Installation Manual

PACBRAKE®

www.pacbrake.com 800.663.0096

HP10206 KIT

*Dodge 2500 Pickup 2WD & 4WD**

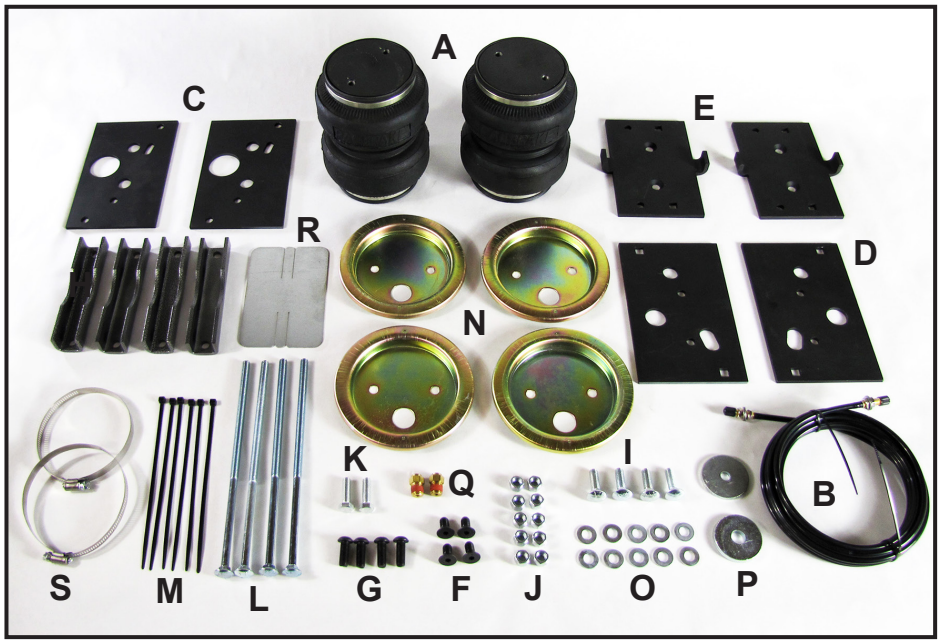
* See application guide for proper fitment.

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

AMP AIR MANAGEMENT by Pacbrake

ECN 1-1789

HP10206 KIT LAYOUT



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

PLEASE NOTE:
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 the supplied hose cutter.

KIT CONTENTS

A	(2)	Air Spring
B	(1)	Airline / Valve Assembly
C	(2)	Frame Bracket
D	(2)	Upper Bracket
E	(2)	Lower Bracket
F	(4)	⅜" – 24 x ⅞" Flat Head Cap Screw
G	(4)	M10 x 35mm Button Head Cap Screw
H	(2)	Axle Strap
I	(4)	⅜" – 16 x 1.25" Carriage Bolt
J	(10)	⅜" – 16 Nyloc Nut
K	(2)	⅜" – 16 x 1.25" Hex Head Cap Screw
L	(4)	10" Carriage Bolt
M	(6)	Tie Strap
N	(4)	Roll Plate
O	(10)	⅜" Washer
P	(2)	2" Thick Washer
Q	(2)	Air Fitting
R	(1)	Heat Shield
S	(2)	Gear Clamp

REQUIRED TOOLS

- 7/16", ½", 9/16" Open End or Box Wrenches
- 9/16" & 13mm Deep Well Sockets
- Heavy Duty Drill
- 5/16" Drill Bit (very sharp)
- Torque Wrench
- 9/16" Crowsfoot Socket
- Pipe Thread Sealant
- Hose Cutter, Razor Blade or sharp Knife
- Air Compressor/Compressed Air Source
- Hoist or Floor Jack
- Safety Stands
- Safety Glasses
- Spray Bottle with Dish Soap & Water Solution

Thank you and congratulations on the purchase of a Pacbrake 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

1. Ensure the application information is correct for the make, model and year of the vehicle you are installing the kit on.
2. Check the vehicle to see if it is equipped with a 5th wheel hitch. Some 5th wheel hitches require brackets to be mounted in the frame in the same locations as the air spring brackets. (If this is the case, you may need a different air spring kit. Please contact Pacbrake at 800-663-0096.)
3. Pacbrake recommends using 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:
Photos shown in this manual are of the passenger's side (unless otherwise noted)

1 RAISE THE REAR AXLE

Park the vehicle on a level surface and remove any unnecessary weight from the vehicle to attain normal ride height. This is important for correct initial air spring setup and adjustment.

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 a jack stands under each axle (*as shown in the photo*). Lower the floor jack until the vehicle axle is supported by the jack stands.

Ensure the normal ride height measurement recorded earlier remains the same. Adjust if necessary before proceeding.

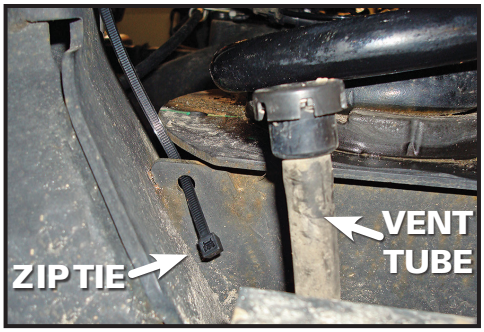
Once the rear axle is raised correctly, remove the rear wheels.

1

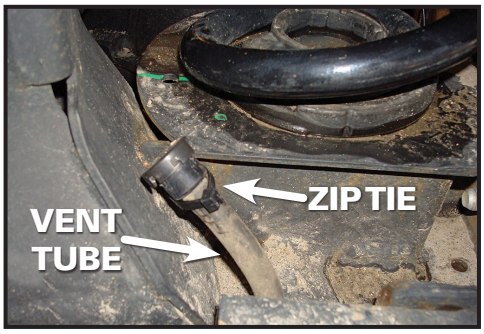
2 VENT TUBE

Tie down the small vent tube, on the left side of the axle (driver's side), with a zip tie (see figure 2A).

Insert the zip tie into the hole on the seat of the lower coil spring. Tie the zip tie around the vent tube just tight enough to pull the small vent tube on an angle and out of the way. (see figure 2B)



2A



2B

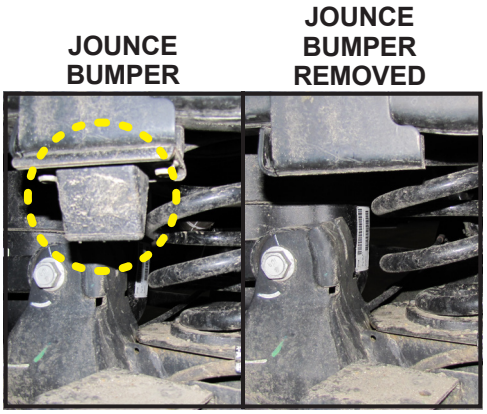
3 FRAME PREPARATION

A) Remove the jounce bumper from both the driver and passenger sides of the vehicle.

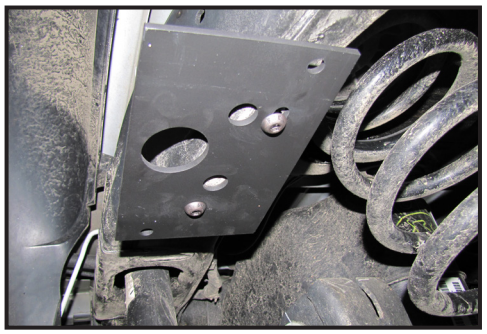
B) Attach the upper frame bracket to the frame, where you just removed the jounce bumper, using the M10 button head screws provided.

NOTE: *The large hole goes to the outside of the vehicle, closest to the tire.*

Torque to 30ft-lbs.



3A



3B

4 UPPER BRACKET ASSEMBLY

A) Set the roll plate over top of each air spring. Install the air fitting: tighten securely by hand, adding an extra one and a half turns. Do this to both air springs.

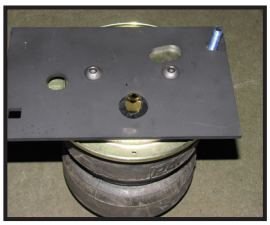
B) Place both air springs in front of you, with the air fitting at the front, and place the upper air spring bracket on top, as shown (see figure 4B-4C).

Secure the brackets using the provided ⅜" button head screws. Torque no more than 20 ft-lbs.

Insert the ⅜" carriage bolt through the upper air spring bracket in the hole at the back corner, as shown.

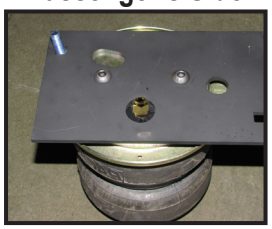
4A

Driver's Side



4B

Passenger's Side



4C

5 LOWER BRACKET ASSEMBLY

A) Install the thick flat washer onto the lower bracket using the ⅜" hex bolt, ⅜" flat washer, and ⅜" nyloc nut (see figure 5A-5B).

B) Insert the long ⅜" carriage bolts into the square holes in the lower bracket as shown.

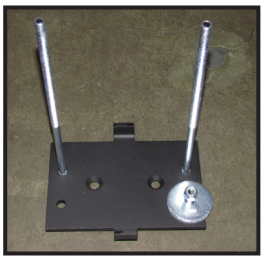
C) Set a roll plate over the bottom of the air spring and attach the lower bracket onto the air spring assembly using the ⅜" flat head screws. Torque no more than 20 ft-lbs.

NOTE: *The large washer previously installed on the lower bracket must be forward of the axle once installed.*

The large washer must be on the same side as the square hole in the top bracket (see figure 5C).

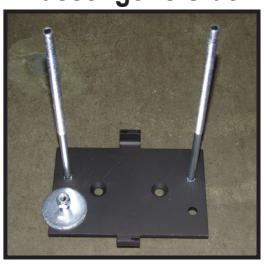
Repeat on other air spring.

Driver's Side

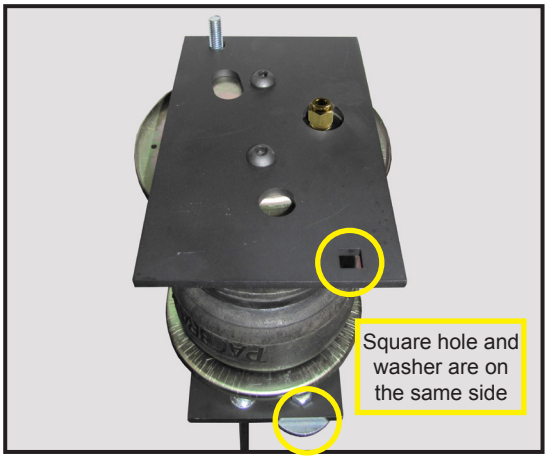


5A

Passenger's Side

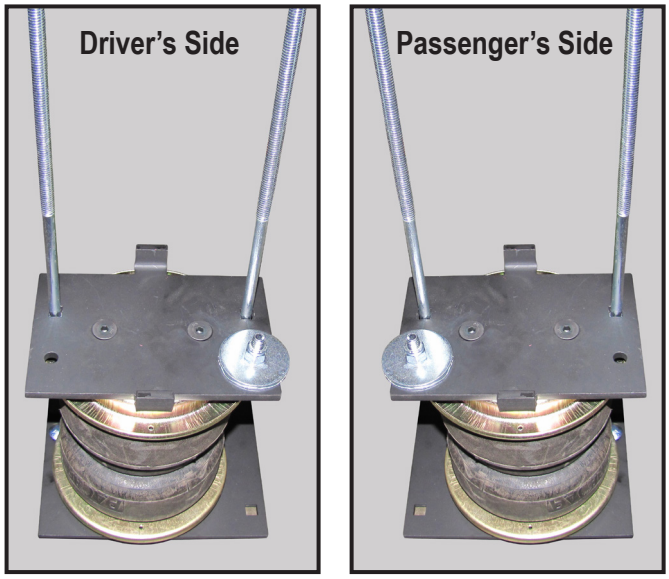


5B



5C

FINISHED ASSEMBLIES



6A

6 INSTALLING THE AIR SPRING ASSEMBLIES

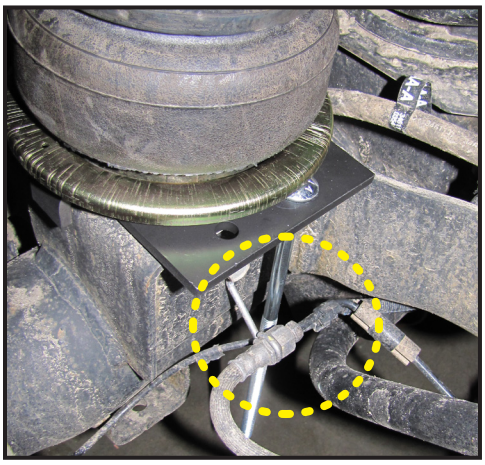
A) Set the driver's side air spring assembly on the axle, make sure the carriage bolt goes in between the brake line and the axle (see figure 5C).

B) Place the upper air spring bracket into position, making sure that the carriage bolt and air fitting line up with the holes in the frame bracket.

Raise the axle up to ensure that the brackets come together, correctly lining up, and do not bind.

Fasten the two brackets together using carriage bolts (inserted from the bottom) and cap both bolts with a ⅜" flat washer and ⅜" nyloc nut. Torque to 16 ft-lbs.

Note: *It may necessary to use a $^{9}/_{16}$" crowsfoot adapter to torque the nut underneath the frame.*



6C

6D

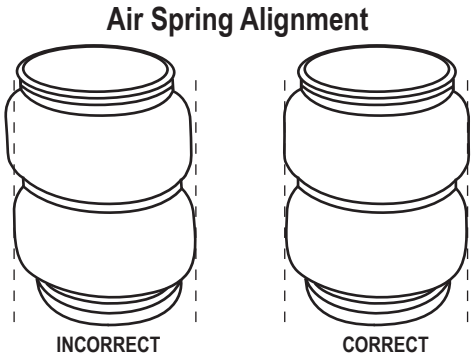
7 FASTEN LOWER BRACKET

A) Raise to axle all the way up and position the lower bracket over the lower jounce bumper strike plate, so that the large washer on the bottom of the bracket is forward and does not get pinched in between the air spring assembly and the lower jounce bumper strike plate. (see figure 7A)

7A

B) Place the axel strap over the two long carriage bolts under the axle and cap with two ⅜" flat washers and ⅜" nyloc nuts.

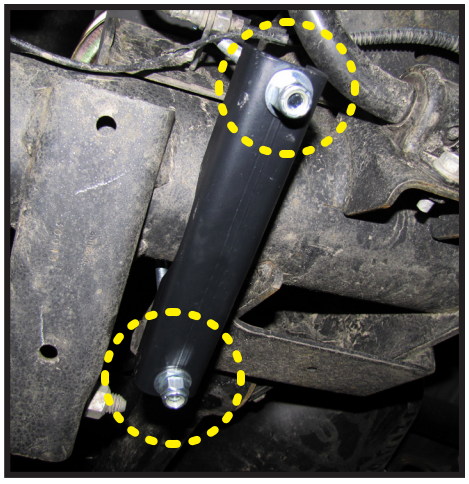
C) Adjust the air spring assembly by moving the lower bracket on the axle tube to ensure the air spring is correctly aligned, as shown in the *Air Spring Alignment* diagram (see figure 7B).



7B

D) Once everything is in the correct alignment, torque the axel strap nuts to 10 ft-lbs (see figure 7C).

Repeat steps 6 & 7 on the passenger side.



7C

8

Final assembly should resemble figure 8A.

Driver's Side

8A

9 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. 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.

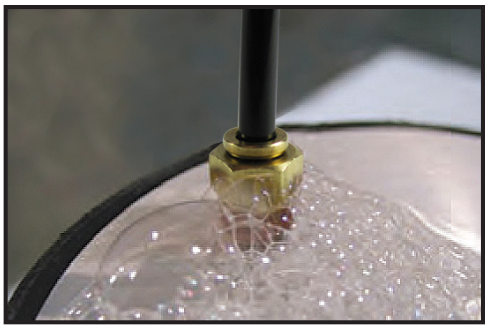
NOTE: *This kit contains push to connect OR barbed fittings, using scissors or wire cutters to cut the nylon airline will distort the line and cause the connection to leak. THE AIRLINE MUST BE CUT OFF SQUARELY WITH A SHARP RAZOR KNIFE OR THE NYLON HOSE CUTTER PROVIDED IN THE KIT. Moisten the end of the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

9A

10 DO A LEAK CHECK

Inflate both the air springs to 90 PSI, then use a dish soap and water mixture 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, a leak is present. The leak must be repaired, and then retested until no leaks exist.



10A

11 AFTER THE INSTALLATION IS COMPLETED, PLEASE REMEMBER:

Install the wheels, torquing 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 (see Note below).

OPTIONAL ACCESSORIES

Pacbrake offers an optional dual needle air gauge to monitor the pressure in each air spring from the vehicle's cab. Pacbrake also offers a full line of air compressors, air tanks and solenoids to control your air spring system.

OPERATING YOUR VEHICLE WITH PACBRAKE AIR SUSPENSION

Air springs have minimum and maximum pressure requirements. Never operate your vehicle with less than 10 PSI in the air spring and never inflate the air springs over 100 PSI, or damage to the air springs will result.

Check the air pressure in the air springs daily for the first couple of days to ensure a leak does not develop. The 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 the vehicle with no load, or a rough ride will result.

SERVICING YOUR VEHICLE WITH PACBRAKE 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 purchase date.

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