



VAST-003-2014

Service Tip

02/12/2014

Subject: High Pressure Switch Trips

Affected Equipment: YHJR (all tonnages) or YHJD (48/60) Heat Pumps

Background: When the above product lines were introduced the defrost thermostat was set to open at 55°. A number of reports were submitted of systems not completely removing all the frost during defrost mode. The factory conducted additional testing in their environmental lab which indicated that during defrost the liquid temperature slowly rises to 55°, after which the liquid line temperature rises at a much faster rate. This renewed attention to the liquid line temperature meant production units switched from the 55° defrost thermostat to one set at 80° with the result being more complete frost removal at a wider range of conditions.

Reported Issue:

From time to time we receive a report of units with Time/Temp defrost boards tripping on high pressure, primarily during defrost. Over the past two years Virginia Air has submitted Field Observation Reports (formally known as Product Reports) to the factory on multiple occasions in an effort to pinpoint the root cause(s). However factory testing indicated that in properly applied systems the problem cannot be duplicated in the lab, regardless of ambient conditions.

Suggested Resolution:

Prior to taking other actions verify the system's refrigerant charge, airflow, metering device and indoor coil match are correct. We strongly recommend this be done by completing one of our startup and data sheets. We also recommend making sure the defrost thermostat is attached and making good contact with the copper. The attached picture shows the proper location of the defrost thermostat.

If the items listed above are correct replacing the 80° defrost thermostat with the 55° defrost thermostat (Source 1 Part # S1-02537482000) should eliminate the high pressure trips, keeping in mind it could result in less than complete defrosting of the coil. At this point we'd ask you to provide us with a completed data sheet so we can report this back to the factory.

NOTE: This service tip only addresses time/temperature boards with thermostats, not demand defrost boards that use thermistors.

Please let us know if you have any questions.

