



## Installation Instructions

### 18SP488—Installation of DIN Turbo Boost Pressure Sensor

A new turbo boost pressure sensor has been developed for the following Detroit Diesel engine models:

**Series 2000®:**

Marine models only. *Do not use on construction, industrial, or power generator models.*

**Series 4000™:**

All engine models.

**NOTE:**

The new sensor is *not* intended for use on Series 50® or Series 60® engines.

This sensor has an improved, more durable connector,

made to German DIN standards. The new sensor also will improve reliability. The improved connector is designed to withstand higher levels of vibration, dust, dirt, and moisture.

In order to mate this sensor to existing engine harnesses, a special DIN harness adaptor is used. The old connector must be removed from the engine harness and the DIN harness adaptor must be spliced in its place. There are straight and right-angle versions of the harness adaptor. This kit uses the right-angle harness adaptor.

The part numbers of the sensor and harness adaptor in this service kit are listed in Table 1.

DIN Service Kit Part No.	DIN Sensor Part No.	Application	Used to Replace Sensor Part No.	Adaptor Harness Part No.
23526563	23524605	Turbo Boost Pressure	0025359031 or 0025358031	23525846 (Right Angle)

**Table 1 - Replacement Sensor Part Numbers**

### Installation Instructions

Install the improved sensor on the engine as follows:

	<b>CAUTION:</b>
<b>To avoid injury from hot surfaces, allow the engine to cool before removing any component. Wear protective gloves.</b>	

	<b>CAUTION:</b>
<b>To avoid injury from accidental engine start-up while servicing the engine, disconnect/disable the starting system.</b>	

1. With the engine at ambient temperature and cool to the touch, disconnect the engine harness.
2. After noting which wire goes to which cavity on the harness connector, remove the connector for the sensor being replaced by cutting the wires.
3. Remove the former sensor from the engine and install the improved sensor in its place.
4. Listed in Table 2 are the colors of the wires on the harness adaptor and the colors of the engine harness wires they must be connected with.

Wire Color		Old Connector Cavity	New Connector Cavity	Wire Number	Description
Harness Adaptor	Engine Harness				
Black	Green	A	4	452	Ground
Green	Gray	B	2	432	Signal
Red	Black	C	1	416	Supply


**Table 2 - Turbo Boost Pressure Sensor Connections**

5. Cut back some of the covering on the harness adaptor to expose enough cable to work with. Keep at least a few inches of the covering attached to the back of the connector.
6. Strip the end of each wire from the harness and splice it to the appropriate harness adaptor wire listed in Table 2. Solder or crimp the splice.

**NOTE:**

Solder splices are *preferred*, but crimp splices are acceptable.

7. Cover each wire splice with heat shrink tubing, preferably the self-adhesive type, so that no bare wire is exposed.
8. Cover all 3 spliced wires with an overall heat shrink tube.
9. Apply shrink tube to seal the end of the covering on the harness adaptor to the engine harness.

 <b>CAUTION:</b>
<p><b>Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.</b></p> <ul style="list-style-type: none"> <li>■ Always start and operate an engine in a well ventilated area.</li> <li>■ If operating an engine in an enclosed area, vent the exhaust to the outside.</li> <li>■ Do not modify or tamper with the exhaust system or emission control system.</li> </ul>

10. Connect the harness adaptor to the new sensor, reconnect battery power, start the engine, and check for proper sensor operation.
11. Shut down the engine.

**DETROIT DIESEL**



13400 Outer Drive, West, Detroit, Michigan 48239-4001  
 Telephone: 313-592-5000  
 www.detroitdiesel.com