# REDFOOT® LEVELLING

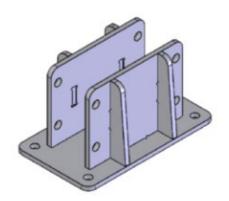
# Autolift Caravan Bracket Install Manual





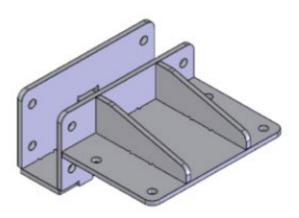
# Bracket types available in kit combinations

Under Chassis Mount – P/N TI-A-0008





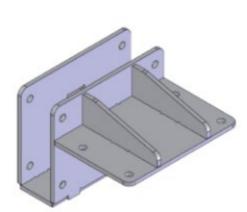
Side Mount '50mm offset' Chassis Mount - P/N TI-A-0011





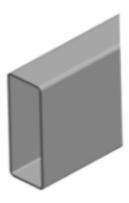


Side Mount '95mm offset' Chassis Mount (only suitable for 150mm RHS Chassis) P/N TI-A-0012





Each bracket is designed to be attached the underside of the RHS chassis rails for these sizes. H  $100mm\ x\ W\ 50mm$ , H  $125mm\ x\ W\ 50mm$ , H  $150mm\ x\ W\ 50mm$ 



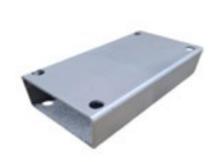


# Fittings included in each kit

- 16 x m10 x 80 Bolts
- 16 x m10 x 30 Bolts
- 64 x Washers
- 32 x Nyloc Nuts

#### Optional 50mm bracket spacers for extra high Caravans

(Spacer brackets will include 4x m10 x 80 bolts – P/N TI-P-0020)





## Tools required for installation

- Power Drill and 10.5mm drill bit
- Socket set and spanners
- Hole punch
- Permanent marking pen
- High corrosion resistant paint (Used for holes once drilled)
- Optional impact wrench and torque wrench
- Measuring tape



#### **Bracket locations**

When installing the Redfoot Levelling AutoLift system to caravans you must always attach the brackets to the main parrellel chassis rails or A-frame. Location points can vary and we recommend attaching the rear jacks no more then 1.5m behind the rear axle. We recommend the front jacks be installed in the area where the A-frame meets the parallel chassis rail.

Important: Never attach brackets/jacks to sub frame or where the existing stabiliser legs are postioned. See image below.



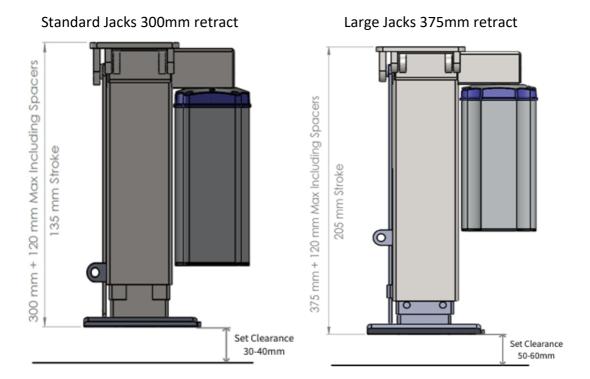
How to measure? Firstly, position the caravan on a flat hard ground surface. Once you have postioned the caravan you will then need to level the caravan using the jockey wheel. Using a measuring tape, ensure the chassis is of equal distance to the ground both front and rear. Record the measurements as you will require these later. See the image below.





There are two different size jacks, set to different set clearance heights. The set clearance is the distance between the bottom of the jack foot and ground when the jacks have been deployed. This is how you measure the correct size jacks for your Caravan.

Make sure to consider the size jacks you have in the kit provided. See diagrams below.



In each kit you will receive 10mm, 20mm and 40mm spacers to expand the jack up to 120mm in additional length. The spacers have been designed to allow you to achieve the desired set point once the jacks are mounted to the brackets bolted to the chassis.

\*To adjust the jacks with spacers, refer to the Redfoot Levelling AutoLift installation manual.

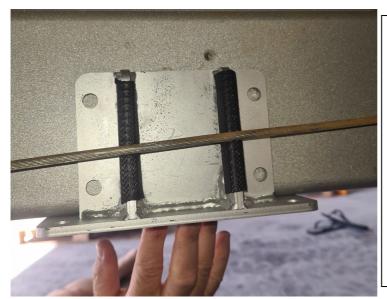
When measuring from the under chassis to ground you must include the set clearance space recommended in the diagram above.

Example. If you have measured an under chassis to ground clearance of 360mm, the desired out come will be;

Standard Jack length = 300mm Set Clearance Required = 40mm Add 1x 20mm Spacer = 20mm



## Mounting the brackets



Once you have found the optimum location along the chassis rail, prior to installing make note of any obstructions. Further, consider the swing of the jack once installed, handbrake wires and suspension mounts. Try to get both left and right-side brackets mounted as symmetrical as possible, this helps with weight distribution and system levelling capabilities.



Once suitable mounting locations are found, mark where each hole will need to be drilled with the bracket flush up against the bottom of the chassis.



Use a punch to mark the center of the bracket hole, this will prevent the drill bit from walking.





Before you start drilling, check which side of your chassis has the wiring loom. Make pilot holes with a 5mm drill bit, try not to go all the way through the chassis to avoid hitting any wires.



Step up your drill bit until you reach 10.5mm. As you can see here there is wires running through the chassis that need to be avoided.



You may need to use a small screwdriver to lift the wire inside the chassis to get the bolts to slide through. Ensure you use washers with each bolt.





Use the nyloc nut and washer, tighten with a wrench to 40NM.



Next, measure the distance from the bottom of the bracket to the ground. The van chassis will need to be as level as possible, see Autolift install manual for how to add spacers to expand the jack. If you are using optional under chassis bracket spacers as shown, install them using washers provided.



Lastly, use an impact wrench to fasten the jacks to each bracket with a washer and nyloc nut to 40NM.





The finished installation should look as shown.

While the chassis is level on flat concrete, check both the front and rear jacks have approximate set clearance of 30-40mm (standard jacks) and 50-60mm (larger Jacks).

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