



Installation Instructions for:  
**SYSTEM #817596**  
2013 Scion FR-S & Subaru BRZ  
2½" Cat-Back system



**409S Stainless Steel**

07/25/12

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. Spray a penetrating lubricant onto the nuts of the flanged connection in the center of the vehicle. Also, spray the rubber hangers that support the stock exhaust system.



2) Support the rear of the exhaust system with a stand. Remove the two nuts at the flanged connection in the center of the vehicle. Then remove the hanger in the center of the system and the four at the rear of the system from the rubber mounts on the vehicle. With the help of an assistant, carefully lower the stock system from under the vehicle.



3) Place inlet pipe **#16814S** onto the back of the factory resonator so that it is centered in the center channel of the vehicle. Replace the two bolts removed in the previous step and tighten securely.



4) Place a provided clamp onto the front of mid-pipe assembly **#16815S** and slide onto the back of the inlet pipe **#16814S**. Rotate the assembly up into its approximate position and connect the hangers on the pipe to their rubber mounts on the vehicle. Tighten the clamp enough to hold, but still allow for adjustment.



5) Place a provided clamp onto the inlet of muffler **#852583-Z** and place onto the back of mid-pipe **#16815S**. Rotate the muffler so that it is level and support the muffler with a stand. Tighten the clamp on the muffler inlet enough to hold, but still allow for adjustment.



6) Place a provided clamp onto the left muffler outlet. Then put the left exit pipe **#16816S** into position and connect the hanger on the pipe to the rubber mount on the vehicle. After connecting the hanger, slide the pipe into the muffler outlet and tighten the clamp enough to hold, but still allow for adjustment.



7) Place a provided clamp onto the right muffler outlet. Then put the left exit pipe **#16817S** into position and connect the hangers on the pipe to the rubber mounts on the vehicle. After connecting the hangers, slide the pipe into the muffler outlet and tighten the clamp enough to hold, but still allow for adjustment.



8) Place the **ST339** stainless tips onto both of the exit pipes and adjust to the desired position. Tighten the clamps on the tips enough to hold, but still allow for adjustment.

9) Adjust the position of all pipes and mufflers to provide a satisfactory fit. Be sure to maintain an adequate clearance around all parts of the system to avoid rattles or damage to heat sensitive components. Once you're happy with the fit, tighten all connections down securely. For a more secure installation, we highly recommend welding all slip-fit connections. Place the provided hanger keepers onto the end of each of the round stock hangers, these will prevent the hangers from slipping out of the rubber mounts.

### PACKING LIST

<u>Qty</u>	<u>Description</u>	<u>Part#</u>	
1	Inlet Pipe	16814S	
1	Mid-Pipe Assy.	16815S	
1	Muffler	852583-Z	
1	Left Exit Pipe	16816S	
1	Right Exit Pipe	16817S	
2	Stainless Tip	ST339	
1	Parts Kit	PK648	
	4	2½" Band Clamp	MC250BS
	5	Hanger Keeper	HW502



Installation diagram for:  
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**AMERICAN THUNDER**  
*409S® Stainless Steel*

