

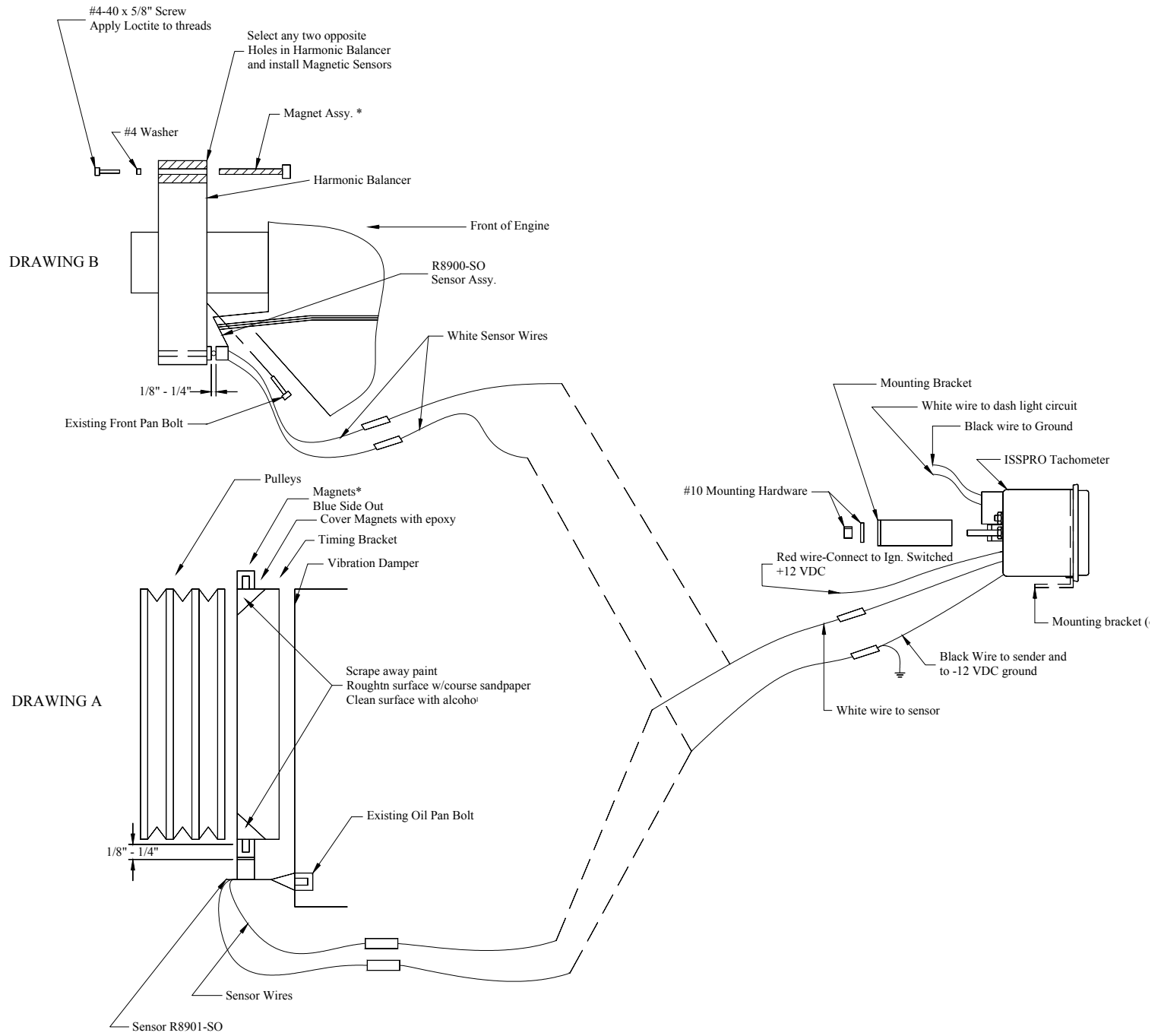
## ISSPRO 2" Tachometers (R8501, R8503, R8504, R8591) For Universal Application

- 1.) Select a mounting location for the sensor assembly and the magnets according to the following:
  - a. The sensor assembly must be mounted such that the magnets pass within  $\frac{1}{8}$ " to  $\frac{1}{4}$ " of the end of the sensor as shown in the installation diagram on the back page.
  - b. The sensor assembly may be bolted directly in the appropriate location or may be bolted to another bracket as necessary.
  - c. Check the selected sensor location for interference from rotating parts as the engine turns.
  - d. The magnets must be mounted to a pulley or damper that turns at engine speed.
  - e. Check the selected magnet locations for interference from stationary brackets, etc. as the engine turns.
- 2.) **For Sensor Kits R8901, R8902, R8903, R8905, R8906, R8907, and R8908:**

Scrape away the paint from two areas directly across from each other on the selected mounting surface. Roughen the bare metal with an emery cloth and clean the magnets and bare metal with alcohol to remove any oil or grease so that the glue will bond. On a clean piece of cardboard, thoroughly mix equal parts of glue from the two packages. The epoxy will set in about five minutes. Glue each magnet to the selected surface with the BLUE SIDE OUT and with the magnets directly across from each other to maintain balance. Also, cover the magnets with epoxy. Allow 45 minutes for the glue to dry before starting the engine. See "Drawing A" on reverse side.
- 3.) **For Sensor Kit R8900:**

Select any two opposite holes (to maintain balance) through the Harmonic balancer (large pulley on the front end of the crankshaft) and install the R8946 Magnet Pair into the holes from the engine side as shown. Use Loctite or other suitable thread locking compound on the screw threads. See "Drawing B" on reverse side.
- 4.) Mount the sensor as previously determined. Drill a mounting hole in the sensor bracket as needed. Position the sensor so that there is approximately  $\frac{1}{8}$ " to  $\frac{1}{4}$ " clearance between the end of the sensor and the magnets.
- 5.) Connect two #20 AWG or larger wires (not supplied with the kit) to the sensor wires and route them into the cab to the tachometer location away from starter cables, electric motor wires, etc. Secure the wires along as necessary. (See NOTE below.)
- 6.) Mount the Tachometer in the desired location using the optional bracket or other mounting device. Connect the wires coming from the 3 wire cable as follows:
  - a. Whit wire to one of the sensor wires.
  - b. Black wire to the other sensor wire. Also, ground this connection as close as practical to the tachometer head.
  - c. Red wire to a fused ignition-switched +12 VDC source.Connect the wires from the tachometer light as follows:
  - a. Whit wire to the vehicle dash light circuit.
  - b. Black wire to a clean ground.
- 7.) 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 cases, it may be necessary to use 2-wire shielded cable for the sensor wire extensions. Be sure to ground the shield at one end.



\*Magnet Replacement Kit R8911