Installation Manual

10227 KIT

Chevrolet GMC G3500 & G4500 Motorhome (Class C)
with Dual Rear Wheels (2WD Only)*

Use the most advanced air springs on the market to eliminate your vehicle's sag, sway and bottoming out. This heavy duty air suspension kit levels your truck's stance while providing added support for an overall smooth and safe ride.

** See application guide for proper fitment.*

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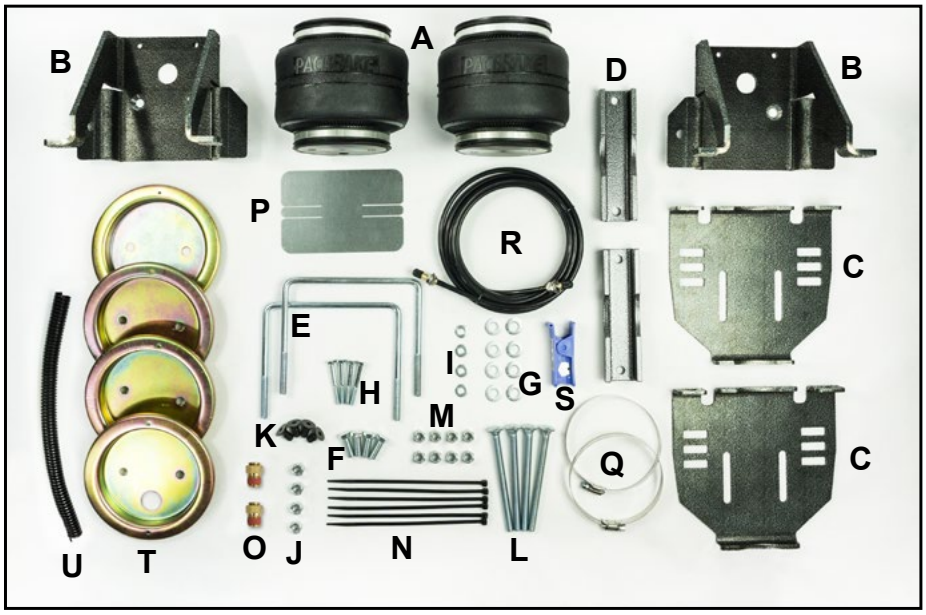
WARNING: This product can expose you to the chemical Hexavalent Chromate, which is known to the State of California to cause cancer and birth defects or other reproductive harm. ***For more information go to*** ***www.P65Warnings.ca.gov***

KIT CONTENTS



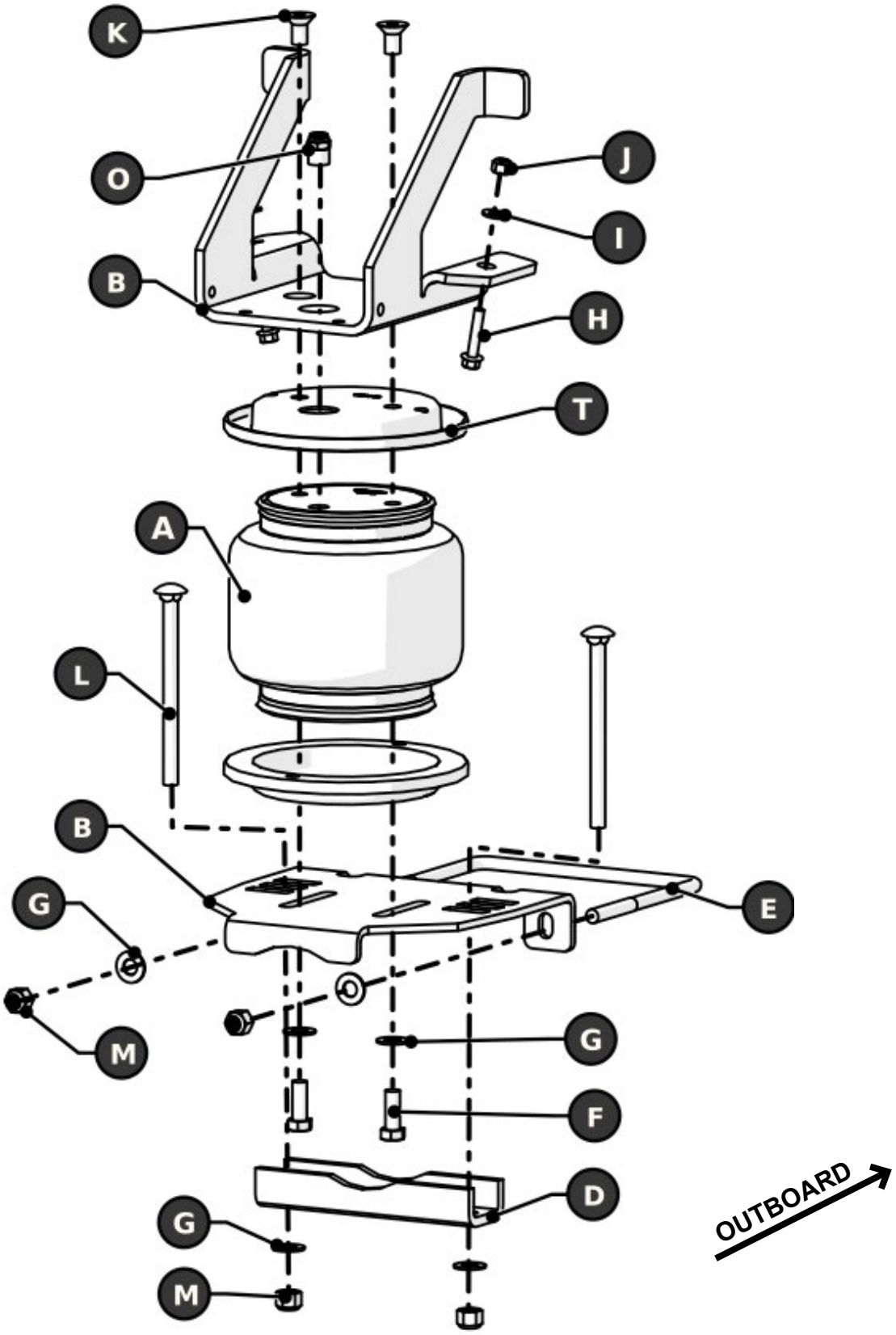
Make sure all the items shown in the photo are provided in your kit before starting the installation.

KIT CONTENTS			
A	Air Spring	2	HP10083
B	Upper Bracket	2	HP1449
C	Lower Bracket	2	HP1450
D	Clamp Bar	2	HP1406
E	⅜" - 16 U-Bolt	2	HP1015
F	⅜" - 24 x ⅞" Cap Screw	4	HP1002
G	⅜" Flat Washer	8	C653
H	¼" - 20 x 1½" Flanged Screw	4	HP1451
I	¼" Flat Washer	4	P02190
J	¼" - 20 Nyloc Nut	4	HP1072
K	⅜" - 24 x ¾" Countersink Screw	4	HP1008
L	⅜" - 16 x 5" Carriage Bolt	4	HP1022
M	⅜" - 16 Nyloc Nut	8	HP1000
N	Tie Straps	6	C11618
O	Air Fitting	2	HP1099
P	Heat Shield	1	HP0012
Q	Worm Gear Ring Clamp	2	HP1001
R	Airline Hose Assembly	1	HP1344
S	Tube Cutters	1	HP10208
T	Roll Plates	4	HP10054
U	10" Loom	1	M8284

REQUIRED TOOLS

- Torque Wrench
- 9/16" Sockets
- Ratchet
- 7/16", 9/16", & ½" Wrenches
- 7/32" Allen Key Driver
- 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.

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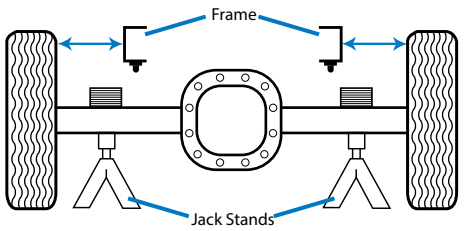
1 RAISE THE REAR AXLE

- 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 axle, as shown in figure 1A.
- Lower the floor jack until the vehicle axle is supported by the jack stands.
- Ensure the normal ride height measurement recorded earlier is the same. Adjust if necessary before proceeding.
- Once the rear axle is raised correctly, remove the rear wheels.

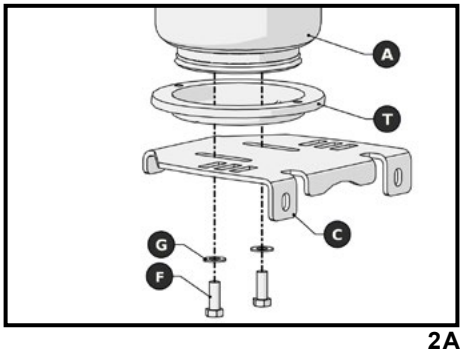


1A

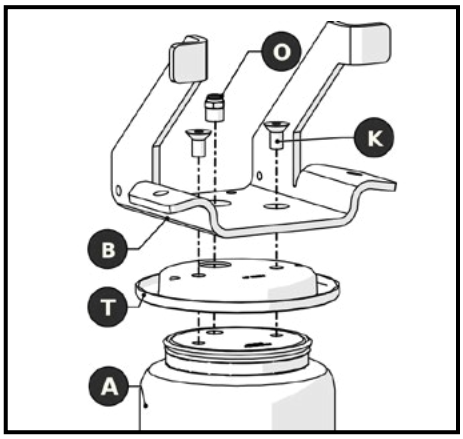
2 PRE ASSEMBLE THE AIR SPRING

NOTE: *Apply thread sealant to all the fasteners. It will allow deeper sealing of the threads and prevents the fasteners from seizing if removal is required*

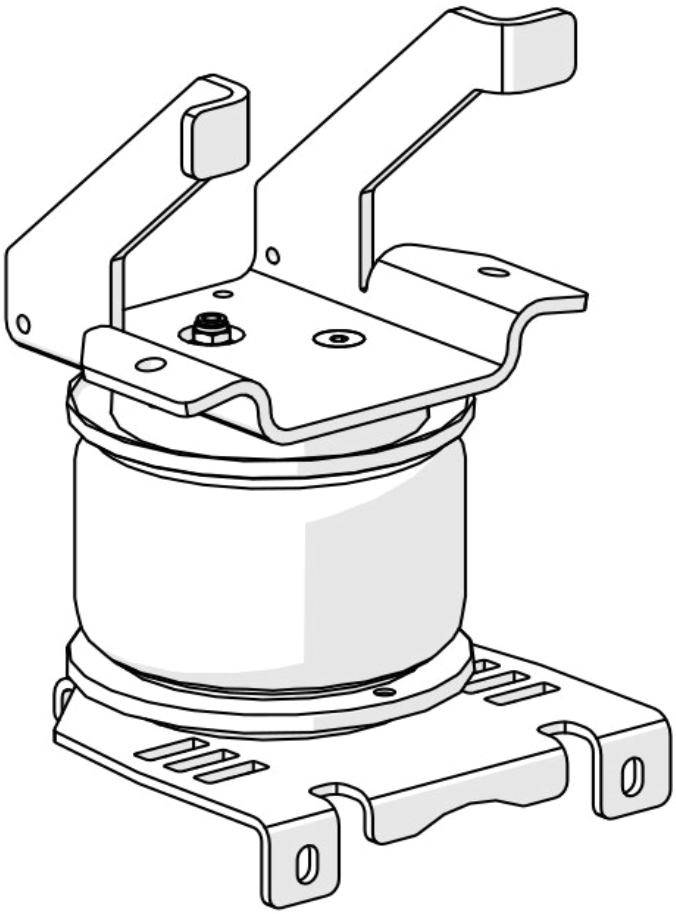
1. Select one air spring (A), one roll plate (T), and one lower bracket (C) from your kit.
2. Align the parts as shown in Figure 2A and use two ⅜" flat washers (G), and two ⅜" cap screws (F) to fasten the assembly together. Finger tighten the cap screws to allow for adjustment in step 4.
3. Select one roll plate (T) and one upper bracket (B) from your kit.
4. Align the parts as shown in figure 2B and fasten them together with two ⅜" countersink screws (K). Use a 7/32" Allen key driver to torque the bolts to 20 ft-lbs (27 N•m).
5. Install a straight air fitting (O) into the inlet of the air spring. Finger tighten and turn an extra 1.5 - 3 turns to tighten.
6. The finished assembly is shown below (figure 2C). Repeat step 2 for the other air spring.



2A



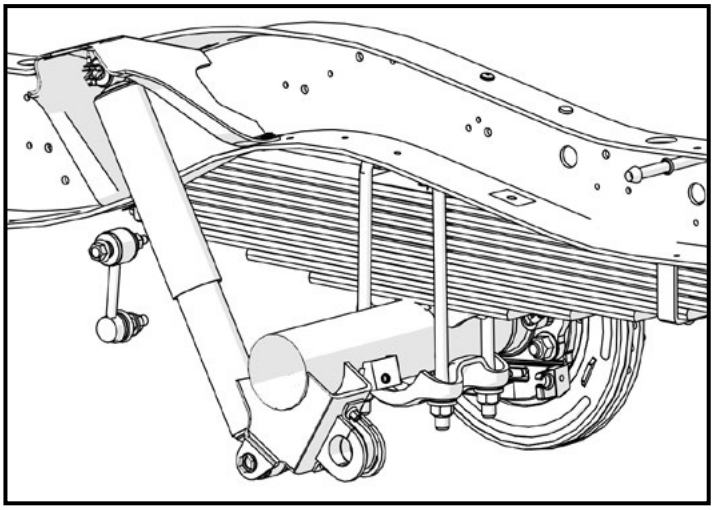
2B



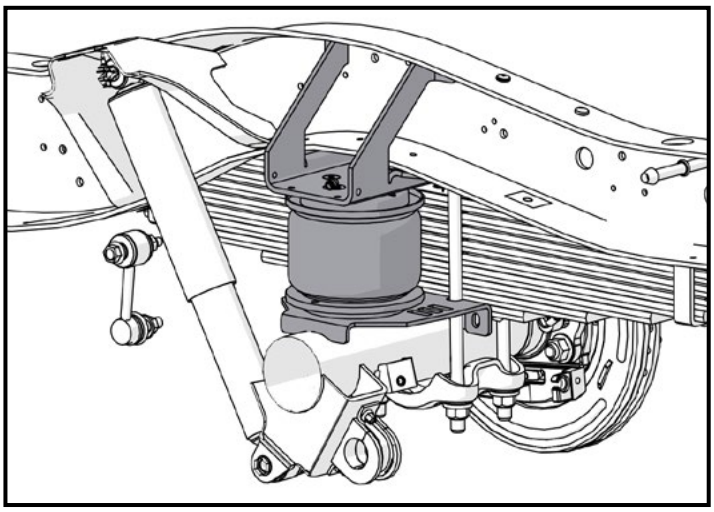
2C

3 ATTACH THE UPPER BRACKET

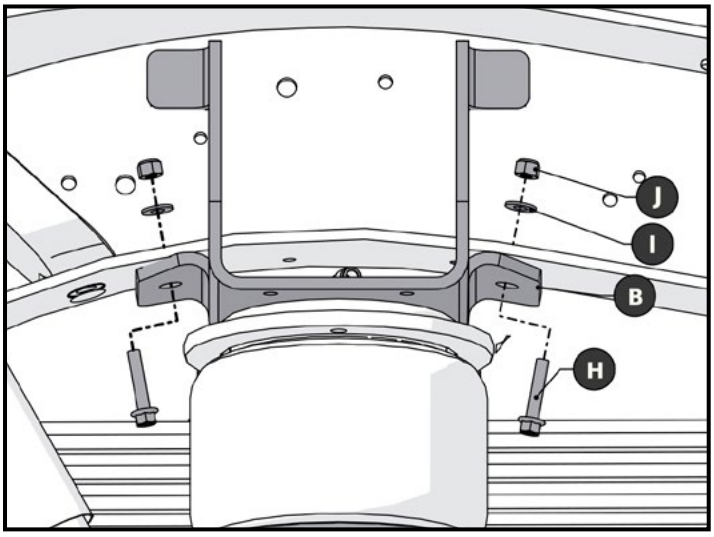
- Pull the jounce bumper out from under the frame rail.
- Position the air spring assembly on the axle and under the frame rail in the location shown in figure 3A & 3B.
- Ensure that the lower bracket is pushed up against the leaf spring and that the u-bolts holding the leaf spring in place fit into the notches in the lower bracket.
- Using two ¼" flanged hex head cap screws (H), two ¼" flat washers (I) and two ¼" nyloc nuts (J), secure the top bracket to the frame as shown in figure 3C.
- Position the upper bracket so the upper support tabs are flush against the inside of the frame.
- Use a wrench to torque the ¼" bolts to 10 ft-lbs (14 N•m)



3A



3B

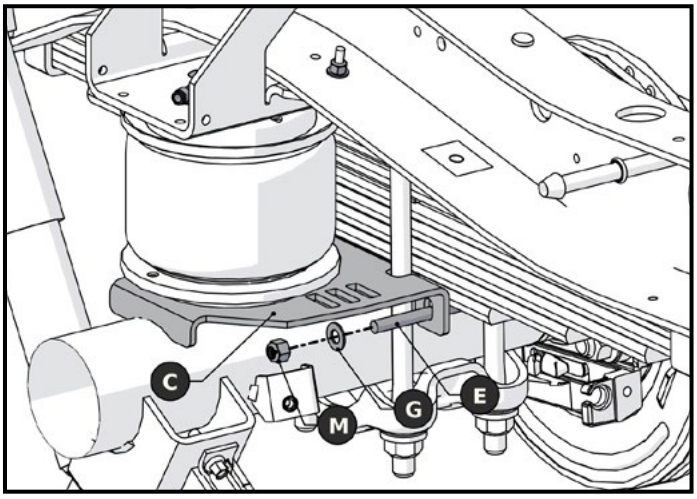


3C

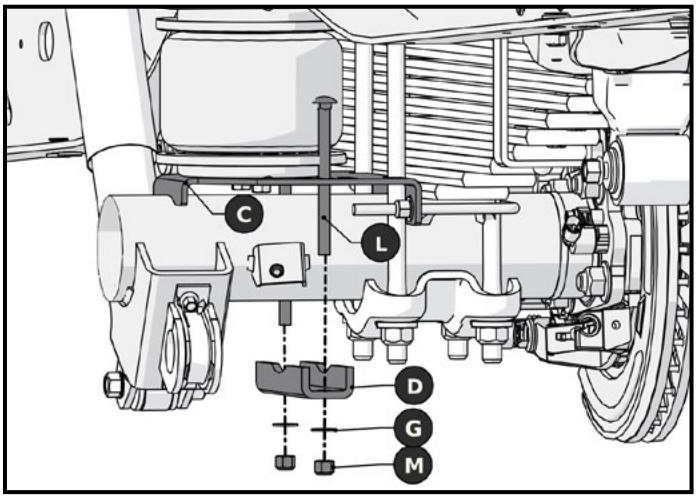
4 ATTACH THE LOWER BRACKET

- Position the lower bracket by pushing it up against the leaf stack.
- Install the U-bolt (E) around the bottom of the leaf stack, and through the lower bracket. Secure it to the lower bracket with two ⅜" washers (G), and two ⅜" nyloc nuts (J). See figure 4A.
- Use a 9⁄16" wrench to torque the U-bolt hardware to 20 ft-lbs (27 N•m)
- Manually adjust the air spring so that it is perpendicular to both the upper and lower bracket.
- Once the air spring is correctly aligned, use a 9⁄16" wrench to tighten the two ⅜" cap screws (E) securing the lower bracket to the air spring to 20 ft-lbs (27 N•m)
- Install two long ⅜" carriage bolts (L) through the slotted holes in the lower bracket.
- Fasten the clamp bar to the underside of the axle with two ⅜" flat washers (G) and two ⅜" nyloc nuts (M). See figure 4B.
- Torque the clamp bar hardware to 20 ft-lbs (27 N•m).
- The installation is complete for this side. Figure 4C shows how the completed installation should look. Reverse any orientations and repeat steps 3 and 4 on the other side.

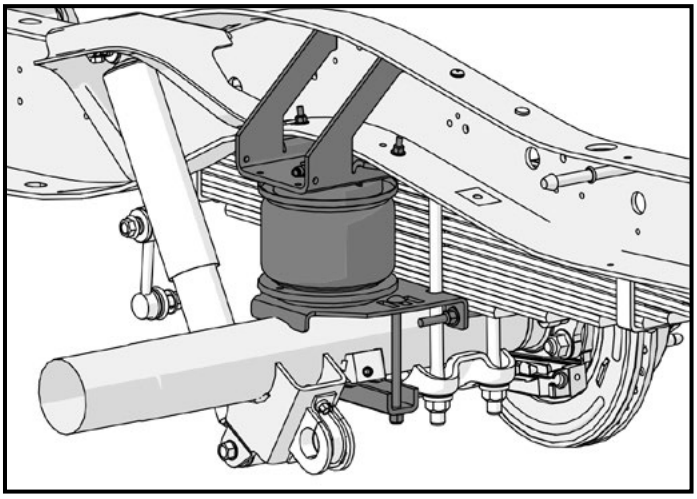
NOTE: The driver's side upper bracket may rub against the fuel line or the emergency brake cable. Protect these lines from damage by cutting the provided wire loom (U) to the desired length and wrapping it around the fuel line and/or the emergency brake cable at the point of contact.



4A

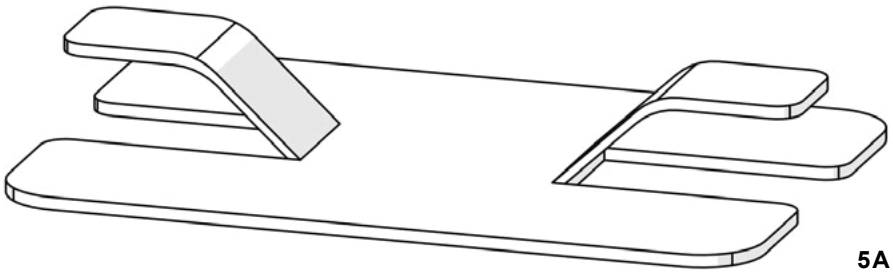


4B

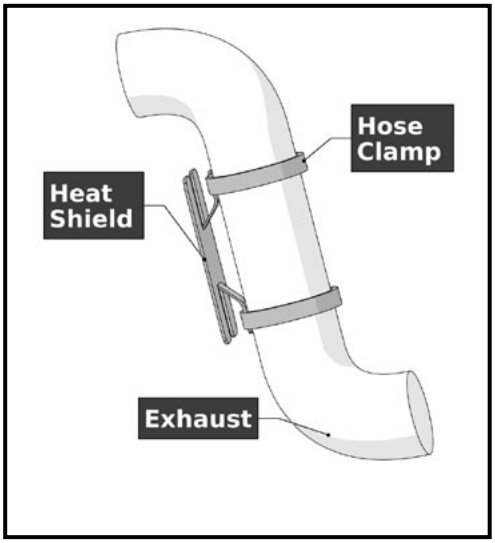

4C

5 INSTALL THE HEAT SHIELD

- Bend the tabs on the heat shield (M) so there will be the necessary 1/2" 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 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 and that there is at least a ½" between the heat shield and the air spring.



5A



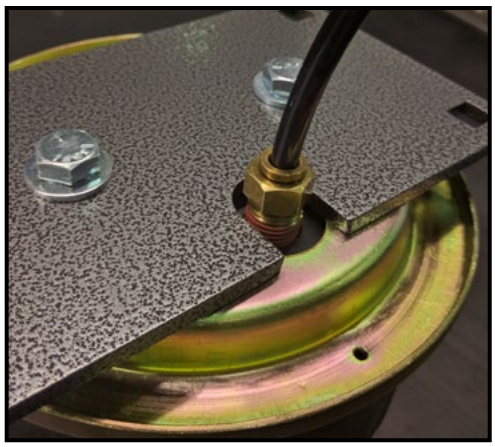
5B

6 INSTALL THE AIR LINE

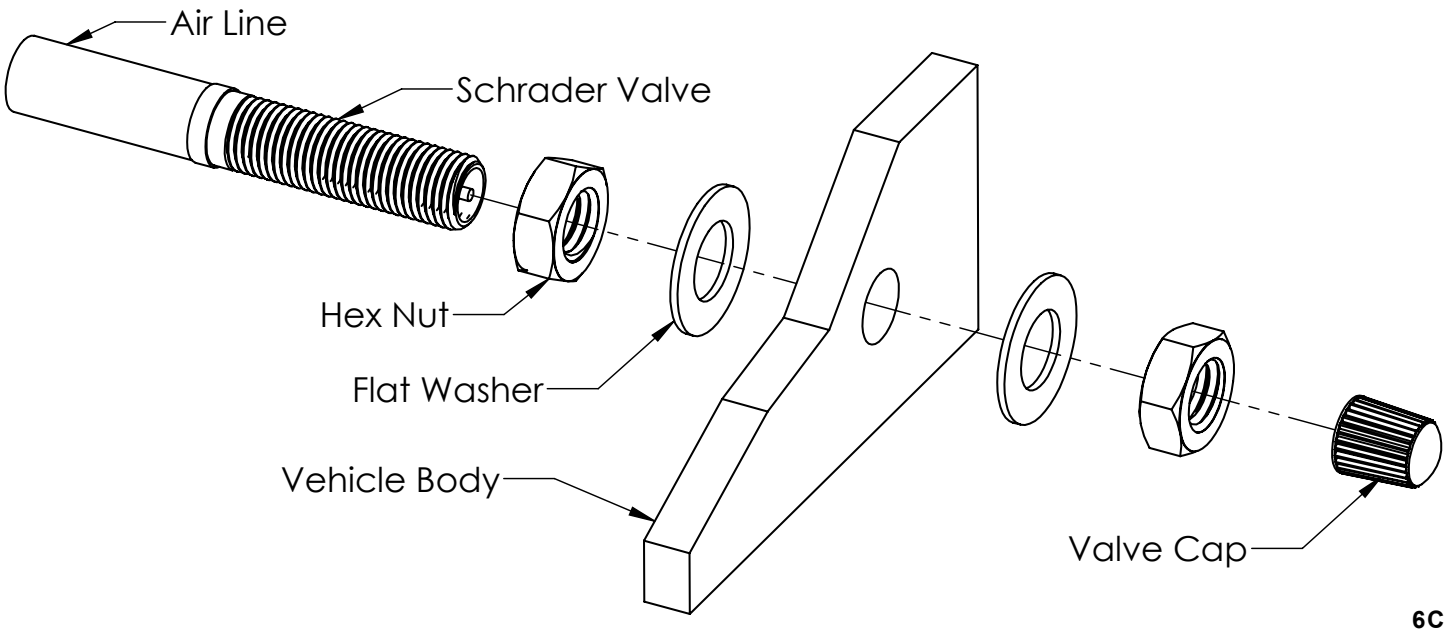
- Provided in the basic air spring kit are two fill valves. The most common place to install them is to replace the license plate fasteners with the fill valves. Alternatively, two holes can be drilled in a convenient location. Install one airline provided, route the nylon hose to an air spring fitting, cut the hose and connect to the air spring fitting. Repeat with the other fill valve. See figure 6C.
- Secure airlines with the tie-straps provided away from moving items and heat sources.
- If an in cab inflation kit is being installed, follow the instructions provided with it.

  NOTE: *This kit contains push-to-connect fittings, using scissors or wire cutters to cut the nylon airline will distort the line and cause the connection to leak.* ***THE AIRLINE MUST BE CUT OFF SQUARELY WITH A SHARP RAZOR KNIFE OR THE NYLON HOSE CUTTER PROVIDED IN THE KIT.***
- Moisten the end of the airline prior to inserting it into the fitting and push it in until it stops.

6A



6B



6C

6 INSTALL THE AIR LINE (CONTINUED)

- After the airline is cut, insert one end into the air line fitting, as shown in photo 6B and the other into the fill valve. Moisten the end of the air line with liquid soap prior to inserting it, and then push it in until it stops.

  See figure 6C for instructions on how to assemble the fill valve.

7A

7 CHECK SYSTEM FOR LEAKS

- Inflate both air springs to 90 PSI, and then use a mixture of dish soap and water on all air line connections to detect any air leaks. Repair as necessary and retest.
- Inflate the air springs to a predetermined value, and on the following day recheck the pressure. If one or both the air springs have lost pressure, an air leak is present. The leak must be repaired, and then retested until no leaks exist.

8 AFTER THE INSTALLATION IS COMPLETED, PLEASE REMEMBER

- Install the wheels, and torque the fasteners to the manufacturer's specifications.
- Re-torque all the fasteners after the first 500 miles of driving.
- For safe and proper operation, never operate the vehicle under the minimum of 10 PSI or over the maximum of 100 PSI. Staying within the pressure limit will ensure maximum air spring life. Failure in doing so may result in a void warranty

Thank you again, and congratulations on the installation of the air suspension kit.

OPTIONAL ACCESSORIES

Optional dual needle air gauges are available to monitor pressure in each spring from vehicle cab, as well as a full line of air compressors, air tanks, and solenoids built to work with and control your air spring system.

OPERATING YOUR VEHICLE WITH AIR SUSPENSION

Air springs have minimum and maximum pressure requirements. Never operate your vehicle with less than 10 psi in air spring and never inflate air springs over 100 psi. Damage to air springs will result.

Check air pressure in air springs daily for first couple of days to ensure a leak has not developed. Air springs are designed to maintain the vehicles 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

To be eligible for warranty, the owner must submit their warranty card or register online within 30 days of the purchase date.

NOTE: The owner's warranty will be void if air springs are run with less than the minimum of 10 psi.