C-66 AND RPM AIR-GAP DUAL QUAD INTAKE MANIFOLDS
For 396-502 C.I.D. Big Block Chevrolet
Catalog #5420, 5421, 7520, 7522

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 will void your warranty and may result in poor performance and engine or vehicle damage.

DESCRIPTION: Edelbrock Dual-Quad Intake Manifolds combine two small four-barrel carburetors with a dual plane layout to achieve the best balance of drivability, great looks, and outstanding performance for muscle car, street rod and marine applications. 5420 and 7520 fit big block Chevrolet engines using large oval port heads, while 5421 and 7522 fit rectangular port heads. 7520 and 7522 feature an Air-Gap design, separating the runners from the engine valley for a cooler, denser air charge. The larger runners offer performance improvements in the 1500-6500 RPM range. Edelbrock has developed special air filters for these manifolds. To give your engine the ultimate custom look, the polished aluminum Elite Series oval air cleaner (P/N 4235) is suggested. Chrome oval air cleaner (P/N 1235) or two 6" round, Pro-Flo air cleaners (P/N 1209) are also available. Please note "Brackets" section below for your particular installation. Four .065" x .047" metering rods for Edelbrock Performer Series Carburetors are supplied with manifolds #5420 & 5421 for carburetor calibration purposes. See *"PREP AND TUNING FOR POWER"* section below for details.

NOTE: *#7520 and 7522 intake manifolds* ***MUST USE A SMALL-CAP DISTRIBUTOR*** *with an external coil. HEI distributors WILL NOT FIT.*

- **ACCESSORIES & INSTALLATION ITEMS:** Major recommendations are listed below. See our catalog for details. **To order a catalog, call (800) FUN-TEAM**, or visit **www.edelbrock.com**.
- **EGR SYSTEMS:** These intake manifolds will not accept stock EGR (Exhaust Gas Recirculation) equipment. EGR systems are used on most 1972 and later model vehicles. Check local laws for requirements.
- **THROTTLE & ACCESSORY BRACKETS:** The throttle and kickdown bracket on some vehicles may require modification to fit ***(See Figure 1)***. On vehicles using throttle rods, it may be necessary to shorten the throttle rod and use Edelbrock Throttle Rod Extention Kit #8010 to achieve proper throttle and kickdown operation at the rear carburetor. Use progressive linkage kit #7094 to connect the carburetors together (See "Carburetor Recommendations").

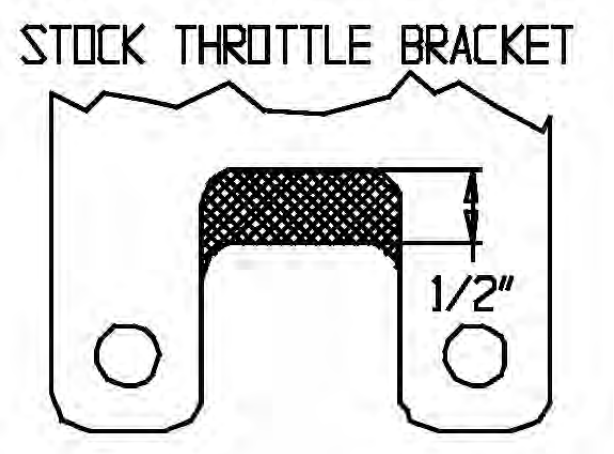

Figure 1
Throttle Bracket Modification
Remove material in the shaded area on stock throttle brackets to clear the intake manifold.

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- **CARBURETOR RECOMMENDATIONS:** Use two manual choke carbs (Two 1405's or two 1805's), or one manual and one electric choke (1805 & 1806, if electric choke is desired. DO NOT USE one 1405 and one 1406. These carburetors are internally different and do not respond equally to tuning changes.). Note that the Thunder Series carburetors listed under manifold 7520 and 7522 are calibrated specifically for dual quad applications, and in most cases, will not require additional tuning. For manifold 5420 & 5421, see "Prep and Tuning for Power" for additional tuning information.

5420, 5421:

CARBURETOR	CHOKE TYPE	PARTS REQUIRED FOR INSTALLATION
Performer #1405 (600 cfm)	Manual	#7094 Dual Quad Throttle Kit, #8088 Dual Quad fuel line kit

7520, 7522:

CARBURETOR	CHOKE TYPE	PARTS REQUIRED FOR INSTALLATION
Thunder Series #1805 (650 cfm)	Manual	#7094 Dual Quad Throttle Kit, #8088 Dual Quad fuel line kit
Thunder Series #1806 (650 cfm)	Electric	#7094 Dual Quad Throttle Kit, #8088 Dual Quad fuel line kit

NOTES: *Carburetors each require #8008 or #8024 stud, washer and nut kit. Determine proper length based on gasket thickness and your accessory mounting requirements. If two manual choke Performer Series Carburetors are used and electric choke is desired later on, they can be converted to electric choke using Electric Choke Kit #1478. Use electric choke on the rear carburetor ONLY. Manual choke Thunder Series carburetors CAN NOT be converted to electric choke. If electric choke is desired with Thunder Series carburetors, a manual choke carburetor should be used in the front and an electric choke carburetor should be used at the rear.*

- **GASKETS:** 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.

INTAKE MANIFOLD	REFERENCE	RECOMMENDED GASKET
5420, 7520		Edelbrock #7203 Port: 1.82" x 2.05", .060" Thickness
5421, 7522		Edelbrock #7202 Port: 1.82" x 2.54", .060" Thickness

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.

- **PREP AND TUNING FOR POWER:**

NOTE: Please refer to Edelbrock Performer Series Carburetor Owner's Manual for detailed tuning procedures.

1. The 5420 and 5421 manifolds will produce optimum power and drivability when used with #1405 carburetors. Edelbrock has found, through dyno testing on a Performer level engine at our location, the best calibration to be: Metering Rods - .065" x .047" (provided with intake manifold), Primary Jets - .100" (stock 1405) and Secondary Jets - .095" (stock 1405).. The 7520 intake manifold will see optimum performance with the use of 1805 carburetors. The 1805 carburetors are specifically tuned for RPM Air-Gap Dual Quad intake manifolds and the stock calibration should be used. Calibrations will vary according to engine build and atmospheric conditions. Use these recommendations as a starting point. Further tuning may be necessary.
2. Aftermarket distributor curve kits may be used with this intake manifold. A basic ignition curve of 12° to 14° initial and a total of 36° to 38° advance is a good starting point.
3. Use modified or high performance cylinder heads such as our Performer or Performer RPM.
4. Installation of aftermarket headers, camshafts or both may lean carburetor calibration. Should this condition occur, recalibrate with a richer jet.

- **CAMSHAFT AND HEADERS:** Dual Quad manifolds are compatible with aftermarket camshafts and headers. Header primary tube diameter should be 1-3/4" to 1-7/8" or larger, depending on the specific engine combination. Edelbrock has developed camshafts for use with these intake manifolds. Please see Edelbrock Catalog "Power Package Guide" for proper camshaft selection.

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INSTALLATION PROCEDURE

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 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 no gasket support for the manifold under the four bolt holes which are numbered #5, #10, #11, and #16 in Figure 2. Damage to the manifold will occur if these four bolts are over-tightened. Hand tighten these bolts with a 6" box-end wrench. DO NOT use a torque wrench.*

   Torque the remaining manifold bolts in two steps by the sequence shown in ***Figure 2*** to 25 ft/lbs.
6. See ***Figure 2*** for Firing Order and Cylinder Numbering.

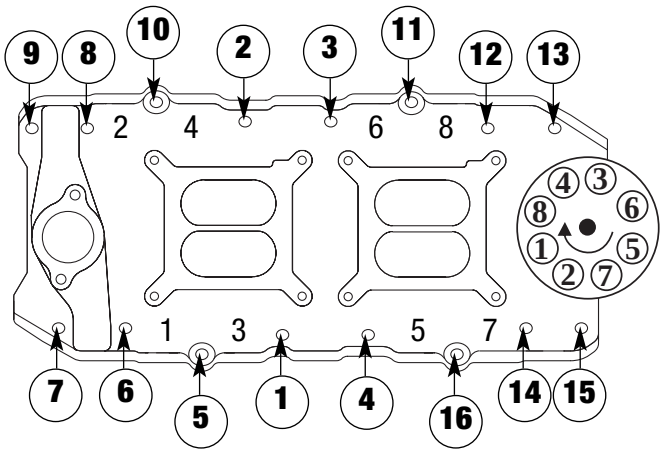

Figure 2 - Intake Manifold Tightening Sequence

WARNING: DO NOT USE TORQUE WRENCH ON BOLTS 5, 10, 11, and 16. HAND TIGHTEN ONLY

Torque Remaining 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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