



**SCAVENGER
SERIES ELITE HEADERS**

409S® Stainless Steel

Header Installation Instructions:

Part number: 814225

2011-2014 Ford Mustang 5.0L

ARB E.O. No. D-698

11/07/13



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.

This header installation is time consuming. The factory uses locking nuts on the exhaust manifold and due to the tight working areas, they can only be turned a small amount at a time. Allow yourself plenty of time and make sure you have the correct E8 External Torx® Socket for the exhaust stud socket removal.

- 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 negative battery cable 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) From underneath the vehicle, unbolt the factory exhaust system from the exhaust manifold collectors. Unplug the O2 sensors from the cats. Remove the clamps from the cats to the factory H-Pipe and remove the cats from the car.

Driver's side:

- 4) Remove the steering shaft from the U-joint on the steering rack.
- 5) Place a jack under the oil pan, using a block of wood the spread out the load. Lightly jack up the motor to remove the weight from the motor mounts. From the top, unbolt the large nut in the center of the motor mount. From below, remove the four bolts that hold the aluminum motor mount stand to the engine block. Jack up the motor about 2 to 3 inches and remove the aluminum motor mount stand.
- 6) Unplug the O2 sensors. Remove the nuts attaching the stock exhaust manifolds to the cylinder heads. Remove the factory manifold.
- 7) Remove the exhaust manifold studs from the cylinder head. These will require an E8 External Torx® Socket.
- 8) Remove the O2 sensor from the stock manifold and using a small amount of anti-seize, install the O2 sensor into the new Flowmaster header.
- 9) Slip the supplied exhaust gasket into place then install the new Flowmaster header using the original studs and lock nuts. You will need to start all of the nuts while the header is still loose due to clearance issues. Tighten the fasteners in an alternating pattern.
- 10) Reinstall the motor mount stand and lower the motor back into position. Tighten all bolts. Reinstall the steering shaft.

Passenger Side:

- 11) Remove the starter motor.
- 12) Follow the same procedure as the drivers' side with regard to the motor mount and exhaust manifold removal. Install the Flowmaster header as described above.
- 13) Reinstall the starter, lower the engine and tighten the lower mount bolts.

- 14) Reinstall the factory cats using the original gaskets. Plug all four O2 sensors back in.
- 15) Check to ensure that there is adequate clearance around all brake lines, wire looms, A/C lines, etc.
- 16) Reconnect the battery cable and recheck everything!
- 17) 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. Re-torque if necessary.
- 18) Periodically check and retighten the header bolts.
- 19) Place the included ARB Emissions Sticker in an under-hood location that is clearly visible, the sticker is to aid in passing the California Smog Check Program.

Parts List

<u>Qty</u>	<u>Description</u>
(1)	Drivers Side Header Assembly.
(1)	Passenger Side Header Assembly
(2)	Header Flange Gaskets
(1)	ARB Emissions Sticker
(1)	Flowmaster Decal