

## 16. Troubleshooting Guide

### 16.1 Self Diagnosis Function

- The display screen of wireless remote control unit and the self-diagnosis LEDs (green) on the outdoor printed circuit board in the outdoor unit can be used to identify the location of the problem.  
Refer to the table below to identify and solve the cause of the problem, and then re-start the air conditioner system.
- If the problem is solved and operation returns to normal.  
LED 1 illuminates and others LED are off.

| Diagnosis display | Abnormality or protection control                       | LED 6 | LED 5 | LED 4 | LED 3 | LED 2 | LED 1 | Abnormality judgement        | Protection operation   | Problem   | Check location   |
|-------------------|---|-------|-------|-------|-------|-------|-------|------------------------------|--|---|--|
| H11               | Indoor/outdoor abnormal communication                   |       |       |       |       |       | ○     | After operation for 1 minute | Indoor fan only operation can start by entering into force cooling operation | Indoor/outdoor communication not establish  | <ul style="list-style-type: none"> <li>Indoor/outdoor wire terminal</li> <li>Indoor/outdoor PCB</li> <li>Indoor/outdoor connection wire</li> </ul>                     |
| H12               | Indoor unit capacity unmatched                          |       |       |       |       | ○     |       | 90s after power supply       | —  | Total indoor capability more than maximum limit or less than minimum limit, or number of indoor unit less than two. | <ul style="list-style-type: none"> <li>Indoor/outdoor connection wire</li> <li>Indoor/outdoor PCB</li> <li>Specification and combination table in catalogue</li> </ul> |
| H15               | Compressor temperature sensor abnormality               |       |       |       |       | ○     | ○     | Continuous for 5s            | —  | Compressor temperature sensor open or short circuit   | <ul style="list-style-type: none"> <li>Compressor temperature sensor lead wire and connector</li> </ul>  |
| H16               | Outdoor current transformer (CT) abnormality            |       |       |       | ○     |       | ○     | —                            | —  | Current transformer faulty or compressor faulty   | <ul style="list-style-type: none"> <li>Outdoor PCB faulty or compressor faulty</li> </ul>  |
| H27               | Outdoor air temperature sensor abnormality              |       |       |       | ○     | ○     |       | Continuous for 5s            | —  | Outdoor air temperature sensor open or short circuit  | <ul style="list-style-type: none"> <li>Outdoor air temperature sensor lead wire and connector</li> </ul>   |
| H28               | Outdoor heat exchanger temperature sensor 1 abnormality |       |       |       | ○     | ○     | ○     | Continuous for 5s            | —  | Outdoor heat exchanger temperature sensor 1 open or short circuit   | <ul style="list-style-type: none"> <li>Outdoor heat exchanger temperature sensor 1 lead wire and connector</li> </ul>  |
| H32               | Outdoor heat exchanger temperature sensor 2 abnormality |       |       | ○     |       |       |       | Continuous for 5s            | —  | Outdoor heat exchanger temperature sensor 2 open or short circuit   | <ul style="list-style-type: none"> <li>Outdoor heat exchanger temperature sensor 2 lead wire and connector</li> </ul>  |
| H33               | Indoor / outdoor misconnection abnormality              |       |       | ○     |       |       | ○     | —                            | —  | Indoor and outdoor rated voltage different  | <ul style="list-style-type: none"> <li>Indoor and outdoor units check</li> </ul>   |
| H36               | Outdoor gas pipe temperature sensor abnormality         |       |       | ○     |       | ○     |       | Continuous for 5s            | Heating protection operation only  | Outdoor gas pipe temperature sensor open or short circuit   | <ul style="list-style-type: none"> <li>Outdoor gas pipe temperature sensor lead wire and connector</li> </ul>  |
| H37               | Outdoor liquid pipe temperature sensor abnormality      |       |       | ○     |       | ○     | ○     | Continuous for 5s            | Cooling protection operation only  | Outdoor liquid pipe temperature sensor open or short circuit  | <ul style="list-style-type: none"> <li>Outdoor liquid pipe temperature sensor lead wire and connector</li> </ul>   |

| Diagnosis display | Abnormality or protection control                  | LED 6 | LED 5 | LED 4 | LED 3 | LED 2 | LED 1 | Abnormality judgement            | Protection operation | Problem  | Check location  |
|-------------------|--|-------|-------|-------|-------|-------|-------|----------------------------------|----------------------|--|---|
| H64               | Outdoor high pressure sensor abnormality           |       |       | ○     | ○     |       |       | Continuous for 1 minute          | —                    | High pressure sensor open circuit during compressor stop   | <ul style="list-style-type: none"> <li>High pressure sensor</li> <li>Lead wire and connector</li> </ul>   |
| H97               | Outdoor fan motor mechanism lock                   |       |       | ○     | ○     |       | ○     | 2 times happen within 30 minutes | —                    | Outdoor fan motor lock or feedback abnormal                | <ul style="list-style-type: none"> <li>Outdoor fan motor lead wire and connector</li> <li>Fan motor lock or block</li> </ul>  |
| H98               | Indoor high pressure protection                    |       |       | ○     | ○     | ○     |       | —                                | —                    | Indoor high pressure protection (Heating)                  | <ul style="list-style-type: none"> <li>Check indoor heat exchanger</li> <li>Air filter dirty</li> <li>Air circulation short circuit</li> </ul>  |
| H99               | Indoor operating unit freeze protection            |       |       | ○     | ○     | ○     |       | —                                | —                    | Indoor freeze protection (Cooling)                         | <ul style="list-style-type: none"> <li>Check indoor heat exchanger</li> <li>Air filter dirty</li> <li>Air circulation short circuit</li> </ul>  |
| F11               | 4-way valve switching abnormality                  |       |       | ○     | ○     | ○     | ○     | 4 times happen within 30 minutes | —                    | 4-way valve switching abnormal                             | <ul style="list-style-type: none"> <li>4-way valve</li> <li>Lead wire and connector.</li> </ul>   |
| F17               | Indoor standby units freezing abnormality          |       | ○     |       |       |       |       | 3 times happen within 40 minutes | —                    | Wrong wiring and connecting pipe, expansion valve leakage. | <ul style="list-style-type: none"> <li>Check indoor/outdoor connection wire and pipe</li> <li>Indoor heat exchanger sensor lead wire and connector</li> <li>Expansion valve lead wire and connector.</li> </ul> |
| F90               | Power factor correction (PFC) circuit protection   |       | ○     |       |       |       | ○     | 4 times happen within 20 minutes | —                    | Power factor correction circuit abnormal                   | <ul style="list-style-type: none"> <li>Outdoor PCB faulty</li> </ul>  |
| F91               | Refrigeration cycle abnormality                    |       | ○     |       |       | ○     |       | 4 times happen within 60 minutes | —                    | Refrigeration cycle abnormal                               | <ul style="list-style-type: none"> <li>Insufficient refrigerant or valve close</li> </ul>   |
| F93               | Compressor abnormal revolution                     |       | ○     |       |       | ○     | ○     | 4 times happen within 20 minutes | —                    | Compressor abnormal revolution                             | <ul style="list-style-type: none"> <li>Power transistor module faulty or compressor lock</li> </ul>   |
| F94               | Compressor discharge pressure overshoot protection |       | ○     |       | ○     |       |       | 4 times happen within 30 minutes | —                    | Compressor discharge pressure overshoot                    | <ul style="list-style-type: none"> <li>Check refrigeration system</li> </ul>  |
| F95               | Outdoor cooling high pressure protection           |       | ○     |       | ○     |       | ○     | 4 times happen within 20 minutes | —                    | Cooling high pressure protection                           | <ul style="list-style-type: none"> <li>Check refrigeration system</li> <li>Outdoor air circuit</li> </ul>   |
| F96               | Power transistor module overheating protection     |       | ○     |       | ○     | ○     |       | 4 times happen within 30 minutes | —                    | Power transistor module overheat                           | <ul style="list-style-type: none"> <li>PCB faulty</li> <li>Outdoor air circuit (fan motor)</li> </ul>   |

| Diagnosis display | Abnormality or protection control          | LED 6 | LED 5 | LED 4 | LED 3 | LED 2 | LED 1 | Abnormality judgement            | Protection operation | Problem                                    | Check location  |
|-------------------|--|-------|-------|-------|-------|-------|-------|----------------------------------|----------------------|--|---|
| F97               | Compressor overheating protection          |       | ○     |       | ○     | ○     | ○     | 3 times happen within 30 minutes | —                    | Compressor overheat                        | • Insufficient refrigerant  |
| F98               | Total running current protection           |       | ○     | ○     |       |       |       | 3 times happen within 20 minutes | —                    | Total current protection                   | • Check refrigeration system<br>• Power source or compressor lock |
| F99               | Outdoor direct current (DC) peak detection |       | ○     | ○     |       |       | ○     | Continuous happen for 7 times    | —                    | Power transistor module current protection | • Power transistor module faulty or compressor lock               |

LED 1 illuminate is indicated that outdoor unit is operating normally. If the LED 1 is switched off or flashing, check the power supply and self-diagnosis indication.

|             |            |
|-------------|------------|
| ● -----     | Illuminate |
| ○ -----     | Flashing   |
| Blank ----- | OFF        |