



**Marine RPM Intake Manifolds  
For Big-Block Chevrolet Engines  
Part #2561  
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 vessel. 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.

**IMPORTANT NOTE: Proper installation is the responsibility of the installer. Improper installation will void your warranty and may result in poor performance and engine or vessel damage.**

**DESCRIPTION:** Marine RPM intake manifolds are designed for 396-502 c.i.d. big-block Chevrolet engines with oval port cylinder heads. In most cases, these manifolds accept marine water necks, alternator and H.E.I. ignition systems. It is recommended to match the Marine RPM intake manifolds with recommended carburetors and additional equipment for even greater performance increases.

**EGR SYSTEMS:**

Marine RPM manifolds are intended solely for use on non-emission controlled marine applications and therefore have no provisions for EGR components.

**CYLINDER HEAD RECOMMENDATIONS:**

Edelbrock #61459 cylinder heads are highly recommended to complete your marine application. #61459 are bare cylinder heads that include heavy duty inconel exhaust valves to extend valve life in marine applications. These heads are hard anodized black to protect the aluminum in the harsh marine environment.

**CARBURETOR RECOMMENDATIONS:**

These manifolds will work with the original equipment 4V carburetor (square bore or spread bore). However, marine specific Edelbrock carburetors are highly recommended.

- Part Number - 1409 - 600 CFM, Square-Flange, Electronic Choke, Marine (Non-EGR), For Applications Up TO 350 HP
- Part Number - 1410 - 750 CFM, Square-Flange, Electronic Choke, Marine (Non-EGR), For Applications Over 350 HP

**NOTES:** Carburetor size (CFM) should be selected based on your specific engine combination. Consult your engine builder or contact our Technical Hotline at: 1-800-416-8628 Monday - Friday, 7:00am to 5:00pm PST for assistance. Carburetors require a #8008 or #8024 stud, washer and nut kit; determine proper length based on gasket thickness and your accessory mounting requirements (See Edelbrock catalog for more details).

**THROTTLE BRACKETS:**

Due to the design of the RPM manifold, the stock throttle bracket may require some modification to fit. Alternatively, brackets #8030, #8031 or #8036 may work in your application. Please visit [www.edelbrock.com](http://www.edelbrock.com) for additional information.

**GASKETS AND SEALANT:**

Edelbrock intake manifold gasket set, #7203, is highly recommended. Apply Edelbrock Gasgacinch sealant, #9300, to both sides of the manifold as well as head surfaces. This procedure ensures a good seal. Eliminate the end seals, use automotive RTV sealant instead. 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. For ease of installation, we recommend using Edelbrock Manifold Bolt & Washer Kit, #8564.

**PREP AND TUNING FOR POWER: Marine RPM Series Intake Manifolds**

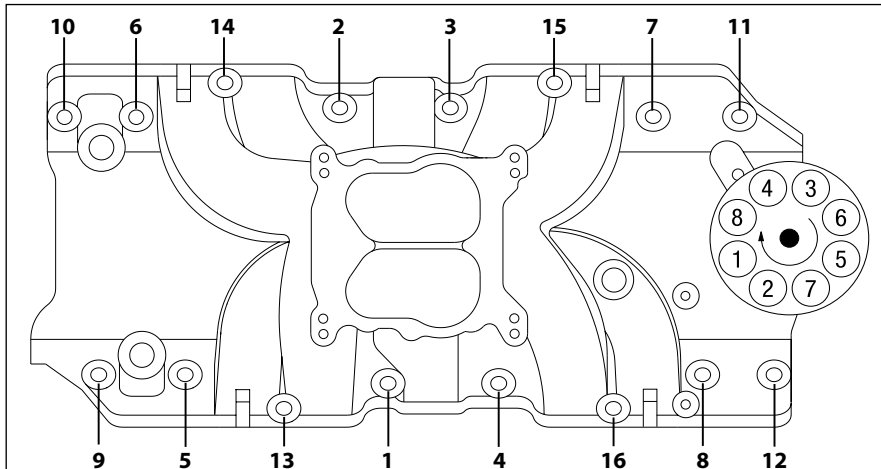
1. Due to design, the fuel / air mixture and cylinder charging are very efficient with these marine RPM manifolds. Generally speaking, the stock jetting for a Performer Series carburetor #1409/1410 will not need changing. Specific applications may show an increase in power by enriching the secondary jetting .003" from the stock setting (i.e.: From 0.107" to 0.110").
2. Aftermarket distributor curve kits may be used with marine RPM series manifolds.
3. The compression ratio should be at least 9.5 to 1 if using a Performer RPM camshaft.
4. Installation of an aftermarket camshaft, exhaust system or both with an Edelbrock Marine RPM series manifold may lean the carburetor calibration. Should this condition occur, re-calibrate with a richer jet.

## INSTALLATION INSTRUCTIONS

1. Use only recommended intake gasket sets 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, PN 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 ¼" 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.

**WARNING:** There is minimal support for the manifold on the four bolt holes which are numbered 13, 14, 15, and 16 in the figure below. Damage to the manifold will occur if these four bolts are over-tightened. Hand tighten them with a 6" box end wrench. Do not torque these bolts down.

6. Torque all other manifold bolts to 25 ft/lbs. See figure below for proper sequence.



### Big Block Chevy Manifold Bolt Torque Sequence

**WARNING: DO NOT TORQUE BOLTS 13, 14, 15 AND 16. HAND TIGHTEN ONLY**

Torque all other bolts to 25 ft/lbs.

Firing Order: 1-8-4-3-6-5-7-2

Turn Distributor Counter-Clockwise to Advance Ignition Timing



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