"Infinite" Heat Switch for Open Loop Temperature Control

The Infinite Heat Switch is a unique control designed to modulate power to the resistive load without feedback, open loop style. Rotating the dial clockwise increases the modulated/cycle power delivered to the load.

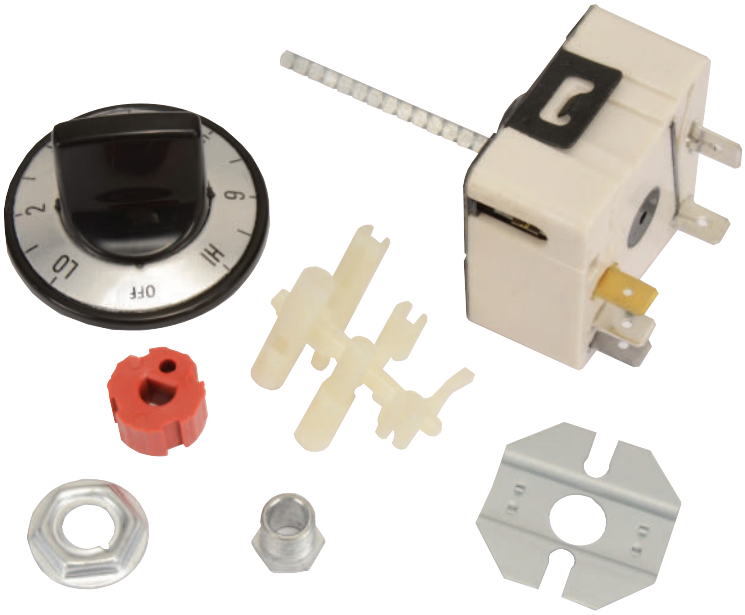
The control contains a heat sensitive bimetal switch which regulates the running cycles. The bimetal blade has a resistance wire heater wrapped around it which is connected in parallel with the heater load being controlled and is cycled in unison with the heater load. A second bimetal is used as an ambient temperature compensator to neutralize the effect of the surrounding temperature.

Rotate the dial to an ON position and the contacts close for the load and resistance wire. The resistance wire heats up, causing the bimetal blade to flex, opening the contacts. The bimetal blade cools off, the contacts close and the cycle repeats.

The dial position determines the on to off cycle rate.

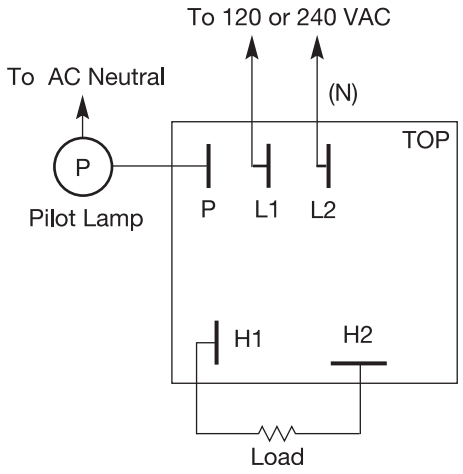
An optional pilot lamp terminal is connected in parallel to the heater load circuit to indicate when power is connected to the heater load.

The controls are position sensitive. The top is clearly marked on the back of the housing.



Typical Applications

- *Cooking Appliances*
- *Hot Plates/Platens*
- *Space Heaters*
- *Glue Pots*
- *Simple Ovens*
- *Electric Grills*



Specifications

Electrical Rating: 15 Amps, Resistive
Voltage: 120 or 240 VAC, ±10%
Maximum Ambient Temperature: 257°F/ 125°C
Three Indexing Positions: Off
Low: 5%
High: 100%
Duty Cycle: Nominal 15-20 seconds
Shaft: 1.812 long, square with break off grooves
Rotation: Clock, full 360°
Mounting: Hardware included for screw or bushing mount
Knob: Black with white markings: HI-OFF-LOW, 2-6
Kit includes adapters for use with other knobs
Terminals: 1/4" male spade quick disconnects (5)
Dimensions: 1.75" x 1.75" x 1.45" thick + shaft length
Agency Approval: UL

Optional Pilot Lamp Wiring (not included):
For 120V application with 120V lamp, connect to P and L2.
For 240V application with 120V lamp, connect to P and ground.
For 240V application with 240V lamp, connect to P and L2.

Part Number: 120V HSC10001
240V HSC10002

Includes: control unit, knob, break off shaft, mounting and knob hardware.