SAMSUNG

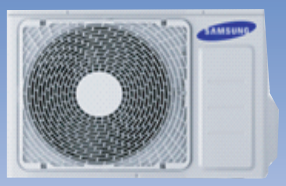
SYSTEM AIR CONDITIONER

	Indoor Unit	Outdoor Unit
Model :		
	AC035JNMCEH	AC035JXSCEH
	AC071JNMCEH	
	AC100JNMCEH	
	AC125JNMCEH	
Model Code :		
	AC035JNMCEH/EU	AC035JXSCEH/EU
	AC071JNMCEH/EU	
	AC100JNMCEH/EU	
	AC125JNMCEH/EU	

SERVICE Manual

AIR CONDITIONER

AC035JNMCEH
AC071JNMCEH
AC100JNMCEH
AC120JNMCEH



AC035JXSCEH

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1. Precautions

1-1 Precautions for the Service

- **Use the standard parts when replacing the electric parts.**
  – Confirm the model name, rated voltage, rated current of the electric parts.

- **Repair the disconnection of HARNESS securely when repairing the break down.**
  – If there is any connection error, it causes an abnormal noise and incorrect operation.

- **In case that you assemble or disassemble the products with laying it on the side, do work on the work cloth.**
  – If not, the exterior of products can be scratched.

- **Remove dust and foreign materials from harness, connection part, and inspection part thoroughly when repairing the break down.**
  – It protects the danger of fire such as tracking and short.

- **Tighten tightly the service valve of outdoor unit and the cap of charging valve with a monkey spanner.**

- **Check the assembly status of parts after repairing the break down.**
  – It should be same as the status before repairing.

1-2 Precautions for the Static Electricity and PL

- **As the PCB power terminal has a weakness for the static electricity, pay attention to it during the repair and measurement.**
  – Work with insulation gloves during the repair and measurement of PCB.

- **Check the distance between the product and the other electronic appliances such as TV, video, and audio. It should be over 2m.**
  – If not, it causes a bad picture quality or a noise.

- **Repairing the products by consumer should be strictly prohibited.**
  – There is a danger of electric shock or fire due to incorrect disassembly.

1-3 Precautions for the Safety

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

- **In case any wire or power plug has been damaged, replace it to eliminate any possible danger.**

- **Do not bend the power cord by force and do not put any heavy object on the power cord.**
  – There is a danger of electric shock or fire.

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

- **Ground the product if necessary.**
  – Be sure to ground the product if there is any danger of electric leakage due to water or moisture.

- **Be sure to turn off the auxiliary power switch or pull out the power plug during replacement or repair of electric parts.**
  – There is a danger of electric shock.

- **In case the product will not be in use for a long time, the battery of remote control should be kept separately.**
  – Leakage of inside fluid can cause break down of remote control.

1-4 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.**

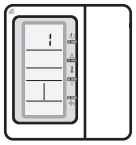
- **Max current is measured according to IEC standard for safety.**

- **Current is measured according to ISO standard for energy efficiency.**

- **When installing, make sure there is no leakage. When recovering the refrigerant, ground the compressor first before removing the connection pipe. If the refrigerant pipe is not properly connected and the compressor works with the service valve open, the pipe inhales the air and it makes the pressure inside of the refrigerant cycle abnormally high. It may cause explosion and injury.**

- **Pump Down Procedure (When removing the product)**
  - Turn on the air conditioner and select Cool mode to run the compressor for 3 minutes.
  - Release the valve caps on High and Low pressure side.
  - Use L wrench to close the valve on the high pressure side.
  - Approximately 2 minutes after, close the valve on the low pressure side.
  - Stop operation of the air conditioner.
  - Disconnect the pipes.

2-2 Product Specifications

ITEM				AC035JNMCEH AC035JXSCEH	AC071JNMCEH AC071JXSCEH
IMAGE	Indoor Unit				
	Outdoor Unit				
	Remote Controller				
Power	Product			1Φ, 220-240V/50Hz	1Φ, 220-240V/50Hz
Indoor	W x D x H		mm	850*700*250	1200*700*250
Outdoor	W x D x H		mm	790*285*548	940*330*1420
Indoor	Product		kg(Net)	25.0	32.0
Outdoor	Product		kg(Net)	37.0	96.0
Capacity	Cooling/Heating(ISO)		W	3,500 / 4,300	7,100 / 8,000
Power input	Cooling/Heating (ISO)		W	940 / 1,180	1,920 / 2,050
Operation current	Cooling/Heating (ISO)		A	4.7 / 5.4	8.7 / 9.3
Noise (Cooling/Heating)	Indoor unit	In case of strongest air blow	dB(A)	40 / 40	40 /10
	Outdoor unit	In case of strongest air blow	dB(A)	54 / 54	58 / 60
Refrigerant (R-410A)			g	1270	2900
Connecting Pipe		Liquid	mm	1/4"(6.35)	3/8"(9.52)
		Gas	mm	3/8"(9.52)	5/8"(15.88)
Additional Refrigerant (R-410A)			g/m	-	25
Standard			m	5	5
Extension length(Total)			m	20	75
Extension length(Elevation)			m	15	30
Option Code			Product Option	01B26C-1C5081-27232B-371000	01B26C-1C50D5-274750-372020
			Installation Option	020000-100000-200000-300100	020000-100000-200000-300100

2. Product Specifications

2-1 The Feature of Product

■ **Built-in Duct Type**
After installed, the air conditioner can be harmonized with a room interior.

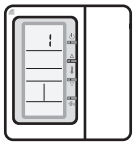
■ **High Performance & Energy Saving**
With the advanced BLDC inverter technology, it makes a room cool with highly energy saving and arises the efficiency of air conditioner.

■ **Long Piping (Length & Height)**
It can give the benefit to the installers and aries the reliability of the air conditioner.

■ **Long Ambient Operation (In Low Temperature)**
It can arise the reliability and the capacity of the air conditioner, especially operated in low temperature.

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

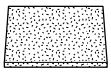
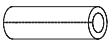
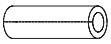
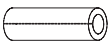
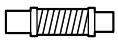
2-2 Product Specifications

ITEM				AC100JNMCEH AC100JXSCEH	AC100JNMCEH AC100JXSCGH
IMAGE	Indoor Unit				
	Outdoor Unit				
	Remote Controller				
Power	Product			1Φ, 220-240V/50Hz	3Φ, 380~415V/50Hz
Indoor	W x D x H		mm	1300*700*300	1300*700*300
Outdoor	W x D x H		mm	940*330*1420	940*330*1420
Indoor	Product		kg(Net)	36.0	36.0
Outdoor	Product		kg(Net)	96.0	96.0
Capacity	Cooling/Heating(ISO)		W	10,000 / 11,200	10,000 / 11,200
Power input	Cooling/Heating (ISO)		W	2,740 / 2,470	2,740 / 2,630
Operation current	Cooling/Heating (ISO)		A	12.0 / 11.8	4.4 / 4.3
Noise (Cooling/Heating)	Indoor unit	In case of strongest air blow	dB(A)	43 / 43	43 / 43
	Outdoor unit	In case of strongest air blow	dB(A)	60 / 62	60 / 62
Refrigerant (R-410A)			g	2900	2900
Connecting Pipe		Liquid	mm	3/8"(9.52)	3/8"(9.52)
		Gas	mm	5/8"(15.88)	5/8"(15.88)
Additional Refrigerant (R-410A)			g/m	25	25
Standard			m	5	5
Extension length(Total)			m	75	75
Extension length(Elevation)			m	30	30
Option Code			Product Option	01B26C-1C50F2-276470-375045	01B26C-1C50F2-276470-375045
			Installation Option	020000-100000-200000-300100	020000-100000-200000-300100

2-2 Product Specifications

ITEM				AC125JNMCEH AC125JXSCGH
IMAGE	Indoor Unit			
	Outdoor Unit			
	Remote Controller			
Power	Product			3Φ, 380~415V/50Hz
Indoor	W x D x H		mm	1300*700*300
Outdoor	W x D x H		mm	940*330*1420
Indoor	Product		kg(Net)	36.0
Outdoor	Product		kg(Net)	96.0
Capacity	Cooling/Heating(ISO)		Btu/h	12,500 / 14,000
Power input	Cooling/Heating (ISO)		W	3,790 / 3,580
Operation current	Cooling/Heating (ISO)		A	6.0 / 5.6
Noise (Cooling/Heating)	Indoor unit	In case of strongest air blow	A	45 / 45
	Outdoor unit	In case of strongest air blow	A	60 / 62
Refrigerant (R22)			g	2900
Connecting Pipe		Liquid	mm	3/8"(9.52)
		Gas	mm	5/8"(15.88)
Additional Refrigerant (R22)			g/m	25
Standard			m	5
Extension length(Total)			m	75
Extension length(Elevation)			m	30
Option Code			Product Option	01B26C-1C5425-277D8C-374045
			Installation Option	020000-100000-200000-300100

2-3 Accessory

Item	Descriptions	Code-No.	Q'TY	Remark
	Installation Manual	DB68-05397A	1	Indoor Unit
	User's Manual	DB68-05399A	1	
	Insulation	DB62-04318S	1	
	Insu DRAIN HOSE	DB62-11028A	1	
	INSU HOSE D	DB62-11028E	1	
	INSU TUBE OUT	DB62-11028F	1	
	ASSY DRAIN HOSE JOINT	DB67-01191A	1	
	Ass'y Drain Hose Joint	DB90-06701A	1	
	GROMMET-HANGER	DB63-00237A	8	
	RUBBER LEG	DB73-20134A	4	Outdoor unit
	INSTALLATION MANUAL	DB68-05400A	1	

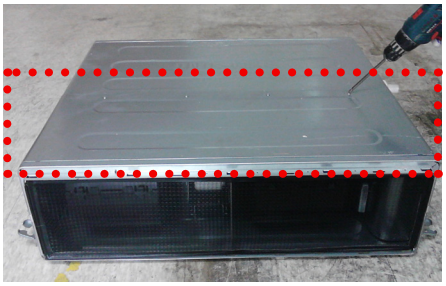
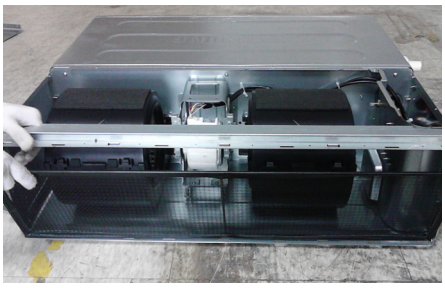
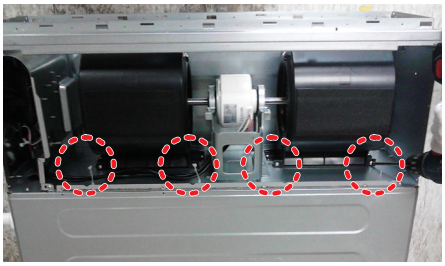
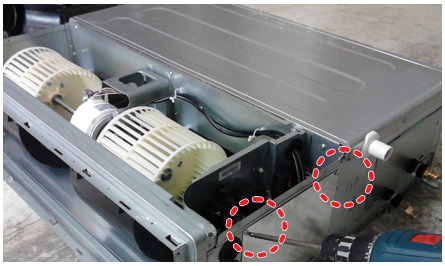
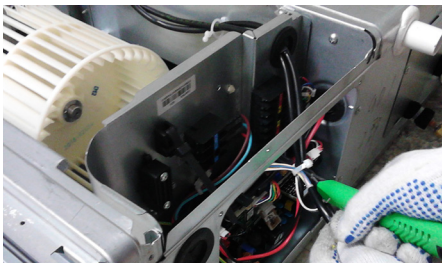
MEMO

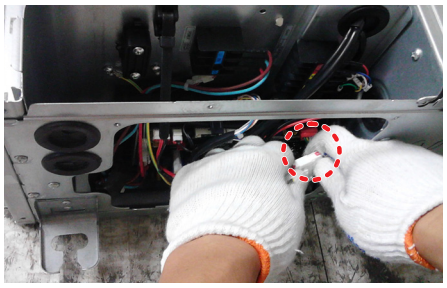
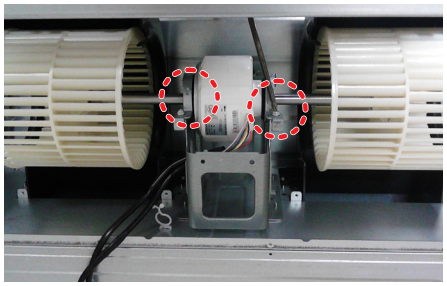
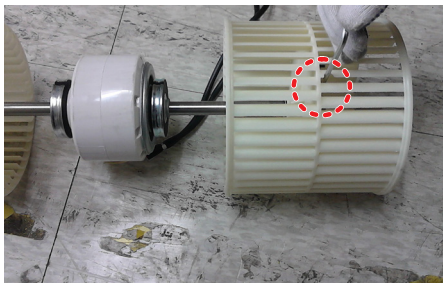
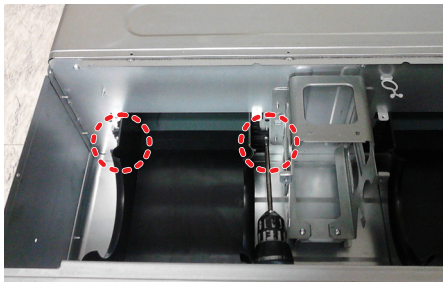
3. Disassembly and Reassembly

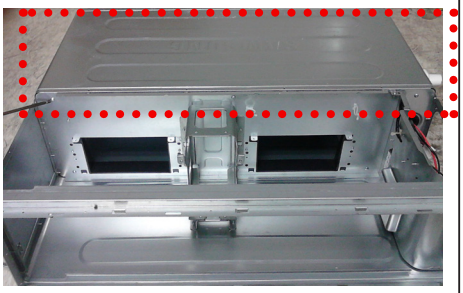
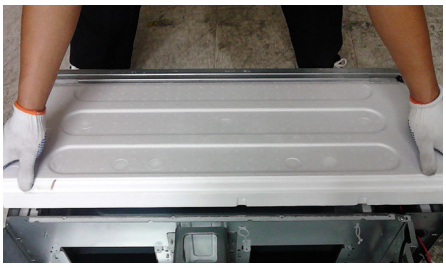
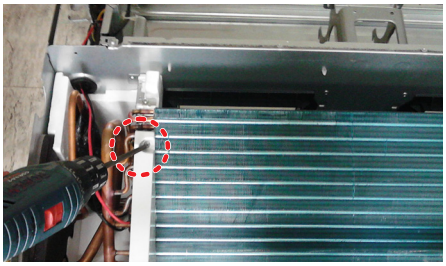
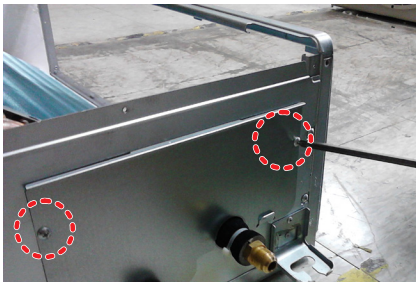
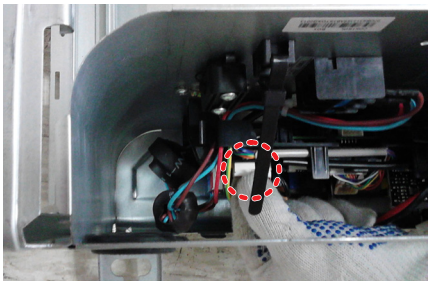
■ Necessary Tools

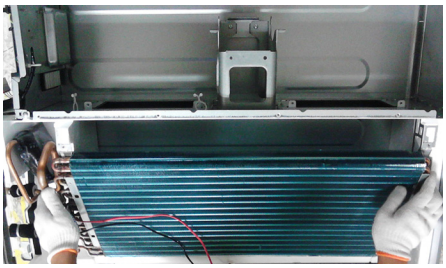
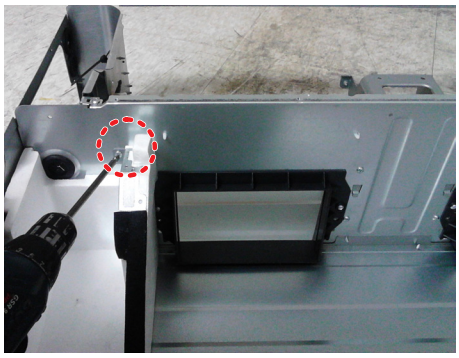
Item	Remark
+SCREW DRIVER	
MONKEY SPANNER	

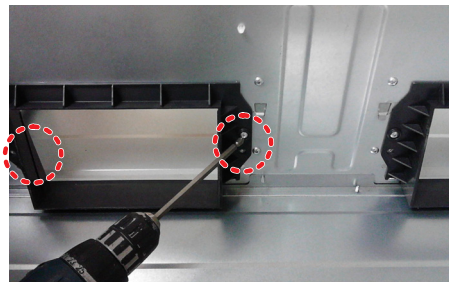
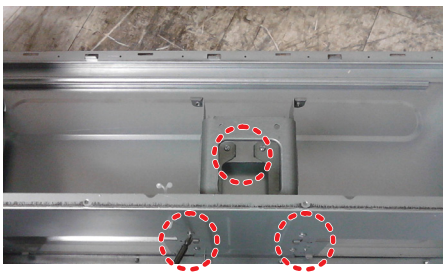
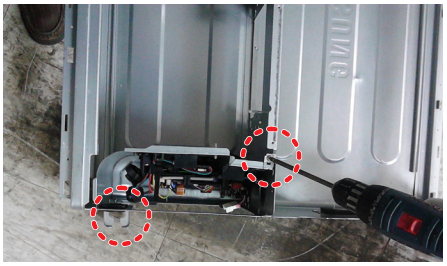
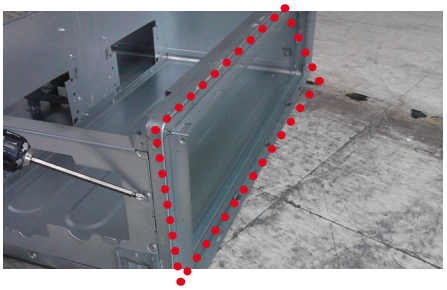
■ AC035JNMCEH

No	Parts	Procedure	Remark
1	Motor & Blower	1)Disassemble the Cabinet Bottom Fan. - Unscrew 10 screws	
		2)Disassemble the Case Filter Pre.	
		3)Disassemble the 2 Case Blower Bottom. - Unscrew 4 screws	
		4)Disassemble the Cover Control. - Unscrew 2 screws	
		5)Cut the cable-tie	

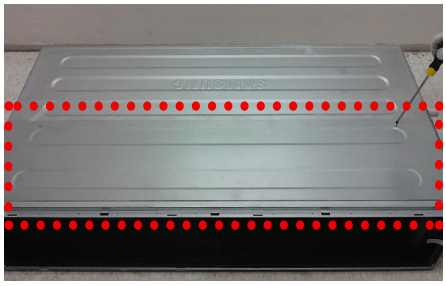
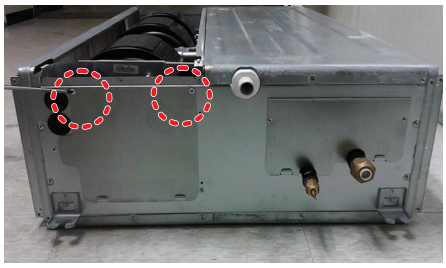
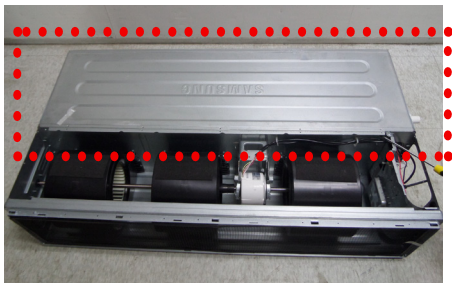
No	Parts	Procedure	Remark
		6)Disconnect the wire betwwen assy control out and motor.	
		7)Disassemble the 2 Holder Motor. - Unscrew 2 screws	
		8)After disassembling the Motor and Blower for the set, disassemble the Blower by use of 3mm wrench.	
		9)Disassemble the both of Case Blower Out - Unscrew 4 screws	

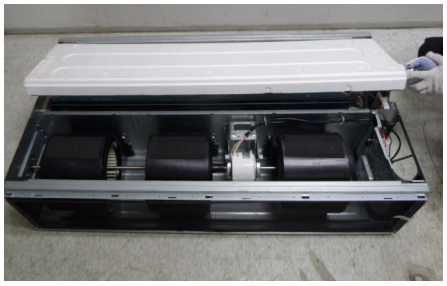
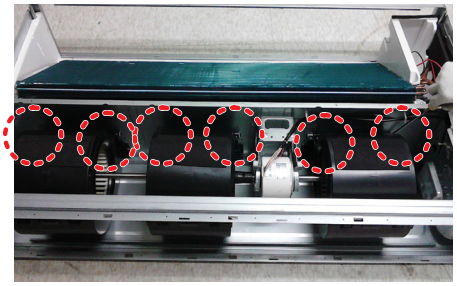
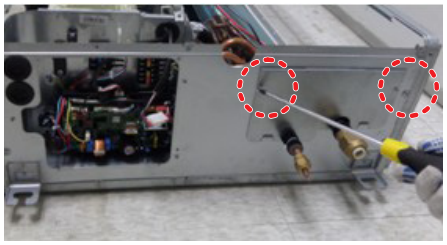
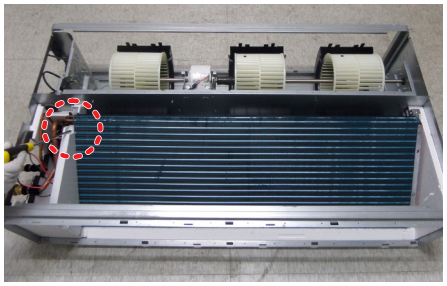
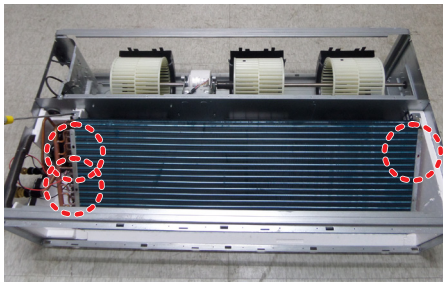
No	Parts	Procedure	Remark
2	Drain Pan	1)Disassemble the Cabinet Bottom Evap. - Unscrew 7 screws	
		2)Pull the Drain Pan Out	
3	EVAP	1)Disassemble the Support Evap. - Unscrew 1 screws	
		2)Disassemble the Cover Pipe. - Unscrew 2 screws	
		3)Disconnect the wire betwwen assy control out and Evap	

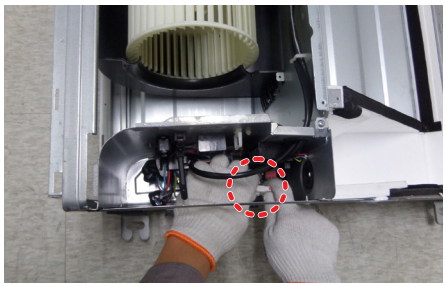
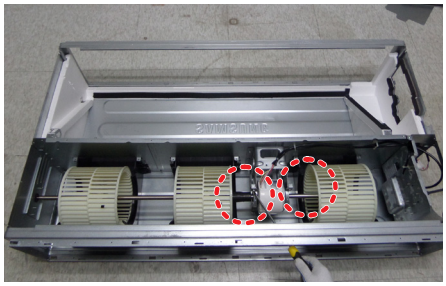
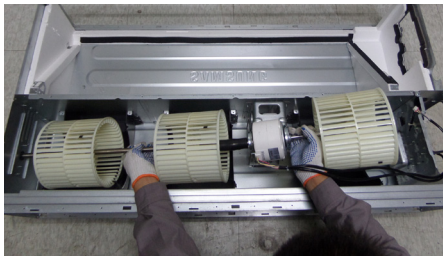
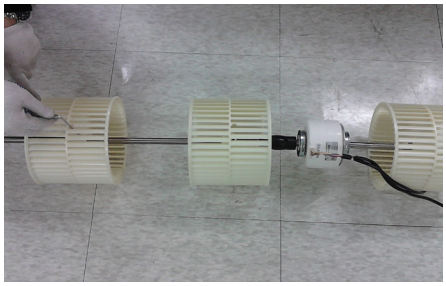
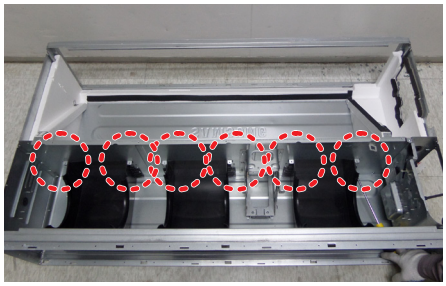
No	Parts	Procedure	Remark
		4)Disassemble the Evap. - Unscrew 3 screws. Then pull the Evap out	
4	Cushion	1)Pull out the Cushion	
		2)Disassemble the Seal Cushion LF. - Unscrew 1 screws	
		3)Disassemble the Assy Cushion Right. - Unscrew 1 screws	

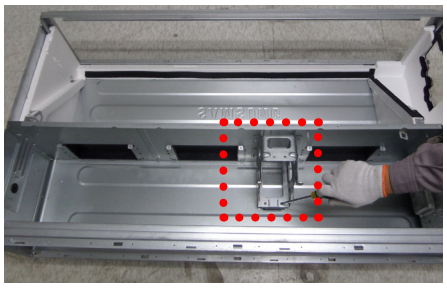
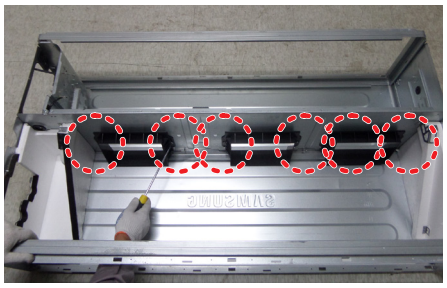
No	Parts	Procedure	Remark
5	Case Blower&Bracket Motor	1)Disassemble the both of Case Blower Out - Unscrew 4 screws 2)Disassemble the Bracket Motor. - Unscrew 6 screws	 
6	Control	1)Disassemble the Case Control. - Unscrew 2 screws	
7	Frame	1)Disassemble the Frame. - Unscrew 6 screws	

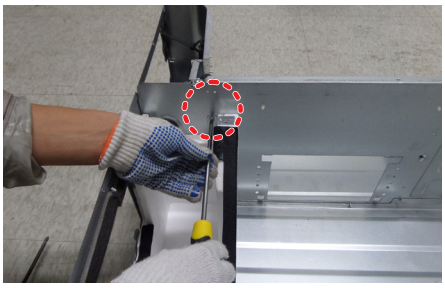
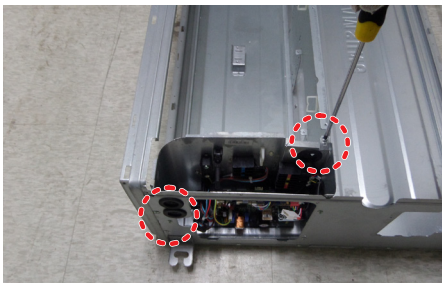
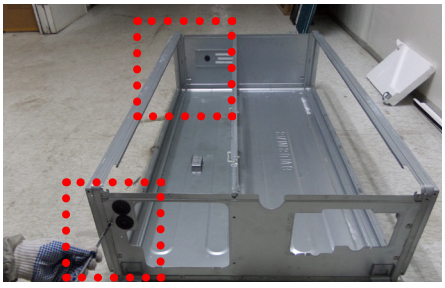
■ AC071JNMCEH / **AC100JNMCEH / AC100JNMCEH / AC125JNMCEH**

No	Parts	Procedure	Remark
1	Common	1)Disassemble the Cabinet Bottom Fan. - Unscrew 11 screws	
		2)Disassemble the Case Filter Pre.	
		3)Disassemble the Cover Control. - Unscrew 2 screws	
		4)Disassemble the Cabinet Bottom Evap. - Unscrew 8 screws	

No	Parts	Procedure	Remark
2	Drain Pan & Evap	1)Disassemble the Drain Pan from the set.	
		2)Disassemble the 3 Case Blower Bottom. - Unscrew 6 screws	
		3)Disassemble the Cover Pipe. - Unscrew 2 screws	
		4)Disassemble the Support Evap. - Unscrew 1 screws	
		5)Disassemble the Evap. - Unscrew 3 screws	

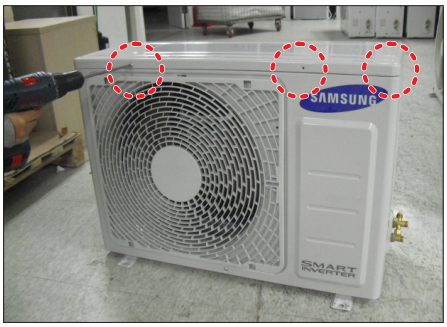
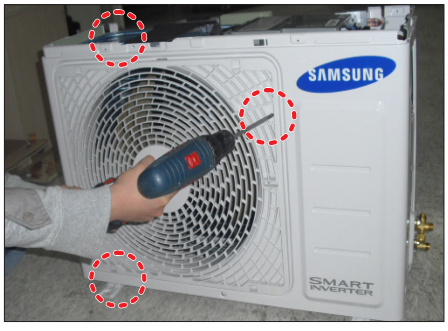
No	Parts	Procedure	Remark
3	Motor & Fan	1)Disassembl the connection wire,the take the Motor Fan out	
		2)Disassemble the 2 Holder Motor. - Unscrew 2 screws	
		3)After disassembling the Motor and Blower for the set, disassemble the Blower by use of 3mm wrench.	
			
		4)Disassemble the 3 Case Blower Top. - Unscrew 6 screws	

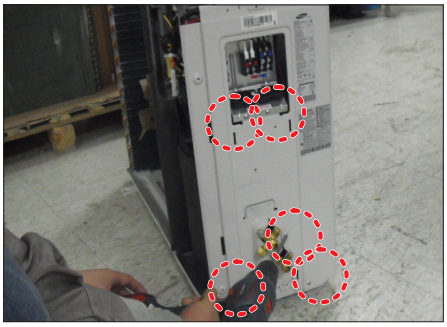
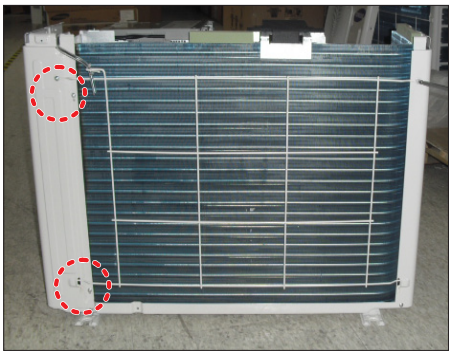
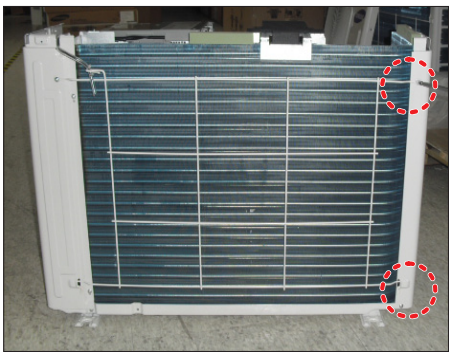
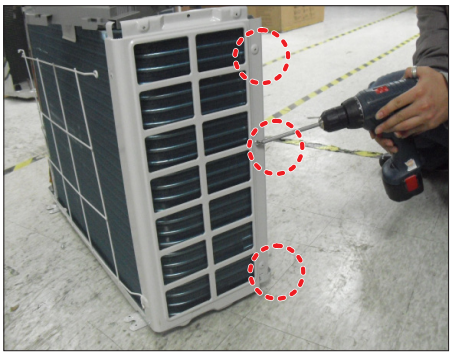
No	Parts	Procedure	Remark
		5)Disassemble the Bracket Motor. - Unscrew 6 screws	
		6)Disassemble the 3 Case Blower Out - Unscrew 6 screws	
			

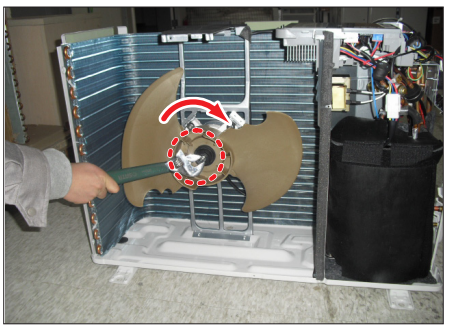
No	Parts	Procedure	Remark
4	Cushion	1)Disassemble the Assy Cushion Right. - Unscrew 1 screws	
		2)Disassemble the Seal Cushion LF. - Unscrew 1 screws	
5	Control	1)Disassemble the Case Control. - Unscrew 2screws	
6	Frame	1)Disassemble the Frame. - Unscrew 6 screws	

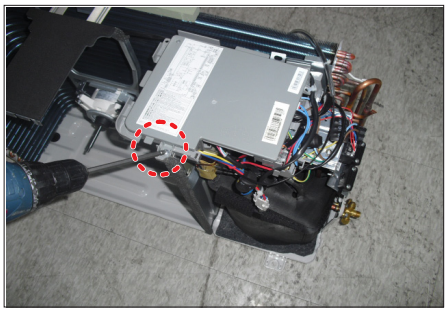
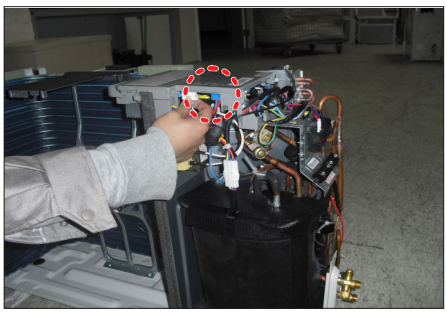
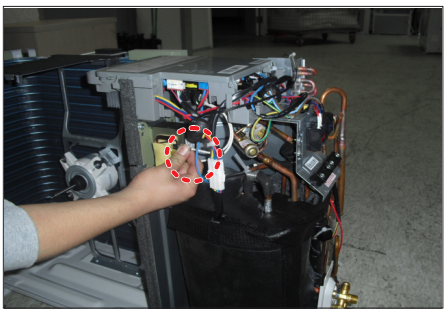
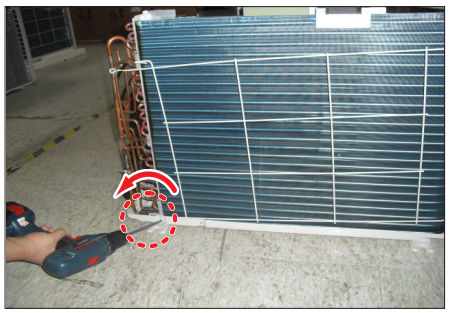
3-2 Outdoor unit

◆ AC035JXSCEH

No	Parts	Procedure	Remark
1	common work	1) loosen 1 pcs screw of cover control,and detach it.	
		2) loosen 5 pcs screws on both right and left cabniet side edges and to detach the cover-top	
			
		3) Loosen 7 screwsfixed to disassemble cabi-front , and detach it.	
			

No	Parts	Procedure	Remark
	common work	4) loosen 7 screws to disassemble the cabi-right ,and detach it.	
			
		5) loosen 2 screws to disassemble steel-bar.	
		6) loosen 3 screws to disassemble cabi-left.	

No	Parts	Procedure	Remark
2	fan&motor	1) loosen 1 screw as indication and detached the fan. 2) loosen 4 pcs motor screws and disconnect the wire betwwen assy control out and motor. 3) loosen 2 pcs bracket-motor screw and detach it.	  

No	Parts	Procedure	Remark
3	assy control out	1) lossen fixing 1 screw from cover -control 2) detach several connections from assy control out, take out assy control out.	  
4	Heat exchanger	1) Release the refrigerant at first 2) Looosen fixing screw on both side. 3) disaessembly the pipes in both inlet and outlet with welding torch. 4) detach the heat exchanger.	

No	Parts	Procedure	Remark
5	compressor	1) disconnect the compressor lead wire .	
		2)disassembly the felt comp sound. loosen the 3 bolts at the bottom of	

4. Troubleshooting

4-1 Indoor Display Error and Check Method

■ Error detection and reoperation

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

4-1-1 Indoor unit LED lamp display at error detecting

LED Display on the receiver & display unit

Abnormal conditions	Indicators					Remarks
	Concealed Type					
	GREEN	RED				
	Standard Type					
Power reset	◑	X	X	X	X	
Error of Room sensor in the indoor unit(Open/Short)	X	X	◑	X	X	
Error of EVA-IN,EVA-OUT discharge sensor in the indoor unit(Open/Short)	◑	X	◑	X	X	
Error of Fan motor in the indoor unit	X	X	X	◑	X	
Error of Outdoor or Therminal Block Thermal Fuse(Open)	X	X	◑	◑	◑	
Clogging of outdoor's service valve	◑	X	X	◑	◑	
Detection of the float switch	X	X	X	◑	◑	
Error of EEPROM or Option setting	◑	◑	◑	◑	◑	
1. No communication for 2 minutes between indoor units (Communication error for more than 2 minutes) 2. Indoor unit receiving the communication error from outdoor unit 3. Outdoor unit tracking 3 minutes error 4. When sending the communication error from the outdoor unit, the mismatching of the communication numbers and installed numbers after completion of tracking.(Communication error for more than 2 minutes)	X	X	◑	◑	X	1. Indoor unit error (Display is unrelated with operation) 2. Outdoor unit error (Display is unrelated with operation)

● On ◑ Flickering X Off

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

4-1-2 Wired Remocon Error Display

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

Display	Explanation	Remark
102	Communication Error between indoor and outdoor unit	
121	Error of Room sensor in the indoor unit(Open/Short)	
122	Error of Eva In sensor in the indoor unit(Open/Short)	
123	Error of Eva Out sensor in the indoor init(Open/Short)	
153	2nd Detection of the float switch	
154	Error of Fan motor in the indoor unit	
162	EEPROM error	
163	EEPROM option setting error	
198	Error of Terminal Block's Thermal Fuse(Open)	
202	No communication for 2minutes betwwen indoor units(Communication error for more than 2minutes)	
422	Clogging of outdoor's service valve	
557	Option code miss matching among the indoors (only for DPM)	Check indoor option code
601	Error of communication down between the indoor unit and wired remote controller after 3minutes.	Wired remote controller error
604	Error of communication down between the indoor unit and wired remote controller after completion of 10 times tracking.	
606	COM1/COM2 Cross-installed error	
607	Error of master wired remote controller and slave wired remote controller setting	

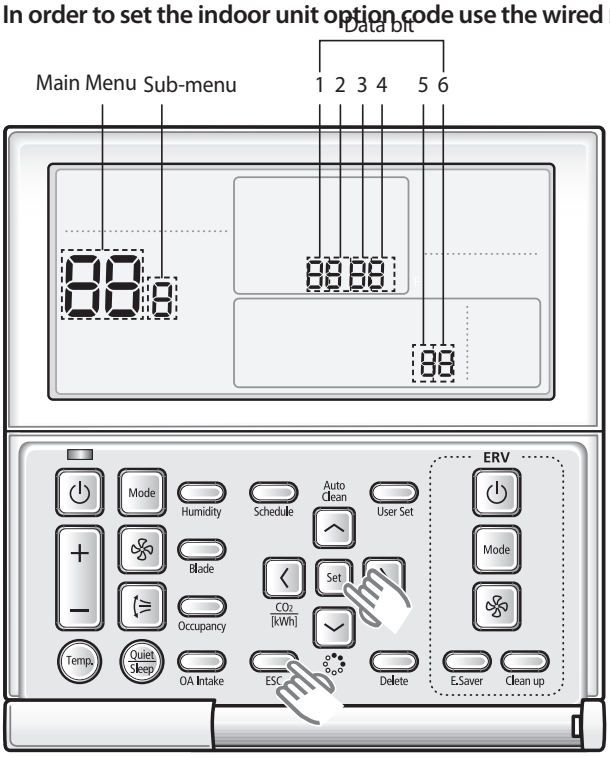
4-1-3 Troubleshooting for outdoor unit

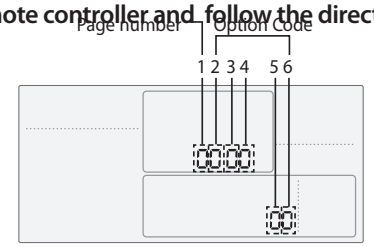
If an error occurs during the operation, it is displayed on the outdoor unit PCB LED, both MAIN PCB and INVERTER PCB.

No.	Error Code	Meaning	Remarks
1	**E201**	Unit quantity miss matching between indoor and outdoor.	Check indoor quantity setting in outdoor (Refer to page 15.)
2	**E202**	Abnormal state, no communication between Indoor and Outdoor Main PCB	Check electrical connection and setting
3	**E203**	1min. Time out of communcation error(Main↔ Inverter)	Check electrical connection and setting
4	**E221**	Outdoor temp sensor error	Check Outdoor sensor Open/Short
5	**E231**	Cond. temp sensor error	Check Cond. sensor Open/Short
6	**E251**	Discharge temp sensor error	Check Discharge sensor Open/Short
7	**E320**	OLP Sensor Error	Check OLP sensor Open/Short
8	**E403**	Detection of Outdoor Freezing when Comp. Stop	Check Outdoor Cond.
9	**E404**	Protection of Outdoor Overload when Comp. Stop	Check Comp. when it start
10	**E416**	Discharge temperature of a compressor in an outdoor unit is overheated.	
11	**E440**	Heating operation is not available since the outdoor air temperature is over 30°C.	Heating
	E441	Cooling operation is not available since the outdoor air temperature is lower than -5°C.	Cooling
12	**E458**	Outdoor unit BLDC Fan 1 or Fan 2 error	FAN1 error
	E475		FAN2 error
13	**E461**	Comp. Starting error	
14	**E462**	Primary Current Trip error	
15	**E463**	Over current trip / PFC over current error	Check OLP sensor
16	**E464**	IPM(IGBT Module) Over Current(O.C)	
17	**E465**	Comp. Over load error	
18	**E466**	DC-Link voltage under/over error	Check AC Power or DC_Link voltage
19	**E467**	Comp. wire missing error	Check Comp. wire
20	**E468**	Current sensor error	Check Outdoor Inverter PBA
21	**E471**	Outdoor EEPROM error	Check Outdoor EEPROM date
22	**E474**	IPM(IGBT Module) or PFCM Temperature sensor Error	Check Outdoor Inverter PBA
23	**E484**	PFC Overload Error	Check Outdoor Inverter PBA
24	**E500**	IPM is over heated.	Check Outdoor Inverter PBA
25	**E554**	GAS Leak error	Check indoor and outdoor unit model
26	**E556**	Capacity miss match between indoor and outdoor	Check indoor and outdoor unit model

4-2 Setting Option Setup Method

In order to set the indoor unit option code use the wired remote controller and follow the directions below.





SEG1	SEG2	SEG3	SEG4	SEG5	SEG6
0	✳	✳	✳	✳	✳

Page number

SEG7	SEG8	SEG9	SEG10	SEG11	SEG12
1	✳	✳	✳	✳	✳

Page number

SEG13	SEG14	SEG15	SEG16	SEG17	SEG18
2	✳	✳	✳	✳	✳

Page number

SEG19	SEG20	SEG21	SEG22	SEG23	SEG24
3	✳	✳	✳	✳	✳

Page number

1) Press the Set and ESC buttons at the same time for more than 3 seconds and then a Main menu will be displayed.
2) Press the ∧ / ∨ button to select 4 and then press > button to enter a Sub-menu setting screen.
3) Press the ∧ / ∨ button to select 2 and then press > button to enter a Indoor unit option code setting screen.

NOTE
- The first digit represents the page number and the remaining five digits are option codes.
- The option code which is currently setting will flicker.

4) Press the ∧ / ∨ button to set the option code in order. Press > button to go to the next page.
5) Press the Set button to save and complete the option setting.
6) Press the ESC button to exit to normal mode.

NOTE
- Press the ESC button anytime during setup to exit without setting.

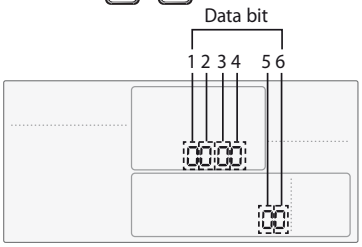
CAUTION
- Option code will not be applied if you don't press the Set
- Setting indoor unit option code is only possible in Master wired remote controller. You can only check the indoor unit option code in Slave wired remote controller.
- Setting indoor unit option code is possible when one indoor unit is connected. If more than 2 indoor units are connected, you can only check the Master indoor unit option code.

4-3 Setting an indoor unit address and installation option

Set the indoor unit address and installation option with remote controller option. Set the each option separately since you cannot set the ADDRESS setting and indoor unit installation setting option at the same time. You need to set twice when setting indoor unit address and installation option.

Setting an indoor unit address

1) **Press the [Set] and [ESC] buttons at the same time for more than 3 seconds and then a Main menu will be displayed.**
2) **Press the [∧] / [∨] button to select 4 and then press [>] button to enter a Sub-menu setting screen.**
3) **Press the [∧] / [∨] button to select 1 and then press [>] button to enter a Indoor Address setting screen.**



NOTE
- **The Main/RMC Address which is currently setting will flicker.**
- **Data bit 1 and 2 present Indoor unit main address checking**
- **Data bit 3 and 4 present Indoor unit main address setting(outdoor unit reset is needed to set).**
- **Data bit 5 and 6 present Indoor unit RMC address setting/checking.**

4) **Press the [∧] / [∨] button to set the Indoor unit Main/RMC Address.**
5) **Press the [Set] button to save and complete the option setting.**
6) **Press the [ESC] button to exit to normal mode.**

NOTE
- **Press the [ESC] button anytime during setup to exit without setting.**
- **Address will not be applied if you don't press [Set] button.**
- **Setting Main/RMC Address of an Indoor unit is available only with a master wired remote controller.**

Setting an indoor unit installation option

In order to check and set the indoor unit installation option code use the wired remote controller and follow the directions below.

1) Press the Set and ESC buttons at the same time for more than 3 seconds and then a Main menu will be displayed.
2) Press the ∧ / ∨ button to select 4 and then press > button to enter a Sub-menu setting screen.
3) Press the ∧ / ∨ button to select 3 and then press > button to enter a Indoor unit installation option code setting screen.

NOTE
- The first digit represents the page number and the remaining five digits are installation option.
- The total option codes are 24 digits. You can set six digits at a time and it is distinguished by page number (0, 1, 2, 3).

4) Press the ∧ / ∨ button to set the installation option code in order. Press > button to go to the next page.

SEG1	SEG2	SEG3	SEG4	SEG5	SEG6
0	2	RESERVED	Exterior temperature sensor	Central control	RESERVED
SEG7	SEG8	SEG9	SEG10	SEG11	SEG12
1	Drain pump	RESERVED	RESERVED	RESERVED	Master / Slave
SEG13	SEG14	SEG15	SEG16	SEG17	SEG18
2	External control	External control output	S-Plasma ion	Buzzer	Number of hours using filter
SEG19	SEG20	SEG21	SEG22	SEG23	-
3	Individual control of a remote controller	Heating setting compensation	RESERCED	Away Set OFF Timer	-

Option No. : 02XXXX-1XXXXX-2XXXXX-3XXXXX

Option	SEG1		SEG2		SEG3	SEG4		SEG5		SEG6
Explanation	PAGE		MODE		RESERVED	Use of external temperature sensor		Use of central control		RESERVED
Indication and Details	Indication	Details	Indication	Details		Indication	Details	Indication	Details	
	0		2			0	Disuse	0	Disuse	
						1	Use	1	Use	

Option	SEG7		SEG8		SEG9	SEG10	SEG11	SEG12	
Explanation	PAGE		Use of drain pump		RESERVED	RESERVED	RESERVED	Master / Slave	
Indication and Details	Indication	Details	Indication	Details				Indication	Details
	1		0	Disuse				0	slave
			1	Use				1	master
			2	Use + 3minute delay				-	-

Option	SEG13		SEG14		SEG15		SEG16		SEG17		SEG18	
Explanation	PAGE		Use of external control		Setting the output of external control		S-Plasma ion		Buzzer control		Number of hours using filter	
Indication and Details	Indication	Details	Indication	Details	Indication	Details	Indication	Details	Indication	Details	Indication	Details
	2		0	Disuse	0	Thermo on	0	Disuse	0	Use of buzzer	2	1000 Hour
			1	ON/OFF Control	1	Operation on	1	Use	1	Non use of buzzer	6	2000 Hour
			2	OFF Control								

Option	SEG19		SEG20		SEG21		SEG22	SEG23		-
Explanation	PAGE		control of a remote controller		Heating setting compensation		RESERVED	Away Set OFF Timer		-
Indication and Details	Indication	Details	Indication	Details	Indication	Details		Indication	Details	-
	3		0 or 1	Indoor 1	0	Disuse		0 or 1	Auto Set OFF 30Min.	
			2	Indoor 2	1	2℃		2	Auto Set OFF 60Min.	
			3	Indoor 3	2	5℃		3	Auto Set OFF 120Min.	
			4	Indoor 4				4	Auto Set OFF 180Min.	

5. **Press the Set button to save and complete the option setting.**

6. **Press the ESC button to exit to normal mode.**

NOTE

- **Press ESC button anytime during setup to exit without setting.**
- **Option code will not be applied if you don't press Set button.**
- **Setting Installation option code is available only with a master wired remote controller.**
- **Setting Installation option code is available when there is one on one connection between a wired remote controller and an indoor unit.**

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.

Model	AC035JNMCEH	AC071JNMCEH
Static Pressure(mmAq)	Option code for indoor unit	
0≤ SP ≤2.5	01B26C-1C5081-27232B-371000	01B26C-1C50D5-274750-372020
2.5< SP ≤5	01B26C-1C50E6-27232B-371000	01B26C-1C5459-274750-372020
5< SP ≤7.5	01B26C-1C545B-27232B-371000	01B26C-1C54BC-274750-372020
7.5< SP ≤10	01B26C-1C54CF-27232B-371000	01B26C-1C54FE-274750-372020
10< SP ≤12.5	01B26C-1C5933-27232B-371000	01B26C-1C5942-274750-372020
12.5< SP ≤15	01B26C-1C5987-27232B-371000	01B26C-1C5994-274750-372020

Model	AC100JNMCEH	AC125JNMCEH
Static Pressure(mmAq)	Option code for indoor unit	
0≤ SP ≤4	01B26C-1C50F2-276470-375045	01B26C-1C5425-277D8C-374045
4< SP ≤8	01B26C-1C5447-276470-375045	01B26C-1C547A-277D8C-374045
8< SP ≤12	01B26C-1C54BC-276470-375045	01B26C-1C54ED-277D8C-374045
12< SP ≤15	01B26C-1C5910-276470-375045	01B26C-1C5929-277D8C-374045

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.

4-4 Items to be checked first

1. The input voltage should be rating voltage ±10% range.
   The air conditioner may not operate properly if the voltage is out of this range.

2. Is the link cable linking the indoor unit and the outdoor unit linked properly?
   The indoor unit and the outdoor unit shall be linked by 4 cables.
   Check the terminals if the indoor unit and outdoor unit are properly linked by the same number of cables.
   Otherwise the air conditioner may not operate properly.

3. When a problem occurs due to the contents illustrated in the table below it is a symptom not related to the malfunction of the air conditioner.

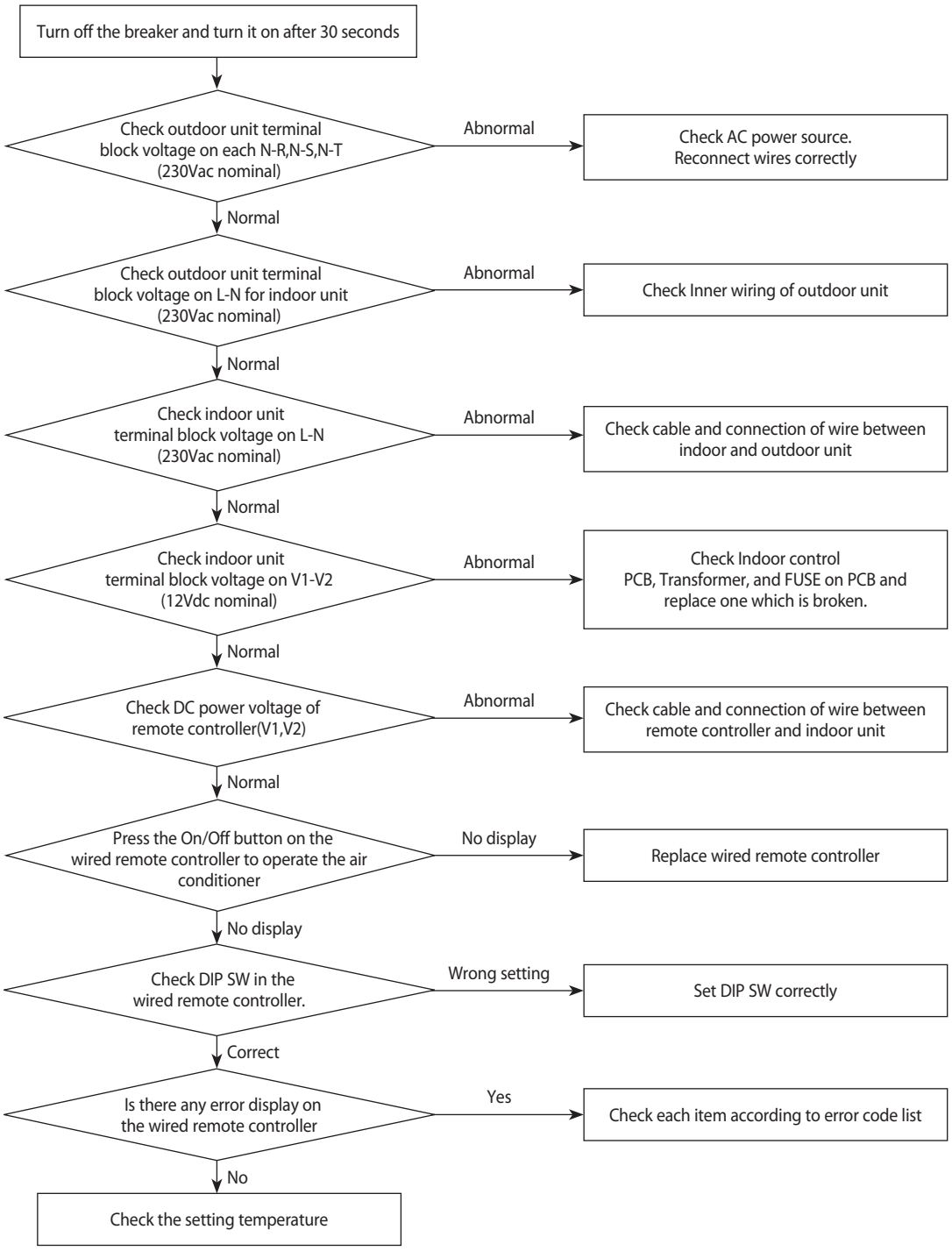
No	Operation of air conditioner	Explanation
1	In a COOL operation mode, the compressor does not operate at a room temperature higher than the setting temperature that the INDOOR FAN should operate. **[In case of heat pump model]** In a HEAT operation mode, the compressor does not operate at a room temperature lower than the setting temperature that indoor fan should operate.	In happens after a delay of 3 minutes when the compressor is reoperated. The same phenomenon occurs when a power is on. As a phenomenon that the compressor is reoperated after a delay of 3 minutes, the indoor fan is adjusted automatically with reference to a temperature of the air blew.
2	Compressor stops operation intermittently in DRY( ) mode.	Compressor operation is controlled automatically in DRY mode depending on the room temperature and humidity.
3	**[In case of heat pump model]** Compressor of the outdoor unit is operating although it is turned off in a HEAT mode.	When the unit is turned off while de-ice is activated, the compressor continues operation for up to 12 minutes(maximum) until the deice is completed.
4	**[In case of heat pump model]** The compressor and indoor fan stop intermittently in HEAT mode.	The compressor and indoor fan stop intermittently if room temperature exceeds a setting temperature in order to protect the compressor from overheated air in a HEAT mode.
5	**[In case of heat pump model]** Indoor fan and outdoor fan stop operation intermittently in a HEAT mode.	The compressor operates in a reverse cycle to remove exterior ice in a HEAT mode, and indoor fan and outdoor fan do not operate intermittently for within 20% of the total heater operation

4-5 Fault Diagnosis by Symptom

4-5-1 No Power(completely dead) - Initial diagnosis

1. Checklist:
   1) Is Power source voltage normal?
   2) Is AC power linked correctly?(miss-wiring, wire detaching etc.)
   3) Is any LED on the MAIN PCB of Outdoor unit lit?
   4) Is terminal voltage for indoor unit normal?(230Vac nominal)
   5) Is Wired remote controller installed correctly?

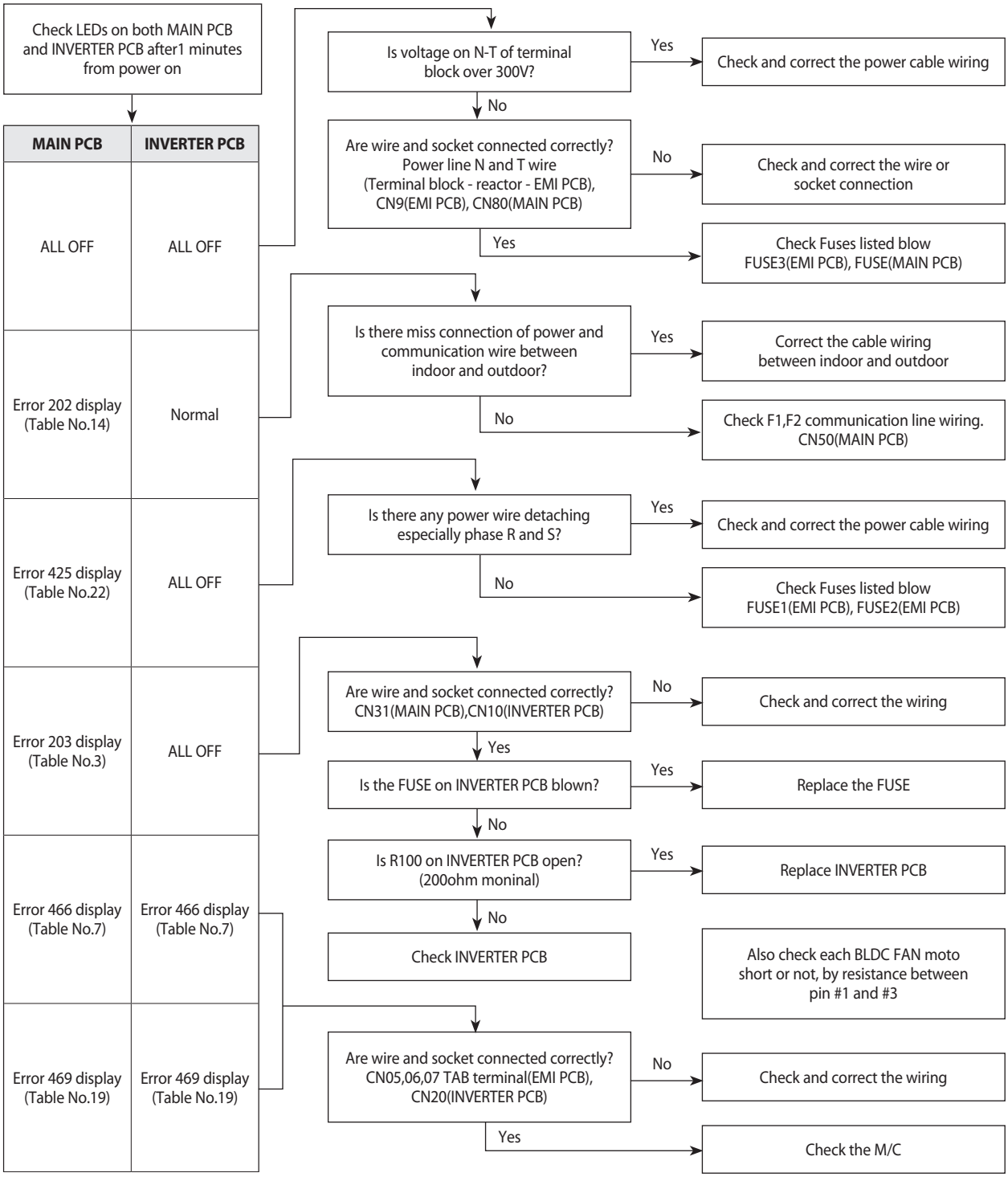
2. Troubleshooting procedure



4-5-2 The Outdoor unit Power Supply error

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

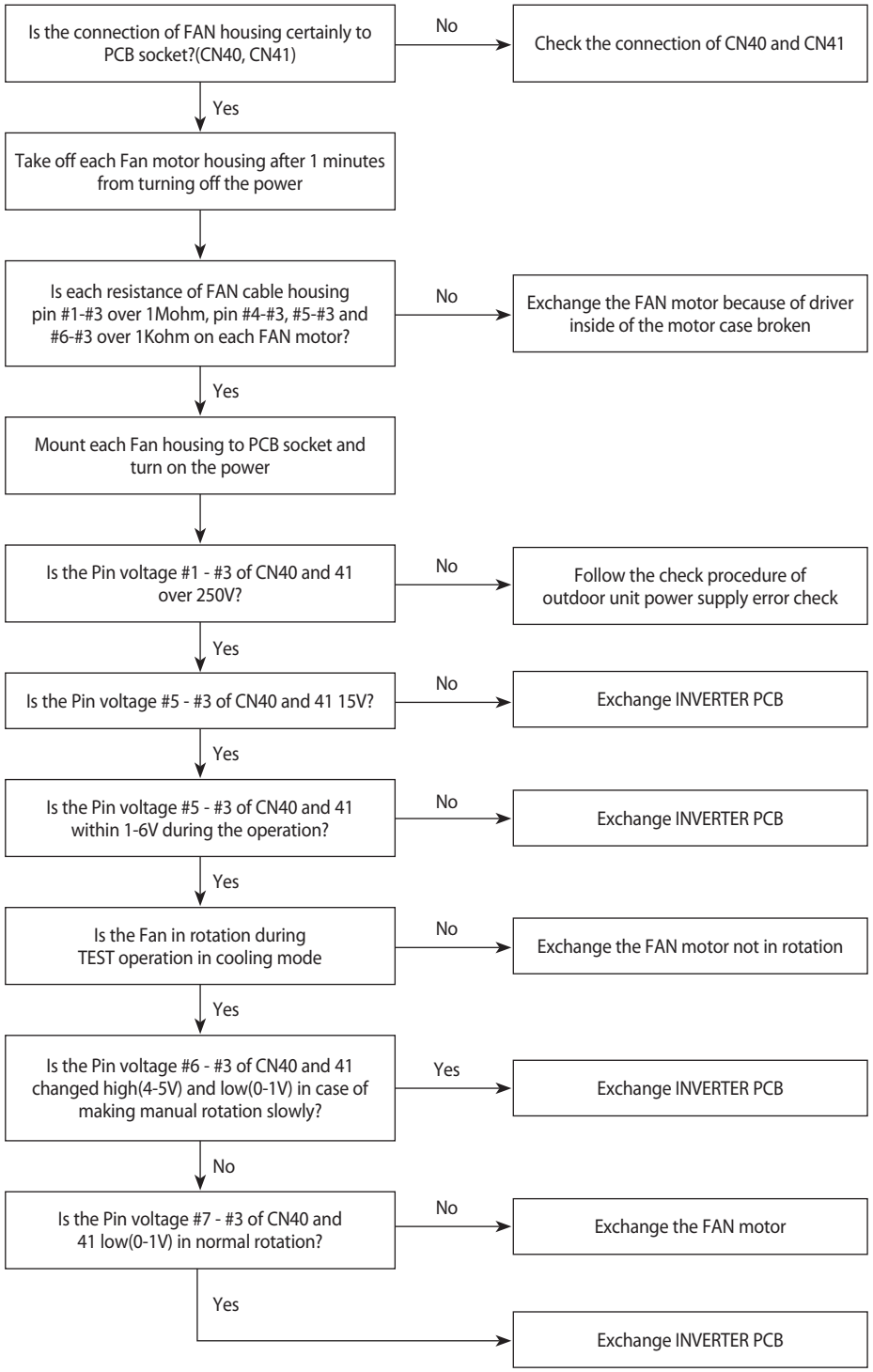
2. Troubleshooting procedure



4-5-3 The Outdoor unit Fan error

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

2. Troubleshooting procedure



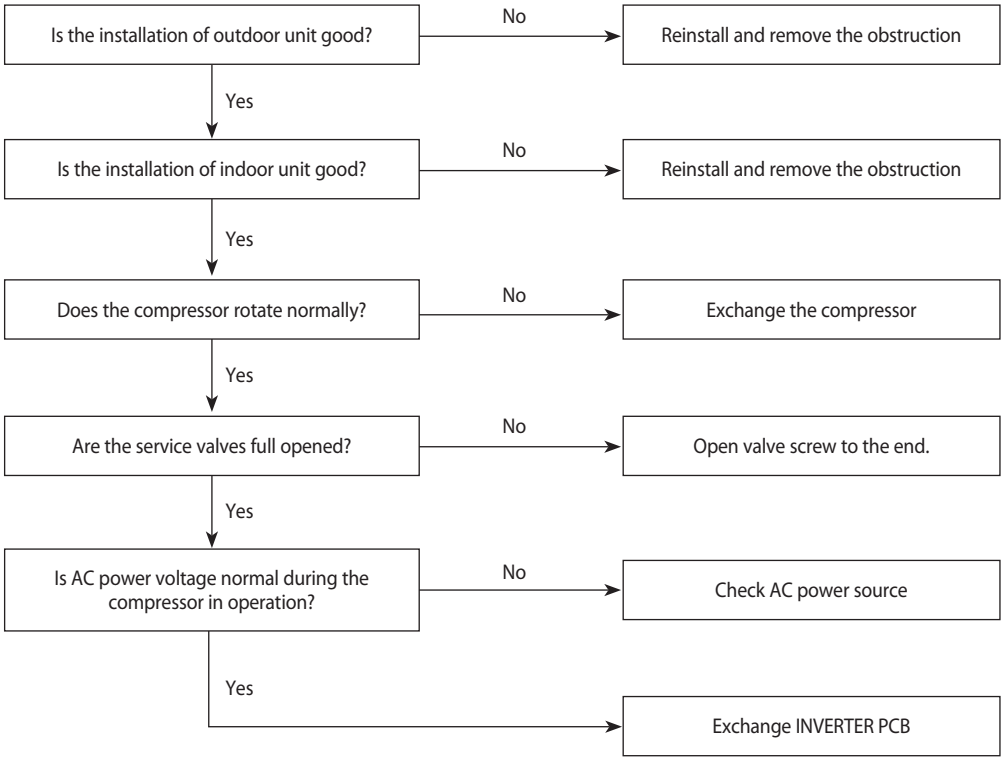
TEST operation
press K900 button on the MAIN PCB after power on.

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

4-5-4 Total current trip error

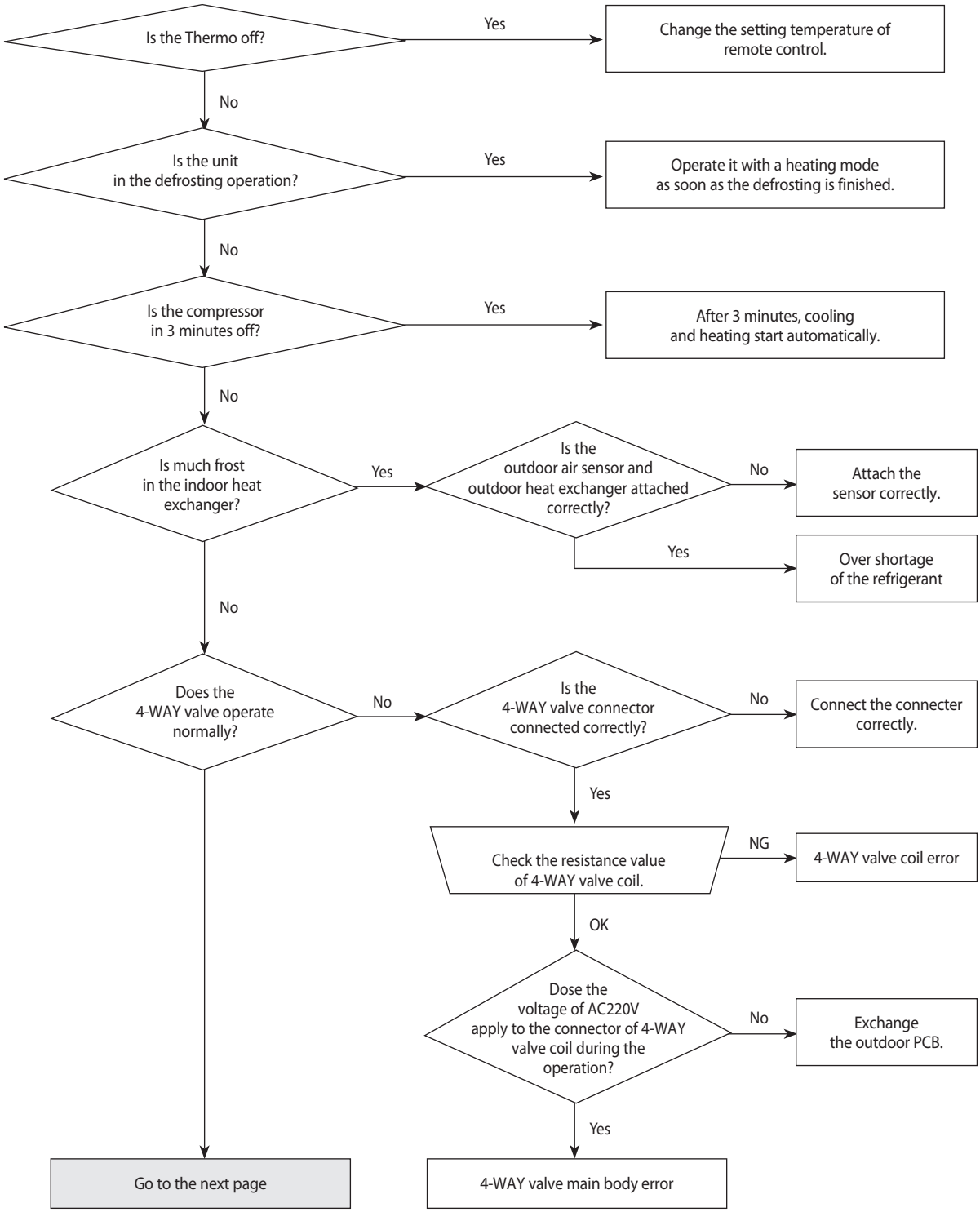
1. Checklist :
   1) Is the input power voltage proper?
   2) Is the refrigerant charged properly?
   3) Does the compressor rotate normally?(Reverse rotation, Locking etc.)
   4) Does the outdoor fan operate normally?(Fan propeller loss, Motor error ect.)
   5) Is the installation condition of outdoor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

2. Troubleshooting procedure

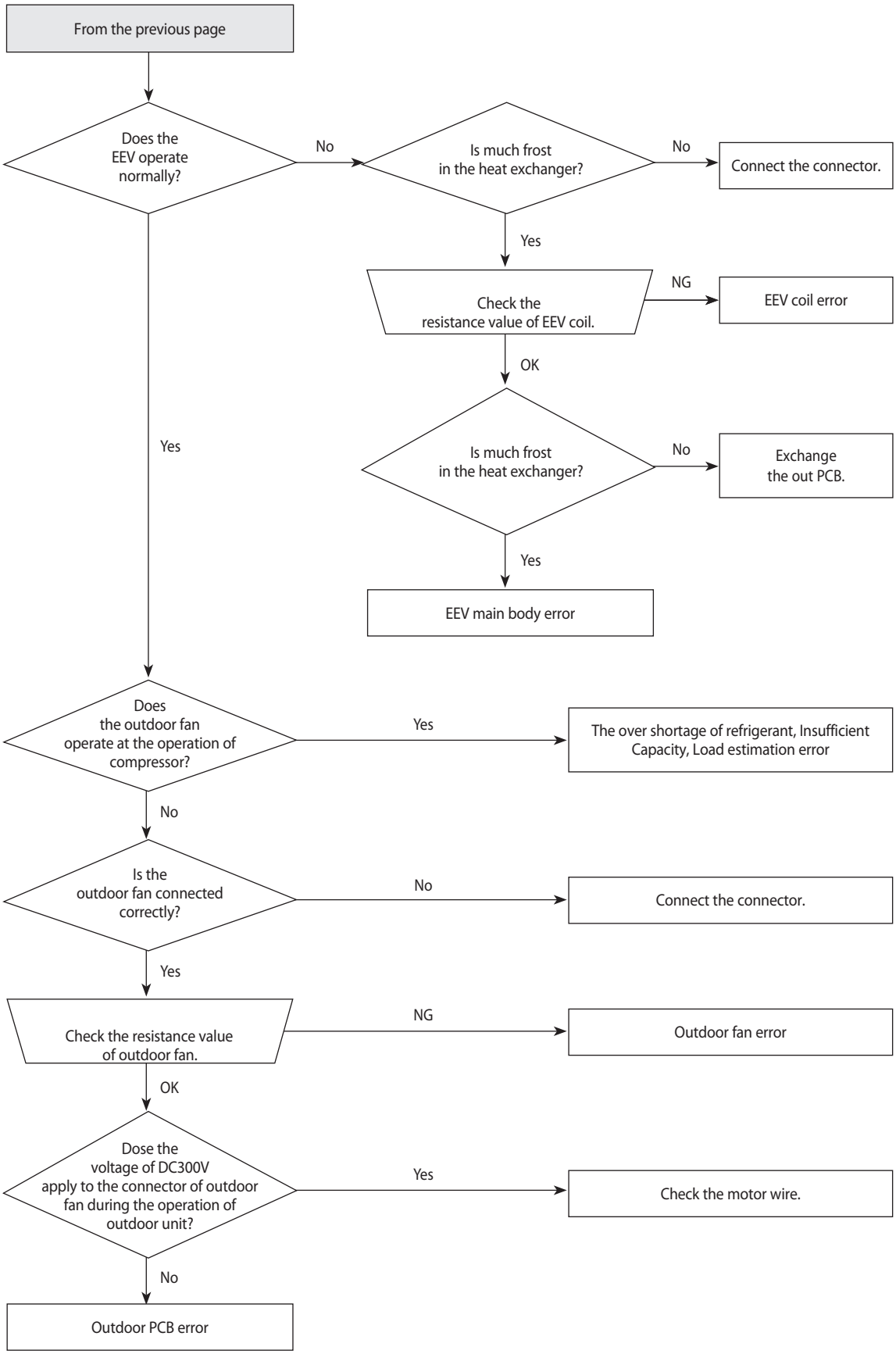


4-5-5 In case of heating at the cooling mode or cooling at the heating mode

1. Troubleshooting procedure



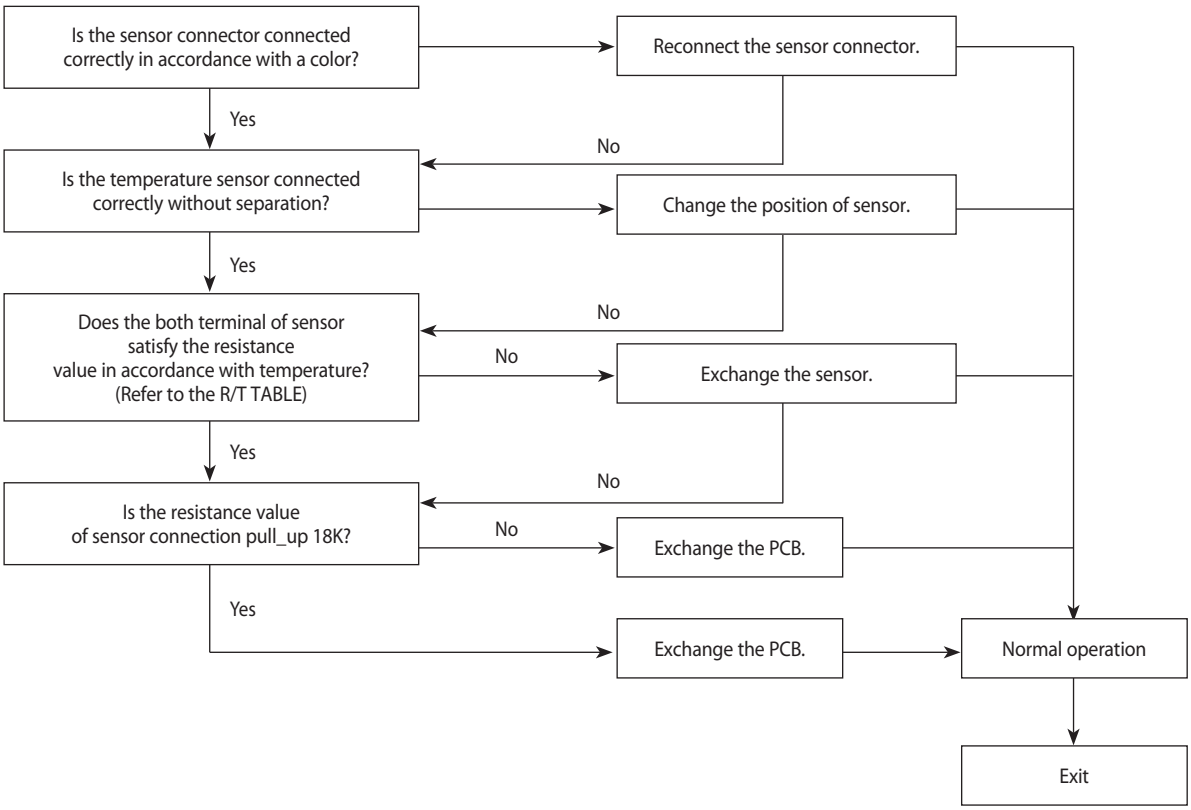
In case of heating at the cooling mode or cooling at the heating mode(cont.)

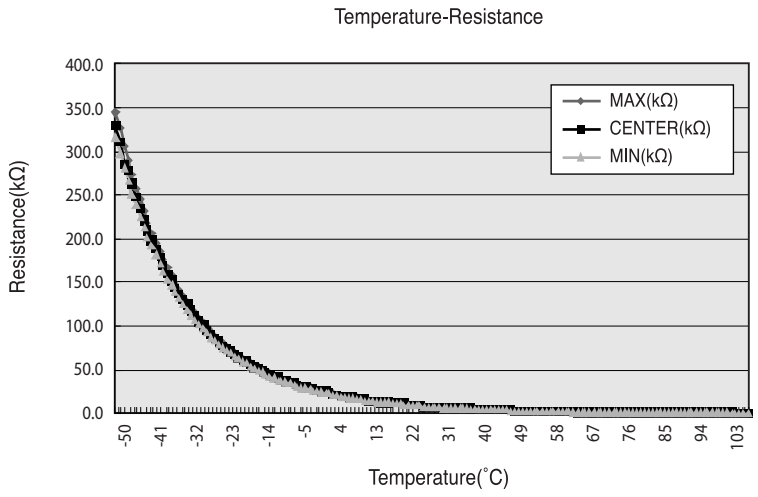


4-5-6 Outdoor temperature sensor error

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

2. Troubleshooting procedure

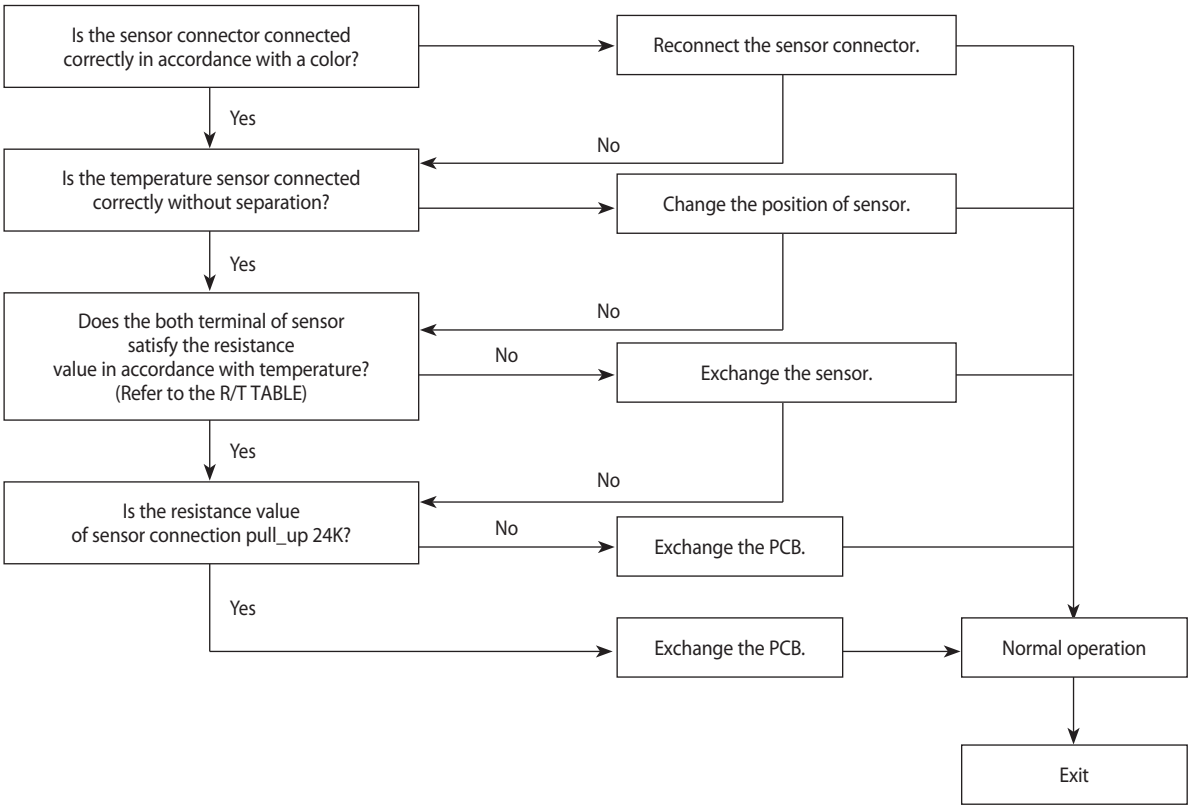


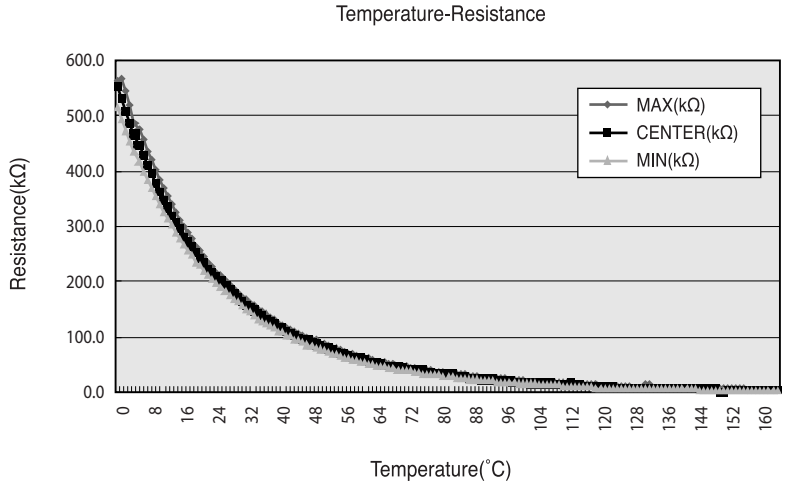


4-5-7 Discharge temperature sensor error

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

2. Troubleshooting procedure

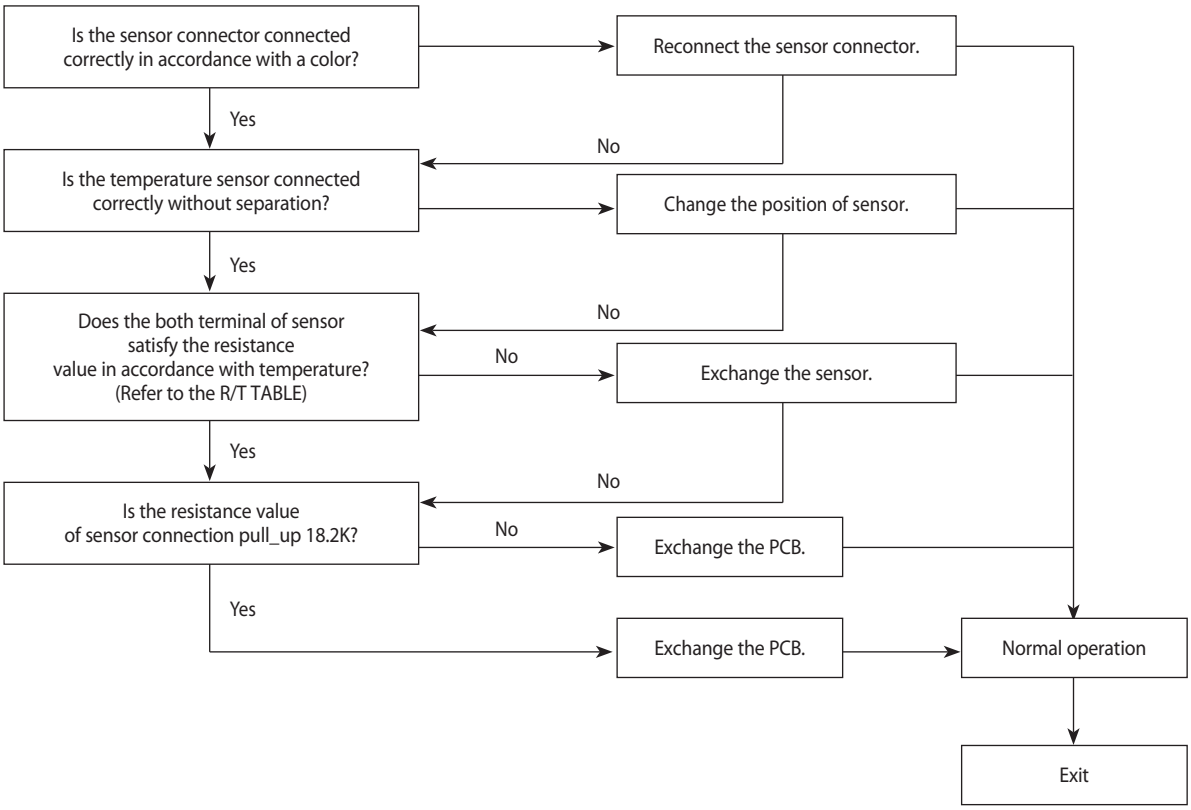


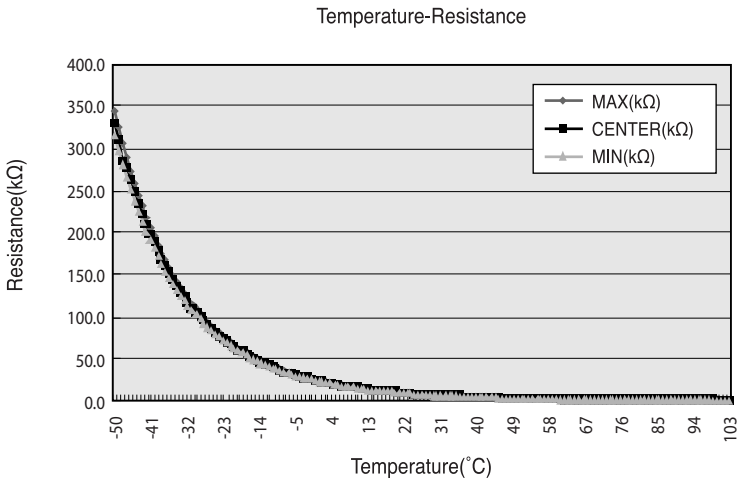


4-5-8 Coil temperature sensor error

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

2. Troubleshooting procedure

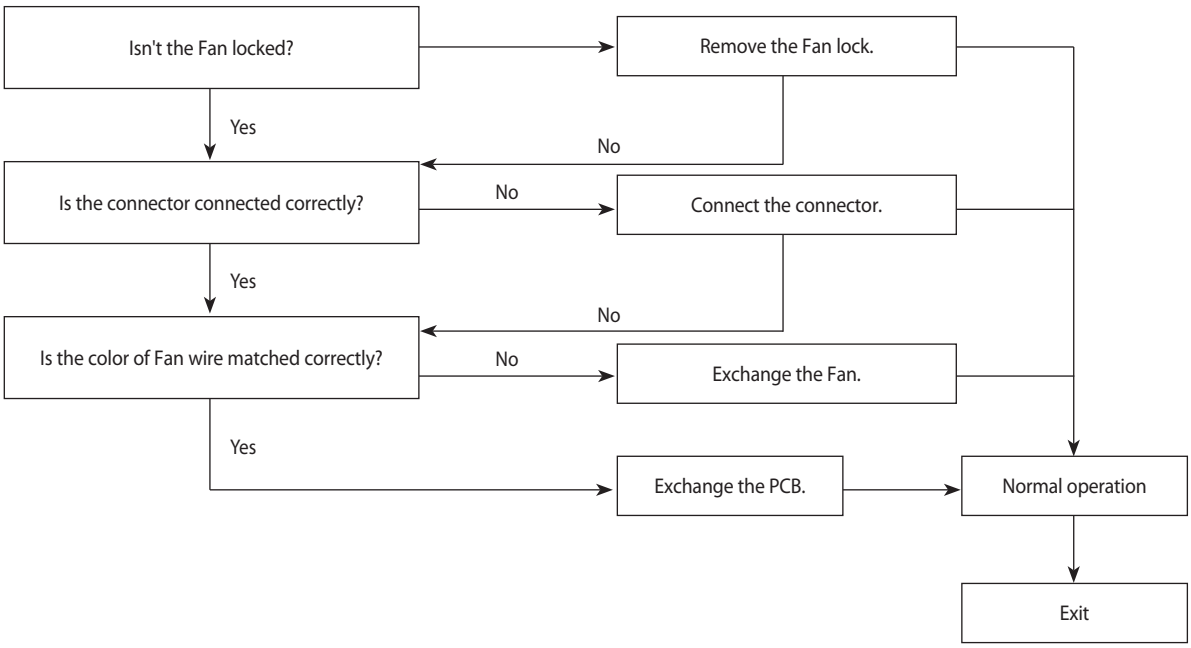




4-5-9 Fan error

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

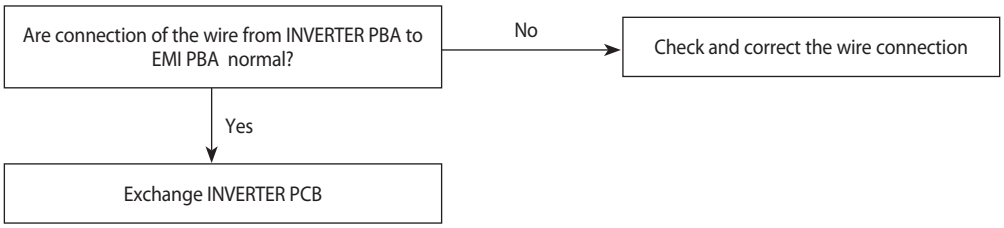
2. Troubleshooting procedure



4-5-10 DC-Link voltage sensor error

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

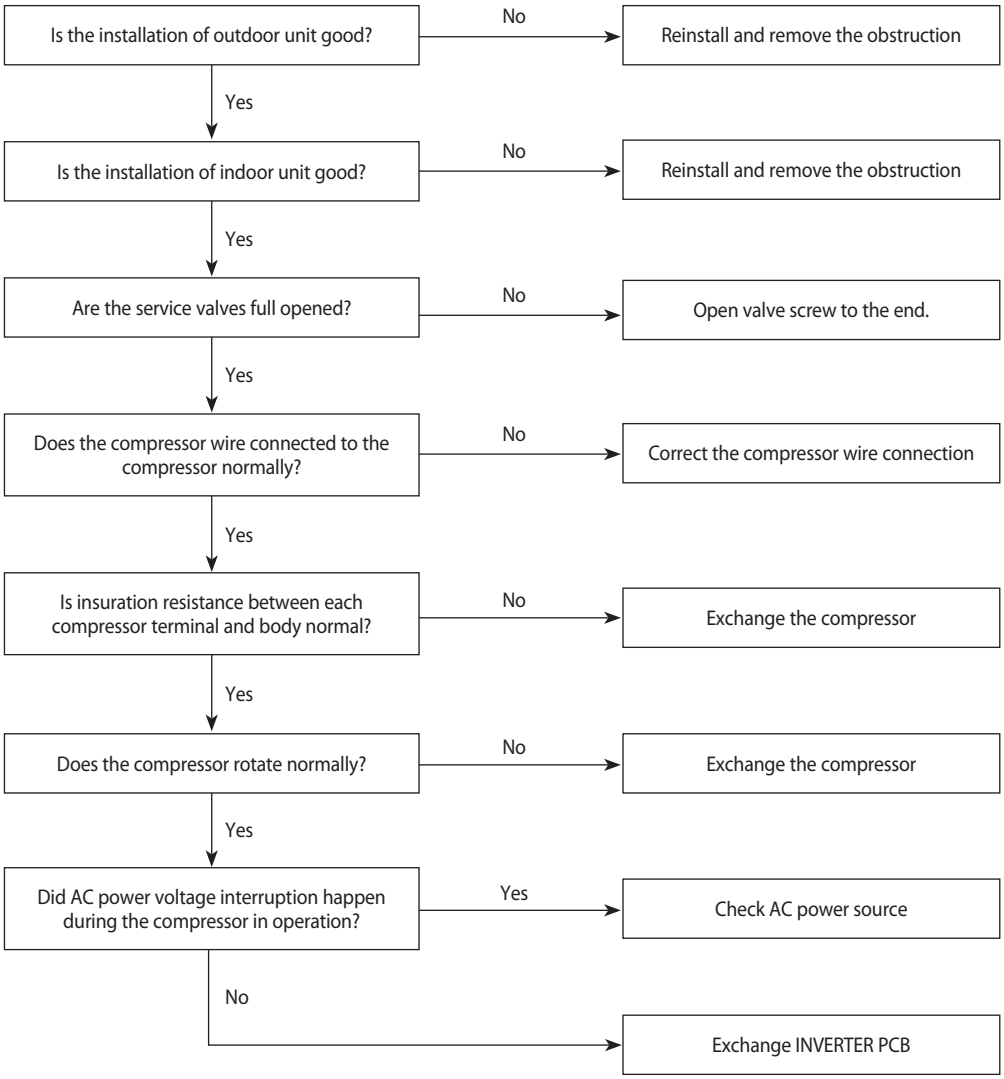
2. Troubleshooting procedure



4-5-11 O.C.(Over Current) error

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

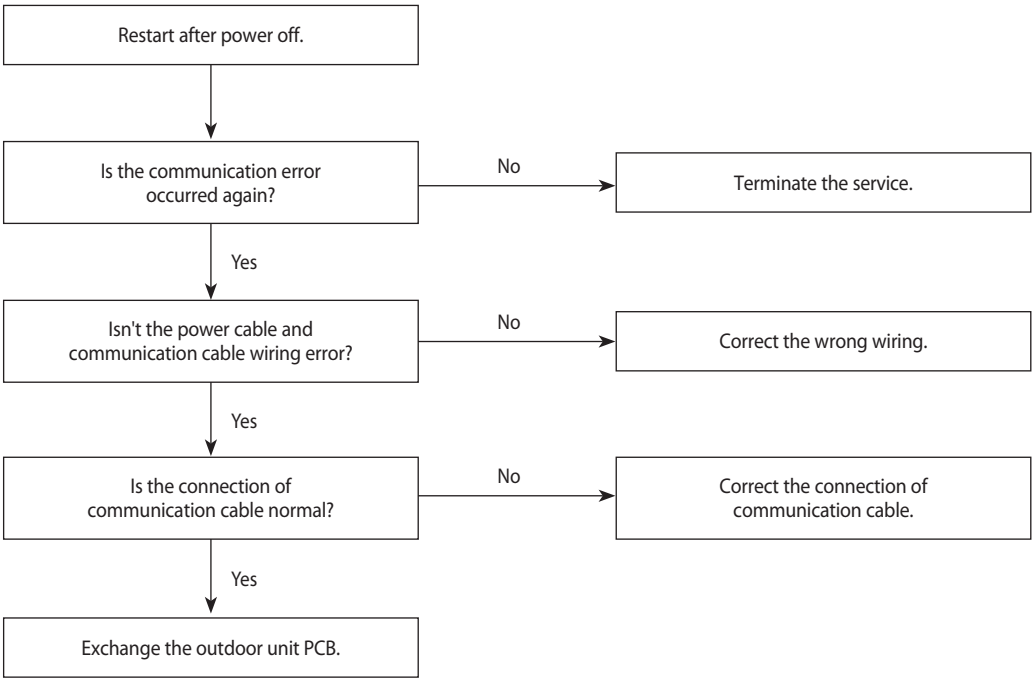
2. Troubleshooting procedure



4-5-12 Communication error

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

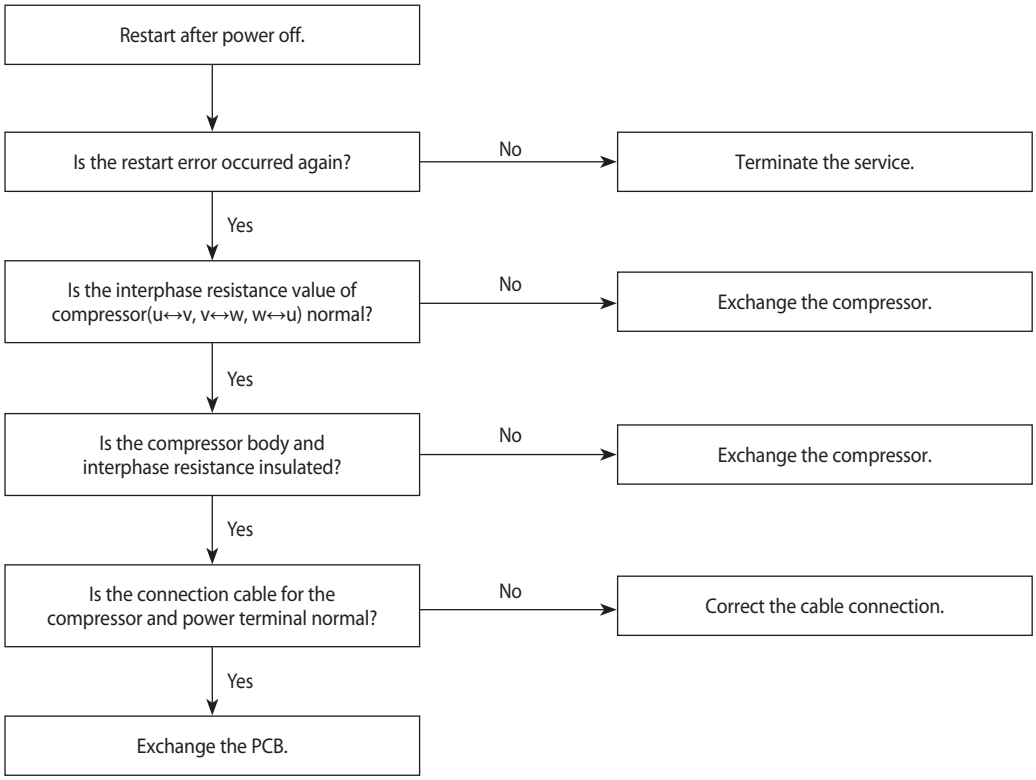
2. Troubleshooting procedure



4-5-13 Compressor start error

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

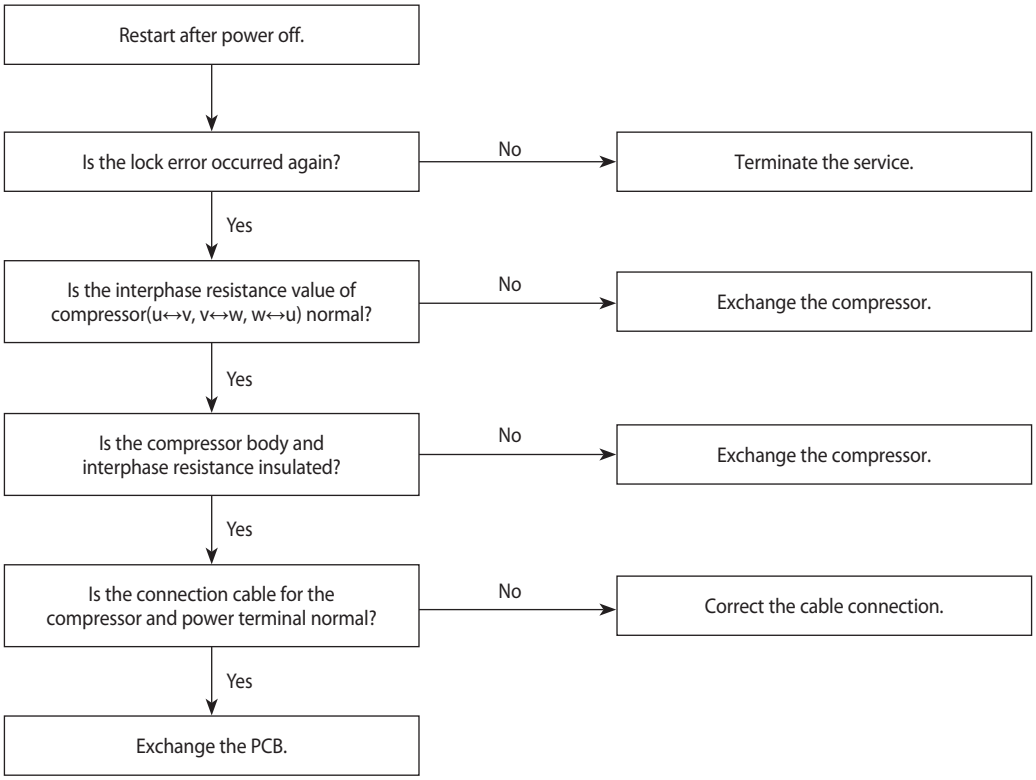
2. Troubleshooting procedure



4-5-14 Compressor lock error

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

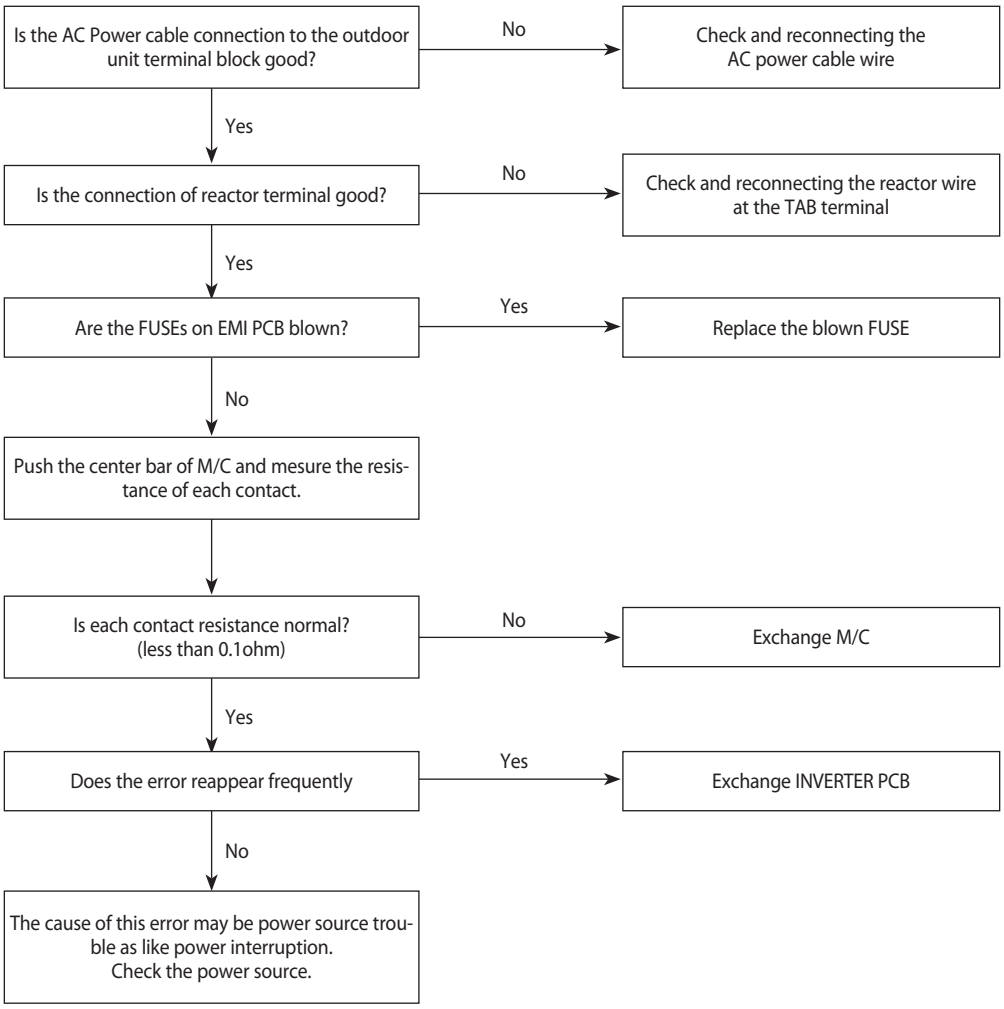
2. Troubleshooting procedure



4-5-15 DC Link Over voltage/ Low voltage error

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

2. Troubleshooting procedure



4-5-16 The others

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

4-6 PCB Inspection Method

4-6-1 Pre-inspection Notices

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

4-6-2 Inspection Procedure

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

4-6-3 Indoor Detailed Inspection Procedure

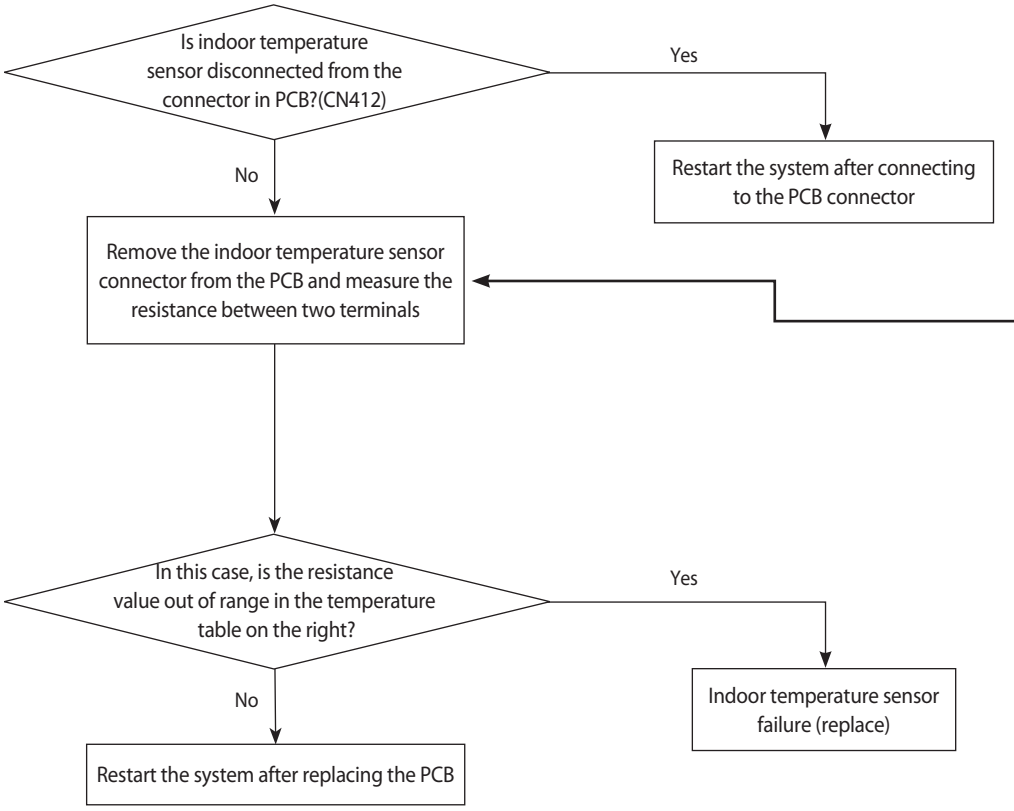
No	Procedure	Inspection Method	Cause
1	Open the electronic component box and check the PCB fuse	Turn off the power 1) Is the Fuse F701 on the EMI PCB blown? 2) Is the Fuse F702 on the MAIN PCB blown?	• Over current • Indoor fan motor short • PCB AC Part pattern short
2	Check the LEDs for DC power and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

4-6-4 Outdoor Detailed Inspection Procedure

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

4-7-1 Indoor temperature sensor (open/short)

Indoor unit display	X (Operation) X (Defrost) ◑ (Timer) X(Fan) X (Filter)
Wire remote controller display	E121
Symptom	Error of Room sensor in the indoor unit(Open/Short)
Failure	Short or leakage of the Room sensor



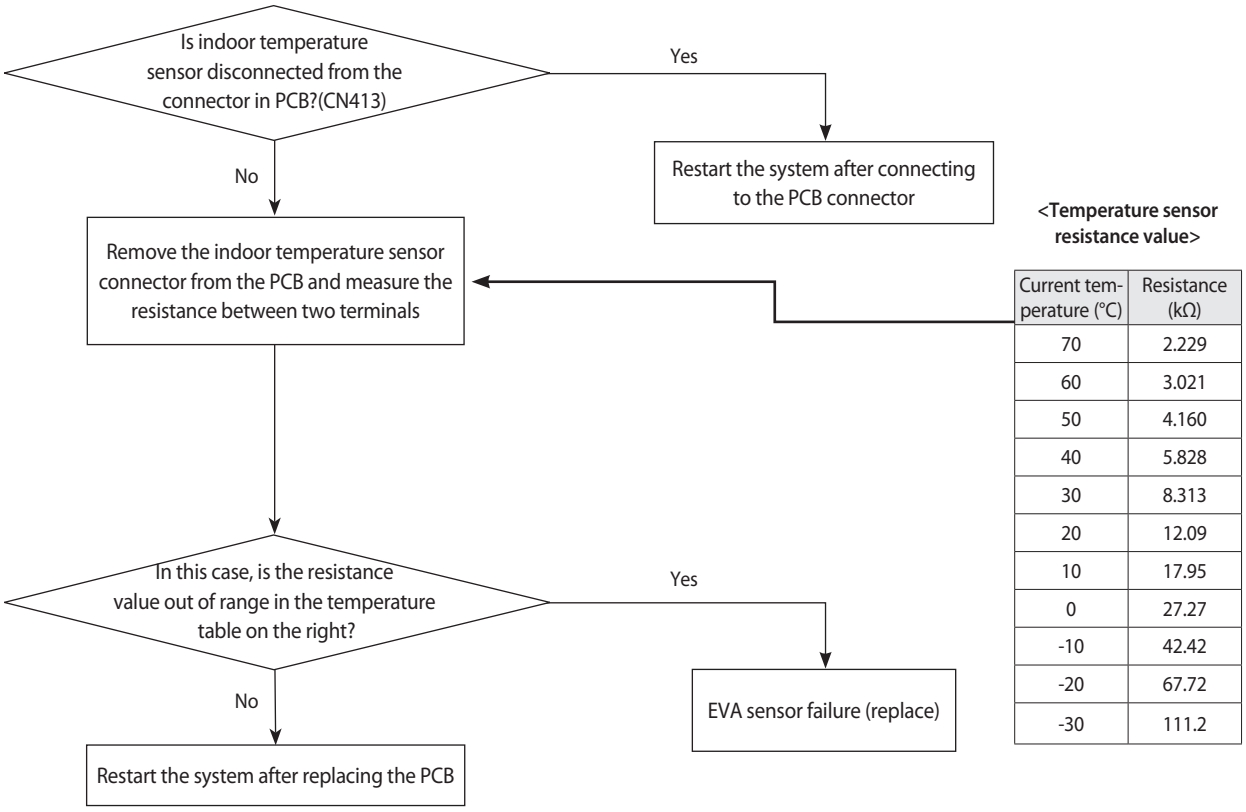
<Temperature sensor resistance value>

Current temperature (°C)	Resistance (kΩ)
40	5.800
35	6.900
30	8.300
25	10.00
20	12.10
15	14.70
10	18.00
5	22.00
0	28.30
-5	33.90
-10	42.30

4-7-2 Eva in and out sensor (open/short)

MEMO

Indoor unit display	◑(Operation) X (Defrost) ◑ (Timer) X(Fan) X (Filter)
Wire remote controller display	E122
Symptom	Error of EVA-IN,EVA-OUT sensor in the indoor unit(Open/Short)
Failure	Short or leakage of the EVA sensor

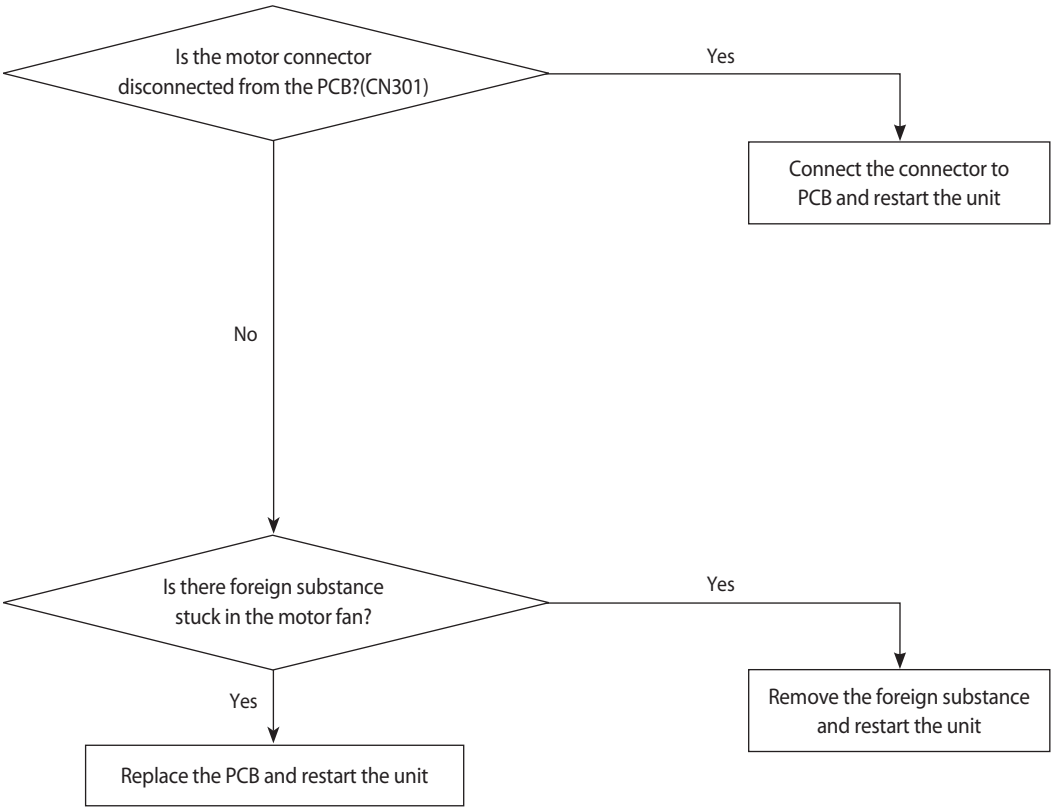


<Temperature sensor resistance value>

Current temperature (°C)	Resistance (kΩ)
70	2.229
60	3.021
50	4.160
40	5.828
30	8.313
20	12.09
10	17.95
0	27.27
-10	42.42
-20	67.72
-30	111.2

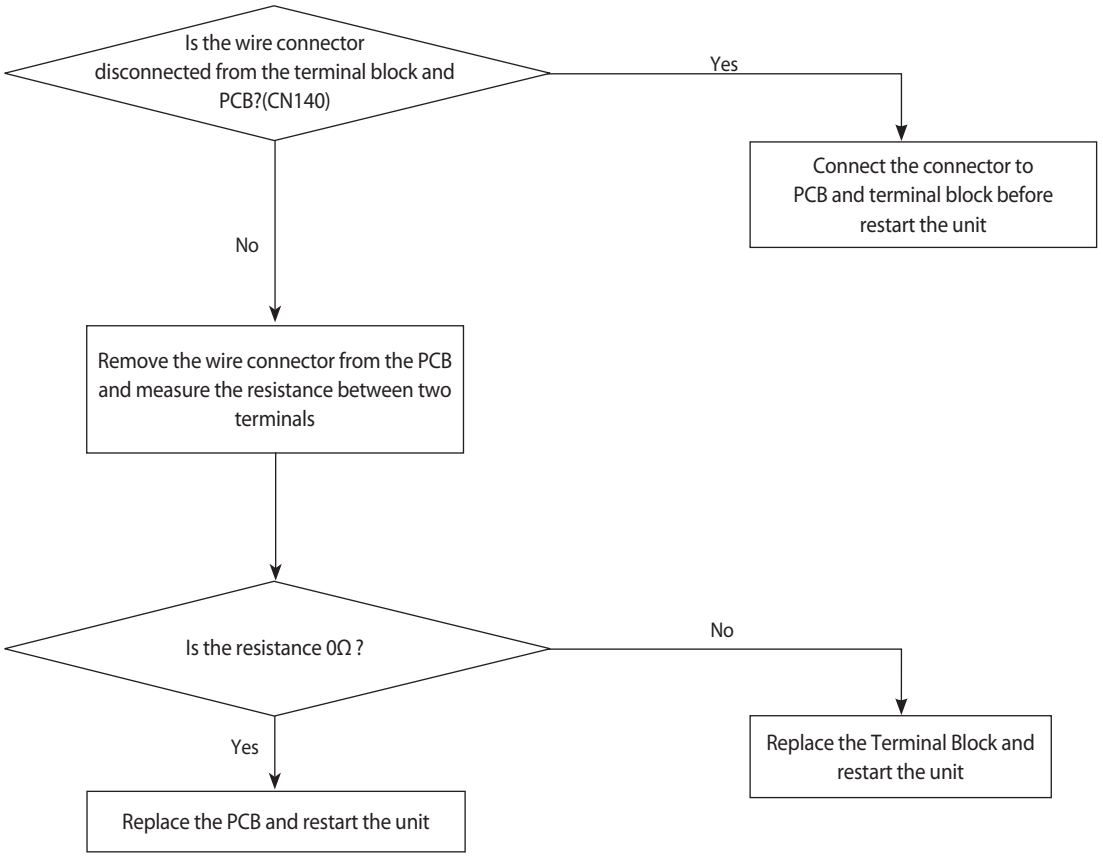
4-7-3 Fan error

Indoor unit display	X (Operation) X (Defrost) X(Timer) ◑(Fan) X (Filter)
Wire remote controller display	E154
Symptom	Error of Fan motor in the indoor unit
Failure	Fan error



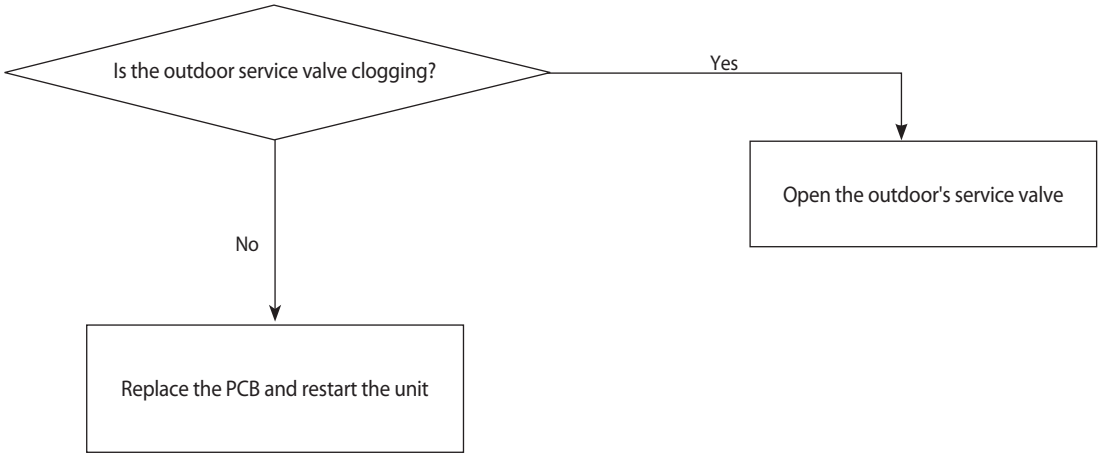
4-7-4 Terminal Block's Terminal Fuse(Open)

Indoor unit display	X (Operation) X (Defrost) ◑ (Timer) ◑ (Fan) ◑ (Filter)
Wire remote controller display	E198
Symptom	Error of Terminal Block's Terminal Fuse(Open)
Failure	Fuse open



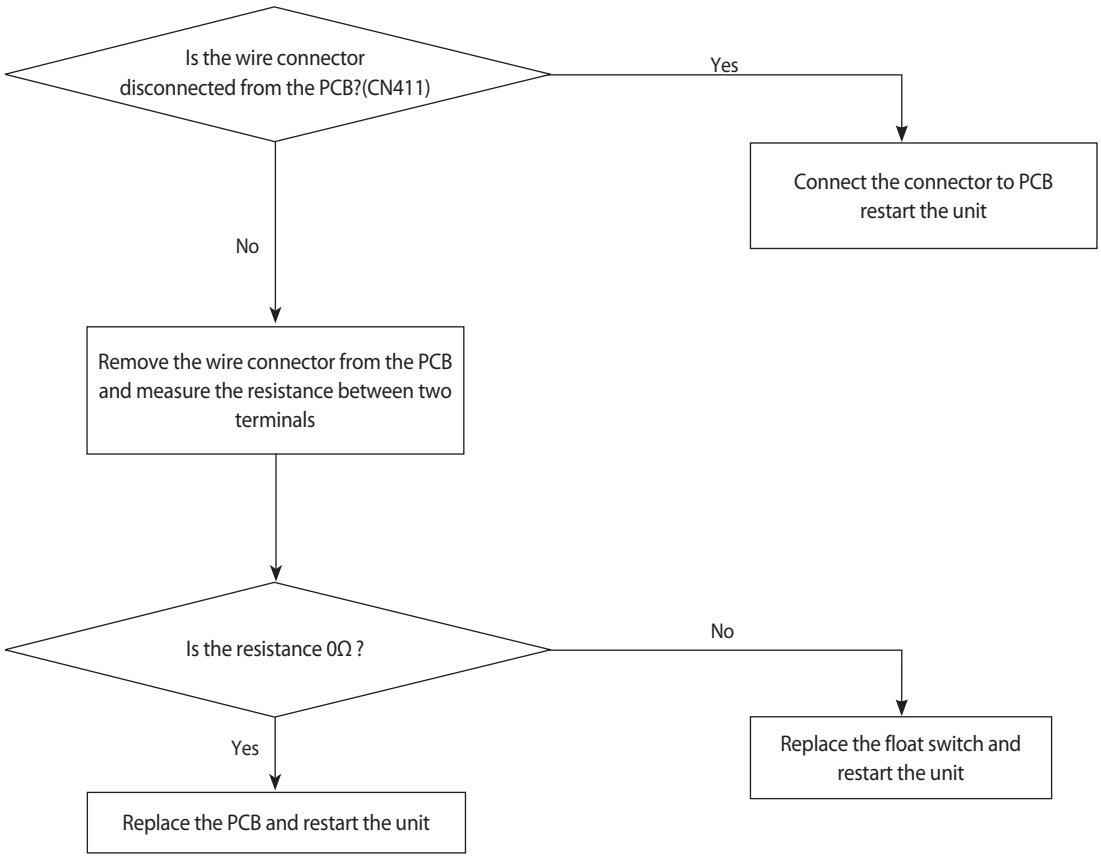
4-7-5 Outdoor's service valve(Clog)

Indoor unit display	◑ (Operation) X (Defrost) X (Timer) ◑ (Fan) ◑ (Filter)
Wire remote controller display	E422
Symptom	Clogging of outdoor's service valve
Failure	Valve clog



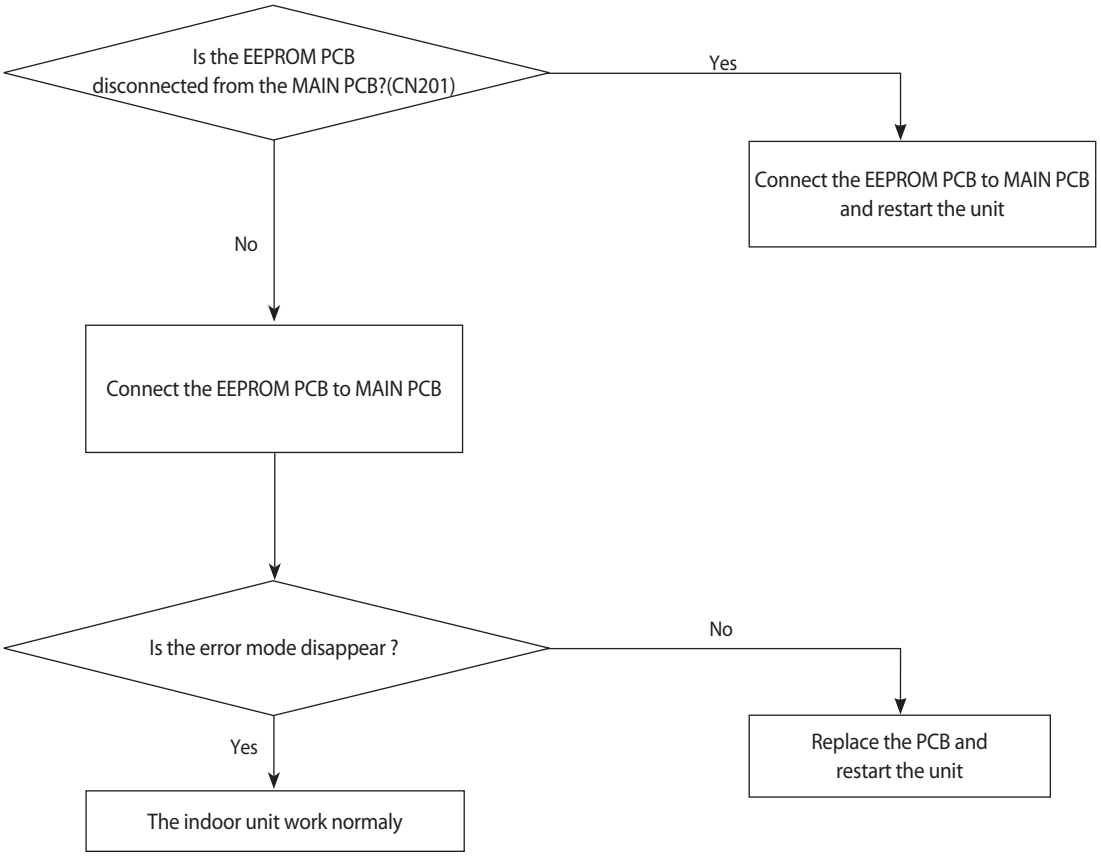
4-7-6 float switch(Open)

Indoor unit display	X (Operation) X (Defrost) X (Timer) ◑(Fan) ◑ (Filter)
Wire remote controller display	E153
Symptom	2nd Detection of the float switch
Failure	Float switch open



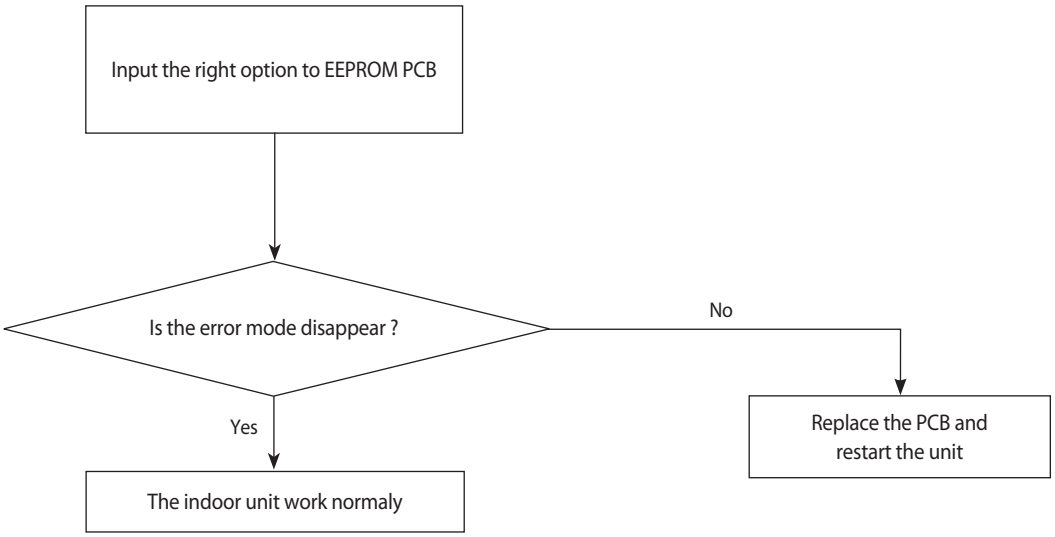
4-7-7 EEPROM error

Indoor unit display	◑ (Operation) ◑ (Defrost) ◑ (Timer) ◑ (Fan) ◑ (Filter)
Wire remote controller display	E162
Symptom	EEPROM PCB disconnected from the MAIN PCB
Failure	Option error



4-7-8 Option error

Indoor unit display	◑ (Operation) ◑ (Defrost) ◑ (Timer) ◑ (Fan) ◑ (Filter)
Wire remote controller display	E163
Symptom	EEPROM option setting error
Failure	Option error



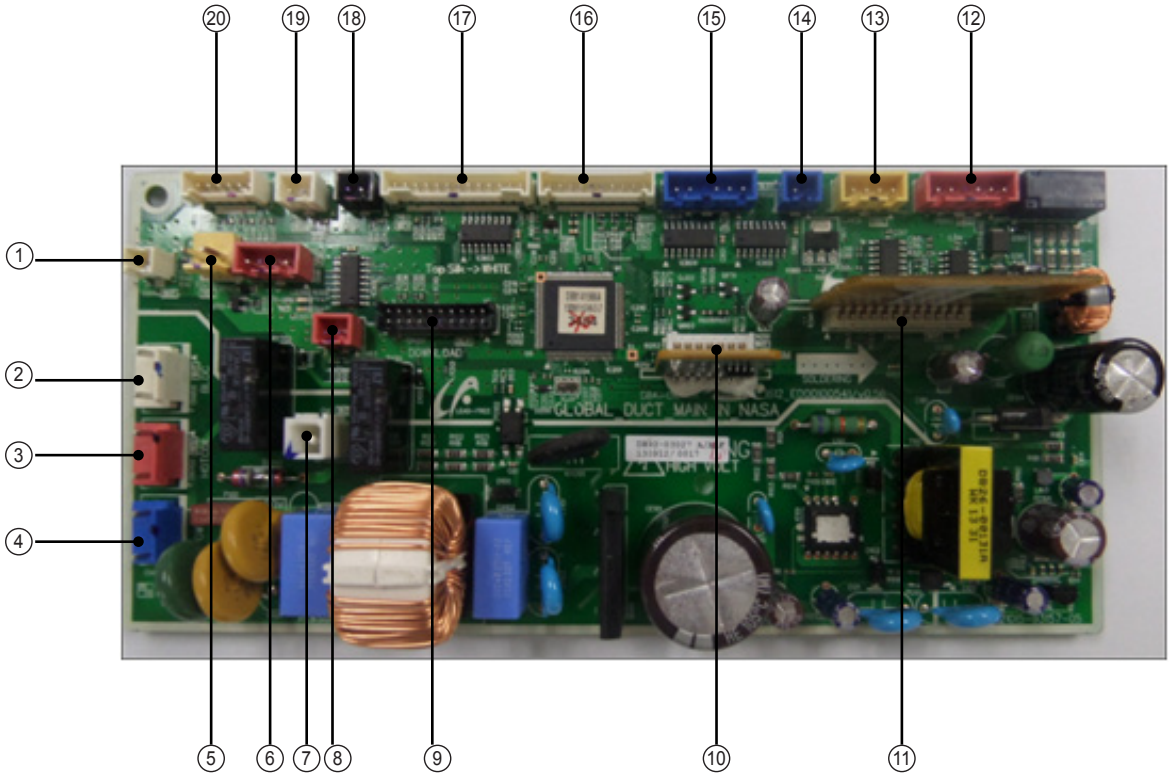
4-8 Main Part Inspection Method

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

Remark : 4-5-4~7 contents are for heat pump model (DH18/24BT) .

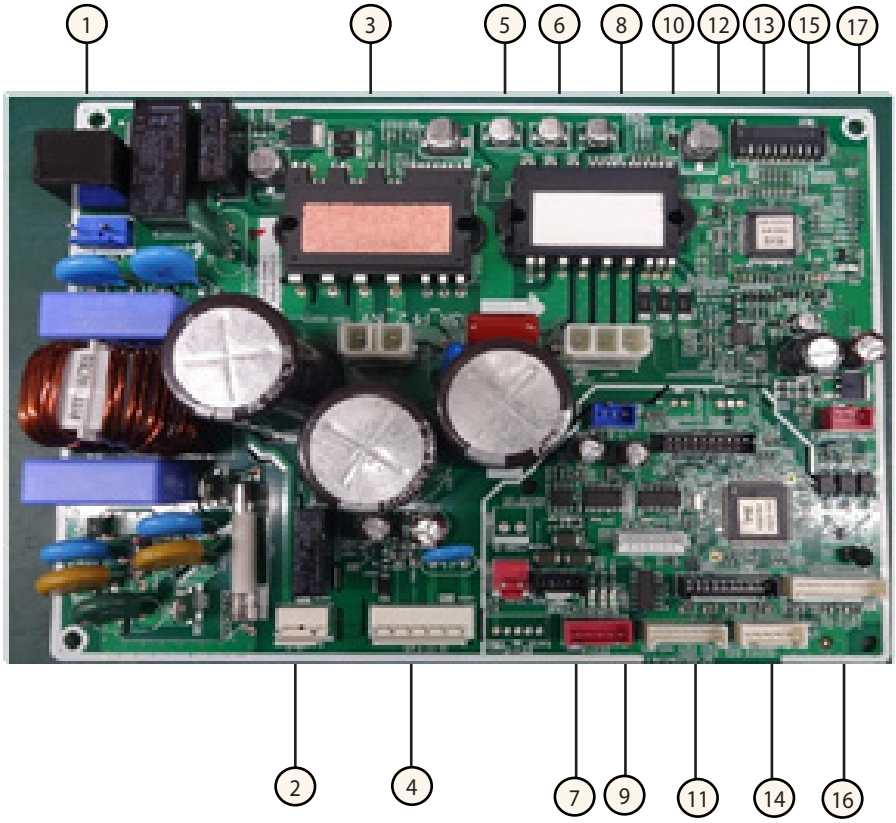
5. PCB Diagram and Part List

■ 5-1 INDOOR MAIN PCB Diagram



No	Part Code	Local	Function	Description
1	3711-003942	CN140	Fuse Check	SMW200-02P WHT
2	3711-000203	CN906	BLDC POWER	YW396-03AV WHT
3	3711-003407	CN702	Comp Signal	YW396-03AV RED
4	3711-003404	CN101	MAIN POWER	YW396-03AV BLU
5	3711-000179	CN701	DRAIN	YW396-02V YEL
6	3711-000939	CN81	COMP ERROR	SMW250-04 RED
7	3711-000744	CN1	EARTH	YDW236-01WHT
8	3711-000796	CN83	EXT-T	SMW250-02 RED
9	3711-002001	CN301	DOWNLOAD	YDW200-20
10	3711-007817	CN201	EPPROM	B7P-MQ WHT
11	3711-004773	CN311	2 WIRE	BMW200-12 WHT
12	3711-001037	CN302	COMM	SMW250-06 RED
13	3711-000941	CN801	SPI	SMW250-04 YEL
14	3711-000795	CN804	VEN	SMW250-02 BLU
15	3711-001036	CN808	EEV	SMW250-06 BLU
16	3711-004182	CN905	FAN MOTOR COMM	SMW200-10P WHT
17	3711-003895	CN501	DISPLAY	SMW200-13P WHT
18	3711-000794	CN411	FLOAT-SW	SMW250-02 BLK
19	3711-000015	CN412	ROOM SENSOR	SMW250-02 WHT
20	3711-004236	CN413	EVA DIS/OUT SENSOR	SMW200-06P WHT

■ 5-2 OUTDOOR MAIN PCB Diagram

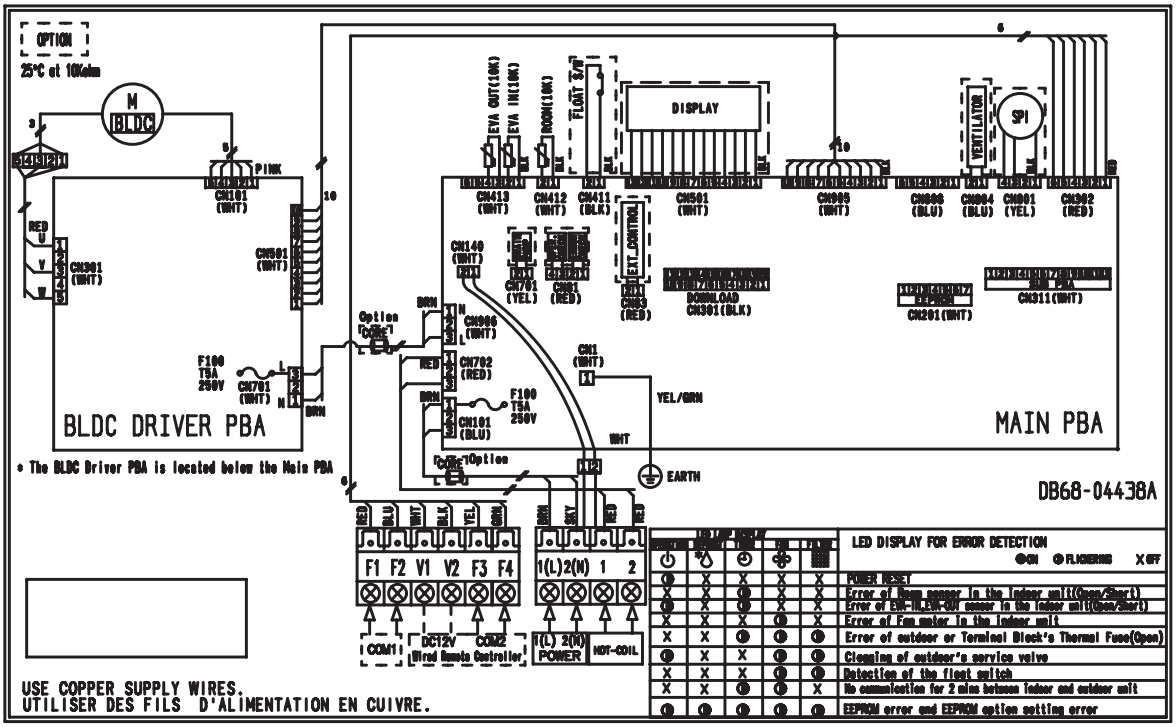


NO	Description
1	SMPS POWER: YW396-03AV BLU
2	4WAY:YW396-03AV WHT
3	REACTOR:DBT081-2P WHT
4	BLDC FAN:YW396-06V WHT
5	COMM:YW396-02V RED
6	SUB PBA POWER:SMW200-05P BLK
7	EEV1:SMW250-05 RED
8	COMP:DBT061-3P WHT
9	SMPS: SMW250-03 BLU
10	EEPROM:B7P-MQ WHT
11	TEMP SENSOR: SMW200-08P WHT
12	MAIN DOWNLOAD:YDW200-20 BLK
13	SUB PBA: SMW200-10P BLK
14	DRED:SMW250-05 WHT
15	INV DOWNDOWN: YDAW200-20TR BLK
16	SUB PBA: SMW200-10P WHT
17	ENABLE CGND: SMW250-03 RED

6. Wiring Diagram

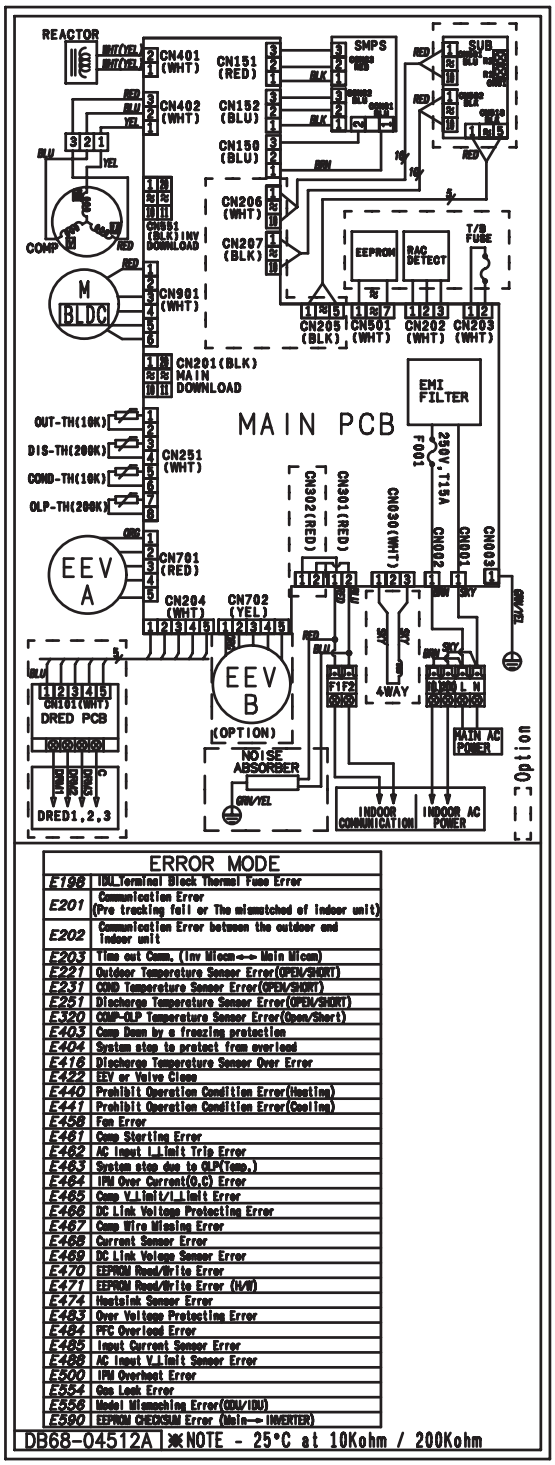
6-1 Indoor Unit

■ AC035JNMCEH / AC071JNMCEH / AC100JNMCEH / AC125JNMCEH



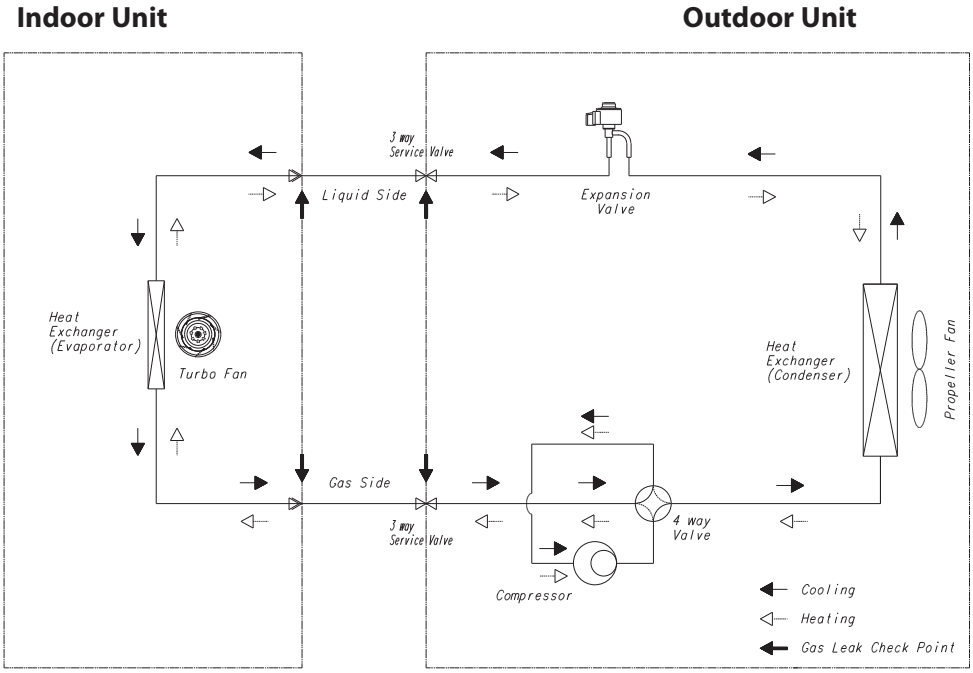
■ 6-2 Outdoor Unit

■ AC035JXSCEH



7. Preference Sheet

7-1 Refrigerating Cycle Diagram



■ CONDENSER

High temperature and high pressure gas state coolant discharged from the compressor is converted to a liquid state as it is cooled down by the heat emission in the outdoor condenser unit, and sent to the evaporator.

■ COMPRESSOR

Low temperature and low pressure coolant is compressed and sent to the cycling system.

■EVAPORATOR

Liquid coolant sucked in through the capillary tubes cools down the room by absorbing the surrounding heat as it evaporates (converting from liquid to gas). (Absorbing heat required for evaporation)

■SERVICE VALVE

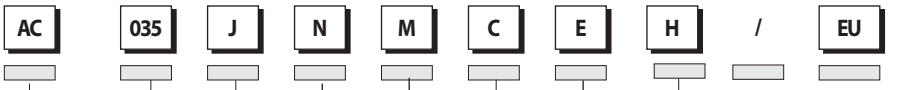
You can open the valve by turning the need valve counterclockwise using hex wrench, and it is used for vacuum, gas purging, coolant injection, coolant purging, and indoor-outdoor unit connection.

■ACCUMULATOR

Accumulator prevents the flow of liquid-state coolant into the compressor. (Liquid-state coolant flowing into the compressor will overload the compressor.)

7-2 Index of Model Name

Model Code



Capacity (3 DIGIT)
KW / BTU / Liter

Product Type	
Code	Type
E	2012
F	2013
G	2014
H	2015
I	2016
J	2017

Rating Voltage	
Code	Type
A	A(115V, 60hz, 1Φ)
B	B(220V, 60Hz, 1Φ)
C	C(208~230V, 60Hz)
D	D(200~220V, 50Hz)
E	E(220~240V, 50Hz)
F	F(208~230V, 60Hz, 3Φ)
G	G(380~415V, 50Hz, 3Φ)
H	H(380V, 60Hz, 3Φ)
J	J(460V, 60Hz, 3Φ)
K	K(220~240V, 50/60Hz, 1Φ)
M	M(127V, 50Hz)
N	N (380~415V, 50/60Hz, 3Φ)

Product Type	
Code	Type
AM	DVM
AJ	PMA
AC	CAC (USD) / ASD
AE	EHS
AN	VTL
AK	PAK (Packaged System)
AG	CHR

Product Type	
Code	Type
S	Set (NASA)
N	Indoor (NASA)
X	Outdoor(NASA)
A	Set (NASA)
B	Indoor (No NASA)
C	Outdoor (No NASA)

Refrigerant		
Code	Type	Refrigerant
C	COOLING ONLY	R410a
H	HEAT PUMP	
R	HEAT RECOVERY	
D	COOLING ONLY	R22
E	HEAT PUMP	
A	Cooling only	R134
B	Heat Pump	
N	N/A	

Product Type (Indoor)	
Code	Type
1	1 WAY CST
2	2 WAY CST
N	MINI 4 WAY CST
4	4 WAY CST
H	HSP DUCT
M	MSP DUCT
L	LSP DUCT
E	FRESH AIR INTAKE DUCT
G	CEILING CONCEILED DUCT
C	CEILING
J	CONSOLE
F	FLOOR MOUNTING
P	FAC

Product Type (Outdoor)	
Code	Type
A	Inv+Side+General Temp
S	Inv+Side+Low Temp
Q	Inv+Side+Tropical Temp
F	Inv+Top+Tropical Temp
B	Non Inv+Side+General Temp
N	Non Inv+Side+Low Temp
R	Non Inv+Side+Tropical Temp
Z	Non Inv+Top+Tropical Temp
1:1 (In/out)	->4Way : 4 , MSP Duct : M , Ceiling : C

Product Type (Indoor)	
Code	Type
F	FLAGSHIP
P	PREMIUM
D	DELUXE
S	STANDARD

Product Type (Outdoor)	
Code	Type
A	STANDARD+GENERAL Temp.+MODULE
B	STANDARD+LOW Temp.+MODULE
C	STANDARD+ TROPICAL+MODULE
D	STANDARD+GENERAL Temp.+NON MODULE
S	STANDARD
T	DELUXE + TROPICAL

※ "/" can be removed from the buyer card if there are not enough digits.

Printed in China.
Code No. DB68-00000A (1)