

HEADER INSTALLATION INSTRUCTIONS

Part #D331

APPLICATION

1968-72 Chevelle/El Camino

396-502 Big Block (Std. Deck Only)



WARNING: These headers are legal for Off Highway use (except in California or states that have adopted California emission standards) or Racing use (which may never be used on a Highway), or for use on pre emission controlled motor vehicles/motor vehicle engines (pre 1966 domestic vehicles certified to California standards, pre 1968 domestic vehicles certified to Federal standards and all pre 1968 Foreign vehicles) **Only**.

NOTE: 68-72 Chevelle/El Camino MUST have correct Motor Mounts and Stands (frame brackets) for 350 or Big Block, L6/307 motor mounts and stands will NOT work.

NOTE: Due to the large 2 1/8" diameter of this header, there is one tube on each side that fits over and around the frame. This will require that you cut a hole through the inner fender well for the tube to exit. If you are not comfortable doing this, we suggest you install Doug's Headers part #D316 with 1 7/8" tubes instead.

NOTE: Will NOT fit with Air Conditioning.

PerTronix® thanks you for choosing **DOUG'S HEADERS**, the best fitting, highest quality header on the market. In order to realize the full potential of our good fit, please read and understand these instructions completely prior to starting work.

Check to make sure you received the proper parts for your application. 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. Most installations require some welding. If you are uncomfortable with welding operations, we recommend that you contact a professional exhaust system specialist to install your new headers.

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.

Notice: The coating of these headers can be marred or scratched during installation. If the header needs to be returned and is damaged, you will be charged for recoat.

DISASSEMBLY

1. Disconnect the negative battery cable from the battery.

2. If a car lift is not available, raise the vehicle 3 feet or higher and support it with adequate safety stands. Make sure the vehicle is on a flat solid surface and is stable.
3. Apply penetrating oil to all nuts and bolts to be removed.
4. Remove and mark all spark plug wires and then remove all spark plugs.
NOTE: Grasp spark plug boot, not the wire, and use a twisting motion while pulling the wire from the plug.
5. Disconnect the exhaust pipes from the exhaust manifolds and remove the manifolds. Remove the Dipstick, Oil Filter, Clutch Linkage, Oil Pressure sending unit, Starter Motor, and Power Steering pump *if* it is cylinder head/exhaust manifold mounted.
6. Remove the gaskets and any gasket material or any carbon deposits that remain on the head surface. The use of a gasket removal agent or scraper will ease the removal of any gasket material. Use care not to get debris into ports or spark plug holes.
7. At this point it may be necessary to cut or remove the exhaust pipes to allow room to install the headers. If you plan to reuse your existing exhaust, it is recommended that you remove the exhaust and then cut it to fit after the headers are installed.

INSTALLATION

LEFT SIDE

1. Place a jack with a board between the jack and the oil pan to support the motor. Loosen the transmission mount bolts or nuts. Remove the left side motor mount and jack the motor up 2" minimum.
2. Remove the Slip tube from the header. It will be necessary to cut the flange to remove the tube. The flange is cut most of the way though but a small amount is left to insure the header isn't damaged in transit. Starting from below, work the header up through the chassis and into position.
3. Lower the engine back into position and replace the motor mount.
4. Start a bolt on each end of the header to hold in place. Do not tighten at this time.
5. With the header still loose, work the clutch linkage back into position.
6. Reinstall and fully tighten all linkages, transmission mount bolts, and the oil filter.
7. Cut an approximately 3" Square hole in the inner fender behind the A Arm for the L-4 tube to slip through. Install the L-4 tube into the main header using a light coating of Hi Temp Silicone Sealant.
8. Slip the gasket into place and install all of the header bolts and lock washers supplied and hand tighten. Tighten all the bolts evenly to a torque of approximately 35 Foot Pounds working from the center outward.
9. 1968 Chevelle/El Camino will require 3/4" spacer on Power Steering pump bolt to head. See Illustration A.
10. Re install oil filter, spark plugs and wires.

RIGHT SIDE

1. Remove the Slip tube from the header. It will be necessary to cut the flange to remove the tube. The flange is cut most of the way though but a small amount is left to insure the header isn't damaged in transit. Starting from below, work the header up through the chassis and into position.
2. Starting from below, work the header up through the chassis and into position. Start a bolt on each end of the header to hold in place. Do not tighten at this time.
3. Cut an approximately 3" Square hole in the inner fender behind the A Arm for the R-3 tube to slip through. Install the R-3 tube into the main header using a light coating of Hi Temp Silicone Sealant.
4. Re install the starter motor.

5. Slip the gasket in place and install all of the header bolts and lock washers supplied and hand tighten. Tighten all the bolts evenly to a torque of approximately 35 Foot Pounds on iron heads, working from the center outwards.
6. On automatic transmission cars, check that the transmission cooler lines do not contact the header tubes. Re route as necessary.
7. Install the reducers and determine the connection to the exhaust system.
8. Weld the reducers to the exhaust system and install them onto the headers utilizing the gaskets and bolts supplied.
9. Install the spark plugs and wires.
10. Re install the dipstick and check the oil level since you removed the filter.
11. Check to make sure that all the wiring, fuel lines, transmission cooler lines, brake lines, hoses, etc. are clear of the headers or any exhaust components and reroute or relocate those components as necessary.
12. Connect the battery cable.

START THE ENGINE

Start the engine and allow it to warm up to operating temperature. Check for any unusual noises or exhaust leaks. If everything is OK, stop the engine and tighten all bolts while the engine is still warm. **NOTE:** Check the bolts periodically to make sure they have not loosened. Re-tighten after the first 500 miles and then again at 1000 miles

IMPORTANT CHECK LIST

- Be sure that all brake lines and fuel lines are clear of headers and/or connector pipes.
- All spark plug wires, battery cables, or other electrical components should be clear of headers and/or connector pipes.
- If dipstick tube was removed, make sure it is installed properly and that the dipstick has been replaced.
- Double-check the tightness of all bolts including brackets and accessories.

PARTS LIST

Qty	Description
1	Left Side Header
1	Right Side Header
2	Header Gaskets
2	3 1/2" Reducers
2	3 1/2", 3 Bolt Collector Gaskets
16	3/8"-16 X 1" Header Bolts
22	3/8" Header Star Washers
6	3/8"-16 X 1 1/4" Hex Head Cap Screws
6	3/8"-16 Hex Nut
1	3/4" Spacer

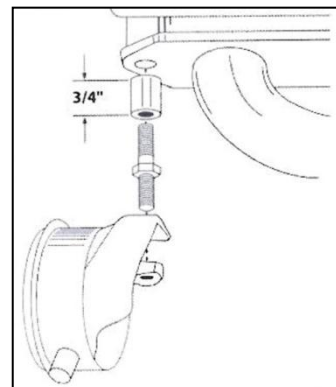


Illustration A (68 Power Steering)