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Installation Instructions

Part # 1689S 2015-19 Mustang 5.0



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This Product has been granted a California Air Resources Board (CARB) "E.O" (Executive Order) Exemption, or is considered a Direct Replacement or Consolidated Replacement part. It is 50 State Legal when installed on the appropriate vehicle per the Manufacturer Application guide and Installation Instructions.



WARNING:

This product can expose you to chemicals including Lead, Nickel, Cadmium and Chromium which are known to the State of California to cause cancer and birth defects or other reproductive harm. **For more information go to www.P65Warnings.ca.gov**

Read all instructions carefully before attempting installation.
Welding is Required for this Installation!

PerTronix® thanks you for choosing JBA HEADERS, the best fitting, highest quality header on the market. In order to realize the full potential of our good fit, please read and understand these instructions completely prior to starting work.

Check to make sure you received the proper parts for your application. 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! Remember: 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.

Notice: The coating of these headers can be marred or scratched during installation. If the header needs to be returned and is damaged, you will be charged for recoat.

JBA uses sealing beads on all 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, 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 pair of headers.

This header installation is time consuming. The factory uses locking nuts on the exhaust manifolds and due to tight working areas they can only be turned a small amount at a time. Allow yourself plenty of time and make sure you have the correct E8 External Torx® Socket for the exhaust stud socket removal.

1. Place 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 negative battery cable 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 the jack stands. **It is strongly recommended that this install be done on a lift!!**

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

3. From underneath the vehicle, unplug the catalytic convertor O2 sensors.

DRIVER'S SIDE

4. Remove the steering shaft from the U-Joint on the steering rack.

5. Place a jack under the oil pan, using a block of wood to spread the load. Lightly jack up the motor to remove the weight from the driver side motor mount. From the top, unbolt the large nut in the center of the driver side motor mount. From below, remove the 4 bolts that hold the Aluminum motor mount stand to the engine block. Jack the motor up about 2-3" and remove the Aluminum motor mount stand.

6. Unplug the Factory header O2 sensors.

7. Remove the nuts that hold the stock exhaust manifold to the cylinder heads. The drivers side factory header is Welded to the catalytic convertor and it comes out as one unit from the bottom after you remove the clamp that holds the pipe to the exhaust system.

8. Remove the manifold studs from the head. These require an E8 External Torx socket.

9. Remove the O2 sensor from the stock manifold. The cat needs to be cut from the stock manifold in the center of the factory weld as shown in the photo. Cut as square as possible



10. The JBA Header should slip inside the factory cat. You MAY have to de burr the inside of the cat where you cut it off to get the header to slip in, it will be a very tight fit. Make sure you remove any filings that get inside the cat before continuing.

10. Slip the supplied exhaust gasket into place then install the new JBA Header, using 4 of the supplied header bolts and washers. This will be temporary to align the cat.

11. Reinstall the motor mount stand and lower the motor back into position. Tighten all bolts.

12. Slip the cat into place on the JBA collector and clamp it to the original exhaust pipe.



13. Tack weld the cat to the header in at least three places.

14. Remove the clamp from the exhaust system and once again raise the motor, remove the motor mount, and carefully remove the header and cat assembly, being careful not to break loose your tack welds.

15. Fully weld the cat to the header. We recommend doing 1" beads and letting them cool alternating around the diameter, to keep from warping or distorting. Make sure you have a well sealed weld all around the connection.

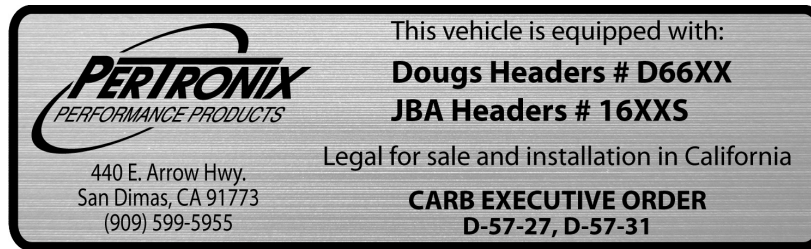
16. Once everything has cooled down, Install the O2 sensor with a dab of anti seize and reinstall the header to the cylinder head using the JBA gasket, Header bolts and washers. Use anti seize on the threads.
17. Reinstall the motor mounts and lower the motor into position. Tighten all bolts
18. Clamp the cat pipe to the stock exhaust pipe or JBA cat back exhaust.
19. Reinstall the steering shaft.

PASSENGER SIDE

20. Remove the starter motor.
21. Remove the clamp from the cat pipe to the stock exhaust.
22. Jack up the motor on the passenger side and remove the motor mount in the same way as you did on the driver's side.
23. Remove the nuts holding the stock header to the cylinder head and remove the header and cat as one unit.
24. Remove all the studs from the cylinder head.
25. Remove the O2 sensor from the stock header and unbolt the cat from the header.
26. With a dab of anti seize install the O2 sensor into the JBA header and bolt the factory cat to the header.
27. Install the header and cat as one from below and bolt to the cylinder head using the JBA gasket, header bolts, and washers. Use anti seize on the bolts.
28. Re-install starter, install motor mounts, lower engine, and tighten lower mount bolts
29. Plug all 4 O2 sensors back in.
30. Check to ensure that there is adequate clearance on all brake lines, wire looms, A/C lines, etc.
31. Reconnect the battery.
32. Re-check everything!
33. Start the engine, check for leaks and test drive. Then let engine cool and then re-torque the header bolts.
34. Header bolts can loosen slightly from the normal heating and cooling cycle, Periodically check and retighten the header bolts to assure you won't develop leaks over time.

Parts List:

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|-----------------------------------|--------------------------------------|
| (1) Driver's Side Header Assembly | (1) Passenger's Side Header Assembly |
| (2) Header flange gaskets | (16) 10mm-1.25 header bolts |
| (16) Header Bolt Washers | (1) CARB EO Sticker |



Example of EO sticker, actual number for this header is D-57-36

WARNING

This label is required to aid in passing the California smog check program. This label must be installed in an underhood location that is readily visible.

LIMITED ONE YEAR WARRANTY

All JBA HEADERS and exhaust products are guaranteed, to the original purchaser, to be free of defects in materials and workmanship for one year. This warranty covers the replacement or repair of the product only and does not cover the cost of removal and installation, customer applied aftermarket coatings or any discoloration or corrosion of finished surfaces.

Damage or product failure resulting from collision, improper installation, off-road use, road hazards, the use of exhaust insulating wrap or like products or rust occurring after installation, is not covered by the warranty. The warranty extends only to the original purchaser.

Should a part become defective it should be returned to the original selling retailer and must be accompanied with the sales receipt. If there is no retailer in your area, call the factory for a return authorization and return your part prepaid to the factory for inspection. PerTronix reserves the rights to replace or repair the alleged defective part and return the part freight collect.

JBA
performance**exhaust**®