

## Installation Instructions and Warranty Information

1967-1970 Ford Mustang 390, 427, 428 6654S - 5 Speed Trans 6655S - C6 or 4 Speed 6656S - 390GT Heads, C6 or 4 Speed





This product is Legal for use on 1974 and older non catalyst equipped vehicles and is considered a "replacement part" per California Air Resources Board regulations, as long as ALL emissions sensitive components are retained, including A.I.R., EGR, Heat Risers etc. Failure to retain any of these components, or use on any 1975 or newer catalytic converter equipped car would render this product Illegal for Street or Off Highway Use in California, or in states that have adopted California Emissions regulations and may only be used for Closed Course Competition.

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 mar-ket. 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.

Installation of these headers requires an adequate work space, general mechanic's tools, general mechanical "know-how" and a reasonable degree 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.)

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 up on to the jack stands to obtain adequate access to the bottom exhaust 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. Spray WD-40 or some type of penetrating oil on all accessible fasteners and fittings before attempting to remove them.

3. From under the vehicle, unbolt the head pipes from the exhaust manifold and the exhaust system. Then remove the head pipe.

4. Unbolt the starter and set it aside.

5. Remove the clutch linkage and set it aside.

6. Remove the motor mount bolts.

7. Raise the engine up enough to put your 2x2x4 wood blocks between your engine mount and saddle where it sat. Lower the engine on to the blocks. It 's now safe to disconnect the engine hoist and remove the factory manifolds on both sides.

8. Using a small wire brush or similar instrument, clean any carbon deposits left on the head.

9. Clean the debris off of the frame under the exhaust manifolds. Be sure to protect your eyes.

10. Raise the car up on the jack stands again and install the passenger side header from under the car. Only install the front and rear bolts and thread in 3 turns.

11. Install the driver side header from under the car and again only thread in the front and rear bolts about 3 turns. You may need to raise up the driver side a little higher. Be very careful.

12. From above, slide the supplied JBA gaskets between the header flange and the head on to the front and rear bolts. The gasket is notched in front and rear to allow it to drop into place. With the gasket properly in place, thread in the rest of the head flange bolts using the supplied lock washers. Thread them until they make contact with the head flange. Now using an alternating sequence (top to bottom) start tightening the bolts a half turn each until they are snug.

13. Repeat this process on the other side.

14 If you are installing the JBA H-pipe (P/N 6654H, or 6655SH) snug the supplied collector bolts up until the rest of the exhaust system is installed. This will allow for proper alignment.

15. Double check to make sure the head flange bolts are tight to head. Now raise the engine up with the engine hoist and remove the wood blocks. Lower the engine down onto the mounts and tighten mount bolts.

16. Reinstall the spark plug wires and looms taking care not to let any wires rest against the header tubes. Reinstall the battery cable. Make sure all rubber hoses and wires are kept away from the headers. Otherwise, the heat will damage these components.

17. The installation of the headers is now complete. The adaptation of the headers to the exhaust system should be left to an exhaust shop unless you have access to tube bending and welding equipment.

18. After the exhaust modifications have been made to adapt the headers to your exhaust system, recheck everything! Make sure all bolts are tight.

19. Start the engine and let it warm up. Check for leaks. Shut engine off and let it cool down. Now re-torque all fasteners to make sure all are tight.

20. All Tubular Headers require maintenance including 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
  - (Torque to 30 lbs./in iron heads, 23 lbs./in aluminum heads)
- (4) 3/8 16 x 3/4 "bolts
- (6) 3/8 16 x 2 1/2 "collector bolts with lock washers and 3/8 "nuts
- (2) Header gaskets (Header to Head flange)

## 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.

