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INSTALLATION INSTRUCTIONS - INS131

F-BODY & CORVETTE FUEL RAIL KIT

PART # 5018 // 1997 - 2009 GM LS-1/2/3/6/7



SPECIAL TOOLS REQUIRED: 3/8" Spring-Lok type fuel line disconnect tool, 11/16" wrench, 10, & 8mm sockets, 5mm & 5/32" Allen wrenches. White lithium grease and Anti seize.



INSTALL TIME: Approximately 2 hours.



DIFFICULTY: Average.



WARNING! Fuel system is under pressure. You will need to relieve this pressure in Step 4. Please read instructions carefully!



IMPORTANT: All appropriate safety equipment and gear must be used during the installation of this or any BBK Performance products or any time you work on a vehicle. BBK Performance accepts no responsibility for injuries or damage caused by or during the installation of this product.

JPDATED LAST: April 2019

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HARDWARE INCLUDES



(1) Driver side rail
(1) Passenger Side Rail
(4) 1/4"-20 x 3/8" BHCS
(4) M6x1.0x25mm BHCS (for short spacer stack)
(4) M6x1.0x30mm BHCS (for tall spacer stack)
(4) Rail mounting brackets
(1) Spring-Lok fitting
(5) O-Rings + (1) Spare
(8) Mounting tab washers (4) 1/4" + (4) 6mm
(1) 10.5" Fuel line hose
(2) 9/16" Rail end plugs
(2) 9/16" Male-Male Rail end adapters
(2) 9/16" 90"Pushlock hose swivel fittings
(12) Spacers

STEP 1

Disconnect negative battery terminal.

STEP 2

CORVETTE

Remove decorative covers over fuel rails. These will not be re-used.



F-BODY

Unbolt throttle cable bracket, disconnect the throttle cables from the throttle body.

NOTE In the next step you will release the fuel pressure in the fuel rails. Be sure to extinguish any open flames and disable any spark or ignition sources, or other potential fire hazards around the work area.

KEEP IN MIND THAT GASOLINE VAPORS ARE MORE FLAMMABLE THAN GASOLINE ITSELF.

STEP 3



Hold a rag around the shrader valve on the front of the driver side rail, and then bleed off any fuel pressure by depressing the valve with a small pick tool.

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STEP 4

With a 3/8" Spring Lok removal tool, disconnect fuel feed line from the fuel rails.

STEP 5



Unplug the electrical connections from the fuel injectors.

STEP 6



Use a 10mm socket to remove the bolts that attach the fuel rails to the intake manifold, and an 8mm socket to remove the small L shaped bracket that attaches to the fuel rail stud on the passenger side. Corvette models may require that you remove the intake manifold bolts and slide it forward to remove this bracket. STEP 7



Remove the fuel rails and injectors by simply lifting them straight up.

NOTE Now is the time to inspect your fuel injector O-rings. If they are damaged, replace them. Damaged O-rings can cause a fuel leak.

STEP 8



Remove the clips that retain the injectors in the rails.

STEP 9

Apply a touch of white grease to all of the supplied O-rings and to the O-rings on the fuel injectors.



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STEP 10

Place (1) O-ring over the ends of the (2) rail end caps, the (2) rail end adapters, and the (1) Spring Lok fitting.

STEP 11

CORVETTE

For both rails, install an end cap on the REAR of the rail and a -6 rail end adapter on the FRONT of each rail and attach the rail mounting tabs with the supplied 1/4"-20 bolts with a washer under each bolt head.

STEP 11

F-BODY

For both rails, install an end cap on the FRONT of the rail and a -6 rail end adapter on the REAR of each rail and attach the rail mounting tabs with the supplied 1/4"-20 bolts with a washer under each bolt head.



NOTE Each rail has LS-1/2/3 engraved in it at the corresponding mounting tab holes. Attach the mounting tabs at the proper location for your engine designation.

STEP 11 (CONT.)

Each rail mounting tab has a round hole and a slotted hole. The round holes will attach to the rails. The slotted holes will attach to the intake manifold.

STEP 12

Install supplied Spring Lok fuel feed fitting into the side of the driver rail.

STEP 14



Insert (4) injectors into each rail.

NOTE To ensure proper injector stab depth on the wide range of models that this kit will fit, BBK has supplied black spacers that sit on the intake manifold under each rail tab to accommodate for early (tall) and later (short) injector types.



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STEP 14 (CONT.)

LS1/6

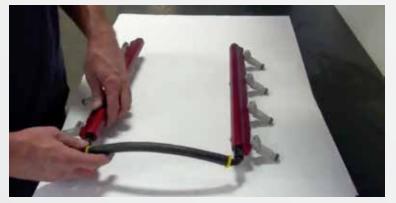
(Tall injectors) use 2 thick spacers and 1 thin spacer under each tab.

LS2/3/7

1 (short injectors) use 1 thick spacer & 1 thin spacer under each tab.

NOTE Corvette models will use the supplied crossover hose in its entirety, while F-bodies will need to cut 1" from one end of the hose.

STEP 15



Assemble the crossover hose by pushing the barbed ends of the supplied 90° - 6 fittings into the ends of the hose.

STEP 16

CORVETTE

Finger-tighten the crossover hose onto the threads of the rail end adapters on the FRONT of both rails. This is left loose for adjust-ability during the installation process.

STEP 16 (CONT.)

F-BODY

Finger-tighten the crossover hose onto the threads of the rail end adapters on the REAR of both rails. This is left loose for adjust-ability during the installation process.

STEP 17

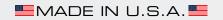
Install both rails and injectors by guiding the tip of each injector into its respective bung in the intake manifold. Secure the rail to the intake manifold using (4) supplied bolts with the supplied washers (4) washers and the correct spacer configurations.

BBK has supplied short and long bolts to fit either tall or short configurations.

STEP 18



Plug in all 8 injectors.



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STEP 19

Tighten the fittings for the crossover hose with a wrench.

STEP 19

Push the fuel feed hose onto the Spring Lok fitting until it snaps into place. After snapping, be sure to pull back a bit to make sure the hose is actually snapped on.

STEP 20

Reconnect the negative battery terminal.

STEP 21

Without starting the engine-Turn the ignition key to the ON position for 3-4 seconds, (primes the fuel system) then OFF 3 times and return to the ON position. Check all connections for fuel leaks. Correct any leaks before starting!

STEP 22

F-Body Re-attach the throttle cables and bolt the throttle cable bracket to the intake manifold.



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