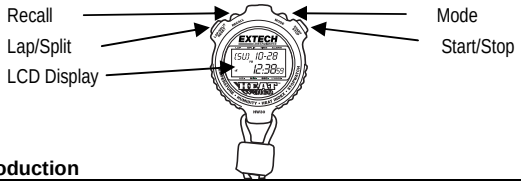
HW30 Heat Watch Patent Pending

Description



Introduction

Congratulations on your purchase of the Extech HW30 Heat Watch. Careful use of this item will provide years of reliable service.

Specifications

Accuracy (Watch)	±5 seconds/24 hours
Accuracy (RH)	±5% (33 to 75% RH), ±7% (1 to 32% and 76 to 99%)
Accuracy (Temp)	±3°F (1.5°C)
Temperature	14 to 122°F (-10 to 50°C)
Resolution	0.1/ 1°C or F
Update Rate	5 seconds in Heat Index Mode, 2 minutes in other modes
Heat Index	70 to 122°F (22 to 50°C)
Humidity	1 to 99% RH
Memory	30 Laps/ 30 Splits
LAP Counter	99 Laps
Battery	CR2032
Dimensions	3.1x2.6x0.8" (79x66x23mm)
Weight	3 oz. (85g) with battery

WARNING: Sudden temperature and humidity changes (e.g. going indoors to outdoors) may cause inaccurate Temperature, Humidity and Heat Index readings for up to 45 minutes. Until readings stabilize (e.g. stop steadily increasing or decreasing), users should NOT rely on the Temperature, Humidity or Heat Index readings of this watch, or on the watches alarm function in regards to such readings. This watch is NOT a medical device and users should NEVER rely on readings for medical purposes

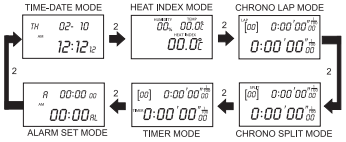
Operation

Mode Selection

The HW30 Heat Watch has six different operating modes.

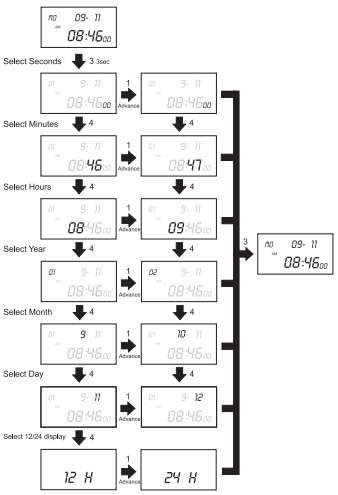
Press the MODE button to switch from one mode to another.

The HW30 will remain in the Heat Index mode for two minutes and then default back to the clock mode.



Time Date Mode

The time date display shows current time, day of week, date and month. Also displayed are the alarm and heat index alarm indicators when they are activated.

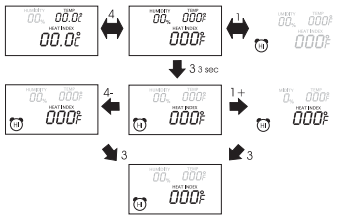


Time and date set

Press and hold the RECALL button for 3 seconds to set time and date.
Press START to zero seconds.
Press LAP to select minutes, Press START to change minutes.
Press LAP to select hours, Press START to change hours.
Press LAP to select minutes, Press START to change minutes.
Press LAP to select year, Press START to change year.
Press LAP to select month, Press START to change month.
Press LAP to select date, Press START to change date.
Press LAP to select 12H/24H, Press START to change.
Press RECALL to exit time set mode.
The HW30 will return to display mode after 30 seconds of inactivity.

HEAT INDEX MODE

In heat index mode the HW 30 displays relative humidity and ambient temperature (in °F or °C). Using these two readings, the HW30 also calculates and displays the Heat Index. (Please visit our web site for more information on heat index and the effects of excessive heat on the human body.)



SETTING UNITS OF MEASURE

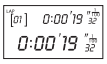
From heat index mode screen
Press LAP to change unit of measure (°F or °C)

HEAT INDEX ALARM SET

The HW30 Heat Watch has a user settable heat index alarm. The Heat Watch will emit a 20 second audible warning when the heat index reaches the level previously set by the user.

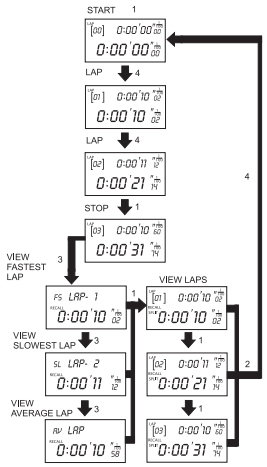
To set the alarm
From heat index mode screen
Press and hold RECALL for 3 seconds
Press START to scroll up or LAP to scroll down
Press RECALL to save and exit setup mode.
Or Press START if the alarm level has already been set
The alarm can be stopped by pressing any of the four buttons.

STOPWATCH LAP MODE



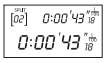
Before using be sure to reset stopwatch to 0.00.00.00.
The HW30 Heat Watch lap mode has advanced features that will make the timing of events or training sessions easier and more enjoyable.

1. Lap Indicator
   The lap indicator flashes to indicate the lap in progress up to 99 laps.
   When LAP is pushed, the lap indicator and lap time displays (top line of display) freeze for ten seconds before resuming and displaying next lap. Bottom display always shows cumulative time
2. Fastest Lap/Slowest Lap/Average Lap Recall
   Once timing session is complete, press RECALL button to review fastest lap, slowest lap and average lap times. (based on 99 laps)
   Then press START to review individual lap times. (30 laps)
   Lap times are shown on top line of the display.
   Split times are shown on the bottom line of the display.
3. Memory
   The HW30 Heat Watch memory can store up to 30 lap (and split) times.



For detailed instructions on the operation of the lap functions, please refer to the diagram)

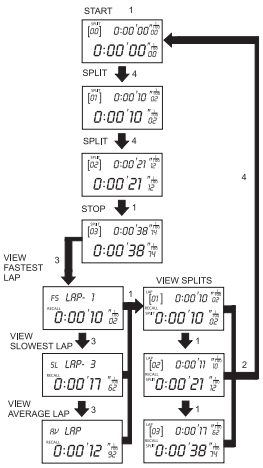
STOPWATCH SPLIT MODE



Before using be sure to reset stopwatch to 0.00.00.00.

The HW30 Heat Watch split mode has advanced features that will make the timing of events or training sessions easier and more enjoyable.

1. Split time indicator
   When SPLIT is pushed the split indicator and split time displays (top line of display) freeze to indicate the current split time. Bottom display continues to always show cumulative time.
2. Fastest Lap/Slowest Lap/Average Lap Recall
   Once timing session is complete, press RECALL button to review fastest lap, slowest lap and average lap times. (based on 99 laps)
   Then press START to review split times. (30 splits)
   Split times are shown on the bottom line of the display. Lap times are shown on top line of the display.
3. Memory
   The HW30 Heat Watch memory can store up to 30 split (and lap) times.



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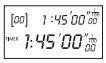
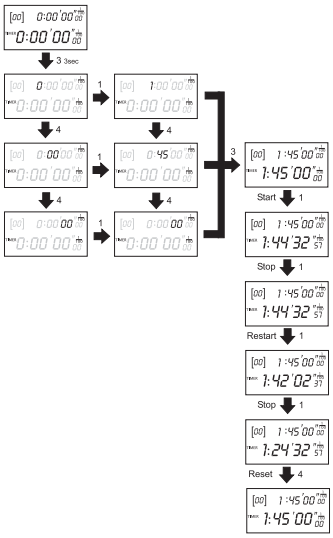
TIMER MODE (see diagram)



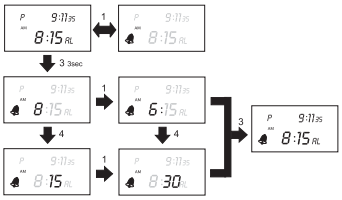
The HW30 Heat Watch timer mode is a user programmable countdown timer. The maximum count down time is 9 hours 59 minutes and 59 seconds. The minimum settable time is 1 second.
Press START to begin the countdown
Press STOP to stop the countdown
The timer will count down for the selected duration.
The watch will emit an audible warning during the final 5 seconds of the countdown.
The countdown will repeat itself until stopped by the user. The countdown sequence will repeat itself and increment the timer count by one each time it resumes.



ALARM MODE (see diagram)

The alarm will ring for 30 seconds.

The alarm can be stopped by pressing any of the buttons



Battery Replacement

Remove the screws from the back of the watch to open unit and battery compartment. The battery is a Round Button cell Type CR2032. Removing and replacing the battery will cause loss of all previous settings. Make sure the gasket seal is properly placed before replacing back cover and tightening screws.
The following is reprinted with permission of the National Oceanic and Atmospheric Administration.

A National Problem

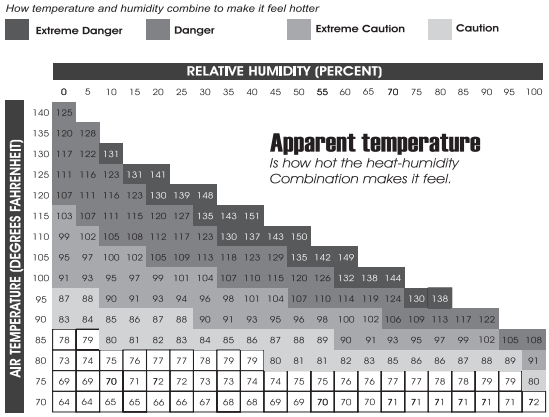
Heat kills by taxing the human body beyond its abilities. In a normal year, about 175 Americans succumb to the demands of summer heat. Among the large continental family of natural hazards, only the cold of winter -- not lightning, hurricanes, tornadoes, floods, or earthquakes -- takes a greater toll. In the 40-year period from 1936 through 1975, nearly 20,000 people were killed in the United States by the effects of heat and solar radiation. In the disastrous heat wave of 1980, more than 1,250 people died. And those are the direct causalities. No one can know how many more deaths are advanced by heat wave weather -- how many diseased or aging hearts surrender, that under better conditions would have continued functioning. North American summers are hot; most summers see heat waves in one section or another of the United States. East of the Rockies, they tend to combine both high temperatures and high humidity although some of the worst have been catastrophically dry.

Considering this tragic death toll, the National Weather Service has stepped up its efforts to alert more effectively the general public and appropriate authorities to the hazards of heat waves -- those prolonged excessive heat/humidity episodes. Based on the latest research findings, the NWS has devised the "Heat Index" (HI), (sometimes referred to as the "apparent temperature"). The HI, given in degrees Fahrenheit, is an accurate measure of how hot it really feels when the relative humidity (RH) is added to the actual air temperature. To find the Heat Index, look at the Heat Index Chart. As an example, if the air temperature is 95°F (found on the left side of the table), and the relative humidity is 55% (found at the top of the table), the HI -- or how hot it really feels -- is 110°F. This is at the intersection of the 95° row and the 55% column. Important: Since HI values were devised for shady, light wind conditions, exposure to full sunshine can increase HI values by up to 15°F. Also, strong winds, particularly with very hot, dry air, can be extremely hazardous. Note on the HI chart the shaded zone above 105°F. This corresponds to a level of HI that may cause increasingly severe heat disorders with continued exposure and/or physical activity.

Heat Index / Heat Disorders

Heat Index / Heat Disorders	
Heat Index	Possible heat disorders for people in higher risk groups
130°F or higher	Heatstroke/sunstroke highly likely with continued exposure.
105° - 130°F	Sunstroke, heat cramps or heat exhaustion likely, and heatstroke possible with prolonged exposure and/or physical activity.
90° - 105°F	Sunstroke, heat cramps and heat exhaustion possible with prolonged exposure and/or physical activity.
80° - 90°F	Fatigue possible with prolonged exposure and/or physical activity.

The "Heat Index/Heat Disorders" table relates ranges of HI with specific disorders, particularly for people in the higher risk groups.



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