Installation Instructions

P/N 911758-

DESCRIPTION:

This accessory kit may be used in NORDYNE single package air conditioners, heat pumps, air handlers and E(1,2)EB electric furnaces with cooling coils. The purpose of this kit is to keep the indoor fan running for a short time (approximate 80 seconds) for increased cooling efficiency after the outdoor unit shuts off.

Improper installation may damage equipment and create a hazard. Persons not qualified for installations should not interpret these instructions or install this equipment.

This kit contains the following parts:

- (1) Solid State Fan Delay Assembly
- (4) Wiring Diagrams
- (1) Notice Label
- (1) Mounting Screw
- (1) Bushing

These instructions are primarily intended to assist qualified individuals experienced in the proper installation of this appliance. Some local codes require licensed installation/service personnel for this type of equipment. Read all instructions carefully before starting the installation.

Installation Procedure

General

- 1. Turn off all electrical supply to the air conditioner, heat pump or air handler at the main circuit box.
- 2. Remove electrical access panel.

- 3. Install Time Delay Relay at location indicated by label in control panel and fasten using center hole and screw provided (do not over tighten). For electric furnaces, install time delay relay in a convenient location using a self tapping fastener.
- Make wiring connections per the applicable Wiring Diagrams provided with this kit. See Figures 1 - 4 on the following pages and follow the instructions for either the single package unit, the air handler or the electric furnace.
- 5. Attach the applicable Wiring Diagram label to the inside surface of the electrical access panel.
- 6. Replace the electrical access panel.
- 7. Attach "Notice" label to outside surface of electrical access panel.

Indoor Fan Time Delay Operation Check:

- 1. Set thermostat fan switch to "Auto".
- 2. Set thermostat setting so system will operate.
- 3. Run at least 5-minutes.
- 4. Move thermostat setting to cause unit to shut off.
- 5. Indoor fan should continue to run for approximately 80-seconds.



Figure 1. Wiring Diagram for Single Package Air Conditioner Application.

- Locate red wire connecting Blower Fan terminal #3 and Contactor Coil. Remove wire from contactor coil line side terminal and reattach to Fan Delay Kit terminal #3.
- Locate violet wire on Blower Relay terminal #1, remove wire from terminal #1 and attach to Fan Delay Relay Kit at terminal #5.
- 3. Attach **gray** wire provided on Fan Time Delay Relay terminal #3 to the Contactor Coil common terminal.
- 4. Attach **blue** wire provided on Fan Time Delay Relay Kit terminal #1 to Blower Relay terminal #1.

- 5. Remove knockout on top of low voltage control box and install plastic bushing provided.
- Route red and violet wires from Fan Time Delay Kit terminals #2 and #5 through bushing and connect to "R" and "G", respectively, on thermostat. (Red wire should be stripped.)
- 7. Complete installation as outlined under "General" instructions on the front cover.



Figure 2. Wiring Diagram for Single Package Heat Pump Applications.

- Locate violet wire connecting terminal #1 on fan blower relay and terminal "G" on the defrost circuit board. Disconnect wire at terminal #1 and connect to terminal #5 on the time delay kit.
- 2. Connect **blue** wire on the fan delay relay terminal #1 to terminal #1 on the blower relay.
- 3. Connect **red** wire on the fan delay relay terminal #2 to terminal "R" on the transformer 24-volt load side.
- 4. Connect **gray** wire on the fan delay relay terminal #3 to terminal "X" on the transformer 24-volt load side.
- 5. Complete installation as outlined in "General" instructions on Page 1.

Air Handlers:

- 1. Locate **gray** wire connecting Blower Relay terminal #1 and transformer. Remove wire from transformer and attach to Fan Delay Relay terminal #3 (piggy back).
- 2. Locate **green** wire connecting Blower Relay terminal #3 and "G". Remove the wire from terminal #3 and attach to Fan Time Delay Relay terminal #5.
- 3. Attach **gray** wire on Fan Time Delay Relay terminal #3 to "C".
- 4. Attach **blue** wire on Fan Time Delay Relay terminal #1 to terminal #3 on the Blower Relay.
- 5. Attach red wire on Fan Time Delay Relay terminal #2 to "R".

6. Complete installation as outlined in "General" instructions on the front cover.



Figure 3. Wiring Diagram for Air Handler Applications.

Electric Furnaces:

- Locate wire connected to blower relay terminal #3. Remove from relay and attach the gray wire from the fan delay relay (with piggy back) to terminal #3 on relay. Reattach the wire just removed back to the relay via the piggy back on wire just attached.
- 2. Locate wire connected to blower relay terminal #1. Remove from blower relay and attach to fan delay relay terminal #5.
- 3. Attach **blue** wire from fan delay relay terminal #1 to terminal #1 on the blower relay where wire was removed in step #2.
- 4. Locate low voltage **red** wire at transformer. This wire will need to be cut in a convenient location and both sections stripped at cut. Then cut the terminal off and strip the end of the **red** wire on the fan delay relay. Twist the three wire ends together and secure with a wire nut.

5. Complete installation as outlined in "General Instructions" on page 1.



Figure 4. Wiring Diagram for E(1,2)EB Electric Furnace Applications.



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