



CAT EYE Cordless 7 CYCLOCOMPUTER CC-FR7CL OWNER'S MANUAL



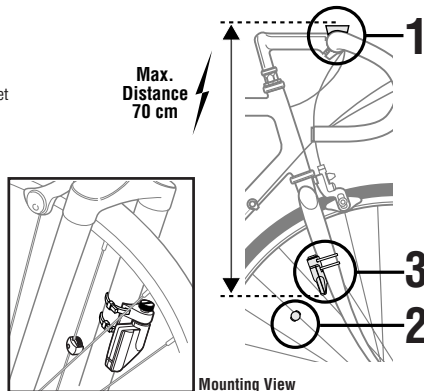
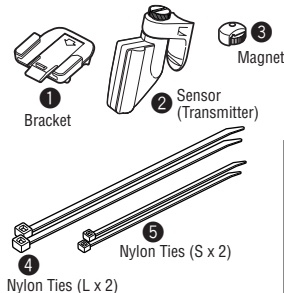
Cordless 7

U.S. Pat. Nos. 4633216/4636769/4642606/5236759 Pat. and Design Pat. Pending
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CCMFR7CL-021210 Printed in Japan [066600165] 1

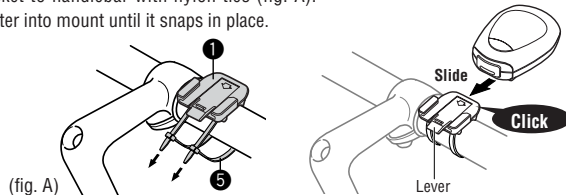


IMPORTANT! PLEASE READ INSTRUCTIONS COMPLETELY BEFORE ATTEMPTING TO INSTALL AND USE YOUR CAT EYE CORDLESS 7 COMPUTER.

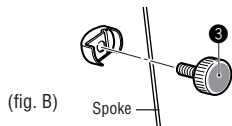
Installation of Computer:



1 Secure bracket to handlebar with nylon ties (fig. A). Slide computer into mount until it snaps in place.

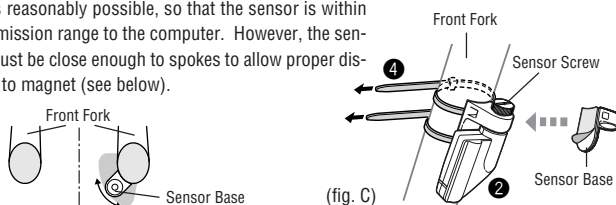


2 Mount the wheel magnet to a spoke on the front wheel (fig. B), so the magnet faces the sensor.

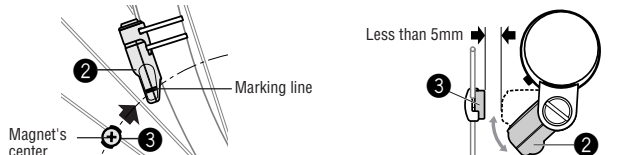


3 Secure the sensor to fork leg as shown (fig. C). **NOTE:** The distance between the computer and the sensor must not exceed 70 cm—if the sensor is too far away from the computer head, the speed signal will not register on the computer.

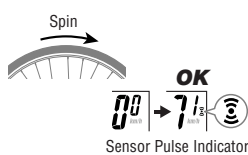
For best results, mount the sensor as high on the fork leg as reasonably possible, so that the sensor is within transmission range to the computer. However, the sensor must be close enough to spokes to allow proper distance to magnet (see below).



NOTE: When the wheel rotates, the magnet **MUST** line up with the mark on the sensor. **ALSO NOTE:** Magnet must pass within 5 mm of the sensor—if not, it will not trip the sensor as it passes, and the computer will not register speed. Adjusting the sensor position higher or lower on the fork leg or by rotating the sensor on the fork mount may be required to achieve proper distance to the wheel magnet.



4 Test by spinning the front wheel. Computer screen should show speed. If not, make sure **1)** the magnet is close enough to sensor (within 5 mm); and **2)** the sensor is close enough to computer head (within 70 cm) and **3)** nothing is obstructing the line of sight between the sensor and the computer head.



Precautions



- Do not concentrate too much on the computer operations while riding.
- Be sure to securely mount the magnet, sensor and bracket on your bicycle, and always check to insure they are mounted securely.
- Used batteries must be disposed of properly and in accordance with all local regulations.
- Never disassemble the computer.
- For cleaning, use mild soap and a soft cloth. Wipe dry with a soft cloth. Paint thinner, benzine, alcohol or other chemicals may damage the surface.

This device complies with Part 15 of the FCC Rules. 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.

Modifications

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

About cordless system

The sensor picks up the wheel revolution signal and transmits the signal to the computer; the computer calculates and displays the data on the screen.

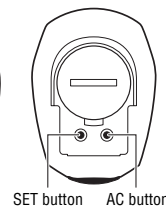
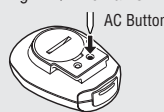
CAUTION: In order to prevent external signal interference, the signal reception range is limited. For best performance, the distance between the sensor and the computer must be kept within 70cm. Attach the sensor at the upper part of your fork so that the distance becomes less than 70cm. The signal reception range may shorten as a result of low temperature or lowered battery power.

- In the following places and circumstances, interference may occur, resulting in malfunction:
- Near railroad crossing; in train cars.
 - Near other cordless devices/television/personal computer/high power lighting system.
 - Near the places where strong electromagnetic wave is generated; near television/ radio station; near radar base.
 - When being very close to another bicycle which also has a cordless cyclocomputer on its handlebar.

Computer Set-up (for first use, or after replacing battery)

1 Press All-Clear button (AC).

- Stored data is erased.
- Computer power is started.
- Total Odometer read's "zero".
- All digits shown then fades.
- Flashing "km/h" remains.



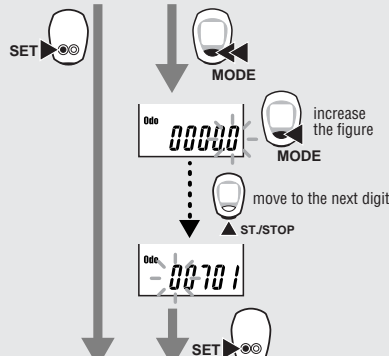
2 Adjust between "mph" or "km/h" by pressing the MODE button.



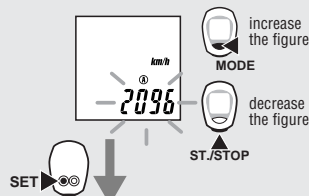
Use the below table as the rough guide.

Press the SET button to lock in your choice---OR--- if you want to input previous mileage, hold the MODE button (before pressing the SET button) for 2 seconds. Flashing Odometer digits will appear.

- MODE button increases the digit number.
- START/STOP button moves to the next digit.
- Press the SET button when complete.



3 Wheel circumference number is shown. Look at chart to find TIRE SIZE in "mm". To increase TIRE SIZE press MODE button. To decrease press START/STOP button. 10-2999 mm can be registered. Press SET button when finished.



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

Setup Completed (To Tm)

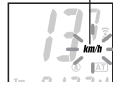
In this state Auto Time is ON.

The tire size is marked on both sides of the tire.

Operation of Computer

Speed Scale Indicator - "mph" or "km/h" on main display flashes when computer is measuring speed.

Speed Scale Indicator

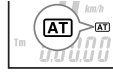


Display Modes - Press MODE button to shift lower display from one mode to the next. The display modes change from Elapsed Time (Tm), to Average Speed (Av), to Maximum Speed (Mx), to Total Odometer (Odo), to Trip Distance (Dst).

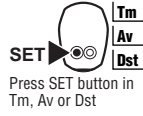
CLOCK TIME - Hold MODE button for 2 seconds to display Clock Time (this works in any of the display modes).

[To set correct Clock Time, press SET button when Clock Time is showing in lower display. Use MODE button to increase the digit number, and press SET to change to next digit. Press SET button when complete].

AUTO TIME (AT) - When this is activated, the computer will automatically start and stop measuring Elapsed Time (Tm), Average Speed (Av), and Trip Distance (Dst), as soon as the bike starts moving. AUTO TIME is activated when (AT) icon shows in main display.



To turn (AT) feature on or off, press SET button while lower display is in Elapsed Time (Tm), Average Speed (Av), or Trip Distance (Dst) mode. For best results, operate the computer with (AT) activated.



MANUAL MODE - Press the START/STOP button to start the Elapsed Time (Tm), Average Speed (Av) and Trip Distance (Dst) measurement, ONLY IF AUTO TIME (AT) is not activated.



Reset Time, Distance, Average - To reset (zero out) ride data (Elapsed Time, Trip Distance, Average Speed, and Max. Speed), press MODE and START/STOP simultaneously. [Total Odometer is not reset].



Computer Features

Power Saving Function:

- Power saving mode ----- No signal for 10 minutes.
- Sleep mode ----- No signal for 2 weeks.
- Wake mode ----- Press MODE or START/STOP button.

Dual tire size:

- Two different wheel size can be programmed.
- Press MODE and START/STOP simultaneously for 2 seconds to switch size (A) and (B).
- Wheel size (A) is designed for road bikes. Wheel size (B) is designed for slower speeds that can be typical for mountain bikes.

Troubleshooting

No display.

- The battery in the computer run down?
Replace it with a new one and do all clear operation.

Incorrect data appears.

- Do all clear operation. (Before this operation, write down your Odo data, and input it again after all clear operation. In this way you can continue to accumulate your Odo.)

Cannot start measuring by START/STOP button.

- Is the (AT) icon on?
To operate manually, switch off the Auto Time.

Sensor pulse indicator does not flash. (Current speed does not appear.)

[If the sensor pulse indicator fails to flash, first spin front wheel to align computer with sensor. Indicator will flash if computer is working. If not, this will pinpoint the problem to be: 1. dead battery; 2. distance between sensor and unit is over 70cm.]

- Is the clearance between the sensor and the magnet too large?
Are the magnet's center and the sensor's marking line aligned?
Re-adjust the positions of the magnet and the sensor.
- Is the distance between the computer and the sensor too long?
Adjust the sensor's position so that the distance becomes less than 70cm.
- The battery in the sensor run down?
Replace it with a new one. *In winter, battery's performance is degraded.
- The battery in the computer run down?
Replace it with a new one and do all clear operation.

Maintenance

- To clean the computer or accessories, use diluted neutral detergent on a soft cloth, and then wipe it off with a dry cloth.
- If the gaps between the buttons and the unit get clogged with mud or sand, wash with water.

Replacing Battery

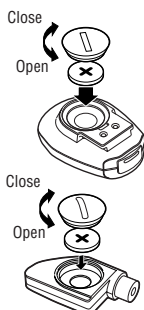
Computer

If the screen gets dim, please replace the battery. (Before replacing battery, write down your Odo data, and input it again after all clear operation. This way you can retain your Odo data and continue to count, even after replacing the battery.)

- Insert a new lithium battery (CR2032) with the (+) mark facing up.
- After replacing battery, do all clear operation and set up the unit again.

Sensor

If the sensor pulse symbol on the display gets dim, please replace the battery. After replacing the battery, check the position of the sensor and magnet again.



Display Features

No signal 10 minutes

Speed (upper display)
0.0(4.0)-105.9 km/h
[0.0(3.0)-65.9 mph]

Sensor Pulse Indicator
Flashes in synchronization with signal from sensor.

Wheel Icon
Shows which wheel is selected

Auto Time Icon
Starts/stops measuring automatically.

How Mode Shifts in Lower Display

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

Av Average Speed
0.0-105.9 km/h
[0.0-65.9 mph]
If Elapsed Time exceeds 27 hours or Trip Distance exceeds 999.99km, Average Speed shows E, and ceases calculation.

Mx Maximum Speed
0.0(4.0)-105.9 km/h
[0.0(3.0)-65.9 mph]

Odo Total Distance
0.0-99999 km [mile]

Dst Trip Distance
0.00-999.99 km [mile]

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

Hold down MODE 2 seconds

From any mode

Returns to above mode

Press simultaneously SET

Press simultaneously ST/STOP

Power Saving Function

(When the unit doesn't receive signal for ten minutes, it enters into power saving mode.)



Power Saving Mode

When wheel starts rotating, it returns to normal mode.

Sleep Mode

To wake up the unit, press MODE button or ST/STOP button.

Pressing MODE and ST/STOP button simultaneously for a few seconds in Mx mode, the computer will go to sleep mode.

Dual Tire Size

You can set 2 different wheel circumferences



How to Switch Wheel (A) and (B)

In any functions other than Odo

Hold down 2 seconds

In Odo

Press simultaneously 2 seconds

How to Change Wheel Circumference

Default figure
Wheel A: 2096
Wheel B: 2050

Increases figure

Decreases figure

Press simultaneously ST/STOP

How to Adjust Clock

If Km/h is selected for speed scale, it becomes 24-hour clock. If mph is selected, it becomes 12-hour clock.

Increases figure

Decreases figure

Specification

Battery -----	Computer: Lithium Battery CR2032 X 1
	Sensor: Lithium Battery CR2032 X 1
Battery Life -----	Computer: approx. 1 year (in the case of being used for 1 hour every day)
	Sensor: until Total Distance reaches about 10,000km (6,250mile)
	* This is the average figure of being used under 20°C temperature and the distance between the computer and the sensor is 65cm.
Controller -----	4-bit 1-chip microcomputer (crystal controlled oscillator)
Display -----	Liquid crystal display
Sensor -----	No contact magnetic sensor
Wheel Circumference Range -----	10mm-2999mm (default figure: A: 2095mm, B: 2050mm)
Working Temperature -----	0°C - 40°C (32°F - 104°F)
Dimension/Weight -----	1-19/32 x 2-7/32 x 27/32" (40 x 56.5 x 21mm) / 1.06oz (30g)
	* 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 for computer/sensor only (excluding parts and batteries)

If trouble or damage occurs during normal use, the product will be repaired or replaced free of charge. Type your name, address, date of purchase and the situation of trouble clearly on the warranty certificate, and send it back to the appropriate service center together with the product. Insurance, handling and transportation charges shall be borne by the customer. After being repaired or replaced, 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 United States 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

The following parts are available.

Standard Parts	#169-6693 Parts Kit	#169-6673 Sensor	#169-6663 Bracket Kit
	#169-6773 Attachment Kit	#169-9691 Magnet	#166-5150 Lithium Battery (CR2032)
Optional Parts	#169-6667 Center Mount Kit	#169-6669 Stem Mount Kit	#169-9760 Magnet for Composite Wheel
			#169-9690 Hi-Power Wheel Magnet