C-CER,CHIP	0.1nF,5%,50V,COG,2012	1	SNA	
C604	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C605	2203-000239	C-CER,CHIP	0.1nF,5%,50V,COG,2012	1	SNA	
C606	2203-000239	C-CER,CHIP	0.1nF,5%,50V,COG,2012	1	SNA	
C607	2203-000239	C-CER,CHIP	0.1nF,5%,50V,COG,2012	1	SNA	
C608	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C609	2203-000239	C-CER,CHIP	0.1nF,5%,50V,COG,2012	1	SNA	
C610	2203-000239	C-CER,CHIP	0.1nF,5%,50V,COG,2012	1	SNA	
C611	2203-000239	C-CER,CHIP	0.1nF,5%,50V,COG,2012	1	SNA	
C612	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C613	2203-000239	C-CER,CHIP	0.1nF,5%,50V,COG,2012	1	SNA	
C614	2203-000239	C-CER,CHIP	0.1nF,5%,50V,COG,2012	1	SNA	
C615	2203-000239	C-CER,CHIP	0.1nF,5%,50V,COG,2012	1	SNA	
C616	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C617	2203-000239	C-CER,CHIP	0.1nF,5%,50V,COG,2012	1	SNA	

■ OUTDOOR INVERTER PCB : DB93-04234A(UH140GAV)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
C618	2203-000239	C-CER,CHIP	0.1nF,5%,50V,C0G,2012	1	SNA	
C619	2203-000239	C-CER,CHIP	0.1nF,5%,50V,C0G,2012	1	SNA	
C620	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C621	2203-000239	C-CER,CHIP	0.1nF,5%,50V,C0G,2012	1	SNA	
C622	2203-000239	C-CER,CHIP	0.1nF,5%,50V,C0G,2012	1	SNA	
C623	2203-000239	C-CER,CHIP	0.1nF,5%,50V,C0G,2012	1	SNA	
C624	2203-000239	C-CER,CHIP	0.1nF,5%,50V,C0G,2012	1	SNA	
C625	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C626	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C627	2203-000361	C-CER,CHIP	0.15nF,5%,50V,C0G,2012	1	SNA	
C628	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C629	2203-000361	C-CER,CHIP	0.15nF,5%,50V,C0G,2012	1	SNA	
C630	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C631	2203-000361	C-CER,CHIP	0.15nF,5%,50V,C0G,2012	1	SNA	
C632	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C633	2203-000361	C-CER,CHIP	0.15nF,5%,50V,C0G,2012	1	SNA	
C634	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C635	2203-000361	C-CER,CHIP	0.15nF,5%,50V,C0G,2012	1	SNA	
C636	2203-000361	C-CER,CHIP	0.15nF,5%,50V,C0G,2012	1	SNA	
C637	2401-002438	C-AL	47?F,20%,50V,WT,TP,6.3x11,5mm	1	SNA	
C638	2401-002438	C-AL	47?F,20%,50V,WT,TP,6.3x11,5mm	1	SNA	
C639	2401-002438	C-AL	47?F,20%,50V,WT,TP,6.3x11,5mm	1	SNA	
C640	2401-002438	C-AL	47?F,20%,50V,WT,TP,6.3x11,5mm	1	SNA	
C641	2401-002438	C-AL	47?F,20%,50V,WT,TP,6.3x11,5mm	1	SNA	
C642	2401-002438	C-AL	47?F,20%,50V,WT,TP,6.3x11,5mm	1	SNA	
C700	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C701	2301-001830	C-FILM,MPEF	1000nF,20%,1000V,TP,32x18x33	1	SNA	
C702	2401-004278	C-AL	560?F,+20%,400V,LGU,-,5035,1	1	SNA	
C703	2401-004278	C-AL	560?F,+20%,400V,LGU,-,5035,1	1	SNA	
C704	2401-004278	C-AL	560?F,+20%,400V,LGU,-,5035,1	1	SNA	
C705	2401-004278	C-AL	560?F,+20%,400V,LGU,-,5035,1	1	SNA	
C706	2401-004278	C-AL	560?F,+20%,400V,LGU,-,5035,1	1	SNA	
C707	2401-004278	C-AL	560?F,+20%,400V,LGU,-,5035,1	1	SNA	
C708	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C709	2203-000260	C-CER,CHIP	10nF,10%,50V,X7R,2012	1	SNA	
C710	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C713	2203-000206	C-CER,CHIP	100nF,10%,50V,X7R,2012	1	SNA	
C801	2203-000444	C-CER,CHIP	1nF,10%,50V,X7R,2012	1	SNA	
C802	2203-000444	C-CER,CHIP	1nF,10%,50V,X7R,2012	1	SNA	
C803	2203-000444	C-CER,CHIP	1nF,10%,50V,X7R,2012	1	SNA	

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OUTDOOR INVERTER PCB : DB93-04234A(UH140GAV)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
D609	DB98-16592A	ASSY-DIODE RECTIFIER	-----	1	SNA	
D610	DB98-16592A	ASSY-DIODE RECTIFIER	-----	1	SNA	
D611	DB98-16592A	ASSY-DIODE RECTIFIER	-----	1	SNA	
D700	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D701	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D702	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
D703	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	1	SNA	
EEPROM PGM	DB46-00039A	S/W FIRMWARE	Star_Inv_48K,Star_Inv,1.0,Euro	1	SNA	
FLUXX	0204-002978	FLUX	KSP-70M,-,84%,FLUX,SPRAY	5g	SNA	
fuse	3601-000003	FUSE-CARTRIDGE	250V,5A,FAST-ACTING,GLASS,5.2x	1	SNA	
FUSE-1	3602-001012	FUSE-BLOCK	500V,-,100M	1	SNA	
HEATSINK	DB62-04178A	HEAT SINK-BRIDGE DIODE	ALP PJT,ALUMINIUM,2,27.3,11,-	1	SNA	
IC101	1203-002662	IC-PWM CONTROLLER	TNY268P,DIP,8P,9.65x6.35mm,PLA	1	SNA	
IC103	1203-000340	IC-VOL. REFERENCE	431,TO-92,3P,-,PLASTIC,36V,770	1	SNA	
IC105	1203-000242	IC-POS.FIXED REG.	7812,TO-220,3P,-,PLASTIC,11.5/	1	SNA	
IC106	1203-002735	IC-POS.FIXED REG.	KIA7815API,TO-220IS,3P,10.3x15	1	SNA	
IC107	0604-001002	PHOTO-COUPLER	TR,100-600%,200mW,SOP-4,TP	1	SNA	
IC200	0506-000175	TR-ARRAY	2003,NPN,7,1W,SOP-16,ST,1000	1	SNA	
IC301	DB91-00385A	ASSY-MIC	STAR??? INVERTER MICOM,MN103F	1	SNA	
IC303	1103-001038	IC-EEPROM	93LC66,4KBIT,256x16BIT,SOP,8P	1	SNA	
IC501	0604-001002	PHOTO-COUPLER	TR,100-600%,200mW,SOP-4,TP	1	SNA	
IC502	0604-001002	PHOTO-COUPLER	TR,100-600%,200mW,SOP-4,TP	1	SNA	
IC600	0604-001343	PHOTO-COUPLER	TTL,-,750mW,smd-ic-1.27-11.7,-	1	SNA	
IC601	0604-001343	PHOTO-COUPLER	TTL,-,750mW,smd-ic-1.27-11.7,-	1	SNA	
IC602	0604-001343	PHOTO-COUPLER	TTL,-,750mW,smd-ic-1.27-11.7,-	1	SNA	
IC603	0604-001343	PHOTO-COUPLER	TTL,-,750mW,smd-ic-1.27-11.7,-	1	SNA	
IC604	0604-001343	PHOTO-COUPLER	TTL,-,750mW,smd-ic-1.27-11.7,-	1	SNA	
IC605	0604-001343	PHOTO-COUPLER	TTL,-,750mW,smd-ic-1.27-11.7,-	1	SNA	
IC700	DB32-00173A	SENSOR MAG-CT SENSOR	ACS712,5HP INVERTER,-,40~150	1	SNA	
IC701	DB32-00173A	SENSOR MAG-CT SENSOR	ACS712,5HP INVERTER,-,40~150	1	SNA	
IC800	1201-000471	IC-OP AMP	324,SOP,14P,232MIL,QUAD,100V/m	1	SNA	
IC900	1201-000166	IC-OP AMP	LM358,SOP,ST,8P,150MIL,DUAL,10	1	SNA	
IC901	0604-001342	PHOTO-COUPLER	DIODE,100,-,-,-	1	SNA	
IC902	1201-000166	IC-OP AMP	LM358,SOP,ST,8P,150MIL,DUAL,10	1	SNA	
IGBT_MODULE	DB95-01041A	ASSY-IGBT	UH140GAV,1200V/25A	1	SNA	
Jumper0	3812-000219	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/0.6mm	1	SNA	
Jumper1	3812-000219	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/0.6mm	1	SNA	
Jumper2	3812-000219	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/0.6mm	1	SNA	
Jumper3	3812-000219	WIRE-NO SHEATH CU	TCWA,300V,52mm(TAPING),1/0.6mm	1	SNA	
L101	DB27-00033A	COIL CHOKE	FILTER,S50,-,-,-,5A,14mH,-,-	1	SNA	

■ OUTDOOR INVERTER PCB : DB93-04234A(UH140GAV)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
LED201	0601-000575	LED	ROUND,RED,3mm,690nm	1	SNA	
LED202	0601-000552	LED	ROUND,GRN,3mm,570nm	1	SNA	
LED203	0601-000188	LED	ROUND,ORG,3mm,630nm	1	SNA	
PCB	DB41-00514A	PCB-INV	UH140EAV,FR4, 2oz,2,01,1.6t,23	1	SNA	
PT100	DB26-00074A	TRANS FBT-PT70	PT70,PT70,1500uH,EI 3329 PM5,P	1	SNA	
Q400	DB13-00003A	IC DRIVER GATE	-,SOT-23,-,-,1P,1P,0.2mm,2.93x	1	SNA	
Q401	0504-000127	TR-DIGITAL	FJV3102RMTF,NPN,200mW,10K/10K	1	SNA	
Q402	DB13-00003A	IC DRIVER GATE	-,SOT-23,-,-,1P,1P,0.2mm,2.93x	1	SNA	
Q403	0504-000127	TR-DIGITAL	FJV3102RMTF,NPN,200mW,10K/10K	1	SNA	
R100	2006-001080	R-CEMENT(S)	200ohm,5%,5W,CB,BK,13x9x25.5mm	1	SNA	
R101	2007-001318	R-CHIP	1Kohm,5%,1/4W,TP,3216	1	SNA	
R102	2007-000465	R-CHIP	1Kohm,1%,1/8W,TP,2012	1	SNA	
R103	2007-000481	R-CHIP	1Mohm,5%,1/4W,TP,3216	1	SNA	
R104	2003-002114	R-METAL OXIDE(S)	200Kohm,5%,2W,AA,TP,4x12mm	1	SNA	
R105	2007-000481	R-CHIP	1Mohm,5%,1/4W,TP,3216	1	SNA	
R106	2007-000682	R-CHIP	3.3Kohm,1%,1/8W,TP,2012	1	SNA	
R107	2007-000263	R-CHIP	1.82Kohm,1%,1/8W,TP,2012	1	SNA	
R108	2007-000263	R-CHIP	1.82Kohm,1%,1/8W,TP,2012	1	SNA	
R109	2007-007025	R-CHIP	4.75Kohm,1%,1/4W,TP,3216	1	SNA	
R110	2007-007025	R-CHIP	4.75Kohm,1%,1/4W,TP,3216	1	SNA	
R111	2007-007025	R-CHIP	4.75Kohm,1%,1/4W,TP,3216	1	SNA	
R112	2007-007025	R-CHIP	4.75Kohm,1%,1/4W,TP,3216	1	SNA	
R113	2007-007025	R-CHIP	4.75Kohm,1%,1/4W,TP,3216	1	SNA	
R200	2006-001149	R-CEMENT,NON	1Kohm,5%,15W,CA,BK,48x12.5x12.	1	SNA	
R201	2007-000493	R-CHIP	2.2Kohm,5%,1/8W,TP,2012	1	SNA	
R202	2007-000493	R-CHIP	2.2Kohm,5%,1/8W,TP,2012	1	SNA	
R203	2007-000493	R-CHIP	2.2Kohm,5%,1/8W,TP,2012	1	SNA	
R302	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R308	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R309	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R310	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R311	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R312	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	SNA	
R313	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R314	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R315	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	SNA	
R316	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R317	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R318	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R319	2007-000872	R-CHIP	4.7Kohm,5%,1/8W,TP,2012	1	SNA	

■ OUTDOOR INVERTER PCB : DB93-04234A(UH140GAV)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
R320	2007-000872	R-CHIP	4.7Kohm,5%,1/8W,TP,2012	1	SNA	
R321	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	SNA	
R322	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	SNA	
R323	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	SNA	
R324	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	SNA	
R325	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	SNA	
R326	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	SNA	
R327	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	SNA	
R328	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	SNA	
R329	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R330	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R331	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R332	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R333	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R334	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R335	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R336	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R337	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R338	2007-000872	R-CHIP	4.7Kohm,5%,1/8W,TP,2012	1	SNA	
R339	2007-000872	R-CHIP	4.7Kohm,5%,1/8W,TP,2012	1	SNA	
R340	2007-000872	R-CHIP	4.7Kohm,5%,1/8W,TP,2012	1	SNA	
R341	2007-000872	R-CHIP	4.7Kohm,5%,1/8W,TP,2012	1	SNA	
R342	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	SNA	
R344	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R345	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	SNA	
R400	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R401	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R402	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	SNA	
R403	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	SNA	
R404	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R405	2007-001067	R-CHIP	6.8Kohm,1%,1/8W,TP,2012	1	SNA	
R406	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R407	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	SNA	
R408	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	SNA	
R409	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R410	2007-001067	R-CHIP	6.8Kohm,1%,1/8W,TP,2012	1	SNA	
R411	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R500	2007-000766	R-CHIP	330ohm,5%,1/8W,TP,2012	1	SNA	
R501	2007-000465	R-CHIP	1Kohm,1%,1/8W,TP,2012	1	SNA	
R502	2007-000766	R-CHIP	330ohm,5%,1/8W,TP,2012	1	SNA	

OUTDOOR INVERTER PCB : DB93-04234A(UH140GAV)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
R503	2007-000465	R-CHIP	1Kohm,1%,1/8W,TP,2012	1	SNA	
R601	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R602	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R603	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R604	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R605	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R606	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R607	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R608	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R609	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R610	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R611	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R612	2007-000290	R-CHIP	100ohm,5%,1/8W,TP,2012	1	SNA	
R613	2007-000950	R-CHIP	47ohm,5%,1/4W,TP,3216	1	SNA	
R614	2007-000950	R-CHIP	47ohm,5%,1/4W,TP,3216	1	SNA	
R615	2007-000950	R-CHIP	47ohm,5%,1/4W,TP,3216	1	SNA	
R616	2007-000950	R-CHIP	47ohm,5%,1/4W,TP,3216	1	SNA	
R617	2007-000950	R-CHIP	47ohm,5%,1/4W,TP,3216	1	SNA	
R618	2007-000950	R-CHIP	47ohm,5%,1/4W,TP,3216	1	SNA	
R619	2007-000938	R-CHIP	47Kohm,1%,1/8W,TP,2012	1	SNA	
R620	2007-001067	R-CHIP	6.8Kohm,1%,1/8W,TP,2012	1	SNA	
R621	2007-000938	R-CHIP	47Kohm,1%,1/8W,TP,2012	1	SNA	
R622	2007-000553	R-CHIP	20ohm,5%,1/4W,TP,3216	1	SNA	
R623	2007-001067	R-CHIP	6.8Kohm,1%,1/8W,TP,2012	1	SNA	
R624	2007-000938	R-CHIP	47Kohm,1%,1/8W,TP,2012	1	SNA	
R625	2007-000553	R-CHIP	20ohm,5%,1/4W,TP,3216	1	SNA	
R626	2007-000553	R-CHIP	20ohm,5%,1/4W,TP,3216	1	SNA	
R627	2007-001067	R-CHIP	6.8Kohm,1%,1/8W,TP,2012	1	SNA	
R628	2007-000938	R-CHIP	47Kohm,1%,1/8W,TP,2012	1	SNA	
R629	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R630	2007-001067	R-CHIP	6.8Kohm,1%,1/8W,TP,2012	1	SNA	
R631	2007-000938	R-CHIP	47Kohm,1%,1/8W,TP,2012	1	SNA	
R632	2007-000553	R-CHIP	20ohm,5%,1/4W,TP,3216	1	SNA	
R633	2007-000553	R-CHIP	20ohm,5%,1/4W,TP,3216	1	SNA	
R634	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R635	2007-001067	R-CHIP	6.8Kohm,1%,1/8W,TP,2012	1	SNA	
R636	2007-000938	R-CHIP	47Kohm,1%,1/8W,TP,2012	1	SNA	
R637	2007-000553	R-CHIP	20ohm,5%,1/4W,TP,3216	1	SNA	
R638	2007-001067	R-CHIP	6.8Kohm,1%,1/8W,TP,2012	1	SNA	
R639	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	

■ OUTDOOR INVERTER PCB : DB93-04234A(UH140GAV)(cont.)

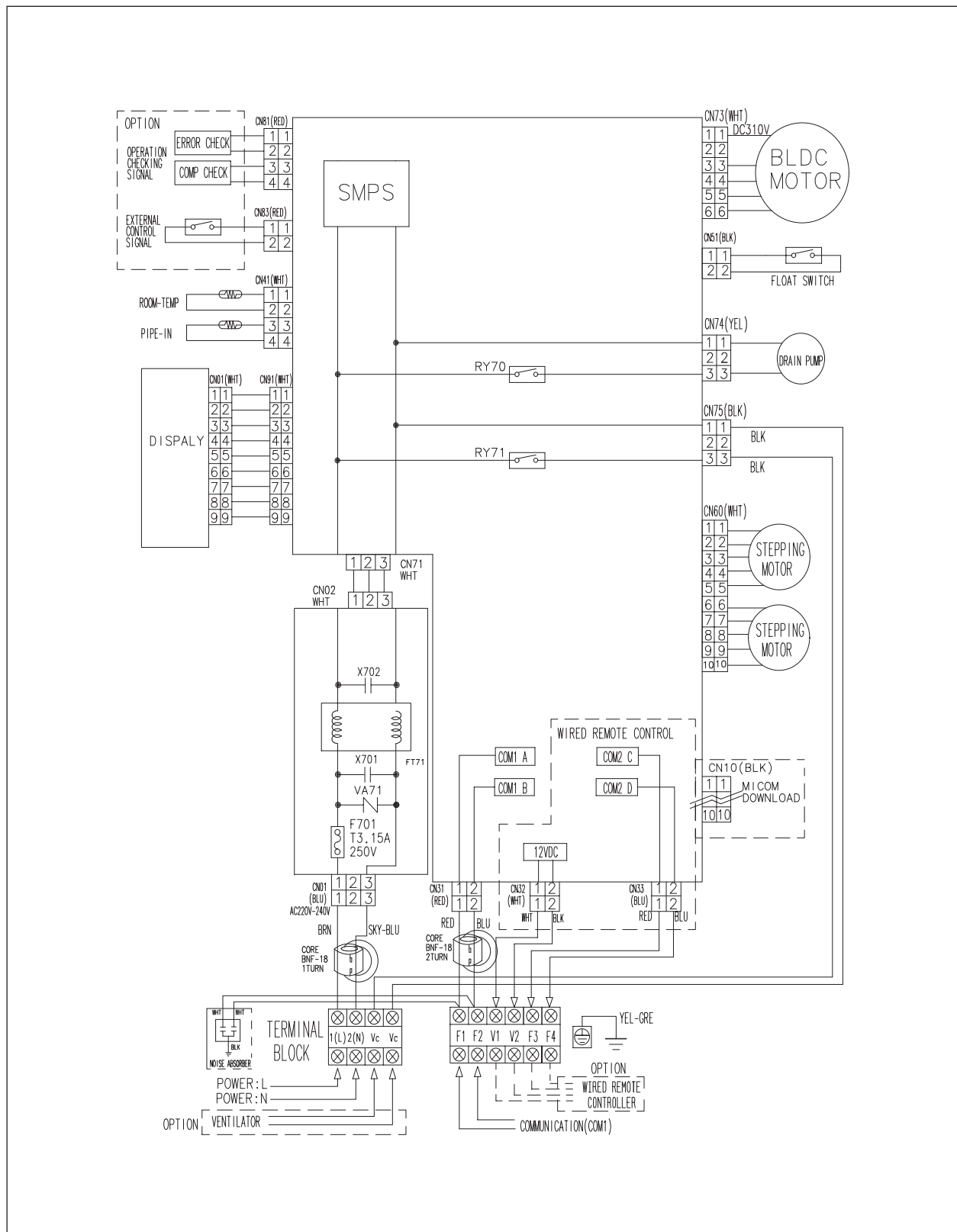
Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
R640	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R641	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R642	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	1	SNA	
R700	2007-007617	R-CHIP	2.49Kohm,1%,1/10W,TP,1608	1	SNA	
R701	2007-008023	R-CHIP	100Kohm,5%,1W,TP,6432	1	SNA	
R702	2007-008023	R-CHIP	100Kohm,5%,1W,TP,6432	1	SNA	
R703	2007-008023	R-CHIP	100Kohm,5%,1W,TP,6432	1	SNA	
R704	2007-008023	R-CHIP	100Kohm,5%,1W,TP,6432	1	SNA	
R705	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	SNA	
R711	2007-008023	R-CHIP	100Kohm,5%,1W,TP,6432	1	SNA	
R712	2007-008023	R-CHIP	100Kohm,5%,1W,TP,6432	1	SNA	
R713	2007-008023	R-CHIP	100Kohm,5%,1W,TP,6432	1	SNA	
R714	2007-008023	R-CHIP	100Kohm,5%,1W,TP,6432	1	SNA	
R715	2007-008023	R-CHIP	100Kohm,5%,1W,TP,6432	1	SNA	
R716	2007-008023	R-CHIP	100Kohm,5%,1W,TP,6432	1	SNA	
R717	2007-008023	R-CHIP	100Kohm,5%,1W,TP,6432	1	SNA	
R718	2007-008023	R-CHIP	100Kohm,5%,1W,TP,6432	1	SNA	
R800	2007-000586	R-CHIP	22Kohm,5%,1/8W,TP,2012	1	SNA	
R801	2007-000586	R-CHIP	22Kohm,5%,1/8W,TP,2012	1	SNA	
R802	2007-000586	R-CHIP	22Kohm,5%,1/8W,TP,2012	1	SNA	
R803	2007-000586	R-CHIP	22Kohm,5%,1/8W,TP,2012	1	SNA	
R806	2007-000766	R-CHIP	330ohm,5%,1/8W,TP,2012	1	SNA	
R807	2007-000282	R-CHIP	100Kohm,5%,1/8W,TP,2012	1	SNA	
R808	2007-000282	R-CHIP	100Kohm,5%,1/8W,TP,2012	1	SNA	
R900	2007-000282	R-CHIP	100Kohm,5%,1/8W,TP,2012	1	SNA	
R907	2007-000238	R-CHIP	1.5Kohm,1%,1/8W,TP,2012	1	SNA	
R908	2007-000282	R-CHIP	100Kohm,5%,1/8W,TP,2012	1	SNA	
R909	2007-002667	R-CHIP	90.9Kohm,1%,1/4W,TP,3216	1	SNA	
R910	2007-007025	R-CHIP	4.75Kohm,1%,1/4W,TP,3216	1	SNA	
R917	2007-007025	R-CHIP	4.75Kohm,1%,1/4W,TP,3216	1	SNA	
R918	2007-000279	R-CHIP	100Kohm,1%,1/4W,TP,3216	1	SNA	
R919	2007-000279	R-CHIP	100Kohm,1%,1/4W,TP,3216	1	SNA	
R920	2007-000279	R-CHIP	100Kohm,1%,1/4W,TP,3216	1	SNA	
R921	2007-000279	R-CHIP	100Kohm,1%,1/4W,TP,3216	1	SNA	
R922	2007-000279	R-CHIP	100Kohm,1%,1/4W,TP,3216	1	SNA	
R923	2007-000279	R-CHIP	100Kohm,1%,1/4W,TP,3216	1	SNA	
R924	2007-000938	R-CHIP	47Kohm,1%,1/8W,TP,2012	1	SNA	
R925	2007-000938	R-CHIP	47Kohm,1%,1/8W,TP,2012	1	SNA	
RY10	3501-001163	RELAY-MINIATURE	12Vdc,200mW,5000mA,1FORmA,10mS	1	SNA	
RY11	3501-001163	RELAY-MINIATURE	12Vdc,200mW,5000mA,1FORmA,10mS	1	SNA	

■ OUTDOOR INVERTER PCB : DB93-04234A(UH140GAV)(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
RY20	3501-001154	RELAY-MINIATURE	12Vdc,200mW,3000mA,1FORmA,10mS	1	SNA	
RY21	3501-001154	RELAY-MINIATURE	12Vdc,200mW,3000mA,1FORmA,10mS	1	SNA	
SCREW	6002-000630	SCREW-TAPPING	PH,+,-,2S,M3,L8,ZPC(WHT),SWRCH	1	SNA	
SOLDER BAR	0202-000176	SOLDER-BAR	VACULOY,-,22x337x16,96.5SN/3AG	5g	SNA	
SOLDER CREAM	0202-001459	SOLDER-CREAM	S3X58-M405,-,D20~38?,96.5SN/3A	3g	SNA	
SOLDER WIRE	0202-000176	SOLDER-BAR	VACULOY,-,22x337x16,96.5SN/3AG	10g	SNA	
SOLVENT	0204-003174	SOLVENT	S-E70,SOLVENT,-,0.790	5g	SNA	
VA100	1405-000154	VARISTOR	460Vdc,2500A,17.5x7.5mm,TP	1	SNA	
WIRE-11	DB39-01194D	C/W-SUB	AWG #26, WHT	1	SNA	
Y30	2802-000105	RESONATOR-CERAMIC	10mHz,0.5%,TP,10.0x5.0x10.0mm	1	SNA	
ZD100	0403-000461	DIODE-ZENER	PTZ18A,16.8-19.1V,1000mW,PSM,T	1	SNA	
ZD101	0403-000461	DIODE-ZENER	PTZ18A,16.8-19.1V,1000mW,PSM,T	1	SNA	
ZD102	0403-000461	DIODE-ZENER	PTZ18A,16.8-19.1V,1000mW,PSM,T	1	SNA	
ZD103	0403-000461	DIODE-ZENER	PTZ18A,16.8-19.1V,1000mW,PSM,T	1	SNA	
ZD300	0403-000282	DIODE-ZENER	mmBZ5232B,5%,225mW,SOT-23,TP	1	SNA	
ZD600	0403-000461	DIODE-ZENER	PTZ18A,16.8-19.1V,1000mW,PSM,T	1	SNA	
ZD601	0403-000461	DIODE-ZENER	PTZ18A,16.8-19.1V,1000mW,PSM,T	1	SNA	
ZD602	0403-000461	DIODE-ZENER	PTZ18A,16.8-19.1V,1000mW,PSM,T	1	SNA	
ZD603	0403-000461	DIODE-ZENER	PTZ18A,16.8-19.1V,1000mW,PSM,T	1	SNA	
ZD604	0403-000461	DIODE-ZENER	PTZ18A,16.8-19.1V,1000mW,PSM,T	1	SNA	
ZD605	0403-000461	DIODE-ZENER	PTZ18A,16.8-19.1V,1000mW,PSM,T	1	SNA	
ZD700	0403-000282	DIODE-ZENER	mmBZ5232B,5%,225mW,SOT-23,TP	1	SNA	
ZD701	0403-000282	DIODE-ZENER	mmBZ5232B,5%,225mW,SOT-23,TP	1	SNA	
ZD800	0403-000579	DIODE-ZENER	BZX84C5V1,4.8-5.4V,200mW,SOT-2	1	SNA	
ZD801	0403-000579	DIODE-ZENER	BZX84C5V1,4.8-5.4V,200mW,SOT-2	1	SNA	
ZD802	0403-000579	DIODE-ZENER	BZX84C5V1,4.8-5.4V,200mW,SOT-2	1	SNA	
ZD900	0403-000579	DIODE-ZENER	BZX84C5V1,4.8-5.4V,200mW,SOT-2	1	SNA	

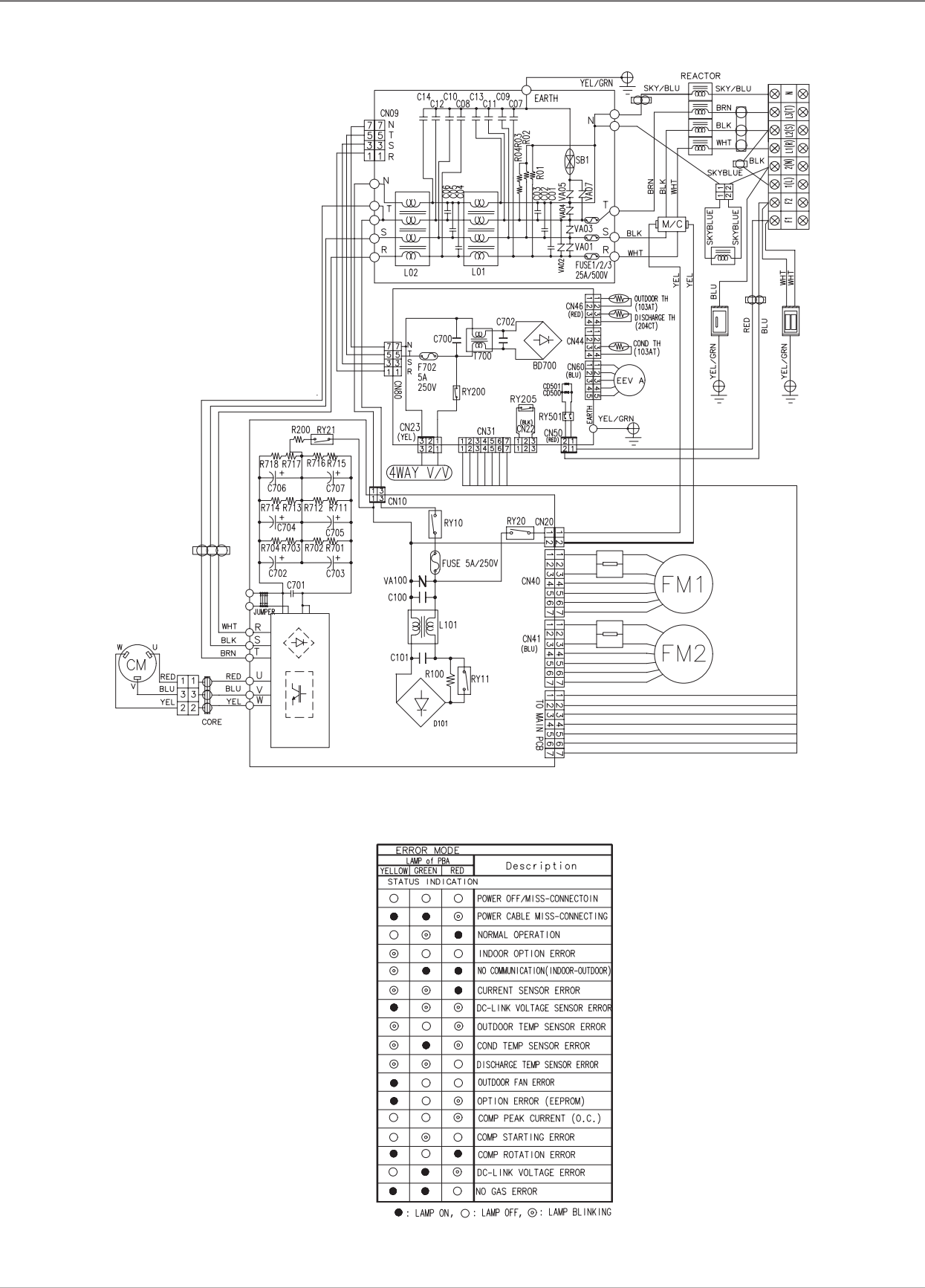
7. Wiring Diagram

7-1 Indoor Unit



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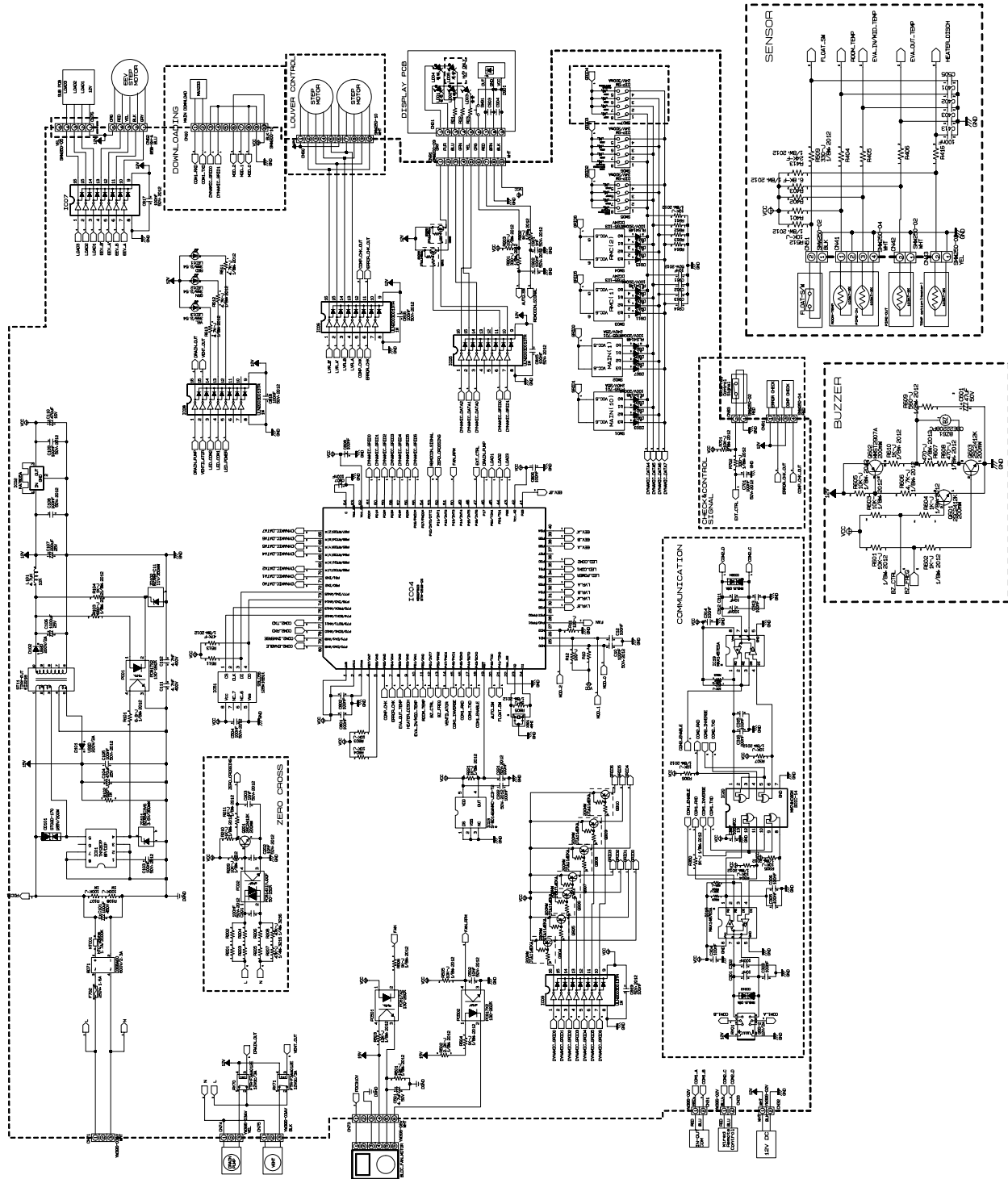
7-2 Outdoor Unit



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8. Schematic Diagram

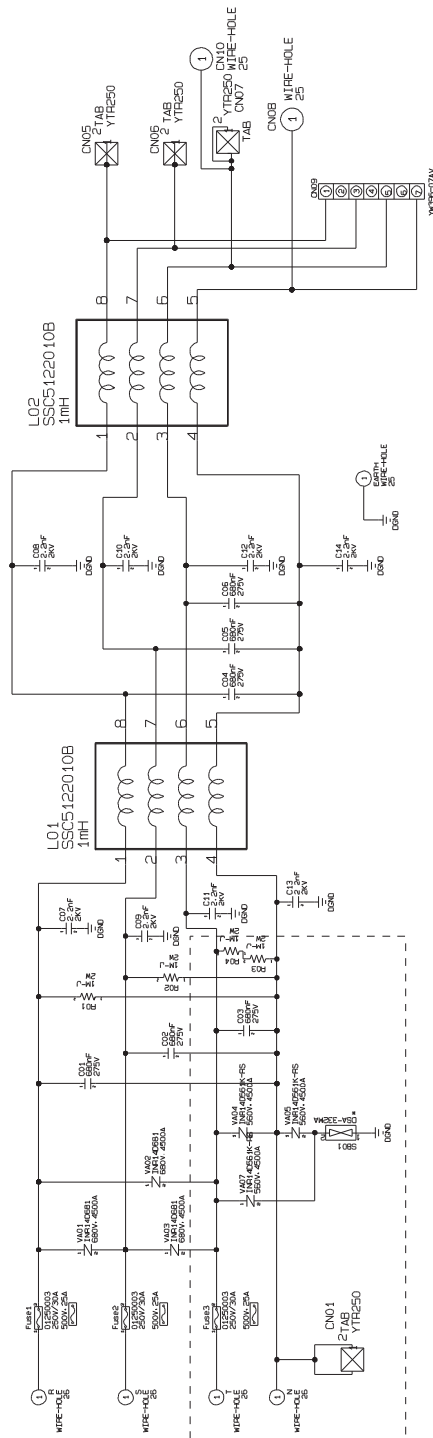
8-1 Indoor Unit



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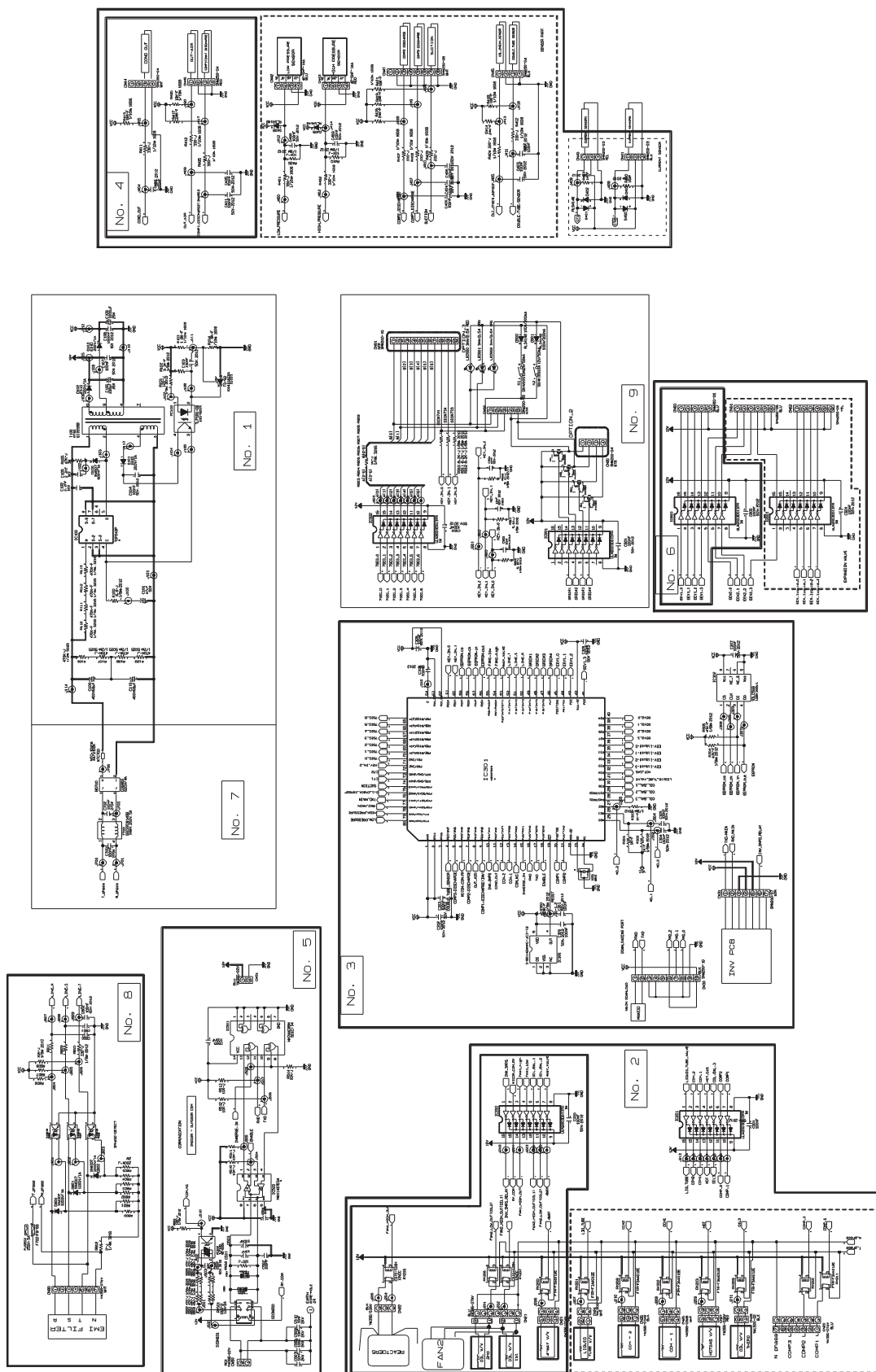
8-2 Outdoor Unit

EMI PCB



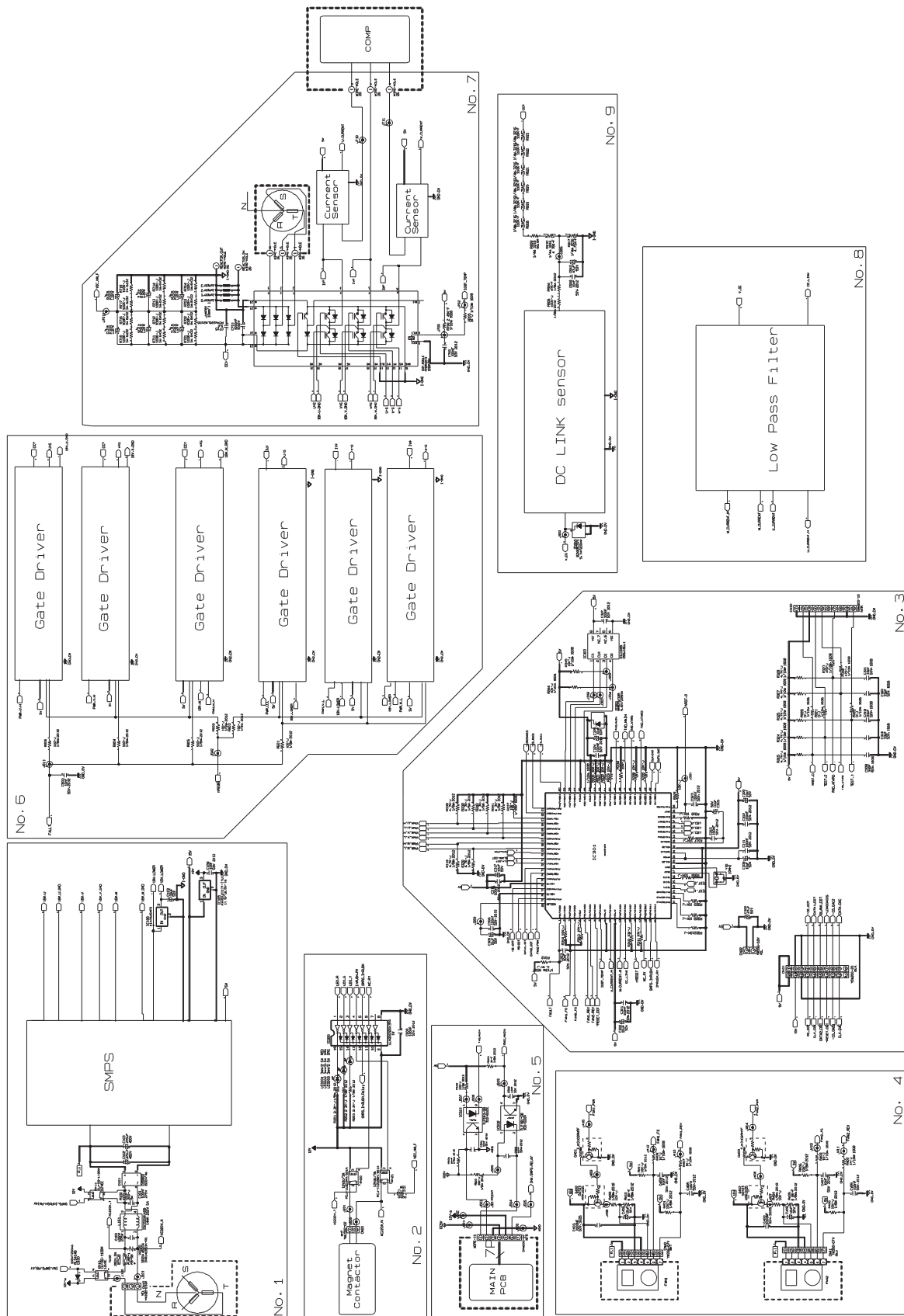
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MAIN PCB



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■ INVERTER PCB



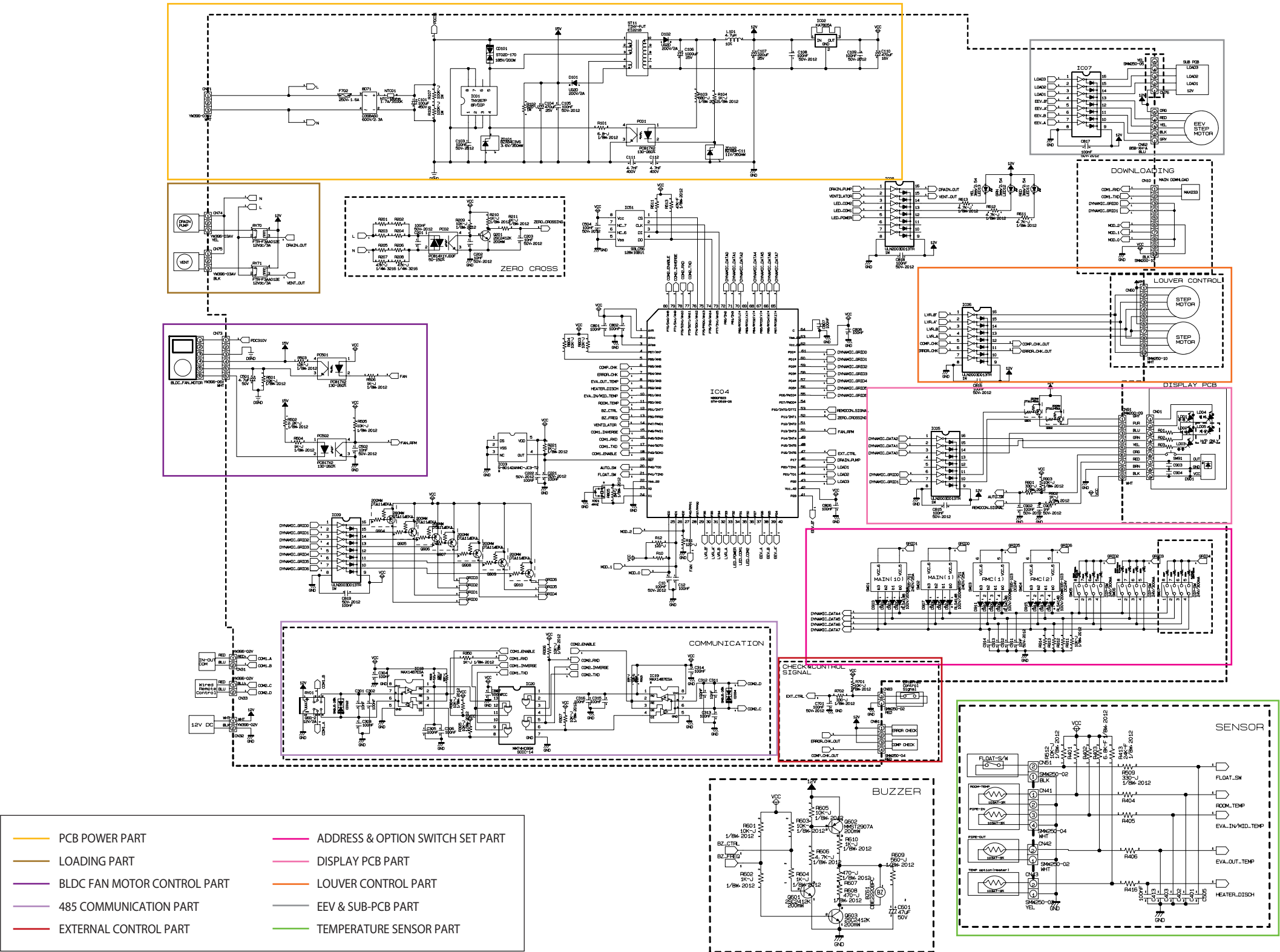
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MEMO

9. Circuit Descriptions

9-1 PCB Circuit Descriptions

9-1-1 Indoor Unit



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9-1-2 Outdoor Unit

■ EMI PCB

This PCB circuit consists of 3 part.

- 1) FUSE
- 2) EMI filter for suppressing inverter noise.
- 3) Surge absorber and varistor for incoming surge noise.

■ MAIN PCB

This PCB circuit consists of 9 part described in schematics in 8-2.

No.1 : SMPS

This SMPS supplies DC power from 230Vac between phase T and N.

And this has the output shut down function in case of high input voltage for power source miss-wiring.

No.2 : Relay Driver

This Relay drives cycle control device like 4way V/V.

No.3 : Micro controller(MICOM)

This Micom mainly controls refrigerant cycle and indoor-outdoor communication.

No.4 : Sensor input circuit

No.5 : indoor-outdoor 485 communication

This circuit has non-polarity function.

No.6 : EEV driver

No.7 : EMI filter

This filter is for suppressing SMPS noise.

No.8 : 3phase AC input check

This is three - AC zero-cross detecting circuit of input power source.

This output is used for checking of power source wire miss-wiring and detaching.

No.9 : LED and Key scan

■ INVERTER PCB

This PCB circuit consists of 9 part described in schematics in 8-2.

No.1 : SMPS

This SMPS supplies DC power from 230Vac between phase T and N.

And MAIN PCB controls this input with RY10.

No.2 : Relay and LED driver

No.3 : Micro controller(MICOM)

This MICOM mainly controls INVERTER for compressor motor and two of BLDC fan motor.

No.4 : BLDC FAN Driver

No.5 : Communication Interface

This is the insulated interface circuit for serial communication between MAIN micom and INVERTER micom.

No.6 : Gate driver for IGBT module

This consists of 6 insulated Gate drive circuit.

No.7 : Converter and Inverter

This consists of 3 part as below.

- 1) Converter with rectifiers and capacitors
- 2) Inverter with 6 of IGBT
- 3) Motor phase current sensors for sensorless vector control technique.

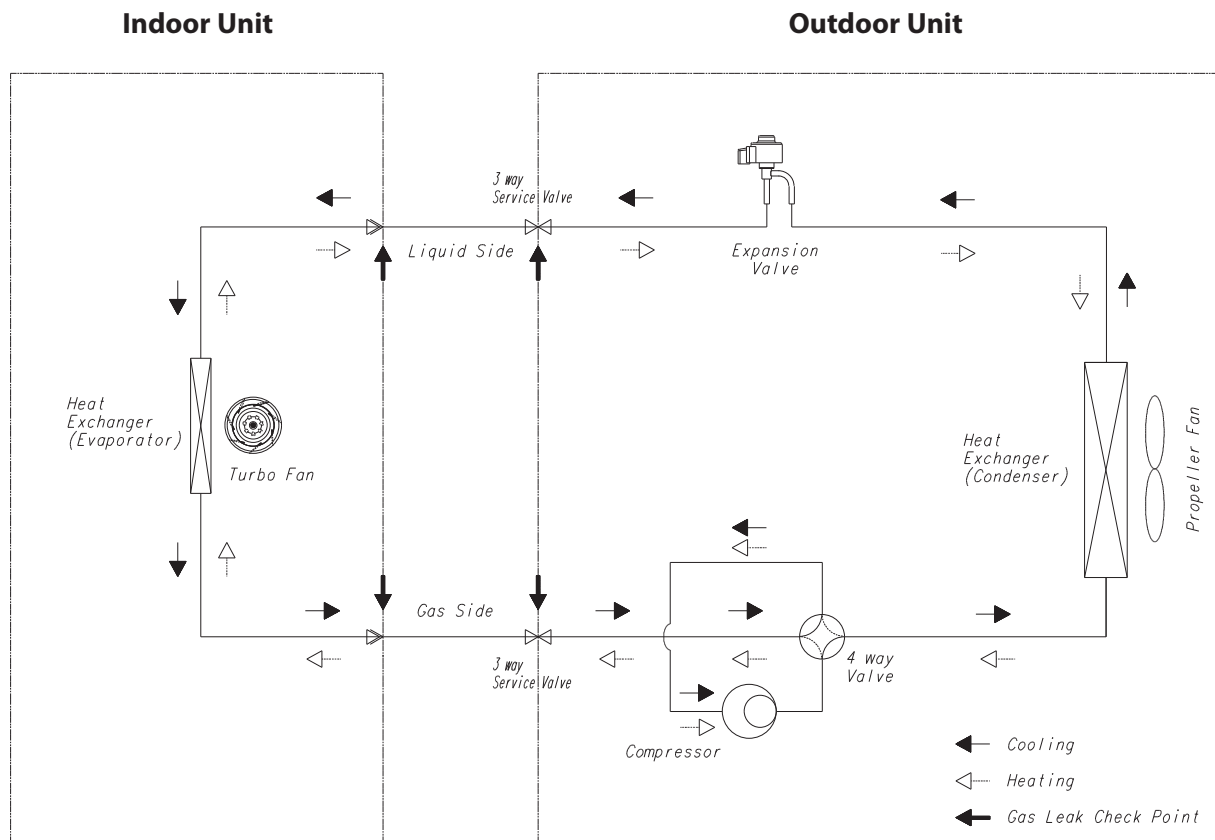
No.8 : Low pass filter

This is for DC Link sensor and Current sensors.

No.9 : DC Link sensor

This detects DC link voltage of Compressor Inverter.

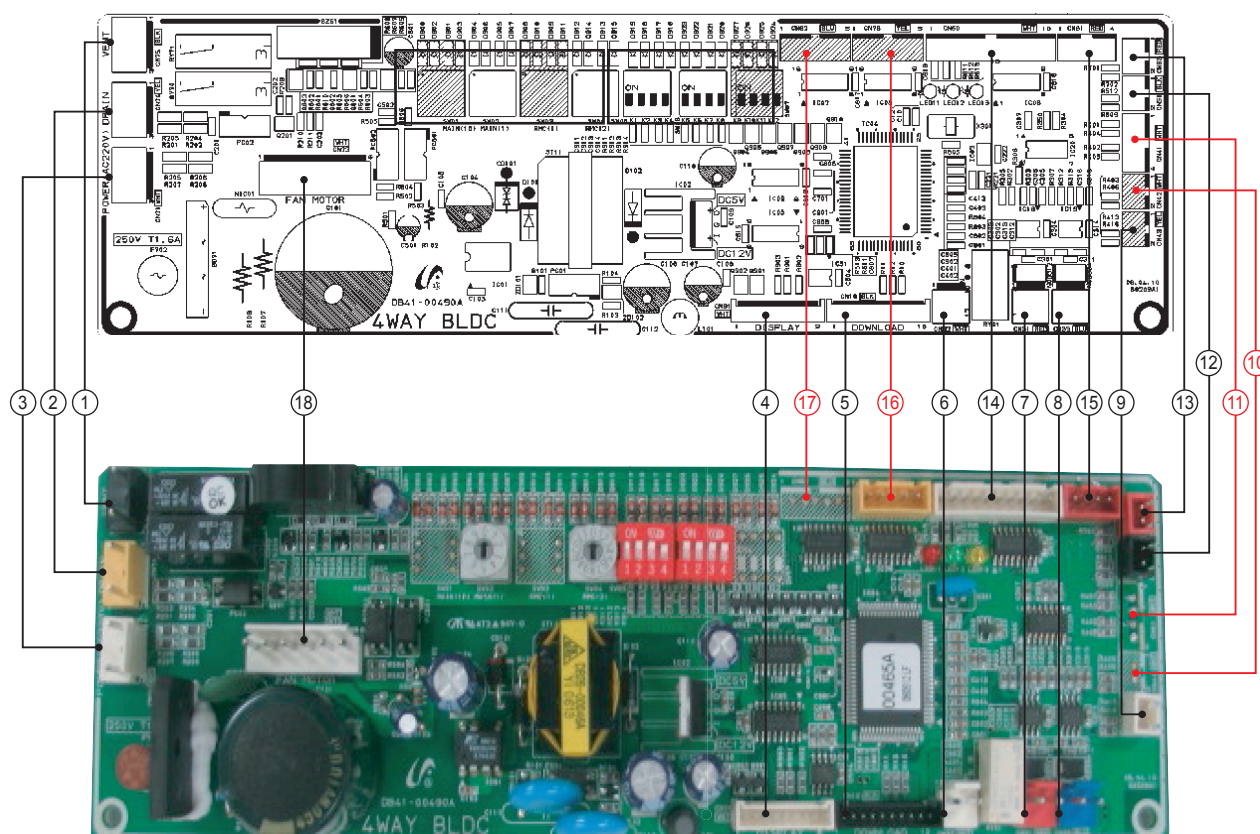
9-2 Refrigerating Cycle Diagram



10. PCB Diagram

10-1 Indoor PCB

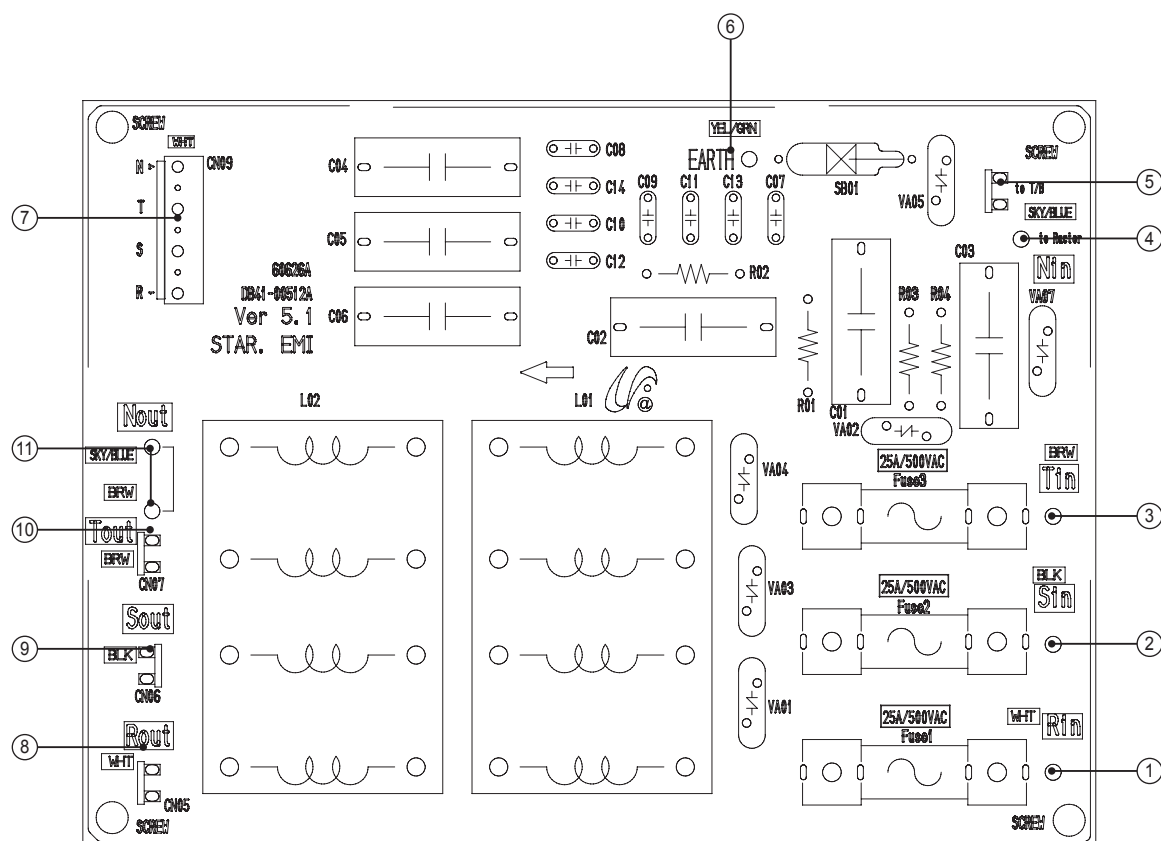
⚠ The red number connector is not used.



①	Ventilator	⑫	Floating Switch
②	Drain Pump	⑬	External control
③	Power in	⑭	step motor
④	Display	⑮	operation check
⑤	Micon download	⑯	SUB PCB connector
⑥	Wire Remote Controller Power	⑰	EEV
⑦	Indoor/Outdoor Communication	⑱	BLDC MOTOR
⑧	Wired Remote Controller Communication		
⑨	Thermistor Discharge		
⑩	EVA out sensor		
⑪	Indoor Pipe in Temperature Sensor Indoor Room Temperature Sensor		

10-2 Outdoor PCB

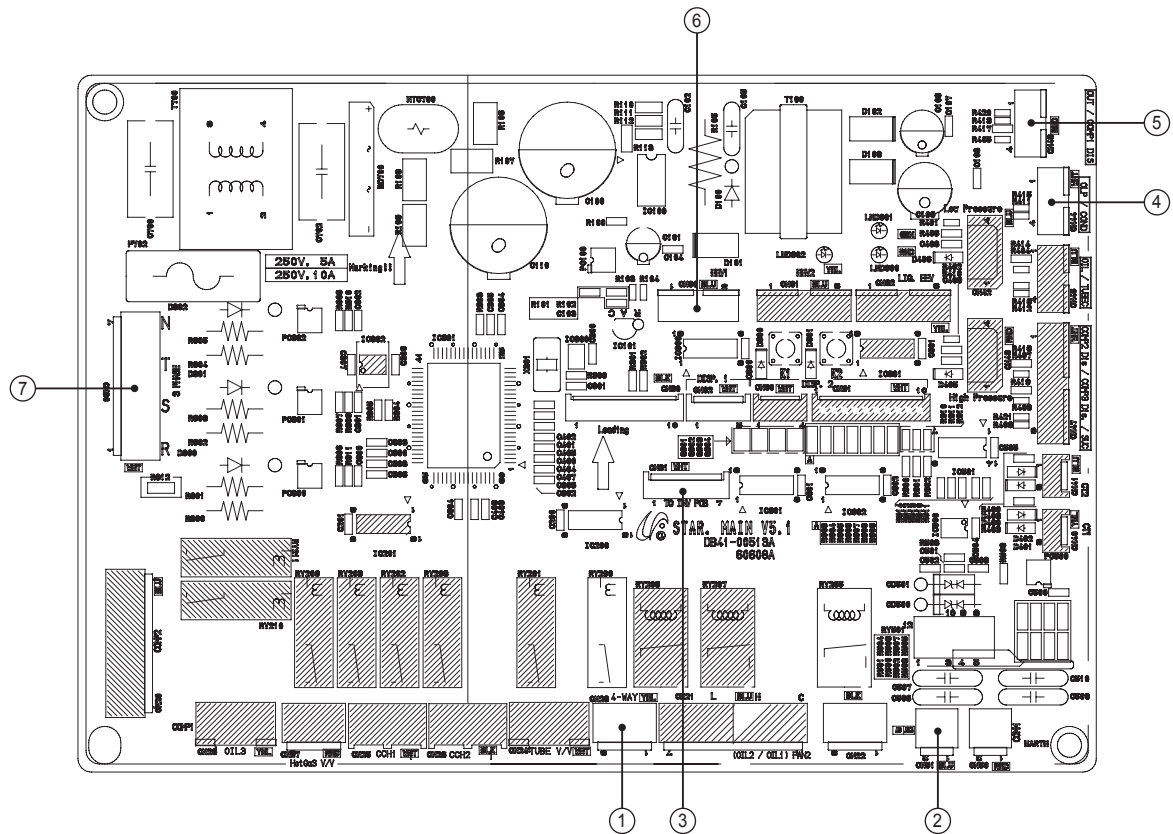
EMI PCB



①	Power R in wire	⑦	MAIN PBA Power connector
②	Power S in wire	⑧	Power R Inverter Terminal
③	Power T in wire	⑨	Power S Inverter Terminal
④	Power N in wire	⑩	Power T Inverter Terminal
⑤	Power N indoor Terminal	⑪	Inverter PBA power wire
⑥	Earth wire		

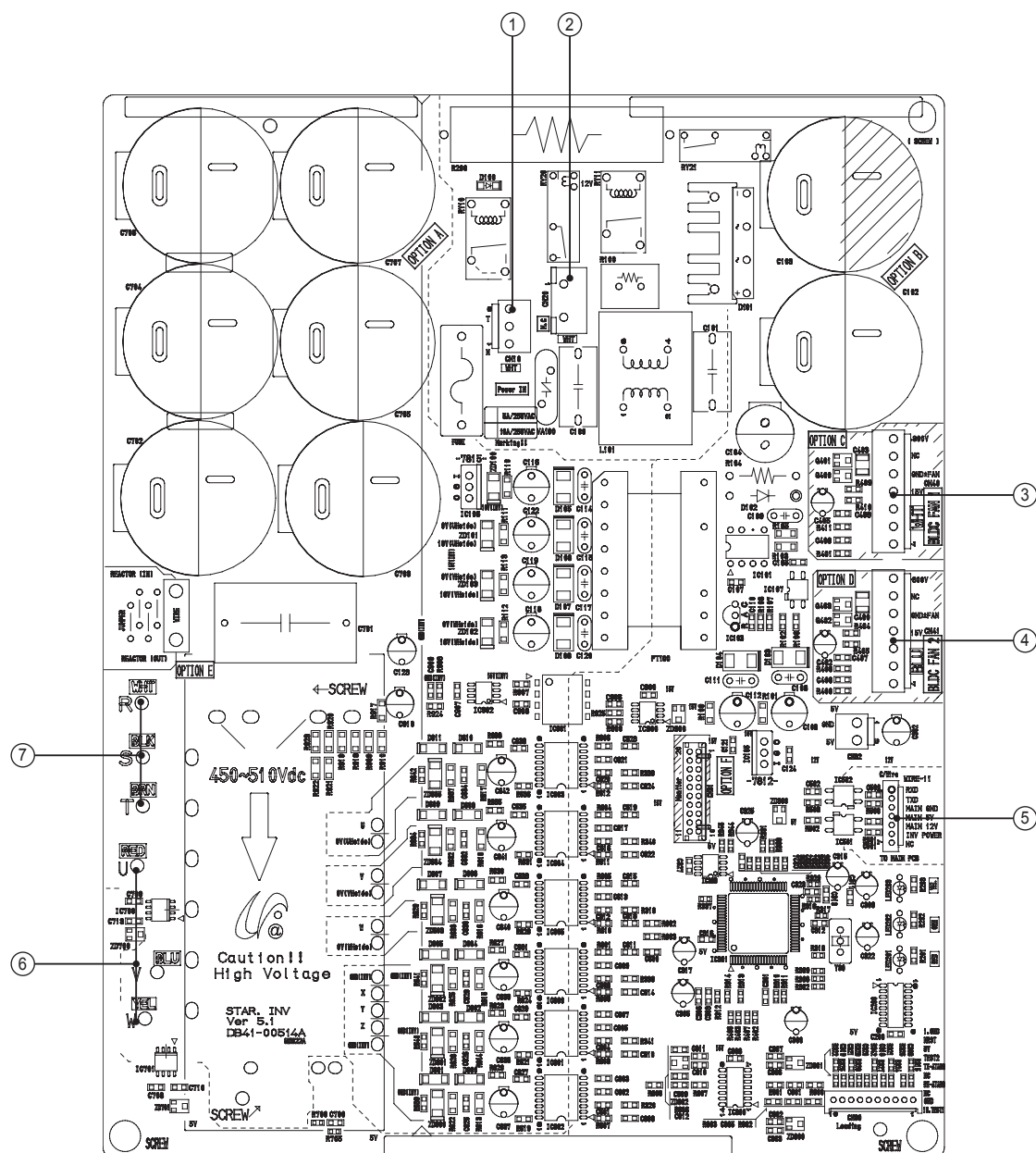
Outdoor PCB(cont.)

■ MAIN PCB



①	4 way V/V connector	⑤	OUT/DIS sensor connector
②	485 Communication connector	⑥	EEV connector
③	Inverter PBA communication connector	⑦	Power 3 Phase in connector
④	COND sensor connector		

■ INVERTER PCB

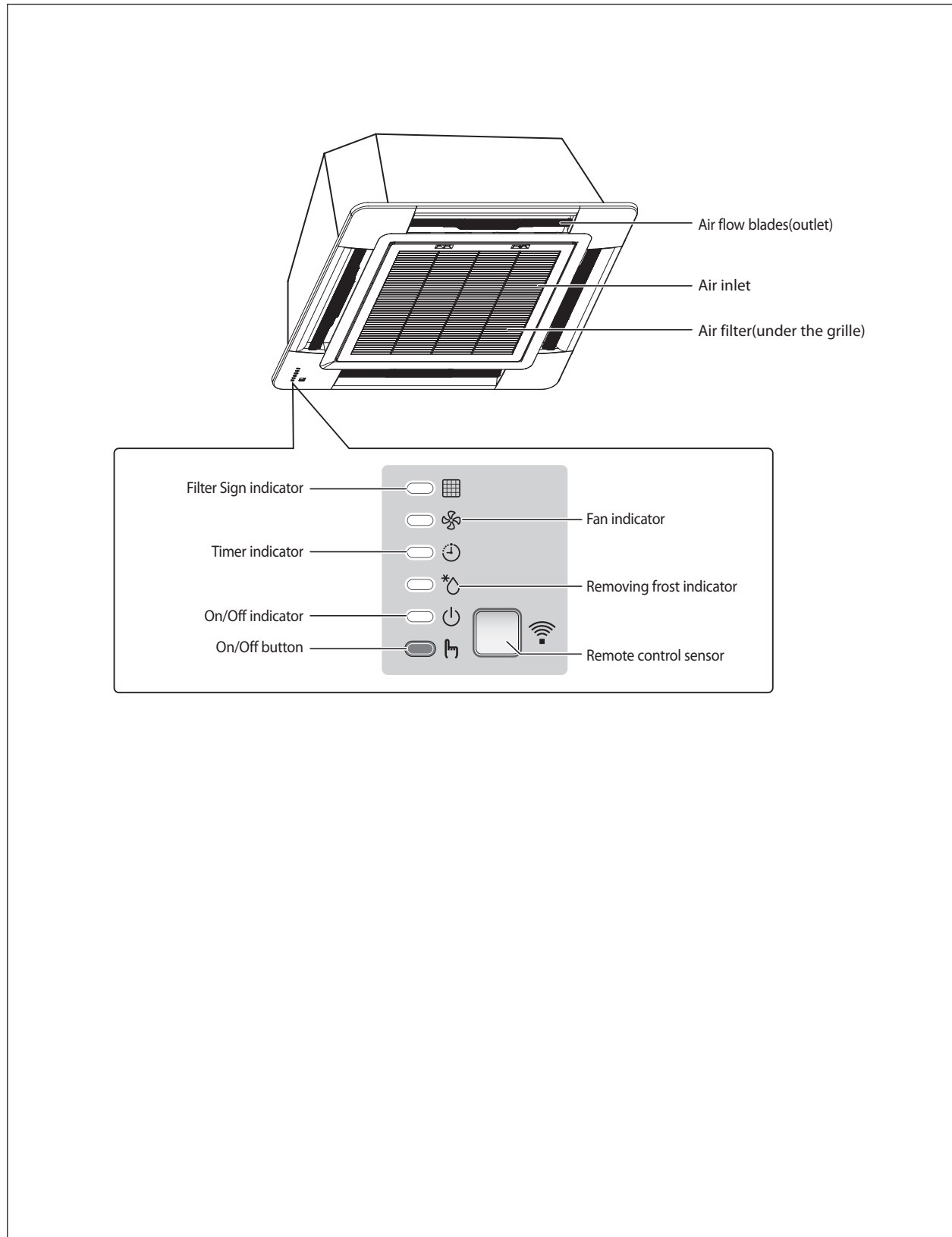


①	Inverter PBA Power connector	⑤	MAIN PBA communication wire
②	M/C connector	⑥	Compressor connector wire
③	BLDC FAN 1 connector	⑦	3 Phase Power connector wire
④	BLDC FAN 2 connector		

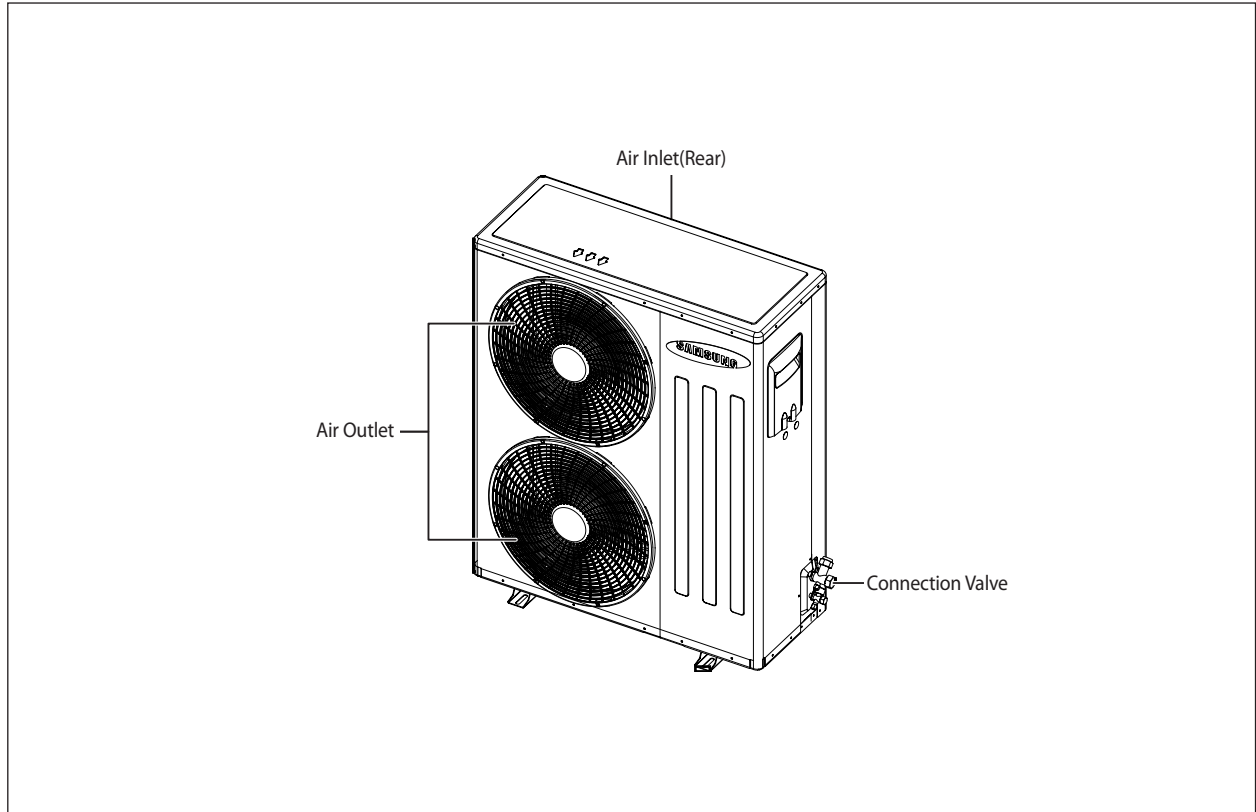
11. Operating Instructions

11-1 Name of Each Part

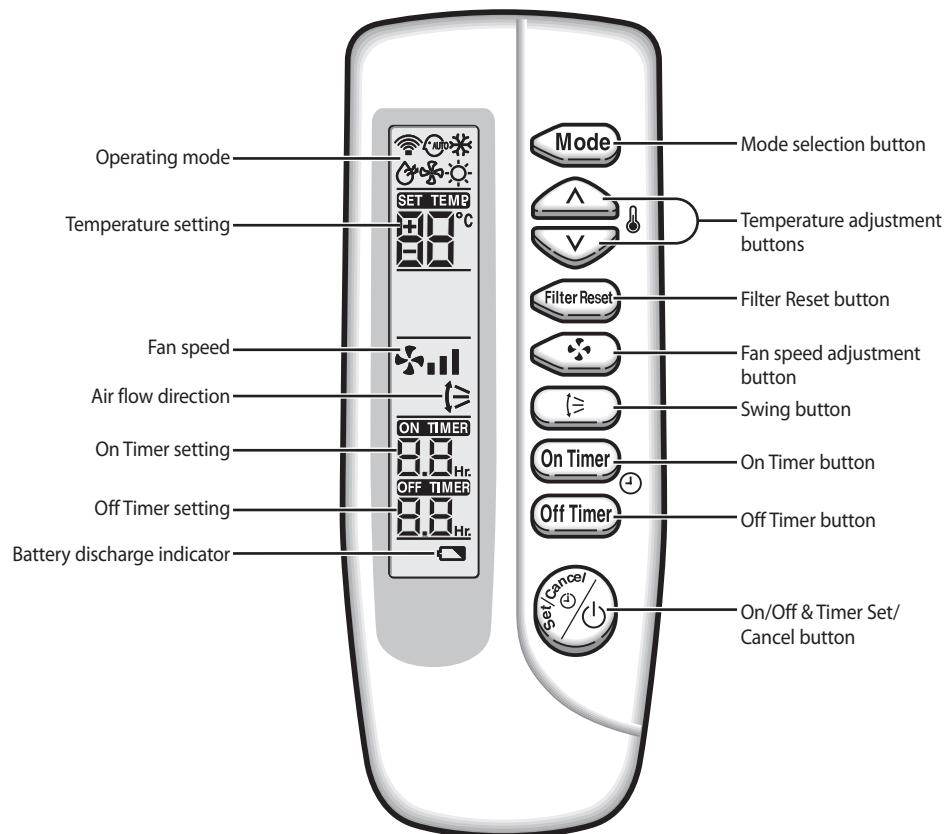
11-1-1 Indoor Unit



11-1-2 Outdoor Unit

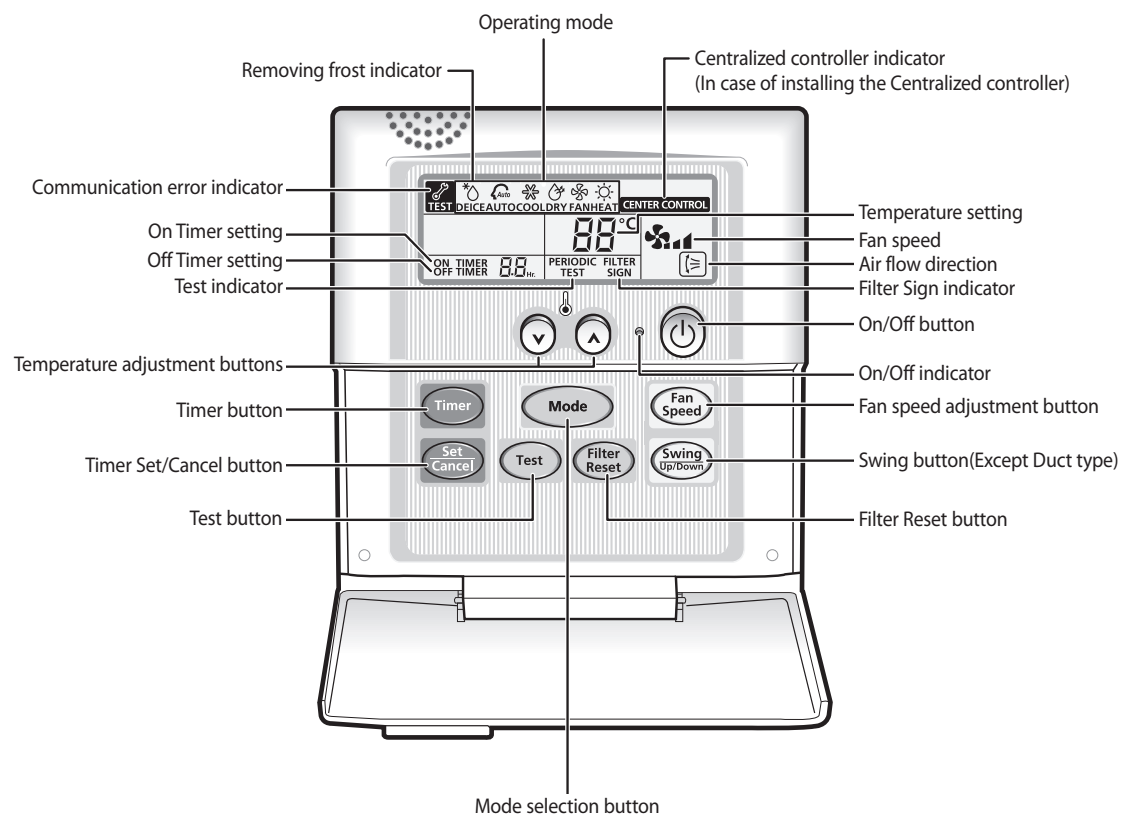


11-2 Wireless Remote Control-Buttons and Display



Note : • After cleaning the air filter, press the  button.

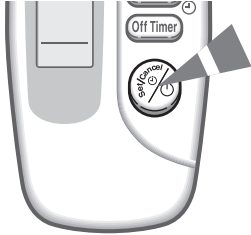
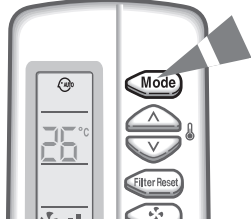
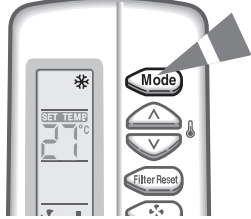
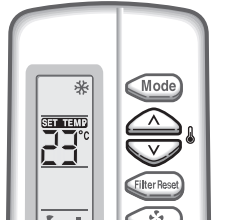
11-3 Wired Remote Controller-Buttons and Display



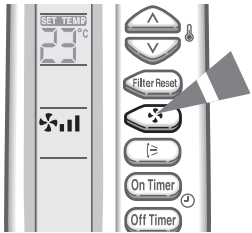
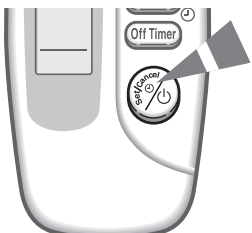
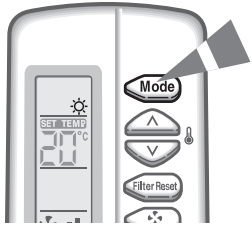
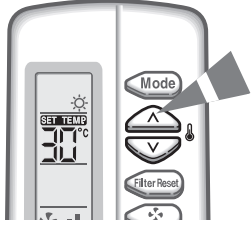
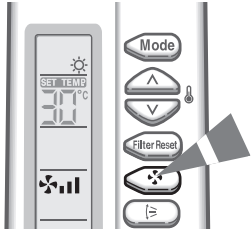
- Note :**
- The **Test** button is for your installation specialist. You must not press it.
 - After cleaning the air filter, press the **Filter Reset** button. Then the wired remote controller will display the Filter Sign indicator when the time to clean the air filter.

11-4 Main Function

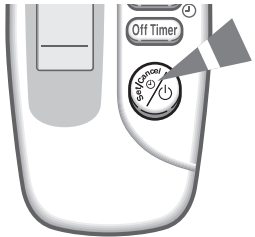
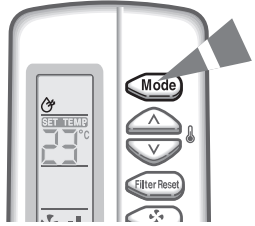
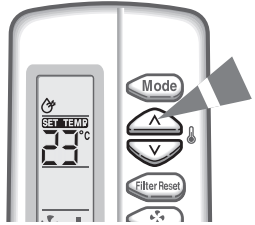
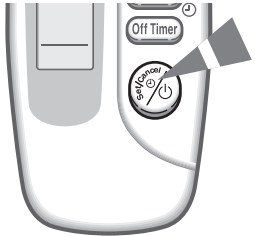
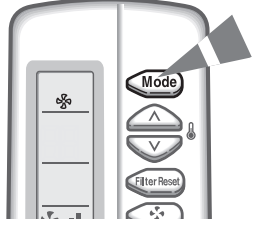
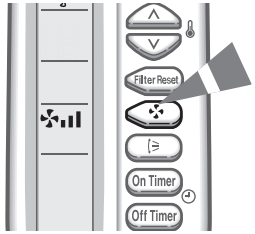
11-4-1 Basic Function

Mode	Explanation	Remark
Selecting the Automatic Operating Mode	1. If necessary, press  (On/Off) button. 2. To select the AUTO mode, press the  button until  is displayed at the top of the wireless remote controller. 3. To adjust the temperature, press the  buttons one or more times until the required temperature is displayed. Possible temperatures are between 18°C and 30°C inclusive.	 
Cooling Your Room	1. If necessary, press  (On/Off) button. 2. To select the COOL mode, press the  button until  is displayed at the top of the wireless remote controller. 3. To adjust the temperature, press the  buttons one or more times until the required temperature is displayed. Possible temperatures are between 18°C and 30°C inclusive.	  

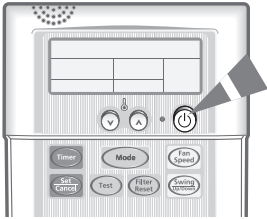
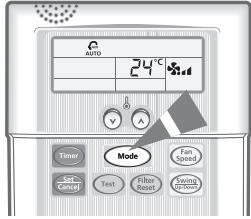
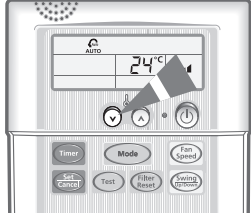
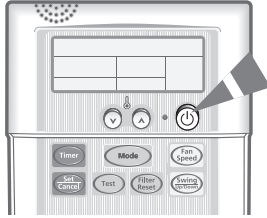
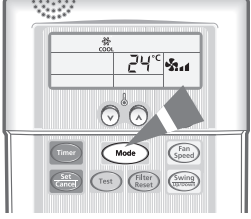
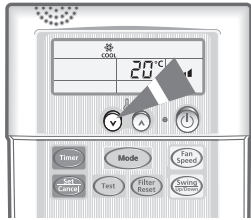
Basic Function(cont.)

Mode	Explanation	Remark
	4. Select the fan speed by pressing the  button one or more times until the intended value is displayed :  Automatic(rotated :  →  → )  Low  Medium  High	
Heating Your Room (Except cooling only models)	1. If necessary, press  (On/Off) button. 2. To select the HEAT mode, press the  button until  is displayed at the top of the wireless remote controller. 3. To adjust the temperature, press the  buttons one or more times until the required temperature is displayed. Possible temperatures are between 16°C and 30°C inclusive. 4. Select the fan speed by pressing the  button one or more times until the intended value is displayed :  Automatic(rotated :  →  → )  Low  Medium  High	   

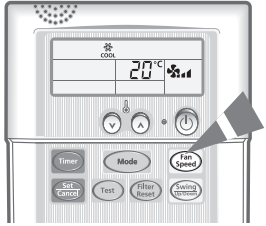
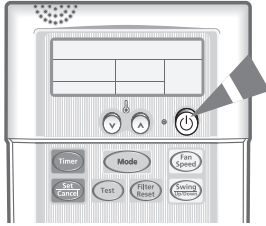
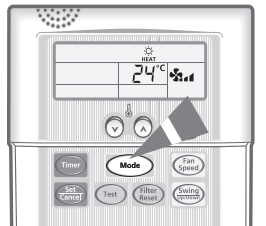
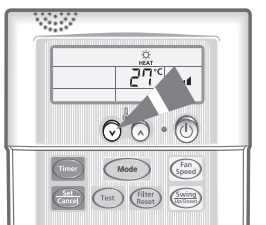
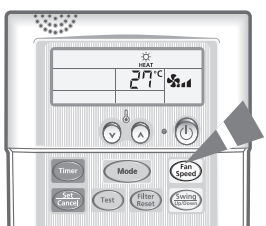
Basic Function(cont.)

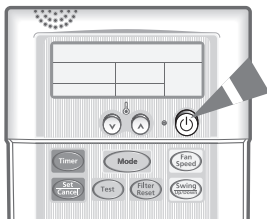
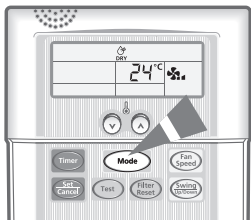
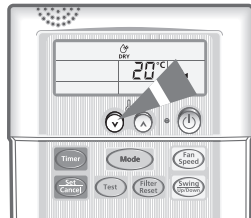
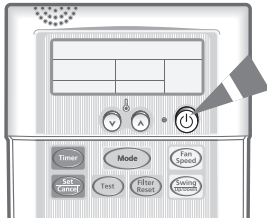
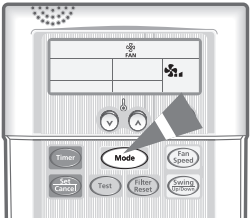
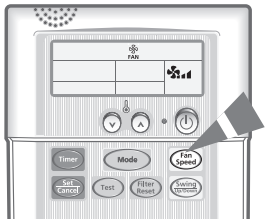
Mode	Explanation	Remark
Removing Excess Humidity	1. If necessary, press  (On/Off) button. 2. To select the DRY mode, press the  button until  is displayed at the top of the wireless remote controller. 3. To adjust the temperature, press the  buttons one or more times until the required temperature is displayed. Possible temperatures are between 18°C and 30°C inclusive.	  
Airing Room	1. If necessary, press  (On/Off) button. 2. To select the FAN mode, press the  button until  is displayed at the top of the wireless remote controller. 3. Select the fan speed by pressing the  button one or more times until the intended value is displayed:  Low  Medium  High	  

11-4-2 Wired Remote Controller

Mode	Explanation	Remark
Selecting the Automatic Operating Mode	1. If necessary, press  (ON/OFF) button.	
	2. To select the AUTO mode, press the  button until  is displayed at the top of the wired remote controller.	
	3. To adjust the temperature, press the   buttons one or more times until the required temperature is displayed. Possible temperatures are between 18°C and 30°C inclusive.	
Cooling Your Room	1. If necessary, press  (ON/OFF) button.	
	2. To select the COOL mode, press the  button until  is displayed at the top of the wired remote controller.	
	3. To adjust the temperature, press the   buttons one or more times until the required temperature is displayed. Possible temperatures are between 18°C and 30°C inclusive.	

Wired Remote Controller(cont.)

Mode	Explanation	Remark
Cooling Your Room	4. Select the fan speed by pressing the Fan Speed button one or more times until the intended value is displayed :  Automatic(rotated :  →  → )  Low  Medium  High	
Heating Your Room (Except cooling only models)	1. If necessary, press  (On/Off) button. 2. To select the HEAT mode, press the Mode button until  is displayed at the top of the wireless remote controller. 3. To adjust the temperature, press the   buttons one or more times until the required temperature is displayed. Possible temperatures are between 16°C and 30°C inclusive. 4. Select the fan speed by pressing the Fan Speed button one or more times until the intended value is displayed :  Automatic(rotated :  →  → )  Low  Medium  High	   

Mode	Explanation	Remark
Removing Excess Humidity	1. If necessary, press  (ON/OFF) button. 2. To select the DRY mode, press the  button until  is displayed at the top of the wired remote controller. 3. To adjust the temperature, press the   buttons one or more times until the required temperature is displayed. Possible temperatures are between 18°C and 30°C inclusive.	  
Airing Your Room	1. If necessary, press  (ON/OFF) button. 2. To select the FAN mode, press the  button until  is displayed at the top of the wired remote controller. 3. Select the fan speed by pressing the  button one or more times until the intended value is displayed:  Low  Medium  High	  

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 4 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.

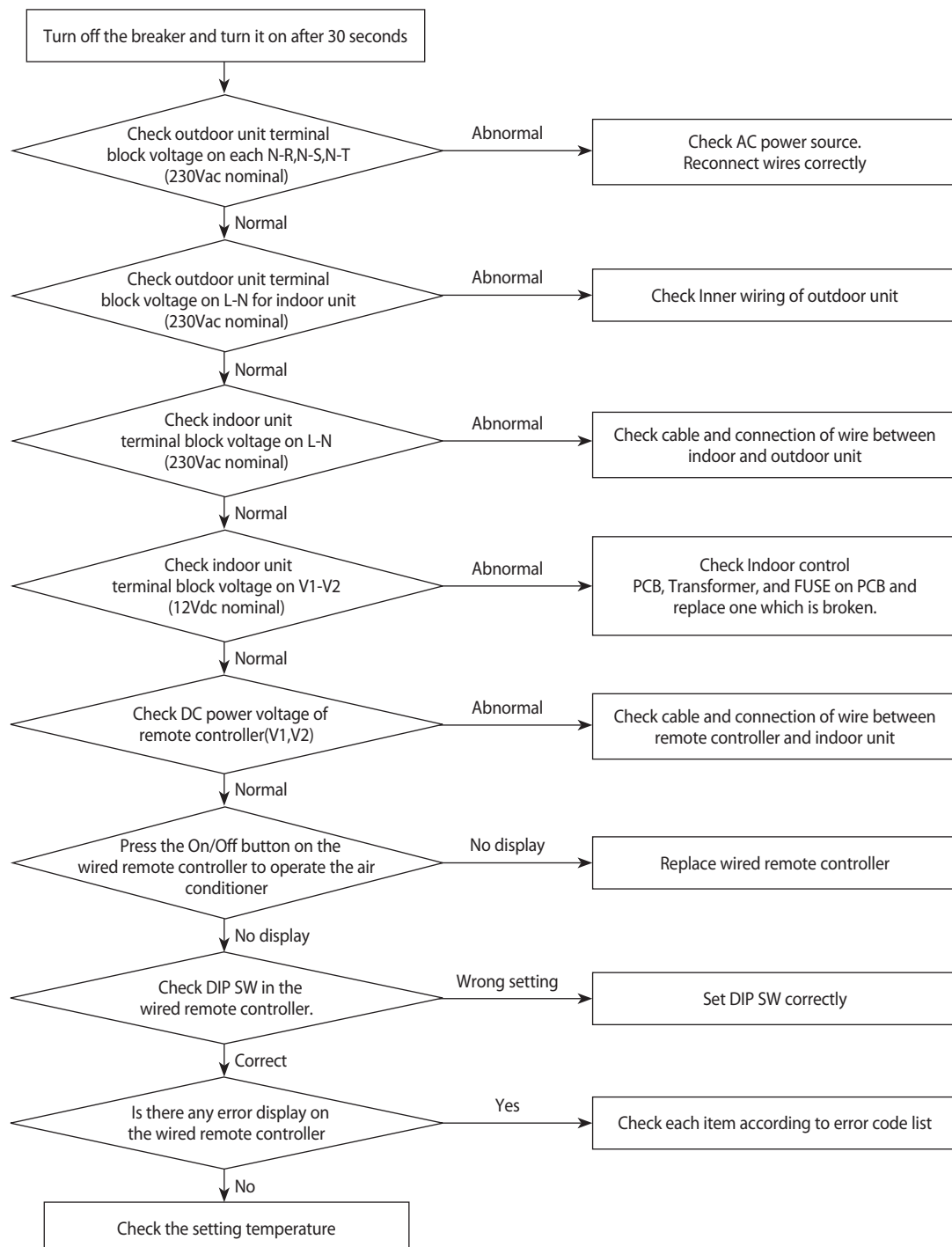
No	Operation of air conditioner	Explanation
1	In a COOL operation mode, the compressor does not operate at a room temperature higher than the setting temperature that the INDOOR FAN should operate. [In case of heat pump model] In a HEAT operation mode, the compressor does not operate at a room temperature 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.
2	Compressor stops operation intermittently in DRY() mode.	Compressor operation is controlled automatically in DRY mode depending on the room temperature and humidity.
3	[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 12 minutes(maximum) until the deice is completed.
4	[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.
5	[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 Power source voltage normal?
 - 2) Is AC power linked correctly?(miss-wiring, wire detaching etc.)
 - 3) Is any LED on the MAIN PCB of Outdoor unit lit?
 - 4) Is terminal voltage for indoor unit normal?(230Vac nominal)
 - 5) Is Wired remote controller installed correctly?

2. Troubleshooting procedure

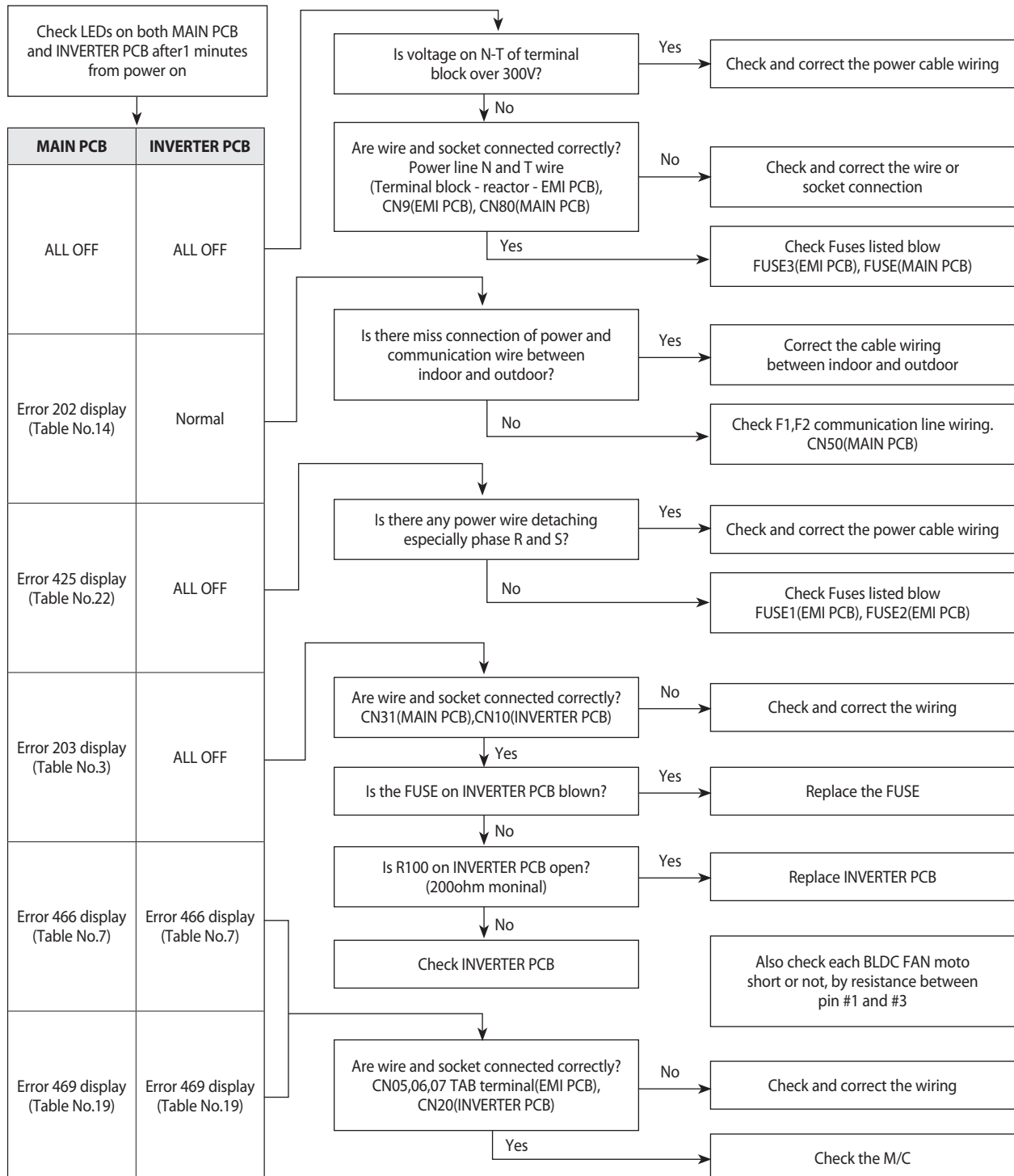


12-2-2 The Outdoor unit Power Supply error

1. Checklist:

- 1) Are the input power voltage and power connection correct?
- 2) Is there any Fuse Short of the indoor or outdoor unit?
- 3) Is any LED lit on both MAIN PCB and INVERTER PCB?
- 4) Are Reactor wires of the outdoor unit connected correctly?

2. Troubleshooting procedure

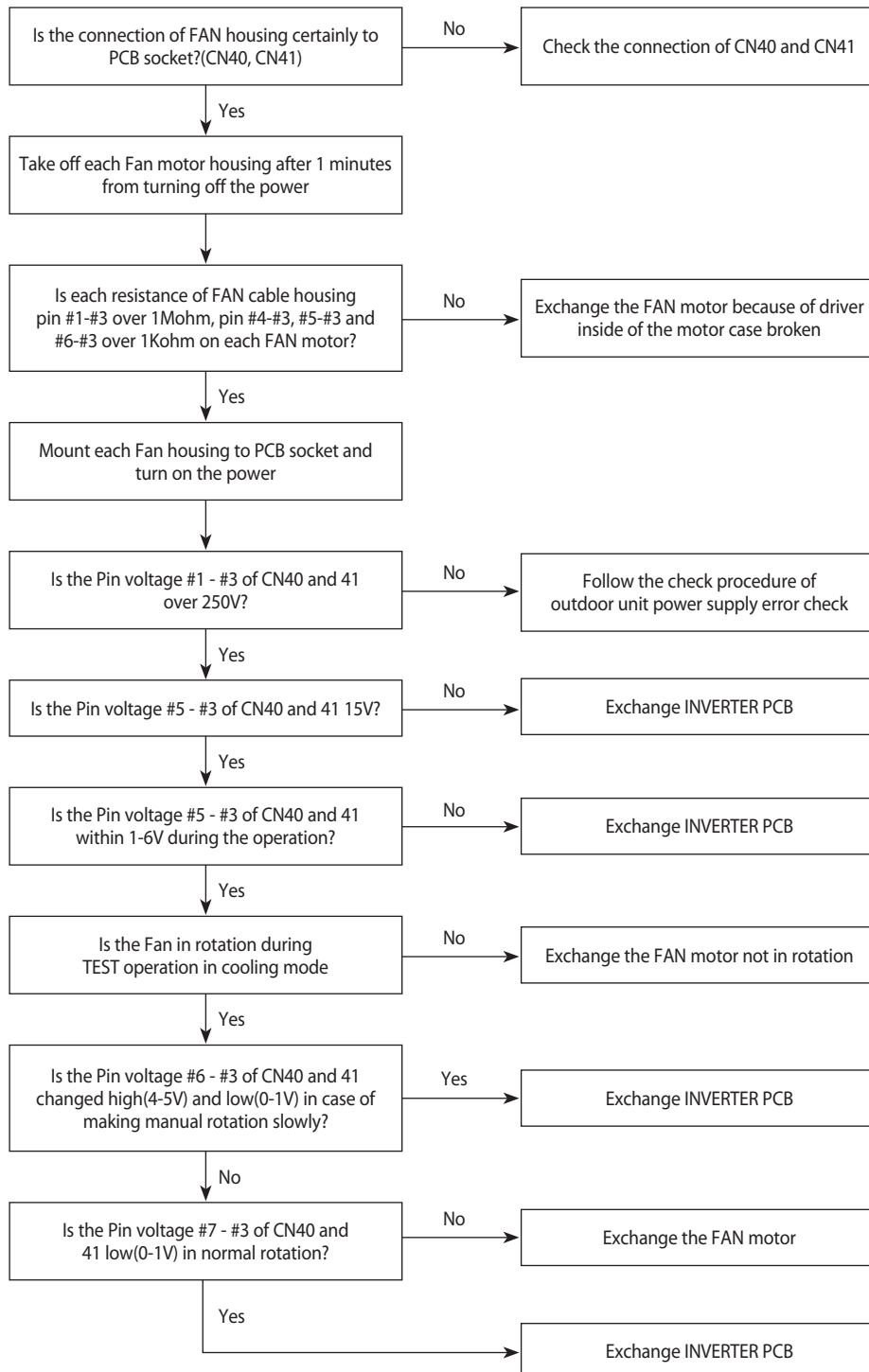


12-2-3 The Outdoor unit Fan error

1. Checklist:

- 1) Are the input power voltage and power connection correct?
- 2) Is the motor wire connected to the outdoor PCB correctly?
- 3) Is there no obstacle at the surrounding of motor and propeller?
- 4) Does the driver in the motor case broken?

2. Troubleshooting procedure



TEST operation #
press K900 button on the
MAIN PCB after power on.

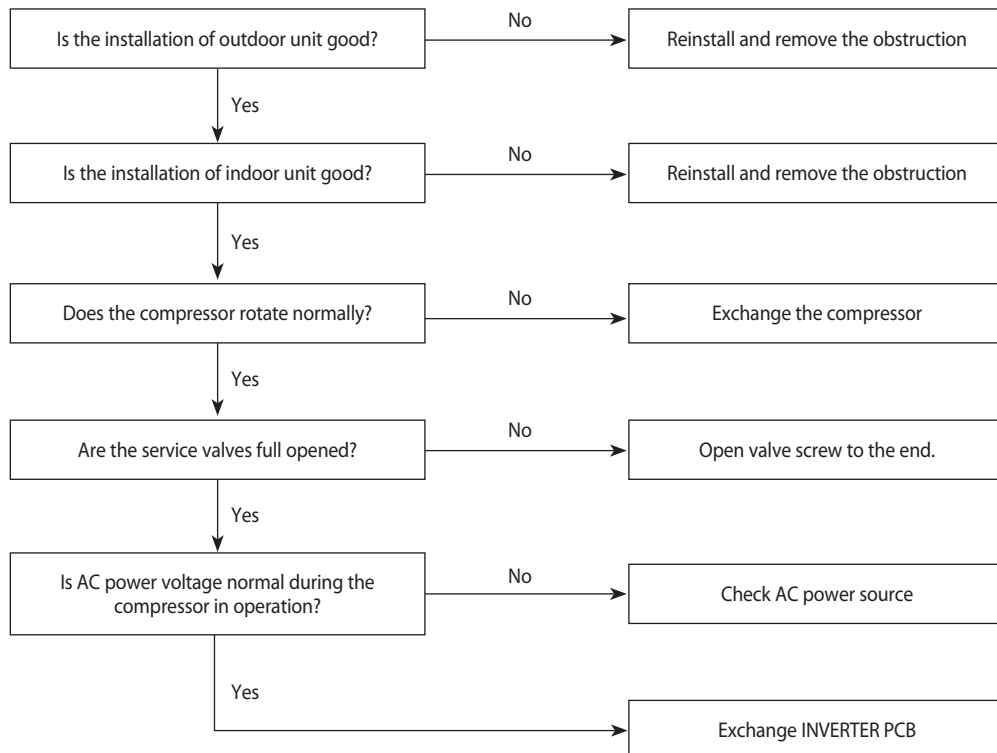
- once : cooling mode
- twice in a second :
heating mode

12-2-4 Total current trip error

1. Checklist :

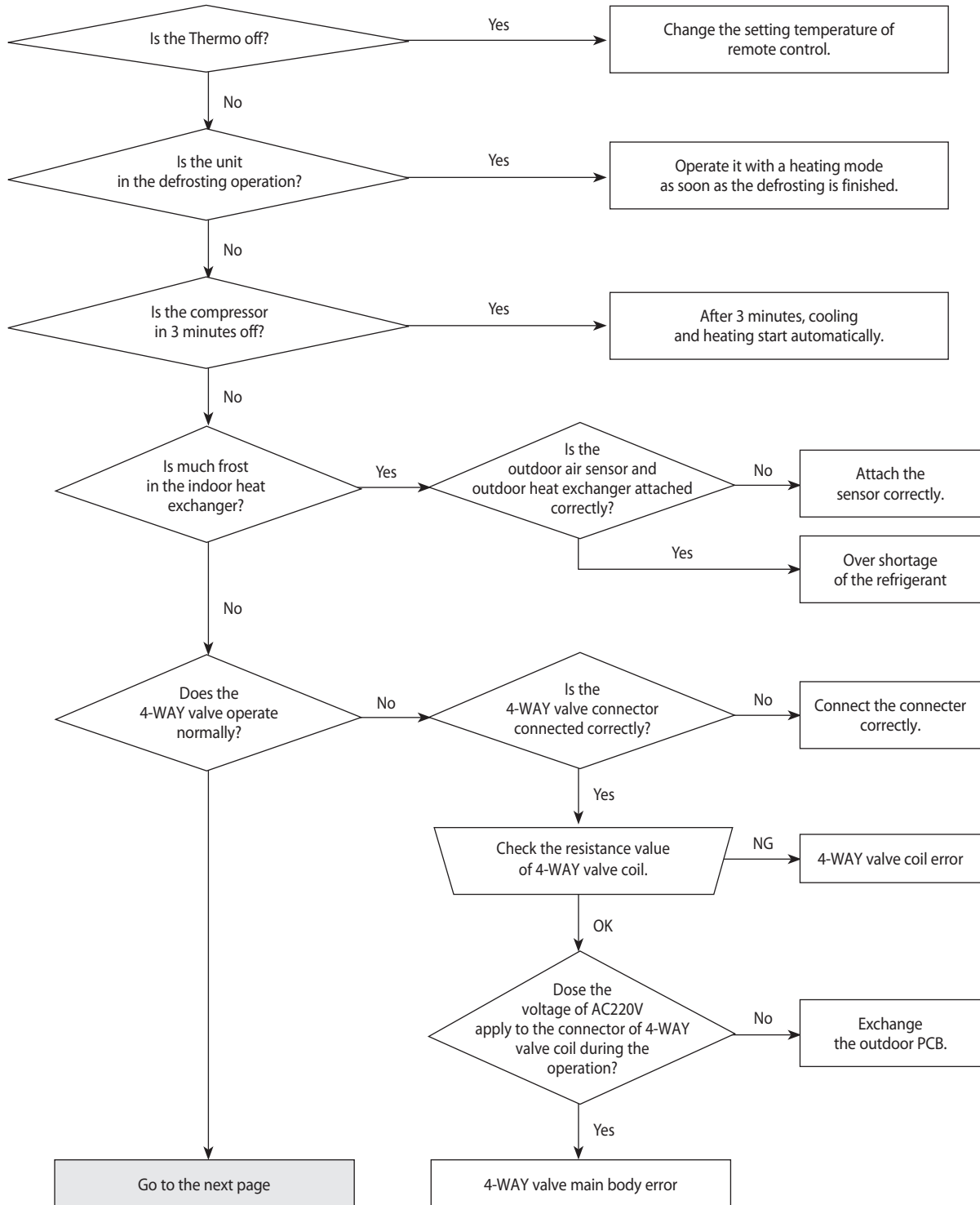
- 1) Is the input power voltage proper?
- 2) Is the refrigerant charged properly?
- 3) Does the compressor rotate normally?(Reverse rotation, Locking etc.)
- 4) Does the outdoor fan operate normally?(Fan propeller loss, Motor error ect.)
- 5) Is the installation condition of outdoor unit good?(Piping, Space etc.)
- 6) Is there no ventilation obstruction at the surrounding of outdoor unit?(Outdoor unit cover, Fan front obstruction etc.)
- 7) Is there no ventilation obstruction at the surrounding of indoor unit?(Overload condition in heating mode)

2. Troubleshooting procedure

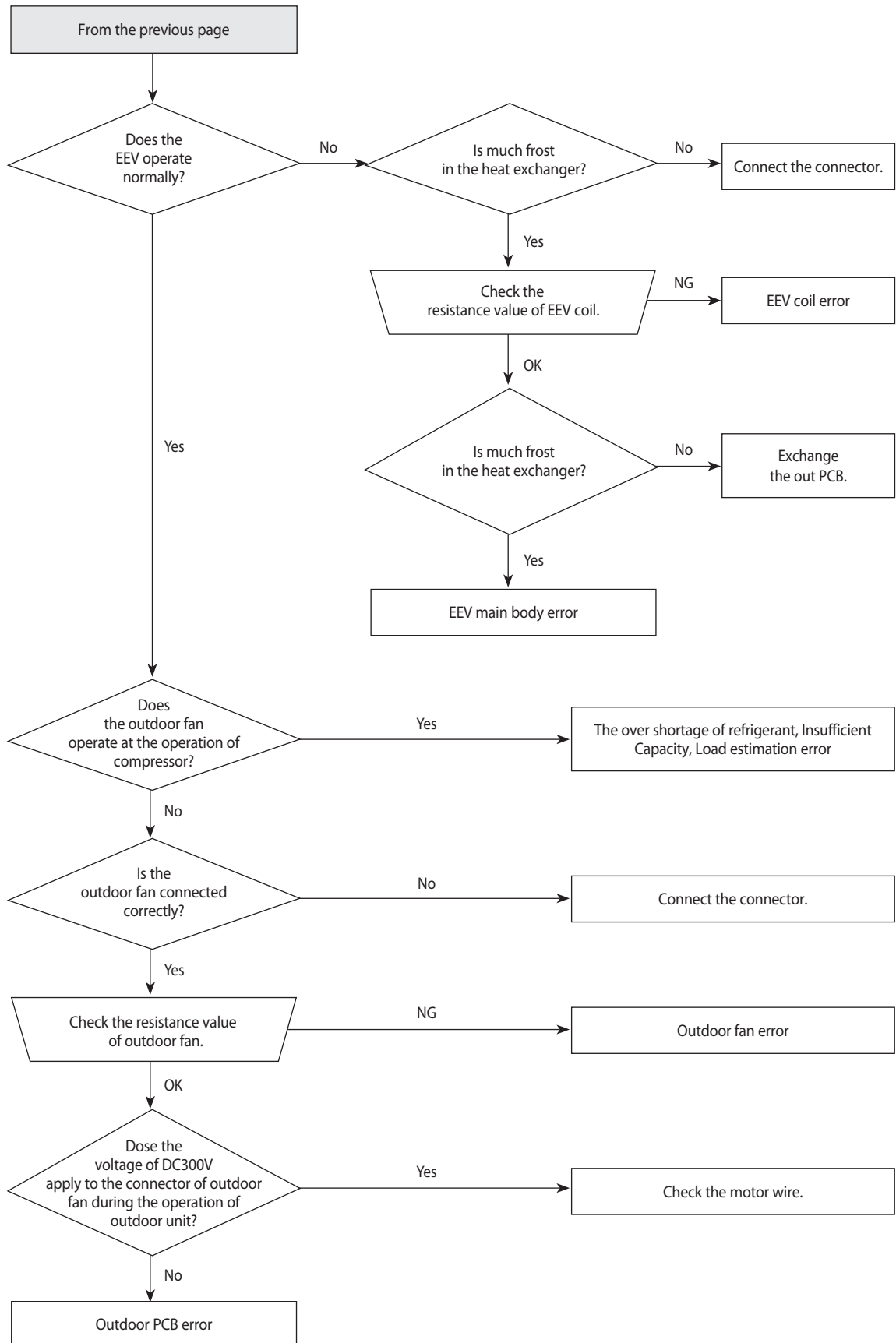


12-2-5 In case of heating at the cooling mode or cooling at the heating mode

1. Troubleshooting procedure



In case of heating at the cooling mode or cooling at the heating mode(cont.)

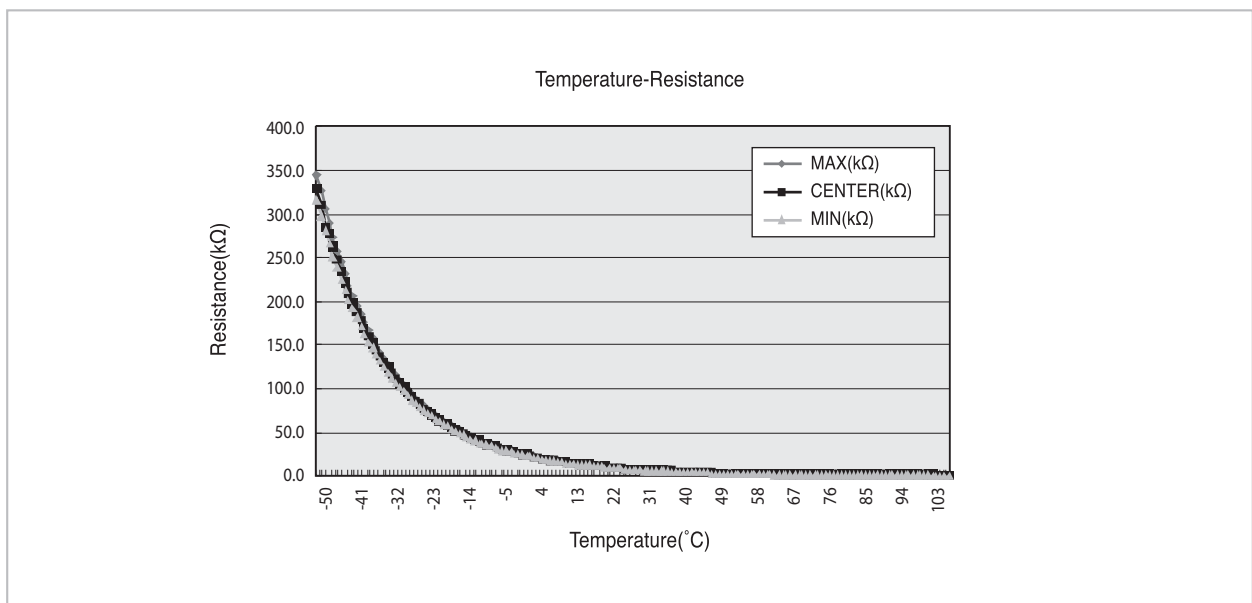
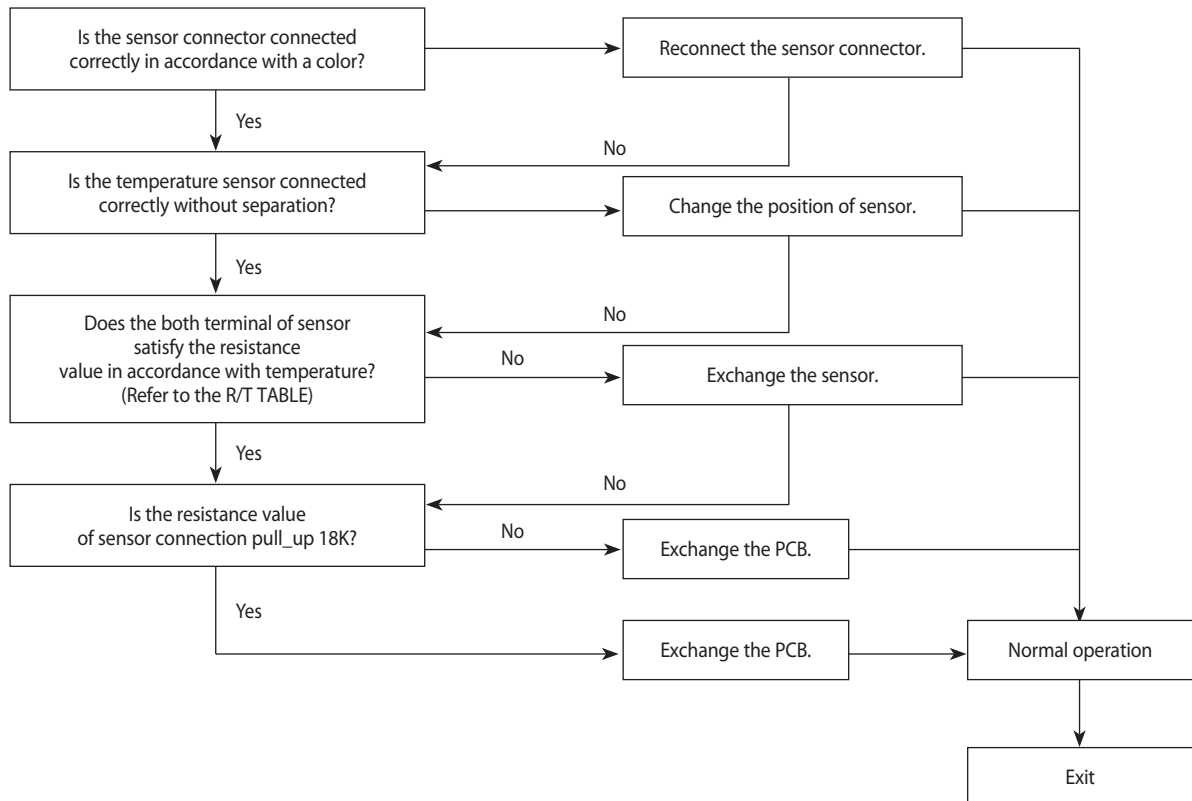


12-2-6 Outdoor temperature sensor error

1. Checklist :

- 1) Is the sensor connector connected correctly?
- 2) Is the sensor placed correctly?
- 3) Does the both terminal of sensor satisfy the resistance value in accordance with temperature?
- 4) Is the resistance value of sensor connection pull_up correct?

2. Troubleshooting procedure

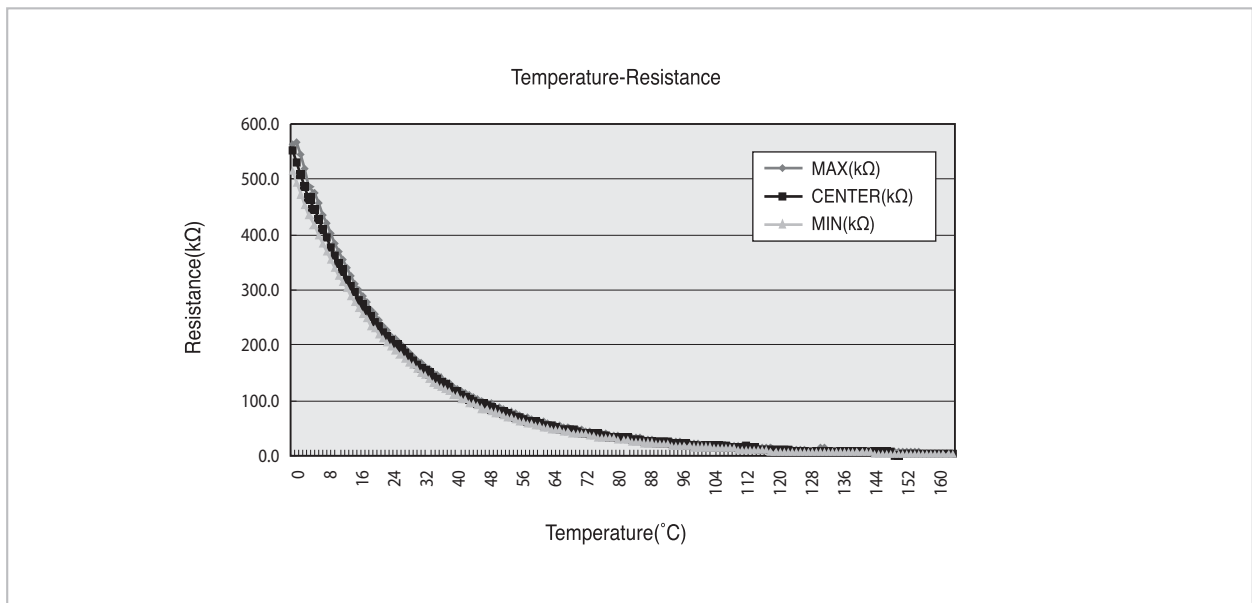
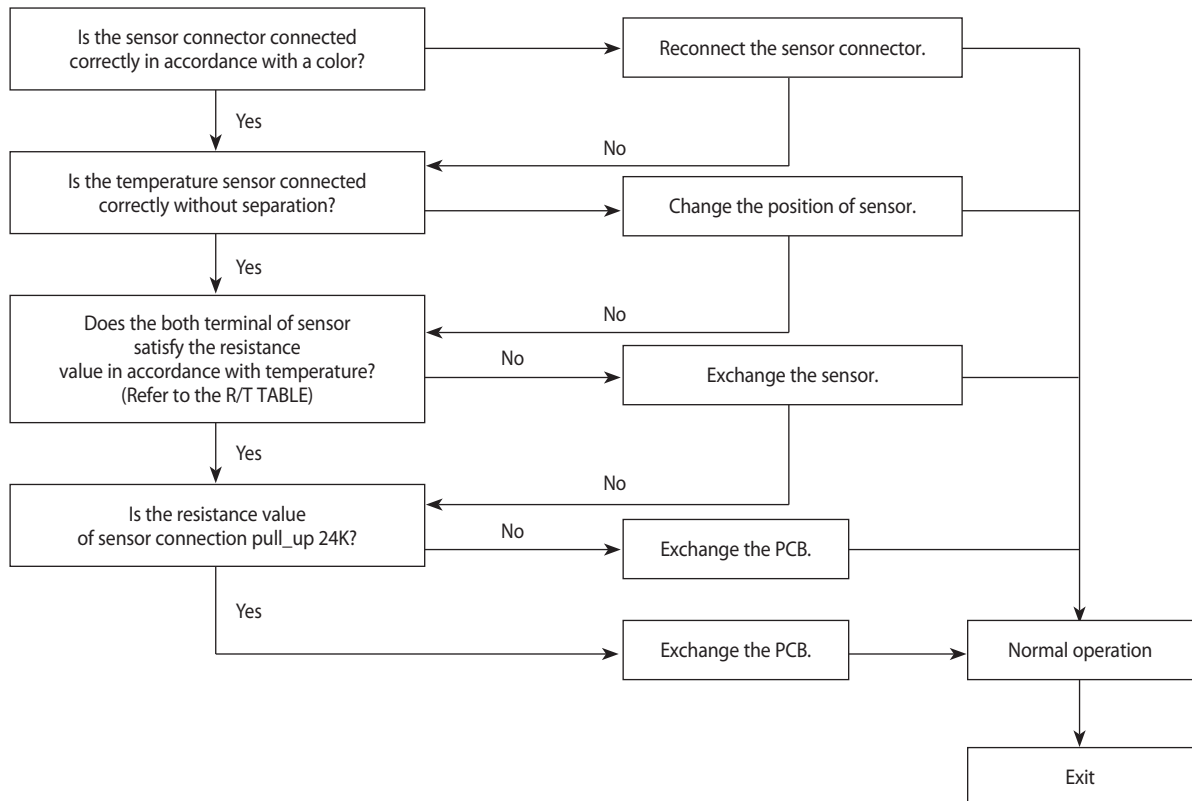


12-2-7 Discharge temperature sensor error

1. Checklist :

- 1) Is the sensor connector connected correctly?
- 2) Is the sensor placed correctly?
- 3) Does the both terminal of sensor satisfy the resistance value in accordance with temperature?
- 4) Is the resistance value of sensor connection pull_up correct?

2. Troubleshooting procedure

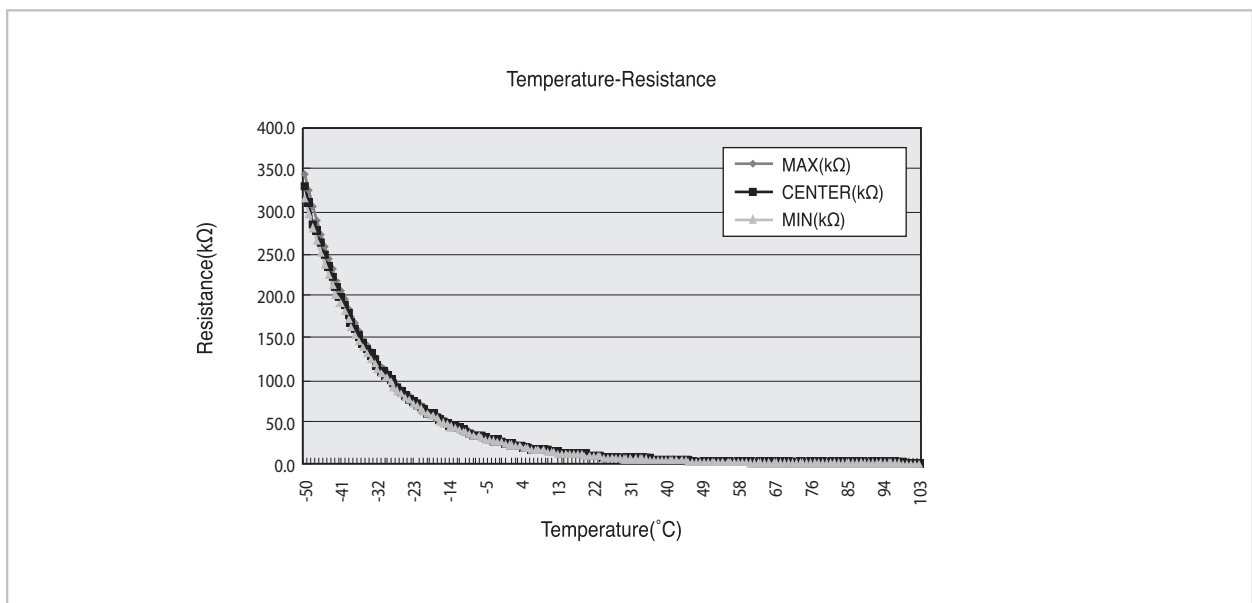
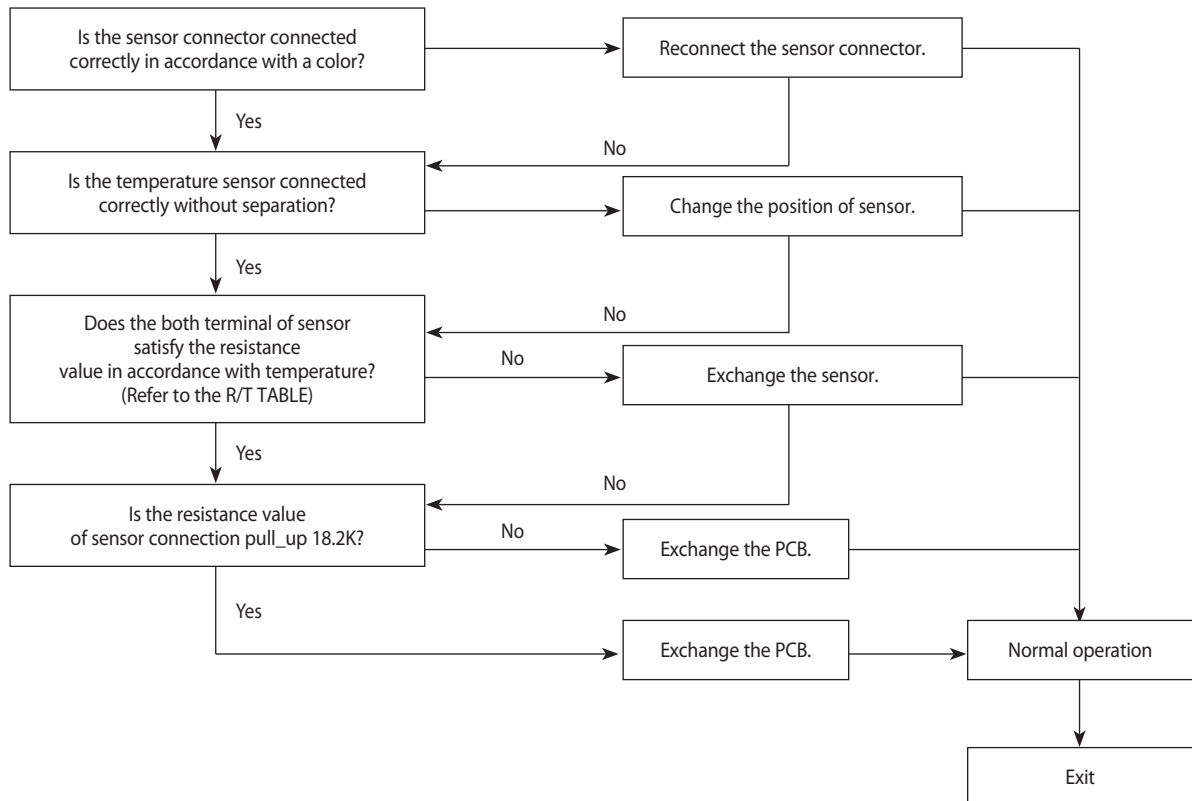


12-2-8 Coil temperature sensor error

1. Checklist :

- 1) Is the sensor connector connected correctly?
- 2) Is the sensor placed correctly?
- 3) Does the both terminal of sensor satisfy the resistance value in accordance with temperature?
- 4) Is the resistance value of sensor connection pull_up 18.2K?

2. Troubleshooting procedure

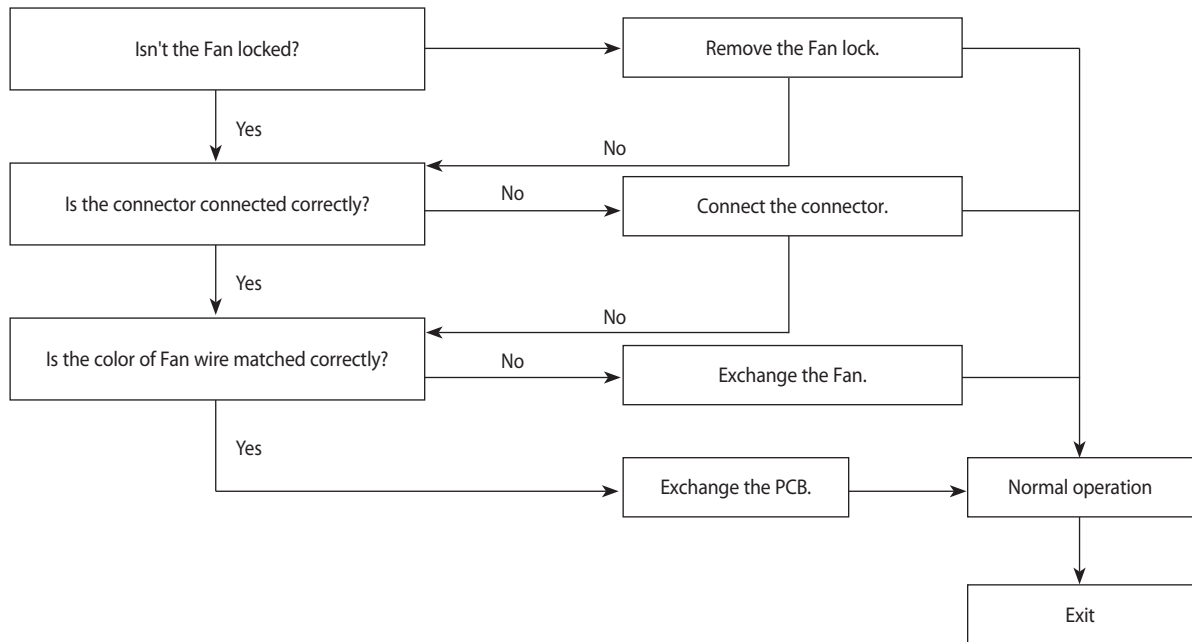


12-2-9 Fan error

1. Checklist :

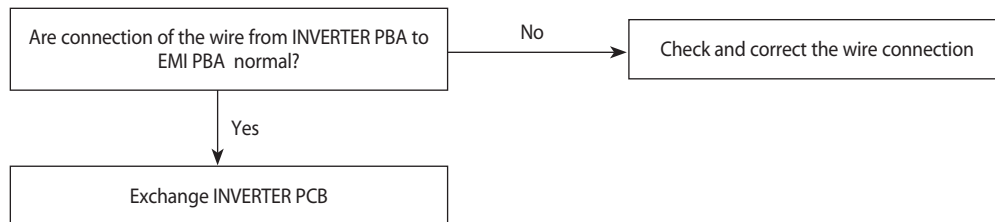
- 1) Isn't the fan locked?
- 2) Is the sensor placed correctly?
- 3) Does the both terminal of sensor satisfy the resistance value in accordance with temperature?
- 4) Is the resistance value of sensor connection pull_up correct?

2. Troubleshooting procedure



12-2-10 DC-Link voltage sensor error

1. Checklist :
 - 1) Is the connection of R, S, T power wire normal?
 - 2) Are Relay RY21 and R200 on the INVERTER PCB mounted normally?
2. Troubleshooting procedure

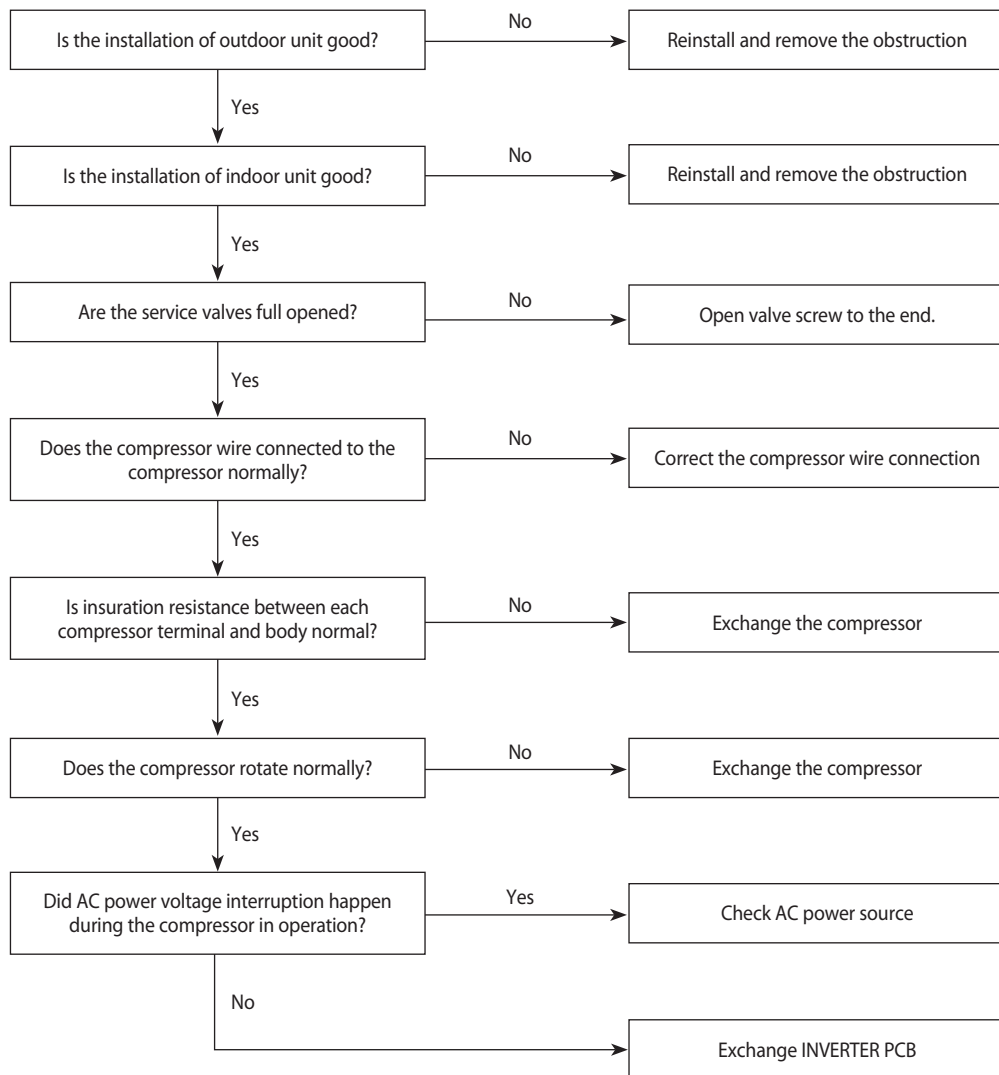


12-2-11 O.C.(Over Current) error

1. Checklist :

- 1) Is the refrigerant charged properly?
- 2) Does the compressor rotate normally?(Reverse rotation, Locking etc.)
- 3) Is connection of compressor wire normal?
- 4) Is compressor motor normal?(Insulation, Coil resistance etc.)
- 5) Does a temporary cycle overload condition happened?

2. Troubleshooting procedure

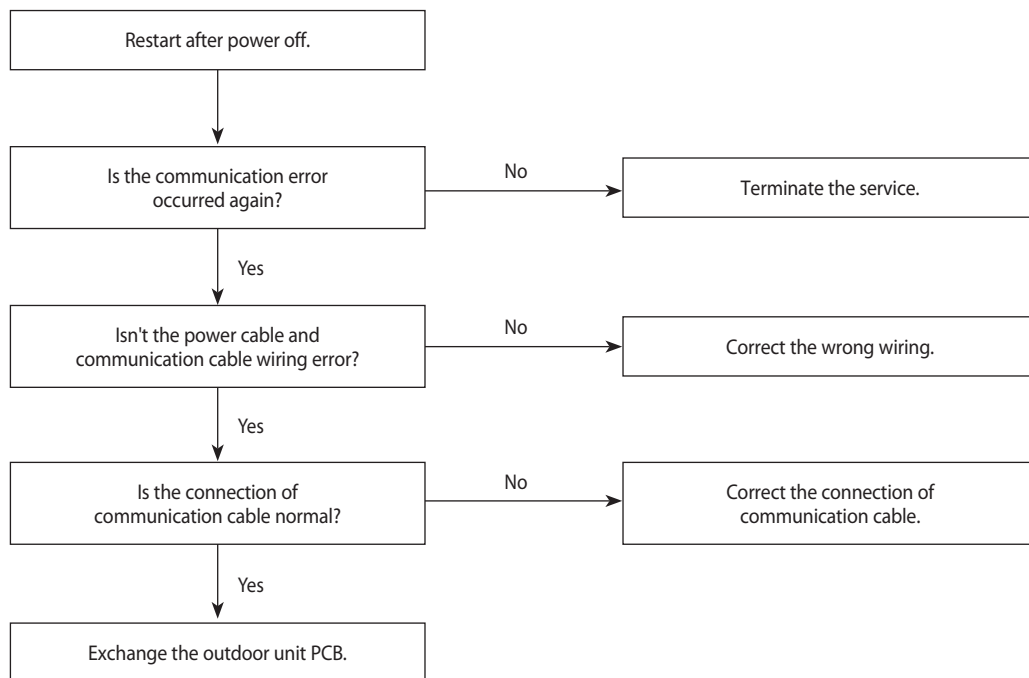


12-2-12 Communication error

1. Checklist :

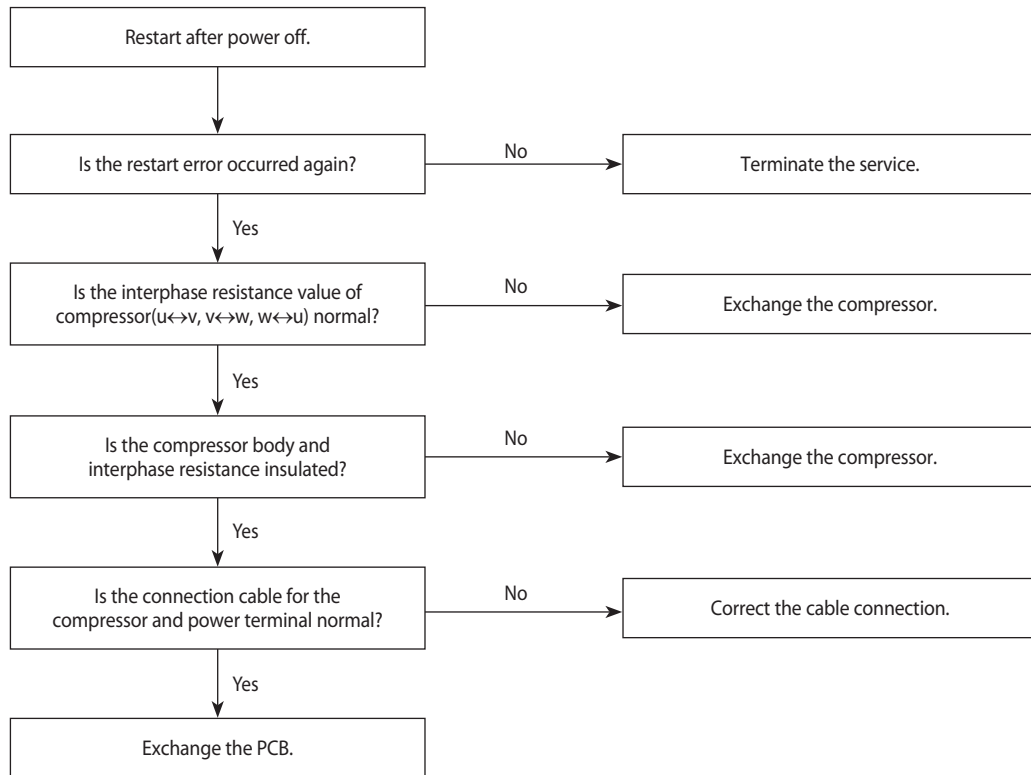
- 1) Is the communication cable between the indoor unit and outdoor unit connected correctly?
- 2) Isn't the power cable and communication cable wiring error?

2. Troubleshooting procedure



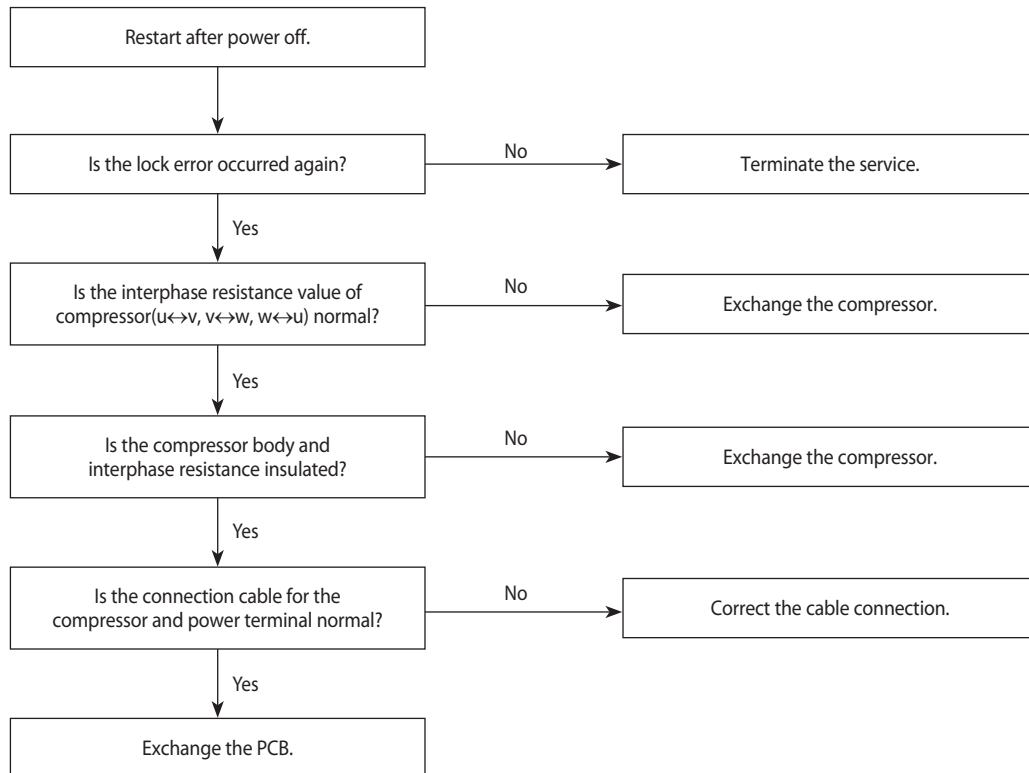
12-2-13 Compressor start error

1. Checklist :
 - 1) Is the connection of cable for the compressor and power?
 - 2) Is the interphase resistance of compressor normal?
2. Troubleshooting procedure



12-2-14 Compressor lock error

1. Checklist :
 - 1) Is the connection of cable for the compressor and power?
 - 2) Is the interphase resistance of compressor normal?
2. Troubleshooting procedure

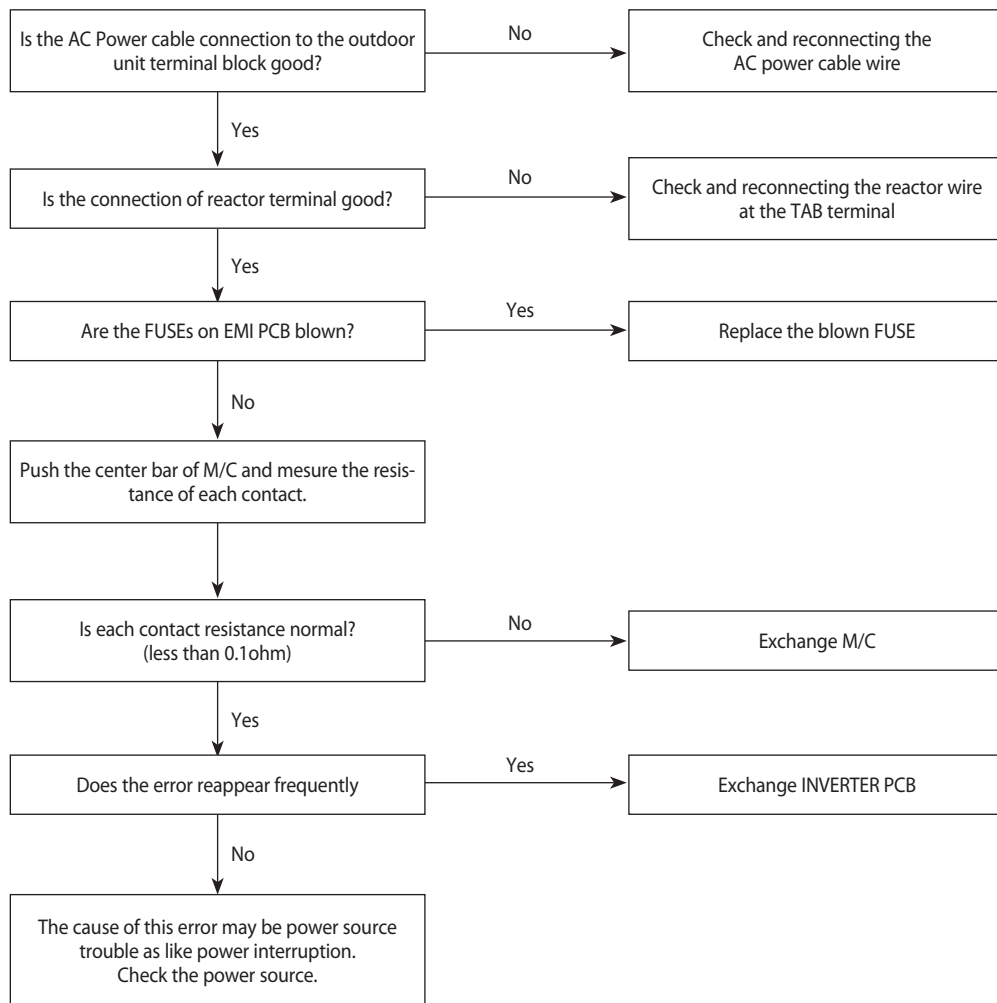


12-2-15 DC Link Over voltage/ Low voltage error

1. Checklist :

- 1) Is the power voltage normal?(Lightning, Power interruption etc.)
- 2) Is AC Power cable connection normal?(Detaching the wire)

2. Troubleshooting procedure



12-2-16 The others

1. Capacity miss match
 - Check again the indoor unit option code.

12-3 PCB Inspection Method

12-3-1 Pre-inspection Notices

1. Turn off the breaker, AC power source, before disassembling the unit because of electrical hazard.
2. Confirm the complete discharge of capacitor C102, C702, C703, C704, C705, C706, C707 on the INVERTER PCB when you touch the PCB. Especially discharging speed of C702-C707 is very slow because of little load in stand-by condition. To confirm the voltage of C702-C707, measure the DC link voltage at the IGBT module pins near C701 at which applying voltage (450-510Vdc) is marked.
To confirm discharging of C102, measure the voltage of non mounted C103 solder hole or check if all LEDs are off.
3. Don't touch the metal body of electrolytic capacitor for avoiding electrical shock before confirming discharge.
4. To discharging the capacitor use power resistor of about 1 Kohm 10W. Soldering tool (non electronic temperature control type) can be used as a discharging resistor.
5. Don't pull the lead wire but hold the whole housing to disconnect or connect a housing from or to the PCB.

12-3-2 Inspection Procedure

1. Check the connection of each housing to the connector first and the peeling of PCB copper pattern.
2. The PCB is composed of the 3 part in the indoor unit.
 - INDOOR Main PCB part : Indoor unit control, MICOM and surrounding circuit, relay, fan motor driving circuit, sensor reading circuit, buzzer driving circuit and DC power supplying circuit.
 - Display PCB part : LED lamps, Switch, Remocon module.
 - INDOOR EMI PCB part : Line filter, Noise Capacitor and Varistor
3. The PCB is composed of the 3 part in the outdoor unit.
 - EMI PCB part : Line filter for electrical noise, Varistors for surge and Fuses.
 - MAIN PCB part : Refrigeration cycle controller with MICOM
 - INVERTER PCB part : Compressor driving inverter and BLDC fan controller

12-3-3 Indoor Detailed Inspection Procedure

No	Procedure	Inspection Method	Cause
1	Open the electronic component box and check the PCB fuse	Turn off the power 1) Is the Fuse F701 on the EMI PCB blown? 2) Is the Fuse F702 on the MAIN PCB blown?	• Over current • Indoor fan motor short • PCB AC Part pattern short
2	Check the LEDs for DC power and communication condition	Turn on the power 1) Is RED LED blinking? his led means micom is running normally. 2) Is GREEN LED blinking? This means communication between Indoor and Outdoor unit is on 3) Is YELLOW LED blinking? This means communication between Indoor and wired remote controller is on. It may take one minute to start communication	• Communication circuit trouble • Communication wire connection trouble • wrong connection for power supply wire of remote controller
3	Check the DIP and rotary switch on the PCB	1) Is the setting of each switch proper?	• Wrong setting of switch
4	Check the DC voltage	1) Is the voltage of CN32 pin #1-#2 12V? 2) Is the voltage of C109 V?	• SMPS on MAIN PBA trouble • Load short
5	FAN operation checking Press the ON/OFF button. 1. FAN Speed[HIGH] 2. FAN mode	1) Is the FAN motor running? 2) Is the connection of CN73 normal?	• Controller trouble inside of the fan motor • connector trouble of CN73

12-3-4 Outdoor Detailed Inspection Procedure

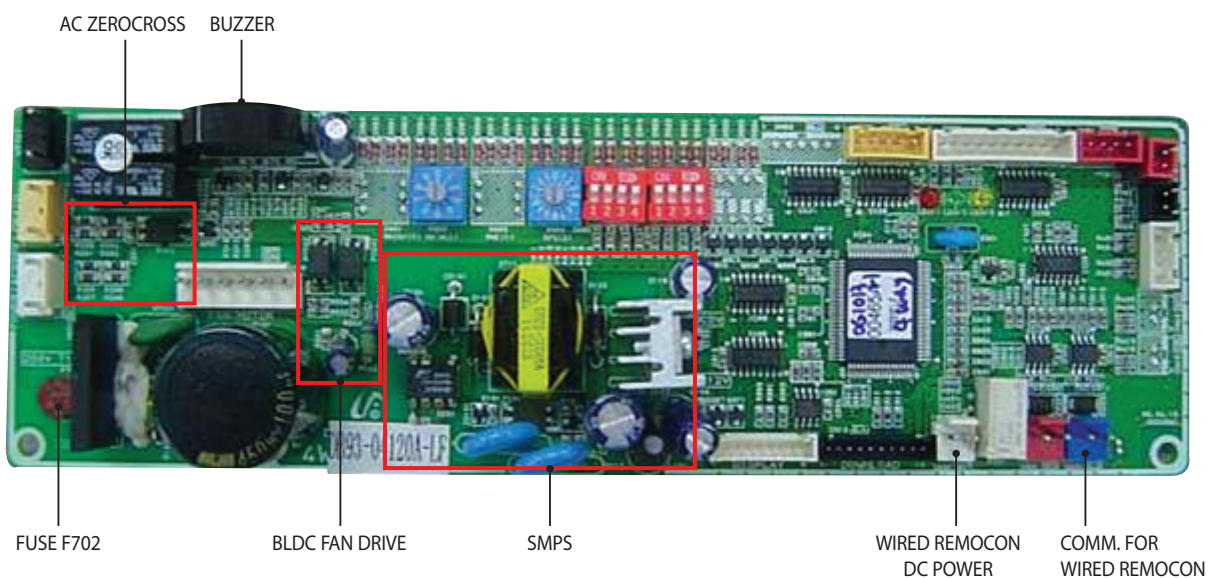
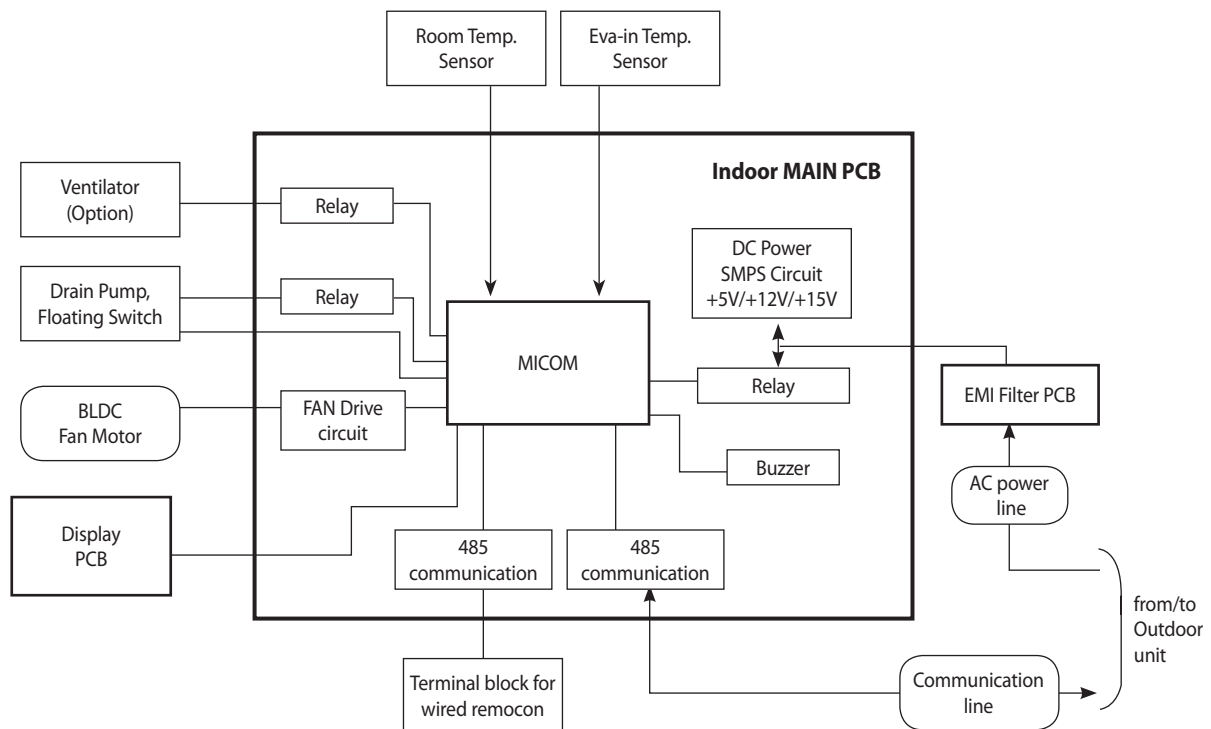
No	Procedure	Inspection Method	Cause
1	Turn OFF the power and check wire and socket connection on each part	Wait until C702-C707 discharged 1) Is connection of housing to socket normal? 2) Is connection of each wire to terminal block normal? 3) Is the reactor wire connection normal? 4) Is there no miss-wiring of each cable?	• installation mistake • miss assembling
2	FUSE check	Is the fuses on each PCB normal? 3 fuses on EMI PCB 1 fuse on MAIN PCB 1 fuse on INVERTER PCB	• wire short • overload • BLDC FAN short error
3	Turn on the power and check voltage of terminal block	Is N-R,N-S,N-T around 230Vac? Is R-S,S-T,T-R around 400Vac? Is L-N(to indoor unit) around 230Vac? Is F1-F2 within 5Vdc?	• miss wiring of power cable • wire detaching
4	Check LED display on AIN PCB	1) Is RED LED ON? 2) Is GREEN LED Blinking once a second? 3) Is LEDs displaying error code pattern?	• MAIN PCB power trouble • bad communication between indoor and outdoor unit • error detection
5	Check LED display on INVERTER PCB	1) Is RED LED ON? 2) Is GREEN LED Blinking once a second? 3) Is LEDs displaying error code pattern?	• INVERTER PCB power trouble • NO communication between MAIN and INVERTER PCB • error detection
6	Check DC voltage of SMPS output	MAIN PCB 1) Is voltage of CN51 pin#1-#2 12-14.5V? 2) Is voltage of C108 5V? INVERTER PCB 3) Is voltage of CN51 pin#1-#2 5V? 4) Is voltage of C124 12V? 5) Is voltage of each ZD100,ZD101,ZD102,ZD103 17-18V?	• SMPS circuit trouble
7	Check INVERTER PCB	1) Is resistance of R100 200ohm? To check this, touch one probe to CN10 pin#1(N) and the other to D101 upper side pin of '~' marking pins 2) Is DC Link voltage 450-510V? Check IGBT module pins marking voltage near C701	• resister • wire connection between EMI PCB and INVERTER PCB
8	Check BLDC fan	1) See 12-2-3 The Outdoor unit Fan error(Fault Diagnosis)	

12-4 Main Part Inspection Method

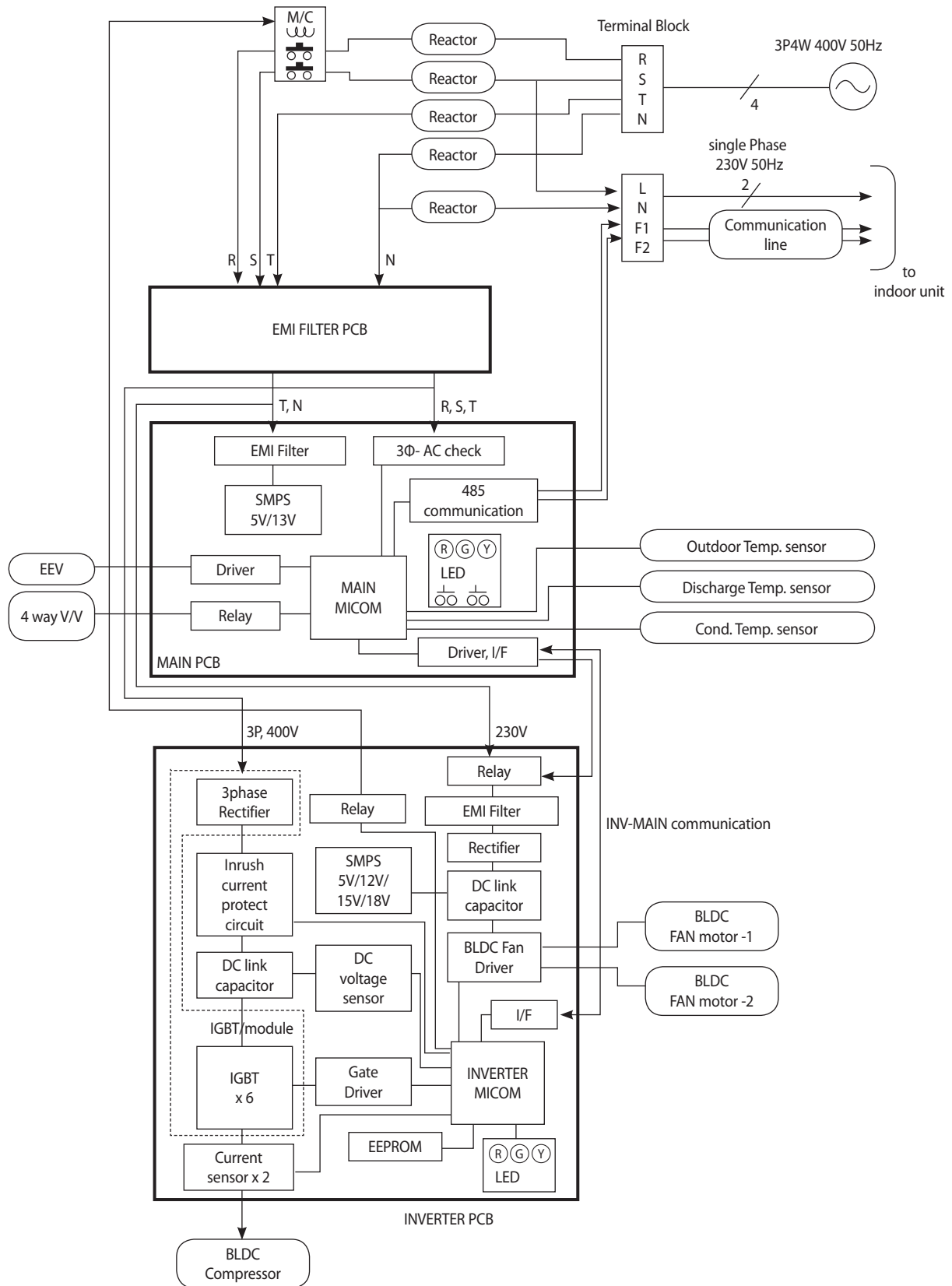
Part	Breakdown Inspection Method				
Indoor Unit Temperature Sensor	Measure sensor resistance with a multimeter				
	Normal	At the normal temperature 37kΩ~8.3kΩ(-7°C~+30°C)			
	Abnormal	∞,0Ω...Open or Short			
Indoor Unit BLDC FAN Motor	Measure terminal resistance with a multimeter				
	Normal	At the normal temperature(10°C~30°C)			
		wire	pin number	Resistance	Remark
		RED - BLACK	1-3	over 1MΩ	+300V motor power
		WHITE - BLACK	4-3	1KΩ ~ 2KΩ	+15V control power
YELLOW - BLACK		5-3	200KΩ ~ 300KΩ	control	
BLUE - BLACK		6-3	10KΩ ~ 50KΩ	pulse	
Abnormal	∞,0Ω...Open or Short				
Outdoor Unit Outdoor Temperature Sensor & Cond Temperature Sensor	Measure sensor resistance with a multimeter				
	Normal	At the normal temperature 37kΩ~8.3kΩ(-7°C~+30°C) see 12-2-6 and 12-2-8			
	Abnormal	∞,0Ω...Open or Short			
Outdoor Unit Discharge Temperature Sensor	Measure sensor resistance with a multimeter				
	Normal	At the normal temperature 563kΩ~157kΩ(0°C~+30°C) see 12-2-7			
	Abnormal	∞,0Ω...Open or Short			
Outdoor Unit BLDC FAN MOTOR	Measure terminal resistance with a multimeter				
	Normal	At the normal temperature(10°C~30°C)			
		wire	pin number	Resistance	Remark
		RED - BLACK	1-3	over 1MΩ	+300V motor power
		WHITE - BLACK	4-3	1KΩ ~ 2KΩ	+15V control power
		YELLOW - BLACK	5-3	200KΩ ~ 300KΩ	control
		BLUE - BLACK	6-3	10KΩ ~ 50KΩ	pulse
ORANGE - BLACK		7-3	10KΩ ~ 50KΩ	reverse	
Abnormal	0Ω...Open or Short				
Outdoor Unit 4way Valve Solenoid	Measure resistance with a multimeter				
	Normal	At the normal temperature(10°C~30°C) 1.6KΩ±15%			
	Abnormal	∞,0Ω...Open or Short			

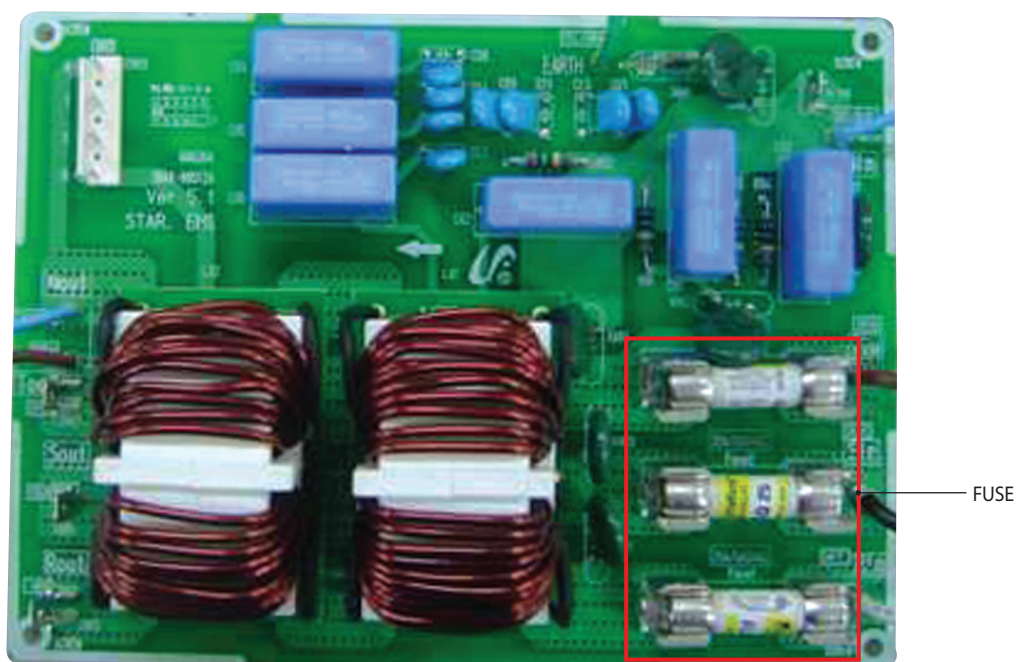
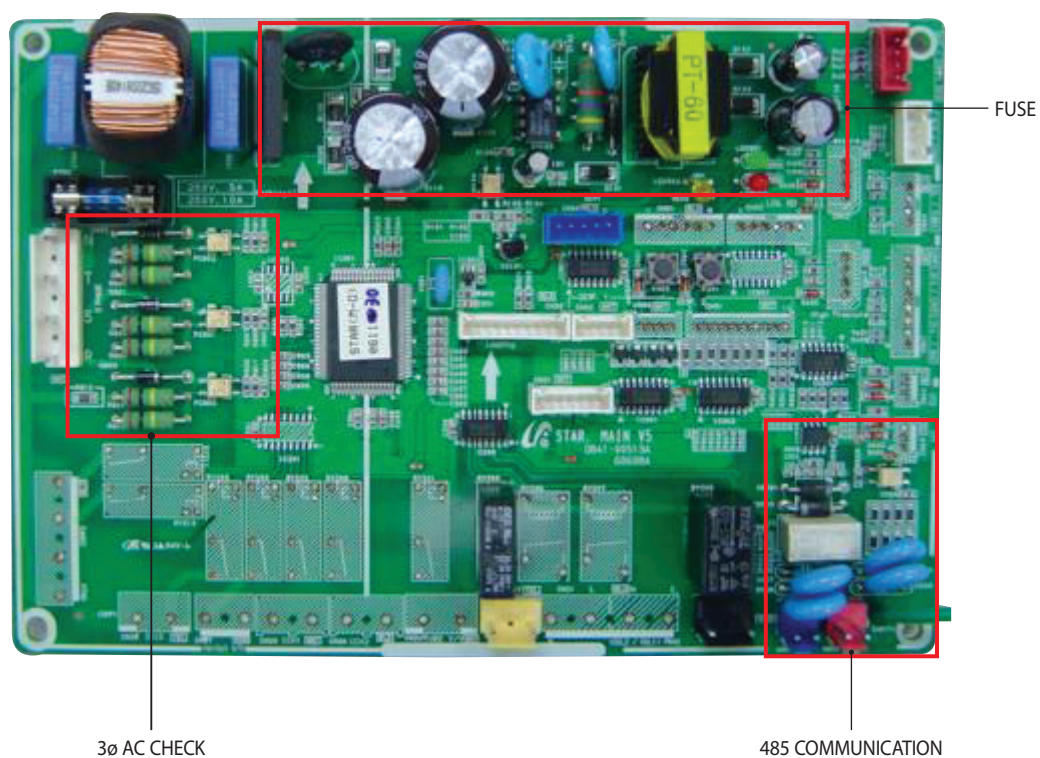
13. Block Diagram

13-1 Indoor Unit



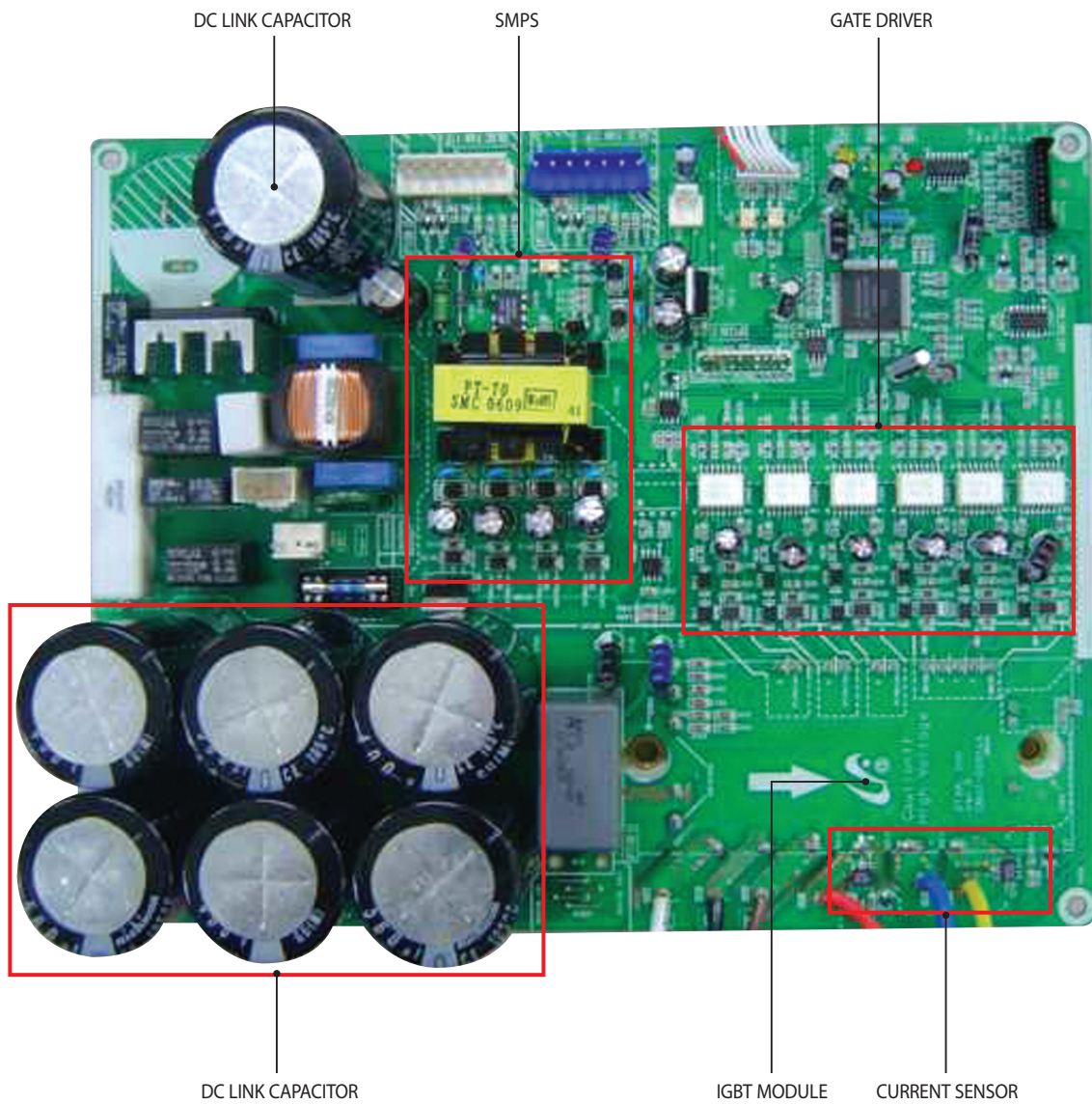
13-2 Outdoor Unit



■ EMI PCB**■ MAIN PCB**

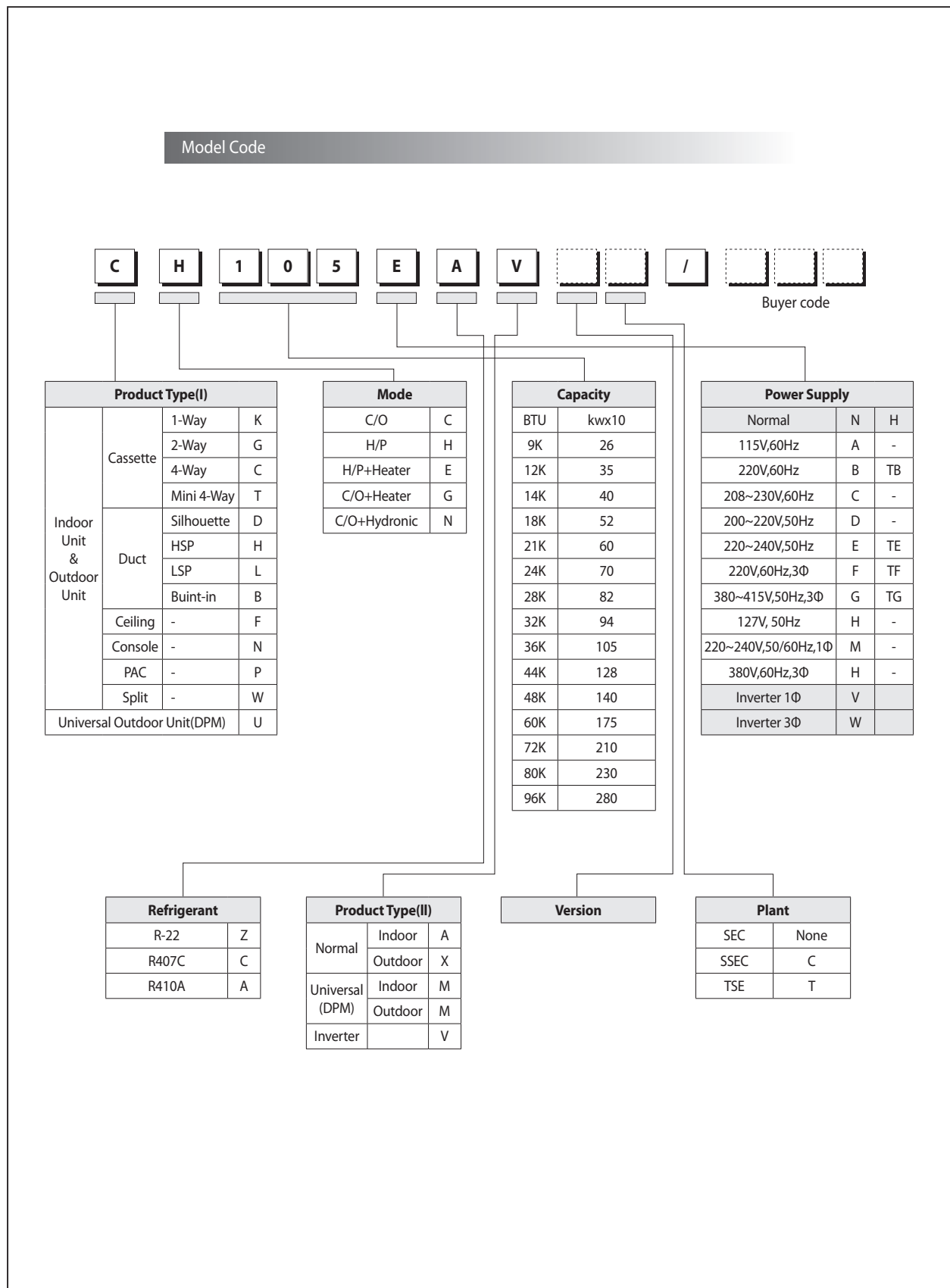
Outdoor Unit(cont.)

■ INVERTER PCB



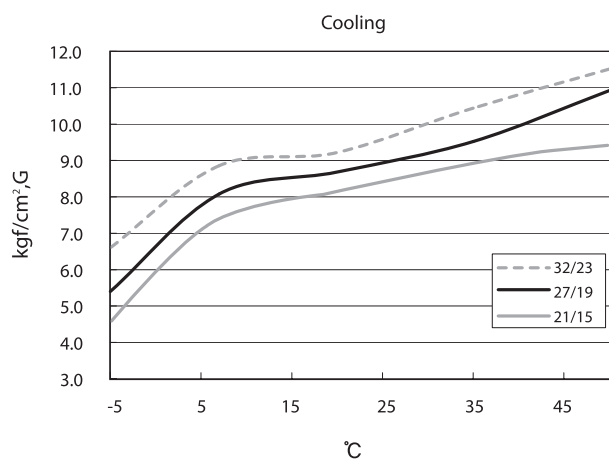
14. Reference Sheet

14-1 Index for Model Name



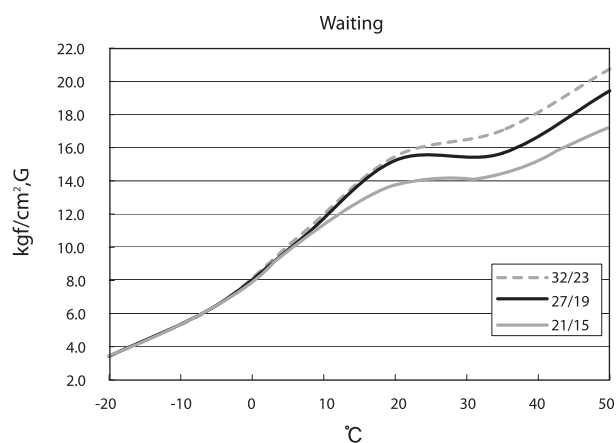
14-2 Pressure Graph

■ CH105EAV



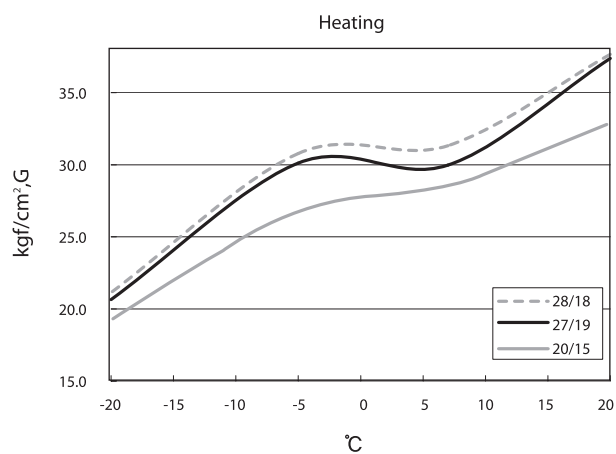
Pressure at Cooling mode

	32/23	27/19	21/15
50	11.5	10.9	9.4
35	10.4	9.5	9.0
20	9.2	8.7	8.2
7	8.9	8.1	7.4
-5	6.6	5.4	4.6



Pressure at Waiting mode

	32/23	27/19	21/15
50	20.8	19.4	17.3
35	17.1	15.7	14.4
20	15.5	15.2	13.9
7	10.8	10.6	10.4
-5	6.5	6.5	6.4
-20	3.4	3.4	3.4

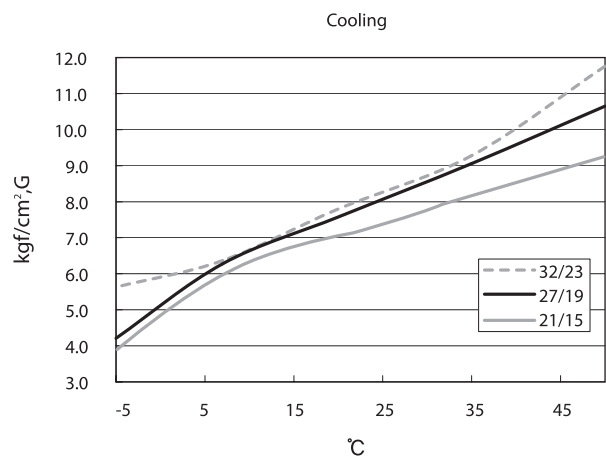


Pressure at Heating mode

	28/18	27/19	20/15
20	37.7	37.4	32.9
7	31.3	30.0	28.5
-5	30.8	30.1	26.9
-20	21.1	20.7	19.2

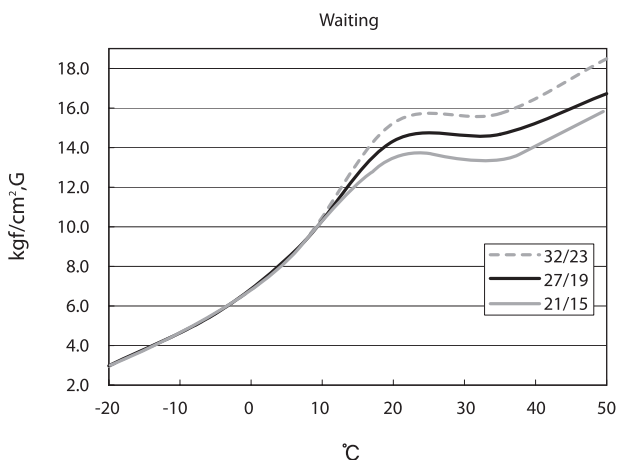
Pressure Graph(cont.)

■ CH140EAV



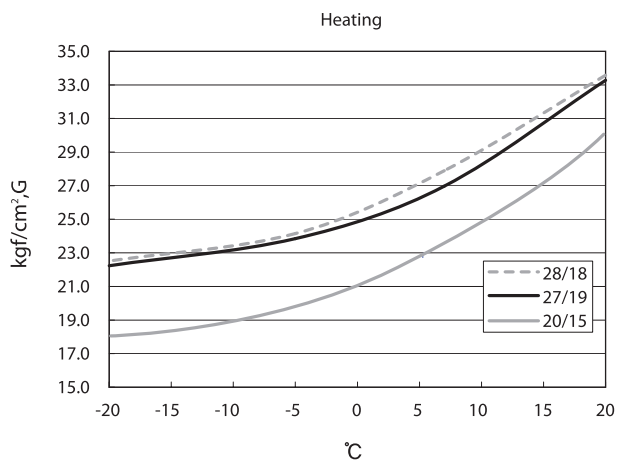
Pressure at Cooling mode

	32/23	27/19	21/15
50	11.8	10.7	9.3
35	9.3	9.1	8.2
20	7.8	7.6	7.1
7	6.4	6.3	6.0
-5	5.6	4.2	3.8



Pressure at Waiting mode

	32/23	27/19	21/15
50	18.5	16.7	15.9
35	15.7	14.7	13.4
20	15.2	14.3	13.6
7	9.1	9.1	9.1
-5	5.6	5.6	5.6
-20	3.0	3.0	3.0



Pressure at Heating mode

	28/18	27/19	20/15
20	33.6	33.3	30.1
7	27.9	27.0	23.5
-5	24.2	23.9	19.9
-20	22.5	22.2	17.9

14-3 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	1

14-4 Q & A for Non-trouble

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

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

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

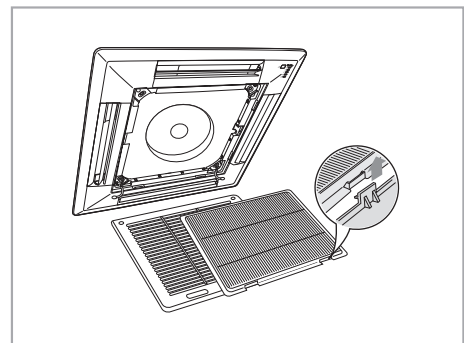
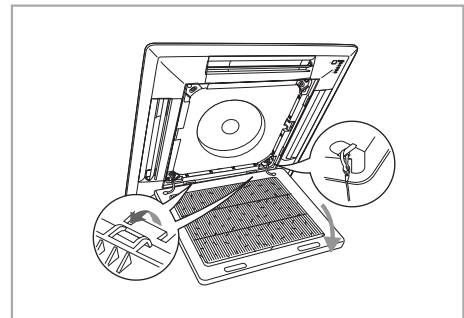
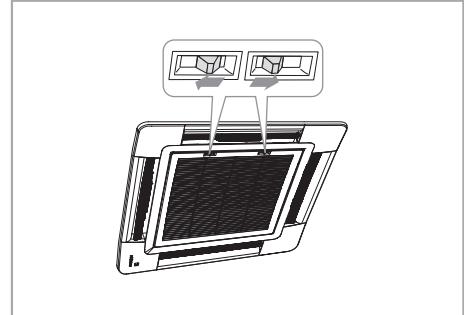
14-5 Cleaning your Air Conditioner

For the best use of your air conditioner, you must clean it every 2 weeks to remove the dust accumulated on the air filter.

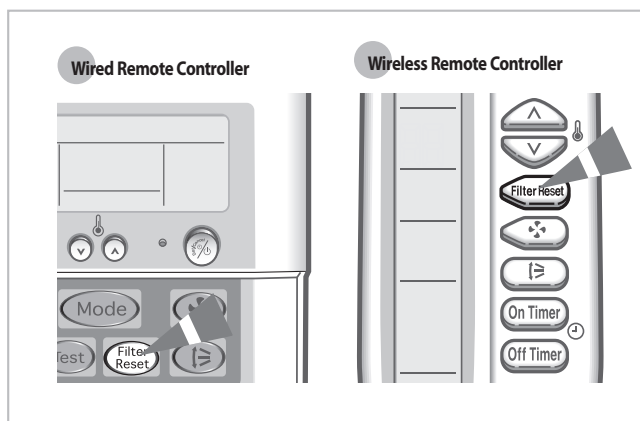


• Before cleaning your air conditioner, check if you have turned off the circuit breaker.

1. Draw the dust-collecting filter forward.
2. Disassemble the filter.
3. Remove all dust on air filter with a vacuum cleaner or a brush. In case of serious dust accumulation, put the air filter in warm detergent water and shake it vertically.
4. Dry the air filter.
5. When you have finished, insert the filter into the unit.
6. Clean the outdoor unit with a vacuum cleaner or a brush once a month.



Note : • After cleaning the air conditioner, press the Filter Reset button.



14-6 Installation

14-6-1 Before Installation

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

14-6-2 Installation Procedure

■ Location

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

■ Wall Drilling

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

■ Fixing Indoor Unit & Outdoor Unit

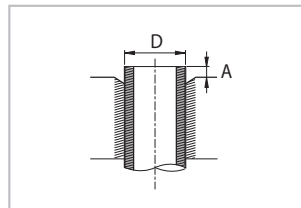
Fix the air conditioner indoor unit securely to the wall. Secure the outdoor unit in a suitable position.

■ Pipe Spooling & Connecting

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

<Torque & Depth>

Outer Diameter(D)	Torque(kgf-cm)	Depth(A)
6.35mm(1/4")	140~170	1.3mm
9.52mm(3/8")	250~280	1.8mm
12.70mm(1/2")	380~420	2.0mm
15.88mm(5/8")	440~480	2.2mm
19.05mm(3/4")	990~1,210	2.2mm



■ Leak Test

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

■ Drain Hose Connecting

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

■ Testing Drainage

Pure water into the drain pan in the indoor unit, and confirm that the water flows out the drain hose.

■ Electric & Earth Work

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

■ Inspection & Trial Run

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

14-7 Installation Diagram of Indoor Unit and Outdoor Unit

14-7-1 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 10 minutes.
 - Make sure that pressure gauge show $-0.1\text{MPa}(-76\text{cmHg})$ after about 10 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.



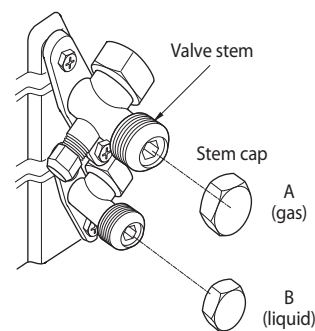
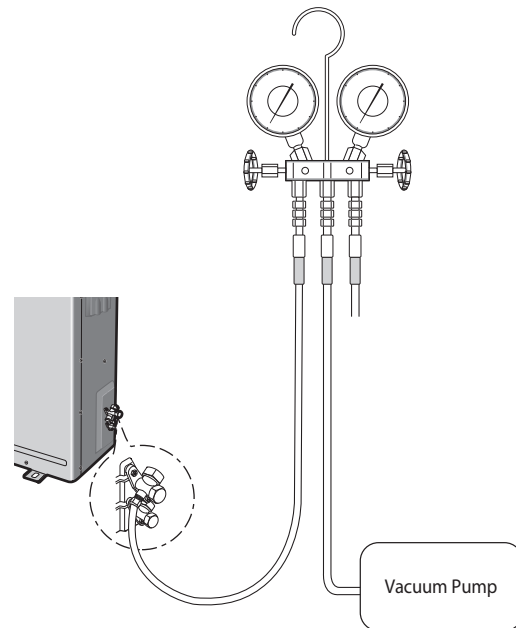
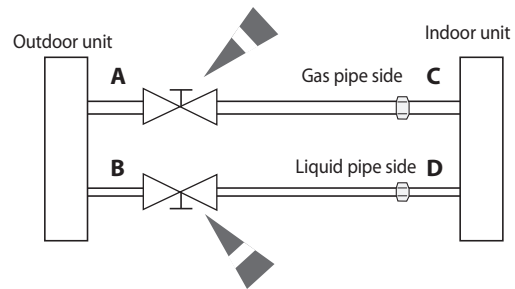
- 5) Set valve cork of both liquid side and gas side of packed valve to the open position.



- 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.



14-7-2 "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 Low pressure side.



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



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



- 4) Turn the High pressure side valve clockwise to close.



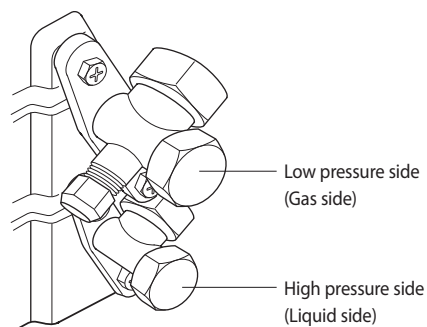
- 5) When the pressure gauge indicates "0" turn the Low pressure side valve clockwise to close.



- 6) Stop operation of the air conditioner.



- 7) Close the cap of each valve.



Remarks

Relocation of the air conditioner

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

MEMO

MEMO

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GSPN(Global Service Partner Network)

Area	Web Site
North America	http://service.samsungportal.com
Latin America	http://latin.samsungportal.com
CIS	http://cis.samsungportal.com
Europe	http://europe.samsungportal.com
China	http://china.samsungportal.com
Asia	http://asia.samsungportal.com
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