

KANE

Manufacturing Company Inc.

1101 NE 56th Street
Pleasant Hill, Ia. 50327
515.262.3001

HMT-350 Thermostat Operation Instructions

READ BEFORE INSTALLATION

Overview

The HMT-350 Electronic Temperature Controller is a thermostatic control device designed for safe and effective heat mat surface temperature management.

The control allows users to select and maintain the ideal temperature for various species of Animals/Pets.

This state of art controller will maintain any pre-selected temperature between 40°F and 105°F.

This controller incorporates several unique self-activated safety mechanisms.

One unique safety mechanism is our high limit setting that self-activates and is relative to the set point of 105°F.



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General Operation:

The HMT-350 is equipped with a potentiometer to adjust a required set point temperature from 40°F to 105°F and an output relay that controls the heat source.

- The **GREEN** LED indicates/reports two scenarios related to power and thermostat sensor status activity between the mat and the control.
 1. A **SOLID** green light indicates there is power to the thermostat.
 2. A **FLASHING** green light indicates an alarm situation.
In the case of an Alarm condition, the controller switches off the power to the mat immediately.

Alarm conditions are:

- Temperature sensor makes a short circuit or
- Temperature sensor has an "open" connection with the controller input.
- The **RED** LED indicates/reports when the heat source is turning off and on.
 1. A **SOLID RED** light indicates there is power allowed to the mat.
 2. When the **RED** light is **NOT ON** there is no power to the mat.
- The switch differential is fixed at 2°F below the temperature set point.
Example: Set point is 90°F.
When the measured temperature reaches 90°F, the controller turns OFF the power to the mat. When the mat temperature drops below 88°F the controller turns ON the power to the mat raising the measured temperature to 90°F and repeats this cycle continually.
- A fuse (4 Amps) inside the controller protects the controller electronics and heat elements from overloads.
- **NOTE:** User should take into consideration that on a large mat, the surface temperatures, in areas where the sensor is not present, may not read the same as the surface where the sensor is placed due to standstill air gap between the element and the enclosure which has an influence on the thermal conductivity. It is not unreasonable to see 4°- 6° difference between various areas on a large mat compared to the spot the sensor is located.

Warnings:



**There are dangerously high voltages inside the control unit.
The user should never open the apparatus!**

**The apparatus main supply is for 120Vac 60 Hz
single phase only.**