

Homeowner Service Alert Codes

Number	Value	Number	Value	Number	Value	Number	Value	Number	Value
3000	Filter 1	3002	Humidifier Pad	3004	Maintenance	4000	User Wi-Fi state change, disable	4002	Image file download failed
3001	Filter 2	3003	UV Light	3005	PureAir Maintenance	4001	Firmware download failed		

Comfort Sync® Alert Codes and Troubleshooting

Critical alerts are displayed on the Home screen, in the Homeowner alert button, and in the Installer alert button. Minor and moderate alerts are found only in the Installer alert button.

Alert Code	Priority Condition	System Component	Actual Displayed Alert Text	Component or System Operational State and Troubleshooting Tips	How to Clear Alert Code
10	Critical	Thermostat, air handler, furnace, outdoor unit, equipment interface and damper control modules.	The thermostat has found an unknown device on the system.	<ul style="list-style-type: none"> • The room thermostat when not in configuration mode has detected an unknown device. • Typically the thermostat will send a command to the unknown device and place it in a soft disable state. • The Comfort Sync® control with the soft disable state will indicate so as follows: <ul style="list-style-type: none"> > On air handler, furnace and outdoor controls, the state is display by double horizontal lines on seven-segment display. > On the damper control module, the green LED will blink 3 seconds on and 1 second off. > On the equipment interface 	Clear alert code by reconfiguring the system.

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				<p>module, the green LED will blink 3 seconds on and 1 second off.</p> <ul style="list-style-type: none"> • Cycling power to the soft disable controller may clear the condition. If cycling power does not clear the soft disable state then replace control. 	
11	Critical	Thermostat	The thermostat cannot find a previously installed system component.	<ul style="list-style-type: none"> • Check all connections and cycle system power. • Press the setup tab, press start, and press confirm. • If problem persists, then check all system components (devices) connections to make sure they are Comfort Sync®-compatible. 	If problem persists, clear by reconfiguring the system
12	Critical	Thermostat, furnace, equipment interface module or air handler	The thermostat cannot find a Comfort Sync® indoor unit.	<ul style="list-style-type: none"> • Thermostat did not find an indoor unit. Make sure there is a Comfort Sync® indoor unit on the system. Check R, i+, i- and C connections. • Ohm wires and cycle power. • Replace indoor unit control if there is no response. 	Automatically clears when the system detects that the issue no longer exists.
14	Critical	Thermostat	The thermostat found more than one thermostat, indoor or outdoor unit on the system.	<ul style="list-style-type: none"> • Check wiring and remove duplicate equipment. • Reconfigure system. 	Automatically clears when the system detects that the issue no longer exists.
18	Minor	Thermostat	The outside temperature is below the level where the heat pump is programmed to heat the home.	<ul style="list-style-type: none"> • The system will not use the heat pump to warm your home. • Outdoor temperature is below the low balance point. 	This is a notification only alert code.

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				<ul style="list-style-type: none"> Heat pump will not be used to service a heating demand. 	
19	Minor	Thermostat	The outside temperature is higher than the level where the furnace or electric heat is programmed to work.	<ul style="list-style-type: none"> The system will only use the heat pump to warm your home This is a notification only alert code. Outdoor temperature is above the low balance point. Indoor unit (furnace or air handler) will not be used to service a heating demand. 	Automatically clears when the system detects that the issue no longer exists.
29	Critical	Thermostat	The thermostat is reading an indoor temperature that is higher than 99°F. The thermostat will not allow any heating operation to begin until it senses an indoor temperature lower than 99°F.	<ul style="list-style-type: none"> Indoor temperature rose above 99°F during a heating or cooling demand. Heating operation is not allowed. Check to ensure that heating equipment is not stuck ON (reversing valve, etc.). Check the accuracy of the thermostat temperature sensor. Select cooling system mode to cool the indoor space. 	Automatically clears when the system detects that the issue no longer exists.
30	Moderate	Thermostat	The thermostat is reading an indoor temperature that is lower than 40°F.	<ul style="list-style-type: none"> The thermostat will not allow any cooling operation to begin until it senses a temperature higher than 40°F. Indoor temperature fell below 40°F. Cooling operation is not allowed. Check to ensure that cooling 	Automatically clears when the system detects that the issue no longer exists.

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				<p>equipment is not stuck ON.</p> <ul style="list-style-type: none"> • Check accuracy of the thermostat temperature sensor. • Select heating system mode to heat the indoor space to above 40°F. 	
31	Critical	Thermostat	The thermostat has lost communication with a system component for more than three minutes.	<ul style="list-style-type: none"> • The applicable system component (indoor, equipment interface or damper control module or outdoor unit) has not communicated with thermostat for more than three minutes. • Check connections. • Ohm wires. 	<ul style="list-style-type: none"> • If fault persists, then cycle power. • Fault clears after communication is restored.
32	Moderate	Thermostat, furnace, air handler or outdoor unit	The applicable system component (device) is resetting itself.	<ul style="list-style-type: none"> • This issue may occur during a power outage or power fluctuation in the system. • If persistent or if it coincides with the system operations then proceed with the following troubleshooting steps. <ul style="list-style-type: none"> > Check the power connections > Check the amp draw at the transformer (the transformer maybe overloaded) > Check 24VAC voltage at the system component (device). • If the fault persists after checking the connections, replace the unit's control board. 	This alert code is cleared by pressing the clear button on the Installer Alerts Tab.

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34	Critical	Thermostat	The thermostat does not know the capacity (tonnage) of the indoor or outdoor unit.	<ul style="list-style-type: none"> • The applicable system component is missing the programmed unit capacity. • Go to applicable system component and program the unit capacity manually (see the unit installation instruction for programming instructions). • Remove power to thermostat before programming the unit control. • Once programming is complete, reconnect thermostat wires and reconfigure system. 	Automatically clears when the system detects that the issue no longer exists.
36	Critical	Thermostat	The system has been heating for at least 15 minutes without a demand for heating.	<ul style="list-style-type: none"> • Run the system in diagnostic mode and verify that it matches actual equipment operation. • Check for other alert codes that may be preventing the system from operating as expected. • Check all heating equipment to determine cause of heating demand. • Recycle power. 	Automatically clears when the system detects that the issue no longer exists.
37	Critical	Thermostat	The system has been cooling for at least 15 minutes, without a demand for cooling.	<ul style="list-style-type: none"> • Run the system in diagnostic mode and verify that it matches actual equipment operation. • Check for other alert codes that may be preventing the system from operating as expected. • Check all cooling equipment to 	Automatically clears when the system detects that the issue no longer exists.

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				<p>determine cause of cooling demand.</p> <ul style="list-style-type: none"> Recycle power. 	
38	Critical	Thermostat	The system has not been able to turn on the heating for more than 45 minutes.	<ul style="list-style-type: none"> The system will go offline for 60 minutes and will attempt to restart itself. Run the system in diagnostic mode and verify that it matches actual equipment operation. Check for other alert codes that may be preventing the system from operating as expected. Check all heating equipment to determine cause. Recycle power. 	Automatically clears when the system detects that the issue no longer exists.
39	Critical	Thermostat	The system has not been able to turn on the cooling for more than 45 minutes.	<ul style="list-style-type: none"> The system will go offline for 60 minutes and will attempt to restart itself. Run the system in diagnostic mode and verify that it matches actual equipment operation. Check for other alarms/codes that may be preventing the system from operating as expected. Check all cooling equipment to determine cause. Recycle power. 	This alert code will automatically clear when the system detects the issue has no longer exists.
40	Minor	Outdoor Unit	<ul style="list-style-type: none"> The HP could not progress the room temperature 0.5°F towards the set point in 30 	<ul style="list-style-type: none"> The heat pump has locks out on the "HP heating Lockout Time" setting in the room thermostat 	<ul style="list-style-type: none"> Clears when heat pump comes out of "HP heating Lockout

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			<p>minutes.</p> <ul style="list-style-type: none"> • System will switch to secondary heat source. • (Secondary source is electric heat or furnace in dual -fuel applications). • (Software issue: The issue is the 30-minute timer is not resetting to 30 minutes when the temperature raises 0.5°F. • After 30 minutes, it causes alarm 40 to be set (erroneously), and the heat pump goes into the "HP heating Lockout Time" mode which indicates that the heat pump could be off for a maximum of 120 minutes. Range can be set between 60 to 120 minutes) 	<p>"Installer/System Devices / Heat Pump screen" (Default is 120 minutes). The issue is the heat pump could not progress the room temperature by 0.5F towards the set point in 30 minute.</p> <ul style="list-style-type: none"> • Set the low balance point and high balance point as close together as possible. (This is 3°F difference – Example: set high balance point at 35°F and low balance point would set at 32F). • Below the low balance point, the furnace will heat the home / between the low and high balance point, the heat pump and furnace will heat the home. • If the heat pump cannot raise the temperature 0.5°F in 30 minutes on the zone or zones, the "HP heating Lockout Time" (Location: Installer set/System devices/HP heating Lockout Time / default is 120 minutes) will lock the heat pump off. • The gas furnace will finish the heating cycle / when the outdoor temperature is above the high balance point. • The gas furnace is locked out and all the heat is provided by the heat pump. 	<p>Time" timer setting (Range can be set between 60 to 120 minutes).</p> <ul style="list-style-type: none"> • Default is 120 minutes).
105	Critical	Thermostat, furnace, air handler, outdoor	A system component has lost communication with the system.	<ul style="list-style-type: none"> • System component (device) is unable to communicate. 	Automatically clears when the system detects the issue no

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		unit, equipment interface or damper control module		<ul style="list-style-type: none"> • This may indicate the existence of other active alert codes. • In most cases errors are related to electrical noise. Verify that high voltage power is separated from the low voltage communication wires. • Check for incorrectly wired or loose connections between system components (devices). • Check for a high voltage source of noise close to the system. 	longer exists.
110	Critical	Furnace	The component line voltage is too low.	<ul style="list-style-type: none"> • This alert code may appear during a brownout. • Line voltage is below its designed operating value. • Check and correct the power line voltage. 	Automatically clears when the system detects the issue no longer exists.
111	Critical	Furnace	The component line power voltage wiring is reversed.	<ul style="list-style-type: none"> • The unit is reporting that its power and neutral lines are reversed. • Turn off the power to the system and correct the line power voltage wiring. • System resumes normal operation five seconds after critical condition is recovered. 	Automatically clears when the system detects the issue no longer exists.
112	Critical	Furnace	The reporting component cannot find earth ground.	<ul style="list-style-type: none"> • The thermostat will shut down the system. • Provide proper earth ground to the equipment. 	Automatically clears when the system detects the issue no longer exists.

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				<ul style="list-style-type: none"> System resumes normal operation five seconds after critical condition is recovered. 	
113	Critical	Furnace	The line voltage is too high.	<ul style="list-style-type: none"> Line voltage high (voltage higher than nameplate rating). Provide power voltage within proper range. System resumes normal operation five seconds after critical condition is recovered. 	Automatically clears when the system detects the issue no longer exists.
114	Moderate / Critical	Furnace, air handler, equipment interface or damper control module	There is a frequency / distortion problem with the power to a specific system component.	<ul style="list-style-type: none"> This alert code may indicate transformer overloading. Check the voltage and line power frequency. Check the generator operating frequency, if the system is running on back-up power. Correct voltage and frequency problems. System will resume normal operation five seconds after fault recovered. All applicable system component outputs are disabled – moderate condition. After 10 minutes, the priority condition is escalated – critical condition. Damper control module will operate in central mode only until proper 	Automatically clears when the system detects the issue no longer exists.

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				voltage is restored or frequency distortion is resolved – moderate condition.	
115	Critical	Furnace, air handler or equipment interface module	Primary 24VAC power to a system component control is lower than the required range of 18 to 30VAC.	<ul style="list-style-type: none"> • Primary 24VAC voltage is low (range is 18 to 30 volts). • Check and correct voltage. • Check for additional power-robbing system component (device) connected to system. • This alert code may require the installation of an additional or larger VA transformer. 	Automatically clears when the system detects the issue no longer exists.
115	Critical	Damper control module	Secondary 24VAC power to the damper control module is low.	<ul style="list-style-type: none"> • Secondary 24VAC voltage is low (range is 18 to 30 volts). • Check and correct voltage. • Check for additional power-robbing equipment connected to system. • This alert code may require the installation of an additional or larger VA transformer. • Damper control module will operate in non-zone mode until proper voltage is restored. 	Automatically clears when the system detects the issue no longer exists.
117	Minor	Furnace	The reporting unit has poor earth grounding.	<ul style="list-style-type: none"> • Provide proper grounding for the system component (device). • Check for proper earth ground to the system. 	Automatically clears 30 seconds after the issue is corrected.
120	Moderate	Thermostat, furnace, air handler, outdoor	There is a delay in the system component responding to the system.	<ul style="list-style-type: none"> • Typically this alert code does not cause any operational issues and 	Automatically clears after an unresponsive system component

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		unit, equipment interface or damper control module		<p>will clear on its own.</p> <ul style="list-style-type: none"> This alert code is usually caused by a delay in the outdoor unit responding to the thermostat. Check all wiring connections. 	(device) responds to any inquiry.
124	Critical	Thermostat, furnace, air handler, outdoor unit, equipment interface or damper control module	The thermostat has lost communication with a system component for more than three minutes.	<ul style="list-style-type: none"> System component has lost communication with the thermostat. Check the wiring connections. Ohm wires. Cycle power. This alert code stops all associated system operations and waits for a heartbeat message from the system component that is not communicating. 	Automatically clears after communication is re-established with applicable system component (device).
125	Critical	Thermostat, furnace, air handler, outdoor unit, equipment interface or damper control module	There is a hardware problem on a system component control.	<ul style="list-style-type: none"> There is a control hardware problem. Replace the control if the problem prevents operation and is persistent. Damper control module will remain in non-zone mode (all dampers open) for five minutes after priority condition no longer exist. 	Automatically clears 300 seconds after the issue no longer exists.
126	Critical	Furnace air handler or outdoor unit	There is an internal communication problem with a system component.	<ul style="list-style-type: none"> There is an internal hardware problem on the system component control. Typically the system component control will reset itself. 	Automatically clears 300 seconds after the issue no longer exists.

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				<ul style="list-style-type: none"> Replace the system component (device) control if the problem prevents operation and is persistent. 	
130	Moderate	Equipment interface module	Air handler jumper is missing.	<ul style="list-style-type: none"> Configuration jumper missing on equipment interface module. NOTE: This is applicable in non-communicating applications only). Install the missing jumper. 	Automatically clears after the missing or incorrectly installed jumper is installed or corrected.
131	Critical	Thermostat, furnace, air handler, outdoor unit, equipment interface or damper control module	System component control parameters are corrupted.	<ul style="list-style-type: none"> Reconfigure the system. Replace the system component control if heating or cooling is not available. 	Will automatically clear when system component (device) passes memory self-test or system component control is replaced.
132	Critical	Air handler, equipment interface module or damper control module	System component control software is corrupted.	<ul style="list-style-type: none"> Recycle power. If failure re-occurs, replace the system component control. 	Manual system power reset is required to recover from this alert code.
180	Critical	Furnace, air handler or equipment interface module	The thermostat has found a problem with a system component's outdoor temperature sensor.	<ul style="list-style-type: none"> In normal operation after system component control recognizes sensors, the alarm will be sent if valid temperature reading is lost. Compare outdoor sensor resistance to temperature / resistance charts in unit installation instructions. Replace sensor pack if necessary. At the beginning of (any) configuration, furnace, air-handler 	Automatically clears upon configuration, or sensing normal values.

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				<p>control or equipment interface module will detect the presence of the sensor(s).</p> <ul style="list-style-type: none"> If detected (reading in range), appropriate feature will be set as 'installed' and shown in the 'About' screen. 	
200	Critical	Furnace	The furnace roll out limit switch is open.	<ul style="list-style-type: none"> Correct the cause of roll out trip. Reset roll out switch. Test the furnace operation. 	Automatically clears after the furnace roll out switch is closed.
201	Critical	Furnace or air handler	The system has lost communication with the indoor unit's blower motor.	<ul style="list-style-type: none"> Lost communication with indoor blower motor. Possible causes include power outage, brown-out, motor not powered, loose wiring, condensation on system component control without cover on breaker. Problem may be on system component control or motor side. 	Automatically clears after communication is restored.
202	Critical	Furnace or air handler	The unit size code for the indoor unit and the size of blower motor do not match.	<ul style="list-style-type: none"> Incorrect appliance unit size code selected. Check for proper configuring under unit size codes for furnace/air handler on configuration guide or in installation instructions. Remove the thermostat from the system while applying power and reprogramming. 	Automatically clears after the correct match is detected following a reset.
203	Critical	Furnace or air	The unit size code for the indoor	<ul style="list-style-type: none"> No system component unit size 	Automatically clears after the correct

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		handler	unit has not been selected.	<p>code selected.</p> <ul style="list-style-type: none"> • Check for correct configuration. Unit size codes for furnace and air handler are listed in the system component configuration guide or installation instruction. • Remove the thermostat from the system while applying power and reprogramming. 	match is detected following a reset.
204	Critical	Furnace	There is an issue with the furnace gas valve.	<ul style="list-style-type: none"> • Check gas valve operation and wiring. 	Automatically clears after the issue is corrected.
205	Critical	Furnace	The furnace gas valve relay contact is closed.	Check wiring on control and gas valve.	Automatically clears after the issue is corrected.
206	Critical	Furnace	The furnace gas valve second-stage relay is faulty.	<ul style="list-style-type: none"> • Furnace will operate on first-stage for the remainder of the heating demand • If unable to operate second-stage, replace furnace control. 	Automatically clears after the issue is corrected.
207	Critical	Furnace	The furnace hot surface igniter is open.	<ul style="list-style-type: none"> • Measure the resistance of hot surface igniter. • Replace the igniter if it is not within the specified range found in furnace installation instruction. 	Automatically clears after the issue is corrected.
223	Critical	Furnace	The furnace low pressure switch is open.	<ul style="list-style-type: none"> • Check pressure (inches w. c.) of the low pressure switch closing during a heat call. • Measure operating pressure (inches w. c.). • Inspect vent and combustion air 	Automatically clears after the issue is corrected.

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				inducer for correct operation and restriction.	
224	Critical	Furnace	The furnace low pressure switch is stuck closed.	<ul style="list-style-type: none"> • Check operation of low pressure switch to see if it is stuck closed for longer than 150 seconds during a heat call. • Measure operating pressure (inches w. c.). • Inspect vent and combustion air inducer for correct operation and restriction. 	Automatically clears after the issue is corrected.
225	Critical	Furnace	The furnace high pressure switch is failing to close.	<ul style="list-style-type: none"> • Check pressure (inches w. c.) of high pressure switch closing during a heat call. • Measure operating pressure (inches w. c.). • Inspect vent and combustion air inducer for correct operation and restriction. 	Automatically clears after the issue is corrected.
226	Critical	Furnace	The furnace high pressure switch is stuck closed.	<ul style="list-style-type: none"> • Check operation of high pressure switch closing during a heat call. • Measure operating pressure (inches w. c.). • Inspect vent and combustion air inducer for correct operation and restriction. 	Automatically clears after the issue is corrected.
227	Moderate	Furnace	The furnace low pressure switch is open in run mode.	<ul style="list-style-type: none"> • Check pressure (inches w. c.) of low pressure switch closing during a heat call. • Measure operating pressure 	Automatically clears after the issue is corrected.

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				(inches w.c.). <ul style="list-style-type: none"> Inspect vent and combustion air inducer for correct operation and restriction. 	
228	Moderate	Furnace	The furnace control is not able to calibrate the pressure switch.	<ul style="list-style-type: none"> Unable to perform pressure switch calibration. Check vent system and pressure switch wiring connections. Check the drain trap for blockage. 	Automatically clears after a successful calibration.
229	Minor	Furnace	The furnace control has switched to high fire ignition because the low fire pressure switch did not close in the allowed time.	Furnace control switched to high fire ignition because low fire pressure switch did not close in allowed time.	No action is needed.
240	Moderate	Furnace	The furnace flame current is low.	<ul style="list-style-type: none"> Check micro-amperes of the flame sensor using thermostat diagnostics. Clean or replace the flame sensor. Measure voltage of neutral to ground to ensure good unit ground. 	Automatically clears after a proper micro-amp reading has been sensed.
241	Critical	Furnace	The furnace flame is going out while the furnace is heating.	<ul style="list-style-type: none"> Shut off gas. Check for a gas valve leak. Replace the gas valve if needed. 	Automatically clears when a heat call ends successfully.
250	Moderate	Furnace	The furnace primary limit switch is open.	<ul style="list-style-type: none"> Check for proper firing rate on furnace. Ensure there is no blockage in the furnace and the duct work. Check for proper air flow. 	Automatically clears when a heat call ends successfully.

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				<ul style="list-style-type: none"> If limit switch is not closed within three minutes, the unit will go into one hour WatchGuard mode. 	
252	Moderate	Furnace	The furnace discharge air-temperature is high.	<ul style="list-style-type: none"> Check temperature rise, air flow and input rate. Check for dirty air filter(s) . 	Automatically clears when a heat call ends successfully.
270	Critical	Furnace	The furnace is in WatchGuard mode. The furnace igniter cannot turn on the flame.	<ul style="list-style-type: none"> This is a five strike condition during a single demand. Check for proper gas flow. Ensure that igniter is lighting burner. Check flame sensor current. Check for dirty filters. 	Automatically clears on successful ignition.
271	Critical	Furnace	The furnace is in WatchGuard mode. The furnace low pressure switch is open.	<ul style="list-style-type: none"> This is a five strike condition during a single demand. Check pressure (inches w. c.) of low pressure switch closing during a heat call. Measure operating pressure (inches w. c.). Inspect vent and combustion air inducer for correct operation and restriction. 	Automatically clears on successful ignition.
272	Critical	Furnace	The furnace low pressure switch is open during run mode.	<ul style="list-style-type: none"> The system will go into WatchGuard mode. Check operation of low pressure switch to see if it is stuck open during a heat call. Measure operating pressure 	Automatically clears when a heat call ends successfully.

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				(inches w. c.). <ul style="list-style-type: none"> Inspect vent and combustion air inducer for correct operation and restriction. 	
273	Critical	Furnace	The furnace flame is going off during a heating cycle.	<ul style="list-style-type: none"> The system will go into WatchGuard mode. Check micro-amperes of flame sensor using thermostat diagnostics. Clean or replace sensor. Measure voltage of neutral to ground to ensure good unit ground. 	Automatically clears when a heat call ends successfully.
274	Critical	Furnace	The furnace limit switch has been open for more than three minutes.	<ul style="list-style-type: none"> The system will go into WatchGuard mode. Check firing rate and air flow. Check for blockage. 	Automatically clears when a heat call ends successfully.
275	Critical	Furnace	The furnace flame is out of sequence.	<ul style="list-style-type: none"> The system will go into WatchGuard mode. Shut off gas. Check for gas valve leak. 	Automatically clears on successful ignition.
276	Critical	Furnace	The furnace is not able to calibrate or the high pressure switch opened or failed to close in run mode.	<ul style="list-style-type: none"> The system will go into WatchGuard mode. Check vent system and pressure switch wiring connections. 	Automatically clears when the furnace calibrates itself successfully.
290	Critical	Furnace	There is a problem with the furnace ignition circuit.	<ul style="list-style-type: none"> The system will go into WatchGuard mode. 	Automatically clears on successful ignition

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				<ul style="list-style-type: none"> • Measure resistance of hot surface igniter. • Replace the hot surface igniter if it is not within specifications. 	
291	Critical	Furnace	The heating airflow is below the minimum required level.	<ul style="list-style-type: none"> • The system will go into WatchGuard mode. • Check for dirty air filter(s) and other air flow restrictions. • Check blower performance. 	Automatically clears when a heat call ends successfully.
292	Critical	Furnace or air handler	The indoor unit blower motor will not start.	<ul style="list-style-type: none"> • The system will go into WatchGuard mode. • Indoor blower motor unable to start. • This could be due to seized bearing, stuck wheel, and obstructions. • Replace motor or wheel if assembly does not operate or meet performance standards. 	Automatically clears after the indoor blower motor starts successfully.
294	Critical	Furnace	There is over current in the furnace inducer motor.	<ul style="list-style-type: none"> • The system will go into WatchGuard mode. • Check combustion blower bearings, wiring and amps. • Replace furnace inducer motor if it does not operate or does not meet performance standards. 	Automatically clears after inducer motor current is sensed to be in-range after the ignition following either WatchGuard mode or unit reset.
295	Minor	Furnace	The indoor blower motor is overheating.	<ul style="list-style-type: none"> • Indoor blower motor over temperature (motor tripped on internal protector). • Check motor bearings and amps. 	Automatically clears after blower demand is satisfied.

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				<ul style="list-style-type: none"> Replace indoor blower motor if necessary. 	
310	Moderate	Furnace, air handler equipment interface module or damper control module	There is a discharge air temperature sensor issue.	<ul style="list-style-type: none"> Compare outdoor discharge sensor resistance to temperature / resistance charts in system component installation instruction. Replace discharge air sensor if necessary. iHarmony will operate in non-zone mode (all dampers open). <p>NOTE: Confirm there is no short or open circuits in the Comfort Sync® thermostat connections to any of the other components in the communication system.</p>	Automatically clears 30 seconds after fault is detected as recovered or after system power reset.
311	Minor	Furnace	The heat firing rate has been reduced to match available airflow (cutback mode).	<ul style="list-style-type: none"> This is a Warning Only alert code. Furnace blower in cutback mode due to restricted airflow. Reduce firing rate every 60 seconds to match available CFM. Check air filter and duct system. To clear, replace air filter if needed or repair or add additional ducting. Two-stage controls will reduce firing rate to first stage. 	Automatically clears when a heat call finishes successfully.
312	Minor	Furnace or air handler	The indoor blower cannot provide the requested CFM due to high static pressure.	<ul style="list-style-type: none"> This is a Warning Only alert code. Possible restricted airflow - Indoor blower is running at a reduced CFM (Cutback Mode). 	Automatically clears after the current service demand is satisfied.

Alert Code	Priority Condition	System Component	Actual Displayed Alert Text	Component or System Operational State and Troubleshooting Tips	How to Clear Alert Code
				<ul style="list-style-type: none"> The variable speed motor has pre-set speed and torque limiters to protect the motor from damage caused by operating outside of design parameters (0 to 0.8" e.g. total external static pressure). Check air filter and duct system. To clear, replace air filter if needed or repair or add additional ducting. 	
313	Minor	Furnace, air handler and outdoor unit	The indoor and outdoor unit capacities do not match.	<ul style="list-style-type: none"> This is a Warning Only alert code. Check for proper system component configuring in installation instructions. The system will operate, but might not meet efficiency and capacity parameters. 	Automatically clears after commissioning is complete.
344	Critical	Furnace	Relay Y1 Failure	<ul style="list-style-type: none"> Possible Y1 relay failure. All system operations will stop. 	Automatically clears 300 seconds after Y1 input sensed OFF.
345	Critical	Air handler, equipment interface module or heat pump	The O relay on the system component has failed. Either the pilot relay contacts did not close or the relay coil did not energize.	<ul style="list-style-type: none"> Possible O relay / stage 1 failure. Pilot relay contacts did not close or the relay coil did not energize. Replace system component (device) control. If error is applicable to the XC/XP 25, the outdoor control will need to be replaced. 	Automatically clears after the fault recovered following reset.
346	Critical	Air handler	The heat pump configuration link not cut on the air handler control.	<ul style="list-style-type: none"> Configuration link not cut on air 	Automatically clears when the system

Alert Code	Priority Condition	System Component	Actual Displayed Alert Text	Component or System Operational State and Troubleshooting Tips	How to Clear Alert Code
				<p>handler control.</p> <ul style="list-style-type: none"> • Cut O to R. • This is only applicable with non-communicating heat pump with communicating indoor unit. 	detects that the issue no longer exists.
347	Critical	Furnace, air handler or equipment interface module	The Y1 relay on the applicable system component has failed. Either the pilot relay contacts did not close or the relay coil did not energize.	<ul style="list-style-type: none"> • System operation will stop. • Possible Y1 relay / stage 1 failure. • Pilot relay contacts did not close or the relay coil did not energize; • There is no input back to the applicable system component control. 	Automatically clears after reset and Y1 input sensed.
348	Critical	Furnace or air handler	The Y2 relay on the applicable system component has failed. Either the pilot relay contacts did not close or the relay coil did not energize.	<ul style="list-style-type: none"> • Possible Y2 relay / stage 2 failure. • Furnace pilot relay contacts did not close or the relay coil did not energize • No input back to furnace or air handler control. . 	Automatically clears when the system detects that the issue no longer exists.
349	Critical	Furnace	The O to R link on the furnace needs to be restored.	<ul style="list-style-type: none"> • Configuration link R to O needs to be restored. • Repair cut link or hard-wire. • Only applicable in non-communicating mode. 	Automatically clears when the system detects that the issue no longer exists.
350	Critical	Air handler	The air-handler's electric heat is not configured or incorrectly configured.	<ul style="list-style-type: none"> • Heat call with no configured or incorrectly configured electric heat. • Check for proper configuring under Configuring Electric Heat Stages in the air handler installation 	Automatically clears after electrical heat detection is successful.

Alert Code	Priority Condition	System Component	Actual Displayed Alert Text	Component or System Operational State and Troubleshooting Tips	How to Clear Alert Code
				instructions.	
351	Critical	Air handler	There is an issue with the air-handler's first stage electric heat.	<ul style="list-style-type: none"> • Either the pilot relay contacts did not close or the relay coil in the electric heat section did not energize. • Possible heat section / stage 1 failure. • Pilot relay contacts did not close, or the relay coil in the electric heat section did not energize. • Air handler will operate on first stage for remainder of the heat call. 	Automatically clears after fault recovered.
352	Critical	Air handler	There is a problem with the air-handler's second stage electric heat.	<ul style="list-style-type: none"> • Either the pilot relay contacts did not close or the relay coil in the electric heat section did not energize. • The air-handler will operate on first stage electric heat until the issue is resolved. 	Automatically clears after fault recovered.
353	Critical	Air handler	There is a problem with the air-handler's third stage electric heat.	<ul style="list-style-type: none"> • Either the pilot relay contacts did not close or the relay coil in the electric heat section did not energize. • The air-handler will operate on first stage electric heat until the issue is resolved. 	Automatically clears after fault recovered.
354	Critical	Air handler	There is a problem with the air-handler's fourth stage electric heat.	<ul style="list-style-type: none"> • Either the pilot relay contacts did not close or the relay coil in the electric heat section did not energize. • The air-handler will operate on first 	Automatically clears after fault recovered.

Alert Code	Priority Condition	System Component	Actual Displayed Alert Text	Component or System Operational State and Troubleshooting Tips	How to Clear Alert Code
				stage electric heat until the issue is resolved.	
355	Critical	Air handler	There is an issue with the air-handler's fifth stage electric heat.	<ul style="list-style-type: none"> • Either the pilot relay contacts did not close or the relay coil in the electric heat section did not energize. • The air-handler will operate on first stage electric heat until the issue is resolved. 	Automatically clears after fault recovered.
370	Critical	Furnace	The furnace control has not received 24VAC power for two minutes or more on the DS terminal	<ul style="list-style-type: none"> • The system will not operate. • Dealer has cut the W914 jumper (Dehum, Harmony III) • The thermostat monitors the DS terminal in the furnace for power and if the link has been cut then power will be lost to DS. 	This alert code will clear when 24VAC is continuously sensed on DS terminal for a minimum of 10 seconds or on a power reset.
380	Moderate / Critical	Equipment interface module	Interlock relay failure (IFC or AHC mode only).	<ul style="list-style-type: none"> • Interlock relay is energized, but input is not sensed after three seconds. • There will be no heating or cooling due to this alert code – moderate condition. • De-energize interlock relay and energize after five minutes if demand is still present – critical condition. 	Automatically clears after fault recovered.
381	Moderate / Critical	Equipment interface module	Interlock relay stuck (IFC or AHC modes only)	<ul style="list-style-type: none"> • Interlock relay continuously sensed (with relay off). • There is no heating and cooling operation – moderation condition. 	Automatically clears 30 seconds after fault clears.

Alert Code	Priority Condition	System Component	Actual Displayed Alert Text	Component or System Operational State and Troubleshooting Tips	How to Clear Alert Code
				<ul style="list-style-type: none"> After 10 minutes if event still exist it will be escalated – critical condition. 	
382	Moderate	Equipment interface module	Relay W1 failure (IFC and AHC modes only)	W1 relay is energized but input is not sensed after three seconds.	Automatically clears when W1 relay input is sensed.
400	Critical	Outdoor unit	The compressor internal overload has tripped.	<ul style="list-style-type: none"> Thermostat demand Y1 is present; however compressor is not running. Check power to unit. This alert code is automatically cleared after current is sensed in both RUN and START sensors for at least two seconds or after service is removed, or after power reset. 	Automatically clears when the system detects that the issue no longer exists.
401	Moderate	Outdoor unit	Either the compressor ran for more than 18 hours continuously trying to cool the home during a single demand or the refrigerant pressure in the system is low.	<ul style="list-style-type: none"> Alert code will not lockout system. If the two-stage outdoor unit has: An outdoor control with blinking LED lights then the unit will run in low speed; An outdoor control with a 7-segment display, the outdoor control will display alert code 401, but continue to run in high speed. If the outdoor unit is a heat pump, and the outdoor temperature is less than 65°F, alert code 401 is ignored. Also monitors low pressure switch trips. 	Automatically clears after 30 consecutive normal run cycles or power reset.
402	Critical	Outdoor unit	Either the discharge or suction pressure level is out-of-limits, or	Check discharge or suction pressure.	Automatically clears after four consecutive

Alert Code	Priority Condition	System Component	Actual Displayed Alert Text	Component or System Operational State and Troubleshooting Tips	How to Clear Alert Code
			the compressor has overloaded.		normal compressor run cycles.
403	Moderate	Outdoor unit	The compressor ran for less than three minutes to satisfy a thermostat demand.	<ul style="list-style-type: none"> This short cycle fault is triggered when five compressor cycles lasted less than four minutes. The compressor cycles could have ended for any reason, thermostat satisfied or high-pressure switch for example. 	Automatically clears after four consecutive normal compressor run cycles. NOTE: Code removed from outdoor control - Part # 103369-03 and later / Cat # 11H36 Kit).
404	Critical	Outdoor unit	The compressor rotor is locked up.	<ul style="list-style-type: none"> Compressor rotor locked up due to run capacitor short, Bearings are seized Excessive liquid refrigerant, etc. (NOTE: May need to install hard start kit). 	Automatically clears after four consecutive normal run cycles or after power reset.
405	Critical	Outdoor Unit	The compressor circuit is open.	Compressor circuit open (due to power disconnection - open fuse, etc.)	Automatically clears after one normal compressor run cycle.
406	Critical	Outdoor unit	The required amount of current is not passing through the START current transformer.	<ul style="list-style-type: none"> The start current sensors look for the presence of a minimum of three amps current (for up to 15 seconds) on the run and start windings of the compressor while there is a Y1 signal. If no current is sensed with the Y1 signal still present, the control will cycle the Y1 demand, which will cycle compressor OFF. Check wiring at outdoor control and compressor amperage. 	Automatically clears after current is sensed in START sensor, or after power reset.

Alert Code	Priority Condition	System Component	Actual Displayed Alert Text	Component or System Operational State and Troubleshooting Tips	How to Clear Alert Code
				<ul style="list-style-type: none"> NOTE: This alert code is applicable only to first-generation outdoor unit that had current sensors. 	
407	Critical	Outdoor unit	The required amount of current is not passing through RUN current transformer.	<ul style="list-style-type: none"> The start current sensors look for the presence of a minimum of three amps current (for up to 15 seconds) on the run and start windings of the compressor while there is a Y1 signal. If no current is sensed with the Y1 signal still present, the control will cycle the Y1 demand, which will cycle compressor OFF. Check wiring at outdoor control and compressor amperage. NOTE: This alert code is applicable only to first-generation outdoor unit that had current sensors. 	Automatically clears after current is sensed in RUN sensor, one normal compressor run cycle, or after power reset
408	Critical	Outdoor unit	The compressor is running continuously.	<ul style="list-style-type: none"> Welded contacts Replace compressor contactor. Confirm 24VAC power to contactor. Verify all wiring connections are tight to contactor terminals. 	Automatically clears after one normal compressor run cycle or after power reset.
409	Moderate	Furnace, air handler or outdoor unit	The secondary voltage for the applicable system component has fallen below 18VAC.	<ul style="list-style-type: none"> Secondary voltage is below 18VAC. If this continues for 10 minutes, the thermostat will turn off the applicable system component. 	Automatically clears after voltage is detected as higher than 20VAC for two seconds or after power reset.
410	Moderate	Outdoor unit	Unit low pressure is below the required limit.	<ul style="list-style-type: none"> Check operating pressures. Low pressure switch opens at 40 psig (system shuts down) and 	Automatically clears when the system detects that the issue no longer exists.

Alert Code	Priority Condition	System Component	Actual Displayed Alert Text	Component or System Operational State and Troubleshooting Tips	How to Clear Alert Code
				closes at 90 psig (system restarts).	
411	Critical	Outdoor unit	The low-pressure switch has opened five times during a single demand.	<ul style="list-style-type: none"> • Thermostat will shut down the outdoor unit. • Open low pressure switch error count reached five strikes. • Check system charge using approach and sub cooling temperatures. • Reset by putting outdoor unit control in test mode or resetting low voltage power. 	Automatically clears when the system detects that the issue no longer exists.
412	Moderate	Outdoor unit	The unit high-pressure is above the required limit.	<ul style="list-style-type: none"> • System is shut down • Unit high pressure is above the upper limit. • The high pressure switch for HFC-410A will open at 590PSIG and close at 418PSIG. • Confirm that the system is properly charged with refrigerant. • Check outdoor fan motor, TXV, indoor unit blower motor, stuck reversing valve and possible clogged refrigerant filter. • Confirm that the outdoor unit is clean. 	Automatically clears after the high pressure switch closes or a power reset
413	Critical	Outdoor unit	The high-pressure switch has opened five times during a single demand.	<ul style="list-style-type: none"> • Thermostat will shut down the outdoor unit. • Open high pressure switch error count reached five strikes. 	Automatically clears when the system detects that the issue no longer exists.

Alert Code	Priority Condition	System Component	Actual Displayed Alert Text	Component or System Operational State and Troubleshooting Tips	How to Clear Alert Code
				<ul style="list-style-type: none"> • Check system charge using approach and sub cooling temperatures. • Check outdoor fan operation. • Check for dirt or debris blocking air flow to outdoor unit. • Reset by putting outdoor unit control in test mode or resetting low voltage power. 	
414	Critical	Outdoor unit	The discharge line temperature is higher than the recommended upper limit of 279°F.	<ul style="list-style-type: none"> • Discharge line temperature is greater than 279°F. • Make sure coil is clean and airflow unobstructed in and out of condenser. • Check system operating pressures and compare to unit charging charts in installation manual. 	Automatically clears after discharge temperature is less than 225°F.
415	Critical	Outdoor unit	The discharge line temperature has been consistently higher than the recommended upper limit of 279°F.	<ul style="list-style-type: none"> • Discharge line high temperature error count reached five strikes during a single demand. • Make sure coil is clean and airflow unobstructed in and out of condenser. • Check system charge using approach and sub cooling temperatures. • Reset by putting outdoor control in test mode or resetting low voltage power. 	Automatically clears when the system detects that the issue no longer exists.
416	Critical	Outdoor unit	The outdoor coil sensor is either	<ul style="list-style-type: none"> • Outdoor unit control will not perform 	Automatically clears

Alert Code	Priority Condition	System Component	Actual Displayed Alert Text	Component or System Operational State and Troubleshooting Tips	How to Clear Alert Code
			open, short-circuited or the temperature is out of sensor range.	demand or time / temperature defrost operation. (System will still heat or cool.) <ul style="list-style-type: none"> • Sensor being detected open or shorted or temperature is out of sensor range. 	when outdoor unit control detects proper sensor readings.
417	Moderate / Critical	Outdoor Unit	The outdoor unit discharge line sensor is either open, short-circuited or the temperature is out of sensor range.	<ul style="list-style-type: none"> • Outdoor unit control will not perform demand or time / temperature defrost operation. (System will still heat or cool.) • Outdoor unit control detects open or shorted sensor, or temperature that is out of sensor range. • Critical alert after 10 minutes. • Reset by replacing sensor. • This fault is detected by allowing the unit to run for 90 seconds before checking sensor resistance. • If the sensor resistance is not within range after 90 seconds, the board will count one fault. • After five faults, the outdoor control will lock out. • Check for proper sensor reading and attachment to line. • Replace outdoor control or sensor if out-of-specifications. 	Replace faulty sensor and perform a system power reset.

Alert Code	Priority Condition	System Component	Actual Displayed Alert Text	Component or System Operational State and Troubleshooting Tips	How to Clear Alert Code
				NOTE: Confirm there are no shorts or opens in the Comfort Sync® thermostat connections to any of the other components in the communication system.	
418	Moderate	Equipment interface module and outdoor unit	There is a faulty W output circuit.	<ul style="list-style-type: none"> • W terminal is energized <u>while in cooling mode</u>. • Possible cause may be a stuck closed relay on the control, or something external to the control that is energizing W terminal when it should not be energized. • Disconnect any wiring from the W terminal. • If 24VAC is still on the terminal, then it is a stuck relay. • If 24VAC disappears, then there is a need to check any of the wires hooked up to the W terminal. 	Automatically clears after fault signal is removed.
419	Critical	Equipment interface module and outdoor unit	The W output has reported more than five errors.	<ul style="list-style-type: none"> • The system will shut down the outdoor unit. • The W output (code E418) on the outdoor unit has reported more than five strikes. • Disconnect thermostat lines from W and verify 24VAC on the W. • If 24VAC is present, replace the outdoor control. 	Automatically clears after power recycled.
420	Critical	Air handler or equipment interface module	The heat pump defrost cycle has taken more than 20 minutes to complete.	<ul style="list-style-type: none"> • Defrost cycle lasts longer than 20 minutes. 	Automatically clears when W1 signal is removed.

Alert Code	Priority Condition	System Component	Actual Displayed Alert Text	Component or System Operational State and Troubleshooting Tips	How to Clear Alert Code
				<ul style="list-style-type: none"> • Check heat pump operation. • This is applicable only in communicating indoor unit with non-communicating heat pump. 	
421	Critical	Equipment interface module and outdoor unit	The W output terminal on the outdoor unit is not wired correctly.	Voltage sensed on W output terminal when Y1 out is deactivated.	Automatically clears once voltage is not sense on output for power cycled.
422	Moderate	Outdoor unit	Compressor top cap switch exceeding thermal limit.	<ul style="list-style-type: none"> • Check condenser fan motor, TXV and indoor unit blower motor. • Check for stuck reversing valve or clogged refrigerant filter. • XC/XP20 and XC/XP25: Check to ensure that one of the wires from the top cap switch has not been disconnected from one of the TP terminals on the outdoor control. Reconnect wire if disconnected. 	Automatically clears when error is corrected.
423	Moderate / Critical	Outdoor unit	The inverter has detected a circuit issue.	<ul style="list-style-type: none"> • When this condition is detected the outdoor control will stop outdoor unit operations and start the anti-short cycle timer – moderate condition. • Outdoor control will lockout unit after 10 strikes within an hour – critical condition. 	<ul style="list-style-type: none"> • A moderate alarm will clear automatically when the inverter detects the condition no longer exist and will send a clear alarm message. • To clear critical alarm disconnect power to outdoor unit and restart.

Alert Code	Priority Condition	System Component	Actual Displayed Alert Text	Component or System Operational State and Troubleshooting Tips	How to Clear Alert Code
424	Moderate	Outdoor unit	The liquid line temperature sensor has malfunctioned.	<ul style="list-style-type: none"> • In normal operation after outdoor control recognizes sensors, the alert code will be sent if a valid temperature reading is lost. • Compare liquid line sensor resistance to temperature / resistance charts in unit installation instructions. • Replace sensor pack if necessary. • At the beginning of (any) configuration, furnace or air handler control will detect the presence of the sensor(s). • If detected (reading in range), appropriate feature will be set as 'installed' and shown in the Comfort Sync® Wi-Fi® thermostat 'About' screen. 	Automatically clears upon configuration, or sensing normal values.
425	Minor	Outdoor unit	Outdoor control has increased minimum compressor speed to allow for proper oil return due to low ambient temperature.	<ul style="list-style-type: none"> • Outdoor ambient temperature is below system limit. • Control will attempt to run at lowest allowed compressor speed to allow for proper oil return. 	Automatically clears when outdoor ambient temperature rises above limit for more than five minutes.
426	Critical	Outdoor unit	Excessive inverter alarms.	<ul style="list-style-type: none"> • After ten faults within one hour outdoor control will lockout. • Inverter alarms 12 to 14 and 53 do not count towards this lockout condition. 	To clear disconnect power to outdoor control and restart
427	Moderate /	Outdoor unit	The inverter has detected a DC	<ul style="list-style-type: none"> • If condition (55A or higher) is 	To clear, disconnect and reconnect power to

Alert Code	Priority Condition	System Component	Actual Displayed Alert Text	Component or System Operational State and Troubleshooting Tips	How to Clear Alert Code
	Critical		peak fault condition.	<p>detected, outdoor unit will stop (compressor and fan) – moderate condition.</p> <ul style="list-style-type: none"> • Anti-short cycle is initiated. • If peak current (55A or higher) occurs 10 times within an hour, system will lockout – critical condition. 	outdoor control.
428	Moderate / Critical	Outdoor unit	The inverter has detected a high main input current condition.	<ul style="list-style-type: none"> • If condition is detected, outdoor unit will stop (compressor and fan) – moderate condition. • Anti-short cycle is initiated. • If condition occurs 10 times within an hour, system will lockout – critical condition. 	To clear, disconnect power to outdoor unit and restart.
429	Moderate / Critical	Outdoor unit	The inverter has detected a DC link low voltage condition.	<ul style="list-style-type: none"> • On a call for compressor operation, if DC link power in inverter does not rise above 180 VDC for 2- and 3-ton models, 250 VDC for 4- and 5-ton models within 30 seconds, the control will display a moderate code. • If condition is detected, outdoor unit will stop (compressor and fan) – moderate condition. • An anti-short cycle timer is initiated. If condition occurs 10 times within a 60 minute rolling time period, system will lock out and display alert code 429 – critical condition. • The outdoor control anti-short cycle 	Automatically clears when the system detects that the issue no longer exists.

Alert Code	Priority Condition	System Component	Actual Displayed Alert Text	Component or System Operational State and Troubleshooting Tips	How to Clear Alert Code
				<p>timer will time out and the unit will recycle the demand.</p> <ul style="list-style-type: none"> • Replace outdoor inverter. 	
430	Moderate / Critical	Outdoor unit	Compressor start-up failure	<ul style="list-style-type: none"> • If condition is detected, outdoor unit will stop (compressor and fan) – moderate condition. • Anti-short cycle is initiated. • If condition occurs 10 times within an hour, system will lockout – critical condition. 	To clear, disconnect power to outdoor unit and restart.
431	Moderate / Critical	Outdoor unit	The inverter has detected a PFC circuit over-current condition.	<ul style="list-style-type: none"> • Error occurs when PFC detects an over current condition of 100A peak. • If condition is detected, outdoor unit will stop (compressor and fan) – moderate condition. • Anti-short cycle timer is initiated. • If condition occurs 10 times within an hour, system will lockout – critical condition. 	To clear, disconnect power to outdoor unit and restart.
432	Moderate / Critical	Outdoor unit	The inverter has detected a DC link high voltage condition.	<ul style="list-style-type: none"> • Error occurs when the DC link capacitor voltage is greater than 480VDC. • If condition is detected, outdoor unit will stop (compressor and fan) – moderate condition. • Anti-short cycle timer is initiated. • If condition occurs 10 times within 	To clear, disconnect power to outdoor unit and restart.

Alert Code	Priority Condition	System Component	Actual Displayed Alert Text	Component or System Operational State and Troubleshooting Tips	How to Clear Alert Code
				an hour, system will lockout – critical condition.	
433	Moderate / Critical	Outdoor unit	Compressor phase current is too high.	<ul style="list-style-type: none"> • Error occurs when compressor peak phase current is greater than 28A. • Inverter will issue code 14 first and slow down to try to reduce the current. • If the current remains high, outdoor unit will stop (compressor and fan) – moderate condition. • Anti-short cycle timer is initiated. • If condition occurs five times within an hour, system will lockout – critical condition. 	To clear alert code disconnect power to outdoor unit and restart.
434	Moderate / Critical	Outdoor unit	Outdoor control has lost communications with the inverter for greater than three minutes.	<ul style="list-style-type: none"> • Outdoor control has lost communications with the inverter for greater than three minutes. • Outdoor control will stop all compressor demands – moderate condition. • Recycle power to the inverter by de-energizing the contactor for two minutes. • If this occurs three times in one thermostat call, the outdoor unit will locked out and display alert code 434 – critical condition. • Check for loose or disconnected electrical connections. 	Automatically clears when the system detects that the issue no longer exists.

Alert Code	Priority Condition	System Component	Actual Displayed Alert Text	Component or System Operational State and Troubleshooting Tips	How to Clear Alert Code
				<ul style="list-style-type: none"> • Interruption of main power to inverter. 	
435	Moderate / Critical	Outdoor unit	Inverter internal error.	<ul style="list-style-type: none"> • When this error occurs, the outdoor control will cycle power to the inverter by opening the contactor for two minutes – moderate condition. • Outdoor control will cycle power to the inverter three times and then outdoor unit is locked out – critical condition. 	To clear alert code disconnect power to outdoor unit and restart.
436	Moderate / Critical	Outdoor unit	Inverter heat sink temperature exceeded limit.	<ul style="list-style-type: none"> • This occurs when the heat sink temperature exceeds the inverter limit. Inverter will issue inverter alert code 13 first and slow down to try to cool the heat sink. • If temperature remains high, outdoor unit will stop both compressor and fan – moderate condition. • Anti-short cycle is initiated. • If condition occurs five times within an hour, system will lockout – critical condition. • Feedback from supplier tear down of inverter indicates that the screws that hold the inverter to the inverter board were loose causing poor contact between these two components. • Tighten screws that hold the heat 	<ul style="list-style-type: none"> • Moderate condition will automatically clear when the inverter sends an alarm clear message. • Critical condition is cleared by disconnecting power to the outdoor unit and restart.

Alert Code	Priority Condition	System Component	Actual Displayed Alert Text	Component or System Operational State and Troubleshooting Tips	How to Clear Alert Code
				<p>sink to the inverter control board.</p> <p>NOTE: Wait five minutes to all capacitor to discharge before checking screws.</p>	
437	Moderate / Critical	Outdoor unit	Heat sink temperature sensor fault has occurred (temperature less than 4 °F or greater than 264°F after 10 minutes of operation).	<ul style="list-style-type: none"> • When the temperature sensor detects a temperature less than 0.4°F or greater than 264°F after 10 minutes of operation. • Outdoor unit will stop both compressor and fan – moderate condition. • Anti-short cycle is initiated. • If condition occurs five times within an hour, system will lockout – critical condition. 	<ul style="list-style-type: none"> • Moderate priority condition will automatically clear when the inverter sends an alarm clear message. • Critical priority condition can be cleared by disconnecting and reconnecting power to outdoor unit to restart.
438	Moderate / Critical	Outdoor unit	The inverter has detected a PFC circuit over-current condition.	<ul style="list-style-type: none"> • The inverter has detected a power factor correction (PFC) over current condition. This may be caused by a high load condition, high pressure, or outdoor fan failure. • Outdoor control will display the code when the inverter has detected the error – moderate condition. • After three minutes, the inverter will reset and the compressor will resume operation. • If the error condition occurs 10 times within a 60 minute rolling time period, the outdoor unit control will 	<ul style="list-style-type: none"> • Moderate priority condition is automatically cleared when the inverter sends a clear message. • Critical priority condition will automatically clear when inverter is power cycled.

Alert Code	Priority Condition	System Component	Actual Displayed Alert Text	Component or System Operational State and Troubleshooting Tips	How to Clear Alert Code
				<p>lock out operation of the outdoor unit – critical condition.</p> <ul style="list-style-type: none"> • Possible issue is system running at high pressures. • Check for high pressure trips or other alert codes in room thermostat and outdoor control. 	
439	Moderate	Outdoor unit	Compressor slowdown due to high input current.	<ul style="list-style-type: none"> • Input current is approaching a high limit. • Compressor speed will automatically slow down. The outdoor control will continue sending the inverter speed demanded by the thermostat. • The outdoor control will set indoor CFM and outdoor RPM to values according to demand percentage rather than the actual Hz. 	Automatically clears when the condition no longer exists.
440	Moderate	Outdoor unit	Compressor slowdown due to high heat sink temperature.	<ul style="list-style-type: none"> • Heat sink temperature is approaching limit. • The compressor speed automatically slows to reduce heat sink temperature. • The control sets indoor CFM and outdoor RPM to values according to demand percentage rather than the actual Hz. • Feedback from supplier tear down of inverter indicates that the screws that hold the inverter to the inverter board were loose causing poor 	Automatically clears when the condition no longer exists.

Alert Code	Priority Condition	System Component	Actual Displayed Alert Text	Component or System Operational State and Troubleshooting Tips	How to Clear Alert Code
				<p>contact between these two components.</p> <ul style="list-style-type: none"> • Tighten screws that hold the heat sink to the inverter control board. • NOTE: Wait five minutes to all capacitor to discharge before checking screws. 	
441	Moderate	Outdoor unit	Compressor slowdown due to high compressor current.	<ul style="list-style-type: none"> • Compressor slowdown due to high compressor current. • Compressor current is approaching limit. • The compressor speed automatically slows. • The control sets indoor CFM and outdoor RPM to values according to demand percentage rather than the actual Hz. • Possible issue is system running at high pressures. • Check for high pressure trips or other alert codes in room thermostat and outdoor control. 	Automatically clears when the condition no longer exists.
442	Critical	Outdoor unit	The top cap switch has opened five times within one hour. As a result, the outdoor unit is locked out.	<ul style="list-style-type: none"> • This condition occurs when compressor thermal protection sensor opens five times within one hour. • Outdoor unit will stop. 	To clear, disconnect power to outdoor unit and restart.
443	Critical	Outdoor unit	Incorrect appliance unit size code selected.	<ul style="list-style-type: none"> • Check for proper configuring under unit size code used for outdoor unit 	Automatically clears after the correct match

Alert Code	Priority Condition	System Component	Actual Displayed Alert Text	Component or System Operational State and Troubleshooting Tips	How to Clear Alert Code
				<p>(see unit configuration guide or in installation instructions).</p> <ul style="list-style-type: none"> If replacing inverter, verify inverter model matches unit size. Remove the thermostat from the system while applying power and reprogramming. 	is detected following a power reset.
530	Moderate / Critical	Damper control module	Low Damper 24VAC Voltage	<ul style="list-style-type: none"> Damper supply voltage is less than 18VAC. Maintain non-zone mode for five minutes after alarm clears. 	Automatically clears when the condition no longer exists.
532	Moderate	Damper control module	Zoning Pressure Switch Opened (high pressure)	<ul style="list-style-type: none"> Compressor pressure is above the specified limit. Compressor is turned off. Zoning will be restored once the high pressure switch closes. 	Automatically clears after compressor pressure is within limits.
542	Moderate/ Critical	Damper control module	Zone 1 Temperature Sensor Problem	<ul style="list-style-type: none"> Zone temperature sensor reading out of range. Open or short zone temperature sensor detected for more than five second. Damper control module will operate 	Automatically clears 30 seconds after condition no longer exist.
543	Moderate/ Critical	Damper control module	Zone 2 Temperature Sensor Problem		
544	Moderate/ Critical	Damper control module	Zone 3 Temperature Sensor Problem		

Alert Code	Priority Condition	System Component	Actual Displayed Alert Text	Component or System Operational State and Troubleshooting Tips	How to Clear Alert Code
545	Moderate/ Critical	Damper control module	Zone 4 Temperature Sensor Problem	<p>in non-zone mode (all dampers open) – moderate condition.</p> <ul style="list-style-type: none"> If after 10 minutes the condition does not change, the priority code is change to critical. System will continue to operate in non-zone mode. 	
594	Moderate / Critical	Equipment interface module	Pre-coil discharge air temperature sensor problem (DFM mode only). Advances from moderate to critical after ten (10) minutes.	<ul style="list-style-type: none"> Interlock relay energized, but input not sensed after three seconds. No heating and cooling operations. De-energize interlock relay and re-energized five minutes later if demand is still present. 	Alarm clears five minutes after fault clears.
600	Critical	Outdoor unit	Compressor has been cycled OFF on utility load shedding.	<ul style="list-style-type: none"> Load shedding function provides a method for a local utility company to limit the maximum power level usage of the outdoor unit. The feature is activated by applying 24VAC power to the L and C terminals on the outdoor control. 	Automatically clears when L terminal is inactive.
601	Critical	Outdoor unit	Outdoor unit has been cycled OFF on low temperature protection.	<ul style="list-style-type: none"> This is a low temperature protection feature. Outdoor unit will not operate when the outdoor temperature is at or below -4°F (-20°C). If the unit is operating and the outdoor temperature drops below -4°F (-20°C), the unit will continue to operate until the room thermostat is satisfied or the outdoor temperature 	Automatically clears when priority condition no longer exists.

Alert Code	Priority Condition	System Component	Actual Displayed Alert Text	Component or System Operational State and Troubleshooting Tips	How to Clear Alert Code
				<p>drops to -15°F (-26°C).</p> <ul style="list-style-type: none"> Outdoor unit ambient sensor provides temperature readings). 	
602	Minor	Outdoor Unit	Low ambient conditions prevent the use of the outdoor unit.	<ul style="list-style-type: none"> Outdoor unit will not operate due to outdoor ambient conditions. 	Automatically clears when priority condition no longer exists.
700	Moderate	Thermostat	The temperature sensor in the thermostat is not working properly.	<ul style="list-style-type: none"> Recalibrate thermostat to clear. Replace thermostat if needed. 	Automatically clears when the system detects that the issue no longer exists.
701	Moderate	Thermostat	The thermostat is reading indoor temperatures above the pre-programmed limit.	<ul style="list-style-type: none"> Recalibrate thermostat to clear Cool thermostat Adjust set point. Replace thermostat, if needed. 	Automatically clears when the system detects that the issue no longer exists.
702	Moderate	Thermostat	The thermostat is reading indoor temperatures below the pre-programmed limit.		Automatically clears when the system detects that the issue no longer exists.
703	Moderate	Thermostat	The humidity sensor in the thermostat is not working properly.		Automatically clears when the system detects that the issue no longer exists.
704	Moderate	Thermostat	The thermostat is reading indoor humidity levels above the pre-programmed limit.	<ul style="list-style-type: none"> Recalibrate thermostat to clear. Replace thermostat, if needed. 	Automatically clears when the system detects that the issue no longer exists.
705	Moderate	Thermostat	The thermostat is reading indoor humidity levels below the pre-programmed limit.		Automatically clears when the system detects that the issue no longer exists.