



AIR SUSPENSION SOLUTIONS

## Installation Instructions Rev.02

# AIR SPRING KIT (COIL REPLACEMENT) 89-11090 RAM 1500 (2009+)

### WARNING! – READ BEFORE USE

READ INSTRUCTIONS THOROUGHLY AND COMPLETELY BEFORE INSTALLATION.

INSTALLATION BY A CERTIFIED PROFESSIONAL MECHANIC IS HIGHLY RECOMMENDED.

LOGIQ™ IS NOT RESPONSIBLE FOR ANY DAMAGE OR FAILURE RESULTING FROM IMPROPER INSTALLATION.



**BEFORE LIFTING TRUCK  
AIR SPRINGS MUST BE INFLATED**



**150 PSI MAX AIR SPRING PRESSURE**



**NEVER EXCEED MANUFACTURER'S  
MAXIMUM PAYLOAD OR GVWR**



**CALIFORNIA RESIDENTS - PROP 65**

WARNING: This product can expose you to chemicals including Di(2-ethylhexyl) phthalate (DEHP), which is known to the State of California to cause cancer, and birth defects or other reproductive harm. For more information go to: [www.P65Warnings.ca.gov/product](http://www.P65Warnings.ca.gov/product).

### WARRANTY

LOGIQ™ provides a limited lifetime warranty to the original purchaser of products, that the product be free from defects in workmanship and materials when used on cars and trucks as specified by LOGIQ™ and under normal operating conditions. This warranty is subject to the requirements and exclusions set forth in the full Limited Warranty and Return Policy that is available at [logiqair.com/warranty](http://logiqair.com/warranty). Air compressors are a wearing component and are covered by a 2-year warranty from the date of purchase. The warranty does not provide coverage for abuse, operation in a manner not consistent with the product's design, or damage resulting from exposure to the elements.



### WARNING & DISCLAIMERS

By installing this product you acknowledge that the suspension of this vehicle has been modified. As a result, this vehicle may handle differently than that of factory-equipped vehicles. As with any vehicle, extreme care must be used to prevent loss of control or roll-over during sharp turns or abrupt maneuvers. Always wear seat belts, and drive safely, recognizing that reduced speeds and specialized driving techniques may be required. Failure to drive this vehicle safely may result in serious injury or death. Do not drive this vehicle unless you are familiar with its unique handling characteristics and are confident of your ability to maintain control under all driving conditions. Some modifications (and combinations of modifications) are not recommended and may not be permitted in your state. Consult your owner's manual, the instructions accompanying this product, and state laws before undertaking these modifications. You are responsible for the legality and safety of the vehicle you modify using these components.



**Installation Instructions**  
**AIR SPRING KIT**  
**(COIL REPLACEMENT)**  
89-11090 RAM 1500 (2009+)

**TOOLS REQUIRED**

JACK & JACK STANDS  
SAFETY GLASSES  
TORQUE WRENCH  
SOCKET DRIVER  
AIR LINE CUTTER (OR RAZOR BLADE)  
12MM WRENCH (X2)  
5/16" DRILL BIT & DRILL  
CHANNEL LOCKS  
21MM SOCKET  
21MM WRENCH  
16MM SOCKET  
3/16" BALL-END ALLEN KEY

**APPLICATION NOTES**

**TRUCK COMPATIBILITY**

NOT COMPATIBLE WITH TRX OR RHO TRUCKS

**5<sup>TH</sup> WHEEL COMPATIBILITY**

ALL HITCHES ARE COMPATIBLE

**QTY PARTS INCLUDED**

2 AIR SPRING ASSEMBLY  
2 AIR SPRING UPPER RETAINER  
1 HARDWARE KIT  
1 MANUAL INFLATION KIT

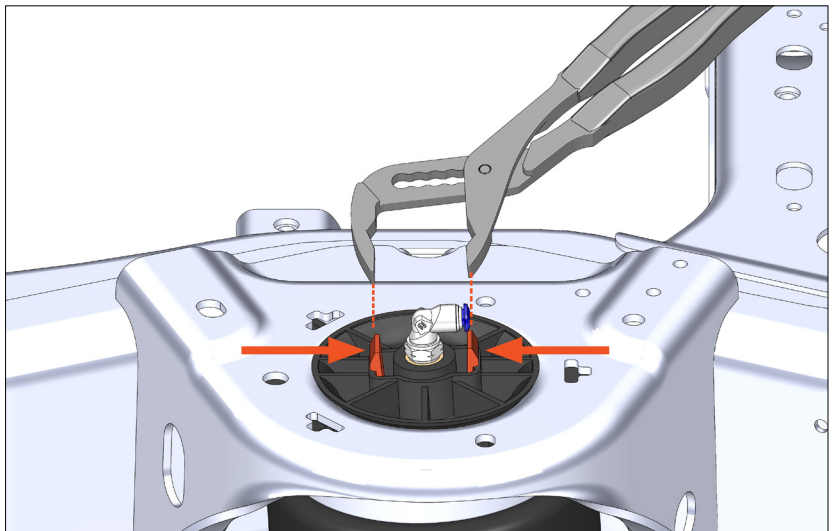
**HARDWARE KIT CONTENTS**

2 1/4"-20 X 5/8" SOCKET HEAD CAP SCREW  
2 1/4" FLAT WASHER  
1 2ML RED THREADLOCKER PACKET  
1 3/16" BALL-END ALLEN KEY

**MANUAL INFLATION KIT CONTENTS**

16 8" ZIP TIES  
2 INFLATION VALVE TO 1/4" PTC FITTING  
1 16' ROLL 1/4" AIR LINE

**UPPER RETAINER REMOVAL**



For easier removal of the upper retainer, use a set of channel locks to squeeze the retaining tabs as shown.

## STEP 1 PREPARE TRUCK

Note original ride height measurement from center of rear fender arch to ground.

Safely lift truck and support with jack stands under the frame.

Remove rear wheels.

If vehicle is equipped with factory inner fender liners, remove them and set aside before starting installation.

## STEP 2 REMOVE FACTORY COIL SPRINGS

With the suspension drooped:

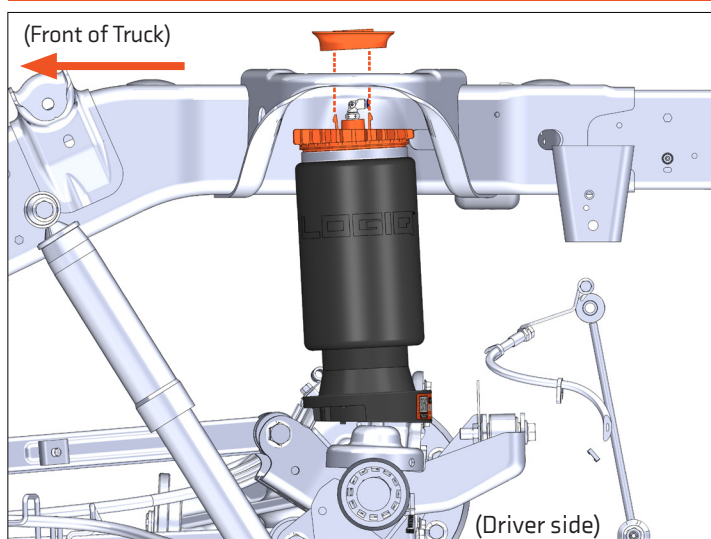
Un-bolt the upper sway bar end-link bolt on each side using a 16MM socket.

Un-bolt the lower shock bolt on each side using a 21MM socket and wrench.

Now there should be enough room to remove the factory coil springs and rubber isolators.

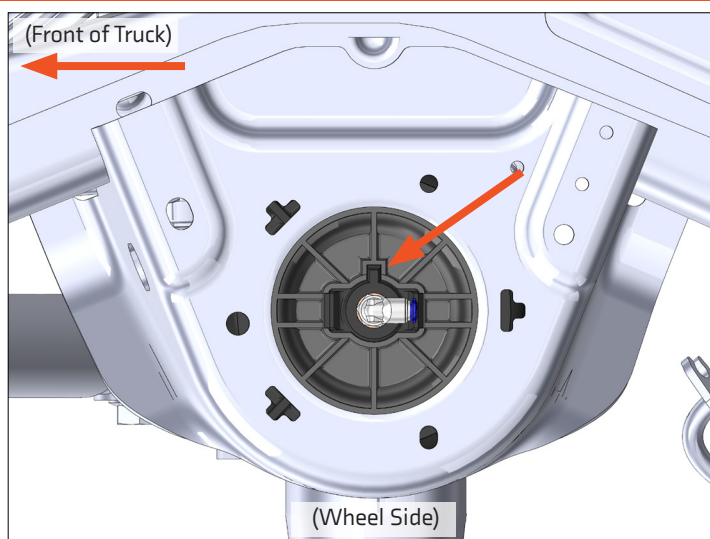
Check the spring perches to ensure all pieces have been removed and there is no debris in the mounting areas.

## STEP 3 ATTACH AIR SPRING (TOP CAP)



Driver side air spring will be installed in the orientation shown.

To install the air spring, start with the top cap and upper retainer (highlighted).



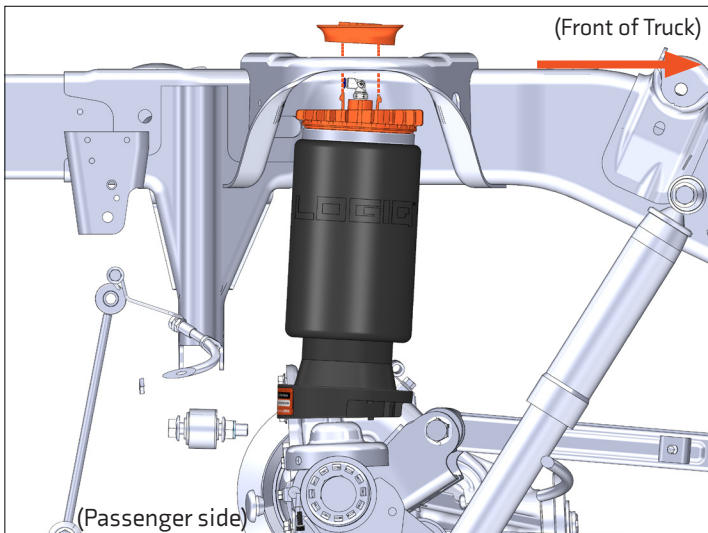
Align the air spring top cap with the upper perch hole.

Place & hold the upper retainer in the upper perch hole as you push up on the air spring to snap the retaining tabs into place.

The locating tab and slot indicated should be facing the inside of the truck (towards the frame rail) for the driver side.

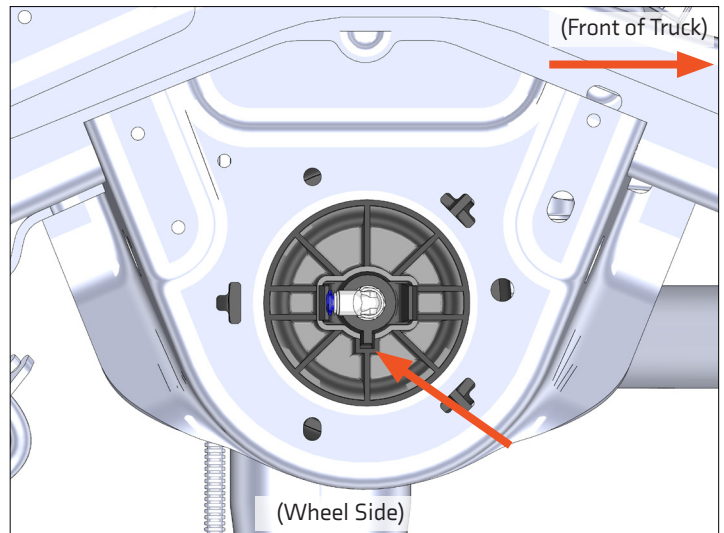
**ENSURE BOTH RETAINING TABS HAVE FULLY ENGAGED WITH THE UPPER RETAINER**

### STEP 3 CONTINUED: ATTACH AIR SPRING (TOP CAP)



Repeat for the passenger side.

Passenger side air spring will be installed in the orientation shown.



The locating tab and slot indicated should be facing the outside of the truck (towards the wheel) for the passenger side.

**ENSURE BOTH RETAINING TABS HAVE FULLY ENGAGED WITH THE UPPER RETAINER**

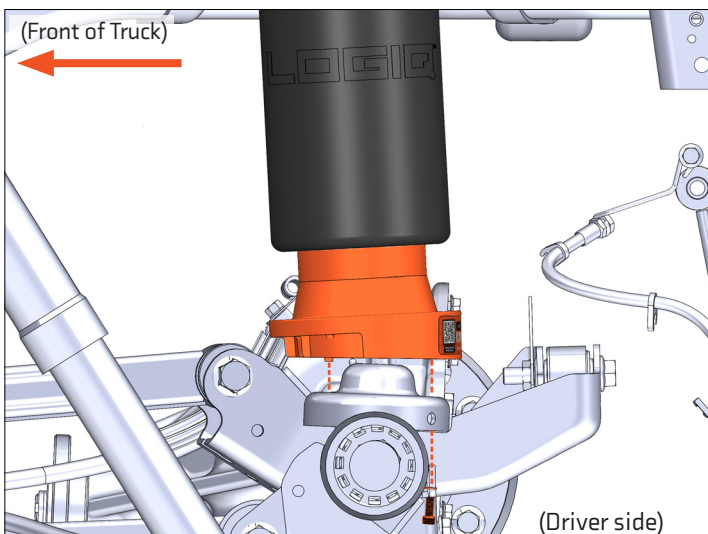
### STEP 4 AIR LINE ROUTING

When used with an on-board air management system, refer to the on-board air management system installation instructions before routing the air lines.

When not using an on-board air management system, mount inflation valves at desired location using 5/16" drill bit.

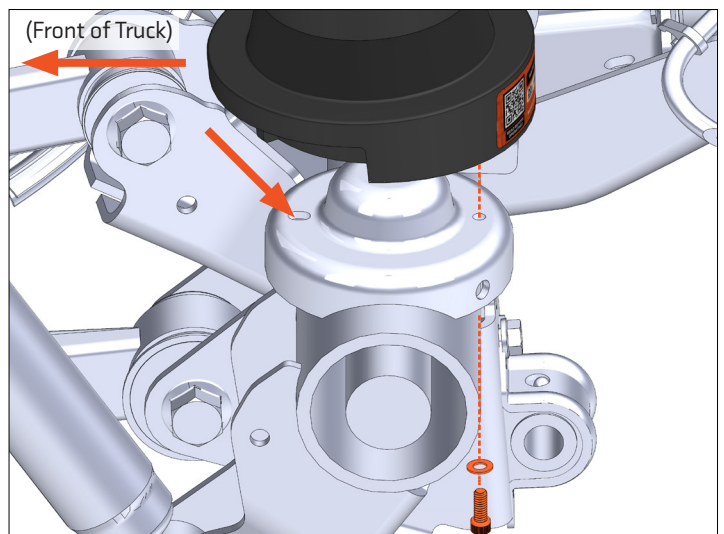
Route air line from each inflation valve to each air fitting on both of the air spring assemblies. **Avoid hot exhaust and sharp edges. Cut air line square and free from burrs with air line cutter or razor blade!**

### STEP 5 ATTACH AIR SPRING (PISTON)



The air spring piston will be attached to the lower perch on the axle with the provided 1/4" screw, as shown. The alignment tab on the other side will help with piston alignment during installation.

Inflate the air spring to 5 PSI to extend the piston down so it reaches the axle.

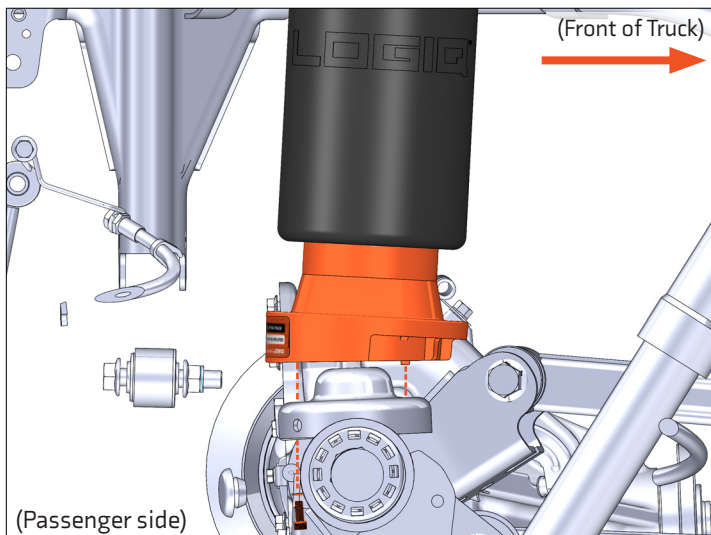


**Ensure the alignment tab goes in the slot indicated on the lower perch.**

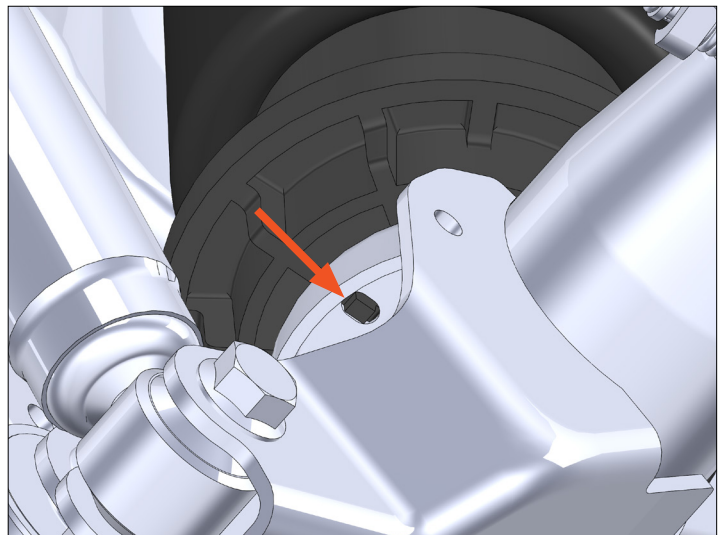
Fasten the piston with the provided 1/4" screw and washer through the hole in the lower perch using the provided 3/16" ball-end allen key.



## STEP 5 CONTINUED: ATTACH AIR SPRING (PISTON)

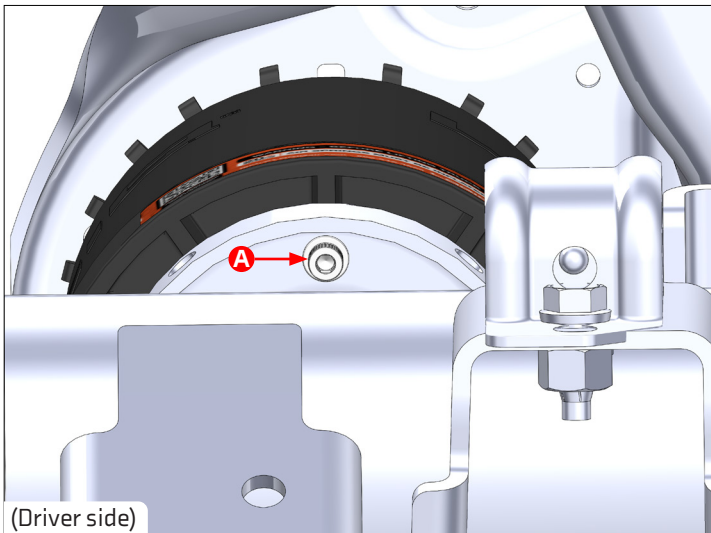


Repeat for the passenger side.

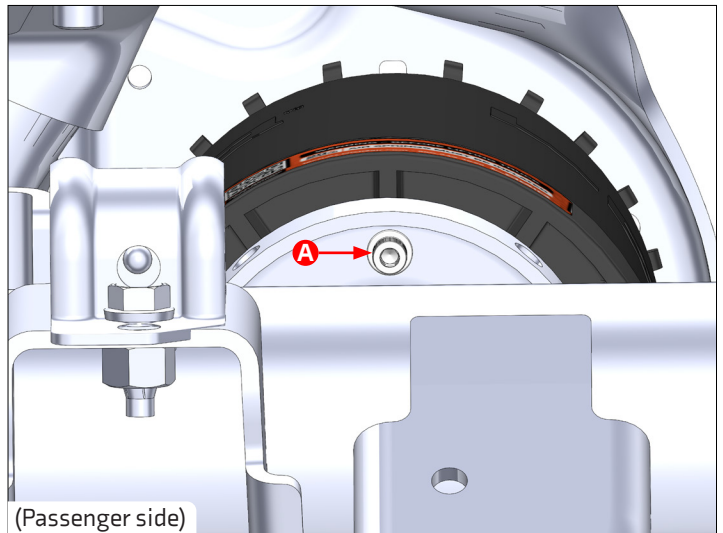


Close up of alignment tab shown.

## STEP 6 TORQUE HARDWARE



**A** Torque the 1/4" piston screws to **84 IN. LB.** using a 3/16" allen.



Reinstall all factory suspension hardware and torque to factory specs:

Torque the upper end link bolts to **41 FT. LB.**

Torque the lower shock bolts and nuts to **103 FT. LB.**

Reinstall the inner fender liners.

## STEP 7 FINAL SAFETY CHECKS

Check for leaks at fittings with soapy water.

Verify all fasteners are torqued properly.

Use a tape measure and inflate the air springs until the ride height matches the original ride height measurement from center of rear fender arch to ground.

**Note** – This will be your unloaded air spring pressure setting and can be varied from 0" to +3" based on user preference.



## WARNING & DISCLAIMERS CONTINUED

### Safety Warnings

#### MISUSE OF THIS PRODUCT COULD LEAD TO INJURY OR DEATH.

Suspension systems or components that enhance the on and off-road performance of your vehicle may cause it to handle differently than it did from the factory. Extreme care must be used to prevent loss of control during abrupt maneuvers.

Always operate your vehicle at reduced speeds to ensure your ability to control your vehicle under all driving conditions. Failure to drive safely may result in serious injury or death.

Driver and passengers must **ALWAYS** wear seat belts, avoid quick sharp turns and other sudden maneuvers. LOGIQ™ does not recommend the combined use of suspension lifts, body lifts, or other lifting devices.

You should never operate your vehicle under the influence of alcohol or drugs.

Constant maintenance is required to keep your vehicle safe. Thoroughly inspect your vehicle before and after every off-road use.

It is the responsibility of the retailer and/or the installer to review all state and local laws, with the end user of this product, related to bumper height laws and the lifting of their vehicle before the purchase and installation of any LOGIQ™ products.

Raised vehicles have altered viewing angles than stock vehicles. This can lead to larger or different blind spots than the driver is accustomed. It is the responsibility of the driver to be aware of this and check their surroundings at all times while the vehicle is in motion and immediately prior to operating vehicle. Failure to do so can lead to damages, injury, or death.

### Installation Warning

All steps and procedures described in these instructions were performed while the vehicle was properly supported on a two post vehicle lift with safety jacks.

Use caution during all disassembly and assembly steps to ensure suspension components are not over extended causing damage to any vehicle components and parts included in this kit.

Included instructions are guidelines only for recommended procedures and are not meant to be definitive. Installer is responsible to insure a safe and controllable vehicle after performing modifications.

LOGIQ™ recommends the use of an OE Service Manual for model/year of vehicle when disassembly and assembly of factory and related components.

Unless otherwise specified, tighten all bolts and fasteners to standard torque specifications listed within the OE Service Manual.

Suspension components that use rubber or urethane bushings should be tightened with the vehicle at normal ride height. This will prevent premature wear or failure of the bushing and maintain ride comfort.

Larger tire and wheel combinations may increase leverage on suspension, steering, and related components.

Due to payload options and initial ride height variances, the amount of lift/lower is a base figure. Final ride height dimensions may vary in accordance to original vehicle ride height. Always measure the vehicle ride height prior to beginning installation.



## WARNING & DISCLAIMERS

### SAEJ2492 Warning

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### Headlamp Warning

A lifted or lowered vehicle may have different headlight aim performance. LOGIQ™ recommends marking and recording the headlight beam position before kit installation and then adjusting, if necessary, the headlamps to the same height settings after kit installation. Set the vehicle on a level surface 10' to 15' from a solid wall or garage door. (This is a general distance with some manufacturers requiring different distances.) Note the top height of the low beam's bright spot, the top of the most intense part of the beam, for driver and passenger side. Height may vary from side to side. Repeat this procedure and adjust after lift kit is installed. Adjust if the aim is off by turning the adjusters gradually (a quarter of a turn) and looking to see where the new alignment falls. It may be easier to block one headlamp while adjusting the other. Consult the owner operation manual for procedures to adjust headlights - many automakers offer headlight aiming specs. Some states have their own specifications when it comes to headlight aim, so it's best to follow those rules when aligning headlights.

**FAILURE TO PERFORM THE POST INSPECTION CHECKS MAY RESULT IN VEHICLE COMPONENT DAMAGE AND/OR PERSONAL INJURY OR DEATH TO THE DRIVER AND/OR OTHERS.**

### 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 THEREAFTER.**

### Vehicle Handling Warning

Increasing the height of your vehicle raises the center of gravity and can affect stability and control. Use caution on turns and when making steering corrections.

Vehicles with larger tires and wheels will handle differently than stock vehicles. Take time to familiarize yourself with the handling of your vehicle.

### 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 factory 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.