



CAT EYE ASTRALE 8

CYCLOCOMPUTER CC-CD200N

E: Owner's Manual



ASTRALE 8

U.S. Pat. Nos. 4633216/4642606/5226340/5236759 Pat. and Design Pat. Pending
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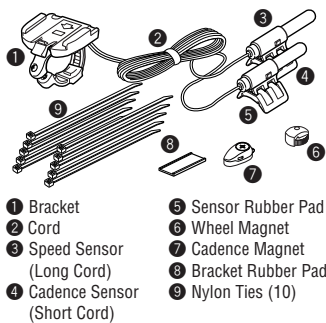


Please read these instructions carefully before installing or using the CAT EYE ASTRALE 8.

Please keep this manual in a safe place for future reference.

Installation of the Computer on Your Bike

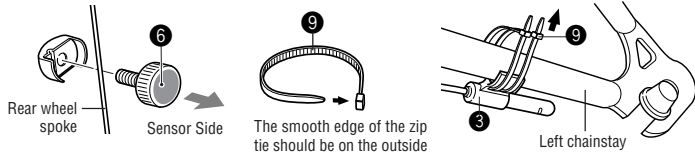
The computer comes with the following parts:



1 Mount the wheel magnet and speed sensor

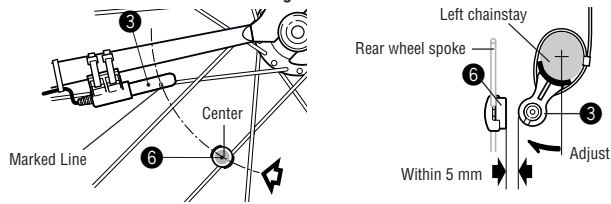
- Mount the wheel magnet (6) on a spoke of the rear wheel so the surface of the magnet faces the sensor.
- Mount the speed sensor (3) (long cord) on the left chainstay with nylon ties (9).

Note The nylon ties can only be used once, please install with care.



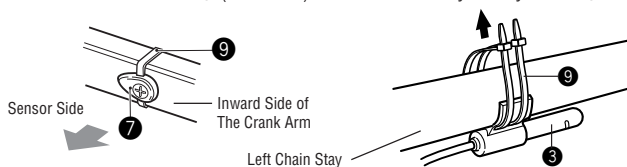
Important Note

Mount the magnets (6) and the sensors (3) in the appropriate positions so that the center of each magnet (6) aligns with the marked sensor line when the rear wheel and crank arm are rotated. The magnet should be no more than 5mm from the sensor.



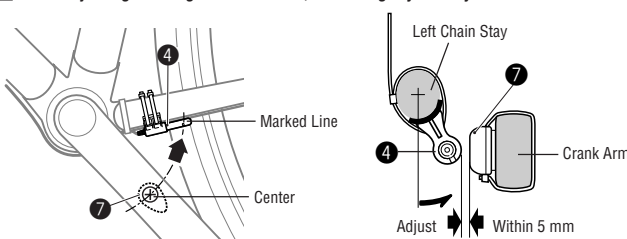
2 Mount the cadence magnet and cadence sensor.

- Mount the cadence magnet (7) on the left crank arm so that it faces the sensor.
- Secure the cadence sensor (4) (short cord) on the left chain stay with nylon ties (9).



Important Note

When the crank is spinning, the center of the magnet (7) should pass in front of the sensor (4) marking line. The distance between the sensor and the magnet (7) should be within 5mm. After adjusting the magnet and sensor, secure tightly with nylon ties.



Warning



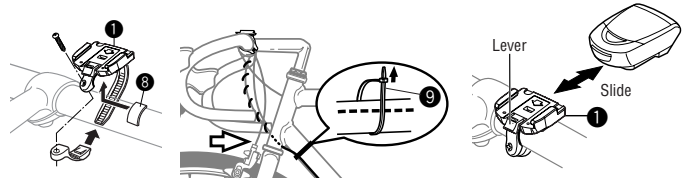
Important Note

- Pay attention to the road or trail! Do not be distracted by the computer.
- Be sure to securely mount the magnet, the sensor, and the bracket on your bicycle. Periodically check to insure they are mounted securely and the screws have not come loose.
- Keep batteries out of reach of small children. Dispose of batteries according to local regulations.
- Avoid unnecessary prolonged exposure to the sun.
- Never attempt to disassemble the computer head.
- Don't use thinner, benzene or alcohol to wipe the surface of the computer. They may damage the surface of computer.

3 Mount The Bracket

Secure the cord by fastening it to the frame with zip ties at regular intervals. Put the rubber pad (8) on the bracket (1) and secure the bracket on the handle bar with the screw. Slide the computer into the bracket until you hear the click sound. When you need to remove the computer, press the lever on the handlebar bracket and slide the computer forward.

Note Allow enough wire clearance in the area marked with ⇨ to insure you can turn the handlebars all the way from side to side without pulling the wire.



4 Basic Functions Test

Spin the rear wheel to see if Speed is reading properly. Push the mode button until Cadence (Cdc) is in the sub-display. Spin the crank arm backwards to test if Cadence is reading properly. When you receive a signal, tightly secure the sensor so it does not move.

Note When the computer does not indicate the speed/cadence, check the position of the magnet and the sensor.

Rotate the rear wheel.



Rotate the crank arm

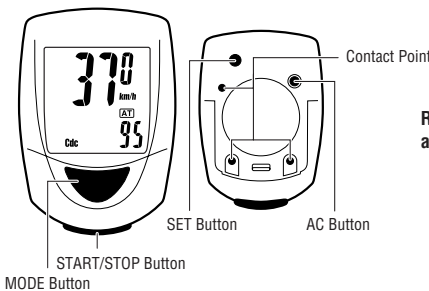


Computer Set-up

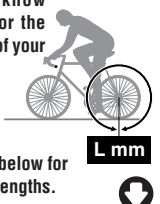
(For first use or after replacing the battery)



You need to know your tire size or the roll out length of your tire in MM's.



Refer to the chart below for approximate tire lengths.



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

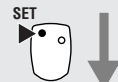
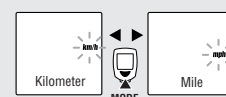
1 All Clear

Push the AC button on the backside.
* Push the AC button when using this system for the first time and every time the battery is replaced.



2 Measurement Selection

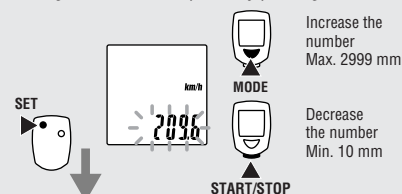
Select the measurement unit, kilometer or mile, by pushing the MODE button. Fix it by pushing the SET button.



3 Set The Tire Circumference

Set the tire circumference in mm.

Note Refer to the chart shown on the right. Setting is fixed and completed by pushing the SET button.



Preparation Complete.
(the screen will show the time measurement in this state)

* The auto mode is ON in this state.

Tire size is usually shown on the sidewall of tires.

Computer Operations

Selection of the data-display mode (bottom of the screen)

Press the Mode button to navigate to each of the sub-displays listed on the right.
Press and hold the mode button for two seconds in any mode to display the Clock Time.

Start or Stop of Measurements

The computer can be programmed to run in either MANUAL MODE or AUTO TIME MODE. In Manual Mode you must press the START / STOP button to turn on and off the Timer, which records Distance and Average Speeds. In Auto Time the computer turns the Timer on and off depending on a signal from the sensor.

When you push the button, Elapsed Time, Average Speed and Trip Distance are recorded, and stopped with the second push of the button.

• Auto Time Mode (Automatic Measurement)

When the icon **AT** is lit, the measurements are automatically done. This is called auto-mode in which the rotation of the wheel is detected to make the measurements start or stop automatically. (When the icon **AT** is lit, you cannot start or stop the measurements by pushing the START/STOP button)

• Manual Measurements

When you don't see the icon **AT** on the screen, you can start or stop the measurements by pushing the START/STOP button.

When you push the button, Elapsed Time, Average Speed and Trip Distance are started, and stopped with the second push of the button.

• How to set ON or OFF the Auto-Mode

Push the SET button while Elapsed Time (Tm) Trip Distance (Dst) or Average Speed (Av) is displayed, then the icon **AT** is "lit" (ON) or turned OFF.

Resetting Elapsed Time, Trip Distance, Average and Max. Speed

Push the MODE button and the START/STOP button at the same time while the measurements other than Odometer, Elapsed time, Maximum Speed, Average Speed and Trip Distance are zeroed. The Odometer cannot be reset.

Computer Functions

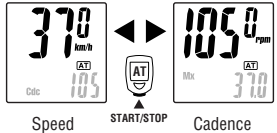
• Power-Saving Function

When no signal has been received for about 1 hr, the computer switches to power-saving mode and only displays the Clock. When any button is pushed or the bicycle is ridden, the measurement mode comes back.

• Selection of The Data-display Mode

In Auto-Mode you can choose between Speed or Cadence to be displayed in the top screen.

Speed is initially selected in the upper display. When the computer is in **AT** mode, press the START/STOP button. Cadence will now appear in the upper display. Speed will be in the lower display. Switch it back with the same procedure.



Troubleshooting

No display appears.

- Is the battery dead?
- Replace it and do all clear procedure.

Strange data appears

- Do all clear procedure.
- Data of odometer is also erased.

Measurements do not start when the START/STOP button is pushed.

- Is the icon **AT** ON?
- Turn the Auto-Mode off to enable the start or stop of the measurements by manual operation of the button.

No speed or cadence data can be measured.

(If the speed or cadence data is not displayed, have the contact points short-circuited a few times by a metal plate. In the case that this short-circuiting is detected by the computer, the computer is considered normal and the bracket and the sensor possibly have the cause of trouble.)

- Is the gap between the sensor and the magnet too big? (should be within 5 mm)

Does the marked line of the sensor align with the center of the magnet?

Adjust the position of the magnet and the sensor.

Wipe the contact points of the bracket or computer clean.

Is the cord broken? Even if the outside of the cord looks normal, there could be damage.

Replace the bracket and sensor set with a new one.

Additional troubleshooting at www.cateye.com

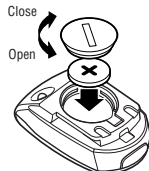
Maintenance

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

Replacing The Battery

When the display becomes dim, replace the battery.

- Put a lithium battery CR2032 in the computer with the (+) mark facing up.
- After replacing the battery, refer to "Computer Set-Up" and do an all clear operation.



Display for Measurements

Speed
0.0 (4.0) - 300.0 km/h
[0.0 (3.0) - 185 mph]

Cadence
0.0 (20.0) - 299.9 rpm

Auto-mode Icon
When lit, the measurements starts or stops automatically.

Mode Selection Illustrations (bottom of the screen)

Cdc Cadence 0(20) - 299 rpm
or **Speed** 0.0 (4.0) - 300.0 km/h

Odo
Odometer
0.0 - 99999 km [mile]

Mx
Maximum speed
0.0 (4.0) - 300.0 km/h
[0.0 (3.0) - 180.5 mph]

Av
Average Speed
0.0 - 300 km/h [0.0 - 185.0 mph]
If Elapsed Time exceeds 27 hours or Trip Distance exceeds 999.99km, Average Speed shows E. and ceases calculation.

Dst
Trip Distance
0.00 - 999.99 km[mile]

Tm
Elapsed Time
0:00'00" - 9:59'59"

Power-Saving Screen

(When no signal is received for about 1 hr, the screen switches to the power-saving mode)

15:38

When you push either of the MODE button or the START/STOP button or you ride the bicycle, the display comes back to the measurement display.

You can program the tire size.

Range of set: 10 - 2999 mm

2096 km/h

When the measurements are stopped

MODE: Increase the number

MODE: Decrease the number

START/STOP: Return to the Elapsed Time

Setting The Clock Time

24 hour or 12 hour system is to be used with km/h or mph unit respectively.

10:10 Clock
0:00 - 23:59
[1:00 - 12:59]

For 2 sec. MODE: While any measurement is displayed on the screen

MODE: Return to Elapsed Time display

MODE: Increase the number

MODE: Decrease the number

SET: Return to Clock display

SET: When the measurements are stopped.

START/STOP: Set the hour

START/STOP: Set the minute

Specifications

- Battery/Its Life : ----- A Lithium Battery (CR2032), Approx:3 yrs. (Approx:1 hr per day usage.)
- Control System : ----- 4-bit 1-chip micro-computer (with a crystal oscillator)
- Display : ----- Liquid crystal display
- Sensing System : ----- No-contact magnetic sensor
- Range of tire circumference setting : ----- 10 mm - 2999 mm (Initial value 2096 mm)
- Range of Operational Temperature : ----- 0°C - 40°C (32°F - 104°F)
- Dimension and Weight(Computer) : ----- 38 x 54 x 17.5 mm [1-1/2 x 2-1/8 x 11/16"] / 28 g [1.0 oz]
- * The factory-loaded battery life might be shorter than the above-mentioned specification.
- * The specifications and design are subject to change without notice.

Limited Warranty

2-Year Warranty : Computer Head Only
(Bracket sensor and batteries are not covered under the warranty)

If any trouble or damage occurs during normal use, the product computer will be repaired or replaced free of charge. Type your name, address, telephone number or e-mail address, date of purchase and the situation of trouble and send it back together with the product to the closest address below. Transportation charges shall be borne by the customer. After being repaired, the product will be shipped back to the customer.

CATEYE CO., LTD. 2-8-25, Kuwazu, Higashi Sumiyoshi-ku, Osaka 546-0041 Japan

Attn.: CAT EYE Customer Service Section

Service & Research Address for North American Consumers:

CAT EYE Service & Research Center

1705 14th St. 115 Boulder, CO 80302

Phone: 303-443-4595 Toll Free: 800-5CATEYE

Fax: 303-473-0006 e-mail: service@cateye.com

URL: <http://www.cateye.com>

* Accessory parts are available for the customers as shown below.

Standard Parts	#169-9400N Bracket Sensor Kit (Rear wheel sensor)	#169-9757N Attachment Kit	#169-9765 Cadence Magnet	#169-9691N Wheel Magnet
	#169-9402N Center Mount Bracket Kit (Rear wheel sensor)	#169-9403N Bracket Sensor Kit for Aero Bar (Rear wheel sensor)	#166-5150 Lithium Battery (CR2032)	
Optional Parts	#169-9404N Stem Mount Bracket Kit (Rear wheel sensor)	#169-9760 Magnet for Composite Wheel		