

NISSAN PATHFINDER / XTERRA / FRONTIER FRONT ADJUSTABLE CONTROL ARM

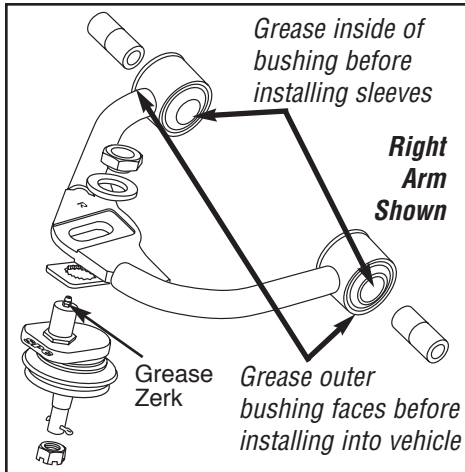
This part should only be installed by personnel who have the necessary skill, training and tools to do the job correctly and safely. Incorrect installation can result in personal injury, vehicle damage and / or loss of vehicle control.

Plan Ahead - Read All Instructions BEFORE installing part.

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.
2. Remove cotter pin and nut holding OEM balljoint to spindle. Break taper between ball joint stud and spindle. *(SPC tool 8370, 37985, and 37990 all will work well to break taper.)*
3. Loosen and remove control arm bushing bolts. Remove control arm, taking care to support spindle so ABS and brake lines are not damaged.

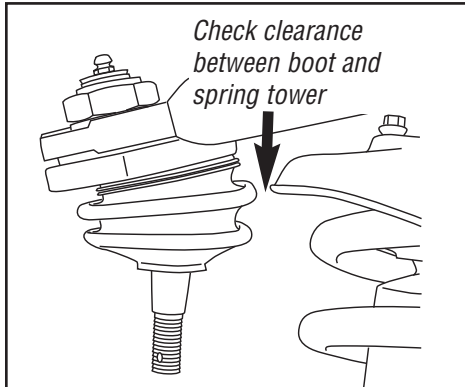
Note: To remove rear bolt on driver's side, it is easiest to remove nut, slide bolt forward slightly, and cut off head of bolt. Bolt can then be removed to rear. A replacement bolt and nut have been included in kit. Alternatively, partially separate steering shaft from steering rack and tilt inward to gain clearance for removing OEM bolt. Be careful not to change alignment of splined shafts if using this method!



4. Using **SUPPLIED GREASE ONLY**, liberally coat inside of all four control arm bushings, making sure all small voids are filled with grease. Press a pivot sleeve into each bushing until flush with outside of bushing. This will push some grease out, which is normal. Apply grease also to outboard end of each bushing. The inboard surface of the bushing will not contact frame mounting pocket, and should be left dry so it doesn't attract dirt.
5. Insert SPC control arm into frame pockets and re-install OEM and provided bolts. Arms are identical, left arm should be oriented with "L" on balljoint plate facing up, right arm should have "R" facing up.

Note: Install driver's side rear bolt from rear.

6. Install star plate over hex on the ball joint per chart below to achieve desired caster change relative to stock arm. (For most trucks with 2-3" of lift, setting "D" should return caster to factory specifications.) Insert ball joint up through bottom of arm, indexing star plate in machined slot, and then install washer and nut.
7. Slide ball joint to midpoint of its travel in arm slot and tighten nut. Swing arm down to check that ball joint boot clears spring tower by about 1/4" [5mm]. On some vehicles, it may be necessary to slightly modify the flange of the tower to insure clearance of ball joint boot.



8. Once adequate clearance has been verified, install ball joint stud into spindle with provided castle nut. Tighten castle nut to 45 ftlb, then tighten until cotter can be installed.
9. Grease ball joint with an **NLG1 #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.

10. Reinstall tire and wheel. Lower vehicle. Set alignment per instructions below. Once alignment is set, check to insure adequate clearance between boot and spring bucket. Torque upper nut to 150 ftlbs to lock alignment setting. Road test vehicle.

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

Setting Alignment: If not equipped with OE eccentric bolts on the lower control arms, SPC recommends installation of Eccentric Bolt Kit P/N 87520. Initially, set all four lower control arm cams to maximum outboard positions. Clock upper ball joints to achieve caster close to desired, then use lower eccentric

cams to fine tune caster/cross caster. Finally, set camber by sliding the ball joint in the upper control arm. (Setting the lower eccentrics to outboard position will maximize clearance between upper ball joint boot and spring bucket.)

LEFT FRONT CASTER CHANGE							FRONT OF VEHICLE	Ball Joint Setting	Total Arm + Ball Joint Caster Change
A	B	C	D	E	F	G			
+2.0°	+1.75°	+1.0°	0°	-1.0°	-1.75°	-2.0°			
+3.0°	+2.75°	+2.0°	+1.0°	0°	-.75°	-1.0°			

RIGHT FRONT CASTER CHANGE							FRONT OF VEHICLE	Ball Joint Setting	Total Arm + Ball Joint Caster Change
A	B	C	D	E	F	G			
+2.0°	+1.75°	+1.0°	0°	-1.0°	-1.75°	-2.0°			
+3.0°	+2.75°	+2.0°	+1.0°	0°	-.75°	-1.0°			

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



Specialty Products Company®