

## 2. General Troubleshooting

### 2.1 Error Display (Indoor Unit)

When the indoor unit encounters a recognized error, the operation lamp will flash in a corresponding series, the timer lamp may turn on or begin flashing, and an error code will be displayed. These error codes are described in the following tables:

Operation Lamp	Timer Lamp	Display	Error Information	Solution
1 time	OFF	E0	Indoor unit EEPROM parameter error	TS19
2 times	OFF	E1	Indoor / outdoor unit communication error	TS20
3 times	OFF	E2	Zero-crossing signal detection error(for some models)	TS22
4 times	OFF	E3	The indoor fan speed is operating outside of the normal range	TS23
5 times	OFF	E4	Indoor room temperature sensor T1 is in open circuit or has short circuited	TS26
6 times	OFF	E5	Evaporator coil temperature sensor T2 is in open circuit or has short circuited	TS26
9 times	OFF	E7	Indoor PCB / Display board communication error(for some models)	TS27
7 times	OFF	E8	Refrigerant leak detected	TS28
1 times	ON	F0	Current overload protection	TS29
2 times	ON	F1	Outdoor room temperature sensor T4 is in open circuit or has short circuited	TS26
3 times	ON	F2	Condenser coil temperature sensor T3 is in open circuit or has short circuited	TS26
4 times	ON	F3	Compressor discharge temperature sensor TP is in open circuit or has short circuited	TS26
5 times	ON	F4	Outdoor unit EEPROM parameter error	TS19
6 times	ON	F5	The outdoor fan speed is operating outside of the normal range(for some models)	TS23
1 times	FLASH	P0	IPM malfunction or IGBT over-strong current protection	TS30
2 times	FLASH	P1	Over voltage or over low voltage protection	TS31
3 times	FLASH	P2	High temperature protection of IPM module or High pressure protection	TS32
5 times	FLASH	P4	Inverter compressor drive error	TS34
7 times	FLASH	P6	Low pressure protection(for some models)	TS35

#### For other errors:

The display board may show a garbled code or a code undefined by the service manual. Ensure that this code is not a temperature reading.

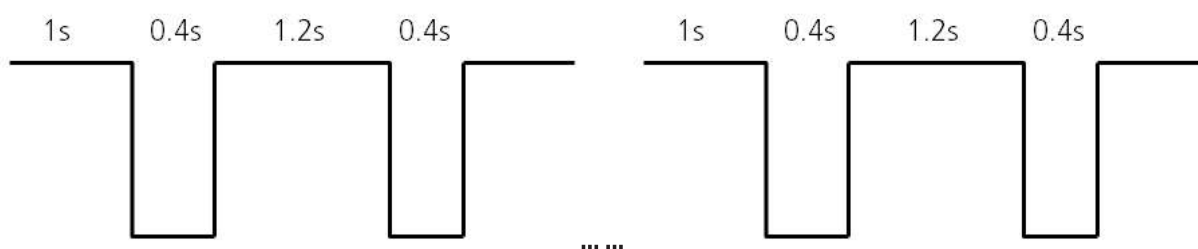
#### Troubleshooting:

Test the unit using the remote control. If the unit does not respond to the remote, the indoor PCB requires replacement. If the unit responds, the display board requires replacement.

For some models

Operation Lamp	Timer Lamp	LED Display	Error Information	Solution
1 time	OFF	E400	Indoor unit EEPROM parameter error	TS19
2 times	OFF	E401	Indoor / outdoor unit communication error	TS20
3 times	OFF	E402	Zero-crossing signal detection error(for some models)	TS22
4 times	OFF	E403	The indoor fan speed is operating outside of the normal range	TS23
5 times	OFF	E451	Outdoor unit EEPROM parameter error(for some models)	TS19
5 times	OFF	E452	Condenser coil temperature sensor T3 is in open circuit or has short circuited	TS26
5 times	OFF	E453	Outdoor room temperature sensor T4 is in open circuit or has short circuited	TS26
5 times	OFF	E454	Compressor discharge temperature sensor TP is in open circuit or has short circuited	TS26
6 times	OFF	E460	Indoor room temperature sensor T1 is in open circuit or has short circuited	TS26
6 times	OFF	E461	Evaporator coil temperature sensor T2 is in open circuit or has short circuited	TS26
12 times	OFF	E407	The outdoor fan speed is operating outside of the normal range(for some models)	TS23
9 times	OFF	E40b	Indoor PCB / Display board communication error(for some models)	TS27
8 times	OFF	E40c	Refrigerant leak detected	TS28
7 times	FLASH	P400	IPM malfunction or IGBT over-strong current protection	TS30
2 times	FLASH	P401	Over voltage or over low voltage protection	TS31
3 times	FLASH	P402	High temperature protection of IPM module or High pressure protection	TS32
5 times	FLASH	P404	Inverter compressor drive error	TS34
1 time	FLASH	P408	Current overload protection(for some models)	TS29
7 times	FLASH	P403	Low pressure protection(for some models)	TS35

LED flash frequency:



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## 2.2 Error Display (For 18K And Above 18K Outdoor Unit)

There are 2 LED lights (RED color and GREEN color) welded in outdoor main board. After power on, LED show different actions when encounter different problems.

No.	Problem	LED(GREEN)	LED(RED)	Solution
1	Standby normally	ON	OFF	-
2	Operate normally	OFF	ON	-
3	Compressor driven chip EEPROM parameter error	ON	FLASH	TS19
4	IPM malfunction or IGBT over-strong current protection	FLASH	OFF	TS30
5	Over voltage or too low voltage protection	ON	ON	TS31
6	Inverter compressor drive error	OFF	FLASH	TS34
7	Inverter compressor drive error	FLASH	LIGHT	TS34
8	Communication error between outdoor main chip and compressor driven chip	FLASH	FLASH	TS19