

DOUG THORLEY HEADERS

BY SUMMIT INDUSTRIES

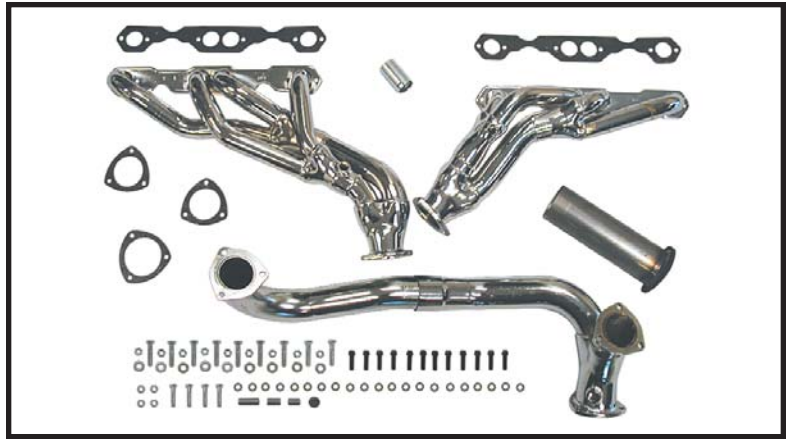
THY-386Y2 / THY-386Y2-DA / THY-386Y2-S

CHEVROLET 283-400

88-95 2-DR. PICKUP, 92-95 4-DR. PICKUP,

92-95 SUBURBAN, BLAZER,

JIMMY, YUKON, TAHOE



PARTS INCLUDED

- 1 - Right side header
- 1 - Left side header
- 1 - Y-pipe assembly
- 1 - Hot air pickup
- 1 - 3" Catalytic converter adapter
- 1 - 2½" Catalytic converter adapter
- 2 - Header gaskets
- 2 - Conical gaskets
- 1 - Collector gasket

HARDWARE INCLUDED

- 12 - 3/8"-16 x 1" Header bolts
- 21 - 3/8" Star lock washers
- 6 - 3/8"-16 x 1-3/4" Hex head bolts
- 3 - 3/8"-16 x 1-1/4" Hex head bolts
- 9 - 3/8"-16 Hex nuts
- 9 - 3/8" Flat washers
- 4 - 1/4"-20 x 1-1/4" Hex head bolts
- 4 - 1/4" Star lock washers
- 8 - 1/4" Flat washers
- 4 - 3/8" x 1/2" Spacers
- 1 - 5/8" x 1" Spacer
- 1 - 5/8" x 1-1/8" Spacer
- 1 - 5/8" x 1-3/4" Spacer
- 1 - 18mm Pipe plug

TOOLS REQUIRED

- Heating torch
- Mig welder
- Cut-off saw
- Sawzall
- 3/8", 7/16", 9/16", 1/2", 3/4", 7/8" Wrenches
- 10mm, 13mm Wrenches
- 9/16" Line (flare nut) wrench
- 5/16", 7/16", 1/2", 9/16" Sockets
- 3/8", 7/16" Deep sockets
- 15mm Deep socket
- 5/8" Spark plug socket
- Ratchet and extensions
- Pliers
- Crescent wrench
- Torque wrench
- Rust penetrant
- High-temp sensor-safe silicon sealer (rated at 600 degrees+)

WARRANTY NOTES

- 1) The utmost care is taken at Thorley Headers to maintain the highest standards of quality. However, Thorley Headers cannot control the installation of the product. For this reason, the Thorley Headers warranty covers only the replacement of the components - not the labor for the installation.
- 2) The use of any type of "header wrapping" voids the warranty. Using any sort of wrapping material on the headers destroys the tubing's ability to dissipate heat, causing very rapid deterioration of the metal and the subsequent failure of the headers.
- 3) The chrome plating applied to all Thorley headers is a high-nickel chrome finish applied to retard corrosion. This is a "heat" chrome to preserve the metal. This finish is not "show chrome" intended for the sake of appearance. This high-nickel chrome turns colors and approaches black as it cooks into the metal. The brilliance of the chrome finish is not covered under the warranty. Contamination of the surface by foreign substances may produce other color patterns. This can be prevented by routine cleaning.

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WARRANTY NOTES

- 4) Retain all paperwork pertaining to the purchase of your Thorley product. Save your receipt!
Your limited warranty is not valid without a receipt of purchase.

LEGALITY NOTE

The installation of headers onto any vehicle must be performed in accordance with all governmental regulations that might pertain to the particular vehicle receiving the headers. Please call your Thorley Headers distributor if there are any questions regarding the legality of the installation. **The Executive Order (“E.O.”) number for this part number is D-540.**

INSTALLATION NOTES

- 1) It is important that you read the entire instruction sheet before initiating any installation.
- 2) Thorley headers are designed to fit only factory installed engine and transmission combinations. We cannot guarantee that Thorley headers will fit in the case of “engine swaps” or “transmission swaps”.
- 3) Due to restricted room in the engine compartment, your headers may come close to certain body and chassis components. This is normal for an installation of this type. However, a careful inspection must be completed to insure that the distances and placement are reasonable and logical, especially with regard to electrical, fuel, and brake components.
- 4) Because of the requirement to raise the engine to facilitate header installation, the engine mounts should be carefully inspected at that point of the installation. It is highly recommended that questionable or deteriorated engine mounts be replaced during the installation of the headers. In some cases, the engine mounts need to be loosened and repositioned to provide optimum header clearance from some components.
- 5) Because of car-to-car variations, Thorley Headers strongly recommends that these headers be installed by a competent exhaust shop that has welding and fabrication capabilities.

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INSTALLATION PROCEDURES

WARNING! - Do not rely on bumper jacks or chassis jacks for support during header installation. The subject vehicle should be raised and supported with jacking equipment and jackstands or ramps intended for undercarriage auto maintenance. It is extremely dangerous to work under an improperly raised and/or supported vehicle.

WARNING! - Make certain there is ample clearance around components such as brake lines, brake proportioning valves, fuel lines, hoses and pumps, and electrical components and wires. In some cases it may be necessary to relocate items that may be adversely affected by exhaust system heat.

NOTE: These procedures are documented on factory standard-equipped vehicles with original configuration compliance. Any modification of the subject vehicle may dictate modification to these procedures.

NOTE: All Thorley headers featuring air injection options are designed to accept the most readily available original equipment manufacturer's looms. Should your stock looms not match the fittings on the headers, or should you suspect that your original looms will not survive the re-installation onto the Thorley headers, your local GM parts department may be able to provide replacements using these part numbers:

THY-386Y2-DA driver side - 14102115, passenger side - 14102114.
THY-386Y2-S driver and passenger side - 330544.

- 1) Disconnect the battery.
- 2) Raise the front of the vehicle approximately 24 inches and support it with jack stands or other suitable supports. (**WARNING!** - Do not rely on bumper jacks or chassis jacks for support during header installation. The subject vehicle should be raised and supported with jacking equipment and jackstands or ramps intended for undercarriage auto maintenance. It is extremely dangerous to work under an improperly raised and/or supported vehicle.)
- 3) Spray all exhaust system fasteners with rust penetrant and allow to soak. (Note: High-mileage vehicles may require soaking overnight and/or multiple doses of penetrant to avoid possible breakage of bolts.)

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- 4) Remove the air cleaner and air cleaner ducting. It is recommended that the carburetor/throttle body air intake be covered to prevent foreign objects from entering the engine.
- 5) Remove the fasteners from the stock connector pipe, and remove the clamp at the catalytic converter-to-connector pipe junction. Remove the stock connector pipe.
- 6) Note the locations of the spark plug wires and remove them from the spark plugs.
- 7) Remove the spark plugs.
- 8) Remove the spark plug wiring looms and the oil dipstick tube bracket bolt. Unplug any temperature sensor wiring that may be associated with the spark plug wiring.
- 9) If applicable, loosen the A.I.R. harnesses (smog pump fittings) at the exhaust manifolds and disconnect the hoses. (Note: It is not necessary to remove the harnesses until the stock exhaust manifolds are off the vehicle.)
- 10) Disconnect the oxygen sensor wiring from the vehicle's wiring harness at the connector, and remove the wiring from any retention clips that may be present. (Note: Failure to disconnect the oxygen sensor wiring so that it is free to rotate with the oxygen sensor can seriously damage the oxygen sensor.) Remove the oxygen sensor.
- 11) Remove the engine oil dipstick.
- 12) Bend all exhaust manifold bolt keeper tabs away from the exhaust manifold bolts and remove the bolts.
- 13) Cut the alternator-to-exhaust manifold bracket as shown in Illustrations, Figure 1, "FIRST CUT". (Note: Care should be exercised when making this cut to avoid damage to any surrounding components. Do not make this cut with a torch.)
- 14) Remove the bracket from the vehicle and make the second cut as shown in Illustrations, Figure 1, "SECOND CUT".
- 15) Remove the stock exhaust manifolds.
- 16) Clean all traces of carbon deposits from the cylinder head exhaust port surfaces.

- 17a) **(For vehicles with the catalytic converter under the passenger's FEET only.)**
Remove the stock connector pipe by making a cut between the oxygen sensor and the catalytic converter. Make the cut as close to the oxygen sensor as possible to provide more leeway for proper alignment later in the installation.
- 17b) **(For vehicles with the catalytic converter under the passenger's SEAT only.)**
Remove the stock connector pipe by removing the clamp at the slip junction in front of the catalytic converter and carefully separating the connector pipe from the catalytic converter. (Note: The application of heat and/or force may be necessary to separate the components at this point. Do not cut this junction apart. It is illegal to modify the front of the catalytic converter.) Trial fit the supplied catalytic converter adapter to the inlet of the catalytic converter. If necessary, sand the inlet of the catalytic converter and the outside of the supplied catalytic converter adapter with medium grit sandpaper, but ensure that these components still fit securely together.
- 18) If applicable, trial fit the A.I.R. harnesses to the headers and make any necessary adjustments. Remove the harnesses before installing the headers.
- 19) (Note: The use of high-temp sensor-safe silicon sealer between the header flange and header gasket is highly recommended.) Install the driver side header and supplied header gasket from below the vehicle using the original stock front manifold bolt (not a supplied header bolt) in the front bolt hole, along with a supplied 5/8" spacer of the appropriate length between the header flange and the accessory support bracket. Use the supplied 3/8"-16 x 1" header bolts and 3/8" star lock washers in the remaining bolt holes. Tighten all bolts to 35 ft/lbs.
- 20) Reinstall the driver side spark plugs. (Note: These headers are designed so that the stock spark plug heat shields are no longer needed. However, ensure that all spark plug wiring is secured away from exhaust heat.)
- 21) Reinstall the driver side spark plug wiring harness looms using the supplied 3/8" x 1/2" spacers and 1/4"-20 x 1-1/4" hex head bolts in the following manner: Stack each bolt with a supplied 1/4" star lock washer, then two supplied 1/4" flat washers, the accessory bracket, and finally the 3/8" x 1/2" spacer.
- 22) If the oxygen sensor was located in the exhaust manifold in its stock configuration, reinstall the oxygen sensor in the fitting on the driver side header. If the oxygen sensor was located in the connector pipe in its stock configuration, install the supplied 18mm pipe plug in the fitting on the driver side header.

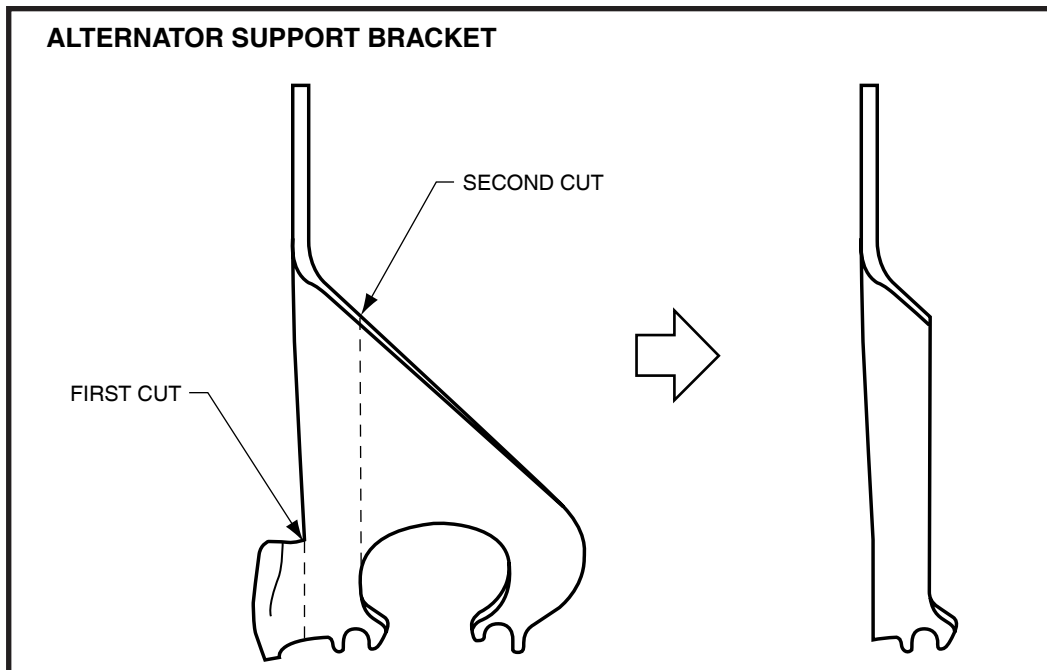
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- 23) Reinstall the A.I.R. harness on the driver side header, securely tighten the fittings, and reconnect the feed hose.
- 24) (Note: The use of high-temp sensor-safe silicon sealer between the header flange and header gasket is highly recommended.) Install the passenger side header and supplied header gasket from above the vehicle using the supplied 3/8"-16 x 1" header bolts and 3/8" star lock washers. Tighten to 35 ft/lbs.
- 25) Reinstall the engine oil dipstick into the engine block.
- 26) Reinstall the passenger side spark plugs without the stock heat shields.
- 27) Reinstall the spark plug wiring harness looms in the same manner as the driver side, described in Step 21.
- 28) Reinstall the A.I.R. harness on the passenger side header, securely tighten the fittings, and reconnect the feed hose.
- 29) Reinstall all spark plug wiring.
- 30) Snap the steel flanged end of the supplied conical gaskets into the header collectors.
- 31a) **(For vehicles with the catalytic converter under the passenger's FEET only.)**
Loosely attach the supplied Y-pipe assembly to the header collectors using the supplied 3/8"-16 x 1-3/4" hex head bolts, nuts, and washers. Do not fully tighten. (See Illustrations, Figure 2 for a view of the assembled system.) Place the supplied catalytic converter adapter over the stub at the front of the catalytic converter and align the bolt hole clocking as shown in Illustrations, Figure 3. Make a final cut for proper length if necessary. Tighten all hardware to 35 ft/lbs. and weld the catalytic converter adapter to the catalytic converter inlet stub.
- 31b) **(For vehicles with the catalytic converter under the passenger's SEAT only.)**
Install the supplied catalytic converter adapter into the entrance of the catalytic converter with bolt hole clocking as shown in Illustrations, Figure 3. Use a hammer and a block of wood to drive the adapter into the catalytic converter until it stops, and securely clamp the two components together. Attach the supplied Y-pipe assembly to the header collectors and the catalytic converter adapter using the supplied collector gasket, 3/8"-16 x 1-1/4" hex head bolts, nuts, and washers. (See Illustrations, Figure 2 for a view of the assembled system.) Tighten to 35 ft/lbs.

- 32) Remove any covering in place from Step 4 and reinstall the air cleaner and ducting.
- 33) If the oxygen sensor was in the connector pipe in its stock configuration, reinstall the oxygen sensor in the new Y-pipe assembly, ensuring that the supplied 18mm pipe plug is installed in the fitting on the driver side header. (See also Step 22.)
- 34) Reconnect the battery. Start the engine and check for leaks.
- 35) Because the header bolts will initially stretch when hot, we recommend adhering to the following steps:
 - a) Retighten the header bolts to 35 ft/lbs after approximately twenty minutes of operation. (Note: Remember the engine will be hot at this time. Protect yourself accordingly.)
 - b) Check and retighten the header bolts to 35 ft/lbs after the first month of operation.

ILLUSTRATIONS

FIGURE 1



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ILLUSTRATIONS

FIGURE 2

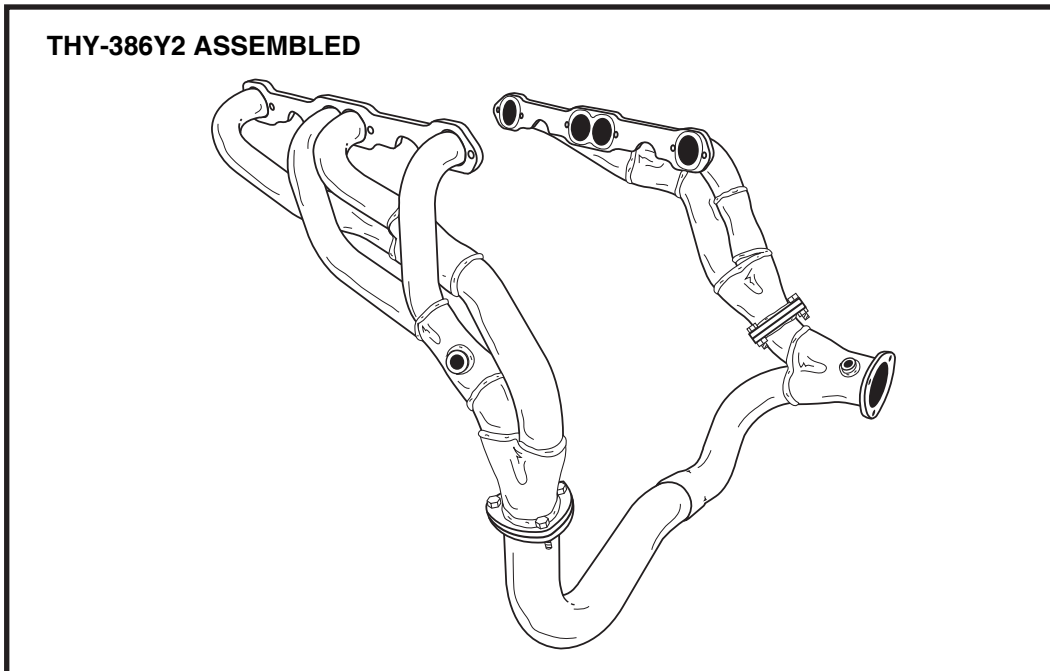


FIGURE 3

