



Instruction Sheet ADJUSTABLE UPPER CONTROL ARM AND CASTER ROD KIT

This part should only be installed by personnel who have the necessary skill, training and tools to do the job correctly and safely. Incorrect installation can result in personal injury, vehicle damage and / or loss of vehicle control.

Plan Ahead - Read All Instructions BEFORE installing part.

Check for loose or worn parts, proper tire pressure, and odd tire wear patterns before beginning alignment.

Overview: This kit is designed to directly replace the OE upper control arm and lower caster rod. It will work with both the OE style spring and saddle arrangement, or with any of the aftermarket conversions that use a short coil over in place of the OE spring/saddle/shock arrangement.

Upper Arm: The arm provides +3° of caster, which, in combination with adjustable caster rod, provides +1° to +5° caster change. This improves on-center feel and return-to-center ability after a turn. Camber change can be set at 0° (no change relative to OE) or -1° or -2° for improved handling. The lowered pivots mimic "Shelby Drop" geometry without the need to re-drill arm-to-chassis mounting holes. This geometry provides an improved camber curve, which will allow far better cornering grip relative to the OE geometry.

Strut Rod: Includes OE-style bushings, which are a softer durometer than polyurethane aftermarket bushings. The softer durometer protects strut rod mounting flanges on the body of the car, as harder durometer aftermarket bushings often result in broken welds or body cracks on cars that are frequently driven.

Ball joint: SPC includes a standard OE replacement ball joint with this product. Make sure ball joint mounting bolts are at least 30 mm (1.2") long, measured from under the head to the tip.

Arm Prep for installation: Arms will need to be assembled for each side before installation. The cross shaft should be positioned with the SPC logo showing. The arm should have the "L" facing up for left side, and the "R" up for the right side. The cross shaft may be a tight fit between the xAxis™ "bushings". Once the cross shaft is in place, install the 12mm cross shaft to arm bolts and torque to 80 ft-lb (108 Nm). Because of the tight fit of the arm in the chassis, this should be done before installing arm in vehicle.

NOTE: Unlike rubber bushings the xAxis can rotate without windup. They are very stiff when new but will loosen up with a few miles of actual driving.

Using supplied fasteners, install the ball joint to the bottom side of the arm. Tighten ball joint fasteners to 15 ft-lb (20 Nm). The curved side of the ball joint should face the tire. The outer ball joint position will provide no camber change relative to the OE arm. The other two positions are -1° camber and -2° camber change relative to the OE upper control arm, see **Figure 1**.

Arm Installation: Remove OE upper control arm following manufacturer's procedure. Install SPC arm in its place. The offset of the cross shaft should lower pivot points relative to OE location. The "L" or "R" should be facing up to reflect left and right sides of vehicle. All necessary hardware is included. Torque cross shaft to chassis bolts to 75 ft-lb (102Nm) and coil saddle to arm bolts to 40 ft-lb (54Nm). Tighten ball joint to knuckle castle nut to 45 ft-lb (61Nm) and then tighten further, just until cotter pin can be inserted.

Strut Rod Installation: Remove forward cotter pin, nuts, and bushing from OE caster rod. Remove bolts holding OE caster rod to lower control arm. Remove caster rod. Install provided 5/8" nut, washer, bushing, and inner sleeve on SPC caster rod, as shown in **Figure 1**. Using inner nut, adjust position of installed components to be in the approximate location as OE rod. Install threaded portion of SPC caster rod into forward body mount and position steer stop end of rod so mounting holes align with holes in OE lower control arm. Install provided 1/2" bolts and nuts loosely to attach SPC caster rod to OE lower control arm. Install stamped locator ring into body mount. Orient as shown in **Figure 1**. Install forward bushing, washer, and 5/8" nut. Loosely tighten nut, verifying locator ring is sitting within body mount. Torque caster rod to lower control arm bolts to 90 ft-lb [122 Nm].

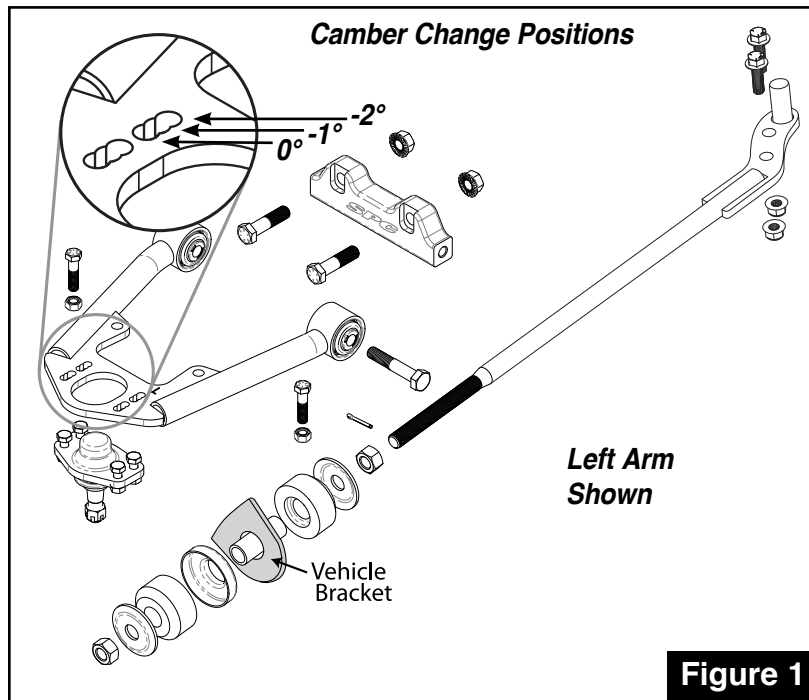


Figure 1

Alignment procedure: If the car is running modern radial tires, the factory alignment specifications are not ideal. Bias ply tires required little caster, and often some positive camber to produce decent drivability. With modern radial tires, these alignment settings will result in very light steering feel, wandering at highway speeds, and very little return to center. For radial tires, SPC recommends +3° of caster and 0° to -.5° of camber. For more responsive handling, use slightly more positive caster, and more negative camber. If more negative camber is required, move the ball joint position inboard in 1° increments. Once camber has been set, adjust caster to desired setting by threading the bushing assembly forward or rearward on caster rod. Torque caster rod adjustment nuts to 75 ft-lb (102 Nm). Install provided cotter pin.

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