



**2005-2009 Ford Mustang V8, 4.6L**  
**Flowtech 1-5/8" 409SS Shorty Headers w/ 2.5" collector**  
**12125FLT (Black Finish), 12134FLT (Natural Finish), & 32125FLT (Polished Finish)**

**INSTALLATION INSTRUCTIONS:**

Thank you for making Flowtech Exhaust your choice in a high-performance exhaust system. Extensive dyno/track testing has enabled Flowtech to offer the most advanced design in exhaust systems. The installation, while not complex, will take a certain amount of time. However, the additional horsepower and improved performance will more than justify your efforts. Proper installation and maintenance will ensure long life and maximum performance from your Flowtech Header exhaust system.

**BEFORE STARTING:**

Your vehicle must be raised a minimum of 18 inches. A floor hoist is ideal. If no hoist is available, we strongly urge the use of axle stands as a safety measure. Please read these instructions in their entirety before attempting installation.

**CAUTION! WORK ONLY ON A LEVEL SURFACE. USE JACKS /JACK STANDS OF SUFFICIENT CAPACITY TO LIFT AND SUPPORT YOUR VEHICLE. NEVER WORK UNDER A VEHICLE SUPPORTED BY A FLOOR OR BUMPER JACK.**

**TOOLS REQUIRED:**

3/8" Drive Metric Socket Set	13mm,14mm, & 15mm Deep Sockets
Metric Wrench Set Requires (x2) 13mm	24' Long 3/8 Drive Extension
Stud Extractor	13mm Swivel Socket
3/8 Universal	WD-40® or equivalent

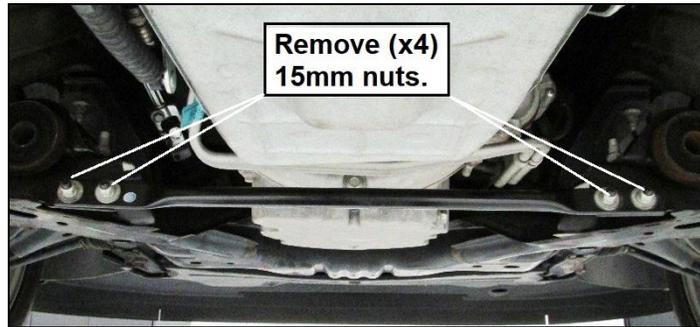
**PARTS LIST:**

Qty.	Description
1	Left Header Assembly
1	Right Header Assembly

Check the hardware package. If anything is missing, please contact Technical Service at 1-866-464-6553 or 270-781-9741

## INSTALLATION:

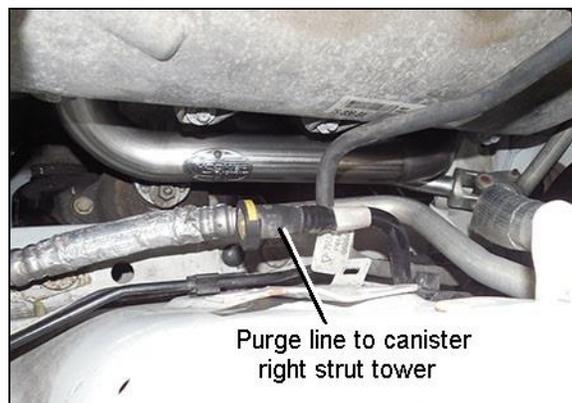
1. Disconnect the negative cable from the vehicle battery.
2. Lift the vehicle and secure on jack stands.
3. Remove the center cross brace by removing (x4) 15mm head nuts (**Figure 1**).



**Figure 1**

4. Unplug the left post catalyst O2 sensor (center of the catalyst) and right pre and post catalyst O2 sensors. The right pre catalyst O2 sensor can be reached from the top behind the cylinder head after the battery and tray are removed.
5. Remove the (x4) 15mm nuts securing the left and right OE catalytic converters to the exhaust manifolds.
6. Loosen the (x2) band clamps securing the OE over-axle pipes to the OE H-pipe outlet. Remove OE cats and H-pipe.
7. Remove the battery and battery tray. Disconnect the battery cable from the fuse box at the front of the right fender. Lay the battery cable and harness out of the way for better access to the exhaust manifold upper studs. Disconnect the right pre catalyst O2 sensor.
8. Remove the intake tube from the throttle body. Unplug the mass air sensor and remove the air box assembly.
9. Remove the strut tower brace, if equipped
10. Unclip the charcoal canister purge solenoid from the left fender well bracket, squeeze the yellow retainer on the hose, and slide the purge solenoid off the bracket. Lay the solenoid off to the side.

**NOTE:** The solenoid will not slide off the bracket until the yellow line clip is released on the hose leading to the charcoal canister (**Figure 2**).



**Figure 2**

11. Remove the (x4) 13mm nuts from the top row of the left and right exhaust manifolds.
12. Remove the 15mm nut from each left and right side engine mount stud.
13. Remove the starter and lay it on the K-member. It is not necessary to disconnect the battery cables or remove the starter from the vehicle.
14. Place the steering wheel in the normal position and remove the keys. Loop the seatbelt through the steering wheel and latch the belt. This will prevent the wheel from being turned while the steering shaft is uncoupled and damage the clock spring.

15. Remove the bolt on the lower coupler of the steering shaft, slide the shaft off the steering rack, and move to the side. It may be necessary to release the locking collar on the steering shaft under the dash to allow the shaft to slide off the rack. See service manual for details.
16. Support the engine at the bell housing area. **CAUTION:** Never support or lift the engine from the engine or transmission oil pan. Be sure the engine is supported and will not slip from the support as you are working. Lift the engine just enough to take the weight off the engine mounts. Be sure the hood is open and any strut tower braces are removed
17. Remove the (x4) bolts that secure each engine mount to the engine. It is not necessary to remove the isolator assembly from the frame rail.
18. Raise the engine slightly until the engine mounts will clear the studs on the isolator assemblies and remove the left and right engine mounts from the vehicle
19. Remove the remaining (x4) 13mm nuts from each exhaust manifold and remove the manifolds from the vehicle
20. Remove the (x16) exhaust manifold studs off the motor. These will not be re-used.
21. Install the OEM exhaust manifold gaskets (replace if necessary) with the supplied 8mm flanged bolts. Install the top row of bolts only at this time for the left and right side of the engine. Thread the bolt in as far as possible while still leaving room to install the header flange from below
22. Remove the O2 sensor from the left side manifold and install into the left shorty header.
23. Install the left header into the vehicle and on to the installed header bolts. Be careful not to damage the gasket. Install (x4) supplied 8mm bolts into the bottom of the header flange. Tighten the bolts evenly from the center and working towards the outer bolts. Repeat this process several times until all the header bolts are secure. It will be necessary to access the rearward upper bolts with a wrench (**Figure 3**).



**Figure 3**

24. Install the dipstick and retainer bolt.
25. Install the right header into the vehicle and on to the installed header bolts. Be careful not to damage the gasket. Install the remaining (x4) supplied 8mm bolts into the bottom of the header flange. Tighten the bolts evenly from the center and working towards the outer bolts. Repeat this process several times until all the header bolts are secure. It will be necessary to access the rearward upper bolts with a wrench.
26. Install the right and left engine mounts. Be sure to reconnect the ground cables on to the right side studded bolts.
27. Install the starter.
28. Lower the engine on to the Isolator studs and install the 15mm nuts.
29. Install the supplied 10mm x 40mm bolts into the header collector flanges. Install the H-Pipe into the car. Install the supplied 10mm flange nuts onto the 10mm x 40mm bolts and tighten. Install and tighten the couplers at the H-pipe outlet to the mid pipes.

30. Install the steering shaft onto the steering rack. Install the bolt and torque to the recommended specifications.
31. Install the center cross brace using the original (x4) nuts removed from step 4 and tighten.
32. Reconnect the right and left side O2 sensor to the vehicle harness. The right side sensor is easiest from the top of the engine before the battery tray is installed
33. Reconnect the charcoal canister purge solenoid and line.
34. Reinstall the air box. Connect the intake hose and the mass air sensor plug.
35. Install the battery box and install the battery.
36. Reroute the battery cables from along the frame rail close to the headers to above the A/C lines and over to the battery. This will keep the cables at a safe distance from the headers (**Figure 4**).



**Figure 4**

37. Reconnect the positive cable of the battery to the stud at the fuse box. Reconnect the ground at the strut tower. Reconnect the positive and negative terminal of the battery.
38. Check all wires and hoses and hardware for proper clearance from the exhaust and moving parts.
39. Start the engine, and check for leaks.
40. Re-check your work.
41. Remove the jack stands and lower the vehicle.
42. After 150 miles, re-check and tighten all bolts and clamps.

**NOTE: It is normal for the Flowtech Header to emit smoke for the first few minutes during break-in period**

**LIMITATION OF LIABILITY – DISCLAIMER:**

The regulation of emissions production, noise levels, and safety standards is undertaken by the federal government, each of the fifty state legislatures, and by many local municipalities, towns, and counties.

Flowtech Exhaust™ makes no warranties of merchantability, of fitness for particular purpose, or that its products are approved for general use, or that its products comply with laws, regulations, or ordinances in the state where they may be sold to the ultimate purchaser, the consumer.

Unless expressly stated to the contrary in the catalog, instruction sheet; or price list, the entire risk as to the conformity of any company product in any such state and as to repair should the product prove to be defective or non-conforming, is on the retail purchaser, the buyer, the ultimate consumer, of such product and it is not upon the seller, distributor, or manufacturer.

In this connection, the retail purchaser, the buyer, the ultimate consumer assumes the burden of the entire cost of any and all necessary service, alterations, or repair.

**THE FOREGOING STATEMENT LIMITS THE LIABILITY OF THE MANUFACTURER.**

California vehicle code, sections 27156 and 38391, prohibits the advertising, offering for sale, or installation of any device, which modifies a vehicle's emission control system, unless exempted, unless otherwise noted. Flowtech Exhaust™ Headers that have not received an Executive Order (E.O.) exemption from these code sections are not legal for sale or use in California on vehicles originally equipped with catalytic converters, except for racing vehicles, which may never be driven upon a highway. Check with your local authorities to determine if these headers are legal for use in your particular area.

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**Date: 5-14-19**