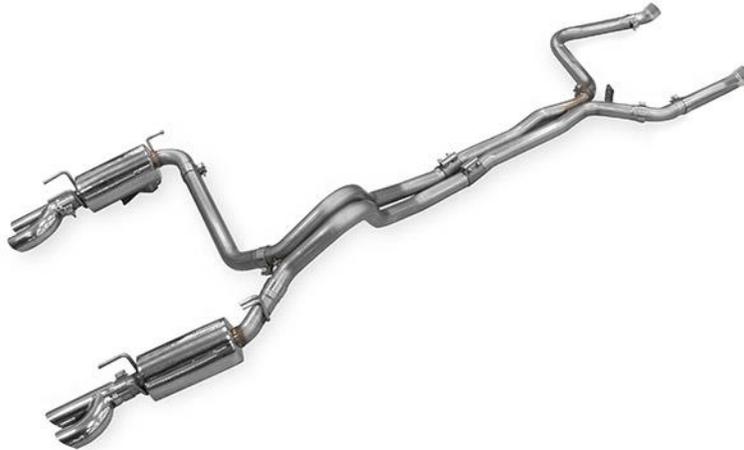




**4<sup>th</sup> Gen GM F-Body LS Engine  
BlackHeart RACE ONLY Dual Exhaust System (For Long Tube Headers)  
705013128RHKR & 705014128RHKR  
Installation Instructions**



Thank you for making HOOKER HEADERS your choice in a high-performance exhaust system. Extensive dyno/track testing has enabled HOOKER to offer the most advanced design in exhaust systems. The installation, while not complex, will take a certain amount of time. However, the additional horsepower and improved performance will more than justify your efforts. Proper installation and maintenance will ensure long life and maximum performance from your HOOKER HEADER exhaust system.

**BEFORE STARTING:**

Your vehicle must be raised a minimum of 36 inches. A floor hoist is ideal. If no hoist is available, we strongly urge the use of axle stands as a safety measure. Please read these instructions in their entirety before attempting installation.

**CAUTION! WORK ONLY ON A LEVEL SURFACE. USE JACKS /JACK STANDS OF SUFFICIENT CAPACITY TO LIFT AND SUPPORT YOUR VEHICLE. NEVER WORK UNDER A VEHICLE SUPPORTED BY A FLOOR OR BUMPER JACK.**

**INCLUDED HARDWARE:**

| P/N     | Qty. | Description                                       | P/N    | Qty. | Description                           |
|---------|------|---|--------|------|---------------------------------------|
| 556R27  | 2    | Exhaust Coupler, 3.0", 409SS Torca 96-0131        | 505R40 | 2    | Bolt, 3/8-16 x 1-1/4 Flanged Hex Head |
| 556R26  | 2    | Exhaust Coupler, 2.5", 409SS Torca 96-0115        | 505R52 | 4    | Bolt, 1/2-13 x 1.75                   |
| 556R22  | 9    | Band Clamp, 2.5" x 1.25" Wide, 430SS Torca        | 539R20 | 4    | 1/2-13 Nylock Flanged Nut             |
| 516R77  | 5    | 1/2" 2-Hole Rubber Isolator                       | 505R55 | 1    | Sheet Metal Screw, Self-Tapping       |
| 516R112 | 2    | Hanger, Rear Muffler, 4 <sup>th</sup> -Gen F-Body | 510R5  | 1    | Heat Shield Spacer                    |
| 516R111 | 2    | Hanger Backing Plate, 4 <sup>th</sup> -Gen F-Body | 540R20 | 3    | Spacer, Aluminum Panhard Brace        |
| 517R56  | 1    | Muffler Hanger, Welded Assy.                      | 505R53 | 3    | Bolt, M10 x 50mm                      |
| 539R21  | 1    | Nut, 1/4-20, Locking                              | 546R11 | 3    | Washer, M10                           |
| 505R54  | 1    | Capscrew, 1/4-20                                  | 505R31 | 2    | Nut, M10 x 1.5 Flanged, Nylon Locking |
| 546R10  | 1    | Washer, 1/2" O.D.                                 | 599R94 | 2    | Decal - Blackheart 4" x 2"            |

Check the hardware package. If anything is missing, please contact Technical Service at 1-866-464-6553 or 270-781-9741.

**INSTALLATION:**

**NOTE:** It is highly recommended that you install new motor mounts along with this exhaust system to permit the maximum amount of ground clearance.

1. Disconnect the negative cable from the vehicle battery.
2. Lift the vehicle and secure on jack stands.
3. Remove the center cross brace under the center of the vehicle under the OE exhaust.

4. Remove any and all existing exhaust system components from the vehicle, including hangers.
5. Install BlackHeart Long Tube Headers (not included). Refer to the installation instruction sheet.
6. Using (x4) 2.5" band clamps, assemble the BlackHeart adapter pipes and X-Pipe inlet pipes to the main X-Pipe. Do not tighten the clamps. Refer to the exhaust system picture on the main page for image.
7. Using (x2) 3.0" Torca coupler clamps, install the assembled BlackHeart X-pipe components onto the BlackHeart Long Tube Headers. Do not tighten the clamps.
8. Install the center cross brace from step 3.
9. Remove the stock mid-pipe hanger that engages with the rubber hanger on the transmission from the OE exhaust. Attach using the stock bolts and the (x2) supplied M10 x 1.5 flanged nuts to the BlackHeart X-Pipe assembly after rotating it end over end (**Figure 1**).



**Figure 1**

10. Remove the (x2) sheet metal screw attaching the fuel tank heat shield to the panhard brace. Remove the (x3) bolts attaching the panhard brace to the bottom of the driver's side frame rail.
11. Pull/pry the end of the panhard brace down from the frame rail and install (x3) supplied panhard spacers and washers between the panhard brace and the frame rail. NOTE: The washers will go in between the spacers and the brace. Once done, attach the brace to the frame rail using (x3) supplied M10 x 50mm cap screws and tighten. 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. We recommend using a small round hand file or rotary carbide bit using a die grinder to accomplish this task. See **Figure 2** for installed reference.



**Figure 2**

12. Bend the tab on the left side of the panhard brace to re-align with the corresponding hole in the fuel tank hat (**Figure 3**). Re-install (x1) sheet metal screw removed from step 10.



**Figure 3**

13. Push the right side of the fuel tank heat shield up against the floor at the location of the remaining attachment tab and install (x1) supplied heat shield spacer between the panhard brace and the heat shield. Re-use the stock sheet metal screw removed from step 10 in the lower hole and install (x1) supplied self-tapping screw and (x1) supplied 1/2" O.D. washer in the upper hole (**Figure 4**).



**Figure 4**

14. Remove/cut the safety wire from the tie tabs attaching the over-axle tubes together and separate the over-axle tubes.
15. Using (x2) supplied 2.5" Torca coupler clamps, install the BlackHeart over-axle pipes onto the X-Pipe assembly, but do not tighten (**Figure 5**). Orient the clamps in such a way that the nuts on the clamps are positioned on top on the tubes facing away from each other.



**Figure 5**

16. Using (x1) supplied 1/4-20 bolt and lock nut, secure the left and right side BlackHeart over-axle pipes (**Figure 6**). Do not tighten.



**Figure 6**

17. Attach the (x4) supplied rubber isolators to the supplied rear muffler hanger brackets with (x4) supplied 1/2-13 x 1.75" bolts and nylon 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 (**Figure 7**).



**Figure 7**

18. Using (x2) supplied 3/8-16 bolts and (x1) hanger backing bracket plate, install the (x2) bracket assemblies to the left and right frame rails 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 (**Figure 8**).



**Figure 8**

19. Install the OE right side exhaust hanger that was removed from just behind the axle onto the double hanger rods attached to the inlet pipe of the right (passenger) side muffler (**Figure 9**).



**Figure 9**

20. Using (x1) supplied 2.5" band clamp, install the right side Blackheart muffler section onto the right side over-axle pipe, slide the rear hanger rods into the rubber isolators, and secure the rear hanger bracket using the OE bolts. Tighten the bolts, but do not tighten the band clamp.
21. Using the OE bolts, secure the left muffler hanger bracket to the bottom of the left side frame rail (**Figure 10**).



**Figure 10**

22. Using (x1) supplied 2.5" band clamp, install the left side BlackHeart intermediate tube onto the left side over-axle pipe. Do not tighten the band clamp.
23. Using (x1) supplied 2.5" band clamp, secure the left side BlackHeart muffler onto the muffler intermediate pipe and insert the rear hanger rods on the left muffler into the rubber isolators on the left rear hanger bracket under the bumper. Do not tighten the band clamp.
24. Couple the hanger rod attached to the rear of the left side muffler to the supplied hanger bracket attached to the left frame rail using (x1) supplied rubber isolator.
25. Using (x2) supplied 2.5" band clamps, install the left and right side tips onto the muffler sections. Do not tighten the band clamps.
26. Align the complete exhaust system and tighten all the clamps from the header back.

**NOTE: It is normal for the Blackheart RACE ONLY Exhaust System to emit smoke for the first few minutes during break-in period.**

### **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 4<sup>th</sup>-gen F-body T56 and aftermarket T56 Magnum manual transmissions.

**NOTE:** Installation with a 4L80E/4L85E transmission will require minor trimming to the right side tip of the bell housing to provide clearance.

This exhaust system is designed for direct bolt-in compatibility with the Blackheart **P/N's 70101340-RHKR & 70101341-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 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 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.

© 2016 Hooker Headers, Inc. All rights reserved.

**199R11140**

**Date: 7-11-16**