

Ariel Atom Uprights Installation Instructions

Blue = US Atom Specific Instructions

Green = UK Atom Specific Instructions

1. Remove wheel center caps and loosen the axle nuts one full turn. Put car on jack stands. Remove wheel and brake caliper. Support the caliper in such a way that no tension is on the brake line.
2. Remove stock upright. *On US atoms it may be necessary to use a gear puller to disengage the upright from the drive shaft.* If using wheels of larger diameter than stock, disconnect one end of the suspension pushrod—either at the bell crank or the lower control arm.
3. Position new upright on the lower suspension arm between the bearings. *On US cars, first position the upright inboard of the rod end bearings, then slip the forward end into the suspension arm tube, then rotate the upright outward to slip it inline with the toe link rod end.* It may help to put a small amount of grease on the upright where it touches the toe link rod end. Rotating the bearing ball to be parallel with the upright is also helpful.
4. Insert the long bolt through the bearings and the upright. The head of the bolt should be facing toward the front of the car. *On US cars there should be two washers under the head (shown in picture).* *On UK cars one washer goes under the bolt head.* Install the last washer on the end of the bolt, install the locknut and torque to 40 ft-lb (55N m).



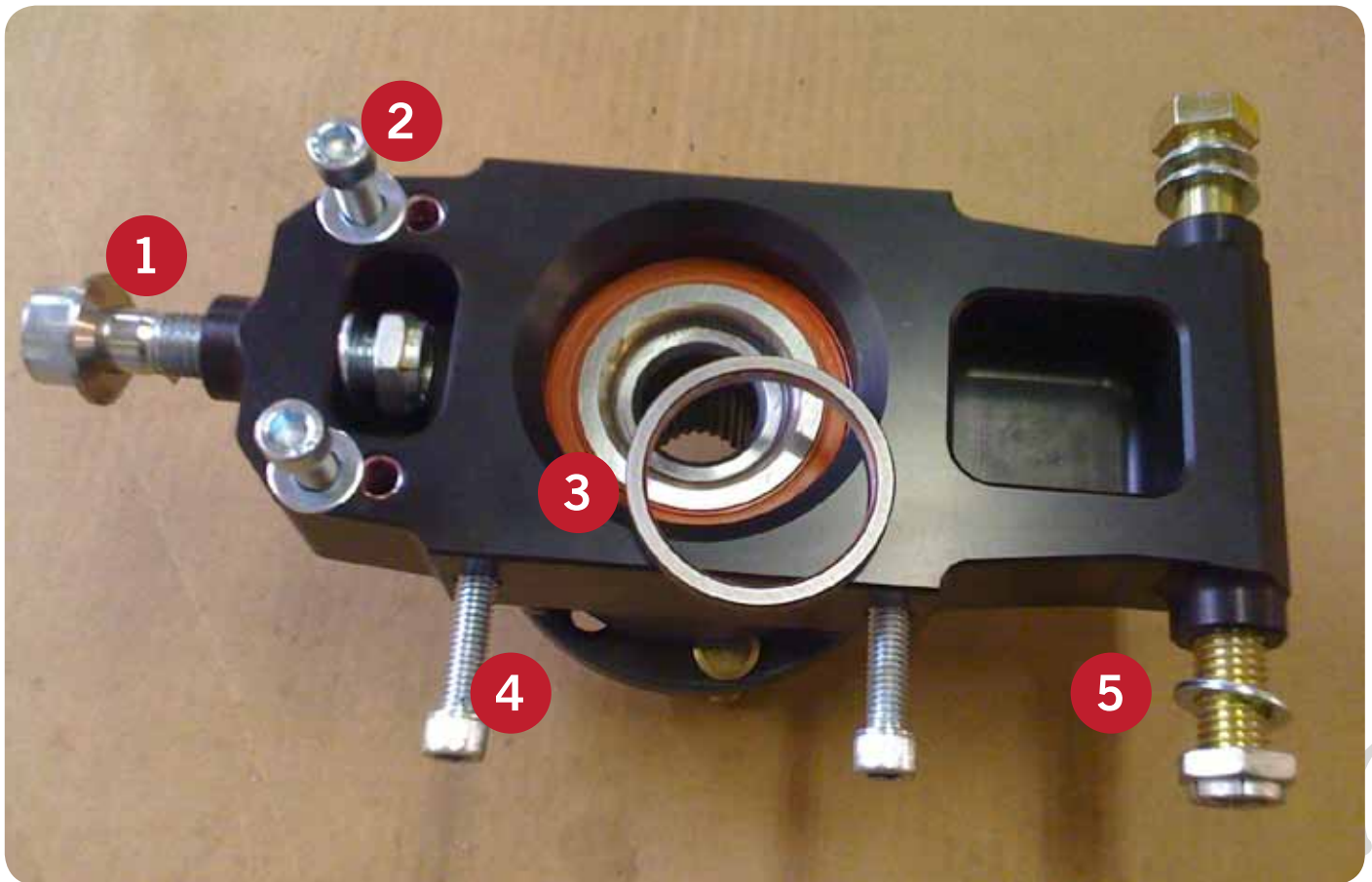
5. Install the hardened spacer ring on the CV joint. Make sure the chamfered side of the spacer is facing towards the drive shaft. Insert the CV shaft into the upright—this may require tilting the upright outwards and down and/or moving the suspension arm. NOTE: On some UK and US cars the CV joints have larger diameter shoulder and the spacer is not necessary.



6. Insert the upper arm through the fender support arms. Allow the fender to rest on the upper arm until the upright is fully installed. **On UK cars, skip this step until after camber is fully adjusted.**
7. Connect the upright to the upper arm by installing the bolt with safety washer, then a plain washer. **US cars: install the locknut and tighten the bolt to 40 ft-lb (55 N m) by holding the nut with the supplied wrench and tightening the bolt. On UK cars, install the supplied jam nut instead of locknut and hand-tighten only.** NOTE: It will most likely be necessary to adjust camber. **On US cars this can be accomplished with the built-in adjuster after everything is fully assembled. On the UK cars it is necessary to rotate the rod end so it is possible that the top bolt will need to be taken out several times. For this reason, do not use the locknut while adjusting the camber—we have provided a jam nut for this purpose. When the desired camber setting is achieved the jam nut should be replaced with the supplied locknut.** Use the supplied wrench to hold the locknut in place while tightening the bolt from above. Torque to 40 ft-lb (55 N m).
8. Install brake rotor; attach brake caliper bracket and brake caliper. **Be sure to check clearance between the caliper and outer edge of the rotor. If there is rubbing install washers between caliper and mounting bracket.** All threads have screw-lock Helicoils installed so it is not necessary to use Loctite or safety wire. Torque to 36 ft-lb (49 N m). Image 1&2 show the Alcon brake bracket; image 3 shows the Wilwood and parking brake bracket.



9. Install the wheel and adjust fender position. Move the suspension through full range of motion and check for any interference. Modify fender bracket for clearance if needed. Tighten the bolts to 36 ft-lb (49 N m).
10. Reconnect the suspension pushrod; set the car on its wheels. Check and adjust camber as necessary.
11. Install the fender with the provided bolts and washers, hand-tighten the bolts. If you're using larger wheels and want to use the uppermost position for the fender it will be necessary to check for interference with rod end at the uppermost range of suspension travel. If interference exists at the desired fender position the fender bracket will need to be ground down with a Dremel or similar tool. Torque to 36 ft-lb (49 N m).
12. When everything is complete, install the axle nut and tighten to 250 ft-lb (340 N m). *On US cars, install the spacer under the axle nut.*



1. Upper control arm with safety washer
2. Fender mounting bracket (shorter bolts)
3. Hardened CV spacer ring
4. Caliper mounting bracket (longer bolts)
5. Lower control arm (bolt head faces front of car)

