

INSTALLATION INSTRUCTIONS

FUEL RAIL

Nissan S13 SR20DET

Document: 19-0222
Support: info@radiumauto.com

This fuel rail requires aftermarket fuel injectors and plumbing (hose, fittings, etc). Please refer to www.radiumauto.com for more details.

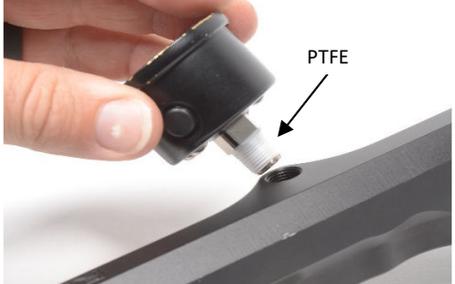
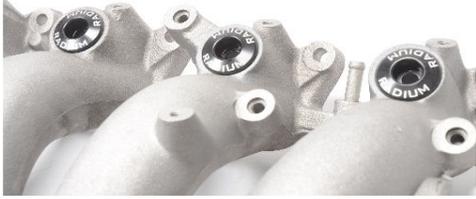
CAUTION

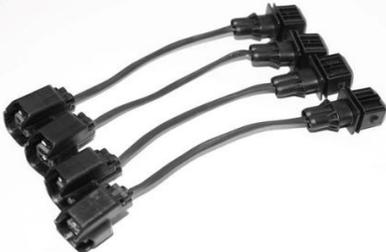
Only a qualified technician following applicable safety procedures should perform the installation of this product. One must have knowledge in repair and modification of fuel systems and general vehicle modifications to install this product. **Gasoline and other fuels are flammable and can be explosive.** Only install in a well-ventilated location to minimize buildup of fuel vapors. No sparks, open flames, smoking or other ignition sources are to be present. Draining and removal of all fuel from the fuel system is recommended. Proper eye and personal protection is required at all times during installation.

WARNING

The fuel system is under pressure! Do not loosen any connections until relieving the fuel system pressure. Consult a service manual for instructions on relieving fuel pressure safely. This product is designed for off-highway and racing use only. Fuel system components may not be legal for sale or use on emissions controlled motor vehicles. Consult local, state, and federal laws.

STEP	TOOLS NEEDED	INSTRUCTIONS	PHOTO
1	12mm Socket	Remove the fuel pump fuse. Start engine and allow to stall. This relieves fuel pressure in the fuel lines. Replace the fuel pump fuse and disconnect the battery. Unplug all injectors and disconnect injector harness from the fuel rail. Disconnect fuel lines. Remove the three M8 size mounting screws holding the fuel rail to the intake manifold, being careful not to lose the plastic washers. THE BLACK PLASTIC WASHERS AND SCREWS WILL BE REUSED. Remove the fuel rail and drain the excess fuel into a safe container.	
2		NOTES REGARDING FUEL INJECTORS: This fuel rail requires aftermarket injectors with the following dimensions: 34mm tall (measured between o-rings) and 14mm upper and lower O-rings. Most aftermarket fuel injector manufactures offer a fuel injector with these common dimensions.	
3		NOTES REGARDING FUEL INJECTORS (Cont'd): In some cases, the installer may be trying to use aftermarket fuel injectors that have billet adapter hats installed on them. These are used to change an injectors installation height, and/or reduce the O-ring size. Otherwise, they do not provide a functional purpose. Proper fitment cannot be achieved with the hats installed. The hats must be removed from the injectors. In most cases, this will result to a 34mm height injector, which are compatible with this fuel rail. Consult the injector manufacturer for more details.	
4	4mm Allen wrench	Apply a medium strength thread locking compound (such as Loctite Blue) to the small screws included with the Radium fuel rail and use them to attach the mounting brackets to the fuel rail. The tallest bracket is located in the middle and the other two install at the ends.	

5		<p>Make sure the corner radii of the brackets are lined up with the fuel rail corner radii. This will ensure that the brackets are in the correct positions.</p> <p>Also, make sure the brackets are bending away from the fuel rail.</p>	
6		<p>Now is a good time to install the adapter fittings and/or accessories into the fuel rail ports.</p> <p>The bottom port and two end ports require 8AN ORB (O-ring boss) fittings. These fittings seal with an O-ring. Oil must be applied to the O-rings. A wide variety of adapter fittings for 8AN ORB are available at www.radiumauto.com</p>	
7	7/16" Wrench	<p>If installing a pressure gauge, plug, or other 1/8NPT (pipe thread) fitting into the fuel rail top port, make sure the NPT threads are coated with PTFE paste. Care should be taken to not allow extra PTFE to enter the main bore of the fuel rail. This is done by leaving the first thread or two of bare with no PTFE coating.</p> <p>NPT fittings should be installed finger tight plus 1.5 to 3 turns with a wrench until clocked in the correct position.</p> <p>NOTE: Check hood clearance if installing a pressure gauge into the top port of the fuel rail.</p>	
8		<p>Lubricate both O-rings on the fuel injectors with oil and insert them into the fuel rail injector bores.</p>	
9		<p>Make sure the injector mounting locations on the intake manifold are clean. Install the large thin O-rings onto the fuel injector seats, then lubricate the O-rings with oil. Press the injector seats into the intake manifold as shown. TAKE CARE NOT TO DAMAGE THE THIN O-RINGS. If an O-ring is damaged, it must be replaced. If sourcing a replacement locally, use the following specs:</p> <p>Material: Viton Durometer: 75A Dash Number: 019</p>	
10	12mm Socket	<p>Install the fuel rail on the intake manifold and secure in place by reusing the factory M8 screws and black plastic washers.</p>	

11		<p>If planning to re-use the factory pressure regulator, adapter part number 20-0303 will be needed. This screws into an 8AN ORB port and is compatible with the stock fuel pressure regulator.</p>	
12		<p>Custom fuel lines will need to be constructed depending on plumbing layout and fitting sizes. Contact info@radiumauto.com for additional details or questions.</p>	
13		<p>Wiring harness adapters for the fuel injectors will most likely be needed. Contact the aftermarket fuel injector manufacturer for additional details.</p>	
14		<p>Reconnect the battery and prime the fuel pump to check for leaks. If no leaks are found, start the engine and check that fuel pressure is correct. Let the engine warm up while continuing to check for leaks. Correct any leaks that may occur.</p> <p>INSTALLATION COMPLETE</p>	