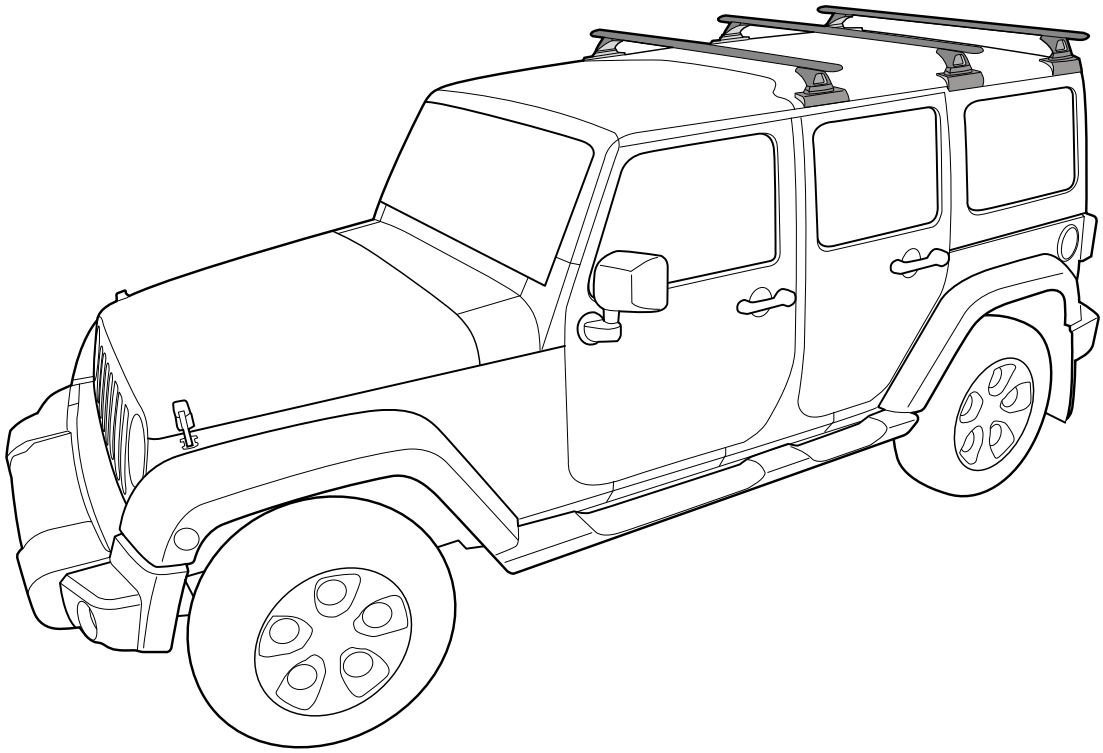
BACKBONE

Jeep Wrangler JK 4dr Hard Top 2007 0n



Important Information

Max: 120kg (264lbs) - Three Crossbars. Max: 100 (220lbs) - Two Crossbars. **Time: 2 Hours.**

Read through instructions before installation. If you are unsure or have any questions, refer to the dealer or place of purchase.

Recommendations:
It is essential that all bolt connections be checked after driving a short distance when you first install your crossbars. Bolt connections should be checked again at regular intervals (probably once a week is enough, depending on road conditions, usage, loads and distances travelled). You should also check the crossbars each time they are refitted. Make sure to fasten your load securely. Please ensure that all loads are evenly distributed and that the centre of gravity is kept as low as possible. Use non stretch ropes.

Please remove crossbars when putting vehicle through an automatic car wash.

Load Ratings:
Maximum permissible load is 120kg (264lbs) for three crossbars including the weight of the crossbars, 7.5kg (16lbs) for three bars and 5kg (11lbs) for two bars. When crossbars are to be used in off-road conditions, please build a safety factor of 1.5 into this load limit for off-road use, three crossbars = **80kg (176lbs)** and two crossbars = **66kg (145lbs)**. Although the crossbars are tested and approved to AS1235-2000, Off road conditions can be much more rigorous. However, increasing the number of crossbars does not increase the vehicles maximum permissible roof loading.

Note for Dealers and Fitters: This is a two person installation. The removal of the hard top requires assistance. It is your responsibility to ensure instructions are given to the end user or client.

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Document No: R433
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Authorised By: Chris Murty

Issue No: 04
Issue Date: 18/09/2014

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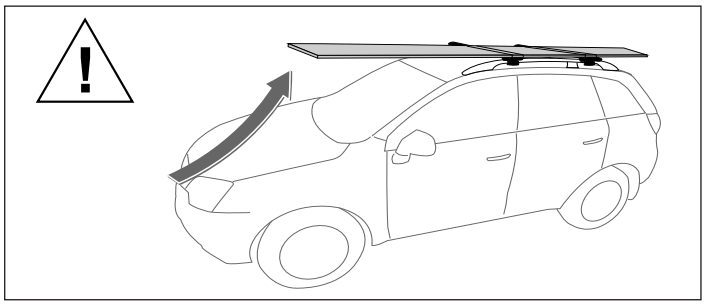
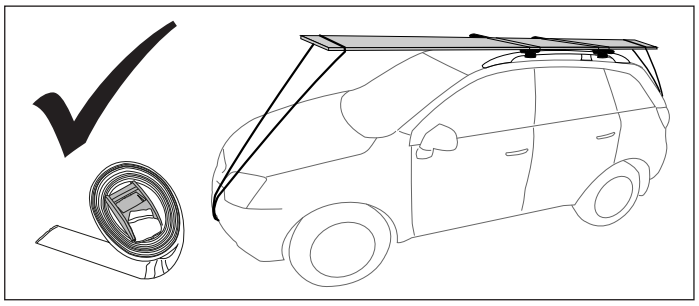
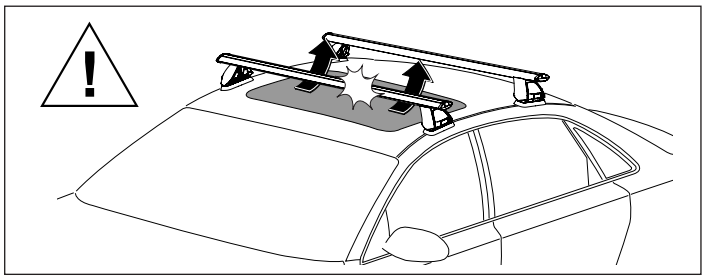
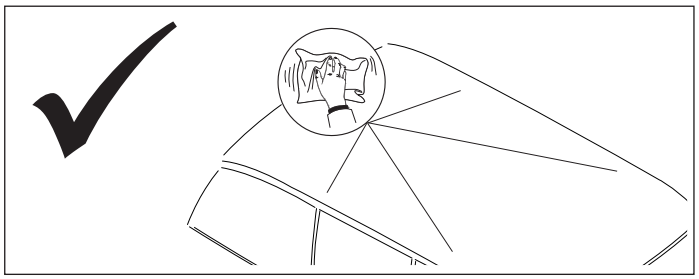
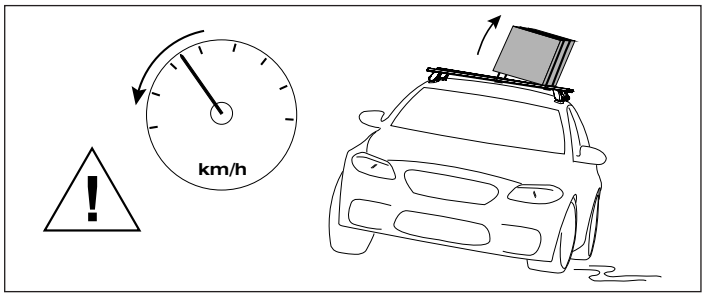
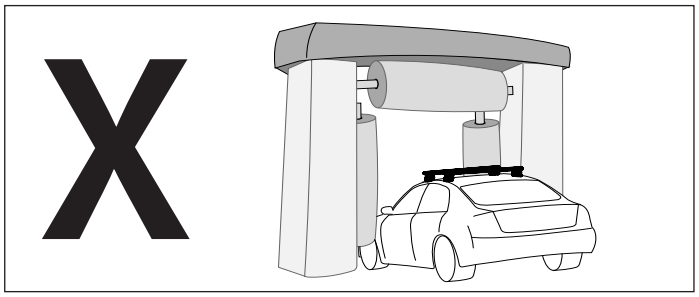




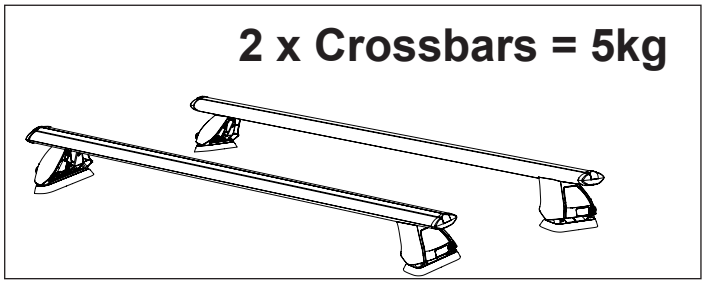




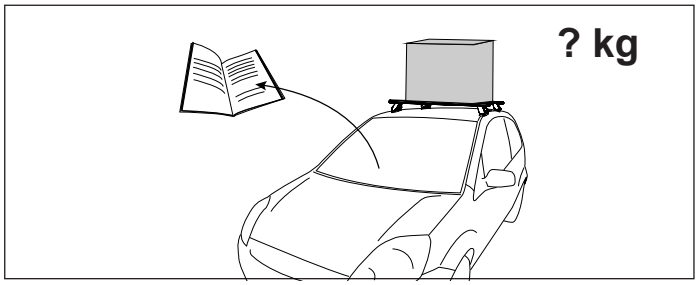




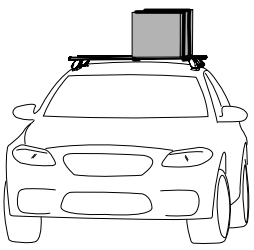
2 x Crossbars = 5kg



? kg

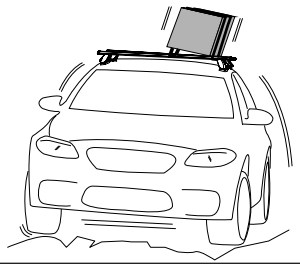


When these roof racks are to be used on a vehicle that is driven off sealed roads the maximum load rating must be divided by 1.5. Remember to subtract the weight of the roof racks to determine your maximum permissible load capacity.



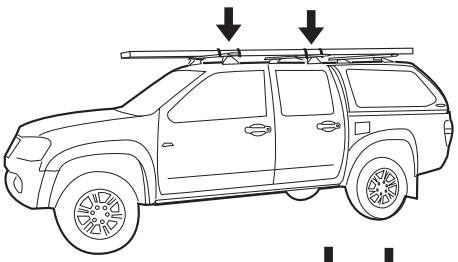
3 bars 120kg (264lbs) 2 bars 100kg (220lbs) load rating (Urban road)	=	***3 bars 80 kg (176lbs) 2 bars 66kg (145lbs) load rating*** (Off road)

Load rating not taking into account crossbar weight - 5kg

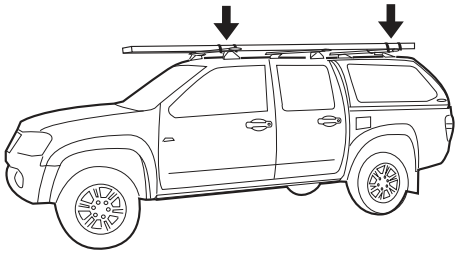


WARNING! Important Load Carrying Instructions

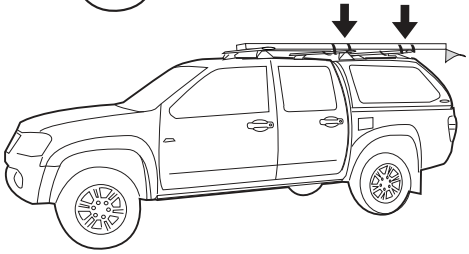
With utility vehicles, the cabin and the canopy move independently. Roofracks and vehicle can be damaged if the item transported is rigidly fixed at points on both the cabin and canopy. Instead, rigidly fix to either the cabin roofracks or the canopy roofracks.



YES

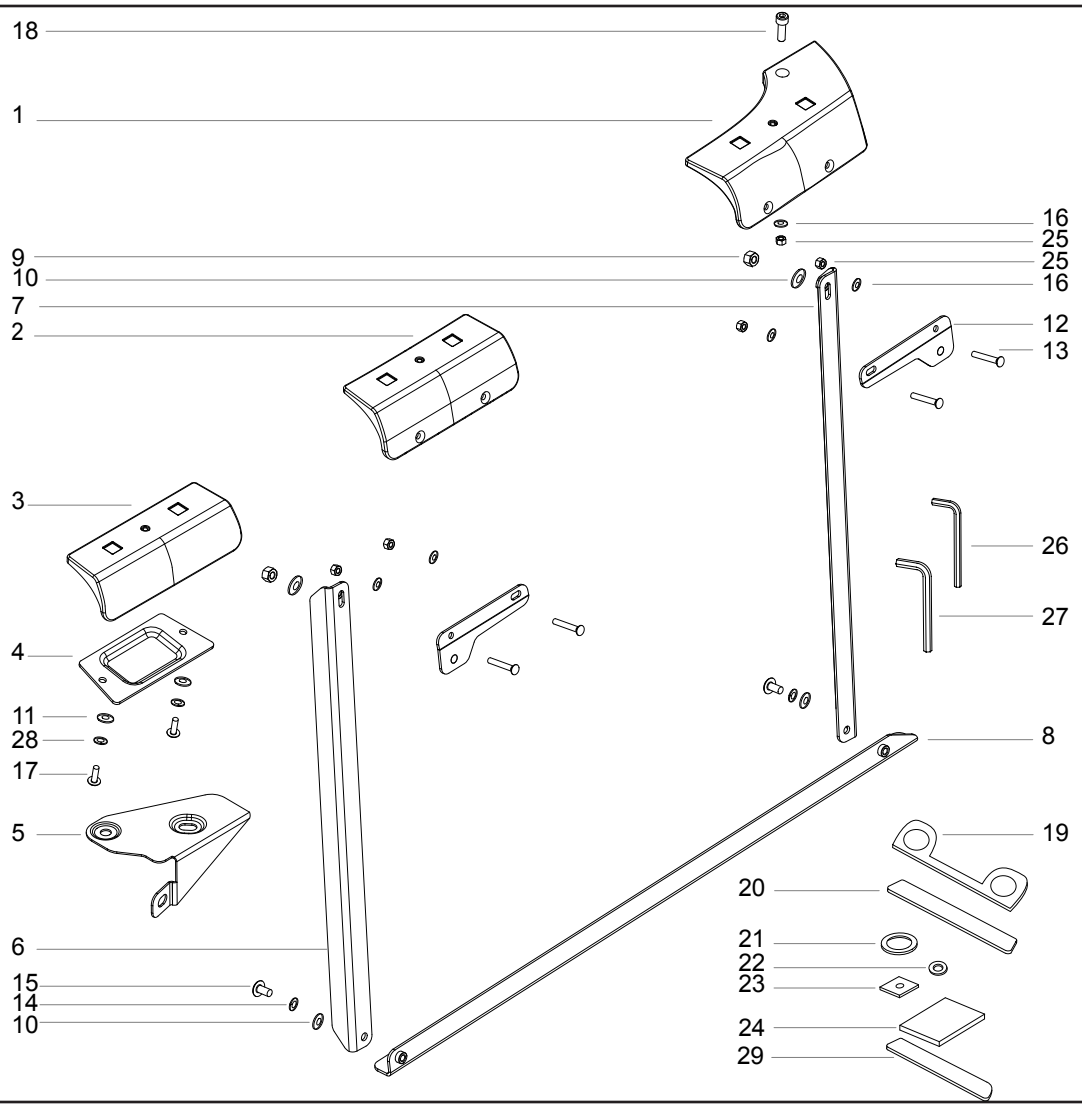


NO



YES

Parts List



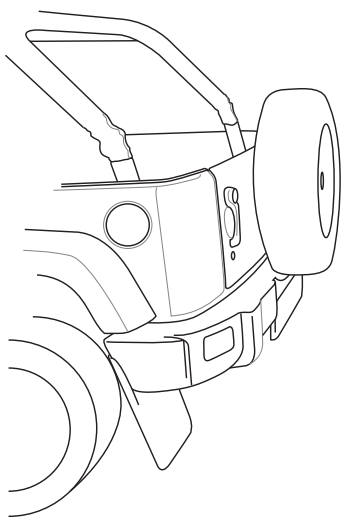
Item	Component Name	Qty R	Qty L	Part No.
1	Rear Bracket	1	1	CA1274
2	Middle Bracket	2		CA1275
3	Front Bracket	2		CA1276
4	Backing Plate	2		CA1277
5	Front Support Plate	1	1	CA1278
6	Internal Support Vertical	2		CA1279
7	Internal Support Vertical	2		CA1280
8	Internal Support Base	1	1	CA1281

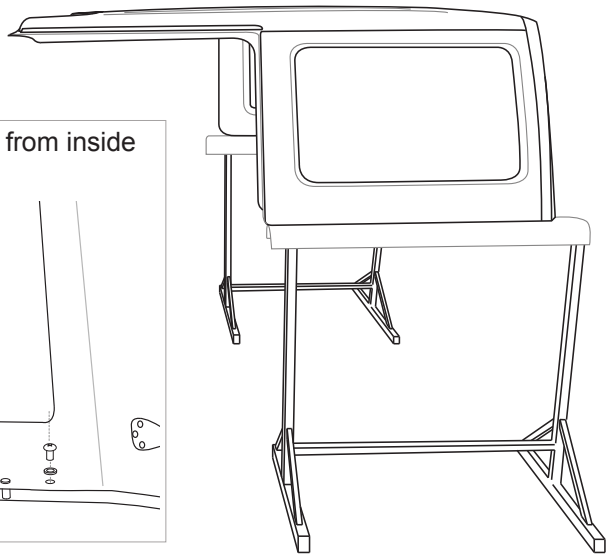
Tools Required:

-10mm Spanner
-Support Stands
- 13mm Spanner
-6-18mm Step Drill
-Drill
-Tape Measure
-3.0mm Drill Bit
-Marker Pen
-6.5mm Drill Bit
-4mm Allen Key (supplied)
-5mm Allen Key (supplied)

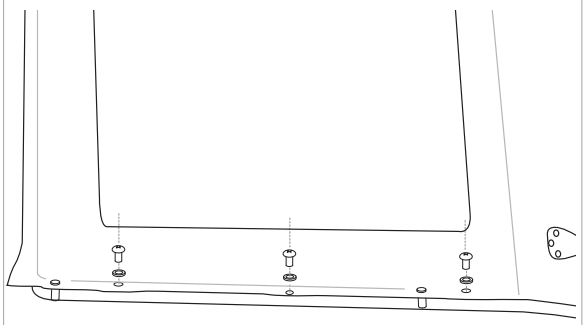
Item	Component Name	Qty	Part No.
9	M8 Nyloc Nut Black	4	N043
10	M8 Flat Washer Black	8	CA1068
11	M6x12.5mm Flat Washer Black	4	W003-Blk
12	Bracket Fixture Plate	4	CA1282
13	M6 x 40 Counter Sunk HD Bolt Black	8	B211
14	M8 Spring Washer Black	4	W019-Blk
15	M8x20 Hex Setscrew Black	4	B020-Blk
16	M6 Flat Washer Black	10	W054-Blk
17	M6x20 Button Security Screw	4	B062
18	M6 x 30 Socket HD with O-Ring	2	B210
19	Front Bracket Foam	2	CA1283
20	Middle Bracket Foam	2	CA1284
21	Bracket O Foam L	2	CA1285
22	Bracket O Foam S	4	CA1286
23	Bracket Foam Square	2	CA1287
24	Bracket Support Material	2	CA1288
25	M6 Nyloc Nut Blk	10	N069
26	4mm Allen Key	1	H001
27	5mm Allen Key	1	H002
28	M6 Spring Washer	4	W004
29	End Bracket Rear Foam	2	-
30	Instructions	1	R433

1 Remove the Hard Top (as per manufacturer's instruction) and place onto a stable, safe working area.

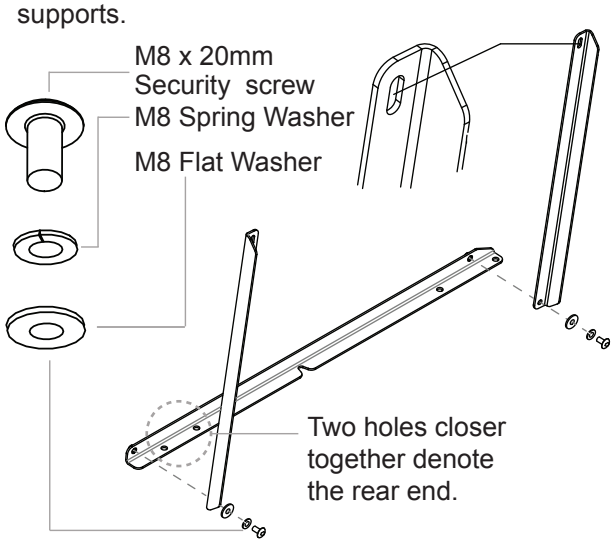




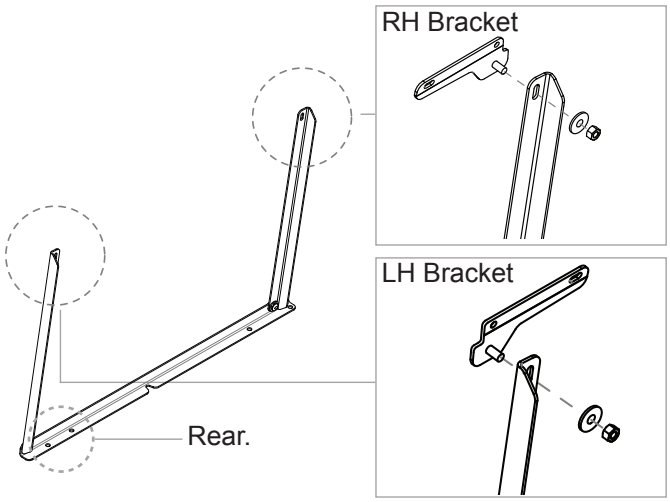
Hardware will have to be removed from inside Hard Top.



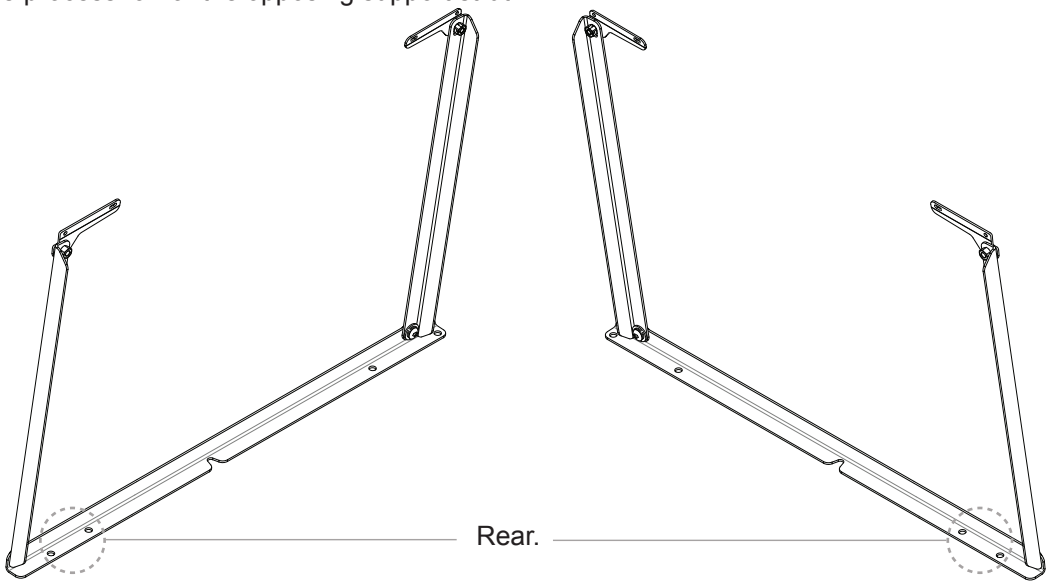
2a Assemble the Support Struts as shown. Finger tighten. Check part ID to make left and right side supports.



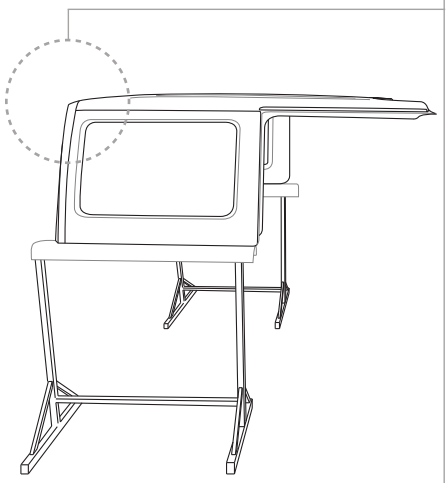
2b Attach item 12 to the arms as shown, using an M8 washer and M8 an Nyloc nut. Finger tighten.

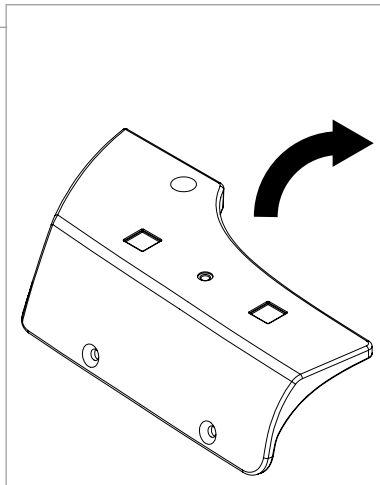


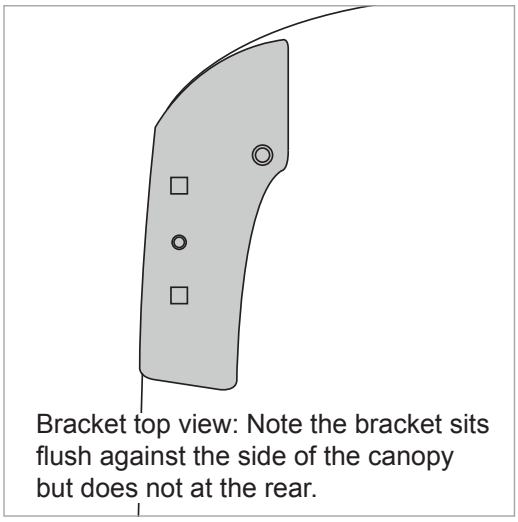
3 Repeat the process for for the opposing support strut.



4 Align the REAR bracket with the REAR of the Hard Top. Line the bracket flush with the contour of the Hard Top as show.

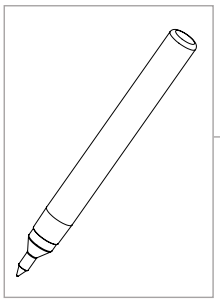


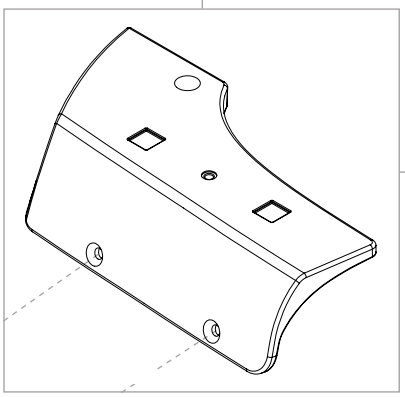


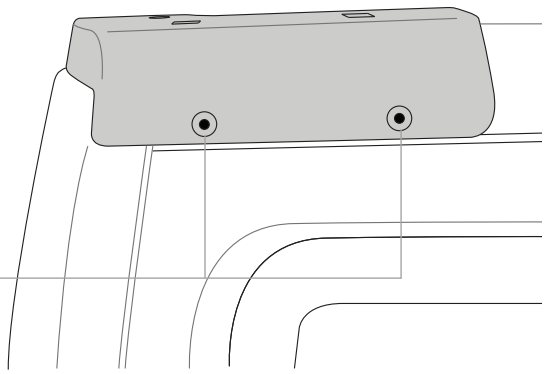


Bracket top view: Note the bracket sits flush against the side of the canopy but does not at the rear.

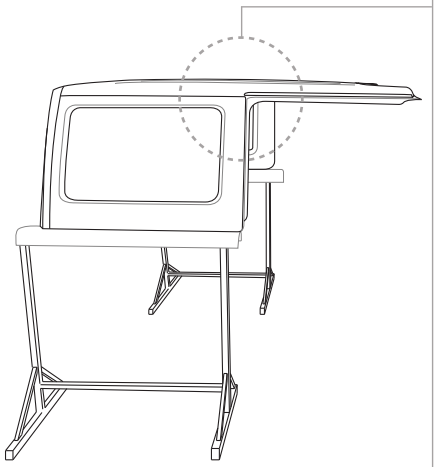
5 With bracket aligned, spot mark the bracket position as shown. It is important to be accurate when marking. Always mark the centre of the hole.

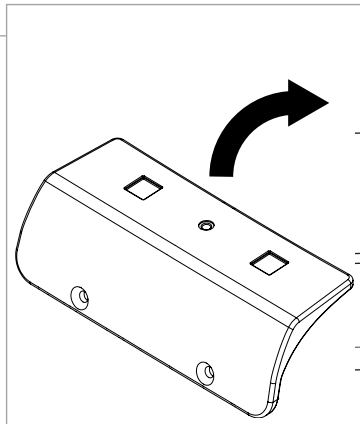


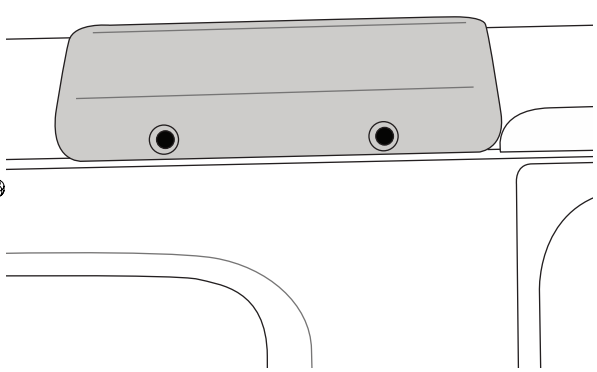




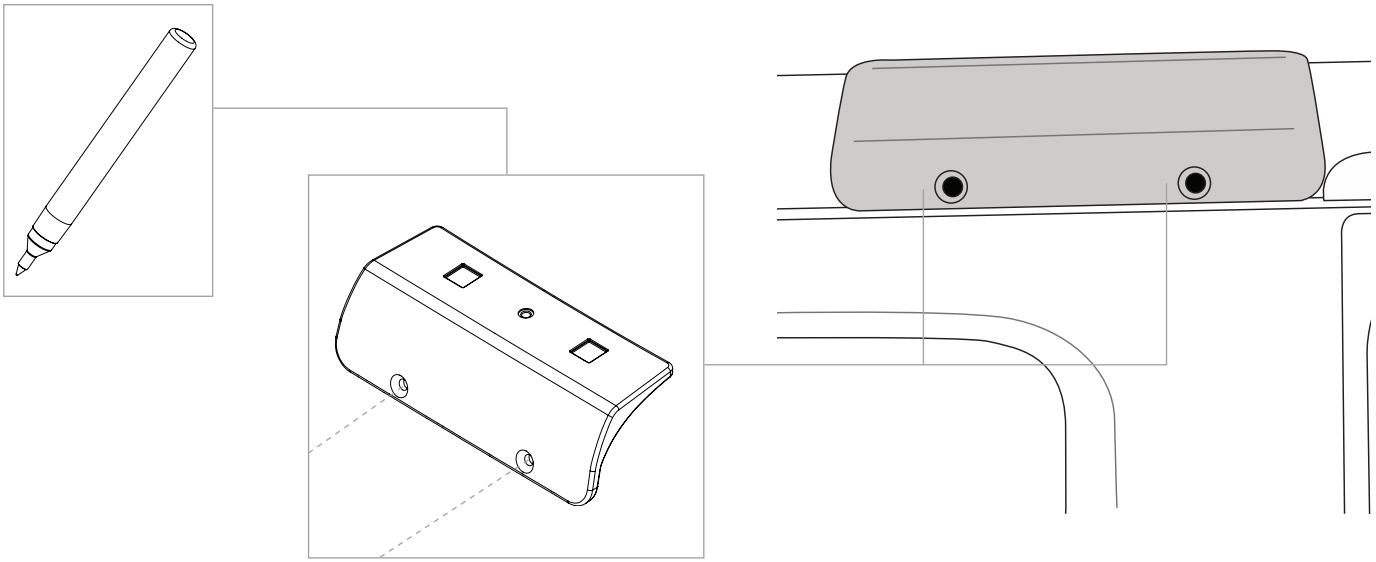
6 Align the Centre Bracket **against** the rain gutter on the Hard Top.



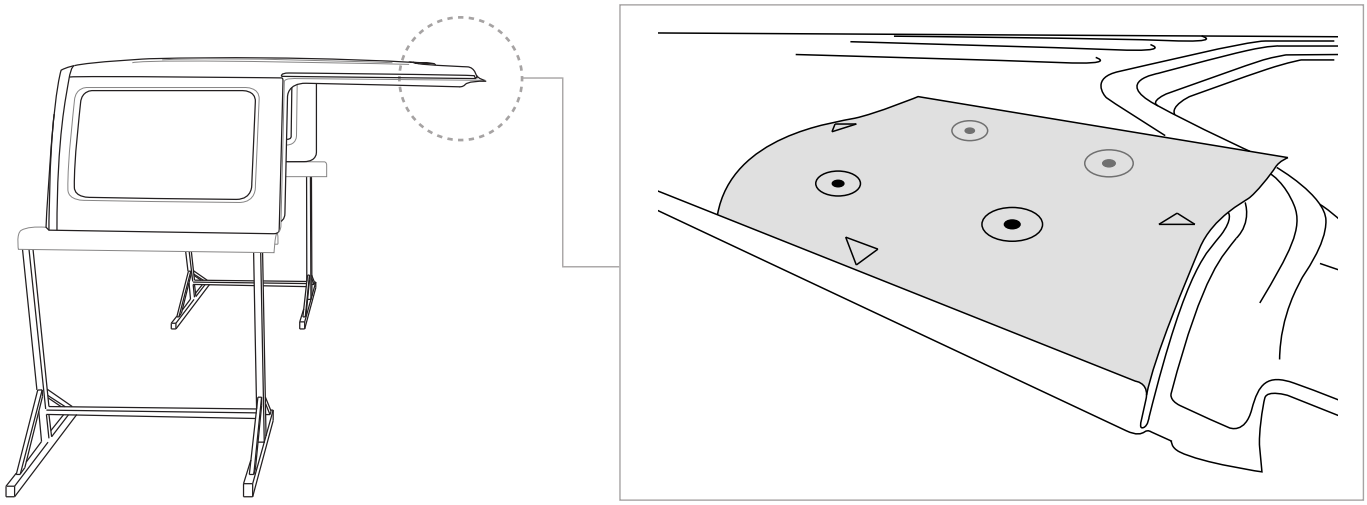




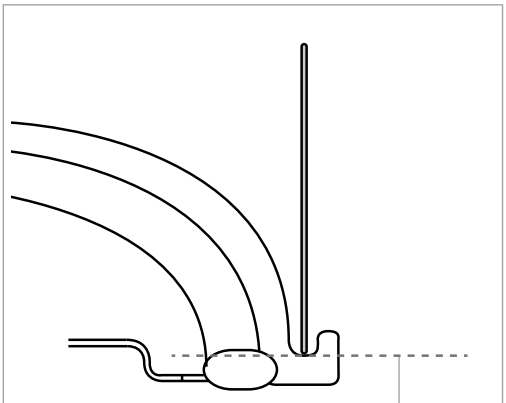
7 With the Centre Bracket aligned, spot mark the bracket position as shown.



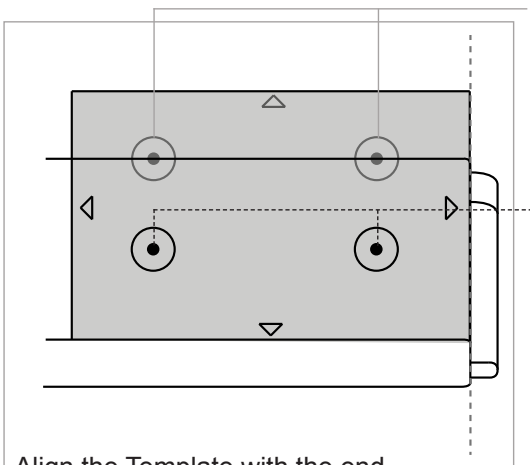
8a Place the Front Bracket Template onto the Hard top as shown (template as suppliment).



8b With the Front Bracket Template placed onto the Hard Top, align as shown and spot mark.

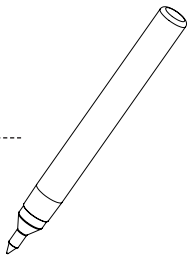


Sit the Template in the Rain Gutter on the Hard Top.



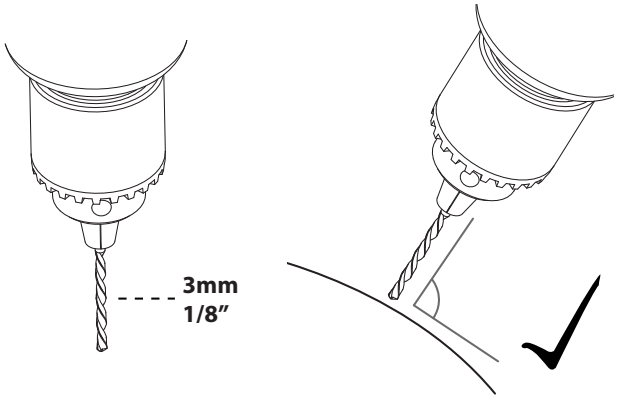
Align the Template with the end of the Rain Gutter as shown.

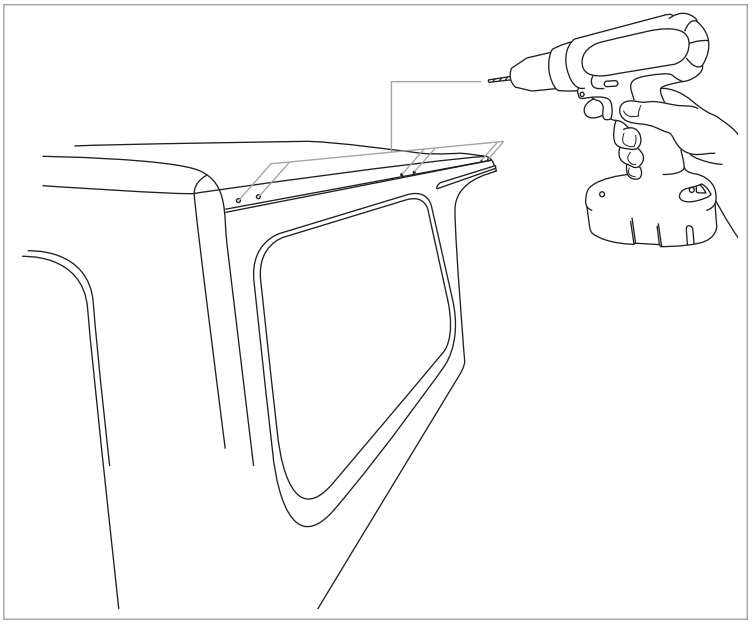
This is for opposite side of vehicle.



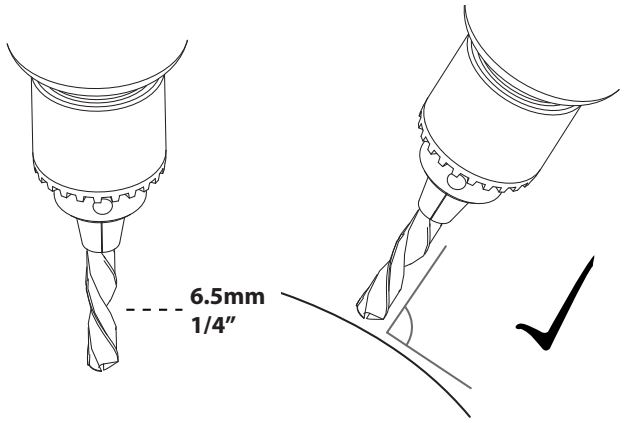
Finally, spot mark the Hard top using the Template. Use the marks closest to the gutter.

9 Using a 3mm (1/8”) drill bit, spot drill **ALL spot marks** previously layed out. Angle drill when completing.

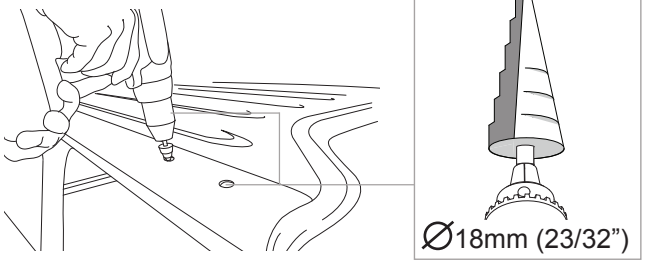


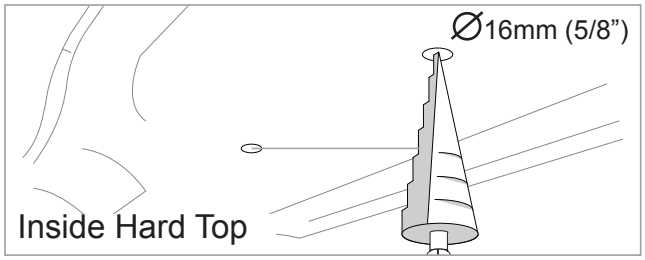


10 Using a 6.5mm (1/4”) drill bit, drill out **the REAR and MIDDLE** spot drilled sections on the Hard Top.

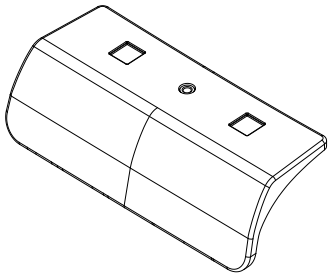


11 **FRONT HOLES ONLY:** Using a 6-18mm step drill bit, open out the front spot holes as shown.

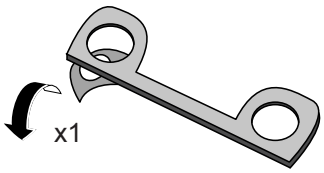




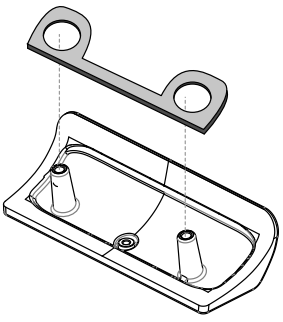
12 With relation to the Front Bracket, take corresponding foam pads and remove the protective strip as shown. Fit to bracket.



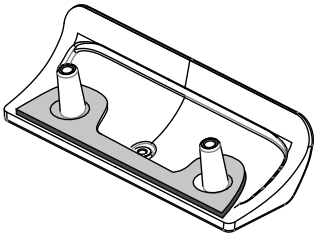
a. Remove adhesive protective strip.



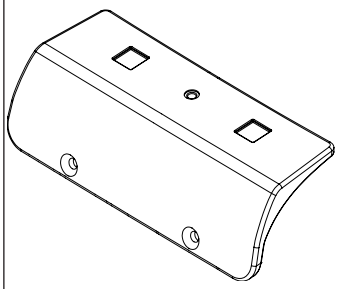
b. Fit adhesive to bracket.



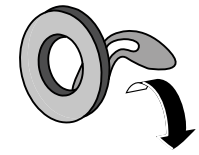
c. Ready for installation.

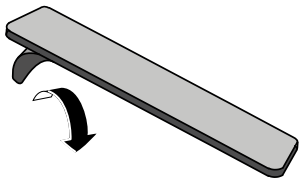


13 With relation to the Centre Bracket, take corresponding foam pads and remove the protective strip as shown. Fit to bracket.

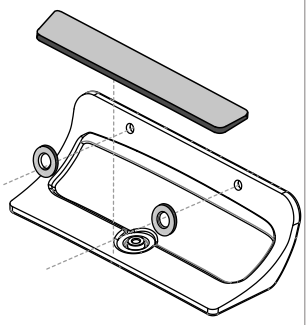


a. Remove adhesive protective strip from corresponding parts.

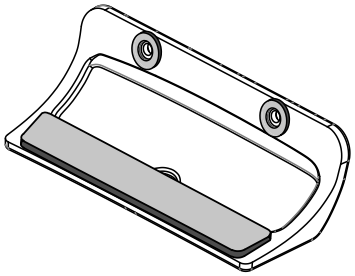




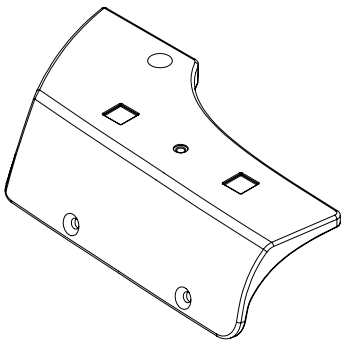
b. Fit adhesive to bracket.



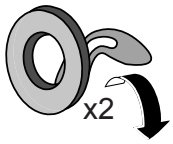
c. Ready for installation.

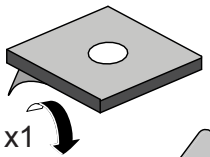


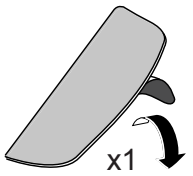
14 With relation to the Rear Bracket, take corresponding foam pads and remove the protective strip as shown. Fit to bracket.



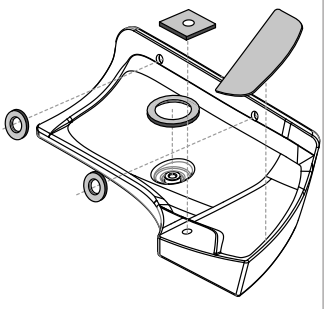
a. Remove adhesive protective strip from corresponding parts.



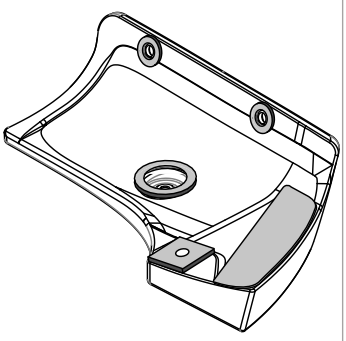




b. Fit adhesive to bracket.

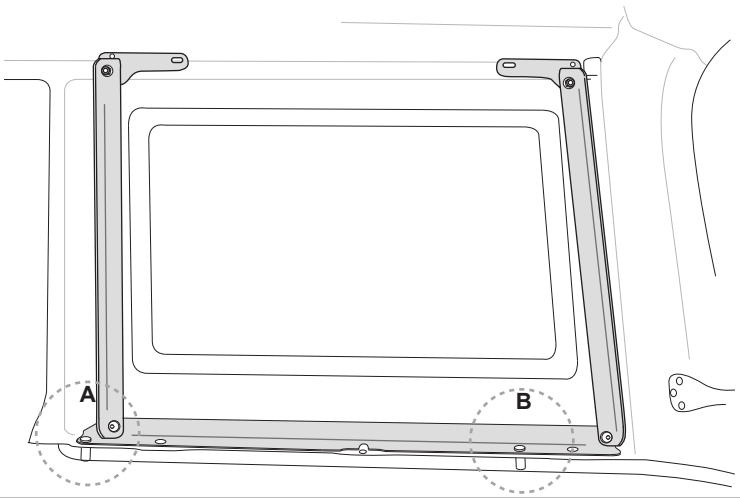


c. Ready for installation.

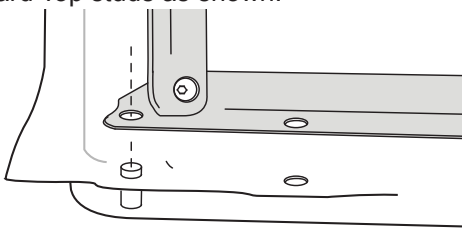


Note: Repeat the previous steps 4 to 14, for the opposing side of the Hard Top

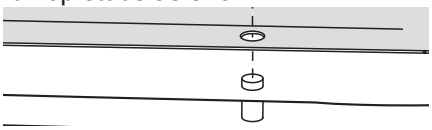
15 With assistance to hold the Support Strut in place, set the assembly on the inside of the Hard Top as shown.



A. The Support Strut will slot onto the Hard Top studs as shown.

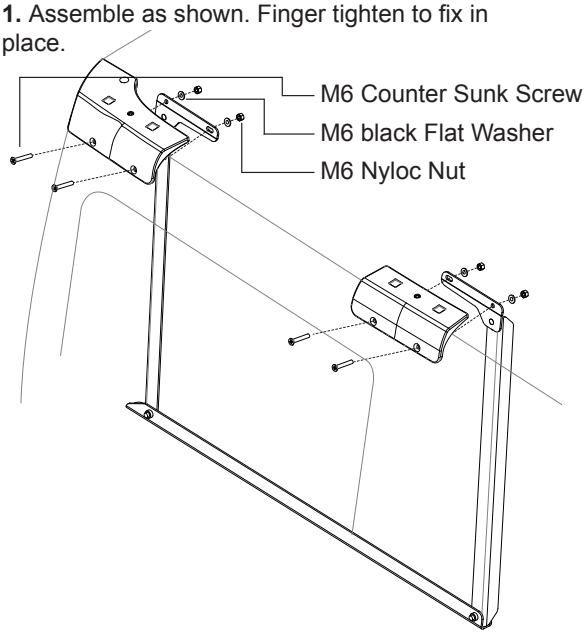


B. The Support Strut will slot onto the Hard Top studs as shown.

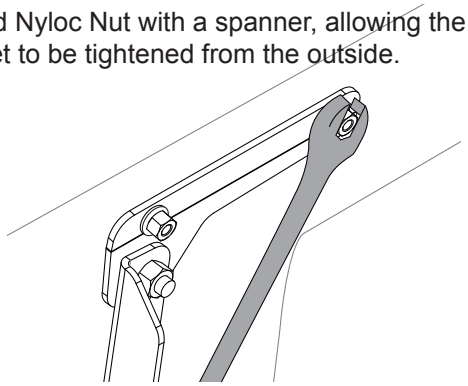


16 With assistance to hold the Support Strut in place, move to the outside of the Hard Top. Place the REAR Bracket in place. Insert M6 counter sunk screws, fastening from the inside with M6 black flat washers and M6 Nyloc nuts. Hold the nyloc nuts in place with a 10mm spanner. Tighten from the outside with a 4mm allen key. Repeat this process for the CENTRE Bracket.

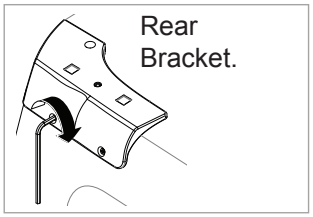
1. Assemble as shown. Finger tighten to fix in place.

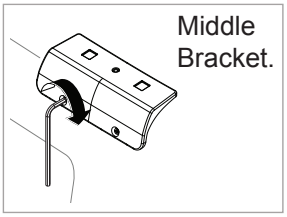


2. Hold Nyloc Nut with a spanner, allowing the bracket to be tightened from the outside.



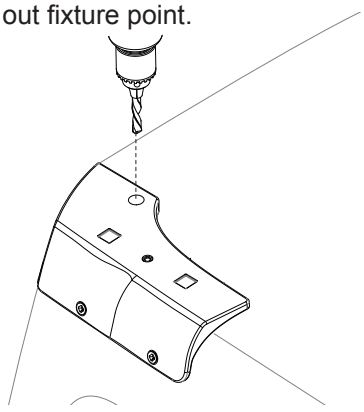
3. Fix with a 4mm Allen Key.

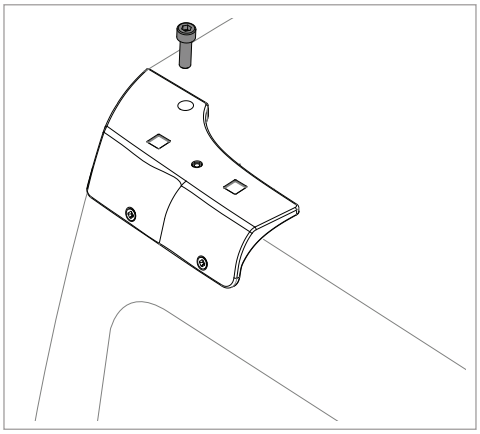




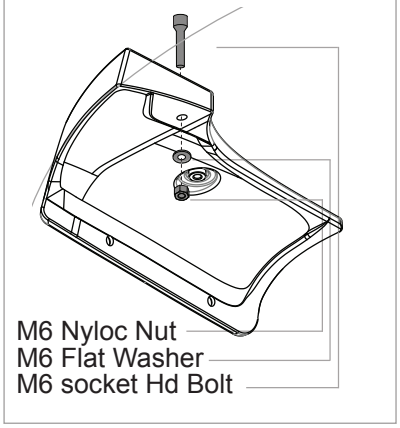
17 With Rear Bracket now secure, drill out the top fixture point with a 6.5mm (1/4") bit. Use an M6 socket HD bolt with O'ring, an M6 flat washer and an M6 nyloc nut to fix the bracket.

Drill out fixture point.

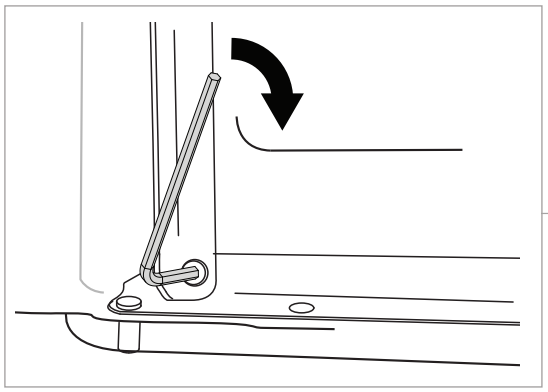


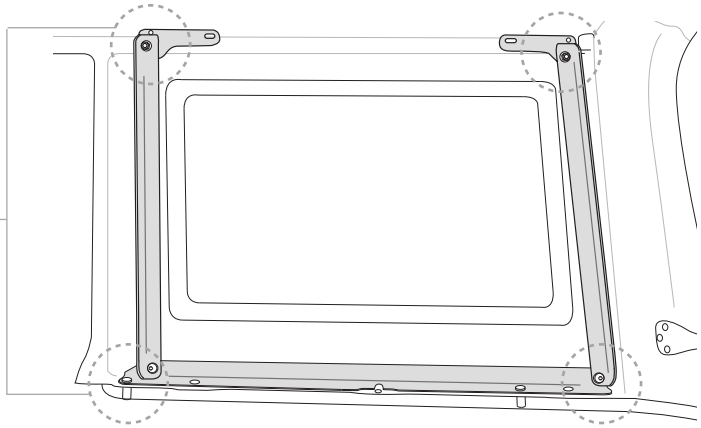


View from inside Hard Top

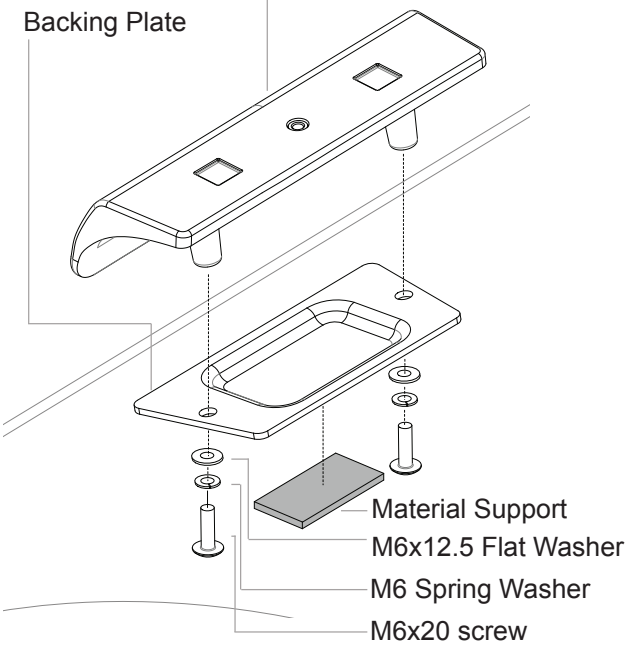


18 Tighten supports with a 5mm allen key. Top of supports will require a 13mm spanner.

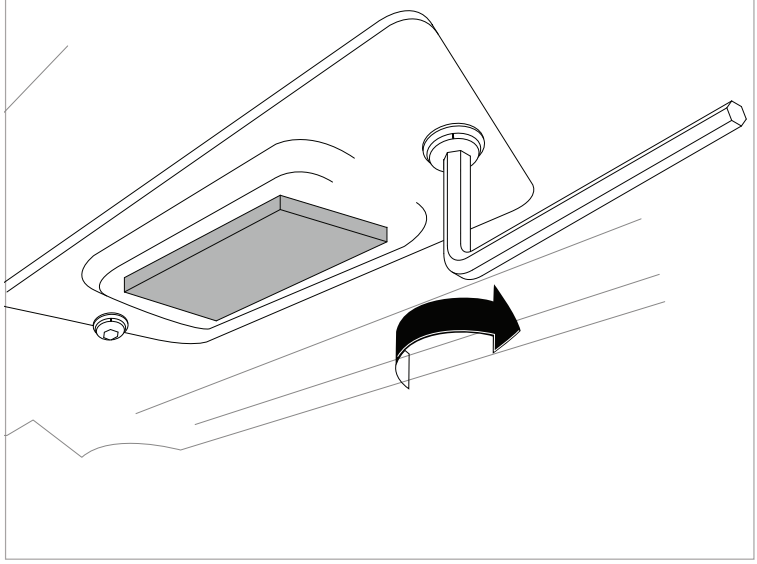




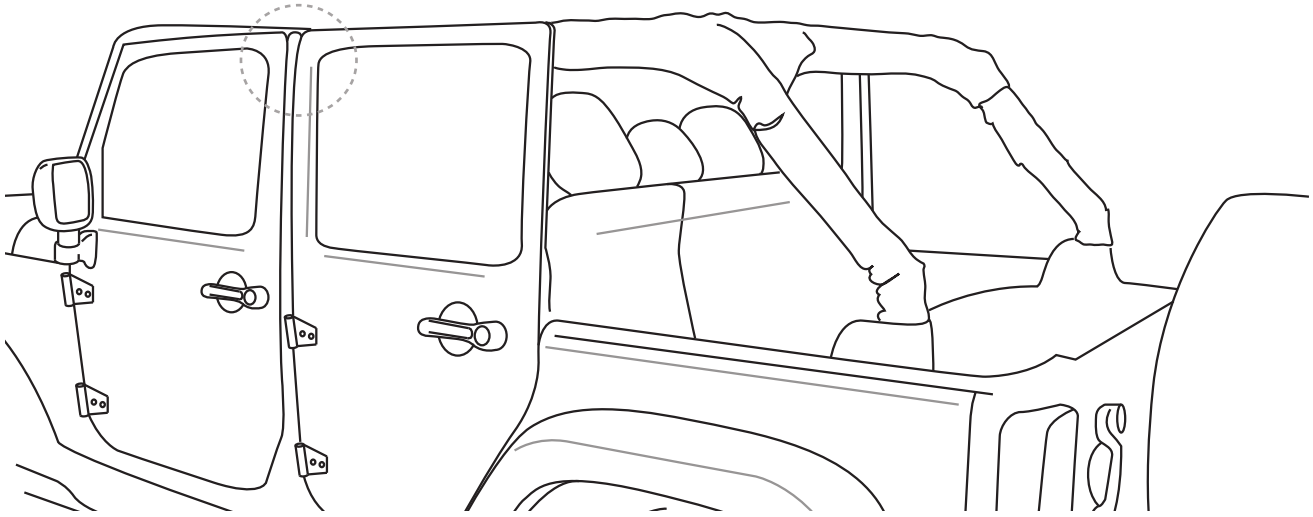
19 Place the FRONT Bracket onto the Hard Top. Using the black M6x20 dome head setscrews, M6 spring washers and M6 flat washers, attach the Backing plate and material support to the Front Bracket from inside the Hard Top as shown. Tighten with a 4mm Allen Key.



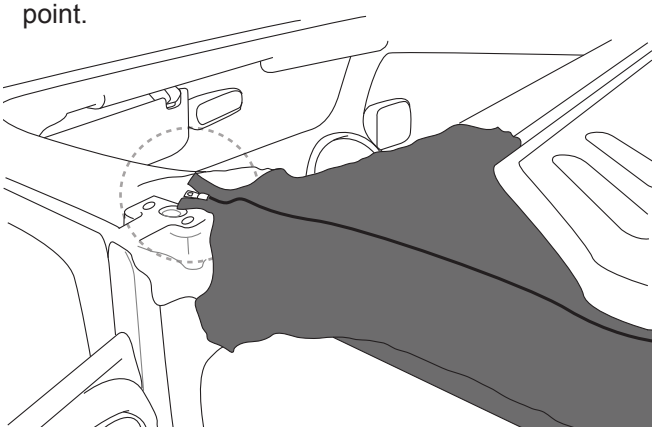
Tighten Backing Plate to the Front Bracket from the inside of the Hard Top. Max Torque 4-5Nm/ 3-4lbs/ft.



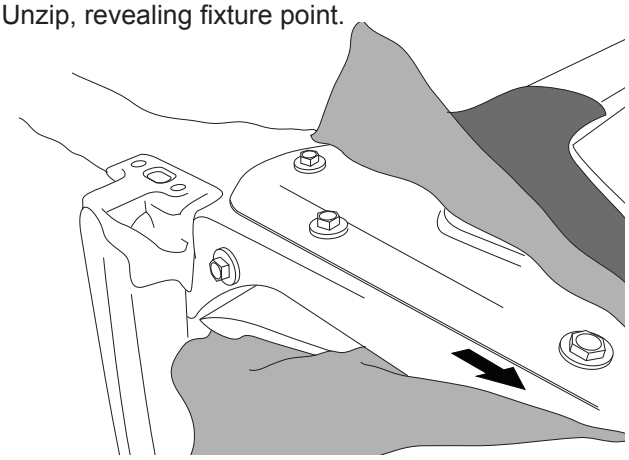
20 Move to the centre of the vehicle as shown.



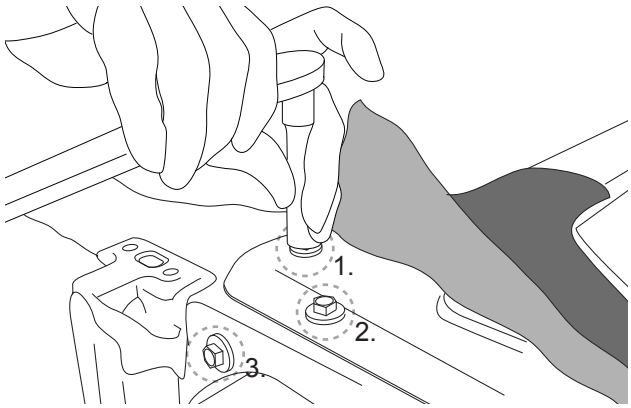
21 Locate zipper concealing the Jeep's bracket fixture point.



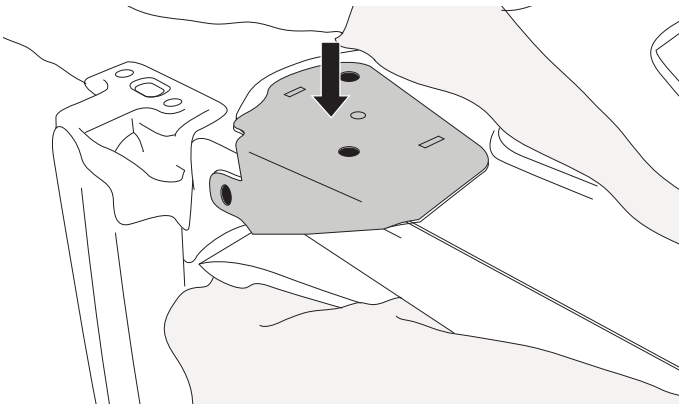
22 Unzip, revealing fixture point.



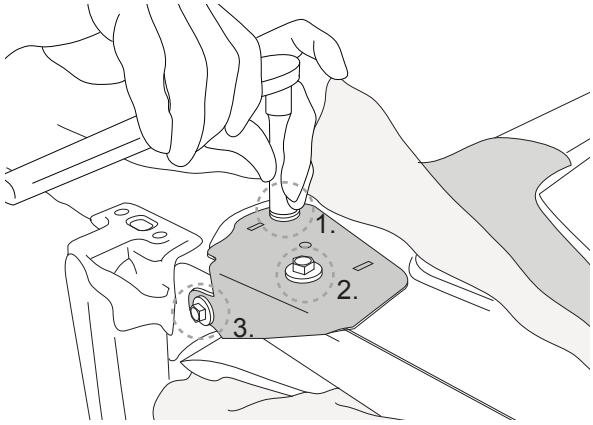
23 Remove hardware with a 13mm socket wrench.



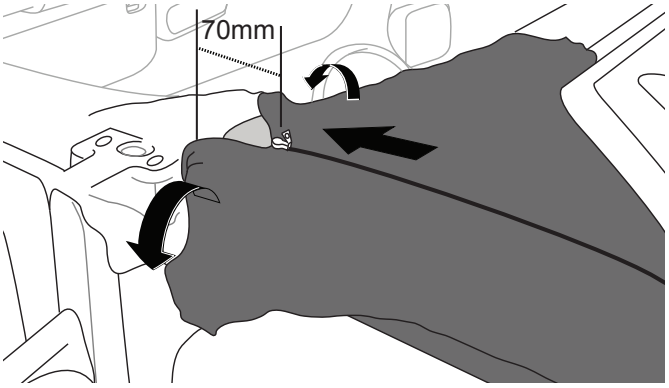
24 Place Jeep Bracket onto vehicle as shown.



25 Replace hardware with a 13mm (1/2") socket wrench.

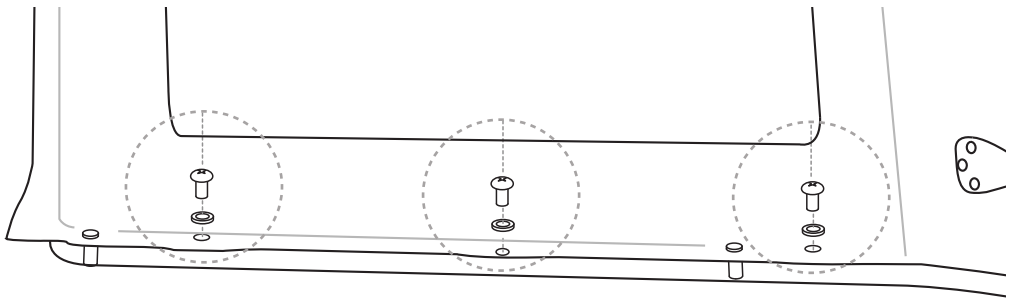


26 Re-zip protective cover to 70mm from the top. Tuck any excess material under and out of the way.



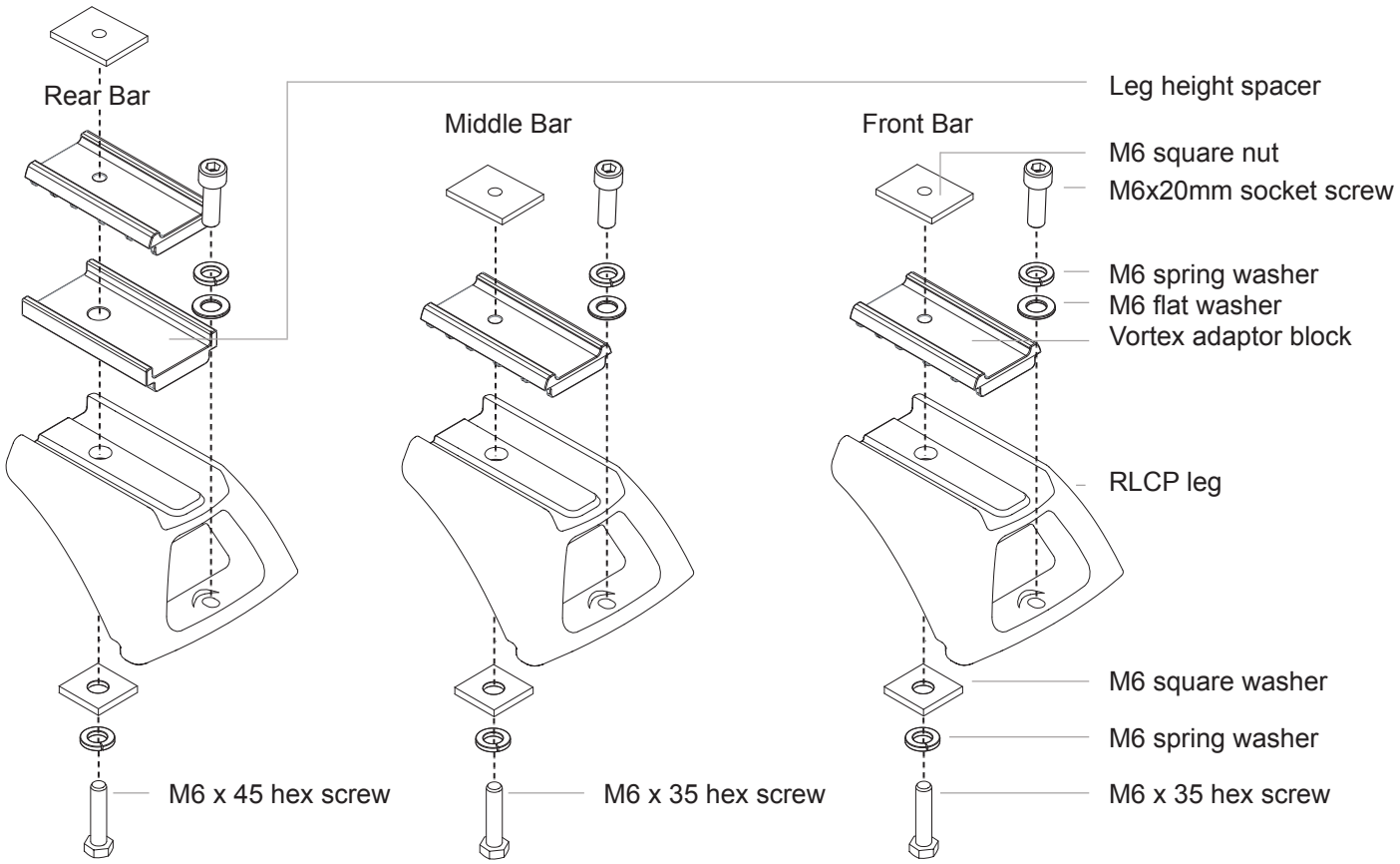
Note: Repeat previous steps 15-26 for the opposing side of the Hard Top

27 Place the Hard Top back onto the Jeep (refer to manufacturers instructions). Replace the hardware removed in step 1 on both sides of the inner Hard Top.

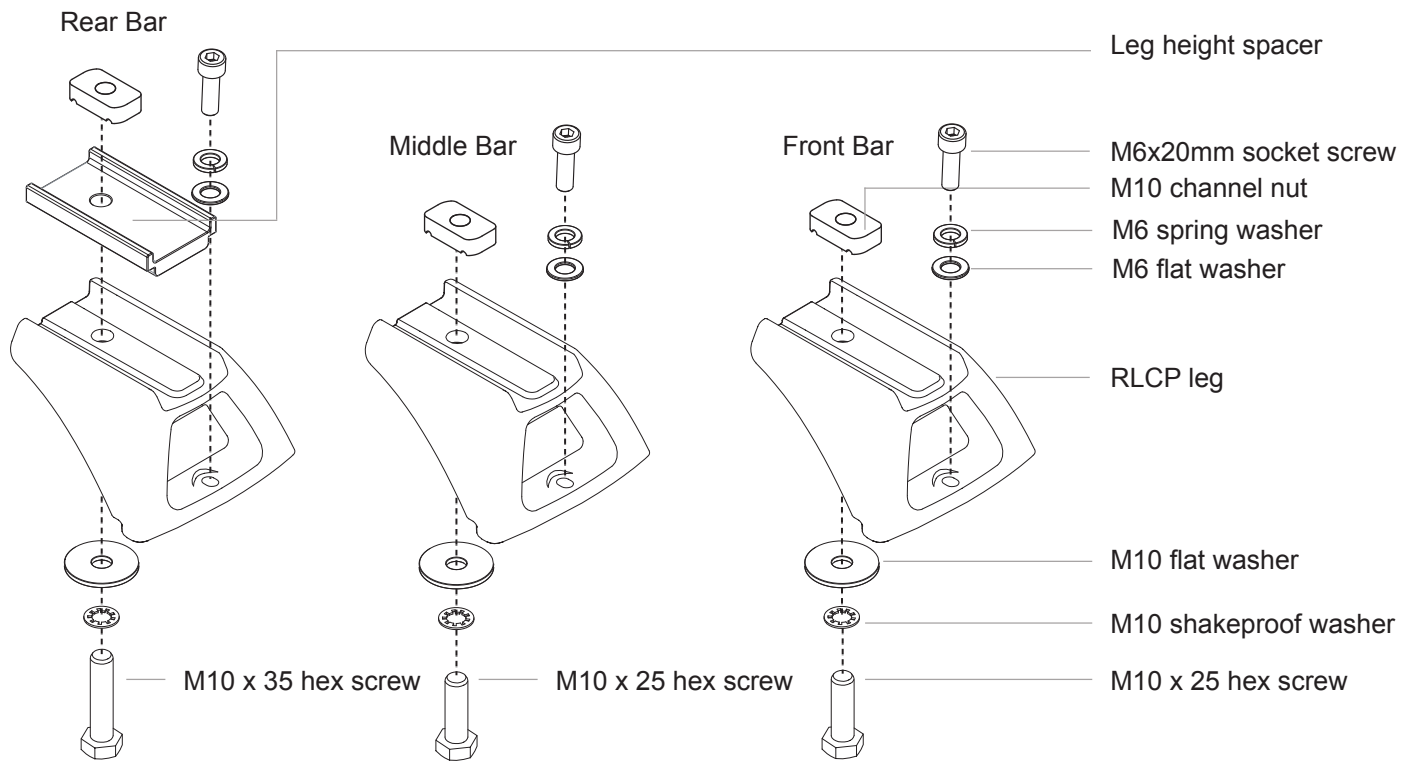


Note: Crossbars must be purchased separately. The following steps show crossbar assembly.

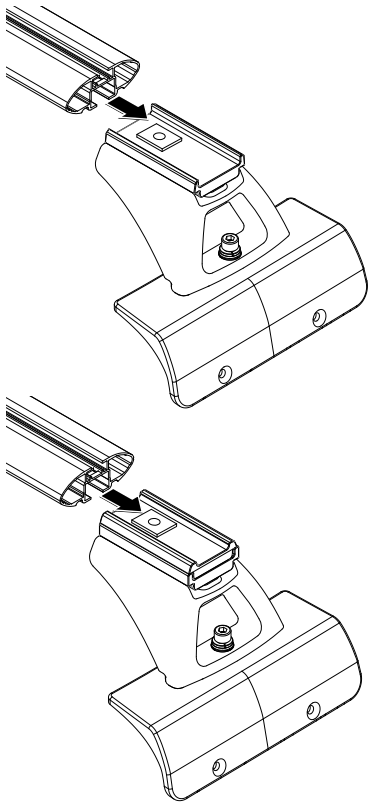
28 Set up for 3 Vortex Crossbars as follows.



29 Set up Heavy Duty Crossbars as follows.



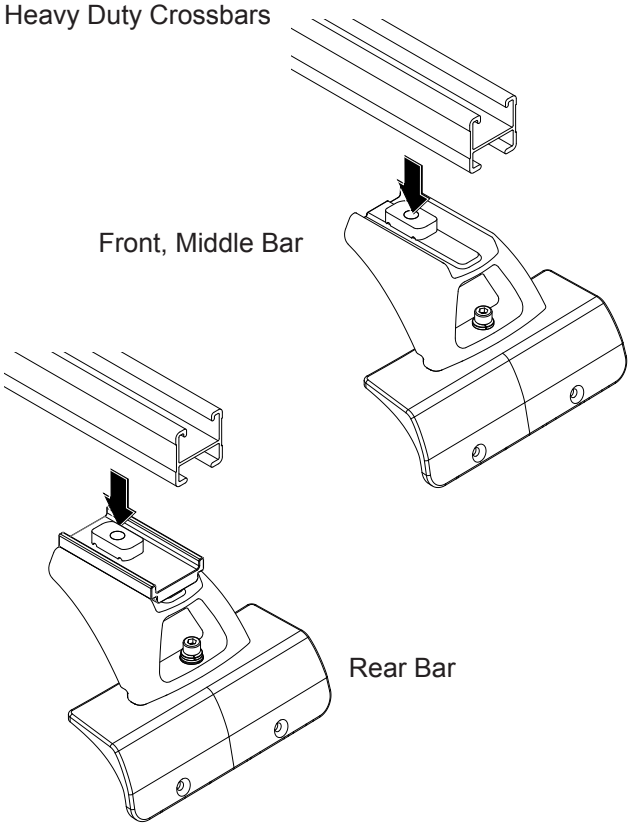
30 Attach Vortex Crossbars



Front, Middle Bar

Rear Bar

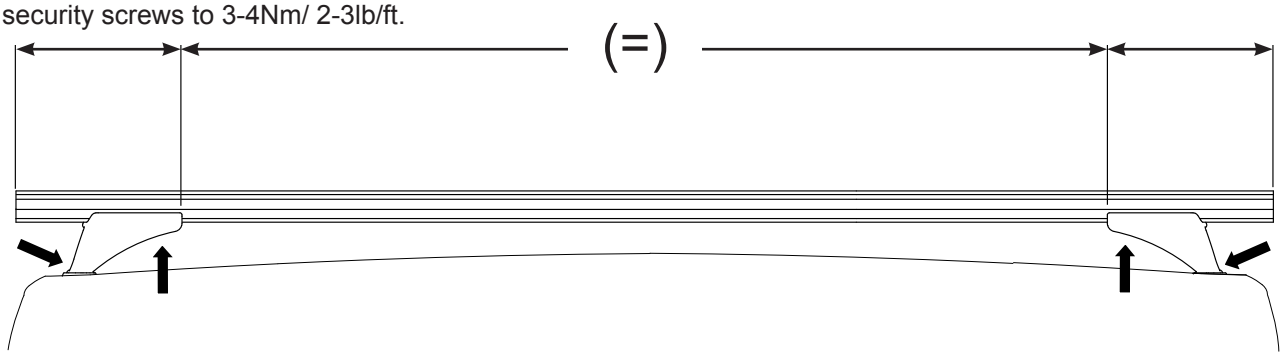
Heavy Duty Crossbars



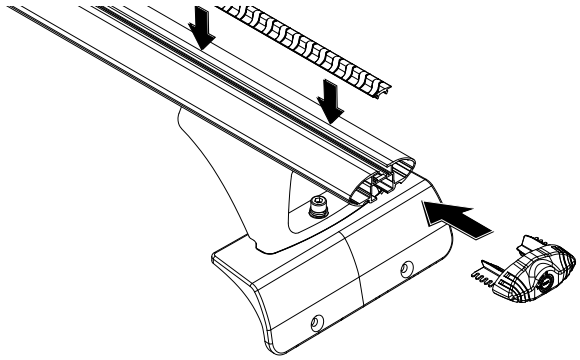
Front, Middle Bar

Rear Bar

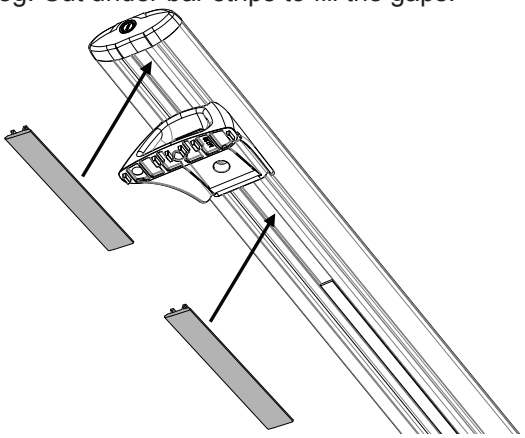
31 Adjust crossbar overhang to be equal on both sides. Tighten M6 crossbar bolts to 3-4Nm/ 2-3lb/ft. Tighten M6 security screws to 3-4Nm/ 2-3lb/ft.



32 Insert vortex rubber and end caps into all crossbars.



33 Measure the under bar slot length each side of the leg. Cut under bar strips to fill the gaps.



Note: RE-CHECK ALL FASTENERS ARE SECURE.