

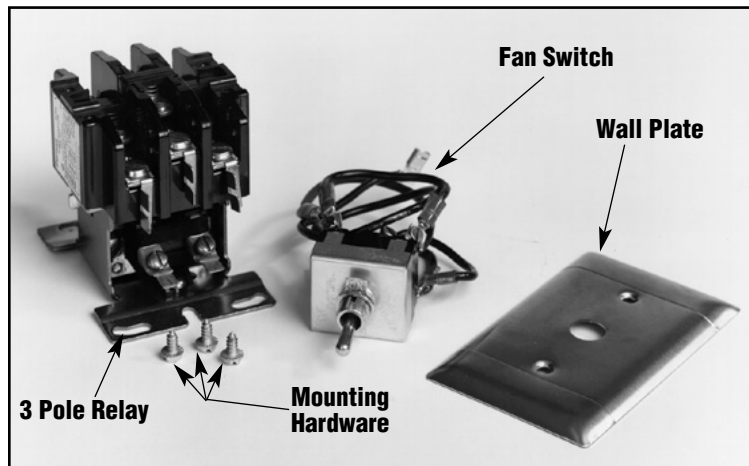
# Chromalox®

## Installation Instructions and RENEWAL PARTS IDENTIFICATION

### SERVICE REFERENCE

DIVISION 4	SECTION
SALES REFERENCE	PF206-1
161-305684-001	
DATE	MAY, 2007

## Summer Fan Switch Kit With Relay Model HVS-02 and HVS-03



### GENERAL

#### ⚠ WARNING

**ELECTRIC SHOCK HAZARD. Disconnect all power before installing or servicing fan switch. Failure to do so could result in personal injury or property damage. Fan switch must be installed by a qualified person in accordance with the National Electrical Code, NFPA 70.**

**IMPORTANT! This instruction bulletin does not apply to heaters which have fan delay options. For fan delay applications, contact Chromalox for specific wiring instructions.**

### INSTALLATION

#### FIGURE 1

1. The HVS-02 can be used on all 1 and 3 phase Chromalox HVH heaters rated 480V or less, having both a transformer and an integral contactor. The HVS-02 is for heaters with 24 volt control circuits. The HVS-03 is for heaters with 120 volt control circuits. Verify the control circuit voltage on the heater nameplate, and there is a contactor and transformer inside the terminal box.
2. If the fan only switch kit is to be installed in the heater, the center 1/2" K.O. located at the bottom of the heater needs to be removed using a chisel or similar tool.
3. If the fan only switch is to be remotely mounted, the switch enclosure, conduit and wiring is to be provided by others.

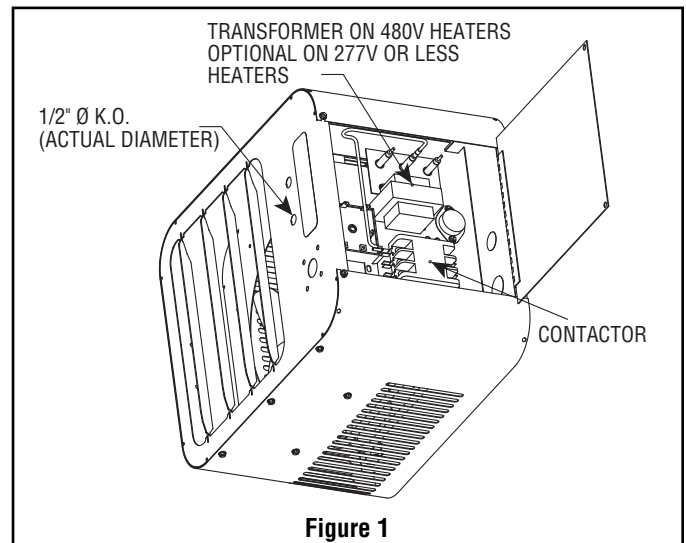
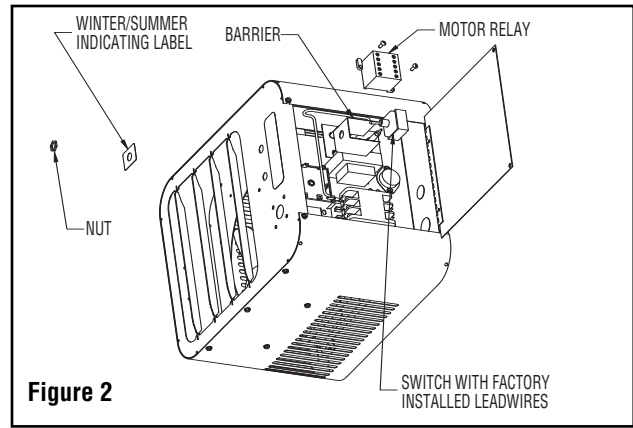


Figure 1

## INSTALLATION (cont'd.)

**FIGURE 2**

1. Remove back from the indicating label and place over the hole-made in step 1B on the previous page, the word "winter" needs to face towards the louvers.
2. Install the barrier over the threads of the switch and insert the 1/2" hole from inside the terminal box. Secure switch in place with the nut provided.
3. Wire switch into heater wiring (See Diagram 1).
4. Inspect wiring for loose connections and make sure it matches Diagram 1 after wiring.
5. Close cover and reattach screws.



## WIRING

1. The element wiring is not affected by addition of the fan only switch/ motor relay and therefore not shown. The after wiring diagram supplements the wiring diagram mounted on the inside of the terminal box cover.
2. Disconnect the red wire from the heater contact coil, cut off terminal and strip back insulation 3/8".
3. Disconnect wire from coil of heater contactor from "C3" post of control circuit terminal block.
4. Connect loose wire provided with kit to terminal "A2" of motor relay.
5. Using wire nut, connect the wires modified in steps 2, 3 and 4 together.
6. Connect the lead wire (12) from the fan switch assembly to the open connection on the heater contactor coil.
7. Connect lead wire (11) from the fan switch assembly to the empty "C3" post of the control circuit terminal block.
8. Connect lead wire (2) from the fan switch assembly to terminal "A1" on the motor relay.
9. Connect lead wire (1) from the fan switch assembly to "C1" post of the control circuit terminal block.

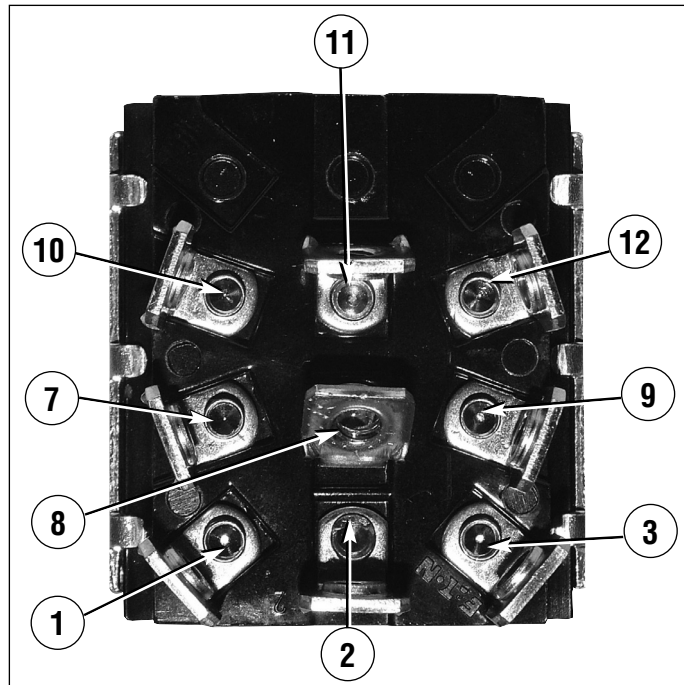
### Heaters with single phase motors:

10. Remove the black and white fan motor lead wires from the terminals T1 and T2 on the heater contactor and wire them to the motor relay terminals 2T1 and 4T2. Wire the two loose jumper wires (supplied) from the motor relay terminals 1L1 and 3L2 to contactor terminals L1 and L2.

### Heaters with three phase motors:

11. Remove the three motor wires from terminals T1, T2 and T3 of the heater contactor. Connect one wire to 2T1, one to 4T2 and one to 6T3 of the motor relay terminals. Wire the three loose jumper wires from 1L1, 3L2 and 5L3 of the motor relay to L1, L2 and L3 of the heater contactor. After completion of the fan only switch/

motor relay installation, when the fan circuit is first turned on, check the rotation of the fan blade to be sure the air is moving out the front of the heater. If the air is moving in the opposite direction, interchange the motor lead connections on the motor relay.



**Fan Switch Assembly**

## WIRING (cont'd.)

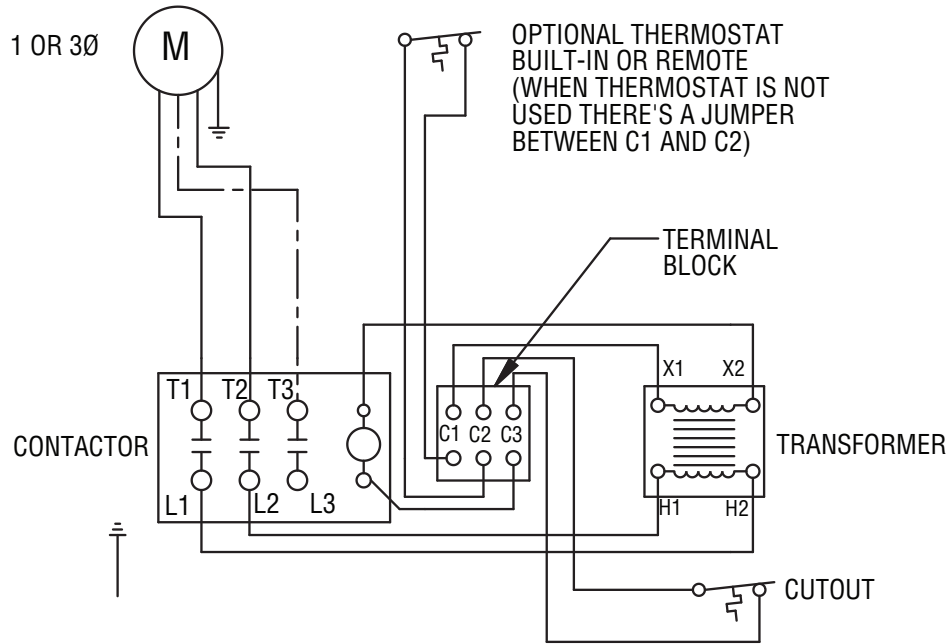


Diagram 1: Wiring before Fan Switch is added

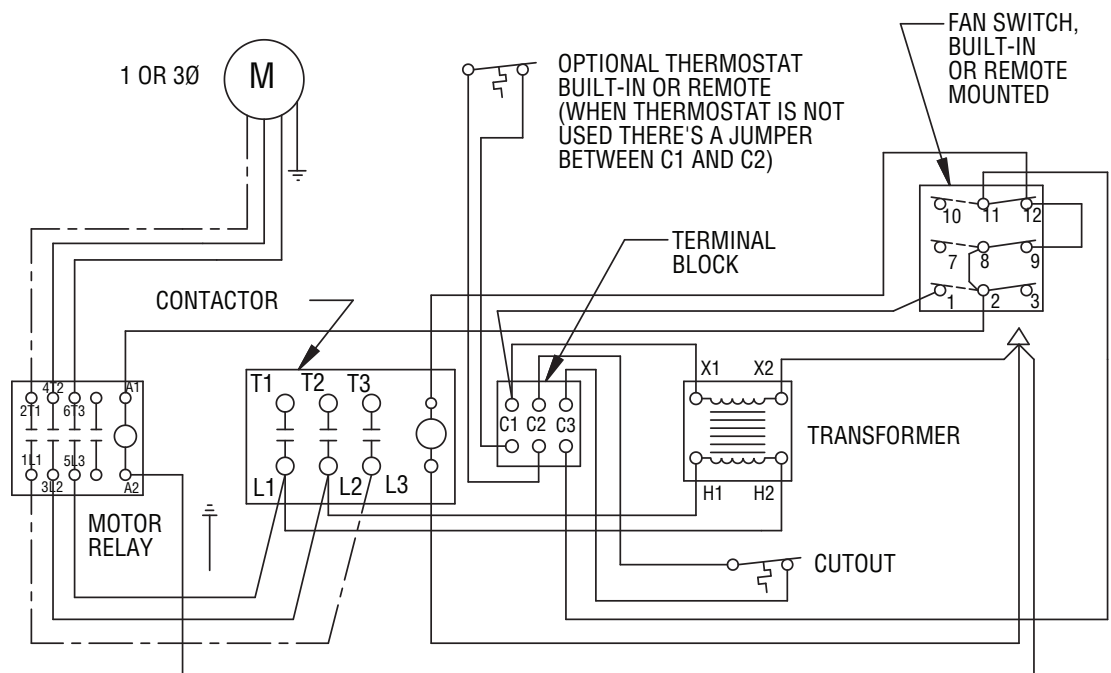


Diagram 2: Wiring after Fan Switch is added

**Limited Warranty:**  
Please refer to the Chromalox limited warranty applicable to this product at  
<http://www.chromalox.com/customer-service/policies/termsofsale.aspx>.

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