



Detroit Speed, Inc.
Rear Tubular Anti-Roll Bar Kit
 1967-1969 F-Body & 1968-74 X-Body w/DSE QUADRA Link
 P/N: 042203, 042208 & 042217

The Detroit Speed, Inc. Rear Tubular Anti-roll Bar Kit is a great complement to the DSE QUADRA Link Rear Suspension System on a First Generation Camaro or Firebird. The anti-roll bar provides an additional way to upgrade the rear suspension for the ultimate in performance without sacrificing ride quality. The anti-roll bar is powdercoated gloss black and includes all necessary mounting hardware for installation.



Item	Description	Quantity
1	3/4" Tubular Anti-roll Bar (P/N: 042217 Only)	1
1	1 1/8" Tubular Anti-roll Bar (P/N: 042203 Only)	1
1	1 1/4" Tubular Anti-roll Bar (P/N: 042208 Only)	1
2	Anti-roll Bar Mounting Brackets	2
3	Anti-roll Bar End Links (w/nuts installed)	2
4	Anti-roll Bar Mounting Clamps (w/grease fittings)	2
5	Polyurethane Anti-roll Bar Bushings	2
6	Upper Link Frame Mount Nut	2
7	3/4" Split Lock Collar (P/N: 042217 Only)	2
7	1 1/8" Split Lock Collar (P/N: 042203 Only)	2
7	1 1/4" Split Lock Collar (P/N: 042208 Only)	2
8	3/8" - 16 x 1"L Hex Head Bolt	4
9	3/8" - 16 Nylock Nut	4
10	3/8" AN Washer	8
11	5/16" - 18 x 3/4"L Hex Head Bolt	8
12	5/16" Flatwasher	10
13	5/16" Open End Knurled Rivet-Nut (2 extra)	10
14	Rivet-Nut Installation Tool	1
15	Drill Fixture	1
16	Tube of Grease	1
17	Instructions	1

Fastener Torque Specifications		
Application	Torque (ft-lbs)	Threads
Anti-roll Bar Bracket to Framerrail	20	
Anti-roll Bar Links	40	Red Loctite 262
Anti-roll Bar Clamp to Rear Axle Brackets	45	
Split Lock Collar	15	Blue Loctite 242

1. Loosen the lug nuts and raise the front and rear of the vehicle. Support the car in the front and the rear on jackstands so the car is sitting level. The rear suspension must be supported so that the rear suspension is at ride height in relation to the body. Remove the rear wheels and tires.

NOTE: If your QUADRAlink lower coilover bracket already has the holes pre-drilled on the bottom side of the bracket (See Figure 1), proceed to step 4. The pre-drilled holes on the lower coilover bracket will not match the ones that have to be drilled in steps 2-3. Both holes layouts will work when mounting the anti-roll bar.



Figure 1 - Pre-Drilled Holes in Coilover Bracket

2. To locate the anti-roll bar mounting clamps at the rear axle, measure outward $1\frac{3}{16}$ " from the inside edge on the bottom side of the coilover mounting brackets and draw a centerline. See Figure 2.

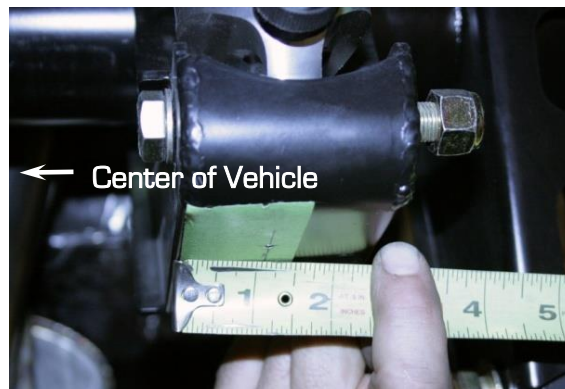


Figure 2 -Measuring from the Inboard Edge (Passenger Side Shown)

3. With the centerline marked, measure from the forward most point on the bracket to the rear of the bracket $3/4$ ". This is the centerline of the forward hole in the anti-roll bar mounting clamp. From this point, measure rearward an additional $2-5/8$ ". This is the centerline of the rear mounting hole. At both of these points, drill a $13/32$ " hole. **NOTE:** This is your finish hole size for the provided hardware. Figure 3 shows the bottom of the coilover bracket.



Figure 3 - Bottom of the Coilover Bracket

4. To locate the forward anti-roll bar mounting bracket, measure from the center of the rear axle tube forward 12" at the frame rail. This can be done by first determining the diameter of the rear axle tube, subtract half of that measurement from the 12" and then measure forward from the front side of the axle tube. Based on a 3" axle tube, the measurement used should be $10-1/2$ ". Refer to Figure 4 for reference. Using a level, make a vertical line at the marked location on the framerail.



Figure 4 - Measuring for the Anti-roll Bar Mounting Bracket

5. With the framerail marked, position the anti-roll bar mounting bracket on the frame and slide the bracket up or down until the previously marked line is in the center hole on the bracket. At this point, mark the center of all three of the holes on the outboard side of the framerail. Refer to Figures 5a and 5b for reference on the next page.



Figures 5a and 5b – Locating the Anti-roll Bar Mounting Bracket Holes on the Framerrail

6. With the holes located, center punch and drill the outboard of the frame rails at each of the marked locations using a $17/32$ " drill bit. **NOTE:** It is recommended that pilot holes be drilled first before drilling the $17/32$ " holes.
7. Using the provided drill fixture and a $1/4$ " drill bit, place the fixture in each of the $17/32$ " holes and drill through to the opposite side of the frame rail at all three mounting holes. **IMPORTANT:** Make sure the drill fixture is flush to the framerrail and parallel with the bottom edge of the framerrail to insure the frame is drilled properly to allow the anti-roll bar mounting bracket to fit correctly. Figure 6 shows the fixture installed in the framerrail.

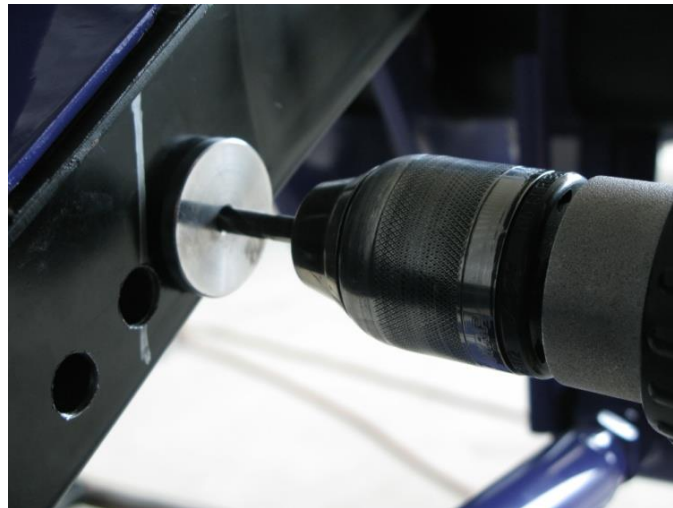


Figure 6 – Using the Drill Fixture

8. On the inboard side of the framerrail, enlarge the center hole to $15/32$ " and the two remaining holes to $17/32$ ". On the outboard side of the framerrail, enlarge the center of the three holes to $5/8$ ".
9. Install the provided nut inserts into the framerrail using the provided nut insert tool in the upper and lower holes. **NOTE:** There are 10 nut inserts provided however only 8 will be used for this installation.
10. Start by assembling the tool and the nut to resemble Figure 7 on the next page. **NOTE:** Apply a liberal amount of grease on the flat washers to prevent galling. With the tool assembled, tighten the assembly so that the split lock washer is collapsed as seen in Figure 7 on the next page. Hold the larger hex with a $3/4$ " wrench and tighten the bolt using a $1/2$ " wrench. The insert is fully collapsed once the bolt will no longer turn. Figure 8 on the next page shows the installation of the nut insert.



Figure 7 - Nut Insert w/Installation Tool



Figure 8 - Installing the Nut Insert

11. Install the anti-roll bar mounting brackets on the framerails using the provided 5/16" - 18 x 3/4"L Hex Head Bolt and 5/16" Flatwasher. Torque the bolts to 20 ft-lbs. **NOTE:** The driver side and the passenger side bracket are the same. However, the larger 5/8" center hole must be positioned to the outboard side of the vehicle.
12. Position the polyurethane anti-roll bar bushings on the anti-roll bar. Apply a liberal amount of the provided grease between the bushing and the bar upon installation. Place the anti-roll bar mounting clamps on the bushings at this time.
13. To install the anti-roll bar on the rear axle, insert the two 3/8"-16 x 1"L Hex Head Bolts along with two 3/8" AN Washers through the anti-roll bar mounting clamps and into the bottom side of the lower coilover brackets on each side of the vehicle. These were the holes that were drilled previously in Step 4 if not pre-drilled from DSE. **NOTE:** If your brackets were pre-drilled, insert the 3/8"-16 Hex Head Bolts on the inside set of holes on each axle bracket. See Figure 9.



Figure 9 - Use the Inside Set of Holes to Mount the ARB Bracket

14. Thread the 3/8"-16 Nylock Nuts along with the 3/8" AN Washers over the 3/8"-16 x 1"L Hex Head Bolts on the inside of the lower coilover brackets. **NOTE:** Do not tighten the nuts at this time.

15. Remove the 7/16"-20 Jam Nut and the 7/16" Flat washer from the female end link and install the anti-roll bar end links into the upper link mounts. Apply High Strength Red Loctite 262 to the threads and position the upper portion of the link to the inboard side of the framerails. Insert the Frame Mount Bracket Nut from the outboard side of the framerail. Thread it onto the anti-roll bar end link inserted through the framerail and the mounting bracket and torque to 40 ft-lbs. See Figure 10. **NOTE:** When tightening the nuts on the anti-roll bar end links, use a 14mm wrench on the link and an 18mm wrench on the lower link nut.

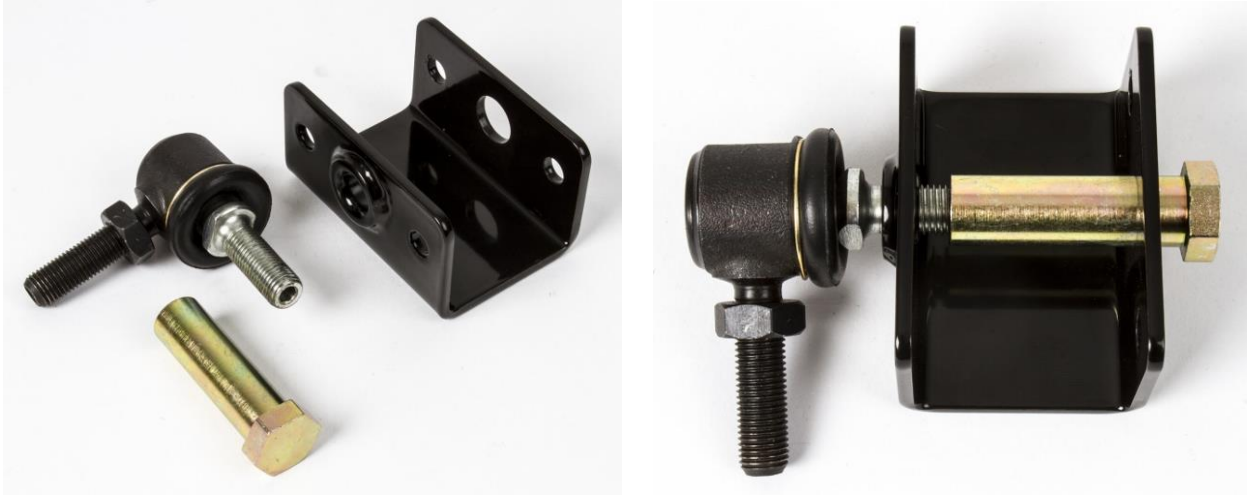


Figure 10 - ARB Mounting Bracket, Upper End Link & Frame Mount Bracket Nut

16. Before installing the end links into the anti-roll bar, adjust them to a center to center measurement of approximately 3-3/8". **NOTE:** Turn the lower anti-roll bar link so that the threaded stud points to the outside of the vehicle. Tighten the jam nut at this point and connect the anti-roll bar end links to the anti-roll bar as shown in Figure 11.



Figure 11 - Anti-Roll Bar End Link

17. Thread the 7/16"-20 Jam Nut and the 7/16" Flat washer onto the lower link stud and torque to 40 ft-lbs. There are two mounting holes in the anti-roll bar. DSE recommends the use of the rearward mounting hole in either anti-roll bar. Refer to the chart in Figure 12 for a list of the Anti-roll Bar rates.

Anti-Roll Bar Rates					
P/N: 042217 (3/4" O.D.)		P/N: 042203 (1 1/8" O.D.)		P/N: 042208 (1 1/4" O.D.)	
Front Hole	75 lb/in	Front Hole	311 lb/in	Front Hole	523 lb/in
Rear Hole	87 lb/in	Rear Hole	364 lb/in	Rear Hole	611 lb/in

Figure 12 - Anti-Roll Bar Rates

18. With the front anti-roll bar links installed, center the anti-roll bar on the rear axle and torque the anti-roll bar clamp bolts at the rear axle. Torque the bolts to 45 ft-lbs.
19. Separate the Split Lock Collar into two pieces and place around the anti-roll bar to the inside of the anti-roll bar clamps on the rear axle. Reassemble the collar using Medium Strength Blue Loctite 242 on the bolts and torque to 15 ft-lbs. **NOTE:** Position the collars tight to the urethane bushing when installing.
20. The installation of the anti-roll bar is now complete. Install the wheels and tires and lower the vehicle to the ground.