



**2015-2020 Challenger/Charger/300C**  
**6.2L/6.4L V8 1-7/8" 304SS Shorty Header**  
**70302304-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.

**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 18 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	16	8mm x 1.25 x 25mm Bolts	3/8" Drive Metric Socket Set	16mm Deep Well Socket
199R11203	1	Instruction Sheet	<b>*13mm Compact Swivel Socket*</b>	15mm Deep Well Socket
599R94	2	Blackheart Decal	10mm Compact Swivel Socket	13mm Deep Well Socket
			<b>*24" Long 3/8 Drive Extension*</b>	Metric Box Wrench Set
<b>Parts List:</b>	1	Left Side Header	3" long 3/8 Drive Extension	13mm Ratcheting Wrench
	1	Right Side Header	3/8" Drive Universal	14mm Ratcheting Wrench
	1	Accessory Pack	Ratcheting Tie Down Strap	15mm Ratcheting Wrench
				Penetrating Oil / WD40®

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: **6.4L** P/N 5038098AA / 5038099AA

## 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 18 inches and support with jack stands.
3. Remove both front wheels.
4. Remove the (x4) bolts securing the engine service cover under car.

## 6.4L EXHAUST MANIFOLD REMOVAL:

1. Unplug the (x2) pre-catalyst O2 sensors and (x2) post-catalyst O2 sensors.
2. Loosen the 15 mm 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 alternator support bracket from the engine mount and leave the alternator side attached but loose (passenger's side).
5. Remove the dipstick tube. Remove the starter. (DO NOT REMOVE THE STARTER IF INSTALLED ON THE DRIVER'S SIDE.)
6. Remove the knock sensors.
7. Remove the engine mount heat shields from the left and right side.
8. Remove the bolt securing the steering shaft to the steering rack and remove the steering shaft from the steering rack.

**NOTE:** 2015-2020 w/ driver's side starter - Index and remove the lower half of the steering shaft from the vehicle.

9. Support the engine with a screw jack or suitable alternative. (DO NOT SUPPORT THE ENGINE WITH THE OIL PAN OR TRANSMISSION PAN.) Raise the engine just enough to take the weight off the engine mounts to remove the hardware (**Figure 3**).
10. Remove the (x2) bolts from each engine mount that attaches the rubber mount to the frame and lift the engine slightly to allow the engine mounts to be removed.
11. Remove the **Driver's side** (Left) engine mount assembly from the vehicle. (It is not necessary to separate the rubber mount from the block plate)
12. Position the tie strap to pull the engine to the passenger's side. Be sure the tie strap is securely attached to the engine and vehicle frame before attempting to pull the engine to the passenger's side (**Figure 3**).

**ATTENTION:** 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.

13. 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).
14. Position the tie strap to pull the engine to the driver's side. Be sure the tie strap is securely attached to the engine and vehicle frame before attempting to pull the engine to the driver's side (**Figure 3**).
15. Loosen the (x2) bolts securing the right engine mount to the engine block plate and remove (**Figure 4**).

**IMPORTANT:** 2013-2020 vehicles -The forward bolt cannot be removed until the engine is pulled as far to the driver's side as possible. Be very careful not to damage the A/C or water lines on the left side of the engine when applying the tie strap.

**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.

16. Remove the right engine mount.
17. Remove the (x4) bolts from the right engine block plate and remove from the vehicle.
18. Remove the (x8) bolts securing the right 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).

\*\* Do not release the ratchet strap at this time if used

## INSTALLATION OF HEADERS:

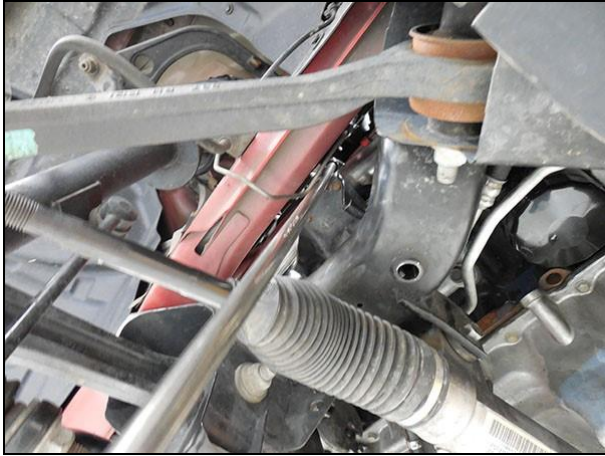
See the Holley website for a complete line of exhaust systems for you specific vehicle.

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. Remove the O2 sensors from the factory manifolds. Apply a small amount of anti-seize thread compound to the treads of the sensor only and install into correct Blackheart Shorty Header.
3. Install the Right exhaust manifold gasket with the supplied 8mm x 1.25 flange bolts on the bottom 4 holes. Install bolts just a few threads.
4. Hang the **RIGHT** shorty header assembly on to the bolts then 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 (**Figure 1**).
5. Use a 13mm 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.
6. Re-install the right engine mount block plate on to the engine and tighten, install the engine mount into the frame and install the (x2) long bolts that will secure the engine mount to the block plate. Release the tie strap (if used) and allow the engine to return to its normal position. Do not tighten the (x2) long bolts at this time

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

7. Install the left purchased new Dodge exhaust manifold gasket with the supplied 8mm x 1.25 flange bolts on the bottom 4 holes. Install bolts just a few threads.
8. Reposition the tie strap and pull the engine to the passenger's side.
9. Position the left engine mount assembly into the vehicle and allow the assembly to remain loose while the header is installed.
10. Hang the **LEFT** 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.
11. Install the (x4) bolts in the left engine mount block plate and tighten.
12. Loosen the tie strap and allow the engine to return to its normal position.
13. Tighten the (x2) long bolts in the **RIGHT** engine mount to the block plate.
14. Lower the engine on to the mounts and install the (x2) bolts in the left and right engine mount to the frame.
15. Install the engine mount heat shields and nuts except the right hand nut securing the alternator bracket.
16. Install the dipstick tube after checking the condition of the O-ring (replace if necessary).
17. Install the alternator support bracket and final nut and tighten all heat shield nuts and the alternator bracket bolt.
18. Install the starter and connections if removed.
19. Install the Left and Right knock sensor.
20. **Install the steering column on to the steering rack (verify the steering wheel position is correct). Apply thread locking compound to the threads and 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. (Install the upper shaft connection and bolt for 2015-2020 applications.) Torque the bolt(s) to the factory recommended specification.**
21. Check the condition of the seal ring at the catalytic converter inlet and replace if needed.
22. Install the Left and Right catalytic converters and downpipes into the X-pipe, position the catalytic converter flange on to the header studs and install the OEM flange nuts. Tighten the nuts to seat the flange to the header, but still allow adjustment of the down pipes.
23. Support the X-pipe so there is clearance between the X-pipe and the crossmember and tighten the flange nuts on the header studs.

24. Tighten the 15 mm nuts at the X-pipe to down pipe connection clamps (**Figure 2**).
25. Recheck all connections and hardware to be sure all work is complete.
26. Check for proper clearance on all wiring harnesses, hoses, and lines around the headers to prevent damage from hot exhaust pipes.
27. Install the front wheels and torque the lug nuts to the factory recommended specifications.
28. Install the service cover. Start the vehicle and check for leaks. Remove the jack stands and lower the car.
29. **IMPORTANT: After the first 50 miles**, re-check all connections and clamps.



**Figure 1** – Access to top center bolt passenger's side



**Figure 2** – Down pipe to X-pipe clamps



**Figure 3** – Engine support and tie strap



**Figure 4** – Engine mount bolts

**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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