



## **INSTALLATION INSTRUCTIONS FOR C5 CORVETTE HEADERS**

Thanks for purchasing Stainless Works Muscelflow Headers for your C5 Corvette. 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.
4. You will assemble the components together as specified below, but only snug the clamps as you move along from front to back. When placing the X-pipe into position, make certain that you push it fully forward and level it with the vehicle. After aligning all the components in the vehicle, you will tighten all the clamps working from front to back of the vehicle.

### **UNDER THE CAR**

5. Disconnect the battery.
6. Raise and support vehicle.
7. Remove rear O2 sensors by unthreading from the pipes.
8. Remove (4) 10 mm bolts (2 per side) from rear flanges at the axleback.
9. Remove (6) 10 mm nuts, (3 per side) from flanges at manifolds.
10. Remove (2) 8 mm bolts from rear spring style hangers.

11. Remove (2) 10 mm bolts from exhaust to transmission brace and remove exhaust pipe center section.

#### **ATOP THE CAR**

12. Remove plastic coil covers right and left side.
13. Remove (4) 8 mm bolts, (2 per side) from air tubes at manifolds.
14. Remove all 8 spark plugs and wires.
15. Remove 10 mm bolt from dipstick tube and remove dipstick.
16. Remove serpentine belt from alternator.
17. Remove 6 mm nut from wire on alternator and remove wire, disconnect other wires.
18. Remove (2) 10 mm bolts from alternator at mount and remove alternator.
19. Remove (10) 6 mm studs, 5 per side from coil brackets and unplug wires and remove coil pack assembly.
20. Remove O2 sensors from manifolds.
21. Remove (12) 8 mm bolts, 6 per side from manifolds and remove manifolds from top.

#### **UNDER THE CAR**

22. Remove 12 mm nuts from motor mounts to sub-frame. Raise motor and install driver side header from bottom. Seal and install (6) 8 mm bolts.
23. Unbolt starter and leave in car, (2) 10 mm bolts.

#### **ATOP THE CAR**

24. Install passenger side header from top but do not bolt in.
25. Re-install starter then seal and install header (6) 8 mm bolts.
26. Re-install air tubes (4) 8 mm bolts, 2 per side.
27. Re-install coil packs, dipstick tube, plugs, and wires and alternator along with any other components removed.

#### **UNDER THE CAR**

28. Re-install motor mount nuts.
29. Install O2 sensors in headers.

## IF CONNECTING TO FACTORY H-PIPE

30. If going to factory exhaust cut H pipe at inlets to converters through the weld so little or no weld is left on inlet of converters. Depending on year of car it may be necessary to shorten the H pipe after the converters, so that the adapter inlets (supplied) line up properly with the collector outlet.
31. Remove the two short stubs of material that are left in the inside of converter inlet (the factory H pipe is double walled).
32. Clean and deburr inside diameter and outside diameter of converter inlet.
33. Insert Stainless Works adapters and install H pipe on car to ensure correct alignment.
34. Tack adapters to converters in 3 places to minimize distortion.
35. Remove H pipe and finish weld.
36. If tubing becomes out of round from welding heat, re-round in bench vise or C-clamp using wood blocks to evenly distribute pressure.
37. Install H pipe using high temp RTV on slip joint at front of H pipe. Tighten supplied band clamp.
38. Re- install O2 sensors and air tube fittings. Check all fasteners for proper torque (see your factory assembly manual for proper torque specs).

If going to SW exhaust follow cat back instructions.

39. Be sure to have adequate clearance around all wires, hoses and lines. **If anything is in contact with the exhaust system, it will melt.** Make sure to have at least ½" of clearance and wrap any suspect areas with DEI thermal barrier wrap.
40. After double checking for clearance and making sure all lines, wires and hoses are secured, drive the car for 10-20 miles and re-check all clamps and clearances. Your system may be tack welded at the joints/ clamps to reduce shifting of the system during heating and cooling cycles. Make certain to disconnect the battery before performing any welding.