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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.

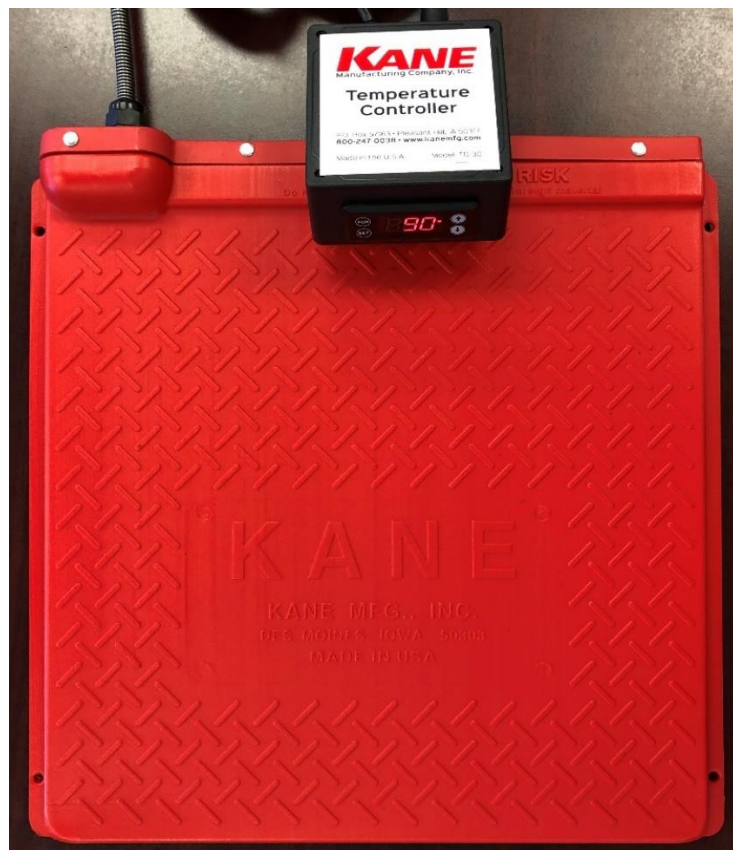
The control allows users to select and maintain the ideal temperature for various species of Animals/Pets/Reptiles.



This state of art controller will maintain any pre-selected temperature up to 150°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.

### Protected Parameters

- Press and hold SET for 8 seconds. The access code value 00 is shown on the display.
- Using the UP and DOWN arrows, enter the access code (factory-set code is 00).
- Press SET to enter the code. If correct, the first parameter label will be shown on the display (SP).
- Use the UP and DOWN arrows to move to desired parameter and SET to view parameter value.
- While viewing a parameter value, use the UP and DOWN arrows to modify parameter value. Use SET to enter value and exit parameter. Repeat until all necessary parameters are modified.
- Press SET and DOWN simultaneously to quit programming or wait one minute to automatically exit programming mode.

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 if defrosting is active. THIS FEATURE IS NOT USED.



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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