

## Service Tool Fault Codes

#	Fault Description	Possible cause 1	Possible cause 2	Possible cause 3	Possible cause 4	Possible cause 5	Possible cause 6	Possible cause 7	Possible cause 8
0	None	None							
1	No Fault	None							
2	High Discharge Pressure	Dirty Air Filter - Heating	Low Airflow - Heating	Low Water Flow - Cooling	Low Water Flow - Domestic Hot Water	Overcharged	Faulty Discharge Pressure Transducer		
3	Low Suction Pressure	Low Refrigerant Charge	Faulty Expansion Valve	Incorrect Loop Configuration	Dirty Air Filter - Cooling	Low Airflow - Cooling	Low Water Flow - Heating or Domestic Hot Water	Faulty Suction Pressure Transducer	Faulty Check Valve
4	Invalid	No fault assigned to code 4							
5	Invalid	No fault assigned to code 5							
6	Condensate Overflow	Blocked Drain	Moisture on Sensor	Poor Drainage	Clogged Air Filter	Restricted Return Airflow			
7	Over / Under Voltage	Voltage Too High	Voltage Too Low						
8	Invalid	No fault assigned to code 8							
9	Invalid	No fault assigned to code 9							
10	ECM Low RPM	Blower not configured properly	Incorrect Blower	Blower Wiring Issue	Blower Power Issue				
11	Low Air Coil Pressure	Low Return Air Temperature	Clogged Air Filter	Faulty Suction Pressure Transducer	Insufficient Charge				
12	Control Fault	EXM not properly programmed	Faulty EXM						
13	Low Pump Flow	Air-locked Pump	Pump Failure	Faulty Flow Sensor	Incorrect System Setup (single instead of parallel)				
14	High Discharge Temperature	Insufficient Charge	Water Temp out of Range	Air Temp out of Range	Fouled Heat Exchanger	Faulty Expansion Valve			
15	Discharge Pressure Sensor	Faulty Wiring	Faulty Transducer	Faulty EXM					
16	Suction Pressure Sensor	Faulty Wiring	Faulty Transducer	Faulty EXM					
17	Space Temperature Sensor	Thermostat Wiring Issue	Incorrect Master/Slave setting	Faulty Thermostat	Faulty EXM				
18	Space Humidity Sensor	Thermostat Wiring Issue	Incorrect Master/Slave setting	Faulty Thermostat	Faulty EXM				
19	Low Refrig Pressure Differential	Stuck Reversing Valve	Faulty Compressor						
20	ECM Configuration	Incorrect Unit Configuration	Incorrect Motor size						
21	High Blower Static	Clogged Air Filter	Faulty Ductwork						
22	Grundfos Flow Sensor	Sensor Wiring Issue	Faulty Flow (VFD) Sensor	Faulty EXM					
23	Grundfos Pressure Sensor	Sensor Wiring Issue	Faulty Pressure (DPD) Sensor	Faulty EXM					
24	Leaving Air Temp Sensor	Sensor Wiring Issue	Faulty Thermistor	Faulty EXM					
25	High EWT warning	High Loop Temperature							
26	Low EWT warning	Low Loop Temperature							
27	Cabinet Temperature Sensor	Sensor Wiring Issue	Faulty Thermistor	Faulty EXM					
28	No Loop Pump Feedback	No Line Voltage	Faulty wiring	Faulty EXM					
29	Low Loop Pump Voltage warning	Low Supply Voltage							
30	Loop Pump Locked Rotor fault	Contaminants in Impeller	Seized Impeller						
31	Loop Pump Voltage Shutdown fault	Low Supply Voltage							
32	Loop Pump Sensor fault	Faulty RPM Sensor							
33	No DHW Pump Feedback warning	No Line Voltage	Faulty wiring	Faulty EXM					
34	Low DHW Pump Voltage warning	Low Supply Voltage							
35	DHW Pump Locked Rotor fault	Contaminants in Impeller	Seized Impeller						
36	DHW Pump Voltage Shutdown fault	Low Supply Voltage							
37	DHW Pump Sensor fault	Sensor Wiring Issue	Faulty Thermistor	Faulty EXM					
38	Suction Temperature Sensor	Sensor Wiring Issue	Faulty Thermistor	Faulty EXM					
39	Discharge Temperature Sensor	Sensor Wiring Issue	Faulty Thermistor	Faulty EXM					
40	Entering HW Temperature Sensor	Sensor Wiring Issue	Faulty Thermistor	Faulty EXM					
41	Leaving HW Temperature Sensor	Sensor Wiring Issue	Faulty Thermistor	Faulty EXM					
42	Air Coil Liquid Temp Sensor	Sensor Wiring Issue	Faulty Thermistor	Faulty EXM					
43	Air Coil Vapor Temp Sensor	Sensor Wiring Issue	Faulty Thermistor	Faulty EXM					
44	Water Coil Vapor Temp Sensor	Sensor Wiring Issue	Faulty Thermistor	Faulty EXM					
45	Water Coil Liquid Temp Sensor	Sensor Wiring Issue	Faulty Thermistor	Faulty EXM					
46	HW HX Liquid Temp Sensor	Sensor Wiring Issue	Faulty Thermistor	Faulty EXM					
47	Spare T1 Temperature Sensor	Sensor Wiring Issue	Faulty Thermistor	Faulty EXM					
48	Lower HW Tank Temp Sensor	Sensor Wiring Issue	Faulty Thermistor	Faulty WXM					
49	Upper HW Tank Temp Sensor	Sensor Wiring Issue	Faulty Thermistor	Faulty WXM					
50	Reduced HW setpoint warning	High Discharge Temperature	High Discharge Pressure	Fouled Heat Exchanger					
51	High Suction Pressure warning	Dirty Filter - Heating	Low Airflow - Heating	Low Water Flow - Cooling	Low Water Flow - Water Heating	Overcharged	Faulty Pressure Transducer		
52	Low Suction Pressure warning	Insufficient Charge	Faulty Expansion Valve	Incorrect Loop Configuration	Dirty Filter - Cooling	Low Airflow - Cooling	Low Water Flow - Heating or Domestic Hot Water	Faulty Pressure Transducer	Faulty Check Valve

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53	Low Discharge Pressure warning	Low Entering Water Temperature	Low Entering Air Temperature						
54	Loss of WXM Communications	Faulty wiring from EXM to WXM	Faulty WXM	Faulty EXM	Incorrect Master/Slave setting				
55	WXM High Temperature warning	Elements Thermostat set too High							
56	HW HX Performance	Fouled HW Heat Exchanger							
57	Low Discharge Superheat	Faulty Expansion valve	Faulty Discharge Pressure transducer	Faulty Discharge Temperature sensor	Improperly installed Discharge Temperature sensor				
58	Low Suction Superheat	Faulty Expansion valve	Faulty Suction Pressure transducer	Faulty Suction Temperature sensor	Improperly installed Suction Temperature sensor				
59	High Suction Superheat	Faulty Expansion valve	Faulty Suction Pressure transducer	Faulty Suction Temperature sensor	Improperly installed Suction Temperature sensor	Insufficient charge	Faulty Check valve		
60	General Compressor fault	Check compressor sub-faults (61-71 & 75 & 76)							
61	High Temperature Shutdown	Improper contact with Heat sink	Damaged Inverter thermistor						
62	High Current at Start Up	Low Input Voltage	Incorrect Compressor wiring	Faulty Compressor	Damaged Inverter board	Incorrect Inverter board			
63	High Current Shutdown	Low Input Voltage	Incorrect Compressor wiring	Faulty Compressor	Damaged Inverter board	Incorrect Inverter board			
64	High DC Voltage Shutdown	High input voltage	Damaged Inverter board						
65	Current Sensor Warning	Damaged Inverter board							
66	Heat Sink Thermistor Error	Damaged Inverter board							
67	Current Sensor Error	Damaged Inverter board							
68	Lack of Inverter COMM / Initialization	Faulty Wiring From MIM to Board	Faulty MIM	Damaged Inverter board					
69	Low Voltage Shutdown - Inverter	Low Input Voltage	Damaged Inverter board	Faulty wiring to Compressor	Faulty wiring between Inverter and MIM				
70	Power Supply Sync Warning	Check Input Voltage							
71	Converter Over Current Shutdown	Low Input Voltage							
72	Protect Operation - Comp Current	High Load Condition	Faulty Compressor	Incorrect Inverter board	Damaged Inverter board				
73	Protect Operation - Heat Sink Temp	Improper contact with Heat sink							
74	Protect Operation - Input Current	High Load Condition	Low Input Voltage	Water temp at range limit	Air temp at range limit				
75	Lack of MIM Communications	Faulty wiring from EXM to MIM	Faulty MIM	Faulty EXM					
76	Low Voltage Shutdown	Low input voltage	Incorrectly selected transformer tap						
77	Low Leaving Air Temperature	Low Entering Air Temperature	Faulty Thermistor	Incorrectly installed leaving air temperature sensor	Check unit capacity	Incorrect airflow			
78	High Leaving Air Temperature	High Entering Air Temperature	Faulty Thermistor	Incorrectly installed leaving air temperature sensor	Check unit capacity	Incorrect airflow			
79	Low Subcooling	Low unit charge							
80	ECM Blower Motor fault	Check ECM sub-faults (81-86)							
81	ECM Lost Rotor fault	Blower wheel set screw loose	Blower wheel dragging	Blower wheel locked					
82	ECM Current Trip fault	Low input voltage	Faulty ECM						
83	ECM Temperature Limit fault	High ambient motor temperature	Dirty motor housing						
84	ECM Locked Rotor fault	Debris in blower assembly	Blower wheel dragging	Faulty motor bearing					
85	ECM Over Voltage fault	High input voltage	Faulty ECM						
86	ECM Under Voltage fault	Low input voltage	Power cable	Faulty ECM					
87	ECM Blocked Inlet fault	Low input voltage	Clogged Air Filter	Dirty air coil	External static is too high				
88	ECM Power Limit warning	Low input voltage	Clogged Air Filter	Dirty air coil	External static is too high				
89	ECM Temperature Limit warning	High ambient motor temperature	Dirty motor housing						
90	ECM No Communications fault	Faulty wiring from EXM to ECM	Faulty ECM	Faulty EXM	No input voltage				
91	ECM Horsepower Configuration fault	Incorrect motor	Incorrect unit configuration						
92	ECM Bad Parameter fault	Incorrect motor	Incorrect unit configuration						
93	Heating check valve	Leaking heating check valve	Leaking EEV 1						
94	Cooling check valve	Leaking cooling check valve	Leaking EEV 2						
95	HW check valve	Leaking HW check valve							
96	Low HW Delta-T warning	Run HW Check mode	Faulty entering HW temperature sensor	Improperly installed entering HW temperature sensor	Faulty leaving HW temperature sensor	Improperly installed leaving HW temperature sensor			
97	Pressure Sensor Calibration fault	Unit not equalized	Faulty discharge pressure transducer	Faulty suction pressure transducer					

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98	Loop Flow w/o Loop Pump warning	Loop pump check valve stuck open							
99	Excessive Transition Mode operation	Stuck Reversing Valve	Faulty Compressor						
100	Low Loop Pressure warning	Low Loop Pressure	Improperly installed Pressure (DPD) Sensor	Faulty Pressure (DPD) Sensor					
200	No Zone Damper Power	Bad Input Voltage	Bad Damper Power Wiring						
201	Thermostat Configuration Error	ZXM Detected with Thermostat	Incorrect Thermostat Wiring at EXM						
202	Loss of Thermostat Communications	Bad Wiring from ZXM to Thermostat	Bad Thermostat	Bad ZXM Control					
203	Loss of ZXM Communications	Bad Wiring from ZXM to EXM	Bad EXM Control	Bad ZXM Control					
204	Loss of EXM Communications	Bad Wiring from ZXM to EXM	Bad EXM Control	Bad ZXM Control					
205	ZXM Configuration Error	Multiple ZXMs Detected at EXM	Incorrect ZXM Wiring at EXM						