

Header Installation Instructions: Part Number: 814121

2010-2014 Chevrolet Camaro 6.2L V8 ARB E.O. No. D-698-1

11/10/14



2010-2014 Models

409Sa Stainless Steel

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.

- 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) From under the vehicle, remove the nuts attaching the manifold outlets to the exhaust pipe. Also loosen the nuts at the band clamps at the rear of the catalytic converters; the converters will need to be removed in order to allow removal of the exhaust manifolds.
- 4) Remove the bolt attaching the steering shaft to the steering rack. Slip shaft off of rack. Be sure to mark the steering shaft position, so that it can be indexed in the correct position when reinstalled.
- 5) From above, remove the bolt that attaches the oil dipstick to the head. Remove the dipstick.
- 6) Carefully remove the spark plug wires. Twist the boots prior to tugging on them. Do not pull directly on the wire. Remove the spark plugs.
- 7) Remove the bolts attaching the manifolds to the head. Remove the manifolds from the bottom of the vehicle. Retain factory gaskets.
- 8) Clean the gasket surface being careful not to gouge the head surface.
- 9) Install the Flowmaster Headers reusing the new flange gaskets, bolts and lock washers. Use anti-seize on the new header bolts. (The factory cat-pipe studs and nuts are reused at the collector.)
- 10) Re-install the spark plugs and plug wires. Use the extended power cable provided to replace the driver's side rear ignition wire. Re-install the dipstick.
- 11) From underneath, place the catalytic converters back into position. Connect the headers to the catalytic converters, placing a washer over the stud and reusing the factory nuts. Tighten the band clamps at the converter outlets securely. Re-connect the steering shaft and secure.
- 12) Re-attach the oil dipstick tube to the engine using the original hardware. It may be necessary to bend the mounting tab slightly in order to fit.

- 13) Check to ensure that there is adequate clearance around all fuel lines, brake lines, battery cables, wiring harnesses and other heat sensitive items.
- 14) Re-check everything and re-connect the battery cables to the battery.
- 15) Start the engine and check for leaks. Test drive the vehicle. Let the engine cool and retorque the header bolts.
- 16) Periodically check and retighten the header bolts.

Packing List

<u>Qty</u>	<u>Description</u>
(1)	Drivers Side Header Assembly
(1)	Passenger Side Header Assembly
(12)	8mm-1.25 x 25mm Header Fasteners W/Lock Washers (Torque to 13ft/lbs)
(1)	PowerCable Extended Spark Plug Wire
(2)	Header Flange Gaskets
(1)	CARB Emissions Sticker
(1)	Flowmaster Decal