

Alert Code Addendum

- Communicating Systems

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Date: 09/08/2009

Alert Code	Alert Group	Communicating Equipment				Alert Notification				Alert Description			
		Air Handler	Furnace	Outdoor Unit	Air Cleaner	Comfort Control	User Interface Display - (3)	Fault LED	COM LED				
1	Pressure Switch Failure		X			N/A	PS3 OPEN	3 Flash	Device count	Open Pressure Switch, third stage			
							PS3 CLOSED				Shorted Pressure Switch, third stage		
							PS2 OPEN					Open Pressure Switch, second stage	
							PS2 CLOSED						Shorted Pressure Switch, second stage
							PS1 OPEN						
PS1 CLOSED	Shorted Pressure Switch, first stage												
4		Low Flame Signal	X				N/A	LO FLAME SNS	8 Flash	Device count	Flame current is low, but still strong enough to allow operation.		
10		Ignition Means Fault		X			ERR 10	IGNITER ERR	6 Flash	Device count	Igniter fault		
18		Control Failure	X				ERR 18	TRIAC ERR	Solid ON ‡	N/A	Triac fault		
18		Control Failure		X			ERR 18	CNTRL FAULT †	Solid ON ‡	Device count	Internal Control Error		
18	24V Sensing Error			X		ERR 18	N/A	18 Flash	N/A	24V Sensing Error (24V Missing at Y1)			
18	Input Current Faults				X	ERR 18	Yellow 2, Yellow 3, Yellow 4, Red 1	Flashing Red 1, Red 2, Red 3	N/A	Internal Control Lockout			
19	Twinning Fault	X				N/A	TWIN ERROR	8 Flash	N/A	Air Handler Twinning Error			
19	Twinning Fault		X			N/A	TWIN ERROR	None	Device count	Twinning Not Allowed with Variable Speed			
20	Flame lost or Ignition failure		X			N/A	PM DATA ERR	2 Flash	Device count	Flame is off when flame should be detected. Furnace tries to relight itself.			
							RETRY			Furnace tries to light, but no flame is detected.			
22	Soft lockout due to flame lost or ignition retries		X			ERR 22	RECYCLE LO	2 Flash	Device count	10 recycles within a single call for heat will cause 1hr lockout.			
							RETRY LO			3 ignition attempts in a row within a single call for heat results in 1 hr lockout.			
26	High Temp Limit Fault		X			ERR 26	AUX LIMIT	4 Flash	Device count	Open Reverse Flow - Heat exchanger temperature too high. Could be caused by low airflow or fan failure.			
							HIGH LIMIT			Open High Limit - Heat exchanger temperature too high. Could be caused by low airflow or fan failure.			
							IND LIMIT			The device needs to be replaced			
27	Replace Device					ERR 27	N/A	N/A	N/A	The device needs to be replaced			
33	Line Polarity Fault		X			N/A	POLARITY ERR	6 Flash	Device count	Voltage reverse polarity			
34	Flame Detect Fault		X			ERR 34	FLAME ERROR	5 Flash	Device count	Flame detected, should not be present			
35	Zoning Fault *					ERR 35	N/A	N/A	N/A	Duplicate zone - Another zone is present with the same zone number *			
37	Duplicate Filter				X	ERR 37	N/A	N/A	N/A	Another air filter timer is present			
38	Duplicate Humidifier Pad *					ERR 38	N/A	N/A	N/A	Another humidifier pad timer is present *			
39	Duplicate Humidity Sensor *					ERR 39	N/A	N/A	N/A	Another humidity sensor is present *			
50	Duplicate OD Temp			X		N/A	N/A	15 Flash *	N/A	Duplicate OD Temperature Sensor *			
52	Discharge Air Sensor Fault	X				N/A	DAS SHORT *	5 Flash *	N/A	Discharge Air Sensor Short Error			
53	Faulty Outdoor Sensor					ERR 53	N/A	N/A	N/A	There is a faulty outdoor temp sensor			
54	Faulty Humidity Sensor					ERR 54	N/A	N/A	N/A	There is a faulty humidity sensor			

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59	AC Line Fault		X			N/A	AC VOLTS LOW AC VOLTS HI	None	Device count	Voltage too low Voltage too high
64	Button Stuck				X	ERR 64	Yellow 2, Yellow 3, Yellow 4, Red 1, Red 2	Flashing Red 1, Red 2, Red 3	N/A	One or More Buttons Stuck ON
67	Temp Sensor Fault			X		ERR 67	N/A	5 Flash	N/A	Ambient Temperature Sensor Fault (Out of Range - Open or Shorted)
						6 Flash		Coil Temperature Sensor Fault (Out of Range - Open or Shorted)		
						11 Flash		Liquid Temperature Sensor Fault (Out of Range - Open or Shorted)		
						13 Flash		External Outdoor Temperature Sensor Fault (Out of Range - Shorted)		
68	Defrost Fault		X		N/A	N/A	2 Flash	N/A	Defrost Fault A	
							3 Flash		Defrost Fault B and/or C	
							4 Flash		Defrost Fault A and [B and/or C]	
79	LPCO Fault			X		ERR 79	N/A	7 Flash	N/A	Low Pressure Cut Out Fault (Open outside of defrost Cycle-Hard lock out, cycle power to reset)
						Wait =		Low Pressure Cut Out Fault Heat/Cool Lock out		
						Wait =		Low Pressure Cut Out Fault (Open outside of defrost Cycle-Short lock out)		
80	HPCO Fault			X		ERR 80	N/A	17 Flash	N/A	High Pressure Monitor Fault (Hard lock out, cycle power to reset)
						Wait =		High Pressure Monitor Fault (Short lock out)		
87	Roll Out Fault		X			ERR 87	ROLLOUT OPEN	4 Flash	Device count	Open flame rollout
88	Ground Fault		X			N/A	GND FAULT	6 Flash	Device count	Occurs when proper earth ground is not detected.
89	Equipment Missing					ERR 89	N/A	N/A	N/A	Expected equipment is not reporting
90	Communication Busy Fault	X				N/A	SYS COMM CRC BLW COMM CRC	3 Flash	Device Count	COMM System Busy Error Serial Motor Communication Busy Error
90	Communication Busy Fault		X			N/A	SYS COMM CRC IND COMM CRC BLW COMM CRC	10 Flash	Device count	COMM system unrecognized response Inducer Motor unrecognized response Blower motor unrecognized response
90	Communication Busy Fault			X		N/A	N/A	1 Flash	N/A	Excessive Communication Errors
90	Communication Busy Fault					ERR 90	N/A	None	N/A	Comm line busy and no idle has been detected
91	Communication Inactive Fault	X				ERR 91	N/A	NO SYS CLK	3 Flash	Fast Flash
						SYS COMM ERR		COMM Bit Master Clock Error		
						BLW COMM ERR		COMM Heat/Cool Demand Error		
91	Communication Fault		X			ERR 91	N/A	BLW COMM ERR	10 Flash	Device count
						IND COMM ERR		Blower motor no COMM response ¹		
						SYS COMM ERR		Inducer motor no COMM response		
						NO SYS CLK		Loss of heat/cool demand		
91	Communication Fault			X		ERR 91	N/A	1 Flash	N/A	Fast Flash
						Loss of clock signal				
91	Communication Fault					ERR 91	N/A	None	N/A	Loss of Heat/Cool Demand Message (COMM) Loss of Bit Master (Clock Signal)
91	Communication Fault				X	ERR 91	Yellow 2, Yellow 4, Red 3	None	Fast Flash	Comm line is dead and no bits have been received
92	Fuse Failure	X				N/A +	CHECK FUSE †	Solid ON ‡	N/A	24V Fuse Open Error
92	Fuse		X			N/A	CHECK FUSE	None	Device count	24V Fuse Open

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93	Gas Valve Fault		X			ERR 93	EXT GV ERR	7 Flash	Device count	Control senses 24V present at the gas valve when it should not be present.
							INT GV ERR	Solid ON		Control tried to turn on gas valve, but 24V not sensed.
101	Y1 Relay Fault	X				ERR 101	Y1 ON ERR Y1 OFF ERR	7 Flash	N/A	Y1 Relay Stuck Closed Error
101	Y1 Relay Failure		X			ERR 101	Y1 OFF ERR Y1 ON ERR	None	Device count	Y1 Relay Stuck Open Error Y1 Output OFF when it should be ON Y1 Output ON when it should be OFF
102	Y2 without Y1 - Miswire (24V mode only)			X		N/A	N/A	10 Flash	N/A	Y2 without Y1 - Miswire (24 volt mode only)
104	Heater Relay Fault	X				ERR 104	HT ON ERR	4 Flash	N/A	Heater Relay Stuck Closed Error
							HT OFF ERR			Heater Relay Stuck Open Error
105	Heater Interlock Relay Fault	X				ERR 105	HT+LK ON ERR	4 Flash	N/A	Both Interlock Relay & Heater Relay Stuck Closed Error
							INTLK ON ERR			Interlock Relay Stuck Closed Error
							NTLK OFF ERR			Interlock Relay Stuck Open Error
106	External Shutdown Fault	X				ERR 106 *	EXT SW OPEN *	1 Flash *	N/A	External Shutdown Input Open Error
107	HV Output Voltage Fault				X	ERR 107	Yellow 2, Yellow 3, and Yellow 4	Flashing Yellow 2 Yellow 3 Yellow 4	N/A	Repetitive Arcing
108	HV Output Voltage Fault				X	ERR 108	Yellow 2 and Red 1	Flashing Red 1, Red 2, Red 3	N/A	HV off when it should be on
108	HV Output Voltage Fault				X	ERR 108	Yellow 2, Red 1, Red2	Flashing Red 1, Red 2, Red 3	N/A	HV too Low
108	HV Output Voltage Fault				X	ERR 108	Yellow 2, Red 1, Red 3	Flashing Red 1, Red 2, Red 3	N/A	HV too High
109	Input Current Faults				X	ERR 109	Yellow 2, Yellow 3, Red 1, Red 2	Flashing Red 1, Red 2, Red 3	N/A	Output Current too Low
109	Input Current Faults				X	ERR 109	Yellow 2, Yellow 3, Red 1, Red 2, Red 3	Flashing Red 1, Red 2, Red 3	N/A	Output Current too High
110	Return Air Sensor Fault	X				N/A	RAS SHORT *	6 Flash *	N/A	Return Air Sensor Short Error
							RAS OPEN *			Return Air Sensor Open Error
113	Liquid Pressure Sensor Fault			X		ERR 113	N/A	12 Flash	N/A	Liquid Pressure Sensor Fault (Out of Range - Open or Shorted)
114	PM Bad or Missing Fault	X				ERR 114	PM MEM ERR	2 Flash	N/A	PM Data Corrupt Error
							PM MISSING			PM Missing Error
							ID MTR ERR			Motor Mismatch Error
							PM UNIT ERR			PM Unit Data Error
							CAP MISMATCH			Compressor Capacity Mismatch Error
							PM DATA ERR			PM Data Section Error

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114	Bad or Missing PM		X			ERR 114	PM DATA ERR	None	Device count	Data Section is Corrupt but PM is useable
							CAP MISMATCH			Compressor size does not match capacity in PM
							ID MTR ERR			Blower HP/OEM does not match PM Data
							PM MISSING			No PM
							PM UNIT ERR			Primary Copy of Unit Data File is Corrupt.
114	Bad or Missing PM			X		ERR 114	PM MEM ERROR	14 Flash	N/A	Primary and Secondary copies of Unit Data File are Corrupt
							N/A			PM Missing with local copy (Operational)
							N/A			Bad Data in PM with local copy (Operational)
117	Return Air Temperature Fault	X				N/A	RAS RNG ERR *	6 Flash *	N/A	Return Air Temperature Range Error
118	Discharge Air Temperature Fault	X				ERR 118 *	DAS RNG ERR *	5 Flash *	N/A	Discharge Air Temperature Range Error
							DAS UL ERR *			Discharge Air Temperature Upper Limit Error
							DAS LL ERR *			Discharge Air Temperature Lower Limit Error
119	Temperature Sensor Failure		X			N/A	TS 1 SHORT	None	Device count	Temperature sensor 1 shorted.
							TS 1 OPEN			Temperature sensor 1 open.
							TS 2 SHORT			Temperature sensor 2 shorted.
							TS 2 OPEN			Temperature sensor 2 open.
123	Demand Configuration Fault	X				N/A	DEMAND ERR *	9 Flash	N/A	Heat/Cool Demand Conflict Error*
123	Demand Configuration Fault			X		N/A	HT CFG ERR	16 Flash *	N/A	Electric Heat Configuration Error
125	Input AC Voltage too Low				X	ERR 125	Red 1	Flashing Red 1, Red 2, Red 3	N/A	Input AC Voltage too Low
126	Equipment Change Alert					ERR 126	N/A	N/A	N/A	Equipment does not match value stored at startup ²
139	Communication Failure		X			ERR 139	24V COMM MSMTCH	10 Flash	Device count	Communication Message has been detected while configured for 24V Mode
	Notes:						† If Air Handler processor is reset or fuse is open, COMM Alert cannot be reported; if the processor is reset the User Interface will not be updated * Alert flash code will not be implemented for initial release ‡ LitePort™ transmissions will be allowed during ON flash codes + Fuse alert notification level would show on Comfort Control, but when fuse is open the COMM bus has no power 1 - Comfort Control will switch system to "OFF" until this fault condition clears 2 - A device has changed since Auto Discovery (See Installer Guide ISU 0706 to reset) * Alert flash code will not be implemented for initial release			
	Notes:						4 highest priority Faults display flash codes sequentially. 2 second pause between faults and 4 second pause between sequences. Cycle power to ODU to clear Faults. * Alert flash code will not be implemented for initial release † Wait icon will appear on the Comfort Control during: Equipment minimum off time, Charge Assist™, Short lock out (see Alert Codes *7 Flash* & *17 Flash*)			
	Notes:						3 - For the whole house air cleaner, the User Interface is defined as the last three faults that are stored in its memory. See the whole house air cleaner Service Facts for how to access the recent faults.			

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