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**DATE:** April 1, 2014 ST-005-14

**TO:** All York Branch Service Managers

All York Distribution Service Managers

All Regional Managers

**SUBJECT:** Simplicity Control Package Heat pumps with Nuisance fault code 9

This service tip letter provides a solution to the simplicity control on package heat pumps that experience nuisance fault code 9. This is a nuisance issue, no labor, provided ST information only. No planned design change as this control phases out with the SSE implementation.

When 24 vac is sent to the W1 terminal on the Simplicity control a 5-minute timer is initiated that requires 24 vac to be present on the MV input pin before that timer expires. The circuit that provides 24 vac to MV goes thru the lockout relay on the defrost board. The defrost board also has a 5-minute antishort cycle timer that prevents the lockout relay from closing until that timer expires. Due to tolerances in the controls, it is possible that the defrost timer is longer than the Simplicity control timer and 24 vac is not provided to MV in time. This causes a fault code 9 on the Simplicity control.

Most units do not experience this nuisance alarm because the timers are coordinated to allow 24 vac on the MV pin within the 5-minute timer on the Simplicity control. However, if a nuisance code 9 persists, the solution is as follows:

- Locate the #224 blue wire connecting the defrost control M terminal to the Simplicity control MV terminal.
- 2. Cut the wire leaving sufficient length to route the wire to the RY1 relay coil.
- 3. Once the #224 blue wire has been cut, cap off the wire coming from the defrost control board.
- 4. Route the #224 blue wire from the Simplicity MV terminal to the RY1 relay by;
  - a. Splicing #224 blue with wire #231 blue or
  - b. Using a double spade connection, connect #224 blue and #231 blue to the RY1 relay coil.

Please refer to the attached wiring diagram that shows how the circuit will look electrically. Please feel free to contact us if you have any questions.

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