

3 Unit fault code table

Fault type	Action		Fault code	Fault code
	Main unit	Secondary unit		
Flow switch malfunction	Stop all the modules compressor	Stop the corresponding modules compressor	E01	Maintenance and Reset
1 # fan overload protection	Stop the corresponding module compressors	Stop the corresponding module compressors	E03	Maintenance and Reset
2 # fan overload protection	Stop the corresponding module compressors	Stop the corresponding module compressors	E04	Maintenance and Reset
Three-phase AC input phase lost or phase sequence protection	Stop the corresponding module, can't start up	Stop the corresponding module, can't start up	E05	Maintenance and Reset
Return water temperature sensor fault	Stop all the modules	Display the fault code, using master module return temperature to protect	E07	Repair or replacement
Water outlet temperature sensor fault	Stop the corresponding module compressors	Stop the corresponding module compressors	E08	Repair or replacement
Ambient temperature protection	Cancel the protection function	Cancel the protection function	E09	Repair or replacement
Protection against over-temperature heating	Stop the corresponding module compressors	Stop the corresponding module compressors	E12	Maintenance and Reset
protection of water flow shortage	Stop the corresponding module compressors	Stop the corresponding module compressors	E13	Maintenance and Reset
The wired remote control communication failure	Stop all the modules	Stop all the modules	E15	Maintenance and Reset
1 #High pressure switch protection	Stop the corresponding module compressors	Stop the corresponding module compressors	E18	Maintenance and Reset
2 #High pressure switch protection	Stop the corresponding module compressors	Stop the corresponding module compressors	E19	Maintenance and Reset
1 # Low pressure switch protection	Stop the corresponding module compressors	Stop the corresponding module compressors	E22	Maintenance and Reset
2 # Low pressure switch protection	Stop the corresponding module compressors	Stop the corresponding module compressors	E23	Maintenance and Reset
1 # Exhaust Over temperature protection	Stop the corresponding module compressor, if the case occurs 3 consecutive times within 1 hour, the fault lock	Stop the corresponding module compressor, if the case occurs 3 consecutive times within 1 hour, the fault lock	E26	Maintenance and Reset

2 # Exhaust Over temperature protection	Stop the corresponding module compressor, if the case occurs 3 consecutive times within 1 hour, the fault lock	Stop the corresponding module compressor, if the case occurs 3 consecutive times within 1 hour, the fault lock	E27	Maintenance and Reset
Communication failures between modules	Reported failure to stop the corresponding module	Stop the corresponding module	E30	Maintenance and Reset
Cooling anti-freeze protection	Stop all the modules compressor	Stop all the modules compressor	E33	Maintenance and Reset
1 # compressor current protection	Stop the corresponding module compressors	Stop the corresponding module compressors	E34	Maintenance and Reset
2 # compressor current protection	Stop the corresponding module compressors	Stop the corresponding module compressors	E35	Maintenance and Reset
1 # exhaust temperature sensor failure	Stop the corresponding module compressor, if the case occurs 3 consecutive times within 1 hour, the fault lock	Stop the corresponding module compressor, if the case occurs 3 consecutive times within 1 hour, the fault lock	E42	Repair or replacement
2 # exhaust temperature sensor failure	Stop the corresponding module compressor, if the case occurs 3 consecutive times within 1 hour, the fault lock	Stop the corresponding module compressor, if the case occurs 3 consecutive times within 1 hour, the fault lock	E43	Repair or replacement
Module address repeat	Normal operation, indicating failure		E54	Maintenance and Reset
1 # coil bottom temperature sensor failure	Stop the corresponding module compressors in heating mode	Stop the corresponding module compressors in heating mode	E57	Repair or replacement
2 # coil bottom temperature sensor failure	Stop the corresponding module compressors in heating mode	Stop the corresponding module compressors in heating mode	E58	Repair or replacement
1 # return air temperature sensor fault	Stop the corresponding module compressors	Stop the corresponding module compressors	E59	Repair or replacement
2 # return air temperature sensor fault	Stop the corresponding module compressors	Stop the corresponding module compressors	E60	Repair or replacement
1 # evaporator temperature sensor failure	Stop the corresponding module compressors in cooling mode	Stop the corresponding module compressors in cooling mode	E61	Repair or replacement
2 # evaporator temperature sensor failure	Stop the corresponding module compressors in cooling mode	Stop the corresponding module compressors in cooling mode	E62	Repair or replacement
1 # Oil temperature sensor failure	Stop the corresponding module compressors	Stop the corresponding module compressors	E63	Repair or replacement
2 # Oil temperature sensor failure	Stop the corresponding module compressors	Stop the corresponding module compressors	E64	Repair or replacement

1 # oil temperature too low protection	Stop the corresponding module compressor, if the case occurs 3 consecutive times within 1 hour, the fault lock	Stop the corresponding module compressor, if the case occurs 3 consecutive times within 1 hour, the fault lock	E65	Maintenance and Reset
2 # oil temperature too low protection	Stop the corresponding module compressor, if the case occurs 3 consecutive times within 1 hour, the fault lock	Stop the corresponding module compressor, if the case occurs 3 consecutive times within 1 hour, the fault lock	E66	Maintenance and Reset
1 # antifreeze low pressure protection	Stop the corresponding module compressor, if the case occurs 3 consecutive times within 1 hour, the fault lock	Stop the corresponding module compressor, if the case occurs 3 consecutive times within 1 hour, the fault lock	E67	Maintenance and Reset
2# antifreeze low pressure protection	Stop the corresponding module compressor, if the case occurs 3 consecutive times within 1 hour, the fault lock	Stop the corresponding module compressor, if the case occurs 3 consecutive times within 1 hour, the fault lock	E68	Maintenance and Reset

4 Fault recovery Measures

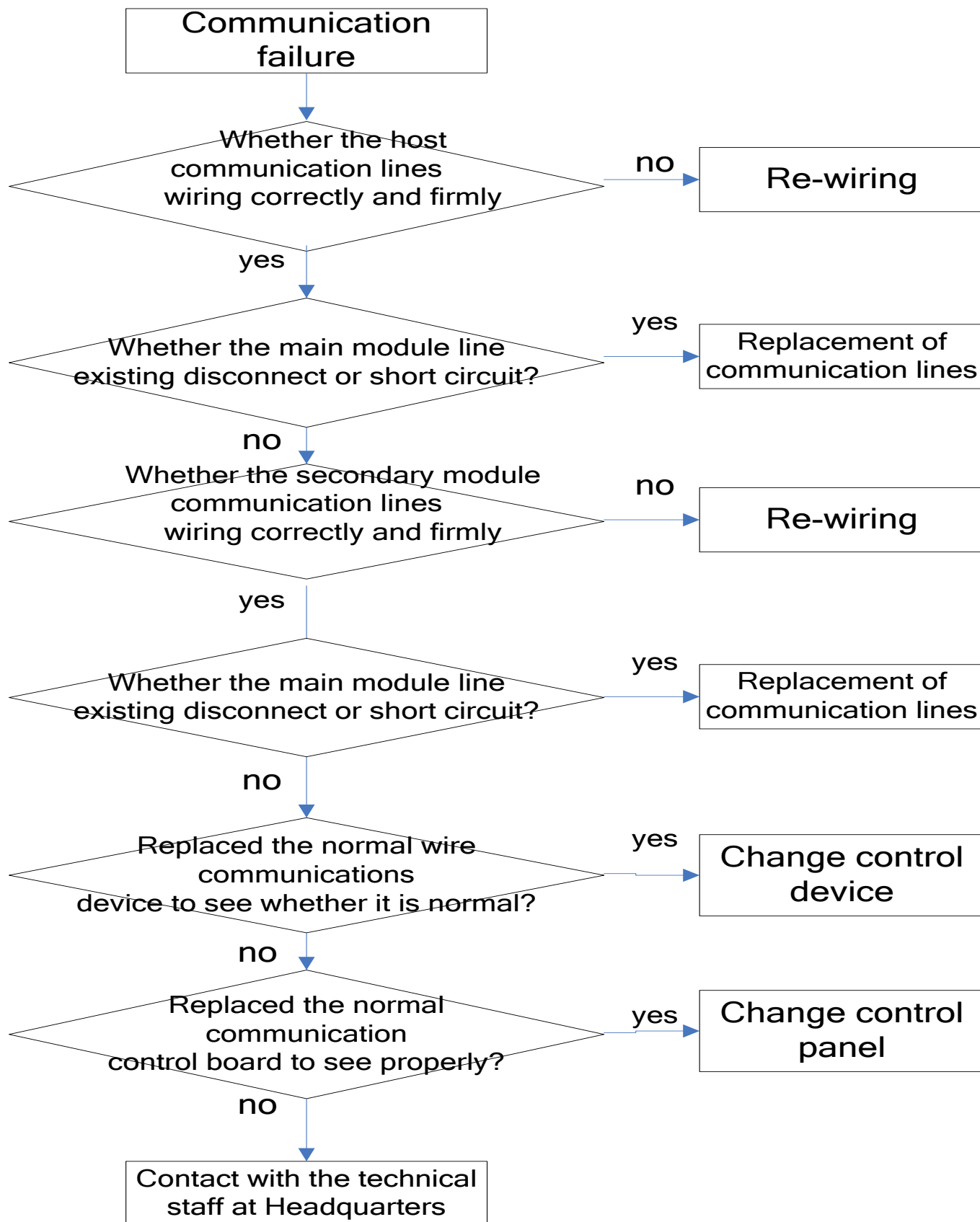
Fault conditions	Possible reasons	Measures
Unit out of operation	Power supply failure	Disconnect the power switch and examine it
	Power supply cable loose	Find out reasons and repair
	Fuse of control power melt down	Replace with new fuse
Cooling capacity of unit lower; compressor not shut off	Insufficiency of refrigerant	Detect system leakage and re-charge refrigerant
	Deficiency of water system insulation	Strengthen system insulation
	Dry filter blocked	Replace the dry filter
	Deficiency of condenser heat exchanging	
	Insufficiency of water flow	Clean water filter
High pressure protection of compressor	Excess of refrigerant	Discharge the excrescent refrigerant
	Deficiency ventilation due to air inlet blocked	Remove the influential factors and improve condensing conditions
	Condenser dirty and blocked	Clean the condenser
Phase sequence protection	Power phase sequence reversed	Adjust the phase sequence
	Power phase lack	Check the power supply and ask the electrician to repair it
	Protector Damaged or circuit in connection open	Replace the anti-frost switch or reconnect the cables
Communication failure	Loose contact of communication cables	Check and reconnect them
	Short circuit or open circuit of communication cables	Check and reconnect them
	Wrong sequence of communications	Check and reconnect them
	Control panel or wire controller damaged	Replace the control panel or wire controller
High exhaust temperature protection	Leakage or insufficiency of refrigerant	Detect and repair the leakage dot
	Refrigerant system blocked	Examine and remove
	Changing value of exhaust air	Examine the sensor and replace it

	temperature sensor	
	Setting aside the error code	Reset to dial the code
Water flow switch disconnection protection	Water pump out of operation	Examine the water pump and its control
	Excessive air in the water system	Discharge the air in the water system
	Water valve closed	Check and open the water valve
	Severe block of water filter	Examine and clean the filter
	Water flow switch damaged or circuit in connection open	Replace the water flow switch and reconnect the lines
Incompleted defrosting or no defrosting	Defrosting parameter setting not in accordance with local environment	Adjust defrosting parameter according to local climatic conditions
	Improper location of condensing temperature sensor	Adjust the location of condensing temperature sensor according to frosting status of unit
	Value changing of condensing or ambient temperature sensor	Detect and replace the sensor
Anti-frost switch protection	Low water temperature due to value changing of water inlet / outlet temperature sensor	Adjust defrosting parameter according to local climatic conditions
	Insufficiency of water flow	Adjust the location of condensing temperature sensor according to frosting status of unit
	Anti-frost switch damaged or circuit in connecting lines open	Detect and replace the sensor
Low suction pressure of compressor	Insufficiency of refrigerant or leakage	Leakage detection and re-charge refrigerant
	Block in dry filter	Replace the dry filter
	Insufficiency of water flow	Clean water filter or discharge the air in the system
	Break of capillary tube of temperature sensor package of expansion valve	Replace expansion valve
Compressor out of operation	Power supply failure	Find out reasons to solve the power supply failure
	Compressor contactor damaged	Replace contactor
	Connecting cables loose	Find out loosened point and repair

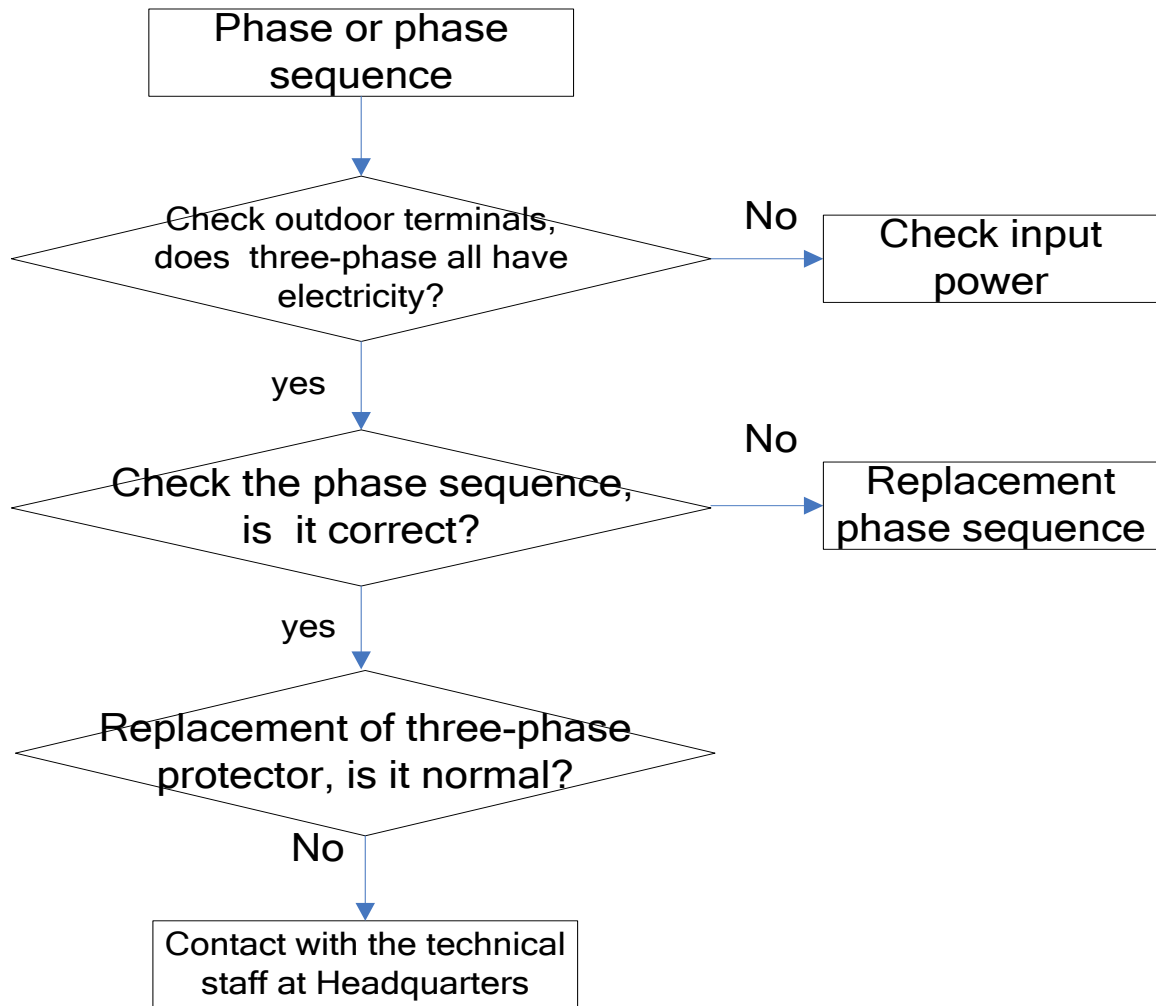
	Overheat protection of compressor	Restart the unit after find out the overheat reasons and solve the fault
	High outlet water temperature setting	Reset the outlet water temperature
	Insufficiency of water flow	Clean water filter or discharge the air in the system
High noise during compressor operation	Refrigerant of liquid state enter into the compressor	Check if the expansion valve disabled and if the temperature sensor package falls off
	Damaged components in the compressor	Replace compressor
Fan out of operation	Fan holding screws loose	Replace holding screws
	Fan motor damaged	Replace fan motor
	Contactor damaged	Replace contactor
Compressor operates, but no cooling (or heating) in the unit	Refrigerant leaked completely	Detect system leakage, repair and re-charge the refrigerant
	Compressor failure	Replace compressor
Low water temperature protection of the unit	Insufficient water flow in the system	Clean water filter or discharge the air in the system
	Low setting value on temperature controller	Reset it
Insufficient water flow protection of the unit	Air in the water system	Discharge the air in the water system
	Filter blocked in the water system	Clean filter in the water system
	Value changing of water inlet / outlet temperature sensor	Detect the resistance of the temperature sensor and replace.

5 Failure Analysis

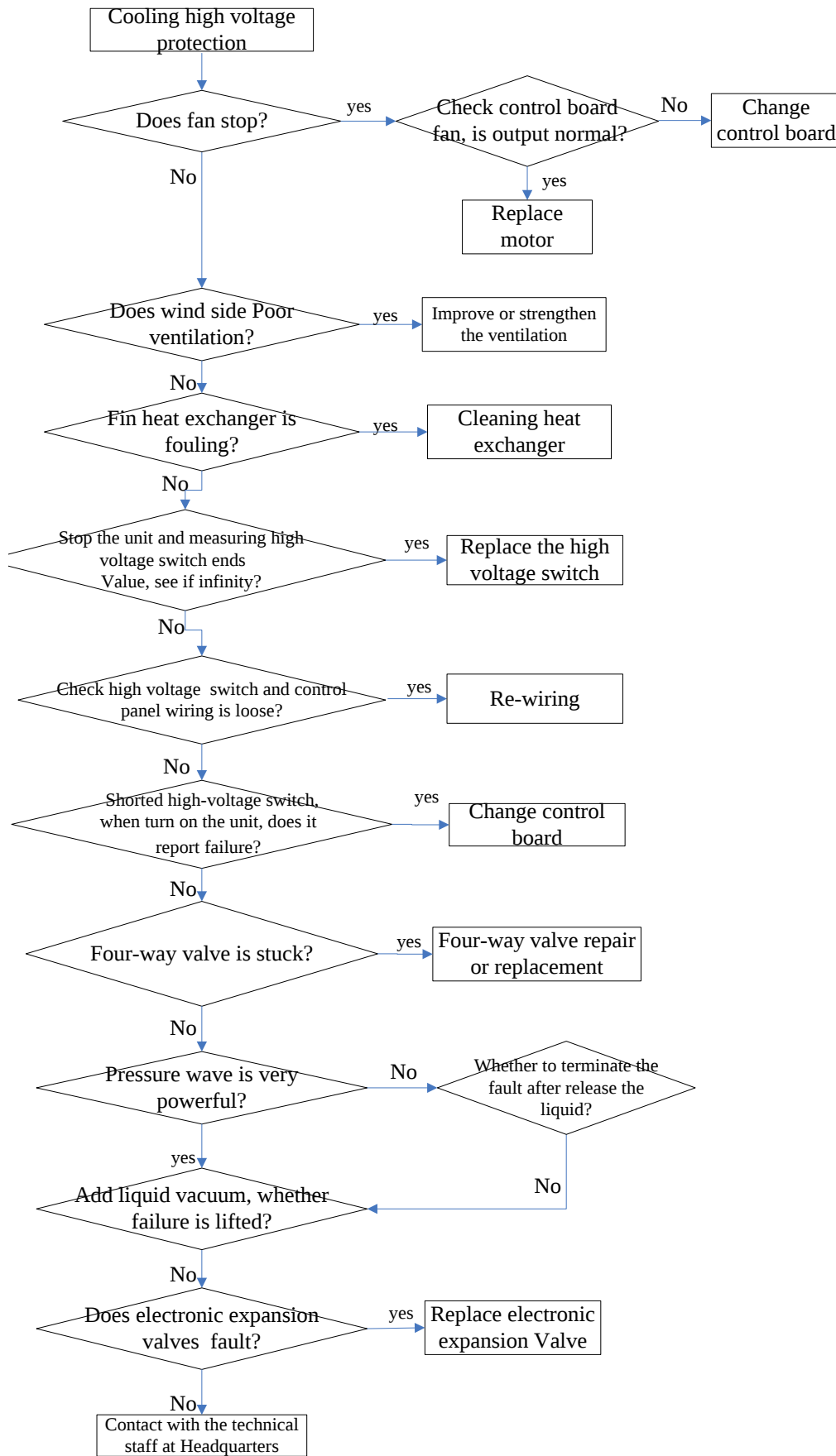
(A) Communication failure

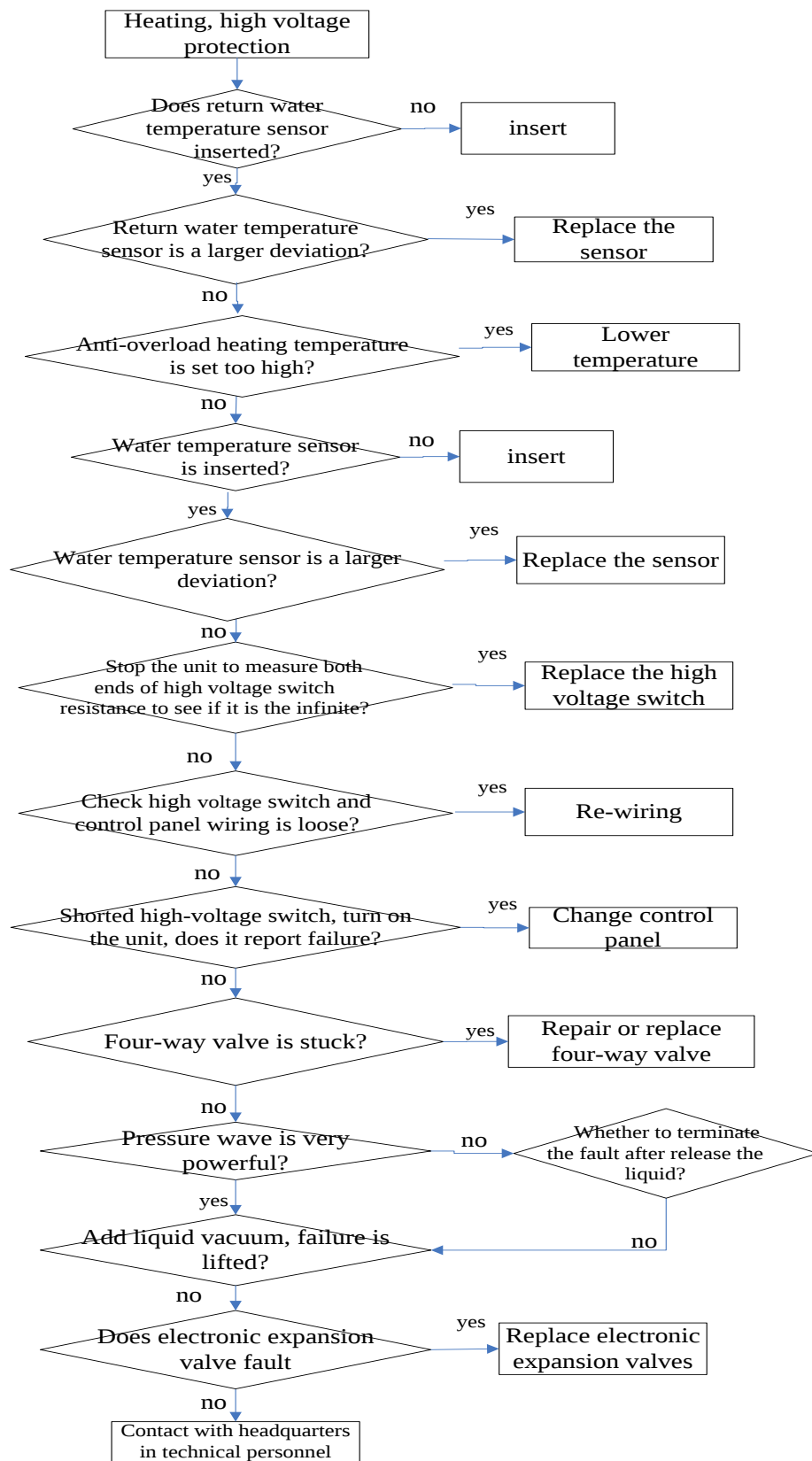


(B) Phase sequence protection

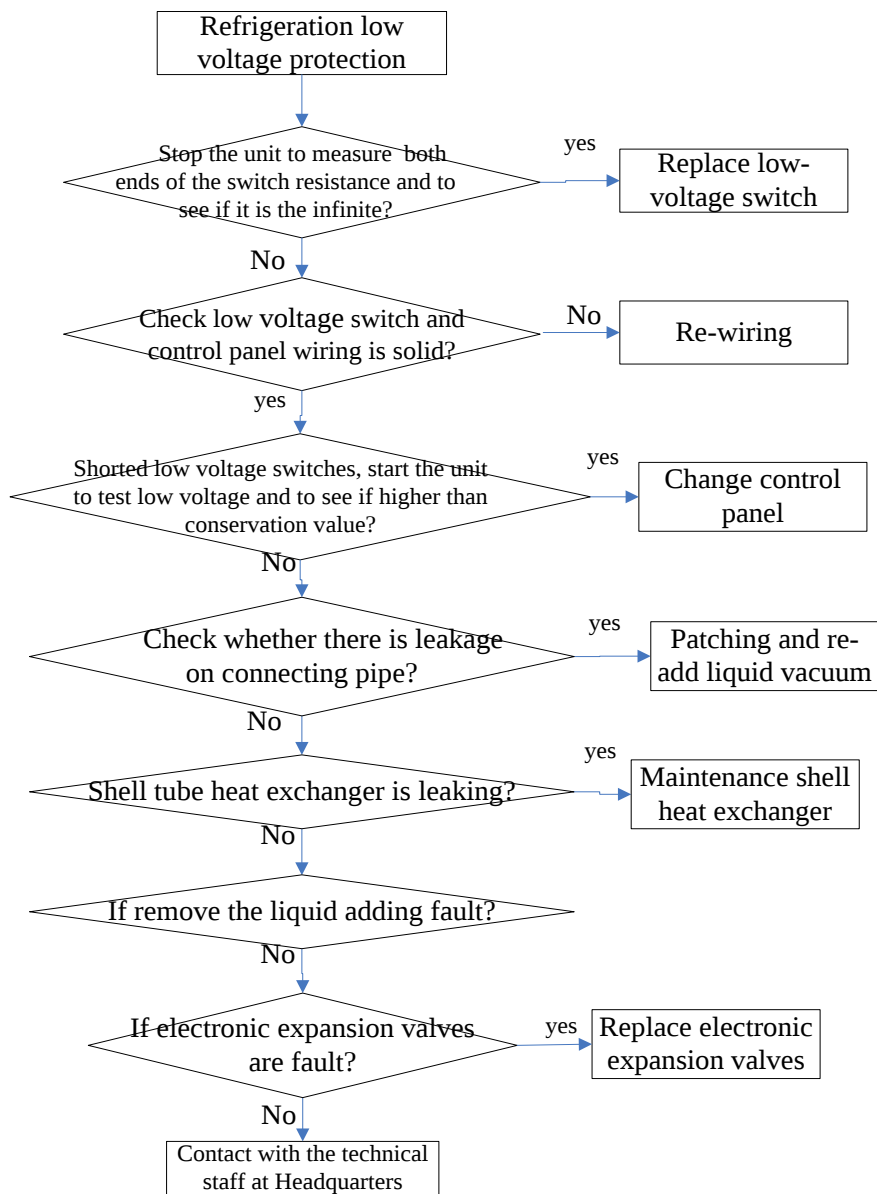


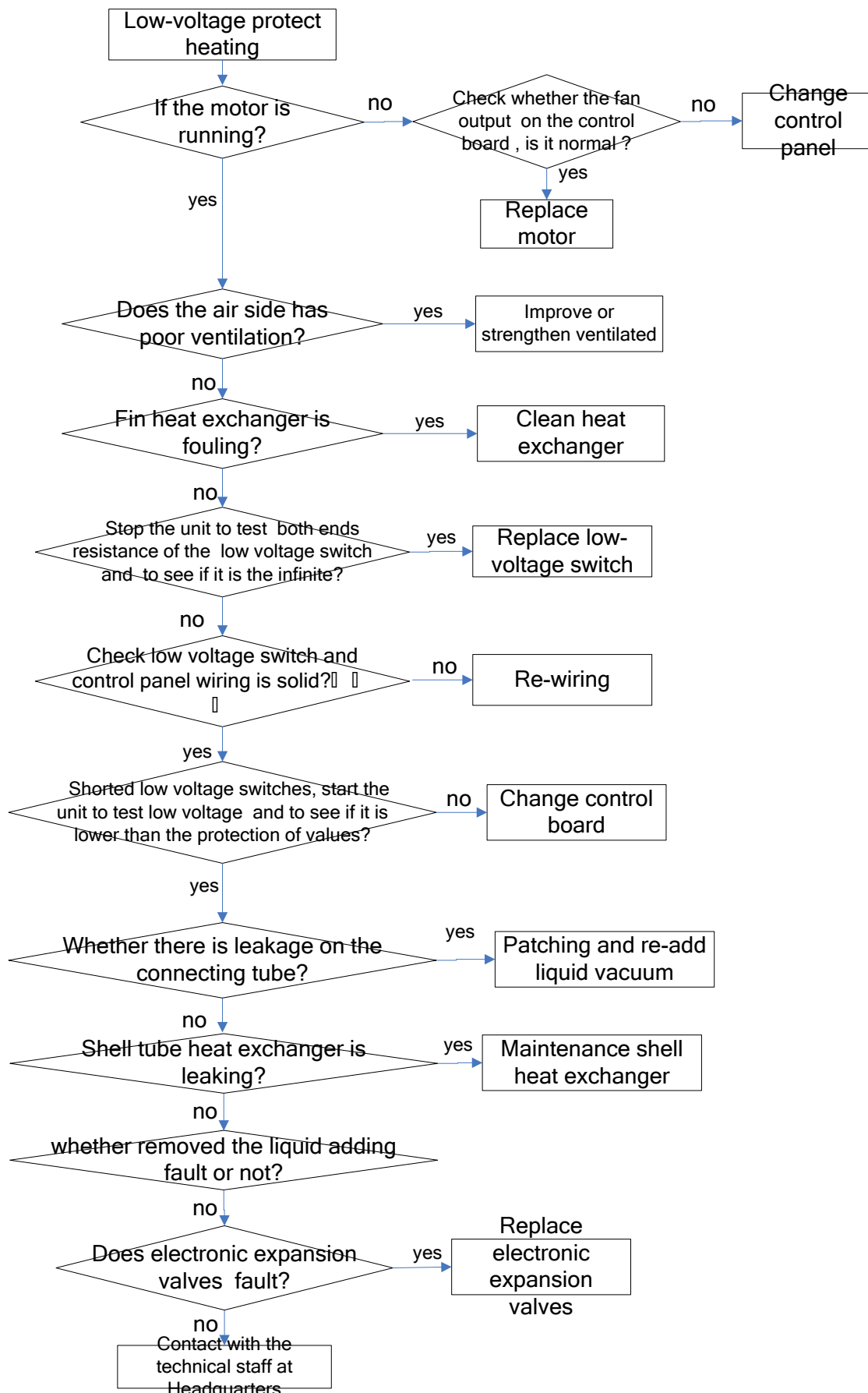
(C) Cooling high pressure protection



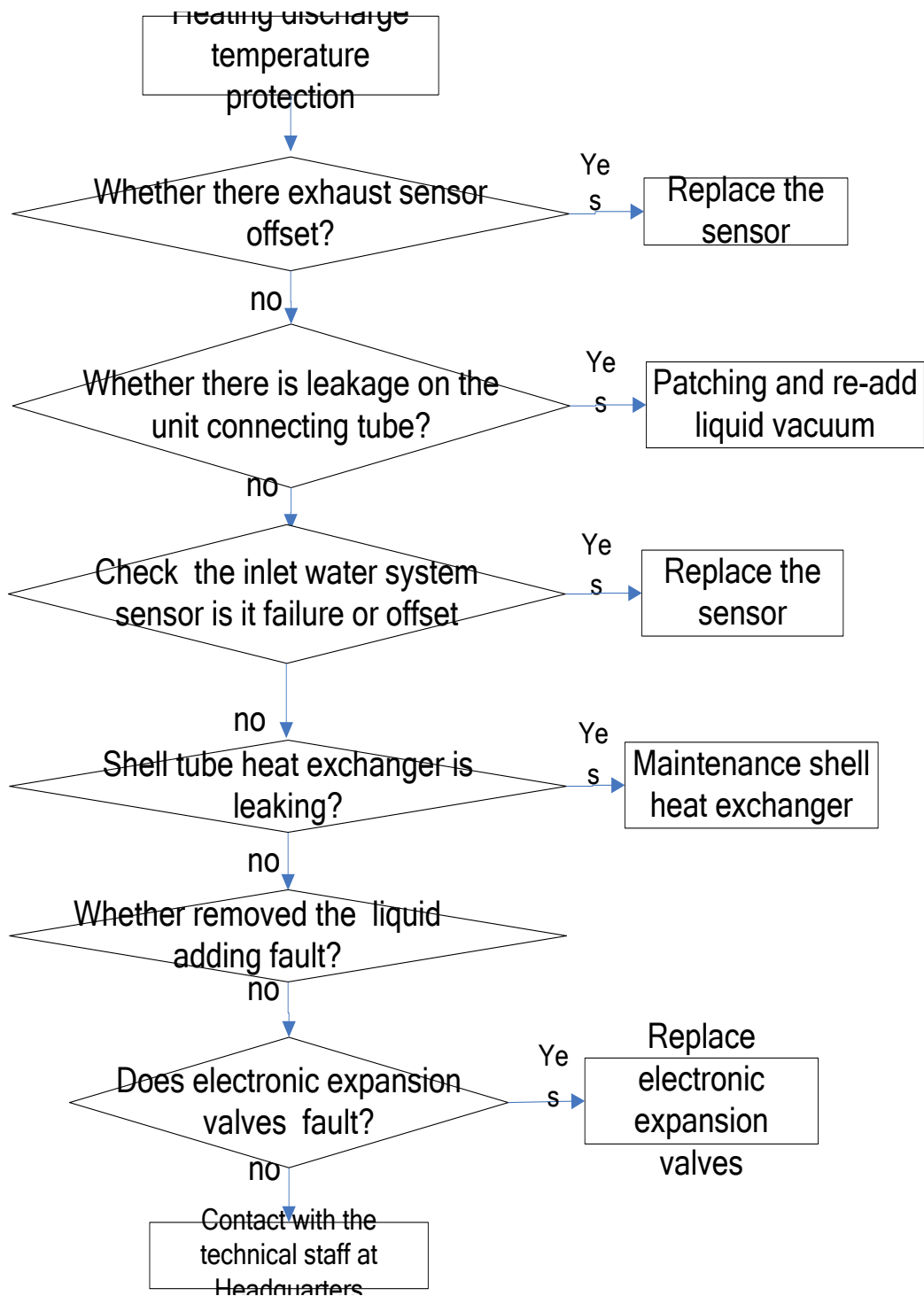
(D) Heating high pressure protection

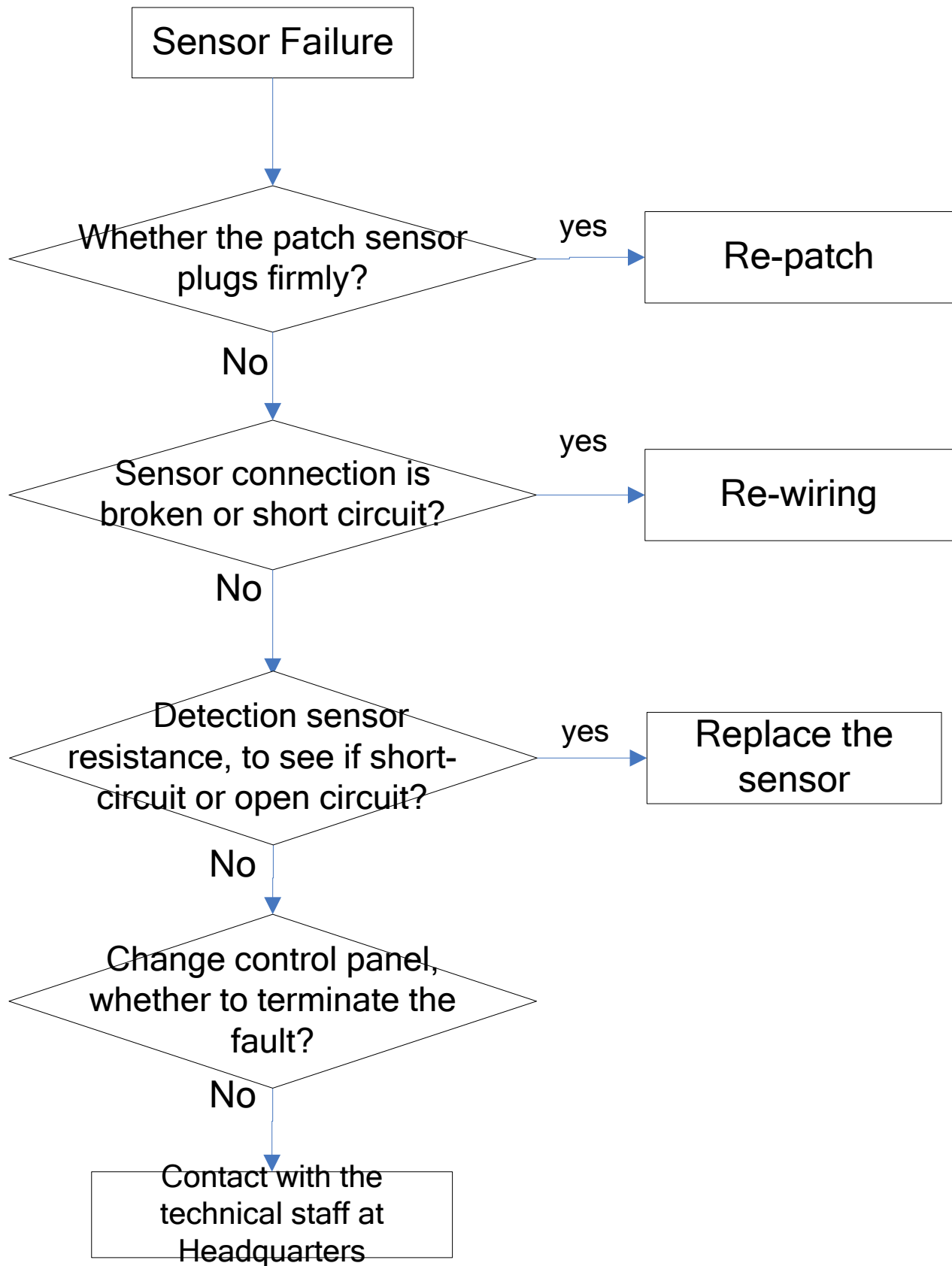
(E) Refrigeration low pressure protection

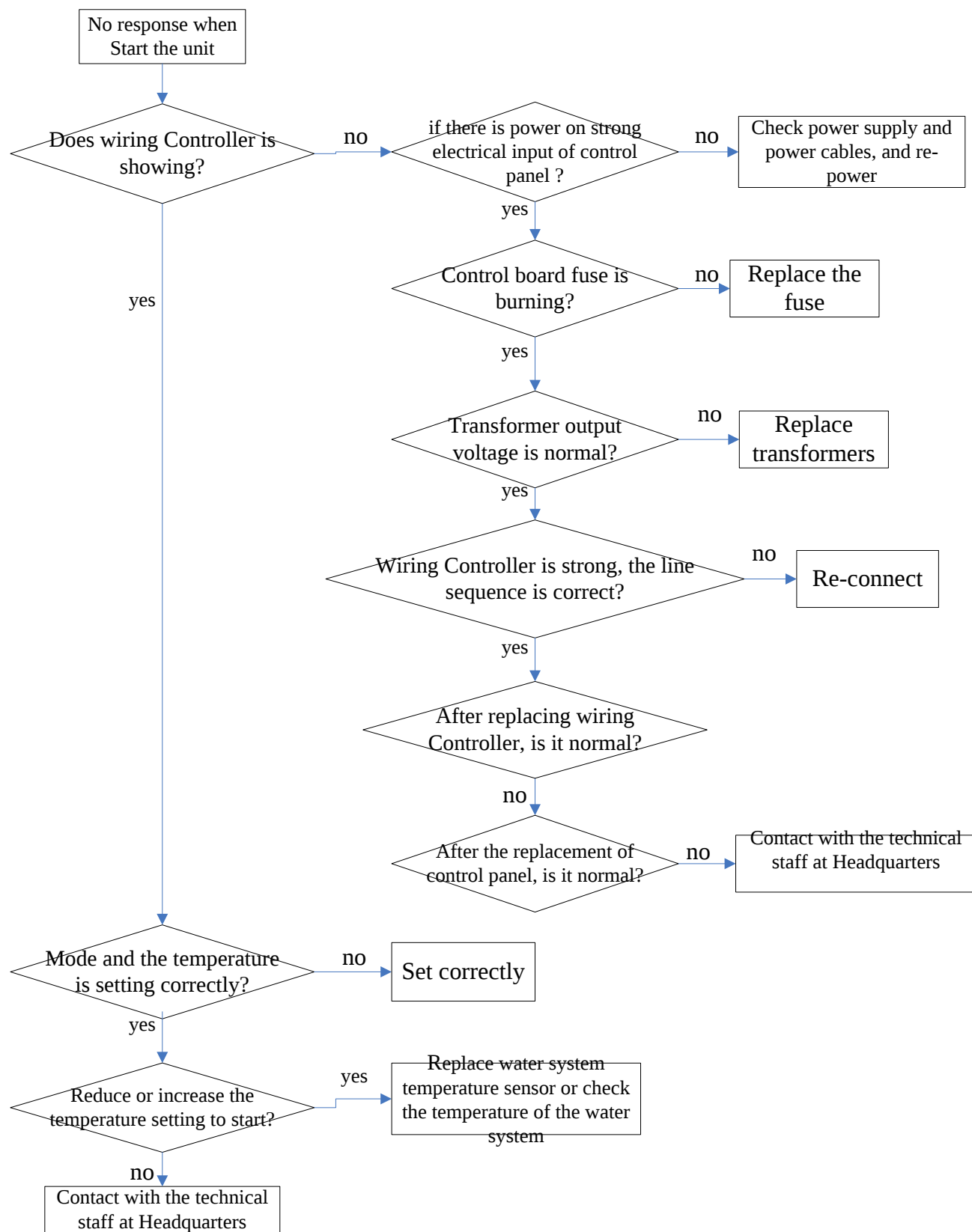
**(F) Heating low pressure protection**



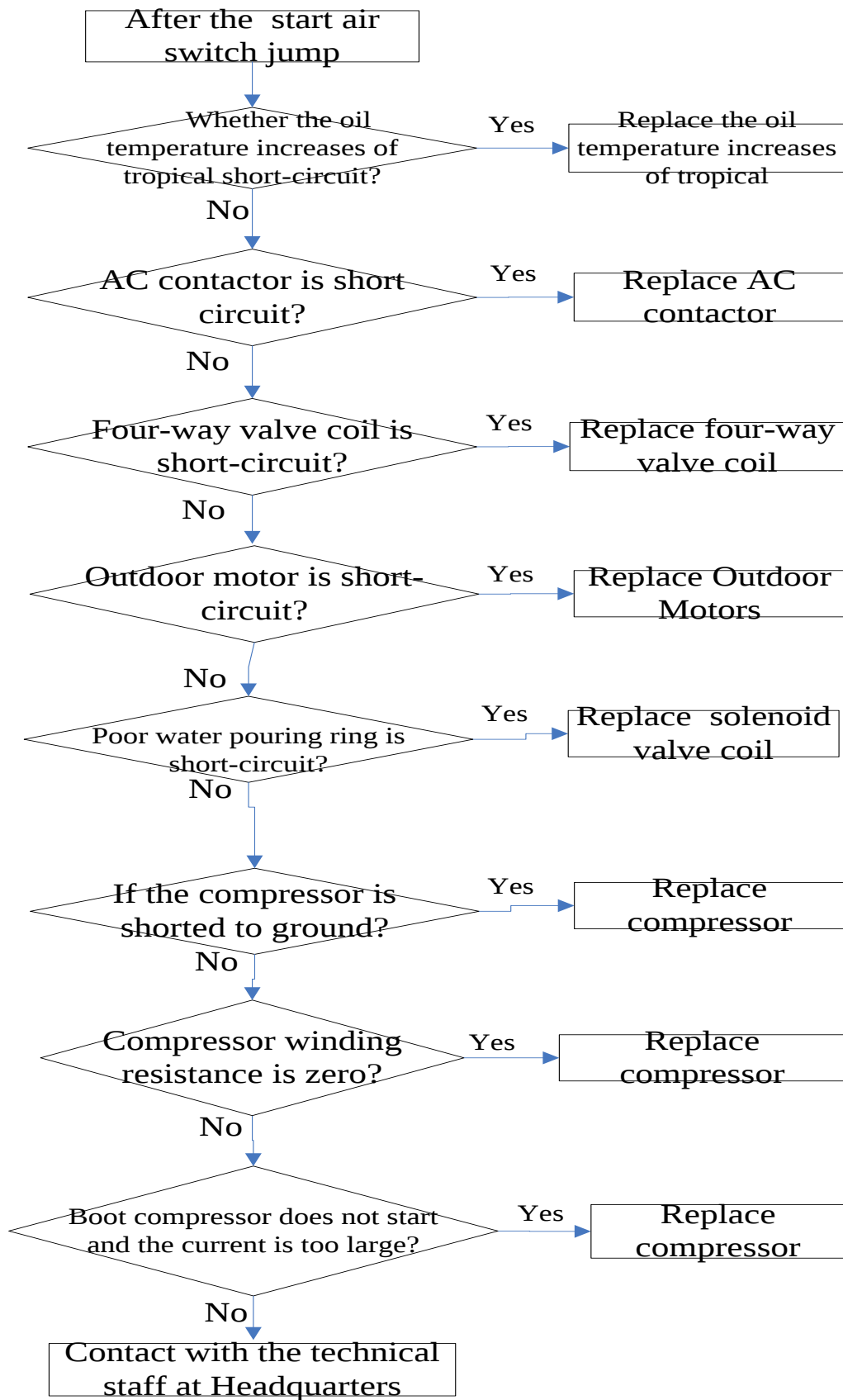
(G) Heating discharge temperature protection

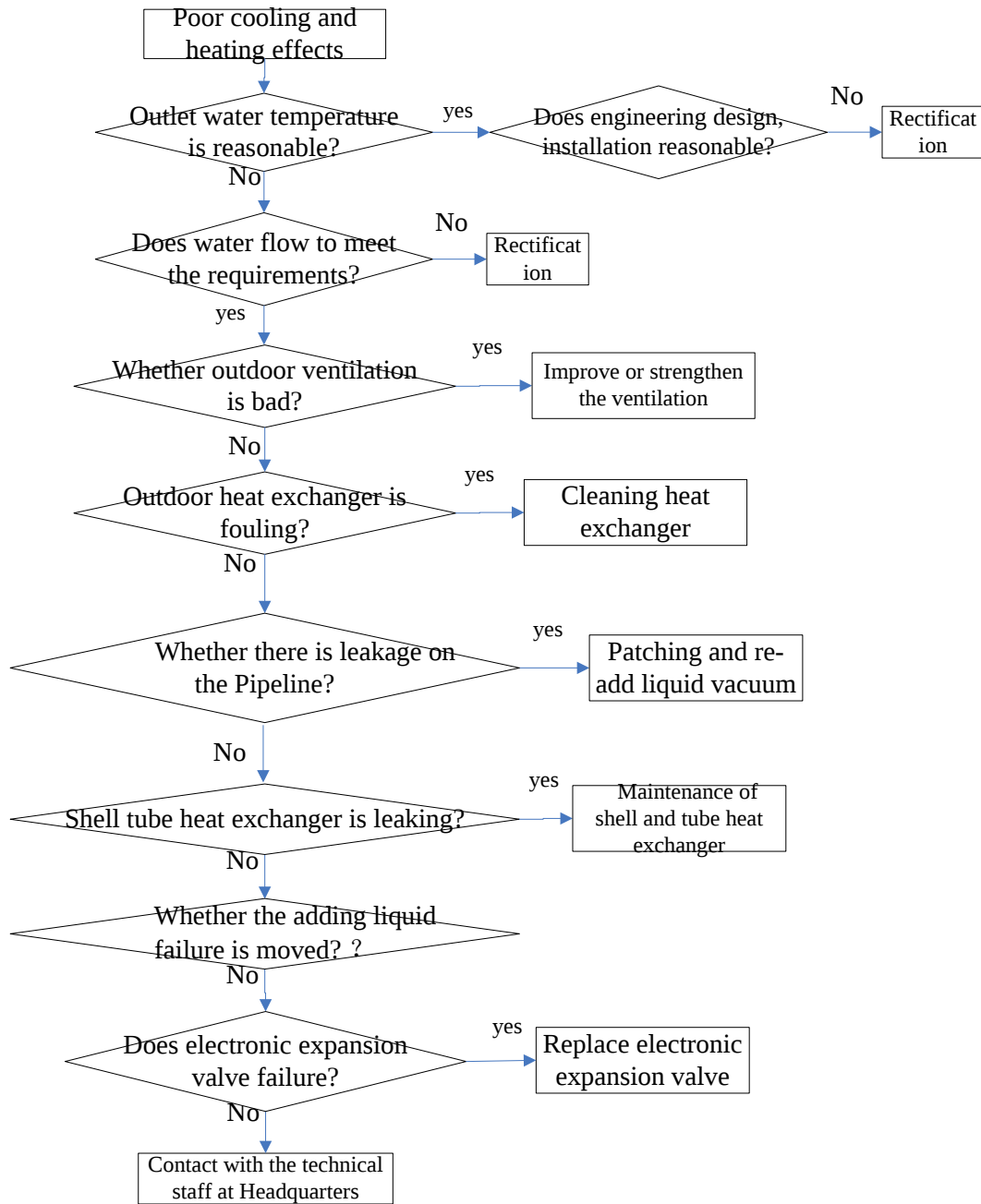


(H)Sensor Failure

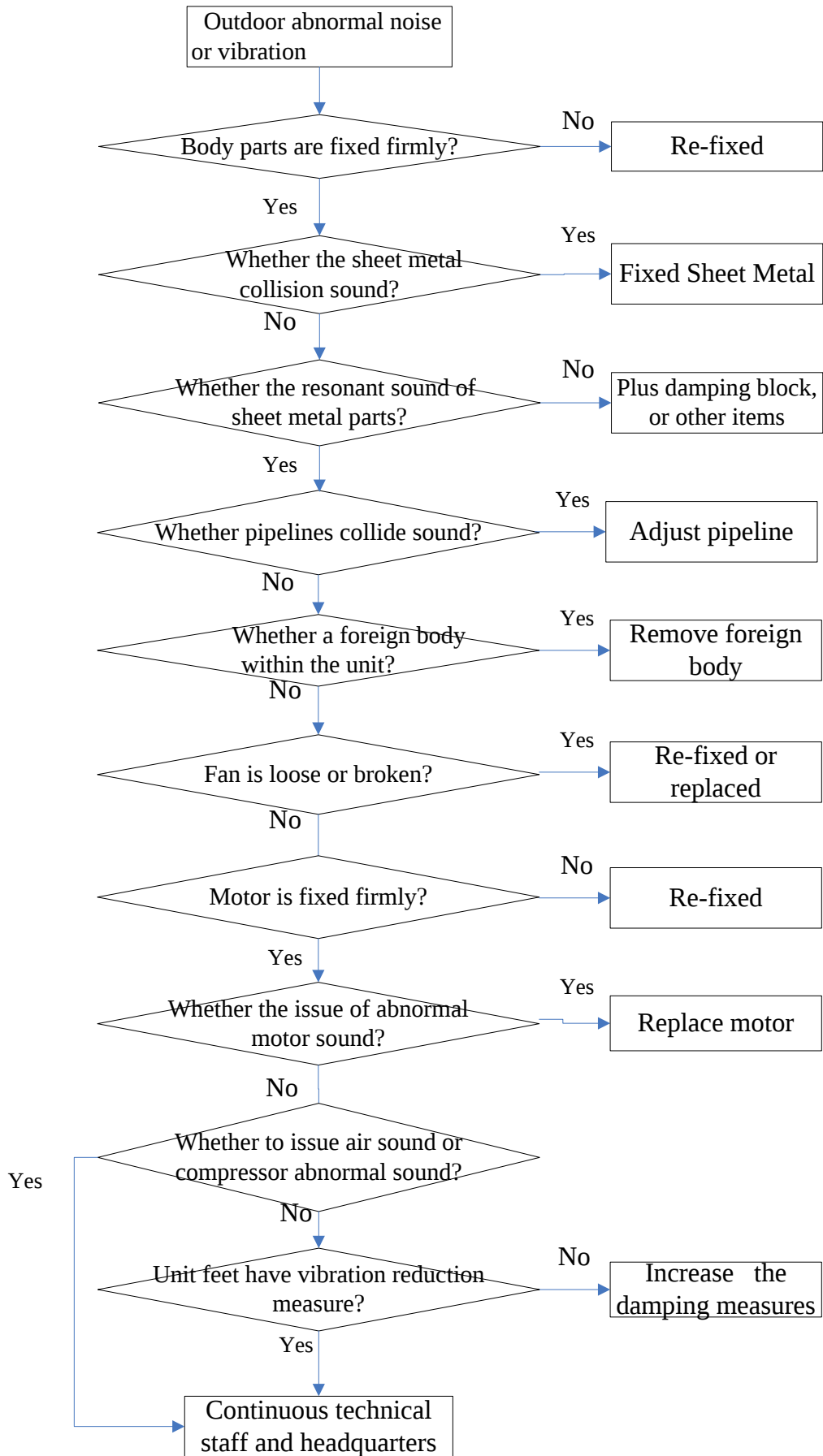
(I) Does not start after power on

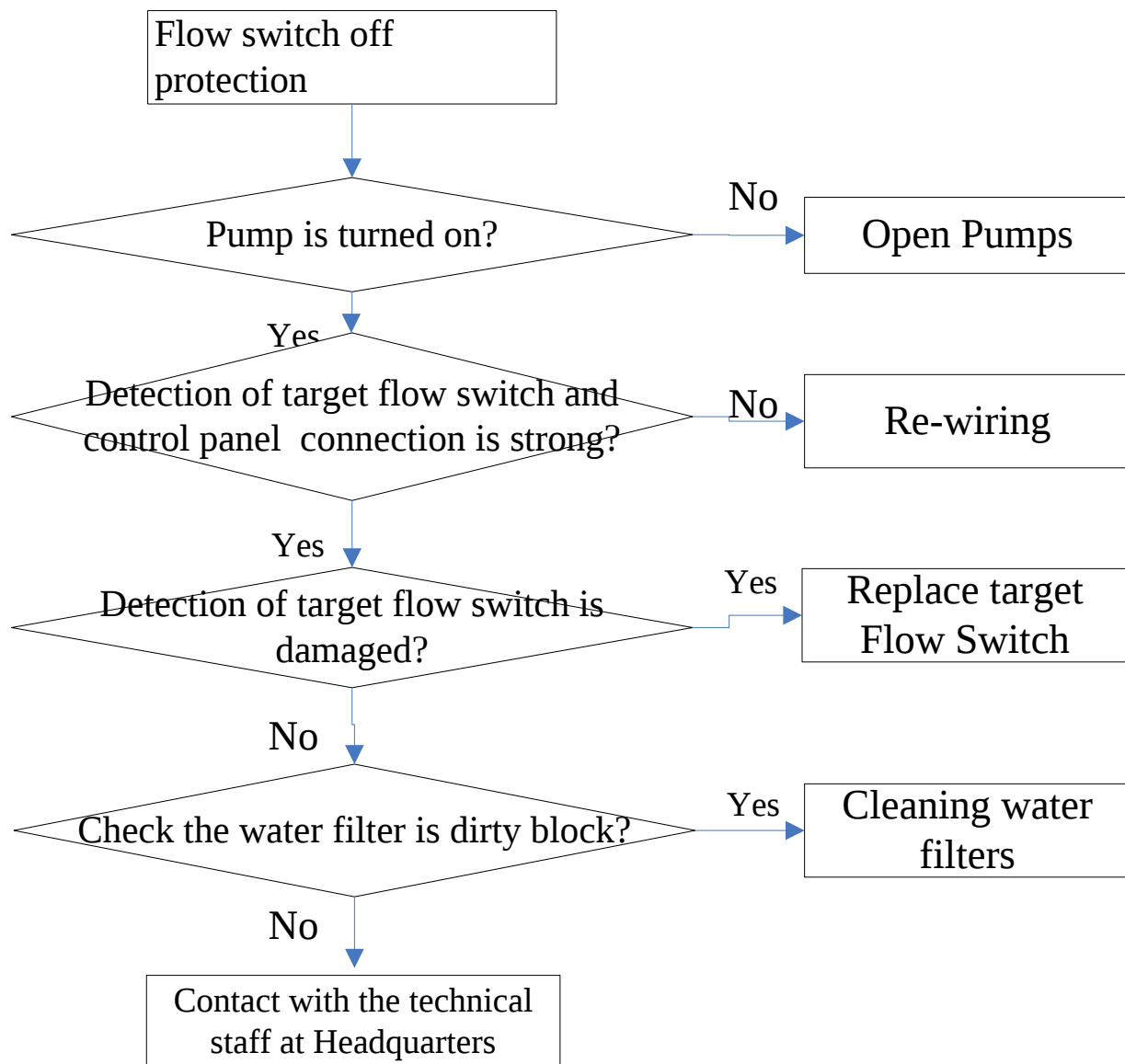
(J) After start to open the air switch jump



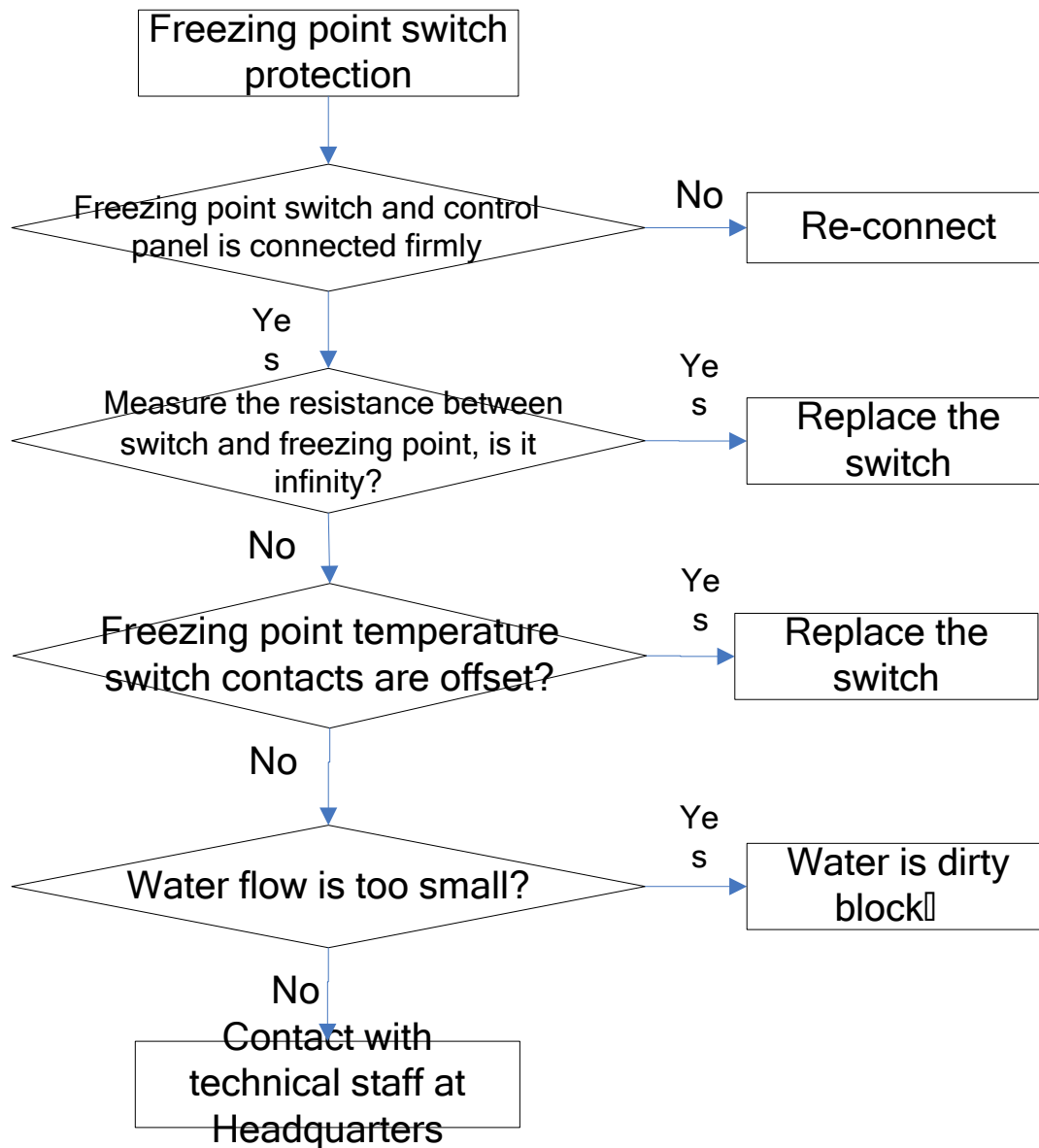
(K) Poor cooling and heating effects

(L) Host abnormal sound



(M) Flow switch off protection

(N) Freezing point switch protection



(O) Heating over-temperature protection