SAMSUNG

SYSTEM AIR CONDITIONER

	INDOOR UNIT	OUTDOOR UNIT
Basic :	DH052EAMG	UH052EAMT
	DH070EAMG	UH070EAMT
	DH094EAMG	UH094EAMC
Model :	EH052EAMC	UH052EAMC
	EH070EAMC	UH070EAMC
	DH094EAMC	UH094EAM1C
Model Code :	EH052EAMC	UH052EAMC
	EH070EAMC	UH070EAMC
	DH094EAMC	UH094EAM1C

SERVICE Manual

AIR CONDITIONER

EH052/070EAMC DH094EAMC

UH052/070EAMC UH094EAM1C

THE FEATURE OF PRODUCT

- **Easier Installation**
  : Slim Size
- **Easier Tuning**
  : Using Phase Control Motor
- **Various useful Functions**
- **Convenient Control Functions**

For more information, Please access to our service web site (http://itself.sec.samsung.co.kr)

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1. Precautions

1-1 Installing the air conditioner

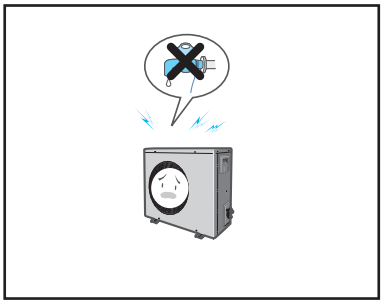
- Users should not install the air conditioner by themselves.
  Ask the dealer or authorized company to install the air conditioner except the window-type air conditioner in U.S.A and Canada.
- If you don't install the air conditioner properly, it may cause a fire, a water leakage or an electric shock.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

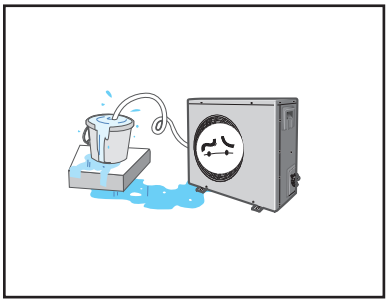
1-3 During operation

- Do not repair the air conditioner at your discretion.
  It is recommended to contact a service center directly.



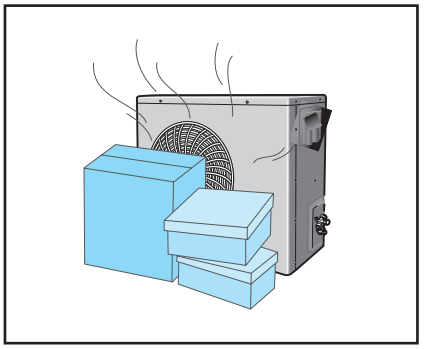
- Never spill any kind of liquid on the air conditioner.
  If this happens, turn off the air conditioner and contact an authorized service center.

- Do not spray any kind of liquid into the indoor unit. If this happens, turn off the air conditioner and contact a service center.

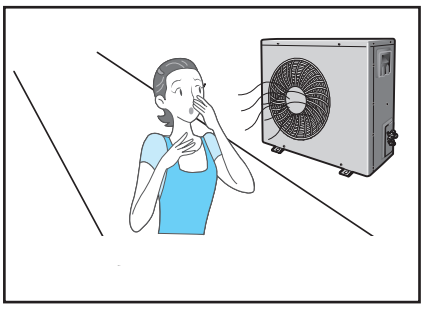


1-3 During operation(cont.)

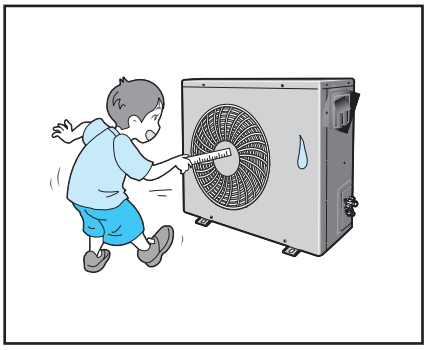
- Do not place any obstacles in front of the air conditioner.



- Make sure that the air conditioner is well ventilated at all times:
  Do not place a cloth or other materials over it.



- 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.



- 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

■ Easier Installation

– Slim size

– Height :
EH052/070EAMC :199mm
DH094EAMC: 260mm

■ Easier Tuning

– Installers are able to optimize duct work & keep capacity and sound level as desired.

■ Various useful Functions

– Built in Drain Pump(Optional)

– Long piping : Max.30m

■ Convenient Control Functions

– Auto Change Over

– Central Controller(Optional) : Can Control up to 16 units individually

– Group Control

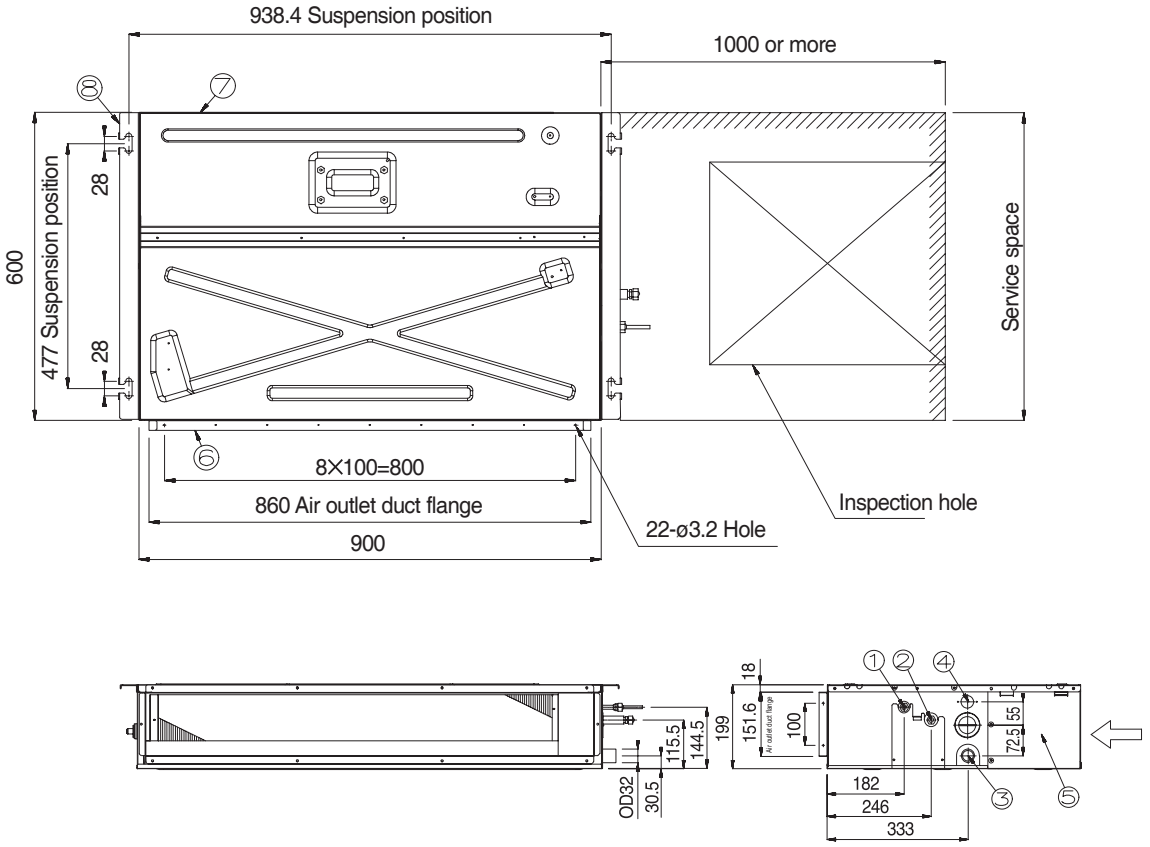
– Weekly program

2-2 Name of Each Part

2-2-1 Indoor Unit

(Unit : mm)

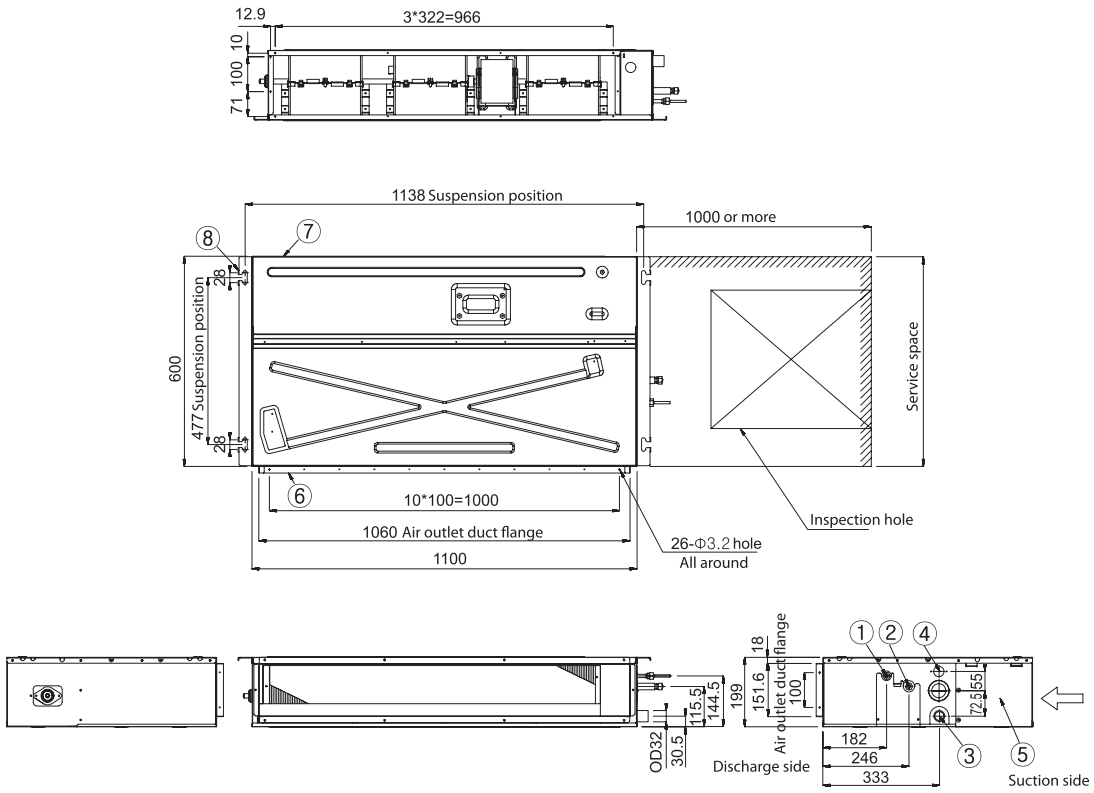
■ EH052EAMC



Number	Name	Description
1	Liquid pipe connection	ø6.35 Flare
2	Gas pipe connection	ø12.7 Flare
3	Drain pipe connection	OD32 ID26
4	Drain pipe connection	Using drain pump (Optional)
5	Power supply connection	
6	Air discharge flange	
7	Air filter	
8	Hook	For M8~M10

(Unit : mm)

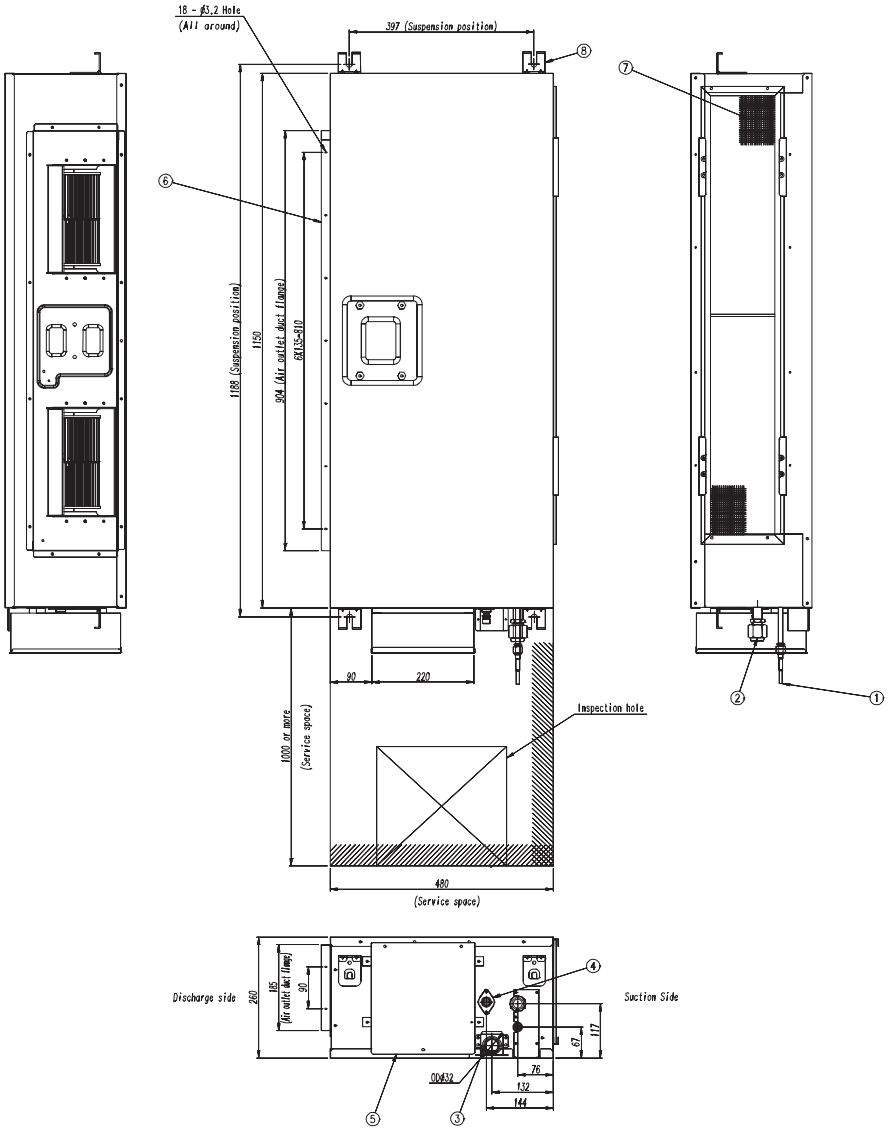
■ EH070EAMC



Number	Name	Description
1	Liquid pipe connection	Ø9.52 Flare
2	Gas pipe connection	Ø15.88 Flare
3	Drain pipe connection	OD32 ID26
4	Drain pipe connection	Using drain pump (Optional)
5	Power supply connection	
6	Air discharge flange	
7	Air filter	
8	Hook	For M8~M10

(Unit : mm)

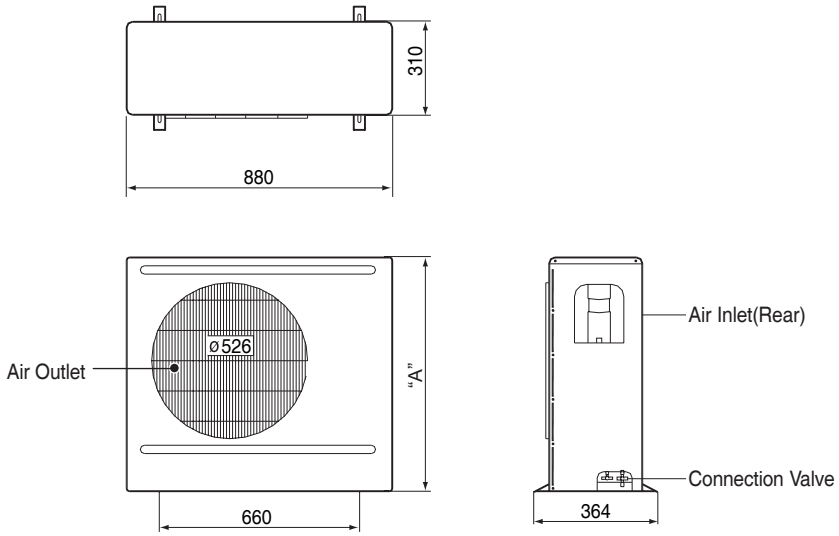
■ DH094EAMC



Number	Name	Description
1	Liquid pipe connection	Ø9.52Flare
2	Gas pipe connection	Ø15.88Flare
3	Drain pipe connection	OD32
4	Drain pipe connection	Using drain pump (Optional)
5	Power supply connection	
6	All discharge flange	
7	Air filter	
8	Hook	For M8-M10

2-2-2 Outdoor Unit

(Unit : mm)



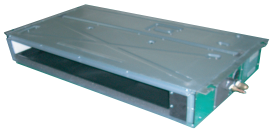
Model	"A"
UH052/070EAMC	638
UH094EAM1C	798

2-3 Product Specifications

MODEL	INDOOR UNIT			EH052EAMC	EH070EAMC	DH094EAMC
	OUTDOOR UNIT			UH052EAMC	UH070EAMC	UH094EAM1C
Capacity	Cooling		W	5500	6800	8800
	Heating		W	6300	7500	9500
C.O.P	Cooling		W/W	2.82	2.81	2.41
	Heating		W/W	3.15	3.1	2.71
Power Supply			Φ/V/Hz	1Φ, 220-240V~,50Hz		
Power Input	Cooling		W	1950	2420	3650
	Heating		W	2000	2420	3500
Running Current	Cooling		A	9.0	11.1	16.5
	Heating		A	9.0	11.1	15.5
Indoor Unit	Fan Speed	Hi	r.p.m	1340± 50	1320± 50	1340± 50
		Mid	r.p.m	1260± 50	1250± 50	1270± 50
		Low	r.p.m	1075± 50	1080± 50	1080± 50
	Air Flow Rate	Hi	m^3/min	14.9	20.5	24.4
		Mid	m^3/min	13.8	19	22.7
		Low	m^3/min	11.2	16.5	18.4
	Noise Level(Cooling/Heating)		dB(A)	42/43	45/46	47/48
	Heat Exchanger	Type		ANTIBACTERIA		
		RowsxStagesxFin pitch		3×12×1.3	2×12×1.3	3×10×1.3
	Fan	Type		Sirocco		
		INPUT	W	150	150	200
	Dimensions	H	mm	199	199	260
		W	mm	900	1100	1150
		D	mm	600	600	480
	Weight	Net/Gross	kg	26	31	35
Outdoor Unit	Fan Speed	Hi	r.p.m	940± 40	880± 40	980± 50
		Low	r.p.m	450± 40	450± 40	500± 50
	Noise Level(Cooling/Heating)		dB(A)	59/60	60/61	63/64
	Fan	Type		Propeller		
		INPUT	W	140	150	200
	Compressor	Type		Rotary		
		Model		G8D190JUAEH	G5A240JUAEM	NN40VAAMT
		Output	kW	5860	7063	10200
		O.L.P Type		Internal		
	Heat Exchanger	Charge	g	1500	1700	1800
		Control		EEV	EEV	EEV
		Type		Louver		
		RowsxStagesxFin pitch		2×28×1.4	2×28×1.4	2×36×1.5
	Dimensions	H	mm	648	648	798
		D	mm	310	310	310
		W	mm	880	880	880
	Weight	Net/Gross	kg	59	60	74

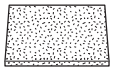
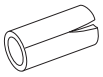
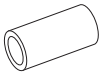
MODEL	INDOOR UNIT			EH052EAMC	EH070EAMC	DH094EAMC
	OUTDOOR UNIT			UH052EAMC	UH070EAMC	UH094EAM1C
Piping	Pipe O.D Size	Liquid	mm(inch)	6.35	9.52	
		Gas	mm(inch)	12.7	15.88	
	Connection Method					
	Between	Height	m	15		
		Pipe Length	m	30		

2-4 The Comparative Specifications of Product

Item		EH052EAMC	EH070EAMC	DH094EAMC
Design	Indoor Unit			
	Outdoor Unit	UH052/070EAMC		UH094EAM1C
				
Net Weight	Indoor Unit	26.0kg	31.0kg	35.0kg
	Outdoor Unit	59.0kg	60.0kg	74.0kg
Outer Dimension (WxHxD)	Indoor Unit	900x199x600mm	1,100x199x600mm	1,150x260x480mm
	Outdoor Unit	880x638x310mm	880x638x310mm	880x798x310mm
Noise	Indoor Unit	43dB↓	46dB↓	48dB↓
	Outdoor Unit	60dB↓	61dB↓	64dB↓

2-5 Accessory and Option Specifications

2-5-1 Accessories

Item	Descriptions	Code-No.	Q'TY	Remark
	Wired remote controller	DB97-01904G	1	Indoor Unit
	User Manual	DB98-26441A	1	
	Installation Manual	DB98-26440A	1	
	Insulation	DB62-03440H	1	
		DB62-03439H	1	
	Insu Pipe Joint Out	DB62-03439J	2	
	Insu Pipe Joint In	DB72-00143D	1	
		DB72-00143E	1	
	Ass'y Holder Drain Pipe	DB90-02064A	1	
	Ass'y Drain Hose Joint	DB94-00758A	1	

3. Alignment and Adjustments

3-1 E. S. P(External Static Pressure) Setting for Phase Control Motor

With its phase control motor, you can adjust the indoor unit fan speed depending on the installation condition. If the external static pressure is high so that the duct becomes longer or if the external static pressure is low so that the duct becomes shorter, adjust the fan speed by referring the following table. Refer to the page 3-1 to set the option code.

Model	Static Pressure(mmAq)		0	1	2	3	4	6	8
	Step	CMM (CFM)	Option Code for Indoor Unit						
EH052EAMC	Hi	15	0114B3 -1901CF	0114B4 -190221	0114B4 -1902F3	0114B4 -1902F6	0114B4 -1902FC	—	—
	Mid	13							
	Low	11							
EH070EAMC	Hi	20	011443 -1C019E	011443 -1C01FF	011444 -1C0271	011444 -1C02F5	011444 -1C02FB	—	—
	Mid	18							
	Low	16							
DH094EAMC	Hi	25	015431 -1E03F6	—	015433 -1E0137	—	015433 -1E01AA	015433 -1E03BE	015434 -1E02F6
	Mid	22							
	Low	19							

Note : • represents E. S. P(External Static Pressure) range of factory setting.
You don't have to adjust the fan speed separately if the external static pressure of the installation place is in .
When it is out of , input the appropriate option code.

• If you input the inappropriate option code, error may occur or the air conditioner is out of order. The option code must be inputted correctly by the installation specialist or service agent.

3-2 Setting Option Setup Method

Example : **Option No. :** 0 15414- 1c0278

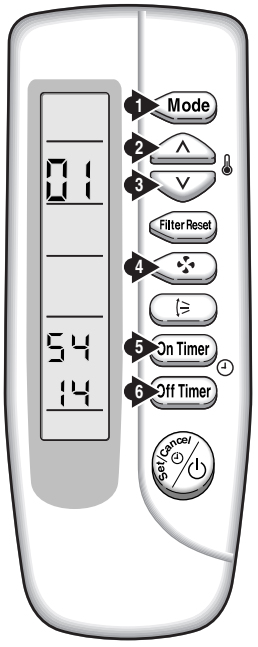
Step 1 : **Enter the Option Setup mode.**

1st Take out the batteries of remote control.

2nd Press the temp. button simultaneously and insert the battery again.

3rd Make sure the remote control display shown as 00 00 00 .

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



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

1

The default value is 00 00 00 .
Otherwise, push the Mode button to 0 .
Every time you push the button, the display panel reads 1 or 0 repeatedly.

2

Push the button to set the display panel to 1 .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

3

Push the button to set the display panel to 5 .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

4

Push the button to set the display panel to 4 .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

5

Push the On Timer button to set the display panel to 1 .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

6

Push the Off Timer button to set the display panel to 4 .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

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

7

Press Mode button, then the default value is 00 .

8

Push the ∧ button to set the display panel to c .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

9

Push the ∨ button to set the display panel to 0 .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

10

Push the Filter Reset button to set the display panel to 2 .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

11

Push the On Timer button to set the display panel to 7 .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

12

Push the Off Timer button to set the display panel to 8 .
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

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

Press the Mode Selection key, Mode to set the display part to 0 and check the display part.

➡ The display part shows 01 54 14 .

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

➡ The display part shows c 02 78 .

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.

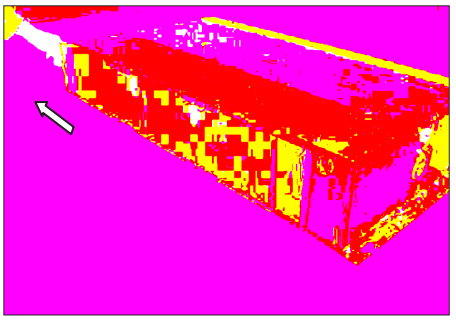
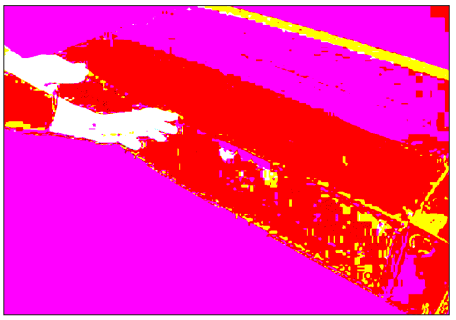
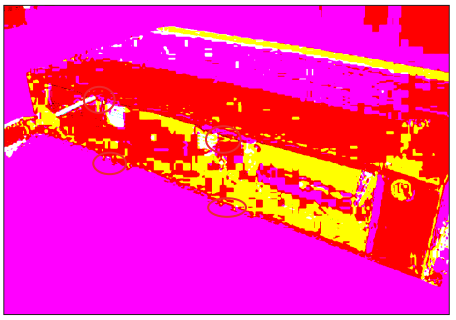
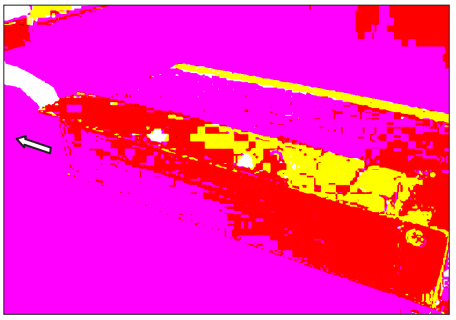
2nd If the unit is not working properly or all lamps are continuously flickering after setting the option code, see if the correct option code is set up for its model.

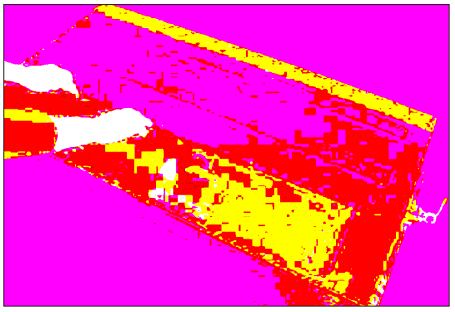
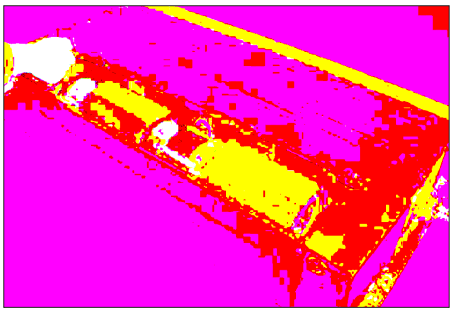
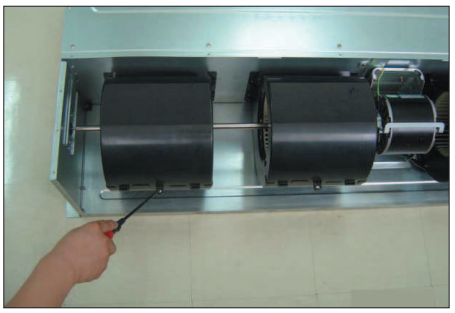
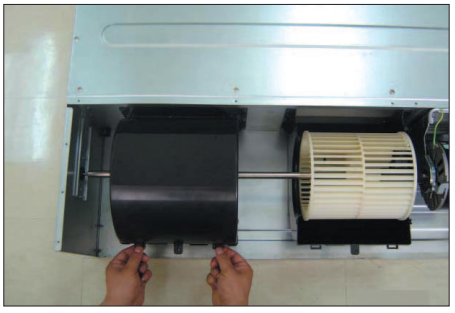
4. Disassembly and Reassembly

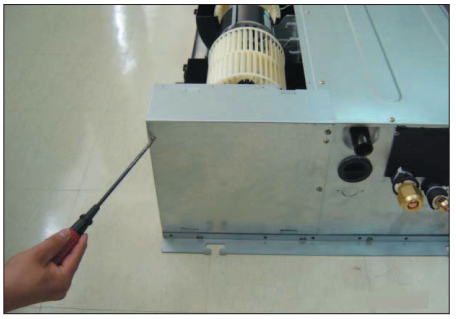
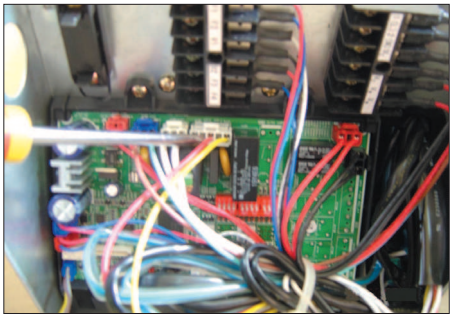
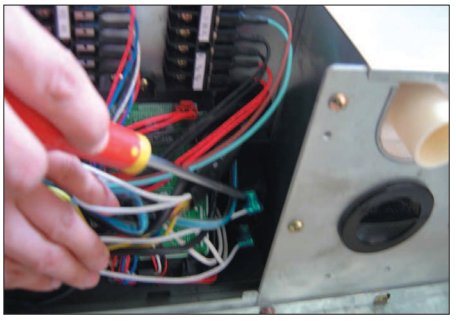
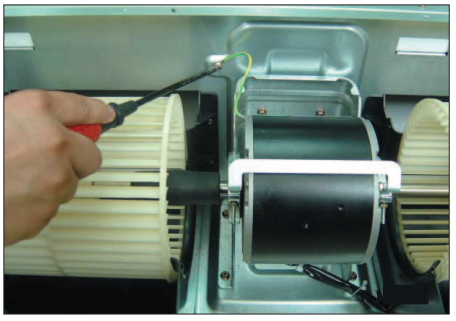
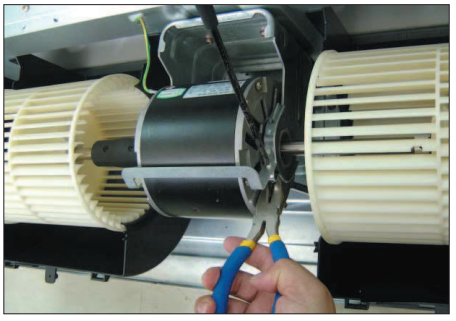
Stop operation of the air conditioner and remove the power cord before repairing the unit.

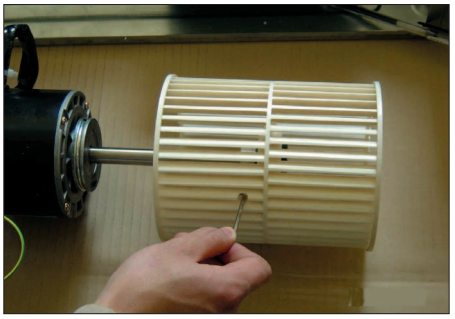
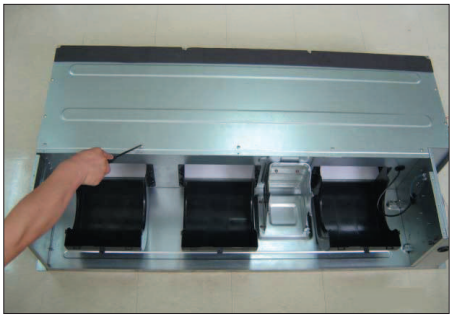
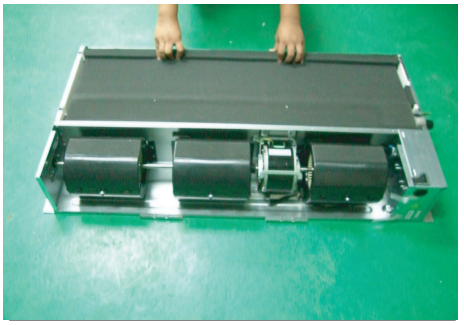
4-1 Indoor Unit

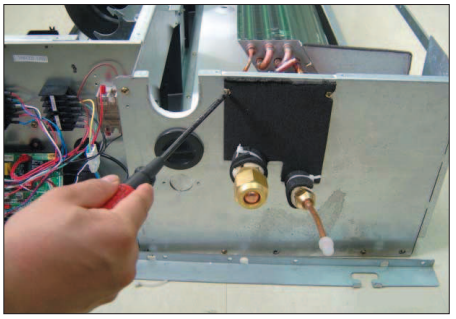
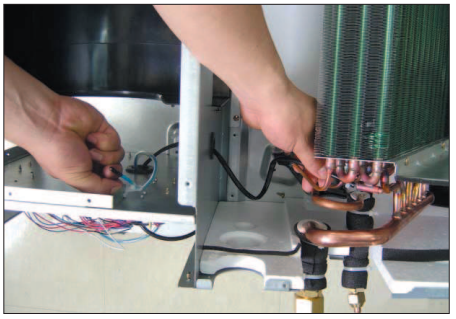
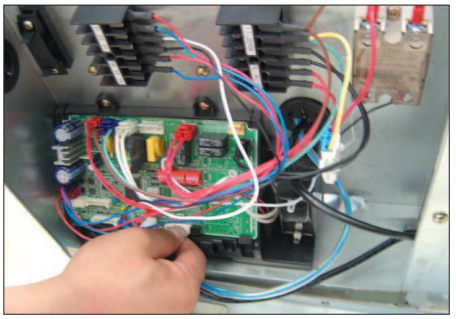
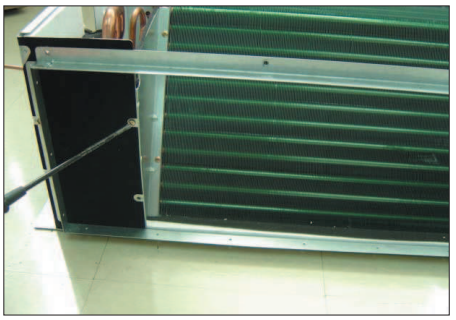
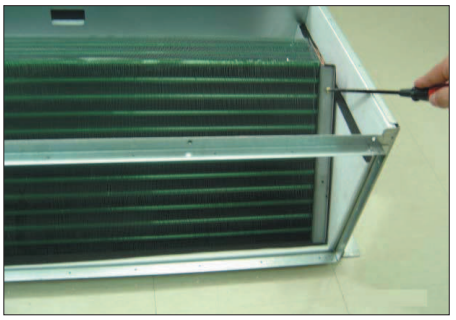
■ EH052/070EAMC

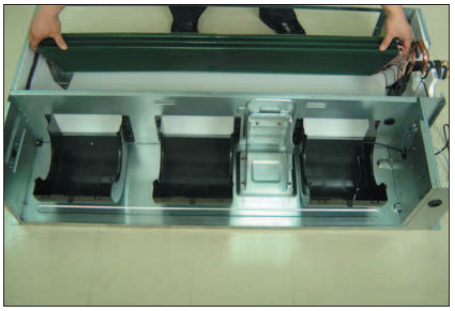
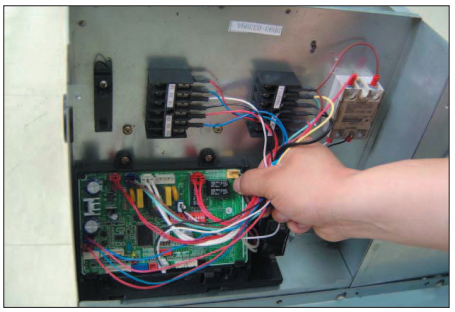
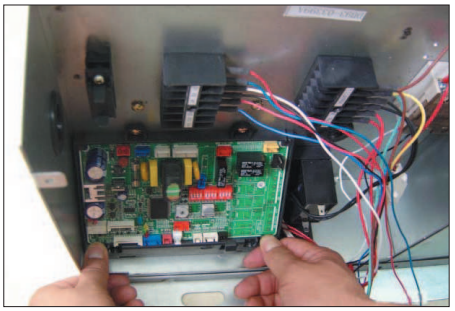
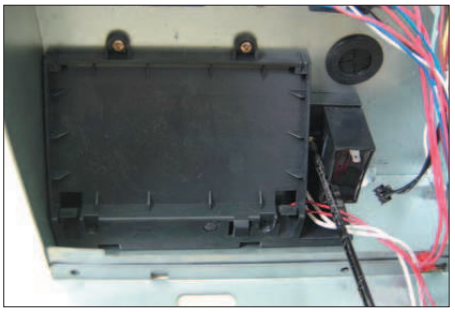
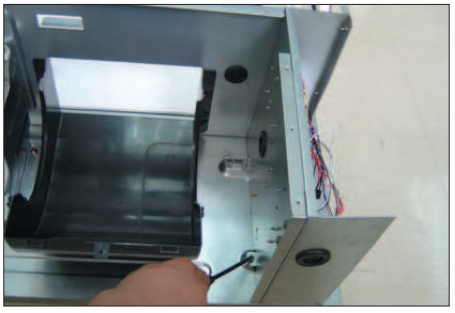
No	Parts	Procedure	Remark
1	Filter	1) Pull out the Filter as picture 1 or picture 2.	 
		2) If it is necessary, after disassembling 8 indicating screws, detach the Bracket Filter.	 

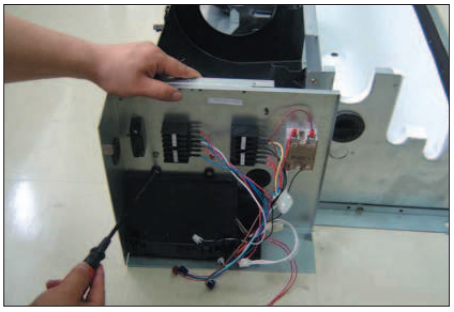
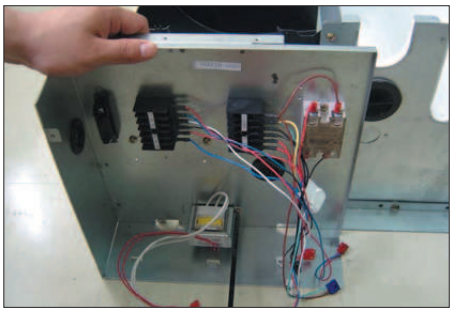
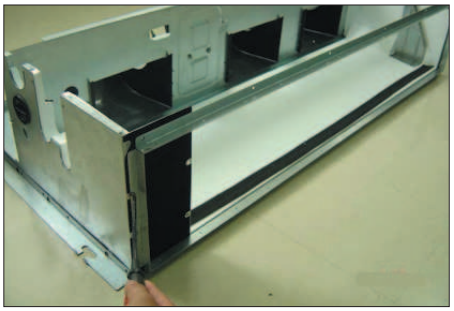
No	Parts	Procedure	Remark
		3) If the Cabinet-Top Motor is assembled on the side of the set, the procedure of disassembling the Filter is just as the above.	 
2	Blower & Motor	1) After disassembling 13 indicating screws, detach Ass'y Cabinet-Top Motor.	
		2) After disassembling 3 indicating screws, detach Ass'y Case Blower Upper.	
		– Press the pothook of the Case Blower and detach Ass'y Case Blower Upper.	

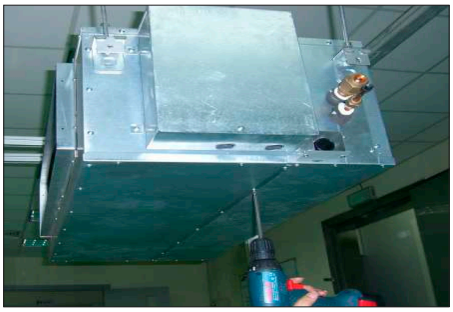
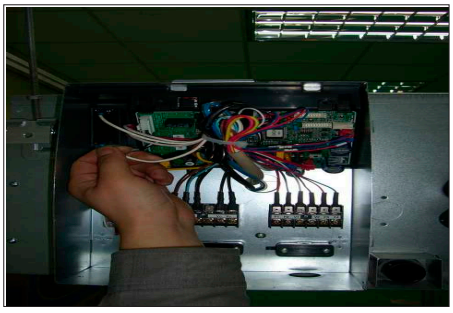
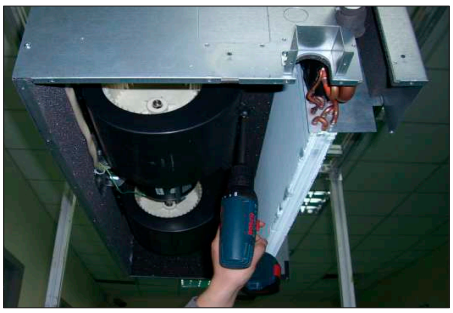
No	Parts	Procedure	Remark
		3) After disassembling 2 indicating screws, detach the Cover Control.	
		4) Detach the Motor Wire Connected to PCB and Capacitor.	
			
		5) After disassembling the indicating screws, detach the wire connected to the Partition.	
		6) After disassembling 2 indicating screws, detach the Ass'y Band Motor.	

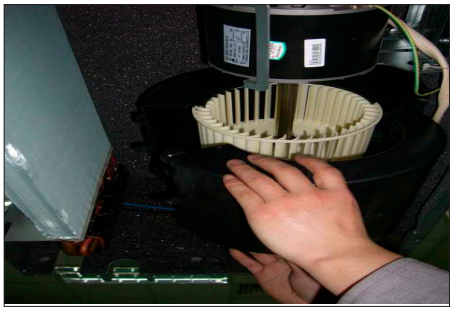
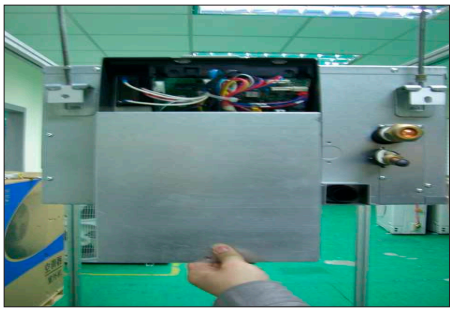
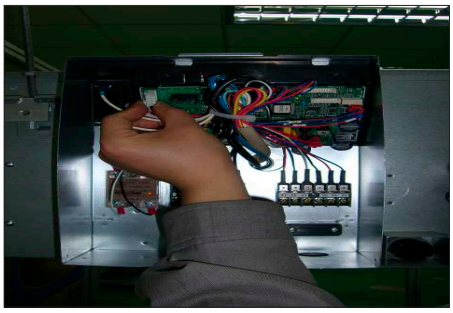
No	Parts	Procedure	Remark
		7) After disassembling the Motor and Blowers, detach the Blowers from the axis of the Motor by 3mm inner hexagon spanner.	
3	Drain Pan	1) After disassembling 15 indicating screws, detach Ass'y Cabinet-Top Evap.	
		2) After disassembling 6 indicating screws, detach the Bracket Outlet.	
		3) Detach the Drain Pan.	

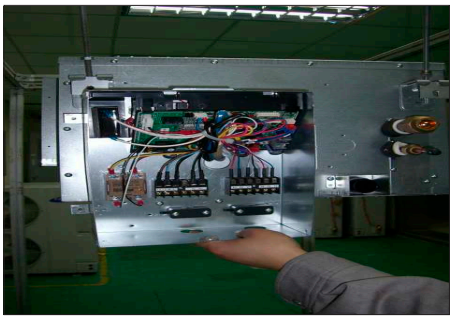
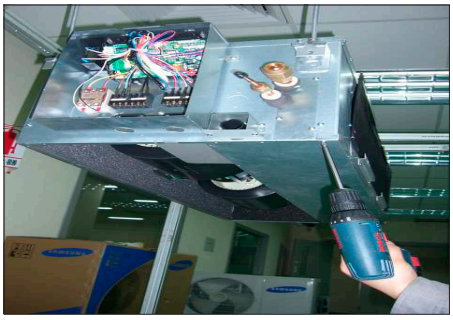
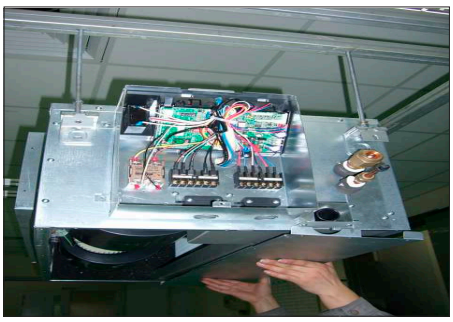
No	Parts	Procedure	Remark
4	Evaporator	✳ After finished the procedures above, detach the Evaporator. 1) After disassembling 2 indicating screws, detach Ass'y Cover Pipe.	
		2) Detach the Sensor from the Control Box.(including 2 Sensors)	
			
		3) After disassembling 2 indicating screws, detach Ass'y Support Evap LF.	
		4) After disassembling 2 indicating screws, detach Ass'y Support Evap RH.	

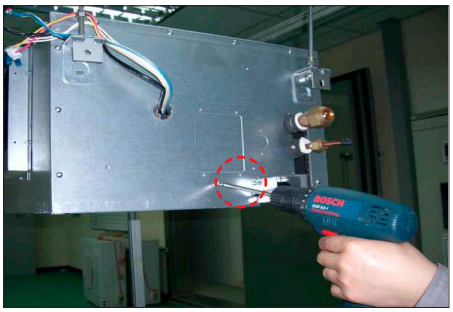
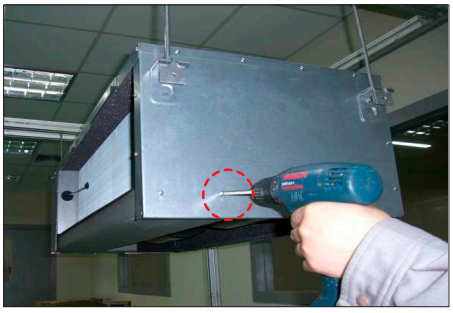
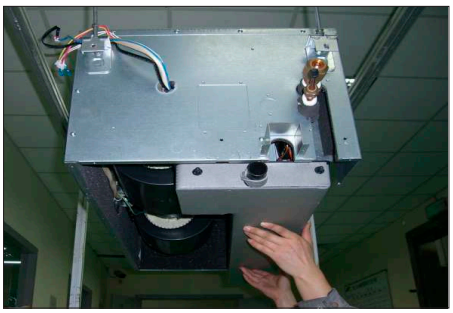
No	Parts	Procedure	Remark
		5) Detach the Evaporator from the set.	
5	Control In	✳ Detach the parts of Control In after disassembling the Cover Control. 1) Detach all the wires connected to the PCB.	
		2) If only the disassembly of PCB required, press the Pothook and detach the PCB from the set.	
		3) If only the disassembly of Capacitor is required, detach it from the set.	
		4) If only the disassembly of Case Control is required, detach it from the set after disassembling 2 indicating screws.	

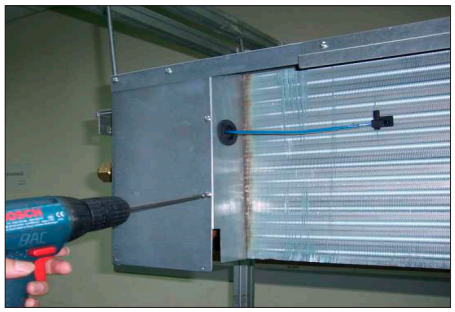
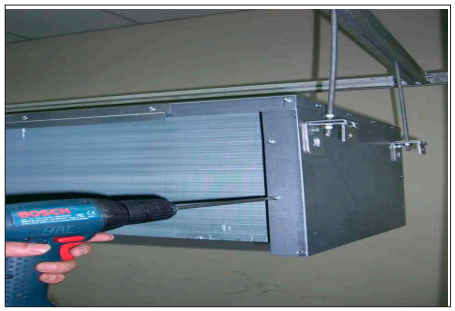
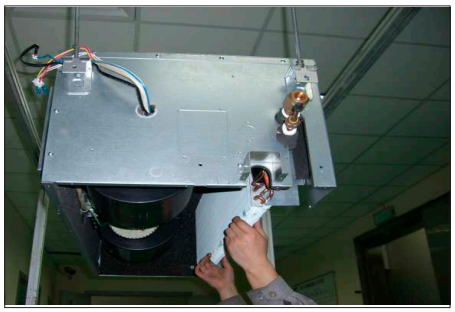
No	Parts	Procedure	Remark
		5) Detach the Transformer after disassembling 2 indicating screws. ✳ Work is possible after disassembling the Case PCB.	 
6	Ass'y Bracket Outlet	1) After disassembling 16 indicating screws, detach Ass'y Bracket Outlet.	

No	Parts	Procedure	Remark
1	Blower & Motor	1) After disassembling 16 places indicating screws, detach Ass'y Cabi Bottom Blower.	
			
		2) Detach from Ass'y Control In the capacitor connection wire between the Motor Fan and housing connector.	
		3) After disassembling 2 places indicating screws, detach the 2 Fan Case.	

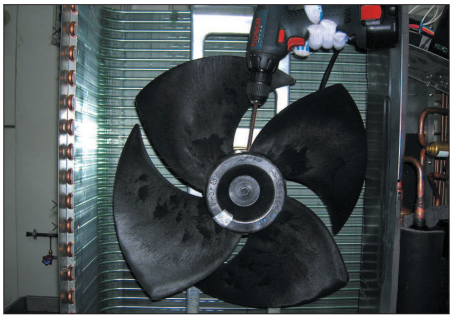
No	Parts	Procedure	Remark
		4) After disassembling 2 places indicating screws, detach Fan Motor and Blower from the set.	
2	Control In	1) After disassembling 1 Indicating screw, detach the Cover control.	 
		2) Detach the Motor-Fan and Sensor Connector from the PCB.	

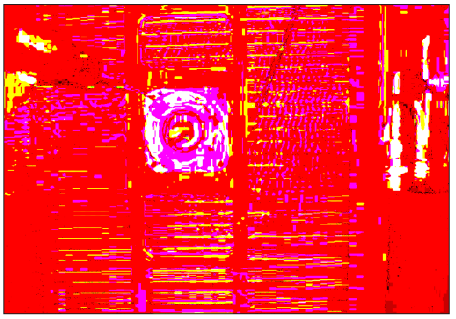
No	Parts	Procedure	Remark
		3) Disassemble 4 indicating screws and detach Control In from the set.	 
3	Drain Pan	Work is possible when Disassembling the Ass'y Cabi Bottom Blower. 1) Disassemble 7 indicating screws and detach Ass'y Cabi Bottom Drain.	 

No	Parts	Procedure	Remark
		2) Disassemble 2 indicating screws and detach Holder Pipe.	
		3) Disassemble 4 indicating screws and detach the Drain Pan. (2 screws each at left and right side)	  
4	Evap	Work is possible when Disassembling the Ass'y Drain Pan. 1) Disassemble 5 indicating screws to detach Cover Pipe.	

No	Parts	Procedure	Remark
		2) Disassemble Sensor on the Evap.	
		3) Disassemble 4 indicating screws which are in the near of Hanger Plate to detach the Evap. (2 screws each at left and right side) ⚠ It needs 2 peoples.	  

4-2 Outdoor Unit

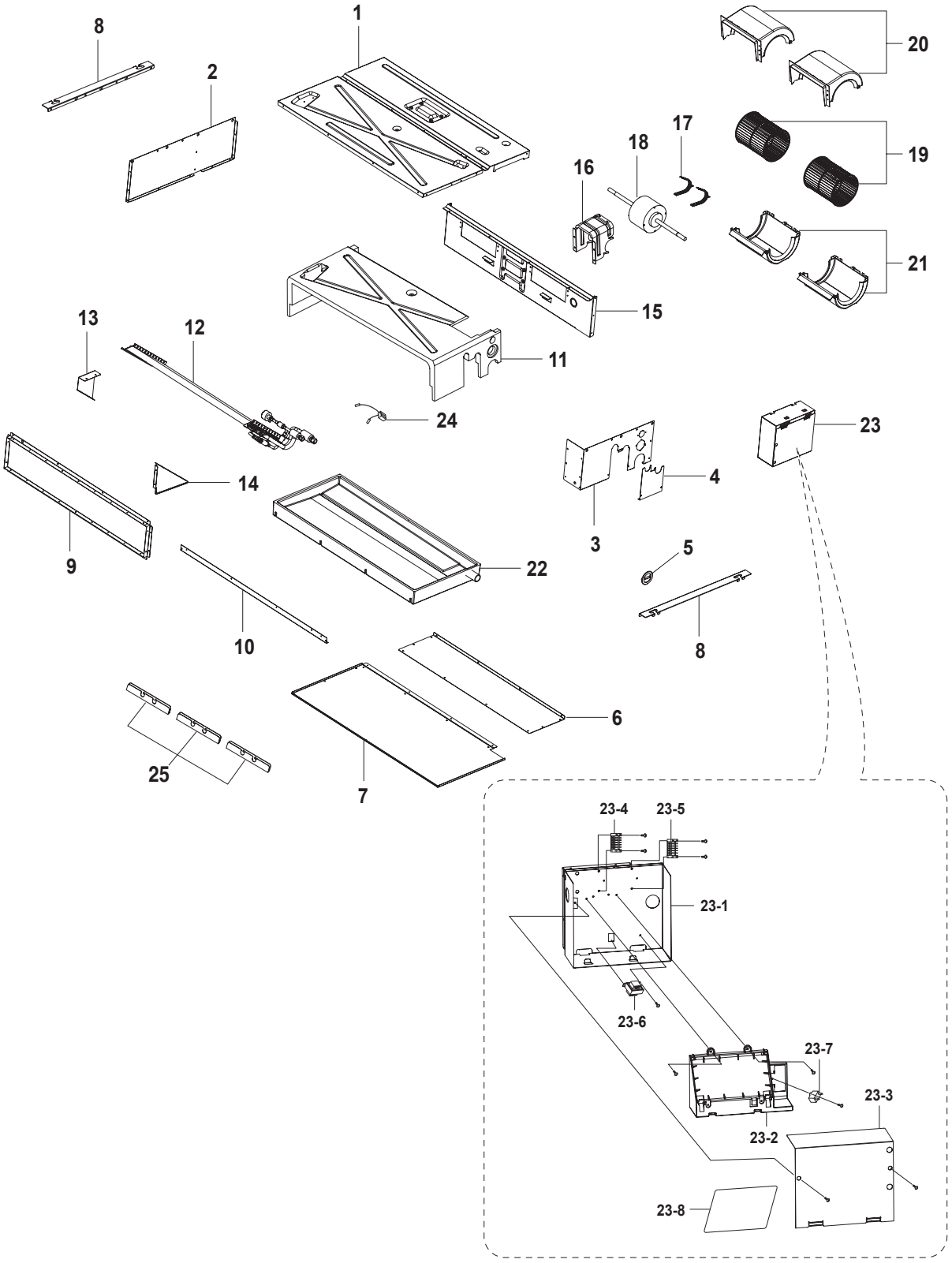
No	Parts	Procedure	Remark
	The disassembling procedure of Outdoor Unit	1) Firstly, turn off the equipment, then detach the indicating screws on the Cabinet Side.	
		2) After disassembling the indicating screws, detach the Cabinet Side.	
		3) Pull out all the cables on the PCB, detach the PCB and Case Control.	
		4) Detach Cabinet-Top and Cabinet Front.	
		5) After disassembling the indicating screw, detach the Fan.	

No	Parts	Procedure	Remark
		6) Detach the indicating screws used for fastening the Motor.	
		7) Detach the indicating screws used for fastening the Bracket Motor.	

5. Exploded Views and Parts List

5-1 Indoor Unit

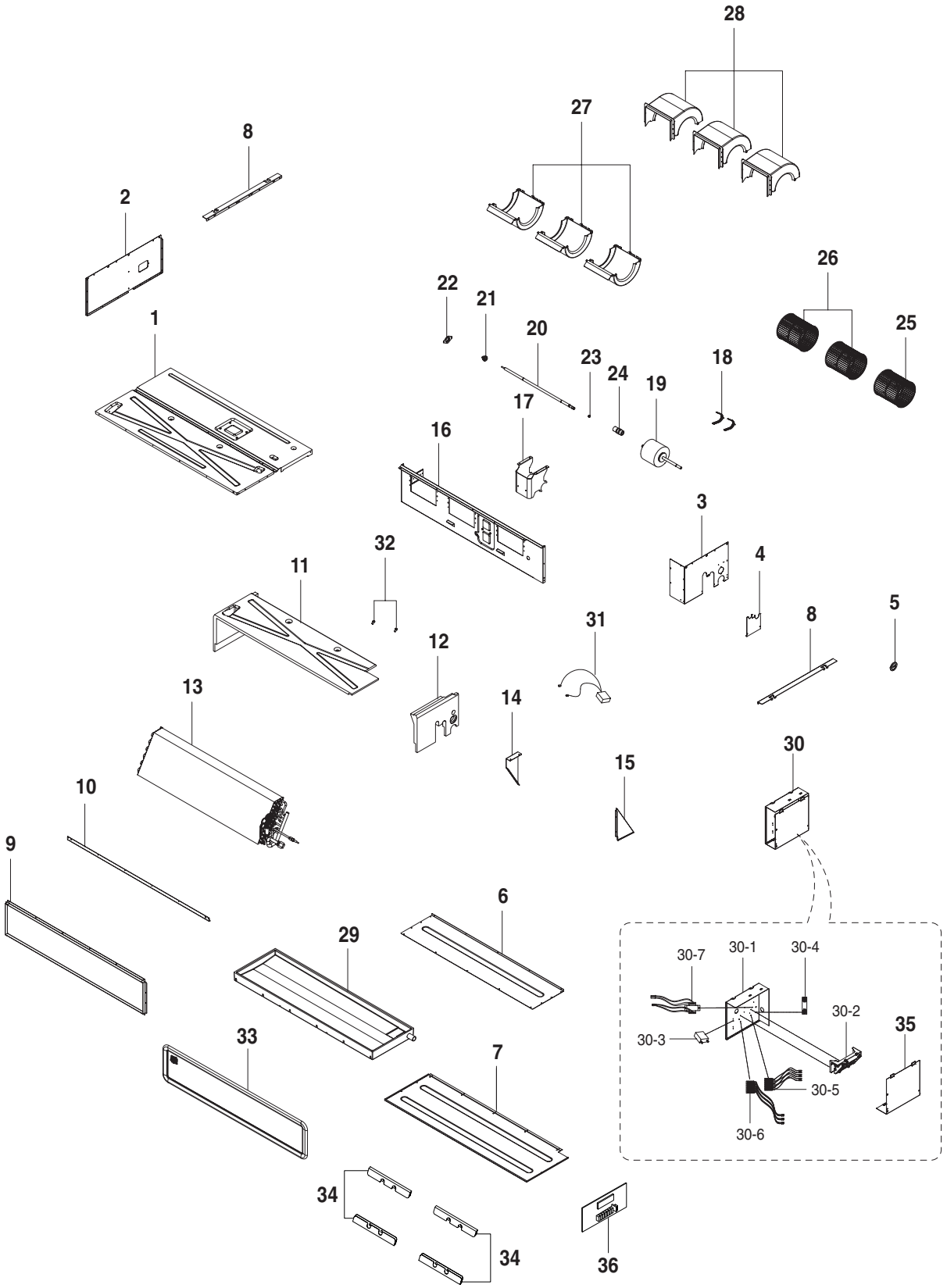
■ EH052EAMC



■ **Parts List**

No.	CODE NO.	Description	Specification	Q'TY	SA/SNA
1	DB90-02014A	ASSY CABINET-BASE	AVMME036EZC,SLIM DUCT-1	1	SA
2	DB64-01324A	CABINET-SIDE LF	MH020FDEZ,SGCC-M,T0.8,SSEC	1	SA
3	DB90-01951A	ASSY CABINET-SIDE RH	AVMME036EZC,SSEC	1	SA
4	DB90-01938A	ASSY COVER-PIPE	AVMME036EZC,SSEC	1	SA
5	DB90-01950A	ASSY COVER-DRAIN PUMP	AVMME036EZC,SSEC	1	SA
6	DB64-01326A	CABINET-TOP MOTOR	MH020FDEZ,SGCC-M,T0.8,SSEC	1	SA
7	DB90-02069B	ASSY CABINET-TOP EVAP	SLIM DUCT 1,SSEC	1	SA
8	DB61-02274A	HANGER-PLATE	SGCC-M,MH020FDEZ,T2.0	2	SA
9	DB94-00712A	ASSY-BRACKET OUTLET	AVMME036EZC,SSEC	1	SA
10	DB61-02277A	BRACKET-OUTLET SUB	MH020FDEZ,SGCC-M,T0.8	1	SA
11	DB97-03385A	ASSY-CUSHION BASE	AVMME036EZC,SSEC	1	SA
12	DB96-07029A	ASSY EVAP-UNIT;	DH18BTA,SSEC	1	SA
13	DB90-01978A	ASSY-SUPPORT EVAP LF	SLIM DUCT1,2,SSEC	1	SA
14	DB90-01946A	ASSY-SUPPORT EVAP RH	AVMME036EZC,SSEC	1	SA
15	DB94-00768A	ASSY PARTITION	SLIM DUCT 1,SSEC	1	SA
16	DB61-02282A	BRACKET MOTOR	MH020FDEZ,SGCC-M,T2.0	1	SA
17	DB99-00669A	ASSY-BAND MOTOR	SLIM DUCT1,2,SSEC	1	SA
18	DB31-00425A	MOTOR FAN;	YSK110-40-4SN,-,220/60,3uf,SINYA,SSEC	1	SA
19	DB67-00565A	BLOWER	MH020FDEZ,ABS	2	SA
20	DB90-01948A	ASSY-CASE BLOWER BOTTOM	AVMME036EZC,SSEC	2	SA
21	DB90-01947A	ASSY-CASE BLOWER UPPER	AVMME036EZC,SSEC	2	SA
22	DB94-01007B	ASSY DRAIN PAN	AVMEH035EA3,SSEC	1	SA
23	DB93-04444A	ASSY CONTROL-PART	hp,DH18BTA,SSEC	1	SA
23-1	DB90-01941A	ASSY CASE-CONTROL	AVMME036EZC,SSEC	1	SA
23-2	DB61-02287A	CASE PCB	MH020FDEZ,ABS V0,T2.5	1	SA
23-3	DB90-02101A	ASSY COVER-CONTROL	AVMEH035EA3,SSEC	1	SA
23-4	DB65-00105L	TERMINAL BLOCK	MINI-DVM,DAF-S6P,SSEC	1	SA
23-5	DB65-00105M	TERMINAL BLOCK	MINI-DVM,DAF-S6P,SSEC	1	SA
23-6	DB26-10070G	TRANS	AVMME036EZC,SSEC	1	SA
23-7	2301-001369	C-FILM	LEAD-OTHER;3000nF,+10-5%,450V,BK,48x22x35mm,43	1	SA
23-8	DB93-03213E	ASSY PCB	OASIS-P/J(DH18BTA),H/P	1	SA
24	DB32-00142A	THERMISTOR-IN	AVMME036EZC	1	SA
25	DB61-02643A	BRACKET-FILTER	SLIM DUCT 2,SGCC-M,T0.8,11,125,-,SSEC	3	SA

■ EH070EAMC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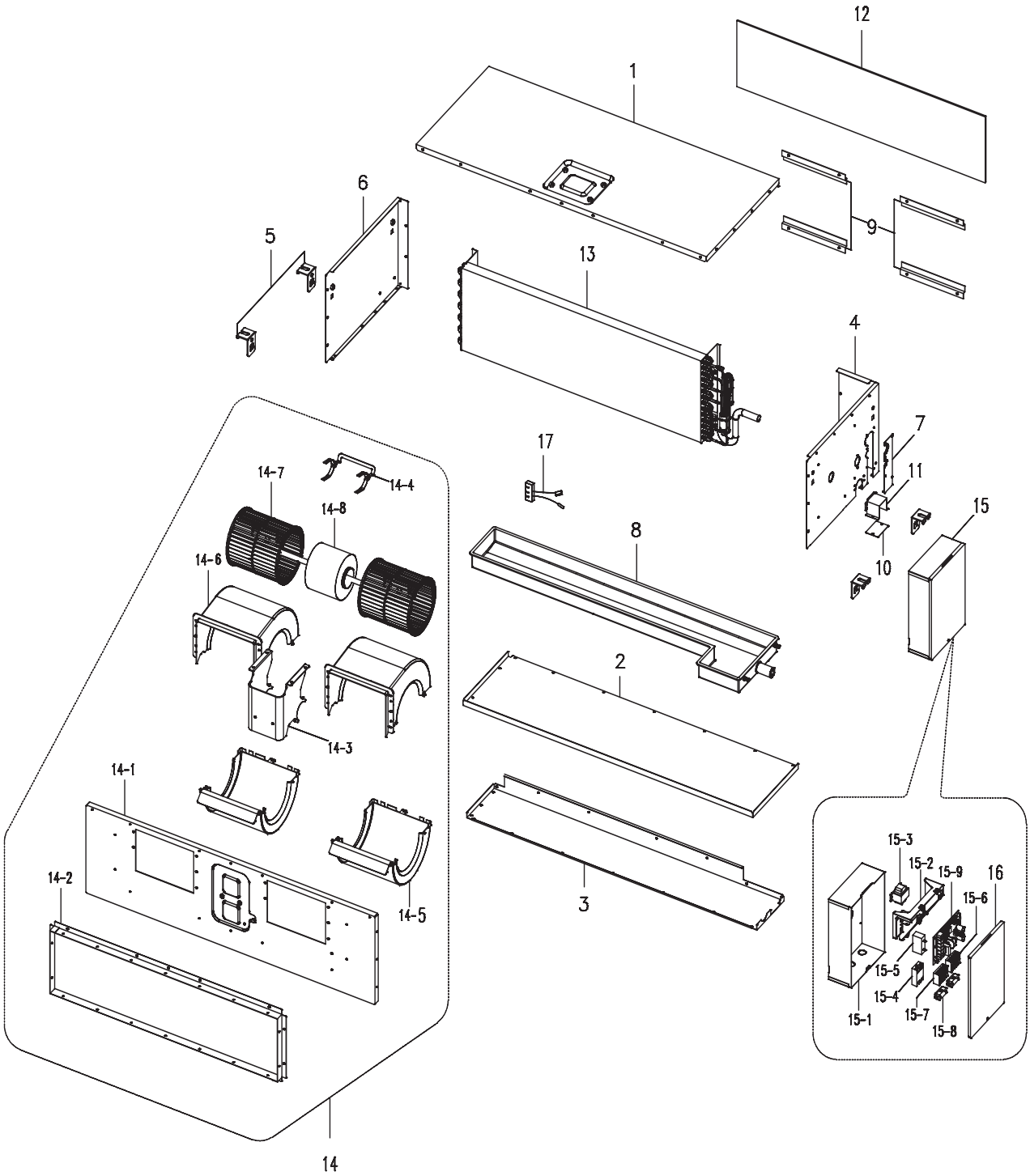
■ Parts List

NO.	Code NO.	Description	Specification	Q'TY	SA/SNA
1	DB90-02160A	ASSY CABINET-BASE	DH24BTA,SSEC	1	SA
2	DB64-01324B	CABINET-SIDE LF	EH070EZMC,SGCC-M,T0.8,SSEC	1	SA
3	DB90-01951A	ASSY CABINET-SIDE RH	AVMME036EZC,SSEC	1	SA
4	DB90-01938A	ASSY COVER-PIPE	AVMME036EZC,SSEC	1	SA
5	DB90-01950A	ASSY COVER-DRAIN PUMP	AVMME036EZC,SSEC	1	SA
6	DB64-01345A	CABINET-TOP MOTOR	DH24BTA,SGCC-M,T0.8,SSEC	1	SA
7	DB90-02734A	ASSY CABINET-TOP EVAP	DC18BTVA,SSEC	1	SA
8	DB61-02274A	HANGER-PLATE	SGCCM,MH020FDEZ,T2.0,	2	SA
9	DB97-03796A	ASSY-BRACKET OUTLET	HP,NO,N,DH24BTA,SSEC	1	SA
10	DB61-02322A	BRACKET-OUTLET SUB	EH070EZMC,SGCC-M,T0.8,-	1	SA
11	DB97-03792A	ASSY-CUSHION BASE A	HP,NO,EH070EZMC,SSEC	1	SA
12	DB97-03791A	ASSY-CUSHION BASE B	HP,NO,EH070EZMC,SSEC	1	SA
13	DB96-05115A	ASSY EVAP UNIT	DH24BTA,	1	SA
14	DB90-01978A	ASSY-SUPPORT EVAP LF	SLIM DUCT1,2,SSEC	1	SA
15	DB90-01946A	ASSY-SUPPORT EVAP RH	AVMME036EZC,SSEC	1	SA
16	DB94-00809A	ASSY PARTITION	DH24BTA,SSEC	1	SA
17	DB61-02282A	BRACKET MOTOR	MH020FDEZ,SGCC-M,T2.0,-	1	SA
18	DB97-03800A	ASSY-BAND MOTOR	HP,NO,Y,SLIM DUCT 1,2,SSEC	1	SA
19	DB31-00314A	MOTOR BLOWER-IN	YSK140-60-4PG,50Hz,3uF,220V AC	1	SA
20	DB66-01007A	SHAFT	EH070EZMC,AL,554.6,6,SSEC	1	SA
21	DB94-00759A	ASSY-MOLD BEARING	SLIM DUCT 3,SSEC	1	SA
22	DB67-00581A	CAP-BEARING	EH140EZMC,SGCC-M,,T0.8,SSEC	1	SA
23	DB73-00285A	RUBBER-SHAFT	SLIM DUCT-3,GUM-NBR HARDNESS 45"	1	SA
24	DB96-04902A	ASSY-COUPLER	SLIM DUCT 2,3,SSEC	1	SA
25	DB67-00565A	BLOWER	MH020FDEZ,ABS,-	1	SA
26	DB67-00576A	BLOWER-B	EH035EZMC,ABS,140,L170	2	SA
27	DB90-01947A	ASSY-CASE BLOWER UPPER	AVMME036EZC,SSEC	3	SA
28	DB90-01948A	ASSY-CASE BLOWER BOTTOM	AVMME036EZC,SSEC	3	SA
29	DB94-01007A	ASSY DRAIN PAN	DH24BTA/UMG,SSEC	1	SA
30	DB93-03543A	ASSY CONTROL IN	HP,EH070EZMC,SSEC	1	SA
30-1	DB90-01941A	ASSY CASE-CONTROL	AVMME036EZC,SSEC	1	SA
30-2	DB61-02287A	CASE PCB	MH020FDEZ,ABS V0,T2.5,-	1	SA
30-3	2301-001379	C-FILM, LEAD - OTHER	LEAD-OTHER;4000nF,+10-5%,450V	1	SA
30-4	DB61-02501A	MOUNTTIE	APHN230N,NYLON 66,15.5,24.5,BLACK,	1	SA
30-5	DB65-00105L	TERMINAL BLOCK	MINIDVM,DAFS6P,SSEC	1	SA
30-6	DB65-00105M	TERMINAL BLOCK	MINI-DVM,DAF-S6P,SSEC	1	SA
30-7	DB26-10070G	TRANS	AVMME036EZC,SSEC	1	SA
31	DB32-00142A	THERMISTOR-IN	AVMME036EZC	1	SA
32	DB61-02349A	CLIP-BRUSH	NYLON 6/6,BLOCK,SSEC	2	SA
33	DB63-01299C	FILTER-PRE	DH24BTA,MSWG1,T1,192,1005,SSEC	1	SA
34	DB61-02643A	BRACKET-FILTER	SLIM DUCT 2,SGCC-M,T0.8,11,125,SSEC	4	SA
35	DB90-02101A	ASSY COVER-CONTROL	AVMEH035EA3,SSEC	1	SA
36	DB93-03213E	ASSY PCB	OASISP/J(DH24BTA),H/P	1	SA

■ DH094EAMC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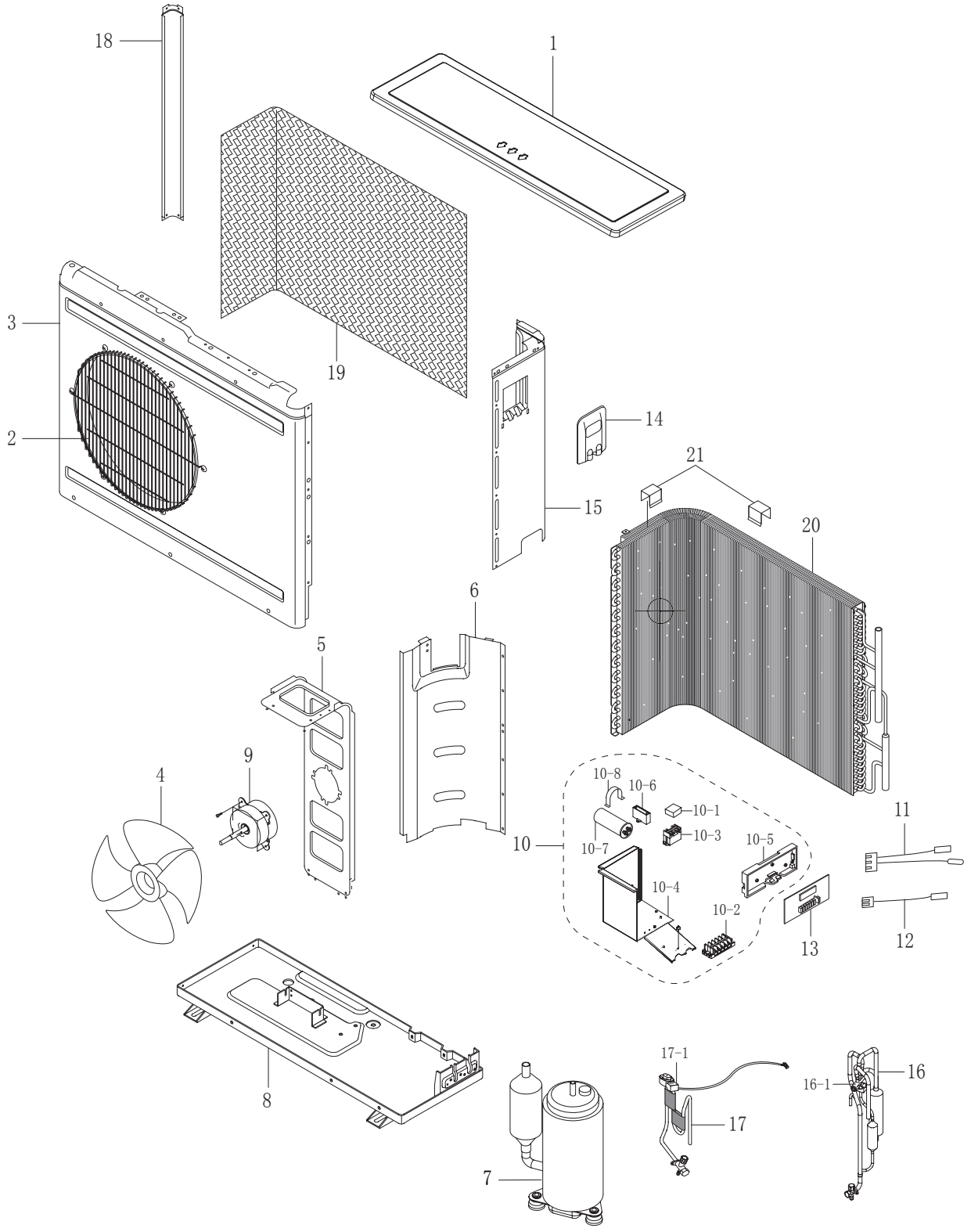
No	Code No.	Description	Specification	Quantity	SA/SNA
1	DB90-02403A	ASSY CABINET-TOP	MA1,SSEC	1	SA
2	DB90-02405A	ASSY CABINET-BOTTOM BLOWER	MA1,SSEC	1	SA
3	DB90-02409A	ASSY CABINET-BOTTOM DRAIN	MA1,SSEC	1	SA
4	DB90-02929A	ASSY CABINET-SIDE RH	MA0,SSEC	1	SA
5	DB61-01282A	HOLDER-SIDE CABI	ADC6000TG,SGCC-M,T3.0,45.2,65	4	SA
6	DB90-02930A	ASSY CABINET-SIDE LF	MA0,SSEC	1	SA
7	DB90-02928A	ASSY COVER-PIPE	MA0,SSEC	1	SA
8	DB91-00346A	ASSY DRAIN PAN	DH42BTA,SSEC	1	SA
9	DB61-02374A	BRACKET-FILTER	DUCT 60K,SGCC-M,T1.0,50,250,	4	SA
10	DB61-02378A	HOLDER-PIPE	DUCT 60K,SGCC-M,T1.0,	1	SA
11	DB63-01297A	COVER-HOLDER	DUCT 60K,SGCC-M,T0.8	1	SA
12	DB63-01299D	FILTER-PRE	DH094EAMC,-,5.6,-,-,-,SSEC	1	SA
13	DB96-07023A	ASSY EVAP-UNIT	MA0,SSEC	1	SA
14	DB94-00953A	ASSY BLOWER	MA1,SSEC	1	SNA
14-1	DB90-02926A	ASSY CABINET FRONT	MA0,SSEC	1	SA
14-2	DB90-03030A	ASSY-BRACKET OUTLET PART	MA0,SSEC	1	SA
14-3	DB61-03058A	BRACKET MOTOR	MA0,SSEC	1	SA
14-4	DB61-03060A	CASE BLOWER-BOTTOM	MA0,SSEC	1	SA
14-5	DB61-03059A	CASE BLOWER-UPPER	MA0,SSEC	1	SA
14-6	DB97-03751A	ASSY-BAND MOTOR	HP,NO,-,-,-,-,SLIM DUCT 3,SSEC	1	SA
14-7	DB31-00355B	MOTOR CIRCUIT	YSK140-200-4A,MA I,-,60Hz	1	SA
14-8	DB67-00583B	BLOWER-D	EH140EZMC,ABS,-,-,-,-	2	SA
15	DB93-04690A	ASSY CONTROL In	CO,-,-,-,220V,-,-,R2	1	SA
15-1	DB90-01992A	ASSY CASE-CONTROL	60K,MIDDLE EAST	1	SNA
15-2	DB61-02287A	CASE PCB	MH020FDEZ,ABS V0,T2.5,-,-,-,-	1	SA
15-3	DB26-10070G	TRANS	-,AVMME036EZC	1	SA
15-4	3502-001035	SSR	DC 12V,12V,3A,1mS,-	1	SA
15-5	2301-001381	C-FILM,LEAD-OTHER	8000nF,+10-5%,450V,BK,58x30x44mm,	1	SA
15-6	DB65-00105M	TERMINAL BLOCK	MINI-DVM,DAF-S6P,-,-,-,-,SSEC	1	SNA
15-7	DB65-00105L	TERMINAL BLOCK		1	SNA
15-8	DB61-00250A	HOLDER-WIRE CLAMP	-,ABS,-,-,-,BLK,ISI,SAMLINE	2	SNA
15-9	DB63-01296A	COVER-CONTROL	DUCT 60K,SGCC-M,T0.8	1	SNA
16	DB93-03213F	ASSY PCB MAIN	DC36BTA,SSEC	1	SA
17	DB32-00142B	THERMISTOR-IN	-,10Kohm±1%,103AT,-20		

5-2 Outdoor Unit

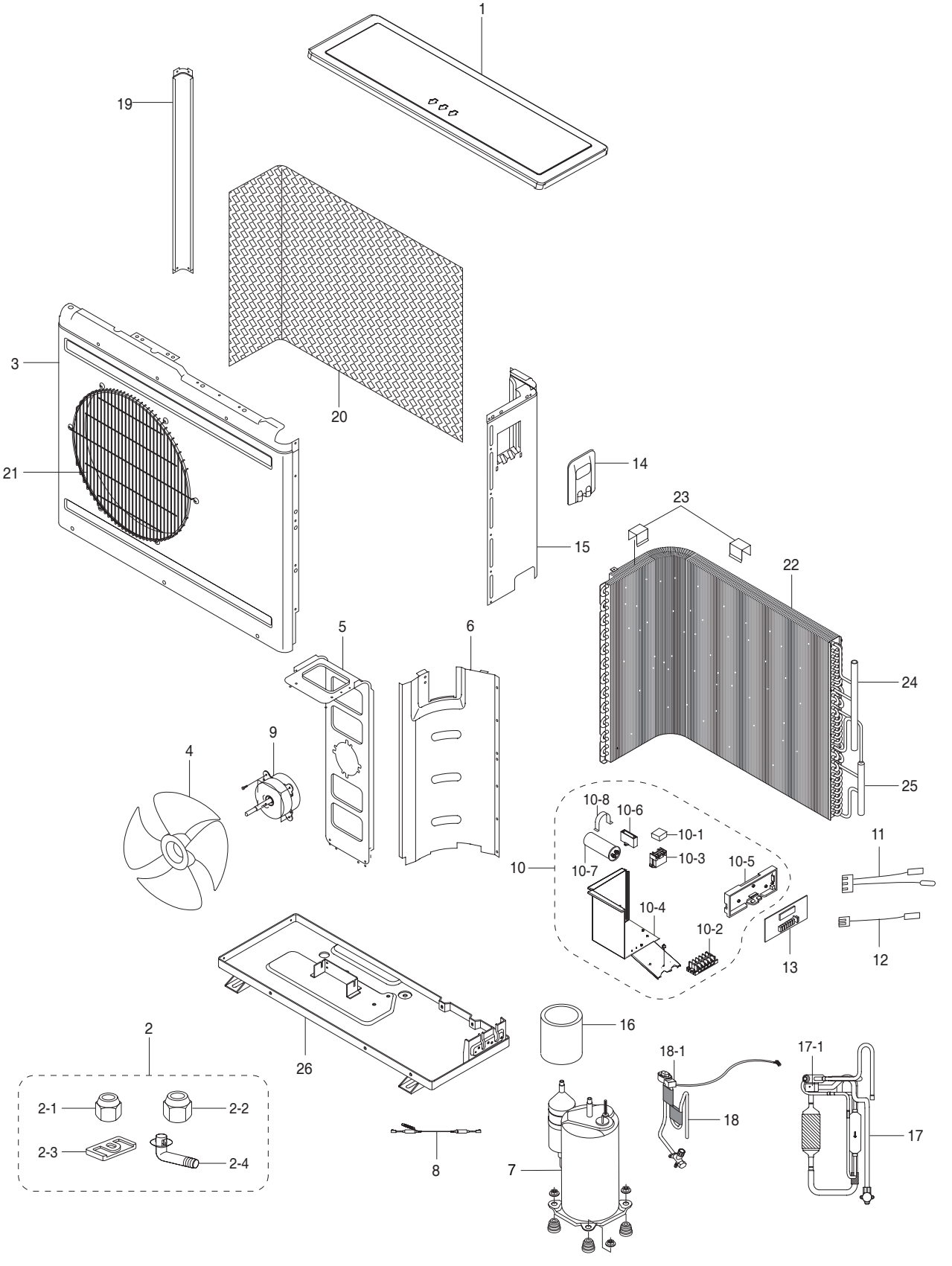
■ UH052/070EAMC



■ Parts List

NO.	Code NO.	Description	Specification	Q'TY		SA/SNA
				UH052 EAMC	UH070 EAMC	
1	DB90-10616G	ASSY CABI-UP	APE2468,CHINA(ALL)	1	1	SA
2	DB63-00831A	GUARD FAN	HPSR2371GB,ABS,SUPREMEPJT	1	1	SA
3	DB90-01145A	ASSY CABINET FRONT	KFRD70LW/LSA,SSEC	2	2	SA
4	DB67-50074A	FAN-PROPELLER	AS1569,	1	1	SA
5	DB95-00205A	ASSY MOTOR B/K	APH1816,CHINA	1	1	SA
6	DB94-50039J	ASSY PARTITION	UH070EZMC,SSEC	1	1	SA
7	G8D190JUAEH	ROTARY COMPRESSOR	50Hz,	1	-	SA
	G5A240JUAEM			-	1	SA
8	DB90-00970R	ASSY BASE OUT-PART	UH070EZM1C,SSEC	1	1	SA
9	DB31-00264D	MOTOR BLOWER	YGN406D,4WAY PJT,0.65/0.47A,50Hz,220V,	1	-	SA
	DB31-00336C			-	1	SA
10	DB93-04254B	ASSY CONTROL OUT	HP,24K BTU,220,Y,OUT,UH070EZM1C/XFA,	1	1	SA
10-1	DB26-10070F	TRANS	UH094EAMC,SSEC	1	1	SA
10-2	DB65-00135A	TERMINAL BLOCK	UH070EZM,F1F21(L)2(N)LN,XIA,J	1	1	SA
10-3	DB35-00046A	RELAY	XMCO252LBBC,25A	1	1	SA
10-4	DB90-01264A	ASSY CASE-CONTROL OUT	UH070EZM,SSEC,DPM	1	1	SA
10-5	DB61-01582A	CASE PCB	UH070EZM,ABS,2.5,BLACK,DPM,5V	1	1	SA
10-6	2301-001379	C-FILM,LEADOTHER	4000nF,+105%,450V,BK,48x22x35mm,	1	1	SA
10-7	2501-001240	C-OIL	50uF,450V,BK,53x125mm,20.6	1	1	SA
11	DB32-00102A	THERMISTOR-OUT	204CT,200K/25,3435K,20150,50MA,5V,	1	1	SA
12	DB32-00101A	THERMISTOR-OUT	204CT,200K/25,3435K,20150,50MA,5V,	1	1	SA
13	DB93-02919Y	ASSY-OUTDOOR MAIN PCB	UH052EAMC , H/P , OUTDOOR MAIN PCB,	1	-	SA
	DB93-02919T		UH070EAMC , H/P , OUTDOOR MAIN PCB,	-	1	SA
14	DB90-40176B	ASSY COVER-CONTROL	AS126/1210,	1	1	SA
15	DB64-00798B	CABINET-SIDE RH PAINT	W1PJT,SECCP ,T=0.8,SC97445T	1	1	SA
16	DB96-07210A	ASSY VALVE 4WAY	UH052EAMC ,SSEC	1	-	SA
	DB96-06953A		UH070EAMC ,SSEC	-	1	SA
16-1	DB97-02689A	ASSY-SOLENOID VALVE	SSEC	1	1	SA
17	DB96-07211A	ASSY VALVE-EXPANSION	UH052EAMC ,SSEC	1	-	SA
	DB96-06869A		UH070EAMC ,SSEC	-	1	SA
17-1	DB62-02567K	VALVE EXPANCOIL	RVPC035B2M3,ASSY,30~90pps,33KG, DC12V	1	1	SA
18	DB63-00692A	GUARD COND(PAINT)	W1PJT,SECCP,T=1.6,SC90073T,SSEC	1	1	SA
19	DB61-00821B	GUIDE-SCREEN	APL1540,P.E.H 100%,T2.5,1025,600,BLK,	1	1	SA
20	DB96-06018D	ASSY COND	UH052EAMC ,SSEC	1	-	SA
	DB96-06989A		UH070EAMC ,SSEC	-	1	SA
21	DB61-30276A	BRACKET-HOLDER	SGCCM,Z,T0.8,	2	2	SA

■ UH094EAM1C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■ Parts List

No.	Code No.	Description	Specification	Q'TY	SA/SNA
1	DB63-10213C	COVER-TOP	-,ACRYL,-,-,-,-,-,-	1	SA
2	DB97-00369A	ASS'Y ACCESSORY	-,-,-,-,-,18K,24K,-,4WAY-CASSETTE,HEATPUMP	1	SA
2-1	DB60-30010B	NUT-FLARE	HEX,-,5/8-18UNF,-,C3771BD,-	1	SNA
2-2	DB60-30010D	NUT-FLARE	HEX,-,7/18-14UNF,-,C3771BD,-	1	SNA
2-3	DB73-20134A	RUBBER-LEG	RUBBER,-,BLK,-	4	SNA
2-4	DB67-20011A	DRAIN-PLUG OUT	ASH-1814ER,PE,-,WHT,-	1	SNA
3	DB90-01825A	ASS'Y CABINET-FRONT	UH094EAM,APH-H2320	1	SA
4	DB67-50074A	FAN-PROPELLER	AS-1569,-,-	1	SA
5	DB61-20094B	BASE-MOTOR	32K,-,-,-,-,-,SSEC	1	SA
6	DB67-00290A	PARTITION	P-PJT,SGCC-M,T1.0,-,-,-,-,SSEC	1	SA
7	DB95-00571A	ASS'Y-COMP	UH094EAM,NN40VAAMT	1	SA
8	DB95-00505D	ASS'Y HEATER-COMP	UH094EAM,3.2HP, HEATPUMP	1	SA
9	DB31-00260A	MOTOR FAN	OSME-1004SRC,3.2HP(SILHOUETTE),1A,50Hz,200W,230V,1050/400,50Hz,230V,-,-,-	1	SA
10	DB93-03068A	ASS'Y CONTROL OUT	HP,NO,60,-,380V~,50Hz,-,-,R-410A,ROTARY,-,EUROPE,-,220-240V 50Hz,-,-,-,UH094EAM	1	SNA
10-1	DB26-10070F	POWER TRANS	DC17,AC230,-,-,-,DC17,DC0.6A,-	1	SA
10-2	DB65-00112A	TERMINAL BLOCK	-,6P,600V,35A,-,-,-,DVS	1	SA
10-3	DB35-00046A	RELAY-POWER	XMCO-252LBBC,25A	1	SA
10-4	DB90-01264A	ASS'Y CASE-CONTROL OUT	UH070EZM,SSEC,DPM	1	SA
10-5	DB61-01582A	CASE PCB	UH070EZM,ABS,2.5,-,-,BLACK,DPM,5V	1	SA
10-6	2301-001367	C-FILM,LEAD-OTHER	6000nF,+10-5%,450V,BK,58x25x40mm,-	1	SA
10-7	2501-001236	C-OIL	30uF,450V,BK,53x85mm,20.6	2	SA
10-8	DB61-02319A	CLIP-CAPACITOR	UH094EAMC,-,-,-,SSEC	1	SA
11	DB32-00102A	THERMISTOR-OUT	204CT,200K/25,3435K,-20-150,50mA,5V,-,-,SSEC	1	SA
12	DB32-00101A	THERMISTOR-OUT	204CT,200K/25,3435K,-20-150,50mA,5V,-,-,SSEC	1	SA
13	DB93-02919C	ASS'Y PCB MAIN	UH094EAMC,SSEC	1	SA
14	DB90-40176B	ASS'Y COVER-CONTROL	AS-126-/1210,-	1	SA
15	DB64-00862A	CABINET-SIDE RH PAINT	W1-PJT,-,-,-,-,-,SC-97445T,-	1	SA
16	DB62-02868A	INSULATION-SOUND	UH094EAM,GRAY FELT,10,740,342,GRAY,NON FLAMMABILITY,-,-	1	SA
17	DB99-00588A	ASS'Y VALVE 4WAY	UH094EAM,SSEC	1	SA
17-1	DB33-00058A	ASS'Y-SOLENOID VALVE	-,SSEC	1	SA
18	DB97-02975A	ASS'Y VALVE-EXPANSION	UH094EAM,-,-,-,SSEC	1	SA
18-1	DB62-02567K	VALVE EXPAN-COIL	RVPC035B2M3,ASS'Y,30~90pps,33KG,RED,480,O1.4,DC12V,1-2ø	1	SA
19	DB63-00758A	GUARD COND-(PAINT)	P-PJT,SECC-P ,T=1.6,-,-,-,SSEC	1	SA
20	DB61-00821A	GUIDE-SCREEN	AP-L2340,P.E.H 100%,T2.5,1025,770,BLK,-	1	SA
21	DB63-00691A	GUARD FAN	AP-SR2370,HSWR,,,,SC-90073T,460 FAN 3u	1	SA
22	DB96-04497A	ASS'Y COND	UH094EAMC,-	1	SA
23	DB70-00163A	PLATE-COND	MH18VA1,SGCC-M, ,T0.8, ,-, ,-,MULTI-INVERTER	2	SA
24	DB96-03814B	ASS'Y COLLECTOR	ASS'Y COLLECTOR IN,,HEAT PUMP	1	SA
25	DB96-03815B	ASS'Y DISTRIBUTOR	ASS'Y DISTRIBUTOR OUT,HEAT PUMP	1	SA
26	DB90-00887F	ASS'Y BASE OUT	UH094EAMC,SSEC	1	SA

6. Electrical Parts List

■ Indoor PCB : DB93-03213E

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
D904~D907,D912~D927	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,TP	20	SNA	
D105	0402-000137	DIODE-RECTIFIER	1N4007,1KV,1A,DO-41,TP	1	SNA	
BD71	0402-001298	DIODE-BRIDGE	DF06S,600V,1A,SMD-4,TP	1	SNA	
CD312,CD334	0406-001204	DIODE-TVS	SMBJ5.0CA,6.4/-/7.07V,600W,SMB	2	SNA	
Q201,Q202,Q441, Q601,Q602	0501-000534	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SOT-23,TP,1	5	SNA	
Q603	0501-002296	TR-SMALL SIGNAL	MMST2907A,PNP,200mW,SMT3,TP,100-3	1	SNA	
Q901,Q902,904~Q910	0504-000001	TR-DIGITAL	DTA114EKA,PNP,200mW,10K/10K,SOT-23,TP	9	SNA	
IC05~IC09	0506-000175	TR-ARRAY	2003,NPN,7,1W,SOP-16,ST,1000	5	SNA	
LED11	0601-001373	LED	ROUND,RED,3mm,630nm	1	SNA	
LED12	0601-001375	LED	ROUND,GRN,3mm,570nm	1	SNA	
LED13	0601-001377	LED	ROUND,YEL,3mm,585nm	1	SNA	
IC20	0801-000393	IC-CMOS LOGIC	74HC86,OR GATE,SOP,14,150MIL,QUAD,S	1	SNA	
IC18,IC19	1006-001312	IC-BUS TRANSCEIVER	1487,SO,8P,4.9x3.8 mm,SINGLE,S	2	SNA	
IC51	1103-001175	IC-EEPROM	93LC56,128x16,SOP,8P,5x4mm,2.5/6.0V,-40	1	SNA	
IC01	1203-000243	IC-POSI.FIXED REG.	7812,TO-220,3P,-,PLASTIC,11.5	1	SNA	
IC02	1203-000274	IC-POSI.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	1	SNA	
VA71,VA75	1405-000154	VARISTOR	560V,2500A,17.5x7.5mm,TP	2	SNA	
R10,R11,R12	2007-000023	R-CHIP	120ohm,5%,1/8W,TP,2012	3	SNA	
R204,302~307,312,313, 503,512,602,608,609, 803,804,903,911~914	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	21	SNA	
R201,205,206,207,350, 441,443,601,603,607,902	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	11	SNA	
R805	2007-000477	R-CHIP	1Mohm,5%,1/8W,TP,2012	1	SNA	
R413	2007-000613	R-CHIP	24Kohm,1%,1/8W,TP,2012	1	SNA	
R202,R610	2007-000686	R-CHIP	3.3Kohm,5%,1/8W,TP,2012	2	SNA	
R404,405,406,416,502, 509,901	2007-000766	R-CHIP	330ohm,5%,1/8W,TP,2012	7	SNA	
R611,612,613	2007-000872	R-CHIP	4.7Kohm,5%,1/8W,TP,2012	3	SNA	
R604,R605	2007-000931	R-CHIP	470ohm,5%,1/8W,TP,2012	2	SNA	
R511,R513	2007-000938	R-CHIP	47Kohm,1%,1/8W,TP,2012	2	SNA	
R401,R402,R403	2007-001067	R-CHIP	6.8Kohm,1%,1/8W,TP,2012	3	SNA	
R440	2007-001071	R-CHIP	6.8Kohm,5%,1/8W,TP,2012	1	SNA	
C302,303,312,313	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	4	SNA	
C10,102,104,12,201~203, 304~307,314~316, 401~403,413,504~506, 801,802,806,807,808, 815~819,902	2203-000192	C-CER,CHIP	100nF,+80-20%,50V,Y5V,TP,2012	32	SNA	
C301,C311	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,TP,1608	2	SNA	

■ Indoor PCB : DB93-03213E(cont.)

Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
C901	2203-000444	C-CER,CHIP	1nF,10%,50V,X7R,TP,2012,-	1	SNA	
C204,205,441,911,912, 913,914	2203-001562	C-CER,CHIP	10nF,+80-20%,50V,Y5V,TP,2012	7	SNA	
X701,X702	2301-001220	C-FILM,LEAD-PPF	100nF,10%,275V,BK,18x6x12,15	2	SNA	
C105	2401-000037	C-AL	470uF,20%,16V,GP,TP,8x11.5,5	1	SNA	
C103	2401-000711	C-AL	2200uF,20%,25V,GP,TP,16x25,7.5	1	SNA	
C101	2401-002216	C-AL	2200uF,20%,35V,GP,TP,16x25,7.5	1	SNA	
X301	2802-001179	RESONATOR-CERAMIC	4MHz,0.5%,BK,8X3X5.5mm	1	SNA	
SW02	3406-001098	SWITCH-ROTARY	240V AC,25A,6P(10C),L14mm	1	SNA	
SW05,06,07	3407-000121	SWITCH-DIP	24V,300mA,SLIDE,STANDARD	3	SNA	
RY70,71,74	3501-001154	RELAY-MINIATURE	12V,-,11.7mA,DPDT,4mS,4mS	3	SNA	
RY01	3501-001248	RELAY-POWER	12VDC,200mW,5000mA,1FormA,10mS,10mS	1	SNA	
F701_1	3601-001094	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	
F701	3602-000147	FUSE-CLIP	250V,7.5A,30mohm	2	SNA	
CN33	3711-000176	CONNECTOR-HEADER	1WALL,2P,1R,3.96mm,STRAIGHT,SN	1	SNA	
CN31	3711-000177	CONNECTOR-HEADER	1WALL,2P,1R,3.96mm,STRAIGHT,SN	1	SNA	
CN32	3711-000178	CONNECTOR-HEADER	1WALL,2P,1R,3.96mm,STRAIGHT,SN,W	1	SNA	
CN72	3711-000203	CONNECTOR-HEADER	1WALL,2P,1R,7.92mm,STRAIGHT,SN,W	1	SNA	
CN78	3711-000262	CONNECTOR-HEADER	1WALL,3P,1R,7.92mm,STRAIGHT,SN,W	1	SNA	
CN51	3711-000794	CONNECTOR-HEADER	BOX,2P,1R,2.5mm,STRAIGHT,SN	1	SNA	
CN83	3711-000796	CONNECTOR-HEADER	BOX,2P,1R,2.5mm,STRAIGHT,SN,RED	1	SNA	
CN11	3711-000880	CONNECTOR-HEADER	BOX,3P,1R,2.5mm,STRAIGHT,SN	1	SNA	
CN81	3711-000939	CONNECTOR-HEADER	BOX,4P,1R,2.5mm,STRAIGHT,SN	1	SNA	
CN41	3711-000940	CONNECTOR-HEADER	BOX,4P,1R,2.5mm,STRAIGHT,SN	1	SNA	
CN71	3711-003404	CONNECTOR-HEADER	1WALL,2P,1R,7.92mm,STRAIGHT,SN,B	1	SNA	
CN75	3711-003405	CONNECTOR-HEADER	1WALL,2P,1R,7.92mm,STRAIGHT,SN,B	1	SNA	
CN74	3711-003406	CONNECTOR-HEADER	1WALL,2P,1R,7.92mm,STRAIGHT,SN,Y	1	SNA	
CN77	3711-003407	CONNECTOR-HEADER	1WALL,2P,1R,7.92mm,STRAIGHT,SN,R	1	SNA	
CN91	3711-003845	CONNECTOR-HEADER	BOX,11P,1R,2mm,STRAIGHT,SN	1	SNA	
CN10	3711-004182	CONNECTOR-HEADER	BOX,10P,1R,2mm,STRAIGHT,SN,NTR	1	SNA	
IC04	DB09-00329C	IC MICOM	MICOM,MB90820,80P,QFP,FTP-80P-M06	1	SNA	
FT71	DB72-00032A	COIL CHOKE	SSC195140B,AC250V,215A,14mh	1	SNA	
SW04	DB34-00009A	SWITCH-DIGITAL	PT65 103,ROTARY DIP,-,DC24V MAX,0.	1	SNA	
PCB	DB41-00364A	PBA LOGIC BOARD	miniDVM_slimduct_chi,-,FR-4 ,T-1.6,-,-,220~240V,50/60Hz	1	SNA	
HEAT-SINK	DB62-03085A	HEAT SINK	-,A6063,25,15,15,-,-,SSEC	1	SNA	
SCREW	6002-000630	SCREW-TAPPING	PH,+,-,2S,M3,L8,ZPC(YEL),SWRCH18A,-	1	SNA	

■ Outdoor PCB : DB93-02919Y/T

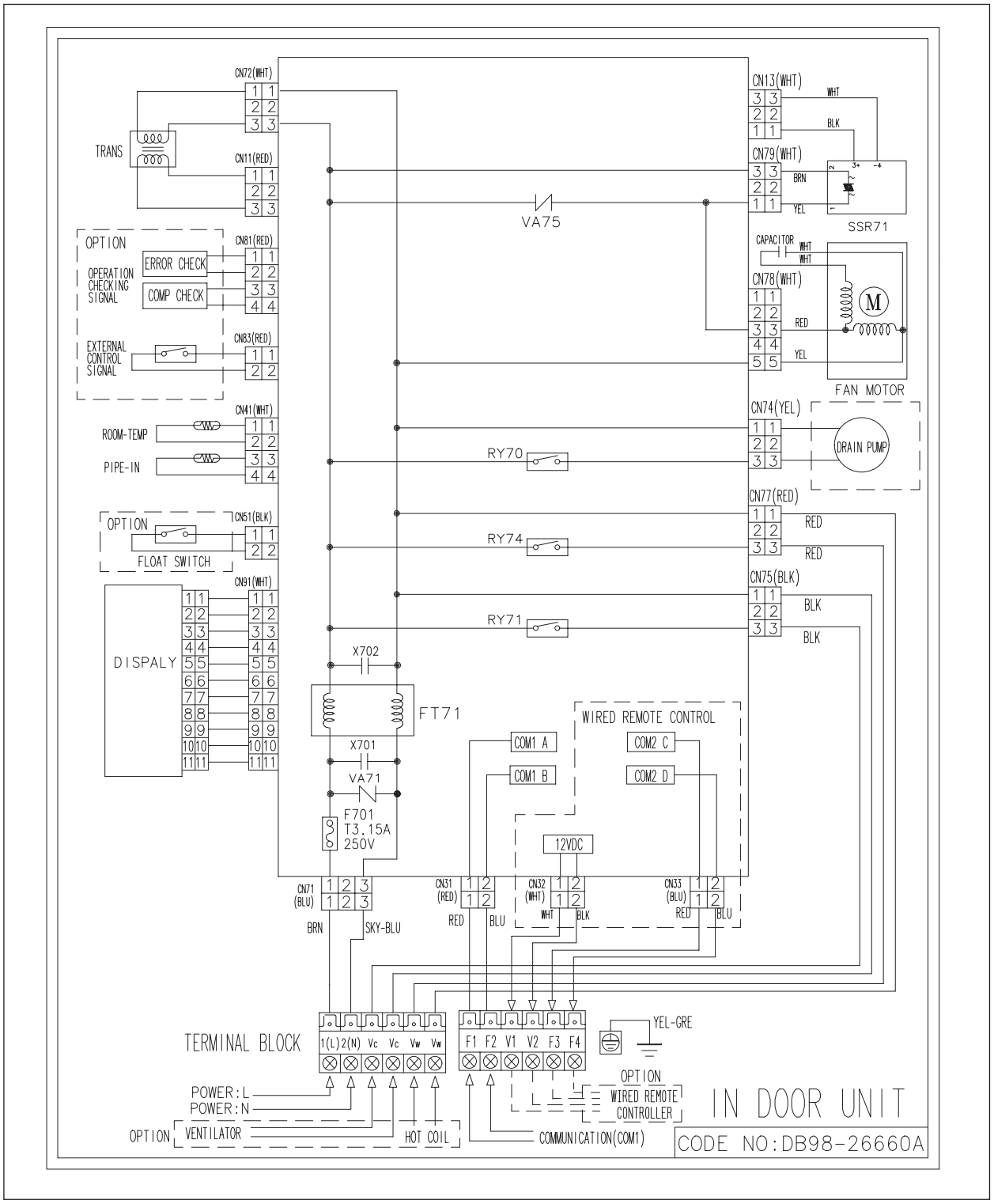
Location No.	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
C202, C301, C901~C904 C102, C104, C201, C302~C308	2203-001562	C-CER,CHIP	10nF, +80-20%,50V, Y5V, TP, 2012	6	SNA	
C401~C404, C503~C505 C801~C804, C905~C907	2203-000192	C-CER,CHIP	100nF, +80-20%,50V, Y5V, TP, 2012,	24	SNA	
R203~R205, R905~R911	2007-000468	R-CHIP	1Kohm,5%,1/8W,TP,2012	10	SNA	
R201, R302, R303, R312~R319, R407 R501~R503, R513~R517, R901~R904	2007-000300	R-CHIP	10Kohm,5%,1/8W,TP,2012	24	SNA	
R301	2007-000023	R-CHIP	120ohm,5%,1/8W,TP,2012	1	SNA	
R202	2007-000686	R-CHIP	3.3Kohm,5%,1/8W,TP,2012	1	SNA	
R404~R406, R408, R504~R506	2007-000766	R-CHIP	330ohm,5%,1/8W,TP,2012	7	SNA	
R402, R403	2007-000454	R-CHIP	18Kohm,1%,1/8W,TP,2012	2	SNA	
R401	2007-000613	R-CHIP	24Kohm,1%,1/8W,TP,2012	1	SNA	
J8, J9, J10, J22	2007-000033	R-CHIP	0ohm,5%,1/4W,DA,TP,3216	4	SNA	
D201, D901~D916	0401-000133	DIODE-SWITCHING	LL4148,100V,200MA,SOD-80C,TP	17	SNA	
Q201	0501-000534	TR-SMALL SIGNAL	2SC2412K,NPN,200mW,SOT-23,TP,1	1	SNA	
Q901~Q904	0504-000001	TR-DIGITAL	DTA114EKA,PNP,200MW,10K/10K, SOT-23,TP	4	SNA	
Q101	0504-001064	TR-DIGITAL	DTC114EKA,NPN,200MW,10K/10K, SOT-23,TP	1	SNA	
D105	0402-000137	DIODE-RECTIFIER	1N4007,1000V,1A,DO-41,TP	1	SNA	
RJ01、RJ04	2001-000068	R-CARBON	12Kohm,5%,1/4W,TP,2.4X6.5MM	2	SNA	
RJ03	2001-000588	R-CARBON	3.3Kohm,5%,1/4W,TP,2.4X6.5MM	1	SNA	
RJ02	2001-000798	R-CARBON	5.1Kohm,5%,1/4W,TP,2.4X6.5MM	1	SNA	
K5~K7、K9、K11、J1~J7、J11~J21、J23~J34	3812-001283	JUMPER	TCWA,300V,52mm(TAPPING), 1/0.6mm	38	SNA	
BD71	0402-001298	DIODE-BRIDGE	DF06S，600V/1A，SMD-4	1	SNA	
C105	2401-001397	C-AL	470uF,20%,25V,GP,TP,10x12.5mm,	1	SNA	
C101, C103	2401-000173	C-AL	1000uF,20%,35V,GP,TP,13x25,5	2	SNA	
K1~K4	3404-001220	SWITCH-PUSH	TSTB-2	4	SNA	
X501	2802-001198	RESONATOR-CERAMIC	10MHZ,0.5%,BK,8X3X5.5MM	1	SNA	
F701	3601-000297	FUSE	250V,5A,TIME-LAG,GLASS,5x20mm	1	SNA	
F101	3601-001308	FUSE	250V，1.6A,TIME-LAG,PLASTIC	1	SNA	
IC05~IC07	0506-000180	IC-DARLINGTON DRIVER	ULN2003	3	SNA	
IC01	DB62-03085A	HEAT SINK	A6063,25,15,15	1	SNA	
	6002-000630	SCREW TAPPING	MSCPHTT3*8	1	SNA	
DIS1, DIS2	DB07-00054A	LED DISPLAY-7SEG	CSD-322GLH	2	SNA	
FT71	DB27-00022A	NOISE FILTER	JL2510-0008，8mH,5A	1	SNA	
XC71、XC72	2301-001220	C-FILM	100nF,10%,275V,BK,18*6*12,15	2	SNA	
RY71, RY76	3501-001154	RELAY-MINIATURE	PCJ-112D3M，12VDC，3A	2	SNA	
RY74,RY75	3501-001163	RELAY-MINIATURE	CS11-12SH	2	SNA	
VA72, VA73	1405-000147	VARISTOR	TVR14471,470V,4500A	2	SNA	
VA71	1405-000154	VARISTOR	TVR14561,560V,4500A	1	SNA	
GT-2	3712-001062	CONNECTOR-TERMINAL	TJC4-2A,WHT,8mm	1	SNA	
PCB BOARD	DB41-00304A	PCB BOARD	FR-1，W196xH98，NO-40426A5	1	SNA	
	DB68-02809A	LABEL BAR CODE	W170，L115	1	SNA	
SW1	DB34-00009A	SWITCH-DIGITAL	RS32314	1	SNA	

■ Outdoor PCB : DB93-02919Y/T(cont.)

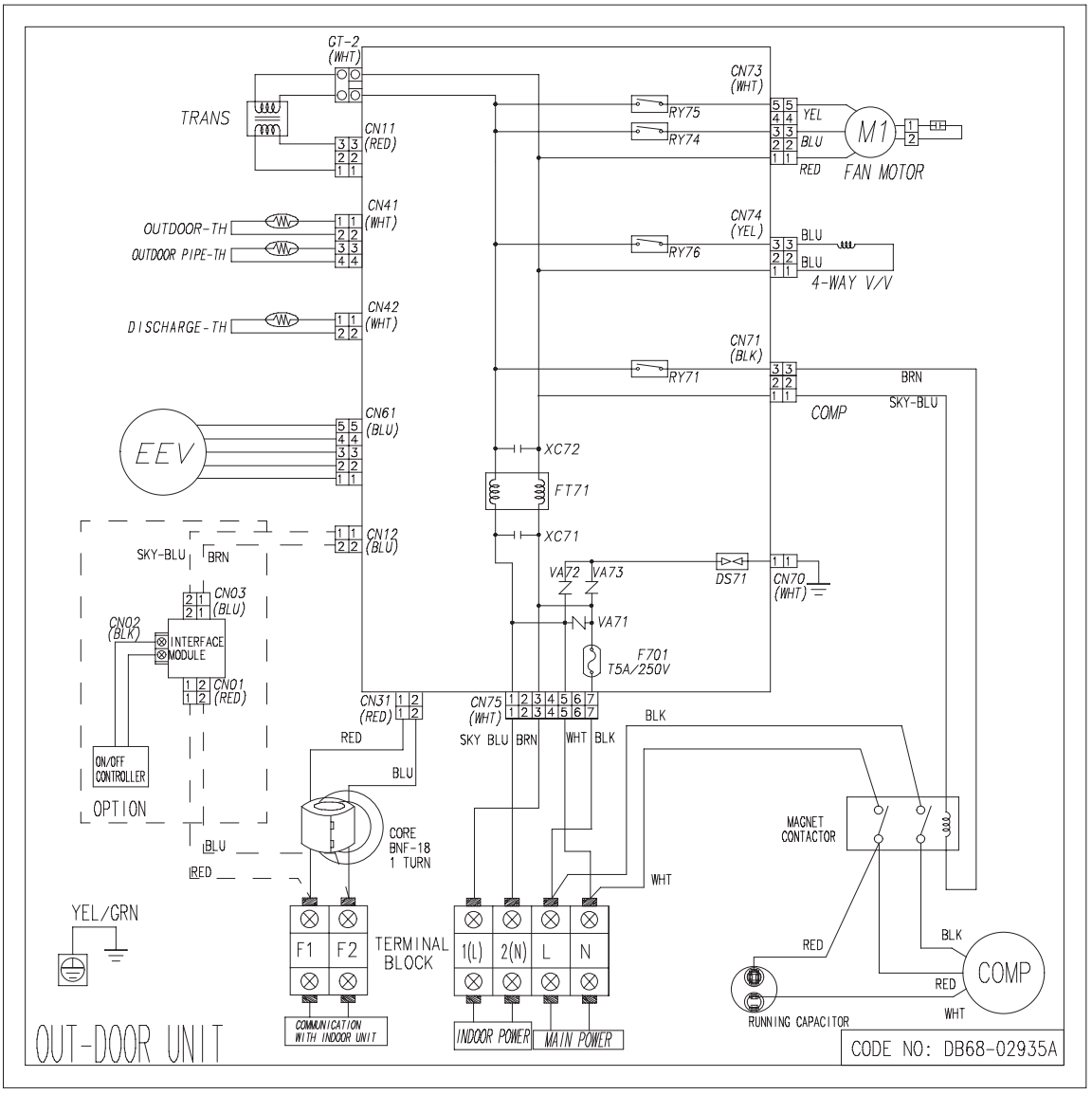
Location No .	Code No.	Description	Specification	Q'TY	SA/SNA	Remark
CN42	3711-000015	CONNECTOR-HEADER	SMW250-02,WHT,BOX,2P,1R,2.5mm,STRAIGHT,SN	1	SNA	
CN11	3711-000880	CONNECTOR-HEADER	SMW250- STRAIGHT,SN	1	SNA	
CN41	3711-000940	CONNECTOR-HEADER	SMW250-04,WHT,BOX,4P,1R,2.5mm,STRAIGHT,SN	1	SNA	
CN31	3711-000177	CONNECTOR-HEADER	YW396-02AV,RED	1	SNA	
CN12	3711-000176	CONNECTOR-HEADER	YW396-02AV,BLU,	1	SNA	
CN74	3711-003406	CONNECTOR-HEADER	YW396-03AV,YEL	1	SNA	
CN71	3711-003405	CONNECTOR-HEADER	YW396-03AV,BLK	1	SNA	
CN73	3711-000262	CONNECTOR-HEADER	YW396-05AV,WHT	1	SNA	
CN75	3711-000315	CONNECTOR-HEADER	YW396-07AV,WHT	1	SNA	
CN61	3711-001001	CONNECTOR-HEADER	B5B-XH-A,BLU,BOX,5P,1R,2.5mm,STRAIGHT,SN	1	SNA	
CN70	3711-000744	CONNECTOR-HEADER	YDW236-01,WHT,BOX,1P,1R,6MM,STRAIGHT,NI	1	SNA	
F701	DB61-00924A	FUSE HOLDER	FH-51B	1	SNA	
IC09	1006-001297	IC-BUS TRANSCEIVER	LMS485	1	SNA	
IC04	DB09-00260C	IC MICOM	MB89538AP-101,64P,+5V,10MHz,STM-0333-BC,-,8BIT,STICK,DIP,750M	1	SNA	
IC01	1203-000243	IC-POSI.FIXED REG.	KA7812A,T0-220 , 3P,-,PLASTIC,11.5/12.5V 16W,0to+125 ℃, 1A, -, ST	1	SNA	
IC02	1203-000274	IC-POSI.FIXED REG.	KA7805A,3P,-,PLASTIC,4.8/5	1	SNA	
IC03	1202-000001	IC-VOLTAGE COMP.	KA7533,TO-92,3P,-,SINGLE,-,-,PLA	1	SNA	
DS71	DB47-00016A	POSISTOR	DSA-332MA,2pF MAX,100MOhm,ASM-3500	1	SNA	
CD31,CD32	0406-001109	DIODE-TVS	SAC5.0,7.6/-/-V,500W,DO-15	2	SNA	

7. Wiring Diagram

7-1 Indoor Unit

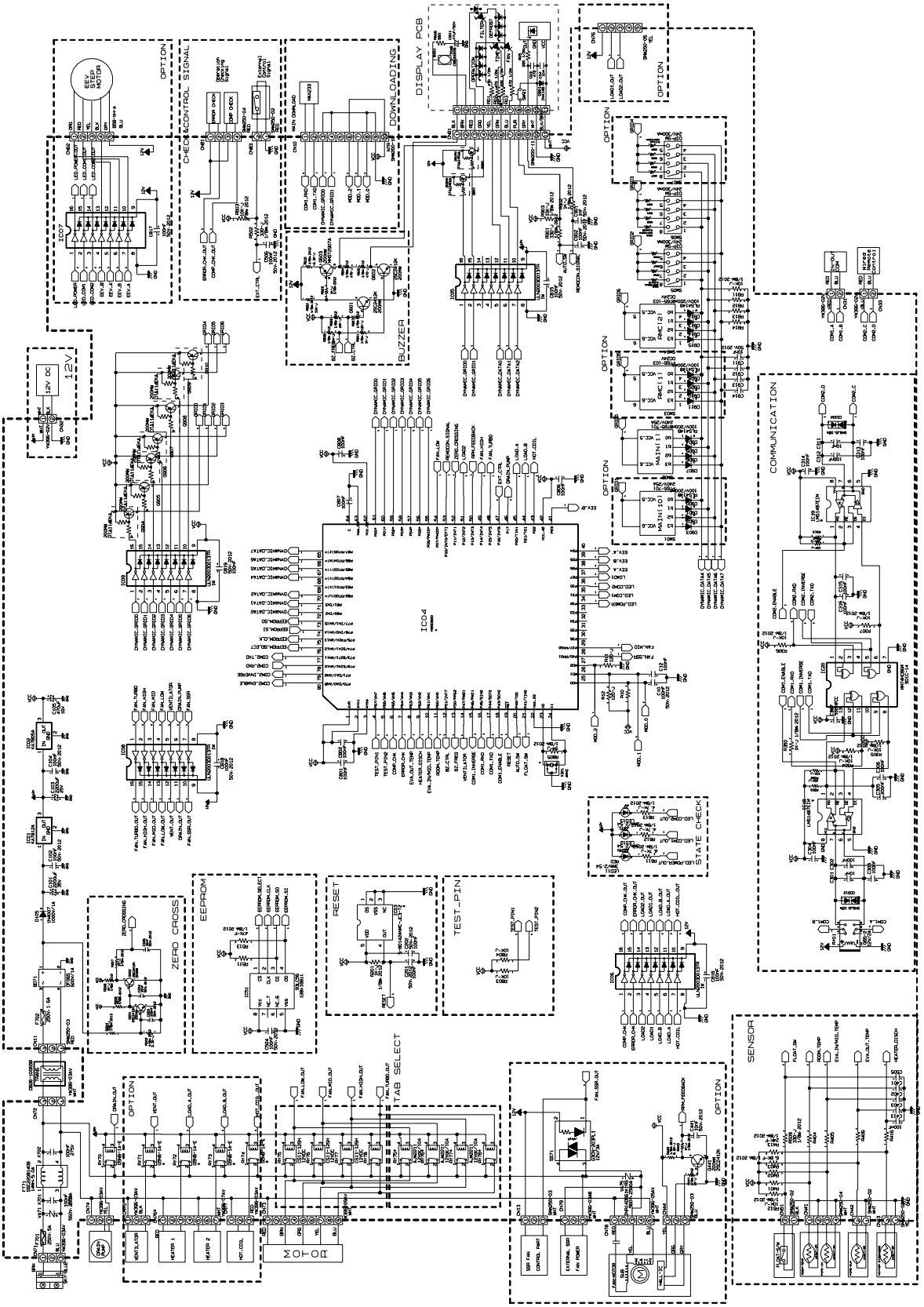


7-2 Outdoor Unit

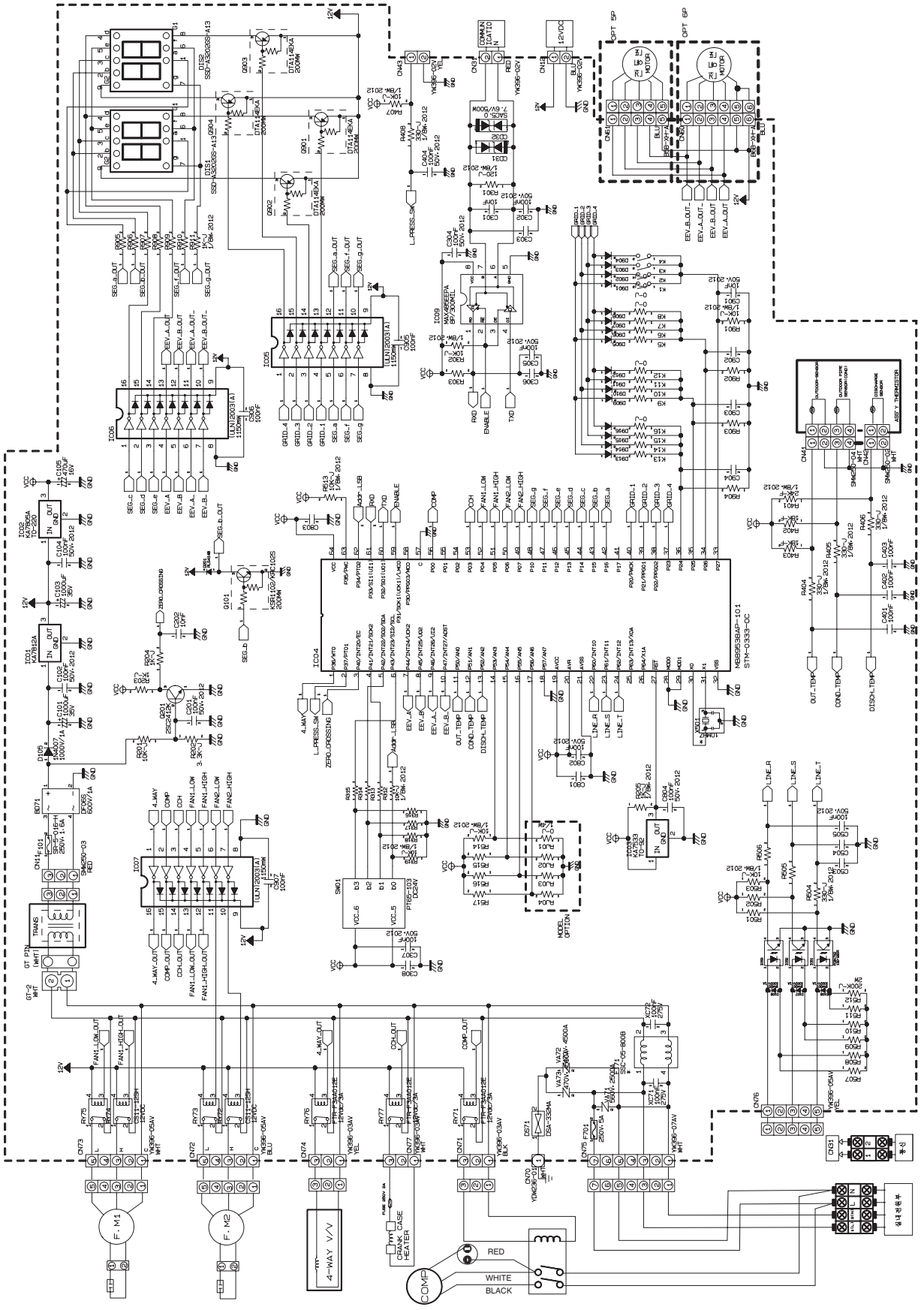


8. Schematic Diagram

8-1 Indoor Unit



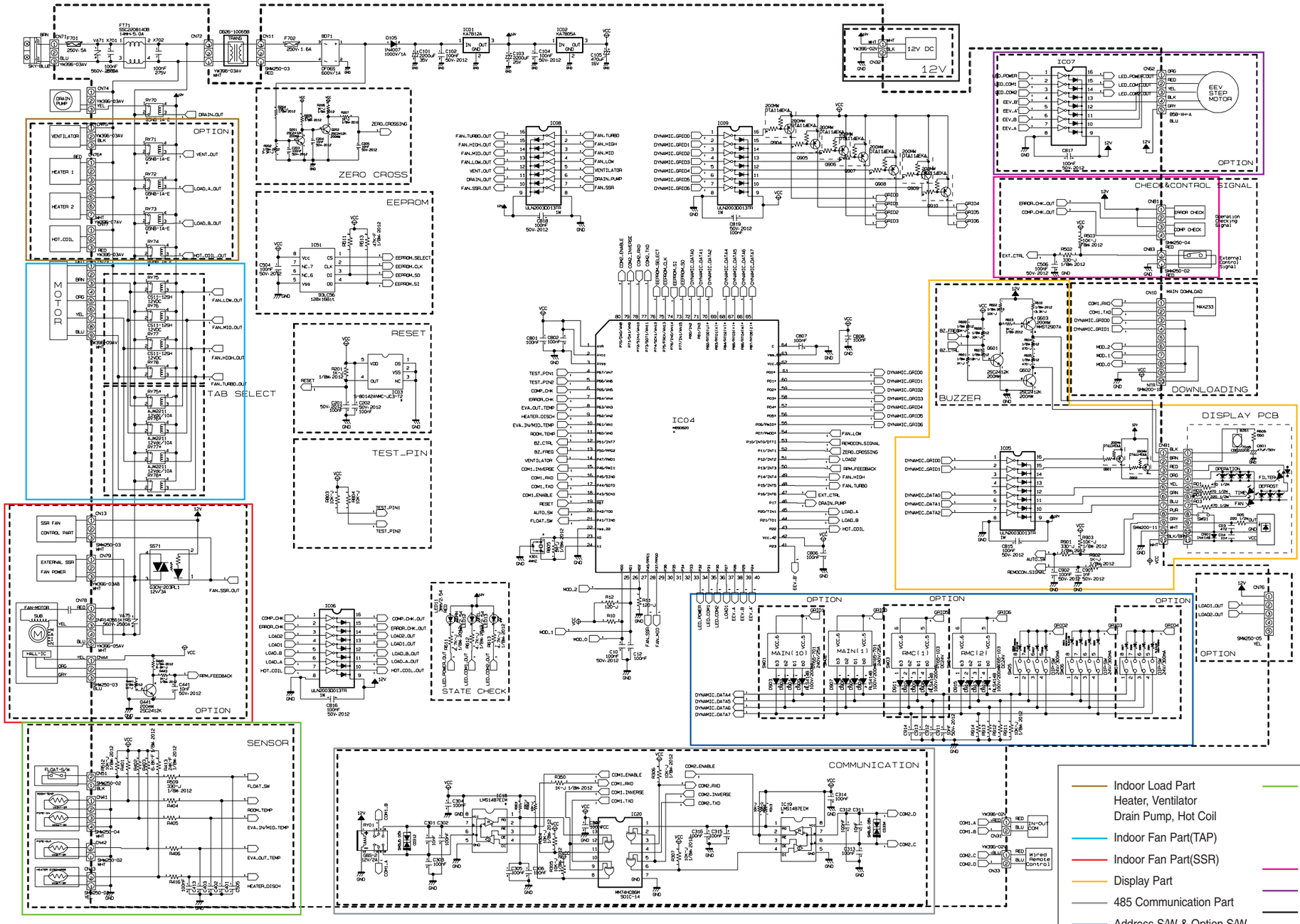
8-2 Outdoor Unit



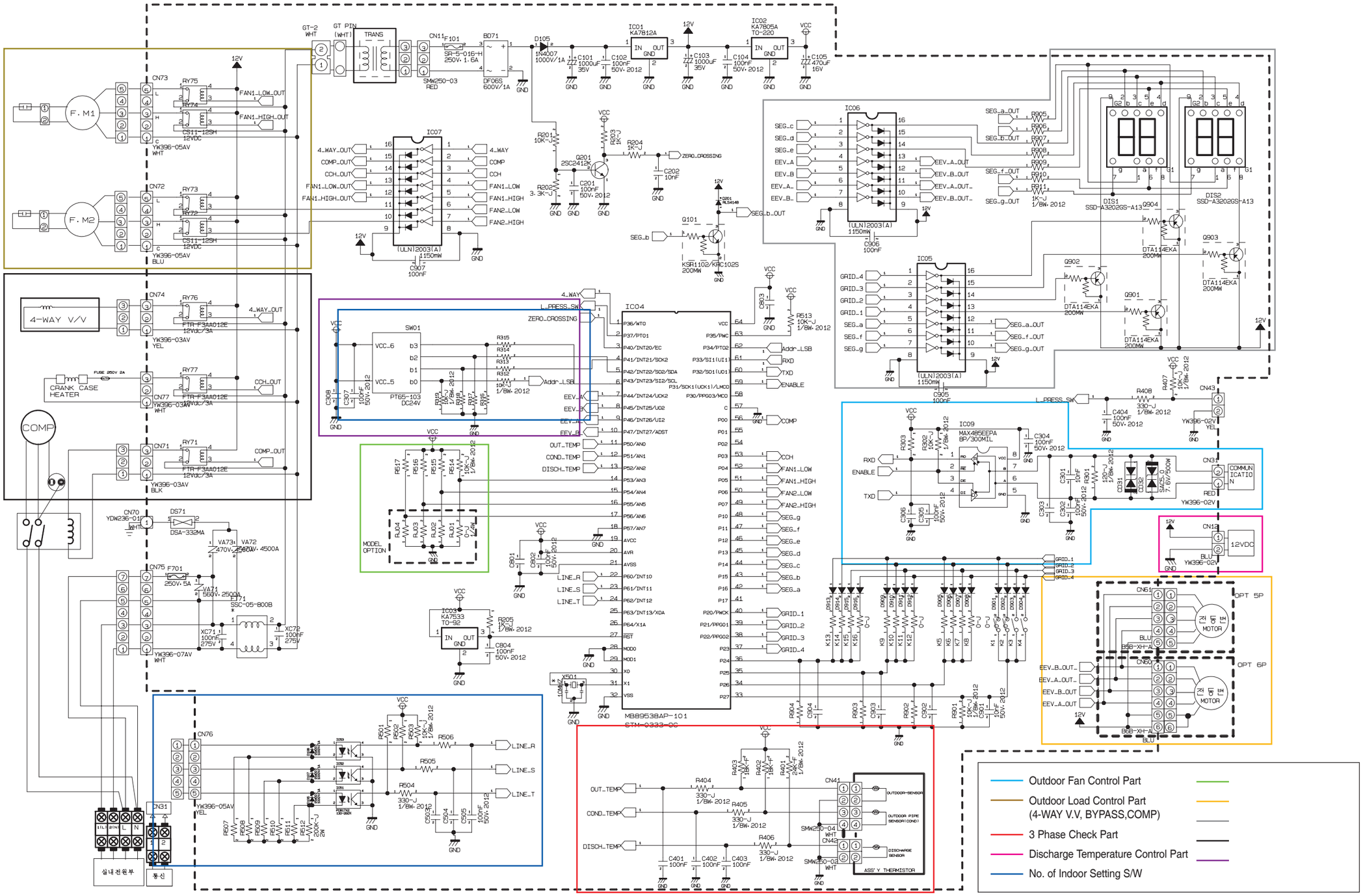
9. Circuit Descriptions

9-1 PCB Circuit Descriptions

9-1-1 Indoor Unit



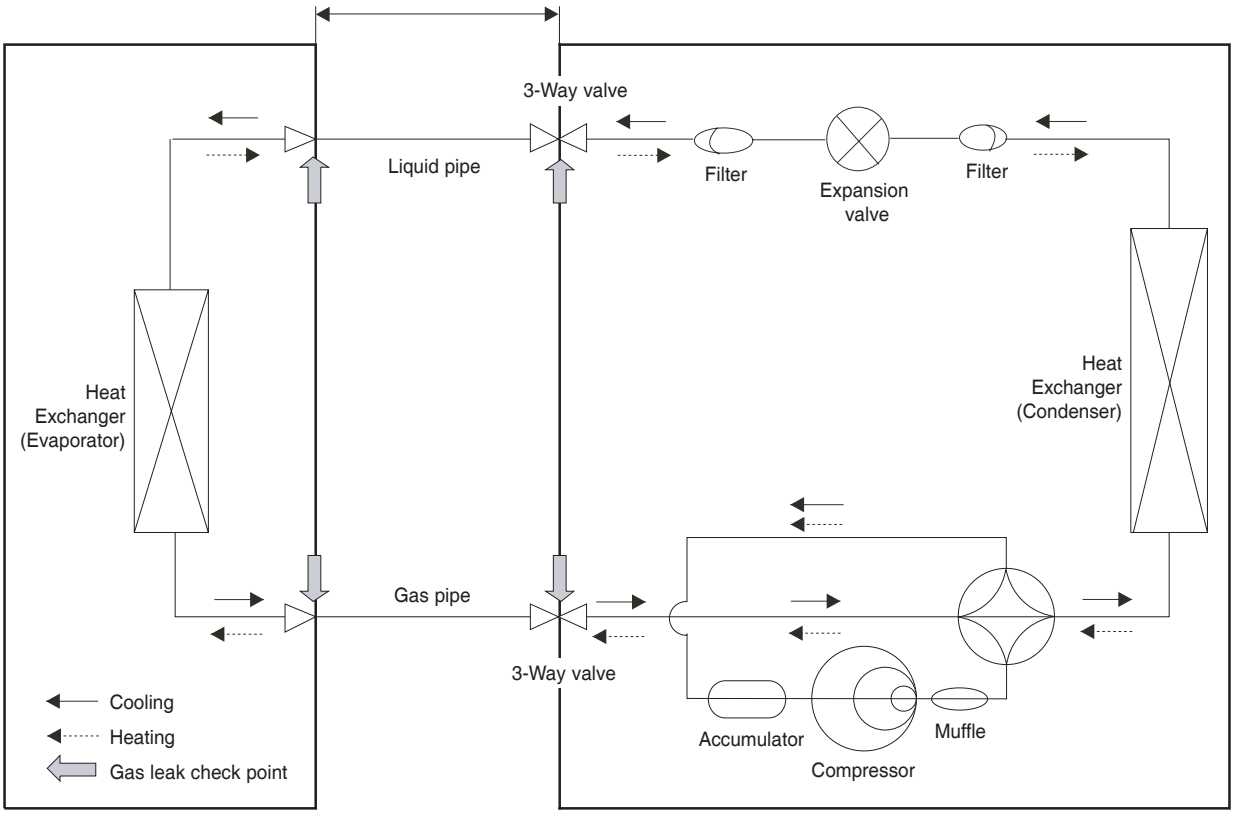
9-1-2 Outdoor Unit



9-2 Refrigerating Cycle Diagram

Indoor Unit **Outdoor Unit**

*Allowable pipe length : Max. 30m
*Allowable drop distance : Max. 15m

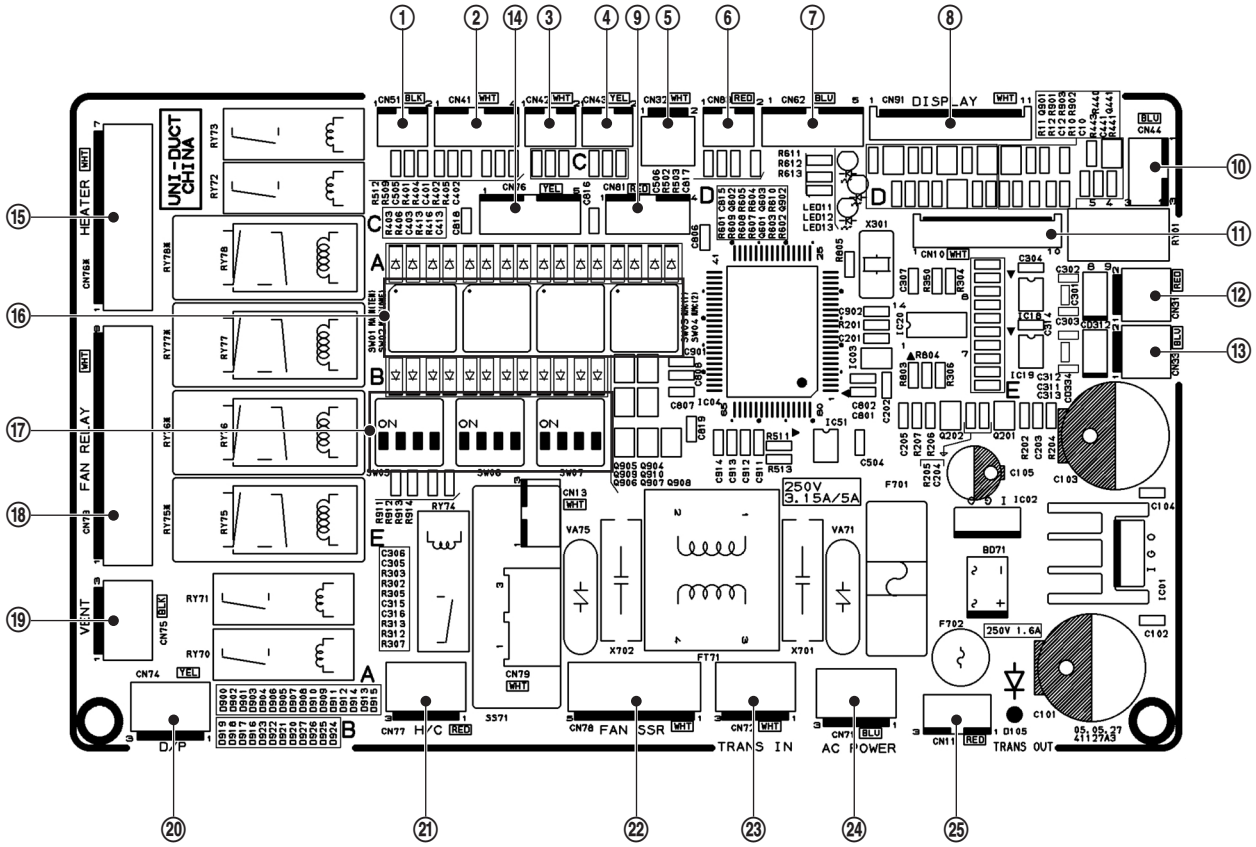


✳ Amount of refilling per extension length of 1m; When extending the pipe length by more than 7.5m,add "Q" of refrigerant for extrameter.

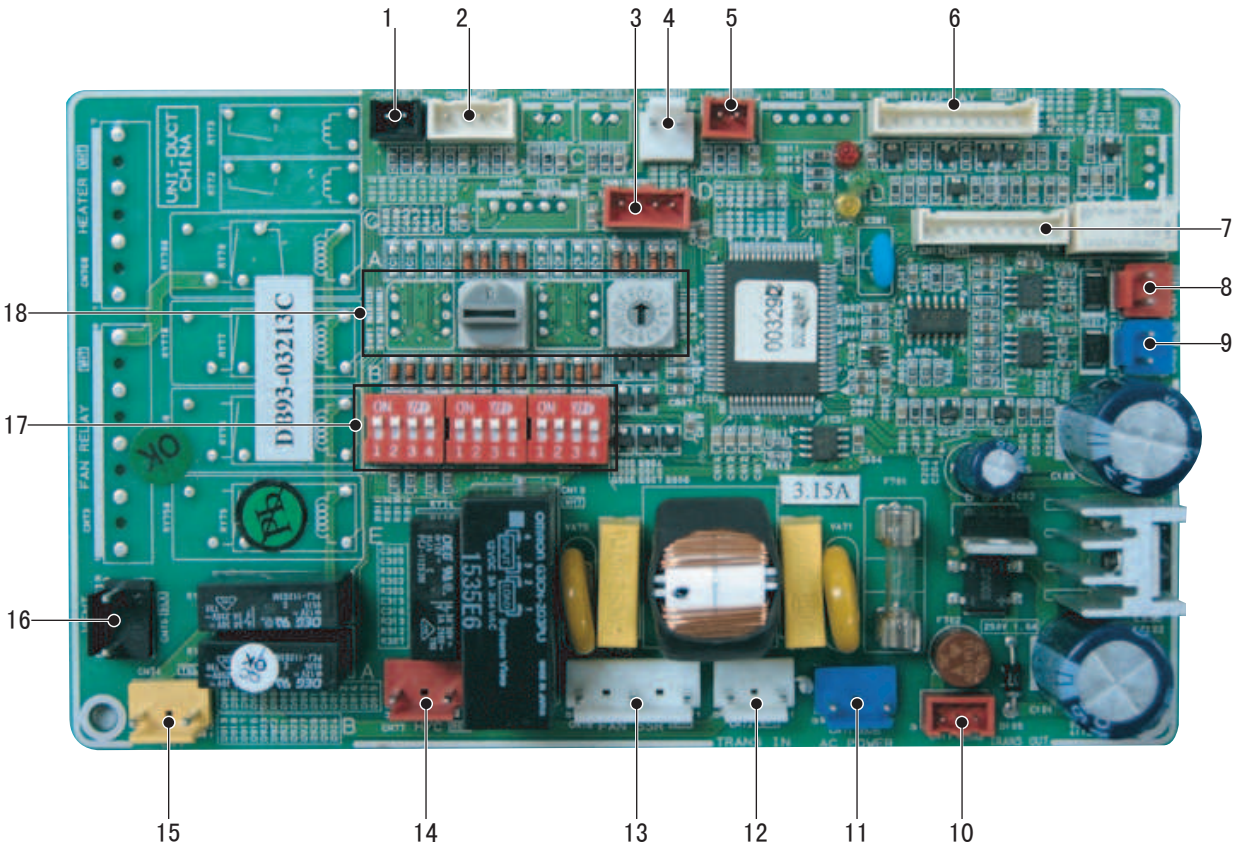
Model	"Q" (R410A)
UH052EAMC	25 g/m
UH070EAMC	40 g/m
UH094EAM1C	60 g/m

10. PCB Diagram

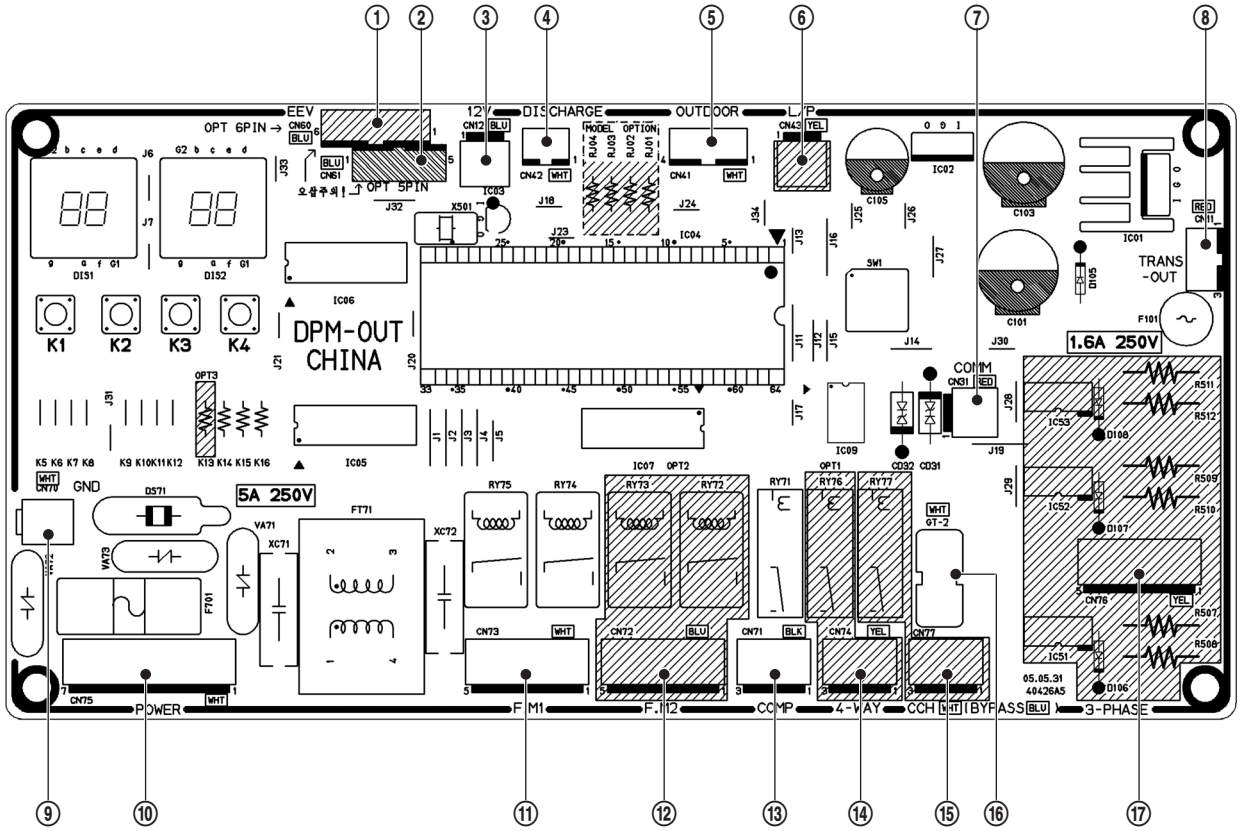
10-1 Indoor Unit



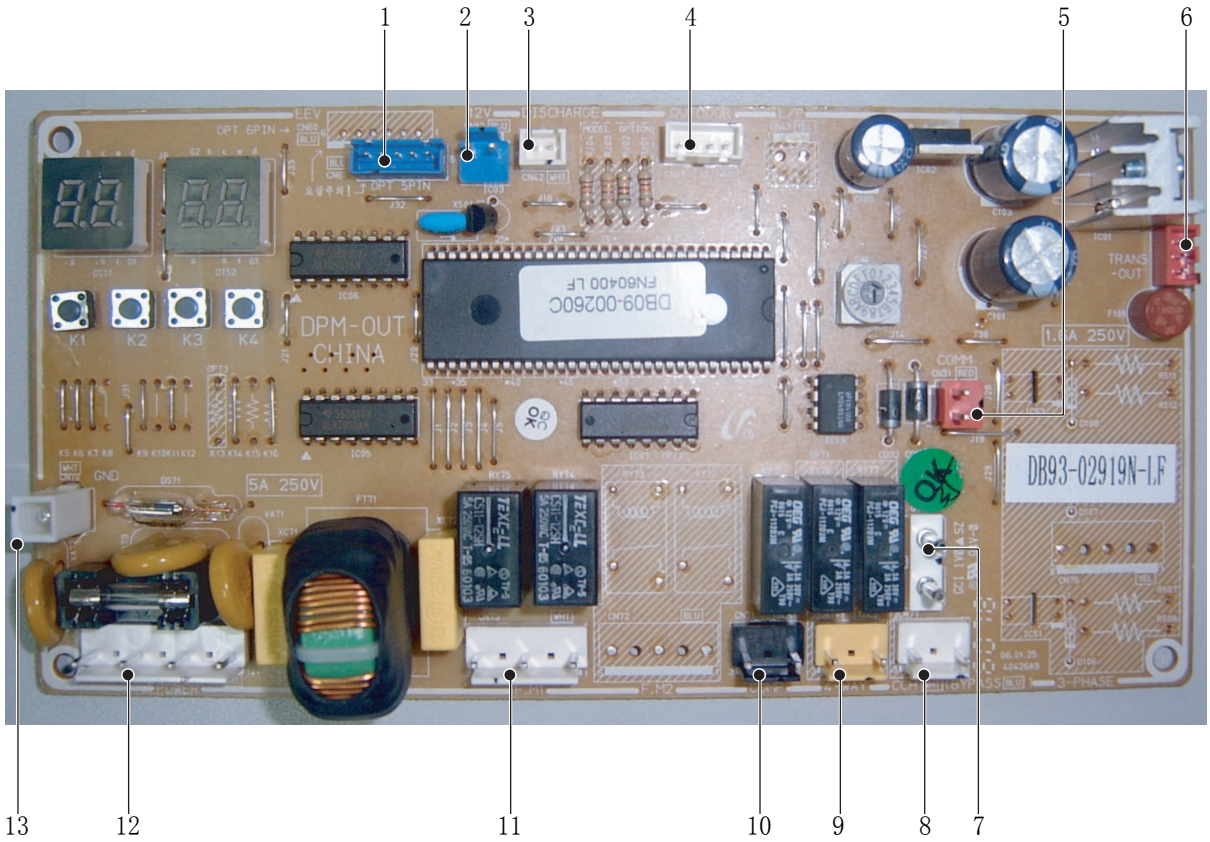
①	Floating S/W	⑬	Wired Remote Controller Communication
②	Indoor Pipe In Temperature Sensor	⑭	Option Load Connector
	Indoor Room Temperature Sensor	⑮	Heater
③	Indoor Pipe Out	⑯	Indoor Address S/W
	Temperature Sensor	⑰	Indoor Option S/W
④	Heater Discharge	⑱	Indoor Fan(TAP)
	Temperature Sensor	⑲	Ventilator
⑤	Wired Remote Controller Power	⑳	Drain Pump
⑥	External Control(S/W Part)	㉑	Hot Coil
⑦	EEV	㉒	Indoor Fan(SSR)
⑧	Display	㉓	Power
⑨	External Control(Display Part)		Transformer Out
⑩	HALL IC	㉔	Main Power In
⑪	MICOM Download	㉕	Power
⑫	Indoor/Outdoor Communication		Transformer In



1	Floating S/W : SMW250-02(BLK)	10	Transformer In : SMW250-03(RED)
2	Indoor Pipe In Temperature Sensor : SMW250-04(WHT)	11	Main Power In : YW396-03AV(BLU)
	Indoor Room Temperature Sensor : SMW250-04(WHT)	12	Power : YW396-03AV(WHT)
3	External Control(Display Part) : SMW250-04(RED)		Transformer Out : YW396-03AV(WHT)
4	Wired Remote Controller Power : YW396-02(WHT)	13	Indoor Fan(SSR) : YW396-03AV(RED)
5	External Control(S/W Part) : SMW250-02(RED)	14	Hot Coil : YW396-03AV(RED)
6	Display : SMW200-11(WHT) : SMW200-11(WHT)	15	Drain Pump : YW396-03AV(YEL)
7	MICOM Download : SMW200-10(WHT)	16	Ventilator : YW396-03AV(BLK)
8	Indoor/Outdoor Communication : YW396-02(RED)	17	Indoor Address S/W
9	Wired Remote Controller Communication : YW396-02(BLU)	18	Indoor Option S/W



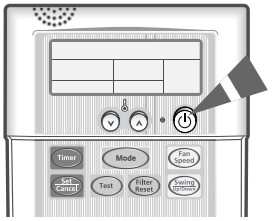
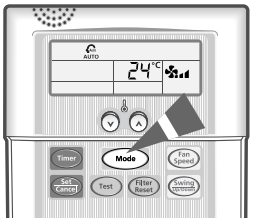
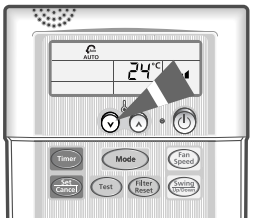
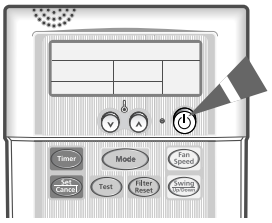
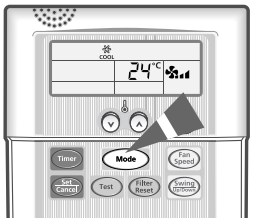
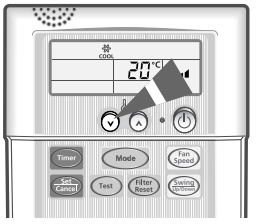
①	EEV(2,000 Step)	⑨	GROUND
②	EEV(480 Step)	⑩	Main Power In
③	Transmitter Power(12V)	⑪	Outdoor Fan 1
④	Discharge Temperature Sensor	⑫	Outdoor Fan 2
⑤	Outdoor Temperature Sensor	⑬	Compressor Output
	Outdoor Pipe Temperature Sensor	⑭	4-Way Valve Output
⑥	Low Pressure S/W	⑮	Bypass
⑦	Communication	⑯	Transformer In
⑧	Transformer Out	⑰	3 Phase Check



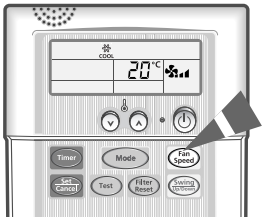
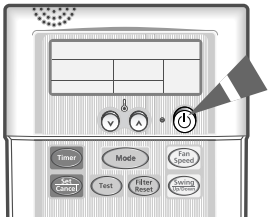
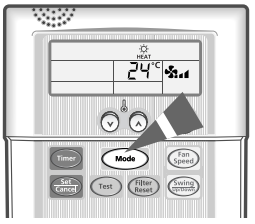
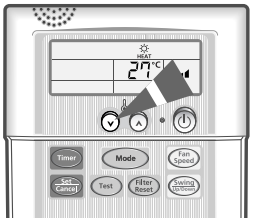
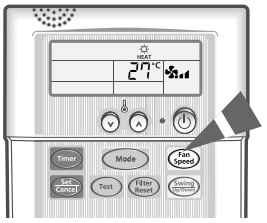
1	EEV(480 Step) : B5B-XH-A(BLU)	7	Transformer In : GT-2(WHT)
2	Transmitter Power(12V) : YW396-02V(WHT)	8	Bypass : YW396-03AV(WHT)
3	Discharge Temperature Sensor : SMW250-02(WHT)	9	4-Way Valve Output : YW396-03AV(YEL)
4	Outdoor Temperature Sensor : SMW250-04(WHT)	10	Compressor Output : YW396-03AV(BLK)
	Outdoor Pipe Temperature Sensor : SMW250-04(WHT)	11	Outdoor Fan 1 : YW396-05AV(WHT)
5	Communication : YW396-02V(RED)	12	Main Power In : YW396-07AV(WHT)
6	Transformer Out : SMW250-03(RED)	13	GROUND : YDW236-01(WHT)

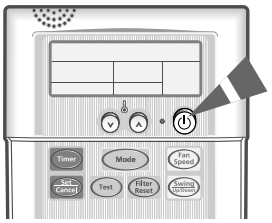
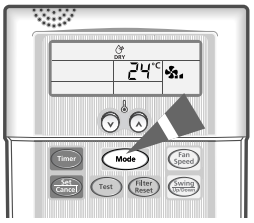
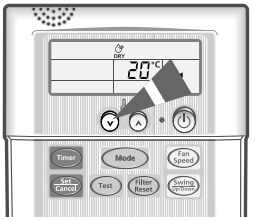
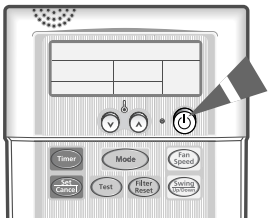
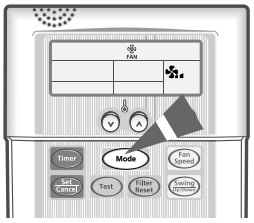
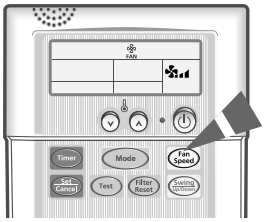
11. Operating Instruction and Installation

11-1 Main Function

Mode	Explanation	Remark
Selecting the Automatic Operating Mode	1. If necessary, press (ON/OFF) button.	
	2. To select the AUTO mode, press the Mode button until AUTO 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 Mode button until COOL 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.	

Main Function (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 HEAT 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 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	

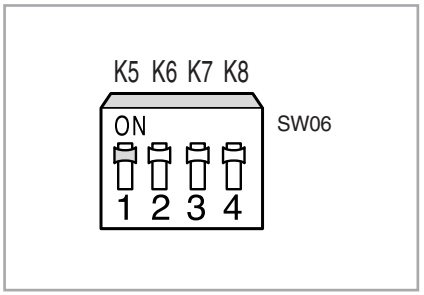
Mode	Explanation	Remark
Removing Excess Humidity	1. If necessary, press (ON/OFF) button.	
	2. To select the DRY mode, press the Mode button until DRY is displayed at the top of the wired remote controller.	
	3. To adjust the temperature, press the ∨ ∧ buttons one or more times until the required temperature 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 Mode button until FAN is displayed at the top of the wired remote controller.	
	3. Select the fan speed by pressing the Fan Speed button one or more times until the intended value is displayed: Low Medium High	

11-2 Additional Function

■ Compensation for lost temperature in heating operation

• Reduces the difference between an actual room temperature and a sensed temperature by the air conditioner when heating.

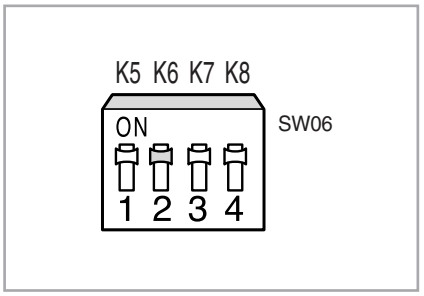
Switch No.	Switch ON	Switch OFF
K5	2˚C compensation	5˚C compensation



■ Adjusting filter cleaning cycle

• You can adjust the cycle for filter sign indicator.

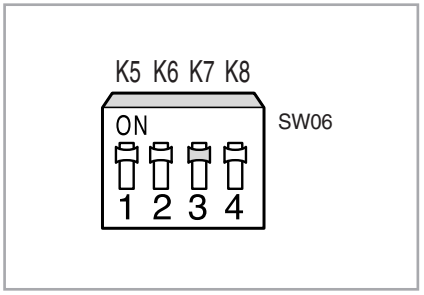
Switch No.	Switch ON	Switch OFF
K6	1,000 hours	2,000 hours



■ Hot water heater

• You must adjust the K7 when you install the hot water heater.

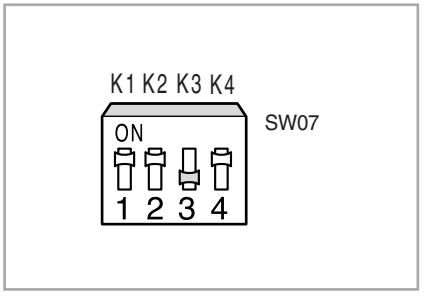
Switch No.	Switch ON	Switch OFF
K7	No use of hot water heater	Use of hot water heater



■ External Control

• You must adjust the K11 when you use external control.

Switch No.	Switch ON	Switch OFF
K11	No use of external control	Use of external control

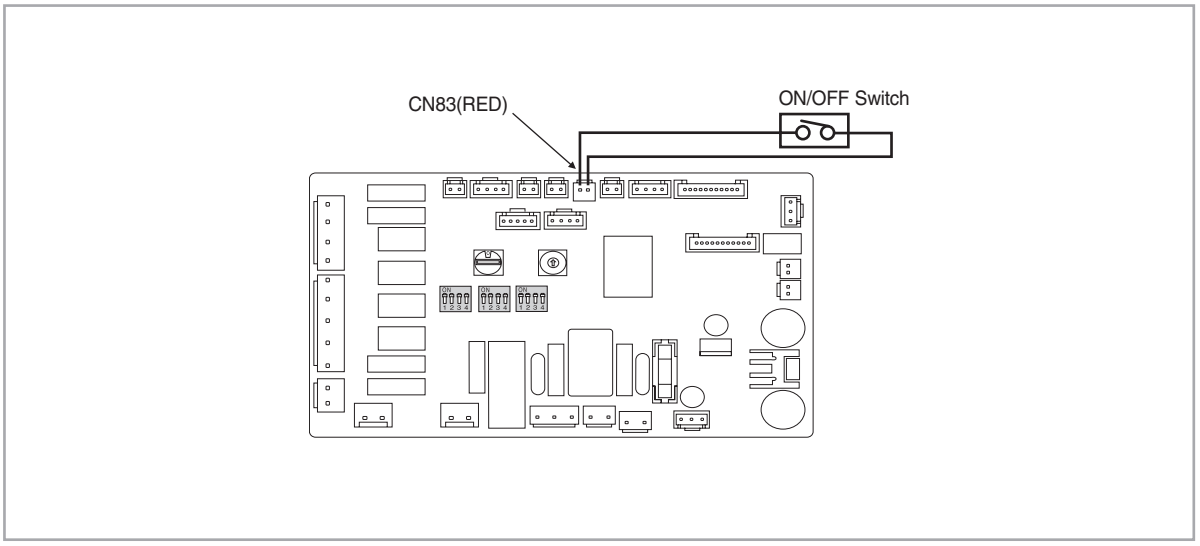


■ External Control (cont.)

• You can use external control when the K11 switch is turned off.

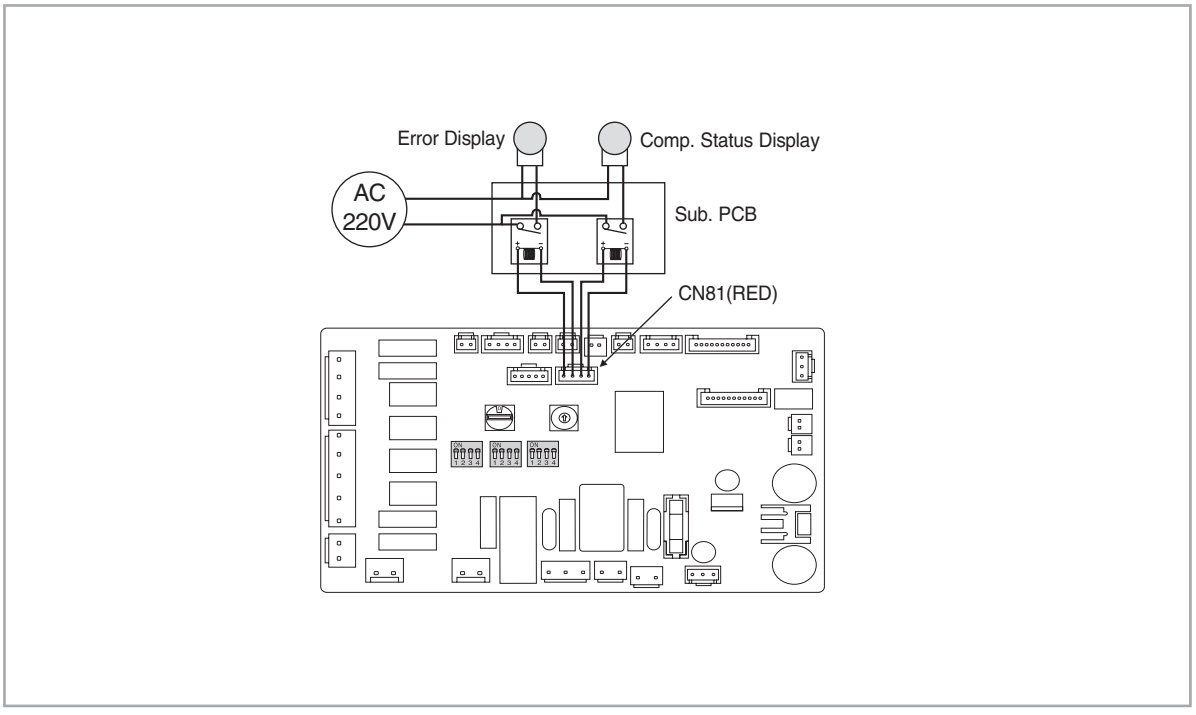
<Operation ON/OFF Function>

Connector No.	SHORT	OPEN
CN83(RED)	Operation ON	Operation OFF

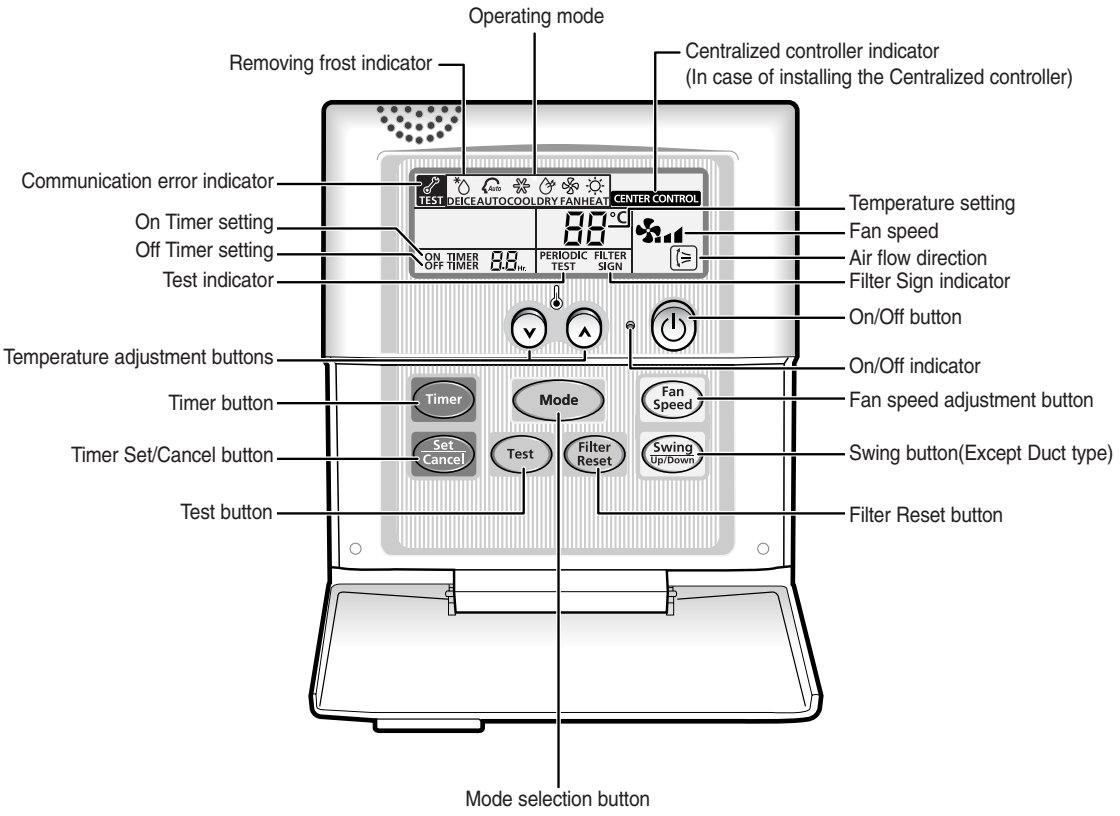


<Operation State Display>

Connector No.	Function
PIN #1 and #2 of CN81(RED)	+12V Out if any error occurs
PIN #3 and #4 of CN81(RED)	+12V Out when the compressor is operating



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.

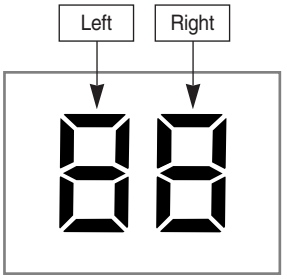
• Duct type air conditioner does not have function of adjusting air flow direction. Therefore, the function is not operated even if you press the (Swing Up/Down) button.

12. Troubleshooting

12-1 Operation Specification

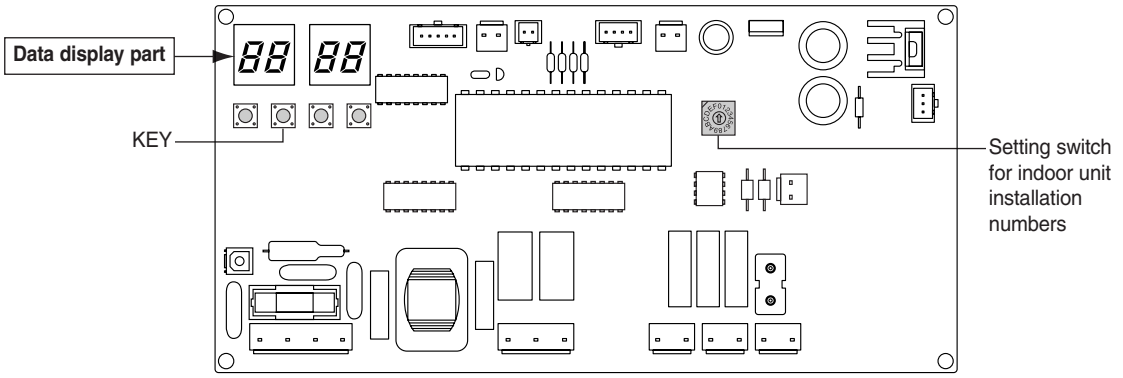
12-1-1 Tracking process marked on display part

- Left numeral is an address that outdoor unit transfers communication.
  0 - 1 - 2 - 3 ... - F (Calling indoor unit)
- Right numeral marks address that is answered.
- During the tracking, left calls indoor unit through
  0 - 1 - 2 - 3 ... - d - E - F and checks. At this time connected indoor unit set on " 0 " and the indoor unit set 0 address marked on right.
  Right side mark is marked by when left side is 0 .
  (If SW02(MAIN) that set indoor unit address is controlled to " 0 ", indoor unit number marked on outdoor unit is marked by " 0 ".)



DISPLAY PART (DS1)

12-1-2 Option set part for Outdoor unit PCB



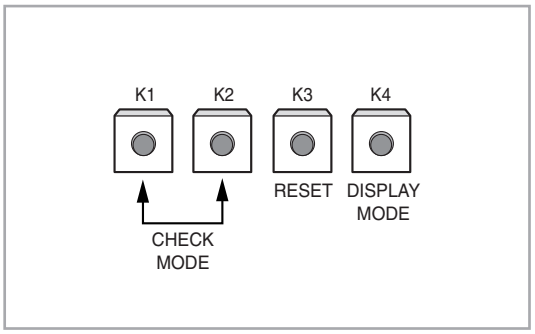
■ **Setting switch for indoor unit installation numbers**

Counts of Indoor Unit Installation	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Numbers of the switch	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F

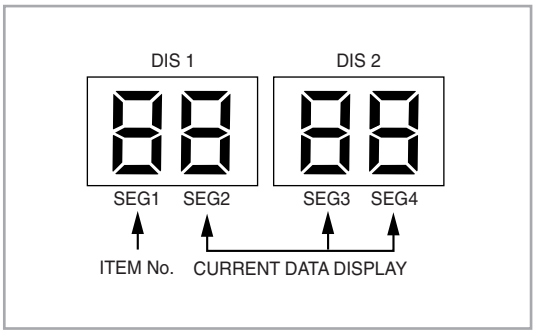
● Example : When the installed indoor unit is one, control the arrow of switch forward to '0' or '1' as figure.

12-1-3 Setting Up Option Switches

■ **KEY**



■ **Display**



■ **Summary of KEY functions**

Function / Number of press times	K1 (Displayed on SEG 3, 4)	K2 (Displayed on SEG 3, 4)	K3 (Displayed on SEG 3, 4)	K4 (Displayed on SEG 3, 4)
1	Adding refrigerant at heating mode	Adding refrigerant at cooling mode	Reset	Displays data
2	Test operation at heating mode	Test operation at cooling mode	-	-
3	End	Pump Down for recovery of refrigerant	-	-
4	-	End	-	-

✳ Use the K1 only for heat pump models.

12-2 Troubleshooting

12-2-1 Wired remote controller display error occurring

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

Display	Description	Remarks
416	Compressor down due to protection control of the discharge temperature sensor	Error about protection control of the outdoor unit
450	Control due to the condenser temperature sensor when cooling mode	
554	In removing frost	
221	Error of the outdoor temperature sensor (Open/Short)	Error about the outdoor unit sensor (Open/Short) Detection during the operation of the indoor unit (sensing and sending errors into the communication data)
237	Error of condenser temperature sensor (Open/Short)	
251	Error of discharge temperature sensor (Open/Short)	
101	Error of the indoor unit	Communication and the indoor unit errors
201	- System down caused by communication error after completion of tracking - Mismatching of the indoor unit numbers set with those communication after completion of 5 times tracking	
421	Error of temperature sensor in the indoor unit (Open/Short)	Self-diagnosis of the indoor and outdoor unit
422	Error of the heat exchanger sensor in the indoor unit (Open/Short)	
153	Second inspection for Float Switch	
162	Error of the EEPROM	
163	Option set_up error	
422	Error of electronic expansion valve close in the outdoor unit (when it is detected more than once)	
601	Error of communication between the indoor unit and the wired remote controller	Wired remote controller errors
602	Master wired remote controller ↔ Slave wired remote controller	
606	COM1/COM2 Cross-installed error	
EA	Error of setting option for wired remote controller COM2	

12-2-2 LED Display on the receiver & display unit

- If an error occurs during the operation, an LED flickers and the operation is stopped except the LED.
- If you re-operate the air conditioner, it operates normally at first, then detect an error again.
- If you turn off the air conditioner when the LED is flickering, the LED is also turned off.

■ LED Display

Error type	LED lamp display					Remarks
	Concealed Type					
	Blue	Red				
	Standard Type					
Power reset	◑	×	×	×	×	
Error of temperature sensor in the indoor unit (Open/Short)	×	×	◑	×	×	
Error of heat exchanger sensor in the indoor unit	◑	×	◑	×	×	
Error of the outdoor temperature sensor Error of the condenser temperature sensor Error of the discharge temperature sensor	◑	×	×	◑	×	
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	×	×	◑	◑	×	1. Indoor unit error (Display is unrelated with operation) 2. Outdoor unit error (Display is unrelated with operation)
Communication error between indoor units	◑	×	×	×	◑	
1. Error of electronic expansion valve close 2. Error of electronic expansion valve open	×	×	◑	◑	◑	
Detection of the float switch	×	×	×	◑	◑	
Error of setting option switches for optional accessories	×	×	◑	×	◑	
EEPROM error	◑	×	◑	◑	×	
EEPROM option error	◑	◑	◑	◑	◑	

● : On ◑ : Flickering × : Off

12-2-3 Outdoor Unit

If an error occurs during the operation, it is displayed on the outdoor unit PCB.

Display	Explanation	Remark
Er↔P0	High temperature of Discharge (Protection control)	Error about protection control of outdoor unit
Er↔P1	High temperature of outdoor heat exchanger (Protection control)	
Er↔P5	COMP DOWN to protect being frozen	
Er↔P6	Error of momentary power failure(Disappears when the unit is Off/On)	
Er↔t1	Error of OUT TEMP sensor (OPEN/SHORT)	Errors about outdoor unit sensor (OPEN/SHORT) Detection during the operation of indoor unit (Sensing and sending errors into the communication data)
Er↔t2	Error of temperature sensor in outdoor heat exchanger (OPEN/SHORT)	
Er↔t3	Error of Discharge TEMP sensor (OPEN/SHORT)	
Er↔E1	System Down caused by communication error after completion of tracking	Communication and indoor unit errors
Er↔E3	Error of float switch in indoor unit	Self-diagnosis of indoor and outdoor unit (x:indoor unit address)
Er↔E5	Error of setting option switches for optional accessories	
Er↔9x	OPEN/SHORT error of room sensor in indoor unit	
Er↔rx	OPEN/SHORT error of eva in sensor in indoor unit	
Er↔Ux	EEPROM option error	Displays of operating status
Er↔ux	Error of fan starting	
Er↔U5	Close error of electronic expansion valve in outdoor unit (Detected once or more times)	
tU Flicker	Below -5°C when cooling (Outdoor temperature)	
t0 Flicker	Over 30°C when heating (Outdoor temperature)	
K1, K2, K3, K4, K5 Flicker		

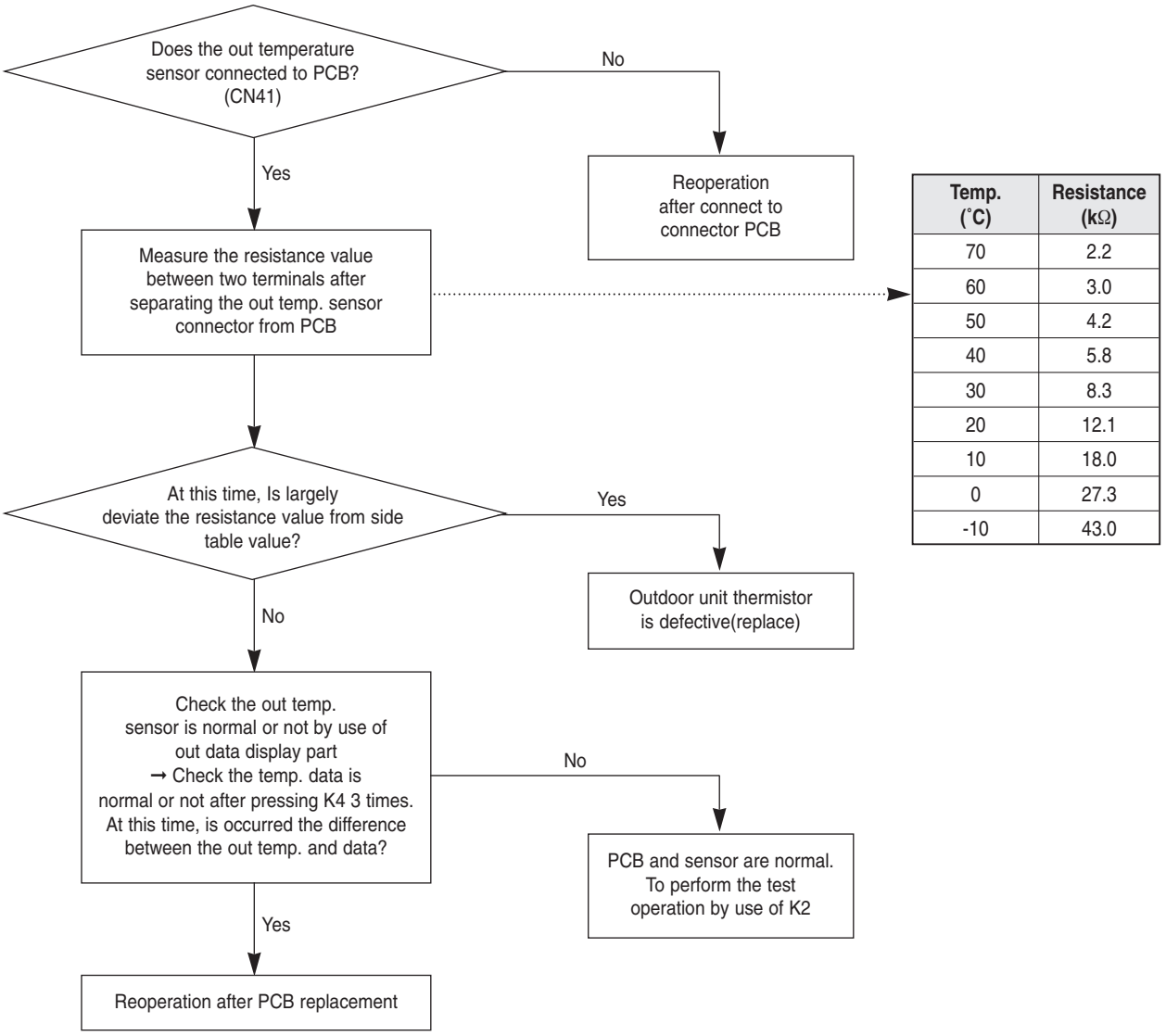
The order of priority : E1 → E2 → E3 → E5 → P0 → P1 → P4 → P5 → P9 → t1 → t2 → t3 → tu → to → G4 → G5 → E3 → qx → rx → vx → K1, K2, K3, K4, K5

- In case that the same error displays from multi-indoor units, the one having the faster address has the priority.

12-3 Sequence for trouble diagnosis

12-3-1 Outdoor temp. sensor(OPEN/SHORT)

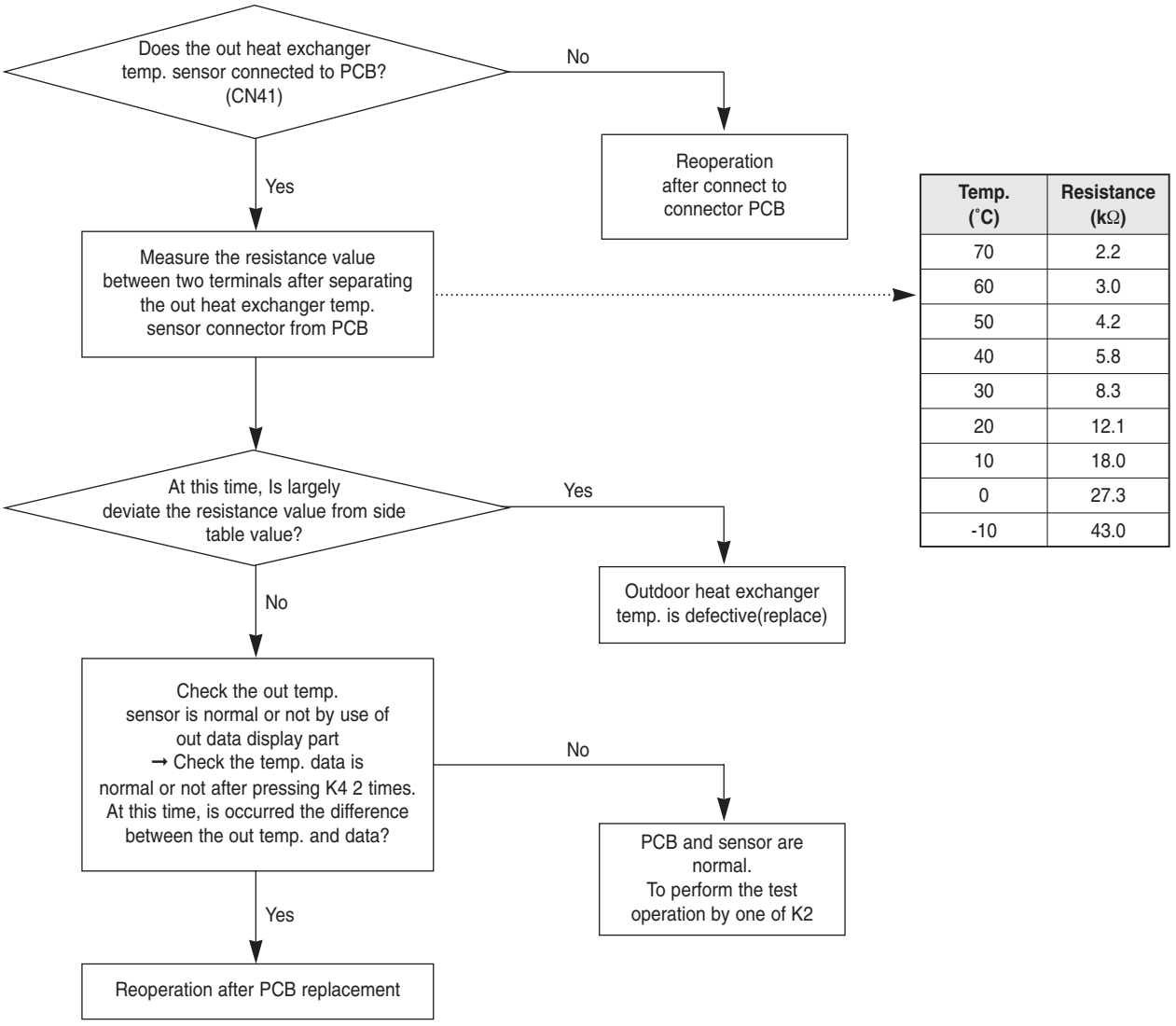
Outdoor unit display	Er→t 1 **(Outdoor temp. sensor OPEN/SHORT error)**
Indoor unit display	◑ (Operation) × (Timer) ◑ (Airflow) × (Filter)
How to determine	Disconnection and short of outdoor temp. sensor
Reason of error	Disconnection or leak of applied sensor



Temp. (˚C)	Resistance (kΩ)
70	2.2
60	3.0
50	4.2
40	5.8
30	8.3
20	12.1
10	18.0
0	27.3
-10	43.0

12-3-2 Outdoor heat exchanger temp. sensor error(OPEN/SHORT)

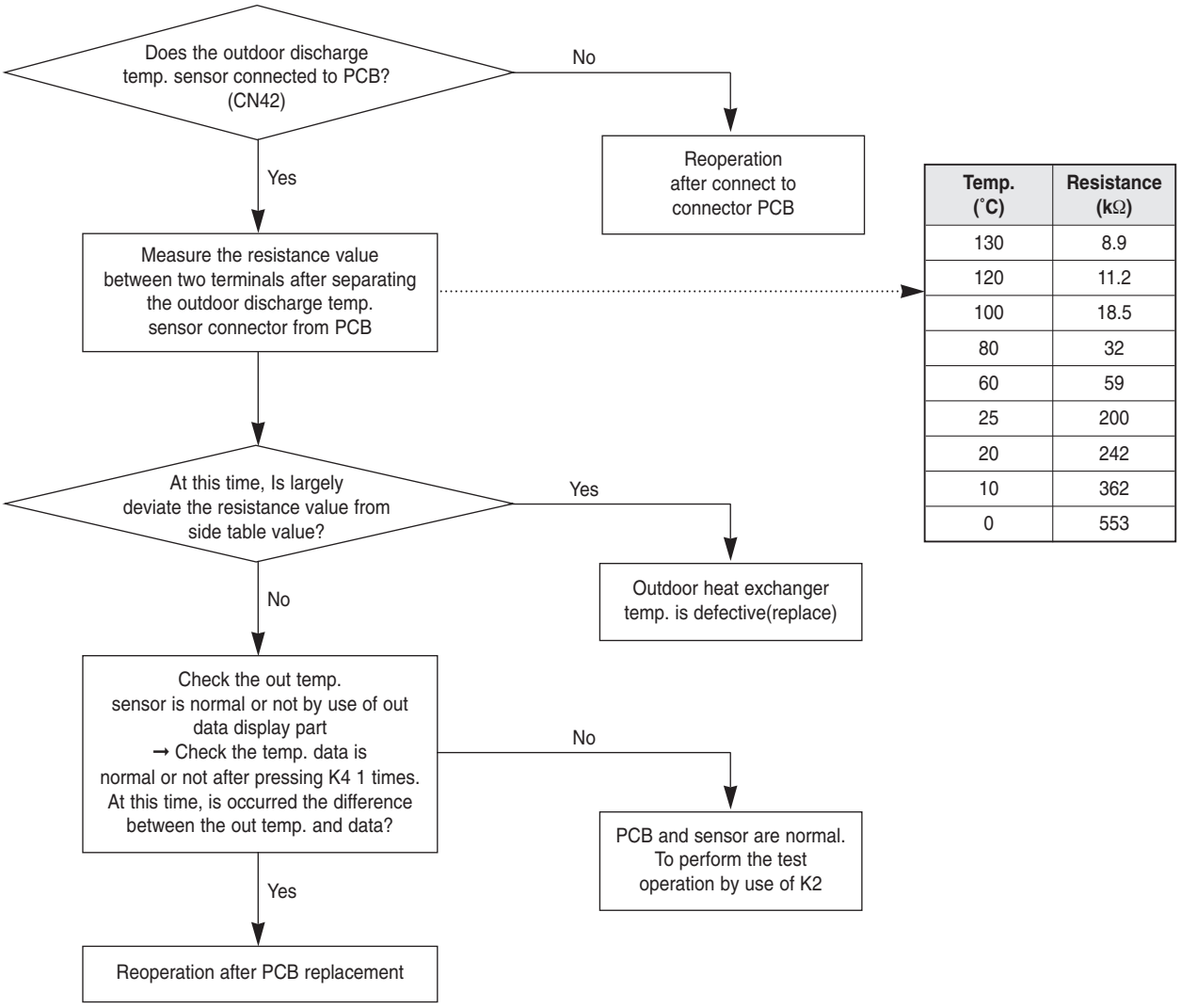
Outdoor unit display	Er→E2 **(Outdoor heat exchanger temp. sensor error(OPEN/SHORT)**
Indoor unit display	◑ (Operation) × (Timer) ◑ (Airflow) × (Filter)
How to determine	Disconnection and short of outdoor heat exchanger temp. sensor
Reason of error	Disconnection or leak of Applied sensor



Temp. (˚C)	Resistance (kΩ)
70	2.2
60	3.0
50	4.2
40	5.8
30	8.3
20	12.1
10	18.0
0	27.3
-10	43.0

12-3-3 Outdoor discharge temp. sensor error(OPEN/SHORT)

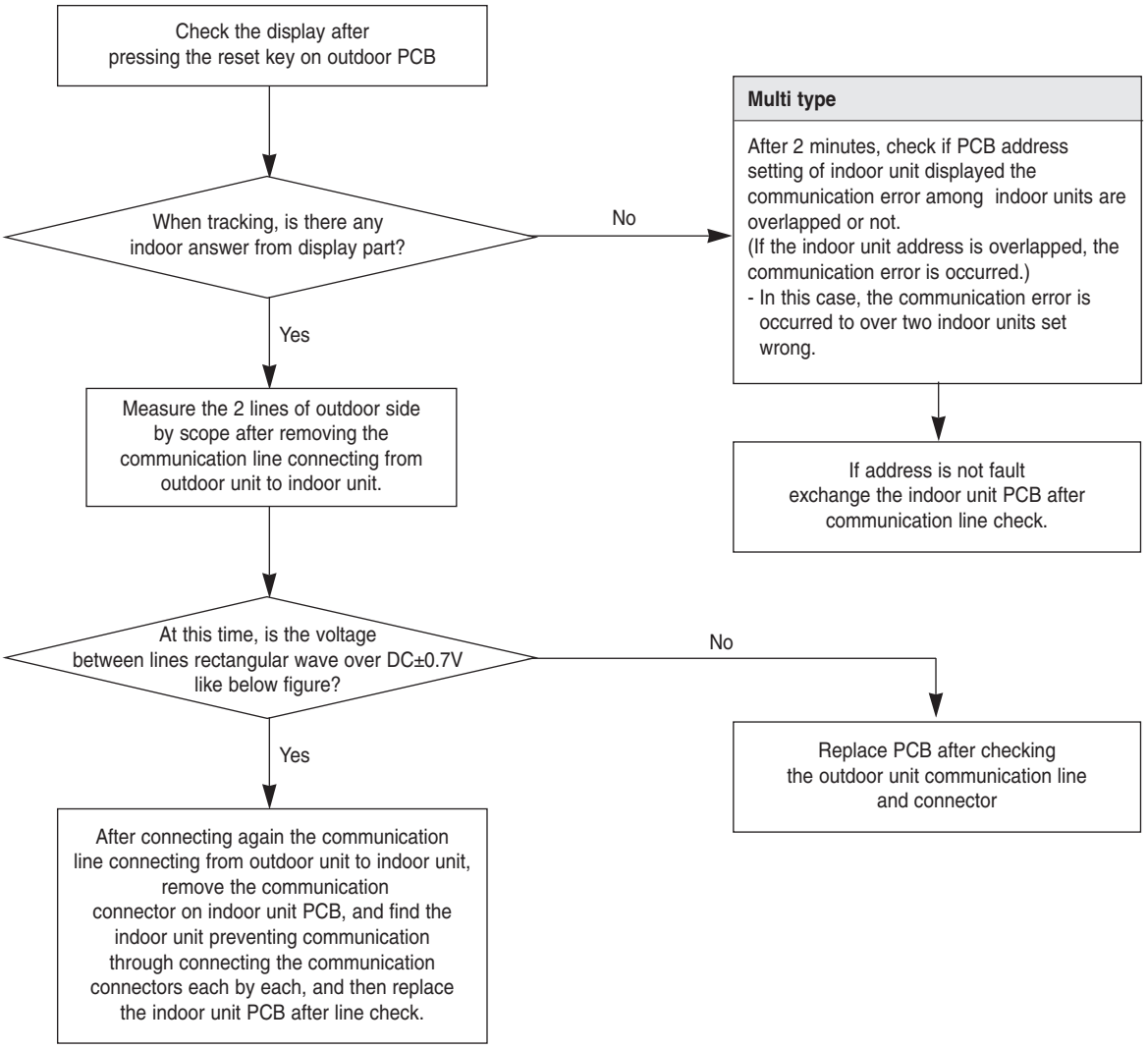
Outdoor unit display	Er→E3 **(Outdoor discharge temp. sensor OPEN/SHORT error)**
Indoor unit display	◑ (Operation) × (Timer) ◑ (Airflow) × (Filter)
How to determine	Disconnection and short of outdoor discharger temp. sensor
Reason of error	Disconnection or leak of Applied sensor

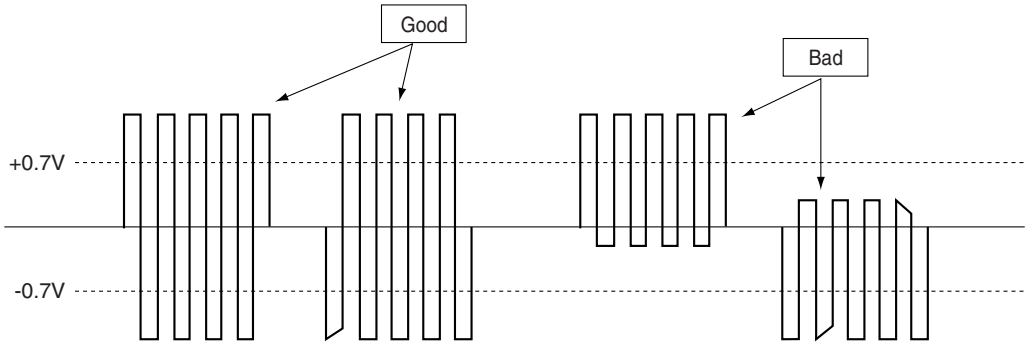


Temp. (˚C)	Resistance (kΩ)
130	8.9
120	11.2
100	18.5
80	32
60	59
25	200
20	242
10	362
0	553

12-3-4 Communication error during the operation

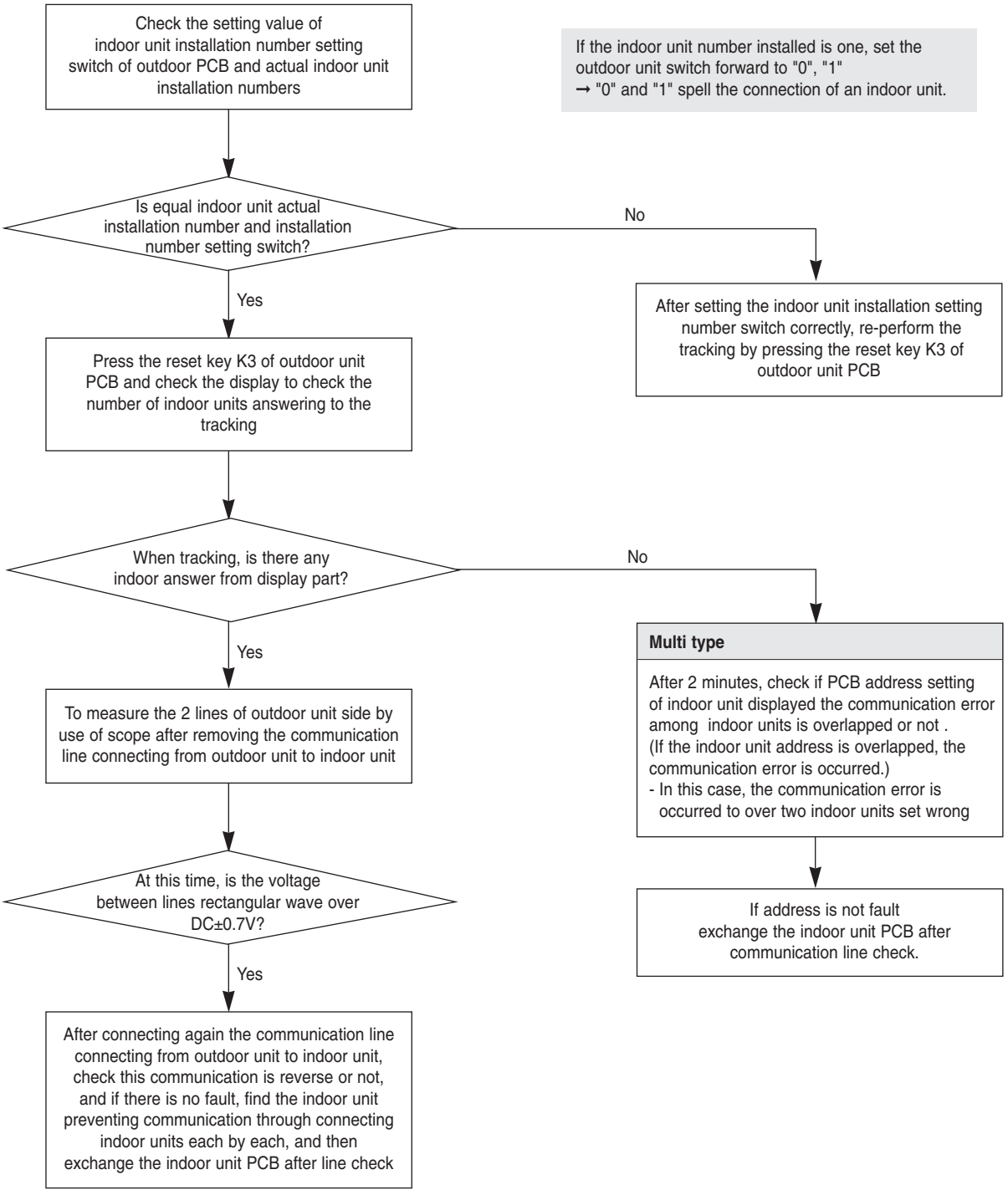
Outdoor unit display	Er→E1 **(Communication error during the operation)**
Indoor unit display	× (Operation) ◑ (Timer) ◑ (Airflow) × (Filter)
How to determine	Disconnection and short of communication lines
Reason of error	Communication error between the indoor unit and outdoor unit.





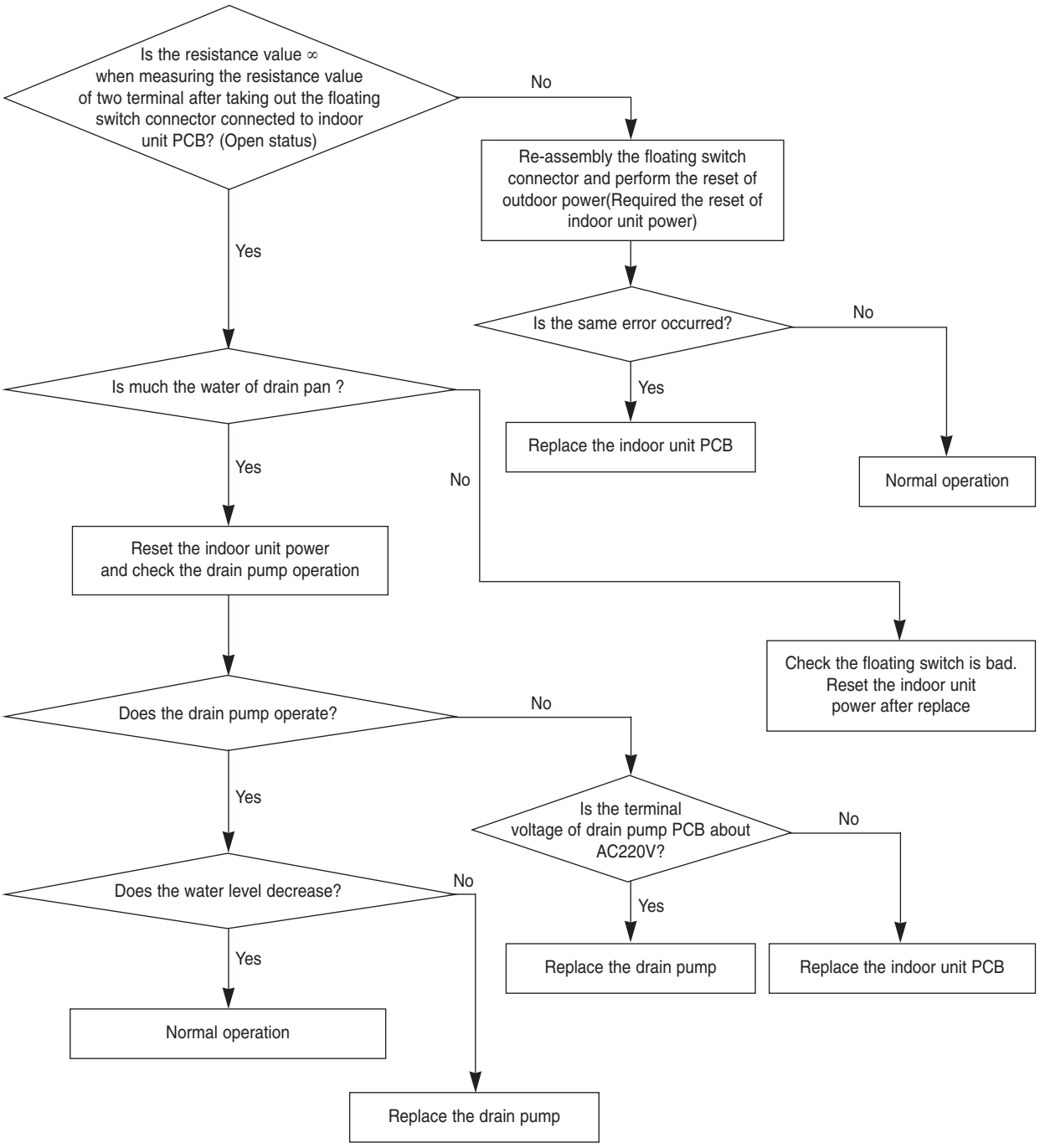
12-3-5 Communication error between indoor and outdoor after initial power input.

Outdoor unit display	Er→E2 **(Tracking error)**
Indoor unit display	× (Operation) ◑ (Timer) ◑ (Airflow) × (Filter)
How to determine	Mismatching the communicating indoor unit and setting switch indoor numbers When outdoor tracking
Reason of error	Communication error between the indoor unit and outdoor unit, and installation number switch setting miss



12-3-6 Indoor float switching error

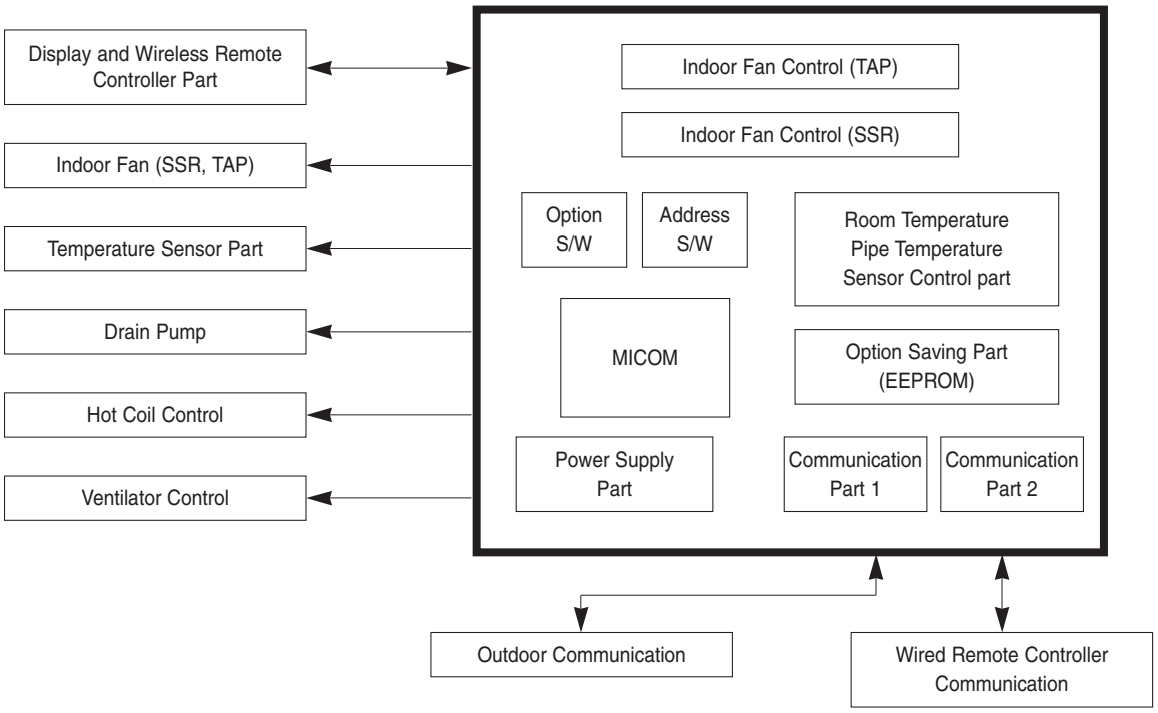
Outdoor unit display	Er→E3 **(Indoor float switching error)**
Indoor unit display	× (Operation) × (Timer) ◑ (Airflow) ◑ (Filter)
How to determine	The status continues over 1 minute that indoor unit float switch is opened.
Reason of error	The rising of water level of drain pan due to the disorder of indoor unit drain pump, the badness of detection sensor



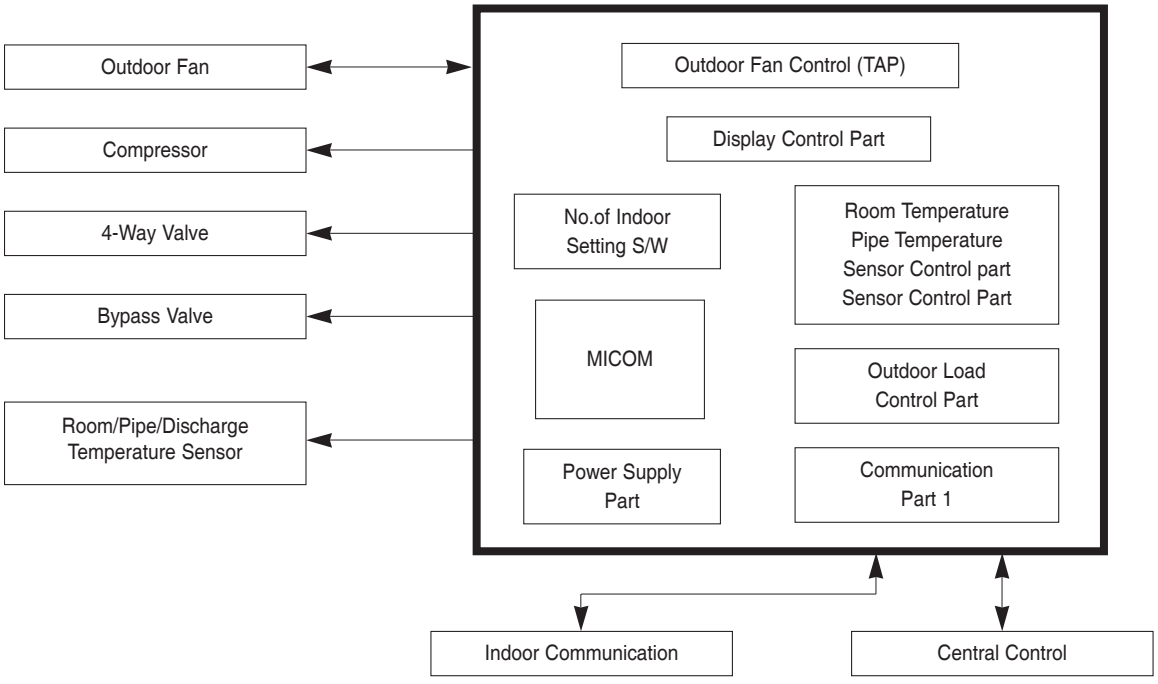
Note : E3 error should be released when indoor unit power is reset.

13. Block Diagram

13-1 Indoor Unit



13-2 Outdoor Unit

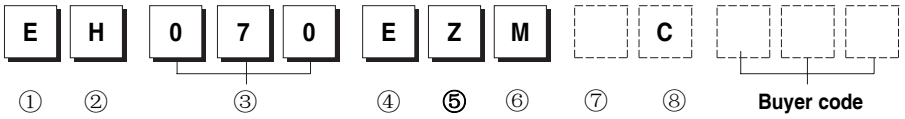


14. Reference Sheet

14-1 Index for Model Name

✳Project model code for Middle East product.

Model Code



① Product Type			
Indoor	Cassette	1-Way	K
		2-Way	G
		4-Way	C
		Ceiling	N
	Duct	Slim Duct	E
		Silhouette	D
		HSP	H
		Built-in	B
	Ceiling	-	F
	PAC	-	P
	Split	-	W
Universal Outdoor (DPM)			U

② Mode	
C/O	C
H/P	H
H/P+Heater	E
C/O+Heater	G
C/O+Hydronic	N

③ Capacity	
Btu	kWx10
9K	26
12K	35
14K	40
18K	52
24K	70
28K	82
32K	94
36K	105
44K	128
48K	140
60K	175
72K	210
80K	230
96K	280

④ Power Supply	
115V,60H	A
220V,60Hz	B
208~230V,60Hz	C
200~220V,50Hz	D
220~240V,50Hz	E
220V,60Hz,3ø	F
380~415V,50Hz,3ø	G
127V,50Hz	M
220~240,50/60Hz,1ø	N
380V,60Hz,3ø	H

⑤ Refrigerant	
R22	Z
R407C	C
R410A	A

⑥ Indoor/Outdoor Unit		
common	Indoor	A
	Outdoor	X
Universal (DPM)	Indoor	M
	Outdoor	N

⑦ Version	
BASE	-
DERIVE	1

⑧ Producing Area	
SEC	-
SSEC	C
TSE	T

14-2 Refrigerant Pressure during the Charging

Outdoor Unit Temperature	Low Pressure kg/cm²(PSIC)
Less than 20˚C	3.8 ~ 3.9(53~56)
Less than 24˚C	4.2 ~ 4.3(58~61)
Less than 28˚C	4.5 ~ 4.6(63~66)
Less than 32˚C	4.8 ~ 4.9(67~70)
Less than 36˚C	5.1 ~ 5.2(72~74)
Less than 40˚C	5.4 ~ 5.5(76~78)
Less than 44˚C	5.5 ~ 5.8(79~81)

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	$3.9302x10^{-4}$	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 The abbreviated technology words & the definition of technology terms

abbreviated technology words	definition of technology terms
COMP (Full name compressor)	One that compresses, especially a machine used to compress gases.
BLOWER	One that blows, especially a mechanical device, such as a fan, that produces a current of air.
FAN	A device for creating a current of air or a breeze.
ASSY CONTROL BOX (Full name : assemble control box)	A restraining device of air-condition, measure, or limit.
MOTOR	Something, such as a machine or an engine, that produces or imparts motion.
ASSY EVAP / ASSY COND (Full name : assemble evaporator / assemble condenser)	Heat exchanger; A device, used to transfer heat from a fluid on one side of a barrier to a fluid on the other side without bringingthe fluids into direct contact.

14-5 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

Classification	Class	Description
		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.
	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.**
Smells	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.**
	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.**
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 & A for Non-trouble (cont.)

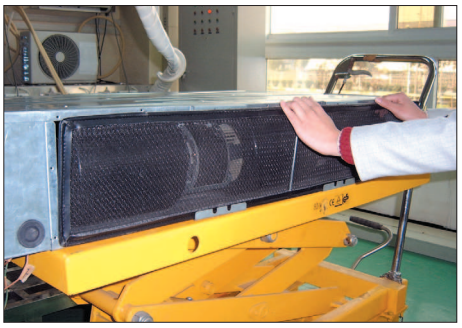
Classification	Class	Description
Operation	Q	**The remote controller won't operate.**
	A	When the batteries run out or the transmitter or receiver of the remote controller is blocked by obstacles, change the batteries or keep the obstacles away from the controlling area. Also, the remote controller may 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.
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.

14-6 Cleaning your Air Conditioner

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

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

1. Bend air filter wire and push upward.



2. Pull out the air filter two ways like pictures.

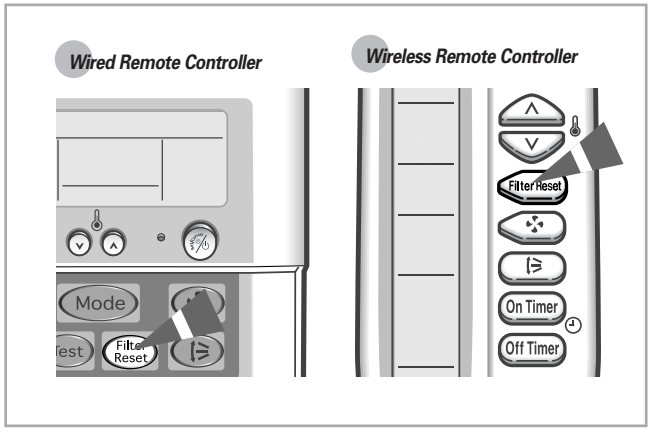
3. Remove all dust on air filter with a vacuum cleaner or a brush. In case of serious dust accumulation, put the air filter in warm detergent water and shake it vertically.

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.



14-7 Installation

14-7-1 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.

14-7-2 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.

■ Fixing Indoor Unit & Outdoor Unit

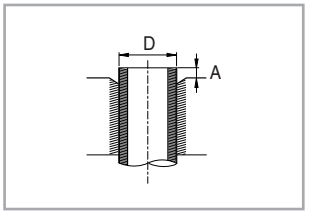
Fix the air conditioner indoor unit securely to the ceiling. Secure the outdoor unit in a suitable position.

■ 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)
9.52mm(3/8")	250~280	1.8mm
15.88mm(5/8")	440~480	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.

■ 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.

14-8 Installation Diagram of Indoor Unit and Outdoor Unit

14-8-1 Air-Purge Procedure

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

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

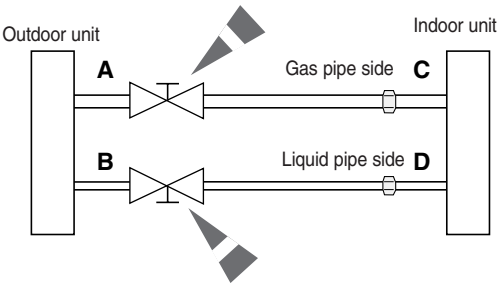
3) Open the valve of the low pressure side of manifold gauge counter-clockwise.

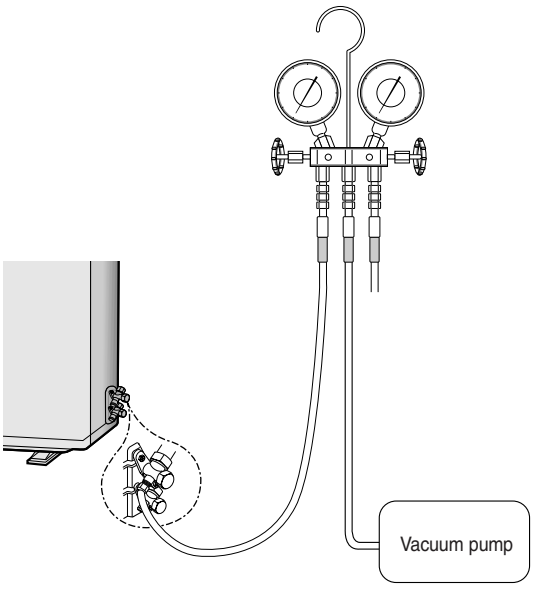
4) Purge the air from the system using vacuum pump for about 10 minutes.
   - After that, please recheck that pressure is stabilized.
   - Close the valve of the low pressure side of manifold gauge clockwise.
   - Remove the hose of the low pressure side of manifold gauge.

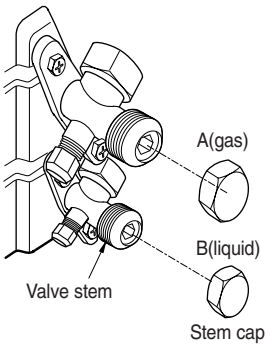
5) Set valve cork of both liquid side and gas side of packed valve to the open position.

6) Mount the valve stem nuts and the service port cap to the valve, and tighten them at the torque of 183kgf·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.







14-8-2 "Pump down" Procedure

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

1) Remove the caps from the 3-Way valve.

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

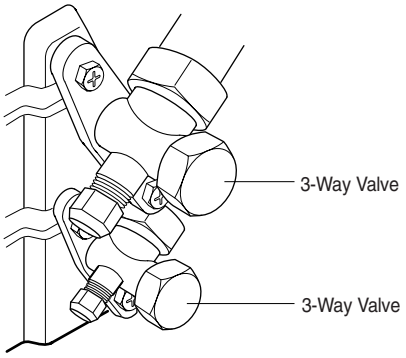
3) Set the unit to cool operation mode.
(Check if the compressor is operating.)

4) Turn the 3-Way valve clockwise to close.

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

6) Stop operation of the air conditioner.

7) Close the cap of each valve.



Remarks

Relocation of the air conditioner

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

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