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## **TD-30 Thermostat Operation Instructions**

### **READ BEFORE INSTALLATION**

#### **OVERVIEW**

The TD-30 Thermostat Control is a thermostatic control device designed for safe and effective heat mat surface temperature management.

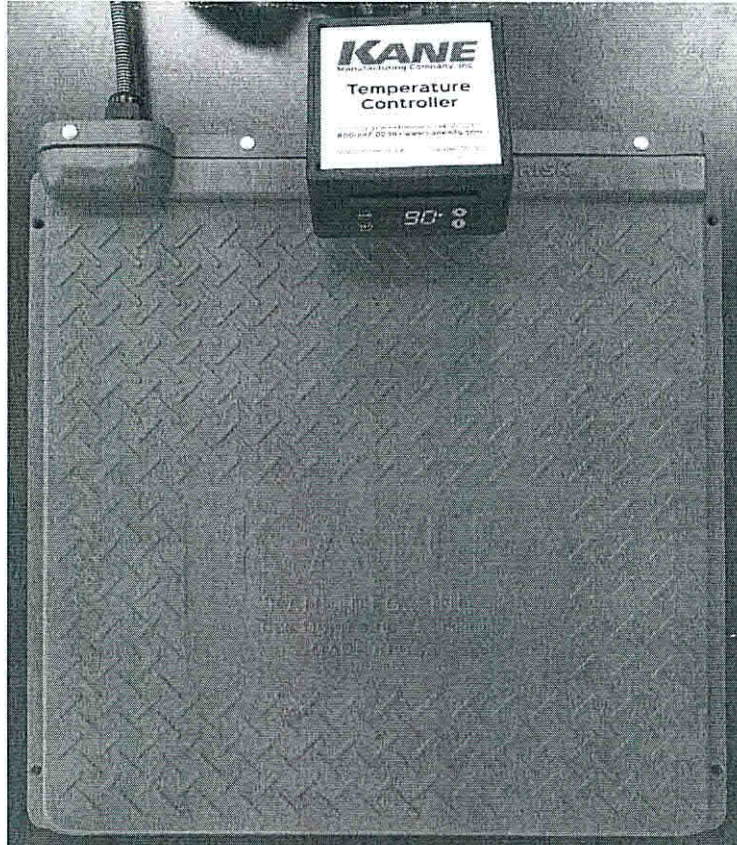
The control allows users to select and maintain the ideal temperature for various species of Animals/Pets/Reptiles.



This state of art controller will maintain any pre-selected temperature up to 110°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. Standard features include capacitive touch buttons, Modbus® communication and temperature alarms with internal buzzer.



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## PROGRAMMING

Note: Set point is the only parameter accessible.

Set Point (maximum temperature the heat mat will reach)

- Press SET. SP will appear on the display.
- Press SET again. The set point value is shown on the display and can be modified with the UP and DOWN arrows.
- Press SET to confirm any new values.
- Press SET and DOWN simultaneously to quit programming or wait one minute for the display to automatically exit programming mode.

NOTE: The heat mat's temperature runs 37° above the ambient temperature of the location it is installed.

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.

## LED INDICATION AND DISPLAY MESSAGES



Indicates if the load is connected. If continuous cool cycle is being performed, this LED flashes (90% ON, 10% OFF). If the unit is waiting the stopping time value stored in c0 to start a cool cycle the LED flashes (10% ON, 90% OFF).



Indicates an active alarm. The LED will flash if the alarm is cleared, but the alarm condition persists.

If an alarm or error occurs, the following messages will be shown and an internal buzzer will sound.

ALH	High temperature alarm
ALL	Low temperature alarm
Er	Memory error
Oo	Open probe error
-	Short circuit probe error

The alarm can be cleared and buzzer silenced by pressing the DOWN button. The alarm message will not be shown, but the alarm LED will flash while the alarm condition persists.

## CLEANING & REPAIR

Clean the surface of the display control with a soft, damp cloth. Never use abrasive detergents, petrol, alcohol or solvents.

**NOTE:** 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.



## 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.**

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# ATTENTION IMPORTANT

## GENERAL USE GUIDELINES

- Read all instructions as provided with original packaging.
- Inspect the power cord before using.
- Caution: Use Indoors; Attention: Employer Uniquement A L'interieur
- Do Not Immerse; Ne Pas Immerger
- Protect the power cord from all animals and reptiles.

## OPERATING INSTRUCTIONS FOR ALL PET HEAT MAT USERS

Kane Pet Heat Mats operate at a constant wattage. The level of heat is affected by outside environmental conditions. The mat's temperature is set to operate ideally in outdoor weather between 40 degrees and -10 degrees F and **runs 37 degrees above the ambient temperature of the location it is installed.** In warmer conditions a thermostat control must be used, which allows you to select the amount of warmth your pet needs.

### TESTING WARMTH

The heat mat may not feel warm to the touch. As the animal lies on the mat surface the body traps the heat thereby giving the animal the desired warming effect. The heating element takes some time to warm up. When the mat is chilled it may take several hours to reach maximum operating warmth. Be sure to test the mat where you intend to use it. Allow 15 to 20 minutes for the mat to heat; **FOR TESTING PURPOSES ONLY**, place a pillow or cushion over the mat for 20 minutes to simulate the animal's body lying on the mat. Then put your hand against the mat under the pillow or cushion to "feel the heat". **Be sure to remove the pillow or cushion to prevent damage to the heating unit or fire risk.**

### IN THE PET HOUSE

Place the mat so that the coiled spring portion of the electric power cord is at the back corner and can be secured with an optional cord protector such as a 1 1/2" diameter PVC pipe to protect the cord from the pet. **(PVC cord guard ships with the 48" mats only & does "not" include a spring guard on the power cord.)** Be sure your pet cannot reach the unprotected lead-in. Use only outdoor type weatherproof cable where it is exposed. Underground conduit is recommended. **Always allow approximately half the floor space in the pet-house or box for the animal to move off as well as on the mat.**

### FOR PUPPIES AND THE WHELPING BOX

The coiled spring lead-in cord should be securely fastened and covered where the puppies cannot injure themselves and the control should be outside the pen area. The mat should fit the space available for the pups only.

When using the whelping box a thermostat temperature control is of the utmost necessity. Remember pups are very tender and will sprawl flat on their tummies for the first two weeks. Too much heat can be as fatal as too little. You will probably select different control settings to balance day and night temperature variations. Always check the warmth of your mat because variables can affect the way it "feels" to your pups.

### ELECTRICAL REQUIREMENTS -

The heat mat operates on 60 cycles, 110-120 volt.  
See label on back of mat for electrical specifications.

### \*\*\*AFTER TESTING-

**DO NOT COVER YOUR MAT WITH ANYTHING EXCEPT KANE'S MAT COVERS. THIS COVER IS CONSTRUCTED OF A SPECIAL MATERIAL AND DOES NOT TRAP THE HEAT.**



### **\*\*WARNING FIRE RISK\*\***

- Do not cover this appliance with any foreign materials.
- This unit is a heat radiating appliance for animals.
- Do not have any foreign materials within a 10' radius of the heat mat installation area.
- To cover or alter this appliance voids all warranty and liability of Kane Manufacturing and all subsidiaries.

### **CLEANING AND HANDLING INSTRUCTIONS:**

Disconnect appliance from electrical power source before cleaning the heat mats. **DO NOT** pick-up heat mats by the electrical cord. This may cause damage to the power cord and heating element. **THE POWER CORD IS NOT A HANDLE.**

Kane heat mats may be safely high pressure washed, brushed, and disinfected. Do not immerse the mat in any type of liquid. Reconnect only when the plugs and heat mat are thoroughly dry.

## **Temperature Controls**

**Rheostat HMR-300**



**Thermostat HMT-350**



Thermostat temperature control must be installed on heat mats operating in an indoor installation when room temperature is above 40 degrees. The use of a thermostat temperature control eliminates possible mat overheating in areas where surrounding temperatures are above 40 degrees.

The rheostat adjusts the temperatures of the mat down to the desired amount of heat you feel the animal needs in the surrounding environment. When using rheostat turn dial clockwise to reduce temperature.

### **WARRANTY INFORMATION**

Kane warrants its heat mats and controls to be free of defects in material and workmanship under normal use for a period of ONE YEAR from the date of purchase. Power cords are not included in this warranty. Any heat mat or control determined by our inspection to be defective will be replaced or repaired without charge (at our option). Defective products shall be returned to the retailer from whom the product was purchased or shipped to the factory. **Prior authorization for returns must be obtained from Kane Manufacturing Company, Inc.** Your name, address and phone number must be included and clearly marked on the package of the product being returned for inspection. A copy of the original invoice, return authorization form and a brief description of the issue must be sent with the product. Kane Manufacturing Company, Inc. is not liable for loss or damage resulting from alteration, misuse or abuse of the product. Kane's heat mat warranty is limited to repair or replacement of the product.

Purchaser agrees to be responsible for all shipping charges under this warranty.



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