

Installation Manual

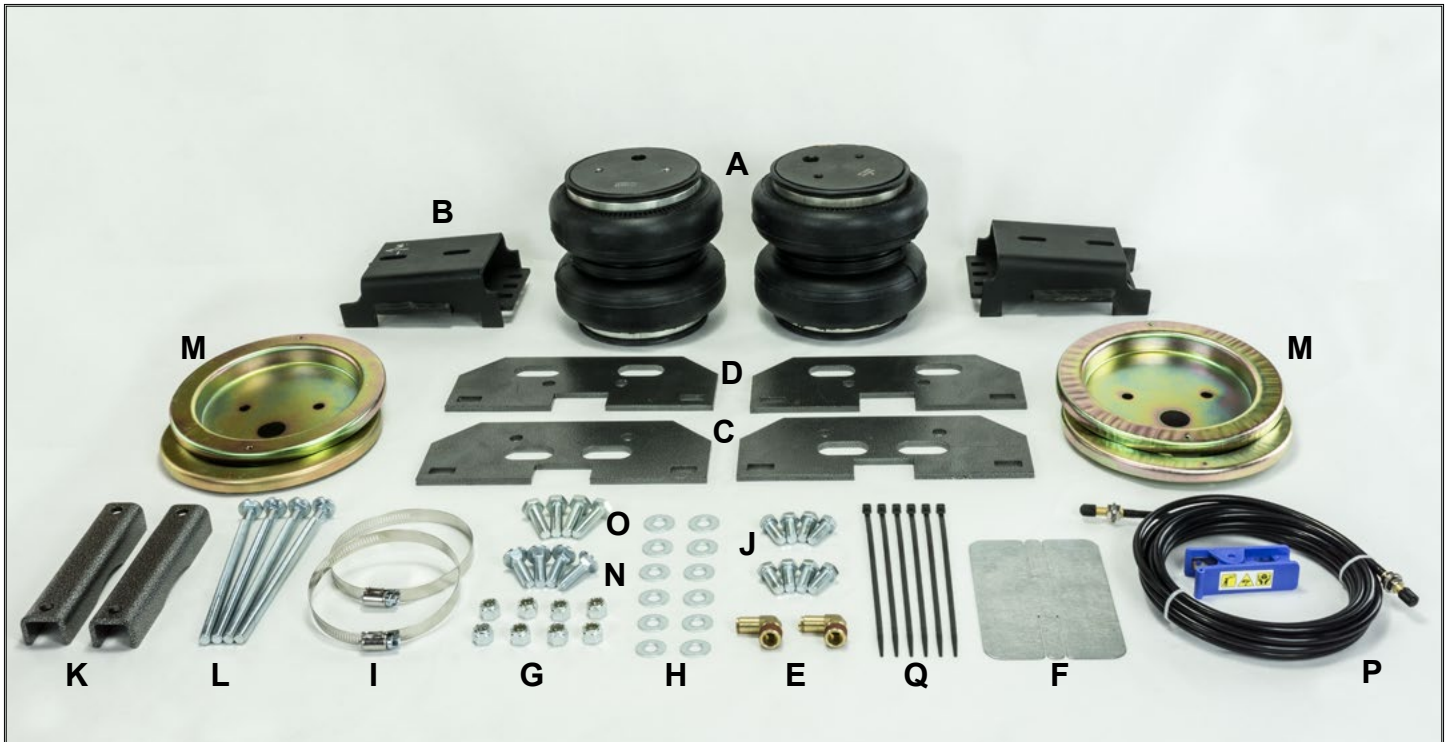


10321 KIT

Dodge RAM 4500/5500 Chassis Cab (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.

KIT CONTENT



CAUTION: This kit includes “push to connect OR barbed” airline fittings. They require the end of the airline to be round, square and cleanly cut to ensure the internal seal will not leak. The airline must only be cut with a sharp razor knife or hose cutter.

KIT CONTENTS

A	Air Springs (2)	HP10068
B	Lower Bracket (2)	HP1520
C	Upper Frame Bracket (2)	HP1147
D	Upper Air Spring Bracket (2)	HP1148
E	90° Fitting (2)	HP1245
F	Heat Shield (1)	HP0012
G	3/8" Nylock Nut (8)	HP1000
H	3/8" Large Flat Washer (12)	C18006
I	Gear Clamp #48-102 (2)	HP1001
J	3/8" NF x 7/8" Capscrews (8)	HP1002
K	Axle Strap (2)	HP1383
L	3/8"-16 x 7 Carriage Bolt (4)	HP1409
M	Roll Plate (4)	HP10069
N	3/8" - 16 x 1 1/4" Carriage Bolt (4)	HP1149
O	M10 X 1.5 X 35mm bolt (4)	HP1134
P	Air Line/Valve Assembly	HP1344
Q	Tie Strap (6)	C11618

REQUIRED TOOLS

- 7/16", 1/2", 9/16" Open end or box wrenches
- 13 mm, 15 mm, 16 mm and 21 mm open end wrenches
- Adjustable Wrench
- Torque Wrench
- 9/16", 1/2" Deep well sockets
- Heavy Duty Drill
- 5/16" Drill Bits (very sharp)
- Hose Cutter, Razor Blade or Sharp Knife
- Pipe Thread Sealant
- Air Compressor/Compressed Air Source
- Hoist or Floor Jack
- Safety Stands
- Safety Glasses
- Spray Bottle with Dish Soap/Water

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



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*

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.

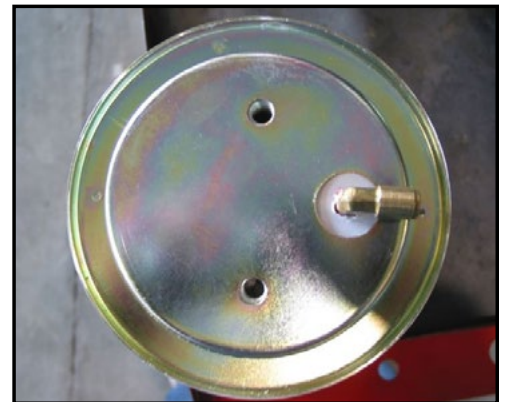
PLEASE NOTE:

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.

PRE-ASSEMBLY OF AIR SPRINGS

1 THE UPPER ROLL PLATE

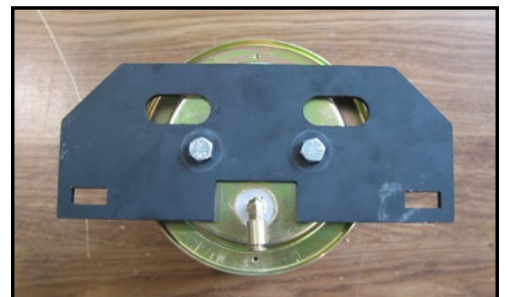
Place the upper roll plate (with the rounded side towards the air spring) on the top of the air spring (top being the end with the air inlet port). Apply thread sealant or Teflon tape to the threads of the fitting provided. Install the fitting.



1A

2 THE UPPER BRACKET

Place the upper air spring mounting bracket on top of the air spring and roll plate. The upper air spring mounting bracket is identified by the two $\frac{3}{8}$ " holes next to the air fitting cut out. Using 2 - $\frac{3}{8}$ " NF x $\frac{7}{8}$ " capscrews provided, fasten the bracket to the air spring. Torque both capscrews to 20 ft-lbs, 27 N•m.

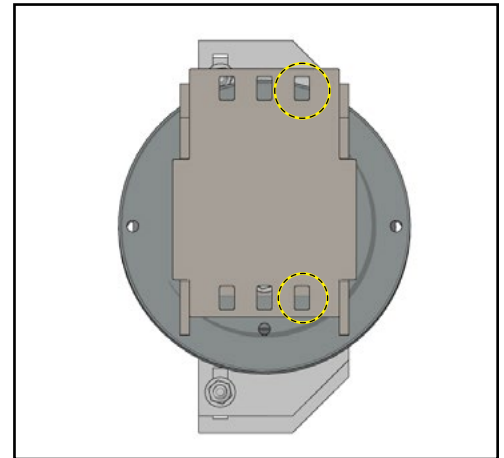


2A

3 THE LOWER PLATE & BRACKET

Insert two 7" long carriage bolts into the elongated holes as shown. Place the roll plate on the air spring with the rolled side down towards the air spring. Place the lower bracket on the air spring with the two carriage bolts on the opposite side of the air port as shown (passenger side assembly shown). Install the two $\frac{3}{8}$ " NF capscrews and flat washers, do not tighten fully.

Repeat steps for the other air spring.



View of Passenger Side 3A

4 INSTALLATION ON THE VEHICLE

Raise the vehicle enough for a comfortable working height with a floor jack and support the axle with jack stands.

Remove the jounce bumpers on both sides.



4A

5 ATTACH THE UPPER BRACKET

Using the M10 x 35 capscrews provided, fasten the upper air spring mounting bracket to the frame as shown in the photo.

Torque the capscrews to 30 ft-lbs, 40 N•m. The upper brackets must be installed to the jounce bracket with the air inlet fitting cutout and rectangular holes in the bracket facing towards the center of the vehicle.



5A

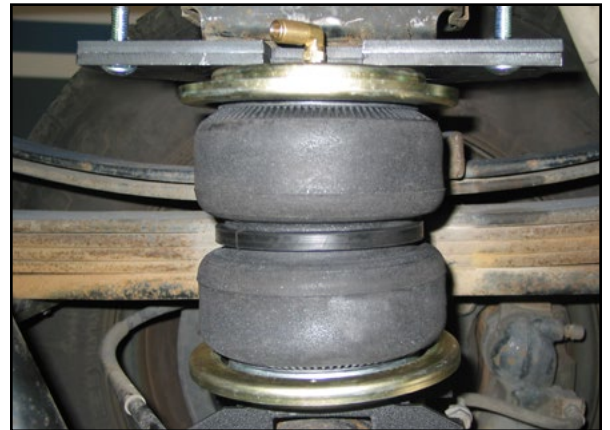
6 INSTALLING THE AIR SPRING

Insert the air spring between the jounce bumper mounting plate and the axle tube. Some vehicles may require the frame to be jacked up slightly to attain clearance.

NOTE: Air fittings must be positioned towards the center of the vehicle.

Loosely install two of the 1¼" long carriage bolts up from the bottom through both the upper mounting plates. Install the large flat washers and nylock nuts provided. Loosely install the axle straps to the carriage bolts using the large flat washers and nylock nuts provided.

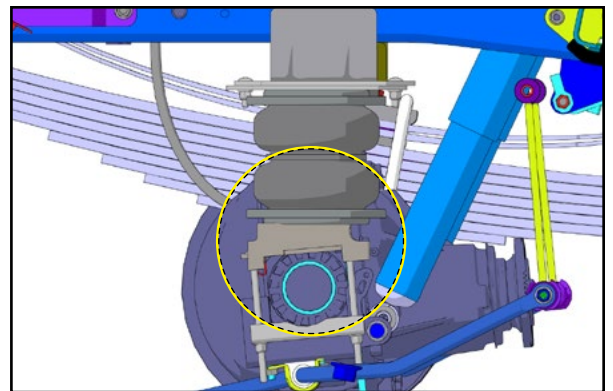
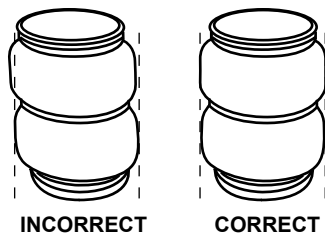
Note: It may be necessary to remove the brake line from the axel clip to add bracket clearance



6A

7 ADJUST THE AIR SPRING

Adjust the air spring assembly to the upper bracket by moving the lower bracket on the axle tube to ensure the air spring is correctly aligned (as shown in the diagram below).



View of Passenger Side

6B

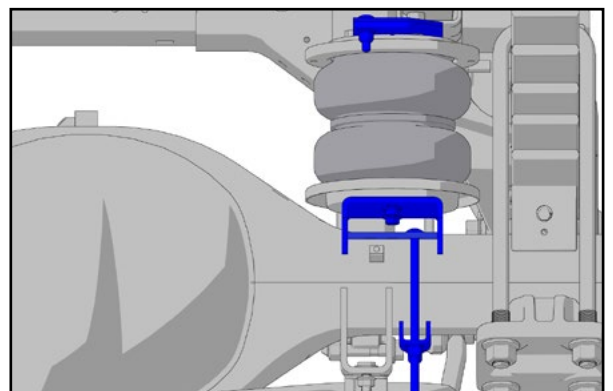
*Take note of lower bracket orientation.

8 CHECK THE CLEARANCE

Ensure adequate clearance exists between the brake lines and the carriage bolts. The brake line must not touch the carriage bolts. Adjust to attain clearance if necessary. Once correct alignment of the air spring is attained:

- Tighten the two 1¼" carriage bolts of the top brackets to 20 ft-lbs, 27 N•m.
- Tighten the two axle strap carriage nuts to 20 ft-lbs, 27 N•m.
- Tighten the two support bracket to upper bracket fasteners to 20 ft-lbs, 27 N•m.

Repeat on the other air spring.



View of Passenger Side

7A

9 INSTALL THE HEAT SHIELD

Bend the two center tabs of the heat shield supplied for fastening to the exhaust pipe as shown. Attach the heat shield with the gear clamps supplied to the exhaust pipe to protect the air spring.



9A

10 AIRLINE INSTALLATION

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, 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. 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.**

IMPORTANT! Double check all the fasteners are torques to specification



10A

11 LEAK CHECK

Inflate both the air springs to 90 PSI. Use a dish soap and water mixture on all airline connections to detect air leaks. Repair as necessary and retest. Inflate your air springs to a pre-determined value, then the following day recheck the pressure. If one or both the air springs have lost pressure, a leak is present. The leak must be repaired, then retest until no leaks exist.

SPECIAL NOTE: Retorque all the fasteners after the first 500 miles of driving.



11A

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.

