Warning / Caution

- Pace maker users should never use this device.
- Do not concentrate on the computer while riding. Ride safely!
- Install the magnet, sensor, and bracket securely. Check these periodically.
- If a child swallows a battery, consult a doctor immediately.
- Do not leave the computer in direct sunlight for a long period of time.
- Do not disassemble the computer.
- Do not drop the computer to avoid malfunction or damage.
- When using the computer installed on the bracket, change the MODE by pressing on the three dots below the screen. Pressing hard on other areas can result in malfunction or damage to the computer.
- Be sure to tighten the dial of the FlexTight™ bracket by hand. Tightening it strongly using a tool, etc. may damage the screw thread.
- Stop using the unit if you have skin irritation with the HR strap or electrode pad.
- Do not twist or pull strongly the HR strap.
- The HR strap may deteriorate due to long-term use. Replace the HR strap if it has frequent measurement errors.
- When cleaning the computer, bracket and sensor, do not use thinners, benzene, or alcohol.
- Dispose of used batteries according to local regulations.
- LCD screen may be distorted when viewed through polarized sunglasses.

2.4GHz digital wireless system

Each sensor adopts the 2.4GHz digital wireless technology, which is used for wireless LAN, etc. This technology practically eliminates interference from any external noise and cross-talk with other wireless computer users during measurement, and enables it to record and store highly reliable data. However, it suffers interference in the following places and/or environments, which may result in an incorrect measurement.

- Careful attention is required especially while checking the sensor ID.
- 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.
- In the Wi-Fi environment.

Automatic recognition of the speed sensor ID

The speed sensor has its own ID, and the computer measures in synchronization with the ID.

Two speed-sensor IDs can be registered to one computer, which can automatically identify two speed sensors once their IDs are registered in advance.

As a tire circumference is set to the speed sensor ID, wheel selection by manual operation is no longer required, which was necessary with conventional units.

- The speed sensor currently recognized is indicated with a sensor icon (Φ1 or Φ2) on the screen.

Procedure of automatic recognition

When the computer changes to the power saving screen, and then returns to the measurement screen, automatic recognition of the speed sensor ID is performed in the following procedure.

1. The computer searches the speed sensor ID signal, which had been synchronized immediately before.
2. Once the sensor signal is received, the sensor icon for the speed sensor lights up, and the computer starts the measurement. When the speed sensor ID signal which had been synchronized immediately before, cannot be received another sensor signal is searched.
3. When the computer receives another sensor signal, the sensor icon for the other sensor lights up on the screen, and starts the measurement. When another speed sensor ID signal cannot be received, the original sensor signal is searched again.

The computer repeats synchronization through the procedure described above even if it fails in synchronization for some reason, such as communication failure; in such cases however, it takes time for recognition.

- When the computer does not receive any signal from the sensor for 10 minutes, it will change to the power-saving screen. When such a condition lasts another 1 hour, it will get into the sleep state.

Switching the ID by manual operation

The speed sensor ID can be forced to change manually, according to the menu screen “Setting the tire circumference”. Use this operation in the following cases.

- When the computer cannot recognize the intended sensor signal, since the 2 registered speed sensors are nearby and both are sending a sensor signal.
- When you want to switch the speed sensor ID immediately.

- Once you switch the speed sensor ID by manual operation, the computer continues to search only the speed sensor ID you switched when returning to the measurement screen. When the computer cannot receive any sensor signal in 10 minutes, the power-saving mode is activated, and the computer changes to the power saving screen. The computer searches through the procedure of automatic recognition when it returns to the measurement screen.

The sensor ID was synchronized with this unit before shipment. It is not necessary to synchronize the sensor ID.
How to install the unit on your bicycle

1 Attach the bracket to the stem or handlebar

The FlexTight™ bracket can be attached to either the stem or the handlebar, depending on how the bracket fits into the bracket band. 

Caution: Be sure to tighten the dial of the FlexTight™ bracket by hand. Tightening it strongly using a tool, etc. may damage the screw thread.

When attaching the FlexTight™ bracket to the stem:

- Attaching to the stem:
  - Attach the bracket to the stem or handlebar
  - The FlexTight™ bracket can be attached to either the stem or the handlebar, depending on how the bracket fits into the bracket band.
  - Caution: Be sure to tighten the dial of the FlexTight™ bracket by hand. Tightening it strongly using a tool, etc. may damage the screw thread.

When attaching the FlexTight™ bracket to the handlebar:

- Attaching to the handlebar:
  - Round off the cut edge of the bracket band to prevent injury.

* To mount the bracket to an aero-shaped handlebar or larger stem, use the optional nylon ties bracket.

Remove/Install the computer

- Click
- While supporting it by hand, push it out as if lifting the front up
How to install the unit on your bicycle

2 Mount the speed sensor and magnet

- Sensor screw
- Speed sensor
- Sensor rubber pad
- Pull securely
- Tighten
- Cut
- Nylon ties (x 3)
- Cadence magnet
- Wheel magnet
- Loosen

Install the sensor and magnet

A

Cadence magnet

B

Wheel magnet

SENSOR ZONE

SENSOR ZONE

* The wheel magnet may be installed anywhere on the spoke if the above installation conditions are satisfied.

Adjust the position of the cadence magnet

3 mm

CADENCE

Adjust the position of the wheel magnet

3 mm

SPEED

* When the sensor is not positioned appropriately in respect to the two magnets ( ), move the sensor back and forth so that it is positioned properly.
Heart rate sensor

Before wearing the heart rate sensor
Warning: Pace maker users should never use this device.
• Stop using the unit if you have skin irritation with the HR strap or electrode pad.
• Do not twist or pull strongly the HR strap.
• The HR strap may deteriorate due to long-term use. Replace the HR strap if it has frequent measurement errors.

Wearing the heart rate sensor
• Adjust the HR strap length to fit your chest size (underbust). Fastening the strap too tightly may cause discomfort.
• Ensure that the electrode pad is in direct contact with the body.
• Wearing the heart rate sensor when your skin is dry or on top of your undershirt may produce measurement errors. To avoid errors, moisten the electrode pad.
• The heart rate sensor consumes power when worn. Remove the heart rate sensor whenever measurement is not performed.

Heart rate sensor
HR strap
Push it in until it clicks.

Heart rate sensor
HR strap
Hook
Back
Electrode pad
Perform the following formatting operation, when you use the unit for the first time or restore the unit to the condition before shipment.

1. Format (initialize)
   Press the MENU button on the back of the computer and the AC button simultaneously.

2. Select the speed unit
   Select “km/h” or “mph”.
   - Press the MENU button to display “km/h” or “mph”.
   - Press the MENU button and hold it for 5 seconds to switch between “km/h” and “mph”.

3. Enter the tire circumference
   Enter the sensor-installed tire circumference in mm.
   * Use “Tire circumference reference table” as a guide.
   - Increase the value
   - Move digits (Press & hold)
   - Register the setting

4. Set the Clock
   Pressing and holding the MODE button switches the display to “Displayed time”, “Hour”, and “Minute” in order.
   - Display format
   - Switch the screen or move digits
   - Press the MENU button to change the value
   - Press the MENU button to increase the value
   12h ↔ 24h

5. Press the MENU button to complete setting
   - Register the setting (Finish)

---

### Operation test

Test the functioning of the speed sensor and the heart rate sensor.

#### Speed sensor

After installed, check that the speed is displayed when gently turning the rear wheel, whereas the cadence is displayed when turning the crank. When it is not displayed, check the installation conditions again (page 3).

#### Current speed

- Press the MODE button to display (current speed).
- It operates normally if the computer displays the speed sensor after you wear the heart rate sensor.

#### Cadence

- Press the MODE button to display (cadence).

#### Heart rate sensor

- Press the MODE button to display (heart rate).
- It operates normally if the computer displays the heart rate after you wear the heart rate sensor.

* Even if the heart rate sensor is not worn, a heart rate signal is transmitted by rubbing both electrode pads with your thumb. Use this as a simplified method.

---

### 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.

* Measure the tire to which the sensor is installed.

#### Tire circumference reference table

* Generally, the tire size or ETRTO is indicated on the side of the tire.

<table>
<thead>
<tr>
<th>ETRTO</th>
<th>Tire size</th>
<th>L (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>27-350</td>
<td>16x1-1/8</td>
<td>1180</td>
</tr>
<tr>
<td>35-559</td>
<td>26x1.95</td>
<td>1895</td>
</tr>
<tr>
<td>38-559</td>
<td>26x2.00</td>
<td>1944</td>
</tr>
<tr>
<td>42-559</td>
<td>26x2.10</td>
<td>1992</td>
</tr>
<tr>
<td>47-559</td>
<td>26x2.15</td>
<td>2040</td>
</tr>
</tbody>
</table>

---

### Tire circumference table

<table>
<thead>
<tr>
<th>ETRTO</th>
<th>Tire size</th>
<th>L (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>27-350</td>
<td>16x1-1/8</td>
<td>1180</td>
</tr>
<tr>
<td>35-559</td>
<td>26x1.95</td>
<td>1895</td>
</tr>
<tr>
<td>38-559</td>
<td>26x2.00</td>
<td>1944</td>
</tr>
<tr>
<td>42-559</td>
<td>26x2.10</td>
<td>1992</td>
</tr>
<tr>
<td>47-559</td>
<td>26x2.15</td>
<td>2040</td>
</tr>
</tbody>
</table>

---

### Battery case cover

Dot section

Electrode pad

---

### Chart

- ETRTO
- Tire size
- L (mm)

---

### Table

- ETRTO
- Tire size
- L (mm)

---

### Diagram

- Battery case cover
- Dot section
- Electrode pad
Operating the computer [Measuring screen]

### Speed sensor signal icon
It flashes in synch with a speed sensor signal.

### Pace arrow ▲▼
Indicates if the current speed is faster or slower than the average speed. (▲ Faster, ▼ Slower)

### Sensor icon
The speed sensor currently synchronized is displayed.

### HR sensor signal icon
It flashes in synch with a heart rate sensor signal.

* The position changes according to the heart rate display position.

---

## Switching computer function
Pressing the **MODE** button switches the measurement data at the bottom in the order shown in the following figure.

### Upper display selection
The heart rate (●) or the cadence (●) can be switched to the upper display to monitor it constantly.

**Setting method**
See "Changing the computer settings: Setting the upper display" (Page 7).

### Resetting data
Pressing and holding the **MODE** button on the measurement screen resets any measurement data, except the total distance (Odo) and trip distance-2 (Dst2).

* The total distance (Odo) is not reset.

* Resetting separately the trip distance-2
Pressing and holding the **MODE** button with the trip distance-2 (Dst2) displayed resets only the data of the trip distance-2.

### Power-saving function
If the computer has not received a signal for 10 minutes, power-saving screen will activate and only the clock will be displayed. With such a screen, pressing the **MODE** button returns to the measurement screen.

* If another 60 minutes of inactivity elapses in the power-saving screen, only the speed unit is displayed on the screen.
Changing the computer settings [Menu screen]

Pressing **MENU** on the measurement screen changes to the menu screen. Various settings can be changed on the menu screen.

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

* Leaving the menu screen without any operation for 1 minutes returns to the measurement screen, and changes are not saved.

---

**Measuring screen**

**Setting the upper display**

Select the function for the upper display.

**Changing the settings**

From "Selecting the measurement unit"

**Setting the tire circumference**

Manually switch the speed sensor $\%1 / \%2$ and enter the circumference size assigned to each sensor.

* For the tire circumference, see “Tire circumference” (page 5).

**Changing the settings**

To change only the speed sensor, select the speed sensor used, and press **MENU** to set.

---

**Setting the clock**

**Entering the total distance**

**Register the setting**

**Register the setting**

**Register the setting**

**Register the setting**

**Register the setting**

**Register the setting**

**Register the setting**

**Register the setting**

**Register the setting**

---

**Setting the upper display**

Select the function for the upper display.

**Changing the settings**

**Changing the settings**

**Changing the settings**

**Changing the settings**

**Changing the settings**

**Changing the settings**

---

**From “Searching for sensor ID”**

**To “Searching for sensor ID”**

**To “Searching for sensor ID”**

**To “Searching for sensor ID”**

**To “Searching for sensor ID”**

**To “Searching for sensor ID”**

**To “Searching for sensor ID”**

---

**Changing the computer settings [Menu screen]**

Pressing **MENU** on the measurement screen changes to the menu screen. Various settings can be changed on the menu screen.

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

* Leaving the menu screen without any operation for 1 minutes returns to the measurement screen, and changes are not saved.
Changing the computer settings [Menu screen]

Searching for sensor ID
Search the heart rate and speed sensor IDs. * The sensor ID was synchronized with this unit before shipment. Search the sensor ID only when a new sensor is used.

Changing the settings

Enter the total distance
Enter the total distance. Once you enter any value to the total distance, you can start from the value you entered. Use this function when you renew and/or reset your unit.

Selecting the measurement unit
Select the speed unit (km/h or mph).

Setting the clock
Set the clock.
Replacing the battery

1 Replace the lithium battery
   When the battery icon is turned on, replace the battery. Install a new lithium battery (CR2032) with the (+) side facing upward.

   * Press the top edge of the waterproof inner cap to remove it. Install the cap with the “TOP” facing upward.

2 Press the AC button on the back of the computer (Restarting operation)
   * When restarting, the speed unit, sensor ID, sensor currently synchronized, tire circumference, upper display setting, and total distance are retained.

3 Set the Clock
   Pressing and holding the MODE button switches the display to “Displayed time”, “Hour”, and “Minute” in order.

4 Press the MENU button to complete setting
   Register the setting (Finish)

Heart rate sensor
* When the heart rate flashes, replace the battery. Insert new lithium batteries (CR2032) with the (+) sign upward, and close the battery cover firmly.

   * Reset the sensor by pressing RESET button when you replace the sensor battery.

Speed sensor
* When the current speed flashes, replace the speed sensor battery. Insert new lithium batteries (CR2032) with the (+) sign upward, and close the battery cover firmly.

   * After replacement, check the position in respect to the magnet.
   * Reset the sensor by pressing RESET button when you replace the sensor battery.

Troubleshooting

The current speed / heart rate cannot be measured.
- Check that the clearance between the sensor and magnet is not too large. (Clearance: within 3 mm)
- Check that the magnet passes through the sensor zone correctly.
  Adjust the positions of the magnet and sensor.

Is the heart rate sensor attached securely to your body?
  Adjust the electrode pad to have a good contact with the body.

Is the electrode pad overly worn and damaged after long use?
  Replace it with a new HR strap.

Is there any problem in searching the sensor ID?
  Search the sensor ID according to the procedure specified in the section “Changing the computer setting / Searching for sensor ID” (Page 8).

Does the computer or sensor indicate when to replace the battery?
  Replace with new batteries according to the procedure specified in the section “Replacing the battery.”

Nothing is displayed by pressing the button.
  Replace the computer battery according to the procedure specified in the section “Replacing the battery”.

Incorrect data appear.
  Restart according to the procedure specified in the section “Replacing the battery / Computer, steps 2 to 4”.

The measurement data is wrong.
(The maximum speed is too high, etc.)
  Are there any objects emitting electromagnetic waves (railway tracks, transmitting stations for television, Wi-Fi environment, etc.) nearby?
  Keep the unit away from any object that may be the cause.
  Perform the resetting operation in the case of invalid data.

In use
Specifications

<table>
<thead>
<tr>
<th>Battery / Battery life</th>
<th>Computer</th>
<th>CR2032 x 1 / Approx. 6 months (When using 1 hour/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart rate sensor</td>
<td>CR2032 x 1 / Approx. 1 year (When worn about 1 hour per day)</td>
<td></td>
</tr>
<tr>
<td>Speed sensor</td>
<td>CR2032 x 1 / Approx. 1 year (When using 1 hour/day)</td>
<td></td>
</tr>
</tbody>
</table>

* The factory-loaded battery life might be shorter than the above-mentioned specification.

Controller: 1-chip microcomputer (Crystal controlled oscillator)
Display: Liquid crystal display
Sensor: No contact magnetic sensor
Sensor signal transmission and reception: 2.4 GHz ISM Band
Communication range: 5 m (It may change depending on the environmental conditions, including weather.)
Tire circumference range: 0100 mm - 3999 mm (Initial value: 2096 mm)
Working temperature: 0°F - 104°F (0°C - 40°C) (This product will not display appropriately when exceeding the Working Temperature range. Slow response or black LCD at lower or higher temperature may happen respectively.)
Dimensions/ weight: Computer: 1-53/64” x 1-7/32” x 5/8” (46.5 x 31 x 16 mm) / 0.72 oz (20.3 g)
Heart rate sensor: 1-7/32” x 2-29/64” x 33/64” (31 x 62.5 x 13.2 mm) / 0.54 oz (15.4 g)
Speed sensor: 1-55/64” x 2-29/64” x 33/64” (47.4 x 62.4 x 13.1 mm) / 0.74 oz (21 g)

* The specifications and design are subject to change without notice.

Limited warranty

2-Year: Computer, Heart rate sensor and Speed sensor

(Accessories and Battery Consumption excluded)

CatEye cycle computers 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 of 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.

Please register your CatEye product on the website.

Spare accessories

<table>
<thead>
<tr>
<th>Standard accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>1603580</td>
</tr>
<tr>
<td>1603585</td>
</tr>
<tr>
<td>1600280N</td>
</tr>
<tr>
<td>1602193</td>
</tr>
</tbody>
</table>

Parts kit: Speed sensor: Bracket band: Bracket CR2032
Wheel magnet: Cadence magnet: Lithium battery
Heart rate sensor kit: HR strap

Optional accessories

<table>
<thead>
<tr>
<th>Optional accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>1602980</td>
</tr>
<tr>
<td>1603685</td>
</tr>
</tbody>
</table>

Nylon tie bracket: Speed sensor

CatEye CO., LTD.
2-8-25, Kuwazu, Higashi Sumiyoshi-ku, Osaka 546-0041 Japan
Attn: CATEye Customer Service Section
Phone : (06)6719-6863 Fax : (06)6719-6033
E-mail : support@cateye.co.jp URL : http://www.cateye.com

[For US Customers]
CATEYE AMERICA, INC.
2825 Wilderness Place Suite 1200, Boulder CO 80301-5494 USA
Phone : 303.443.4595 Toll Free : 800.5.CATEYE
Fax : 303.473.0006 E-mail : service@cateye.com