# CARBURETED PERFORMER RPM LS3 INTAKE MANIFOLD
# For GM L92, LS3 and L76 V8 Engines
# Catalog # 71197
# INSTALLATION INSTRUCTIONS

**PLEASE** study these instructions carefully before beginning this installation. Most installations can be accomplished with common tools and procedures. However, you should be familiar with and comfortable working on your vehicle. If you do not feel comfortable performing this installation, it is recommended to have the installation completed by a qualified mechanic. If you have any questions, please call our **Technical Hotline at: 1-800-416-8628**, 7:00 am - 5:00 pm, Pacific Standard Time, Monday through Friday.

***NOTE:*** *Proper installation is the responsibility of the installer. Improper installation may result in poor performance and engine or vehicle damage.*

- **DESCRIPTION:** The Performer RPM LS3 Intake Manifold allows the user to retro-fit any "square-port" Gen IV based long block into an early vehicle, using a carburetor. The manifold is intended for use with a MSD 6012 58 tooth ignition controller *(sold separately)*. It picks up signal from MAP, crank position, cam position and drives the stock coil on plug ignition system with the proper ignition timing.

- **KIT CONTENTS:**

| QTY. | Description | QTY. | Description |
|---|---|---|---|
| ❑ 1 | Intake Manifold | ❑ 10 | 6mm x 45mm Hex Head Cap screw |
| ❑ 1 | MAP Sensor Bracket | ❑ 4 | 6mm x 1.0 x 12mm Serrated Flange Hex Bolt |
| ❑ 2 | Cable Bracket (Large Opening) | ❑ 2 | 6mm x 65mm Hex Flange Head Cap Screw |
| ❑ 2 | Cable Bracket (Small Opening) | ❑ 2 | 5/8" Tall Throttle Bracket Spacer |
| ❑ 1 | Throttle Bracket Base | | |
| ❑ 4 | 6mm x 1.0 Serrated Flange Hex Nut | | |

- **EGR SYSTEM:** This manifold will not accept EGR (exhaust gas recirculation) equipment. EGR systems are used on most 1972 and later model vehicles, up to certain GVWs. Check local laws for requirements. This manifold is not legal for use in California on pollution-controlled motor vehicles.

- **ACCESSORIES & INSTALLATION ITEMS:** Major recommendations are listed below. However, because this manifold system is intended for engine swaps into a variety of vehicles, some customization may be required.

- **CAMSHAFT RECOMMENDATIONS:** For "RPM" style performance up to 6500 rpm, we recommend using either our PN 2216 or our PN 2219 Rollin' Thunder camshafts. For ultimate power, our PN 2219 cam made 519HP on a 6.0L block using stock LS3 heads.

- **CARBURETOR RECOMMENDATIONS:**

| CARBURETOR | REFERENCE | PARTS REQUIRED FOR INSTALLATION |
|---|---|---|
| **Performer #1412 (800 cfm)**<br>**Performer #1413 (800 cfm)** | A, I | |
| **Thunder Series #1812 (800 cfm)**<br>**Thunder Series #1813 (800 cfm)** | A, I | |

**A -** Carburetor will work with non-EGR or pre-emission control systems.
**I -** Carburetor has no provisions for evaporative canister.

***CAUTION:*** *Make sure the vehicle's battery has been disconnected and that the vehicle is supported on a level surface to prevent any possibility of the vehicle moving during the installation procedure.*

- **INSTALLATION:**
  1. *(**Note:** Use GM LS3 original O-Ring type gaskets PN 19256623 when installing this intake manifold).* No gasket sealer is required when using the OEM type gaskets. Install eight of the supplied 6mm x 45mm hex flange head bolts into all of the manifold bolt holes except for the two rear driver's side bolt holes (hand tighten only). If you are using the supplied throttle bracket, attach it to the two rear driver's side manifold bolt holes using the two spacers and 65mm flange-head bolts (hand tighten only). Following the torque sequence in ***Figure 1***, torque all manifold bolts to 11 ft/lbs.

  2. Select the appropriate cable brackets for your application (large or small opening brackets) and attach them to the GEN III throttle bracket base with the appropriate number of 6mm x 1.0 x 12mm serrated flange hex bolts. *(**Note:** In our retrofit of the LS1 into a 1974 Camaro, using a TH400R automatic transmission, we only needed one of the small opening cable brackets for the throttle cable, since a kickdown cable is not used. See **Figure 2** for example.)*

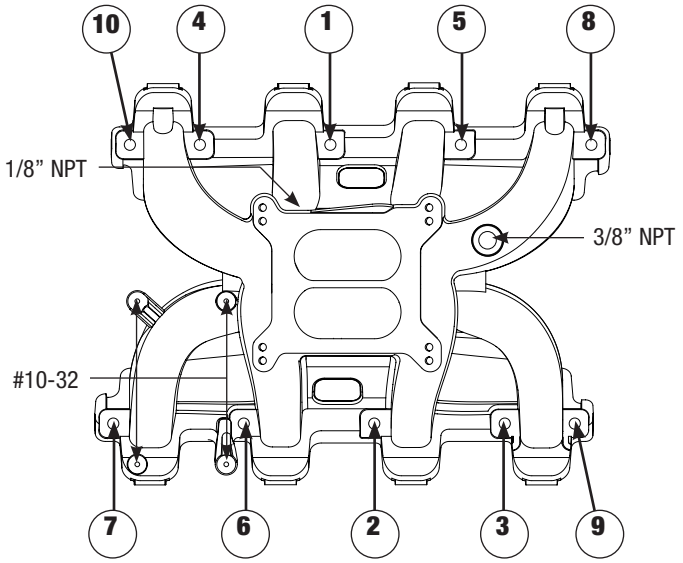


***Figure 1 - Intake Manifold Tightening Sequence***

  3. Apply a bit of liquid Teflon thread sealant to the threads of the supplied 1/8" NPT to 1/4" hose fitting and install the fitting into the 1/8" NPT hole in the passenger side of the plenum ***(See Figure 1)***. Install your carburetor *(Use only recommended carburetors for best performance)* and using the rear passenger side carburetor stud/nut, attach the MAP sensor and bracket to the carburetor ***(See Figure 3)***. Connect the sensor to the fitting with the supplied 1/4" hose.

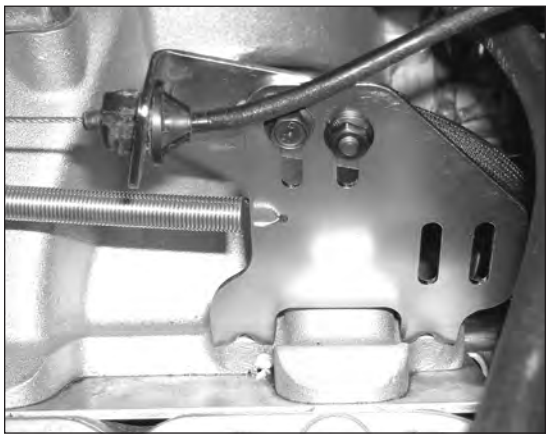

***Figure 2 - Throttle Cable Bracket***

***Figure 3 - Map Sensor and Bracket***

- **TIMING CONTROL MODULE INSTALLATION** *(module sold separately)*:

1. Using the supplied hardware included with the Timing Control Module, attach the module to the four #10-32 mounting holes on the Performer RPM intake manifold ***(See Figure 1)***. Mount the module so that the main harness will face towards the passenger side ***(See Figure 4)***.

   ***NOTE:*** *If you choose to mount the Timing Control Module in another location, you will need to plug the #10-32 mounting hole nearest to the carburetor pad on the #1 runner (See Figure 1). The drilled hole breaks thru into the runner therefore a vacuum leak will occur if it's not used.*

2. Route the harness around to the passenger side of the engine and towards the rear of the engine. Locate the Crankshaft Position Sensor connector. It is the three wire connector (pink, brown, and orange with yellow stripe) at the end of the long section of harness which is encased in a smooth, rubberized, dark grey heat shield. Route this line down the passenger side rear of the engine, and connect it to the Crankshaft Position Sensor. The Crankshaft Position Sensor is located on the rear of the passenger side of the engine, just above the oil pan rail ***(See Figure 5)***. It's gray on LS3 applications.

3. Locate the MAP Sensor connector. It is the three wire connector with orange, green, and brown wires. Connect this to the MAP Sensor which is now attached to the passenger side rear carburetor mounting stud.

4. Locate the Camshaft Position Sensor connector. It is a three wire connector with a pink wire, brown, and a brown wire with a white stripe. Connect this to the Camshaft Position Sensor, located on the front of the engine. This is where the distributor would be mounted on an early small block Chevrolet engine ***(See Figure 6)***.

5. Connect the 7 wire connectors to each coil pack. The connector that is part of the main wiring harness (leading to the passenger side) with the following wire colors: brown, white with blue stripe, purple with blue stripe, pink, black, red with green stripe, and brown with green stripe, is connected to cylinder numbers 2, 4, 6, & 8 (Passenger side cylinder bank). The connector that is wired separately from the main harness, with the following wire colors: black, red, green, brown, light blue, purple, and pink, should be routed along the driver side valve cover and connected to cylinder numbers 1, 3, 5, & 7 (Driver side bank).

6. Locate the portion of the harness with the four non-terminated wires (Pink, Blue, Black, & Yellow). These will be connected to the following sources:

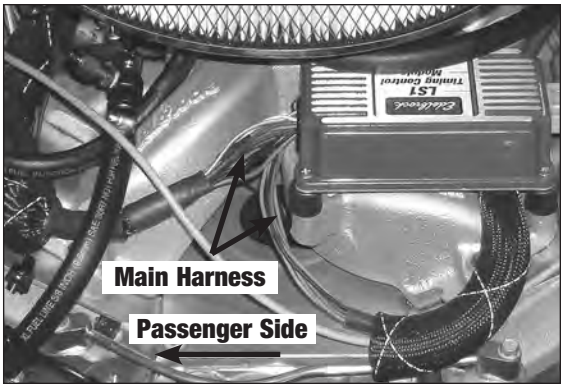


***Figure 4 - Timing Control Module Mounting***

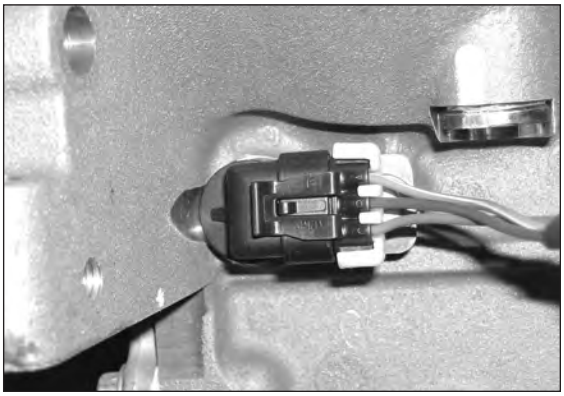

***Figure 5 - Crankshaft Position Sensor***

***Figure 6 - Camshaft Position Sensor***

| | |
|---|---|
| **Pink** | Main power. Connect to a SWITCHED ignition power source. 12v should be measured only with ignition key in the "START" and "ON" positions. |
| **Black/Gray** | Chassis ground. |
| **Blue** | Signal for launch rpm rev limit engagement. See MSD instructions for details. |
| **Yellow** | Tachometer output signal. If not in use, secure out of the way and cover end with electrical tape to prevent accidental connection. |

- **FINAL TUNING FOR OPTIMUM PERFORMANCE:**

1. Generally speaking, the stock jetting for the carburetors listed previously in the *"Carburetor Recommendations"* section will not need changing. Some applications may show a performance increase by recalibrating the fuel metering circuits using jets, rods, and other parts available from Edelbrock.

2. Installation of aftermarket headers, camshafts, or both, with an Edelbrock Performer RPM intake manifold may lean out the carburetor calibration. Should this condition occur, recalibrate the carburetor.

3. Included with the MSD Timing Control Module are six timing curve "pills". In our engine dyno testing with a PN 2219 camshaft, we found curve 6 to work the best. We made further gains with the following custom tune using the Pro-Data software.

| **RPM** | 0 | 1000 | 2000 | 3000 | 3800 | 4700 | 500 | 5500 | 6000 | 6600 |
|---|---|---|---|---|---|---|---|---|---|---|
| **TIMING** | 4° | 8° | 24° | 28° | 27° | 22° | 23° | 25° | 26° | 27° |