

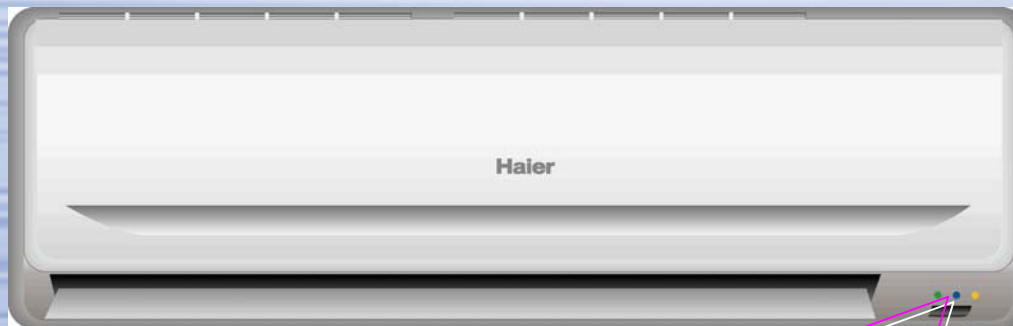
Haier Air conditioner 2006'

New DC Invert Products Abnormality Solution

HAND in HAND
HIGHER and HIGHER

HSU-09H03/R2(DB) HSU-12H03/R2(DB)

Indoor unit



HSU-09HS03/R2(DB) HSU-12HS03/R2(DB)

Indoor Unit



●
Operate

●
Heat

●
Cool



Malfunction Codes (H &HT & HS) (1)

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	★	□	□	*		*	
Defrosting temperature sensor fault	□	□	★		*	*	2
Exhaust temperature sensor	★	□	■		*	*	3
Ambient temp sensor fault	□	★	■		*	*	1
Indoor fan motor malfunction	■	□	★	*			

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

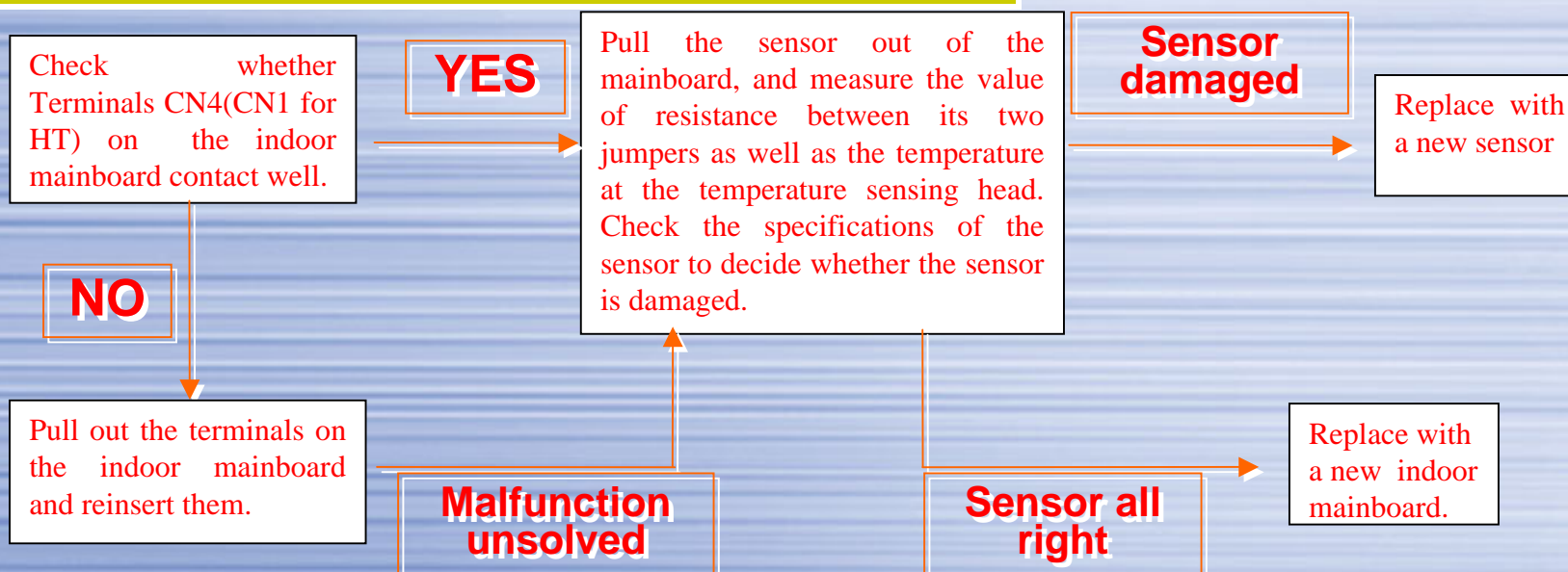
Malfunction Codes (H&HT & HS) (2)

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	■	■	★	*	*		5or6
Anomaly of compressor Running	★	■	□		*		10or13
Overheat protection for exhaust temperature	■	★	■		*		4
High work-intense protection	★	★	★	*			
EEPROM error	★	□	★	*	*		7 only for outdoor
AC electricity protection	★	★	■		*		14

Countermeasures for Frequent Malfunctions (1)

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

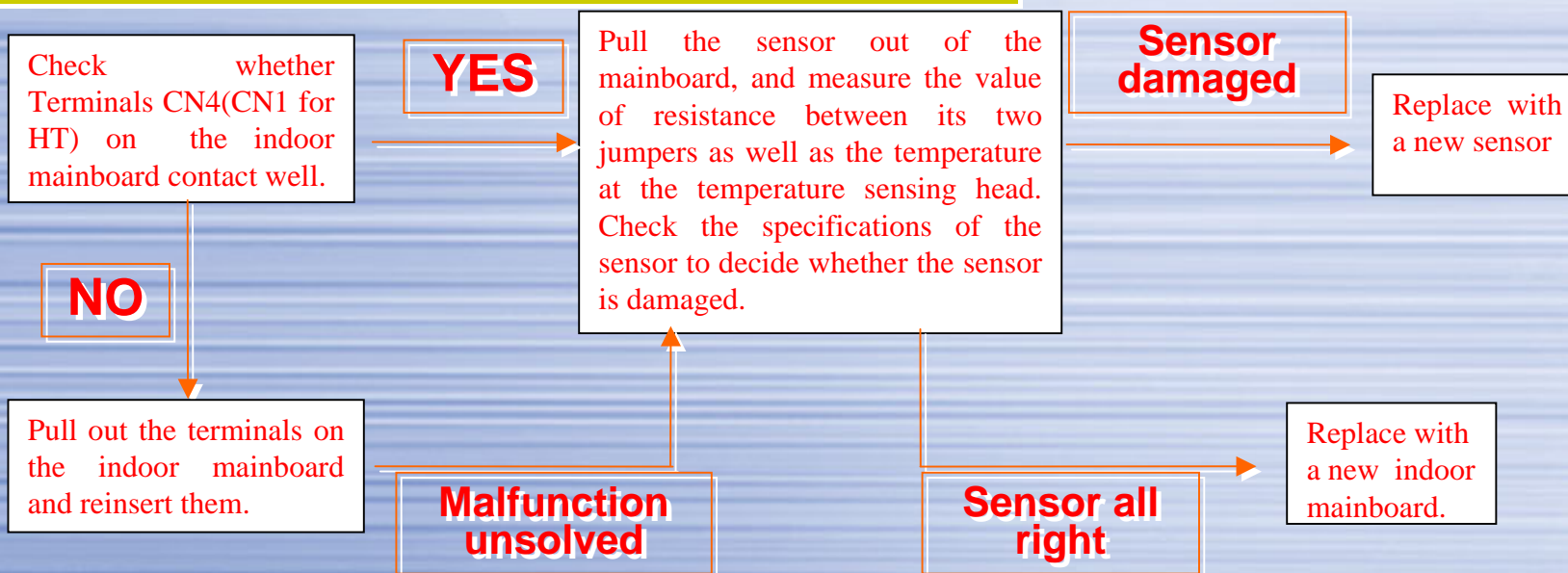
Countermeasure Flow Chart:



Countermeasures for Frequent Malfunctions (2)

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

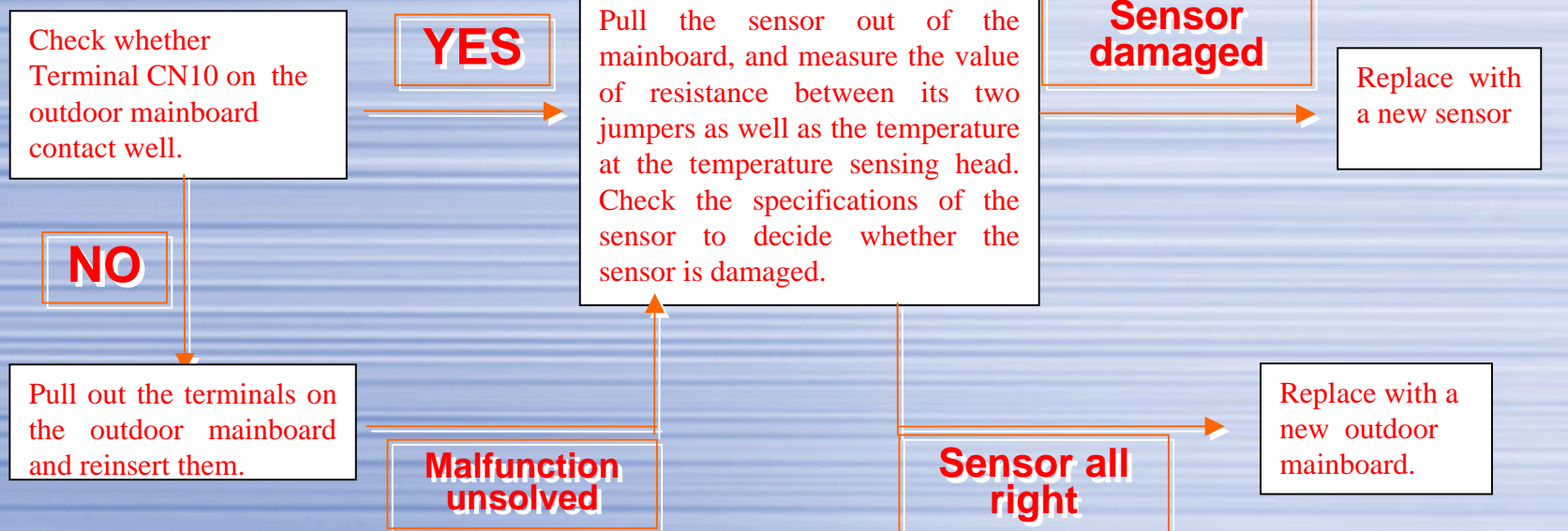
Countermeasure Flow Chart:



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	<input type="checkbox"/>	<input type="checkbox"/>	★		*	*

Countermeasure Flow Chart:

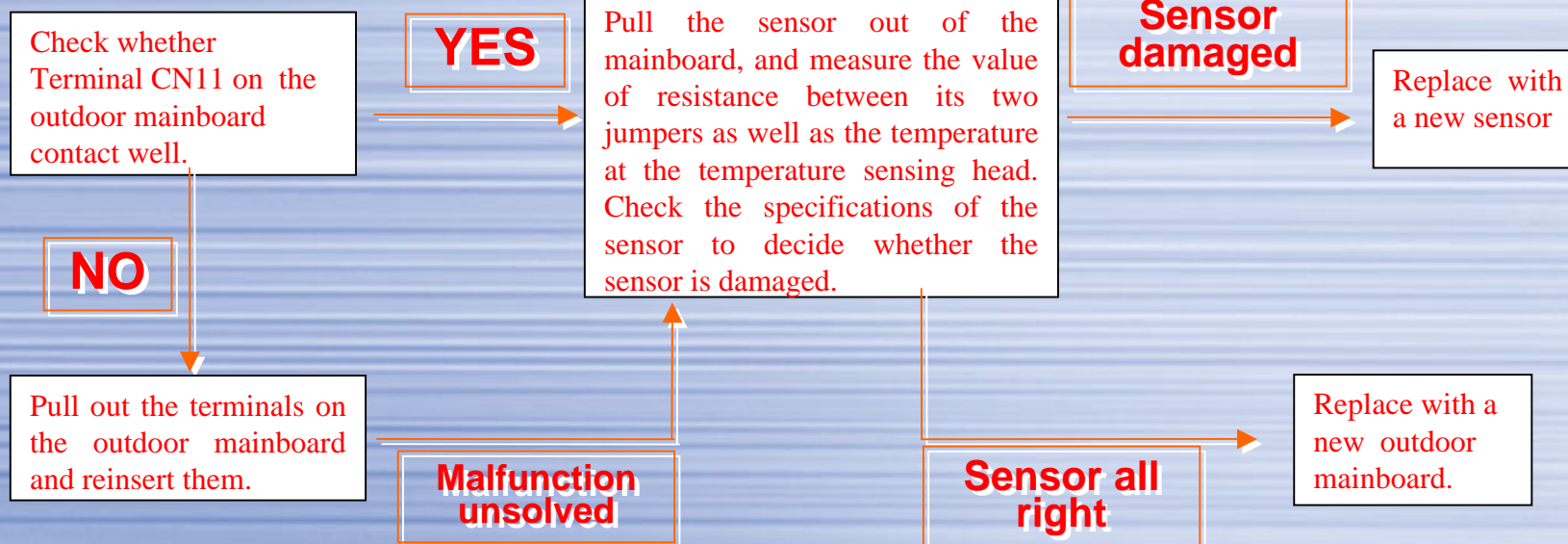


Countermeasures for Frequent Malfunctions (4)

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

Countermeasure Flow Chart:

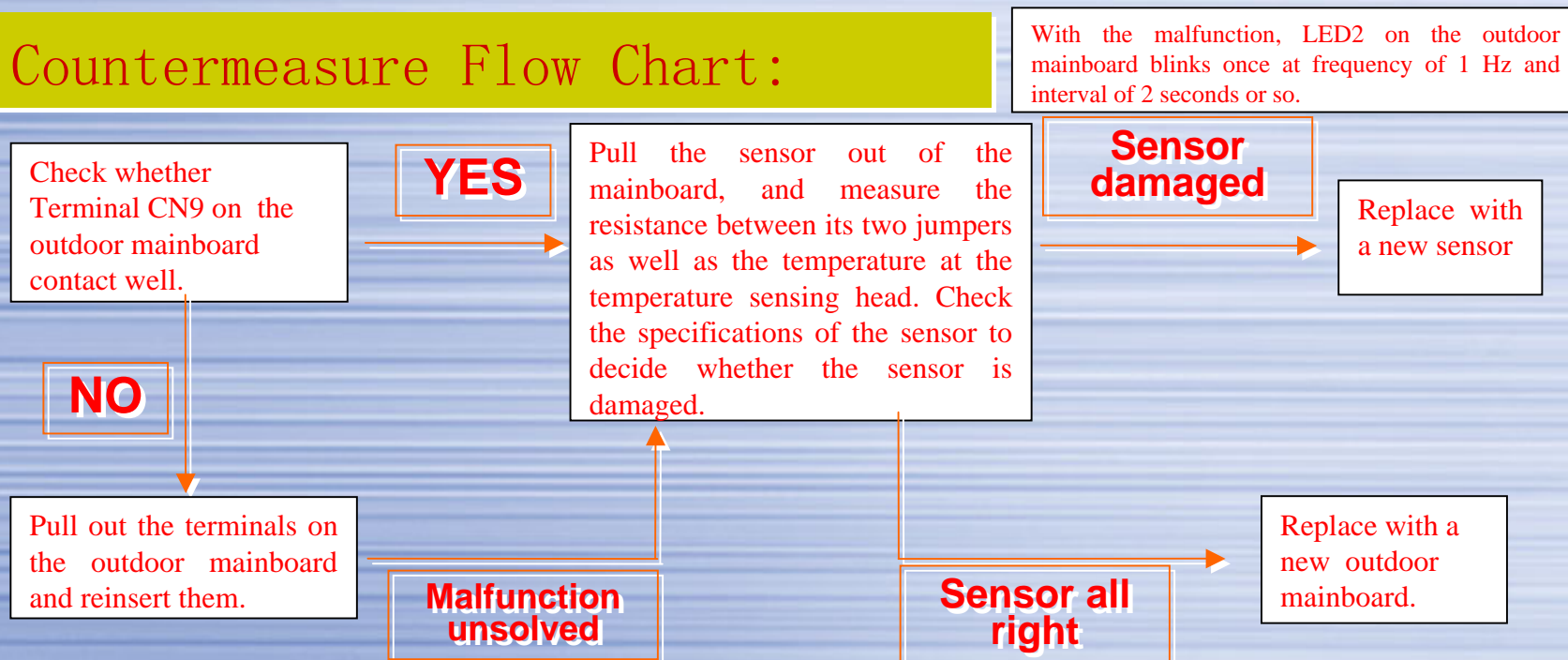
With the malfunction, LED2 on the outdoor mainboard blinks three times at frequency of 1 Hz and interval of 2 seconds or so.



Countermeasures for Frequent Malfunctions (5)

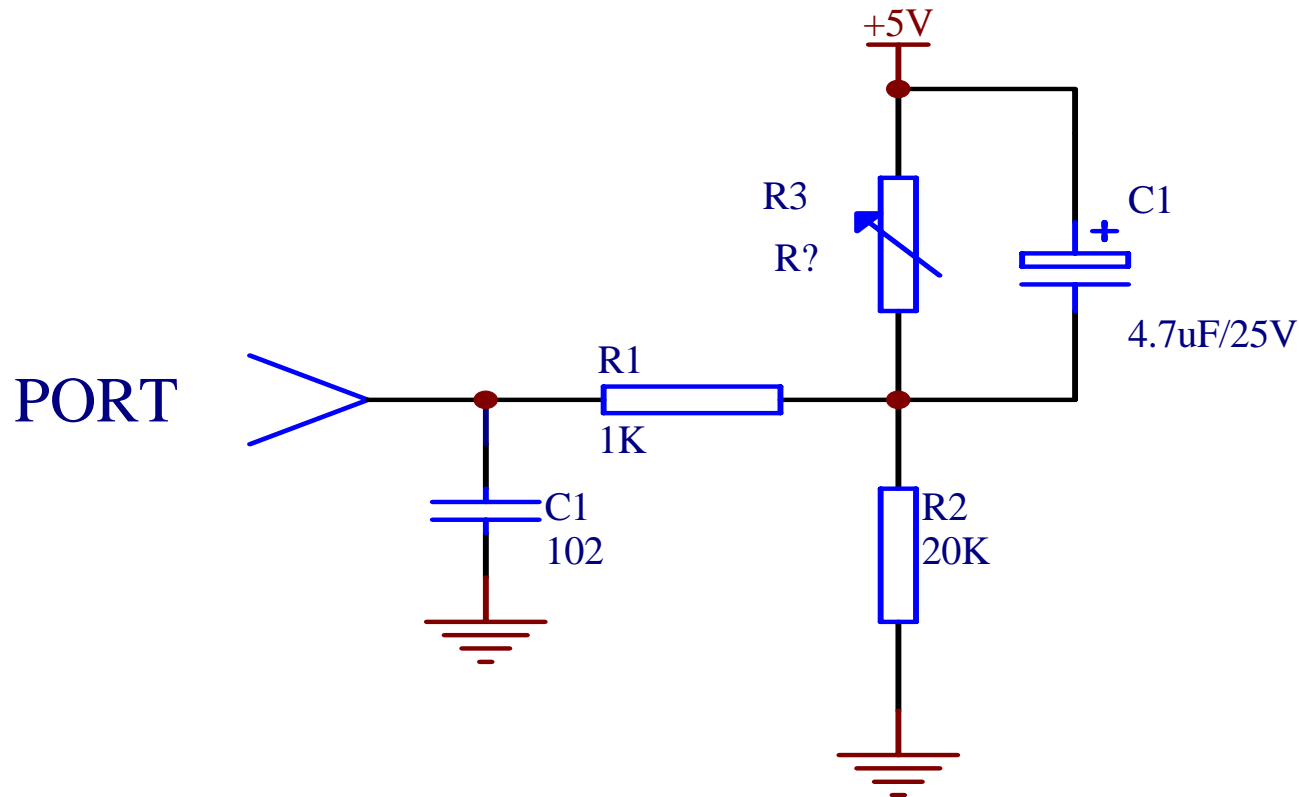
Content	Malfunction codes			Indoor Unit	Outdoor Unit	Auto Recover
	Power	Timer operate	operate			
		Heat	Cool			
Ambient temp sensor fault	□	★	■		*	*

Countermeasure Flow Chart:



Mechanism of Sensor Malfunctions

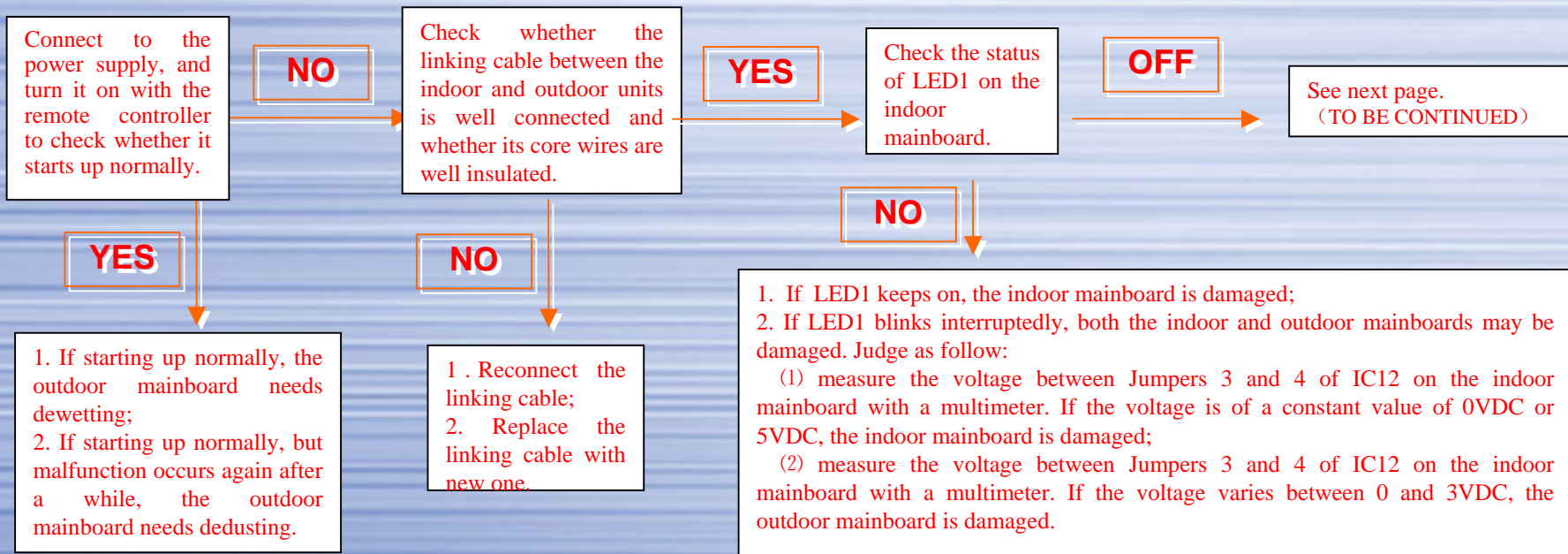
The A/D circuit of sensor is as follows:



Countermeasures for Frequent Malfunctions (6-1)

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 (6-2)

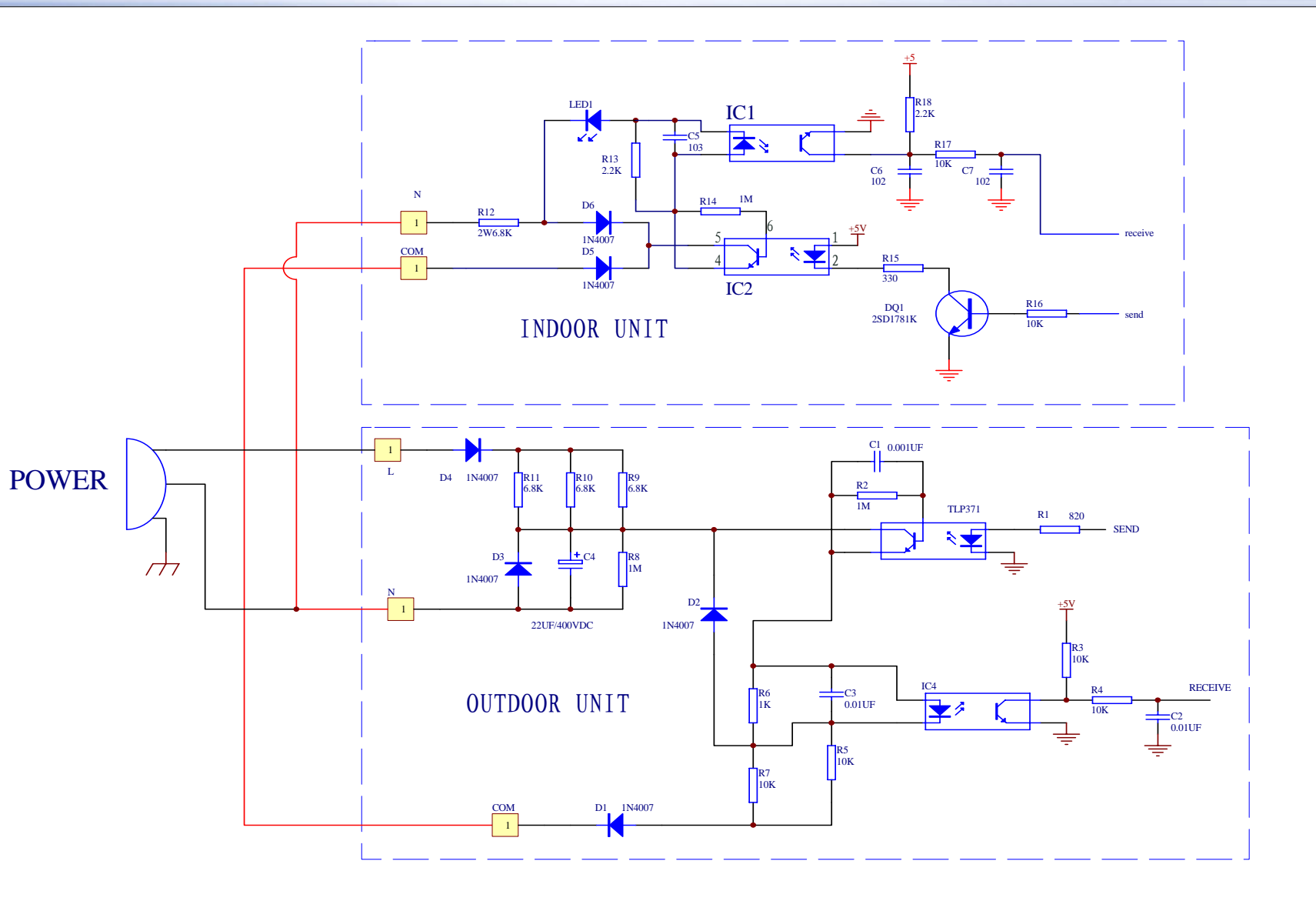
Content	Malfunction codes			Indoor Unit	Outdoor Unit	Auto Recover
	Power	Timer operate	operate			
		Heat	Cool			
Communication fault between the indoor and outdoor units	■	■	★	*	*	

Countermeasure Flow Chart (CONTINUE) :

LED1 of indoor mainboard is OFF.

Trouble shooting process:

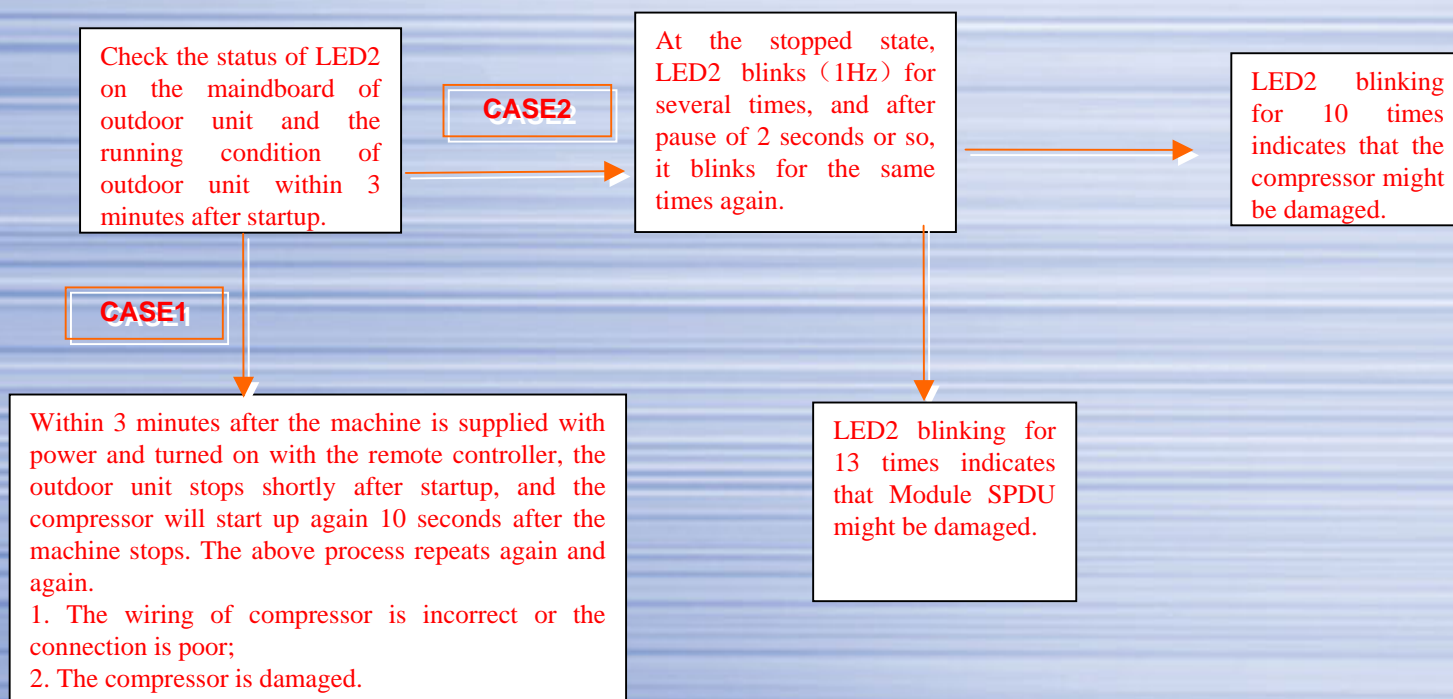
1. Test the outdoor power supply (230VAC and +310VDC) with a multimeter. If 230VAC is available but 310DC not, the SPDU (IPDU, HT) module is damaged, replace it with a new one. If both 230VAC and 310DC are available, go forward to step 2.
2. Measure the voltage across Jumpers 1 and 4 of Terminal CN7 on the outdoor mainboard with a multimeter. If +12DC 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 operate	Timer operate	Heat Cool			
Anomaly of compressor Running	★	■	□		*	

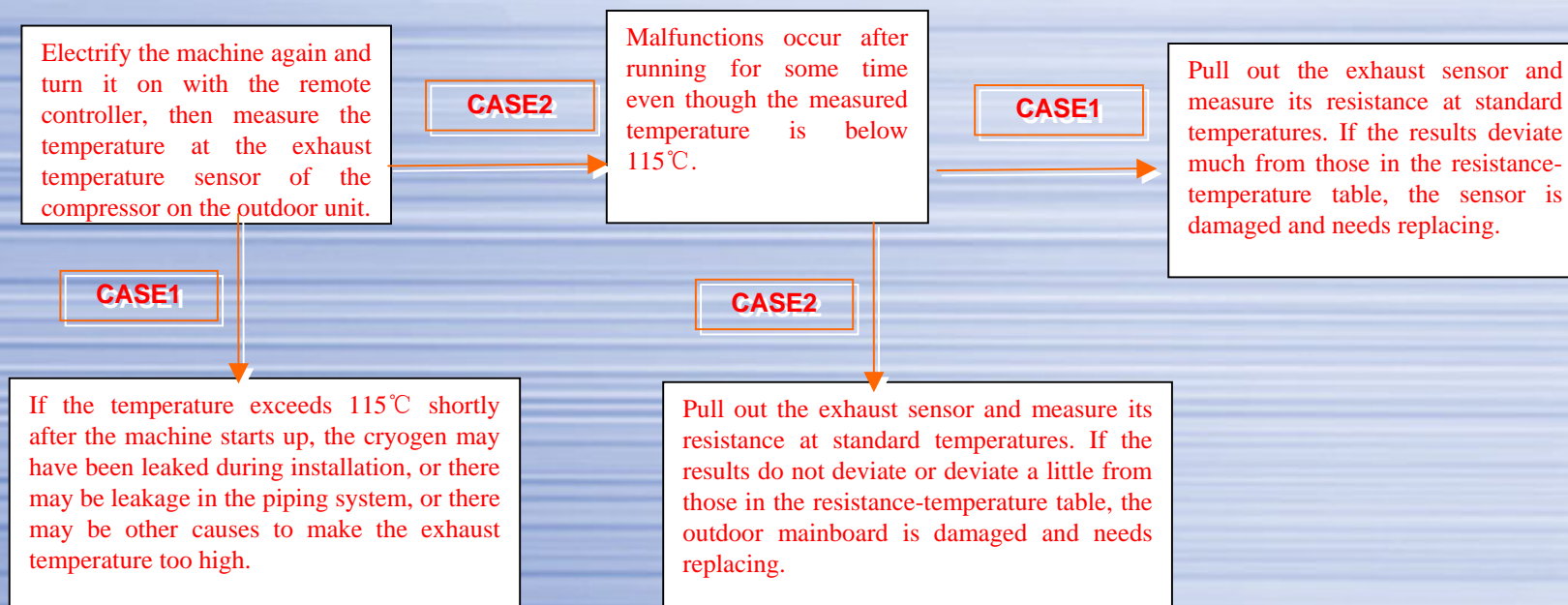
Countermeasure Flow Chart:



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:

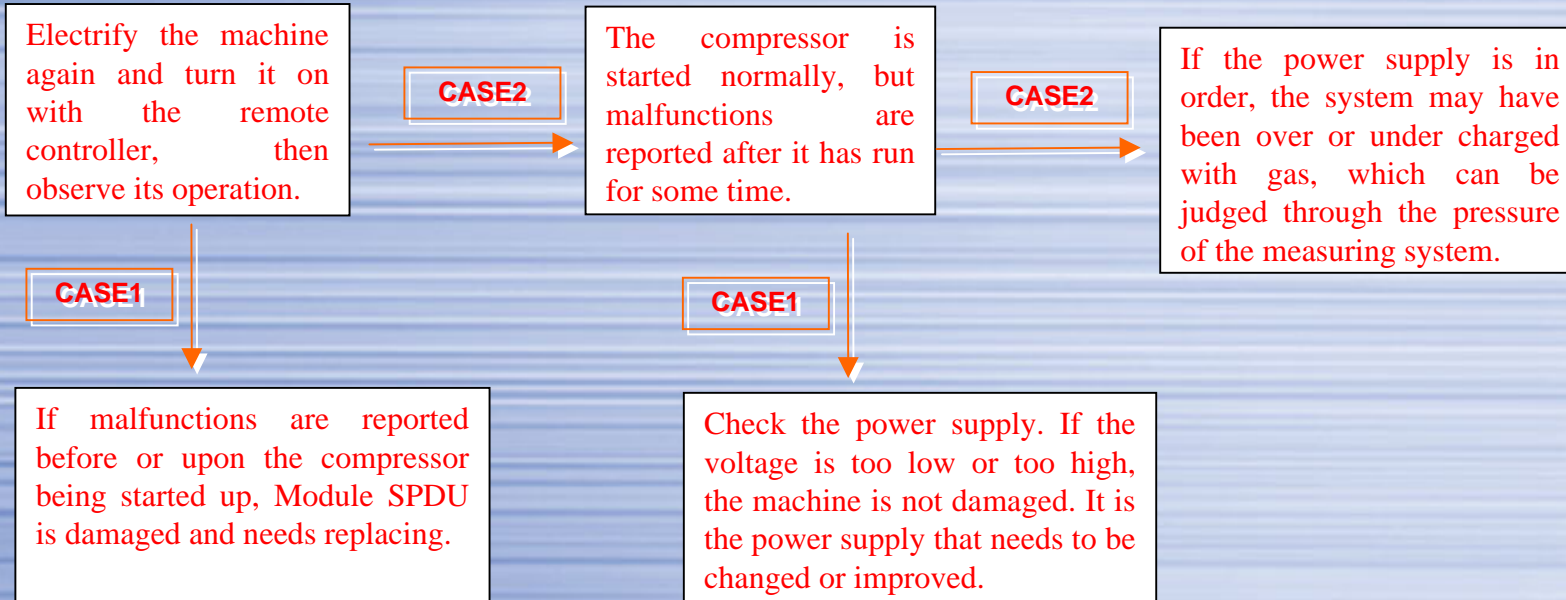


Countermeasures for Frequent Malfunctions (9)

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

Countermeasure Flow Chart:

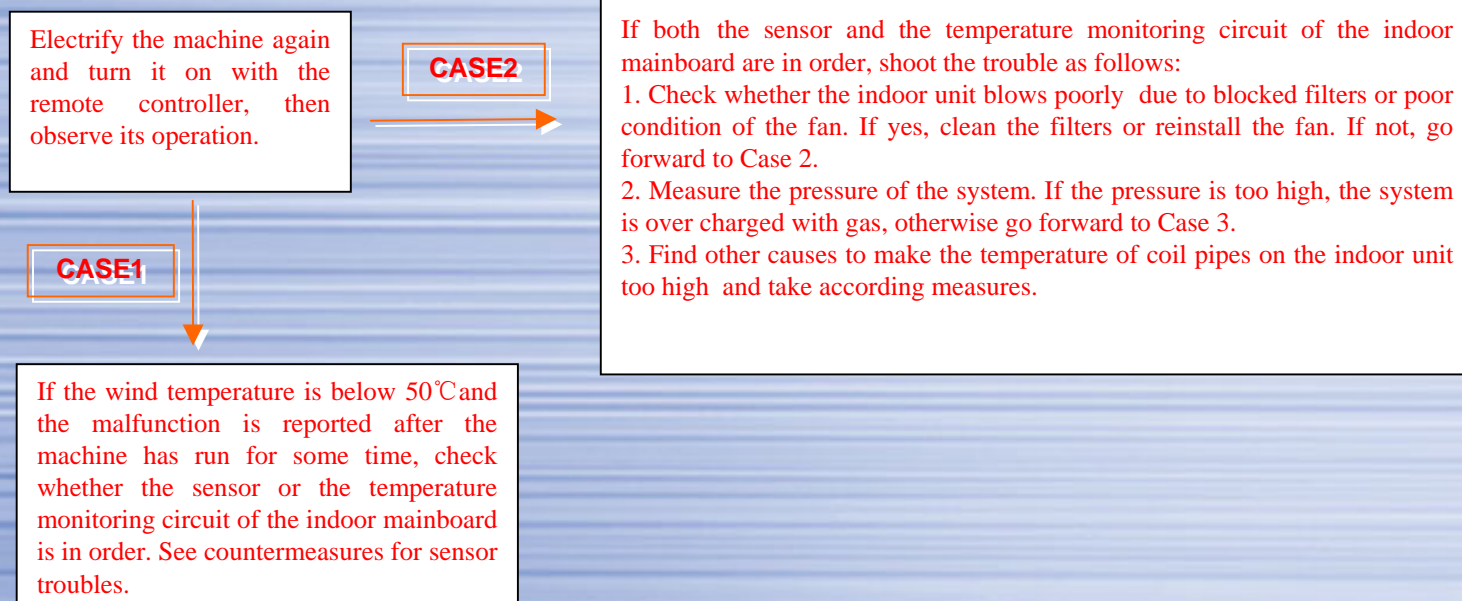
With this malfunction, LED2 on the outdoor mainboard blinks at a frequency of 1Hz and an interval of about 2 seconds for 14 times.



Countermeasures for Frequent Malfunctions (11)

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

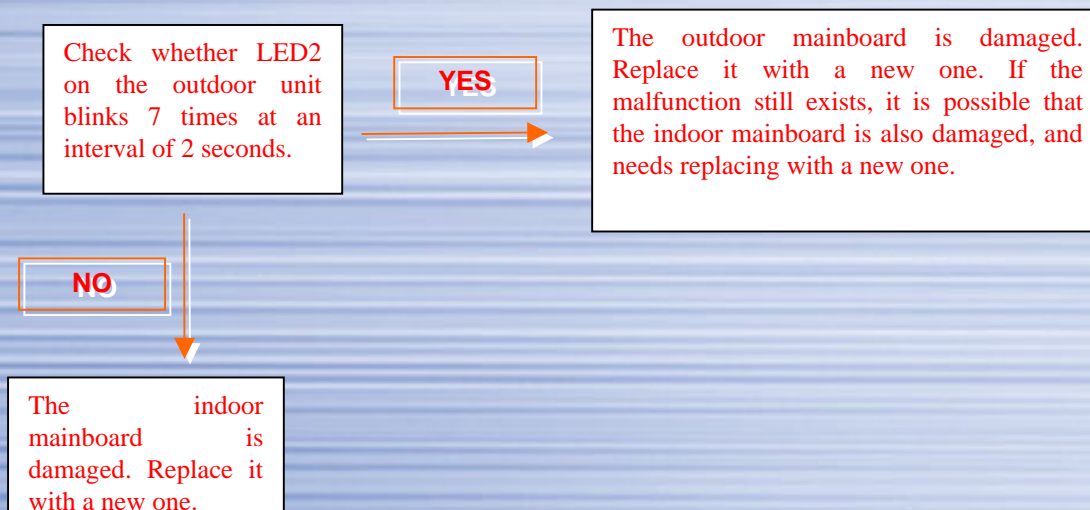
Countermeasure Flow Chart:



Countermeasures for Frequent Malfunctions (12)

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

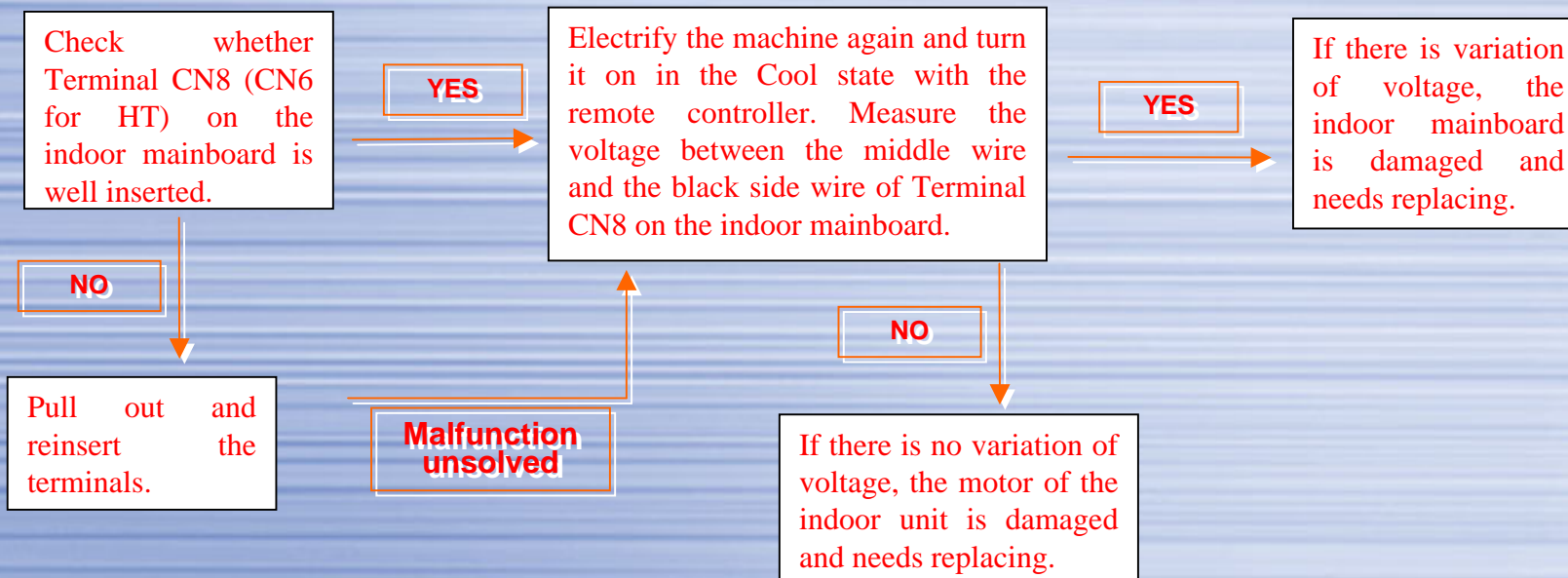
Countermeasure Flow Chart:



Countermeasures for Frequent Malfunctions (13)

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

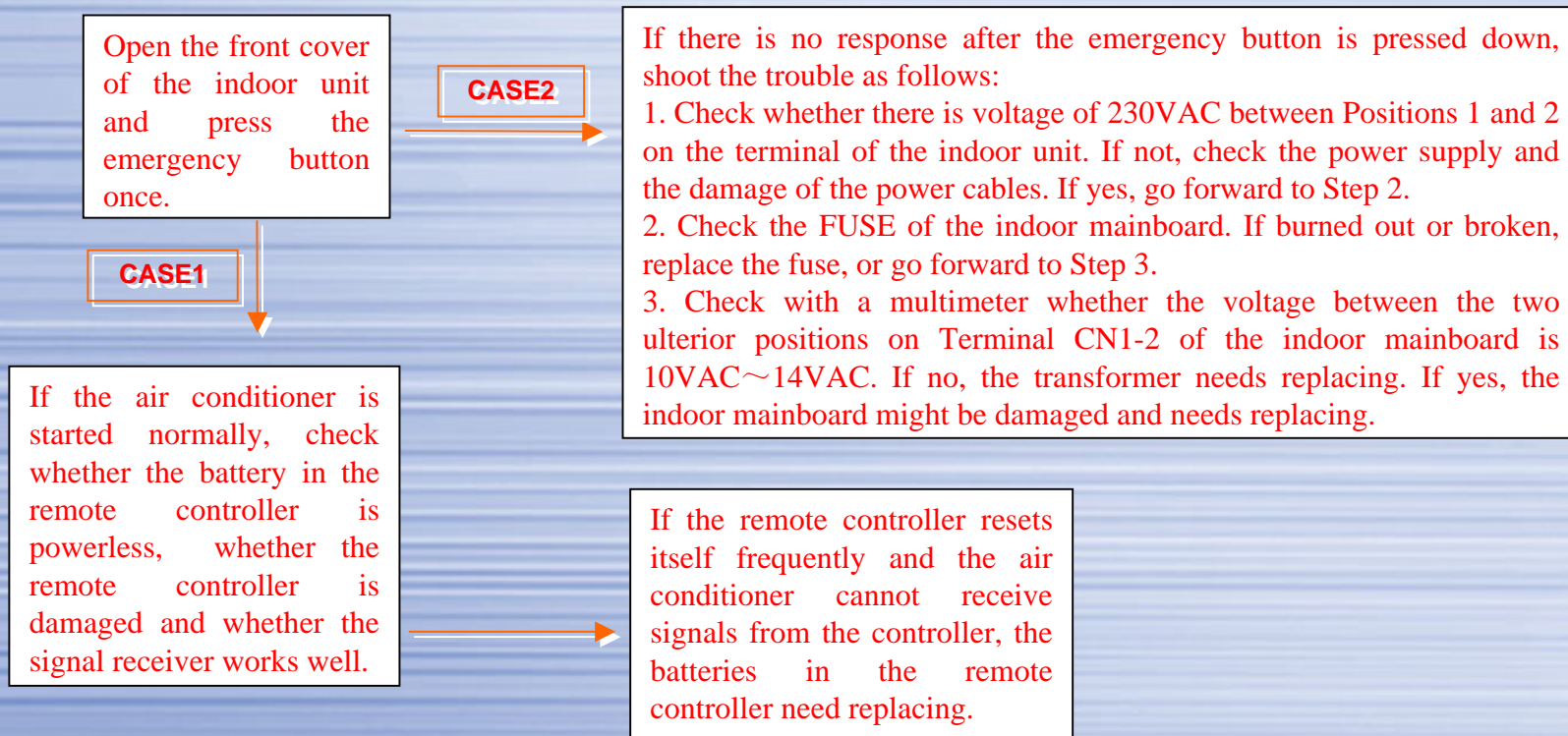
Countermeasure Flow Chart:



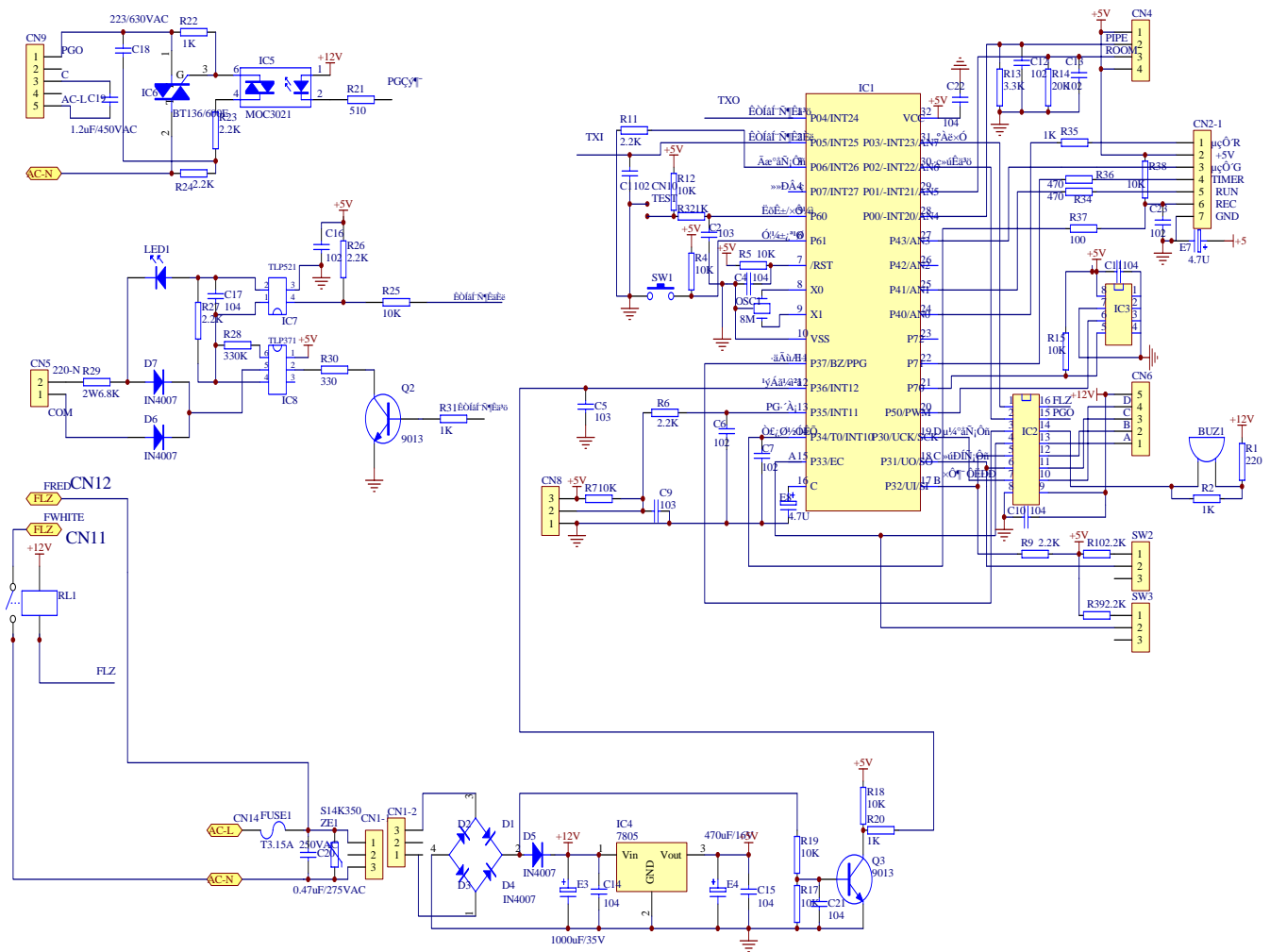
Countermeasures for Other Frequent Malfunctions (14)

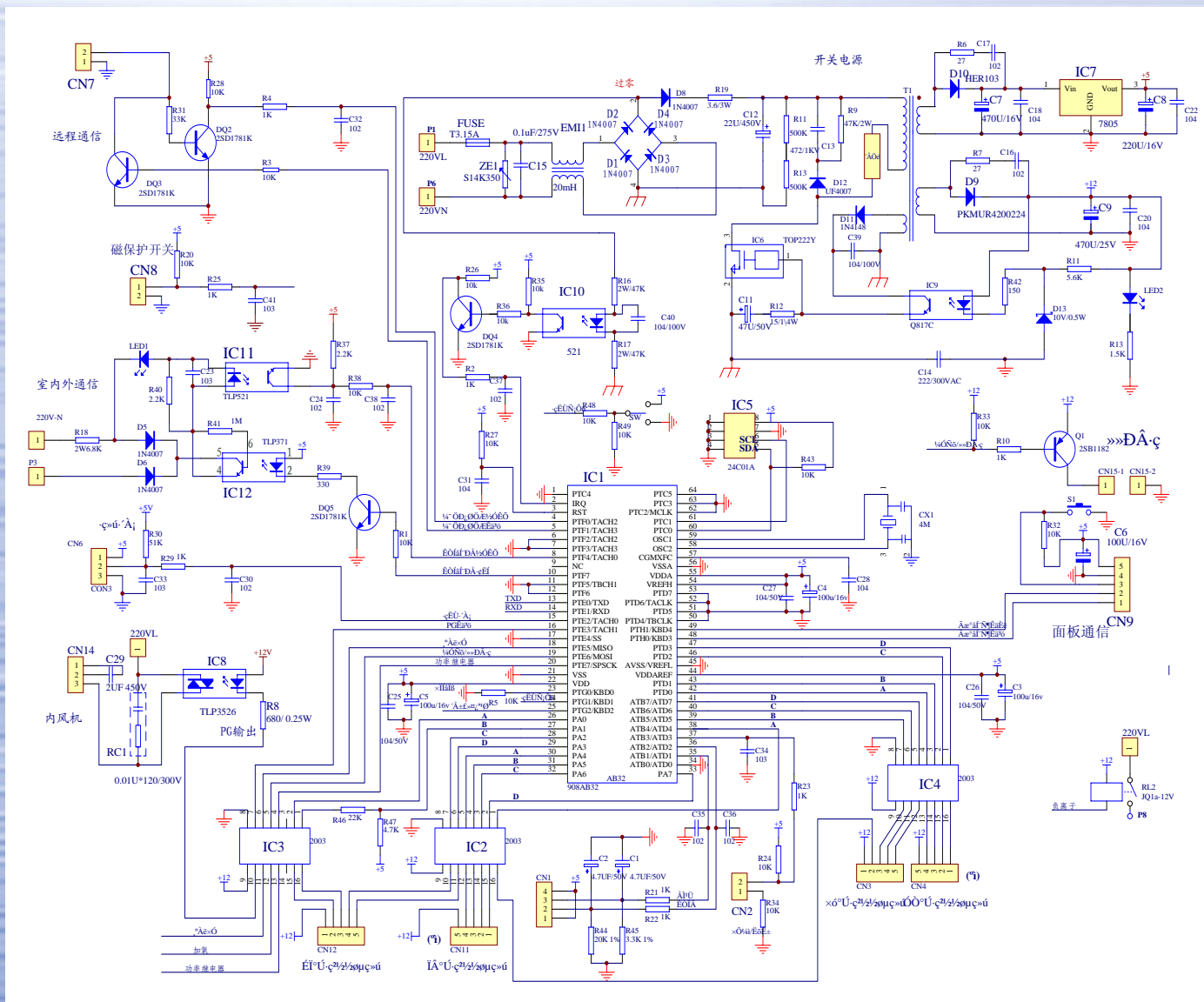
With the machine electrified, the remote controller cannot start it

Countermeasure Flow Chart:

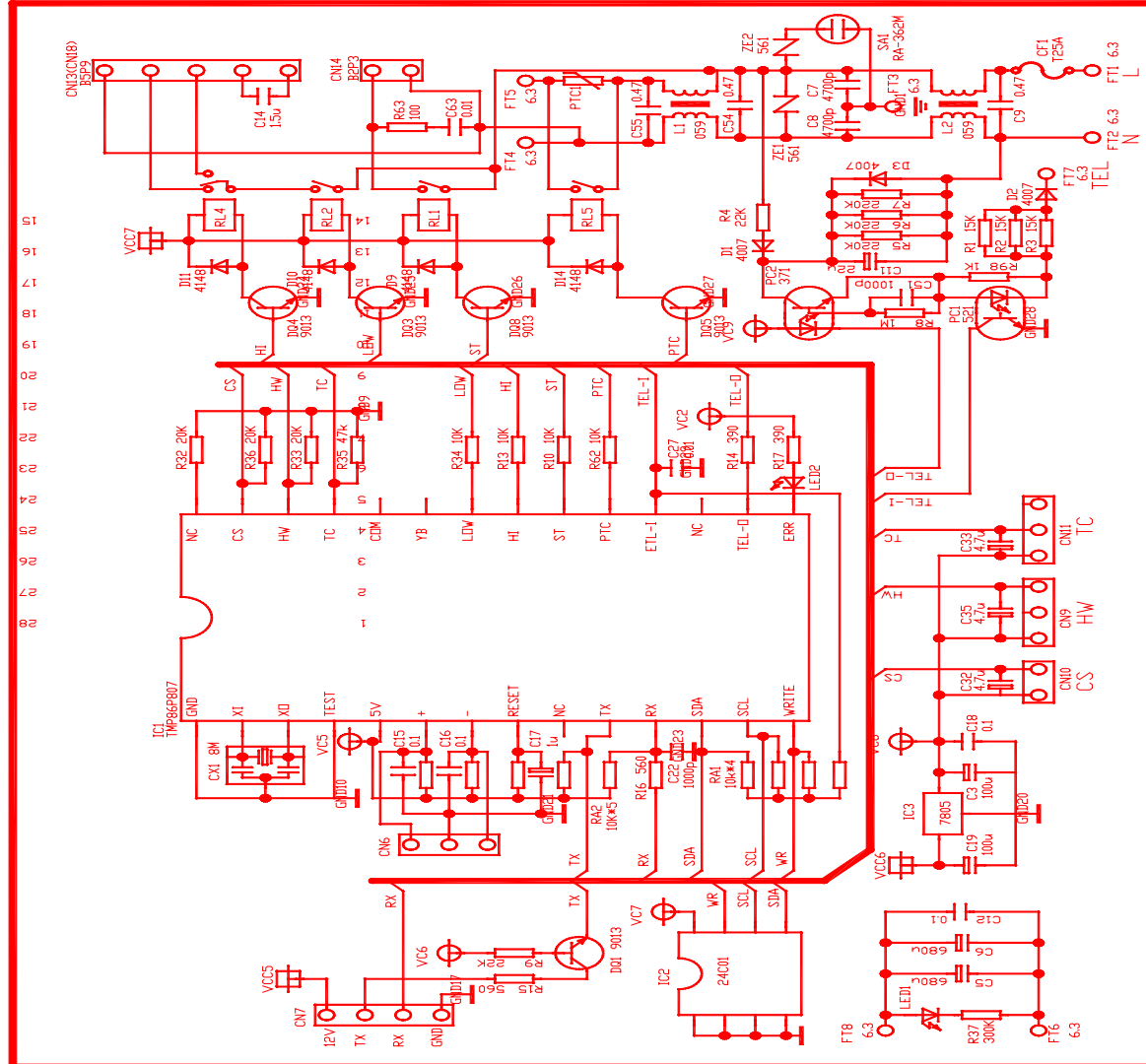


The figure on the right shows the electric diagram for the indoor unit of DC products with Model H Economical Series.

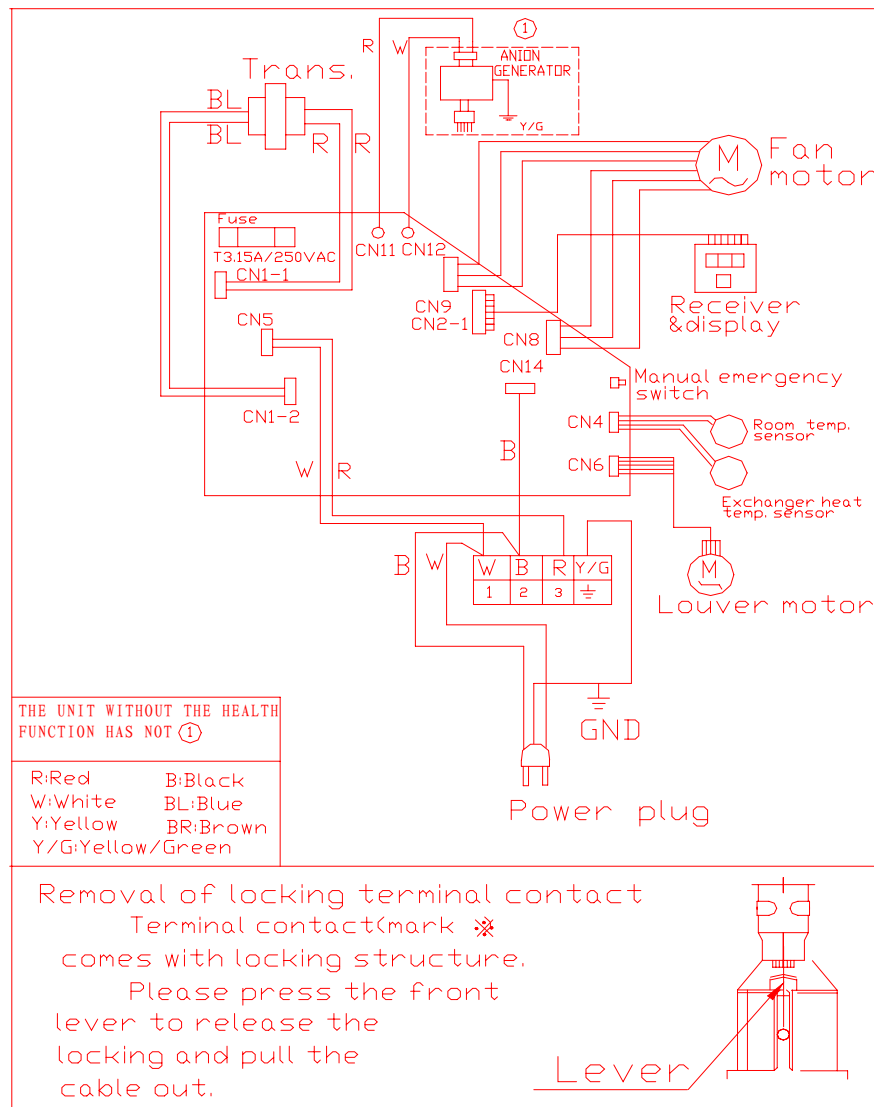




The figure on the right shows the electric diagram for the outdoor unit of DC products with both Model H Economical and Smart Eye Series.

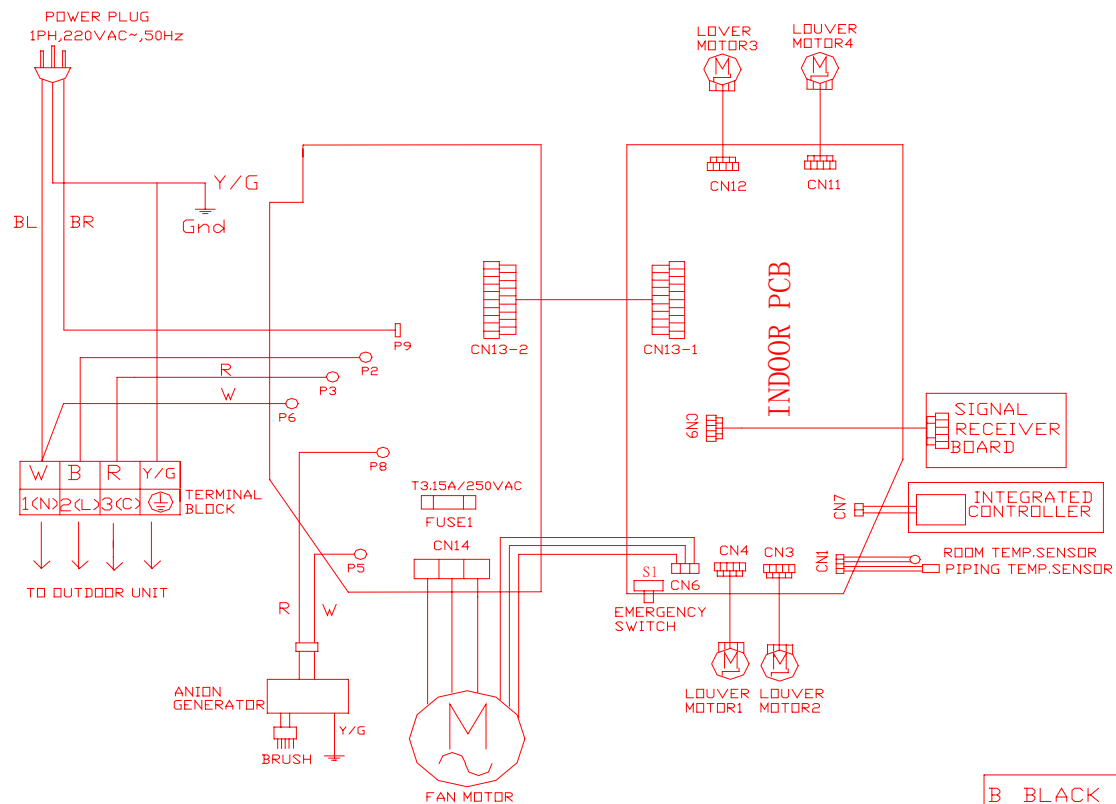


The figure on the right shows the wiring diagram for the indoor unit of DC products with Model H Economical Series.



The figure on the right shows the wiring diagram for the indoor unit of DC products with Smart Eye Series.

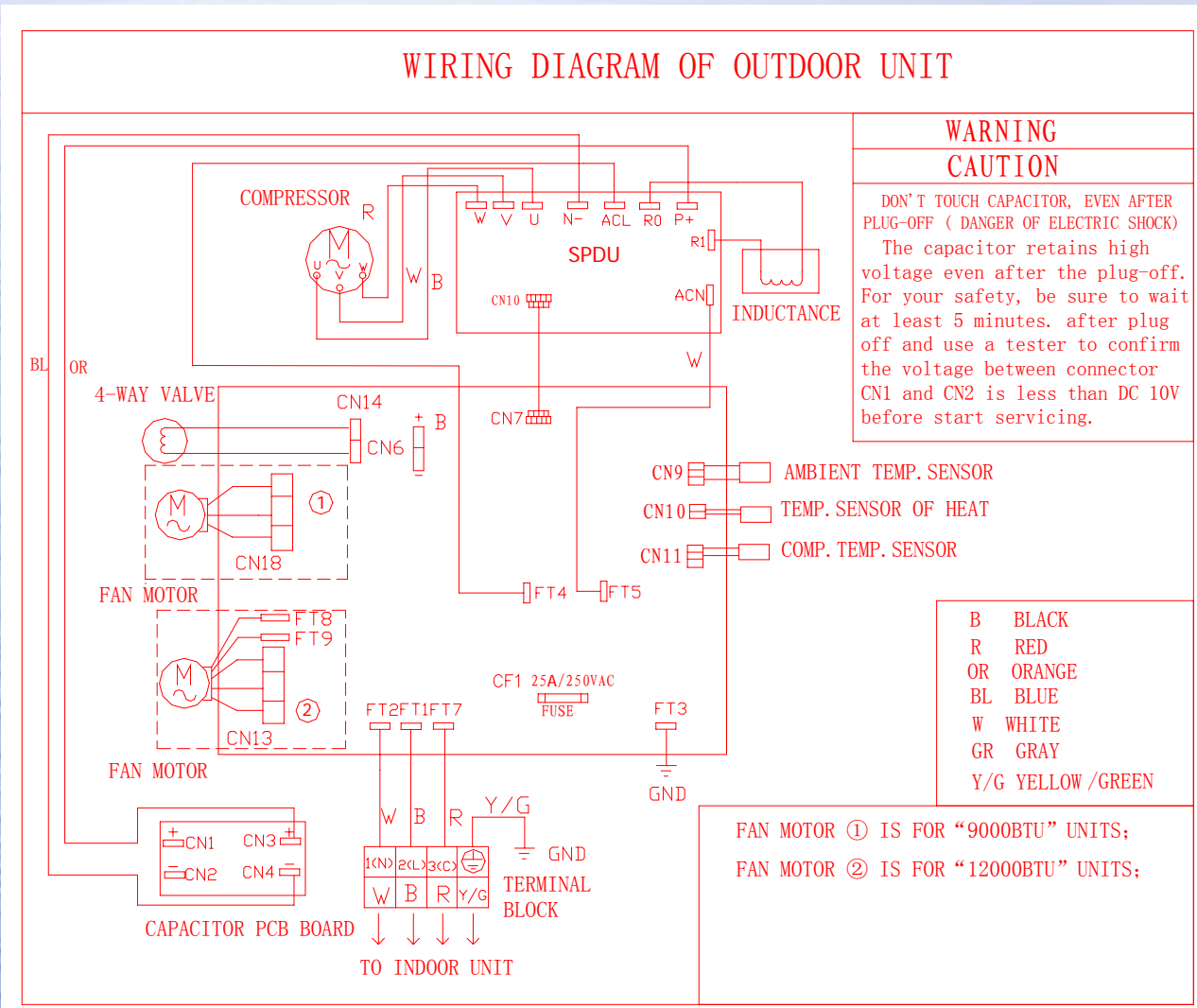
WIRING DIAGRAM OF INDOOR UNIT



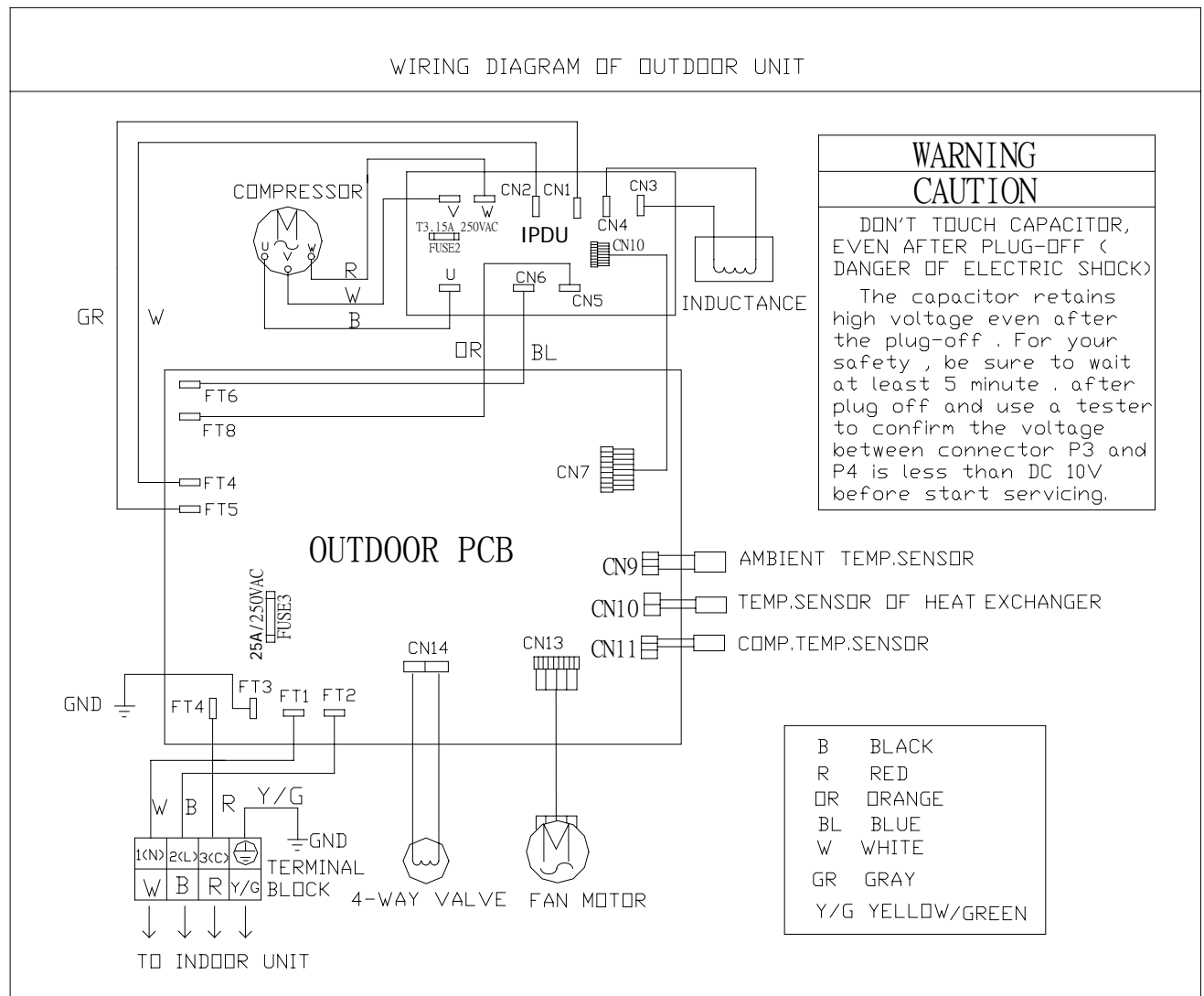
NOTE: You can choose the part in dashed frame or not.

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

The figure on the right shows the wiring diagram for the outdoor unit of DC products with Model H Economical Series.



The figure on the right shows the wiring diagram for the outdoor unit of DC products with Smart Eye Series.





THANKS!