



Installation Instructions for:  
**SYSTEM #17159**  
**1990-1994 FORD RANGER**  
4.0L ENGINE · EXTENDED CAB / SHORT BED

08/29/13

**Removal:**

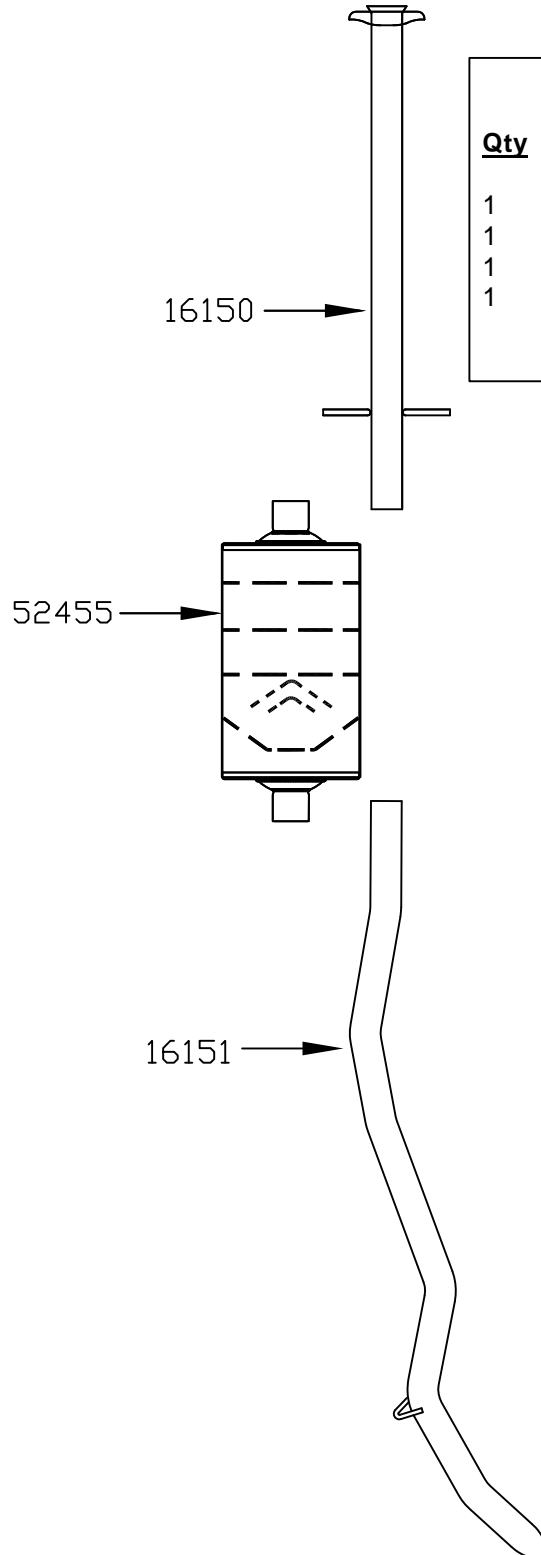
- 1) Raise the vehicle up on a hoist or rack to working height. If you do not have access to a hoist or rack raise the vehicle and support securely with jack stands.
- 2) Using a hacksaw or sawsall, cut the stock tailpipe off where it exits the muffler. (This step is not mandatory, but it makes removal a little easier.)
- 3) Separate the wire hanger on the rear of the tailpipe from the rubber mount on the vehicle. Remove the tailpipe and set aside.
- 4) Support the muffler with a stand and separate the wire hangers from the rubber mounts in front of the muffler.
- 5) Remove the two bolts at the flanged connection from the inlet pipe to catalytic converter. Remove the muffler/inlet pipe 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 inlet pipe **#16150** in position behind the catalytic converter. Connect the wire hanger to their rubber mounts and install the stock bolts and nuts back onto the flanged inlet connection.
- 3) Connect the inlet of muffler **#52455** to the inlet pipe. Use a stand to support the muffler and install a 2 1/4" clamp. Tighten just enough to hold in position.
- 4) Place the over-axle pipe **#16151** into position and connect it to the muffler outlet. Connect the wire hanger to its rubber mount and install a 2 1/4" clamp and tighten just enough to hold in position.
- 5) Adjust the position of all muffler, pipes and tips 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.
- 6) 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.



Installation diagram for:  
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PACKING LIST			
<u>Qty</u>	<u>Description</u>	<u>Part #</u>	
1	Inlet Pipe	16150	
1	Muffler	52455	
1	Tailpipe	16151	
1	Parts Kit	PK303	
2	2 1/4" Clamp	MC225S	
3	7/16" Hanger Keepers		