

**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.**

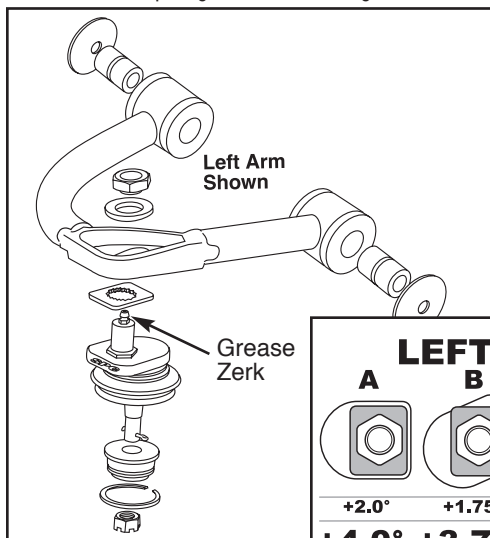
**Plan Ahead - Read All Instructions BEFORE installing part.**

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

1. Raise vehicle by frame and support with jack stands. Remove front tire and wheel assembly.
2. Loosen the nut on the upper arm-to-frame mounting bolt and remove bolt holding ABS wiring from upper arm.
3. Remove cotter pin and nut holding OEM ball joint to upper control arm. Break the taper between the ball joint stud and arm and remove the ball joint from the arm. (SPC Tools 37985 and 37990 work well).  
**Note: Support the knuckle so no strain is applied to ABS wiring or brake lines.**
4. Remove the nut and washer from the long arm-to-frame mounting bolt and remove the bolt and arm.  
**NOTE: To provide clearance, additional components in the engine compartment may need to be removed.**
5. Remove the snap ring retaining the upper ball joint to knuckle. Press out the ball joint using the SPC Tool 72509 ball joint press or equivalent.
6. Press the included insert into the knuckle, with the flange on top. Install the included snap ring on the underside to retain the insert. Be certain that the snap ring is seated in the groove.
7. Using **SUPPLIED GREASE ONLY**, liberally coat the inside of the SpecRide control arm bushings, making sure all small voids are filled with grease. Press a pivot sleeve into each bushing until it is flush with the outside of the bushing. This will push some grease out, which is normal. Use this grease to lightly coat the outer ends of the bushings. Wipe grease off the inner ends of both bushings, as nothing will contact them.
8. Install the SPC control arm into the vehicle. Place one large flat washer on the outside of each bushing as the long retaining bolt is slid into place. (The stock dished washers will not be re-used.) After bolt is fully in place and final washer is installed, install nut and torque to 85 ftlb [115Nm]. (The bushings will pivot freely on their sleeves, so there is no need to weight the vehicle first.)
9. Install the star plate over the hex on the ball joint per the chart below to achieve the desired caster change relative to the stock arm. (For most trucks with 2-3" of lift, setting "D" should return caster to factory specifications, but it may be necessary to use different positions on each side to achieve desired cross-caster setting.) Insert the ball joint up through the bottom of the arm, indexing the star plate in the machined slot, and then install the top washer and nut. Position in the middle of the slot and tighten nut for initial alignment readings.
10. Insert the ball joint stud into the knuckle, install the supplied castle nut and torque to 45ftlb [61Nm]. Tighten further until the supplied cotter can be installed.
11. Re-attach the ABS wiring bracket to the SPC arm using factory bolt.
12. Grease ball joint with an **NLG#2, Grade LB with 3%-5% Molybdenum Disulfide grease**. 5 to 10 pumps of grease is sufficient at each lubrication.  
**WARNING: FAILURE TO GREASE AND MAINTAIN THIS BALL JOINT MAY RESULT IN PREMATURE FAILURE.**
13. Re-install the tire and wheel assembly.
14. Lower the vehicle and take alignment readings. Adjust camber by loosening the top nut and sliding the ball joint in the control arm slot. Adjust caster by loosening the top nut and repositioning the star plate to rotate the ball joint relative to the arm. (It will be necessary to raise the vehicle to make these adjustments.)
15. When final Caster/Camber settings are achieved, torque the top ball joint nut to 150 ftlb [162Nm]. Adjust toe, road test the vehicle.

**Always check for proper clearance between suspension components and other components of the vehicle. Camber and caster can be set with the SPC upper control arm, as well as the OEM lower control arm eccentric bolts. In most cases, it is recommended that the lower eccentrics be set to their neutral position. This way they can be used to fine-tune caster. Alternately, if caster is set for max positive by the OEM lower cams, and final alignment achieved with via the SPC upper ball joint setting, more tire clearance may be obtained at the rear of the wheel opening.**

**Maintenance:**  
*Lubrication Interval - SPC recommends adding 5 to 10 pumps of grease to ball joint at each oil change, or after operating vehicle in wet or dusty conditions.*



LEFT FRONT CASTER CHANGE						
<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
+2.0°	+1.75°	+1.0°	0°	-1.0°	-1.75°	-2.0°
<b>Ball Joint Setting</b>						
<b>+4.0°</b>	<b>+3.75°</b>	<b>+3.0°</b>	<b>+2.0°</b>	<b>+1.0°</b>	<b>+0.25°</b>	<b>0.0°</b>
<b>Total Arm + Ball Joint Caster Change</b>						
RIGHT FRONT CASTER CHANGE						
<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
+2.0°	+1.75°	+1.0°	0°	-1.0°	-1.75°	-2.0°
<b>Ball Joint Setting</b>						
<b>+4.0°</b>	<b>+3.75°</b>	<b>+3.0°</b>	<b>+2.0°</b>	<b>+1.0°</b>	<b>+0.25°</b>	<b>0.0°</b>
<b>Total Arm + Ball Joint Caster Change</b>						

**Note: With SPC logo facing the tire (Position D) this arm will give +2° additional caster. Using the star plate, caster change can be adjusted from +0.0° to +4.0°.**