

# Tube Heater Parts Instruction Sheet

## TP-36[N,P] Kit Replacement Instructions

### Models Affected: DTH(S), DTH(S)-2 40-100MBH

Verify that all parts listed under kit contents are present prior to beginning service on the unit. **NOTE:** Replaced/converted parts not returnable for a refund.

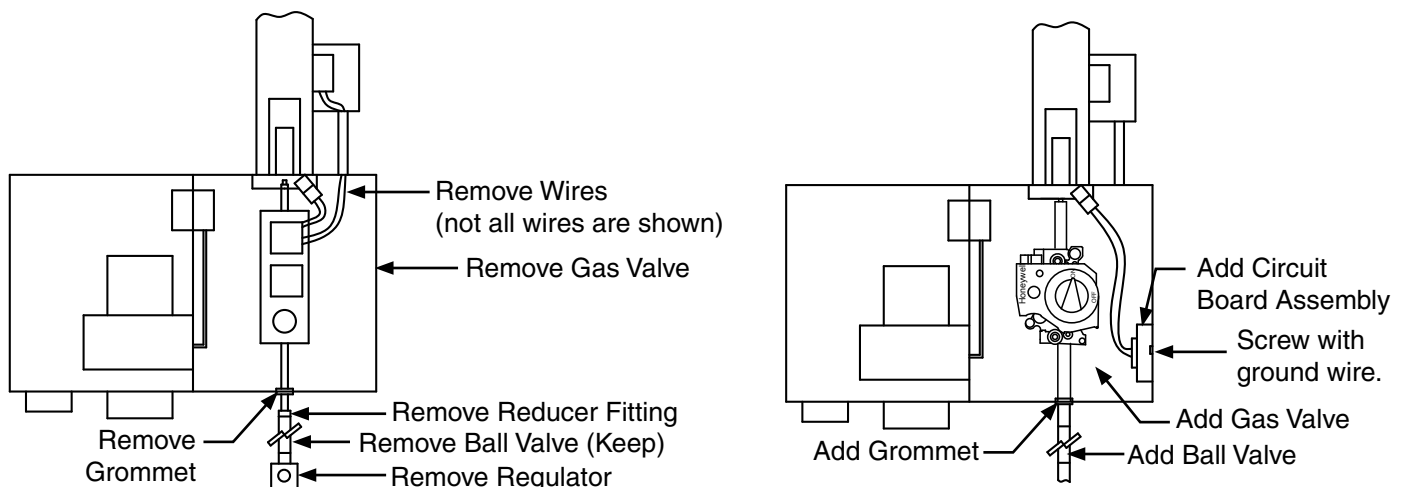
### Kit Contents:

- TP-78B - Wiring Harness.
- TP-78D - Circuit Board.
- TP-107 - VR-1324 Natural Gas Valve (TP-36N Kit).
- TP-107P - VR-1357 Propane Gas Valve (TP-36P Kit).
- TP-390 - Circuit Board Adapter.

### Installation Instructions

- 1 Open electrical circuit to heater and shut off gas supply to heater.
- 2 Remove external TP-33 or TP-33P regulator and ball valve originally supplied with the heater. Remove 3/8" reducer bushing from ball valve; set aside ball valve. **NOTE:** The external regulator (TP-33/TP-33P) must be removed when utilizing this kit.
- 3 Remove the control box cover. Remove the faulty TP-36 gas valve by removing the nut at the gas orifice and disconnecting the wires from the wire nuts (to the radiant sensor and the fan), pressure switch and igniter.
- 4 Disconnect the electrical wires from the radiant sensor. The external sensor will no longer be utilized for flame sensing; however, **DO NOT** remove the radiant sensor (TP-64) from the tube.
- 5 Install TP-78D (circuit board) by drilling a hole approximately 2" down from the top of the control box into the end panel adjacent to the valve. Snap on the TP-390 (adaptor) to the circuit board and connect the TP-78B (wiring harness). Mount the circuit board with the wiring harness towards the top of the control box and attach with the screw and nut provided. Attach grounding wire to this screw.
- 6 Connect the male glo-bar connector from the end of the wiring harness to the female glo-bar connector inside the box.
- 7 **IMPORTANT: Remove the gas orifice from the faulty valve and transfer to the new valve.** Install the new valve train assembly (TP-107) and the ball valve from the old train assembly. Place valve assembly into burner and secure with provided nut.
- 8 Wire the control box according to the wiring diagram found on the reverse side of this page.
- 9 Restore gas and electrical supply to the heater. Check to make sure all gas connections are tight and that there are no leaks.

Figure 1 • Component Replacement



### WARNING



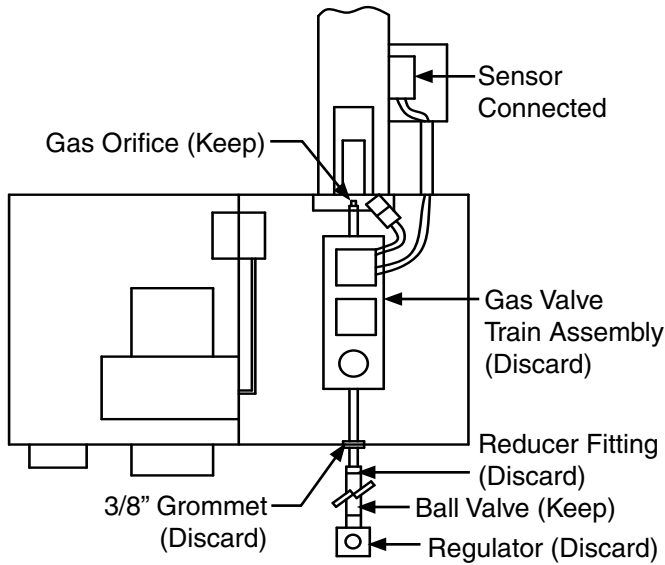
The following installation **MUST** be performed by a qualified service person. Improper installation, adjustment, service or maintenance can cause property damage, injury or death.

**IMPORTANT:** Affix conversion label next to the heater's rating label identifying the heater as a converted (-3) unit.

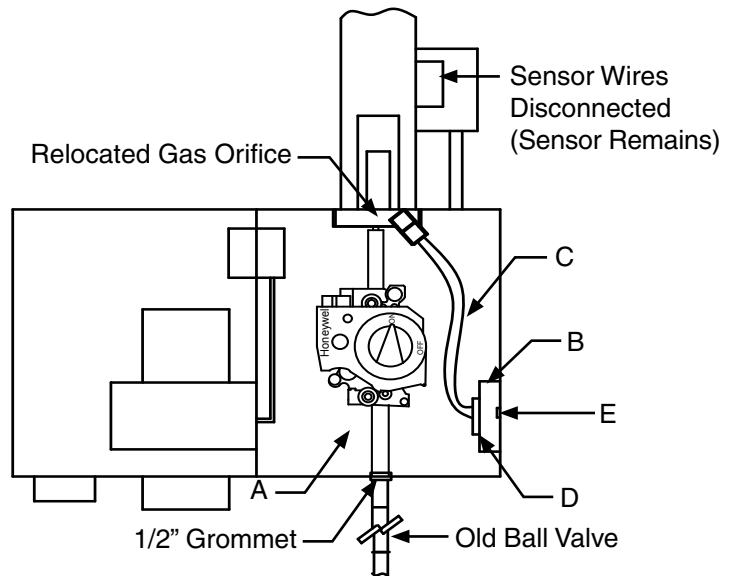
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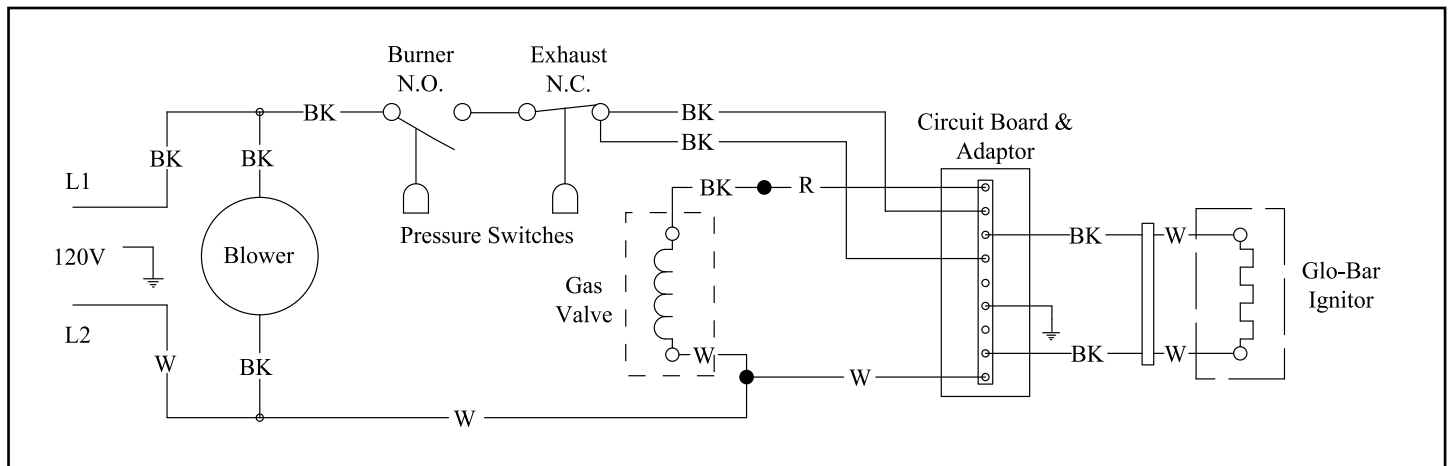
**Figure 2 • Burner Box BEFORE Conversion**



**Figure 3 • Burner Box AFTER Conversion**



**Figure 4 • Wiring Diagram**



**Figure 5 • Block Diagram**

