

DEALER SERVICE BULLETIN

Number: DSB 10-0015

Date: 5/17/10

Supersedes: New

Title: SCT (Saturated Condenser Thermister)
Improvements

PRODUCT CATEGORY:

Small Rooftops

MODELS AFFECTED:

Carrier: 48PGxC04~28; 50PGxC04~28

Serial Number(s): 2108Gxxxxx ~ 2310Gxxxxx

SITUATION:

There have been reports indicating cracking failures of the Saturated Condenser Thermisters (SCT) HH79NZ036 on 48/50PG04~28 Centurion units listed above, warranting a review of the sensor's design. Fractures were noted between the "T" bar clamping clips or fastener head, and where the embedded thermister resides (figure 1). Findings indicate that seasonal environment swings along with wire weight stress contributed to the fractures. This failure caused the SCT to not make proper contact with the copper tubing, diminishing the sensors ability to accurately sense the saturated condensing temperature. This failure directly affects the units ability to control the staging "ON and OFF" of the condenser fan motors to maintain proper condensing temperatures.

SOLUTION:

A redesign of the SCT was initiated and tested and a new design developed, simplifying the fastening style. The new SCT (HH79NZ100) design incorporates a stainless steel "bullet type" configuration with a built in copper tubing clip. The design passed rigorous weight, temperature and resistance testing and was implemented on the 48/50PG production line WK1910Gxxxxx(?). The improved HH79NZ100 sensor is a 5K thermister, is completely "backwards" compatible, and can also be used to replace failed HH79NZ037 sensors. Figure 2

Warning: Do not perform any of the servicing instructions provided in this Service Bulletin unless you are a trained and qualified technician. Observe all precautions in the instructions, equipment tags, labels, and observe all other safety precautions that may apply. Failure to follow this warning could result in property damage, personal injury or death.



Figure 1

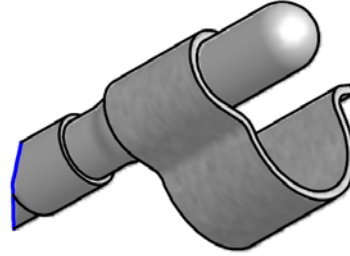


Figure 2

Field Action:

If the SCT HH79NZ036 fails within the serial number range listed, replace the failed sensor with part number HH79NZ100. The new sensor comes with 96" wire leads for full wire and routing replacements. However, a second removal and replacement process has been developed.

To replace a failed sensor cut the failed SCT sensor wires (2) 18" from the sensor, remove old sensor, leaving wires from control box in-place. Cut the new SCT wires 24" from sensor end, strip the wires back 1/2" from both sets of wires (from the control box and new SCT). Slide "Heat Shrink" wire tubes over a set of wires. Using two 18~22 ga. "butt connectors" attach and crimp both set of wires together, then slide the heat shrink tubes over the butt connectors and shrink. Clip the new SCT sensor to the same location on the coil as the failed sensor.

Parts/Kits: HH79NZ100 Saturated Condenser Thermister