



**2009-2020 Challenger / Charger / 300  
5.7L V8, 304SS, 1 3/4" Shorty Headers  
70302301-RHKKR  
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.

**WARNING!** This product is not street legal and may only be used on Racing Vehicles. Racing Vehicles must be used exclusively for racing or other forms of competition. Racing vehicles must not be registered and must never be used on the street. It is illegal to install this product on a registered vehicle and use it on the street.

**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:**

Accessory Pack Contents:			Tools Needed:	
P/N	Qty.	Description		
505R21	15	8mm x 1.25 x 25mm Bolts	3/8" Drive Metric Socket Set	16mm Deep Well Socket
540R21	1	Dipstick Bushing	<b>*13mm Compact Swivel Socket*</b>	15mm Deep Well Socket
199R10842	1	Instruction Sheet	10mm Compact Swivel Socket	14mm Deep Well Socket
599R94	2	Blackheart Decal	<b>*24" Long 3/8 Drive Extension*</b>	13mm Deep Well Socket
<b>Parts List:</b>	1	Left Side Shorty Header	3" long 3/8 Drive Extension	Metric box wrench set
	1	Right Side Shorty Header	3/8" Drive Universal	Penetrating Oil / WD40®
	1	Accessory Pack		

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

\* OEM Dodge Manifold Gaskets recommended: **5.7L** PN: 5045495AA / 5045496AA

**PRE-INSTALLATION:**

**NOTE:** Presoak the studs to the catalytic converters and Manifold Bolts with WD-40® or equivalent prior to starting 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 a minimum of 24 inches and support with jack stands.
3. Remove both front wheels (NOT NECESSARY, BUT HELPFUL).

4. Remove the (x4) bolts securing the engine service cover under car.

### **5.7L EXHAUST MANIFOLD REMOVAL:**

1. Unplug the (x2) pre catalyst O2 sensors and (x2) post catalyst O2 sensors.
2. Loosen the 15mm nuts at the clamp on the X-pipe inlet to allow the catalyst down pipes to be removed.
3. Remove the catalytic converters and down pipes from the manifolds and exhaust system.
4. Remove the (x4) 10mm nuts (1 at each corner of each manifold) that attach the heat shield.
5. Remove the alternator support bracket (passenger's side).
6. Remove the dipstick tube.
7. Remove the starter.
8. Remove the knock sensors.
9. Remove the engine mount heat shields from the left and right side.
10. Remove the bolt securing the steering shaft to the steering rack. Remove the steering shaft from the steering rack.

**NOTE:** Loop the driver's side seatbelt through the steering wheel and latch the seatbelt. This will prevent the steering wheel from being turned while the column is disconnected and damaging the clock spring.

11. Support the engine with a screw jack or floor jack. Only lift the engine slightly to take the weight off the engine mount and hardware.

**NOTE: Do not support the engine from the oil pan.**

12. Remove the **Driver's side** engine mount pedestal assembly from the block and rubber mount from the frame rail.

**ATTENTION! Be very careful to keep the engine supported while the engine mounts are removed from the engine and during installation process. Failure to do so may result in severe personal injury.**

13. Remove the left manifold heat shield.
14. Remove the (x8) bolts securing the left exhaust manifold to the cylinder head. Remove the exhaust manifold and gasket. Clean any debris from the cylinder head surface in preparation for the new gasket (gaskets not supplied).
15. Loosen the 2 bolts securing the right engine mount pedestal. Remove the right engine mount pedestal from the block.
16. Use the ratcheting tie down to pull the engine over to the driver's side as far as it will go.

**NOTE:** Be very careful to keep the engine supported while the engine mounts are removed from the engine and during the installation process. Failure to do so may result in severe personal injury.

**NOTE:** 2011-12 vehicles with the old style engine mounts that have long studs through the frame rail do not require the engine to be pulled over to remove the right side engine mount bolts.

17. Remove the right engine mount.
18. Remove the (x4) bolts from the right engine mount pedestal. Remove the right engine mount pedestal from the block.
19. Remove the right manifold heat shield.
20. Remove the (x9) bolts securing the exhaust manifold to the cylinder head. Remove the exhaust manifold and gasket. Clean any debris from the cylinder head surface in preparation for the new gasket (gaskets not supplied).

**NOTE: Do not release the ratchet strap at this time, if used.**

### **INSTALLATION OF HEADERS:**

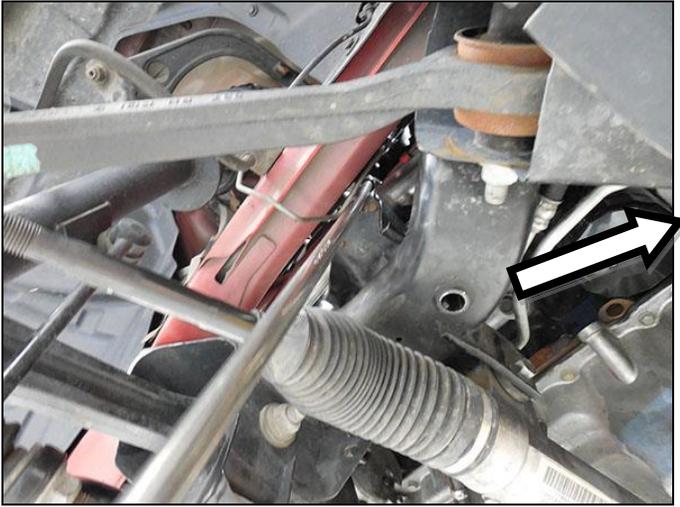
1. Clean the exhaust port sealing surface to remove any dirt or gasket material that may affect the sealing performance of the gasket and cause leaks. **Repair any damaged threads or broken bolts.**

2. Install the Right purchased exhaust manifold gasket with the supplied 8mm x 1.25 flange bolts on the bottom 4 holes. Install bolts just a few threads.
3. Hang the **RIGHT** 70302301-RHKR header assembly on to the bolts and install the four remaining top bolts. Access to most of the header bolts can be done with the 24" extension and a 13mm swivel socket through the primary tubes (see **Figure 1**).
4. Use a 13 mm box wrench to tighten the bottom two bolts closest to the starter. Tighten the bolts evenly in steps from the center out until all the bolts are tight. Repeat this process several times. For vehicles mounting the dipstick tube to the manifold bolt, reuse the O.E.M studded bolt and the supplied spacer to mount the dipstick in the factory location (See **Figure 2**).
5. Reinstall the right engine mount pedestal on to the block. Install the engine mount into the frame and install the (x2) long bolts that will secure the engine mount to the pedestal. Release the ratchetting tie down and allow the engine to return to its normal position.

**NOTE:** Be very careful to keep the engine supported while the engine mounts are being installed.

6. Install the Left purchased exhaust manifold gasket with the supplied 8mm x 1.25 flange bolts on the bottom 4 holes. Install bolts just a few threads.
7. Hang the **LEFT** 70302301-RHKR header assembly on to the bolts and install the four remaining top bolts. Access to most of the header bolts can be done with the 24" extension and a 13mm swivel socket through the primary tubes and from the bottom of the header. Tighten bolts evenly in steps from the center out until all the bolts are tight. Repeat this process several times.
8. Install the left engine mount pedestal to the block and tighten the (x4) bolts. Install the left engine mount into the frame and install the long bolts into the pedestal and tighten the bolts.
9. Tighten the (x2) long bolts in the right engine mount to the pedestal.
10. Lower the engine on to the mounts and install the (x2) bolts in the left and right engine mount to the frame.
11. Install the engine mount heat shields and tighten the nuts.
12. Install the left and right pre-catalyst O2 sensors in the header collectors and connect to the O2 sensor harness.
13. Install the dipstick tube after checking the condition of the O-ring (replace if necessary). Vehicles with the dipstick tube mounted to the exhaust manifold bolt will re-use the factory studded bolt and the supplied spacer (**Figure 2**) to install the dipstick in the factory location. **VERIFY THE TUBE IS IN THE ENGINE BLOCK!!!**
14. Install the alternator support bracket.
15. Install the starter and connections.
16. Install the left and right knock sensors.
17. Install the steering column on to the steering rack. Install the bolt securing the steering column to the steering rack shaft. Be sure the column is seated completely on to the shaft and the steering wheel is in the correct position. Torque the bolt to the factory recommended specification.
18. Install the left and right catalytic converter down pipes in to the exhaust, then slide the catalytic converter flanges over the studs on the headers. Install the factory flange nuts and snug the flanges to the header seal ring. Align the down pipes and the exhaust for best clearance at the cross brace and tighten the flange nuts. Install the secondary O2 sensors and plug in the harness. Install the starter heat shield.
19. Tighten the clamps at the header down pipes and exhaust.
20. Recheck all connections and hardware to be sure all work is complete.
21. Check for proper clearance on all wiring harnesses, hoses, and lines around the headers to prevent damage from hot exhaust pipes.
22. Install the front wheels and torque the lug nuts to the factory recommended specifications.
23. Install the service cover.
24. Start the vehicle and check for leaks
25. Remove the jack stands and lower the car.

**IMPORTANT!** After the first 50 miles, re-check all connections and clamps. Re-torque the header collector bolts to the catalytic converters.



**Figure 1 – Access to top bolts passenger's side**



**Figure 2 – Dipstick tube mounting bracket spacer w/ OEM bolt**

**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**

© 2015 Hooker Headers, Inc. All rights reserved. Tous Droits Réservés.

**199R10842**

**Revision Date: 6-26-20**