



# INSTALLATION INSTRUCTIONS

## GR COROLLA/GR YARIS FUEL RAIL

### TOYOTA G16E-GTS

Document: 19-0307  
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




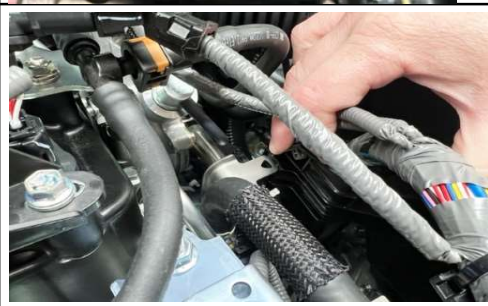

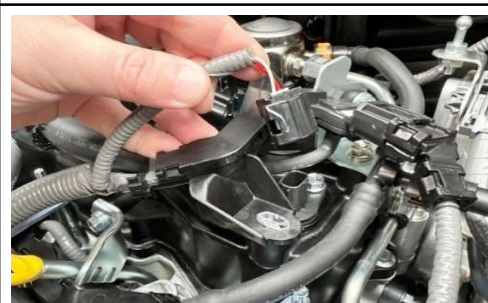
The fuel system is under pressure! Do not loosen any connections until relieving the fuel system pressure.

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		NOTES:	
		a. The terms "driver-side" and "passenger-side" will NOT be referenced. As depicted, these instructions will always reference "LH" and "RH" areas of the vehicle.	
		b. Aluminum wrenches are recommended to prevent surface marring on anodized aluminum surfaces.	
2	10mm Wrench	For safety purposes, pop the trunk and disconnect the negative battery terminal. CAUTION: Disconnecting the battery may cancel fault memories of some control units. Consequently, before disconnecting the battery, always cross examine any fault memories.	
		Unlock and pop the front hood (bonnet). To remove the engine cover, simply pull up on all 4 corners (as shown). This will release the 4 rubber grommets. Set aside.	
3		The fuel rail is found at the front of the engine.	
		Find the fuel rail feed line connector on the LH side. As shown, pry up to remove the cover and set aside. This cover will NOT be reused.	
4		Unplug the main fuel injector connector just above the RH side of the fuel rail.	









11		Pry and flip up the alternator main power plastic cover.	
		CAUTION: This alternator terminal will be 12V if the battery was not disconnected as instructed above.	
12	10mm Socket	Remove the nut from the alternator main power terminal.	
		CAUTION: This alternator terminal will be 12V if the battery was not disconnected as instructed above.	
13		Unplug the front connectors shown.	
14		From the LH side of the engine, pry the locking tab and dislodge the plastic wire conduit shown.	
15	10mm Socket	Remove the electrical cover bolt (shown) that secures to the front of the valve cover.	
16		As shown, unplug the intake camshaft sensor connector on top of the LH side of the valve cover.	



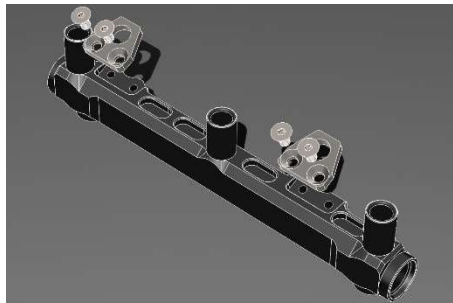
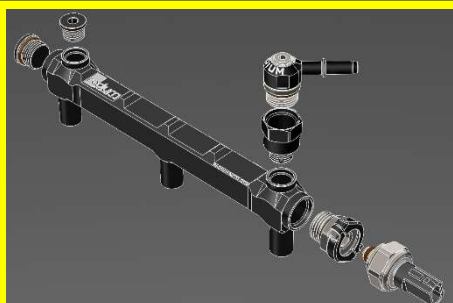
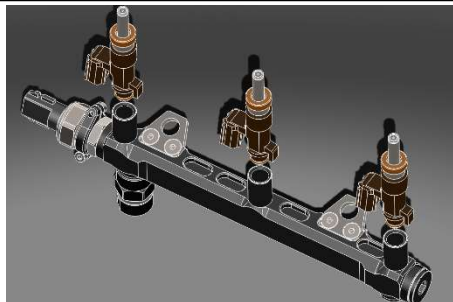



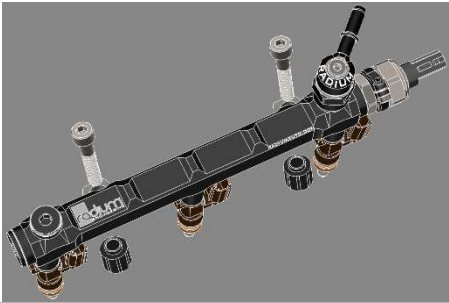


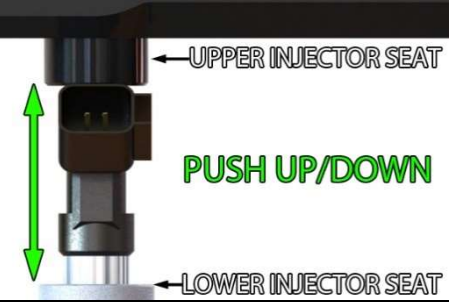

17	10mm Wrench	Remove the bolt that secures the hose P-clamp bracket to the fuel rail shield.	
18	10mm Socket	Remove the nut that secures the large solenoid (shown) to the fuel rail shield stud.	
19	12mm Socket	Remove the center rear nut from the fuel rail shield.	
20	12mm Socket	Remove the lower RH bolt from the fuel rail shield.	
21	12mm Socket	Remove the LH rear nut from the fuel rail shield.	
22		Gently fold back the front plastic wire conduit to expose the fuel rail shield.	

23	Pick	Place a rag underneath the SAE quick feed line connector.	
	Rag	As shown, carefully pry up on the green lock.	
24		Slowly pull the SAE quick connect feed line from the fuel rail inlet port. Catch all leaking fuel from this connection.	
		NOTE: it is recommended to temporarily cap the fuel rail inlet port as it will be filled with fuel.	
25	12mm Socket	Remove the fuel rail shield nut underneath the fuel rail feed line.	
26		Remove and set aside the fuel rail shield.	
27	10mm Socket	Remove the oil dipstick bracket bolt.	
28		Carefully pull the oil dipstick assembly up and out of the vehicle. Set aside. Temporarily block-off the oil dipstick port on the engine.	



29		There is an fuel pressure sensor mounted to the LH side of the fuel rail. As shown, unplug the electrical connector.	
30	12mm Socket	<p>Remove the two M8x1.25mm bolts that secure the fuel rail to the engine. NOTE: These OEM bolts will NOT be reused.</p> <p>Gently pull the fuel rail up and out of the vehicle. Place into a fuel safe bucket. CAUTION: Be careful as fuel will still be inside the rail.</p>	
31		The 2 thermal insulating spacers (shown) found underneath the fuel rail mounts will be reused.	
32		After draining and cleaning, place the fuel rail assembly onto a work bench.	
33		Pry the electrical conduit lock (shown) free from the fuel rail tab.	
34	Pliers	To free the electrical conduit from the fuel rail, squeeze the lock (shown) from the fuel rail tab.	

35		As shown, separate the fuel injector assembly from the fuel rail.	
36	10mm Socket	<p>Unscrew the nut and remove the retaining bracket that secures the fuel pressure sensor. Simply pull the sensor out of the side of the fuel rail.</p> <p>NOTE: The fuel pressure sensor nut and retaining bracket will NOT be reused.</p>	
37	Threadlocker	To install the 2 mounting feet, use the 4 provided screws with a medium-strength threadlocker.	
	3mm Allen Wrench		
38	Oil Lubrication	<p><b>20-0766-PK FUEL RAIL PLUMBING KIT, TOYOTA G16E-GTS</b></p> <p>If the plumbing kit was purchased, install the provided adapter fittings as shown. Be sure to lubricate all O-rings.</p>	
	Adjustable Wrench		
	3mm Allen Wrench		
	4mm Allen Wrench		
	5/16" Allen Wrench		
	1/4" Allen Wrench		
	22mm Socket		
39	Oil Lubrication	<p>When installing the injectors into the fuel rail, be sure to lubricate the upper and lower O-rings.</p> <p>NOTE: For clearancing purposes, the fuel injectors must be oriented as shown when installed onto the engine.</p>	
40		Make sure everything is electrically connected as shown.	

41	6mm Allen Wrench	When mounting the fuel rail assembly to the engine, remember to place the OEM thermal insulating spacers underneath the fuel rail mounting feet.	
42	Oil Lubrication	<b>20-0766-PK FUEL RAIL PLUMBING KIT, TOYOTA G16E-GTS</b>	
		Insert the OEM SAE quick connector onto the fuel rail fitting.	
43	6mm Allen Wrench	Make sure the thermal spacers are flush and concentric with the mounting feet. Secure the fuel rail using the 2 provided M8x1.25mm bolts.	
44		If using aftermarket injectors, test for proper fitment. First, 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.	
45		After everything is reinstalled in a reverse order, cycle the key a few times (without starting engine). This allows the fuel pump to prime the system.	
		CHECK FOR LEAKS! If no leaks are found, start the engine and check for leaks again while the engine is running.	
		<b>INSTALLATION COMPLETE</b>	