



FORCE II **409S Stainless Steel**

Installation Instructions for:
SYSTEM #817472
1998-2003 FORD F-150 TRUCK
V8 · ALL WHEEL BASES

06/5/13

Removal:

- 1) Using a hacksaw or sawsall, cut the stock tailpipe off where it exits the muffler. (This step is not mandatory, but will make removal easier.)
- 3) Separate the three rubber hangers on the muffler and tailpipe from their rubber mounts on the vehicle. Remove the tailpipe and set aside.
- 4) Support the muffler with a stand. Remove the clamp at the connection just behind where the two converter pipes merge together. Because this connection may be significantly crimped by the clamp, it may be necessary to heat or slice open this connection for ease of removal.
- 5) Remove the muffler and set aside.

Installation:

- 1) Identify your wheelbase length to determine extension pipe requirement. For 120" WB, the 86087S pipe will not be used. For 139" WB, trim 18" off the end of the 86087S. For 157" WB, use the 86087S as provided.
- 2) Place the extension pipe **#86087S** (if required) in position on the pipe from the catalytic converter. Install a clamp but do not tighten at this time.
- 3) Place the inlet pipe **#16179S** in position over the extension pipe installed in step 2. Install a clamp but do not tighten at this time.
- 4) Place muffler on the inlet pipe and support with a stand. Install a clamp but do not tighten at this time.
- 5) Using the provided 5/16" bolts, nuts and washers bolt hanger **#248HA** to the frame on the drivers side of the vehicle using the two holes about an inch apart on the outside of the frame where the shock is located. Then slide the rubber hanger **#HA168** onto the frame hanger.
- 6) Place the right side tailpipe **#16401S** in position over the axle and into the right side muffler outlet. Place the two hangers welded to the pipe into the rubber mounts
- 7) Place the front section of the left side tailpipe **#16180S** into the left side muffler outlet and insert hanger into the rubber hanger mount.

NOTE: On some 1998 models, it may be necessary to trim 2 1/2" off of the rear of inlet pipe **#16179S** in order for the forward tailpipe hangers to align properly with the rubber mounts on the vehicle.

8) Connect the rear section of the left side tailpipe **#16400S** onto the back of the front section by sliding the two sections together at the slip-fit connection over the rear axle. Place the rear hanger into the rubber hanger you previously installed. Install a clamp onto the muffler outlets and the over axle slip-fit connection. Do not tighten at this time.

9) Place the two stainless tips **#ST396** onto the ends of the tailpipes and adjust to the desired location. If you desire a side exit installation, you will need to trim about 12" off of the back of the tailpipes. Then use the two side exit pipes **#16317S**.

10) Adjust the position of all pipes and muffler to provide a satisfactory fit. A minimum of 3/4" clearance around all parts of the system must be maintained; while also keeping suspension travel and vibration in mind.

11) Tighten all clamped connections down securely. Place the supplied 7/16" hanger keepers onto the ends of all the hangers. These will prevent the hangers from slipping out of the rubber mounts.

12) To prevent the rear axle breather tube from contacting the left side tailpipe, and possibly being damaged, use the enclosed zip tie to fasten the rear axle breather tube to the brake line bracket located on the frame. Be sure to allow enough slack in the hose for the suspension to fully compress and extend.

13) For a cleaner appearance and more secure installation, we highly recommend welding all slip-fit connections. If you live in a geographical area that has harsh winters or sees a great deal of precipitation, the use of high temperature paint over the welded areas can help to prevent surface rust and premature corrosion.

PACKING LIST

<u>Qty</u>	<u>Description</u>	<u>Part #</u>
1	Extension pipe	86087S
1	Inlet pipe	16179S
1	Muffler	8525561-Z
1	Right Tailpipe	16401S
1	Left Front Tailpipe	16180S
1	Left Rear Tailpipe	16400S
2	Side Exit Tailpipes, (L,R)	16317S
2	Stainless Tips	ST396
1	Parts kit	PK504
8	2 1/2" clamp	MC250BS
1	Rubber Hanger	HA168
1	Hanger assembly	248HA
2	5/16" x 1" Bolt	
2	5/16" Nut	
4	5/16" lock washer	
4	5/16" flat washer	
5	7/16" hanger keepers	
1	Plastic Ziptie	



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