

Installation Manual



10336 / 10337 KIT

RAM 1500 (2WD/4WD)*

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.



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*

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.**

Safety Warning!

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. Please read and abide the instructions, safety recommendations and maintenance suggestions throughout this manual.

Safety Warning!

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.

Safety Warning!

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.

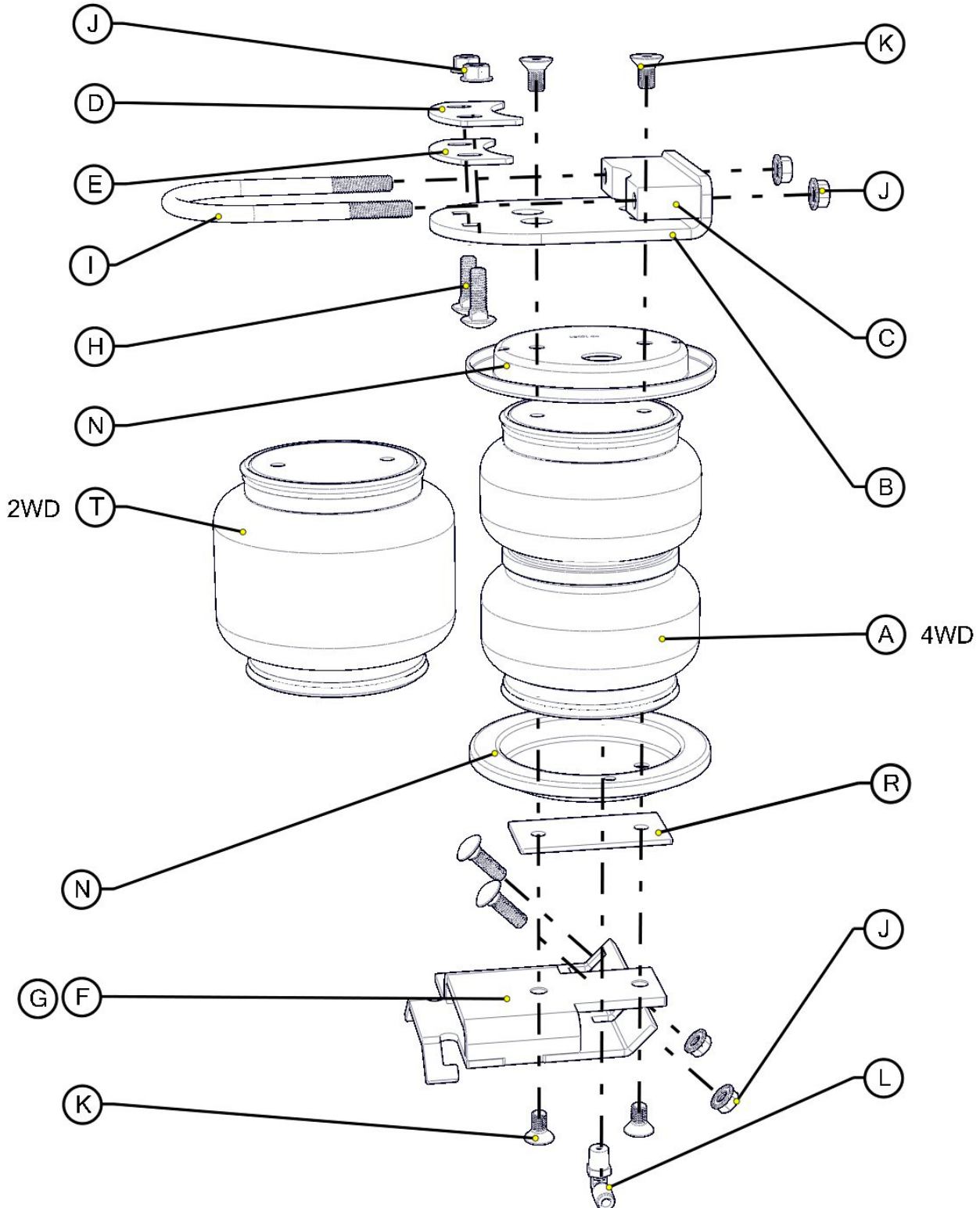
KIT CONTENTS

Reference the kit explosion diagram on the following page for part assembly.

KIT CONTENTS			QTY	PART #	REQUIRED TOOLS	
A	Air Spring (HP10336, 4WD Kits only)	2	HP10000D	<ul style="list-style-type: none"> • Hoist or Floor Jack • Safety Stands • Safety Glasses • Torque Wrench • Metric & Standard Combination Wrenches • Metric & Standard Sockets • 7/32" Hex Allen Wrench • 9/16" Crow Foot Wrench (optional) • Ratchet • Hose Cutter (included) or Sharp Utility Knife • Spray Bottle with Dish Soap/Water • Air Compressor/Compressed Air Source (to test/fill air springs) 		
B	Upper Bracket	2	HP1559			
C	Jounce Bumper Strap	2	HP1560			
D	Clamp Plate	2	HP1561			
E	Clamp Spacer	2	HP1562			
F	Lower Bracket (Driver Side)	1	HP0147			
G	Lower Bracket (Passenger Side)	1	HP0148			
H	3/8"-16 x 1.25" Carriage Bolt	8	HP1149			
I	U-Bolt, 3/8"-16 x 3.375" I.D. x 5.25" LG.	2	HP1555			
J	3/8"-16 Flange Nut	12	HP1338			
K	3/8"-24 x 3/4" Flat Countersunk Socket Head Cap Screw	8	HP1008			
L	90° Swivel Brass Air Fitting	2	HP1100			
M	Tie Straps (not shown)	6	C11618-8			
N	Roll Plates	4	HP10054			
O	Heat Shield (not shown)	1	HP0012			
P	Worm Gear Ring Clamp (1 3/4" to 2 3/4" I.D.) (not shown)	2	C3916			
Q	Worm Gear Ring Clamp (2 1/2" to 4 1/2" I.D.) (not shown)	2	HP1001			
R	Shim	2	HP1423			
S	Air Line w/ Schrader Valves (not shown)	1	HP1344			
T	Air Spring (HP10337, 2WD Kits only)	2	HP10083			

Please make sure all the items shown in this explosion diagram are provided in your kit before starting the installation.

PASSENGER SIDE ASSEMBLY SHOWN:



BEFORE STARTING THE INSTALLATION:

1. Ensure the application information is correct for the make, model and year of the vehicle you are installing the kit on.
2. 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.
3. 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:

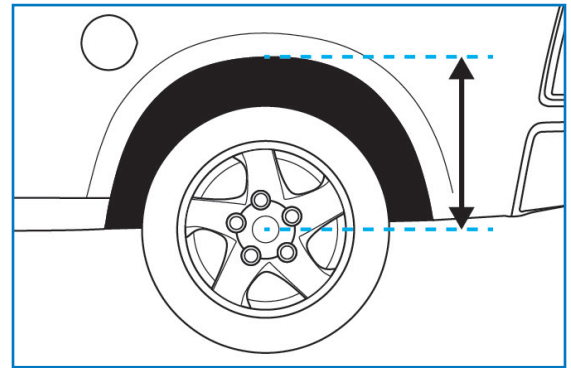
This kit contains push-to-connect fittings; using scissors or wire cutters to cut the nylon airline will distort the line and cause the connection to leak. THE AIRLINE MUST BE CUT OFF SQUARELY WITH THE NYLON HOSE CUTTER PROVIDED IN THIS KIT OR A SHARP UTILITY KNIFE.

1 MEASURE STOCK RIDE HEIGHT

Park the vehicle on a level surface.

Using a measuring tape, measure the distance between the center of the wheel hub and the bottom of the fender well (as shown in Figure 1) this will give you your ride height.

Note the ride height for all four corners.



1

2 REMOVE REAR WHEELS

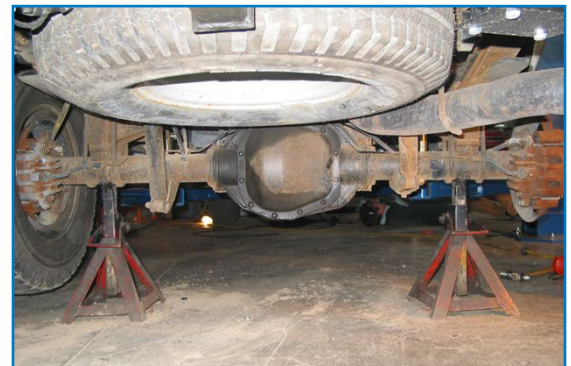
Place wheel chocks in front of and behind both front wheels.

Raise the rear of the truck high enough to remove both wheels and attain a comfortable working height.

Place two jack stands under rear axle (shown in Figure 2).

Lower the vehicle until the axle is supported by the jack stands.

Remove rear wheels.



2

3 REMOVE JOUNCE BUMPERS

Twist while pulling to remove jounce bumpers from mounting cups.

4 ASSEMBLE AIR SPRINGS

Place roll plate (N) on top of air spring (A - HP10336, 4WD Kits) (T - HP10337, 2WD Kits), ensuring that each hole lines up.

Thread 90° air fitting (L) into air spring finger tight, then tighten an additional one and a half turns using a 9/16" socket. Place shim (R) on top of each roll plate (as shown in Figure 4A).

Insert carriage bolts (H) in two slots of each lower bracket.

Note the fitting orientation for each bracket (using Figure 4B), Driver Side (F, HP0147) shown on left side of images, passenger (G, HP0148) shown on right side of images. Attach lower brackets using two 3/8"-24 x 3/4" flat countersunk cap screws (K) using a 7/32" socket. Torque to 20 ft.-lbs.

Turn over both air springs so that the end without the bracket and air fitting faces up.

Set remaining two roll plates (N) on air springs, making sure that each of hole lines up (middle hole for fitting is unused).

Take both upper air spring brackets (B), insert a carriage bolt in front two holes (four total) and install a bracket on each air spring using two 3/8"-24 x 3/4" flat countersunk cap screws. Torque to 20 ft.-lbs.

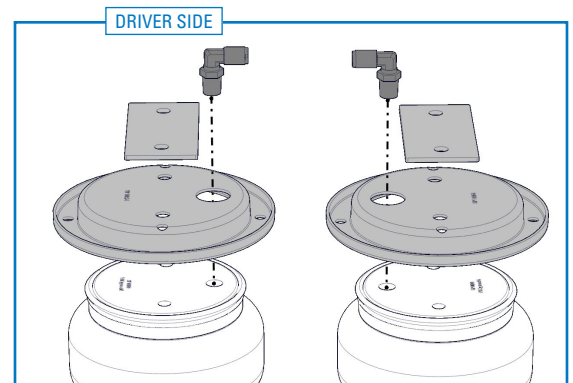
Use Figure 4C to note the orientation and which holes to use.

5 ASSEMBLE UPPER BRACKET

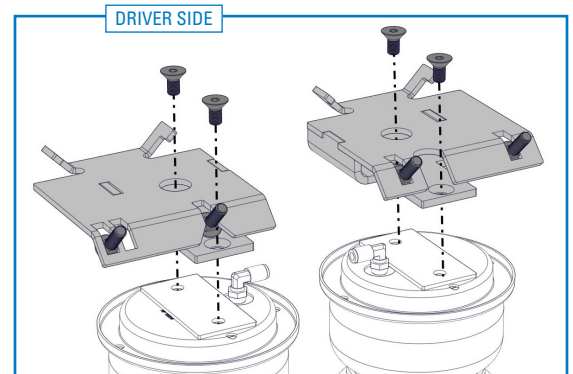
Place clamp spacer (E) and then clamp plate (D) over two previously installed carriage bolts (see Figure 5).

Thread flange nut (J) onto each carriage bolt. Leave nuts very loose (1/4" gap to clamp plate).

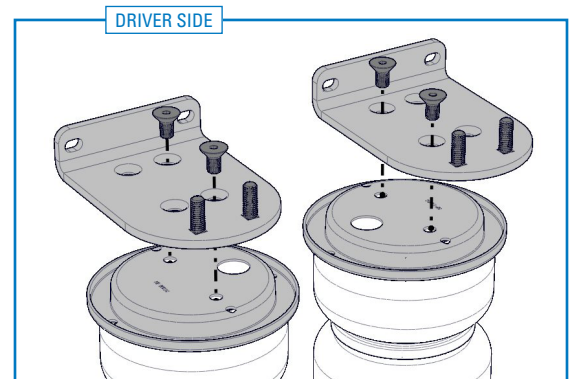
Repeat Steps 4 & 5 for opposite side.



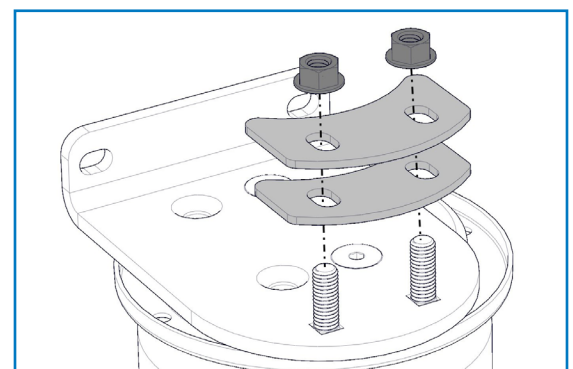
4A



4B



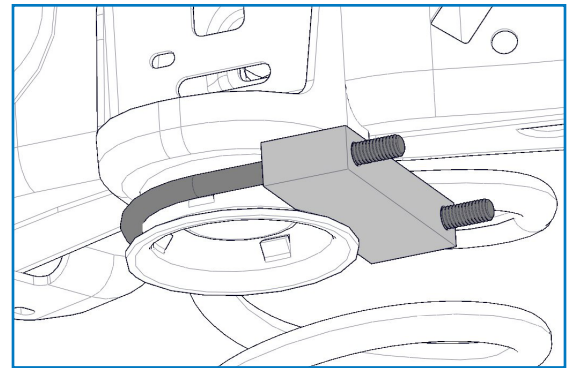
4C



5

6 ASSEMBLE JOUNCE BUMPER STRAP

Place U-bolt (I) around jounce bumper mounting cup and slide jounce bumper strap (C) over legs of U-bolt (as shown in Figure 6). Allow to rest on lip of mounting cup.



6

7 INSTALL AIR SPRING ASSEMBLY

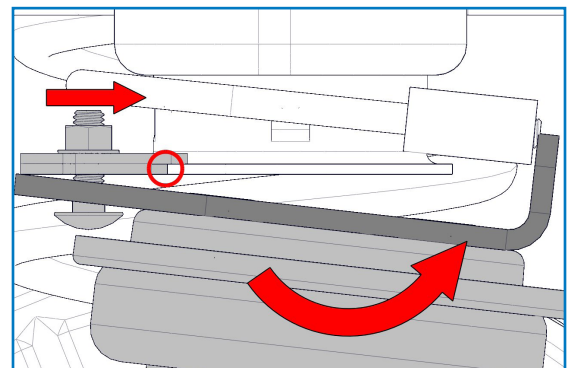
Hold air spring assembly on an angle and hook clamp plate over lip of mounting cup. Ensure clamp spacer does not sit under lip, upper bracket must be able to sit flush with underside of mounting cup (circled in Figure 7A).

Rotate assembly to bring flat face of upper bracket in contact with underside of mounting cup.

Adjust previously installed U-bolt and strap until they sit as shown in Figure 7B. Ensure upper bracket is flush with underside of mounting cup.

Thread flange nut (J) onto each leg of U-bolt. Snug nuts to finger tight.

Snug nuts on carriage bolts securing clamp plate to finger tight.

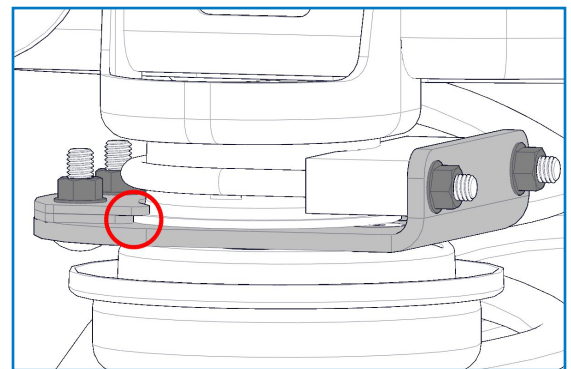


7A

8 ATTACH AIR SPRING ASSEMBLY TO AXLE

Compress air spring by hand and position hooks of lower bracket under jounce bumper strike plate and guide forward-facing carriage bolts through holes of jounce bumper strike plate (see Figure 8).

Thread flange nut (J) onto each carriage bolt using a 9/16" socket. Torque to 31 ft.-lbs.



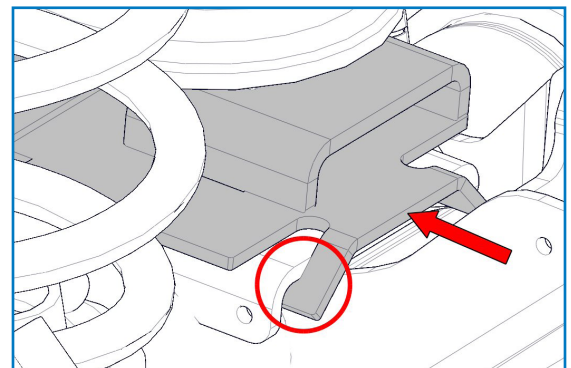
7B

9 ALIGN & TIGHTEN AIR SPRING ASSEMBLY

Slide upper bracket left and right to align air spring top and bottom vertically as best as possible. Some misalignment is acceptable.

Torque clamp plate nuts to 31 ft.-lbs (*crow foot needed*). If unable to access with torque wrench, fully tighten nuts to a similar level as carriage bolts securing assembly to axle.

Torque U-bolt nuts to 23 ft.-lbs. Repeat Steps 6 to 9 for opposite side.



8

10 INSTALL HEAT SHIELD

Bend tabs on heat shield so there will be 1/4" dead space between heat shield and exhaust when heat shield is attached.

Bend heat shield to form a wide "V" as shown in Figure 10A.

Attach heat shield to exhaust pipe on passenger side using two worm gear clamps. For factory dual exhaust, use small worm gear clamps (P). For factory single or any larger aftermarket exhausts, use large worm gear clamps (Q). Each hose clamp holds a tab against exhaust pipe. Make sure heat shield is facing toward air spring (Figure 10B).



10A

11 INSTALL AIR LINE

PLEASE 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 THE NYLON HOSE CUTTER PROVIDED IN THIS KIT OR A SHARP UTILITY KNIFE

Provided in air spring kit are two fill valves. The most common place to install is in place of license plate fasteners. Alternatively, two 5/16" holes can be drilled in a convenient location.

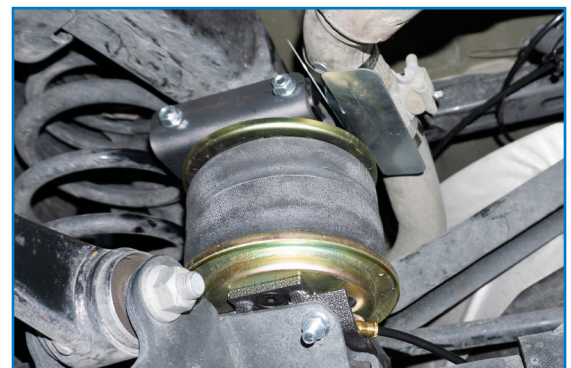
Cut air line assembly into two equal lengths with hose cutter.

Install one air line, route the nylon air line to an air spring fitting and cut the hose. 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.

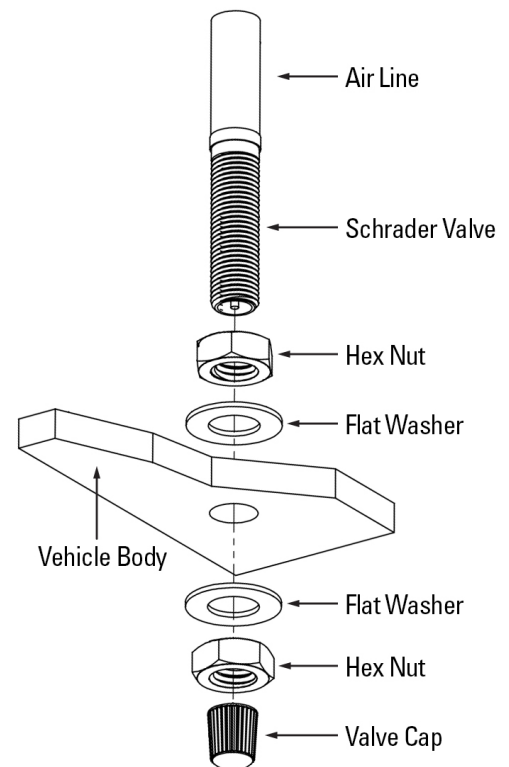
Secure airlines using the tie-straps, away from moving items and heat sources.

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 11 for assembly). There should be enough valve exposed after installation—approximately 1/2"—to easily apply a pressure gauge or an air chuck.

If an in-cab inflation kit is being installed, follow the instructions provided with that kit now.



10B

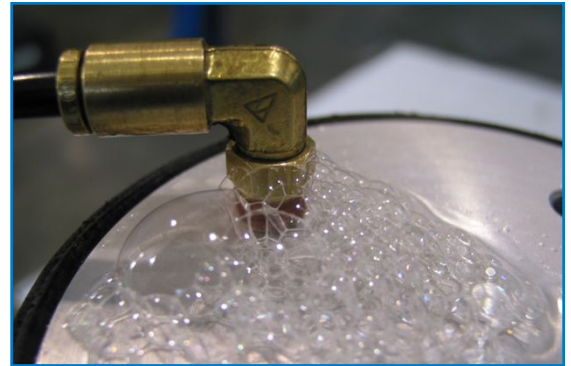


11

12 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. Large, expanding bubbles indicate a leak (as shown in Figure 18). 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.



12

13 AFTER COMPLETING THE INSTALLATION

PLEASE REMEMBER:

Install wheels and torque fasteners to manufacturer's specifications.

Re-torque all fasteners after first 500 miles of driving.

For safe and proper operation, never operate the vehicle under minimum of 10 psi or over maximum of 100 psi in air springs. Staying within pressure limit will ensure maximum air spring life. Failure in doing so may result in a void warranty (see **Note** below).

NOTE: Do not exceed maximum vehicle payload. Failure to do so may result in failure of the air suspension kit and/or damage to your vehicle.

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.

