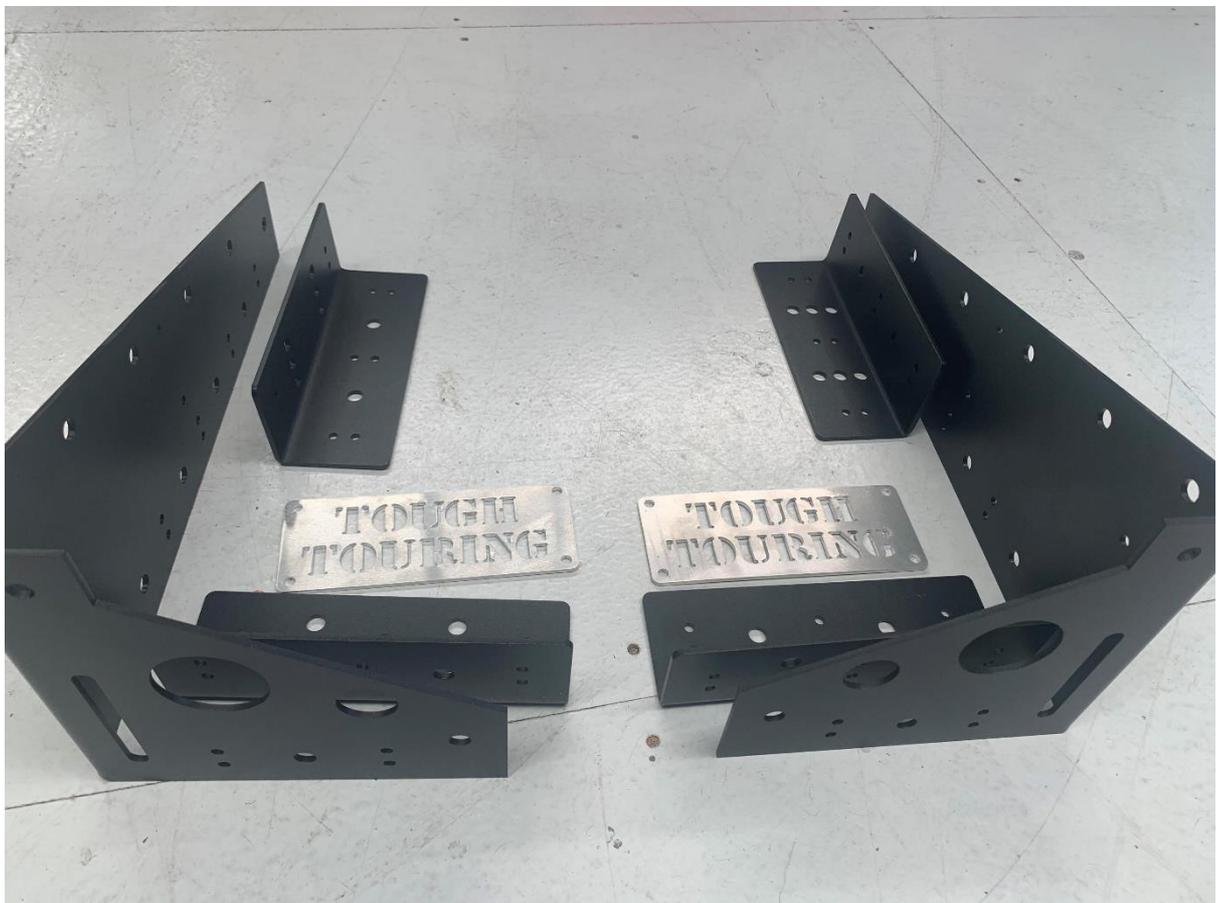


Tough Touring Pole Less 270 WING Awning to Flat Touring Rack Kit (Universal Suits ARB BASE rack and Rhino Pioneer 2021) Installation instructions

Be sure to remove belt buckles, sharp objects from your pockets if you don't want to scratch your paint on vehicle. Cover paint areas with rags where possible and protect it against ladder strike etc.

Kit contents –



1. The kit is pictured below is in correct orientation as per how it sits on your rack, looking at the tent from the passenger side of the tent / vehicle ...

THERE IS A VARIATION TO THIS KIT FOR TOYOTA TROOPCARRIER AND DEFENDER 110 WHERE THE RACKS ARE LONGER THAN THE AWNINGS ... Continue reading the instructions, there is a different front bracket mentioned at the end of these instructions.

2. Assuming the awning is being hung on the passenger side of the vehicle. The Laser cut steel brackets may Vary over time as designs change. This 'SLOTTED' variant is used for most types of pole less wing awnings and can accommodate Ostrich wings, Bundu Awns, Howling

moon Awnings, Quick Pitch as well as 30 second awnings and Rhino Batwing.– Not all awnings can use the included Hook bracket at rear drivers side, however it can be a handy place to hang rubbish bags / shoes etc anyway. (So you may as well fit it.)

3. Included in the pack of fitting hardware + Open Aluminium 6/6 rivets, 6 bolts and nuts (For assembling parts while fitting) a handful of tec screws to hold brackets in place on your tent while you drill out the holes for the rivets. – Some parts may not be needed but are included in case your short. It is normal to have parts left over 😊

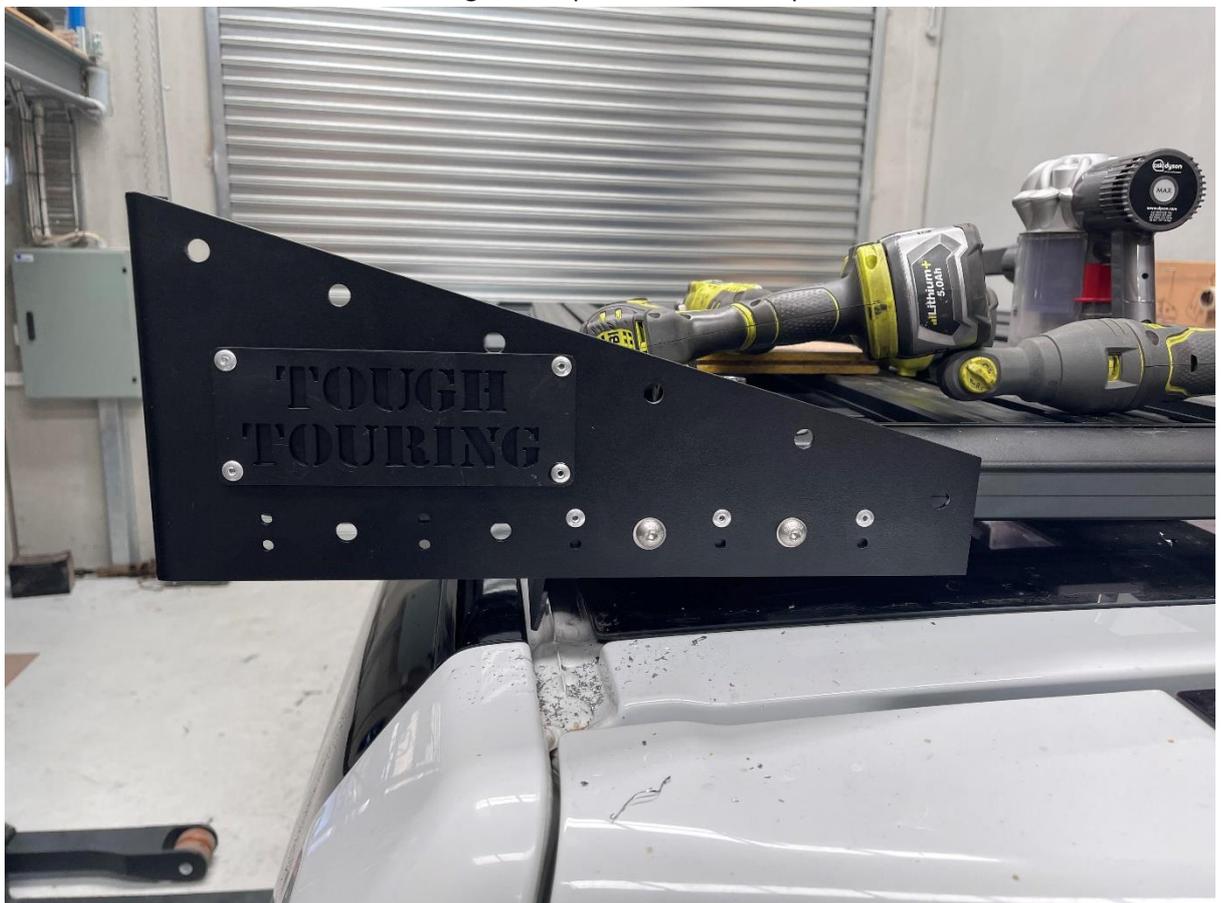


4.

5. Take the rear passenger corner bracket (the one Pictured above) and Assemble it finger tight with a couple of bolts... test fit this first. It can be fitted either way – (Upside down on the internal right angle brackets works better 90% of the time) . You'll see that the short internal

brackets have offset holes with different widths available so upside down lowers them further or go the other way if you want a bit more height... Assemble it as shown Above (Just finger tight) ,

6. Now hold the assembled bracket in place on the rear passenger side in a few orientations on your rack until you find a position where you can get the max amount of good solid fixing points through the top and end extrusions on your rack. (Modern Aluminium Plank racks like Rhino pioneer, ARB ascent and others have a large plastic corner radius, don't bother fixing into it, it has no strength, the plates are oversized on our brackets to give you options to hit metal with rivets aplenty.)
7. Now that you have found the best / strongest Position your bracket on the rack, tec screw it into position as a 'test fit' using 2 tec screws. Check that it sits level. And square. This is the finished bracket – Note I've put 4 rivetts along the back plate into the rack edge – the two hex head bolts actually sit just below the rack edge and are bolted to the right angle backing bracket – which in turn is bolted through the top of the rack as in pic below this one...



- I drilled out these holes at 8mm because I've done it once or twice before,,, 😊 its OK to drill out the 9 mm bolt holes to give yourself a bit of room. Drill the holes with the bracket in place one at a time so that they all align properly. I like to drill and bolt, drill and bolt, drill and rivett, drill and rivett.



- We would recommend 3 bolts on the rear of the bracket (One As far out towards the end of the bracket as far as possible to prevent twist) and one bolt or 4 rivetts on the face of the bracket. (The face being the side the awning bolts up too). We'd reccomend Rivets only on the facing ends of the Pioneer and Ascent racks in particular, as they have bevelled edges making it hard to get a bolt in them square... For these racks, use 3 bolts instead through the top planks, as well as a spread of rivets to secure the load. Typically 3 bolts and 10 Rivetts is enough in the rear plate. If you have to drill some new mounting holes in the bracket – do so. But don't over do it. Think about the awning twist – preventing twist is the key.

See below for some fitted: there are many variations - MID mount shown below, UP variation also shown... Can be usefull if you need more height – Just mount it in a fully up position. It will be way strong enough for any combination you can switch that rear angle into.



NOTE that the side of the bracket that faces the awnings back plate only needs 1 M8 bolt and a couple of rivetts, as the awning itself also stiffens the brackets. With Shear strength of nearly 2 Ton per bolt, it's a good idea not to overdo the strength too much on the face plate, As if you hit a tree hard with the awning or push through rubbing hard, its better that the awning brackets give / bend and fail than your vehicles roof.

10.



11.

12. Now to repeat for the front bracket, If you have the rear on – you will already know what to do on the front.
13. Be mind ful that your rack is not LONGER than your awning. If so, this UP DOWN or MID MOUNT Bracket kit should not be used on the front as well. You will need a variant front bracket. We make a variation for Troopcarrier, Defender 110 – please email us at toughtouringaustralia@gmail.com if you somehow got to this stage without measuring the length of your rack vs your awning.
14. test fit the front bracket as per the rear one. Get a measurement from the awning mounting holes on the brackets face plates centre to centre, before fitting it all off permanently, again make sure your awnings back plate has the length to reach to the front bracket.
15. Have a drink.
16. There are three options for the front bracket – you can repeat the same as the rear on the front of the rack in most cases but reversed if awning is longer than your rack, However if you have a trade style rack or a roof top tent style (Half trade rack) You can use the The Alternate bracket included shown below as it is much faster to install and secures the awning just as well as pole less awnings do not exert twist force on the front section. See below. If you have a troopie or defender – We should already know about it by now and will be getting the third alternative to you.



17. DEFENDER or TROOPIE BRACKETS can be orientated as above in the case of a Basket or Trade rack, or bent and joined together (as below) with Rivets and or bolts to create a 'Triangle ' Shape if desired on Flat racks such as the Rhino Pioneer platform as per below picture. Make sure you position the brackets about 2m apart (Not further) or your awning won't be long enough to get to it !)



18.



19.

20. The Front bracket part can also be used in Combinations as above to create a Flexible mount for Dual cabs and 79 series trucks where three mounts are used.

In some cases you can even use the Angle plate from the front bracket to get a better / stronger mount as in pic here -

On this particular rack we had to do it this way to Ensure the bracket is 'squared up'. All racks are different. You may have to use your noggin and add new mounting holes in the bracket in rare occasions where your basket rack has extreme offsets.

21. Now you can install the rear 'hook' bracket (which is ONLY REQUIRED for 270 Degree awnings) this allows you to swing the awning around and clip it onto the bracket rather than using the awnings tensioning strap. (this is NOT COMPULSORY and DOES NOT SUIT ALL AWNING TYPES). Its wise to install the awning to the brackets, then open it up and secure it with the included awning strap first. This will give you the right position for the hook

bracket. (And hold the awning open while you test install it with tec screws) – Once the awning is put away and your happy with the hook brackets position, pull out the tec screws and rivett it on, filling the holes made by the tec screws by replacing them with the rivetts. You will need to drill the rivet holes out one at a time with a 6mm drill bit first or the rivetts won't fit. (Tec screws leave a 5mm hole).

22. There is a Pair of our Logo plates that you can install on the brackets once your done... Go On ! they look better on... 😊 They Rivet on in pre – drilled holes.



23. It is always better to measure twice and drill once! Take time and care to get the test fit straight and the rest of the installation will run smoothly. Get things square. Get them straight. Position all your brackets with test fit tec screws and open / close the tent to ensure you have the set up correct before you drill all the rivet holes.

24. When using your awning, use Guy ropes and poles if any movement is evident in wind. Always pack your awning when unattended – wind will exert extreme loads on pivot points – especially in directions facing the awning. Don't break things and find out later blaming the awning. The wind will always win 😊
25. Enjoy your awning! 😊 On this 200 Series landcruiser – we had to move the rear sliding mounting plate on the ostrich awning back 70mm to the rear bolt holes to get a PERFECT fit between the ARB rack and the Wing fairing.... Lets just say that the LC200 is a tricky installation... Lets just say that EVERYTHING you touch on a 4wd will throw obstacles at you. There will always be things in the way and stuff that goes a bit wrong. Part of 4wd Mods really. Shrug it off and put the tools down if your stressing out. Your head will work better after a nights rest, and solutions for the puzzles will appear.
26. Add your hook bracket. Set up the awning, Slide the hook bracket in place on the drivers side rear and tec screw, Remove awning tension and pull out tec screws and rivet it in place...
27. JOB DONE.