



# SPC PERFORMANCE®

*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.*



**Before beginning, Record the alignment readings, determine the amount of caster and/or camber change needed. Installing the control arm alone should provide  $\pm 0.5$  degree to  $-1.5$  degree of camber change along with stated caster change.**

**If more camber change is needed install the hub shim kit which will provide an additional 2 degrees of positive camber.**

## CONTROL ARM INSTALLATION

1. Always check for loose or worn parts, tire pressure and tire wear.
2. Raise vehicle by body pinch welds and support with jack stands. Remove front tire and wheel assembly.
3. Remove the cotter pin and nut from the upper ball joint and remove the ball joint from the spindle. Support the spindle.
4. Remove the bushing bolts holding the upper control arm to the body. Remove the upper control arm.
5. Using a small puller, remove the ball joint stud seat from the stock ball joint.
6. Install the new adjustable control arm into the vehicle and lightly tighten bushing

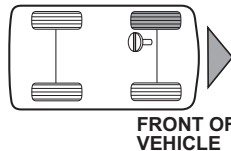
support bolts. Match up the new arm with the old arm to make sure the correct arm is installed on each side.

7. If caster adjustment is necessary, loosen and remove the large adjusting nut washer from the upper ball joint, then remove the ball joint assembly from control arm. Separate the lock plate from the engagement hex and rotate it as illustrated in **Fig #1** for the required caster change then press it back onto the engagement hex
  8. Reinstall the adjustable ball joint assembly back into the control arm. Install the washer and nut and lightly tighten.
  9. Install the stock ball joint upper seat onto the ball joint stud then install the stud into the spindle, Install the supplied flat washer and then the supplied ball joint castle nut and tighten to 40-46 lb-ft. (54-63 Nm) Install a new cotter pin.
- NOTE: Make sure to install flat washer under castle nut to prevent control arm separation from the spindle.**
10. Load suspension to normal ride height and tighten upper control arm bushing bolts to 48-55 ft-lb (65-75 Nm).
  11. If shim kit is not required, follow steps 10 through 14 below.

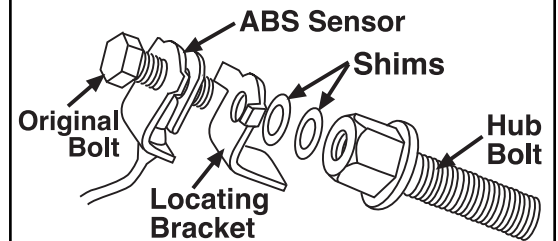
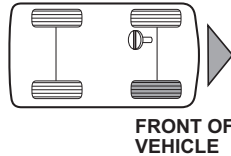
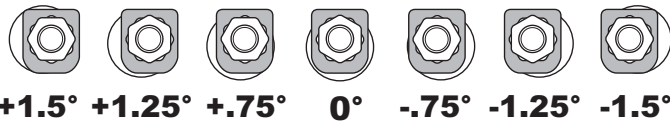
### LEFT FRONT CASTER CHANGE



**Figure 1**



### RIGHT FRONT CASTER CHANGE



**Figure 2**

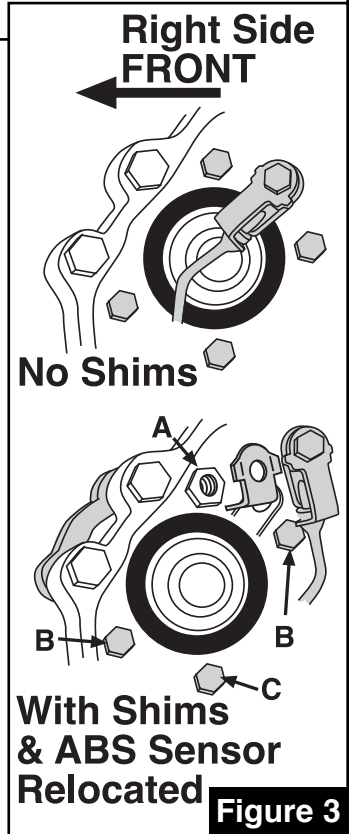
## HUB SHIM KIT INSTALLATION

1. Remove brake caliper and support it out of the way so there is no strain on the brake line then remove brake rotor.
2. Remove the ABS sensor on the back of the hub.
3. Remove the 4 bolts holding the bearing hub and remove the hub from the spindle along with the brake shield. Use caution not to damage the back of the bearing hub that supplies the ABS signal.
4. Install the hub spacer so the thickest part of the shim is up and all 4 bolt holes line up properly.
5. Install the plastic dust shield so the ABS sensor opening is pointed straight up towards the very top hub retaining bolt hole. Now install the bearing hub and brake shield. The bolt with the threaded 8mm hole is installed at the top of the hub directly above the opening in the plastic dust shield (**#A - Figure 3**). Use the two longer supplied bolts on the middle two hub holes (**#B - Figure 3**). Use the stock bolt on the lower hole (**#C - Figure 3**). Tighten bolts to 58-72 ft-lb (78-98Nm).
6. Using the stock ABS bracket bolt install the ABS sensor onto the top hub retaining bolt using the two supplied shims and the locating bracket as illustrated in **Figure #2**. Tighten the bolt making sure the ABS sensor does not touch the rotating bearing hub. **Figure #3**
7. The ABS sensor gap must be checked. Using a non-magnetic feeler gauge check the gap between the sensor and back of the bearing hub. There should be an .010 to .020 gap and the

nose of the sensor should be square with the hub. Add or remove shims to achieve proper air gap **Figure #2**.

**The sensor must not touch the back of the hub.**

8. Reinstall brake rotor.
9. Install the caliper spacer between the caliper mount and caliper with the thickest part up. Tighten caliper bolts to 112 lb-ft (150Nm). Make sure brake rotor turns freely.
10. Reinstall the tire and wheel assembly. Remove the vehicle from the jack stands, and lower the car.
11. Determine the amount of camber change needed and verify caster reading. Raise the vehicle far enough to have access to the camber adjusting nut.
12. To adjust camber, loosen the adjusting nut and move the adjustable ball joint in or out in the control arm slot to obtain the desired camber reading then torque the adjusting nut to 120 lb-ft. (162Nm).
13. **To prevent contact between the upper control arm and the inner fender use the included jounce spacers to limit up-travel. (P/N 67300, see supplemental instructions for installation.) On lowered vehicles additional jounce spacers may be required, order P/N 67300 for a set of four.**
14. Recheck alignment readings, adjust toe, and road test vehicle. Confirm that the Anti-Lock Brake and Traction Control systems are working properly.
15. If hub shim kit is installed and the ABS or Traction Control light is illuminated the air gap will need to be adjusted per **Step 7**.



**Figure 3**



## Specialty Products Company®

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