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Air Lift 59544

Air Lift 59544 Ride Control Rear Air Spring Kit Instruction Manual

Enhancing Vehicle Stability and Load-Leveling Capacity

1. Introduction and Overview

This instruction manual provides comprehensive guidance for the installation, operation, and maintenance of your Air Lift 59544 Ride Control Rear Air Spring Kit. This kit is designed to improve the ride quality and load-carrying capabilities of your vehicle by providing adjustable air support to the rear suspension.

The Air Lift 59544 Ride Control kit is compatible with a wide range of vehicles equipped with leaf springs, including various models of Chevrolet, Dodge, Ford, GMC, and Lincoln. Refer to the 'Vehicle Fitment' section for a detailed list of compatible vehicles.

2. Product Features and Benefits

- **Load-Leveling Capacity:** Provides up to 2,000 lbs of load-leveling capacity, ensuring your vehicle remains level when towing or hauling heavy loads.
- **Eliminates Sag and Bottoming Out:** Restores normal ride height, reducing suspension wear and preventing harsh impacts on bumps.
- **Improved Stability:** Significantly reduces trailer sway, body roll, and porpoising for a safer and more comfortable ride.
- **Enhanced Control:** Proper weight distribution improves steering, braking, and tire wear.
- **Correct Headlight Aim:** Maintains proper headlight aiming, crucial for night driving safety.
- **Smoother Ride:** Air Lift's progressive spring rate absorbs bumps, keeping tires on the road for better handling.

The air springs are fully adjustable from 5 to 100 PSI, allowing you to fine-tune your suspension for various load and road conditions.



Figure 1: Comparison of vehicle sag without air springs versus proper leveling with air springs.

3. Package Contents

Your Air Lift 59544 Ride Control Rear Air Spring Kit includes the following components:

- 2 x Air Springs (Rubber or Polyurethane)
- Mounting Brackets (Vehicle-specific)
- All necessary hardware for installation (bolts, nuts, washers, air line, fittings)
- Fully-illustrated installation guide



Figure 2: Complete contents of the Air Lift 59544 Ride Control Rear Air Spring Kit.

4. Safety Information

Proposition 65 Warning:
This product may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

General Safety Precautions:

- Always wear appropriate personal protective equipment (PPE) during installation, including safety glasses and gloves.
- Ensure the vehicle is securely supported on a hoist or jack stands before beginning any work. Never work under a vehicle supported only by a jack.
- Do not exceed the manufacturer's recommended Gross Vehicle Weight Rating (GVWR).
- Maintain a minimum of 5 PSI in the air springs at all times, even when unloaded.
- Avoid over-inflating the air springs beyond 100 PSI.
- Professional installation is recommended, especially if you are unfamiliar with automotive suspension systems.

5. Installation Instructions

The following steps provide a general overview of the installation process. Always refer to the detailed, fully-illustrated installation guide included in your kit for vehicle-specific instructions and torque specifications.

5.1. Prepare Vehicle

- Safely raise the rear of the vehicle using a hoist or jack stands and remove the rear wheels.
- Locate and carefully detach any ABS sensor harness clamps or brake line clips from the frame to ensure they are not damaged during installation.

5.2. Install Upper Bracket

- Insert a bolt and a medium OD washer into the frame, ensuring the bolt extends through the bottom frame hole.
- Attach the upper bracket to the frame behind the axle, aligning it so the bolt passes through the hole on the bottom of the bracket.
- Secure the brake line clip, a flat washer, and a nylock nut to the bottom of the bolt. Tighten with a socket wrench, keeping the ABS line parallel to the frame to prevent rubbing on the air spring.
- Insert the long carriage bolt through the center of the upper bracket. On the other side, insert a spacer and a large OD washer over the bolt. Tighten with a nylock nut, ensuring both the line and nut are secure.

5.3. Assemble Air Spring

- Twist the swivel air fitting onto the air sleeve until finger-tight, then turn an additional 1.5 turns with a wrench. Do not overtighten.
- Attach the lower bracket to the bottom of the air sleeve with a flat washer and a 1/2-inch bolt. Leave it loose at this stage.

5.4. Install Air Spring Assembly

- Set the lower bracket's lip to hook over the leaf spring U-bolt.
- Insert the swivel air fitting through the upper bracket.
- Secure the air sleeve to the top bracket using a 3/4-inch nylock nut. Tighten the nut, but do not torque it over 4 foot-pounds.
- Place the supplied U-bolt over the lower bracket and leaf springs. Slide the clamp bar over the U-bolt and cap it with flat washers and nylock nuts. Torque these to 16 foot-pounds.

5.5. Route Air Lines and Inflate

- When cutting air lines, use a sharp razor blade or a hose cutter for a crisp, clean cut. Avoid cutting from the side, as this can leave a jagged edge and ruin the hose.
- Decide on the placement for your inflation valves (e.g., bumper, license plate recess, wheel well flanges). Drill a hole for the inflation valve.
- To install the Schrader valve, slide on the airline clamp, then attach the valve. Clamp the airline onto the valve.
- Place a nut and star washer on the air valve. Push the inflation valve through the hole and use a rubber washer, flat washer, and another nut to secure it in place. Tighten the nuts to secure the assembly and push on the valve cap.
- Route the air line along the frame, avoiding heat sources and sharp bends, and allowing the appropriate amount of slack. Cut your airline according to manual specifications and insert it into the push-to-connect fitting.
- Repeat the process for the other side. Inflate both sleeves to 10 PSI.
- Adjust the sleeve in the lower bracket slot so that it is perpendicular to the mounting brackets. Tighten the 1/2-inch bottom bolt securely.

5.6. Check for Leaks

- To ensure your Air Lift kit is airtight, inflate the system to 35 PSI.

- Spray a soap solution on all connections and valves while checking for exiting air bubbles. If bubbles appear, tighten the connection or re-seat the air line.

Video 1: Installation overview for Air Lift Ride Control Rear Air Spring Kit (Model 59501 shown, similar to 59544).

Video 2: Detailed installation steps for Air Lift 50309 Replacement Bellow (relevant for air spring component installation).

6. Operating Instructions

- **Inflation:** Inflate the air springs to the desired pressure (between 5 and 100 PSI) when carrying a heavy load or towing.
- **Deflation:** Deflate the air springs to the minimum 5 PSI when riding light or unloaded.
- **Pressure Monitoring:** Regularly check air pressure to ensure optimal performance and prevent damage.

7. Maintenance

- Periodically inspect air lines and connections for wear, damage, or leaks.
- Ensure air springs are always maintained with a minimum of 5 PSI to prevent damage.
- Clean air springs and brackets as needed to remove dirt and debris.

8. Troubleshooting

- **Air Leakage:** Check all connections with a soap solution. Tighten fittings or replace damaged air lines/components as necessary.
- **Uneven Ride Height:** Verify that both air springs are inflated to the same pressure. Inspect for obstructions or damaged components.
- **Reduced Performance:** Ensure air pressure is appropriate for the load. Check for signs of wear or damage to the air springs.

9. Specifications

- **Model Number:** 59544
- **Load-Leveling Capacity:** Up to 2,000 lbs
- **Adjustable Air Pressure:** 5-100 PSI
- **Material:** Rubber or Polyurethane
- **Auto Part Position:** Rear

Vehicle Fitment

This Ride Control kit (Model 59544) fits many popular vehicles with leaf springs. Specific fitment includes:

- **Chevrolet:** Blazer (1969-1974, 1987-1991), Blazer KS (1975-1986), C1500 Pickup (1988-1998), K10 Pickup (1973-1986), K1500 Pickup (1988-1998), Silverado 1500 (1999-2006), Silverado 1500 Classic (2007)
- **Dodge:** Dakota (1987-2004), W100 Pickup (1969-1977, 1986-1989), W150 Pickup (1977-1993)
- **Ford:** Bronco (1980-1996), Bronco II (1984-1990), F-100 Pickup (1965-1983), F-150 Heritage Pickup (2004), F-150 Lightning Pickup (1993-1995, 1999-2003), F-150 Pickup (1975-2003), F-150 (2004-2009, new body, excludes Heritage models)
- **GMC:** C1500 Pickup (1988-1998), Jimmy (1970-1991), K15 Pickup (1973-1978), K1500 Pickup (1973-1974, 1979-1987, 1988-1998), Sierra 1500 Classic (2007), Sierra 1500 HD (2001-2003, 2005-2006), V1500 Pickup (1987)

- **Lincoln:** Mark LT (2005-2009)

10. Warranty and Support

Lifetime Warranty: Air Lift Company warrants that the Ride Control air spring system will be free from defects in workmanship or materials for the lifetime of the vehicle of original installation. This warranty does not include installation or other service charges for replacement.
60-Day Ride Satisfaction Guarantee: Air Lift guarantees your satisfaction with the improvement in road comfort and load handling. If you are not satisfied, you may remove the product and return it to your dealer for a full refund of your purchase price within the first 60 days after your purchase.
For further assistance or inquiries, please refer to the contact information provided in your product packaging or visit the official Air Lift Company website.

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