Ducted Systems Technical Services: YS Letter

Letter: YS-003-23

Date: May 10, 2023 Effective: October 13, 2022 Expires: April 24, 2025

To: S1 HVAC Branch and Distributor Principal, Sales Manager, Service Manager, Parts Manager, Warranty Manager, Training Manager, Delegated Administrator.
Ducted Systems Technical Services, DS Parts/S1, ES Americas, ADTI Channel, Account Representatives, Marketing, Sales, Warranty teams

Subject: **UPDATE: Premier Uninstalled Sensor Issue (Phantom Sensor Fault)**

Product/s: Premier 25-50T All Brands GV(A,B,C,D), GZ(A,B,C,D), GT(A,B,C,D)

Summary: Johnson Controls is extending this letter to allow time for the revised harnesses to be implemented on this product. This letter supersedes the original YS-007-21 however the content remains the same with only the expiration date changing. Use this letter for any claims after October 13, 2022. The original letter is below for your convenience.

Original Letter:

YS-007-21

Summary: Premier 25-50T units are manufactured with a standard control wiring harness and in cases where sensor options are not purchased for a given unit, these harness wires can become susceptible to voltages induced from the harness causing alarms to show up for sensors that are not installed.

Dear valued customer:

The Premier 25-50T product utilizes a standard harness for every unit build. When sensors are not installed the wiring attached to the control boards become susceptible to voltages applied to the other wires in the harness (induced voltage). This minuscule voltage is interpreted by the control board as an installed sensor. The board then looks for a valid (in-range) voltage on the input. When it doesn't see a valid voltage, it triggers the alarm for a failed sensor. See the end of this letter for a list of common sensor faults that may appear.

When a sensor fault appears on a unit it is important that you first identify if that sensor is physically installed. Part of the process to eliminate an uninstalled sensor failure alarm is to perform a Relearn on the unit. If an installed sensor that is in alarm is misidentified as not being installed and a Relearn is performed, that sensor will be uninstalled in the programming and may disappear from the unit display. This makes troubleshooting the sensor much more difficult. In addition, if the sensor is required the unit will lose part or all functionality until it is repaired at which time the board will recognize and reinstall it.

Once a sensor is identified as not being physically installed, and is in alarm, use the following steps to disconnect the harness wiring and Relearn the sensor out of the system.

1. Turn unit power off at main disconnect switch
2. Using the unit wiring diagram, locate the sensor/transducer that is in alarm and identify the board and plug the wires are connected to taking note of wire numbers and color.
3. Locate the physical board and associated plug containing said sensor/transducer wires in unit
4. Cut the signal and common wires 3” from board plug, strip ends, and short together with wire cap device (Board wires)
    a. **Important:** Transducers have 3 wires, power (red), signal (white), and common (black). DO NOT CUT RED WIRE.
5. Repeat steps 2-4 as needed for all uninstalled sensor faults occurring on unit
6. Turn unit power on at main disconnect switch
7. After unit boots up and display becomes functional, Navigate to Controller>Network>Relearn
    a. Change from False to True press Enter button
    b. Press Enter button again to Confirm
    c. Press Back button, True will change itself back to False indicating Relearn is complete
8. Uninstalled sensor faults will disappear from active alarms
9. If a lockout has occurred because of an uninstalled sensor fault, perform the necessary reset measure to re-enable operation. Navigate to Summary>Unit
    a. Reset LO – All non-refrigeration related lockouts
    b. Hardware Reset – All refrigeration lockouts
10. Unit should return to normal operation following all required time delays have expired

Our engineering teams are redesigning the harnesses to make them options based, meaning the harness will only be installed if the applicable sensor is ordered. Engineering is also looking at board component selection to enhance voltage isolation.

1 hour of labor will be allowed at your registered warranty labor rate per unit, and 1 hour will be allowed for travel in a single direction at your registered warranty labor rate per site, to perform this procedure. **This is fix on fail only.** Use this service letter as authorization for warranty credit through the standard warranty claim process.

If you have any questions please contact PTS for assistance at 877-874-7378, or email at cg-upgtechsupport@jci.com

Important:

Always visually verify that a sensor/transducer is not installed before performing Relearn function to clear a sensor failure alarm.

Warm regards,

Victor Panicci
Product Technical Support Eng II
Building Technologies & Solutions
Ducted Systems
Johnson Controls