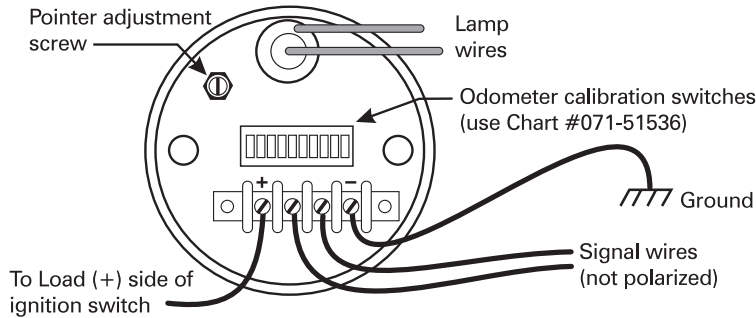


Subject: 500 Series Magnetic Sensor Driven Speedometer Installation Instructions	Initial Release Date: 09/27/99	Revision Date:	Revision: -
	Product Group: Heavy Duty Instrumentation		



NOTES - When setting calibration DIP switches, do not use a ballpoint pen or the switches may not be set properly. Use a scribe or device whose diameter is less than the width of the individual switches.

Calibration switches are delicate—do not press them too hard or they will break.

Odometer and pointer calibrations are separate procedures. Be sure to do both!

To find Full Scale Hertz (FS Hz):
$$\frac{\text{Tire Revs/Mi} \times \text{R. Axle Ratio} \times \text{\#Gear Teeth} \times \text{Full Scale MPH}}{3600 \text{ Seconds}}$$

1. Before installing the unit, calibrate the odometer to the vehicle in which it is to be installed:
 - a. Calculate the Full Scale Hertz value by using the formula in the illustration.
 - b. Look up your Full Scale Hertz value in the tables in Speedometer Calibration Chart #071-51536 to find the calibration switch settings. This document is available from AMETEK Dixson or your local dealer.
 - c. Read the notes in the illustration above, then set the switches according to the table.
2. Next, calibrate the pointer. If a signal generator and power supply are not available, go to Step 3. If they *are* available, calibrate the pointer as follows:
 - a. Connect the speedometer to the signal generator and power supply.
 - b. Set the signal generator to output a 5-volt p-p sinewave signal at the Full Scale Hertz frequency value.
 - c. Adjust the pointer adjustment screw until the pointer indicates the correct speed.
3. If a signal generator and/or power supply are not available, calibrate the pointer as follows:
 - a. Connect the speedometer as shown in the illustration. For units supplied with a harness, connect the harness to the existing OEM receptacle in the dash.
 - b. Let the unit hang out of the dash so you can access the pointer adjustment screw.
 - c. Place the vehicle on a dynamometer and observing the required safety precautions, run the dynamometer up to 40 MPH.
 - d. Adjust the pointer adjustment screw until the pointer indicates the correct speed.
4. Disconnect any test equipment and install the speedometer into the dash.
5. For additional troubleshooting help, call the AMETEK Dixson Product Support Department at 1-800-205-7710, Monday through Thursday, 7 AM through 5:30 PM, Mountain Time.