User Manual

TRIPLETT

# HSW50

**Combination Heat Stress Stopwatch**

⚠ This symbol represents a warning. To ensure safe use, always adhere to the instructions described in this documentation.

This symbol is followed by a user's tip.

## ⚠ Precautions

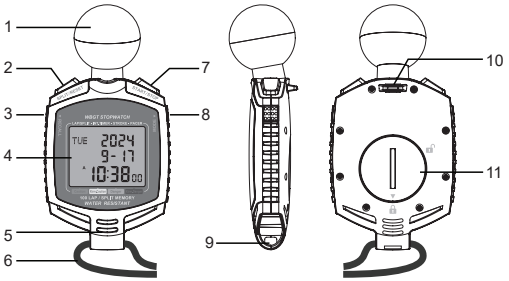
- Do not subject the unit to excessive force or shock.
- Avoid contact with any corrosive materials.
- Do not dispose this unit in a fire as it may explode.
- Do not recharge and do not dispose of batteries in fire.
- Technical specifications and user manual contents for this product are subject to change without notice.

## Package contents

You can find the follow items in the package.

|  |  |  |
|---|---|---|
| Stop watch | Carabiner | User manual |

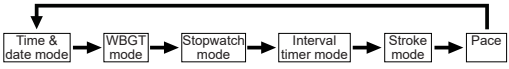
## Features




1. Black globe sensor
2. **[ SPLIT / RESET ]** key
3. **[ RECALL ]** key
4. LCD display
5. Thermo-hygro sensor
6. Neck rope
7. **[ START / STOP ]** key
8. **[ MODE]** key
9. String hole
10. Buckle hole
11. Battery door

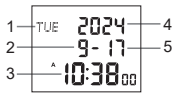
## Mode selection

You can press **[ MODE ]** to switch the modes in below sequence:



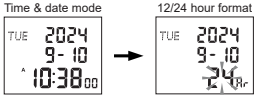

## Time & date mode

1. Day of the week
2. Month
3. Time
4. Year
5. Day

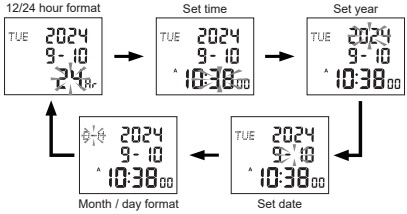



## Time and calendar setting

1. In **Time & date mode**, Press and hold **[ RECALL ]** for 2 seconds to enter setting mode with 12hr icon flashing.




2. Press **[ SPLIT / RESET ]** or **[ START / STOP ]** to toggle between 12 / 24 hour format.
3. Press **[ MODE ]** to proceed with next step of the setting as below:



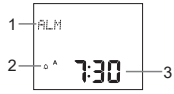

4. Once you complete the setting, press **[ RECALL ]** to save and exit the setting mode, or let it exit automatically 30 seconds later without pressing any key.

## Turn on key tone

In time & date mode, press **[ START / STOP ]** to turn on / off key tone, once turn on the ♪ icon will shown on the screen's top right corner.

## Alarm time mode

1. Alarm mode icon
2. Alarm activated icon
3. Alarm time




## Set alarm time

1. In **Time & date mode**, press **[ SPLIT / RESET ]** to switch to **Alarm time mode** with 5 seconds.
2. Press and hold **[ RECALL ]** for 2 seconds to enter setting mode with alarm time flashing as below.
3. Press **[ SPLIT / RESET ]** or **[ START / STOP ]** to adjust the minute and hour value (hold the key for fast adjust).
4. Press **[ RECALL ]** to save and back to **Time & date mode**, or let it exit automatically 30 seconds later without pressing any key.

### Note:

- Once you enter alarm time setting mode, the alarm will automatically turn on and the 🔔 icon will be shown.
- Press **[ START / STOP ]** to turn on alarm and the 🔔 icon will be shown.

## Alarm operation

When the time reaches the alarm time, the alarm sound will beep. The alarm beeping can be stopped by following operation:

- Auto-stop after 1 minutes if without any operation and the alarm will activate again in the next day.
- By pressing any key to stop the current alarm when it is sounding.

## WBGT mode

1. WBGT mode icon
2. WBGT level icon
3. WBGT alert icon
4. WBGT level indicator
5. Humidty
6. Temperature
7. WBGT temperature (with ☼ icon)




### About WBGT

The wet-bulb globe temperature (WBGT) is a measure of environmental heat as it affects humans. Unlike a simple temperature measurement, WBGT accounts for major environmental heat factors: air temperature, humidity, and radiant heat from sunlight. It is used by industrial hygienists, athletes, sporting events and the military to determine appropriate exposure levels to high temperatures.

### WBGT caution icons and level

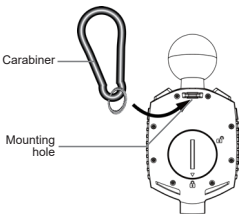
| Description | WBGT | Icon | Level |
|---|---|---|---|
| Extreme Danger | > 90°F | | |
| Danger | 88 ~ 89.8°F | | |
| Extreme Caution | 84.9 ~ 87.8°F | | |
| Caution | 80 ~ 29.3°F | | |

### Note:

- WBGT display range is 10 ~ 50°C (50 ~ 122°F), if below or above the measurement range, the reading will show "Lo" or "HI" respectively
- There is no WBGT level indication when the WBGT is below 26.7°C (80.1°F)

### How to make an accurate measurement of WBGT

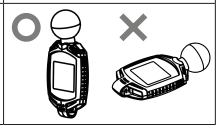
This stopwatch is designed for outdoor measurement. It can be worn around the neck or waist. Attach the carabiner (included) to the back of the stopwatch and hook it to your belt. Please stay away heat source from the human body.








Keep the **Black globe sensor** face up and out of the shade as much as possible. If the black bulb is in the shade, the temperature of the black bulb will drop and it will not be possible to measure the WBGT accurately.



### Set WBGT alert

1. In **WBGT mode**, press and hold **[ RECALL ]** for 2 seconds to enter WBGT alert setting mode.
2. Press **[ START / STOP ]** or **[ SPLIT / RESET ]** to adjust the value.
3. Press **[ RECALL ]** to save and back to **WBGT mode**, or let it exit automatically 30 seconds later without pressing any key.
4. Once the WBGT match, the alert will sound 1 minute and the WBGT value will flash.
5. Press any key to stop the sound.

### Note:

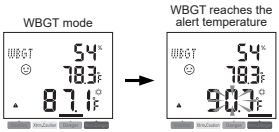
- Once you set the WBGT alert, the alert will automatically turn on and the ⚠ icon will be shown. You can also press the **[ START / STOP ]** to toggle the alert on /off in **WBGT mode**.
- If the stopwatch state in other mode, when alert is sounding, it will back to WBGT mode.

### Set temperature Unit

In **WBGT** mode, press **[ SPLIT / RESET ]** to switch temperature unit between °C and °F.

### WBGT alert operation

When the WBGT reaches the alert temperature, the alert sound will beep.




The alert beeping can be stopped by following operation:

- Auto-stop after 1 minutes if without any operation and the alert will activate again if WBGT reaches the alert temperature again.
- By pressing any key to stop.

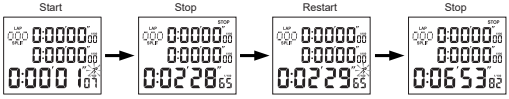
## Stopwatch mode

1. Number of lap & split
2. Current lap time
3. Current split time
4. Stopwatch



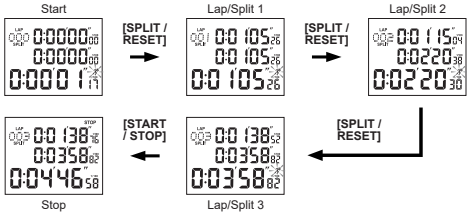

### Accumulated elapsed time measurement

1. In **Stopwatch mode**, press **[ START / STOP ]** to start.
2. Press **[ START / STOP ]** again to stop.
3. Press **[ START / STOP ]** again to restart.
4. Press **[ START / STOP ]** again to stop again.




### Split time measurement

1. In **Stopwatch mode**, press **[ START / STOP ]** to start.
2. Press **[ SPLIT / RESET ]** to split 1.
3. Press **[ SPLIT / RESET ]** again to split 2 and release.
4. Press **[ SPLIT / RESET ]** again to split 3 and release.
5. Press **[ START / STOP ]** key again to stop.

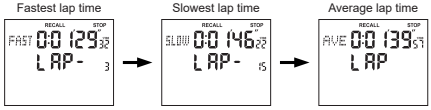



6. When the time measurement is stopped, press **[ SPLIT / RESET ]** to reset the values to 0:00'00"00.

**Note:**
- Measures up to 9:59'59", and restart from 0:00'00"00.
- The sports timer can display up to 999 lap/split records, but only first 500 lap/split time can be stored in memory with fastest & lowest lap and average time.
- It can be used to record times for up to 500 different runners by press **[ SPLIT / RESET ]** as each runner crosses the finish line.

### How to recall the records

1. Measure lap/split time as described in the previous section.
2. Press **[ RECALL ]** to enter recall mode when there is at least one lap/split time record.
3. Press **[ RECALL ]** again to check the fastest lap time / lowest lap time / average lap time.




4. Press **[ START / STOP ]** or **[ SPLIT / RESET ]** to check lap/split time records downwards or upwards.

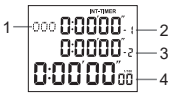



5. Press **[ MODE ]** to return to **Stopwatch mode**.

**Note:**
- The sports timer can display up to 999 lap/split records, but only first 500 lap/split time can be stored in memory with fastest lap, lowest lap and average time.
- If the lap & split time displays exceed 999, the average records will be invalid; Or the fastest & slowest & average records will be invalid if the measuring time exceeds 9 hours 59 minutes 59 seconds.

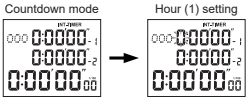
## Interval timer mode

1. Cycle times
2. Current countdown time 1
3. Current countdown time 2
4. Stopwatch

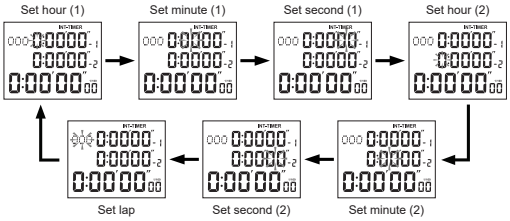



### Countdown time setting

1. In **Countdown time mode**, press and hold **[ RECALL ]** for 2 seconds to enter setting mode with Timer 1's Hour digit flashing.




2. Press **[ START / STOP ]** to adjust its value or press **[ START / STOP ]** without releasing to speed up the setting.
3. Press **[ SPLIT / RESET ]** to step other setting items as below sequence: Hour (1) > Minute(1) > Second(1) > Hour(2) > Minute(2) > Second(2) > Lap.




4. Press **[ RECALL ]** again to save and exit the setting mode, or let it exit automatically 30 seconds later without pressing any key.

**Note:**
- The maximum pre-set countdown time is 9:59'59" and 999 laps.
- Press and hold **[ SPLIT / RESET ]** for 2 seconds to clear the pre-set countdown time value.

### Use of the Interval timer

1. Set the countdown time as described in the previous section.
2. Press **[ START / STOP ]** to start the Interval timer.
3. Press **[ START / STOP ]** again to stop the Interval timer.
4. Press **[ SPLIT / RESET ]** to clear the counting value




**Note:**
- When the timer countdown to 0:00'00"00, it will cycle its counting and record the cycle times.
- The maximum countdown cycle times can be up to 999.

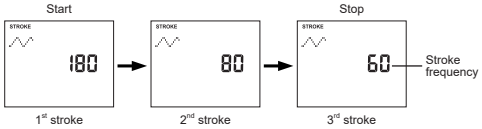
## Stroke frequency counter mode

1. Stroke mode icon
2. Stroke frequency per minute




This stroke function is used to measure a sample of 3 strokes or actions and returns a frequency or rate per minute. Ideal for swimming or rowing.

1. In **Stroke frequency counter mode**, press **[ START / STOP ]** to start measuring the stroke rate, and it display countdown from 180.
2. Press **[ START / STOP ]** again after 3 stroke or actions to show the rate per minute.
3. Press **[ SPLIT / RESET ]** to return the value to 180.




**Note:**
The measurable rate of stroke per minute is: 11 - 180 If the rate of stroke per minute is out of range, "---" will be displayed on the LCD.

## Pace mode

1. Pace mode icon
2. Pace time
3. Number of total paces
4. Pace frequency per minute



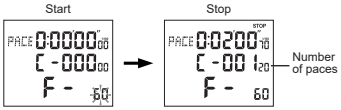

This Pace function enables you set an audible beep rate (from 10 to 320 beats) per minute for maintaining the pace of the activity. This is useful if you need to carry out activities at a rate per minute.

### Pace frequency setting

1. In **Pace mode**, the frequency digit flashing.
2. Press **[ SPLIT / RESET ]** to set the pace frequency per minute as: 10, 20, 30, 40, 60, 80, 120, 160, 240 or 320.

## Pace Measurement

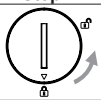
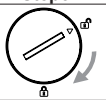
1. Set the Pace frequency as described in the previous section.
2. Press **[ START / STOP ]** to start the pace measurement.
3. Press **[ START / STOP ]** again to stop the pace measurement with the number of paces displayed on the LCD.
4. Press **[ SPLIT / RESET ]** to clear the values and reset the frequency.




**Note:**
It will clear all the pace values automatically if you exit the pace mode.

## Battery replacement

When the LCD becomes dim, remove the screws in the back case and replace with a new CR2450 battery. Pay attention to the battery polarity.

| Step1 | Step2 | Step3 |
|---|---|---|
|  |  |  |
| Remove the battery door with coin | Insert a new CR2450 button cell battery | Replace the battery door |

## Specification

| | |
|---|---|
| **General** | |
| Hour format: | 12 hour AM / PM or 24 hour |
| Calender format: | D - M or M - D |
| Main power: | CR2450 |
| Dimension: | 63mm(W) x 122mm(H) x 34mm(D) |
| Operating temperature: | 0°C ~ 50°C(32°F ~ 122°F) |
| Operating humidity: | RH 10% ~ 90% non-condensing |
| **Temperature** | |
| Unit: | °C or °F |
| Display range: | 23 ~ 122°F |
| WBGT display range: | 50 ~ 122°F |
| Accuracy: | ≤0°C ± 2°C (≤32°F ± 3.6°F)<br>>0 °C ± 1°C (>32 °F ± 1.8°F) |
| Resolution: | 1 decimal place (°C / °F) |
| **Humidity** | |
| Unit: | % |
| Display range: | RH 1 ~ 99% |
| Accuracy: | RH ±5% |
| Resolution: | 1% |

**WARNING :**danger of explosion if battery is incorrectly replace. Replace only with the same or equivalent type.

**⚠ WARNING**

- **INGESTION HAZARD**: This product contains a button cell or coin battery.
- **DEATH** or serious injury can occur if ingested.
- A swallowed button cell or coin battery can cause **Internal Chemical Burns** in as little as 2 hours.
- **KEEP** new and used batteries **OUT OF REACH of CHILDREN**
- **Seek immediate medica attention** if a battery is suspected to be swallowed or inserted inside any part of the body.



## WARNING

a) Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do NOT dispose of batteries in household trash or incinerate.
b) Even used batteries may cause severe injury or death.
c) Call a local poison control center for treatment information.
d) The compatible battery type: CR2450.
e) The nominal battery voltage: 3V DC.
f) Non-rechargeable batteries are not to be recharged.
g) Do not force discharge, recharge, disassemble, heat above (manufacturer's specified temperature rating) or incinerate. Doing so may result in injury due to venting, leakage or explosion resulting in chemical burns.
h) Ensure the batteries are installed correctly according to polarity (+ and -).
i) Do not mix old and new batteries, different brands or types of batteries, such as alkaline, carbon-zinc, or rechargeable batteries.
j) Remove and immediately recycle or dispose of batteries from equipment not used for an extended period of time according to local regulations.
k) Always completely secure the battery compartment. If the battery compartment does not close securely, stop using the product, remove the batteries, and keep them away from children.

### Warranty Statement

Triplett Test Equipment offers a one-year warranty to the original purchaser of its products. We guarantee that our products will be free from defects in workmanship and materials for one (1) year from the purchase date.

**This warranty does not cover:**

- Products purchased from unauthorized distributors.
- Items that have been repaired or altered by unauthorized individuals.
- Damage from misuse, abuse, misapplication, negligence, or accidents.
- Products with altered, defaced, or removed serial numbers.
- Accessories, including batteries.

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