

# INSTALLATION INSTRUCTIONS

## HONDA D-SERIES FUEL RAIL

P/N: 20-1070

Document: 19-0429  
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.




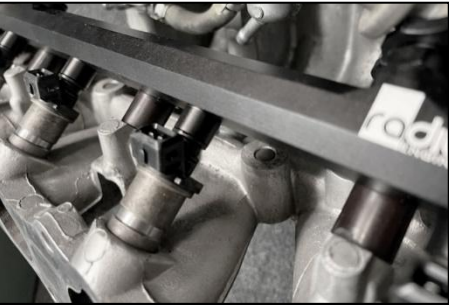


**Gasoline and other fuels are flammable and can be explosive.**



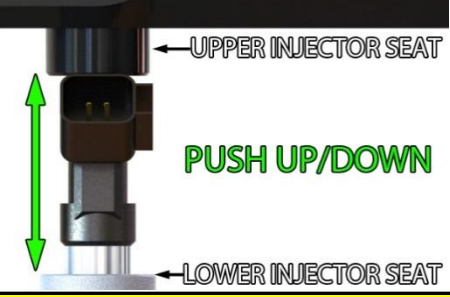


Only install in a well-ventilated location to minimize buildup of fuel vapors. No sparks, open flames, smoking or other ignition sources are to be present. Draining and removal of all fuel from the fuel system is recommended. Proper eye and personal protection is required at all times during installation.

### 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		It is necessary to have access to a Factory Service Manual. The first step is to relieve fuel pressure.	
		Some models will a 6mm service bolt (shown). Otherwise, remove the fuel pump fuse and start the vehicle. Allow the engine to stall to relieve fuel pressure. Remove ignition key.	
2	10mm Wrench	CAUTION: When disconnecting the battery, fault memories of some control units may be lost.	
		The procedure for removing the OEM fuel rail and associated plumbing will vary from model to model. Depending on the vehicle, the fuel filter can be in the LH or RH side of the engine bay. This will NOT be detailed in this document.	
3	10mm Socket Wrench	NOTES: 1. Most D-series intake manifolds use 3 mounting points. However, some intake manifolds (D16Y7 shown) only use 2 mounts. 2. This fuel rail has mounting provisions for all compatible intake manifolds. 3. If the intake manifold came with thermal insulating spacers, keep them on the studs. They will be reused.	
4		The 20-1070 fuel rail does not include adapters, fittings, hoses, etc.	
		If the plumbing kit (20-1270-PK) was purchased, note that there are 2 different fuel pressure regulator (FPR) adapters. As depicted, the mating flanges are slightly different. Be sure to use the adapter that is compatible with the your specific OEM FPR.	

5	Oil Lubrication	<p>If the 20-1270-PK plumbing kit was purchased, the fittings will need to install into ports that best suits the vehicle.</p> <p>NOTES:</p> <ol style="list-style-type: none"> <li>1. For the OEM FPR adapter, use the OEM O-ring and select a fuel rail port that mimics the location on the factory fuel rail.</li> <li>2. If the engine uses an EGR valve, find a suitable port for the 6AN adapter fitting that does not create an interference.</li> </ol>	
	10mm Socket Wrench		
	7/8" Wrench		
6	Oil Lubrication	<p>If the OEM fuel rail used a female threaded fuel pulse damper, such as Honda P/N: 16680-PCX-003 (shown), attach it to the included 8AN ORB to M12x1mm adapter in the 20-1270-PK plumbing kit. Now install the fuel pulse damper assembly to one of the available ports.</p> <p>Install the provided plugs into the remaining 8AN ORB ports.</p>	
	7/8" Wrench		
	5/16" Allen Wrench		
7	Oil Lubrication	<p>For ease of installation, lubricate the injector O-rings, intake manifold injector seats, and fuel rail injector bores.</p> <p>Fully insert the injectors into the 4 ports, as shown.</p>	
8	10mm Socket Wrench	<p>Line-up and place the assembly onto the intake manifold.</p> <p>Once everything is positioned correctly, push the fuel rail downwards to fully seat the injectors.</p> <p>Secure the fuel rail using the provided M6x1mm nuts and the thermal insulating washers.</p>	
9		<p>NOTE: Some intake manifolds, such as the Honda D16Y8, D16Y5, and the D16Y7 (pictured), only require 2 of the 3 included nuts/washers for mounting.</p>	
10		<p>Shown is the D16Y5 intake manifold. Notice how close the EGR valve comes to the fuel rail end port.</p>	

11		Shown is the D16A6 (ZC) intake manifold.	
12		Shown is the D15B7 intake manifold.	
13		<p>As a test, push the fuel injectors downward until they bottom out. Now inspect the injector 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.</p> <p>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.</p>	
14	16mm Wrench	<p>If installing the 20-1270-PK, find the included 6AN male to M12x1.25mm adapter fitting and crush washer in the kit. Install to the fuel filter outlet port. Tighten to 25 ftlbs.</p> <p>NOTE: Depending on the application, this filter may look different.</p>	
	Toque Wrench		
15	Oil Lubrication	<p>From the 20-1270-PK plumbing kit, lubricate a PushLok hose end and fully seat into the hose. NOTE: PushLok does NOT require clamps.</p> <p>Temporarily install this partially assembled hose to the 6AN fitting on the filter. Loosely screw the other PushLok hose end to the fuel rail 6AN fitting. Route the hose and cut to length. Assemble the other PushLok hose end to the hose. Permanently install the fuel feed hose.</p> <p>Install the OEM return hose to the OEM FPR.</p>	
	Hose Cutter		
	11/16" Wrench		
	Pliers		
16	10mm Wrench	<p>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.</p> <p><b>INSTALLATION COMPLETE</b></p>	