





# Part # 11537195 - 1963-1979 Corvette Track 1 Rear Suspension

#### **Rear Components:**

11537196 Rear 9" Conversion Kit with Center Section

11537250 Trailing Arms 11539103 Rear MuscleBar Recommended Tools





# 1963-1979 Corvette Rear Track1 System Installation Instructions

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Pages 19-24 ..... Rear MuscleBar









Part # 11537195 - C3 Rear StrongSArms with 9" Conversion



#### **Recommended Tools**





# Track1 StrongArms with 9" Conversion

# **Installation Instructions**

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

| Item #    | Part #        | Description   | QTY |
|-----------|---------------|---|-----|
| 1         | 90003042      | 9" Housing  | 1   |
| 2         | 90003066      | Inner Stub Shafts (Not Shown)   | 2   |
| 3         | 90002574      | Lower Side Bracket Assembly - Driver                                    | 1   |
| 4         | 90002575      | Lower Side Bracket Assembly - Passenger                                 | 1   |
| 5         | 90002576      | Rear Crossmember Bracket  | 1   |
| 6         | 90002577      | Lower Cradle Assembly   | 1   |
| 7         | 90002578      | Lower Cradle Front Mount  | 1   |
| 8         | 90002579      | Upper Crossmember Assembly  | 1   |
| 9         | 90003120      | Camber Rod  | 2   |
| 10        | 70013541      | Camber Rod Inner Bearing Spacer - 5/8"ID x 1.320" (approx 1 5/16")      | 4   |
| 11        | 90002582      | Heim End Coupler  | 2   |
| 12        | 90002583      | Cradle Front Heim Spacers - 5/8" ID x 9/16" Long                        | 2   |
| 13        | 90002168      | Cradle Rear Heim Spacers 5/8" ID x 7/16" Long                           | 4   |
| 14        | 70011824      | Upper Cradle Bushings - Installed in Crossmember                        | 2   |
| 15        | 70013564      | R-Joint Housing - LH  | 2   |
| 16        | 70013364      | R-Joint Housing - RH  | 2   |
| 17        | 90001589      | 3/4" Heim - RH  | 1   |
| 18        | 90001591      | 3/4" Heim - LH  | 2   |
| 19        | 70013545      | Camber Rod Outer Bearing Spacer - 5/8"ID x 9/16"                        | 4   |
| 20        | 70012909      | Front Bracket Spacer - Not Shown  | 1   |
| 21        | 90001312      | Driver Trailing Arm   | 1   |
| 22        | 90001313      | Passenger Trailing Arm  | 1   |
| 23        | 90002158      | CoilOver Lower Mounting Bracket   | 2   |
| 24        | 70011856      | Trailing Arm Bearing (Pre installed in Trailing Arms with (4) 72000259) | 2   |
| 25        | 90002169      | Trailing Arm Bearing T-bushings - 7/16" ID                              | 4   |
| 26        | 70013977      | Crossmember Bushing Retainer Isolator Ring (Not Shown)                  | 2   |
| 27        | 90003087      | Aluminum Crossmember Bushing Retainer (Not Shown)                       | 2   |
| 28        | 90002191      | Trailing Arm Bushing Shim Kit (Not Shown)                               | 1   |
| 29        | Not Included  | C7 Corvette Bearing Hubs (Not Included. Must be purchased separately)   |     |
| 30        | 90001314      | Outer Stub Axle   | 2   |
| R-Joint C | omponents - ( | (Installed in Camber Rod Ends)  |     |
|           | 70013279      | Retaining Ring  | 4   |
|           | 70013280      | Wavo Wave Spring  | 4   |
|           | 70013275      | Center Pivot Ball   | 4   |
|           | 70013276      | Composite Cage  | 4   |





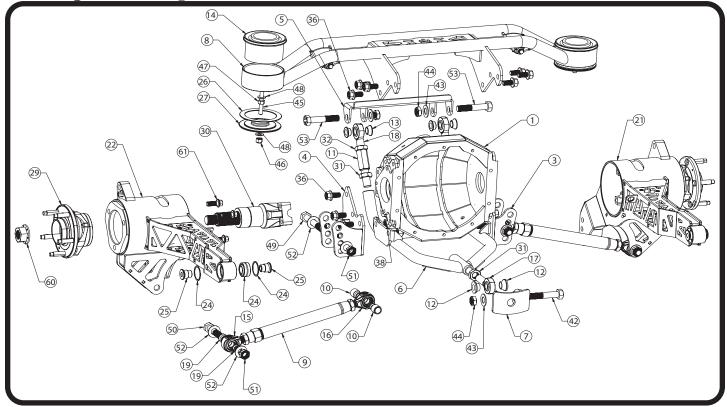
# Hardware List .....In the box

| Item<br># | QTY | Part Number | Description                    | Use  |
|-----------|-----|-------------|--------------------------------|--|
| 31        | 5   | 99752004    | 3/4"-16 Jam Nut - RH           | Lower Cradle Heim / Camber Rod R-Joint                     |
| 32        | 4   | 99752006    | 3/4"-16 Jam Nut - LH           | Lower Cradle Heim / Camber Rod R-Joint                     |
| 33        | 5   | 99371005    | 3/8"-16 x 1 1/4" Hex Bolt      | 3rd Member to Center Section - Not Shown                   |
| 34        | 10  | 90002275    | 3/8" Copper Flat Washer        | 3rd Member to Center Section - Not Shown                   |
| 35        | 6   | 99371053    | 3/8"-16 x 3/4" Hex Bolt        | Axle Flange Retainer - Not Shown                           |
| 36        | 12  | 99501040    | 1/2"-13 x 3/4" Hex Bolt        | Center Section to Cradle                                   |
| 37        | 4   | 99501039    | 1/2"-13 x 1 1/2" Hex Bolt      | Center Section to Cradle - Not Shown                       |
| 38        | 4   | 99502014    | 1/2"-13 Nylok Nut              | Center Section to Cradle                                   |
| 39        | 8   | 99431018    | 7/16"-20 x 1 1/4" Hex Bolt     | OUTER Half Shaft Bolts - Not Shown                         |
| 40        | 8   | 99431019    | 7/16"-20 x 1" Hex Bolt         | INNER Half Shaft Bolts - Not Shown                         |
| 41        | 8   | 99433007    | 7/16" Nord-Lock Washer         | Half Shaft Bolts - Not Shown                               |
| 42        | 1   | 99621018    | 5/8"-18 x 3 1/4" Hex Bolt      | Cradle To Car - Front Heim                                 |
| 43        | 3   | 99623001    | 5/8" Flat Washer               | Cradle To Car  |
| 44        | 3   | 99322001    | 5/8"-18 Nylok Nut              | Cradle To Car  |
| 45        | 2   | 99435006    | 7/16"-20/14 x 3" stud          | Upper Crossmember to Car                                   |
| 46        | 2   | 99432002    | 7/16"-20 Nylok Nut             | Upper Crossmember to Car                                   |
| 47        | 2   | 99432009    | 7/16"-20 High Nut              | Upper Crossmember to Car                                   |
| 48        | 2   | 99433005    | 7/16" Flat Washer              | Upper Crossmember to Car                                   |
| 49        | 2   | 99621015    | 5/8"-18 x 4 1/2" Hex Bolt      | Lower Strut Rod  |
| 50        | 2   | 99261004    | 5/8"-18 x 3" Hex Bolt          | Lower Strut Rod  |
| 51        | 4   | 99622006    | 5/8"-18 Thin Nylok Nut         | Lower Strut Rod  |
| 52        | 4   | 99623001    | 5/8" Flat Washer               | Lower Strut Rod  |
| 53        | 2   | 99621003    | 5/8"-18 x 2 3/4" Hex Bolt      | Rear Cradle To Car - Rear Heim                             |
| 54        | 2   | 99431014    | 7/16"-20 x 4 1/2" Hex Bolt     | Trailing Arm To Frame - Not Shown                          |
| 55        | 2   | 99432002    | 7/16"-20 Nylok Nut             | Trailing Arm To Frame - Not Shown                          |
| 56        | 4   | 99501053    | 1/2"-13 x 1 1/2" Hex Bolt      | Shock Mount To Trailing Arm - Not Shown                    |
| 57        | 4   | 99501050    | 1/2"-13 x 2 1/2" Hex Bolt      | Shock Mounting - Not Shown                                 |
| 58        | 8   | 99503014    | 1/2" SAE Flat Washer           | Shock Mount To Trailing Arm/ Shock Mounting - Not Shown    |
| 59        | 8   | 99502009    | 1/2"-13 Nylok Nut              | Shock Mount To Trailing Arm/ Shock Mounting<br>- Not Shown |
| 60        | 2   | 90001285    | 1"-14 Flanged Lock Nut         | Stub Axles for C7 Hubs - Not Shown                         |
| 61        | 6   | 99121012    | M12-1.75 X 30 ARP Flanged bolt | C7 Hub Bearing to Trailing Arm                             |





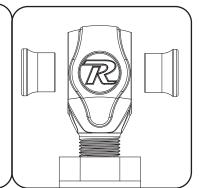
# **Major Components** .....In the box



# **R-Joint Spacer Installation**

# R-JOINT SPACER INSTALLATION

Install the Spacers by inserting the SMALL side of the SPACER into the Center Pivot Ball. Push them in until they bottom out and stop.



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.



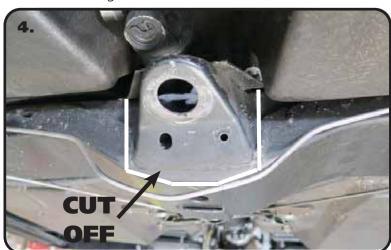


## **Disassembly and Pinion Support Removal**

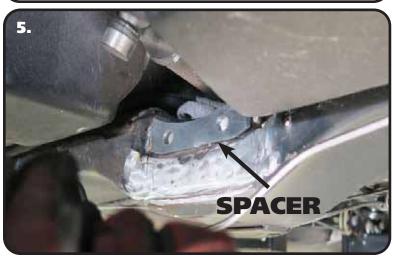
Congratulations on your purchase of the Ridetech Corvette 9" Conversion. This setup has been designed to make your Corvette differential withstand the abuse of autocrossing and high performance driving events. The Camber Rod Inner Mount has multiple positions to help optimize the rear camber.

# Note: The Corvette TruTurn Suspension package uses a C7 Hub Bearing. The Trailing Arm/Hub is designed to run C5/C6 Corvette Brakes.

- **1.** Raise the vehicle to a safe and comfortable working height. Cutting and Welding is required to install this kit. Also, some fiberglass cutting and repair is necessary to provide clearance for the new center section.
- **2.** Disassemble the rear suspension. Remove the center section, half shafts, strut rods, and upper crossmember.
- **3.** When doing a Complete StrongArm System with the 9" Conversion, remove the OEM Hub setup from the OEM trailing arms and assemble in the Ridetech Trailing Arms.



**4.** The Pinion Support will need to be removed from the Crossmember. Remove the entire mount and flanges leaving a smooth surface. The crossmember needs to be smooth when you are finished removing the mount. Depending on how your brake lines are ran, you may need to remove the line or move it out of the way. You will be welding on this area.



**5.** Weld in the Front Bracket Spacer. After the pinion mount is cut off, the crossmember has a step in it making the mounting area uneven. Supplied in the kit is a Front Bracket Spacer to help make this area even. The Spacer is shaped similar to the frame. Put the Spacer in position and mark the outer edges on the crossmember. Clean the paint off where you have marked to get a clean weld area. Put the spacer back into position and weld it to the crossmember. Weld up the 2 holes too. After welding, grind off any high spots.





## **C2 Modifications**

## **C2** Modifications



# STEPS 6 & 7 ARE C2 ONLY! IF YOU ARE WORKING ON A C3 SKIP TO STEP 8.

**6.** Clearance for the housing will need to be made at the rear of the tunnel. Be sure to look on the inside of the Well before cutting. We fiberglassed the opening to close it up.



7. Install the Center Section into the Housing using 3/8"- 24 Nylok Nuts on the Studs and 3/8"-24 x 1 1/4" Bolts in the top (5) holes. Install a Copper Washer under each Nut & under each Bolt Head. If you are using a Center Section that has the gussets made into the casting, you may need to clearance the upper gusset similar to Image 7. This will keep if from rubbing on the floor of the car.

#### **SKIP TO STEP 10!**





# C3 Modifications & Lower Cradle Assembly



#### STEPS 8 & 9 ARE C3 ONLY!

**8.** The inside rear corner of the Battery Well will need to be notched and repaired. We notched it 1 1/2" each direction, to the front & toward the outside of the car and 5" bottom to top. Be sure to look on the inside of the Well before cutting. We fiberglassed the opening to close it up.



**9.** Install the Center Section into the Housing using 3/8"- 24 Nylok Nuts on the Studs and 3/8"-24 x 1 1/4" Bolts in the top (5) holes. **Install a Copper Washer under each Nut & under each Bolt Head.** If you are using a Center Section that has the gussets made into the casting, you may need to clearance the upper gusset similar to **Image 9**. This will keep if from rubbing on the floor of the car.



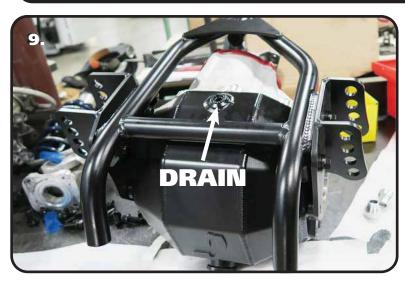
**10.** Attach the Strut Rod Mounts to the Cradle. To assemble, lay the Cradle on a surface with the bends pointing up and the front Gusset DOWN. There's a Driver and Passenger Strut Rod Mount. Reference **Image 7** and install the Strut Rods Mounts with the SHORT side of the V toward the Gusset. These attach to the 2 hole mounting tabs on the sides of the Cradle. Attach the Mounts with (2) 1/2"-13 x 1 1/2" Hex Bolts and (2) 1/2"-13 Nylok Nuts on each mount. DO NOT Tighten the hardware yet.







## **Lower Cradle & Crossmember Assembly**



**9.** With the Center Section mounted in the Housing, attach the Cradle to the Housing. This is easiest done by flipping the Housing over with the drain sticking up. With the Housing flipped over, slip the Cradle on it aligning the 3 holes on each side. The Housing should nest down in the V of the Strut Rod Mounts. The Cradle attaches with (3) 1/2"-13 x 3/4" Hex Bolts on each side.



**10.** Apply Loctite on the threads of the 1/2"-13 x 3/4" Hex Bolts and thread them into the (6) holes. Install all (6) Bolts before tightening any of them. Torque these (6) bolts to 55 ftlbs. Once the housing bolts are tight, torque the (4) Strut Rod Mount Bolts/Nuts to 75 ftlbs.

Bolt Torques: Housing Bolts - 55 ftlbs Strut Rod Mount Bolts - 75 ftlbs



**11.** Flip the Housing/Cradle Assembly over to set the Cradle on a flat surface with the Housing up. Slide the Crossmember onto the Housing nesting the V of the Crossmember on the V of the housing.



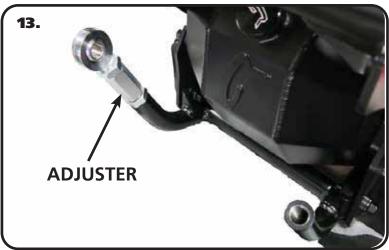


#### **Heim End & Crossmember Installation**



**12.** The Crossmember attaches with (6) 1/2"-13 x 3/4" Hex Bolts. Line up the (6) holes in the Crossmember with the threaded holes of the housing. Apply Loctite to the threads of the Bolts and thread them into the holes. Torque the Bolts to 55 ftlbs.

**Housing Bolts - 55 ftlbs** 





- 13. Thread a 3/4"-16 LEFT HAND Nut on each of the (2) Left Hand 3/4" Heim Ends. Thread a 3/4"-16 RH Nut on the threads of the Double Adjuster. The Double Adjuster has a 3/4"-16 LH Female thread and a 3/4"-16 RH Male thread. Bottom the Nuts out on the Adjusters and Heims. Apply Antisieze to the threads of the Heims and thread them into the Adjusters. Thread the Heims into the Adjusters until they stop turning. Once they stop, DO NOT try to force them in further. Apply Antisieze to the threads of the Adjusters and thread them into the rear legs of the Cradle. Again, thread them in until they stop. DO NOT Tighten the Jam Nuts at this time.
- **14.** Install a 3/4"-16 Jam Nut on the 3/4" RH Heim. Thread the Nut all the way until it stops. Apply Antisieze on the threads of the Heim End and thread it into the FRONT of the Cradle. Thread the Heim all the way in until it stops. Loosen the Heim enough to get the hole horizontal. Leave the Heim loose.

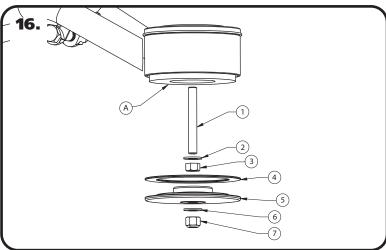




# **Crossmember & Rear Cradle Mount Installation**



**15.** Install a 7/16" x 3" Stud in each of the threaded holes in the Frame for the Crossmember bushings. The Studs have fine threads on one end and coarse threads on the other. **The coarse thread is threaded into the car frame**. Refer to Images 15 & 16 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"-20 Grade 8 High Nut(3). Do this for both studs. Torque the Nuts to 50ftlbs.



**16.** 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"-20 Grade 8 Nylok Nut(7). Do this for both sides. Torque the Nuts to 50ftlbs.

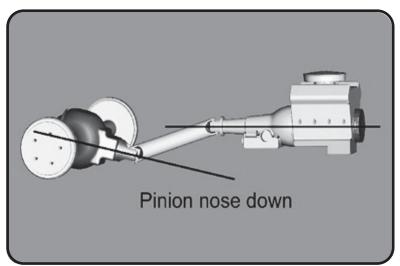


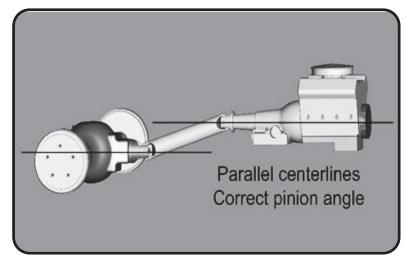
17. Using Images 17 & 18 as a reference, install the Rear Crossmember Bracket onto the Heim Ends. Insert a 90002168 (7/16" Thick) Spacer on each side of the Heims with a 5/8"-18 x 3 1/4" Hex Bolt through them. It isn't necessary to install the Nylok Nut yet as we recommend removing the Crossmember/ Housing Assembly for final welding.

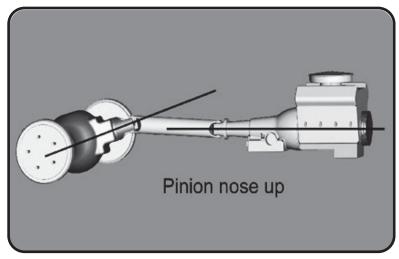




# **Setting Pinion Angle**







How do you set the pinion angle? On a single-piece shaft you want to set it up where a line drawn through the center of the engine crankshaft or output shaft of the transmission and a line drawn through the center of the pinion are parallel to each other but not the same line.

A simple way to do this is to place a digital angle finder or dial level on the front face of the lower engine pulley or harmonic balancer. This will give you a reading that is 90 degrees to the crank or output shaft unless you have real problems with your balancer. At the other end, you can place the same level or angle finder against the front face of the pinion yoke that is also at 90 degrees to the center line. If you rotate the yoke up or down so both angles match, you have perfect alignment.

Road testing will tell you if you have it right. If you accelerate and you get or increase a vibration, then the pinion yoke is too HIGH. Rotate it downward in small increments of a degree or two until the problem goes away. If you get or increase a vibration when decelerating, then the pinion yoke is too LOW. Rotate it upward to correct it.





### **Mount Welding**



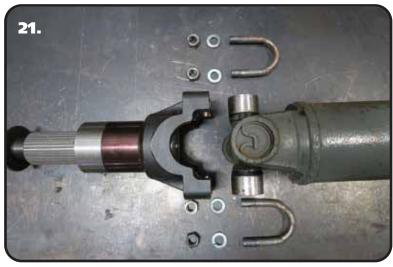
- 19.
- 20.

- **18.** The front edge of the Mount has a tab that goes up along the front edge of the OEM crossmember. At this point you will need to set your pinion angle before adjusting the rear adjusters. Refer to Page 9 for information on pinion angle. Use the jack that you currently have under the Cradle to assist you. Once you have the pinion angle set, slip the drive shaft in place to check clearances around the drive shaft. Don't attach it yet. With the pinion angle set and the drive shaft clearance checked, adjust the Heim Adjusters out to get the Bracket fitting the crossmember properly. When adjusting them, adjust them evenly. Adjust heim until you get the best fit on the crossmemember. Tack weld it in place in several spots.
- **19.** The Front Mount uses a 90002583 (9/16" Thick) on each side of the heim with a 5/8"-18 x 3 1/4" bolt and Nylok Nut. The Front Mount fits in the area that the pinion support was cut off of. The Heim will need to be adjusted out to get the front mount sitting tight against the crossmember. Once you have it tight against the crossmember, tack weld it in place. Do Not fully weld yet.
- **20.** After the Front & Rear Mounts are tack welded in place, remove the Crossmember/ Housing Assembly and fully weld the Front & Rear Mounts. Both Mounts will need to be welded around the entire mount. **Image 18** shows the rear mount fully welded. Once the welds are cool you can paint the welded areas.





# **Trailing Arm Installation**



**21.** Start be attaching one end of the 1/2 shaft to the outer stub axle. The kit includes (2) sets of u-bolts for attaching them. If your half shafts have a flange on them, it will need to be removed. The outer stub axle is designed to accept the stock 1350 u-joint.



**22.** Slip the u-joint into the yoke of the stub axle. It should fit down in the yoke with the caps of the u-joint inside the locating tabs. Install the u-bolts over the caps of the u-joints with the threads sticking through the yoke. Install the supplied lock washers and 3/8"-24 nuts on the threads of the u-bolts that is sticking through the yoke.

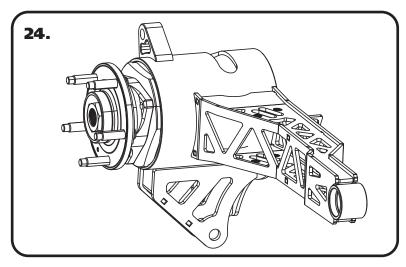


**23.** Torque all 4 nuts evenly to 20 ftlbs.





## **Trailing Arm Installation**

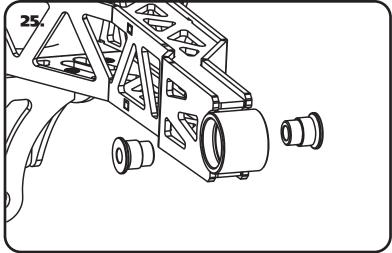


**24.** The Trailing Arm Assemblies are Driver and Passenger specific. The Passenger is shown in **Diagram 24**.

# The C7 hubs must be purchased separately.

Use (3) M12-1.75 X 30 ARP Flanged bolts (99121012) bolts to attach each hub to the trailing arm. We recommend red loctite.

Torque bolts to 96 ft-lbs.



**25.** Install the T-bushings into the front Trailing Arm Bearings. Do this for both Trailing Arms.



**26.** 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 DIA-GRAM "9" MAY NEED TO BE CLEARANCED.





# **Trailing Arm Installation**



**27.** Insert the stub axle into the bearing hub.



**28.** Install the 1"-14 flange nut on the threads of the outer stub axle to hold it in place. You will need to remove it later to apply red loctite and torque the nut.

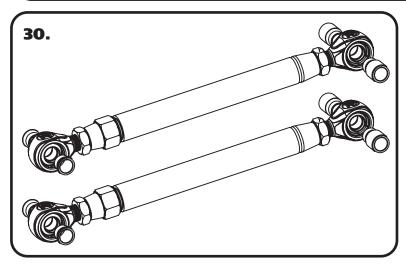


**29.** Install the Half Shafts. The Half Shafts are attached to the Center Section Stub Axles with (4) 7/16"-20 x 1" Hex Bolts with a Nord-Lock Washer on each bolt. Torque to 80 ftlbs.

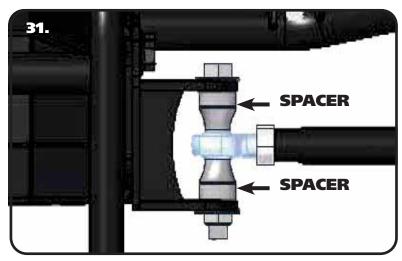




### **Camber Rod Installation**



**30.** If the Camber Rods aren't already assembled, assemble them with a Jam Nut on each Heim End. The Camber Rods use a Left Hand Threaded Heim End on one end with a Right Hand Thread Heim End on the other. Apply Antisieze to the threads of the Heims and thread them into the Camber Rod. Thread the Heims all the way in. With them threaded all the way in, when you adjust them out the heims will be threaded in equally on each end.



32.

**31.** Install the Camber Rod. The Camber rod is installed in the 2nd hole from the BOTTOM on the Cradle Bracket. The Camber Rod uses (2) 70013541 (1.320" Long) Spacers, one in each side of the R-Joint End to attach to the Cradle Bracket. The Small diameter of the Spacer goes into the R-Joint. Attach the Inner Camber Rod Heim w a 5/8"-18 x 4 1/2" Bolt and Nylok Nut with a 5/8" Flat Washer on each side of the Bracket.

**Note:** The rear camber gain can be controlled with the position of the strut rod in the inner mount. The higher the strut rod, the higher the camber gain.

**32.** The Outer end of the Camber Rod is attached to the OEM Location with (2) 70013545 (9/16" Long) Spacer, one in each side of the R-Joint. Use the 5/8"-18 x 3" hex bolt, flat washer, & nylok jam nut that is supplied in your the kit.

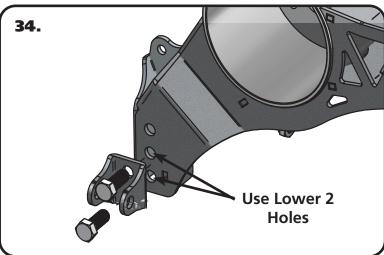




# **Shock Mounting**

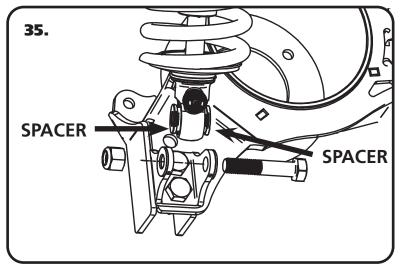


**33.** Torque the stub axle nut to 118 ftlbs using a 1 1/2"socket and torque wrench.



**34.** 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.



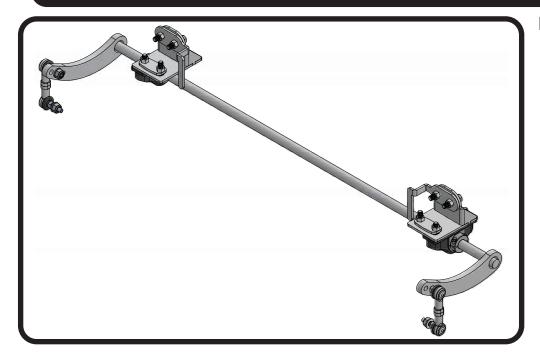
**35.** Install a spacer on each side of the lower Coilover. Slide the shock with the spacers installed into the mount on the lower StrongArm. You may need to jack the rearend up to line up the holes in the bushing with the 1/2" hole in the shock mounts and hold it in place while you install the 1/2"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





Part # 11539103

# 1963-1967/1968-1979 C2/C3 Corvette Rear Sway Bar



**Recommended Tools** 







# **C2/C3 Corvette Rear Sway Bar Installation Instructions**

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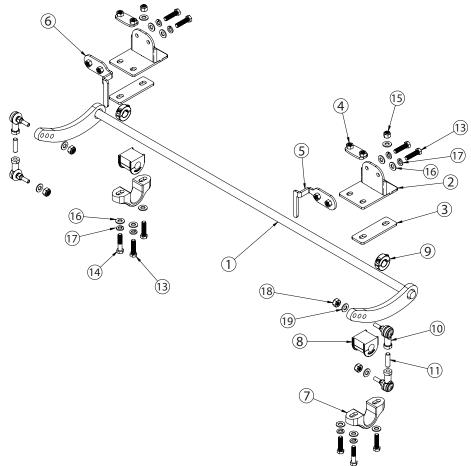






# **Major Components** .....In the box

| Item<br># | Part #   | Description                                  | QTY |
|-----------|----------|--|-----|
| 1         | 90003545 | Sway Bar Assembly                            | 1   |
| 2         | 90002176 | Sway Bar Mount Assembly                      | 2   |
| 3         | 90002177 | Sway Bar Bushing Spacer                      | 2   |
| 4         | 90002185 | Nut Plate NO Tab                             | 2   |
| 5         | 90002186 | Nut Plate with Tab (Driver)                  | 1   |
| 6         | 90002187 | Nut Plate with Tab (Passenger)               | 1   |
| 7         | 90001343 | Billet Bushing Strap                         | 2   |
| 8         | 70015011 | Lined Sway Bar Bushing                       | 2   |
| 9         | 70016540 | Locking Ring                                 | 2   |
| 10        | 90003842 | 10mm 90 degree elbow (Preassembled Posilink) | 4   |
| 11        | 99115001 | M10-1.5 65mm stud (Preassembled Posilink)    | 2   |
| 12        | 90002275 | Crush Washer (Preassembled Posilink)         | 2   |







### **Hardware List** .....In the box (Kit# 99010233)

| Item #                   | Part Number | Description               | QTY |  |  |
|--------------------------|-------------|---------------------------|-----|--|--|
| FRAME MOUNT/BILLET STRAP |             |                           |     |  |  |
| 13                       | 99371007    | 3/8"-16 x 1 1/2" Hex Bolt | 8   |  |  |
| 14                       | 99371024    | 3/8"-16 x 1 3/4" Hex Bolt | 2   |  |  |
| 15                       | 99372001    | 3/8"-16 Nylok Nut         | 2   |  |  |
| 16                       | 99373002    | 3/8" SAE Flatwasher       | 12  |  |  |
| 17                       | 99373006    | 3/8" Split Lock washer    | 8   |  |  |
| END LIN                  | K           |                           |     |  |  |
| 18                       | 99112002    | M10-1.5 Nylok Nut         | 4   |  |  |
| 19                       | 99373003    | 3/8" SAE Flatwasher       | 4   |  |  |

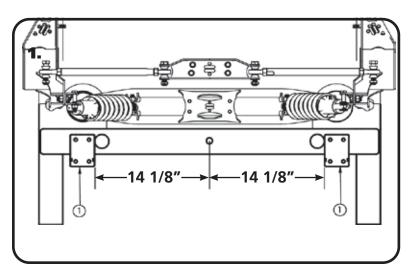
#### Getting Started.....

Congratulations on your purchase of the Ridetech Rear Sway Bar. These kit has been designed to give your Corvette excellent handling along with a lifetime of enjoyment. Some of the key features of this Sway Bar: Posilinks - The Posilink makes the reaction of the sway bar instantaneous, tunability - this sway bar has 3 positions to aid in the tuning of the handling of your Corvette.

This sway bar kit utilizes a anti-friction lining in the sway bar bushing. The lining allows the sway bar to move freely and quietly in the bushing. No lubrication is required.

**Note:** This MuscleBar is designed to be used with the Ridetech Rear StrongArm kit.

# THE REAR SWAY BAR KIT WILL **NOT** WORK WITH A SPARE TIRE IN THE STOCK LOCATION.



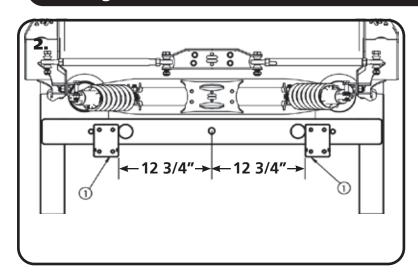
#### **C3 Sway Bar Mounts**

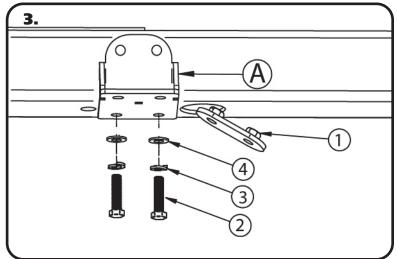
1. The holes for the sway bar mounts(1) will need to be drilled in the OEM crossmember. The mounts are positioned 14 1/8" from the center of the crossmember. Use the mounts as a template for drilling the holes in the crossmember. Position the mount 14 1/8" from the center of the crossmember to the inside edge of the mount. The TOP OUTER hole will line up with a factory hole in the crossmember. Mark remaining 3 holes and drill with a 7/16" drill bit. Do this for both brackets.

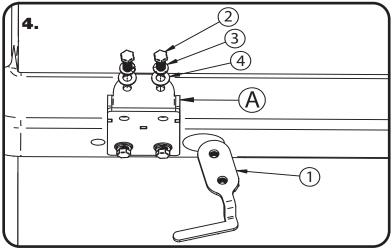




# **Sway Bar Mounts Installation**







#### **C2 Sway Bar Mounts**

2. The holes for the sway bar mounts(1) will need to be drilled in the OEM crossmember. The mounts are positioned 12 3/4" from the center of the crossmember. Use the mounts as a template for drilling the holes in the crossmember. Position the mount 12 3/4" from the center of the crossmember to the inside edge of the mount. Mark the 4 holes and drill with a 7/16" drill bit. Do this for both brackets.

# Note: The Driver and Passenger Mounting Brackets are identical.

3. Insert the nut plate (1) through the large hole in the crossmember and line it up with the holes drilled in the previous step. Hold the sway bar mount in place (A). Thread a 3/8" x 1 1/2" hex bolt (2), with a 3/8" split lock washer(3), and 3/8" flat washer (4) installed on the bolt, into each bottom hole. Tighten the inner bolt to 30 ft-lbs, leaving the outer bolt loose. The outer bolt will be used to attach the sway bar in a later step.

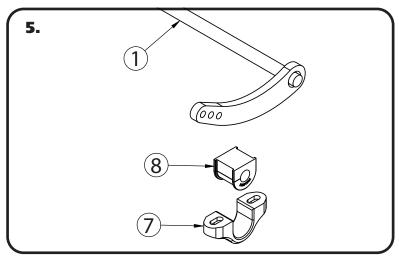
**4.** Insert the nut plate with tab(1) through the large hole in the crossmember and line it up with the holes drilled in the previous step. Thread a 3/8" x 1 1/2" hex bolt (2), with a 3/8" split lock washer(3), and 3/8" flat washer (4) installed on the bolt, into each bottom hole. Torque both bolts to 30 ft-lbs. Do this for both sides

**Note:** When positioned correctly, the tab on the nut plate is bent away from the mounting surface.

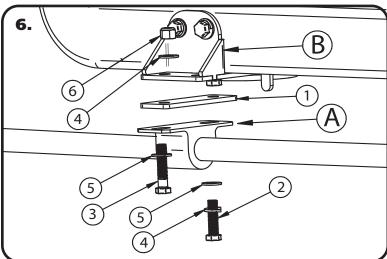




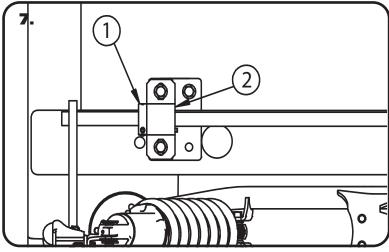
### **Sway Bar Installation**



**5.** Install the sway bar bushings and straps on the sway bar. They are positioned approximately - **5"on C2**, **3 1/2" on C3** from the end of the sway bar to the outside edge of the bushing. To install the bushing, remove the mounting strap from the bushing. Open the bushing at the slice on the edge of the bushing. Slide the bar through the slice. Reinstall the mounting strap.



6. Install the sway bar onto the mounts using the supplied spacer(1) between the bushing(A) and the mount(B). Insert a 3/8" x 1 1/2" hex bolt(2), 3/8" split lock washer(4), and a 3/8" flat washer(4) in the front bushing assembly hole. In the rear of the bushing assembly, insert a 3/8" x 1 3/4" Hex bolt(3) and 3/8" flat washer(5) from the bottom. Install a 3/8" flat washer(5) and 3/8" nylok nut(6) on the bolt from the top. Leave the retainers loose enough that the bar can be moved in the bushings.



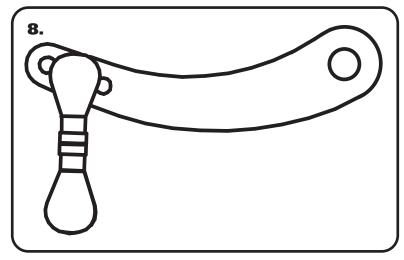
**7.** Center the bar by measuring from the edge of the bushings to the end of the bar. With the bar centered, tighten the bushing assembly hardware. Install a Locking collar(1) on each end of the sway bar(2). Slide the locking collars against the bushings and Tighten the collar.



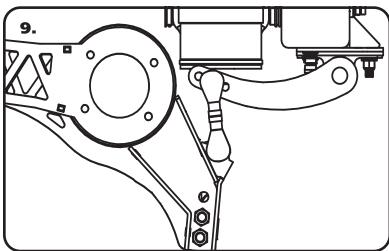




## **PosiLink Installation**



**8.** Install a PosiLink assembly into the center hole one each sway bar arm. **Install the Posilinks in opposite sides of the 2 arms.** Install a 3/8" flat washer on the Threaded stud of the Posilink, insert the stud into the arm. Install a 3/8" flat washer and 10mm nylok nut onto the stud and tighten. Torque to 37 ft-lbs.



**9.** With both arms clocked, the Posilinks can be permanently attached to the StrongArm. Install a 3/8" flat washer on the threaded stud of the Posilink, insert the stud into the arm. Install a 3/8" flat washer and 10mm nylok nut onto the stud and tighten. Torque to 37 ft-lbs.

# **Sway Bar Adjustment**

The Sway bar has 3 positions to aid in the tuning of your Corvette's handling. We start in the center position and tune from there. The Position to the rear of the car will make the sway bar stiffer. The position to the front of the car will make the sway bar softer.