

# INVERTER SERIE H5A

Service manual

## MUPR-H5A



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*Chapter 1 Product Specification*

1.1 Photo of Product

**Indoor Unit**



**Outdoor Unit**



## 1.2 Outline Dimensions

### Indoor Unit

MODEL		9000BTU	12000BTU	18000BTU	24000BTU
W	mm	750	750	900	1082
D	mm	285	285	311	330
H	mm	200	200	225	233

### Outdoor Unit (2015-16)

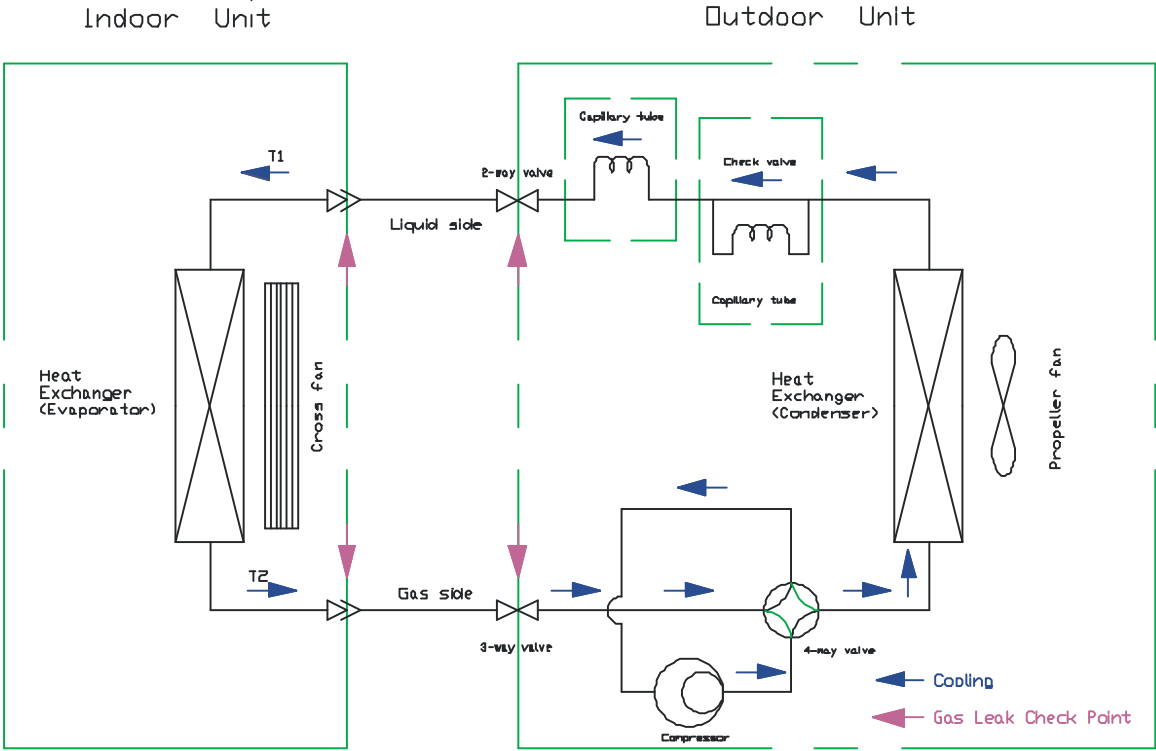
MODEL		9000BTU	12000BTU	18000BTU	24000BTU
W	mm	720	720	802	800
D	mm	260	260	298	300
H	mm	540	540	535	690

### Outdoor Unit (2017)

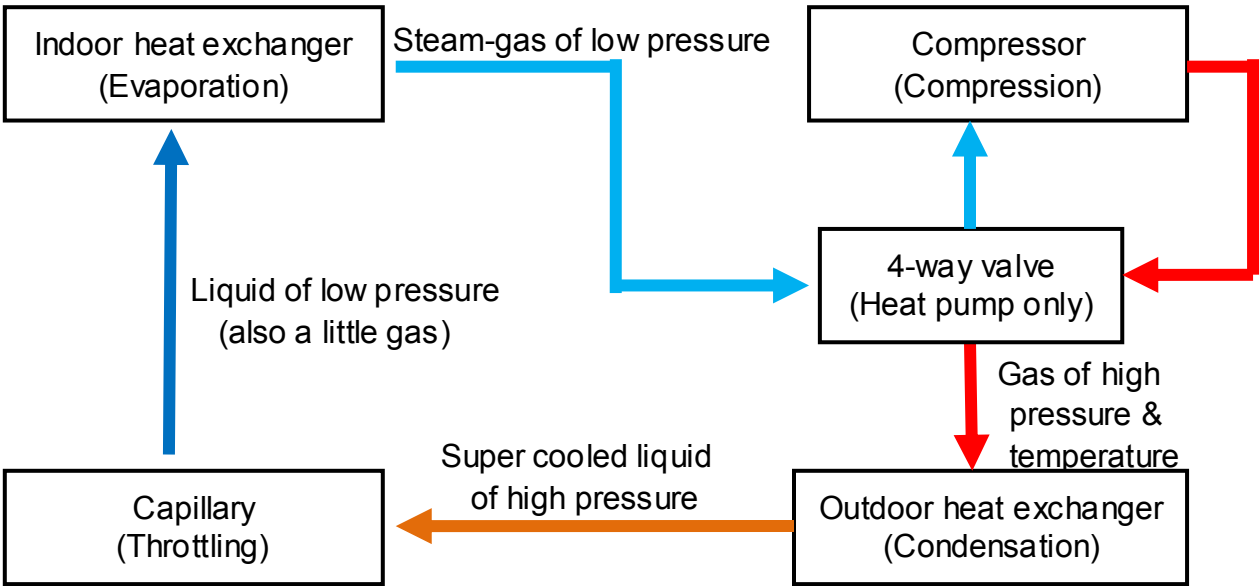
MODEL		9000BTU	12000BTU	18000BTU	24000BTU
W	mm	730	730	800	800
D	mm	285	285	315	310
H	mm	545	545	545	690

# Chapter 2 Refrigeration Diagrams

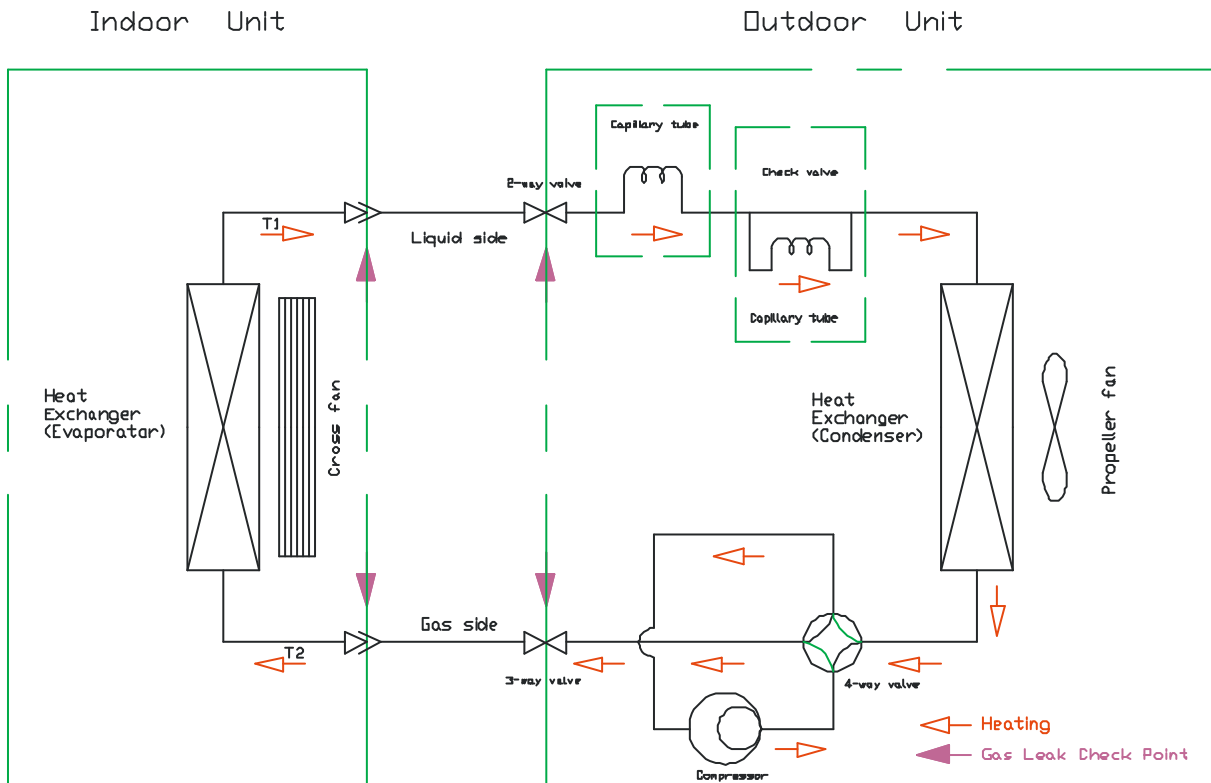
## Cooling Mode



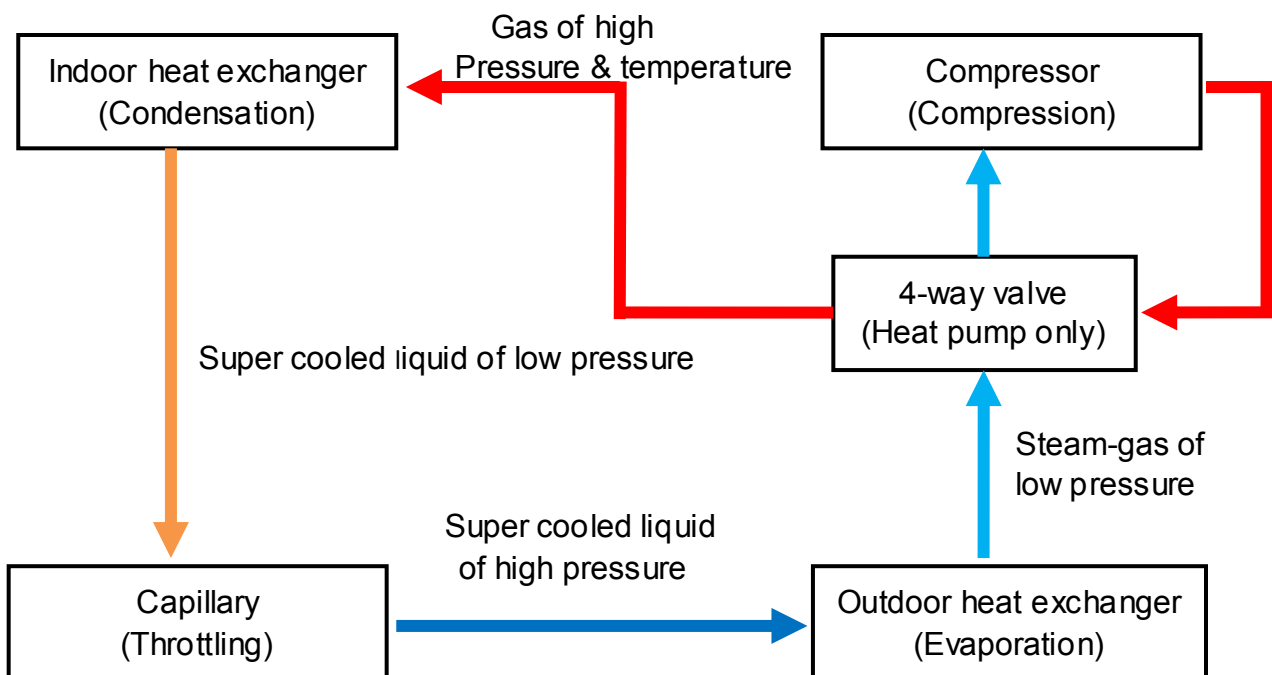
## Cooling Cycle



# Heating Mode



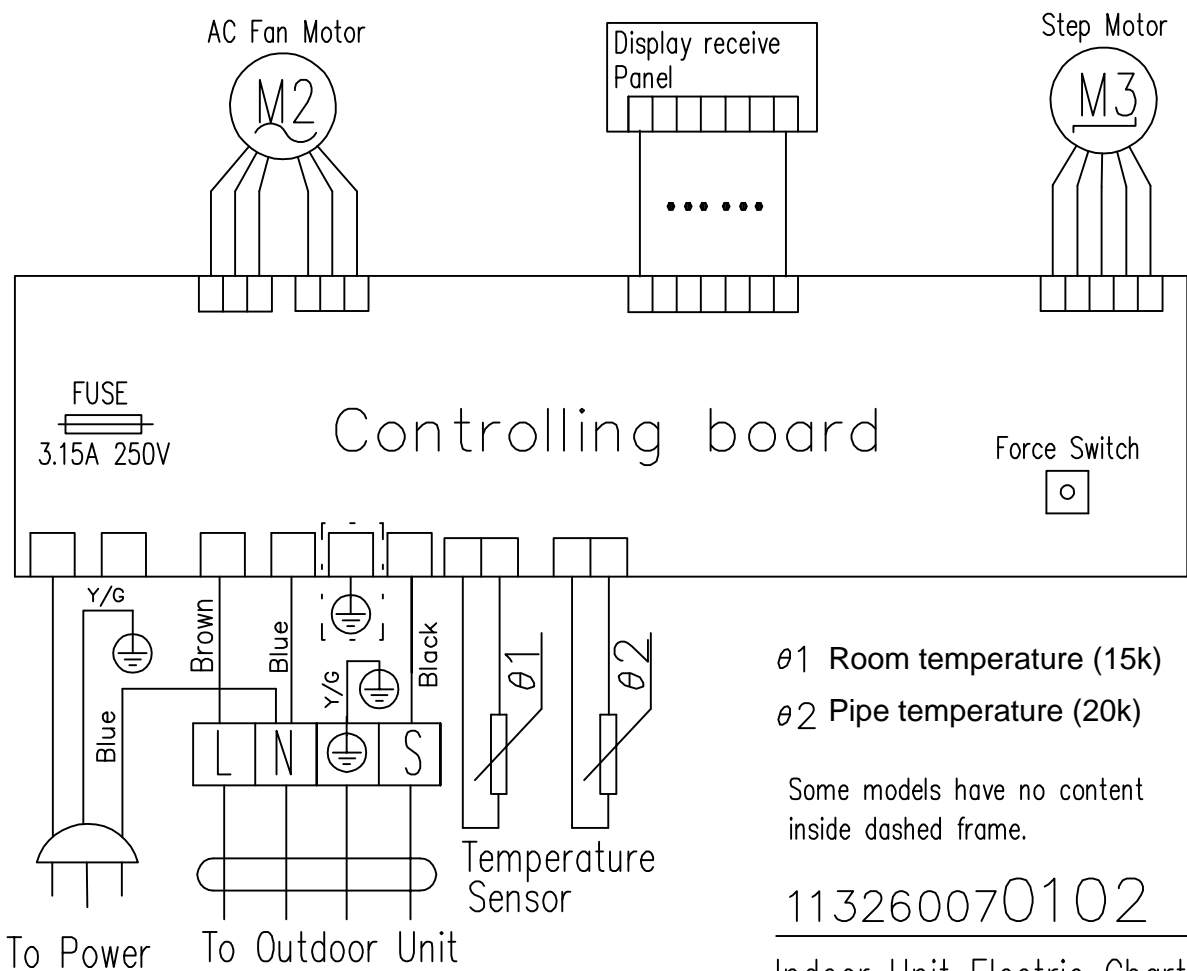
# Heating Cycle



# Chapter 3 Wiring Diagram

## Indoor unit

MUPR-09/12/18/24-H5A



$\theta 1$  Room temperature (15k)

$\theta 2$  Pipe temperature (20k)

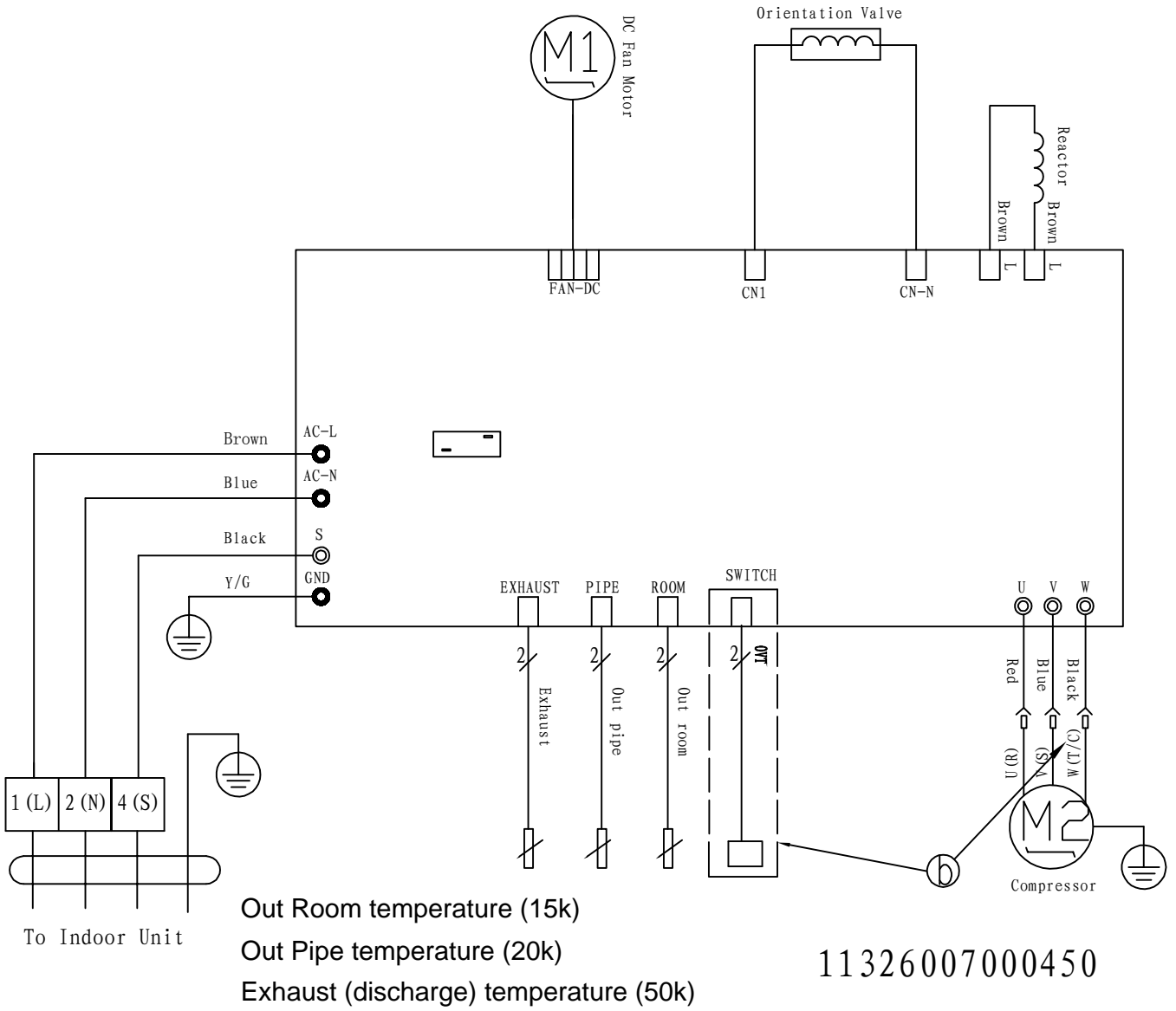
Some models have no content inside dashed frame.

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Indoor Unit Electric Chart

# Outdoor unit

**MUPR-09/12/18-H5A (2015-16)**

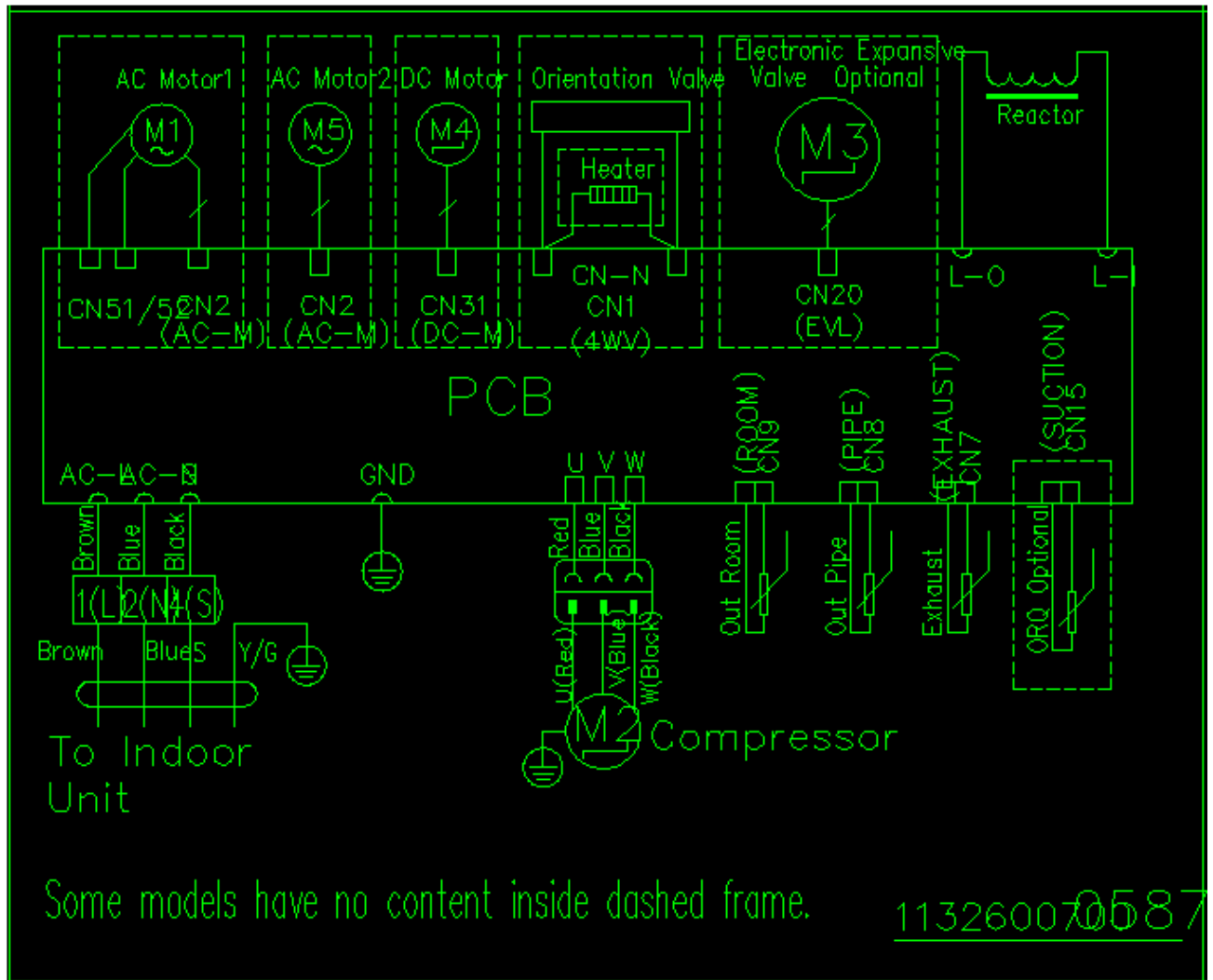


Note: Three Board Connect have no earth terminal, "Y/G" direct connect to panel



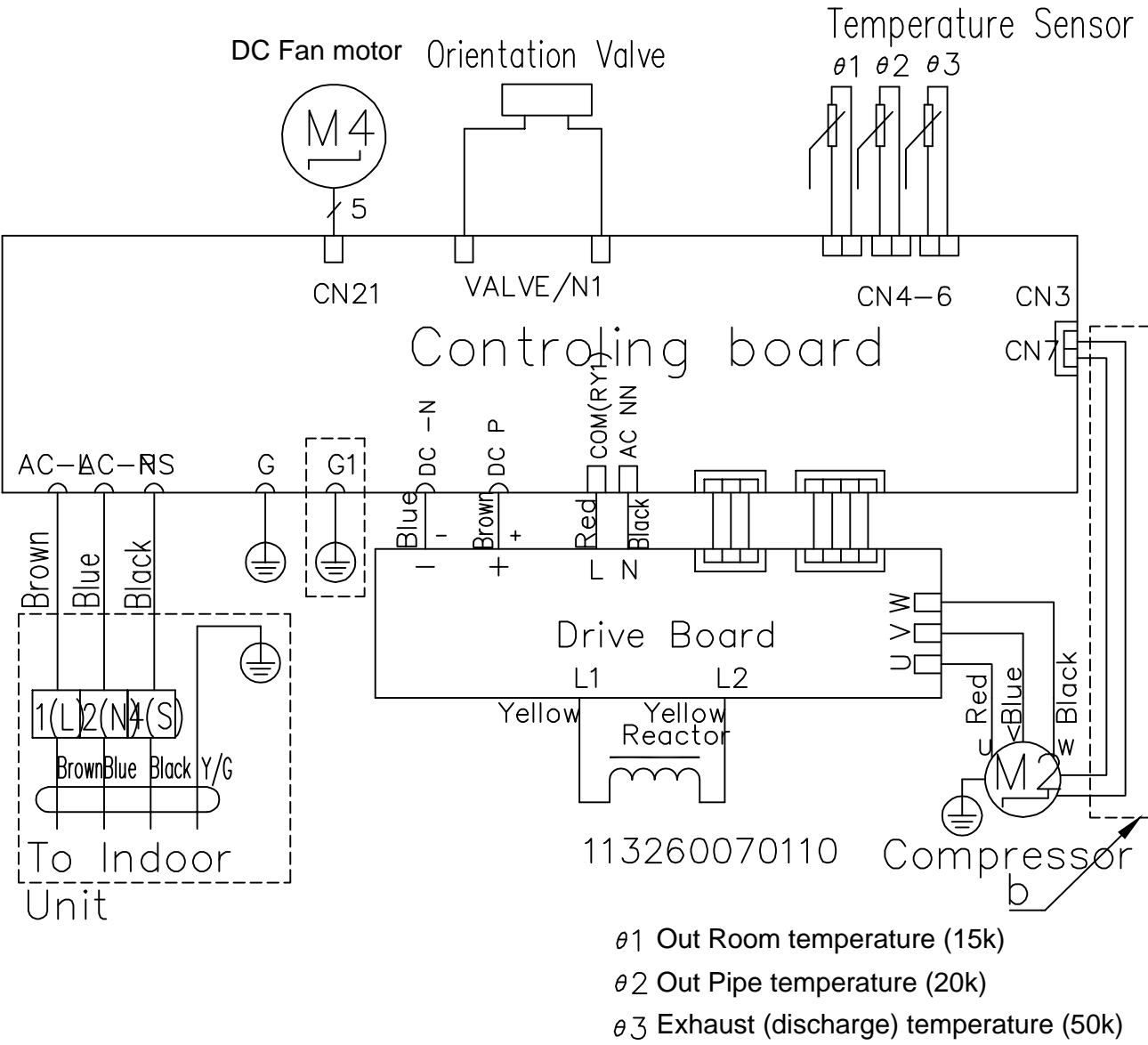
# Outdoor unit

MUPR-18-H5A (2017)



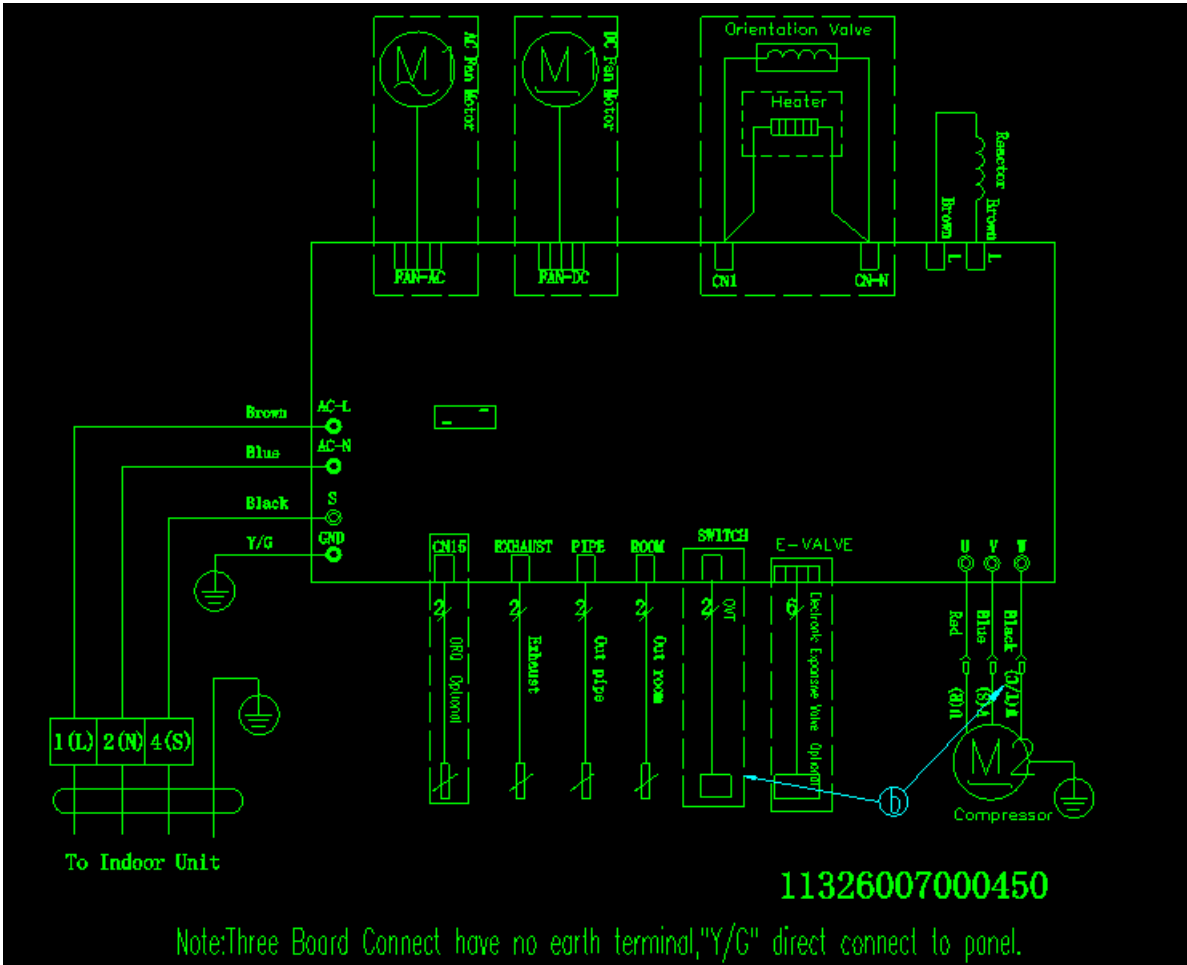
# Outdoor unit

**MUPR-24-H5A**



Note: Three Board Connect have no earth terminal, "Y/G" direct connect to panel.

MUPR-24-H5A(V2)



# Chapter 4 Troubleshooting Guide

## 4.1 Error Code

Error code	COOLING indicator	HEATING indicator	TIMER indicator	Description
E1		1 blink		Indoor environment temprature sensor fault
E2			2 blinks	Outdoor pipe temprature sensor fault
E3		3 blinks		Indoor pipe temprature sensor fault
E4/Fb		4 blinks		Indoor fan motor circuit fault
E5/5E		5 blinks		Indoor and outdoor communication failure
E8		8 blinks		Indoor main PCB and display board communication fault
F0			11 blinks	Outdoor fan motor fault
F2	2 blinks			AD abnormity protection/120N high temperature protection
F3			3 blinks	Compressor start failure
F4			4 blinks	Compressor exhaust sensor fault
F5			5 blinks	Compressor shell temperature protection /Compressor shell sensor fault
F6			6 blinks	Outdoor environment temprature sensor fault
F7			7 blinks	Low/over voltage protection
F8			8 blinks	Outdoor module communication fault
F9			9 blinks	Outdoor EEPROM fault
FA			10 blinks	Return gas sensor fault
F1			1 blink	Module protection fault/ three-phase fault
L0				Under-voltage protection
L1 / L2 / L3 / L4				Compressor fault
L5 / L6				PFC protection
L7 / LC				AD abnormity protection: PFC protection error
L8				Shunt resistance unbalance fault: Compressor drive error
L9				IPM temperature sensor fault
LA				Compressor start failure
Ld / LE / LF / LH				Direct Current protection
P2 / PE				5 blinks
P3		6 blinks		high-tension switch protection/compressor oil lack protection
P4	4 blinks			refrigeration anti-overload protection fault locking
P5	5 blinks			Compressor exhaust protection fault locking
P6	6 blinks			Heating indoor anti-high temprature fault locking
P7	7 blinks			Refrigeration anti-freeze protection
P8 / E0	8 blinks			Outdoor/Indoor over-current protection

## **4.2 Troubleshooting Guide**

### **1. The Foremost Inspecting Items**

(1)The input voltage must be within +10% tolerance of the rated Voltage. If it is not the case, the air-conditioner will probably not work normally.

(2)Check the connecting cord between indoor unit and outdoor unit to see if it is properly connected. The connecting must be done according to the wiring diagram, please also notice that even different models may have the connecting cord of the same specification.

Please check if the marks at the connecting terminal and the marks on the cord can match, otherwise, the air-conditioner will not work normally.

(3)If the following phenomena are found, the problem is not from the air-conditioner itself.

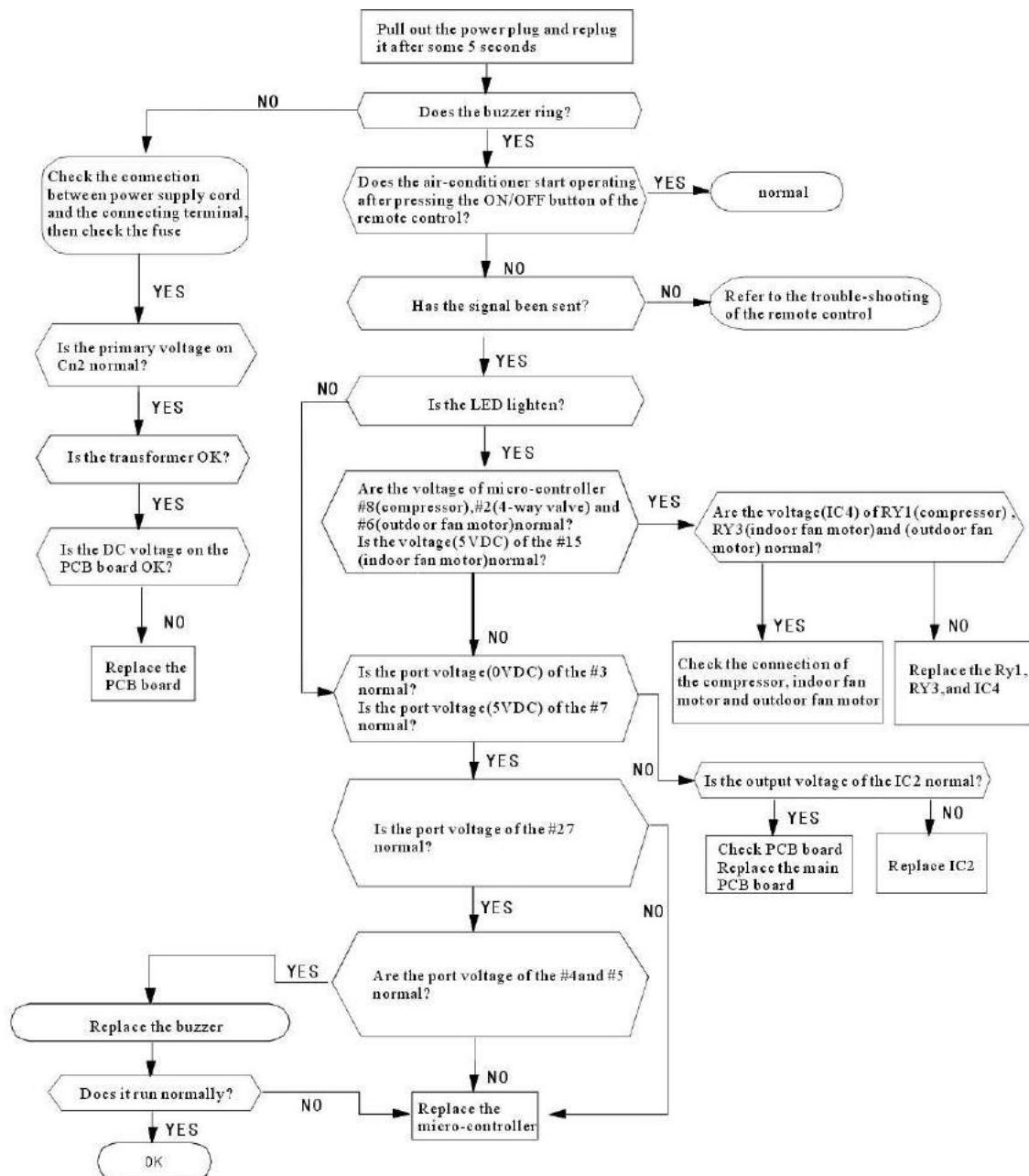
<b>NO.</b>	<b>Problems</b>	<b>Causes</b>
1	The motor is heard operating but the air-conditioner dose not work when the indoor unit is powered on	Since the air-conditioner is powered on, it will come to working condition as long as you press the ON/OFF button of the remote control and the Signal is well received.
2	The compressor stops running but the indoor fan motor keeps working when it is at cooling mode with the indoor temperature higher than set temperature.	If you turn off the air-conditioner and restart it immediately, it will return to normal in 3 minutes, after that, the air-conditioner will automatically adjust the indoor fan speed to what you set.
3	The compressor works discontinuously at dehumidifying mode.	The air-conditioner will automatically control the working of the compressor according to the inside temperature
4	The air-conditioner does not work while the LED display is on.	The TIMER is set with the air-conditioner; it will be in hold on condition. If the TIMER setting is cancelled, the air-conditioner will return to normal working condition
5	The compressor works discontinuously at cooling and dehumidifying mode, and the indoor fan motor slows down.	The compressor stops internally or the fan motor slows down to prevent the indoor heat exchanger from being frozen.

## 2. No Power Display

### (1) Items

- Check if the input voltage is correct?
- Check if the AC power supply connecting is correct?
- Check if the output voltage of the manostat L7805 (IC2) is correct?

### (2) Trouble shooting procedure



### 3. The Indoor Fan Motor Does Not Work

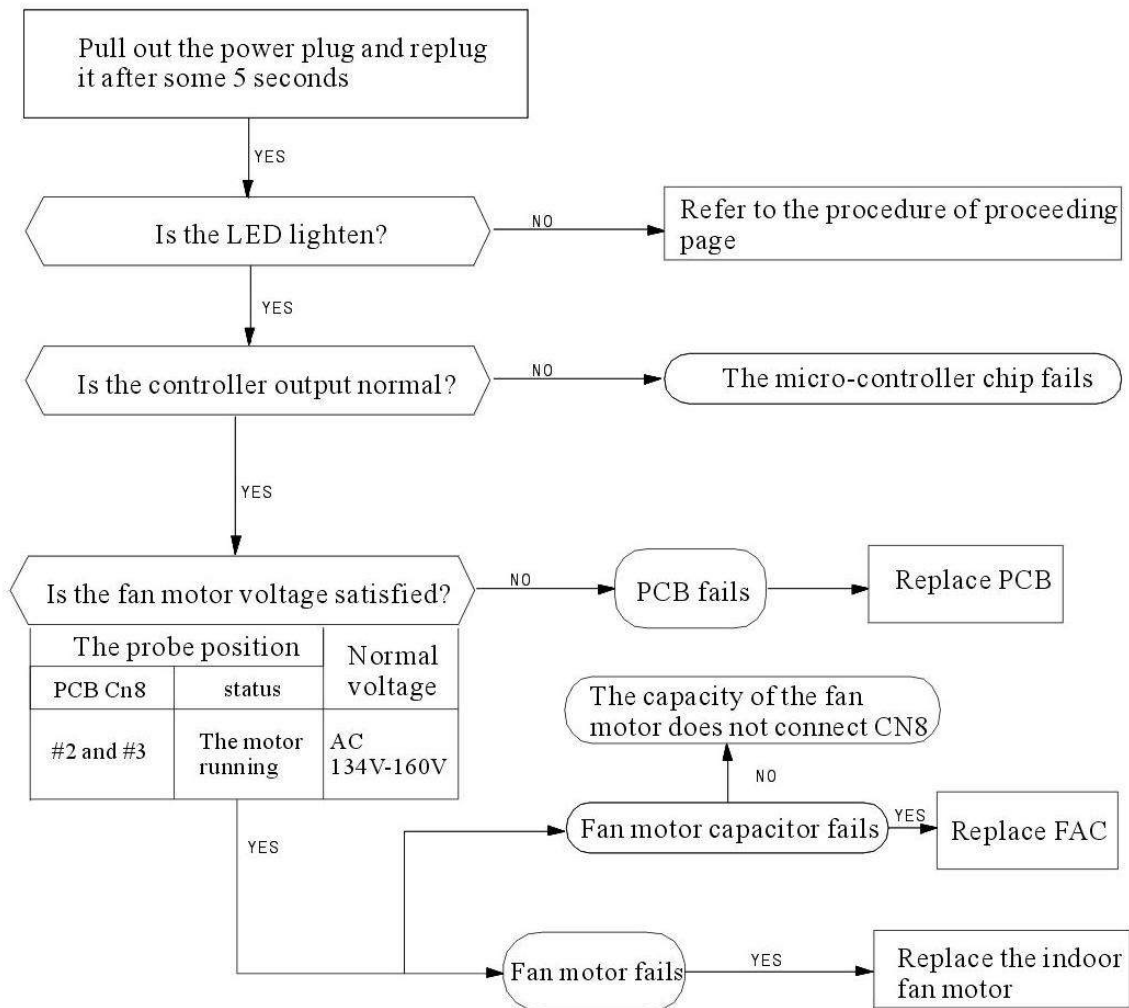
(1)Items

- a) Check if the indoor fan motor is connected correctly to the connector (CN8)?
- b) Check if the AC input voltage is correct?
- c) Check if the IC of indoor fan motor is connected correctly to the connector

(CN2)?

- d) Check if the capacity of indoor fan motor is connected correctly to the connector (CN8)?

(2)Trouble shooting procedure



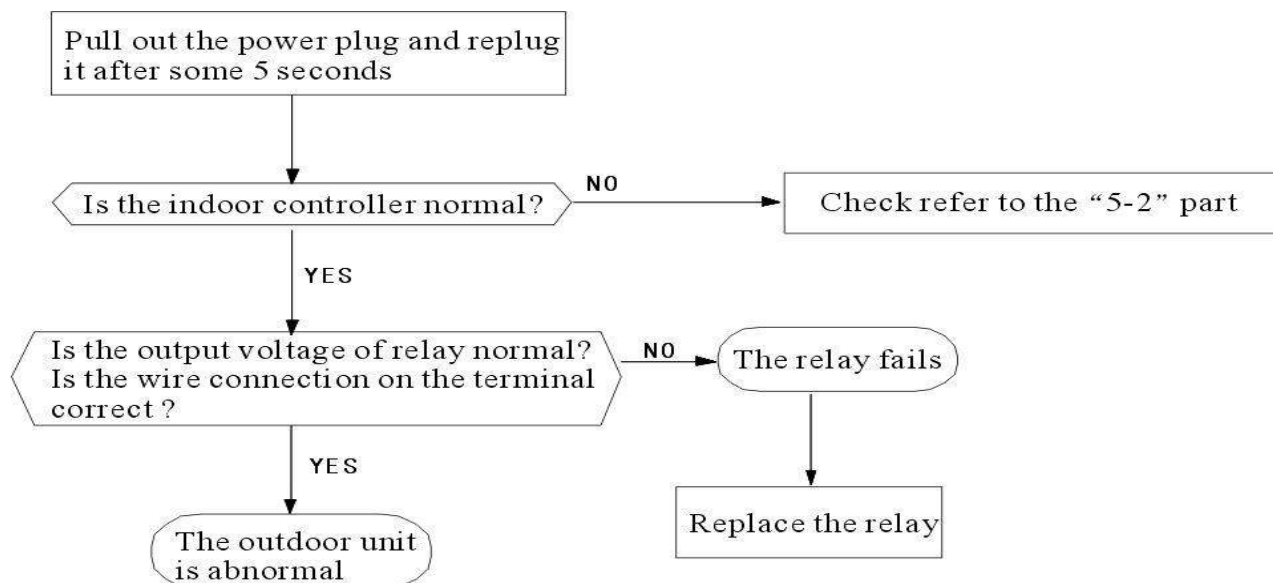


## 4. The Outdoor Unit Does Not Work

(1) Items

- a) Check if the input voltage is correct?
- b) Check if the wire connection of the outdoor connecting terminal is correct?

(2) Trouble shooting procedure



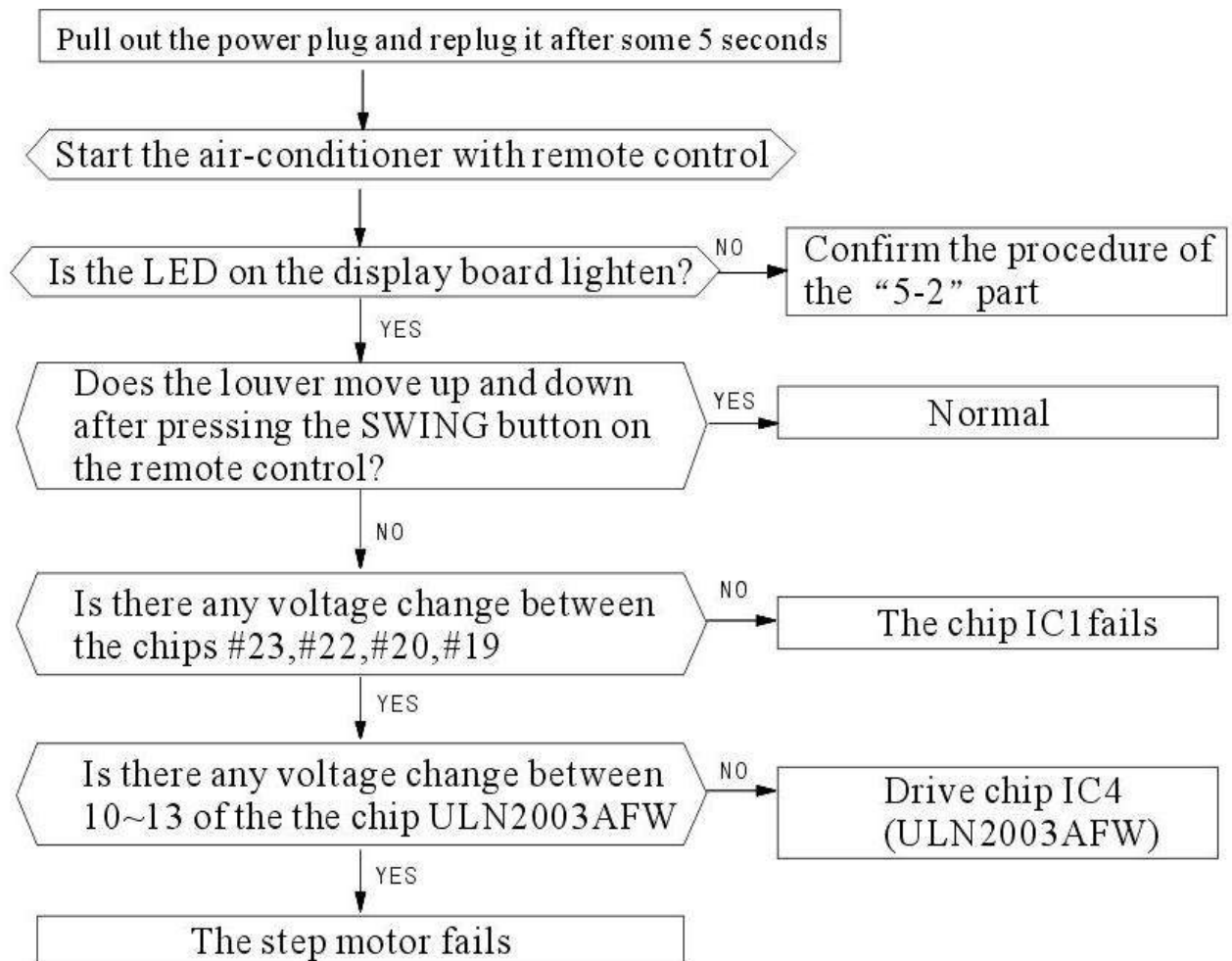
## 5. The Step Motor Does Not Work

(1)Items

a) Check if the input voltage is correct?

b) Check if the step motor controlling the up-down movement firmly connected to Cn2?

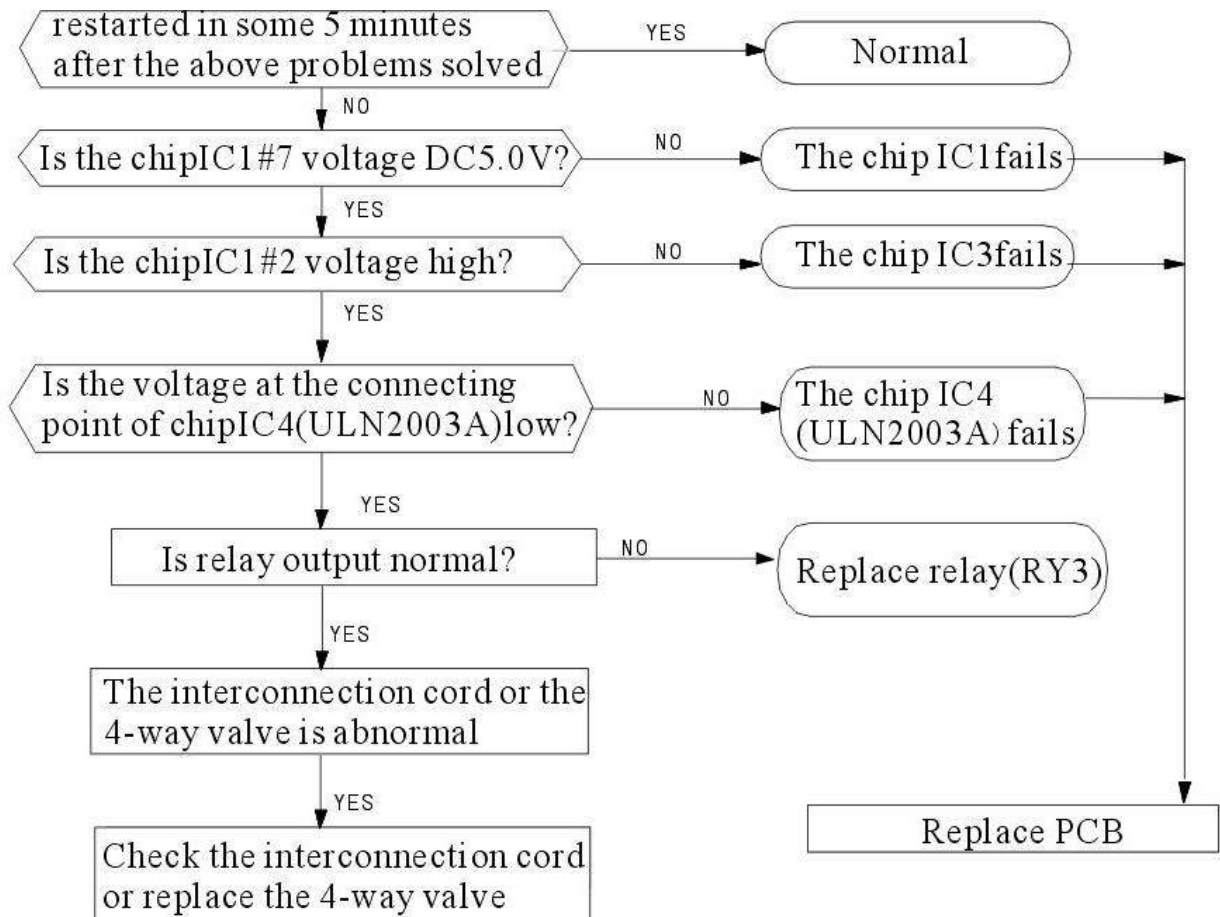
(2)Trouble shooting procedure



## 6. Heating Mode Can Work, But No Hot Air Blow

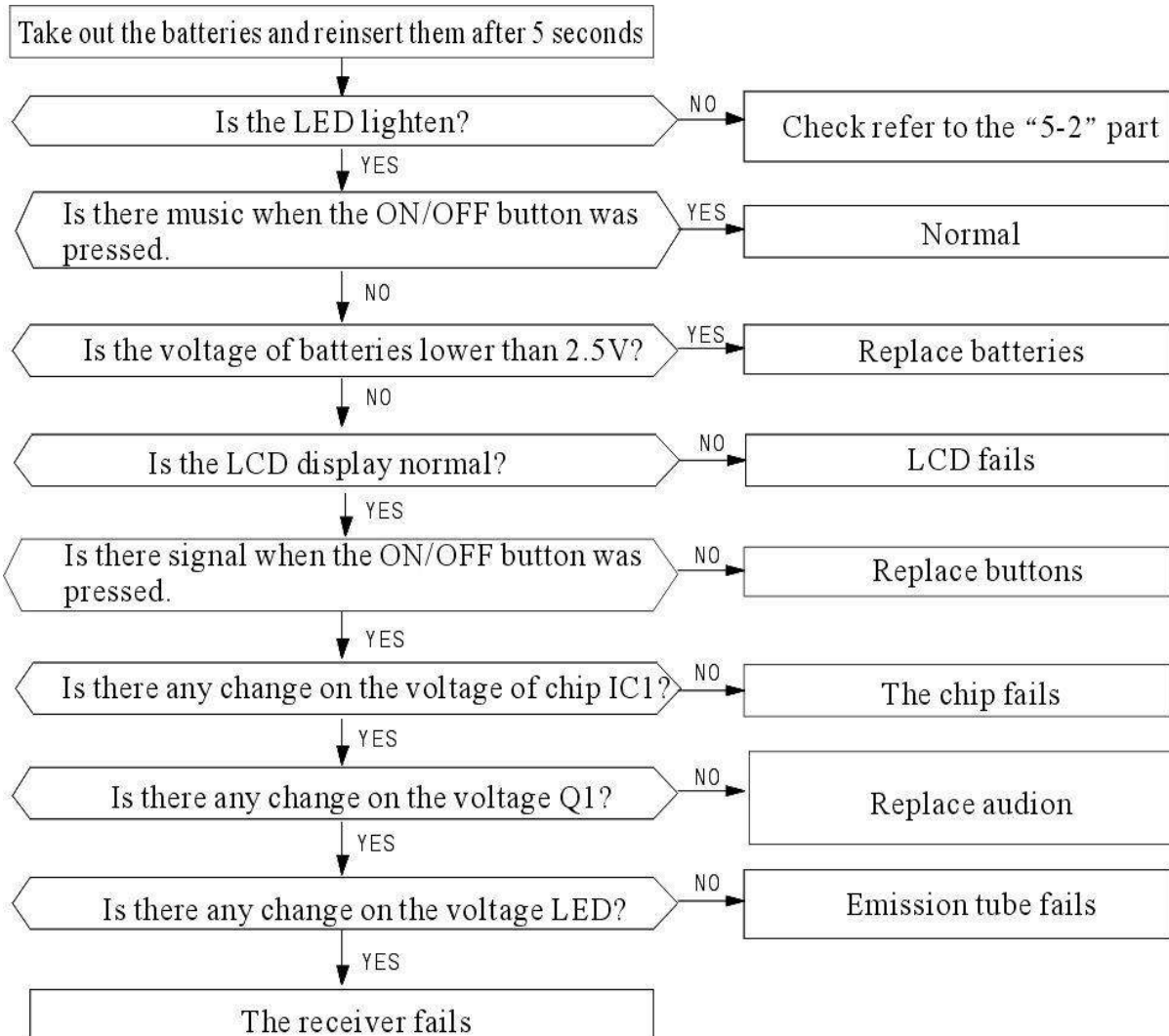
(1) Check if the set temperature is lower than the indoor temperature?

(2) Check if the indoor PCB is connected to the terminal correctly?



# 7. Remote Control Can Not Work

Trouble shooting rocedure



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