

## INSTALLATION INSTRUCTIONS 2 5/8" ELECTRIC SPEEDOMETER



Instr. No. 2650-1005

### General Information

This electric speedometer utilizes a LCD to display odometer and trip odometer mileage. Momentary pressing of the switch on the dial window toggles the odometer/trip odometer information displayed on the LCD. Pressing and holding the switch for more than three seconds while in trip odometer mode will reset the trip odometer. The odometer cannot be reset.

This Auto Meter Electric Speedometer is pre-calibrated for 50,500 pulses/mile. If the sender on the motorcycle does not issue 50,500 pulses/mile, the speedometer must be recalibrated (see calibration section)

**NOTE:** After installing and wiring the speedometer correctly it should operate **WITHOUT** having to be recalibrated. If the sender does not issue 50,500 pulses per mile, the mile per hour reading will be incorrect, but the speedometer should operate. If there is no operation at all before recalibration, there may be a problem with the wiring or the sender. Check all connections and make sure the speedometer and sender are installed correctly. Once the speedometer is operating, recalibration can then be performed if necessary.

**NOTE:** With power off, the speedometer pointer may not always rest at zero. This is normal. When power is applied, the pointer will move counter-clockwise past "0" and then back up to "0".

**NOTE:** The odometer on this speedometer may read from 1 to 5 miles. This is done during factory testing to insure maximum quality.

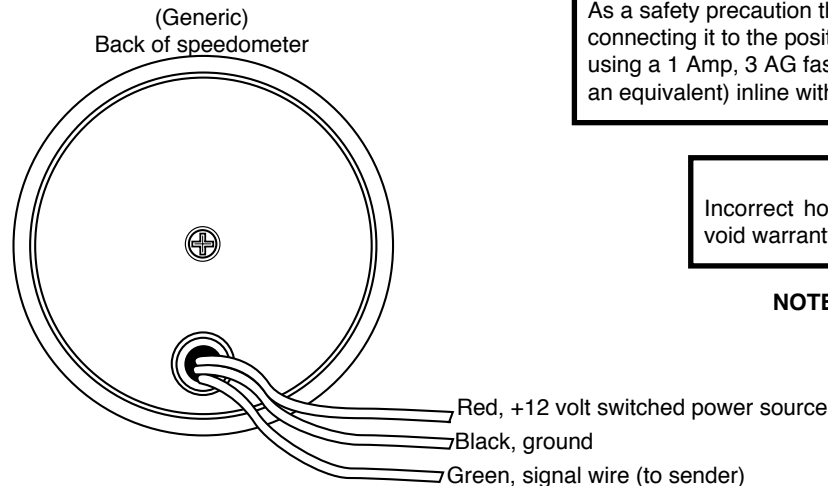
**Suggestion:** Auto Meter does not provide/offer custom mounting brackets with these speedometers. Refer to your favorite, local cycle dealer or mail order house for a size, shape, style that suits your specific needs.

### Speedometer Senders

The speedometer is designed to operate with an electrical speed sender. The speed senders signal pulse range must be between 500 and 130,000 pulses/mile. Any speed sender or electric module that meets the following two conditions can be used:

- Pulse range generated proportional to vehicle speed
- Output within the voltage ranges listed below:
  - 3.5 to 75V peak (Square Wave), 3 wire
  - 7.0 to 120V peak to peak (Sine Wave), 2 wire
- Stated another way, speedometer input "triggers" at +3V and each pulse must pass through that level.

### Wiring



#### CAUTION

As a safety precaution the RED wire of this product should be fused before connecting it to the positive (+) side of the 12V DC battery. We recommend using a 1 Amp, 3 AG fast-acting type cartridge fuse (Littlefuse® # 312 001 or an equivalent) inline with the RED wire of our product.

#### 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

### Operation

On power-up, the pointer will move counter-clockwise past "0" and then back up "0" (assuming the vehicle is not yet moving).

For the first three seconds, the approximate Pulses Per Mile amount will be shown on the display. For the next three seconds, the accumulated hours will be shown. The display will then go into the normal operation mode and show either the accumulative Odometer count or the Trip Odometer count (depending upon which was being displayed for at least six minutes continuously before power-off).

Pushing the front switch briefly will toggle the display from Odometer/Trip Odometer, or visa-versa (but, pushing the switch more often than once per second will not toggle the display). The Trip Odometer includes tenths of a mile, whereas the Odometer does not. The Trip Odometer may therefore be identified by the presence of a decimal point next to the 10<sup>th</sup>s digit.

To clear the Trip Odometer, push and hold the switch for at least three seconds (regardless of which mode the display is currently in) until you see the Trip Odometer reset to zero.

If the odometer is configured to count Kilometers (on the LCD display), a dot to the upper right of the far left digit will be seen. If the Odometer is configured to count miles, the dot will not be present.

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# User Calibration

Two steps must be followed to calibrate your speedo;

- 1) Configure the odometer to count in either miles or kilometers. **This step must be done before proceeding with step 2** (unless it's already in the desired configuration). With the power on, a dot on the display to the upper right of the far-left digit indicates a kilometer configuration. The absence of the dot indicates a miles configuration. If it's already in the proper configuration, skip down to step 2.

## ODOMETER CONFIGURATION

**(to change the Odometer/Trip Odometer to either kilometers or miles)**

Put the speedometer into the User Calibration mode by turning on the vehicle power while pushing and holding the function switch on the front of the speedometer. After a couple seconds of holding the switch, the display will show “\_ \_ \_ .”, **BUT DON'T LET GO YET**. Hold the switch for an additional seven seconds until the display changes to one of the normal operation modes (Odo or Trip). The display should now indicate the opposite configuration; if it was miles before, it should now indicate kilometers, and visa-versa.

- 2) Calibrate the speedometer (which will make accurate pointer and odometer readings possible for any vehicle/wheel/transmission combination).

## CALIBRATION

- A) Drive the vehicle to the starting point of a known 2-miles distance (or 2 kilometers in the kilometer mode).
- B) Put the speedometer into the User Calibration mode by turning off the vehicle power for a few seconds, and then turning it back on while pushing and holding the switch on the front of the speedometer. After a couple seconds of holding the switch, the display will show “\_ \_ \_ .”. Now let go of the switch.
- C) Start the vehicle. The speedo display should still show “\_ \_ \_ .”.
- C) Push the switch again momentarily. It should now show “0 \_ \_ 0”.
- D) Drive the 2 miles (or kilometers), keeping your speed to under 35 mph (the speed is not critical to the accuracy of the calibration, unless you're going fast enough to distort the tires). The speedometer is now counting the number of pulses your sender “puts out” in the calibration distance (not how fast you are going).
- E) At the end of the 2 miles (or 2 kilometers), stop, but don't turn off the power yet. Push the switch one more time and the speedometer will calibrate itself and display the number of pulses that were counted during the drive. To get rid of the pulse count number, simply push the switch one more time.

If the display didn't show a pulse-count number, but instead an “Err” was displayed, you have an error. This means that either your sender didn't put out enough pulses in two miles (or kilometers), or it put out too many (not very likely with most vehicles). If you get this error message, retry the calibration procedure. If it fails again, check your sender and wiring. If you get no error message, but get a pulse count number on the display, the calibration was successful and the speedometer will go into the normal operation mode after pressing the switch one more time.