

INSTALLATION INSTRUCTIONS P/N: C7210 360° HOUSING BRACKETS

This kit is designed to convert older design 180° ladder bar brackets to the new, 360° design. The increased weld area enables the brackets to carry more torsional load. Tying the brackets together with the supplied strap gusset makes this design virtually bullet proof. The brackets have been cut in half to allow installation without removing the housing ends.

PARTS LIST

- 4) Large Housing Bracket
- 2) Strap Gussets

- 4) Small Housing Bracket
- 4) Gussets

INSTALLATION

- 1. Place two 3/4" bolts through the holes in one of the large housing brackets. Place it on the floor with the threads facing up.
- 2. Adjust the rear rod ends of the ladder bar in or out so that they drop over the 3/4" bolts on the large housing bracket. The bottom bar of the Ladder Bar should be 90° from the front edge of the large housing bracket.
- 3. Using a tape measure, measure the distance from the rear edge of the housing bracket to the center of the front rod end on the ladder bar. For Competition Engineering bar's this dimension should be 33" +/- 1/8". Adjust the front rod end accordingly to achieve this dimension. Tighten all jam nuts.

NOTE: Never adjust rod ends so that less than 3/4" of the shank is threaded into the bar.

- 4. Repeat this procedure for the other bar, laying it on top of the first bar so that the bolts protrude through the rod ends.
- 5. Bolt the remaining large housing brackets to the bars making a complete assembly for each side.
- 6. We will now trial fit the bars into the vehicle to determine their proper position.
 - a. Position the bar assemblies in place on the axle housing tubes.
 - b. Mount the front rod end in the middle hole of the ladder bar crossmember bracket.
- 7. Center the bars under the frame rails and check that the pinion angle remains the same.

 Keep in mind that there should be a minimum of 1" clearance between the tire sidewall and the ladder bar. Tack weld the brackets to the rear axle housing.
- 8. Un-bolt the ladder bars from the mounting brackets and remove the rear axle housing from the car.

For Technical Assistance, call Competition Engineering's Tech Line at (203) 458-0542, 8:30am-5:00pm Eastern Time

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- 9. Level the housing side to side and make sure that the pinion angle is set at 2-4° downward. Check the ladder bar brackets to ensure that both sides are 90° from the pinion centerline. If not break the tacks on the brackets and re-adjust.
- 10. With the large housing brackets in place you will now install the small housing brackets and the strap gussets.
 - a. Tack weld the small brackets to the back of the housing in-line with the large housing brackets.
 - b. Tack the supplied axle straps in place too completely box the rear brackets. These straps are designed to fit between the axle housing brackets and should sit approximately 1/8" above the edge to provide a more complete welding surface area.
 - c. Finish weld the brackets to the housing. Weld each bracket a little at a time to prevent housing warpage.
 - d. Finish weld the axle straps to the welded brackets.
 - e. The weld gussets may be added for additional strength. They should be located so they touch the axle tube and the large bracket.

