




EXHAUST BACKPRESSURE GAUGE AND SENSOR INSTALLATION INSTRUCTIONS

- 1**  **Disconnect batteries.** Do not reconnect battery power until system is fully configured to avoid risk of shock or fire.
- 2**  Install Electronic Signal Processor (ESP) and ESP harness according to instructions.
- 3**  Connect the Pressure Sensor Harness to the ESP Harness as follows:
 - a. Remove plugs from cavities 3, 4 and 5 of connector C (green) of the ESP.
 - b. Using a pair of needle nose pliers, pull the orange wedge lock out of connector C.
 - c. Insert the terminal from the red wire (5V sensor supply output) into cavity 3 of connector C on the ESP, pushing until it snaps into connector C.
 - d. Insert the terminal from the black wire (sensor supply ground) into cavity 4 of connector C on the ESP, pushing it until it snaps in place.
 - e. Insert the terminal from the green wire (sensor input) into cavity 5 of connector C on the ESP, pushing it until it snaps in place.
 - f. Note: Terminals will be close to flush with the top of the connector when fully seated.
 - g. A firm pull of the wire will confirm whether they are properly seated.
 - h. Push the orange wedge lock back into position. If any of the wires are not fully seated, the wedge lock will not insert into position.
 - i. Reconnect connector C (green) to the ESP.




ICON KEY	
	CAUTION
	Tools may be required
	Shown in picture

Figure 1: Connector C top and bottom view. Shown with plugs and wedge-lock installed.

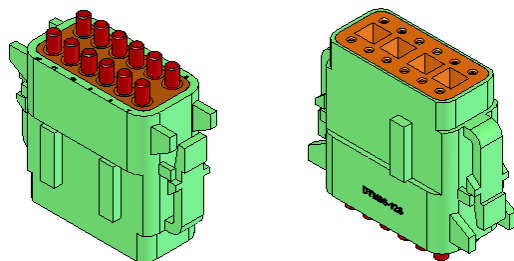
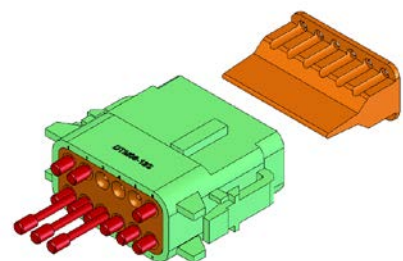


Figure 2: Remove plugs and wedge-lock as shown. Wedge-lock is replaced once wires are positioned properly.




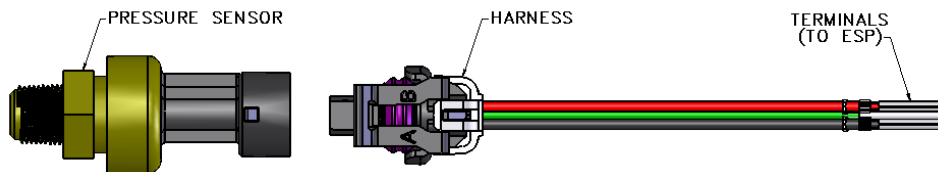


- 4 Find a location where exhaust backpressure can be measured without the sensor exceeding 275° F. This typically requires at least a 12” length of metal tubing (typically 3/16” or larger copper) connected to a tapped hole in the exhaust manifold, with the sensor installed in the other end of the tubing. If a factory Exhaust Backpressure sensor is used, you may be able to install a Tee fitting (obtain from your local automotive supply store) to accommodate this sensor in the same location.
- 5 Install the new sensor. Pressure sensor threads are 1/8” NPT/NPTF.
 - ☑ Many Emission Control Devices are connected to temperature sensors or switches. Be careful not to disable these when installing a sensor.
- 6 If leakage occurs at the sensor, tighten one-quarter turn at a time until leakage stops. If necessary, thread sealant such as Teflon tape may be used.
 - ☑ When using a torque wrench, tighten approximately 1.69nm/15 lb-in. or slightly more, if leakage occurs. Do not use the body of the sensor to tighten! Use only the hex and the correct wrench. Do not over tighten!
- 7  Connect the pressure sensor to the pressure sensor harness by pressing the connector into the slot.

Figure 3: Pressure sensor and harness.



- 8  Connect pressure gauge to the ESP. (See ESP instructions for more details on how to do this).
Note: If drilling a mounting hole in a panel to mount this gauge, the hole size should be 2.040”.
- 9  Secure all wiring so that it does not interfere with moving parts or chafe on sharp edges. This may be accomplished by routing the wiring within the factory wire harness sheath, using wire ties and sheathing, and using appropriate grommets when passing through the firewall.