


FUEL RAIL PRESSURE GAUGE AND WIRE HARNESS INSTALLATION INSTRUCTIONS



-  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. For locations on some specific vehicles see section 10 below.
- 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 on both harness connections that the connector with the latch is oriented so that its latch engages the angled block on the mating connector, not the non-angled block on the other side of the connector.






ICON KEY	
	CAUTION
	Tools may be required
	Shown in picture



Figure 1: Wrong Direction

Correct Direction

-  The Rail Pressure sensor is critical to engine operation. If the harness is connected incorrectly or 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 separate black & green wires of the sensor harness to the intended gauge mounting location, using grommets as appropriate when passing through the firewall.
-  Trim the sensor harness wires to length, leaving enough length to allow the gauge to be pulled from the pod or mounting location without disconnecting the connector.

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Install the two sensor harness wires along with the individual red, orange and black wires into the orange insulation displacement connector (see Fig.2 for positions), using the included wire insertion tool (R72023). Follow the directions with the tool. **DO NOT** strip the wire ends, the connector will pierce the wire insulation, and the insulation helps hold the wire into the connector. Each wire must be pushed completely to the bottom of its groove in the connector to ensure a good electrical connection. Connect the other end of each of the remaining wires as follows:

- *Ignition* – The red wire should be connected to one wire of the included fuse holder using the included crimp splice, and the other wire of the fuse holder connected to a circuit that switches on with the key switch. Install the included 1 amp fuse in the fuse holder.



Use only 1 amp fuses, higher amperage fuse may cause damage to the gauge or to the vehicle

- *Dimmer* – Connect the orange 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.
- *Ground* – The black wire in pin #3 should connect to a clean ground on the vehicle such as the battery negative terminal or a factory ground bolt.

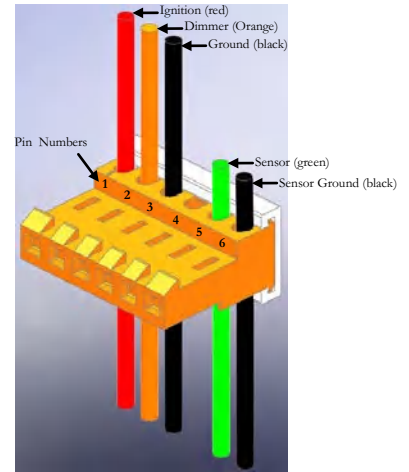


Figure 2: Connector.

Pin	Wire Color	Function
1	Red	Ignition
2	Orange	Dimmer
3	Black	Ground
4	Empty	
5	Green	Sensor
6	Black	Sensor Ground

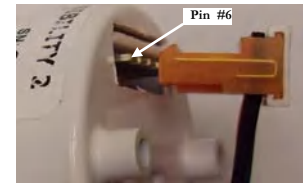
Slide the white dust cover over the orange connector once the wires are securely installed.

NOTE: The gauge backlighting will only illuminate if both the ignition supply AND the backlighting circuits are on.

OPTIONAL: Daisy Chain Your Gauges – If multiple EV² gauges are being installed in one location (such as a pod), you may use a single set of the Ignition, Dimmer, and Ground wires to connect all of the gauges. Simply pass the wires from one orange connector to the next one in a “daisy chain” configuration. A single 1-amp fuse will protect up to 12 EV² gauges.

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Install the connector onto the back of the gauge (angled portion on end of connector pointing up as shown in photo), 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 R1999 is available for larger mounting holes up to 2.200”.



NOTE!!! The orange connector **MUST** be installed in the direction shown. It is possible to force it in backwards far enough to make an electrical connection which may damage the gauge!

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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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Engine specific information: **Duramax: 2001-2004 LB7** – sensor is located in valley of engine, towards driver's side, below the turbo outlet. **2006-2007 LBZ** - sensor is at the rear of the passenger side fuel rail, beneath the EGR cooler. 2011+ LMM – Use R82003 programmer to set gauge up as 100 psi boost gauge with 287° Sweep (under “Advanced”) for correct values.

Cummins – sensor is on the fuel rail, which runs along the driver’s side of the valve cover.