

# Flowmaster American Thunder Catback Exhaust (11-12 GT)

**Time Necessary:** 3-4 hours

**Tools Required:**

- Floor Jack
- Jack Stands
- 4 Wheel chocks
- 15mm socket
- 13mm socket
- Ratchet
- Ratchet extensions
- 13mm ratchet wrench (optional)
- Spray Silicone based lubricant
- Dremel tool with metal cutting wheel (6-8 wheels needed)

**Preparation – without vehicle lift**

1. Make sure the car is on a level, clean, dry surface. You will spend a lot of time on your back under it.
2. If you have recently driven the car, make sure that the components you will be working on have cooled down so they will not burn you.
3. Place the wheel chocks snugly on both sides of the front tires.
4. With the jack, raise each side of the car up as far as safe and possible.
5. Position a jack stand at the appropriate point to support of the vehicle, and then repeat the process on the other side.
6. Make sure the vehicle is resting securely on the jack stands and that they are squarely supporting the vehicle.



Original Exhaust looking forward from axles

## Removal:

1. Using the ratchet, ratchet extension, and the 15mm socket, remove the two 15mm bolts securing the upper panhard bar to the body on the driver's side, just forward of the muffler. The panhard bar will need to be pulled down to allow the driver's side muffler clearance to be removed.

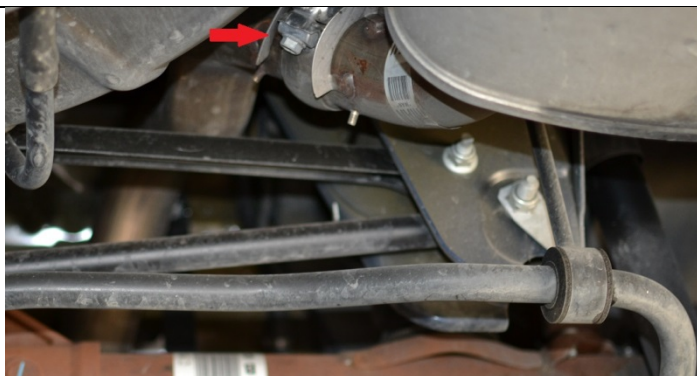


Upper Panhard bar bolts to remove

2. Using the ratchet and the 13mm socket, loosen the 13mm bolts on the clamps securing the mufflers to the over-axle pipes. The bolts need to be backed out nearly all the way to the end of the threads to allow the pipes to separate.



Driver's side clamp



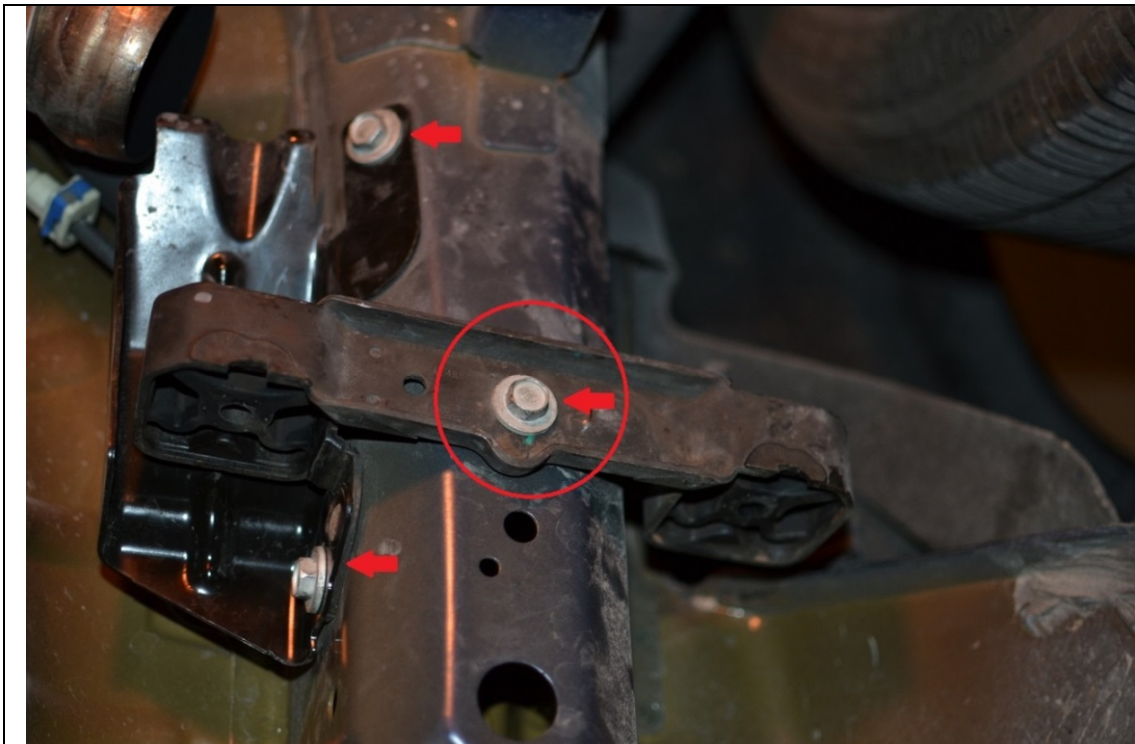
Passenger side clamp

3. The instructions that came with the system implied that you could remove the muffler from the mounts while they were still on the car. After wrestling with it for quite some time, I decided that the muffler mounts needed to come off to get the muffler off. The muffler hangers had flanges on them to prevent them from easily sliding through the rubber mounts. If you do not have flanges, you may not need to remove the metal muffler mount. If so, spray the silicone based lubricant on the rubber mounts to help the hanger come out and skip the next two steps.



4. Using the ratchet, ratchet extension, and 13mm socket remove the passenger side muffler mount from the car. There are two bolts that are easily accessible. Keep in mind that as you loosen the bolts, the muffler will want to fall, so you need to keep it supported until both bolts are completely removed.
5. On the driver's side, the center bolt in the photo below is above the muffler and very hard to get to. Use a 13mm box end wrench or ratcheting wrench to get the bolt out. Once the bolt is loose, it is easier to turn if the other bolts are still holding the metal hanger to the car. After removing the initial hard one, remove the other two with the ratchet and socket. Keep in mind that as you loosen the bolts, the muffler will want to fall, so you need to keep it supported with one hand, or something else.





Driver's side mount.  
The circled bolt is the hard one to get to.

6. Now that you have both mufflers removed, set them aside and get ready for the intermediate / over-axle pipe.
7. Use the ratchet and 15mm socket to loosen the nuts on the clamped connections between the factory H-pipe and the intermediate / over-axle pipes. Separate the pipes.



Clamps to remove to separate intermediate pipes from H-pipe

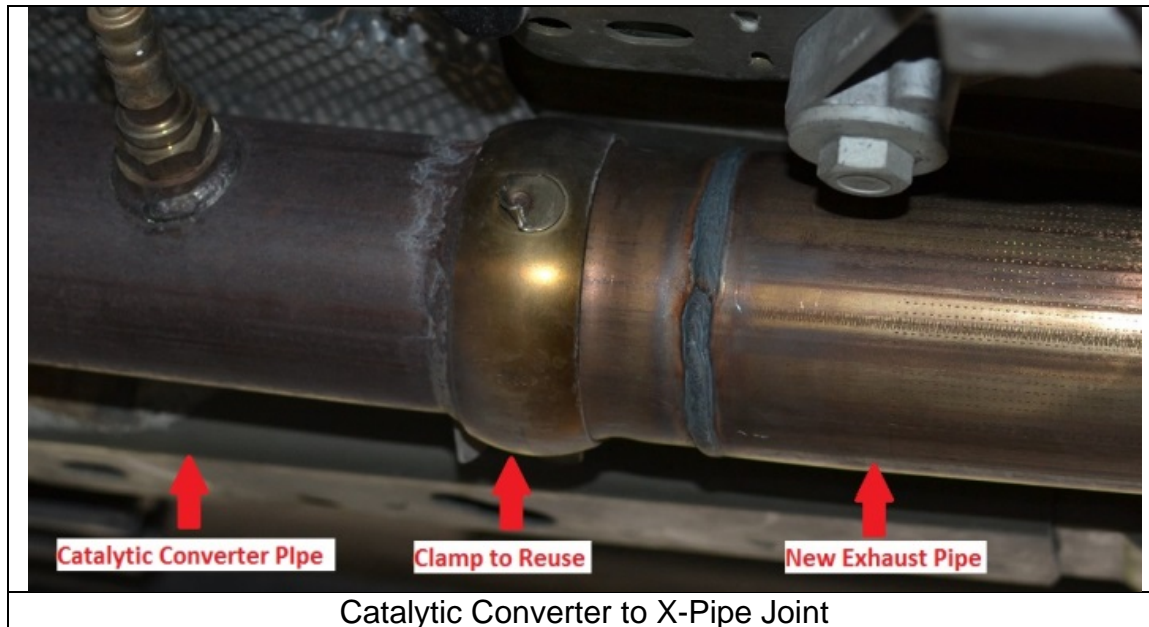
8. If you have the vehicle up on a lift, you can slip the intermediate pipes out from over the axle and remove them from the vehicle. If you do not have the luxury of a lift, use the dremel tool with cutting wheel to cut the intermediate pipe in half near the axle so it can be removed. The pipe is thick and several cutting wheels will be needed to cut through the pipe enough to remove it.
9. The last part to remove is the H-pipe that is attached to the catalytic converters. Use the ratchet and 13mm socket to loosen the clamps on each. The bolts need to be backed out nearly all the way to the end of the threads to allow the pipes to separate. Remove the H-pipe!
10. The clamps on the factory H-pipe need to be reused to attach the new Scavenger X-pipe to the catalytic converters. Using the dremel tool with cutting wheel, cut the clamps off.



Clamp to remove from H-Pipe

## Installation:

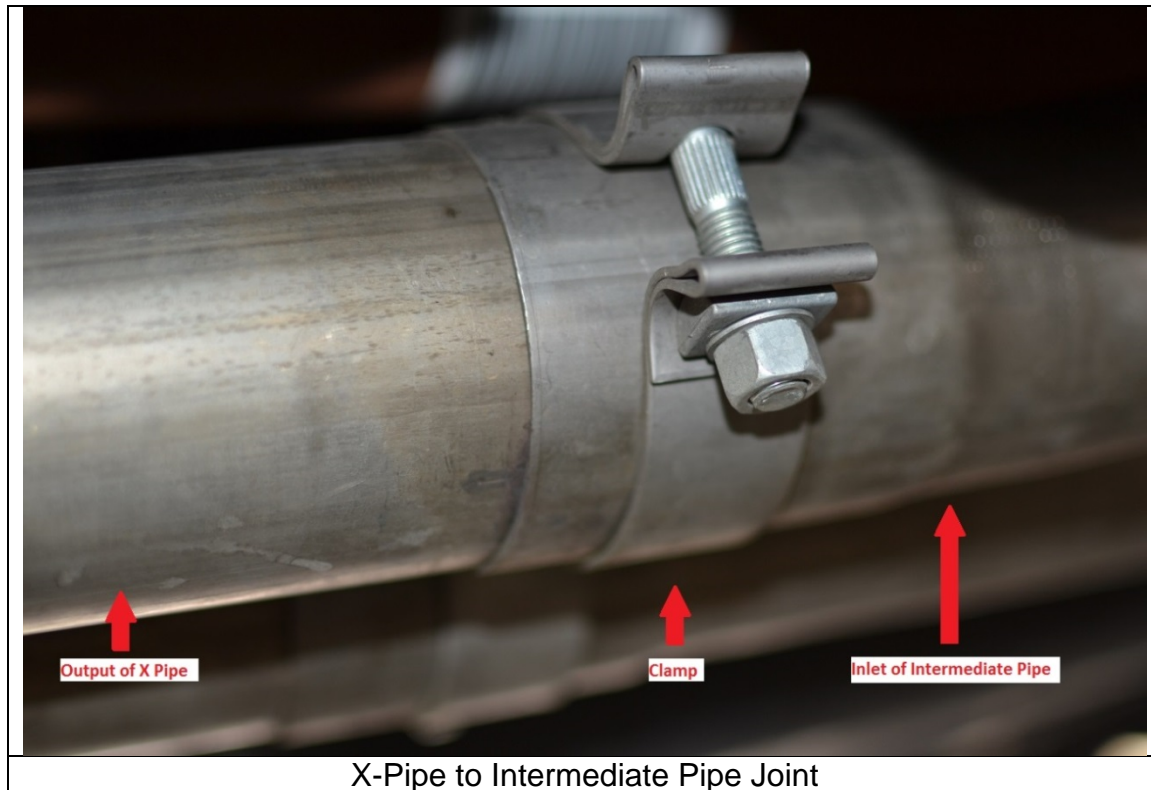
1. It is helpful to have another set of hands during the next few steps.
2. Place the two factory band clamps that were just removed over the flange of the new Scavenger X-pipe assembly. Place the X-pipe assembly up into the output of the catalytic converters. Make sure the clamps do not come off while doing this. The new X-pipe will fit over and around the catalytic converter pipes like a ball and socket.



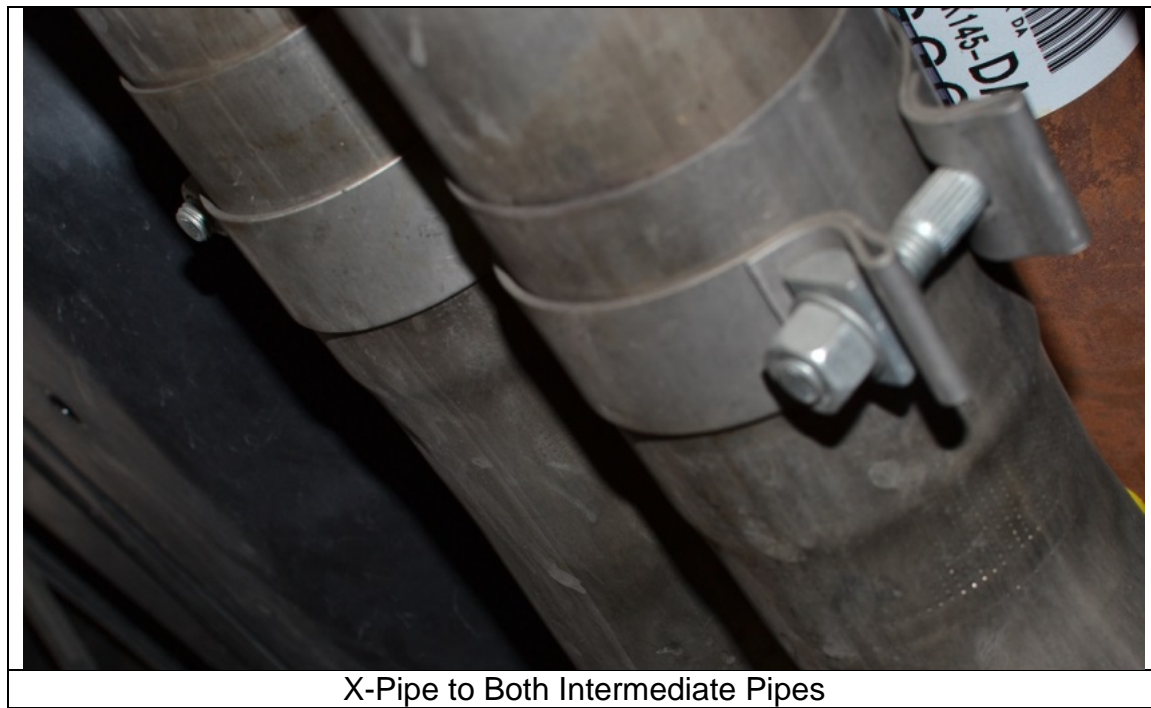
3. If the two pipes do not line up nicely and go together easily, then it may be necessary to adjust the spread of the two inlet pipes of the X-pipe. Use a little muscle to adjust the spread if needed. The distance from center to center of the inlet pipes should be 22-1/4"
4. Once the two pipes are snugged together, adjust the clamps so you can get to them and then tighten them up with a ratchet and 13mm socket. If you don't have someone to help hold the X-pipe up while tightening the clamps, support the rear of the X-pipe with the jack or something else. It is important that the X-pipe be as close to its final position when clamping as possible
5. Before tightening the clamps fully, wiggle the X-pipe up and down a little to help seat the ball and socket together. Then fully tighten the clamps.
6. One at a time, take the new intermediate pipe and route the output side over the rear axle and position the inlet side near the output of the X-pipe. It may be necessary to raise the car up even further to get the pipe over the axle.
7. Install a 3" clamp over the end that will attach to the X-pipe. Make sure the clamps have the tightening nut on the outside.



8. Slip the inlet end over the output of the X-pipe and make sure they are fully seated together. Tighten the clamp, but do not tighten it completely.



9. Repeat steps 6 – 8 above for the other intermediate pipe.



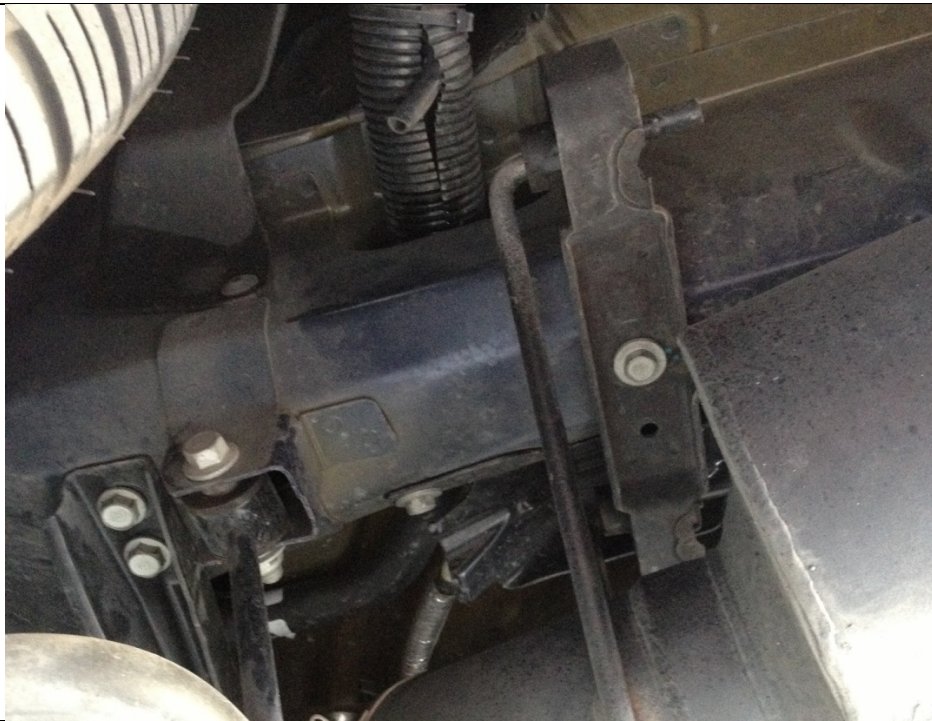
10. Starting with the passenger side muffler, attach the front muffler mount hangers to the muffler mounts and install a 3" clamp over the inlet pipe of the muffler.
11. Lift the muffler into position. Slide the input of the muffler onto the output of the intermediate pipe and insert the rear muffler mount into the hanger that is attached to the vehicle. Position the muffler and mount until the two bolts securing the muffler mount can be installed. Use a 13mm socket and ratchet to tighten the bolts. But don't fully tighten the bolts until both of them are snug. Use the 13mm socket and ratchet to tighten the clamps on the input pipe of the muffler but don't fully tighten it.



Passenger Side Mount

12. Repeat the above two steps for the driver side muffler. The muffler mount requires three bolts, but the good news is that the bolt that was difficult to remove in disassembly is now easy to re-install with the help of a socket extension. Again, tighten the clamps, but not fully.





Driver Side Mount

13. Push the upper panhard bar back up into position and re-attach with the original bolts using the 15mm socket and ratchet.
14. Finally, adjust the position of all pieces to make sure you have it all secure. Be systematic about checking it all over as it is a precise set up and should all fit together well. Check for sufficient clearance around all parts of the system to avoid rattles, noises, or damage to heat sensitive components. Do a final, thorough tightening of all components once you are confident that you have the right "fit".



15. After lowering your car back to the ground, you may start it and enjoy the new sound!
16. For a cleaner appearance and more secure installation, weld the connections between the X-pipe and intermediate pipes and between the intermediate pipes and the mufflers.

Installation Instructions Written By AmericanMuscle Customer Paul Barber 8/12/2013