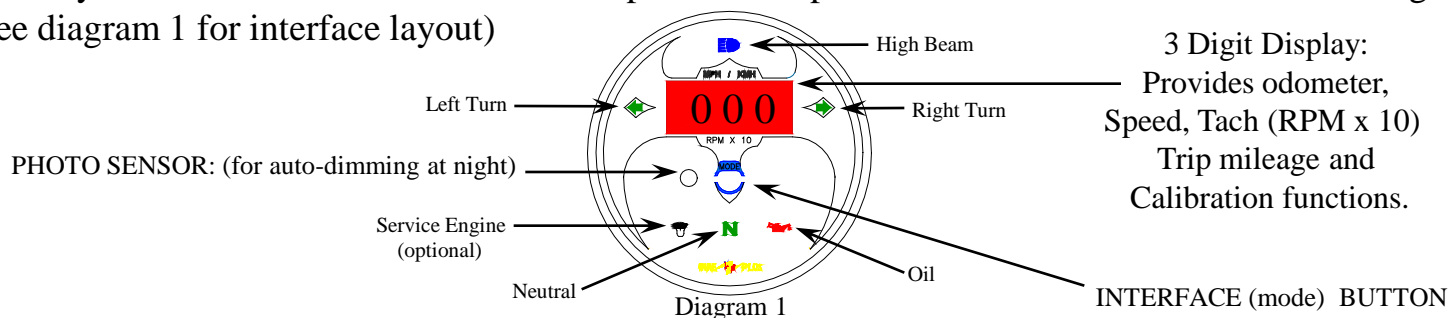


Installation instructions for Wire Plus Round Digital Speedometers

You have purchased the most advanced digital instrument available. Your new instrument requires a digital output from your transmission sensor (or like device) and also a **digital output (tach wire) from your electronic ignition module. This device will not run straight off of the coil. (even with an adapter) If you are installing this device on a stock bike with a tach wire be sure that the wire provided does not run to the negative side of the coil! Check for wire color and continuity at both locations (tach and coil) to determine if the tach wire is connected to the coil. Improper connection of this wire will burn out the tach input and void your warranty!**

System Functions and Operation

Your digital speedometer has an interface (mode) button that is used for changing the display from reading Speed to reading RPM x 10 (Tach), accessing the Trip meter, Odometer and the calibration of the speedometer. This mode button is located just below the red window where the speed is displayed on the front of your instrument. This is a membrane type switch and will not give any indication that the button has been pushed except that the instrument function will change. (see diagram 1 for interface layout)



3 Digit Display:
Provides odometer,
Speed, Tach (RPM x 10)
Trip mileage and
Calibration functions.

MODE BUTTON AND INSTRUMENT OPERATIONS:

The mode button will allow you to access the menu functions of your instrument. By pressing this button you can change the display to read speed, tach, trip, odometer, calibration factor and operating system version.

This menu is accessed by rapidly pressing the mode button to the desired function. After displaying the selected function the display will return to the previously selected readout. (either speed or tach)

SPEEDOMETER FUNCTION :

When the ignition switch is turned to the on position the display will read 888 followed by the current odometer (miles) and then be ready to display speed when the bike starts moving. (the instrument will display speed before and during the calibration process)

PHOTO SENSOR OPERATION:

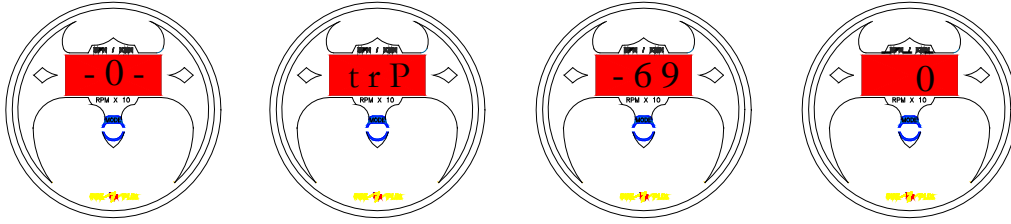
Your new speedometer is equipped with a photo sensor that allows the unit to dim the brightness of the display in lower than normal daylight conditions. It will take about 30 seconds for the display to change to brighter or darker. This time delay will keep the unit from changing rapidly when riding through low light areas.

TO CHANGE YOUR DISPLAY FROM SPEEDOMETER TO TACHOMETER :

Pressing the button once after the initial power-up will display a "t" and the instrument will display RPM x 10. (tach mode) Pressing the button again while in tach mode will display an "S" and the display will change to speed. The display will remain in the last mode selected until the button is pushed to change the mode again.

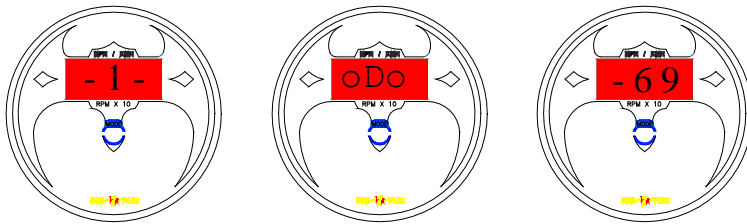
TO ACCESS TRIP :

Press the mode button 1 time and the instrument will display your trip mileage. (-0- if you have not activated this function previously) Holding the button down for 5 seconds while the trip mileage is displayed will set or reset the trip mileage back to zero.



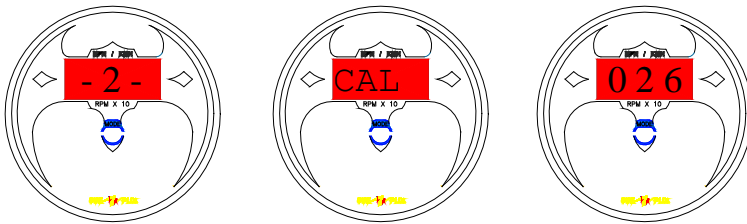
TO ACCESS ODOMETER READING :

Rapidly press the mode button 2 times and the instrument will display your current odometer reading. The mileage will not be affected (erased) by interruptions of battery power.



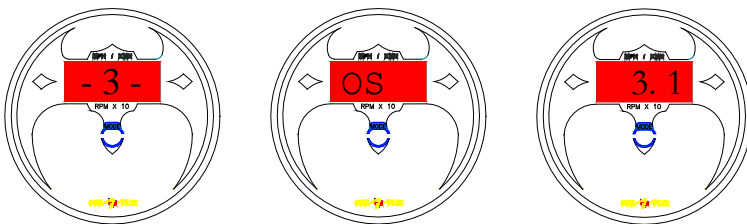
TO ACCESS CALIBRATION FACTORS :

Rapidly press the mode button 3 times and the instrument will display your current calibration factor. This will be helpful for troubleshooting speed sensing problems if they arise.



TO ACCESS THE OPERATING SYSTEM VERSION :

Rapidly press the mode button 4 times and the instrument will display your operating system version. This will be helpful for troubleshooting system problems if they arise.



Calibration Procedures

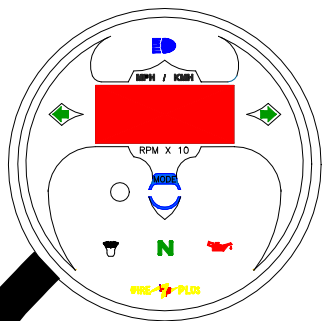
TO CALIBRATE THE SPEEDOMETER:

Calibration of the speedometer is a simple process of using a pre-determined (mile or km) section of road and input this distance into the instrument. *If the instrument does not read speed on the display it cannot be calibrated! You must have a signal from a sensor before calibration!*

This will be accomplished by:

- With the ignition switch in the off position, press and hold down on the interface button and turn the ignition switch to the on position. (it may be necessary to start the motor while holding this button down due to voltage drops)
- This will put the speedometer into CAL mode indicated by the letters CAL displayed on the screen followed by flashing underscores at the bottom of the display. The bike can now be ridden to the start of the pre-determined mile section for the next step of the procedure. The speedometer will read mph/kph based on default calibration values but will be waiting for the start of the calibration process. (by pressing the button)
- Continue riding the bike when you arrive at the start of the (mile or km) press the calibration button to start the count of pulses from the speed sensor. After pressing the button the display will flash over-scores while waiting for the distance to be completed. (the display will read speed during this process also)
- At the end of the pre-determined mile press the interface button to stop the calibration process. The display will scroll the letters CAL and a number will scroll across screen representing 1/2 the calibrated pulses per mile or km. (20,000 to 40,000)

It is not necessary to stop the bike during the calibration process. Just keep the bike rolling and press the button at the start of the mile or km and press it again at the end.



Do not touch the Gray Speedo or Yellow tach wire to any other wire than the signal wire that powers it! Doing so will burn your input and void your warranty.

Speedometer
sensor wiring

- Red = Orange (12V ACC. Power)
- Green or White = Gray (Speedometer input)
- Black = Chassis ground

WP harness colors

- GRAY = SPEEDO INPUT
- ORANGE = 12 V ACC. POWER
- VIOLET = LEFT TURN IN
- BROWN = RIGHT TURN IN
- RED = OIL PRESSURE IN
- WHITE = HIGH BEAM IN
- GREEN = NEUTRAL
- BLACK = GROUND
- YELLOW = TACH: WIRE FROM IGN MODULE
- BLUE = *SERVICE ENGINE LIGHT

- W or GN (spd. Snsr)
- Orange
- Violet/White
- Brown/ White
- Pink
- White
- White/Orange
- N/A

Do not connect the yellow (tach) wire to the negative side of the coil or any existing wire in your harness that may be connected to the coil!

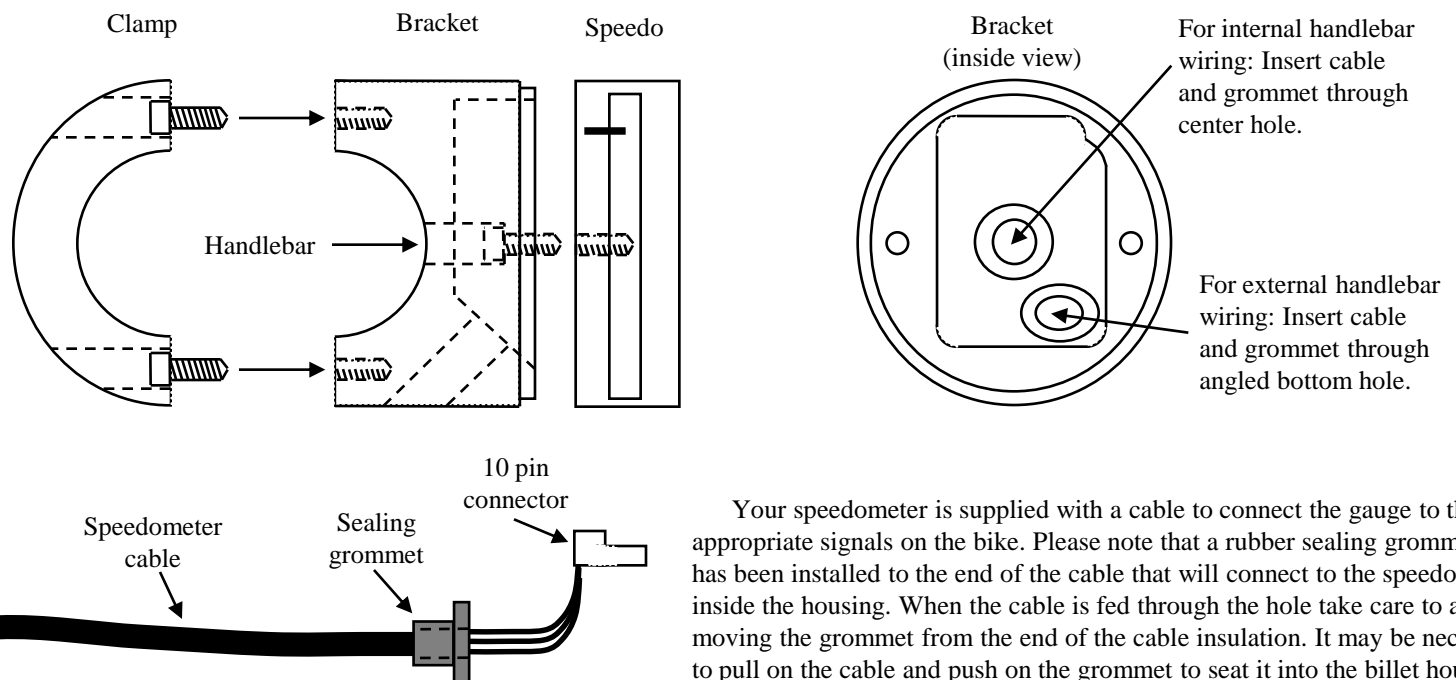
Doing so will burn your input and void your warranty.

Mounting Instructions for Wire Plus Digital Speedometers: T-Bar and Riser mount applications

You have purchased the most advanced digital instrument available. Your new instrument features an integral mounting bracket to fit your application. The T-bar style is designed for most 1.25" handlebars with a crossbar (drag style handlebars). The Riser mount is designed for most 1" handlebars mounted with separate bolt on riser caps. (will not work with solid 1 piece top clamp)

Your new speedometer is designed to clamp onto the handlebars with the supplied mounting hardware. The bracket should be positioned so that the angled wire exit hole is facing down towards the top triple tree clamp. This bracket is designed to allow the installer to route the cable through the handlebars (by drilling a hole in the bars) or directly out the angled bottom hole to the slot in the top triple tree clamp. Please refer to the diagrams below for wiring options.

PRODUCT OVERVIEW

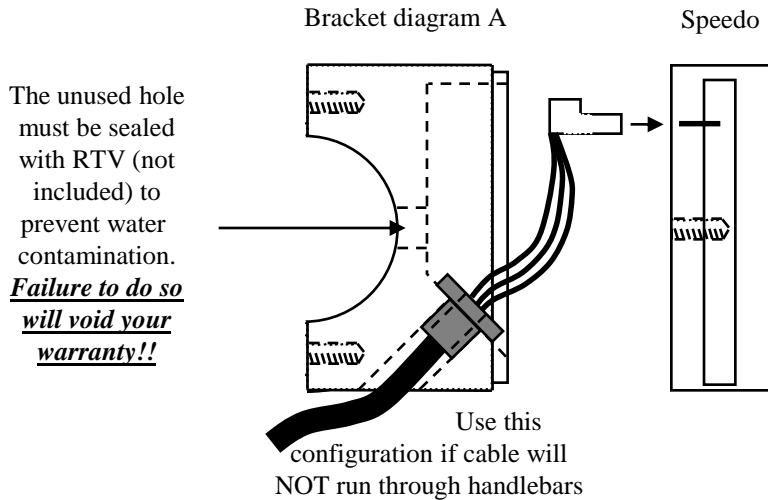


Your speedometer is supplied with a cable to connect the gauge to the appropriate signals on the bike. Please note that a rubber sealing grommet has been installed to the end of the cable that will connect to the speedometer inside the housing. When the cable is fed through the hole take care to avoid moving the grommet from the end of the cable insulation. It may be necessary to pull on the cable and push on the grommet to seat it into the billet housing.

On the back of your speedometer you will find 2 rows of metal pins sticking out from the epoxy. Locate the row with 10 pins and reference the end as the top of the speedometer. The 10-pin (red) connector attached to the speedometer cable will plug into this row of pins. Make sure that each pin of the speedometer is inserted into the correct hole of the red connector, as it will still plug onto the pins even if it is one hole offset. Looking at the back of the red cable connector (with the notch on top as shown above) the yellow should be on the left and the orange wire will be on the right. Incorrect assembly of this plug onto the speedometer will result in mixed power and ground signals resulting in system failure and will void your warranty. (the row of 5-pins will not be used on this model)

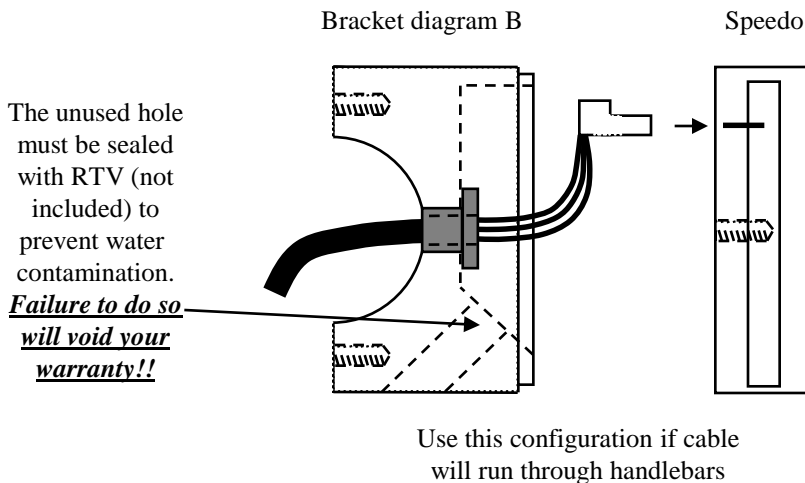
Assembly Diagrams

Be aware that the daylight readable L.E.D.s have a very specific viewing angle. This means that when you mount the instrument you will need the face of the gauge (the lights) to be pointing directly at your eyes when you are in your normal riding position. If the lights are pointed too far up or down from your field of vision it will reduce the effectiveness of the readout.



After determining the cable routing configuration and installation of the cable and grommet into the bracket, plug the red plug onto the 10-pin connector located on the back of the speedometer. Make sure that each pin of the speedometer is inserted into the correct hole of the red connector, as it will still plug onto the pins even if it is one hole offset. Assemble the bracket and speedometer before installing the clamp and bolting the assembly to the handlebars.

For External wiring: Diagram A Route the cable and grommet through the bottom angled hole in the bracket. Plug the red connector into the 10-pin plug on the back of the speedometer and secure the bracket to the speedometer using the 10-24 socket cap bolts provided in this kit. Bolt the front assembly (bracket and speedometer) and the clamp to the handlebars using the 10-24 socket cap bolts provided with this kit. Adjust the assembly to determine the best viewing angle of the speedometer. (for optimum viewing the face of the speedometer should be perpendicular to your eyes) Tighten the mounting bolts in the desired position and route the cable through the slot in the top triple tree clamp. Complete all connections to the appropriate wires in the main harness according to the Installation and Calibration sheets.



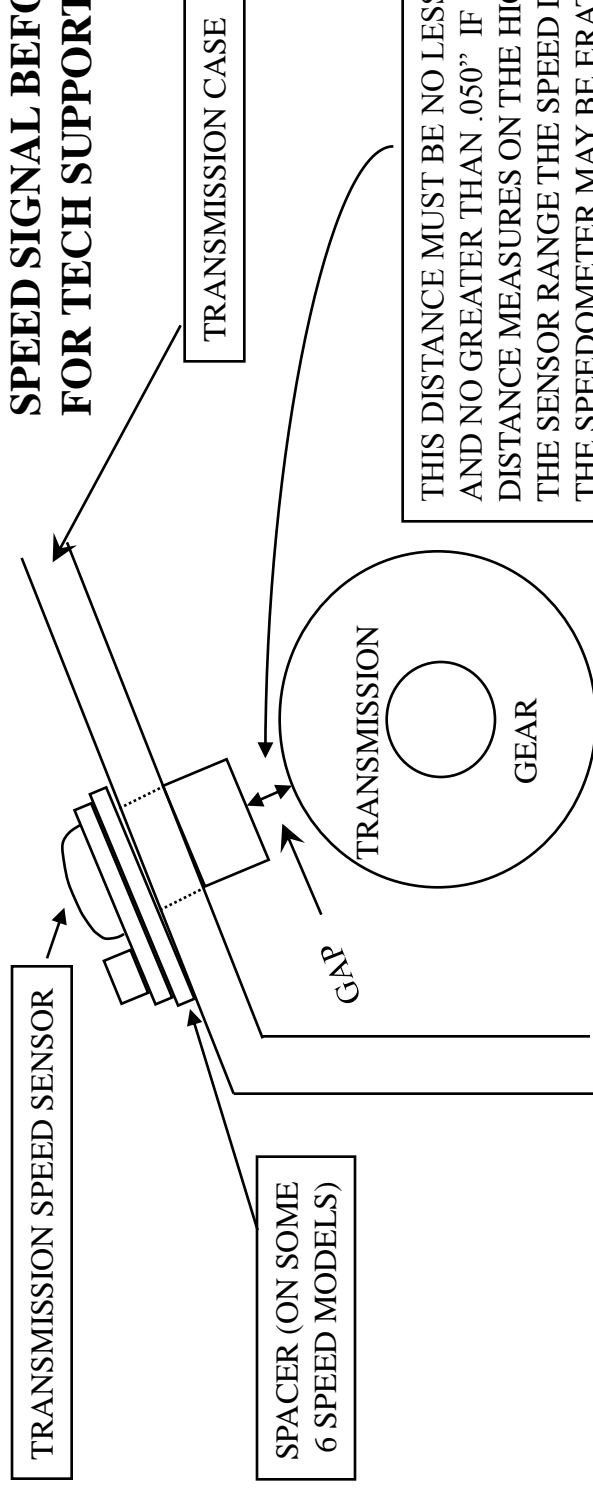
After determining the cable routing configuration and installation of the cable and grommet into the bracket, plug the red plug onto the 10-pin connector located on the back of the speedometer. Make sure that each pin of the speedometer is inserted into the correct hole of the red connector, as it will still plug onto the pins even if it is one hole offset. Assemble the bracket and speedometer before installing the clamp and bolting the assembly to the handlebars.

For Internal wiring: Diagram B Loosely secure the Clamp and Bracket to the handlebars (per diagram 1) using the 10-24 socket cap bolts provided with this kit. Adjust to the assembly to determine the best viewing angle of the speedometer. (for optimum viewing the face of the speedometer should be perpendicular to your eyes) Tighten the mounting bolts in the desired position and, using a transfer punch or like device, mark the middle of the center hole of the front clamp to the handlebar. Remove the clamp and bracket from the bars and drill and de-burr an appropriate size hole in the bars to route the speedometer cable through. Route the cable and grommet through the center hole in the bracket and carefully feed the wires through the handlebar. Plug the red connector into the 10-pin plug on the back of the speedometer and secure it to the bracket using the 10-24 socket cap bolts provided in this kit. Bolt the front assembly (bracket and speedometer) and the clamp to the handlebars using the 10-24 socket cap bolts provided with this kit. Complete all connections to the appropriate wires in the main harness according to the Installation and Calibration sheets.

THE SPEED SENSOR GAP CAN BE MEASURED BY REMOVING THE SENSOR AND MEASURING THE DEPTH OF THE HOLE IN THE TRANSMISSION CASE TO THE TOP OF THE GEAR. YOU WILL THEN SUBTRACT THE DEPTH OF THE SENSOR FROM THIS MEASUREMENT AND HAVE YOUR SENSOR GAP.

SPEED SENSOR GAP

THIS INSTRUMENT SHOULD READ SPEED (APPROX. 5MPH FAST) RIGHT OUT OF THE BOX. DO NOT ATTEMPT TO CALIBRATE IF THE DISPLAY DOES NOT READ SPEED! (DISPLAY READS ONLY "0"). CHECK THE INSTALLATION OF YOUR SPEED SENSOR TO RECEIVE A SPEED SIGNAL BEFORE CALLING FOR TECH SUPPORT!



THIS DISTANCE MUST BE NO LESS THAN .030" AND NO GREATER THAN .050" IF THIS DISTANCE MEASURES ON THE HIGH SIDE OF THE SENSOR RANGE THE SPEED DISPLAY ON THE SPEEDOMETER MAY BE ERATIC (JUMP AROUND) AND EVENTLY STOP DISPLAYING SPEED.
THE SENSOR GAP CAN BE ADJUSTED BY ADDING OR REMOVING MATERIAL FROM THE SPACER IF ONE IS INSTALLED UNDER THE SENSOR.