



2650-1267-00

# INSTALLATION INSTRUCTIONS

## 2<sup>5</sup>/<sub>8</sub>" ELECTRIC SPEEDOMETER



### QUESTIONS:

If after completely reading these instructions you have questions regarding the operation or installation of your instrument(s), please contact Auto Meter Technical Service at **815-899-0801**.

You may also email us at [service@autometer.com](mailto:service@autometer.com).

Additional information can also be found at [http://www.autometer.com/tech\\_faq.aspx](http://www.autometer.com/tech_faq.aspx)

## General Information

This electric speedometer utilizes a LCD to display odometer and trip odometer mileage. Momentarily pressing the Trip/Reset button on the dial window cycles the odometer, trip 1, and trip 2 displays on the LCD. Pressing and holding the Trip/Reset button for more than 2 seconds while in either trip mode, will reset the trip odometer currently being displayed. The odometer cannot be reset.

Auto Meter electric speedometers are pre-calibrated for 80,000 pulses per mile or 128,748 pulses per kilometer. If the speed sender issues a different number of pulses than the per-calibrated number, the speedometer must be recalibrated (See illustration section).

**NOTE:** The odometer on this speedometer will show some mileage less than 5 miles (8 km). This is a result of factory testing to insure optimum quality.

### Speedometer Senders

The speedometer is designed to operate with an electrical speed sender. The speed sender signal range must be between 500 and 400,000 pulses/mile (310 and 248,500 pulses/km). Any speed sender or electronic module that meets the following two conditions can be used:

1. Pulse rate generated is proportional to vehicle speed.
2. Output voltage within the ranges listed below:
  - Hall effect sender, 3-wire (5 to 16V)
  - Sine wave generator, 2-wire (1.4 VAC min.)
  - 5V Square wave (CMOS)

## Testing

Once the speedometer is mounted and wired into the vehicle, the speedometer should be tested to verify that the electrical connections are working properly. First, watch the speedometer's pointer as the power is applied. The pointer should first move to a midrange position, then down to the 0 position on the dial. This action verifies that power is properly connected to the speedometer. The vehicle should be driven some distance to verify the Vehicle Speed Sender (VSS) is connected properly and that the pointer moves. If the pointer does not move off of the zero position, verify that the VSS is connected properly. In some cases, calibration may be needed prior to the speedometer registering speed.

## Mounting

Auto Meter does not provide/offer custom mounting brackets with these speedometers. Refer to your favorite, local cycle dealer or mail order house for a size, shape, style that suits your specific needs. For custom brackets, 2<sup>-11</sup>/<sub>16</sub>" hole size is required.

**\*Always avoid solid mount brackets. Bracket should have some type of vibration dampener. *Solid mounting will void warranty.***

## Calibration (Electric Speedometer calibration made easy!)

To calibrate your electric speedometer:

1. With the power off, push and hold the Trip/Reset button. While holding the button, start the vehicle and continue to hold the button until the pointer sweeps to full scale and stays at full scale. You may now release the button.
2. Drive to the beginning of a pre-marked 2 mile (2 kilometer) distance and stop. It does not matter how far away it is to get to this pre-marked 2 mile (2 kilometer) mile distance. **DO NOT SHUT THE ENGINE OFF.** Push and release the Trip/Reset button. The pointer will drop to half scale.
3. Drive the 2 mile (2 kilometer) distance. The pointer will remain at the half scale position no matter what speed you drive. It will be normal to see the LCD odometer counting rapidly as it is receiving a speed signal. If you have to stop during the calibration, that is o.k. The speedometer will simply stop counting pulses during this time.
4. At the end of the 2 mile (2 kilometer) distance, stop the vehicle, press and release the Trip/Reset button. The pointer will drop to 0 and the calibration is stored. You are now finished.

Remember the accuracy of your 2 mile (2 kilometer) distance will directly affect the accuracy of your speedometer.

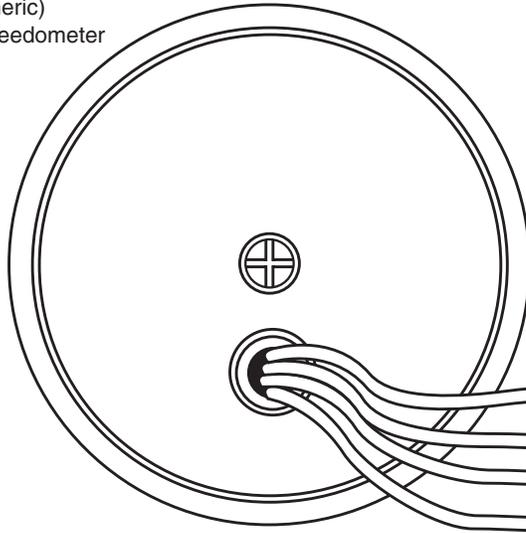
**The following list contains factors that can affect speedometer accuracy and how to minimize them during calibration.**

1. Tire diameter increases slightly as vehicle speed increases. To minimize this error drive at an average speed of 45 MPH (175 KPH) during calibration.
2. Tire diameter increases slightly as tire air pressure is increases. To minimize this error, check the vehicle's tires to ensure correct air pressure.
3. Tire diameter changes with vehicle load. Minimize this error by having an average load in the vehicle during calibration.
4. Minimize tire slippage error by not breaking traction during calibration.

**Note:** Always recalibrate speedometer after any tire size or gear ratio change.

# Wiring

(Generic)  
Back of speedometer



**WARNING**  
Incorrect hookup will damage the speedometer and void warranty. Please read the instructions carefully.

**NOTE:** Lighting will be on if power is supplied to the speedometer

Orange, Turn signal cancel module, (Harley-Davidson® applications only).

Red, +12 volt switched power source

Black, ground

Purple, signal wire (to sender)

**Note:** This speedometer is compatible with Harley-Davidson turn signal cancelling modules on bikes that are so equipped. In order to retain the function of your turn signal cancelling module, connect the Orange wire from your Auto Meter speedometer to the appropriate wire on your HD turn signal cancelling module. On most bikes this is a White wire with Green stripe (w/grn) that runs from the OEM speedometer to the turn signal canceling module. If your bike does not have this wire, we recommend that you contact your local dealer or manufacturer to obtain the correct wire color code.

## SERVICE

For service send your product to Auto Meter in a well packed shipping carton. Please include a note explaining what the problem is along with your phone number. Please specify when you need the product back. If you need it back immediately mark the outside of the box "RUSH REPAIR," and Auto Meter will service product within two days after receiving it. (\$10.00 charge will be added to the cost of "RUSH REPAIR.") If you are sending product back for Warranty adjustment, you must include a copy (or original) of your sales receipt from the place of purchase.

## 12 MONTH LIMITED WARRANTY

Auto Meter Products, Inc. warrants to the consumer that all Auto Meter High Performance products will be free from defects in material and workmanship for a period of twelve (12) months from date of the original purchase. Products that fail within this 12 month warranty period will be repaired or replaced at Auto Meter's option to the consumer, when it is determined by Auto Meter Products, Inc. that the product failed due to defects in material or workmanship. This warranty is limited to the repair or replacement of parts in the Auto Meter instruments. In no event shall this warranty exceed the original purchase price of the Auto Meter instruments nor shall Auto Meter Products, Inc. be responsible for special, incidental or consequential damages or costs incurred due to the failure of this product. Warranty claims to Auto Meter must be transportation prepaid and accompanied with dated proof of purchase. This warranty applies only to the original purchaser of product and is non-transferable. All implied warranties shall be limited in duration to the said 12 month warranty period. Breaking the instrument seal, improper use or installation, accident, water damage, abuse, unauthorized repairs or alterations voids this warranty. Auto Meter Products, Inc. disclaims any liability for consequential damages due to breach of any written or implied warranty on all products manufactured by Auto Meter.

FOR SERVICE CONTACT: AUTO METER PRODUCTS Inc. 413 W. Elm St., Sycamore, IL 60178 USA (815) 899-0801 or  
Email us at [procycle@autometer.com](mailto:procycle@autometer.com)