Electric Fuel Pressure Sending Unit

WESTACH Gauges require specific installation procedures for proper operation. Please see additional WESTACH specific instructions on Pages 2 and 3 of this Installation Instruction sheet.

‘98-’99, 24-Valve Trucks:
The most frequently used mounting location for a fuel pressure reading on the ‘98-’99 model year trucks is the innermost, closest to the center nut (clean side) 1/8 NPT fitting that is on top of the fuel filter assembly. The sending unit can be mounted using the 45° elbow or straight into the fuel filter assembly.

Many have asked about, and many have installed, dual fuel pressure sending units – one on the pre-filter side, one on the clean post-filter side. Thus, the owner has the ability to watch for a pressure differential indicating a dirty fuel filter.

However, by mounting only a single sending unit on the clean side of the filter, you will be able to determine a baseline gauge reading for fuel pump performance as well as a baseline for “clean” fuel. If you notice a drop from your baseline “clean” readings, accompanied with a drop in power, the fuel filter likely needs attention.

Regardless of the installation, two sending units or a single sending unit, we suggest changing the fuel filter at the intervals suggested in your Owner's Manual.

‘00-’02, 24-Valve Trucks:
The factory changed the filter housing on these trucks to a plastic cap, top removal type assembly. On these fuel systems, there is not an easy-to-locate fitting for the installation of the pressure sending unit. Nor is there a location that would “stack” the pressure-sending unit in a vertical plane.

If you opted for the Vulcan fuel pressure line, you're in luck. Follow the instructions included with the line, find a good mounting location for the sending unit (remote mounted and in a vertical plane), and you're done.

If you did not go for the Vulcan fuel pressure line, a tapped banjo bolt, in addition to an 18” grease gun “whip” hose from the local auto parts store, will get the job done. This tapped banjo bolt is installed at the fuel pump line-to-fuel pump location. The “Schraeder” valve is removed and the tapped banjo bolt is substituted. Do not simply thread the sending unit into the banjo bolt. The vibration generated by the injection pump is brutal and will kill the sending unit.

In either case, at this point in the fuel delivery system, the customer is monitoring clean fuel and our “establish a baseline, watch for a change in fuel pressure” advice is the same as it is for the ‘98-’99 owners.

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‘03-'07, High-Pressure Common Rail Trucks:
Although it’s not critical to monitor lift pump pressure in these trucks, some customers with serious power modifications have asked about and installed fuel pressure gauges. Once again, the tapped banjo bolt and the Vulcan fuel pressure line (or a grease gun hose) are your friends. We recommend replacing the banjo bolt that comes out of the bottom of the fuel filter housing and attaching the hose there. Then find a location for the sending unit that keeps it vertical. This solution monitors clean fuel and our “establish a baseline, watch for a change in fuel pressure” advice still stands.

As an even easier to install alternative (although this setup monitors fuel on the “dirty” side), the tapped, billet aluminum fuel filter cap also works very well.

Gauge Power:
The cigarette lighter power wires are a good source of “ignition on” power for gauges. You can use these also for the gauge lights, or get a little more creative and take power from the ashtray light, which is on the dimmer circuit.

On the ‘03-'07 trucks, the backside of the dimmer switch is also accessible for gauge backlighting. T-tap into the dimmer switch – orange wire with the white stripe for 2003 models only (pin #3 on the headlamp switch); orange wire with brown stripe for ‘04-'05 models (pin #2) and ‘06-'07 (pin #4).

For ground, we used a close-by Phillips-head screw and a D-ring attached to the light’s wire.

Westach Specific Instructions and Troubleshooting Follow:

**Install Sending Unit Into the Fuel System.**
**Connect the Body of the Sending Unit to a Good Vehicle Ground.**
**Connect Terminal #1 to a Good Vehicle Ground.**
**Connect Terminal #2 of Sending Unit to Pin #2 of Gauge.**
**Connect Gauge Ground Pin #5 to a Good Vehicle Ground.**

(Terminals are not labeled on sending unit. User determines which terminal to use as #1 and #2)

It is **Very Important** to ensure the body of the sending unit is grounded as well as one of the terminals.
**Gauge is showing incorrect fuel pressure.**

Is Fuel Pump putting out correct pressure?

(Determined by using Test Gauge.)

- **Yes**
  - Fuel Pump is good. 12–15 lbs. of pressure at idle.

- **No**
  - **At engine idle, check Fuel Pump pressure with mechanical test gauge.**
    - **Yes**
      - Fuel Pump is bad. 8–10 lbs. at idle or 5 lbs. of pressure under open throttle.
    - **No**
      - Replace Fuel Pump

**Does gauge have proper power and ground?**

- **No**
  - **Gauge pegs at “Zero” or at “Max” degrees.**
    - **Check that ground wire is connected to good vehicle ground.**
    - **Sending Unit is grounded correctly.**

- **Yes**
  - **Ignition to “ON” position.**
    - **Gauge reads about 2 PSI initially which is normal.**

**IMPORTANT**

Proper gauge function cannot be determined unless the user has checked the Fuel Pump fuel pressure using a mechanical test gauge.

The fuel pressure gauge is a monitoring gauge and not a test gauge. Its use will not give the user information about the condition of the Fuel Pump.

Return gauge for warranty replacement.