



Electronic HH-1089 Time Delay Reset Wiring Instructions

Use this page to install the HH-1089E as a replacement to the HH-1089 time delay reset switch in early model heaters. Refer to [Figure 1 on Page 2](#) of the electronic time delay to identify the connection terminals. Connect the wires according to the symbols used on [Figure 1 on Page 2](#) with the symbols in the wiring schematics for the heaters.

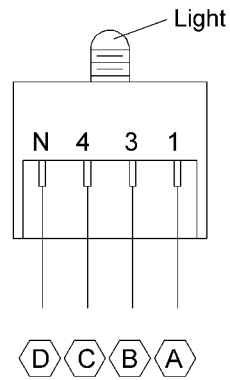
Installation

1. Remove old time delay reset from the control box.
2. Install new time delay into existing hole in heater control box and secure with the nut provided.
3. Connect wire lead from the solenoid circuit to terminal #1 on the time delay. (Symbol A)
4. Connect wire lead from the flame probe to terminal #3 on the time delay. (Symbol B)
5. Connect wire lead from the housing High-Limit to terminal #4 on the time delay. (Symbol C)
6. Connect one end of the supplied wire for the neutral circuit (white with black stripe) to the "N" terminal of the time delay. (Symbol D)
7. Connect the other end of the supplied wire for the neutral circuit to terminal #2 in the heater control. (Symbol D)

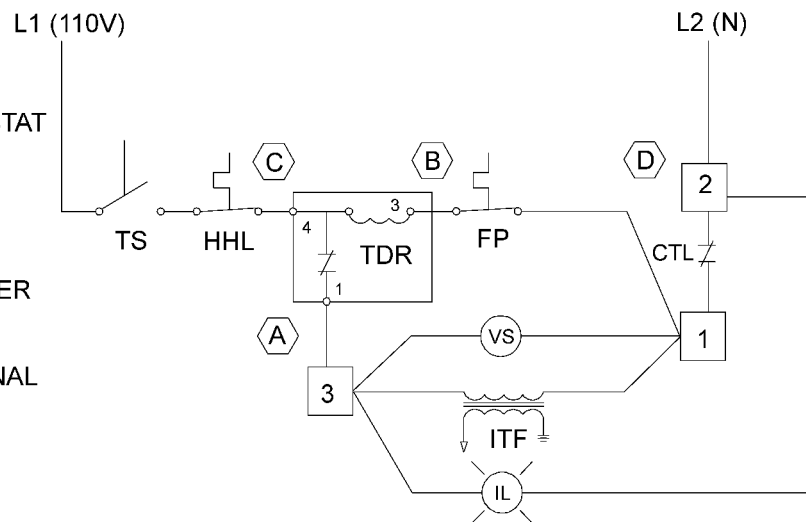
Refer to the operating section [on Page 5](#) of this instruction sheet for reference to the time delay operation.



Time delay terminal designations.



- FP FLAME PROBE
 CTL THERMOSTAT/HUMIDISTAT
 TDR TIME DELAY RESET
 IL INDICATOR LAMP
 TS TOGGLE SWITCH
 HHL HOUSING HIGH-LIMIT
 ITF IGNITION TRANSFORMER
 VS VAPOR SOLENOID
 3 TERMINAL STRIP TERMINAL



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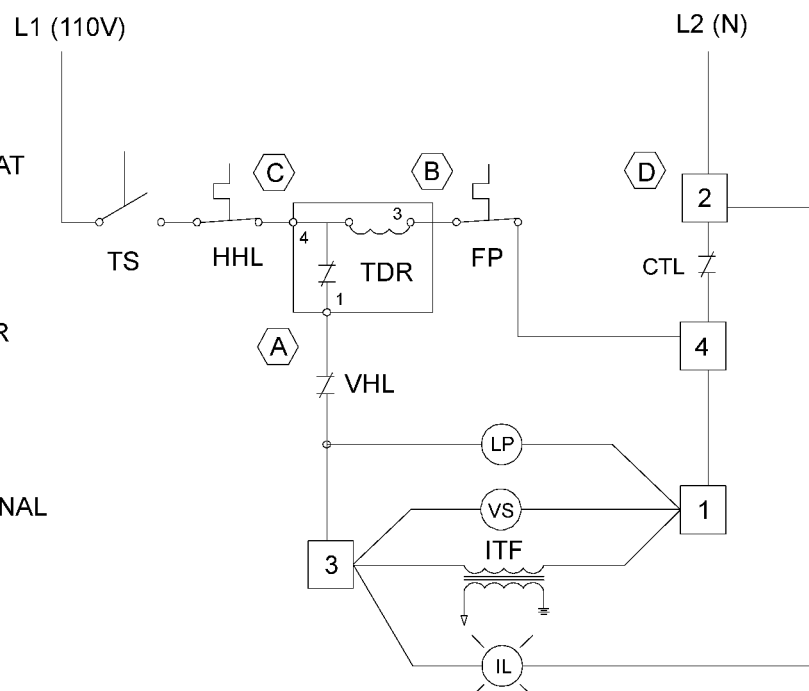


Figure 1

Electronic HH-1089 Time Delay Reset Wiring Instructions for Heaters with HF-7356 Terminal Strip

Use [Figure 2 on Page 4](#) to install the HH-1089E as a replacement to the HH-1089 time delay reset switch on heaters that have the flame checking terminal strip.

Installation

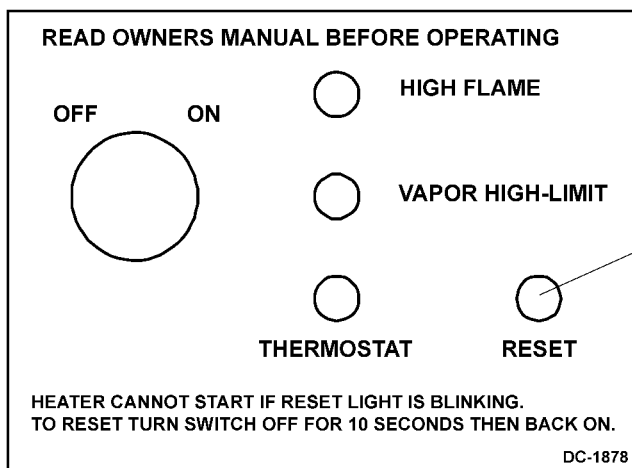
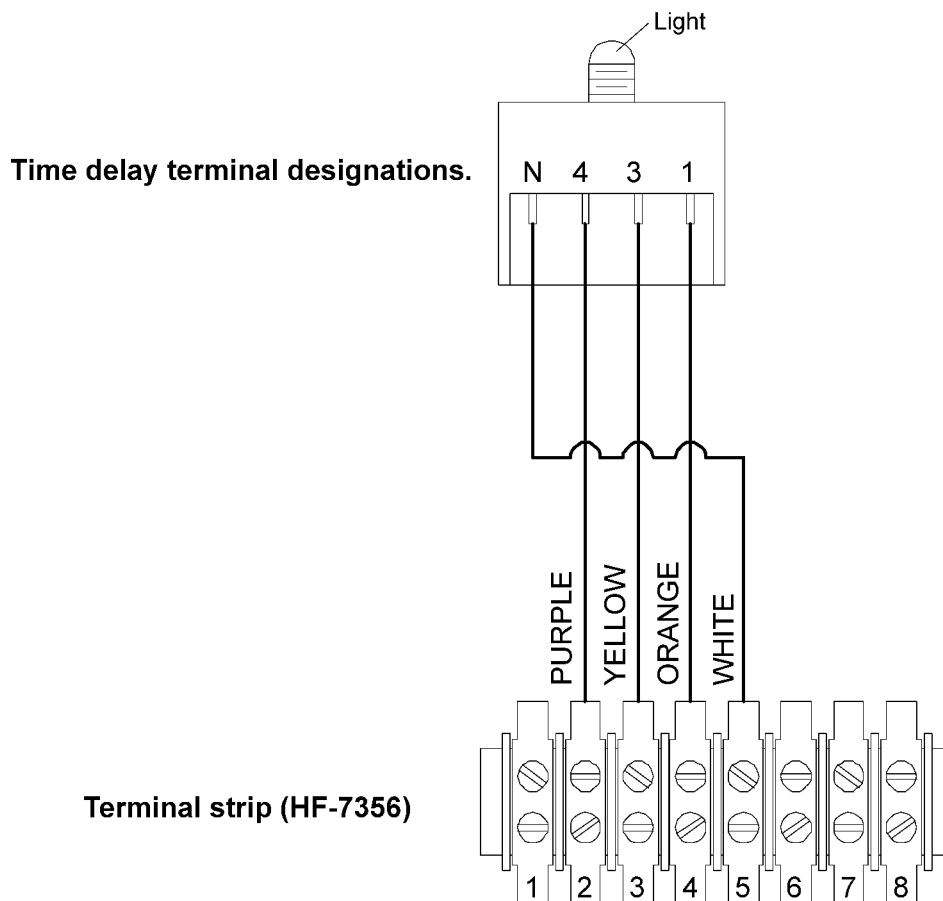
Chitown and Standard Controls with Metal Control Box

1. Remove old time delay reset from the control box.
2. Install new time delay into existing hole in heater control box and secure with the nut provided.
3. Connect the PURPLE wire from terminal #2 on the heater terminal strip to terminal #4 on the time delay.
4. Connect the YELLOW wire from terminal #3 on the heater terminal strip to terminal #3 on the time delay.
5. Connect the ORANGE wire from terminal #4 on the heater terminal strip to terminal #1 on the time delay.
6. Connect one end of the supplied wire for the neutral circuit (white with black stripe) to the "N" terminal of the time delay.
7. Connect the other end of the supplied wire for the neutral circuit to terminal #5 on the heater terminal strip.

Standard Heaters with Plastic Control Box

Follow the steps [above](#) and these additional instructions for heaters with plastic control boxes.

8. Remove the lights and control power switch from the control box front panel.
9. Remove existing control box decal (DC-1696) and clean the surface of the control box where the decal was removed.
10. Install the new control decal (DC-1878) onto the control box. Use the holes and box edges as a guide for decal alignment.
11. Drill a 3/8" diameter hole for the reset at the location indicated on the [Figure 2 on Page 4](#).
12. Install new time delay in this hole and secure with the nut provided.
13. Re-install the lights and power switch to the appropriate holes labeled on the decal.



DC-1878 Control panel decal.

Drill a 3/8" diameter hole in this location for the new time delay.

Figure 2

HH-1089E Time Delay Reset Operation

The electronic time delay will indicate the operating condition of the heater through the LED light shown on [Figure 3](#). This light should be on the exterior control panel of the heater when the unit is installed correctly. This light is very helpful in identifying the status of the flame probe (open or closed) and will indicate a lock out condition.

Start-up

The light should be ON when the ON/OFF switch is set to ON. This indicates that the heater has power and the flame probe is closed. The gas solenoid should open and ignitor should spark. The light will remain on until the flame probe opens. The light should go OFF if flame is established within the 30 second trial for ignition.

If flame is not present or the probe does not open, the light will blink continuously after the 30 second time period. It will blink continuously until the heater is reset.

Turn power OFF for 10 second to reset a lock out condition. The light will stop blinking after the 10 second time period. The heater cannot be restarted if the light is blinking continuously.

Thermostat Cycle

The heater thermostat will cycle the gas solenoid OFF when temperature is reached. The flame probe should cool to a closed condition when this occurs. The thermostat will also cool to a closed condition with a drop in plenum temperature. The thermostat closure is a call for heat and the normal start-up for the time delay begins again.

A condition can occur where the thermostat can call for heat before the flame probe cools to a closed condition. The light on the time delay will flash once at thermostat closure and remain off until the flame probe closes again. The heater will not operate until this “closed” condition of both switches is achieved.

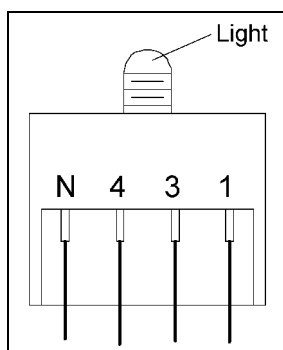


Figure 3 Flame Probe Light on Time Delay

Light Status	Indication
ON	Flame probe is closed. Time delay in 30 second trial for ignition period.
OFF	Normal operation with flame present. Flame probe open. Thermostat closed. Normal operation with no flame present. Flame probe open. Thermostat open.
BLINKING	Lock out: Flame probe closed after 30 second. To reset: Turn power OFF. Wait 10 second. Turn power ON.