

# Fitting Instructions for Air Bag Load Assist Kit

## LA50



Make sure your work area is safe and that you do not get under a car that is not properly supported by jack stands etc. Make sure that when undoing suspension components such as U bolts that the axle is supported and can not fall.

Read these instructions prior to commencing and learn the tricks the easy way before you need to undo your work.



## Air Bag assembly

- **The rings on the air bags do rotate and you will need to align the top and bottom brackets by rotating the rings to ensure there is no twist in the air bag.** With 3 very loose bolts securing each of the top and bottom end plate brackets, it is easiest to rotate the rings by twisting the brackets while there is virtually no clamping pressure. In most cases the chassis and axle run at 90 degrees.
- There are 6 bolts and washers which clamp the bag rings to the end plates. Do NOT tighten 1 bolt all the way up and then the next as the bags wont sit straight inside the rings. Start by doing every second bolt to finger tight, then the alternate bolts. Then tighten the first 3 to semi tight, then the alternate 3, then tighten each set 2-3 more times, alternating so even pressure is applied as you go. There is no need for extreme tightness. The rubber of the bag acts just like an O'Ring and virtually never leaks and does not need extreme tightness.
- Once tightened any curves or waves in the end of the bags are flattened out and do not cause leaks.
- Most kits come with the air fittings already seated into the end plates. If you need to fit the air fittings a sealant is needed, despite there being what appears to be a white or grey thread seal on the fitting. Liquid sealant (plumbing section at Bunnings) is better than thread tape.
- You should not use any sealant between rubber bag and end plates. Just bolt them up.
- When cutting air lines, make sure you do not squash the air line in the process. You must not use side cutters, pliers or scissors. If you use a saw, make sure you remove 100% of debris inside hose as that can cause leaks in valves. The best cutting devices are the hose cutters we provided for free or a knife. Make sure ends are straight 90 degrees.
- It helps to find leaks before the kit is fitted by pumping up the bag and bracket assembly until it no longer expands. Don't worry – you can not hurt the bag. Submerge it in a tub of water, wipe off any residual bubbles and look for new bubbles. Even the valve end of the hose can go in the water as it too could have a leak. There should be absolutely no new bubbles forming and that shows there are no leaks. Much easier now than after it is fitted to the car.

## Fitting brackets to vehicle — do ONE side at a time.

1. Remove the leaf spring U bolt top plate and bump stop.
2. Position the assembled air bag roughly into place. The air line goes to the inside (not the wheel side)
3. Note it is best that the bag sits as straight vertically as possible. The top plate will slide sideways and it also has the threaded holes offset so you can flip it or slide it so that the top mount aligns with the bottom mount.
4. Secure U bolts to new lower bracket. Some vehicles with fewer leaves in the spring pack may have too much U bolt protruding and hit the lower bracket and these may need trimming back.
5. Tighten U bolts and best to check these after a few hundred klm to ensure seated and still tight.
6. Your chassis has a small box section hanging below it. The Top bracket attaches to that. Slide the plate with threaded holes down that box section. The top bracket bolts up into those threaded holes in that plate. Note some cars have plenty of room for the plate to slide in – but some don't and in some cases the compressing of bump stops has closed that gap too. If there is no possible way to fit that plate please let us know and we can exchange the top mounts for a totally different method.
7. Make sure all U bolts and mounting bolts are all tight.

## Trouble shooting

You should not have leaks and can expect air to remain in the bags for a few weeks without refilling. It is near impossible to find a leak if it takes more than 3 days to leak out and only replacing fittings or refitting bags until the leak stops can solve such slow leaks. But if you have a bag that deflates in say less than 2 days then we stand a good chance of finding the leak. Start by pumping the bag with as much air as possible like 100+ psi (pretty much until compressor stops pumping) – the bags are good for 1,000+ psi and you won't hurt them but don't drive with this extreme pressure for the sake of your chassis and handling. At extreme pressure air should be wanting to escape quickly. With a spray bottle (or a plastic drink bottle with small hole drilled in cap) spray soapy water on the bag and on all fittings. It is rare to find a leak in a bag and more common to find a leak in a valve or where the air line goes into a fitting or around the thread of a fitting in an end plate. After a few minutes a small bubble might appear and show you the leak. Leaking fittings can be taken apart and cleaned out. Often a bit of dirt can cause the leak – a drop of oil and a blow of compressed air through the fitting can be a great way to clean out a fitting or valve.

By the way Air Assist Suspension use 6mm air hose and all threads are BSP type.



The air bags and brackets in this kit are built to be super strong. In some cases stronger than your car. Do not carry extreme loads and travel at high speeds with high pressure as hitting holes and dips at speed with extreme loads could result in damage to your vehicle. This is an overloading issue and by being sensible you will avoid damage.

Do not exceed your vehicle's GVM (Gross Vehicle Mass). Your GVM will be detailed on your vehicle compliance plate. Know your limits with regard to loads carried or towed.

If you remain within your load limits, drive at a safe speed for the conditions and run your air bags at an ideal working pressure below 60 psi you will have trouble free travelling.

The good thing about air bag suspension is you can just keep adding more air to suit your preferred ride height and loads carried. Typically a good working pressure is 25 to 50 psi per bag. The bags become your bump stops. When unloaded you may run the bags empty but a few psi will cushion your bump stop and offer a bit of added stability to your handling.



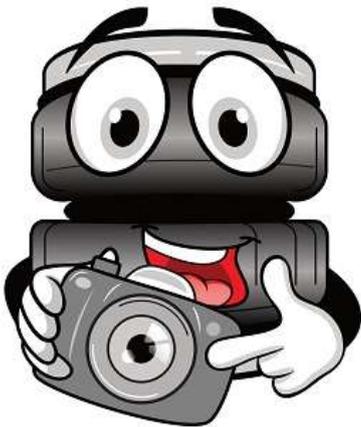
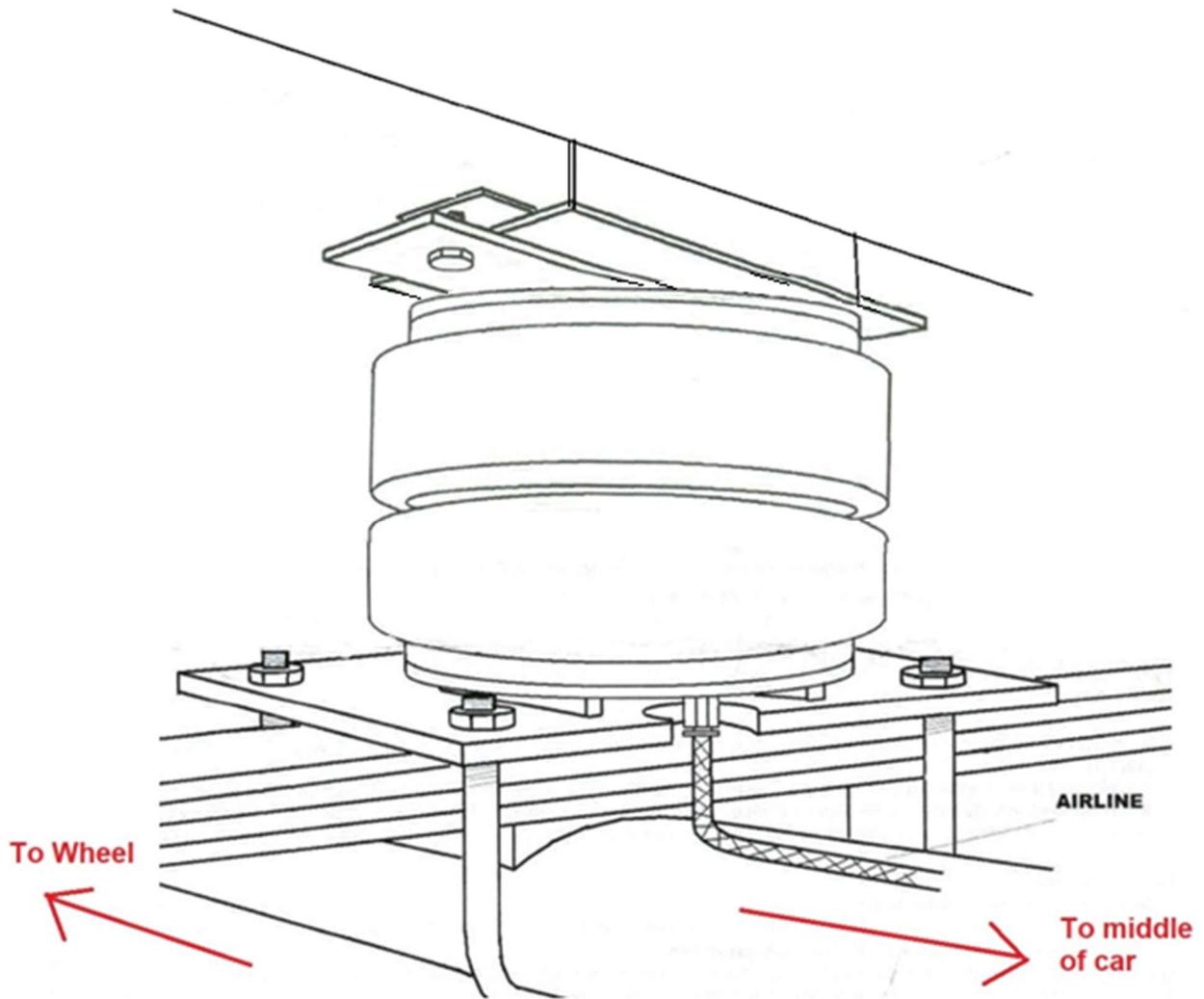
Air Assist kits come with a 5 year parts replacement warranty on bags, brackets and air fittings. Keep a copy of your invoice or online purchase so you can show us later when you purchased your kit.

- Warranties are parts replacement only and exclude postage, labour and any other incidental cost or damage.
- Warranties also exclude corrosion or damage caused by external influences such as road hazards, heat, chemicals, salt or fuel spills.

It is the fitter's and ultimately the owners responsibility to make sure there is no rubbing, that there is adequate clearance to exhaust and that all bolts, suspension components and wheel nuts are done up securely.

This brackets in this kit were proudly made by us here in Australia





One thing we really struggle with is obtaining photos of our kits out in the real world. If you can send us some pics of your kit fitted and maybe some pics of your vehicle carrying a load with and without air in your bags to demonstrate their effectiveness, we would certainly appreciate that.

And you know we also just like seeing all the varied places and applications our bags are used.

Please email all pics to [steve@aaasuspension.com.au](mailto:steve@aaasuspension.com.au)