

INSTALLATION INSTRUCTIONS

FUEL RAIL: 1GR-FE, SINGLE VVT-i

P/N: 20-0897

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Support: info@radiumauto.com

CAUTION


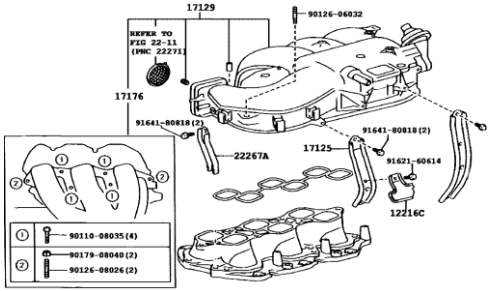
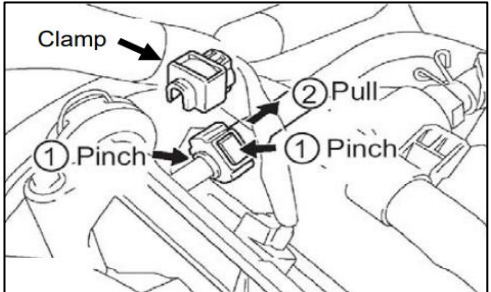
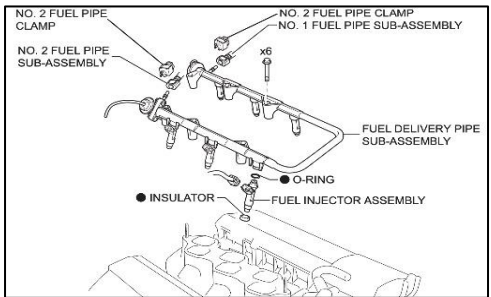
Only a qualified technician following applicable safety procedures should perform the installation of this product. One must have knowledge in repair and modification of fuel systems and general vehicle modifications to install this product.

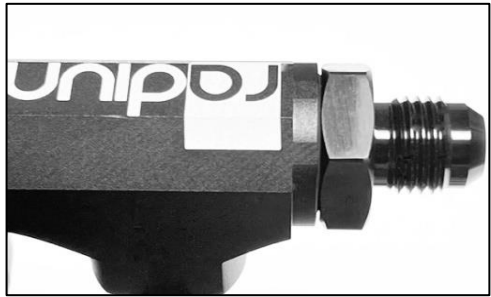
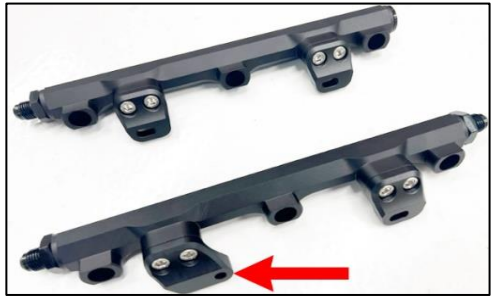


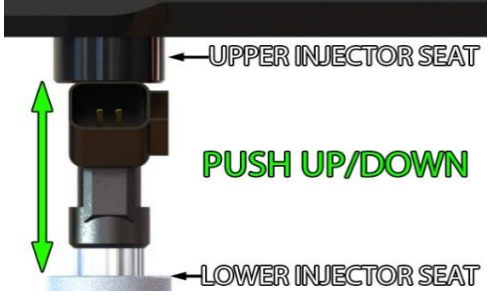

Gasoline and other fuels are flammable and can be explosive.

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	10mm Wrench	It is necessary to have access to a Factory Service Manual. The first step is to relieve fuel pressure.	
		Afterwards, remove the ignition key and disconnect the negative terminal on the battery (as shown). CAUTION: Disconnecting the battery may cancel the fault memories of some control units.	
2	10mm Socket Wrench	The procedure for removing the OEM intake manifold plenum and associated plumbing will vary from model to model. The following will need to be removed or disconnected: engine cover, air cleaner assembly, vent and vacuum hoses, MAF sensor, wire harness and hose clamps, etc. Reference the Factory Service Manual for specifics. Apply tape to cover the intake ports.	
	12mm Socket Wrench		
	8mm Allen Wrench		
	Pliers		
3		Reference the Factory Service Manual for the procedure on disconnecting the OEM fuel lines. Do not forcibly bend or twist the nylon tubing and do not use any tools. Be sure to protect the disconnected parts from foreign debris.	
4	10mm Socket Wrench	The procedure for removing the OEM fuel rails will vary from model to model. Reference the Factory Service Manual for specifics.	

5	Oil Lubrication	The 2 Radium Engineering fuel rails are identical. Install 8 AN ORB adapter fittings (not included) into all ports. This will vary from application to application. Visit www.radiumauto.com for a wide variety of fittings. NOTE: O-rings must be lubricated.	
		NOTE: To avoid undue stress, it is recommended that fittings are tightened before mounting to the engine.	
6	5mm Allen Wrench	It is important to note that 1 of the 4 fuel rail mounts is unique. The other 3 fuel rail mounts are identical. As shown, secure each fuel rail mount using the provided 8 short M6x1mm bolts.	
		NOTES:	
		1. Do NOT use the 4 longer M6x1mm bolts in this step.	
		2. Note where the the unique mount is located.	
7	Oil Lubrication	Lubricate all fuel injector O-rings.	
		As shown, push the upper injector O-rings into the fuel rail ports.	
8	5mm Allen Wrench	Carefully push injectors into the lower seats. Secure the fuel rails in place using the long M6x1mm Allen head screws.	
9		As a test, push the fuel injectors downward until they bottom out. Now inspect the injectors' upper O-rings and confirm they are still inserted into the fuel rail injector bores. Do not pressurize the fuel system until the proper height is achieved.	
		Orientate the fuel injectors such that the electrical connectors do not experience any interference with the surrounding area. Plug in each of the injector connectors.	
10	10mm Wrench	Plumbing must be configured by a professional. Visit www.radiumauto.com for a variety of adapters, hoses, etc.	
		After everything is reinstalled, reconnect the battery. Cycle the keyed ignition switch ON/OFF a few times (without starting the engine). This allows the fuel pump to prime the fuel system. Check for leaks. Start the engine and check again while the engine is running.	
		INSTALLATION COMPLETE	