



## 409S<sup>®</sup> Stainless Steel

# Installation Instructions: SYSTEM #817584 1963-1966 MOPAR "A" BODY 2 1/2" HEADER BACK SYSTEM

07/03/12

### Installation:

- 1) Remove the existing exhaust system from the vehicle. Also, remove any hangers used to support the exhaust system.
- 2) To gain valuable ground clearance for the right side inlet pipe, we feel it's a good idea to notch the front transmission cross member. We have included a template and photo instructions on page 4 to help with this step if you choose to notch the cross member on your vehicle. The system will fit either way; the right side inlet pipe will hang lower than the left if un-notched.



- 3) On the inside of the rear frame rails, roughly 10" forward of the bumper, you will find large holes that will be used to mount the tailpipe hanger brackets. You should see a round hole in the center of the frame rail. Place a supplied 3/8" x 3" bolt with a **#HA226** square backing plate installed through the hole from the outside of the frame to the inside. Place a **#HA572** hanger bracket onto the end of the bolt and secure with the nuts and lock washers provided. See illustrations above.



- 4) Place both tailpipes, **#16793S** and **#16794S**, up over the rear axle and connect the hangers on the tail pipes to the rubber mounts installed in Step 2.



- 5) Place a provided 2 1/2" clamp onto the muffler outlets, then place the mufflers up into position and onto the front of the tailpipes. Slide the mufflers fully onto the tailpipes and support the mufflers with a stand. Tighten the clamps enough to hold, but still allow for adjustment.



6) Slide a 2 1/2" clamp over each muffler inlet. Place Scavenger pipe assembly **#16795S** in its approximate position underneath the vehicle (Flowmaster embossing down) and connect the back of the Scavenger assembly into the muffler inlets. Support the assembly with a stand and position the muffler and Scavenger assembly so that they are level. Once the mufflers and Scavenger assembly are in place, check the tailpipe clearance where they go up in front of the rear axle to be sure there is adequate clearance. Tighten the clamps enough to hold, but still allow for adjustment.



7) Place rubber hangers **#HA168** onto the hanger rods at the front end of the tailpipes. Then connect hanger brackets **#240HA** for the right side and **#241HA** for the left side to the rubber hangers. See the diagram for proper orientation of brackets. With the mufflers in the proper position, the brackets should fit up against the rear of the seat pan.



8) Two pair of 3/8" holes will now need to be drilled in the rear seat pan to mount the muffler hanger brackets. Using the holes in the brackets as a guide, center-punch the locations prior to drilling. (It is a good idea to remove the rear seat before drilling.) After the holes are drilled, the two stud plates **#242HA** and **#243HA** will then be placed through the holes from the inside of the vehicle. The hanger brackets can then be secured with the 5/16" nuts and washers. (The 3/8" holes are oversized and will allow some final height

adjustment.)

9) The front adapter pipes **#16523S** are long enough to allow for many different header or manifold downpipe configurations, therefore, it will be necessary to determine the proper length of the connector pipes. Be sure that the rubber hangers behind the mufflers are straight up and down and that all clearances are good before trimming the adapter pipes. Once the proper length is determined, trim the front adapter pipes to fit.

10) Once the adapter pipes are cut to proper length, raise them into position and connect them to the Scavenger pipe and header collectors or manifold down pipes using a standard header flange, Flowmaster Venturi Cone or Flowmaster Ball Flange kit.

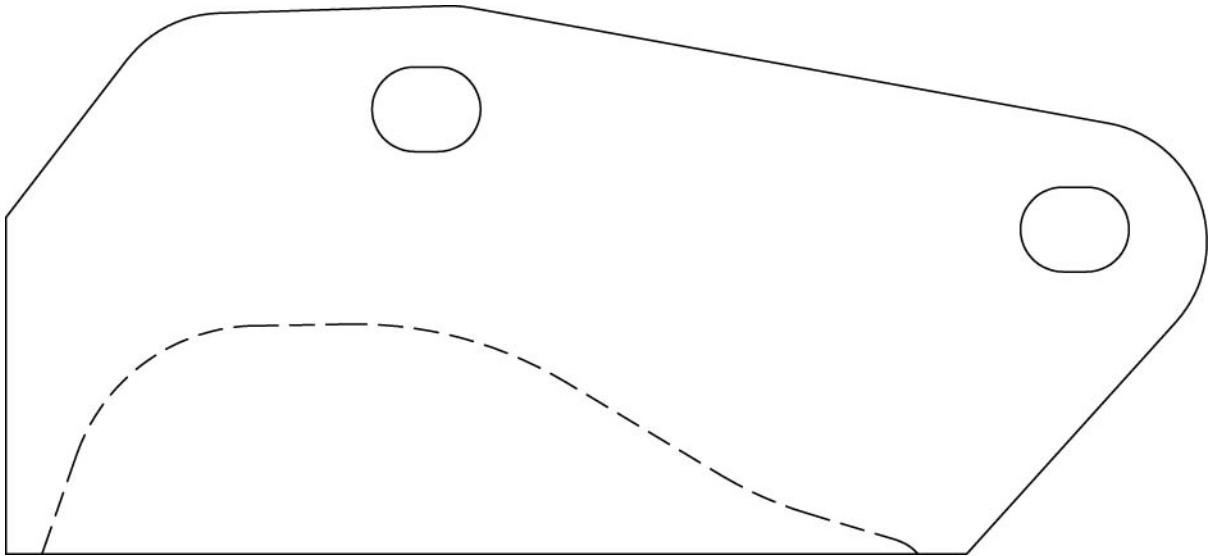
11) Adjust and align the position of all pipes and mufflers to provide a satisfactory fit. Maintain a minimum of 3/4" clearance between the Flowmaster system, the drivetrain and chassis components, while also keeping suspension travel and vibration in mind.

12) Tighten down all clamped connections securely. After the system is secure, slide the 7/16" hanger keepers on the round stock sticking through the rubber hangers. These will prevent the hangers from slipping out of the rubber mounts.

13) For a cleaner appearance and more secure installation, we highly recommend welding all slip-fit connections.

## Packing List

<u>Qty</u>	<u>Description</u>	<u>Part</u>
4	Adapter Pipes	16523S
1	Scavenger Assembly	16795S
2	Muffler	852548-Z
1	Right tailpipe	16793S
1	Left tailpipe	16794S
1	Parts kit	PK643
1	Left Muffler Mount	241HA
1	Left Stud Plate	243HA
1	Right Muffler Mount	240HA
1	Right Stud Plate	242HA
2	Rear Hanger Mount (R/L)	HA572
6	2½" Clamps	MC250BS
2	Rubber Hanger	HA168
2	Back Up Plate	HA226
4	7/16" Hanger Keepers	HW502
2	3/8"-16 x 3" Bolt	HW227
2	3/8"-16 Nut	HW103
2	3/8" Lock Washer	HW309
2	3/8" Flat Washer	HW303
4	5/16"-18 Nut	HW102
4	5/16" Lock Washer	HW308



- 1) Use a transmission jack to lift the transmission and remove the two bolts on the right side of the cross member.
- 2) Cut out the above template and align the two holes in the template with the holes in the cross member. Mark both side of the cross member including the bottom.
- 3) Lower the cross member from the vehicle and cut out the marked area with a torch or cut-off wheel.
- 4) Use sheet metal to box in the area removed and weld fully. Smooth any burrs.
- 5) Re-install the cross member back into the vehicle.



**AMERICAN THUNDER**  
**409S® Stainless Steel**

Installation diagram for:  
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