

## TECHNICAL SERVICE

Unitary Products Group 5005 York Drive Norman, OK 73069 1/877-874-7378

## **YS-025-07**

- **DATE:** May 10, 2007
- TO: All York Branches and Distributors All York Service Managers All Field Service Supervisors
- **SUBJECT:** Radio Static Interference Associated With PC & PM9 Modulating Furnaces.

There have been reports of an annoying static on customers AM radio which correlates with the modulating furnace inducer and/or blower motor. The thermostat cables and/or house wiring seem to be the leading culprit in this phenomenon. As described below the length of wires is a factor in picking up and transmitting unwanted signals.

A RF Filter/Choke is going to be added to the control board in the fall of 2007, a separate Service letter will be issued at that time with the exact dates.

Suggested Checks To Be Made Are -

- 1. Taking the necessary safety precautions to prevent electrical shock, check the unit power supply and grounding. Compare (L1 to Neutral) with (L1 to Ground) it should be less than 3 volts difference. Then check (Neutral to Ground) it should be less than 1 volt. Ground readings higher than these listed will require the involvement of an electrician to determine & correct the root cause of the home wiring problem.
- 2. Check to insure that the furnace has its own separate isolated electrical power supply, from the home circuit breaker service panel.
- 3. Connect any unused thermostat cable conductors, thermostat and OD unit, together and then to ground them.
- 4. Use grounded, shielded thermostat cable in commercial applications with machinery.

If noise persists -

5. Install a Line Voltage RF Filter kit S1-37327804001, RF Interference Kit.





GENERAL: This kit contains one RF Interference filter, which is used to eliminate static interference on AM radios that is caused by modulation of the draft inducer motor and/or the circulating air motor in modulating furnaces.

INSTALLATION: Disconnect power to the furnace. This must be done by opening the circuit breaker to the furnace or shutting off a disconnect switch serving the furnace.

Locate the white neutral incoming power wire to the furnace board and unplug it from the "NEUTRAL" terminal on the control board.

3. Locate the black power wire that leads from the blower door switch to the control board and unplug it from the "120 VAC" terminal on the control board.

4. On the filter included in this kit, locate the white wire with the female terminal and plug that into the control board "NEUTRAL" terminal.

5. On the filter included in this kit, locate the black wire with the female terminal and plug that into the control board "120 VAC" terminal.

6. On the filter included in this kit, locate the white wire with the male terminal and connect it to the terminal on the incoming white power wire.

7. On the filter included in this kit, locate the black wire with the male terminal and connect it to the terminal on the incoming black power wire from the door switch.

8. Turn on power to the furnace and verify that the furnace is operating properly.

If noise still persists -

- 6. Check the primary grounding wire from home breaker box service panel to the grounding rod & make sure it is securely fastened.
- 7. Contact the local electrical utility to inspect the primary incoming building power for adequate grounding.
- 8. Use grounded, shielded thermostat cable in commercial applications with machinery.

A labor allowance of one hour, plus kit allowance will be provided to install the RF filter kit listed above to resolve complaint installations only. Please refer to this Service Letter in the comments section of the warranty claim form when submitting claims. Sincerely,

*Ron Butcher* Ron Butcher Field Service Supervisor *Tom Chase* Tom Chase Residential Furnace Engineering Manager