

FLOWMASTER™

AMERICAN THUNDER™

SYSTEM #17139

1969 CHEVROLET CAMARO/PONTIAC FIREBIRD V-8 (EXCEPT CONVERTIBLE)

*** NOT FOR USE ON POLLUTION CONTROLLED VEHICLES *
(WELDING MAY BE REQUIRED)**

Removal:

- 1) Raise vehicle 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 # 204HA (for both the left and right side) must be mounted to support the rear of the tailpipe. Use the ¼" x 1" self tapping screws to secure these two hangers into place. Then slide rubber hanger # HA168 onto the two hangers. **NOTE: See page four of these instructions for helpful hints and possible alternatives for securing hanger #204HA into place.**
- 2) On the underside of the vehicle slightly forward of the rear axle there is a pair of holes on either side of the vehicle that will be used to mount the rear muffler hangers, # 200HA (for the left side) and # 201HA (for the 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.
- 3) After mounting hangers into place, slide rubber hanger # HA168 onto the hangers. Next place hanger # 205HA into the bottom hole of the rubber hanger on the left side and hanger # 206HA 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 #16153 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 #16152.
- 5) Install the left muffler #942541 by placing the outlet of the muffler into the clamp of hanger #205HA, rotate the muffler to get it level and support with a stand. Tighten the clamp/hanger enough to hold the muffler in place but still allow for adjustment.

- 6) Install the right muffler #942541 by placing the outlet of the muffler into the clamp of hanger #206HA, rotate the muffler to get it level and support with a stand. Tighten the clamp/hanger enough to hold the muffler in place but still allow for adjustment.
- 7) Install the front pipe assembly # 16143 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 that 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.
- 8) Install flanges # SF014 and gasket # GA103 onto the header collectors and attach the nuts and bolts provided, tighten lightly. Insert reducer cone into the flange and adjust the angle of the reducer cone so that it is pointing straight back and so that it is level with the front pipe assembly. To simplify the installation of the reducer cones, we recommend tacking them in the correct position then removing them so they can be fully welded.
- 9) After the reducer cones have been installed, the adapter pipes can be trimmed and installed. Place one of the adapter pipes under the front slip fit joint of the front pipe assembly, and also under the reducer cone and mark the pipes where they need to be cut. Be as accurate as possible, measure twice and cut once. After the pipe has been trimmed, slide the connector pipe into both the front pipe assembly and the reducer cone. Repeat this step for the opposite side.
- 10) Install the rear hanger that is welded to the right side tailpipe #16153 into the lower hole of the rubber mount at the rear of the vehicle and then slide the front of the tailpipe through hanger #206HA and into the rear of the muffler. Repeat for right side.
- 11) 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
- 12) 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 and the chassis, drivetrain components , brake lines and fuel lines. Also keep suspension travel in mind.
- 13) Tighten all connections securely. For a “cleaner” fit the connections may be welded and the clamps removed. NOTE: After the hangers are adjusted to their final position, place the provided hanger keepers onto the end of all the hanger rods above the mufflers and the hangers that support the tailpipes. This will keep the hangers from slipping out of the rubber mounts.

NOTE: These systems are not intended to replace catalytic converters on vehicles so equipped. Please check state and local emissions regulations.

WE STRONGLY RECOMMEND WELDING ALL SLIP-FIT CONNECTIONS.

PACKING LIST FOR KIT #17139

<u>Qty.</u>	<u>Description</u>	<u>Part No.</u>
2	Muffler	942541
1	H-Pipe Assembly	16143
2	Connector Pipe	16149
1	Tailpipe (Right)	16153
1	Tailpipe (Left)	16152
2	Reducer Cone	TB296
1	Parts Kit	PK139
6	2 ½" Clamp	MC250S
1	Upper Muffler Bracket (L)	200HA
1	Upper Muffler Bracket (R)	201HA
2	Rear Hanger Bracket (R/L)	204HA
1	Lower Muffler Bracket (L)	205HA
1	Lower Muffler Bracket (R)	206HA
4	Rubber Hanger	HA168
2	3" Steel Flange	SF014
2	3" 3 Bolt Gasket	GA103
6	3/8" X 1 1/4" Bolts	
6	3/8" Lock washer	
6	3/8" Nuts	
4	1/4" x 1" Self Tapping Screws	
4	5/16" x 1" Bolts	
2	1/4" Rubber Well Nuts	
2	1/4" x 1" Bolts	
4	1/4" Star Washers	
8	7/16" Hanger Keepers	

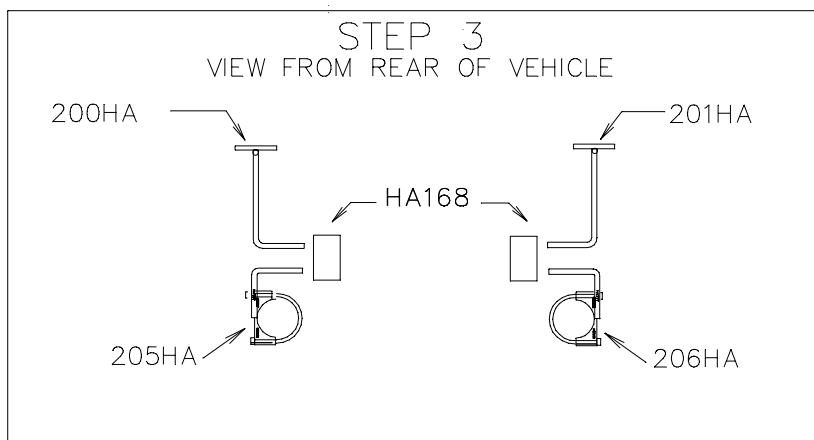
**FLOWMASTER Products Are
Proudly Manufactured
In America** 

Helpful hints

FOR CHALLENGES YOU MAY ENCOUNTER WHILE INSTALLING KIT #17139

- 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 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 to 1/2" and then use the 1/4" rubber well nuts along with the 1/4" x 1" bolts to secure the hangers in place.
 - (a) If the holes are damaged and you wish to use the included 1/4" rubber well nuts to secure the hangers into place, start by simply inserting the well nut into the 1/2" hole that you pre-drilled, then place the hanger into the correct position and tighten the hanger into place with the 1/4" bolts and lock washers provided.
- 2) 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 the holes are not being currently used to support the old exhaust system, 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 to ease the installation of the bolts.
- 3) 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.

Step 3 Diagram.



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