MB-100

User Manual
Your Music Sporty Recorder

ALA COACH

MB100 Specification :
- Frequency : 2.401, 2.450 & 2.480 GHz
- Modulation type: GFSK
- Power: 3.7V Li Battery
- Channel:3
- Output Power: 0dBm
- Data Rate: 2 Mbps
- Operating Tempeature: -10 ~ +50 C
- USB 2.0 Full Speed
- 2 GB NAND FLASH
- OLED 64*128 dots
- FM Tunner: 87.5MHz~108MHz
- Music Format:MP3/WMA/ASF/APE/FLAC
- Bit Rate: MP3/WMA:8K~320K
- Voice Record: WAV
- FM Record: WAV

CS004 Specification :
- Frequency : 2.401, 2.450 & 2.480 GHz
- Modulation type: GFSK
- Op. Voltage: 3V
- Channel:3
- Output Power: 0dBm
- Data Rate: 2 Mbps
- Operating Tempeature: -10 ~ +50 C
- Battery: CR2032
- Battery Life: about 500 hr (working)
- Heart rate sensor sensitivity: above 1mV

GS001 Specification :
- Frequency : 2.401, 2.450 & 2.480 GHz
- Modulation type: GFSK
- Op. Voltage: 3V
- Channel:3
- Output Power: 0dBm
- Data Rate: 2 Mbps
- Operating Tempeature: -10 ~ +50 C
- Battery: CR2032

English

Before Use

We thank you for purchasing the **ALATECH** Music Sporty Recorder. In order to correctly and effectively use the functions of this device, please read this manual carefully and keep it in a safe place for future reference.

Package Contents

- Music Sporty Recorder (MB100)
- Heart Rate Transmitter (CS004)
- G-Sensor (GS001)
- User Manual
- Accessories
- Warranty Certificate

- Sporty Fixture (optional)
- Aluminum Carabiner (optional)

(optional)

(optional)
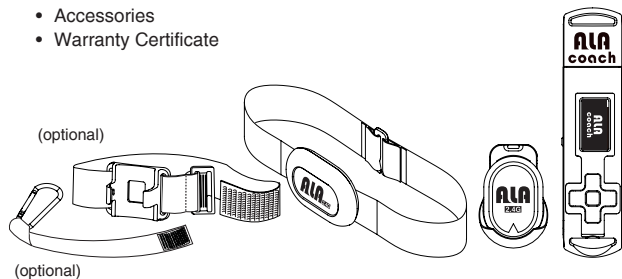
Disclaimer

- The MB100 is for general applications; it is not designed for medical treatment.
- To ensure correct display values, make the adjustments and enter your personal data when you use this device for the first time and also after changing batteries or resetting. Please refer to the chapter on user configuration.
- The values measured and displayed should be treated as reasonably accurate.
- Alatech is not responsible for any claims of loss or damage from third parties incurred from the use of this device.
- Alatech reserves the right to change the specifications of the hardware and software described in this manual at any time without prior notice.

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Safety message

This manual describes how to properly use your music sporty recorder.In order to avoid damage to the unit and to yourself, please read the following safety warning items carefully:

Protecting yourself

• Please do not disassemble, fix or modify the music sporty recorder by yourself.

Warning
• Please do not let the music sporty recorder get damp or wet.If the unit accidently got wet, please do not turn it on to avoid the risk of getting shocked. Please contact the customer service center immediately.
• In order to avoid the risk of damage or electric shock, please do not use this product during lightning storms.

Warning
• For your safety, while exercising or taking a walk, please ensure that the headphone cable isn't hung on any other surrounding objects.
• Please be careful of the USB terminal while in use, if the USB terminal is bulging out it might cause damage.
• In order to avoid fire or electric shock, please do not place the player in humid, dusty or polluted environments.

Warning
• Using earphones or headphones for long periods of time may cause severe damage to your hearing. Listening to music over 85 decibels for long periods of time may cause adverse effects to your hearing. The louder the volume, the more severe the damage is caused to your hearing.
• If ringing in your ears occurs, please lower the volume or temporarily stop using the earphones.

Protecting your music sporty recorder

• Please do not place the recorder in environments over 35 degrees Celsius; for example steam rooms or inside parked cars.
• Do not jar or place heavy objects on the recorder.
• Prevent any foreign matter or sharp objects from entering the recorder.
• Do not place the recorder near magnetic objects.
• Please backup your important data, our company will not be held responsible for any data loss.

Warning
• Please do not spray water on this product; please do not use chemicals such as benzene or thinners to clean the recorder as this might cause damage to the surface or the unit.
• Please follow the instructions in the manual, or else it might cause damage to the unit or the recorder.
• When using for the first time, please fully charge the battery for up to 3 hours in order to maintain the battery and recorder's life span.

English

Music Sporty Recorder

Features

Simple, generous, fashionable exterior design, allowing your exercise to be more stylish.The small unit brings you more convenience, top-end technology along with your exercise brings you the best music enjoyment; you will love your music sporty recorder, which allows you to download your favorite music at any time, listen to your favorite FM radio broadcast, and even bring you step by step benefits for your exercise training.

Friendly user interface

The MB100 comes with a USB connector, which eliminates the need for extra USB cables and allows high speed transfer and ease of charging.

Fitness trainer mode

This mode allows you to choose different training exercises according to your habits, and during the exercise process, it allows you to monitor your heartbeat, continual time, heart rate intensity, distance, speed, number of laps, number of paces, calories burned and achieved goal rate.

Thoughtful user settings

Set the most suitable exercise strength and goal according to your personal information.

Diverse exercise trainings

Depending on your exercise habits, along with different sensors, not only allows exercise training to be more diverse, it also adds the selection for personal training, helping you gain physical benefits.

Long playback time; high speed transfer

The fully charged battery allows continual music playback for 12 hours; the player uses USB2.0 data transfer.

Lightweight and convenient, easy to get started

The MB100 has a very stylish appearance and the interface is flexible and easy to get started; it is also convenient for you to travel with, allowing music and exercise to enrich your life.

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## Getting familiar with the music sporty recorder-MB100

1. This product has six built-in exercise training modes; it can display the user's exercise process - directly start training, fitness training, walking training, jogging training, running training, marathon training and bike training total time, calories burned value, real-time heartbeat - and use the user's personal information such as gender, age, weight, high and highest heart rate as the measuring standard, further helping the monitoring of the training strength of self-fitness processes. This product brings your exercise step by step benefits, combining music allowing users to further enjoy the atmosphere of the exercise process, helping you achieve excellent physical performances.
2. Please reset the various sensors' sensing status and personal information setting when using the product for the first time, after exchanging the battery or after resetting and restarting in order to ensure the accuracy of the values.

How to wear the wireless heart rate transmission chest strap (CS004)

The wireless heart rate transmission chest strap can detect your real-time heartbeat, and send the heart rate signal to the display on the MP3 screen.Before using the exercise heart rate mode, please follow the following instructions to properly wear the wireless heart rate transmission chest strap.

1. Adjust the chest strap length to a suitable personal length, wrap the chest strap around the lower chest circumference, and fix the chest strap by inserting the buckles of the chest strap into each other.
2. Take the CS004 and face the logo forward, and face the rear toward the back.
3. Face the sowed in button part of the chest strap directly behind the CS004, when the position is confirmed, push the buttons on both sides behind the CS004 down until you hear them click; then confirm that it is locked in the notch and fixed.
   Note: Please confirm again whether the CS004 is properly connected with the chest strap and whether the buttons are firmly fastened.
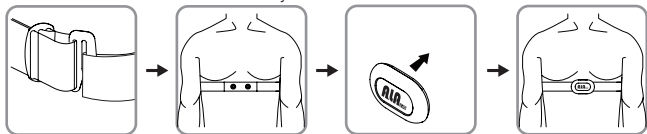
Appearance description:

1. ALA logo printed on the front, there is a metal button on both the left and right sides on the back, used to fix onto the chest strapThere are a total of four screws on the top and bottom; unscrew them to manually exchange the battery (CR2032).
2. Fasten it onto the chest strap, you can add a suitable amount of water on the A and B sections behind the chest strap, and then wear it.

Back of chest strap diagram:

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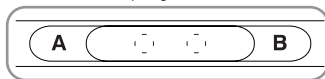
How to properly wear the integrated three-axis gravity sensor (GS001)

Using the ALATECH G-SENSOR (GS001) can help the exerciser record their exercise step numbers, total step numbers, total exercise distance and average speed etc. during the exercise process.

1. Users must wear sneakers with shoelaces in order to install the G-Sensor for use during the exercising process.
2. Select the position to wear the GS001 and insert the holder from bottom upwards into the bottom of the shoelace's X crossing and through the top.
3. Face the front of the G-Sensor upwards, and insert the bottom into the bottom of the holder.
4. When the bottom is inserted, buckle the top part down until you hear a click to confirm the completion of the assembling.

Select wearing position

Appearance description:

1. The ALA logo is printed in front of the G-Sensor, there is a circular back cover towards the bottom of the back; press the two notches on both the left and right sides and rotate to the left to open the back cover and manually exchange the battery component.
2. The holder can be used with the shoelaces of sneakers; it can be firmly fixed to the G-Sensor's position. There is no burden since it is lightweight.
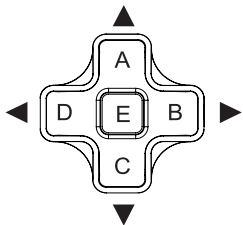
Buttons description:

1. The E button is the confirm selection button.
2. The A-C buttons are the up and down selection buttons.
3. The B-D buttons are the left and right selection buttons.

Icon description:

♥ 1. The heart-shaped icon is the CS004's icon.

G 2. G is the GS001's icon.

S 3. S is the speed sensor's icon.

C 4. C is the cadence sensor's icon.

Basic functions

This product has a total of 9 operating buttons; the screen introduction is as follows.

Screen display

Browse to the left document button [D]
Press to return to the previous option.

Play/Pause/Select button [E]
Press to select the Play/Pause functions,
or move to the next menu.

Lower volume button [C]
Press to lower the volume or move to the
next option.

Increase volume button [A]
Press to increase the volume or return to
the previous option.

Browse to the left document button [B]
Press to move to the next selection.

Headphone jack

English

Recording button
Press to start/stop audio recording.
*During exercise mode, the recording
button works as manual search.

Reset hole
If the recorder is malfunctioning,
please use a thin pointed object to
press and hold down the reset hole
to initialize the system.

⏻ Power on/off button

Return button ⤺ [H]
Press to move to the previous screen.
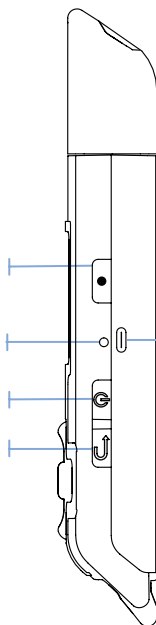
Fixed-point bracket
Slide until you hear
a click. Confirm
that it is properly
fixed.

Screen description

MB100 startup screen

When the power on screen is displayed, press the B-D buttons to move left and right and select the mode screen you need to use, and then press the E button to enter that mode.

Exercise mode

Voice REC

Music mode

File Browser

Radio mode

Setting

The MB100 has six major built-in options, which are [Exercise Mode], [Music], [Radio], [Voice REC], [File Browser] and [Setting] respectively; depending on the user's different interests and habits, customize dedicated personal usage functions to achieve effective exercise training goals.

English

Exercise Mode

Press the E button to enter
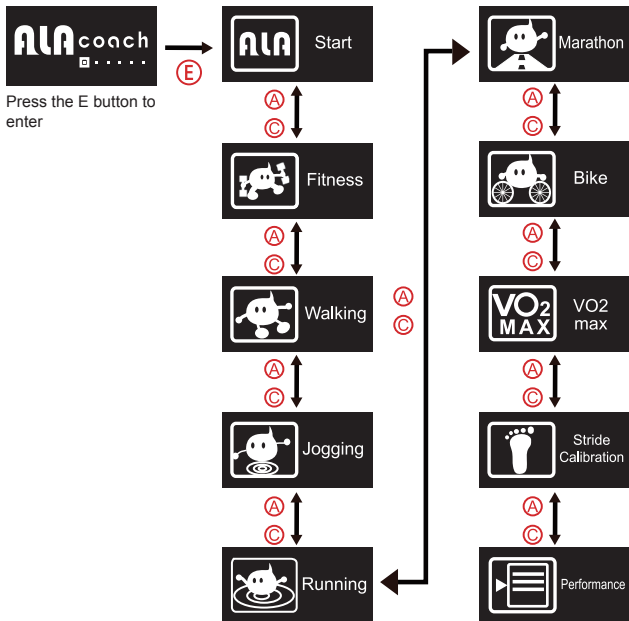
There are 9 built-in exercise modes, including options such as [Start], [Fitness], [Walking], [Jogging]. [Running], [Marathon], [Bike], [VO2 max] and [Stride Calibration], depending on personal interest and exercise goal demands, you can use different trainings to gain step by step benefits for self-physical performance.

- After selecting the exercise mode with the E button from the home page, press A-C buttons to browse all training options, then press E button again to select the exercise training you need.
- If you wish to exercise directly and omit the setting steps, after entering exercise mode, press the E button to select the directly start training page to immediately enter training status.
- If you want to exit the exercise training, press the H button to return to the previous page.

Start training

When the user doesn't want to set any exercise goals, select this function to start exercising directly, if the MB100 did not receive any Sensor DATA for over 2 minutes, it will end the exercise goal training.

Fitness training

When the user only wore the heart rate chest strap (CS004), this function can be selected to perform exercise and calculate the amount of calories burnt; if the MB100 did not receive any Sensor DATA for over 2 minutes, it will end the exercise goal training.
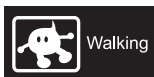
Walking training

User must wear the G-Sensor(GS001), to establish this exercise mode. The heart rate chest strap (CS004) is a secondary accessory, it works with the walking goal setting to perform training, and displays calculations such as distance, step numbers, time and calories burnt etc.; if the MB100 did not receive any Sensor DATA for over 2 minutes, it will end the exercise goal training.

Jogging training

User must wear the G-Sensor(GS001), to establish this exercise mode. The heart rate chest strap (CS004) is a secondary accessory, it works with the jogging goal setting to perform training, and displays calculations such as distance, step numbers, time and calories burnt etc.; if the MB100 did not receive any Sensor DATA for over 2 minutes, it will end the exercise goal training.

Running training

User must wear the G-Sensor(GS001), to establish this exercise mode. The heart rate chest strap (CS004) is a secondary accessory, it works with the running goal setting to perform training, and displays calculations such as distance, step numbers, time and calories burnt etc.; if the MB100 did not receive any Sensor DATA for over 2 minutes, it will end the exercise goal training.

English

Marathon training

User must wear the G-Sensor(GS001), to establish this exercise mode.The heart rate chest strap(CS004)is a secondary accessory, works with the marathon distance goal setting to perform training, and displays calculations such as the distance, step number, time and calories burned; if the MB100 did not receive any Sensor DATA for over 2 minutes, it will end the exercise goal training.

Bike training

User must wear the Speed Sensor (SP001), Cadence Sensor (CA001), to perform this function. The heart rate chest strap(CS004) is a secondary accessory, it works with the riding goal to perform training, and displays the riding distance, RPM, time and calories burnt etc., if the MB100 did not receive any Sensor DATA for over 2 minutes, it will end the exercise goal training.

VO2 max setting

The user must wear the heart rate chest strap (CS004), select this function to perform the VO2 setting.

Stride Calibration

The user must wear the GS001; select this function to perform stride calibration setting.

Performance

Viewing different exercise training files.

Directly start training

Screen home page (E)

Note 1: GS001 smart step number sensor.
Note 2: CS004 wireless heart rate transmitter.

Note 1
Note 2

01:30
Exercise time (E)

0.5 km/h
Exercise speed display (E)

80 bpm
133-152
Heart rate display (E)
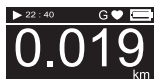
0.019 km
Exercise distance display (E)

70 %
133-152
Heart rate strength (E)
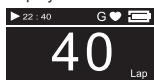
40 Lap
Exercise lap number display (E)

20 kcal
Amount of calories burnt during exercise

10000 step
Exercise step number display

- When setting an exercise goal, the displayed value during exercising is a count down.
- If no exercise goal is set, use the START function, the displayed value is a positive number.
- If you want to use the MP3 or FM functions during exercise, you must first go to the MP3 or FM functions and open it first then select the exercise mode to perform these functions simultaneously.
- Press the E button to directly enter the exercise screen.
- Short presses of the E button allow you to switch between screens and view real-time records.
- Press the A-C buttons to adjust the volume, if the MP3 is playing, B-D buttons have the song selection function; if using broadcast function, B-D buttons allows you to select the radio stations.
- When the MB100 finds sensor GS001, speed sensor, the distance calculation will mainly be based on the speed sensor.
- Depending on the sensor you are wearing, the screen will display the figure on the icon at the top-right corner of the screen.

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Screen description

Goal achieved

- A warning sound will sound to remind you that the goal has been achieved.
  When the goal is 90% achieved, a reminder will sound. When the goal is 100% achieved, a reminder will sound (congratulations for achieving your exercise goal).

When the goal is achieved, it will settle this training, and display data such as the duration, Kcal, distance & HR AVG, and then press the H button to return to the main screen.

Exit the training

Press the H button to immediately end the exercise training.To avoid users from accidently pressing it, a confirmation screen will display to avoid the exercise from being interrupted.

Sensor failed

In training mode, if no main sensors appeared, a reminder screen will appear to the left one minute later.

Fitness training

Fitness
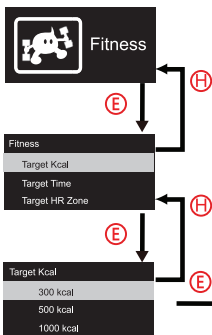
Target calories burned setting
Note: Must wear the CS004

Amount of calories burnt

Continuous time

Heart rate display
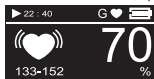
Heart rate strength
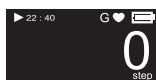
Step number display

Distance display

Speed display

Lap number display

- This training is a simplified version of the training mode; you only need to wear the CS004 to start performing training.
- After pressing the E button to select the music function as needed, directly enter the training screen.
- After entering the training screen, press the A-C buttons up and down selection; there are a total of three goal settings: [Target Kcal], [Target ime], [Target HR Zone].

Fitness training

Fitness

Target Time setting
Note: Must wear the CS004

Fitness
- Target Kcal
- Targer Time
- Target HR Zone

Target Time
- 00:30
- 01:00
- 01:30

Target Time
- 02:00
- 02:30
- 03:00

Target Time
- 03:30

22:40 01:30
Continuous time

22:40 20 kcal
Amount of calories burnt

22:40 80 bpm
133-152
Heart rate display

22:40 70 %
133-152
Heart rate strength

22:40 0 step
Step number display

22:40 0 km
Distance display

22:40 0 km/h
Speed display

22:40 0 Lap
Lap number display

Fitness training

Target HR Zone setting
Note: Must wear the CS004

Heart rate display

Heart rate strength

Continuous time

Amount of calories burnt

Step number display

Distance display

Speed display

Lap number display
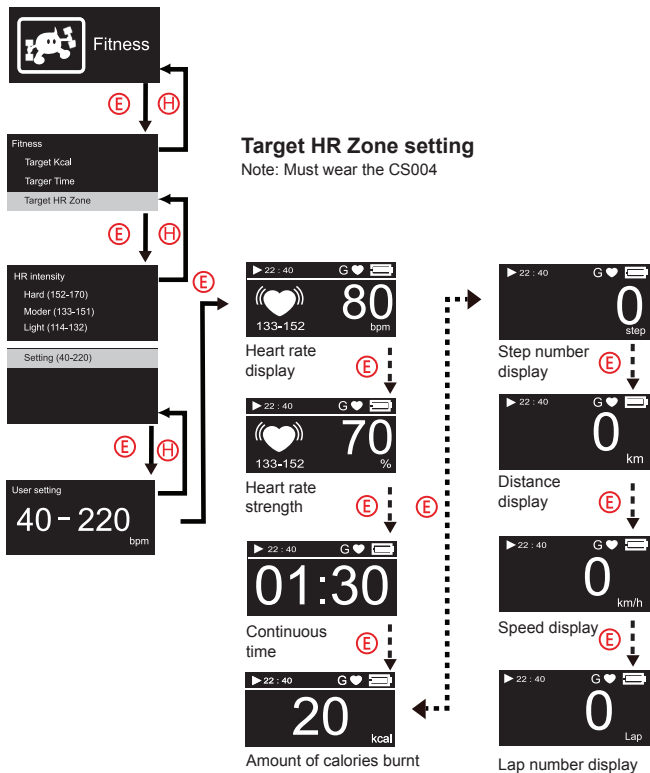
- Press the B-D buttons to select left and right range settings.
- Press the A-C buttons to adjust the value, decide the heart rate value (BPM) level, and press the E button to confirm.

English

Walking training

Target Step setting

Note: Must wear the GS001.
If you want to find out heart rate related strength you must also wear the CS004.

Step number display

Heart rate display

Heart rate strength

Amount of calories burnt

Continuous time

Distance display

Speed display

Lap number display
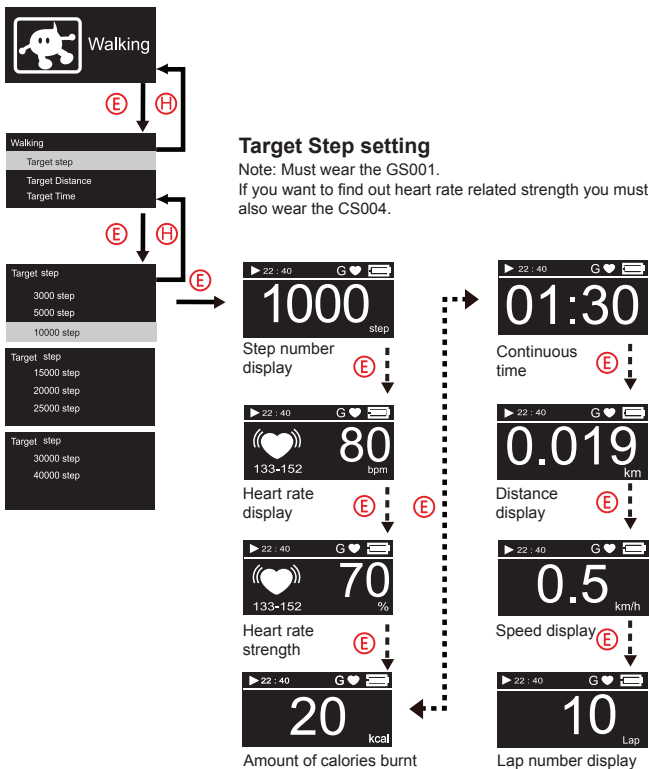
- Press the A-C buttons up and down selection, there is a total of three goal settings: [Target Step], [Target Distance], [Target Time].
- Press the E button to enter the [Target Step], press the A-C buttons up and down selection, and press the E button to confirm.
- Stride calibration factor is suggested to be 0.5.

Walking training
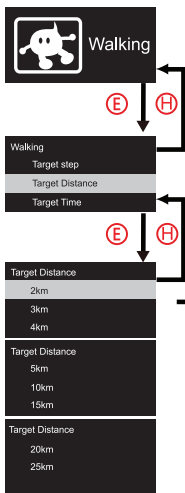
Target Distance setting

Note: Must wear the GS001.
If you want to find out heart rate related strength you must also wear the CS004.

Distance display

Step number display

Heart rate display

Heart rate strength

Amount of calories burnt

Continuous time

Speed display

Lap number display

- Press the E button to enter [Target Distance], press the A-C buttons for up and down selections and press the E button to confirm.
- Stride calibration factor is suggested to be 0.5.

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Walking training

Walking

Ⓔ Ⓗ

Walking
- Target step
- Target Distance
- Target Time

Ⓔ Ⓗ

Target Time
- 00:30
- 01:00
- 01:30

Ⓔ

Target Time
- 02:00
- 02:30
- 03:00

Target Time
- 03:30

Target Time setting

Note: Must wear the GS001.
If you want to find out heart rate related strength you must also wear the CS004.

▶ 22 : 40 G ♥ 🔋
01:30
Continuous time
Ⓔ

▶ 22 : 40 G ♥ 🔋
1000 step
Step number display
Ⓔ Ⓔ

▶ 22 : 40 G ♥ 🔋
(((♥))) **80** bpm
133-152
Heart rate display
Ⓔ

▶ 22 : 40 G ♥ 🔋
(((♥))) **70** %
133-152
Heart rate strength

▶ 22 : 40 G ♥ 🔋
20 kcal
Amount of calories burnt
Ⓔ

▶ 22 : 40 G ♥ 🔋
0.019 km
Distance display
Ⓔ

▶ 22 : 40 G ♥ 🔋
0.5 km/h
Speed display
Ⓔ

▶ 22 : 40 G ♥ 🔋
10 Lap
Lap number display

- After entering the training screen, press the A-C buttons for up and down selections, select [Target Time] and press the E button.
- Enter [Target Time] and press the A-C buttons for up and down selection and press the E button to confirm.
- Stride calibration factor is suggested to be 0.5.

Jogging training

Jogging

Jogging
Target Distance
Target Time
Target Lap

Target Distance
2km
3km
4km

Target Distance
5km
10km
15km

Target Distance
20km
25km

Target Distance setting

Note: Must wear the GS001.
If you want to find out heart rate related strength you must also wear the CS004.

► 22 : 40   G ♥ 🔋

0.019
km

Distance display

► 22 : 40   G ♥ 🔋

1000
step

Step number display

► 22 : 40   G ♥ 🔋

(((♥)))   80
133-152   bpm

Heart rate display

► 22 : 40   G ♥ 🔋

(((♥)))   70
133-152   %

Heart rate strength

► 22 : 40   G ♥ 🔋

20
kcal

Amount of calories burnt

► 22 : 40   G ♥ 🔋

01:30

Continuous time

► 22 : 40   G ♥ 🔋

0.5
km/h

Speed display

► 22 : 40   G ♥ 🔋

10
Lap

Lap number display

- Press the A-C buttons for up and down selections, there are a total of three target settings: [Target Distance], [Target Time], [Target Lap].
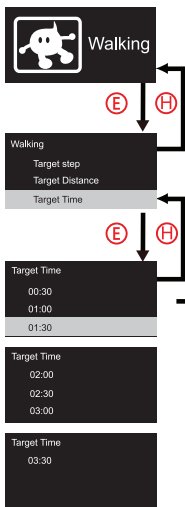- Press the E button to enter [Target Distance], press the A-C buttons for up and down selections and press the E button to confirm.
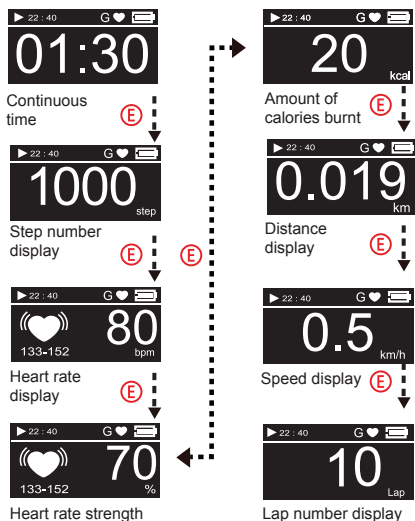- Stride calibration factor is suggested to be 1.

Jogging training

Jogging

Jogging
Target Distance
Target Time
Target Lap

Target Time
00:30
01:00
01:30

Target Time
02:00
02:30
03:00

Target Time
03:30

Target Time setting

Note: Must wear the GS001.
If you want to find out heart rate related strength you must also wear the CS004.

▶ 22 : 40   G ♥ ▭
01:30
Continuous time

▶ 22 : 40   G ♥ ▭
1000
step
Step number display

▶ 22 : 40   G ♥ ▭
(♥) 80
133-152   bpm
Heart rate display

▶ 22 : 40   G ♥ ▭
(♥) 70
133-152   %
Heart rate strength

▶ 22 : 40   G ♥ ▭
20
kcal
Amount of calories burnt

▶ 22 : 40   G ♥ ▭
0.019
km
Distance display

▶ 22 : 40   G ♥ ▭
0.5
km/h
Speed display

▶ 22 : 40   G ♥ ▭
10
Lap
Lap number display

- After entering the training screen, press the A-C buttons for up and down selections, select [Target Time] and press the E button.
- Enter [Target Time] and press the A-C buttons for up and down selection and press the E button to confirm.
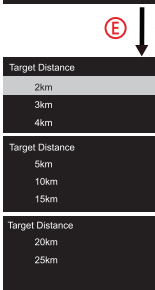- Stride calibration factor is suggested to be 1.

Jogging training

Jogging

Jogging
Target Distance
Target Time
Target Lap

Target Lap
1 Lap
2 Lap
3 Lap

Target Lap
4 Lap
5 Lap
8 Lap

Target Lap
10 Lap

Target Lap setting

Note: Must wear the GS001.
If you want to find out heart rate related strength you must also wear the CS004.

▶ 22 : 40

4 Lap

Lap number display

▶ 22 : 40

01:30

Continuous time

▶ 22 : 40

1000 step

Step number display

▶ 22 : 40

133-152 80 bpm

Heart rate display

▶ 22 : 40

133-152 70 %

Heart rate strength

▶ 22 : 40

20 kcal

Amount of calories burnt

▶ 22 : 40

0.019 km

Distance display

▶ 22 : 40

0.5 km/h

Speed display

- Press the E button to enter [Target Lap], press the A-C buttons for up and down selections and press the E button to confirm.
- Stride calibration factor is suggested to be 1.

Running training

Running

Target Distance setting

Note: Must wear the GS001.
If you want to find out heart rate related strength you must also wear the CS004.

Running
- Target Distance
- Target Time
- Target Lap

Target Distance
- 2km
- 3km
- 4km

Target Distance
- 5km
- 10km
- 15km

Target Distance
- 20km
- 25km

▶ 22 : 40   G ♥ ▭
0.019 km
Distance display

▶ 22 : 40   G ♥ ▭
20 kcal
Amount of calories burnt

▶ 22 : 40   G ♥ ▭
1000 step
Step number display

▶ 22 : 40   G ♥ ▭
01:30
Continuous time

▶ 22 : 40   G ♥ ▭
((♥)) 80 bpm
133-152
Heart rate display

▶ 22 : 40   G ♥ ▭
0.5 km/h
Speed display

▶ 22 : 40   G ♥ ▭
((♥)) 70 %
133-152
Heart rate strength

▶ 22 : 40   G ♥ ▭
10 Lap
Lap number display

- Press the A-C buttons for up and down selections, there are a total of three target settings: [Target Distance], [Target Time], [Target Lap].
- Press the E button to enter [Target Distance], press the A-C buttons for up and down selections and press the E button to confirm.
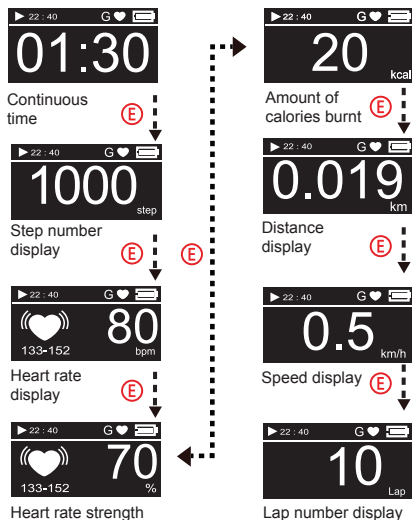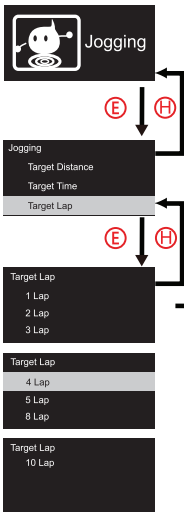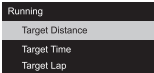- Stride calibration factor is suggested to be 1.

Running training

Running

E H

Running
Target Distance
Target Time
Target Lap

E H

Target Time
00:30
01:00
01:30

Target Time
02:00
02:30
03:00

Target Time
03:30

Target Time setting

Note: Must wear the GS001.
If you want to find out heart rate related strength you must also wear the CS004.

▶ 22 : 40   G ♥ 🔋
01:30
Continuous
time   E

▶ 22 : 40   G ♥ 🔋
1000
step
Step number
display   E

▶ 22 : 40   G ♥ 🔋
((♥)) 80
133-152   bpm
Heart rate
display   E

▶ 22 : 40   G ♥ 🔋
((♥)) 70
133-152   %
Heart rate strength

▶ 22 : 40   G ♥ 🔋
20
kcal
Amount of
calories burnt   E

▶ 22 : 40   G ♥ 🔋
0.019
km
Distance
display   E

▶ 22 : 40   G ♥ 🔋
0.5
km/h
Speed display   E

▶ 22 : 40   G ♥ 🔋
10
Lap
Lap number display

- Enter [Target Time] and press the A-C buttons for up and down selection and press the E button to confirm.
- Stride calibration factor is suggested to be 1.
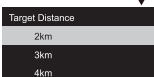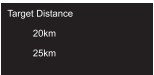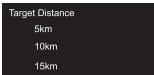
Running training

Running

Running
Target Distance
Target Time
Target Lap

Target Lap
1 Lap
2 Lap
3 Lap

Target Lap
4 Lap
5 Lap
8 Lap

Target Lap
10 Lap

Target Lap setting

Note: Must wear the GS001.
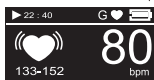If you want to find out heart rate related strength you must also wear the CS004.

▶ 22 : 40   G ♥ ▭
4   Lap
Lap number display

▶ 22 : 40   G ♥ ▭
01:30
Continuous time

▶ 22 : 40   G ♥ ▭
1000   step
Step number display

▶ 22 : 40   G ♥ ▭
♥ 80
133-152   bpm
Heart rate display

▶ 22 : 40   G ♥ ▭
♥ 70
133-152   %
Heart rate strength

▶ 22 : 40   G ♥ ▭
20   kcal
Amount of calories burnt

▶ 22 : 40   G ♥ ▭
0.019   km
Distance display

▶ 22 : 40   G ♥ ▭
0.5   km/h
Speed display

- Press the E button to enter [Target Lap], press the A-C buttons for up and down selections and press the E button to confirm.
- Stride calibration factor is suggested to be 1.

Marathon training
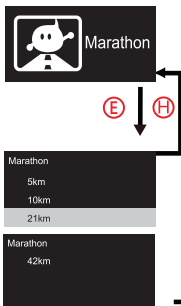
Marathon

Target Distance setting

Note: Must wear the GS001.
If you want to find out heart rate related strength you must also wear the CS004.
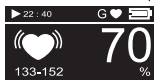
Distance display

Amount of calories burnt

Step number display
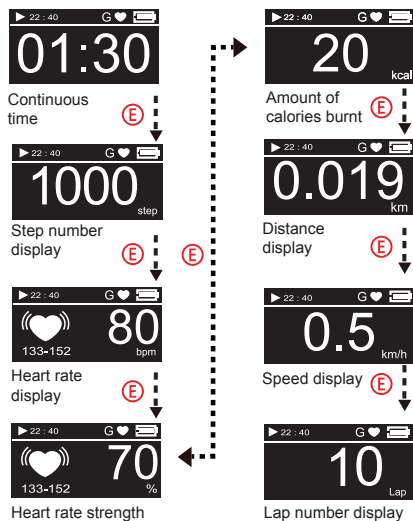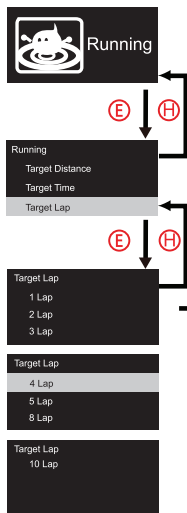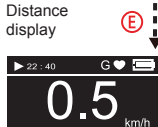
Continuous time

Heart rate display

Speed display

Heart rate strength

Lap number display

- Press the A-C buttons for up and down selections for the marathon target distance setting.
- Press the E button to enter the training distance, press the A-C buttons for up and down selections and press the E button to confirm.

Bike training

Bike

E H

Bike
Target Time
Target Distance
Target Lap

E H

Target Time
00:30
01:00
01:30

Target Time
02:00
02:30
03:00

Target Time
03:30

E

E

Target Time setting

Note: must wear the SPEED & CADENCE SENSORS.
If you want to find out heart rate related strength you must also wear the CS004.

▶ 22 : 40   C S ♥ ▭
01:30

Continuous time E

▶ 22 : 40   C S ♥ ▭
100 rpm

Step number display E

▶ 22 : 40   C S ♥ ▭
(♥) 80 bpm
133-152

Heart rate display E

▶ 22 : 40   C S ♥ ▭
(♥) 70 %
133-152

Heart rate strength

E

▶ 22 : 40   C S ♥ ▭
20 kcal

Amount of calories burnt E

▶ 22 : 40   C S ♥ ▭
0.019 km

Distance display E

▶ 22 : 40   C S ♥ ▭
0.5 km/h

Speed display E

▶ 22 : 40   C S ♥ ▭
10 Lap

Lap number display
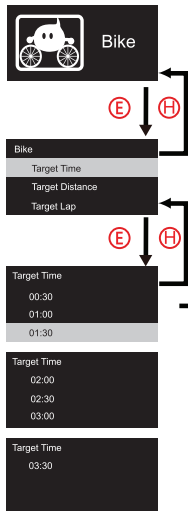
- After entering the training screen, Press the A-C buttons for up and down selections, there are a total of three target settings: [Target Time], [Target Distance], [Target Lap].
- Enter [Target Time] and press the A-C buttons for up and down selection and press the E button to confirm.

Bike training

Bike

Bike
Target Time
Target Distance
Target Lap

Target Distance
2km
3km
4km

Target Distance
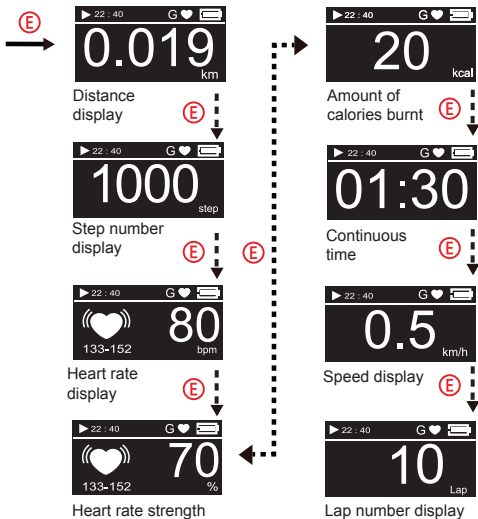5km
10km
15km

Target Distance
20km
25km

Target Distance setting

Note: must wear the SPEED & CADENCE SENSORS.
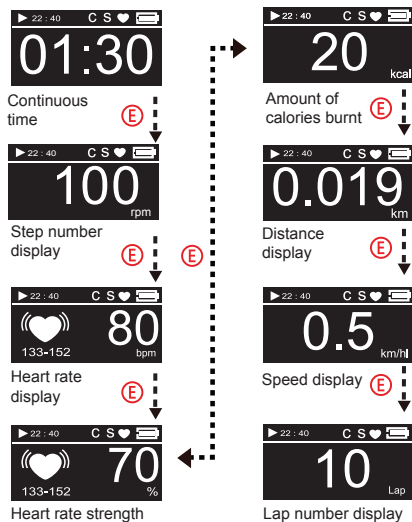If you want to find out heart rate related strength you must also wear the CS004.

▶ 22 : 40   C S ♥ ▭

0.019
km

Distance display

▶ 22 : 40   C S ♥ ▭

100
rpm

Step number display

▶ 22 : 40   C S ♥ ▭

((♥)) 80
133-152   bpm

Heart rate display

▶ 22 : 40   C S ♥ ▭

((♥)) 70
133-152   %

Heart rate strength

▶ 22 : 40   C S ♥ ▭

20
kcal

Amount of calories burnt

▶ 22 : 40   C S ♥ ▭

01:30

Continuous time

▶ 22 : 40   C S ♥ ▭

0.5
km/h

Speed display

▶ 22 : 40   C S ♥ ▭

10
Lap

Lap number display

- After entering the training screen, press the A-C buttons for up and down selections, select [Target Distance] and press the E button.
- Enter [Target Distance] and press the A-C buttons for up and down selection and press the E button to confirm.

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Bike training

Bike

E | H

Bike
- Target Time
- Target Distance
- Target Lap

E | H

Target Lap
- 10 Lap
- 25 Lap
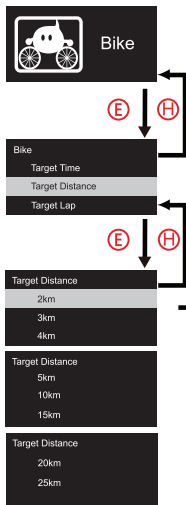- 50 Lap

Target Lap
- 75 Lap
- 100 Lap
- 200 Lap

Target Lap setting

Note: must wear the SPEED & CADENCE SENSORS.
If you want to find out heart rate related strength you must also wear the CS004.

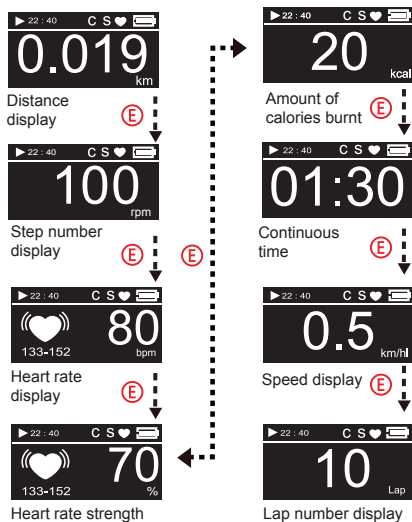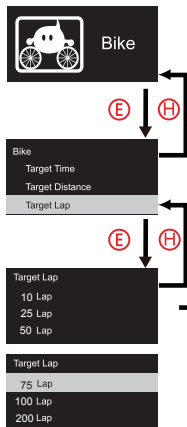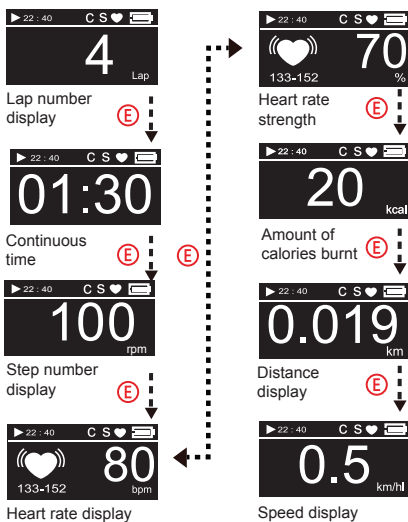▶ 22 : 40   C S ♥ ▭

4 Lap

Lap number display   E

▶ 22 : 40   C S ♥ ▭

01:30

Continuous time   E

▶ 22 : 40   C S ♥ ▭

100 rpm

Step number display   E

▶ 22 : 40   C S ♥ ▭

((♥)) 133-152   **80** bpm

Heart rate display

▶ 22 : 40   C S ♥ ▭

((♥)) 133-152   **70** %

Heart rate strength   E

▶ 22 : 40   C S ♥ ▭

20 kcal

Amount of calories burnt   E

▶ 22 : 40   C S ♥ ▭

0.019 km

Distance display   E

▶ 22 : 40   C S ♥ ▭

0.5 km/h

Speed display

- After entering the training screen, Press the A-C buttons for up and down selections, select [Target Lap] and press the E button.
- Enter [Target Lap] and press the A-C buttons for up and down selections and press the E button to confirm.
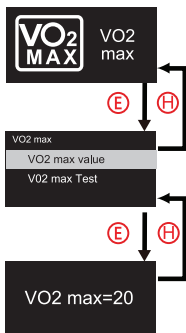
33

VO2 max setting

VO2 max

VO2 mas test
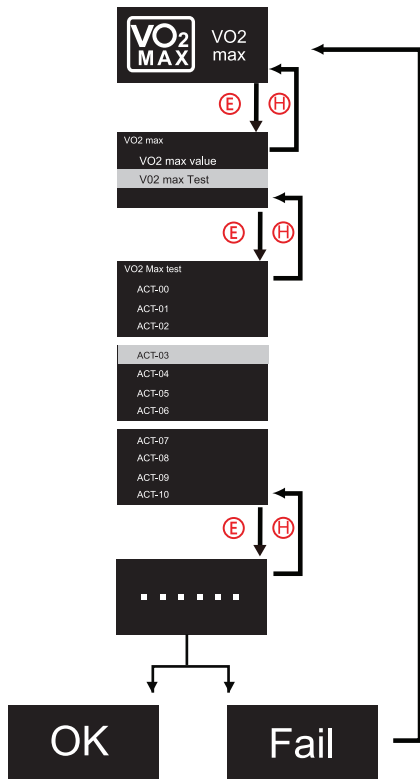
- Press the A-C buttons to select VO2 max setting (maximal oxygen uptake).
- After setting is completed, press the E button to start adjustments.

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VO2max Test (Maximal Aerobic Power)

VO2max (Maximal Aerobic Uptake) is also called "Maximal Aerobic Power". It is a common description for the assessment of one's physical fitness of cardio-respiratory endurance (CR Fitness). CR Fitness refers to cardio-pulmonary vascular system in the body of oxygen transport and the use of physical activity as the ability to use.

If you had previously input your personal data accurately, this watch will estimate your Maximal Aerobic Power automatically. To get a more accurate VO2max value, you can perform the VO2max Test with this watch. Kindly read the following instructions before taking the test.

1. Please to wear the Transmitter (CS004) below your chest properly and make sure you input accurate personal data. Pay attention to the following guidelines before taking the test:
2. No smoking and excessing food 2~3 hours before the test. Avoid alcoholic beverages, medication or strenuous physical efforts a day before the test.
3. The test should be performed in a quiet environment without disturbances such as TV, telephone, radio, people talking etc.
4. In order to receive your heart rate signal effectively, please ensure the transmitter is fitted snugly on your chest muscle and well-moistened.
5. Lie down and relax for 1~2 minutes before the test.
6. The VO2max Test takes about 2~3 minutes. It is recommended that you keep your body laying flat, limit body movements or talk with people when you are taking the test.
7. Take the following steps after you are ready to take the VO2max Test:
8. Select an appropriate ACT grade* for yourself (refer to page 36 for the PAR)
9. Start the test.
10. Press "B" to stop the test anytime.

*The ACT Grade you selected should be the average description of your daily activity level over the past one month.

Physical Activity Status Scale (PAR)

Grade	Description
Sedentary to Light Exercise	
ACT-00	Avoid walking or exertion, e.g., always use elevator, drive whenever possible instead of walking.
ACT-01	Walk for pleasure, routinely use stairs or occasionally exercise sufficiently to cause heavy breathing or perspiration.
Recreational Activity (golf, bowling, yard work)	
ACT-02	10~60 minutes per week.
ACT-03	Over one hour per week.
Heavy Aerobic Exercise (run or brisk walking or comparable activity such as basketball, tennis, racquetball, aerobic dance.)	
ACT-04	Run about 1 mile per week or walk about 1.3 miles per week or spend about 30 minutes per week in comparable physical activity.
ACT-05	Run 1 to 5 miles per week or walk about 1.3 miles to 6 miles per week or spend 30 to 60 minutes per week in comparable physical activity.
ACT-06	Run 6 to 10 miles per week or walk about 7 to 13 miles per week or spend in 1 to 3 hours per week in comparable physical activity.
ACT-07	Run 11 to 15 miles per week or walk about 14 to 20 miles per week or spend in 4 to 6 hours per week in comparable physical activity.
ACT-08	Run 16 to 20 miles per week or walk about 21 to 26 miles per week or spend in 6 to 8 hours per week in comparable physical activity.
ACT-09	Run 21 to 25 miles per week or walk about 27 to 33 miles per week or spend in 9 to 11 hours per week in comparable physical activity
ACT-10	Run over 25 miles per week or walk over 34 miles per week or spend over 12 hours per week in comparable physical activity

Source: National Aeronautics and Space Administration.

English

Percentile Value for Maximal Aerobic Power

Maximal Aerobic Power can improve with training and decrease with age; world class athletes typically have high VO2max. Research suggests that when the VO2max is below the 20th percentile, it is often indicative of a sedentary lifestyle and associated with increased risk of death from all causes. Compare your VO2max value with the table below to gain a better understanding of your cardiovascular health.

(Unit: ml/kg/min)

Percentile Value for Maximal Oxygen Uptake in Men					
Percentile		Age			
	20-29	30-39	40-49	50-59	Over 60
90	55.1	52.1	50.6	49.0	44.2
80	52.1	50.6	49.0	44.2	41.0
70	49.0	47.4	45.8	41.0	37.8
60	47.4	44.2	44.2	39.4	36.2
50	44.2	42.6	41.0	37.8	34.6
40	42.6	41.0	39.4	36.2	33.0
30	41.0	39.4	36.2	34.6	31.4
20	37.8	36.2	34.6	31.4	28.3
10	34.6	33.0	31.4	29.9	26.7

Percentile Value for Maximal Oxygen Uptake in Women					
Percentile		Age			
	20-29	30-39	40-49	50-59	Over 60
90	49.0	45.8	42.6	37.8	34.6
80	44.2	41.0	39.4	34.6	33.0
70	41.0	39.4	36.2	33.0	31.4
60	39.4	36.2	34.6	31.4	28.3
50	37.8	34.6	33.0	29.9	26.7
40	36.2	33.0	31.4	28.3	25.1
30	33.0	31.4	29.9	26.7	23.5
20	31.4	29.9	28.3	25.1	21.9
10	28.3	26.7	25.1	21.9	20.3

Data was obtained from initial examinations of apparently healthy men and women enrolled in the "Aerobics Center Longitudinal Study(ACLS)"(1970 to 2002).

Stride Calibration

Distance limit: 400-2000m

Index limit: 0.3-3

Step Calibration

Calibration OK

Calibration Fail
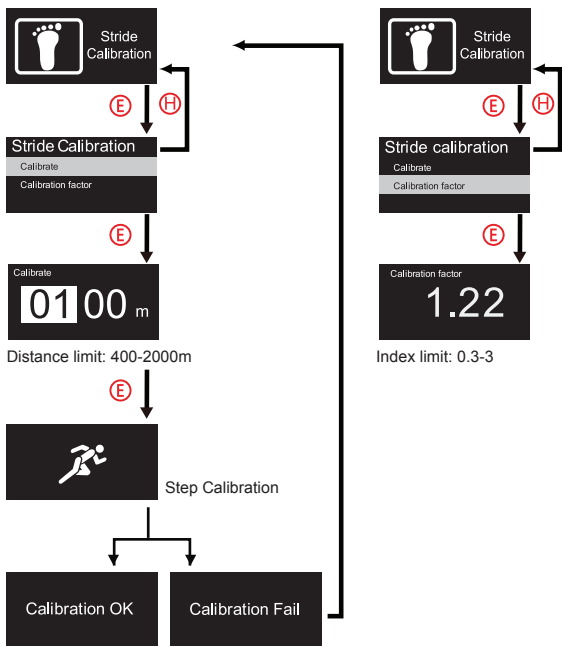
Press the E button to
end the display screen.

- Must wear the GS001 and confirm that there are no errors for the signal.
- Press the A-C buttons to adjust the distance.
- After setting is completed, press the E button to start adjustments.
- It is suggested that when adjusting, please exercise for at least 800m or above to ensure the accuracy.
- Walking training : stride calibration factor is suggested to be 0.5.
- Jogging and Running training : stride calibration factor is suggested to be 1.

English

Performance
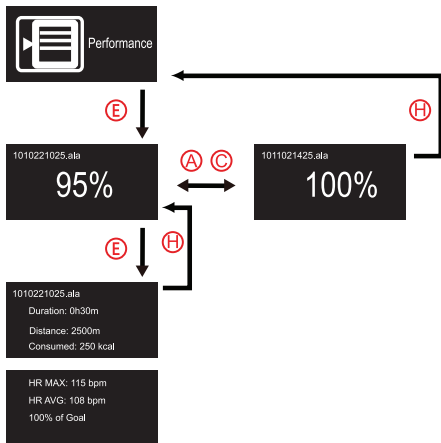
- Press the E button to view detailed exercise contents.
- Press the A-C buttons to view different exercise training files.
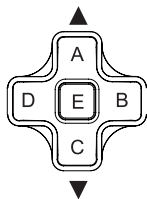- Press the H button to return to the previous page.

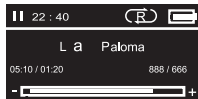# Music mode

MUSIC

Music playback screen

Pause ► ■ II Repeat
Time   Power

► 22 : 40   ⟨R⟩ ▭

L a   Paloma

05:10 / 01:20   8888 / 666

05:10 / 01:20
Total track time/current playback time

8888 / 666 (Currently set to 4 digits)Total number of tracks/currently playing track

```
      A
   D  E  B
      C
```

II 22 : 40   ⟨R⟩ ▭

L a   Paloma

05:10 / 01:20   888 / 666

– ▭   +

Volume
Press the A-C buttons will make the volume bar appear, which allows you to adjust the volume.

• Short press the power key to lock the buttons; to unlock the buttons, short press the power key again.

🔒

🔓

II 22 : 40   ⟨R⟩ ▭

L a   Paloma

05:10 / 01:20   888 / 666

– ▭   🔒

• If the volume limit is turned on, when the volume is adjusted to a certain level, the volume limit symbol will appear. 🔒 (Please refer to user setting/sound setting option)

22 : 40   G ♥ ▭

0.019 km

L a   Paloma

• When the sensor is searching, the top-right corner of the screen will display a sensor icon arrangement.
• The sensor will flash for approximately 5 seconds when detecting.

40

Radio mode
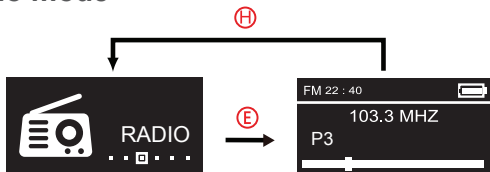
Function operation

1. Press and hold down the B-D buttons to automatically search for channels.
2. Short press the B-D buttons to fine tune channels.
3. Press the E button to select saved broadcast radio channels (can save a maximum of 10 channels).
4. Press the F button to record the broadcast contents:
   When [Voice REC] is turned on, press the E button to pause the recording, but not to leave the [Voice REC]; press the E button again to continue recording.If you need to exit, press the H button to return to the previous page, and exit [Voice REC].If executing [Voice REC] under [Radio], please note that you cannot switch channels randomly.
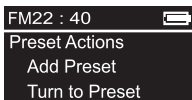
- Press and hold the E button to display the [Preset Actions] option.
- Press the A-C buttons to select the preset option, and then press the E button to enter.
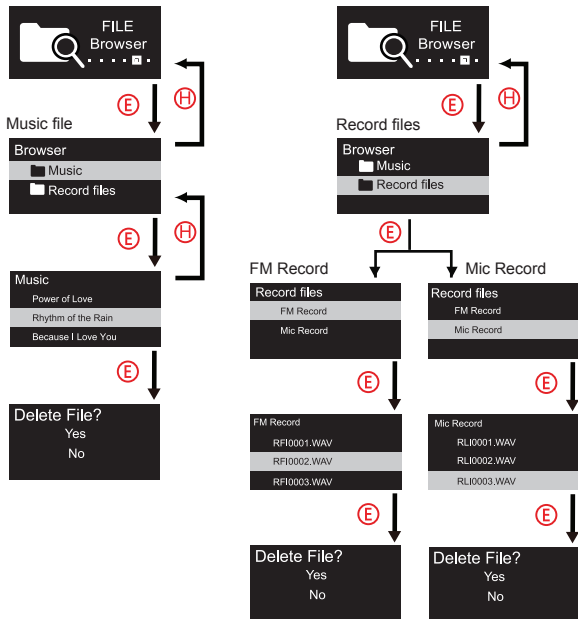- Press the H button to return to the previous page.

Recording mode
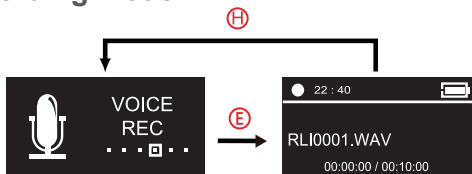
Function operation

1. Under normal mode, press the F button to enter [Voice REC] mode.
2. When exiting [Voice REC] mode, the system will automatically save the file.
3. Press the F button to start the recording function, and then press the F button again to stop the recording function.
4. If you need to pause the recording, press the E button to do so; if you need to resume recording, press the E button again to continue recording.
5. While in FM mode, recording will record the broadcasting program; in any other mode, the recording will record external sounds.

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File Browser

If you need to delete files, press and hold down the E button and wait for the confirm file deletion screen to appear.After selecting, the screen will automatically return to the previous page, continue to browse the music files.

Function operation

- After pressing the E button to enter [File Browser], press the A-C buttons for up and down selections, there are a total of two items:
  [Music], [Record files].
- After pressing the E button and entering [Music], short press the E button for direct playback; if you need to delete tracks, press and hold down the E button and a confirm file deletion screen will appear.
- After pressing the E button and entering [Record files], then [FM Record] and [Mic Record] will appear; after pressing the E button and entering, search for the file you want to playback, then press the E button again for playback; if you need to delete files, press and hold down the E button and a confirm file deletion screen will appear.
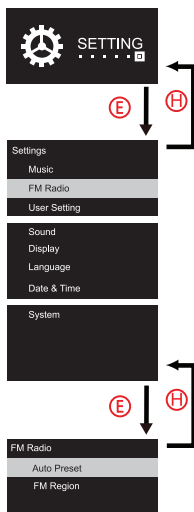
42

Setting/Music mode
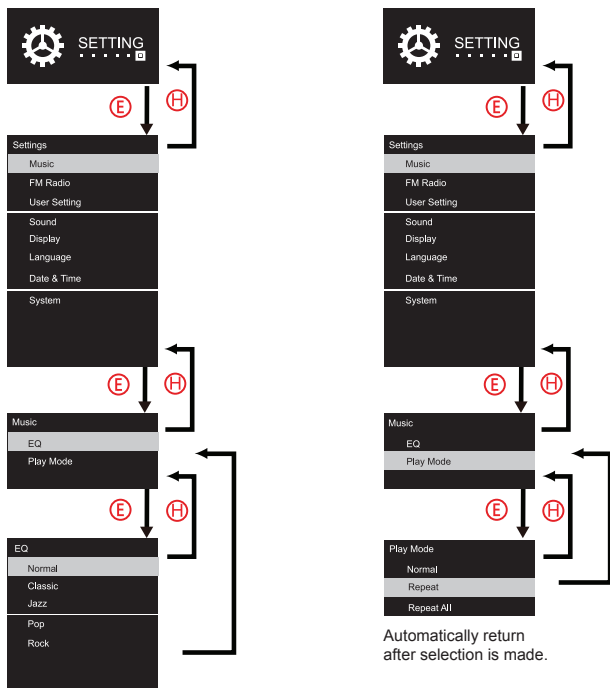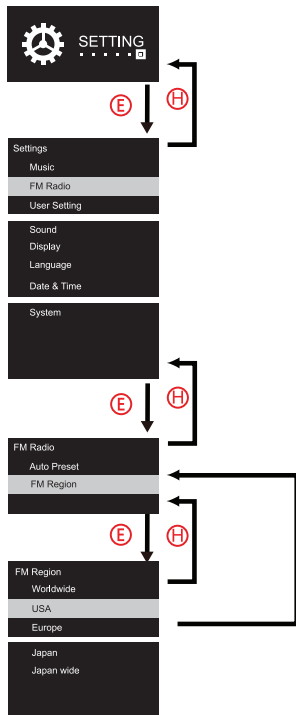

Automatically return after selection is made.

Automatically return after selection is made.

- After pressing the E button to enter settings, press the A-C buttons for up and down selections and select Music [Music], press the E button to enter.
- After pressing the E button to enter Music [Music], press the A-C buttons to select EQ [EQ] or Play Mode [Play Mode]
- EQ [EQ]: Normal, classic, jazz, pop style and rock style.
- Play Mode [Play Mode]: Normal playback, repeat single track or repeat all tracks. 43

Settings/FM Radio

Automatically return
after selection is made.

Automatically return
after selection is made.

- After pressing the E button to enter settings, press the A-C buttons up and down selection to select FM Radio [FM Radio], and press the E button to enter.
- After pressing the E button to enter FM Radio [FM Radio], press the A-C buttons to set Auto Preset [Auto Preset] and FM Region [FM Region].
- Press the E button to enter Auto Preset [Auto Preset], an option asking you whether the turn on automatic default will appear, press the E button and set it according to personal needs.
- FM Region [FM Region] includes world channels, America, Europe and Japan for selection, press the E button to enter the selectable broadcast region, and then press the E button again to confirm and complete the setting.
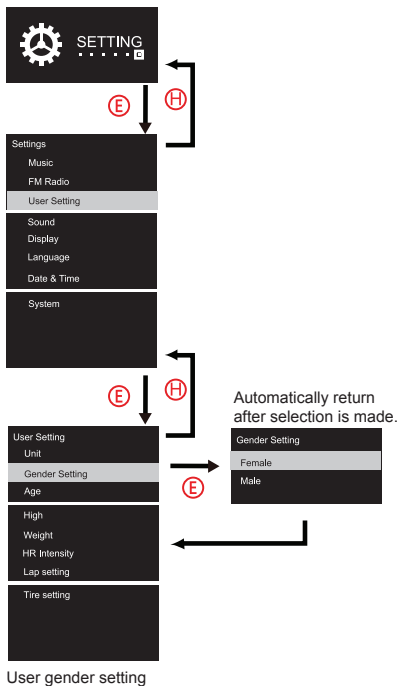
Setting/User Setting/Unit Setting
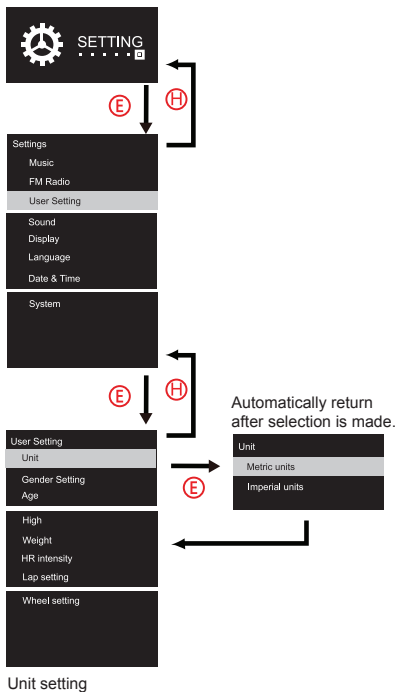
Unit setting

Unit setting
After using the A-C buttons up and down to select and pressing the E button to confirm, it will automatically return to the settings option page. There are two options for users to select from: metric and imperial.
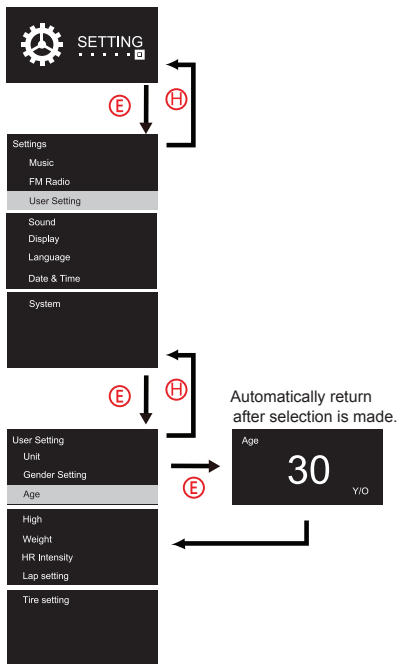
Setting/User Setting/Gender Setting

Automatically return
after selection is made.

User gender setting

Gender setting
Press the A-C buttons up and down selection, then press the E button to confirm
and it will automatically return to the previous setting screen.

Setting/User Setting/Age

Automatically return after selection is made.

Age setting

Age setting
Press the A-C buttons up and down selection, then press the E button to confirm and it will automatically return to the previous setting screen.
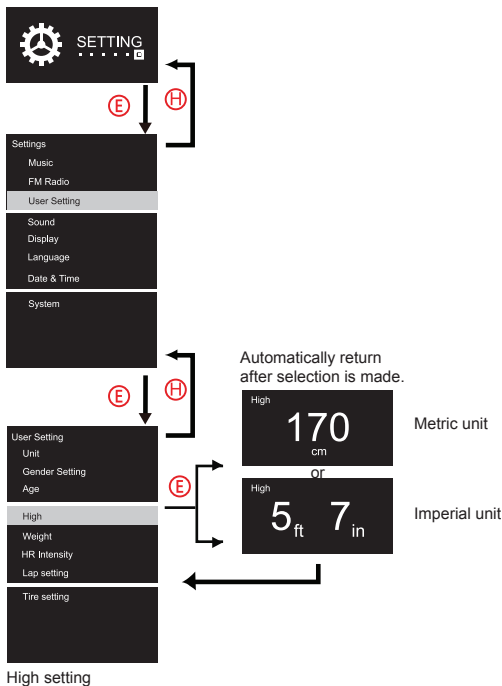
Setting/User Setting/High

Automatically return after selection is made.

Metric unit

or

Imperial unit

High setting

High setting
After using the A-C buttons up and down to select and pressing the E button to confirm, it will automatically return to the settings option page.
Setting range: 140cm-220cm (4ft7in-8ft3in)

Setting/User Setting/Weight
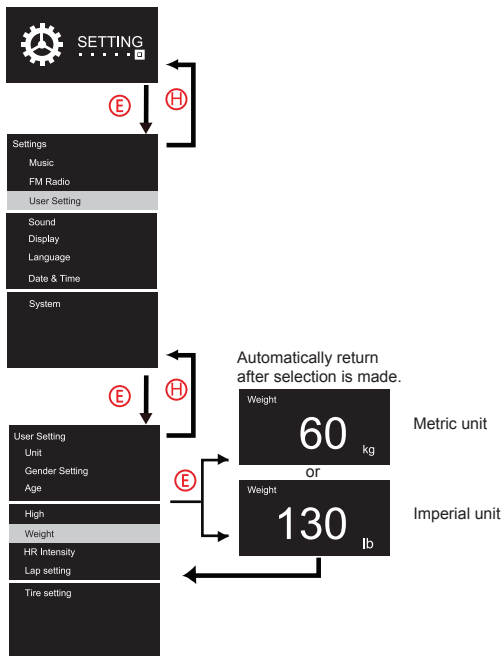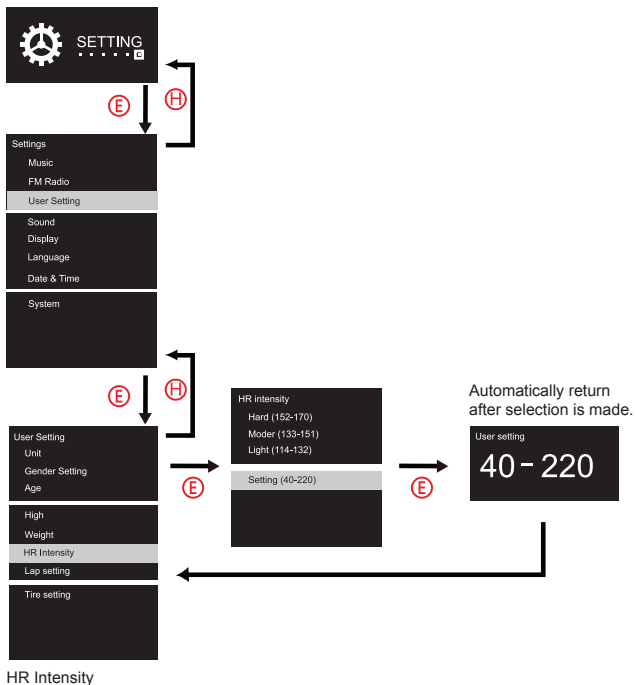

Weight setting

Weight setting
After using the A-C buttons up and down to select and pressing the E button to confirm, it will automatically return to the settings option page.
Setting range: 30kg-150kg (66lb-330lb)

Setting/User Setting/HR Intensity

HR Intensity

HR Intensity
After using the A-C buttons up and down to select and pressing the E button to confirm, it will automatically return to the settings option page.
The set value in the user setting mode is the value displayed for other exercise goals.If the user needs to enhance the heart rate strength, it will only change when the value in Fitness / Target HR Zone or options is adjusted.

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How to Recognize and Set a Suitable Training Intensity Goal for Yourself

The following table is a reference for you to set a suitable training intensity goal for yourself at bmp1 (training heart rate). It is calculated by age in 5-year intervals with the %HRmax formula.

Age	Maximum Heart Rate (HRmax)	Training Intensity (unit : bmp)		
		Light Zone (60~70 %HRmax)	Moderate Zone (70~80 %HRmax)	Intensive Zone (80~90 %HRmax)
10~20	200	120~140	140~160	160~180
25	195	117~137	137~156	156~176
30	190	114~133	133~152	152~171
35	185	111~130	130~148	148~167
40	180	108~126	126~144	144~162
45	175	105~123	123~140	140~158
50	170	102~119	119~136	136~153
55	165	99~116	116~132	132~149
60	160	96~112	112~128	128~144
65~99	155	93~109	109~124	124~140

- Heart rate (abbreviated as "HR") is calculated as the number of heartbeats/ minute and expressed as "beats per minute, bpm".
- HRmax = 220 - Age
- Maximum Heart Rate (MHR), or HRmax is the highest number of heartbeats/ minute (bpm) during maximum physical exertion. It is frequently used to calculate THR (which is a helpful index when setting your training intensity range). The most accurate way of measuring MHR is via an Exercise Stress Test by an electrocardiogram (ECG) in a laboratory under doctors or experts supervision. The "Age Formula" is the most common way to estimate MHR.
- %HRmax = Target Heart Rate = percentage of exercise intensity (%) $\times$ HRmax
- Target Heart Rate (THR), or Training Heart Rate, which is a desired range of heart rate reached during aerobic exercise for one's heart and lungs to receive the most benefit from a workout. You can calculate the lower and upper limits of THR via the "%HRmax Formula".
- User with lower physical strength is advised to exercise within the Light Zone, and THR limit to not exceed 60%HRmax.

- Know and customize your maximum training output
- The chart below shows the heart rate level using %HR max. HR max = 220 - Age with every 10 years of age as an age zone. This chart is a reference for appropriate training output using the heart training mode.
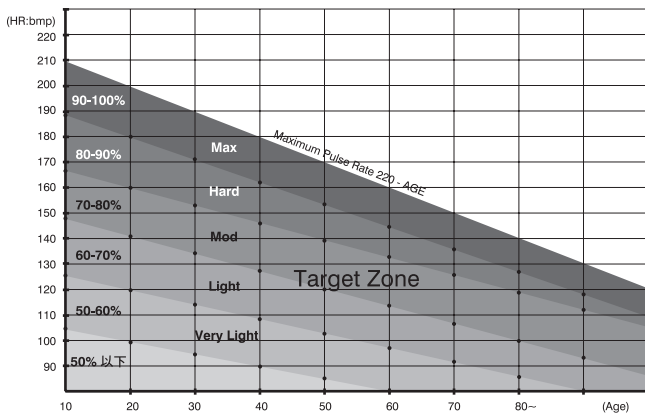
- The unit for heart rate is bpm (beats per minute), or heartbeats per minute.
- Maximum heart rate = 220 − age. If your age is 20, then 220-20 = 200 bpm, and your maximum heart rate is 200 bpm.
- Maximum heart rate (maximum heart rate, MHR, or HRmax) refers to the maximum heart rate for optimizing exercise or stamina. It is often used as the prescribed index for training output in order to find the THR. The most direct and accurate method of measuring the maximum heart rate is to have this done by a doctor or professional. An Exercise Stress Test is conducted and monitoring is done by an electrocardiograph (ECG). Or you can use the simple age formula to calculate your personal maximum heart rate.

- Target heart rate ＝ training output (%) × maximum heart rate (HRmax).
- The target heart rate (THR) or training heart rate is used to find the ideal rate for the optimal performance of aerobics to maximize the benefit to your heart and lungs. You can find your own upper and lower range target heart rate using the maximum heart rate formula (%HRmax).
- In general, for persons with less than optimal health, it is recommended that the low-strength target heart rate range be set at 60% or below.

This table has six training programS of exercise intensity heart rate zone:

Training Output	Heart Rate (%), bpm	Time Sustained	Body Condition
HARD ◆▪▬▬▭	152-171 80-90%	2-20 minutes	Body condition: your muscles are tired; heart is beating fast and your breaths are short. Suitable for experienced bikers and runners. Usefulness: high output and high speed training. Good for muscle endurance and strengthening.
MOD ◆▪▬▭▭	133-152 70-80%	10-60 minutes	Body condition: breathing is fast and your muscles are somewhat tired. Suitable for improving your training. Usefulness: Medium training output, medium fitness strength training; raising training efficiency.
LIGHT ◆▪▭▭▭	114-133 60-70%	60-300 minutes	Body condition: comfortable, relaxed. The strain on the muscles and heart is low. Suitable for basic fitness training. Usefulness: Fostering circulation, improved recovery. Useful for basic training.
User	40-220 (Note 1) custom- 100%	User Defined (Note 2)	User Defined

- Note 1: The 40-220 range is the normal MB100 setting range, but the range values can be user defined. The graph will show the strength of the training according to the value configured.
- Note 2: If the user defined training output is above the 90-100% range, it is recommended that the Time Sustained should be less than 5 to avoid sports injury.

Setting/User Setting/Wheel Setting
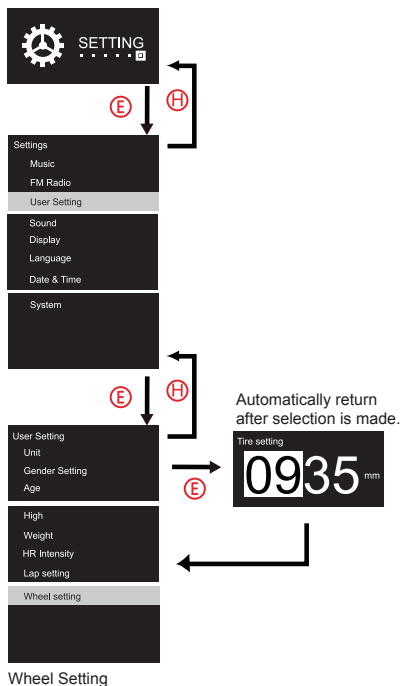
Wheel Setting

Wheel Setting
After using the A-C buttons up and down to select and pressing the E button to confirm, it will automatically return to the settings option page.
Mainly [double digit/double digit] figure settings.

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Setting/User Setting/Wheel Setting

- If the sensor coding time runs over 2 minutes, the screen will display coding fail.
- Enter MB100 to Settings/System/Sensor Pairing/Cadence Sensor mode and then turn the pedal to see if the signal shows OK or FAIL.
- Enter MB100 to Settings/System/Sensor Pairing/Speed Sensor mode and then turn the front wheel to see if the signal shows OK or FAIL.

- Bike Wheel Adjustment Chart

Tire size	L (mm)	Tire size L (mm)	L (mm)	Tire size	L (mm)
12 x 1.75	935	26 x 1(59)	1913	650 x 20C	1938
14 x 1.50	1020	26 x 1(65)	1952	650 x 23C	1944
14 x 1.75	1055	26 x 1.25	1953	650 x 35A	2090
16 x 1.50	1185	26 x 1-1/8	1970	650 x 38A	2125
16 x 1.75	1195	26 x 1-3/8	2068	650 x 38B	2105
18 x 1.50	1340	26 x 1-1/2	2100	700 x 18C	2070
18 x 1.75	1350	26 x 1.40	2005	700 x 19C	2080
20 x 1.75	1515	26 x 1.50	2010	700 x 20C	2086
20 x 1-3/8	1615	26 x 1.75	2023	700 x 23C	2096
22 x 1-3/8	1770	26 x 1.95	2050	700 x 25C	2105
22 x 1-1/2	1785	26 x 2.00	2055	700 x 28C	2136
24 x 1	1753	26 x 2.10	2068	700 x 30C	2146
24 x 3/4 Tubular	1785	26 x 2.125	2070	700 x 32C	2155
24 x 1-1/8	1795	26 x 2.35	2083	700C Tubular	2130
24 x 1-1/4	1905	26 x 3.00	2170	700 x 35C	2168
24 x 1.75	1890	27 x 1	2145	700 x 38C	2180
24 x 2.00	1925	27 x 1-1/8	2155	700 x 40C	2200
24 x 2.125	1965	27 x 1-1/4	2161	29 x 2.1	2288
26 x 7/8	1920	27 x 1-3/8	2169	29 x 2.3	2326

(The wheel size shown on the chart represents the normal sizes according to the wheel type. For precise sports data, manual measuring is recommended.)
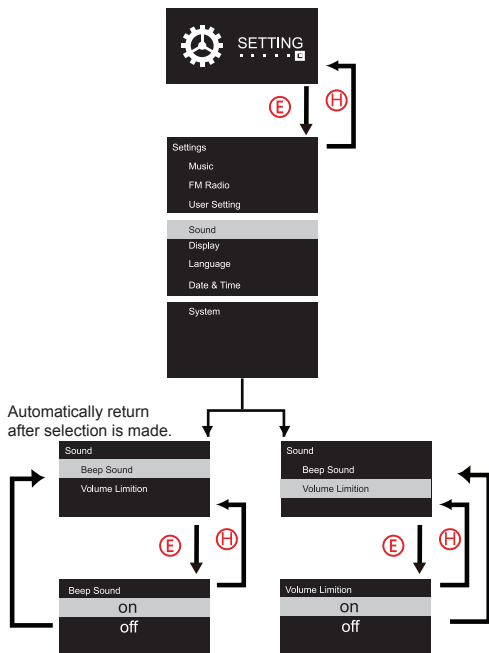
Setting/User Setting/Lap setting

Automatically return
after selection is made.
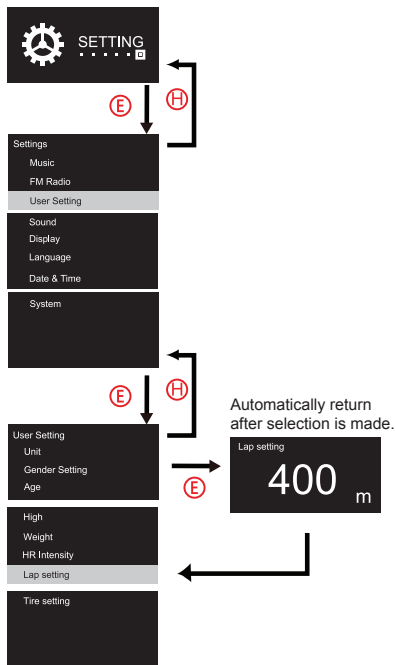
Lap setting

Lap setting
After using the A-C buttons up and down to select and pressing the E button to
confirm, it will automatically return to the settings option page.
Setting range: 200m-1200m (Every adjustment data is 100m)

English

Setting/Sound

SETTING

Settings
  Music
  FM Radio
  User Setting

Sound
Display
Language
Date & Time

System

Automatically return after selection is made.

Sound
  Beep Sound
  Volume Limition

Beep Sound
  on
  off

Sound
  Beep Sound
  Volume Limition

Volume Limition
  on
  off

- After entering by pressing the E button, press the A-C buttons to select Sound [Sound] and press the E button to enter.
- After entering Sound [Sound], press the A-C buttons to select the setting for [Beep Sound] and [Volume Limition].
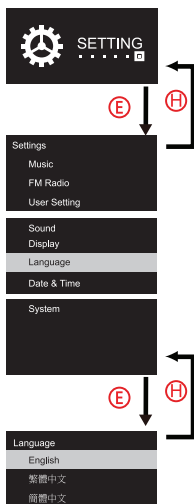
Setting/Display
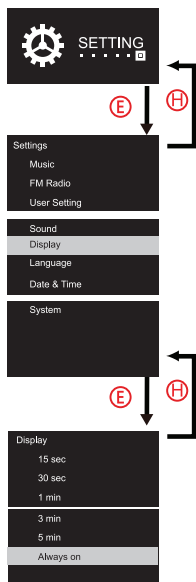
Automatically return
after selection is made.

- After entering settings, press the A-C buttons to select Display [Display] and press the E button to enter.
- After entering Display [Display], press the A-C buttons to select [Delay time before the screen automatically shuts off].
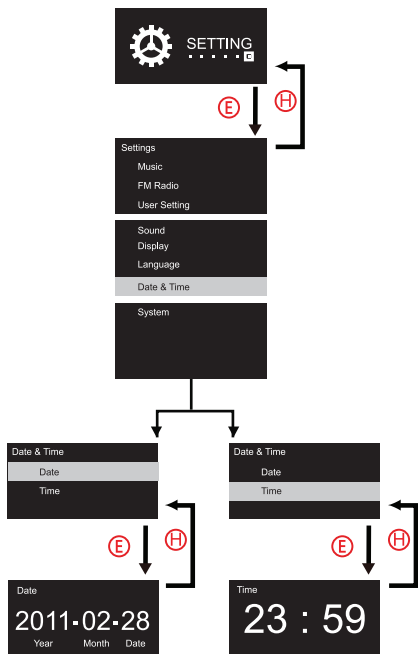
English

Setting/Language

Automatically return
after selection is made.

- After entering settings, press the A-C buttons to select Language [Language] and press the E button to enter.
- After confirming the language to use, press the E button to confirm.

Settings/Date & Time

- After entering settings, select Date & Time [Date & Time] and press the E button to enter.
- After entering Date & Time [Date & Time], press the A-C buttons to select the time you wish to adjust.
- Pressing the A-C buttons allow you to select left and right, the B-D buttons allows you to adjust the figure; when adjustment is complete, press the E button to return.

Setting/System/Sensor testing
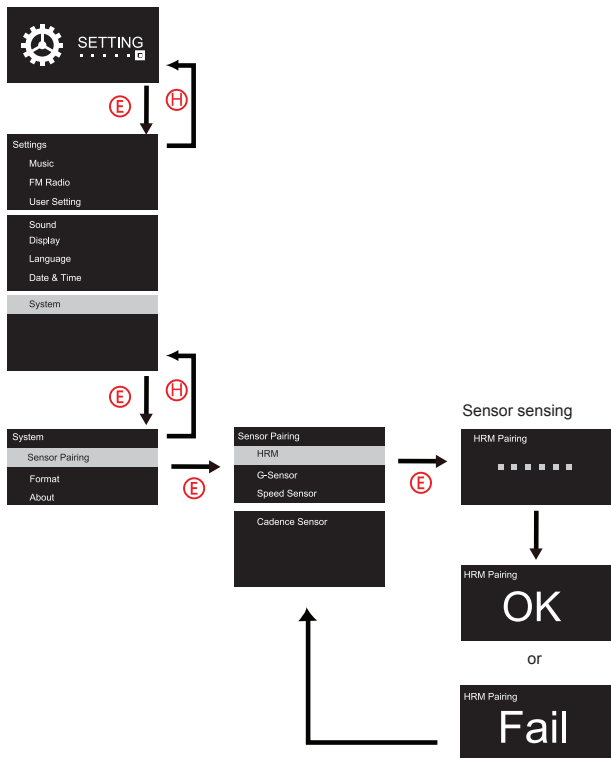
Sensor sensing

- After entering settings, press the A-C buttons up and down selection to select System [System] and press the E button to enter.
- After entering System [System], there are three options: [Sensor Pairing], [Format], [About].
- Press the E button to select [Sensor Pairing], this allows you to check the signal strength of the sensors you are wearing.

Setting/System/Format
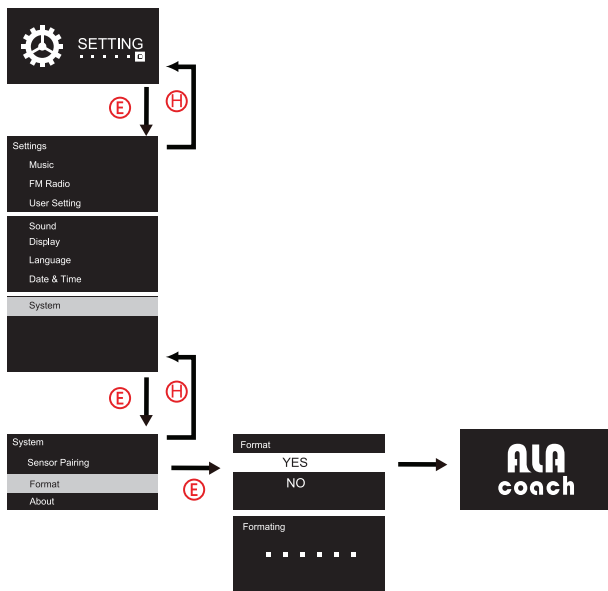
- After entering settings, press the A-C buttons up and down selection to select System [System] and press the E button to enter.
- After entering System [System], there are three options: [Sensor Pairing], [Format], [About].
- Press the E button to select [Format], and then select [YES] to confirm the selection, then the formatting screen will appear; when completed, it will return to the [ALA COACH] screen.

English

Setting/System/About MB100

Settings
- Music
- FM Radio
- User Setting

- Sound
- Display
- Language
- Date & Time

- System

System
- Sensor Pairing
- Format
- About

About

Model:MB100
Firmware Ver:1.000.000
Density:2GB

Used space:0.8 GB
Free space:1.2GB

ALATECH