

Carrier 30XW Fault Code Quick Reference

Carrier - 30XW fault codes | Model Type: Water-Cooled Screw Chiller (AquaForce)

Code	Alarm Description	Severity	Probable Causes	First Inspection Step
1	Evaporator entering water temperature sensor fault	Warning	Sensor element failure; Wiring open or shorted; Control board input fault	Measure sensor resistance at known temperature
2	Evaporator leaving water temperature sensor fault	Warning	Sensor element degradation; Connector corrosion; Control board input failure	Measure sensor resistance
3	Condenser entering water temperature sensor fault	Warning	Sensor failure; Wiring damage; Control board input issue	Check sensor resistance
7	Outdoor air temperature sensor fault	Warning	Sensor moisture ingress; UV damage to cable; Element failure	Check resistance vs chart
14	Discharge pressure transducer fault	Warning	Transducer element failure; Transducer port blockage; Wiring fault	Compare to mechanical gauge
16	Suction pressure transducer fault	Warning	Transducer port blocked; Output drift; Connector corrosion	Compare to suction gauge
30	CCN communication fault	Warning	CCN cable damaged; Board power failure; Address conflict	Check CCN cable
41	Emergency stop	Critical	E-stop button activated; Remote E-stop circuit open; Safety relay tripped	Check E-stop button
44	Discharge pressure too high	Critical	Condenser water flow low; Condenser water temp too high; Non-condensables	Verify condenser water flow
54	Oil level low	Critical	Oil leak through system; Oil separator malfunction; Bearing wear	Check oil sight glass
56	Low saturated suction temperature	Warning	Low refrigerant charge; Expansion valve problem; Low evaporator water flow	Check superheat and subcooling
68	Low oil pressure	Critical	Oil pump wear; Oil filter clogged; Low oil charge	Check oil sight glass
72	Evaporator frost protection	Critical	Low water flow; Setpoint too low; Expansion valve floodback	Verify water flow
77	High compressor motor current	Warning	Motor bearing failure; Liquid floodback; Voltage imbalance	Measure motor current
85	High motor winding temperature	Warning	Motor cooling insufficient; Bearing wear; High load	Check motor temperature sensor
4	Condenser leaving water temperature sensor fault	Warning	Sensor element failure; Wiring damaged; Board input fault	Measure resistance
5	Defrost thermistor failure	Warning	Sensor element degraded; Connector corrosion; Wiring fault	Check resistance

Code	Alarm Description	Severity	Probable Causes	First Inspection Step
6	Remote temperature sensor failure	Warning	Remote sensor failure; Communication cable damaged; Calibration drift	Check remote sensor reading
8	Compressor A2 discharge temperature sensor fault	Warning	Sensor element failure; Wire insulation heat damage; Terminal box connection loose	Allow compressor to cool
10	Compressor B1 discharge temperature sensor fault	Warning	Sensor failure on circuit B; Heat damage to wires; Connector loose	Measure sensor resistance
15	Discharge pressure transducer failure circuit B	Warning	Transducer diaphragm damaged; Signal output unstable; Wiring harness fault	Connect manifold gauge
17	Suction pressure transducer failure circuit B	Warning	Sensing port blocked; Output drift; Connector corrosion	Install suction gauge
20	Compressor motor overload circuit A	Critical	Motor drawing excessive current; Supply voltage low or imbalanced; Compressor mechanical overload	Measure motor current
21	Compressor motor overload circuit B	Critical	Motor overload on circuit B; Voltage issue; Mechanical overload	Measure circuit B current
31	Loss of communication with SCPM B1	Warning	CCN cable to circuit B damaged; SCPM B1 power failure; Address conflict	Check CCN cable
38	Power supply error	Warning	Phase voltage imbalance; Phase loss; Transformer failure	Measure three-phase voltage
45	Discharge pressure circuit B too high	Warning	Condenser B fouling; Non-condensables; Refrigerant overcharge on B	Check condenser B
46	Suction pressure circuit A too low	Warning	Low refrigerant on circuit A; Expansion valve A starving; Evaporator flow low	Check superheat on A
47	Suction pressure circuit B too low	Warning	Low refrigerant on circuit B; Expansion valve B issue; Low flow on B	Check superheat on B
55	Oil level circuit B low	Warning	Refrigerant leak on B carrying oil; Oil separator B malfunction; Bearing wear	Check oil sight glass B

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.