




FUEL RAIL PRESSURE GAUGE AND WIRE HARNESS INSTALLATION INSTRUCTIONS

Models: R43288 R52288 R53288 R59288 R68288 R69288 R82288
(Model/Years: 2003 - 2007 5.9L Cummins, 2007 - Present 6.7L Cummins,
2001 - Present 6.6L Duramax)

- 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 Rail Pressure Harness to the ESP Harness as follows:
 - a. Remove plugs from cavities 4 and 5 of the connector D (brown) of the ESP.
 - b. Using a pair of needle nose pliers, pull the orange wedge lock out of connector D.
 - c. Insert the terminal from the black wire (sensor supply ground) into cavity 4 of connector D on the ESP, pushing until it snaps into connector D.
 - d. Insert the terminal from the green wire into cavity 5 (sensor input) of connector D on the ESP, pushing it until it snaps in place.
 - e. Note: Terminals will be close to flush with the top of the connector when fully seated.
 - f. A firm pull of the wire will confirm whether they are properly seated.
 - g. Push orange wedge-lock back into position. If any of the wires are not fully seated, wedge-lock will not insert into position.
 - h. Reconnect connector D (brown) to the ESP.




ICON KEY	
	CAUTION
	Tools may be required
	Shown in picture

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

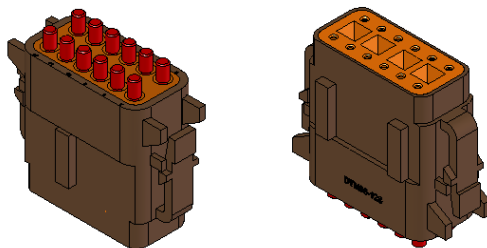
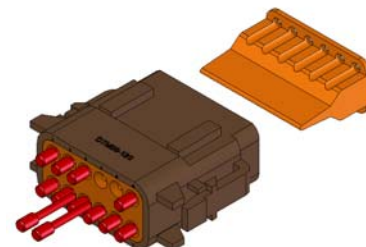





Figure 2: Remove plugs and wedge-lock as shown. Wedge-lock is replaced once wires are positioned properly.



- 4 Find the factory Rail Pressure sensor and disconnect its harness connector. The Rail Pressure sensor should be mounted directly on the fuel rail. On a CR Cummins, it is on the driver's side of the engine. On a Duramax, it is on the passenger's side fuel rail, towards the rear of the engine.
 - 5 Route the ISSPRO Rail Pressure harness up to the Rail Pressure sensor. One end of the ISSPRO Rail Pressure Harness will have a connector similar to the one you just unplugged from the Rail Pressure sensor. Plug this connector into the Rail Pressure sensor, and plug the truck harness connector (which you disconnected in step #4) into the remaining connection on the Rail Pressure harness. **Be sure that the truck harness connector is oriented so that its latch engages the angled block on the Rail Pressure harness connector, not the non-angled block on the other side of the connector.**
-  The Rail Pressure sensor is critical to engine operation. If the wire insulation is damaged and sensor wires are shorted out, engine damage can result. Retain and protect all wiring.
- 6 If installing other items that connect to the Rail Pressure sensor, such as a power-adding module, connect the ISSPRO Rail Pressure Harness directly to the Rail Pressure sensor, then connect the power module's harness between the ISSPRO harness and the truck harness.
 - 7  Connect fuel rail 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 the gauge, the hole size should be 2.040".
 - 8  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.

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