

# PLAZMAMAN

## LS1 BILLET INTAKE MANIFOLD INSTALLATION INSTRUCTIONS

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### Parts supplied

1 x billet manifold

2 x fuel rails

1 x throttle body adaptor

1 x bag of assorted O-rings and bolts

### Procedure

1. Place 8 x O-rings in grooves and attach runners to plenum.
2. Tighten runners to plenum using **M6 x 12** bolts using **Loctite-style** compound on the threads. All M6 bolts in this assembly should be tightened to 12ft/lb torque.
3. Place long O-ring in top of plenum, plus 4 x **8mm dowel pins** for location, then add plenum lid.
4. Tighten lid to plenum using **M6 x 20** bolts using **Loctite-style** compound on the threads.
5. Use 8 x O-rings on head flanges and attach manifold to engine. M6 x 35 cap head bolts and washers are supplied for fitment between the manifold and the cylinder heads.
6. Attach the fuel rail legs and stands to the manifold using the M8 x 70 bolts. The fuel rail legs are designed to suit standard length LS1 injectors (full length). The legs can be shortened, or spacers can be used on your injectors if running a shorter than standard length injector.
7. Attach fuel rails to the mounting legs using M8 x 16 bolts and flat washers. The engraving on the fuel rails should be facing outwards, which makes the fuel rails even on both sides. This makes for easier and neater fuel line plumbing. The threads in the end of the fuel rails are -8AN.
8. Add orings to the throttle body adaptor. If running the **Plazmaman 102mm throttle body**, use the supplied M6 x 45 bolts. If using the **LS DBW (90mm or 102mm)**, use the supplied M6 x 65 bolts and flat washers.
9. Vacuum ports are located on the rear and sides of the main plenum body and are tapped to 1/8 NPT and 1/4 NPT.
10. Due to a vast range of different casting tolerances, we cannot guarantee an exact alignment between the intake manifold and the standard cast intake ports on the cylinder head. We have measured various sets of factory cylinder heads, and machined our ports to an average size. We recommend port matching both items together to achieve maximum efficiency if required.