



BOSS FITTING INSTRUCTIONS FOR AN **LA-84** LOAD ASSIST KIT Suits Land Cruiser 300 and Prado 250 series

FIRST - Read the safety recommendations and helpful tips

- Check that you have the correct kit for your vehicle.
- Installation should be done on level stable ground.
- Secure the lifted vehicle using axle stands beneath the chassis and use wheel chocks to prevent movement. If unsure how to best secure the vehicle seek advice first.

AIRBAG ASSEMBLY

DO NOT USE any sealing substances between the Airbag and bracket)

Attach the top and bottom brackets to the Airbag using the supplied bolts and spring washers (or counter sunk screws). **Note that the alloy ring on the Airbag rotates** to allow final alignment with the vehicle's mounting points. Leave the bolts loose enough to allow rotation during the fitting process. The brackets will ultimately be tightened down leaving an even **1-2mm gap** between the bracket and alloy ring. Note, some fitting configurations will not allow enough room to get to all bolts/screws for final tightening. If this is the case you may need to tighten one end only, or accurately align and tighten both the top and bottom prior to fitting up.

Check that you have the correct bracket orientation. Brackets often have directional off-sets and/are side specific. This is to ensure top and bottom alignment as well as clearance from other vehicle components, check the instructions and diagram.

INSTALLING THE LOAD ASSIST KIT

- 1 Jack the vehicle up and support the vehicle on axle stands under the chassis and support the differential in the center with the jack.
- 2 Remove the wheel for easy access, do one side at a time.
- 3 Remove the bump-stops, **RETAIN THE BOLTS** as 4 of them will be re-used
- 4 Assemble the Airbags as per diagram and 'AIRBAG ASSEMBLY', leave the top bolts loose at this stage. Note that the elbow air line push fittings go to the wheel side of the chassis.
- 5 Place the M10 x 40 bolts (without washers) into the lower bracket. Lean the Airbag assembly backwards to allow the bracket to fit in between the brake line and axle tube.
- 6 Bring the Airbag assembly into position between the chassis and axle tubing as per diagram.
- 7 Fit the lower bracket clamp under the axle tube with **SNUB FACING THE WHEEL** (see diagram) and firmly secure using the four M10 washers and nuts.
- 8 Align the top bracket extension with the front bump-stop mounting hole in the chassis rail and then tighten the 6 top Airbag bolts as per assembly instructions (1-2mm gap).
- 9 Using a jack, lift the Airbag assembly up to the chassis rail.
- 10 Align top bracket and start the 2 bracket bolts. Tighten the front bolt first finger tight, which will bring the bracket up against the chassis rail. Tighten the side bolt that will hold bracket against chassis.
- 11 Do the same for other side and tighten the front bracket bolts on each side.
- 12 Check for at least 15-20mm clearance around the Airbag.
- 13 Connect the airline to the elbow push fittings (See Airline and fitting guide) Using the supplied zip ties, route the line along the chassis rail and to the mounted Schrader valve assembly.

TIGHTENING OF BAG BOLTS

Check bag assembly alignment and confirm clearance from other components that could rub on the Airbag, air fittings or airline. The alloy bag ring is designed to bite into the bag to create the seal. **IMPORTANT:** Tighten the six bag bolts down as you would with wheel nuts. Systematically from side to side tighten the bolts down until you achieve an even **gap of 1-2mm** between the alloy bag ring and the bracket. Do not over tighten as this will cause leaks.

AIRLINE AND FITTINGS

If you're going to get an air leak it's most likely going to be during this next process. Airline must seal correctly, and foreign matter must be kept out of the system. It is important to consider these tips, particularly if you're also installing or going to be installing a BOSS Incab Control Kit or air management system down the track.

1. Before routing the airline around the vehicle it's a good idea to tape the ends to avoid collecting foreign matter. Blow the airlines out before connecting to the push fittings.
2. Airline must be free from any crushing or burring, use the supplied **BOSS Tube Cutter**.
3. Install the two supplied Schrader valves (manual bag inflation) in an easy to get-to spot. Around the rear number plate is a common place.
4. Secure the airline with zip ties avoiding sharp objects and heat sources such as the exhaust.
5. Make sure that airline is run **STRAIGHT** into push fittings, avoid hard curves as this may cause leaks.
6. Pay attention to how the airline is routed from the Airbag. Make sure that you do not route it in a manner that causes the airline to pivot against the push fitting when the suspension rises and falls, this will cause excessive wear on the internal O-ring seal of the fitting and will eventually leak.

NOTE: If the push fitting is on the top bracket, first run and zip tie the airline along the chassis or underbody. If the push-fitting is on the lower bracket, first run and zip tie the airline along the axle before rising to the underbody or chassis.

7. Place the airline into the push fitting and push firmly, this can sometimes feel like two stages so make sure it's all the way home and then give it a short tug back to make sure that it is seated. The 'lock claws' inside the push fitting automatically grab the tubing, an elastic sleeve surrounds and seals around the tube.

INFLATING AIRBAGS FOR THE FIRST TIME

When the full installation is completed and airing up for the first time, initially inflate both Airbags to 80-100psi. This helps the bag rings to bite into the rubber creating a good seal.

Then adjust the pressure to the weight being carried.

Always maintain a minimum of 3-5 psi when not carrying additional weight, this will prevent bottoming out on harsh bumps.

CHECKING FOR LEAKS

If the system loses air:

1. Pressure the system up. Use a squirt bottle with very soapy water to spray around all the airline connections, you are looking for active bubbling which will indicate a leak.
2. If a leak is found pay close attention to where the bubbles are coming from. For example, if it's a push fitting, is it coming from the thread or where the airline goes into the fitting?
3. If it's the airline, remove it by depressing the round collar on the fitting, push in slightly and then manipulate backwards. Check for a clean cut, snip 10mm off if required and re-insert.
4. If it's a thread, remove the fitting and clean the thread checking for any obvious damage. Apply thread sealant and tighten into place (firm is enough, do not over tighten)

REFITTING FACTORY COMPONENTS

When re-fitting any factory bolts make sure that they are torqued down to the manufacturer's specification. If you are unsure of the specification, contact the vehicle dealer.

Note: Replace your U bolts if they appear damaged. No responsibility whatsoever is accepted for the fitment of incorrect parts. The onus is clearly with the fitter to ensure the correct parts are used and those parts are correctly fitted. Any damage to parts or consequential damage or cost resulting from the fitment of incorrect parts or incorrect fitment is totally the responsibility of the fitter.

SAFETY NOTE

Load Assist Airbags work in conjunction with your vehicles operational suspension

Designed to help the vehicle maintain a level and safe stance when legally loaded

Under load a typical bag pressure range would be 0-45psi

Requiring above 70psi to level the vehicle may indicate that the GVM has been exceeded and you run the risk of damaging your vehicle

Enjoy your ride and thanks for choosing BOSS

If you haven't already, check out our range of Incab Control systems

LA-84 Land-cruiser 300 & Prado 250 Series Fit up pics

