SCOGGIN DICKEY PARTS CENTER

TPI Vortec Manifold
Catalog #SD3816

Model: Chevrolet 262-400 c.i.d. V8 with Vortec (Gen 1)
Cast Iron Cylinder Heads or GMPP Fast Burn Heads

Instructions:

Read the following instructions completely before installing your new Vortec TPI intake manifold. If you have any questions, please call our **Technical Hotline at 806-798-4108.**

Manifold: The Vortec TPI base manifold was designed from the original GM TPI intake to be a universal fit for Chevrolet/Pontiac cars (1985-92) that were equipped with factory Tuned Port Fuel-Injection and the cylinder heads have been replaced with the new style raised-port Vortec. Because it is a universal design, you should first test fit all components that bolt directly to the intake to verify if any modifications are required before the final installation. Some modifications maybe required of external components that surround the intake manifold system, you will need to verify this before the final assembly.

EGR System: The TPI Vortec manifold will accept the factory EGR system for most Corvette applications, some modifications will be required. All applications will require EGR modifications and/or fabrication for proper fitment. Please check your local laws for EGR requirements. This intake is NOT legal in California on any pollution-controlled motor vehicles, nor has it been approved for any pollution-controlled applications in any state in the USA.

Coil Mounting/Installation: The Vortec manifold uses only 8-bolts for attaching to the cylinder heads. This new bolt pattern will require that the coil and coil bracket be relocated to a new location. It is our recommendation that the coil bracket be modified by straightening the bend in a vise and attaching the bracket to the rear of the driver's side cylinder head.

Gaskets and Sealant

1. We recommend the use of the factory GM Vortec gasket set, part #89017465, when installing this intake manifold.
2. Make sure the sealing surfaces are clean. Do NOT use any type of gasket sealer, glue, or RTV on the intake gaskets. The rubber O-rings are designed to seal without any chemicals being applied!
3. Do NOT use cork or rubber seals for the front and rear. Use automotive grade RTV silicone for end seals. GM "Red" sealant, part #12378478, is non-corrosive and resistant to high temperatures and hot oil. Apply a bead of sealant approximately ¼" high across the block china rail surfaces, overlapping the intake gasket at the four corners.

Manifold Torque: The Vortec manifold requires special bolts for installation. We recommend the use of bolt kit part #SD12550027. This kit includes 8 special shouldered bolts with washers that are the correct length for a Vortec manifold. If you are not using this bolt kit, it is your responsibility to check the bolts you have to insure that they are; A) Not too long (bottoming out before contacting the manifold surface) to prevent proper sealing, B) Not too short to prevent proper thread engagement. Once you have determined that you have the correct bolt length, proceed as follows.

1. Apply Loctite® 242 to the threads.
2. It is our recommendation that you simply "finger tighten" all bolts until the washer/bolt has come into contact with the manifold surface.
3. At this point it is best to use an inch-pounds torque wrench in a three-step torque method using **the proper sequence as indicated in Figure-1.**
4. Start at 30-inch/pounds and torque all 8 bolts in the sequence that is indicated in **Figure-1**, and then apply 65-inch/pounds, with a final torque setting of 132-inch/pounds. Do NOT over-torque! **Note: 132-inch/pounds = 11-foot/pounds.**

Special Note: If you are using a 1996 or later Gen 1 Chevrolet block, then you must route a coolant by-pass line from the intake manifold to the water pump. The 1995 and earlier blocks are machined with the by-pass provision in the block. The by-pass line must run to the passenger's side outlet **(see Figure 2 position C)** on the water pump using a 5/8" hose. Threaded hole **A (in Fig.1)** is used on Corvette applications as a vapor tube. All other applications should plug this threaded hole with a 1/8" NPT plug, Aeroquip part number FCM3685. Please note that the threaded holes **B (in Fig.1)** for attaching the EGR Pipe is a Metric thread, M8X1.25; this is the same thread size for attaching the runners. If you are choosing to block this location, you may want to use the GM bolts part number 14081021 for the proper length and thread size to attach the block-off plate.

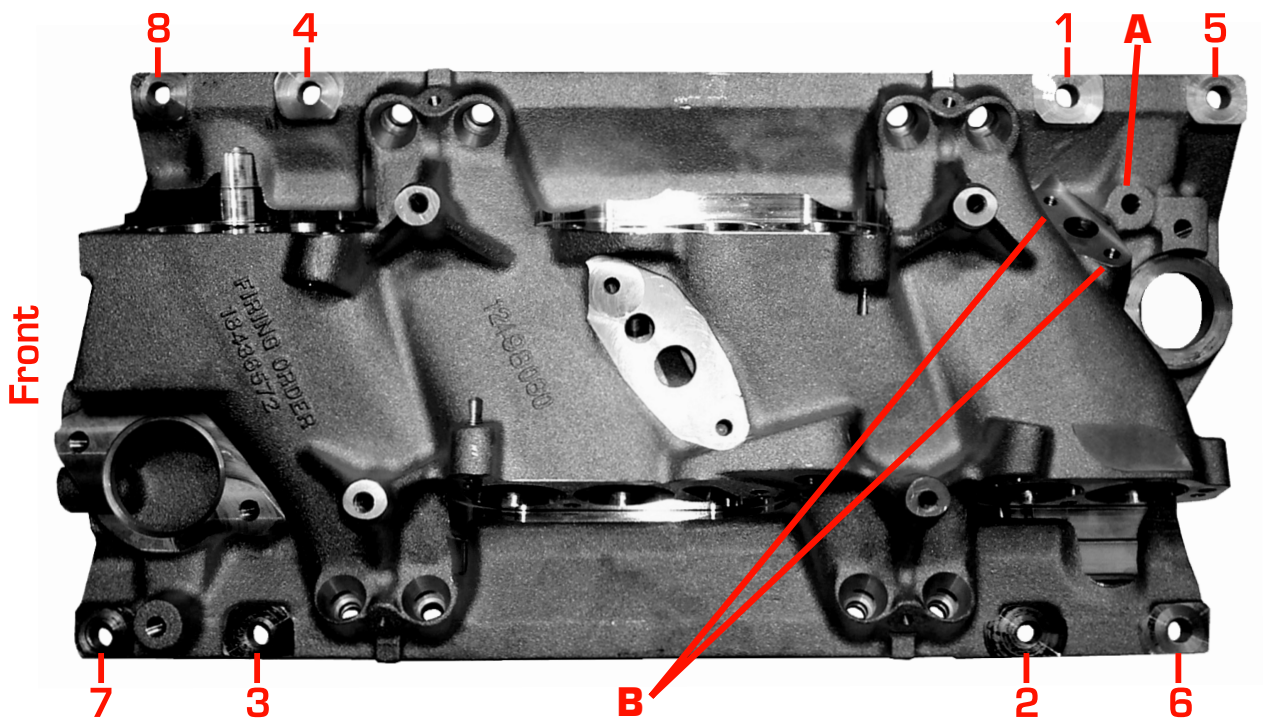
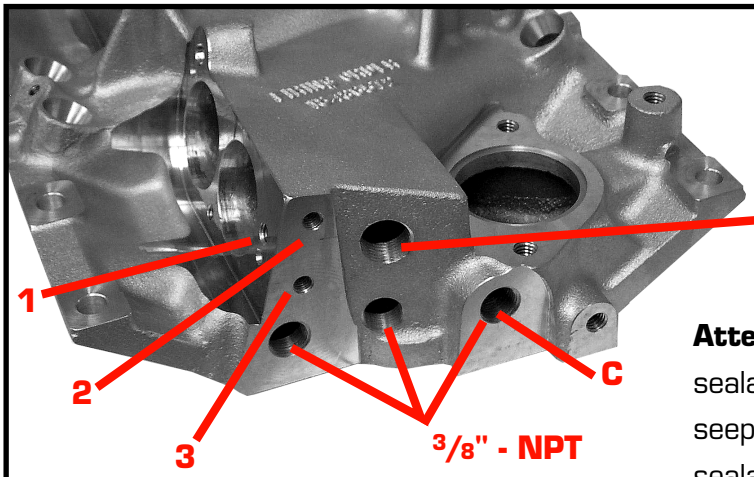


Figure 1 - Intake Manifold Tightening Sequence



C. Use this port for a water bypass on 1996 and newer blocks.

Attention - It may be necessary to use thread sealant on holes 1, 2, and 3 to prevent water seepage past the threads. Please use pipe sealant with PTFE, GM #19333512.

Figure 2