

AVOCET



CYCLOMETER 15



SPECIFICATIONS

Instrument displays either miles or kilometers.

Speed Functions

SPEED: To 75 mph
Maximum Speed (MX): To 75 mph (resettable)
Average Speed (AV): To 75 mph. Calculated only while the wheel is turning. Averages up to 10 hours (resettable)
Resolution of speed functions: 0-19.9 mph, to 0.1; 20-39.5 mph, to 0.5; 40-75 mph, to 1.0

Distance Functions

Total Distance (D): To 6,210 mi in 0.1 mi increments. Display rolls over at 6,210 miles
Trip Distance (d): To 621.00 mi in 0.01 mi increments

Time Functions

Ride Time (ST): To 9:59:59 (time used to compute average speed). At 10:00:00 rolls over and resumes timing

Setup functions

Miles/Kilometers: Stored data converted when setup is changed
Wheel Size Calibration: Calibration for wheels from 100 mm (4") circumference to 2,999 mm (118") circumference in 1 mm increments
Automatic Power Saver: Blanks screen to cut power consumption by 50% while retaining stored data
Dimensions: 1.75" X 1.75" x 0.3"
Weight: Unit, 0.5 oz
Display: Dual liquid crystal, upper numbers 0.3" high; lower numbers 0.2" high
Operational Temperature Range: 0°F to 150°F
Battery: 1.5 volt, 4 year life. Use Avocet Cyclometer 15 battery or 357 (Renata, Eveready, RayOVac, Phillips), SR44W (Maxell, National, Panasonic, Sony, Toshiba), D357H (Duracell).

BUTTONS



PRESSING THE RIGHT BUTTON

Displays Speed with the other main functions: Total Distance, Trip Distance, Average Speed, Ride Time, and Maximum Speed
 Selects miles or kilometers and changes the calibration number in setup



PRESSING THE LEFT BUTTON

Moves from one digit to the next in calibration



PRESSING BOTH BUTTONS

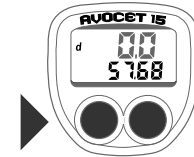
Resets Trip Distance, Average Speed, Ride Time, and Maximum Speed (all together) when any of these functions is displayed
 Shows the calibration number when total distance is displayed



HOLDING BOTH BUTTONS

Reaches wheel-size calibration. First press both buttons in the Total Distance function to display the calibration number. Then press both buttons again to reach calibration.

RESET / POWER SAVER



Trip Distance, Average Speed, Ride Time, and Maximum Speed reset together

RESET. To reset press both buttons when either Trip Distance, Average Speed, Ride Time, or Maximum Speed is displayed. All of these functions reset together. When Ride Time reaches 10 hours, Trip Distance, Average Speed, and Ride Time reset automatically. Reset before starting each ride to avoid automatic reset.

AUTOMATIC POWER SAVER. After no buttons have been pressed and no wheel movement has been detected for 6 minutes, the display will go blank. Power consumption is reduced by 50%. The normal display returns when a button is pressed or the bicycle is moved.

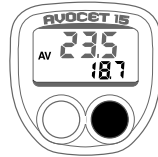
FUNCTIONS



1. TOTAL DISTANCE—D



2. TRIP DISTANCE—d



3. AVERAGE SPEED—AV



4—RIDE TIME—ST



5. MAXIMUM SPEED—MX

OPERATION. Press the right button to move from one function to the next.

SPEED (displayed in all functions). Speed resolution is to 0.1 mph up to 19.9 mph, 0.5 mph from 20 to 39.5 mph, and 1.0 mph above 40 mph. 'mi' flashes when the Cyclometer is receiving speed and distance data from the wheel sensor.

1. TOTAL DISTANCE—D. Accumulates the total distance (D) you have ridden up to 6,209.9 miles. At 6,210 miles it clears to 0 and resumes accumulation. To record yearly mileage, clear before your first ride of a new year.

2. TRIP DISTANCE—d. Displays the distance (d) ridden since the last reset up to 620.99 miles. At 621.00 miles it resets to 0 and resumes accumulation. Trip Distance also resets automatically when Ride Time reaches 10 hours. Reset at the start of each ride to avoid automatic reset during your ride.

3. AVERAGE SPEED—AV. Displays the average speed since the last reset. Averages speed for up to 10 hours. After 10 hours the Cyclometer 15 displays an 'E' instead of average speed. The time over which the average has been calculated is shown in the Ride Time function.

4. RIDE TIME—ST. Displays ride times up to 9 hours 59 minutes. Resets automatically at 10 hours. Trip Distance and Average Speed also reset at 10 hours. Ride time is the time that the bicycle's wheels have been turning. Time stopped is not accumulated. Average speed equals the trip distance divided by the ride time.

5. MAXIMUM SPEED—MX. Displays the max speed since the last reset up to 75.0 mph.

CALIBRATION



MILES OR KILOMETERS. When you install the battery, the Cyclometer displays "SEL" and "km" flashes. You can choose whether miles or kilometers will be displayed by pressing the right button. After you have made your selection, press the left button to go to wheel size calibration.



Change the blinking digit of the calibration number with the right button

If you want to switch between miles and kilometers after initial setup, you must remove the battery. When you do this, stored data is lost and the calibration number is reset to 2155.

CALIBRATION. "Cir" is on the top display and the right digit of the calibration number flashes on the lower display. Find the calibration number that matches your tire size from the table, or measure tire circumference by the precise calibration method. Adjust the flashing digit with the right button, then press the left button to go to the next digit. When all the digits are adjusted, press the left button to exit.

You can also change the calibration number without removing the battery. In the Total Distance function (D) press both buttons to display the calibration number. Then hold both buttons down for to enter calibration. Set the calibration number as described above.

CALIBRATION NUMBERS. The calibration number is wheel circumference in millimeters. This table is based on popular tire brands and assumes recommended inflation pressure and a rider weight of 165 lbs. (75 kg). To account for your unique combination of weight, tire pressure, and tire model, measure your tire circumference.

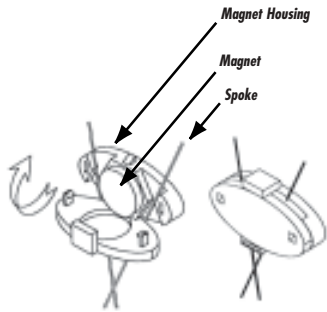
Tire Size	Number	Tire Size	Number	Tire Size	Number
20 x 1.75	1528 mm	26 x 1.95/2.0	2045 mm	700 x 28	2096 mm
24 x 1	1753	26 x 2.1	2056	700 x 32	2116
600 tubular	1759	26 x 1 3/8	2068	700 x 38	2159
650 tubular	1929	700C tubular	2083	27 x 7/8	2077
26 x 1	1913	700 x 20	2081	27 x 1	2105
26 x 1.25	1952	700 x 23	2087	27 x 1 1/8	2123
26 x 1.5	1986	700 x 25	2091	27 x 1 1/4	2142

Calibration number equals tire circumference in inches multiplied by 25.4, or in millimeters.

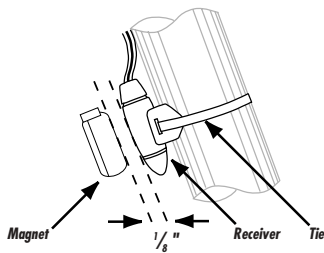
PRECISE CALIBRATION. For the most precise calibration of your Cyclometer, measure the tire's 'rolling circumference' by the following method: Inflate your tires to your usual riding pressure. Mark the ground under the valve stem when the stem is at its lowest point. Get on the bicycle and have a helper push you in your normal riding position until the valve stem returns to its lowest point. Take care that the tire travels in a straight line. Mark below the stem again, then measure the distance between the marks in inches or millimeters. If you measure in inches, multiply your measurement by 25.4 to convert to millimeters. The calibration number is the tire circumference in millimeters.

INSTALLATION

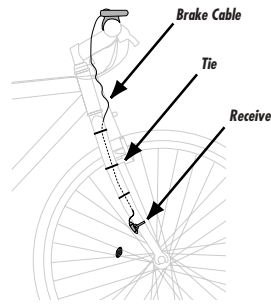
STEP 1 - TRANSMITTER. Position the magnet housing over a pair of crossed spokes with the spokes inside the slots. Insert the magnet in the well and close the housing pressing the parts together until they lock together over the spokes.



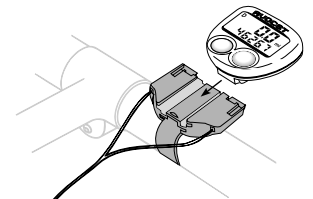
STEP 2 - RECEIVER. Position the receiver on the right fork blade opposite the magnet. Insert a zip tie through the slot and secure it loosely on the fork. Rotate the wheel until the transmitter is behind the receiver, then adjust the receiver on the fork so that it is opposite the magnet. Rotate the receiver until it is 1/8 to 3/16" from the transmitter magnet then tighten the tie and trim off its free end with scissors.



STEP 3 - RECEIVER WIRE. Attach the wire to the inside of the fork with cable ties, then wrap the wire around the front brake cable until the excess has been used up. Attach the wire only to parts that rotate when the bicycle is steered—the fork, handlebar stem, or the front brake cable. Do not attach the wire to the head tube.

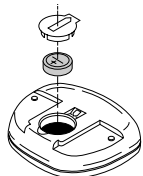


STEP 4 - MOUNT BRACKET. Wrap the rubber shim around the handlebar near the stem. Remove the clamp screw and place the bracket on the handlebar over the shim. If the shim is too long, trim it shorter with scissors. Insert the clamp screw and tighten it until the bracket is secure. Slide the Cyclometer into the bracket from front to rear until it snaps on. Spin the wheel and confirm that a speed reading is displayed. If the display remains at zero, check that the receiver and transmitter magnet are aligned and 1/8 to 3/16" apart.



BATTERY & TROUBLESHOOTING

INSTALLING A NEW BATTERY. Remove the battery by prying up the cap with a screwdriver. Install the new battery with its positive (+) side toward the cap, then press in the cap. Use only an Avocet Cyclometer 15 battery or equivalent (see specifications). After battery installation a blinking "km" appears on the display. Press the left button for "mi". Press the right button to calibrate. The default calibration number 2155 will appear. *Any number other than 2155 indicates improper reset, and the battery must be removed then reinstalled after waiting at least 10 minutes.*



TROUBLESHOOTING

Speed and distance seem too high or too low

- Check calibration number
- Confirm calibration number by tire rollout
- Check spacing between receiver and transmitter

No speed or distance

- Check transmitter/receiver alignment and spacing
- Check contacts on back of Cyclometer and on mount and clean with a pencil eraser if necessary
- Check for broken wire

No display or display dim

- Replace battery

Incorrect data or unusual display

- Remove battery, then reinstall after 15 seconds

AVOCET 1-YEAR LIMITED WARRANTY

This Avocet Cyclometer is warranted against defects in material and workmanship for one year after date of purchase, or two years after the manufacture date stamped on the PC board under the battery (YM), whichever comes first. Defective products will be repaired or replaced. The warranty will not cover the battery, normal wear, damage, or loss and is void if the Cyclometer is disassembled by anyone other than an authorized Avocet Service Center.

PROCESSING INFORMATION

Customer service and product information are available at www.avocet.com/service.html or by calling 650-470-0478. Warranty claims are to be sent to the Service Center by the owner, not by the retail store where the Cyclometer was purchased. Include a description of the problem. Only the original, dated cash register or charge card receipt will be accepted for proof of purchase date (no exceptions).

Send your Cyclometer freight prepaid to the Service Center at the address listed below. A traceable method of shipment is recommended in the event that your shipment to Avocet is lost in transit.

Avocet Service Center
170A University Ave.
Palo Alto, CA 94301

Customer service and product information are available at www.avocet.com or by calling 650-470-0478 ext 218



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