ENGINEERED BY AIR LIFT

Atlus Air A7500

Kit Number: AA57538

Fits:
Chevrolet/GMC
Heavy Duty

Engineered and Assembled in the USA

Installation Instructions

Before Getting Started

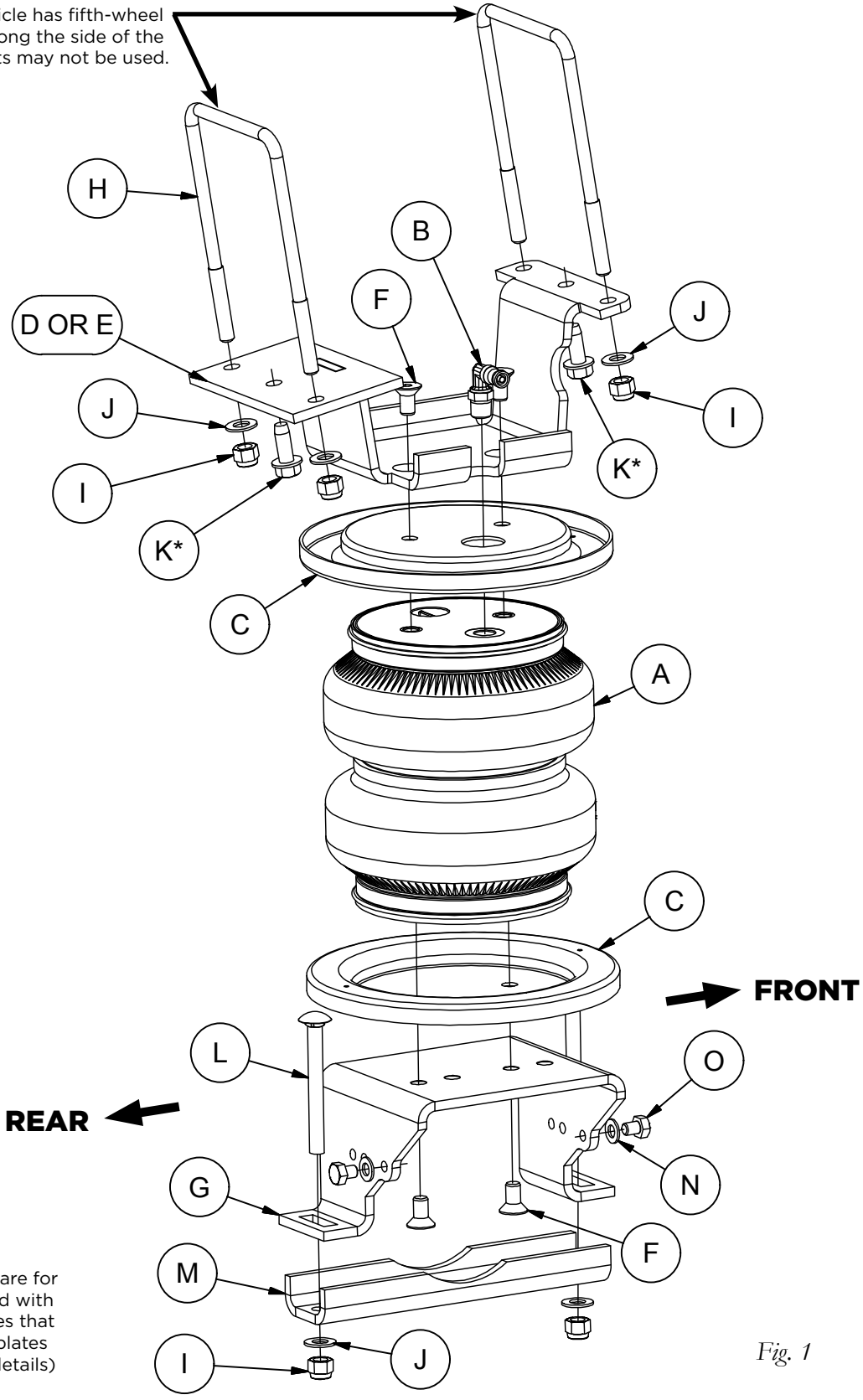
For optimal performance and safety, read all instructions thoroughly before beginning the installation. Failure to read and follow these instructions may lead to improper installation and potential safety risks.

Tools Needed

- Standard and metric open-end or box wrenches
- Ratchet with standard and metric sockets
- Drill and 5/16" drill bit
- Torque wrench
- 13mm Ratcheting wrench
- Standard and metric hex key wrenches
- Hose cutter, razor blade, or sharp knife
- Hoist or floor jacks
- Safety stands
- Safety glasses
- Air compressor or compressed air source
- Spray bottle with dish soap/water solution

AA57538 Exploded Installation View

NOTE: If the vehicle has fifth-wheel hitch brackets along the side of the frame, the U-bolts may not be used.



* Optional hardware for vehicles equipped with fifth-wheel hitches that have frame side plates (see page 9 for details)

Fig. 1

Parts List

Part	Part No.	Part Description	QTY
A	58126	Air spring	2
B	21837	90-degree Swivel fitting	2
C	11897	Roll plate	4
D	07905GR	Upper bracket, right	1
E	07804GR	Upper bracket, left	1
F	17215	3/8″-24 x 3/4″ Flat head screw	8
G	03702GR	Lower bracket	2
H	11046	U-bolt	4
I	18435	3/8″-16 Nylon lock nut	12
J	18444	3/8″ Flat washer	12
K	17129	3/8″ Self-tapping screw	4
L	17142	3/8″-16 x 3 1/2″ Carriage bolt	4
M	01851GR	Clamp bar	2
N	18501	M8 Flat washer	5
O	17449	M8-1.25 x 10 Hex cap screw	3
P*	18422	3/8″-16 Serrated flange lock nut	1
Q*	26333	Emergency brake cable bracket	1
R*	13955	Spacer	1
AA*		Air line assembly	1
BB*		Zip ties	6
CC*		Valve cap	2
DD*		Star washer	2
EE*		Rubber washer	2
FF*		M8 Flat washer	2
GG*		5/16″ Hex nut	4

* These parts are not shown in the Exploded Installation View section

Introduction

This guide is here to walk you through setting up and taking care of your Atlus Air™ A7500 air suspension kit. They are built tough—commercial-grade and reinforced for durability. Think of the air springs like tires: layers of rubber and strong cords work together to manage pressure and maintain shape to help control your ride.

With Atlus Air A7500, you'll get up to 7500 pounds (3402 kg) of support to keep your ride level, and you can fine-tune the pressure anywhere between 5 and 100 PSI (0.34 to 7 BAR). Before diving into the installation or doing any kind of upkeep, make sure to read through the entire manual—it'll save you time and headaches down the road.

Symbols

THIS MEANS THERE'S AN IMMEDIATE AND SERIOUS RISK. IF IGNORED, IT WILL LEAD TO SEVERE INJURY OR EVEN DEATH. ALWAYS TAKE THESE WARNINGS SERIOUSLY.

SIGNALS A DANGEROUS SITUATION OR UNSAFE ACTION THAT COULD CAUSE SEVERE INJURY OR DEATH. IT'S NOT A GUARANTEE, BUT IT'S A BIG RISK—PROCEED CAREFULLY.

These callouts highlight useful advice or important reminders to keep you on track during the process. Don't skip them—they often save time.

Little tricks of the trade to help installation go more smoothly. These tips can make a big difference if you're aiming for a clean, efficient job.

Information

This kit does not increase the Gross Vehicle Weight Rating (GVWR) or payload capacity of your vehicle. Always refer to your vehicle's Safety Compliance Certification Label or owner's manual, and do not exceed the manufacturer's maximum load rating.

- **Gross Vehicle Weight Rating (GVWR):**
  The maximum allowable weight of a fully loaded vehicle, including passengers, cargo, and fluids. This value—along with other important specifications like tire size, rim size, and inflation pressure—is located on the vehicle's Safety Compliance Certification Label.
- **Payload:**
  The maximum combined weight of passengers and cargo your vehicle is designed to carry. Payload is calculated by subtracting the vehicle's base curb weight from its GVWR.

Air Pressure Guidelines

While Atlus Air A7500 air springs are engineered to handle a **maximum inflation pressure of 100 PSI (7.0 BAR)**, the actual pressure required will vary based on the vehicle's load and total weight. Always adjust air pressure according to your specific load conditions—**not solely based on the maximum pressure limit.**

Ride Height and Suspension Limits

Always maintain the correct ride height by adjusting the air pressure based on your current load. Shock absorbers typically act as the suspension limiters on extension. If they do not, particularly on off-road vehicles, consider using limiting straps to prevent overextension.

Brake System Considerations

Vehicles equipped with a **rear brake proportioning valve** may experience changes in braking performance when using a load-assist product. **Consult your dealer** before installation. If your vehicle **does not** have a proportioning valve or is equipped with an **anti-lock brake system (ABS)**, the installation of an air spring kit **will not affect braking performance.**

Installation

Vehicle Preparation

1. Raise and support the frame with safety stands. Lower the axle as far as possible (Fig. 2).

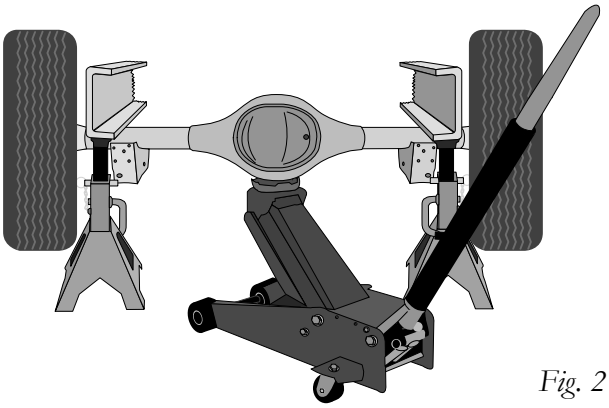


Fig. 2

2. Remove the jounce bumper from the jounce bumper bracket on both sides of the vehicle by prying them out with a pry bar or large screwdriver (Figs. 3 & 4).

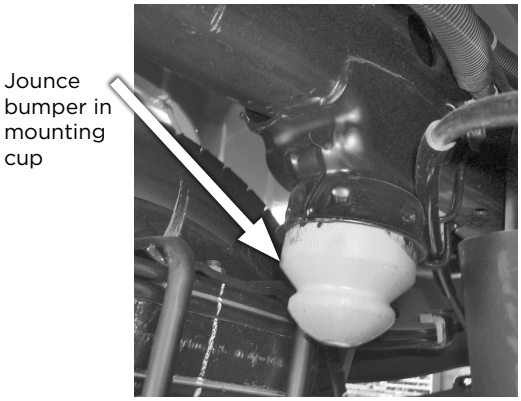


Fig. 3

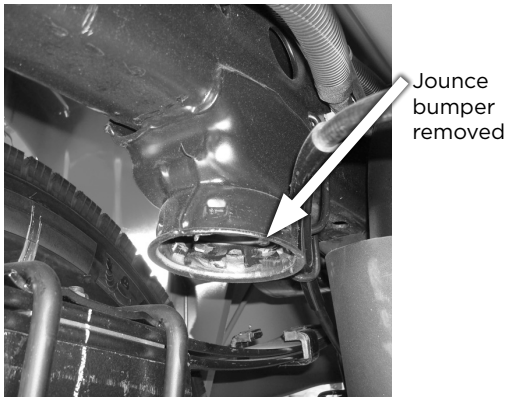


Fig. 4

3. Remove the bolt that holds the emergency brake bracket to the inside of the driver's (left) side frame rail (Figs. 5 & 6).

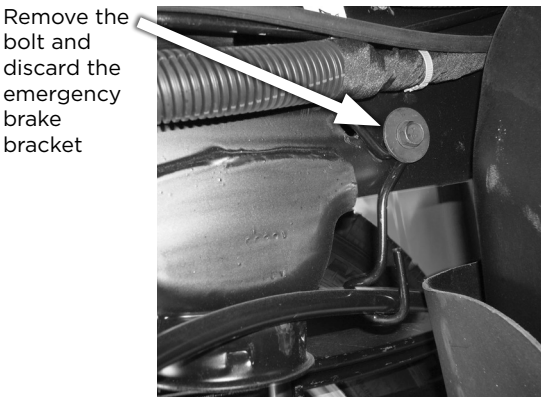


Fig. 5

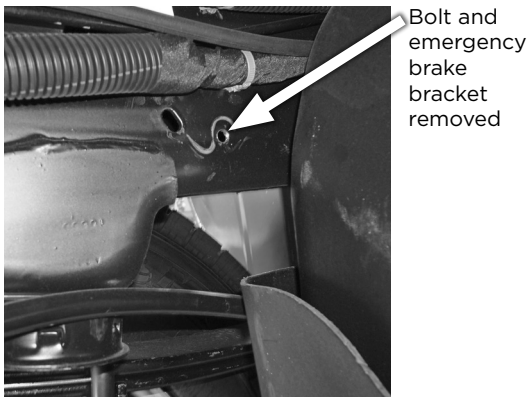
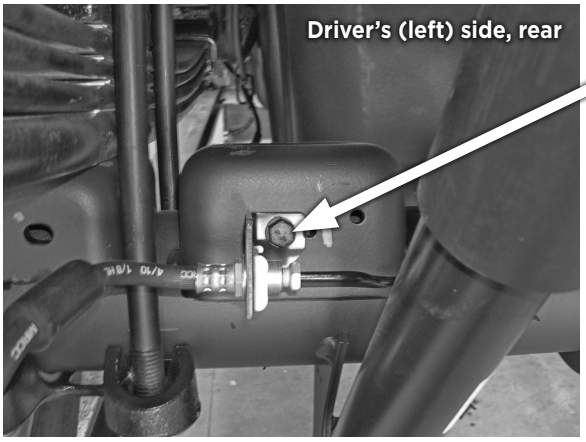


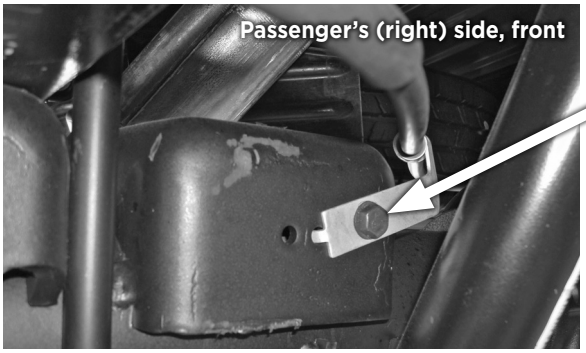
Fig. 6

4. Remove the three bolts that hold the brake lines and emergency brake cable to the rear axle jounce bumper strike plates (Figs. 7 & 8).
5. Pull the emergency brake cables clear of the jounce bumper strike plate on the axle to make room for the lower bracket (Fig. 8).



Remove the bolt holding the brake line to the jounce bumper strike plate in the rear on both driver's (left) and passenger's (right) side.

Fig. 7

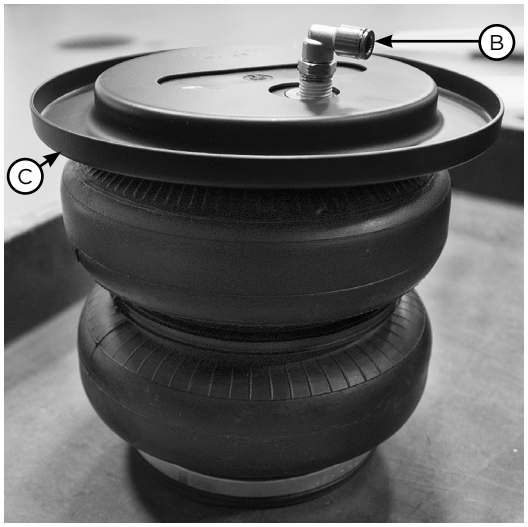


Remove the bolt holding the emergency brake cable on the front of the passenger's (right) side jounce bumper strike plate.

Fig. 8

Build Air Springs

1. Set a roll plate (C) on both ends of the air spring. The radiused (round) edge of the roll plate will be toward the air spring, enabling the air spring to be seated in both roll plates.
2. Install the 90 degree elbow fitting (B) on top of the air spring. Tighten finger-tight plus 1 1/2 turns. Be careful to only tighten on the metal hex nut. Do not overtighten (Fig. 9).



Set roll plate (C) over the air spring and install the fitting (B). Repeat for both air springs.

Fig. 9

3. Install the upper brackets (D or E) onto the top of the air springs using the 3/8" flat-head screws (F) (Fig. 10). Tighten securely.
4. To determine which holes in the lower bracket to use, set them next to each other with the angled sections pointing toward each other. Use the first and third holes on each bracket to attach the air springs. This will make them into left and right assemblies. Attach the lower bracket onto the air spring with two 3/8" flat-head screws (F) and torque to no more than 20 lb.-ft. (27Nm).

REMEMBER...

The angled side of the lower bracket will be on the fitting side of the air spring (Figs. 1 & 10).

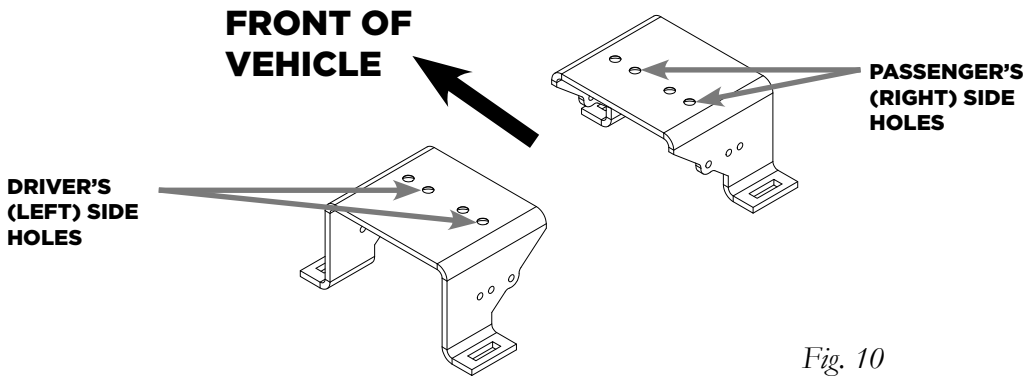


Fig. 10

Position the Air Spring Assembly on the Axle

1. With the suspension hanging, set the left and right hand assemblies over the axle jounce bumper strike plates.

REMEMBER...

The fittings will be on the inside of the frame.

2. Position the upper brackets to nest around the jounce bumper mount attached to the bottom of the frame.

Attach the Upper Brackets

There are two ways of attaching the upper bracket:

For trucks that do not have a fifth-wheel hitch bracket alongside the frame:

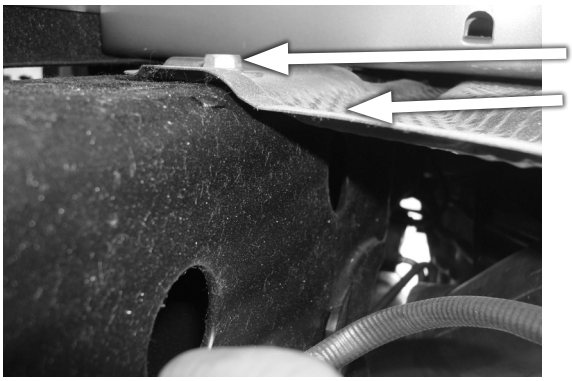
REMEMBER...

On late model vehicles, there is a heat shield above and forward of the axle, on the passenger's (right) side of the vehicle that will be in the way of the U-bolt. For models without a heat shield, proceed directly to step 3.

CRITICAL RISK

HEAT SHIELD HAS SHARP EDGES, USE CAUTION WHEN REMOVING THE BOLT.

1. On late model vehicles with a heat shield, use a ratcheting wrench to remove the bolt that holds the heat shield on the frame above and forward of the axle. Set the bolt aside (Fig. 11).



Bolt and heat shield located above and forward of the axle

Fig. 11

2. Set spacer (R) between the frame and heat shield and reattach the heat shield with the stock bolt previously removed (Fig. 12).

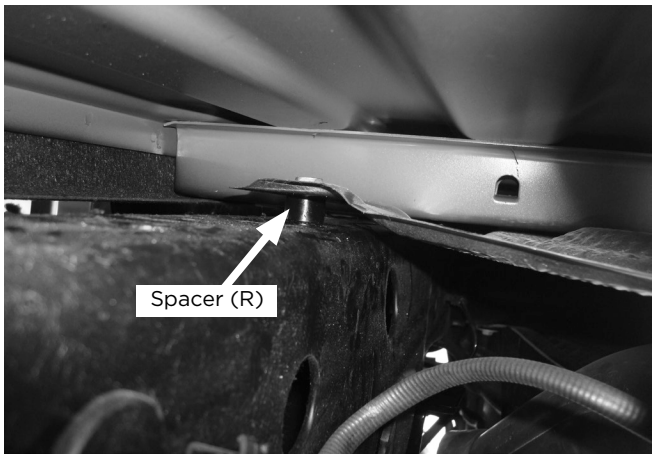


Fig. 12

3. Insert two U-bolts (H) onto the top of the frame and through the upper bracket mounting holes (Fig. 13). The U-bolts must be between the frame and the brake lines and wiring.

REMEMBER...

It may be necessary to raise the axle at this point for the upper bracket to reach the frame.

4. Cap with four 3/8" nylon lock nuts (I) and flat washers (J). Torque the U-bolts evenly in a criss-cross pattern to 10 lb.-ft. (14Nm). Repeat for the opposite side.

INSTALLER'S HINT

Stuff a shop towel between the gas tank and shield to keep the washer and nut from falling in between in case they are dropped during installation.

Fig. 13

Insert the U-bolts between the frame and brake line harness as shown. Do not pinch these items between the U-bolt and frame.

CRITICAL RISK

THE DRIVER'S (LEFT) SIDE HAS A BRAKE LINE AND A WIRING HARNESS RUNNING ALONG THE INSIDE OF THE FRAME. MAKE SURE THE U-BOLT IS BETWEEN THESE ITEMS AND THE FRAME (DO NOT PINCH THESE ITEMS) (FIG. 13).

REMEMBER...

On the passenger's (right) side of some models, it might be necessary to bend the heat shield slightly to gain access for the U-bolt to go over the frame correctly (Fig. 14).

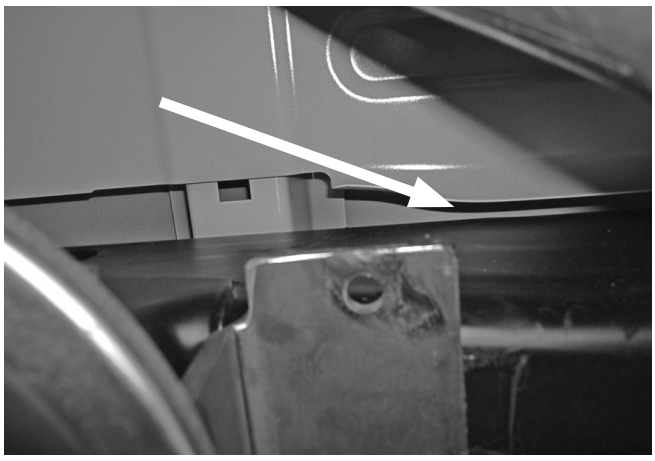


Fig. 14

5. Figure 15 shows the U-bolt installed on models that have the heat shield above and forward of the axle with spacer installed on passenger's (right) side. Continue with "Reattaching the Emergency Brake Cable to the Frame" section.

Fig. 15

For trucks that have fifth-wheel hitch brackets alongside the frame rail:

1. There are holes in the middle of the bracket just forward and behind the jounce bumper mounting cups on the upper bracket. Once the upper brackets are in position, drill two 5/16" holes through the bottom of the frame using the holes as a template and attach the upper brackets using the self-tapping screws (K). Torque all four fasteners to 15 lb.-ft. (20Nm).

Reattach the Emergency Brake Cable to the Frame

1. Attach the emergency brake cable removed in the "Vehicle Preparation" section with the emergency brake cable bracket (Q) and 3/8" serrated flange lock nut (P) (Fig. 16). Use the inside forward leg of the U-bolt on the driver's (left) side for the attachment. Tighten securely.

It may be necessary to pinch the clamp together with pliers to align the two holes up enough to get over the U-bolts.

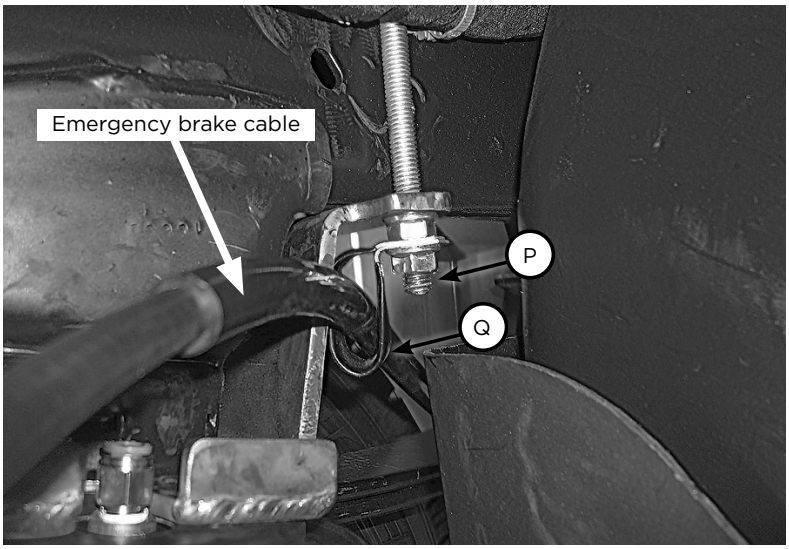


Fig. 16

Attach the Lower Brackets

1. Position the lower bracket to best align the air spring. Insert two 3/8"-16 x 3 1/2" carriage bolts (L) through the lower bracket mounting legs (Fig. 17).

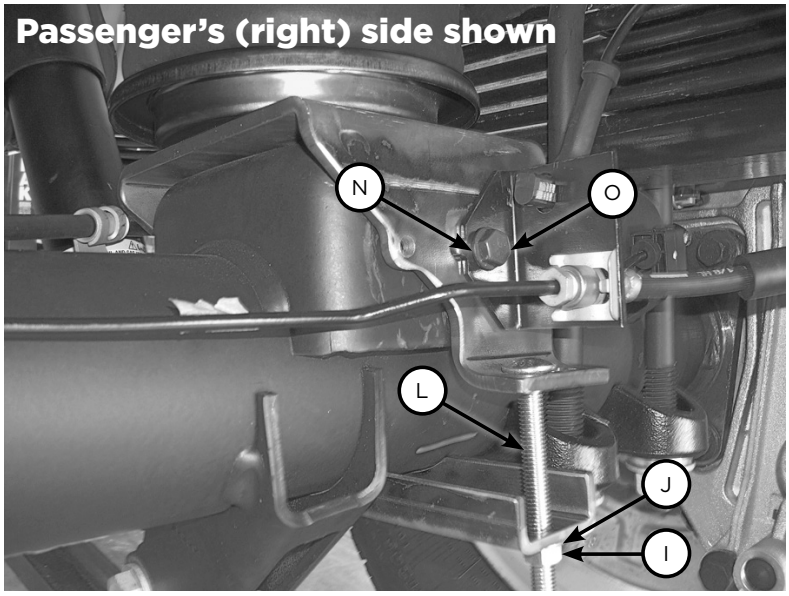


Fig. 17

2. Insert the lower clamp bar (M) over the two carriage bolts previously installed and cap with two 3/8" nylon lock nuts (I) and flat washers (J). Torque evenly to 16 lb.-ft. (22Nm) (Fig. 17).
3. Attach the brake lines and emergency brake cable that were un-bolted from the rear of the axle in the "Vehicle Preparation" section by attaching them to the lower bracket with the new M8 hex cap screws (O) and flat washers (N) provided (Fig. 17). Tighten securely.
4. Attach the brake cable on the passenger's (right) side, forward of the axle with the new M8-1.25 x 10 hex cap screw (O) and 3/8" flat washer (J) (Fig. 18). Tighten securely.

It may be necessary to slightly bend this bracket to clear the edge of the lower bracket (Fig. 18).

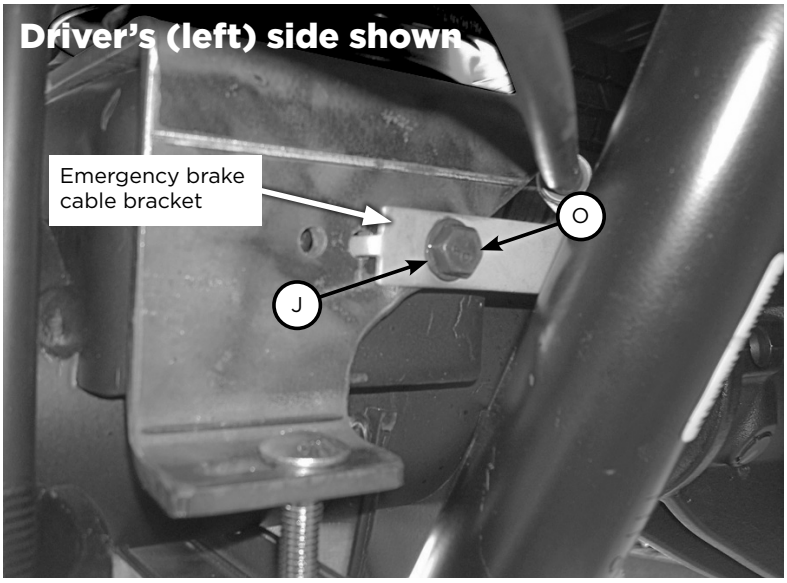


Fig. 18

Air Lines Installation

1. Select Schrader Valve Locations

Choose suitable locations for the Schrader valves. If necessary, drill a 5/16″ (8 mm) hole at each selected location. Common locations for mounting are inside fuel tank filler door, inside rear wheel wells, or by the license plate mount or rear bumper area.

2. Measure and Cut the Air Line

Measure the length of air line needed to reach your intended Schrader valve locations. Cut the air line (AA) using a sharp razor blade or hose cutter to make clean, square cuts. Do not use scissors or wire cutters, as these can deform the tubing and compromise the seal.

3. Route and Secure the Air Line

Route the air line (AA) from each air spring to the chosen Schrader valve locations. Plan the route to avoid sharp edges, moving parts, and heat sources. Once routed, use zip ties (BB) to secure the air line to stable points along the vehicle chassis. Do not pinch or kink the line. Leave at least 2″ (51 mm) of slack to accommodate movement. The air line's minimum bend radius is 1″ (25 mm).

Maintain a minimum of 5 1/2" (140 mm) clearance between all air lines and any part of the exhaust system. Avoid routing air lines over sharp edges or making tight bends.

4. Install Schrader Valves

Install the Schrader valves into the selected locations.

Heat Shield Installation (if provided in kit)

1. Position the Heat Shield

Place the heat shield over the exhaust pipe near the air spring. Maintain at least 1/2″ (13 mm) of clearance between the shield and the exhaust surface. Depending on the design of the heat shield included in your kit, you may need to bend the tabs or the shield itself to achieve proper fitment and spacing.

2. Install the Air Line Thermal Sleeve (if included)

If your kit includes a thermal sleeve, slide it over the section of air line that runs closest to the exhaust. This sleeve helps protect the line from excessive heat exposure.

3. Secure Components with Hose Clamps

Use hose clamps to secure the heat shield and thermal sleeve (if used). Apply double clamps where needed for added security. Make final adjustments to ensure all components are properly spaced and firmly in place.

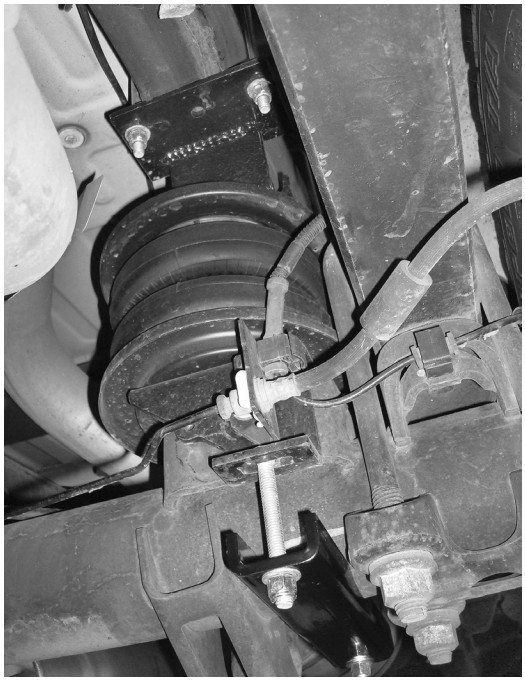
Completed Installation Images

1. The following images show the finished installation of both sides.

Driver's (left) side as viewed from the rear of the vehicle.

Passenger's (right) side as viewed from the middle of the vehicle.

Driver's (left) side as viewed from the middle of the vehicle.



Passenger's (right) side as viewed from the rear of the vehicle.

Checklist

Ensure the air suspension system is correctly installed and safe for operation by completing the following checks:

1. Clearance Verification

Inflate the air springs to 50 PSI (3.45 BAR). Confirm a minimum clearance of 1/2″ (13 mm) between the air springs and any adjacent components, including tires, brake assemblies, the vehicle frame, shock absorbers, and brake lines. Adjust as needed to prevent contact during operation.

2. Heat Clearance Check

Verify that all air springs and air lines are positioned at least 5 1/2″ (140 mm) away from any heat sources.

3. Leak Inspection

With the system pressurized to 50 PSI (3.45 BAR) inspect all fittings, air lines, and connections for leaks. All leaks must be fully resolved prior to road testing.

4. Road Test Procedure

Inflate the air springs to the recommended operating pressure and conduct a 10-mile (16 km) road test. Upon completion, re-inspect for adequate clearance, air leaks, and secure fasteners.

5. Torque Confirmation

After 500 miles (800 km) of driving, recheck and torque all hardware to the specified values to ensure long-term stability and safety.

Adjusting Air Pressure

Stability

Properly adjusting air pressure is key to achieving both vehicle stability and correct ride height. Begin by increasing pressure until the suspension feels firm and controlled—without exceeding the maximum of 100 PSI (7 BAR). Ensure the vehicle sits level across all four corners. Uneven loads may require redistributing cargo or adjusting air pressure side to side.

Comfort

Ride quality is also influenced by air pressure. Too much or too little can cause harshness or instability. As a general rule:

- If the vehicle frequently bottoms out on the frame, increase air pressure.
- If the ride feels overly stiff or harsh, reduce air pressure slightly.

Adjust gradually to find the best balance between comfort and control.

Guidelines

1. Check System Pressure Weekly

Inspect the air pressure in the system at least once a week to ensure consistent performance and ride quality.

2. Maintain Proper Ride Height

Always operate the vehicle at the recommended ride height. Do not exceed 100 PSI (7.0 BAR) under any circumstances.

3. Inspect for Air Leaks as Needed

If you suspect a leak, follow these steps to identify and address the issue:

a. Inflate the air springs to 50 PSI (3.45 BAR).

b. Spray all air line connections and the inflation valve with a mild solution of liquid dish soap and water.

c. Wait 30 seconds and observe for any bubbles, which indicate a leak.

d. Recheck the system pressure after 24 hours. A pressure loss of 2–4 PSI (0.14–0.28 BAR) is normal after initial installation. If the pressure drops by more than 5 PSI (0.34 BAR), recheck for leaks.

e. Once testing is complete, adjust the air spring to the minimum pressure required for proper ride height.

4. Inspect Hardware and Component Alignment

Periodically check that all fasteners are properly torqued. Also, check for signs of rubbing or misalignment, and realign components as needed.

5. Clean the Air Springs

Occasionally, spray the air springs with clean water to remove mud, dirt, or debris that may collect during use.

6. Lift the Vehicle with Care

If lifting the vehicle by the frame, reduce system pressure to 5 PSI (0.34 BAR) to relieve tension on the air springs and mounting hardware.

Repair Guide

Fixing Leaks on Barbed Fittings

1. Cut the air line 1 1/2" (38 mm) behind the existing fitting.
2. Use pliers or locking pliers to twist and pull the air line off the fitting.

Do not cut lengthwise, as this may damage the barbs and lead to future leaks.

3. Reinstall the air line and clamp (if applicable), making sure the air line fully covers all barbs for a proper seal.

Fixing Leaks on Push-to-Connect (PTC) Fittings

To Disconnect:

1. Release all air pressure from the system.
2. Push the air line inward toward the fitting.
3. While holding the air line in, press the collar inward toward the fitting.
4. With the collar depressed, pull the air line out.

Before Reconnecting:

5. Cut off the end of the air line just beyond the witness mark to ensure a clean, undamaged sealing surface.
6. If the fitting leaks at the threads, remove it, apply fresh thread sealant, and reinstall it 1 1/2 turns beyond finger-tight.

To Reconnect:

7. Push the air line into the fitting until fully seated.
8. Gently pull back on the air line to verify a secure connection.

Warranty

What this warranty covers

Atlus Products Company provides a warranty to the original purchaser of its Load Support Products, for the periods of time listed at AtlusProducts.com, by product line, 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 Atlus Products Company and under normal operating conditions, subject to the requirements and exclusions set forth below.

What this warranty does not cover

The warranty does not apply to products that have been improperly applied, improperly installed, or that have not been maintained in accordance with the installation instructions furnished with all products. This warranty does not apply and is void if damage or failure is caused by: accident, abuse, misuse (including but not limited to racing or off-road activities or commercial use), abnormal use, faulty installation, liquid contact, fire, earthquake or other external cause; operating the product outside Atlus Products Company's instructions, specifications or guidelines; or service, alteration, maintenance or repairs performed by anyone other than Atlus Products Company to the product from its purchased condition. This warranty also does not apply to: consumable parts, such as batteries, cosmetic damage, including but not limited to scratches or dents; defects caused by normal wear and tear or otherwise due to the normal aging of the product, or if any serial or identification number has been removed or defaced from the product. Atlus Products Company reserves the right to change the design of any product without assuming any obligation to modify any product previously manufactured.

Limitation of liability

To the extent permitted by law, this warranty and the remedies set forth herein are exclusive and in lieu of all other warranties, remedies and conditions, whether oral, written, statutory, express or implied. Atlus Products Company DISCLAIMS ALL STATUTORY AND IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND WARRANTIES AGAINST HIDDEN OR LATENT DEFECTS TO THE EXTENT PERMITTED BY LAW. To the extent such warranties cannot be disclaimed, such implied warranties shall apply only for the warranty period specified above. Please note that some states do not allow limitation on how long an implied warranty (or condition) lasts. So the above limitation may not apply to you.

Except as provided in this warranty and to the extent permitted by law, Atlus Products Company shall not be liable for any direct, special, incidental or consequential damages resulting from any breach of warranty or condition, or arising in connection with the sale, use or repair of Atlus products, or under any other legal theory, including but not limited to loss of use, loss of revenue, loss of actual or anticipated profits, loss of the use of money, loss of business, loss of opportunity, loss of goodwill, and loss of reputation. Atlus Products Company's maximum liability shall not in any case exceed the purchase price paid by you for the Atlus product. Please note that some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

How to get service

If a defect in workmanship or materials causes your Atlus product to become inoperable within the warranty period, before returning any defective product, email Atlus Products Company at support@atlusproducts.com. The consumer shall be responsible for removing the defective product from the vehicle (including any labor charges) and returning it, shipping costs prepaid, to Atlus Products Company for verification. You must prove to the satisfaction of Atlus Products Company the date of original purchase of your Atlus product. A minimum $10 shipping and handling charge (plus applicable sales tax) will apply to all warranty claims. You must also pack the product to minimize the risk of it being damaged in transit. If we receive a product in damaged condition as the result of shipping, we will notify you and you must seek a claim with the shipper.

What Atlus Products Company will do

If you submit a valid claim to Atlus Products Company during the warranty period, and Atlus determines that the product was defective, Atlus Products Company will, at its option, repair your Atlus product or furnish you with a new or rebuilt product. Atlus Products Company will not reimburse you for repairs or replacement parts provided by other parties. Your repaired or replacement Atlus product will be returned to you (subject to payment of the required warranty claim shipping and handling charge), and it will be covered under the warranty for the balance of the warranty period, if any. When a product or part is replaced, any replacement item becomes your property and the replaced item becomes the property of Atlus Products Company. You are responsible for the installation/reinstallation (including any labor charges) of the product.

How the law relates to this warranty

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. By this warranty, Atlus Products Company does not limit or exclude your rights except as allowed by law. To fully understand your rights, you should consult the laws of your state.

Customer Support

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