Introduction

Thank you for purchasing the CATEYE V3. The V3 is a high-performance computer for riders who wish to train extensively and analyze their data. 2.4GHz-frequency digital wireless technology, which is the same technology used for wireless LAN, is used for both the speed/cadence integrated speed sensor and the heart rate sensor. This technology practically eliminates interference from external noise and cross-talk with other wireless computer users, providing you with stress-free riding. Read this instruction manual thoroughly and understand the functions of the computer before using it. Keep it in a safe place for future reference.

Important

- Always follow the sections that are marked with “Warning!!”.
- No part of this manual may be reproduced or transmitted without the prior written permission of CatEye Co., Ltd.
- The contents and illustrations in this manual are subject to change without notice.
- If you have any questions or concerns about this manual, please contact CatEye at www.cateye.com.

About the manuals

Basic installation and operation
Please go here for installation of the unit on the bicycle, use of the heart rate measurement function, preparing the computer, and the basic operation of the product.
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2. Heart rate sensor .............................................. See page 9
3. Preparing the computer ................................. See page 10-15
4. Basic operation of the computer ...................... See page 16-17

Measurement screen
Please go here to learn how to operate the computer functions.
- Measurement screen ................................. See page 18-22

Ride data review
Please go here to check and manage recorded data.
- File view .................................................. See page 24-27

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Please go here for changing and checking each menu items.
- Changing the computer configuration .............. See page 23-34

Advanced use
- Recording lap and split time data ................. See page 20 “Lap function”
- Training with target heart rate zones .......... See page 37  “Use of the target zone”
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Proper use of the CatEye V3

Observe the following instructions for safe usage.

The meaning of icons in this manual:

⚠️ Warning!!!: Sections marked with these icons are critical for safe use of the device. Be sure to follow these instructions.

⚠️ Caution: Important cautionary notes on the use and operation of the V3.

* Helpful tips are highlighted with asterisks.

⚠️ Warning!!!:

  • Pace maker users should never use this device.
  • Do not concentrate on the data while riding. Always be sure to ride safely.
  • Do not leave any battery within the reach of children, and dispose of them correctly. If a battery is swallowed, consult a doctor immediately.

⚠️ Caution:

  • Regularly check the positions of the magnets and the speed/cadence sensors and make sure that they are securely mounted. Tighten it firmly if there is any looseness.
  • Avoid leaving the main unit / wireless sensor in direct sunlight for extended periods of time.
  • Do not disassemble the computer, heart rate sensor, or speed sensor.
  • Do not subject the computer, heart rate sensor, or speed sensor to strong impact; take care also to prevent any of them from falling.
  • Do not use paint thinner or rubbing alcohol to clean the unit.
  • Stop using the unit if you have skin irritation with the HR strap or electrode pad.
  • Do not twist or pull strongly the heart rate sensor.
  • The heart rate sensor may deteriorate due to long-term use.
  • As a nature of liquid crystal displays, sunglasses with polarized lens may block the visibility.

2.4GHz digital wireless system

2.4GHz-frequency digital wireless technology, which is the same technology used for wireless LAN, is used for both the speed/cadence integrated speed sensor and the heart rate sensor. This technology practically eliminates interference from external noise and cross-talk with other wireless computer users, and enables to store highly reliable data. However, in a very rare occasions, objects and places may generate strong electromagnetic waves and interference, which may result in incorrect measurement:

  • TV, PC, radios, motors/engines, or in cars and trains.
  • Railroad crossings and near railway tracks, around television transmitting stations and radar bases.
  • Other wireless computers or digitally controlled lights.
**Description of computer and its parts**

**Computer**

- **Front**
  - Back-light button (LT)
  - Mode-1 button (M1/+)
  - Mode-2 button (M2/-)
  - Lap button (LAP)

- **Back**
  - Battery cover
  - Menu button (MENU)

**Accessories**

- Bracket / Bracket band
- Speed sensor (SPEED/CADENCE)
- Bracket rubber pad
- Wheel magnet
- Cadence magnet
- Nylon ties (x5)
- Heart rate sensor / HR strap

**Screen display**

- **: Speed sensor signal**
  Indicate Speed sensor signal status. (page 15)

- **: Alarm**
  Lights up when the HR alarm sound feature is turned on.

- **: Wheel selection**
  Displays the wheel currently selected.

- **: Heart rate sensor signal**
  Indicate Heart Rate sensor signal status. (page 15)

- **: Target zone**
  Lights up when the target zone is on, and flashes when it is out of the zone.

- **: Speed pace arrow**
  The pace arrows show whether the current speed is faster (▲) or slower (▼) than the average speed.

- **km/h mph : Speed unit**
  Flashes while speed measurement is in progress.

- **: Average display**
  Lighting up displays that the speed, heart rate, and cadence displays are average values.

- **: Maximum value display**
  Lighting up displays that the speed, heart rate, and cadence displays are maximum values.

- **: Heart rate pace arrow**
  The pace arrows show whether the current heart rate is faster (▲) or slower (▼) than the average heart rate.

- **bpm : Heart rate unit**

- **: Auto-mode**
  Lights up when the auto-mode function is on.

- **: Lap icon**
  Lights up when the lap data is displayed.

- **: Cadence sensor signal**
  Indicate Cadence sensor signal status. (page 15)

**Dot display**

Mainly displays mode descriptions for the values displayed just below.

**Selected data icon/unit**

Displays together with the data currently displayed in the lower display.

**Button navigation**

Operative buttons at set-up of the computer, or on the menu screen, will flash.
How to install the unit on your bicycle

1. Attach the bracket to the stem or handlebar
   The Flex Tight™ bracket can be attached to either the stem or the handlebar depending on how the bracket and band are configured.
   **Caution:**
   Tighten the dial on the bracket band by hand only. Over-tightening can damage the screw threads.

When attaching the Flex Tight™ bracket to the stem

* Attach the bracket with its open end facing to the right.

When attaching the Flex Tight™ bracket to the handlebar

* Attach the bracket with its open end facing to the right.

Cut extra length of the band with scissors.

**Caution:**
Round off the cut edge of the bracket band to prevent injury.

2. Mount the speed sensor and magnet

2-1. Temporarily secure the speed sensor
   Locate the speed sensor on the left chain stay as shown above, and loosely secure it with the nylon ties.
   * Do not tighten the nylon ties completely at this stage. Once a nylon tie is tightened, it cannot be pulled out.

2-2. Mount the magnet
   1. Loosen the setscrews both on the SPEED side and CADENCE side of the speed sensor, and turn the sensor to the angle as shown on the right.
   2. Temporarily secure the wheel magnet to the spoke so that it faces the sensor zone on the SPEED side.
   3. Temporarily secure the cadence magnet inside the crank with nylon ties, so that it faces the sensor zone on the CADENCE side.
   * When the speed sensor is not positioned appropriately in respect to the two magnets (in both Steps 2 and 3), move the speed sensor back and forth so that it is positioned properly. After you move the speed sensor, adjust the position so that the two magnets face the relevant sensor zone.
   4. After adjustment, tighten the nylon ties firmly to secure the speed sensor.
2-3. Adjust the distance to the magnet

1. Adjust the distance between the wheel magnet and the SPEED side of the speed sensor to be about 3 mm. After adjustment, tighten the setscrew on the SPEED side.
2. Adjust the distance between the cadence magnet and the CADENCE side of the speed sensor to be about 3 mm. After adjustment, tighten the setscrew on the CADENCE side.

2-4. Securing various parts

Tighten the speed sensor, setscrew, and magnet firmly, and check for any looseness.

* For steel axle pedals, cadence magnet can be compactly installed onto the end face of the pedal axle. Make sure to remove the double-sided tape from the magnet when doing this.

3. Remove/Install the computer

Caution:
When removing, hold the unit to prevent it from falling.

Install
Slide the computer from the right
Remove
Holding the unit
Push outward

Cut extra length of the nylon tie with scissors.

Heart rate sensor

Heart rate is measured when the heart rate sensor is worn on the chest.

Before wearing the heart rate sensor

⚠️ Warning!!!
This product must NOT be used by those who have a pacemaker.

- To avoid measurement errors, it is recommended to moisten the electrode pads with water.
- If your skin is ultra-sensitive, the electrode pad may be moistened with water and worn on a thin undershirt.
- Chest hair may interfere with the measurement.

Wearing the heart rate sensor

1. Insert the HR strap hook to a hole on the heart rate sensor, and push it until it clicks.
2. Wear the heart rate sensor with the HR strap, and adjust the length of the HR strap to fit your chest size (under bust). Fastening the strap too tightly may cause discomfort.
3. Insert the HR strap hook to another hole on the heart rate sensor, and push it until it clicks.
4. For removal, hold near the hole on the heart rate sensor and the hook, and twist off.

* Ensure that the rubber part of the electrode pad is in direct contact with the body.
* When your skin is dry, or wearing the heart rate sensor on top of your undershirt may produce measurement errors.

To avoid errors, moisten the rubber part of the electrode pad.
Preparation the computer

Computer’s basic items must be set up before using it.

Removing the insulation sheet
When using the unit for the first time after purchasing, open the battery cover and remove the insulation sheet.
* After you remove the insulation sheet, replace the battery cover in place.

Flow of set-up
There are 2 different set-up operations:
• Formatting operation: At initial purchase, or reset all to default.
• Restarting operation: When you replace batteries, or an error is displayed.
Each operation has a different flow of set-up.

1. Formatting/Restarting operation

Formatting operation (At initial purchase, or reset all to default.)
Caution: All data are reset to the default and deleted.

1. While pressing the MENU button on the back of the computer, press AC button.
Release the MENU button when a test pattern is displayed on the screen. The date/clock setting screen appears. Continue with date/clock setting.

After a test pattern is displayed, all screen items light up.

Formatting operation:
* When all screen items light up without any test pattern displayed on the screen, the formatting operation has not been completed properly. Perform the formatting operation again.

Restarting operation (When you replace batteries, or an error is displayed.)

1. Press the AC button on the back of the computer.
After all screen items light up for a second, the date/clock setting screen appears. Continue with date/clock setting.

* When all screen items light up without any test pattern displayed on the screen, the formatting operation has not been completed properly. Perform the formatting operation again.

1. Formatting/Restarting operation

Formatting operation (At initial purchase, or reset all to default.)
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Restarting operation (When you replace batteries, or an error is displayed.)

1. Press the AC button on the back of the computer.
After all screen items light up for a second, the date/clock setting screen appears. Continue with date/clock setting.

* When all screen items light up without any test pattern displayed on the screen, the formatting operation has not been completed properly. Perform the formatting operation again.

2. Date/Clock setting
Set the current date and time.

1. Select the date display format.
Select the date display format from “YY/MM/DD”, “MM/DD/YY”, and “DD/MM/YY” using the M1+ and M2- buttons, and confirm with the SSE button.

Switch the display: (or) Confirm: SSE

* Most of the settings and file data saved are retained for the restarting operation (see chart on page 10).
2. Enter the “Year”, “Month” and “Day.”
Enter the “Year”, “Month” and “Day” in the display order selected in Step 1 using the M1/+ and M2/- buttons, and confirm with the SSE button. Enter the last 2 digits of the year.

3. Select the clock display format.
Select “24h (24 hour)” or “12h (12 hour)” using the M1/+ and M2/- buttons, and confirm with the SSE button.

4. Enter the “Hour” and “Minute.”
Enter the “Hour” using the M1/+ and M2/- buttons, confirm with the SSE button, and then enter the “Minute” in the same way.

5. After you set the date/clock, press the MENU button to proceed to the next set up item.

For the formatting operation: To the “Tire circumference input” screen below
For the restarting operation: To the measurement screen and ready for use

3. Tire circumference input
Enter the tire circumference of the bicycle wheel in millimeter.

1. Enter the last 2 digits of the tire circumference.
Enter using the M1/+ and M2/- buttons, and move digits using the SSE button. Then, enter the first 2 digits in the same way.

2. After completed, press the MENU button to proceed to “Set the sensor ID” below.

3. Enter the tire circumference (L) of your tire size in the chart below, or actually measure the tire circumference (L) of your bicycle.

Tire circumference
You can find the tire circumference (L) of your tire size in the chart below, or actually measure the tire circumference (L) of your bicycle.

How to measure the tire circumference (L)
For the most accurate measurement, do a wheel roll out. With the tires under proper pressure, place the valve stem at the bottom. Mark the spot on the floor and with the rider’s weight on the bike, roll exactly one wheel revolution in a straight line (until the valve comes around again to the bottom). Mark where the valve stem is and measure the distance in millimeter.

* For your reference, use the tire circumference chart below.
3. Verify that the speed/cadence sensor is mounted properly to the bicycle.

4. Press the **SSE** button to start searching the speed sensor ID. When the speed (cadence) is displayed as “ID-OK” on the screen by spinning the rear wheel or crank, searching is completed.

   ![Start searching](image)

5. Press the **MENU** button to proceed to “Selecting speed unit” below.

   ![To “Selecting speed unit”](image)

### 5. Selecting speed unit

Select the speed unit from “km” and “mile”.

1. Select the speed unit.

   ![km ↔ mile: (or)](image)

2. After selecting, press the **MENU** button. The measurement screen appears and the computer set-up is completed.

### 6. Operation test

Test the functioning of the speed sensor (SPEED) and the cadence sensor (CADENCE).

* If the sensor signal icons, ₤ and ⒴ are turned off, press the **M1/+** or **M2/-** button to turn them on.

#### Speed sensor (SPEED)

1. Raise the rear wheel and spin the wheel.

   ![60 km/h](image)

2. When ₤ flashes on the computer screen and the speed is displayed, it is operating normally.

#### Cadence sensor (CADENCE)

1. Turn the crank.

   ![170 rpm](image)

2. When ⒴ flashes on the computer screen and the cadence is displayed, it is operating normally.

* When ₤ or ⒴ does not flash, the position of the sensor and magnet is not proper. Check and adjust the position of the sensor and magnet again (page 7).

#### Important:

In the following situations, it is possible that other sensor’s ID was picked up; (such can happen when performing ID Synch at the race venue or group rides)

- Does not display values, even though sensor/magnet position is proper
- Does not display HR values, even though HR sensor is strapped properly

**Recommended Action:** Go to the computer’s ID Synch setup screen (page 23) and go through the process of ID Synch. (Make sure that there is no similar devices in the vicinity. Signal transition distance can vary from environmental conditions such as weather, buildings, etc)

### Sensor signal status

If there is no incoming signal for approximately 5 minutes, the transmission stops and no longer receive the sensor data. Once you press the **M1/+** or **M2/-** button, the computer will come out of the Sleep mode and return to the Stand-by for sensor signal. Signal transmission status can be checked with Signal icon.

- ![DCF](image): Receiving sensor signal
- ![DCF](image): Stand-by for sensor signal
- ![DCF](image): Transmission off

* Transmission off status is independent for heart rate and speed/cadence sensor. If both sensors stop transmission, the computer screen will change to Sleep mode (page 17).
### Functions on the measurement screen

The measurement screen displays 4 different types of data, which are switched by pressing the M1/+ and M2/- buttons.

#### Upper display data
- Displays the data related to the speed.

#### Middle display data
- Displays the data related to the heart rate.
- Displays the data related to the cadence.

#### Lower display data
- Displays the other data.

#### Real time lap data (on-going lap data)
- * Pressing and holding the M2/- button while displaying the lap timer switches the lap timer to the lap distance.
- Pressing it again returns to the lap timer.

---

### Starting/Stopping the measurement

Initially, the unit starts or stops measurement automatically in sync with the bicycle motion. This is called auto-mode function. “km/h” or “mph” flashes during measurement.

The total distance, maximum speed, maximum heart rate, and maximum cadence are updated independently of stating/stopping measurement.

#### Auto-mode function
- When the auto-mode is turned on (AT lights up), the unit detects the wheel spinning, and starts/stops measurement automatically.
- When the auto-mode is turned off (AT lights off), the unit starts/stops measurement by using the SSE button.
  - * For on/off of the auto-mode, see the menu screen “Setting the auto-mode” (page 32).
  - * When the transmission is stopped and Sensor signal icons are off (page 15), the main timer may not start due to speed signal not responding.
    - Press the M1/+ or M2/- button to turn on the sensor signal icons.

#### Backlight
- Pressing the LT button illuminates the displays for about 3 seconds.
  - * Pressing any button while backlight is still on extends the illumination for another 3 seconds.

#### Resetting the measurement data
- To reset the measurement data (TM, DST, Lap Time, C.D. DST, etc) and the lap data, simultaneously press the SSE button and the M1/+ or M2/- button in the measurement screen.
  - * Resetting the measurement data saves the data automatically on a file. (page 24)
  - * The screen will freeze for about 2 seconds after resetting; however, all measurements are operating normally, including the elapsed time.
  - * The countdown setting (C.D.DST→) is returned to the manu set value you set.
  - * Cannot reset for 5 seconds after pressing the LAP button.

#### Power-saving function
- When the computer does not receive any data for 5 minutes, it will enter the power-saving mode, in which only the date/clock is displayed.
- By pressing any buttons except the AC recovers from the power-saving mode, and the measurement screen appears. You must press a button when the computer is in power saving mode before it will start to measure any data.
Measurement screen

Upper and middle display data

1. **Current speed**
   Displays the current speed.
   Updated every second.

2. **Heart rate**
   Displays the heart rate in real time.
   Updated every second.

3. **Cadence**
   Displays the number of pedal rotations per minute.
   Updated every second.

4. **Average speed**
   Displays the average speed after the start of measurement.

5. **Average heart rate**
   Displays the average heart rate after the start of measurement.
   The average will not be reflected when the heart rate is not measured.

6. **Average cadence**
   Displays the average cadence after the start of measurement.
   The average will not be reflected when you stop pedaling.

7. **Maximum speed**
   Displays the maximum speed after the start of measurement.
   Updated independently of starting/stopping measurement.

8. **Maximum heart rate**
   Displays the maximum heart rate after the start of measurement.
   Updated independently of starting/stopping measurement.

9. **Maximum cadence**
   Displays the maximum cadence after the start of measurement.
   Updated independently of starting/stopping measurement.

*1: When the trip distance (DST) exceeds 10,000 km [mile], or the elapsed time (TM) exceeds 100 hours, [E] appears indicating further measurement is impossible. Clear the data by resetting (page 17).

*2: This device stops calculating the average when the heart rate sensor is detached, and resumes the calculation when the heart rate sensor is worn again. This feature produces actual averages with the heart rate sensor worn.

*3: This device calculates the average excluding the time when you stop pedaling. This feature produces actual averages, which are different from those with conventional models that calculate it for the entire measurement time period.

Lower display data

- **Elapsed time**
  Displays the elapsed time from the start of measurement to the 1/10 second.
  When it exceeds 99:59'59", it repeats from 00'00'0".
  * When the elapsed time reaches 1 hour, the 1/10 second is not displayed.

- **Trip distance**
  Displays the trip distance from the start of measurement.

- **Countdown distance (page 21)**
  Displays the countdown distance to the target distance.

- **Lap number (page 20)**
  Displays the number of current lap.

- **Average lap speed in real time**
  Displays the average lap speed of the current lap in real time.

- **Lap timer**
  Displays the elapsed time of the current lap in real time.

- **Trip lap distance in real time**
  Displays the trip distance of the current lap in real time.

- **Date**
  Displays the day, month, and year (last 2 digits).
  * Display format is different depending on display set up.

- **Clock**
  Displays the current time of day in the 24- or 12-hour system.

- **Calorie Consumption**
  Displays the estimated calorie consumption from the start of measurement based on the heart rate.

- **Total time**
  The total time is accumulated time since purchase. It can only be reset with Format (page 11).

- **Total distance**
  The total distance is accumulated distance. It is updated independently of starting/stopping measurement.
  It can be edited to desired value.
Pace function

2 types of pace arrow icons for the current speed and the heart rate are displayed on the screen. These arrow icons indicate whether the current speed (heart rate) is above or below the average speed (average heart rate).

▲ : Appears when the current value is above the average.
▼ : Appears when the current value is below the average.
No arrows : When the current value is equal to the average, or zero.

Lap function

Pressing the LAP button on the measurement screen during measurement records the measurement data between a given set of points (average lap speed/maximum lap speed, average lap heart rate/maximum lap heart rate, lap time/split time, and trip lap distance) up to 99 points. Immediately after recording, the lap data are displayed in the order as shown below, and then return to the measurement screen.

1. Average lap speed
2. Average lap heart rate
   Displays the average lap speed (average lap heart rate) from the previous point (for L-01: from the start of measurement).
3. Lap number
   Displays the lap number just recorded.
   * When the total number of laps exceeds 99 points, “--” appears indicating further lap recording cannot be done.
4. Trip lap distance
   Displays the trip lap distance from the previous point (for L-01: from the start of measurement).
5. Lap time
   Displays the elapsed time from the previous point (for L-01: from the start of measurement).
6. Maximum lap speed
7. Maximum lap heart rate
   Displays the maximum lap speed (maximum lap heart rate) from the previous point (for L-01: from the start of measurement).
8. Split time
   Displays the total elapsed time from the start of measurement.

Lap time and split time

The lap time displays elapsed time from the last press of the LAP button.
The split time displays the elapsed time from the start of measurement to the point LAP button is pressed.

* The measured lap data is saved to a file when you perform a reset operation (page 17) and can be reviewed in “File view” (page 24).
* Pressing the LAP button while the total number of laps reaches 99 points displays the lap data, but “--” appears in place of the lap number indicating further recording is impossible.

Advance use of the real time lap data

For the real time lap data indicated in the lower display, the unit starts/stops measurement in sync with the main time measurement; however, it resets and restarts the data every time you press the LAP button. This independent feature of lap time can be useful also for intervals and sectional trials such as hill climb section.

Countdown distance

The countdown distance feature displays the countdown distance to a predetermined target trip distance, and notifies when it reaches zero. When it reaches the target trip distance, the unit switches any measurement data to the countdown data, and notifies it by flashing the numeric/dot display and an alarm sound.

Example of how the countdown distance is used

1. Entering the race event distance
   For distance system events such as a road race and century ride, enter the race event distance before the start, and develop your strategy and pace based on the countdown distance during the race.
2. Entering the destination sign distance
   For touring, enter the sign distance whenever you encounter a destination sign along the road, and develop your pace based on the countdown distance.
3. Entering the periodical target distance
   Enter the periodical target distance for a week, month, or year to check your progress.
   * The target trip distance is set from the menu screen “Setting the countdown distance” (page 32).
**Target heart rate zone**

During measurement, the screen displays the target heart rate status.

- (constant): The target zone is set to any of HR.ZONE:1 to 4.
- (flashing): The current heart rate is out of the selected zone.
- (off): The target zone is set to off.

* The target heart rate zone is set from the menu screen “Setting the target heart rate zone” (page 34).

---

**Changing the computer configuration**

Pressing the MENU button in the measurement screen switches to the menu screen. In the menu screen, you can view and delete the files saved, and view and change various configurations.

* Use the M1/+ and M2/- to change menu items.

* After changes are made, be sure to review the setting(s) and confirm by pressing the MENU button.

* Leaving the menu screen without any operation for 2 minutes returns to the measurement screen, and changes are not saved.

---

**Measurement screen**

- **FILE VIEW**: Viewing and deleting files
- **CLOCK.DATE**: Setting the clock/date
- **WHEEL**: Wheel selection and tire circumference
- **SENSOR-ID**: Searching the sensor ID
- **UNIT**: Setting the measurement unit
- **TMD INPUT**: Total distance manual entry
- **AUTO MODE**: Setting the auto-mode
- **C.D. DIST**: Setting the countdown distance
- **SOUND**: Setting sound
- **HR.ZONE**: Setting the target heart rate zone

---

**Menu top screen**

- **FILE VIEW**: Viewing and deleting files
- **CLOCK.DATE**: Setting the clock/date
- **WHEEL**: Wheel selection and tire circumference
- **SENSOR-ID**: Searching the sensor ID
- **UNIT**: Setting the measurement unit
- **TMD INPUT**: Total distance manual entry
- **AUTO MODE**: Setting the auto-mode
- **C.D. DIST**: Setting the countdown distance
- **SOUND**: Setting sound
- **HR.ZONE**: Setting the target heart rate zone
File view

The lap and measurement data are saved into a file automatically each time a ride is reset (Resetting Operation page 17). With the file view, you can review the past rides or delete data recorded.

Measurement data to be recorded in a file

The computer can record up to 14 files*1. When 14 files (rides) are saved, the oldest one is deleted automatically. The latest file is always F-01. The measurement data to be saved in a file are as follows.

Date of creation: New → Old

- Trip distance
- Elapsed time
- Various average values (average speed, average heart rate, and average cadence)
- Various maximum values (maximum speed, maximum heart rate, and maximum cadence)
- Date and time of file creation (date/time when the measurement started)
- Number of laps used
- Calorie consumption
- Time distribution to the target zone (time in the zone, time above the zone, and time below the zone) and the percentage (%)
- Lap data (average lap speed, average lap heart rate, maximum lap speed, maximum lap heart rate, lap time, split time, trip lap distance)

*1: One lap per file is used even in the case there is no lap data. Therefore, when the total number of laps reaches 99 points, no more files can be saved.

Viewing the measurement data in a file

View the measurement data in a file saved in the computer.

1. Press the MENU button in the measurement screen to switch to the menu top screen. Press the SSE button on the FILE VIEW screen.

Menu top: 
Confirm: 

Total number of laps
Total number of files

2. Select the file using the M1/+ and M2/- buttons, and confirm with the SSE button.

Switching the file number: 

3. Scroll through the data saved in each file by pressing the SSE button. The display items are as follows.

Various average values
Various maximum values
In the target zone
Out of the target zone

*2: HR target zone is set to OFF during measurement, no data related to the target zone is displayed.

* Pressing the LAP button while viewing some data switches to viewing the lap data (page 26).
**Viewing the lap data**

View the lap data in a file saved in the computer. Select the file number you want to view from the menu screen “File view” (page 24).

1. Press the **LAP** button to view the lap data contained in the file selected.
2. Switch the laps, if applicable, using the **M1/+** and **M2/-** buttons.
3. Pressing the **MENU** button returns to the menu top screen (FILE VIEW screen). Pressing it again returns to the measurement screen.

**Deleting files**

Delete the file saved in the computer. You can select deleting only the file specified, or all files. Switch to the menu screen “File view” (page 24).

1. Simultaneously press the **SSE** button and the **M1/+** or **M2/-** button to switch to the deleting screen.
2. Select the file number you want to delete from the date/clock of file creation. To delete all files, select “aLL”.
3. Press the **SSE** button to delete the file.
4. Pressing the **MENU** button returns to the menu top screen (FILE VIEW screen). Pressing it again returns to the measurement screen.

* When the computer has no files (F-00) the delete file operation is not operable.
* Once a file is deleted, all lap data associated with that file is also deleted.
* Once a file is deleted, it cannot be restored.
Setting the clock/date

Set the “Clock display format”, “Hour”, “Minute”, “Date display format”, “Year”, “Month” and “Day.”

1. Press the MENU button in the measurement screen to switch to the menu top screen. Switch to the CLOCK.DATE screen using the M1/+ and M2/- buttons, and confirm with the SSE button.

   Menu top:
   Changing the menu: Confirm:

   Display format
   24h 13 00
   Hour Minute

2. Select the clock display format. Select “24h (24 hour)” or “12h (12 hour)” using the M1/+ and M2/- buttons, and confirm with the SSE button.

   24h ↔ 12h: Confirm:

3. Enter the “Hour” or “Minute.” Enter the “Hour” using the M1/+ and M2/- buttons, confirm with the SSE button, and then enter the “Minute” in the same way.

   Increase/decrease: Confirm:

4. Select the date display format. Select the date display format from “YY/MM/DD”, “MM/DD/YY”, and “DD/MM/YY” using the M1/+ and M2/- buttons, and confirm with the SSE button.

   Switch the display:
   Confirm:

5. Enter the “Year”, “Month” and “Day.” Enter the “Year”, “Month” and “Day” in the display order selected in Step 4 using the M1/+ and M2/- buttons, and confirm with the SSE button. Enter the last 2 digits of the year.

   Increase/decrease: Confirm:

6. Pressing the MENU button returns to the menu top screen (CLOCK.DATE screen), and confirm the change(s). Pressing it again returns to the measurement screen.

   To the menu top/measurement screen:

Wheel selection and tire circumference

Switch the Wheel Size (A / B), and change the Tire Size (tire roll out length).
* For the tire size, see “Tire circumference” (page 13).

1. Press the MENU button in the measurement screen to switch to the menu top screen. Switch to the WHEEL screen using the M1/+ and M2/- buttons, and confirm with the SSE button.

   Menu top:
   Changing the menu: Confirm:

   Wheel selection
   Current wheel size

2. Select the Wheel Size “A” or “B” using the M1/+ and M2/- buttons.

   A ↔ B: Confirm:

   At this point if change of tire circumference is not necessary, you can escape the setup by pressing the MENU button.

3. Enter the last 2 digits of the tire circumference for the wheel selected in Step 1 using the M1/+ and M2/- buttons, and confirm with the SSE button. Then, enter the first 2 digits in the same way.

   Increase/decrease: Move digits:

4. Pressing the MENU button returns to the menu top screen (WHEEL screen), and confirm the change(s). Pressing it again returns to the measurement screen.

   To the menu top/measurement screen:

Searching the sensor ID

When moving the computer from one sensor to another or to use a different HR chest strap, this operation must be performed.
* This unit requires the sensor ID.
  The computer cannot receive the sensor signal unless the sensor ID is synchronized properly.
* To synchronize the sensor ID, the heart rate sensor must be worn properly (page 9), and be near the bicycle with a speed/cadence mounted (page 7).
* When searching the sensor ID, make sure no other sensors are in the area within 10 m radius. For the Speed/Cadence sensor, it is also possible to press the Reset button on the sensor to intentionally turn off the signal transmission from the sensor.
1. Press the **MENU** button on the measurement screen to switch to the menu top screen.

Switch to the **SEnSOR-ID** screen using the M1/+ and M2/- buttons, and confirm with the **SSE** button.

Menu top:

Changing the menu: M1/+ ( or )

Confirm: SSE

2. Select the sensor ID to be checked.

Select it from “Hr (heart rate sensor)”, “SP1 (speed sensor 1)”, and “SP2 (speed sensor 2)” using the M1/+ and M2/- buttons.

Selecting the sensor: M1/+ M2/-

3. Check whether the heart rate sensor is worn properly when you selected “Hr”, or whether the speed sensor is mounted properly when you selected “SP1” or “SP2”.

4. Press the **SSE** button to start searching the ID.

Spin the rear wheel or crank when you selected “SP1” or “SP2”.

When the heart rate or speed (cadence) is displayed with “ID-OK” on the screen, synchronization is completed.

Start searching: SSE

5. Pressing the **MENU** button returns to the menu top screen (SEnSOR-ID screen), and confirm the change(s).

Pressing it again returns to the measurement screen.

To the menu top/measurement screen: MENU (Back)

* This unit enters the search mode for 5 minutes after starting the ID synch.

While “ID-SKIP” is indicated, press the **SSE** button in the search mode to cancel the ID synch, and “ID-SKIP” is displayed. Unless a sensor signal is received in 5 minutes, “ID-ERROR” is displayed.

When “ID-SKIP” or “ID-ERROR” is displayed, the ID has not been synchronized properly. In such a case, the sensor ID retains the previous ID setup.

Be sure to check the sensor/mounting condition before you check the ID again.

* SP2 is used when a computer is commonly used for second bicycles. By synchronizing the ID of the second bicycle equipped with a second speed/cadence sensor and the computer with SP2, re-synchronizing and the computer with SP2, synchronizing the ID is not required every time you move the computer between first bike to the second bike.

---

### Setting the measurement unit

Change the unit (km or mile).

* Stop measurement and perform the resetting operation (page 17) before you change the unit. Unless you perform the resetting operation, “DATA RESET” appears on the screen, preventing from changing the unit.

1. Press the **MENU** button in the measurement screen to switch to the menu top screen.

Switch to the Unit screen using the M1/+ and M2/- buttons, and confirm with the **SSE** button.

Menu top: **MENU**

Changing the menu: M1/+ ( or )

Confirm: SSE

2. Select the speed unit using the M1/+ and M2/- buttons.

km ↔ mile: M1/+ M2/-

3. Pressing the **MENU** button returns to the menu top screen (Unit screen), and confirm the change(s).

Pressing it again returns to the measurement screen.

To the menu top/measurement screen: **MENU** (Back)

* After the unit is switched, the total distance measured in the past is automatically converted to the new unit.

---

### Total distance manual entry

You can enter any value to the total distance.

The total distance in the past can be input after formatting or to a new computer.

1. Press the **MENU** button in the measurement screen to switch to the menu top screen.

Switch to the **ODO InPut** screen using the M1/+ and M2/- buttons, and confirm with the **SSE** button.

Menu top: **MENU**

Changing the menu: M1/+ ( or )

Confirm: SSE

2. Enter the total distance using the M1/+ and M2/- buttons, and move digits using the **SSE** button.

Increase/decrease: M1/+ M2/-

Move digits: SSE

* The total distance shall be entered with a positive value.

---

* SP2 is used when a computer is commonly used for second bicycles. By synchronizing the ID of the second bicycle equipped with a second speed/cadence sensor and the computer with SP2, re-synchronizing and the computer with SP2, synchronizing the ID is not required every time you move the computer between first bike to the second bike.
Setting the auto-mode

Switch on/off of the auto-mode (page 17).

1. Press the \textbf{MENU} button in the measurement screen to switch to the menu top screen.
   Switch to the \textbf{AUTO MODE} screen using the M1/+ and M2/- buttons, and confirm with the SSE button.

   \textbf{Menu top: \textbf{AUTO MODE}}
   \textbf{Changing the menu: \textbf{AUTO MODE}}
   \textbf{Confirm: \textbf{SSE}}

2. Select \textbf{On} or \textbf{OFF} using the M1/+ and M2/- buttons.

   \textbf{On} \leftrightarrow \textbf{OFF: \textbf{AUTO MODE}}

3. Pressing the \textbf{MENU} button returns to the menu top screen (\textbf{AUTO MODE} screen), and confirm the change(s).
   Pressing it again returns to the measurement screen.

   \textbf{To the menu top/measurement screen: \textbf{MENU}}

Setting sound

Switch on/off of the target zone alarm sound and button operation sound.

1. Press the \textbf{MENU} button in the measurement screen to switch to the menu top screen.
   Switch to the \textbf{SOUND} screen using the M1/+ and M2/- buttons, and confirm with the SSE button.

   \textbf{Menu top: \textbf{SOUND}}
   \textbf{Changing the menu: \textbf{SOUND}}
   \textbf{Confirm: \textbf{SSE}}

2. Switch between the HR out of zone alarm and button operation using the SSE button.

   \textbf{HR.ALARM} \leftrightarrow \textbf{BUTTOn: \textbf{SSE}}

3. Select \textbf{On} or \textbf{OFF} using the M1/+ and M2/- buttons.

   \textbf{On} \leftrightarrow \textbf{OFF: \textbf{SOUND}}

4. Pressing the \textbf{MENU} button returns to the menu top screen (\textbf{SOUND} screen), and confirm the change(s).
   Pressing it again returns to the measurement screen.

   \textbf{To the menu top/measurement screen: \textbf{MENU}}

Setting the countdown distance

Enter the target trip distance for the countdown (page 21).

1. Press the \textbf{MENU} button in the measurement screen to switch to the menu top screen.
   Switch to the \textbf{C.D.DST} \rightarrow \textbf{screen} using the M1/+ and M2/- buttons, and confirm with the SSE button.

   \textbf{Menu top: \textbf{C.D.DST}}
   \textbf{Changing the menu: \textbf{C.D.DST}}
   \textbf{Confirm: \textbf{SSE}}

2. Enter the target distance using the M1/+ and M2/- buttons, and move digits using the SSE button.

   * The target distance can be set to the 0.1 km.

   \textbf{Increase/decrease: \textbf{C.D.DST}}
   \textbf{Move digits: \textbf{C.D.DST}}

3. Pressing the \textbf{MENU} button returns to the menu top screen (\textbf{C.D.DST} \rightarrow \textbf{screen}), and confirm the change(s).
   Pressing it again returns to the measurement screen.

   \textbf{To the menu top/measurement screen: \textbf{MENU}}
Heart rate training

This section is just a general overview of training with heart rate data. For more complete information, there are books and websites with more in-depth information.

Generally, the heart rate increases during exercise, getting higher in conjunction with the intensity of the workout. Measurement of your heart beat is a good indicator of the intensity of your workout. By setting target HR (heart rate) zones and sticking to preset exercises, you will be able to work out more efficiently. Before beginning a training program, be sure to first consult a medical specialist or sports trainer.

1. Improving general fitness

Bicycling is one of the best activities to improve your general fitness. To improve your overall fitness through bicycling, set a target heart rate zone from between 30% and 70% of your maximum HR, depending on your physical strength. For best results, exercise consistently in this zone for periods of at least 20-30 minutes, 3 or more times a week.

To obtain your target zone, see the table below, which illustrates the correlation between heart rate and training level. For beginners, it is recommended to start with the level of 30% of your max. From this point, gradually increase the level according to your fitness level and experience. Training at levels over 70% of your HR max will focus more on anaerobic exercise, and less on aerobic exercise. Weight loss usually occurs through longer rides (over 1 hour) at lower HR levels.

### Pulse Rate (bpm)

<table>
<thead>
<tr>
<th>Age</th>
<th>Maximum Pulse Rate (204 - 0.69 x Age)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>180</td>
</tr>
<tr>
<td>30</td>
<td>160</td>
</tr>
<tr>
<td>40</td>
<td>140</td>
</tr>
<tr>
<td>50</td>
<td>120</td>
</tr>
<tr>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td>70</td>
<td>80</td>
</tr>
</tbody>
</table>

#### Target Zone

**Exercise Level**

- 30%
- 40%
- 50%
- 60%
- 70%

**Target Zone**

- 30%
- 40%
- 50%
- 60%
- 70%

### Setting the target heart rate zone

You can select the target heart rate zone, and change the upper/lower limit.

* Stop measurement and perform the resetting operation (page 17) before you can change the target heart rate zone. Unless you perform the resetting operation, “DATA RESET” appears on the screen, preventing from changing the target heart rate zones.

* For details of the target zone, see “Use of the target zone” (page 37).

1. Press the **MENU** button in the measurement screen to switch to the menu top screen.

   Switch to the **HR.Zone** screen using the **M1/+** and **M2/-** buttons, and confirm with the **SSE** button.

   - **Menu top:**
     - **MENU** (Back)
     - **M1/+** and **M2/-** buttons

   - **Changing the menu:**
     - **SSE** button

2. Select one from **OFF**, **1**, **2**, **3**, or **4** for the target heart rate zone using the **M1/+** and **M2/-** buttons.

   When using the target zone, select from 1 to 4, confirm with the **SSE** button, and then proceed to Step 3.

   When not using the target heart rate zone, select OFF, and then proceed to Step 4.

   - **Select the zone:**
     - **OFF** ↔ **01 → 02 → 04 → OFF**
     - **M1/+** and **M2/-** buttons

3. Enter the lower limit for the selected zone using the **M1/+** and **M2/-** buttons, and enter the upper limit in the same way after pressing the **SSE** button.

   - **Increase/decrease:**
     - **M1/+** and **M2/-** buttons
   - **Confirm:**
     - **SSE** button

4. Pressing the **MENU** button returns to the menu top screen (HR.Zone screen), and confirm the change(s).

   Pressing it again returns to the measurement screen.

   - **To the menu top/measurement screen:**
     - **MENU** (Back)

* You can enter any upper/lower limit to each zone; however, the upper limit is adjusted automatically to the lower limit + 1 when the entered lower limit exceeds the upper limit. In case of the upper limit, vice versa, the lower limit is adjusted in the same way.

* The upper limit is displayed with the digit in a small numeric when it exceeds 199.
2. Training for competition

Measure your resting heart rate just after waking in the morning and your maximum heart rate (perhaps during competition). Then set your target zone according to your goal:

A) For recovery, endurance training, and weight loss:
60% - 70% (aerobic exercise)

B) For quality endurance and tempo training:
70% - 80% (aerobic exercise)

C) For increasing TT and race ability, and VO2 max:
85% + (anaerobic exercise)

D) For anaerobic capacity and sprinting:
92.5% + (anaerobic exercise)

- Training level (%) = \( \frac{\text{Target heart rate} - \text{Resting heart rate}}{\text{Maximum heart rate} - \text{Resting heart rate}} \times 100 \)

- Target heart rate = \( \frac{\text{Training level} \times \text{Maximum heart rate}}{100} + \text{Resting heart rate} \)

Resting heart rate
Your resting heart rate is usually the lowest recorded rate soon after waking up in the morning.

Maximum heart rate
The following calculations are generally used: \((220 - \text{age})\) or \((204 - 0.69 \times \text{age})\). For more precise figure, consult a training specialist.

3. Use of the target zone

When the heart rate is out of the zone during the measurement, the computer sounds an alarm and notifies the rider by flashing 🚨.

The heart rate zone is selected from 4 predetermined zones. For a training aiming at a heart rate of 140 to 160 bpm, select HR.ZONE:3 as shown below. Then, the computer sounds an alarm when the heart rate falls below 139 bpm, or rises above 161 bpm.

Once the target zone is set to On, the relevant data are recorded and the time in the zone, time above the zone, and time below the zone and their percentages can be viewed in the file view (page 24).

* You can enter any upper/lower limit to each zone.

* For the target zone, you can select OFF or Zone 1 to 4, and change the upper/lower limit from the menu screen “Setting the target heart rate zone” (page 34).

* On/off of the alarm sound is selected from the menu screen “Setting sound” (page 33).

<table>
<thead>
<tr>
<th>Heart rate zone</th>
<th>Heart rate bpm</th>
</tr>
</thead>
<tbody>
<tr>
<td>HR.ZONE :1</td>
<td>100 - 120</td>
</tr>
<tr>
<td>HR.ZONE :2</td>
<td>120 - 140</td>
</tr>
<tr>
<td>HR.ZONE :3</td>
<td>140 - 160</td>
</tr>
<tr>
<td>HR.ZONE :4</td>
<td>160 - 180</td>
</tr>
</tbody>
</table>

Default zone

* Target training zone

Alarm

* For the target zone, you can select OFF or Zone 1 to 4, and change the upper/lower limit from the menu screen “Setting the target heart rate zone” (page 34).

* On/off of the alarm sound is selected from the menu screen “Setting sound” (page 33).
**Trouble shooting**

If a malfunction occurs, check the following before contacting CatEye or your retailer for repair or service.

### Trouble on display

<table>
<thead>
<tr>
<th>Trouble</th>
<th>Check Items</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display motion becomes slower.</td>
<td>Is the surrounding temperature low (below zero degree Celsius or 32 degrees Fahrenheit)?</td>
<td>Temperatures below freezing may result in slower screen response. Data is not affected.</td>
</tr>
<tr>
<td>Flashing on the screen.</td>
<td>The remaining battery capacity for the computer is low.</td>
<td>Replace it with a new battery (CR2032) immediately. After replacement, be sure to perform the restarting operation (page 11).</td>
</tr>
<tr>
<td>No displays appear.</td>
<td>Is the battery for the computer empty?</td>
<td>Replace it with a new battery (CR2032). After replacement, be sure to perform the restarting operation (page 11).</td>
</tr>
<tr>
<td>Meaningless display appears.</td>
<td></td>
<td>Perform the restarting operation (page 11).</td>
</tr>
<tr>
<td>Cannot measure the trip speed (cadence)</td>
<td>Have you checked the sensor ID? Is the computer ID synchronized with somebody else's sensor?</td>
<td>Check the speed sensor ID (page 29) for SP1 (speed sensor 1) or SP2 (speed sensor 2). If the Speed and Cadence sensor icon is off ⚫ ⚫, the computer cannot receive data. Press the M1/+ or M2/- button once to turn on the icon. Adjust the position of the speed (cadence) sensor and that of the magnet correctly. (See &quot;How to install the unit on your bicycle&quot; on page 6.)</td>
</tr>
<tr>
<td>-</td>
<td>Is the battery for the speed sensor empty?</td>
<td>Replace it with a new battery (CR2032). After replacement, be sure to press the RESET button on the speed sensor.</td>
</tr>
</tbody>
</table>

### Meaningless display appears.

<table>
<thead>
<tr>
<th>Trouble</th>
<th>Check Items</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluctuation in the heart rate indicator, for example it returns to zero and then the heart rate is measured again.</td>
<td>Is the electrode pad being worn correctly?</td>
<td>To wear the electrode pad correctly, follow the instructions for wearing the heart rate sensor (page 9).</td>
</tr>
<tr>
<td>-</td>
<td></td>
<td>Adjust the electrode pad with its rubber surface to have a good contact with the body.</td>
</tr>
<tr>
<td>-</td>
<td></td>
<td>Slightly moisten the electrode pad of the heart rate sensor.</td>
</tr>
<tr>
<td>-</td>
<td></td>
<td>Replace it with a new battery (CR2032).</td>
</tr>
<tr>
<td>No displays appear.</td>
<td>Is the battery for the computer empty?</td>
<td>Replace it with a new battery (CR2032). After replacement, be sure to perform the restarting operation (page 11).</td>
</tr>
<tr>
<td>-</td>
<td></td>
<td>Replace it with a new battery (CR2032).</td>
</tr>
<tr>
<td>-</td>
<td></td>
<td>Replace it with a new heart rate sensor.</td>
</tr>
</tbody>
</table>

### Meaningless display appears.

<table>
<thead>
<tr>
<th>Trouble</th>
<th>Check Items</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moving the main unit away from your body will prevent measurement of the heart rate.</td>
<td>Check whether ⚫ lights up on the computer screen. The remaining battery capacity for the computer is low.</td>
<td>Replace it with a new battery (CR2032). After replacement, be sure to perform the restarting operation (page 11).</td>
</tr>
<tr>
<td>Pressing the LT button does not turn on a light.</td>
<td>Check whether ⚫ lights up on the computer screen. The remaining battery capacity for the computer is low.</td>
<td>Replace it with a new battery (CR2032). After replacement, be sure to perform the restarting operation (page 11).</td>
</tr>
</tbody>
</table>
**Replacing battery**

The product comes with factory-installed batteries. When a battery is empty, replace it with a new one according to the following instructions.

**Warning!!!**

Safely dispose of the old batteries, and do not place them within reach of children. If a battery is swallowed, consult a doctor immediately.

* When any battery for the computer, heart rate sensor, or speed sensor is depleted, we recommend replacing all batteries at the same time.
* The battery life shown in this manual is not definitive and it varies depending on the use environment.
* The battery cover sealing is critical to maintain the waterproof feature. Clean any contamination on the battery cover or the seal, and check whether it seals correctly.

**Computer**

Battery life: Approx. 1 year when used for 1 hour per day.

* When the remaining battery capacity is low, illuminates. Turn off the auto-mode. (See “Setting the auto-mode” on page 32.)

1. Remove the battery cover on the back of the computer using a coin, or the equivalent.
2. Insert new lithium batteries (CR2032) with the (+) sign upward, and close the battery cover firmly.
3. After replacement, be sure to perform the restarting operation (page 11), and set the date and time.

**Heart rate sensor**

Battery life: Approx. 1 year when worn for 1 hour per day.

* The heart rate sensor consumes power when worn. Remove the heart rate sensor whenever measurement is not required.

1. Remove the battery cover on the back of the heart rate sensor using a coin, or the equivalent.
2. Insert new lithium batteries (CR2032) with the (+) sign upward, and close the battery cover firmly.
3. After replacement, be sure to press the button on the speed sensor, and check that the positions of the magnet and sensor are correct and they are secured firmly.
4. The heart rate sensor checks if the sensor ID is valid. If the sensor ID is invalid, it may be due to power consumption or the ID is not correctly set on the sensor. Perform the resetting operation (page 29), and check the sensor ID again.

**Speed sensor**

Battery life: Approx. 1 year when used for 1 hour per day.

1. Remove the battery cover on the speed sensor using a coin, or the equivalent.
2. Insert new lithium batteries (CR2032) with the (+) sign upward, and close the battery cover firmly.
3. After replacement, be sure to press the button on the speed sensor, and check that the positions of the magnet and sensor are correct and they are secured firmly.

**Trouble on operation**

<table>
<thead>
<tr>
<th>Trouble</th>
<th>Check Items</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressing the SSE button does not start/stop measurement.</td>
<td>Check whether the auto-mode is turned on (with illuminating).</td>
<td>When illuminates, the auto-mode is on; you cannot start or stop measurement by pressing the button. Turn off the auto-mode. (See “Setting the auto-mode” on page 32.)</td>
</tr>
<tr>
<td>The heart rate sensor (speed sensor) ID check failed.</td>
<td>The battery for the heart rate sensor (speed sensor) is possibly depleted. After replacing the battery with a new one (CR2032), check the sensor ID again (page 29).</td>
<td></td>
</tr>
<tr>
<td>Lap data cannot be stored.</td>
<td>Have you already completed 99 laps? Is the lap time over 100 hours (or is the trip lap distance over 9999.99 km)? Is it immediately after pressing the LAP button?</td>
<td>Delete data files that contain several laps from the file view (page 27) in order to obtain free space for lap recording. With the recording range exceeded, the lap cannot be measured. Perform the resetting operation (page 17) for further measurements. You cannot record the lap for 5 seconds immediately after pressing the LAP button.</td>
</tr>
<tr>
<td>Abnormal values appear.</td>
<td>Are there any objects emitting electromagnetic waves (railway tracks, transmitting stations for television, etc.) nearby?</td>
<td>Keep the unit away from any object that may be causing interference, and reset the data (page 17).</td>
</tr>
<tr>
<td>In menu mode, cannot change settings.</td>
<td>Is it currently measurement? When the auto-mode is turned on (with illuminating), it may enter the measurement mode due to electromagnetic waves. Is it the target zone or the measurement unit that cannot be changed?</td>
<td>Only top menu can be viewed during measurement. Keep the unit away from any object that may be causing interference with electromagnetic waves. To change the target zone and measurement unit, the resetting operation is required. Stop measurement, and perform the resetting operation (page 17).</td>
</tr>
<tr>
<td>Measurement data cannot be stored on the file view.</td>
<td>Has the total number of laps reached 99 points?</td>
<td>Delete data files that contain several laps from the file view (page 27) in order to obtain free space for lap recording.</td>
</tr>
</tbody>
</table>
Specifications

Display functions

<table>
<thead>
<tr>
<th>Display</th>
<th>Current speed</th>
<th>Average speed</th>
<th>Maximum speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper display</td>
<td>0.0 (4.0) – 150.0 km/h [0.0 (3.0) – 93.0 mph]</td>
<td>0.0 – 150.0 km/h [0.0 – 93.0 mph]</td>
<td>0.0 (4.0) – 150.0 km/h [0.0 (3.0) – 93.0 mph]</td>
</tr>
<tr>
<td>Middle display</td>
<td>Heart rate</td>
<td>Average heart rate</td>
<td>Maximum heart rate</td>
</tr>
<tr>
<td></td>
<td>0 (30) – 299 bpm</td>
<td>0 – 299 bpm</td>
<td>0 (30) – 299 bpm</td>
</tr>
<tr>
<td></td>
<td>Cadence</td>
<td>Average cadence</td>
<td>Maximum cadence</td>
</tr>
<tr>
<td></td>
<td>0 (20) – 199 rpm</td>
<td>0 – 199 rpm</td>
<td>0 (20) – 199 rpm</td>
</tr>
<tr>
<td>Lower display</td>
<td>Date</td>
<td>Clock</td>
<td>Calorie consumption</td>
</tr>
<tr>
<td></td>
<td>07.01.01 – 99.12.31 (Display format can be switched)</td>
<td>00:00 – 23:59 [AM 1:00 – PM 12:59]</td>
<td>0 – 9999 / 10000 – 999999 kcal (Calculation-based estimation only)</td>
</tr>
<tr>
<td></td>
<td>Trip distance</td>
<td>Odometer</td>
<td>Total time</td>
</tr>
<tr>
<td></td>
<td>0.00 – 9999.99 km [mile]</td>
<td>0.0 – 9999.9 [mile]</td>
<td>0 – 99999 hour</td>
</tr>
<tr>
<td></td>
<td>Trip lap distance in real time</td>
<td>Elapsed time</td>
<td>Count down distance</td>
</tr>
<tr>
<td></td>
<td>0.00 – 9999.99 km [mile]</td>
<td>00:00 – 23:59 [AM 1:00 – PM 12:59]</td>
<td>9999.90 – 0.00 km [mile]</td>
</tr>
<tr>
<td></td>
<td>Trip lap timer</td>
<td>Trip lap distance in real time</td>
<td>Lap number</td>
</tr>
<tr>
<td></td>
<td>00:00 – 99:59 / 01:00 – 99:59</td>
<td>0.00 – 9999.99 km [mile]</td>
<td>L-01 – L-99</td>
</tr>
<tr>
<td></td>
<td>Average lap speed in real time</td>
<td>Average lap speed in real time</td>
<td>Average lap speed in real time</td>
</tr>
<tr>
<td></td>
<td>0.0 – 150.0 km/h [0.0 – 93.0 mph]</td>
<td>0.0 – 150.0 km/h [0.0 – 93.0 mph]</td>
<td>0.0 – 150.0 km/h [0.0 – 93.0 mph]</td>
</tr>
</tbody>
</table>

Control system
4-bit one-chip microcomputer, crystal oscillator

Display system
Liquid crystal display (EL backlight)

Speed/Cadence sensor signal detection system
Noncontact magnetic sensor

Sensor signal transmission and reception
2.4 GHz ISM Band

Communication range
5 m (above 5 m, transmission distance may vary due to environmental conditions)

Operating temperature range
32°F – 104°F [0°C – 40°C] (This product will not function appropriately when exceeding the Working Temperature range. Slow response or black LCD at lower or higher temperature may happen respectively.)

Storage temperature range
-4°F – 122°F [-20°C – 50°C]

Wheel circumference set range
0100 – 3999 mm

Power supply/battery life
Computer: CR2032 x 1 / Approx. 1 years (When using 1 hour/day)
Heart rate sensor: CR2032 x 1 / Approx. 1 years (When using 1 hour/day)
Speed sensor: CR2032 x 1 / Approx. 1 years (When using 1 hour/day)

Dimensions/Weight
Computer: 2-7/32” x 1-1/2” x 11/16” (56.0 x 38.0 x 17.3 mm) / 0.98 oz (28 g) (With the batteries)
Heart rate sensor: 12-13/16” x 1-1/4” x 1/2” (325.0 x 31.4 x 12.2 mm) / 1.41 oz (40 g) (With the batteries)
Speed sensor: 2-9/16” x 3-9/16” x 9/16” (65.0 x 90.5 x 14.4 mm) / 1.25 oz (36 g) (With the batteries)

* When the elapsed time exceeds 100 hours, or the trip distance exceeds 9999.99 km/h, “E” appears in place of the average speed.

* Designs and specifications are subject to change without notice, due to modifications or improvements.

Specifications

Display

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ENG

Specifications

Display

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Specifications

Display

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Specifications

Display

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Limited warranty

2-Year: computer, heart rate sensor and speed sensor
(Not including depletion of batteries)

CatEye products are warranted to be free of defects from materials and workmanship for a period of two years from original purchase. If the product fails to work due to normal use, CatEye will repair or replace the defect at no charge. Service must be performed by CatEye or an authorized retailer.

To return the product, pack it carefully and enclose the warranty certificate (proof or purchase) with instruction for repair.

Please write or type your name and address clearly on the warranty certificate.

Insurance, handling and transportation charges to CatEye shall be borne by person desiring service.

For UK and REPUBLIC OF IRELAND consumers, please return to the place of purchase. This does not affect your statutory rights.

CATEYE Web Site (http://www.cateye.com)

For warranty service you must register your product. Please register your V3 as soon as possible. CATEYE provides you technical support and new product information as much as possible.

Please register on-line through our web site, or send the registration card below directly to our Customer Service Department. For registration, please fill in the product’s serial number (the 7-digits number marked on on the battery cover of computer).

Registration

CATEYE CO., LTD.
Service & Research Address for USA:
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Phone: 303.443.4595 Fax: 303.473.0006
Toll Free: 800.5CATEYE E-mail: service@cateye.com
URL: http://www.cateye.com
Japan Office:
2-8-25, Kuwazu, Higashi Sumiyoshi-ku, Osaka 546-0041 Japan
Attn: CATEYE Customer Service Section