








# FUEL RAIL PRESSURE GAUGE AND WIRE HARNESS INSTALLATION INSTRUCTIONS




**Models: R11288 R11289 R12288 R12289 R13288 R13289  
R14288 R14289 R15288 R15289 R16288 R16289  
R17288 R17289 R18288 R18289**  
*(Model/Years: 2003 - 2007 5.9L Cummins, 2007 - Present 6.7L  
Cummins, 2001 - Present 6.6L Duramax)*


ICON KEY	
	CAUTION
	Tools may be required
	Shown in picture

-  Disconnect batteries. Do not reconnect battery power until system is fully configured to avoid risk of shock or fire.
- 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.
- 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 #2) 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.
- 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.
- Route the sensor harness to the intended gauge mounting location, using grommets as appropriate when passing through the firewall. Connect the sensor harness to the gauge connector as follows:
-  Trim wires to desired length. The green and black wires are the sensor and ground connection, and connect to cavities 5 and 6 of the orange connector respectively (see Figure 1).  
 Install the two wires into the insulation displacement connector (orange connector). Carefully lay the wires across the connector cavities, hold the connector steady with a vice or pliers and press the wires into each cavity with a small screwdriver. Each wire must be pushed completely to the bottom of its groove in the connector, to ensure a good electrical connection.

**Form No. IS175 (Rev. E 1/15/2010)**


**7**  An optional wiring harness is available (ISSPRO P/N R72022) to simplify wiring and provide a potentiometer for reducing the brightness of the gauge lights while still following the vehicle dimmer level. If this dimming function is not required, you can substitute your own 18 gauge wires in place of the harness, using a single wire in place of the orange and orange/black wires. Connect one end of each of these wires as follows:

- *Ground* – The black wire should connect to a clean ground on the vehicle such as the battery negative terminal or a factory ground bolt.
- *Ignition* – The red wire should be connected to a circuit that switches on with the key switch.


 **Wire should be fused so as not to exceed 3 amps. If the circuit does not have a fuse, or the existing fuse is higher than 3 amps, use an inline fuse.**


- *Dimmer* – Connect the orange/black wire to the factory gauge dimmer circuit by either tapping into the in-cab fuse block or by connecting directly to the wire running from the dimmer on the headlight switch.

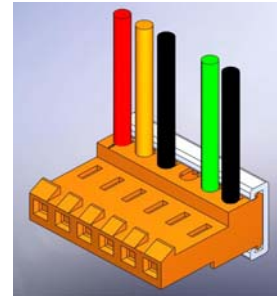
Connect the red, orange and black wires to the orange connector as described above, in positions 1, 2, and 3 respectively. Slide the white dust cover over the orange connector once the wires are securely installed. **NOTE:** The gauge backlighting will only illuminate if both the ignition supply AND the backlighting circuits are on.

 **The lighting harness is designed to be used with Performax EV<sup>2</sup>™ gauges. DO NOT attempt to use this harness and potentiometer with any other gauge types.**

OPTIONAL: Daisy Chain Your Gauges – If multiple Performax EV<sup>2</sup>™ gauges are being installed in one location (such as a pod), you may use a single set of the Ignition, Ground, and Dimmer wires to connect all of the gauges. Simply pass the wires from one orange connector to the next one in a “daisy chain” configuration.

**8**  Install the connector onto the back of the gauge (angled portion on end of connector pointing up as in Figure 1), and then secure the gauge in its mounting location. If drilling a mounting hole in a panel to mount this gauge, the hole size should be 2.040”. Mounting Kit R19999 is available for larger mounting holes up to 2.200”.

**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.



**Figure 1:** Connector.

1	Red	Ignition
2	Orange	Dimmer
3	Black	Ground
4	Empty	
5	Green	Sensor
6	Black	Ground