



# INSTALLATION INSTRUCTIONS

## FUEL RAIL: H22A, H23A, F20A, F20B, F22A

P/N: 20-0870

**radium**  
ENGINEERING

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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.**

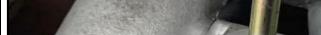
Only install in a well-ventilated location to minimize buildup of fuel vapors.

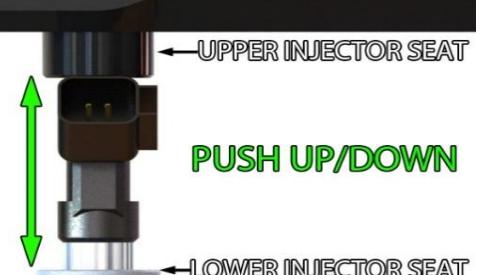
No sparks, open flames, smoking or other ignition sources are to be present. Draining and removal of all fuel from the fuel system is recommended.  
Proper eye and personal protection is required at all times during installation.

### 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		<p>It is necessary to have access to a Factory Service Manual. The first step is to relieve fuel pressure.</p>	
		<p>Some models will have a 6mm service bolt (shown). Otherwise, remove the fuel pump fuse and start the vehicle. Allow the engine to stall to relieve fuel pressure.</p>	
2	10mm Wrench	<p>Remove ignition key and disconnect battery (as shown). CAUTION: Disconnecting the battery may cancel the fault memories of some control units.</p>	
		<p>The procedure for removing the OEM fuel rail and associated plumbing will vary from model to model. Note that the OEM filter supplies fuel to the fuel rail. 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.</p>	
3a	10mm Socket Wrench	Honda H22A1 disassembly shown.	
3b	10mm Socket Wrench	Honda H22A4 disassembly shown.	

3c	10mm Socket Wrench	Honda F22A disassembly shown.	
		Follow this step after the OEM rail is removed.	
		To remove the M6x1.0mm fuel rail mounting studs, stack 2 of the OEM nuts as shown.	
		Tighten the nuts together, as shown.	
		Loosen the lower nut and remove the studs from the intake manifold.	
6	10mm Wrench		
7		The 20-0870 fuel rail does not include adapters, fittings, hoses, etc.	
8	Oil Lubrication	If the plumbing kit (20-0870-PK) was purchased, install the FPR adapter and the 6AN (fuel feed) adapter into the fuel rail ports that best suit the application. Use the OEM FPR O-ring. Install the provided plugs into the remaining 8AN ORB ports.	
	10mm Socket Wrench		
	7/8" Wrench		
	5/16" Allen Wrench		
		NOTES:	
		1. To avoid damage, lubricate all O-rings prior to installing.	
		2. To avoid surface finish marring, use aluminum wrenches.	

9	<p>Oil Lubrication</p> <p>For ease of installation, lubricate the injector O-rings, intake manifold injector seats, and fuel rail injector bores. Fully insert the injectors into the fuel rail bores, as shown.</p>	
10	<p>10mm Socket Wrench</p> <p>Line-up and place the fuel rail assembly onto the intake manifold. Once everything is positioned correctly, push the rail downwards to fully seat the injectors. Slide the OEM fuel rail spacers onto the intake manifold threaded bosses. Secure the fuel rail using the provided M6x1mm bolts.</p>	
11	<p>NOTE: Some intake manifolds (such as this F20B pictured), only require 2 out of the 3 included bolts for mounting.</p>	
12	<p>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.</p> <p>Oriентate 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>	
13	<p>16mm Wrench</p> <p>Oil Lubrication</p> <p>Hose Cutter</p> <p>11/16" Wrench</p> <p>Pliers</p> <p>If installing the 20-0870-PK, install the included metric adapter fitting with crush washer in the fuel filter outlet port. Tighten to 25 ftlbs.</p> <p>Lubricate one of the PushLok hose end barbs and fully seat into the included hose. Temporarily install this partially assembled hose to the filter's 6AN fitting. Loosely screw the other PushLok hose end to the fuel rail's 6AN fitting. Route the hose and cut to length. Assemble the other PushLok hose end and permanently install the fuel feed hose.</p> <p>Install the OEM return hose to the OEM FPR.</p>	
14	<p>10mm Wrench</p> <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>	