

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.

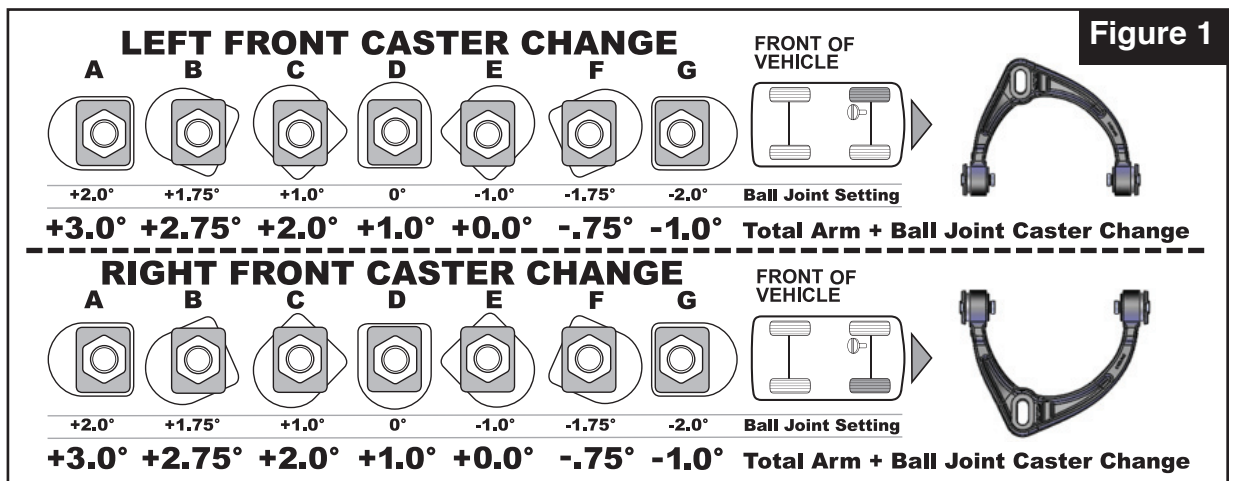
Check for loose or worn parts, proper tire pressure, and odd tire wear patterns before beginning alignment.

1. Raise vehicle and support by frame so suspension hangs free. Remove front tire and wheel assembly.
 2. Set OE lower cams to center, neutral position and lightly tighten.
 3. Remove nut holding OE upper control arm ball joint to steering knuckle. Break taper between ball joint stud and knuckle using SPC 8370 or equivalent. Be sure to support steering knuckle to avoid strain to brake lines or ABS wiring.
 4. Remove arm-to-frame mounting bolts and remove control arm per manufacturer's procedure. (This may require removal of strut for access to inboard hardware).
 5. Install SPC control arm into frame pockets. Reinstall upper control arm mounting hardware and torque to manufacturer's specification. (Bolts may be reinstalled in reverse orientation than OE for ease of future service).
- NOTE: Unlike OE rubber bushings, xAxis™ bushings pivot freely, and may be fully torqued without placing any weight on suspension.**
6. Install star plate over hex on ball joint per **Figure 1** to achieve desired caster change relative to OE control arm.
- NOTE: For most trucks with 2" to 3" of lift setting "D" should return caster to OE specifications, but it may be necessary to use different positions on each side to achieve desired cross caster settings.**
7. Insert ball joint up through bottom of arm, indexing star plate in machined slot, and then install top washer and nut.
 8. Insert ball joint stud into steering knuckle, install supplied castle nut and torque to 45 lb-ft [61Nm]. Tighten further only until supplied cotter pin can be installed.
 9. Slide ball joint to midpoint of travel in arm slot and lightly tighten nut for initial alignment readings.
- TECH TIP: Use a magnetic adjustable camber gauge (SPC 81139) to rough in camber change without needing to reinstall tire and wheel assembly.**
10. Grease ball joint with NLGi #2, Grade LB with 3%-5% Molybdenum Disulfide grease. 5-10 pumps are sufficient at each lubrication.
- WARNING: FAILURE TO GREASE AND MAINTAIN THIS BALL JOINT MAY RESULT IN PREMATURE FAILURE AND VOID WARRANTY.**
11. Re-install tire and wheel assembly and lower vehicle.
 12. Take alignment readings and adjust as needed. Adjust camber with SPC arm by loosening top nut and sliding ball joint in control arm slot. Adjust caster with SPC arm by loosening top nut and repositioning star plate to rotate ball joint relative to arm. (It will be necessary to raise vehicle to make camber/caster adjustments with SPC arm). Alignment and wheel position can be fine-tuned with vehicle weight on suspension using OE lower control arm cams.
 13. When final camber/caster settings are achieved, torque top ball joint nut to 150 lb-ft [203 Nm]. Torque OE fasteners to manufacturer's specification.
 14. Complete alignment and road test vehicle.

Always check for proper clearance between suspension components and other components of vehicle.

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.



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