



Speedometer Tachometer Kit for Workman® Vehicles

Model No. 87-9960

Form No. 3317-371 Rev B

Installation Instructions

Install the Sensor and Pick-up

1. Turn the lights off, remove the key from the ignition switch, and set the parking brake.
2. Loosen the nuts on the cap screw and carriage bolt that secure the pump to the engine frame (Fig. 1).

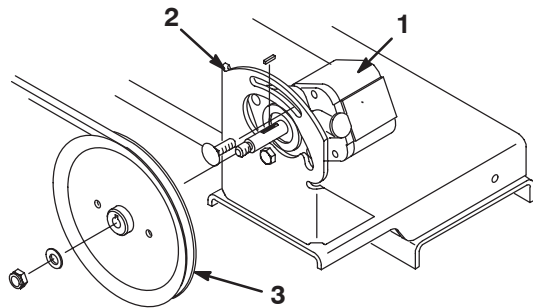


Figure 1

1. Pump
2. Engine frame
3. Pump pulley and belt

Note: This relieves the belt tension and allows the belt to be removed from the pump pulley.

3. Remove the locknut and the washer that secure the pulley to the pump shaft and remove the pulley from the shaft (Fig. 1).
4. Remove the carriage bolt and the locknut that secure the pump to the engine frame (Fig. 1).
5. Mount the pick-up plate to the pump with 2 new carriage bolts and locknuts as shown in Figure 2.

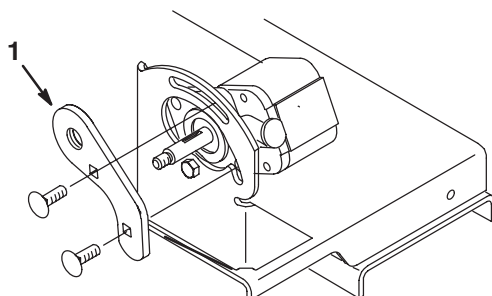


Figure 2

1. Pick-up plate

Note: The nuts should be snug but not fully tightened.

6. Thread the magnetic pick-up into the pick-up plate and loosely secure it with a hex nut as shown in Figure 3.

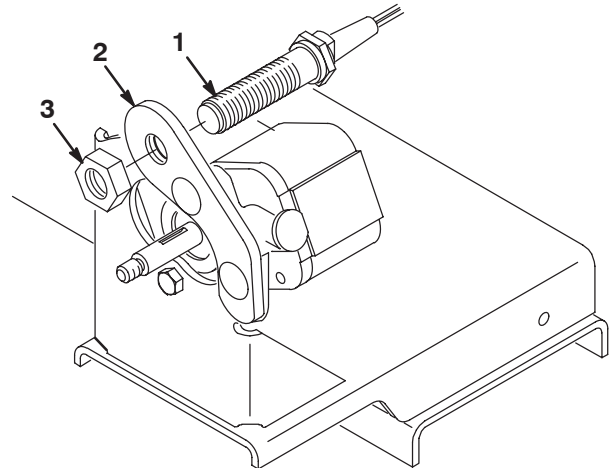


Figure 3

1. Pick-up
2. Pick-up plate
3. Hex nut

Note: The end of the pick-up should be flush with the nut (Fig. 4).

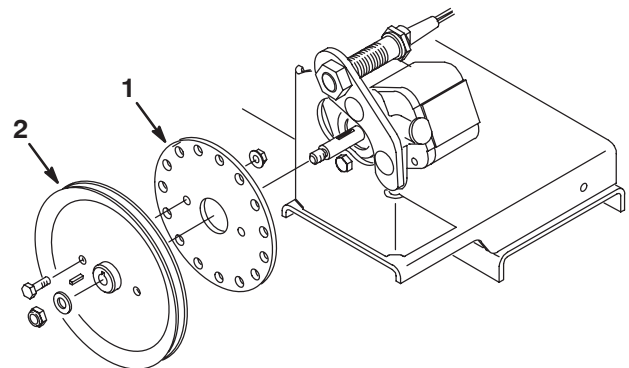


Figure 4

1. Pick-up disc
2. Pulley

7. Mount the pick-up disc to the pulley (Fig. 4) with 2 cap screws and locknuts, then install the pulley to the shaft with the washer and locknut you previously removed.

Note: The pick-up must not contact the disc when you install the disc and the pulley to the shaft.

8. Thread the pick-up into the pick-up plate until it contacts the disc between any two sensing holes, then back the pick-up out 1/2 turn and tighten the nut securely.
9. Slowly rotate the pulley and check to ensure that the pick-up does not contact the disc. If it does, rotate the pulley to the point of contact, loosen the jam nut, back the pick-up out an additional 1/2 turn (maximum), and tighten the nut securely.
10. On the left side of the frame, cut the cable tie that secures the connector the wire harness and remove the cap.
11. Plug the wire connector from the pick-up into the harness connector.
12. Route the pick-up wires along the positive battery cable and secure the wires to the cable with cable ties.
13. Install the belt on the pulley and adjust the belt tension so the belt deflects .48 to .58 in. when 22 lb. of force is applied to the belt at mid span of the crankshaft and the pump pulleys.
14. Tighten the pump mounting nuts when you attain the correct belt tension.

Install the Tachometer

1. Remove the plug from the hole in the dash panel.
2. Locate the wire harness under the dash and cut the wire tie that secures the tachometer wires to the frame.
3. Pull the wires or connector through the hole in the dash and carefully cut off the plastic shielding around the wire terminal.

Note: For vehicles with serial numbers 240000001 and up, pull the connector through the hole in the dash.

4. Remove the 2 hex nuts that secure the tachometer clamp to the tachometer (Fig. 5).

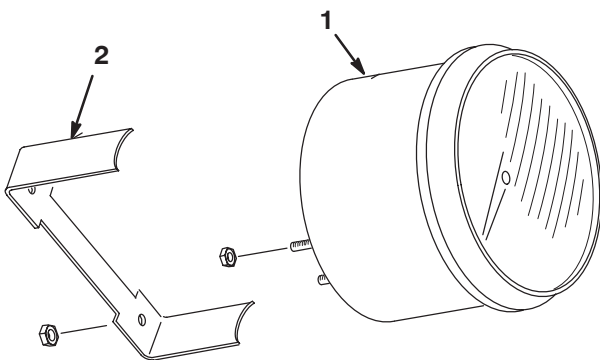


Figure 5

1. Tachometer
2. Tachometer clamp

5. Remove the 4 hex nuts from the tachometer terminal posts.

Note: For vehicles with serial numbers 240000001 and up, go to step 7.

6. Using Figure 6, connect the wires from the harness to their corresponding terminals of the the back of the tachometer with hex nuts.

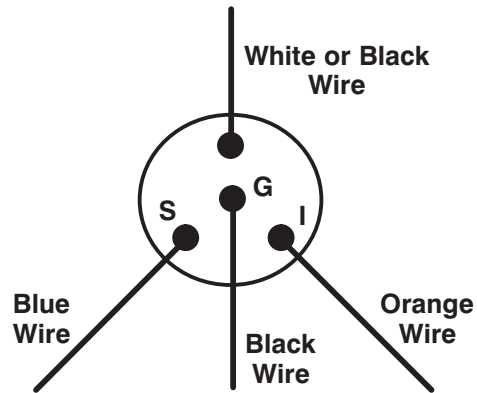


Figure 6

Note: Set the cylinder selector switch, located on the back of the tachometer, to position 4.

Note: For vehicles with serial numbers prior to 239999999, proceed to step 10.

7. Remove the tachometer plug from the wire harness.
8. Attach the ring terminals to the terminated wires (4-6 ring terminal not supplied)
9. Connect the appropriate colored wires from the wire harness to the appropriate terminals on the back of the tachometer with hex nuts as shown in figure 7.

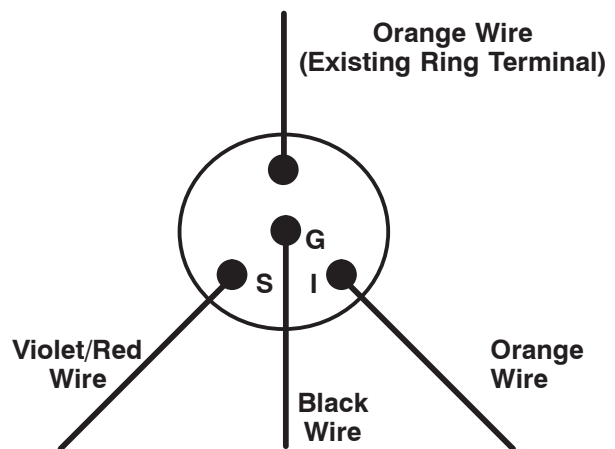


Figure 7

Note: Set the cylinder selector switch, located on the back of the tachometer, to position A.

- 10.** Before you install the tachometer in the vehicle dash, verify the calibration as follows:
 - A. Ensure that the tachometer contacts are not touching the vehicle.
 - B. Set the parking brake, move the shift lever to the neutral position, and start the engine.
 - C. With the engine running at high idle, verify the reading on the new tachometer with another tachometer.
 - D. Adjust the calibration as required by rotating the screw in the **CAL** hole in back of the tachometer.
 - E. Stop the engine.
- 11.** Insert the tachometer into the hole in the dash.
- 12.** Secure the tachometer to the underside of the dash with the tachometer clamp and 2 hex nuts.

