

EF Series 125-300k, 400-500k BTU Input - ICON HD Sola Control

*All 400-500K BTU models. For 125-300K BTU, serial date code "XC" (March 2021) and later**

Error Code	Definition	Service Action	Possible Parts Needed
No Code	No power to the unit or switch is off	Check power supply Verify 24 volts at display	1) Transformer 2) Control board 3) Display
9, 22	Low flame sense signal	Check microamps Inspect flame sensor & wire Inspect burner for debris	1) Flame sensor 2) Control board
49	24 VAC too low or high	Verify proper supply voltage Verify transformer output is 22-27 Vac	1) Transformer
53	AC voltage input phase is reversed	Check for proper grounding/polarity Verify the wiring connections J4-10 and J8-2 are connected together	1) Control board
62	Fan speed not proved	Check for vent/intake restriction Check blower modulation wire harness at J2 connection for continuity	1) Blower 2) Control board
67	Interlock off (exhaust collector high limit switch or pressure switch open)	Verify if high temperature limit switch or pressure switch has opened Check for vent restriction Check for condensate blockage Verify vent length is within specification Check for evidence of high temperature, if seen call Tech Support	1) High temperature limit switch 2) Pressure switch 3) Control board
80	High limit overheat condition	Measure resistance of temp sensor Check wire harness and connections	1) Tank temperature sensor 2) Control board
93	Tank temperature sensor fault (this hold appears after alert 172, defined below)	Measure resistance of temp sensor Check wire harness and connections	1) Tank temperature sensor 2) Control board
105	Flame detected out of sequence	Check flame sensor/wire Verify ignition cable is not crossing flame sense or ground wires	1) Flame sensor
109, 110	Ignition failure after 4 trials (hold 110 is displayed, 109 stored in Diagnostic History)	Verify ignition sequence Clean spark rod Clean flame sensor	1) Burner 2) Spark rod 3) Control board
122	Light off rate proving failed (fan speed not proved - hard lockout)	Check for vent/intake restriction Check blower modulation wire harness at J2 connection for continuity	1) Blower 2) Control board
123	Purge rate proving failed (fan speed not proved)	Check for vent/intake restriction Check blower modulation wire harness at J2 connection for continuity	1) Blower 2) Control board
137	Interlock off (exhaust collector high limit switch or pressure switch open)	Verify if high temperature limit switch or pressure switch has opened Check for vent restriction Check for condensate blockage Verify vent length is within specification Check for evidence of high temperature, if seen call Tech Support	1) High temperature limit switch 2) Pressure switch 3) Control board
172	Tank temperature sensor resistance invalid (if value remains out of range, hold 93 is displayed, defined above)	Measure resistance of temp sensor Check wire harness and connections	1) Tank temperature sensor 2) Control board
NOTE:	If there is no display, check primary/secondary voltage Before troubleshooting, always verify the following: Gas inlet pressure Static to dynamic gas pressure drop No vent restrictions All wire connections are tight No grounded wires or missing grounds No water leaks		

*If serial is at or near this date please contact Technical Support to verify control generation. Always check the manufacture date using the For The Pro® Contractor app or at bradfordwhite.com