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GMS GranSpeedo Speedometer Corrector Installation Instructions (Read Carefully Before Starting Project)

Over View:

GranSpeedo is a simple unique device designed to adjust the odometer and speedometer settings on today's most popular cars and trucks. All too often a simple gear change or tire and wheel package can knock out the factory calibration. GranSpeedo, unlike other systems that try to make changes to the hard settings within the factory ECM, is a "buffer box". No changes are actually made to the factory settings within the computer so going back to stock is simple and it won't void the factory warranty.

Parts List:

• Main Calibrator/Corrector Box	• Installation Disk
• Installation Jumper Harness	• Programming Cable with 9 Volt power supply (optional)

Installing and Calibrating Your GranSpeedo Speedometer Corrector.

Your GranSpeedo Speedo corrector consists of 4 pieces, the black box containing the corrector, the cable (jumper harness) you will use to connect it into your car, a disk with the operating software and the programming cable that you will use with a Windows based computer to program the corrector.

Installation:

Your Installation Jumper Harness has 4 wires: Red (12 Volts) / Black (Gnd) / Yellow (In) / Green (Out).

1. Connect the Red wire (12 Volt) to an ignition on "hot" reference wire.
2. Connect the Black wire (Ground) to good metal ground
3. Now you'll need to find the Vehicle Speed Signal (VSS) wire. We will list the location and color of the necessary wire for all the vehicles we know of. The file located at www.granatellimotorsports.com/speedcal/install.txt will always have the most recent information we have. If you're installing this on a vehicle we don't list, we will do our best to help you locate the correct wire. If you have access to the GM manuals for your car, you're looking for a wire that goes between the ECM and the instrument cluster. On Camaros and Firebirds this always seems to be called Vehicle Speed Signal, is usually labeled circuit 817 and colored green with a white stripe. On Camaros and Firebirds and possibly other vehicles with the ECM located over the passenger's feet you may find the wire at a connector behind the passenger kick panel. On trucks and vehicles with the PCM mounted above the driver's feet the wire usually runs directly from the ECM connector to the instrument panel connector.
4. Once you've found the VSS wire, you'll need to check that it's the correct wire and then splice your GranSpeedo speedo corrector into that wire. The simplest way to check is to cut the wire and then make sure the speedometer no longer works. Once you've found the correct wire you'll need to connect the green and yellow wires. The green wire goes

to the wire going to the instrument panel and the yellow wire goes to the goes to the wire coming from the PCM.

The GranSpeedo speedo corrector is not waterproof and should be mounted in the passenger compartment under the dashboard with the connector facing down, that way if water should accidentally get in, the water can't run down the wires into the box. The wires should be long enough that you can tap the VSS wire in the engine compartment if necessary. If you tap the wires in the engine compartment please make sure the connections are as secure and waterproof as possible.

If you can't figure out which way to connect the green and yellow wires, you may just guess and drive the car enough to tell if it's right. If not switch the wires and it should work. There is no penalty for hooking the green and yellow wires backwards other than the speedometer won't work. Neither the Speedo calibrator nor the PCM will be damaged.

Calibrating Your GMS GranSpeedo Speedometer Corrector:

You may program GranSpeedo in or out of the car. If you program it out of the car you will need a 9V battery (not supplied) for power during the programming process. If you program it after you've installed it in your vehicle, the vehicle will be able to supply power when the ignition is turned on.

1. Install the GranSpeedo software from the disk included or by going to www.granatellimotorsports/speedcal/SpeedCal.exe
2. Start the software by clicking Start/Programs/SpeedCal/SpeedCal.
3. Attach the programming cable to the 5 pin connector on your GranSpeedo.
4. For off vehicle programming, plug in 9-volt battery to the programming cable. For in car programming you **MUST NOT use 9-volt battery**. In fact, place electric tape over the exposed terminals to prevent any opportunity of electrical shorting.
5. Attach the programming cable to a serial port on your computer.
6. Confirm Serial Interface and Auto-detect my serial ports are both checked.

At this point you now have GranSpeedo running on your computer. You will note that there are 3 simple ways to correct speedometer errors; Tires and Gears, Speed or Percent. Your GranSpeedo may be read and programmed while you're driving the car, so if you have a GPS and a passenger, you can set the speedometer almost perfect by noting the speedometer indicated speed at some GPS indicated speed and using **the Measured Speed** tab to put in the correction.

Programming Your Speedo Corrector

Make sure Serial Interface and Auto-detect my serial port are both checked and then click the appropriate arrow, probably, "I have changed my tire size or axle ratio, or both". Enter appropriate values for the old and new tire sizes and axle ratios and then press "Program Device". In a few seconds your GranSpeedo will be programmed and ready to install.

Tires and Gears - The simplest and easiest way to properly adjust your speedometer. Simply enter the appropriate values for the original tire size and axle ratio where asked and the new tire and axle ratio where asked and press Program. Within seconds your device is programmed and your speedometer should be right on.

Speed – If you know how fast you are traveling and you know how far your speedometer is off, Speed is another way to calibrate. Enter current speed shown on dash where requested and enter actual speed where requested and press program. This is the best way to calibrate when using a GPS.

Percent – If you know what percent your speedometer is off by, Percent is the fix. Just enter the percentage change required and press program. – Note: You must use a negative number if your speedometer is reading slow.

Once the Program icon is pressed, your device will remain calibrated to those settings until you make another change in programming. GranSpeedo can be programmed more than 10,000 times.

Your GranSpeedo remembers the numbers you used to program it, making it easy in the future to make small corrections. To demonstrate this, exit and restart GranSpeedo. Make sure that Serial Interface is checked and then click "Read Device" and in a few seconds you will be taken to the page used to last program your GranSpeedo with the last used values filled in.

Year and model	Engine	Wire Color	IP Pin #	PCM Pin #
96 Impala/Caprice	V8	DK GRN/WHT	A4	C2-8
98	4.3L	DK GRN	14	C4-4
98	5.0/6.7/7.4	DK GRN	14	C4-4 (blue)
98	6.5	DK GRN	14	C2-A6 (brn)
99 ST Truck	2.2L	DK GRN	A4	C2-17
99 ST Truck	4.3L	DK GRN/WHT	A4	C4-4
99 CK Truck		DK GRN	14	C4-4
2000	4.3L	DK GRN		C4-4
2000	5.0 & 5.7L	DK GRN		C4-4
2000	6.5L	DK GRN		C2-A6
2000	7.4L	DK GRN		C4-4
2000 Silverado	4.8/5.3/6.0L	DK GRN/WHT		C2-50
2001 Silverado	4.8/5.3/6.0L	DK GRN/WHT	A3	C2-50 (red)
2002 Silverado/Sierra		DK GRN/WHT	A3	C2-50 (red)
2002 Trailblazer/ Bravada/Envoy	All	DK GRN/WHT	B9	C1-32
2002 3500	8.4	DK GRN		C2-50 (red)
2002 3500	6.5	DK GRN/WHT		C2-A6
2002 Avalanche/ Suburban/ Tahoe/ Escalade/	4.3/8.1	DK GRN/WHT	A3	C2-50

F-Body Connections

On 1997-2002 you will find the VSS wire behind the passenger kick panel in a white 10 pin connector. In the following list the VSS wire has always been there. On some models the indicated 12V wire may be different or may be in the blue connector. Please check them before using them. There is usually a ground stud near the door at the lower edge of the instrument panel.

Year	VSS Pin	12V pin	Color
1994	G	Blue connector pin G	Grn/Wht
1997	G	E	Grn/Wht
1998	G	Blue connector pin G	Grn/Wht
1999 up	K	C	Grn/Wht

- In the GM Manuals the circuit you're looking for is usually numbered 817 or 389.
- The colors in the PCM Pin # column should correspond to the color of the connector or the strain relief on the connector.

Most vehicles in any year with the same engine use the same PCM and so the required wire should be the same as another vehicle of the same year with the same engine. Always check wire color and loss of speedometer before installing GranSpeedo.

Please note:

The GranSpeedo Corrector Box is not waterproof and therefore should be mounted in the vehicle under the dashboard. It is always recommended that the terminals be facing downward so that if water does get to the box, it can easily drain out.

LIMITED WARRANTY:

Granatelli Motor Sports warrants that all products shall be free from defects in materials and/or workmanship for ninety days from the date of purchase (except in-tank and in-line fuel pumps purchased at dealer or wd prices as these items have no warranty and roller rocker arms which have a 12-month limited warranty). The following requirements and exclusions apply: (1) You must be the original purchaser and must complete the warranty registration form (located at www.GranatelliMotorSports.com/warranty.asp) and return the defective product within 10 days after the expiration of the product warranty. Failure to do so voids all warranty, either express or implied set forth herein. (2) You must reside in the United States or Canada and use the product as described in the warranty registration. (3) The product must not have been altered, disassembled, modified, or converted for any other use than intended by Granatelli Motor Sports. (4) The product, or any part thereof, is not used in accordance with the operating parameters specified by Granatelli Motor Sports. (5) The product or any part thereof is damaged or rendered unserviceable due to negligence, vandalism, theft, fire, debris, flood, Act of God, or other peril, malfunction of equipment, or by any cause within the Customer's control. (6) The serial number (if applicable) must not have been altered or removed. The extent of Granatelli Motor Sports' liability under this warranty shall be limited to the prompt correction or replacement, at Granatelli Motor Sports' option and at no cost to the customer other than return shipment, of any defective part of the product determined to be necessary by Granatelli Motor Sports. This only applies if written Granatelli Motor Sports received notice of the claimed defect prior to expiration of the warranty period. All warranties of merchantability and fitness for a particular purpose are expressly excluded. The duration of any and all implied warranties is limited to the duration of this express warranty. All incidental and consequential damages including but not limited to loss profits even if it has been advised of the possibility of such damages are hereby excluded. Regardless of the form of the claim, Granatelli Motor Sports liability for any damages to the customer for such product is limited to the guidelines herein. This stated, expressed warranty is in lieu of all liabilities or obligations of Granatelli Motor Sports for damages arising out of or in connection with delivery, use or performance of the product. This warranty cannot be amended or changed by any Granatelli Motor Sports representative, employee, or agent and any promises inconsistent with this warranty are void and unenforceable against Granatelli Motor Sports. Some states do not allow limitations of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may have other rights that vary from state to state. Your sole remedy for the above warranties is the repair or replacement of the defective product only, at Granatelli Motor Sports' sole discretion.

RETURN POLICY:

Before you return a product for a warranty claim, contact our service department M-F 8AM-5PM (PST) at 805-486-6644 or techsupport@GranatelliMotorSports.com for an RGA number. No returns are accepted without a pre-approved RGA (return goods authorization). No returns on special orders, electrical items or after 90 days from date of original shipment. All returns must be safety packaged in original packaging (if available) and clearly marked with your RGA number on the top and two sides of the box. Please insure your shipment for full replacement value as lost, stolen or items damaged in shipment are not covered by our limited warranty. We recommend using FedEx (www.FedEx.com) or UPS (www.UPS.com) for shipping. Lost, stolen or damaged items claims must be made by the customer and resolved by the freight company and not Granatelli Motor Sports. All returns may be subject to a restocking fee of up to 25%. The balance will be returned in the form of a company check or may be applied as credit towards another purchase.

PERFORMANCE CONSUMER'S BILL OF RIGHTS:

Legally, a vehicle manufacturer cannot void the warranty on a vehicle due to an aftermarket part unless they can prove that the aftermarket part caused or contributed to the failure in the vehicle (per the Magnuson Moss Warranty Act, www.GranatelliMotorSports.com/magnusonmoss.htm (15 U.S.C. 2302(C))). For best results, consider working with performance-oriented dealerships with a proven history of working with customers. If your vehicle manufacturer fails to honor emission/warranty claims, contact EPA at (202) 260-2080 or www.epa.gov. If federal warranty protection is denied, contact the FTC at (202) 326-3128 or www.ftc.gov. For additional information, check out www.GranatelliMotorSports.com/TechSupport.htm.

Disclaimer:

Actual products may vary from photographs shown. For latest information, please call 805-486-6644 first. You can also check out our web site at www.GranatelliMotorSports.com. However, it may have not been updated at the time you actually view it. Therefore, we cannot guarantee the accuracy of the information on our web site. Granatelli Motor Sports is not responsible for any unintentional omissions or typographical errors and reserves the right to make changes to packages, services, operating procedures, colors, materials, features, specifications, part numbers, pricing and to discontinue any products and/or components at any time without prior notice. Some items shown are sold for off-road use only and/or racing use (not street legal) and not intended for use on public highways, customer assumes costs and liability for installation and use. Performance figures shown can vary considerably due to a variety of factors including but not limited to altitude, humidity, barometric pressure, outside temperature, vehicle age, state of vehicle tune, vehicle manufacturer engine tolerances, vehicle modifications, chassis and engine dyno calibration, chassis and engine dyno brand, etc.