

Installation Manual



10224/10226 KIT

- 10224** GMC Canyon & Chevrolet Colorado*
Z71 (2WD/4WD), Z85 (4WD) & YC1 (2WD/4WD)
Suspension Packages +
- 10226** GMC Canyon & Chevrolet Colorado*
Z85 (2WD) & ZQ8 (2WD/4WD)
Suspension Packages +

** See the first pages of this manual for a complete list of sub-model applications.*

Thank you and congratulations on the purchase of an Air Suspension kit. Please read the entire manual prior to starting the installation to ensure you can complete it once started.


IMPORTANT

This air suspension kit will not increase the GVWR (*Gross Vehicle Weight Rating*), as the GVWR is determined by the vehicle manufacturer. **Do not exceed the maximum capacity listed by the vehicle manufacturer.**

For safe and proper operation of the vehicle, never exceed a maximum of 100PSI in the air springs. Staying under the pressure limit will ensure maximum air spring life. **Failure in doing so may result in damage to your vehicle and/or a void warranty.**

SAFETY WARNINGS!


- ❗ Please read and abide the instructions found in this manual, paying close attention to the helpful, cautionary or dangerous warning icons highlighting important safety recommendations and maintenance suggestions throughout this manual.

**HELPFUL INSTALL TIP**

Additional information that could potentially make the job a little easier.

**PLEASE USE CAUTION**

Unsafe practices could result in damage to you or your vehicle, or others.

**DANGER WARNING**

Hazards which could result in severe personal injury or death.

- ❗ Serious personal injury or death may result from an air spring failure or accident due to improper installation or air spring pressure operation or maintenance.
- ❗ Inflating an unsecured air spring is dangerous. If it bursts, it could be hurled into the air with explosive force resulting in serious personal injury or death. Never inflate an air spring unless it is secured to the vehicle.
- ❗ Removing and replacing air springs can be dangerous. This is only a job for a qualified service professional. Never perform air spring service procedures without proper training, tools, and equipment.

BEFORE STARTING THE INSTALLATION

- Ensure the application information is correct for the make, model and year of the vehicle you are installing the kit on.
 - Some vehicles are equipped with a rear wheel brake proportioning valve. Check with the manufacturer before installing the air spring kit, as it may affect braking performance.
 - It is recommended to use a good quality anti-seize on all fasteners. This will reduce the chance of corrosion on the fasteners and will help facilitate removal, if required at a later date.
- ❗ **PLEASE NOTE:** This kit contains push-to-connect fittings; using scissors or wire cutters to cut the nylon air line will distort the line and cause the connection to leak. The air line must be cut off squarely with the hose cutter provided in this kit, or a sharp utility knife. **Failure to do so may void the warranty.**

APPLICATIONS: 10224

YEAR	SUB MODEL	DRIVE	SUSPENSION PACKAGE
MAKE: CHEVROLET		MODEL: COLORADO	
2012			
2011			
2010			
2009	LT	4 WD	Z71
2009	LT	4 WD	Z85
2009	WT		
2008	LS	4 WD	Z71
2008	LS	4 WD	Z85
2008	LS	REAR WD	Z71
2008	LS	REAR WD	Z85
2008	LT	4 WD	Z71
2008	LT	4 WD	Z85
2008	LT	REAR WD	Z71
2008	LT	REAR WD	Z85
2008	WT		
2007	LS	4 WD	Z71
2007	LS	4 WD	Z85
2007	LS	REAR WD	Z71
2007	LS	REAR WD	Z85
2007	LT	4 WD	Z71
2007	LT	4 WD	Z85
2007	LT	REAR WD	Z71
2007	LT	REAR WD	Z85
2007	WT	4 WD	Z71
2007	WT	4 WD	Z85
2006	LS	4 WD	Z71
2006	LS	4 WD	Z85
2006	LS	REAR WD	Z71
2006	LS	REAR WD	Z85
2006	LT	4 WD	Z71
2006	LT	4 WD	Z85
2006	LT	REAR WD	Z71
2006	LT	REAR WD	Z85
2006	WT		
2005	SPORT		
2005	SPORT LS		
2005	Z71	4 WD	
2005	Z71	REAR WD	
2005	Z71 LS	4 WD	
2005	Z71 LS	REAR WD	
2005	Z85	4 WD	

YEAR	SUB MODEL	DRIVE	SUSPENSION PACKAGE
MAKE: CHEVROLET		MODEL: COLORADO	
2005	Z85 LS	4 WD	
2004	BASE MODEL		
2004	Z85	4 WD	
2004	Z85	REAR WD	
2004	Z85 LS	4 WD	
2004	Z85 LS	REAR WD	
MAKE: GMC		MODEL: CANYON	
2012			
2011			
2010			
2009	SLE	4 WD	Z71
2009	SLE	4 WD	Z85
2009	SLE	REAR WD	Z71
2009	SLE	REAR WD	Z85
2009	SLT	4 WD	Z71
2009	SLT	4 WD	Z85
2009	SLT	REAR WD	Z71
2009	SLT	REAR WD	Z85
2009	WT		
2008	SL	4 WD	Z71
2008	SL	4 WD	Z85
2008	SL	REAR WD	Z71
2008	SL	REAR WD	Z85
2008	SLE	4 WD	Z71
2008	SLE	4 WD	Z85
2008	SLE	REAR WD	Z71
2008	SLE	REAR WD	Z85
2008	SLT	4 WD	Z71
2008	SLT	4 WD	Z85
2008	SLT	REAR WD	Z71
2008	SLT	REAR WD	Z85
2008	WT		
2007	SL	4 WD	Z71
2007	SL	4 WD	Z85
2007	SL	REAR WD	Z71
2007	SL	REAR WD	Z85
2007	SLE	4 WD	Z71
2007	SLE	4 WD	Z85
2007	SLE	REAR WD	Z71
2007	SLE	REAR WD	Z85
2007	SLT	4 WD	Z71

YEAR	SUB MODEL	DRIVE	SUSPENSION PACKAGE
MAKE: GMC		MODEL: CANYON	
2007	SLT	4 WD	Z85
2007	SLT	REAR WD	Z71
2007	SLT	REAR WD	Z85
2007	WT	4 WD	Z71
2007	WT	4 WD	Z85
2007	WT	REAR WD	Z71
2007	WT	REAR WD	Z85
2006	SL	4 WD	Z71
2006	SL	4 WD	Z85
2006	SL	REAR WD	Z71
2006	SL	REAR WD	Z85
2006	SLE	4 WD	Z71
2006	SLE	4 WD	Z85
2006	SLE	REAR WD	Z71
2006	SLE	REAR WD	Z85
2006	SLT	4 WD	Z71
2006	SLT	4 WD	Z85
2006	SLT	REAR WD	Z71
2006	SLT	REAR WD	Z85
2006	WT		
2005	Z71 FLEET	4 WD	
2005	Z71 FLEET	REAR WD	
2005	Z71 SL	4 WD	
2005	Z71 SL	REAR WD	
2005	Z71 SLE	4 WD	
2005	Z71 SLE	REAR WD	
2005	Z85 SL	4 WD	
2005	Z85 SLE	4 WD	
2004	BASE MODEL		
2004	Z71 FLEET	4 WD	
2004	Z71 FLEET	REAR WD	
2004	Z71 SL	4 WD	
2004	Z71 SL	REAR WD	
2004	Z71 SLE	4 WD	
2004	Z71 SLE	REAR WD	
2004	Z85 SL	4 WD	
2004	Z85 SL	REAR WD	
2004	Z85 SLE	4 WD	
2004	Z85 SLE	REAR WD	

APPLICATIONS: 10226

YEAR	SUB MODEL	DRIVE	SUSPENSION PACKAGE
MAKE: CHEVROLET		MODEL: COLORADO	
2009	LT	REAR WD	Z85
2008	LS	REAR WD	Z85
2008	LT	REAR WD	Z85
2007	LS	REAR WD	Z85
2007	LT	REAR WD	Z85
2007	WT	REAR WD	Z85
2006	LS	REAR WD	Z85
2006	LT	REAR WD	Z85
2005	Z85	REAR WD	
2005	Z85 LS	REAR WD	
2004	Z85	REAR WD	
2004	Z85 LS	REAR WD	

YEAR	SUB MODEL	DRIVE	SUSPENSION PACKAGE
MAKE: GMC		MODEL: CANYON	
2009	SLE	REAR WD	Z85
2009	SLT	REAR WD	Z85
2008	SL	REAR WD	Z85
2008	SLE	REAR WD	Z85
2008	SLT	REAR WD	Z85
2007	SL	REAR WD	Z85
2007	SLE	REAR WD	Z85
2007	SLT	REAR WD	Z85
2007	WT	REAR WD	Z85
2006	SL	REAR WD	Z85
2006	SLE	REAR WD	Z85
2006	SLT	REAR WD	Z85
2005	Z71 FLEET	4 WD	
2005	Z71 SL	4 WD	
2005	Z71 SLE	4 WD	
2005	Z85 SL	4 WD	
2005	Z85 SL	REAR WD	
2005	Z85 SLE	4 WD	
2005	Z85 SLE	REAR WD	
2004	BASE MODEL		
2004	Z71 FLEET	4 WD	
2004	Z71 FLEET	REAR WD	
2004	Z71 SL	4 WD	
2004	Z71 SL	REAR WD	
2004	Z71 SLE	4 WD	
2004	Z71 SLE	REAR WD	
2004	Z85 SL	4 WD	
2004	Z85 SL	REAR WD	
2004	Z85 SLE	4 WD	
2004	Z85 SLE	REAR WD	



WARNING: This product can expose you to the chemical Hexavalent Chromate, which is known to the State of California to cause cancer and birth defects or other reproductive harm. *For more information go to www.P65Warnings.ca.gov*

KIT CONTENT



Make sure all the items shown in the photo are provided in your kit before starting the installation.

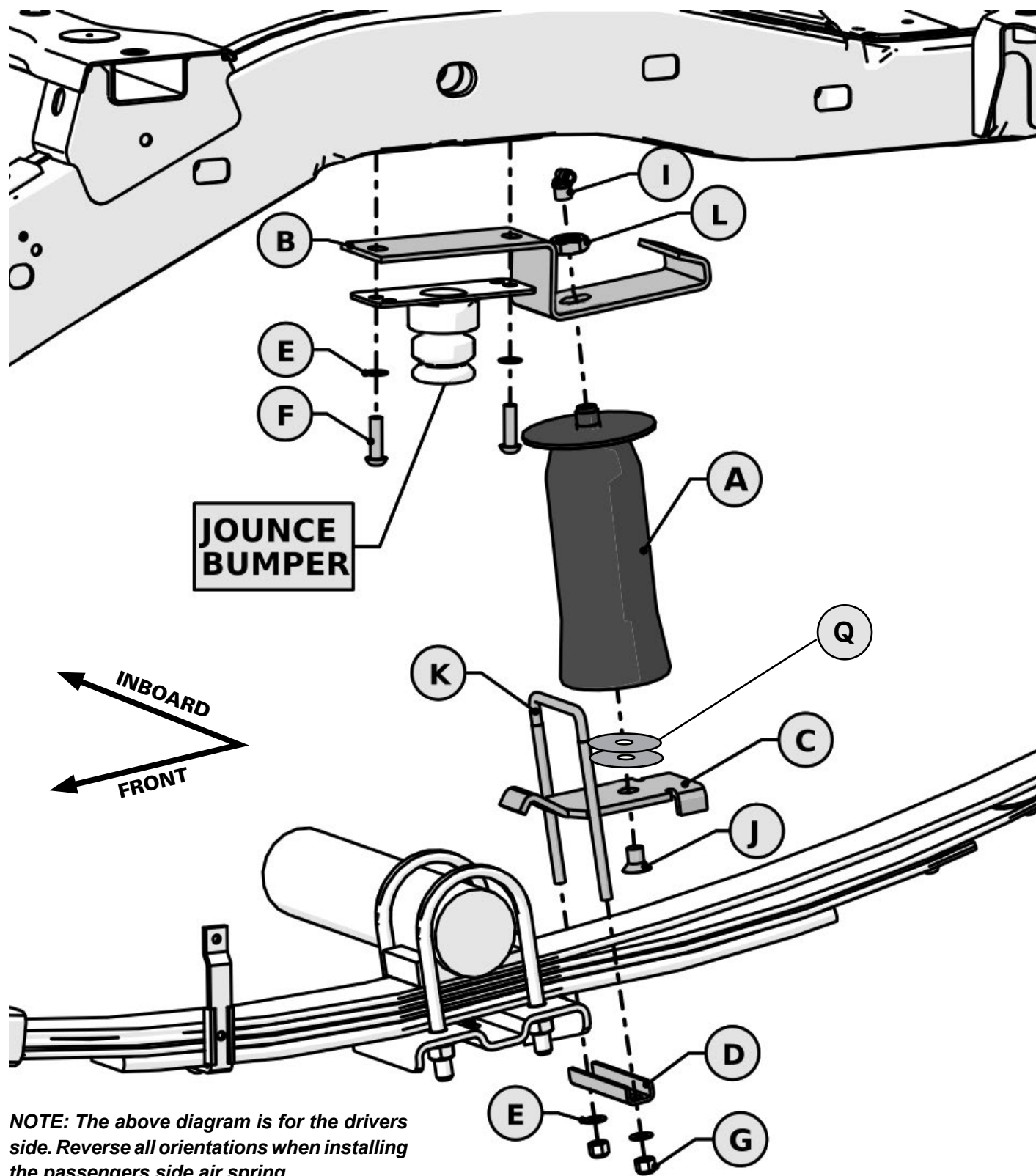
KIT CONTENTS

A	Air Spring	(2)	HP10001/ HP10173
B	Upper Bracket	(2)	HP1448
C	Lower Bracket	(2)	HP1298/ HP1313
D	Clamp Bar	(2)	HP0013
E	3/8" Flat Washer	(8)	C653
F	M10 - 1.50 x 35 Button Head Cap Screw	(4)	HP1414
G	3/8-16" Nylon Nut	(4)	HP1000
H	Tie Straps	(6)	C11618
I	90° Swivel Fitting	(2)	HP1019
J	1/2-13 X 3/4" Taper Head Bolt	(2)	HP1342
K	3/8" U-Bolt	(2)	HP1018
L	3/4"-16 Jam Nut	(2)	HP1076
M	Heat Shield	(1)	HP0012
N	Hose Clamp	(2)	HP1001
O	Air Line Assembly	(1)	HP1344
P	Tube Cutter	(1)	C3941
Q	Washer, 1/2" x 2" OD Thin Flat	(4)	HP1010

REQUIRED TOOLS

- Torque Wrench
- 7/16", 9/16", 1-1/8", 13/16" & 15mm Sockets or Wrenches
- 6mm & 5/16" Allen Key
- Compressed Air Source
- Hoist or Floor Jack
- Safety Stands
- Safety Glasses
- Spray bottle with Dish Soap & Water Solution

KIT CONTENTS



Thank you and congratulations on the purchase of an air suspension kit. Please read the entire installation manual prior to starting the installation to ensure you can complete the installation once started.

IMPORTANT:

This air suspension kit will not increase the GVWR (Gross Vehicle Weight Rating), as the GVWR is determined by the axle rating. Do not exceed the maximum capacity listed by the vehicle manufacturer.

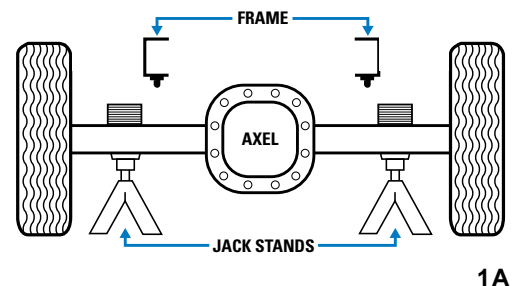
BEFORE YOU START:

NOTE: Some vehicles are equipped with a rear wheel brake proportioning valve. Check with the manufacturer before installing the air spring kit, as it may affect braking performance.

1. Ensure the application information is correct for the make, model and year of the vehicle you are installing the kit on.
2. It is recommended to use a good quality anti-seize on all fasteners. This will reduce the chance of corrosion on the fasteners and will help facilitate removal, if required at a later date.

1 RAISE THE REAR AXLE

- Remove any unnecessary weight from the vehicle to attain normal ride height. This is important for correct initial air spring setup and adjustment.
- Park the vehicle on a level surface.
- Record the vehicle's normal ride height, which is the distance between the center of the axle and the horizontal wheel well flange. Ensure both sides are the same before raising the vehicle.
- Raise the rear axle high enough to remove both rear wheels and attain a comfortable working height.
- Place two jack stands under the chassis (photo 1A).
- Lower the floor jack until the vehicle chassis is supported by the jack stands.
- Ensure the normal ride height measurement recorded earlier is the same. Adjust if necessary before proceeding.
- Once the vehicle is raised correctly, remove the rear wheels.

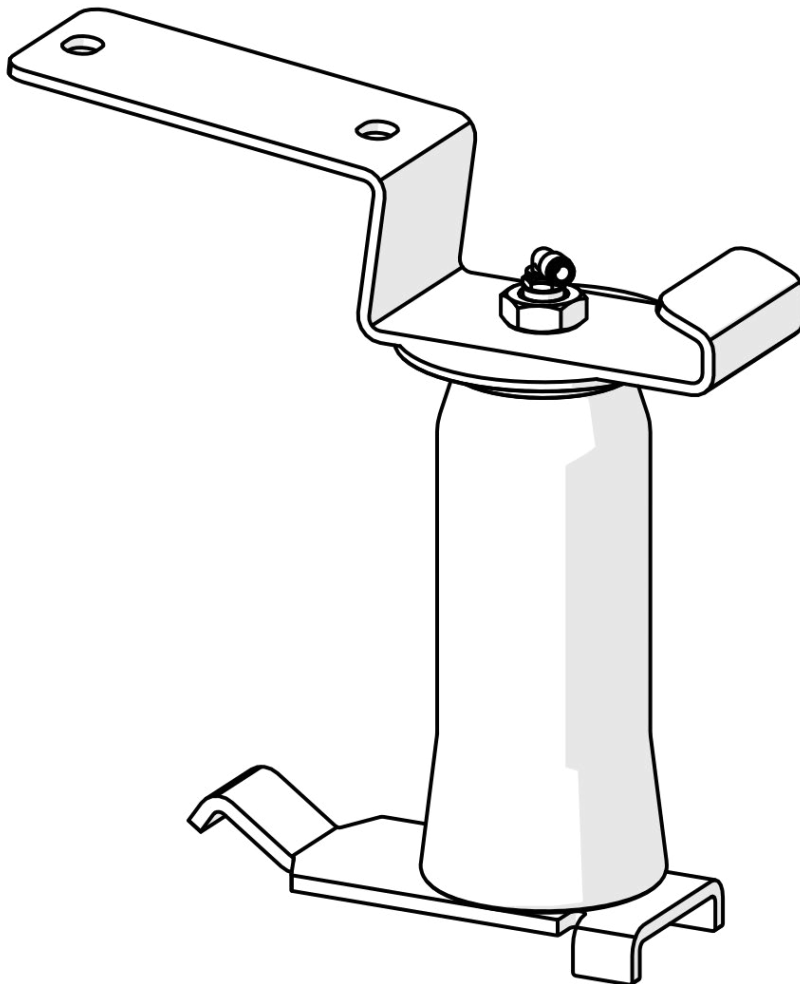


1A

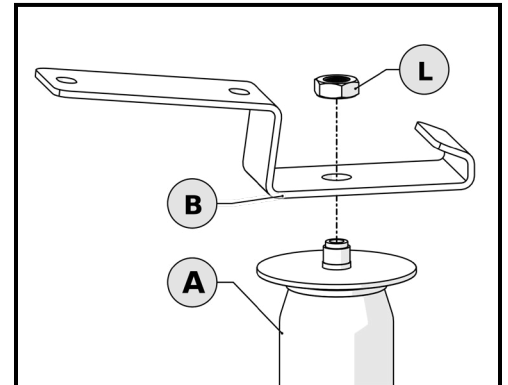
2 PRE ASSEMBLE THE AIR SPRING

- Prepare the air spring by ensuring that it is collapsed with the rubber part of the bag folded over the bottom end cap. See Figure 2A.
- Fasten the upper bracket (B) to the threaded post on the air spring (A) with a $\frac{3}{8}$ " jam nut (L). Tighten the jam nut to 25 ft-lbs (34 N•m) with a 1- $\frac{1}{8}$ " wrench. See Figure 2B.
- Install the 90° swivel air fitting (I) into the top of the air spring (A). Finger tighten the air fitting and turn an extra 1.5 turns with a $\frac{7}{16}$ " wrench to tighten. See figure 2C.
- Install the taper head bolt (J) through the center hole in the lower bracket (C) and through two $\frac{1}{2}$ " x 2" thin washers (Q) and fasten it to the bottom of the air spring (A) with a $\frac{5}{16}$ " allen key. See figure 2D.
- Tighten the taper head bolt (J) to 25 ft-lbs (34 N•m).
- See the finished assembly below.

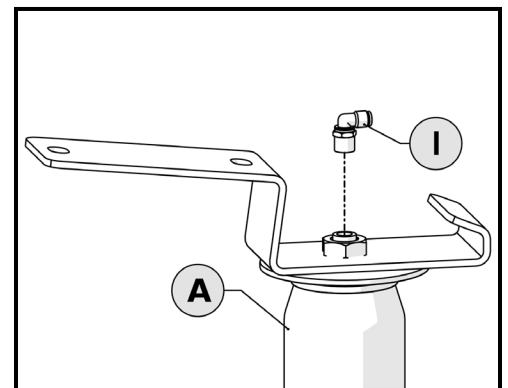
Repeat step 2 for the other air spring.



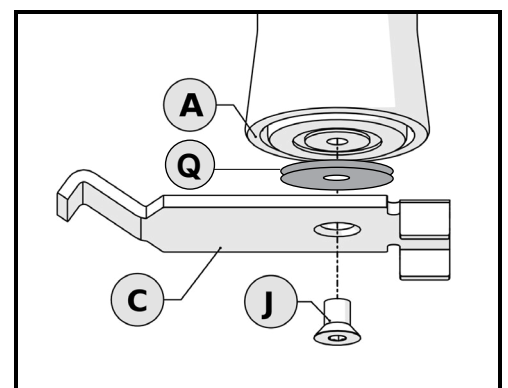
2A



2B



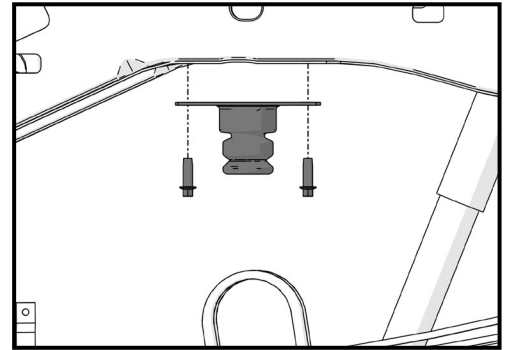
2C



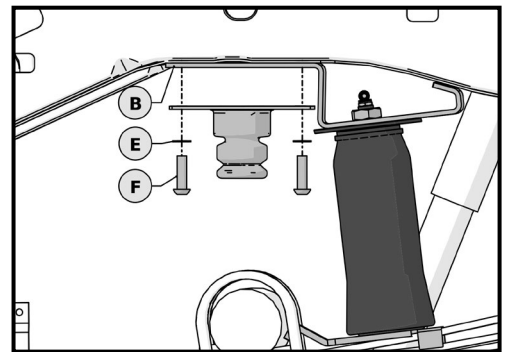
2D

3 ATTACH THE UPPER BRACKET

- Remove the two bolts securing the jounce bumper in place. Discard both bolts. See figure 3A.
- NOTE:** The jounce bumper on your vehicle may be different than the one pictured in Figure 3A.
- Fasten the upper bracket (B) and jounce bumper to the frame with two M10 bolts (F), and two washers (E). Use a 6 mm Allen key to tighten. See figure 3B.
- Tighten the M10 bolts to 30 ft-lbs (40 N•m).



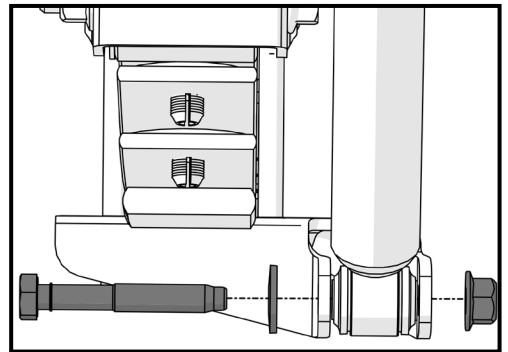
3A



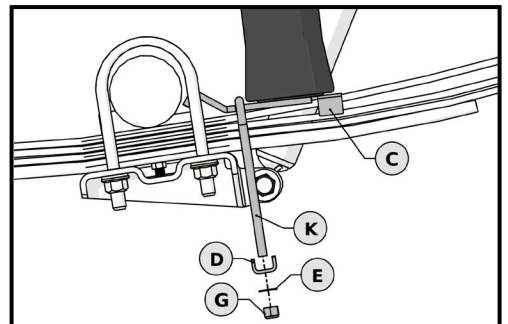
3B

4 ATTACH THE LOWER BRACKET

- It may be necessary to remove and reverse the lower shock bolts with a $\frac{13}{16}$ " socket so that the bolts are inserted from the outside in. This will provide enough clearance for the u-bolt used in the following steps. See figure 4A.
- Set the tab of the lower bracket (C) over the spring perch in order to lock the assembly in place.
- Guide the U-Bolt (K) around the lower bracket (C) and through the slots in the clamp bar (D).
- Fasten the lower bracket (C) to the leaf spring by using two washers (E), and two nyloc nuts (G) to tighten the clamp bar (D) around the leaf spring. See Figure 4B
- Tighten the clamp bar hardware to 20 ft-lbs (27 N•m) with a $\frac{9}{16}$ " deep socket.



4A

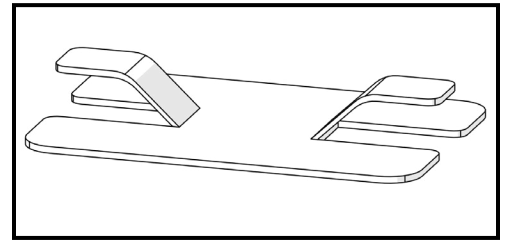


4B

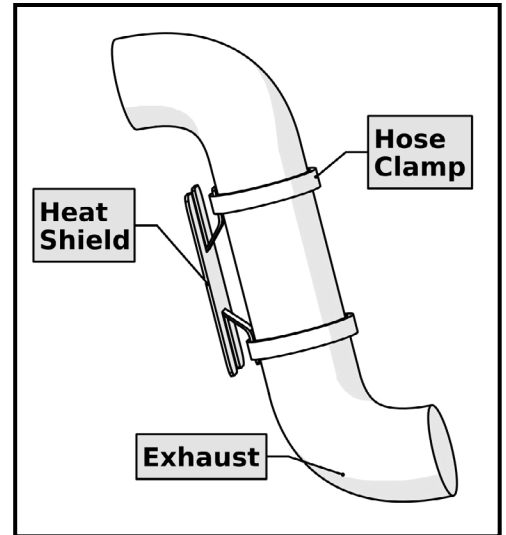
The installation is complete for this side. Reverse any orientations and repeat steps 3 and 4 for the other air spring.

5 INSTALL THE HEAT SHIELD

- Bend the tabs on the heat shield (M) so there will be the necessary ½" dead space between the heat shield and the muffler when the heat shield is attached. See figure 5A.
- Attach the heat shield to the exhaust pipe on the passenger side using two hose clamps (N). Each hose clamp holds a tab against the exhaust pipe. Make sure the heat shield is facing toward the air spring.



5A



5B

INSTALL AIR LINE

Two fill valves are provided in this kit. The most common place to install them is in place of the license plate fasteners. Alternatively, two 5/16" holes can be drilled in a location of your choosing.

Cut the air line assembly into two equal lengths with the hose cutter provided in this kit or a sharp utility knife.

⚠ PLEASE NOTE: *This kit contains push-to-connect fittings; using scissors or wire cutters to cut the nylon air line will distort the line and cause the connection to leak. The air line must be cut off squarely with a hose cutter or a sharp utility knife.*

Install one air line at a time starting at the fill valve location. Place a 5/16" nut on the air valve. Leave enough of the inflation valve in front of the nut to extend through the hole, install a flat washer, and 5/16" nut and cap (reference Figure A for assembly). There should be enough valve exposed after installation – approximately 1/2" – to easily apply a pressure gauge or an air chuck.

Route the air line back to the NPT fitting on the air spring, then cut the hose to length. Moisten the end of the air line prior to inserting it into the fitting and push it in until it stops.

Repeat with the other fill valve.

Secure the air lines using the provided tie-straps, away from any moving items and heat sources.

CHECK SYSTEM FOR LEAKS

Inflate both air springs to 90 psi (60 psi for in-coil bags), then use a mixture of dish soap and water on all air line connections to detect any air leaks. Large, expanding bubbles indicate a leak (as shown in Figure B).

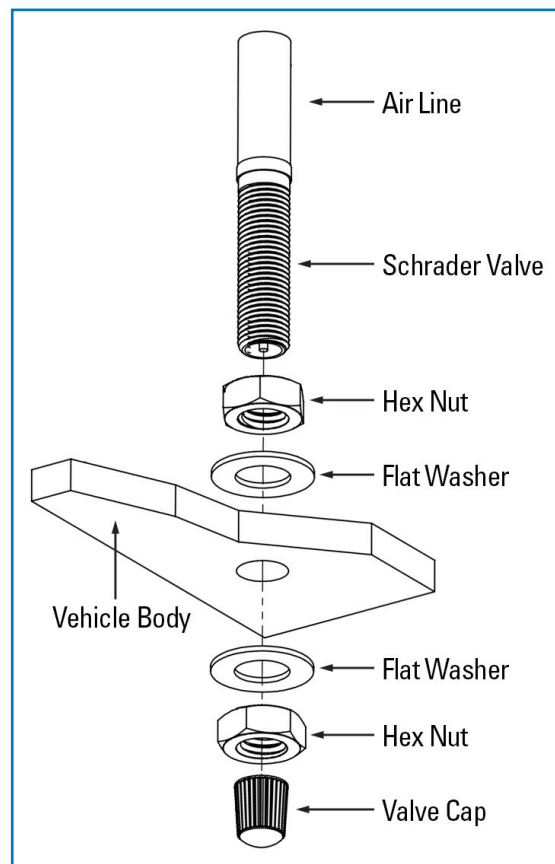
Repair as necessary and retest.

Inflate air springs to a predetermined value and on following day recheck pressure. If one or both of air springs have lost pressure, an air leak is present.

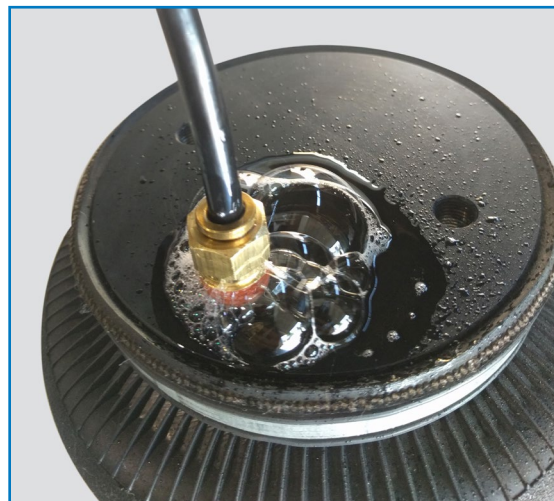
⚠ Leak must be repaired, and then retested until no leaks exist.

CONGRATULATIONS! You have completed the install

After Installation continues on the following page.



A



*Air Spring & NPT Air Fitting may differ between kits

B

Thank you again, and congratulations on the installation of your Air Suspension kit.

AFTER COMPLETING THE INSTALLATION

- The air spring must have clearance between itself and the surrounding components to prevent any contact when spring is inflated or compressed. Trimming off excess bolt length may also be required to ensure no contact with the spring or other suspension components can be made once installed.
- If removed, re-install the wheels and torque fasteners to the manufacturer's specifications. Re-torque all fasteners after the first 500 miles of driving.

OPERATING YOUR VEHICLE WITH AIR SUSPENSION

Air springs have minimum and maximum recommended pressure requirements:

PART #	SPRING STYLE	SPRING TYPE	MIN PSI	MAX PSI
HP10189	In-Coil	STANDARD DUTY	5 PSI	70 PSI
HP10560		STANDARD DUTY		
HP10001	Sleeve Style	STANDARD DUTY	10 PSI	100 PSI
HP10173		STANDARD DUTY		
HP10199		STANDARD DUTY		
HP10083	Single Convolutd	HEAVY DUTY	5 PSI	100 PSI
HP10083J		HEAVY DUTY with JOUNCE BUMPER	0 PSI* / 5 PSI	100 PSI
HP10000	Double Convolutd	HEAVY DUTY	5 PSI	100 PSI
HP10000J		HEAVY DUTY with JOUNCE BUMPER	0 PSI* / 5 PSI	100 PSI
HP10068	Large Double Convolutd	HEAVY DUTY	5 PSI	100 PSI
HP10438	Double Convolutd	EXTREME DUTY	5 PSI	100 PSI
HP10438J		EXTREME DUTY with JOUNCE BUMPER	0 PSI* / 5 PSI	100 PSI

* Springs with a jounce bumper can be run at zero PSI when vehicle is unloaded only

For safe and proper operation, never operate the vehicle over the maximum listed PSI in the air springs. Staying under the pressure limit will ensure maximum air spring life. **Failure in doing so may result in damage to your vehicle and/or a void warranty.**

! It is recommended to check the air pressure in your air springs daily for first couple of days to ensure a leak has not developed.

Air springs are designed to maintain the vehicle's stock ride height with a load. Do not use the air springs as a means to lift vehicle with no load. This will result in a harsh ride.

SERVICING YOUR VEHICLE WITH AIR SUSPENSION

When lifting the vehicle with a floor jack or hoist on the frame, never allow the air spring to limit the travel of the axle. Try to always jack the vehicle on the axle. Suspending the axle with the air spring limiting the axle travel will damage the air spring and void the air spring warranty.

WARRANTY

See additional warranty included with this kit for details.