

Full Tilt Street Rods
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Installation Instructions
Rear Parallel 4-Bar Suspension Kit for '47-'54 GM Pickups

Please read all directions before undertaking this installation. This installation requires welding that should only be done by an experienced, skilled welder. Your safety depends on it!

1. Carefully mark frame rails and axle (if you're reinstalling it) to indicate both the front-to-back and side-to-side position of your existing axle prior to removal. This ensures the axle will be properly located in the new Full Tilt Street Rods 4-Bar suspension.
2. After removing the rear leaf springs, carefully grind or torch off the rivet heads from the front and rear stock spring hangers. Remove the hangers. Then punch out the rivets, taking care not to enlarge or damage the holes or the surrounding frame. The new Full Tilt Street Rods 4-Bar mounts bolt up to these holes.
3. Use supplied 3/8x1 1/4" bolts, flat washers and locking nuts to attach the front brackets to the frame. The brackets' large 4-bar mounting holes face the rear. Tighten nuts after all the bolts are in place.
4. Position the upper shock-mount crossbar rearward of the frame hump (approx. 31 1/4 inches from the rear end of the frame rails to the back edge of the crossbar) with the crossbar's L-shaped flanges underneath the top rail of the frame. Secure the crossbar flanges to the frame by inserting the included 3/8x1" positioning bolts through the existing holes in the frame's top rail. When properly installed, the crossbar is vertical.
5. Weld the crossbar to the frame by running beads along the inside edges of the top and bottom frame rails where they contact the crossbar flanges. If you're not sure where to weld, take your rig to an expert welder immediately! Remove the positioning bolts.
6. Using jacks and stands – and the marks you made in step one – position the axle under the frame. If you're installing a new or different axle, keep mind that the differential may not be exactly in the center. Pinion angle can be dialed in using the adjustable link bars, but it's best to start with the axle housing as close as possible to the correct angle. Use a dial indicator or angle finder on top of the axle housing to set the pinion angle two degrees down (axle tilted forward).

7. To position the rear 4-bar brackets: First, lay a straight edge (such as a long carpenter's level) against the inner surface of the front 4-bar bracket (up near the top by the bolt hole) and extend the straight edge back to the top of the axle. Make a mark on the axle. Do the same thing on both sides. Those marks will be roughly 33" apart. The adjustability of the 4-bar system allows some leeway here.
8. Fit the rear 4-bar brackets under the axles using the marks you made in step 7 to locate the brackets' inner edges. Depending on the axle you use, you may need to grind brackets to match the axle tube diameter. Use a torpedo level to plumb the brackets, then tack weld them into place. You'll finish-weld later.
9. Assemble and install the four link bars with the bushings, 5/8x3" bolts and jam nuts. The adjustable ends should be forward. Before installation, adjust the upper bars to 22" center-to-center; adjust lower bars to 21 3/4" center-to-center. Install bars into brackets, leaving everything loose at this point.
10. Install the Panhard bar: Install the triangular bracket (flat side rearward) onto the differential using the top-center stud and the next two studs on the passenger side of the diff. Assemble the Panhard bar using the jam nut and bushings provided. Bolt the fixed end (non-adjustable end) of the bar into the differential bracket and extend it toward the driver-side frame rail. Bolt the frame-mounting brackets onto the adjustable end of the bar, position the shorter bracket toward the front of the truck. The brackets weld to the inside of the vertical frame rail. Use the Panhard bar's adjustment to center the axle in the frame.
11. Disassemble bars and finish-weld the brackets. Reassemble and tighten all bolts. Now you're ready for shocks or air bags. Happy rodding from Full Tilt Street Rods!