Instruction Sheet Addendum for Small Block Chrysler Manifolds

(Professional Products Manifold
Part Numbers 55025/55026/55040)

It is important to read these supplementary instructions as well as the 4-page general instruction booklet before installing your Professional Products manifold. If you have questions, call our Tech Department at 323-306-5067 or e-mail to sales@professional-products.com

Kit Contents:

(1) Aluminum CrossWind Intake Manifold
(1) 1/8-27 NPT Pipe Plug
(1) 1/4-18 NPT Pipe Plug
(1) 3/8-18 NPT Pipe Plug
(1) Cruise Control Bracket Plate
(12) Tap-in Buttons
(12) Flat Washers

Your New Manifold - Your new manifold is designed to fit all 340-360 SB Chrysler V8 engines including the 1994 and later Magnum versions. The manifold can also be used on 318 engines if the appropriate 340 or 360 heads are used. This manifold has a square bore carburetor mounting flange which accepts all Holley carbs (except Dominator), Demon, and Edelbrock. See specific carb recommendations. (Note: Will not accept stock Thermoquad carb.) This manifold provides good low end response while also producing added power and torque up to 6,500 rpm. When used in conjunction with other aftermarket equipment intended for this operating rpm range, the power increases provided by the manifold will be even greater.

EGR Systems - This manifold is not designed to be used with EGR (Exhaust Gas Recirculation) equipment or exhaust heated chokes. EGR systems are used in some states on some 1972 and later engines. Check local laws for all emissions equipment requirements. It is not legal to use this manifold on any emissions controlled vehicle where any such emission type equipment is required.

Intake Gaskets - We recommend using Fel-Pro #1213 when installing this manifold on non-Magnum engines for street applications. For Magnum engines, use Mopar #P-4875049. Do not use competition style intake gaskets for street applications as long term material deterioration may occur under street driving conditions. This could lead to internal leakage of both vacuum and oil.

Manifold Bolts - You will note that this manifold has two sets of mounting bolt holes for attaching the manifold to the cylinder heads. The vertical bolt holes are for the 1994 and later Magnum engines and the angled bolt holes are for all other applications. The manifold is designed to use your original manifold bolts. Note that the angled bolts are 3/8-inch diameter and the vertical bolts are 5/16-inch diameter. We supply a set of plugs to tap into the unused set of holes. Because of this, both sets of bolt holes are clearanced for the 3/8-inch bolts. When positioning the manifold on the Magnum style engine, look down through the bolt holes in the manifold to make sure that the threaded holes in the head are centered with the holes in the manifold. This will assure that the ports are aligned as well. Snug down a couple of bolts and re-check to make sure the bolt holes are lined up with the threaded holes in the heads. Install the remaining bolts and follow the instructions on torquing the manifold. Take the supplied plugs and using a block of wood and a small hammer, tap them into the unused holes.

Dowel Pins - The original manifold is positioned with dowel pins. These pins must be removed before installing your new manifold. Remove these dowel pins from the front and rear valley gasket surface of the engine block. Use Vise Grips or a dowel pin puller to remove them.

See Main Instruction Booklet - For installation procedure and gasket treatment, see the general instructions. See illustrations on back of this page for torque sequence and torque specifications for both Magnum and conventional engines.

Brackets - On vehicles with cruise control, you must use the supplied 1-inch wide x 2-inch long bracket with two 1/4-inch holes in it. This bracket moves the cruise control cable clamp to ensure proper clamping of the cable. Also, because of the high rise design of the manifold, there may be interference between the throttle cable bracket and the intake manifold. Some minor filing of the bracket will eliminate the interference.

Hood Clearance - Due to the taller height of this manifold, always check that you have adequate hood clearance before closing the hood.

Thermostat Housing - This manifold accepts 1975 & earlier thermostat housing only. Transdapt #4987 or Spectre #4739..

Carburetor and Other Performance Recommendations

For regular street performance - Any appropriate square bore 600-650 cfm carburetor. This would include, but is not limited to, the following:

Demon - 625 cfm Road Demon #4282010VE or 650 cfm Speed Demon #1282010 or #1282010 VE (Vac. Sec.)
Holley - 600 cfm #0-80457S or 700 cfm #0-4778S
Edelbrock 600 cfm #1405, #1406 - Use Edlebrock #1481 Throttle Lever Kit for automatic transmission.

For high performance street applications - Any appropriate square bore 750 cfm carburetor. This would include, but is not limited to, the following:

Demon - 750 Mighty Demon #5402010GC (Mech. secondaries, best with manual trans or high stall converter, cam up to 260°)
Holley - 750 cfm #0-80508S
Edelbrock 750 cfm #1407, #1411 - Use Edelbrock #1481 Throttle Lever Kit for automatic transmission.

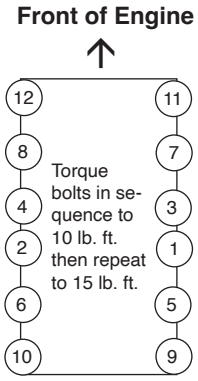
Other modifications: Any camshaft and header designed for optimum performance in the 1,500 to 6,500 rpm range is a good match for this manifold. Aftermarket heads with a c.r. ratio of 9.5:1 and headers with primary tubes of 1-5/8-inches to 1-3/4-inches in diameter are recommended for higher performance.

Manifold Bolt Tightening Sequence for 5.2 and 5.9 Magnum Engines

Factory Recommended Sequence:

Tighten bolts 1 through 4 to 12 inch pounds
Tighten bolts 1 through 4 to 24 inch pounds
Tighten bolts 1 through 4 to 36 inch pounds
Tighten bolts 1 through 4 to 48 inch pounds
Tighten bolts 1 through 4 to 60 inch pounds
Tighten bolts 1 through 4 to 72 inch pounds
Tighten bolts 5 through 12 to 72 inch pounds

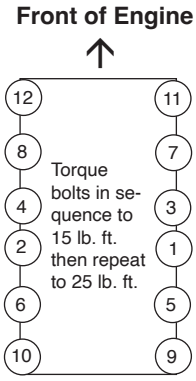
Check all bolts at 72 inch pounds. After engine has been run and brought to full operating temperature, tighten bolts again to 72 inch pounds in sequence shown above.



Torque sequence for Magnum engines

Manifold Bolt Tightening Sequence for 318, 340 and 360 Engines

Following the numerical sequence shown at right, torque all bolts to 15 pound feet. Then repeat the sequence taking bolts to 25 pound feet. After engine has been run and brought to full operating temperature, tighten bolts again to 25 pound feeet using sequence shown.



Torque sequence for non-Magnum engines

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