



**2014-2019 C7 Corvette Stingray (LT1) & 2015-2019 C7 Corvette Z06 (LT4)
Manual / Automatic Transmission - 304SS, 1 7/8" Shorty Headers
70301306-RHKR
Installation Instructions
C.A.R.B. EO# D-115-20 & D-115-27**



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 18 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 and understand these instructions and disclaimer 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:

Accessory Pack Contents:		
P/N	Qty.	Description
505R21	10	8mm x 1.25 x 25mm Header Bolts
505R59	8	10mm x 40mm Bolt
539R25	8	Serrated Flange Nut (10mm)
599R94	2	Decal, Blackheart 4" x 2"
199R10947	1	Instruction Sheet

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

PARTS LIST:
1 - Left Shorty Header assembly
1 - Right Shorty Header assembly
1 - Accessory kit

Recommended parts
Manifold Gaskets – GM P/N 12657093
Manifold to Cat Gaskets – GM P/N 15272179

TOOLS NEEDED:	
3/8 Metric Socket Set to 18mm	7/8" Wrench or O2 Sensor Socket
12" Extension or equivalent	5/8" Spark Plug Socket
3/8 Drive Universal	3" 3/8 Drive Extension
15mm Deep Socket	Long Flat Blade Screwdriver
15mm Wrench	T30 Torx Bit
13mm Ratcheting Flex Wrench	Spray Lube (WD-40®)
10mm Wrench	

IMPORTANT! Please read and understand instructions before attempting installation.

PRE-INSTALLATION:

1. Place the vehicle on flat solid surface, set parking brake, and block front wheels.
2. **Disconnect the negative terminal of the battery.**
3. Lift the vehicle and support with jack stands.

4. Soak the studs on the catalytic converters with penetrating oil or WD-40®.

Please visit the Holley website @ www.holley.com for a full line of Hooker Blackheart exhaust products available for the C7 Corvette.

REMOVAL OF OEM EXHAUST MANIFOLDS & CATALYTIC CONVERTERS:

Recommendation: Take pictures before disassembly for reference later

1. Remove the bolts securing the lower skid plate and set aside.
2. Remove the (x4) 15mm nuts at the flanges connecting the catalyst down pipes to the X-pipe.
3. Loosen the 15mm nuts at the slip joint connection at the X-pipe outlet to the over-axle pipes.
4. Remove the (x2) 13mm bolts at the X-pipe center support hanger.
5. Remove the X-pipe from the vehicle.
6. Remove the bolts at the diagonal supports crossing under the catalyst down pipes and remove the supports.

NOTE: For vehicles with dry sump oiling systems, it is NOT necessary to remove the oil lines from the bottom of the oil pan. You may find it easier to access the nuts on the catalytic converter flanges if these lines are removed. Follow the recommended procedure for changing the oil for a dry sump engine if you chose to remove these lines.

7. Remove the (x4) 15mm nuts at the left and right catalyst flange where they bolt to the exhaust manifolds. It is essential to use high quality sockets and wrenches for this procedure. The nuts are very tight and can be difficult to break loose. The catalyst and down pipe will not clear the front K member until the manifolds are unbolted and can be lifted a few inches to allow the catalyst down pipes to clear the mounting studs. Follow the steps below to remove the manifolds.
8. Remove the PCV lines from the rocker covers and dry sump tank (if equipped). Remove the vacuum line at the brake booster, unplug the sensor, and move the vacuum line under the fuel line and out of the way. Take care not to damage the plastic lines.
9. Remove the power distribution box on the passenger's side fender. **IMPORTANT: The battery must be disconnected!**
 - A) Check to be sure the battery is disconnected.
 - B) Unlock the lift handles on the module (**Figure 1**). Raise the handles and lift the module from the connectors. Take pictures here for reference.
 - C) Unlock the connectors from the tray by pushing the lock tab out and sliding the connector away from the center of the tray. Remove the (x3) 10mm nuts securing the connector tray to the fender well (**Figure 2**).
 - D) Disconnect the 13mm nut securing the battery connections from the left side of the connector tray. Remove the connector tray and set aside (**Figure 2**).

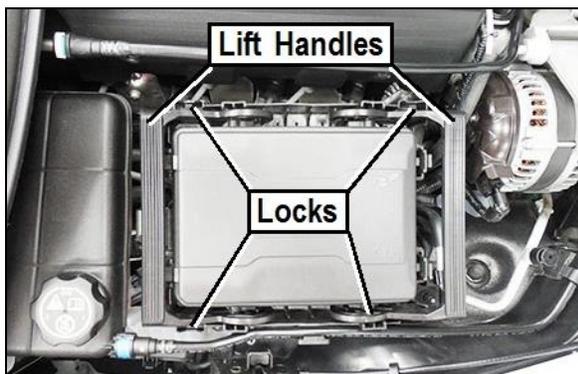


Figure 1

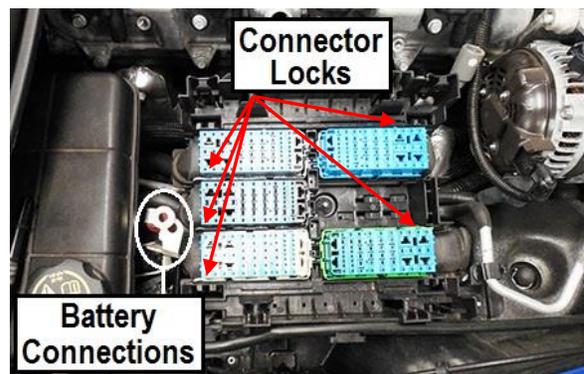


Figure 2

10. Remove the (x2) mounting bolts (#30 Torx bit) from the plastic coil covers and remove.
11. Remove the spark plug wires and the spark plugs.
12. Position the steering wheel so the 11mm bolt at the coupler to the steering rack is accessible, loop the driver's seat belt through the steering wheel and latch the belt. This will keep the steering wheel from being turned while the coupler is disconnected to prevent damage to the clock spring (**Figure 3**).

13. Remove the 11mm bolt at the coupler to the steering rack and slide the shaft from the rack (**Figure 3**).
14. Remove the (x3) 10mm bolts from the heat shield on the left and right manifold for access to the bolts. It is not necessary to remove the heat shield.
15. Disconnect the O2 sensors from the vehicle harness (1 Black – 1 Grey connector each side). The driver's side will require the connector mounting bracket to be removed from the transmission to access the connectors. Use a long extension and a universal to access the bolt securing the bracket to the transmission. Remove the heat shield wrap around the connectors, push the lock back, and release the connectors (**Figure 4**).

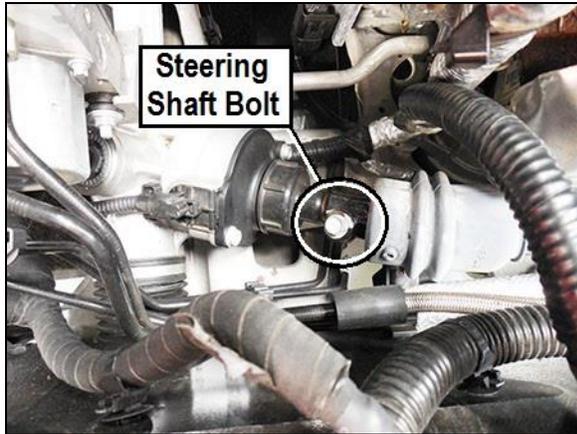


Figure 3

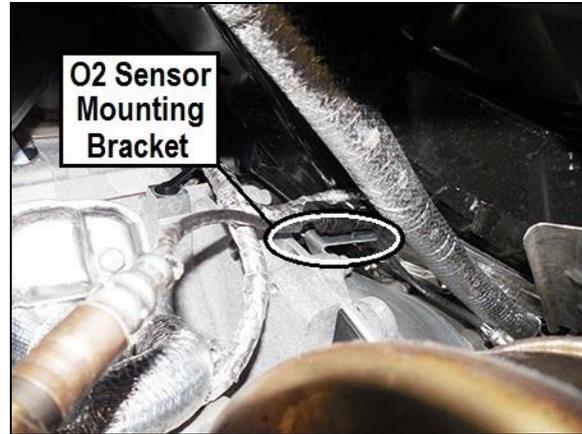


Figure 4

16. Remove the (x5) 13mm bolts at each exhaust manifold. Be careful not to damage the gaskets if you will be reusing them on the headers. It is recommended to replace the gaskets with new GM P/N 12657093.
17. Lift the manifold and remove the catalytic converters from the car.
18. Remove the starter heat shield.
19. Remove the left and right exhaust manifold from the car. It may be necessary to disconnect the battery cable from the starter.

INSTALLATION OF P/N 70301306-RHCR 1-7/8" SHORTY HEADERS:

NOTE: If you will be reusing the old gaskets, inspect the sealing rings to make sure they are not damaged or broken. It is recommended to use new GM P/N 12657093 gaskets.

1. Clean the mounting surface of the cylinder head to remove any dirt or old gasket material that may affect the sealing performance of the gaskets. Repair any damaged threads or broken bolts before installation.
2. Position the **LEFT** (driver's side) shorty header in to the vehicle from the bottom.
3. Position the header gasket in the correct orientation. Read the gasket for proper alignment as they are directional.
4. Install the supplied (x5) 8mm x 25mm header bolts. Start all the bolts evenly by hand until snug. Torque the bolts to 25-30 ft./lbs. starting in the center and working outwards.
5. Position the **RIGHT** (passenger's side) shorty header in to the vehicle from the bottom. Install the rearward header bolt a few threads to hold the header in place. Reconnect the battery cable (if previously disconnected). Reinstall the starter heat shield.
6. Position the header gasket in the correct orientation. Read the gasket for proper alignment as they are directional.
7. Install the supplied (x5) 8mm x 25mm header bolts. Start all the bolts evenly by hand until snug. Torque the bolts to 25-30 ft./lbs. starting in the center and working outwards.
8. Install the supplied 10mm x 40mm bolts into the collector flanges from the top. Inspect the gasket seal ring for damage if you are reusing the old gaskets. Install the gaskets on to the bolts. **NOTE:** It is recommended to use new GM **P/N 15272179** gaskets.
9. Install the catalytic converter onto the bolts and start one flange nut to hold in place while the O2 sensors are connected.
10. Reconnect the O2 sensors (2 each side) and remount the connector bracket on the left side of the engine.
11. Install the supplied 10mm flange nuts onto each bolt. Evenly tighten the nuts by hand until the flanges are fully and evenly seated against the gasket. Tighten the bolts only enough to hold the flanges snug against the gasket. Fully tighten the flange bolts after the X-pipe is installed and all the flanges are aligned.

12. Install the X-pipe onto the over-axle pipes. Raise the X-pipe to the catalyst down pipes. Install the flanges and (x4) 15mm nuts and tighten the nuts to align the gaskets against the tapered seat. Install the (x2) 13 mm bolts at the center support and tighten.
 13. Fully tighten the flange bolts at the header collectors. Tighten the bolts from the top using a long extension. Have someone hold the nut from the bottom while tightening the bolts in a cross pattern.
 14. Tighten the bolts at the down pipe flanges and the clamps at the over-axle pipes.
 15. Install the spark plugs. **NOTE: If you drop a spark plug replace it!!** Install the spark plug wires.
 16. Install the steering shaft coupler on to the steering rack. Install the 11mm shoulder bolt and torque to the manufacturer's specifications.
 17. Install the brake booster vacuum line and plug in the sensor. Install the left coil cover and connect the PCV lines.
 18. Install the power distribution connector tray and tighten the bolts. Slide the connectors into the correct slots and lock the connectors. The connectors are color and size specific (reference your pictures from before).
 19. Install the battery cables on to the stud and tighten the nut.
 20. Install the Power distribution module on to the connectors and lower the lift handles to properly install the module into the connectors. *****DO NOT FORCE THE HANDLES DOWN *****
 21. The handles are a cam lock design and will draw the module into the connectors as the handles are lowered. The module should slide into the connectors and the handles will lock easily into place when correctly installed.
 22. Install the right coil cover and reconnect the PCV Lines.
 23. Inspect the O-rings on the dry sump oil lines. Reconnect the dry sump oil lines to the bottom of the oil pan if removed. **DOUBLE CHECK THE DRAIN PLUGS ARE TIGHT.**
 24. Refill the engine with oil (if drained). Install the lower skid plate.
- NOTE:** Be sure and follow the manufacturer's recommended procedure for filling and checking the HOT OIL LEVEL in a dry sump oiling system. Failure to follow recommended procedures will almost certainly result in over filling the system and potentially damaging the engine.
25. Recheck you work. Verify all connections and hardware are properly installed and tight.
 26. Connect the battery, start the engine, and check for leaks. Recheck your work before lowering the car.
 27. Install the decorative engine covers.
 28. After 150 miles recheck all connections, clamps, and hardware.

NOTE: It is normal for your new Blackheart exhaust system to emit smoke for the first few minutes of operation.

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.

Technical Support: 1-866-464-6553

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