



Installation Instructions

18SP567 — Install EGR DPS Sensor Kit on Series 50[®] or Series 60[®] Engine

Introduction

This kit includes the parts needed to replace former EGR DPS (exhaust gas recirculation delta pressure sensor) P/N 23527349 with current production sensor P/N 23531964 and modify the existing engine harness to accept the new sensor. The kit consists of the items listed in Table 1.

Explanation

The former EGR delta pressure sensor (P/N 23527349) has been used on Series 50 and Series 60 EGR-equipped engines since the start of year-2002 engine production. This sensor is identified by the built-in pigtail cable extension. See Figure 1.

Part No.	Qty.	Description
23531964	1	Sensor, Delta Pressure (w/o pigtail)
23532365	1	Harness Extension Assembly
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Table 1. Components of Kit 23532364

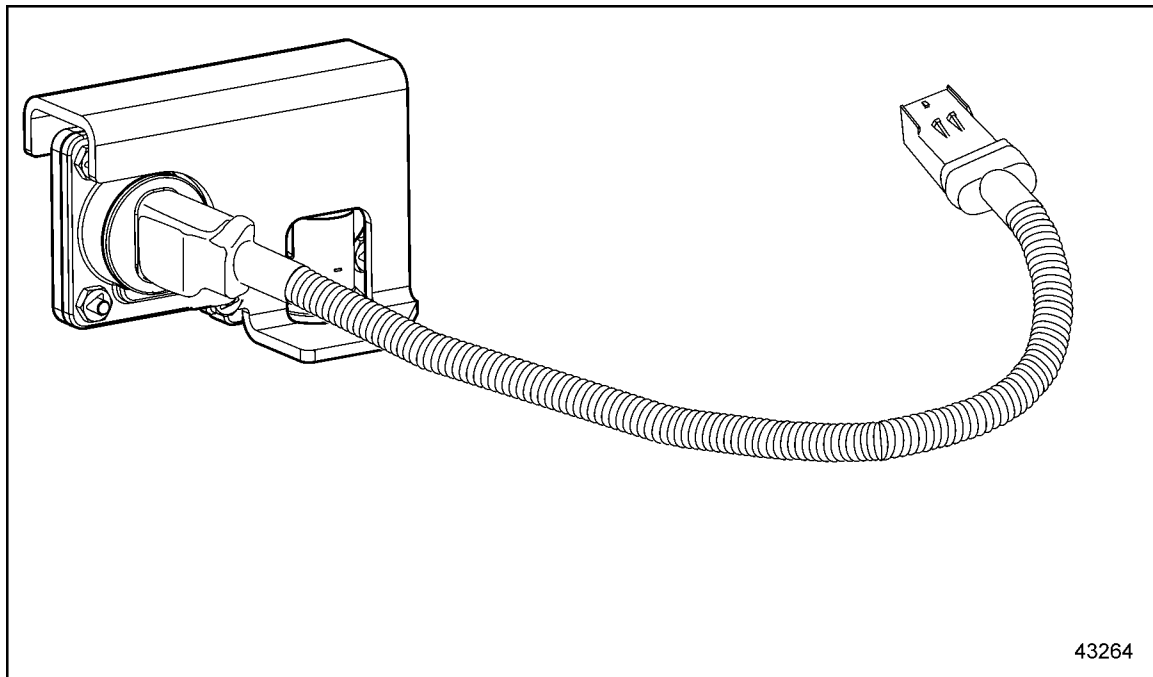


Figure 1. Former EGR Delta Pressure Sensor P/N 23527349

Sensor P/N 23527349 is now obsolete and has been replaced by improved sensor P/N 23531964, which does not have the pigtail cable extension. See Figure 2.

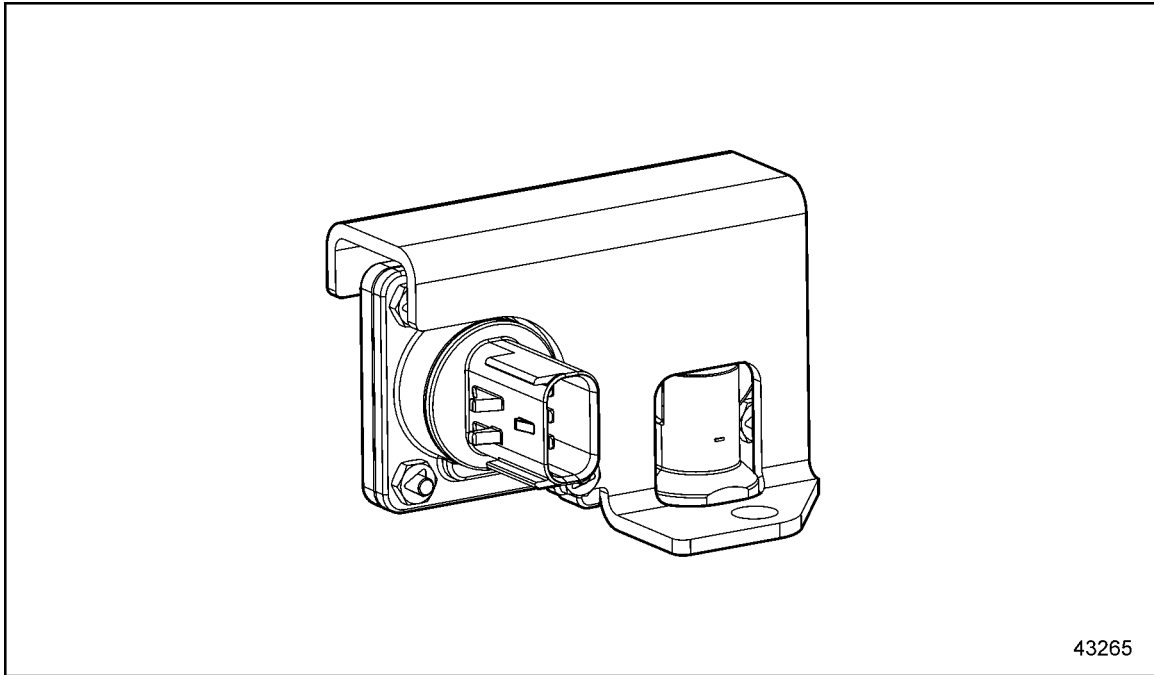


Figure 2. Current EGR Delta Pressure Sensor P/N 23531964

NOTE:

The connector pin assignments on the new sensor have been changed. When servicing the former sensor with the new, the engine sensor harness must be modified. The harness branch that mates with this sensor must be extended to reach the sensor, and the wire to the connector pin assignments must be changed. See Table 2 for pin assignments.

Pin	23527349 (with pigtail)	23531964 (w/o pigtail)
1	Ground	Supply
2	Signal	Ground
3	Supply	Signal

Table 2. EGR DPS Pin Assignments

Installation

CAUTION:

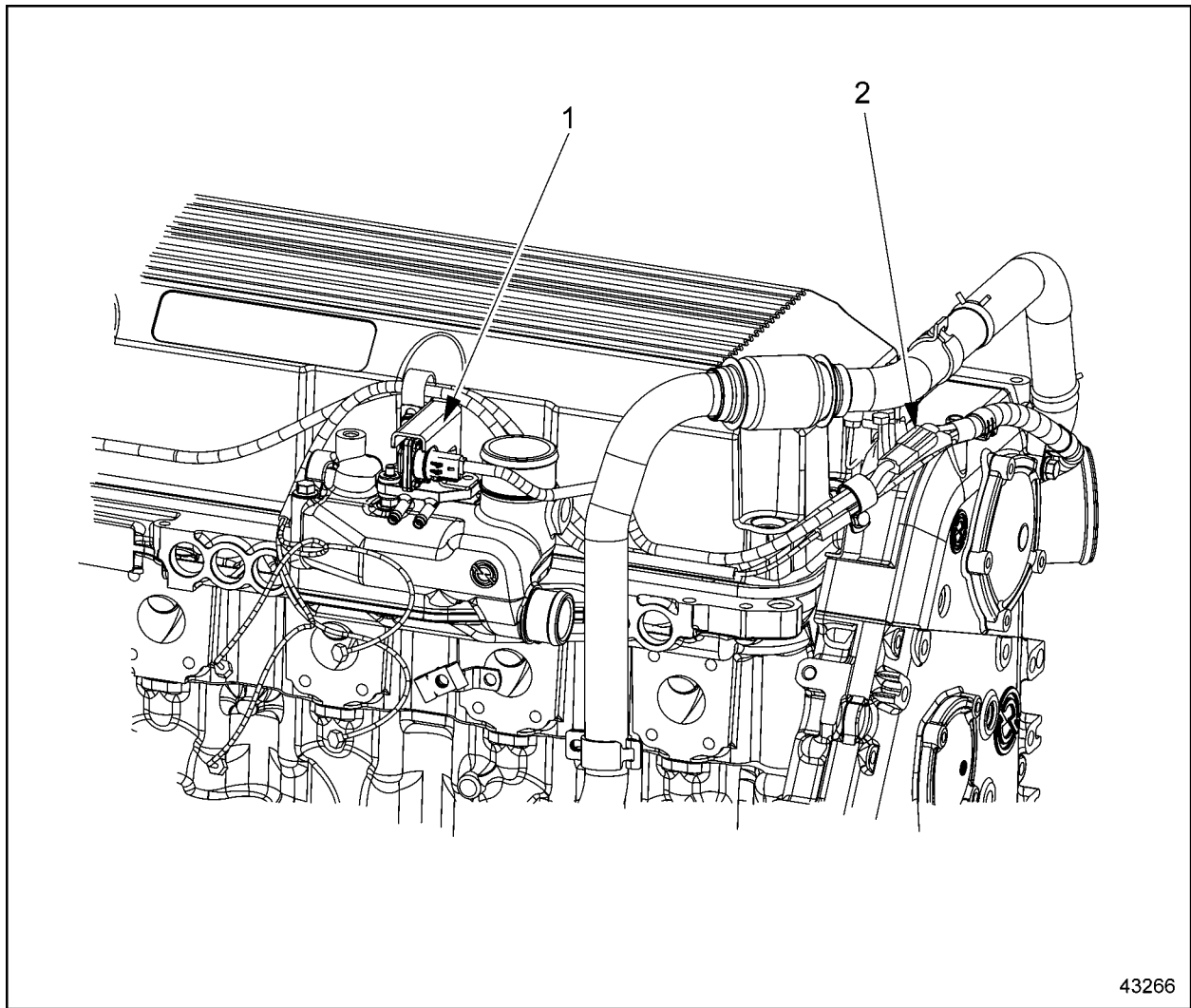
To avoid injury from hot surfaces, allow engine to cool before removing any component. Wear protective gloves.

CAUTION:

To avoid injury from accidental engine startup while servicing the engine, disconnect/disable the starting system.

1. With the engine shut down and at ambient temperature (cool to the touch), locate the EGR DPS connection on the harness:
 - A. On a Series 60 engine, open the bundle of connectors at the right front of the engine and find the EGR DPS connection. See Figure 3.

B. On a Series 50 engine, the EGR DPS connection is located on a harness that runs from the top/front of the engine to the sensor, which is remote-mounted in the engine compartment.



1. EGR DPS

2. Connector Bundle

Figure 3. Location of EGR DPS and Connector Bundle

2. Disconnect the pigtail connector on the EGR DPS from the engine harness. Remove the EGR DPS from the mounting plate. Retain screws.
3. Clean and inspect the sensor mounting plate. If O-ring sealing surfaces are corroded, replace plate.
4. Install the new EGR DPS onto the mounting plate using the retained screws. Torque sensor mounting bolts to 23 N•m (17 lb-ft).
5. Cut the EGR DPS connector from the harness, leaving as much spare wire as possible.
6. Cut the harness extension assembly to the length required to reach from the engine sensor harness to the DPS sensor. Leave enough slack to allow the extension to be properly secured.

NOTE:

The wire colors on the harness extension must match the wire colors on the engine sensor harness. See Table 3.

Harness Wire Number	Harness Wire Color	Extension Wire Color	Extension Pin Number	Function
416	Gray	Gray	1	Sensor Supply
452	Black	Black	2	Sensor Ground
958	Dark Blue	Dark Blue	3	Sensor Signal

Table 3. Wire Splicing Information

7. Refer to Table 3 and splice the harness extension onto the engine sensor harness using the splices supplied. See Figure 4.
8. The supplied splices come covered with heat shrink tubing. Shrink the tubing with a heat gun. Cover the extension wires with the supplied split conduit.
9. Secure the wiring harness:
 - A. On the Series 60 engine, use tie straps to secure the harness extension to the wiring harness running along the side of the rocker cover. See Figure 3.
 - B. On the Series 50 engine, use tie straps to secure the harness extension at the same points that the original pigtail was secured.

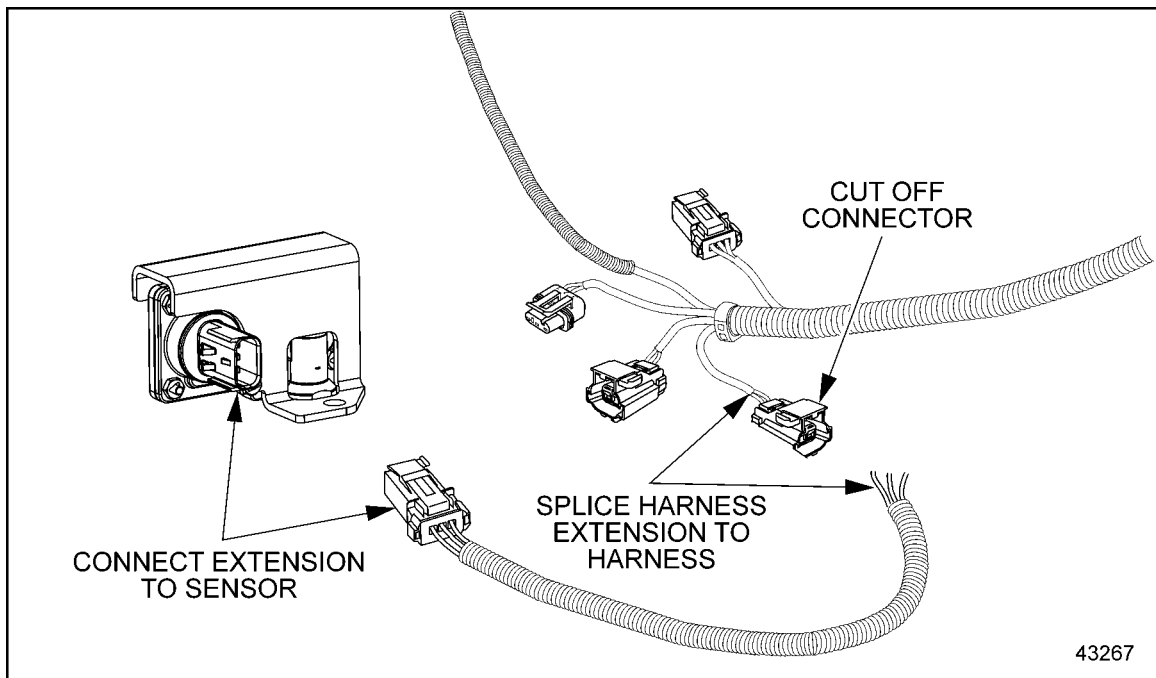


Figure 4. Splicing Connector Extension to Wiring Harness

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