AIR LIFT PERFORMANCE®

INSTALLATION GUIDE

* Representative image

Coilover System

FRONT & REAR APPLICATIONS

For maximum effectiveness and safety, please read these instructions completely before proceeding with installation.

Failure to read these instructions can result in an incorrect installation which could result in damage to the vehicle, minor to severe personal injury or death.

MN-1204 • (012409) • ERN 10188

Protect your Air Lift Performance Purchase by Completing your Warranty Registration

Thank you for purchasing an Air Lift Performance product!

Take a photo of your sales receipt and then scan the QR code to complete your online warranty registration.

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Introduction

Air Lift Performance thanks you for purchasing our fully engineered, high-performance coilover suspension system. Read these installation instructions to correctly and safely set up the vehicle.

Air Lift assumes that the installer has the mechanical knowledge and ability to work on vehicle suspension systems and has basic tools necessary to complete a suspension replacement project. Special tools needed to complete the installation are noted on the System Overview page.

Air Lift reserves the right to make changes and improvements to its products and publications at any time. For the latest version of this manual, contact Air Lift Performance at **(800) 248-0892** or visit **www.airliftperformance.com**.

NOTATION EXPLANATION

Hazard notations appear in various locations in this publication. Information highlighted by one of these notations must be observed to help minimize risk of personal injury or possible improper installation, which may render the vehicle unsafe. Notes and Tech Tips are used to help emphasize areas of procedural importance and provide helpful suggestions. The following definitions explain the use of these notations as they appear throughout this guide.

DANGER INDICATES IMMEDIATE HAZARDS WHICH WILL RESULT IN SEVERE PERSONAL INJURY OR DEATH.

WARNING INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN SEVERE PERSONAL INJURY OR DEATH.

CAUTION INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN DAMAGE TO THE VEHICLE OR MINOR PERSONAL INJURY.

NOTE *Used to help emphasize areas of procedural importance and provide helpful suggestions.*

TECH TIP *Used to provide helpful tips to ease the installation process.*

System Overview

NOTE *This is a representative image of an independent rear spring kit, your kit may differ and have a true coilover setup front and rear.*

STOP! Missing or damaged parts? Call Air Lift customer service at (800) 248-0892 for a replacement part.

Install the System

DISCLAIMER: ALL installation information and recommendations made in this installation guide are for our customers to use at their own risk. Air Lift Company does not make any representations or warranties as to the completeness or accuracy of the instructions in this installation guide. Detailed installation procedures vary greatly from vehicle to vehicle; therefore, this installation guide should be viewed as a GENERAL installation instruction. Professional installation is always highly recommended.

Please completely read through this installation guide before attempting to start with the installation process. If there is a step within the installation instructions that you do not feel comfortable with performing on your own vehicle, please do not continue and take the car to an ASE-certified mechanic to ensure proper installation. Improper installation of this product may result in serious injury, death, or property damage. Additionally, any damage caused by improper installation will void the product's warranty and making it ineligible for warranty coverage. Improper installation or misuse of this product can result in serious injury or death. It is imperative that all warnings and instructions in this manual are read and strictly followed. Feel free to contact us with any questions or concerns.

Air Lift Company-related products are sold for off-road use only. All performance modifications and installations are at the customer's own risk. We hold no responsibility, implied or otherwise, for mechanical or other failure when using any aftermarket performance products. Items sold for off-road use only are illegal in many states and provinces and are intended for racing vehicles that may never be used on a public road.

By purchasing any aftermarket performance product, the customer takes full responsibility for any use and/or misuse of the product and agrees that Air Lift Company holds no responsibility for any legal or other consequences of such use and/or misuse.

Any physical damage to the product will void the warranty automatically. Please keep the original purchase invoice within the warranty period—the lack of proof of invoice automatically voids the product warranty. ALL invoices must be from an authorized Air Lift Company seller. Prior to returning a defective item, please contact our customer service by phone or email—we will NOT accept returns without approval from the warranty department.

Step by Step General Instructions (Not Vehicle Specific, Some Instructions Do Not Apply To Certain Chassis)

IMPORTANT SAFETY NOTICES

WARNING MAKE SURE THE SPRING IS PRELOADED.

CAUTION DO NOT WELD TO OR MODIFY PERFORMANCE STRUTS/SHOCKS IN ANY WAY. DAMAGE TO UNIT MAY OCCUR AND WILL VOID WARRANTY.

WARNING AFTER INSTALLATION, ENSURE ALL ORIGINAL EQUIPMENT VEHICLE SAFETY FEATURES ARE PROPERLY CALIBRATED BY A QUALIFIED TECHNICIAN. CHANGING VEHICLE HEIGHT MAY AFFECT FUNCTIONING OF SAFETY SENSORS AND CAMERAS.

SECTION 1. PREPARE THE COILOVERS

The coilovers are shipped loose and unadjusted, as each vehicle and setup will differ. It is required to perform an initial setup before they can be installed on the vehicle. After initial setup and installation, reference the *Adjust the Ride Height* section for final setup.

SETTING COIL SPRING PRELOAD:
FOR SYSTEMS WITH TRUE COILOVER (COIL SPRING ON THE SHOCK/STRUT)

1. Loosen both lock rings under the coil spring (spring seat ring [top] and spring lock ring [bottom]) so that the spring is loose and can move up and down slightly.
2. Tighten up the spring seat ring so that the spring is snug, but do not tighten it down past simply holding the spring snug; this will be zero preload.
3. Tighten up the bottom lock ring so that it is just touching the spring seat ring, but do not tighten to lock, you will be moving the spring seat ring next.
4. Start tightening up the spring seat ring so that you are now preloading (compressing) the spring, but do not adjust the lock ring yet.
5. There should now be a slight gap between the spring seat ring and spring lock spring. Measure this gap between the two rings as you are tightening up the spring seat ring. Once there is a 3-5mm gap between the two rings, you have 3-5mm of preload on the spring.
6. This is all the pre-load you will need for driving your vehicle.
7. Finally, tighten up the lock ring using significant force against the spring seat ring to lock your preload in place.
8. Repeat this process for the remaining three coilovers, adjusting them equally.

CAUTION TO ENSURE PROPER PRELOAD, MAKE SURE THAT THE COIL SPRING IS NOT FULLY COMPRESSED WHEN YOUR VEHICLE IS RESTING ON THE GROUND.

CAUTION DO NOT USE THE SPRING PRELOAD TO ADJUST RIDE HEIGHT OF YOUR VEHICLE, UNLESS YOU HAVE AN INDEPENDENT REAR SPRING SETUP (SPRING SEPARATE FROM THE SHOCK/STRUT).

SETTING INITIAL HEIGHT:
FOR SYSTEMS WITH TRUE COILOVER (COIL SPRING ON THE SHOCK/STRUT)

See the *Adjust the Ride Height* section for detailed instructions on setting ride height.

1. For a better ride, know the vehicle suspension's travel limits. Bumping against the jounce bumpers will contribute to a harsh ride.
2. Before installing your coilover, take a measurement from the top of the damper body to the top of the spring. This is your total travel.
    a. When setting ride height, a good place to start is to set it at the halfway point of the total travel distance.
3. Spin the lower mount up or down the damper body to adjust the length to your desired height, using the halfway point as a reference, then tighten the lock ring using significant force against the lower mount.

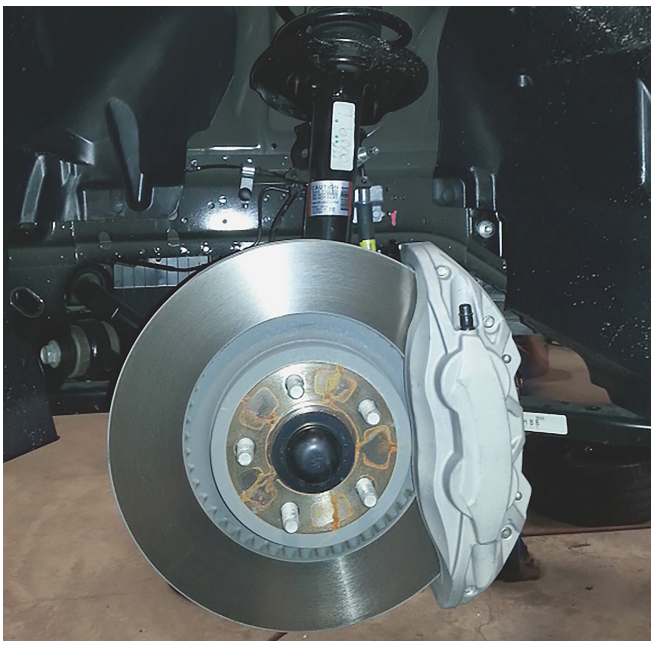
FOR SYSTEMS WITH INDEPENDENT REAR COIL SPRING
(COIL SPRING SEPARATE FROM THE SHOCK/STRUT)

1. For a better ride, know the vehicle suspension's travel limits. Bumping against the jounce bumpers will contribute to a harsh ride.
2. Before installing your coilover, take a measurement from the top of the damper body to the top of the damper rod, this is your total travel.
    a. When setting ride height, a good place to start is to set it at the halfway point of the total travel distance.
3. Using the supplied spanner wrench, loosen the lock ring on the adjustable spring perch.
4. Spin the spring perch lock ring to near the halfway point, ensuring you have contact/preload of the coil spring at full suspension extension.
5. Tighten the lock ring against the spring perch lock ring using significant force.

SECTION 2. PREPARE THE VEHICLE

⚠ CAUTION RAISE THE VEHICLE AT THE APPROVED LIFTING POINTS AND USE SAFETY STANDS TO SUPPORT THE VEHICLE.

1. Elevate and support the vehicle with a hoist or safety stands.
2. Remove the wheels as shown below.
3. Remove any brake lines or hardware attached to the OEM shock/strut assembly and save all the removed parts. You will reuse some OEM hardware with the damper kit to re-mount the brake lines, ABS lines, or any other lines mounted to the shock assembly.



View of the front wheel removed ** Representative image*

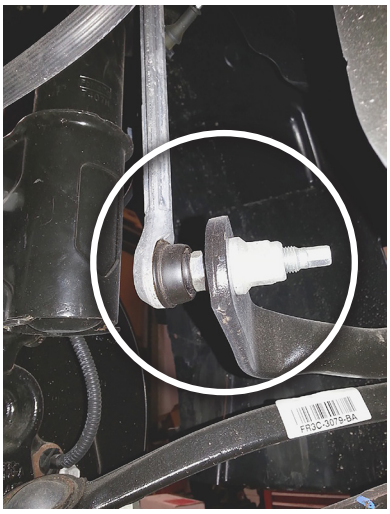
View of the rear wheel removed ** Representative image*

SECTION 3. REMOVE THE STOCK FRONT SUSPENSION

1. Remove the hardware securing the lower shock/strut mount to the vehicle.

** Representative image*

2. If the vehicle's sway bar link attaches to the shock/strut assembly, remove the sway bar link.If the sway bar links attach elsewhere, it is recommended that one of the sway bar end links be disconnected to disconnect one end of the suspension from the other to avoid any pre-load.



** Representative images*

3. Loosen the nuts from the top of the damper assembly to loosen the shock assembly from the vehicle.

CAUTION

DO NOT REMOVE THE NUTS; JUST LOOSEN THEM, LEAVING A FEW THREADS OF ENGAGEMENT, OR ELSE THE ENTIRE ASSEMBLY WILL DROP DOWN FROM THE VEHICLE.

NOTE

Make sure you have clearance to remove the shock assembly from the vehicle — watch for any brake/ABS lines that are affixed to the shock assembly.

4. Once it is clear, carefully remove the shock assembly from the vehicle, trying to avoid contact with any of the suspension or brake components, especially the brake fluid line. Be sure to support the suspension assembly as you remove the hardware.

** Representative image*

SECTION 4. INSTALL THE FRONT COILOVERS

1. With the original suspension equipment removed from the vehicle, now would be a good time to set the height of the new coilovers if not adjusted previously. Start by setting the length of the coilover assembly by approximating the desired shortened length compared to the OEM suspension components. Once the coilover installation is complete, you will need to readjust the suspension to your desired ride height.

2. With the shock length already adjusted, it is time to mount them on the vehicle. Lift the damper kit through the underside of the chassis into position where the upper mount attaches to the vehicle. Once the assembly is in position, loosely secure it to the vehicle in the OEM location using the OEM hardware, but do not tighten. This will allow ample movement in the suspension system to help align the lower hardware.

CAUTION

BE CAREFUL WHEN PULLING DOWN ON THE HUB/KNUCKLE ASSEMBLY, AS IT COULD PULL THE AXLES APART AND MAY POTENTIALLY CAUSE DAMAGE AND VOID THE WARRANTY. DO NOT USE TOO MUCH FORCE WHEN DOING THIS. USE CAUTION AND PROCEED CAREFULLY.

3. Using the OEM hardware, replace the lower mounting hardware into the lower bracket and tighten the hardware hand-tight.

4. Mount all the loose brake lines and/or ABS lines previously affixed to the OEM shock body, reusing the OEM hardware.

NOTE

In some applications, the sway bar end links mount directly onto the lower bracket of the coilover assembly. This would be the time in the installation to mount the sway bar end links.

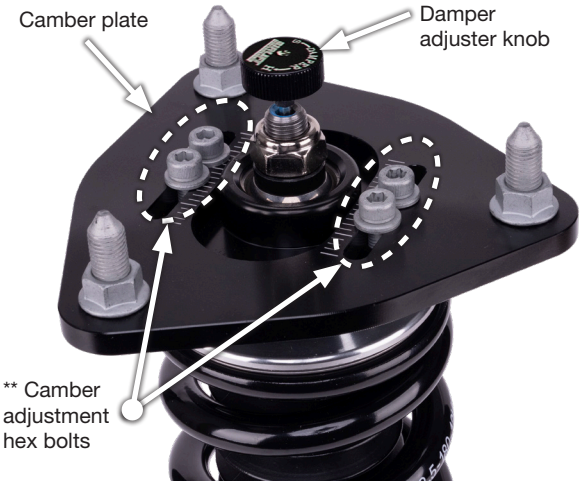
5. Torque the upper and lower hardware of the damper assembly to OEM torque specifications.

6. Adjust the camber to an equal setting on both the left and right sides of the car if the coilover kit comes with camber plates.

NOTE

Camber plates are only included in some Macpherson strut applications.

** Representative image*



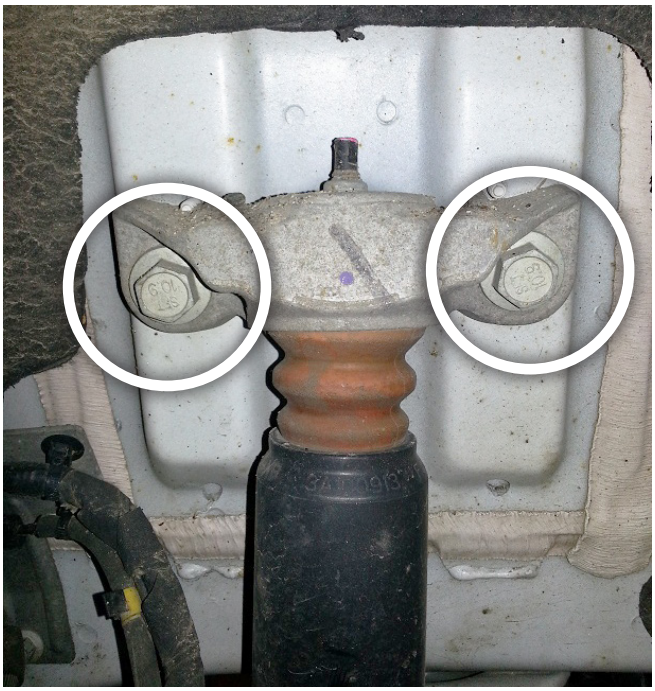
*** Not applicable on all kits*

SECTION 5. REMOVE THE STOCK REAR SUSPENSION

1. Remove the hardware that secures the lower strut/shock mount to the vehicle, saving any hardware removed for reuse later.

** Representative image*

2. Remove the hardware securing the upper mount to the vehicle, saving any hardware removed for reuse later.



** Representative image*

3. Some vehicles may require removal of interior panels to access the hardware.

⚠ CAUTION BE CAREFUL; AS OF NOW, THE REAR SUSPENSION IS NO LONGER SUPPORTED. BE SURE TO REMAIN CLEAR OF THE OEM SUSPENSION OR HAVE IT SUPPORTED SO NOT TO LET IT FALL AND CAUSE INJURY.

4. Remove the shock/strut assembly from the vehicle.

5. If the coil spring is separate from the shock/strut, remove the coil spring from the vehicle.

SECTION 6. INSTALL THE REAR COILOVERS

1. Set the rear coilover assembly length as instructed in Step 1 of Section 4. These approximate height adjustments are a starting point. Once the coilover installation is complete, you will need to re-adjust the suspension to your desired ride height.

2. Place the coilover damper kit in the same location as the OEM suspension. Lift the damper kit through the underside of the chassis into position where the upper mount attaches to the vehicle. Once the assembly is in position, loosely secure it to the vehicle in the OEM location using the OEM hardware, but do not tighten. This will allow an ample amount of movement in the suspension system to help align the lower hardware.

3. Using the OEM hardware, replace the bolt, nut, and any other hardware and finger-tighten.

⚠ CAUTION

IT IS IMPORTANT TO TIGHTEN ALL SUSPENSION BOLTS WITH THE SUSPENSION LOADED BY THE VEHICLE. WITHOUT DOING SO, THE BUSHINGS MAY BIND, CAUSE NOISES, OR SUFFER PREMATURE BUSHING WEAR.

4. Torque the upper and lower hardware of the damper assembly to OEM torque specifications. Mount any brake lines or other attachments to the rear coilover assembly securely.

5. Lower the vehicle to the ground and take note of the ride height. It would be best to roll the car forward and back a few times to allow the suspension to settle. Driving the car up and down the street will create the same effect, allowing the suspension bolts to settle in place to give you the true ride height. Make all adjustments to the suspension system as desired.

6. Adjust the ride height to your desired height, ensuring both driver and passenger sides are adjusted equally for an even height.

7. Adjust the damper setting on the suspension to your desired rate. Adjust the setting by tightening the damper adjuster knob all the way till it stops and then turning the knob back.

Adjust the coil spring here. Relock the collar when finished adjusting.

** Representative image*

Adjust the rear damper here. Relock the collar when finished adjusting.

** Representative image*

Before Operating

ADJUST THE RIDE HEIGHT

FOR TRUE COILOVER (COIL SPRING ON THE SHOCK/STRUT)

1. Support the vehicle with safety stands or a hoist at approved lifting points.
2. Remove the wheel.
3. Using the supplied spanner wrench, loosen the lock ring on the lower mount.
4. Disconnect the lower mount from the suspension.
5. Spin the lower mount up or down the damper body to the desired location. Spinning the lower mount down to lengthen the assembly results in a higher height. Spinning the lower mount up to shorten the assembly results in lowering the height.
6. Re-install the lower mount to the suspension and torque fasteners to OEM specifications.
7. Tighten the lower lock ring to the lower mount using significant force.
8. Re-install the wheel, torquing lug nuts to OEM specifications, then lower the vehicle back onto the ground and take your ride height measurement.
9. Repeat steps 1-8 until ride height is acceptable for you, ensuring to tighten all lock rings with significant force and torquing all fasteners to OEM specification after any adjustment. Air Lift Performance recommends setting ride height at the halfway point of your total travel for the best ride quality.
10. If the ride height is lower than stock, Air Lift Performance recommends loosening all pivot points (bolts, nuts) on any control arm, strut arm or radius rod that contains bushings. Once they have been loosened, re-torque to stock specifications.

FOR INDEPENDENT REAR COIL SPRING (COIL SPRING SEPARATE FROM THE SHOCK/STRUT)

1. Support the vehicle with safety stands or a hoist at approved lifting points.
2. Remove the wheel.
3. Using the supplied spanner wrench, loosen the lock ring on the adjustable spring perch.
4. Spin the spring perch lock ring to the desired location, raising or lowering the spring perch, ensuring you have contact/preload of the coil spring at full suspension extension.
5. Tighten the lock ring against the spring perch lock ring using significant force.
6. Re-install the wheel, torquing lug nuts to OEM specifications, then lower the vehicle back onto the ground and take your ride height measurement.
7. Repeat steps 1-6 until ride height is acceptable for you, ensuring to tighten all lock rings with significant force after any adjustment. Air Lift Performance recommends setting ride height at the halfway point of your total travel for the best ride quality.
8. If the ride height is lower than stock, Air Lift Performance recommends loosening all pivot points (bolts, nuts) on any control arm, strut arm or radius rod that contains bushings. Once they have been loosened, re-torque to stock specifications.

INSTALLATION CHECKLIST

- ☐ **Clearance** — Once ride height is set, make sure there is at least 13mm (1/2") clearance from anything that might rub against the coilover.
- ☐ **Heat** — Be sure there is sufficient clearance from heat sources, at least 152mm (6") from the coilovers.
- ☐ **Fastener** — Recheck all bolts for proper torque.
- ☐ **Road** — Drive the vehicle 16km (10 miles) and recheck for clearance and loose fasteners.
- ☐ **Operating instructions** — If professionally installed, the installer should review the operating instructions with the owner. Be sure to provide the owner with all paperwork that came with the kit.

DAMPING ADJUSTMENT

1. The dampers in this kit have 32 settings, or “clicks,” of adjustable compression and rebound damping characteristics. Damping is changed through the damper rod using the supplied adjuster (example shown here) or a 3mm hex key (not included).

2. Turn the adjuster clockwise (H), and the damping settings are hardened, reducing oscillations and body motion. Turn the adjuster counterclockwise (S), and the damping is softened.

3. Typically, try to start at the halfway point of your damping settings and work your way from there (e.g. 32-way damping, start at 16). From there, plus or minus off the damping settings.

4. Once the ride height is set, check with the nearest alignment shop to verify the alignment settings are set correctly. Any time you remove or even loosen a suspension component, such as control arms, and especially when replacing the suspension, the alignment will be out of specification. For alignment recommendations on your vehicle and driving style, please contact our customer service department to discuss your options.

5. **OPTIONAL** This next step is not required but is highly recommended: Have the vehicle corner balanced before getting the vehicle aligned. It is not necessary for an average daily-driven vehicle, but it is necessary in order to extract every bit of performance from your new suspension.

Limited Warranty and Return Policy

Air Lift Company provides a 1-year limited warranty* to the original purchaser of Air Lift Performance coilover kits from the date of original purchase, that the products will be free from defects in workmanship and materials when used on cars and trucks as specified by Air Lift Company and under normal operating conditions, subject to the requirements and exclusions set forth in the full Limited Warranty and Return Policy. Not valid for commercial, fleet or off-road use.

* Full Limited Warranty and Return Policy are available at www.airliftperformance.com/support/warranty and are subject to change.

WARRANTY REGISTRATION & CLAIMS

- To register your warranty, please visit https://www.airliftperformance.com/support/warranty-registration/
- To submit a warranty claim, please visit https://www.airliftperformance.com/support/submit-warranty-claim/

Thank you for purchasing Air Lift Performance products!

Need Help?

The Air Lift Company customer service department is open from 8 a.m. to 8 p.m. ET Monday through Friday. Call (800) 248-0892 or +1 (517) 322-2144 for calls from outside the U.S. and Canada.

CONNECT BY SEARCHING FOR **AIR LIFT PERFORMANCE**

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