PART NOS. 94215 & 94218

SPC PERFORMANCE®

Instruction Sheet
CLASSIC FORD ADJ. UPPER CONTROL ARM

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.

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

Upper Arm: Designed to provide +3° of caster nominally, which in combination with the adjustable strut rod will allow caster to be set at +1° to +5° for greatly improved tracking, on-center feel, and return to center after a turn. Camber can be set from +.75° degrees to - 2° for improved handling. The lowered pivots mimic "Shelby Drop" geometry without the need to re-drill the arm-to-chassis mounting holes. This geometry provides an improved camber curve, which will allow for better cornering grip relative to the stock geometry.

Strut Rod: Includes OE-style bushings, which are a softer durometer than polyurethane aftermarket bushings. The softer durometer protects the 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 ball joint with this product, but the arm uses a standard OEM replacement ball joint. Make sure ball joint mounting bolts are at least 30mm (1.24") 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 can be positioned with the SPC logo showing or hidden. 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 grade 10.9 cross shaft to arm bolts and torque to 80 ft-lb. Because of the tight fit of the arm in the chassis, this should be done before installing the arm in the vehicle. (Unlike rubber bushings the xAxis are able to rotate without stress after tightening. 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 stock arm. The other two positions are -1° camber and -2° camber change relative to the stock upper control arm.

Arm Installation: Remove the factory upper control arm. Using the1/2" hardware supplied, loosely install the SPC arm in its place. Place one of each of the provided shims between the cross shaft and the chassis. The offset of the cross shaft should lower the pivot points relative to the stock location. The "L" or "R" stamp on the arm should be facing up to reflect the left and right sides of the vehicle.

Torque 1/2" cross-shaft-to-chassis-bolts to 75 ft-lb, torque 3/8" coil-saddle-to-arm bolts to 40 ft-lb. Tighten ball joint-to-spindle castle nut to 45 ft-lb and then tighten further until cotter can be inserted.

Strut Rod Installation: Remove forward nuts, washer, and bushing from original strut rod. Remove the 2 bolts holding the factory strut rod to lower control arm and remove strut rod, paying attention to location of steering stop. This will be reinstalled. Using the OE strut rod as a guide, install a nut, washer, bushing, and inner sleeve on SPC strut rod as pictured in ***Figure 1***. Using the inner nut, adjust the position of the bushing on strut rod to be roughly the same as on the OE strut rod. Install strut rod into forward body mount, then install back of strut rod to lower control arm, placing steering stop in its former position. Install provided 7/16" nuts and bolts, leaving the two bolts holding strut rod to lower control arm slightly loose to ease adjustment. Install stamped locator ring into body mount. Install forward bushing, washer, and loosely tighten nut on strut rod.

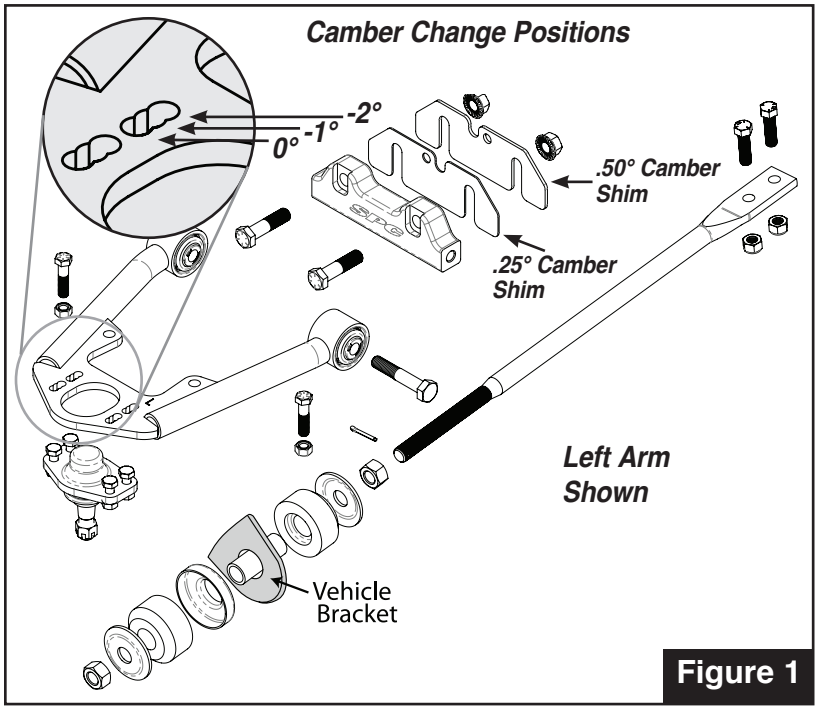

Figure 1

Alignment procedure: If the car is running modern radial tires, the factory alignment specifications are NOT ideal. Bias 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.

With all shims installed, and the ball joint mounted in the outer hole position, the vehicle should have slightly positive camber. Remove the thin .25° shim, or the thicker .5° shim for finer adjustment, or if more negative camber is required, move the ball joint position inboard in 1° increments.

Once camber has been set, use the adjustable strut rod to set caster to the desired specification. After setting caster, torque strut-rod-to-control-arm bolts to factory spec. Torque the strut rod adjustment nuts to 75 ft-lbs and install the cotter pin.

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