



**R8901 Sensor Kit
For 6.9/7.3 Liter Ford or IH Diesel Engine
Using R8503 Tachometer**

INSTALLATION INSTRUCTIONS

- 1) Scrape away the paint from two areas directly across from each other near the front of the vibration damper as shown on the back page. Roughen the bare metal with an emery cloth. Clean the magnets and bare metal on damper with alcohol to remove any oil or grease residue so that the glue will bond. Glue each magnet to the selected surface of the vibration damper with the BLUE SIDE OUT (north pole) and with the magnets directly across (180° apart) from each other. Be sure to align the magnets with the front edge of the vibration damper to avoid interference with the timing bracket or other sensors.

Suggested method for glue application:

Apply the glue to the area on the damper where the magnet will set, then apply the accelerant (crush tube) to the magnet face (non-blue side), then apply the magnet to glue area on damper. Be sure to apply enough glue to fill the gap between damper and magnet. Repeat for other magnet. Let glue set for 10-15 minutes. Follow the instructions on the glue packet enclosed in your kit to allow the proper glue curing time before starting the engine.

- 2) Remove one of the front oil pan bolts and use it to mount the Sensor Assembly. Position the sensor so that there is approximately 1/8" to 1/4" clearance between the end of the sensor and the magnets.
- 3) Connect two #20 AWG or larger wires (not supplied with the kit) to the two sensor wires and route them into the cab to the tachometer. Locate wires away from the starter cables, electric motor wires, etc. Secure the wires along as necessary. (See NOTE below.)
- 4) Mount the R8503 Tachometer (4,000 rpm) in the desired location using the optional bracket or other mounting device. Connect the wires coming from the 3 wire cable as follows:
 - a) White wire to one of the sensor wires.
 - b) Black wire to the other sensor wire. Ground this connection as close as practical to the tachometer head.
 - c) Red wire to a fused ignition-switched +12 VDC source.
- 5) Connect the wires from the tachometer light as follows:
 - a) One wire to vehicle dash light circuit.
 - b) The other wire to clean ground.
- 6) Start the engine after double-checking all connections and clearances. The tachometer should now read the engine RPM. No calibration is necessary.

NOTE: If only half the engine RPM is being displayed, check to make sure that two magnets were installed and that both magnets are lined up with the center of the sensor. Also check that both magnets were installed with the same pole out by comparing them to a third magnet. Both magnets should repel the same pole of the third magnet. If a flicker or other interference is noted on the tachometer, reroute the extended sensor wires. This should remove the interference. In severe interference cases, it may be necessary to use 2-wire shielded cable for the sensor wire extensions. Be sure to ground shield at one end only.

INSTALLATION DIAGRAM: R8503 2 1/16" Tachometer for 6.9/7.3
 Liter Ford or IH deisel engine.
 SENSOR KIT: R8901 ** Magnet Replacement: R8911
 *SENSOR only (replacement): 8901-SO

