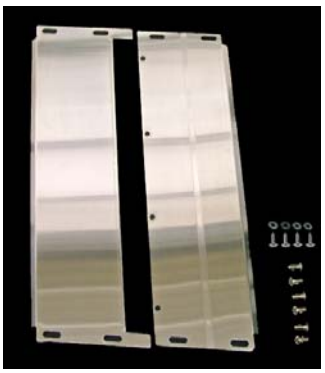
Hughes Engines Installation Instructions
2 Piece Big Block Intake Sealing Kit

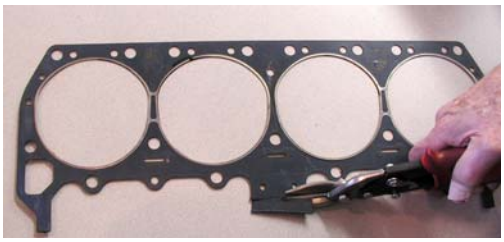
Kit Contents:

1 – Stainless Steel RH valley cover section w/ ears
1 – Stainless Steel LH valley cover section
6 – Stainless button-head socket screws
4 - #14-1/2" stainless sheet metal screws
4 – Stainless flat washer
2 – Hughes Engines Racing decals
1 – Instruction sheet



Note: This 2 piece valley cover kit can be installed and removed without removing the cylinder heads. In fact, the best results will be achieved with the heads in place. This valley cover kit can be used on both LB (383/400) engines as well as RB (413/426W & 440) engines.

Before attempting to install this cover, please read and understand all of the instructions before you screw up!

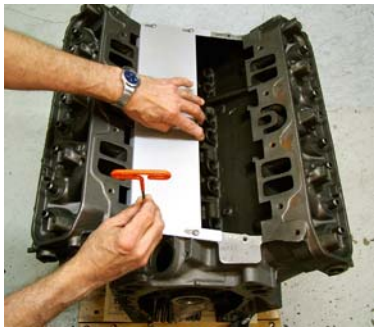


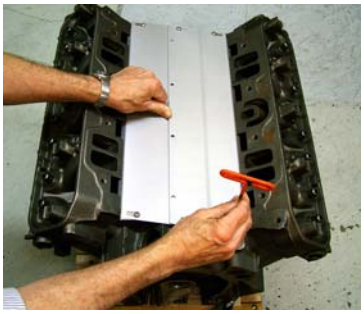
Step 1: Most of the head gaskets will need to have the center tab trimmed back approximately ½" as shown. If the heads are already installed you can bend the tab back, out of the way, to clear the valley cover lip.

Step 2: This kit can be used on both LB and RB engines. The RH section of the valley cover must have the "ears" trimmed off to work on the LB engines. Trim the ears off squarely with the inside edge of the cover and de-burr as shown in the photo.

NOTE: Once the ears are removed for the LB engines the remainder of the installation is the same for both the LB & RB engines. Installation will be shown on a RB engine.

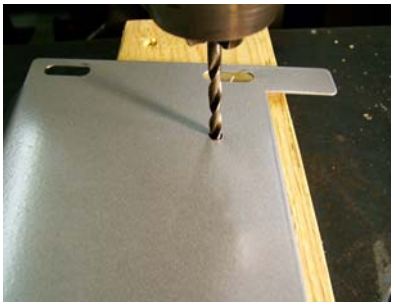
Step 3: Install the RH section and 4 button head screws loosely. Push the cover section firmly and squarely against the head and snug down the 2 button screws closest to the head, and remove the 2 center screws. See photo.





Step 4: Install the LH cover section and 4 button head screws loosely. Again, firmly and squarely push the cover against the head and snug down all 4 screws.

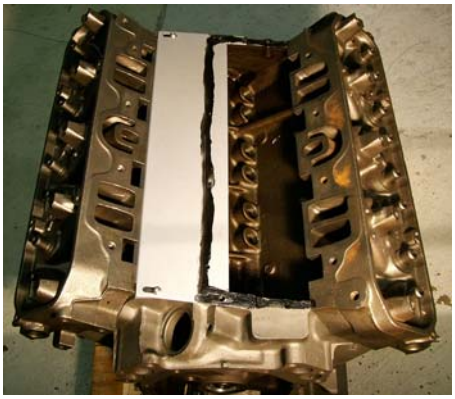
Step 5: Carefully mark the center of the 4 holes in the lapped section for drilling. A sharp pointed felt tipped marker works nicely.



Step 6: Remove both sections and carefully center punch and drill a 13/64th hole at each point. PLEASE use safety glasses, a good center punch and a sharp drill bit to make this high tech procedure go more smoothly, 'cause if you don't and it doesn't, you'll say bad words and that is something neither of wants! And, if you do this part on the engine, and/or don't deburr the holes you will deserve the metal chips you get in your bearings!

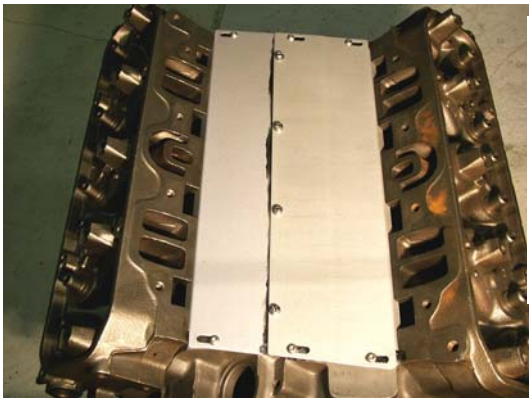
Step 7: Now you are ready for assembly. Install the RH section first. Use a very thin coat of black automotive silicone sealant on the front and rear rails of the block, where the RH section will lay. These are 2 flat surfaces that are easy to seal and a common place to use too much sealer that just ends up in your oil pump.

Step 7 cont'd: Slide this section into place and install all 4 button head screws to line up the holes in the block and the slots in the cover, don't tighten them yet. Remove the 2 center screws.



Step 8: There will be a slightly larger gap at the point where the LH section steps up over the RH section that may require a slightly thicker bead of sealant. The silicone bead that runs from the front to the rear down the center of the valley will seal best if the silicone is applied just outboard of the 4 center screws. The lines of silicone must all connect to form an oil tight seal as shown in the photo. Install LH cover and loosely install all 6 button screws for proper alignment until the 4 center screws are installed.

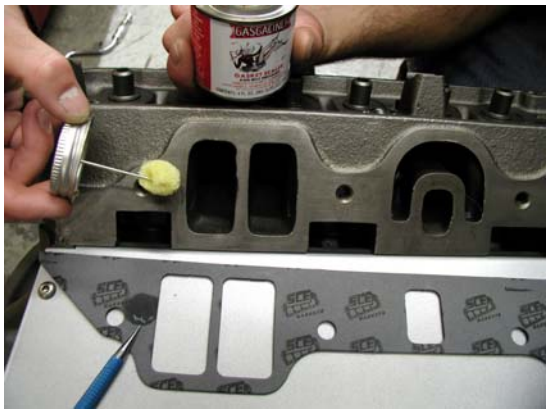
Step 8 cont'd: Again, use a very thin coat of silicone sealant on the end rails and the top of the RH section where the LH section will overlap and seal.



Step 9: Install and tighten all 4 of the center screws with their washers (see photo). This should move the cover sections into the same position as they were during the original set up. Now you can tighten the 6 button head screws. These button head screws do not need a lot of torque to stay in place. Too tight and they will be difficult to remove! Wipe off any excess silicone for neat finished appearance.

Step 10: Check the gaskets and position or trim as necessary.

Step 11: Use a dab of gasket cement to hold the gaskets in place. Note: If the angle between the heads and manifold are correct you will not need sealer around the ports .



SPECIAL GASKET NOTES: If you purchased our "combo" gaskets, they can be used with either 440 or Max Wedge port sizes. To use them with 440 size ports trim ***off*** the top section as shown in Fig.A. To use them with the Max-Wedge ports trim ***out*** the upper section of the 440 port to get the Max-Wedge port height as in Fig.B.

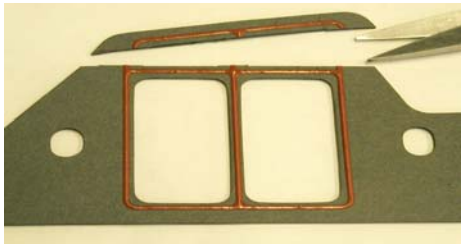
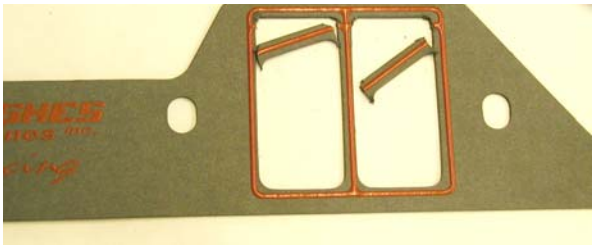
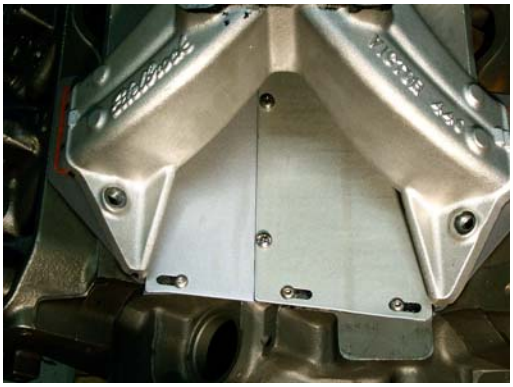
Fig A 

Fig B 

Step 12: Run a small bead of silicone sealer along the bottom of the gasket to seal it to the cover plate.



Step 13: Install the manifold and tighten in place as required.

This system will seal very well unless you have excessive crankcase pressure, more commonly known as blow by.
Excessive crankcase pressure will cause leakage. This system will not make up for poor engine sealing.

NOTE: If you ever need to remove the intake manifold, only the gaskets will need to be replaced, the cover plate can be left in place.

Call to order additional combo intake gaskets. Part number HUG3266

HUGHES Engines inc Dodge Performance HughesEngines.com

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