

SAMSUNG

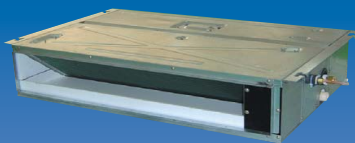
SYSTEM AIR CONDITIONER

SLIM DUCT SERIES

	INDOOR UNIT	OUTDOOR UNIT
Model Code :	AC009KNLDCH/AA	AC009KXADCH/AA
	AC012KNLDCH/AA	AC012KXADCH/AA
	AC018KNLDCH/AA	AC018KXADCH/AA

SERVICE *Manual*

AIR CONDITIONER



AC009KNLDCH
AC012KNLDCH
AC018KNLDCH



AC009KXADCH
AC012KXADCH



AC018KXADCH

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7. Reference Sheet

Refer to the service manual in the GSPN(see the rear cover) for the more information.

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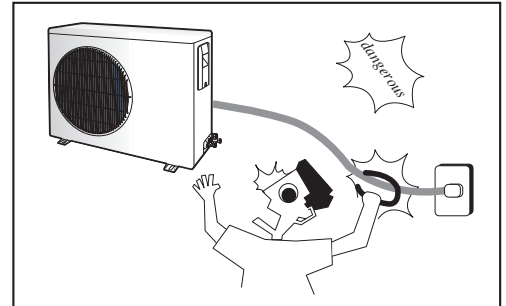
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1. Precautions

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.

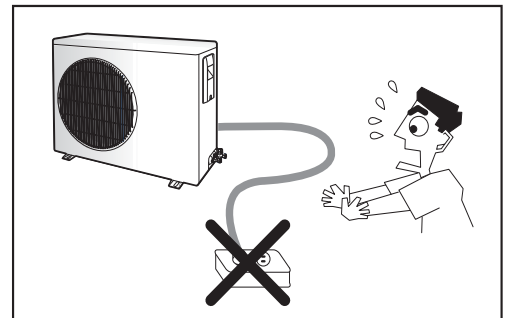
When installing the built-in type air conditioner, keep all electric cables such as the power cable and the connection cord in pipes, ducts, or cable channels to protect them from the danger of impact or any other incidents.



Avoid Dangerous Contact

1-2 Power supply and circuit breaker

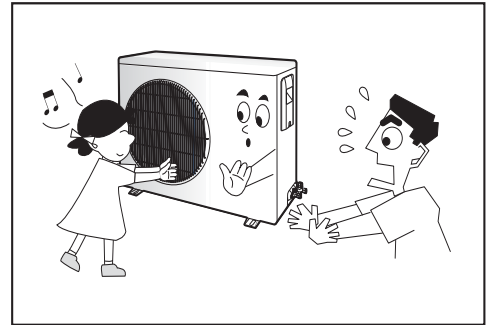
- ◆ If the power cord of the air conditioner is damaged, it must be replaced by the manufacturer or a qualified person in order to avoid a hazard.
- ◆ The air conditioner must be plugged into an independent circuit if applicable or connect the power cable to the auxiliary circuit breaker.
An all pole 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.



No Tapping and No Extension Cords

1-3 During operation

- ◆ Do not repair the air conditioner at your discretion.
It is recommended to contact a service center directly.
- ◆ Never spill any kind of liquid on the air conditioner.
If this happens, turn off the air conditioner and contact an authorized service center.
- ◆ Do not insert anything between the airflow blades to prevent damage of the inner fan and consequent injury. Keep children away from the air conditioner.
- ◆ Do not place any obstacles in front of the air conditioner.
- ◆ Do not spray any kind of liquid into the indoor unit. If this happens, turn off the air conditioner and contact a service center.
- ◆ Make sure that the air conditioner is well ventilated at all times:
Do not place a cloth or other materials over it.
- ◆ Remove the batteries if you don't use the remote control for a long time. (If applicable)
- ◆ Use the remote control within 7 meters from the indoor unit. (If applicable)



No children Nearby

1-4 Disposing of the unit

- ◆ Before throwing out the air conditioner, remove the batteries from the remote control.
- ◆ When you dispose of the air conditioner, consult your dealer. If pipes are removed incorrectly, refrigerant may blow out and cause air pollution. When it contacts with your skin, it can cause skin injury.
- ◆ The package of the air conditioner should be recycled or disposed of properly for environmental reasons.

1-5 Others

- ◆ Never store or load the air conditioner upside down or sideways to prevent the damage to the compressor.
- ◆ Young children or infirm persons should be always supervised when they use the air conditioner.
- ◆ Max current is measured according to IEC standard for safety.
- ◆ Current is measured according to ISO standard for energy efficiency.

2. Product Specifications

2-1 The Feature of Product

■ **Built-in Cassette Type**

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

■ **High Performance & Energy Saving**

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

■ **Long Piping(Length & Height)**


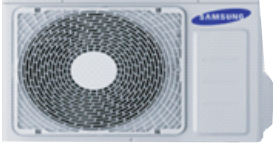

It can give the benefit to the installers and arises the reliability of the air conditioner.



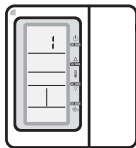
■ **Long Ambient Operation(In Low Temperature)**

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


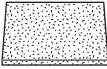
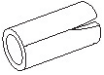
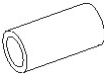



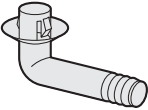

■ **Eco-friendly Product(Lead-Free, RoHS, WEEE)**

2-2 Product Specifications

ITEM		Development Model		
		AC009KNLDCH/AA AC009KXADCH/AA	AC012KNLDCH/AA AC012KXADCH/AA	
IMAGE	INDOOR UNIT			
	OUTDOOR UNIT			
	REMOTE CONTROLLER (Option)			
Performance	Cooling [Btu/h]	9000	12000	
	Heating [Btu/h]	12000	14000	
Power Consumption	Cooling [W]	645	1000	
	Heating [W]	1180	1300	
Voltage / Frequency		1Φ,208-230V,60Hz	1Φ,208-230V,60Hz	
Operating Current	Cooling [A]	3.1	4.7	
	Heating [A]	5.3	6.0	
Noise level (Spec)	Indoor Unit [dBA] (C/H)	38/38	40/40	
	Outdoor Unit [dBA] (C/H)	53/53	54/54	
Noise level (Catalog)	Indoor Unit [dBA] (C&H:H/M/L)	33/30/26& 33/30/26	34/31/27&34/31/27	
	Outdoor Unit [dBA] (C/H)	46/47	47/48	
Size	Net Dimension (WxHxD)	Indoor Unit [mm]	700 x 199 x 600	700 x 199 x 600
		Outdoor Unit [mm]	790 x 548 x 285	790 x 548 x 285
	Shipping Dimension (WxHxD)	Indoor Unit [mm]	951 x 280 x 709	951 x 280 x 709
		Outdoor Unit [mm]	926 x 640 x 384	926 x 640 x 384
Weight	Net Weight	Indoor Unit [kg]	19.97	19.97
		Outdoor Unit [kg]	34.45	34.45
	Shipping Weight	Indoor Unit [kg]	23.62	23.62
		Outdoor Unit [kg]	37.5	37.5
Harness Specifications	Indoor Fan Motor		DB31-00672A	DB31-00672A
	Compressor		UG9T115FUAEQ	UG9T115FUAEQ
	Outdoor Fan Motor		DB31-00642A	DB31-00642A
Piping	High Pressure		4.1 MPa	4.1 MPa
	Low Pressure		1.4 MPa	1.4 MPa
Refrigerant Type		R-410A	R-410A	
Factory Charging [g]		1050	1050	
Additional Refrigerant (for every 1m) [g]		10	10	
Basic Piping Length [m]		7.5	7.5	
Max. Piping Length [m]		20	20	
Max. Level Difference [m]		15	15	
Option Code		01C06C-1C6933-271A21-370000 020000-120000-200000-300000 030000-100000-200000-300000	01C06C-1C7968-272328-370000 020000-120000-200000-300000 030000-100000-200000-300000	


ITEM		Development Model	
		AC018KNLDCH/AA AC018KXADCH/AA	
IMAGE	INDOOR UNIT		
	OUTDOOR UNIT		
	REMOTE CONTROLLER (Option)		
Performance	Cooling [Btu/h]	18000	
	Heating [Btu/h]	20000	
Power Consumption	Cooling [W]	1680	
	Heating [W]	1980	
Voltage / Frequency		1Φ,208-230V,60Hz	
Operating Current	Cooling [A]	7.7	
	Heating [A]	8.8	
Noise level (Spec)	Indoor Unit [dBA] (C/H)	42/42	
	Outdoor Unit [dBA] (C/H)	58/58	
Noise level (Catalog)	Indoor Unit [dBA] (C&H:H/M/L)	35/32/28 & 35/32/28	
	Outdoor Unit [dBA] (C/H)	49/50	
Size	Net Dimension (WxHxD)	Indoor Unit [mm]	900 x 199 x 600
		Outdoor Unit [mm]	880 x 638 x 310
	Shipping Dimension (WxHxD)	Indoor Unit [mm]	1151 x 280 x 709
		Outdoor Unit [mm]	1023 x 730 x 413
Weight	Net Weight	Indoor Unit [kg]	26.0
		Outdoor Unit [kg]	44.5
	Shipping Weight	Indoor Unit [kg]	31.0
		Outdoor Unit [kg]	48.0
Harness Specifications	Indoor Fan Motor		DB31-00672A
	Compressor		UG4T150LNBEQ
	Outdoor Fan Motor		DB31-00642A
Piping	High Pressure		4.1 MPa
	Low Pressure		1.4 MPa
Refrigerant Type		R-410A	
Factory Charging [g]		1300	
Additional Refrigerant (for every 1m) [g]		10	
Basic Piping Length [m]		7.5	
Max. Piping Length [m]		30	
Max. Level Difference [m]		20	
Option Code		01C06C-1C7944-27343C-370000	
		020000-120000-200000-300000	
		030000-100000-200000-300000	

2-3 Accessory and Specifications

Item	Descriptions	Code-No.	Q'TY	Remark
	Manual User & install	DB68-05707A	1	
	Insulation cover	DB62-04318S	1	
	Insu drain hose	DB62-11028A	1	
	Insu hose C/D	DB62-11028E	1	
		DB62-11028D	1	
	Ass'y Holder Drain Pipe	DB90-06701A	1	
	Hose Drain	DB67-01191A	1	
	RUBBER LEG	DB73-20134A	4	
	DRAIN PLUG	DB67-20011A	1	
	INSTALLATION MANUAL	DB68-05138A	1	

3. Disassembly and Reassembly


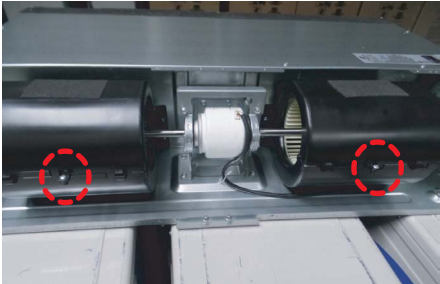
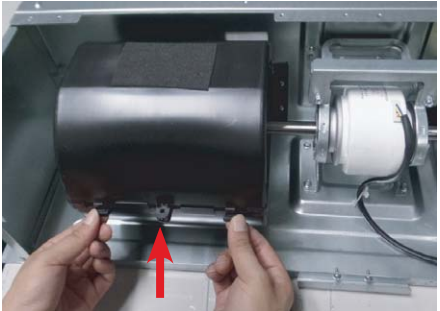

■ Necessary Tools



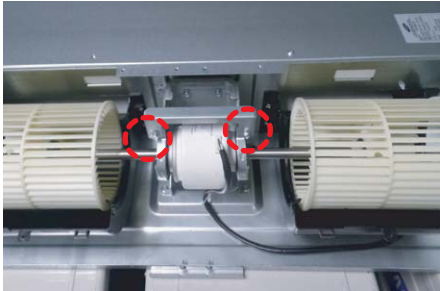

Item	Remark
+SCREW DRIVER	
MONKEY SPANNER	




3-1 Indoor Unit



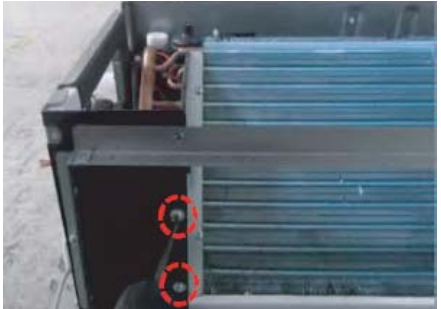

Stop operation of the air conditioner and remove the power cord before repairing the unit.


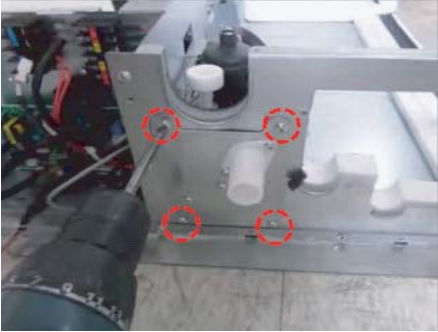


■ AC009KNLDCH / AC012KNLDCH / AC018KNLDCH





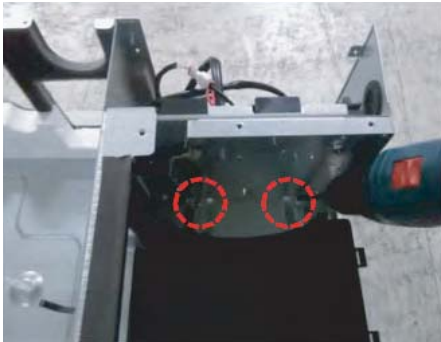
No	Parts	Procedure	Remark
1	Motor & Blower	<p>1) Disassemble the Cabinet Top Motor. - Unscrew 8 screws (AC018KNLDCH) - Unscrew 6 screws (AC009/012KNLDCH)</p> <p>2) Disassemble 2 Cover Blower Uppers. - Unscrew 2 screws (AC018KNLDCH)</p> <p>- Disassemble the Cover Blower Upper with pushing its hook.</p> <p>3) Disassemble the Cover Control. - Unscrew 2 screws</p>	   

No	Parts	Procedure	Remark
		<p>4) Disassemble Motor Wires connected to the inside of PCB and connected to the Capacitor.</p> <p>5) Disassemble the band Motor for fixing the Moter. - Unscrew 2 screws</p> <p>6) After disassembling the Motor and Blower for the set, disassemble the Blower by use of 3mm wrench.</p>	   

No	Parts	Procedure	Remark
2	Drain Pan	<p>1) Disassemble the Cabinet Top Evap. - Unscrew 11 screws (AC018KNLDCH) - Unscrew 5 screws (AC009/012KNLDCH)</p> <p>2) Disassemble the Bracket Outlet Sub that fixes the Drain Pan equipped on the front of the set.</p> <p>3) Disassemble the Drain Cushion from the set.</p>	  



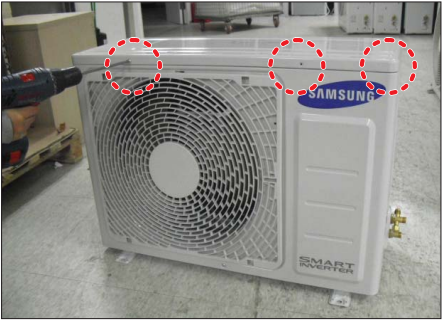

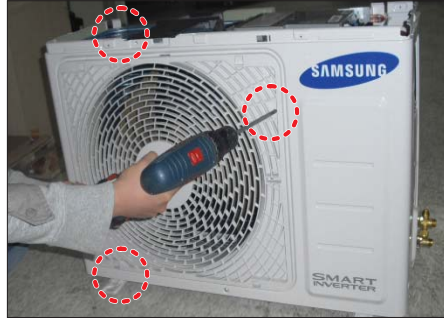
No	Parts	Procedure	Remark
3	Evaporator	<p>1) Disassemble the Cover Pipe that fixes the high/low pressure Pipe. - Unscrew 2 screws</p> <p>2) Disassemble the refrigerant temperature sensor, Inlet air temperature sensor, and EEV wire that connected to the inside of PCB.</p> <p>3) Disassemble the Support Evap. LF that fixes the Evaporator. - Unscrew 2 screws</p> <p>4) Disassemble the Support Evap RH. - Unscrew 2 screws</p>	   

No	Parts	Procedure	Remark
		5) Disassemble the Evaporator form the set.	
4	Drain Pump	<p>1) Disassemble the Cover that fixes the Drain Pump. - Unscrew 4 screws</p> <p>2) Disassemble the Drain Pump and Flow-switch wire that connected to the inside of PCB.</p> <p>3) Disassemble the Drain Pump form the set</p>	  

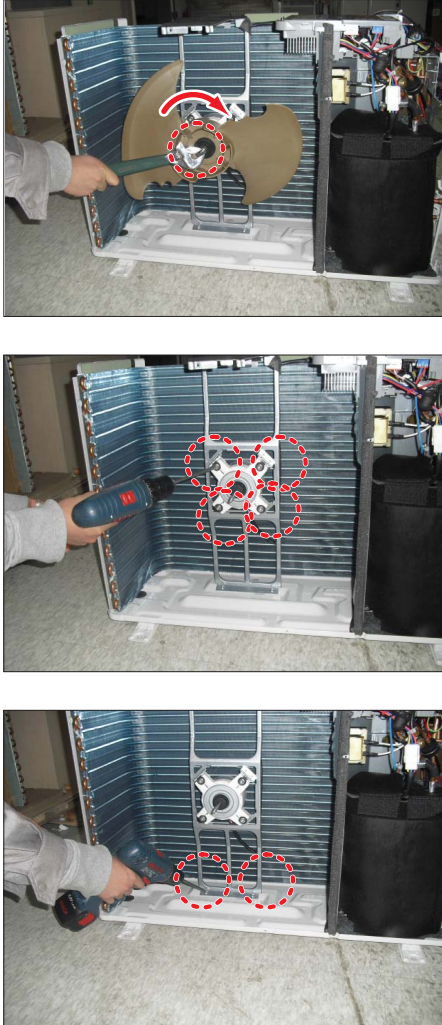
No	Parts	Procedure	Remark
4	Control In	<p>1) Disassemble all Control Wires connected to the inside of PCB.</p> <p>2) Unscrew the earth screw.</p> <p>3) Press the hook as picture shown, disassemble the PCB.</p> <p>4) Disassemble the case control. - Unscrew 2 screws</p>	    

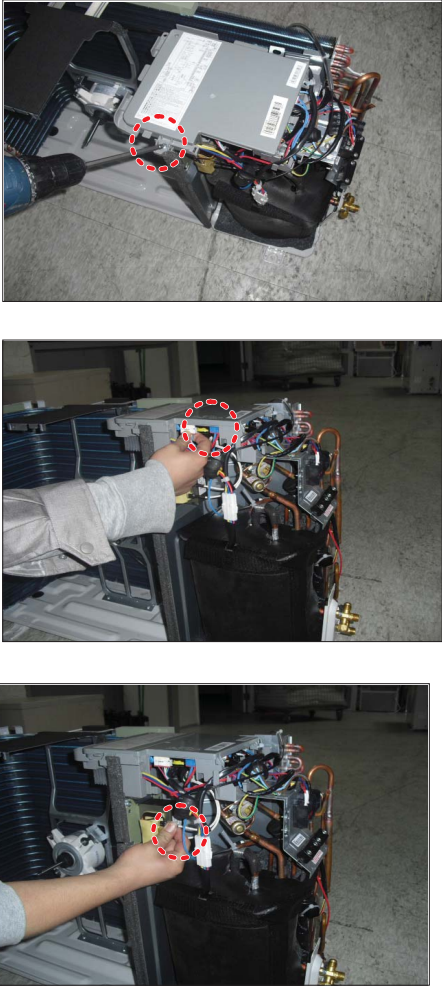
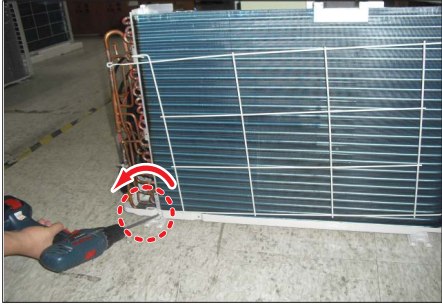
3-2 Outdoor Unit

■ AC009KXADCH/ AC012KXADCH

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


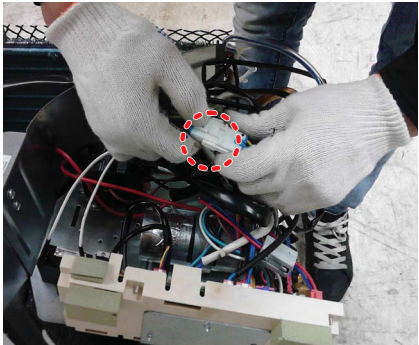
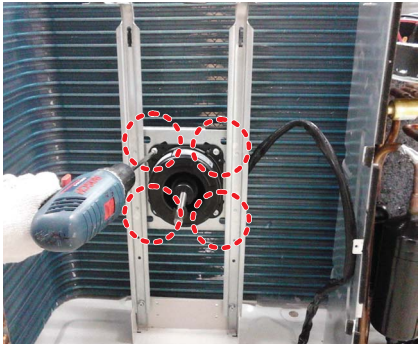
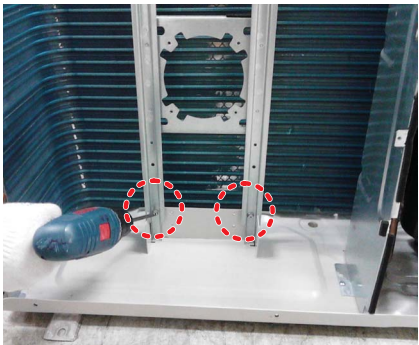
No	Parts	Procedure	Remark
	common work	<p>4) loosen 7 screws to disassemble the cabi-right ,and detach it.</p> <p>5) loosen 2 screws to disassemble steel-bar.</p> <p>6) loosen 3 screws to disassemble cabi-left.</p>	   





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





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

■ AC018KXADCH

No	Parts	Procedure	Remark
1	common work	<p> You must turn off the Power before disassembly.</p> <p>1) Loosen 2 pcs screw of cover control</p> <p>2) Loosen 8 pcs screw of the cabi top cover.</p> <p>3) Loosen 9 pcs screw of the cabi side right</p> <p>4) Loosen 7 pcs screw of the cabi side front.</p>	    

No	Parts	Procedure	Remark
2	Fan& motor	<p>1) Loosen the fan screw according the indication and detach the fan propeller</p> <p>2) Disconnect the wire between assy control out and motor.</p> <p>3) Loosen 4 pcs motor screw.</p> <p>4) Loosen 2 pcs screw of bracket motor.</p>	   

No	Parts	Procedure	Remark
3	Assy control out	<p>1) Loosen 2 screws that connected with partition.</p> <p>2) Disconnect the wire between the control kit and the tube, then get out the control out.</p> <p>2) Loosen 2 screws, disassemble the Coil Harmonic.</p> <p>2) Loosen the screw of the cover terminal.</p>	   

No	Parts	Procedure	Remark
4	Heat exchanger	<p>1) Release the refrigerant at first</p> <p>2) Loosen fixing screw on both side..</p> <p>3) Disassemble the pipes in both inlet and outlet with welding torch.</p> <p>4) Detach the heat exchanger.</p> <p>CAUTION When removing the compressor, Heat Exchanger, and Pipe, purge the Coolant inside the Compressor completely and remove the pipe with a welding flame.</p>	  
5	Compressor	<p>1) Loosen the 3 bolts at the bottom of compressor.</p>	

















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.























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 temperature sensor in the indoor unit (Open/Short)	X	X		X	X	
Error of heat exchanger sensor in the indoor unit		X		X	X	
Error of the outdoor temperature sensor Error of the condensor temperature sensor Error of the discharge temperature sensor		X	X		X	
1. No communication for 2 minutes between indoor units (Communication error for more than 2 minutes) 2. Indoor unit receiving the communication error from outdoor unit 3. Outdoor unit tracking 3 minutes error 4. When sending the communication error from the outdoor unit, the mismatching of the communication numbers and installed numbers after completion of tracking. (Communication error for more than 2 minutes)	X	X			X	1. 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.

■ Indoor unit LED lamp display at error detecting

Abnormal conditions	Indicators					Remarks
	Concealed Type					
	Green	Red				
	Standard Type					
						
Communication error between indoor units		X	X	X		
1. Error of electronic expansion valve close 2. Error of electronic expansion valve open 3. 2'nd detection of high temperature cond 4. 2'nd detection of high temperature discharge 5. Error of reverse phase 6. Compressor down due to 6th detection of freezing	X	X				
Clogging of outdoor's service valve		X	X			
Detection of the float switch	X	X	X			
Error of setting option switches for optional accessories	X	X		X		
Error of EEPROM or OPTION SETTING						

● On ◐ Flickering X Off

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

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

Display	Explanation
801	Indoor unit Communication Error
802	Indoor/Outdoor unit Communication Time Out Error
	60 Packet Over data
203	Communication Error between Outdoor Main and Inverter Micom (Occurred after 1 minute detection in Main and Inverter)
828	Indoor Unit Eva in Sensor Separation
853	Indoor Float S/W 2 nd Detection
460	Outdoor unit - indoor unit communication wire miss connection (Connected to Power terminal)
554	Outdoor unit refrigerant Full leakage (Gas leak)
458	Outdoor Fan 1 Error
475	Outdoor Fan 2 Error
461	[Inverter] Compressor starting error
462	Primary Current Over Trip error
464	[Inverter] DC PEAK error(O.C)
467	[Inverter] Compressor Rotation error
468	[Inverter] Current Sensor error
469	[Inverter] DC LINK Sensor error
471	[Inverter] EEPROM Read/Write Error
474	[Inverter] Heatsink temperature over Error
556	Outdoor unit Capacity Setup option error
601	Communication error between Indoor unit and wired remote control
602	Communication error between Master and Slave wired remote control
606	COM1/COM2 Cross-installed error
EA	Error of setting option for wired remote control COM2
823	Error on EVA OUT sensor of indoor unit (Short or Open)
824	Error on Discharge sensor of indoor unit (Short or Open)
854	Indoor unit Fan Error
851	Open error of EEV in indoor unit(2nd)
852	Close error of EEV in indoor unit(2nd)
828	Close error of electronic expansion valve in indoor unit(2nd)
829	Breakaway of Indoor unit Evaporator_out Sensor
241	COND_MID or COND OUT Sensor of Outdoor Unit breakaway Error

Display	Explanation
554	Gas leak detected
559	Indoor Unit operating stop due to detect unknown error in Outdoor Unit
403	Compressor down due to freeze protection control
301	High Pressure SENSOR breakaway ERROR
306	Low Pressure SENSOR breakaway ERROR
428	COMP down by Compression Ratio control Error 1
413	Outdoor SUMP DOWN_1 Protection Control
410	COMP down due to Low PressureSensor Protection Control 1
880	MCU SOL Valve cooling/heating opening 1st at the same time
881	MCU SOL Valve cooling/heating opening 1st at the same time
801	Outdoor Unit Communication Error
802	Outdoor Unit -> communication error to Indoor Unit
202	System Down (All Indoor unit Short) due to Communication Error
808	Error due to repeated communication address
853	Error on float switch (2nd detection)
862	Outdoor unit EEPROM error
863	EEPROM OPTION SETTING ERROR
898	Error on thermal fuse of indoor unit (Open)

4-2 Outdoor LED Error Display and Check Method

The table below give indication about self diagnostic routine. Some of error code requires activities exclusively for Authorized Service Center.

Outdoor unit

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

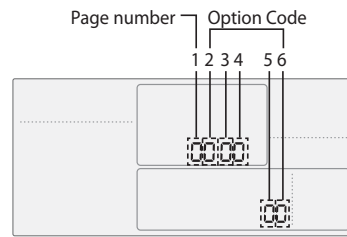
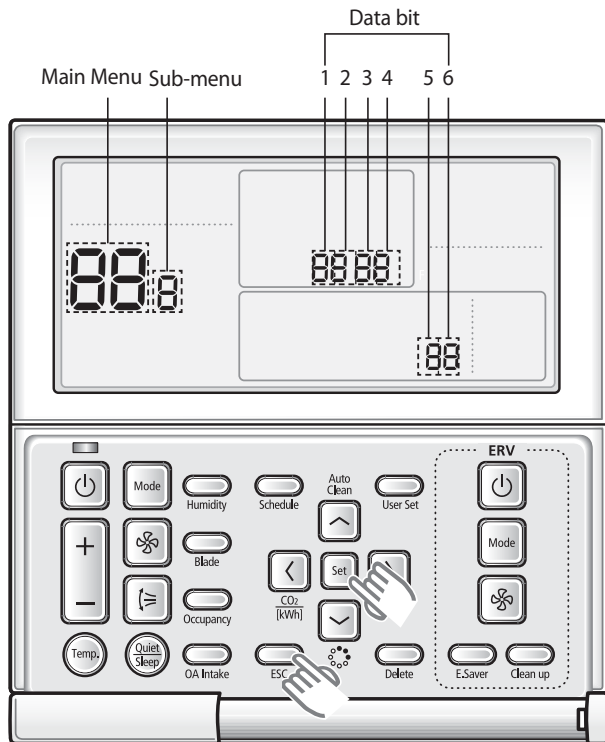
Priority	Error number	Explanation
1	E471	Outdoor unit EEPROM Read/Write error (H/W)
2	E470	Outdoor unit EEPROM Read/Write error (Option)
3	E202	Communication error between indoor unit and outdoor unit (When there is no response from indoor units after tracking is completed)
4	E201	Communication error between indoor unit and outdoor unit (Pre tracking failure or when actual number of indoor units are different from the indoor unit quantity setting on the outdoor unit)
5	E203	Communication error between outdoor unit inv - main micom (For PF #4~#6 controller, error will be determined from the time when compressor turns on)
6	E108	Error due to repeated communication address
7	E221	Error on outdoor temperature sensor (Short or Open)
8	E251	Error on discharge temperature sensor of compressor 1 (Short or Open)
9	E231	Error on outdoor COND OUT sensor (Short or Open)
10	E320	Error on OLP sensor (Short or Open)
11	E485	Error on input current sensor of inverter 1 (Short or Open)
12	E474	Error on IPM Heat Sink sensor of inverter 1 (Short or Open)
13	E425	Reverse phase or open phase
14	E422	Blockage detected on high pressure pipe
15	E554	Gas leak detected
16	E416	System stop due to discharge temperature
17	E463	System stop due to OLP temperature control
18	E458	Fan speed error
19	E483	H/W DC_Link Over Voltage Error
20	E462	System stop due to full current control
21	E404	System stop due to overload protection control
22	E590	Inverter EEPROM CheckSum error
23	E464	System stop due to DC Peak
24	E465	Compressor overload prevention
25	E468	Error on current sensor (Short or Open)
26	E461	Error due to operation failure of inverter compressor
27	E467	Error due to abnormal rotation of the compressor or unconnected wire of compressor
28	E469	Error on DC-Link voltage sensor (Short or Open)
29	E488	AC Input Voltage Sensor Error

Priority	Error number	Explanation
30	E500	IPM over heat error on inverter 1
31	E484	PFC Overload (Over current) Error
32	E466	DC-Link voltage under/over error
33	E403	Compressor down due to freeze protection control
34	E440	Heating operation restricted at outdoor temperature over Theat_high value (default: 30 °C)
35	E441	Cooling operation restricted at outdoor temperature below Tcool_low value (default: 0 °C)
36	E556	Error due to mismatching capacity of indoor and outdoor unit
37	E557	DPM remote controller option error
38	E198	Error on thermal fuse of indoor unit (Open)
39	E121	Error on room temperature sensor of indoor unit (Short or Open)
40	E122	Error on EVA IN sensor of indoor unit (Short or Open)
41	E123	Error on EVA OUT sensor of indoor unit (Short or Open)
42	E154	Indoor fan error
43	E153	Error on float switch (2nd detection)
44	E508	Smart install is not installed

4-3 Setting Option Setup Method

■ 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.



- 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.



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



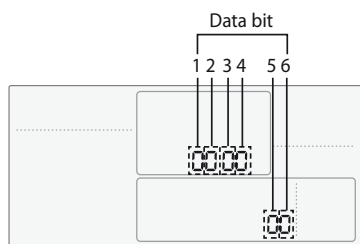
- Option code will not be applied if you don't press the **Set** button.
- Setting indoor unit option code is only possible in Master wired remote controller. You can only check the indoor unit option code in Slave wired remote controller.
- Setting indoor unit option code is possible when one indoor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

■ 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 **Up** / **Down** button to select **4** and then press **Right** button to enter a Sub-menu setting screen.
- 3) Press the **Up** / **Down** button to select **!** and then press **Right** 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 **Up** / **Down** 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  and  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.

SGE1	SGE2	SGE3	SGE4	SGE5	SGE6
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	Virus doctor	Buzzer	Number of hours using filter
SEG19	SEG20	SEG21	-	-	-
3	Individual control of a remote controller	Heating setting compensation	-	-	-

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		Use of Hot Coil		RESERVED		RESERVED		RESERVED	
Indication and Details	Indication	Details	Indication	Details	Indication	Details						
	1		0	Disuse	0	Disuse						
			1	Use	1	Use						
			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								
3	WINDOW ON/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°C			2	Auto Set OFF 60Min.		
			3	Indoor 3	2	5°C	3	Auto Set OFF 120Min.				
4	Indoor 4	4	Auto Set OFF 180Min.									

S-PI function :If SEG16 is set to 1,S-PI will be used.but when the air conditioner is turned off there's no S-PI function even if SEG 16 is "1"

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

6. Press the  button to exit to normal mode.

NOTE

- Press  button anytime during setup to exit without setting.
- Option code will not be applied if you don't press  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.

■ Option code list

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	AC009KNLDCH	AC012KNLDCH	AC018KNLDCH/AA
Static Pressure(mmAq)	Option code for indoor unit		
$0 \leq SP \leq 2.5$	01C06C-1C6933-271A21-370000	01C06C-1C7968-272328-370000	01C06C-1C7944-27343C-370000
$2.5 < SP \leq 4.0$	01C06C-1C5AF1-271A21-370000	01C06C-1C5AF1-272328-370000	01C06C-1C5978-27343C-370000
$4.0 < SP \leq 5.0$	01C06C-1C5E24-271A21-370000	01C06C-1C5E24-272328-370000	01C06C-1C59AB-27343C-370000
$5.0 < SP \leq 6.0$	01C06C-1C5E24-271A21-370000	01C06C-1C5E57-272328-370000	01C06C-1C59DF-27343C-370000



NOTE

- \square 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 \square . When it is out of \square , 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

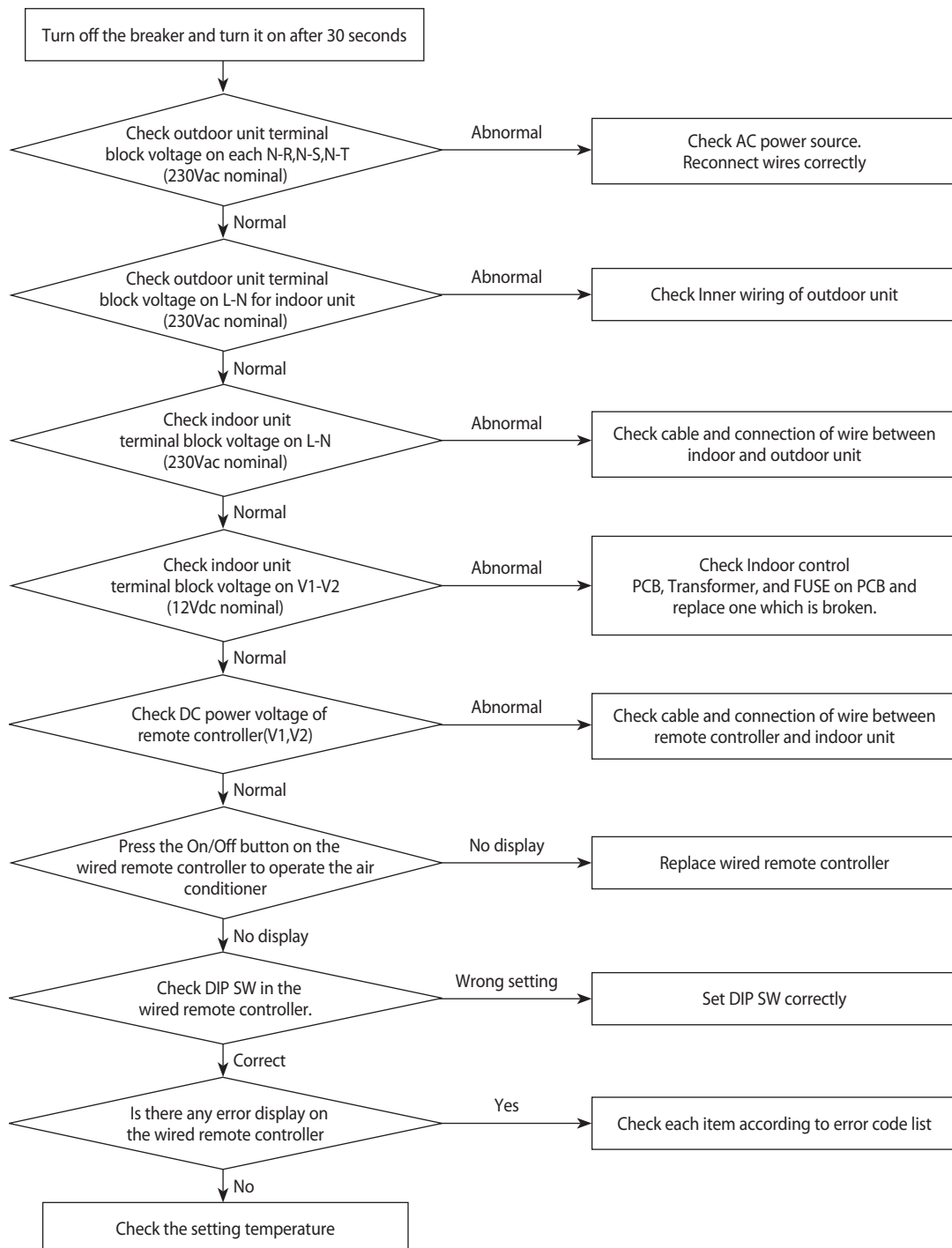
1. The input voltage should be rating voltage $\pm 10\%$ range.
The air conditioner may not operate properly if the voltage is out of this range.
2. Is the link cable linking the indoor unit and the outdoor unit linked properly?
The indoor unit and the outdoor unit shall be linked by 4 cables.
Check the terminals if the indoor unit and outdoor unit are properly linked by the same number of cables.
Otherwise the air conditioner may not operate properly.
3. When a problem occurs due to the contents illustrated in the table below it is a symptom not related to the malfunction of the air conditioner.

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

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

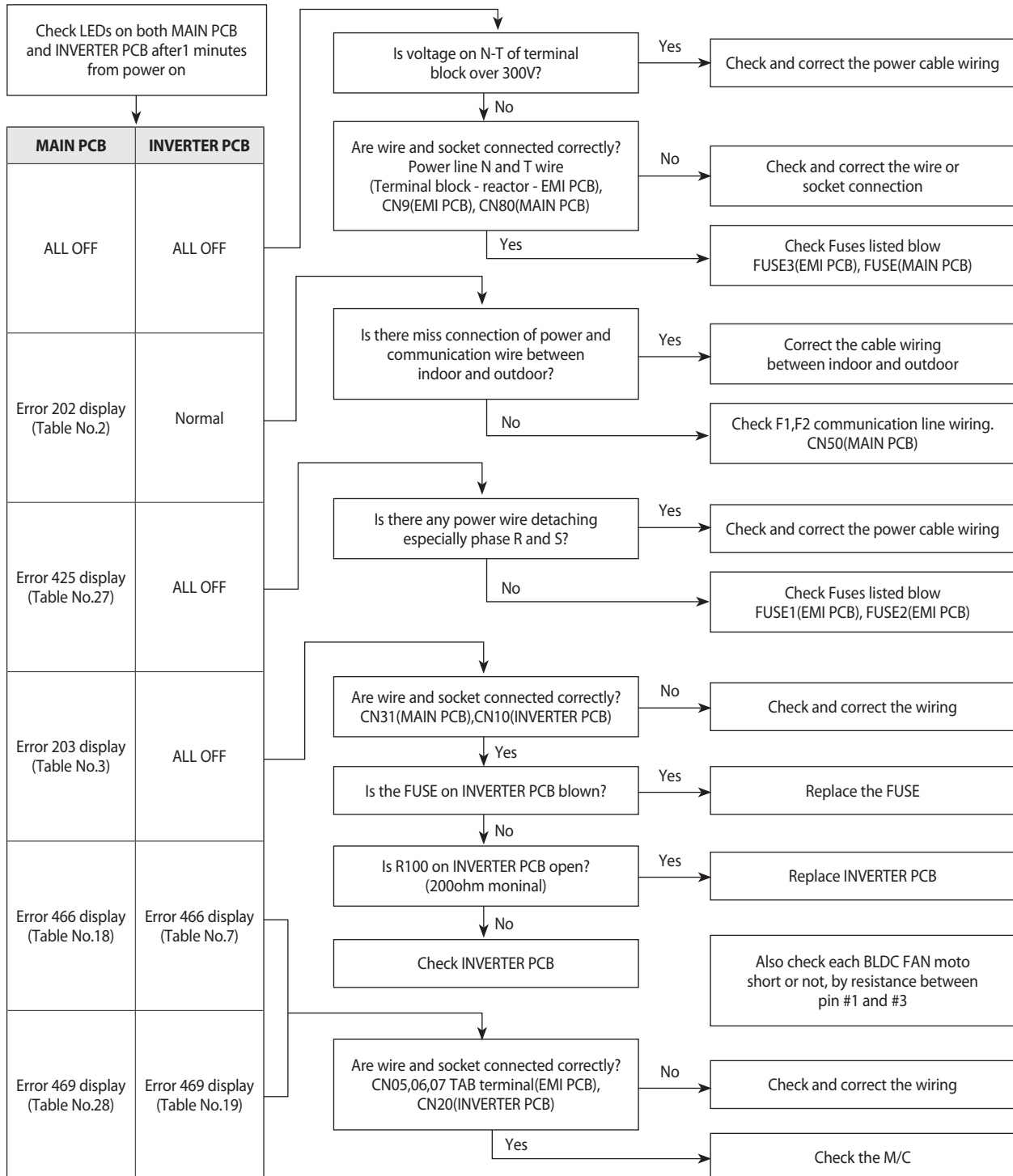


4-5-2 The Outdoor unit Power Supply error

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?

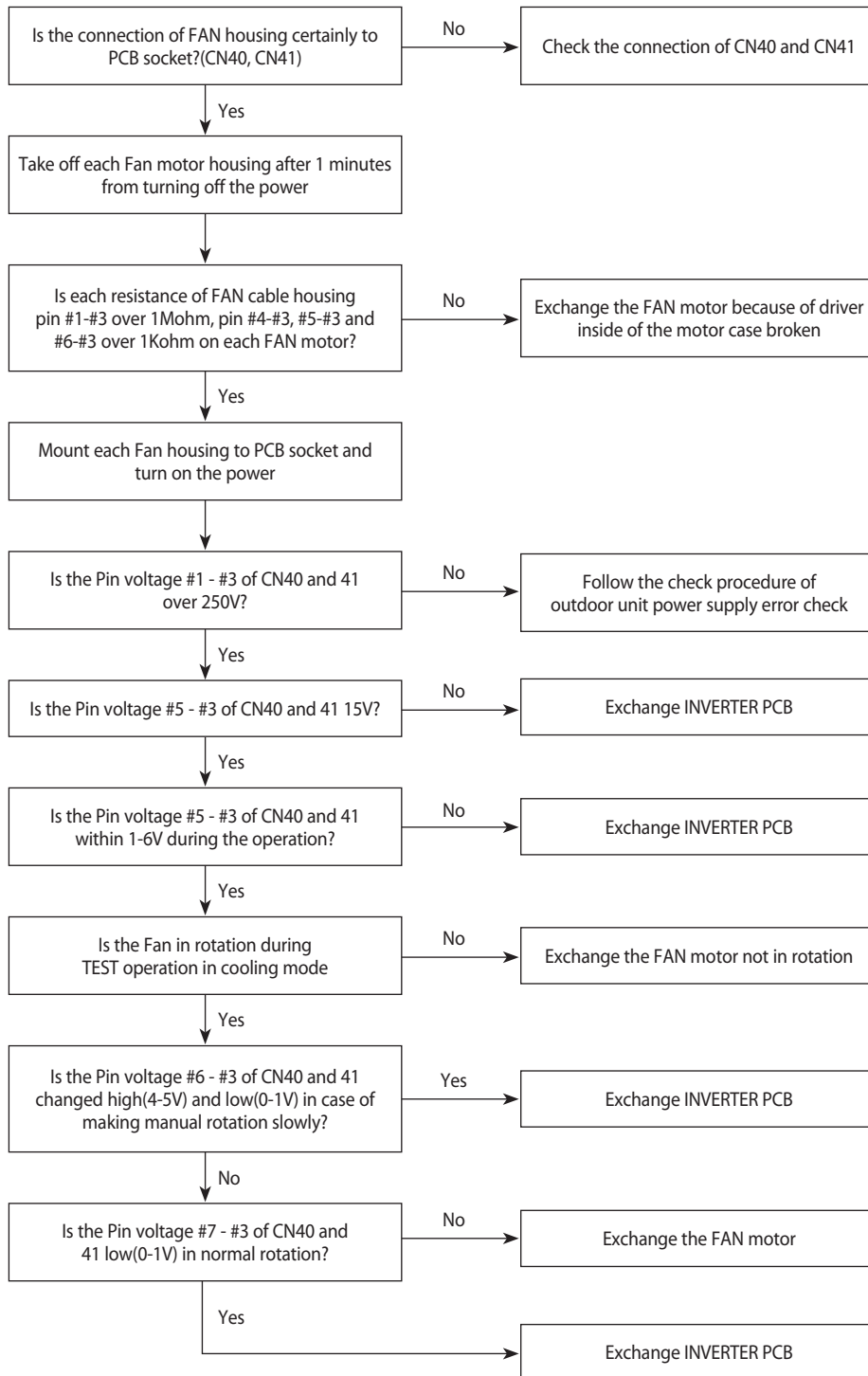
2. Troubleshooting procedure



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.

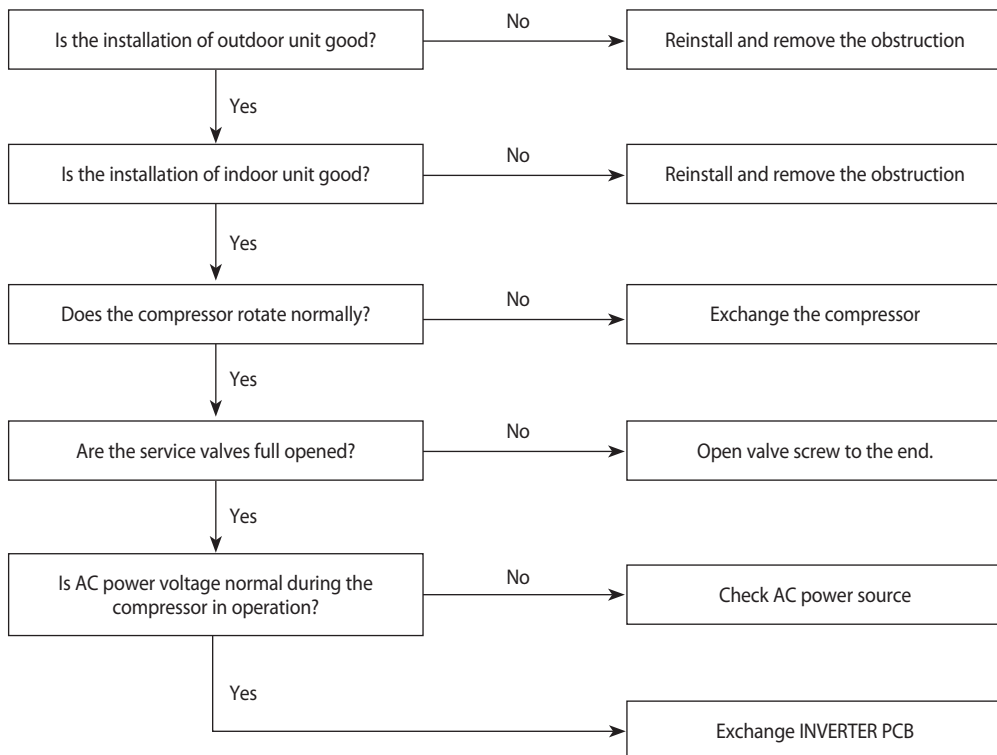
- once : cooling mode
- twice in a second : heating mode

4-5-4 Total current trip error

1. Checklist :

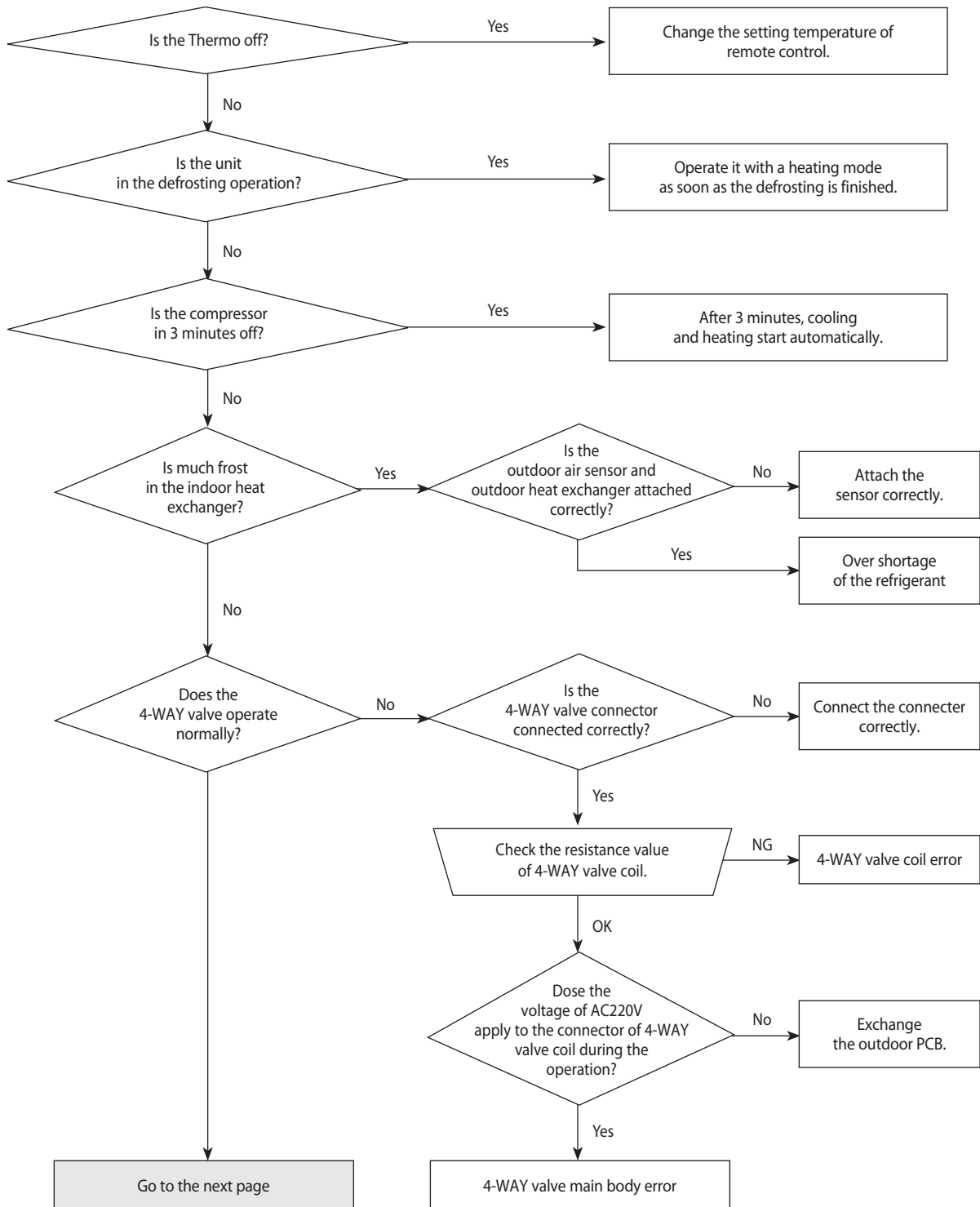
- 1) Is the input power voltage proper?
- 2) Is the refrigerant charged properly?
- 3) Does the compressor rotate normally?(Reverse rotation, Locking etc.)
- 4) Does the outdoor fan operate normally?(Fan propeller loss, Motor error ect.)
- 5) Is the installation condition of outdoor unit good?(Piping, 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

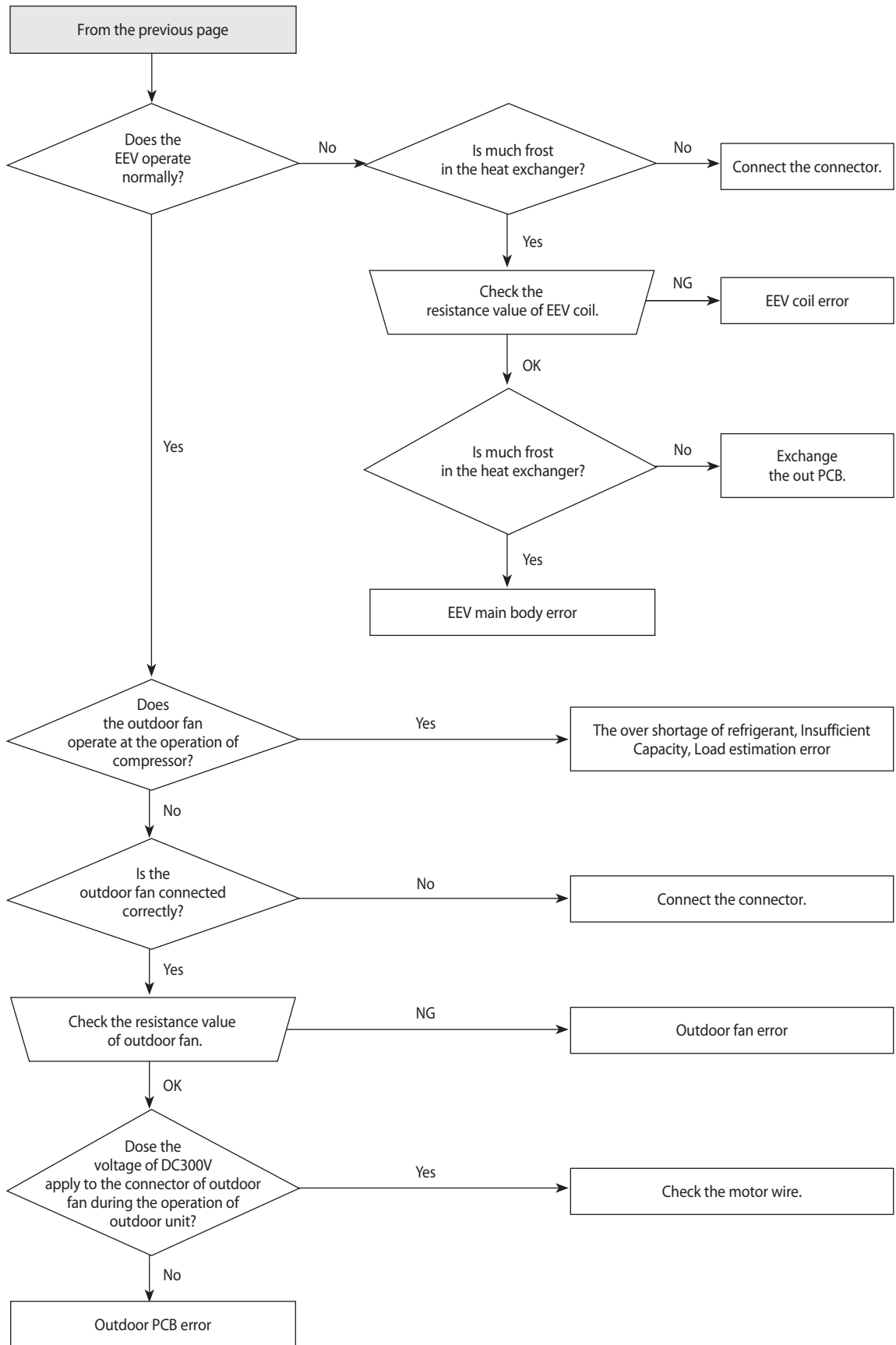


4-5-5 In case of heating at the cooling mode or cooling at the heating mode

1. Troubleshooting procedure



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

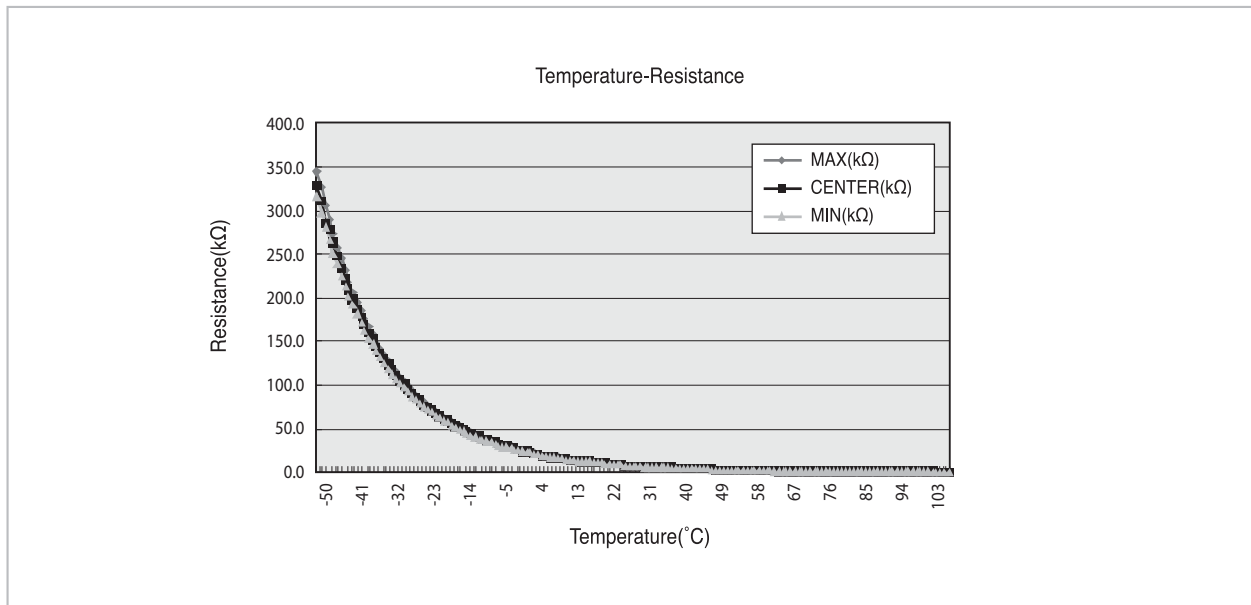
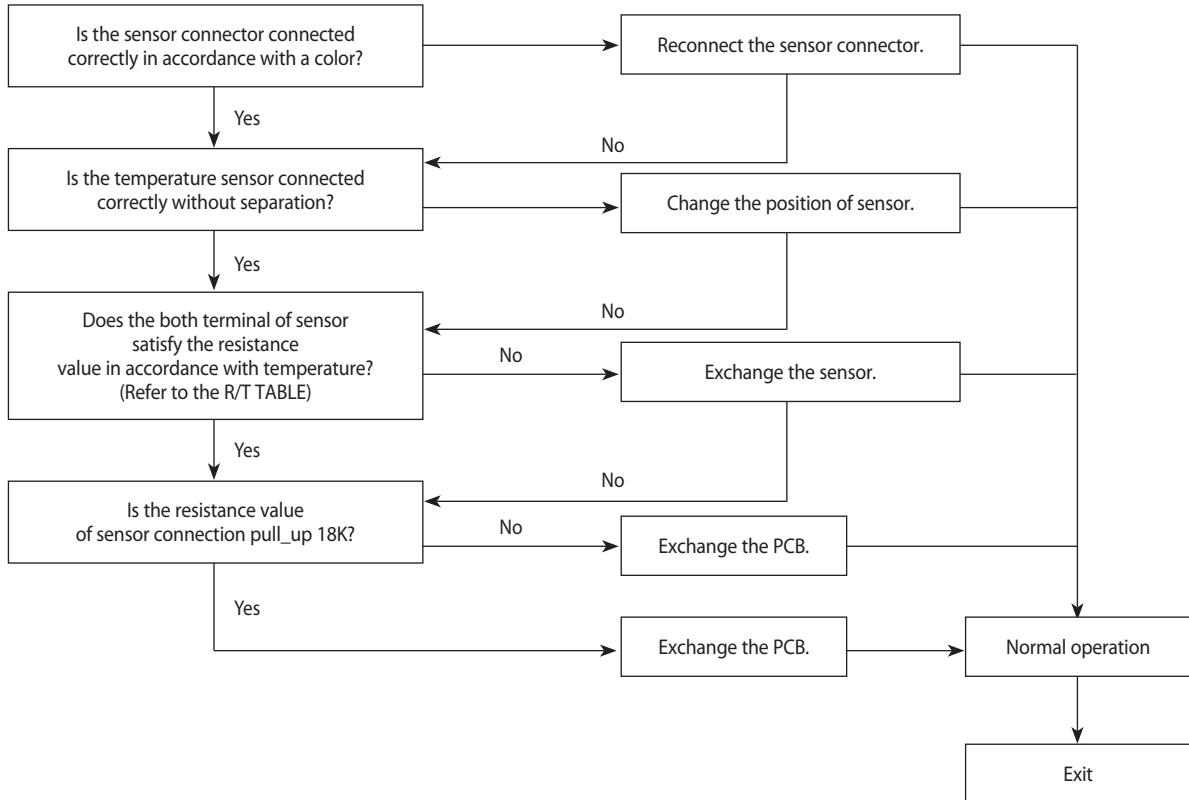


4-5-6 Outdoor temperature sensor error

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

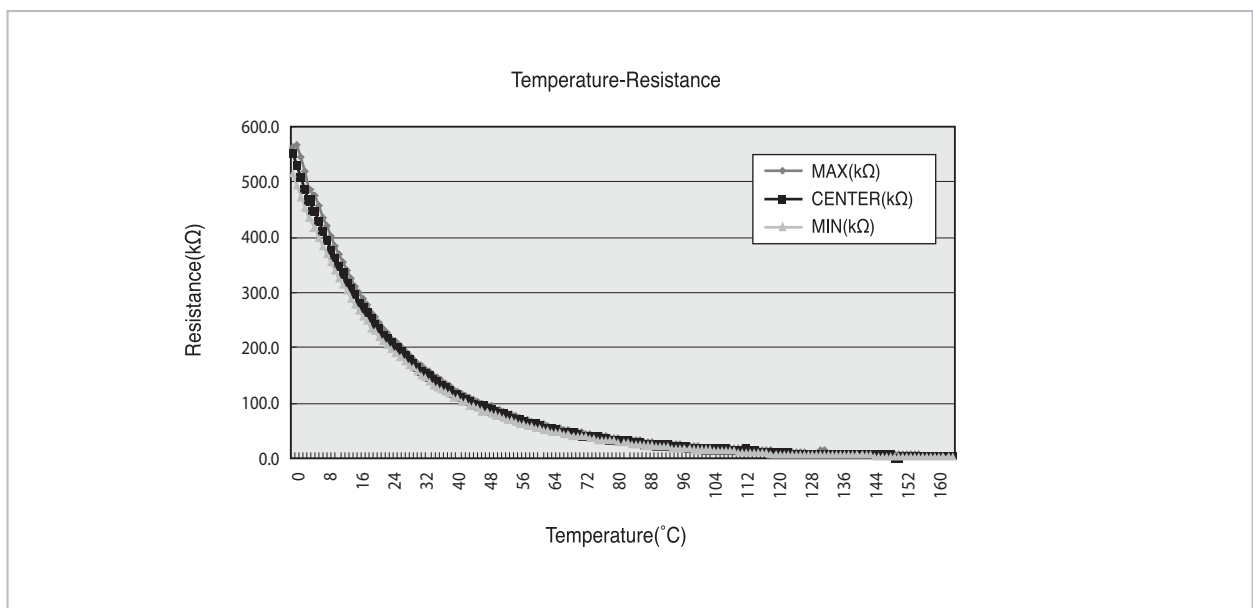
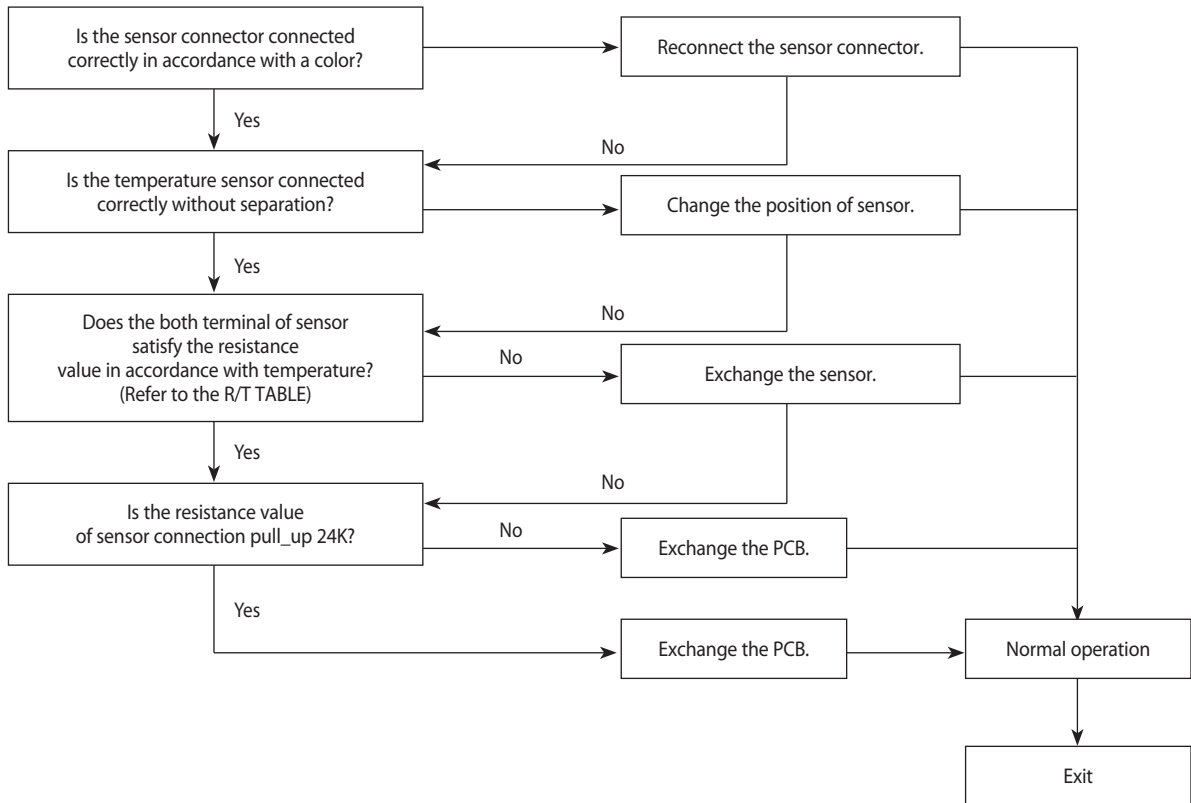


4-5-7 Discharge temperature sensor error

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

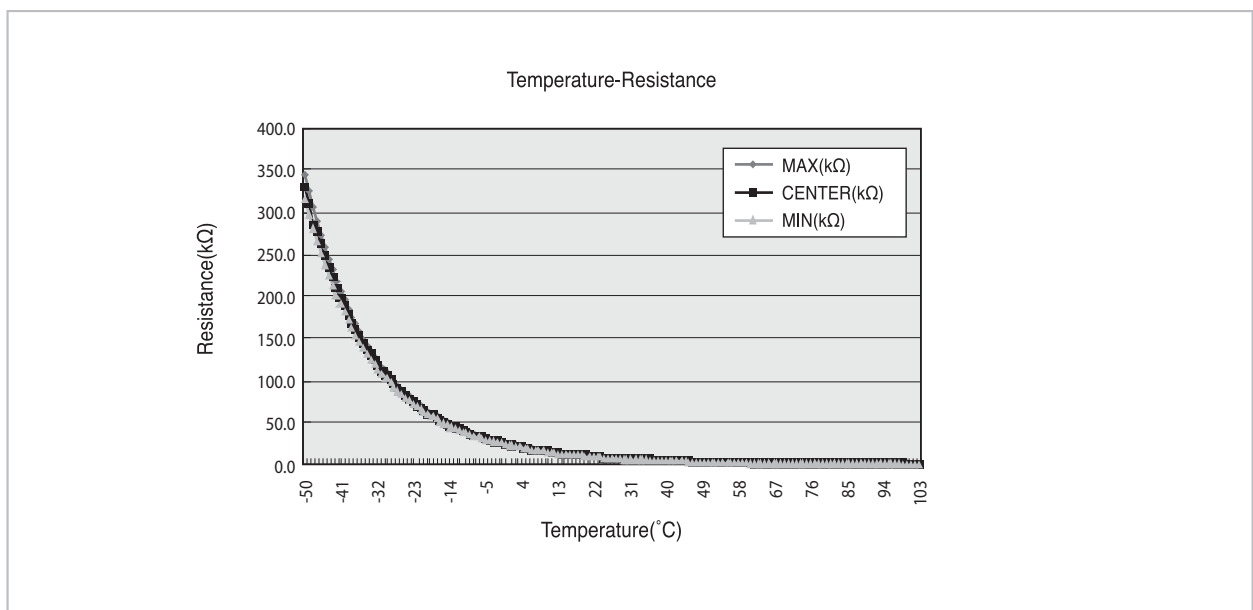
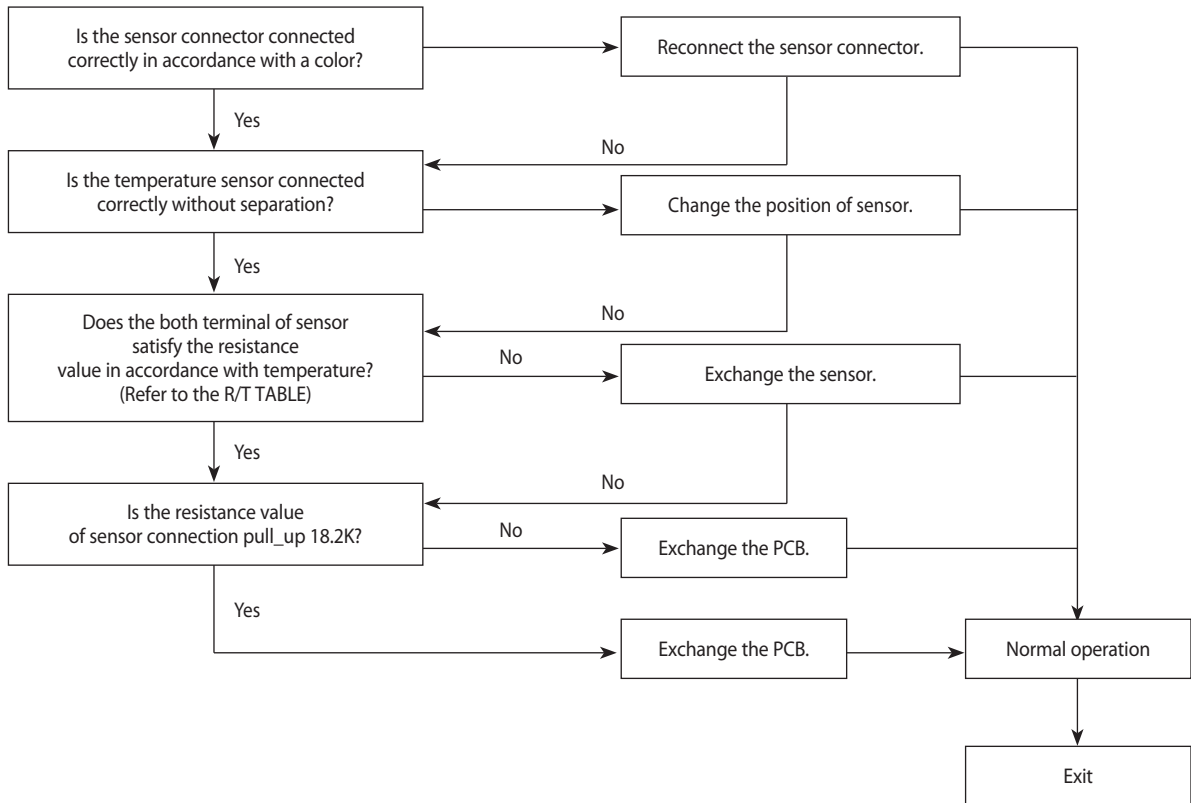


4-5-8 Coil temperature sensor error

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?

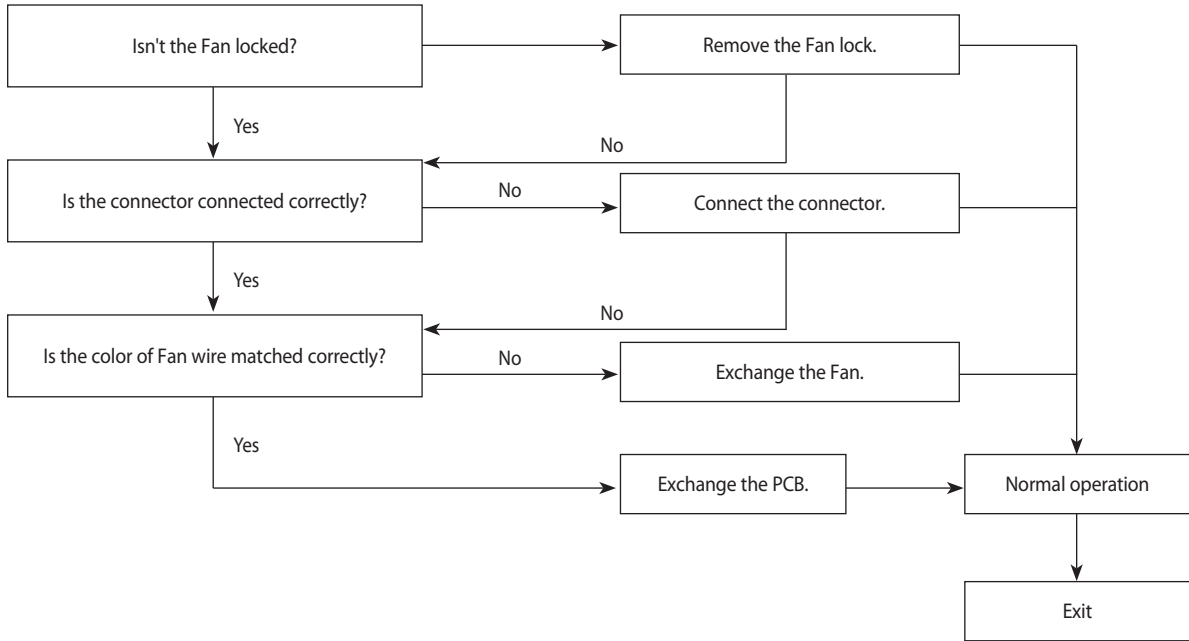
2. Troubleshooting procedure



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?

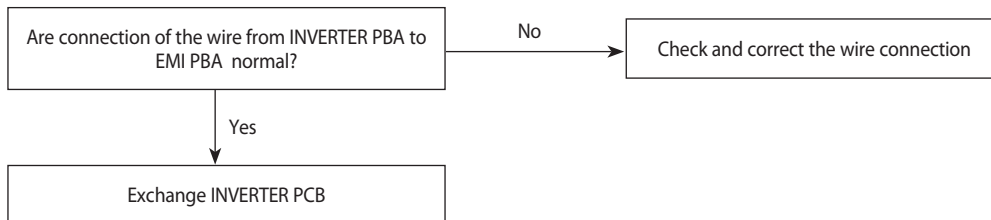
2. Troubleshooting procedure



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?

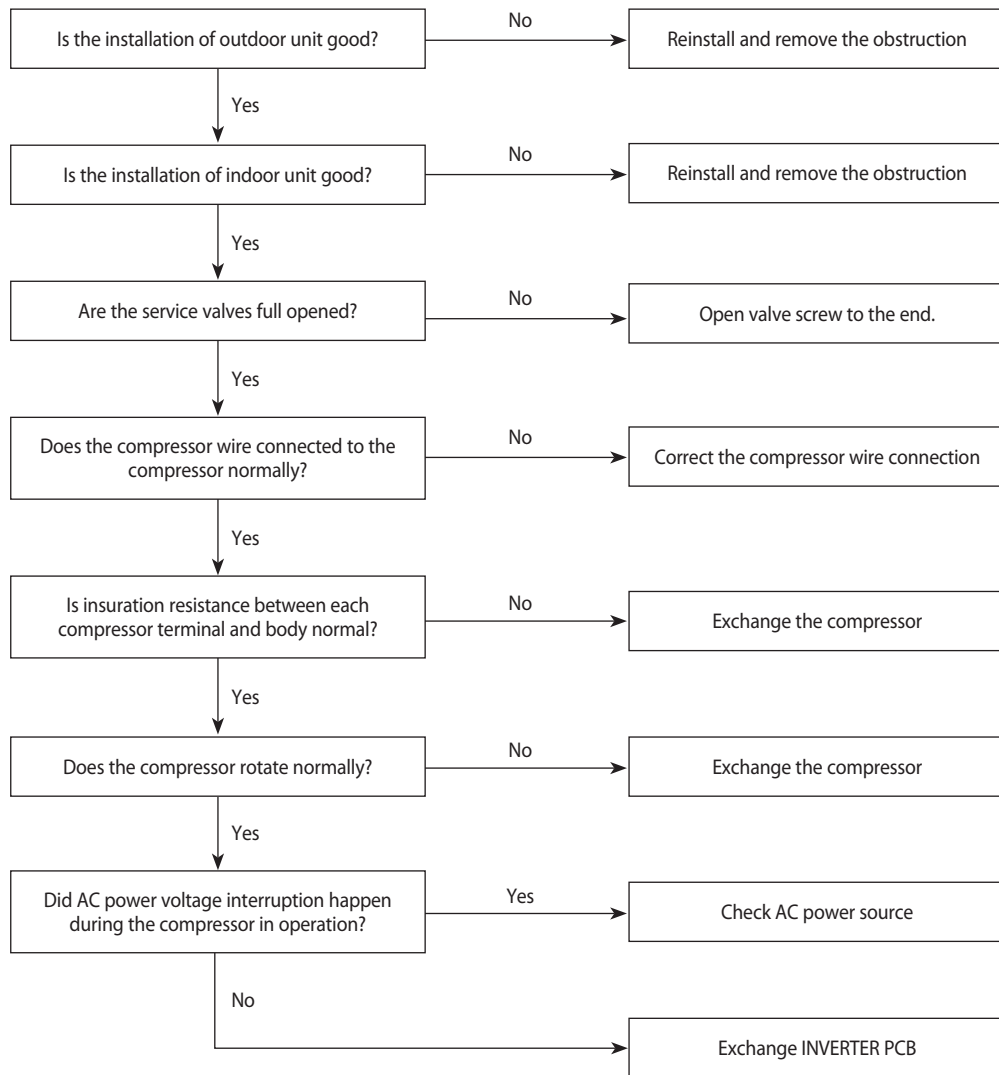
2. Troubleshooting procedure



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

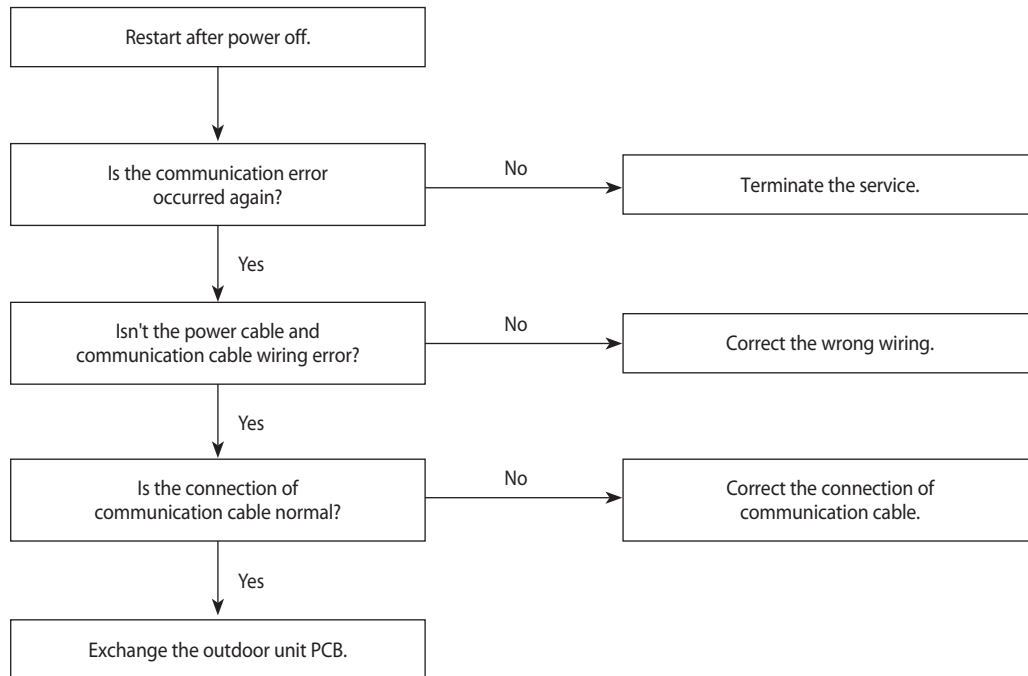


4-5-12 Communication error

1. Checklist :

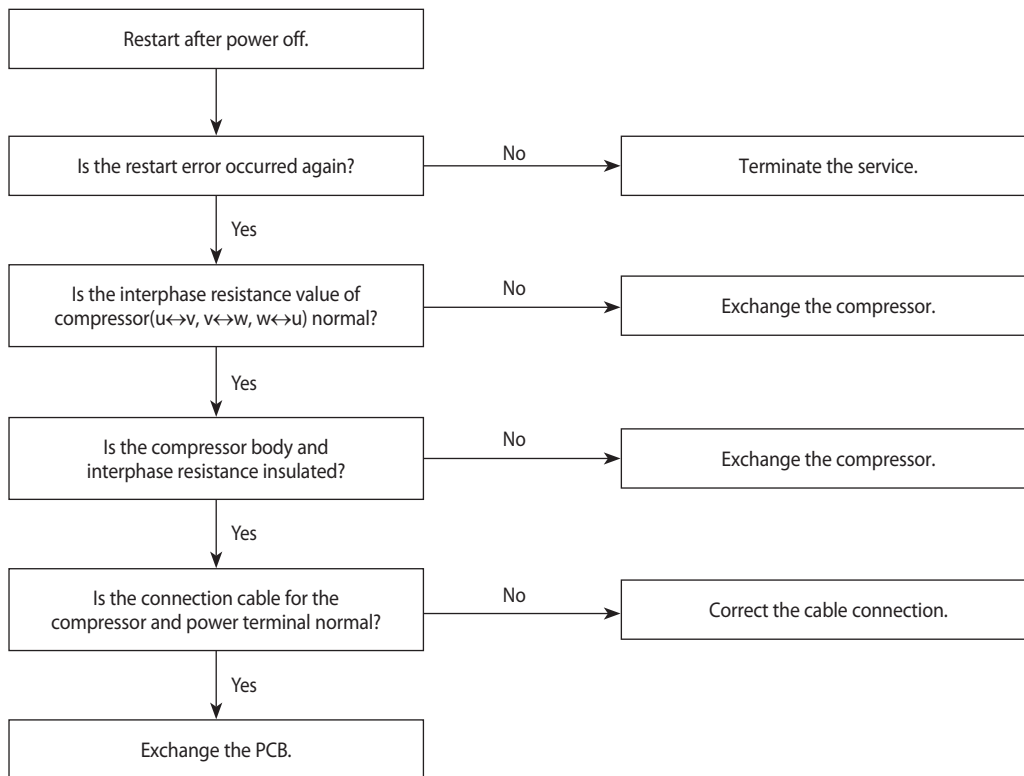
- 1) Is the communication cable between the indoor unit and outdoor unit connected correctly?
- 2) Isn't the power cable and communication cable wiring error?

2. Troubleshooting procedure



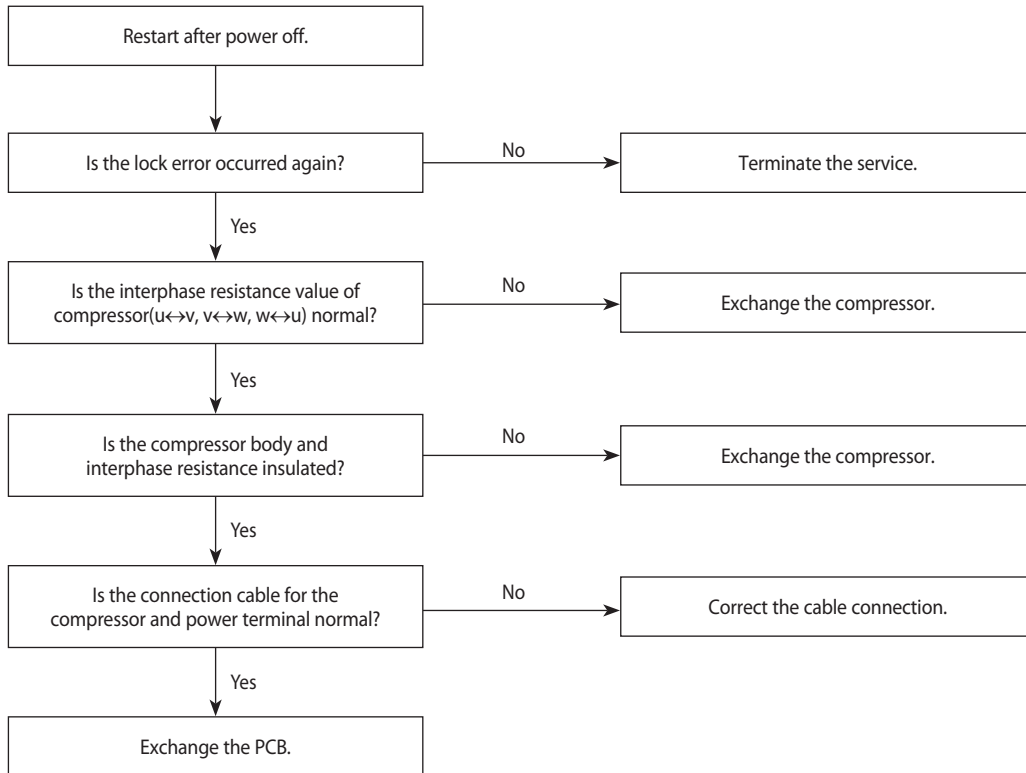
4-5-13 Compressor start error

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

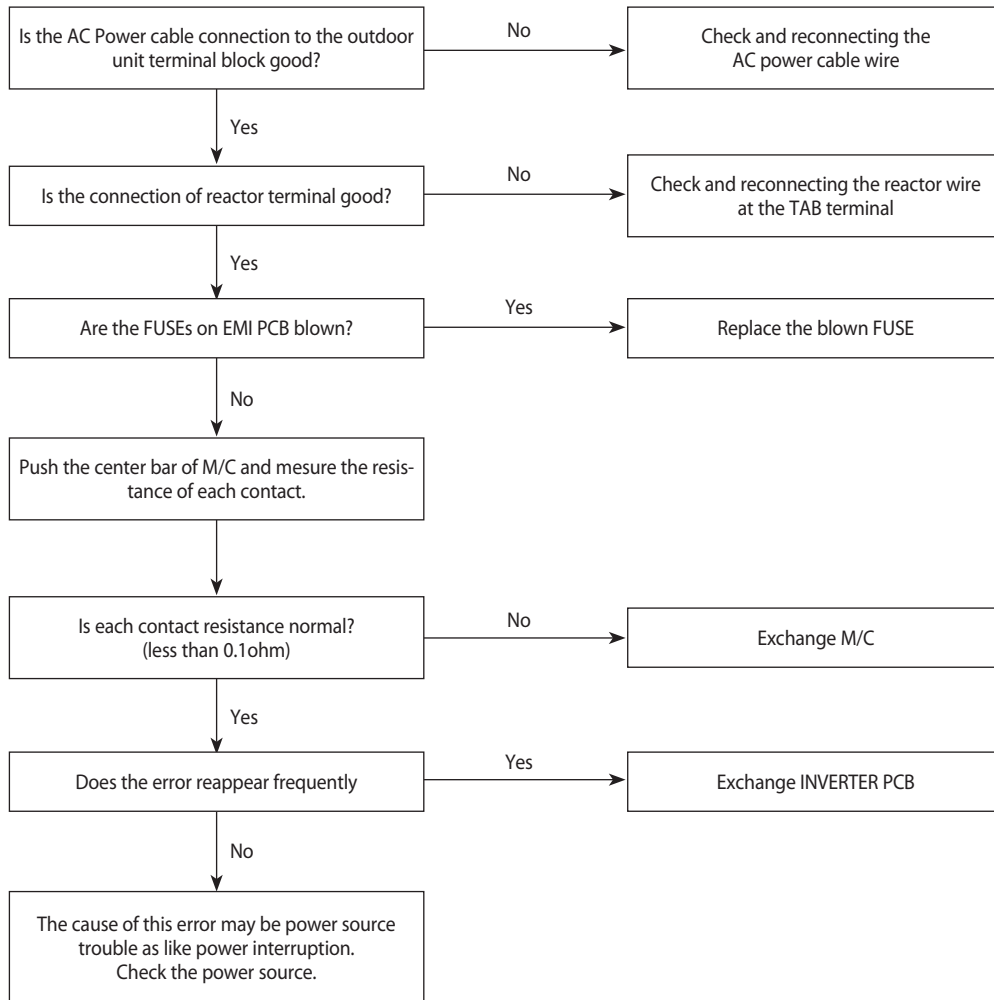


4-5-15 DC Link Over voltage/ Low voltage error

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

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

4-6 PCB Inspection Method

4-6-1 Pre-inspection Notices

- Turn off the breaker, AC power source, before disassembling the unit because of electrical hazard.
- Confirm the complete discharge of capacitor C102, C702, C703, C704, C705, C706, C707 on the INVERTER PCB when you touch the PCB. Especially discharging speed of C702-C707 is very slow because of little load in stand-by condition. To confirm the voltage of C702-C707, measure the DC link voltage at the IGBT module pins near C701 at which applying voltage(450-510Vdc) is marked.
 - To confirm discharging of C102, measure the voltage of non mounted C103 solder hole or check if all LEDs are off.
- Don't touch the metal body of electrolytic capacitor for avoiding electrical shock before confirming discharge.
- 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.
- 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

- Check the connection of each housing to the connector first and the peeling of PCB copper pattern.
- 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
- 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?	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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?	<ul style="list-style-type: none"> • 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?	<ul style="list-style-type: none"> • 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?	<ul style="list-style-type: none"> • Controller trouble inside of the fan motor • connector trouble of CN73

4-6-4 Outdoor Detailed Inspection Procedure

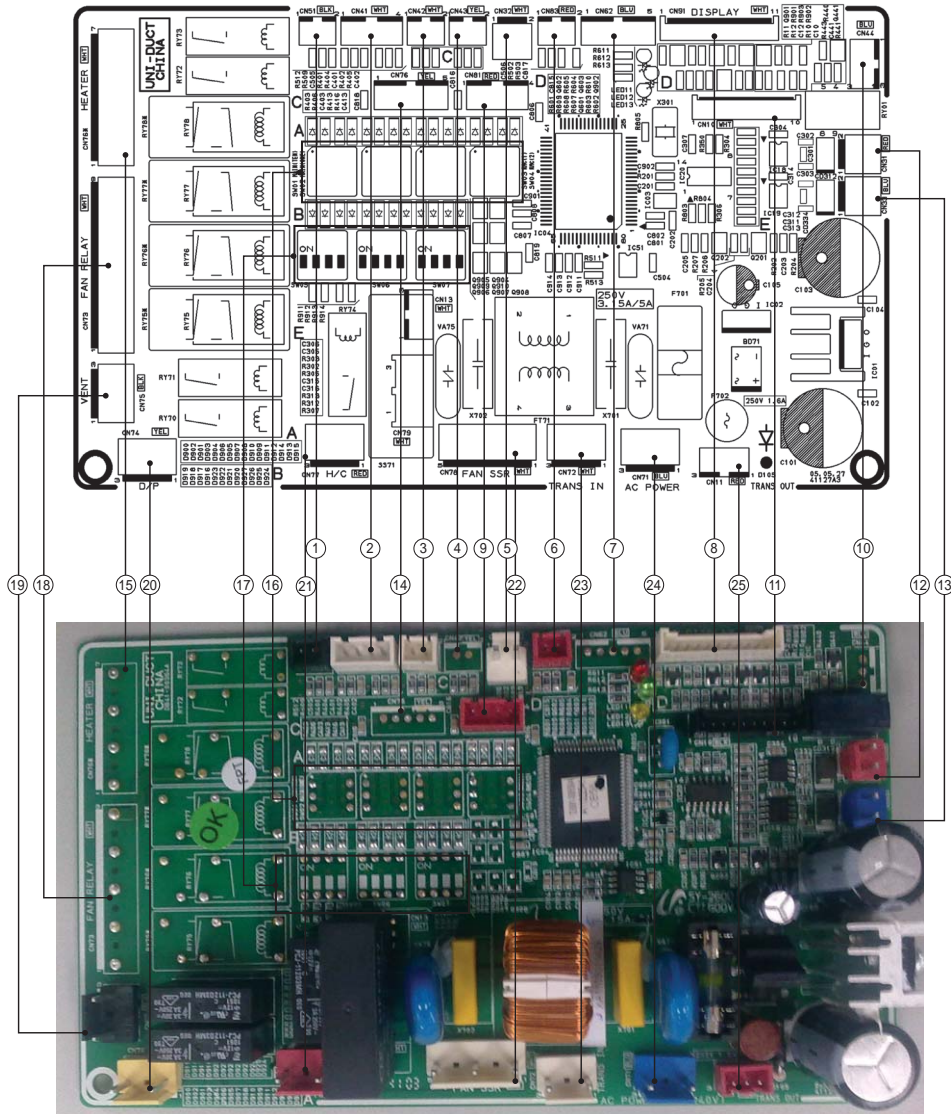
No	Procedure	Inspection Method	Cause
1	Turn OFF the power and check wire and socket connection on each part	Wait until C702-C707 discharged 1) Is connection of housing to socket normal? 2) Is connection of each wire to terminal block normal? 3) Is the reactor wire connection normal? 4) Is there no miss-wiring of each cable?	<ul style="list-style-type: none"> • installation mistake • miss assembling
2	FUSE check	Is the fuses on each PCB normal? 3 fuses on EMI PCB 1 fuse on MAIN PCB 1 fuse on INVERTER PCB	<ul style="list-style-type: none"> • 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?	<ul style="list-style-type: none"> • 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?	<ul style="list-style-type: none"> • 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?	<ul style="list-style-type: none"> • 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?	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • resistor • wire connection between EMI PCB and INVERTER PCB
8	Check BLDC fan	1) See 4--5-9 The Outdoor unit Fan error(Fault Diagnosis)	

4-7 Main Part Inspection Method

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

5. PCB Diagram and Parts List

5-1 INDOOR MAIN PCB

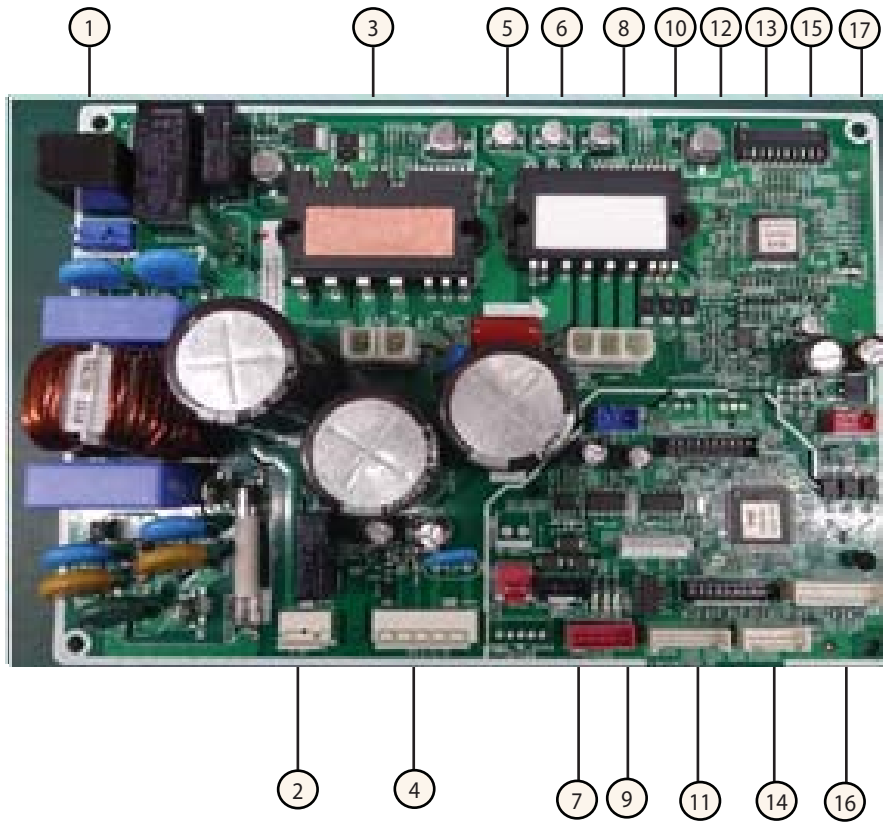


①	Floating S/W : SMW250-02(BLK)	⑬	Wired Remote Controller Communication : YW396-02(BLU)
②	Indoor Pipe In Temperature Sensor : SMW250-04(WHT)	⑭	Option Load Connector : SMW250-05(YEL)
	Indoor Room Temperature Sensor : SMW250-04(WHT)	⑮	Heater : YW39607AV(WHT)
③	Indoor Pipe Out : SMW250-02(WHT)	⑯	Indoor Address S/W
	Temperature Sensor : SMW250-02(WHT)	⑰	Indoor Option S/W
④	Heater Discharge : SMW250-02(YEL)	⑱	Indoor Fan(TAP) : YW396-09AV(WHT)
	Temperature Sensor : SMW250-02(YEL)	⑲	Ventilator : YW396-03AV(BLK)
⑤	Wired Remote Controller Power : YW396-02(WHT)	⑳	Drain Pump : YW396-03AV(YEL)
⑥	External Control(S/W Part) : SMW250-02(RED)	㉑	Hot Coil : YW396-03AV(RED)
⑦	EEV : SMW250-05(BLU) : SMW250-05(BLU)	㉒	Indoor Fan(SSR) : YW396-03AV(RED)
⑧	Display : SMW200-11(WHT) : SMW200-11(WHT)	⑳	Power : YW396-03AV(WHT)
⑨	External Control(Display Part) : SMW250-04(RED)		Transformer Out : YW396-03AV(WHT)
⑩	HALL IC : SMW250-03(BLU)	㉔	Main Power In : YW396-03AV(BLU)
⑪	MICOM Download : SMW200-10(WHT)	㉕	Power : YW396-03AV(BLU)
⑫	Indoor/Outdoor Communication : YW396-02(RED)		Transformer In : SMW250-03(RED)

5-2 Outdoor Unit Main PCB

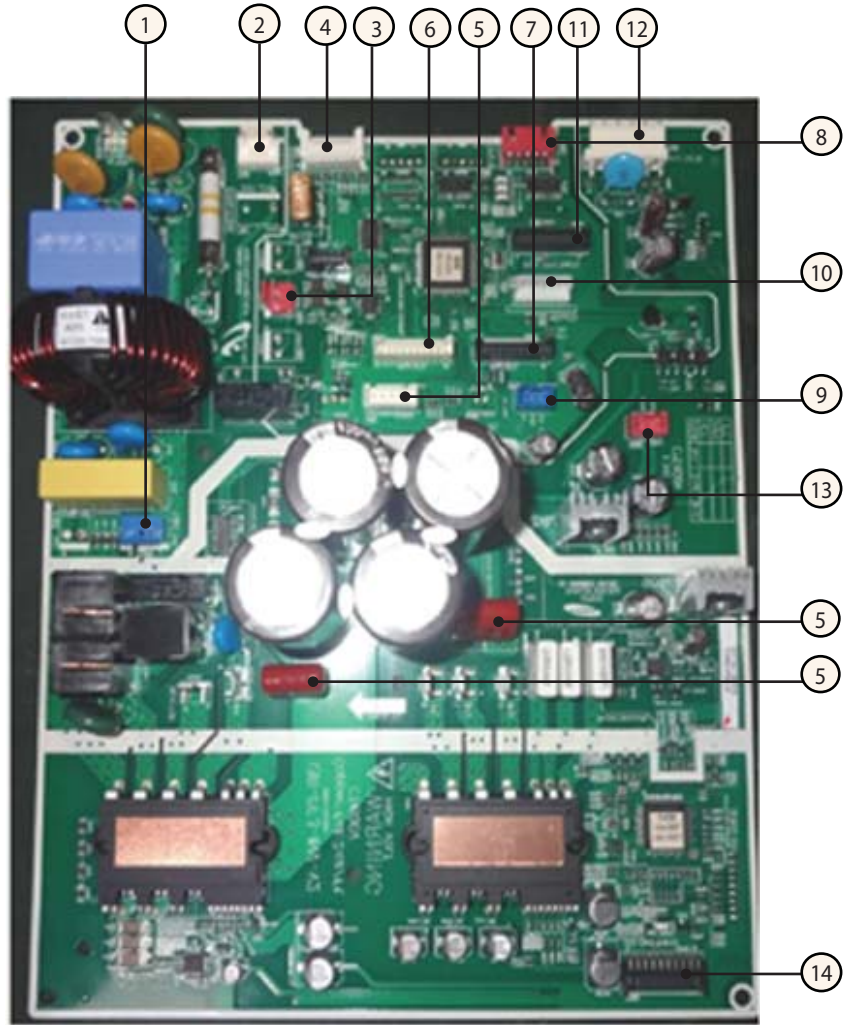
5-2-1 Main PCB

■ AC009KXADCH / AC012KXADCH



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

■ AC018KXADCH

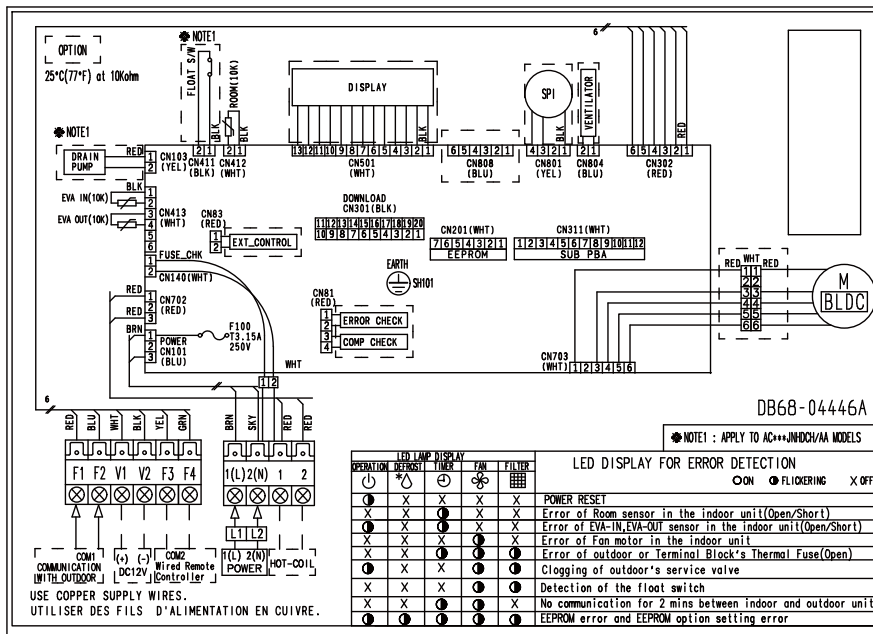


NO	Description
1	SMPS POWER: YW396-03AV BLU
2	4WAY:YW396-03AV WHT
3	COMM:YW396-02V RED
4	TEMP SENSOR: SMW200-08P WHT
5	DRED:SMW250-05 WHT
6	SUB PBA: SMW200-10P WHT
7	SUB PBA: SMW200-10P BLK
8	EEV1:SMW250-05 RED
9	SMPS: SMW250-03 BLU
10	EEPROM:B7P-MQ WHT
11	MAIN DOWNLOAD:YDW200-20 BLK
12	BLDC FAN:YAW396-06V WHT
13	ENABLE CGND: SMW250-03 RED
14	INV DOWNDOWN: YDAW200-20TR BLK

6. Wiring Diagram

6-1 Indoor Unit

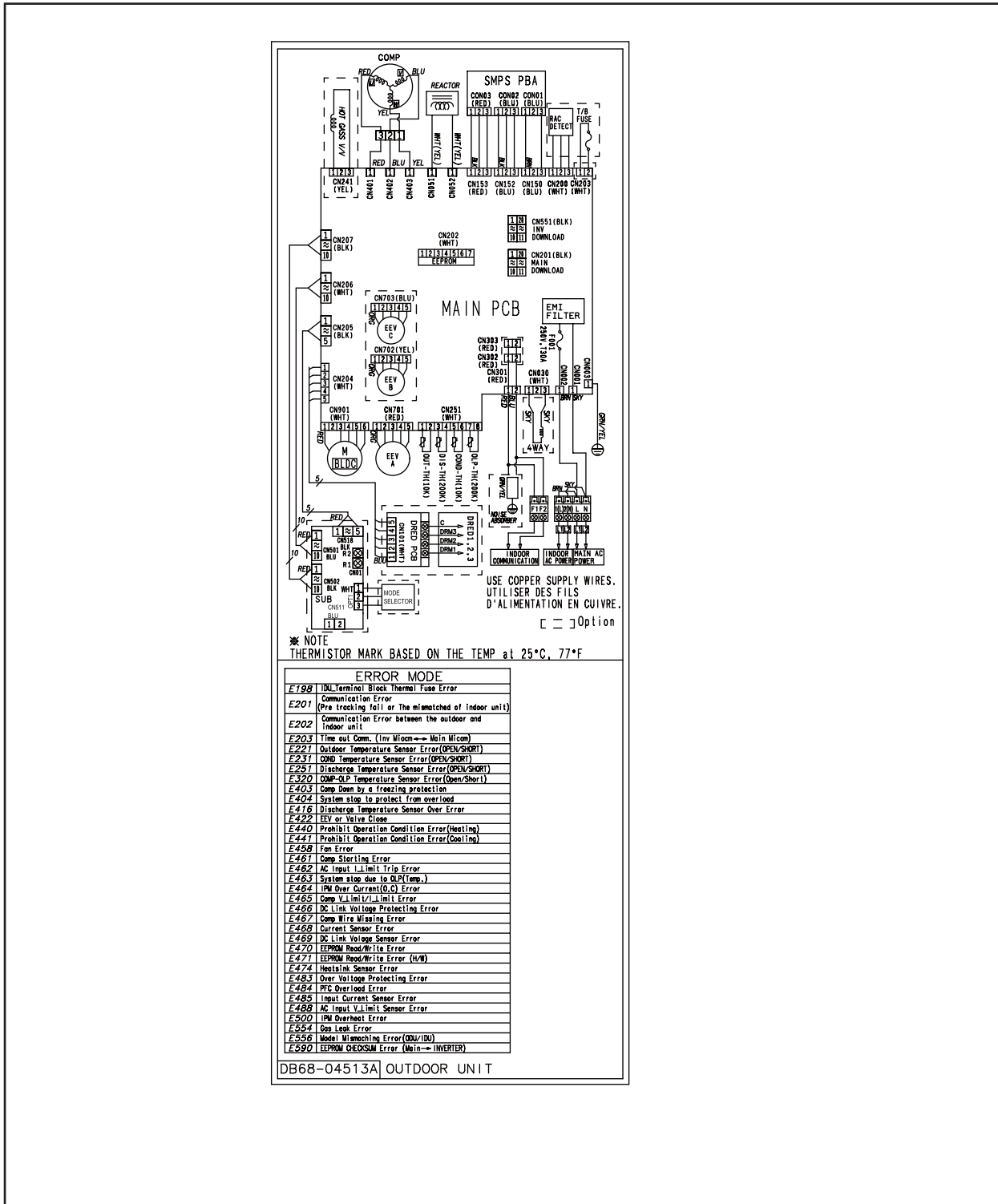
AC009KNLDCH / AC012KNLDCH / AC018KNLDCH



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6-2 Indoor Unit

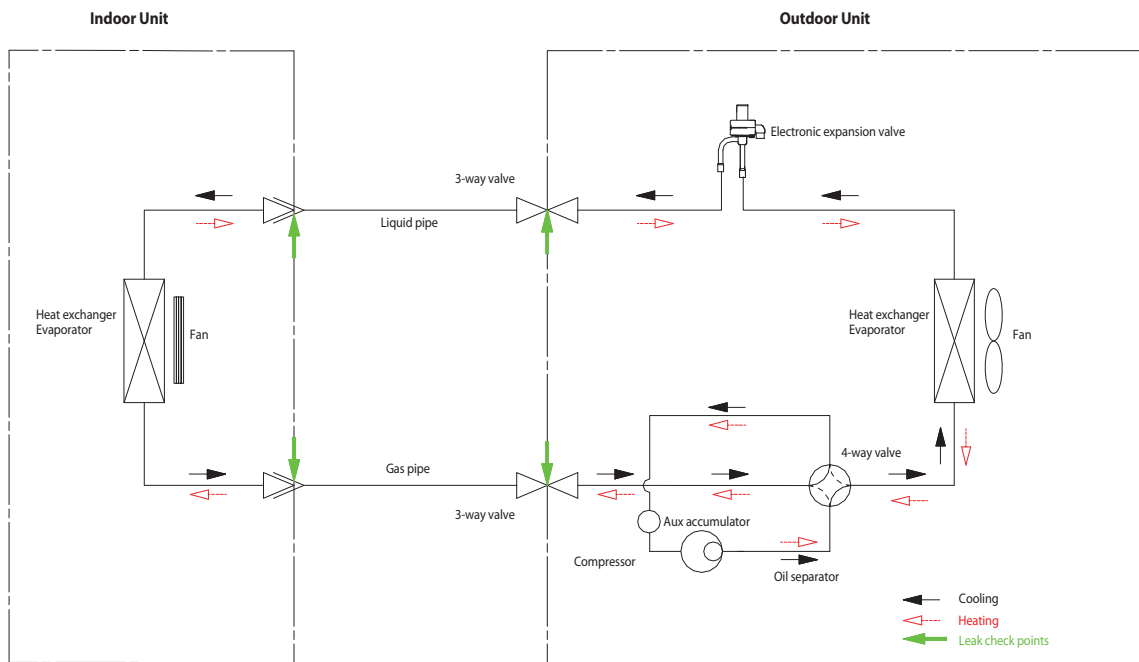
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7. Preference Sheet

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)

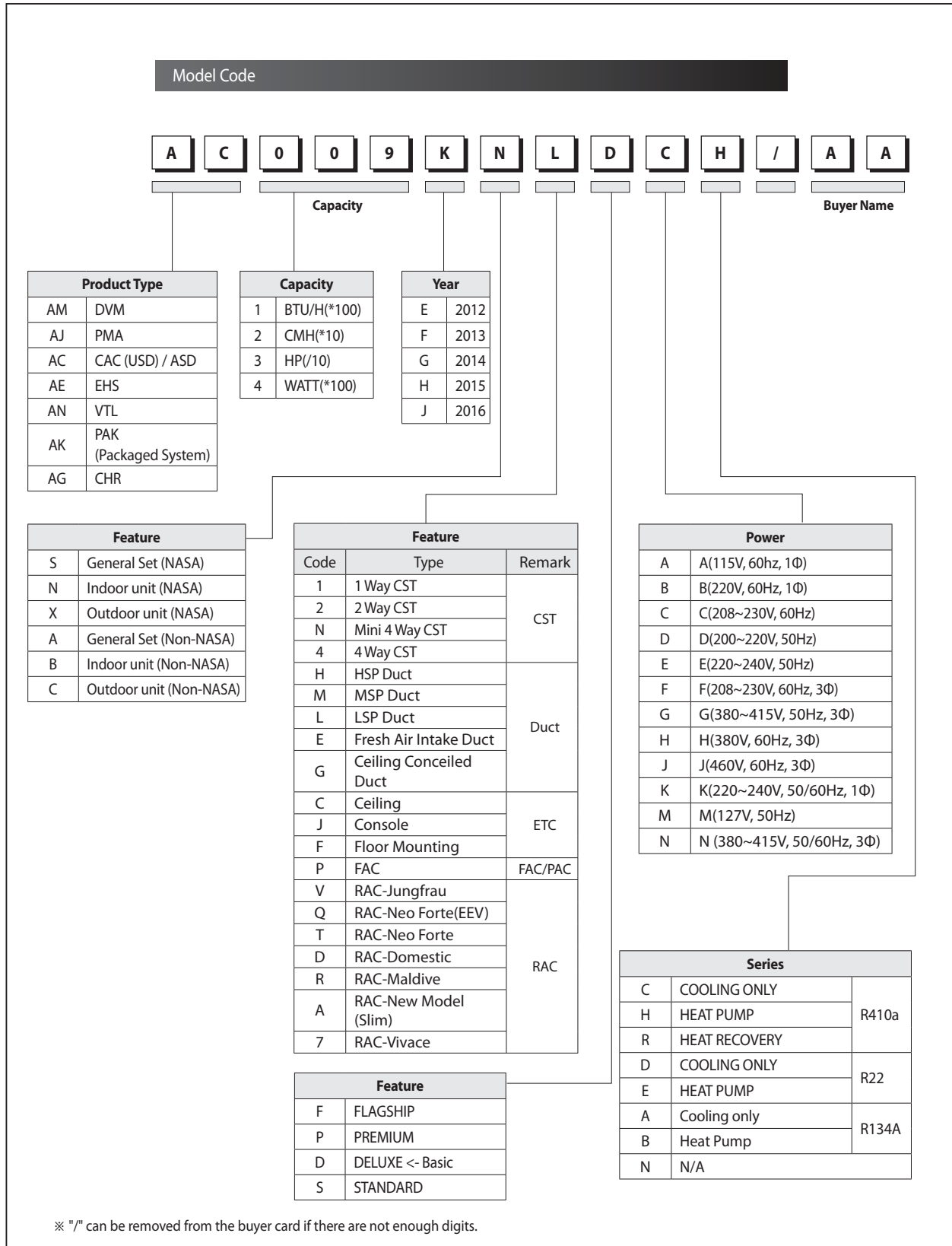
■ SERVICE VALVE

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 for Model Name



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