



INSTALLATION INSTRUCTIONS
S/S COMPETITION TRACTION BARS
P/N'S: C2101, C2201, C2103 & C2203

Competition Engineering Leaf Spring Traction Bars are designed especially for use in drag race classes that require a bolt-on traction device such as Stock Eliminator and Bracket Racing. These bars will eliminate wheel hop and improve traction by applying the force which normally produces unwanted tire spin into a downward force where the tire meets the pavement. These bars are capable of handling horsepower levels up to 450hp. They are designed with a snubber location that is positioned directly under the front spring eye bolt, eliminating spring damage and increasing the lever effect on the rear tires.

NOTE: These traction bars may not work with the stock rear sway bar on some vehicle models. We recommend that you modify the bar to fit or remove it.

PARTS LIST

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|------------------------------|----------------------|
| 2) Competition Traction Bars | 4) 1/2" J-Bolts |
| 2) 7/16" Square U-Bolts | 2) Rubber Snubbers |
| 8) 1/2"-20 Nuts | 8) 1/2"-20 Locknuts |
| 12) 1/2" Flat Washers | 4) 7/16"-14 Locknuts |
| 4) 7/16"-14 Nuts | 2) 3/8"-16 Locknuts |

INSTALLATION

- 1) Check rear springs for broken leaves. Replace if necessary.
- 2) Jack up the rear of the car and place two jack stands under the frame member directly in front of the rear spring. Allow the rear housing to hang down with its weight on the springs.
- 3) Disconnect the shock absorber at the lower mounting point. Remove the stock lower spring plates and U-Bolts.

NOTE: When replacing U-Bolts with the supplied J-Bolts, you must use either the factory T-Bolt or a 1/2" Grade 8 bolt. These bolts are not supplied due to the various stacking heights of different spring packs. These bolts should be placed in the front two holes on the housing perch. If you do not have the factory style spring perch, do not use the j-bolt! Replace the j-bolt and the two factory T-bolts with a conventional U-bolt.

- 4) J-Bolt installation
 - a) Prepare the J-Bolts for installation by running the 1/2"-20 nuts all the way up both legs.
 - b) Drill out the mounting holes in the spring perch to 1/2".

- c) Place the J-Bolts over the axle housing tube, UNDER the brake lines. Adjust the nuts on the rear leg of the j-bolts so that it touches the top of the spring pad and the J-Bolt touches the top of the axle tube.

5. Position the Traction Bar under the spring center bolt so that it aligns with the hole in the middle of the Traction Bar mounting plate.

NOTE: Do not remove the rubber insulation pad that fits between the bottom of the spring and the traction bars. If this pad must be eliminated, replace it with a metal shim of equal thickness. Make sure that the spring centering bolt does not contact the tube of the traction bar. If it does, cut the bolt even with the nut.

6. Start the front of J-Bolts into the side brackets first, then through the rear holes in the mounting perch. Use the factory T-Bolts and nuts to hold the bars in place. Do not tighten at this time.

7. Put the supplied washers on the front legs of the J-Bolts. Install the locknuts on all legs of the J-Bolts. Tighten the nuts on the rear legs and the and the front T-bolts evenly to 50 ftlbs. Then continue to tighten the rear legs of the J-bolts evenly to 70 FT LBS.

8. At this point, make sure all shock brackets clear the brake backing plates, tires and wheels. Cut off those shock brackets that may interfere. Determine which of the shock brackets you are going to use and make certain that your shock-attaching bolt will go through the hole in the bracket. If not, drill the hole to fit.

9. Determining snubber height:

- a) With both traction bars installed on the rear housing pads, jack the rear axle housing up so that it supports the vehicle weight.
- b) Check the distance between the top of the front of the bar and the spring where the bumper would contact. This distance should be the equal to the height of the supplied snubbers.
- c) If the distance is incorrect, you can shim the bars at the mounting pad using aluminum wedge plates available from Competition Engineering (P/N: C7025). These plates are made in 2° wedges that can be stacked to give you the desired angle.
- d) You may also trim the rubber snubber using a fine tooth hacksaw.
- e) If the height is correct let the housing down to the extended position and install the snubbers.

10. With the rear legs of the J-Bolts tight, tighten the front legs as follows:

- a) Using a deep socket, tighten the locknuts until the top of the J-Bolts make solid contact with the top of the housing tube. Tighten both sides equally during this step.
- b) After the bottom nuts are secured, tighten the top 1/2"-20 nuts until they contact the top of the side brackets.
- c) Re-tighten the bottom nylon locknuts to lock securely.

11. Install the rear shock absorbers at this time.

12. Square U-Bolt installation:

- a) Lower the vehicle to the ground and bounce the back of the vehicle to settle suspension.
- b) Thread the supplied 7/16" nuts onto the U-Bolts approximately 3/4 of the way up the thread.
- c) Slide the U-Bolt over the top of the leaf spring and through the holes in the forward mounting brackets.
- d) Adjust the nuts so that the U-Bolt contacts the top of the leaf spring.
- e) Install and tighten the supplied 7/16" locknuts. Tighten to 30 FT LBS.
- f) Trim the J-Bolt as needed with a saw to gain ground clearance.

IMPORTANT: DO NOT USE THESE U-BOLTS TO ADJUST THE HEIGHT OF THE FRONT SNUBBER "THIS IS A SAFETY DEVICE ONLY."

13. Tuning Tips:

- a) Do not use the J-Bolts or the front U-Bolts to adjust the height of the bar. This can cause excessive pre-loading, possibly resulting in severe torque steer and broken axles.
- b) Make sure that the rear tire pressures are equal.
- c) For racing-only use, we recommend Competition Engineering Drag Race Shocks. They will control weight transfer for maximum traction.
- d) Do not use air shocks for competition use.

If traction is unequal, the following procedure should correct torque steer.

- e) An air gap between the top of the snubber and the spring is recommended for automatic equipped cars. Start with a 1/2" gap. Decrease gap to soften initial shock to tires. On manual trans cars a 1/4" gap is a good starting place.
- f) If the right rear tire traction is greater than the left, the car will pull to the left. To correct this, raise the front of the left (driver's side) traction bar with the use of wedge plates (Competition Engineering P/N: C7025) or lower the right (passenger side) bar.

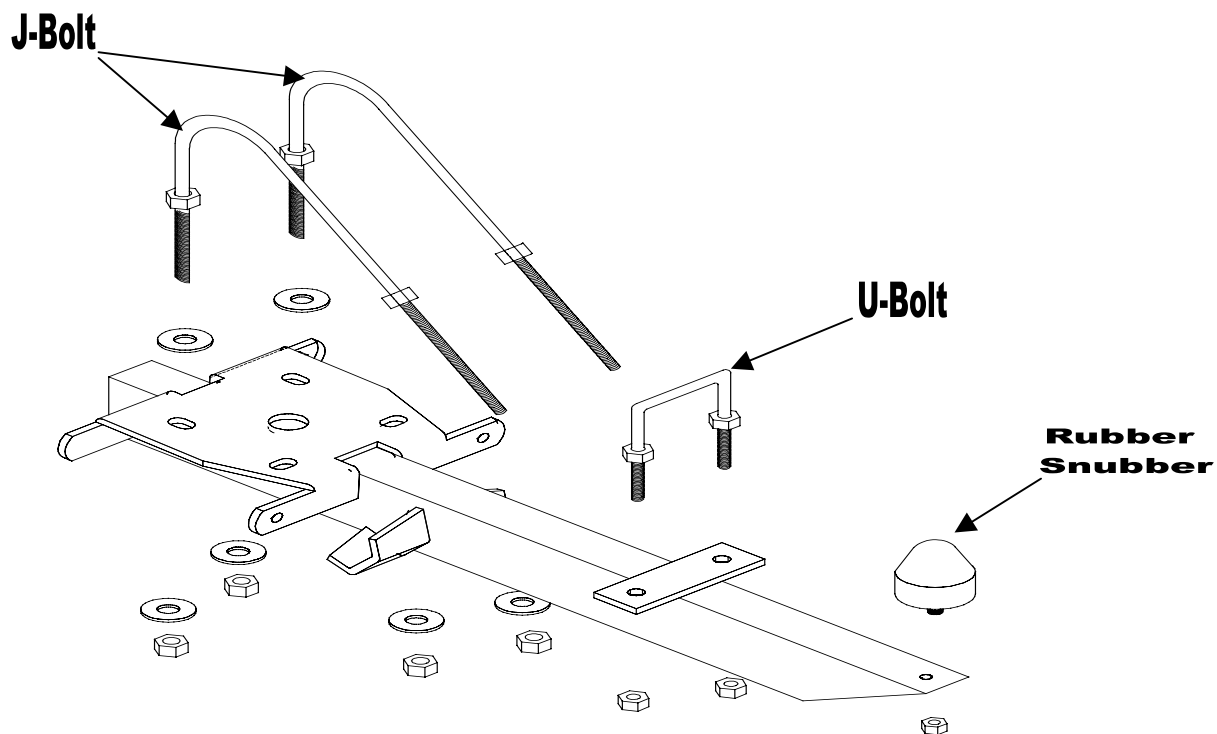


Figure 1