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# DODGE RAM 1500 2WD (NON AIR-RIDE) 2009-2014 2" FRONT COIL SPRING & 1.5" REAR COIL SPRING LEVELING KIT INSTALLATION INSTRUCTIONS DL231PA

# **MWARNING**

Read and understand all instructions, warnings, cautions, and notes in this sheet and in your owners manual before you begin the installation of this coil lift kit.

# **∆WARNING**

Proper installation of a Performance Aurtomotive Group coil spring lift kit requires knowledge of the factory recommended procedures for disassembly and assembly of original equipment components. We recommend that the factory shop manual and any special tools necessary to your vehicle be on hand during the installation. Installation of this coil lift kit without proper knowledge of the factory recommended procedures may affect the performance of these components and the safety of your vehicle. We strongly recommend that a certified mechanic familiar with the installation of similar components install this coil lift kit.

### **AWARNING**

Ensure that your vehicle tires are properly blocked and secured before you begin installation of this coil spring lift kit.

# **ACAUTION**

It is the customer's responsibility to ensure that all mounting hardware is correctly tightened before, during and after use of coil spring lift kit. DO NOT EXCEED manufacturer's load specifications for your vehicle. Always operate your vehicle in a safe manner. If your vehicle is equipped with any type of extra duty suspension or special towing package, this coil lift kit may not fit properly. If your vehicle is equipped with any type of aftermarket springs, lift kits, or bushings, this coil lift kit may not fit properly.

# **MWARNING**

Many states now have laws restricting bumper heights and vehicle lifts. Local laws should be consulted to determine if the changes you intend to make to your vehicle comply with state laws. Before combining a body lift with a suspension lift, consult an installation professional to see how this will affect your specific application.

### **MWARNING**

This coil spring lift kit should only be installed on vehicles in good working condition. Before installation, the vehicle should be thoroughly inspected for evidence of corrosion or deformation. This coil lift kit should not be installed on any vehicle that is suspected to have been in a collision or misused. Failure to observe this warning may result in serious personal injury and/or severe damage to your vehicle.

# **MWARNING**

To ensure the Supplemental Restraint System (SRS, or air bag) is not accidentally deployed during coil lift kit installation, always ground yourself and the vehicle. Do not use power or pneumatic tools. Exercise extreme caution while working near SRS sensors and wiring. Do not allow anyone near air bags during kit installation. Accidental deployment can result in serious personal injury or death.

### **MWARNING**

Always wear eye protection when operating power tools.

# **ANOTE**

Performance Aurtomotive Group recommends using the Loctite® supplied in the kit on all hardware unless noted in the instructions.

# **ANOTE**

Special tools, such as coil spring compressors, may be required for installation of this coil lift kit.

# A. Before you start.

# **△NOTE**

Keep track of hardware quantity and position. Kit parts are prefaced by the word *kit* in italics.

- 1. Read all warnings and instructions completely and carefully before you begin.
- 2. Special tools, such as coil spring compressors, are required for installation of this coil lift kit.
- 3. Check to make sure the kit is complete (refer to the Parts List, Section E).
- 4. Only install this kit on the vehicle for which it is intended. If anytime during the installation you encounter something different from what is outlined in the instructions, call <u>technical support</u> at (928) 636-3175.
- Park the vehicle on a clean, dry, flat, level surface and block the tires so the vehicle cannot roll in either direction.
- 6. Disconnect both battery cables.

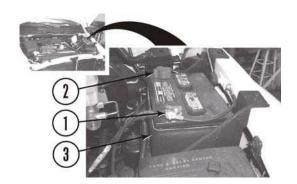
# **△NOTE**

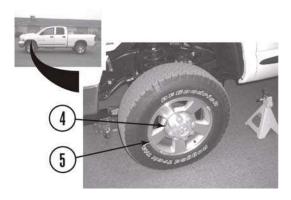
Diesel engines are usually equipped with two batteries, be sure to disconnect both sets of battery cables.

a. Disconnect negative cable (1) first, then the positive cable (2) from the battery (3).

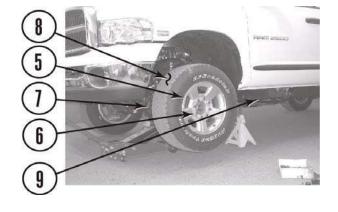
# B. Get ready to install coil spring leveling kit.

- 1. Lift front wheel assemblies.
  - a. If so equipped, remove two caps (4) from front wheels (5).





- b. Loosen eight lug nuts (6) each from two front wheels (5).
- c. Using a hydraulic jack, slowly lift front of vehicle so that two front tires (7) are three to five inches off of ground. Position jack stands under frame (8). Lower frame onto jack stands.
- d. Remove eight lug nuts (6) each and two front wheels (5) from spindle (9).



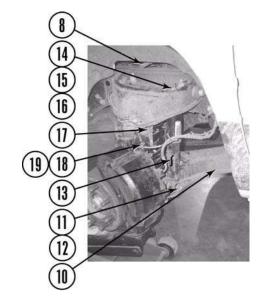
# 2. Remove front axle driver side hardware.

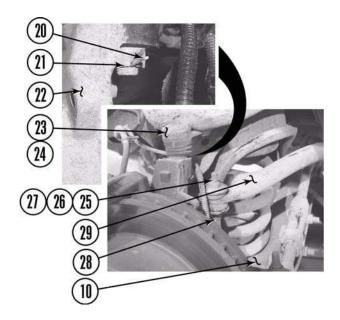
- a. Lift lower a-arm (10) with hydraulic jack. Do not lift frame (8) off of jack stands.
- b. Remove bolt (11), nut (12), and shock (13) from lower a-arm (10).
- c. Remove nut (14), washer (15), bushing (16) and shock (13) from spring perch (17).
- d. Remove push clip (18) and sensor wiring harness (19) from spring perch (17).
- e. Remove cotter key (20), castle nut (21), and spindle assembly (22) from ball joint (23) and upper-a arm (24).
- f. Remove nut (25), washer (26), bushing (27) and sway bar link (28) from sway bar (29).

# **ANOTE**

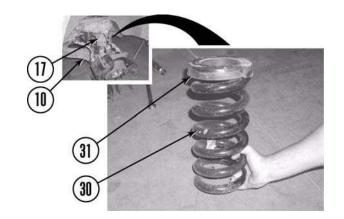
When lowering the lower a-arm pay special attention to the brake lines so that they are not being stretched by the spindle assembly.

g. Lower lower a-arm (10). Do not remove hydraulic jack pressure from lower a-arm.





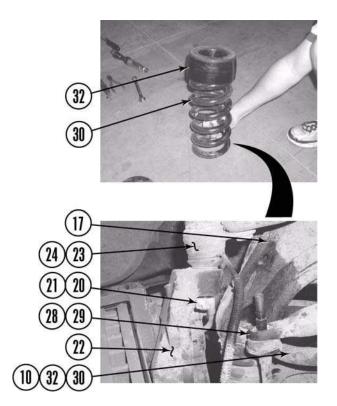
h. Remove coil spring (30) coil spring bushing (31) from spring perch (17) and lower a-arm (10).



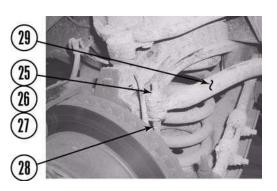
# C. Installing coil spring leveling kit.

- 1. Install coil spring spacer driver side.
  - a. Position *kit* coil spring spacer (32) on coil spring (30).

- b. Install coil spring (30) and *kit* coil spring spacer (32) on spring perch (17) and lower a-arm (10).
- c. Raise lower a-arm (10) using hydraulic jack, position ball joint (23) and upper a-arm (24) in spindle assembly (22). Position sway bar link (28) in sway bar (29).
- d. Install castle nut (21) and cotter key (20) on ball joint (23) and upper a-arm (24). Torque castle nut to 60 ft-lbs.



e. Install sway bar (29) on sway bar link (28) with bushing (27), washer (26), and nut (25). Torque nut to 27 ft-lbs.

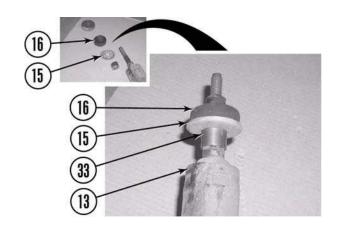


f. Remove lower shock bushing (16) and washer (15) from shock (13)

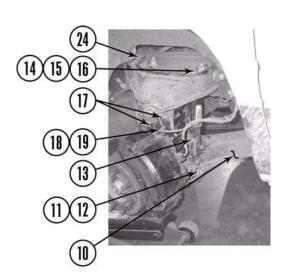
# NOTE

**2009-2010 1500 Models**: Install kit shock bushing spacer (short) onto shock for the following substep.

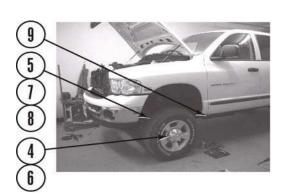
g. Install *kit* shock bushing spacer (tall) (33), washer (15), and lower shock bushing (16) on shock (13).



- h. Install shock (13) on upper a-arm (24) with bushing (16), washer (15), and nut (14). Torque nut to 40 ft-lbs.
- i. Install shock (13) on lower a-arm (10) with bolt (11) and nut (12). Torque bolt to 105 ft-lbs.
- j. Install sensor wiring harness (19) on spring perch (17) with push clip (18).
- k. Repeat steps B.2.a. through C.1.j. for driver side front wheel assembly.



- 2. Finish front wheel assemblies.
  - a. Install two front wheels (5) on front spindle (9) with eight lug nuts (6) each.
  - Using a hydraulic jack, slowly lift front of vehicle so that front tires (7) are three to five inches off of ground. Remove jack stands from frame (8).
     Lower vehicle to ground and tighten sixteen lug nuts (6) to 85 lb-ft.
  - c. If removed, install two caps (4) on front wheels (5).

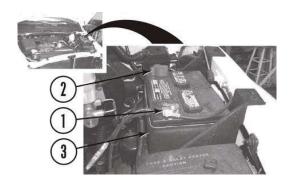


3. Connect both battery cables.

### **△NOTE**

Diesel engines are usually equipped with two batteries, be sure to connect both sets of battery cables.

a. Connect positive cable (2) first, then the negative cable (1) on the battery (3).



# **Prepare to Install Rear Kit**

### **△ WARNING**

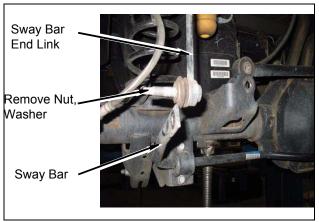
Compressed coil springs can expand violently causing serious personal injury. Use caution when using coil spring compressors.

- Loosen, but do not remove, lug nuts on each rear wheel.
- Using a hydraulic floor jack, slowly lift rear axle until front tires are 3-5" off ground. Position jack stands under frame. Lower vehicle onto jack stands while maintaining hydraulic jack pressure underneath front of vehicle.

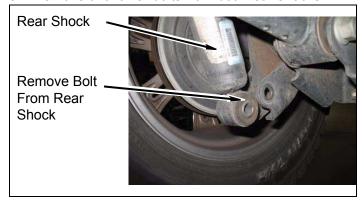
# **△ WARNING**

Use extreme caution when lifting vehicle from ground. To prevent serious personal injury, ensure the lifting device is securely placed.

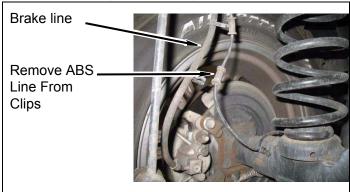
- 3. Remove lug nuts and rear wheels from vehicle.
- Remove two lower nuts from both rear sway bar end links.



5. Remove two lower bolts from both rear shocks.



6. Remove ABS lines from there clips and ensure that there is plenty of slack in the ABS & brake lines when lowering axle housing.



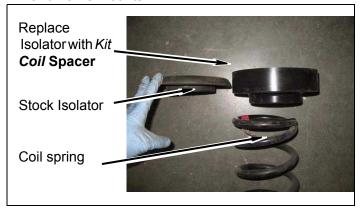
7. Carefully lower rear axle until rear coils come free from upper mount. Proceed by removing the rear coils from the rear axle.



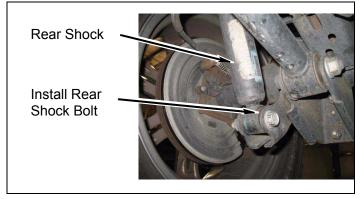
8. Removing rear coil spring Isolator from both coil spring.

# **Install Rear Coil Spacer Kit**

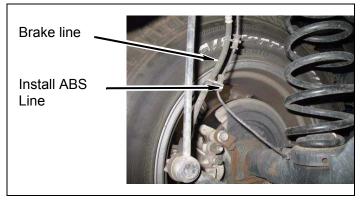
 Place kit rear coil spring spacer on both rear coil springs. Place rear coil springs back onto rear axle and frame mounts.



 Install two lower bolts into both rear shocks. (Note: Careful when compressing rear axle, the load is much greater now that the kit coil spacer is in place.)



- 3. Install ABS lines back into there clips.
- 4. install two lower nuts into both rear sway bar end links.



- 5. Install rear wheels onto vehicle with lug nuts. Snug, but DO NOT TIGHTEN.
- 6. Using hydraulic floor jack, raise rear of vehicle and remove jack stands. Slowly lower vehicle onto ground.
- 7. TORQUE rear lug nuts to specification.

# F. Finish coil spring leveling kit installation.

1. Double check the vehicle.

# **ACAUTION**

Retorque all fasteners after 500 miles and after off road use. All coil spring lift components should be visually inspected and fasteners retorqued during routine vehicle servicing.

- a. Check all mounting hardware to ensure it is properly tightened.
- b. Start vehicle and check the steering in both directions to ensure that there is no bind. Check all steering connections. Ensure that the steering gear box has no interference and is in proper working condition.
- c. Check the operation of the brakes and the parking brake. Check brake lines for adequate travel. Ensure brake lines do not touch any surfaces, moving or otherwise. If necessary, adjust brake lines and or brake line bracketery to eliminate all contact.
- d. Check clutch operation. Check both shift levers' operation. Ensure that there is proper engagement in all gears and 4 wheel drive ranges.

# **△WARNING**

Suspension overtravel can result in serious damage or failure of OEM components and aftermarket equipment.

- e. Ensure that all OEM or aftermarket bumpstops are installed.
- f. Test drive vehicle in all gears and 4 wheel drive ranges. Pay close attention to all vehicle systems. Check all hardware again in 500 miles and as part of your regular maintenance schedule.

# G. Vehicle Alignment

1. Align vehicle to OE specifications. Retain alignment results.

# **ACAUTION**

Kit Shock Bushing Spacer (Short)

\*For '05-'06 Models



Performance Aurtomotive Group does not recommend any particular wheel and tire combinations for use with its body lifts and cannot assume responsibility for the customer's choice of wheels and tires. Reference your owner's manual for recommended tire sizes and warnings related to the use of oversized tires. Larger wheel and tire combinations increase stress and wear on steering and suspension components, which leads to increased maintenance and higher risk for component failure. Larger wheel and tire combinations also alter speedometer calibration, braking effectiveness, center of gravity, and handling characteristics. Consult with an experienced local off road shop to find what wheel and tire combinations work best with your vehicle.

### **△NOTE**

All warranty information, instruction sheets, and other documents regarding the installation of this product must be retained by the <u>vehicle owner</u>. Information contained in the instructions and on the warranty card will be required for any warranty claims. The vehicle owner needs to understand the modifications made to his vehicle and how they affect vehicle handling and performance. Failure to provide the customer with this information can result in damage to the vehicle and severe personal injury.

# **△NOTE**

All warranty information and instruction sheets regarding the installation of this product must be retained by the <u>vehicle owner</u>. Information contained in the instructions and on the warranty card is required for any warranty claims. Failure to provide the customer with this information can result in damage to the vehicle and severe personal injury.

Callout	Quantity	Description
(32)	2	Front Coil spacers
	2	Rear Coil spacers
(33)	2	Shock bushing spacers (short)
	1	Warning sticker
	1	Logo sticker

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