

# Haier Air conditioner 2006'

## New DC Invert Products Abnormality Solution

HAND in HAND  
HIGHER and HIGHER

**HSU-18H(S)03/R2(DB) HFU-18H03/R2(DB)**  
**HSU-22H(S)03/R2(DB)**

Content	Malfunction codes			Indoor Unit	Outdoor Unit	Auto Recover	Twinkling times of outdoor LED 2
	Power operate	Timer Heat	operate Cool				
Room-temperature sensor malfunction	★	■	■	*		*	
Heat-exchange thermister anomaly	★	□	□	*		*	
Frost-removing temperature sensor fault	□	□	★		*	*	10
Exhaust temperature sensor	★	□	■		*	*	13
Outdoor ambient temp sensor fault	□	★	■		*	*	12



Malfunction Codes (2)

Content	Malfunction codes			Indoor Unit	Outdoor Unit	Auto Recover	Twinkling times of outdoor LED 2
	Power operate	Timer Heat	operate Cool				
Communication fault between the indoor and outdoor units	■	■	★	*	*		15
Anomaly of compressor Running	★	■	□		*		18or19
Overheat protection for exhaust temperature	■	★	■		*		8
AC electricity protection	★	★	■		*		3
DC electricity protection	★	★	□		*		2

## Malfunction Codes (3)

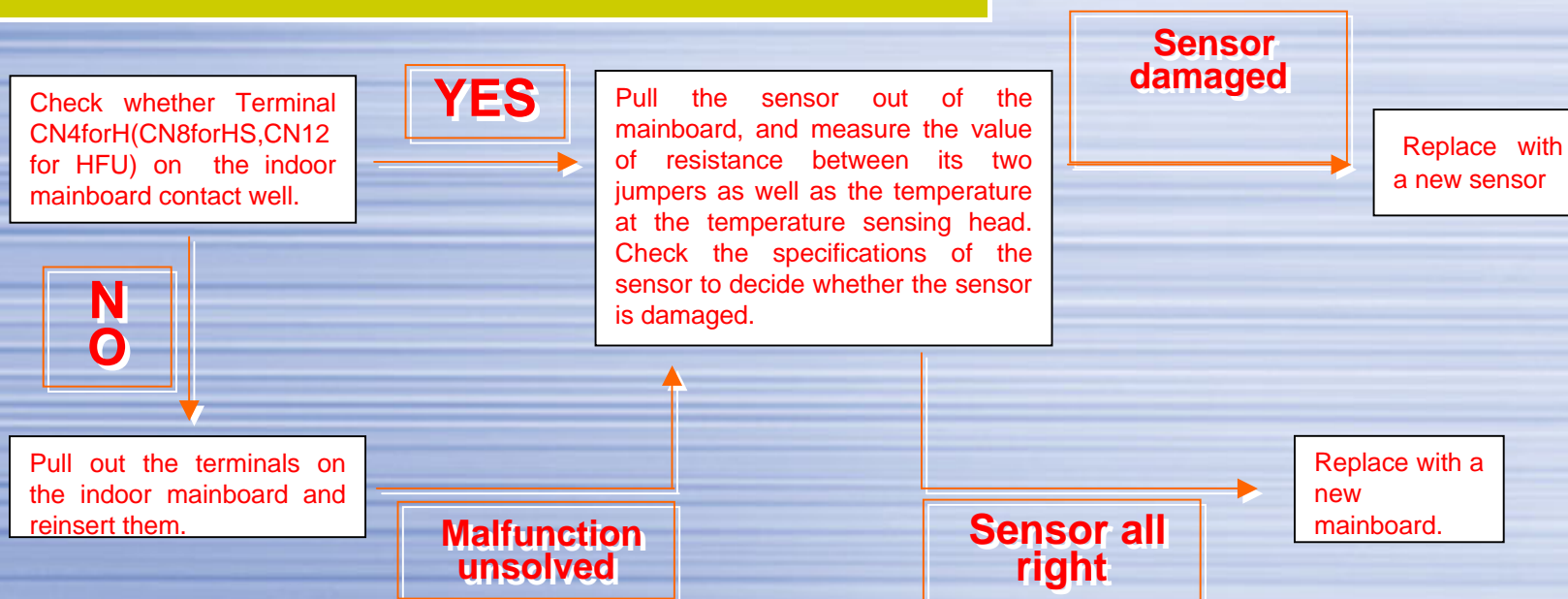
Content	Malfunction codes			Indoor Unit	Outdoor Unit	Auto Recover	Twinkling times of outdoor LED 2
	Power operate	Timer Heat	operate Cool				
High work-intense protection	★	★	★	*			21
EEPROM error	★	□	★	*	*		
Indoor fan motor malfunction	■	□	★	*			

Explanation : □bright ★flashing ■turn-off \* Represents there is this function

## Countermeasures for Frequent Malfunctions (1)

Content	Malfunction codes			Indoor Unit	Outdoor Unit	Auto Recover
	Power	Timer operate	operate Heat Cool			
Room-temperature sensor malfunction	★	■	■	✱		✱

## Countermeasure Flow Chart:

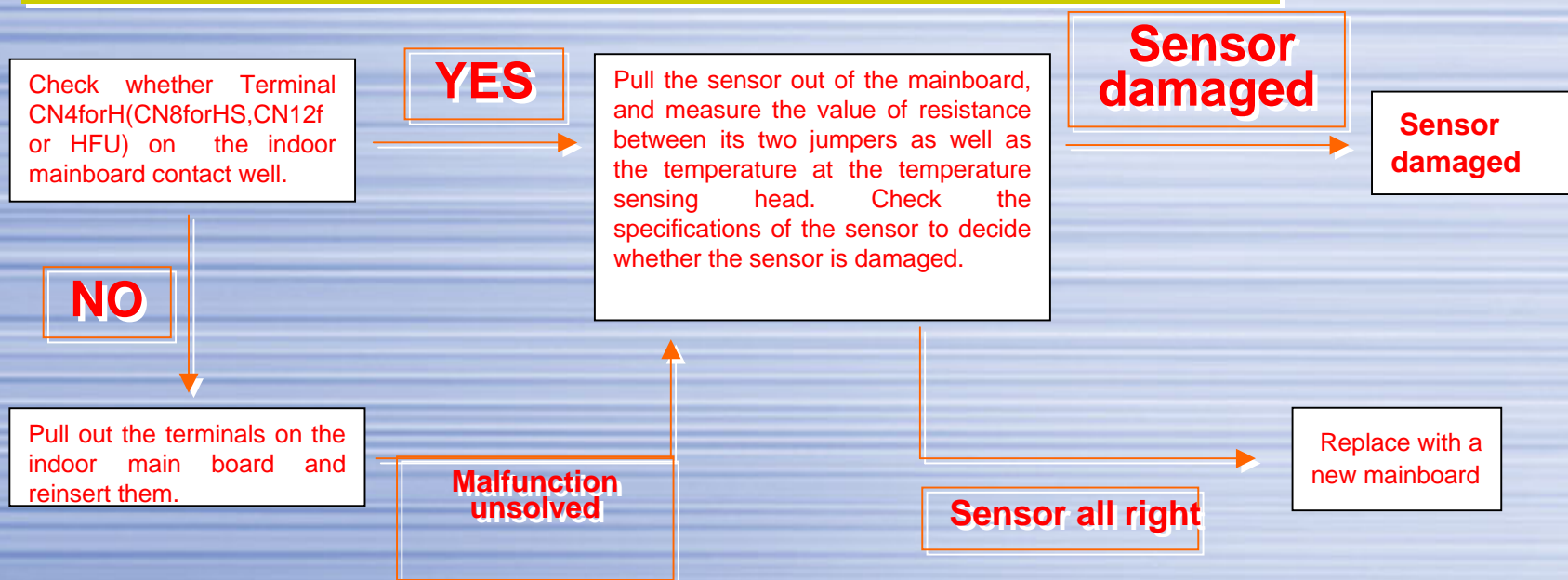




## Countermeasures for Frequent Malfunctions(2)

Content	Malfunction codes			Indoor Unit	Outdoor Unit	Auto Recover
	Power	Timer operate	operate Heat Cool			
Heat-exchange sensor malfunction	★	□	□	*		*

### Countermeasure Flow Chart:

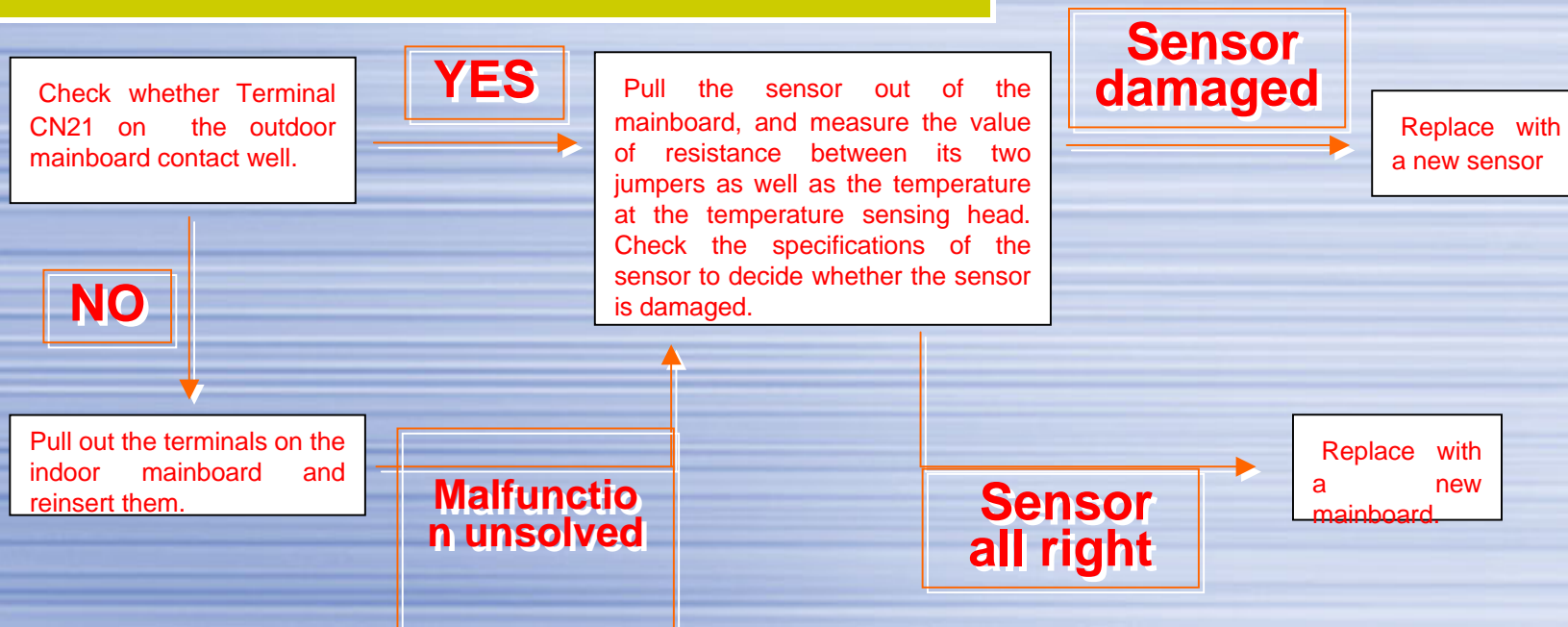


## Countermeasures for Frequent Malfunctions(3)

Content	Malfunction codes			Indoor Unit	Outdoor Unit	Auto Recover
	Power	Timer operate	operate Heat Cool			
Frost-removing temperature sensor fault	□	□	★		*	*

With the malfunction, LED2 on the outdoor mainboard blinks 13 times at frequency of 1 Hz and interval of 2 seconds or so.

## Countermeasure Flow Chart:

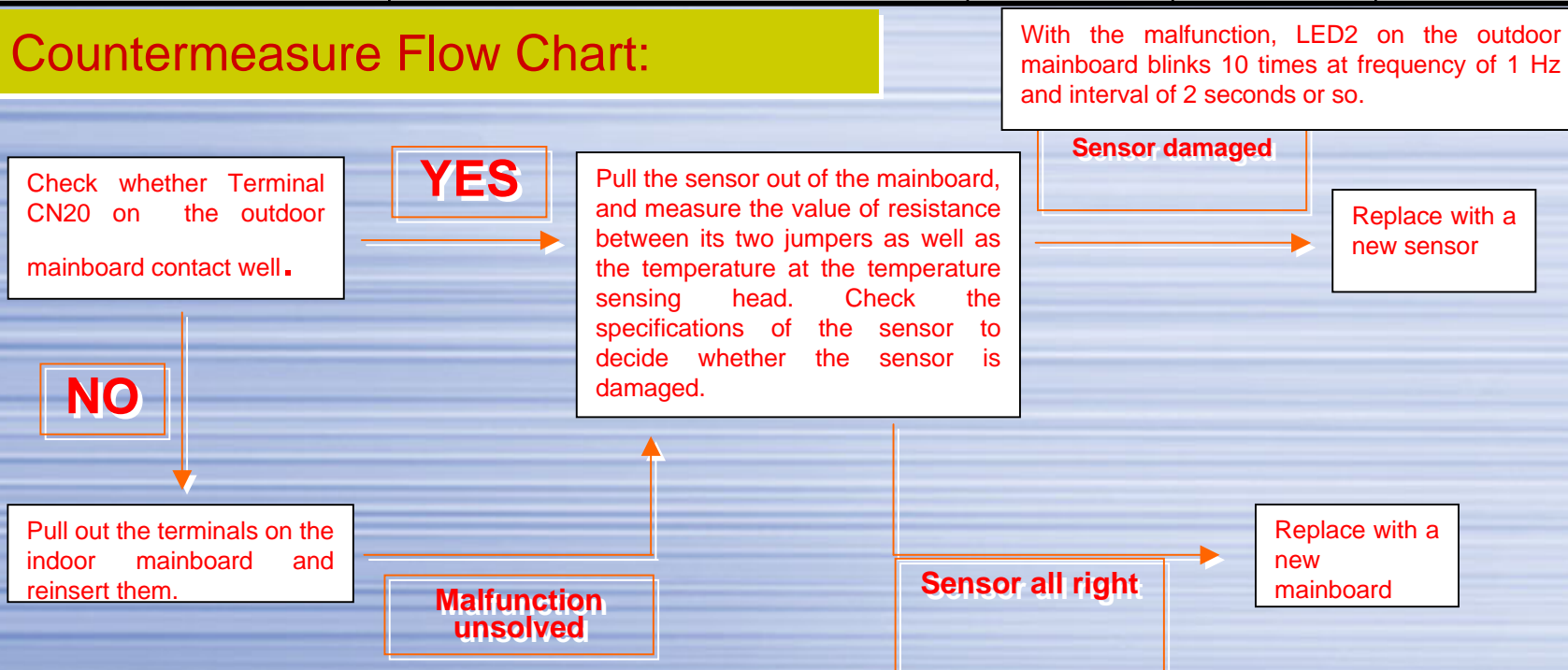




## Countermeasures for Frequent Malfunctions (4)

Content	Malfunction codes			Indoor Unit	Outdoor Unit	Auto Recover
	Power	Timer operate	operate Heat Cool			
Exhaust temperature sensor	★	□	■		*	*

### Countermeasure Flow Chart:

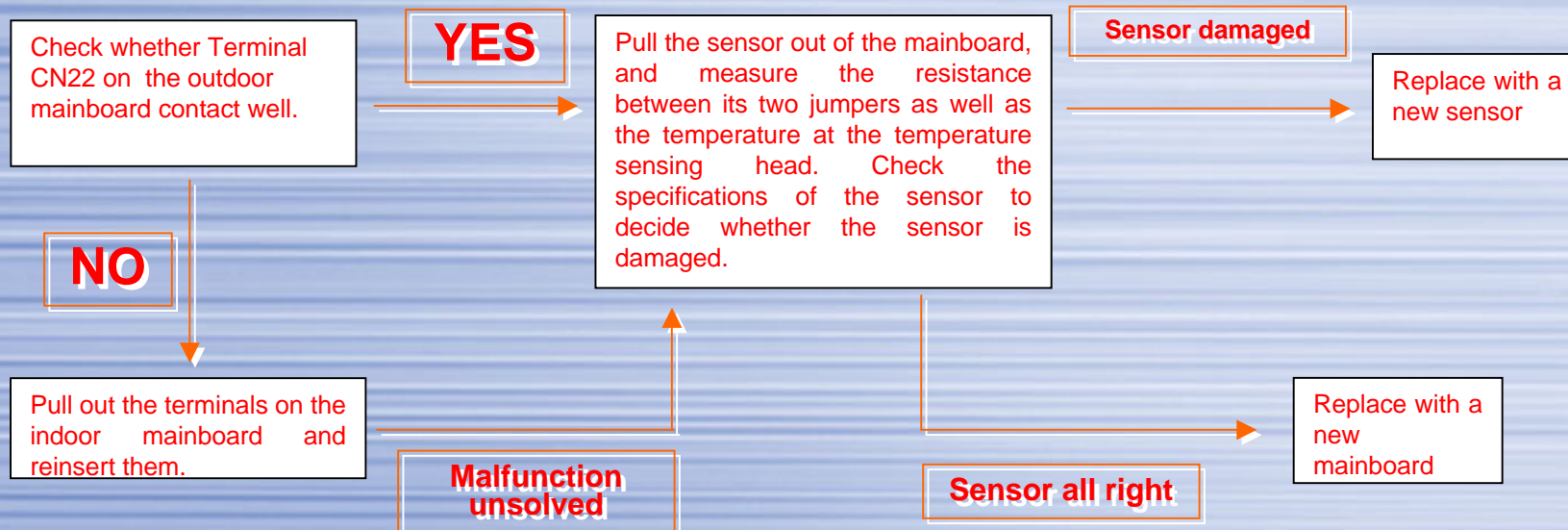


## Countermeasures for Frequent Malfunctions (5)

Content	Malfunction codes			Indoor Unit	Outdoor Unit	Auto Recover
	Power	Timer operate	operate Heat Cool			
Ambient temp sensor fault	□	★	■		*	*

## Countermeasure Flow Chart:

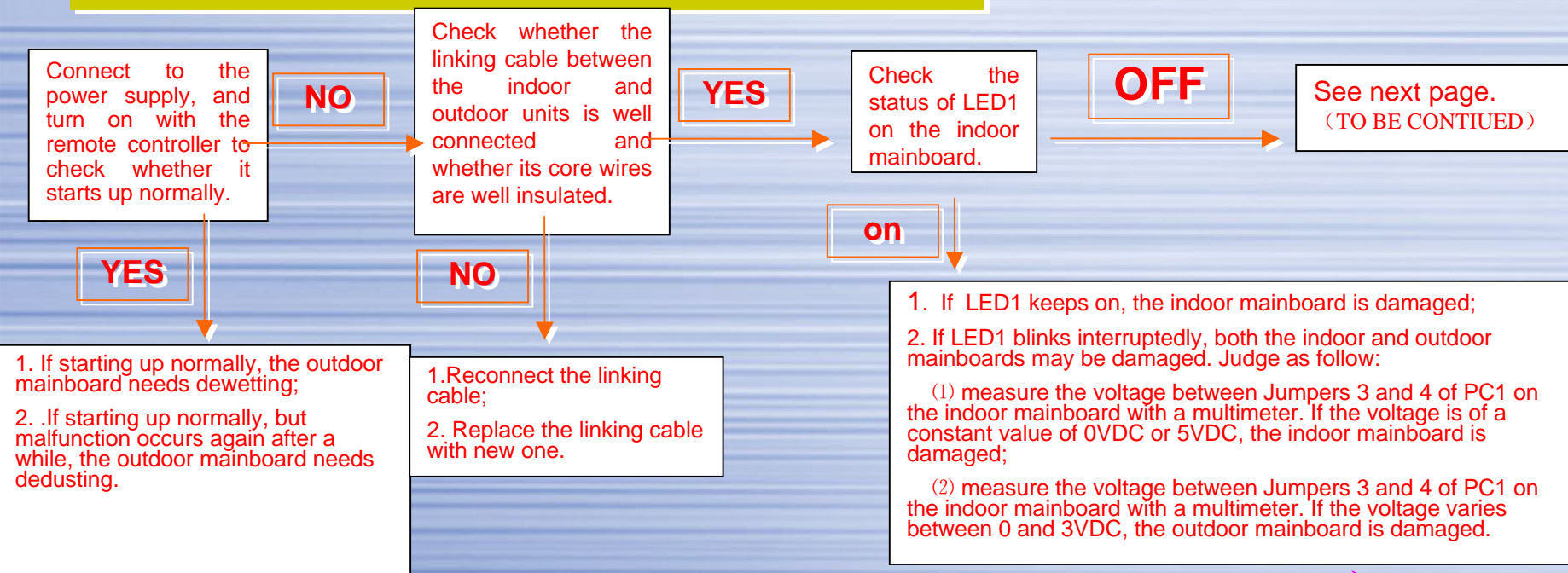
With the malfunction, LED2 on the outdoor mainboard blinks 12 times at frequency of 1 Hz and interval of 2 seconds or so.



## Countermeasures for Frequent Malfunctions (7-1)

Content	Malfunction codes			Indoor Unit	Outdoor Unit	Auto Recover
	Power operate	Timer operate	Heat Cool			
Communication fault between the indoor and outdoor units	■	■	★	*	*	

### Countermeasure Flow Chart:



## Countermeasures for Frequent Malfunctions (7-2)

Content	Malfunction codes			Indoor Unit	Outdoor Unit	Auto Recover
	Power operate	Timer operate	Heat Cool			
Communication fault between the indoor and outdoor units	■	■	★	*	*	

### Countermeasure Flow Chart ( CONTINUE ) :

LED1 of indoor mainboard is OFF.

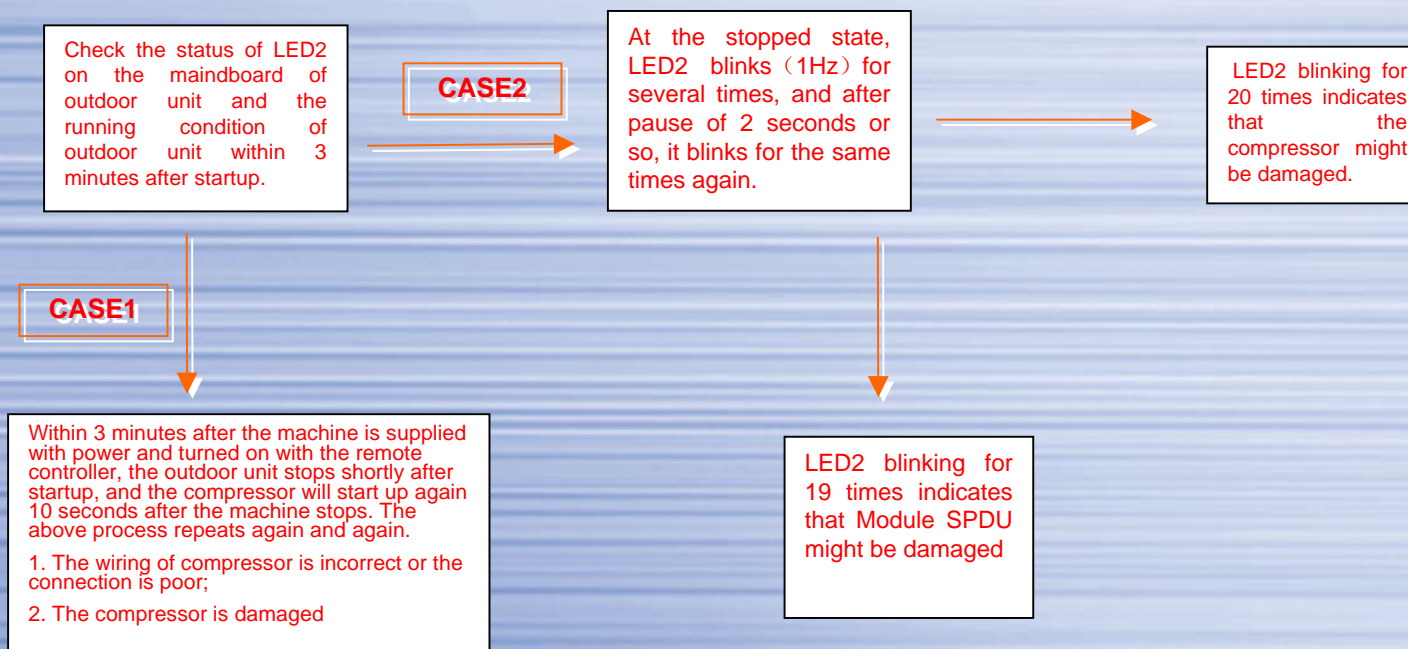
#### Trouble shooting process:

1. Test the outdoor power supply (230VAC and +310VDC) with a multimeter. If 230VAC is available but 310VDC not, the SPDU (IPDU, HT) module is damaged, replace it with a new one. If both 230VAC and 310VDC are available, go forward to step 2.
2. Measure the voltage across Jumpers 1 and 4 of Terminal CN3 on the outdoor mainboard with a multimeter. If +12VDC is not available, the SPDU (IPDU, HT) module is damaged, replace it with a new one. If +12VDC is available, go forward to step 3.
3. Within two minutes after the machine is supplied with power and turn on, measure the AC voltage between positions 1 and 3 on the terminal of outdoor unit with a multimeter. If the value varies between 0 and 80 VAC, the outdoor mainboard is damaged, replace it with a new one. If the value is constant at about 30V, the indoor mainboard is damaged, replace it with a new one.

## Countermeasures for Frequent Malfunctions (7)

Content	Malfunction codes	Indoor Unit	Outdoor Unit	Auto Recover
	Power    Timer operate operate   Heat   Cool			
Anomaly of compressor Running	★            ■            □		*	

## Countermeasure Flow Chart:

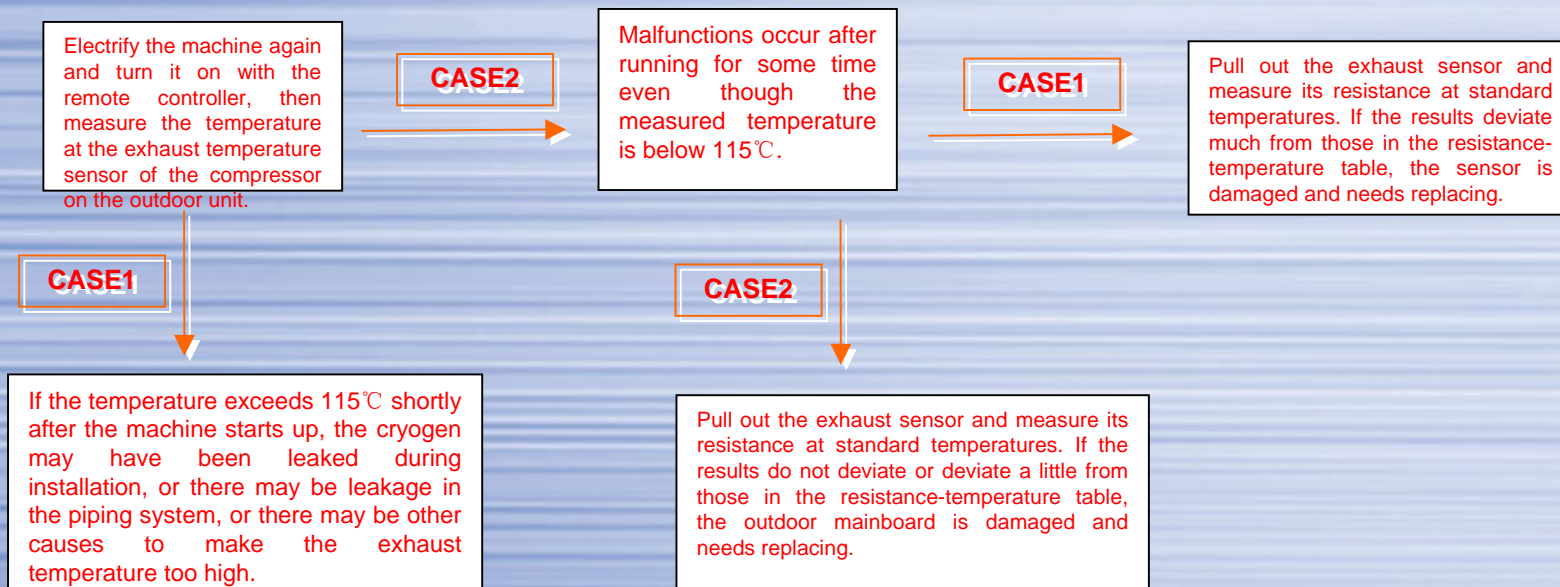




## Countermeasures for Frequent Malfunctions (8)

Content	Malfunction codes			Indoor Unit	Outdoor Unit	Auto Recover
	Power operate	Timer operate	Heat Cool			
Overheat protection for exhaust temperature	■	★	■		*	

## Countermeasure Flow Chart:



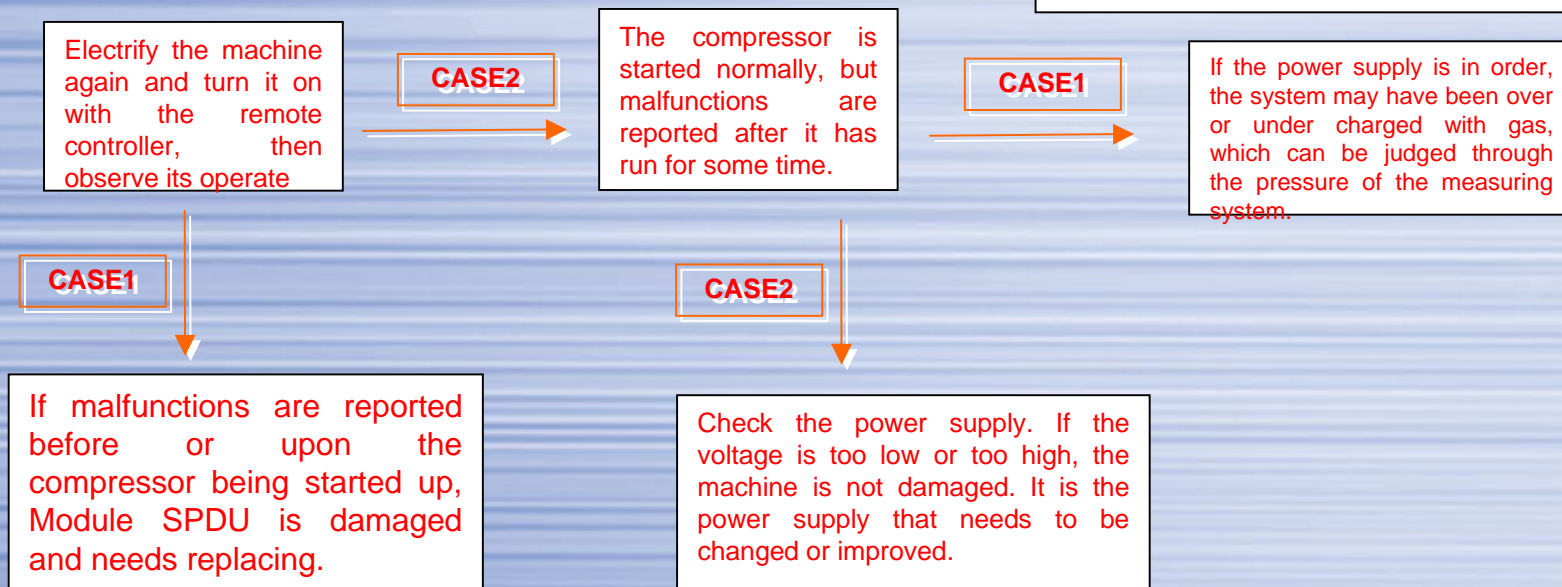


## Countermeasures for Frequent Malfunctions (9)

Content	Malfunction codes			Indoor Unit	Outdoor Unit	Auto Recover
	Power operate	Timer operate	Heat Cool			
AC electricity protection	★	★	■		*	

## Countermeasure Flow Chart:

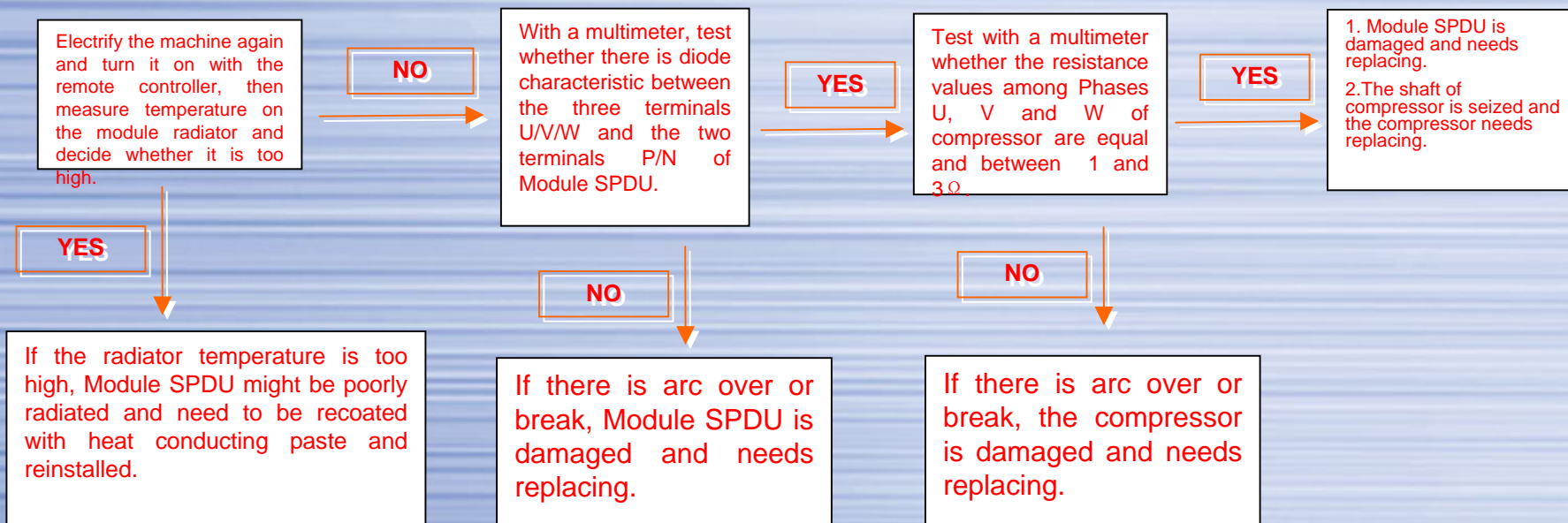
With this malfunction, LED2 on the outdoor mainboard blinks 3 times at a frequency of 1Hz and an interval of about 2 seconds for 3 times.



## Countermeasures for Frequent Malfunctions (10)

Content	Malfunction codes			Indoor Unit	Outdoor Unit	Auto Recover
	Power operate	Timer operate	Heat Cool			
DC electricity protection	★	★	□		*	

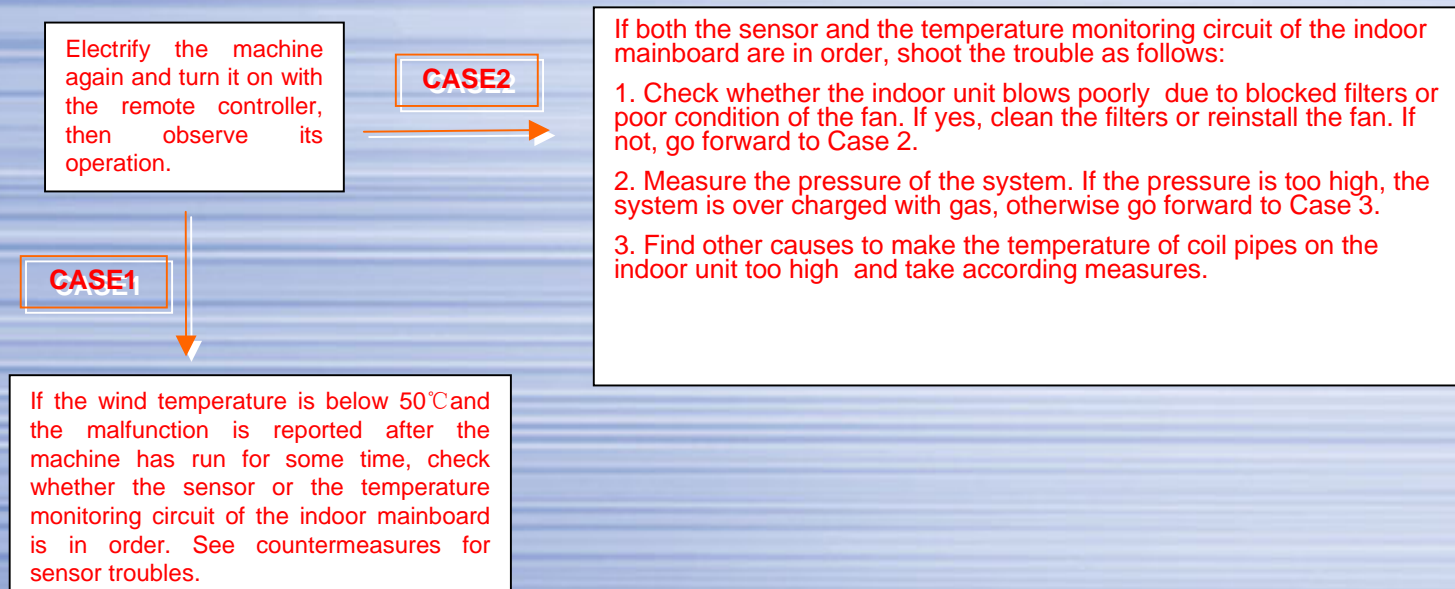
### Countermeasure Flow Chart:



## Countermeasures for Frequent Malfunctions (11)

Content	Malfunction codes			Indoor Unit	Outdoor Unit	Auto Recover
	Power operate	Timer operate	Heat Cool			
High work-intense protection	★	★	★	*		

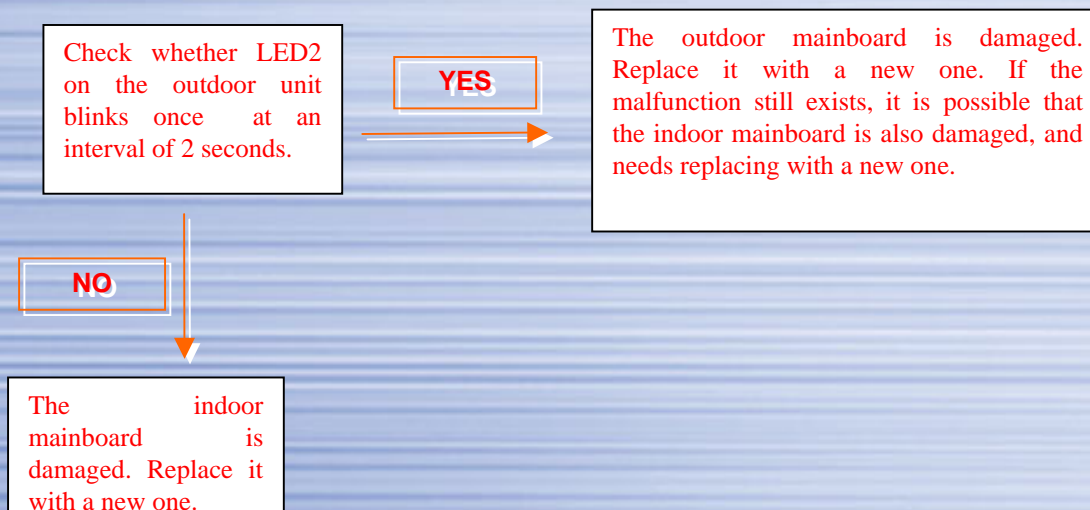
## Countermeasure Flow Chart:



## Countermeasures for Frequent Malfunctions (12)

Content	Malfunction codes			Indoor Unit	Outdoor Unit	Auto Recover
	Power operate	Timer operate	Heat Cool			
EEPROM error	★	□	★	*	*	

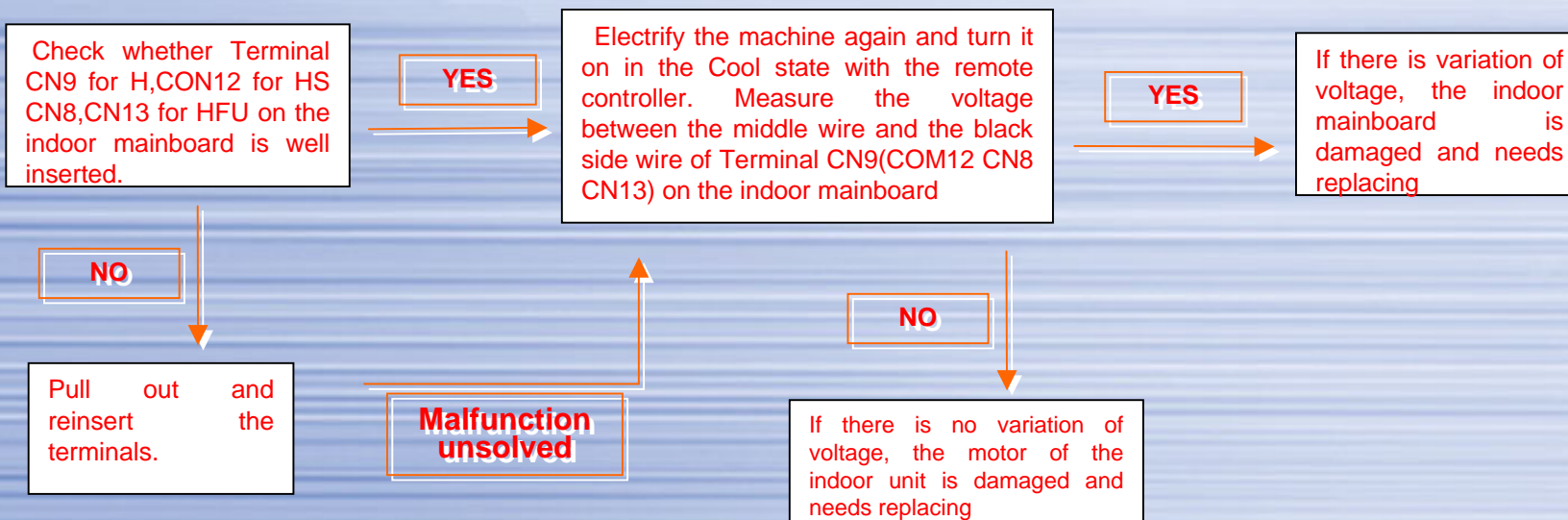
## Countermeasure Flow Chart:



## Countermeasures for Frequent Malfunctions (13)

Content	Malfunction codes			Indoor Unit	Outdoor Unit	Auto Recover
	Power operate	Timer operate	Heat Cool			
Indoor fan motor malfunction	■	□	★	*		

## Countermeasure Flow Chart:

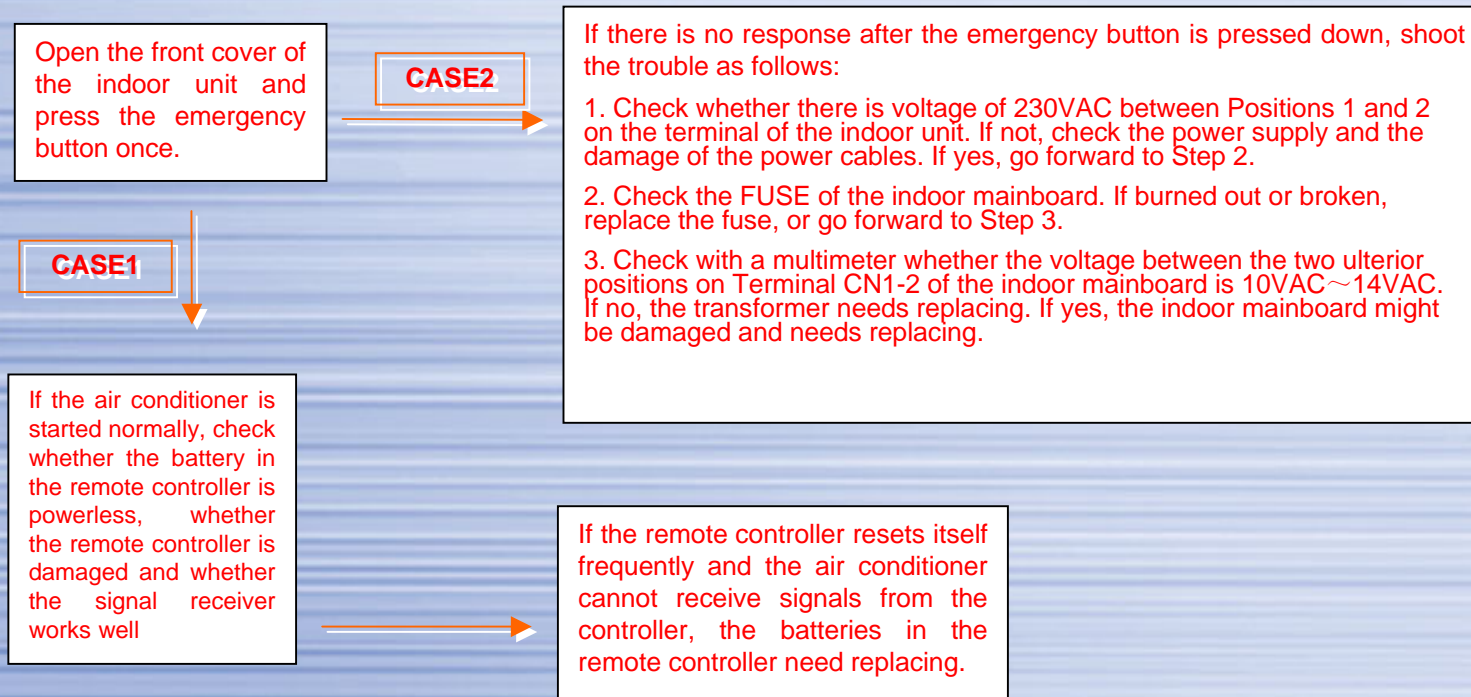




## Countermeasures for Other Frequent Malfunctions (14)

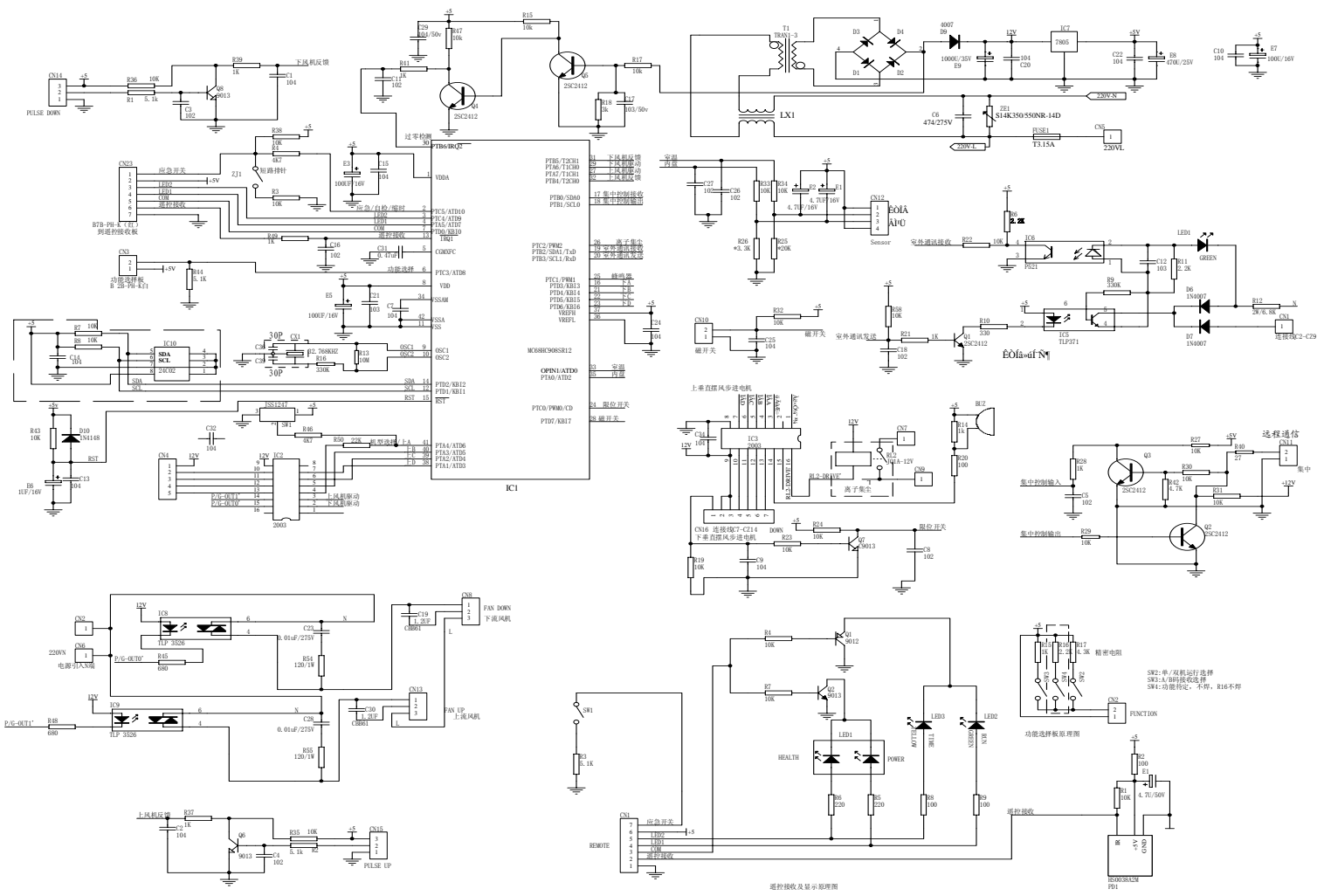
With the machine electrified, the remote controller cannot start it

### Countermeasure Flow Chart:

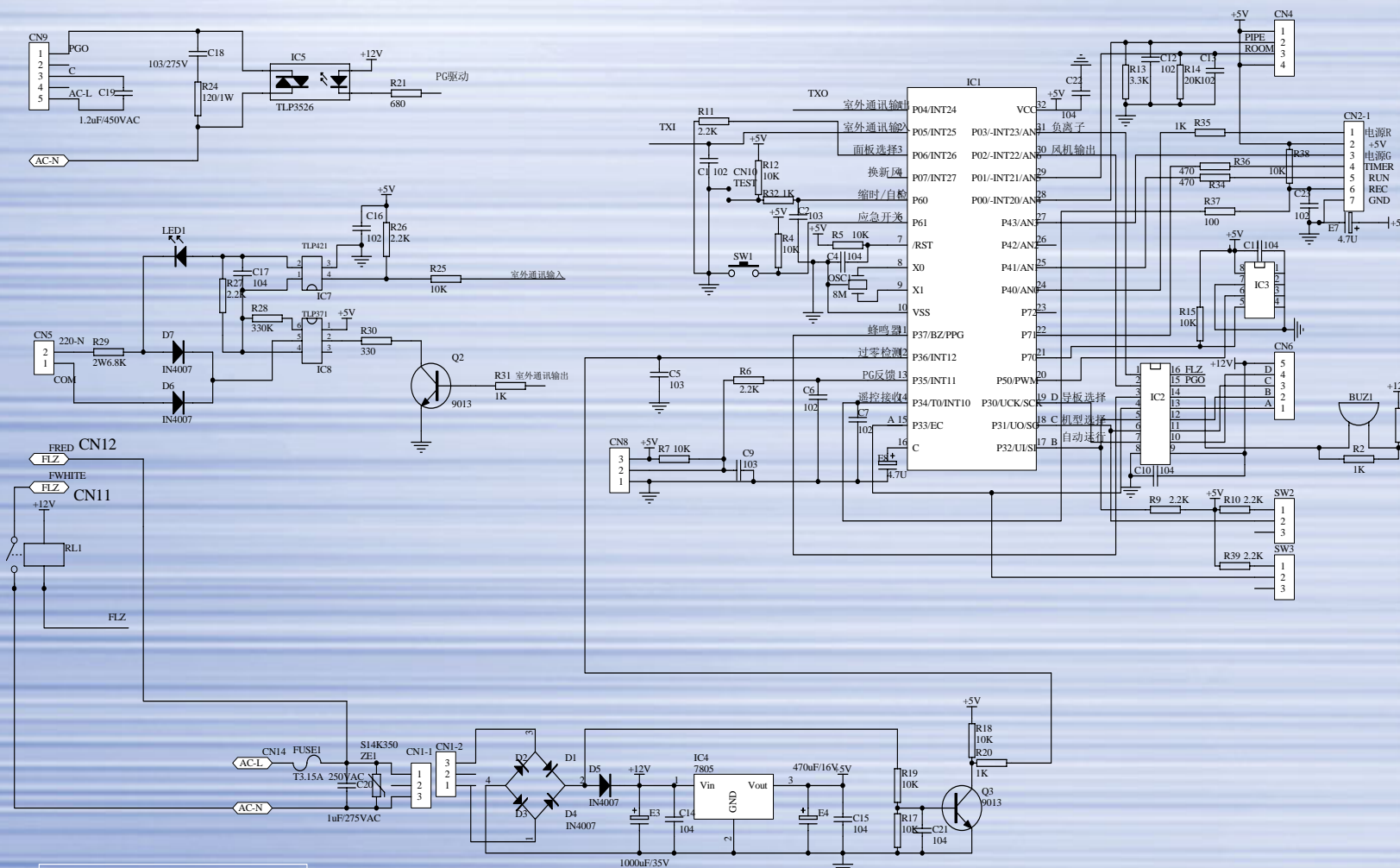




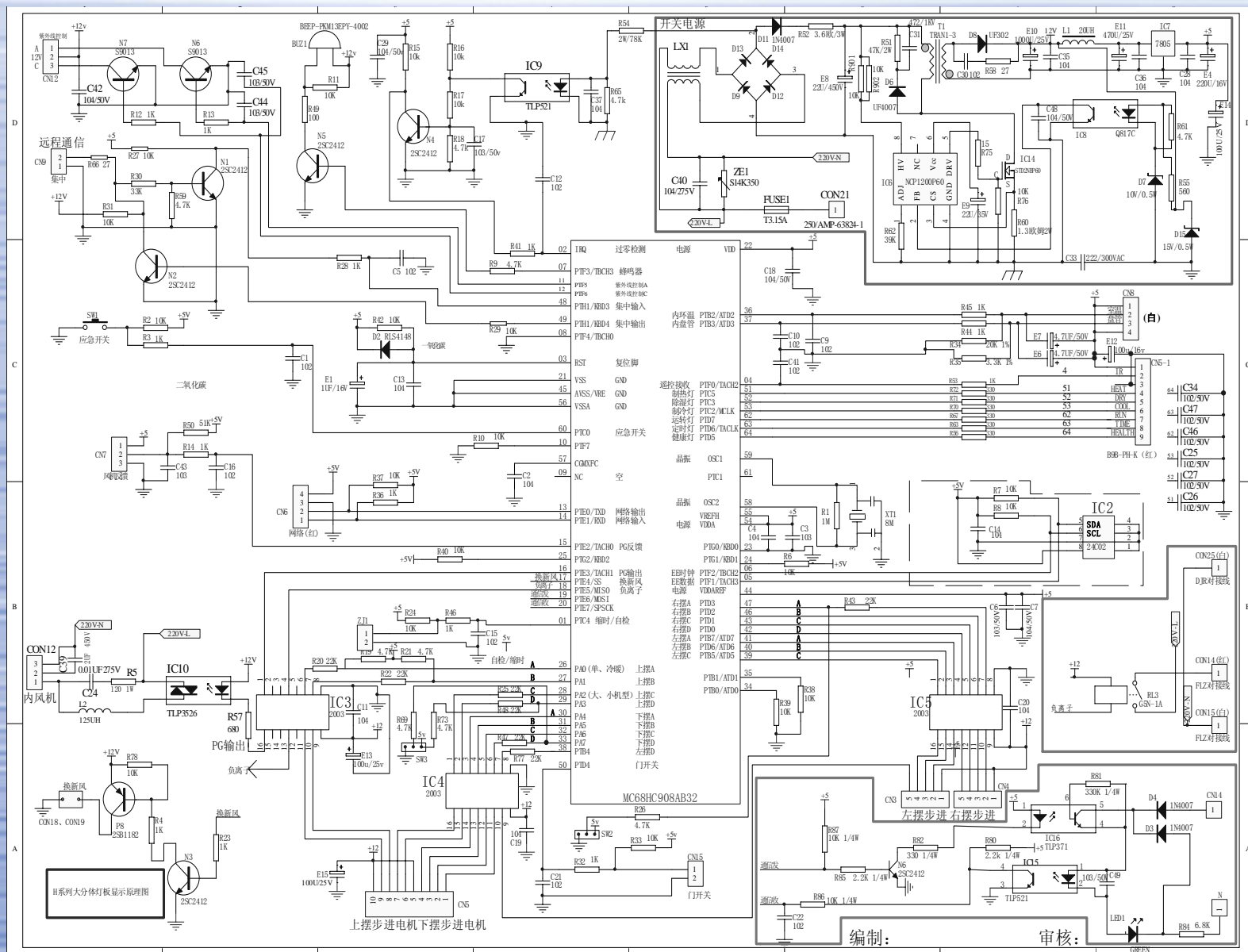
The figure on the right shows the electric diagram for the outdoor unit of HFU-18/22H03/R2(DB)

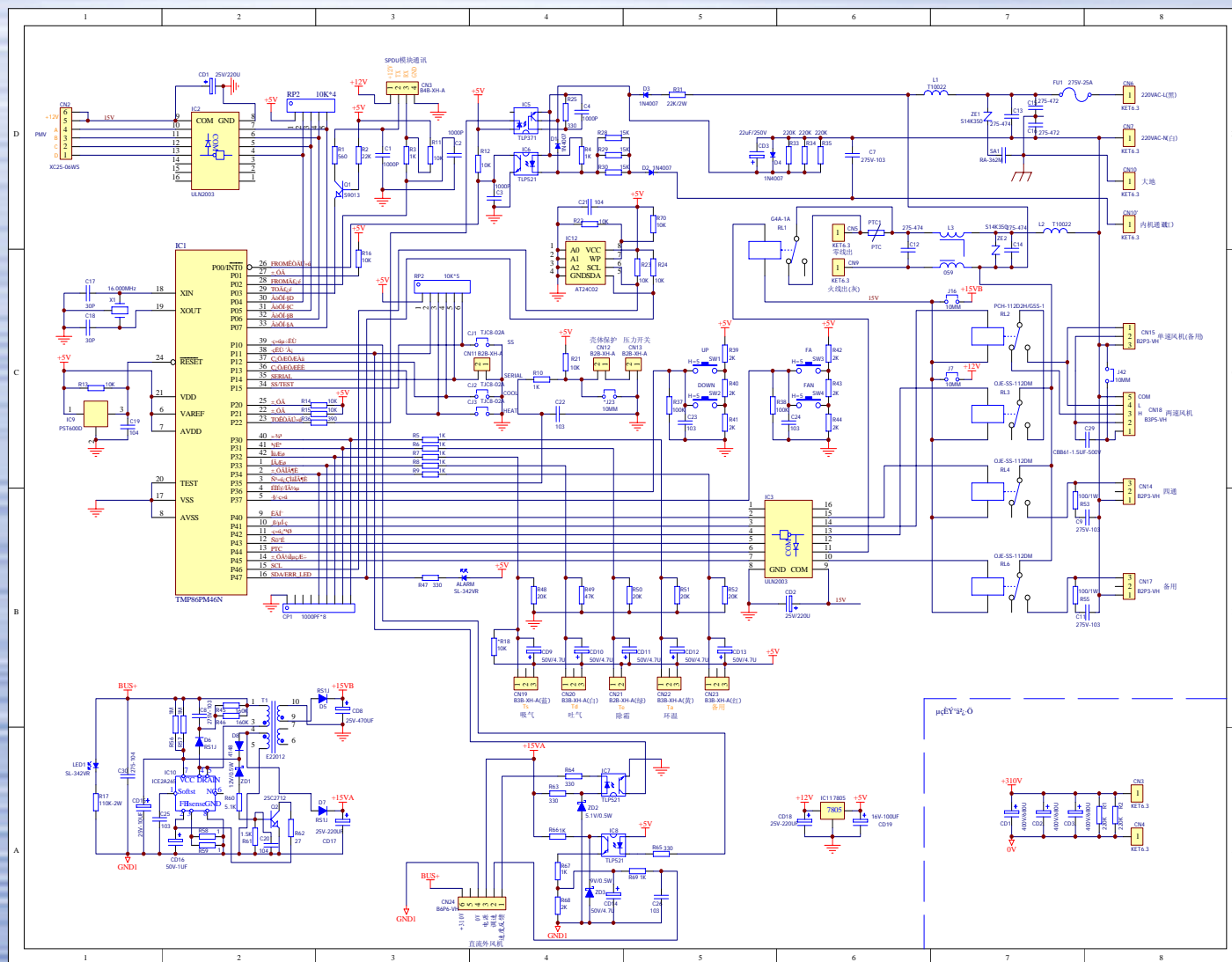


The figure on the right shows the electric diagram for the outdoor unit of HSU-18/22H03/R2(DB)

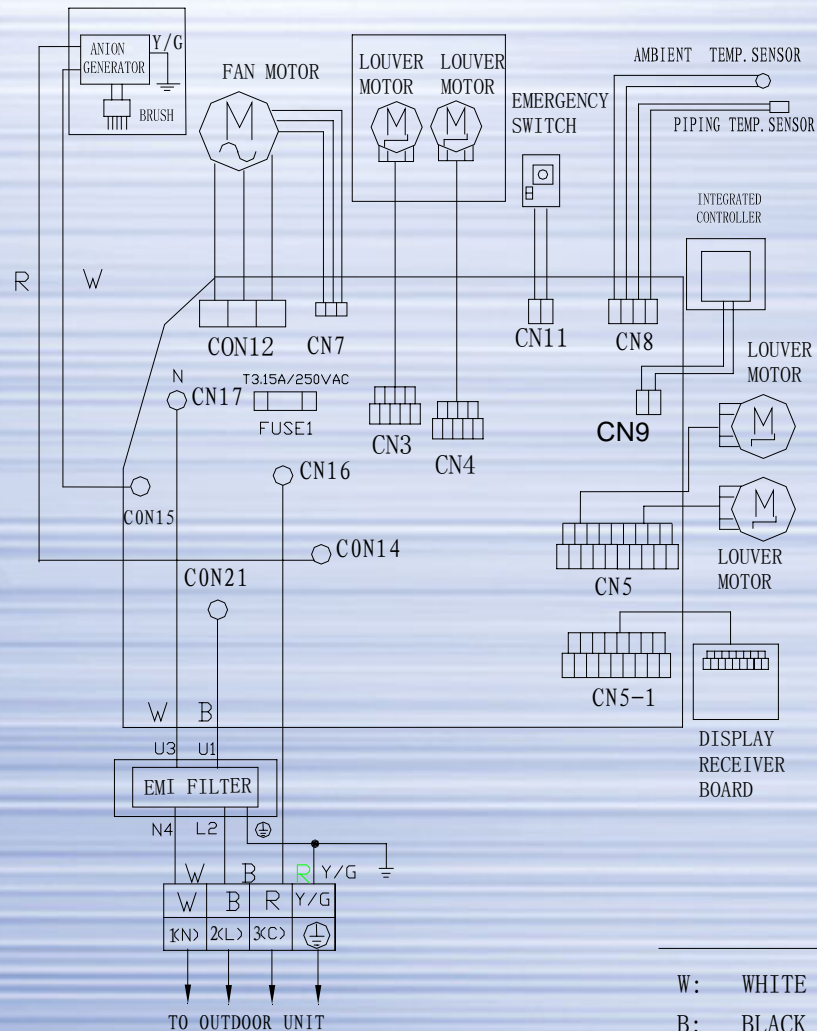


The figure on the right shows the electric diagram for the outdoor unit of HSU-18/22HS03/R2(D B)





The figure on the right shows the wiring diagram for the indoor unit of DC products HSU-22HS03/R 2 (DB) .

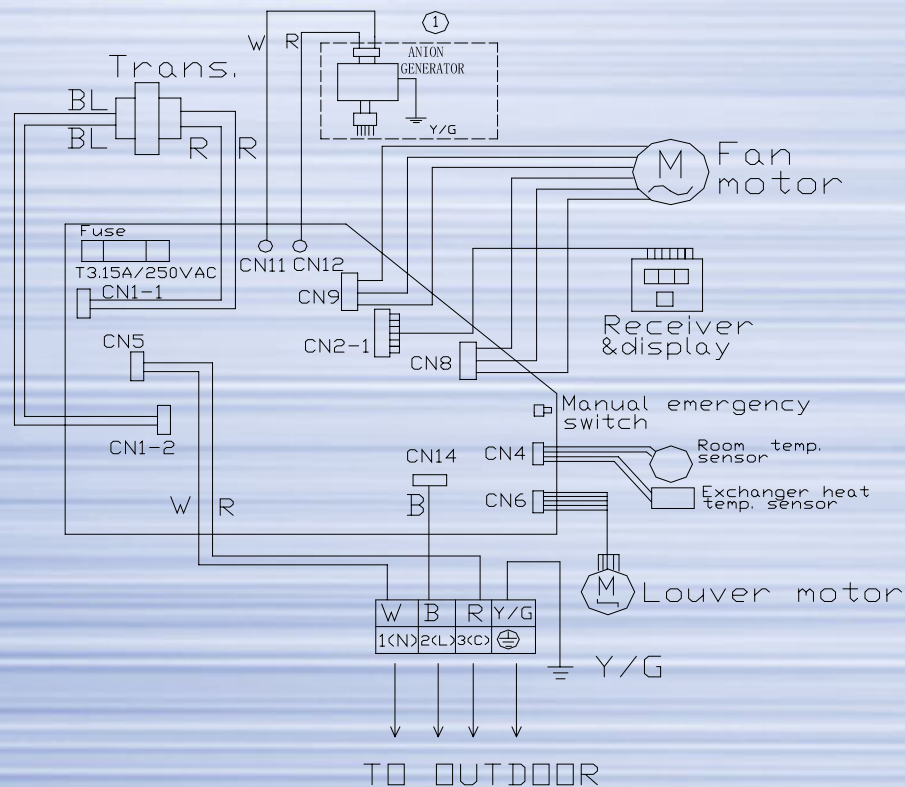


W: WHITE  
 B: BLACK  
 R: RED  
 Y/G: YELLOW  
 /GREEN

NOTES:  
 THE PARTS OF DOTTED ARE OPTIONAL



The figure on the right shows the wiring diagram for the indoor unit of DC products HSU-22H03/R2 (DB) .

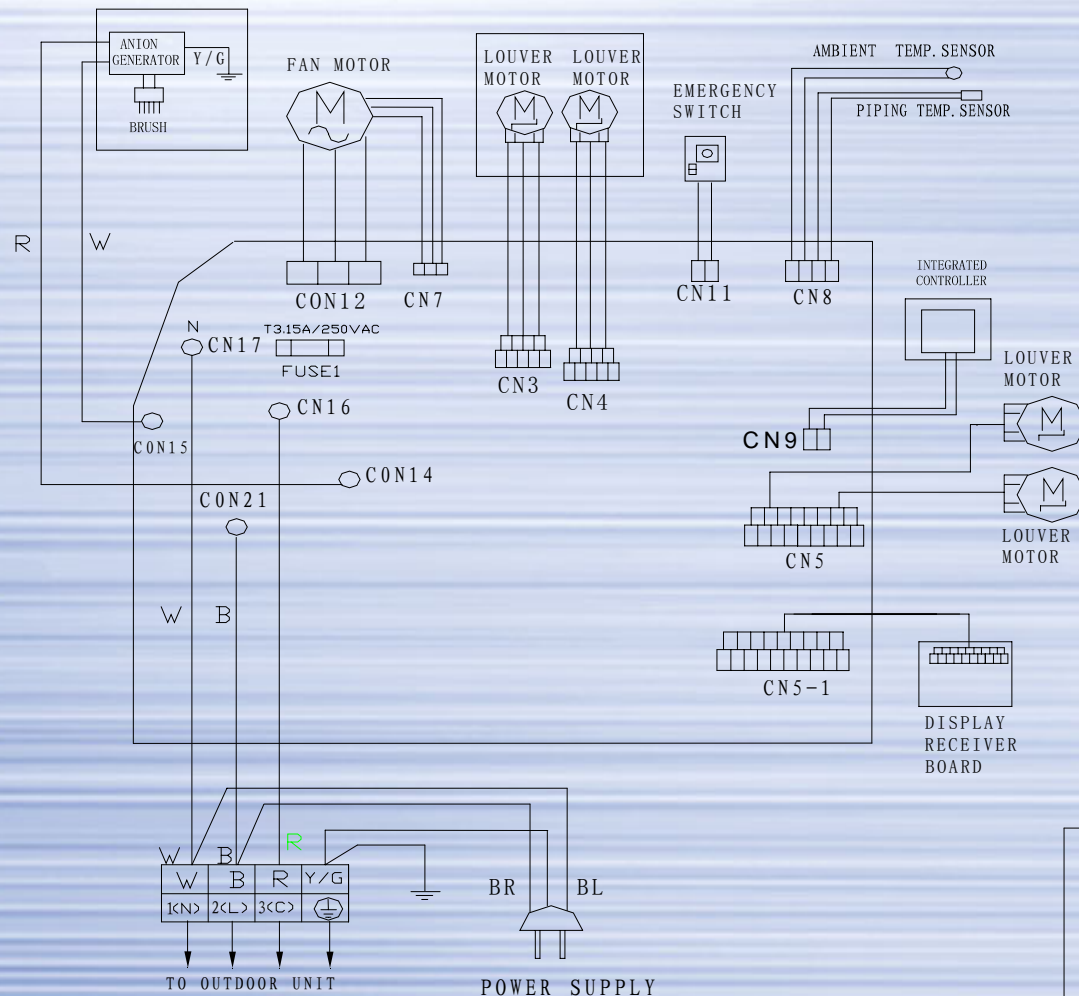


THE UNIT WITHOUT THE HEALTH  
 FUNCTION HAS NOT ①

R:Red      B:Black  
 W:White  
 Y/G:Yellow/Green



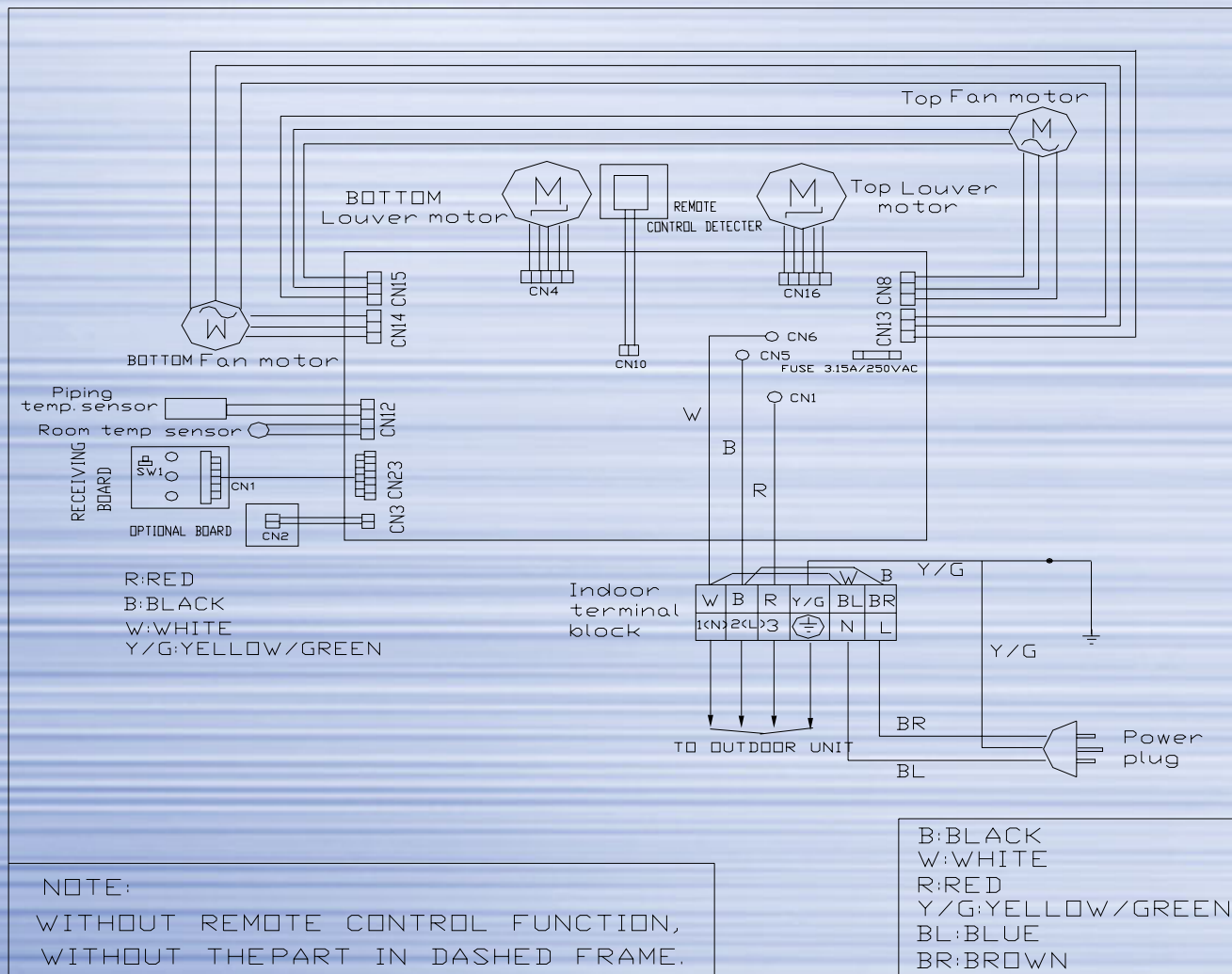
The figure on the right shows the wiring diagram for the indoor unit of DC products HSU-18HS03/R 2 (DB) .



NOTES:  
 THE PARTS OF DOTTED ARE OPTIONAL

W:	WHITE
B:	BLACK
R:	RED
BL:	BLUE
BR:	BLOWN
Y/G:	YELLOW /GREEN

The figure on the right shows the wiring diagram for the indoor unit of DC products HFU-18H03/R2 (DB) .



The figure below shows the wiring diagram for the outdoor unit of DC products 22 Series

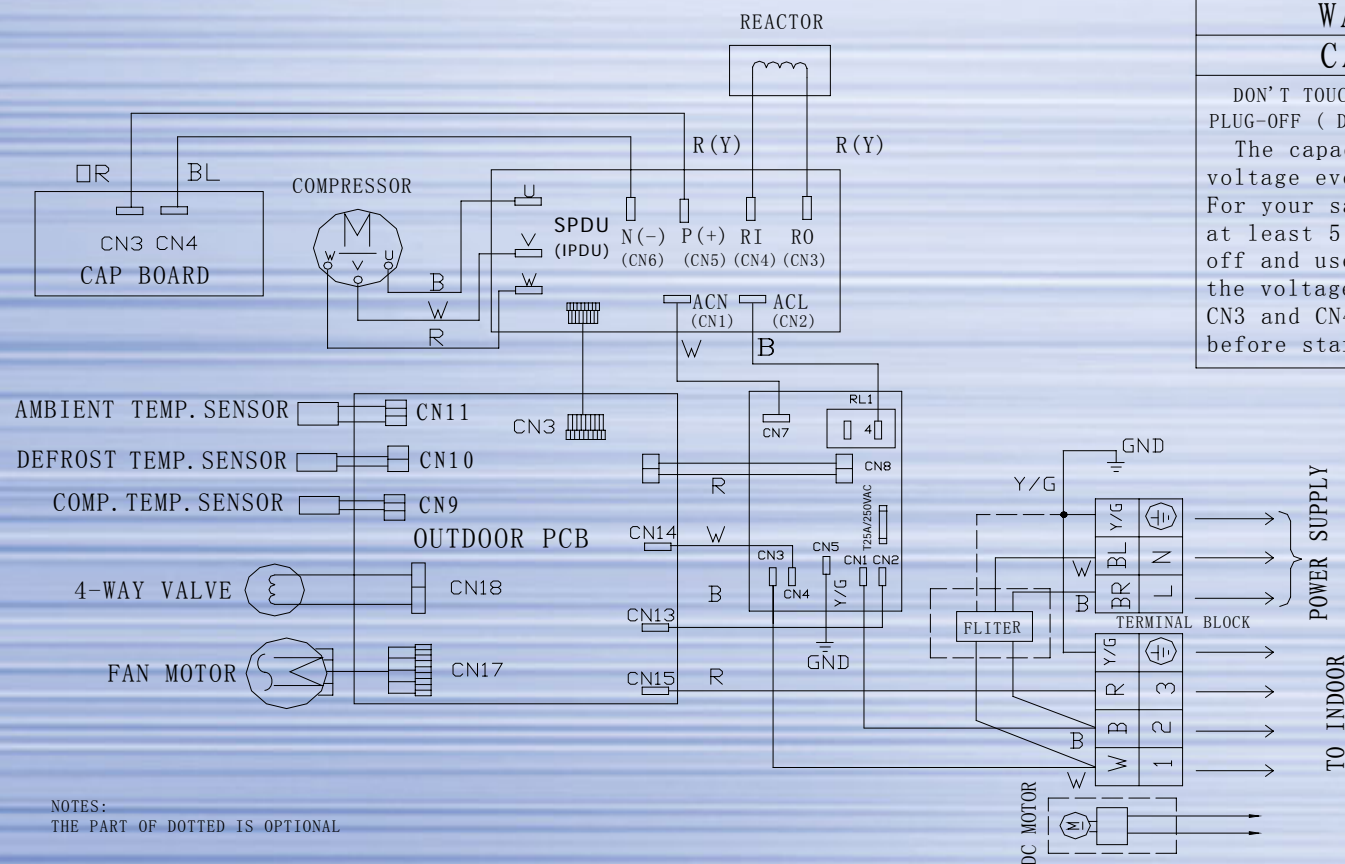
# OUTDOOR UNIT WIRING DIAGRAM

0010557243

## WARNING

## CAUTION

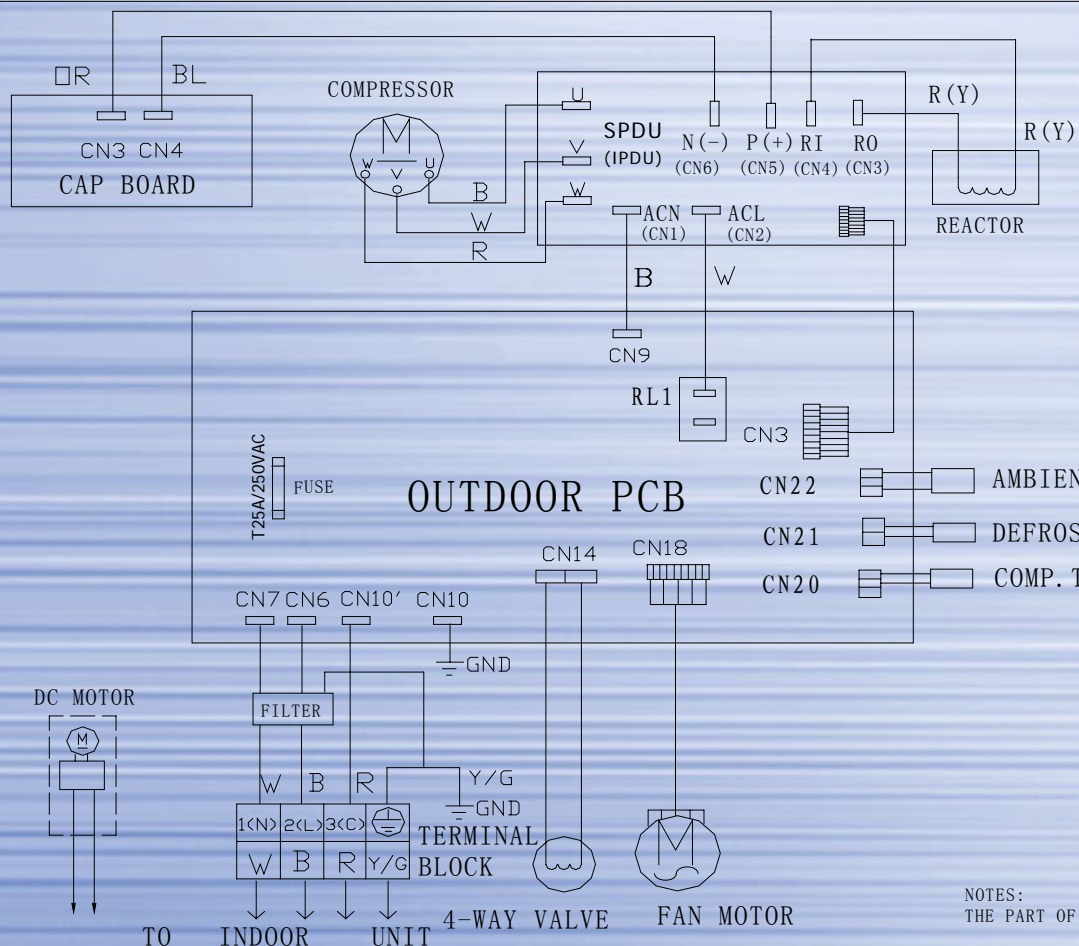
DON'T TOUCH CAPACITOR, EVEN AFTER PLUG-OFF ( DANGER OF ELECTRIC SHOCK)  
The capacitor retains high voltage even after the plug-off. For your safety, be sure to wait at least 5 minutes. after plug off and use a tester to confirm the voltage between connector CN3 and CN4 is less than DC 10V before start servicing.



The figure below shows the wiring diagram for the outdoor unit of DC products 18 Series

# OUTDOOR UNIT WIRING DIAGRAM

0010555313



## WARNING CAUTION

DON'T TOUCH CAPACITOR, EVEN AFTER PLUG-OFF ( DANGER OF ELECTRIC SHOCK)  
The capacitor retains high voltage even after the plug-off. For your safety, be sure to wait at least 5 minutes. after plug off and use a tester to confirm the voltage between connector CN3 and CN4 is less than DC 10V before start servicing.

Y: YELLOW  
B: BLACK  
R: RED  
OR: ORANGE  
BL: BLUE  
W: WHITE  
Y/G: YELLOW /GREEN

NOTES:  
THE PART OF DOTTED IS OPTIONAL



THANKS!