

IMPORTANT NOTE:

Front camber / caster and rear camber / caster are not adjustable. Alignment will be a toe only alignment. Special camber bolts can be purchased for the front, but should not be necessary for proper alignment.

VEHICLE HEIGHT MEASUREMENTS

	Driver Before	Driver After	Passenger Before	Passenger After
Front				
Rear				

We recommend all steps and procedures described in these instructions be performed while the vehicle is properly supported on a two post vehicle lift with safety jacks.

Otherwise, park vehicle on a clean flat surface and block the rear wheels for safety. Engage the parking brake.

Disconnect the vehicle power source at the ground terminal on the battery.

Lock the steering wheel in the straight forward position with the column lock or steering wheel locking device.

Raise the front of the vehicle and support with safety jack stands at each jack point indicated by the service manual. Remove the front wheels.

Remove the nut covers from the windshield wipers. Use a small flat head screwdriver or other flat pry tool to pop the covers off. Removal of the wiper arms is necessary to remove the cowl plastic for access to the upper strut hardware.



Mark the wiper arm and the shaft with a mark for reinstallation later. Remove the mounting nut. Remove the wiper arm by pushing gently down on the pivot point and pulling up on the mounting arm. These should pop off, though if you're having a difficult time you can give the arm a little twist to help dislodge the taper. Set aside for reinstallation later.



Locate the plastic rivets on both sides of the cowl plastic. There is one at both the driver and passenger sides on the outer edge closest to the engine bay. (Driver side shown)



Pry these up and out of the vehicle. Once removed. (Passenger side shown)



Once the rivets are removed, gently pull up on the leading edge closest to the engine bay. The clips holding the cowl plastic in place should release. Move the cowl out of the way.



Remove the brake line and ABS brackets on the strut body. Let hang out of the way. Remove the ABS harness bracket on the knuckle by pulling out on both clips to release the tabs.



Locate the ABS wire bracket bolted to the inner fender well. Open the clamp that is holding the wire.



Remove the ABS wire from the bracket and let hang out of the way.



Remove the sway bar end link from the strut body. Let hang out of the way.



Remove the two bolts holding the strut to the knuckle.



A helper is recommended for this step: Remove the 3 upper strut mounting nuts. Note the location of these nuts as 1 is different (outside most nut circled). This nut must be reinstalled in this location later. Remove the strut from the vehicle.



Install the strut extensions to the strut top hat using the provided M10 flange nuts. Torque to 30 ft-lbs.



Install the completed strut assemblies back into the vehicle using the factory hardware. Only start the nuts by hand to allow movement when installing the knuckle. Make sure to install the hardware in the same locations as previously removed (outer nut circled in).



Install the knuckle to the strut using the factory hardware. Torque to 110 ft-lbs. Install the ABS harness clip to the knuckle making sure the locking tabs clip into the holes on the knuckle.



Install the sway bar bracket to the strut body using the provided M12 bolt, washers, and nuts. Install the sway bar end link to the bracket using the factory hardware. Torque all to 45 ft-lbs.



Install the brake line bracket and ABS bracket to the knuckle using the factory hardware. Torque to 5 ft-lbs.

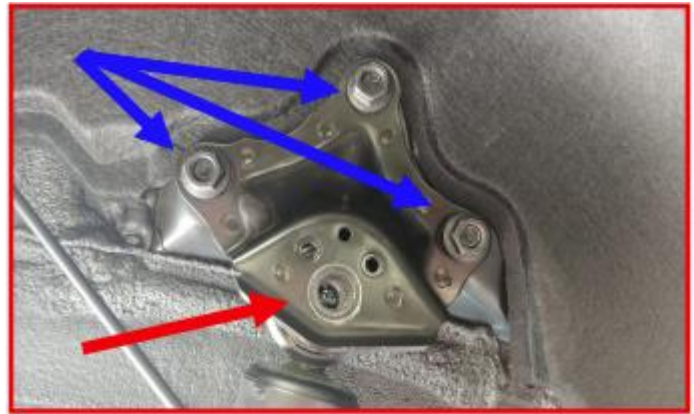


Install the ABS wire to the factory clip upside down from the direction it was previously. Pinch the clamp back to hold the ABS wire. Do not crush the wire.



Install the wheels and lower the vehicle to the ground. Torque the lug nuts to the wheel manufacturer's specs. Jounce the suspension a few times to get it to settle to the new ride height. Torque the upper strut hardware to 30 ft-lbs. Install the plastic cowl piece by sliding it back over the windshield wiper studs and clipping into place on the body. Install the two plastic rivets. Install the wiper arms using the factory hardware while lining up the previously made marks. Do not use an impact, only hand tools. Torque to 5 ft-lbs. Install the plastic covers.

Raise the rear of the vehicle and support with safety jack stands at each jack point indicated by the service manual. Remove the rear wheels. Support the lower control arm with a suitable jack. Locate the upper shock mount in the wheel well. Remove the shock hardware. Remove the upper shock mount from the frame. Loosen but do not remove the lower shock mount.



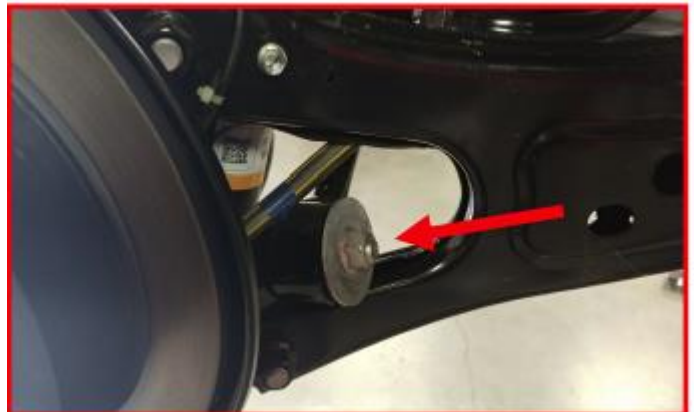
Remove the lower sway bar end link mounting bracket from the lower control arm. Rotate the sway bar up and then rotate the end link towards the back of the vehicle.



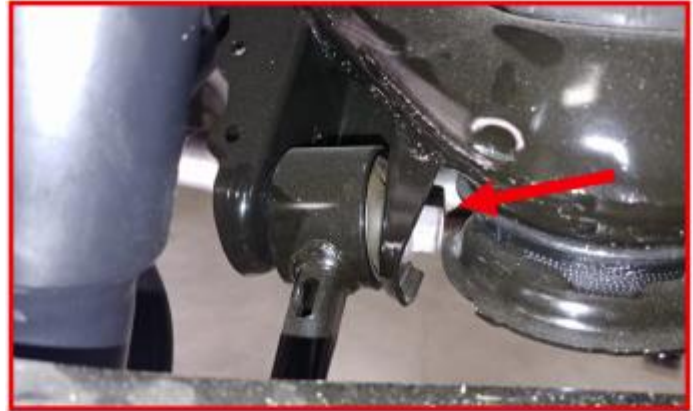
Loosen but do not remove the lower control arm cam bolt at the subframe.



Loosen but do not remove the front lower control arm mount.



Loosen but do not remove the front lower control arm at the subframe.



While supporting the lower control arm, remove the control arm to knuckle bolt.



Lower the control arm down enough to remove the spring.



Install the spring spacer onto the spring keeping the factory isolator on top of the spring. Install the completed assembly into the subframe while raising the lower control arm into place.



Remove the sway bar bracket from the end link.



Install the sway bar bracket to the factory bracket using the provided M12 bolts, washers, and nuts and the end link to the bracket using the factory hardware. Torque all to 45 ft-lbs.



Install the completed end link and bracket assemblies to the lower control arm by rotating the sway bar up and end link into the bucket. Install using the factory hardware. Torque to 35 ft-lbs.



Attach the knuckle using the factory hardware. Torque to 110 ft-lbs.



Install the shock extension bracket to the frame rail. These are driver and passenger side specific (passenger side shown) using the factory hardware. Do not tighten at this time. Install the provided laser cut washer to the rear most stud. Do not install any hardware to this stud.



Install the factory shock mount to the mount using the provided M10 flange nuts and the back stud using the factory hardware. Torque the factory nuts to 45 ft-lbs, and the M10 nuts to 30 ft-lbs. Install the upper shock hardware. Do not tighten at this time.



Using the jack, jack up the lower control arm on one side at a time to compress the suspension to ride height. This may take another jack or stand at the opposite front corner under the subframe to stop weight transfer. Once the suspension is compressed, torque the lower front control arm to 110 ft-lbs, the rear lower control arm cam to 100 ft-lbs (final torque to be set by alignment tech), the upper and lower shock hardware to 45 ft-lbs. Install the wheels and lower the vehicle to the ground. Torque the lug nuts to the wheel manufacturer's specs. Have the alignment set to the recommended specs on the last page of this booklet by a reputable shop. The front camber / caster and rear camber / caster are not adjustable from the factory. You may purchase an upper camber bolt for the front if necessary, but the vehicle should be within specs without it. This alignment is a toe only alignment.

Final Checks & Adjustments

Once the vehicle is lowered to the ground, check all parts which have rubber or urethane components to ensure proper torque. Torque lug nuts to the wheel manufacturer specs. Move vehicle backwards and forwards a short distance to allow suspension components to adjust. Turn the front wheels completely left then right and verify adequate tire, wheel, brake line, and ABS wire clearance. Test and inspect steering, brake and suspension components for tightness and proper operation. Inspect brakes hoses and ABS lines for adequate slack at full extension, adjust as necessary. **RECHECK ALL HARDWARE FOR PROPER TORQUE VALUES AFTER 500 MILES, AND THEN PERIODICALLY AT EACH SERVICE INTERVAL THERAFTER.**

Wheel Alignment/Headlamp Adjustment

It is necessary to have a proper and professional wheel alignment performed by a certified alignment technician. Align the vehicle to recommended specifications. It is recommended that your vehicle alignment be checked after any off-road driving. In addition to your vehicle alignment, for your safety and others, it is necessary to check and adjust your vehicle headlamps for proper aim and alignment. If the vehicle is equipped with active or passive safety/collision monitoring and/or avoidance systems including, but not limited to, camera- or radar-based systems, check and adjust your vehicle's systems for proper aim and function.

RECOMMENDED ALIGNMENT SPECS

Front	Driver	Passenger	Tolerance	Total / Split
Camber	-0.3	-0.3	+/- 0.5	+0.0
Toe	+0.3	+0.3	+/- 0.5	+0.6
Rear	Driver	Passenger	Tolerance	Total / Split
Camber	+0.3	+0.3	+/- 0.5	+0.0
Toe	-.07	-.07	+/-0.05	-.14