

Revision

4

THERMO TECHNOLOGIES

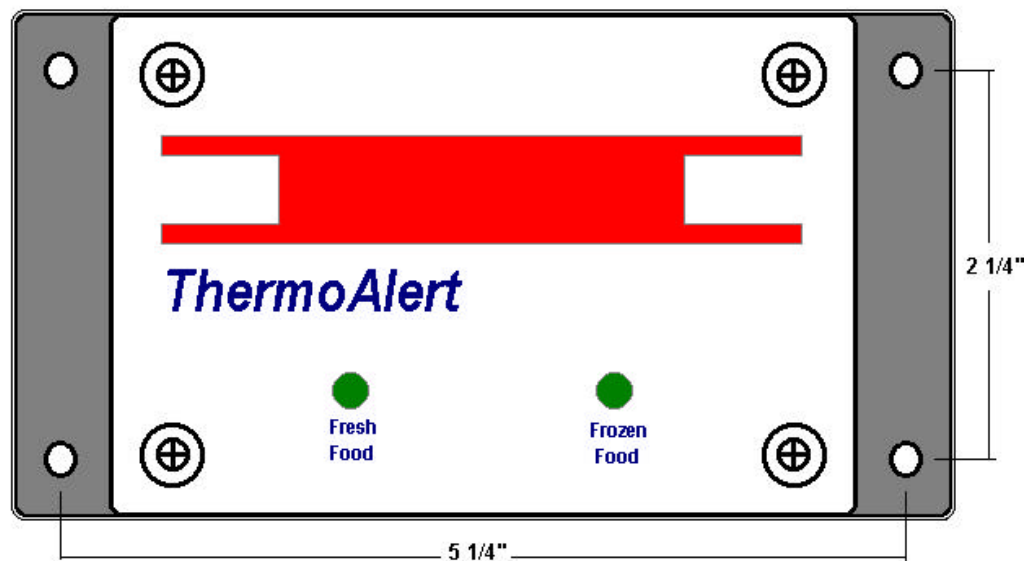
Thermo Alarm

**Installation and
User's Guide**

INSTALLATION

Installing the Base

Locate a visible 4" x 5" space outside the food container to mount the ThermoAlert base unit. Make sure that the area does not limit access to the maintenance panels. Mount the base unit with 1/8" bolts with plain and spring washers using the diagram below as a guide.



Installing Sensors

Drill a 1/2" hole through the container wall next to the based unit. Push sensors carefully through the hole one at a time. Fasten one of the sensors near the top and the other one near the bottom of the container. Sensors are identical and are both calibrated for the same temperature range. Fill the hole with a water resistance silicon paste.

Wiring the Unit

Locate the main power switch of refrigeration unit. Locate positive and negative poles of the switch. Make sure that you have power in these poles even if the safety switch turns off the main power. You may need to replace the main switch with a DPDT (Double-Pole, Double-Throw) switch. Connect the red wire of ThermoAlarm's power cable to the positive and the black wire to the negative pole of the

switch. The large amber LED will blink if the power is connected correctly and the temperature of monitored room is outside the range. A small green light comes on showing operation mode of the unit.

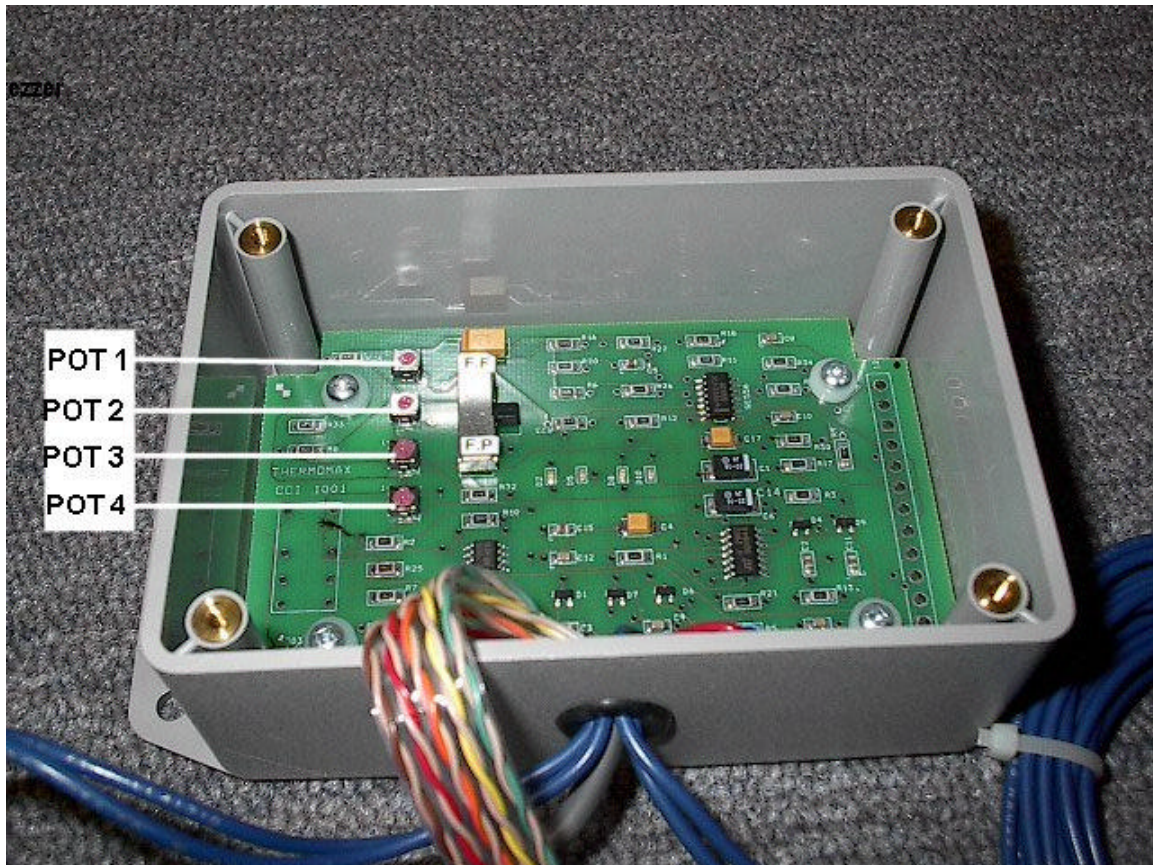
Wiring the Alarm

While the large amber LED blinks, the internal relay is on (Black and White wires). This contact is dry and potential free. It is designed to give a signal to alarm devices such as auto-dialer or a Piezo Siren/Alarm.

Calibrations

ThermoAlarm is delivered in Fresh Produce Mode and calibrated at the factory as follows:

- Frozen Food –20 F to +10 F
- Fresh Food +33 F to +45 F



Exact temperature reading depends on sensor location. It is recommended to calibrate desired temperature range to match refrigeration calibration scale. Following procedure allows qualified personnel to adjust the unit's calibration. There are two adjustments for each mode (Fresh/Frozen). One is for high temperature alarm and the other one is for low temperature alarm. Both sensors are identical with 1% accuracy.

After opening the cover, you will see four adjustable pots as shown in the above photo. Pot 1 and 4 are adjusting frozen food ranges while 2 and 3 are responsible for fresh food calibration. Furthermore, pot 1 and 2 are for low limit while 3 and 4 setting the high limit. These pots are set at the factory for following temperatures:

- Frozen Food Mode - Pot 1 setting for low limit is -20 F, Pot 4 setting for high limit is +10 F
- Fresh Food Mode - Pot 2 setting for low limit is + 33 F, Pot 3 setting for high limit is +45 F

Temperature of ThermoAlarm in fresh food mode ranges from + 26 F to + 68 F and in frozen food mode from + 26 F to - 20 F. Qualified operators should follow the following steps to change (calibrate) the factory settings for fresh food (for example + 30 F to + 50 F):

1. Make sure that sensors mounted in desired locations.
2. Turn Pot 2 counter clockwise and Pot 3 clockwise all the way. The amber LED light flashes if container temperature is more than + 68 F or less than + 26 F.
3. Wait until the chamber reaches and settles at the desired high temperature of + 50 F.
4. Gradually turn Pot 3 counter clock wise until the amber LED flashes, let the system cool down more. The LED should be off after a while.
5. Monitor the temperature fall until it settles at the desired low point.
6. Now turn Pot 2 clockwise until LED flashes again.

AFTER INITIAL INSTALLATION AND RANGE CHANGES, MAKE SURE TO TEST THAT THE SYSTEM WORKS CORRECTLY IN THE DESIRED RANGE!