



## LS1 Intake Manifold Part # 5004, 5005, 5006

### INSTALLATION INSTRUCTIONS

#### !CAUTION!

**WORKING WITH FUEL SYSTEMS IS HAZARDOUS. EXTINGUISH ANY OPEN FLAMES AND IGNITION SOURCES WHEN WORKING WITH GASOLINE AND VAPORS. ALWAYS USE PROTECTIVE EYEWEAR.**

#### Included in this Kit:

BBK intake manifold, bottom cover plate, bottom cover plate gasket, EGR block off plate, O-ring, manifold mounting bolts, split lock washers, block off plate screws, (1) valley cover plate bolt, throttle body to intake gasket, MAP sensor hold down screw (5005-5006 includes BBK throttle body).

#### Tools Required:

1/2" Ratchet	8mm and 10mm Short Sockets
3" Extension	Flat Head Screwdriver
Swivel	Adjustable Pliers
Silicone or Teflon Tape	3/8" Fuel Line Disconnect Tool (Spring Lock Type)



Step 2

#### Step 1

Disconnect negative (-) battery terminal, and remove intake hose and air filter box. **On Corvette models remove decorative covers by removing the oil filler cap and gently lifting the cover. After the cover has been removed replace oil cap to keep objects and debris from contaminating the oil.**

#### NOTE

**Fuel system may be under pressure. Use extreme caution when releasing pressure. Extinguish all open flames and ignition sources.**



Step 3

#### Step 2

Carefully release any fuel system pressure by removing the cap at the front end of the driver side fuel rail and depressing the schrader valve using a small screwdriver while shrouding the valve with a rag or cloth.

#### Step 3

Using the 3/8 spring lock tool, disconnect the fuel rail feed hose.

#### Step 4

Unclip the wiring harness from the fuel rails and disconnect the wiring harness from each of the fuel injectors by squeezing the spring clips, follow the harness forward and disconnect from the purge solenoid, throttle body and throttle position sensor.



Step 5

#### Step 5

Unclip the purge solenoid from the intake manifold. Release its vacuum tube from the manifold by gently prying the retaining collar upwards with a flat screwdriver while pulling.



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**Step 6** Using a 10mm socket remove the throttle cable bracket and EGR tube from the front of the intake manifold. **Note: Corvette models skip Step 6.**

**Step 7** Using a flat screwdriver remove the coolant hoses that run to the throttle body.

**WARNING**

**COOLANT MAY BE HOT. USE CAUTION WHEN DISCONNECTING HOSES.**

**Step 8** Remove intake manifold mounting bolts using an 8mm socket, extension, and swivel where necessary.

**Step 9** Reach behind the intake manifold and unplug the oil pressure sending unit (shown circled in photo). **Note: If you do not unplug the sending unit it could break off when pulling the intake forward, this part costs about \$60. (Corvette models disregard).**

**Step 10** While lifting the back of the intake as high as possible, and holding the rearward most bolts up so they don't get caught in the intake ports, **(a rubber band long enough to reach under the heads of the two bolts would be handy here)** slide the manifold forward until you can reach behind it and disconnect the small vacuum hose on the passenger side and the electrical connectors that are hidden behind the intake.

**Step 11** Disconnect the vacuum hose that plugs into the brake booster and feed it back towards the rear of the intake manifold.

**Step 12** Remove manifold from vehicle. **Note: The fuel rails will still have gas in them, plug off the feed tube to avoid spillage.**

**Step 13** Using an 8mm socket unbolt the fuel rails. Carefully lift away from intake.

**Step 14** Carefully remove the port flange gaskets from the stock manifold and install them into the BBK manifold.

**Step 15** Remove vacuum hose and MAP sensor from rear of manifold and install them on the BBK intake using the supplied screw with silicone or Teflon tape lightly applied to it to secure the MAP sensor.

**Step 16** Before installing the fuel rails on the BBK intake, clean the tip of each injector to avoid fuel system clogging and contamination. Inspect the O rings and tips of the injectors. For best performance and leak prevention, replace any cracked, torn, or broken O rings and injector tips.

**Step 17** Remove throttle body from stock intake and install it on the BBK intake using the supplied gaskets. **(5005-5006 customers will install the included BBK throttle body).**

**Step 18** Replace the rearward most valley cover plate bolt on the passenger side of the engine with the supplied button head cap screw (this is required to allow the SSI intake to sit flat on the heads). Carefully wipe any debris from the cylinder heads around the intake ports. **Do not allow debris to fall into the ports.**

**Step 19** Insert the supplied bolts into the rearward most bolt holes on the BBK intake, **(the rubber band would work well here too).**

**Step 20** Place the BBK intake on the engine and reconnect the vacuum lines and electrical connectors behind the intake.

**Step 21** Tighten the BBK intake in 3 steps following sequence as shown on supplied diagram until the split washers are flattened. **(Do not over tighten! These bolts only need to be tight enough to compress the O-rings).**

**Step 22** Re-establish all wiring connections, re-connect fuel rail feed hose, re-connect purge solenoid.

**Step 23** Re-connect the coolant and PCV hoses, re-connect EGR tube and throttle cable bracket on applicable models.

**NOTE**

**If the vehicle is a Corvette, or non EGR model, use the supplied EGR cover plate, O ring and fasteners to block the EGR port.**

**Step 24** Re-assemble intake hose and air filter box, connect negative battery terminal. **Corvette models; re-install decorative covers.**



**Step 6**

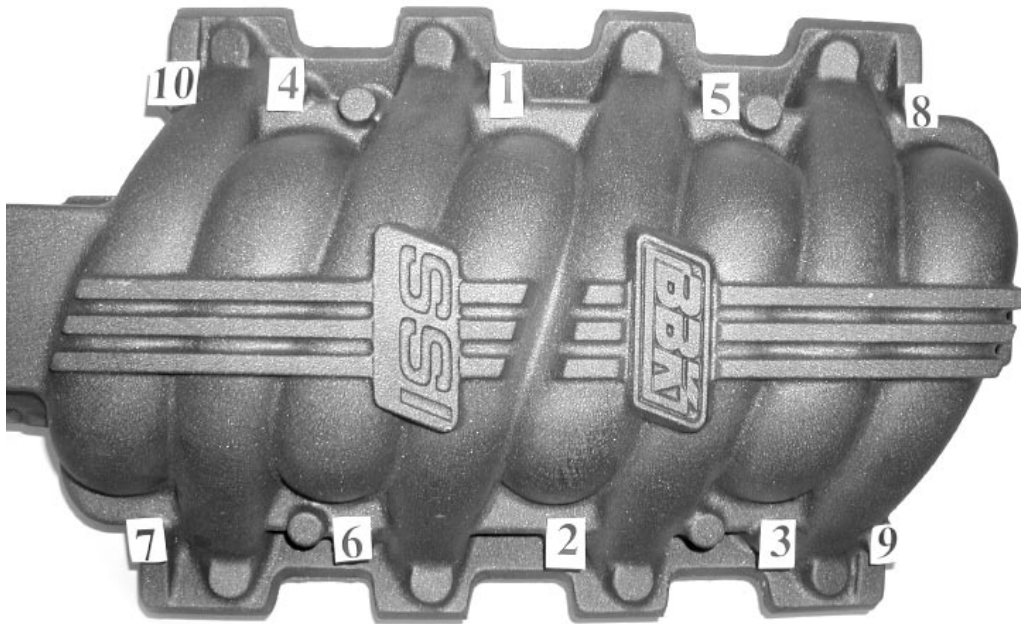


**Step 9**



**Step 10**

## Torque Sequence



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