

# INSTRUCTIONS

## Time Delay Relay Board Replacement model HD

### **WARNING**

1. Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death, and could cause exposure to substances which have been determined by various state agencies to cause cancer, birth defects, or other reproductive harm. Read the installation, operating, and maintenance instructions thoroughly before installing or servicing this equipment.
2. All units must be wired strictly in accordance with the wiring diagram furnished with the kit. Any wiring different from the wiring diagram could result in a hazard to persons and property.
3. All wiring must be done with a wiring material having a temperature rating of at least 105°C.

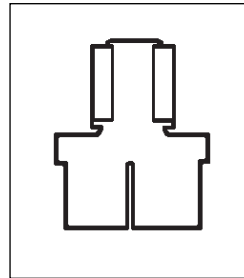
### **IMPORTANT**

The use of this manual is specifically intended for a qualified installation and service agency. All installation and service of these units must be performed by a qualified installation and service agency. Modine manuals may contain excerpts from component supplier literature adapted for Modine products. Any accompanying component supplier literature is for general information.

Perform the following to the unit.

1. Shut off the gas supply and electrical power to the unit.
2. Remove the Blue wires (approximately 6" long Blue wire with a ¼" Female wire connector at each end) from the "H" of terminals of the Time Delay Relay. Also remove the other ends of the blue wires attached to the Terminal Board. One wire is attached to the Com terminal and the other is attached to the "H" terminal. Discard of both blue wires.
3. Remove and **RETAIN** the Black wiring assembly (approximately 6" long Black wire with a ¼" Female wire connector at each end) that connects the "3" terminal from the time delay relay to "L1" of the transformer.
4. Remove the remaining wires from the terminal board (do not disconnect other end of wires). Remove and discard the 3 (three) terminal adapters (see fig 1.1).
5. Remove the sheet metal screws from the old terminal board. Retain 2 (two) of the screws and discard of the remaining screws as well as the old terminal board.
6. Remove the remaining wire from the time delay relay. Remove the sheet metal screws from the time delay relay. Discard the screws and time delay relay.

**Figure 1.1**  
**Terminal Adapter**



7. Discard all paper copies of the wiring diagram 5H75034-2 supplied with the unit and replace it with wiring diagram 5H78166 supplied with kit.
8. Remove the unit wiring diagram label (5H75033-2) from unit and replace with wiring diagram label 5H78165 from kit.
9. Attach the new time delay board (5H78126) to the unit using 2 of the screws retained from step 5. Note: two of the four holes in the new board will line up with existing holes.
10. Using the black wiring assembly retained in step 3 above, connect "XFMRL1" to terminal "TR1" on the new Time Delay board.
11. Connect white wire from COM transformer terminal to terminal board terminal XFMRL2.
12. Connect black wire from 120V transformer terminal to terminal board terminal XFMRL1.
13. Connect red wire from 24V transformer terminal to terminal board terminal 24 VAC.
14. Connect yellow wire from 24V transformer terminal to terminal board terminal COM.
15. Connect one black wire from motor to terminal board terminal TR2 and the other black motor wire to XFMRL2.
16. Connect black wire from 120V supply power to terminal board terminal XFMRL1.
17. Connect white wire from 120V supply power to terminal board terminal XFMRL2.
18. Plug in multi-wire connector (contains 2 black, 2 red, 1 blue and 1 orange wire) to terminal board.
19. Re-connect field wired thermostat wires to R and W.
20. Confirm that the unit is wired according to wiring diagram 5H78166 supplied with the kit.
21. Switch on the gas supply and electrical power to the unit.
22. Check the unit for proper operation.