

TITAN SERIES

Service Manual

2023

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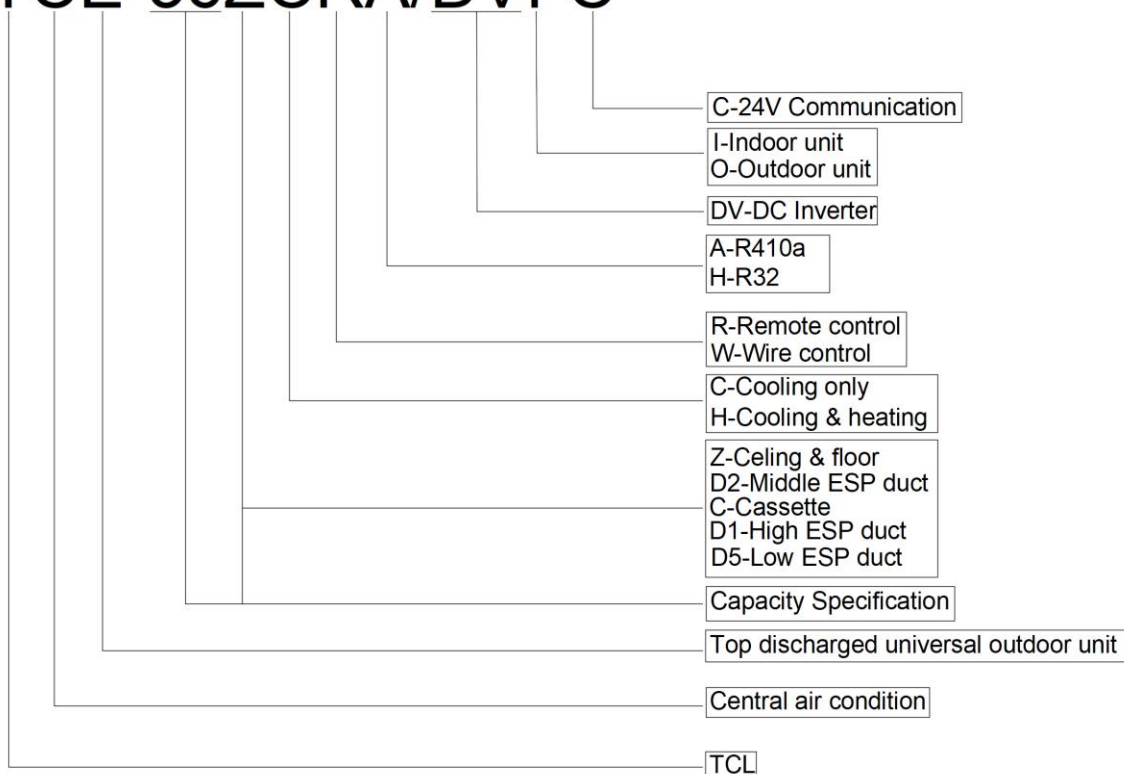
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Part 1 General Information

1. Nomenclature

TCE-36ZCRA/DVI-C



2. Model Names of Indoor/Outdoor Units

2.1 Indoor units

Cooling only				
Indoor units type	Indoor units model	Capacity (Btu/h)	Capacity(k)	Power supply
Ceiling & Floor	TCE-36ZCRA/DV2I-C	36000	10551	220V 50/60Hz 1Ph
	TCE-55ZCRA/DV2I-C	55000	16120	220V 50/60Hz 1Ph

Cooling only				
Indoor units type	Indoor units model	Capacity (Btu/h)	Capacity(k)	Power supply
Cassette	TCE-36CCRA/DV2I-C	36000	10551	220V 50/60Hz 1Ph
	TCE-55CCRA/DV2I-C	55000	16120	220V 50/60Hz 1Ph

2.2 Outdoor units

Cooling only				
Outdoor units type	Outdoor units model	Power supply	Compressor mode	Compressor brand
Outdoor unit	TCE-36CA/DV2O-C	220V/60Hz/1Ph	KTM240D43UMT	GMCC
	TCE-55CA/DV2O-C	220V/60Hz/1Ph	GTH420SKPC8DQ	HIGHLY

3. External Appearance

3.1 Indoor Units

Ceiling & Floor type



Cassette



3.2 Outdoor Units



4. Features

This news series has below outstanding improvements and features.

1. Frequency conversion control, high efficiency and energy saving.
2. Elegant appearance.
3. Seasonal comprehensive energy efficiency up to SEER16.
4. Compact body with more competitive loading capacity.
5. Reliable and well-known compressors.
6. RS485(12V) & 24V control start-up, safety.
7. Electronic expansion valve to achieve accurate flow closure.
8. Easy to install the unit.

Part 2 Troubleshooting

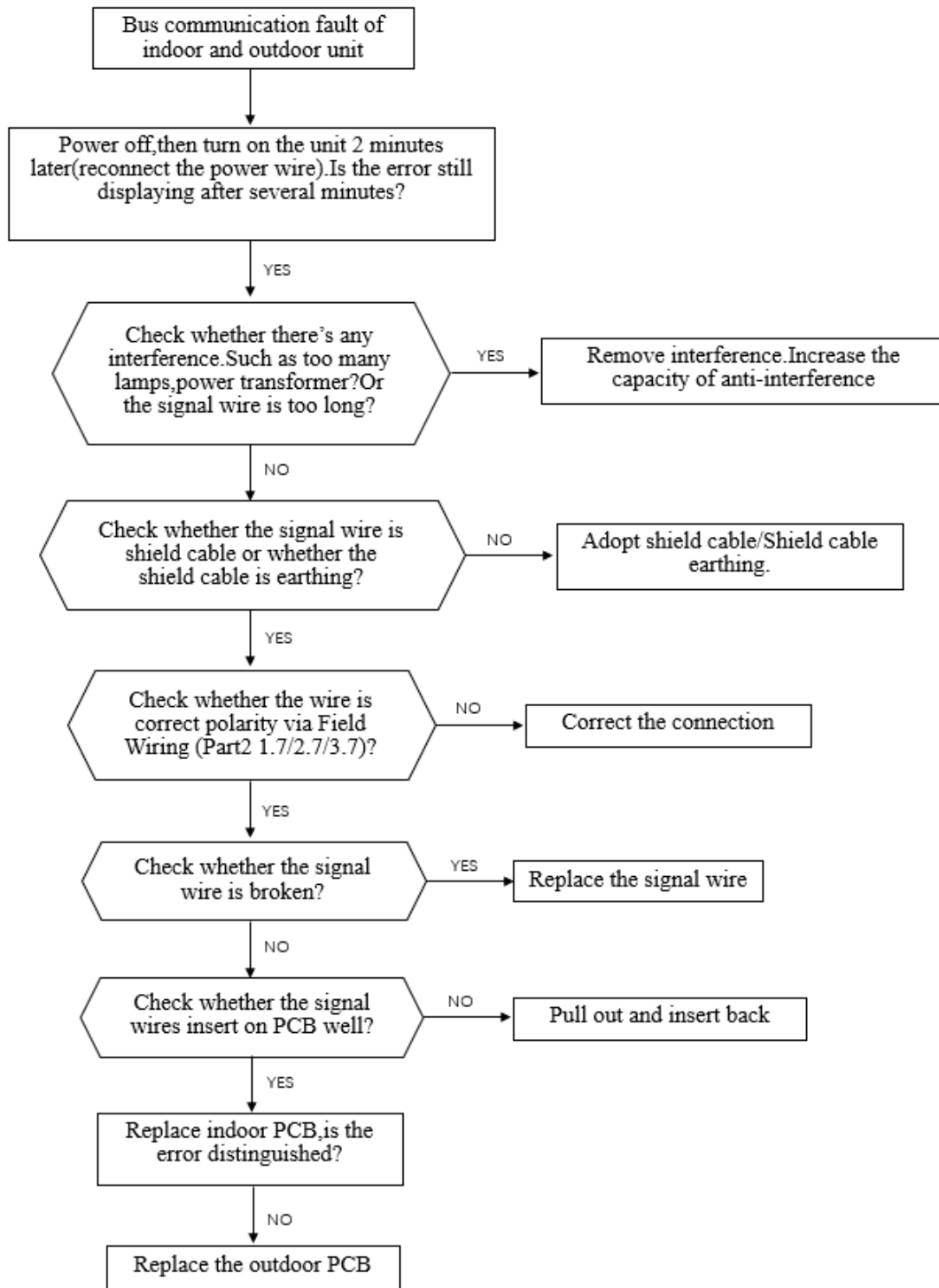
1. Self-diagnosis

The display content of indoor LED	The definition of failure or protection
Eo	The indoor-outdoor communication goes wrong.
E1	The Room Temperature Sensor T1 goes wrong.
E2	The Internal Coil Temperature sensor T2 goes wrong.
E3	The External Temperature Sensor T3 goes wrong.
E4	The outdoor unit goes wrong.
E5	The model configuration processing goes wrong.
E6	The indoor fan goes wrong and/or the communication between the indoor DC fan and the indoor main control panel goes wrong.
E7	The Outdoor Temperature Sensor T4 goes wrong.
E8	The exhaust temperature sensor (TP1 of variable-frequency compressor) goes wrong
E9	The variable-frequency module goes wrong.
Ec	The outdoor communication goes wrong.
EE	The EEPROM goes wrong (The E2 of the outdoor unit goes wrong).
EF	The outdoor fan goes wrong.
Ed	The EEPROM of main control panel goes wrong.
D3	Water full protection
C5	The communication between the indoor unit and the wire controller goes wrong.
Po	Module protection
P1	over/Under-voltage protection
P2	Over-current protection (Variable-frequency compressor)
P3	Outdoor unit protection
P4	Exhaust high-temperature protection (Variable-frequency compressor or Slave F3)
P5	Under-cooling protection in the cooling mode (Indoor unit coil temperature protection)
P6	over-heating protection in the cooling mode (Condenser high-temperature protection)
P7	Over-heating protection in the heating mode (Indoor unit coil temperature protection)
P8	Outdoor high/low-temperature protection
P9	Drive protection (load abnormal)
PA	The modes conflict and the top air-out board communication goes wrong
F2	Exhaust temperature sensor failure protection of outdoor unit
F3	Coil temperature sensor failure protection of outdoor unit

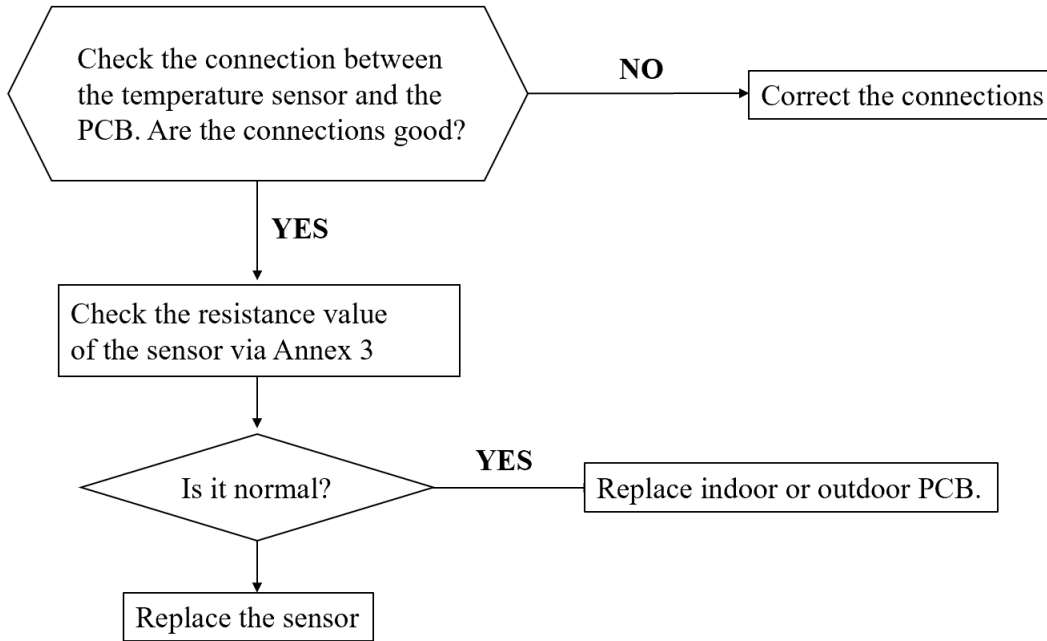
H1	High pressure switch protection
H2	Low pressure switch protection
Fy	Insufficient of refrigerant protection

2. Solving steps for typical malfunction

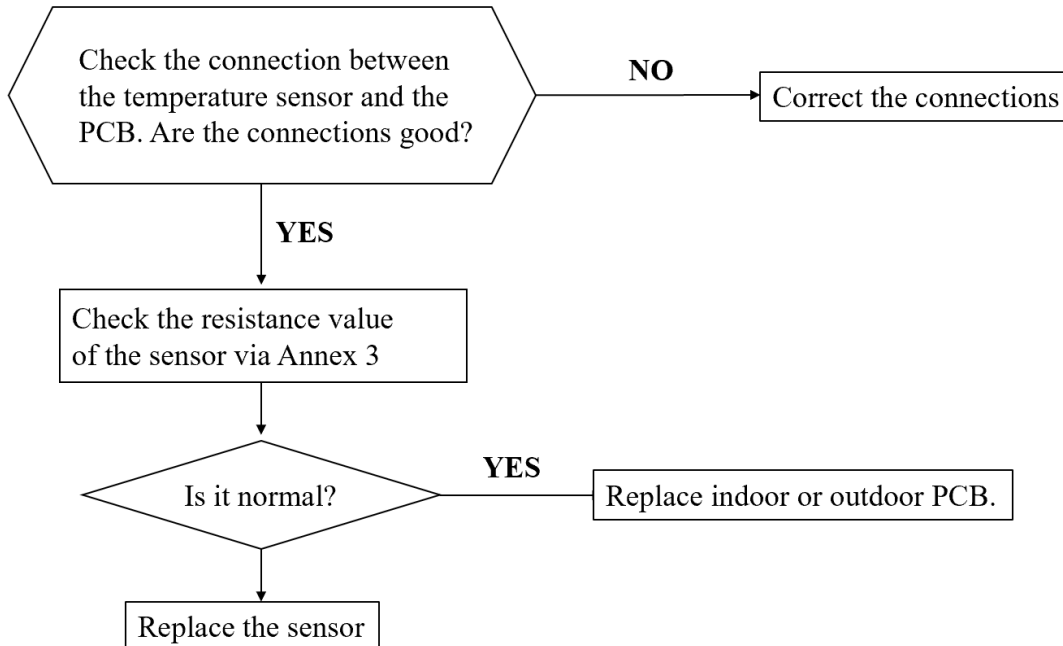
E0:Bus communication fault of indoor and outdoor unit



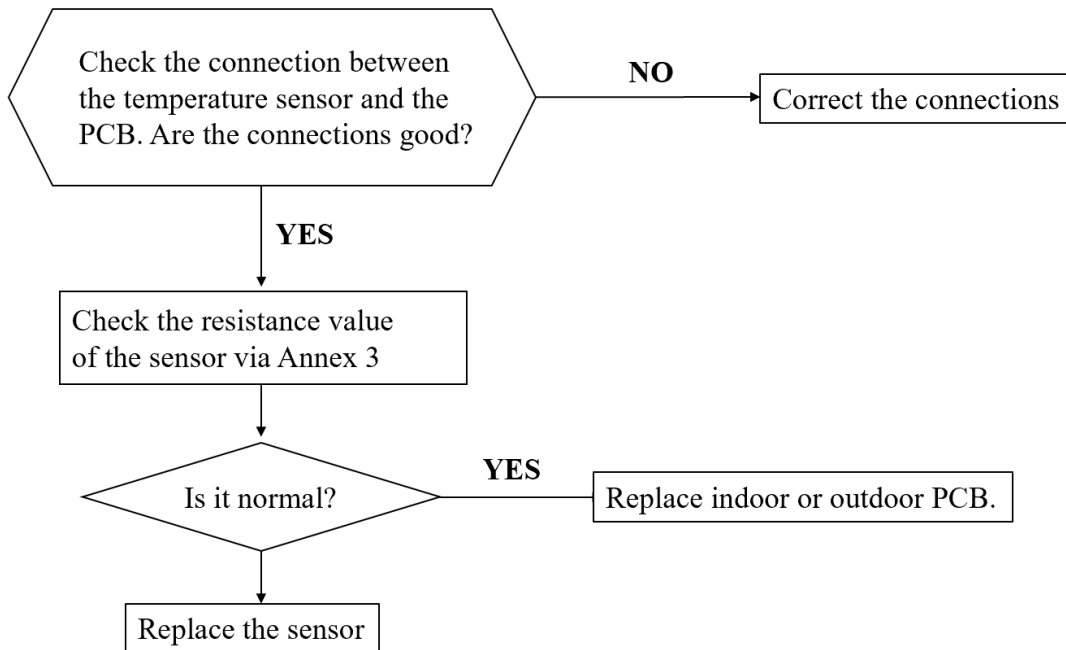
E1:Indoor temperature sensor failure



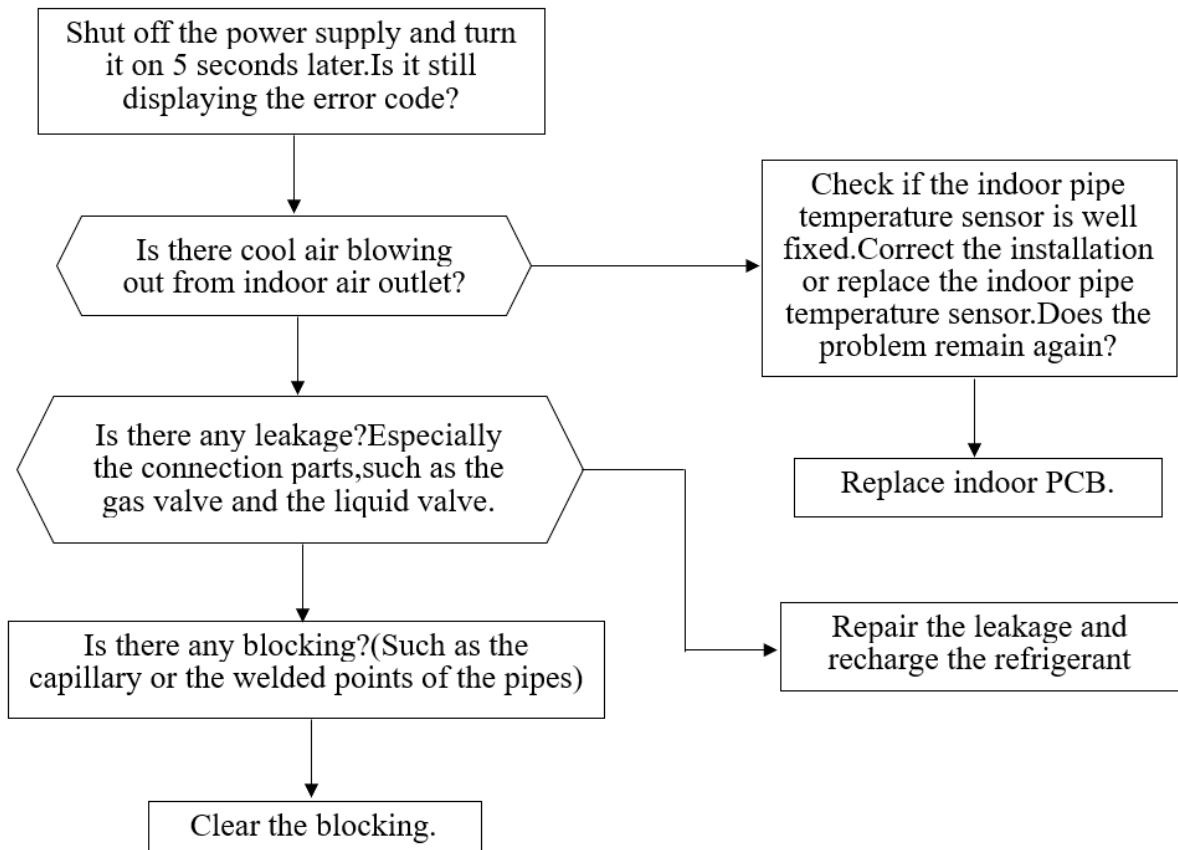
E2:Evaporator temperature sensor failure



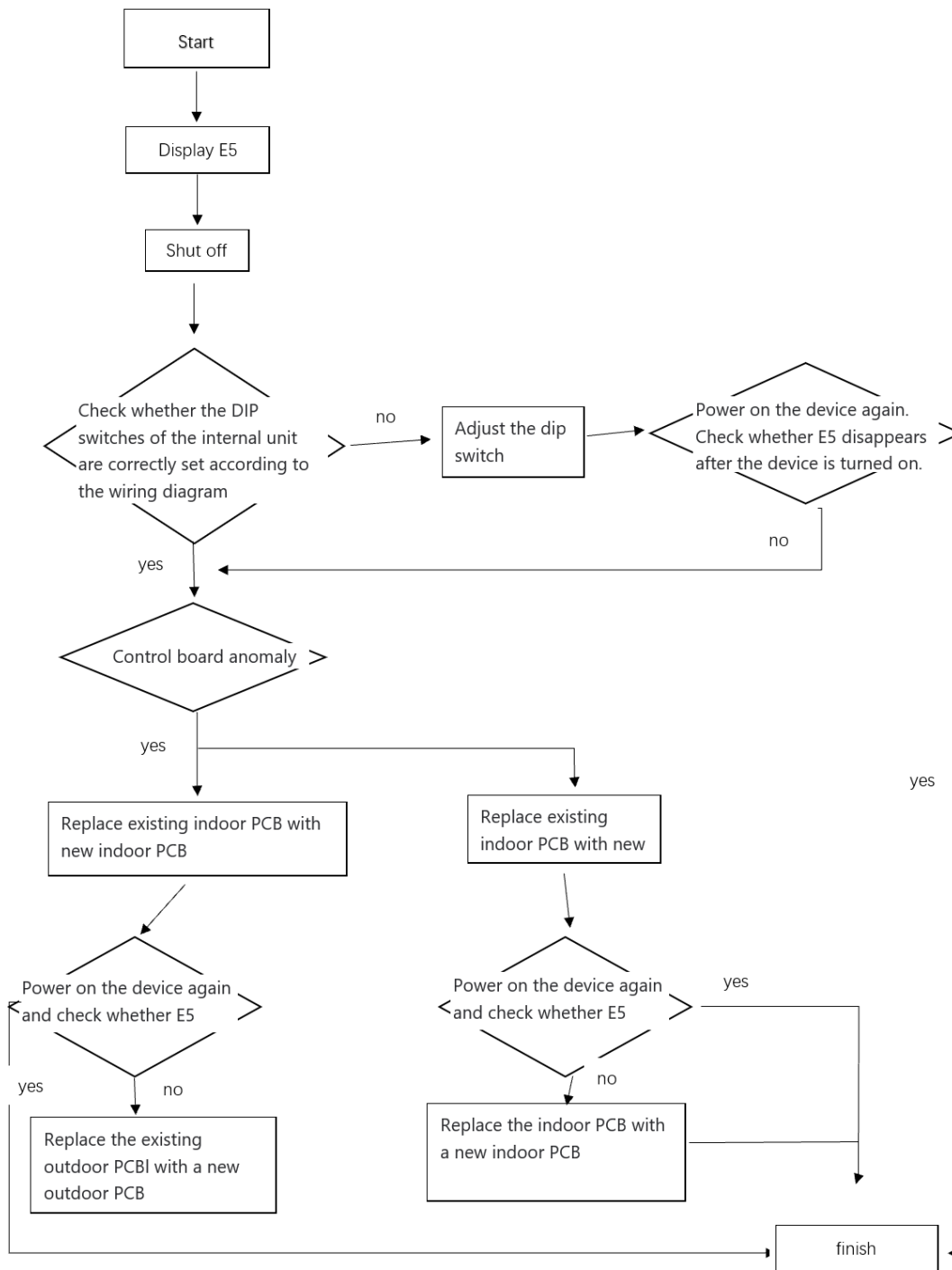
E3:Condenser temperature sensor failure (cooling&heating)



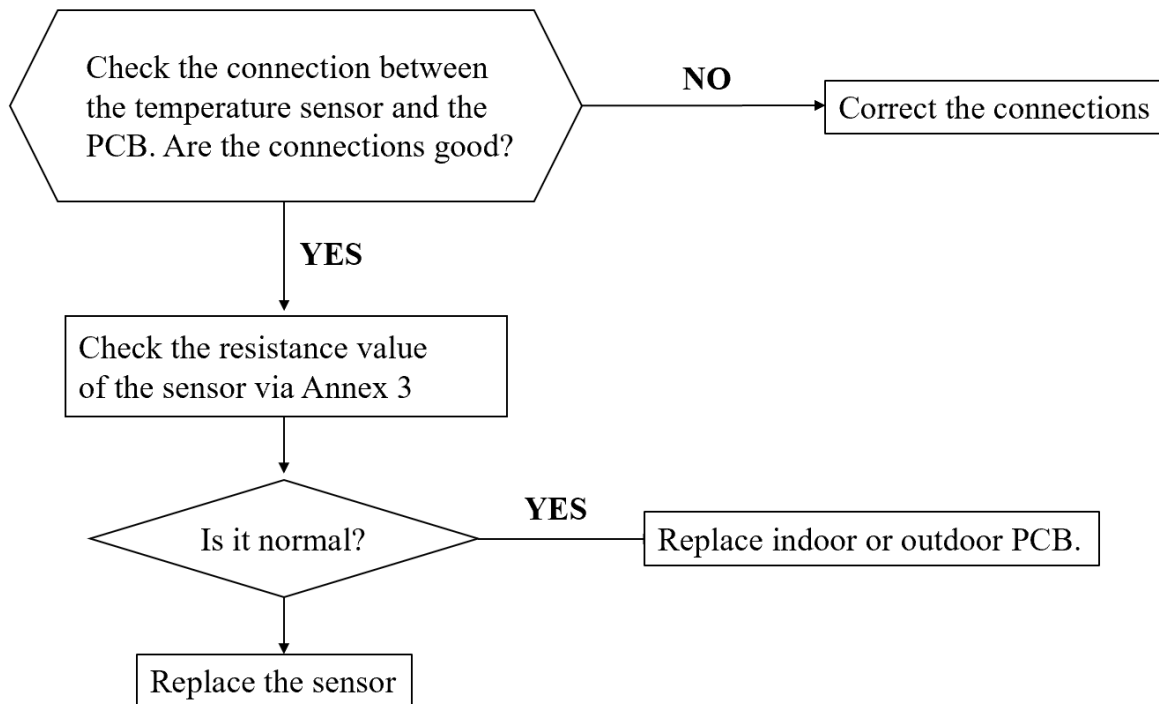
E4:Lack of refrigerant protection



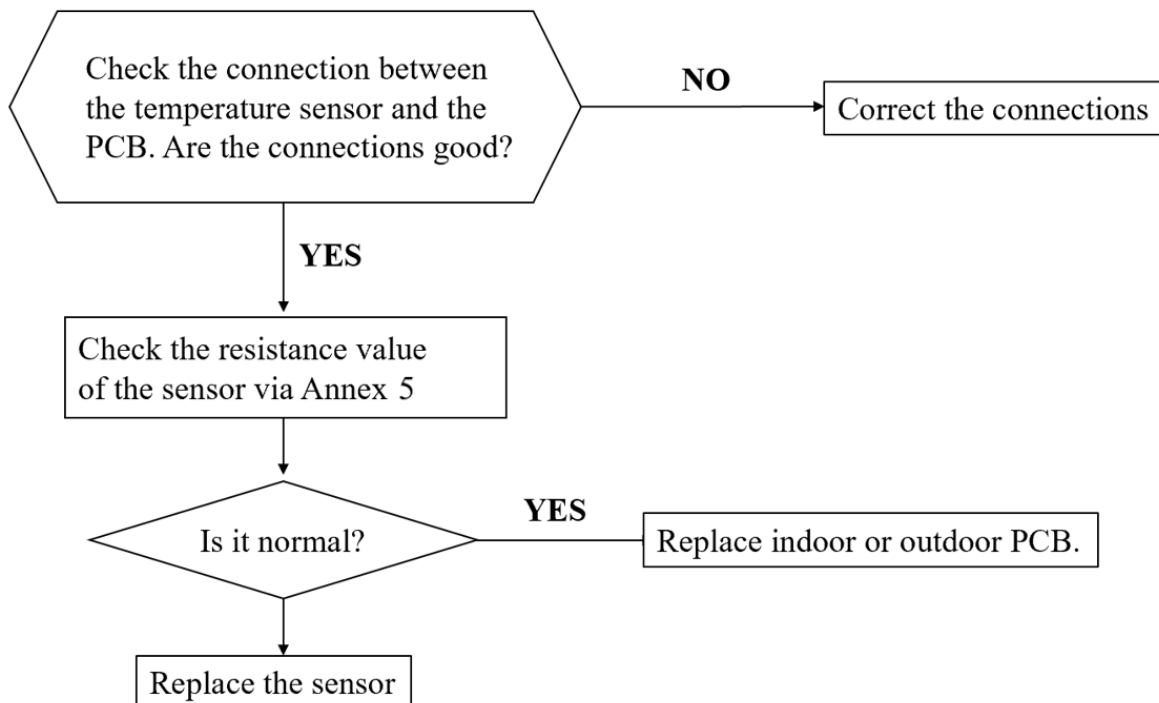
E5 The model configuration processing goes wrong.



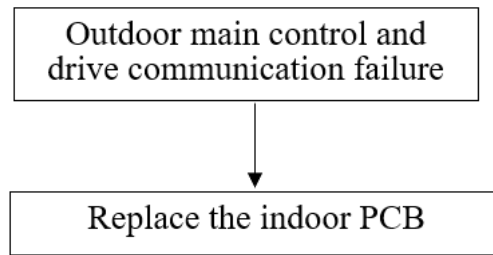
E7: Outdoor temperature sensor failure



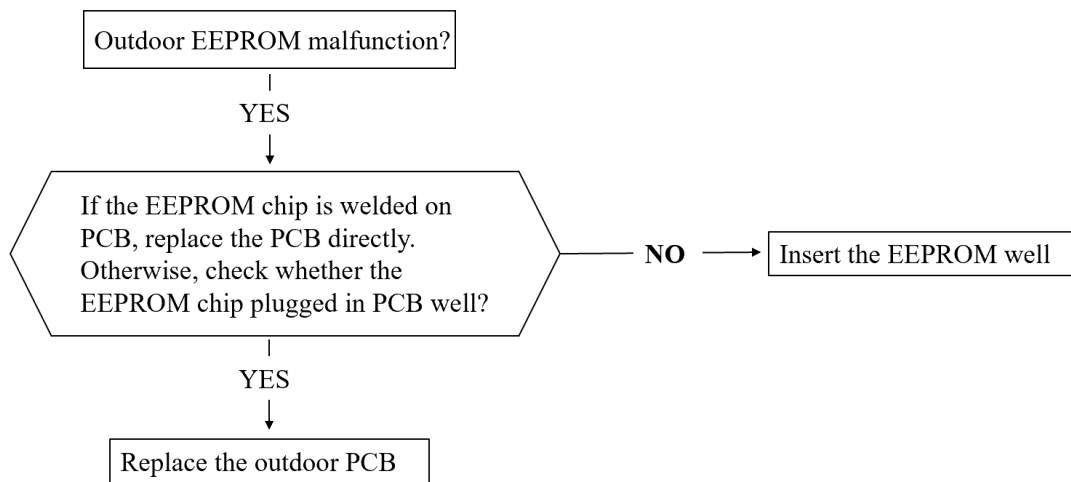
E8: Compressor discharge temperature sensor failure



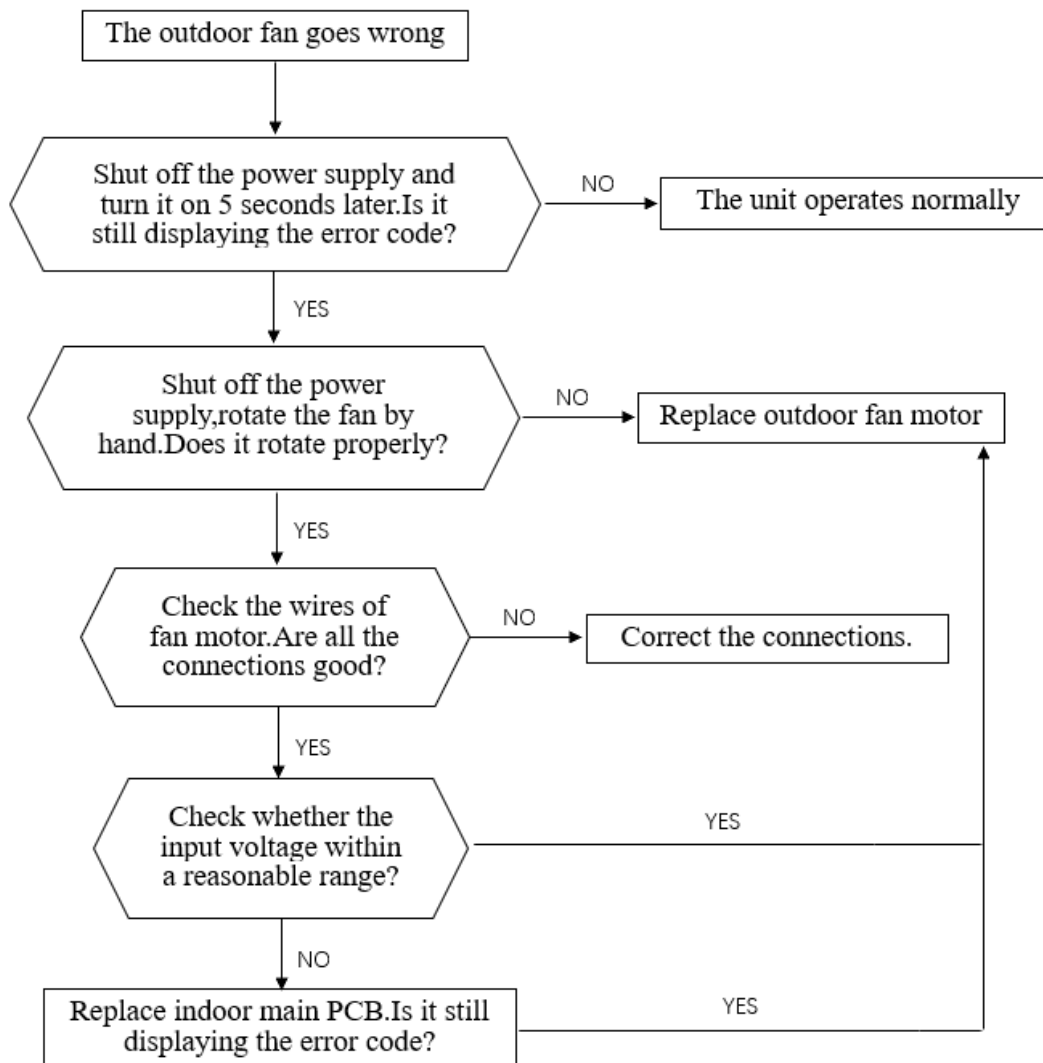
EC:Outdoor main control and drive communication failure



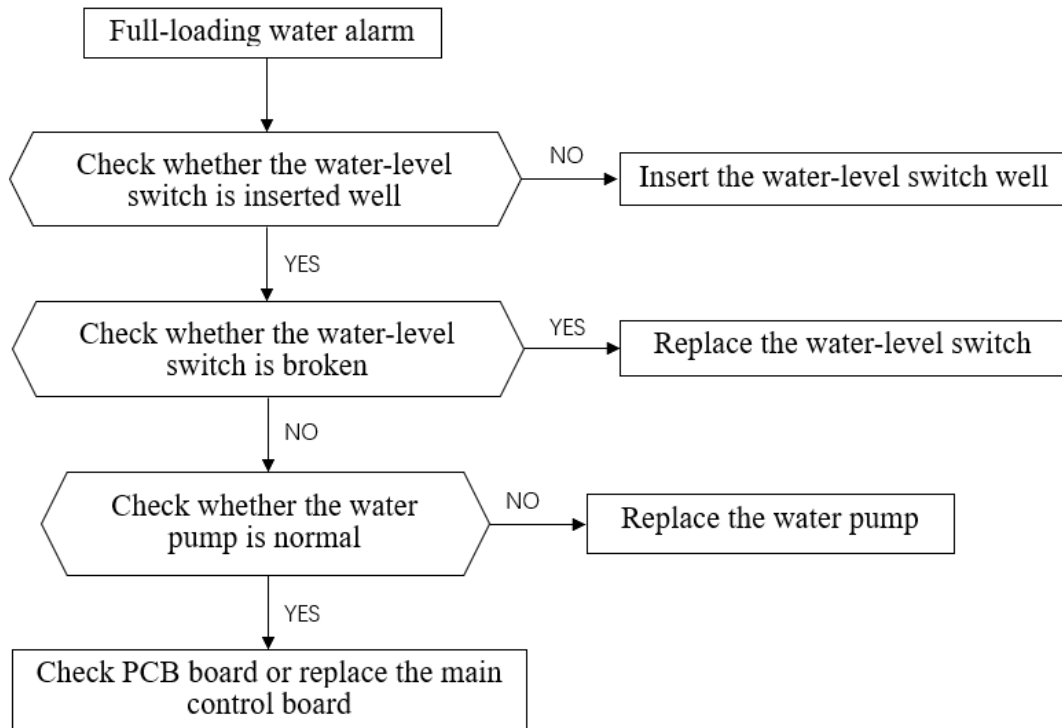
EE:The EEPROM of outdoor main control board goes wrong



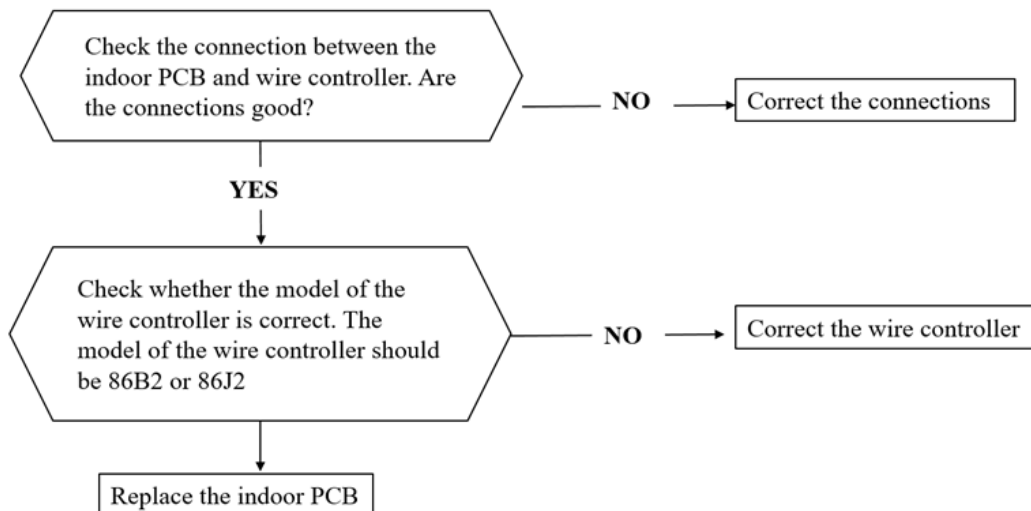
EF:The outdoor fan goes wrong.(DC motor)



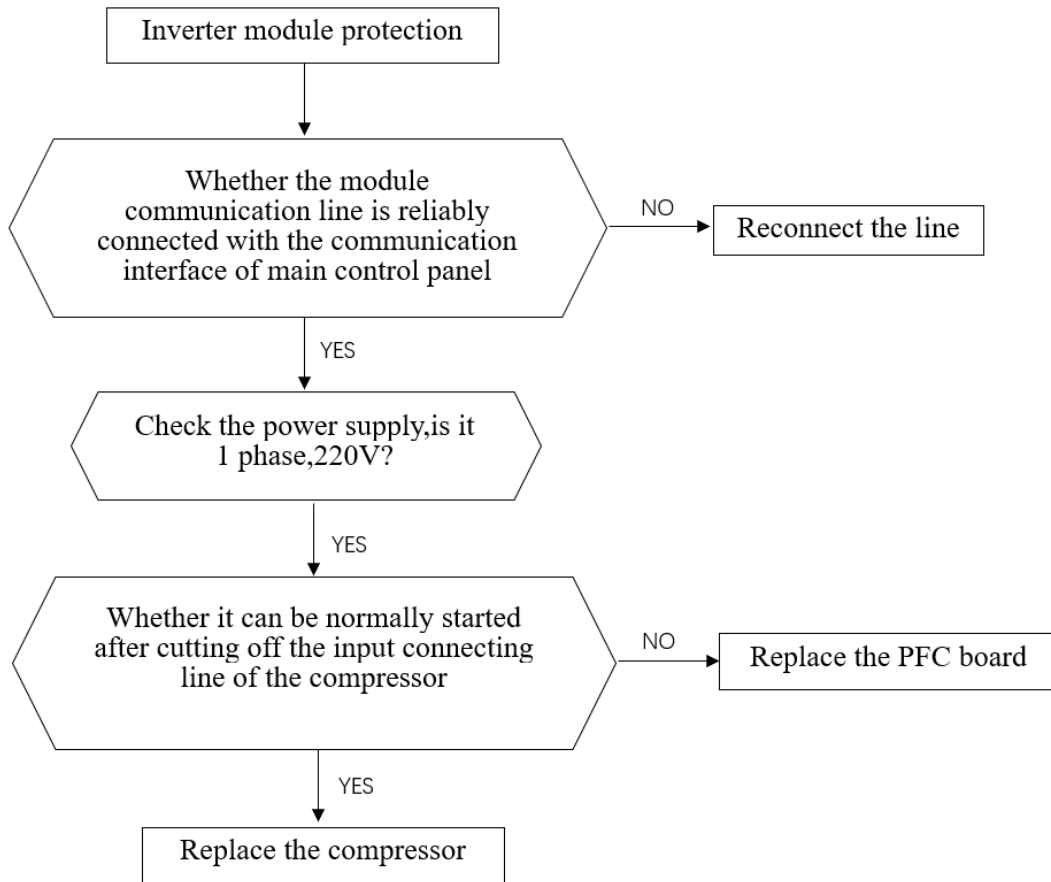
d3:Full-loading water alarm



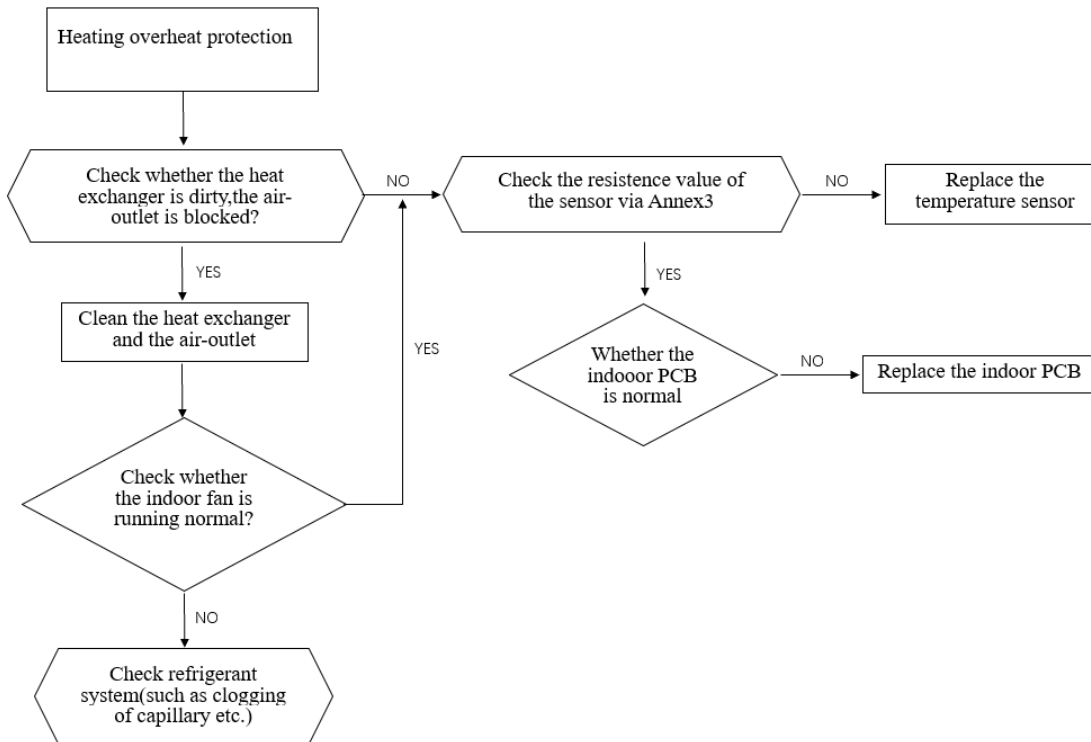
C5:Bad communication between indoor PCB & wire controller (Wire controller display)



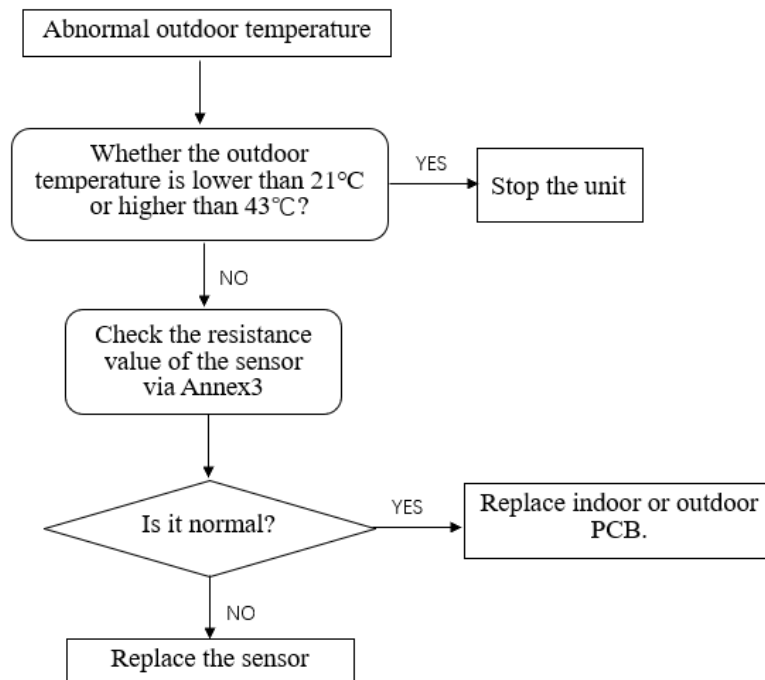
P0: Inverter module protection



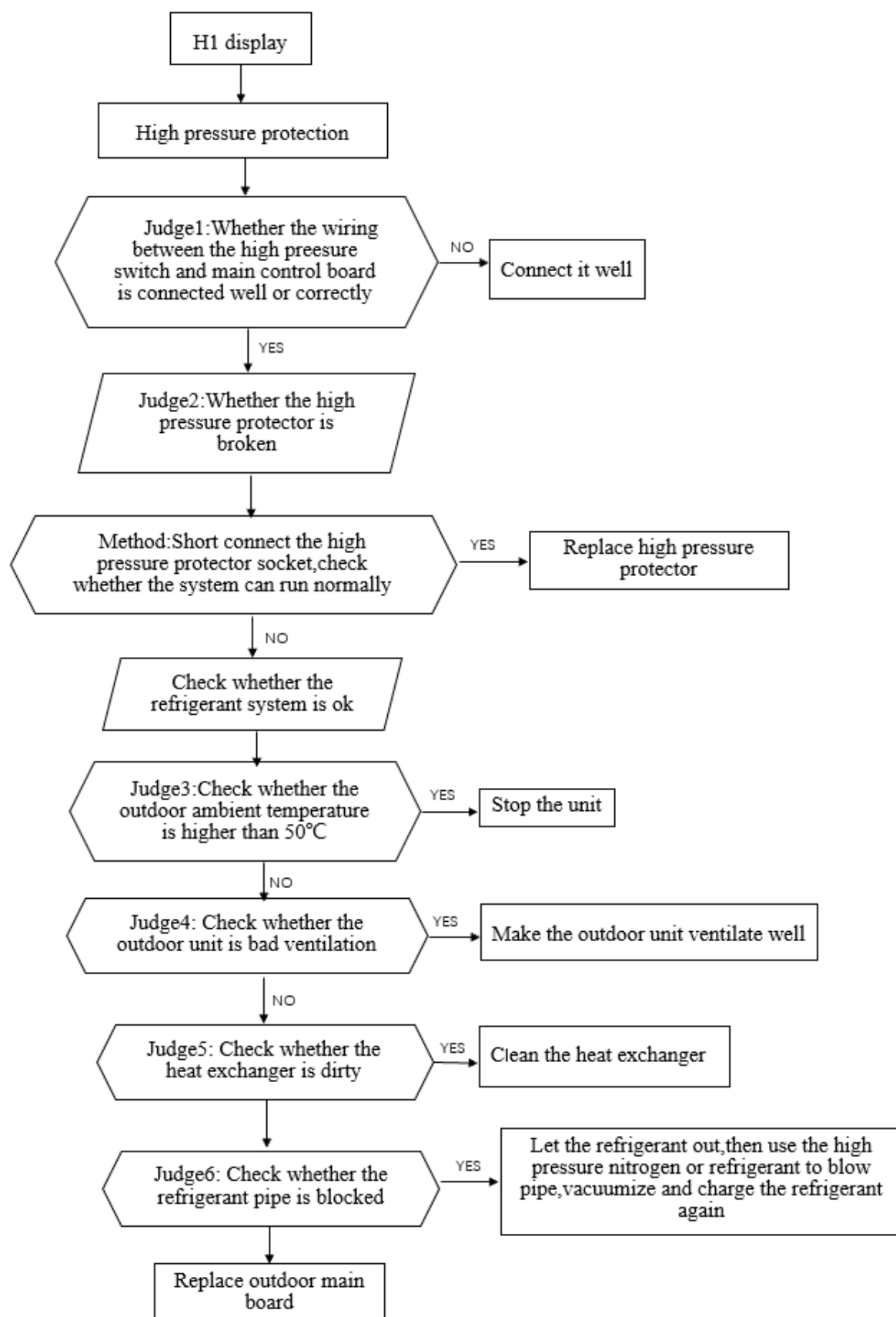
P7: Heating overheat protection



P8: Outdoor high/low-temperature protection



H1: High pressure switch protection



H2: Low pressure switch protection

