

# INSTRUCTIONS

916-57



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## TRIANGULATED REAR 4-BAR INSTALLATION

**WARNING: YOU MUST USE ANTI-SEIZE ON ALL THREADS. FAILURE TO DO SO WILL CAUSE THREADS TO GALL AND SEIZE UP. THERE IS NO WARRANTY ON GALLED OR STRIPPED THREADS.**

1. Insert the bushing halves and sleeves into the 4-bars and rod ends, install jam nuts. Assemble rod ends into 4-bar tubes, leaving 6 full threads exposed. Assemble the 2 upper links to be the same length and the 2 lower links to be the same length. Note that the welded end of the 4-bar tubes are not perpendicular to the tube, they are at a 2 degree angle.

2. Position frame securely on four jack stands at a height that allows you to work and weld comfortably under the car. Simulating ride height and rake will be helpful. Grind or strip any paint or rust scale from rear end housing in the areas where brackets will be welded in place.

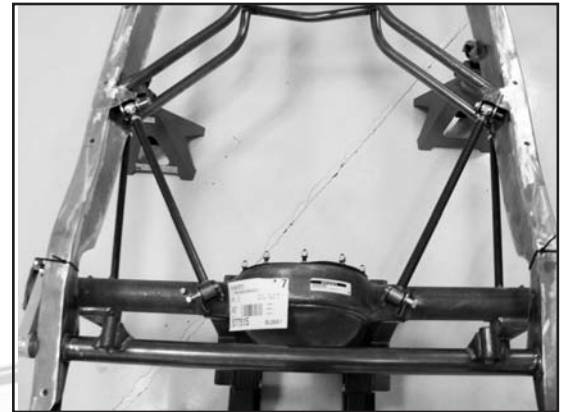
3. Mark the rear axle center line on both framerails for reference. The rear axle centerline can be determined by the location of the original rear axle, by centering the axle in the wheel opening of the body, or by using the appropriate wheel base dimension for your car measured back from the front axle centerline. Measure again, this is critical.

4. Position rear axle assembly under chassis; use three jackstands if necessary (one under each axle tube and one under the pinion). Top of axle housing tube should be 3-4" below bottom of frame rail. Using a plumb bob or similar device align the center of each axle tube with the rear axle centerline marks on the frame rails. Measure from the frame rail (or other common point) to the axle housing flange on each side, and center the rear axle within the chassis from side to side.

5. Shim or adjust stand under pinion to maintain proper pinion angle. If your engine sits level in the chassis, set the pinion angle to "0". (If your engine tilts up in front 2 degrees, tilt the nose of the pinion up 2 degrees) Crankshaft and pinion should be parallel at normal ride height (approximately 12½" shock mounting length).

**NOTE:** The 4-bar links have an adjustable rod end at the front, and a welded rod end at the rear. Note that the welded end is at a 2 degree angle. The bars are installed in the vehicle angled outward at the front. If you ordered a complete rearend when you purchased your chassis, disregard references about installing/welding brackets to the rear end housing in the following steps.

6. Install the adjustable end of two links into the lower forward frame brackets on chassis, insert bolts and secure with nuts. Install housing bracket / lower shock mount on the aft (welded) end of the lower links, insert bolts and secure with nuts. Swing bar up until the housing bracket cradles the axle housing, clamp in place. Repeat on the other side.



**7.** The width of aft 4-bar housing bracket/shock mount should be narrower than the forward 4-bar brackets on frame (check housing blueprint to verify the distance between shock mount holes for your particular chassis). Make sure that both housing brackets are the same distance from the housing ends, and centered between frame rails.

**8.** The aft face of the housing bracket provides the mounting holes for the rear shocks. This flat vertical surface must be perpendicular to the frame. Place a protractor or inclinometer on aft face of housing bracket and adjust length of lower links as required so that the bracket is 90 degrees to the frame. Be careful not to disturb rear end housing which would change pinion angle or wheelbase.

**9.** Re-check everything. Make sure rear end is centered in chassis. Make sure pinion angle is correct. Make sure rear end is on axle centerline. Make sure housing brackets are centered on rear axle housing with aft face perpendicular to chassis. Tack weld housing brackets / shock mounts to axle housing.

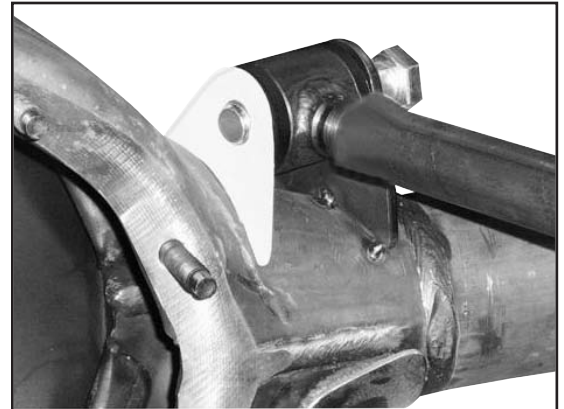
**10.** Locate the supplied upper 4-bar mount tabs (2 large 2 small with 1/2" holes) lay the 2 small tabs aside for later use. Install the adjustable end of one of the upper 4-bar links on the forward upper frame bracket, insert bolt, secure with nut. (verify the both link bushings are parallel and jam nut is tight) On the aft (housing) end install 1 of the large tabs on the outboard side of aft upper link bushing (yes, install only 1 tab). Insert bolt with bolt head outboard, tighten nut. Swing upper link bar down into position, adjust tab so that the radius sits evenly on axle housing. Tack weld tab to housing, repeat on other side.

**11.** Remove nut from housing end of one upper link. Position one of the small tabs on the inboard side of upper link. Note that material will have to be removed from curved portion of tab in order to fit the contour of the rear end housing. (you may chose to trace the tab onto pattern paper, trim the paper for an exact fit, and transfer the pattern back onto the tabs) Mark tab, grind or trim as required until a proper fit is achieved. Install tab on inboard side of aft upper link bushing and secure with nut. Tack weld tab to housing, repeat on the other side.

**13.** Install shocks (without springs) and, using a floor jack, move the rear end through its range of travel. Make sure there is no binding or interference. Double check all dimensions. Make sure wheelbase is correct side to side. Make sure housing is square in chassis by cross-measuring. Make sure housing is centered between frame rails. Make sure pinion angle is correct.

**14.** Connect anti-roll bar end links to housing brackets with 3/8" bolts. Install shocks and coilovers, install wheels and tires. Lower vehicle to the ground and check ride height.

**15.** When you are satisfied with the installation and measurements, disassemble all components and complete welding. Paint or plate components as desired and reassemble.



# IMPORTANT

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Speedway Motors Inc., P.O. Box 81906  
Lincoln, NE 68501 (402) 323-3200  
[www.speedwaymotors.com](http://www.speedwaymotors.com)



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