

AVOCET



CYCLOMETER 15
CYCLOMETER 25



MODELS



**AVOCET
CYCLOMETER 15**

Functions

- Speed
- Total Distance
- Trip Distance
- Average Speed
- Ride Time
- Maximum Speed



**AVOCET
CYCLOMETER 25**

Functions

- Speed
- Total Distance
- Trip Distance
- Average Speed
- Ride Time
- Maximum Speed
- Stopwatch
- Clock

BUTTONS



PRESSING THE RIGHT BUTTON

Displays Speed with the other main functions: Total Distance, Trip Distance, Average Speed, Ride Timer, Maximum Speed, and Stopwatch
Changes calibration number and clock time



HOLDING THE RIGHT BUTTON 2 SECONDS

Selects the Clock in any function (*Cyclometer 25 only*)



HOLDING THE LEFT BUTTON THEN PRESSING THE RIGHT BUTTON

Resets Trip Distance, Average Speed, Ride Time, and Maximum Speed (all together) when any of these functions is displayed
Clears Stopwatch when Stopwatch is displayed (*Cyclometer 25 only*)
Reaches Clock set when Clock is displayed (*Cyclometer 25 only*)



PRESSING THE LEFT BUTTON

Starts and stops the Stopwatch (*Cyclometer 25 only*)
Moves from one number to the next in calibration and clock set



HOLDING THE LEFT BUTTON

Reaches miles/kilometers select when Total Distance (D) is displayed (*Cyclometer 25 only*)
Reaches calibration when Trip Distance (d) is displayed

RESET



RESET by holding left button
then pressing right button



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

RESET. To reset hold down the left button then press the right button. Trip Distance, Average Speed, Ride Time, and Maximum Speed all reset together. You can reset from any of these four functions. When Ride Time reaches 10 hours, Trip Distance, Average Speed, and Ride Timer reset automatically. Reset before starting each ride to avoid automatic reset.

To clear the Stopwatch, hold down the left button and press the right button when the stopwatch is displayed. Clearing the stopwatch does not reset any other functions.

FUNCTIONS



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. See 'All Clear' on other side. Press the right button to go to trip distance.



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 the Ride Timer reaches 10 hours. Reset at the start of each ride to avoid automatic reset during your ride. Press the right button to go to Average Speed.



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. After 10 hours the Cyclometer 25 resets automatically, then resumes averaging. The time over which the average has been calculated is shown in the Ride Timer. Press the right button to go to Ride Time.



CLOCK

Cyclometer 25 only

You can reach the clock from any function by holding the right button down for 2 seconds. Press the right button to return to the last function displayed. The clock shows 24-hour time in hours and minutes. After the Cyclometer 25 has received no wheel pulses or button presses in 10 minutes, it goes to sleep and displays the clock only.

SCAN MODE

Cyclometer 15 only

To scan in the Cyclometer 15 and show each function for 5 seconds, hold the right button, then press the left button in any function except Total Distance. To exit the scan mode, again hold the right button and press the left button.



6. STOPWATCH-ST

Cyclometer 25 only

When the Stopwatch is displayed, 'ST' blinks. Press the left button to start and stop the Stopwatch (ST). Displays elapsed times in hundredths of a second to 9 minutes 59.99 seconds, then in hours, minutes and seconds to 9:59:59. At 10 hours it rolls over to 0 and continues timing. Clear by holding the left button then pressing the right button. The stopwatch can be started, stopped, and cleared without affecting the average speed of the entire ride.

Press the right button to go to Total Distance.



5. MAXIMUM SPEED-MX

Displays the maximum speed reached (MX) since the last reset up to 75.0 mph. Press the right button to go to the Total Distance (Cyclometer 15) or Stopwatch (Cyclometer 25).



4. RIDE TIME-ST

Displays ride times (ST) 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.

Press the right button to go to Maximum Speed.

CALIBRATION



MILES OR KILOMETERS. Go to the Total Distance (D) function. Hold down the left button for 12 seconds until the test pattern appears and all stored data is cleared. Four seconds after releasing 'mi' or 'km' flashes. Press the right button to switch between miles and kilometers, then complete calibration. With the Cyclometer 25 you can change between miles and kilometers without erasing stored data. Hold the left button in Total Distance (D) for six seconds and release when 'mi' or 'km' flashes. Switch between units with the right button. Stored maximum and average speeds and distance data are automatically converted to the units chosen when you use this method. Exit by pressing the left button.



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

CALIBRATION. Find the calibration number that matches your tire size from the table, or measure tire circumference by the precise calibration method. Reach calibration from the Trip Distance function (d). **Cyclometer 15:** hold the left button until the calibration number 2155 shows in the lower display and its right digit blinks (8 seconds). **Cyclometer 25:** hold the left button until the calibration number 2155 shows in the lower display (4 seconds), release, then hold again 4 seconds until the right digit of the calibration number blinks. Change the number with the right button. Press the left button to go to the next digit. After adjusting all the digits, press the left button to exit. To check the calibration number, hold the left button in Trip Distance. After 4 seconds the calibration will appear, and it will remain displayed for 4 seconds after you release the button.

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 wheel 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 in inches between the marks. Multiply your measurement by 25.4 to convert your measurement to millimeters and get your calibration number. Record numbers for your different bicycles and wheels below.

Bike/Wheel _____ Calibration #: _____
 Bike/Wheel _____ Calibration #: _____

CLOCK SET AND POWER SAVER



SETTING THE CLOCK. (Cyclometer 25). Hold down the right button in any function to display the clock. Hold down the left button then press the right button to reach clock adjust. The right digit will blink. Change it with the right button. Press the left button to go to the next digit. When you adjust the left digit, it will not change in the display. You will have to confirm that this digit is correct after you exit clock set. If it is incorrect, return to clock set, go to the left digit, and adjust it again with the right button. Note that you cannot set the clock when the Cyclometer 25 is asleep with only the clock displayed.



Cyclometer 25 power saver. Cyclometer 15 screen is blank.

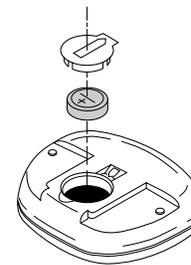
AUTOMATIC POWER SAVER. After no buttons have been pressed and no wheel movement has been detected for 10 minutes, the display will go blank (Cyclometer 15) or display only the clock (Cyclometer 25). Power consumption is reduced by 50%. The normal display returns when a button is pressed or the bicycle is moved.



ALL CLEAR. You can clear Total Distance manually by holding down the left button in the Total Distance (D) function until the test pattern appears (10 seconds). This erases all stored data and resets the calibration number to 2155 mm (Cyclometer 15). Calibration number is retained with all clear in Cyclometer 25.

BATTERY & TROUBLESHOOTING

INSTALLING A NEW BATTERY. To remove the battery, pry up the cap on the back of the Cyclometer with a screwdriver. Install the new battery with its positive (+) side toward the cap, then press in the cap with your thumb. Use only an Avocet Cyclometer 15/25 battery or equivalent (see specifications). Removing the battery erases all stored data and resets the calibration number to 2155. After installing a battery, the Cyclometer displays the test pattern briefly, then goes into miles/kilometers setup.



TROUBLESHOOTING

Speed and distance seem too high or too low
 Check calibration number
 Confirm calibration number by tire roll-out
 Check that receiver is parallel to nearest spoke
 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 Average Speed, Trip Distance, or Ride Time
 Hold right button then press left button in Total Distance (D) to reset Auto Start-Stop

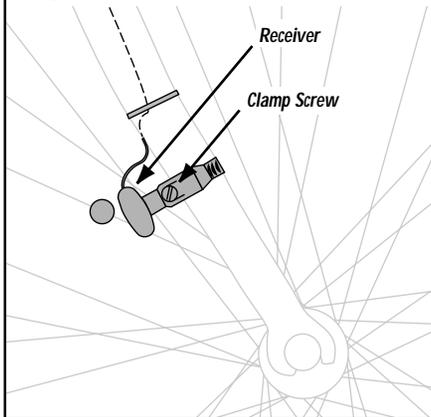
No display or display dim
 Replace battery

Incorrect data or unusual display
 Total reset—hold left button in Total Distance (D) function until test pattern appears

Incorrect display after a new battery is installed
 Remove battery, then reinstall after 15 seconds

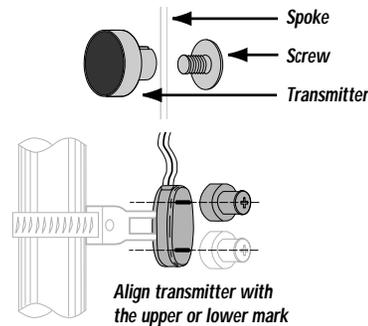
INSTALLATION

STEP 1 - RECEIVER. Cut the clamp screw off the receiver bracket with scissors. Position the receiver on the right fork blade about 3" above the hub. The receiver housing should be parallel to a spoke positioned behind it. Insert the screw and tighten it until the receiver stays in position on the fork.

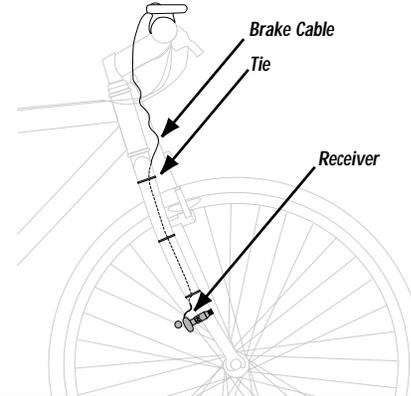


STEP 2 - TRANSMITTER. Remove the screw from the transmitter magnet and install it on one of the right-side spokes opposite the receiver. The magnet should line up over one of the marks on the receiver and not align between the marks.

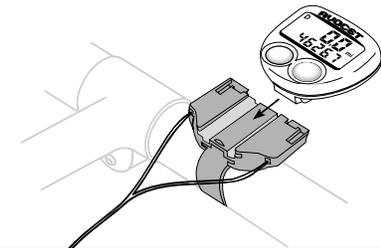
Rotate the receiver until it is $\frac{1}{8}$ to $\frac{3}{16}$ " from the transmitter magnet. Tighten the transmitter and receiver screws. Trim off excess receiver clamp strap with scissors.



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 $\frac{1}{8}$ to $\frac{3}{16}$ " apart.



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

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

Stopwatch (ST): To 9:59.99 in 0.01 second increments then to 9:59:59 in 1.0 second increments. At 10:00:00 rolls over and resumes timing. When stopped displays to 0.01 second

Clock: 24 hour format; to 1 minute

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: Displays clock only (Cyclometer 25) or blank screen (Cyclometer 15) 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: 1.35 volt, approximately 2 year life. Use Avocet Cyclometer 15/25 battery or Eveready AC 675E, Duracell DA675, Panasonic PZ675P, Varta V675A, or Ray-O-Vac 675A

AVOCET 1-YEAR LIMITED WARRANTY

Your Avocet Cyclometer is warranted against defects in material and workmanship for one year after manufacture. Defective products will be repaired or replaced. The warranty does not cover the battery, normal wear, damage, or loss, and is void if the unit is disassembled by anyone other than an Avocet Authorized Service Center. The US Authorized Service Center is:

Avocet Service Center
170A University Ave
Palo Alto, CA 94301
650-470-0478 ext 218



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