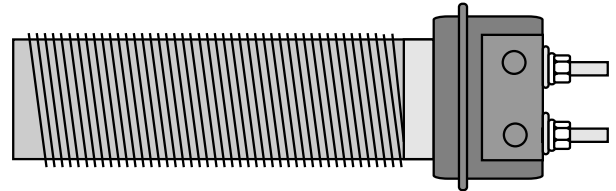




# Model 11408



## Magnetic Pick-Up Installation Instructions



### OPERATION

Model 11408X RPM sensor is designed for diesel truck use on *SPEEDTRAP*™ systems using Model 8210 Electronic Speedswitch.

A permanent magnet built into the sensor provides a magnetic field at the base of the sensor. As each tooth of the flywheel passes through the magnetic field, a signal (voltage pulse) is generated. This signal is then sent to the 8210 Speedswitch for monitoring.

### SENSOR MOUNTING LOCATION

Most trucks have factory drilled and tapped, 3/4" - 16 UNF, mag pick-up mounting holes located at 5 o'clock and/or 7 o'clock in the engine's flywheel housing. Additionally, there is usually a hole located in the very bottom of the flywheel housing which can also accommodate the mag pick-up; however, an adapter bushing from AMOT may be required. If no mounting holes exist, follow the instructions below for drilling, tapping, and mounting.

Two aspects of sensor mounting hole location must be considered, accessibility of the location for drilling the hole, and the alignment of the hole in relation to the flywheel.

The most convenient location on the flywheel

housing for sensor mounting is at the bottom, between 5 and 7 o'clock. On some conventional vehicles, as well as cab-over vehicles, where the "dog-house" makes the flywheel housing accessible from the top, the sensor can be mounted between 11 and 1 o'clock on the flywheel housing (See Figure 2.)

Drill hole in flywheel housing at selected location with a 11/16" drill ground 15° to 25°. (Blow chips with air hose when drilling.)

**CAUTION: DO NOT DRILL TOO DEEP. The drill bit may strike flywheel teeth and cause tooth damage and drill bit breakage.**

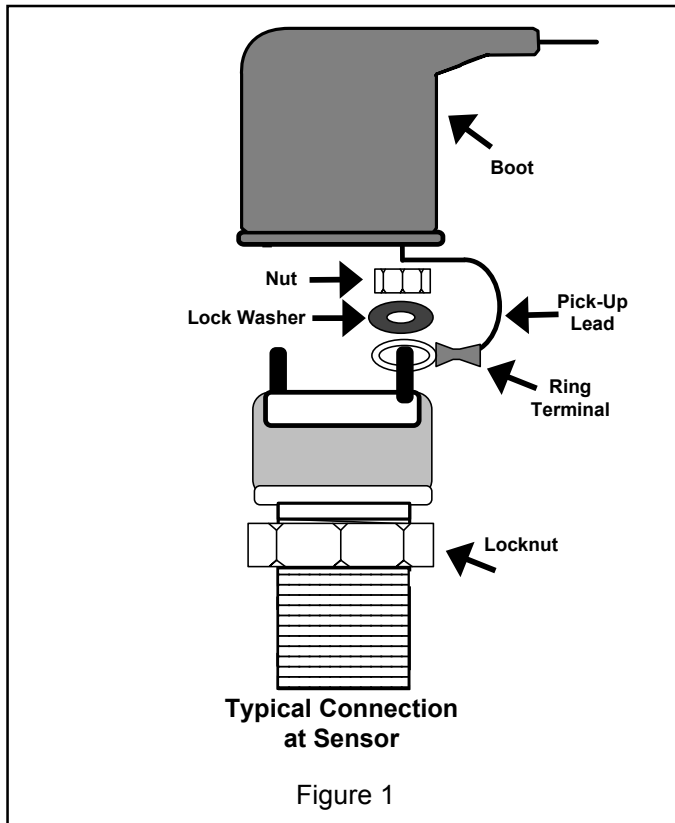
NOTE: On the average, the flywheel housing wall is about 3/8" thick except in ribbed areas where the wall may be thicker. The clearance between the inner surface of the housing and the flywheel is approximately 3/8" to 3/4". (See "Y" dimensions in Figure 3.)

Use face cutter 1-3/8" X No. 30 HS to face off outer flywheel housing surface. This will provide a flat surface for the locknut to seat on. The face cutter should have a 5/8" pilot pin as a guide for positioning.

Tap hole with 3/4" X 16 UNF bottoming tap. The 3/4" X 16 UNF dimension is the SAE standard for magnetic sensors used with heavy duty trucks.

# SENSOR INSTALLATION

1. Attach locknut to sensor.
2. Screw sensor into mounting hole carefully until sensor bottoms on ring flywheel teeth, then back off 1/2 turn to 3/4 turn to establish gap between sensor and flywheel tooth for proper spacing (.030" to .050" .)
3. Secure sensor with locknut, being careful not to disturb gap setting.
4. Torque must not exceed 15 lbs on sensor locknut.

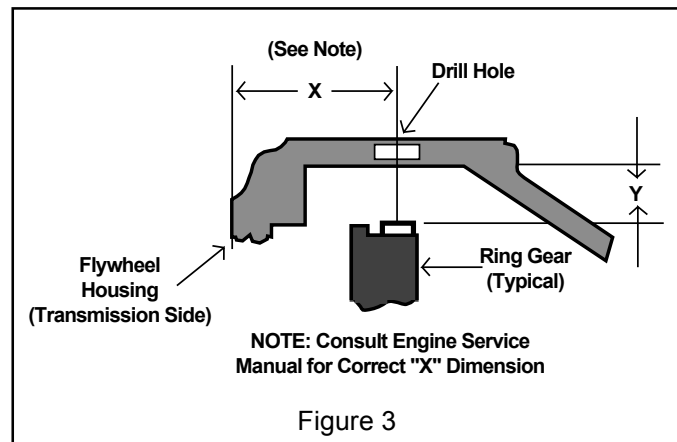
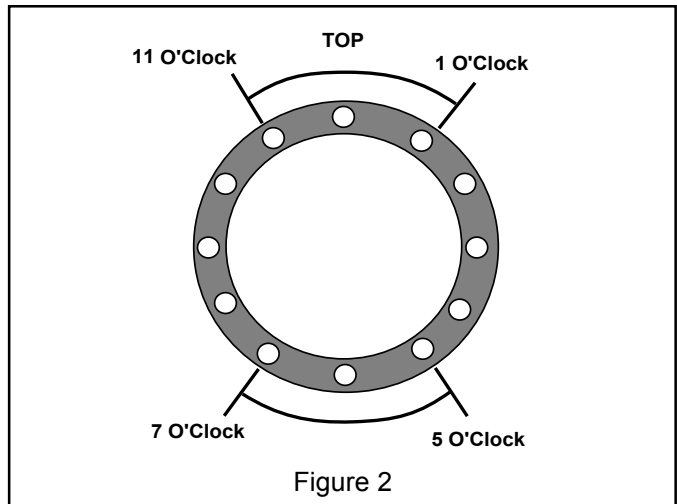


# WIRING INSTRUCTIONS

Refer to Figure 1.

1. Insert sensor leads through smaller opening in rubber boot. It may be necessary to spread the opening with needle nose pliers in order for the leads to pass.
2. Attach ring terminal to each lead.
3. Secure ring terminals to pick-up with nut and lock washer.
4. Connect output leads from sensor to *SPEEDTRAP™* speedswitch (probe input terminals).

AMOT recommends usage of *SPEEDTRAP™* shielded cable (available from AMOT) for all wiring between sensor and speed switch.



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