

## 4.Failure phenomenon

Phenomenon	Causing explanation
Mirage comes out from indoor unit	When the cold air from AC cools the indoor air
Noise	<ol style="list-style-type: none"><li>1. When air conditioner stops running, there will be some noise, and this is because the refrigerant flows contrarily.</li><li>2. AC expand or shrink according to temperature, causing harsh sounds</li><li>3. Liquid sound is from refrigerant flowing</li></ol>
Sometimes, the room is smelly	<ol style="list-style-type: none"><li>1. The AC itself will not be smelly, if it is smelly, it is because environment smell accumulated</li><li>2. Solution: clean the filter</li></ol>
when heating, there is no wind at the beginning of starting unit	<ol style="list-style-type: none"><li>1. It is to prevent cold air blowing, please be patient</li><li>2. The unit has auto-restart function, when it is repowered again, unit will run according to the mode which is set before the power off. (Note: default is closed)</li></ol>

## 5. Electric components malfunction inspection

No	Component name	Inspection methods
1	Compressor	Using multi-meter ohm phase, there is correct resistance value among windings (single phase compressor refers to specification, three phase compressor resistance approximately equal), resistance of winding should be infinite.
2	Control board	<ol style="list-style-type: none"> <li>1. Check if any connection part of PCB loosen or drop off, printed tinsel and components have any burn, fade, breaking off or aging phenomenon, all joints exist short circuit phenomenon etc.</li> <li>2. Test the circuit board system in the term of voltage, pulse on, resistance variation, by using testing meter.</li> <li>3. Judge the output and input is normal or not according to electric principle diagram</li> </ol>
3	Contactor	<ol style="list-style-type: none"> <li>4. Press the contactor by hand, the contactor reacts immediately and without question</li> <li>5. The contacting point of contactor has no burn and melt phenomenon</li> <li>6. The winding has resistance value below 1000, but cannot be nil or infinite</li> </ol>
4	4-ways valve winding	The winding has resistance value below 1000, but cannot be nil or infinite
5	Capacitor	<ol style="list-style-type: none"> <li>7. No expansion phenomenon apparently</li> <li>8. Measure capacitor by using capacitor phase of multi-meter( if the multi-meter has no capacitor phase, use ohm phase, contact the two terminal of meter to two feet of capacitor, and quickly switch positive pole and negative pole and reconnect, the resistance should display from nil to infinite quickly. The resistance can't change is always nil or infinite).</li> </ol>
6	Sensor	<ol style="list-style-type: none"> <li>9. Using multi-meter to measure resistance, find out temperature according to resistance table, the temperature should accord with sensor temperature.</li> <li>10. Resistance cannot be nil or infinite</li> </ol>
7	Motor	<ol style="list-style-type: none"> <li>11. No burning trace apparently</li> <li>12. Using multi-meter ohm phase, there is correct resistance value among windings (single phase compressor refers to specification, three phase compressor resistance approximately equal), resistance of winding should be infinite.</li> </ol>

## 6. Failure code display

When air condition has failure, the timing lamp on light board of controller will display different code according to different failure case.

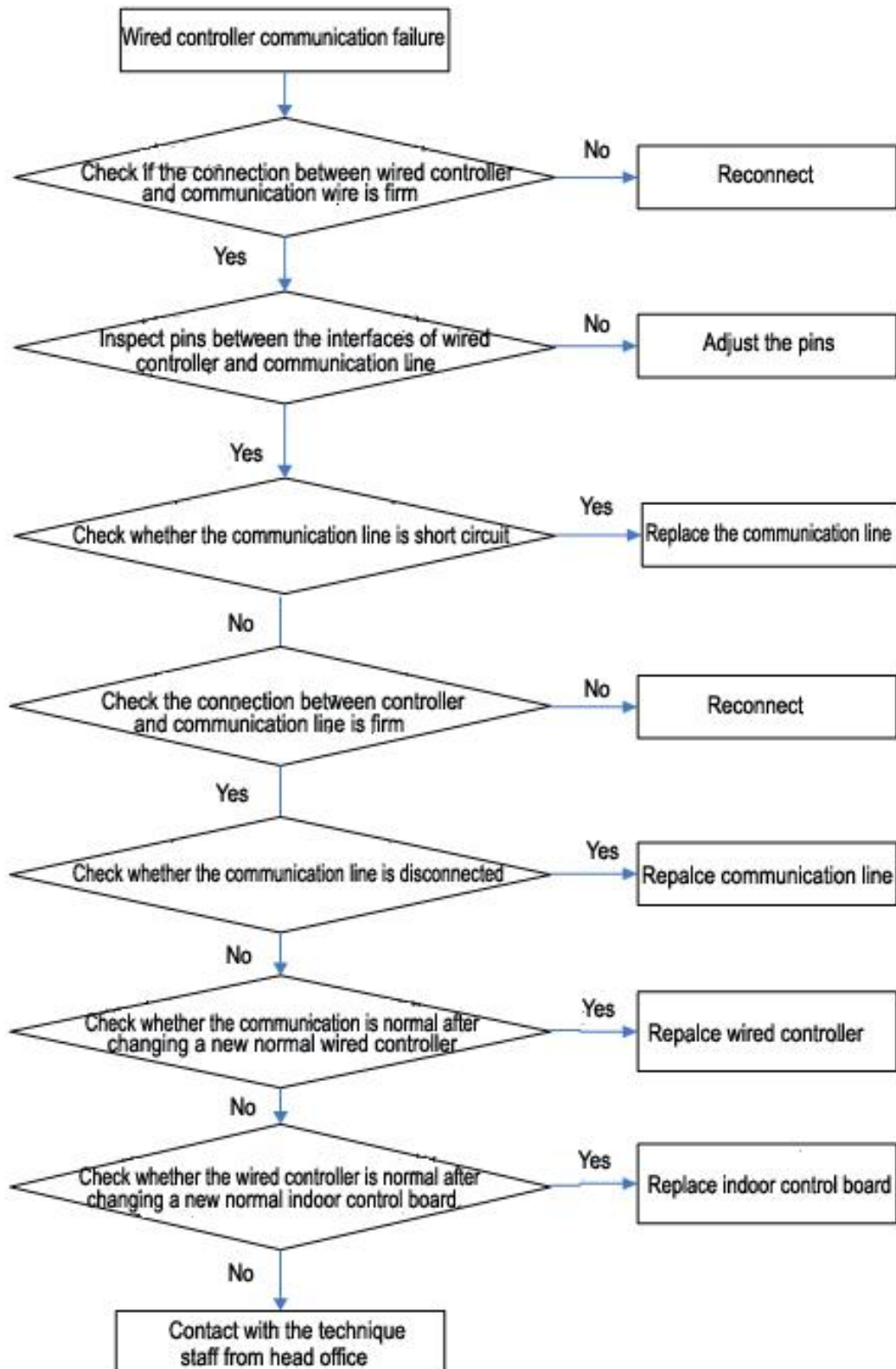
Failure causing	Display mode1 (indication lamp on display lamp board)	Display mode1 (failure lamp on control board)	Display mode3 (wired controller)	Display priority	Phenomenon
Communication failure	Flash 5 times and go out 2S	Flash 2 times and go out 2S	F1	1	Stop
Wired controller communication failure	—	—	E5	1	Stop
Drainage system failure	Flash 4 times and go out 2S	—	E4	3	Stop
Outdoor protection( Phase failure )	Flash6 times and go out 2S	—	E6	2	Stop
Outdoor protection (discharging over-temperature )	Flash 10 times and go out 2S	Flash 10 times and go out 2S	EA	7	Stop
High pressure protection	Flash 9 times and go out 2S	Flash 1 times and go out 2S	E9	6	Stop
Low pressure protection	Flash 9 times and go out 2S	Flash 3 times and go out 2S	E9	6	Stop
Indoor temp. sensor abnormal(TA)	Flash 1 times and go out 2S	—	E1	4	Stop
Indoor coil sensor abnormal(TE)	Flash 3 times and go out 2S	—	E3	5	Stop
Outdoor coil sensor abnormal(TW)	Flash 2 times and go out 2S	Flash 2 times and go out 2S	E2	8	non-stop
Outdoor condensate temp. Sensor abnormal(TL)	Flash 7 times and go out 2S	Flash 7 times and go out 2S	E7	9	non-stop
Discharging temp. sensor abnormal(TP)	Flash 8 times and go out 2S	Flash 8 times and go out 2S	E8	10	non-stop
Refrigerant shortage	Flash 11 times and go out 2S	Flash 11 times and go out 2S	E0	11	Stop
Defrosting temperature sensor is abnormal	Running lights blinking	-	/	12	non-stop
Indoor thermal overload protection		/	/	13	Stop

### Note:

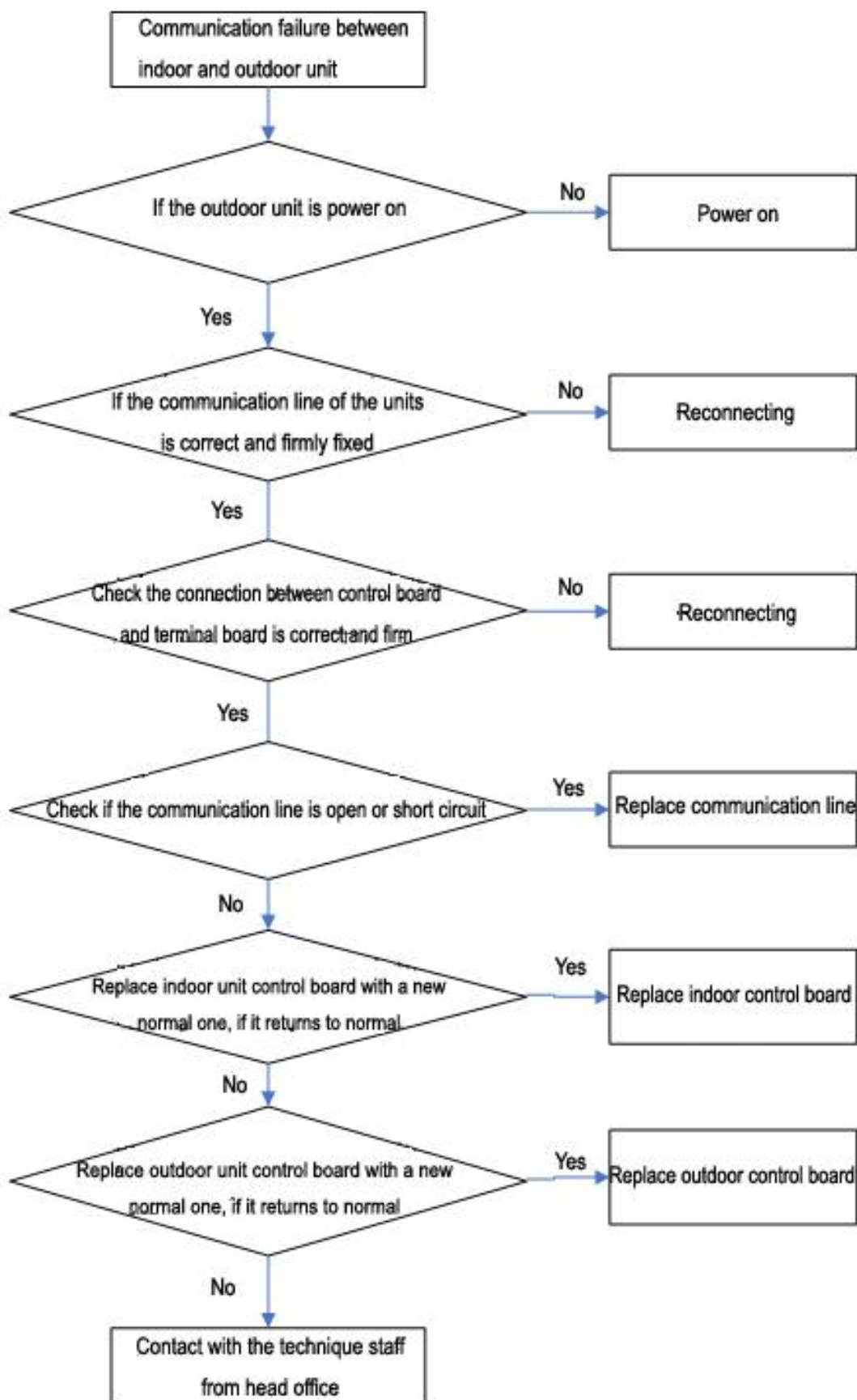
When correct signal has not been received by wired control or main control board in 2 consecutive min, then the unit turns off and indicates relative failure code, once communication renew and failure code disappears automatically.

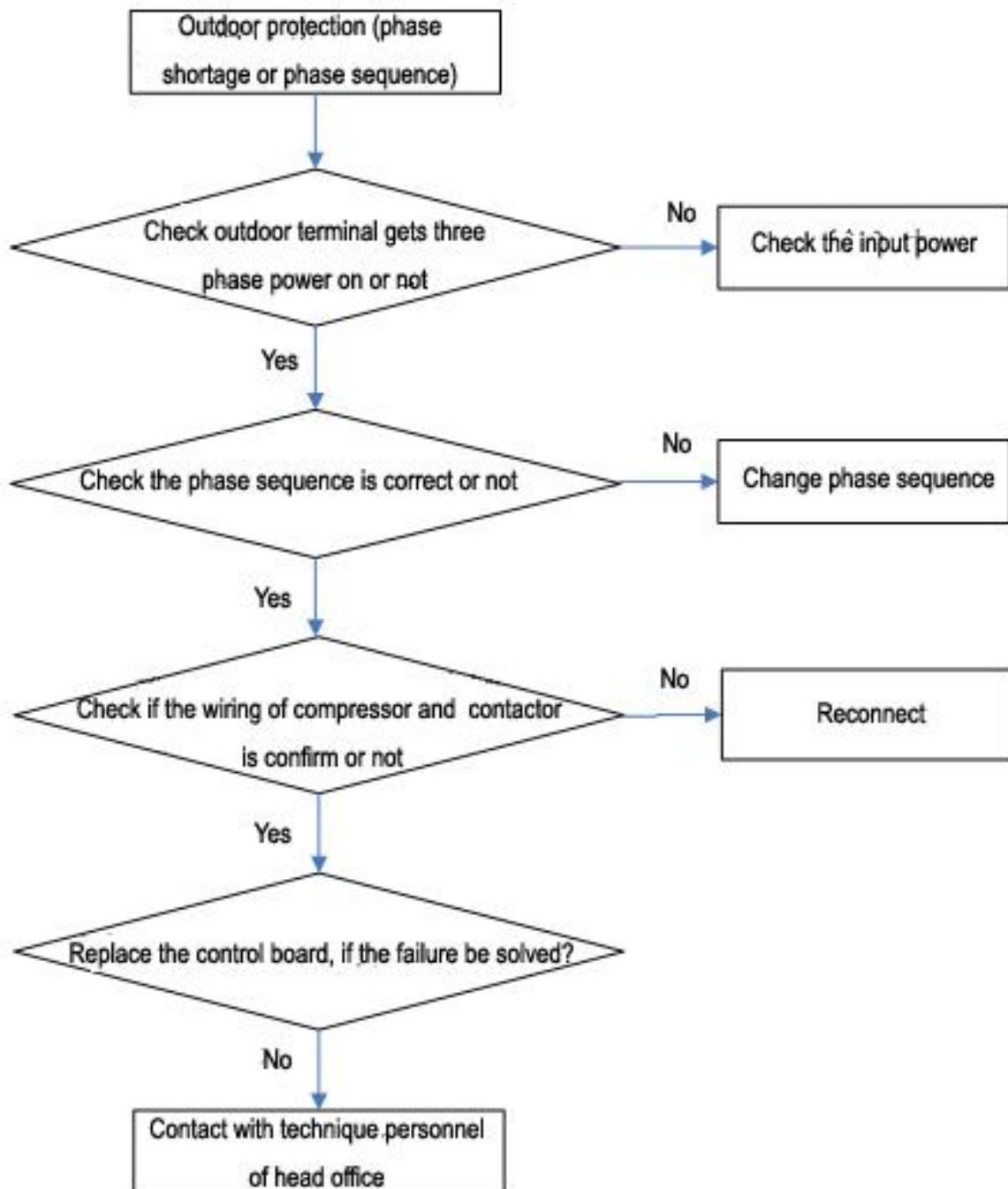
## 7.Failure analysis

### Wired controller communication failure

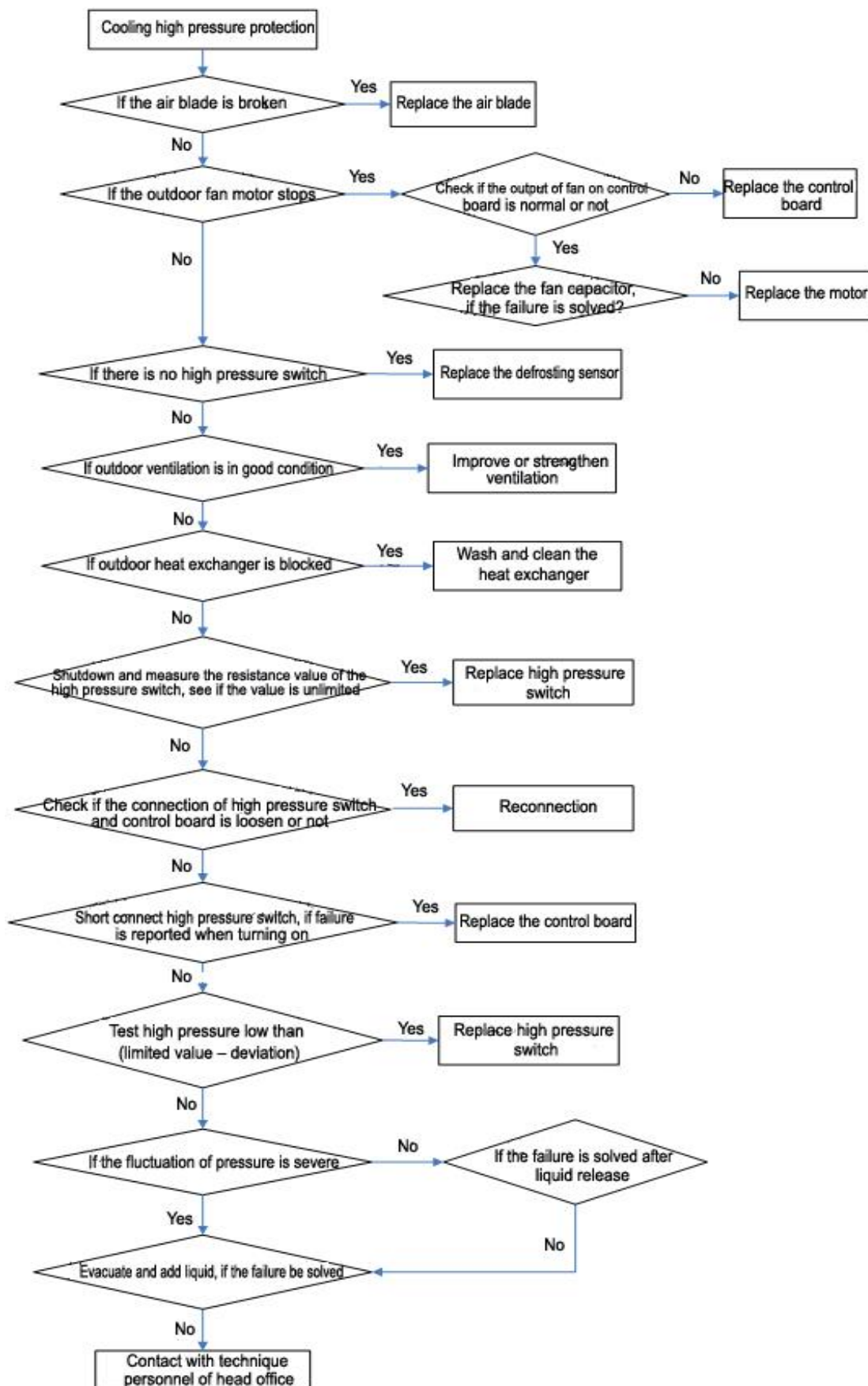


### Communication failure between indoor and outdoor unit

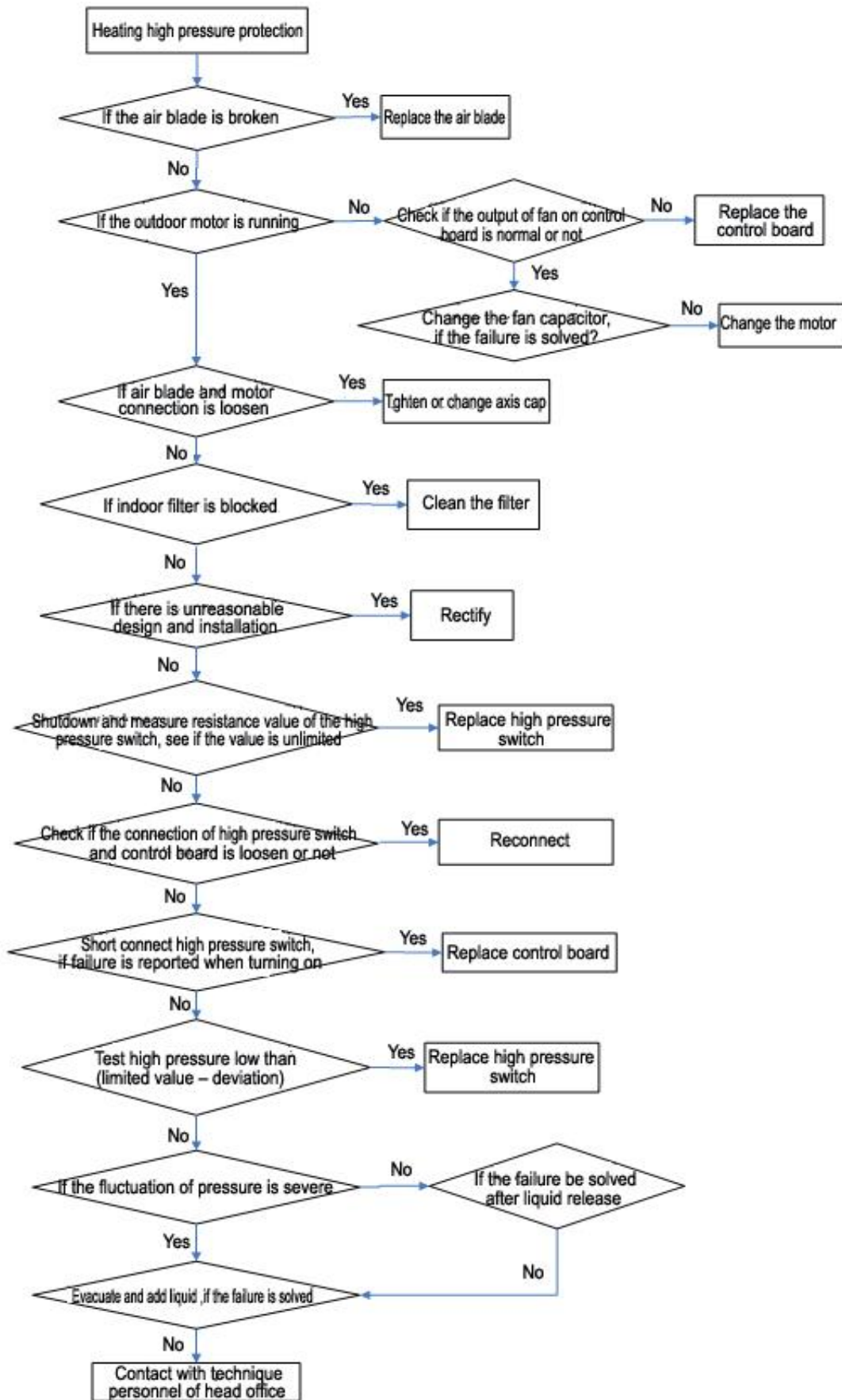


**Outdoor protection(phase sequence)**

### Cooling high pressure protection

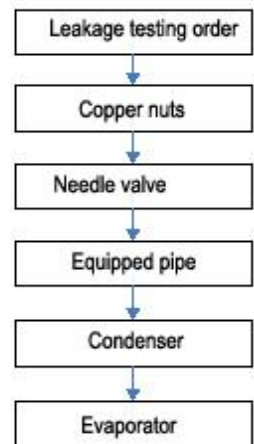
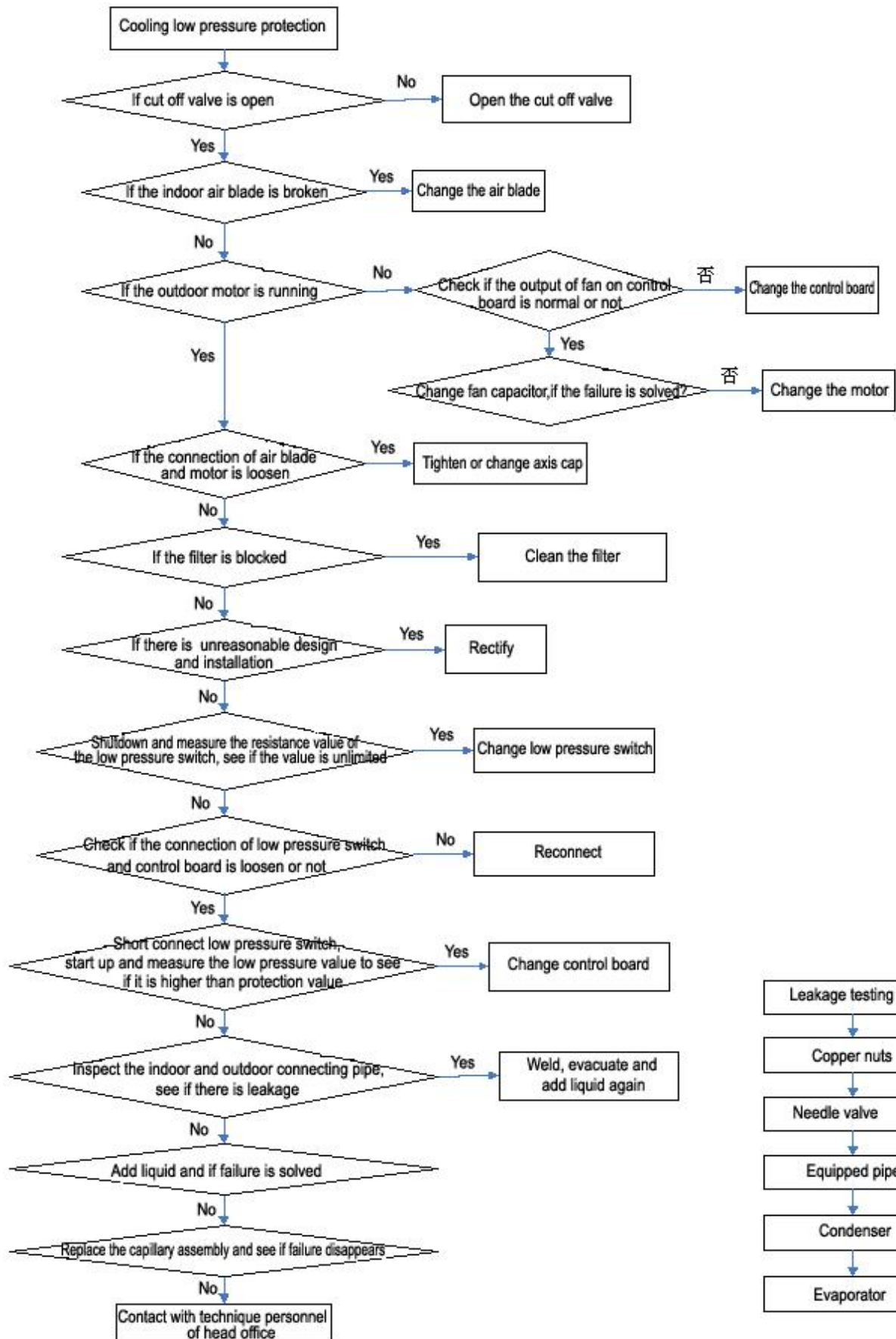


### Heating high pressure protection

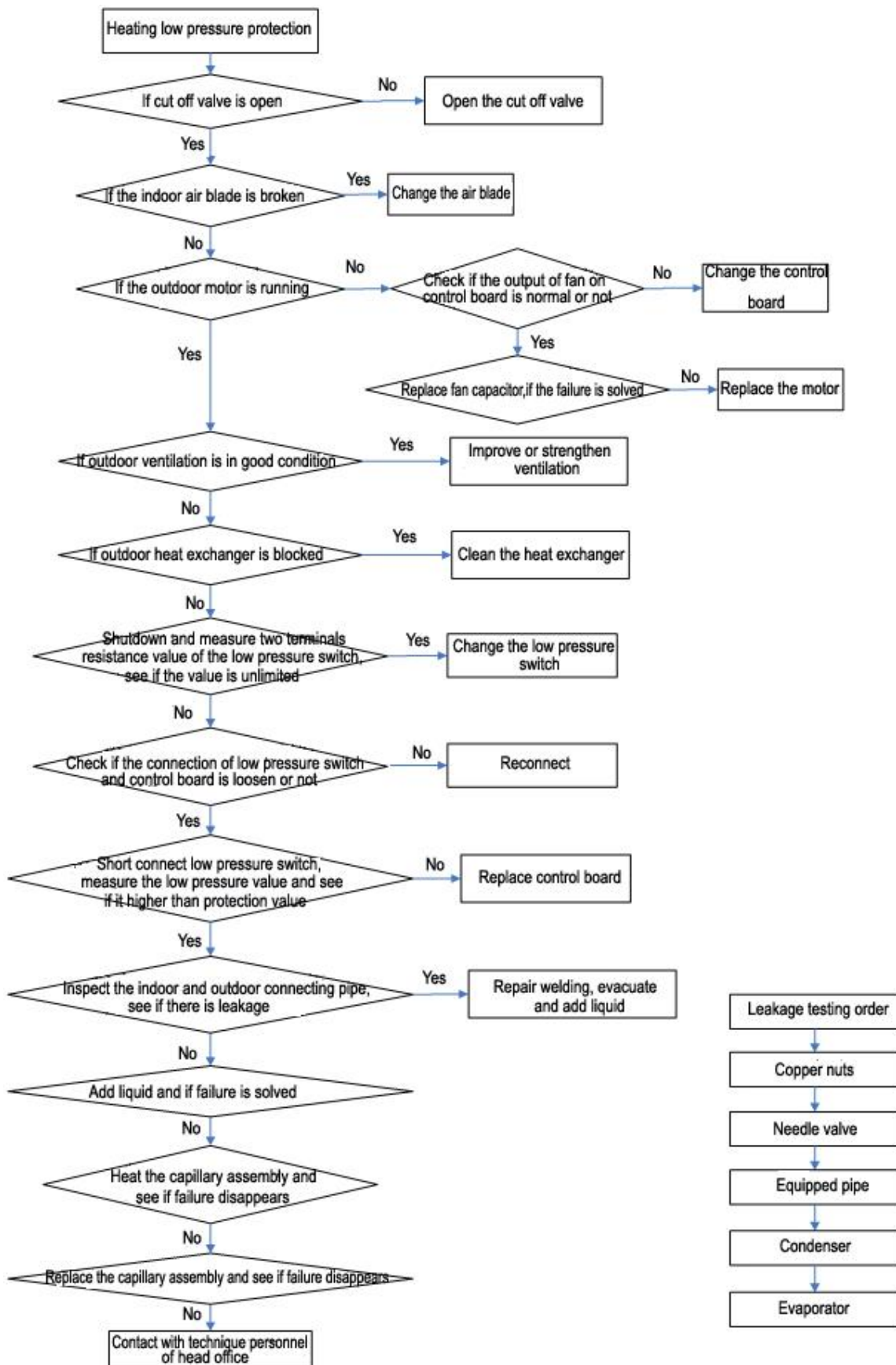




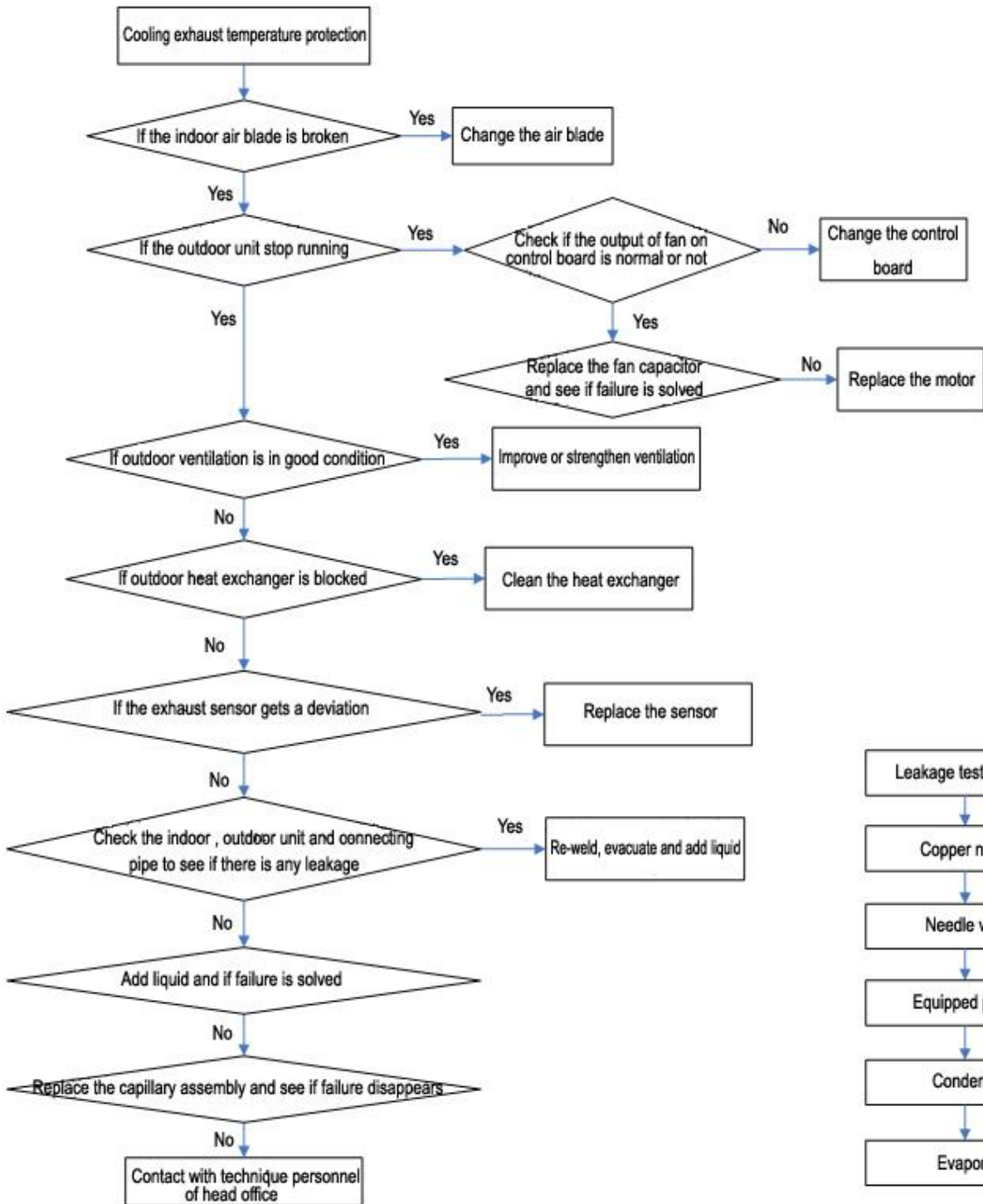
### Cooling low pressure protection



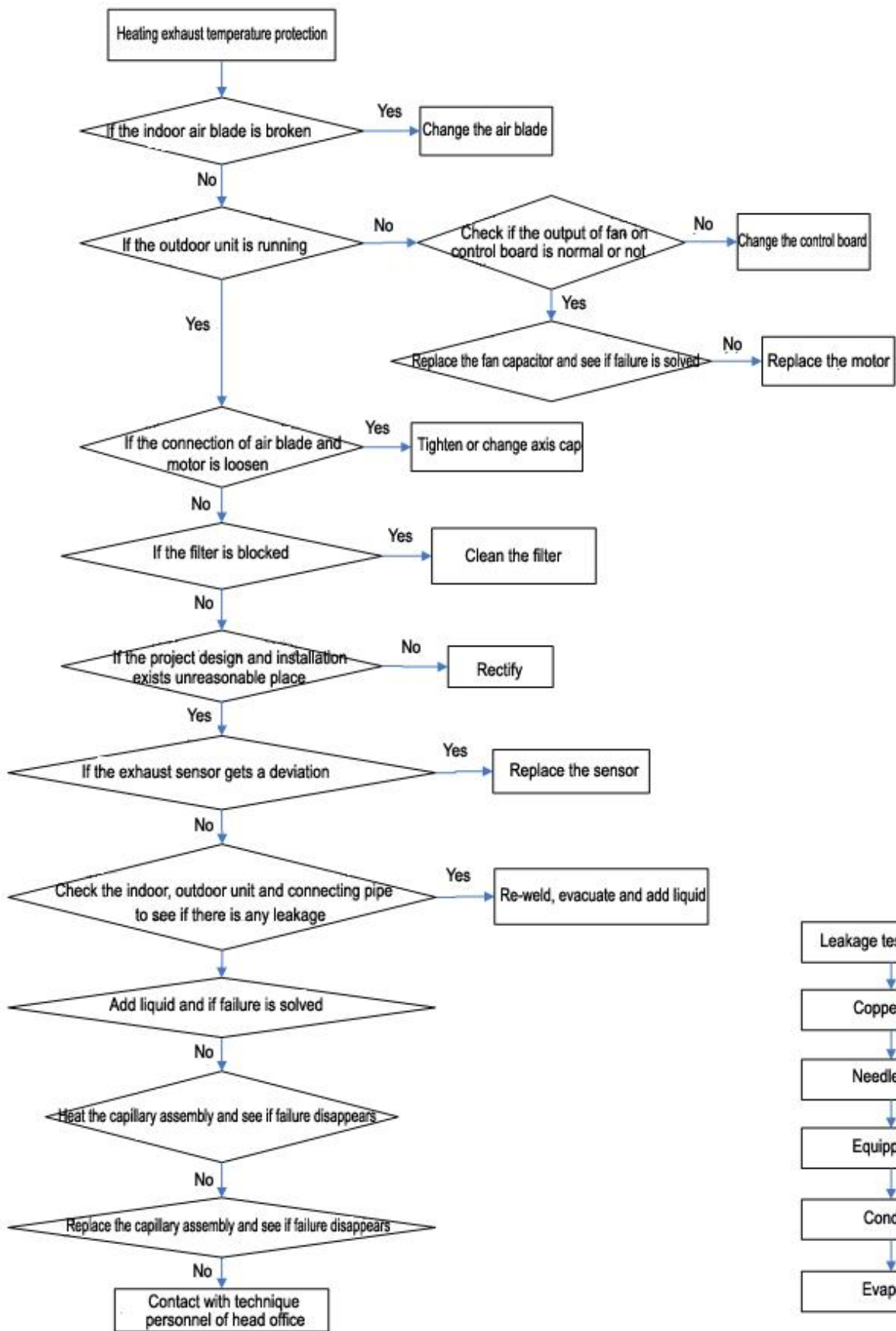
### Heating low pressure protection



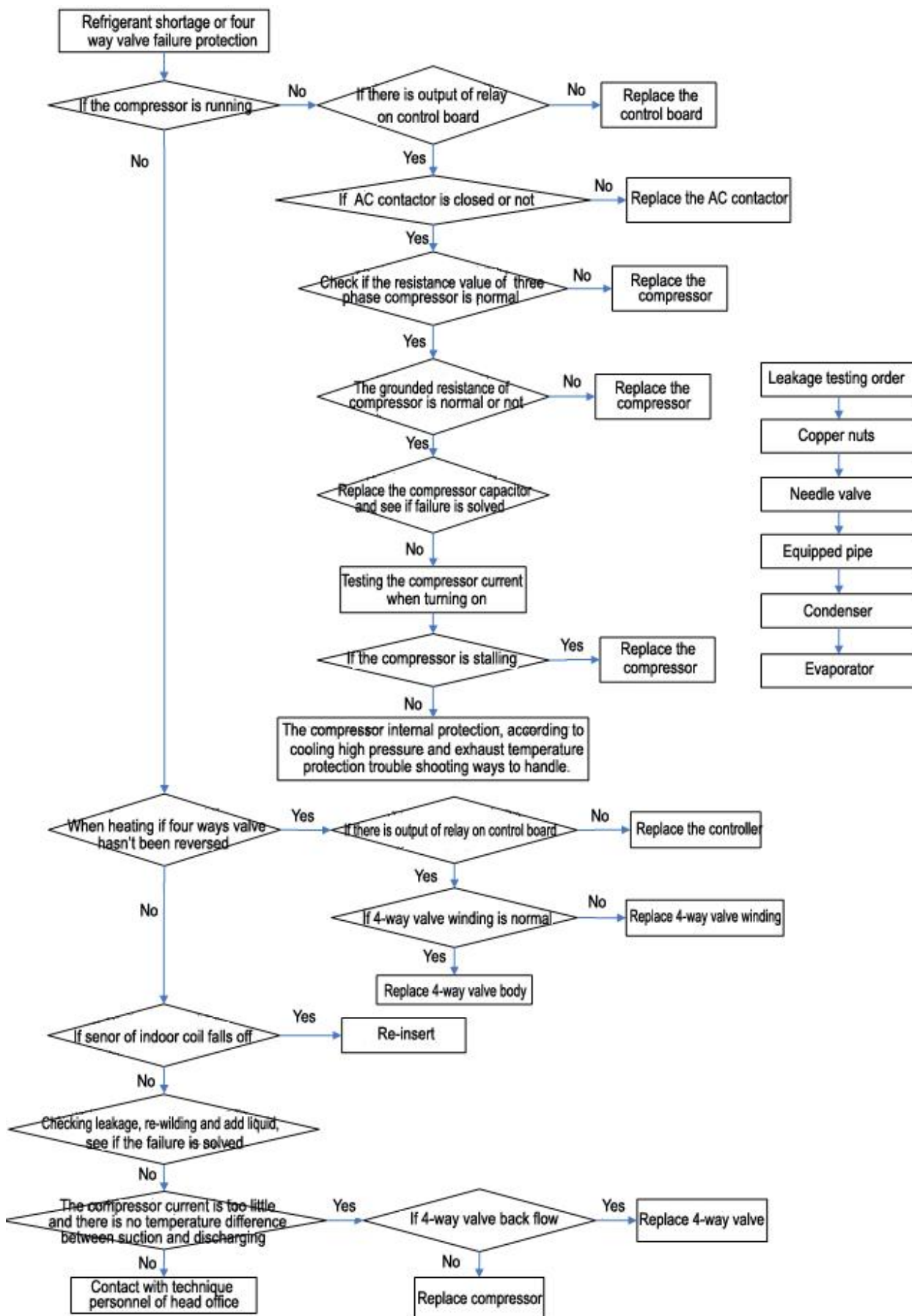
### Cooling exhaust temperature protection



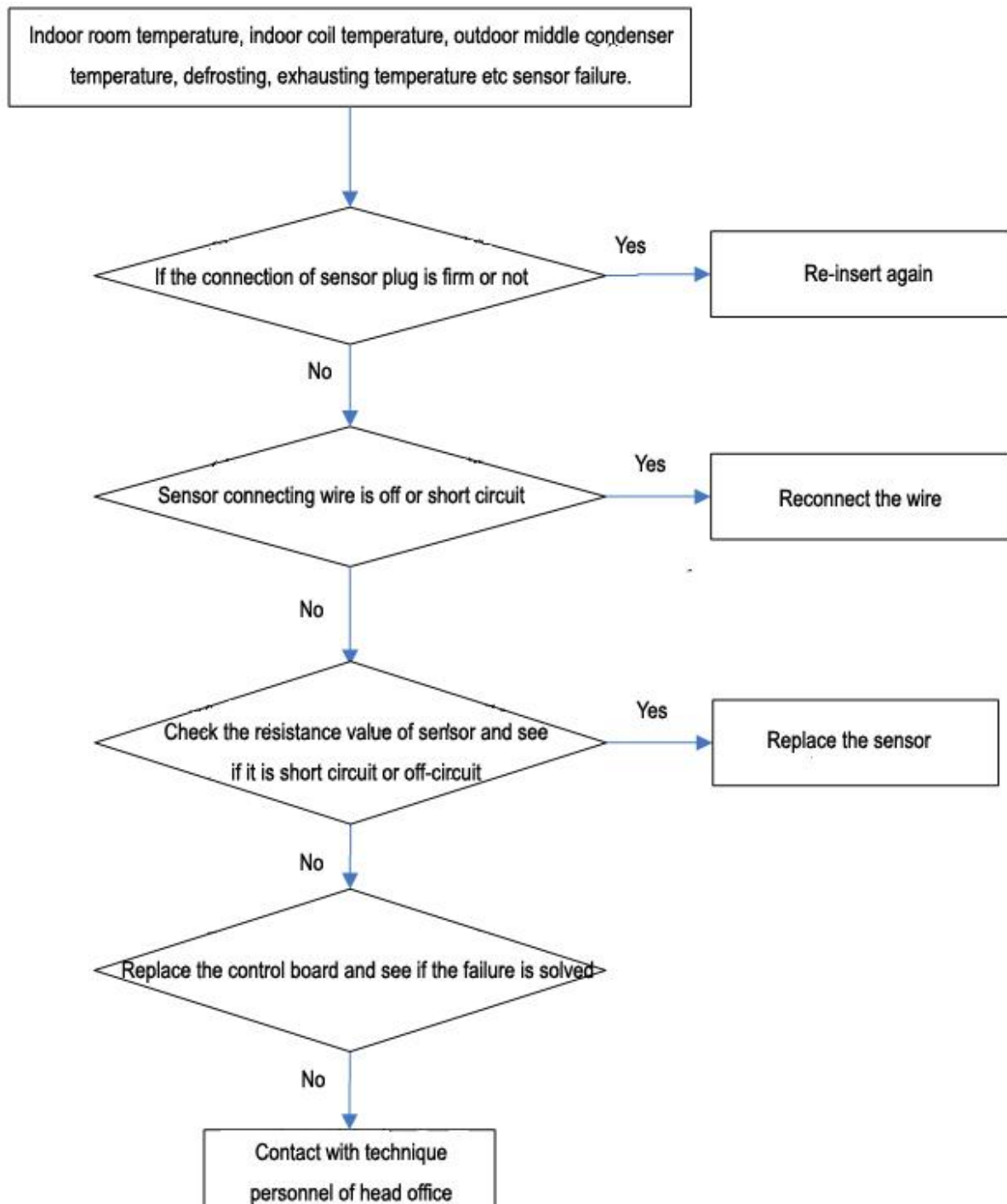
### Heating exhaust temperature protection



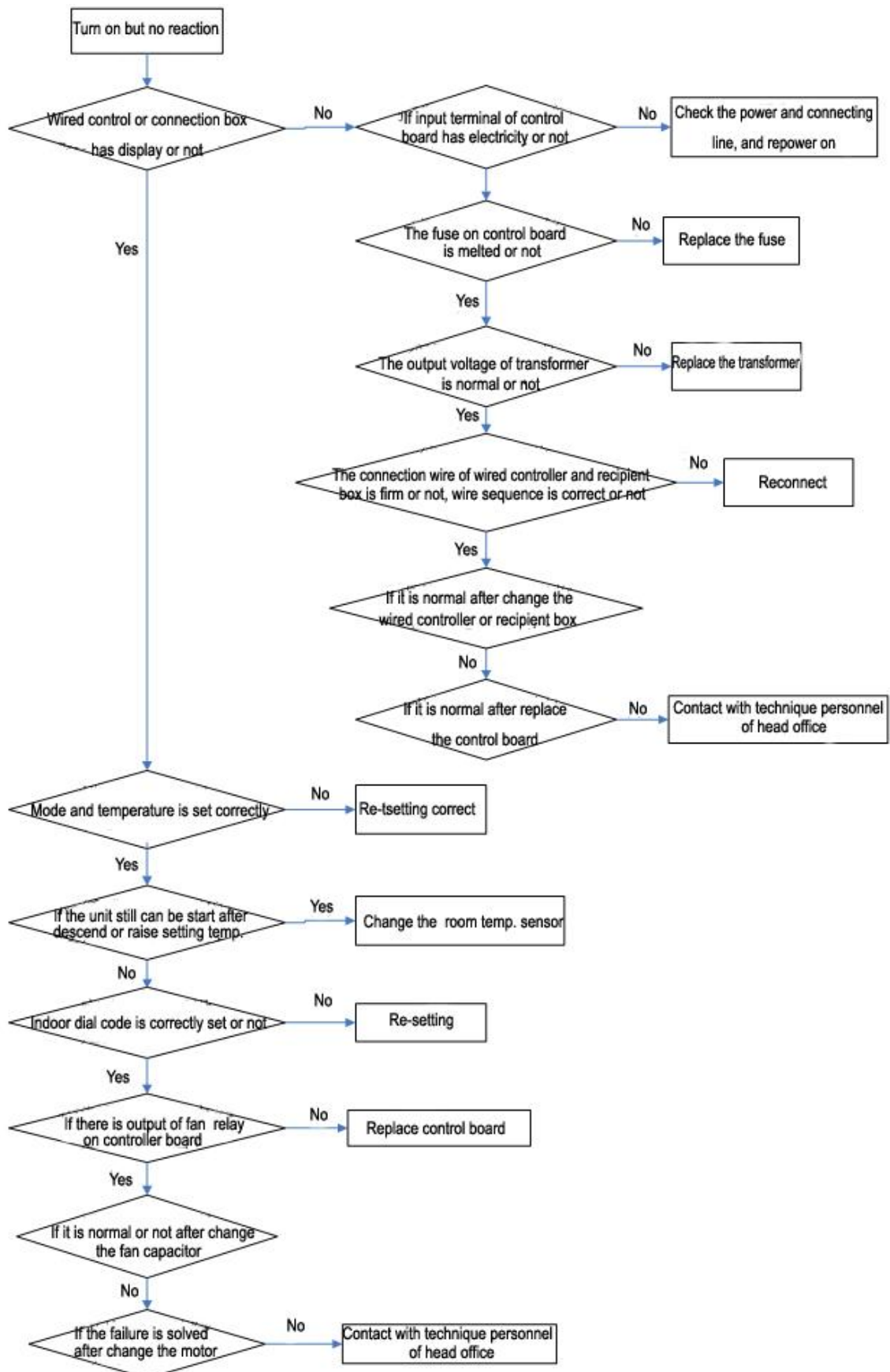
### Refrigerant shortage or four way valve failure protection



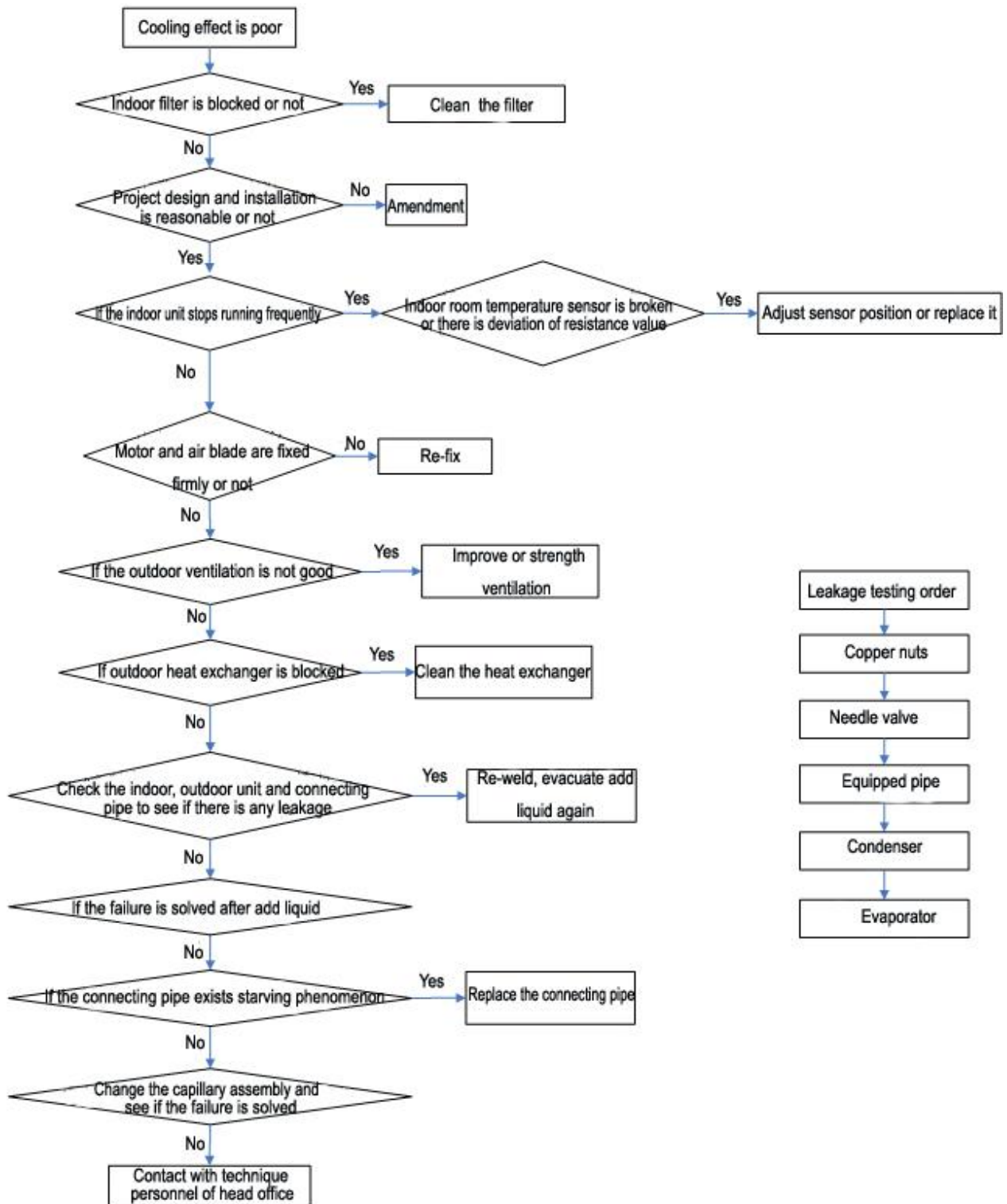
### Sensor failure protection



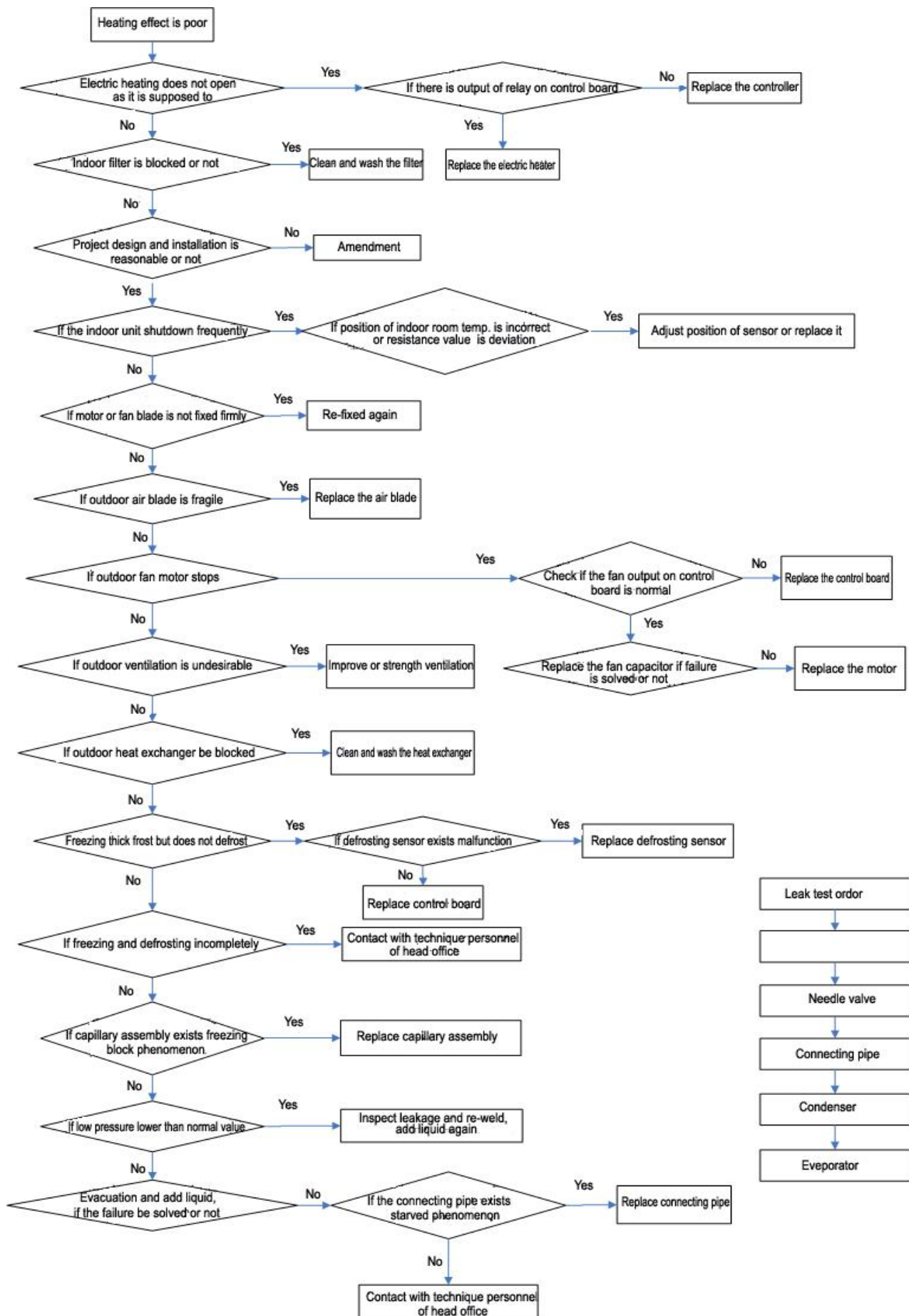
### No action after power-on



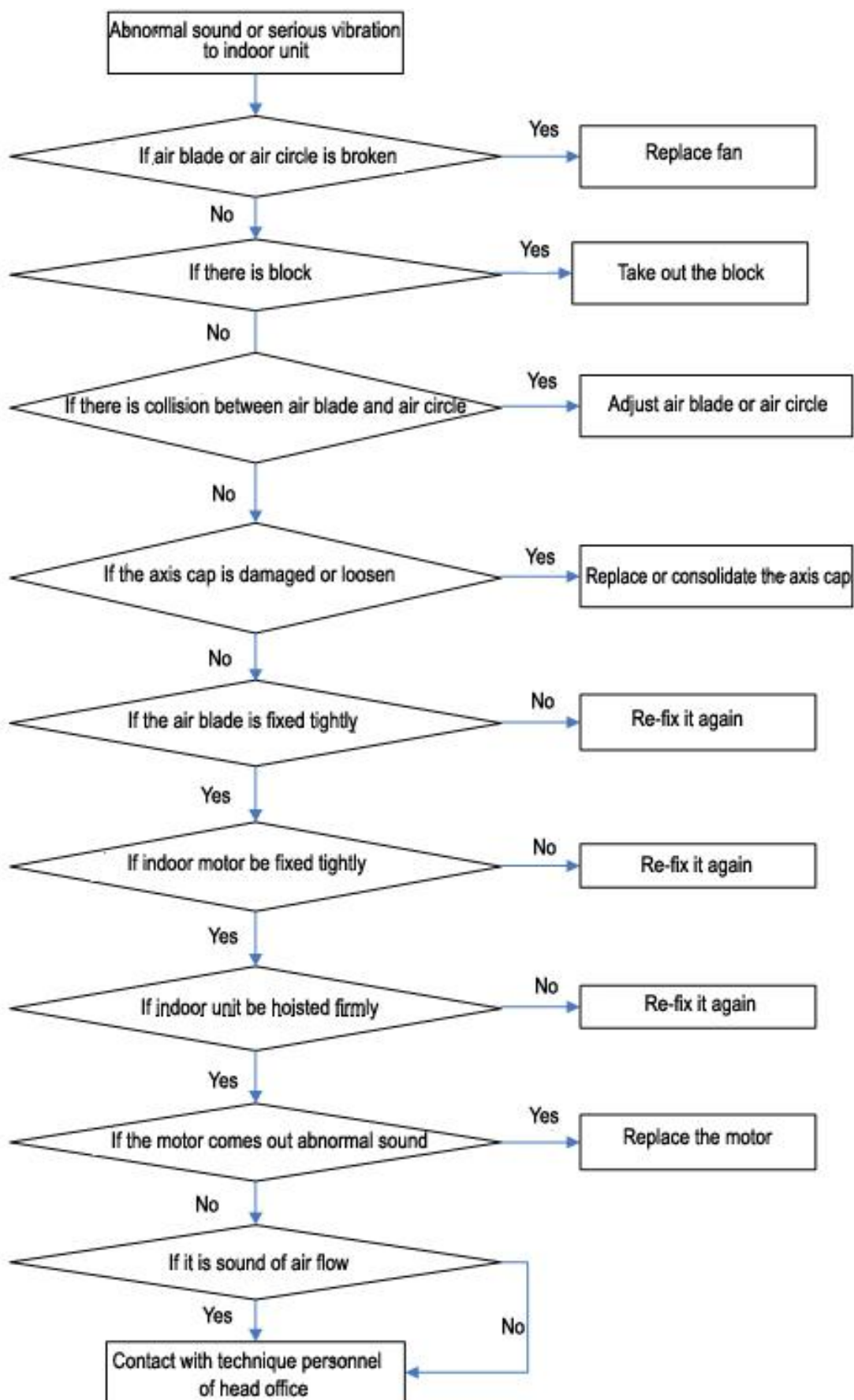
### Poor effect

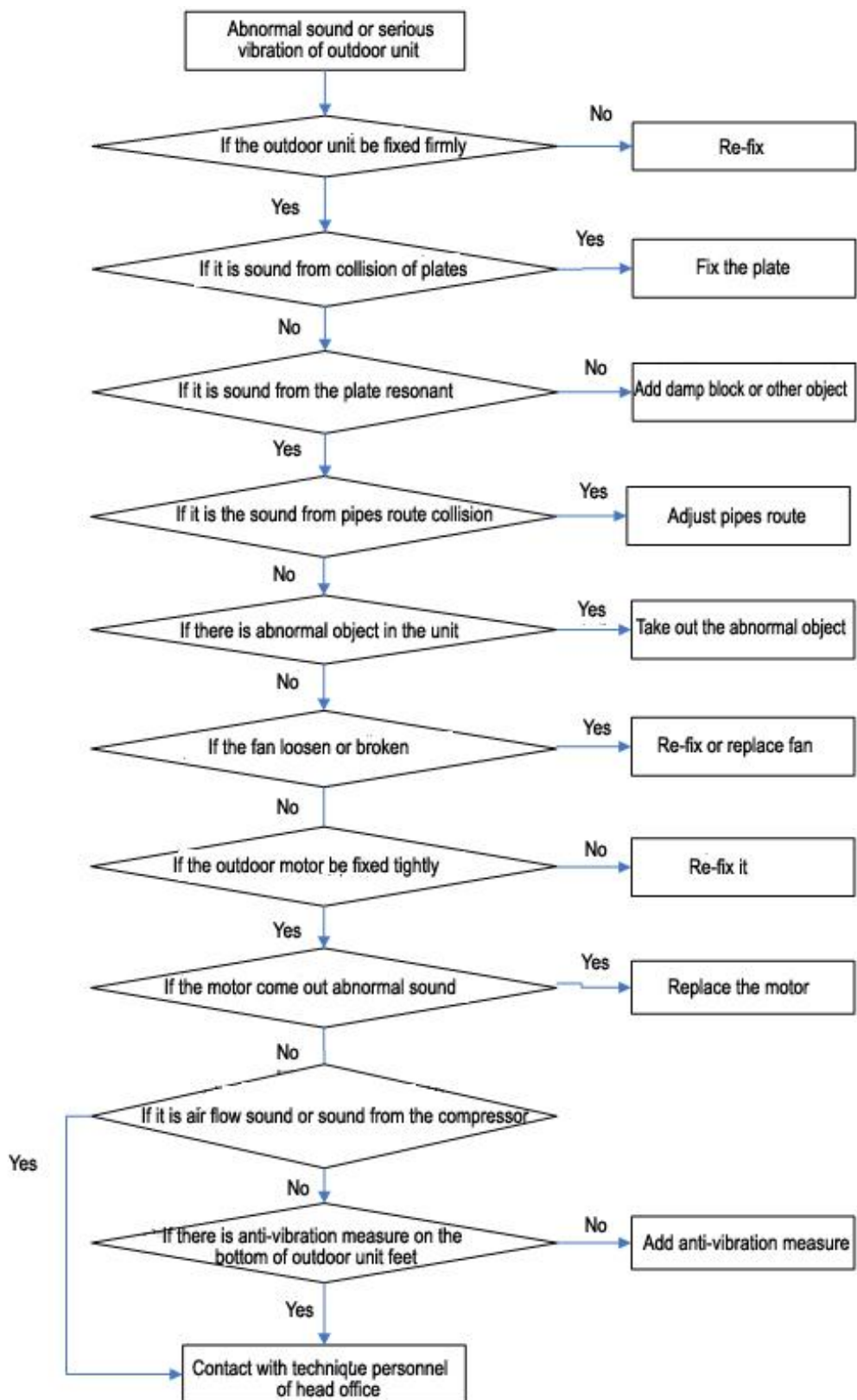




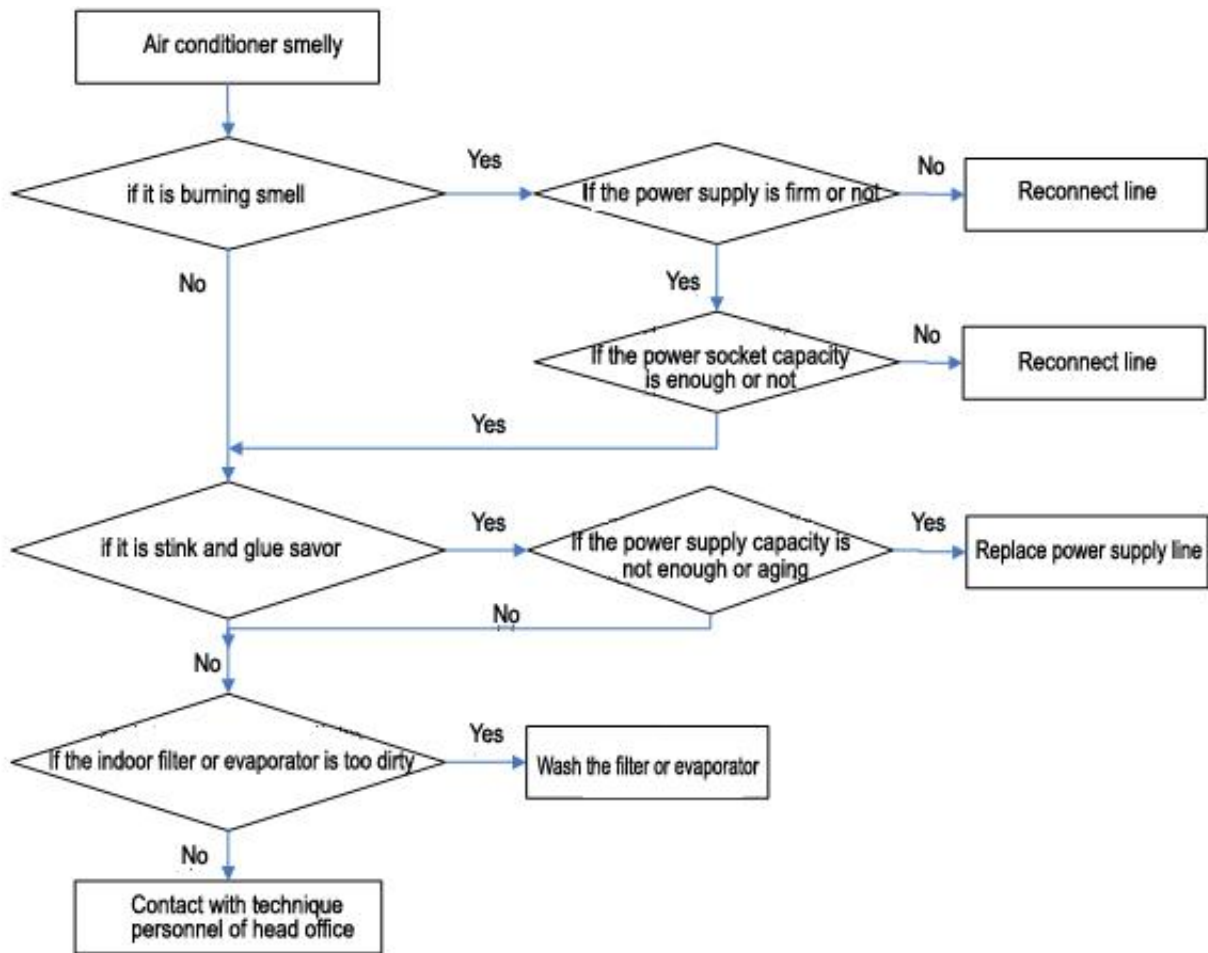


### Abnormal sound or vibration

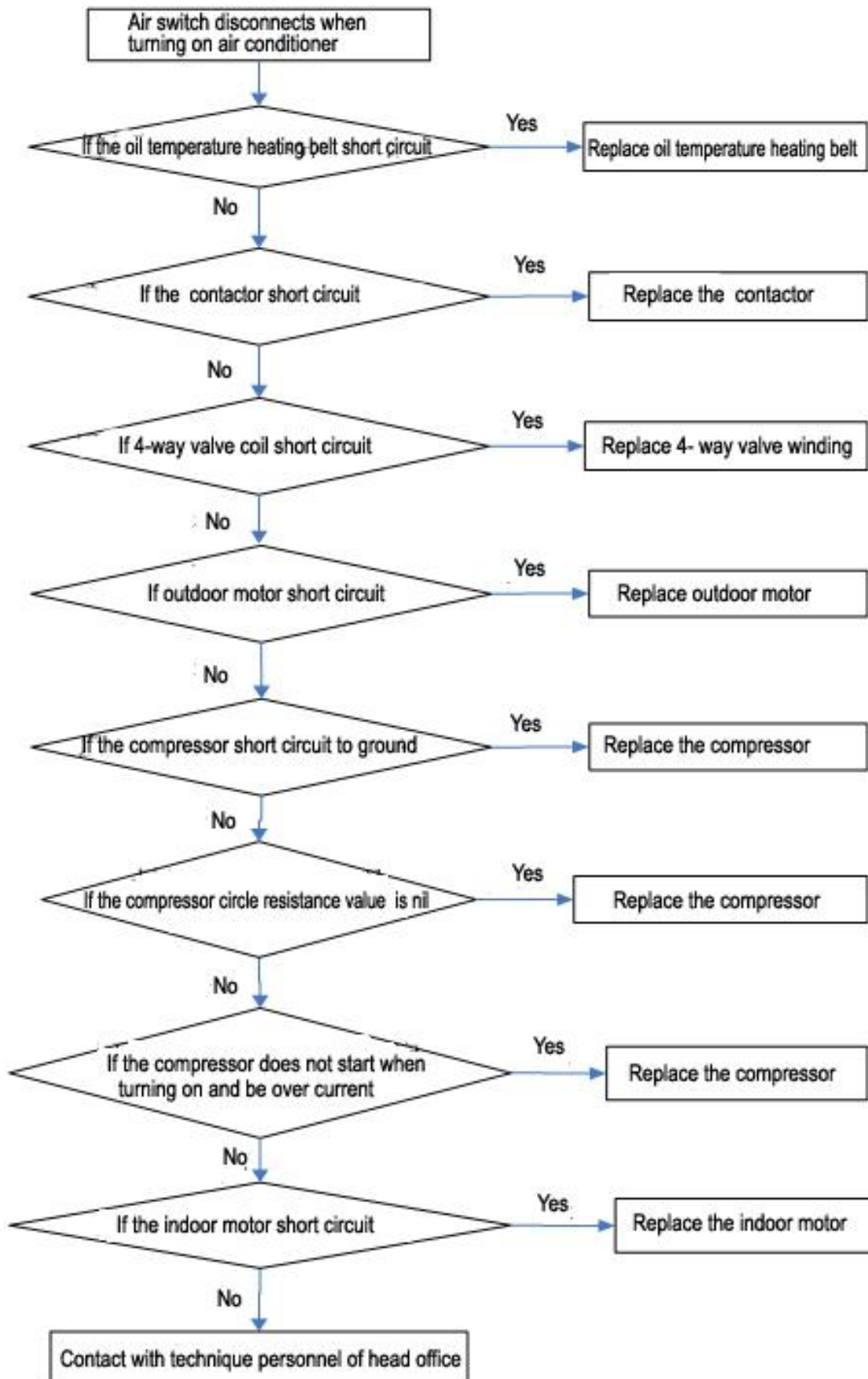




### Abnormal odor



### Air switch action when air conditioner starting up



### Air conditioner water leakage

