



VICTOR FORD FE EFI INTAKE MANIFOLD
for 390-428 c.i.d. Ford FE
Catalog #29365, 29366, 29375 & #29376

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 or e-mail us at edelbrock@edelbrock.com.

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

PLEASE complete and mail your warranty card. Be sure to write the model number of this product in the "Part #____" space. THANK YOU.

DESCRIPTION: The Edelbrock Victor Ford FE 29365 and 29375 EFI intake manifolds retain the same features as our 2936 and 2937 carbureted manifolds, with the addition of machined vertical injector bosses (The injector bosses are located on top of the runners for optimum performance). They are ideally suited for 427-500 C.I.D. high-output racing applications, but are designed to fit all all cylinder heads designed for 390-428 Ford FE engines except 427 High-Riser or Tunnel-Port cylinder heads. The runner design delivers maximum power from 4000-8000 rpm. Like the 2936 and 2937, the Victor FE EFI intake manifolds retain the throttle body flange height of a 4V High-Riser intake manifold, ensuring hood clearance in most Ford passenger cars and 427 Cobras. The 29365 accepts standard square-bore flange throttle bodies, and 29375 accepts 4500 series flange throttle bodies.. 29365 and 29375 are intake manifolds only. The 29366 and 29376 include a Fuel Rail Kit (See Below).

NOTE: *These manifolds are not intended, nor legal, for street use on pollution-controlled vehicles. Furthermore, It is the responsibility of the end-user to verify conformity to any particular racing association's rules regarding manifold dimensions, aligning to a template, etc.*

• **FUEL RAIL KIT CONTENTS** (Included with #29366 and 29376):

- 2 - Machined fuel rail extrusions (fuel rail ends tapped for 3/8" pipe)
- 4 - Tall version fuel rail bracket stands (2.65" o-ring spacing)
- 4 - Short version fuel rail bracket stands (1.5" o-ring spacing)
- 4 - 1/4-20 x 1/2" Socket head bolts
- 4 - 1/4-20 x 1-1/2" Hex head bolts
- 12 - 1/4" Flat washers
- 4 - 1/4-20 Nyloc Hex nuts

• **ACCESSORIES & INSTALLATION ITEMS:** Major recommendations are listed below. However, due to the variety of applications, additional equipment may be required for your specific vehicle than mentioned in these instructions.

MANIFOLD	THROTTLE BODY TYPE	PART NUMBER AND DESCRIPTION
29365	Standard Square-Bore Style Base	P/N 3878 - 1000 CFM With Standard GM/Delphi IAC P/N 38783 - 1000 CFM With MotoTron/Hitachi Linear-Style IAC
29375	4500-Series Style Base	PN 3879 - 1600 CFM With Standard GM/Delphi IAC PN 38793 - 1600 CFM With MotoTron/Hitachi Linear-Style IAC
		PN 3888 - 2000 CFM With Standard GM/Delphi IAC PN 38883 - 2000 CFM With MotoTron/Hitachi Linear-Style IAC

NOTE: *Some applications may benefit from the use of a one-inch carburetor spacer under the throttle body, such as Edelbrock #8710. See our Catalog for details. To order a catalog, call (800) FUN-TEAM.*

• **GASKETS:** Recommended gaskets are Fel-Pro P/N 1246 for low riser style intake ports (2.34" tall x 1.40" wide) or Fel-Pro P/N 1247 for medium riser style intake ports (2.10" tall x 1.40" wide). Do not use competition style intake gaskets for this street manifold. Due to material deterioration over time, internal leakage of vacuum, oil, and coolant may occur.

NOTE: To ensure maximum performance and a proper seal, use recommended or equivalent gaskets ONLY.

- **INJECTOR WARNING:** It is important to select the appropriate electronic injectors for optimum performance. The injectors must not only match the fuel demands of an engine, but they must also meet the electronic commands of the engine control unit (ECU). Once injectors and an ECU is determined, make sure that when installing the injectors onto the manifold, that the o-rings of the injectors create a complete seal to prevent any air or fuel from leaking out. The same precaution should be applied when assembling the injectors to the fuel rails.
- **WATER HEATER SPACER BLOCK:** Due to the possible lack of hood clearance, you may not be able to use the OEM water heater spacer block between the intake manifold and throttle body. If necessary, use approximately two feet of 5/8" heater hose and make a direct connection to bypass the spacer block.
- **POWER OPTIONS:** Although this manifold will work with ported factory cast iron heads, we highly recommend the use of our #77919 Victor cylinder heads or #60929 Performer RPM cylinder heads. These heads offer higher airflow levels with minimum preparation required. See our catalog for details.

BEFORE INSTALLING THE INTAKE MANIFOLD

Port Matching: For optimum performance results, the 29365/29375 Victor EFI intake manifold will require port matching. The as-cast runner exits look smaller than would be normal for a Victor level intake manifold. The runner passages are necked down as they pass by the pushrod holes to provide a conservative amount of material for the drilling of the pushrod holes. For optimum performance, the cross-sectional area of the runner as it passes by the pushrod holes should be maximized. Port matching should produce a minimum wall thickness between the machined pushrod holes and the runners of not less than .070" (See Figure 1). Port matching in the runner to gain all of the possible area near the pushrod hole must be done accurately. It is recommended to remove the material adjacent to the pushrod holes by accurately machining these areas (using a mill), indicating off each pushrod hole to be able to maintain accurate wall thickness. If a pushrod hole is broken into or if it is desired to port the runners until they break into the pushrod holes, thin wall brass tubing (5/8" o.d. x .015" wall) to sleeve the pushrod holes is available from model building supply companies. The pushrod holes should still clear the pushrod with the .015" wall tube installed. If it is desired to have a 5/8" diameter pushrod hole after sleeving, then the hole will need to be reamed to 21/32" and a 21/32" o.d. X .015" wall tube will need to be used. The tube will need to be sealed with a two-part epoxy adhesive to prevent oil from being sucked into the intake manifold. A good epoxy is available from CV Products, P/N CV101 Epoxy (Phone Number (800) 448-1223).

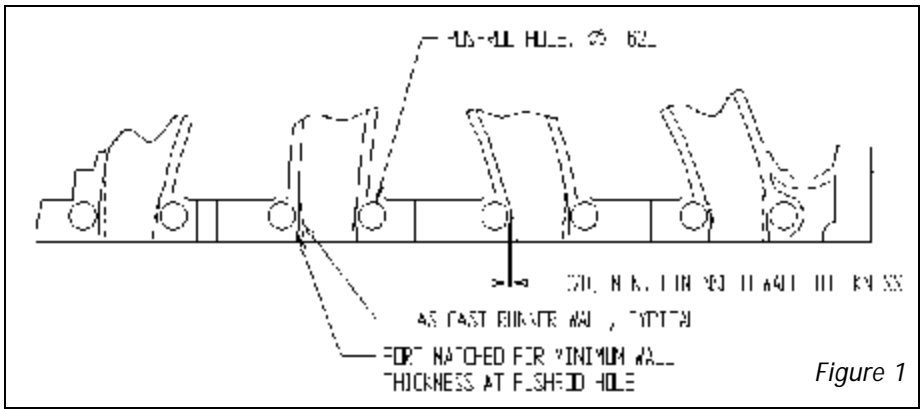


Figure 1

OIL FILL TUBE: A boss for a front oil fill tube that is standard on 427 Ford engines is provided in the 2936/2937 intake manifold castings. If a front oil fill tube is desired, the customer must have the hole machined by a competent machinist. Figure 2 shows the proper angles to set up for machining the hole. The drill dimple cast into the intake manifold at the appropriate location defines the location of the hole for the oil fill tube. The maximum diameter hole than should be machined into the intake manifold is 1.375".

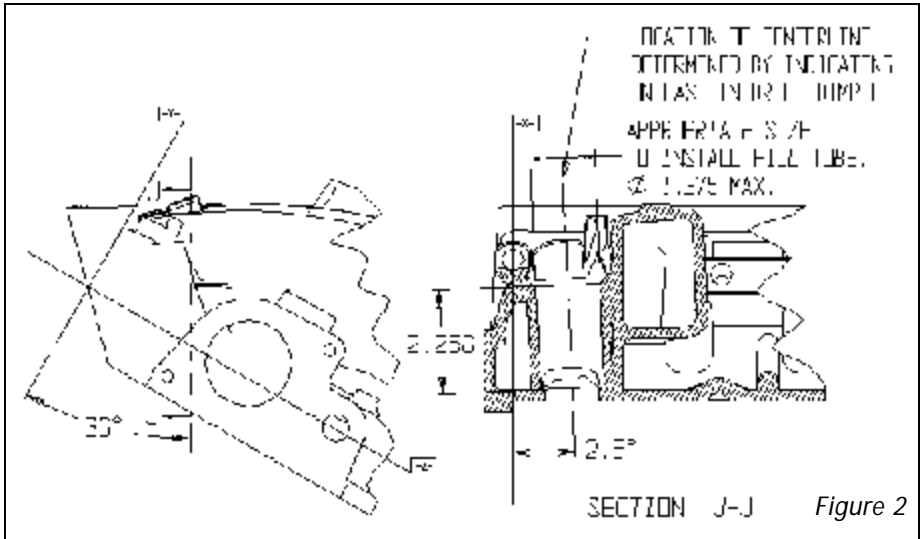


Figure 2

WATER BYPASS TUBE: The water bypass tube needs to be installed into the water bypass hole in the front of the intake manifold. Apply some liquid Teflon thread sealant to the inside surface of the water bypass hole and tap the water bypass tube into the hole using a block of wood and a hammer. Be careful to drive the tube straight into the bypass hole to avoid bending or crushing the tube. Test fit the intake manifold with the bypass tube installed to make sure the bypass tube and water pump are aligned properly and have proper clearance between them. See "Intake Manifold Test Fit Procedure" listed below for instructions.

NOTE: This manifold has no provision for power brake vacuum. If your application requires manifold vacuum; drill and tap a 3/8" or 1/4" pipe hole in either the back or passenger side of the plenum as close to the carb flange as possible. This should be done prior to installing the manifold.

DISTRIBUTOR AND PUSHROD INSTALLATION: Due to the close tolerance of the distributor and pushrod fit, test fit the intake manifold to check for proper clearance. See "Intake Manifold Test Fit Procedure" listed below for instructions.

INSTALLATION PROCEDURE

- **INTAKE MANIFOLD TEST FIT PROCEDURE:** Use the following test fit procedure to ease manifold installation.

NOTE: On some models, there are dowel pins in the front valley gasket surface of the engine block. Remove any dowel pins before test fitting or installing the intake manifold.

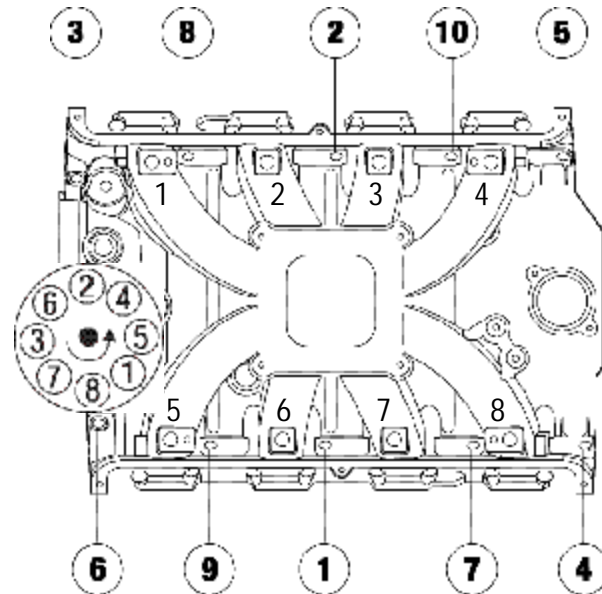
1. Position gaskets on cylinder heads. Do not use any sealant or adhesive at this time.
2. Position intake manifold and start all bolts by hand.
3. Install the distributor with the intake manifold still loose.
4. Make sure the distributor seats all the way down.
5. Install pushrods and rocker arms.
6. Check pushrods for alignment and clearance through the intake manifold.
7. Pushrod clearance to the intake manifold may be increased by backing of the rocker arm support stand bolts and pushing the stand towards the rocker arm and pushrod that is interfering with the intake manifold.
8. Grind manifold for clearance, if necessary.

NOTE: If other than stock pushrods are used, you may have a clearance problem that will require grinding or shimming of the rocker arms for alignment and clearance.

- **INTAKE MANIFOLD INSTALLATION:**

1. Use only recommended intake gaskets set when installing this intake manifold.
2. Fully clean the cylinder head intake flanges and the engine block end seal surfaces.
3. Apply Edelbrock Gasgacinch sealant P/N 9300 to both cylinder head flanges and to the cylinder head side of the gaskets, allow to air dry, and attach the intake gaskets.
4. Do not use cork or rubber end seals. Use RTV silicone sealer instead. Apply a 1/4" high bead across each block end seal surface, overlapping the intake gasket at the four corners. This method will eliminate end seal slippage.
5. Install the intake manifold and hold-down bolts. Torque all of the manifold bolts in two steps by the sequence shown in *Figure 3* to 25 ft/lbs. While tightening the intake manifold bolts, the distributor should be installed in its proper position. Care should be taken to make sure that the distributor is centered in the hole in the intake manifold and that it can be freely removed and reinstalled after the intake manifold bolts are tightened.

- FUEL RAIL INSTALLATION (29366 & 29376 ONLY):
 1. Select the appropriate fuel rail brackets (Tall for injectors with 2.65" o-ring spacing, or short for 1.5" o-ring spacing). Attach the four fuel rail brackets to the intake manifold using the four 1/4-20 x 1/2" socket head bolts and four of the 1/4" flat washers.
 2. Press your injectors into the intake manifold using a small amount (one or two drops is sufficient) of silicone based o-ring lubricant (such as brake cylinder assembly lube) on the o-rings.
 3. Press the fuel rails over the fuel injectors until fully seated.
 4. Using a 1/4" flat washer on each side of the fuel rails at each of the four bolt holes, secure the fuel rails to the brackets using the 1/4-20 x 1-1/2" hex head bolts and the 1/4-20 Nyloc hex nuts.
 5. Make sure the injectors can still rotate freely in their bores after the fuel rails are installed.
- FINAL CHECKS: After assembling the injectors, fuel rails, support brackets, throttle body, spacer (if needed), gaskets, and air cleaner, check the following:
 - Have an assistant depress and release the gas pedal. Check for full open throttle at the throttle body. Check for any possible interference of the throttle with other components. Make sure the throttle can return to closed without binding.
 - Check the fit of each injector. They should be able to rotate freely. The O-rings should be fully inside their respective bores.
 - If applicable, make sure there will be enough hood clearance after the air cleaner has been installed.
 - Activate the fuel pump and fully check the system for any leaks prior to starting the engine.



*Figure 3 - Intake Manifold Torque Sequence
 Torque Bolts to 25 ft/lbs.
 Firing Order 1-5-4-2-6-3-7-8
 Turn Distributor Clockwise to Advance Timing*

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