



**1998-2002 GM F-BODY DUAL CAT-BACK EXHAUST SYSTEM
70501332-RHKR (304SS) & 70501432-RHKR (409SS)
Installation Instructions**



Thank you for purchasing/using a Hooker brand product. This exhaust system is 50-state legal for installation on any 1998-2002 GM F-body vehicle. 1998-99 model year vehicles will require cutting and welding to connect the system behind the passenger side catalytic converter; no cutting or welding is required for installation on 2000-2002 model year vehicles.

Automotive work can be dangerous; work only on a clean, dry and level surface and use lifting/supporting equipment designed specifically for automotive work. If you are unsure of your capability, or that of your equipment, seek professional assistance to install these components.

BEFORE BEGINNING...

Check that the hardware package includes the following:

Qty.	Description	Qty.	Description
1	O2 sensor bung (for 1998-99 cars)	2	3/8 x 1-1/4" Flanged Head Cap Screws
8	2.5" Band Clamps	4	1/2 x 1-3/4" Flanged Head Cap Screws
2	2.5" Coupler Clamps	4	1/2" Nylon Lock Nuts
5	1/2" Rubber Isolators	1	Self-Tapping Sheet Metal Screw
2	Rear Muffler Hanger Brackets	1	Heat Shield Spacer
2	Rear Muffler Hanger Backing Bars	3	Panhard Brace Tube Spacers
1	Left Front Muffler Hanger Bracket	3	M10 x 50mm Cap Screws
1	1/4-20 Nut	3	M10 Flat Washers
1	1/4-20 Bolt	2	M10 x 1.5 Flanged Head Nuts

If you are missing any hardware, please contact Technical Service at 1-866-464-6553 or 270-781-9741.

INSTALLATION:

1. Raise and support the vehicle.
2. Remove any and all existing exhaust system components, up to the catalytic converters, from the vehicle; this includes the stock rear muffler hangers that are bolted to the vehicle. Soak the catalytic converter outlet flange attachment nuts with penetration oil and let them stand for 10 minutes before attempting to remove them. If they will not loosen after soaking, apply heat from an oxy/acetylene torch directly to the nuts to free them, then remove them with a socket; the socket will become hot, so do not touch it while removing the nuts.

NOTE: On **1998-99** model year vehicles, you must cut the outlet tube of the passenger side catalytic converter about 1.5" past the end of the converter to allow proper removal of the factory Y-pipe assembly.

- Place (x1) supplied 2.5" band clamp over the long expanded passenger's side inlet tube of the X-pipe assembly. Follow by inserting the passenger's side converter adapter tube assembly (the longer of the two adapter tube assemblies) into the X-pipe inlet. See **Figure 1**.
- Place (x1) supplied 2.5" band clamp over the remaining driver's side inlet of the X-pipe assembly and install the left intermediate inlet tube into the X-pipe. See **Figure 2**.



Figure 1



Figure 2



Figure 3

- Place (x1) supplied 2.5" band clamp over the expanded inlet of the left intermediate tube and insert the left side converter adapter tube assembly into it. **See Figure 3**. Rotate the converter adapter so that the flared inlet slopes downward towards the ground.
- Install the X-pipe assembly, with attached converter adapter tube assemblies, onto the vehicle catalytic converter outlets. Use the factory nuts for this purpose or replace them with new ones if necessary. Rotate the driver's side converter adapter, as needed, to enable its flared end to mate as squarely as possible with the formed bell end of the converter outlet. For **1998** or **1999** model year installations, you will need to cut the flange off of the inlet end of the supplied passenger's side converter adapter tube assembly. Trim it back far enough to allow its end to terminate as close to the weld on the outlet on the converter as possible when the X-pipe is installed. This may require you to install and remove the X-pipe a few times in order to sneak up on the proper final cut length for the best appearance and weldability.
- Remove the stock mid-hanger that engages with the rubber hanger on the transmission from the removed exhaust system. Attach it, using the stock bolts and the (x2) supplied M10 x 1.5 flanged head nuts, to the Hooker X-pipe assembly after flipping it end over end. See **Figure 4**.

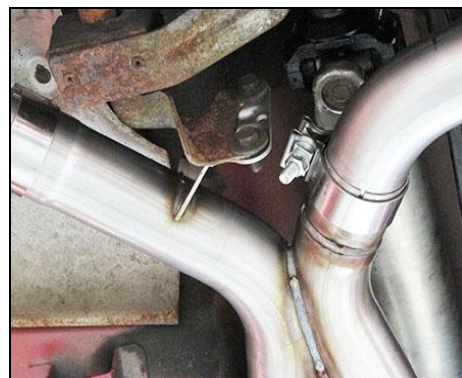


Figure 4

- Remove the two sheet metal screws attaching the fuel tank heat shield to the panhard brace. Remove the three bolts attaching the panhard brace to the bottom of the driver's side frame rail.
- Pull/pry the end of the panhard brace down from the frame rail and install the (x3) supplied tube spacers and (x3) washers in between the panhard brace and the frame rail (the washers will go between the spacers and the brace). Once done, reattach the

brace to the frame rail with the (x3) supplied longer bolts (M10 x 50mm) and tighten them. In some instances, it is necessary to elongate the holes in the braces towards the center of the car slightly to allow installation of the bolts. Use a small round hand file or rotary carbide bit in a die grinder to accomplish this task. See **Figure 5** for installed position reference.

10. Bend the tab on the left side of the panhard brace to realign it with the corresponding hole in the fuel tank heat shield. Reinstall the previously removed sheet metal screw in that position. See **Figure 6**.



Figure 5



Figure 6

11. Push the right side of the fuel tank heat shield up against the floor at the location of the remaining attachment tab and install the (x1) supplied heatshield spacer between the panhard brace and the heat shield. Reuse the stock screw in the lower hole and the install the (x1) supplied self-tapping screw in the upper hole as depicted in **Figure 7**.

12. Place the (x2) supplied double-ended coupler clamps over the outlets of the X-pipe assembly. See **Figure 8**.



Figure 7



Figure 8

13. Remove/cut the safety wire from the tie tabs attaching the over-axle tubes together and separate the over-axle tubes.

14. Working from the front side of the axle, feed the right side over-axle tube over the axle and through the space between the upper heat shield and the panhard brace. See **Figure 9**.



Figure 9

15. Feed the left over-axle tube over the axle in the same manner as the right side over-axle tube. Bring the tab located near the tube outlet to rest against the backside of the corresponding tab attached to the right side over-axle tube. See **Figures 10 and 11**.



Figure 10



Figure 11

16. Attach the two tabs together with the (x1) supplied 1/4-20 bolt and (x1) lock nut.
17. Raise the front ends of the over-axle tubes up and connect them to the X-pipe outlet legs with the coupler clamps already in position on the X-pipe outlet legs. Orient them in such a way that the nuts on the clamps will be positioned on top of the tubes in the straight-up 12 O'clock position and be facing away from each other (pointed towards the sides of the car) when installed. Tighten the clamp nuts just enough to hold the basic position of the attached components at this time.
18. Attach the (x4) supplied rubber isolators to the supplied rear muffler hanger brackets with the supplied (x4) 1/2 x 1-3/4 flanged head cap screws and (x4) nylon lock nuts. Tighten the nuts enough to remove all slack/clearance between the brackets and the isolators, but not enough to begin to crush the rubber isolators. See **Figure 12**.
19. Use the supplied (x2) 3/8 x 1-1/4" flanged head cap screws and (x2) rectangular threaded backing bars to attach the muffler hanger bracket assemblies to the left and right frame rails just under the rear bumper. The threaded back-up bars need to be inserted into the interior of the frame rails through the square holes in the sides of the frame. Hold in place with your finger to allow the installation of the bolt that attaches each bracket to the bottom of the frame rails. See **Figure 13**.



Figure 12



Figure 13

20. Install the stock right side exhaust hanger that was removed from just behind the axle onto the doubled hanger rods attached to the inlet pipe of the right (passenger's) side muffler. See **Figure 14**.



Figure 14

21. Place (x1) supplied 2.5" band clamp over the expanded inlet tube of the right side (passenger's) muffler assembly. Insert the rear hanger rods into the rubber isolators on the right rear hanger bracket just attached under the rear bumper. Lift the muffler up and connect it to the outlet of the right side over axle tube. Do not fully tighten the clamp at this time.
22. Reattach the factory hanger bracket on the muffler inlet pipe to the frame rail with the factory bolts.
23. Attach the supplied left front muffler hanger bracket to the bottom of the left side frame rail, as shown in **Figure 15**. Use the removed factory fasteners for this purpose.



Figure 15

24. Place (x1) supplied 2.5" band clamp over the expanded inlet tube of the left side (driver's) muffler assembly and insert the left muffler intermediate tube into the inlet of the muffler.
25. Insert the rear hanger rods on the left (driver's side) muffler into the rubber isolators on the left rear hanger bracket under the bumper. Lift the muffler up and connect its inlet tube to the outlet of the left side over axle tube using (x1) supplied 2.5" band clamp. Do not fully tighten the band clamp at this time.
26. Couple the hanger rod attached to the rear of the left side muffler to the supplied hanger bracket attached to the left frame rail with the remaining (x1) supplied rubber isolator.
27. Place the remaining (x2) supplied 2.5" band clamps over the tip inlets and install the tip assemblies onto the muffler outlets. The tips should be installed so that the compound angle cut on their ends follow the angled contour of the bumper.
28. Adjust all system components and tighten the clamps. A few tips to remember to accomplish optimized fitment/clearances are as follows:
 - Begin by tightening all clamps just enough to remove all "slop" from the system, but still allow the rotation of each tube to be adjusted without major force being required.
 - The X-pipe assembly should lie flat in the tunnel when the installation is complete.
 - Ensure the header collector adapter tubes are rotated over far enough for the O2 sensors to clear the floor.
 - Pay special attention to the clearances obtained where the over-axle tubes route over the axle and past the panhard brace as the fitment/clearance constraints are greatest in this area.
 - The amount of tip assembly protrusion beyond the rear bumper can be adjusted to suit your individual taste...tucking them in tight, or pulling them out to be more noticeable is completely up to each user.
 - Perfect rotational alignment of the tip assemblies with each other can most easily be accomplished by laying a long piece of metal tubing or flat bar across the bottoms of the tips before tightening the clamps.
29. On **1998** and **1999** model year vehicles only, locate the best position for the rear O2 sensor in the tube behind the passenger side catalytic converter and drill a 3/4" hole in that location. De-bur the hole and weld the included O2 sensor bung on the tube centered over the hole. Transfer the O2 sensor from the factory Y-pipe to the new installed bung and connect the sensor to the vehicle wiring harness. Disconnect the negative battery before performing any welding.

COMPATIBILITY INFORMATION:

This exhaust system is geometrically/functionally compatible with GM TH350, TH400, 700R4, 2004R, 4L60-4L70 and 4L80E/4L85E automatic or Tremec OE LS 4th-gen F-body T56 and aftermarket T56 Magnum manual transmissions.

This exhaust system is designed for direct bolt-in compatibility with the Hooker 1-3/4" (P/N 70101316-RHKR) and 1-7/8" (P/N 70101315-RHKR) LS swap headers developed for this application. Connection to other brand/type headers will require custom fabrication work.

LIMITATION OF LIABILITY – DISCLAIMER:

The regulation of emissions production, noise levels, and safety standards is undertaken by the federal government, each of the fifty state legislatures, and by many local municipalities, towns, and counties.

HOOKER™ makes no warranties of merchantability, of fitness for particular purpose, or that its products are approved for general use, or that its products are approved for general use, or that its products comply with laws, regulations, or ordinances in the state where they may be sold to the ultimate purchaser, the consumer.

Unless expressly stated to the contrary in the catalog, instruction sheet; or price list, the entire risk as to the conformity of any company product in any such state and as to repair should the product prove to be defective or non-conforming, is on the retail purchaser, the buyer, the ultimate consumer, of such product and it is not upon the seller, distributor, or manufacturer.

In this connection, the retail purchaser, the buyer, the ultimate consumer assumes the burden of the entire cost of any and all necessary service, alterations, or repair.

THE FOREGOING STATEMENT LIMITS THE LIABILITY OF THE MANUFACTURER.

California vehicle code, sections 27156 and 38391, prohibits the advertising, offering for sale, or installation of any device, which modifies a vehicle's emission control system, unless exempted, unless otherwise noted. HOOKER™ Headers products that have not received an Executive Order (E.O.) exemption from these code sections are not legal for sale or use in California on vehicles originally equipped with catalytic converters, except for racing vehicles, which may never be driven upon a highway. Check with your local authorities to determine if these headers are legal for use in your particular area.

Technical Service: 1-866-464-6553

Phone: 1-270-781-9741

For online help, please refer to the Tech Service section of our website: www.holley.com

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