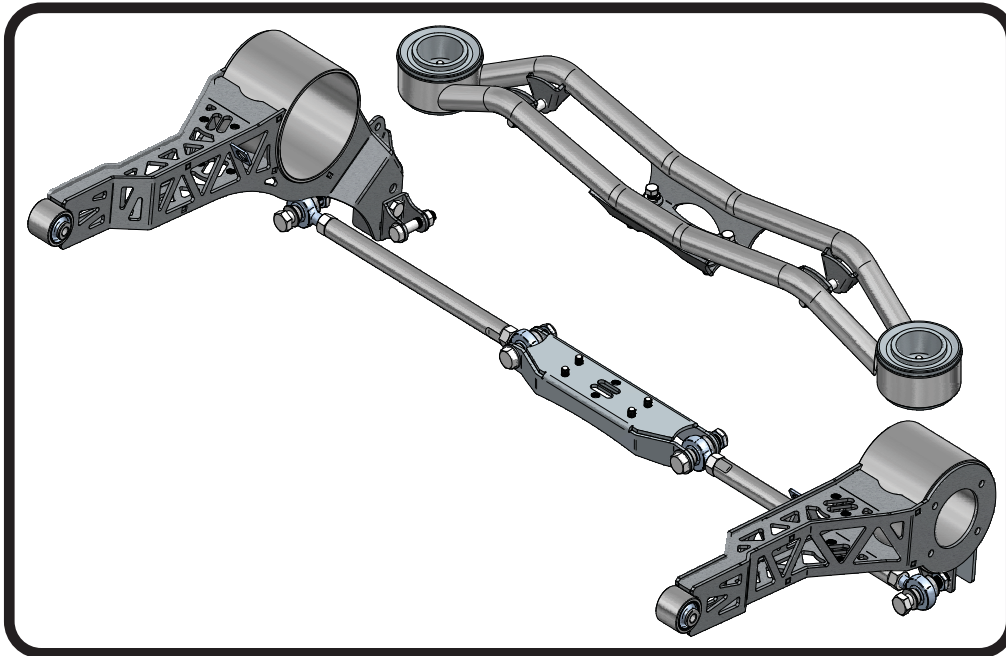
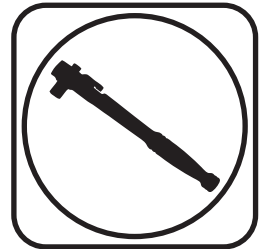




### Part # 11527199/11537199 - 1963-1979 C2/C3 Rear StrongArms



#### Recommended Tools



## 1963-1979 C2/C3 Rear StrongArms Installation Instructions

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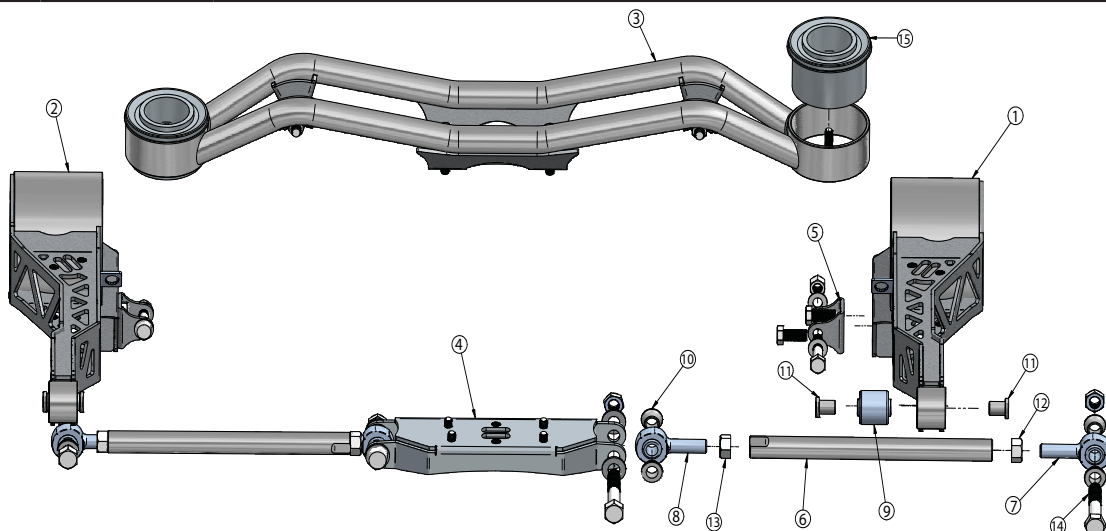
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### Major Components .....In the box

Item #	Part #	Description	QTY
1	90002163	Driver Trailing Arm	1
2	90002164	Passenger Trailing Arm	1
3	90002165	Upper Crossmember	1
4	90002166	Strut Rod Mount	1
5	90002158	CoilOver Lower Mounting Bracket	2
6	90002847	Threaded Strut Rod <b>(Set at 16 5/16" Center to Center)</b>	2
7	70013364	Strut Rod R-Joint Housing End 3/4"-16 RH Thread (Pre installed in Strut Rod)	2
8	70013564	Strut Rod R-Joint Housing End 3/4"-16 LH Thread (Pre installed in Strut Rod)	2
9	70011856	Trailing Arm Bearing (Pre installed in Trailing Arms with (4) 72000259)	2
10	70013545	Strut Rod R-Joint Spacers - 5/8" ID x .563" Thick	8
11	90002169	Trailing Arm Bearing T-bushings - 7/16" ID	4
12	99752004	3/4"-16 SAE RH Thread Jam Nut	2
13	99752006	3/4"-16 SAE LH Thread Jam Nut	2
14	90002175	5/8"-18 Flat Machine Bolt	2
15	70011824	Upper Crossmember Bushing (Pre installed in Crossmember)	2
	70013977	Crossmember Bushing Retainer Isolator Ring	2
	90003087	Aluminum Crossmember Bushing Retainer	2
	90002191	Trailing Arm Bushing Shim Kit (Not Shown)	1
	99375010	Trailing Arm Bearing Housing Studs- 3/8"-24	8
<b>R-Joint Components - (Installed in Trailing Arms and Strut Rod Ends)</b>			
	70013279	Retaining Ring	4
	70013280	Wavo Wave Spring	4
	70013275	Center Pivot Ball	4
	70013276	Composite Cage	4





### Hardware List .....In the box (Kit# 99010053)

QTY	Part Number	Description	QTY	Part Number	Description
<b>TRAILING ARM HARDWARE</b>			<b>STRUT RODS TO MOUNTS</b>		
2	99431014	7/16" x 4 1/2" SAE Bolt	2	99621003	5/8"x 2 3/4" Gr. 8 Bolt
2	99432002	7/16" SAE Nylok Nut	4	99622006	5/8" SAE Nylok Jam Nut
8	99372005	3/8" SAE Nylok Nut	4	99623001	5/8" SAE Flatwasher
<b>STRUT ROD MOUNT TO CENTER SECTION</b>			<b>CROSSMEMBER HARDWARE</b>		
4	99371003	3/8" x 1" USS Bolt	6	99431002	7/16" x 1 1/4" USS Bolt
4	99373005	3/8" Split Lock washer	10	99433002	7/16" SAE Flatwasher
4	99373003	3/8" SAE Flatwasher	8	99433003	7/16" Split Lock washer
<b>SHOCK MOUNTING HARDWARE</b>			2	99432011	7/16"-14 GR 8 Nut
4	99501003	1/2" x 2 1/2" USS Bolt	2	99432010	7/16"-14 GR8 Nylok Nut
4	99501019	1/2" x 1 1/4" USS Bolt	4	99433005	7/16" SAE GR8 Flat Washer
4	99503001	1/2" SAE Flatwasher	2	99435008	7/16"-14 x 3" Stud
8	99502001	1/2" USS Nylok Nut			

*New R-Joints will be quite stiff (75-90 in/lbs breakaway torque) until they "break in" after a few miles of use. After the break in period they will move much more freely. Because the composite bearing race contains self lubricating ingredients, no additional lubrication is needed or desired. Any additional lubrication will only serve to attract more dirt and debris to the R-Joint and actually shorten its life.*

## Getting Started.....

Congratulations on your purchase of the Ridetech Rear StrongArm System. This system has been designed to give your Corvette excellent handling along with a lifetime of enjoyment. Some of the key features of this system: Trailing arms are designed to give more tire clearance, adjustability of ride height and ride quality, excellent handling.

**Note:** These system is designed for use with the Ridetech CoilOvers and the MuscleBar swaybar. **The factory shocks and springs will not fit this system.**

1. Raise the vehicle to a safe and comfortable working height.
2. Disassemble the rear suspension using the factory service manual as a reference. You will need to remove the Traverse Leaf Spring, Shocks, BumpStops, Half Shafts, Trailing arms, Center Section, Upper Crossmember, and Strut Rod Bracket from the Center Section.

**NOTE: Keep the shims for the Trailing Arm in order and marked from where they were removed.**

**NOTE: You will need to disconnect the brake lines and parking brake cables(if equipped) on the OEM Brake Setup**

3. With the rear suspension disassembled, remove the OEM Hub setup from the OEM Trailing Arms.

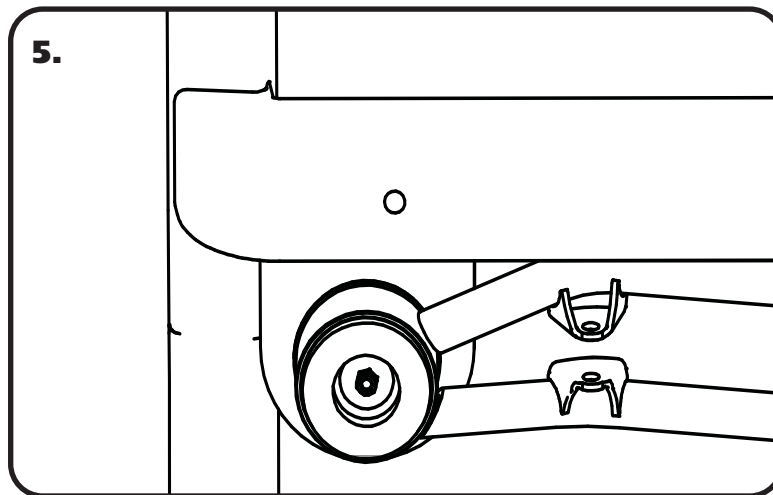
**The OEM hubs will be used with the new Trailing Arms.**



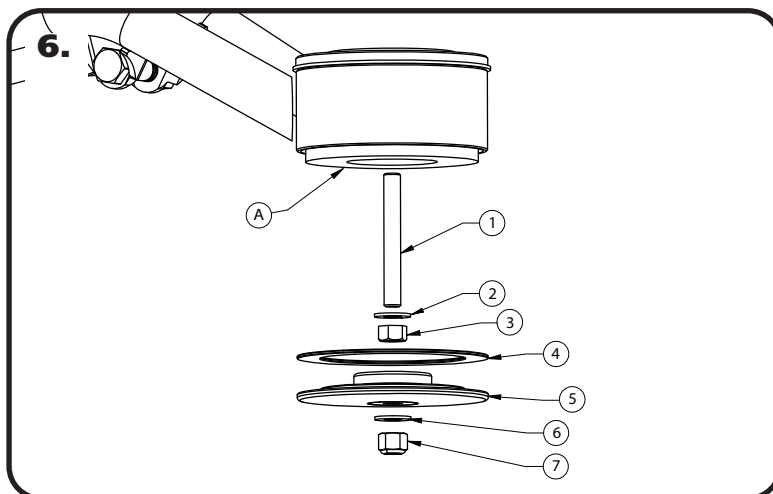
### Upper Crossmember Installation



4. Attach the Upper Crossmember to the OEM Center Section using (4) 7/16" -14 x 1 1/4" Hex Bolts, (4) 7/16" Lock washers, and (4) 7/16" SAE Flat washers. The Upper Crossmember bolts in place of the OEM upper crossmember. The upper crossmember is symmetrical and will fit either direction.



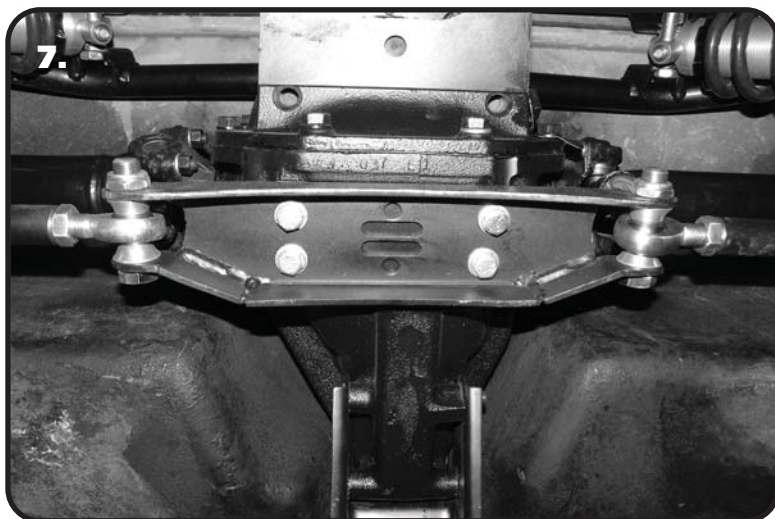
5. Refer to **Images 5 & 6** for installation of the Crossmember. Apply Loctite to the 7/16" -14 x 3" Stud(1), thread it into the frame approximately 3/4". Slide the Crossmember(A) onto the Studs, holding it in place. Install a 7/16" Grade 8 Flat Washer(2) followed by a 7/16" -14 Grade 8 Regular Nut(3). Do this for both studs. Torque the Nuts to 50ftlbs.



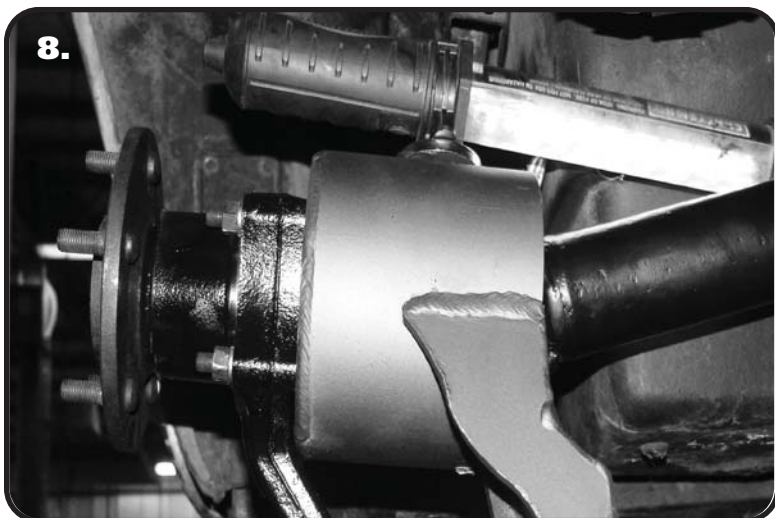
6. Install the Isolator Ring onto the Bushing Retainer. There is an area on the retainer that the isolator sits. With the Crossmember in place and the Nuts torqued, slide the Aluminum Bushing Retainer/Isolator on the Stud. Next, install a 7/16" Grade 8 Flat Washer(6) followed by a 7/16" -14 Grade 8 Nylok Nut(7). Do this for both sides. Torque the Nuts to 50ftlbs.



### Strut Rod Bracket and Trailing Arm Installation

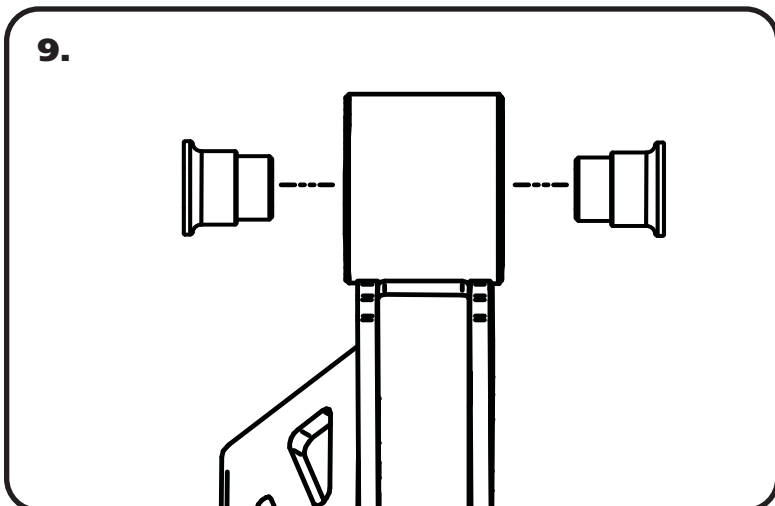


7. Install the Strut Rod Bracket onto the bottom of the OEM Center Section with the FLAT side to the rear of the car. Attach the bracket with (4) 3/8" x 1" Hex Bolts, (4) 3/8" SAE Flatwashers, and (4) 3/8" Split Lock washers.



8. Install the Knurled Studs into the Trailing Arms. Install the OEM Hub Assembly using (4) 3/8" SAE Nylok Nuts. The Drivers side Trailing Arm has the Shock Mount pointing down and facing the inside of the car. Do this for both sides.

**Note:** The Hub Assemblies are Driver and Passenger specific. The "D" shaped hole in the lower Strut Rod Mount faces the rear of the car.



9. Install the 7/16" I.D. T-bushings into the front Trailing Arm Bearings. Do this for both Trailing Arms.



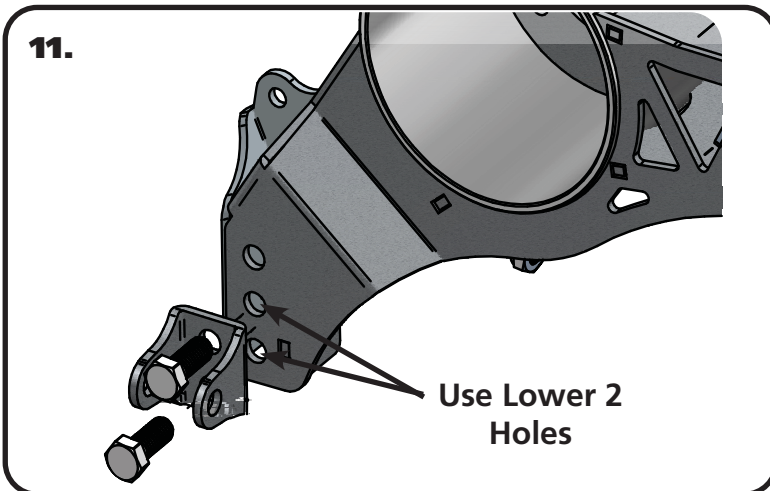
### Trailing Arm & Strut Rod Installation



**10.** Install the Driver Trailing Arm Assembly into the stock location using (1) 7/16" x 4 1/2" Bolt, (1) 7/16" Flatwasher. Install New Shims that are supplied with the kit. The shim stacks should be the same thickness as the shim stacks that were removed from the OEM setup. Repeat for Passenger side.

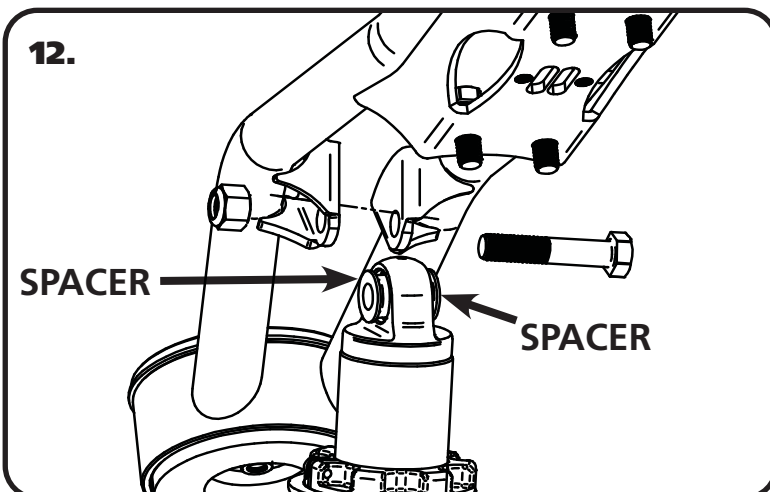
**DUE TO VARIATIONS OF THE OPENINGS, CHECK CLEARANCE BETWEEN TRAILING ARMS AND FRAME. THE AREA POINTED OUT IN DIAGRAM "10" MAY NEED TO BE CLEARANCED.**

**Note:** Driver Trailing arm is shown in Diagram "11". The shock mount will be on the bottom when the arm is installed correctly.



**11.** Attach the Shock Mounting Bracket to the lower to holes in the Trailing Arm. The Shock Mount is attached using (2) 1/2"-13 x 1 1/4" Bolts and (2) 1/2"-13 Nylok Nuts.

**Note:** The Upper 2 holes would be used if a 1" higher ride height would be desired.

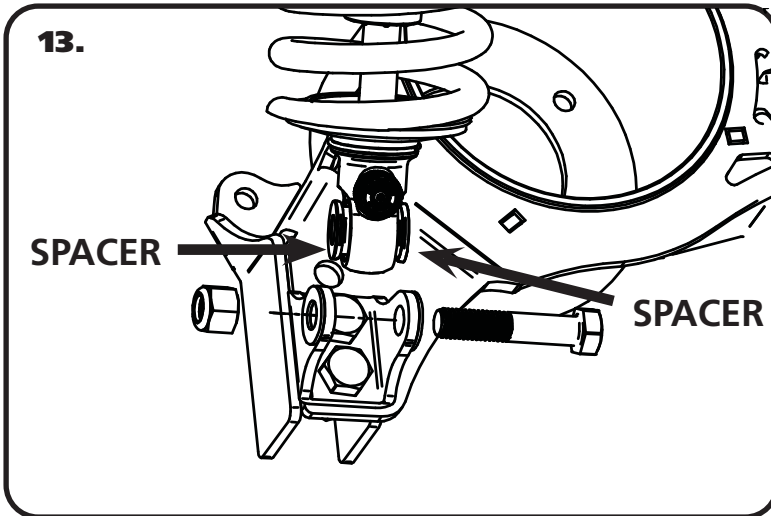


**12.** Install a spacer on each side of the upper Coilover. Slide the assembly into the upper crossmember from the bottom side. If your shock has an adjuster knob position it so that the knob points toward the center of the car. Line up the hole in the spacers with the hole in the upper shock bridge and insert 1/2" x 2 1/2" bolt and install 1/2" Nylok nut.

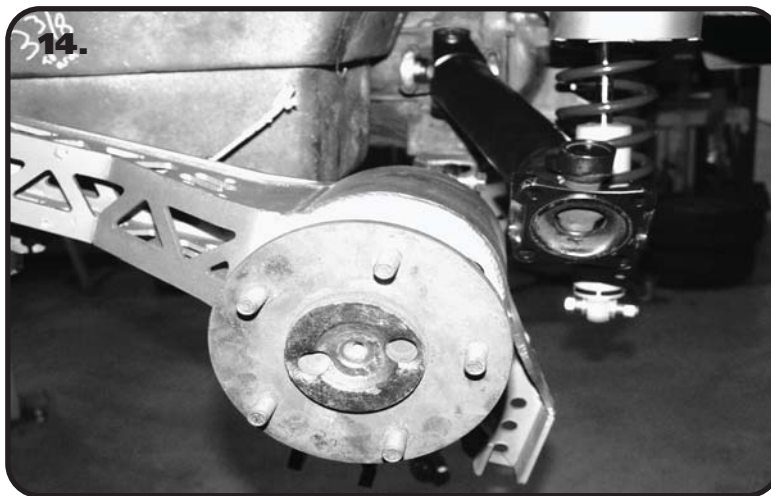
**Note:** If installing TQ Series CoilOvers, the hose **MUST** be to the **INSIDE** of the car.



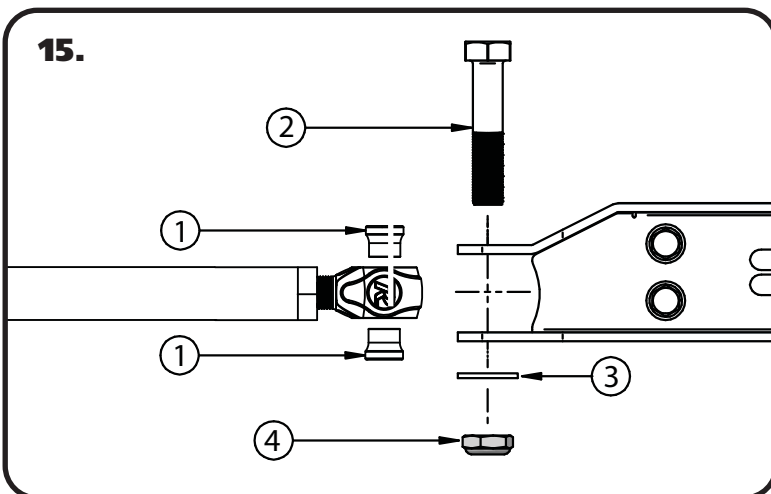
### Shock Mount & CoilOver Installation



**13.** Install a spacer on each side of the lower Coilover. Slide the shock with the spacers installed into the mount on the lower StrongArm. You may need to jack the rearend up to line up the holes in the bushing with the 1/2" hole in the shock mounts and hold it in place while you install the 1/2" x 2 1/2" bolt and 1/2" Nylok nut. Tighten the upper and lower shock bolts.



**14.** Reinstall the OEM Half Shafts using the OEM hardware.



**15.** Install each Strut Rod using (4) 5/8" I.D. x 9/16" R-Joint spacers, (1) 5/8" x 2 3/4 Hex Bolt, (1) 5/8" x 2 3/4" Hex Bolt with Machine Flat, (2) 5/8" Flatwasher (under nut), and (2) 5/8" Thin Nylok Nuts. The Strut is installed into the new Strut Rod Bracket located on the center section of the differential and the OEM Strut Rod Bracket attached to the OEM Hub. It is installed by inserting a 9/16" thick Spacer in each side of the R-Joint. The regular 5/8" Hex Bolt is used at the differential, the 5/8" Hex bolt with Machined Flat is installed in the hub side. The Machine Bolt is install with the threads pointing to the rear of the car.



### Finishing

- 16.** Reattach Brake lines and Emergency Brake Cables (Depends on year). Bleed the brakes before driving car. **Make sure the Parking Brake Cable doesn't interfere with the Brake Line.**
  
- 17.** Tighten all fasteners. If you are going to install the Ridetech MuscleBar, now is a good time to do it.
  
- 18.** Set ride height on the Corvette. The ride height of the Coilover is approximately 13". When using Coilovers, the ride height is done by using the adjuster nut for the coil spring. The coil spring on the Coilover will have some preload in the spring to get ride height, this is normal.