

# INTAKE MANIFOLD GENERAL INSTRUCTIONS FOR REMOVAL AND INSTALLATION.

## NOTE: PLEASE READ INSTRUCTIONS COMPLETELY BEFORE INSTALLATION.

This Instruction sheet is designed to cover a wide variety of vehicle applications. If your vehicle is not equipped with any items referred to in these instructions (EGR, transmission kick-down linkage, air conditioning, power brakes, etc.), proceed to the next step.

Follow these instructions carefully, so that you can achieve the results intended for this high quality performance intake manifold. Slight errors in installation can make a big difference in performance, mileage and emissions. Warranty is void if proper installation procedures are not followed.

### CHECK LIST:

- ◆ Fully read and understand all of the instructions.
- ◆ Inspect manifold for any shipping damage. If damaged, contact your dealer immediately.
- ◆ All threaded holes have been checked by the factory but do a quick check to make sure they are all clean and not damaged.
- ◆ Check all internal passages with a flashlight and a wire, making sure the passages are clean and not obstructed.
- ◆ Use proper OEM or aftermarket intake gaskets. See pages 3 and 4 of this instruction sheet for specific gasket recommendations.
- ◆ Use Teflon® tape on all pipe plugs.
- ◆ Remove dowel pins from end seal surface on Ford products. Use vise grip pliers for removal.
- ◆ Use correct carburetor and adapter if recommended. Always use a new carburetor gasket.
- ◆ Re-install vacuum lines correctly and replace any bad lines with the correct size.
- ◆ Position manifold and follow torque sequence correctly per instruction sheet.
- ◆ Set ignition timing to correct specifications.
- ◆ Test drive your vehicle before installation, noting at what point automatic shift points occur. After installation of this manifold, adjust linkage to achieve same shift points. (If applicable)
- ◆ Check emission parts for proper function before removing stock manifold.
- ◆ Adjust automatic choke correctly.

**NOTE:** This manifold was thoroughly checked at the factory. It has been pressure tested to assure that no air or water leaks occur. All the tapped holes have been cleaned after polishing with the proper taps. The manifold has been vapor blasted to clean it and then meticulously hand detailed before packing for shipment.

### PARTS REQUIRED:

1. Intake manifold gasket set. See page 3 and 4 of these instructions for specific recommendations.
2. Oil resistant, silicone based sealant such as Mr.Gasket Part No. 7809, or equivalent.
3. Spray gasket adhesive, such as Fel Pro's "Spray Tack" Part No. 220, or equivalent.
4. Pipe plugs, If needed, either 3/8 or 1/2-NPT.

5. Carburetor base gasket (usually supplied with carburetor).

6. Teflon tape or pipe dope.

**NOTE:** Never install tapered (pipe) fittings in an aluminum manifold without Teflon tape or thread damage and/or leakage will likely occur.

### TOOLS NORMALLY REQUIRED:

1. Socket wrench set
2. Open end wrenches
3. Box end/flare wrenches (optional)
4. Distributor wrench
5. Ignition wrench set
6. Screwdrivers (Standard and Phillips)
7. Gasket scraper or putty knife
8. Channel lock and hose clamp pliers
9. Torque wrench
10. Timing light and vacuum gauge
11. Drain bucket
12. Rags
13. 3/8"x16UNC tap (for cleaning bolt holes)

### MANIFOLD REMOVAL PROCEDURE:

**WARNING:** Do not attempt to remove manifold from a hot engine. Allow the engine time to cool down sufficiently before removal.

1. Disconnect battery ground cable.
2. Tag vacuum and crankcase ventilation hoses leading to air cleaner, if so equipped, making note of routing and connection points. Now remove vacuum and crankcase hoses allowing removal of the air cleaner assembly.
3. Note the routing of remaining vacuum lines from carburetor and intake manifold. After being tagged, remove vacuum lines.
4. Drain radiator by opening drain plug at lower corner of radiator. If no drain plug is present, it may be necessary to remove the lower radiator hose. **CAUTION:** Coolant may still be hot. Allow engine to cool down before proceeding.
5. Disconnect throttle linkage and springs, transmission kick-down/cruise control (if applicable), and carburetor choke rod.
6. Remove gas cap to relieve pressure from fuel system. Disconnect fuel line at carburetor using flare wrenches. Plug fuel line to prevent fuel leakage. Remove carburetor
7. Tag and disconnect ignition coil and sensor wires. Remove coil and coil bracket, if mounted on manifold.
8. Remove radiator hose, thermostat housing and thermostat.
9. Remove remaining water hoses and fittings from manifold.
10. Remove all manifold vacuum fittings.
11. Remove any remaining brackets from the manifold.
12. Loosen or remove valve covers, if needed, to aid in manifold removal.

## IGNITION REMOVAL PROCEDURES:

**FOLLOW INSTRUCTIONS CAREFULLY, AS SERIOUS DAMAGE CAN OCCUR WHEN IGNITION IS NOT RE-INSTALLED CORRECTLY.**

1. Remove distributor cap.
2. Note position of rotor, then mark the distributor housing in line with the rotor tip.
3. Note position of distributor vacuum canister and place a reference mark on a convenient surface.
4. Note how far points are open or note position of magnetic trigger wheel (if so equipped); if closed, note the distance from point block to cam lobe.
5. Remove distributor. DO NOT rotate engine after removing distributor.
6. Remove the intake manifold-to-cylinder head bolts.
7. Remove intake manifold.

## PREPARATION FOR INSTALLING MANIFOLD:

1. Clean all mating surfaces thoroughly.
2. **CAUTION:** To prevent gasket pieces from falling into ports and valley when cleaning old gaskets from head surfaces, insert rags into ports and lay rags in lifter valley. When clean, remove rags carefully. Make sure that all particles that fell on rags are completely removed. Wipe surfaces with lacquer thinner or alcohol soaked rags to remove any oil or grease. **NOTE:** This is a must for proper gasket sealing.

## INSTALLING INTAKE MANIFOLD:

1. Apply a thin coat of spray adhesive to the cylinder head side of the intake gasket surface. Lay manifold gasket in place, aligning ports and bolt holes.
2. Apply a 1/4" wide bead of oil-resistant RTV-silicone sealant to the front and rear block sealing surfaces, making sure to overlap manifold gaskets at all four corners. Do not use cork or rubber seals.
3. Carefully position your intake manifold on engine. Make sure that all bolt holes are centered. If manifold must be moved, re-check gasket placement. Install intake bolts. If your engine is a SB Chevy and has '87-'95 cast iron heads, and your new manifold has four slotted holes for the four center attachment bolts, you must insert the supplied aluminum adapters into the slotted holes. If you have '86 or earlier heads, or most aftermarket heads, you do not need to use these adapter inserts. Use the four straight bushings instead. **NOTE:** Thread sealant should be used on all bolt threads.
4. Begin torquing bolts, first to 10 ft/lbs, then 15 ft/lbs, following the factory sequence, (see illustrations on page 4) and finally torque to 25 ft/lbs. Note that Vortec and SB Ford torque specs are different. See individual specifications for specific manifolds starting on page 3 of these instructions.

## INSTALLING FITTING, PLUGS AND STUDS:

1. Install fittings, plugs, carburetor studs and accessory bolts from your original manifold. Use Teflon® tape or pipe dope on all pipe threads.  
**CAUTION:** Do not over-tighten or cross-thread fittings, plugs, studs or bolts in manifold. Damage to threads or cracked mounting boss may result unless caution is used when installing.
2. Install all water sensors and vacuum fittings into manifold.
3. Plug all un-used water and vacuum ports in the manifold.  
**NOTE:** Use Teflon® tape or pipe dope on all pipe threads. Anti-seize compound is recommended when installing aluminum pipe plugs in an aluminum manifold.

## INSTALLING CARBURETOR:

1. Place new carburetor gasket on clean carburetor mounting surface. Do not use any type of sealant on carburetor gasket.
2. Install carburetor.
3. Connect all linkage and throttle springs.
4. Connect all vacuum and fuel lines. Refer to your tags or drawing for correct placement from Manifold Removal Procedures section (step 3).
5. Automatic transmissions only: Adjust kick-down or throttle pressure linkage for proper shift points. Check all linkages, making sure that they all function properly.
6. Re-tighten gas cap.

## WIRES, BRACKETS AND VALVE COVERS:

1. If valve covers were removed, re-install with new gaskets.
2. Install coil brackets, coil, wires, and all remaining brackets that were removed from manifold.

## INSTALLING THERMOSTAT:

1. Install thermostat and apply silicone sealant on both sides of gasket and place on manifold. Clean thermostat housing of any old gasket material before positioning on gasket. Start bolts by hand, then tighten.
2. Install heater and radiator hoses. **NOTE:** Check that radiator drain plug is closed before replacing coolant.

## INSTALLING IGNITION:

1. Install distributor at this time making sure distributor fully engages the oil pump drive shaft.
2. Check location of rotor and distributor body, making sure your reference marks line up. Refer to Ignition Removal section (steps 2, 3, and 4). Install hold-down clamp and tighten distributor just enough that it still can be rotated by hand. Re-install distributor cap and wires.
3. Connect battery cable.
4. Hook up timing light and start engine; set timing to factory specs, tighten distributor.
5. Check for possible fuel, oil, or coolant leaks and proper choke operation.
6. Install air cleaner.

**CAUTION:** Check that there is adequate clearance for throttle and choke linkages through their range of travel.  
**IMPORTANT:** Check for adequate hood clearance before closing hood. Clearance should be 0.5" min.

7. Operate engine for 30 minutes. Allow engine to cool and re-torque manifold bolts.

## GENERAL INFORMATION:

1. Periodically (every six months or 6000 miles) re-check the torque on the manifold bolts to minimize the possibility of a vacuum leak.
2. If the cylinder heads have been milled or the cylinder block "decked," the cylinder head faces and the end surfaces of the manifold must be milled to compensate. This is necessary to maintain correct port alignment, minimize the possibility of manifold vacuum leaks, and assure proper engine performance.
3. Ignition timing should be set to factory specifications. Any attempt to further advance the initial ignition setting will result in an adverse effect on exhaust emission levels and improper engine operation. Since idle speed increases as the ignition is advanced, the only way to bring the idle speed down to an acceptable level, is to close the throttle plates with the idle speed adjustment screw. Closing the throttle plates in this manner will change the geometry between the throttle plates and the idle fuel ports. This can cause idle quality deterioration and make it difficult to get the idle mixture rich enough. If more advance is desired, it should be done in the distributor advance curve.
4. If changing from a 2BBL intake manifold (**NOTE:**

Check legality in your state), it is sometimes necessary to adjust the transmission kick-down linkage to the carburetor in order to obtain wide-open throttle. This adjustment is made by loosening the locking grommet and pulling enough kick-down cable through the grommet to achieve full throttle. Lock the grommet against the kick-down cable and connect kick-down linkage to the carburetor. Consult the appropriate chassis service manual for more detailed adjustment instructions.

## INSTRUCTIONS FOR SPECIFIC MANIFOLDS:

### 52000/52001/52010/52011 - SB Chevy 262 - 400 cid V8

1. Street Legal - The 52000/52001 manifold is a stock replacement part when used with an OEM carburetor on 1966-72 302, 327 & 350 V8 passenger cars and 1966-83 trucks and Suburbans, non EGR.
2. This manifold will accept all stock parts (in most cases) when used with the stock carb or one of the carburetors recommended below.
3. Choke well gasket. GM Part No. 14096848.
4. Transmission kick-down bracket (if converting from 2BBL to 4BBL) GM Part No. 3973000, or equivalent.
5. Intake Gaskets - Use Fel-Pro 1256, Fel-Pro 1204, or Edelbrock 7201. Or Fel-Pro 1205 w/aftermarket heads.
6. Carburetor recommendations:
  - a. OEM 4BBL (Will not fit 52010/52011)
  - b. Holley #0-1850 600 cfm Vacuum
  - c. Holley #0-80450 600 cfm Vacuum
  - d. Holley #0-6210 650 cfm Mechanical
  - e. Edelbrock #1400, #1405, #1406 600 cfm
  - f. Edelbrock #1407, #1411 750 cfm
7. Use our supplied carb adapter and gasket if you install a square bore carburetor. See Fig. 2. Not required on 52010/52011.
8. Brackets - Due to the design of this manifold, the throttle and kickdown brackets on some model vehicles may require modification to fit. You can purchase an Edelbrock #8036 or chrome #8030 bracket or modify your existing bracket if this condition exists with your vehicle. See Figure 1 on page 6.

### 52006/52007 - SB Chevy w/Vortec Heads (Non EGR)

1. This manifold is for 262-400 small block Chevy equipped with late model Vortec (Gen1+) cast iron heads or Edelbrock E-Tec aluminum heads. The manifold accepts late model water neck, alternator and HEI ignition systems. Use same carbs recommended above for 52000/52001 manifolds. Use supplied adapter and gasket to utilize a square bore carburetor with this manifold.
2. Brackets - Due to the design of this manifold, stock throttle brackets that attach to the manifold will not fit. Use a bracket that attaches to the carb, available from several aftermarket performance parts suppliers.
3. Gaskets & sealants - Use a Fel-Pro #1255 intake gasket set. Do not use any sealer on the intake gasket. Eliminate the end seals and use automotive grade RTV silicone. Apply a 1/4" high bead across the front and back of block, overlapping the intake gasket at the four corners. Torque to 12-15 lb. ft. Do not exceed these specs.
4. **Special Note:** This manifold is primarily designed for use on Vortec heads on pre-Vortec engine blocks. 1995 and earlier blocks have the thermostat bypass passage from the block directly to the water pump. **Important:** If you use this manifold on a 1996 and later Vortec engine (which doesn't have the bypass in the block), you must run a coolant bypass line from the manifold to the 5/8" hose nipple on the passenger's side of the water pump. Route from 3/8NPT tapped hole in front of Professional Products manifold.

### 52008/52009 - SB Chevy Cyclone EGR

1. This manifold is equipped with EGR provision and is intended as a direct identical replacement for the O.E.M. equivalent manifold. All exhaust emissions or emissions related stock components are intended to be retained and be functional.

2. Carburetor recommendations. Note that in order for the vehicle to be emissions legal, you must use one of these carburetors:

- a. OEM 4-bbl - Requires use of Edelbrock #9171 choke rod and #8035 EGR adapter.
  - b. Edelbrock Performer #1400 (600 cfm) Requires use of Edelbrock #1476 EGR adapter.
  - c. Edelbrock Q-Jet #1902 (750 cfm) Requires use of Edelbrock #9171 choke rod or Edelbrock #1931 choke kit.
  - d. Edelbrock Q-Jet #1903 (750 cfm) Requires use of Edelbrock #1930 choke kit.
  - e. Edelbrock Q-Jet #1904 (795 cfm)
3. The throttle kick-down bracket on some model vehicles may require modification to fit on the manifold. If this applies to your installation, you can either use an Edelbrock #8036 or #8030 bracket or modify yours as shown in Figure 1 on page 6 of these instructions.
4. Use only Fel-Pro 1256, 1204 or Edelbrock 7201 Intake Gaskets. Do not use the end seals provided in these kits. use a 1/4" high bead of RTV silicone sealant instead. See general instructions in this booklet.
5. EGR Valve Information:

- A. GM #14031368 (1/4-inch steel plate) should be used for a positive gasket seal with all bolt-on EGR valves. If a new EGR valve is required, use a GM #17066253 for cars and GM #17066198 for trucks.
  - B. This manifold will not accept 1979-'80 305 V8 EGR valve. Use one of the recommended new GM valves.
  - C. Edelbrock carb #1400 and Holley carbs will require an Edelbrock #8035 EGR Adapter to reposition the EGR valve for linkage clearance.
  - D. For clamp-type EGR valves (1973-'74) use Edelbrock #8035 EGR Adpater with GM #14031368 EGR Valve spacer plate.
6. Carburetor Gaskets - If using a Rochester Quadrajet carburetor, use the base gasket recommended by the manufacturer for the specific model carburetor used. Otherwise, leaks may occur.

### 52020/52021 & 52025/52026 - SB Chevy V8

1. This manifold will not accept stock EGR equipment. EGR systems are used on some '72 and later vehicles and only in some states. Check local laws for requirements. This manifold is not legal in CA on pollution controlled vehicles.

2. This manifold is designed to accept late model water neck, A/C, alternator, and HEI ignition systems. Use recommended electric or manual type choke carburetors only. This manifold is recommended for street high performance and racing vehicles only.

3. Carburetor recommendations: Holley #0-3310 or Edelbrock Performer #1407. These are both manual choke carburetors.

4. Brackets - The throttle and kickdown brackets on some model vehicles may require modification to fit. You can purchase an Edelbrock #8036 or #8030 bracket or modify your existing bracket. See Figure 1 on page 6.

The carb location on this manifold is .7" higher and .125" farther forward than stock. If your throttle cable bracket bolts to the carb pad you will have no problem. If it

## INSTRUCTIONS FOR SPECIFIC MANIFOLDS

(Continued)

fastens to the back of the stock manifold, use the Edelbrock kit #8012.

5. Gaskets - Use Fel-Pro #1205, Edelbrock #7201, or OE equivalent gaskets.

### 52027/52028 - SB Chevy w/Vortec heads

1. This manifold essentially uses the same design as the 52020/52021/52025/52026 above but is intended for use on engines equipped with 1996 and later Vortec cast iron heads or Edelbrock E-Tech aluminum heads. The manifold accepts late model water neck, alternator, and HEI ignition. Use same carbs recommended for 52020/52021 above.

2. See notes 2, 3 and 4 of manifold 52006/52007. All the same notes apply to this manifold.

### 52030/52031 - SB Chevy 262 - 400 cid V8

1. This is a very high performance racing manifold. It can be used for street applications but some loss of low speed torque will be experienced. This type of manifold is also popular for street rod applications due to its height. Since most street rods have a very high power to weight ratio, the loss of low speed torque is usually not a significant factor. Note that on a moderate horsepower engine (below 400) there will be very little improvement in overall performance with this manifold compared to our 52020 Typhoon model. A high rise single plane manifold requires a big cam and free breathing heads to take full advantage of this type of design.

2. This manifold is not legal for street use on pollution controlled vehicles.

3. Intake Gaskets - Use Fel-Pro #1205 or manifold can be ported out to a Fel-Pro #1206 size.

4. Carburetor recommendations:

- Holley #0-80450 600 cfm Vacuum
- Holley #0-7002 650 cfm Vacuum
- Holley #0-3310 750 cfm Vacuum
- Holley #0-6109 750 cfm Mechanical
- Edelbrock #1407 750 cfm Mechanical

5. See additional notes on page 7.

### 52032/52033 - SB Chevy w/Vortec heads

1. This manifold is basically the same design internally as the 52030/52031 above but is intended for use on engines equipped with 1996 and later Vortec cast iron heads or Edelbrock E-Tec aluminum heads.

2. All the same notes for the 52030/52031 above apply to this manifold except it requires the use of a Fel-Pro #1255 intake gasket.

3. See notes 3 and 4 of manifold 52006/52007. All of the same notes apply to this manifold.

### 53000/53001 - Big Block Chevy V8 (Oval Port)

1. Street legal - This manifold is a stock replacement part when used with a stock or legal replacement carburetor on 1967-72 396, 402, 427, 454 V8's and 1966-83 trucks originally sold without EGR. This manifold will not accept stock EGR equipment.

2. This manifold will accept all stock parts (in most cases) when used with the stock carb or one of the carburetors recommended below.

3. Manifold Port Design - This manifold was designed to generate a maximum power band from idle to 6,000 rpm with the latest style oval port heads. We recommend using the manifold as-cast with the early style (larger oval port) cylinder heads when operating within the recommended rpm range.

4. Intake Gaskets - Use Fel-Pro #1210 or #1212.

5. Carburetor recommendations:

- Original Quadrajets 4BBL spread bore
- Holley #0-80770 770 cfm spread bore
- Holley #0-80508S 750 cfm
- Holley #0-4779C 750 cfm

e. Edelbrock #1405, #1406 600 cfm

f. Edelbrock #1407 750 cfm

g. Edelbrock Q-Jet #1901, #1902 750 cfm

h. Edelbrock Q-Jet #1903, #1904 795 cfm

6. This manifold is supplied with a special carb adapter plate and gasket. You will need to install this adapter if you elect to use a square bore carburetor instead of the stock style spread bore. See Figure 2, on page 6.

### 53025/53026 - Big Block Chevy - Oval Port

1. An ideal street manifold. Designed for 396-454 engines with oval ports, this manifold will accept late model waterneck, A/C, alternator and HEI ignitions.

2. Carburetor recommendations:

- Edelbrock #1407, #1411 750 cfm
- Edelbrock #1412, #1413 800 cfm
- Holley #0-80508S 750 cfm
- Holley #0-4780C 800 cfm

3. Use a Fel-Pro #1212 intake gasket.

4. For high performance, the carburetor pad on this manifold is forward of the stock position by .25". If your throttle bracket fastens to the carb, it is ok as is. If it fastens to back of manifold, use an Edelbrock #8012 Extension Kit. To install, press throttle pedal fully, install the #8012 extension to the carb. Failure to do this will negatively affect trans kickdown and up-shift points.

5. There are four manifold bolts that stick out towards the valve cover further than others. There is no gasket support under these bolt holes and over-tightening them can break the manifold. Hand tighten with a 6" box end wrench. Do not use a torque wrench.

### 53030/53031 - Big Block Chevy - Rectangular Port

### 53034/53035 - BB Chevy Rect. Port w/Dominator Carburetor

### 53036/53037 - Big Block Chevy - Oval Port

1. These manifolds are primarily intended for racing applications. They may also be used on light vehicles in street applications keeping in mind that single plane manifolds do suffer some torque loss at lower engine rpms.

2. Use an 800 cfm or larger 4150 square bore carb. (Except 53034/53035 - Use appropriate Dominator carburetor)

3. Use a Fel-Pro intake gasket set #1275 for rectangular port and a Fel-Pro #1212 for oval port heads.

4. These manifolds not legal on pollution controlled vehicles.

5. Dominator model has bosses suitable for nitrous or injectors.

### 54000/54001 - Typhoon for 260-289-302 SB Ford V8

### 54025/54026 - CrossWind for 260-289-302 SB Ford V8

1. Street Legal - These manifolds are a stock replacement part when used with the OEM carburetor in 1965-66 289 Shelby Mustangs. This manifold will not accept stock EGR equipment.

2. This manifold will accept all stock parts (in most cases) when used with the stock carb or one of the carbs recommended below.

3. Intake Gaskets - Use Fel-Pro #1250 or OEM equivalent.

4. Carburetor recommendations:

- OEM 4BBL
- Holley #0-4779 750 cfm
- Edelbrock #1405 600 cfm
- Edelbrock #1407 750 cfm

5. Clearances - In some applications with an Edelbrock or Holley carb, there may be some interference with the stock air cleaner. Use an Edelbrock Air Cleaner #1221 or adapter #8092.

**Caution:** Check hood clearance when using a spacer.

6. Brackets - A throttle mounting adapter plate is supplied with each manifold to adapt both early and later type stock throttle brackets to our manifold. Our bracket bolts to the manifold with the slotted hole towards the center of the manifold and then the stock throttle bracket bolts to our bracket. See Fig. 3 on page 6.

7. Torque specs. See sequence chart on page 6. Following this sequence, torque bolts to 10 lb. ft. Then following same sequence, torque bolts to 15-18 lb. ft. Do not over tighten as damage to the manifold may occur.

#### 54020/54021 - EFI Mustang 1986-'95 5.0L V8

See separate instruction sheet supplied with kit for this manifold for specific information on this installation. Also, see page 6 of this instruction booklet.

#### 54022/54023/54126/54127 - Ford 351W V8

See separate instruction sheet supplied with manifold for specific information on this installation.

#### 54030/54031 - 260/289/302 SBFord V8

1. This is a medium rise single plane manifold intended for racing applications. Not intended for street use as there is no provision for choke, emission parts, etc. Will not fit Boss 302 or 255 cid engine. This is a non-EGR manifold.

2. This manifold can be used with ported factory cast iron 289, 302, or 351W cylinder heads, (on a 289/302 block) or aftermarket AR, TFS, or Edelbrock Performer aluminum heads. Early ('69, '70, & '71) 351W, or aftermarket aluminum heads are highly recommended.

3. Use a Holley double pumper 4150 style carburetor. Exact size of carb is dependent upon the total displacement of your engine. See Holley catalog for recommendations.

4. Additional parts that may be required: Edelbrock #8011 automatic transmission rod extension kit. Edelbrock #8016 ball end stud for Ford Holley carbs.

5. Port matching to your heads is recommended for optimum performance.

6. A one-inch carburetor spacer may provide better performance on some applications. A slight richening of the jets may be required.

7. If a Mallory Comp 9000 distributor is used, the fins on the side of the distributor may possibly interfere with the manifold. If necessary, trim the fins on one side of the distributor for clearance.

8. Always check for hood clearance before closing the hood when installing a taller than stock manifold such as this one.

#### 54126/54127 - Ford 351W V8

See separate instruction sheet supplied with manifold for specific information on this installation.



The 52030/52031 Hurricane from Power+Plus outperformed five other leading race manifolds. For test results, send a #10 stamped self-addressed envelope to: DYN0 TEST RESULTS Professional Products 12705 S. Van Ness Ave. Hawthorne, CA 90250

#### 55025/55026 - Chrysler 340-360 V8 (1967-'91)

See separate instruction sheet supplied with manifold for specific information on this installation.

#### 59000/59001/59003/59004 - Acura 4-cylinder engine

See separate instruction sheet supplied with manifold for specific information on this installation.

#### STREET LEGALITY

Several of our manifolds are legal for use on selected street models when the original style OE carburetor is used. Some aftermarket carburetors are also exempted for use as well. The following terminology has been exempted from the California Bureau of Automotive Repair Inspection Manual - Rev. 1, Dec. 10, 1990, Appendix K:

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On vehicles that are not exhaust emission controlled (see Appendix B) any intake manifold/fuel metering system is allowable, as long as any required PCV systems are functional.

On exhaust emission controlled vehicles not required to be equipped with an EGR system, any intake manifold that makes provision for the OEM emission controls (TAC, carburetor, thermal switches, choke stove, exhaust crossover, etc.) is acceptable.

On vehicles requiring an EGR system, the manifold must meet the above requirements, and be marketed by the manufacturer as designed for use on EGR equipped pollution controlled vehicles.



54152 EGR Supply Adapter - Required on 1994-'95 installations.

54020/54021 TYPHOON For 1986-'95 Mustang EFI



50 State Street Legal

Elbow Adapter Required on 1994-'95 installations. #54150 polished, #54151 satin.



#### INFORMATION PERTAINING TO CALIFORNIA SMOG CHECK PROCEDURES

The following manifolds are considered stock replacement parts on non-EGR controlled vehicles as listed below:

**52000, 52001** - Chevrolet - All models with 302, 327, & 350 V8 w/OEM 4bbl carb; '66-72 (1973 non-CA) passenger cars and '66-83 trucks, Suburbans and heavy trucks originally sold as non-EGR.

**54000, 54001** - Ford - All models with 289 and 302 V8 w/OEM 4V carb; '66-72 (1973 non-CA)

**53000, 53001** - Chevrolet - All models with 396, 402, 427, 454, V8 w/OEM 4bbl carb; '65-72 (1973 non-CA) passenger cars and '66-83 trucks, Suburbans and heavy trucks originally sold as non-EGR.

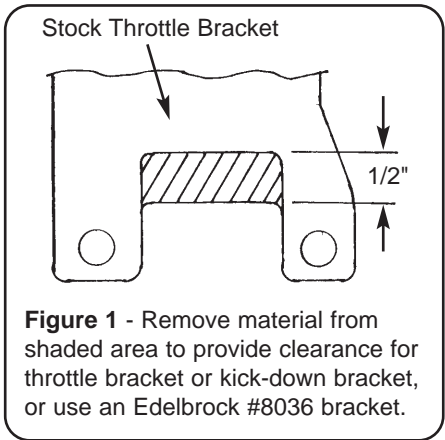
The following manifolds are considered stock replacement parts on EGR emissions controlled vehicles as listed below:

**52008, 52009** - Chevrolet - All 1972-'86 models with 305, 350 or 400 V8 w/OEM 4bbl carb or Edelbrock #1400 carb, and 1981-'86 GM corporate engines with 350 V8.

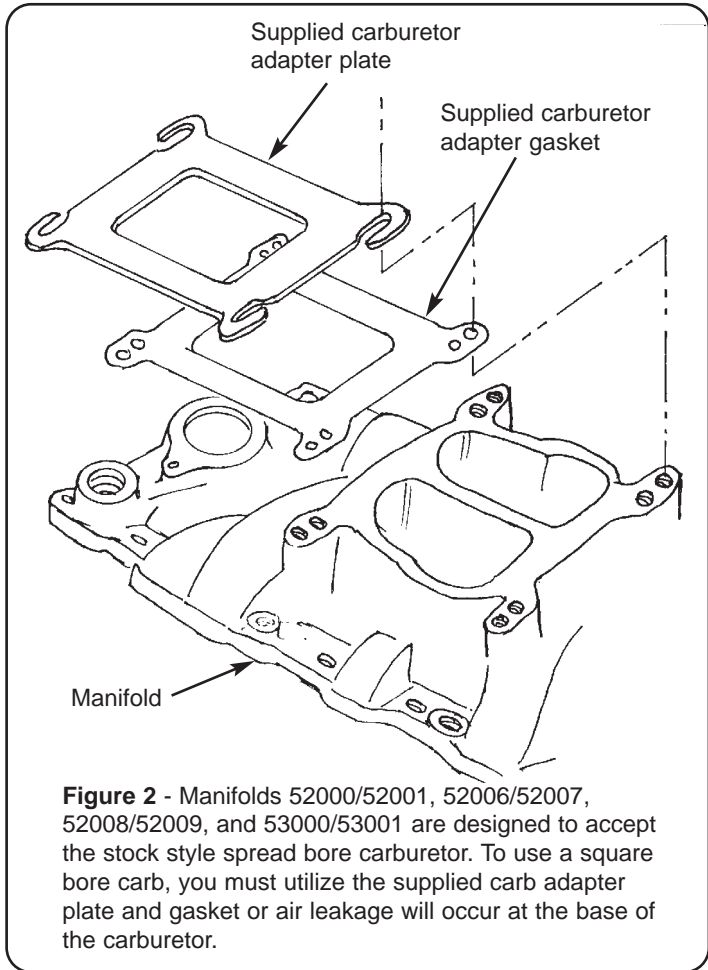
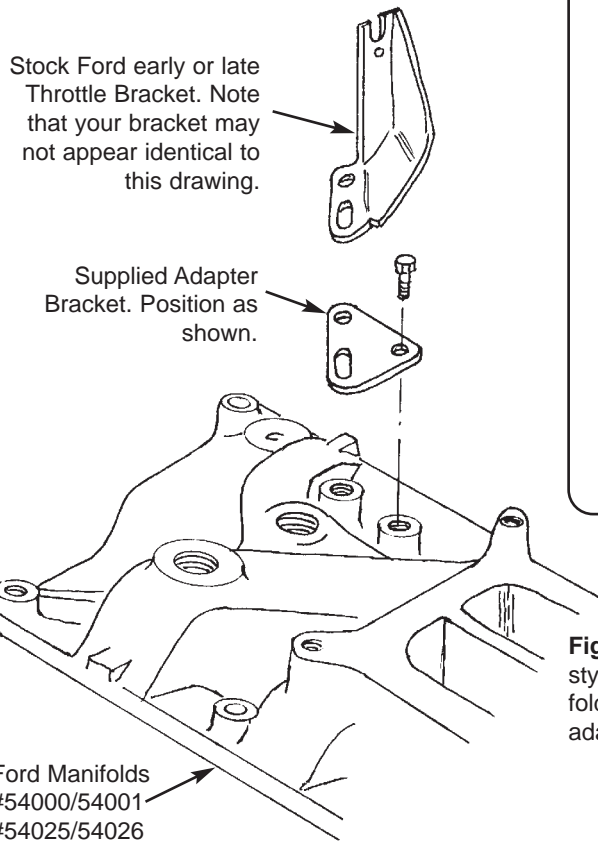
**54020, 54021** - Ford Mustang - All 1986-'95 models with 5.0L V8 engines and EFI induction system with functioning EGR, PVC and all other emissions related connections and functions.

When your vehicle is submitted for CA smog check, you should retain a copy of your original sales receipt showing one of the above part numbers, and this instruction sheet showing the above information as well as the excerpt from the CA Bureau of Automotive Repair Inspection Manual shown on page 5 of these instructions (see above). In the event that the inspector raises an issue over the legality of your manifold, present these materials. For additional info, contact B.A.R. 1-800-952-5210 (CA only)

# Installation Illustrations



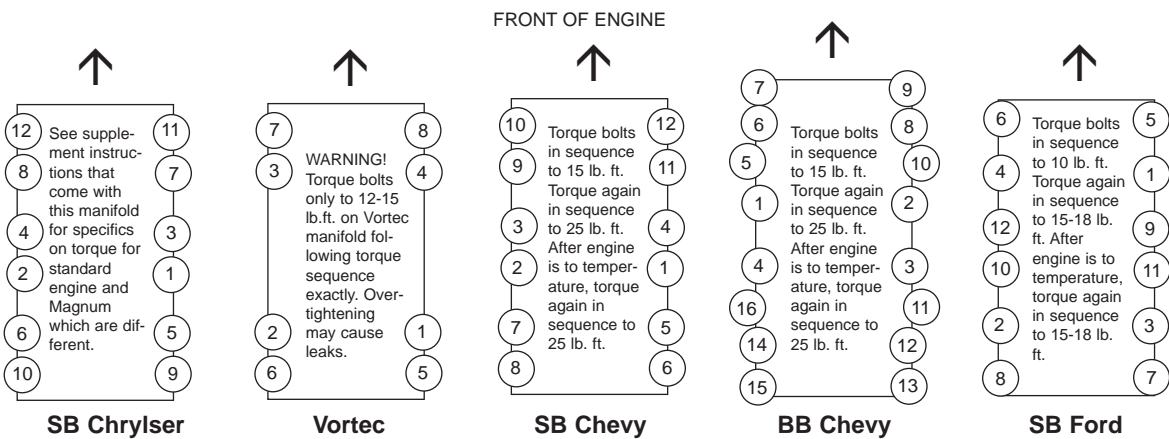
**Figure 1** - Remove material from shaded area to provide clearance for throttle bracket or kick-down bracket, or use an Edelbrock #8036 bracket.



**Figure 2** - Manifolds 52000/52001, 52006/52007, 52008/52009, and 53000/53001 are designed to accept the stock style spread bore carburetor. To use a square bore carb, you must utilize the supplied carb adapter plate and gasket or air leakage will occur at the base of the carburetor.

**Figure 3** - In order to use both the early or late style stock Ford throttle bracket with our manifold, you will need to utilize the supplied adapter bracket as shown in the drawing at left.

## Bolt tightening sequences:



## CARE OF YOUR MANIFOLD

1. If you purchased one of our super show polished manifolds you already know that the quality of the polished finish is extremely high. Every nook and cranny has been hand ground and then highly polished to a high lustre. To maintain this highly polished look, you will have to periodically hand polish the manifold surfaces using any of the many metal polishes available. If the finish is not subjected to moisture or direct sun exposure for extended periods of time, the original finish should maintain a high degree of shine for a year or more. You may improve the shine by rubbing out the manifold with cornstarch or commercial whiting compound.

If any water or radiator coolant gets on the manifold we recommend that you immediately wipe it clean and give the affected area a quick rubdown with metal polish. If water or coolant is left on the manifold it will spot it and the spots may be quite difficult to polish out by hand.

2. Satin finish (unpolished) manifolds have a bead blasted finish which is then vapor blasted to provide a clean, uniform finish. This type of finish can be fairly easily stained by oil or gasoline residue. To clean these type of stains from the manifold will usually require a commercial engine cleaner or you can use lacquer thinner with a clean cloth.

**CAUTION:** Your manifold is cast of aluminum. Aluminum is a very soft material and any threaded holes can be easily stripped. While every precaution was taken during the manufacturing process of your manifold, and all the tapped holes were chased by hand with a tap after the polishing process to clean the threads, it is always possible that something may have been missed. As a result, we strongly recommend that you visually examine all tapped holes before installing the manifold. Also we recommend that you run a bolt or pipe plug of the proper size into each tapped hole to make sure that they start easily and at least turn in a few threads by hand. Again, do this before installation. If you find any tapped holes that are difficult to start or to thread, we strongly suggest that you run a tap into the hole to clean the threads before attempting to complete the installation. Do not force a bolt into a tapped hole if you meet resistance because you will most likely strip the threads which will make the manifold useless and will also void your warranty.

### FOUR CORNER WATER OUTLETS

Several of our performance manifolds have two additional pipe tapped holes in the back of the manifold that access the cylinder head's water jacket. Some customers have found that connecting these two rear holes with a plumbed hose can reduce engine overheating. From an appearance standpoint this plumbing is best done with fittings and -6 or -8 braided stainless steel hose from suppliers such as Russell, Earl's, Aeroquip, or Goodridge.

If you elect not to use these additional tapped holes, you will need to plug them with either 3/8-NPT or 1/2-NPT pipe plugs. While we recommend using steel or stainless steel plugs, if you use aluminum plugs you must use anti-seize compound or Teflon® tape or the plugs may seize.

### SPECIAL ADAPTERS ON

#### 52000/52001/52020/52021/52030/52031

On 1987 through 1995 engines with cast iron heads, Chevrolet changed the angle of the four center attachment bolts that bolt the manifold to the heads. We solve that little problem by supplying four special adapters which slip into the slotted holes in the manifold and provide the proper angle and seating face for your attachment bolts. You may need to use slightly longer bolts. On engines with conventionally angled bolts, we recommend the use of a flat washer under the bolts that go through the slotted holes. Note that '87-'95 engines with factory aluminum cylinder heads do not have the angled bolt holes and the Professional Products adapters are not required.

### WATER DIVIDER FOR 52030/52031

This manifold is suitable for both street use or serious racing use. For street use, you can utilize a conventional thermostat in the manifold, if you so desire. For racing use, where thermostats are generally not used, we provide a slip-in Water Divider Baffle. This Divider is made of stamped brass and drops into the existing slots in the manifold to hold it in position. (See photo) This Divider is provided with the manifold. It will be clamped securely once the thermo housing is bolted in place.



### PORT ALIGNMENT WITH GASKET ON 52030/52031

Our manifold ports provide an optimum starting point for port matching to your cylinder heads. We recommend using Fel-Pro #1205 intake gaskets although manifold can be ported to larger gaskets with no problem. The actual ports at the flange are purposely smaller than the runners to allow porting flexibility. This manifold has been dyno-tested in an "out-of-the-box" condition with no port matching and produced as much as 527 hp on a small block 355 cubic inch Chevy engine. This was in a direct comparison to five other manifolds; Edelbrock Super Victor, Weiand Team G, Holley Strip Dominator, Brodix HV-1000, and a Chevrolet Bow Tie manifold. The Professional Products Hurricane outperformed all five other manifolds in average hp and torque over the 4,000 to 7,000 rpm range. In addition, the Hurricane also used the least amount of fuel in producing the most power and torque. This is the measure of a truly efficient racing manifold.

## MANIFOLD WARRANTY

This manifold is warranted to be free from defects in both materials and workmanship for a period of one year from date of purchase, provided that the product is properly installed and subjected to normal use and service and the product is not modified or altered in any way unless specified by our instructions. Customers requiring warranty service should contact the dealer from whom they purchased the manifold. The dealer will contact the factory and we will determine the method of satisfying the warranty. If we determine the product needs to be returned to the factory, the man-

ifold will have to be accompanied by proof of purchase and a specific description of the problem. The product must be returned freight prepaid. If a thorough inspection of the manifold by the factory indicates defects in workmanship or materials, our sole obligation is to repair or replace the product. Warranty applies only to original purchaser.

**NOTE:** The factory shall not be liable for any and all consequential damages occasioned by the breach of any written or implied warranty pertaining to this sale, in excess of the purchase price of the product sold.

# Selecting the Correct Manifold for your Application

Professional Products offers a number of different designs of manifolds to fit a variety of requirements. Check out the various styles outlined below

to see which manifold design best fits your specific application. Make sure that the manifold you have selected is correct for your needs.

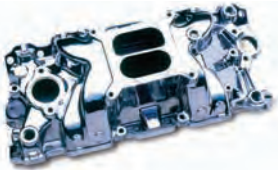
## **CYCLONE Manifold (Idle to 5,500 rpm)**

The Professional Products Power+Plus Cyclone manifolds are low rise, dual plane. These are excellent street manifolds and will provide increased power and torque over a wide rpm range, typically from idle to 5,500 rpm. They also feature excellent throttle response. These manifolds are available in both non-EGR and EGR versions and the Cyclone models are street legal when used with the correct carburetor and application. See catalog. Models available for SB and BB Chevy.



## **TYPHOON Manifold (1,500 to 6,500 rpm)**

The Power+Plus Typhoon manifolds are a high rise dual plane intake. These manifolds typically perform best in the 1,500 to 6,500 rpm range and also have excellent throttle response. These manifolds have larger plenums and runners which match the higher lift cams and free flowing exhaust found on many high performance street machines. Not intended for emission engines. Models for SB Ford and Chevy and big block Chevy.



## **CROSSWIND Manifold (1,500 to 6,500 rpm)**

The CrossWind models are all based on basic Typhoon designs and offer all the same benefits and design features found in similar Typhoon models. However the CrossWind features a lowered valley cover with an open area under the plenum that allows a free flow of air and also isolates the hot oil chamber from the plenum. This creates a cooling effect on the intake charge which provides additional power and torque in the 1,500 to 6,500 rpm range. Models for SB Ford, SB Chevy, and SB Chrysler.



## **HURRICANE Manifold (3,500 to 8,500 rpm)**

These are single plane, high rise manifolds designed for all out racing applications. Our small block Hurricane has been proven in dyno tests to be the best overall performing manifold of this type. Models currently available for small block Chevy (both standard 23° heads as well as Vortec), small block Ford and big block Chevy.



## **Checking Hood Clearance**

Professional Products lists a manifold height for each manifold in our Catalog, and also below. The dimensions we provide are given in a different format than other manifold manufacturers and we believe our system is somewhat easier to understand.

The dimensions that we give are measured from the top surface of the engine block to the highest portion of the manifold. Since most of our manifolds have the carburetor pad surface at a slight angle...usually 3°, the tallest portion of the manifold occurs at the back of the carburetor pad.

Check the current clearance you have with your stock manifold between the top of the air cleaner and the bottom of the hood. Then remove the carburetor from your current manifold and lay a long straightedge or bubble level across the top of the carburetor pad, but do not put it flat as the carb pad is at an angle. Try to hold the straightedge so that it is parallel with the top of the block. Measure from the top of the block to the bottom of the straightedge. Try to do this at both ends of the block. If the straightedge was held properly, you will get the same dimension at both ends of the block.

Compare that dimension with the dimensions given below. As long as the difference in the dimension on your stock manifold subtracted from the dimension given below is less than the current clearance you have, you will not have any hood interference with the new manifold.

## **Manifold Heights (In inches)**

52000/52001/52008/52009	4.05
52006/52007	4.25
52010/52011	4.40
52020/52021/52025/52026	4.65
52027/52028	4.65
52030/52031/52032/52033	6.06
53000/53001	4.85
53025/53026	5.22
53030/53031	6.16
53034/53035	5.88
53036/53037	5.88
54000/54001	4.12
54020/54021	11.05
54022/54023	5.12
54025/54026	4.12
54030/54031	5.39
54122/54123	5.47
54126/54127	5.62
55025/55026	5.50



Note that top of manifold is at an angle on most Power+Plus manifolds.