



2650-1339-00 Rev. A

# INSTALLATION INSTRUCTIONS

## Pit Road Speed Gauge and Tube



### 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 **866-248-6357**

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)

## INTRODUCTION

Thank you for your purchase of the Pit Road Speed device (PRS) from Auto Meter Products, Inc. The following basic features are included on this product:

- Single precise user-configurable set point
- Quick-reacting, intensely-bright LED light
- Four configurable speed bands
- Quick capture via remote push button
- Progressive color change for speed bands
- User selectable dimming function
- Set point is based on engine RPM

Please read and follow the instructions below regarding the installation and operation of your PRS to receive maximum benefit and accuracy from this product. **Failure to follow the information below will void the product warranty and may result in damage to your vehicle, this product, and/or personal injury.**

**NOTE:** This product features INTENSELY-BRIGHT LEDS! This feature is intended for maximum driver visibility during daytime operation and high glare situations. Usage of this product at full brightness during nighttime or extremely dark settings may adversely affect driver's vision. Auto Meter strongly recommends that you familiarize yourself with the dimming function of this product and that you do not operate the product at full brightness during dim or dark lighting conditions.

## INSTALLATION

1. Disconnect the negative (-) battery cable.
2. Gauge can be mounted in a 2 1/16" dia. hole with the bracket supplied. Gauge can also be mounted in an Auto Meter Mounting Cup, Panel, or Auto Meter Gauge Works Pod.
3. Tube version can be mounted on the dash or strapped to the steering column.
4. Wire the PRS as indicated. See schematic on following page for more info:

- Red Wire:** Connect to a fused and switched 12V positive source that is turned on and off with the ignition switch.  
**Black Wire:** Connect to a good engine, chassis, or battery ground.  
**Green Wire:** Connect to the negative terminal of a standard ignition coil, or to the "Tach Output" terminal on the Electronic Ignition Module. (See diagram)  
**Blue Wire:** (Optional) Connect to a Remote Capture Switch "Normally Open" contact (normally open, momentary closed).

## QUICK SET OPTIONS:

**Day/Night Dimming control:** This product is extremely bright at the maximum setting for best visibility for drivers during high glare situations. Auto Meter does not recommend operating this product at full brightness during extremely dark or night time driving conditions. To adjust this product from the daytime or "High" brightness setting to the nighttime or "Low" brightness setting do the following:

- Press the MODE (+) button. The light will illuminate at the new brightness level.

**RPM SET POINT QUICK SET** - To change your PRS Set Point Setting quickly, use one of the following methods:

1. **ENTER** Button method:

When the car is in the desired gear and moving at the desired speed, press the **ENTER** button. You will see the Shift Light turn on Green, indicating the new setting was captured.

2. Remote Capture Switch method:

This method requires the Blue wire be attached to a "Normally Open" switch (normally open, momentary closed) mounted in a convenient location. When the car is in the desired gear and moving at the desired speed, press and release switch button. You will see the Shift Light turn on Green, indicating the new setting was captured. (Note: The RPM is captured the moment the switch is released)

# SETUP and OPERATION MODES

A.) **RPM BANDS** – The PRS will become active when the RPM input signal is within the range of four, user configurable, RPM bands. These bands are named **LO**, **GO**, **HI** and **TOO HI**. The width of each band is user configurable, and can be set at any RPM value greater than 10 RPM. The values are factory preset to the following:

VALUE (RPM)	
TOO HI Band Width	1000
HI Band Width	100
GO Band Width	200
LO Band Width	200

The indicator light will become active when the input RPM falls within the current user configured RPM bands. All bands are relative to the current **Set Point** value (see Quick Set Options). The set point will be centered in the **GO** band. The Indicator light will be active as follows:

Band Name	Color	RPM Value	
		Lower Limit	Upper Limit
TOO HI	Flashing Red	HI Upper Limit	(HI UpperLimit) + (TOO HI Band Width)
HI	Red	GO Upper Limit	(GO UpperLimit) + (HI Band Width)
GO	Green	SP - 1/2 (GO Band Width)	SP + 1/2 (GO Band Width)
LO	Yellow	GO (Lower Limit) - (LO Band Width)	GO Lower Limit

For example, using the factory defaults, and a **Set Point** of 3500 RPM, the Indicator light will work as follows:

SET POINT and BAND WIDTHS	Engine RPM	PRS Displays	RPM Band Name	Tells Driver
	Above 4700	Off		
+1000 RPM (+1200 from SP)	3701 to 4700	Flashing Red	TOO HI	Slow Down
+100 RPM (+200 from SP)	3601 to 3700	Red	HI	Slow Down
+100 RPM	3500 to 3600	Green	GO	Correct Speed
PRS Set Point (SP)	3500	Green	GO	Correct Speed
-100 RPM	3401 to 3500	Green	GO	Correct Speed
-200 RPM (-300 from SP)	3200 to 3400	Yellow	LO	Speed Up
	Below 3200	Off		

A tach calibrator is required to accurately set the RPM **bands**. To Edit the RPM Bands:

1. Press and hold the **EXIT** button. The shift light will begin **Flashing Yellow**.
2. Set the RPM signal to the value that represents the bottom of the **LO** band (i.e. 2800 rpm).
3. Press and release the **ENTER** button to capture this value. The shift light will now be a steady **Yellow**.
4. Set the RPM signal to a value that represents the bottom of the **GO** band (i.e. 3000 rpm).
5. Press and release the **ENTER** button to capture this value. The shift light will now be a steady **Green**.
6. Set the RPM signal to a value that represents the bottom of the **HI** band (i.e. 3200 rpm).
7. Press and release the **ENTER** button to capture this value. The shift light will now be a steady **RED**.
8. Set the RPM signal to a value that represents the bottom of the **TOO HI** band (i.e. 3300 rpm).
9. Press and release the **ENTER** button to capture this value. The shift light will now be a **Flashing RED**.
10. Set the RPM signal to a value that represents the top of the **TOO HI** band (i.e. 4300 rpm).
11. Press and release the **ENTER** button to capture this value. The shift light will now be Off.

The Pit Road Speed Light will calculate the RPM Band widths from the captured values, store them in the EEPROM, and return to normal operation.

**Note:** A RPM value entered must be greater than the previously entered value. If the RPM value is lower than a previously entered value, nothing will be entered, and the current state of the shift light will be maintained.

- B.) LIGHT LEVEL SET** – To adjust the high and low brightness settings of your Pit Road Speed Device:
1. Press and hold the **MODE** (+). The Shift Light will turn on **White** at the current High brightness level.
  2. Use the Menu (+) button to increase the High brightness setting.
  3. Use the **EXIT** (-) button to decrease the High brightness setting.
  4. Press the **ENTER** button. The Shift light will now turn on at the **LO** brightness level.
  5. Use the Menu (+) button to increase the **LO** brightness setting.
  6. Use the **EXIT** (-) button to decrease the **LO** brightness setting.

**C.) PULSE PER REVOLUTION SET (CYL. CALIBRATION)** - Use this feature to calibrate your Pit Road Speed Light to your engine and ignition type. Pulse per revolution settings refer to the number of pulses or “plug firings” provided by the ignition to the device per engine crank revolution. For example a single coil ignition on a 4-cylinder engine will typically fire two cylinders per crank revolution. If your ignition matched this type, you would need to set your **PPR** value to “2” (See below).

To set the Pulse Per Revolution:

7. Press and Hold the **ENTER** button. The shift light will begin flashing in **Blue**. The number of short flashes will represent the current **PPR** setting. Two flashes for 2 **PPR**, three flashes for 3 **PPR**, and four flashes for 4 **PPR**.
8. Use the Menu (+) button to increase the **PPR** setting.
9. Use the **EXIT** (-) button to decrease the **PPR** setting.
10. Use the **ENTER** button to capture the current **PPR** setting and return to normal operation.

Below is a list of common ignition pulse settings. If you need further assistance calibrating this unit for your application please visit our Tech Tips and FAQ section on our website ([http://www.autometer.com/tech\\_faq.aspx](http://www.autometer.com/tech_faq.aspx)) or contact Auto Meter tech support personnel via the information included with the warranty information shown later on this sheet.

**The available ignition pulse settings are 2, 3 & 4.**

ENGINE	Most 4 cyl.	Most 6 cyl.	Most 8 cyl.
PPR	2	3	4

#### 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 this product will be free from defects in material and workmanship for a period of twelve (12) months from date of the original purchase. Products that fall 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 SEND TO: AUTO METER PRODUCTS, INC. 413 W. Elm St., Sycamore, IL 60178 (866) 248-6357**

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