1710 NW Independence HWY
Albany, OR 97321
541-990-2485

# Tach Pod for Vertex

This product is intended to generate a square wave tach pulse using a tiny hall-effect "pod" circuit that attaches to any Vertex magneto when placed in one of four exact locations on the outer housing. The pod attaches to the drive housing using silicone and/or tie wrap and senses the magnetic poles passing inside the housing. A standard signal is generated for use by tachometers, rev limiters, data loggers, RPM switches, etc.

## Location of sensor

There are only four **VERY SPECIFIC PLACES** on the housing the sensor can be located in order to pickup the signal properly and reliably. See supplied diagrams on the back of this sheet. It is recommended that you use tape or a tie wrap to initially position the sensor. Test your location by connecting it to power and ground as outlined below and crank the engine over while watching the tiny LED on the sensor. It should blink 4 times per magneto revolution. If it doesn't, check your placement with the diagrams! Once you are satisfied with the position on the mag, proceed to attach the sensor as per below.

## Installation of sensor

We recommend you **DO NOT** drill and tap holes for the sensor unless the bottom can be removed from the magneto first. If you drill through the housing and put metal particles into the magneto, damage can occur! A special tool is required to remove the lower drive from the mag housing and if advance weights are built into the mag, it is VERY difficult to put it back together without yet another special tool. If you send your magneto to FIE and purchase this sensor kit, installation using mounting screws is FREE.

Silicone and a zip-tie work great to hold this sensor in place. Use brake-kleen to make sure the silicone adheres well to the magneto housing. Hold the sensor in place with tape or a tie-wrap until cured.

## Programming your devices

Set your tachometer devices to **"4 CYLINDER"** operation. Sometimes this is a programmable option, other times you must cut colored wire loops on the device for 4 cylinder operation. Since this unit utilizes 4 mag pulses per revolution and the magneto spins at HALF engine speed, it emulates 4 cylinder operation.

## Connections

**RED** – 12 VDC (9 to 18 volts is acceptable)
**BLACK** – Ground or battery negative
**GREEN** – Tach signal out

When connected, the tiny red LED on the side of the tach pod will be illuminated between poles as they pass the sensor, the LED will turn OFF. At cranking speed, you should see the LED blinking as magnets pass it. At idle speed, the LED will appear to be on all the time.

The circuit will create a square wave pulse output that is approximately whatever the input on the RED wire is. Example: connected to 16VDC, the unit will output a 16VDC square wave pulse. Make sure your input voltage to this unit matches the requirements of the tach device you're connected to.

**Troubleshooting:** Using a voltmeter set to read 12VDC, connect between BLACK (Ground) and GREEN (Signal out). When the LED is ON, you should get a reading of approximately 12VDC (when the RED wire of the unit is connected to 12V). As the magnets pass and the LED turns OFF your meter should read very close to 0.000.

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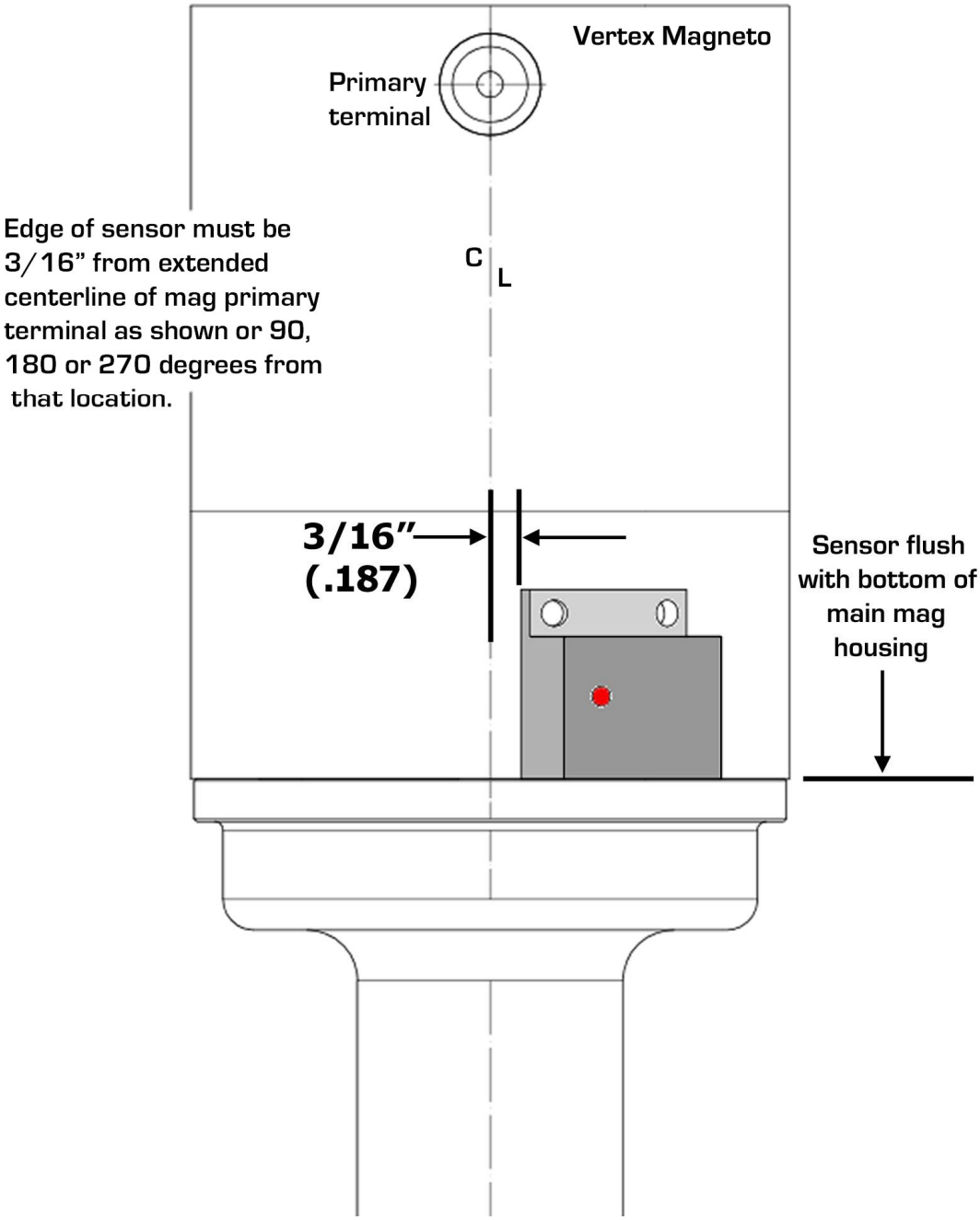

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