

Carrier 30XA Fault Code Quick Reference

Carrier - 30XA fault codes | Model Type: Screw Compressor Chiller

Code	Alarm Description	Severity	Probable Causes	First Inspection Step
1	Evaporator entering fluid thermistor failure	Warning	Thermistor sensor damaged or out of calibration; Wiring harness open circuit or short; CCN communication board input channel failure	Measure thermistor resistance at sensor terminals and compare to temperature-resistance chart
2	Evaporator leaving fluid thermistor failure	Warning	Thermistor element degraded or failed; Connector corrosion or loose connection; Control board analog input circuit damaged	Disconnect thermistor and measure resistance at known temperature
3	Condenser entering fluid thermistor failure	Warning	Water-cooled condenser thermistor sensor failure; Fouling or scale buildup affecting sensor reading; Wiring damage from vibration or heat exposure	Remove thermistor and check resistance value
7	Outdoor temperature sensor fault	Warning	Ambient temperature sensor exposed to moisture ingress; Sensor mounting bracket loose causing intermittent contact; Cable damaged by UV exposure or rodents	Check sensor resistance at current outdoor temperature
9	Compressor A1 discharge gas temperature sensor fault	Warning	Discharge temperature sensor element failure; Sensor wire insulation melted from high discharge temp; Compressor terminal box vibration loosening connection	Shut down compressor and allow discharge line to cool
14	Discharge pressure transducer failure, circuit A	Warning	Pressure transducer diaphragm damaged; Transducer signal output drift or zero shift; Wiring harness between transducer and control board fault	Connect manifold gauge to verify actual discharge pressure
16	Suction pressure transducer failure, circuit A	Warning	Transducer sensing port blocked with debris; Transducer electrical output unstable or out of range; Wiring connector loose or corroded	Install suction pressure gauge for reference reading
30	Loss of communication with SCPM A1 board	Warning	CCN communication cable damaged or disconnected; SCPM board power supply failure; Communication address conflict on CCN bus	Check CCN cable connections at both ends of bus
41	Unit emergency stop	Critical	Emergency stop button activated; Remote emergency stop circuit tripped; Safety interlock chain open due to another device	Check physical emergency stop button position
44	Discharge pressure circuit A too high	Warning	Condenser fouling or insufficient airflow; Non-condensables in refrigerant system; Overcharge of refrigerant	Check condenser coil cleanliness and clean if fouled
54	Oil level circuit A low	Warning	Refrigerant charge leaking oil from system; Oil separator not returning oil properly; Compressor bearing wear causing oil consumption	Check compressor oil sight glass level
56	Low saturated suction temperature, circuit A	Warning	Low refrigerant charge; Expansion valve starving evaporator; Evaporator water flow insufficient	Check refrigerant subcooling and superheat values

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68	Low oil pressure, compressor A1	Critical	Oil pump failure or internal wear; Oil filter clogged; Low oil charge in compressor	Check compressor oil level sight glass
72	Evaporator frost protection	Critical	Evaporator water flow too low or stopped; Chilled water setpoint too low; Expansion valve malfunction causing floodback	Check chilled water pump operation and flow switch
75	Evaporator water flow control failure	Warning	Water flow switch stuck or failed; Chilled water pump not running; Strainer or filter in water line clogged	Verify chilled water pump is running
77	High current, compressor A1	Critical	Compressor motor bearing failure; Liquid refrigerant floodback to compressor; Voltage imbalance or low voltage	Measure compressor motor current on all three phases
81	Pump 1 fault	Warning	Chilled water pump motor overload tripped; Pump mechanical seal failure; Pump impeller blocked by debris	Check pump motor overload heater size and reset
87	Reset of safety control	Info	Manual reset of any safety device; Safety condition resolved and unit restarted; Control system reset after alarm acknowledgment	Verify all safety conditions have been addressed
4	Condenser leaving fluid thermistor failure	Warning	Condenser leaving water thermistor sensor failure; Sensor wiring open circuit; Control board analog input channel fault	Measure thermistor resistance at sensor terminals
5	Defrost thermistor failure	Warning	Defrost temperature sensor element failure; Sensor lead wire damaged; Connector corrosion	Measure defrost sensor resistance
6	Remote temperature sensor failure	Warning	Remote space temperature sensor failure; Communication cable between remote sensor and panel damaged; Sensor calibration drift	Check remote sensor reading vs local temperature
8	Compressor A2 discharge gas temperature sensor fault	Warning	Discharge temperature sensor element failure on compressor A2; Sensor wire insulation heat damage; Vibration loosening connection at terminal box	Shut down compressor A2 and allow to cool
10	Compressor B1 discharge gas temperature sensor fault	Warning	Discharge temperature sensor element failure on circuit B; Sensor lead wire heat damage; Connector at compressor terminal box loose	Shut down compressor B1
15	Discharge pressure transducer failure, circuit B	Warning	Pressure transducer diaphragm damaged on circuit B; Transducer signal output unstable; Wiring harness fault on circuit B	Connect manifold gauge to verify actual discharge pressure on circuit B
17	Suction pressure transducer failure, circuit B	Warning	Transducer sensing port blocked on circuit B; Transducer output drift or zero shift; Connector corrosion or loose	Install suction pressure gauge on circuit B
20	Compressor motor overload, circuit A	Critical	Compressor motor drawing excessive current; Supply voltage low or imbalanced; Compressor mechanical overload	Measure compressor motor current on all three phases

Code	Alarm Description	Severity	Probable Causes	First Inspection Step
21	Compressor motor overload, circuit B	Critical	Compressor B motor overload; Supply voltage issue on circuit B; Mechanical overload in compressor B	Measure compressor B motor current
31	Loss of communication with SCPM B1 board	Warning	CCN communication cable to circuit B damaged; SCPM B1 board power supply failure; Address conflict on CCN bus	Check CCN cable to circuit B SCPM
38	Power supply error	Warning	Phase voltage imbalance exceeding 2%; Phase loss on one conductor; Transformer or power supply component failure	Measure incoming voltage on all three phases
45	Discharge pressure circuit B too high	Warning	Circuit B condenser fouling or insufficient airflow; Non-condensables in circuit B; Refrigerant overcharge on circuit B	Check circuit B condenser coil cleanliness
46	Suction pressure circuit A too low	Warning	Low refrigerant charge on circuit A; Expansion valve A starving evaporator; Evaporator water flow low	Check refrigerant subcooling and superheat on circuit A
47	Suction pressure circuit B too low	Warning	Low refrigerant charge on circuit B; Expansion valve B starving; Evaporator water flow insufficient on circuit B	Check superheat and subcooling on circuit B
55	Oil level circuit B low	Warning	Refrigerant leak on circuit B carrying oil; Oil separator on circuit B not returning oil; Compressor B bearing wear	Check compressor B oil sight glass level
57	Low saturated suction temperature, circuit B	Warning	Low refrigerant charge on circuit B; Expansion valve B starving evaporator; Evaporator water flow too low	Check superheat and subcooling on circuit B
69	Low oil pressure, compressor B1	Critical	Oil pump failure or wear on compressor B1; Oil filter clogged on circuit B; Low oil charge in compressor B1	Check compressor B1 oil level sight glass
73	Compressor A1 running but no current detected	Warning	Compressor contactor not pulling in for A1; Current transformer reading incorrectly; Compressor motor winding open circuit	Check compressor A1 contactor operation
76	Cooling tower water temperature too high	Warning	Cooling tower fan not operating; Cooling tower fill fouled or damaged; Water flow rate through tower too low	Verify cooling tower fan operation
82	Pump 2 fault	Warning	Secondary chilled water pump motor overload tripped; Pump mechanical seal failure; Pump impeller blocked by debris	Check pump 2 motor overload and reset
85	High compressor motor temperature, compressor A1	Warning	Compressor motor cooling insufficient; Motor bearing failure causing heat; High ambient temperature	Check compressor motor cooling fan or jacket

Disclaimer: All fault code data is for reference only. Do not use this information to replace certified professional HVAC technician judgment. Always refer to original OEM official service manual.