



**2012-2020 Jeep Grand Cherokee  
6.4L V8, 304SS, 1-7/8" SHORTY HEADERS  
70305305-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 and patience. 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 24 inches. A floor hoist is ideal and recommended. 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.** This installation requires a moderate amount of mechanical ability and a good selection of hand tools to make installation less difficult. If you are not confident in your mechanical ability or lack the tools listed below please allow a professional to perform the installation of your BLACKHEART headers.

**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	16	8mm x 1.25 x 25mm Bolts
505R56	4	M10 x 1.5 x 75mm Fully Threaded Bolts
540R21	1	Dipstick Bushing
599R94	2	Decal - Blackheart 4" x 2"
199R11439	1	Instruction Sheet

**\* OEM Dodge Manifold Gaskets recommended: 6.4L PN: 5038098AA / 5038099AA**

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

<b>PARTS LIST:</b>		<b>TOOLS NEEDED:</b>	
<b>Qty.</b>	<b>Description</b>		
1	Left Side Shorty Header	3/8" Drive Metric Socket Set	13mm Deep Well Socket
1	Right Side Shorty Header	Metric Box Wrench Set	15mm Deep Well Socket
1	Accessory Pack	24" Long 3/8" Drive Extension	10mm Compact Swivel Socket
		3" Long 3/8" Drive Extension	14mm Compact Swivel Socket
		1" Long 3/8" Drive Extension	Penetrating Oil / WD-40®
		3/8" Drive Universal	Forked Trim Popping Tool
		10mm Deep Well Socket	Flex Head Ratchet (optional)

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

**\*Presoak the studs to the catalytic converters and manifold bolts with WD-40® or equivalent prior to starting installation\***

## **6.4L EXHAUST MANIFOLD REMOVAL:**

1. Place vehicle on flat solid surface, set parking brake, and block front wheels.
2. **Disconnect the negative terminal of the battery.**
3. Lift the vehicle a minimum of 24 inches and support with jack stands. A shop hoist is recommended and preferred.
4. Remove the service cover and lower plastic underpinnings from below the front bumper cover.
5. Remove the spring nuts from the studs connecting the resonator assembly to the catalyst down pipes (**Figure 1**).
6. Support the exhaust at both ends. Spray the exhaust isolators at the mufflers with WD-40®. Remove the (x2) 13mm bolts at each isolator at the resonator. Use a pry bar to push the isolators off the muffler hanger rods (**Figure 2**).
7. Remove the resonator assembly and mufflers from the vehicle.
8. Remove the transmission cross member braces from under the catalytic converter down pipes. Do not remove the transmission cross member.
9. Remove the bolts from the lower catalytic converter flanges using the 24" extension and the 14mm swivel socket. This will allow the catalyst assembly to rotate down to a point the upper bolts can be accessed with the 24" extension from over the catalyst. Remove the upper bolt and unplug the O2 sensors. Remove the Left and Right catalyst assemblies from the vehicle.
10. Remove the knock sensors.
11. Remove the starter heat shield.
12. Remove the starter for better access to the manifold bolts.
13. Remove the air cleaner assembly and intake tube from the engine compartment. Be careful not to damage the intake air temperature sensor (**Figure 5**).

**ATTENTION:** Be sure the negative terminal of the battery is disconnected before proceeding with the following steps. (The battery is located under the passenger's front seat.)

14. Remove the cover from the power distribution box on the right side of the engine compartment. Remove the battery cable from the 8mm stud (**Figure 3**).
15. Unplug the 2 large connectors at the ECU attached to the power distribution box. Remove the ground wire on the ECU and remove the ECU from the vehicle (**Figure 4**).
16. Remove the (x3) 10mm nuts that attach the power distribution box to the right inner fender. Lift the assembly off the studs and flip the assembly onto the top of the fender (**Figure 5**).

**NOTE:** Protect the fender from damage with a fender cover or equivalent.

17. Remove the 10 mm nut holding the dipstick tube to the exhaust manifold. Slide the dipstick upward until the mounting tab is fully off the mounting stud at the manifold. Rotate the dip stick for access to the manifold bolt. It is not necessary to remove the dipstick from the vehicle. **Make a note of this studded bolt's position as you will be re-using it later to mount the dipstick tube.**
18. Remove the heat shields from the manifolds.
19. Remove the bolts from the manifolds and remove the manifolds from the bottom of the car.

**NOTE:** The top (x4) bolts are best accessed from the top of the engine compartment. A flex ratchet with a deep socket works well for the studded 13mm bolts and a 10mm shallow socket and 1" extension for the remaining bolts. Use a combination of a 24" long extension with the 10mm swivel socket and wrenches for the lower bolts.

## **INSTALLATION OF 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. **Repair any damaged threads or broken bolts.**
2. Inspect the exhaust manifold gasket for damage and replace with a new OEM gasket if required (see part numbers on pg. 1).
3. Install the Right exhaust manifold gasket with the supplied 8mm x 1.25 flange bolts into the (x4) bottom bolt holes. Thread the bolts into the cylinder head approximately 6-8 threads. Hang the **Right** 70305305-RHKR header assembly on to the (x4) pre-

installed bolts. Tighten the bolts until the header flange contacts the gasket, but is still free to move while the remaining supplied header bolts are installed.

**IMPORTANT NOTE:** The OEM studded manifold bolt will be used with the supplied spacer installed on to the bolt before installation into the flange. This bolt and spacer are used in the top forward bolt hole of the header flange. This will be necessary to install the dipstick on the **Right** side header only.

4. Install the Left exhaust manifold gasket with the supplied 8mm x 1.25 flange bolts into the (x4) bottom holes. Install the bolts 6-8 threads into the cylinder head. Hang the Left 70305305-RHKR header assembly on to the (x4) pre-installed bolts. Tighten the bolts until the header flange contacts the gasket, but is still free to move while the remaining supplied header bolts are installed.
5. Tighten the bolts in steps from the center out until all the bolts are evenly tightened to 28-30 ft./lbs.
6. Install the dipstick mounting bracket on to the stud of the manifold bolt and secure with the OEM 10mm nut. Install the dipstick.
7. Install the OEM clip nuts from the factory manifolds on to the bolt holes at the header flanges.

**NOTE: It will be necessary to pinch the clips down to keep them located firmly on the flange while the bolts are installed. Make sure the bolt will thread into the nut before you attempt to install the catalytic converters.**

8. Install the starter and wires.
9. Install the knock sensors, if removed.
10. Install the starter heat shield.
11. Re-install the power distribution box, ECU, air box, and intake tube in the reverse order they were removed.

**NOTE:** Be sure all the ground wires at the frame and the ground wire to the ECU are connected and tight. Plug in the ECU and connect the cables to the power distribution box before the battery is reconnected.

12. Install the left and right catalytic converters and down pipes. It is required that the upper bolt be installed first while the catalyst assemblies are angled down to allow access to the upper bolts. Plug in the O2 sensors while the catalyst assemblies are loose and out of the way.
13. Rotate the catalyst up and into position while still allowing access to the upper bolts. Tighten the upper bolts until the flange is seated fully on to the header and the bolts begin to get snug.
14. Install the lower bolts into the catalyst flanges and align the catalyst assemblies into the correct position. Tighten the flange bolts to allow for some adjustment.
15. Install the resonator and exhaust system into the vehicle. It will be necessary to adjust the catalyst down pipes to align with the resonator mounting studs. Align the exhaust for best fit and install the resonator isolator bolts and muffler isolators.
16. Tighten the lower catalyst flange bolts. Be sure the alignment does not change while the bolts are retightened. Check the clearance around the catalyst for contact with the heat shields. Make adjustments as necessary.
17. Install the spring nuts at the resonator flanges and tighten to specification.
18. Install transmission crossmember braces under the catalytic converter down pipes.
19. Recheck all connections and hardware to be sure all work is complete.
20. Start vehicle and check for leaks.
21. Re-install the plastic underpinnings and service cover
22. Remove the jack stands and lower the car.
23. **After the first 50 miles:** Recheck all connections and clamps. Re-torque header collector bolts to catalytic converters.

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

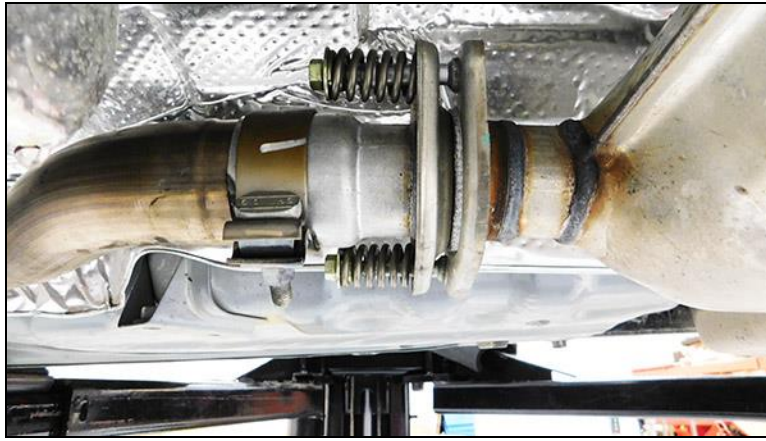


Figure 1

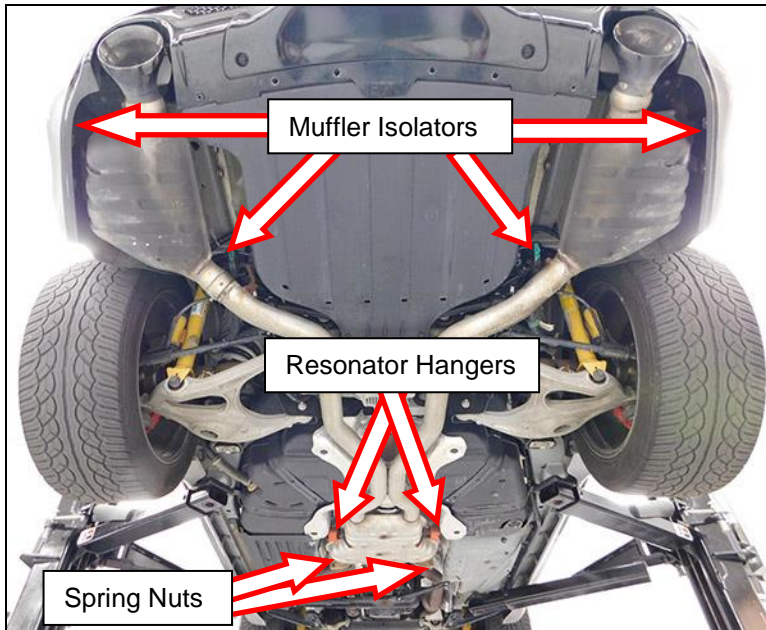


Figure 2



Figure 3

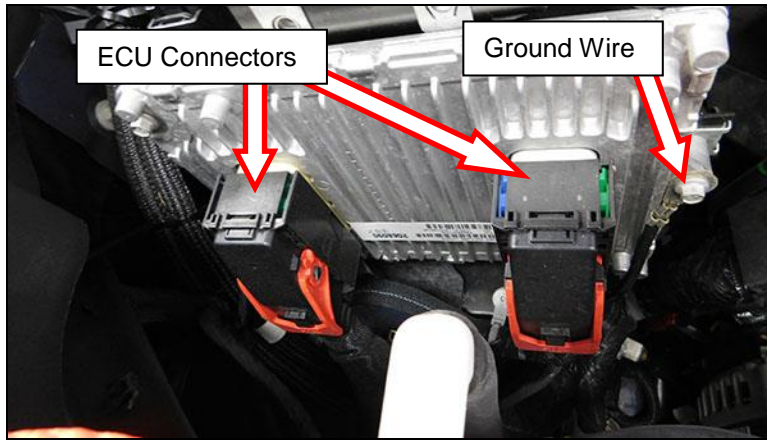


Figure 4

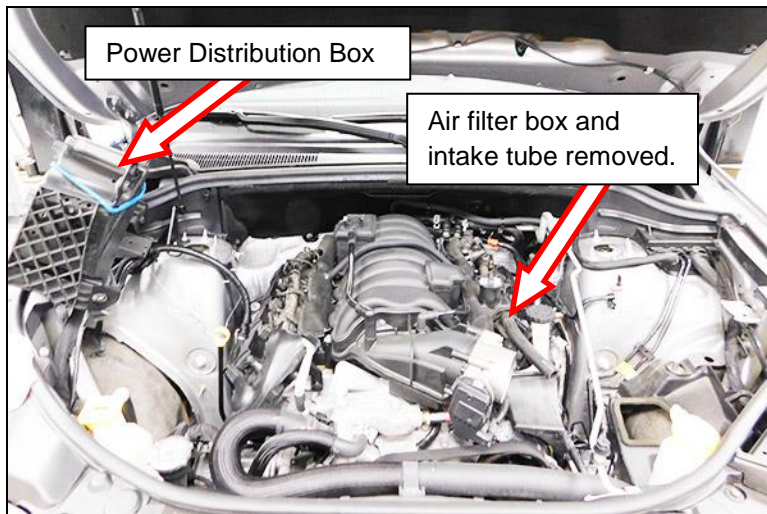


Figure 5

**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.

HOKKER™ 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. HOKKER™ 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.

**CARB E.O. PENDING**

**Technical Support: 1-866-464-6553**

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