



'66-'81 F-Body Systems 2½", 3" & 3½"

Header Applications

With Torque Tech X-Crossover

F-Body True Dual Systems

(Intended for vehicles with aftermarket headers needing dual exhausts—FOR STRIP & OFF ROAD USE ONLY)

This Complete Kit Includes:

The X-Pipe Crossover Kit

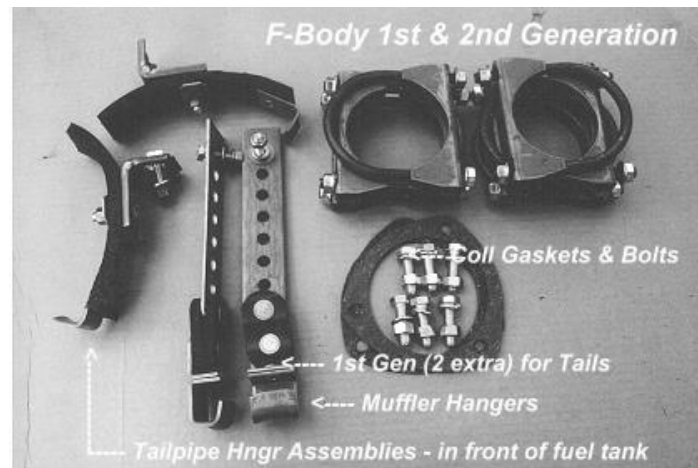
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| (2) Collector Flanges | 3-Bolt Flanges, either 2½", 3", or 3½" depending on the stated Collector Size you gave us. |
| (2) Collector Gaskets | 3-Bolt Gaskets the same size as the above flanges.
6 sets of Stainless nuts, bolts and washers for the above flanges |
| (1) Collector Nuts, Bolts, Washer Kit | These have an overall length of approx. 25". The short end is approx. 8" and the bend is 45 Degrees. These pipes slip into the front of the X Junction and go to the Header. These forward Extensions will be the same size tubing as the collector size. |
| (2) Forward Extensions: EXT25X, EXT30X or EXT35X | |
| (2) Aft Extensions: EXT25038X, EXT25038X or EXT35038X | These have an overall length of approx. 9" The short end is expanded and the bend is 35 Degrees. |
| (2) Straight Extension Tubes 22" Long | These Straight tubes slip into the end of the Aft Extensions and go to the mufflers. They will need to be trimmed to length. |
| (1) X-Pipe Junction | Described by its shape. Entrance size is the same as the collector size of the header. Exit size may be the same as the entrance or it may be a size smaller depending on what you are ordering. |
| (10) U-Bolt Clamps | Clamps to be used in assembling the X Pipe. They may be discarded if you weld the assembly together upon completion. |
| (2) 3½" x 3" Coll. Reducers | Used <u>only IF</u> Collectors are 3½" AND you are ordering a 2½" System. These will be installed on the collector, then the 3" Forward Extensions will be welded to them. |

The Tailpipe Kit

Which Includes

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| (2) Tailpipes | Driver Side and Passenger Side. Each is a 2-Piece Tailpipe. The Forward or Front Piece comes from the muffler, goes up and over the rear end, and ends after making the bend before the fuel tank. The Back Section joins here and continues outward and down between the quarter panel and leaf spring and back. |
| (2) U-bolt Clamps | Clamps to be used in front of fuel tank. |
| (4) U-Bolt Clamps | <u>1st Generation:</u> Extra 2 Clamps to be used at hanging location behind rear wheel. |
| (1) Hardware Package | Includes (2) Muffler Hangers and (2) Tailpipe Hangers to be used in front of fuel tank.
<u>1st Generation:</u> Has (2) extra long swivel hangers to use at hanging location behind the wheel. |

NOTE: It is strongly suggested that you check for any missing items with the above list and against the Invoice which should list all items also. If you will be taking your vehicle someplace to have the system installed, be sure to tell them to read the instructions first. BEFORE tearing off your old system, look for things such as misaligned headers, headers that are 'up' too high so that when collector reducers are mounted, they or any straight extension off them, will interfere or hit the tranny crossmember or anything else that you think might be a problem during installation. We know that from time to time situations will arise which will not be accounted for. To help minimize inconvenience to you, we recommend that you do some measuring, etc., before 'tearing off' the old system. This way, if you have one of the exceptions, you will not have "down time" if your vehicle is a daily driver. This will enable you to obtain the necessary parts to complete the installation.



INSTALLATION:

Muffler length is limited to a maximum of 17" case length. **NOTE:** 3-Chamber Flowmasters and Top Street (Series 30) Flowmasters will require cutting and welding for 1st Generation installation.



Note: On some vehicles, with 3" Pipes, you may have to notch the Qtr. Panel just a little where the tailpipe comes down between it and the Leaf Spring.



1. First, be sure to read through the Thank You and Caution Flyer accompanying these instructions.
2. Secondly, read these instructions throughout to get a good overview.
3. Thirdly, remember, safety first. Be sure vehicle is secure and remember that pipes can cut (fingers & hands).
4. Now, compare hardware with the list above to be sure you have everything before beginning. **NOTE:** To help prevent rust on hangers, you may want to paint all exposed metal before installing.
5. Muffler Selection: An Offset in/Offset outlet (on opposite sides) configuration is necessary. Any brand muffler will fit fine just as long as case length does not exceed 17".
6. **Now lets begin with the tailpipes.** They must clear the suspension and the rear end. So they must be positioned first. In some situations it may be possible to use existing hangers, otherwise use what is provided with the kit. You will need to position the hangers for the mufflers directly above the rear of the muffler spout. Both 1st & 2nd generation vehicles will require hanging in front of the fuel tank where the pipes join together. The assembled dou-

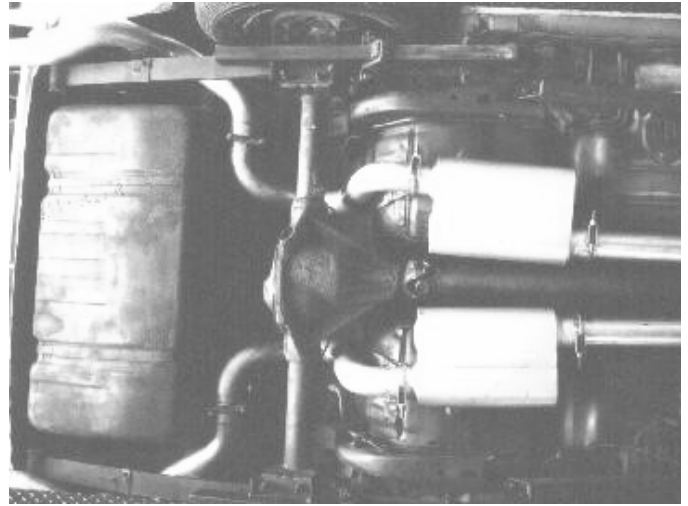


ble "L" Brackets along with the Rubber Grommets (and Nuts/Bolts/Washers) is provided for this. Some vehicles do not have this existing mount and you will have to improvise.

1st and 2nd Generation: On some installations, you may find it necessary to trim off an inch or so at the end of the first (front) section of the tailpipe where it slips into the rear or back section of the front tailpipe. This will allow the rear section to be moved inward a little to clear the quarter panel And/Or it allows the front section to be moved inward toward the enter of the vehicle for better alignment with the rear muffler snout.

1st Generation: The hangers for the end of the tailpipe can be placed anywhere in the area behind the rear wheel, preferably before the pipe comes down beside the leaf spring.

2nd Generation: The bracket that is welded onto the tailpipe should mount into an existing body mount behind the wheel.



7. **Mount the muffler onto the front of the tailpipe.** You may want to temporarily secure the mufflers with something placed under them. This will allow you to devote full attention to the X-Pipe Crossover installation.

8. **X-Pipe Crossover Assembly.** This is complicated to explain, but you will want to work from the muffler forward, keeping in mind what you will need to eventually do on the front end at the header.

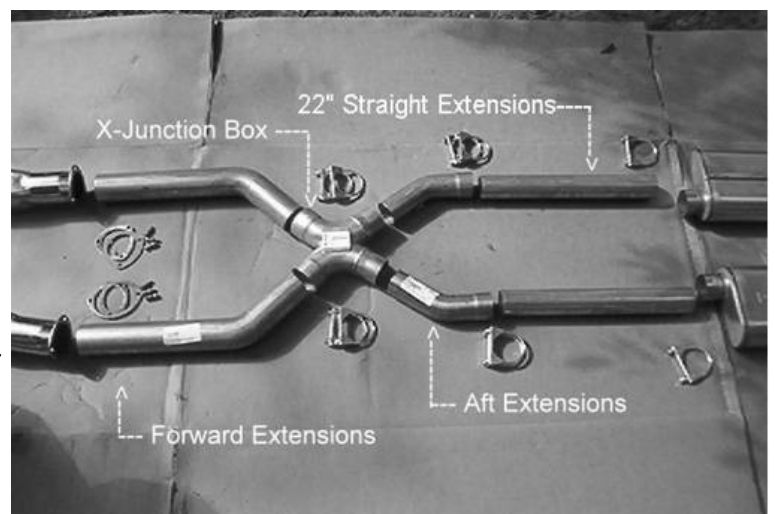
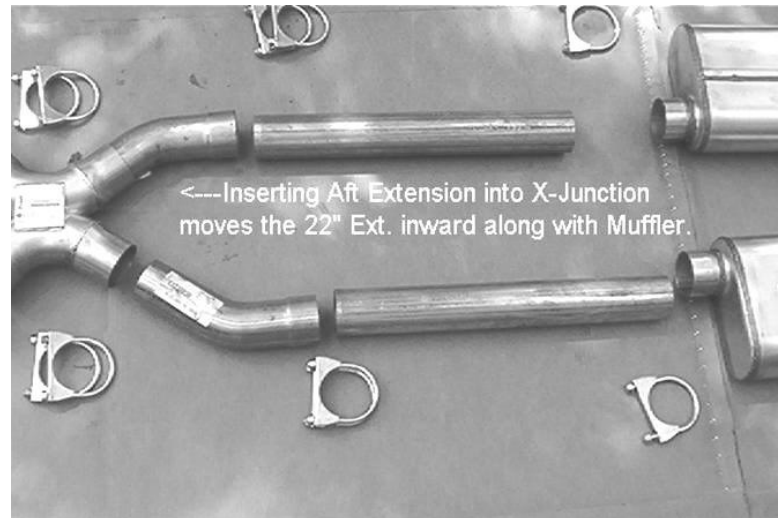
9. **DO NOT** do any welding until you have everything "mocked up" and you are positive everything is like you want.

10. **Insert the long straight extension (22" long)** into the front of the muffler. It will probably be longer than necessary, so you will eventually need to trim it to the proper length, but not yet. Use clamps if necessary, but not too tight -- just enough to hold.

11. **Now slip the Aft Extensions** (the short extensions with the end expanded — EXT35038X, EXT30038X or EXT25038X) on the front of the extension you inserted into the front of the muffler.

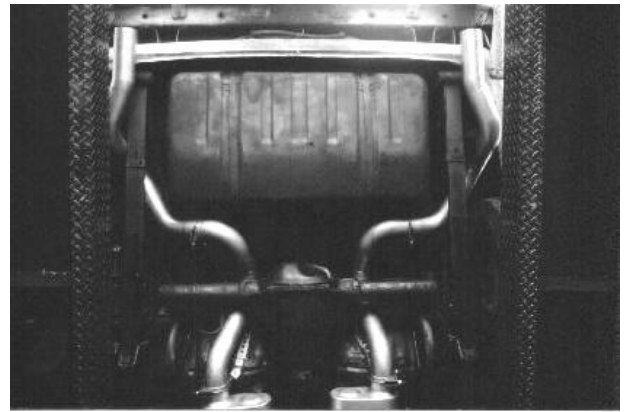
12. **Placement of the X-Junction itself:** Generally the front edge of it would be in the neighborhood of the front universal joint. Exact placement is not critical.

13. **Keeping in mind** that you may need to trim the long 22" extension that was inserted into the muffler, go ahead and slip the X-Junction onto the Aft Extensions. If you are finding the Aft extension seems to be too far outward away from the drive shaft (kinda under the rear footwell—losing ground clearance) , then this means you will eventually need to trim off some of



the front of the Aft extension. Trimming will bring everything inward towards the center of the vehicle. It will also allow you to mount the muffler closer inward also — just as long as you are an inch or so away from the drive shaft. Remember to use the clamps to help hold the pieces together—but not too tight!

14. **Remember, to note the location of the front edge of the Aft Extension within the X-Junction.** You may want to make a mark on the Aft Extension even with the edge of the X-Pipe where it is inserted. This mark can be used as a reference. Anytime, while working with the installation, that this mark disappears, then the Aft Extension is inserted too far. You do NOT want it extending so far into the X-Junction that it interferes with flow. This will DEFEAT the purpose of the X-Pipe design. Always keep this in mind.



15. At this point, IF the front edge of the Aft Extensions are obviously needing to extend TOO FAR, farther than they should (see above note), then you might want to trim off some of the excess. Be careful as you don't want to trim too much. 'Tis easier to trim a little short now, than too much! More trimming can always be done later.

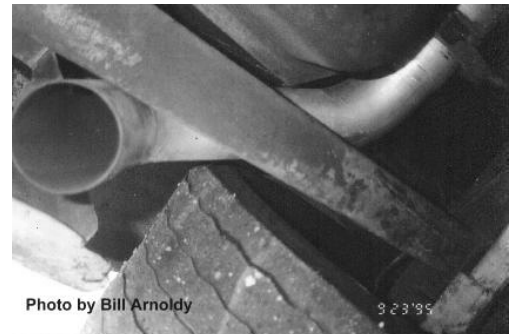


Photo by Bill Arnoldy

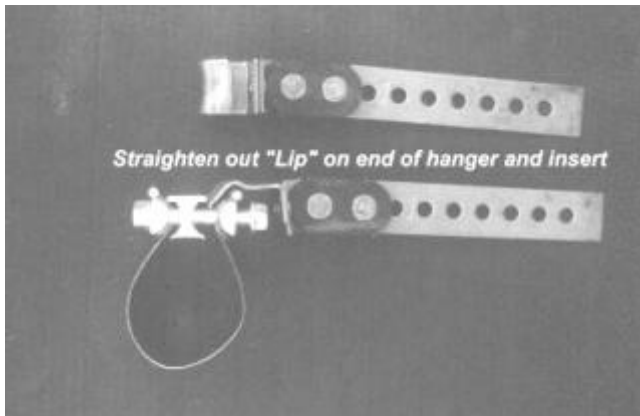
16. Now with the X-Junction attached, you should have an idea of if you need to move it back some. If possible you might try mocking up the Forward Extensions to give a clearer idea of where you are.
17. With all this in mind you can determine where to trim. Once you have decided, then proceed being careful to NOT trim too much!
18. As you narrow down the trimming and placement of the X-Junction, be sure to keep in mind the placement of the tailpipes. As you narrow this down, you will want to begin "fine tuning" the tailpipe fit also.
19. Continue working with both the front and aft sections until you have everything lined up and adjusted.



20. Only then, should you begin thinking about welding all joints. As you already know or have guessed, you will have to weld the Forward Extensions to the 3-Bolt Flanges. It would be best to "tack" weld each in several locations before taking off vehicle. Then take off vehicle and run a bead of weld all the way around. Welding the other joints is highly recommended since there are so many. You may leave the clamps on permanently or weld and remove them at a later date. Do Not Weld anything until you are satisfied everything is as you would like. It is recommended to use Hi-Temp Aluminized paint on all welds.

Stainless Steel Band Clamp Upgrade Installation:

If you are using Band Clamps, you will need to "flatten out" the little lip that is always on the end of any hanger. This allows you to slip the end of the hanger into or between the bars of the Band Clamp as pictured here. The following photos show how to handle attaching most any hanger or bracket to a Band Type Clamp.



Thanks for buying Torque Tech!