



25455/25460/25465/25470/25480/25485/25490

## Toyota Adjustable Upper Control Arms

**Q1: I have a lift kit; will the control arms handle the increased angle?**

**A1:** These control arms have more articulation capability than your OEM arms (80° for SPC vs. 68° for stock ball joint.) If your stock arms had sufficient travel in the ball joint, these arms will not be the limiting factor to suspension travel.

**Note: Questions Q2 and Q3 Refer to All Arms Except 25455.**

**Q2: After installing these control arms, I now have camber and caster adjustment on both the upper and lower control arms. What is the proper way to adjust the alignment?**

**A2:** On many Toyotas, the factory lower cams have seized in the control arm and cannot be used to adjust the alignment without a lot of work. If they have not seized, they can help to fine-tune the alignment.

If tire rub is not critical:

1. Set caster roughly by clocking the SPC upper ball joint per the chart on the instruction sheet.

2. Once caster is close to your desired setting using SPC's upper arm, use the factory cams on the lower arms to dial it in. (Ignore any change in camber while setting caster.)

3. Now that caster is where you want it, use the sliding feature of the upper ball joint to put camber exactly where you want it.

**Q3: My tires are rubbing at the back of the wheel well can I use the adjustable arms to help fix this?**

**A3:** Yes, you can! Use the lower arm adjustment cams to roll the lower ball joint forward for maximum caster. (Pull the forward bushing in and push the rearward bushing out.) Then adjust the upper ball joint to get the caster and camber alignment in spec. Doing this can move the wheel center forward by 1/2" - 3/4" in most cases.

**Q4: I have put oversized tires on my Toyota Tacoma (or Hilux) after a 2-inch lift kit. I am using the stock (OE) wheels and the tire is hitting the 25470 arm in a turn. What should I do?**

**A4:** A lifted truck with original equipment (OE) wheels and oversized tires may have an interference problem where the tire hits the adjustable upper control arm in a turn. This is dependent on the amount of lift and the width of the oversize



tires. This is due to oversized tires being much wider and taller than the OE size tires on OE wheels which have a conservative offset. There are several ways to address this problem:

Use the SPC Adjustable upper Control Arm to your advantage. Slide the upper ball joint outward towards the tire as far as possible and compensate using the OE adjusters on the lower control arm. This will effectively add track width and give you clearance for the new larger tire. Follow up by adjusting caster placing the ball joint in different positions per the lettered chart on the installation instructions and compensate using the OE adjusters.

Get wheels with a larger offset. It is common for customers to install wider tire and wheel combinations that are offset for a wider track.

Use wheel spacers. Another possible solution is to install aftermarket wheel spacers that can help eliminate this problem.

**Q5: The upper nut on my ball joint came loose. How can I prevent this?**

**A5:** This may occur on arms that have been powder coated or painted, but also occasionally on trucks with very large tires that are used for rough rock crawling. We have revised the torque spec on the top nut from 120 lb-ft to 150 to combat this issue. If you feel that you are at risk from having the nut come loose, you can torque it up to 175 lb-ft. If you have decided to powder coat or put on another secondary paint, it is recommended that you re-torque the nut a day or two after the initial alignment, as added coatings tend to compress, and may affect clamping torque.

**Q6: Why is there so much of the ball joint stud sticking out of the knuckle on my truck?**

**A6:** The early SPC boot design rode higher on the stud than the stock boot. If you would like to get boots that cover the stud, you can switch them out, and also re-grease the ball joint, by purchasing SPC kit 25477, which includes two new-style boots that will cover all of the stud and rest against the knuckle when installed. Newer SPC ball joints now include the redesigned boot.

**Q7: During the installation of the upper control arm, the inboard bolt does not clear for removal due to the inner fender. What can be done?**



**A7:** On some vehicles, the inner fender will not allow the control arm's retaining bolt to be removed easily. The two bolts mounting the front clip at the radiator saddle can be removed, allowing the front clip to be moved slightly allowing the inboard control arm bolt to be removed. Use caution, the front clip should be moved very slightly so as not to damage any parts. Be sure to reinstall all front clip hardware after you have removed the arm, then, reinstall the control arm bolt from the back during installation of the arm.

**Q8: Can I use these arms to make adjustments on my lowered truck?**

**A8:** Because these kits are designed specifically for use on stock height or lifted trucks, they are not ideal for lowered trucks. Use on a lowered vehicle may result in contact between the arm and inner fender and will place the ball joint at a high operating angle. Because of this, SPC does not recommend them for lowered applications.

I would like to use an SPC adjustable control arm, will this arm work with aftermarket strut/spring setups?

As long as the stock control arm fits around the strut assembly, the SPC control arm will also fit.

**Q9: What should I do if the parts are not compatible?**

**A9:** The more modifications that are done on a vehicle the more likely you are to run into compatibility issues such as fitment and clearance. Educated decisions will need to be made on which parts will work and which ones won't. Sometimes it's just a matter of trial and error. It is ultimately up to the consumer as to the proper fitment of aftermarket parts.

**Q10: I want to replace the ball joint on my adjustable control arm. Is the number stamped on the ball joint housing the correct replacement ball joint for my particular control arm?**

**A10:** No. This stamped number is affiliated with a sub-component and should not be used to order new ball joints. Below is a chart of current ball joint part numbers and their associated control arm part numbers. This chart may not be the latest version so call customer service or check the website for correct application of replacement ball joints.



Control Arm p/n	Major Application	Replacement Ball Joints (pr.)
25455	100 Series Landcruiser	25002
25460	'95-'04 Tacoma	25001
25465	200 Series Landcruiser	25002
25470	'05 & up Tacoma	25001
25480	'03 & up 4Runner	25002
25485	'99 - '06 Tundra	25001
25490	'07& up Tundra	25002
25540	'05 & up Frontier	25001
25620	Chevy D Max	25003
25660	Ford T6	25001

**Q11: I am installing the solid ball joint insert for the 25460/25485 Toyota upper control arm. The insert does not fit tight in the steering knuckle. What could be the problem and what can I do about it?**

**A11:** Check the diameter of the ball joint insert. The diameter should be no smaller than 42.25mm. If the diameter is smaller please call technical assistance at 1-800-525-6505.

It is possible the upper ball joint was replaced in the past and an oversized aftermarket ball joint was installed. This will stretch the hole in the knuckle and make it slightly larger. Also, if the stock ball joint was pressed out at an angle, this could also oversize the hole in the steering knuckle. Each time a ball joint is pressed in and out of a forged part like the steering knuckle, the bore gets a little bigger.

**Part Number 25008-** Knuckle Insert Service Kit contains slotted inserts which address this issue. These inserts install from the bottom of the knuckle hole and expand as the tapered ball joint post is tightened to compensate for enlarged knuckle holes. Plus, they are much easier to install.

**Q12: How do I properly inspect the new grease-able ball joint for wear or excessive free-play?**



**A12:** Our grease-able ball joints incorporate an internal spring which keeps a constant pressure on the ball stud. Proper inspection should look for radial play only. Any vertical wear is compensated for with a wear spring.

The inspection procedure for radial motion is as follows:

Lift the vehicle by the lower control arm. See Fig. 1.

Attach magnet base of dial indicator to knuckle extension. Aim dial indicator at ball joint housing from the side. See Fig. 2.

Pull knuckle extension straight out and zero dial indicator. Push knuckle extension straight in and record movement. See **green** arrow of Fig. 3. There should be no perceptible radial motion.



Fig. 1

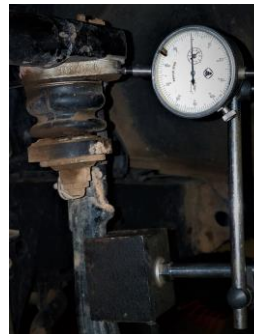


Fig. 2

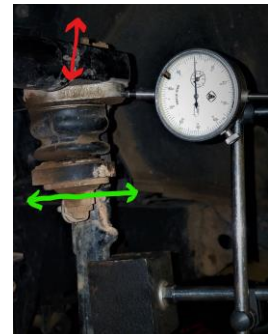
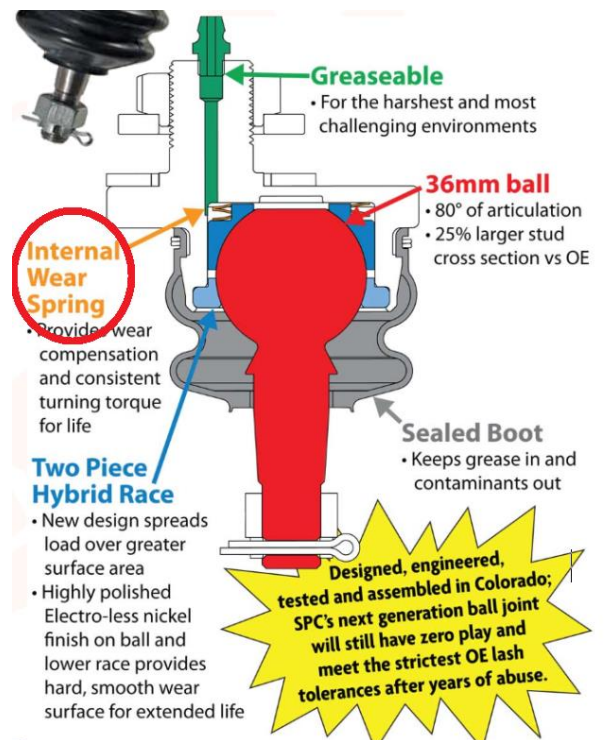


Fig. 3



NOTE: Checking for axial / vertical play (up/down) is not necessary, because the spring can be compressed if excessive force is used. Compression of the spring is NOT wear! If a shop insists on checking it this way, they should use a dial indicator to measure axial movement. If more than 0.050" of movement is present, then the ball joint should be replaced. This is represented by the **red** arrow of Fig. 3.

For more information on warranty procedures go to our website at <http://www.specprod.com/warranties>.



**Q13: What is the difference between the 25470 and 25480 arm?**

**A13:** The ball joints. The arms themselves are the same. 25470 arms can be used on a 4-Runner/FJ by substituting the 25002 ball joints and 25480 can be used on a Tacoma by substituting the 25001 ball joints. This can be useful for aftermarket spindles which were made to be direct replacement for the Tacoma. These spindles can then be used on 4-Runners and FJs by substituting the 25001 ball joints.





**The following questions refer to older design arms with SpecRide™ or Rubber Bushing.**

**Q14: I have the SpecRide™ bushings. Why is my front suspension squeaking?**

**A14:** If you used the INCLUDED grease packet and greased both the inner surface of the bushing and the sides where the included flat washers contact the bushings, you can rule out the bushings as being the cause of squeaking. Check torque on the cross shaft. Check other suspension components (poly sway bar bushings, shock eyes, etc. will squeak.) If you used grease, but not the included grease, your arms could be the culprit. You **MUST** use the supplied grease!!! It contains a very high percentage of Molybdenum Disulfide in a synthetic grease carrier. The supplied packet of grease should be plenty for the job, but if you need more, CV Joint Grease is available at any auto store. This is the **ONLY** grease approved for SpecRide bushings.

**Q15: I have the rubber bushings in my arms, why is my front suspension squeaking??**

**A15:** The most common installation error we see is that the stock dished washers on each end of the long bolt holding the upper control arm are installed incorrectly. They have a bit of an offset and should be installed so the gap between the washer and the rubber bumpers on the sides of the bushing is as large as possible ( $\approx 1/8"$ ). If installed the other way, the washers will constantly contact the rubber on the ends of the bushings and can cause a squeaking noise as the suspension moves. A squeaking noise can also come from the bushings and washers if the long bolt has not been properly tightened to OEM specification. If the arms have significant mileage on them, the bushings and ball joints should be inspected for looseness or wear. If the bushings need replaced, we have an upgrade kit to put SpecRide bushings in your arm (25466 or 25476 depending on your application). Call the SPC Tech Line with any questions!

**Q16: The nut on the long mounting bolt has come loose. What can I do to keep this from happening again?**



**A16:** Early SpecRide™ kits used a large washer on each side of both bushings. There is a revised pivot sleeve and washer combination that will prevent the nut from loosening. Call customer service at (800)525-6505 and an update kit will be shipped to you. (P/N 25478)

**Q17: How can I tell if my arms need the updated washer and pivot sleeve combination?**

**A17:** Arms that need update would have been packaged and sold between April and November of 2012. Look at your bushings. If there is a very large diameter washer on both sides of each bushing, you should request an update kit and install it.

**Q18: What are the grooves on the pivot sleeves for?**

**A18:** You may notice grooves on the pivot sleeves of your control arm kit. These grooves are for sorting during the production process and in our warehouse. Their orientation when installed is not important.

