

# JBA<sup>®</sup> performance exhaust

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## Installation Instructions

Part # 1687S 2004-10 Ford F-150 4.6L



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](http://www.P65Warnings.ca.gov)

Read all instructions carefully before attempting 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.

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 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 the jack stands. Then unbolt and remove the front wheels.

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, unbolt factory the exhaust system from the exhaust manifold collectors. Pry the exhaust system back about 1/2" to gain workspace. Spraying the rubber exhaust hangers with WD-40 may help.
4. It is necessary to gain access on the passenger side manifold to the remove passenger side front tire, and inner fender panel. The inner fender panels are held in place with a combination of Phillips head screws, hex head screws, and "Christmas Tree" fasteners.

#### Driver's Side Header

5. Remove the EGR tube from the manifold.
6. From underneath the truck, remove the nuts attaching the manifold to the head. Remove the engine oil dipstick, noting where it inserts into block. Remove the manifold.
7. Remove the manifold studs from the head.
8. Clean the head surface of any carbon deposits with a scraper or wire brush. (be careful not to gouge the head surface)
9. Slip the supplied head flange gasket into place then install the new JBA Header, using the supplied bolts and lock washers. Tighten fasteners in an alternating sequence. Then reinstall the dipstick tube and dipstick. Reconnect the EGR tube to the header.
10. Check to ensure that there is adequate clearance on all brake lines, wire looms, A/C lines, etc.


#### Passenger Side Header

11. With the passenger side wheel and inner fender removed, unbolt the starter. It will be necessary to remove the motor mount nut (under the frame) and raise the engine approx. 1". Remove the nuts and studs attaching the manifold to the head. Remove the manifold.
12. Remove studs from the cylinder head.
13. Clean the head surface of any carbon deposits with a scraper or wire brush (be careful not to gouge the head surface).
14. Install the new JBA header from the bottom.
15. Now install the supplied gasket after the header is in place to avoid gasket damage.
16. Using the supplied hardware, fasten the header to the head.
17. Tighten fasteners in an alternating sequence.
18. Re-install starter, lower engine, tighten lower mount bolts
19. Apply a small amount of O2 sensor safe RTV silicone around the flares on the factory exhaust system then reconnect the factory exhaust system to the new headers using the supplied 2-1/2" collector bolts.
20. Check to ensure that there is adequate clearance on all brake lines, wire looms, A/C lines, etc.
21. Install the inner fender panels and front wheel.
22. Reconnect the battery.
23. Re-check everything!
24. Start the engine, check for leaks and test drive. Then let engine cool and then re-torque the header bolts.
25. Periodically check and retighten the header bolts

Parts List:

- (1) Driver's Side Header Assembly
- (2) Header flange gaskets
- (4) 3/8" x 2.5" Collector bolts w/ nuts

- (1) Passenger's Side Header Assembly
- (16) 8mm Header fasteners w/ lock washers
- (1) CARB EO Sticker

 440 E. Arrow Hwy. San Dimas, CA 91773 (909) 599-5955	This vehicle is equipped with: <b>Dougs Headers # D66XX</b> <b>JBA Headers # 16XXS</b>
	Legal for sale and installation in California <b>CARB EXECUTIVE ORDER</b> <b>D-57-27, D-57-31</b>

**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.



