Installation Instructions

814321

2009-22 DODGE CHARGER RT, CHALLENGER RT & CHRYSLER 300 5.7L ENGINE

(See CARB approved specific applications below)

SCAVENGER SERIES ELITE HEADERS

409S Stainless Steel

2009-16 DODGE CHARGER RT, CHALLENGER RT & CHRYSLER 300 5.7L ENGINE

This product has been granted CARB EO D-698-19 for the above applications.

2017-21 DODGE CHARGER RT, CHALLENGER RT & CHRYSLER 300 5.7L ENGINE

The above applications are legal under the provisions of EPA's Tampering Policy dated November 23rd, 2020. The company has reasonable basis (test results) to verify that this product allows the vehicle to operate within legal emissions standards and is therefore legal to be sold for on-street use in all states that accept the legal provisions of the Clean Air Act and the EPA Tampering Policy. This product is NOT LEGAL FOR SALE OR USE IN THE STATE OF CALIFORNIA. Testing with the California Air Resources Board, in order to achieve 50-state compliance, is pending with CARB. Once testing is complete with California, and an E.O. number is issued, this product will be updated to 50-state legal status.

Installation of this product requires an adequate work space, general mechanic's tools, general mechanical "know how" and a reasonable level of experience. Most auto enthusiasts with these resources will have little difficulty installing these headers. However, you should carefully read these instructions before attempting to install these headers. If in doubt, consult a professional mechanic. (Better to do it now than to get stuck halfway through the installation.) This part is certified for use on Pollution Controlled Vehicles.

Check to make sure that you have received the proper parts for your installation. The header number will be stamped on the engine flange. If you are unsure you have received the proper parts call before you start work.

Be sure to work safe! Whenever you work under the vehicle be sure that it is located on level, solid ground and is supported by adequate safety stands. **CAUTION: Hot asphalt will not support most jack stands!**

Many factors affect the installation of headers, some of which are; broken or aftermarket motor mounts, accidents that impact the configuration of the frame, and/or the installation of different engines or aftermarket cylinder heads.

Attention Customers breaking in new engines: Due to the extreme heat generated during the break-in process, the appearance of the ceramic coating may be altered in certain areas. The protection characteristics and thermal barrier properties of the coating is never compromised. It is recommended that a cast iron manifold or old set of headers be used for this process.

The purchaser is responsible for following all installation instructions and safety guidelines supplied with your new Flowmaster Performance Exhaust Product. Flowmaster Performance exhaust assumes no responsibility for damages resulting from improper operation, misuse, abuse, or lack of reasonable care, or any problems resulting from incompatibility with other manufacturer's products.

Flowmaster uses sealing beads on its headers. We have found that when installed correctly, the raised bead around each port increases the pressure exerted on the gasket directly adjacent to the port and effectively prevents leaking gaskets. It is normal for the flange to be raised off the cylinder head the thickness of the sealing bead. It is important when installing the header, to install all bolts loosely, and then tighten evenly to ensure the flat installation of the flange. The torque sequence from one flange to another will vary, but generally every bolt on a header should be first fit snug, starting from the inside of the flange working out, alternating from top to bottom so that the bolt connects the flange to the manifold to the point where they barely touch. Second, using the same inside-out pattern, tighten each bolt until finished. This method will help prevent leakage and will give the user the best possible performance out of their new set of headers.

1) Place the vehicle in a location where the floor is solid and flat, with adequate lighting. Do not attempt to work on a hot engine. Heat causes metal to expand and makes removal of fasteners difficult at best. Disconnect the battery cables from the battery. Raise the front of the vehicle to obtain adequate access to the bottom exhaust manifold flanges. Use large base jack stands to support the vehicle. Do not rely on the jack! Block the tires to prevent the vehicle from rolling off of the jack stands.

2) Spray WD-40 or some type of penetrating lubricant on all accessible exhaust manifold fasteners and fittings before attempting to remove them.

3) Remove the plastic shield from the underside of the frame.

4) Loosen the exhaust system, apply lubricant to the rubber hangers, then slip the exhaust off of the front exhaust pipes.

5) Unplug O2 sensors; unbolt front exhaust pipes from the manifolds. Remove from the car.

DRIVER'S SIDE:

6) Remove the O2 sensor from the factory exhaust manifold.

7) Remove the two 18mm nuts and studs attaching the motor mount to the frame.

8) Raise the engine about 1".

9) Remove the four 15mm headed bolts attaching the motor mount bracket to the engine block. Then remove the motor mount.

10) Remove the four 10mm nuts from the heat shield on the exhaust manifold. Then remove the heat shield.

11) Remove the bolts attaching the exhaust manifold to the head. Remove manifold.

12) Scrape any carbon build up from the head, being careful not to gouge the head surface.

13) Install the new Flowmaster header using the hardware and gasket supplied in the kit.

14) Reinstall the motor mount. Lower the engine and reinstall the studs attaching the motor mount to the frame.

15) Place a small dab of anti-seize onto the threads of the O2 sensor and install into the header.

PASSENGER SIDE:

16) Remove the O2 sensor from the factory exhaust manifold, then remove the two 18mm nuts and studs attaching the motor mount to the frame.

17) Remove the two 10mm headed bolts attaching the heat shield to the motor mount bracket. Remove the heat shield.

18) Remove the nut at the rear, and the bolt at the front of the brace stretching between the motor mount and the alternator bracket. Remove the brace.

19) Loosen the 10mm nut on the manifold heat shield, and remove the oil dipstick.

20) Raise the engine about 1".

21) Remove the two bolts attaching the motor mount to the engine bracket, remove the motor mount.

22) Remove the four 10mm nuts attaching the heat shield to the exhaust manifold. Remove the heat shield.

23) Remove the bolts attaching the manifold to the head. Remove the exhaust manifold.

24) Scrape any carbon build up from the head, being careful not to gouge the head surface.

25) Install header using the gasket and hardware provided, along with an original stud and new spacer at the dipstick bracket location.

26) Reinstall the motor mount and lower the engine. Reinstall the studs attaching the motor mount to the frame.

27) Reinstall the dipstick using an original nut.

28) Reinstall the brace connecting the alternator bracket to the motor mount. Reinstall the motor mount heat shield.

29) Place a small dab of anti-seize onto the threads of the O2 sensor and install into the header.

EXHAUST:

30) Apply a small amount of O2 sensor safe, Hi-temp RTV silicone sealer to the flared area of the exhaust pipe.

31) Install the front exhaust pipes using the hardware provided. Reconnect the lower O2 sensors.

32) Reconnect the exhaust system to the front exhaust pipes. Align and tighten securely.

33) Recheck everything and reconnect the battery cables to the battery.

34) Start the engine and check for leaks.

35) Replace the plastic shield on the underside of the frame.

Parts List

Qty	Description
(1)	Driver's side header
(1)	Passenger side header
(2)	Head flange gaskets
(17)	8mm x 25mm Bolts
(17)	8mm lock washers
(4)	3/8" x 2" Bolts
(8)	3/8" Flat washers
(4)	3/8" Lock washers
(4)	3/8" Nuts
(1)	5/8" x 1 1/8" Spacer
(1)	Flowmaster Decal
(1)	CARB Emissions Sticker