



**2005-2013 C6 Corvette  
6.0 - 6.2L V8, 304SS, 1 3/4" Shorty  
Headers 70301303-RHKR  
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 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:**

<b>Accessory Pack Contents:</b>		
<b>P/N</b>	<b>Qty.</b>	<b>Description</b>
505R21	12	8mm x 1.25 x 25mm Header Bolts
271R1124A	2	18" O2 Sensor Harness Extensions
599R94	2	Blackheart Decals
505R59	4	10mm x1.5 x 40mm Bolts
546R14	4	10mm Flat Washers
539R25	4	10mm Serrated Flange Nuts

<b>PARTS LIST:</b>
1 - Left Shorty Header
1 - Right Shorty Header
1 - Accessory pack

<b>TOOLS NEEDED:</b>		
3/8 Socket Wrench	1/4" Drive Socket Wrench	10mm & 15mm Socket
12" 3/8 Drive Extension	1/4" Drive 13mm Socket	15mm Deep Socket
3" 3/8 Drive Extension	13mm Ratcheting Flex Wrench	13mm Socket
3/8 Drive Universal	Spray Lube (WD-40®)	13mm Deep Socket
O2 Sensor Socket or Wrench	5/8 Spark Plug Socket	Anti-Seize

**IMPORTANT! Please read and understand instructions before attempting installation.**

**PRE-INSTALLATION:**

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

3. Lift the vehicle and support with jack stands.
4. Straighten the front wheels and lock the steering column.
5. Soak studs on the catalytic converter with penetrating oil or WD-40®.

### **REMOVAL OF OEM EXHAUST MANIFOLDS & CATALYTIC CONVERTERS:**

1. Loosen the (x4) 15mm nuts at the flanges that connect the exhaust system to the catalytic converters. Remove the nuts at the spring hangers. Loosen the 15mm nuts at the clamps on the H-pipe/ X-pipe where it connects to the over-axle pipes. Remove the H-pipe/ X-pipe.
2. Remove the decorative engine cover and unplug the left and right pre-catalyst O2 sensors. Take care not to damage the locks on the connectors.
3. Remove 15mm nuts securing the catalytic converters to the exhaust manifolds. Unplug the post catalyst O2 sensors and remove the catalytic converters from the bottom. **Note:** Unclipping the O2 sensor connector from the retainer on the driver's side will allow the harness to drop an additional 3-4inches.
4. Remove the (x8) spark plugs and (x8) wires.
5. Remove the bolt securing the dipstick tube to the cylinder head (15mm socket). Remove the dipstick.

**NOTE:** Take a good mental picture of how the tube is routed, as it will make re-installation a lot easier.

6. Remove the (x6) bolts (13mm socket) that attach **EACH** exhaust manifold to the cylinder head. Carefully remove the manifold out from the bottom. Be careful not to damage the coolant temperature sensor on the driver's side.

### **INSTALLATION OF 70301303-RHKR SHORTY HEADERS:**

1. Clean the exhaust port sealing surface to remove any dirt or gasket material that may affect the sealing performance of the gasket and cause leaks. Replace the gasket if necessary with a factory exhaust manifold gasket. **Repair any damaged threads or broken bolts.**
2. Install the left (driver's side) 70301303-RHKR shorty header past the steering column and into position. Position the factory manifold gasket and install the (x6) 8mm x1.25 x 25mm header bolts supplied. Hand tighten all the bolts evenly so that the header is flush against the cylinder head but can still be moved slightly. Do not fully tighten the header bolts until after the catalytic converters are installed and the flanges are aligned to the H-pipe/ X-pipe.
3. Install the right (passenger's side) 70301303-RHKR shorty header into position. Position the factory manifold gasket and install the (x6) 8mm x1.25 x 25mm header bolts supplied. Hand tighten all the bolts evenly so that the header is flush against the cylinder head but can still be moved slightly. Do not fully tighten the header bolts until after the catalytic converters are installed and the flanges are aligned to the H-pipe/ X-pipe.
4. Remove the heatshields from the exhaust manifolds and remove the O2 sensors. Place a small amount of anti-seize on the threads (not on the sensor).
5. Install the O2 sensors into the header collectors. Connect the 18" O2 sensor extension harness to the sensor. Route the harness towards the front of the car and up to the O2 sensor connector on the coil bracket. Remove the connector from the coil bracket and route the factory harness towards the front of the engine.
6. The driver's side harness will run up behind the alternator and between the coil mounting bracket and the valve cover. Be sure to keep the harness away from the header tubes, steering column, or any moving parts. Position the connector under the injector wires to keep them from interfering with the engine cover. See **Figure 1** below.
7. The passenger's side harness will run behind the A/C line and up along the cylinder head and down the injector harness. Be sure and keep the harness clear of the header tubes and any moving parts. Position the connector under the injector harness to keep it from interfering with the engine cover. See **Figure 2** below.

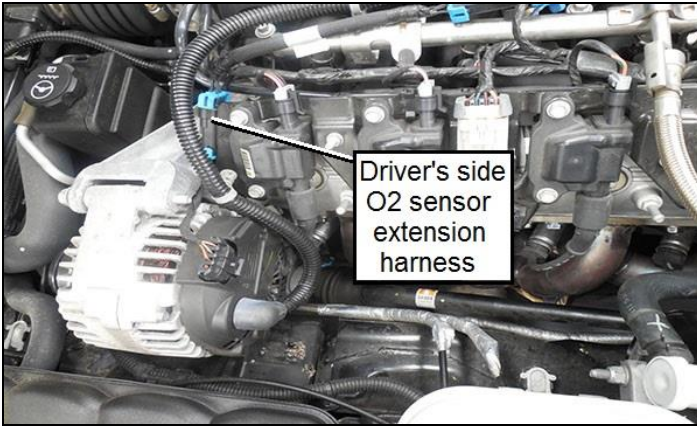


Figure 1

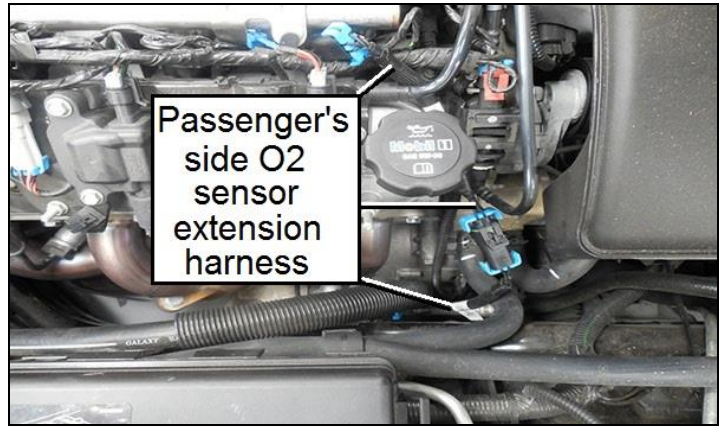


Figure 2

8. Install the dipstick tube after checking the condition of the O-ring (replace, if necessary) between the #4-6 header tubes. Make sure the tube is properly received into the engine block. Install the mounting bolt and tighten. Install the dipstick.
9. Inspect the OEM gasket for the catalytic converters (replace if necessary). Install a 10mm x 1.50 x 40mm bolt and washer in each of the collector flange bolt holes. Install the gasket for the catalyst flange on to the bolts. Be sure the gasket is positioned with the larger raised seal ring towards the catalytic converter flange (see the groove in the catalyst flange).
10. Position the catalytic converters at the header flange and connect the post catalyst O2 sensors. Re-mount the connector to the retainer at the back of the engine if they were removed during disassembly.
11. Install the catalyst flanges on to the 10mm bolts at the header flange. Install a 10mm serrated flange nut on to each bolt. Tighten the nut to allow for adjustment.
12. Install the H-pipe/ X-pipe (spring hanger bracket facing up) on to the over-axle pipes first, then connect the flanges to the catalytic converters.
13. Install the spring hangers and tighten the nuts.
14. Tighten the (x4) nuts at the H-pipe / X-pipe catalyst flanges. Tighten the flange nuts just enough to set the gaskets in the flange. Overtightening will damage the flanges and the studs making future disassembly very difficult.
15. Tighten the clamps at the over-axle pipes.
16. Tighten the nuts at the header collector flanges.
17. Tighten the (x6) header flange bolts at the cylinder head on each header, starting in the center and working out. Torque the header bolts to 25-30ft lbs. Do not over tighten. Using a 1/4" drive ratchet and the "good and snug" method is an alternative to using a torque wrench.
18. Install the (x8) spark plugs and (x8) spark plug wires.
19. Recheck you work. Verify all connections, exhaust alignment, clearances. Verify all hardware is properly installed and tight.
20. Install the decorative engine cover.
21. Remove the jack stands and lower the car.
22. Connect the battery, start the engine, and check for leaks. Re-check your work before lowering the car.
23. After 150 miles recheck all connections and clamps.

Enjoy your new Blackheart Exhaust!

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