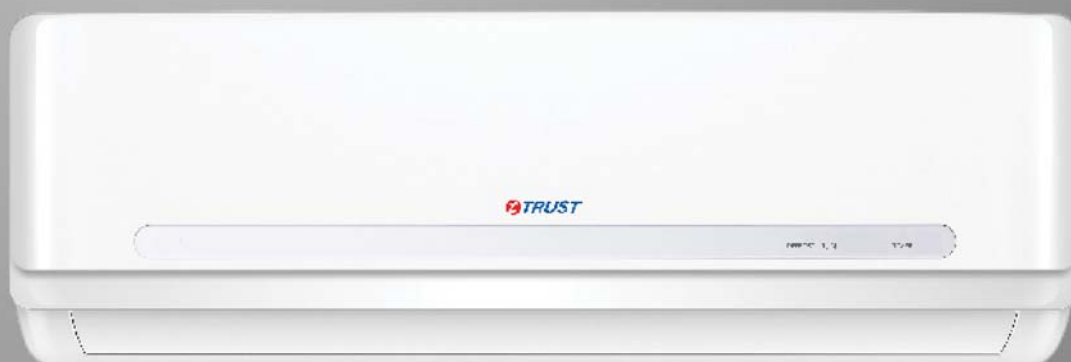




## Wall Mounted Split TMSAB Series



---

TRUST AIR CONDITIONING EQUIPMENT CO.  
Prepared By: Engineering & R & D Department.

Shiraz- AUG 2015

<b>1. Troubleshooting.....</b>	<b>2</b>
1.1 Indoor Unit Error Display .....	2
1.2 Diagnosis and Solution .....	3

## 1.1 Indoor Unit Error Display

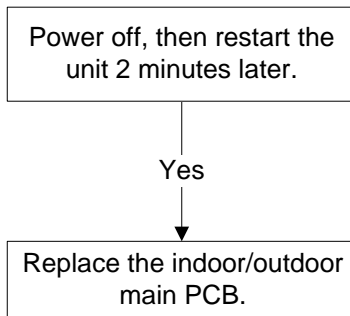
Operation lamp	Timer lamp	Display	LED STATUS
☆ 1 time	X	E1	EEPROM parameter error
☆ 2 times	X	E2	Zero-crossing signal detection error
☆ 3 times	X	E3	Indoor fan speed has been out of control
☆ 5 times	X	E5	Indoor room temperature sensor T1 open circuit or short circuit
☆ 6 times	X	E6	Evaporator coil temperature sensor T2 open circuit or short circuit
☆ 7 times	X	E7	Condenser coil temperature sensor T3 or T4 open circuit or short circuit (only for MSABE-21HR-QB6W, MSABE-24HR-QB6W, MSABF-30HR-QB6W)
☆ 2 times	O	EC	Refrigerant Leakage Detection
☆ 9 times	X	E9	Indoor / outdoor units communication error(only for MSABE-21HR-QB6W, MSABE-24HR-QB6W, MSABF-30HR-QB6W, MSABE-21CR-QB6W, MSABE-24CR-QC2W)

O (light)      X (off)      ☆ (flash)

---

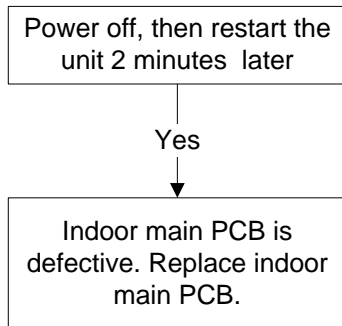
## 1.2 Diagnosis and Solution

### 1.2.1 EEPROM parameter error diagnosis and solution

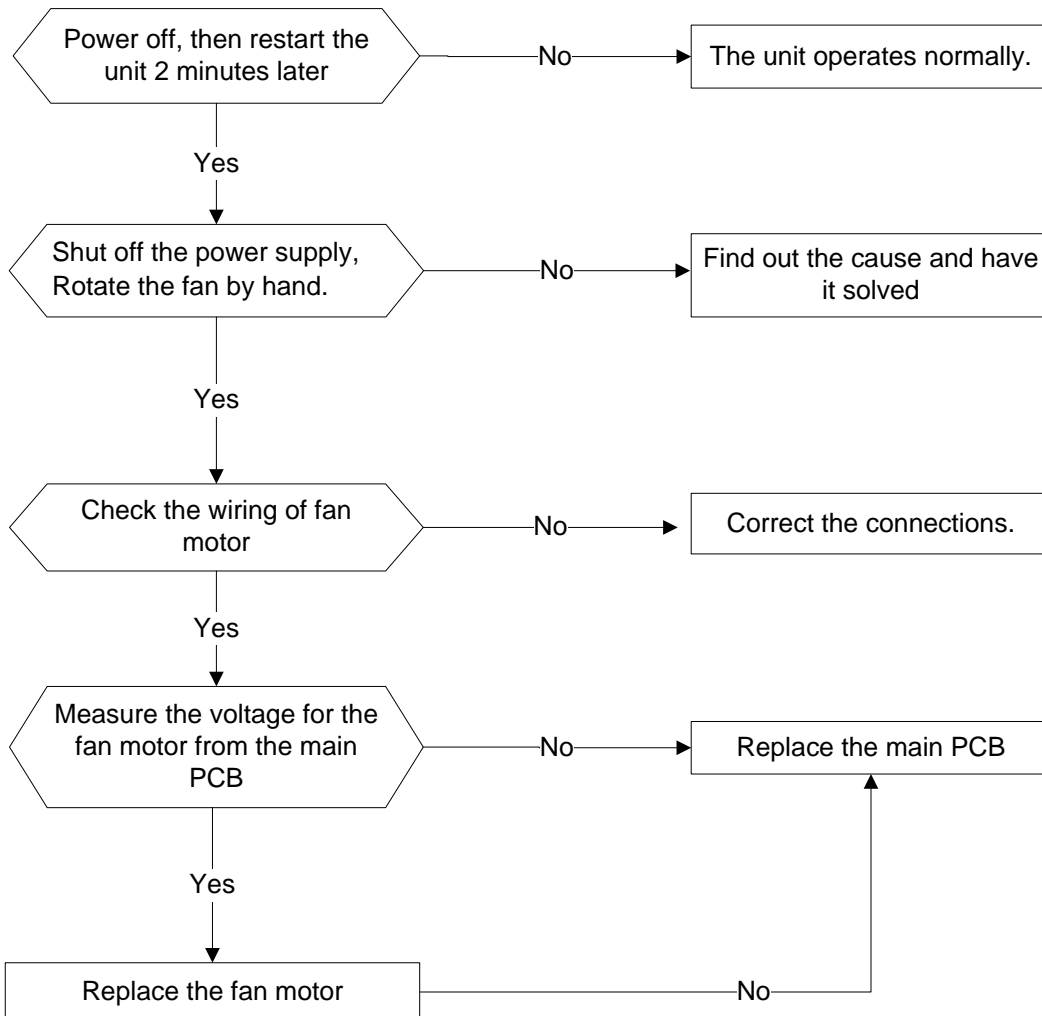


EEPROM: a read-only memory whose contents can be erased and reprogrammed using a pulsed voltage.

## 1.2.2 Zero crossing detection error diagnosis and solution



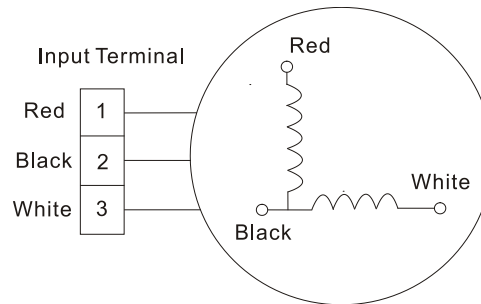
## 1.2.3 Indoor fan speed has been out of control diagnosis and solution



Index 1:

1: Indoor AC Fan Motor

Measure the resistance value of each winding by using the tester.

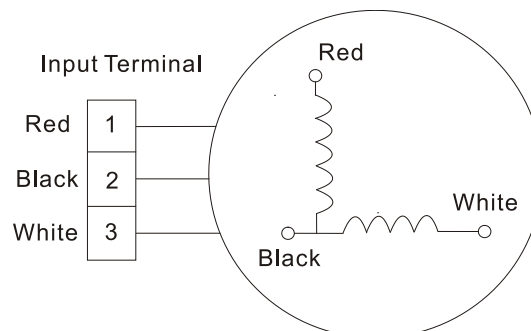


For the resistance value of the motor, please contact the technical engineer.

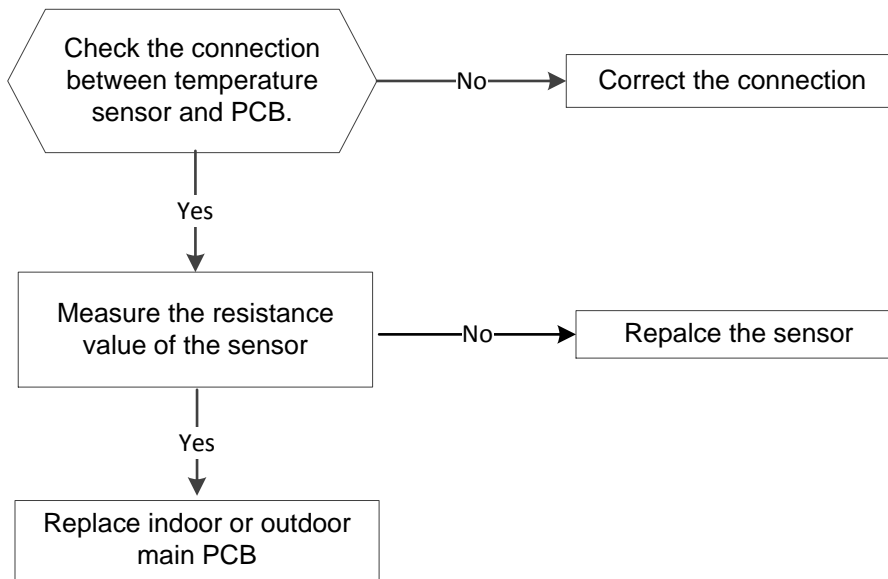
Index 2 :

1: Indoor AC Fan Motor

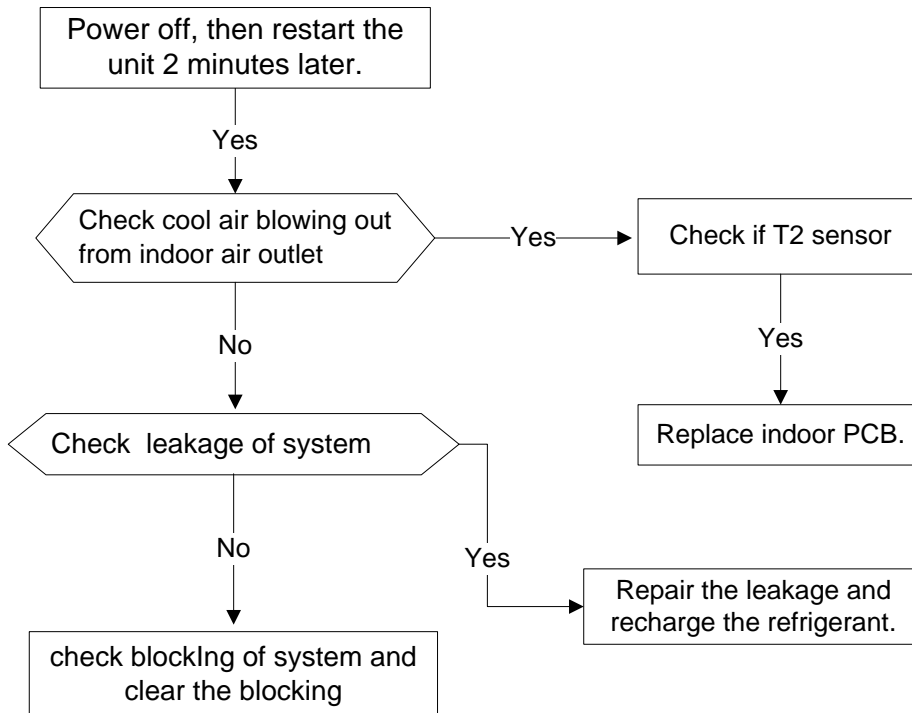
Power on and set the unit running in fan mode at high fan speed. After running for 15 seconds, measure the voltage of pin1 and pin2. If the value of the voltage is less than 100V (208~240V power supply) or 50V (115V power supply), the PCB must has problems and need to be replaced.



#### 1.2.4 Open circuit or short circuit of temperature sensors diagnosis and solution

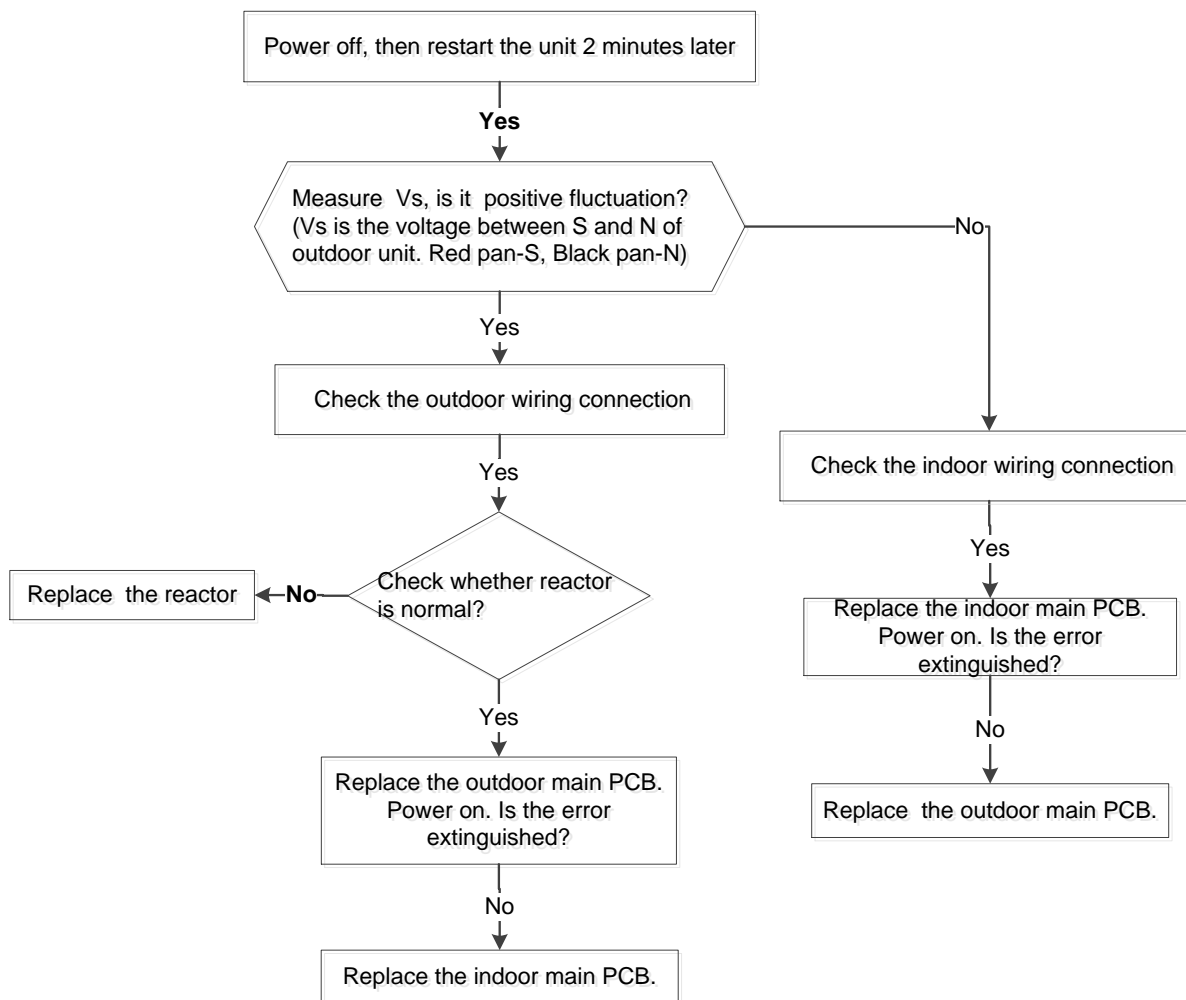


### 1.2.5 Refrigerant Leakage Detection diagnosis and solution





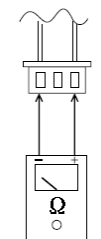
## 1.2.6 Indoor / outdoor units communication error diagnosis and solution



## Main parts check

### 1. Temperature sensor checking

Disconnect the temperature sensor from PCB, measure the resistance value with a tester.



Tester

### Temperature Sensors.

Room temp. (T1) sensor,

Indoor coil temp. (T2) sensor,

Outdoor coil temp. (T3) sensor,

Outdoor ambient temp. (T4) sensor,

Compressor discharge temp. (T5) sensor.

Measure the resistance value of each winding by using the multi-meter.

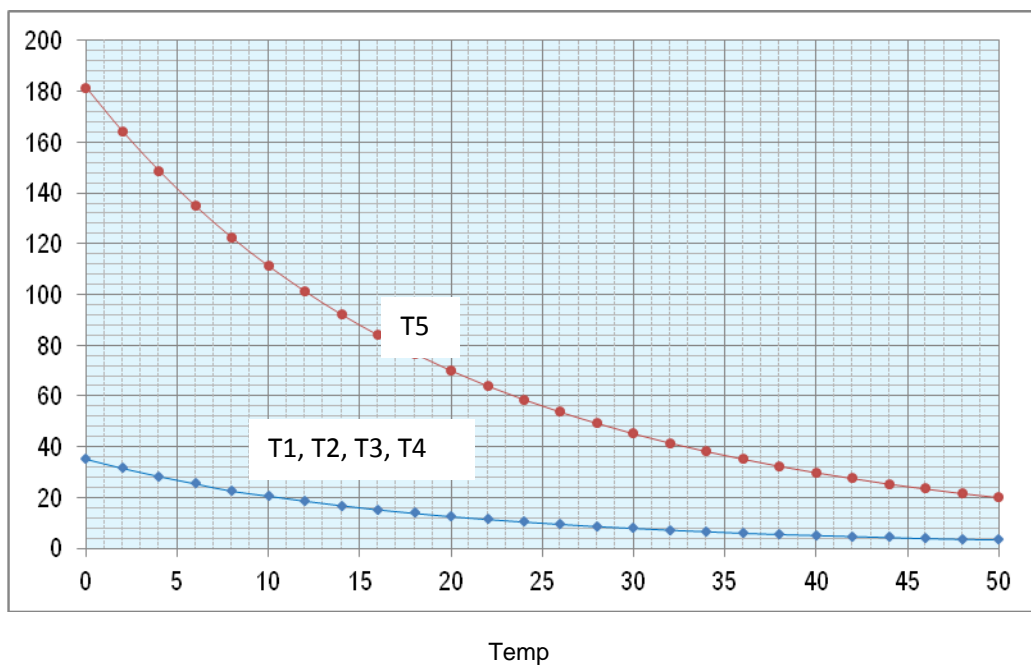
Table1: Some frequently-used R-T data for T1,T2,T3 and T4 sensor:

Temperature (°C)	5	10	15	20	25	30	40	50	60
Resistance Value (K $\Omega$ )	26.9	20.7	16.1	12.6	10	8	5.2	3.5	2.4

Table2: Some frequently-used R-T data for T5 sensor:

Temperature (°C)	5	15	25	35	60	70	80	90	100
Resistance Value (K $\Omega$ )	141.6	88	56.1	36.6	13.8	9.7	6.9	5	3.7

Resistance value (K $\Omega$ )





Air Conditioning Systems

Cooling & Heating

**TRUST AIR-CONDITIONING EQUIPMENT CO.**

Shiraz office: 8 th floor, Alvand Blog., Dostan St.,  
Moaliabad Ave., SHIRAZ, IRAN., Post code: 71877-14446

Tel.: +98-71-36341070

Fax.: +98-71-36341094

Tehran office: No. 19- koohe nour St.- Motahhari St.-

TEHRAN, IRAN., Post code: 15876-73111

Tel.: +98-21-89389

Fax.: +98-21-88541903

Ahwaz office: No. 309- Kaveh St.- AHWAZ, IRAN., Post code: 61939-47911

Tel.: +98-61-32230647-8

Fax.: +98-61-32230647

E-mail: [info@trustacs.com](mailto:info@trustacs.com)

Web site: <http://www.trustacs.com>

