



**AMERICAN
THUNDER**

409S® Stainless Steel

Installation Instructions for:
SYSTEM #817471
1987-1996 FORD F-150 TRUCK
V8 & V6 · ALL WHEEL BASES

Removal:

- 1) Raise the vehicle up on a hoist or rack to working height. If you do not have access to a hoist or rack raise the vehicle and support securely with jack stands.
- 2) 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 front of the muffler. 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. Remove the muffler assembly and set aside.

Installation:

- 1) Before installing anything, prep the clamps supplied in the hardware kit by removing the nuts, and applying a thick lubricant such as white grease or anti-seize to the threads.
- 2) Place the inlet pipe assembly **#TB336S** in position on the pipe from the catalytic converter. Align the notch in the pipe with the tab on the head pipe and install a 2 1/4" clamp. Tighten securely but allow for adjustment.
- 3) For standard cab short bed, proceed to Step 4. For 133" W.B, you will need to trim 22" off of the connector pipe **#TB221S**. For 139" W.B. you will need to trim 16" off of the connector pipe **#TB221S**. For 155" W.B. the connector requires no trimming. Place a 3" clamp onto the slip fit connection of the connector pipe, but do not tighten at this time.
- 4) Place muffler **#8530552-Z** onto the inlet pipe and support with a stand. Install a 3" clamp but do not tighten at this time.
- 5) Using the provided 3/8" bolts, nuts and washers and **#HA226**, bolt hanger **#225HA** to the frame on the drivers side of the vehicle using the large (middle one) holes located towards the rear of the frame then slide **#HA168** (rubber mount) on to **#225HA**.
- 6) Place the right side tailpipe **#16207S** in position over the axle and into the right side muffler outlet. Then place the hanger welded to the pipe into the rubber mounts at the rear of the tailpipe.

- 7) Place the left tailpipe **#16206S** into the back of the muffler. To make installation of this pipe easier you may want to lower the spare tire and slide the pipe in over that. Install the two 2 1/2" hangers **#406HA** and **#407HA** to the outlets of the muffler. Tighten securely but allow for adjustment. Place the hanger welded to the rear of the pipe into rubber mount **#HA168**.
- 8) Slip the exit pipe **#16317S** or **#16397S** over the tailpipes. Place a provided 2 1/2" clamp onto these connections. Tighten enough to hold but still allow for adjustment.
- 9) 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.
- 10) Tighten all clamped connections down securely. Slide the 7/16" hanger keepers onto the end of all the round stock hangers. This will prevent the hangers from slipping out of the rubber mounts.
- 11) For a more secure installation, we recommend welding all slip-fit connections.

PACKING LIST

<u>Qty</u>	<u>Description</u>	<u>Part #</u>
1	Inlet pipe	TB336S
1	Connector Pipe	TB221S
1	Muffler	8530552-Z
1	Tailpipe, Right	16207S
1	Tailpipe, Left	16206S
2	Side Exit Pipe, (R/L)	16317S
2	Rear Exit Pipe, (R/L)	16397S
2	Stainless Tips	ST396
1	Parts kit	PK557
1	2 1/4" Clamp	MC225BS
2	2 1/2" Clamps	MC250BS
2	3" Clamp	MC300BS
1	Rubber Hanger	HA168
1	Hanger Plate	HA226
1	Hanger Assembly	225HA
1	Hanger, Right	407HA
1	Hanger, Left	406HA
1	3/8" X 1" Bolts	
1	3/8" Nuts	
1	3/8" Lock Washers	
1	3/8" Flat Washers	
5	7/16" Hanger Keepers	



Installation diagram for:
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