



**SCAVENGER
SERIES ELITE HEADERS**

4095® Stainless Steel

Header Installation Instructions:

Part number: 814223

1999-2004 Mustang

4.6L 2v 1 5/8"

ARB E.O. No. D-698

08/10/12



The product accompanying this document has been granted a California Air Resources Board (CARB) exemption, an "E.O." number, or is a direct or consolidated replacement part. It is 50-state legal, per the manufacturer's application guide.

Note: Installation of this product requires an adequate work space, general mechanic's tools, general mechanical "know how" and a reasonable level of experience. Most auto enthusiasts with these resources will have little difficulty installing these headers. However, you should carefully read these instructions before attempting to install these headers. If in doubt, consult a professional mechanic. (Better to do it now than to get stuck halfway through the installation.) This part is certified for use on Pollution Controlled Vehicles.

Check to make sure that you have received the proper parts for your installation. The header number will be stamped on the engine flange. If you are unsure you have received the proper parts call before you start work.

Be sure to work safe! Whenever you work under the vehicle be sure that it is located on level, solid ground and is supported by adequate safety stands. **Remember: hot asphalt will not support most jack stands!**

Many factors affect the installation of headers, some of which are; broken or aftermarket motor mounts, accidents that impact the configuration of the frame, and/or the installation of different engines or aftermarket cylinder heads.

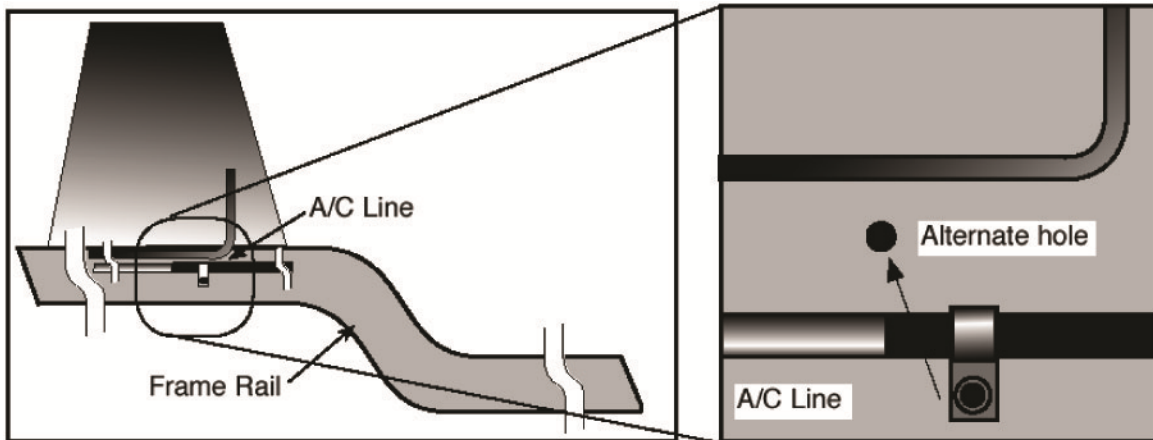
Attention Customers breaking in new engines: Due to the extreme heat generated during the break-in process, the appearance of the ceramic coating may be altered in certain areas. The protection characteristics and thermal barrier properties of the coating is never compromised. It is recommended that a cast iron manifold or old set of headers be used for this process.

The purchaser is responsible for following all installation instructions and safety guidelines supplied with your new Flowmaster Performance Exhaust Product. Flowmaster Performance exhaust assumes no responsibility for damages resulting from improper operation, misuse, abuse, or lack of reasonable care, or any problems resulting from incompatibility with other manufacturer's products.

Flowmaster uses sealing beads on its headers. We have found that when installed correctly, the raised bead around each port increases the pressure exerted on the gasket directly adjacent to the port and effectively prevents leaking gaskets. It is normal for the flange to be raised off the cylinder head the thickness of the sealing bead. It is important when installing the header, to install all bolts loosely, and then tighten evenly to ensure the flat installation of the flange. The torque sequence from one flange to another will vary, but generally every bolt on a header should be first fit snug, starting from the inside of the flange working out, alternating from top to bottom so that the bolt connects the flange to the manifold to the point where they barely touch. Second, using the same inside-out pattern, tighten each bolt until finished. This method will help prevent leakage and will give the user the best possible performance out of their new set of headers.

Note: These headers may not fit vehicles equipped with offset steering rack bushings.

- 1) Place the vehicle in a location where the floor is solid and flat, with adequate lighting. Do not attempt to work on a hot engine. Heat causes metal to expand and makes removal of fasteners difficult at best. **Disconnect the battery cables from the battery.** Raise the front of the vehicle to obtain adequate access to the bottom exhaust manifold flanges. Use large base jack stands to support the vehicle. Do not rely on the jack! Block the tires to prevent the vehicle from rolling off of the jack stands.
- 2) Spray WD-40 or some type of penetrating lubricant on all accessible exhaust manifold fasteners and fittings before attempting to remove them.
- 3) Disconnect the exhaust system from the catalytic converter assembly. Unplug the O2 sensors and remove the converter assembly from the vehicle.
- 4) Unbolt the starter from the bell housing and let it hang out of the way.
- 5) Loosen the EGR tube located at the rear of the driver's side manifold.
- 6) Remove the motor mount nut under the passenger side manifold.
- 7) Now raise the passenger side of the engine by placing a wooden block under the oil pan and jacking it up approximately 1".
- 8) With the engine jacked up, unbolt the passenger side manifold and remove the manifold studs.
- 9) Due to the limited space in the engine compartment you will need to relocate the air conditioning line that runs by the passenger side manifold. This is done by bending the soft aluminum line up slightly and reattaching it using the factory bracket into the alternate hole located approximately 2" above the original mounting hole. See the illustration below.



- 10) With the A/C line relocated, install the passenger side header using the supplied hardware and gasket. Apply a small amount of anti-seize to the header bolts before threading. Torque to 13 lbs./in. Reconnect the air fitting if equipped.

- 11) With the passenger side header installed, lower the engine onto the motor mount and tighten the motor mount nut.
- 12) Re-install the starter.
- 13) Disconnect the steering shaft from the steering rack and swing it out of the way.
- 14) Disconnect the EGR tube from the driver's side manifold. Remove the driver's side manifold and dipstick tube. Make sure to remove all of the manifold studs. You can remove the oil filter for easier access.
- 15) From underneath the vehicle, slip the new header into place. Then from the top, slide the dipstick tube through the header between the second and third tube. Guide the tube under the motor mount and into its hole. (Start on top and finish underneath.)
- 16) Loosely attach the EGR tube to the new header. Then install the header using the supplied hardware and gasket. Remember to prepare the header bolts with anti-seize and torque to 13lbs./in. Reconnect the air fitting if equipped.
- 17) Tighten the EGR tube. Now reconnect the steering shaft to the rack. Attach the dipstick tube to the head using the supplied spacer and original bolt. (Don't forget to reinstall the oil filter if previously removed.)
- 18) Re-install the H-pipe using the supplied collector gasket on the passenger side. Apply a small amount of High-temp silicone around the dome on the passenger side header for added leak protection, and then reconnect the exhaust system.
- 19) Reconnect the battery cable.
- 20) Re-check everything for adequate clearance around A/C lines, steering shaft and brake lines, etc.
- 21) Start the engine and check for leaks. Allow the engine to warm up, then shut the engine off and allow it to cool. Recheck the header bolts and other fasteners for correct tightness.
- 22) Periodically check and retighten the header bolts.

Parts List

<u>Qty</u>	<u>Description</u>
(1)	Drivers Side Header Assembly
(1)	Passenger Side Header Assembly
(2)	Header Gaskets (Header to head flange)
(1)	Base Flange Gasket
(18)	8mm x 1.25 Header bolts w/lock washers (Torque to 13 lbs/in. on aluminum heads)
(2)	3/8" x 1 1/2" Collector Bolts
(2)	3/8" x 2" Collector bolts
(4)	3/8" Flat Washers
(2)	3/8" Lock Washers
(2)	8mm Flat Washers
(2)	8mm x 1.25 Nut
(1)	Dipstick Spacer Tube
(1)	CARB Emissions Sticker
(1)	Flowmaster Decal