



# Tachometer and Speedometer Kit

Serial Number 405800000 and After Workman® HD Utility Vehicle

Model No. 161-5355

## Installation Instructions

# Installation

## Loose Parts

Use the chart below to verify that all parts have been shipped.

Description	Qty.	Use
No parts required	—	Prepare the machine.
Instrument cluster	1	Install the instrument cluster.
Speed sensor	1	Install the speed sensor.
Magnetic-pickup wheel	1	Install the magnetic pickup.
Magnetic-pickup mount	1	
Hex-head bolt (3/8 x 3/4 inch)	1	
Nut (3/8 inch)	1	
Magnetic sensor	1	
Jam nut	1	
No parts required	—	Complete the installation.

## Preparing the Machine

1. Park the machine on a level surface.
2. Engage the parking brake.
3. Shut off the engine and remove the key.
4. Remove the positive (+) battery cable from the battery.
5. Remove the hood; refer to the *Operator's Manual* for the machine.

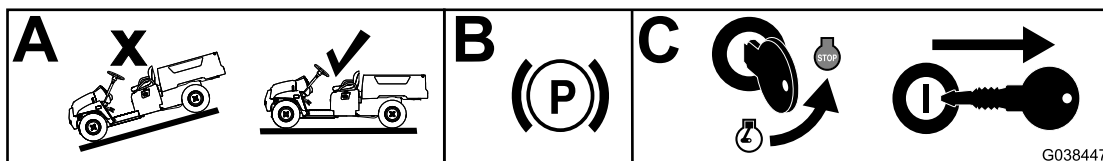


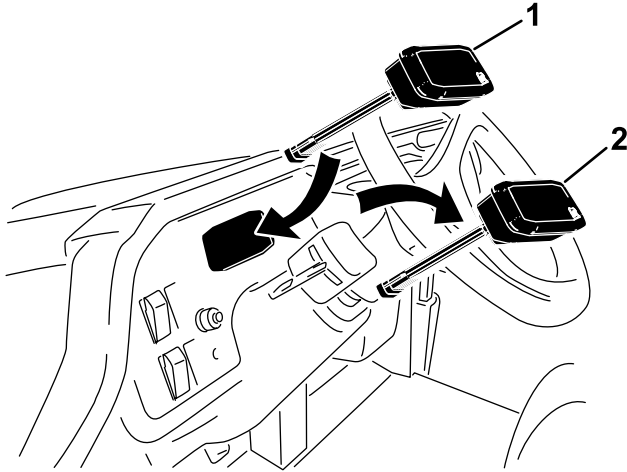
Figure 1

g038447



# Installing the Instrument Cluster

1. Unplug the wire-harness connector from the instrument cluster.



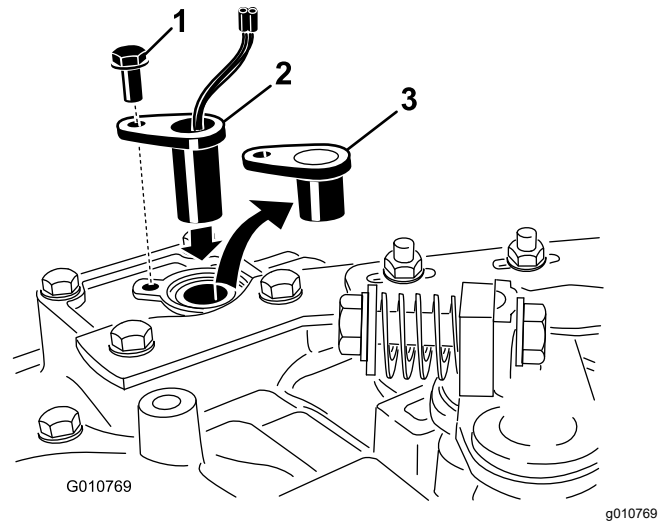
**Figure 2**

1. New instrument cluster
2. Old instrument cluster

2. To remove the instrument cluster from the dash, squeeze the cluster mounting tabs and push it out through the dash opening.
3. Snap the new instrument cluster into the dash opening and plug the harness connectors together.

## Installing the Speed Sensor

1. Remove the bolt securing the plug to the top of the transmission. Remove and discard the plug but retain the bolt for reuse.



**Figure 3**

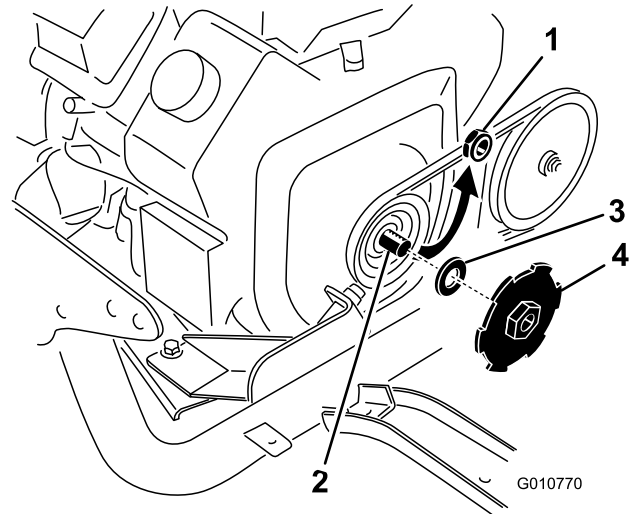
1. Bolt
2. Speed sensor
3. Plug

2. Insert the speed sensor into the top of the transmission and secure it in place with the previously removed bolt.
3. On the main vehicle harness, locate the connector for the speed sensor and plug it into the sensor.

## Installing the Magnetic Pickup

1. Remove the washer and nut from the engine crankshaft.

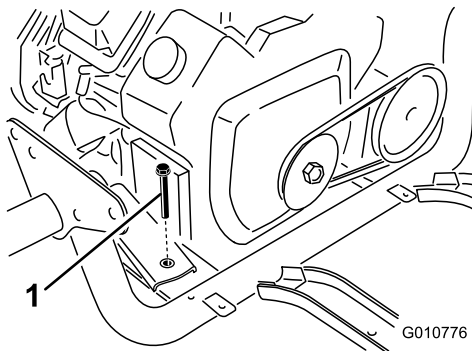
**Note:** Do not remove the pulley.



**Figure 4**

1. Nut
2. Apply blue Loctite® here
3. Existing washer
4. Magnetic-pickup wheel

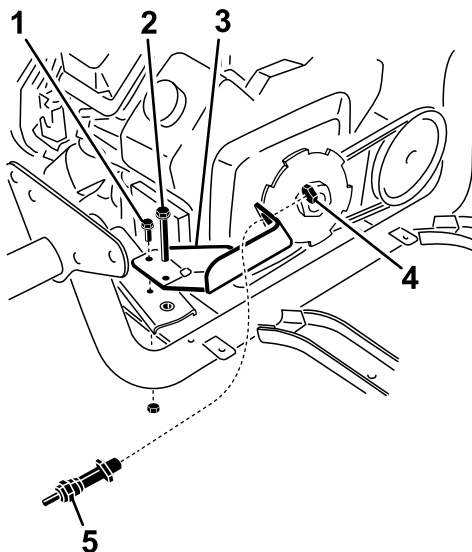
2. Apply blue Loctite to the crankshaft threads.
3. Thread the existing washer and magnetic pickup wheel onto the crankshaft and tighten to 101 N·m (75 ft-lb).
4. Remove the right front engine-mount bolt. Retain the bolt for reuse.



**Figure 5**

1. Engine-mount bolt

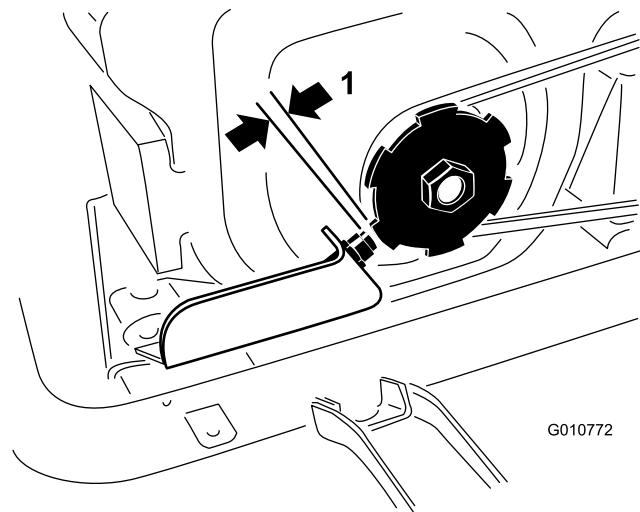
5. Install the magnetic-pickup mount to the engine mount with a new hex-head bolt and the previously removed bolt.



**Figure 6**

1. New hex-head bolt
2. Engine-mount bolt
3. Magnetic-pickup mount
4. Jam nut
5. Magnetic sensor

6. Loosely install the magnetic sensor to the magnetic-pickup mount with the jam nut.
7. Adjust the sensor in or out until the clearance between the end of the sensor and the magnetic-pickup wheel is 1.5 to 3 mm (0.06 to 0.12 inch). Tighten the jam nuts after you attain the adjustment.



**Figure 7**

1. 1.5 to 3 mm (0.06 to 0.12 inch) gap

8. On the main vehicle harness, locate the connector for the magnetic sensor and plug it into the sensor.

## Completing the Installation

1. Connect the positive (+) battery cable to the battery.
2. Check operation and adjust as required.



**Count on it.**