INSTALLATION INSTRUCTIONS

6LS Harness for EFI Vehicles
PN 8886

IMPORTANT: Read instuctions thoroughly before attempting installation.

Parts Included:
- 2 - Cam/Crank Sensor Harnesses
- 1 - Map Sensor Harness
- 2 - Coil Simulators
- 2 - Coil Simulator Clips
- 1 - Crank Sensor Tool Body
- 1 - Crank Sensor Tool Blade
- 2 - 6-32 x .250 Screws

WARNING: Before installing the 6LS Harness, disconnect the battery cables. When disconnecting the battery cables, always remove the Negative (-) cable first and install it last.

This Harness Kit allows the installation of the MSD 6LS Ignition Controller on Gen III LS-1 and LS-6 based engine vehicles equipped with factory EFI systems. The Harness connects inline to factory sensors and provides the 12 volt supply and ground of the Controller. It can also be used on early Gen IV LS-2 based engines, when combined with Cam Sensor Extension Harness PN 88861.

COIL CONNECTIONS

Note: One of the Coil Simulators has a 3-Pin pigtail. This assembly connects to the passenger side coil bank.

Disconnect the factory connector from the coil harness (Figure 1). Connect the MSD Coil Simulators inline with the factory harness. Use the supplied clips to secure the Simulators.

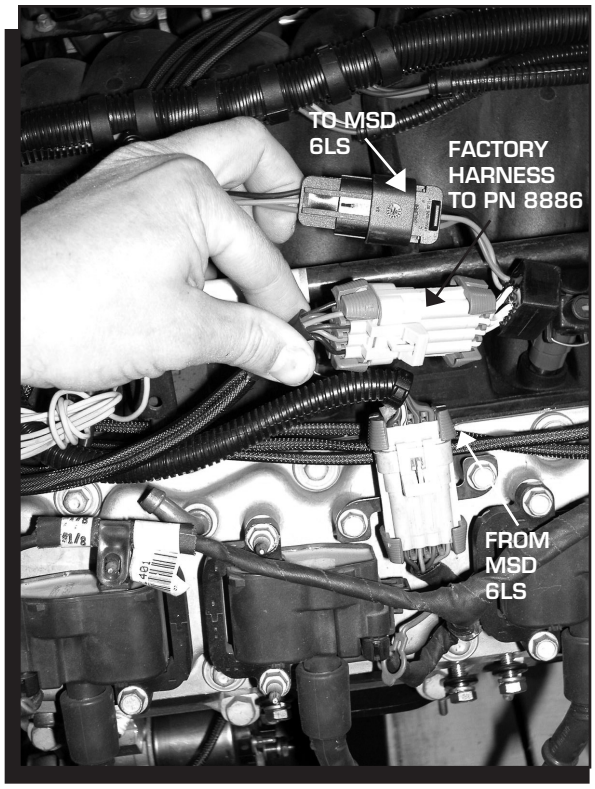

Figure 1 Coil Connections.

MAP SENSOR

Disconnect the MAP sensor harness and install the MSD Harness inline. The Gray Connector of the Harness goes to the MAP sensor. Connect the MAP connector of the 6LS into the connector with a single signal wire (Figure 2).

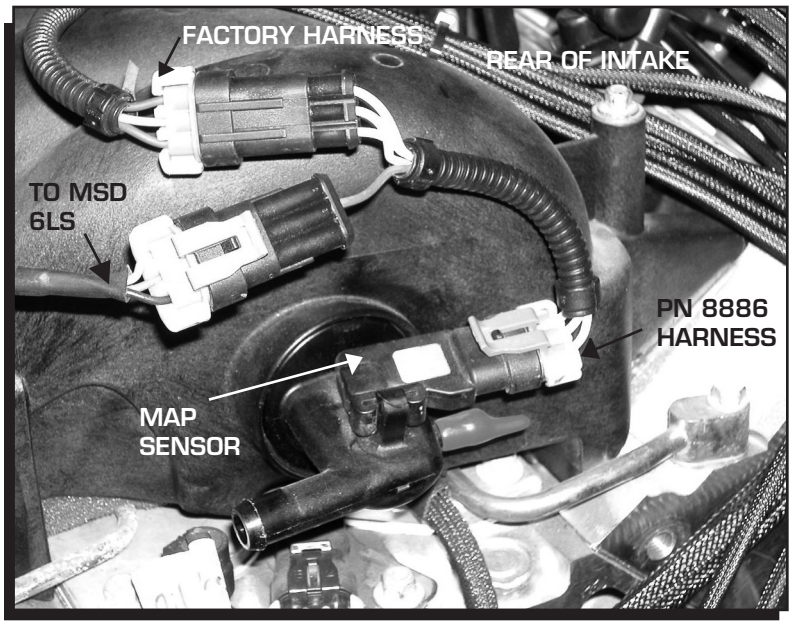

Figure 2 Map Sensor Connection.

CAMSHAFT SENSOR

Locate the Camshaft Sensor. On LS-1/LS-6 based engines, the Cam Sensor is in the rear of the block where the distributor would generally be (Figure 3). On LS-2 based engines, the Cam Sensor is on the front of the block. Note that on LS-2 based engines, Cam Sensor Extension Harness, PN 88861 is required.

Disconnect the factory sensor and install the MSD Harness (Black connector) inline. Connect the Cam Connector of the 6LS to the connector with a single signal wire.

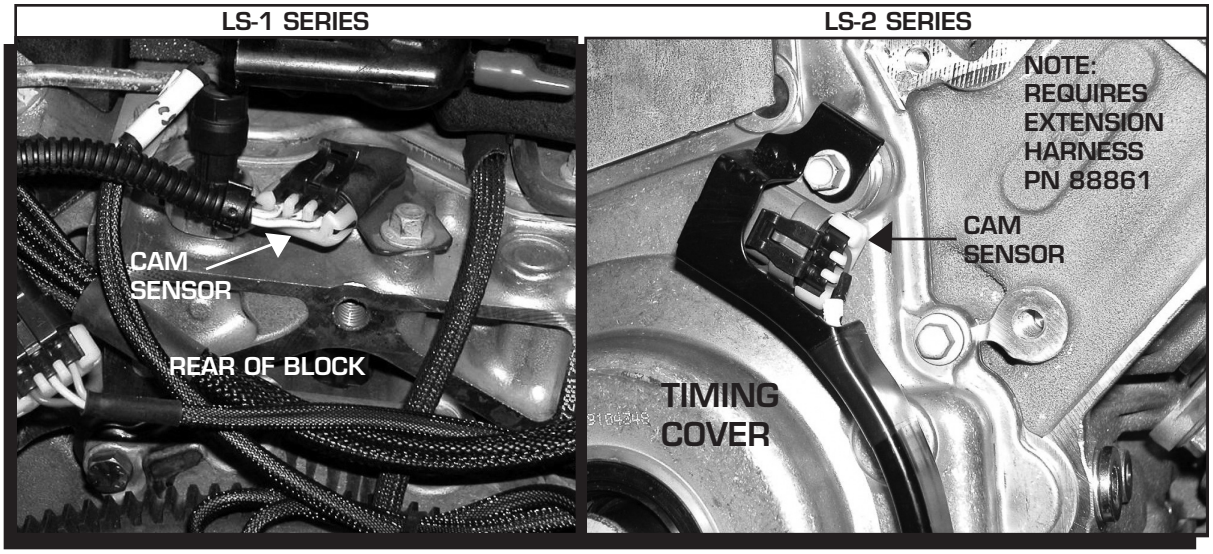

Figure 3 Camshaft Sensor Location.

CRANKSHAFT SENSOR

This sensor is located just above/behind the starter. If the engine is in the car, you will need to assemble the supplied special tool to access the sensor connector (Figure 4), or remove the starter. If the engine is out of the car the sensor should be easy to reach.

Disconnect the crank sensor and install the MSD Harness with three wires to the factory connectors. Connect the single wire connector to the Crank Sensor connector of the 6LS Control.

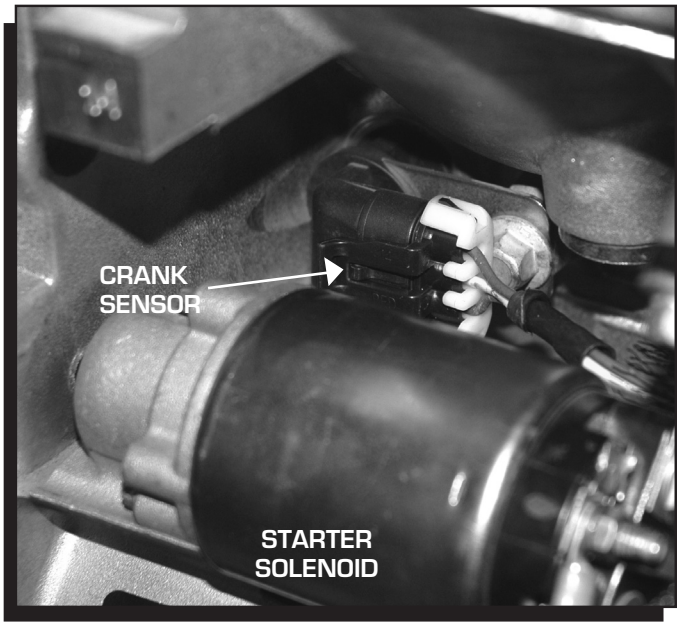

Figure 4 Crankshaft Sensor Location.

CRANKSHAFT CONNECTOR SPECIAL TOOL

This tool will help you access the crankshaft sensor from behind the starter when the engine is in the vehicle.
Assemble the Tool as shown in Figure 5.

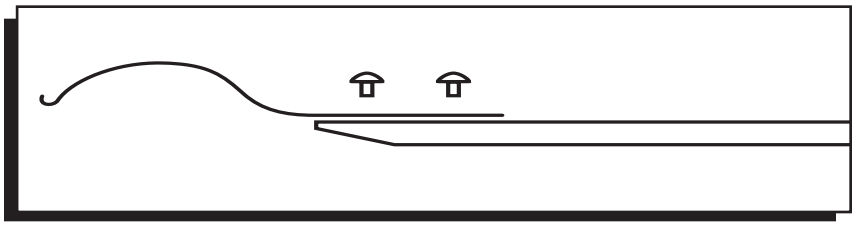

Figure 5 Assembling the Special Tool.

1. Insert the tool through the casting hole with the bend in the blade facing the rear of the car.
2. Rotate the tool clockwise about 10-degrees and push the tool further through the casting hole.
3. Rotate the tool clockwise until the blade meets the Connector tab. At this point, push the tool towards the rear of the car in order to disconnect the crank sensor.
4. Use the tool to connect the 3-pin MSD harness connector to the sensor (Figure 6).
5. Connect the factory sensor connector to the MSD harness.
6. Connect the single wire harness to the matching 6LS connector.

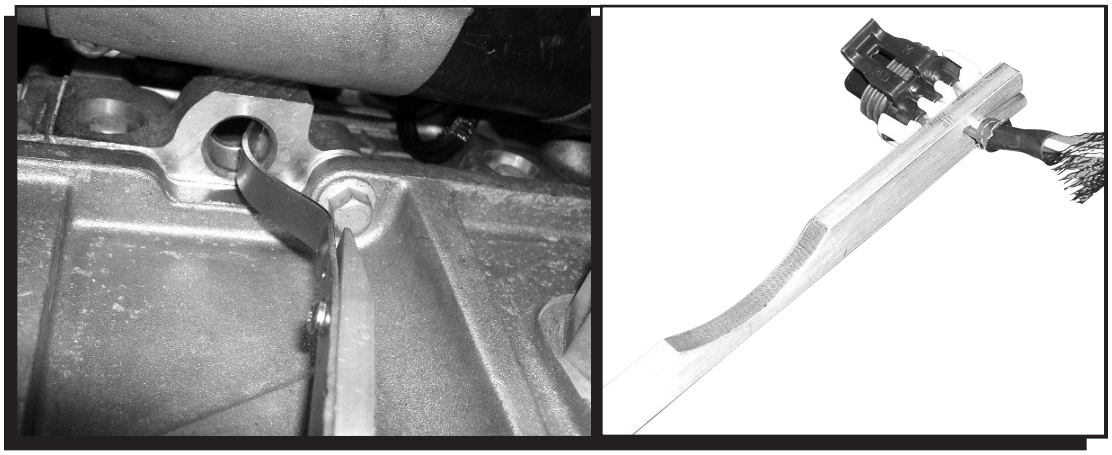

Figure 6 Connecting the Crank Sensor.

NOTES

Service

In case of malfunction, this MSD component will be repaired free of charge according to the terms of the warranty. When returning MSD components for warranty service, **Proof of Purchase** must be supplied for verification. After the warranty period has expired, repair service is based on a minimum and maximum fee.

All returns must have a Return Material Authorization (RMA) number issued to them before being returned. To obtain an RMA number please contact MSD Customer Service at 1 (888) MSD-7859 or visit our website at www.msdignition.com/rma to automatically obtain a number and shipping information.

When returning the unit for repair, leave all wires at the length in which you have them installed. Be sure to include a detailed account of any problems experienced, and what components and accessories are installed on the vehicle. The repaired unit will be returned as soon as possible using Ground shipping methods (ground shipping is covered by warranty). For more information, call MSD Ignition at (915) 855-7123. MSD technicians are available from 7:00 a.m. to 6:00 p.m. Monday - Friday (mountain time).

Limited Warranty

MSD IGNITION warrants this product to be free from defects in material and workmanship under its intended normal use*, when properly installed and purchased from an authorized MSD dealer, for a period of one year from the date of the original purchase. This warranty is void for any products purchased through auction websites. If found to be defective as mentioned above, it will be repaired or replaced at the option of MSD Ignition. Any item that is covered under this warranty will be returned free of charge using Ground shipping methods.

This shall constitute the sole remedy of the purchaser and the sole liability of MSD Ignition. To the extent permitted by law, the foregoing is exclusive and in lieu of all other warranties or representation whether expressed or implied, including any implied warranty of merchantability or fitness. In no event shall MSD Ignition or its suppliers be liable for special or consequential damages.

*Intended normal use means that this item is being used as was originally intended and for the original application as sold by MSD Ignition. Any modifications to this item or if it is used on an application other than what MSD Ignition markets the product, the warranty will be void. It is the sole responsibility of the customer to determine that this item will work for the application they are intending. MSD Ignition will accept no liability for custom applications.

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