

Problem symptom	Outdoor unit indication (LED1)	Malfunction No.*		Content of diagnosis		Check point	Action
		Main	Sub	Main	Sub		
Indoor unit operates. Outdoor unit does not operate temporarily	2-time	2	1	Cycle temperature	Compressor discharge overheat.	1) (Temporary stop for cycle protection)	-
			2		Outdoor unit heat exchanger overheat.		-
			3		Indoor unit heat exchanger overheat.		-
							-
Indoor and outdoor units do not operate.			5		IPM high temperature error	(1)Check the outdoor unit air outlet for blockage. (2)Check the outdoor unit fan for proper rotation. (3)No abnormality found in above inspections (1) and (2).	(1)Ensure unobstructed air flow from the outdoor unit air outlet. (2)Check the outdoor unit fan motor. (3)Replace the outdoor unit control PWB.
Indoor unit operates. Outdoor unit does not operate temporarily.	3-time	3	0	Dry operation	Temporary stop due to dehumidifying operation	1) (Temporary stop for cycle protection).	-
Indoor and outdoor units do not operate.	5-time	5	0	Outdoor unit thermistor open-circuit	Heat exchanger thermistor open circuit error	1) Check connector of outdoor unit thermistor for secure installation.  2) Measure resistance of outdoor thermistors.  3) Check the lead wires of thermistors on the outdoor unit control PWB for open-circuit.  4) No abnormality found in above inspections (1) through (3).	1) Correct the installation.  2) Replace the outdoor unit thermistor assembly.  3) Replace the outdoor unit thermistor assembly.  4) Replace the outdoor unit control PWB assembly.
			1		Outdoor temperature thermistor open circuit error		
			2		Suction thermistor open circuit error		
			3		2-way valve thermistor open circuit error.		
			4		Discharge thermistor open circuit error		
			5		Heat sink thermistor open circuit error		
Indoor and outdoor units do not operate.	6-time	6	0	Outdoor unit DC Current	DC over current error	1) Go to "DC Over Current Error (6-0 error)".	1) Replace the outdoor unit PWB.
			1		IPM pin level error		

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Indoor and outdoor units do not operate.	7-time	7	0	Outdoor unit AC Current	AC over current error	1) Check the outdoor unit air outlet for blockage.	1) Ensure unobstructed air flow from the outdoor unit air outlet.
						2) Check the outdoor unit fan for proper rotation.	2) Check the outdoor unit fan motor.
			1		AC current error when OFF	1) IPM continuity check.	1) Replace the outdoor IPM PWB.
			2		AC maximum current error	1) Check the outdoor unit air outlet for blockage.	1) Ensure unobstructed air flow from the outdoor unit air outlet.
						2) Check the outdoor unit fan for proper rotation.	2) Check the outdoor unit fan motor.
			3		AC current deficiency error	1) Check if there is an open-circuit in the secondary winding of the current transformer of the outdoor unit control PWB.	1) Replace the outdoor unit control PWB assembly.
2) Check if the refrigerant volume is abnormally low.	2) Charge the specified amount of refrigerant.						
3) Check if the refrigerant flows properly.	3) Correct refrigerant clogs. (Stop valve, pipe, expansion valve).						
Indoor and outdoor units do not operate.	9-time	9	0	Cycle temperature	Thermistor installation error or 4-way valve error.	1)Check the thermistor (heat exchanger) and (2-way valve) are installed in correct positions.	1)Correct the installation.
						2)Check resistance of thermistors (heat exchanger and 2-way valve).	2)Charge the specified amount of refrigerant.
						3)Check the 4-way valve for proper operation.	3)Replace the 4- way valve.
						4)No abnormality found in above inspections (1), through(3).	4)Replace the outdoor unit control PWB assembly.
Indoor and outdoor units do not operate.			4	4 way valve error or Gas leak error.	1) Check the indoor/ outdoor heat exchanger thermistors are installed in correct positions.	1) Correct the installation.	
					2) Check if the refrigerant volume is abnormally low.	2) Change the specified amount of refrigerant.	
					3) Check the 4-way valve for proper operation.	3) Replace the 4-way valve.	
Indoor and outdoor units do not operate.	10-time	10	2	EEPROM error	CPU(outdoor) RAM data error	-	1) Replace the outdoor unit control PWB assembly.
			3		CPU error		

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Indoor and outdoor units do not operate.	11-time	11	1	Outdoor unit DC fan	Outdoor unit DC fan driver IC error	1) Check if the fan IPM terminal resistance values are uniform.	1) Replace the outdoor unit control PWB assembly.		
						2) Outdoor unit fan motor continuity check.	2) Replace the outdoor unit fan.		
			2		Outdoor unit DC fan lock error	1) Check if the fan IPM terminal resistance values are uniform.	1) Replace the outdoor unit control PWB assembly.		
						2) (1): Normal	2) Replace the outdoor unit fan.		
			3		Outdoor unit DC fan	Detection error of DC fan negative rotation before compressor is driven	1) (Temporary stop for DC fan circuit protection)	-	
						4	Detection error of inverter current for DC fan	-	1) Replace the outdoor unit control PWB assembly.
							5	Outdoor unit DC fan open connector error	1) Check connector CN3 of the outdoor unit DC fan motor for secure installation.
					2) No abnormality found in above inspection (1).	2) Replace the outdoor unit control PWB assembly.			

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Indoor and outdoor units do not operate.	13-time	13	0	DC compressor	Compressor startup error	1) Check the colors (red, white, orange) of the compressor cords for proper connection. (PWB side, compressor side)  2) Check if the IPM terminal resistance values are uniform. (Refer to IPM check method.)  3) Check if outdoor main relay (MRY1) turns on and DC voltage DB1 ( ⊕ - ⊖ ) has become DC290-330V.  4) No abnormality found in above inspections (1) through (3).	1) Correct the installation. (U: Red, V: White, W: Orange)  2) Replace the outdoor unit control PWB assembly.  3) Replace the outdoor unit control PWB assembly.  4) Replace the compressor.
			2		Compressor rotation error. (at 180° energizing)		
Indoor and outdoor units do not operate.	14-time	14	0	Outdoor unit PAM	PAM over voltage error	1) Check the AC power supply voltage for fluctuation.	1) Correct the installation.
						2) No abnormality found in above inspection.	2) Replace the PWB assembly.
			1		PAM clock error	1) Check the PAM clock for proper input.	1) Replace the outdoor unit control PWB assembly.
				2		Abnormal power supply voltage / DC low voltage.	1) Check the AC power supply voltage for fluctuation.
			2) No abnormality found in above inspection.		2) Replace the PWB assembly.		

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Indoor unit operates. Outdoor unit does not operate.	Lighting or OFF	17	0	Wiring between units	Serial opencircuit	1) Check the wires between units.	1) Connect stable power supply. Correct the wiring.
						2) Check voltage between N and 1 the indoor/outdoor unit terminal boards.	2) Replace the outdoor unit control PWB assembly.
						3) Check the outdoor unit fuse.	3) Replace the fuse/ outdoor unit control PWB assembly.
						4) Check voltages of 15V-0V, 12V-0V and 5V-0V on the PWB. 15V-0V :15V 12V-0V :12V 5V-0V :5V Check resistance between IPM terminals.	4) Replace the outdoor unit control PWB assembly.
						5) No abnormality found in above inspections (1) through (4).	5) Replace the outdoor unit control PWB board.
Indoor unit operates. Outdoor unit does not operate.	Lighting or OFF	18	0	Wiring between units	Serial short-circuit	1) Check the wiring between units.	1) Correct the wiring.
Indoor and outdoor units do not operate.			1			Serial erroneous wiring	1) Check the wiring between units.
Indoor and outdoor units do not operate.	Normal blinking or OFF	19	0	Indoor unit fan	Indoor unit fan error	1) Check the indoor fan motor for proper rotating operation. (Check fan lock.)	1) Replace the indoor fan motor.
						2) Check the lead wire of the indoor fan motor for open-circuit.	2) Replace the indoor fan motor.
						3) Check connector of the indoor unit fan motor for secure installation	3) Correct the installation of the indoor fan motor connector.
						4) No abnormality found in above inspections (1) through (3).	4) Replace the indoor unit control PWB
Indoor and outdoor units do not operate.	Normal blinking or OFF	20	0	Indoor unit control PWB	EEPROM data error	1) (EEPROM read data error)	1) Replace the indoor unit control PWB

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Indoor and outdoor units operate	Normal blinking or OFF	24	0	Wireless LAN	WLAN module communication error	1) Check WLAN module and related circuit.	1) Confirm assembly. 2) Confirm WLAN module.
			1		Wireless router connection error		
Indoor and outdoor units operate	Normal blinking or OFF	26	1	Indoor unit room temperature thermistor	Indoor unit room temperature thermistor	1) Check connector of thermistor for secure installation. 2) Check the temperature properties of the thermistor.	1) Replace the thermistor.
			2	Indoor unit pipe temperature thermistor	Indoor unit pipe temperature thermistor		
			3	Indoor unit valve temperature thermistor	Indoor unit valve temperature thermistor		

#### 4. OTHER MALFUNCTION ERROR INDICATION / BUZZER

4.1 If the LED lamp on indoor unit indicate as below when unit is not operating, the error information as below.  
(not refer to 3.CHART FOR READING SELF-DIAGNOSIS RESULT)

MALFUNCTION	Lamp flashing (flash 1 second as a cycle) (The lamp not flashing show the operation mode normally.)				Error code(main) and error information
	OPERATION LAMP (GREEN)	TIMER (ORANGE)	WLAN (GREEN)	PLASMACLUSTER (BLUE)	
Vertical louver (V-louver)					21, Vertical louver (V-louver) L/R guide not assembled well or disassembled.

4.2 If the LED lamp on indoor unit indicate when unit is operating,

MALFUNCTION	Lamp flashing (flash 1 second as a cycle) (The lamp not flashing show the operation mode normally.)				Error code(main) and error information
	OPERATION LAMP (GREEN)	TIMER (ORANGE)	WLAN (GREEN)	PLASMACLUSTER (BLUE)	
Serial opencircuit					17, Serial opencircuit
adapter communication error (Adapter not applicable)	LED lamp flash just 5 seconds with buzzer				24, adapter communication error (Adapter not applicable) ※ Refer to [WLAN GUIDE BOOK]
PCI	Flash just 10 seconds after operation start				-- operation over 17,500 hours( ※ 1)
	Flash just 1 minute after operation start				-- operation over 19,000 hours( ※ 2)

※ 1 : If PLASMACLUSTER operation overed 17,500 hours, the PLASMACLUSTER lamp will turn off during operation. the LED lamp will flash as above when unit start PLASMACLUSTER operation again.  
In this case, the PLASMACLUSTER lamp turns off. But PLASMACLUSTER ion is released.  
Other operation ( e.g. Cooling and Heating) can run as usual.

※ 2 : If PLASMACLUSTER operation overed 19,000 hours, the PLASMACLUSTER lamp will turn off during operation. And the unit will stop releasing PLASMACLUSTER ion.  
The LED lamp will flash as above when unit start PLASMACLUSTER operation again.  
Other operation ( e.g. Cooling and Heating) can run as usual.

#### 4.3 Error without indication

If EEPROM data has problem When power supply just connected , buzzer (Bip Bip Bip ...) will sound continuously. (LED lamp remain off.)