

Failure code manual

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一、 wall split AC series

LED		lamp display		failure	The reason of fault and solution
code	explain	code	explain		
DF	display at on state	flicker 1/1 SEC		defrost indication	Normal, the defrost state is removed, it will return to normal condition automatically
	display at off state	flicker 1/3 SEC		anti cold wind	1、 Normal (during heating mode) 2、 It will be removed when the coil pipe temperature sensor reaches certain temperature.
E2	display at off state	flicker 1/1 SEC	display at on/off state	room temp. sensor fault	1、 Check whether the resistance of the sensor is normal (the resistance is 5KΩ in the normal temperature 25℃), when it is abnormal the sensor should be replaced. 2、 Check whether there is short circuit or open circuit in the wire of the sensor, and whether the plug is connected well, whether there is welding off or rosin joint on the electric control board, if there is any, it should be repaired. 3、 When the 1 and 2 are both normal, then the components or integrated circuit is damaged, the electric control board should be replaced.
E3	display at off state	flicker 3/5 SEC	display at on/off state	coil temp. sensor fault	1、 Check whether the resistance of the sensor is normal (the resistance is 5KΩ in the normal temperature 25℃), when it is abnormal the sensor should be replaced. 2、 Check whether there is short circuit or open circuit in the wire of the sensor, and whether the plug is connected well, whether there is welding off or rosin joint on the electric control board, if there is any, it should be repaired. 3、 When the 1 and 2 are both normal, then the components or integrated circuit is damaged, the electric control board should be replaced.
E4	display at on/off state	flicker 4/6 SEC	display at off state	outdoor unit abnormal	1、 Check whether the winding resistance and operation current of the compressor are normal. 2、 Check whether the high and low pressure is normal when the unit is running. 3、 Check (whether the coil pipe sensor is normal) whether the contact of the inserter on the circuit board is well, the coil pipe temperature sensor is fixed, the evaporation of the indoor unit is well, the key is to check the evaporator temperature detected by the coil pipe temperature sensor has reached the cooling or heating temperature. 4、 Check whether the surface of the condenser is too dirty, it should be cleaned when it is too dirty. 5、 Check whether the capacitance of the outdoor motor and the fan is damaged, it should be replaced when

					<p>it is damaged.</p> <p>6、 If the above items are normal, the electric control board should be replaced.</p>
E5	PG motor display at off state	flicker 5/7 SEC	display at off state	no feedback signal of indoor fan	<p>1、 Check whether two sets of plugs on the outlet end of the motor have loosed from the socket of the electric control board, insert it firmly when loosing.</p> <p>2、 Check whether the indoor motor has damaged, the motor should be replaced when it is damaged</p> <p>3、 Check whether the controllable silicon and other components on the electric control board have damaged, replace the controllable silicon or electric control board when they are damaged.</p>
E6	PG motor display at off state	flicker 6/8 SEC	display at off state	no over zero signal	<p>1、 Firstly check whether the indoor fan is normal.</p> <p>2、 Check whether the signal outputting from the integrated chip of the electric control board is normal, the electric control board should be replaced when the signal is abnormal.</p>
E7	display at off state	flicker 7/9 SEC	display at off state	outdoor feedback fault	<p>1、 Check whether the winding resistance and operation current of the compressor are normal</p> <p>2、 Check whether the high and low pressure is normal when the unit is running.</p> <p>3、 Check whether the indoor and outdoor wiring is right; when it is wrong, connect them again according to the circuit diagram</p> <p>4、 Check whether the contact of the inserter on the circuit board and the connection are well, otherwise repair.</p> <p>5、 Check whether the signal feedback wire is disconnected, replace or connect the feedback signal wire.</p> <p>6、 Check whether the supply power is phase-lacking or phase opposition.</p> <p>7、 Check whether the AC electromagnetic contactor is well.</p>
E8	display at off state	flicker 8/10 SEC	display at off state	frost protection/over heat protection	<p>1、 Check whether the filter of the indoor unit is dirty or blocked, and clean if it is dirty.</p> <p>2、 Check whether the indoor fan is running normally, and replace the motor if it is abnormal.</p> <p>3、 Check whether indoor pipe temperature sensor is normal, and replace the sensor if it is abnormal.</p> <p>4、 Check whether the system pressure is normal, if abnormal, should check whether there is leakage, and fill the refrigerant again.</p>

二、 floor standing AC serial

LED		lamp display		failure	The reason of fault and solution
code	explain	code	explain		
E2	display at off state	flicker 2/4 SEC	display at on/off state	room temp. sensor fault	<ol style="list-style-type: none"> 1、 Check whether the resistance of the sensor is normal (the resistance is 5KΩ in the normal temperature 25℃), when it is abnormal the sensor should be replaced. 2、 Check whether there is short circuit or open circuit in the wire of the sensor, and whether the plug is connected well, whether there is welding off or rosin joint on the electric control board, if there is any, it should be repaired. 3、 When the 1 and 2 are both normal, then the components or integrated circuit is damaged, the electric control board should be replaced.
E3	display at off state	flicker 3/5 SEC	display at on/off state	coil temp. sensor fault	<ol style="list-style-type: none"> 1、 Check whether the resistance of the sensor is normal (the resistance is 5KΩ in the normal temperature 25℃), when it is abnormal the sensor should be replaced. 2、 Check whether there is short circuit or open circuit in the wire of the sensor, and whether the plug is connected well, whether there is welding off or rosin joint on the electric control board, if there is any, it should be repaired. 3、 When the 1 and 2 are both normal, then the components or integrated circuit is damaged, the electric control board should be replaced.
E4	display at on/off state	flicker 4/6 SEC	display at off state	outdoor unit abnormal	<ol style="list-style-type: none"> 1、 Check whether the winding resistance and operation current of the compressor are normal. 2、 Check whether the high and low pressure is normal when the unit is running. 3、 Check (whether the coil pipe sensor is normal) whether the contact of the inserter on the circuit board is well, the coil pipe temperature sensor is fixed, the evaporation of the indoor unit is well, the key is to check the evaporator temperature detected by the coil pipe temperature sensor has reached the cooling or heating temperature. 4、 Check whether the surface of the condenser is too dirty, it should be cleaned when it is too dirty. 5、 Check whether the capacitance of the outdoor motor and the fan is damaged, it should be replaced when it is damaged. 6、 If the above items are normal, the electric control board should be replaced.
E7	display at off state	flicker 7/9 SEC	display at off state	outdoor feedback fault	<ol style="list-style-type: none"> 1、 Check whether the winding resistance and operation current of the compressor are normal 2、 Check whether the high and low pressure is normal when

					<p>the unit is running.</p> <p>3、 Check whether the indoor and outdoor wiring is right; when it is wrong, connect them again according to the circuit diagram</p> <p>4、 Check whether the contact of the inserter on the circuit board and the connection are well, otherwise repair.</p> <p>5、 Check whether the signal feedback wire is disconnected, replace or connect the feedback signal wire.</p> <p>6、 Check whether the supply power is phase-lacking or phase opposition.</p> <p>7、 Check whether the AC electromagnetic contactor is well.</p>
E8	display at off state	flicker 8/10 SEC	display at off state	frost protection /over heat protection	<p>1、 Check whether the filter of the indoor unit is dirty or blocked, and clean if it is dirty.</p> <p>2、 Check whether the indoor fan is running normally, and replace the motor if it is abnormal.</p> <p>3、 Check whether indoor pipe temperature sensor is normal, and replace the sensor if it is abnormal.</p> <p>4、 Check whether the system pressure is normal, if abnormal, should check whether there is leakage, and fill the refrigerant again.</p>

三、portable air conditioner serial

LED		lamp display		failure	The reason of fault and solution
code	explain	code	explain		
E2	display at off state			room temp. sensor fault	<p>1、 Check whether the resistance of the sensor is normal (the resistance is 5KΩ in the normal temperature 25℃), when it is abnormal the sensor should be replaced.</p> <p>2、 Check whether there is short circuit or open circuit in the wire of the sensor, and whether the plug is connected well, whether there is welding off or rosin joint on the electric control board, if there is any, it should be repaired.</p> <p>3、 When the 1 and 2 are both normal, then the components or integrated circuit is damaged, the electric control board should be replaced.</p>
E3	display at off state			coil temp. sensor fault	<p>1、 Check whether the resistance of the sensor is normal (the resistance is 5KΩ in the normal temperature 25℃), when it is abnormal the sensor should be replaced.</p> <p>2、 Check whether there is short circuit or open circuit in the wire of the sensor, and whether the plug is connected well, whether there is welding off or rosin joint on the electric control board, if there is any, it should be repaired.</p> <p>3、 When the 1 and 2 are both normal, then the</p>

					components or integrated circuit is damaged, the electric control board should be replaced.
E4	display at off state			abnormal protection	<ol style="list-style-type: none"> 1、 Check whether the operation current and power of the unit is abnormal. 2、 Check whether the speed and wind quantity of the fan is normal, otherwise replace the outdoor fan or capacitance 3、 Check whether the surface of the condenser is too dirty, and it should be cleaned when it is too dirty. 4、 Check whether the unit is short of the refrigerant, add the refrigerant after leakage detection and repair welding. 5、 Check whether the sensor and electric control board is normal, otherwise replace the board.
E5	display at off state	flicker 7/9 SEC	display at off state	water level over limit	<ol style="list-style-type: none"> 1、 Normal, discharge the water out, it will return to normal condition automatically 2、 Check the water level switch, and replace it when fault.
E8	display at off state			over heat protection (PTC temp. $\geq 152^{\circ}\text{C}$)	<ol style="list-style-type: none"> 1、 Check whether the fan is normal, otherwise replace corresponding motor or capacitance. 2、 Check the resistance of the electric heater is normal, otherwise replace it.

四、dehumidifer series

code	explain	failure	The reason of fault and solution
continuous lamp flicker 2 times	display at off state	room temp. sensor fault	<ol style="list-style-type: none"> 1、 Check whether the resistance of the sensor is normal, when it is abnormal the sensor should be replaced. 2、 Check whether there is short circuit or open circuit in the wire of the sensor, and whether the plug is connected well, whether there is welding off or rosin joint on the electric control board, if there is any, it should be repaired. 3、 When the 1 and 2 are both normal, then the components or integrated circuit is damaged, the electric control board should be replaced.
continuous lamp flicker 2/3 SEC	display at off state	coil temp. sensor fault	<ol style="list-style-type: none"> 1、 Check whether the resistance of the sensor is normal, when it is abnormal the sensor should be replaced. 2、 Check whether there is short circuit or open circuit in the wire of the sensor, and whether the plug is connected well, whether there is welding off or rosin joint on the electric control board, if there is any, it should be repaired. 3、 When the 1 and 2 are both normal, then the components or integrated circuit is damaged, the electric control board should be replaced.
continuous lamp flicker 3 times	display at off state	humidity sensor fault	<ol style="list-style-type: none"> 1、 Check whether the humidity sensor is normal, otherwise replace it. 2、 Check whether the sensor wire is short circuit or open circuit, and whether the plug is well contacted, whether there is welding off or rosin joint on the electric control board, repair it if there is any above.

			3、 When the 1 and 2 are both normal, then the components or integrated circuit is damaged, the electric control board should be replaced.
continuous lamp flicker 4times		temp. sensor and humidity sensor all fault	1、 Check whether the resistance of the temperature sensor is normal, otherwise replace it. 2、 Check whether the humidity sensor is normal, otherwise replace it.
water full lamp flicker (light 0.5SEC, extinguish 0.5SEC)		water full of water tank	Normal, discharge the water out, it will return to normal condition automatically

五、 inverter single split series

LED	running lamp(flicker times)	timer lamp(flicker times)	failure	The reason of fault and solution
F1	1	light	communication fault	<ol style="list-style-type: none"> 1、 Check whether the connection of the outdoor unit and indoor unit is one to one, otherwise connect the L, N and communication line of the indoor unit and outdoor unit one to one. 2、 Measure whether the voltage between the zero line and the communication line is 18V-30AC half-wave signal, check whether the communication circuit on the indoor and outdoor electric control board has been damaged, otherwise replace it. 3、 Check whether the LED on the outdoor power board has been on, otherwise replace the electric control board. 4、 Check whether the unit is abnormal caused by the external interference, if it is, then find the interfering source, and removes it.
F2	2	light	ambient temp. sensor fault	<ol style="list-style-type: none"> 1、 Check whether the resistance of sensor is normal, otherwise replace it. 2、 Check whether the sensor wire is short circuit or open circuit, and whether the plug is well contacted, whether there is welding off or rosin joint on the electric control board, repair it if there is any above. 3、 When the 1 and 2 are both normal, then the components or integrated circuit is damaged, the electric control board should be replaced.
F3	3	light	coil pipe temp. sensor of indoor unit fault(inlet, middle, outlet)	<ol style="list-style-type: none"> 1、 Check whether the resistance of sensor is normal, otherwise replace it. 2、 Check whether the sensor wire is short circuit or open circuit, and whether the plug is well contacted, whether there is welding off or rosin joint on the electric control board, repair it if there is any above. 3、 When the 1 and 2 are both normal, then the components or integrated circuit is damaged, the electric control board should be replaced.
F4	4	light	fan motor of indoor	<ol style="list-style-type: none"> 1、 Check whether the contact of the plug of the motor wire

			unit fault	<p>and socket is well, making sure well contact.</p> <p>2、 Check whether the indoor motor has damaged, the motor should be replaced when it is damaged.</p> <p>3、 Check whether the controllable silicon and other components on the electric control board have damaged, replace the controllable silicon or electric control board when they are damaged.</p>
F5	5	light	module of outdoor unit fault	<p>1、 Check whether the connection of the compressor is reliable, otherwise connect firmly again.</p> <p>2、 Check whether the fixation between the IPM module and the radiator is firm.</p> <p>3、 Check whether the compressor is well, otherwise replace it.</p> <p>4、 Check whether the IPM module is abnormal, otherwise replace it.</p>
F6	6	light	ambient temp. sensor of outdoor fault	<p>1、 Check whether the resistance of sensor is normal, otherwise replace it.</p> <p>2、 Check whether the sensor wire is short circuit or open circuit, and whether the plug is well contacted, whether there is welding off or rosin joint on the electric control board, repair it if there is any above.</p> <p>3、 When the 1 and 2 are both normal, then the components or integrated circuit is damaged, the electric control board should be replaced.</p>
F7	7	light	coil pipe temp. sensor of outdoor unit fault	<p>1、 Check whether the resistance of sensor is normal, otherwise replace it.</p> <p>2、 Check whether the sensor wire is short circuit or open circuit, and whether the plug is well contacted, whether there is welding off or rosin joint on the electric control board, repair it if there is any above.</p> <p>3、 When the 1 and 2 are both normal, then the components or integrated circuit is damaged, the electric control board should be replaced.</p>
F8	8	亮 light	suction temp. sensor of compressor fault	<p>1、 Check whether the resistance of sensor is normal, otherwise replace it.</p> <p>2、 Check whether the sensor wire is short circuit or open circuit, and whether the plug is well contacted, whether there is welding off or rosin joint on the electric control board, repair it if there is any above.</p> <p>3、 When the 1 and 2 are both normal, then the components or integrated circuit is damaged, the electric control board should be replaced.</p>
F9	9	light	discharge temp. sensor of compressor fault	<p>1、 Check whether the resistance of sensor is normal, otherwise replace it.</p> <p>2、 Check whether the sensor wire is short circuit or open circuit, and whether the plug is well contacted, whether there is welding off or rosin joint on the electric control</p>

				board, repair it if there is any above. 3、 When the 1 and 2 are both normal, then the components or integrated circuit is damaged, the electric control board should be replaced.
FA	10	light	inductor of current or voltage fault	1、 Check whether inductor of current or voltage have been damaged, they should be replaced if they are fault.
FC	11	light	compressor drive fault	1、 Power on again, and check the operation of the compressor is normal. 2、 Check whether the connection of the compressor is reliable, otherwise repair. 3、 Check whether the components on the electric control board have been damaged, if they are damaged, the components or the electric control board should be replaced.
FD	12	light	phase lacking or phase sequence fault	1、 Check power wire voltage or change two power wires.
FE	13	light	gas return sensor fault(include A, B, C, D)	1、 Check whether the resistance of sensor is normal, otherwise replace it. 2、 Check whether the sensor wire is short circuit or open circuit, and whether the plug is well contacted, whether there is welding off or rosin joint on the electric control board, repair it if there is any above. 3、 When the 1 and 2 are both normal, then the components or integrated circuit is damaged, the electric control board should be replaced.
FF	14	light	other fault	
P1	1	light	temp. of evaporator protection	1、 Check whether the filter of indoor unit is too dirty, and it should be cleaned when it is too dirty. 2、 Check whether it has barrier around indoor unit, it should be remove if it has. 3、 Check whether the indoor motor is damaged, it should be replaced motor or electrical control board when it is damaged.
P2	2	light	overheat, over current protection of inverter module	1、 Check whether the fixation between the IPM module and the radiator is firm. 2、 Check whether the compressor is well, otherwise replace it. 3、 Check whether the IPM module is abnormal, otherwise replace it.
P3	3	light	over current protection	1、 Check whether the ambient temperature exceeds the operation range for the air conditioner 2、 Check whether the current detection circuit is abnormal, the electric control should be replaced when it is abnormal.
P4	4	light	discharge temp. of compressor	1、 Check whether the air condition system and pressure are normal.

			protection	2、 Check whether the sensor, connecting wire of the sensor and the detection circuit are abnormal.
P5	5	light	over heat of compressor top protection	1、 Check whether the air condition system and pressure are normal. 2、 Check whether the sensor, connecting wire of the sensor and the detection circuit are abnormal.
P6	6	light	suction temp. of compressor protection	1、 Check whether the air condition system and pressure are normal. 2、 Check whether the sensor, connecting wire of the sensor and the detection circuit are abnormal.
P7	7	light	low or high voltage protection	1、 Check whether the supply voltage is out of rang from 150 to 270V 2、 Check the voltage detection circuit of the IPM base board is abnormal, if it is abnormal, the IPM base board or the electric control board should be replaced.
P8	8	light	low presser of gas return protection	1、 Check whether the pressure is normal when the unit is running, if it is abnormal, should detect the leakage and welding、 add refrigerant.
P9	9	light	high pressure of discharge protection	1、 Check whether the pressure is normal when the unit is running, if it is abnormal, should detect the leakage and welding、 add refrigerant.
PA	10	light	high temp. of condenser protection	1、 Check whether the condenser of outdoor unit is too dirty, and it should be cleaned when it is too dirty. 2、 Check whether it is running at bad condition long time. 3、 Check whether sensor and wire are normal.
PC	11	light	high temp. of outdoor ambient protection	1、 Check the outdoor ambient temperature is too high or there is heat source around the outdoor unit. 2、 Check whether the sensor and sensor wire are normal.
PF	12	light	other protection	

六、DC inverter multi-split series

LED	failure	The reason of fault and solution
F1	communicate fault	1、 Check whether the connection of the outdoor unit and indoor unit is one to one. 2、 Check whether the unit is abnormal caused by the external interference, if it is, then find the interfering source, and removes it. 3、 Check whether the electrical control board is damage, it should be replaced when it is damaged.
F2	indoor temp. sensor fault	1、 Check whether the resistance of sensor is normal, otherwise replace it. 2、 Check whether the sensor wire is short circuit or open circuit, and whether the plug is well contacted, whether there is welding off or rosin joint on the electric control board, repair it if there is any above.

		3、 When the 1 and 2 are both normal, then the components or integrated circuit is damaged, the electric control board should be replaced.
F3	outlet e temp. sensor of indoor unit coil pipe fault	1、 Check whether the resistance of sensor is normal, otherwise replace it. 2、 Check whether the sensor wire is short circuit or open circuit, and whether the plug is well contacted, whether there is welding off or rosin joint on the electric control board, repair it if there is any above. 3、 When the 1 and 2 are both normal, then the components or integrated circuit is damaged, the electric control board should be replaced.
F3	suction temp. sensor of indoor unit coil pipe fault	1、 Check whether the resistance of sensor is normal, otherwise replace it. 2、 Check whether the sensor wire is short circuit or open circuit, and whether the plug is well contacted, whether there is welding off or rosin joint on the electric control board, repair it if there is any above. 3、 When the 1 and 2 are both normal, then the components or integrated circuit is damaged, the electric control board should be replaced.
F3	middle temp. sensor of indoor unit coil pipe fault	1、 Check whether the resistance of sensor is normal, otherwise replace it. 2、 Check whether the sensor wire is short circuit or open circuit, and whether the plug is well contacted, whether there is welding off or rosin joint on the electric control board, repair it if there is any above. 3、 When the 1 and 2 are both normal, then the components or integrated circuit is damaged, the electric control board should be replaced.
F4	PG motor fault	1、 Check whether the contact of the plug of the motor wire and socket is well, making sure well contact. 2、 Check whether the indoor motor has damaged, the motor should be replaced when it is damaged. 3、 Check whether the controllable silicon and other components on the electric control board have damaged, replace the controllable silicon or electric control board when they are damaged.
P2	protection of module fault	1、 Check whether the connection of the compressor is reliable, otherwise connect firmly again. 2、 Check whether the fixation between the IPM module and the radiator is firm. 3、 Check whether the compressor is well, otherwise replace it. 4、 Check whether the IPM module is abnormal, otherwise replace it.
P3	over current of outdoor unit	1、 Check whether the ambient temperature exceeds the operation range for the air conditioner 2、 Check whether the current detection circuit is abnormal, the electric

		control should be replaced when it is abnormal.
P4	discharge temp. of compressor too high, outside ambient temp. too high, temp. switch of compressor crust cut off, temp. of module too high.	<ol style="list-style-type: none"> 1、 Check whether the pressure is normal when the unit is running, if it is abnormal, should detect the leakage and welding、 add refrigerant. 2、 Check whether ambient temp. is too high or too low, when the temp. more than -20 degree and less 55 degree, it can disappear automatically. 3、 communicate interference, earth wire and communicate wire can't put in one cable. 4、 Check whether temp. switch of compressor is damage, it should be replace if it damaged.
P7	DC voltage abnormal of outdoor unit	<ol style="list-style-type: none"> 1、 Check whether the supply voltage is out of rang from 150 to 270V 2、 Check the voltage detection circuit of the IPM base board is abnormal, if it is abnormal, the IPM base board or the electric control board should be replaced.
P8	lack refrigerant or reverse valve fault	<ol style="list-style-type: none"> 1、 Check whether the high and low pressure valves have been opened, otherwise open the valves. 2、 Check whether the indoor coil pipe temperature sensor is normal, if it is abnormal, the sensor should be replaced. 3、 Check the system pressure is abnormal, if it is abnormal, should detect leakage repairing welding and adding the refrigerant.`
F6	outside sensor fault	<ol style="list-style-type: none"> 1、 Check whether the resistance of sensor is normal, otherwise replace it. 2、 Check whether the sensor wire is short circuit or open circuit, and whether the plug is well contacted, whether there is welding off or rosin joint on the electric control board, repair it if there is any above. 3、 When the 1 and 2 are both normal, then the components or integrated circuit is damaged, the electric control board should be replaced.
FC	outdoor unit drive fault, start compressor failure	<ol style="list-style-type: none"> 1、 Power on again, and check the operation of the compressor is normal. 2、 Check whether the connection of the compressor is reliable, otherwise repair. 3、 Check whether the components on the electric control board have been damaged, if they are damaged, the components or the electric control board should be replaced.

