

# PART NO. 35109

# SPC PERFORMANCE

## Instruction Sheet STEERING KNUCKLE INSERT & BALL JOINT SERVICE KIT

***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 securely.
2. Remove front tire and wheel assembly.
3. Remove cotter pin and castle nut. Use Specialty Products Part #37985 or equivalent ball joint separator to break taper between ball joint and insert, using caution not to damage ball joint threads.
4. Support knuckle to avoid straining brake lines.

**NOTE: It should not be necessary to remove upper control arm from vehicle.**

#### Replacing Ball Joint:

5. Using a marker, trace washer on top of arm to mark its location. Also mark body of ball joint and star plate, ensuring markings overlap with each other.

**NOTE: These markings will be used to minimize vehicle alignment change when installing new ball joint. Vehicle will still require an alignment after replacement of ball joint.**

6. Remove top nut and remove ball joint from control arm, maintaining star plate and ball joint orientation. If orientation is lost, use markings made in step 5 to reset star plate in original position.
7. Clock star plate on new ball joint to match orientation of star plate on removed ball joint.
8. Install new ball joint as shown in **Figure 1** and loosely install washer and top nut.
9. Slide ball joint so washer aligns with circle traced in step 5.
10. Torque top nut to **200 ft-lbs [271 N-m]**.

**NOTE: Ensure top washer remains within perimeter traced in step 4 after top nut is tightened.**

#### Replacing Knuckle Insert:

11. Remove snap ring from old knuckle insert. Press out old insert and discard.

**Warning:** Old insert should be replaced with the installation of this ball joint. If insert is not black in color, it should be replaced with new knuckle insert in kit.

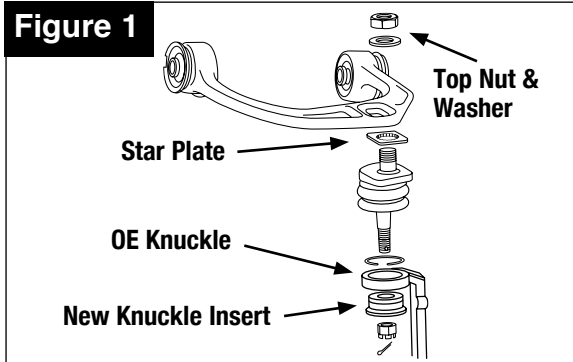
12. Press new insert into knuckle with flange on bottom so that taper direction matches ball joint. See **Figure 1**.
13. Install included snap ring on top side to retain insert. Be certain that snap ring is seated in groove.

**NOTE: Depending on condition of knuckle, new insert may not fit tightly into knuckle receiver. Knuckle insert will expand when ball joint stud is tightened.**

14. Insert ball joint stud into knuckle adapter, torque castle nut to **45ftlb [61Nm]**, and then tighten further until cotter pin can be installed.
15. Reinstall front tire and wheel assembly, lower vehicle, settle suspension, align and road test.

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

**Figure 1**



#### Maintenance:

**This ball joint is fully sealed and features a lifetime grease. No maintenance is required after installation.**



## Specialty Products Company®

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