



## **07-10 SHELBY COBRA GT500 HEADER INSTALLATION INSTRUCTIONS**

Thanks for purchasing Stainless Works Muscleflow Headers for your 07-10 Shelby Cobra GT500. We have gone to great pains to make sure that our exhaust systems fit and sound great. Please follow these steps to ensure that your installation goes as planned.

1. Stainless Works recommends the use of Hi-Temp RTV sensor safe silicon gasket maker as an option to or in conjunction with the use of factory gaskets. The recommended Oxygen Sensor Safe RTV is either Valco All-in-One Aluminum or Permatex Copper P/N 101BR, available at NAPA, Autozone and other retailers.
2. Disconnect the battery before starting work on the exhaust system for your vehicle. Reconnect the battery when the job is completed.
3. Your exhaust system can be installed by a weekend warrior but the use of a lift is recommended for ease of installation. If using a jack, the vehicle must be placed on a level hard surface and jack stands are required for safety reasons. Raise the vehicle as high as possible for easy removal of the manifolds..
4. Disconnect battery, remove strut tower brace, remove air box assembly and ductwork; remove battery and battery box.
5. On passenger side unhook air tube (using 1-1/16" wrench) on rear of exhaust manifold. Loosen the other end of the air tube up on the intake manifold; this will make attaching air tube to header easier.
6. Remove all nuts on the top studs of the exhaust manifolds on both sides, and remove nuts on motor mounts.
7. Put car up on lift.
8. Disconnect all four O2 sensors by unplugging them and leaving them in the head pipe for now, they are easier to remove from head pipe when it is off the car.
9. Loosen clamps holding head pipe to intermediate pipes. Remove all 4 nuts holding the head pipe flanges to manifolds, and remove head pipe.

10. Remove nuts on passenger side and driver side manifolds to block studs and remove manifolds.
11. Header installation and more importantly the tightening of the lower headers bolts will be much simpler if you remove the front sub frame. In order to remove the left bolt holding steering rack to frame, (because of the bolts length and the location of oil cooler manifold) you have to unbolt and lower sub frame, leaving only the lower ball joints and sway bar mounts holding the sub frame in the car. For ease of installation, if you have the equipment to do so, completely remove front sub frame.
12. If you left the sub frame in the car- remove one of the 13mm headed bolts in the steering shaft u-joint, and remove 8mm headed bolt holding bracket on front of sub frame that holds the power steering lines. Remove (4) 15mm nuts holding round tube going from left to right side on the rear of the sub frame under transmission
13. Support left side of sub frame, and remove two 18mm nuts holding left side of sub frame to body and loosen the two 18 mm bolts at rear of sub frame holding it to the body. Loosen same nuts and bolts on right side. Remove two 18 mm bolts holding steering rack to sub frame. Slide rack out of its mount while also pulling steering shaft out of u-joint. Lower rack but support it with wire or zip ties so its weight is not hanging on the power steering lines. Tuck steering shaft up on top of left side frame rail so it is out of the way.
14. Remove four 15 mm headed bolts holding cast iron motor mount to engine block and remove it from car.
15. Remove all exhaust manifold mounting studs from cylinder heads. Remove manifold studs with 5 mm socket or stud extractor.
16. Using a new gasket or simply RTV alone, apply high temp sensor safe RTV hi-temp silicon to both the header and manifold. Wait 10 minutes before starting installation. Install onto left cylinder head by installing all lower header bolts leaving about a ½ inch between head of bolt and cylinder head mounting surface. Install driver header up from bottom and set it in place on the lower mounting bolts. Install all upper bolts. Do not tighten header until all bolts are installed-tighten bottom bolts first, then top. Reinstall left motor mount to engine block.
17. If you did not remove sub frame, remove starter from car and install passenger side gaskets and bolts on the same as driver side. Install passenger side header in from bottom, set headers on bolts and install all bolts. Do not tighten. Apply never seize to air tube fitting thread on but leave loose. Tighten all header bolts starting with the bottom bolts and then tighten the tops. Tighten upper and lower air tube fittings. Reinstall starter.

18. When installing the O2 extensions on the headers, it may be necessary to remove the tabs to properly connect the extensions.
19. Reinstall rack or sub frame depending on which one you removed. By reversing steps shown above making sure you reinstall steering shaft, before you put the bolts holding the rack to the frame. Loctite all steering bolts and torque to factory specs.
20. Note that the O2 sensors must be installed in the lead pipes before installing the pipes in the system. Install the leadpipes with two 3" band clamps, and X-pipe. Use wide OEM clamps to connect X-pipe to the exhaust system.
21. Once all pipes fit properly, we recommend breaking the exhaust apart and using red high temp RTV at each joint to ensure a leak proof seal. Tighten all clamps making sure that there is adequate clearance. The rear O2 wires can be pulled down from the looms to reach the new O2 sensor locations. Reinstall the O2 sensors, using a small amount of never seize on the threads. Be sure to only apply never seize to the threads-if this is applied to the O2 element it will ruin the O2 sensor. Zip tie the extender harnesses out of the way. Reconnect battery, start car and warm up. Let cool thoroughly and retighten all header bolts and clamps. Drive car and enjoy your new found power.



**WWW.STAINLESSWORKS.NET**

**800-878-3635**

**FAX: 440-543-9183**