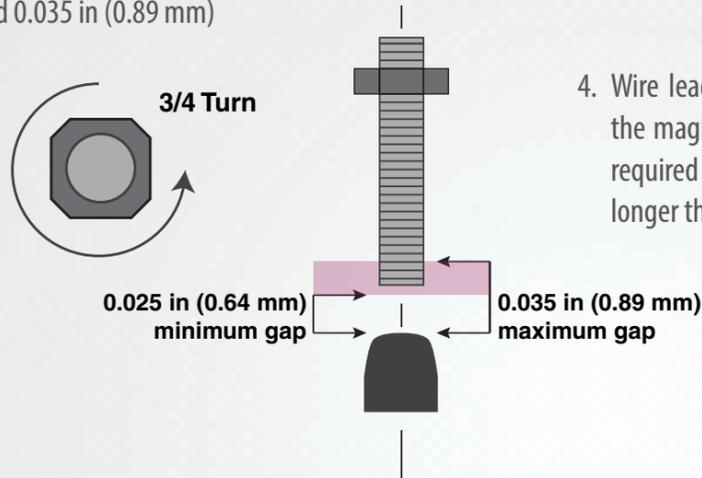
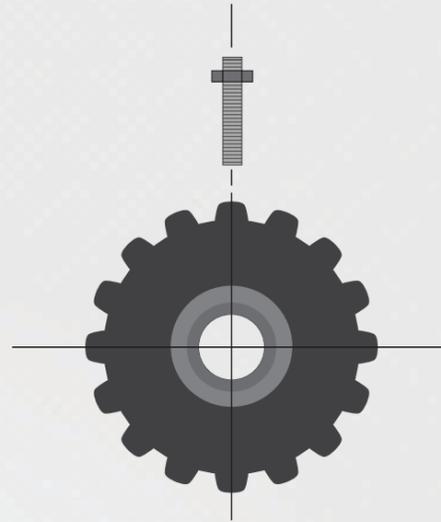


# INSTALLATION

## Magnetic Speed Pickup Installation:

1. If no mounting location is available, then drill and tap a hole in the flywheel housing. The threaded hole should be perpendicular to the center line of the crankshaft and centered over the ring gear teeth. Spot face the hole to provide a flat surface on which to anchor the locknut (refer to the charts on the inner page for the thread size of the Magnetic Speed Pickup).
2. Insert the magnetic speed pickup into the hole and turn it until the magnetic speed pickup makes contact with the face of the gear.
3. Back out the magnetic pickup by turning it counter clockwise (about a 3/4 turn). The gap between the pickup and gear should be no smaller than 0.025 in (0.64 mm) and 0.035 in (0.89 mm)



4. Wire leads should be twisted for their entire length from the magnetic speed sensor to the control unit. Shielding is required if external interference is present or the leads are longer than 10 ft (3 m).



# Magnetic Speed Pickups

## MSP SERIES

GAC's Magnetic Speed Sensors are a rugged and economic solution for detecting engine speed. Sturdier than plastic sensors and outperforming semiconductor-type devices at high temperatures, GAC's epoxy encapsulated sensors are unaffected by dust and dirt. Multiple sizes and customizable configurations are available.



# FEATURES

- Produces Electrical Frequency
- Requires No Energizing Circuit From Control
- Used On All GAC's Electronic Speed Controllers
- -65°F to +225°F (-55°C to +105°C) Operating Temperature
- Available For Hazardous Location Installation (Not Certified)

# OPTIONS



TSE050

## A New Tool For Your Toolkit!

The TSE050 simulates a running engine when connected to the magnetic pickup input on a speed control. An on-board potentiometer allows the signal to be adjusted between 750 to 10,000 Hz and is compatible with all GAC speed controls using a magnetic pickup.

# SPECIFICATIONS

## Power Input

Dimensions	See Chart on Inside Pages
Proximity to Gear Teeth	0.025 - 0.035 in. (0.64 - 0.89 mm)
Temperature Range	-65 °F to +225 °F (-55 °C to +105 °C)
Output	0.5 - 30 Volts RMS Is Recommended For Input To Control Units (1 V RMS When Cranking Engine)
Resistance (Varies From Sensor to Sensor)	160 - 1200 ohms

# CONNECTORS



Automotive



Military



Packard



Dual Packard



Stud Terminals

Contact Your Local Dealer:

Governors America Corp.  
720 Silver Street Agawam, MA 01001  
Phone: 413.786.5600 Fax: 413.789.7736  
[www.governors-america.com](http://www.governors-america.com)  
[info@governors-america.com](mailto:info@governors-america.com)



1.14 PTI3000 B

© 2014 Governors America Corp. All rights reserved.

# SELECTION CHART

Units are: <sup>inch</sup>  
(<sup>millimeter</sup>)

5/8 - 18 UNF Threaded			BODY LENGTH	THREAD LENGTH	CABLE LENGTH	CONNECTOR TYPE	DRILL SIZE
MSP674		3" Without Mating Half Connector / High Output	3.125 (79)	2.75 (70)	2.50 (64)	WIRE LEADS	37/64
MSP675		3" With 7" Leads	3.125 (79)	2.75 (70)	7.00 (178)	WIRE LEADS	37/64
MSP676		5" With 12" Leads	5.0 (127)	4.625 (118)	12.00 (305)	WIRE LEADS	37/64
MSP677		3" Without Mating Half Connector	3.125 (79)	2.75 (70)	n/a	MILITARY	37/64
MSP678		5" Without Mating Half Connector	5.00 (127)	4.75 (121)	n/a	MILITARY	37/64
MSP679		3" Mating Half Connector / Weather Boot	3.125 (79)	2.75 (70)	n/a	MILITARY	37/64
MSP6710		5" Mating Half Connector / Weather Boot	5.00 (127)	4.75 (121)	n/a	MILITARY	37/64
MSP6719		2.375" With 12" Leads	2.375 (60)	2.00 (51)	6.00 (152)	WIRE LEADS	37/64
MSP6720		4" With 6" Leads	3.875 (98)	3.50 (59)	4.500 (114)	WIRE LEADS	37/64
MSP6721		3" With 3" Leads	3.125 (79)	2.75 (70)	2.50 (64)	AUTOMOTIVE	37/64
MSP6721C		3" With 3" Leads / Mating Half Connector	3.125 (79)	2.75 (70)	2.50 (64)	AUTOMOTIVE	37/64
MSP6728		3" With 10" Leads	3.125 (79)	2.75 (70)	6.5 (165)	PACKARD	37/64
MSP6728C		3" With 10" Leads / Mating Half Connector	3.125 (79)	2.75 (70)	6.5 (165)	PACKARD	37/64
MSP6732		3" With 4" Leads / Dual Output	3.125 (79)	2.75 (70)	3.0 (76)	DUAL PACKARD	37/64
MSP6732C		3" With 4" Leads / Dual Output / Mating Half Connector	3.125 (79)	2.75 (70)	3.0 (76)	DUAL PACKARD	37/64
MSP6743		3.75" With 8/32 Stud Terminals	4.38 (111)	3.55 (90)	n/a	STUD	37/64

M18 x 1.5 Threaded			BODY LENGTH	THREAD LENGTH	CABLE LENGTH	CONNECTOR TYPE	DRILL SIZE
MSP6741		3.25" With 9" Leads	3.20 (81)	2.30 (58)	9.0 (229)	PACKARD	21/32

3/8 - 24 UNF-2A Threaded			BODY LENGTH	THREAD LENGTH	CABLE LENGTH	CONNECTOR TYPE	DRILL SIZE
MSP6729		2.5" With 6' Shielded Cable	2.7 (69)	2.25 (57)	72.00 (1829)	WIRE LEADS	0.332
MSP6730		1.5" With 6' Shielded Cable	1.7 (43)	1.25 (32)	72.00 (1829)	WIRE LEADS	0.332
MSP6731		4.0" With 6' Shielded Cable	4.0 (102)	3.55 (90)	72.00 (1829)	WIRE LEADS	0.332
MSP6742		2.7" With 1' Shielded Cable	2.7 (69)	2.7 (69)	12.00 (305)	WIRE LEADS	0.332

3/4 - 16 UNF Threaded			BODY LENGTH	THREAD LENGTH	CABLE LENGTH	CONNECTOR TYPE	DRILL SIZE
MSP6724		3.5" With 3" Leads	4.00 (102)	3.375 (86)	2.50 (64)	AUTOMOTIVE	11/16
MSP6724C		3.5" With 3" Leads / With Mating Half Connector	4.00 (102)	3.375 (86)	2.50 (64)	AUTOMOTIVE	11/16
MSP6734		3.5" With 4" Leads	4.00 (102)	3.375 (86)	4.25	WIRE LEADS	11/16
MSP6735		3.5" With 3" Leads	4.00 (102)	3.375 (86)	2.50 (64)	PACKARD	11/16
MSP6744		2.29" With 8/32 Stud Term	3.50 (90)	2.29 (58)	n/a	STUD	11/16

M16 x 1.5 Threaded			BODY LENGTH	THREAD LENGTH	CABLE LENGTH	CONNECTOR TYPE	DRILL SIZE
MSP6714		3" Without Mating Half Connector	3.125 (79)	2.875 (73)	n/a	MILITARY	14mm
MSP6715		3" With Mating Half Connector / Weather Boot	3.125 (79)	2.875 (73)	n/a	MILITARY	14mm
MSP6723		3" With 3" Leads	3.125 (79)	2.75 (70)	2.50 (64)	AUTOMOTIVE	14mm
MSP6723C		3" With 3" Leads / With Mating Half Connector	3.125 (79)	2.75 (70)	2.50 (64)	AUTOMOTIVE	14mm
MSP6745		6" With Mating Half Connector	6.00 (152)	5.00 (127)	n/a	MILITARY	14mm

NOTE: For the most up-to-date list of magnetic speed pickups, go to [governors-america.com](http://governors-america.com). GAC is continuously adding new solutions for engine speed sensing.