



DUAL-CARB 3-PIECE INTAKE MANIFOLDS

for Harley-Davidson® Twin Cam® and "Big Twin"
 Catalog #3083, 3085, 3087, 3124, 3127, 3130, 3131,
 8601, 8602, 8621, 8622, 8623, 8624, 8625, 8626

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. If your question is motorcycle carburetor-related, please call our Edelbrock Motorcycle Carburetor division at 1-877-888-7504, Ext. 2.

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: Edelbrock Dual Carb 3-piece intake manifolds are designed for street high performance, 1984 & Later Harley-Davidson® Evolution® "Big Twin", and 1999 & Later Twin Cam® 88 Engines with stock or Edelbrock Performer or Performer RPM heads (See "APPLICATIONS" section below). The intake manifolds are designed to make excellent power increases in the rpm range of the intended application. Manifolds for Edelbrock heads feature a rectangular shaped intake port for a noticeable increase in air flow. Manifolds for Edelbrock heads can ONLY be used on Edelbrock heads because of the unique port shape. Dual Carb manifolds are designed to accept Edelbrock carburetors. Edelbrock offers dual-carb setups in the following configurations:

- Dual 34mm Carburetors #8635
- Dual 38mm Carburetors #8636
- Dual 40mm Carburetors #8637

APPLICATIONS (Use the chart below to determine the proper intake manifold for your application):

| ENGINE TYPE | CYLINDER HEADS | CYLINDER LENGTH | S&S KIT | MANIFOLD |
|-------------|--|-----------------|---------|----------|
| Twin Cam | Stock | Stock | - | #3131 |
| | Performer RPM #, 1687, 1688, 3020, 3024, 3049, or 3080 | Stock | - | #3130 |
| Big Twin | Stock | -.175" | 88" | #3083 |
| | | -.050" | 93" | #8624 |
| | | Stock (80") | - | #8601 |
| | | Stock | 89" | #8601 |
| | | +.015" | 96" | #8601 |
| | | +.075" | 98" | #8625 |
| | | +.200" | 103" | #8626 |
| | | +.265" | 124" | #3124 |
| | Performer | -.175" | 88" | #3087 |
| | | -.050" | 93" | #8621 |
| | | Stock (80") | - | #8602 |
| | | Stock | 89" | #8602 |
| | | +.015" | 96" | #8602 |
| | | +.075" | 98" | #8622 |

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APPLICATIONS (Continued):

| ENGINE TYPE | CYLINDER HEADS | CYLINDER LENGTH | S&S KIT | MANIFOLD |
|-------------|------------------------------|-----------------|---------|----------|
| Big Twin | Performer RPM #1606, or 1607 | -.175" | 88" | #3087 |
| | | -.050" | 93" | #8621 |
| | | Stock (80") | - | #8602 |
| | | Stock | 89" | #8602 |
| | | +.015" | 96" | #8602 |
| | | +.075" | 98" | #8622 |
| | | +.200" | 103" | #8623 |
| | Performer RPM #1604, or 1624 | -.175" | 88" | #8621 |
| | | -.050" | 93" | #8602 |
| | | Stock (80") | - | #8622 |
| | | Stock | 89" | #8622 |
| | | +.015" | 96" | #8622 |
| | | +.075" | 98" | #8623 |
| | | +.200" | 103" | #8623 |
| | Performer RPM #3021 | N/A | 100" | #3085 |
| | Performer RPM #3022 | N/A | 107" | #8621 |
| | | N/A | 113" | #8622 |
| | | +.265" | 124" | #3127 |

KIT CONTENTS :

| <u>Qty.</u> | <u>Description</u> | <u>Qty.</u> | <u>Description</u> |
|----------------------------------|---|----------------------------|---|
| <input type="checkbox"/> 1 | Intake Manifold | <input type="checkbox"/> 2 | 7/32-5/8 Hose Clamp |
| <input type="checkbox"/> 1 | Front Manifold Flange | <input type="checkbox"/> 1 | Vacuum Fitting |
| <input type="checkbox"/> 1 | Rear Manifold Flange | <input type="checkbox"/> 1 | 5/16 Plastic Tee |
| <input type="checkbox"/> 2 | Manifold Flange Seal Grommets | <input type="checkbox"/> 2 | Manifold Gasket |
| <input type="checkbox"/> 1 | Mounting Bracket | <input type="checkbox"/> 1 | Rear Banjo Fitting |
| <input type="checkbox"/> 2 | Bracket Spacers | <input type="checkbox"/> 1 | Front Banjo Fitting |
| <input type="checkbox"/> 1 | Chrome Cup Washer (Bracket Vibration Mount) | <input type="checkbox"/> 2 | 5/16-18 x 1" Allen Head intake manifold bolts |
| <input type="checkbox"/> 1 | Spacer (Bracket Vibration Mount) | <input type="checkbox"/> 2 | 5/16-18 x 1 1/2" Button Head Cap Screw |
| <input type="checkbox"/> 6 | Breather Gaskets (.875 x .500 x .0625) (Big Twin) | <input type="checkbox"/> 4 | 5/16-18 x 1" Chrome Ferry Head Screw |
| <input type="checkbox"/> 4 | Breather Gaskets (.875 x .500 x .0625) (Twin Cam) | <input type="checkbox"/> 2 | 5/16-18 x 1" Black Ferry Head Screw |
| <input type="checkbox"/> 2 | Breather Gaskets (.875 x .375 x .0625) (Twin Cam) | <input type="checkbox"/> 1 | 3/8-16 x 3/4" Button Head Cap Screw |
| <input type="checkbox"/> 2 | 3/8-16 x 1 1/2" Banjo Screw (Twin Cam) | <input type="checkbox"/> 2 | 1/2-13 Banjo Screws |
| <input type="checkbox"/> 2 | Rubber washer 1 1/16 x .490 x .093 thick | <input type="checkbox"/> 2 | Reducer Sleeve |
| <input type="checkbox"/> 1 | B-4B Washer 7/16 x 7/8 x 3/32 | <input type="checkbox"/> 8 | 5/16 AN Washer |
| <input type="checkbox"/> 1 | Vacuum Cap | <input type="checkbox"/> 1 | 3/8 Lock Washer |
| <input type="checkbox"/> 1.5 Ft. | 5/16 Rubber Hose | | |

REPLACEMENT PARTS: Replacement grommets and flanges are available from your local bike shop.

PREPARATION

In applications using Edelbrock cylinder heads, manifold installation will usually be performed along with installation of Edelbrock cylinder heads. Refer to cylinder head instructions for step-by-step procedures, if necessary. These instructions cover only the procedures that apply to Edelbrock 3-piece intake manifolds.

1. Remove stock manifold and hardware, including throttle cables.
2. Thoroughly clean intake ports to remove any old gasket material and to ensure a proper seal. Inspect manifold for any nicks or other damage on the sealing surfaces.
3. Install manifold bracket to front cylinder head (See Figure 1).
 - A) (Big Twin Evos 1984-1989) Install Manifold bracket to front cylinder using the (2) 5/16-18 X 1-1/2" chrome plated button head cap screws, (2) 5/16-1/2" reducers and (2) spacers. (see photo). DO NOT TIGHTEN OR CONNECT TO REAR CYLINDER AT THIS TIME.
 - B) (Big Twin Evos 1990-1996) Install Manifold bracket to front cylinder using the (2) 1/2"-13 X 1-1/2" chrome plated banjo bolts, (6) fiber washers and the front breather banjo marked with a "F". Point banjo toward rear of motorcycle. DO NOT TIGHTEN OR CONNECT TO REAR CYLINDER AT THIS TIME.

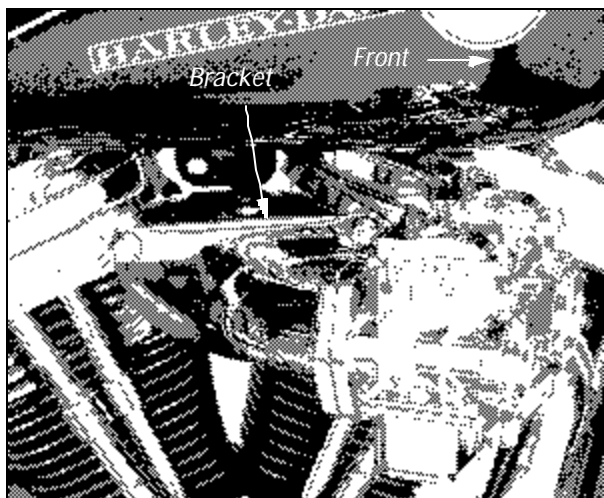


Figure 1 - Intake Manifold Bracket

4. Assemble carburetors to manifold using (2) manifold gaskets, (4) 5/16-18 X 1 chrome plated ferry head bolts and (4) 5/16 washers.

CAUTION: AN IMPROPERLY MOUNTED CARBURETOR OR MANIFOLD COULD COME LOOSE FROM THE ENGINE, RESULTING IN AIR LEAKS/POOR PERFORMANCE AND COULD CAUSE PERMANENT DAMAGE TO ENGINE.

WARNING: AN IMPROPERLY MOUNTED CARBURETOR OR MANIFOLD COULD BREAK FREE SHOULD THE MOTORCYCLE FALL AND SUSTAIN DAMAGE IN AN ACCIDENT. THIS COULD CAUSE AN UNWARRANTED RELEASE OF GASOLINE, CREATING A FIRE HAZARD AND POTENTIAL PERSONAL INJURY TO YOU AND/OR OTHERS.

5. Install (2) 5/16-18 X 1" NONPLATED ferry head bolts and (2) 5/16 washers into the lower manifold mounting holes of the front and rear cylinders. Only thread in 2-3 threads. A small amount of grease can be used to hold the washer against the head of the bolt for easier manifold installation.
6. Note that the flanges are marked front and rear. Place flanges on manifold with the tapered side facing out (toward the head) and the slotted bolt holes to the rear of the manifold (See Fig. 2).

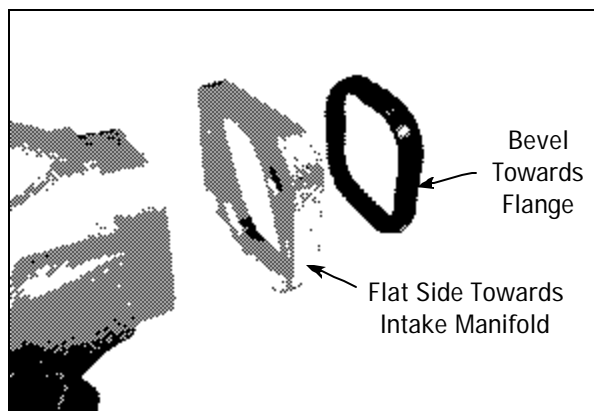


Figure 2 - Manifold Flange Assembly Order
(Apply Light Coat of Lube to Grommet)

7. Lubricate grommets with a lightweight oil such as fork oil or brake assembly lube (not brake fluid). Push grommets onto manifold as far as they will go, with the tapered side facing the manifold (See Fig. 2).

NOTE: On applications for Edelbrock cylinder heads, notice that the grommets are rectangular, and will only fit one way.

MANIFOLD INSTALLATION

If desired, you may use a non-permanent locking compound, such as green Locktite®, on mounting bolt threads.

1. Holding the manifold bracket out of the way, place manifold in position on cylinder heads, being careful not to pinch or fold-over the grommets. Make sure the 5/16" washers stay on top of the flanges.
2. Insert (2) 5/16-18 X 1" socket head bolts and (2) 5/16 washers into the remaining manifold mount holes. Snug all manifold mounting bolts slightly. DO NOT COMPLETELY TIGHTEN!

3. Install remaining manifold bracket mounting bolts.
 - A) (Big Twin EVO 1984-1989) Use step 2A for proper procedure, only apply to the rear cylinder.
 - B) (Big Twin EVO 1990-1996) Use step 2B for proper procedure, only apply to rear cylinder. Use remaining breather banjo and point it toward the front of the motorcycle.
4. Tighten manifold bracket mounting bolts.
5. Using the chrome plated 3/8-16 X 1" button head cap screw and (1) 3/8 lock washer secure manifold /carburetor assembly to manifold bracket.
6. Tighten manifold mounting bolts to proper torque specification. Tighten each bolt gradually, moving from bolt-to-bolt in small steps. There is no room for a torque wrench, but final torque should be very firm (18-23 ft./lbs.).
7. Install fuel line and connect VOES (if equipped).

THROTTLE CABLE CONNECTIONS

Edelbrock carburetors require the use of a two cable (Push-Pull) throttle assembly. If your bike is not equipped with this type of cable, Edelbrock offers a two-cable throttle assembly. See catalog, website, or the manual included with your dual-carburetors.

1. Double check cable selection, using equation found in the "Throttle Cable Requirement" section of the manual included with your dual-carburetors.

NOTE: Cable should be routed down the left hand side of the motorcycle.

NOTE: THROTTLE ASSEMBLY MUST BE ASSEMBLED CORRECTLY AND WORK FREELY TO PREVENT POSSIBLE STICKING OF THE THROTTLE DURING OPERATION. MAKE SURE CABLES ARE FREE OF TIGHT BENDS AND HAVE PLENTY OF FREE PLAY TO MINIMIZE CABLE FRICTION.

WARNING: IF THE THROTTLE DOES NOT WORK FREELY, IT MAY STICK OPEN CAUSING LOSS OF CONTROL OF THE MOTORCYCLE AND PERSONAL INJURY TO YOU AND/OR OTHERS.

2. Loosen cable free play adjustment locknuts and thread adjusting screw so there are no threads exposed. This will give you the maximum amount of free play.
3. Loosen the right-hand cable clamp by loosening the 8-32 x 3/8" cap screw on the left side of the cable bracket (See Fig. 3).

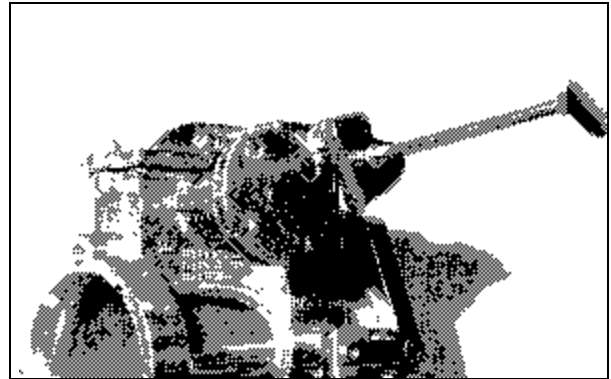


Figure 3 - Throttle Cable Clamp

4. Insert the throttle cable in the 8:00 position and insert the Idle cable in the 11:00 position (See Fig. 4).



Figure 4 - Throttle Cable Position

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