

Installation Manual



AIR SUSPENSION KIT

SINGLE CONVOLUTED SPRING KITS

2013-2024 RAM ProMaster 1500/2500/3500 (2WD/4WD)*
2025-2026 RAM ProMaster EV

DOUBLE CONVOLUTED SPRING KITS

2025-2026 RAM ProMaster 1500/2500/3500 (2WD/4WD)**

**Will not fit RAM ProMaster EV models*

***Chassis Cab models require a 2" spacer (HP10152, sold separately) for proper fitment*


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.

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. If you are unsure whether you are qualified to install the Air Suspension kit, consult a qualified service professional before beginning the installation.

SAFETY WARNINGS!


You must read and abide by 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. **Failure to abide by all instructions in this manual will void the warranty.**







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.
-  **An 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 operate the vehicle under the minimum or over the maximum listed PSI in the air spring(s), (see: *MIN/MAX PSI* chart on the final page of this manual). Staying within the pressure limits will ensure a reasonable duration of the air springs. **Failure in doing so may result in damage to your vehicle and will void the warranty.**

BEFORE STARTING THE INSTALLATION

-  **Always read your vehicle owner's manual and follow all instructions and warnings therein prior to modifying your vehicle.**
-  Ensure the application information is correct for the make, model and year of the vehicle you are installing the kit on.
PLEASE BE AWARE: Chassis Cab vehicles using Double Convuluted Air Suspension kits require an additional 2" Air Spring Spacer (HP10152, sold separately) for proper fitment.
-  It is recommended to always jack the vehicle on the axle. If lifting the vehicle with a floor jack or hoist on the frame, never allow the air spring to limit the travel of the axle. Suspending the axle with the air spring limiting the axle travel **will damage the air spring and void the warranty.** (This warning does not apply to In-Coil Springs)
-  The air spring must have clearance between itself and the surrounding components to prevent any contact when the air 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. **Failure to do so will void the warranty.**
-  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.
-  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 will void the warranty.**
-  It is recommended to use additional thread sealant or Teflon tape on fittings during the installation for a proper seal.
-  Always ensure the bolts are not over-torqued; especially when a torque value is provided, failing to use the provided torque value(s) can lead to **premature failure and will void the warranty.**
-  It is recommended to use a good quality anti-seize on all fasteners to reduce the chance of corrosion and help facilitate removal, if required at a later date.

KIT CONTENTS

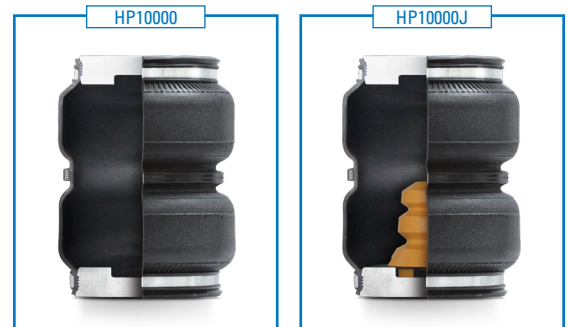
Please confirm the items below are provided in your kit before starting the installation. Reference the kit explosion diagram on the following page for part assembly.

HEAVY DUTY KITS	QTY	PART #
A* Single Convoluted Spring	2	HP10083

HEAVY DUTY JOUNCE BUMPER KITS	QTY	PART #
B* Single Convoluted Spring w/ Jounce Bumper	2	HP10083J

HEAVY DUTY KITS	QTY	PART #
A** Double Convoluted Spring	2	HP10000

HEAVY DUTY JOUNCE BUMPER KITS	QTY	PART #
B** Double Convoluted Spring w/ Jounce Bumper	2	HP10000J



KIT CONTENTS		QTY	PART #
C	Roll Plates	4	HP10054
D	90° Swivel Fitting	2	HP1100
E	Upper Frame Bracket	2	HP1607
F	Lower Mounting Bracket	2	HP1608
G	U-Bolt	4	HP1610
H†	3/8" - 24 X 7/8" Hex Head Bolt	8	HP1002
I‡	Hex Head Cap Screw M10 x 1.25	2	HP1609
J	3/8" Flat Washer	18	C18006
K†	3/8" Split Lock Washer	8	C18007
L‡	M10 Split Lock Washer	2	C18012
M	3/8" Nylon Lock Nut	8	HP1000
N	Heat Shield	1	HP0012
O	Worm Gear Clamp	2	HP1001
P	Airline Assembly	1	HP1344
Q	Tie Straps	8	C11618-8
R	Hose Cutter	1	HP10208

! † **HP1002 (H) & C18007 (K)** must be used together.
 ‡ **HP1609 (I) & C18012 (L)** must be used together.

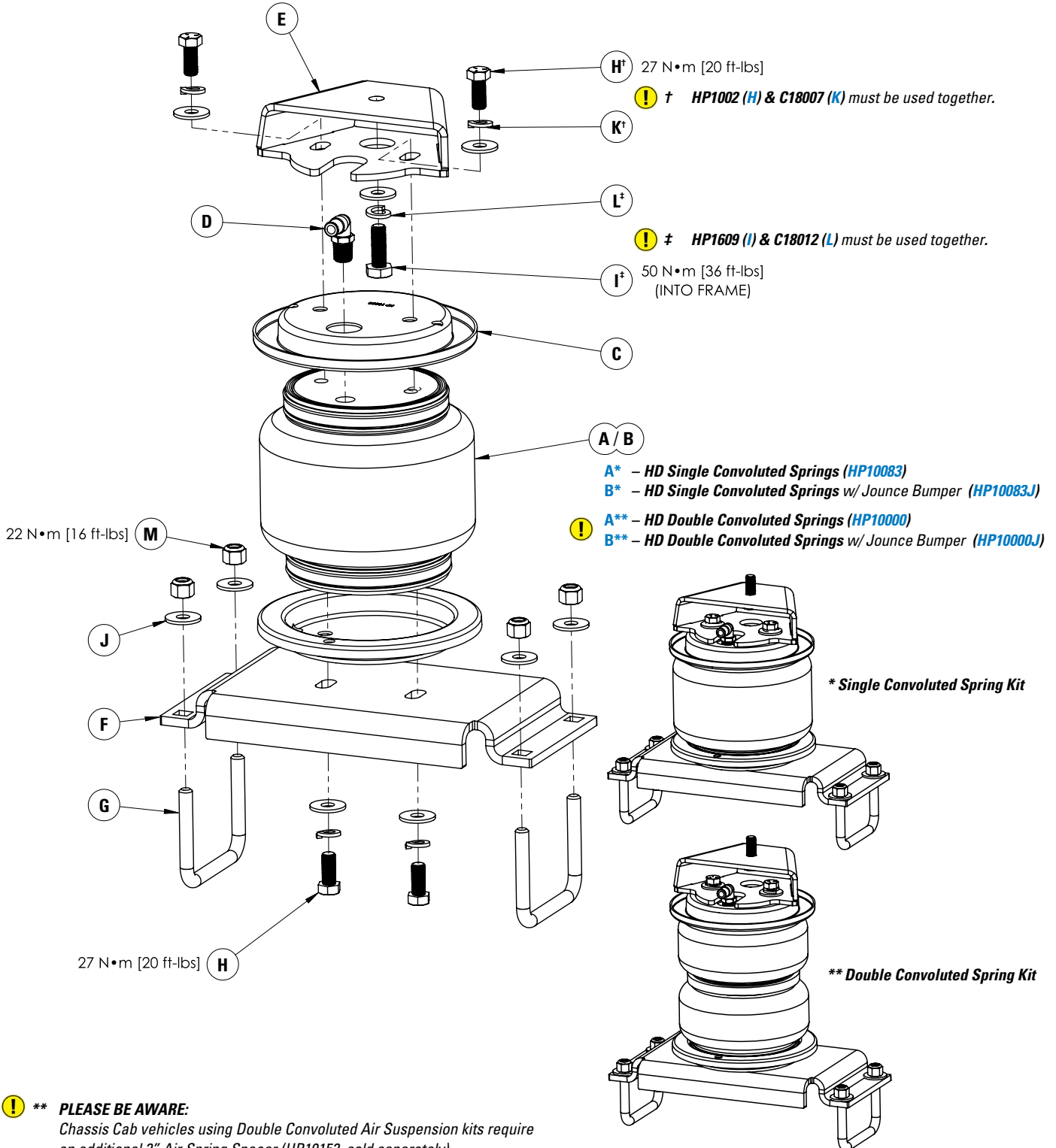
! ** **PLEASE BE AWARE:**
 Chassis Cab vehicles using Double Convoluted Air Suspension kits require an additional 2" Air Spring Spacer (HP10152, sold separately).

REQUIRED TOOLS

- Hoist or Floor Jack
- Safety Stands
- Safety Glasses
- Torque Wrench
- Standard Combination Wrenches
- 7/32" Hex Allen Wrench
- 9/16" Crow Foot Wrench
- Ratchet
- Metric & Standard Sockets
- Hose Cutter (included) or Sharp Utility Knife
- Pipe Thread Sealant
- Spray Bottle with Dish Soap/Water
- Air Compressor/Compressed Air Source (to test/fill air springs)

SINGLE CONVOLUTED KIT EXPLOSION DIAGRAM

DRIVER SIDE ASSEMBLY SHOWN (Passenger side assembly is mirrored)



INSTALLATION INSTRUCTIONS

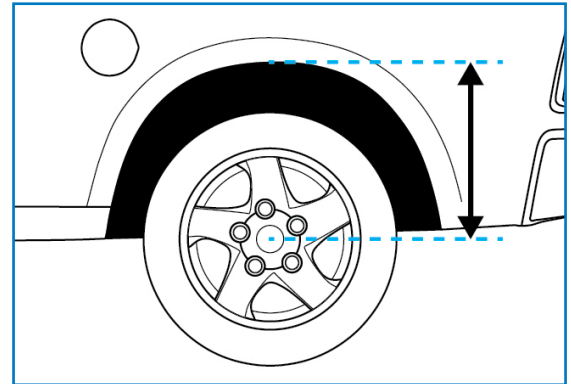
1 MEASURE STOCK RIDE HEIGHT & CLEARANCE

Park the vehicle on a level surface and remove any unnecessary weight from the vehicle to attain a "Normal Ride Height".

Using a measuring tape, measure the distance between the center of the wheel hub and the bottom of the fender well (see Figure 1A for reference) this will give you your stock Normal Ride Height.

Note the ride height for all four tires.

Check the clearance between the outside of the frame and the inside of the rear tires (as shown in red in Figure 1B), a minimum of 5" is required for adequate air spring clearance.



1A

2 REMOVE REAR WHEELS

+ PLEASE NOTE: This step is optional for this installation but will make the install easier to complete.

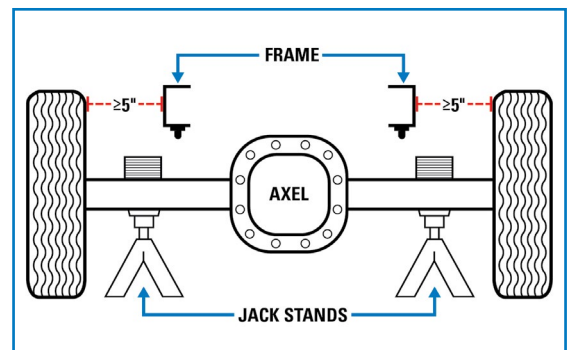
Place wheel chocks in front of and behind both front wheels.

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 (as shown in Figure 1B).

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

Remove rear wheels.



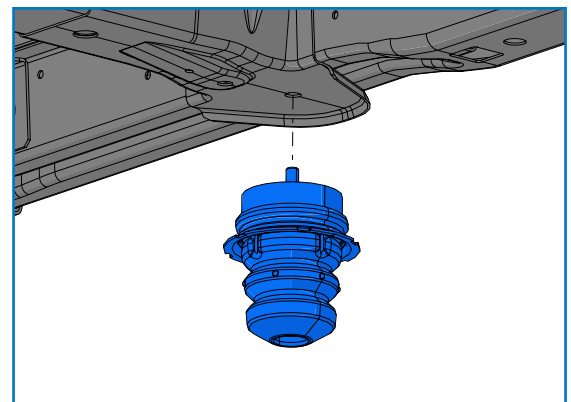
1B

3 REMOVE JOUNCE BUMPERS

Remove the jounce bumper assembly from the frame using a large spanner wrench or monkey wrench.

+ If the jounce bumper is stuck, a chisel and a hammer can be used to rotate the jounce bumper assembly counterclockwise until it unthreads from the frame.

Remove the rear spring clips that hold the emergency brake cables onto the spring, rear of the axle.



3

4 ASSEMBLE AIR SPRINGS

Set a roll plate on top of the air spring (side with 3 open holes), ensuring that each hole lines up (as shown in Figure 4A).

Thread the 90° fitting into the top of the air spring's largest hole, finger tight plus an additional one and a half turns, using a 9/16" wrench.

Turn the assembly over.

For Chassis Cab models using a *Double Convoluted* air spring kit; install the required 2" Air Suspension Spacer kit now (Part # HP10152, sold separately) as per the manual included with that kit.

Set a roll plate on the "bottom" of the air spring assembly.

Install the lower bracket onto the assembly.

! **Ensure that the flange of the lower bracket is on the 90° fitting side of the assembly (as shown in Figure 4B with a black arrow).**

Attach the lower bracket with two 3/8" x 7/8" hex head cap screws, 3/8" lock washers and 3/8" flat washers.

! **Ensure you are using the correct 3/8" parts (called out in the Figure 4 notes), as M10 split washers will fit on 3/8 bolts but not vice versa.**

Torque the mounting hardware to 27 N•m (20 ft-lbs).

5 INSTALLING THE UPPER BRACKET

Insert two 3/8" x 7/8" hex head cap screws with two 3/8" lock washers and two 3/8" flat washers into the slots in the upper bracket so they face down (see Figure 5A for assembly reference).

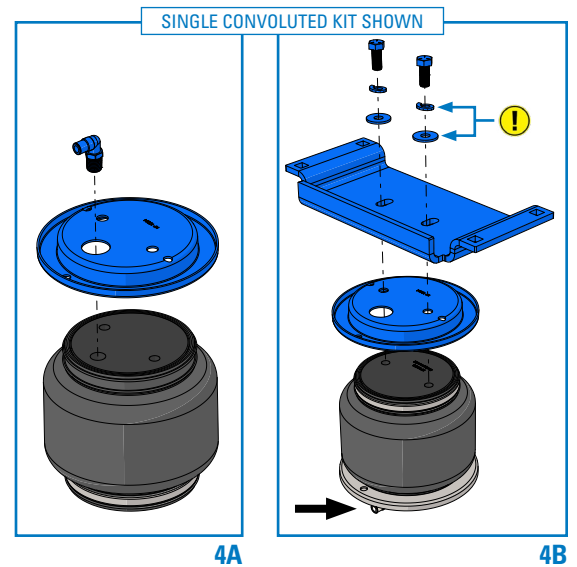
! **Ensure you are using the correct 3/8" parts (see Figure 5A notes)**

Install the upper bracket onto the frame with the M10-1.25 x 30 hex cap screw, M10 lock washer and 3/8" flat washer, using the mounting location where the jounce bumper was previously removed (as shown in Figure 5B).

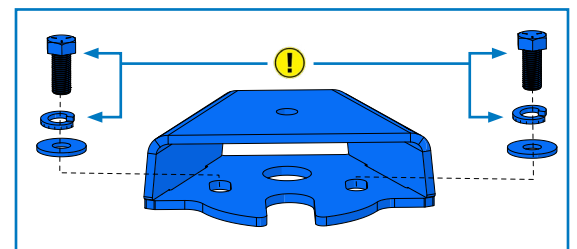
! **Ensure you are using the correct M10 parts (see Figure 5B notes)**

Align the bracket so that it is parallel to the frame then torque the hardware to 50 N•m (36 ft-lbs).

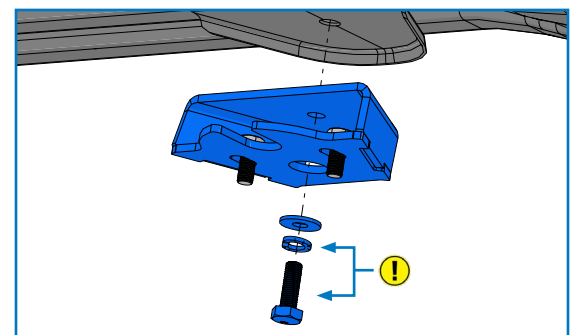
! **The bracket must be parallel with the frame before tightening.**



! **HP1002 (H) & C18007 (K) must be used together.**



! **HP1002 (H) & C18007 (K) must be used together.**



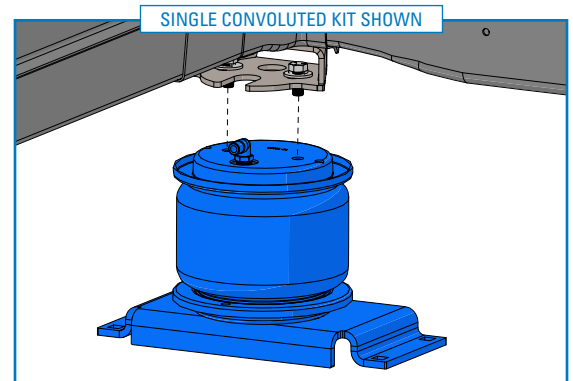
! **HP1609 (I) & C18012 (L) must be used together.**

6 INSTALLING THE AIR SPRING ASSEMBLY

Place the assembly onto the leaf springs with the fitting facing inboard.

Raise the axle up so that the top of the air spring assembly is just below the upper bracket.

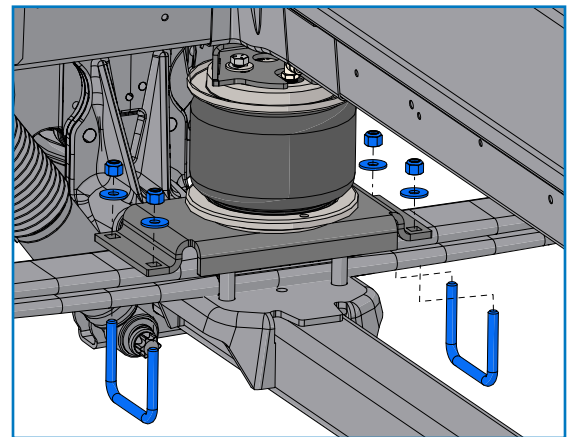
Thread the upper hardware through the roll plate and into the upper spring mount (as shown in Figure 6), finger tighten only at this time.



6

7 PLACEMENT OF LOWER BRACKET

Loosely secure the u-bolts in place with 3/8" flat washers and 3/8" nylon lock nuts (as shown in Figure 7).

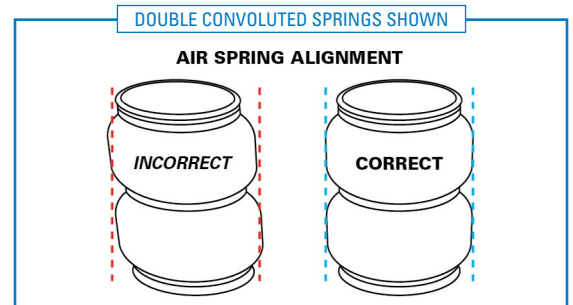


7

8 SECURE THE ASSEMBLY

Push the air spring assembly forward or backward to align the air spring perpendicular to the air spring brackets to achieve a correct air spring alignment (see Figure 8 for reference).

When perpendicularity is achieved, torque the upper bracket mounting hardware to 27 Nm (20 ft-lbs) and the lower bracket u-bolt hardware to 22 Nm (16 ft-lbs).



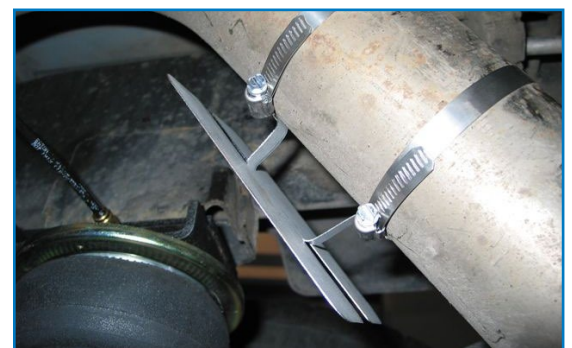
8

9 INSTALL HEAT SHIELD

Bend tabs on the heat shield so the required 1/2" of dead space exists between the heat shield and exhaust when attached.

Attach the heat shield to the exhaust pipe on passenger side using two ring clamps (shown in Figure 9).

Each hose clamp holds a tab against exhaust pipe.



9

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

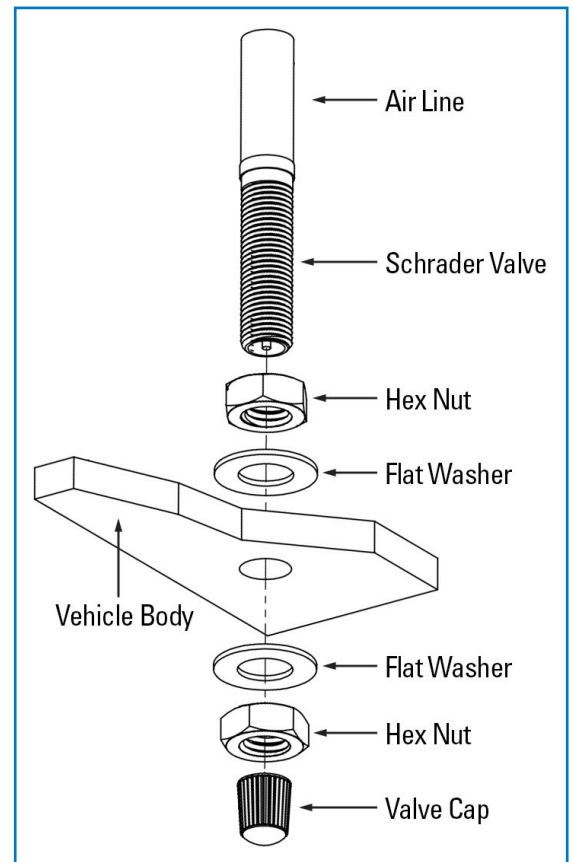
Using the *MIN/MAX PSI* chart on the following page; inflate both air springs to 10 psi less than the maximum recommended pressure for the air spring part number included in this kit; then use a mixture of dish soap and water on all air line connections to detect any air leaks. Large, expanding bubbles indicate a leak (as shown in Figure B).

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

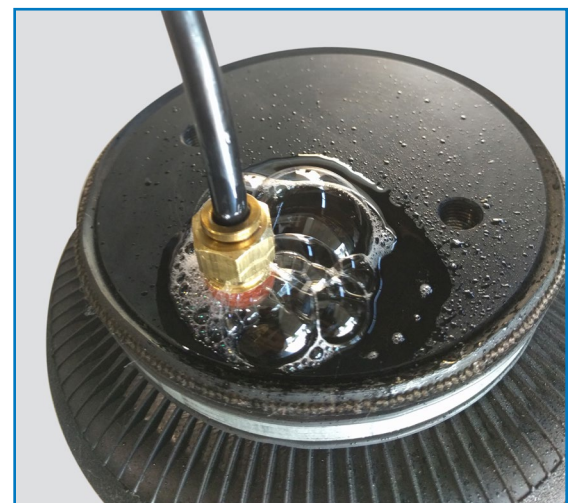
Recheck the pressure on the following day. If one or both of air springs have lost pressure, an air leak is present and must be repaired.

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 the air 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. **Failure to do so will void the warranty.**
- ❗ If the vehicle’s tires were removed during the installation; re-install and torque all wheel fasteners (lug nuts) to the manufacturer’s specifications. Re-torque all wheel fasteners after the first 500 miles of driving.
- ❗ **Review your vehicle owner’s manual and adhere to all instructions and post-installation requirements related to vehicle modifications.**

OPERATING YOUR VEHICLE WITH AIR SUSPENSION

Air springs have minimum and maximum recommended pressure requirements:

MIN / MAX PSI: REQUIREMENTS FOR YOUR AIR SPRING(S)				
PART #	SPRING STYLE	SPRING TYPE	MIN PSI	MAX PSI
HP10687	In-Coil	STANDARD DUTY	5 PSI	50 PSI
HP10560		STANDARD DUTY	5 PSI	70 PSI
HP10001	Sleeve Style	STANDARD DUTY	10 PSI	100 PSI
HP10173		STANDARD DUTY		
HP10199		STANDARD DUTY		
HP10083	Single Convoluted	HEAVY DUTY	5 PSI	100 PSI
HP10083J		HEAVY DUTY with JOUNCE BUMPER	0 PSI* / 5 PSI	100 PSI
HP10000	Double Convoluted	HEAVY DUTY	5 PSI	100 PSI
HP10000J		HEAVY DUTY with JOUNCE BUMPER	0 PSI* / 5 PSI	100 PSI
HP10068	Large Double Convoluted	HEAVY DUTY	5 PSI	100 PSI
HP10438	Double Convoluted	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*

Never operate the vehicle under the minimum or over the maximum listed PSI in the air spring(s). Staying within the pressure limits will ensure maximum air spring life. **Failure in doing so may result in damage to your vehicle and void the warranty.**

- ❗ **It is recommended to check the air pressure in your air springs daily, for the first 5 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

It is recommended to always jack the vehicle on the axle. If lifting the vehicle with a floor jack or hoist on the frame, never allow the air spring to limit the travel of the axle. Suspending the axle with the air spring limiting the axle travel **will damage the air spring and void the warranty.** (This warning does not apply to In-Coil Springs)

WARRANTY

See accompanying limited warranty included with this kit for details.