

PEDDERS

AIR ASSIST

ADJUSTABLE AIR SUSPENSION

FITTING INSTRUCTIONS

495020HP

INCLUDING SPECIFIC OPERATING PRESSURES

- This air suspension system is designed to assist the original vehicle manufacturer's suspension – it is not meant to carry the entire rated load. We do not recommend that leaves be removed, or other changes be made from the OEM suspension unless an applicable commercially available suspension kit is fitted.
- The kit is designed to suit a standard vehicle configuration – modifications to the vehicle outside the kit design parameters may adversely affect fitment and operation such as:
 - Height changes outside any noted in the kit specification.
 - Larger dampers (Shock Absorbers)
 - Wheel and tyre changes
 - Exhaust changes.
- If your vehicle is fitted with a brake proportioning valve or stability control system it is important to ensure this is maintained and adjusted according to the vehicle manufacturer's instructions.
- It is recommended that only a properly qualified person installs the product and carries out maintenance. If you are not qualified and attempt to carry out such work ensure that all safety equipment is used and safety standards are met.
- Ensure that you have read this full document before attempting to fit the product.



SEE OTHER WARNINGS AND IMPORTANT INFORMATION IN THIS DOCUMENT

LHS = LEFT SIDE OF THE VEHICLE WHEN FACING FORWARD

STEP 1 – AIRLINE TUBING & FITTINGS - GENERAL NOTES

CUTTING

Only cut the airline tubing with a sharp blade making the cut as square as possible.

Always trim the tubing before re-inserting into the fitting.

- ⚠ If you use a sharp utility knife or razor blade great care must be taken in all cases not to cut yourself during this operation.

CONNECTING & REMOVING

To connect:

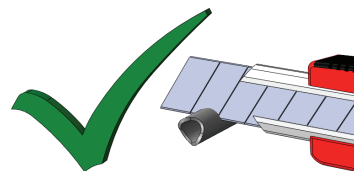
Push the freshly trimmed tubing into the fitting as far as possible.

To remove:

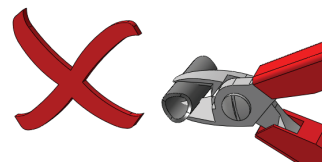
First release the air pressure from the system. To withdraw the tubing, push and hold the collar on the fitting away from the tube and pull out the tubing.

Hint In confined spaces an open ended spanner can be used to evenly depress the collar and remove the airline tubing.

CUT TUBING
SQUARE
WITH SHARP
BLADE OR
TUBE
CUTTER



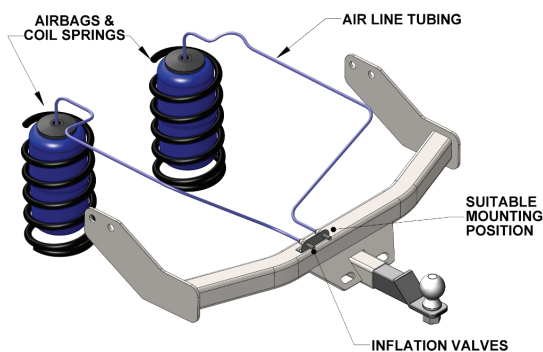
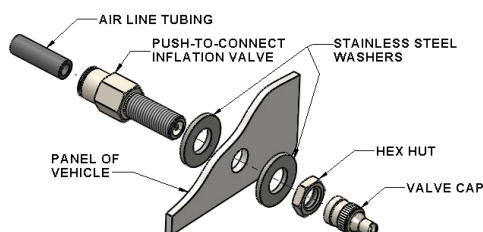
DO NOT USE
PLIERS, SIDE
CUTTERS OR
PIPE CUTTERS



STEP 2 – POSITION YOUR INFLATION VALVES

Select a convenient location for the air inflation valves such as the bumper or the body of the vehicle. It must be protected from road damage and be accessible for air inflation equipment.

Drill a 5/16" hole and install the air inflation valve using two 5/16" stainless steel washers as supports where required.



AIRLINE ROUTE SHOWN IS EXAMPLE ONLY
SEE RELEVANT COIL SPACE ROUTING

STEP 3 – PREPARE THE AIR LINE TUBING

Decide on a suitable route for the air line from the airbag to the inflation valve location to avoid direct heat from engine, exhaust pipe, and away from sharp edges.

Uncoil the air line tubing being careful not to fold or kink it and cut to length to suit the chosen route. Next cut a suitable length of protector tube and feed over the air line tubing. (See opposite)

DO NOT CONNECT OR SECURE THE AIR LINE AT THIS POINT



STEP 4 – PREPARE THE HIGH PRESSURE SLEEVES

Refer to high pressure sleeve fitting instructions supplied with the high pressure sleeves.

Fit the elasticated tapered end of the High Pressure sleeve over the airbag and slide the High Pressure sleeve over the airbag as shown. The High Pressure sleeve is to be positioned with the tapered ends neatly over the upper and lower shoulders of the airbag as shown.

Note: Fitting airbags with high pressure sleeves will increase the material thickness to be inserted into the coil.



STEP 5 – PREPARE THE VEHICLE ACCORDING TO VEHICLE MAKE

(a) Jeep: In order to fit this kit, the coil springs and bumper cups need to be removed. Ensure this operation is carried out according to the vehicle manufacturers instructions.

(b) Land Cruiser Front: In order to fit this kit, the coil springs need to be removed and over-ride bumpers removed for modification. Ensure this operation is carried out according to the vehicle manufacturers instructions.

(c) Prado & 4-Runner Rear: In order to fit this kit, the coil springs need to be removed and over-ride bumpers removed for modification. Ensure this operation is carried out according to the vehicle manufacturers instructions.

STEP 6 (a) – JEEP

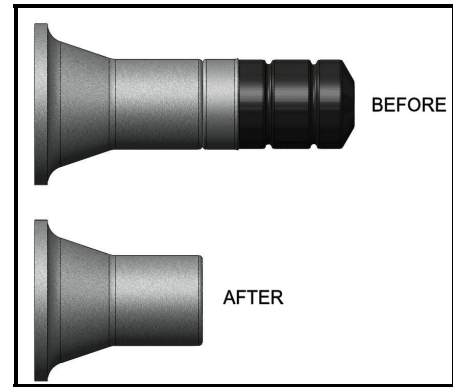
DRILL TOP TOWER

IMPORTANT MUST drill a 12mm (1/2") to 14mm (9/16") diameter hole in the top spring seat, centering on the coil. Remove any sharp edges from the hole.

STEP 6 (b) – LAND CRUISER FRONT

MODIFY OVER-RIDE BUMPERS

Remove the over-ride bumper from the bumper holder, then drill or cut the holder as shown, leaving the flat in intact, remove any sharp edges.



STEP 6 (c) – PRADO & 4-RUNNER REAR

MODIFY OVER-RIDE BUMPERS & DRILL BUMPERS AND SPRING SEAT

Cut off the bumper at the first recess from the top, as shown. Remove any excess rubber to make the remaining top section reasonably flat.

Drill out the centre holes of the bumper and spring seat to approximately 19mm diameter, remove any sharp edges.



STEP 7 - RED PLUGS

Use of the red plugs supplied is optional. They will enable a general reduction in airbag size which may be required to ease an airbag into a coil spring which is out of the vehicle, and they will fully flatten an airbag for easy insertion into an in-situ extended coil spring through the winding.

USING RED PLUGS: Flatten the airbag with the airline fitted and plug the other end of the airline tubing with the red plug. The airbag should now remain flattened whilst you perform fitment into the coil spring.

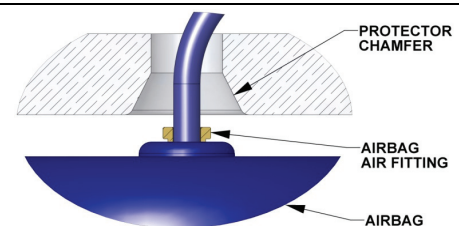


STEP 8 – INSERT AIRBAG INTO COIL SPRING

Insert the airbag into coil spring with the air inlet at the top end of the spring.

STEP 9 – POSITION SUPPORT

Feed the support into the air line tubing oriented so that the central countersunk hole faces the airbag.



STEP 10 – CONNECT AIRLINE TUBING AND TEST CONNECTIONS

CONNECT the airline tubing by inserting one end into the airbag air fitting, the other end into the installed inflation valve.

Hint Flat nose pliers may be used to lightly grip the airline tubing to ensure it is fully inserted into the airbag fitting.

INFLATE the airbag to the maximum allowed pressure (see Specific Airbag Operating Pressures) and check for leaks at the connections using soapy water spray. We recommend a soapy water spray solution of 25% soap to 75% water.

DEFLATE the airbag. If no leak, continue. If leak detected, remove the airline tubing, re-cut and re-test.

CHECK airbag is not in contact with any sharp edges or is too close to exhaust heat in all load and height conditions.

STEP 11 – COIL SPRING RE FITMENT

Re-position the coil spring and (over-ride bumper on (c) Prado & 4-Runner) on the vehicle whilst feeding the air line tubing through the over-ride bumper/holder and/or spring seat.

Ensure the coil orientation is correct, and the air line tubing does not get kinked during this process, or when during the next step.

STEP 12 – AIRBAG POSITIONING

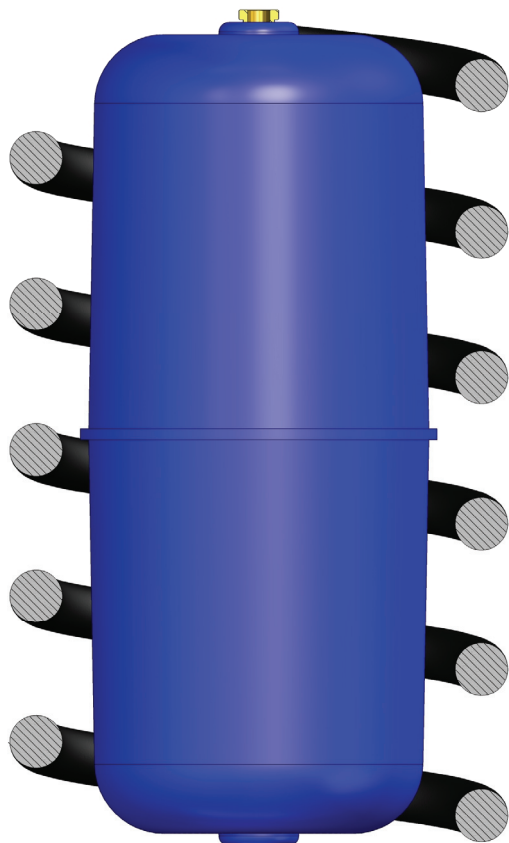
Position the airbag midway down the coil spring and secure the air line tubing in this position so enough slack is left to allow for full suspension movement.

STEP 13 – HIGH PRESSURE SLEEVE POSITIONING

Once the airbag and high pressure sleeves are in the coil spring it is recommended that you visually inspect to ensure correct positioning. You can work the high pressure sleeve around the airbag so that it is as even as possible prior to inflating the airbag.

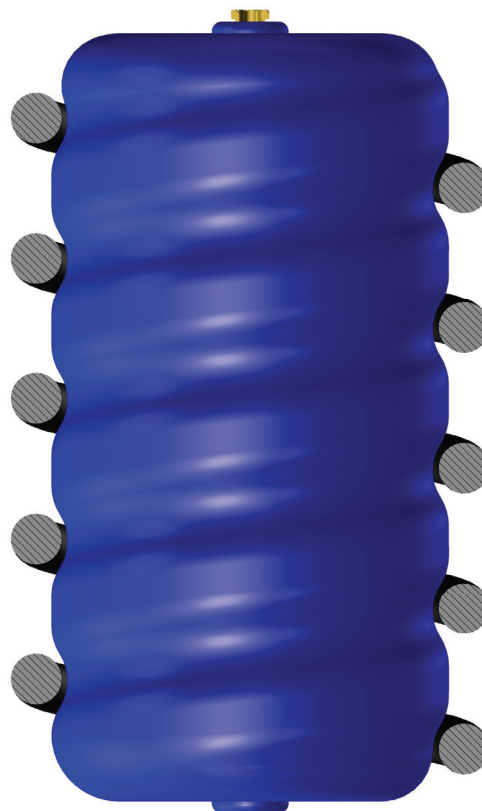
STEP 14 – SETTling IN OF AIRBAGS - PRADO AND JEEP ONLY

The airbags in this kit are smaller in diameter than the inside of the vehicles coil springs, but they are able to stretch out to fill the coil space.



BELLOWS LOOSE INSIDE COIL PRIOR TO INFLATION

To stretch the airbags, inflate them up to 20 psi (1.4 bar) or higher, if required (but only to the maximum Specific Airbag Operating Pressure below). Leave airbags inflated for at least 2 weeks. The stretching out will allow the airbags to settle into position and provide the best performance in use.



BELLOWS WILL SETTLE IN TO SHAPE OF COIL SPRING

STEP 15 – TO FINISH

Stick the supplied warning decal in a prominent position in sight of the vehicle operator.

Ensure the vehicle owner/operator fully understands how to use the product.

All fixings should be checked for tightness after the first laden run and thereafter as per the original manufacturer's recommendations



SPECIFIC AIRBAG OPERATING PRESSURES

See operating instructions section for proper use and apply the specific pressures below:

MINIMUM

5 PSI (0.4 bar)

MAXIMUM

30 PSI (2.0 bar)

Adjust and maintain pressure up to the stated maximum to level the vehicle for the load imposed and always maintain the minimum airbag pressure.

Failure to do so may result in product or vehicle damage not covered under warranty.

**IF MORE PRESSURE IS REQUIRED TO LEVEL THE VEHICLE
CONTACT YOUR NEAREST PEDDERS OUTLET FOR FURTHER TECHNICAL ADVICE**

Incorrect use of this air suspension product can result in damage to the airbag, associated parts and/or the vehicle, which is not covered under warranty.

Ensure the airbags are maintained at the stated ride height at all times and the maximum pressure is never exceeded.