

# Installation Instructions and Warranty Information

1676S 2004-10 Ford F-150 5.4L 3V 1676S-1 2005-10 Ford F-250 5.4L 3V





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.

Read all instructions carefully before attempting installation.

PerTronix<sup>®</sup> thanks you for choosing JBA <u>HEADERS</u>, 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 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.
- 2. Apply 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. Remove the passenger side front tire, and inner fender panel. The inner fender panel is held in place with a combination of Phillips head screws, hex head screws, and "Christmas Tree" fasteners which "snap" off.

# Passenger Side Header

- 5. Remove the starter.
- 6. Place a jack, with a board between the jack and the oil pan, underneath the motor. Remove the motor mount nut (under the frame) and raise the engine approx.1". Remove the bolts holding the motor mount plate to the engine.
- 7. Remove the nuts and studs attaching the manifold to the head. Remove the manifold.
- 8. Remove the gasket and any gasket material or any carbon deposits that remain on the head surface. The use of a gasket removal agent or scraper will ease the removal of any gasket material. Use care not to get debris into ports.
- 9. Remove both studs from cyl. no. 2, 3, and the top of cylinder #1
- 10. Slip the header over the frame from the top. It is a tight fit but will slip in.
- 11. Install the supplied gasket after the header is in place to avoid gasket damage
- 12. Re-install studs on cylinder #1 & 2 only.
- 13. Install the supplied bolts and washers on cylinder #3.
- 14. Reuse the factory nuts on the remaining studs. Tighten fasteners in an alternating sequence.
- 15. Re-install the starter. Bolt the motor mount plate to the motor. Lower the motor and tighten lower mount bolts

### Driver's Side Header

- 16. 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.
- 17. Remove the rear most top manifold stud from the head.
- 18. Remove the gasket and any gasket material or any carbon deposits that remain on the head surface. The use of a gasket removal agent or scraper will ease the removal of any gasket material. Use care not to get debris into ports.
- 19. Slip the supplied head gasket over the studs then install the Header. Install the supplied bolt and washer into the rear most top hole. Reuse the factory nuts on the remaining studs. Tighten fasteners in an alternating sequence. Reinstall the dipstick tube and dipstick.
- 20. 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.
- 21. Check to make sure that all the wiring, fuel lines, transmission cooler lines, brake lines, hoses, etc. are clear of the headers or any exhaust components and reroute or relocate those components as necessary.
- 22. Install the inner fender panel and front wheel.
- 23. Reconnect the battery.
- 24. Start the engine, check for leaks and test drive. Let the 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
- (1) Passenger's Side Header Assembly
- (2) Header flange gaskets
- (3) 8mm Header Bolts
- (3) 8mm Lock washers
- (4) 3/8-16 x 2.5" Collector Bolts
- (4) 3/8-16 Nuts
- (1) CARB EO Sticker

# 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.

