

Fitting Instructions for Air Bag Load Assist Kit

LA34



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 cannot 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 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 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. The rubber of the bag acts just like an O'Ring and should never leak when tight enough. No sealant, lube or anything is needed to seal the ends of the bags.
- 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 air fittings a sealant is needed, despite there being what appears to be a white or grey thread seal on the fitting. We recommend liquid sealant as bits of plumber's tape eventually make its way to valves and create leaks.
- 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. The best cutting device is the hose cutter we provided for free. Make sure ends are straight 90 degrees.
- The best way to check for leaks is submerge air bag with bracket assembly in water (refer to trouble shooting below) – doing this now before fitting to car can save a lot of time later when looking for a leak.

Fitting brackets to vehicle – do ONE side at a time.

1. Remove the rubber bump stop from chassis and retain the bolts as you will be using them again.
2. The top brackets run 90 degrees to the lower brackets.
3. Slide the pre-assembled bag assembly into place. The lower brackets have the long channel that straddles over the axle. The bag end sits closest to the diff. The top brackets are both the same however they rotate so that the bag sits straight up and down when the vertical RHS support of the top bracket is closest to the tyre and longer slotted section faces the rear of the car and the air line away from the tyre.
4. Bolt the top bracket into place using the original bump stop bolts and mounting holes.
5. Attach the U-Bolts from under the axle up into the lower brackets. 1 x washer and nyloc nut per thread. Tighten the U bolts ensuring the lower mount is straight and there is nothing rubbing or getting in the way.
6. Make sure nothing fouls with the air bag such as sway bar brackets, mounts for brake lines or breathers etc and remember the bags get wider as they compress.

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.

The easiest but less successful method is temporarily pump up the bags until compressor will pump no more and spray soapy water on all air fittings including Schrader valve, end plates etc. It could take a few minutes for a small bubble to appear.

The most successful method of finding a leak requires more work and we suggest new instalts to do this step before fitting to car to save removing the kit afterwards. Inflate a bag and bracket assembly on the bench until it no longer expands any further. Submerge it all in a bucket of water including the air line and Schrader valve and any leak no matter how slow will present itself as a bubble.

Most common fault is the end plate bolts not being tight enough. Tighten them to 20 Nm or as tight as you can go with a 6" spanner (11mm) but tighten when there is no air in the bag. We use grade 8 Hi Tensile bolts so you will not break them with a spanner.

Other areas to check for leaks is the thread where the fitting goes into the end plate, where the hose goes into the air fittings or the Schrader valve. It is super rare that bag itself leaks. If bubbles appear between ring and inside edge of bag that is because the end bolts are not tight enough – and not the bag itself.

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

The air fitting in the end plate is in the same location on every kit and even as it overlaps the rubber of the bag still works fine and even if the fitting protrudes through the end plate it still does not present a problem.

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. If you experience a firm bump then increase pressure to prevent that.

AAA kit come with a 10-year new for old parts replacement warranty on bags, brackets and air fittings. Electronic components come with a 12-month warranty. Keep a copy of your invoice or online purchase so you can show us later when you purchased your kit.

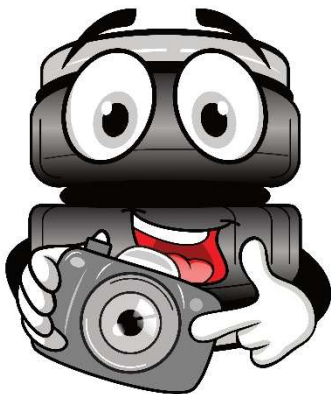
Warranties are parts replacement only and exclude postage, labour and any other incidental cost or damage.

Warranties also exclude corrosion or damage caused by external influences such as road hazards, heat, chemicals, salt or fuel spills.



The brackets in this kit are proudly made in Australia.

Here's how your kit should look



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 also some pics of your vehicle carrying a load with and without air in your bags to demonstrate their effectiveness, we'd very much 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 support@aaasuspension.com.au

Thanks,

AAA Suspension

Special Offer



Once you have fitted your kit you might consider buying our digital In Cab kit which enables you to inflate or deflate the bags from inside the car even while driving.

That way you don't have to remember to pump them up when you load up (I'm good at forgetting things) or you can adjust them to your liking to suit the load and the driving conditions. A bit harder or a bit softer – what ever you feel like it might need.

Also if you have a pesty leak - usually it's just the bolts not being tight enough but it doesn't matter that much if you can tap a button occasionally to add a few pounds to that bag.

We have 3 in cab kits and essentially the differences are the compressors :

- No compressor – we appreciate that a lot of people already have a compressor. After all compressed air is the same no matter where it comes from.
- Small Compressor – this is perfect for air bags or even small applications like diff locks. It's relatively quiet, fits discrete locations like under or behind a seat and you save money. It pumps to 200 psi so that's like four times more that you could possibly want for bags but it would be too slow for tyres.
- Big Compressor – this is probably the biggest and best twin head unit money can buy and it's great for pumping tyres or filling a tank. It also comes with a tyre inflation hose.

Our kits are all digital and have LED gauge and electric up/down buttons for each bag which operate 12V electric valves out where the action is. This means no air lines needed inside the car and a lot less opportunities for leaks. For people paying to have an in cab kit fitted it is also a lot faster to run some wires under the carpet than managing air lines behind the dash and so you save time and time costs money.

Our compressors can be mounted up side down or sideways and they can be outside in the engine bay or under a tray. Being water proof they will run under water so long as the air in take is not compromised and they can only suck air.

We have a page on our web site dedicated to in cab kits where you can buy either of these 3 options or even just some parts if you want to build your own solution. Because we value your repeat business we are happy to offer you a **10% discount voucher** – just use voucher code “**REPEAT**” when you pay.

Here's that link :

<https://www.aaasuspension.com.au/product-category/in-cab-kits/>

We certainly appreciate your business – don't forget you are supporting an Australian family who to the best of our ability make as much of our gear right here in Australia.