



Floor Standing Split

TMFS & TMFE & TMFV Series



TRUST AIR CONDITIONING EQUIPMENT CO.
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Shiraz- AUG 2015

Troubleshooting

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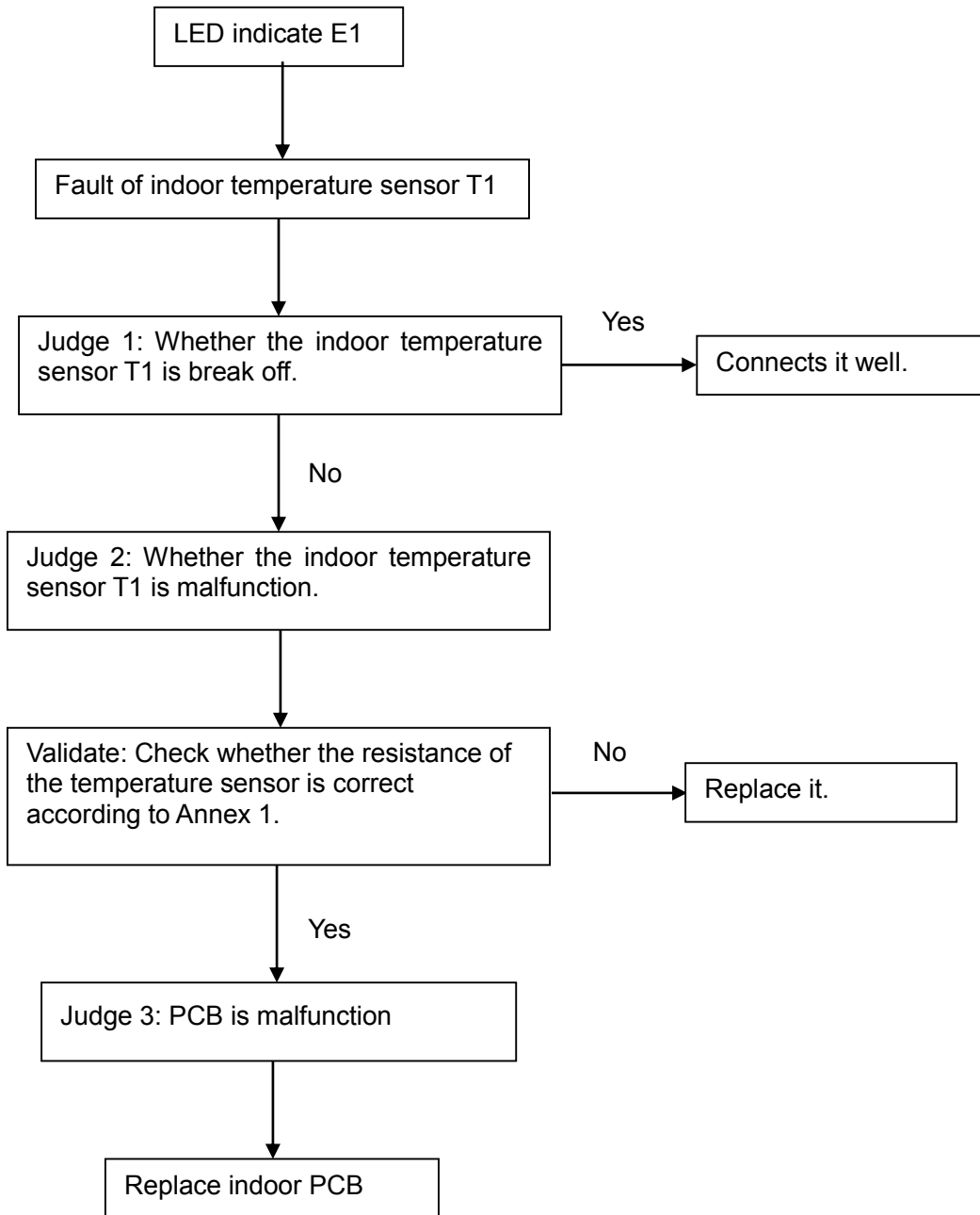
توجه:

شرکت تراست حق تغییر مشخصات دستگاه ها را در جهت بهبود و ارتقای کیفیت برای خود محفوظ می دارد.

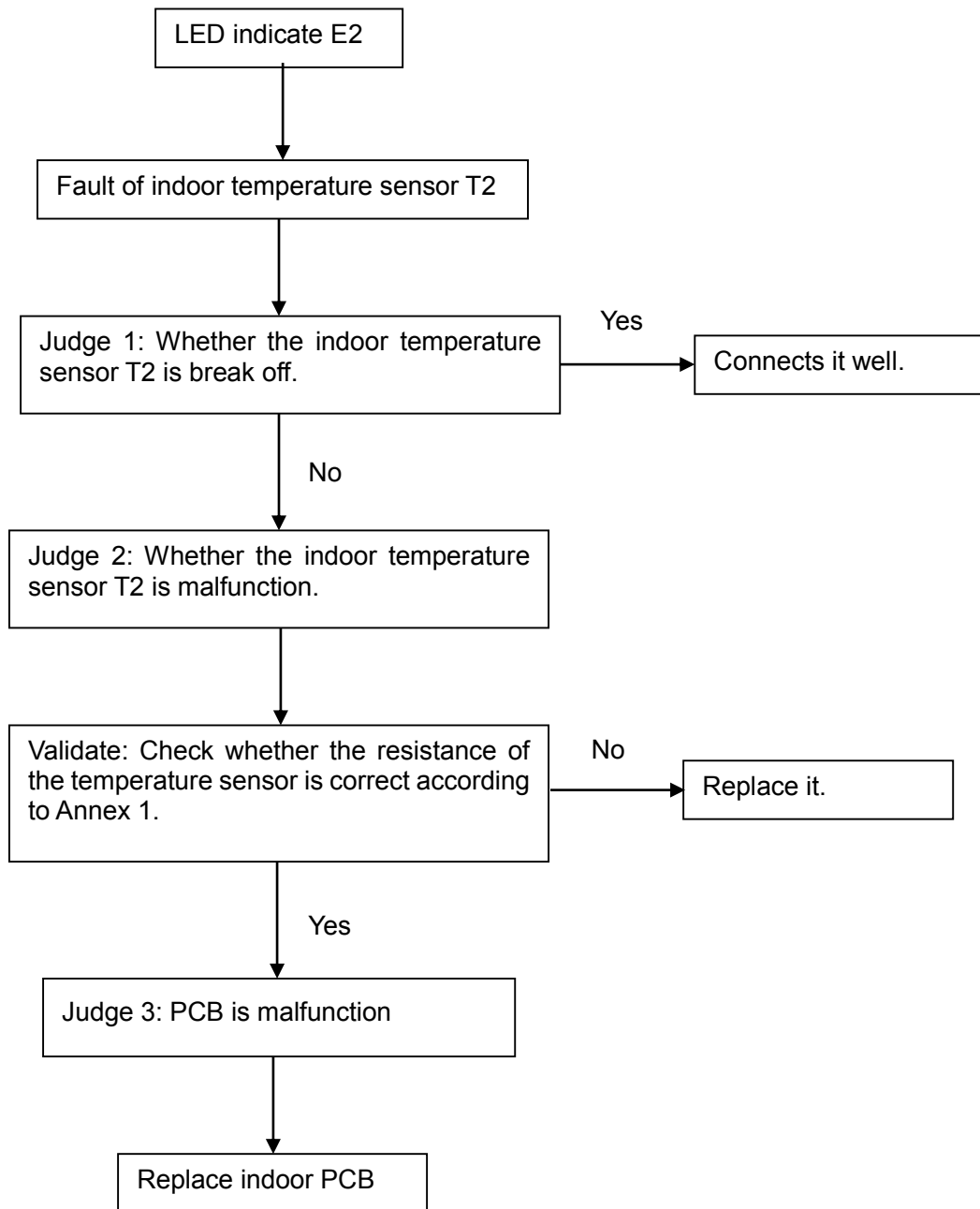
1. Troubleshooting { indoor }

No	Display content	Fault or protection meaning
1	E1	T1 Fault of open circuit, short circuit
2	E2	T2 Fault of open circuit, short circuit
3	P1	Under heating mode, T2 is on high temperature protection
4	P2	Under cooling mode, T2 is on low temperature protection

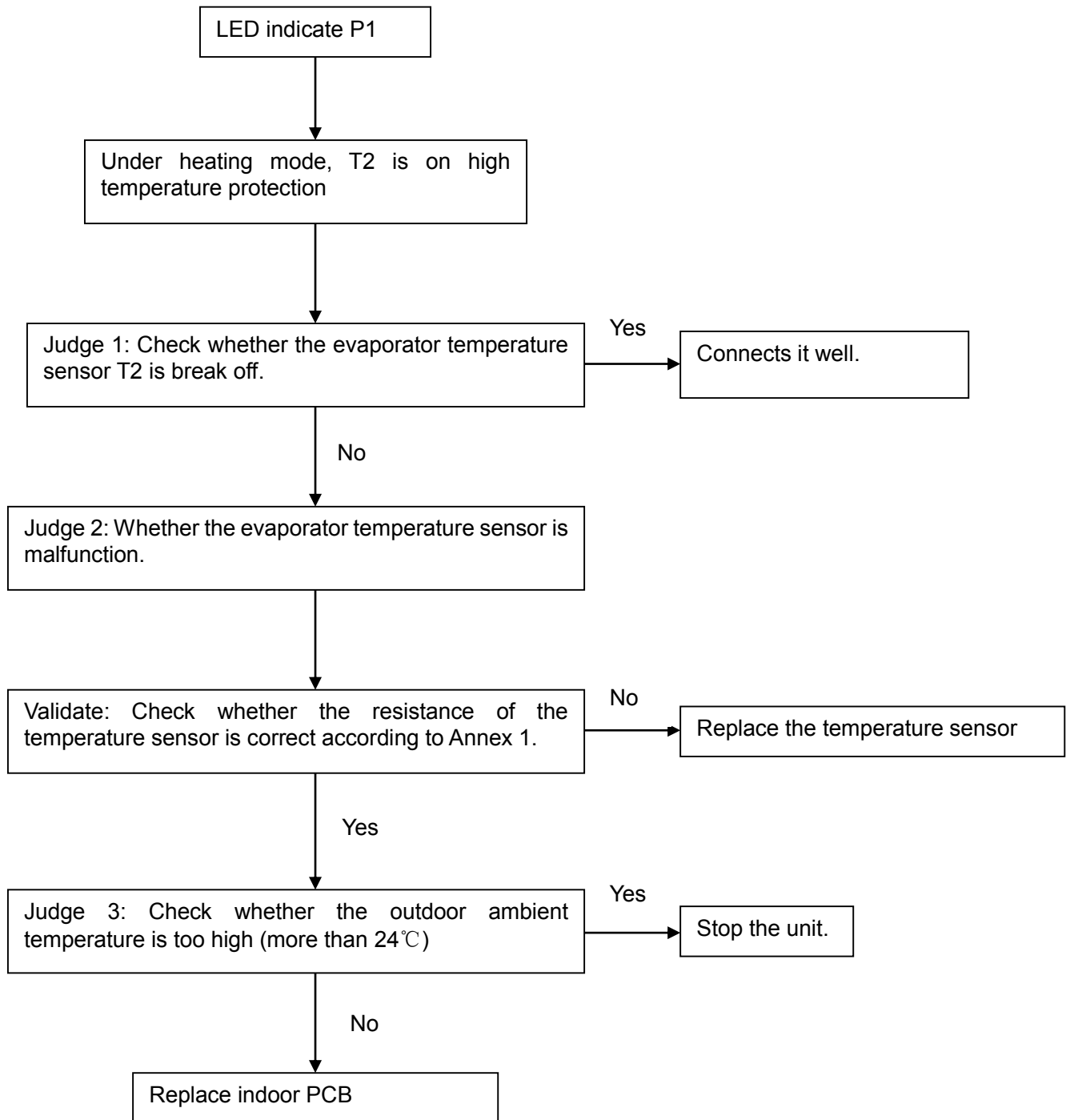
1.1 E1 malfunction



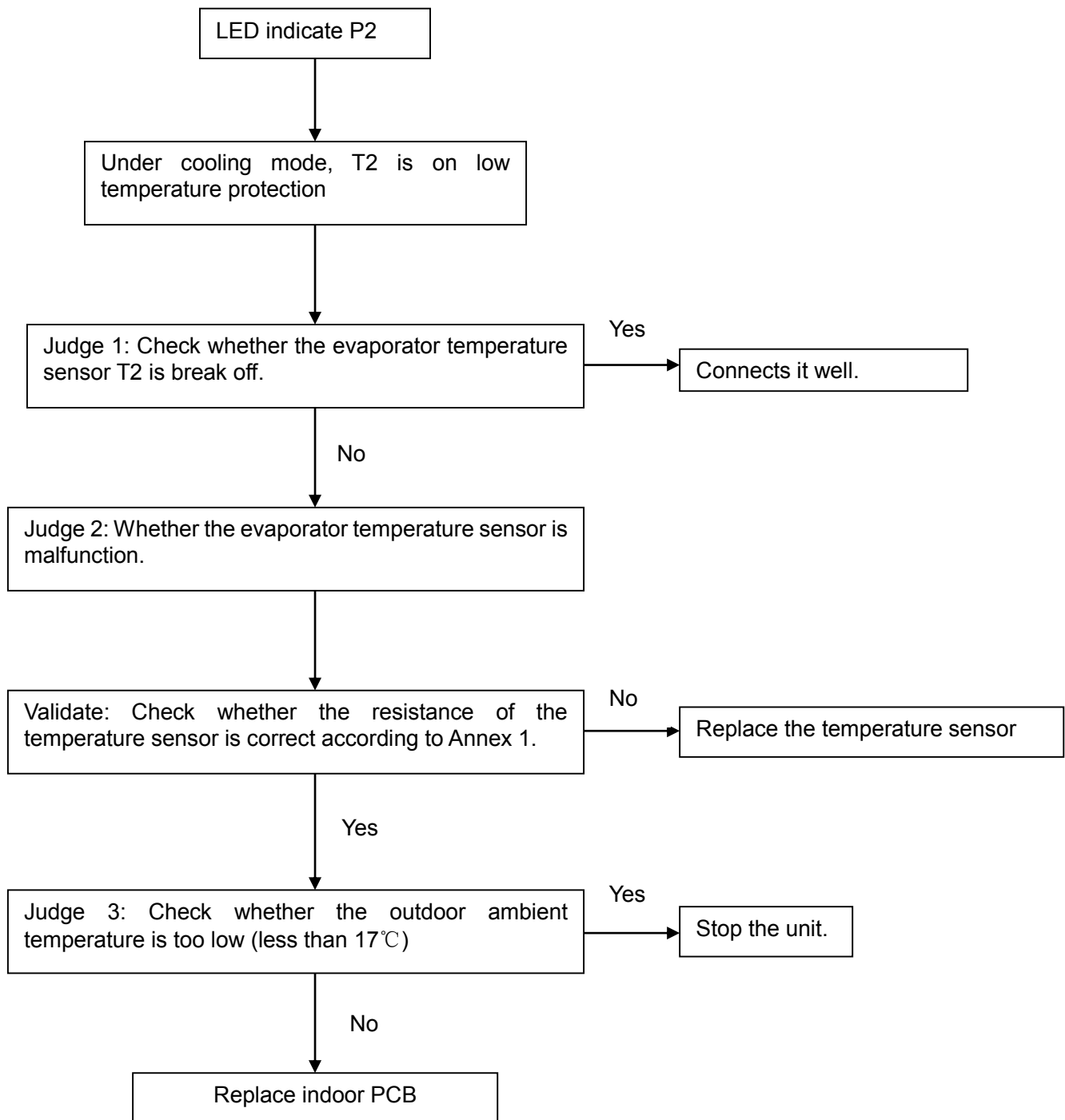
1.2 E2 malfunction









1.3 P1 malfunction



1.4 P2 malfunction



2. Accessories

Accessory name	Qty.	Shape	Purpose
Owner's manual	1		
Installation manual	1	This manual	
Water connective pipe	1		Connect to water drainage pipe
Remote controller Owner's Manual	1		Owner's Manual
Remove controller	1		
AAA battery	2		

Troubleshooting {outdoor}

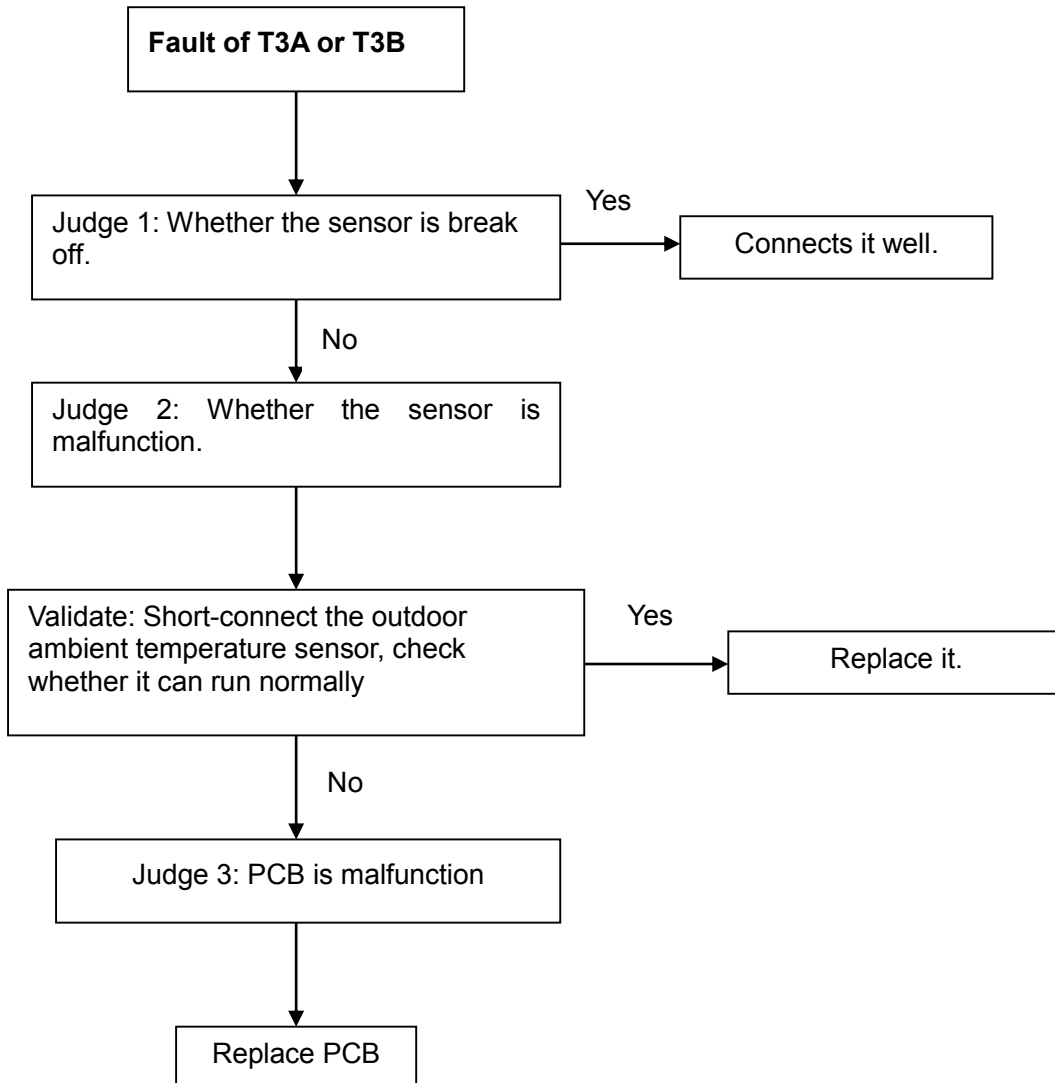
1.1 LED Indication Description

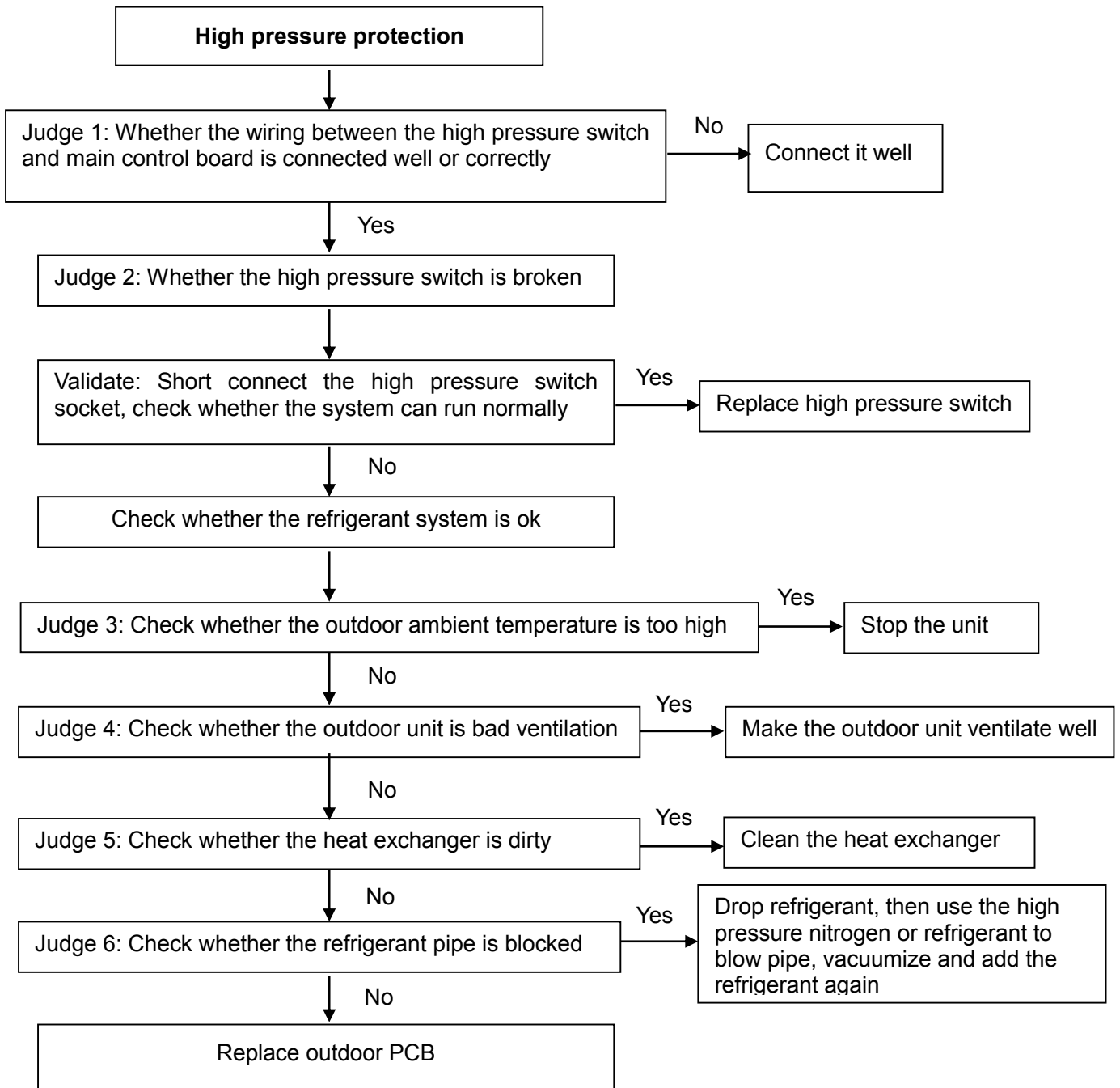
No.	Error or protection	LED1	LED2	LED3
1	Communication error	Flash	Extinguish	Extinguish
2	Lo.pressure protection	Flash	Flash	Extinguish
3	Room temp. open and short circuit protection	Extinguish	Extinguish	Flash
4	Condenser Hi. pressure protection	Extinguish	Flash	Flash
5	Reverse/omit phase sequence	Flash	Flash	Flash
6	T3 open, short circuit error	Extinguish	Flash	Extinguish
7	Without	Flash	Extinguish	Flash

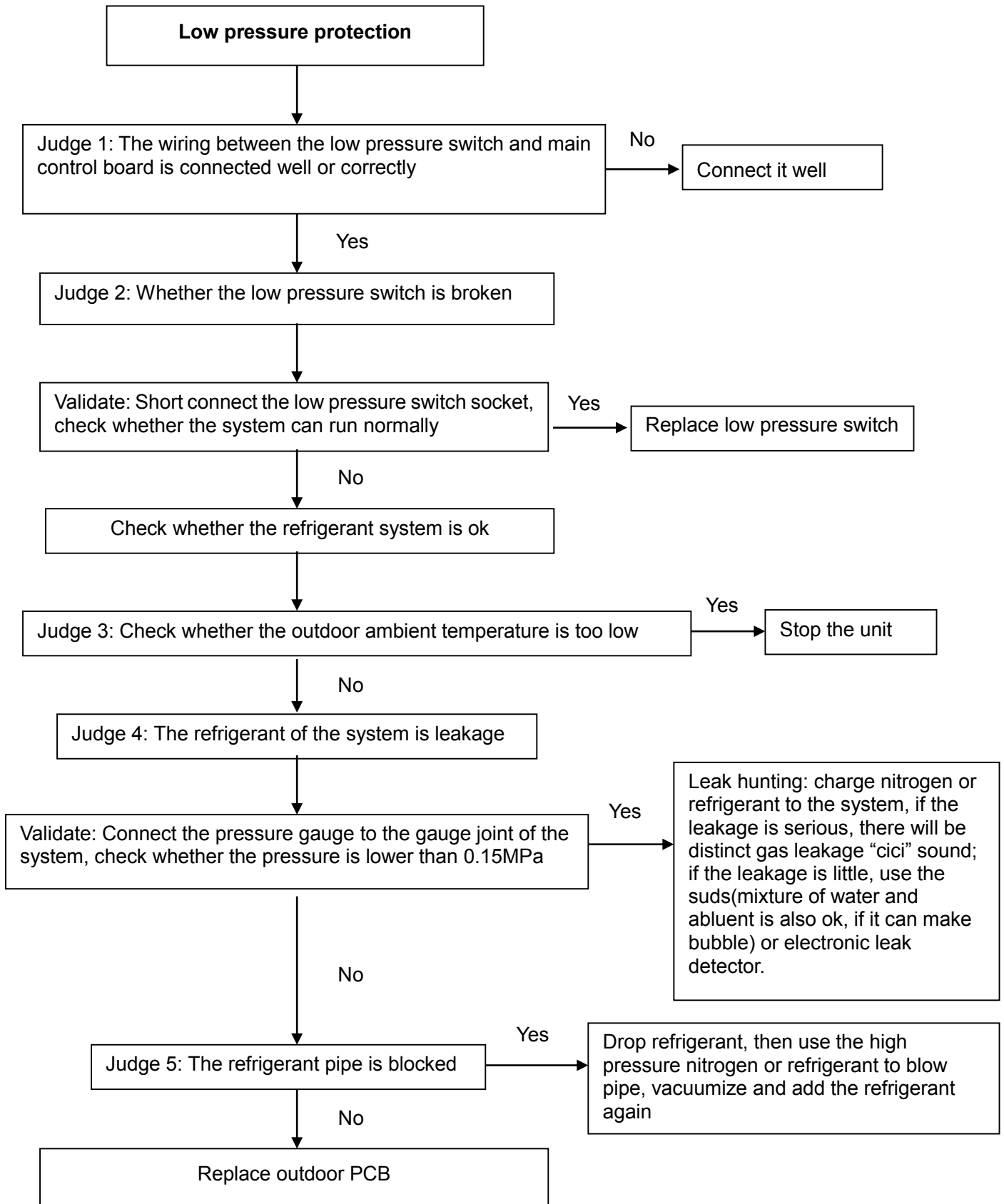
Symptoms	Causes	Solution
Unit does not start	<ul style="list-style-type: none"> • Power failure. • Power switch is off. • Fuse of power switch may have burned. • Batteries of remote controller exhausted or other problem of controller. 	<ul style="list-style-type: none"> • Wait for the comeback of power. • Switch on the power. • Replace the fuse. • Replace the batteries or check the controller.
Air flowing normally but completely can't cooling	<ul style="list-style-type: none"> • Temperature is not set correctly. • Be in 3 minutes protection of compressor. 	<ul style="list-style-type: none"> • Set the temperature properly. • Wait.
Units start or stop frequently	<ul style="list-style-type: none"> • Refrigerant is too little or too much. • Air or no concreting gas in the refrigerating circuit. • Compressor is malfunction. • Voltage is too high or too low. • System circuit is blocked. 	<ul style="list-style-type: none"> • Check leakage, and rightly recharge refrigerant. • Vacuum and recharge refrigerant. • Maintenance or change compressor. • Install manostat. • Find reasons and solution.
Low cooling effect	<ul style="list-style-type: none"> • Outdoor unit and indoor unit heat exchanger is dirty. • The air filter is dirty. • Inlet/outlet of indoor/outdoor units is blocked. • Doors and windows are open. • Sunlight directly shine. • Too much heat resource. • Outdoor temp. is too high. • Leakage of refrigerant or lack of refrigerant. 	<ul style="list-style-type: none"> • Clean the heat exchanger. • Clean the air filter. • Eliminate all dirties and make air smooth. • Close doors and windows. • Make curtains in order to shelter from sunshine. • Reduce heat source. • AC cooling capacity reduces (normal). • Check leakage and rightly recharge refrigerant.
Low heating effect	<ul style="list-style-type: none"> • Outdoor temperature is lower than 7°C. • Doors and windows not completely closed. • Leakage of refrigerant or lack of refrigerant. 	<ul style="list-style-type: none"> • Use heating device. • Close doors and windows. • Check leakage and rightly recharge refrigerant.

Symptoms	Causes	Solution
The fan speed can not be changed.	<ul style="list-style-type: none"> ● Check whether the MODE indicated on the display is "AUTO" 	When the automatic mode is selected, the air conditioner will automatically change the fan speed.
	<ul style="list-style-type: none"> ● Check whether the MODE indicated on the display is "DRY" 	When dry operation is selected, the air conditioner automatically change the fan speed. The fan speed can be selected during "COOL", "FAN ONLY", and "HEAT".
The remote controller signal is not transmitted even when the ON/OFF button is pushed.	<ul style="list-style-type: none"> ● Check whether the batteries in the remote controller are exhausted. 	The power supply is off.
The TEMP. indicator does not come on.	<ul style="list-style-type: none"> ● Check whether the MODE indicated on the display is FAN ONLY 	The temperature cannot be set during FAN mode.
The indication on the display disappears after a lapse of time.	<ul style="list-style-type: none"> ● Check whether the timer operation has come to an end when the TIMER OFF is indicated on the display. 	The air conditioner operation will stop up to the set time.
The TIMER ON indicator goes off after a lapse of certain time.	<ul style="list-style-type: none"> ● Check whether the timer operation is started when the TIMER ON is indicated on the display. 	Up to the set time, the air conditioner will automatically start and the appropriate indicator will go off.
No receiving tone sounds from the indoor unit even when the ON/OFF button is pressed.	<ul style="list-style-type: none"> ● Check whether the signal transmitter of the remote controller is properly directed to the infrared signal receiver of the indoor unit when the ON/OFF button is pressed. 	Directly transmit the signal transmitter of the remote controller to the infrared signal receiver of the indoor unit, and then repeatedly push the ON/OFF button twice.

About the Fault of T3A or T3B, High pressure protection, Low pressure protection, please refer to the following:







TROUBLESHOOTING TMFE-60H

If your air conditioner has run into problem, please turn the power off and then:

- Check the following items before asking for service

Symptoms	Causes	Possible Remedies
Unit Idleness	No electric power supply	Wait for power recovery
	Power Switch turned off	Turn on the switch
	Fuse blew	Replace the fuse
Air flow but poor cooling (heating)	Improper temperature setting	Readjust the temp. to a lower degree. See " OPERATIONS for details
	The air -filter blocked	Clean the air- filter
	Air inlet/outlet blocked	Clear the air inlet/outlet
	Windows/door are open	Close windows/door
Air flow but no cooling (heating)	The air inlet/outlet of indoor/outdoor unit are blocked up by something	Remove the obstacles which blocks the air inlet/outlet
	Too much dust or dirt on the air-filter	Clean the air-filter

- The display board may show some types of the unit' s failures when it happened.

Display Codes	Types of Troubles	Possible Solutions
E01	The temp. sensor is off, or short-circuit.	Contact service people
E02	Compressor is over current	Turn off the unit, wait for a moment and then restart. If many times of this operation do not work, please contact service people.
E03	Compressor is under current	(The same as " E01 ")
E04	Outdoor unit protection	(The same as " E02 ")
P02	Compressor is over load	(The same as " E02 ")
P03	The temperature of evaporator coil of indoor unit is too low (when cooling)	Turn off the unit, remove the obstacles in the air-inlet and clean the air filter, then restart the unit. If many times of this operation do not work, please contact service people.
P04	The temperature of evaporator coil of indoor unit is too high (when heating)	(The same as " P03 ")
P05	The temperature of air outlet of indoor unit is too high (when heating)	(The same as " P03 ")

If the above procedures still do not work, please contact our local dealers or after sales service people, inform them your air conditioner model and trouble details, they will help you solve the problem. Please do not repair the air conditioner by yourself.

NOTE

It is not a failure if :

1. The air smells because of feculent room air.
2. The refrigerant running noise is heard when the unit starts to run;
3. A " Pee-pa " voice is heard when the unit starts or stops running.
4. There is maybe drop of water on the surface of the indoor unit when air humidity is over 85%.

TIPS FOR ENERGY SAVING

- Do not
- block the air inlet/outlet of the unit. The unit may not function properly, or even cause a damage to the unit if blocked
 - Let sunlight get in the room directly. To avoid this, you may use a curtain, venetian blind, etc. It will spend much more time to cool the room if the roof and wall are warmed by sunlight.
- Do
- Keep the air filter clean(see " MAINTENANCE AND CLEANING "). A blocked air filter will lead to a remarkable decrease to the efficiency of the unit.
 - Close all windows, doors, and other gaps otherwise that may lead to a cool air leakage.

First step: The indoor main board output sends out a one-second-wide high level in turns;

Second step: The air-conditioner goes into the normal waiting condition, but when the compressor starts, there will be no three-minute time delay protection.

Selection of defrosting mode

When the port is at low level, the outdoor defrosting mode will be selected. The indoor defrosting timer does not count the time and there is no defrosting action. When the port is at high level, the indoor defrosting mode will be selected. The indoor defrosting timer works according to item (3).

Input of outdoor defrosting condition

When the port is at high level, the outdoor defrosting works and when the port is at low level, there is no defrost. When outdoor defrosting mode is selected and outdoor defrosting works, the indoor fan will be turned off.

(during heating, it is in anti-cold air operation mode).

Output of one-way solenoid valve

Under heating operation, if $T1 \geq -3^{\circ}\text{C}$, the one-way solenoid valve will close, so that the air-conditioner can perform normal heating; and if $T2 \leq -5^{\circ}\text{C}$, power will be switched off, resulting in the switching-off of the one-way solenoid valve, so that the air-conditioner can adjust the flow rate of the capillary.

An outdoor fan added to 5HP cabinet-type air-conditioner

During cooling, when $T3 \geq 33^{\circ}\text{C}$, two fans will operate simultaneously. When $T3 \leq 30^{\circ}\text{C}$, fan 1 (upper fan) will operate. During heating, when $T4 \leq 16^{\circ}\text{C}$, two fans will operate simultaneously. When $T4 \geq 18^{\circ}\text{C}$, fan 2 (lower fan) will operate.

Output of the light-emitting strip installed in the air outlet.

The light-emitting strip emits green light during cooling, dehumidifying and ventilation, and it emits no light during shutdown. The light-emitting strip will emit green light when power is switched on for the first time and it will flash when the air-conditioner has trouble.

Locking key

After setting the operation mode, you can lock the current operation mode.

Pressing this key for the first time will lock the input of other keys of the air-conditioner; pressing this key for the second time will allow the input of other keys; and pressing this key for the third time will again lock the input of other keys of the air-conditioner. You can switch over these two conditions repeatedly.

LEDs for the indication of outdoor trouble

In normal operation, LEDs emit no light and they will flash at a frequency of 5 Hz when

trouble occurs. Their codes are listed in the following table:

Table 3

Type	Content	LED1	LED2	LED3	Indication
Trouble	Phase sequence	Flash	Off	Off	E04
Trouble	Lack of phase	Flash	Off	Off	E04
Trouble	Protection of high and low pressure	Flash	Off	Off	E04
Trouble	Overload of current	Off	Off	Flash	E04
Trouble	Open-circuit and short-circuit trouble of T3	Off	Flash	Flash	E04
Trouble	Open-circuit and short-circuit trouble of T4	Off	Flash	Off	E04
Trouble	High temperature protection of condenser	Flash	Flash	Flash	E04

Troubleshooting **TMFS-50HE**

LCD display

Mode, Set temp, fan speed, time, timer, protection etc.

Timer

The machine should be provided with max. Interval of 24h and min. resolution ratio of 15 minutes.

Trouble Shooting

Protective Function

3-minute delay for the compressor start-up

At the beginning of energizing or after the stop of the compressor, 3-minute delay will be needed to start the compressor.

When switching over between cooling/heating mode, the compressor stops automatically.

Evaporator protection against high temperature

Only available under heating mode.

The operation principle is as follows: (T2 = evaporator temperature)

Condition	Outdoor fan	Compressor
T2>56°C	Off	On
T2>62°C	Off	Off
T2<62°C	On	Off
T2<50°C	On	On

Note: During protection, the indoor fan continues operating at a set speed, while the anti-cold air function of heating and the compressor will be 3 minute delayed to shut down for protection.

Evaporator Protection against low temperature

Only available under cooling and dehumidifying status.

Protection principle:

Condition	Outdoor fan	Compressor
T2<2°C (last 3 minute)	Off	Off
T2>8°C	On	On

The restart of the compressor shall execute the delay protection.

Condenser high temperature protection

Only available to cooling and dehumidifying mode.

Action condition

Condition	Outdoor fan	Compressor
Condenser temp.>62°C	Off	Off
Condenser temp.<48°C	On	On

Delay protection should be performed when the compressor restarts.

Outdoor protection

When outdoor protection signal is high level, outdoor unit will perform protection: the whole machine will be shut down while the indoor unit will indicate the corresponding protection signal.

The A/C will recover if outdoor errors are eliminated after the outdoor protection occurs.

Self-diagnosis

Codes	Contents
P4	Protection of temperature of indoor evaporator
P5	Protection of temperature of outdoor condenser
P9	Protection of defrosting or anti-cold wind
E1	Open-circuit and short-circuit of temperature sensors T1
E2	Temp. sensor T2 on indoor evaporator is open circuit or short circuit
E3	the condenser temperature sensor T3 is open or short
E6	Protection of outdoor unit

LEDs for the indication of outdoor trouble

In normal operation, LEDs emit no light and they will flash at a frequency of 5 Hz when trouble occurs. Their codes are listed in the following table:

LED1	LED2	LED3	Contents
Off	Off	On	Ok
On	Off	On	Phase sequence error
Off	On	On	Overload of current
On	On	On	Lack of phase

Servicing and Maintenance

1. Troubles and Solutions

Before calling for service, please review the following list of common problems and solutions.

If any of the following conditions occur, check your unit and resolve corresponding problems referring to given		
Trouble	Caus	Solution
Unit does not start	Power failure.	Wait for the comeback of power
	Power switch is open.	Switch on the power
	Fuse of power switch may have blown.	Replace the fuse
	Batteries remote controller are exhausted.	Replace the batteries
	The time is not start-up time you have set.	Wait or cancel the time set.
Air flowing normally with low cooling(heating) effect	Temperature is not set correctly.	Set the temperature properly.
	Door or window is open.	Close door and window.
	Air filter is blocked with dust or dirtiness.	Clean the air filter.
	Inlet/outlet of indoor/outdoor units are blocked.	Clear all blockages.
	Inlet/outlet of indoor/outdoor units are blocked.	Clear the blockage, then restart your
	Be in 3 minutes protection of compressor	Wait

Number	Display code	Proble	What to
1	E1 E2 E3 E4	Temperature Sensor is off or short-circuit.	Contact service people
2	E6	Outdoor unit protection	Contact service people
3	E8	Electrostatic dust collection	Contact service people
4	P4	The temperature of the evaporator of indoor unit is too low or high (For the protection feature, the compressor turns off automatically)	Turn off the unit, clean the air filter, then restart the unit. If this operation does not work, please contact service
5	P5	The temperature of condenser of the outdoor unit is too high (For the protection feature, the	Turn off the unit, check if there is any obstacle in the air-inlet, otherwise
6	P9	Defrosting protection or warm-air controlling is off	The unit will auto restart after finishing the defrosting or the temperature of the Heat Exchanger

Maintenance and clean

CAUTION: For your safety, please turn off the unit and shut down the main power switch before cleaning.

1. Use a dry cloth to wipe the indoor unit and remote controller.
2. A cloth dampened with cold water may be used on the indoor unit if it is very dirty.
3. Do not splash water on unit. This may cause damage to the inner parts or an electric shock. Caution:
 1. Do not use a chemical-treated duster for wiping or leave such material on the unit for long.
 2. Do not use benzine, thinner, polishing powder, or similar solvents for cleaning. These may cause the plastic surface to crack or deform.



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برند برتر در اولین جشنواره بین المللی
برترین نام و نشان های تجاری ایران

