

## INSTALLATION INSTRUCTIONS - INS140

# FUEL RAIL KIT

Part # 5015 // 1996 - 1998 Ford Mustang 4.6L 2-V



**Special Tools required:** ½" & 5/8" Spring-Lok type fuel line disconnect tool, Lithium White Grease and Teflon Tape.



**Install Time:** Approximately 2 hours.



**Difficulty:** Average.



**NOTE!** Be sure to check for any leaks after installation.

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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.

UPDATED LAST: April 2019

FOLLOW THESE INSTRUCTIONS CAREFULLY TO ENSURE CORRECT FITMENT AND OPERATION

### 5015 BILL OF MATERIALS

- (1) Driver side rail
- (1) Passenger Side Rail
- (2) 10-32 x 3/4" SHCS
- (2) 10-32 x 3/8" SHCS
- (4) 1/4"-20 x 3/8" BHCS
- (4) M6x1.0x16mm BHCS
- (1) Regulator base gasket
- (4) Rail mounting brackets
- (1) Fuel pressure sensor/regulator adapter
  - (1) Spring-Lok fitting
- (1) Spring Lok-Push Lok fitting
  - (5) O-Rings + (1) Spare
  - (12) Washers
  - (1) Plastic vacuum barb
- (30") 5/32 Hose (30") 3/8" Hose (30") 5/8" Hose
  - (1) 13" 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
  - (1) 1/4" thread to Push Lok 90° fitting



### INSTALLATION

#### STEP 1

Disconnect the negative battery terminal. Remove the air inlet hose assembly from the throttle body.

**NOTE!** The throttle body does not need to be separated from the plenum for the next step. You can remove them together as one piece.

#### STEP 2

Disconnect the throttle cables, unplug the sensors and vacuum connection from the intake plenum (also known as the intake elbow), unbolt the EGR valve from the driver side and unbolt then remove the intake plenum assembly.

**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 the gasoline itself.

#### STEP 3

Hold a rag around the Schrader valve on the front of the passenger side fuel rail, and then bleed off any fuel pressure by depressing the valve with a small screwdriver or pick tool. Unplug the electrical connections from the fuel injectors and fuel pressure (99-04).

#### STEP 4

Using the 1/2" and 5/8" Spring Lok removal tools, disconnect the fuel feed and return lines from the fuel rails. Use an 8mm socket to remove the studs that attach the fuel rails to the intake manifold. Remove the fuel rails and injectors.

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

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### STEP 5

Apply a touch of white grease to all the supplied O-Rings and to the O-Rings on the fuel injectors. Place (1) O-Ring over the ends of the (2) rail end caps, the (2) rail end adapters, and the (1) 5/8" Spring Lok Fitting. The remaining O-Ring is a spare since the O-Rings are thin and delicate BBK has supplied (1) extra.

### STEP 6

For both rails, install an end cap on the front of the rail and a rail end adapter on the rear of each fuel rail and attach the rail mounting tabs with the supplied 1/4"-20 bolts.

**NOTE!** Each rail mounting tab has a round hole and a slotted hole. The round holes will attach to the rails. The slotted will attach to the intake manifold. Use the supplied washers at the intake manifold and fuel rail mounting tabs.

### STEP 7

Install supplied Spring Lok fitting into the side of the passenger rail. Insert (4) injectors into the passenger side rail. Install passenger side rail 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 (2) supplied clamps and (2) 6mm bolts.

### STEP 8

Thread the supplied 90° barbed brass fitting into the adapter base. When the adapter base is installed onto the driver side rail the barbs needs to point towards the firewall. (This is the return line.) Now push one end of the supplied 30" 3/8" hose onto the 90° fitting. Push the supplied Spring Lok adapter into the other end of the 30" 3/8" hose.

**NOTE!** Take extreme care when installing the small socket cap into the fuel rail. Use supplied washers!! Inattention could cause cross threading of screws.

### STEP 9

Install adapter base to driver side rail with supplied O-ring using the supplied 6-32 SHCS's. Insert (4) injectors into the driver side rail.

### STEP 10

Install driver side rail 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 (2) supplied clamps and (2) 6mm bolts. Route the 30" 3/8" hose around back of the intake manifold to meet up with the stock fuel line on passenger side of car and connect to stock return line.

### STEP 11

#### FOR 1996-1997

Remove the stock fuel pressure regulator from the passenger side rail or purchase a BBK 1707 or equivalent fuel pressure regulator and install onto the adapter base using the supplied hardware and base gasket.

#### FOR 1998

Purchase a BBK 1707 or equivalent fuel pressure regulator and install onto the adapter base using the supplied hardware and base gasket.

### STEP 12

Connect the supplied 30" 5/32" vacuum hose to the fuel pressure regulator and route it around the back of the intake manifold to connect to the stock vacuum line (Passenger side) using the supplied plastic double ended hose barb.

### STEP 13

Assemble the crossover hose by pushing the barbed ends of the supplied

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### STEP 13 (CONT.)

90° - 6 fittings into the ends of the hose. Tighten the crossover hose onto the threads of the rail end adapters on the back of both rails.

**NOTE!** When routing the crossover hose, be mindful of hot EGR tube it must pass by. Route so no contact is made with the EGR tube.

### STEP 14

Route the stock fuel feed line under A/C line and connect to the 5/8" Spring Lok fitting on the side of the passenger rail. Reconnect the negative battery terminal.

#### WITHOUT STARTING THE ENGINE

Turn the ignition key to the ON position, then OFF 3 times and return to the ON position. Check all connections for fuel leaks. Correct any fuel leaks before starting the engine.

### STEP 15

Re-install the intake elbow and re-attach all the connections. Re-install the air inlet tube. Use the supplied 5/8 heater hose to replace the PCV breather tube that runs from the driver side cam cover to the air inlet. This is a push connection, no clamps are required.

### STEP 16

To avoid a possible **CHECK ENGINE** light activation, Start the engine and let it idle for about 5 minutes, then drive the car at part throttle for about 5 minutes before applying heavy or full throttle. Otherwise, any air bubbles/pockets that may have entered the system will cause the CHECK ENGINE light to come on and will need to be reset with a proper OBD II tool.



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