

Z1 FUEL PRESSURE REGULATOR REFERENCE GUIDE

**PROLOGUE:**

Study these instructions completely before proceeding to assembly. The installer must have a thorough knowledge of automotive systems operation. If unfamiliar with any of the concepts outlined in this instruction, we recommend the installation be completed by a qualified professional.

WARNING!

Extreme caution should be taken when performing maintenance or performance upgrades to your vehicle. Please observe and abide by any Warning or Caution labels placed on the various components and tools used when servicing your vehicle. If you have any questions regarding installation or the various components included with the Z1 Motorsports Fuel Pressure Regulator, consult with a Professional Mechanic or contact Z1 Motorsports for more information.

PARTS INCLUDED:

Item	Quantity	Description
1	1	Assembled Z1 Fuel Pressure Regulator
2	1	Z1 370Z Specific Bracket

TOOLS REQUIRED:

- Hydraulic Jack
- 4mm Hex Key/Bit
- 10mm Wrench
- AN Wrench(es) for Fuel Line Orb Fittings

SAFETY REQUIREMENTS:

- Always wear safety glasses and any necessary protective garments. If using any fluids, chemicals, or solvents, a respirator is recommended.
- Always turn the ignition to the OFF position and disconnect the NEGATIVE battery terminal.
- Always use properly rated jack stands when working under your vehicle.
- Always keep limbs and parts away from moving drivetrain parts.
- **NO FIRES, SPARKS, OR SMOKING.**
- **WORK IN A WELL VENTILATED AREA.**

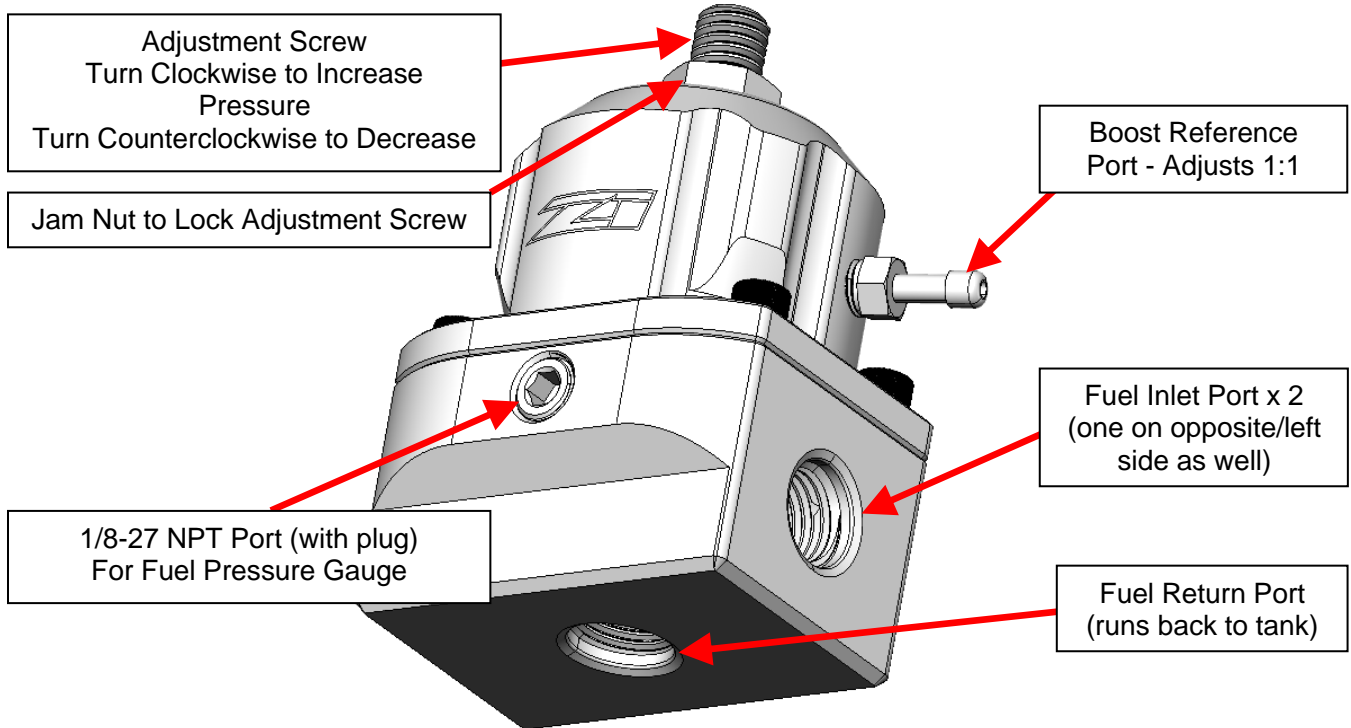
BEFORE YOU BEGIN:

Remove contents from the Z1 Motorsports Fuel Pressure Regulator and verify that ALL necessary hardware is present.

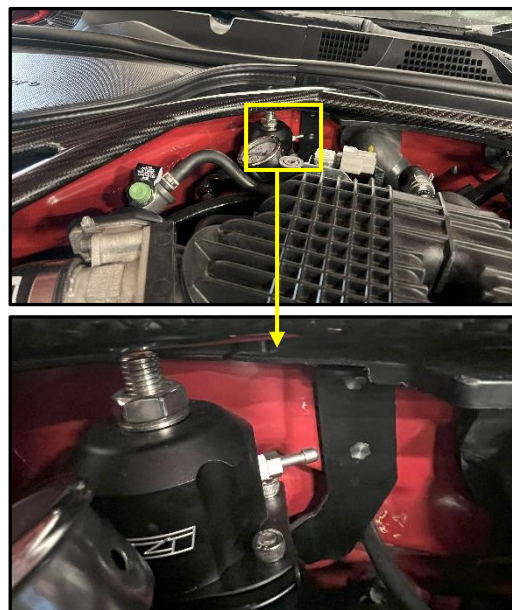
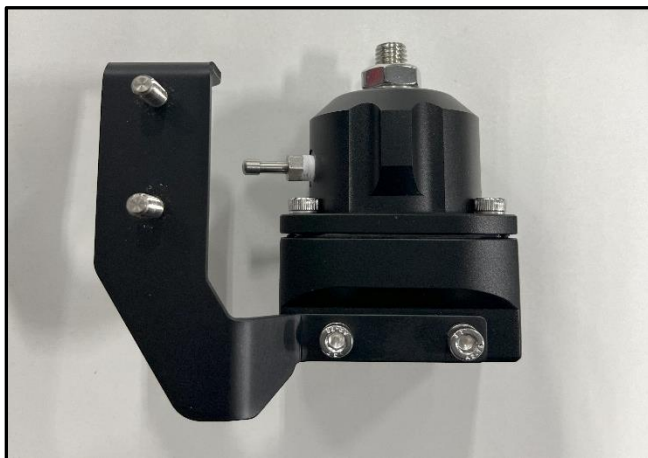
INSTALLATION TIPS/PROCEDURE:

1. Your Z1 Fuel Pressure Regulator will arrive assembled with the exception of orb fittings/plugs for the fuel lines.
2. Before installing the Z1 Fuel Pressure Regulator, allow the engine to cool if it was recently running.
3. Relieve fuel system pressure before disassembling any fuel components. There are a couple ways to do this:
 - a. If you have access to CONSULT:
 - i. Turn ignition switch ON.
 - ii. Perform "FUEL PRESSURE RELEASE" in "WORK SUPPORT" mode with CONSULT.
 - iii. Start engine.
 - iv. Wait for engine to run out of fuel and stall.
 - v. Crank engine over two or three times to release remaining fuel pressure.
 - vi. Turn ignition switch OFF and disconnect the NEGATIVE battery cable.
 - b. If you do not have access to CONSULT:
 - i. Locate the IPDM fuse box, typically next to the battery.
 - ii. Remove fuse box cover. If present, use the sticker on the cover as reference to locate the fuel pump fuse, otherwise refer to your factory service manual.
 - iii. Remove fuel pump fuse.
 - iv. Start engine.
 - v. Wait for engine to run out of fuel and stall.
 - vi. Crank engine over two or three times to release remaining fuel pressure.
 - vii. Turn ignition switch OFF and disconnect the NEGATIVE battery cable.
 - viii. Reinstall fuel pump fuse after servicing fuel system.
 - ix. Remove fuel filler cap to relieve any pressure left in the tank.

4. Below shows the regulator and what each component/port is used for:



5. It is recommended to attach your fuel pressure sensor/gauge, and ORB fittings (if they are not a 1-piece design) to the Z1 regulator before installing it.
6. Find a suitable location to mount the Z1 Fuel Pressure Regulator. The regulator will come with a universal bracket attached to the regulator and a 370Z specific bracket. Use whichever bracket best suits your vehicle.
 1. For 370Z owners: The 370Z specific L-shaped bracket will mount to the false firewall behind the engine. If using this bracket, remove the bracket that comes on the regulator and install the Z1 bracket as shown below. Then remove the plastic battery cover and cowl trim piece. Install the (2) rubber bonded washers onto the PEM studs on the L-shaped bracket.
7. For 370Z owners: Attach the regulator and bracket to the two holes on the false firewall, secure with the provided nuts.



8. If using the universal bracket, mount the regulator to the vehicle in a suitable location with (2) M6 bolts/nuts.
9. Attach the fuel lines coming from the fuel rail OUTLET to the SIDE ports on the regulator. You can choose to use both sides of the regulator or just one. If only one is used, install a 9/16-18 UNF ORB plug in the empty port.
10. Attach the fuel return line (that runs back to the tank) to the BOTTOM port.
11. Once all fitting/connections are attached, tighten all connections.
12. Make sure any fuel that may have leaked out has been wiped clean and ensure any fuel soaked rags/shop towels are removed from the engine bay.
13. Consult your tuner on whether or not they would like to use boost reference for the regulator. If you need boost reference, using 4mm or 5mm vacuum hose tee into an OE vacuum hose and route it to the port on the Z1 regulator.
14. Reconnect the negative battery terminal.
15. Turn the ignition to the ON position but DO NOT start the vehicle. You should hear the fuel pump prime. Check the fuel pressure on the gauge installed on the Z1 regulator and check for any leaks around the entire fuel system.
16. If you see no leaks AND see no fuel pressure, repeat step #12 a couple more times while waiting 30 seconds to a minute in between each ignition ON sequence.
17. Once you notice some pressure on the gauge, check again for any leaks around the entire fuel system and all connections on the Z1 regulator. If any leaks are found, turn the ignition to the OFF position, clean up the spilled fuel, and repair the leaks before continuing.
18. Once you confirm you have fuel pressure and NO leaks, start the engine.
19. Quickly monitor the fuel pressure gauge and adjust the Z1 regulator to the desired fuel pressure. Rotating the adjustment screw clockwise will increase pressure, while rotating it counterclockwise will decrease pressure. Most OEM Nissan fuel systems are set to 52 PSI. The Z1 regulator can adjust pressure from 40-75psi.
20. Once you confirm the base fuel pressure is correct, tighten the jam nut on the adjustment screw.
21. Depending on your forced application or what your tuner recommends, attach the vacuum line to the Z1 regulator.
22. Check the vehicle for loose tools/items.
23. Take the vehicle for a final test drive. Making sure to check again for any leaks, if found IMMEDIATELY turn vehicle off, clean up the spilled fuel, and repair the leaks before starting the engine again.

END

Additional Technical Support:

Contact Z1 Motorsports at info@z1motorsports.com

Or call 770-838-7777 between 9am and 6pm ET