Heat/Cool Model 26003

Automated Cooking and Cool Down Thermometer

Thank you for purchasing the **DeltaTrak Heat/Cool Automated Cooking and Cool Down Thermometer** with auto calibration. The thermometer has been designed to help eliminate the problems associated with food borne illnesses due to improper cooling of prepared foods as determined by the FDA Food Code 3-501.14 (A,B). Additionally, this versatile thermometer monitors temperatures in the range of 32°F to 338°F (0°C to 170°C) providing usability in both the heating and cooling cycles of most applications.

Key Features

Alarm Set Temperature

Time Counter

Current Temperature

Bottom View

Battery Compartment

Back View

Temperature Probe Connector

Side View

Calibration Button

Keyboard Description

HEAT/COOL button selects the mode of operation.

On/Off button turns the unit on and halts the operation and turns the unit off.

TIMER/MODE button selects the 'Count up' or 'Count down' mode (used in Heat Mode only).

Alarm Set button:

a) the up arrow increases the set point
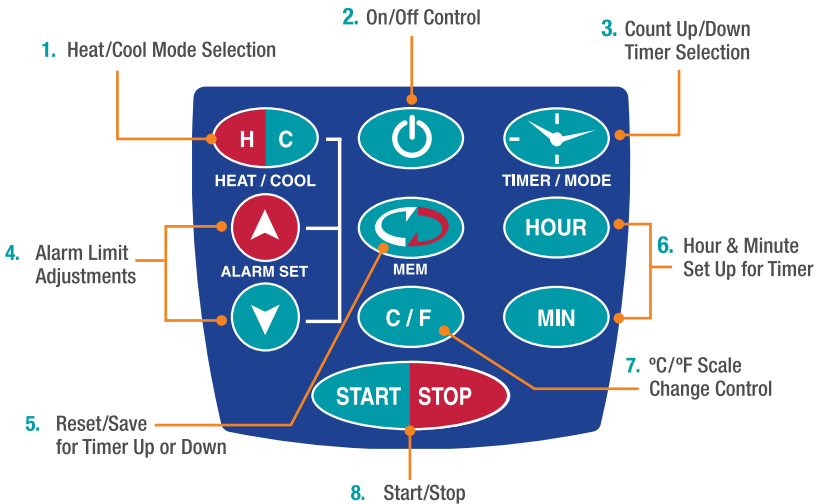
b) the down arrow decreases the set point.

MEM button sets the Timer to the last set value

HOUR and **MIN** buttons set the Timer hours and minute respectively.

C/F button selects temperature scale.

START/STOP button:

a) starts and stops the Timer;

b) starts and stops the Heat and Cool modes; and

c) after an alarm has sounded will turn the alarm off.

1. Heat/Cool Mode Selection

2. On/Off Control

3. Count Up/Down Timer Selection

4. Alarm Limit Adjustments

5. Reset/Save for Timer Up or Down

6. Hour & Minute Set Up for Timer

7. ºC/ºF Scale Change Control

8. Start/Stop

H C
HEAT / COOL

TIMER / MODE

ALARM SET   MEM

HOUR

C / F   MIN

START STOP

NOTE: The Timer LCD screen will display a maximum time of 23 hours and 59 minutes (23:59).

Heat Mode Operation

Press the **HEAT/COOL** button to toggle into the 'HEAT' mode.
a) "HEAT" will be displayed in the lower left box of the LCD screen and the last alarm setting will appear on the screen.
To change the alarm temperature limits,
a) Press the **ALARM SET** ▲ or ▼ arrow to the desired **ALARM SET** temperature.
b) Holding the **ALARM SET** ▲ or ▼ arrow for 2 seconds will rapidly advance the temperature readings.
The **ALARM SET** temperature is saved even if the unit is powered off.
When the unit is powered on the last alarm setting will show on the LCD.
Insert the probe into food for monitoring internal temperature. Do not place the base unit inside an oven or environments above 122F (50C)
Press **START/STOP** to start the Heat Mode.
When the probe temperature reaches the **ALARM SET** point,
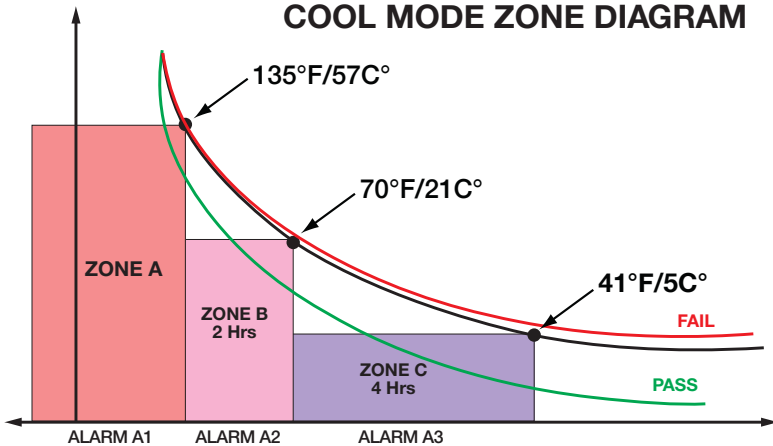**a)** the alarm beeps and the Timer stops counting up,
b) the LCD screen flashes 'PASS', and
c) the alarm continues to sound until **STOP/START** is pressed

Cool Mode Operation

The thermometer provides full automation for monitoring time and temperature during cool down periods. Cooked food must be cooled down from the cooked

COOL MODE ZONE DIAGRAM

135°F/57C°

70°F/21C°

41°F/5C°

ZONE A

ZONE B
2 Hrs

ZONE C
4 Hrs

FAIL

PASS

ALARM A1   ALARM A2   ALARM A3

temperature to 70° F(21°C) within 2 hours and then from 70°F to 41°F(21°C to 5°C) within four hours to ensure safety. This model's unique, programmable three-zone cool down feature conforms to FDA Food Code 3-501.14 (A,B).

1. Press the **HEAT/COOL** button to toggle into the 'COOL' mode. "COOL" will be displayed in lower left box on the LCD.

2. Press the **ALARM SET** Up/Down arrows to cycle through the three alarm zone settings (A1, A2, A3). Default settings are based on FDA Food Code 3-501.14 (A, B).

3. Changing the alarm zone settings:
   a) Press the **ALARM SET** Up/Down arrows to select the desired cool mode zone, A1, A2, or A3.
   b) To change alarm temperature setting: Press and Hold the ▲ until the Alarm Temp starts to change and flash. Temperature change mode is now active.
   c) Press ▲ or ▼ arrows to select the desired alarm temperature set point.
   d) When the desired temperature is reached, press **MEM** button to save it into the thermometer memory
   e) Press **START/STOP** button to exit the change temperature mode.
   f) Repeat steps a. through e. to make changes to other alarm zones.

4. Insert the probe into hot food for monitoring in Cool Mode. The starting temperature before activating Cool Mode sequence must be above the alarm limit set for A1 alarm zone, e.g. If default setting is used, the probe must read temperature above 135°F (57°C).

5. Press **START/STOP** to begin the Cool Mode sequence
   a) Alarm Temp will display the A1 setting (135°F/57°C)
   b) 2:00 hour counter will flash in the Timer window on the LCD but will NOT start counting down as long as the temperature is above the Alarm Temp set point.
   c) ERR 3 will be displayed if the probe reading is below the Alarm Temp set point, Cool Mode will not continue.

6. When the temperature reaches the first Alarm Temp set point (A1) for Zone A (135°F/57°C default setting), the thermometer will automatically continue

to Zone B. The Timer will start to count down 2 hours and the Alarm Temp changes to A2 setting (70°F/21°C default)

7. Passing Zone B before the 2 hour Timer elapses

When the temperature reaches the Alarm Temp for Zone B (70°F/21°C default) before the Timer counts down to zero, the thermometer will automatically enter Zone C and begin the next stage of Cool Mode.

a) Timer on the LCD resets and starts a 4 hour count down

b) Alarm Temp resets to A3 set point (41°F/5°C default)

8. Failing Zone B when the 2 hour Timer elapses:

If the Timer counts down to zero before the Zone B Alarm Temp is reached (70°F/21°C default):

a) LCD will flash 'FAIL' and the Timer will start counting UP from 2 hours to track the amount of time above the A2 Alarm Temp set point (70°F/21°C - default).

b) The alarm will sound an audible beep.

c) When the temperature reaches the Zone B set point (70°F/21°C - default), the Timer will stop counting up, the elapsed time will be saved, the LCD will display FAIL, the unit will NOT enter into Zone C and Auto Cool Mode is completed.

9. Passing Zone C before the 4 hour Timer elapses

When the temperature reaches the Alarm Temp set point for Zone C (41°F/5°C - default) before the Timer counts down to zero, the LCD will display PASS. Auto Cool Mode is completed.

10. Failing Zone C when the 4 hour Timer elapses:

If the Timer counts down to zero before the temperature reaches the Alarm Temp set point for Zone C (41°F/5°C - default),

a) LCD will flash 'FAIL' and the Timer will start counting UP from 4 hours to record the amount of time above the A3 Alarm Temp set point (41°F/5°C - default).

b) The alarm will sound an audible beep

c) When temperature reaches the Zone C set point (41°F/5°C - default), the Timer will stop counting up, the elapsed time will be saved and the LCD will display FAIL.

Timer Operation

Press the **HEAT/COOL** button and select the "HEAT" mode.

Press the **TIMER/MODE** button to select either the count-up or count-down Timer. The selected Timer mode will be indicated with an up or down arrow displayed in the top left side of the Timer window on the LCD.

Set the desired alarm temperature.

Count Up Mode

In the count-up mode the Timer will display 00:00 on the LCD, indicating the thermometer is ready to start counting up time elapsed.

Press the **START** button to begin the count-up Timer function.

When the set temperature is reached:

6a) Alarm beeps

6b) Timer stops counting up

6c) the LCD displays 'PASS.'

If the temperature should fall below the Alarm Temp, the Timer will continue counting up. Each time the temperature goes above the Alarm Temp the Timer stops counting up and flashes.

Press **START/STOP** to cancel the Timer function

Count Down Mode

In the count-down mode, the last set time value used will show in the Timer window of the LCD (10 minutes is default value), and last set Alarm Temp is displayed

Press the **HOUR** button to change the number of count-down hours and/or press the **MIN** button to change the number of count-down minutes. Holding either the **HOUR** or the **MIN** button for 2 seconds will rapidly advance the time settings.

Press the **START/STOP** button to start the count-down Timer function.

If the set temperature is NOT reached when the Timer counts down to 00:00 the alarm beeps and LCD displays 'FAIL', the Timer starts to count up.

When the set temperature IS reached before the Timer counts down to 00:00, the Timer stops counting down, the LCD displays 'PASS' and displays the amount of time remaining.

The user can not change the Timer setting while the Timer is running.

The Timer can be stopped at any point by pressing the **START/STOP** button.

Alarm Operation

The alarm sound can be stopped by pressing **START/STOP** button.
If the alarm is activated by the temperature probe, the measured temperature value will be shown flashing on the LCD. The temperature will continue to be measured and displayed, and the alarm will beep once every 30 seconds until stopped by the user.

Time Alarm

In the count-down mode, when the Timer reaches 00:00 the alarm will beep and the Timer display will blink. Pressing the **START/STOP** button will stop the count-down Timer and the alarm.

Temperature Alarm

Temperature alarms occur in both HEAT and COOL cycles.

When the measured temperature reaches one of the set points the alarm will beep and continue once every 30 seconds until the operator presses the **START/STOP** button or the measured temperature returns to an acceptable level.

When setting the alarm temperature in the Fahrenheit scale (°F), the temperature reading will advance in 0.2 increments/decrements.

When setting the alarm temperature in the scale (°C), the temperature reading will advance in 0.1 increments/decrements.

Calibration Procedure

1. Prepare an ice bath by filling a cup with crushed ice then adding cold water. Do not use ice cubes
2. Allow temperature to equilibrate for at least 60 seconds, while stirring with the probe
3. Turn on the thermometer
4. Place the probe tip in the center of the cup, make sure the tip is fully submerged and not in contact with the cup surfaces
5. Locate the red 'CAL' button on the side of the unit
6. While keeping the probe tip in the center of the cup, press and hold the 'CAL' button until the word 'CAL' appears in the Timer window of the LCD.
7. Three consecutive temperature readings will be recorded and displayed on the LCD during calibration: 'P1' (first reading), 'P2' (second reading), and finally 32°F/ 0°C (final reading).
8. Allow the unit to complete its cycle of taking three readings and return to temperature display before removing the probe from the ice bath.

Error Conditions (Codes)

If the LCD screen displays the flashing **"Err"** message, all buttons are disabled except the **START/STOP** button. Pressing the **START/STOP** button will cancel the error mode and clear the LCD screen.

Error 1 (Err 1) - Calibration Error

Err 1 may be displayed during the calibration procedure if the temperature of the ice slurry is not stable or is not at 32°F/ 0°C or the thermometer probe is damaged. Allow the ice slurry to settle for 60 seconds or replace the thermometer probe. Restart the unit and begin the calibration process again.

Error 2 (Err 2) - Verification Error

Err 2 may be displayed during the calibration procedure if the temperature probe is removed from the ice slurry prior to the unit completing 3 cycles of temperature verification. If this occurs, restart the calibration process and leave the temperature probe in the ice slurry for the entire calibration cycle.

Error 3 (Err 3) - Skipping Zone in COOL Mode

Err 3 may be displayed in the COOL down mode if the unit detects an initial temperature that is in Zone B or Zone C. Reset the unit and check the set point for Zone A.

Error 4 (Err 4) - Cool Down interruption

Err 4 may be displayed at any point in the cool down process if the current temperature reading is greater than the previous temperature reading by 3 degrees.

![DeltaTrak logo]

DeltaTrak Corporate

📍 P.O. Box 398 Pleasanton CA 94566

☎ (925) 249-2250
(800) 962-6776

🖥 www.deltatrak.com

DTI Mexico International

📍 Av. Paso de la Arboleda #1167 Col. Rinconada del Bosque Guadalajara, Jalisco, Mexico

☎ +52-33-3188-3161 / 36712190

🖥 www.deltatrakmexico.com

DTI South America SA

📍 A. Raul Labbe 12613 of 412
Lo Barnechea (7690554), Santiago, Chile

☎ +569-9825-5630   📱 +569 9825 5630

🖥 www.deltatraksouthamerica.com

DTI Europe bvba

📍 J.F. Gellyncklaan 33
B-2540 Hove (Antwerp) Belgium

☎ +32 (0) 3-455-61-25

🖥 www.deltatrakeurope.be

DTI China Limited

📍 No. 6-A Dong Sha Road
Shui Tou Sha Village, Nan Ao Town
Longgang District, Shenzhen
China 518121

☎ +86-755-8442-9388/8442-9007

🖥 www.deltatrakchina.com.cn

DTI Asia Pacific

📍 Rm. 1010-1011, 10F, Wing Hing Ind. Bldg
83-93 Chai Won Kok Street
Tsuen Wan, NT Hong Kong

☎ +852-3568-5538

🖥 www.dtiap.com

DTI Japan Limited

📍 4F ITM ATC., 2-1-10
Nanko-kita Suminoe-ward
Osaka City, Osaka 559-0034 Japan

☎ +81-6-6616-5900

🖥 www.dtijapan.co.jp