

## Installation Instructions and Warranty Information

6695S 2007-14 5.4/5.8 Ford Mustang Shelby GT500 Due to different years using different 02 Sensors, the 02 Extensions for these <u>Headers</u> Must be ordered separately





This product is Not legal for Street or Off Highway use in California or in states that have adopted California Emissions Regulations and is only intended for Closed Course Competition use, except 1965 and Older US manufactured California Certified vehicles, 1967 or older US manufactured Federally Certified vehicles, or 1967 and older Foreign manufactured vehicles which may have any aftermarket add-on or modified part installed as long as the vehicle can still meet the tailpipe emission standards for the year of the vehicle and retain any original or retrofit crankcase control (PCV) devices and NOx device required for the year of the vehicle.

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.

For refinement, both Ford V-8 engines are installed using hydro mount bushings on either side of the block. These liquid-filled engine mounts are tuned to quell specific unwanted vibration. Under extreme driving conditions these mounts allow excessive engine movement. We recommend replacing these motor mounts with performance mounts available from Steeda PN# 555-4005.

- 1. Remove both battery cables. Remove the battery hold down strap. Remove battery from car. Disconnect wire loom attachment at inside forward corner of battery box. Remove three bolts securing battery tray to chassis, remove tray
- 2. Loosen the clamp securing the air inlet hose to the throttle body. Remove the bolt attaching the air box to the chassis. Disconnect the vacuum line, wire harness, and PCV connector, from the air inlet hose. Remove the air box, and air inlet hose.
- 3. Remove the four nuts attaching the strut tower brace to the chassis. Remove strut tower brace.
- 4. From Underneath:

Loosen clamps attaching exhaust pipes to catalytic converter assy. Release retaining clip, and slide clamp rearward onto axle pipe.

5. Unclip O2 Sensor plugs, remove nuts attaching pipe to manifolds, remove converter assy from car.

- 6. Remove bolt from steering coupler at steering rack.
- 7. From under the dash:

Remove the nuts from the steering shaft plate at the firewall. Remove the bolt connecting the steering shaft to the steering wheel stub shaft. Collapse the steering shaft to disengage from the stub shaft, remove steering shaft from vehicle.

- 8. Remove the 15mm nut from the motor mount stud, on the driver's side. Using a block of wood under the oil pan, raise engine about 1".
- 9. Remove the driver's side exhaust manifold, dipstick, and studs. Lower engine.
- 10. Using a clean drain pan, drain radiator. Retain coolant for re-use.
- 11. Remove hose clamps from water pipe passing under driver's side head. Unbolt three screws attaching pipe to head, and oil filter bracket. Without damaging rubber hoses, remove water pipe\*.

\*NOTE: It is possible to leave the stock metal water pipe in place, however the header install will become increasingly difficult if left untouched. The rubber hose and attachments are provided to give the option for an easier install. The choice is yours.

- 12. Using connectors, clamps, and hoses supplied, reroute coolant hose up behind cylinder head, over valve cover, under throttle body, around front of valve cover, to original connection point.
- 13. Install one of the O2 Extender harnesses (not included, order separately). Tuck it into the metal heat shield, and bend the shield to retain as necessary.
- 14. Using the supplied hardware. Install the two lower center bolts and supplied gasket. Install the header over the two center bolts using care to not ruin the gasket. Install bolts in remaining holes using care to not cross thread the bolts. Tighten evenly. Reinstall dipstick.
- 15. Re-install and secure motor mount bolt.
- 16. Remove the three bolts attaching starter to the bellhousing. Reposition starter to allow it to hang below the crossmember.
- 17. Remove the Passenger side motor mount bolt. Spray some penetrating oil on the EGR tube nut on the exhaust manifold.
- 18. Using a block of wood on the oil pan, raise the engine about 1".
- 19. Remove exhaust manifold, and studs.
- 20. Lower engine, re-secure motor mount bolt.
- 21. Install one of the O2 Extender harnesses (not included, order separately). Tuck it into the metal heat shield, and bend the shield to retain as necessary.
- 22. Using hardware and gaskets supplied, install bolts in the top two center bolt holes.
- 23. Install header using care to not destroy the gasket or cross thread bolts. Connect the EGR tube.
- 24. Re-install starter.
- 25. Swap O2 sensors into headers using a light dab of anti seize, connect and secure leads.
- 26. Check to insure adequate clearance between collectors and heat shielding, adjust as necessary.
- 27. Re-install steering shaft- Slip coupler onto rack before you tighten nuts on firewall.
- 28. Re-install battery tray, wire loom clip, battery, and battery strap.
- 29. Re-install air box and air inlet tube. Connect vacuum line, wire harness, and PCV line. Install hold down bolt.
- 30. Re-check everything. Clearance on wire looms, brake lines, coolant lines, etc. Refill coolant system.
- 32. Reconnect battery cables. Start engine, check for leaks.
- 33. Allow engine to reach operating temperature. Check coolant level.

## Parts List:

- (1) Driver's Side Header Assembly
- (1) Passenger's Side Header Assembly
- (2) Header Flange Gaskets
- (1) Water hose
- (4) Hose Clamps
- (2) V-Band Clamps
- (16) Header Bolts
- (16) header Bolt Lockwashers
- (2) Heater Hose Connectors
- (2) V-Band Header Reducers

NOTE: Due to Difference 02 senors used in different year GT500's, 02 sensors extensions are NOT included with these headers - they must be ordered separately.

## 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.

