

**02/18/2021**

**RE: ALSN-0208-21 Defrost Control Sensor Failures**

**Description:** All Residential Split Heat Pumps and Commercial Packaged/Split Heat Pumps

**Impacted Date Range:** Units manufactured with date codes W2719 thru W0321

We have recently received reports of some defrost control sensors drifting from spec, resulting in a fault code and/or incomplete defrost cycles on Ruud heat pumps. The failures pertain to machines with part number 47-102710-17 or service replacement part 47-102710-02. Analysis of returned components have identified moisture in the sensor housing is causing the malfunction.

Beginning July 1, 2019, a new UL requirement caused a vendor change for the defrost control sensor leads. The new leads have a slightly smaller diameter. As a result, the wire *may not* be making a proper seal at the penetration point of the sensor housing. The original sensor with no known issues had wire leads with a dull matte finish, while the wire leads of the suspect sensors have more of a sheen finish. See Fig 1.

Fig 1



**Required Action for Installed Equipment / Serialized Date Codes W2719 to W0321:**

Ruud heat pumps within the production range demonstrating improper/incomplete defrost cycles must have the sensor replaced using the **new parts kit PD476604** (date code 21-01-25 or higher). The kit includes an ambient sensor and a coil defrost sensor. Be advised, Allied HVAC Distributors has pulled the previous generation sensor from our shelves. This new parts kit is on order at the time of this letter, but stock is limited. We are taking all available actions to expedite shipment. Please note there is a substitute generic sensor available from Honeywell that is stocked around the company. Call your local branch manager for details.

A \$75.00 labor allowance is available to contractors for completing this sensor replacement on units with date codes W2719 to W0321.

### **Recommended Testing**

Replacement of the **defrost control** will not resolve this sensor issue. Validation of the defrost control sensor is imperative to correcting the issue. Instructions for sensor testing are as follows:

1. De-energize both low and high voltage circuits to the unit.
2. Remove the sensor and place sensor bulb in a cup of ice water for a minimum of 5 minutes.
3. Ohm the sensor terminations (note thermistor is 10k). Reading should be approximately 33k.

### **iWarranty Claim**

Requirements to receive the \$75.00 allowance for defrost sensor replacement are as follows:

- Part and Labor claims for the PD476604 (sensor kit) must be submitted together on a single iWarranty claim.
- All requested claim information must be provided with "012521" in the WCN field and "Sheen Wire Sensor Failure" listed in the *Reason* field.
- In addition, iWarranty will require a percentage of failed sensors returned so please follow through if your claim is flagged for return to receive labor credit.
- Claims must be filed by December 31, 2021.

On behalf of both RUUD and Allied HVAC distributors we apologize for any inconvenience this may cause for either you or your customer. Please do not hesitate to call me or any of our local technical service managers if you have any questions about this issue. Thank you as always for your business.

Regards,  
Shawn Conaway  
Technical Service Manager  
Allied HVAC Distributors