

10-2 Communication Error

10-2-1 Communication Error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E101/E102	Communication error(Indoor<->outdoor)
◎	●	●		

Outdoor display

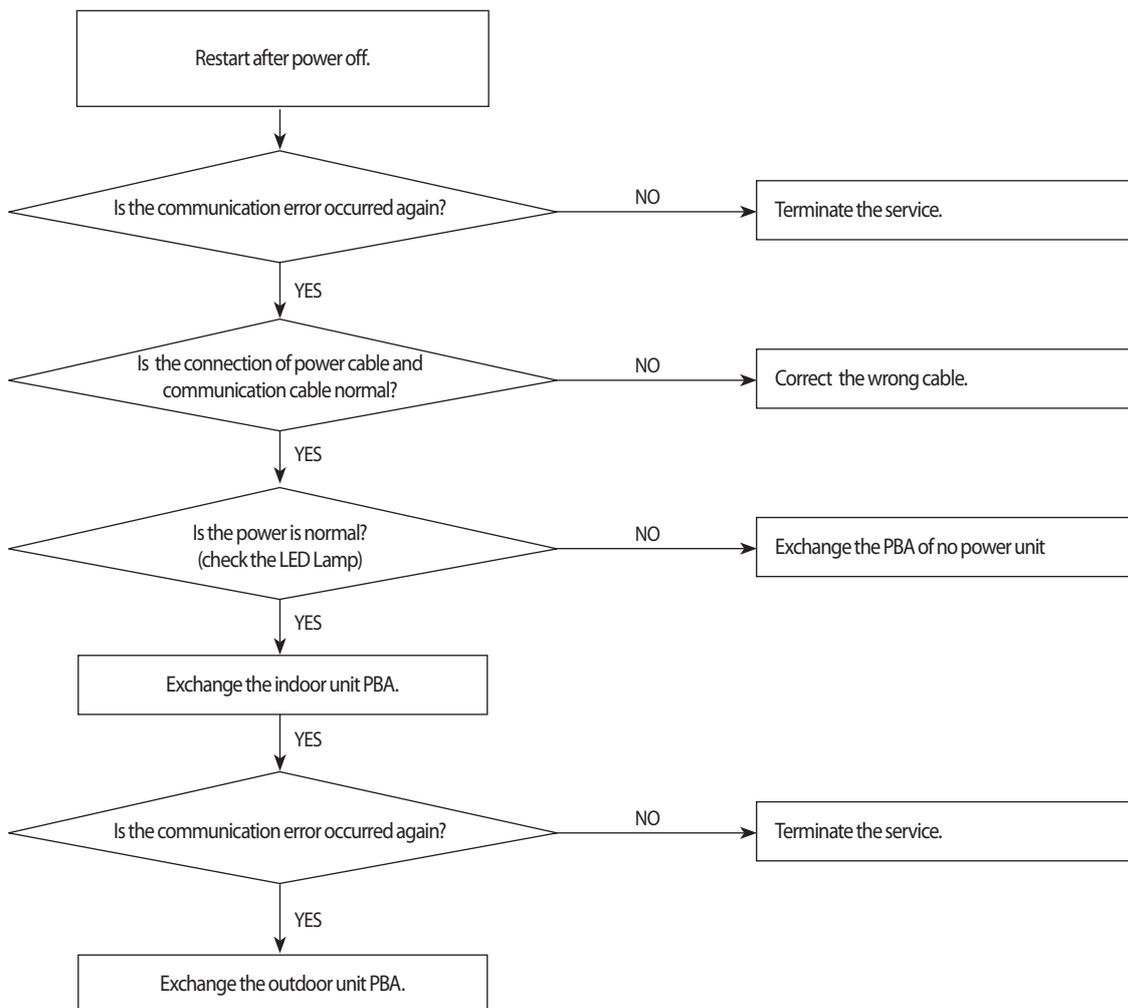
◎	●	●	1min. Time out Comm.
○	○	●	Abnormal Communication
○	●	●	

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :

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

2. Troubleshooting procedure



10-2-2 Indoor temperature sensor Error

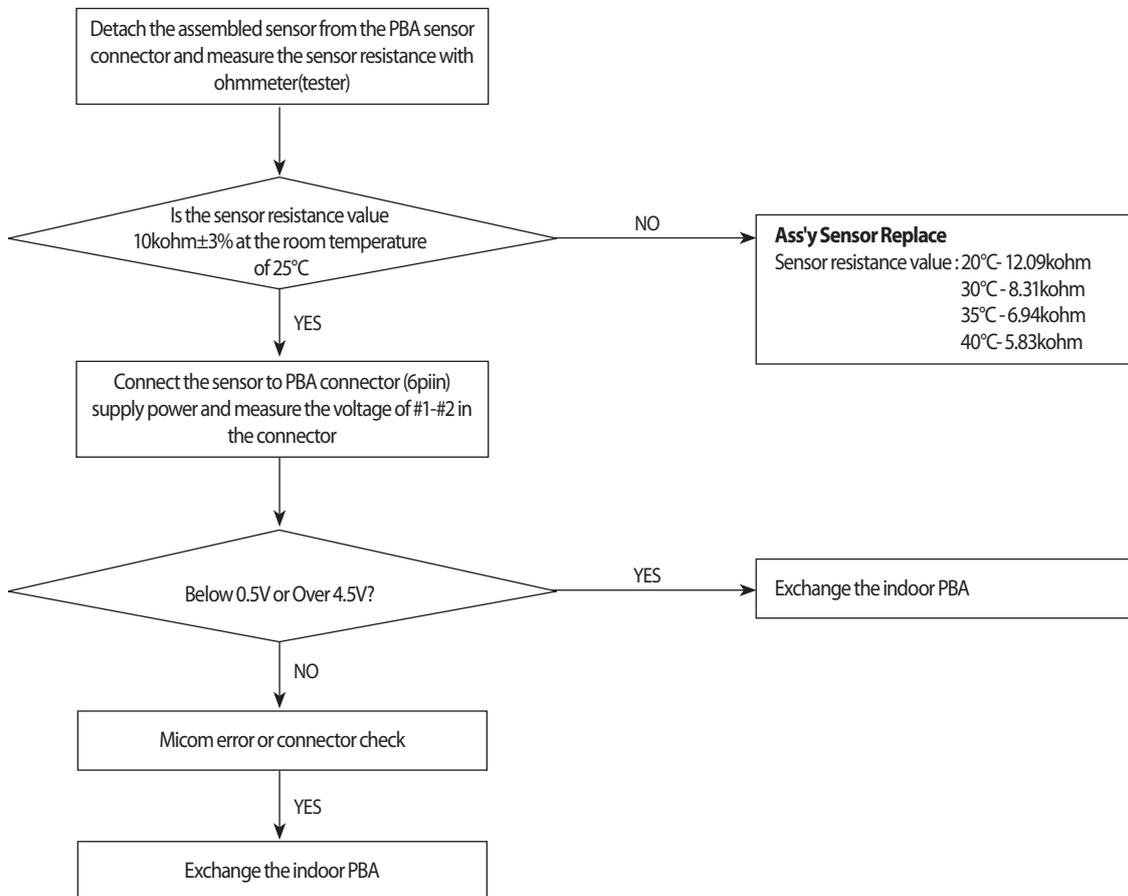
Indoor display

7-SEG DISPLAY	DESCRIPTION
E121	Indoor room temp sensor error

1. Checklist :

- 1) Is the indoor units temperature sensor connected correctly?
- 2) Is the sensor placed correctly?
- 3) Does the both terminal of sensor satisfy the resistance value in accordance with temperature?

2. Troubleshooting procedure



10-2-3 Indoor Eva-in temperature sensor error

Indoor display

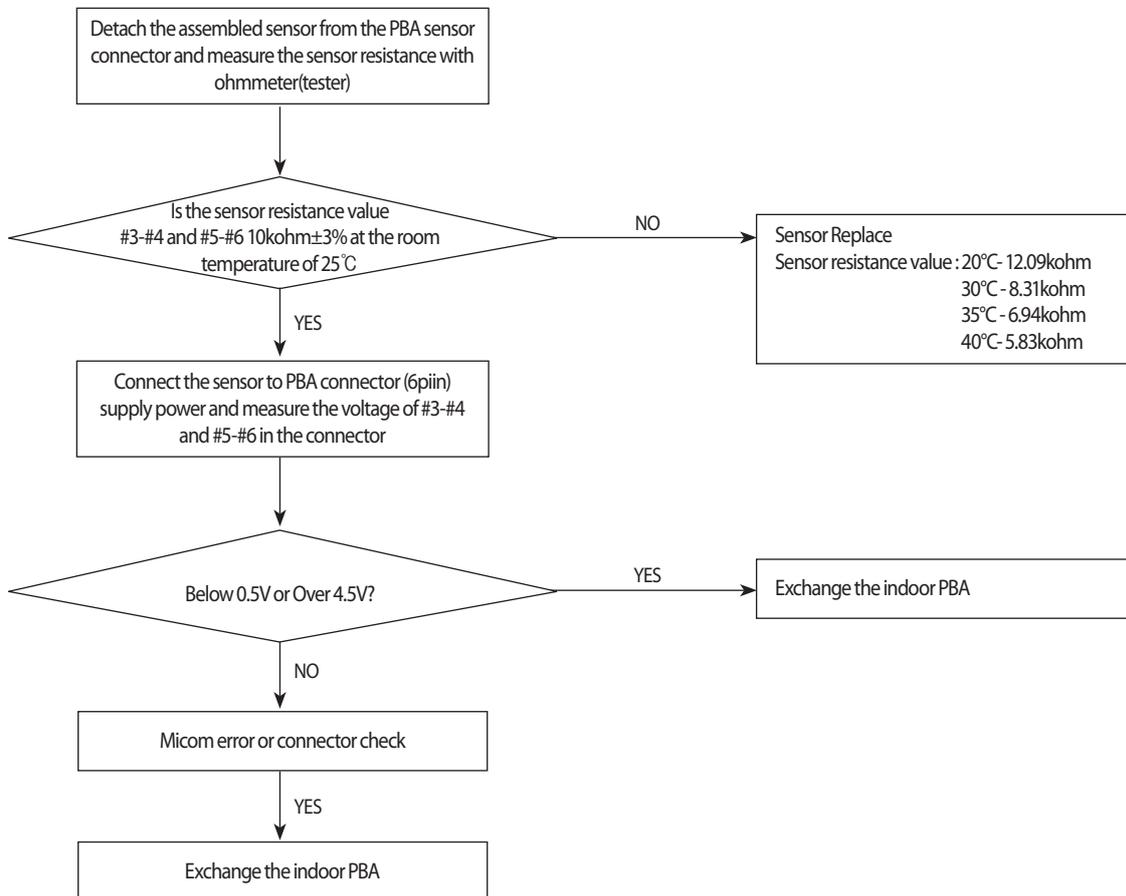
3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E122,E123	Indoor MID, Indoor IN PIPE-TH sensor error
⊙	⊙	○		

● LED ON ⊙ LED BLINKING ○ LED OFF

1. Checklist :

- 1) Is the indoor units temperature sensor connected correctly?
- 2) Is the sensor placed correctly?
- 3) Does the both terminal of sensor satisfy the resistance value in accordance with temperature?

2. Troubleshooting procedure

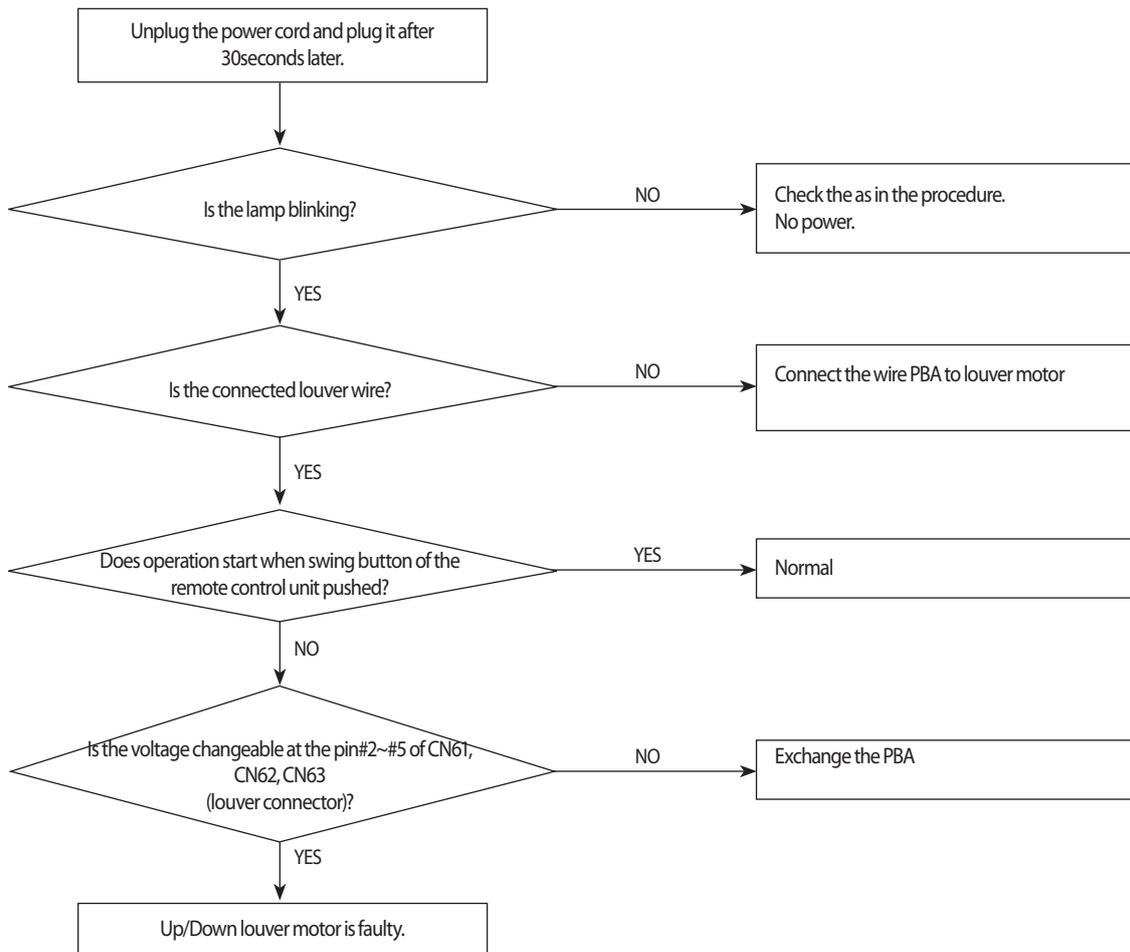


10-2-4 When the Up/Down, Left/Right, Grill louver motor does not operate (Initial Diagnosis) (Not displayed)

1. Checklist :

- 1) Is the input power voltage normal?
- 2) Is the Up/Down louver motor properly connected with the connector? (CN61, CN62, CN63)

2. Troubleshooting procedure



10-2-5 Indoor fan motor speed detecting error (BLDC fan)

Indoor display

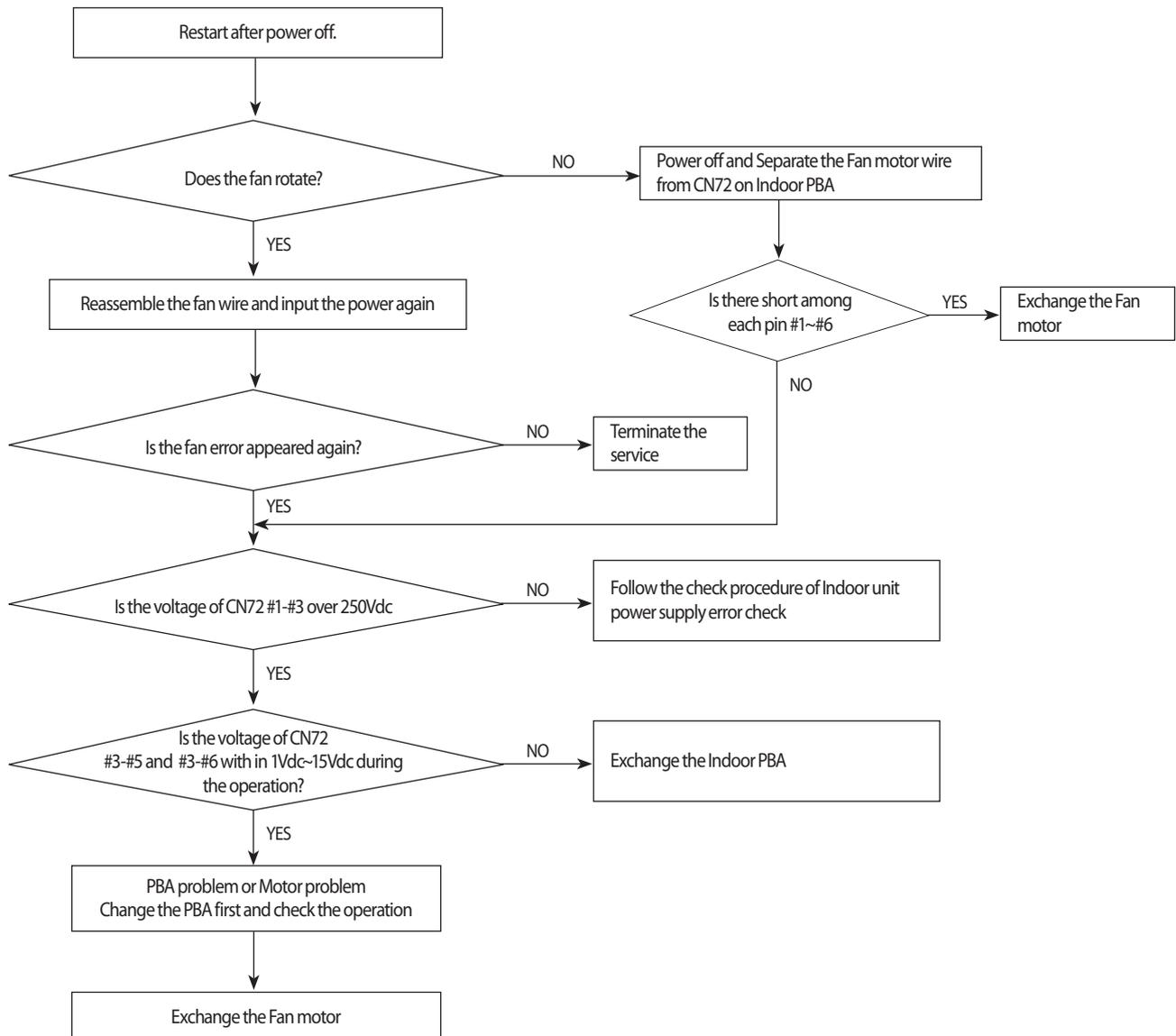
3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E154	Indoor fan error
○	○	◎		

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :

- 1) Is the indoor units fan motor properly connected with the connector(CN72)?
- 2) Is the AC voltage correct?

2. Troubleshooting procedure



10-2-6 Outdoor temperature sensor error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E221	Outdoor temperature sensor error
⊙	○	⊙		

Outdoor display

⊙	○	⊙	Outdoor temperature sensor error
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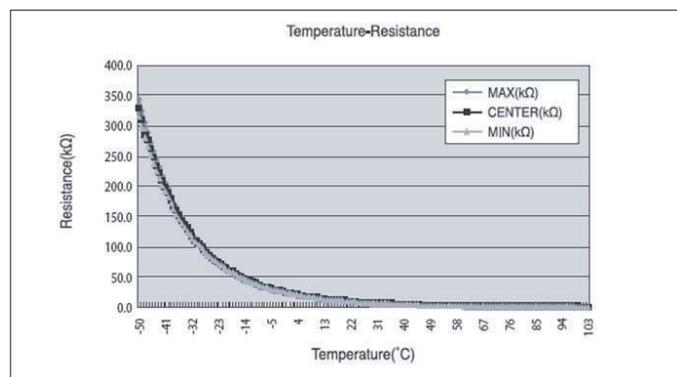
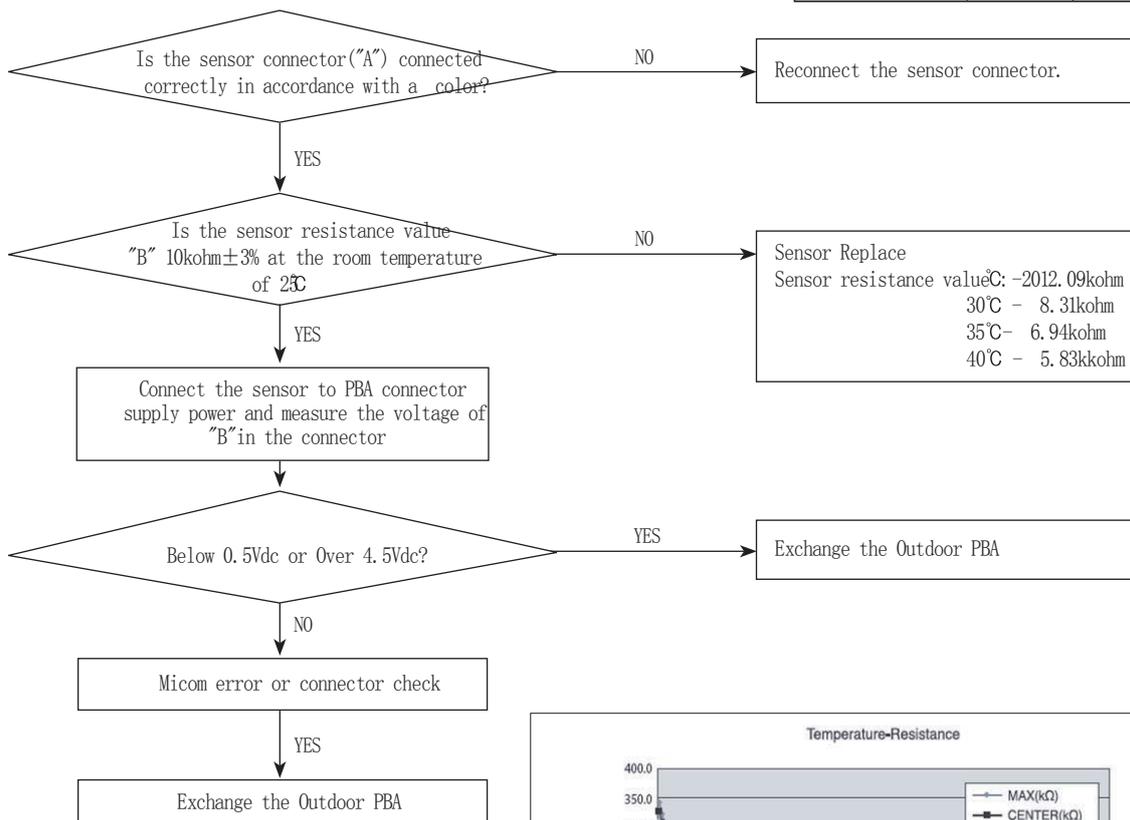
● LED ON ⊙ LED BLINKING ○ LED OFF

1. Checklist :

- 1) Is the sensor 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?

MODEL	"A"	"B"
ALL	CN251	CN251 #1-#2

2. Troubleshooting procedure



10-2-7 Outdoor Cond temperature sensor error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E231	Outdoor Cond temperature sensor error
⊙	○	⊙		

Outdoor display

⊙	●	⊙	Outdoor Cond temperature sensor error
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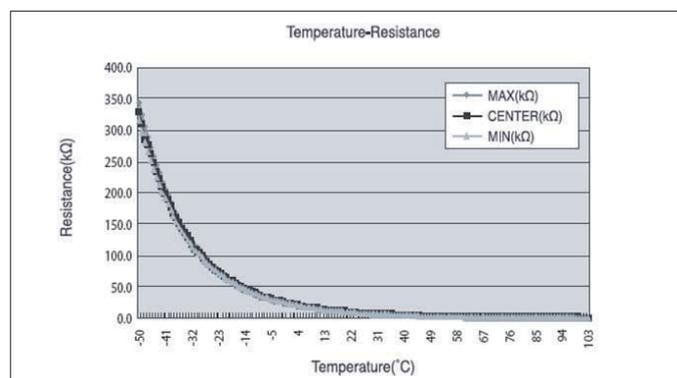
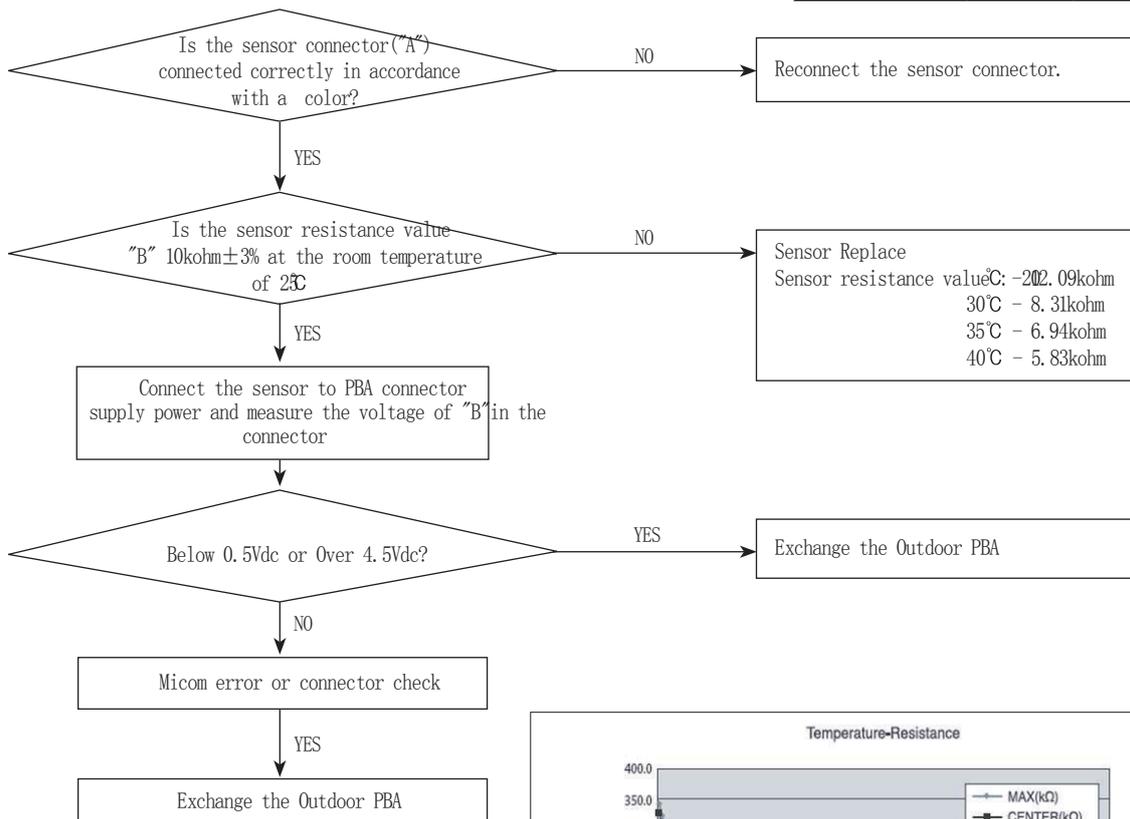
● LED ON ⊙ LED BLINKING ○ LED OFF

1. Checklist :

- 1) Is the sensor 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?

MODEL	"A"	"B"
ALL	CN251	CN251 #5-#6

2. Troubleshooting procedure



10-2-8 Outdoor Discharge temperature sensor error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E251	Outdoor Discharge temperature sensor error
⊙	○	⊙		

Outdoor display

⊙	⊙	○	Outdoor Discharge temperature sensor error
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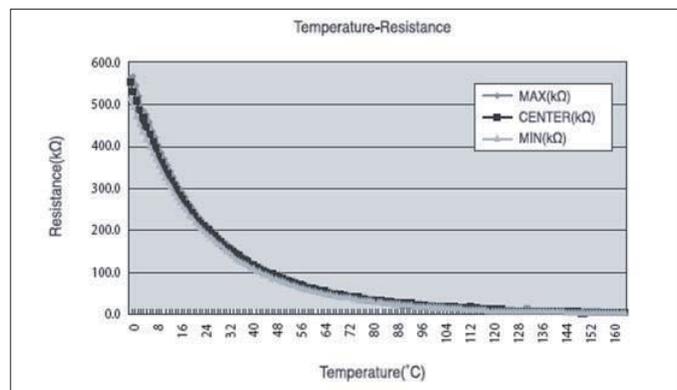
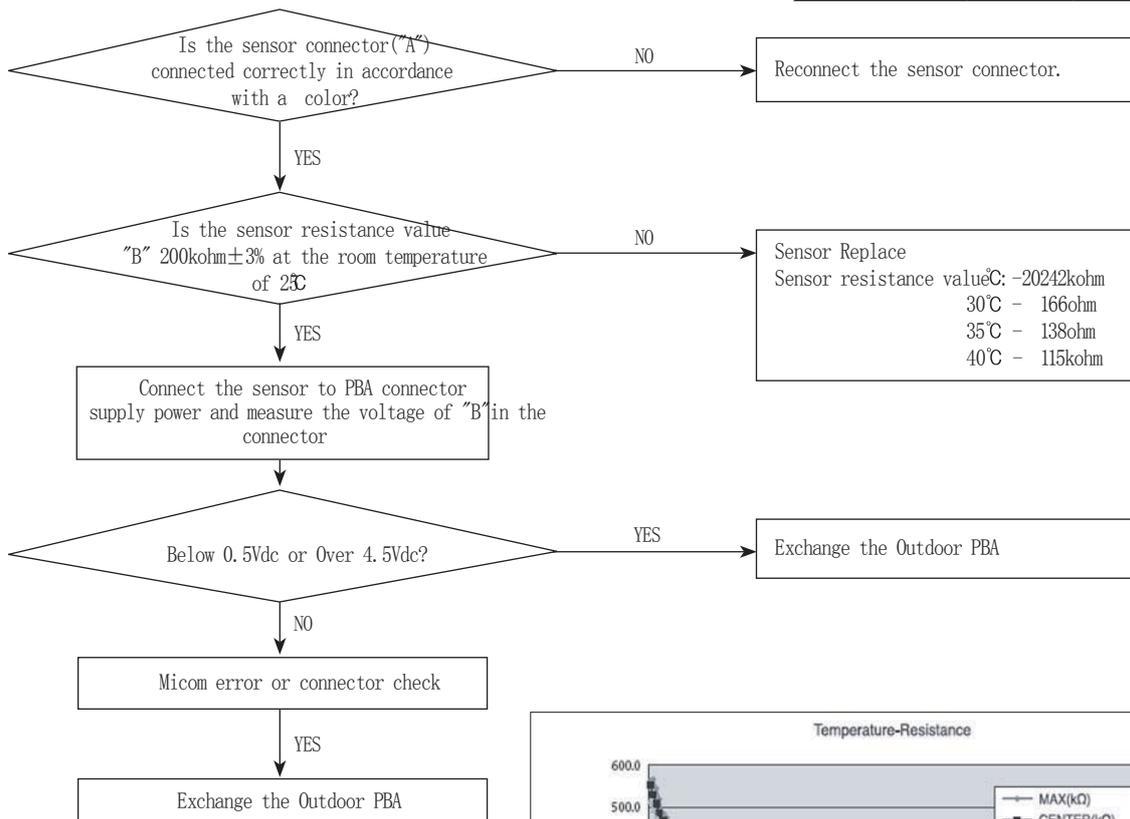
● LED ON ⊙ LED BLINKING ○ LED OFF

1. Checklist :

- 1) Is the sensor 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?

MODEL	"A"	"B"
ALL	CN251	CN251 #3-#4

2. Troubleshooting procedure



10-2-9 Outdoor Discharge over temperature error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E416	Outdoor Discharge over temperature error
◎	○	◎		

Outdoor display

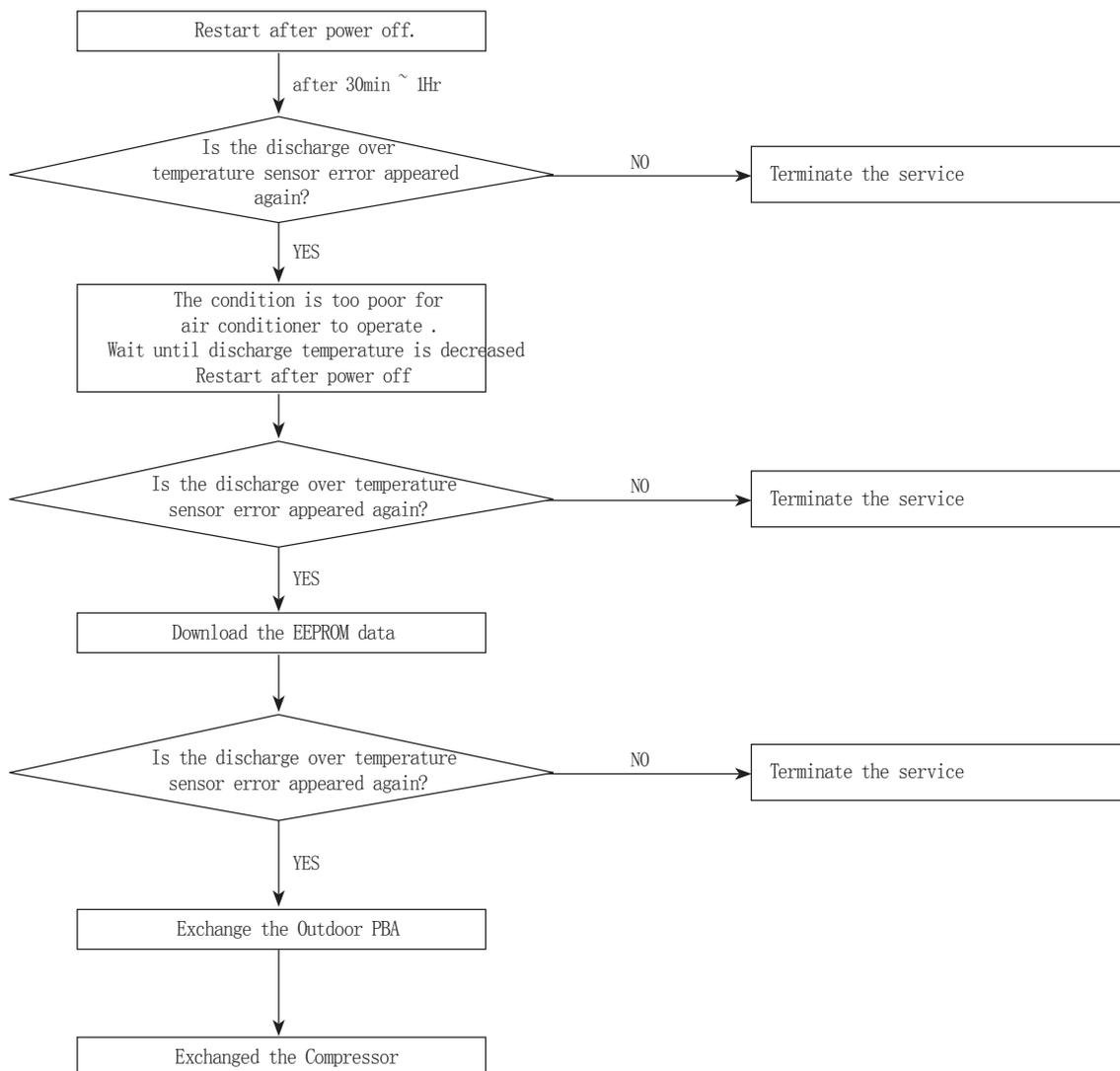
◎	◎	●	Outdoor Discharge over temperature error
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● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :

- 1) Check the discharge temperature in the outdoor unit
- 2) Check the compressor locking or gas leak
- 3) Download the EEPROM data

2. Troubleshooting procedure



10-2-10 Outdoor Fan motor error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E458	Outdoor fan error
⊙	○	⊙		

Outdoor display

●	○	○	Outdoor fan error
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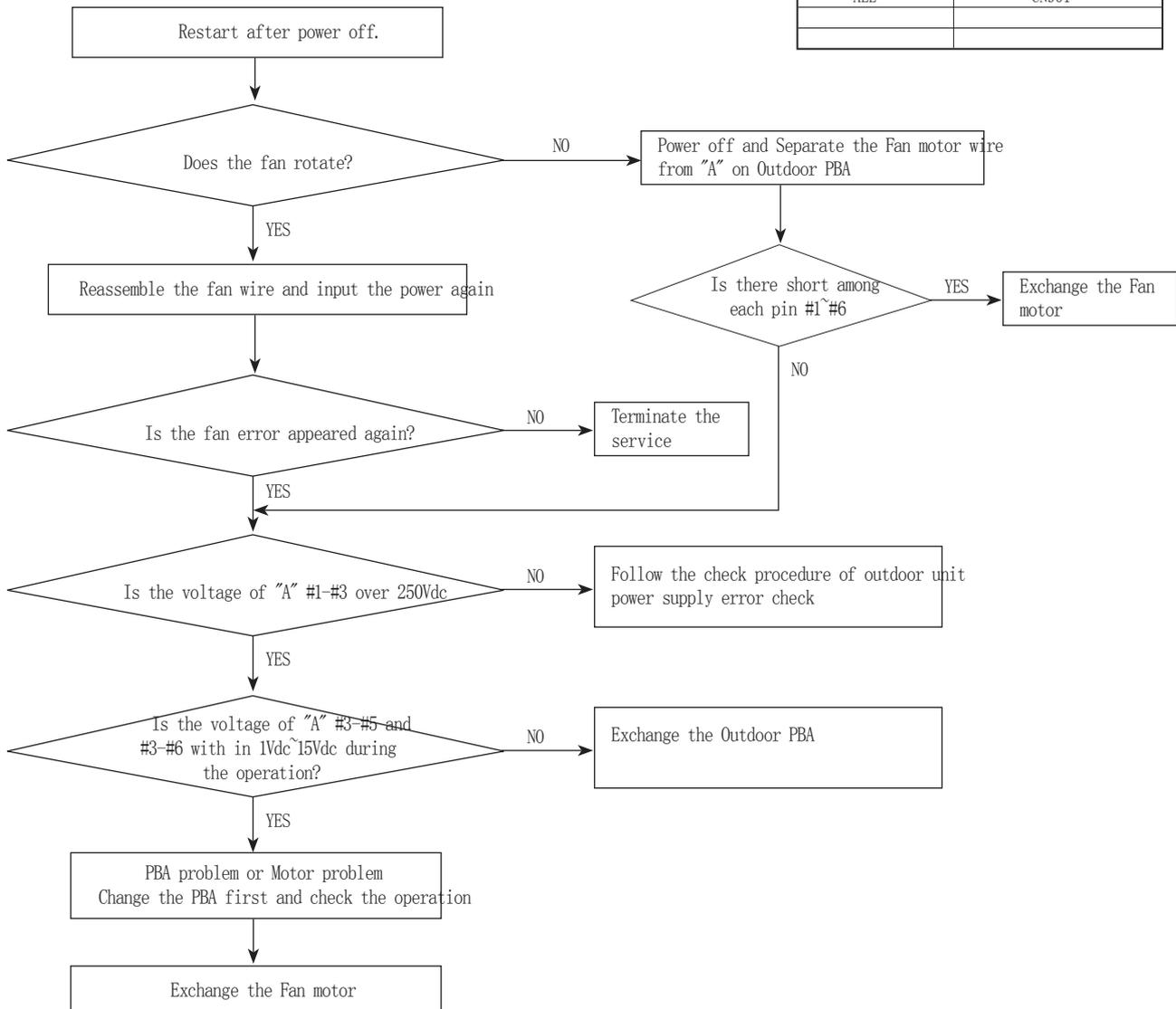
● LED ON ⊙ LED BLINKING ○ LED OFF

1. Checklist :

- 1) Are the input power voltage and the power connection correct?
- 2) Is the motor wire connected to the outdoor PBA correctly?
- 3) Is there no assembly error or non-assembly in the terminal of motor wire connector?
- 4) Is there no obstacle at the surrounding of motor and propeller?

2. Troubleshooting procedure

MODEL	"A"
ALL	CN901



10-2-11 Compressor starting error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E461	Comp starting error
◎	○	◎		

Outdoor display

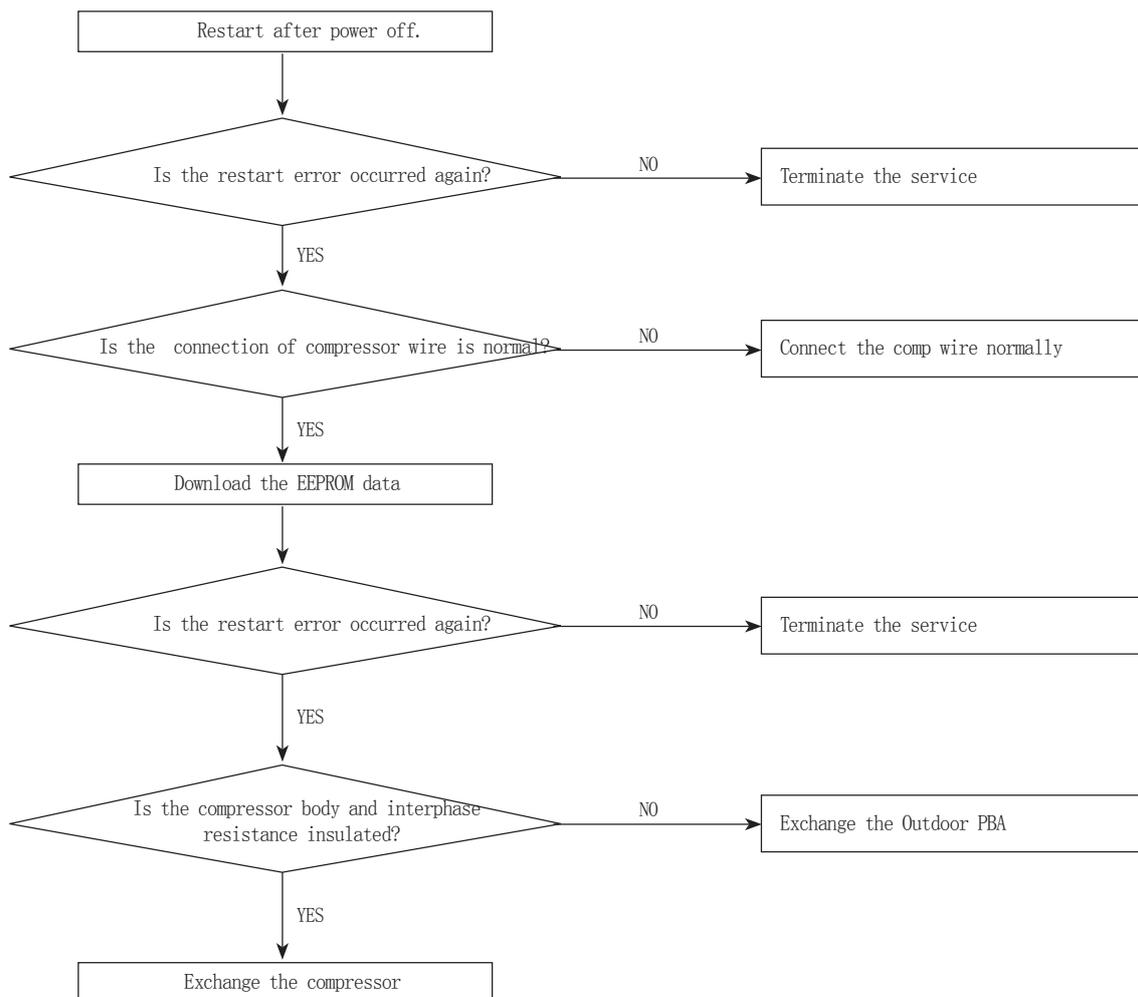
○	◎	○	Comp starting error
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● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :

- 1) Is the connection of cable for the compressor?
- 2) Is the compressor wire is connected clockwise? U(RED)-V(BLU)-W(YEL)
- 3) Is the interphase resistance of compressor normal?

2. Troubleshooting procedure



10-2-12 Compressor wire missing error/rotation error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E467	Compressor wire missing error/rotation error
◎	○	◎		

Outdoor display

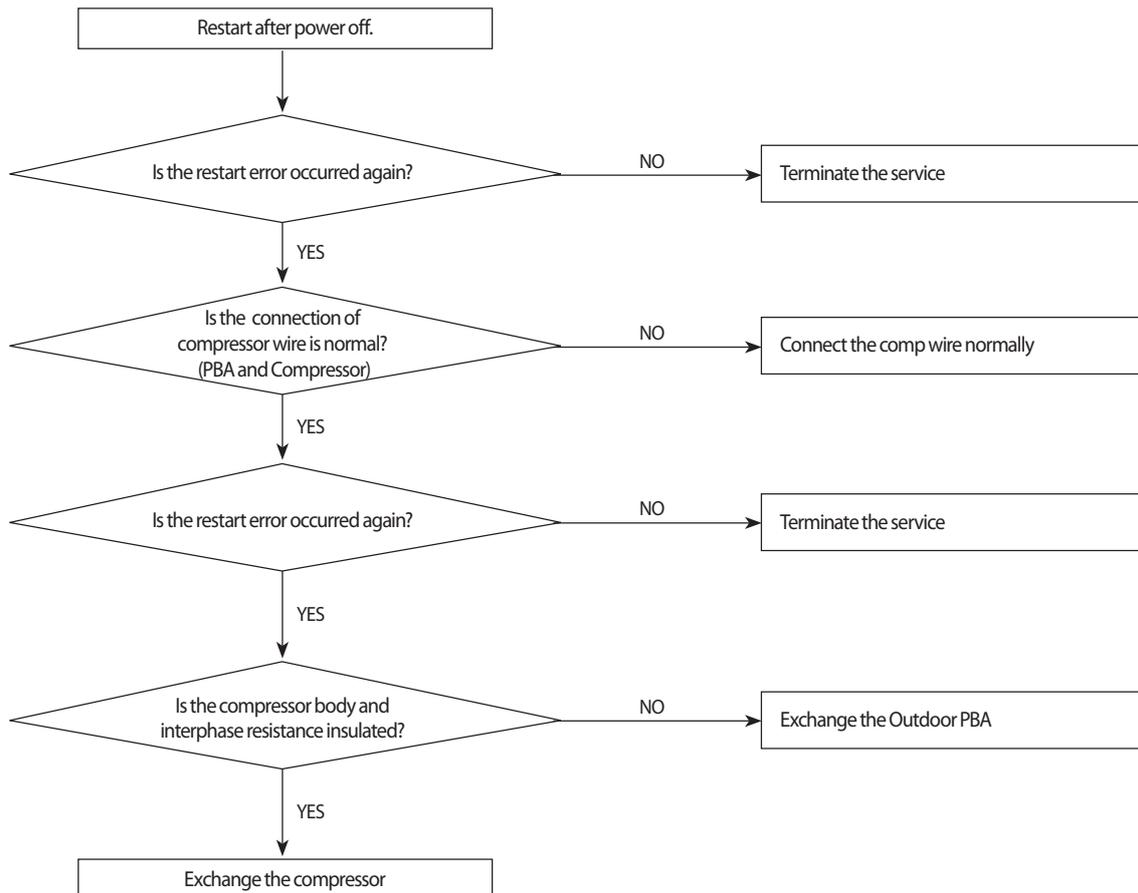
●	○	●	Compressor wire missing error/rotation error
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● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :

- 1) Is the connection of cable for the compressor?
- 2) Is the compressor wire is connected clockwise? U(RED)-V(BLU)-W(YEL)
- 3) Is the interphase resistance of compressor normal?

2. Troubleshooting procedure



10-2-13 O.C(Over Current) error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E464	IPM Over Current(O.C) Error
⊙	○	⊙		

Outdoor display

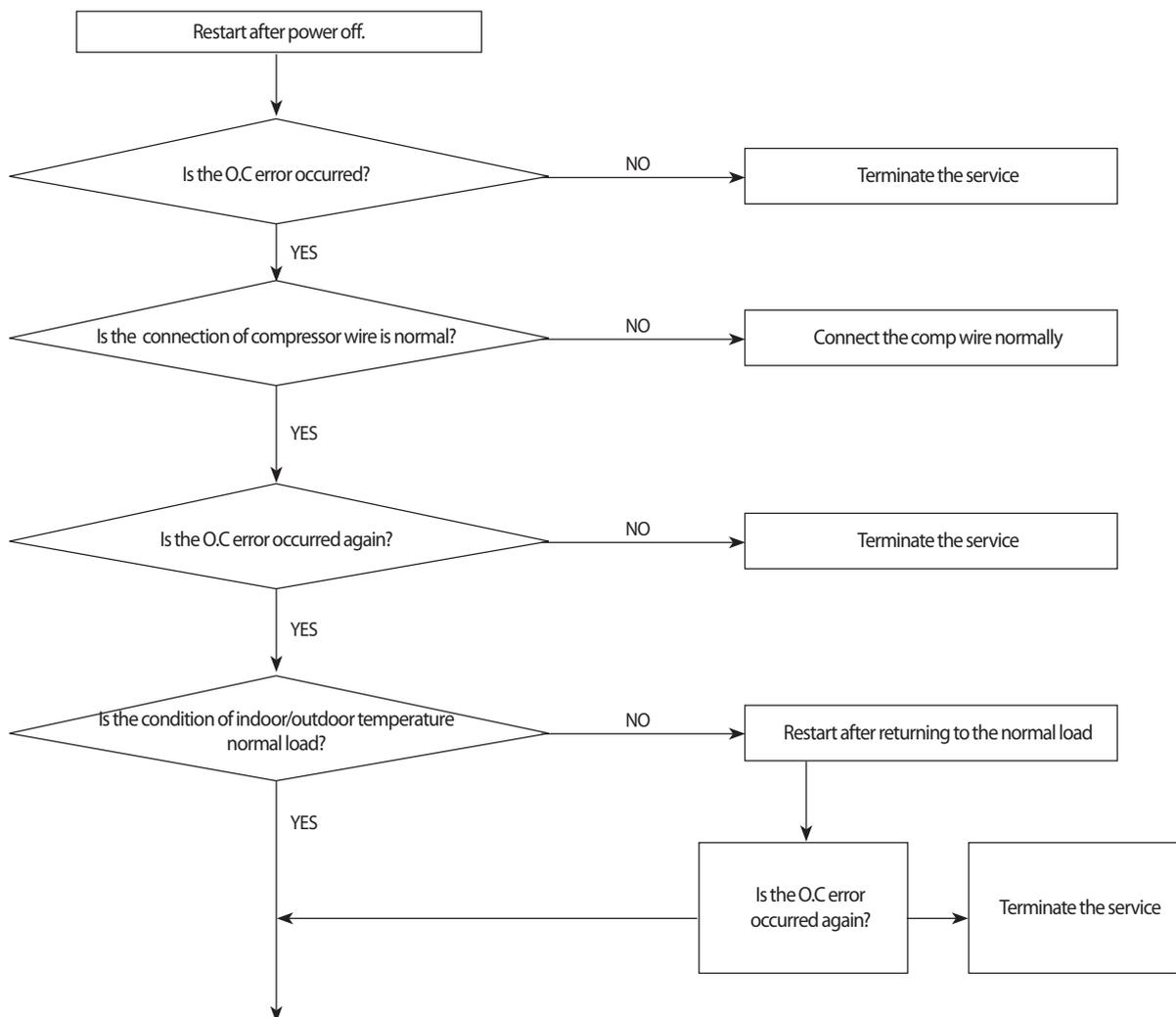
○	○	⊙	IPM Over Current(O.C) Error
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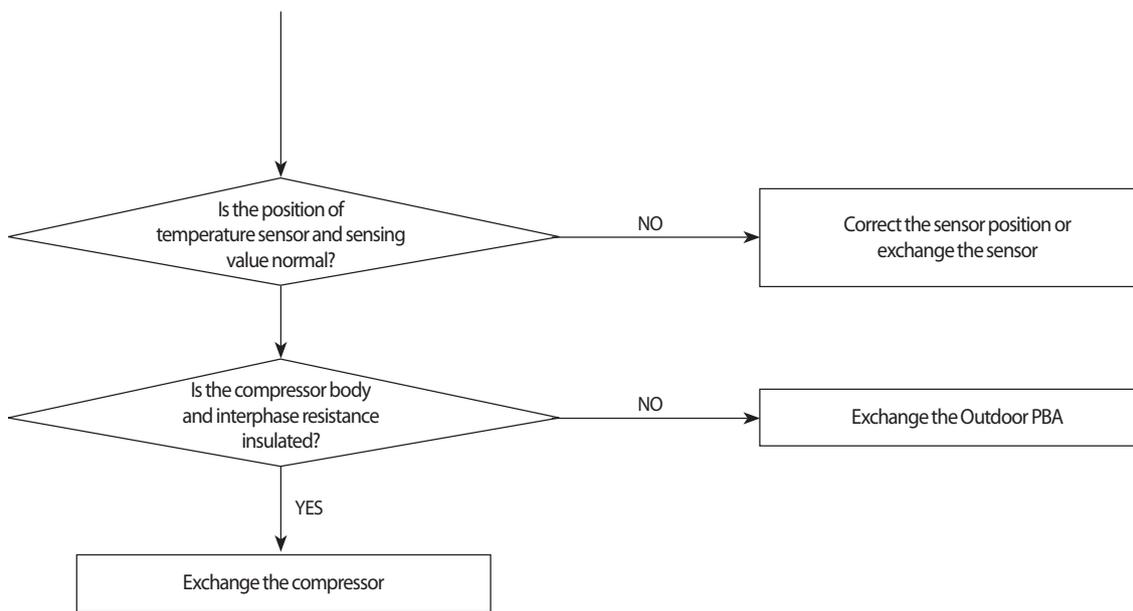
● LED ON ⊙ LED BLINKING ○ LED OFF

1. Checklist :

- 1) Is the IPM Shunt resistance value correct? Check the resistor is opened
- 2) Is the condition of surrounding temperature abnormal overload?
- 3) Is there any problem as like the temperature sensor separation or measurement value error?
- 4) Is the interphase resistance of compressor normal?

2. Troubleshooting procedure





10-2-14 DC_link voltage sensor error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E469	DC_link voltage sensor error
⊙	○	⊙		

Outdoor display

●	⊙	⊙	DC_link voltage sensor error
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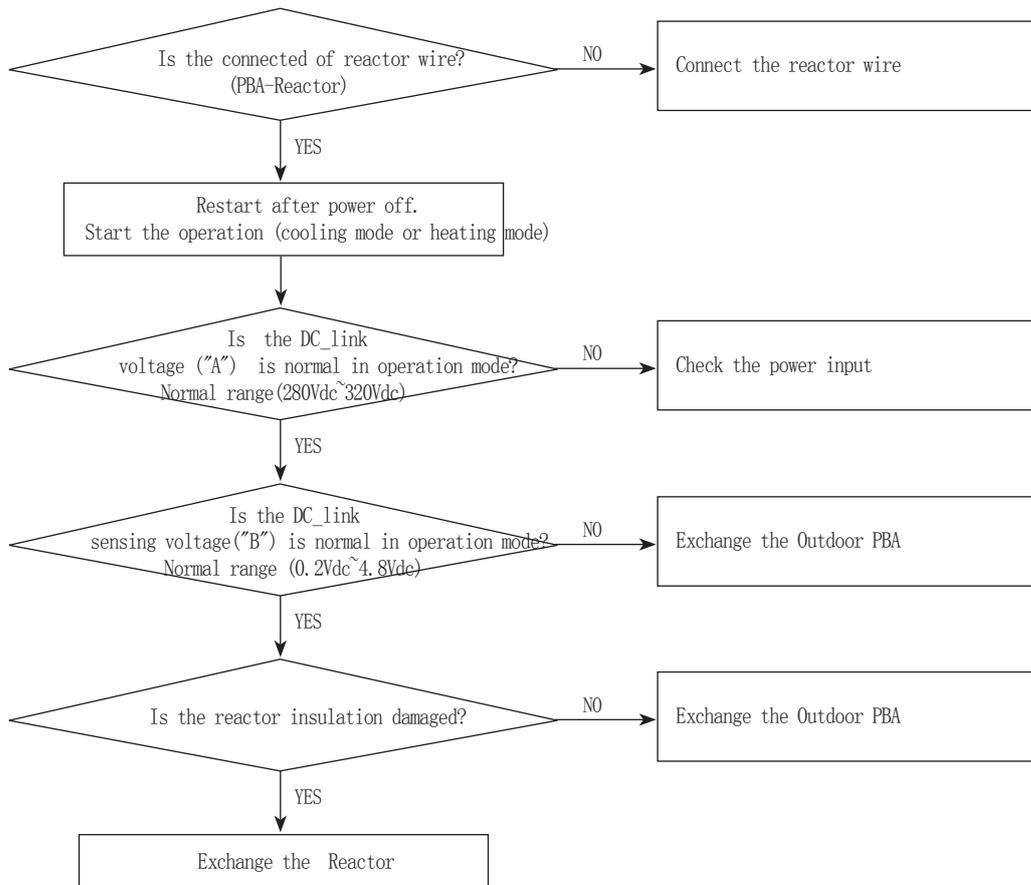
● LED ON ⊙ LED BLINKING ○ LED OFF

1. Checklist :

- 1) Is the input voltage of outdoor terminal block is normal?
- 2) Is the reactor wire connected?
- 3) Is the DC_link capacitor("A") assembled in accordance the specification? (Outdoor PBA)
- 4) Is the DC_link resistor("B") value is normal? (Outdoor PBA)

2. Troubleshooting procedure

MODEL	"A"	"B"
DB92-02866A	CE101, CE102, CE103	R101
DB92-02867A	CE053, CE054, CE055, CE056	R062



10-2-15 DC_link voltage sensor error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E488	AC Input Voltage Sensor Error
◎	○	◎		

Outdoor display

●	◎	◎	AC Input Voltage Sensor Error
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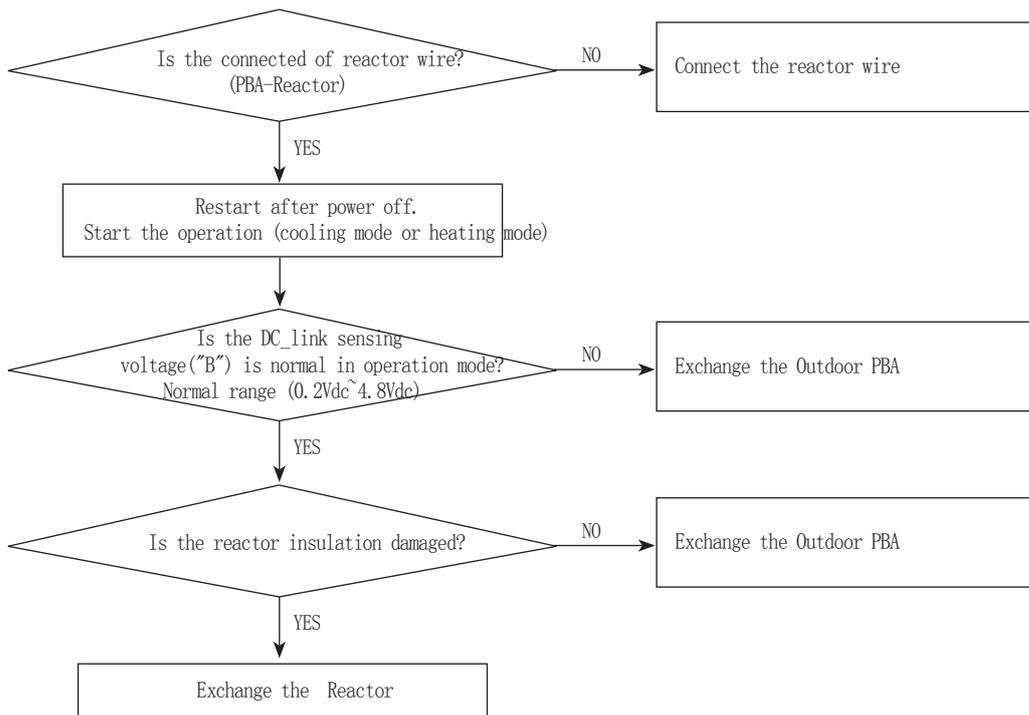
● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :

- 1) Is the input voltage of outdoor terminal block is normal?
- 2) Is the reactor wire connected?
- 3) Is the PFC resistor("A") value is normal? (Outdoor PBA)

2. Troubleshooting procedure

MODEL	"A"	"B"
DB92-02866A/2867A	R105, R106, R107, R108	R105



10-2-16 DC_link voltage under/over error, H/W DC-link Over voltage protection error/PFC over load

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E466	DC-Link voltage under/over error
			E483	Over Voltage Protection Error
			E484	PFC over load

Outdoor display

LED1	LED2	LED3	DESCRIPTION
○	●	◎	DC-Link voltage under/over error
			PFC over load
			Over Voltage Protection Error

● LED ON ◎ LED BLINKING ○ LED OFF

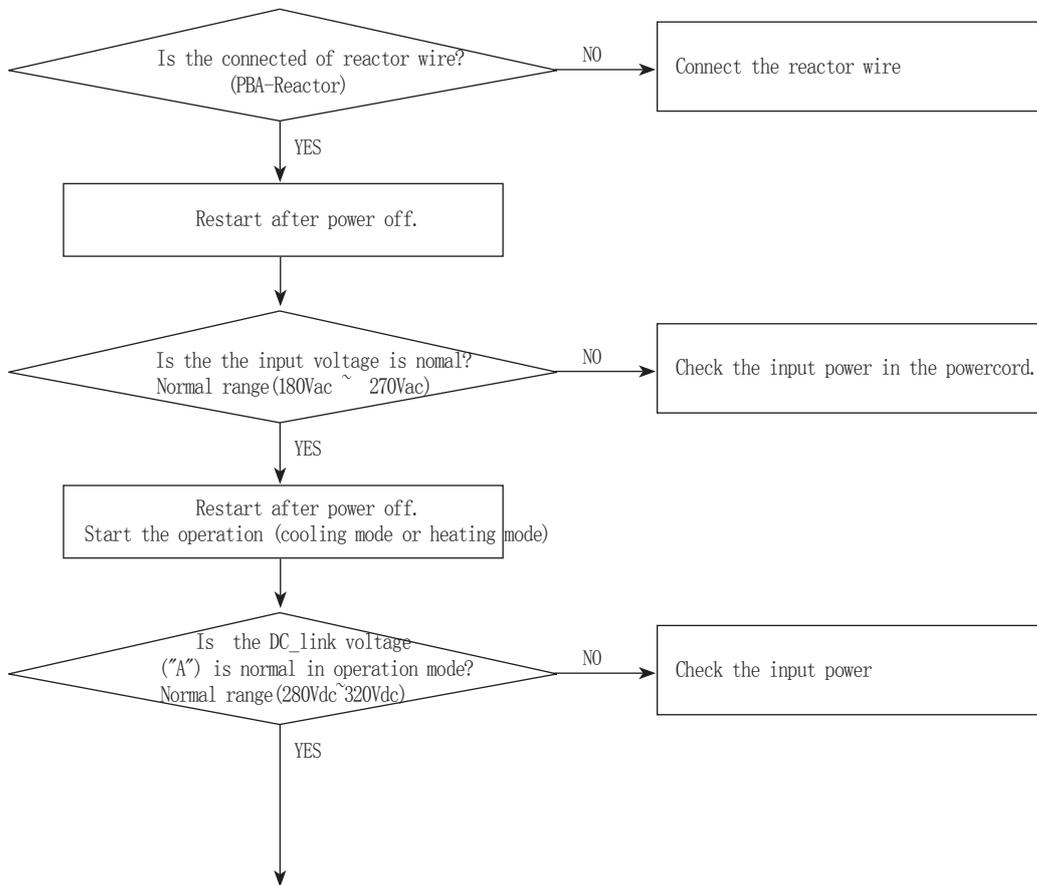
1. Checklist :

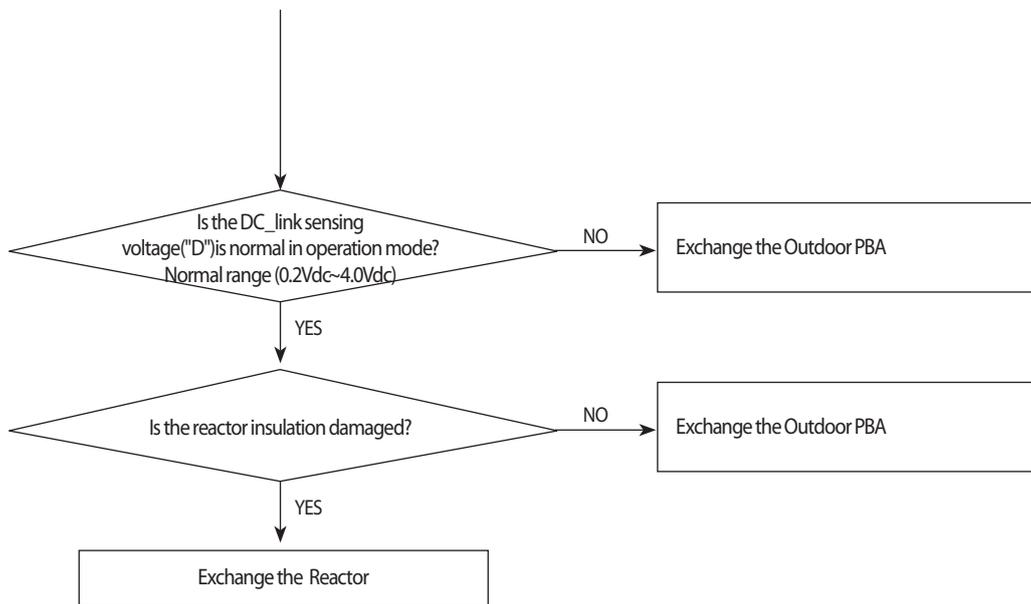
- 1) Is the input voltage of outdoor terminal block is normal?
- 2) Is the input voltage is higher than 300Vac?
- 3) Is the reactor wire connected?
- 4) Is the DC_link capacitor("A") assembled in accordance the specification? (Outdoor PBA)
- 5) Is the DC_link resistor("B") value is normal? (Outdoor PBA)
- 6) Is the PFC resistor("C") value is normal? (Outdoor PBA)

MODEL	"A"	"B"
DB92-02866A	CE101, CE102, CE103	R101, R102, R103, R104
DB92-02867A	CE053, CE054, CE055, CE056	R059, R060, R061, R062

2. Troubleshooting procedure

MODEL	"C"	"D"
DB92-02866A/2867A	R105, R106, R107, R108	R105





10-2-17 I_trip error, PFC over current

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3	E462	AC Input I_Limit Trip Error
⊙	○	⊙		

Outdoor display

●	⊙	●	AC Input I_Limit Trip Error
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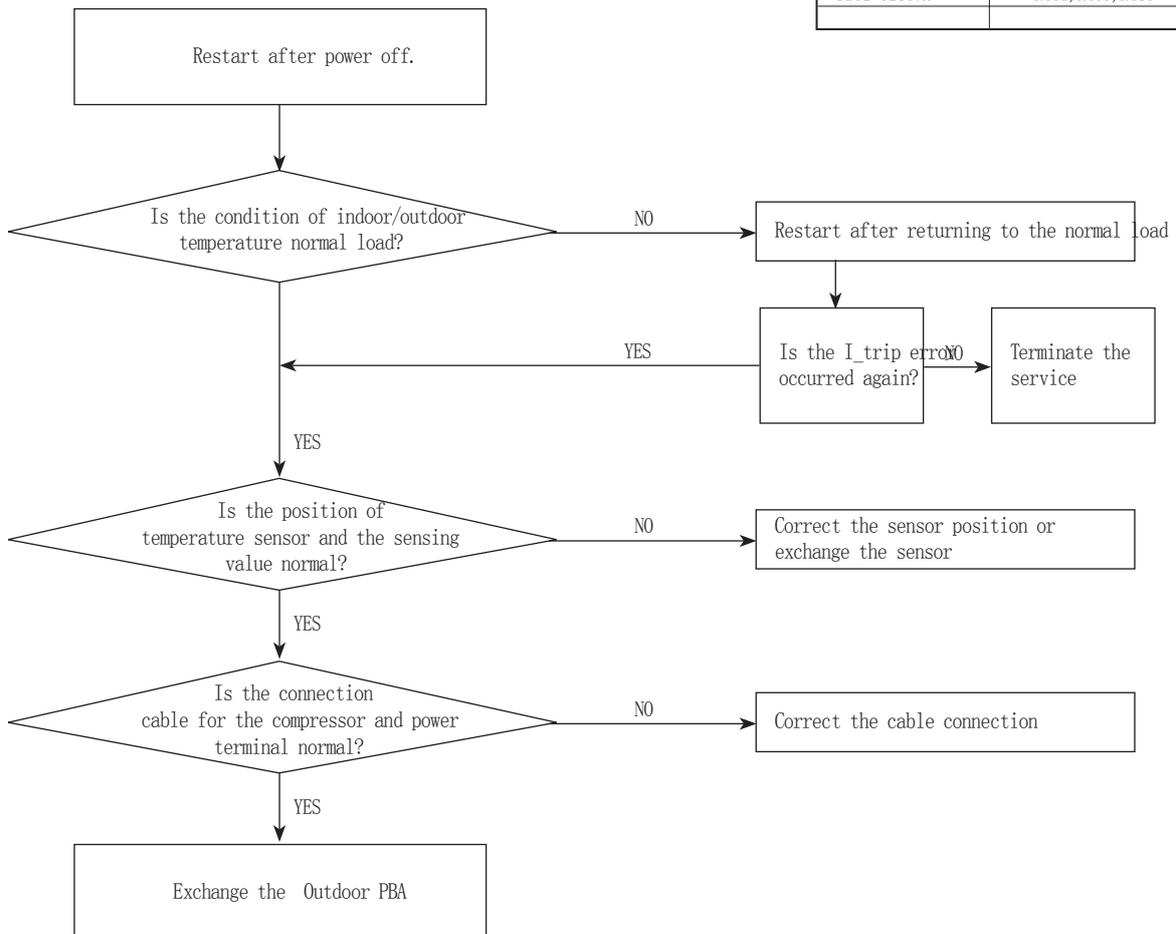
● LED ON ⊙ LED BLINKING ○ LED OFF

1. Checklist :

- 1) Is the PFC Shunt("A") resistance value correct? Check the resistor is opened
- 2) Is the condition of surrounding temperature abnormal overload?
- 3) Is there any problem as like the temperature sensor separation or measurement value error?
- 4) Is the interphase resistance of compressor normal?

2. Troubleshooting procedure

MODEL	"A"
DB92-02866A	R410, R411, R412
DB92-02867A	R408, R409, R410



10-2-18 Current sensor error/Input current sensor error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
⊙	○	⊙	E462	AC Input I_Limit Trip Error

Outdoor display

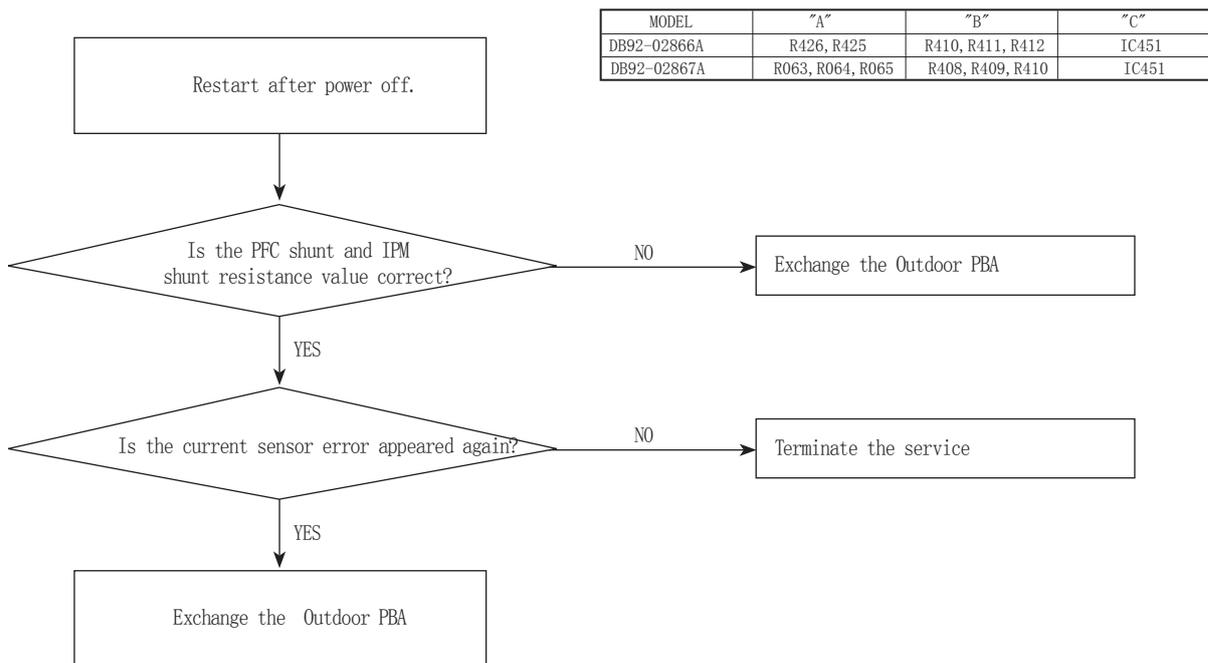
LED1	LED2	LED3	DESCRIPTION
⊙	⊙	●	Current sensor error
			Input current sensor error

● LED ON ⊙ LED BLINKING ○ LED OFF

1. Checklist :

- 1) Is the PFC Shunt("A") resistance value correct? Check the resistor is opened
- 2) Is the IPM Shunt("B") resistance value correct? Check the resistor is opened
- 3) Is there no short or open around "C"?

2. Troubleshooting procedure



10-2-19 Heatsink sensor error/Heatsink over heat

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
⊙	○	⊙	E474	Heatsink sensor error
			E500	Heatsink Over Temperature Error

Outdoor display

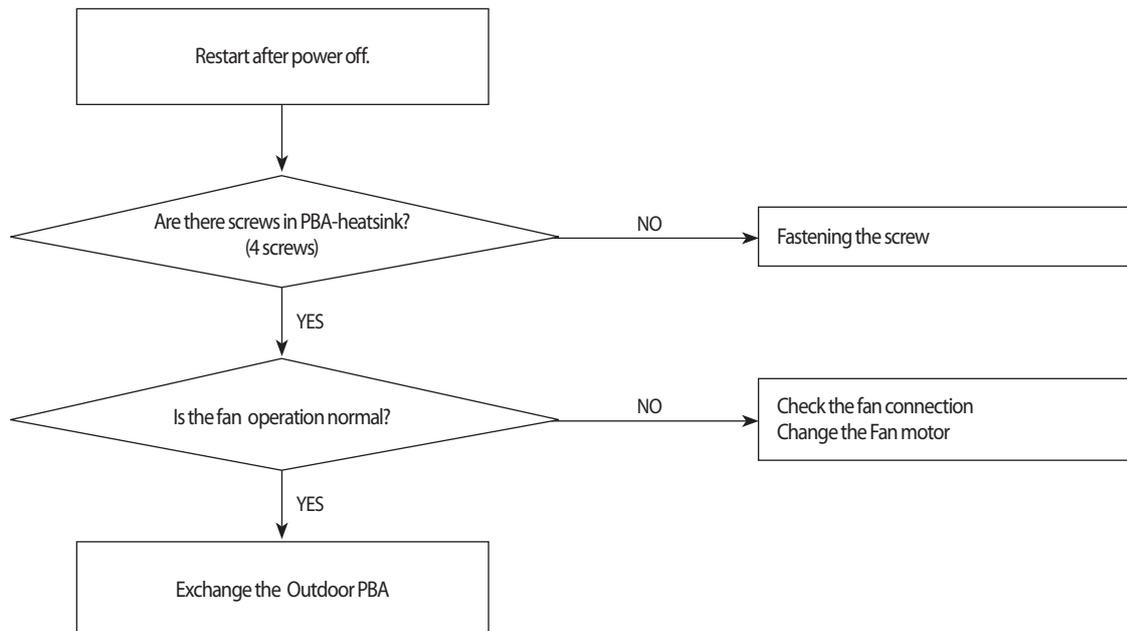
⊙	⊙	●	Heatsink sensor error
⊙	●	○	Heatsink Over Temperature Error

● LED ON ⊙ LED BLINKING ○ LED OFF

1. Checklist :

- 1) Are there screws assembly in PBA-heatsink?
- 2) Is the gap PBA-heatsink
- 3) Is the fan operation normal?
- 4) Is the cover assembly in control-box normal?

2. Troubleshooting procedure



10-2-20 Comp Vlimit error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E465	Comp V_limit/I_limit Error

Outdoor display

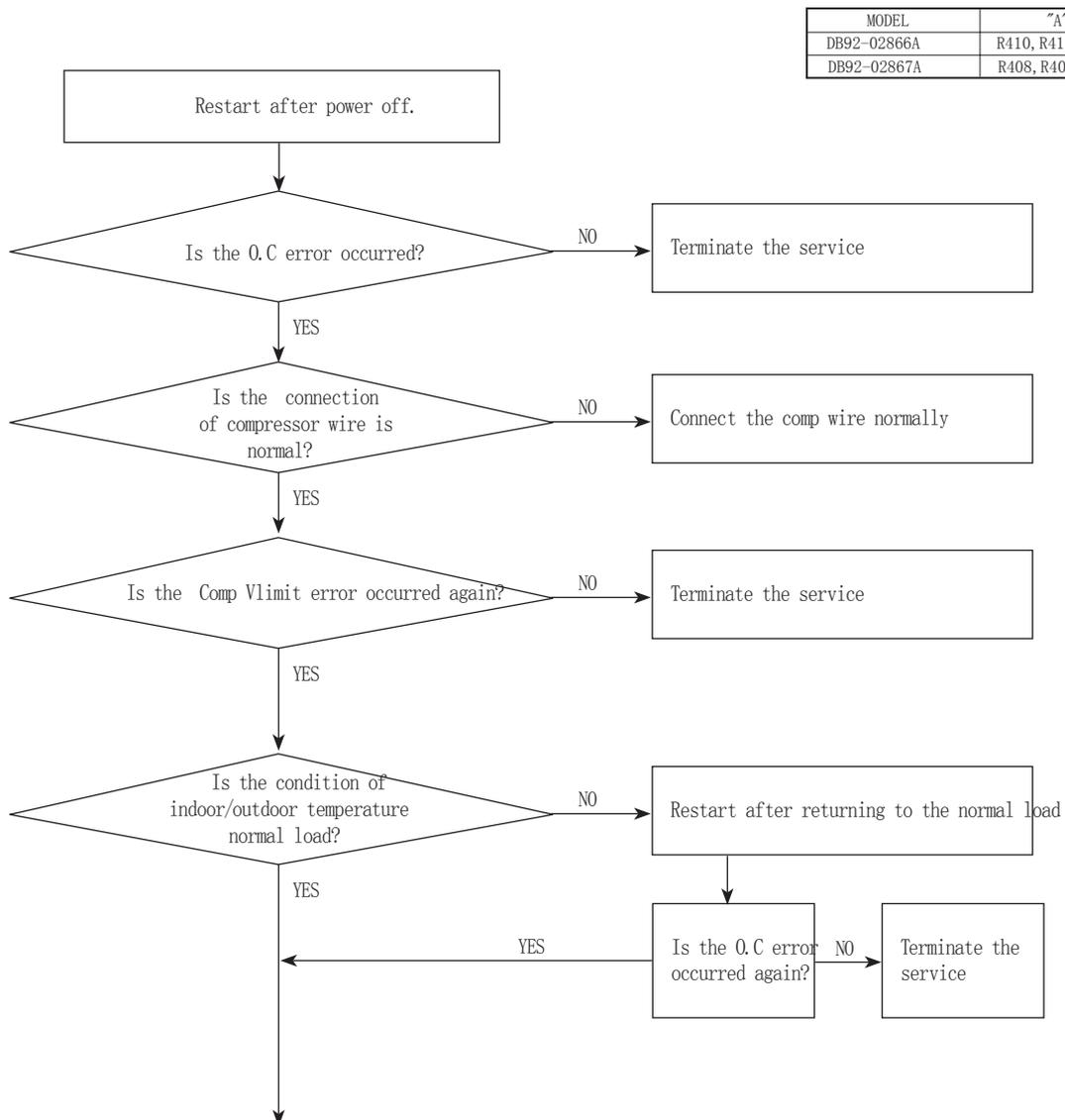
◎	●	○	Comp V_limit/I_limit Error
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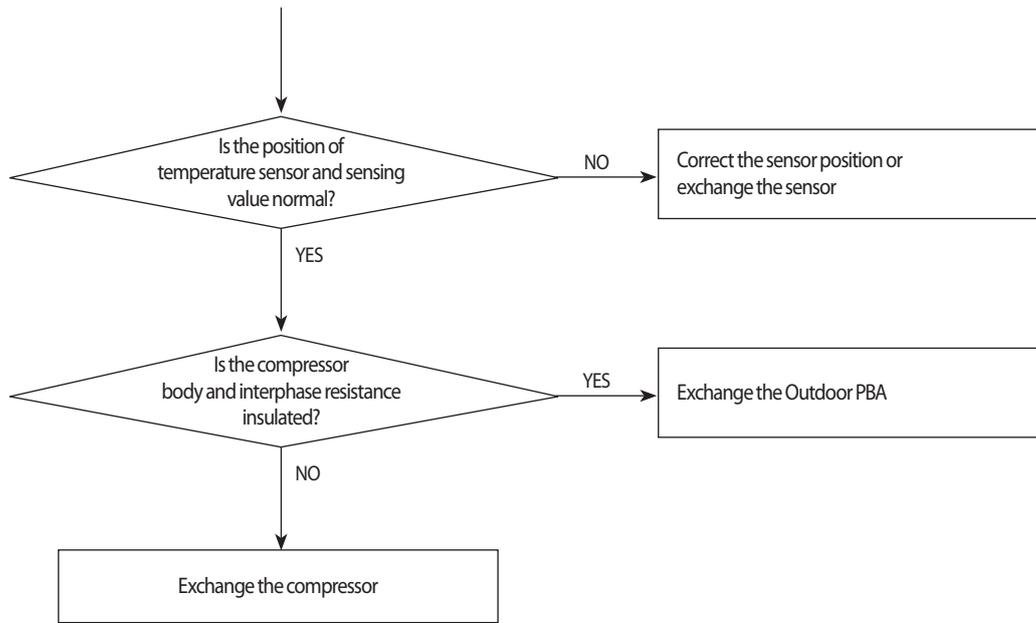
● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :

- 1) Is the IPM Shunt("A") resistance value correct? Check the resistor is opened
- 2) Is the condition of surrounding temperature abnormal overload?
- 3) Is there any problem as like the temperature sensor separation or measurement value error?
- 4) Is the interphase resistance of compressor normal?

2. Troubleshooting procedure





10-2-21 EEPROM error/OTP error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E470	EEPROM Data Error (no data)
			E471	OTP errorEEPROM Data Error (Main Micom↔Inv Micom)

Outdoor display

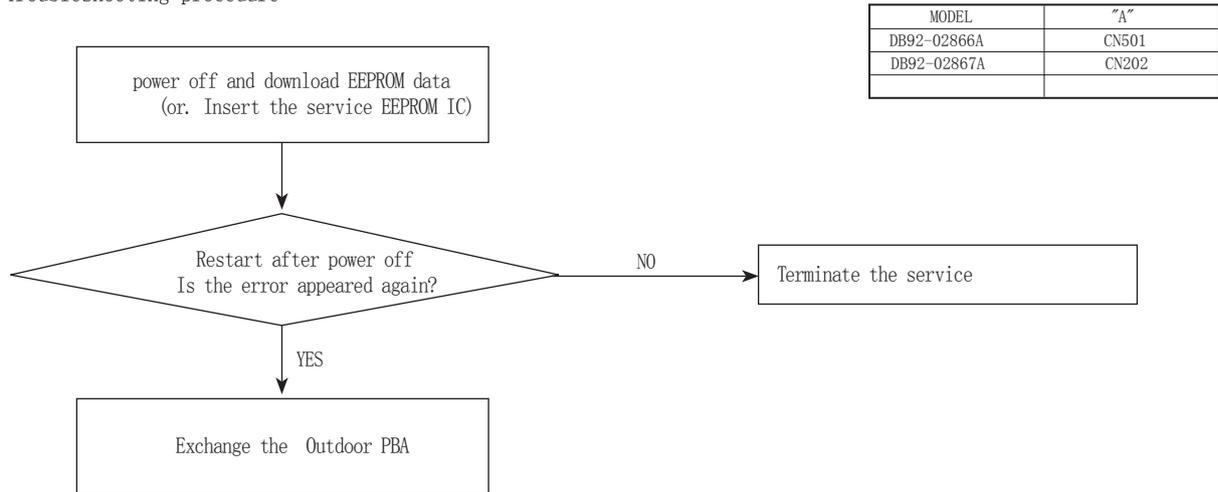
○	●	○	EEPROM Data Error (no data)
●	○	◎	OTP errorEEPROM Data Error (Main Micom↔Inv Micom)

● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :

- 1) Is there a short around micom?
- 2) Is there a short around "A"?
- 3) Did you download or insert EEPROM IC, after changing outdoor PBA?

2. Troubleshooting procedure



10-2-22 Operation condition secession error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E440	Prohibit Operation Condition Error (Heating)
			E441	Prohibit Operation Condition Error (Cooling)

Outdoor display

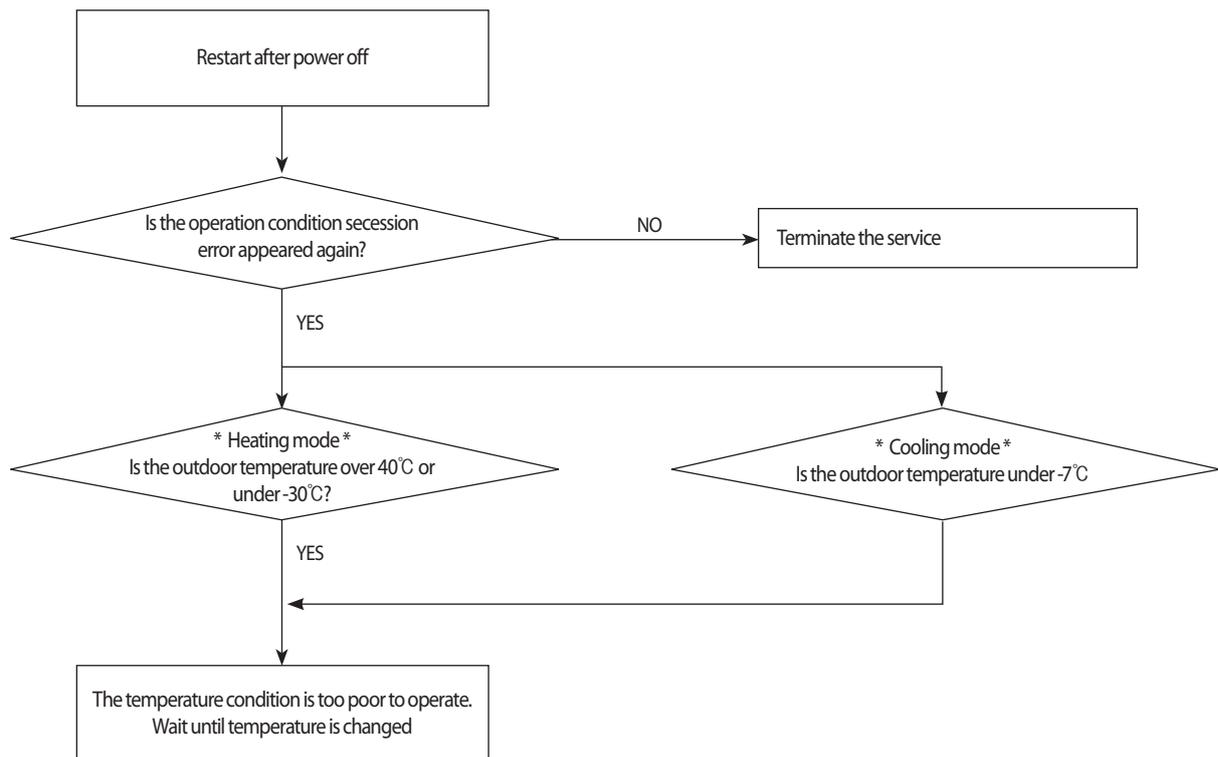
●	◎	○	Operation condition secession
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● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :

- 1) Check the temperature around the outdoor unit.

2. Troubleshooting procedure



10-2-23 Gas leak error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E554	GAS Leak error

Outdoor display

●	●	○	GAS Leak error
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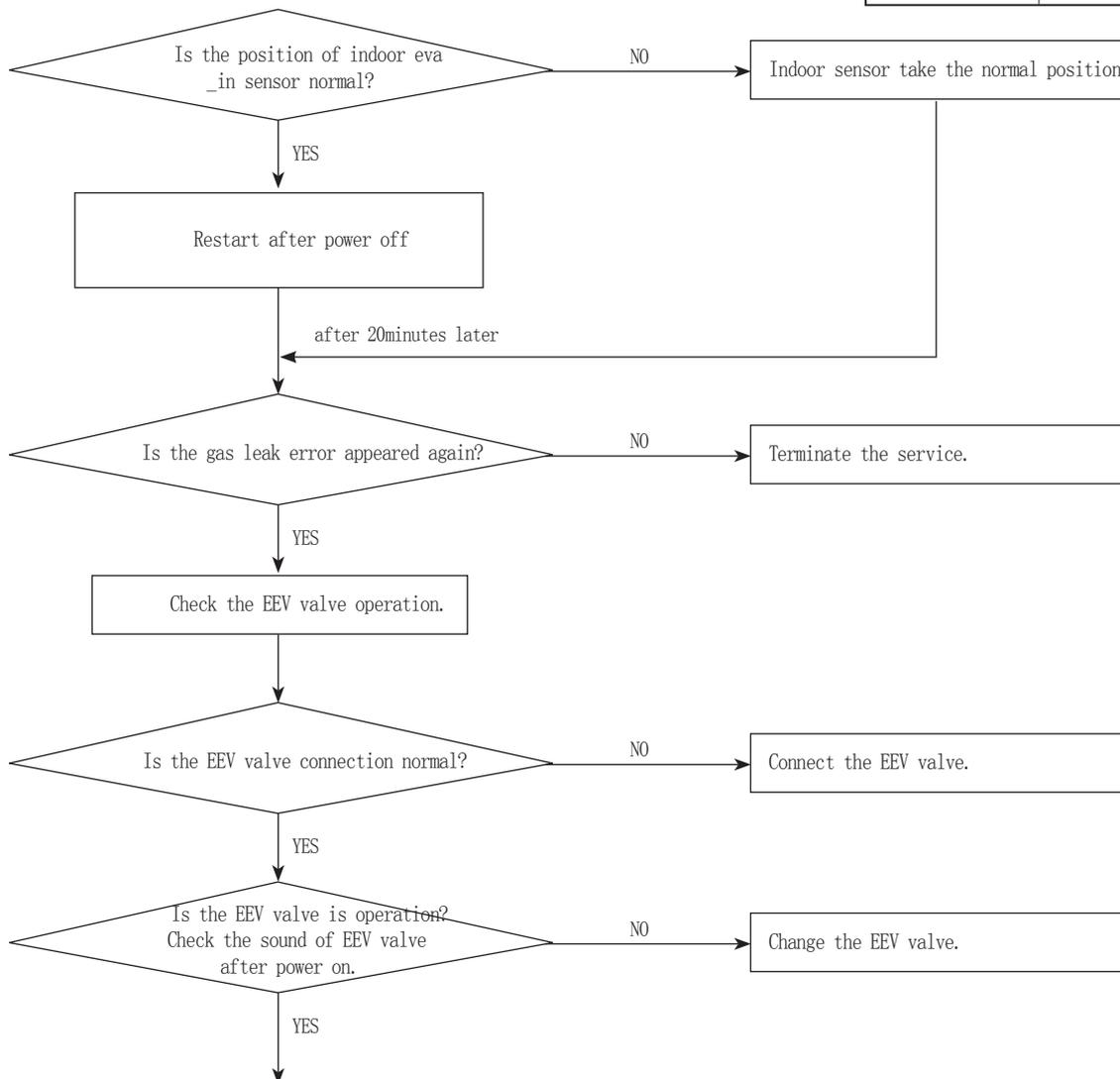
● LED ON ◎ LED BLINKING ○ LED OFF

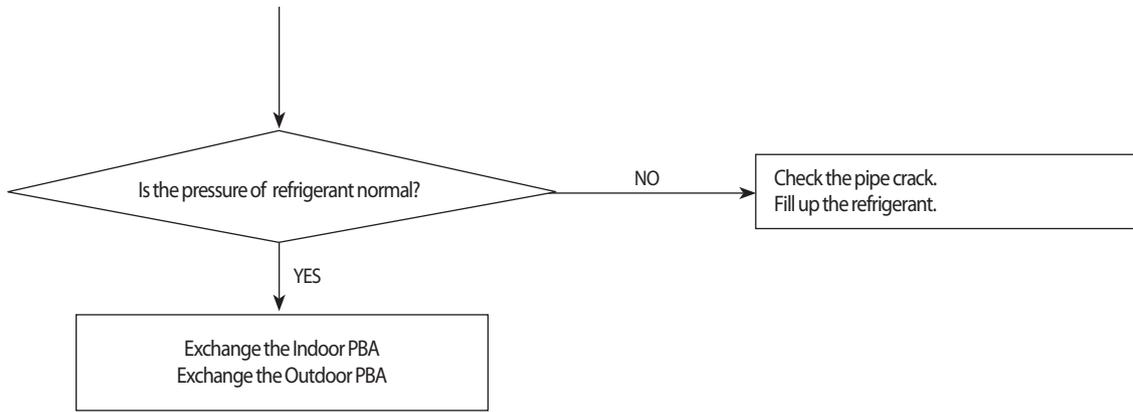
1. Checklist :

- 1) Is the position of indoor Eva_in sensor normal?
- 2) Check the pipe crack
- 3) Check the EEV valve connection("A") in Outdoor unit
- 4) Check the refrigerant was charged

2. Troubleshooting procedure

MODEL	"A"
DB92-02866A	CN701
DB92-02867A	CN701





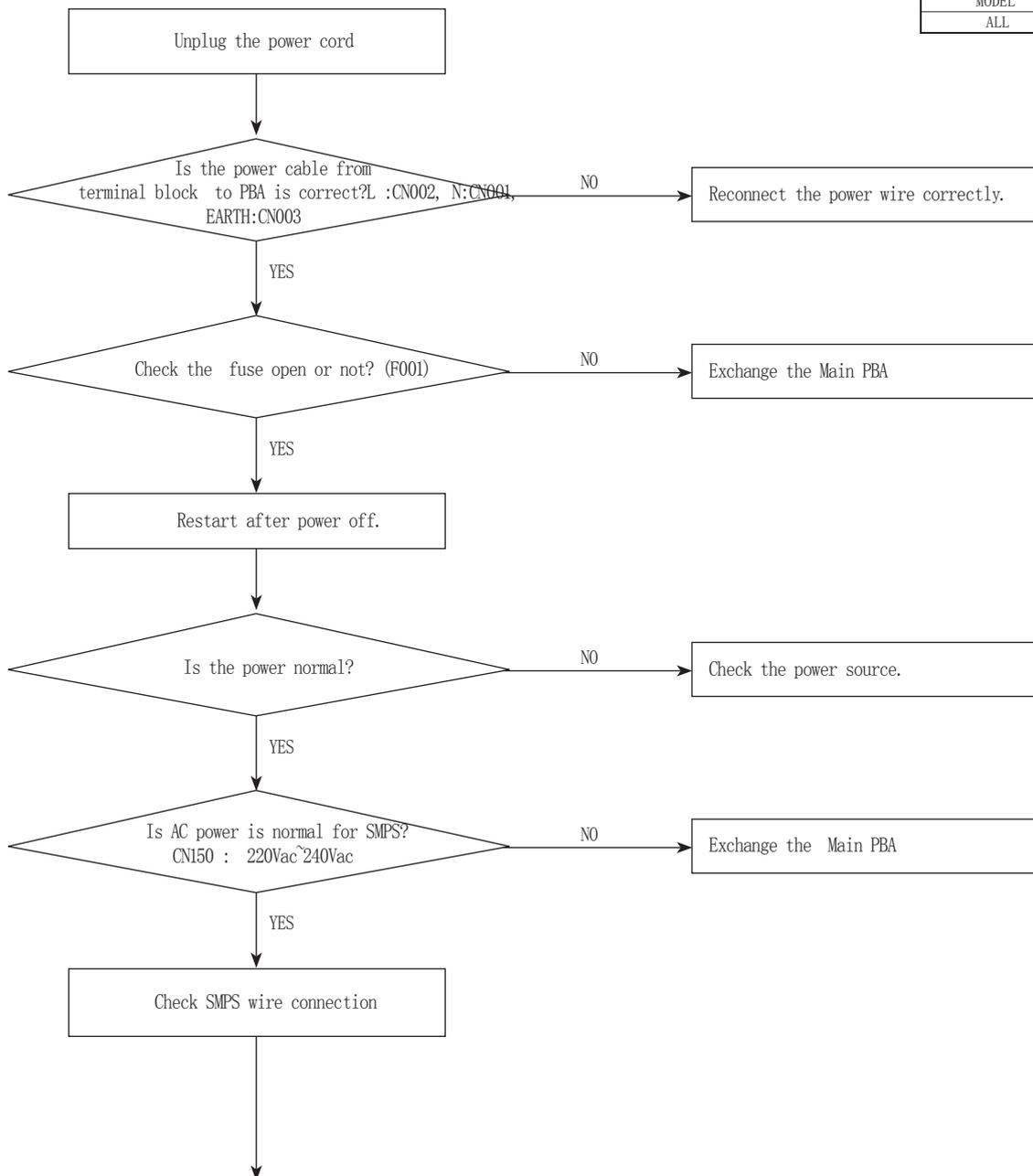
102-24 No power outdoor (Initial Diagnosis) (Not displayed)

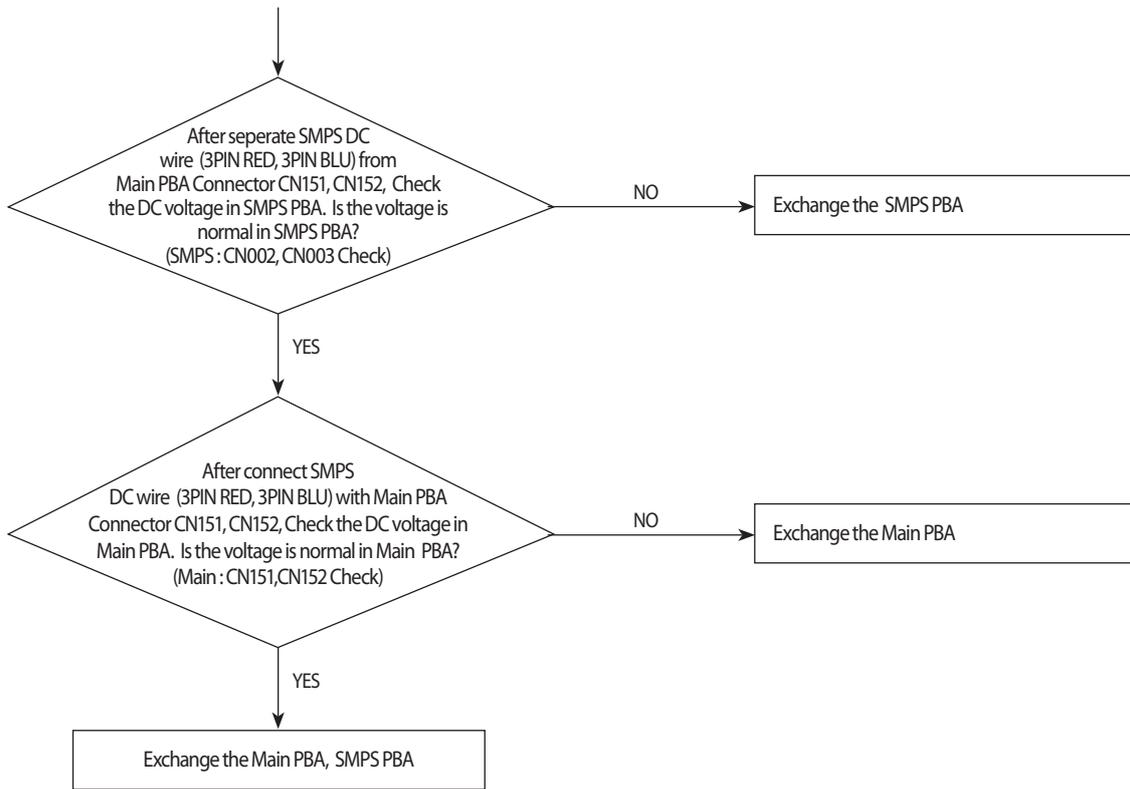
1. Checklist :

- 1) Is input power normal?
- 2) Is AC power linked correctly? (L, N, E)
- 3) Is mis-wiring between communication wire and Power wire?
- 4) Is mis-wiring between Main PBA and SMPS PBA wire?
- 5) Is input voltage of SMPS AC in Main PBA (CN150) normal?
- 6) Is the voltage of SMPS DC in Main PBA (CN151, CN152) normal?

2. Troubleshooting procedure

MODEL
ALL



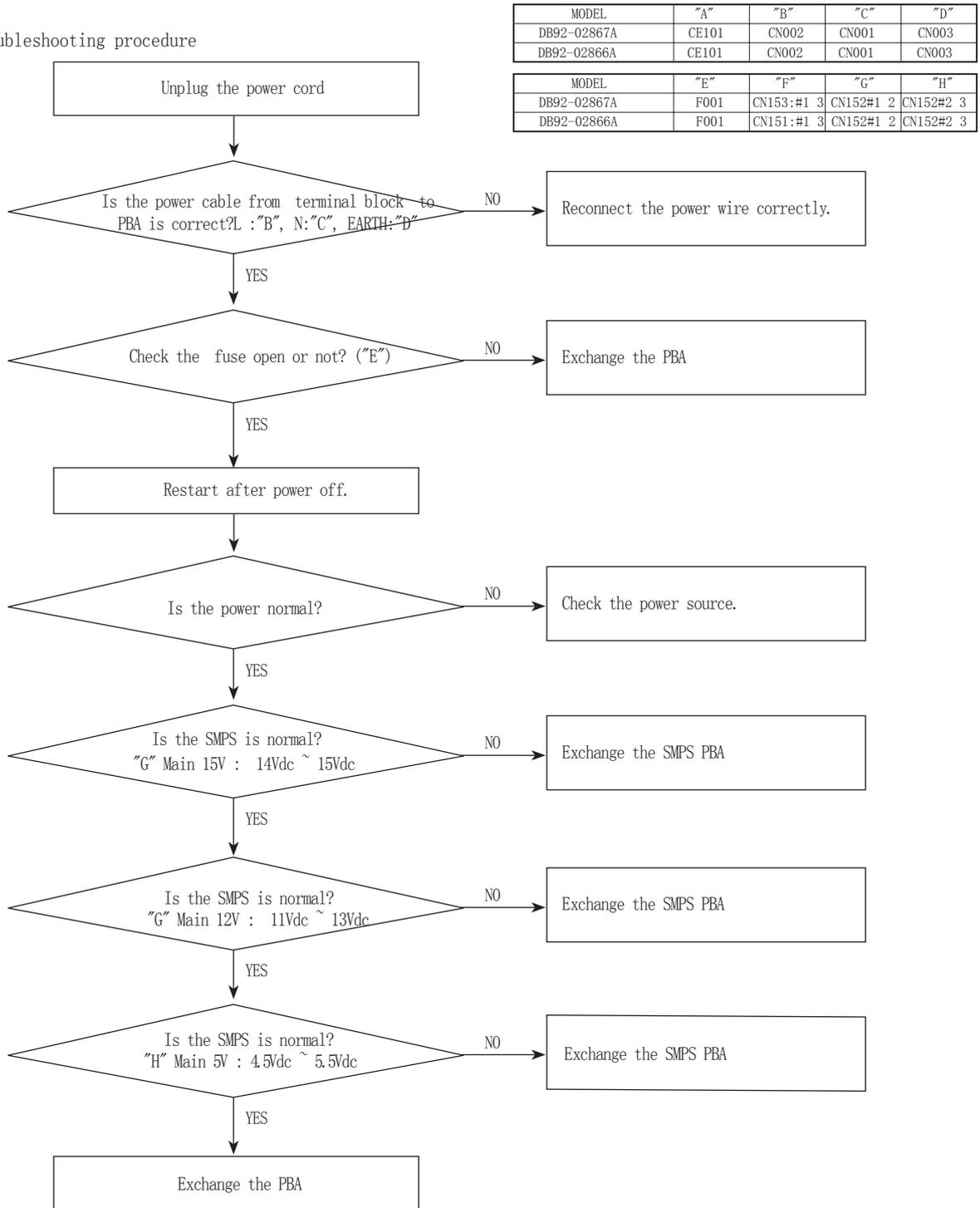


10-2-25 No power outdoor (Initial Diagnosis) (Not displayed)

1. Checklist :

- 1) Is input power normal?
- 2) Is AC power linked correctly? (L, N, E)
- 3) Is mis-wiring between communication wire and Power wire?
- 4) Is input voltage of SMPS DC-link capacitor("A") normal?
- 5) Is the voltage of SMPS DC normal?

2. Troubleshooting procedure



MODEL	"A"	"B"	"C"	"D"
DB92-02867A	CE101	CN002	CN001	CN003
DB92-02866A	CE101	CN002	CN001	CN003

MODEL	"E"	"F"	"G"	"H"
DB92-02867A	F001	CN153:#1 3	CN152#1 2	CN152#2 3
DB92-02866A	F001	CN151:#1 3	CN152#1 2	CN152#2 3

10-2-26 AC zero cross signal error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E472	AC zero cross signal error

Outdoor display

●	●	◎	AC zero cross signal error
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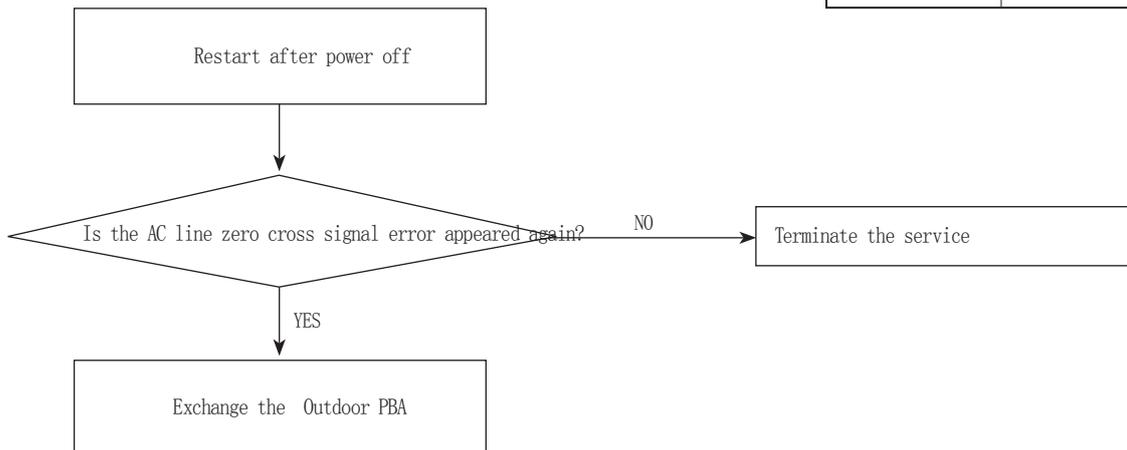
● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :

- 1) Check the power condition at customer's house (Is there any power noise?)
- 2) Have been there power failure?

2. Troubleshooting procedure

MODEL	Error display
DB92-02866A/2867A	0



10-2-27 AC zero cross signal error

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E556	Capacity miss match error

Outdoor display

◎	○	○	Capacity miss match error	
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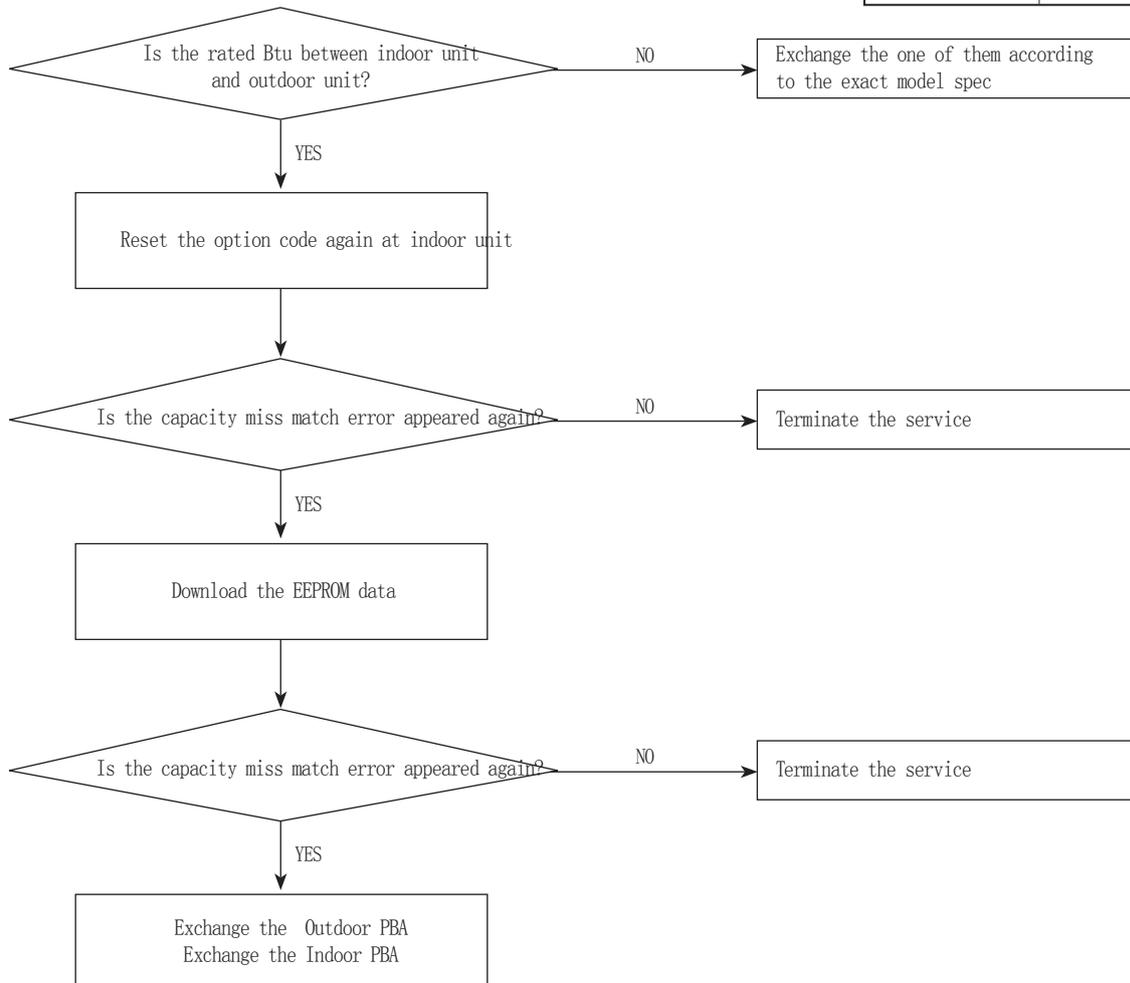
● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :

- 1) Check the Btu between indoor and outdoor unit
- 2) Check the indoor unit option and outdoor unit EEPROM data

MODEL	Error display
DB92-02866A/2867A	0

2. Troubleshooting procedure



10-2-28 When the remote control is not receiving

1. Checklist :

- 1) Check if the connector was normally assembled.
- 2) Check the battery in remote control
- 3) All the lights out and check again : Change electronic typed to a fluorescent light
- 4) Put the set in operation and check the voltage of display PBA
- 5) Replace the display PBA

10-2-29 EEV or Valve Close error-Self diagnosis

Indoor display

3-LED DISPLAY			7-SEG DISPLAY	DESCRIPTION
LED1	LED2	LED3		
◎	○	◎	E422	EEV or Valve Close error-Self diagnosis

Outdoor display

●	●	○	EEV or Valve Close error-Self diagnosis
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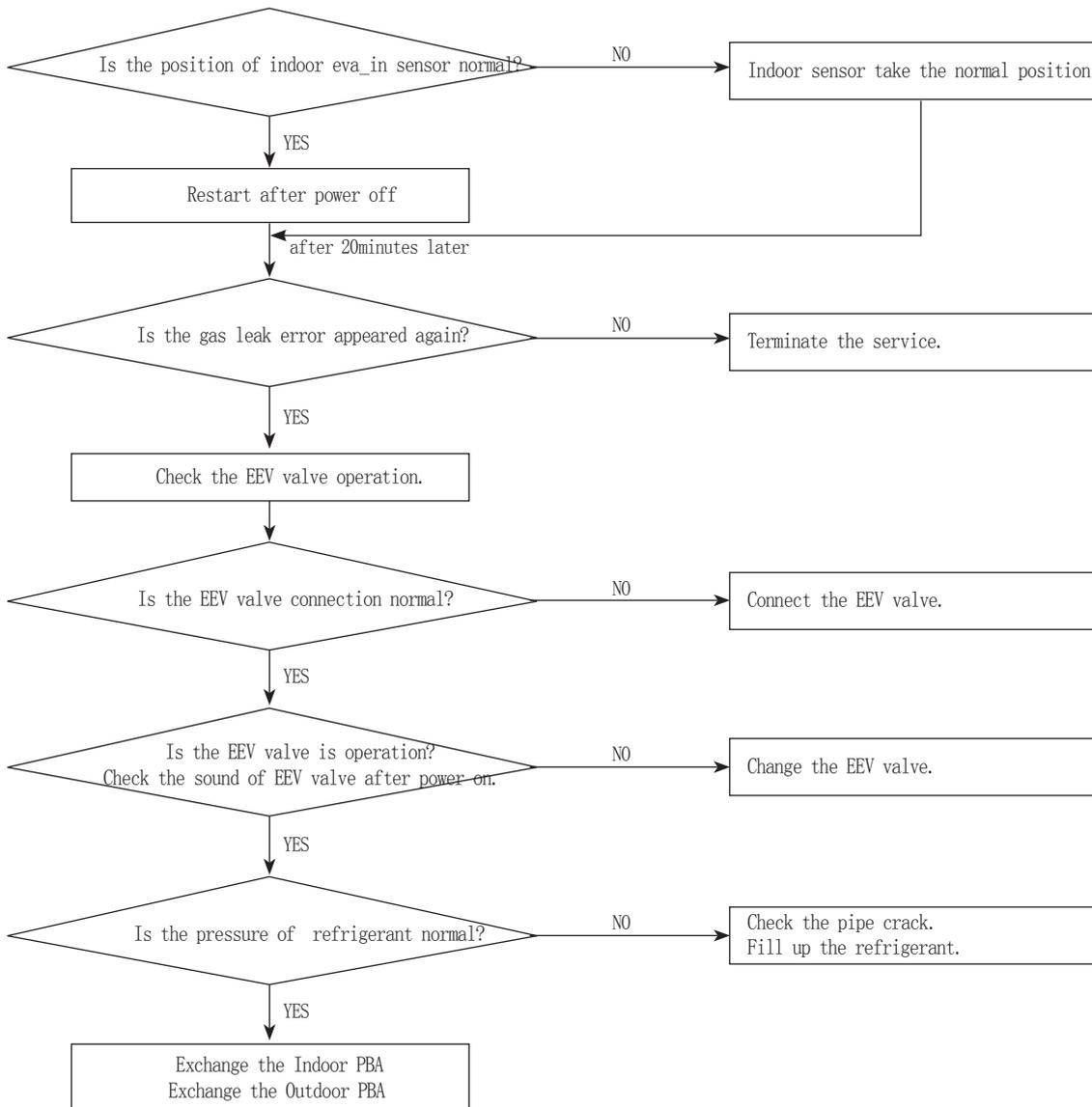
● LED ON ◎ LED BLINKING ○ LED OFF

1. Checklist :

- 1) Is the position of indoor Eva_in sensor normal?
- 2) Check the pipe crack
- 3) Check the EEV valve connection("A") in Outdoor unit
- 4) Check the refrigerant was charged

MODEL	"A"
DB92-02866A/2867A	CN701

2. Troubleshooting procedure



10-2-30 10-3-18 Smart Install error

1. Checklist :

- 1) Check the leakage region.(Use leakage detection liquid or soapy water)
- 2) When leakage region is found from service valve and piping connection flare nut part : After the related measures to check the refrigerant supplements and operation.
- 3) If the leakage region is pipe welding part : Weld leakage region after refrigerant gas release.(Brass parts should only apply)
- 4) If the leakage region is surface area (Heat exchanger or pipe welding region is not) : Replace parts.
- 5) Check the PBA Relay
 - Display of indoor unit : Ensure that the operating pilot lamp has been lighted.
 - Ensure that the Relay input voltage of indoor unit PBA is normally.(If the PBA is defective, replace)

2. Troubleshooting procedure

