

# York YCAL Fault Code Quick Reference

York - YCAL fault codes | Model Type: Air-Cooled Scroll Chiller

| Code | Alarm Description                                | Severity | Probable Causes                                                                                                            | First Inspection Step                              |
|------|--------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| E1   | Indoor ambient temperature sensor abnormal       | Warning  | Sensor element failure; Sensor wiring open circuit; Control board input damaged                                            | Measure sensor resistance at current temperature   |
| E2   | Outdoor coil temperature sensor abnormal         | Warning  | Sensor degradation from weather exposure; Connector corrosion; Sensor lead wire damage                                     | Check sensor resistance vs temperature chart       |
| E3   | Indoor coil temperature sensor abnormal          | Warning  | Sensor element drifted; Wiring shorted to ground; Sensor physically damaged                                                | Measure sensor resistance                          |
| E4   | PG motor feedback abnormal                       | Warning  | PG motor Hall sensor failure; Motor feedback wire loose; Motor control board fault                                         | Check PG motor operation visually                  |
| E5   | Indoor display and mainboard communication fault | Warning  | Communication cable between display and mainboard loose; Display board power failure; Mainboard communication port damaged | Check communication cable connection               |
| E8   | Indoor/outdoor communication fault               | Warning  | Inter-unit communication cable damaged; Outdoor board power failure; Communication protocol mismatch                       | Check inter-unit communication cable               |
| F1   | Module protection fault                          | Warning  | Inverter module overheating; IGBT short circuit; Module driver board failure                                               | Check module heatsink temperature                  |
| F3   | Compressor operation failure                     | Warning  | Compressor mechanical lock; Compressor motor winding failure; Compressor contactor fault                                   | Check compressor motor winding resistance          |
| F4   | Outdoor discharge sensor fault                   | Warning  | Discharge temperature sensor failure; Sensor wire insulation damaged from heat; Connector at compressor terminal box loose | Measure sensor resistance at discharge temperature |
| F5   | Compressor top cover protection                  | Warning  | Compressor casing temperature too high; Oil level low causing overheating; Discharge temperature excessively high          | Allow compressor to cool down                      |
| F6   | Outdoor ambient sensor fault                     | Warning  | Sensor moisture ingress; UV damage to cable; Sensor element failure                                                        | Check sensor resistance vs ambient temperature     |
| F7   | Over/under voltage protection                    | Warning  | Utility voltage outside acceptable range; Transformer tap wrong setting; Loose electrical connection causing voltage drop  | Measure incoming voltage on all phases             |
| FA   | Return gas sensor fault                          | Warning  | Return gas temperature sensor failure; Sensor wire damaged; Sensor reading out of expected range                           | Measure sensor resistance at current temperature   |
| FB   | Low pressure switch fault                        | Warning  | Low refrigerant charge causing low suction pressure; Low pressure switch malfunction; Expansion valve not feeding properly | Check refrigerant charge and subcooling            |

| Code | Alarm Description                     | Severity | Probable Causes                                                                                                     | First Inspection Step                           |
|------|---------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| FC   | Compressor protection fault           | Warning  | Compressor internal protection activated; Compressor motor overheating; Mechanical overload                         | Allow compressor to cool                        |
| FD   | System mode conflict                  | Warning  | Conflicting operating mode commands; Control board logic error; BAS sending conflicting signals                     | Check BAS mode commands                         |
| FE   | Sensor calibration error              | Warning  | Sensor reading outside calibration range; Sensor drifted significantly; Reference temperature changed               | Identify which sensor needs calibration         |
| FF   | Control system fault                  | Warning  | Control board processor fault; Memory corruption; Power supply issue to control board                               | Cycle power to control system                   |
| F0   | Expansion valve communication error   | Warning  | Electronic expansion valve controller offline; Communication cable to valve damaged; Valve controller power failure | Check valve controller power supply             |
| F2   | Condenser pressure transducer fault   | Warning  | Condenser pressure transducer element failure; Transducer wiring damaged; Transducer port blocked                   | Compare transducer reading to mechanical gauge  |
| F8   | Evaporator pressure transducer fault  | Warning  | Evaporator pressure transducer failure; Wiring fault; Transducer port blocked                                       | Compare reading to manifold gauge               |
| F9   | Oil differential pressure switch      | Warning  | Oil pressure differential below threshold; Oil pump wear; Low oil level                                             | Check oil sight glass level                     |
| H1   | High condensing temperature           | Warning  | Condenser coil fouled; Condenser fan not operating; High ambient temperature                                        | Clean condenser coils                           |
| H2   | Low evaporating temperature           | Warning  | Low refrigerant charge; Expansion valve issue; Low water flow                                                       | Check refrigerant charge                        |
| H3   | Compressor discharge temperature high | Warning  | High compression ratio; Low oil level; Condenser not rejecting heat                                                 | Check discharge temperature                     |
| H4   | Motor winding temperature high        | Warning  | Motor bearing wear; High load condition; Inadequate motor cooling                                                   | Measure motor winding temperature               |
| H5   | Inverter over-temperature             | Warning  | Inverter heatsink fan failure; Inverter module overheating; Ambient temperature too high for inverter               | Check inverter cooling fan operation            |
| H6   | Compressor capacity control fault     | Warning  | Capacity control solenoid valve failure; Slide valve position sensor fault; Capacity control wiring damaged         | Check capacity control solenoid valve operation |
| HC   | Compressor capacity control fault     | Warning  | Capacity control solenoid valve failure; Slide valve position sensor fault; Capacity control wiring damaged         | Check capacity control solenoid valve           |
| HD   | Condensate level high                 | Warning  | Condensate drain blocked; Condensate pump failure; Condensate level switch fault                                    | Check condensate drain                          |

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.