

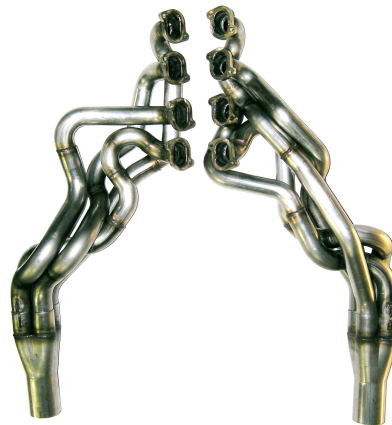
# Installation Instructions

07-09 Shelby GT500 stainless steel header system

**S5407R**



Please check Parts List below  
to insure that all parts  
are included in the product box !



Note: anti-seize  
should be  
applied to all  
fastener  
threads

## Parts List and Description

(A)	PN	5407D14-driver side primary tubes 1 - 4
(B)	PN	5407P14-passenger side primary tubes 1 - 4
(C)	PN	5407DC-driver side collector
(D)	PN	5407PC-passenger side collector

## Hardware List

16	- 8mm 12-point header bolts
2	- oxygen sensor harness extensions
4	- 1/4 x 3/4 stainless bolts
4	- 1/4" flanged nuts
1	- anti-seize compound

Note: This header system is complex in design and intended to be installed by persons possessing good mechanical abilities and manual dexterity. Be sure to pay attention to step no. 32 in regards to the application of hi-temp silicone to the insides of collector slip connectors. **It is absolutely mandatory for the PCM to be recalibrated to maximize the performance of these headers and to protect the engine against damage due to lean operation!**

## **Installation instructions:**

- 1.) Disconnect battery cables (negative first and then positive) using a **8mm** wrench.
- 2.) Disconnect battery hold-down strap and remove battery from vehicle.
- 3.) Using a **8mm** socket on an extension, remove bolts securing battery tray and remove tray from vehicle.
- 4.) Remove electrical fuse/relay box from vehicle as follows:
  - a.) Remove 4 bolts attaching box to vehicle with a **10mm** socket
  - b.) Remove dust cover on top of fuses/relays and fully loosen bolts inside cover which secure electrical harness connectors to box with a **7mm** socket.
  - c.) Remove harness connectors from bottom of box and remove box completely from vehicle.

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**Installation instructions continued for S5407R headers:**

- 5.) Disconnect inlet air temperature sensor connector and vacuum hose from intake hose.
- 6.) Loosen hose clamp securing inlet hose to throttle body; un-clip and separate air filter top from its base and remove top with attached hose from vehicle.
- 7.) Remove bolt securing oil dipstick tube to cylinder head with a **8mm** wrench, but do not remove dipstick tube from engine.
- 8.) Working through top of engine compartment, remove top row of fasteners from both exhaust manifolds with a **13mm** socket or wrench.
- 9.) Working from under vehicle, remove bolt attaching lower end of steering shaft to u-joint coupler on steering rack with a **13mm** socket or wrench.
- 10.) Working from under dash with a **10mm** deep socket, remove 2 nuts securing dust-seal around steering shaft to firewall. Pull seal away from firewall and completely free of studs.
- 11.) Collapse steering shaft into slip-joint under dash far enough to remove far end of shaft from u-joint coupler.
- 12.) Working from under vehicle, disconnect both pre-catalyst oxygen sensors (green connectors) from vehicle wiring harness.
- 13.) Using a **13mm** socket or wrench, remove bolts attaching muffler hangers to vehicle frame
- 14.) Loosen band clamps attaching mufflers to over-axle pipes and remove mufflers from vehicle.
- 15.) Loosen band clamps attaching over-axle pipes to H-pipe and remove pipes from vehicle.
- 16.) Disconnect rear oxygen sensors in catalytic converters from vehicle wiring harness; remove sensors from converters and set aside.
- 17.) Remove nuts attaching H-pipe to exhaust manifolds using a **15mm** deep socket and long ratchet extension; remove H-pipe from rubber hangers and vehicle. Remove oxygen sensor from passenger side converter inlet pipe (green connector) and set aside.
- 18.) Working through space provided by battery/tray removal, remove EGR tube from rear of passenger side exhaust manifold.
- 19.) Remove lower row of nuts securing exhaust manifolds to engine using a **13 mm** socket in conjunction with an extension and/or universal joint as needed.
- 20.) Using a **5mm** 6-point socket, remove all exhaust studs from cylinder heads and remove manifolds/gaskets from engine. Use a socket extension and universal joint as needed. Remove oxygen sensor from driver side manifold and set aside.
- 21.) Using a **15mm** socket, remove four nuts attaching lower stiffening rod to bottom of K-member/sub-frame and remove from vehicle.
- 22.) File small index pins off outside of pre-catalyst oxygen sensor harness connectors (green male connectors) to allow compatibility with supplied harness extensions, also file index pins off outside of male connectors on supplied harness extensions.
- 23.) Connect harness extensions to upper vehicle wiring harness connectors and temporarily secure them out of the work area.
- 24.) Remove headers from any packaging materials and make a mental picture of tube orientation and routing. Disassemble headers.
- 25.) Position #3 and #4 driver side header tubes up through underside of vehicle between frame and engine; position steering shaft behind #4 tube so that tube lies between shaft and frame of car.

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**Installation instructions continued for S5407R headers:**

- 26.) While holding #3 and #4 tubes up as high and towards the firewall as far as possible, move #2 tube into its approximate position followed lastly by tube #1.
- 27.) Reusing stock gaskets with supplied bolts, attach the header flanges to the cylinder head starting with the rear-most tube and moving forward with the next three tubes in order. Thread the bolts most of the way in but stop just before they are completely seated to aid collector installation in a later step. Using an assistant to support the tubes while the bolts are being installed simplifies this task.
- 28.) Using a **10mm** socket with an extension, remove three bolts attaching starter to engine and allow it to hang beneath vehicle from battery cables.
- 29.) Place passenger side tube #4 up through bottom of car and into approximate position; tread nut on vehicle EGR tube onto fitting welded to tube.
- 30.) Place the remaining tubes, working rear to front, into approximate position next to engine.
- 31.) Repeat step number 25.
- 32.) Install collectors (with tabs towards the bottom and O2 bungs facing towards center of car) onto header tubes; fully seat them until holes in tabs line up. It is recommended that you apply a light coating of Permatex Ultra-Copper silicone sealant (not supplied with headers) to inside of slip connectors before installation as insurance against slight leakage during engine warm-up.
- 33.) Apply anti-seize compound to supplied 1/4" fasteners and install them into collector/tube tabs but do not fully tighten at this time.
- 34.) Using a **8mm** socket, in conjunction with a ratchet extension and/or universal joint, fully tighten all header flange bolts at this time working through bottom or top of vehicle as needed.
- 35.) Fully tighten EGR tube fitting through space provided by battery tray removal.
- 36.) Fully tighten collector/tube tab fasteners.
- 37.) Install pre-catalyst oxygen sensors (green connectors) into collector bungs and then connect to harness extensions previously installed. The driver side harness will need to be pulled from the factory attachment point near transmission to make it long enough to reach oxygen sensor.
- 38.) Insert steering shaft into u-joint coupler; apply thread locking sealer to pinch bolt and install into coupler. Torque bolt to factory specification.
- 39.) Reposition steering shaft seal against firewall; install nuts and tighten.
- 40.) Replace dipstick bolt, air filter cover/throttle body inlet hose assembly, battery tray/battery, fuse/relay box, starter and lastly battery cables.
- 41.) Cover starter solenoid with supplied heat shield material.
- 42.) Finish installing remaining exhaust system components of your choice.

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