



Kit 78103

Mercedes W212 RWD
FRONT APPLICATION

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.



Watch the video

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Video-enhanced installation guides

Visit airliftcompany.com/workshop/category/install-videos to access our installation video archive*.

* subject to availability

Introduction

Air Lift Performance thanks you for purchasing the most complete, fully engineered high-performance air suspension made for the Mercedes W212 RWD. Read these installation instructions to correctly and safely set up the vehicle for a #lifeonair.

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**.

An Air Lift Performance air management system is highly recommended for this product. Learn more at **air-lift.co/productlines**.

NOTATION EXPLANATION

Hazard notations appear in various locations in this publication. Information which is 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 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

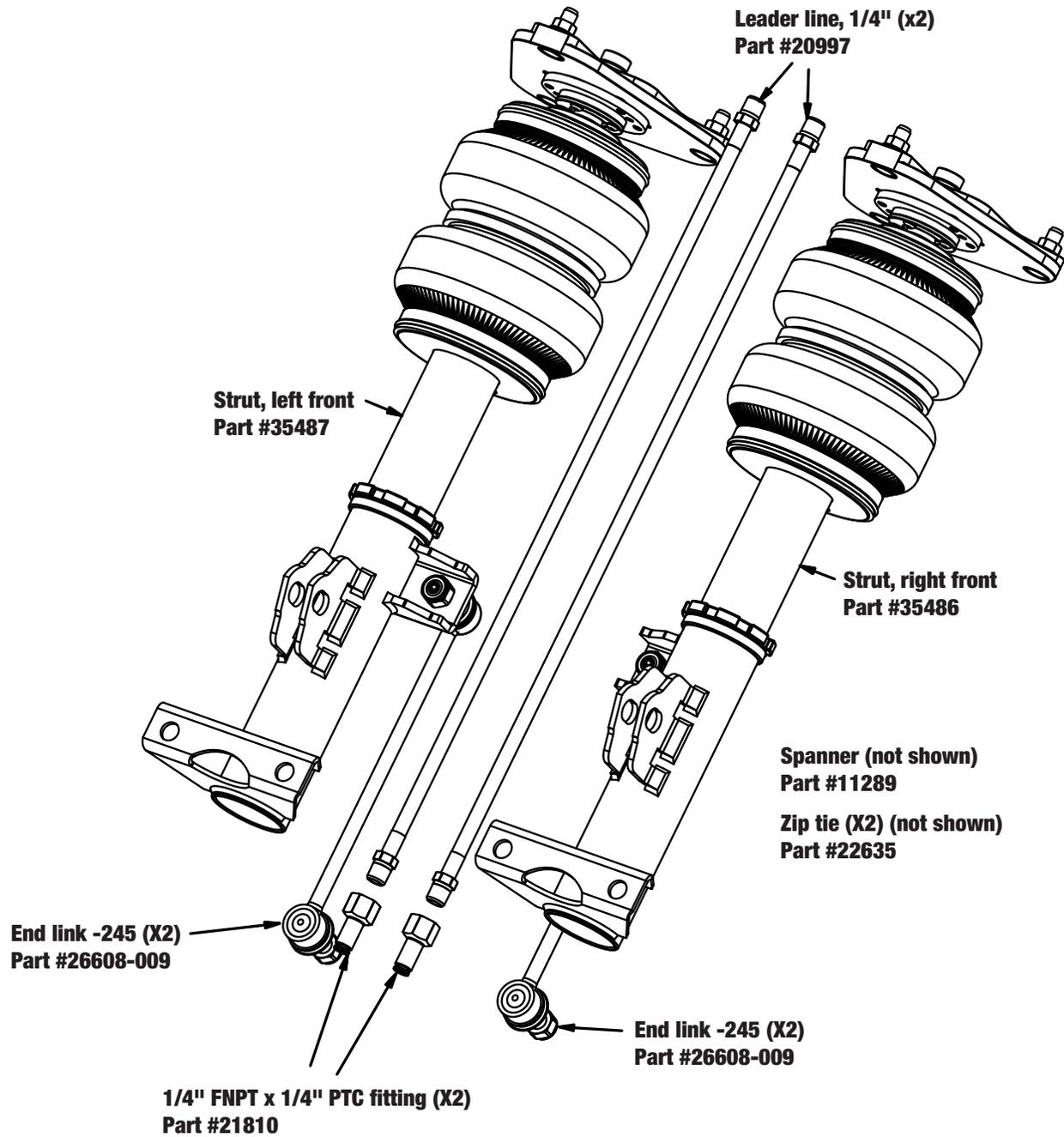
INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN DAMAGE TO THE VEHICLE OR MINOR PERSONAL INJURY.



NOTE

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

System Overview



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

Installing the System

IMPORTANT SAFETY NOTICES



DO NOT INFLATE AIR SPRINGS WHILE OFF OF THE VEHICLE. DAMAGE TO ASSEMBLY MAY RESULT AND VOID WARRANTY.



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



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 VEHICLE



RAISE THE FRONT OF THE VEHICLE WITH A JACK 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 front wheel.



SECTION 2.

REMOVE THE FRONT STRUT

1. If equipped, unbolt the height sensor from the stabilizer bar.



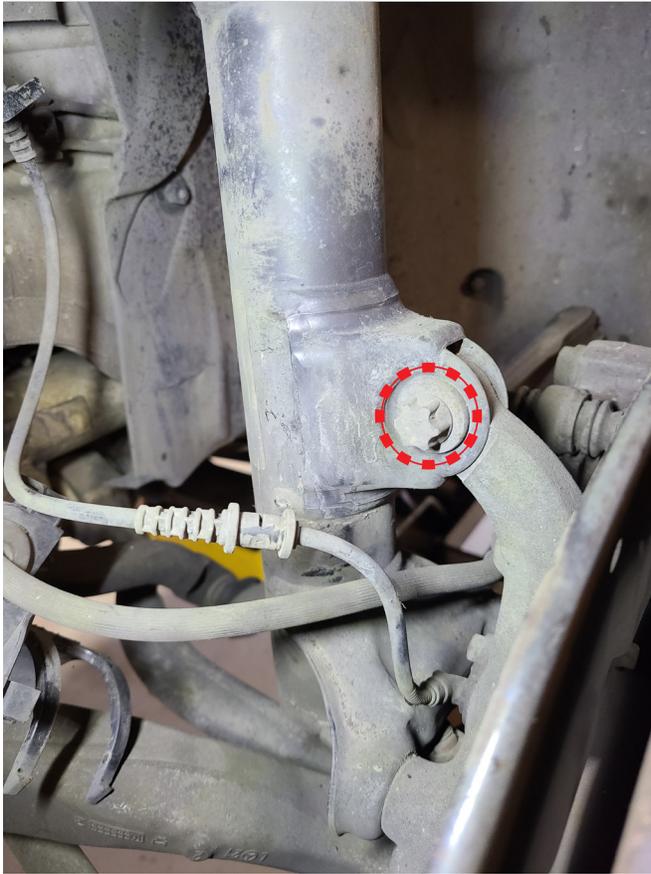
2. Disconnect the stabilizer bar linkage from the stabilizer bar.



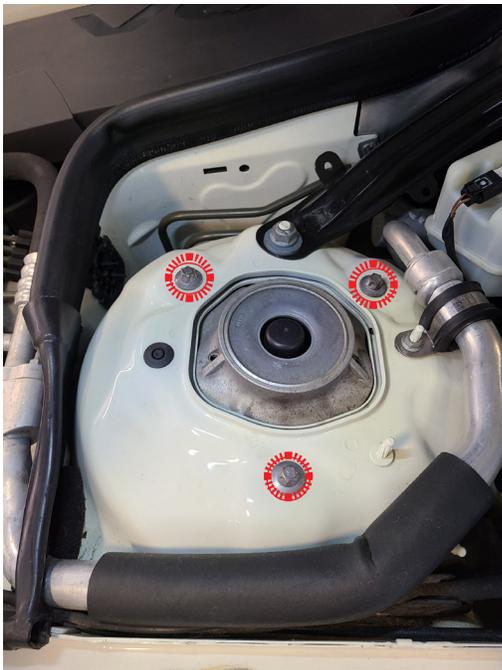
3. Clip the plastic tie holding the brake line bracket and slide the bracket out from behind the mount. To dislodge the bracket, use a flat blade between the plastic and the damper mount to unclip the plastic bracket from the mount and slide it out.



4. Unbolt the knuckle from the damper assembly.

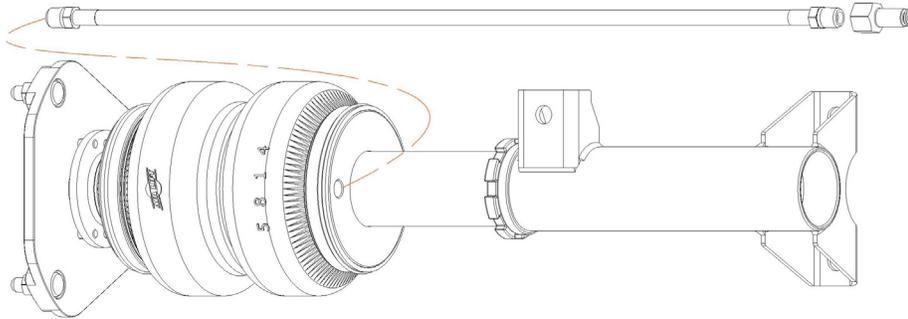


5. Within the engine compartment, remove the three upper mount bolts and remove the damper assembly from the vehicle.



SECTION 3. INSTALL THE AIR SUSPENSION

1. Begin applying thread sealant to the threads of the leader line. Tighten the appropriate fitting to the air line (one and three-quarter turns beyond hand-tight). Tighten the leader line into the air spring one and three-quarter turns beyond hand-tight.



2. Attach the camber plate to chassis. Torque nuts to 33Nm (24 lb.- ft.).



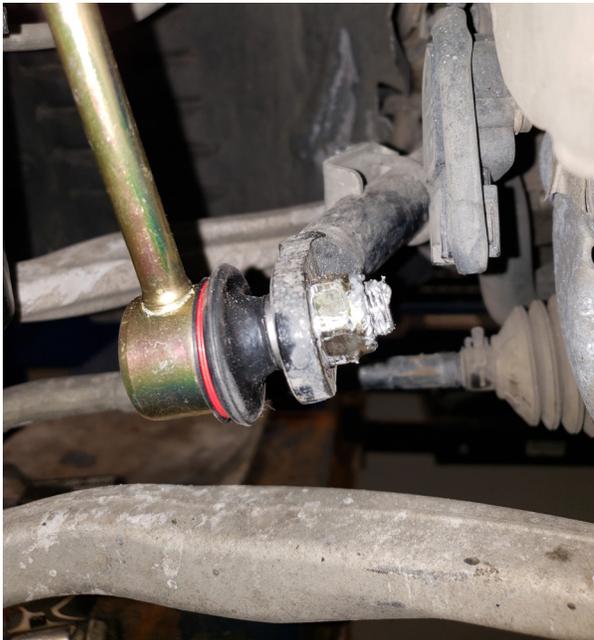
3. Attach the lower mount to the knuckle. Torque the lower M12 spindle bolts to 70Nm (52 lb.-ft.), release pressure and torque again to 100Nm (74 lb.-ft.). Torque the upper M14 spindle bolt to 100Nm + 90 degrees (74 lb.-ft. + 90 degrees).



- Route the supplied zip tie through the brake line bracket and attach through the joining tabs.



- Attach the stabilizer end link to the damper and bar. Torque to 98Nm (72 lb.-ft.).



- Reinstall wheels and torque to 110Nm (81 lb.-ft.).

SECTION 4. ROUTE THE AIR LINES



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.

1. Fully compress the suspension using a jack. With the suspension compressed, review the best routing for the air line that is clear of all suspension and steering components.
2. Routing should allow for the suspension to extend and steer without kinking, pulling the line tight or rubbing on other components. Following the brake line routing is often a good place to start. Check clearances to all other components.

Finished Installation

The images show the finished installation of both sides.



Congratulations!

You are now the proud owner of an industry leading Air Lift Performance air suspension system. Enjoy!

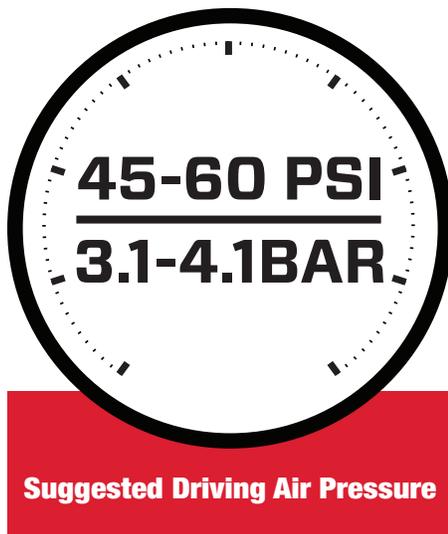
Before Operating

SET THE RIDE HEIGHT

1. Refer to the User Guide supplied with this kit to set up the suspension.

Torque Specifications		
Location	Nm	lb.-ft.
Damper to spindle mount upper M14 bolt	100 + 90 degrees	74 + 90 degrees
Damper to spindle mount lower M12 bolts	70, release then 100	52, then 74
Camber plate to chassis	33	24
Stabilizer bar linkage to damper	98	72
Wheel bolts	110	81
Damper locking collar	45 degrees beyond hand tight	
Air line and fitting	1 and 3/4 turns beyond hand tight with thread sealant	

2. Upon successful completion of the installation, follow these pressure requirements for the air springs.



FAILURE TO MAINTAIN ADEQUATE MINIMUM PRESSURE (OR PRESSURE PROPORTIONAL TO LOAD) MAY RESULT IN EXCESSIVE BOTTOMING OUT AND **WILL VOID THE WARRANTY.**

CHECK FOR BINDING



MAKE SURE THE FRONT WHEELS ARE STRAIGHT WHEN DEFLATING AND REINFLATING AIR SPRINGS.

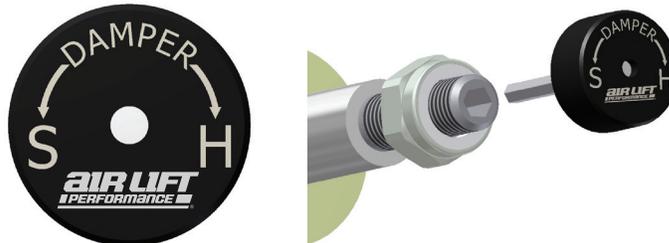
1. Inflate and deflate the system (do not exceed 8.6BAR [125 PSI]) to check for clearance or binding issues. With the air springs deflated, check clearances on everything so as not to pinch brake lines, vent tubes, etc. Clear lines if necessary.
2. Inflate the air springs to 5.2-6.2BAR (75-90 PSI) and check all connections for leaks.

INSTALLATION CHECKLIST

- Clearance** — Inflate the air springs to 5.2-6.2BAR (75-90 PSI) and make sure there is at least 13mm (1/2") clearance from anything that might rub against the air spring. This should be checked with the air spring fully inflated and fully deflated.
- Leak** — Inflate the air springs to 5.2-6.2BAR (75-90 PSI) and check all connections for leaks. All leaks must be eliminated before the vehicle is road tested.
- Heat** — Be sure there is sufficient clearance from heat sources, at least 152mm (6") from air springs and air lines. If a heat shield was included in the kit, install it. If there is no heat shield, but one is required, call Air Lift customer service at **(800) 248-0892**.
- Fastener** — Recheck all bolts for proper torque.
- Road** — Inflate the air springs to recommended driving pressures (see previous page). Drive the vehicle 16km (10 miles) and recheck for clearance, loose fasteners and air leaks.
- 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 30 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. Each damper in this kit is preset to “-13 clicks.” This means that the damper is adjusted 13 clicks away from full stiff, which starts at 0. Counting up from full stiff is the preferred method of keeping track of, or setting, damping. This setting was developed on a 2011 Mercedes E350 Bluetec.

For more information, refer to the User Guide.

Limited Warranty and Return Policy

Air Lift Company provides a 1-year limited warranty to the original purchaser of Air Lift Performance damper kits from the date of original purchase, that the products will be free from defects in workmanship and materials when used on vehicles 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 that is available online at www.airliftperformance.com/warranty.

For additional warranty information contact Air Lift Company customer service.

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 (517) 322-2144 for calls from outside the U.S. and Canada.



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