

Finger-Touch Heart Rate Monitor Watch User Manual



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1. General Description

1.1 Product Overview

This product can test normal person's heart rate and calculate calorie consumptions based on pre-set personal information.

Please input your personal information before testing, such as gender, age, height, weight, resting heart rate (RHR), upper and lower heart rate limits, etc. If the tested heart rate exceeds the heart rate limit settings, the watch will beep and the screen will flash to give you audio and visual alert. It will remind you to adjust exercise intensity to stay in target heart rate zone. If you set target calorie consumption, it can help you achieve exercise result effectively, since calorie and fat consumption (KCAL/FAT) during exercise can be figured out according to tested heart rate and pre-set personal information.

This product is not only suitable for professional and amateur sportsman, but also good for those who want to keep fit through effective exercise.

This product is a monitoring tool for training and fitness. It must not be used for precise accurate medical purposes.

1.2 Functions

This product has the functions of clock, alarm, countdown timer, stopwatch, heart rate measurement etc.

- Calendar Clock: time (12 / 24 hour format option), date, day of week and calendar (year 2000 ~ 9999).
- Alarm: settable to OFF (set as default), ONCE (single alarm), Monday to Friday, Monday to Saturday, ALL (daily alarm). The alarm will sound for 20 seconds.
- Hourly chime: settable to ON/OFF (OFF by default).
- Stopwatch of 23h59m59s.
- Countdown timer of 23h59m59s.
- Dual time: display time in two different time zones.

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- Personal information setting: gender, age, height, weight, resting heart rate (RHR), upper and lower heart rate limits, etc.
- Heart Rate Measurement (HRM): finger-touch heart rate measurement.
 Measure heart rate and percentage of maximum heart rate (MHR).
- Heart Rate Training Zone Alert: If the tested heart rate exceeds the heart rate limit settings, the watch will beep and the screen will flash to give you audio and visual alert. It will remind you to adjust exercise intensity to stay in target heart rate zone.
- BMI: calculate Body Mass Index (BMI) according to an individual's height and weight.
- Record and display exercise data
 16 groups of exercise data can be recorded, including exercise time, heart rate and percentage of maximum heart rate (MHR).
- Calorie: record and display calorie consumption and fat burnt.
- EL Backlight

1.3 System Specifications

- Battery: CR2032 (3V, 210mAh)
- Battery life:

2 years (test HR 15 times per day on average with 30 seconds one time; EL backlight up one time with 3 seconds per day on average; alarm and timer beep one time respectively per day with 20 seconds one time)

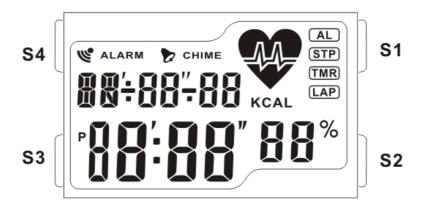
3 years (test HR less; EL backlight up one time with 3 seconds per day on average; alarm and timer beep one time respectively per day with 20 seconds one time)

- Heart rate testing error: ±2% or ±1bpm, whichever is higher, under normal status (not including heart rate abnormalities)
- Water Resistance: 10ATM
- Working Temperature: 0°C∼50°C





2 Operation Guidance 2.1 Button Function Overview





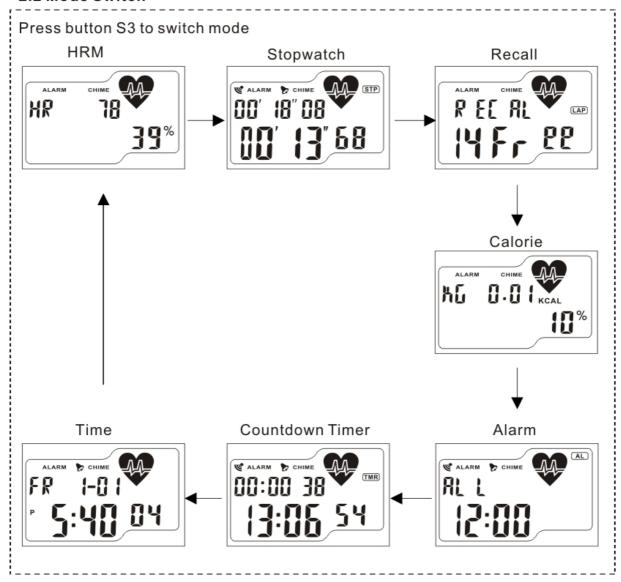
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Buttons	Functions
S1 (ST/STP)	Start / stop stopwatch and countdown timer; activate or inactivate the HRM function; Under setting mode, advance the digit and hold the button for fast advance.
S2 (RST/LAP)	Save or delete lap data; Reset the countdown timer to the last setting; Under setting mode, decrease the digit and hold the button for fast decrease.
S3 (MODE)	Under non-setting mode, switch among different modes; Under setting mode, switch target setting items.
S4 (SET/EL)	Under non-setting mode, light up the backlight; Under non-setting mode, press and hold S4 for 2 seconds to enter setting mode; Under setting mode, press S4 to save new settings and exit setting mode.





2.2 Mode Switch





2.3 General Functions

The functions and operations mentioned in this section are applicable to all modes.

2.3.1 Auto-return function

Under setting mode (with the digit flashing), if no button operation for two or three minutes, settings will be saved automatically and the watch will exit setting mode.

2.3.2 Initial Screen Memory

When enter Recall, Calorie or Alarm mode, the initial screen displayed is the screen when exiting Recall, Calorie or Alarm mode last time.

2.3.3 Item Value Adjustment

Under setting mode, press button S1 or S2 to change setting item value. In most cases, hold S1 or S2 for fast change.

3 Time Mode

3.1 View Time

There are two time zones: first time zone and second time zone. Press S1 to switch time zones.



3.2 Hourly Chime ON/OFF

Hourly chime is only available in first time zone. In first time zone, press S2 to turn ON/OFF hourly chime. Hourly chime ON icon:

3.3 Time and Date Setting

3.3.1 First Time Zone

- 1. In first time zone, press and hold S4 until enter time setting screen with the digit flashing.
- 2. Press S3 to switch among below eight settings:

Second
$$\rightarrow$$
 Minute \rightarrow Hour \rightarrow Year \rightarrow Centennial \rightarrow Month \rightarrow Day \rightarrow 12 / 24 hour format

3. When the setting item flashes, press S1 or S2 to adjust it as shown in below form.

Screen	Purpose	Operation
ALARM CHIME	Reset second digit to zero If the second digit is greater than or equal to 30, minute digit will increase by 1; If the second digit is less than 30, minute digit remains unchanged.	Press S1 or S2
ALARM CHIME	Adjust minute	Press S1 (+) or S2 (-)



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ALARM CHIME	Adjust hour	Press S1 (+) or S2 (-)
ALARM CHIME	Adjust year	Press S1 (+) or S2 (-)
ALARM 1 /CHIME	Adjust centennial	Press S1 (+) or S2 (-)
ALARM CHIME	Adjust month	Press S1 (+) or S2 (-)
ALARM CHIMIT	Adjust day	Press S1 (+) or S2 (-)

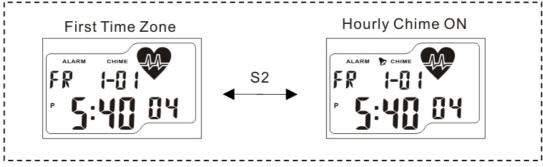


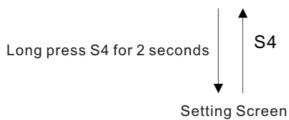


Switching 12/24 hour format (12H/24H)

Press S1 or S2

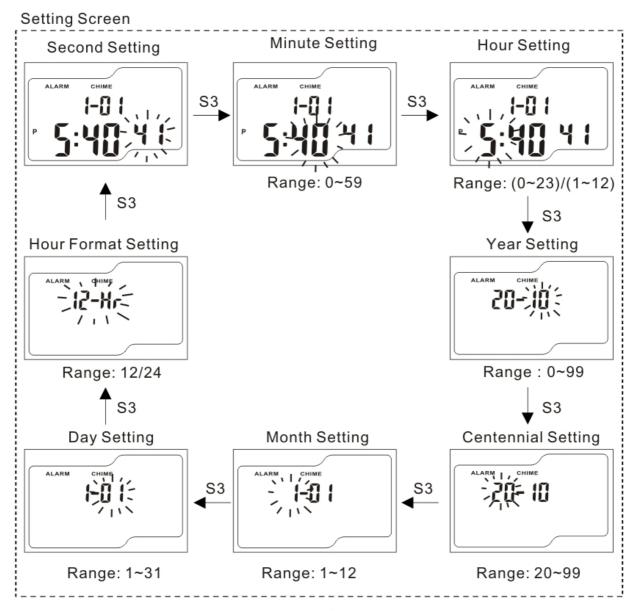
4. After setting finished, press S4 to save the settings and exit setting mode.









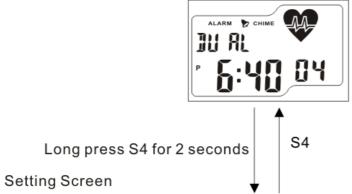


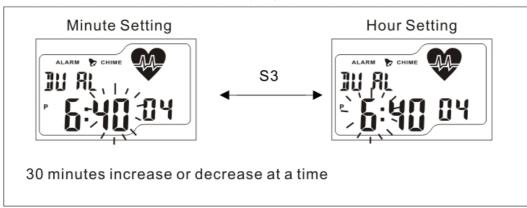


3.3.2 Second Time Zone

- 1. In second time zone, press and hold S4 until enter time setting screen with the digit flashing.
- 2. Press S3 to switch between below two settings:

3. After setting finished, press S4 to save the settings and exit setting mode.







- In time mode, if 12-hour format on, it will display PM icon after 11:59.
- In second time zone, when setting minute, the minute digit increases or decreases by 30 at a time.

4 Heart Rate Measurement (HRM) Mode

4.1 HRM Operations

Press S3 until enter HRM mode. After enter HRM mode, HR measurement circuit is activated automatically. If there is no heart rate signal or heart rate is inconsistent, the measurement function will be inactivated automatically after a certain time to save power.

Note:

- Press S1 to activate or inactivate the HRM function.
- To get your heart rate reading, place the watch on your wrist, cover the 2 sensor areas with your finger pads and make sure there is enough contact area. Please contact sensors with the same strength, relax your arms and stay still to ensure the accuracy of heart rate reading.
- If the temperature is low, please rub your hands to make them warmer. If the climate is dry, please moisten your fingers with water before contact sensors.

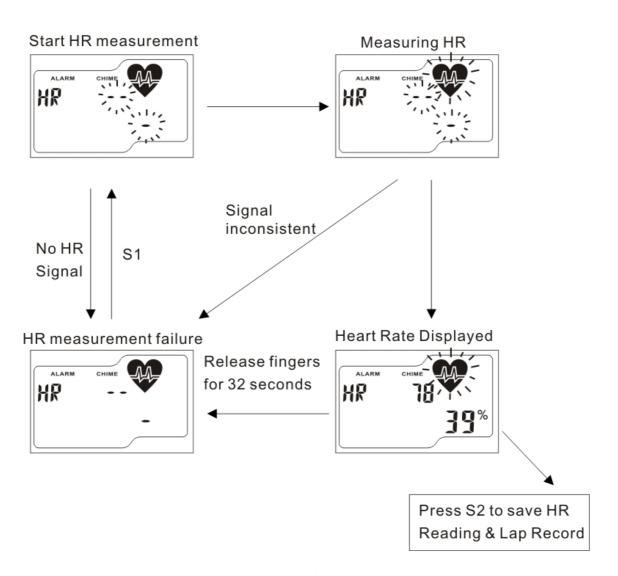


Place the watch on your wrist and then press button S3 (mode) to switch to HRM mode.



Cover the 2 sensor areas with your finger pads and make sure there is enough contact area.







4.2 Exercise Mode

In exercise mode, you can know the cumulative calorie consumption and fat burnt for workouts during a period.

Operations for exercise mode:

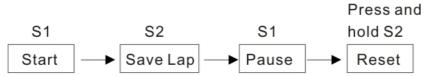
- 1. Turn on the stopwatch
- 2. Enter HRM mode and test heart rate at intervals (referring to Section 4.1 for test method). The longer the interval, the less error the calculation of calorie consumption and fat burnt. After get your heart rate reading, if you want to save heart rate reading and current lap record, press S2 to save data.
 - 3. When the workout finished, pause or stop/reset the stopwatch.
- (1) If pause the stopwatch, the record of calorie consumption and fat burnt will be saved. And the calculation will accumulate when start exercise mode next time.
- (2) If stop/reset the stopwatch, all lap data, heart rate readings, the record of calorie consumption and fat burnt will be reset and return to zero.
- Please input your personal information before starting a workout.
 Please refer to Section 7.2 for personal information setting

5. Stopwatch Mode

5.1 Stopwatch Operations



5.2 Save Lap Data







- When reset the stopwatch, lap data and heart rate data are deleted.
- When reset the stopwatch, the record of calorie consumption and fat burnt will also return to zero.
- 16 groups of data can be saved at the most.
- When stopwatch is running, if switch to other mode, stopwatch will still keep running with "STP" flashing on the top.

6 Recall Mode

If the stopwatch is running, skip Recall Mode when press S3 to switch modes.

6.1 Review Data Record

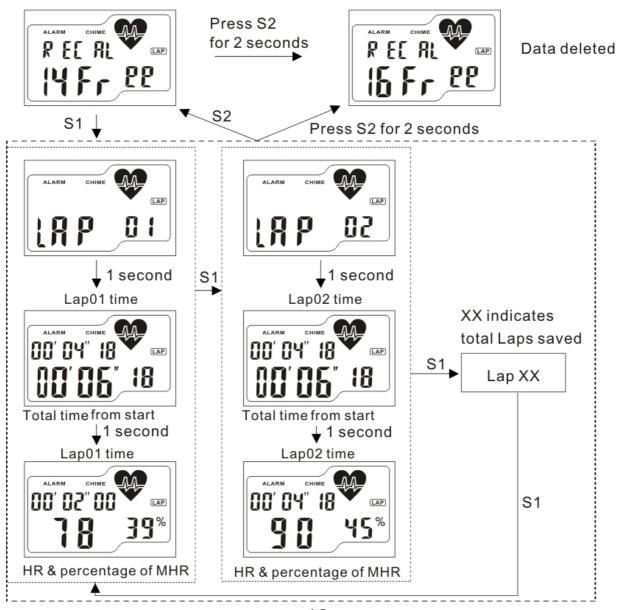
In Recall Mode, press S1 to review data record

6.2 Delete Data Record

In Recall Mode, press and hold S2 for 2 seconds to delete all data.







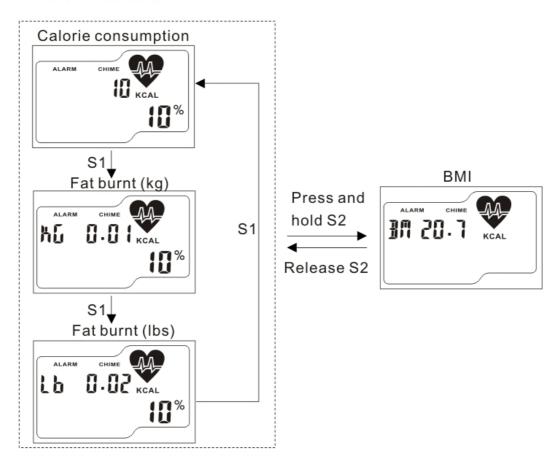


7 Calorie Mode

7.1 Review Calorie Consumption and Fat Burnt

- 1. Press S1 to switch screens among calorie consumption (kcal), fat burnt (kg) & fat burnt (lbs).
 - 2. Press and hold S2 to display BMI.

The data in calorie mode is relevant to the stopwatch and heart rate date. Please refer to Section 4.2.







7.2 Personal Information Setting

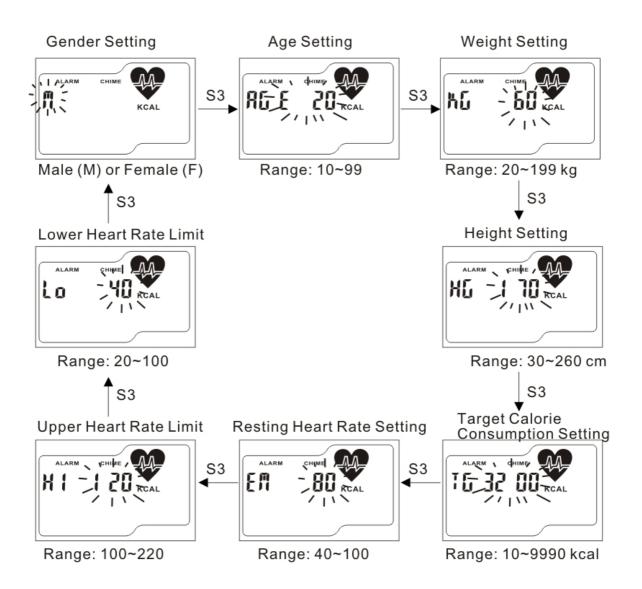
- 1. In Calorie Mode, press and hold S4 until enter personal information setting mode with letters flashing on the screen.
- 2. Press S3 to switch among below settings:

$$F/M \! \to AGE \to KG \to HG \! \to TG \to EM \to HI \to Lo$$

- 3. Press S1 to advance digit and hold the button for fast advance. Press S2 to decrease digit and hold the button for fast decrease. When setting gender, either S1 or S2 can be pressed to switch between F/M (female or male).
- 4. After setting finished, press S4 to save the settings and exit setting mode.







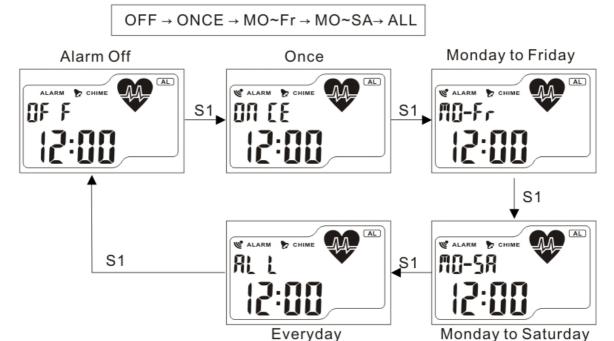


- The unit of weight is the same as that of fat burnt. If the unit for fat burnt is KG, then the unit for weight is also KG. If the unit for fat burnt is LBS, then the unit for weight is also LBS. Default unit is KG.
- The watch won't calculate your upper and lower heart rate limits. Please consult your doctor or set the limits according to previous workout.
- If the tested heart rate exceeds the limit settings, the watch will beep and the screen will flash to give you audio and visual alert.
- When the stopwatch is running, personal information setting is not allowed.

8 Alarm Mode

8.1 Alarm ON/OFF

Press S1 to switch alarm frequency in the following sequence:

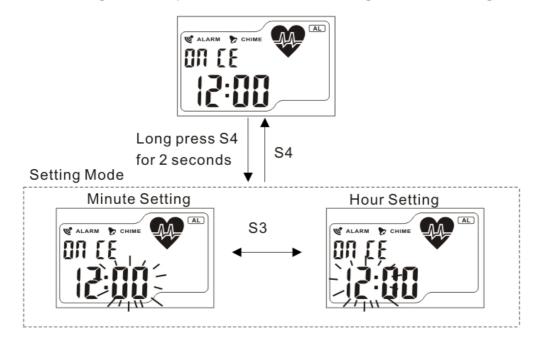


When the alarm rings, press any button to stop the alarm.



8.2 Alarm Time Setting

- 1. In alarm mode, press and hold S4 until enter the setting mode with the digit flashing.
- 2. Press S3 to switch between hour and minute setting.
- 3. Press S1 to advance digit and hold the button for fast advance. Press S2 to decrease digit and hold the button for fast decrease.
- 4. After setting finished, press S4 to save the settings and exit setting mode.



9 Countdown Timer Mode

9.1 Countdown Timer Operations

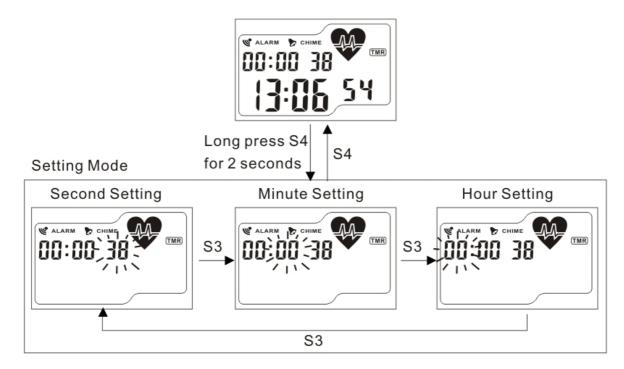




- When countdown is finished, the countdown time will automatically restore to the last setting. Press any button to stop the alarm.
- When countdown timer is running, if switch to other mode, countdown will still keep running with "TMR" flashing on the top.

9.2 Countdown Timer Setting

- 1. In countdown timer mode, press and hold S4 until enter the setting mode with the digit flashing.
- 2. Press S3 to switch among hour/minute/second setting.
- 3. Press S1 to advance digit and hold the button for fast advance. Press S2 to decrease digit and hold the button for fast decrease.
- 4. After setting finished, press S4 to save the settings and exit setting mode.





10 Appendix

10.1 Relationship between Percentage of MHR and Fat Burnt

Generally, individual heart rate varies person to person. The minimal heart rate for a normal person is resting heart rate (RHR), which is about a person's heart rate in the morning: awake but still lying down with no physical exertion. The maximal safe heart rate for an individual is maximum heart rate (MHR), which is based on one's age. Percentage of MHR relates to one's MHR.

The higher the percentage of MHR, the more calories consumed. Those calories are from sugar and fat. The relationship between percentage of MHR and calorie consumption is shown in below form.

Percentage of MHR	Exercise Intensity	Exercise Effect	Fat and Sugar burnt
<50%	Rest or moderate exercise (eg. walking)		Low calorie expenditure and mainly sugar burnt
50%~60%	Jogging. Breathing is regular.	Warm-up aerobic exercise; stress relief	Fat burnt increases and less sugar burnt
60%~70%	Running at a comfortable speed. Breathing becomes deeper. You can carry on a conversation.	Cardiovascular exercise; the speed you drop back to after running at a fast speed; weight loss	Maximum fat burnt and less sugar burnt





70%~80%	Running at a moderate speed. You can only talk in short phrases.	Improve aerobic capacity. The best zone for improving cardiovascular and respiratory systems	Less fat but more sugar burnt
80%~90%	Running at a fast speed. Breathing is heavy.	Improve anaerobic capacity; develop speed.	Seldom fat but maximum sugar burnt
90%~100%	Sprinting. Breathing is labored. Most people can only stay in this zone for short periods.	exercise performance and	Maximum sugar burnt and almost no fat burnt

10.2 BMI

The body mass index (BMI) is a statistical measure of body weight based on a person's weight and height. BMI provides a reliable indicator of body fatness for most people, which allows for the comparison of individuals of different heights in terms of their weight. BMI is widely used to identify weight problems within a population, usually whether individuals are normal, overweight or obese.

However, please remember that BMI is only a guide and other issues such as body type and shape have a bearing as well. Therefore, it does not accurately apply to juveniles, athletes, elderly populations, pregnant women or those who are doing weight training. If you think your BMI is incorrect, please consult your doctor and do body fat test.





BMI for adults (just a guide):

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BMI range-kg/m2	Category
Less than 18	Underweight
18.5~24.9	Normal
22~24	Fitness
Over 25	Overweight



