



409S[®] Stainless Steel SYSTEM #817129

**1967-1968 CHEVROLET CAMARO/PONTIAC FIREBIRD
V8 · EXCEPT CONVERTIBLE**

09/02/10

Removal:

- 1) Raise the vehicle up on a hoist or rack to working height and support securely with jack stands.
- 2) Remove existing system from the header collector or manifold down pipes back.

Installation:

- 1) On the frame, at the rear of the vehicle there are two holes that are punched into the frame on either side of the vehicle. This is where hanger **#202HA** (left side) and hanger **#203HA** (right side) must be mounted to support the rear of the tailpipe. *If the car originally had single exhaust, the left side will have two small dimples where the holes will need to be drilled with a 1/8" bit.* Use the 1/4" x 1" self tapping screws to secure the two hangers into place. Then slide the rubber hanger **#HA168** onto the two hangers. *Note: See Page 3 of these instructions for helpful hints and possible alternatives for securing these hangers.*
- 2) On the underside of the vehicle slightly forward of the rear axle there are a pair of holes on either side of the vehicle that will be used to mount the rear muffler hangers, **#200HA** (left side) and **#201HA** (right side). Once mounted, the two hangers will point toward the center of the vehicle. Use two 5/16" x 1" bolts to secure each hanger into place. If the car originally had single exhaust, in some cases the right side will have small dimples where the holes will need to be drilled with a 1/8" bit. In this case, use the 1/4" self tapping screws for the hanger.
- 3) After mounting the hangers into place, slide a **#HA168** rubber hanger onto the hangers. Place hanger **#389HA** into the bottom hole of the rubber hanger on the left side and into the bottom hole of the rubber hanger on the right side of the vehicle. Both hangers will point toward the center of the vehicle. **See diagram on page 4.**
- 4) Place right tailpipe **#16145S** over the rear axle and so that the rear of the tailpipe exits between the quarter panel and the leaf spring. Do the same for the left tailpipe **#16144S**.
- 5) Install the left muffler **#842546-Z** by placing the outlet of the muffler into the clamp of hanger **#389HA**, rotate the muffler so that it's level and support with a stand. Tighten the clamp/hanger enough to hold the muffler in place but still allow for adjustment. Repeat this step for the right muffler.
- 6) Install the front pipe assembly **#16143S** by placing the rear of the front pipe assembly into the inlets of both mufflers and centering it in the drive line cavity. Support the front of the assembly with a stand. Be sure the mufflers and front pipe assembly are level. Once the mufflers and front pipe assembly are in place, check the hangers at the rear of the mufflers to see if they are hanging straight down. Adjust front pipe and mufflers forward or back as needed to get the correct fit.

- 7) The **#16149S** front connector pipes are long enough to allow for many different header combinations, therefore, it is necessary to determine the proper length of the inlet connector pipes. Place one of the **#16149S** adapter pipes under the front slip fit joint of the front pipe assembly, and also under the header collectors or manifold down pipes and accurately mark the pipes where they need to be cut. Once the proper length is determined, trim the front connector pipes.
- 8) Once the pipes are cut to the proper length, raise them into position and connect them to the H-pipe and header collectors or manifold down pipes using a standard Header Flange or FLOWMASTER reducer Cone.
- 9) Install the rear hanger that is welded to the right side tailpipe **#16145S** into the lower hole of the rubber mount at the rear of the vehicle. Slide the front of the tailpipe through hanger **#389HA** and into the rear of the muffler. Repeat for the right side.
- 10) Adjust the rear of the tailpipe so that it is centered between the fender and the leaf spring. Repeat this step for both sides of the vehicle.
- 11) Adjust and align the position of all the pipes to provide a satisfactory fit. Maintain at least 3/4" clearance around the new FLOWMASTER Exhaust System, the drivetrain and all chassis components. Also keep suspension travel in mind.
- 12) After the hangers are adjusted to their final position, place the provided hanger keepers onto the end of all hanger rods above the mufflers and hangers that support the tailpipes. This will keep the hangers from slipping out of the rubber mounts.

PACKING LIST

<u>Qty</u>	<u>Description</u>	<u>Part #</u>	
2	Muffler	842546-Z	
1	H-pipe Assembly	16143S	
2	Connector Pipe	16149S	
1	Tailpipe (Right)	16145S	
1	Tailpipe (Left)	16144S	
1	Parts Kit	PK516	
6	2-1/2" Clamp		MC250BS
1	Upper Muffler Bracket (L)		200HA
1	Upper Muffler Bracket (R)		201HA
1	Rear Hanger Bracket (L)		202HA
1	Rear Hanger Bracket (R)		203HA
2	Lower Muffler Bracket (L)		389HA
4	Rubber Hanger		HA168
6	1/4" x 1" Self Tapping Screws		
4	5/16" x 1" Bolts		
4	5/16" Lock Washers		
8	7/16" Hanger Keepers		

Helpful Hints

FOR CHALLENGES YOU MAY ENCOUNTER WHILE INSTALLING KIT #817129

1) In Step 1 of the installation instructions it calls for you to locate the two holes that are located at the rear of the vehicle on both the right and left side. If the holes are in good condition, you will go by the instructions as normal and use the 1/4" x 1" self tapping screws to secure the hangers into place. But if the holes are damaged in any way you may have to drill out the holes and then use some 1/4" nut-serts along with some 1/4" x 1" bolts to secure the hangers in place.

(a) The nut-sert installation tool which will usually come with a selection of nut-serts, can be attained from your local rental center or you can purchase the nut-serts alone from most any hardware store. Be sure to drill the holes to the size recommended for the size nut-sert you plan to install. If you attain these fasteners from a hardware store, try to get them with some kind of coating or finish to prevent them from spinning during installation.

(b) If you must use the nut-serts to secure the hangers into place, simply insert the nut-sert into the hole that you pre-drilled, then place the hanger into the correct position and tighten the hanger into place with the correct size bolts for the nut-serts you have installed.

In Step 2 of the instructions there are two holes that are located on the underside of the vehicle just forward of the rear axle. If these holes were not being used to support the previous exhaust system and it is difficult to install the bolts, it may be that they may have become gummed up and could use a little attention with a 5/16"-18 tap to clean out the threads. This will greatly ease the installation of the bolts.

2) In Step 4 of the instructions you are instructed to place the right and left tail pipes over the rear axle and exit them between the quarter panel and the leaf spring. To simplify the installation of the tailpipe over the rear axle, the rear of the vehicle may have to be jacked up to increase the clearance between the rear axle and the underside of the car. This will allow the tailpipe to slip in easier. We recommend putting the tail pipes in first because there is not much room to install them after the mufflers are in place.



Installation diagram for:
SYSTEM #817129
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AMERICAN THUNDER

409S. Stainless Steel

