



HIGH-FLO T.P.I. BASEPLATE
For Chevrolet 305 c.i.d. and 350 c.i.d. T.P.I. V8
(1985 and Later) Equipped with Vortec Cylinder Heads
CATALOG #3817
INSTALLATION INSTRUCTIONS

PLEASE study these instructions carefully before installing your new manifold. Also, it is recommended that you study the O.E.M. Service Manual (or Mitchells, Motors, Chiltons, etc.). Before you begin work on the installation, photograph or sketch your engine for future reference, paying particular attention to all lines and connections. When disconnecting each part from engine, tag it to facilitate reassembly. If you have any questions or problems, do not hesitate to contact our Technical Hotline at: 1-800-416-8628, Monday through Friday, Pacific Standard Time, or e-mail us at: edelbrock@edelbrock.com. Please fill out and mail your warranty card.

MANIFOLD

High-Flo T.P.I. Baseplate #3817 is designed to be used with 1985-later, TPI equipped vehicles that have been retrofitted with Vortec, GM Fast Burn, or Edelbrock E-Tec cylinder heads. *NOTE: Vortec style heads do not have an exhaust crossover passage, requiring #3817 to use external routing of the EGR system to retain emissions functions. Part #3817 will accept a 1986-1991 Corvette-style EGR supply. See "EGR VALVE" section below for further instructions. A TPI EGR block-off plate is included for use ONLY on off-highway, non-emissions applications.*

PARTS SUPPLIED WITH MANIFOLD

- 1 - TPI EGR block-off plate
- 1 - TPI runner gasket
- 1 - TPI gasket pin
- 4 - 3/4"-14 NPTF pipe plug
- 2 - 3/8"-18 NPTF pipe plug
- 1 - 1/8"-27 NPTF pipe plug
- 3 - M8 x 1.25 x 16 mm hex cap screw
- 2 - 3/8"-16 x 1-1/2" hex cap screw
- 4 - 3/4" O.D. x 3/8" I.D. x 1/8" thick, hardened washer

EGR SYSTEMS

Edelbrock EGR-equipped High-Flo T.P.I. Baseplates are intended as functionally identical replacements for their O.E.M. counterparts. All exhaust emissions or emissions related stock components may be retained and functional. A block-off plate is included for use on off highway, non-emissions vehicles ONLY.

FUEL INJECTORS

Original injectors should be re-installed; use only OEM-type fuel injectors.

POWER PACKAGE

The Edelbrock High-Flo T.P.I. Baseplate is part of a Total Power Package Parts System that can be completed with the use of dyno-matched High-Flo T.P.I. Runners, Tubular Exhaust Systems, and related parts specifically designed to give you maximum results. Please refer to the Power Package Guide in the Edelbrock catalog to select all the components you need. These components are compatible with the O.E.M. computer.

INSTALLATION PROCEDURE

TOOLS REQUIRED

- Pliers
- Flat blade screwdriver
- Needle nose pliers
- 8 mm & 10 mm deep sockets
- 16 mm & 1/2" tubing wrenches
- 9/16", 3/4", 7/8", & 15/16" open end wrenches
- Torx head sockets (T40 & T45)
- 1/4" socket
- Rubber mallet

INTAKE SYSTEM REMOVAL

NOTE: This section is intended for reference only. In most cases where Vortec-style heads are retrofit, the OEM intake manifold and accessories will already have been removed.

1. Disconnect battery.
2. Drain coolant.
3. Disconnect throttle body from Mass Air Flow Sensor boot.
4. Disconnect all lines from throttle body (linkage, water, vacuum, etc.).
5. Remove linkage attachments from plenum and move out of the way.
6. Disconnect plenum from runners and remove (it is not necessary to remove throttle body from plenum). You may need to loosen lower runner bolts in order to free plenum.
7. Remove all connections (i.e., 9th injector [not on 1989 & later vehicles], fuel, vacuum, electrical, water, etc.) from intake system. **CAUTION: FUEL LINES MAY BE UNDER HIGH PRESSURE, REMOVE CAREFULLY.**

8. Remove runners from baseplate.
9. Remove fuel rail from baseplate.
10. Remove distributor from engine after marking the position of the rotor and housing for re-installation.
11. Disconnect EGR tube from rear of manifold (only necessary on aluminum head engines). Be careful not to damage the tub connection at exhaust pipe.
12. Remove baseplate from engine.
13. Cover intake ports and lifter valley with clean rags or newspaper to prevent any contaminants from entering the engine.

TRIAL FIT

Trial fit your new intake system (base, fuel rail, EGR valve, runners, and plenum) on your work bench prior to installation on your vehicle. This way you can get a "feel" for what goes where and why.

NOTE: Because of the different ways that the O.E.M.'s route fuel lines, some material may need to be removed from the runners in order to clear the fuel lines. O.E.M. distributor housing or manifold runner may require slight filing or grinding to clear the larger passages cast into the High-Flo T.P.I. Baseplate. Check for clearance before installing baseplate onto engine. In some cases, it is possible to re-phase the distributor for adequate clearance by simply rotating to a different position and moving the spark plug wires to their proper location.

FINAL PREPARATION FOR RE-INSTALLATION

1. Thoroughly clean the flange surfaces of the plenum, runners, baseplate, and heads and remove any remaining gasket material.
2. Transfer all fittings and sensors (including oil splash shield) from OEM to Edelbrock High-Flo Baseplate. Use teflon tape on all pipe threads.

NOTE: To ensure maximum performance and a proper seal, Edelbrock gaskets which are specifically designed and manufactured for use with Edelbrock parts must be used.

3. Make sure your new intake system is free of all foreign objects (i.e., dirt, grease, gasket material, etc.).

GASKETS AND SEALANT

CAUTION: Use only O2 sensor safe RTV silicone sealant.

1. Use Edelbrock #7235 gaskets when installing your Edelbrock manifold on street applications. Do not use high-performance or competition-type intake gaskets for street applications. Due to material deterioration under street conditions, internal leakage of both vacuum and oil may occur.

2. Apply Edelbrock Gasgacinch sealant #9300 to the cylinder head side of the gasket as well as to the cylinder head surfaces. Allow to dry and attach the gasket to the cylinder head. Apply a thin film of O2 sensor safe RTV sealer around the water jacket openings, as well as around intake port openings on the manifold side of the gaskets.
3. Eliminate the end seals. Instead, use only O.E.M. approved RTV sealers designed for use with O2 sensors. Apply a bead of sealant approximately 1/4" high across the block end seal surface, overlapping the intake gasket at the four corners. This method eliminates end seal slippage and deterioration.

INTAKE MANIFOLD SYSTEM RE-INSTALLATION

1. Install baseplate on engine and replace all connections. See *Figure 2* for proper bolt tightening sequence and torque all circled bolts to 11 ft./lbs. *NOTE: On 1990 & later engines, only two of the three pipe threaded holes on the front of the baseplate are used. Plug the extra hole with one of the supplied pipe plugs.*
2. Replace the distributor and any electrical connections per OEM specs.
3. Place fuel rail on posts but do not attach at this time.
4. Place runners into position on the baseplate making sure to use the proper runner/gasket on the proper side and start bolts. Note: If you are using stock runners, use the included gasket on the passenger side runner with the EGR balance tube.
5. Tighten down fuel rail.
6. Place plenum into position and start bolts (make sure proper gaskets are used and are aligned with gasket retaining pins).
7. Tighten all runner and plenum bolts.
8. Attach all fuel, water, and electrical connections to the throttle body. On some year vehicles, it may be necessary to discard the original hard line (pre-formed steel tubing) which ran from the O.E.M. baseplate to a rubber hose connecting to the charcoal canister. On the passenger's side of the engine, discard the original hard line (if so equipped) which ran from the valve cover vent to the throttle body and replace with 3/8" rubber hose.
9. Re-connect the throttle body to MAFS boot.
10. Re-connect linkage.
11. Replace coolant.
12. Re-connect battery.
13. Start engine and run briefly, monitoring the "check engine" light. Turn off engine and check installation for any leaks or abnormalities.

MANIFOLD TORQUE

Torque all bolts circled in *Figure 2* to 11 ft./lbs. See *Figure 2* for proper sequence.

EGR VALVE

Manifold will accept an OEM EGR valve. However, Vortec cylinder heads do not have an exhaust crossover, so they require an external source of exhaust gas to feed the EGR system. In 1986-1991 Corvette applications, a factory EGR system may be used. In other applications, it is necessary to purchase a Scoggin Dickey Parts Center #SD3816 EGR supply kit to route exhaust from the exhaust manifold or header to the #3817 inlet manifold. *NOTE: Scoggin Dickey Parts Center can be contacted at www.sdpc2000.com, or at 1-800-456-0211 for ordering.* Follow the instructions supplied with the #SD3816 EGR supply kit for installation. On off-highway, non-emissions applications ONLY, you may install the supplied EGR block off plate. Use high-temp RTV to seal.

FIRING ORDER AND CYLINDER NUMBERING

For cylinder numbering and firing order, see *Figure 1*.

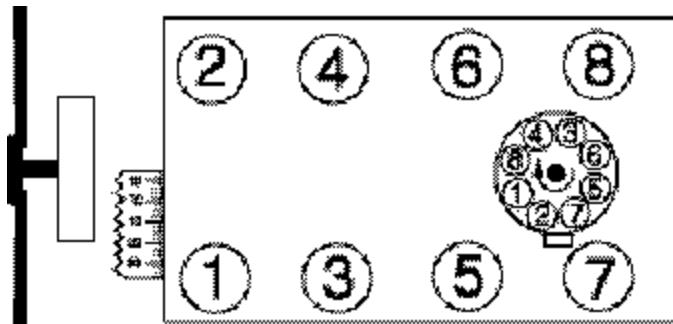


Figure 1 - 262-400 c.i.d. Chevrolet Firing Order
Firing Order: 1-8-4-3-6-5-7-2

Turn distributor counter-clockwise to advance timing

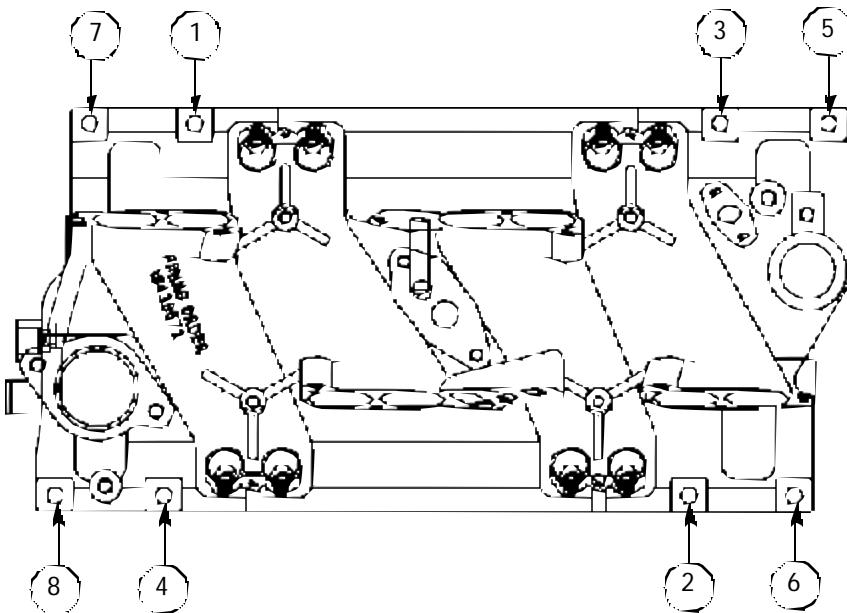


Figure 2 - Intake Manifold Tightening Sequence

FINAL TUNING

NOTE: Local emission laws must be checked for legality of injector or ignition changes. Edelbrock manifolds deliver excellent driveability and power utilizing the factory OEM distributor settings.

CAMSHAFTS AND HEADERS

Use only parts that are compatible with computer-controlled engines, such as Edelbrock Tubular Exhaust Systems. Do not use other header systems which are not tested for compatibility with computer-controlled T.P.I. systems. Those headers may not position the O2 sensor in the correct location, causing improper operation of the ECU.