



INSTRUCTIONS

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Kit Number
1097-0001

SPEEDO TWEAK TOOL FOR ELECTRIC SPEEDOMETERS

Changing the gear ratio on some models will make the speedometer read incorrectly. When the speedo reads incorrectly it can incapacitate the 6th gear indicator light and cruise control. The 1097-0001 will make it possible to adjust an electronic speedometer with the stock electric speed sensors to the correct reading. The 1097-0001 has an adjustable range of correction from x2.84 times (more than double) to x0.502 times (half). **Calibration is set using the two button switches. Press the UP button to increase the speed. Press the DOWN button to decrease the speed.** The 1097-0001 has an internal memory that stores the calibration when the bike is off, or if the 1097-0001 is unplugged. *(Unit must remain on vehicle after recalibration.)*

Calibration

- 1a.** In 6th gear. Press and hold the UP or DOWN button while you are riding until the 6th gear indicator light comes on. Your bike must be moving to adjust the speedometer.
- 1b.** Follow a vehicle going at a set speed or time yourself riding one mile so you know what your speed is. A GPS or Dyno are other good ways to determine your speed.
- 2.** Press and hold the UP or DOWN button while you are riding to change the reading on the speedometer until the accurate speed is displayed. Your bike must be moving to adjust the speedometer.
- 3.** After the 1097-0001 has detected that no buttons have been pushed for 10 seconds, a new calibration will be stored.

Installation

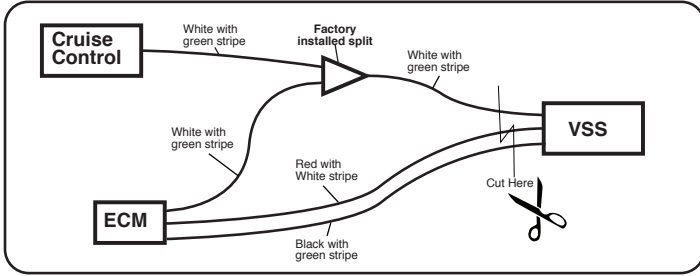
2004 & up Sportsters and all other models 2007 & up

- 1.** Find the speed sensor wires coming from the sensor. *(The speed sensor is below the battery at the back of the transmission nearly centered in the bike.)*
- 2.** After locating the speed sensor, follow the wires up to the ECM. At an accessible point, cut the wires and solder in the 1097-0001 as shown in the diagrams on the following pages.
- 3. For 2007 model bikes with cruise control**
You have to make the cut prior to where the white/green wire is Teed into the cruise control module, this is usually located about 3-4" after the speed sensor plug at the sensor.
(see the wiring diagrams on next pages)

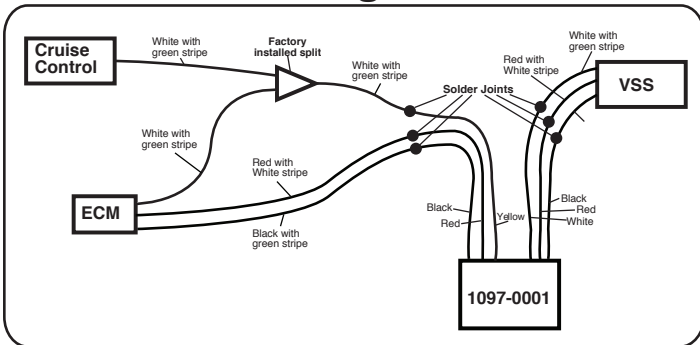
Note: 2004 and up Big Twin Motorcycles use a data bus to send information to the speedometer. The 1097-0001 needs to correct speed information before it goes into the ECM. To correct a speedometer on a 2004 or newer bike, the 1097-0001 needs to be connected between the speed sensor and the ECM to function properly .

2006-09 Dyna, 2007 Touring & 2007-09 Softail

Before

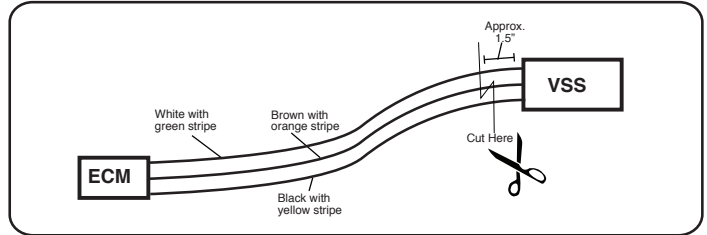


After installing 1097-0001

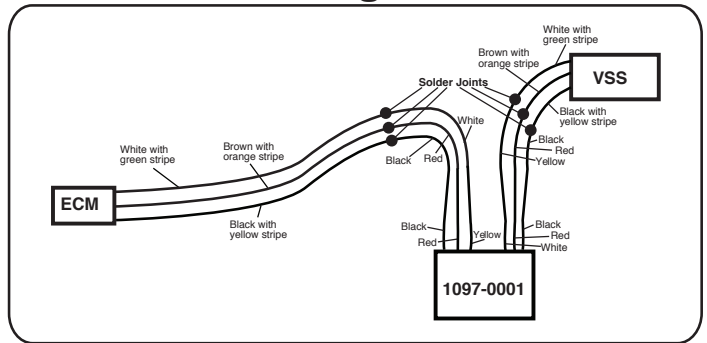


2008-2013 Touring

Before



After installing 1097-0001



VSS wire color codes found on different models

	VSS ground	VSS signal	VSS power
Softail	Black-Green	White-Green or Lt Green-Yellow	Red-White
Dyna	Black or Black-Green	White-Green	Red-White
Touring	Black-Green or Black-Yellow	White-Green	Red-White or Brown-Orange
Sportster	Black	Black-Blue	Black-Red

*Both red wires come from the same source.

**VSS= Vehicle speed sensor, ECM= Electronic control module

Limited Warranty

This product is covered by a limited warranty that it is free from defects in material and workmanship, and against excessive wear for a period of one year. Our obligation under this warranty is limited to the repair or replacement of its product only, and it is not responsible for incidental and consequential damages, property damage or personal injury damages to the extent permitted by law. (Some states do not allow warranty limitation, so the above may not apply to you). There is absolutely no warranty on any parts used in racing applications, or on products that have been physically altered, improperly installed or maintained, used in improper applications, abused or not used in conjunction with the proper parts. To make a warranty claim, you must return the product freight prepaid to: Rivera Primo Inc., 12450 Whittier Blvd., Whittier, CA 90602 • 562-907-2600.