ALARM

Alarm Sound Pattern (Same pattern for temperature high / low and probe unplugged alarms)
1 second (beep, beep) -> silence for 5 seconds -> 1 second (beep, beep) -> silence for 5 seconds ..... Temperatures are updated during the silent 5 seconds. Alarm keeps sounding until it is turned off by pressing the **"PASSWORD"** button once. The function of the **"PASSWORD"** button is just for stopping the alarm when the alarm sounds.

KEY TONE

The key tone will sound when a key is pressed for a valid function.

PHYSICAL

- Battery cover removable with screwdriver only.
- Unit to be water splash resistant (IPX4).
- Velcro kit for mounting to outside unit.

SPECIFICATIONS

1) Temperature measuring range -40/105°C, -40/221°F

2) Operating temperature range –20°C to 60°C / -4°F to 140°F

3) Accuracy +/- 2°F for -4°F to 212°F, +/-4°F for other ranges

4) Power: 2 x AAA batteries

5) Resolution 0.1°C / °F

6) Display: 2 lines readout

7) Number of Probes = 2, one for each channel, each 6 feet in length. Each probe works separately

8) Probe design – PVC wire and stainless steel probe with PVC material molded around the area joining the PVC wire and the stainless steel probe. Temperature tolerance of the probe wire is 105°C / 220°F

9) Probe waterproof standard: (IPX7)

10) Indicator – low battery

11) "L": for indicating the data is for Left probe

12) "R": for indicating the data is for Right probe

13) Memory recall, provide ability to store at least 3 days and maximum 4 days of alarming readings.

14) All alarm event records will be kept in the memory even if the battery dies. The user needs to change new batteries when the icon of battery low appears.

15) Total 120 alarm records, 60 alarm records per probe.

ONE YEAR LIMITED WARRANTY

Taylor® warrants this product to be free from defects in material or workmanship for one (1) year from date of original purchase. It does not cover damages or wear resulting from accident, misuse, abuse or unauthorized adjustment and/or repair. If service is required, do not return to retailer. Should this product require service (or replacement at our option), please pack the item carefully and return it prepaid, along with store receipt showing the date of purchase and a note explaining reason for return to:

Taylor Precision Products
2220 Entrada Del Sol, Suite A
Las Cruces, New Mexico 88001
Customer Service Phone: 1-866-843-3905
www.taylorusa.com

There are no express warranties except as listed above. This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

For additional product information, or warranty information outside the USA, please contact us through www.taylorusa.com.

Made to our exact specifications in China.

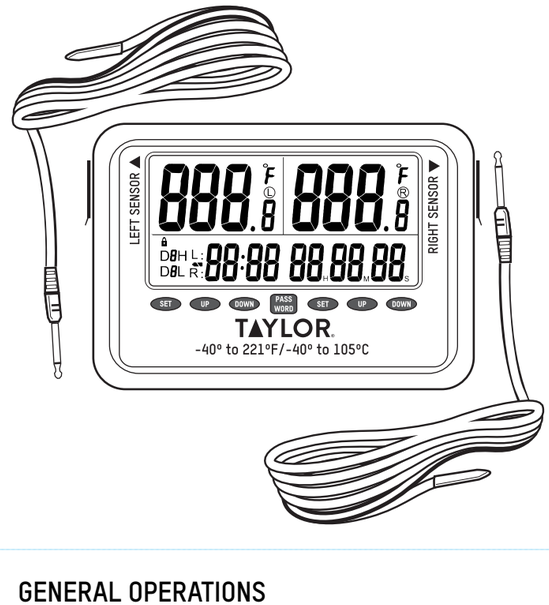
1442E 6.17 WC

TAYLOR®

INSTRUCTION MANUAL

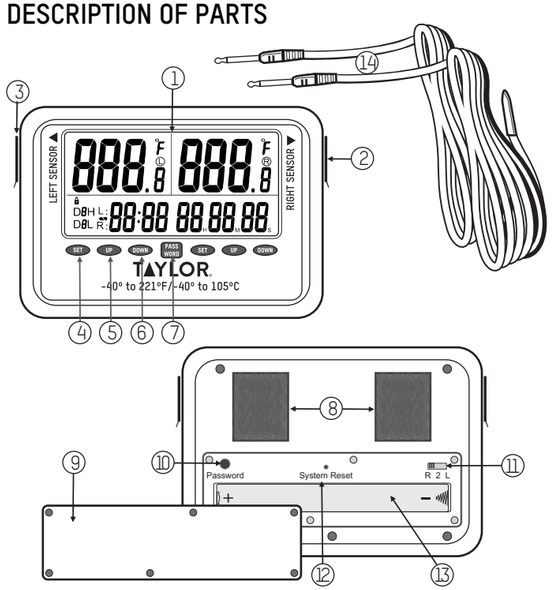
MODEL 1442E

Recording Thermometer with Dual Probes



Thank you for purchasing a Taylor® Recording Thermometer with dual probes. This product is an example of superior design and craftsmanship. This product will the allow user to record and monitor temperature and would be ideal for most hospital environments. Please read this instruction manual carefully before use. Keep these instructions handy for future reference.

DESCRIPTION OF PARTS



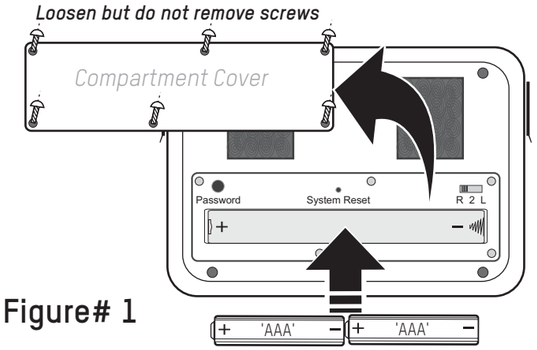
DESCRIPTION OF PARTS

1. **LCD** read out
2. Right sensor port
3. Left sensor port
4. Left '**SET**' button -
   For setting target temperature set points; confirming setting operation; scrolling alarm records.
5. Left '**UP**' button -
   For scrolling the alarm events; increasing the displayed value.
6. Left '**DOWN**' button -
   For scrolling the alarm events; decreasing the displayed value.
7. '**Pass Word**' button -
   For accessing the unit, new password setting and turning off the alarm sounds.
8. Velcro holding and mounting pads
9. Battery compartment cover
10. '**Password**' reset button
11. Right, left and dual display switch
12. '**System Reset**' button
13. Battery placement recess
14. Sensor Probes

BATTERY INSTALLATION

The Taylor® Recording Thermometer with dual probes operates on (2) AAA batteries.

1. Use a small phillips head screw driver to loosen the 6 small screws that hold the battery compartment cover in place.
2. Remove the compartment cover.
3. Install (2) AAA batteries into battery recess. Place the negative side of the batteries with the right side orientation for both as show in the **Figure #1**.
4. Replace the compartment cover and tighten screws. Do not over tighten or turn the screws in the wrong direction as this may strip the screws threads in the battery door.



Figure# 1

NOTE: Please recycle or dispose of batteries per local regulations.
WARNING: Batteries may pose a choking hazard. As with all small items, do not let children handle batteries. If swallowed, seek medical attention immediately.
PRECAUTION: Do not dispose of batteries in fire. Batteries may explode or leak. Remove the batteries if the thermometer will not be used for a long period of time.

GENERAL OPERATIONS

1. There are two individual removable probes and jacks on either side of the instrument. Remove protective cap from jacks and plug in probes. Make sure Right-Left-Dual display switch is in the correct position before turning on thermometer.
2. There is one display with a two line readout on the unit. The top line is for temperature display. The left area is for left probe, the right area for right probe. The bottom line is for displaying the clock (24 hour format only), and the status of the probes or the alarm event records. The right part of the bottom line "88H88M88S" is also for alarm delay time setting. For example, when the delay time is set to "00H15M30S" and the temperature exceeds the limit that the user set, the alarm will not sound unless the temperature has exceeded the set temperature for 15 minutes 30 seconds. The delay time can be set from 00H00M00S to 10H59M59S (from 0 Hour 0 Minute 0 Second to 10 Hour and 59 Minute 59 Second). If the temperature exceeds the set temperature but does not stay there for longer than the set delay, then the sound alarm will never occur but the information is still recorded. The "L" is for showing that the data displayed is for the left probe; the "R" is for showing that the data displayed is for the right probe.
3. There are one **"Pass Word"** button and two sets of **"SET"/ "UP"/"DOWN"** buttons on the panel.
4. There are no "on" and "off" buttons on the unit, the unit works when the batteries are installed.

GENERAL OPERATIONS CONT.

5. Press both buttons **"UP"+ "Down"** at the same time for Celsius and Fahrenheit unit selection. Default is ºF.
6. There is one three-position slide switch inside the battery compartment. The user can enable the probe by selecting the position of the switch. When the switch is in the "**L**" position, the left probe is working and the right sensor buttons are functionless. When the switch is in the "**R**" position, the right probe is working and the left sensor buttons are functionless. When the switch is in the middle position, both probes are working and all buttons are functional. The probe should be plugged into the unit all the time as long as it is enabled. Position of the slide switch should be in the correct position before battery is installed. Changing the slide switch position requires resetting the unit by re-installation of battery or pressing the system reset button, which is also inside the battery compartment.
7. If the probe is enabled (through the slide switch) and is unplugged during unit powering up or setup, the alarm will beep and EEE will be displayed in the corresponding probe temp display area. The unit cannot be set up until the probe is plugged in again.
8. During normal operation, when the probe is unplugged, the EEE temp and duration of the probe being unplugged will be recorded. The alarm will beep during the probe is unplugged. After the probed is inserted again, the operation for that probe resumes.
9. During the time the probe is plugged-in or unplugged, the temperatures recorded at that moment may not be accurate. If these temperatures meet the temp high/low settings, they will be written to the alarm records (together with the "EEE" alarm record), and the users need to filter out these un-accurate temperature records themselves.
10. The **"Password Reset"** button is inside the battery compartment. Pressing the button once will reset the password to ***"88:88"***.

DEFAULT DISPLAY AND OPERATION PROCEDURE AFTER UNIT POWER UP CONT.

The digit behind the decimal displays **"H"** and the left hand side of the bottom line displays **"Set"** and a flashing **"R"** or **"L"** indicating that the right or left probe is being set. Increase or decrease the high alarm set point by pressing the **"UP"** or **"DOWN"** key. When the **"UP"** or **"DOWN"** key is pressed for more than 3 seconds, the fast forward function is activated. When the desired high alarm set point is reached, press the **"SET"** button to confirm high alarm set point and the high alarm set point stops flashing. Then **"00H00M00S"** or the previous high alarm delay starts flashing on the right hand side of the bottom line for delay time setting. Press **"UP/DOWN"** buttons for Hour setting. Pressing down the **"UP/DOWN"** buttons for more than 3 seconds activates the fast forward function. Press the **"SET"** button to confirm the Hour setting. Hour digits stop flashing and he remaining Minute and Second digits continue to flash. Press **"UP/DOWN"** buttons for Minute setting. Pressing down the **"UP/DOWN"** buttons for more than 3 seconds activates the fast forward function. Press the **"SET"** button to confirm the Minute setting. Hour and minute digits stop flashing and the remaining Second digits continue to flash. Press **"UP/DOWN"** buttons for Second setting. Pressing down the **"UP/DOWN"** buttons for more than 3 seconds activates the fast forward function. Press the **"SET"** button to confirm the Second setting. The alarm delay time stops flashing. At this point, the high alarm set point and delay are set.

c. The temperature display then displays the flashing default (32.0°F) or previous low alarm set point, and the digit behind the decimal will display **"L"**. Increase or decrease the value by pressing the **"UP**" or **"DOWN"** button. When the **"UP"** or **"DOWN"** button is pressed down for more than 3 seconds, the fast forward function is activated. When the desired low alarm set point is reached, press the **"SET"** button again to confirm the low alarm set point and the low alarm set point stops flashing. (Note: the low alarm set point must be smaller than the high alarm set point. Otherwise the low alarm set point will keep flashing after the **"SET"** button is pressed for low alarm set point confirmation.) Then **"00H00M00S"** or the previous low alarm delay starts flashing on the right hand side of the

GENERAL OPERATIONS CONT.

11. The **"System Reset"** button is inside the battery compartment. The user can reset the unit any time for re-initialization of the unit or in case the unit does not start up after installation of the batteries. After this button is pressed, the unit will go through the normal power up initialization process, and all settings have to be re-entered. Only the old alarm records (if there is any) can be retrieved after system reset. The operator may use a paper clip or similar type of object for accessing the system reset button.

Note: Old alarm records may be retrieved after hitting System Reset button, but when alarm settings are re-entered old records will be deleted.

DEFAULT DISPLAY AND OPERATION PROCEDURE AFTER UNIT POWER UP

1. All LCD segments are displayed for 3 seconds and the alarm sounds for 1 second.
2. Then, current temperature(s) is displayed (default is °F), left hand side of the bottom line displays ***"88:88"***, right hand side of the bottom line displays a flashing **"00H00M00S"**.
3. The unit enters the clock setting mode (flashing 00H00M00S). Press **"UP/DOWN"** buttons for Hour setting. Pressing down the **"UP/DOWN"** buttons for more than 3 seconds activates the fast forward function. Press the **"SET"** button to confirm the Hour setting. Hour digits stop flashing and the remaining Minute and Second digits continue to flash. Press **"UP/DOWN"** buttons for Minute setting. Pressing down the **"UP/DOWN"** buttons for more than 3 seconds activates the fast forward function. Press the **"SET"** button to confirm the Minute setting. Hour and minute digits stop flashing and the remaining Second digits continue to flash. Press **"UP/DOWN"** buttons for Second setting. Pressing down the **"UP/DOWN"** buttons for more than 3 seconds activates the fast forward function. Press the **"SET"** button to confirm the Second setting. The clock digits stop flashing and start to tick. Left or right or both sides buttons can be used for clock setting depending or which probe(s) is enabled.

DEFAULT DISPLAY AND OPERATION PROCEDURE AFTER UNIT POWER UP CONT.

bottom line for low alarm delay setting. Press **"UP/DOWN"** buttons for Hour setting. Pressing down the **"UP/DOWN"** buttons for more than 3 seconds activates the fast forward function. Press the **"SET"** button to confirm the Hour setting. Hour digits stop flashing and the remaining Minute and Second digits continue to flash. Press **"UP/DOWN"** buttons for Minute setting. Pressing down the **"UP/DOWN"** buttons for more than 3 seconds activates the fast forward function. Press the **"SET"** button to confirm the Minute setting. Hour and Minute digits stop flashing and the remaining Second digits continue to flash. Press **"UP/DOWN"** buttons for Second setting. Pressing down the **"UP/DOWN"** buttons for more than 3 seconds activates the fast forward function. Press the **"SET"** button to confirm the Second setting. The alarm delay time stops flashing. At this point, the low alarm and its delay time are set.

d. Once the high / low alarm and delays are set, the left hand side of the bottom line displays **"Set" "R"** or **"L"** indicating that the right or left probe is already set. The display then returns to the normal display of current temperature, the clock, and **"Set" "R"** or **"L" or "2"**.

e. Repeat the above setting procedure for another probe when appropriate. If both probes are set, the normal display should show the current temperature of both probes, the clock, and "Set2".

ALARM RECORDS

When the temperature is over the high point or below the low point, the alarming events are recorded. There are maximum 96 Hours alarm history stored in memory. In the normal display mode, press the **"SET"** button once to display the last alarm event.When the current displayed alarm event is the last one, pressing **"UP"**" will scroll the alarm event back to the oldest alarm event. For example, if the oldest alarm event is D0 R: 14:15 A 40°F (high temperature alarm occurred on the current day at 14:15). Pressing the **"UP"** button once displays D0 R: 14:16 44°F (the maximum temperature recorded during alarm period was 44°F at 14:16).

DEFAULT DISPLAY AND OPERATION PROCEDURE AFTER UNIT POWER UP CONT.

4. After the clock is set, the unit enters the password setting mode (***flashing "88:88"***). Left or right or both sides buttons can be used for setting depending or which probe(s) are enabled.

(I) Press the **"Up"** or **"Down"** button for selecting the number from 0~9 for first digit (the first press of **"Down"** changes the digit from 8 to 7; the first press of up changes the digit from 8 to 9). For example, 5 is selected. Pressing the **"Set"** button again confirms 5, and the other three segments will remain flashing.

(ii) Press the **"Up"** or **"Down"** button for selecting the number from 0~9 (ex.4 is to be selected), press the **"Set"** button again confirms 4, and the other two segments will remain flashing.

(iii) Press the **"Up"** or "**Down"** button for selecting the number from 0~9 (ex.3 is to be selected), press the **"Set"** button again the 3 is confirmed and the last 8 still flashing.

(iv) Press the **"Up"** or **"Down"** button for selecting the number from 0~9 (ex.2 is to be selected),press the **"Set"** button again the 2 is confirmed and the Password **"54:32"** is set.

(v) The password display will show the set status of the probes: **"Set0"** meaning that none of the probes is set. After the password is set, the user can lock the unit by pressing the **"PASSWORD"** button once. When the unit is locked, the **"LOCK"** icon on the display will be turned on to indicate that password has to be re-entered again for accessing the unit.

(vi) After the unit is locked, the user has to enter the password to access the unit. Press the **"PASSWORD"** once, flashing **"88:88"** appears on the left hand side of the bottom line. Enter the password by following the set password procedure. If the password is correct, the password will stop blinking after the last digit entry and the display will revert to **"SetL/R/2/0"**. All buttons are available at this time. 0therwise, the password will just keep blinking and the password entry process has to re-start again from the first password digit.

DEFAULT DISPLAY AND OPERATION PROCEDURE AFTER UNIT POWER UP CONT.

(vii) The default password of the unit is ***"88:88"***, the first change of the password will be recorded as the new password. In case the password is forgotten, the user has to open the battery door and press the **"Password Reset"** button on the battery compartment and the password will be restored to the default password of ***"88:88"***. The user can then access the unit with the default password ***"88:88"***. To set a new password, the user has to reset the unit or re-install the battery. The unit will start the whole setup process after system reset or battery re-installation. All previous settings will be lost except that the old alarm event records are still retrievable. The high / low alarm set points and delays are reset to the default values. The alarm temperatures and/or the delay time should not be set for old alarm records retrieval as new alarm settings will clear the old alarm memory contents. The old alarm records will only be cleared after the alarm temperatures and delay setting is complete. The unit will quit the alarm setting mode automatically during the alarm setting process if there is no button pressed for 1 minute. This way the old alarm records are preserved.

5. Once the clock and password are set, the unit enters the normal display mode. The status of the probe setting is displayed on the left hand bottom line of the LCD as **"Set0"**, **"Setr"**, **"SetL"**, or **"Set2"**. The user can enter the set high / low alarm events mode or scroll alarm events mode from the normal display mode. If the user does not set the high / low alarm set points, the unit will not record any alarm events and will just display the current temperatures.

(i) Set High/Low Alarm set point:

a. The default high/low alarm set points are 40.0°F and 32.0°F respectively while the default delay time is 00H00M00S for both high and low alarms.

b. To set the alarm set points and corresponding delay times, press down the **"SET"** button on Left or Right side for 3 seconds, the corresponding temperature display will display the default high (40.0°F) or previous high alarm set point and flash.

ALARM RECORDS CONT.

Pressing the **"UP"** button again will display D0 R: 14:18 00h02m33s (the temperature went back into safe range at 14:18, and the duration of the alarm was 2 minutes, 33 seconds). Pressing the **"UP"** button again will move to next record.Pressing and holding the **"UP"** button for 3 seconds activates the fast forward function. The alarm events are scrolled backward by pressing the **"DOWN"** button once. Pressing and holding the **"DOWN"** button for 3 seconds activates the fast backward function. The last displayed alarm record will stay on the display for 15 seconds. After 15 seconds the normal display (current temperature, **"Set" "R/L/2/0"**, Clock) is resumed. Once in the alarm events display mode, the only way to exit to the normal display mode is to wait for the 15 seconds alarm event time out or when a new alarm event arrives. The temperature display for the corresponding probe should be blank or only displaying the temperature data associated with the alarm record when in alarm events display mode. The set high / low alarm function is disabled in the alarm events display mode, i.e. even though the user presses the **"SET"** for 3 seconds, the unit will not enter the alarm events set mode.

When there is no alarm records, "**nr**" (no records) will be displayed on the lower left line of display when the **"SET"** button is pressed (clock is still displayed on the lower right line). Normal display mode is resumed after the 10 seconds alarm events display time-out time.

The alarm records can't be deleted, unless new alarming set points are set. It always keeps maximum 96 hours records in the memory. The oldest alarm record will be replaced by the new one when the memory is full.

When the new high and/or low alarm value is set, the memory will clear all the records and start to record the new alarming date from zero.

There are total 120 alarm records, 60 alarm records per probe.

ALARM RECORD FORMAT

Example of alarm records:

INITIAL SETTINGS: High alarm = 40.0°F
Low alarm = 32.0°F
High alarm delay = 20 minutes
Low alarm delay = 30 minutes

EXAMPLE ALARM RECORD FORMAT:

D3HL 6:35 39.1°F (high of the day was 39.1°F at 6:35:20am, 39.1°F is displayed in temperature display screen)
D3LL 17:22 37.0°F (low of the day was 37.0°F at 5:22:45pm, 37.0°F is displayed in temperature display screen)
D2HL 5:15 38.6°F (high of the day was 38.6°F at 5:15:00 am, 38.6°F is displayed in temperature display screen)
D2LL 12:01 33.0°F (low of the was 33.0°F at 12:01:30pm, 33.0°F is displayed in temperature display screen)
D1 L 14:00 A 40.0°F (at 2:00:15 pm temperature went above 40.0°F, 40.0°F is displayed in temperature display screen)
At 14:20 the audible alarm starts beeping.
D1 L 14:30 50.0°F (high temperature for the alarm is 50.0°F at 2:30:30pm, 50.0°F is displayed in temperature display screen)
D1 L 14:40 00h40m15s (temp went back below 40°F at 2:40:30pm after 40minutes and 15 seconds of being out)
D1 L 14:45 Usr (user stops alarm at 2:45:55pm and changes temperature unit from °F to °C)
D1 L 18:00 b0.0°C (at 6:00:23pm temperature went below 32.0°F, 0.0°C is displayed in temperature display screen)
D1 L 18:05 –0.6°C (low temp for the alarm is 30.9°F at 6:05:01 pm, -0.6°C is displayed in temperature display screen)
At 18:30 the audible alarm starts beeping.
D1 L 20:00 US r (user stops alarm at 8:00:59pm and changes temperature unit from °C to °F)
D1 L 20:10 2h09m42s (temp went back above 32°F at 8:10:05pm after 2 hours and 9 minutes 42 seconds of being out)
D1 L 21:00 b32°F (at 9:00:00pm temp went below 32 degrees, 32°F is displayed in temperature display screen)
D1 L 21:01 29.0°F (the low temp for the alarm is 29.0°F recorded at 9:01:08pm, 29.0°F is displayed in temperature display screen)
D1 L 21:02 00h02m30s (Temp went back above 32.0°F at 9:02:30pm after 2 minutes and 30 seconds of being out)
D1HL 14:30 50.0°F (high of the day was 50 degrees at 2:30:30pm, 50°F is displayed in temperature display screen)
D1LL 21:01 29.0°F (low of the day was 29 degrees at 9:01pm, 29.0°F is displayed in temperature display screen)
Between "D1 L 14:00 A40.0°F" & "D1 L 14:30 50.0°F" I would put a note saying that at 14:20 the audible alarm starts beeping.
Between "D1 L 18:05 -0.6°C" & "D1 L 20:00 US r" I would put a note saying that at 18:30 the audible alarm starts beeping.
Between "D0 L 10:00 A40.0°F" & "D0 L 10:30 45.3°F" I would put a note saying that at 10:20 the audible alarm starts beeping.
D0 L 10:00 A40.0°F (at 10:00:05 am temperature went above 40 degrees, 40.0°F is displayed in temperature display screen)
At 10:20 the audible alarm starts beeping.
D0 L 10:30 45.3°F (high temperature for the alarm is 45 at 10:30:01am, 45.3°F is displayed in temperature display screen)
D0 L 11:40 1h40m43s (temp went back below 40 at 11:40:48am after 1 hour 40minutes 43 seconds of being out)
D0 L 12:00 b32.0°F (at 12:00:00 am temperature went below 32.0°F, 32.0°F is displayed in temperature display screen)
D0 L 12:00 US r (user stops alarm at 12:00:59pm)

Note: Unit of temperatures records displayed is the current selected temperature unit regardless of the temperature unit when the record was taken. For example, the unit of temperature was °C when the unit recorded an alarm event, and that alarm event is displayed in °F when the current temperature unit is °F and the alarm record is being scrolled back.