



# INSTALLATION INSTRUCTIONS ELECTRIC SPEEDOMETER



## 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 two 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. When converting from a cable driven speedometer further calibration may not be needed if:

1. The transmission's speedometer cable take off is 1000 RPM at 60 MPH (97 km). Most vehicles meet this requirement.
2. The vehicle is equipped with a 16-pulse/revolution sender.
3. The speedometer that includes a 2-wire sender is pre-calibrated to 8 pulses/revolution to match this sender.

If the above conditions have not been met, the speedometer must be recalibrated (**see calibration section**). Also, if the vehicle's tire size and/or differential ratio has changed, the speedometer needs to be recalibrated.

**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)

Recommended – Auto Meter Hall effect sender, 3-wire 16 pulses/revolution.

5291	Standard 7/8 – 18 thread
5292	Ford, plug in

## Mounting

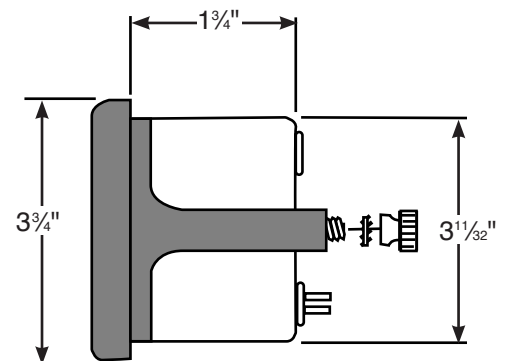
1. Mount speedometer in a  $3\frac{3}{8}$ " dia. hole. Be careful not to cut the hole too large.
2. Cut a  $\frac{3}{8}$ " dia. hole in the firewall for the speedometer wires. Place a rubber grommet in the hole and route the wires through the grommet to the engine compartment.
3. Connect the speedometer wires as shown in the wiring sections.
4. Secure the speedometer to the dashboard using the provided bracket and hardware.

### WARNING

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

### CAUTION!

As a safety precaution, the power wire to this product should be fused before connecting it to the 12 VDC power source. We recommend using a 3 Amp automotive fuse inline with the power wire to our product.



## 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 if the pointer does not register speed. Follow the calibration procedure and retest.

# Calibration

## To calibrate your electronic speedometer:

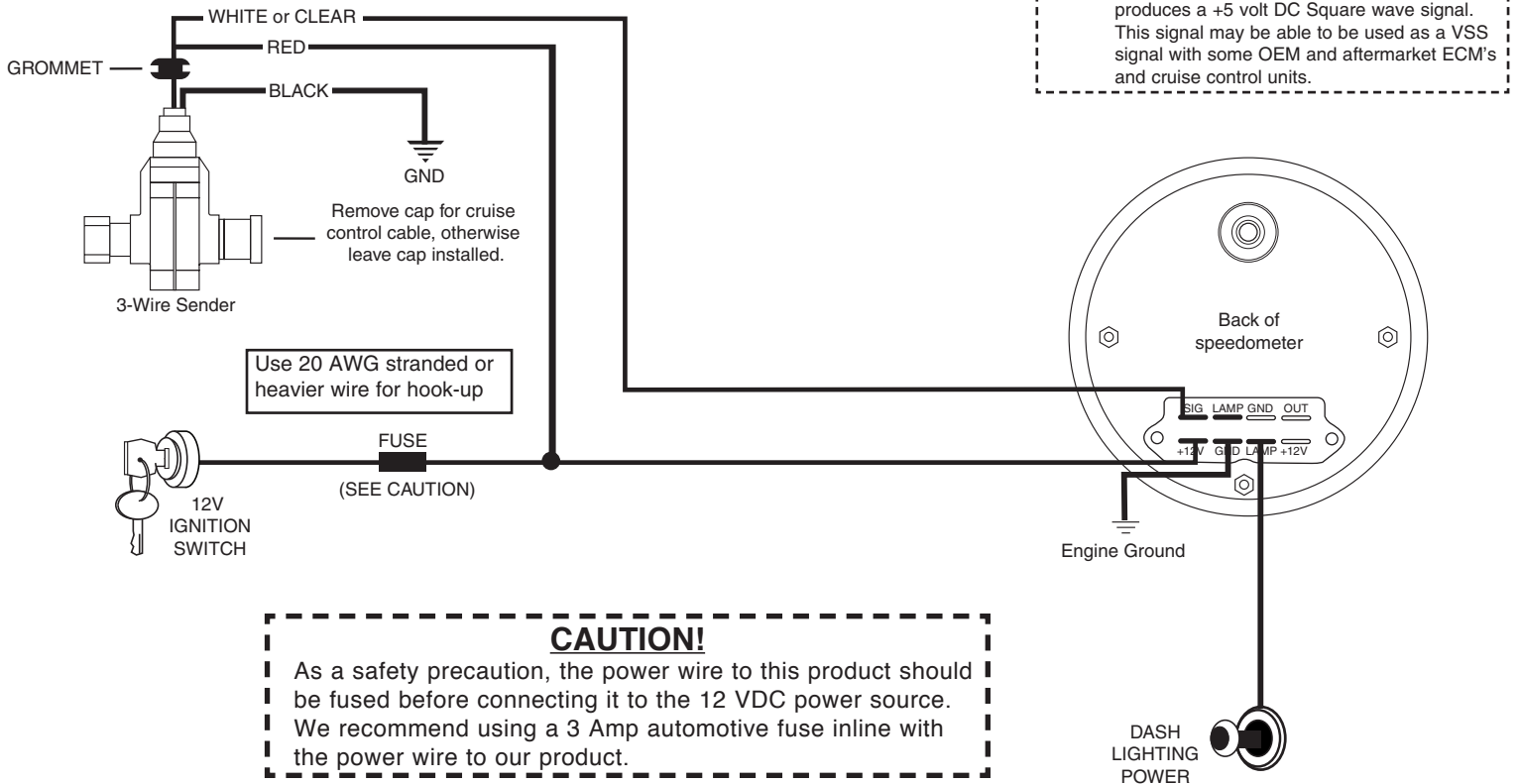
- 1) With the power off, push and hold the calibration button (trip/reset button when equipped). While holding the button, start the vehicle and continue to hold the button until the pointer sweeps to full scale and stays at full scale. You may now release the button.
- 2) Drive to the beginning of a pre-marked 2 mile distance and come to a stop. It does not matter how far away it is to get to this pre-marked 2 mile distance. Do NOT shut the engine off. Push and release the button. The pointer will drop to half scale.

- 3) Drive the 2 mile distance. The pointer will remain at the half scale mark no matter what speed you drive. If the speedometer has a LCD display odometer, it will be normal to see it counting rapidly as it is receiving a speed signal. If you have to stop during the calibration, that is o.k. The speedometer is simply counting pulses during this time.
- 4) At the end of the 2 mile distance, come to a complete stop and push and release the button. The pointer will drop to 0 and the calibration is stored.

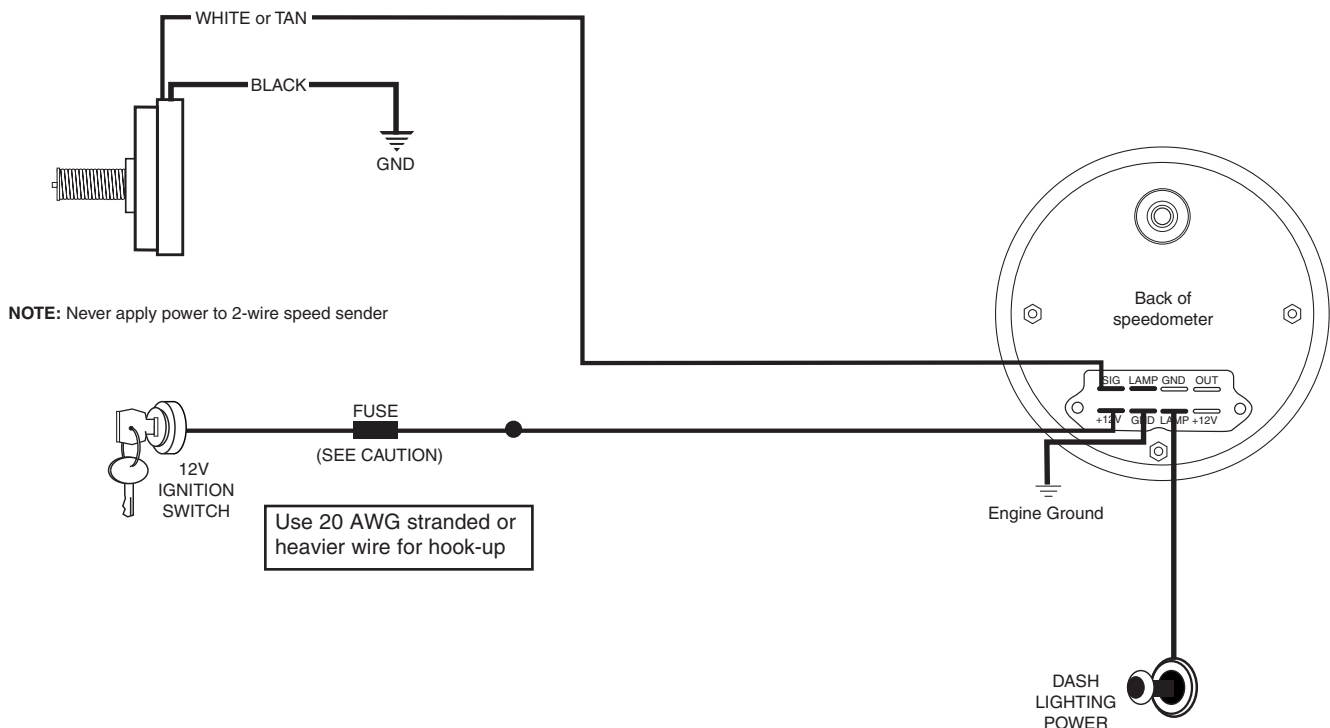
### You are now finished with calibration.

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

## Wiring w/ typical aftermarket 3-wire sender

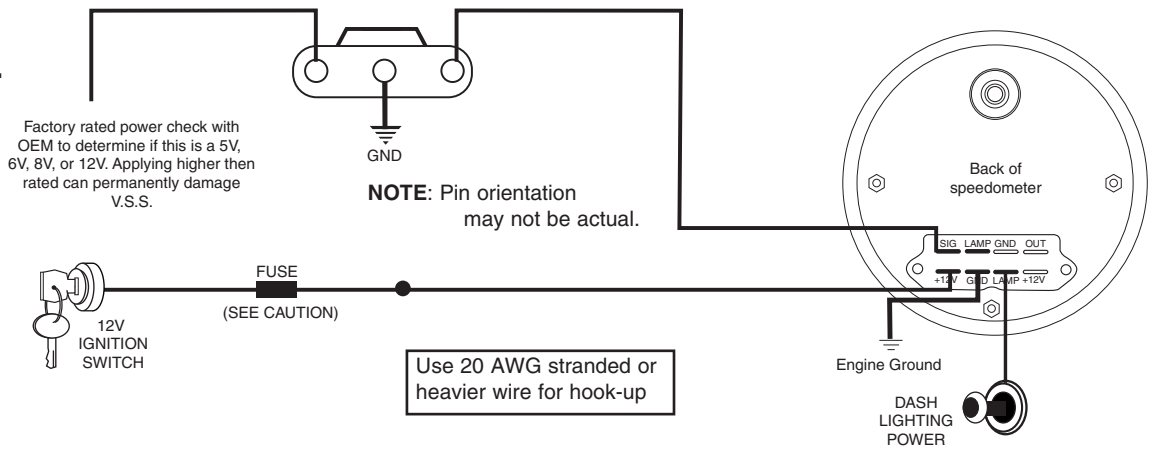


## Wiring w/ typical aftermarket 2-wire sender (and no computer)



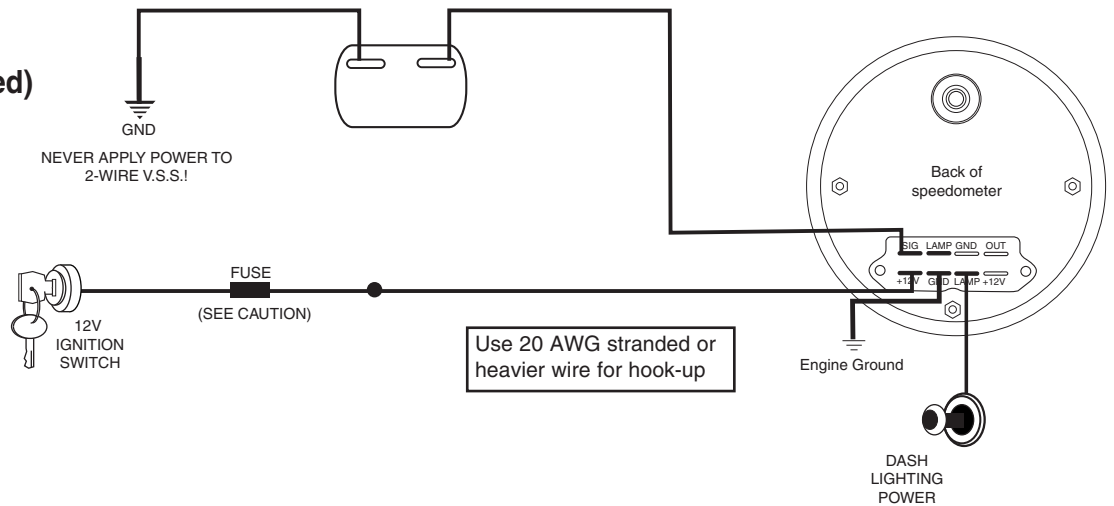
# Wiring

w/ most OEM 3-wire V.S.S.  
(Vehicle Speed Sensor)



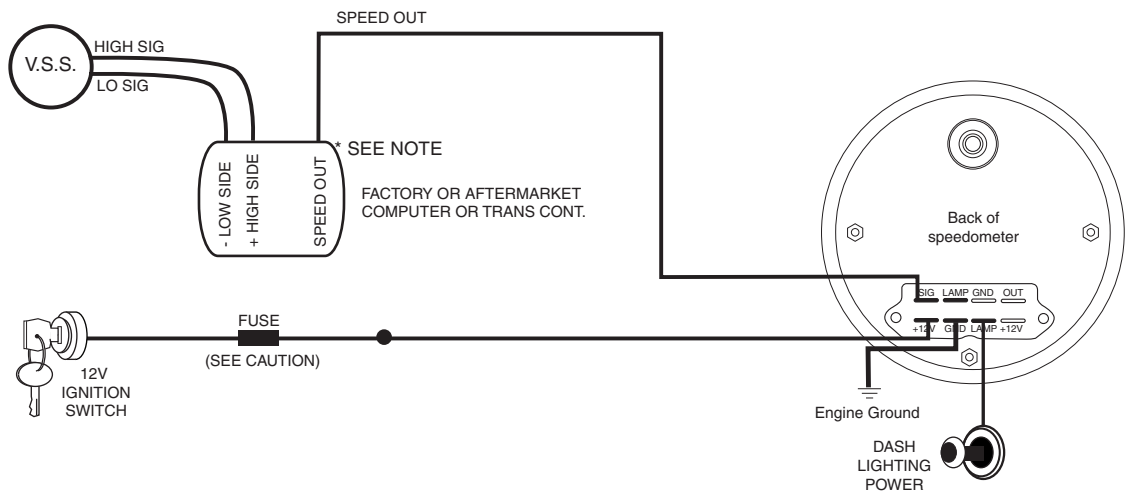
# Wiring

w/ most OEM 2-wire V.S.S.  
(When no computer involved)



# Wiring

w/ most OEM 2-wire V.S.S.  
when using computer or  
trans controller



# Light Replacement

Remove the plastic cap on the back of the speedometer. Using needle nose pliers, rotate the twist-lock lamp socket counterclockwise to remove. Replace old bulb with GE 168 bulb.