

Simple Self-Diagnosis by Malfunction Code

RA, SkyAir, VRV, PA, and Heat Reclaim Ventilator

[illegible]

Chiller

Detail code		0	1	2	3	4	5	6	7	8	9	A	C	E	F	H	J
Division																	
Indoor Unit	A		Malfuction of indoor unit PCB			Malfuction of freezing protection					Malfuction of electronic expansion valve	Malfuction of electronic expansion valve					
	C					Malfuction of liquid pipe thermistor for heat exchanger	Malfuction of gas pipe thermistor for heat exchanger										
Outdoor Unit	E	Protection devices activated (unified)	Defect of outdoor unit PCB	Missing of earth leakage detection core	Actuation of high pressure switch (HPS)	Actuation of low pressure switch (LPS)	Inverter compressor motor or overheat	STD compressor motor overcurrent/ lock	Malfuction of outdoor unit fan motor system	Overcurrent of inverter compressor	Malfuction of electronic expansion valve coil						
	F				Malfuction of discharge pipe temperature								Abnormal high pressure actuation of HPS				
	H	Malfuction of sensor system of compressor	Malfuction of room temperature sensor or humidifier unit damper	Malfuction of power supply sensor	Malfuction of high pressure switch (HPS)	Malfuction of low pressure switch (LPS)	Malfuction of compressor motor overload thermistor	Malfuction of position detection sensor	Malfuction of outdoor unit fan motor signal	Malfuction of compressor input (CT) system	Malfuction of outdoor air thermistor	Malfuction of discharge air thermistor	Malfuction of (hot) water temperature thermistor				
	J	Miswiring of thermistor	Malfuction of pressure sensor	Malfuction of current sensor of compressor	Malfuction of discharge pipe thermistor	Malfuction of low pressure equivalent saturated temperature sensor system	Malfuction of suction pipe thermistor	Malfuction of heat exchanger thermistor	Malfuction of thermistor (Refrigerant circuit)	Malfuction of thermistor (Refrigerant circuit)	Malfuction of thermistor (Refrigerant circuit)	Malfuction of high pressure sensor	Malfuction of low pressure sensor				
	L	Malfuction of inverter system	Malfuction of inverter PCB		EI. compo. box temperature rise	Malfuction of inverter radiation fin temperature rise	Inverter instantaneous overcurrent (DC output)	Inverter instantaneous overcurrent (AC output)	Total input overcurrent	Malfuction of overcurrent inverter compressor	Malfuction of inverter compressor startup error (Stall prevention)	Malfuction of power transistor	Malfuction of transmission between control and inverter PCB				
	P	Shortage of refrigerant amount (thermal storage unit)	Power voltage imbalance or inverter PCB	Automatic refrigerant charge operation stop	Reactor temperature abnormality	Malfuction of radiation fin temperature sensor											Improper combination between inverter and fan driver
System	U	Shortage of refrigerant	Reverse phase, open phase	Malfuction of power supply or instantaneous power failure	Check operation not executed or transmission error	Malfuction of transmission between indoor and outdoor unit	Malfuction of transmission between indoor unit and remote controller	Malfuction of transmission between indoor units	Malfuction of transmission between outdoor units or outdoor storage unit	Malfuction of transmission between remote controllers	Malfuction of transmission (other system)	Improper combination of indoor and outdoor units	Malfuction of setting of centralized control equipment address	Malfuction of transmission between indoor unit and centralized control equipment			Malfuction of transmission (accessory device)
Others	7	System No. 2 Compressor overheat	System No. 2 Compressor overcurrent	System No. 2 Fan motor overcurrent	System No. 2 Actuation of high pressure switch (HPS)	System No. 2 Actuation of low pressure switch (LPS)	System No. 2 Malfuction of low pressure sensor	System No. 2 Malfuction of high pressure sensor	System No. 1 Malfuction of fan inter lock	System No. 2 Malfuction of fan inter lock		System No. 2 Malfuction of compressor current sensor	Malfuction of pump inter lock				
	8	Malfuction of entering water temperature thermistor	Malfuction of leaving water temperature thermistor or drain pipe heater	System No. 1 Malfuction of refrigerant thermistor	System No. 2 Malfuction of refrigerant thermistor	System No. 1 Malfuction of heat exchanger thermistor	System No. 2 Malfuction of heat exchanger thermistor	System No. 1 Malfuction of discharge pipe thermistor		System No. 2 Malfuction of discharge pipe temperature	Malfuction of brazed-plate heat exchanger freezing	Malfuction of dehumidification or leaving water temperature thermistor		System No. 1 Malfuction of suction pipe thermistor 1 for heating	System No. 1 Malfuction of suction pipe thermistor 2 for heating	Abnormal hot water high temperature	
	9	Abnormal chilled water quantity or abnormal AXP	System No. 2 Malfuction of electronic expansion valve	System No. 2 Malfuction of suction pipe thermistor			System No. 1 Malfuction of inverter system	System No. 2 Malfuction of inverter system	Malfuction of thermal storage unit	Malfuction of thermal storage brine pump	Malfuction of thermal storage brine tank			System No. 2 Malfuction of suction pipe thermistor 1 for heating	System No. 2 Malfuction of suction pipe thermistor 2 for heating		

Fan Coil

Detail code		0	1	2	3	4	5	6	7	8	9	A	C	E	F	H	J
Division																	
Indoor Unit	A				Malfuction of drain level system	Malfuction of freezing protection										Malfuction of dust collector of air cleaner	
	C					Malfuction of liquid pipe thermistor for heat exchanger						Malfuction of suction air thermistor					Malfuction of thermostat sensor in remote controller
System	U		Reverse phase, open phase	Malfuction of power supply or instantaneous power failure	Check operation not executed or transmission error	Malfuction of transmission between indoor and outdoor unit	Malfuction of transmission between indoor unit and remote controller	Malfuction of transmission between indoor units	Malfuction of transmission between outdoor units or outdoor storage unit	Malfuction of transmission between remote controllers	Malfuction of transmission (other system)	Improper combination of indoor and outdoor units	Malfuction of setting of centralized control equipment address	Malfuction of transmission between indoor unit and centralized control equipment			
	M		Malfuction of central remote controller PCB							Malfuction of transmission between optional controllers for centralized control		Improper combination of optional controllers for centralized control	Address duplication, improper setting				

Simple Self-Diagnosis by Malfunction Code

Malfunction code	Malfunction Contents	Supposed causes	Objects						
			RA	SkyAir	VRV	Package	Heat reclaim ventilator	Chiller	Fan Coil
Indoor Unit	R0	External protection device activated		○	○	○			
	R1	Malfunction of indoor unit PCB	○	○	○	○	○	○	
	R3	Drain Level Control System Abnormality	○	○	○		○		○
	R4	Malfunction of freezing protection	○	○	○	○		○	○
	R5	High pressure control in heating, freeze-up protection control in cooling	○	○	○	○			
	R6	Malfunction of fan motor	○	○	○	○	○		
	R7	Malfunction of swing flap motor		○	○				
	R8	Malfunction of power supply or AC input overcurrent		○	○		○		
	R9	Malfunction of electronic expansion valve		○	○	○	○	○	
	RR	Heater overheat				○		○	
	RF	Malfunction of a humidifier system		○	○		○		
	RH	Malfunction of dust collector of air cleaner	○	○	○				○
	RL	Malfunction of capacity setting (Indoor unit PCB)		○	○	○			
	C1	Failure of transmission (between indoor unit PCB and sub PCB)		○	○				
	C4	Malfunction of liquid pipe thermistor for heat exchanger	○	○	○	○	○	○	○
	C5	Malfunction of gas pipe thermistor for heat exchanger	○		○	○	○	○	
	C6	Malfunction of fan motor sensor or fan control driver		○	○				
	C7	Front panel driving motor fault	○						
	C9	Malfunction of suction air thermistor	○	○	○	○	○		○
	CR	Malfunction of discharge air thermistor	○		○	○	○		
	CC	Malfunction of humidity sensor system	○	○		○			
	CU	Room temperature thermistor in remote controller abnormality	○	○	○	○			○

Malfunction code	Malfunction Contents	Supposed causes	Objects						
			RA	SkyAir	VRV	Package	Heat reclaim ventilator	Chiller	Fan Coil
Outdoor Unit	E0	Protection devices activated (unified)		○	○			○	
	E1	Defective outdoor unit PCB	○	○	○	○		○	
	E3	Actuation of high pressure switch (HPS)	○	○	○	○			
	E3	System No.1 Actuation of high pressure switch (HPS)						○	
	E4	Actuation of low pressure switch (LPS)		○	○	○		○	
	E5	Inverter compressor motor or overheat	○	○	○	○		○	
	E6	STD compressor motor overcurrent/lock	○	○	○	○			
	E6	System No.1 Compressor overcurrent						○	
	E7	Malfunction of outdoor unit fan motor system	○	○	○			○	
	E8	Overcurrent of inverter compressor	○					○	
	E9	Malfunction of electronic expansion valve coil		○	○	○		○	
	E9	Malfunction of four way valve or cool/heat switchin	○						
	E1	Malfunction of entering water temperature			○				
	F3	Malfunction of discharge pipe temperature	○	○	○	○		○	
	F6	Abnormal high pressure or refrigerant overcharged	○	○	○	○			
	H0	Malfunction of sensor system of compressor	○					○	
	H1	Malfunction of room temperature sensor or humidifier unit damper	○					○	
	H3	Malfunction of high pressure switch (HPS)	○	○	○	○		○	
	H4	Malfunction of low pressure switch (LPS)		○	○			○	

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Malfunction code	Malfunction Contents	Supposed causes	Objects						
			RA	SkyAir	VRV	Package	Heat reclaim ventilator	Chiller	Fan Coil
Outdoor Unit	H5	Malfunction of compressor motor overload thermistor	Defect of compressor motor overload thermistor Defective connector contact	○				○	
	H6	Malfunction of position detection sensor	Faulty contact of compress or cable Defective compressor Defective outdoor unit PCB	○		○		○	
	H7	Malfunction of outdoor unit fan motor signal	Abnormal signal from fan motor (Circuit failure) Disconnection/Short circuit in fan motor leads or disconnection of connector Defective inverter PCB		○	○	○	○	
	H8	Malfunction of compressor input (CT) system	Defective power transistor Defective reactor Faulty wiring of inverter system Defective outdoor unit PCB	○				○	
	H9	Malfunction of outdoor air thermistor	Defective connection of thermistor Defective outdoor unit PCB Defective outdoor air thermistor	○	○	○	○	○	
	HC	Malfunction of (hot) water temperature thermistor	Defective connection of thermistor Defective outdoor unit PCB Defective water temperature thermistor		○	○		○	
	HF	Alarm in thermal storage unit or storage controller	Thermal storage group defective wiring Defective setting Excess of thermal storage tank numbers			○			
	HU	Malfunction of thermal storage tank water level	Low water level Defective switch setting Water level detecting sensor failure Defective connector contact	○	○	○	○		
	J1	Malfunction of pressure sensor	Defective pressure sensor connector contact Defective pressure sensor Defective outdoor unit PCB		○	○	○	○	
	J2	Malfunction of current sensor of compressor	Defective current sensor Defective compressor Defective outdoor unit PCB	○	○	○	○	○	
	J3	Malfunction of discharge pipe thermistor	Defective connection of thermistor Defective discharge pipe thermistor Defective outdoor unit PCB	○	○	○	○	○	
	J4	Malfunction of low pressure equivalent saturated temperature sensor system	Defective connection of thermistor Defective thermistor Defective outdoor unit PCB			○		○	
	J5	Malfunction of suction pipe thermistor	Defective connection of thermistor Defective suction pipe thermistor Defective outdoor unit PCB		○	○	○	○	
	J6	Malfunction of heat exchanger thermistor	Defective connection of thermistor Defective heat exchanger thermistor Defective outdoor unit PCB	○	○	○	○	○	
	J7	Malfunction of thermistor (Refrigerant circuit)	Defective connection of thermistor Defective liquid pipe thermistor Defective outdoor unit PCB		○	○	○	○	
	J8	Malfunction of thermistor (Refrigerant circuit)	Defective connection of thermistor Defective liquid pipe thermistor Defective outdoor unit PCB	○	○	○	○	○	
	J9	Malfunction of thermistor (Refrigerant circuit)	Defective connection of thermistor Defective gas pipe thermistor Defective outdoor unit PCB	○	○	○	○	○	
	JA	Malfunction of high pressure sensor	Defective connector contact Connection of low pressure sensor in mistake for high pressure sensor Defective high pressure sensor Defective outdoor unit PCB		○	○	○	○	
	JE	Malfunction of low pressure sensor	Defective connector contact Connection of high pressure sensor in mistake for low pressure sensor Defective low pressure sensor Defective outdoor unit PCB		○	○	○	○	

Malfunction code	Malfunction Contents	Supposed causes	Objects						
			RA	SkyAir	VRV	Package	Heat reclaim ventilator	Chiller	Fan Coil
Outdoor Unit	JE	Malfunction of oil pressure sensor or sub-tank thermistor	Defective connector contact Defective sub-tank thermistor Defective outdoor unit PCB			○			
	JF	Malfunction of oil level sensor or heating heat exchanger thermistor	Defective connector contact Defective heat exchanger thermistor Defective outdoor unit PCB			○			
	LG	Malfunction of inverter system	Shortage of power supply capacity Defective power transistor Defective outdoor unit PCB			○		○	
	LI	Malfunction of inverter PCB	Defective compressor wiring Defective outdoor unit fan motor Blown fuse Defective inverter PCB		○	○	○	○	
	L3	El.compo. box temperature rise	Fin temperature rise due to short circuit Defective outdoor unit fan motor Defective power transistor Defective outdoor unit PCB	○	○	○		○	
	L4	Malfunction of inverter radiation fin temperature rise	Fin temperature rise due to short circuit Defective fin thermistor	○	○	○	○	○	
	L5	Inverter instantaneous overcurrent (DC output)	Defective compressor coil (such as wiring disconnection or insulation failure) Compressor startup failure (mechanical lock) Defective inverter PCB	○	○	○	○	○	
	L6	Inverter instantaneous overcurrent (AC output)	Overcharge of refrigerant amount Shortage of power supply capacity Defective compressor Defective inverter unit			○		○	
	L8	Malfunction of overcurrent inverter compressor	Compressor overloaded Wiring disconnection in compressor coil Disconnection of compressor wiring Defective inverter PCB	○	○	○	○	○	
	L9	Malfunction of inverter compressor startup error (Stall prevention)	The stop valve is not opened Defective compressor Error in wire connections to compressor Large differential pressure before compressor startup Defective inverter PCB		○	○	○	○	
	LA	Malfunction of power transistor	Defective power transistor Defective compressor Defective inverter PCB			○		○	
	LC	Malfunction of transmission between control and inverter PCB	Defective connection between the inverter PCB and the control PCB External factors (e.g. noise) Defective inverter compressor Defective control PCB (transmission block)	○	○	○	○	○	
	MI	Malfunction of central remote controller PCB	Defective central remote controller PCB	○	○	○	○		○
	MB	Malfunction of transmission between optional controllers for centralized control	Other centralized control power disconnection Centralized control reset switch ON Defective transmission wiring Central remote controller address change	○	○	○	○		○
	MR	Improper combination of optional controllers for centralized control	Improper combination of optional controllers for centralized control More than one master controller is connected Faulty setting of centralized control Defect of centralized control	○	○	○	○		○
	MC	Address duplication, improper setting	Address duplication of central remote controller	○	○	○	○		○
	PD	Shortage of refrigerant amount (thermal storage unit)	Shortage of refrigerant Clogged refrigerant piping			○		○	
	PI	Power voltage imbalance or inverter PCB	Open phase Interphase voltage imbalance Defective capacitor in the main circuit Defective wiring in the main circuit Defective inverter PCB		○	○	○	○	

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Malfunction code	Malfunction Contents	Supposed causes	Objects						
			RA	SkyAir	VRV	Package	Heat reclaim ventilator	Chiller	Fan Coil
Outdoor Unit	P2	Automatic refrigerant charge operation stop		○	○	○		○	
	P3	Malfunction of thermistor in switch box	○	○	○	○		○	
	P4	Malfunction of radiation fin temperature sensor	○	○	○	○		○	
	P8	Heat exchanger freezing protection during automatic refrigerant charging		○	○	○			
	P9	Malfunction of fan motor (humidifier unit)	○						
	P9	Automatic refrigerant charge operation completed		○	○	○	○		
	PR	Refrigerant cylinder during automatic refrigerant charging		○	○	○			
	PR	Broken wire of heater (humidifier unit)	○						
	PC	Refrigerant cylinder during automatic refrigerant charging			○	○			
	PE	Automatic refrigerant charge operation nearly completed		○	○	○			
	PH	Refrigerant cylinder during automatic refrigerant charging	○		○	○			
	PU	Malfunction of capacity setting (Outdoor unit PCB)		○					
	PU	Improper combination between inverter and fan driver		○	○	○		○	
System	U0	Shortage of refrigerant	○	○	○	○		○	
	U1	Reverse phase, open phase	○	○	○	○	○	○	○
	U2	Malfunction of power supply or instantaneous power failure	○	○	○	○		○	○
	U3	Check operation not executed or transmission error	○	○	○	○	○	○	○
	U4	Malfunction of transmission between indoor and outdoor unit	○	○	○	○	○	○	○
	U5	Malfunction of transmission between indoor unit and remote controller	○	○	○	○		○	○
	U6	Malfunction of transmission between indoor units			○	○		○	○
		Faulty wiring External factor (Noise etc.) Defective indoor unit PCB							

Malfunction code	Malfunction Contents	Supposed causes	Objects						
			RA	SkyAir	VRV	Package	Heat reclaim ventilator	Chiller	Fan Coil
System	U7	Malfunction of transmission between outdoor units or outdoor storage unit	○		○	○		○	○
	U8	Malfunction of transmission between remote controllers		○	○	○	○	○	○
	U9	Malfunction of transmission (other system)		○	○	○		○	○
	UA	Defect of indoor/outdoor power supply	○						
	UA	Improper combination of indoor and outdoor units		○	○	○		○	
	UA	Remote temperature setting wire disconnection					○		
	UE	Malfunction of setting of centralized control equipment address		○	○	○	○	○	○
	UE	Malfunction of transmission between indoor unit and centralized control equipment		○	○	○	○	○	○
	UF	System is not set yet		○	○	○	○		
	UH	Malfunction of system	○		○	○			
	UU	Malfunction of transmission (accessory device)	○	○	○	○		○	
	EO	External protection device activated (Heat reclaim ventilator)					○		
Others	E4	Malfunction of indoor air thermistor (Heat reclaim ventilator)					○		
	E5	Malfunction of outdoor air thermistor (Heat reclaim ventilator)					○		
	EA	Malfunction of damper system (Heat reclaim ventilator)					○		
	70	System No. 2 Compressor overheat						○	
	71	System No. 2 Compressor overcurrent						○	
		Shortage of refrigerant amount Defective connector contact Leakage of four way valve							

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Malfunction code	Malfunction Contents	Supposed causes	Objects						
			RA	SkyAir	VRV	Package	Heat reclaim ventilator	Chiller	Fan Coil
Others	72	System No. 2 Fan motor overcurrent						○	
	73	System No. 2 Actuation of high pressure switch (HPS)						○	
	74	System No. 2 Actuation of low pressure switch (LPS)						○	
	75	System No. 2 Malfunction of low pressure sensor						○	
	76	System No. 2 Malfunction of high pressure sensor						○	
	77	System No. 1 Malfunction of fan inter lock						○	
	78	System No. 2 Malfunction of fan inter lock						○	
	79	System No. 2 Malfunction of compressor current sensor						○	
	7C	System No. 2 Malfunction of pump inter lock						○	
	80	Malfunction of entering water temperature thermistor						○	
	81	Malfunction of leaving water temperature thermistor or drain pipe heater						○	
	82	System No. 1 Malfunction of refrigerant thermistor						○	
	83	System No. 2 Malfunction of refrigerant thermistor						○	
	84	System No. 1 Malfunction of heat exchanger thermistor						○	
	85	System No. 2 Malfunction of heat exchanger thermistor						○	
	86	System No. 1 Malfunction of discharge pipe thermistor						○	
	88	System No. 2 Malfunction of discharge pipe temperature						○	
	89	Malfunction of brazed-plate heat exchanger freezing						○	
	8A	System No. 2 Malfunction of leaving water temperature thermistor						○	
	8E	System No. 1 Malfunction of suction pipe thermistor 1 for heating						○	
	8F	System No. 1 Malfunction of suction pipe thermistor 2 for heating						○	

Malfunction code	Malfunction Contents	Supposed causes	Objects						
			RA	SkyAir	VRV	Package	Heat reclaim ventilator	Chiller	Fan Coil
Others	84	Abnormal hot water high temperature						○	
	90	Abnormal chilled water quantity or abnormal AXP						○	
	91	System No. 2 Malfunction of electronic expansion valve						○	
	92	System No. 2 Malfunction of suction pipe thermistor						○	
	94	Malfunction of transmission (between heat reclaim ventilator and fan unit)					○		
	95	System No. 1 Malfunction of inverter system						○	
	96	System No. 2 Malfunction of inverter system						○	
	97	Malfunction of thermal storage unit						○	
	98	Malfunction of thermal storage brine pump						○	
	99	Malfunction of thermal storage brine tank						○	