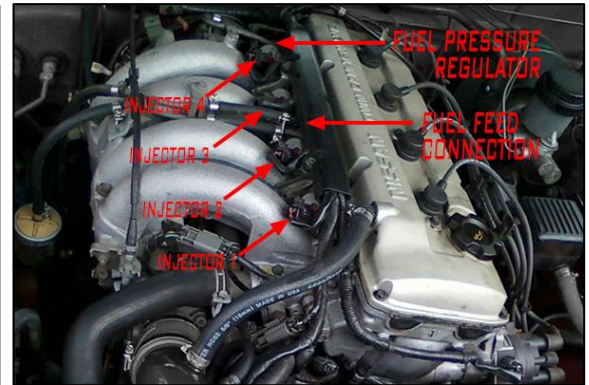


WARNING: DO NOT EXPOSE WORK AREA TO ANY SPARKS OR FIRE. DO NOT SMOKE WHILE OPERATING ON THE FUEL SYSTEM. CLEAN UP ALL FUEL SPILLS IMMEDIATELY. WORK IN A WELL VENTILATED AREA.

1. Remove fuel pump fuse and start engine. Allow engine to stall. This relieves pressure in lines. Replace fuel pump fuse. Disconnect battery. Unplug injectors and disconnect harness from fuel rail. Carefully pull vacuum tubing off fuel pressure regulator (FPR).

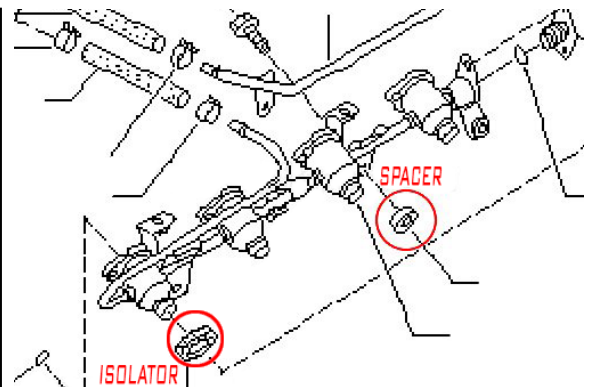
Release and pull back clamps on FPR return hose and fuel feed hose located between intake runners 2 and 3, as depicted. Gently disconnect both fuel hoses and catch all spilled fuel.



2. Use a 12mm socket wrench to remove the two primary M8 mounting bolts.

Next, gently lift fuel rail up just enough to expose the 4 rubber fuel injector isolator cushions. They will either be stuck around the lower portion of the injector or still in the intake manifold injector ports. Also, find the 2 black plastic spacers found underneath each fuel rail tab. These pieces will not be reused.

Remove the fuel rail from the vehicle. It will contain fuel. Drain excess fuel into a safe container for disposal.



3. Install all fittings into the ports. **To prevent failure, lubricate all adapter fitting O-rings.**

Both newer 20-0457 KA24DE fuel rails and the previous 20-0157 KA24DE fuel rails have at least one tapered NPT port. Follow the steps below to install pipe thread fitting(s):

1. Apply a conservative amount of PTFE paste to the male fitting threads.
2. Screw the fitting into the port and finger tighten.
3. Use a wrench to tighten another 1.5 to 3 turns. When installed, threads will be showing.

Next, transfer the OEM FPR from the factory rail to the Radium FPR adapter (if purchased).

NPT
TAPERED PIPE THREAD



4. Thoroughly clean out any dirt or debris found in the intake manifold injector seat bores.

Next, **lubricate the Radium injector seat O-rings with engine oil.**

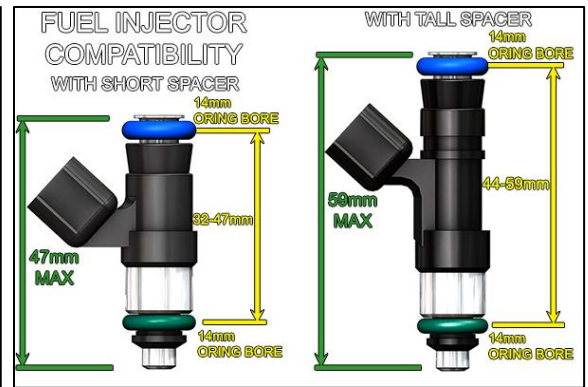
Press the Radium injector seats down firmly into the 4 intake manifold injector ports until fully seated. If necessary, use a small rubber mallet. Be careful not to damage the O-rings.



5. For proper fitment, the top feed fuel injectors must match the dimensions as shown here.

Use the short mounting spacers and bolts for the shorter injectors and the longer spacers and bolts for the taller injectors.

Lubricate each fuel injector's top and bottom O-rings with engine oil. Fully insert the injectors into the Radium fuel rail bores.



6. Insert the small end of the thermal insulating mounting spacer into the fuel rail mounting boss, as shown. Secure the fuel rail onto the intake manifold, ensuring all injectors seat properly.

Use the small thermal insulating washers under the heads of each mounting bolt and install the bolts. Tighten down with a 6mm Allen wrench. **CHECK HOOD CLEARANCE BEFORE PROCEEDING.**



7. If Nissan wiring harness adapters were included with the purchase of the top feed fuel injectors, install them now per the instructions provided by the manufacturer.

Note: wiring polarity on each injector does not matter.



8. When all components and fuel lines are installed, prime the fuel system and check for leaks. Fix as needed.

Check again for leaks after the system has reached operating temperature.

INSTALLATION COMPLETE

