



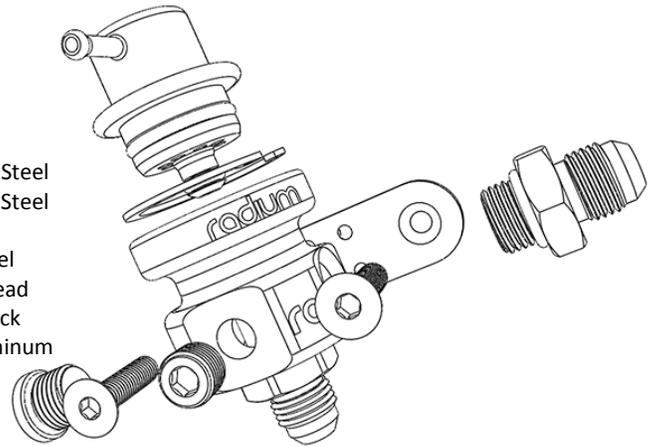
# INSTALLATION INSTRUCTIONS

## FUEL PRESSURE REGULATOR

PART NUMBER: 20-0010 AND 20-0014

For Support: [info@radiumauto.com](mailto:info@radiumauto.com)

- 1x Bosch Regulator Top
- 4x M4x0.7mm Countersink Screw, Stainless Steel
- 2x M6x1.0mm Countersink Screw, Stainless Steel
- 1x 1/8-27 NPT Hex Socket Plug, Plated Steel
- 1x 1-7/16" Snap Ring, Internal, Stainless Steel
- 1x 9/16"-18 Port Plug, Low Profile Socket Head
- 1x 9/16"-18 Port To -6AN Male Adapter, Black
- 1x Fuel Pressure Regulator Body, Billet Aluminum
- 1x Universal Mounting Bracket, Black



### Relieving Fuel Pressure:

Follow the recommended practice for relieving fuel pressure in the vehicle. This is commonly done by running the engine with the fuel pump fuse removed. The engine will stall when the fuel rail pressure has dropped. Now, remove the negative terminal on the battery.

### Mounting the FPR:

It is best to mount the regulator before installing port fittings, as the fittings may interfere when securing fasteners. Attach the included mounting bracket to the regulator body using the 4 supplied M4 Allen head screws. Use the two M6 countersink screws to secure the regulator to the surface (nuts are not included). NOTE: If a Radium Fuel Surge Tank was purchased, the FPR can screw into one of the top ports with an O-ring (not supplied in this kit).



### Fittings and Ports:

The Radium FPR features 3 different ports on the machined housing.

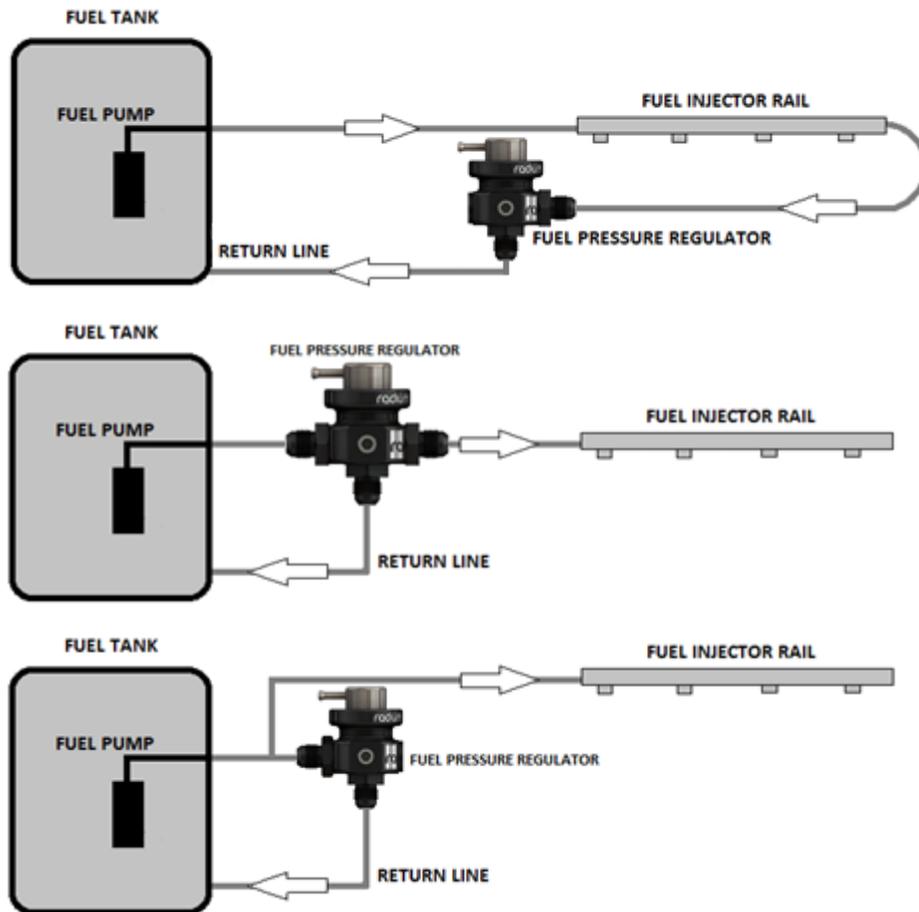
The two 9/16-18 ports are the regulated pressure ports. They are designed to use -6AN O-ring port fittings. These fittings are commonly available from most hose fitting manufacturers. **The O-ring MUST be lubricated prior to assembly to prevent O-ring failure.** Do not use thread pastes or tapes on these fittings.

The 1/8 NPT port can be used to monitor fuel pressure using a mechanical gauge or sensor (not included). If not used, plug this hole using the supplied 1/8 NPT fitting. Use Teflon based paste or tape on this fitting.

The -6AN flare fitting on the bottom of the housing is the fuel return. In all plumbing scenarios, this port must be connected to the fuel return to the fuel tank or surge tank (if applicable). Do not use any thread compounds on flared fittings.

## Plumbing Schematic Examples

There are many ways that the FPR can be plumbed. All methods will use the lower -6AN male outlet port as a return back into the fuel tank or fuel surge tank (if applicable).



## Vacuum Reference

The small vacuum nipple on the regulator is for a 1:1 vacuum reference. This maintains a constant pressure ratio between the fuel pressure and the intake manifold pressure for consistent fuel delivery. If the factory vehicle used a vacuum line to the pressure regulator, route this hose to the barbed nipple on the FPR. NOTE: the regulator tops can be rotated while maintaining a proper seal. This allows the BOSCH regulator vacuum nipples to be clocked 360 degrees.

## Start Up

- Reconnect the battery.
- Turn the ignition to the ON position to allow the fuel pump to prime the system (do not start the engine).
- Cycle the ignition power a few times and check for fuel leaks.
- If there are any leaks, they must be corrected before proceeding.
- Start the engine and recheck for leaks.
- Use a pressure gauge to ensure correct fuel pressure is being delivered at the fuel rail.

## Servicing

- Relieve fuel pressure, as mentioned above.
- Using snap ring pliers, squeeze the internal retaining ring and carefully lift it out of the top of the FPR unit.
- Firmly pull up on the regulator unit and remove from the housing.
- Regulator inserts can be purchased from most major auto parts suppliers and Radium Engineering.