

# CATEYE



# STEALTH<sup>e</sup>VO+

CYCLOCOMPUTER CC-GL51

ENG

## Instruction manual



 **Before using the computer, please thoroughly read this manual and keep it for future reference.**

\* This PDF contains a link to YouTube.

When you click on the button “Watch a video”, a message regarding security appears. Click the “Allow” to open a browser and play the video.

\* YouTube videos and instruction manuals related to this product are subject to change without notice. For the latest edition of the instruction manual (PDF), visit the official CatEye website.

\* This manual has been prepared on the assumption that the user has sufficient basic knowledge, including operation and terminology of PCs (Windows / Mac).

This device complies with Part 15 of the FCC Rules and Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

*L'appareil est conforme à la réglementation FCC, section 15 et Industrie Canada RSS standard exempts de licence (s). Son utilisation est soumise à deux conditions :*

1. *L'appareil ne doit pas provoquer d'interférences nuisibles, et*

2. *L'appareil doit supporter les interférences reçues, y compris les interférences empêchant son fonctionnement correct.*

### Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by CatEye Co., Ltd. may void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician for help.

This Class B digital apparatus complies with Canadian ICES-003.

*Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.*

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## Features of this unit

### Measurement method

This unit is a multifunctional cyclocomputer, having a GPS and an acceleration sensor built-in, which can perform measurement by receiving only the GPS signal. It can also measure up to 4 types of data (Speed, Cadence, Heart rate and Power) by receiving the signal of sensors compatible with ANT+ communication standards.








\* This product does not contain an ANT+ sensor. Purchase the optional or commercial ANT+ sensor in accordance with your intended use.

### Recording and viewing the trip route

Position information from GPS is recorded with measurement data during measurement. The measurement data such as your route and altitude can be viewed as a trip on a map on the site, by loading them into the dedicated software application “CATEYE Sync™” on your PC, and then uploading to the special website “CATEYE Atlas™”. “CATEYE Atlas™” can be used as a database for your cycling life, where you can store the trips measured using this unit or CATEYE INOU, a trip recorder with camera.

## Icons used in this manual

• This manual indicates computer button operations as shown below.

	Press the  button		Press the <b>MODE</b> button
	Press the  button for 2 seconds		Press the <b>MODE</b> button for 2 seconds
	Press the <b>MENU</b> button		

• For explanatory purposes, in this manual red text/icons on the computer screen represent flashing items.

# Proper use of the CatEye STEALTH 51

## ⚠ Warning / Caution

- Do not concentrate on the computer while riding. Ride safely!
- Mount firmly the bracket on your bicycle, and check periodically that it is not loosened.
- 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.
- 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 cleaning the computer and bracket, do not use thinners, benzene, or alcohol.
- LCD screen may be distorted when viewed through polarized sunglass lenses.

## ANT+ sensor (optional or commercial)

This unit can receive, measure and display the signal from the following 4 ANT+ sensors.

- Speed sensor
- Speed/cadence (ISC) sensor
- Cadence sensor
- Heart rate sensor
- Power sensor



- \* For each type of sensor, you can perform pairing with up to 2 sensors.
- \* We offer an optional speed/cadence sensor (ISC-11), and heart rate sensor (HR-11).
- \* You can view applicable sensors on our website.

## Measurement using GPS and an ANT+ sensor capable of speed measurement

Speed can be calculated from the GPS signal if you do not have a sensor that is capable of speed measurement. When a speed signal is detected from a sensor, priority is given to the speed signal for measurement.

The differences between sensor measurement and GPS measurement are described below.

	Measurement using the GPS signal	Measurement using an ANT+ sensor capable of speed measurement
Under measurement	The unit may stop measurement or may not display appropriate measurements when the GPS signal cannot be received due to locations or environments while riding.	Accurate measurement can be performed even in such locations or environments where the GPS signal cannot be received.
Measurement results	The measurement results may differ slightly from the actual value.	Highly reliable measurement values can be obtained, since they are based on wheel rotations.

\* For GPS, see “GPS” (page 3).

## ANT+ communication standards

ANT+ is low-power-consumption digital communication standards using frequency of 2.4GHz. It practically prevents external noises and cross talks from interfering with measurement, and enables to record and store more reliable data than before.

However, it suffers interference in the following places and/or environments, which may result in an incorrect measurement.

- \* Be careful especially while pairing (i.e., searching the sensor ID).
- Near TVs, PCs, radios, motors, or in cars or trains.
- Near railroad crossings, along railway tracks, around television transmitting stations and radar bases, etc.
- When using together with other wireless devices, or some particular battery lights.
- Under the Wi-Fi environment

## Automatic recognition of the sensor ID

The ANT+ sensor has its own ID, and the computer measures in synchronization with the ID. 2 sensor IDs per sensor type can be registered into the computer. By pairing in advance, the sensor is automatically recognized while riding. It is not necessary to change the tire circumference manually, since the tire circumference is set for the ID of the sensor capable of speed measurement.

\* The speed sensor or speed/cadence (ISC) sensor, whichever is recognized, is indicated by the speed sensor icon (🌀1, 🌀2) on the display.

## Procedure of automatic recognition






The computer automatically recognizes the sensor ID according to the following procedure.

- 1 Signals from each sensor (speed, speed/cadence, cadence, heart rate, and power) are searched at the time when the GPS search screen displayed when the power is turned on, or the standby screen is changed to the measurement screen.

**⚠ Caution:** Any sensor that is not sending the sensor signal at this time cannot be recognized. Each sensor sends the sensor signal in response to the following operations.

Sensor type	Method
Speed sensor	Move the magnet close to the sensor zone (at a distance of less than 3 mm)
Speed/cadence (ISC) sensor * When using the CATEYE speed/cadence sensor (ISC-11), select [ISC] to perform paring.	
Cadence sensor	
Heart rate sensor	Wear the heart rate sensor
Power sensor	Ride the bicycle lightly

- 2 Among the pairing-performed IDs of each sensor, the sensor with the strongest signal is received. The sensor signal icon corresponding to the received sensor appears on the display, and measurement is started. Each sensor is displayed as follows.

Sensor type	Display
Speed sensor	 <b>S</b> (Flash)
Speed/cadence (ISC) sensor	 <b>S</b> / <b>C</b> (Flash simultaneously)
Cadence sensor	 <b>C</b> (Flash)
Heart rate sensor	 <b>H</b> (Flash)
Power sensor	 <b>P</b> (Flash)

\* The computer performs measurement using the GPS signal when the speed signal cannot be received. In such a case, the computer changes to measurement using the sensor whenever the speed signal is detected.

\* When the cadence signal, heart rate signal, or power signal cannot be received, the relevant measurement value is not displayed.

## GPS

GPS (Global Positioning System) is a system to identify the current position on the earth by receiving highly precise positional information sent from a satellite.

### Receiving the GPS signal

- It may take several minutes to acquire the GPS signal after turning on the computer.
- While searching the GPS signal, we recommend that you do not move around until receiving the GPS signal. It may take more time to receive the GPS signal if you move around while searching the GPS signal.
- Receiving the GPS signal becomes easier under such conditions that the sky is open and the prospect for the satellites is good.

### Where the GPS signal cannot be received

The unit may stop measurement or may not display appropriate measurements when the GPS signal cannot be received in the following locations or environments.

- In a tunnel, underground and building, between high-rise buildings, under an elevated structure and arcade, etc.
- In bad weather (snow, rain, etc.)
- Near a high-voltage line or a mobile telephone relay station.
- When the computer display does not face to the sky.

\* The measurement results may differ slightly from the actual values, when the speed is calculated based on the GPS signal.

## Battery

Follow these instructions to maximize the lithium-ion battery performance.

### Recharge the battery for first time use or after long period of storage

The voltage of the battery may drop during a long period of storage due to standby current. Always fully charge the battery before use.

### Cautions on recharging

- Charge the battery at ambient temperature between 41°F to 104°F (5°C to 40°C).
- Be sure to unplug the USB plug after charging is completed.
- Clean the USB plugs before charging.
- Do not apply vibration during charging.
- When the connected PC is in sleep state, the battery cannot be charged.

### Cautions in use

- Charging, discharging and storing at high temperature will damage the battery. Do not leave the battery in a car or near a heater.
- When the lighting time decreases significantly even though it is charged correctly, the rechargeable battery has reached the end of its usable life due to deterioration. For details, see "How to dispose the computer" (page 43).

### Cautions on storage

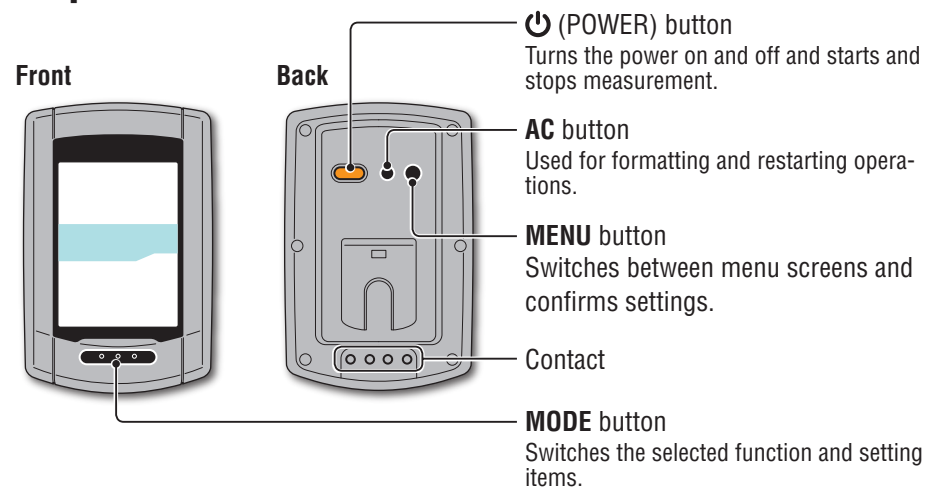
Do not store the Li-Ion battery after a full charge. Cool and dry storage is recommended. For a long period storage, it is important to charge the battery 10 minutes every 6 months.

### Cautions for dispose

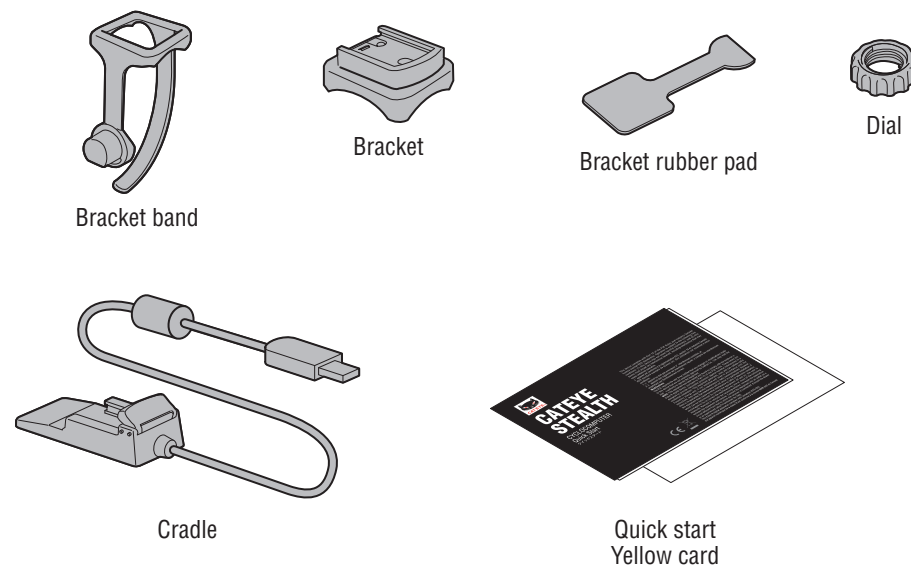
Remove the rechargeable battery inside, before disposing the computer. For details, see "How to dispose the computer" (page 43).

## Description of computer and its parts

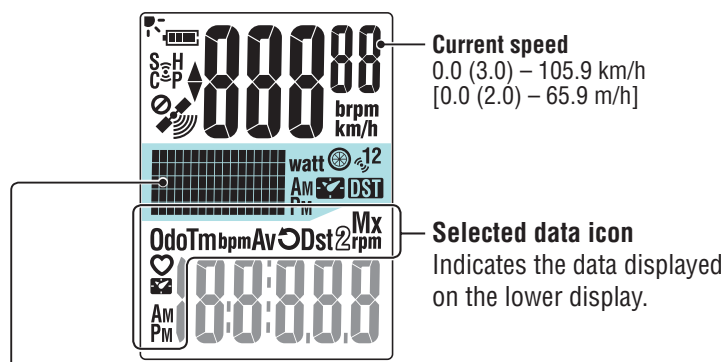
### Computer



### Accessories



# Screen display



**Current speed**  
0.0 (3.0) – 105.9 km/h  
[0.0 (2.0) – 65.9 m/h]

**Selected data icon**  
Indicates the data displayed on the lower display.

## Dot display

Displays the clock or altitude.

\* To change the display, see “Setting the middle display” (when using CATEYE Sync™: page 30, when using the computer alone: page 39).

\* Displays the power (wattage) when the power signal is received.

Icon	Description
	<b>Battery icon</b> Displays the remaining battery capacity in 5 levels. * For information on how to charge the battery, see “How to turn on/off the power / how to charge the battery” (page 7).
	(Light up) Remaining battery capacity is large
	Remaining battery capacity is small
	(Flash) Remaining battery capacity is nearly zero. In such case, the computer turns off the power automatically. Charge the battery as soon as possible.
	<b>Sensor signal icon</b> Flashes when the ANT+ sensor signal is received.
	<b>S</b> (Flash) *1 When the speed signal is received
	<b>C</b> (Flash) *1 When the cadence signal is received
	<b>H</b> (Flash) When the heart rate signal is received
	<b>P</b> (Flash) When the power signal is received
	*1 : When the signal from the speed/cadence (ISC) sensor is received, <b>S</b> and <b>C</b> flash simultaneously.

Icon	Description
	<b>Pace arrow</b> Indicates if the current speed is faster or slower than the average speed. (▲ Faster, ▼ Slower)
	<b>GPS signal received icon</b> Indicates the GPS signal receiving status
	(Light up) GPS signal is strong ↕ GPS signal is weak
	<b>GPS signal not received icon</b> Flashes when GPS signal cannot be received. In such status, measurement cannot be performed. * When such status lasts for 10 minutes, the computer turns off the power automatically. (Auto power off)
<b>km/h</b> <b>m/h</b>	<b>Speed unit</b> Flashes during measurement.
 	<b>Speed sensor icon</b> Indicates the speed sensor or speed/cadence (ISC) sensor being received. * Except for speed signal from power sensor.
<b>watt</b>	<b>Power unit</b>
	<b>Tire circumference icon</b> Lights up when the tire circumference is entered.
	<b>Clock icon</b> Lights up when the clock is displayed.
<b>DST</b>	<b>Daylight saving time icon</b> * For information on how to set the daylight saving time, see “Clock setting” (when using CATEYE Sync™: page 30, when using the computer alone: page 33).

# How to install the unit on your bicycle

Watch video  
(YouTube)

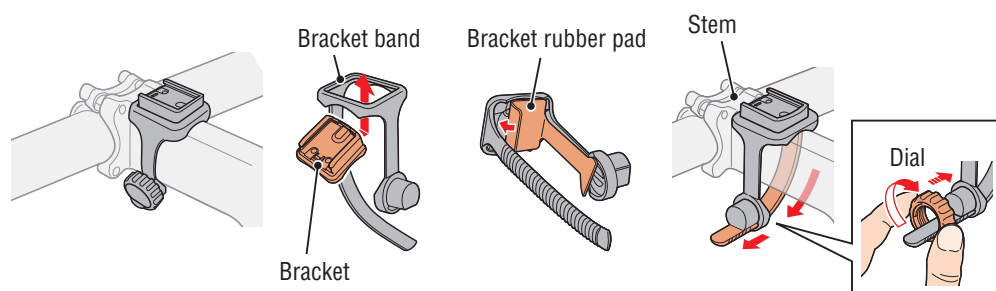
Click the button, then a browser will open and a video will be played back.

## 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.

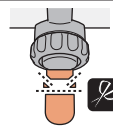
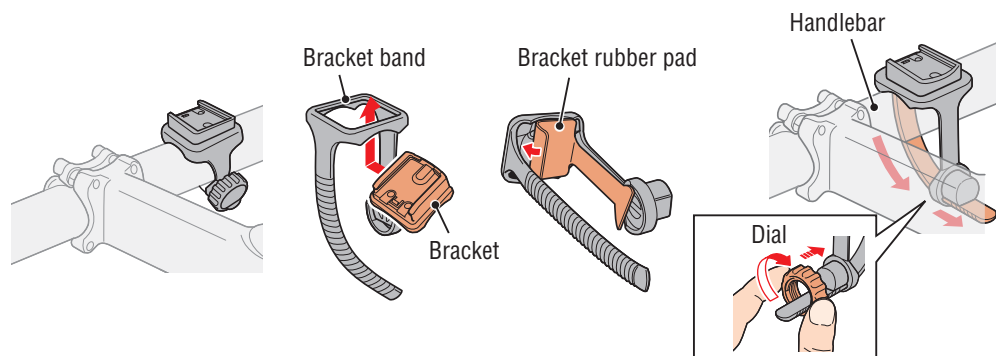
**⚠ Caution:** Be sure to tighten the dial of the FlexTight™ bracket by hand. Tightening it strongly using a tool, etc. may damage the screw thread.

### When attaching the FlexTight™ bracket to the stem



### When attaching the FlexTight™ bracket to the handlebar

\* To receive GPS signal effectively, adjust the direction of the bracket so that the computer display faces to the sky.

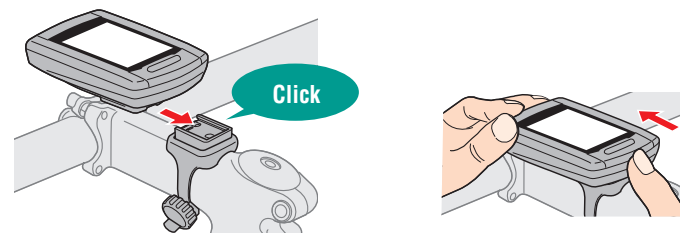


Cut the excess length of the band using scissors.

**⚠ Caution:** Round off the cut edge of the bracket strap 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



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

## When you have the ANT+ sensor

Mount the sensor according to the instruction manual of each sensor.



\* For information on how to install the optional speed/cadence sensor (ISC-11), see “How to install the speed/cadence sensor (ISC-11)” (page 44).

\* For information on how to wear the optional heart rate sensor (HR-11), see “How to install the heart rate sensor (HR-11)” (page 45).



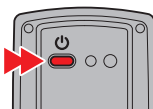
# How to turn on/off the power / how to charge the battery

## Power ON/OFF

Press and hold the  button on the back of the computer for 2 seconds.

- \* Set up the computer when you turn on the power for the first time. For details, see “Setting up the computer” (on the right of this page).
- \* When the remaining battery capacity is small, charge it according to the following instructions.

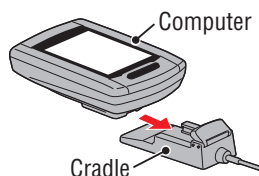
(Press & hold)



## How to charge



### 1 Set the computer to the cradle

**⚠ Caution:** Do not set wet computer to the cradle, for example after ride in the rain. It may cause short circuit and damage the computer or the data.



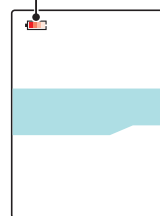
### 2 Insert the USB plug in your PC or a commercial USB battery charger

Once charging is started, only  (battery icon) is displayed.

Icon	Description
 (Animation)	Charging
 (Light up)	Charging is completed

- \* When the computer is connected to your PC, the battery cannot be charged with the PC in sleep state.
- \* With USB1.0, it takes time to charge.
- \* The battery charges to about 80% after approximately 90 minutes
- \* The standard charging time may change according to the environment for use.
- \* The computer can be used for 10 hours on a full charge. (Due to standby current, usage time will become shorter as time progresses after charging.)

Battery icon

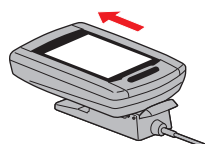


Standard  
charging time  
Approx. 5 h

### 3 Remove the computer after charging is completed

Disconnect the USB plug from your PC or a USB battery charger, and then remove the computer from the cradle.

- \* To remove the computer, press it out by hand while holding the cradle.



# Setting up the computer

Perform the following formatting operation, when you use the unit for the first time or restore the unit to the condition before shipment.

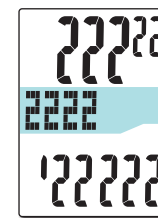
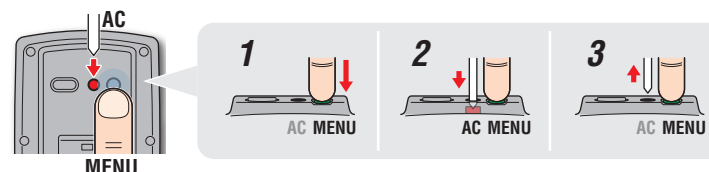
**⚠ Caution:** All data are deleted, and the computer is reset to the factory default.

- \* Complete setting up the computer without modification, even if you make a mistake in entering or fail in pairing (\*1) with any sensor while setting up the computer. You can change the setting later, from the dedicated application “CATEYE Sync™” or from the menu screen of the computer. For details, see “Changing the computer configuration” (page 30).

\*1: Pairing can be performed only from the menu screen of the computer.  
For details, see “Pairing the sensor” on the menu screen (page 36).

### 1 Format (initialize)

Press the **MENU** button on the back of the computer and the **AC** button simultaneously. Release the **MENU** button when a test pattern is displayed on the screen.



Test pattern

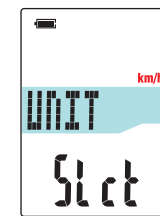
- \* When all screen items light up without any test pattern displayed on the screen, the formatting operation has not been completed properly. Perform the formatting operation again.

Watch video  
(YouTube)

Click the button, then a browser will open and a video will be played back.

### 2 Select the speed unit

Select “km/h” or “m/h”.



### 3 Pairing (Searching the sensor ID)

#### When you do not have the ANT+ sensor

“Pairing” is not required. Press the **MENU** button 5 times to jump to Step 5 “Select the time zone” (page 11).

#### When you have the ANT+ sensor

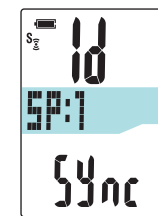
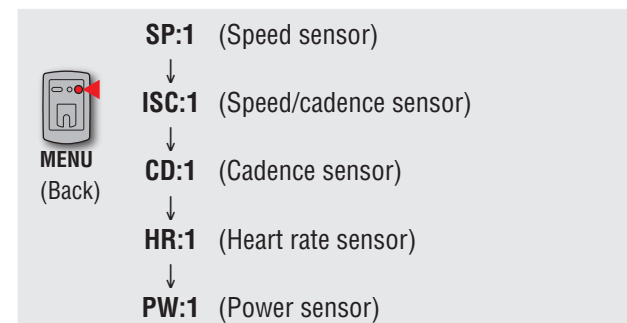
In order for the computer to recognize each sensor, it is necessary to register the sensor ID of each sensor (pairing). Perform pairing of the computer with your ANT+ sensor according to the following procedure.

This unit has 2 different methods for pairing.

How to search the sensor ID	Description
Automatic search	The computer completes pairing by receiving the signal sent from the sensor. * Generally, use this method for pairing.
Manual ID number entry	When the sensor ID number is known, you can perform pairing by entering the number. * Use this method for pairing, when there are two or more ANT+ sensors, such as at a race site, and automatic search cannot be done.

#### 1 Display the sensor for pairing, on the display

Pressing the **MENU** button changes the sensor for pairing. Display your sensor.



\* While setting up the computer, sensor pairing is performed in the order shown in the figure. Complete setting up of the computer, even if you fail or skip pairing. You can change the setting later. For details, see “Pairing the sensor” on the menu screen (page 36).

\* By default, you can perform pairing with either “**SP:1**” or “**ISC:1**”.

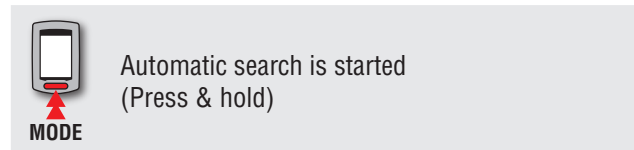
- When you perform pairing with “**SP:1**”, the display of “**ISC:1**” (speed/cadence sensor) is skipped.
- When you perform pairing with “**ISC:1**” (speed/cadence sensor), the display of “**CD:1**” (cadence sensor) is skipped.



## ② Pairing is started

### In the case of automatic search

Press and hold the **MODE** button, then the lower display will be changed and automatic search will be started.



\* When another ANT+ sensor is nearby, send the sensor signal of the sensor to be searched, and then press and hold the **MODE** button. It can be easier to pair with the sensor you want.

Send the sensor signal with the automatic search screen displayed.

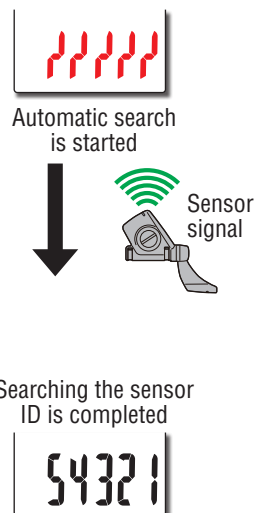
\* Note the ID number for your convenience, which is specific to the sensor.

\* Each sensor sends the sensor signal in response to the following operations.

Sensor type	Method
<b>SP</b> Speed sensor	
Speed/cadence sensor	
* When using the CAT-EYE speed/cadence sensor (ISC-11), select <b>[ISC]</b> to perform pairing.	
<b>ISC</b>	Move the magnet close to the sensor zone (at a distance of less than 3 mm)
<b>CD</b> Cadence sensor	
<b>HR</b> Heart rate sensor	Wear the heart rate sensor
<b>PW</b> Power sensor	Ride the bicycle

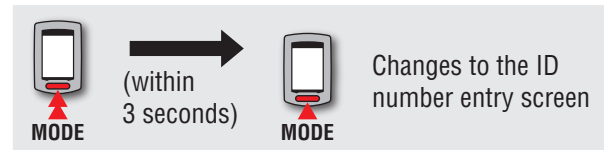
\* The computer enters the search mode for 5 minutes after automatic search is started. Send the sensor signal in this period.

\* Pressing and holding the **MODE** button in the search mode cancels automatic search. It is canceled automatically when the sensor signal cannot be received in the search mode.



### In the case of manual ID number entry

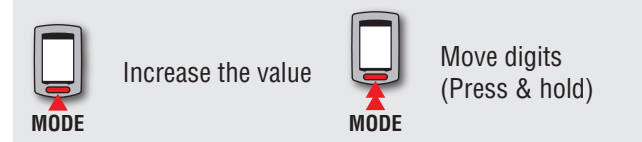
Press and hold the **MODE** button to start automatic search, and then press the **MODE** button within 3 seconds. The display will be changed to the ID number entry screen.



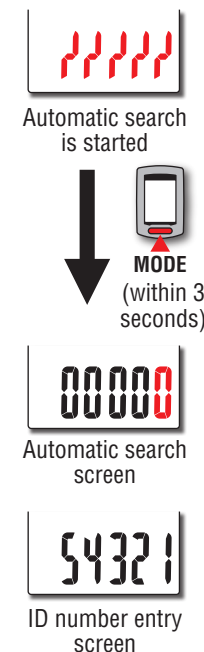
\* Note that it will enter into automatic search when a time of 3 seconds or more elapses.

Pressing the **MODE** button changes the value, and pressing and holding the **MODE** button moves to the next digit.

Setting range: 00001 – 65535



Go to Step ③.



- 3 Check the ID number, and then press the MENU button  
Sensor pairing is completed.



Register the setting  
(Back)

54321

- 4 Perform pairing for other sensors with the same procedure

## 4 Enter the tire circumference

**When you skip pairing with the ANT+ sensor capable of speed measurement**  
Setting in “Entering the tire circumference” is skipped.



Go to Step 5 “Select the time zone” (page 11).

**When you have performed pairing with the ANT+ sensor capable of speed measurement**  
Enter the tire circumference (outer perimeter of tire) on the side where the sensor is mounted, in mm, according to the following procedure.

Pressing the **MODE** button changes the value, and pressing and holding the **MODE** button moves to the next digit.

Setting range: 0100 - 3999 mm



Increase the value



Move digits  
(Press & hold)



Register the setting  
(Back)

SP-1  
TIRE  
2096

- \* **Tire circumference for power sensors capable of transmitting a speed signal**  
When you skip pairing with a speed sensor or speed/cadence sensor, the tire circumference setting on the power sensor is set to 2096 mm. This value can be changed after setup is complete by following the instructions in “Setting the tire circumference” (when using CATEYE Sync™: page 30, when using the computer alone: page 35).
- \* For determining the tire circumference, see “Tire circumference” (on the right of this page).

## 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.



or



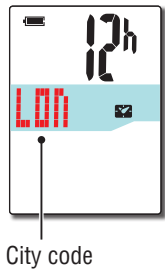
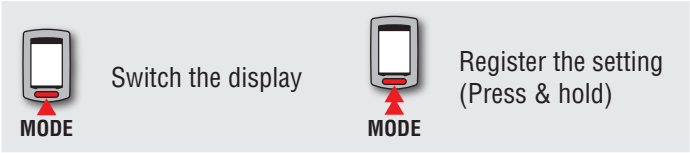
### Tire circumference reference table

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

ETRTO	Tire size	L (mm)	ETRTO	Tire size	L (mm)	ETRTO	Tire size	L (mm)
47-203	12x1.75	935	28-540	24x1-1/8	1795	37-630	27x1-3/8	2169
54-203	12x1.95	940	32-540	24x1-1/4	1905	40-584	27.5x1.50	2079
40-254	14x1.50	1020	25-559	26x1(559)	1913	50-584	27.5x1.95	2090
47-254	14x1.75	1055	32-559	26x1.25	1950	54-484	27.5x2.10	2148
40-305	16x1.50	1185	37-559	26x1.40	2005	57-584	27.5x2.25	2182
47-305	16x1.75	1195	40-559	26x1.50	2010	18-622	700x18C	2070
54-305	16x2.00	1245	47-559	26x1.75	2023	19-622	700x19C	2080
28-349	16x1-1/8	1290	50-559	26x1.95	2050	20-622	700x20C	2086
37-349	16x1-3/8	1300	54-559	26x2.10	2068	<b>23-622</b>	<b>700x23C</b>	<b>2096</b>
32-369	17x1-1/4(369)	1340	57-559	26x2.125	2070	25-622	700x25C	2105
40-355	18x1.50	1340	58-559	26x2.35	2083	28-622	700x28C	2136
47-355	18x1.75	1350	75-559	26x3.00	2170	30-622	700x30C	2146
32-406	20x1.25	1450	28-590	26x1-1/8	1970	32-622	700x32C	2155
35-406	20x1.35	1460	37-590	26x1-3/8	2068		700C Tubular	2130
40-406	20x1.50	1490	37-584	26x1-1/2	2100	35-622	700x35C	2168
47-406	20x1.75	1515		650C Tubular 26x7/8	1920	38-622	700x38C	2180
50-406	20x1.95	1565	20-571	650x20C	1938	40-622	700x40C	2200
28-451	20x1-1/8	1545	23-571	650x23C	1944	42-622	700x42C	2224
37-451	20x1-3/8	1615	25-571	650x25C 26x1(571)	1952	44-622	700x44C	2235
37-501	22x1-3/8	1770	40-590	650x38A	2125	45-622	700x45C	2242
40-501	22x1-1/2	1785	40-584	650x38B	2105	47-622	700x47C	2268
47-507	24x1.75	1890	25-630	27x1(630)	2145	54-622	29x2.1	2288
50-507	24x2.00	1925	28-630	27x1-1/8	2155	56-622	29x2.2	2298
54-507	24x2.125	1965	32-630	27x1-1/4	2161	60-622	29x2.3	2326
25-520	24x1(520)	1753						
	24x3/4 Tubular	1785						

## 5 Select the time zone

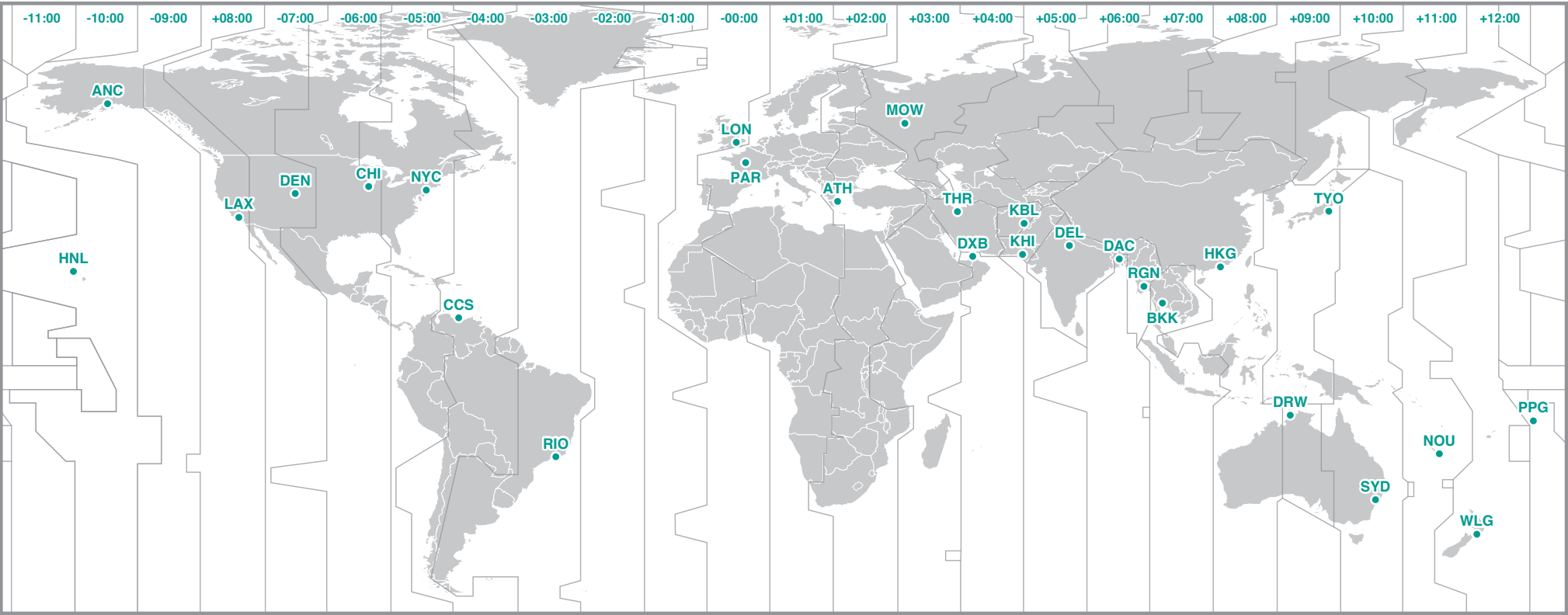
In reference to the following “Time zone list”, select the code for the city nearest from your current location.



### Time zone list

City code	City name	Time difference
LON	London	0
PAR	Paris	+1
ATH	Athens	+2
MOW	Moscow	+3
THR	Tehran	+3.5
DXB	Dubai	+4
KBL	Kabul	+4.5
KHI	Karachi	+5
DEL	Delhi	+5.5
DAC	Dhaka	+6
RGN	Yangon	+6.5
BKK	Bangkok	+7
HKG	Hong Kong	+8
TYO	Tokyo	+9


City code	City name	Time difference
DRW	Darwin	+9.5
SYD	Sydney	+10
NOU	Noumea	+11
WLG	Wellington	+12
PPG	Pago Pago	-11
HNL	Honolulu	-10
ANC	Anchorage	-9
LAX	Los Angeles	-8
DEN	Denver	-7
CHI	Chicago	-6
NYC	New York	-5
CCS	Caracas	-4
RIO	Rio de Janeiro	-3




6 Select the daylight saving time

You can set the daylight saving time when you are on Daylight Saving Time.  
Select ON or OFF.

Setting	Description
ON	Moves the clock 1 hour ahead
OFF	Displays in regular clock

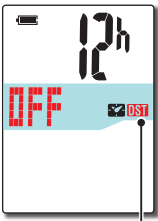
**MODE**

ON ↔ OFF

**MODE**

Register the setting  
(Press & hold)


\* Change ON/OFF according to the period of daylight saving time.



Daylight saving time icon

7 Select the clock display format

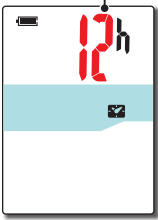
Select the display format of “12h” (12 hours display) or “24h” (24 hours display).

**MODE**

12h ↔ 24h


\* Date and clock are acquired from GPS signal; therefore, it is not necessary to enter them.

Display format



8 Press the MENU button to complete setting

Setting up is completed, and the computer changes to the GPS search screen.

**MENU**

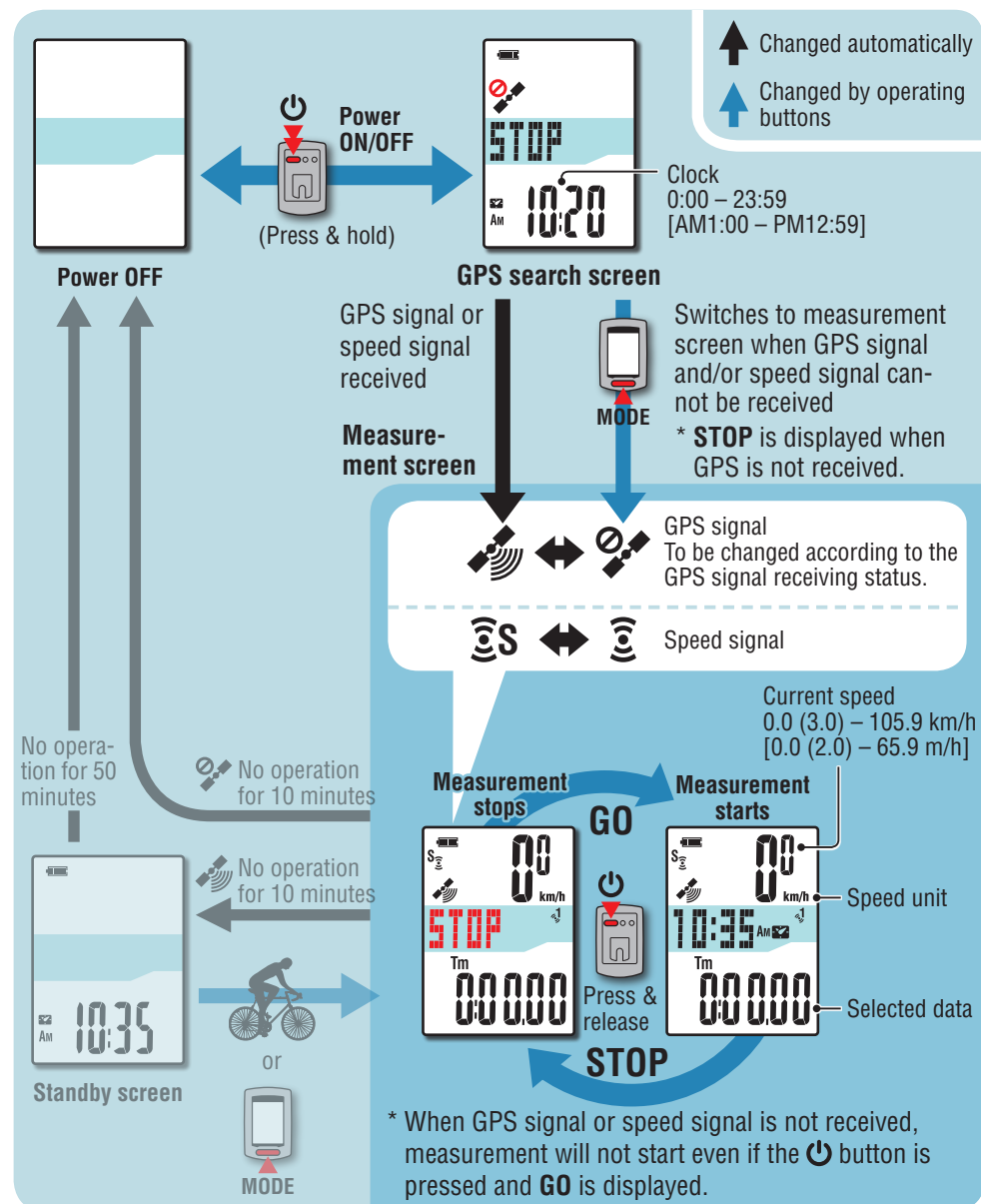
Complete setting up  
(Back)



Now, setting up the computer is completed.  
For information on how to use the computer, see “Screen flow” (page 13).

# Screen flow

This unit has three screens: a GPS search screen, a measurement screen, and a standby screen. These screens are displayed alternatively according to GPS signal and/or speed signal reception status and bicycle movement. This section describes the flow of the screen after the power is turned on until measurement is started.



## GPS search screen (when the power is turned on)

When the power is turned on, the GPS search screen will appear, and the unit will start searching for GPS.

Depending on whether or not the GPS signal and/or speed signal is received, the behavior of the unit changes as described below.

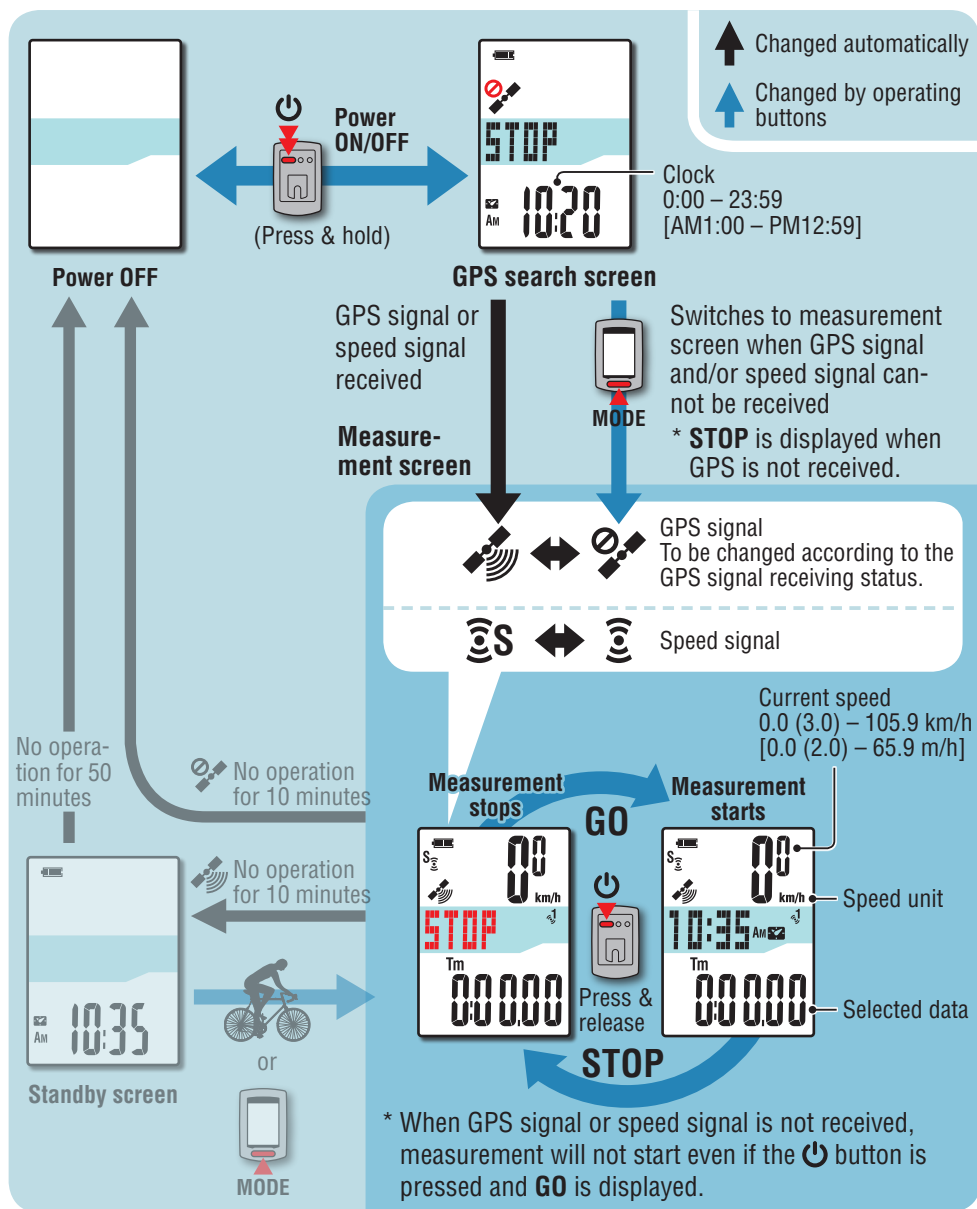
Reception status	Unit behavior
GPS signal or speed signal received	The unit switches to the measurement screen. Depending on the reception status, the GPS signal received icon (📶) or the speed signal icon (🚲 S) is displayed.
GPS signal and/or speed signal not received	Pressing the <b>MODE</b> button switches to the measurement screen even if neither signal is received.

\* It may take several minutes for the signal to be received depending on reception conditions.

## Measurement screen

This is the basic screen of this unit. The measurement screen has the states described below.

Middle display	GPS signal	Speed signal	Description
	(Flash)	(S off)	In this state, measurement is not possible even if you ride; it is only possible to check measurement data and perform a resetting operation. * There is no signal for speed measurement. If no buttons are pressed for 10 minutes, the unit automatically turns off. (Auto power off)
	(Flash)	(Flash)	
	(Flash)	(S off)	
	(On)	(Flash)	Measurement is stopped while <b>STOP</b> is displayed. Pressing the <b>GO</b> button starts or pauses measurement ( <b>STOP</b> appears).



Middle display	GPS signal	Speed signal	Description
 Clock Altitude Power	(Flash)	(S off)	In this state, the unit uses the speed signal for measurement. It cannot display altitude acquired from the GPS signal and cannot record route information. * Altitude are displayed and route information can be recorded from the time the GPS signal is received.
	(On)	(S off)	In this state, the unit uses the GPS signal for measurement, displays altitude, and allows route information to be recorded. * If the GPS signal is lost while riding, the GPS signal not received icon (📶) will flash and the unit will stop measurement. Measurement will resume when the GPS signal is received again.
	(On)	(Flash)	In this state, the unit give priority to the speed signal for measurement. It uses the GPS signal to display altitude, and record route information.

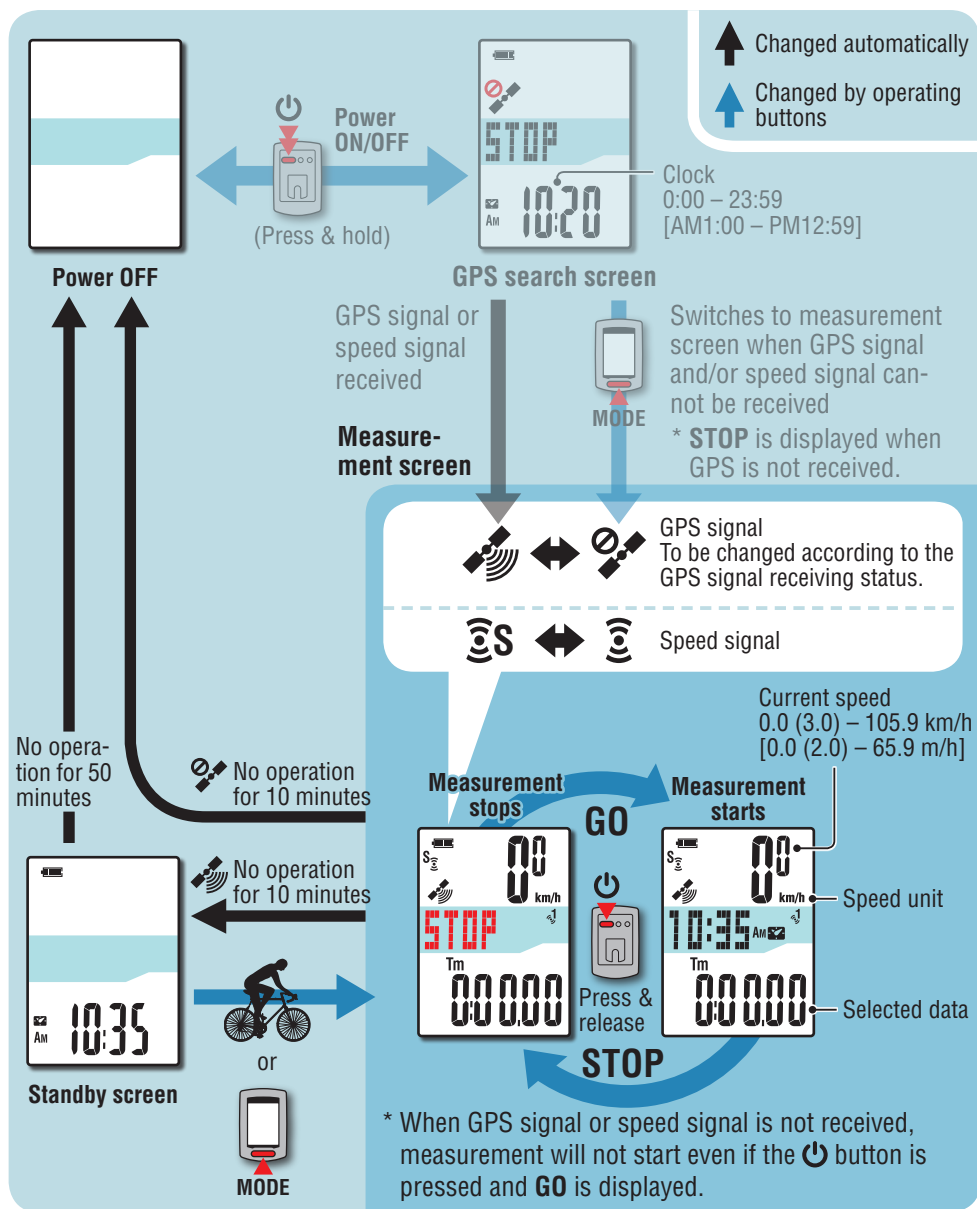
\* For information on how to start/stop measurement, view the measurement data, and about resetting operation, see “Functions available on the measurement screen” (page 16).

\* When the unit is on the measurement screen, if there is no button operation for 10 minutes while the GPS signal and/or the ANT+ sensor signal is not received, the unit automatically turns off. (Auto power off)

GPS signal may not be received, thus the unit may stop measurement or may not display appropriate measurements in the following locations or environments.

- In a tunnel, underground and building, between high-rise buildings, under an elevated structure and arcade, etc.
- In bad weather (snow, rain, etc.)
- Near a high-voltage line or a mobile telephone relay station.
- When the computer display does not face to the sky.





## Standby screen

When the unit is on the measurement screen, if there is no bicycle movement or button operation for 10 minutes while the GPS signal or the speed signal is being received, the unit automatically switches to the standby screen. Riding again returns to the measurement screen.

\* The unit turns off the power automatically in 50 minutes with the standby screen displayed. (Auto power off)

\* When the GPS signal cannot be received with the standby screen displayed, the GPS signal not received icon () flashes. When the speed signal cannot be received, even riding again does not return to the measurement screen.

# Functions available on the measurement screen

## Starting/Stopping measurement

This unit is a cyclocomputer, having a GPS and an ANT+ signal receiver built-in.

**⚠ Caution:** The measurements below require an environment in which GPS signals can be received.

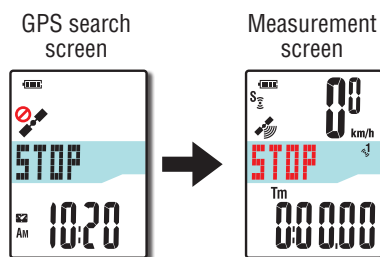
- Displaying altitude and recording route information
- Measuring without an ANT+ sensor

\* For details regarding each screen, see “Screen flow” (page 13).


### 1 Press and hold the button for 2 seconds

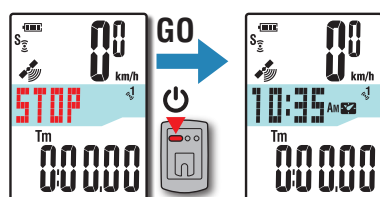
The unit turns on and the GPS search screen appears. Wait several minutes until the GPS signal is received.

When the GPS signal and/or speed signal is received, the unit switches from the GPS search screen to the measurement screen.




### 2 Check that the GPS signal received icon () turns on, and press the button. STOP changes to GO on the measurement screen, and measurement starts.

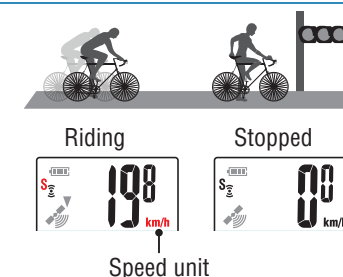
\* When using an ANT+ sensor capable of speed measurement, measurement is possible even when the GPS signal not received icon () is on, but altitude acquired from the GPS signal cannot be displayed and route information cannot be recorded. Altitude are displayed and route information can be recorded from the time the GPS signal is received.



### 3 Start riding

During measurement, measurement starts and stops automatically in sync with the movement of the bicycle.

- \* During measurement the measurement unit flashes.
- \* The speed signal icon () flashes while the speed signal is received.



### 4 Press the button to stop measurement

**STOP** appears on the measurement screen, and measurement stops.

Once measurement stops, press and hold the **MODE** button to reset the measurement data to 0 (resetting operation) and generate trip data up to that time.



\* Data from when measurement starts to the reset operation is recorded as a single trip, regardless of whether the unit is turned on or off. To continue measurement, turn the power off without performing a resetting operation. For details, see “Resetting the measurement data and generating the trip data” (page 18).

\* For information on uploading trip data, see “Uploading trip data” (page 22).

### 5 Press and hold the button for 2 seconds

The unit turns off.

\* If the unit is turned off without stopping measurement, it will start up in measurement mode when it is turned back on.

GPS signal may not be received, thus the unit may stop measurement or may not display appropriate measurements in the following locations or environments.

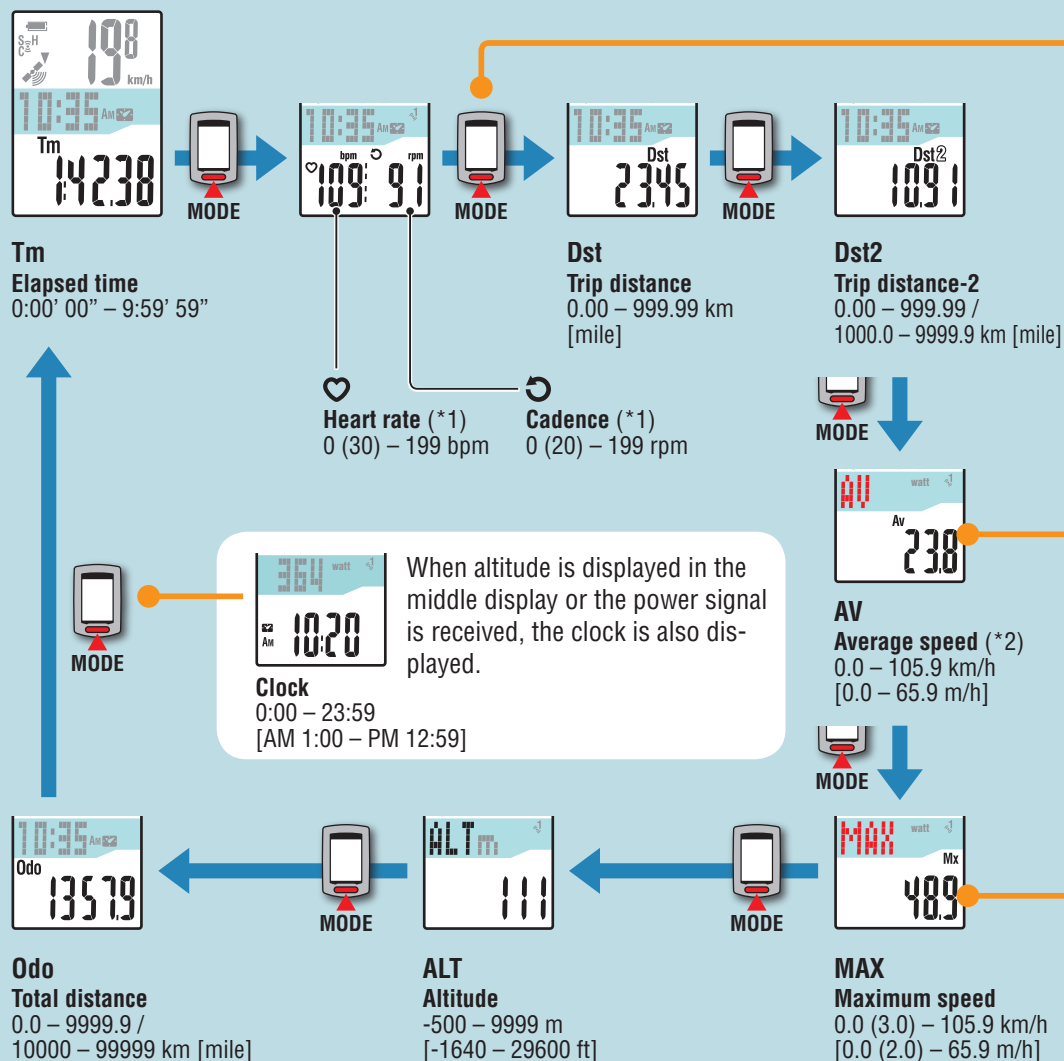
- In a tunnel, underground and building, between high-rise buildings, under an elevated structure and arcade, etc.
- In bad weather (snow, rain, etc.)
- Near a high-voltage line or a mobile telephone relay station.
- When the computer display does not face to the sky.

## Switching computer function

Pressing the **MODE** button switches the measurement data in the lower display, in the order shown in the figure.

\* Unnecessary functions can be hidden.

For details, see “Setting function display” (when using CATEYE Sync™: page 30, when using the computer alone: page 38).



### Power balance

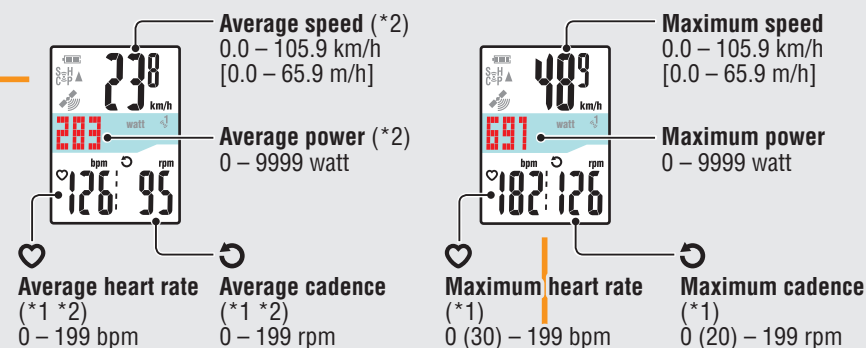
When using separate left and right power sensors, power balance screen is also displayed.

Left  
0 – 100%

Right  
0 – 100%

### Average/maximum values

- If heart rate/cadence sensor is paired, the unit displays the corresponding average and maximum values.
- When the power signal is received, the display alternates between **AV** icon and average power value, and **MAX** icon and maximum power value.



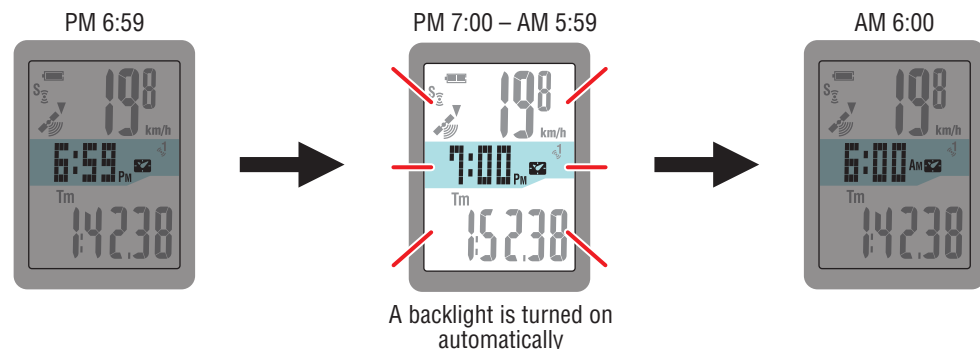
\*1: If heart rate/cadence sensor is not paired, related data is not displayed.

\*2: The average value displays .E instead of the measurement value and measurement is not possible when **Tm** exceeds approximately 27 hours or **Dst** exceeds 999.99km. Reset the data.

## Backlight

When using it during night-time, the backlight always lights up.

### Example: Setting of the night-time: 7:00 PM to 6:00 AM



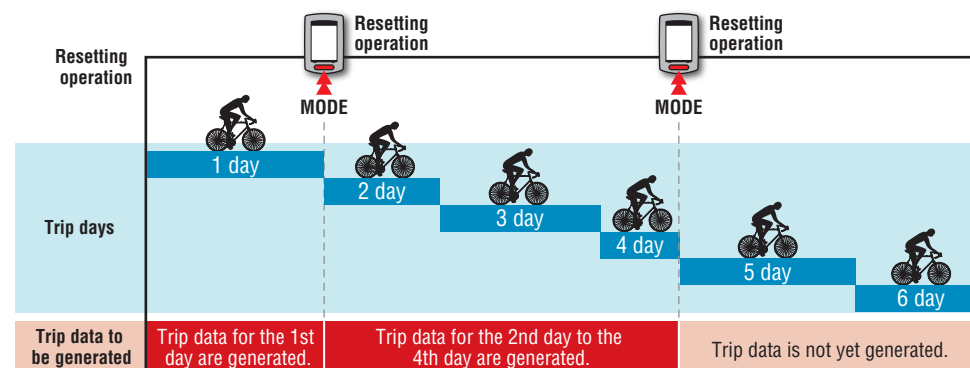
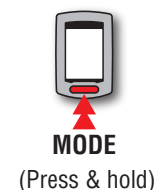
\* The night-time can be set to your needs.

For details, see “Night-time setting” (when using CATEYE Sync™: page 30, when using the computer alone: page 38).

\* As default, it is set to 6:00 PM to 7:00 AM.

## Resetting the measurement data and generating the trip data

Holding down the **MODE** button with the measurement screen displayed resets the measurement data to 0 (resetting operation). All the measurement data up to that time are generated as trip data. You can view measurement results and store trip records, by uploading the trip data to the special website “CATEYE Atlas™” via the dedicated software application “CATEYE Sync™”.



\* A trip is continued unless the resetting operation is performed, even if the power is turned off during measurement.

\* The trip distance-2 (**Dst2**) is not reset to 0, since it is to be reset separately. For details, see “Resetting the trip distance-2” below.

\* The total distance (**Odo**) cannot be reset.

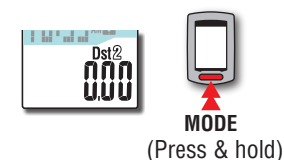
\* For information on how to upload to the CATEYE Atlas™, see “Uploading the measurement data (trip data)” (page 22).

\* The unit has a limited memory capacity. When the data volume exceeds the memory capacity, any new data can no longer be stored. For details, see “Record interval and capacity limit” (page 26).

### Resetting the trip distance-2

Pressing and holding the **MODE** button with the trip distance-2 (**Dst2**) displayed resets only the trip distance-2 data to 0.

\* The trip distance-2 (**Dst2**) value cannot be saved as trip data.

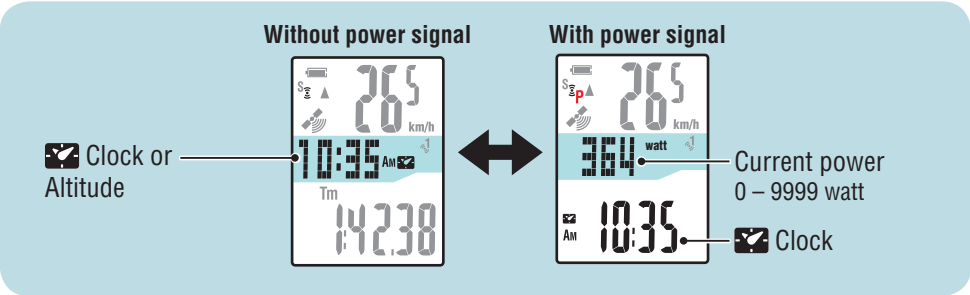


# Power measurement

This measurement is possible when you have the ANT+ power sensor.

When the power signal is received, the middle display in the measurement screen changes to power.

\* The clock display moves from the middle display to the lower display.  
For details, see “Switching computer function” (page 17).



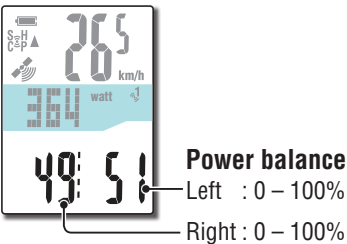
\* It may be possible to measure current speed and cadence depending on your power sensor.

## Power balance

Power balance can be measured if you have separate left and right ANT+ power sensors.

When a signal is received from a separate left and right power sensor, power balance is added to the current functions.

\* This function is skipped if the power sensor does not distinguish between left and right.  
\* When power is 0, the display shows “--”.



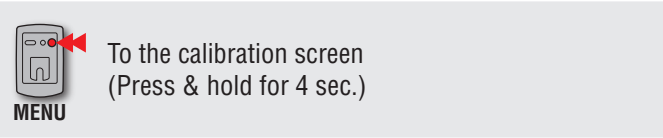
## Calibration of the power sensor

Continuous use of the power sensor may cause a slight drift in unloaded condition. Calibrate it periodically to correct the drift. Especially for critical measurements, we recommend you perform calibration in advance.

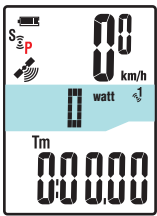
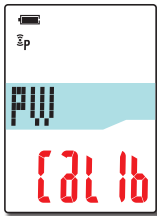
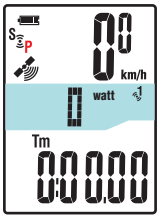
\* Read the instruction manual of the power sensor, and check the precautions for calibration before you start calibration.  
If you fail in calibration, accurate power measurement may not be performed.

1 Press and hold the MENU button for 4 seconds while measurement stops on the measurement screen

⚠ **Caution:** Be sure not to put a load on the power sensor accessories (crank, etc.) during calibration.



CALIB will flash on the display, and calibration will be started.



3 seconds later, calibration will be completed and the display will return to the measurement screen.

# Setup of your PC

At first, access the special website CATEYE Atlas™ to register as a member. Then, install CATEYE Sync™ to your PC (Windows/Mac). You can upload the trip data measured with this unit to CATEYE Atlas™, STRAVA™, TrainingPeaks™ and others, or change the computer configuration using your PC.

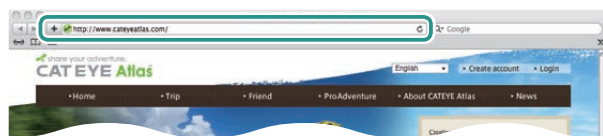
**⚠ Caution:** Use the PC with an Internet access environment to access CATEYE Atlas™ or download CATEYE Sync™.

## Membership registration to CATEYE Atlas™

- You can use the same account when using CATEYE INOU and having registered membership.
- When uploading the trip data acquired with this unit only to STRAVA™ or TrainingPeaks™, membership registration of CATEYE Atlas™ is not required. Install CATEYE Sync™, and see “Uploading trip data” (page 22).

### 1 Access CATEYE Atlas™

Access the website “CATEYE Atlas™” from your browser (<http://www.cateyeatlas.com>).



### 2 Click on [Create account]

Register your temporary membership according to the instructions displayed on the screen. Once you are registered, an e-mail is sent from CATEYE Atlas™. Access to the specified URL to register your formal membership.

\* Membership registration is free of charge.

\* Make a note of your e-mail address, password and birth date registered, and be sure to keep it.



### 3 Click on [Login here]

### 4 Enter your e-mail address and password, and then click on [Login]

Enter correctly your e-mail address and password registered to login.

\* Go to “Installing CATEYE Sync™” (on the right of this page).

## Installing CATEYE Sync™

### Operating environment for CATEYE Sync™

OS	Windows XP (32 bit), and Vista / 7 / 8 (32 bit / 64 bit)
	*.NET Framework 3.5 is required. Mac OS 10.6 or later
Memory	Recommend environment for respective OS
HDD	Available capacity required: 64 MB or more
Browser	Internet Explorer 7 or later, Safari 4.0 or later, Firefox, and Google Chrome 5.0 or later

### How to Install CATEYE Sync™

#### 1 Click on [Download CATEYE Sync™ now]

Download the file according to the instructions displayed on the screen.



#### 2 Double click on the execution file downloaded

OS	Execution file
For Windows	[setup.exe]
For Mac	[CATEYESyncSetUp.pkg]

\* Administrator authority is required to run the program on Windows Vista / 7 / 8.

#### 3 Perform an installation according to the instructions displayed on the screen

Once installation is completed, CATEYE Sync™ will start.

\* Go to “Setting CATEYE Sync™” (page 21).



## Setting CATEYE Sync™

After installing CATEYE Sync™, configure the login setting for CATEYE Atlas™.

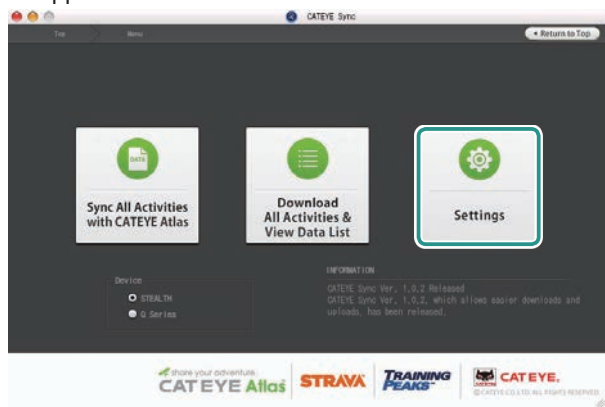
\* When uploading the trip data only to STRAVA™ or TrainingPeaks™, the following setting is not required.

### 1 Start CATEYE Sync™

Double-click on the shortcut [CATEYE Sync™] to start CATEYE Sync™.

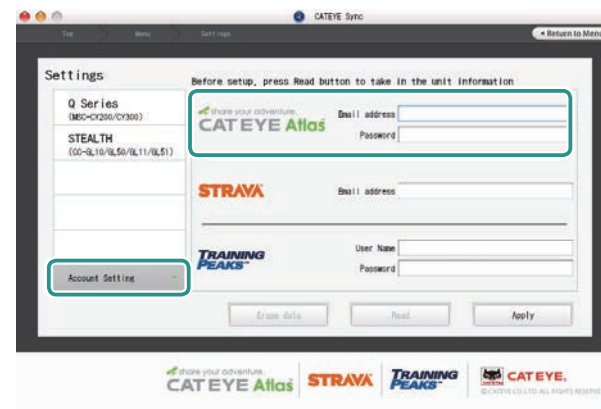
### 2 Click on [Settings]

The setting screen appears.



### 3 Click on [Account setting] and enter your e-mail address and password

Enter correctly the e-mail address and password you registered at CATEYE Atlas™.



### 4 Click on [Apply]

Login setting for CATEYE Sync™ is completed.

Now, setup of your PC is completed.

\* For information on how to upload the trip data, see “Uploading the measurement data (trip data)” (page 22).

\* With CATEYE Sync™, you can synchronize the settings configured in “Setting up the computer” (page 7) with the computer (except for pairing). For details, see “Changing the computer configuration” (page 30).

\* When using CATEYE INOU, click on [INOUE] to start INOU Sync. When you use CATEYE INOU for the first time, download CATEYE Sync™ INOU from CATEYE Atlas™ to install it.

# Uploading the measurement data (trip data)

The trip data generated by the resetting operation can be uploaded to the special website CATEYE Atlas™ or other services (STRAVA™ and others) in the following procedure.

\* It is recommended to download trip data to your PC frequently. If too much data is accumulated, it may take a long time to download or cause a download error.

## Uploading trip data

Save the trip data in the computer to your PC, and upload desired trip data to CATEYE Atlas™, STRAVA™, or TrainingPeaks™.

\* The trip data without the resetting operation cannot be recognized with CATEYE Sync™. Perform the resetting operation of the computer before setting to the cradle.

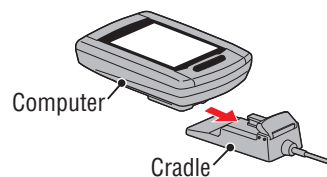
Watch video  
(YouTube)

Click the button, then a browser will open and a video will be played back.


### 1 Set the computer to the cradle

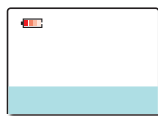
#### ⚠ Caution:

Do not set wet computer to the cradle, for example after ride in the rain. It may cause short circuit and damage the computer or the data.



### 2 Insert the USB plug into your PC

Only  (battery icon) is displayed on the screen.

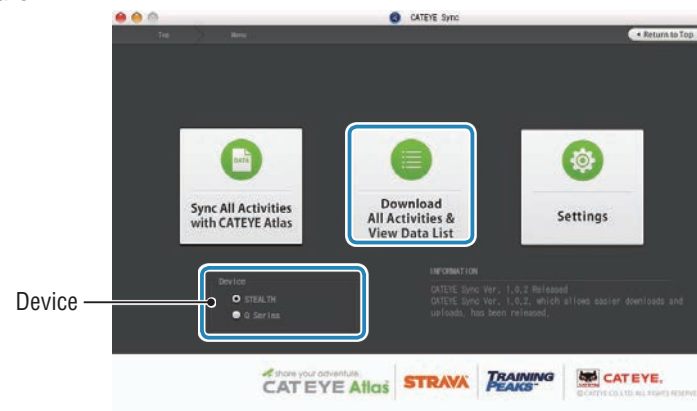


### 3 Start CATEYE Sync™

Double-click on the shortcut [CATEYE Sync™] to start CATEYE Sync™.

### 4 Check that “STEALTH” is selected under Device, and click [Download All Activities & View Data List]

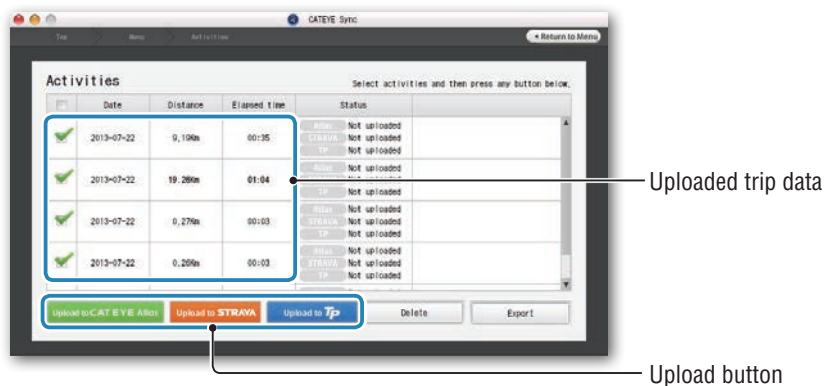
The trip data is downloaded from the computer to your PC, and the data list screen appears.



- \* Trip data successfully downloaded to your PC is deleted from the computer.
- \* Data under measurement that has not been reset cannot be read.

## 6 Check that the trip data you want to upload has been selected, and click the desired upload button

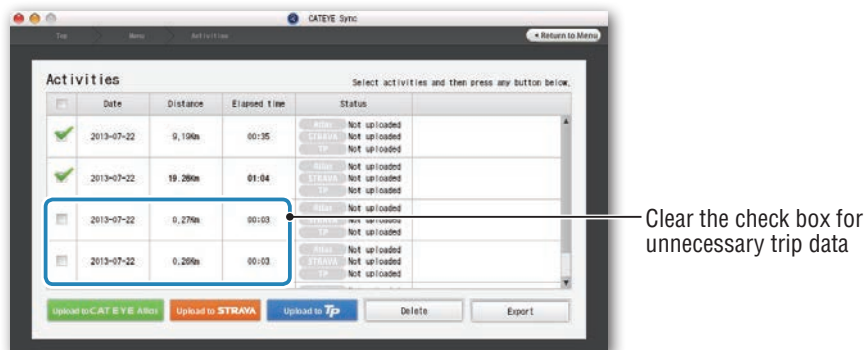
Transferred trip data is displayed in the data list with a check mark.



The loaded trip data includes trips with a distance and time of 0. These trips are data created by the resetting operation before measurement.

\* For details, see “Starting/Stopping measurement” (page 15).

Clear the check box for any unnecessary trip data, and then click the upload button for the service site you want to upload the data to.



Upload button	Destination of uploaded trip data
Upload to CATEYE Atlas	CATEYE Atlas™
Upload to STRAVA	STRAVA™
Upload to Tp	TrainingPeaks™

\* You must have an account with the relevant site to upload data to STRAVA™ or TrainingPeaks™. Site authentication is required when uploading for the first time. After clicking the upload button, follow the on-screen instructions and enter the authentication code issued by the site.

\* It may take time to upload depending on the trip data size and line condition.

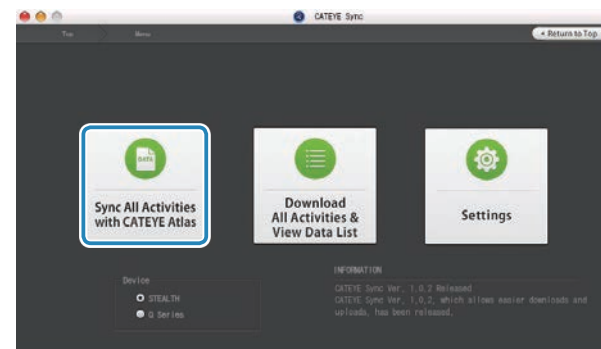
When the upload is complete, the sites to which the data was uploaded are indicated in the “Status” column and links to the trip are displayed in the adjacent column.



\* Clicking the link launches your browser and displays the uploaded trip.

## Syncing all activities

Clicking [Sync All Activities] lets you download trip data to your PC and upload trips to service sites with the click of a single button. Trip data is uploaded to the previous service site you used.



\* You can check the upload destination by the color of the button. (Green: CATEYE Atlas™, Orange: STRAVA™, Blue: TrainingPeaks™)

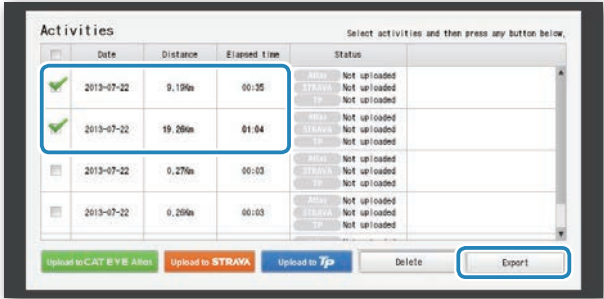
\* To upload specific trip data only or upload trip data to a service site other than the last one used, upload using the [Download All Activities & View Data List] button. For details, see Step 6 of “Uploading trip data” (on the left of this page).

# Exporting the trip data

You can export the trip data saved in CATEYE Sync™, and create a file.

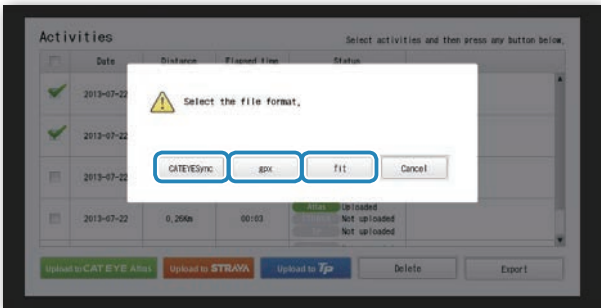
## 1 Check any trip data on the data list screen, and then click on [Export]

A dialog for selecting the file format appears.



\* Selecting data for multiple trips lets you export several files at once.

## 2 Click on the file format for export

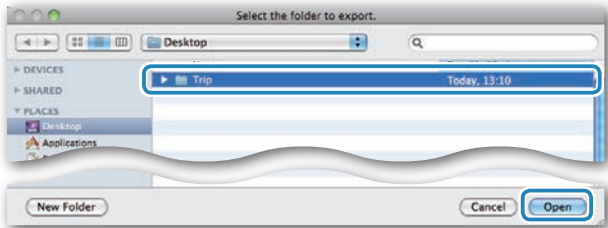


File format	Description
CATEYESync (.ces)	A file that can be read into CATEYE Sync™ * This can be used when transferring the trip data in the past to a new PC when renewing your PC.
.gpx	A general-purpose GPS data file * This can be used after reading into Google Earth™, etc.
.fit	A file that can be read into STRAVA™ and TrainingPeaks™

A window for selecting the destination to save appears.

## 3 Select the destination to save, and then click on [Open]

The file will be exported to the destination specified.



# Importing the data of such as e-Train Data™ to CATEYE Sync™

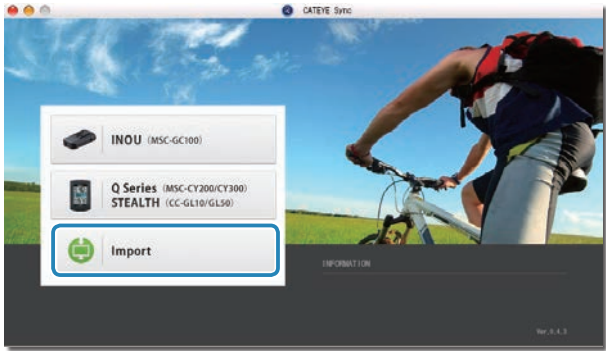
The measurement data loaded into e-Train Data™ can be used with CATEYE Atlas™ and other services (STRAVA™ etc.) by importing it to CATEYE Sync™.

## 1 Export the measurement data from e-Train Data™, and prepare a file

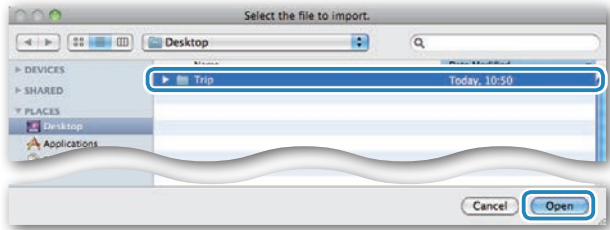
\* For information on how to export e-Train Data™, see the instruction manual for e-Train Data™.

## 2 Click on [Import] on the top screen

A window for selecting the file appears.



## 3 Select the file you want to load, and then click on [Open]



Compatible files	Description
.etd	e-Train Data™Ver.3/4 file
.csv	e-Train Data™Ver.2 file
.ces	CATEYE Sync file

- \* The CATEYE Sync file exported from another PC can also be loaded.
- \* The CSV files not created with e-Train Data™ Ver.2 cannot be imported.

The data list screen appears, and the selected file is added to the data list.

## Trip data

### Data contained in the trip data

Date and clock (date/time when the measurement started)

Elapsed time

Data recorded at the record interval specified

- Location information
- Trip distance
- Altitude
- Current speed
- Cadence (\*1)
- Heart rate (\*1)
- Power (\*1)

\*1 : These are measured when using an ANT+ compatible sensor.

### Record interval and capacity limit

This unit records data at the specified interval. The record interval can be selected from 1, 2 or 5 seconds according to your use (Default: 1 second).

The maximum recording time and the maximum time for one trip depend on the selected record interval as follows.

Record interval	Maximum recording time (total time of all trip data)	Maximum time for one trip	Maximum number of trips
1 second	35 hours	12 hours	250 trips
2 seconds	70 hours	24 hours	
5 seconds	175 hours	60 hours	

\* The recording time and number of trips above are for reference only. These may be different according to the operating environment.

\* For information on record interval settings, see “Setting the record interval” (when using CATEYE Sync™: page 30, when using the computer alone: page 38).

\* When exceeding any of the conditions above, “**MEM FULL**” appears flashing on the screen, and no new data can be recorded. Transfer the trip data to CATEYE Sync™ to secure the storage volume of the computer. Only when exceeding the maximum time for one trip, the resetting operation (page 18) allows you to start the measurement as another trip.

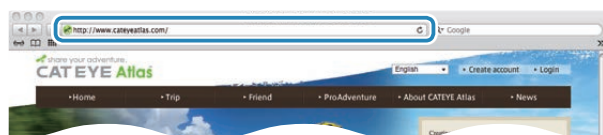


# Reviewing, editing and sharing the trip (What you can do with CATEYE Atlas™)

You can share the trip with your friends and other users, by editing the trip information uploaded to CATEYE Atlas™.

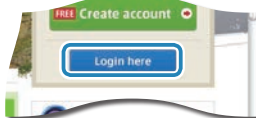
## 1 Access CATEYE Atlas™

Access the website “CATEYE Atlas™” from your browser (<http://www.cateyeatlas.com>).



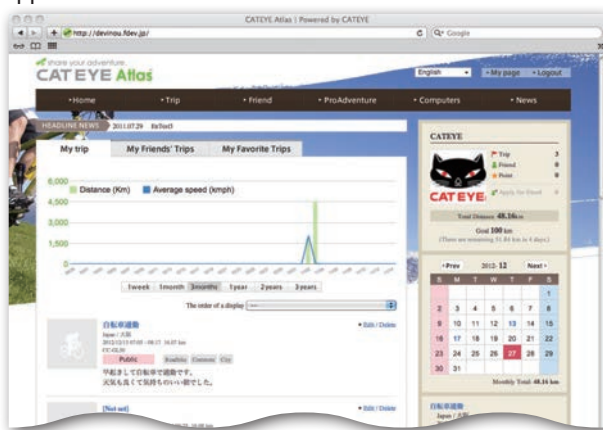
## 2 Click on [Login here]

\* When you have not registered your membership, see “Membership registration to CATEYE Atlas™” (page 20).



## 3 Enter your e-mail address and password, and then click on [Login]

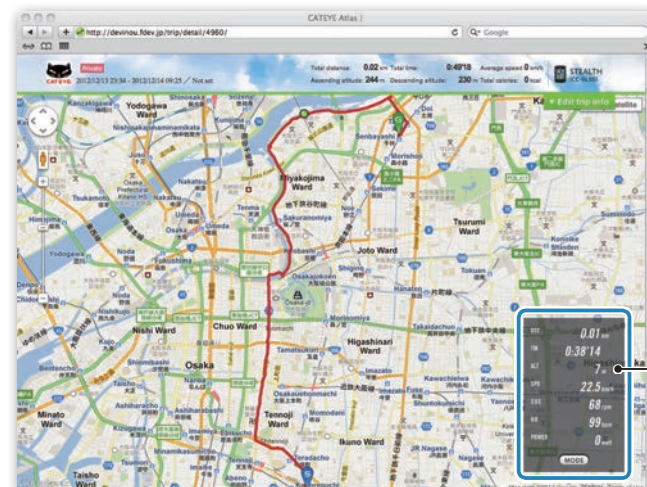
Enter correctly your e-mail address and password registered to login. The “My Page” appears.



\* On My Page, you can view the trip and trip data in the past and set the target trip distance in a certain period of time.

## 4 Click on the trip uploaded

A map with the trip route with ride data shown.



\* Clicking on **MODE** under the ride data changes the display items.

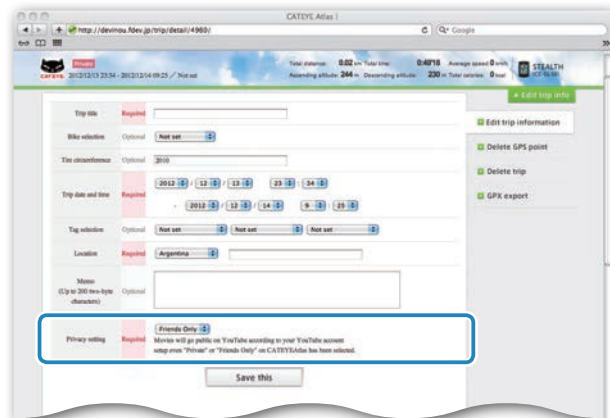
## 5 Click on [Edit trip info] at the upper right of the map

A screen for editing the trip information appears. Enter information of the trip, including the title, bicycle and memo.

## 6 Select the privacy setting

Select the privacy setting.

- **Private** : Can be viewed only with your account.
- **Public** : All users can view.
- **Friends only** : Only your friends can view.



## 7 Clicking on [Save this]

Now, editing the trip information is completed.

## Deleting the GPS point

You can delete particular GPS points on the route.

- 1 Click on [Delete GPS point] from the trip information editing screen.  
The trip route appears on the map.

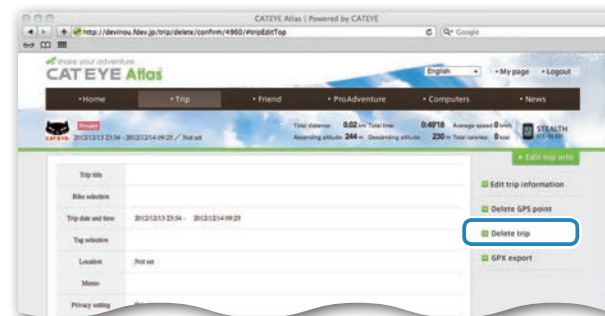


- 2 Click on a start point for the route section you want to delete.  
A section appears according to the cursor movement.
- 3 Click on an end point of the section, covering the route you want to delete.  
A confirmation message appears.
- 4 Click on [Delete the GPS point selected].  
The GPS points in the specified section are deleted.

## Deleting the trip

You can delete the trip displayed.

- 1 Click on [Delete trip] on the trip information editing screen.



- 2 Click on [Delete].
  - \* The CATEYE Sync™ trip data on your PC is not affected.
  - \* The deleted trip can be restored by re-uploading from CATEYE Sync™.

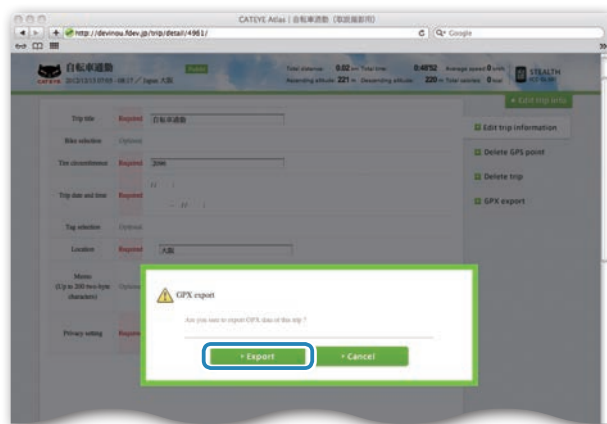
## Exporting to a GPX file

Export a general-purpose GPS data file from the trip.  
This can be used with other services, including Google Earth™.

- 1 Click on [GPX export] on the trip information editing screen.  
A confirmation message appears.



- 2 Click on [Export].  
A GPX file is downloaded.



# Changing the computer configuration

You can change the computer configuration in two ways.

- Changing the setting with CATEYE Sync™ (below on this page)

You can change the configuration easily from your PC application, with the computer connected to your PC with the cradle.

**⚠ Caution:** Pairing the ANT+ sensor cannot be performed with CATEYE Sync™. For information on how to perform, see “Pairing the sensor” (page 36).

- Changing the settings of the computer alone (page 33).

This can be used when changing the setting with not using a PC.

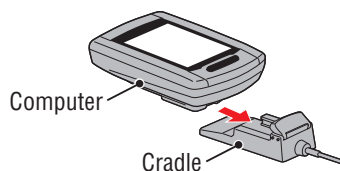
## Changing the setting with CATEYE Sync™

Watch video  
(YouTube)

Click the button, then a browser will open and a video will be played back.

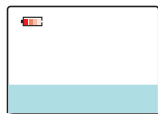
### 1 Set the computer to the cradle

**⚠ Caution:** Do not set wet computer to the cradle, for example after ride in the rain. It may cause short circuit and damage the computer or the data.



### 2 Insert the USB plug into your PC

Only  (battery icon) is displayed on the computer screen.

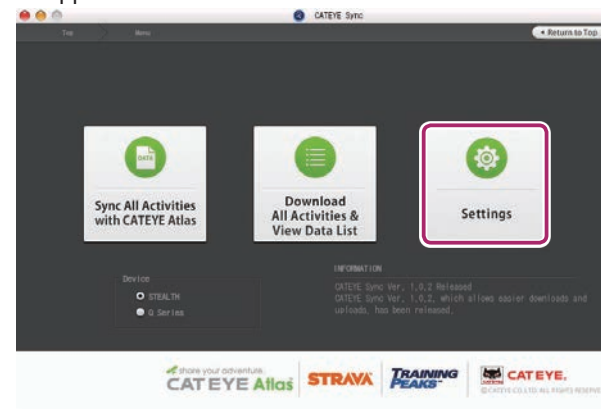


### 3 Start CATEYE Sync™

Double-click on the shortcut [CATEYE Sync™] to start CATEYE Sync™.

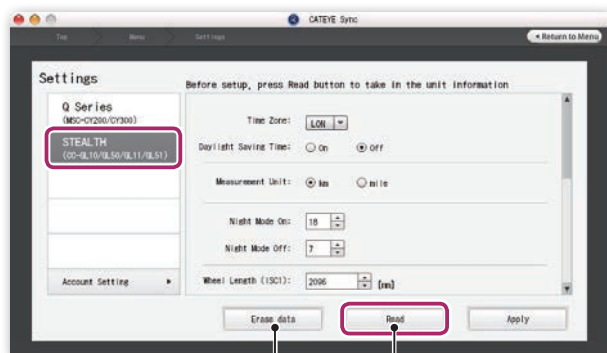
### 4 Click on [Settings]

The setting screen appears.



## 6 Click on [STEALTH] to change the settings

Before changing the settings, click on [Read] to load the settings of the computer.



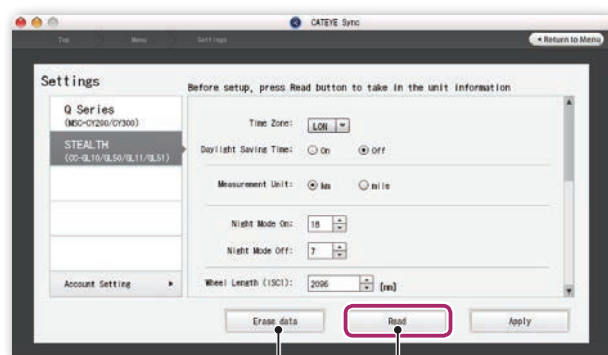
Delete the data recorded in the computer.

Read the current settings of the computer.

Change the settings according to the following procedure.

Setting items	Description
<b>Time zone</b>	Select the city code nearest from your current location. * For details, see “Time zone list” (page 11).
<b>Daylight saving time</b>	Select whether to use the daylight saving time. • <b>On</b> : Moves the clock 1 hour ahead. • <b>Off</b> : Displays in regular clock.
<b>Speed unit</b>	Select the speed unit ( <b>km/h</b> or <b>m/h</b> ).

Setting items	Description
<b>Night-time setting</b>	<p>Set the time when the backlight lights up.</p> <ul style="list-style-type: none"> <li>• <b>Night Mode On</b> : Enter the start time when the backlight lights up.</li> <li>• <b>Night Mode Off</b> : Enter the end time when the backlight lights off.</li> </ul> <p>(Example) When lighting up from 7:00 pm to 6:00 am  Night Mode On : 19  Night Mode Off : 6</p> <p>* When you do not want to turn on the backlight throughout the day, set the same value for both “Night-time setting ON” and “Night-time setting OFF”.</p>
<b>Tire circumference</b>	<p><b>This setting is required if you have paired an ANT+ sensor capable of speed measurement.</b></p> <p>Assign the tire circumference for the sensor capable of speed measurement. (Setting range: 0100 to 3999 mm)</p> <ul style="list-style-type: none"> <li>• <b>ISC1 (ISC-1)</b> : Speed/cadence sensor 1</li> <li>• <b>SPD1 (SP-1)</b> : Speed sensor 1</li> <li>• <b>ISC2 (ISC-2)</b> : Speed/cadence sensor 2</li> <li>• <b>SPD2 (SP-2)</b> : Speed sensor 2</li> </ul> <p>* As default, it is set to 2096.</p> <p>* For the sensor without pairing, the tire circumference cannot be set even if it is entered.</p> <p>* <b>ISC2</b> and <b>SPD2</b> are used when a computer is commonly used for two bicycles.  For details, see “Pairing the sensor” (page 36).</p> <p>* Enter the tire circumference for power sensors capable of transmitting a speed signal in <b>SP-2</b>.</p>
<b>Total distance</b>	<p>You can enter the start value of the total distance, and add the trip distance to it.  (Setting range: 00000 to 99999)</p> <p>* This can be used when you renew and/or reset the computer.</p> <p>* Enter the total distance in integer number only.</p>



Delete the data recorded in the computer.

Read the current settings of the computer.

## 7 Click on [Apply]

The changes are reflected to the computer.

Remove the computer from the cradle. Now, changing the computer configuration is completed.

Setting items	Description
<b>Sampling interval</b>	<p>Set the record interval of the measurement data.</p> <p>* The maximum recording time (total time of all trip data) and the maximum time for one trip depend on the interval selected.</p> <ul style="list-style-type: none"> <li>• <b>1s</b> (at intervals of 1 second) : 35 hours / 12 hours</li> <li>• <b>2s</b> (at intervals of 2 seconds) : 70 hours / 24 hours</li> <li>• <b>5s</b> (at intervals of 5 seconds) : 175 hours / 60 hours</li> </ul>
<b>Clock display format</b>	<p>Select the display format of “<b>12h</b>” (12 hours display) or “<b>24h</b>” (24 hours display).</p> <p>* Date and clock are acquired from GPS signal; therefore, it is not necessary to enter them.</p>
<b>Function display</b>	<p>You can hide undesired functions. (Check mark: function displayed, No check mark: function hidden)</p> <p>* Measurement is performed for hidden functions. When a hidden function is displayed again, its measurement results will be reflected.</p>
<b>Middle display</b>	<p>Select the middle display of the measurement screen.</p> <ul style="list-style-type: none"> <li>• <b>Clock</b> : Displays the clock.</li> <li>• <b>Altitude</b> : Displays altitude.</li> </ul> <p>* When the power signal is received, the middle display shows power regardless of the middle display setting.</p>

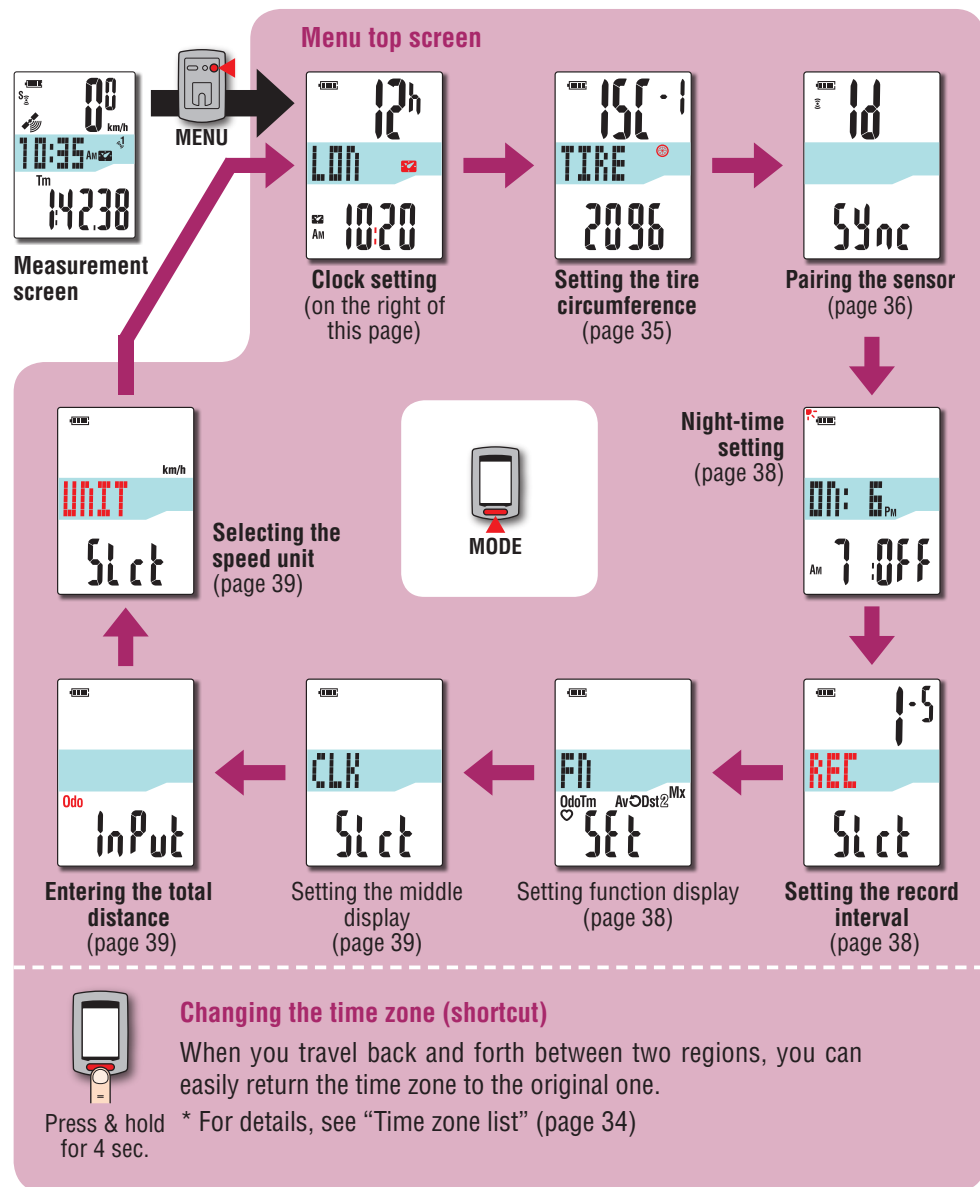


## Changing the settings of the computer alone

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

\* After you change the setting, be sure to press the **MENU** button to register it.

\* Leaving the menu screen without any operation for 1 minute returns to the measurement screen.



From "Selecting the speed unit" (page 39)



### Clock setting

Change the settings of the time zone, daylight saving time, and the clock display format.

\* With this unit, it is not necessary to set the clock/date, since they are synchronized after receiving GPS signal.

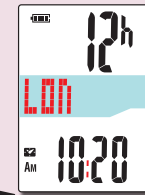


MODE

**Changing the settings**



MODE  
(Press & hold)



### Time zone list

Select the code for the city nearest from your current location.



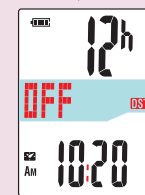
MODE

Switch the display

\* For details, see "Time zone list" (page 34).



MODE  
(Press & hold)



### Daylight saving time

Select whether to use the daylight saving time.

**ON**

Moves the clock 1 hour ahead

**OFF**

Displays in regular clock

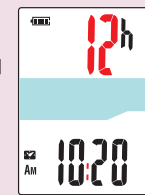


MODE

ON ↔ OFF



MODE  
(Press & hold)



### Clock display format

Select the display format of "12h" (12 hours display) or "24h" (24 hours display).



MODE

12h ↔ 24h

**Register the setting**



MENU

To "Setting the tire circumference" (page 35)

Changing the time zone (shortcut)

Holding down the **MODE** button for 4 seconds with the menu top screen displayed returns the time zone to the previous one. Holding down it again returns to the original time zone.

Example: Change the time zone

Current setting


NYC (New York)

Previous setting

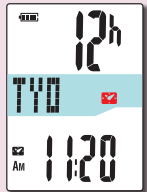
TYO (Tokyo)

Every menu top screen


Shortcut



Press & hold for 4 sec.



Register the setting



The time zone is changed from **NYC** (New York) to **TYO** (Tokyo) of the previous setting.

Change the time zone again

Current setting


TYO (Tokyo)

Setting before the change


NYC (New York)

Every menu top screen


Shortcut



Press & hold for 4 sec.



Register the setting



The time zone is changed from **TYO** (Tokyo) to **NYC** (New York) before the change.

- \* When you travel back and forth between two cities having different time zone, you can easily return it to the original time zone by performing the shortcut operation, even after changing the time zone in the second city.
- \* The time zone stored for the shortcut is the previous setting only.

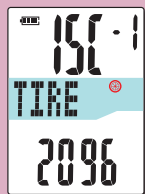
Time zone list

City code	City name	Time difference
LON	London	0
PAR	Paris	+1
ATH	Athens	+2
MOW	Moscow	+3
THR	Tehran	+3.5
DXB	Dubai	+4
KBL	Kabul	+4.5
KHI	Karachi	+5
DEL	Delhi	+5.5
DAC	Dhaka	+6
RGN	Yangon	+6.5
BKK	Bangkok	+7
HKG	Hong Kong	+8
TYO	Tokyo	+9

\* For details, refer to the map on page 11.

City code	City name	Time difference
DRW	Darwin	+9.5
SYD	Sydney	+10
NOU	Noumea	+11
WLG	Wellington	+12
PPG	Pago Pago	-11
HNL	Honolulu	-10
ANC	Anchorage	-9
LAX	Los Angeles	-8
DEN	Denver	-7
CHI	Chicago	-6
NYC	New York	-5
CCS	Caracas	-4
RIO	Rio de Janeiro	-3

From "Clock setting" (page 33)



## Setting the tire circumference

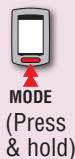
This setting is required if you have paired an ANT+ sensor capable of speed measurement.

Assign the tire circumference for the sensor capable of speed measurement.

### Changing the settings



MODE  
(Press & hold)



MODE  
(Press & hold)



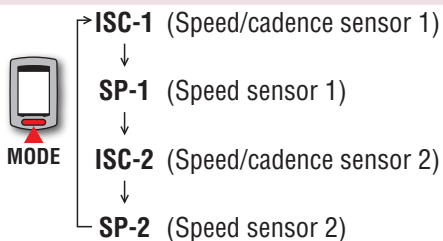
MODE  
(Press & hold)



Register the setting  
MENU

### Selecting the sensor

Select the sensor for which to set the tire circumference.



\* The sensor in use appears first.

\* Enter the tire circumference for power sensors capable of transmitting a speed signal in **SP-2**.

\* **ISC-2** and **SP-2** are used when a computer is used for two different bicycles. For details, see "Pairing the sensor" (page 36).

### Entering the tire circumference

Setting range: 0100 - 3999 mm



MODE

Increase the value



MODE

Move digits  
(Press & hold)

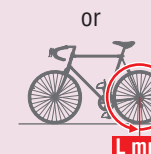
## Tire circumference

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.



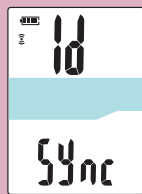
### Tire circumference reference table

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

ETRTO	Tire size	L (mm)	ETRTO	Tire size	L (mm)	ETRTO	Tire size	L (mm)
47-203	12x1.75	935		24x3/4 Tubular	1785	32-630	27x1-1/4	2161
54-203	12x1.95	940	28-540	24x1-1/8	1795	37-630	27x1-3/8	2169
40-254	14x1.50	1020	32-540	24x1-1/4	1905	40-584	27.5x1.50	2079
47-254	14x1.75	1055	25-559	26x1(559)	1913	50-584	27.5x1.95	2090
40-305	16x1.50	1185	32-559	26x1.25	1950	54-584	27.5x2.10	2148
47-305	16x1.75	1195	37-559	26x1.40	2005	57-584	27.5x2.25	2182
54-305	16x2.00	1245	40-559	26x1.50	2010	18-622	700x18C	2070
28-349	16x1-1/8	1290	47-559	26x1.75	2023	19-622	700x19C	2080
37-349	16x1-3/8	1300	50-559	26x1.95	2050	20-622	700x20C	2086
32-369	17x1-1/4(369)	1340	54-559	26x2.10	2068	<b>23-622</b>	<b>700x23C</b>	<b>2096</b>
40-355	18x1.50	1340	57-559	26x2.125	2070	25-622	700x25C	2105
47-355	18x1.75	1350	58-559	26x2.35	2083	28-622	700x28C	2136
32-406	20x1.25	1450	75-559	26x3.00	2170	30-622	700x30C	2146
35-406	20x1.35	1460	28-590	26x1-1/8	1970	32-622	700x32C	2155
40-406	20x1.50	1490	37-590	26x1-3/8	2068		700C Tubular	2130
47-406	20x1.75	1515	37-584	26x1-1/2	2100	35-622	700x35C	2168
50-406	20x1.95	1565		650C Tubular	1920	38-622	700x38C	2180
28-451	20x1-1/8	1545		26x7/8		40-622	700x40C	2200
37-451	20x1-3/8	1615	20-571	650x20C	1938	42-622	700x42C	2224
37-501	22x1-3/8	1770	23-571	650x23C	1944	44-622	700x44C	2235
40-501	22x1-1/2	1785	25-571	650x25C	1952	45-622	700x45C	2242
47-507	24x1.75	1890		26x1(571)		47-622	700x47C	2268
50-507	24x2.00	1925	40-590	650x38A	2125	54-622	29x2.1	2288
54-507	24x2.125	1965	40-584	650x38B	2105	56-622	29x2.2	2298
25-520	24x1(520)	1753	25-630	27x1(630)	2145	60-622	29x2.3	2326
			28-630	27x1-1/8	2155			

To "Pairing the sensor" (page 36)

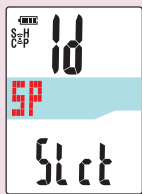
From "Setting the tire circumference" (page 35)



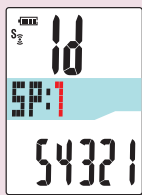
### Changing the settings



MODE  
(Press & hold)



MODE  
(Press & hold)



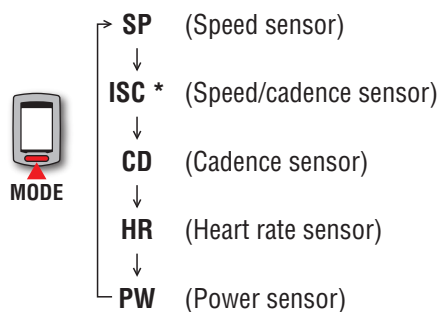
Continue  
(page 37)

## Pairing the sensor (searching the sensor ID)

This setting is required when you have an ANT+ sensor.

### Selecting the sensor

Select the sensor to be paired.



\* When using the CATEYE speed/cadence sensor (ISC-11), select [ISC] to perform pairing.

### Selecting the sensor number

2 sensor IDs per sensor type can be registered into the computer.



1 (1 sensor) ↔ 2 (2 sensor)

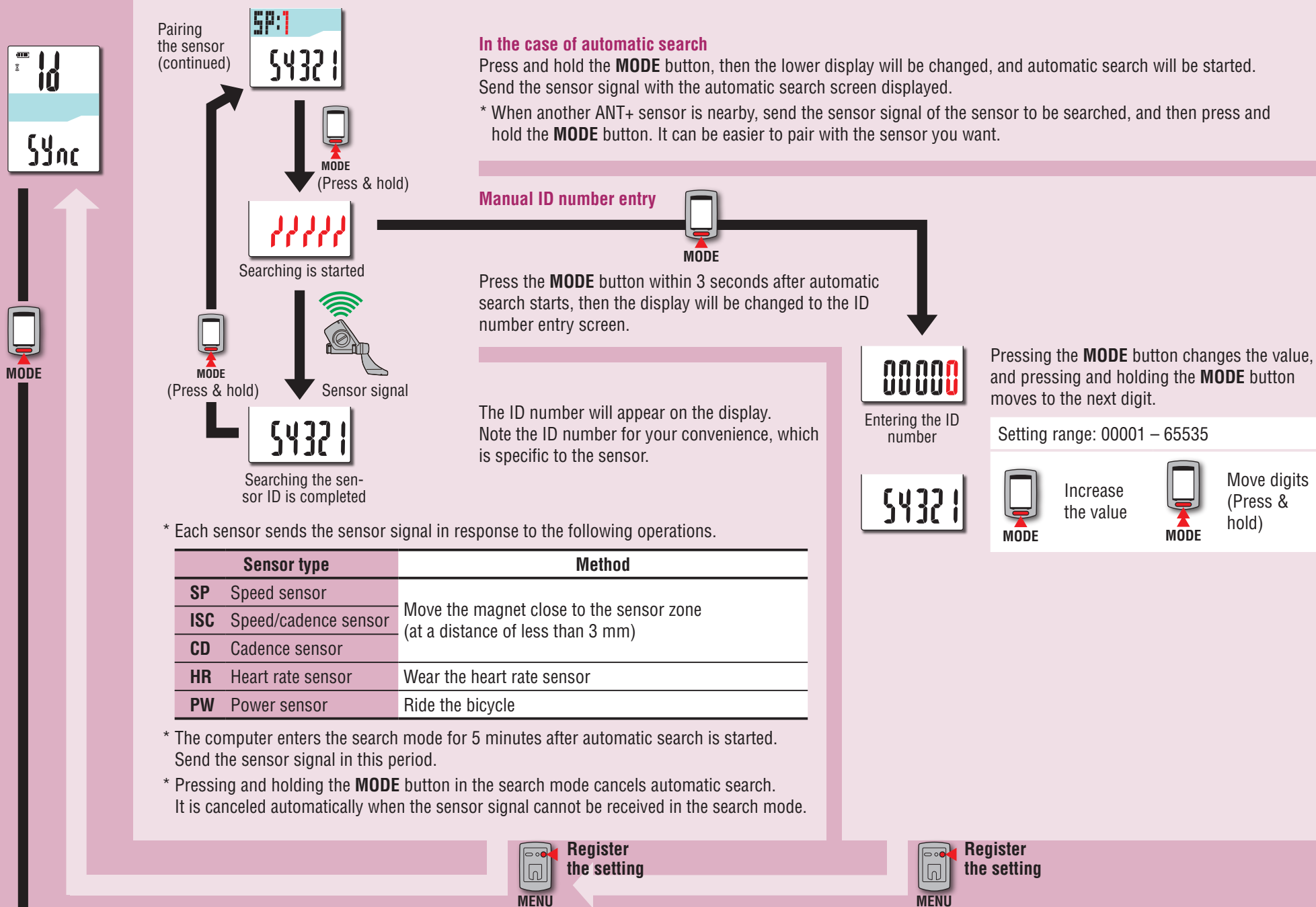
\* The computer recognizes two bicycles automatically by pairing the sensor installed to the second bicycle while selecting **2** (second bicycle).

\* The next step differs depending on whether automatic search or manual ID number entry is selected. Go to the appropriate step according to your selection.

To add or reset the ANT+ sensor, perform pairing in the following procedure. This unit has 2 different methods for pairing.

How to search the sensor ID	Description
Automatic search	The computer completes pairing by receiving the signal sent from the sensor. * Generally, use this method for pairing.
Manual ID number entry	When the sensor ID number is known, you can perform pairing by entering the number. * Use this method for pairing, when there are two or more ANT+ sensors, such as at a race site, and automatic search cannot be done.

To "Night-time setting" (page 38)



From "Pairing the sensor" (page 36)



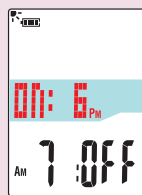
## Night-time setting

Set the time when the backlight lights up.

\* When you do not want to turn on the backlight throughout the day, set the start time and end time to the same hour.

### Changing the settings

MODE  
(Press & hold)



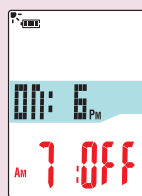
### Start time

Enter the start time when the backlight lights up.



Increase the value

MODE  
(Press & hold)



### End time

Enter the end time when the backlight lights off.



Increase the value



Register the setting

To "Setting the record interval"

From "Night-time setting"



## Setting the record interval

Set the second-scale interval to record the measurement data.

\* The maximum recording time / maximum time for one trip that can be recorded in the computer depends on the selected interval.

### Changing the settings

MODE  
(Press & hold)



MODE

Register the setting



Record interval	Maximum recording time (total time of all trip data)	Maximum time for one trip
1-S (1 second)	35 hours	12 hours
2-S (2 seconds)	70 hours	24 hours
5-S (5 seconds)	175 hours	60 hours



1-S → 2-S → 5-S

## Setting function display

You can hide undesired functions.

\* It is not possible to hide elapsed time (Tm).

\* Measurement is performed for hidden functions. When a hidden function is displayed again, its measurement results will be reflected.

### Changing the settings

MODE  
(Press & hold)



MODE

Register the setting



ON ↔ OFF



↑  
Odo ← ALT ← Mx ← Av  
(Press & hold)

To "Setting the middle display" (page 39)



From "Setting function display" (page 38)

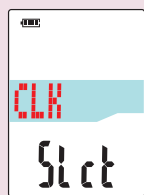


### Setting the middle display

Select the middle display of the measurement screen.

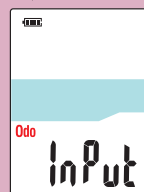
\* When the power signal is received, the middle display shows power regardless of the middle display setting.

Changing the settings



CLK (Clock)  
↕  
ALT (Altitude)

Register the setting



### Entering the total distance

You can enter the start value of the total distance, and add the trip distance to it. Use this function when you renew and/or reset your unit.

\* Enter the total distance in integer number only.

Changing the settings



(00000 — 99999)



Increase the value



Move digits (Press & hold)

Register the setting



To "Selecting the speed unit"

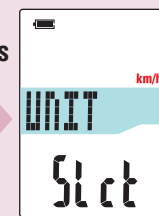
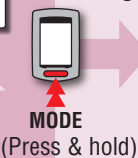
From "Entering the total distance"



### Selecting the speed unit

Select the speed unit (km/h or m/h).

Changing the settings



km/h ↔ m/h

Register the setting



To "Clock setting" (page 33)

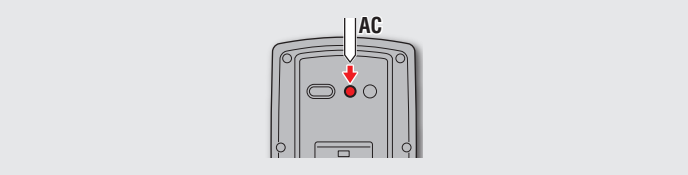
# When the operation is unstable

When the computer displays incorrectly, perform the restarting operation to stabilize the operation.

- \* Performing the restarting operation deletes any records under measurement.
- \* We recommend that you perform the resetting operation to generate the trip data, before performing the restarting operation.

## Restarting operation

Press the **AC** button on the back of the computer. All screen items will light up for 2 seconds, and the unit will change to the GPS search screen.



GPS search screen

## Data to be stored / data to be deleted

Data to be stored / deleted upon the restarting operation are as follows.

Data to be stored	Data to be deleted
Speed unit	Data under measurement (elapsed time, trip distance, trip distance-2, average speed, maximum speed, and GPS route information)
Clock setting (time zone, previous time zone, daylight saving time, and display format)	
Sensor ID of each sensor (speed, speed/cadence, cadence, heart rate, power)	
Night-time setting (start time and end time)	
Record interval	
Function display	
Middle display	
Total distance (*1)	
Trip data generated upon the resetting operation	






\*1 Once you perform the restarting operation before the resetting operation after measurement, the distance is not added to the total distance.



# Troubleshooting

The following troubles are not due to failure.

See also “FAQ” in CATEYE Atlas™ (web) (<http://www.cateyeatlas.com/qa/>).

## Troubles related to the computer

Trouble	Check Items	Remedy
When the power is turned on,  (battery icon) flashes, and then no display appears.	—	Remaining battery capacity is nearly zero. Charge the computer according to the procedure in “How to charge” (page 7).
The power is turned off while riding.	—	The power is automatically turned off in 10 minutes if no GPS signal or speed signal is received. (Auto power off)
No display appears when pressing and holding the  button for 2 seconds.	Is the battery for the computer empty?	Charge the computer according to the procedure in “How to charge” (page 7).
Incorrect data appear.	—	Follow the procedure in “When the operation is unstable” (page 40).
<b>Measurement cannot be performed.</b> (When using an ANT+ sensor capable of speed measurement)	 S or  C does not flash	
	Have you paired the computer with the sensor?	Perform pairing (page 36).
	Is the condition for mounting the sensor cleared?	Mount the sensor correctly by referring to the instruction manual supplied with your sensor.
	Is the battery for the sensor used up?	Replace with new batteries.
	<b>STOP</b> is displayed	
	—	Measurement is paused. Press the  button to start measurement. For details, see “Starting/Stopping measurement” (page 16).

Trouble	Check Items	Remedy
<b>Measurement cannot be performed.</b> (When not using an ANT+ sensor capable of speed measurement)	 flashes	
	Is it immediately after turning on the power?	It may take about 2 to 3 minutes to acquire the positional information after receiving GPS signal.
	Is the location or weather suitable for receiving the GPS signal?	GPS signal may not be received, thus the unit may stop measurement or may not display appropriate measurements in the following locations or environments. <ul style="list-style-type: none"> <li>• In a tunnel, underground and building, between high-rise buildings, under an elevated structure and arcade, etc.</li> <li>• In bad weather (snow, rain, etc.)</li> <li>• Near a high-voltage line or a mobile telephone relay station.</li> <li>• The computer display does not face upward.</li> </ul>
	Is the unit installed so that the computer display (antenna) faces to the sky?	To receive GPS signal effectively, install the unit so that the computer display faces to the sky.
	<b>STOP</b> is displayed	
	—	Measurement is paused. Press the  button to start measurement. For details, see “Starting/Stopping measurement” (page 16).

Trouble	Check Items	Remedy
<b>The measurement data is wrong.</b>	—	If not using an ANT+ sensor capable of speed measurement, the unit uses GPS for measurement, so depending on reception conditions, measurement may be interrupted or indicate values other than actual values.
<b>MEM FULL flashes.</b>	Does the maximum recording time or the number of trips exceed the upper limit? * For details, see “Record interval and capacity limit” (page 26).	Connect the computer to your PC to upload the trip data (page 22). All the trip data transferred to your PC will be deleted from the computer, and new data will be able to be recorded.
	Does the maximum time for one trip exceed the upper limit? * For details, see “Record interval and capacity limit” (page 26).	Perform the resetting operation (page 18) to stop the current trip. Then, you can record as another trip.
<b>The backlight does not light up even at the preset hour.</b>	Are the start time and end time set to the same hour?	The backlight does not light up when the start time and end time are set to the same hour. For information on how to set the start/end time, see “Night-time setting” (when using CATEYE Sync™: page 30, when using the computer alone: page 38).
<b>The backlight lights up during the daytime.</b>	Is the start time of the night-time set correctly?	For information on how to set the start/end time, see “Night-time setting” (when using CATEYE Sync™: page 30, when using the computer alone: page 38).

## Troubles related to the ANT+ sensor

Refer to the following information when the optional or commercial ANT+ sensor is used.

\* Pairing with the computer is required in order to use the ANT+ sensor. For details, see “Pairing the sensor” (page 36).

\* When a commercial ANT+ sensor is used, also refer to the instruction manual supplied with your sensor.

Trouble	Check Items	Remedy
<b>The heart rate cannot be measured (H does not flash).</b>	Did you perform pairing with the heart rate sensor?	Perform pairing (page 36).
	Is the electrode pad detached from your body?	Wear the electrode pad appropriately so that it is in close contact with the body.
	Is your skin dry?	Moisten the electrode pad a little.
	Is the electrode pad overly worn and damaged after long use?	Replace with a new one.
	Is the battery for the heart rate sensor used up?	Replace with new batteries.
<b>The heart rate measurement is not constant (measurement is performed at times, or reset to 0).</b>	Is the heart rate sensor attached correctly?	Attach the heart rate sensor in the correct position by referring to the relevant instruction manual.
<b>The power cannot be measured (P does not flash).</b>	Did you perform pairing with the power sensor used?	Perform pairing (page 36).
	Is the condition for mounting the power sensor cleared?	Mount the power sensor correctly by referring to the relevant instruction manual.
	Is the battery for the power sensor used up?	Replace with new batteries.

Trouble	Check Items	Remedy
The power display is not accurate.	—	<p>Perform calibration of the power sensor (page 19).</p> <p>* Continuous use of the power sensor may cause a slight drift in unloaded condition. Calibrate it periodically to correct the drift.</p>

## Maintenance

To clean the computer or accessories, use diluted neutral detergent on a soft cloth, and wipe it off with a dry cloth.

## How to dispose the computer

Remove the screws (x 6) on the back of the computer using a Phillips screwdriver, remove the rechargeable battery built-in, and then dispose the computer.

### **Caution:**

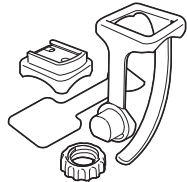
- The used battery should be disposed of properly according to local regulations.
- Do not disassemble the unit except when you dispose it.
- Be sure to use up the rechargeable batteries.
- Keep the removed batteries out of baby's reach. If a child swallows a battery, consult a doctor immediately.

# Optional accessories

## Standard accessories

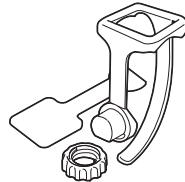
**1602194**

Bracket kit



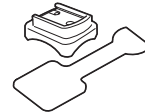
**1600280N**

Bracket band



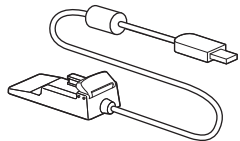
**1602193**

Bracket



**1603790**

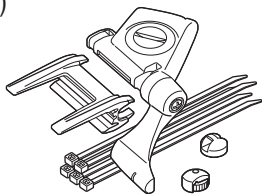
Cradle (IF-CC01)



## Optional accessories

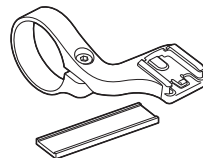
**1603750**

Speed sensor (speed/cadence)  
(ISC-11)



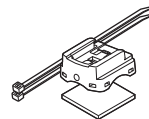
**1604100**

Out-front bracket



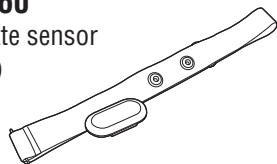
**1602980**

Nylon tie bracket



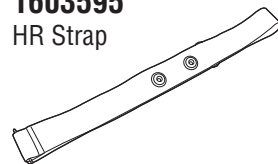
**1603760**

Heart rate sensor  
(HR-11)

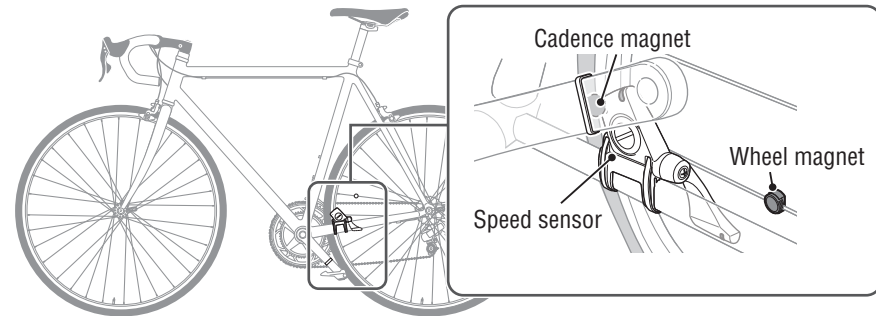


**1603595**

HR Strap



## How to install the speed/cadence sensor (ISC-11)



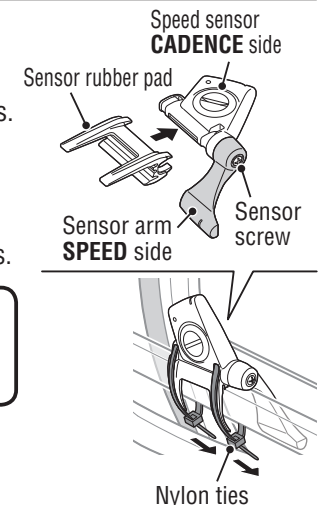
**Watch video  
(YouTube)**

Click the button, then a browser will open and a video will be played back.

## 1 Temporarily secure the speed sensor

- Loosen the sensor screw on the speed sensor using a Phillips screwdriver to check that the sensor arm moves. Do not completely remove the sensor screw.
- Attach the sensor rubber pad to the speed sensor, locate the speed sensor on the left chain stay as shown in the figure above, and temporarily secure it with the nylon ties.

**⚠ Caution:** Do not tighten the nylon ties completely at this stage. Once a nylon tie is tightened, it cannot be pulled out.

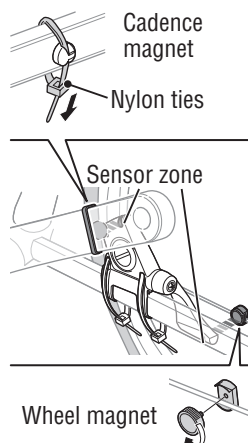




## 2 Temporarily secure the magnet

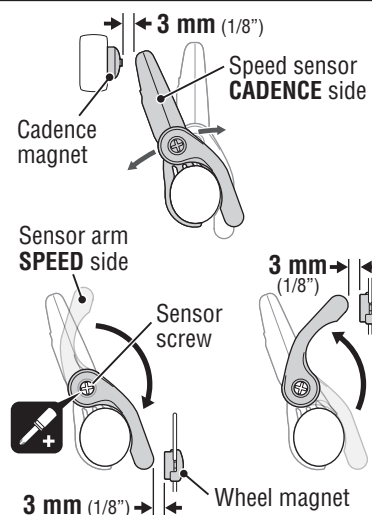
- 1 Temporarily secure the cadence magnet inside the crank with nylon ties, so that it faces the sensor zone on the **CADENCE** side.
- 2 Turn the sensor arm, and temporarily secure the wheel magnet to the spoke that faces the sensor zone on the **SPEED** side.

\* When the speed sensor is not positioned appropriately in respect to the two magnets (of **CADENCE** and **SPEED**), 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.



## 3 Adjust the distance to the magnet

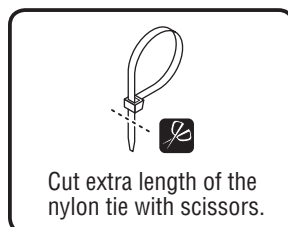
- 1 Tilt the speed sensor so that the distance between the cadence magnet and the **CADENCE** side of the speed sensor is about 3 mm, and firmly secure it with the nylon ties.
- 2 Turn and adjust the sensor arm so that the distance between the wheel magnet and the sensor arm is about 3 mm, and firmly tighten the sensor screw.



## 4 Securing various parts

Firmly tighten the nylon ties, sensor screw and magnet of the speed sensor, and check for any loosening.

\* For steel axle pedals, the cadence magnet can be magnetically secured on the pedal axle. Make sure to remove the double-sided tape from the magnet when doing this.



## How to install the heart rate sensor (HR-11)

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

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

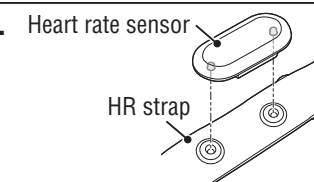
- To avoid measurement errors, it is recommended to moisten the electrode pads with water.
- If your skin is sensitive, the electrode pad may be moistened with water and worn on a thin undershirt.
- Chest hair may interfere with the measurement.

Watch video  
(YouTube)

Click the button, then a browser will open and a video will be played back.

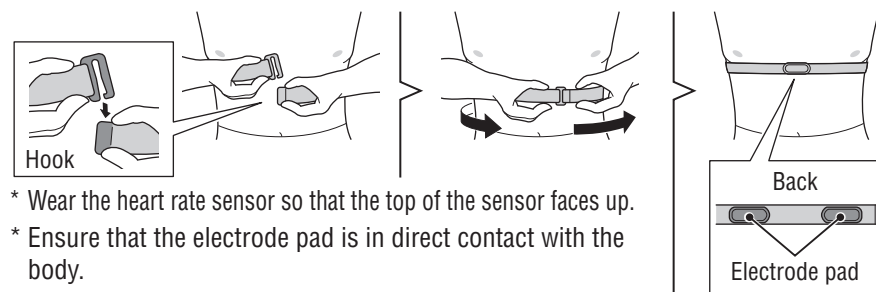
## 1 Attach the heart rate sensor to the HR strap.

Push it in until it clicks.




## 2 Insert the HR strap hook to the other end of the strap.








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.



- \* Wear the heart rate sensor so that the top of the sensor faces up.
- \* Ensure that 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 electrode pad.

# Specification

Measurement function	Upper display	Current speed	0.0 (3.0) – 105.9 km/h [0.0 (2.0) – 65.9 m/h]
		<b>AV</b> Average Speed	0.0 – 105.9 km/h [0.0 – 65.9 m/h]
		<b>MAX</b> Maximum Speed	0.0 (3.0) – 105.9 km/h [0.0 (2.0) – 65.9 m/h]
	Middle display	 Clock	0:00 – 23:59 [AM1:00 – PM12:59] (Both 12 and 24-hour modes can be selected) (Automatic adjustment using GPS)
		Altitude	-500 – 9999 m [-1640 – 29600 ft]
		Current power (*1)	0 – 9999 watt
		<b>AV</b> Average power (*1)	0 – 9999 watt
		<b>MAX</b> Maximum power (*1)	0 – 9999 watt

Measurement function	Lower display	<b>Tm</b> Elapsed Time	0:00'00" – 9:59'59"
		 Heart rate (*1)	0 (30) – 199 bpm
		 Cadence (*1)	0 (20) – 199 rpm
		Power balance (*2)	Left : 0 – 100 % Right : 0 – 100 %
		<b>Dst</b> Trip Distance	0.00 – 999.99 km [mile]
		<b>Dst 2</b> Trip Distance-2	0.00 – 999.99 / 1000.0 – 9999.9 km [mile]
		<b>AV</b> Average Speed	0.0 – 105.9 km/h [0.0 – 65.9 m/h]
		<b>AV</b>  Average heart rate (*1)	0 – 199 bpm
		<b>AV</b>  Average cadence (*1)	0 – 199 rpm
		<b>MAX</b> Maximum Speed	0.0 (3.0) – 105.9 km/h [0.0 (2.0) – 65.9 m/h]
		<b>MAX</b>  Maximum heart rate (*1)	0 – 199 bpm
		<b>MAX</b>  Maximum cadence (*1)	0 – 199 rpm
		<b>ALT</b> Altitude	-500 – 9999 m [-1640 – 29600 ft]
		<b>Odo</b> Total Distance	0.0 – 9999.9 / 10000 – 99999 km[mile]
		 Clock	0:00 – 23:59 [AM1:00 – PM12:59] (Both 12 and 24-hour modes can be selected) (Automatic adjustment using GPS)

\*1: The optional or commercial ANT+ sensor is required for measurement.

\*2: Requires separate left and right ANT+ power sensors.

<b>Battery</b>	Lithium-ion rechargeable battery
<b>Charge and communication</b>	USB cradle
<b>Standard charging time</b>	Approx. 5 hours (USB2.0)
<b>Standard operating time</b>	Approx. 10 hours
<b>Recharge/discharge number of times</b>	About 300 times (until the rated capacity drops to 70%)
<b>Controller</b>	Microcomputer (crystal controlled oscillator)
<b>Display</b>	Liquid crystal display (EL backlight: Lights up always during the night-time)
<b>Sensor signal transmission system</b>	ANT+
<b>Working temperature</b>	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.)
<b>Dimensions/weight</b>	2-23/32" x 1-49/64" x 7/8" (69 x 45 x 22.4 mm) / 1.76 oz (50 g)

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

## Limited warranty

### 2-year Warranty: Computer only (Deterioration of the battery is 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.  
<https://www.cateye.com/en/support/regist/>

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