

The SS-5D is designed to work with most vehicles that are equipped with non-mechanical transmission sensors (no speedometer cable). This interface amplifies and conditions pulses emitted from your vehicle's speed sensor and supplies the amplified signal to your Nu-Metrics' DMI to accurately compute traveled distances.

DISCLAIMER: SS-5D Electronic Interface Adapters (PN-1085D) are sold with the understanding that they will be installed by a professional installer who has the required expertise and supporting documentation such as Mitchell or Motor electrical service manuals or equivalent. Any documentation or information provided by Nu-Metrics is a general guideline for reference and is supplied without warranty or liability of any kind. Since the conditions or methods of installation, operation, use and maintenance of this equipment are beyond its control, Nu-Metrics does not assume responsibility and expressly disclaims liability of loss, damage, or expense of any kind arising out of or in any way connected with any installation, operation, or maintenance of this sensor. The user who attempts to install or installs an SS-5D adapter assumes all responsibility for problems caused by incorrect or improper installation.

IS THIS A NEW INSTALLATION?

If this is a new installation on a vehicle, refer to PN-1030 installation instructions prior to beginning the following steps.

! CAUTION !

Failure to disconnect the positive battery lead may cause damage to the sensor and/or it's components.

- STEP 1: Disconnect the single RED power wire from the positive terminal of the battery to remove power from the terminal block or remove the in-line fuse.
- STEP 2: Disconnect and remove the old Nu-Metrics sensor from the vehicle and discard it. (Disregard if new installation)
- STEP 3: Connect the new SS-5D electronic sensor to the terminal block as follows: The SS-5D has two cables exiting the plastic housing. Connect the shorter cable (3 wires - Red, Black and White) to the terminal block as shown in **FIGURE 2**.
- STEP 4: The longer cable from the SS-5D will be connected to a wire from your transmission, engine compartment or differential depending on the vehicle model & year. **REFER TO FIGURE 3 ON PAGE 2**.
NOTE: The connection should be made using a wire-to-wire solder.
WE DO NOT RECOMMEND A "QUICK CRIMP" CONNECTOR.
- STEP 5: After locating your vehicle type on the reference chart (**FIGURE 3**), locate your specified wire & connect the RED wire from the SS-5D to the proper location. **NOTE: The sensor interface ships with a factory setting of AC and A DIP SWITCH SETTING OF 1-to-1.** If your vehicle requires another setting, remove the interface lid & adjust accordingly.
- STEP 6: Reconnect the Red power wire to the positive terminal of the battery and follow the calibration procedure outlined in the manual. You should have a calibration number between 400 & 1400. The calibration number will appear in the far right-hand window at the end of the calibration procedure. If your calibration number is less than 400, select the next higher dip switch on SW1 using switches 1 - 5 only. If the calibration number is greater than 1400, the next lower dip switch should be selected on the SW1 using only the top 5 switches.
- STEP 7: Once a calibration number is found, you may want to seal the SS-5D housing using silicon sealant to prevent corrosion or water damage to the components inside.

! CAUTION !

Only 1 of the top 5 dip switches on SW1 can be turned on at any one time. If a dip switch was changed in order to raise or lower the calibration number, the DMI must be recalibrated and the calibration number observed to insure it is within the 400 - 1400 range. Calibration numbers outside the 400 - 1400 range may or may not cause the measurements to be inaccurate. Be sure your calibration number is within this range to prevent any such inaccuracies.

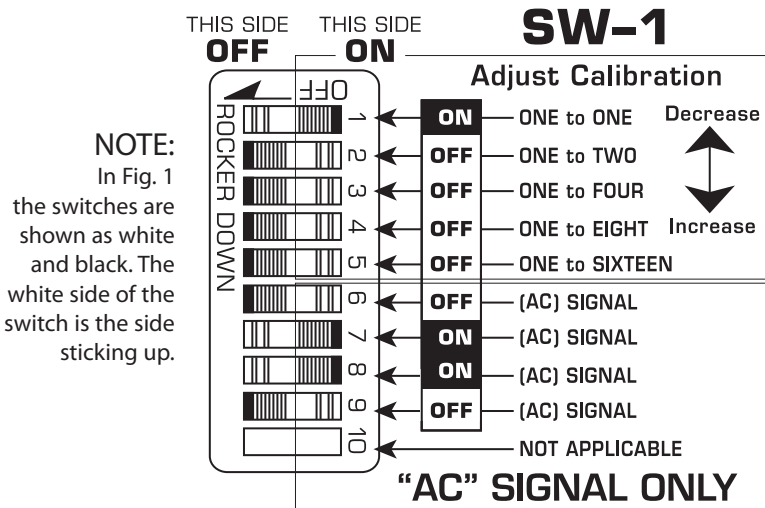


FIGURE 1

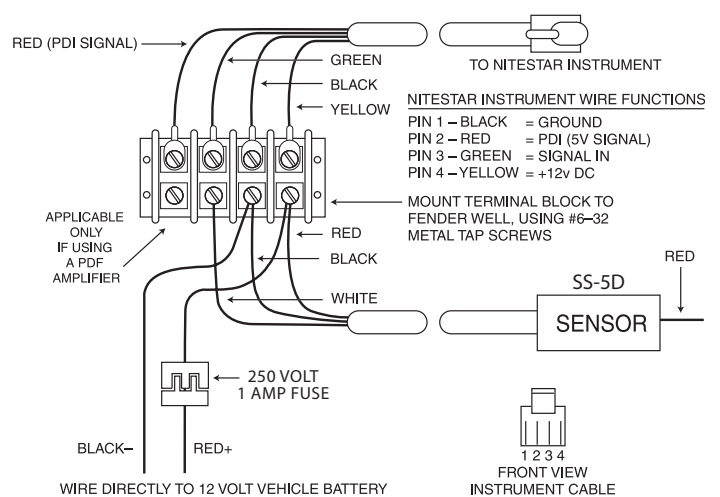


FIGURE 2

TROUBLESHOOTING GUIDES

Follow these simple steps to determine if there may be a problem with your equipment or your installation. There are basically three types of problems that are encountered by customers during installations and all three of those are addressed in the following steps. Please refer to your specific problem by answering the following questions:

1. Does your DMI power up and seem to work, but will not count at all? (If YES, Refer to **GUIDE 1**)
2. Does your DMI count all the time or at any time you feel it should not be counting? (If YES, refer to **GUIDE 2**)
3. Does your DMI seem to be counting just fine but it is not accurate enough? (If YES, Refer to **GUIDE 3**)
4. Does your DMI have a problem involving the MPH displayed? (If YES, Refer to **GUIDE 3**)

TROUBLESHOOTING GUIDE 1

If your DMI seems to be working correctly, but will not count at all, this could be a very easy problem to correct. Follow these simple steps to determine where the problem may be. Be sure to retest your DMI after each step or if the trouble is found.

- Step 1: If a splice clip or quick connector clip was used in the installation, re-splice the wire or solder the wire in. You may not be getting a good connection.
- Step 2: Recheck all the wiring (**FIGURE 3**).
- Step 3: Recheck the positions of all SW1 dip switches (**FIGURE 1**).
- Step 4: Check the calibration number in the DMI so that it is not set to zero. To check the calibration number, simply turn the DMI on and press the **1CAL** key. The display should read "**CAR1**" followed by a number. If that number is zero, type 1000 and press **MARK/ENTER**.
- Step 5: At this point, you will want to do a "tap test" on the Nu-Metrics equipment. To do this, go to the following section of the Nitestar Manual: **TROUBLESHOOTING: "Instrument is Operational But Won't Count."** Follow all steps including "A-E". If you do not have a Nitestar Manual, it can be downloaded at www.nu-metrics.com
- STEP 6: If none of the above steps have fixed the problem, the possibility exists that your vehicle's speed sensor wires have been swapped around. If you are hooked up on a two or three wire clip at the transmission, try the other wires in that clip or call the service department for additional advice at (724) 438-8750. Monday - Friday; 8am to 5pm EST

TROUBLESHOOTING GUIDE 2

If your DMI is counting at an undesired time or all the time, you are probably having engine noise or electrical interference causing the problem.

! CAUTION !

If you did not hook up the positive & negative leads directly to the battery it may lead to this problem.

To correct this problem perform the following steps:

- Step 1: Ensure that all wiring is as far away from the vehicle's electrical components as possible. This could include the coil, plug wires, alternator, etc.
- Step 2: Contact the Nu-Metrics Service Department at (724) 438-8750.

TROUBLESHOOTING GUIDE 3

If your DMI is having these types of problems it may be due to an improper calibration of the DMI. Please refer to the calibration instructions in the Nitestar manual.

FIGURE 3

Import? Vehicle Not Listed? Please call Nu-Metrics at (724) 438-8750.

SS-5D : Part Number 1085-D

NO CARS CURRENTLY USE A 1085-D SENSOR (Please refer to the Standard 1085 + 1085-L Installation Instructions)

98-04	Ford Truck F-250	AC	Blue w/ yellow in 2 wire clip at transmission or red w/ pink at rearend differential
99-02	Dodge Truck	AC	Blue w/ black stripe at transmission, or green w/ white at transmission, or red w/ violet at rear differential
03-04	Dodge Truck	AC	Green w/ white at transmission, or red w/ violet at rear differential
2005	Dodge Truck	AC	Green w/ brown in wire clip at transmission