



Corporate Office: PerTronix Inc. 440 E. Arrow Highway, San Dimas, California 91773 * Phone 909.599.5955 • FAX 909.599.6424

Installation Instructions and Warranty Information

For 1986-1996 F-150 & F-250 Truck with 5.0L/5.8L



Part #1627S

Part #1627S-1

Part #1628S

Part #1628S-2

Part #1628S-3JT

Part #1628S-4JT

1987-'95 F-150 Trucks with 5.0 V-8s

Includes a provision for an O2 sensor

1986-'96 F-150/F-250 Trucks w/ 5.8 V-8s

1993-'95 5.8L Lightning

1987-'96 F-250 5.8L w/Port Air Inj.

1987-'96 F-250 5.8L w/Dual Air Inj.

These headers retain all O.E.M. emissions equipment and are covered under the C.A.R.B. E.O. #D-216-29
Included in this kit you will find a label that is required to aid in passing the California smog check program.
This label must be installed in an underhood location that is readily visible.

Read all instructions carefully before attempting installation.

Rev. 07/09

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. 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.

2. Disconnect the spark plug wires by grasping and gently twisting the spark plug wire boots. Do not pull on the wires! Brush or blow any debris, which may have collected around the manifolds or spark plugs. This will help prevent foreign matter from entering the combustion chamber when the manifolds are removed. Remove the Negative Battery cable from the battery.

3. Apply penetrating oil on all accessible fasteners and fittings before attempting to remove them.

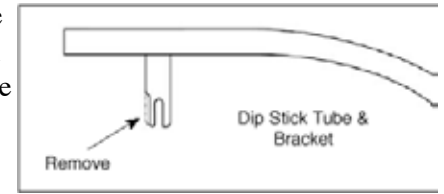
4. Unbolt the Y-Pipe assembly from the collector flanges of the factory headers.

5. Unbolt the dipstick tube bracket from the engine. Carefully slide the dipstick tube upward to remove.

6. Unbolt the Driver's side exhaust manifold and remove. Remove the gaskets and any gasket material or any carbon deposits that remain on the head surface. The use of a gasket removal agent will ease the removal of any gasket material. Use care not to get debris into ports or spark plug holes. Clean excess carbon deposits from the Y-Pipe mating flange.

7. Apply anti-seize to the header bolts if installing on aluminum heads. Bolt the Driver's side header to the head using the supplied header gasket, header bolts, and lock washers. Torque to 30 lbs./in on iron heads, 23 lbs./in on alum.

8. Modification of the Dip Stick Tube Bracket is required on some vehicles. Grind the bracket to allow it to fit between the header tube and the header bolt (See Illustration). On some models the use of a spacer along with a stock manifold stud allow the dipstick to be re-attached with no modification. Clean all grease/oil from the outside of the dipstick tube. When ready to re-install the dipstick tube, apply a small amount of silicone sealant to the outside of the dipstick tube where it slip-fits into the engine.

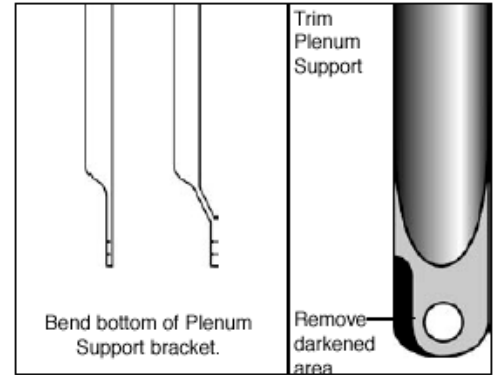


9. Unbolt the passenger side manifold and EFI plenum support.

a. **On 1986 & 1996 5.0:** remove the O2 sensor from the fitting on the rear of the manifold.

b. **On 1986-96 5.8 w/o air injection:** remove the EGR fitting from the front of the passenger side exhaust manifold.

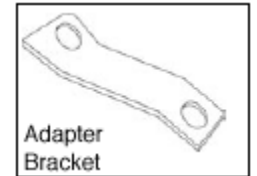
Install the passenger side header temporarily with a couple of bolts (no gasket) to facilitate the test fitting of the surrounding components as discussed below. Note that the bottom portion of the plenum support bracket will have to be ground to clear the new larger header tubes. (The modification is similar to the dipstick tube bracket modification.) The bottom end of the plenum support must also be bent slightly since it is now attached at a point closer to the engine. [See diagram.]



10. The tube running past the headers is the catalytic converter's secondary air injection tube. On 1986 & 1996 5.0 the tube has one bracket, which bolts to the head via the factory exhaust manifold bolt. On 1987-95 5.0, the tube has two brackets.

11. Secondary air Injection Tube Modifications;

a. **1986-96 5.8 w/o air injection:** The secondary air injection tube has a plastic diverter valve towards the rear. This valve must be kept away from the headers. To do this, the tube must be moved outward by using the steel extension bracket (included) to allow the air injection tube to stand off from the headers. The bracket bolts to the head where the secondary air injection tube originally was attached. The secondary air injection tube is then bolted to the adapter bracket.



b. **1986-95 5.0:** The secondary air injection tube can be re-attached in the factory location. As with the dipstick tube, the use of a spacer and a stock stud allows the secondary air injection tube to be re-attached in the factory location.

12. After the above modifications have been performed, remove the temporarily installed header. Remove the gaskets and any gasket material or any carbon deposits that remain on the head surface. The use of a gasket removal agent will ease the removal of any gasket material. Use care not to get debris into ports or spark plug holes. Clean excess carbon deposits from the Y-Pipe mating flange. Apply anti-seize to the header bolts if installing on aluminum heads. Bolt the header to the head using the supplied header gasket, header bolts, and lock washers. Torque to 30 lbs./in on iron heads, 23 lbs./in on alum. At the same time reinstall the secondary air injection tube as discussed above in 9a or 9b.

On 1986 & 1996 5.0: reinstall the O2 sensor on the fitting on the rear of the collector.

On 1986-96 5.8 w/o air injection: reinstall the EGR fitting into the fitting welded to the front tube of the header.

13. Apply a thin coating of High Temperature, Oxygen Sensor Safe, Silicone Sealant to the collector dome on each header. Attach the headers to the Y-Pipe from the underside using the supplied nuts and bolts.

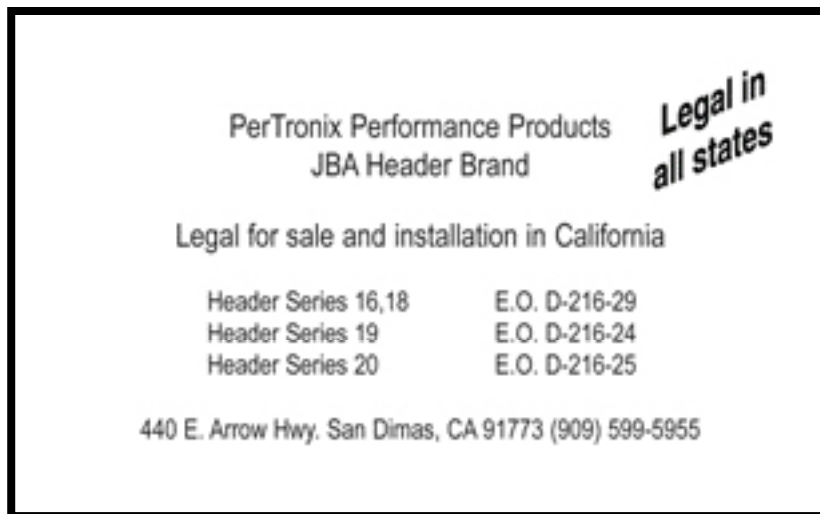
14. Reinstall the spark plug wires and looms taking care not to let any wires rest against the header tubes. Reinstall the negative battery cable.

15. Check that all bolts are tight. Make sure that all wiring, fuel lines, transmissions lines, brake lines etc are clear of the headers and the exhaust and relocate as necessary.

16. Start the engine and let it warm up. Check for leaks. Shut engine off and let it cool down. Check to make sure all fasteners are tight. Periodically check and retighten the header bolts.

Parts List:

- (1) Driver's Side Header Assembly
- (1) Passenger's Side Header Assembly
- (16) 3/8" x 1" header bolts & lock washers
- (2) Header gaskets (Header to Head flange)
- (4) Collector Bolts & Nuts.
- (1) Secondary Air Injection Tube Adapter Bracket & Fastener. [1628 & 1668 models only.]
- (2) Dipstick/Air injection tube spacers



This sticker is required to aid in passing the California Smog Check Program.
This sticker 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
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