

# 1996-98 MUSTANG 4.6L 2-V FUEL RAIL KIT PART# 5015

### INSTALLATION INSTRUCTIONS

NOTE- 1998 Mustang <u>will require</u> the purchase of (1) BBK 1707 or equivalent fuel pressure regulator.

## Warning!

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

#### **Tools required-**

1/2"& 5/8" Spring-Lok type fuel line disconnect tools, 11/16" wrench, 12, 10, & 8mm sockets, 5mm & 5/32" Allen wrenches. Lithium grease, Teflon tape, Anti seize.

- Step 1 Disconnect negative battery terminal.
   Step 2 Remove 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 3
   Step 3 Disconnect the throttle cables, unplug the sensors and vacuum connections from the intake plenum (also known as the intake elbow), unbolt the EGR valve from the driver side and unbolt and 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 gasoline itself.
- Step 4 Hold a rag around the shrader valve on the front of the passenger side rail, and then bleed off any fuel pressure by depressing the valve with a small screwdriver or pick tool.
- **Step 5** Unplug the electrical connections from the fuel injectors and fuel pressure sensor (99-04).
- **Step 6** Using 1/2" and 5/8" Spring Lok removal tools, disconnect fuel feed and return lines from the fuel rails.
- **Step 7** Use an 8mm socket to remove the studs that attach the fuel rails to the intake manifold.
- **Step 8** 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.
- **Step 9** Apply a touch of white grease to all of the supplied O-rings and to the O-rings on the fuel injectors.
- **Step 10** 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 11** 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.
- NOTE Each rail mounting tab has a round hole and a slotted hole. The round holes will attach the rails. The slotted holes will attach to the intake manifold.



- **Step 12** Install supplied Spring Lok fitting into the side of the passenger rail.
- **Step 13** Insert (4) injectors into the passenger side rail.
- **Step 14** 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.
- 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. Inattention could cause cross threading of screws.
- **Step 16** Install adapter base to driver side rail with supplied O-ring using the supplied 6-32 SHCS's
- **Step 17** Insert (4) injectors into the driver side rail.
- **Step 18** 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.
- **Step 19** 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 20
  96-97
  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.

  OR
- **1998** Purchase a BBK 1707 or equivalent fuel pressure regulator and install onto the adapter base using the supplied hardware and base gasket.
- Step 21 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 22** Assemble the crossover hose by pushing the barbed ends of the supplied 90° 6 fittings into the ends of the hose.
- **Step 23** 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 24** 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.
- **Step 25** Reconnect the negative battery terminal.
- **Step 26** 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 leaks before starting the engine.
- **Step 27** Re-install the intake elbow and re-attach all connections.
- Step 28 Re-install air inlet tube.
- **Step 29** Use the supplied 5/8 heater hose to replace the plastic PCV breather tube that runs form the driver side cam cover to the air inlet tube. This is a push on connection, no clamps are required.
- Step 30 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.





### 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
- (8) 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



To view a video install of this BBK product visit www.bbkperformance.com and search for part # 5015

