



Part Number 94350

Tri-5 Upper Control Arm

Q1: SPC's Tri-5 Front Upper Control Arms p/n 94350 look different., what are those changes?

A1: In mid-2013, several things were changed in order to better accommodate modern alignment settings for radial tires and offer a better fit with aftermarket steering gears.

- We moved the cross shaft forward in the vehicle for improved clearance to aftermarket steering gears.
- The included shaft spacers were made slightly thicker to provide more clearance to the upper shock mounting hardware.
- The rear sleeve has been shortened to allow more positive caster and to make tightening the jam nuts easier.
- Finally, the three bolt OE style ball joint has been replaced with a .5" taller 4-bolt ball joint, which not only eliminates the stack of ball joint spacers required on our earlier kit, but also improves the camber curve during suspension travel for improved handling.

Q2: I already have the older 94350 kit installed on my car, should I upgrade?

A2: That is up to your preference. If your existing kit fits and has provided the caster setting you wanted, there is no benefit to updating the cross shaft or sleeve length. Only the taller ball joint is a functional improvement (to camber gain) if you drive your car hard in corners – updating it also requires the matching plate. For any updates you elect to make, please call SPC and we will assist in determining which components you need to buy.

Q3: My SPC upper control arms contact the frame when I lift the vehicle with a jack. What should I do?

A3: It is critical that you consider the entire suspension system when you modify your front end. Fortunately, SPC Performance arms are modular and can be configured to work with most spring and shock combinations. We recommend you use an SPC extended length ball joint (see application) or a tall knuckle for better handling as well as to help prevent contact issues. You can also use no more than 3 of the optional SPC ball joint shims (p/n 94304 or 94306) to lift the arm from the ball joint and get additional clearance.

The shock absorbers should provide a limit for the suspension travel prior to the arm contacting the frame. There are many lengths of shocks available in



the aftermarket; some are much too long for the application, so check your shock length in addition to the configuration options.

Q4: How do I know what length shock I should be running?

A4: We have determined lengths for some of our applications and listed them in the directions. For other applications, you can easily lower the arm with the shock removed until the SPC upper arm just touches the frame, then measure the distance from the upper mount to the lower mount and subtract ½" to determine the ideal shock length for your vehicle. Shocks up to ½" shorter than this measurement will also be fine.

Q5: What about using limiting straps?

A5: Limiting straps are a viable alternative as well. This extra device is not needed for most usages; it may be the better option if you use your car very hard (drag racing, rally, etc.). They can also allow you to keep your current shocks if they are too long.

Q6: The OEM snubber that limited down travel (droop) of the UCA doesn't work with the SPC arm, how should I limit droop travel of my suspension system to prevent contact between the arm and frame?

A6: Again, the shock absorber should provide a limit for the suspension travel prior to the arms contacting the frame.

Q7: I have installed your extended length ball joint. There is about ½" of ball joint stud showing above the knuckle. Is this correct? Is the stud seated properly in the knuckle? Is the boot too short?

A7: The extended height 4-bolt ball joint used in this kit will leave about ½" of stud showing between the knuckle and the boot. If you see about ½" of stud, it is seated properly and the boot will protect the ball joint as designed. This extended stud is designed to improve the camber curve. It does look a little different than you are used to seeing, but it will work very well. The castle nut should be tightened to 45 ft-lb and then the cotter pin inserted. Tightening the nut farther in an attempt to "seat" the extended shaft will result in broken or damaged parts, and will not change the exposed shaft.

Q8: I'm running radial tires, what alignment settings should I use?

A8: Factory specifications for this car were based on bias-ply tires and/or manual steering. Running radial tires with those settings will result in a very light steering feel with little return to center, and a somewhat vague on-center feel. Most people report significant improvement in drivability running



approximately 3 degrees of caster, recommended camber is zero to -0.25 degrees, recommended total toe is +.25 degrees. We suggest you start there and see how it feels with your total system modifications.

Q9: My control arm part number says it will fit either the right or left side, but one side looks upside down when installed. Do I need to change anything?

A9: Specific part numbers of arms are interchangeable, working on both right and left sides of the vehicle. If you have two of the same part number this is the case. First, make sure the bushing pivots on each end of the cross-shaft are offset upwards and the bolt heads are facing upwards. You may need to remove the large nut on each end of the cross-shaft and slide the bushing off to flip it over. Next make sure the welded stud on the ball joint plate is facing towards the front of the vehicle. Note:, make sure the bolt heads are facing upward. Last are the adjuster sleeves. They should mirror each other from side to side. Check the instruction sheet for any specific placement. Keep the amount of threads showing equal on either side of the hex adjuster, and make sure adequate threads are engaged. The best placement of the ball joint is under the ball joint plate. Add shims if necessary or if it is recommended in the instructions.

Q10: Muscle car race arms previously used steel pivots on cross shaft with snap rings. Is that arm still available or is there an updated part?

A10: No, the solid steel race arm cross-shaft and pivot are no longer available. The pivots now use a bushing material called Delrin. Delrin works well for a racing application because it has little to no compliance, is low friction, and is resistant to heat and abrasion. The pivots have also been redesigned. The redesign included an offset to increase frame clearance during suspension droop and a grease zerk. Older race arms with steel-on-steel cross-shafts can be updated with a new cross-shaft and new pivot assemblies. You will need a cross-shaft specific to your application along with the new pivot assembly, part number 92025.

Q11: I am installing pivots with Delrin sleeves in my Racing/Muscle Car upper control arms. What is the proper torque value for these pivots?

A11: There is no "correct" torque value for these pivots. Tightening the Delrin bushing too much will damage the bushing material. Tighten the supplied lock nut until the washer is snug against the Delrin bushing and there is no



side-to-side play along the cross shaft. Recheck in 1000 miles to make sure there is no play and tighten slightly if necessary. After that, it is good to check and grease them at every oil change.

Q12: How do I know if I have an old style or new style cross-shaft?

A12: All new style cross-shafts will have a flanged area on the inboard side of the bushing support. Bushings will be sandwiched between this flange and the washer/nut on the outer end.

Q13: Can I use the stock rubber type pivot bushings instead of the Delrin race-style bushings?

A13: Yes, but only on the new steel cross-shafts. All of the new style shafts will accept the rubber (Clevite style) bushing or the Delrin race-style bushings.

Q14: I have installed the adjustable upper control arms and cannot achieve desired caster. One sleeve is threaded all the way in and the other out when camber is set to specifications. How can I correct this?

A14: Many control arms come with two different lengths of hex adjuster sleeves. Most likely the sleeves are in the wrong position for your vehicle. For example, if the longer sleeve is towards the front of the vehicle and the shorter one is towards the rear and the caster is extremely positive, try switching the positions of the adjusters. Put the longer one in the rear and the shorter one in the front. This will push the upper ball joint forward and caster and camber can now be adjusted to desired specifications. Don't just flip the arm over; make sure the ball joint plate has the welded stud towards the front of the vehicle. Thread the adjuster sleeves equally onto the pivot studs and plate studs.

Q15: The instructions say to install the cross-shaft with the arm offset to the front of the car. What exactly does that mean?

A15: The cross-shaft on the 94350 & 93490 adjustable upper control arms have a slight offset. The section from the bolt hole to the pivot is wider on one side than the other by about 11mm (0.4"). The wider span should go towards the front of the vehicle. This shifts the arm forward for proper alignment.

