



### **Installation Instructions for:**

#### **RTR Tactical Performance Lowering Springs**

Part Number 1598-0412-01

**2015-2019 GT Fastback, EcoBoost**

#### **RTR Tactical Performance Struts and Shocks**

Part Number 1598-0414-01

**2015-2019 GT Fastback, EcoBoost**

Excludes MagneRide equipped vehicles

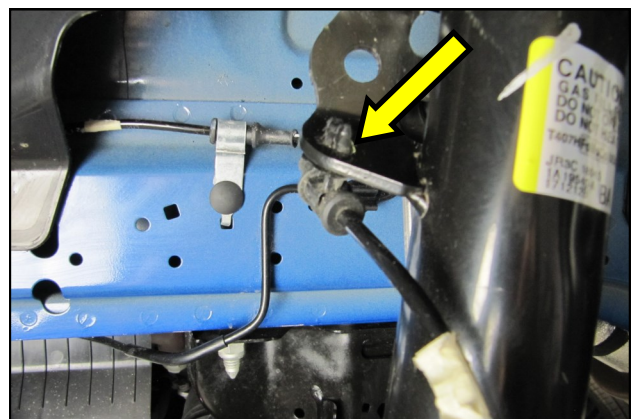
**NOTE:** Installation of the RTR springs will lower the vehicle ride height 28mm Front and 20 mm Rear.

All non locking fasteners removed in this installation require LOCTITE® 243 or equivalent to be applied prior to reassembly.

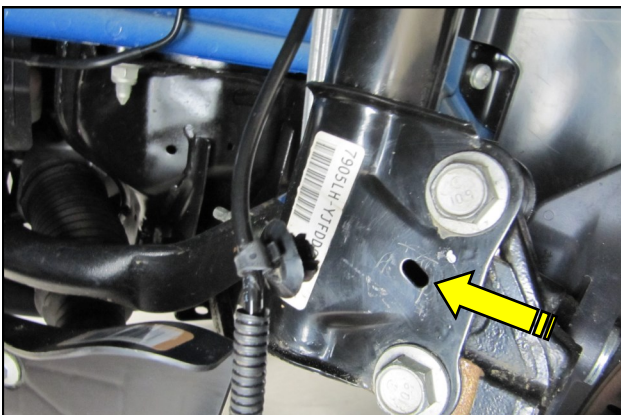
This installation manual covers installation of both RTR Shocks, Struts and Springs. If you have purchased any of these components separately, disregard any non applicable information. The general installation procedure will be the same.



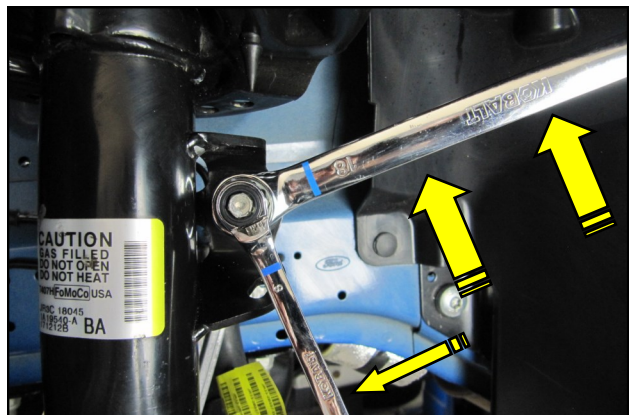
**1.** Raise the vehicle and remove all four wheels.



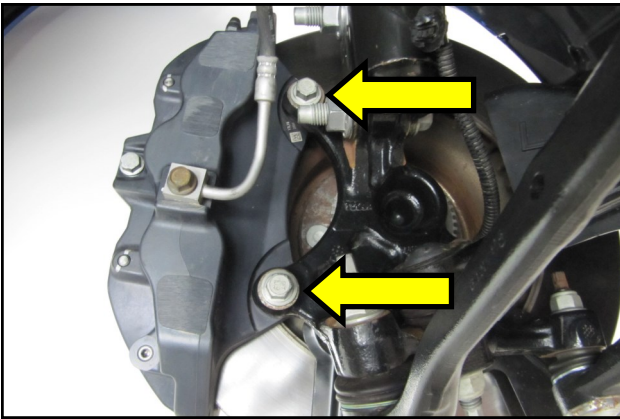
**2.** Installation of the Front suspension components is as follows: Pry the wheel speed sensor anchor out of the strut tab.



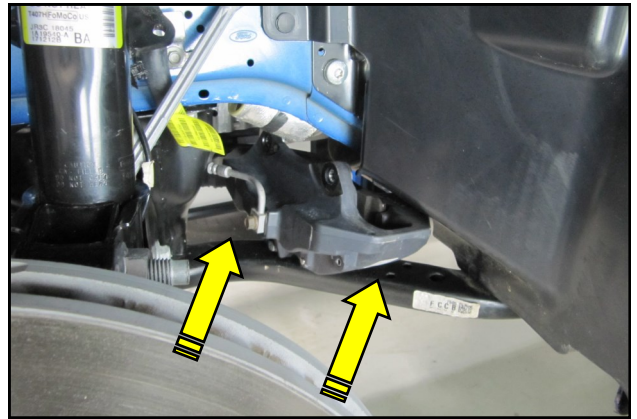
**3.** Pry the second wheel speed sensor anchor out of the strut mount.



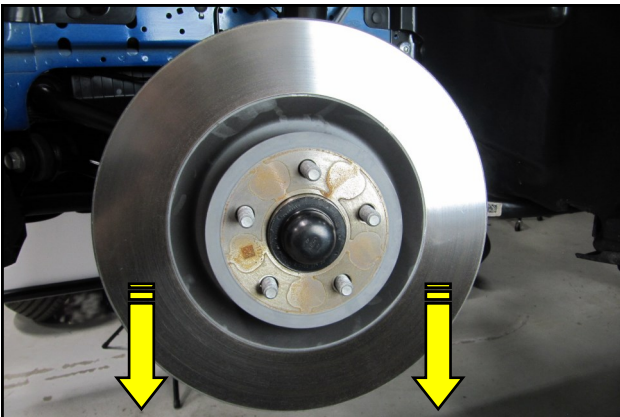
**4.** Disconnect the sway bar link from the strut as shown.



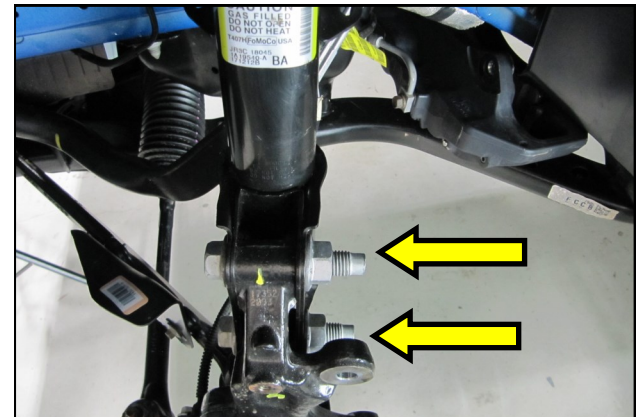
5. Remove the caliper anchor bolts and slide the caliper off of the brake rotor.



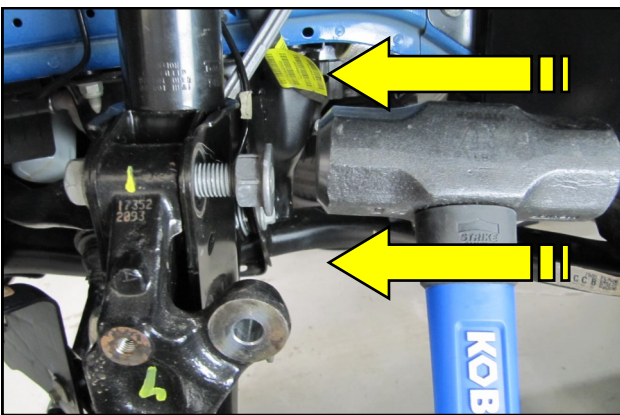
6. Slide the caliper up onto the K member.



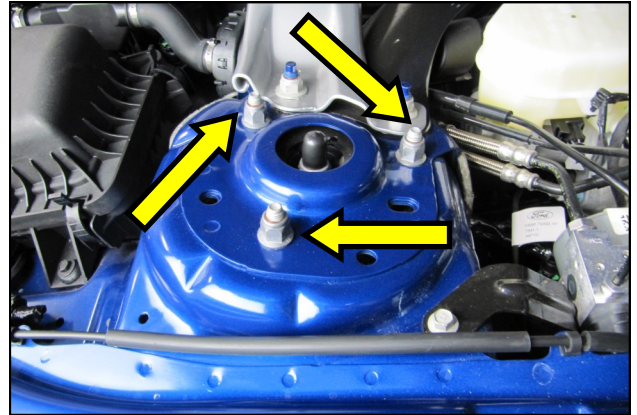
7. Slide the brake rotor off of the hub and set it aside.



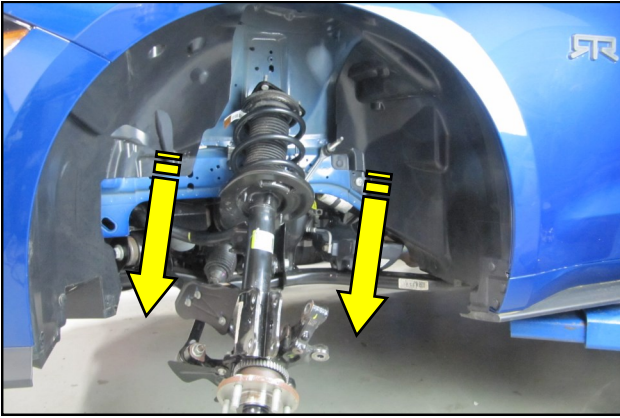
8. Remove the strut to spindle nuts.



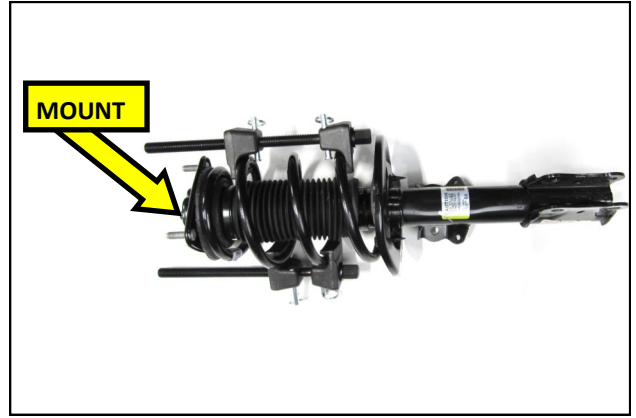
9. Reinstall the nuts, flange side out until flush with the bolt. Using a 5 Lb. sledge hammer or air hammer, carefully drive the bolts out of the spindle.



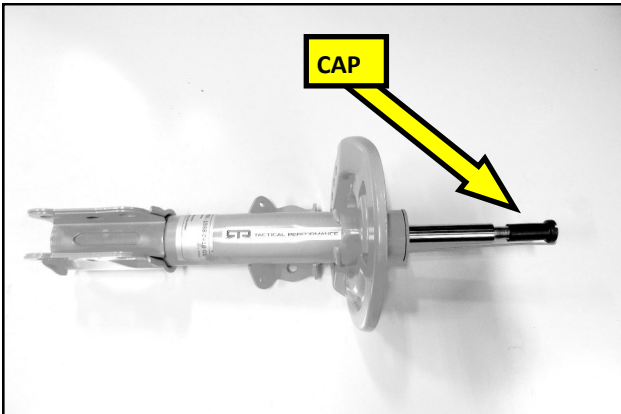
10. Remove the upper strut nuts and set them aside but within arms reach. These nuts will be reused.



**11.** Pull the spindle away from the vehicle and remove the strut assembly.



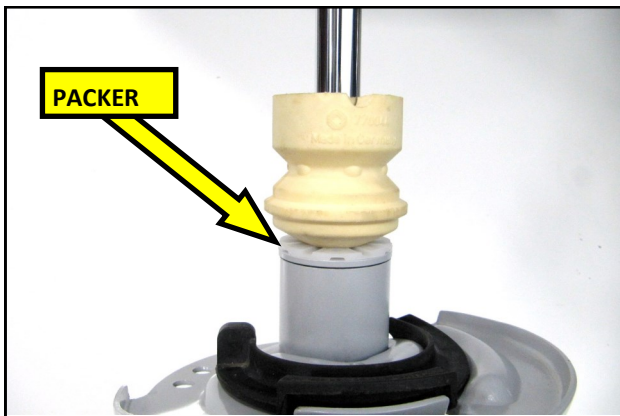
**12.** Compress the OEM spring in the strut assembly until the tension is fully relieved. Remove the nut and upper strut mount and set them aside.



**13.** Remove the shipping cap and restraining wire from the RTR Strut.



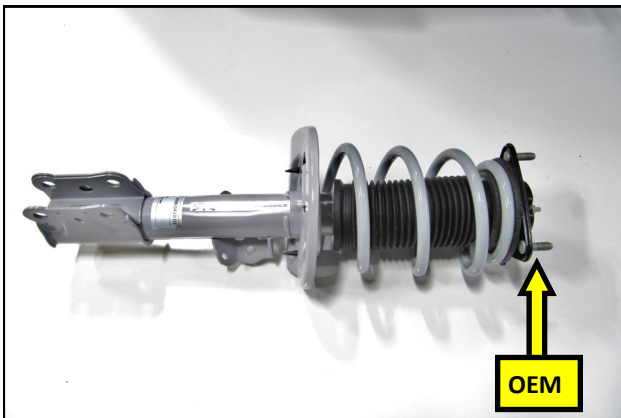
**14.** Transfer the Coil isolator from the OEM into the RTR Strut as shown.



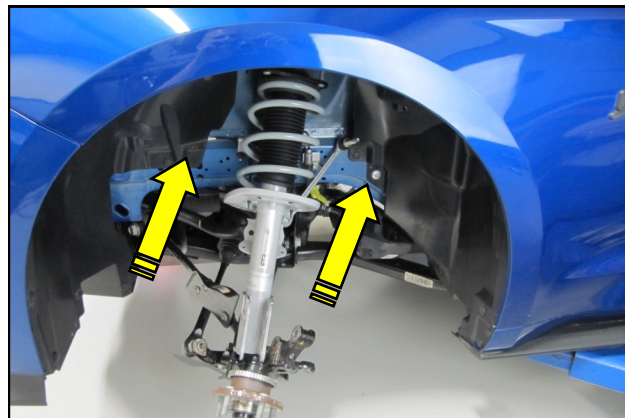
**15.** Slide the RTR Shock Packer and RTR Bump Stop onto the piston rod.



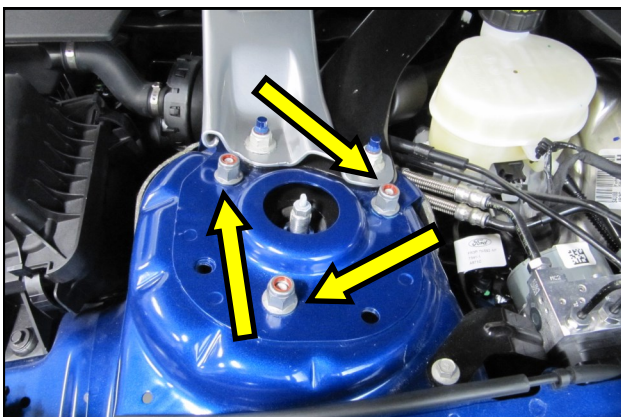
**16.** Install the boot onto the Strut.



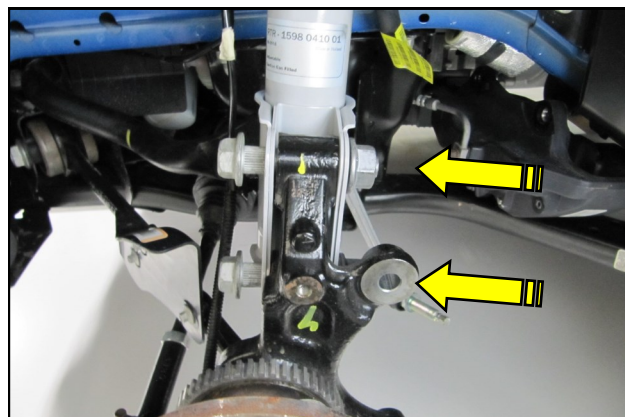
**17.** Compress the RTR Spring and reuse the OEM strut mount and nut from step 12 to build the assembly.



**18.** Lift the RTR Strut assembly into the vehicle and align the studs with the holes in the strut tower.



**19.** Hand tighten the upper strut nuts onto the studs.



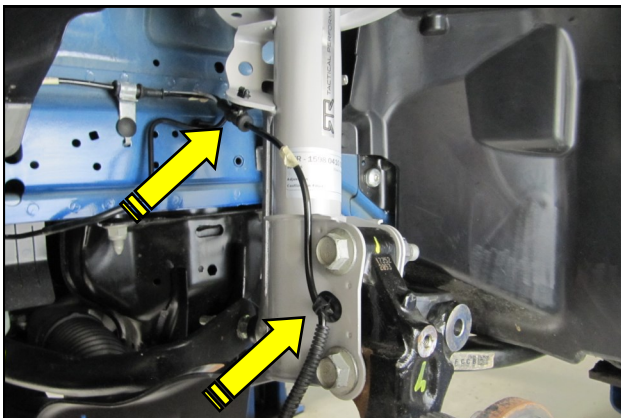
**20.** Slide the spindle into the strut and re install the strut-to-spindle bolts and nuts. Torque the fasteners to 184 lb.ft.



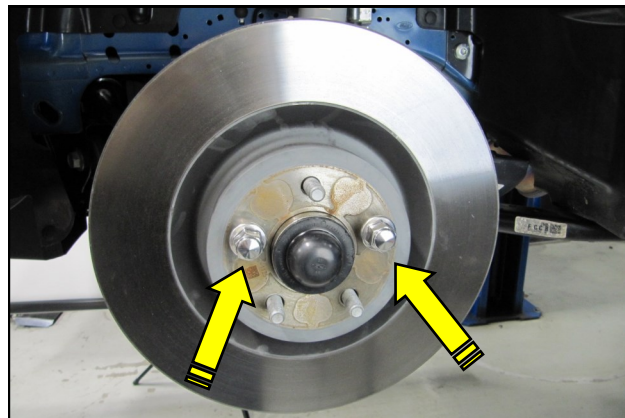
**21.** Insert the front sway bar link into the RTR Strut tab and re use the OEM nut to secure it. Torque the link nut to 85 lb.ft.



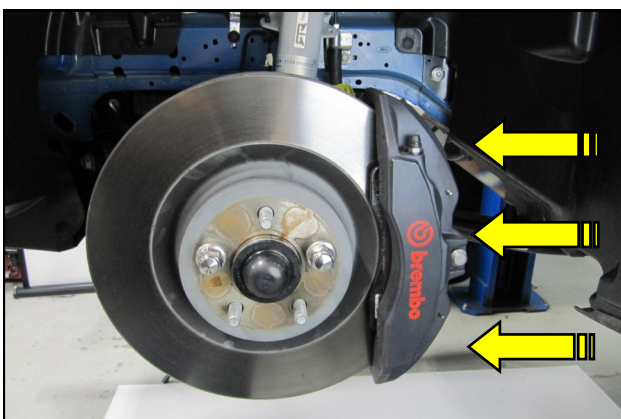
**22.** Torque the upper strut nuts to 46 lb.ft.



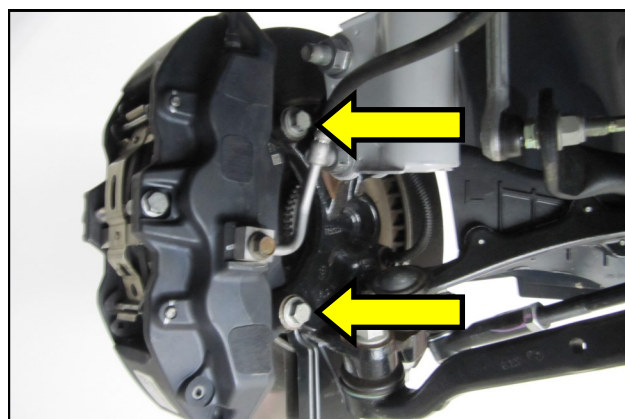
**23.** Insert the wheel speed sensor wire anchors into the RTR Strut as shown.



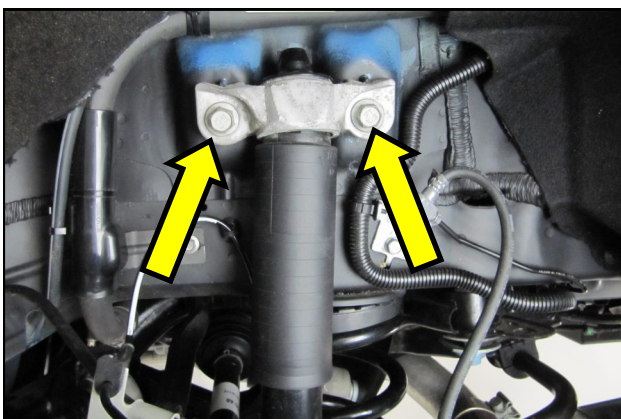
**24.** Slide the brake rotor back onto the hub and secure it using two lug nuts.



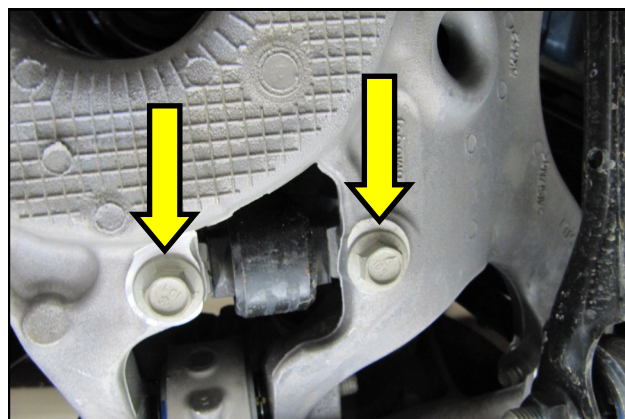
**25.** Slide the brake caliper back onto the rotor.



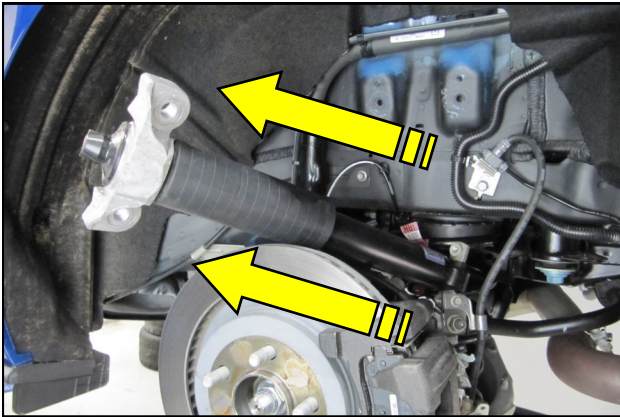
**26.** Reinstall the anchor bolts and torque them to 85 lb.ft. Repeat steps 1-26 on the opposite side of the vehicle.



**27.** Installation of the Rear suspension components is as follows: Remove the rear upper shock mount bolts and set them aside.



**28.** Remove the lower shock bolts in the control arm and set them aside.



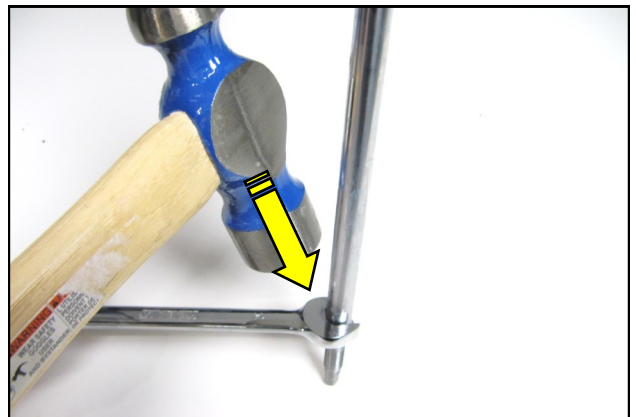
29. Remove the shock from the vehicle as shown.



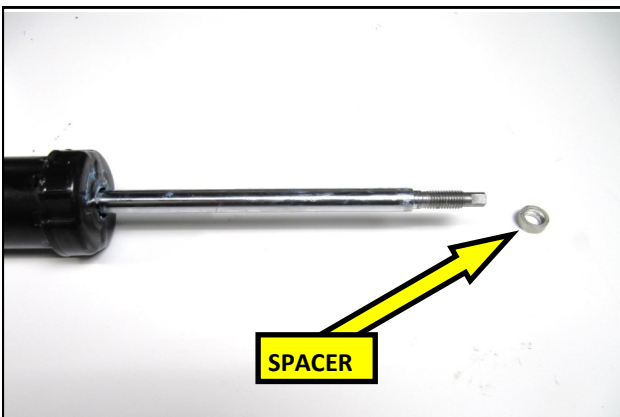
30. Remove the debris cap from the upper shock mount.



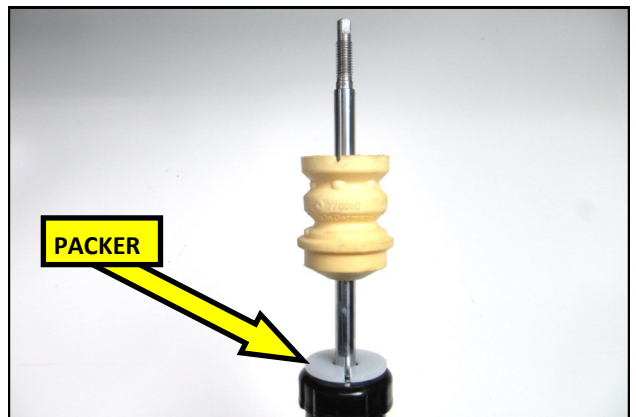
31. Remove the upper shock lock nut and mount.



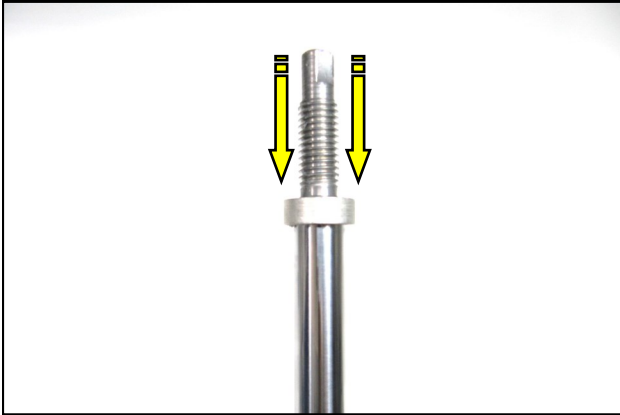
32. OEM Shock-Using a ball peen hammer and 12 mm open end wrench, tap the piston rod spacer off of the rod.



33. Set the spacer aside. It will be reused.



34. Slide the RTR Shock Packer and the RTR Bump Stop onto the piston rod.



35. Reinstall the spacer onto the piston rod.



**OEM SHOCK INSTALLATION CONFIGURATION**

36. Slide the Bump Stop up to the spacer and slide the shock boot over the Bump Stop as shown.



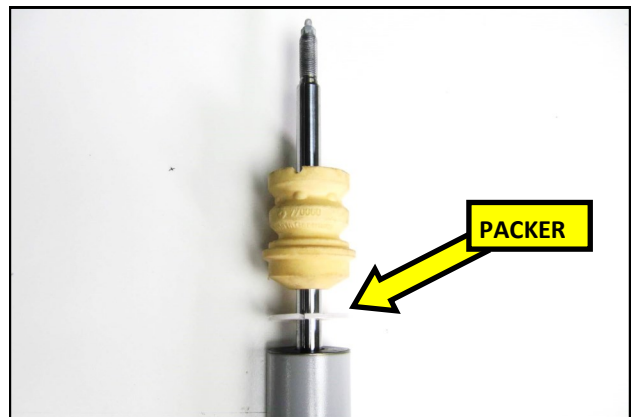
37. Torque the upper shock lock nut to 22 lb.ft and replace the debris cap. If springs are not part of this installation, proceed to step 58.



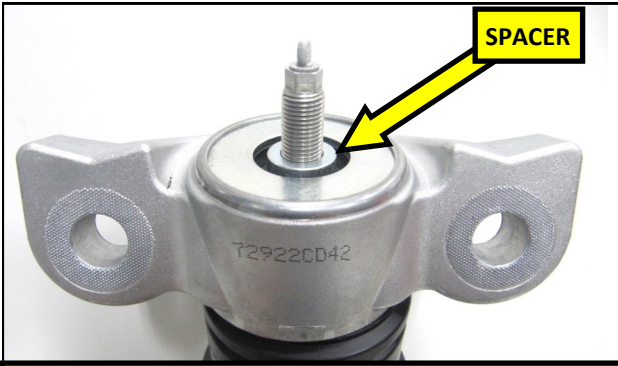
38. If installing the RTR shock, the shock mount will need to be drilled out to 12mm or 15/32" to accommodate the larger piston rod.



39. The RTR Bump Stop will need to be drilled out as well.

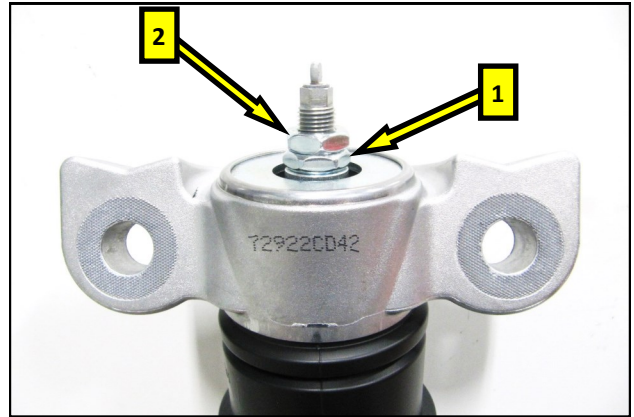


40. Slide the RTR Shock Packer and the RTR Bump Stop onto the piston rod.

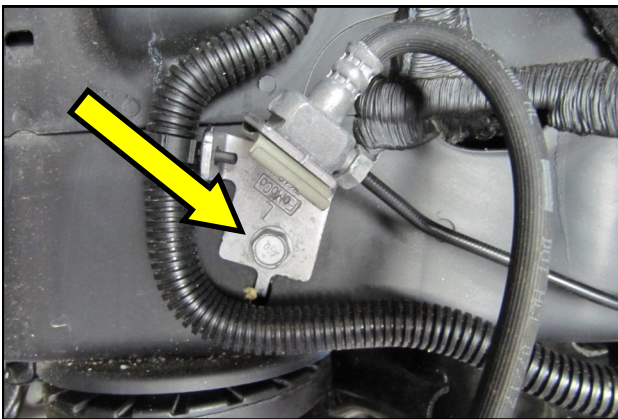


**RTR SHOCK INSTALLATION CONFIGURATION**

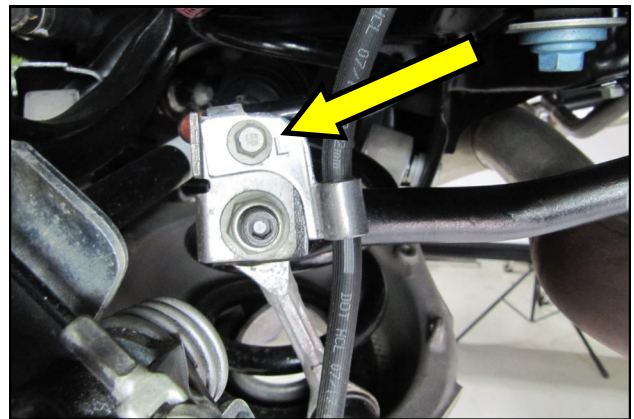
**41.** Slide the shock boot onto the RTR Bump Stop and reinstall the modified shock mount onto the Shock. Place the supplied Spacer **on top** of the Shock mount as shown. **The OEM spacer is not to be used.**



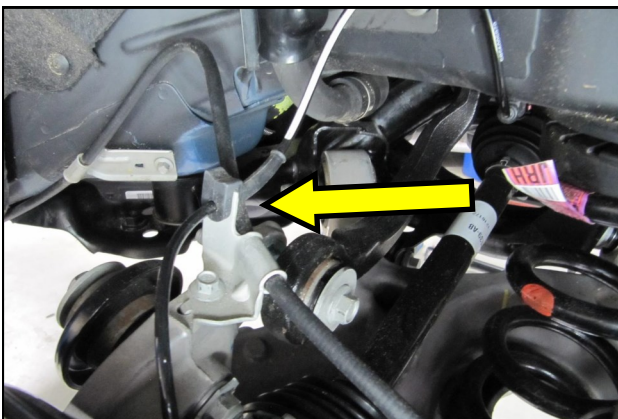
**42.** Torque the supplied Shock Nuts to 22 lb.ft. Reinstall the dust cap and set the shock aside. If springs are not part of this installation, proceed to step 58.



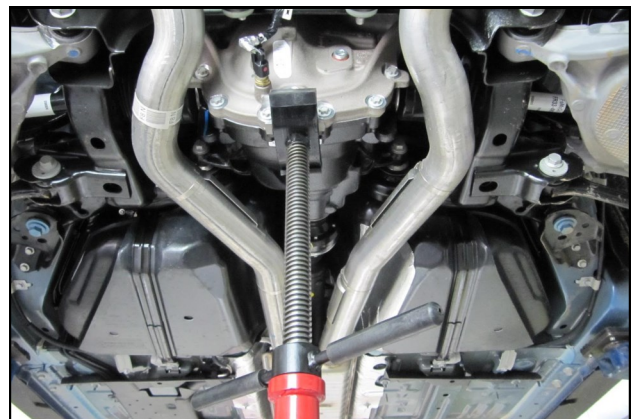
**43.** Remove the bolt in the hard line bracket and set it aside. Repeat this step on the opposite side of the vehicle.



**44.** Remove the bolt securing the brake hose bracket to the sway bar. Repeat this step on the opposite side of the vehicle.



**45.** Slide the wheel speed sensor wire out of the parking brake cable bracket. Repeat this step on the opposite side of the vehicle.

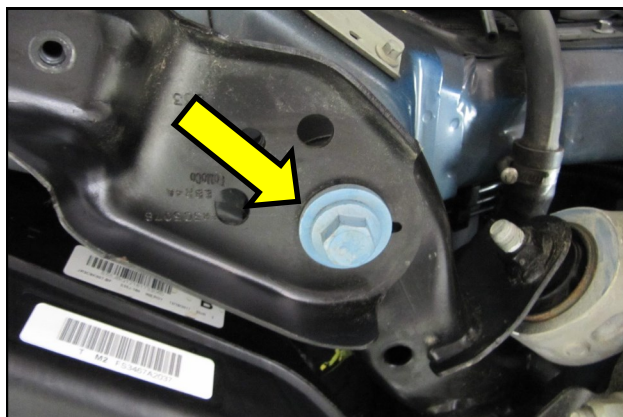


**46.** Support the differential using a jack as shown.





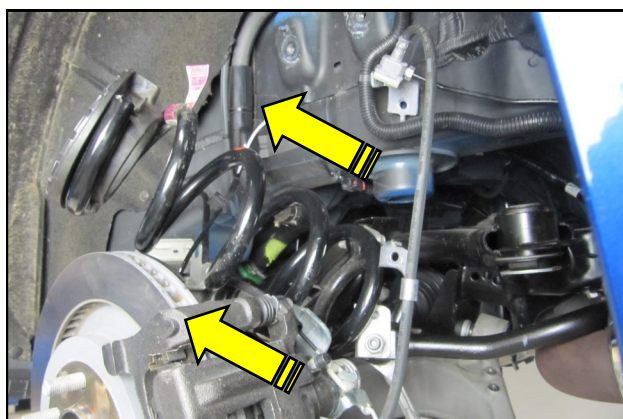
**47.** Remove the subframe bracket bolts on both sides of the vehicle and set them aside.



**48.** Remove the front subframe bolts on both sides of the vehicle.



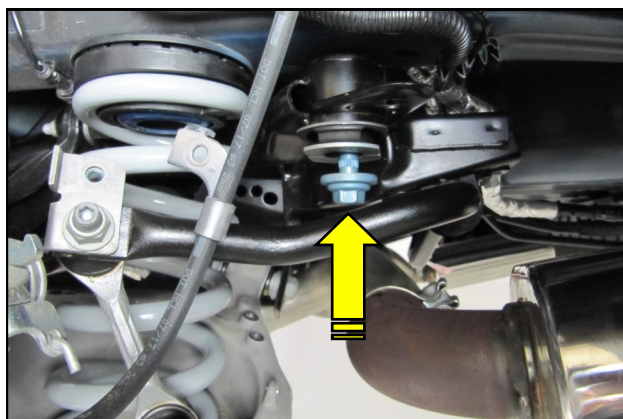
**49.** Remove the rear subframe bolts on both sides of the vehicle and lower the differential and subframe until the springs can be removed.



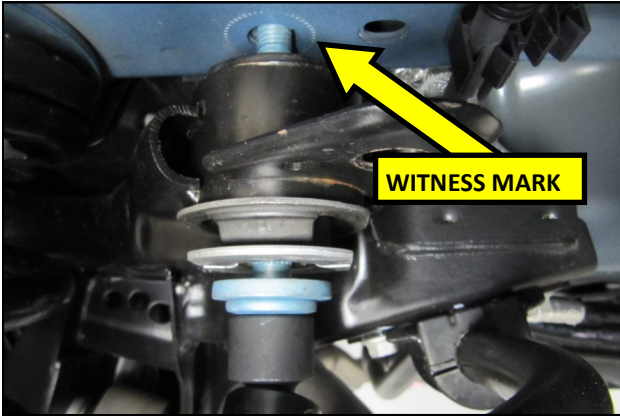
**50.** Remove the OEM spring and upper isolator from the vehicle.



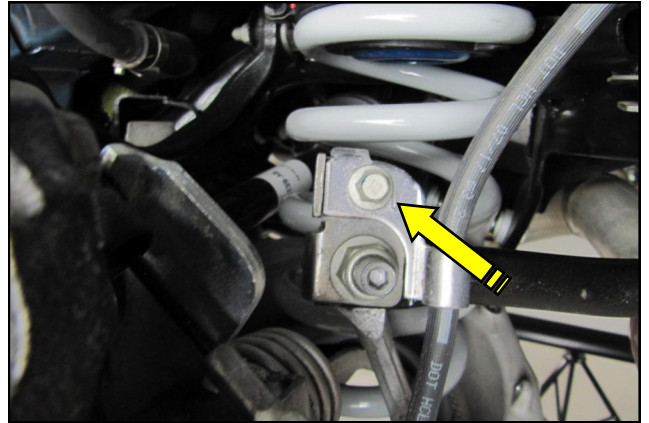
**51.** Transfer the OEM isolator onto the RTR Spring. Rotate the isolator in the spring until the coil end bottoms against the isolator



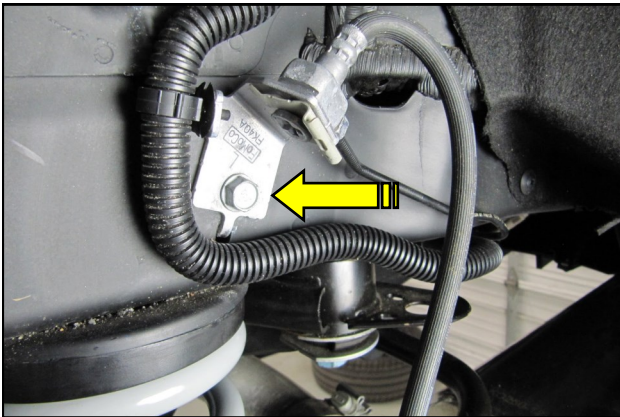
**52.** Install the RTR spring into the vehicle. Start the sub frame bolts and the subframe bracket bolts. Repeat steps 50, 51 and 52 on the opposite site of the vehicle.



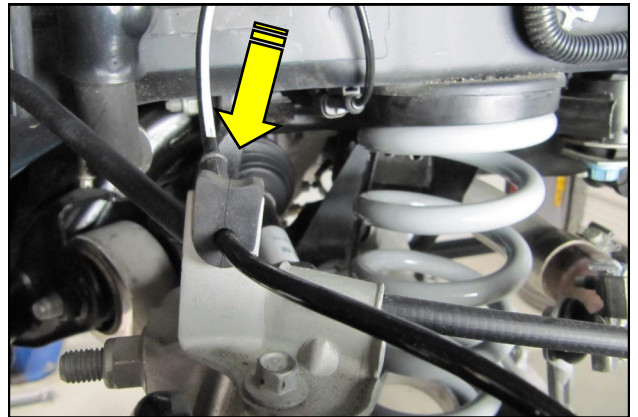
**54.** Use a pry bar to guide sub frame while tightening the subframe bolts. Align the subframe mounts with the witness mark in the vehicle. Torque the bracket bolts to 41 lb.ft. Torque the subframe bolts to 129 lb.ft.



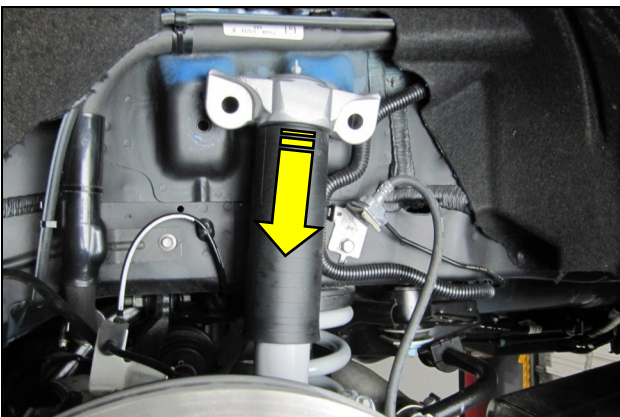
**55.** Secure the brake hose to the sway bar link using the OEM bolt. Repeat this step on the opposite side of the vehicle.



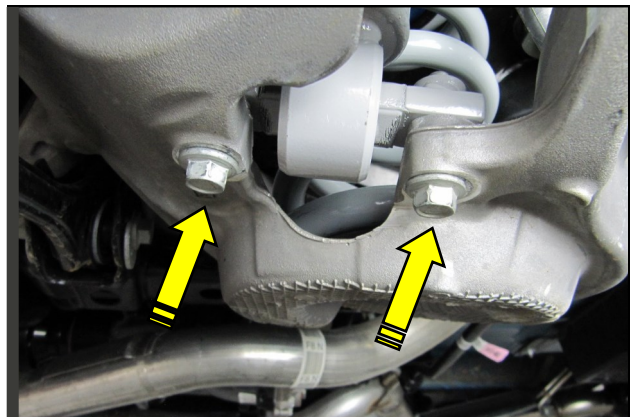
**56.** Secure the hard line bracket to the vehicle using the OEM bolt. Repeat this step on the opposite side of the vehicle.



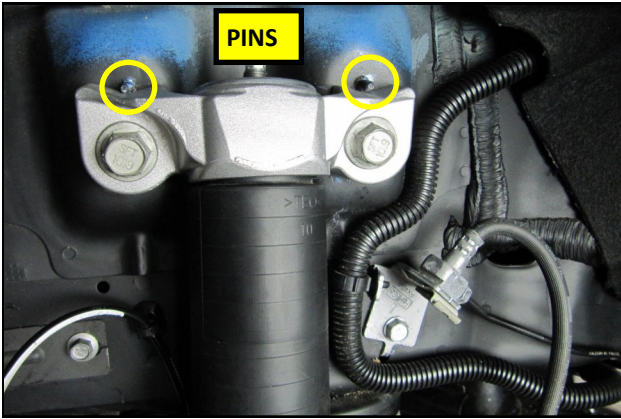
**57.** Insert the wheel speed sensor wire into the parking brake cable bracket. Repeat this step on the opposite side of the vehicle.



**58.** Lower the shock into the lower control arm.



**59.** Install the lower Shock bolts. Torque the bolts to 35 lb.ft.

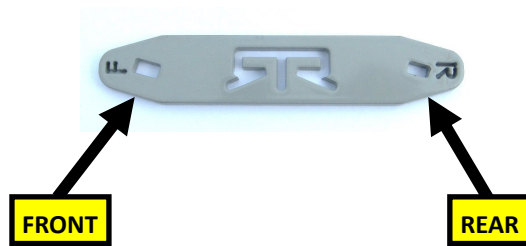


**60.** Compress the rear Shock and align the upper mount under the body alignment pins.  
Install the rear Shock upper bolts and torque them to 66 lb.ft .



**61.** Tighten the lug nuts and torque them to 148 lb.ft  
Following a comprehensive test drive, have the vehicle aligned.

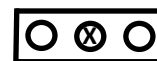
The Rebound Damping forces can be fine-tuned to personal driving style and road conditions by rotating the adjuster at the top of the Struts and Shocks using the RTR Shock Wrench. Rotating the adjuster Clockwise will soften the Shock. Rotating the adjuster Counterclockwise will increase firmness.



**Recommended settings when used with RTR Tactical Performance Adjustable Front Sway Bars**

Front Strut 3/4 Turn from Full Soft

Front Bar Medium



Rear Shock 1 Turn from Full Soft

Rear Bar Full Soft



## Alignment Specifications

**NOTE:** Measurements listed at curb load. Curb load is defined as "full service fluids, full fuel tank, no passengers and no cargo".

<b>Front</b>	<b>LH</b>	<b>RH</b>	<b>Total/Split</b>		
Camber — (Base Coupe, Base Convertible, Performance Package Convertible, Track Package Convertible)	$-0.72^\circ \pm 0.75^\circ$	$-0.72^\circ \pm 0.75^\circ$	$0.0^\circ \pm 0.75^\circ$		
Camber — (Performance Package Coupe, Track Package Coupe)		$-1.03^\circ \pm 0.75^\circ$	$-1.03^\circ \pm 0.75^\circ$	$0.0^\circ \pm 0.75^\circ$	
Camber — (V8 - Performance Package Level 2)		$-1.11^\circ \pm 0.75^\circ$	$-1.11^\circ \pm 0.75^\circ$	$0.0^\circ \pm 0.75^\circ$	
Camber — (GT350)	$-1.05^\circ \pm 0.75^\circ$	$-1.05^\circ \pm 0.75^\circ$	$0.0^\circ \pm 0.75^\circ$		
Camber — (GT350R)	$-1.12^\circ \pm 0.75^\circ$	$-1.12^\circ \pm 0.75^\circ$	$0.0^\circ \pm 0.75^\circ$		
Caster — (Base Coupe, Base Convertible, Performance Package Convertible, Track Package Convertible)	$7.12^\circ \pm 0.75^\circ$	$7.12^\circ \pm 0.75^\circ$	$0.0^\circ \pm 0.75^\circ$		
Caster — (Performance Package Coupe, Track Package Coupe)		$6.91^\circ \pm 0.75^\circ$	$6.91^\circ \pm 0.75^\circ$	$0.0^\circ \pm 0.75^\circ$	
Caster — (V8 - Performance Package Level 2)		$6.97^\circ \pm 0.75^\circ$	$6.97^\circ \pm 0.75^\circ$	$0.0^\circ \pm 0.75^\circ$	
Caster — (GT350)	$6.81^\circ \pm 0.75^\circ$	$6.81^\circ \pm 0.75^\circ$	$0.0^\circ \pm 0.75^\circ$		
Caster — (GT350R)	$6.92^\circ \pm 0.75^\circ$	$6.92^\circ \pm 0.75^\circ$	$0.0^\circ \pm 0.75^\circ$		
Toe — (All Models Except, GT350, GT350R, V8 - Performance Package Level 2)	—	—	$0.0^\circ \pm 0.20^\circ$		
Toe — (V8 - Performance Package Level 2)	—	—	$-0.10^\circ \pm 0.20^\circ$		
Toe — (GT350)	—	—	$-0.10^\circ \pm 0.20^\circ$		
Toe — (GT350R)	—	—	$0.06^\circ \pm 0.20^\circ$		
<b>Rear</b>	<b>LH</b>	<b>RH</b>	<b>Total/Split</b>		
Camber — (All Models Except, GT350, GT350R, V8 - Performance Package Level 2)		$-1.50^\circ \pm 0.75^\circ$	$-1.50^\circ \pm 0.75^\circ$	—	
Camber — (V8 - Performance Package Level 2)		$-1.00^\circ \pm 0.75^\circ$	$-1.00^\circ \pm 0.75^\circ$	—	
Camber — (GT350)	$-0.75^\circ \pm 0.75^\circ$	$-0.75^\circ \pm 0.75^\circ$	—		
Camber — (GT350R)	$-0.70^\circ \pm 0.75^\circ$	$-0.70^\circ \pm 0.75^\circ$	—		
Toe — (All Models Except, GT350, GT350R, V8 - Performance Package Level 2)	$0.12^\circ \pm 0.20^\circ$	$0.12^\circ \pm 0.20^\circ$	$0.23^\circ \pm 0.20^\circ$		
Toe — (V8 - Performance Package Level 2)	$0.15^\circ \pm 0.20^\circ$	$0.15^\circ \pm 0.20^\circ$	$0.30^\circ \pm 0.20^\circ$		
Toe — (GT350, GT350R)	$0.15^\circ \pm 0.20^\circ$	$0.15^\circ \pm 0.20^\circ$	$0.30^\circ \pm 0.20^\circ$		