

## 9.2 Error Code List

| No. | Malfunction Name   | Dual-8 Code Display | Display Method of Outdoor Unit  |                          |                 | A/C status  | Possible Causes   |
|-----|--|---------------------|---|--------------------------|-----------------|---|---|
|     |  |                     | Indicator has 3 kinds of display status and during blinking, ON 0.5s and OFF 0.5s |                          |                 |   |   |
|     |  |                     | Yellow Indicator  | Red Indicator            | Green Indicator |   |   |
| 1   | High pressure protection of system                         | E1                  |   |                          |                 | During cooling and drying operation, except indoor fan operates, all loads stop operation. During heating operation, the complete unit stops. | 1. Refrigerant was superabundant;<br>2. Poor heat exchange (including filth blockage of heat exchanger and bad radiating environment );Ambient temperature is too high.   |
| 2   | Antifreezing protection                                    | E2                  | OFF 1s and blink 3 times  |                          |                 | During cooling and drying operation, compressor and outdoor fan stop while indoor fan operates.   | 1. Poor air-return in indoor unit;<br>2. Fan speed is abnormal;<br>3. Evaporator is dirty.  |
| 3   | Refrigerant leakage protection                             | F0                  |   | OFF 1s and blink 9 times |                 | The Dual-8 Code Display will show F0 and the complete unit stops.   | 1.Refrigerant leakage;<br>2.Indoor evaporator temperature sensor works abnormally;<br>3.The unit has been plugged up somewhere.   |
| 4   | High discharge temperature protection of compressor        | E4                  |   | OFF 1s and blink 7 times |                 | During cooling and drying operation, compressor and outdoor fan stop while indoor fan operates. During heating operation, all loads stop.     | Please refer to the malfunction analysis (discharge protection,overload).   |
| 5   | Overcurrent protection                                     | E5                  | OFF 1s and blink 5 times  |                          |                 | During cooling and drying operation, compressor and outdoor fan stop while indoor fan operates. During heating operation, all loads stop.     | 1. Supply voltage is unstable;<br>2. Supply voltage is too low and load is too high;<br>3. Evaporator is dirty.   |
| 6   | Communication Malfunction                                  | E6                  | Always ON   |                          |                 | During cooling operation,compressor stops while indoor fan motor operates. During heating operation, the complete unit stops.                 | Refer to the corresponding malfunction analysis.  |
| 7   | High temperature resistant protection                      | E8                  | OFF 1s and blink 6 times  |                          |                 | During cooling operation:compressor will stop while indoor fan will operate. During heating operation, the complete unit stops.               | Refer to the malfunction analysis(overload, high temperature resistant).  |
| 8   | EEPROM malfunction   | EE                  | OFF 1s and blink 11 times   |                          |                 | During cooling and drying operation, compressor will stop while indoor fan will operate;During heating operation, the complete unit will stop | Replace outdoor control panel AP1   |
| 9   | Limit/decrease frequency due to high temperature of module | EU                  |   |                          |                 | All loads operate normally,while operation frequency for compressor is decreased  | Discharging after the complete unit is de-energized for 20mins, check whether the thermal grease on IPM Module of outdoor control panel AP1 is sufficient and whether the radiator is inserted tightly.If its no use, please replace control panel AP1. |
| 10  | Malfunction protection of jumper cap                       | C5                  |   |                          |                 | Wireless remote receiver and button are effective, but can not dispose the related command  | 1. No jumper cap insert on mainboard.<br>2. Incorrect insert of jumper cap.<br>3. Jumper cap damaged.<br>4. Abnormal detecting circuit of mainboard.  |

| No. | Malfunction Name  | Dual-8 Code Display | Display Method of Outdoor Unit Indicator has 3 kinds of display status and during blinking, ON 0.5s and OFF 0.5s |                          |                 | A/C status   | Possible Causes   |
|-----|---|---------------------|--|--------------------------|-----------------|--|---|
|     |   |                     | Yellow Indicator   | Red Indicator            | Green Indicator |  |   |
| 11  | Gathering refrigerant   | Fo                  | OFF 1s and blink 17 times  |                          |                 | When the outdoor unit receive signal of Gathering refrigerant,the system will be forced to run under cooling mode for gathering refrigerant  | Nominal cooling mode  |
| 12  | Indoor ambient temperature sensor is open/ short circuited    | F1                  |  |                          |                 | During cooling and drying operation, indoor unit operates while other loads will stop; during heating operation,the complete unit will stop operation.   | 1. Loosening or bad contact of indoor ambient temp. sensor and mainboard terminal.<br>2. Components in mainboard fell down leads short circuit.<br>3. Indoor ambient temp. sensor damaged.(check with sensor resistance value chart)<br>4. Mainboard damaged.             |
| 13  | Indoor evaporator temperature sensor is open/ short circuited | F2                  |  |                          |                 | AC stops operation once reaches the setting temperature.<br>Cooling,drying:internal fan motor stops operation while other loads stop operation;<br>Heating: AC stop operation                                      | 1. Loosening or bad contact of Indoor evaporator temp. sensor and mainboard terminal.<br>2. Components on the mainboard fall down leads short circuit.<br>3. Indoor evaporator temp. sensor damaged.(check temp. sensor value chart for testing)<br>4. Mainboard damaged. |
| 14  | Outdoor ambient temperature sensor is open/ short circuited   | F3                  |  | OFF 1s and blink 6 times |                 | During cooling and drying operating, compressor stops while indoor fan operates;<br>During heating operation, the complete unit will stop operation  | Outdoor temperature sensor hasnt been connected well or is damaged. Please check it by referring to the resistance table for temperature sensor)  |
| 15  | Outdoor condenser temperature sensor is open/ short circuited | F4                  |  | OFF 1s and blink 5 times |                 | During cooling and drying operation, compressor stops while indoor fan will operate;<br>During heating operation,the complete unit will stop operation.  | Outdoor temperature sensor hasnt been connected well or is damaged. Please check it by referring to the resistance table for temperature sensor)  |
| 16  | Outdoor discharge temperature sensor is open/ short circuited | F5                  |  | OFF 1s and blink 7 times |                 | During cooling and drying operation, compressor will sop after operating for about 3 mins,while indoor fan will operate;<br>During heating operation,the complete unit will stop after operating for about 3 mins. | 1.Outdoor temperature sensor hasnt been connected well or is damaged. Please check it by referring to the resistance table for temperature sensor)<br>2.The head of temperature sensor hasnt been inserted into the copper tube   |
| 17  | Limit/decrease frequency due to overload                      | F6                  |  | OFF 1s and blink 3 times |                 | All loads operate normally,while operation frequency for compressor is decreased   | Refer to(the malfunction analysis(overload, high temperature resistant)   |
| 18  | Decrease frequency due to overcurrent                         | F8                  |  | OFF 1s and blink once    |                 | All loads operate normally,while operation frequency for compressor is decreased   | The input supply voltage is too low;System pressure is too high and overload  |
| 19  | Decrease frequency due to high air discharge                  | F9                  |  | OFF 1s and blink twice   |                 | All loads operate normally,while operation frequency for compressor is decreased   | Overload or temperature is too high;<br>Refrigerant is insufficient;<br>Malfunction of electric expansion valve (EKV)   |
| 20  | Limit/decrease frequency due to antifreezing                  | FH                  |  | OFF 1s and blink 4 times |                 | All loads operate normally,while operation frequency for compressor is decreased   | Poor air-return in indoor unit or fan speed is too low  |

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|-----|--|---------------------|---|---------------|-----------------|---|--|
|     |  |                     | Indicator has 3 kinds of display status and during blinking, ON 0.5s and OFF 0.5s |               |                 |   |  |
|     |  |                     | Yellow Indicator  | Red Indicator | Green Indicator |   |  |
| 21  | Voltage for DC bus-bar is too high                     | PH                  | OFF 1s and blink 13 times   |               |                 | During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop operation. | 1. Measure the voltage of position L and N on wiring board (XT), if the voltage is higher than 265VAC, turn on the unit after the supply voltage is increased to the normal range.<br>2.If the AC input is normal,measure the voltage of electrolytic capacitor C on control panel (AP1),if its normal, theres malfunction for the circuit, please replace the control panel (AP1) |
| 22  | Voltage of DC bus-bar is too low                       | PL                  | OFF 1s and blink 12 times   |               |                 | During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop            | 1. Measure the voltage of position L and N on wiring board (XT), if the voltage is higher than 150VAC,turn on the unit after the supply voltage is increased to the normal range.<br>2.If the AC input is normal,measure the voltage of electrolytic capacitor C on control panel (AP1),if its normal, theres malfunction for the circuit, please replace the control panel (AP1)  |
| 23  | Compressor Min frequency in test state                 | P0                  |   |               |                 |   | Showing during min. cooling or min. heating test   |
| 24  | Compressor rated frequency in test state               | P1                  |   |               |                 |   | Showing during nominal cooling or nominal heating test   |
| 25  | Compressor maximum frequency in test state             | P2                  |   |               |                 |   | Showing during max. cooling or max. heating test   |
| 26  | Compressor intermediate frequency in test state        | P3                  |   |               |                 |   | Showing during middle cooling or middle heating test   |
| 27  | Overcurrent protection of phase current for compressor | P5                  |   |               |                 | During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop operation. | Refer to the malfunction analysis (IPM protection, loss of synchronism protection and overcurrent protection of phase current for compressor.  |
| 28  | Charging malfunction of capacitor                      | PU                  |   |               |                 | During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop            | Refer to the part three—charging malfunction analysis of capacitor   |
| 29  | Malfunction of module temperature sensor circuit       | P7                  |   |               |                 | During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop            | Replace outdoor control panel AP1  |

| No. | Malfunction Name | Dual-8 Code Display | Display Method of Outdoor Unit Indicator has 3 kinds of display status and during blinking, ON 0.5s and OFF 0.5s |               |                 | A/C status | Possible Causes |
|-----|------------------|---------------------|--|---------------|-----------------|------------|-----------------|
|     |                  |                     | Yellow Indicator   | Red Indicator | Green Indicator |            |                 |

|    |   |    |                       |                           |                         |   |  |
|----|---|----|-----------------------|---------------------------|-------------------------|---|--|
| 40 | Malfunction of phase current detection circuit for compressor | U1 |                       |                           |                         | "During cooling and drying operation,compressor will stop while indoor fan will operate; During heating operation,the complete unit will stop"                | To protect the electronical components when detect high power  |
| 41 | Malfunction of voltage dropping for DC bus-bar                | U3 |                       |                           |                         | "During cooling and drying operation, compressor will stop while indoor fan will operate; During heating operation, the complete unit will stop"              | Indoor unit and outdoor unit doesn't match   |
| 42 | Malfunction of complete units current detection               | U5 |                       |                           |                         | "During cooling and drying operation,the compressor will stop while indoor fan will operate; During heating operating,the complete unit will stop operation." | Refer to the malfunction analysis  |
| 43 | The four-way valve is abnormal                                | U7 |                       |                           |                         | If this malfunction occurs during heating operation, the complete unit will stop operation.   | Replace outdoor control panel AP1  |
| 44 | Frequency limiting(power)                                     |    |                       | OFF 1s and blink 13 times |                         |   | Supply voltage is unstable   |
| 45 | Compressor running  |    | OFF 1s and blink once |                           |                         |   | Theres circuit malfunction on outdoor units control panel AP1,please replace the outdoor units control panel AP1.            |
| 46 | The temperature for turning on the unit is reached            |    |                       | OFF 1s and blink 8 times  |                         |   | 1.Supply voltage is lower than AC175V;<br>2.Wiring terminal 4V is loosened or broken;<br>3.4V is damaged, please replace 4V. |
| 47 | Frequency limiting(module temperature)                        |    |                       | OFF 1s and blink 11 times |                         |   | Replace outdoor control panel AP1  |
| 48 | Normal communication  |    |                       |                           | OFF 0.5s and blink once |   |  |
| 49 | Defrosting (Heating indicator ON 10s OFF 0.5s)                |    |                       |                           |                         | Defrosting will occur in heating mode.Compressor will operate while indoor fan will stop operation.   |  |
| 50 | Malfunction of detecting plate(WIFI)                          | JF |                       |                           |                         |   | Refer to the malfunction analysis  |