Trek Sensor Owners Manual

Congratulations and thank you for purchasing the Trek Sensor Bicycling Computer! Please read this instruction manual carefully before operating your Trek Sensor Computer and save this manual for future reference.

Precautions

Remember to watch the road while riding. Watching your bicycle computer makes it difficult to see upcoming obstacles. Awareness of potential road, trail, or traffic problems should be your main concern.

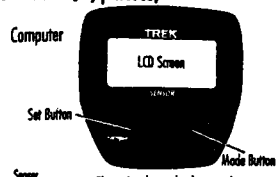
Cycling Functions

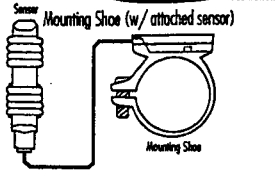
1. Current Speed
2. Trip Timer
3. Trip Distance
4. Average Speed
5. Odometer
6. Maximum Speed
7. 12 or 24 hour Clock
8. Speed Comparator to Average Speed
9. Freeze Frame Memory
10. Automatic Start/Stop

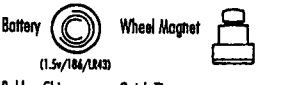
Additional Features

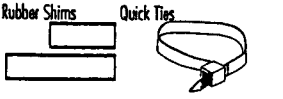
- Dual Display
- Waterproof
- Settable Odometer
- High Resolution LCD Display
- Posi-click Buttons
- Auto Shut-off Energy Saving Feature

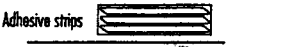
Parts List (w/pictures)

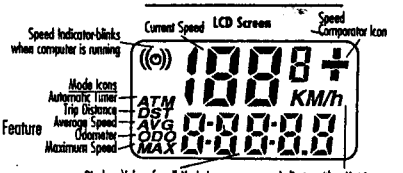






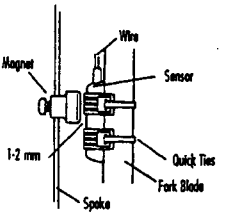






Installation

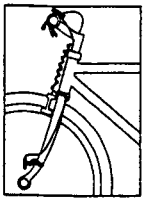
Sensor and Wheel Magnet



1. Position the sensor unit to the inside of either the right or left fork blade anywhere from 3-6 inches up from the fork blade tip. Attach the sensor to the fork blade with the quick ties but do not tighten the ties completely until final adjustment is complete.
2. Attach the wheel magnet to a spoke, aligning the magnet with the sensor so it faces and intersects the top polished line of ridges on the sensor. The magnet should have 1-2 mm clearance from the sensor. If the sensor and magnet are too close or touching, rotate the sensor unit toward the back of the fork blade until adequate clearance is achieved. Carefully tighten the Quick ties making sure you maintain the proper clearance between the magnet and the sensor. Trim the excess Quick tie strap using a scissors or fingernail clippers. Tighten the magnet screw, but be careful not to overtighten as this can damage the fitting.

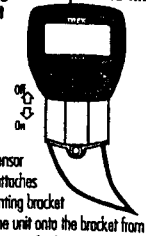
Sensor Wiring and Bracket

Sensor wires must not be wrapped together with other electrical wires (lights, horns, etc.). This may cause erratic computer readings.



1. Route the sensor wire up the back of the fork blade or wind the wire around the blade, making sure that the wire is not loose and that you leave enough wire to reach the handlebar. Secure the wire to the fork blade immediately above the sensor and at the top of the fork blade, using the adhesive strips that are provided.
2. Wind the wire upward around the front brake cable until the wire is adjacent to the handlebar, allowing enough slack for free movement of the steering assembly and cables.
3. Attach the bracket to the handlebar on either side of the stem. The bracket goes onto the handlebar with the attachment screw and wire toward the rider side of the bar. Use the appropriate rubber shim between the bracket and handlebar to provide a secure fit.

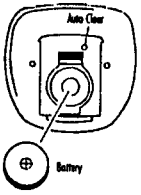
Attaching the Computer to the Bracket



The Trek Sensor Computer attaches to the mounting bracket by sliding the unit onto the bracket from the front until it snaps firmly into position. To remove the computer from the bracket, wrap your forefinger around the front of the mounting bracket and push the computer forward with your thumb.

Computer Set Up

Battery Installation



1. Remove the battery cover from the backside of the computer using a narrow flat blade screwdriver.
2. Install the battery so that the positive "+" side of the battery is visible, and replace the battery cover.

Computer Set Up

1. After battery installation, turn the computer face up. The display should show either the M/h icon, for miles per hour, or the KM/h icon, for kilometers per hour.. (Note: if the display is erratic, press the A/C button on the backside of the computer to reset.)
2. Press and click the **LEFT** button to choose either M/h OR KM/h.
3. Press and click the **RIGHT** button to lock in your choice and advance to the wheel size setting mode.

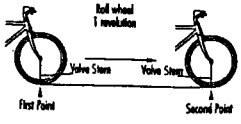
Wheel Size Setting

The wheel size setting number is equal to the distance, in millimeters, that your front wheel travels during one complete revolution. Each time the wheel magnet passes the sensor unit on your fork, the sensor sends an impulse to the computer telling it that your wheel has completed one revolution. The computer calculates this distance vs. time to give you accurate readings for the various modes.

Determining Wheel Size Setting

There are three methods for determining the wheel size setting. For the most accurate computer readings, it is best to measure the actual distance that your wheel travels in one complete revolution. This method is called a **wheel roll out.**

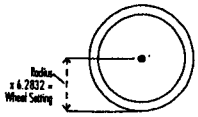
Method One: Wheel Roll Out



- Perform the wheel roll out on a hard, flat, smooth surface such as a garage or basement floor.
- Make sure your tires are properly inflated.

1. Position your bike so that the valve stem of the front wheel is at its bottom most position. Mark the spot on the floor directly under the center of the valve stem using a piece of tape or chalk.
2. Roll the bicycle forward in a straight line, while putting downward pressure on the handlebars to simulate rider weight. When the wheel has completed one revolution and the valve stem is at its bottom position, mark the floor directly under the center of the valve stem with tape or chalk. Measure the distance between the two marks in millimeters. (Note: Conversion of in. to mm. is 1 in.= 25.4 mm.) This is your wheel setting number. You can repeat this procedure and average your results. We recommend that you record this number here for future reference.

Method Two:



- Measure wheel radius in millimeters. 338 (including tire) and multiply by 6.2832=wheel setting number.

Method Three:

Refer to the following chart and input the number that corresponds to your tire size. (Note: actual size of two similiarly marked tires from different manufacturers can vary significantly, making this method the least accurate.)

Wheel/Tire Size	Wheel Size Setting
16"	1300
20" x 1.75"	1600
24" x 1.95"	1920
26" x 1.5"	2030
26" x 1.75"	2050
26" x 1.9"	2080
26" x 2.0"	2090
24" x 2.2"	2100
700 x 20C	2090
700 x 23C	2100
700 x 25C	2110
700 x 28C	2140
700 x 32C	2160
700 x 35C	2175
700 x 38C	2180
700 x 40C	2190
27" x 1"	2136
27" x 1 1/4"	2155

Inputting Wheel Setting Number

After inserting the battery and choosing M/h OR KM/h, your computer will display 2124 with the 4 digit flashing.

1. Press and click the **LEFT** button to increase the flashing digit by one or hold the button down for rapid advance.
2. Press and click the **RIGHT** button to lock in your choice and advance to the next flashing digit.
3. Repeat this procedure until all four digits are adjusted. Press and click the **RIGHT** button to advance to the odometer setting.

Settable Odometer Feature

After you complete input of the wheel setting number, the computer will display the current odometer reading, with the last digit on the right flashing. You can manually set your odometer to transfer mileage from another computer or to re-input mileage lost because of a battery change.

1. Press and click the **LEFT** button to increase the flashing digit by one or hold the button down for rapid advance.
2. Press the click the **RIGHT** button to lock in your choice and advance to the next flashing digit.
3. Repeat this procedure until all digits are adjusted. Press and click the **RIGHT** button to advance to normal operating mode. (Note: if you do not need to change either wheel input number or the odometer reading, press and hold the **RIGHT** button down for five seconds to bypass the setting mode and advance to normal operating mode.)

Resetting Wheel Input Number or Odometer

1. In any mode except the clock mode, press and hold **BOTH** buttons down for about four seconds or until the M/h or KM/h symbol flashes.
2. Refer to the Computer Setting Procedure above for setting the Wheel Input Number or the Odometer.

Clock Setting

1. Press and click the **RIGHT** button in normal operating mode until the clock mode appears. There will be no mode icon for clock, but you will see hours and minutes with a flashing colon.
2. Press and hold **BOTH** buttons down for about **four** seconds or until a flashing 12 or 24 appears.
3. Press and click the **LEFT** button to choose either 12 or 24 hour clock funtion.
4. Press and click the **RIGHT** button to lock in your choice and advance to flashing hour digit.
5. Press and click the **LEFT** button to adjust the flashing hour by one or hold for rapid advance.
6. Press and click the **RIGHT** button to lock in your choice and advance to the next flashing digit.
- Repeat the above procedure until all digits are adjusted, then press and click the **RIGHT** button to return to normal operating mode.

Testing the Computer Function

After bracket installation, computer set up, and computer installation, you can check for proper computer function by lifting the front of the bike and spinning the front wheel. If the computer registers a speed reading then the set up is correct. If no speed readout appears, recheck sensor/magnet alignment for proper position. If other problems occur, refer to the troubleshooting guide at the end of this manual.

Computer Displays and Functions

Auto Start/Stop

The Trek Sensor will automatically turn on and record data whenever the wheel sensor is activated by wheel rotation. The computer will automatically stop recording data when the wheel stops rotating.

Screen 1



Upper display=Current Speed in M/h or KM/h. Display Range of 3-99.9 M/h or 4.5-122 KM/h. Speed Resolution to .5 M/h or KM/h.
Lower Display=Trip Timer indicated by the **ATM** icon. The " ((o)) " symbol blinks on and off when the timer is running. Elapsed time automatically starts when the wheel rotates and stops when the wheel stops. Records up to 9:59:59 and recycles to 0:00:00.

Press and click **RIGHT** button to advance to

Screen 2



Upper Display=Current Speed
Lower Display=Trip Distance indicated by the **DST** icon-automatically records trip distance in increments of 0.1 miles or kilometers, whenever the wheel rotates. Records up to 999.9 miles or kilometers and then recycles to zero.

Press and click **RIGHT** button to advance to **Screen 3**



Upper Display=Current Speed
Lower Display=Average Speed indicated by the **AVG** icon-automatically calculates average speed, in increments of 0.1 M/h OR KM/h, whenever the wheel is rotating. Average speed can be calculated for up to 25 hrs and then it automatically recycles to zero.

Press and click **RIGHT** button to advance to

Screen 4



Upper Display=Current Speed
Lower Display=Odometer indicated by the **ODO** icon-automatically records distance, in increments of 1.0 miles or kilometers, whenever the wheel is rotating. Records up to 99999 miles or kilometers and then automatically recycles to zero.

Press and click **RIGHT** button to advance to **Screen 5**



Upper Display=Current Speed
Lower Display=Maximum Speed indicated by the **MAX** icon. Automatically records maximum speed up to 99.9 M/h OR 122 KM/h. in increments of 0.1 M/h or KM/h. A new maximum speed must be maintained for over two seconds to register.

Press and click **RIGHT** button to advance to

Screen 6



Upper display=Current Speed
Lower display=Clock 12 or 24 hr settable. No mode icon will appear but the CLOCK mode is indicated by hours and minutes with a flashing colon.

Press and click **RIGHT** button to return to **Screen 1**

Speed Comparator

A plus sign "+" displayed in the upper right hand corner of the LCD indicates that your current rate of speed is faster than your current average speed. A minus sign "-" displayed indicates that your current rate of speed is slower than your current average speed.

Freeze Frame Memory

This feature allows the user to temporarily freeze the mode readings for viewing or recording. It is most commonly used after completing a time trial, race, or your favorite course.

1. Pressing the **LEFT** button down for 1 second will freeze the readings for ATM, DST, AVG, and MAX. This freeze frame is indicated by a flashing screen.
2. Press and click the **RIGHT** button to cycle through the modes and view the freeze frame readings.
3. Press and click the **LEFT** button to return to normal operating mode. (Note: all regular functions continue to accumulate data while freeze frame mode is flashing and will be updated when you return to normal operating mode.).

LCD Auto Shut Off

The computer LCD display will automatically shut itself off after 5-6 minutes of non use. The clock function will continue to display during this shut down. The computer LCD will turn on automatically when one of the buttons is pressed or the wheel sensor is activated by wheel rotation.

Resetting Cycle Functions to Zero

To reset the computer values for ATM, DST, AVG, AND MAX, press and hold both the **RIGHT** and **LEFT** buttons simultaneously for about 1 second. The display will flash and reset these values to zero. This reset can be performed in any mode, except the clock mode. (Note: caution-holding both buttons down for more than 3-4 seconds accesses the initial set up mode. If you accidentally access this mode by mistake, press and hold the **RIGHT** button for 5 seconds to return to normal operating mode.)

Troubleshooting Guide

Problem	Solution
•No Speedometer Reading	°Check for proper magnet/sensor alignment. Check computer to make sure it is snapped firmly into the bracket
•Display Readout Fades	°Poor battery contact or dead battery - remove the battery, check contacts, or replace battery
•Display shows irregular figures	°Press A/C button on the back to clear, then restart the computer
•Max display reads "99.5"	°Clear modes by pressing both buttons for one second, check magnet/sensor alignment
•Slow display response	°Temperature outside of the computer's operating limits (32-120°F, 0-49°C)
•Black display	°Computer Unit may be too hot, display exposed to direct sunlight too long. Let the unit cool and it should return to normal.

Computer Warranty

Your Trek Sensor Computer is guaranteed for 2 years against defects in workmanship or materials. If you experience problems, refer to the suggestions in the troubleshooting guide in this manual. If this does not solve your problem, please return the computer to your authorized Trek Dealer or send the computer postage paid to:

Trek Bicycle Corporation
ATTN: Computer Warranty Dept.
801 West Madison Street
Waterloo, WI. 53594 USA

Trek UK
ATTN: Computer Warranty Dept.
15 Old Bridge Way
Bedfordshire, SG17 5HQ England

Please include the following:

1. The complete computer (wiring, etc.)
2. A copy of your sales receipt
3. A brief explanation of the problem
4. Your return address.

For 2 years from the date of purchase, a replacement computer of the same model will be sent to you postage paid by Trek Bicycle Corporation.