

Installation Manual

/// PACBRAKE®

www.pacbrake.com 800.663.0096



HP10191 KIT



*Toyota Tacoma 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.



HP10191 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 a hose cutter.

KIT CONTENTS

A Air Spring (2)	HP10173
B Upper Bracket (2)	HP1365
C Lower Bracket (2)	HP0045
D Jounce Bumper Spacer (2)	HP1366
E 3/8" – 16 x 3.5" x 3.25" U-Bolt (2)	HP1018
F 3/8" – 16 x 1" Self Tapping Screw (6)	HP1078
G 3/8" – 16 x 1" Hex Head Cap Screw (2)	C10464
H 3/8" Flat Washer (8)	C653
I 3/8" Nyloc Nut (6)	HP1000
J U-Bolt Clamp Bar (2)	HP0113
K 1/2" -13 x 7/8" Hex Head Cap Screw (2)	M8704
L 1/2" X 2" Flat Washer (2)	HP1010
M 3/4" Jam Nut (2)	HP1076
N 90° Swivel Air Fitting (2)	HP1019
O Air Line / Valve Assembly	HP1344
P Tie Strap (6)	C11618

REQUIRED TOOLS

- 1/2", 9/16", 7/8" Open End or Box Wrenches
- 9/16" & 1/2" Deep Well Sockets
- Heavy Duty & Right Angle Drill
- 5/16" & 3/8" Drill Bits
- Torque Wrench
- 7/8" Crowsfoot Socket
- Pipe Thread Sealant
- Hose Cutter, Razor Blade or Sharp Knife
- Air Compressor or 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 an AMP air suspension kit. Please read the entire installation manual prior to starting the installation to ensure you can complete the installation once started. Should you have any questions during the installation, please call Pacbrake at 800.663.0096.

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.

NOTE: Some vehicles are equipped with a real brake proportioning valve. Check this with the vehicle manufacturer before installing the air spring kit, as it may affect braking performance.

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 clearance between the outside of the frame and the inside of the tire. A maximum of 6" is required for air spring clearance.
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 driver'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 two jack stands under the 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 is the same. Adjust if necessary before proceeding.

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



2. PREPARING THE AIR SPRINGS

The air springs need to be collapsed with the rubber part of the bag folded over the bottom end cap - as shown.



3. AIR SPRING ASSEMBLY

I. Set the upper bracket over the air spring inlet port fitting and thread the jam nut onto the thread post, making sure that the flat side is down to the air spring (as shown).

Hand tighten the jam nut, ensuring that the bracket is tight to the roll plate.



II. Using an open end wrench, install the 90° air fitting (with thread sealant) into the air spring inlet port. Be careful not to over tighten.



III. Loosely attached the lower bracket to the bottom of the air spring using a 1/2" flat washer and 1/2" -13 x 7/8" hex head cap screw.

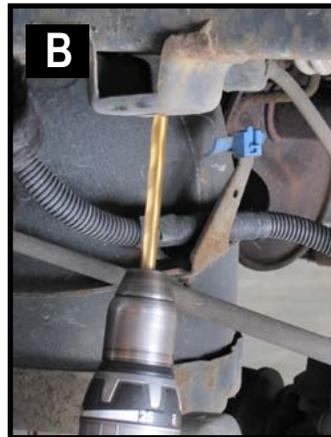


4. INSTALLING THE JOUNCE BUMPER SPACER

I. Place the jounce bumper spacer flush with the back bottom edge of the stock strike plate and mark the mounting hole location.

II. Centerpunch (A) and drill a $\frac{3}{8}$ " hole in the stock strike plate using a right angle drill (B) and attach the jounce bumper spacer onto the stock plate using a $\frac{3}{8}$ " -16 x 1" cap screw, two $\frac{3}{8}$ " washers and nyloc nuts (C). Torque to 16 ft-lbs (21.7 N•m).

NOTE: If you do not have a right angle drill, it might be necessary to lower the axle to gain more room to drill.



5. SECURING THE LOWER BRACKET TO THE LEAF SPRING

(If you raised the body in the previous step, you will need to lower it back down)

I. Set the air spring assembly on the leaf spring (forward of the axle), with the hook end of the lower bracket over the factory U-bolt.

II. Secure the lower bracket to the leaf spring with a U-bolt. Slide a clamp bar on the U-bolt and secure each side with a 3/8" flat washer and 3/8" - 16 nyloc nut. Torque to 16 ft-lbs (21.7 N•m).

NOTE: It may be necessary to shorten the threaded part of the U-bolt before attaching the clamp bar for ease of installation. Make sure to grind the end of the U-bolt to avoid stripping the nyloc nuts.



6. SECURING THE LOWER BRACKET TO THE LEAF SPRING

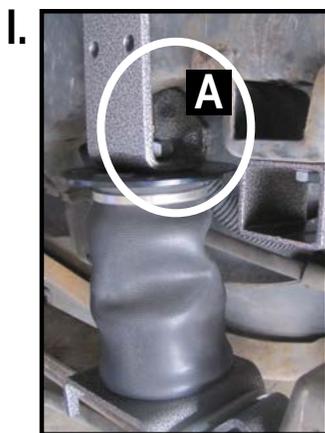
(Ensure that the upper bracket is parallel and perpendicular to the lower bracket as shown).

I. Align the upper bracket so that the top edge of the shorter flange touches the bottom of the frame rail. (A)

II. Using the upper bracket as a template, centerpunch one of the holes.
Note: It will be necessary to use any three of the five holes for mounting.

III. Before drilling, ensure that the backside of the frame is free from brake lines, fuel lines or electrical wires. Drill one 5/16" hole and install one 3/8" - 16 x 1" self-tapping screw. Torque to 16 ft-lbs (21.7 N•m).

Before drilling the next two holes, ensure that the upper and lower brackets are still parallel and perpendicular to each other. Centerpunch and drill the two remaining holes and install the 3/8" - 16 x 1" self-tapping screw. Torque to 16 ft-lbs (21.7 N•m).



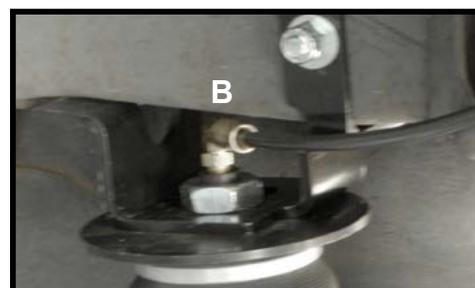
7. INSTALL THE AIRLINE

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 (A). 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 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. Moisten the end of the airline prior to inserting it into the fitting and push it in until it stops.

After the air line is cut, insert one end into the air line fitting, as shown in (B), 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



8. ALIGN THE AIR SPRING

Align the air spring, then tighten the 1/2" - 13 x 7/8" hex head cap screw - securing the air spring to the lower bracket.

For stability, inflate the air spring to 10 psi. Make sure the air spring is not crooked and adjust as necessary using the slot in the lower bracket. Torque the 1/2" - 13 x 7/8" hex head cap screw to 25 ft-lbs (34 N•m).

REPEAT STEPS 3-8 ON THE OTHER SIDE OF THE VEHICLE

NOTE: Deflate air spring before starting on the other side



9. 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.



10. 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 ‘WARRANTY’ 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 are operated below 10 PSI. For safe and proper operation, never operate the vehicle under the minimum of 10 PSI or over the maximum of 100 PSI. Maintain operating pressures between 10-100 PSI to ensure air spring longevity.*