Instruction Sheet – Front Adjustable Control Arm Set

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 any alignment always check for loose or worn parts, proper tire pressure, and odd tire wear patterns.

Plan Ahead - Read All Instructions BEFORE installing part.

1. Raise front of vehicle by body so the front suspension hangs free.
2. Remove the front tire and wheel assembly.
3. Remove the pinch bolt retaining the upper ball joints to the spindle.
4. Using a spreader such as a screw driver or chisel in the slot, remove the upper ball joint studs from the knuckle. Support the knuckle assembly so it does not strain the axle shaft or brake lines.
5. Remove the lower strut mounting bolt from the lower control arm.
6. From the engine compartment, remove the three bolts holding the strut top plate to the body.
7. Remove the entire strut plate, upper control arms, and strut assembly from the vehicle.
8. Lay the assembly on a flat surface and note the angles of the upper control arm to the strut plate. This is so the new adjustable arms can be installed at the approximate correct angle when reinstalling the assembly back into the vehicle.
9. Remove the bolts holding the control arms to the plate.
10. Adjust the new control arms to approximately the same length as the stock arms. Make sure there is equal thread showing on either side of the turnbuckle.
11. Install the control arms on the strut plate.

    Note: The shorter adjustable arm goes towards the rear of the vehicle and the longer adjustable arm will go towards the front.
12. Check to make sure the adjustable control arms have the same travel against the top plate as the stock arms. See Figs. #1 and #2. If trimming is needed use an aluminum rotary file to lightly trim the top plate. This will allow full travel of the suspension.
13. Install the control arms on the top plate in the same relative position as the stock arms were installed, as noted in Step 8. This will keep the bushings in a centered or mid-travel position.
14. Tighten the retaining bolts to 37 lb-ft (50Nm).
15. Reinstall the complete strut assembly in reverse order of removal. Torque bolts as follows:
    a. Top Plate bolts: 50 lb-ft (75Nm)
    b. Pinch bolt: 30 lb-ft (40Nm)
    c. Lower strut bolt: 66 lb-ft (90Nm)
16. With alignment equipment attached, adjust the control arms by rotating the center turnbuckles to the desired camber or caster readings.

    Note: using the 'jack up selected axle' option on the alignment equipment will make adjustment of these control arms easier.

    Note: During travel there is potential for the outer ball joint to come into contact with the metal flange located in close proximity to this joint. Check flange clearance when wheels are turned and when straight.

    If contact is noted, possible solutions entail:

    - **Limit camber adjustments**
    - **Trim the problematic flange at the inner fender**

Figure 1

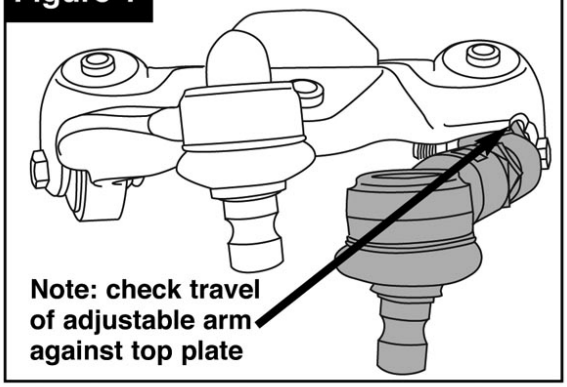
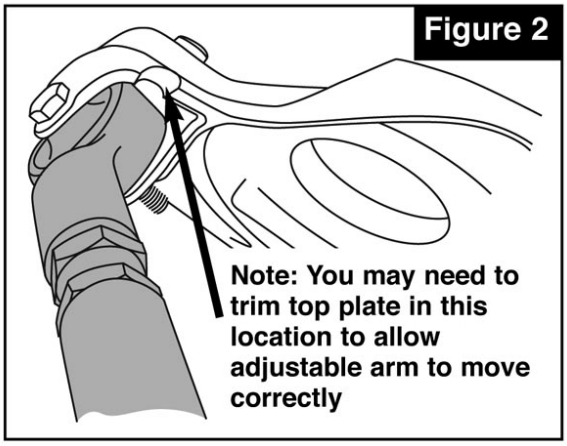


Figure 2



16. After adjustment is complete, tighten the lock nuts on each turnbuckle. Make sure the ball joints stay centered in the housing.

    Always check for proper clearance between suspension components and other components of the vehicle.
17. Reset toe and road test the vehicle.

    Alignment Suggestion: Because of the "Virtual Steering Axis" suspension of these vehicles, Audi does not publish a specification for Caster. For best arm fitment and improved handling, SPC recommends setting the caster between 5 and 6 degrees as measured via normal alignment procedure. Visit *spcalignment.com/faq* for more information.

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