



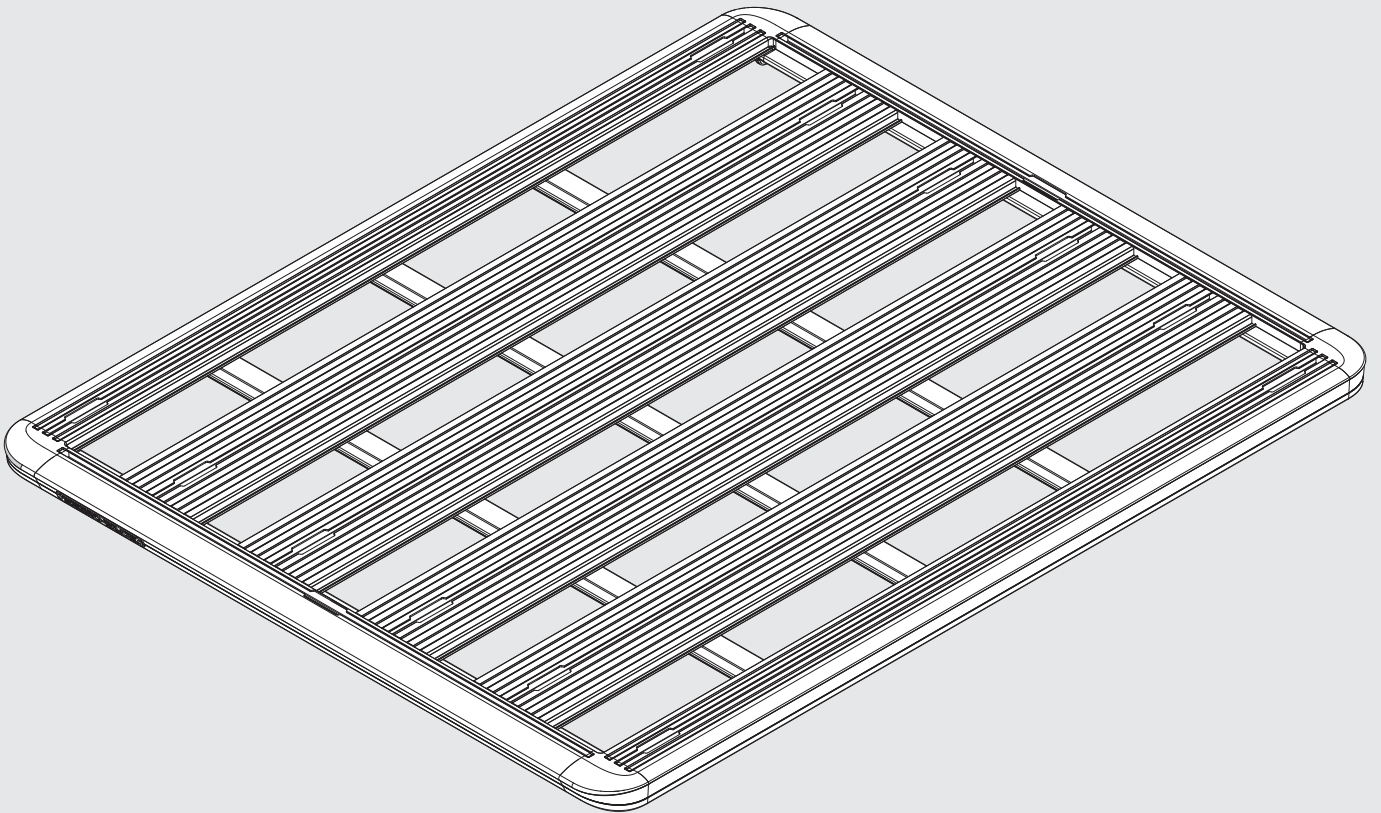
RHINO-RACK®

PIONEER ALLOY TRAY (flat pack)

Important:

1. Check the Rhino-Rack website to ensure you have the latest issue of these instructions.
2. Please refer to your fitting instruction to ensure that the roof racks are installed in the correct locations.
3. Check the contents of kit before commencing fitment and report any discrepancies.
4. Place these instructions in the vehicle's glove box after installation is complete.
5. These instructions must be followed for warranty to be upheld.

Fit Time: 1 hour



Instructions

Carrying Capacity

Max system load capacity (incl. system weight), refer to Pioneer fit sheet.

Check your vehicle owners hand book for vehicle maximum carrying capacity. Please ensure you use the vehicle manufacturers maximum roof allowance if it is lower than the figure listed in this instruction.

Load must be evenly distributed over the system.

Off Road: Any driven path taken that does not contain a surface protection layer (tar/bitumen).

Vehicle Load Limit: Total permissible weight attached to the roof of the car. This is inclusive of the weight of the roof rack system.

System Load Limit: Total permissible weight allowed on top, and attached to roof racks whilst the vehicle is in motion.

Torque Settings

Unless stated otherwise in these instructions, all fasteners should be set to the following torque settings - M6: 4-5Nm (3-4lbs/ft), M8: 8-10Nm (6-7.5lbs/ft) and M10: 16-18Nm (12-13lbs/ft).

Warning

- Check part number or kit is correct for use with your vehicle.
- Do not attempt to fit the rack system to your vehicle unless you fully understand these fitting instructions. Please direct any questions regarding fitting to the dealer from where the roof racks were purchased.
- Although the system is tested and approved to AS1235-2000 / ISO 11154, off-road conditions can be much more rigorous. Extreme care must be taken in off road conditions.
- Roof racks must be removed when vehicle is put through an automatic car wash.
- 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 roof racks or the canopy roof racks.
- Always ensure you fasten your load securely.
- Use only non-stretch fastening ropes or straps to attach cargo to your load.

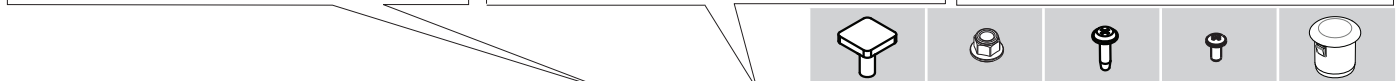
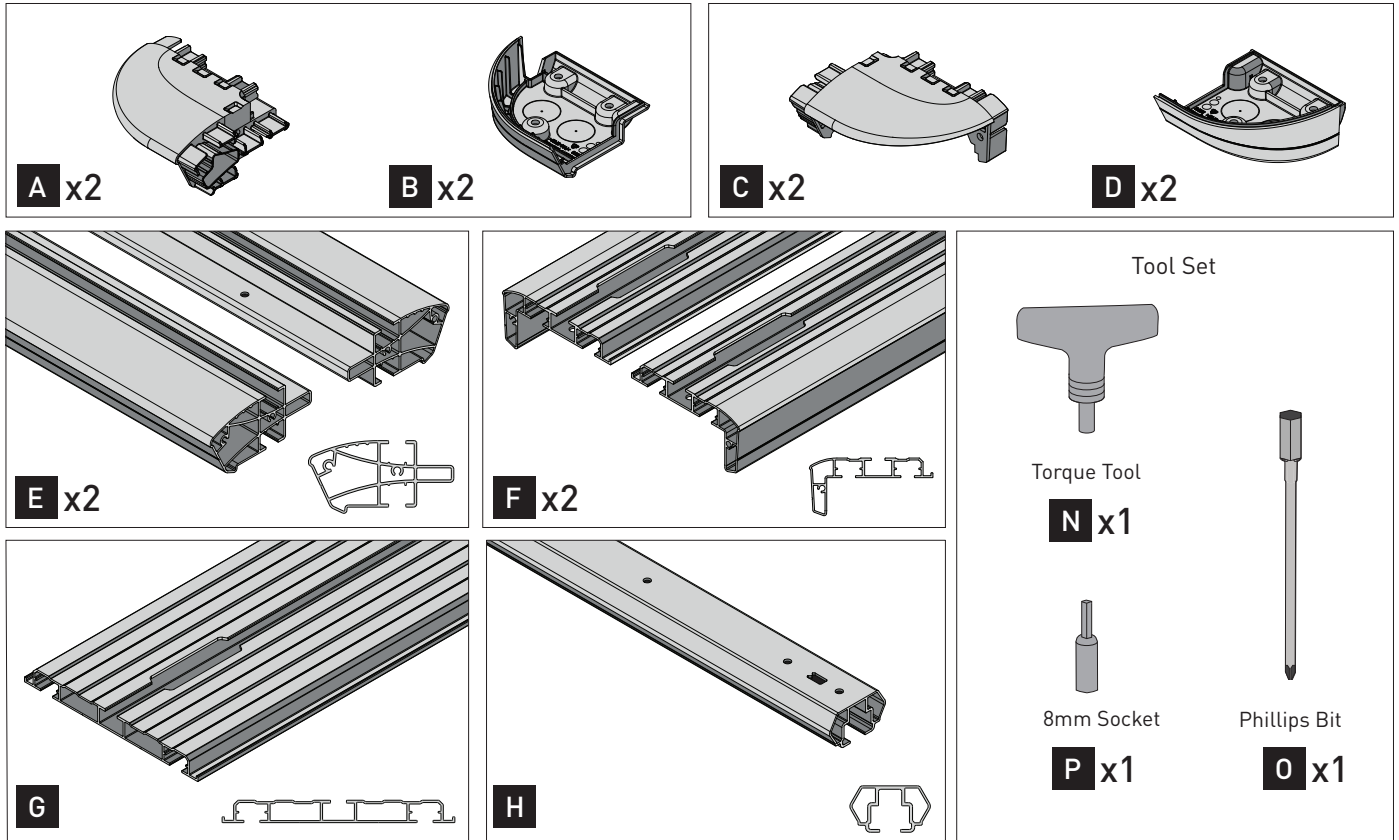
In service maintenance checks

- All bolted connections should be checked after driving a short distance when you first install your roof racks.
- All bolted connections should be checked again at regular intervals (weekly is recommended, depending on road conditions, usage, loads and distances travelled).
- All bolted connections should be checked each time they are re-fitted.

Note for Dealers and Fitters

It is your responsibility to ensure these fitting instructions are given to the end user or client. These instructions remain the property of Rhino-Rack Australia Pty. Ltd. and may not be used or changed for any other purpose than intended.

Instructions



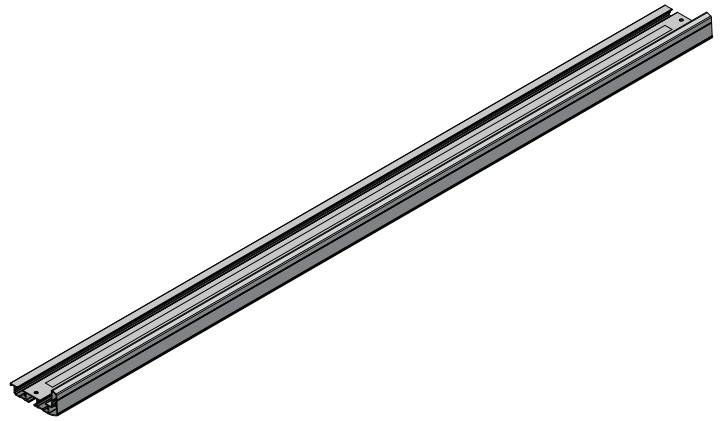
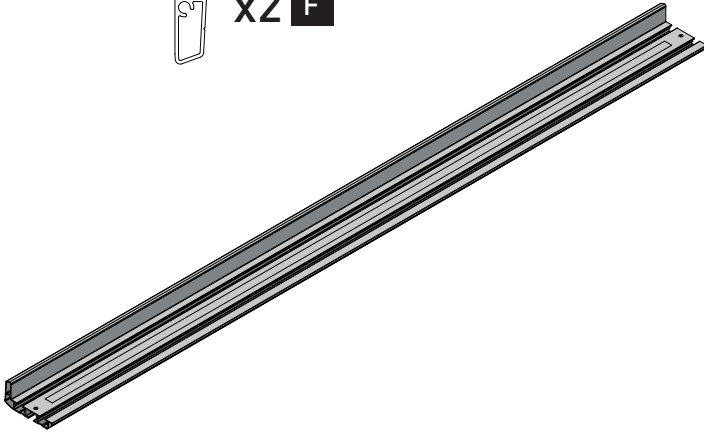
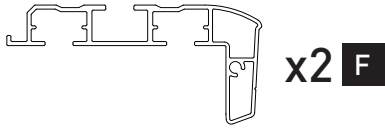
Platform #	L x W (mm)	L x W (inches)	G	H	I	J	K	L	M
52100	1528 x 1236	60' x 49'	4	3	52	52	12	16	6
52101	1528 x 1376	60' x 54'	5	3	62	62	12	16	6
52102	1928 x 1236	76' x 49'	4	5	76	76	12	16	6
52103	1928 x 1376	76' x 54'	5	5	90	90	12	16	6
52104	2128 x 1426	84' x 56'	5	5	90	90	12	16	N/A
52105	2728 x 1465	107' x 58'	5	6	104	104	12	16	N/A
52107	2128 x 1236	84' x 49'	4	5	76	76	12	16	N/A
52108	1828 x 1426	72' x 56'	5	5	90	90	12	16	N/A
52109	1328 x 1236	52' x 49'	4	3	52	52	12	16	N/A
52110	1328 x 1376	52' x 54'	5	3	62	62	12	16	N/A
52111	1328 x 1426	52' x 56'	5	3	62	62	12	16	N/A
52112	928 x 1426	37' x 56'	5	2	48	48	12	16	N/A
52113	1528 x 1426	60' x 56'	5	3	90	90	12	16	N/A
52114	1228 x 952	48' x 37'	3	1	22	22	12	16	N/A
52115	1478 x 1184	58' x 47'	4	1	28	28	12	16	N/A
52119	2528 x 1586	100' x 62'	5	6	104	104	12	16	N/A
52120	1528 x 1586	60' x 62'	5	3	62	62	12	16	N/A
52121	1228 x 1426	48' x 56'	5	3	62	62	12	16	N/A

Tools required:

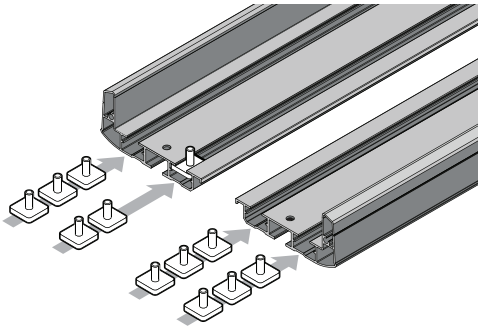
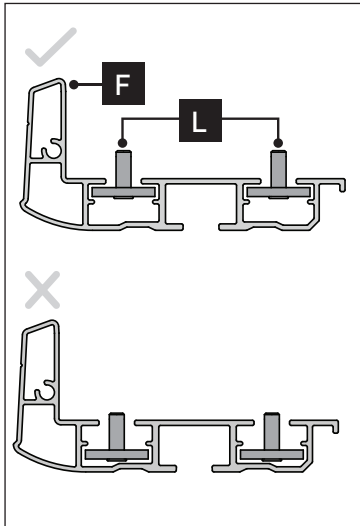
Herramientas necesarias:

- T1 - Phillips head screwdriver.
- T2 - Power drill.

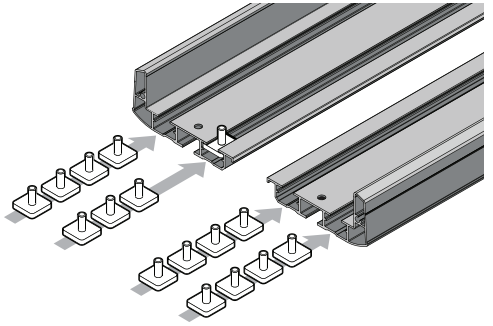
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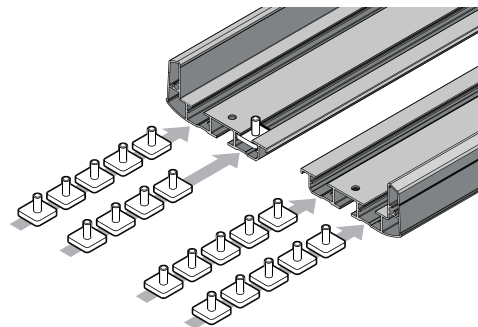
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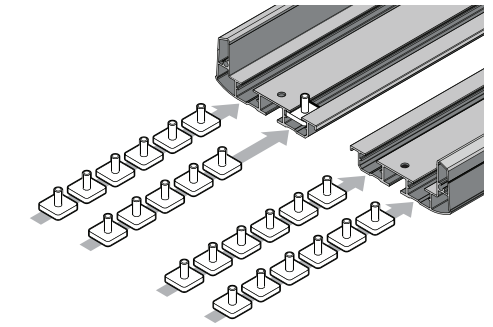
H **I**
x3 = x12



H **I**
x4 = x16

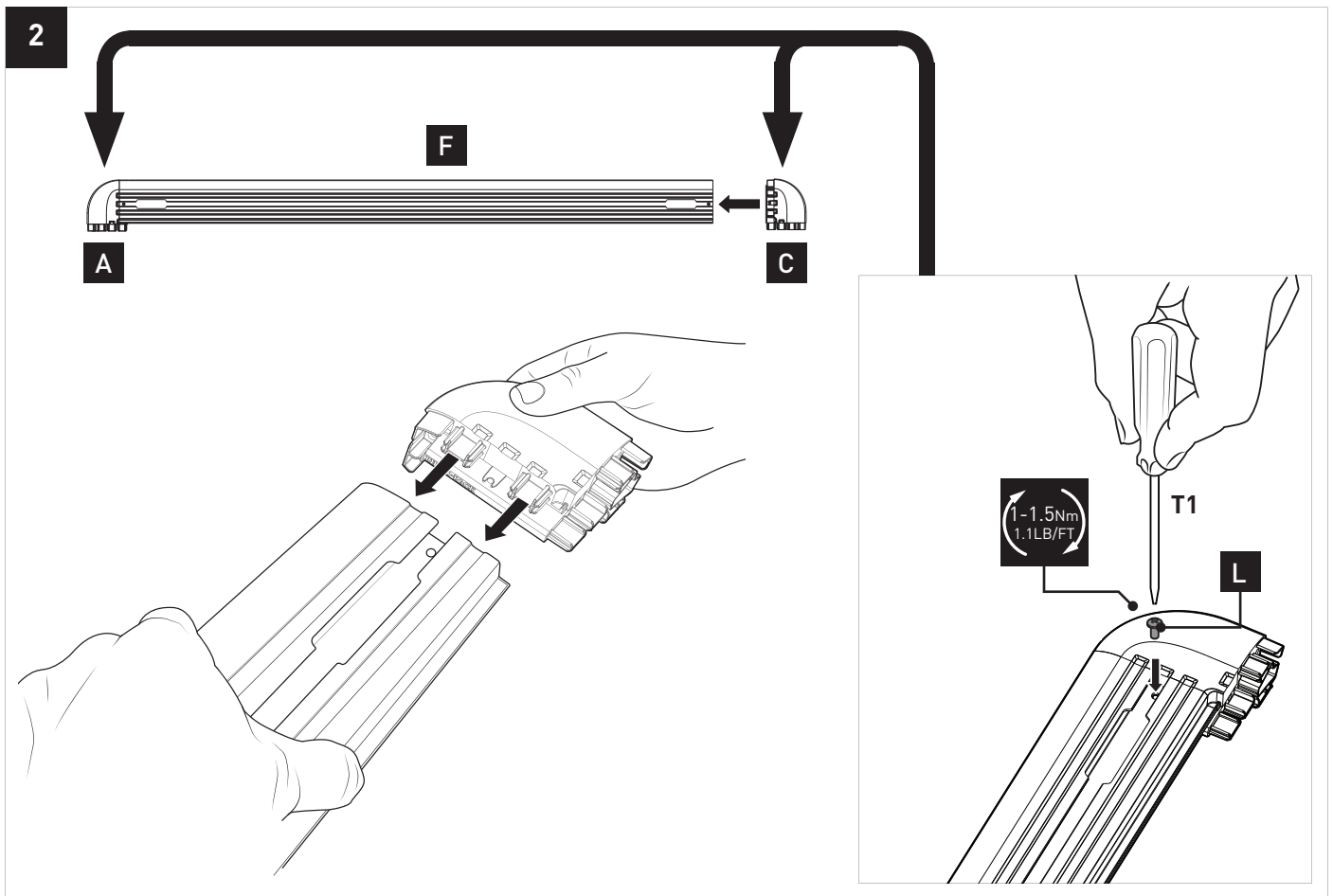


H **I**
x5 = x20

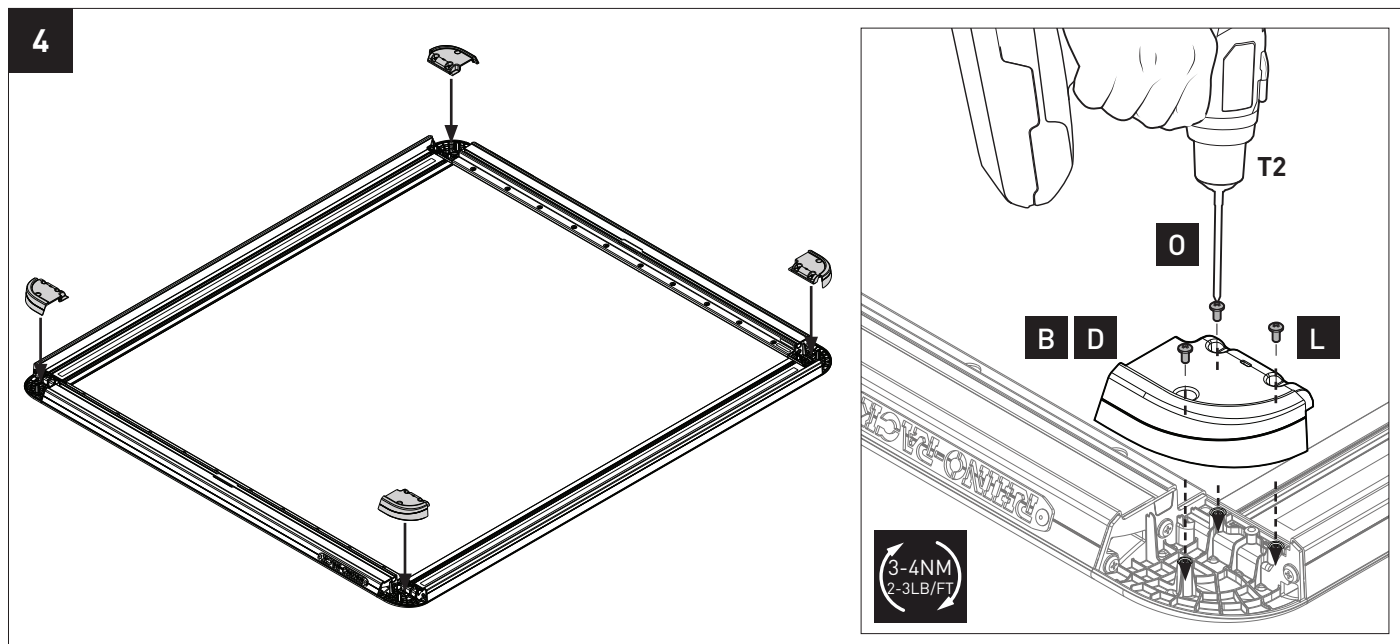
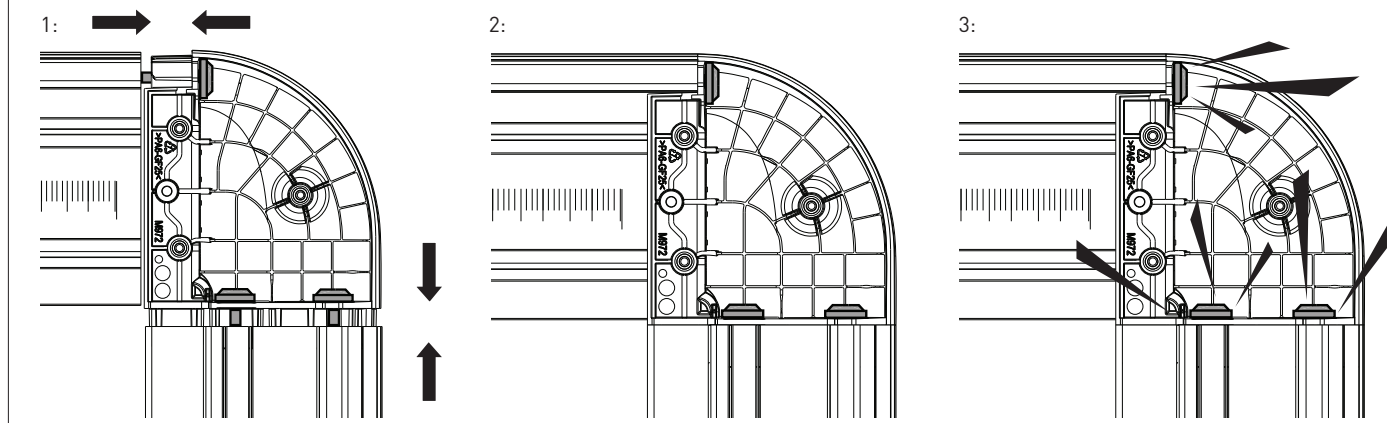
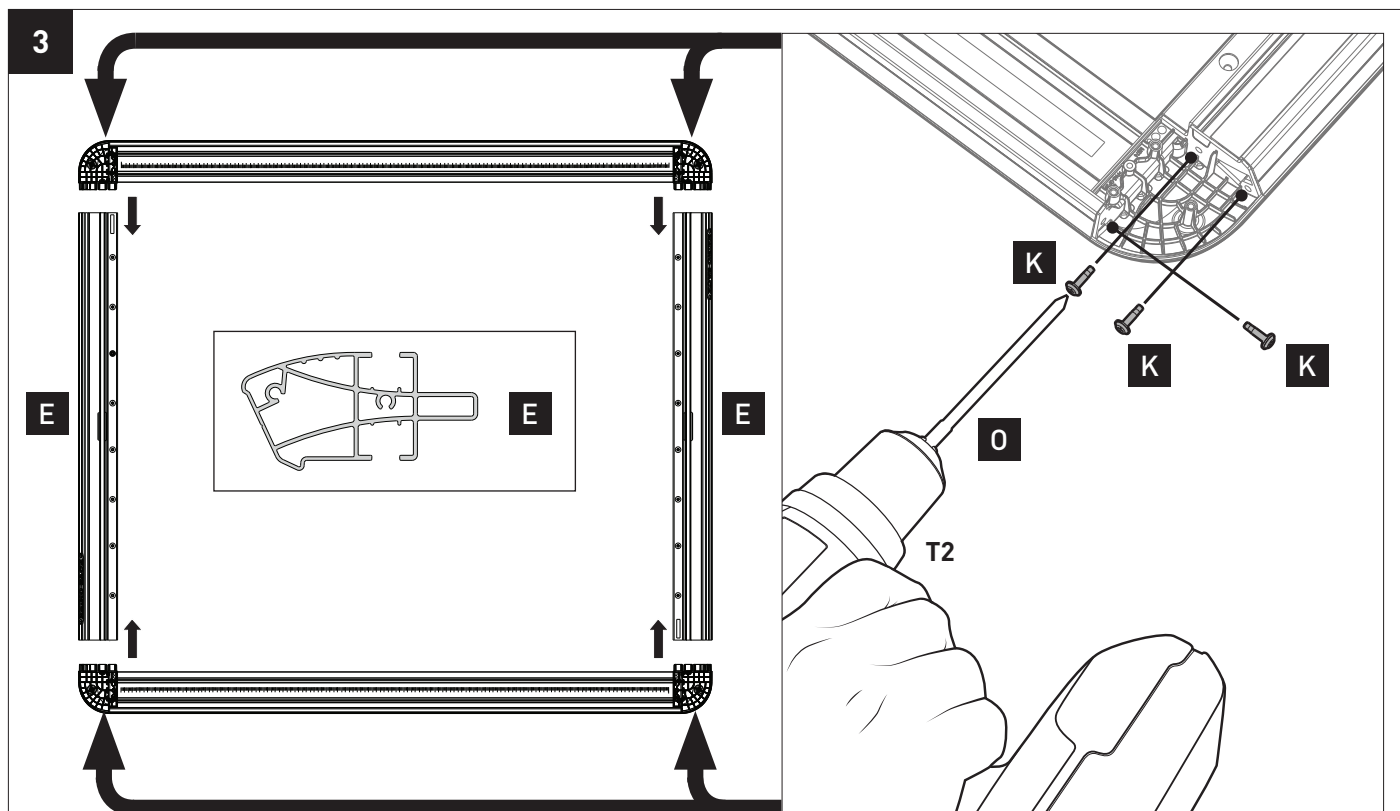


H **I**
x6 = x24

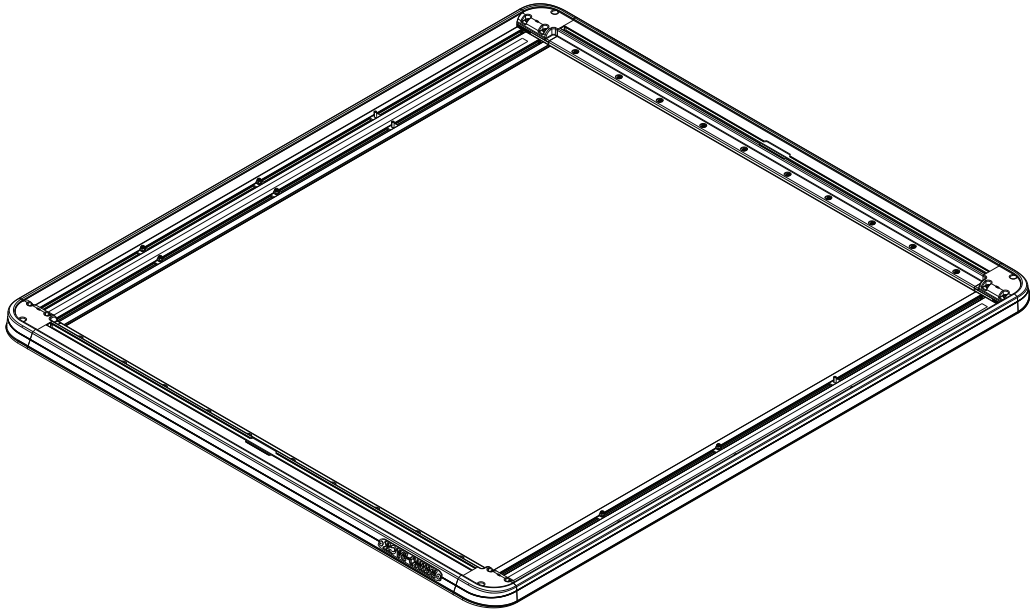
Instructions



Instructions

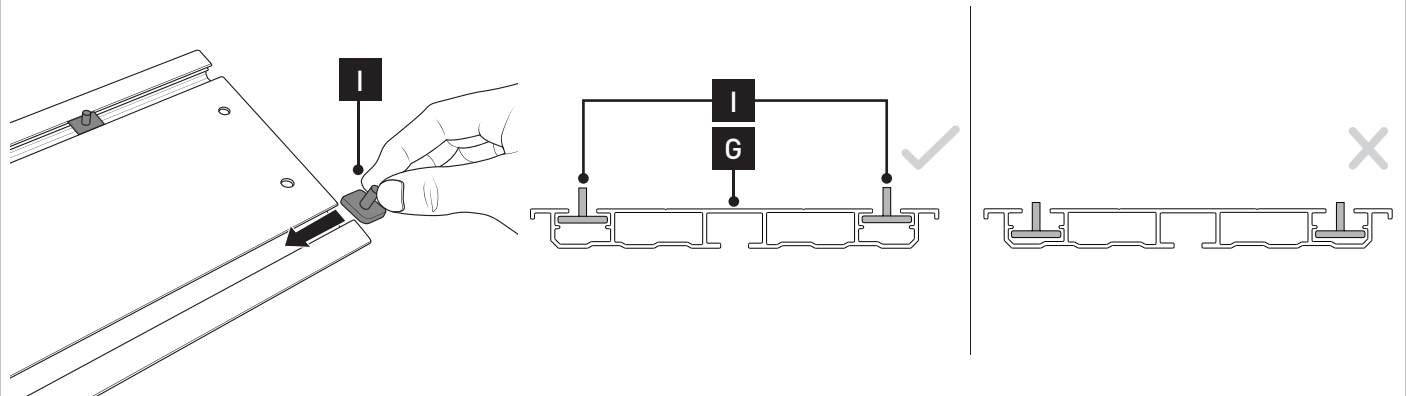


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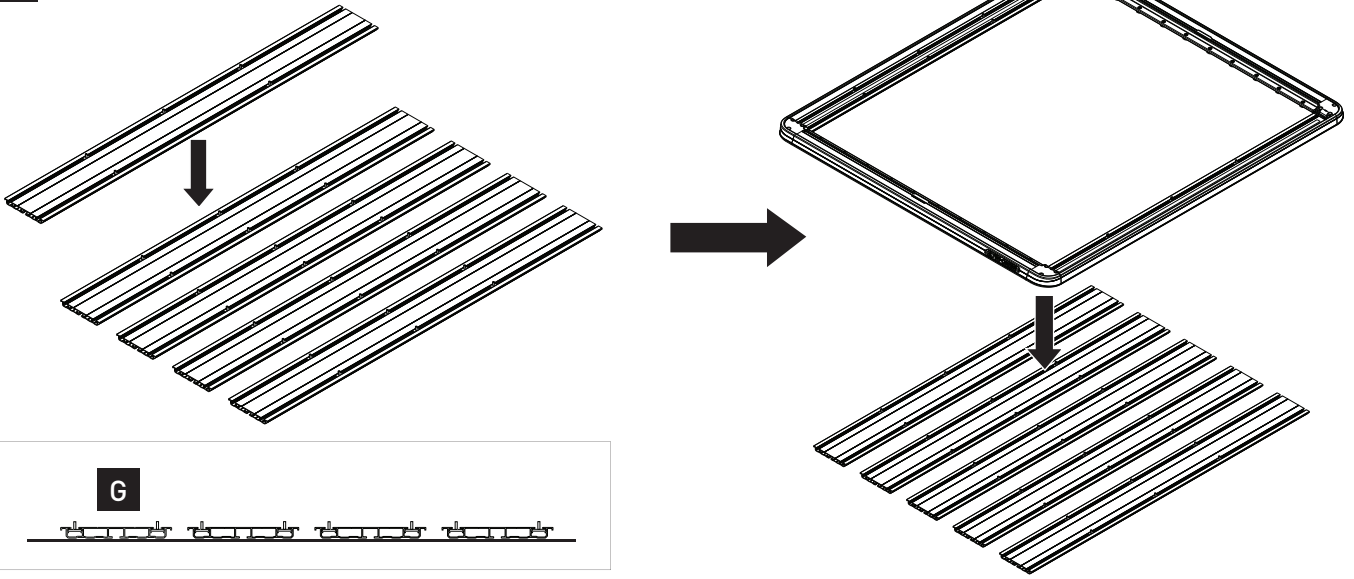
5

<p>E x3 + H x10 = I x10</p>	<p>E x4 + H x12 = I x12</p>	<p>E x5 + H x14 = I x14</p>	<p>E x6 + H x16 = I x16</p>

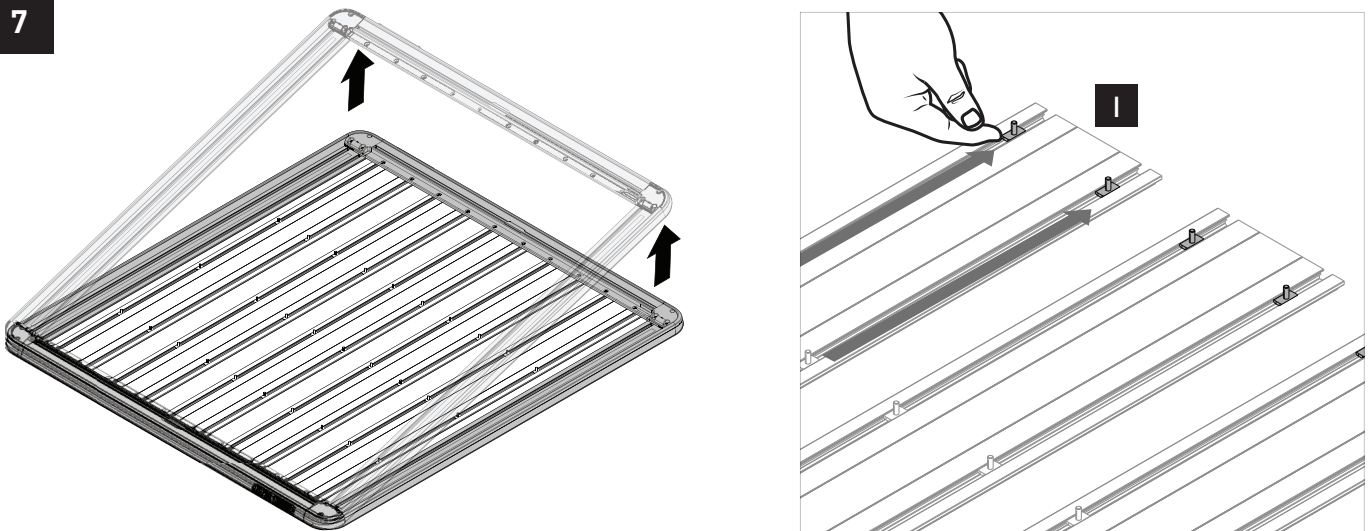


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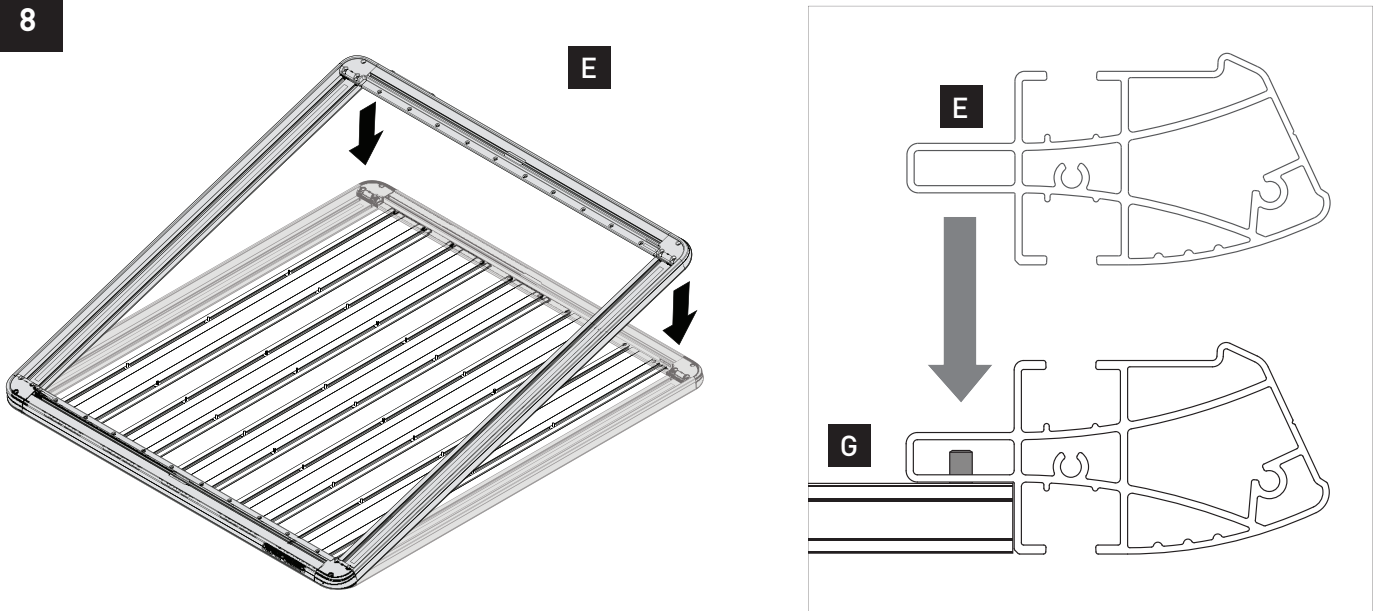
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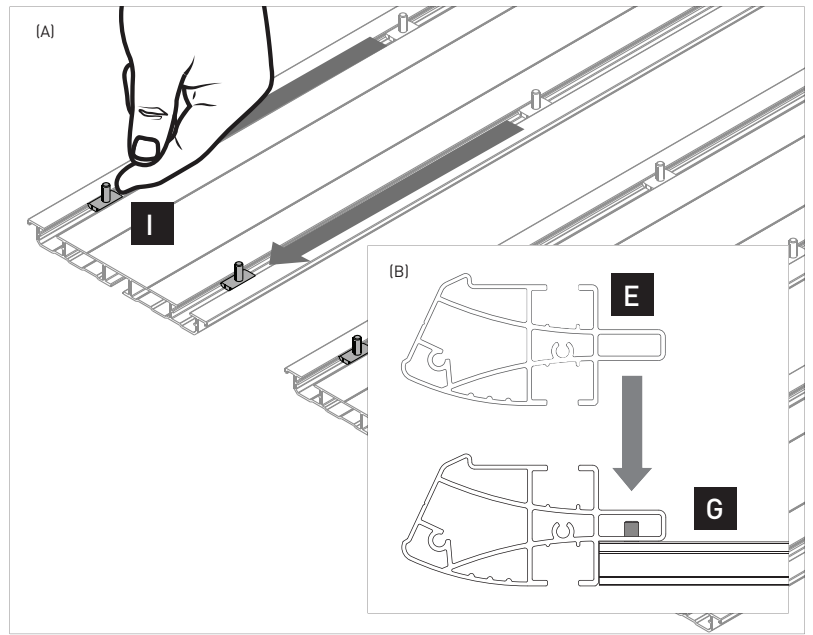
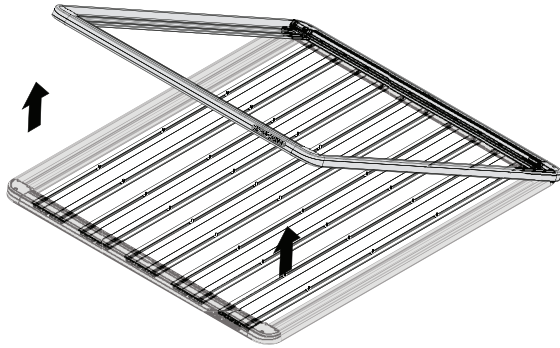


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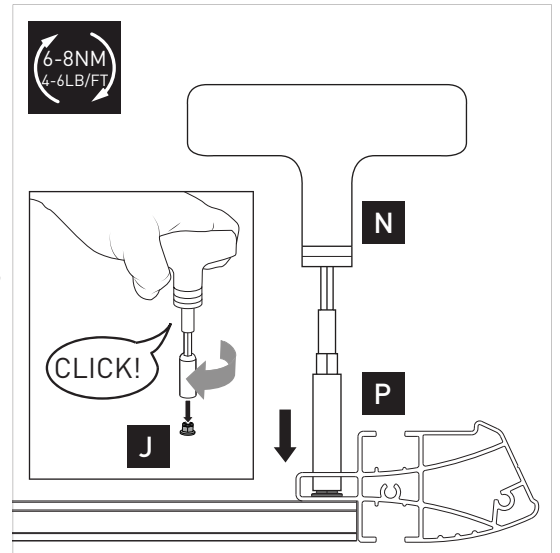
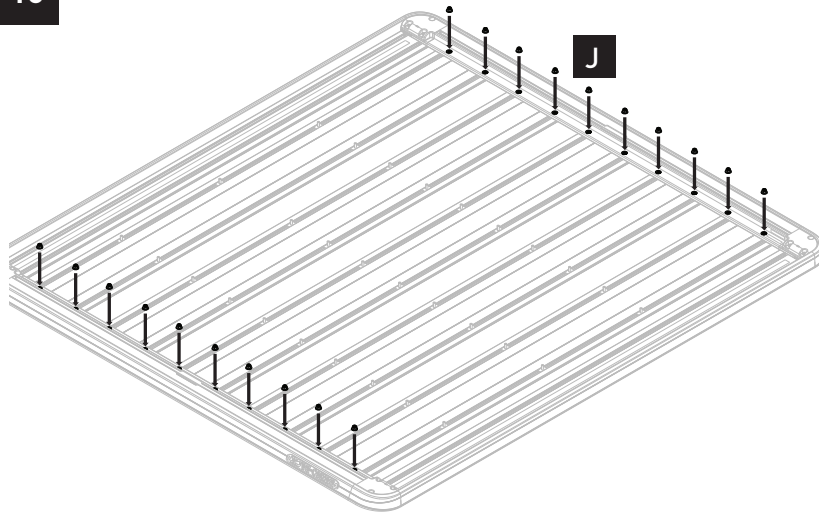


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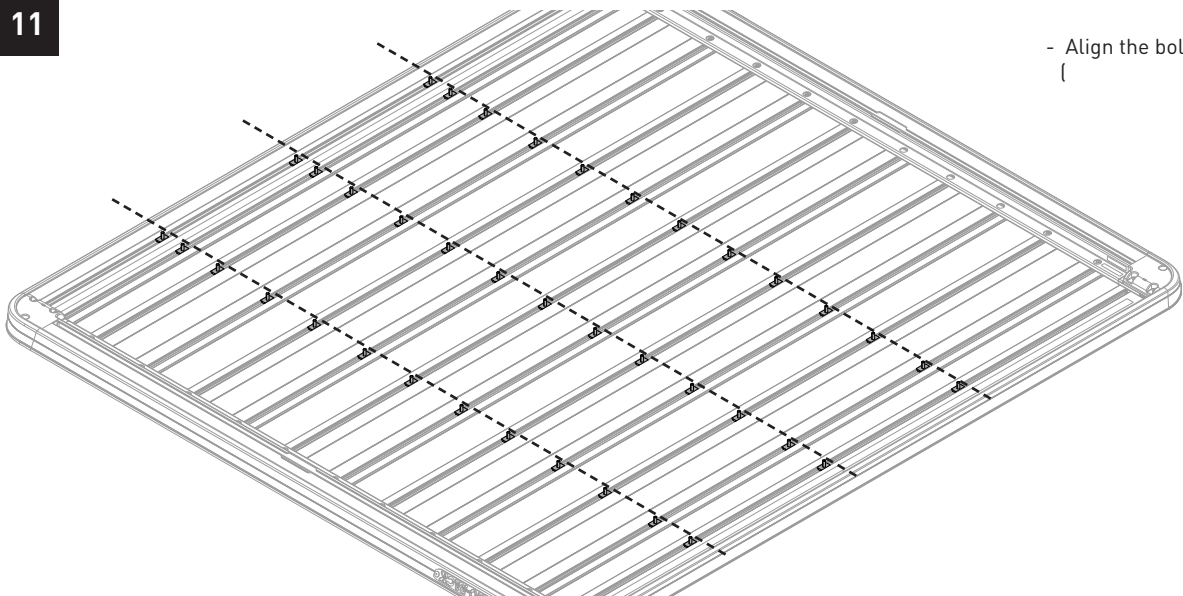
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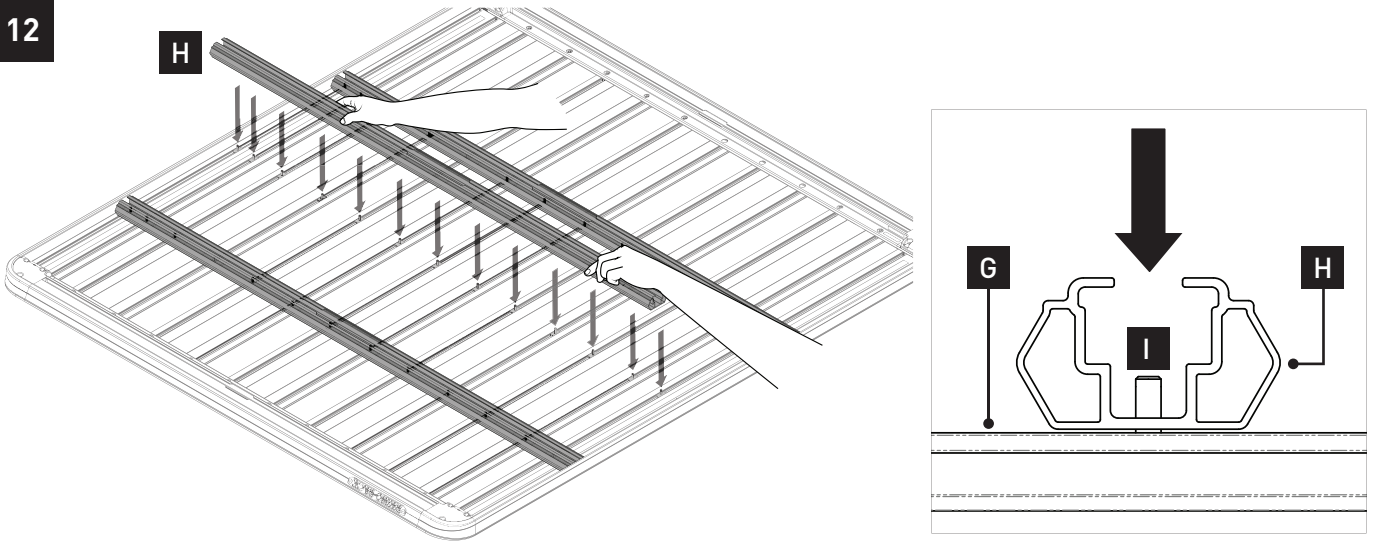
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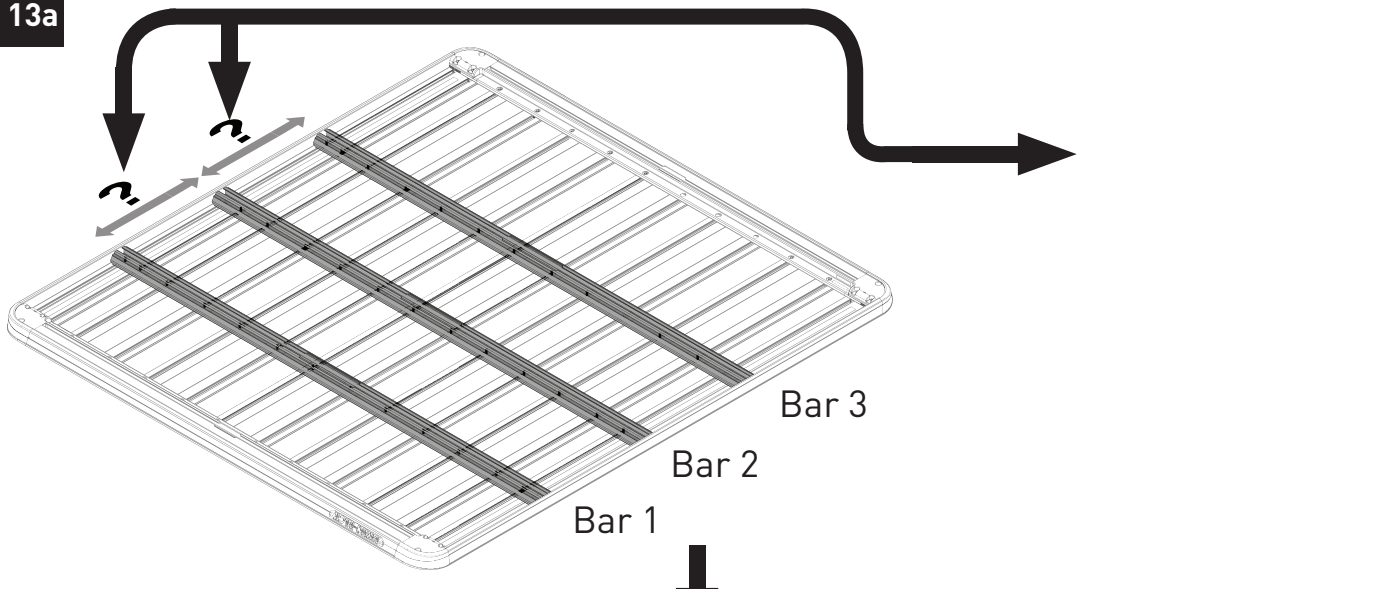
- Align the bolts **I**

Instructions

12



13a



Bar 1, 2, 3



RHINO-RACK | PIONEER VEHICLE FITTING INFORMATION

VEHICLE	PIONEER SIZE	CONNECTOR	HEIGHT ADDED (mm / in)
EXAMPLE ONLY	53100	RCL	120.0 / 4.7

IMPORTANT NOTES RCP48-BK required. Fixed point factory mount. -

REGION	AUS	NZ	USA	CA	SA	UK	EU	ZA
AVAILABILITY	✓	✓	✓	✓	✓	✓	✓	✓
RUNNING DATES	02/15 -	02/15 -	-	-	-	-	-	-

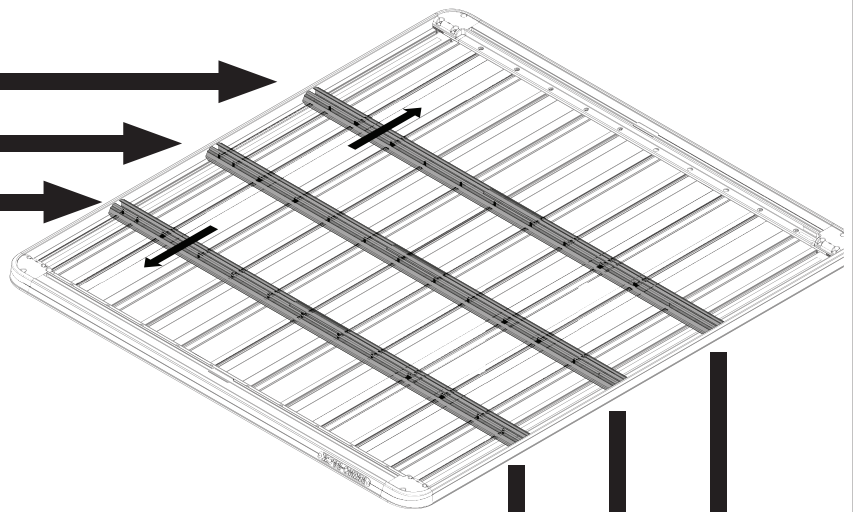
UNDERBAR SPACING

SIZE NO.	A	B	C	D	E	F	G
DIMENSION (CM)	45.2	0	45.2				
SPACERS REQ'D							
CONNECTOR	RCL		RCL				

VEHICLE LOAD LIMIT (VLL) (kg / lbs)	SYSTEM WEIGHT (SW) (kg / lbs)	ON-ROAD CARGO ALLOW. (OR) (kg / lbs)	OFF-ROAD CARGO ALLOW. (OF) (kg / lbs)
Up to 100 / 220.5 *	19 (41.2)	OR = VLL - SW	OF = OR / 1.5

*CHECK YOUR VEHICLE OWNERS HANDBOOK FOR VEHICLE MAXIMUM CARRYING CAPACITY. PLEASE ENSURE YOU USE THE VEHICLE MANUFACTURERS MAXIMUM ROOF ALLOWANCE IF IT IS LOWER THAN THE FIGURES LISTED IN THIS INSTRUCTION.

13b



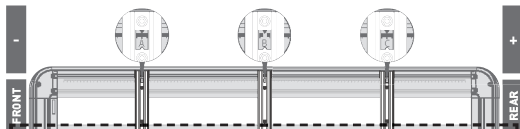
RHINO-RACK PIONEER VEHICLE FITTING INFORMATION

VEHICLE	PIONEER SIZE	CONNECTOR	HEIGHT ADDED (mm / in)
EXAMPLE ONLY	92100	RCL	120.0 / 4.7

IMPORTANT NOTES RCP58-BK required. Fixed point factory mount. -

REGION	AUS	NZ	USA	CA	SA	UK	EU	ZA
AVAILABILITY	✓	✓	x	x	x	x	x	x
RUNNING DATES	02/15 -	02/15 -	-	-	-	-	-	-

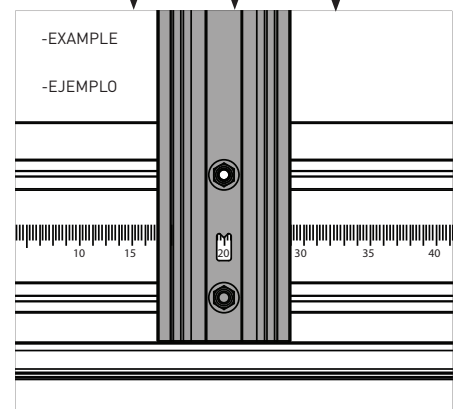
UNDERBAR SPACING



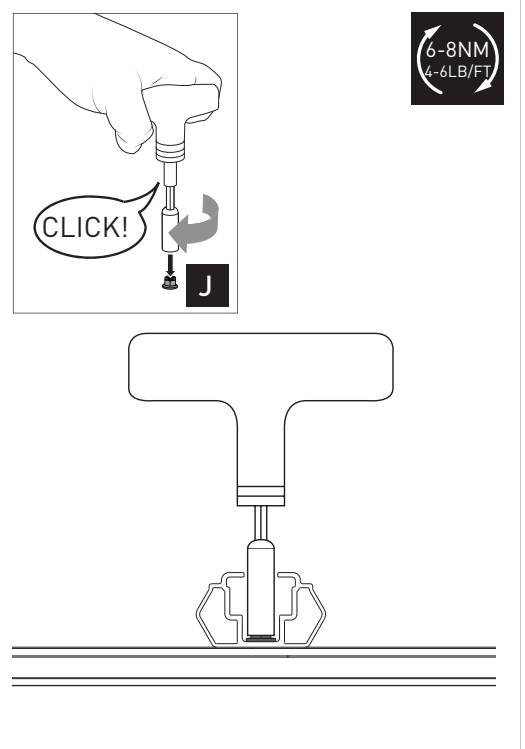
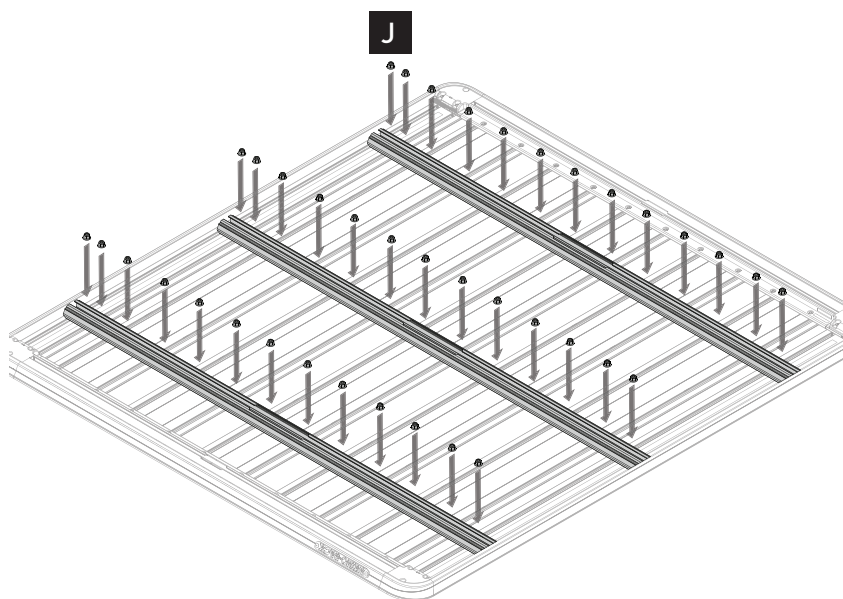
BAR NO	A	B	C	D	E	F	G
DIMENSION (CM)	45.7	B	45.7				
SPACERS REQ'D							
CONNECTOR	RCL		RCL				

VEHICLE LOAD LIMIT (VLL) (kg / lbs)	SYSTEM WEIGHT (SW) (kg / lbs)	ON-ROAD CARGO ALLOW. (OR) (kg / lbs)	OFF-ROAD CARGO ALLOW. (OFR) (kg / lbs)
Up to 100 / 220.5 *	19 / 41.2	OR = VLL - SW	OFR = OR / 1.5

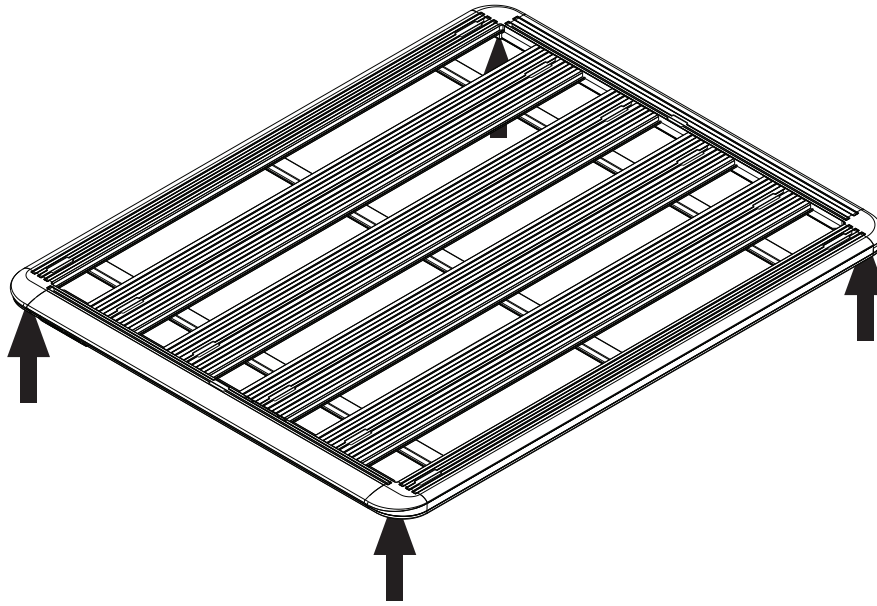
*CHECK YOUR VEHICLE OWNERS HANDBOOK FOR VEHICLE MAXIMUM CARRYING CAPACITY. PLEASE ENSURE YOU USE THE VEHICLE MANUFACTURERS MAXIMUM ROOF ALLOWANCE IF IT IS LOWER THAN THE FIGURE LISTED IN THIS INSTRUCTION.



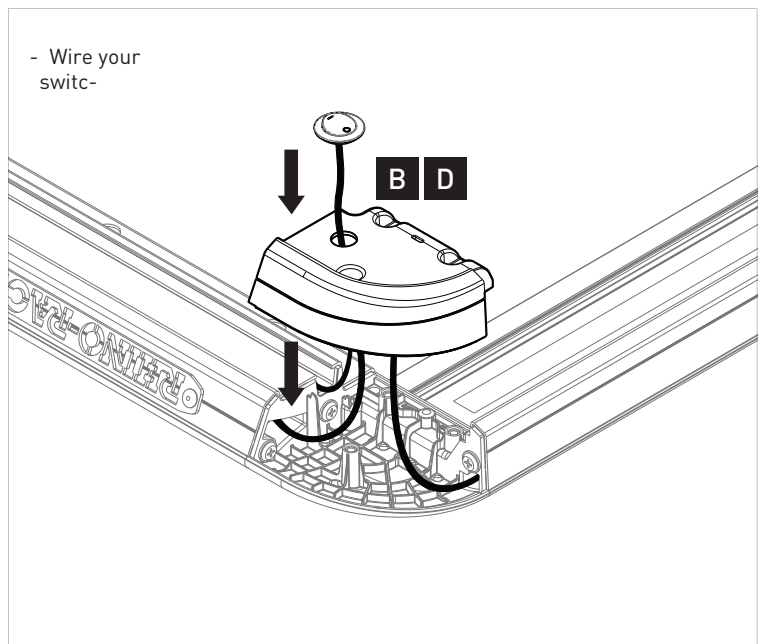
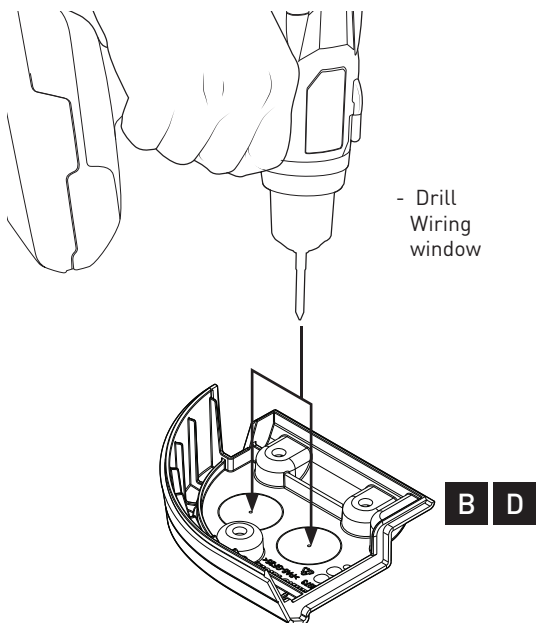
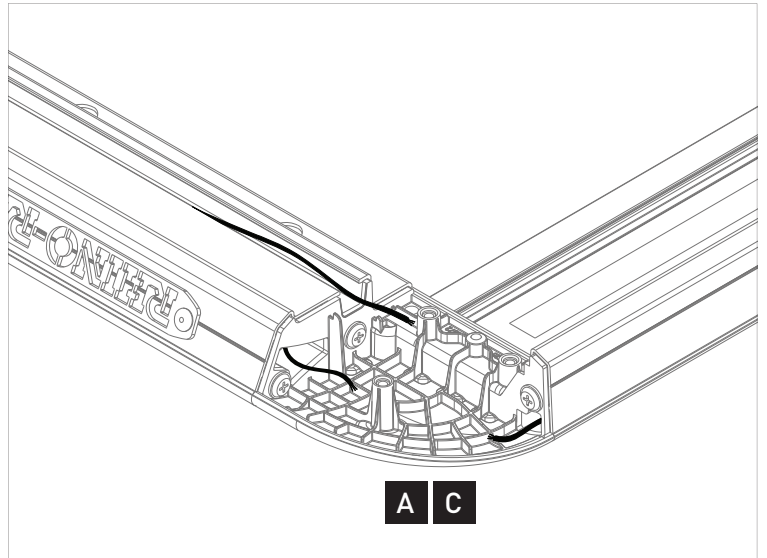
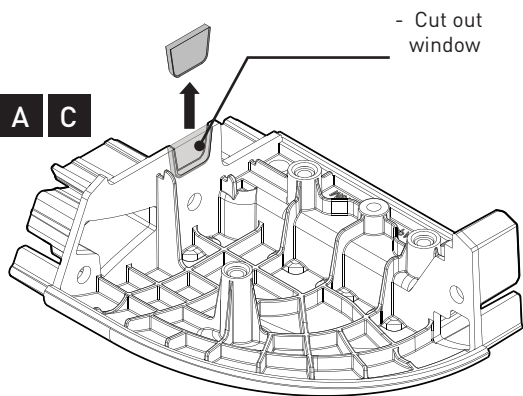
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Instructions

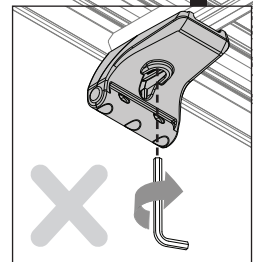
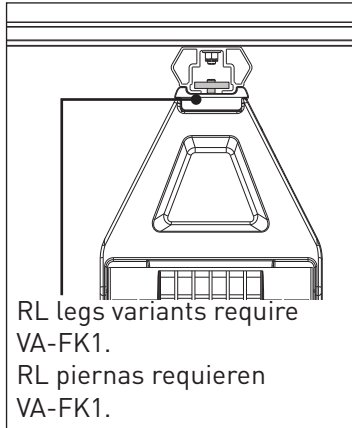
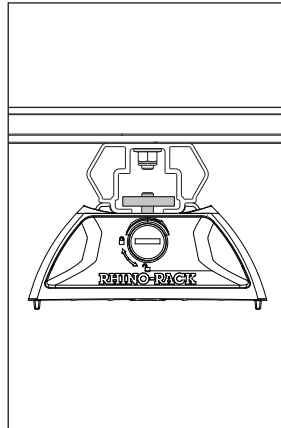
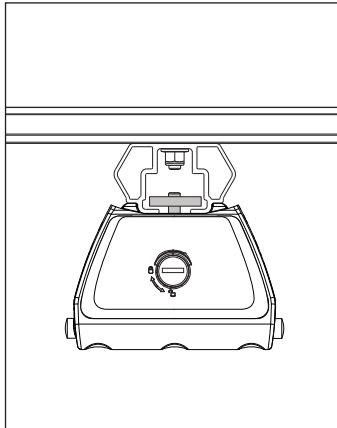
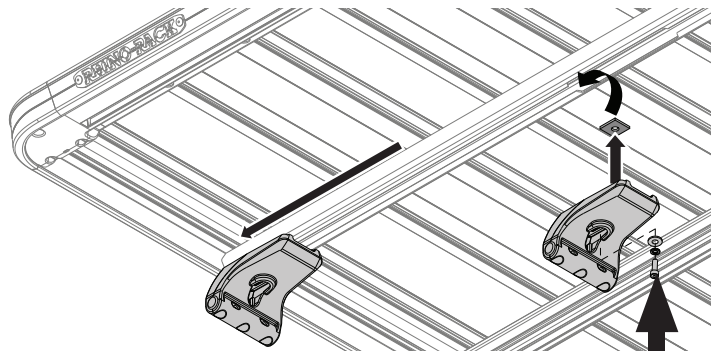
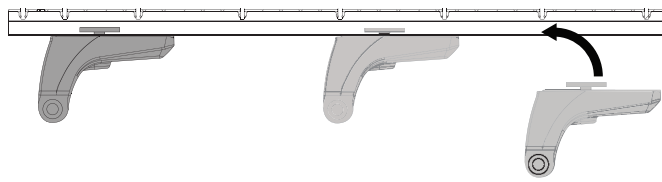


Note - For Wiring

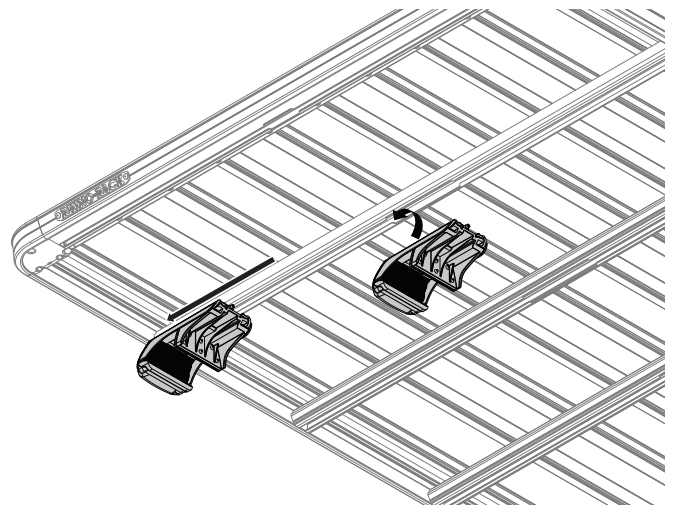
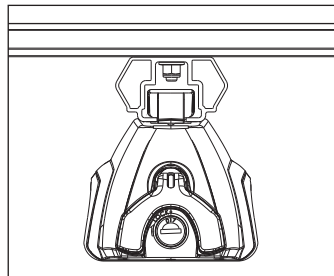
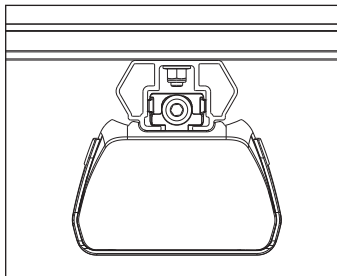
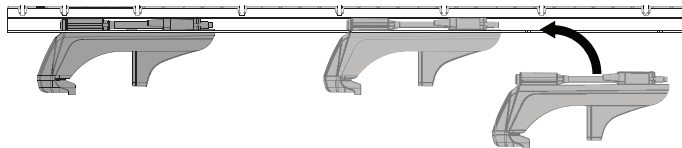


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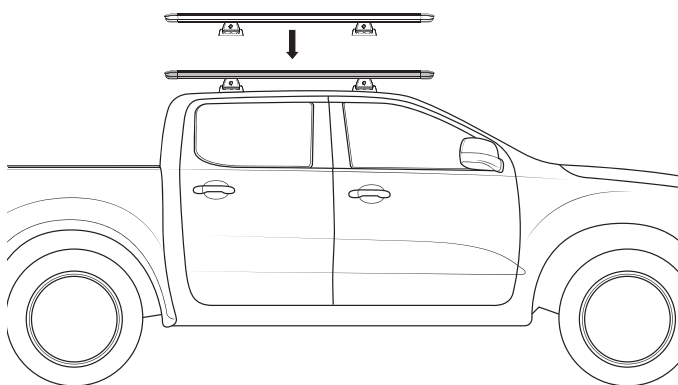
15 RLT600, RCL/RCH,
RL leg variants.



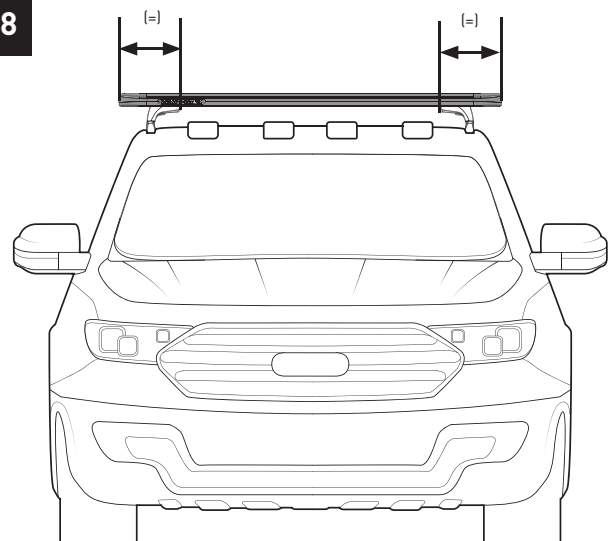
16 SXB



17

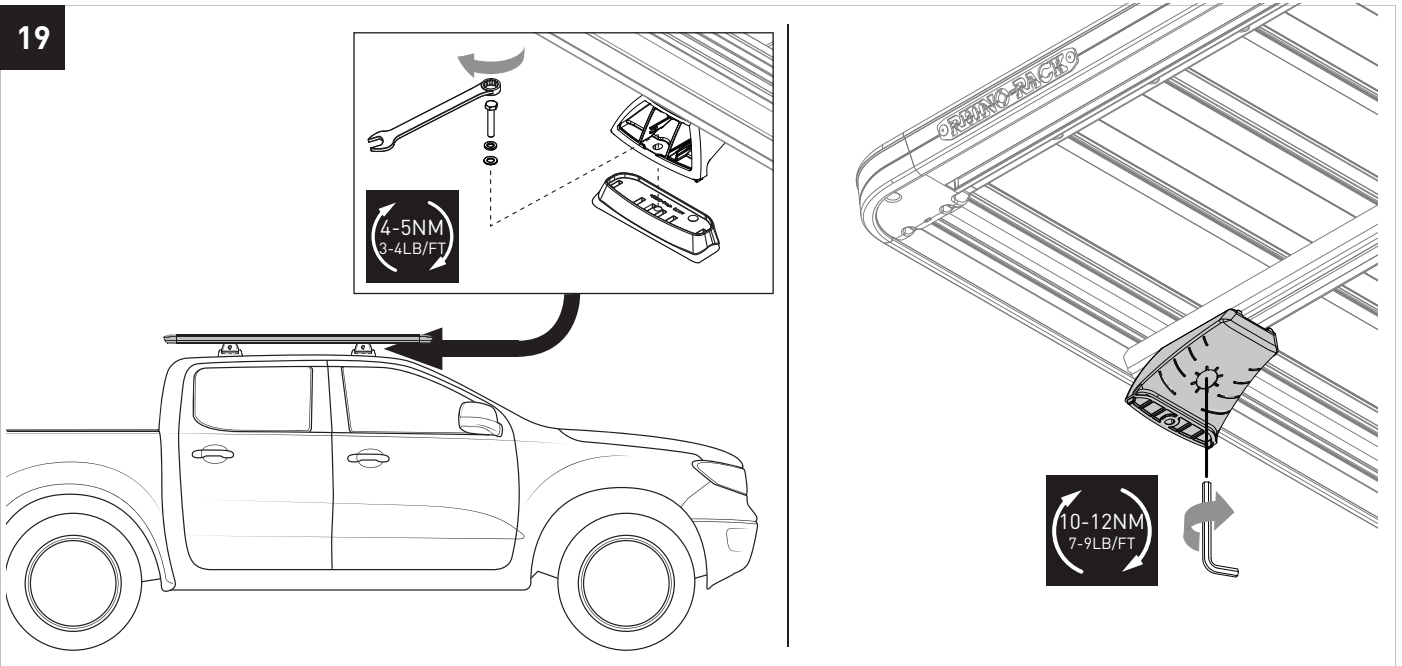


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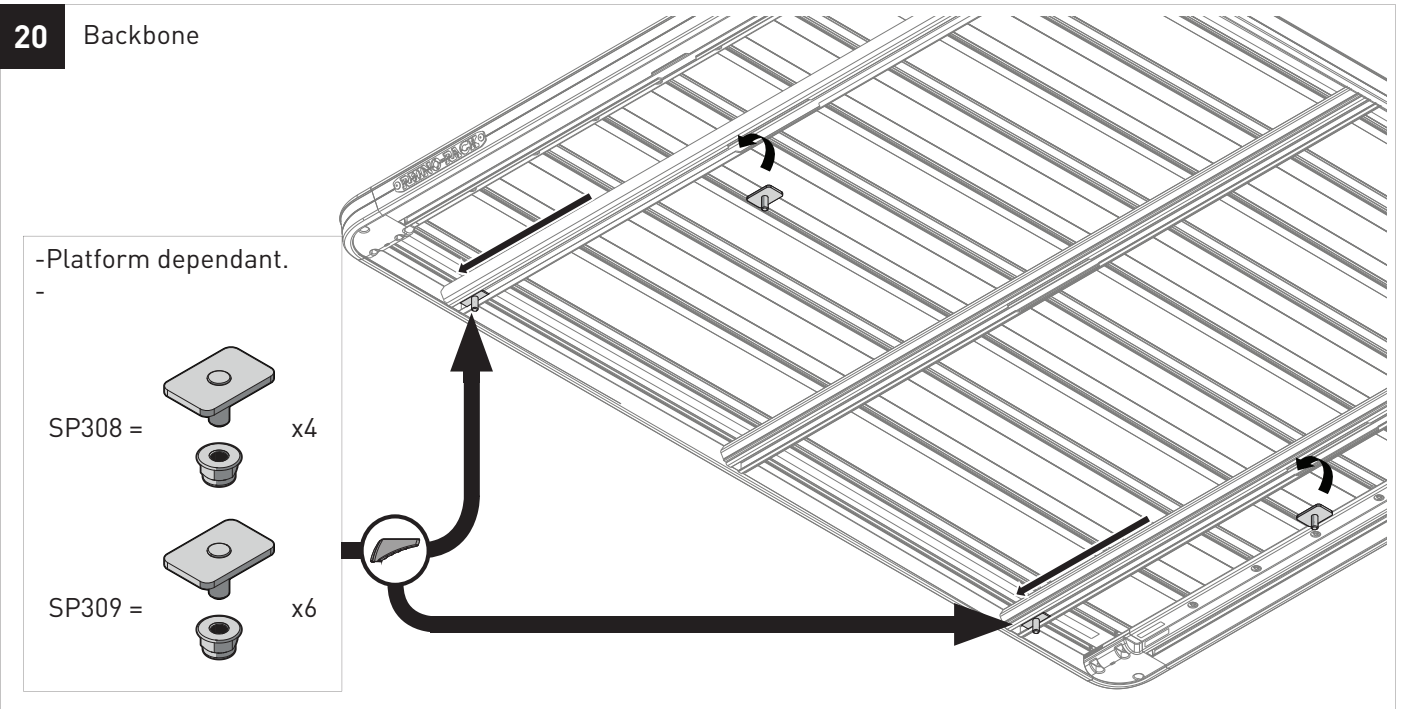


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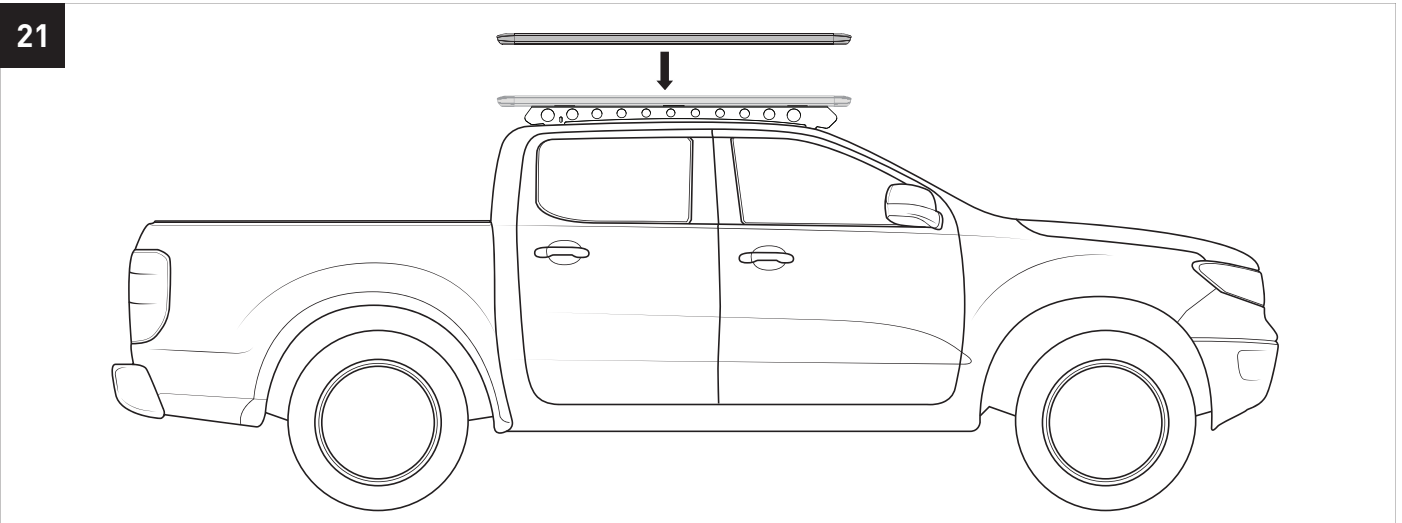
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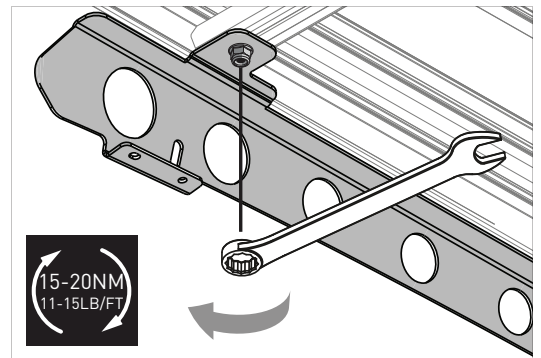
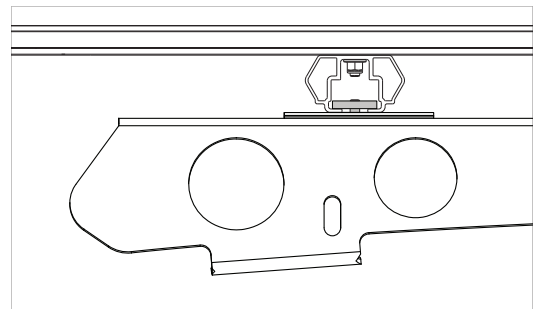
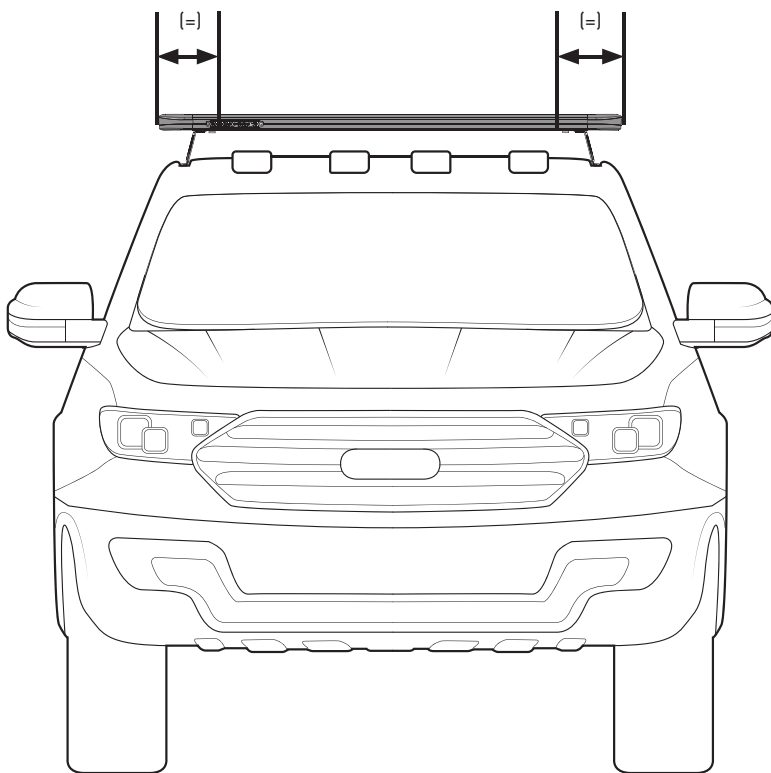
20 Backbone



21



22



Note

RHINO-RACK
PIONEER ALLOY TRAY (assembled)

Important:

- 1. Always use proper tie-down technique to secure your load.
- 2. Always use proper tie-down technique to secure your load.
- 3. Always use proper tie-down technique to secure your load.
- 4. Always use proper tie-down technique to secure your load.

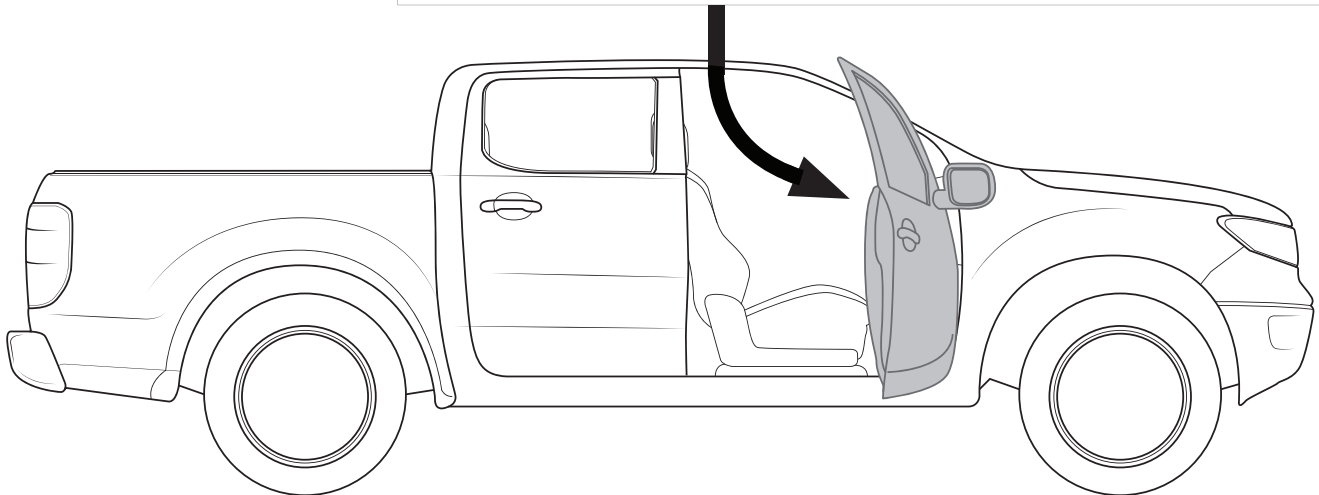
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RHINO-RACK | PIONEER VEHICLE FITTING INFORMATION

Vehicle	Year	Model	Tray Part Number
Subaru	2014-2018	Outback	RT100
Subaru	2014-2018	Forester	RT100
Subaru	2014-2018	SUV	RT100

WEATHER PROTECTION

Vehicle	Year	Model	Tray Part Number
Subaru	2014-2018	Outback	RT100
Subaru	2014-2018	Forester	RT100
Subaru	2014-2018	SUV	RT100

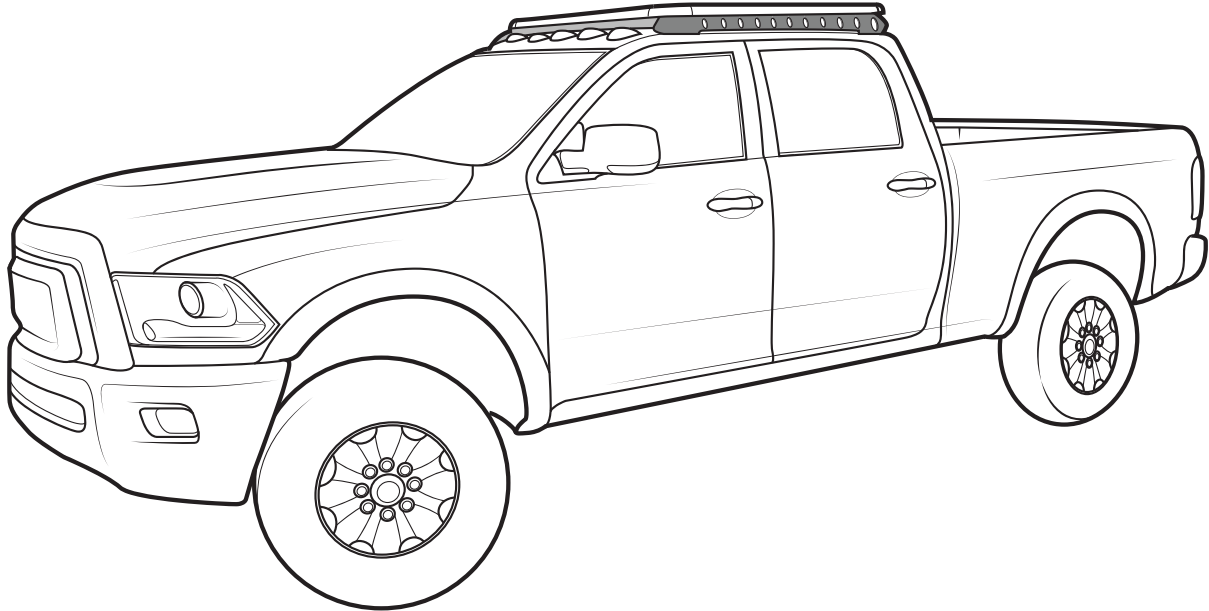




RHINO-RACK

RAM 1500,2500,3500 Crew Cab & Mega Cab Backbone - RR1B1

Fit Time: 1.5 Hours



IMPORTANT INFORMATION

Maximum carrying capacity:

Suitable Pioneers	On Road Cargo Allowance	Off Road Cargo Allowance	Static Allowance	Roof Allowance	Rack Weight
42113	71.5kg / 157lb	51.5kg / 113lb	331.5kg / 730lb	100kg / 220lb	28.5kg / 63lb

Roof Allowance: Total permissible weight attached to the roof of the car. This is inclusive of the weight of the roof rack system

Cargo Allowance: Total permissible weight allowed on top, and attached to roof racks whilst the vehicle is in motion

Static Allowance: Total permissible weight allowed on top, and attached to roof racks whilst the vehicle is stationary

Please refer to your vehicle manufacturers handbook for maximum carrying capacity. Always use the lower of the two figures. Load must be evenly distributed over the entire Pioneer. Weight of roof rack accessories is to be included in cargo allowance.

Torque settings

Unless stated otherwise in these instructions, all fasteners should be set to the following torque settings -

M6: 4-5Nm (3-4lbs/ft), M8: 8-10Nm (6-7.5lbs/ft) and M10: 16-18Nm (12-13lbs/ft).

Warning:

- Check Part No. and/ or Kit is correct for use with your vehicle
- Do not attempt to fit the rack system to your vehicle unless you fully understand these fitting instructions. Please direct any questions regarding fitting to the dealer from where the roof racks were purchased.
- **Use only non-stretch fastening ropes or straps.**
- The handling characteristics of the vehicle changes when you transport a load on the roof. For safety reasons we recommend you exercise extreme care when transporting wind-resistant loads. Special consideration must be taken into account when cornering and braking.
- Although the system is tested and approved to AS1235-2000 / ISO 11154, off-road conditions can be much more rigorous. Extreme care must be taken in off road conditions

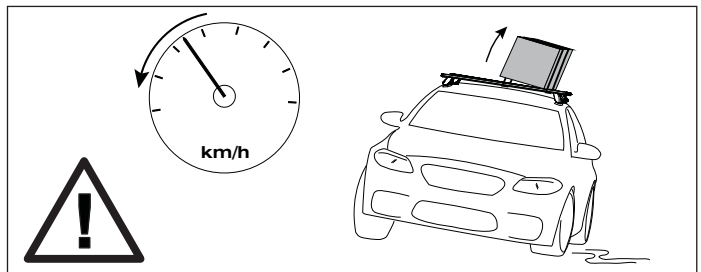
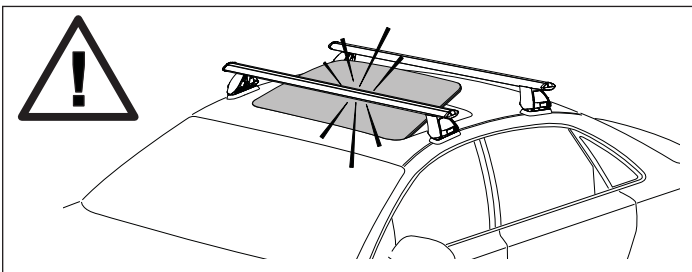
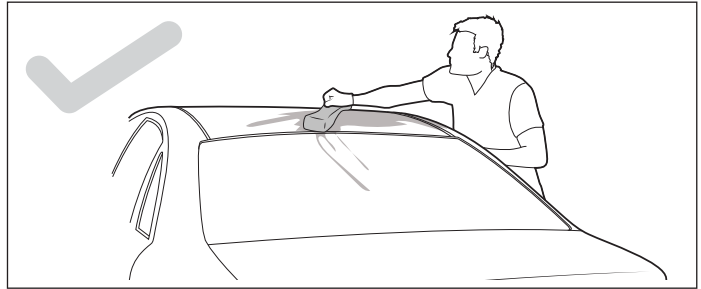
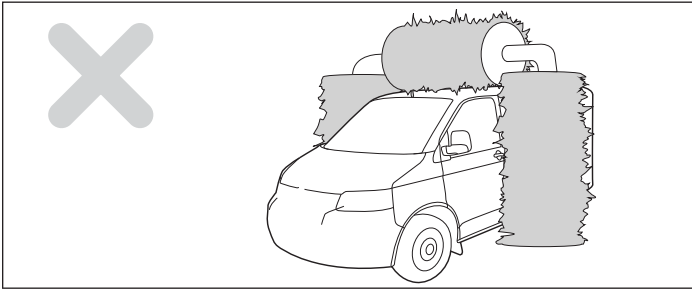
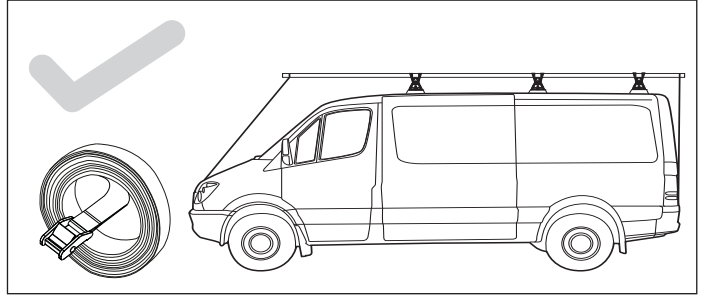
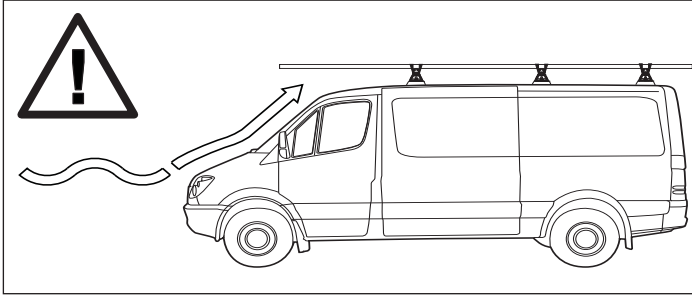
Recommendations:

It is essential that all bolt connections be checked after driving a short distance when you first install your roof racks. Bolt connections should be checked again at regular intervals (once a week is enough, depending on road conditions, usage, loads and distances travelled). You should also check the roof racks each time they are re-fitted. Always make sure to fasten your load securely. Please also ensure that all loads are evenly distributed and that the centre of gravity is kept as low as possible and must be entirely contained within the extents of the roof racks.

Note for Dealers and Fitters:

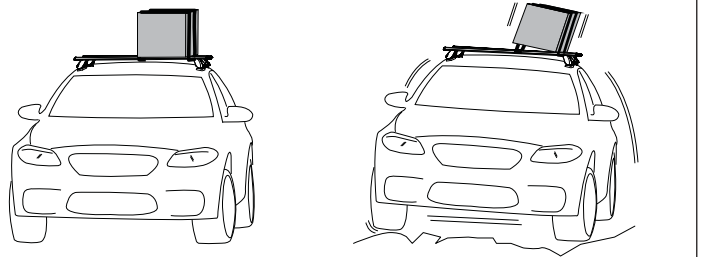
It is your responsibility to ensure these fitting instructions are given to the end user or client

RAM 1500,2500,3500 Crew Cab & Mega Cab Backbone - RR1B1

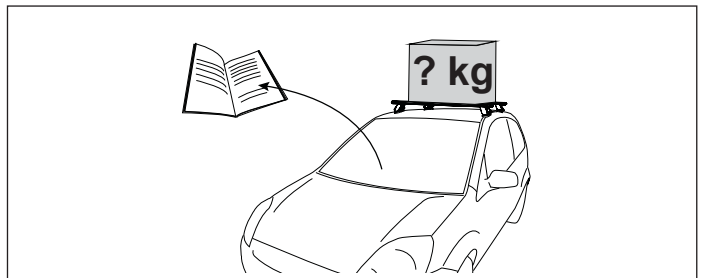
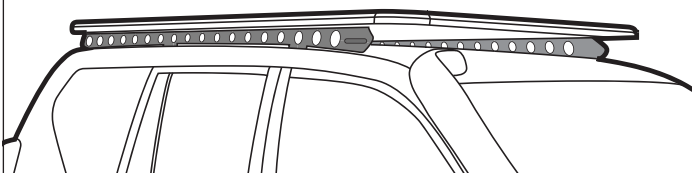


The handling characteristics of the vehicle changes when you transport a load on the roof. For safety reasons we recommend you exercise extreme care when transporting wind-resistant loads. Special consideration must be taken into account when cornering and braking.

Although the system is tested and approved to AS1235-2000 / ISO 11154, off-road conditions can be much more rigorous. Extreme care must be taken in off road conditions



System Weight: 28.5kg / 63lbs

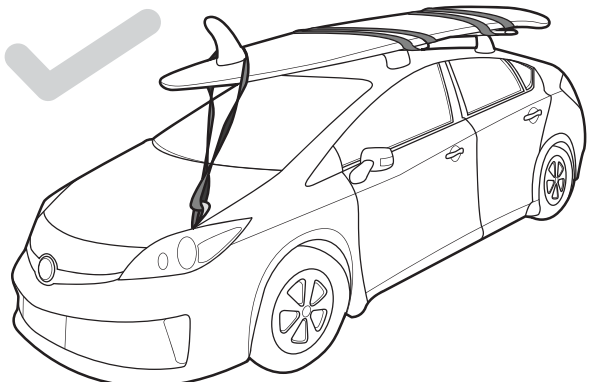
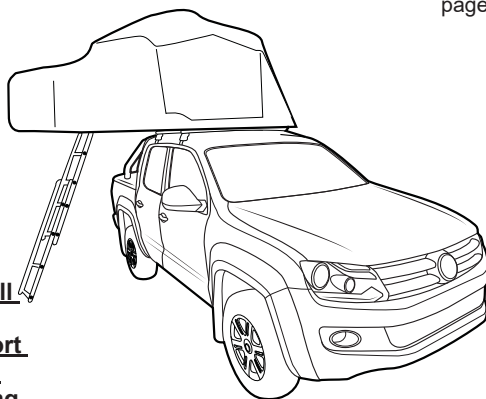


Static Load Rating: refer to front page

Paddle/ Surfboards should be fixed to the front of the vehicle.



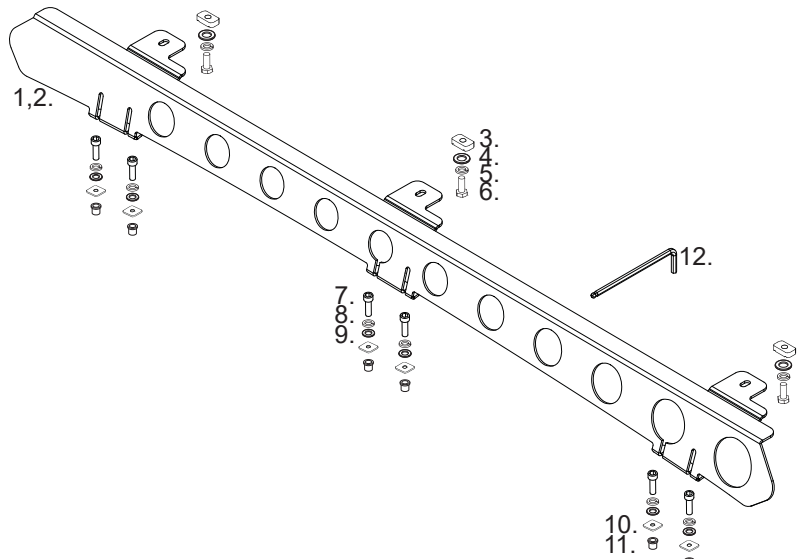
Ensure Ladder is well supported on the ground to help support tent. Take extreme caution when climbing heights above 1.2m/4ft.



RAM 1500,2500,3500 Crew Cab & Mega Cab Backbone - RR1B1

Parts List

Item	RR2B1	Qty	Part No.
1	RAM Backbone LH	1	CA1800
2	RAM Backbone RH	1	CA1801
3	M8 Channel Nut	6	N003-BLK
4	M8 x 24mm Flat Washer	6	W064-BLK
5	M8 Spring Washer	6	W019-BLK
6	M8 x 20mm Hex Bolt	6	B020-BLK
7	M6 x 20mm Skt Screw	12	B054
8	M6 Spring Washer	12	W004
9	M6 x 12.5mm Flat Washer	12	W003
10	Butyl Patch 20mm x 20mm	12	CA1266
11	Rivnut	12	-
12	Ball End Allen Key	1	H058
13	Instructions	1	R1738

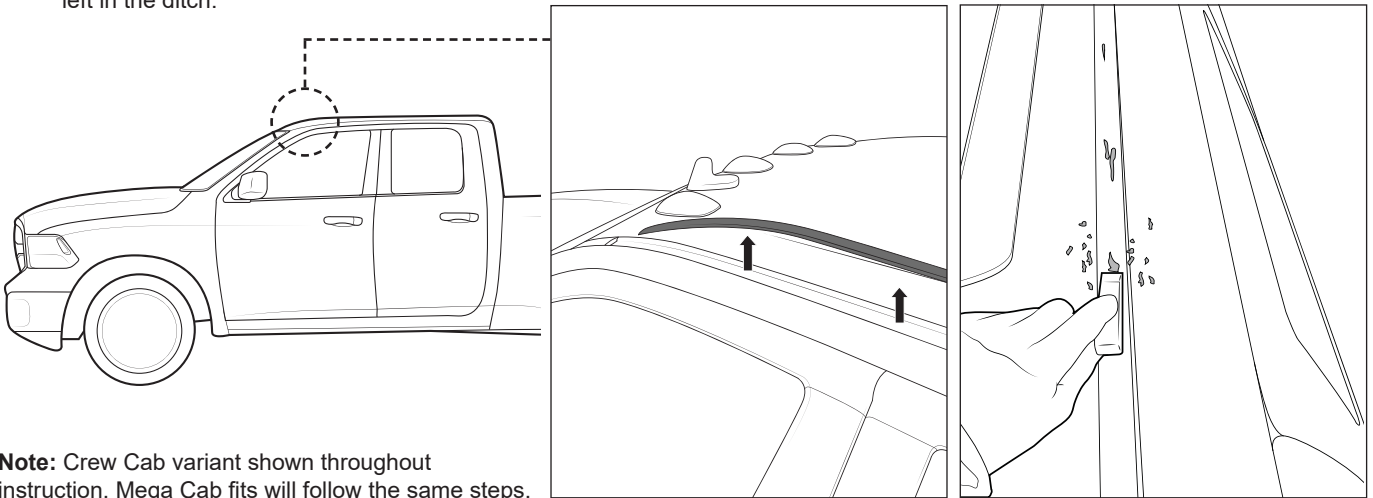


Tools Required:

- | | | | | | | |
|------------------|--------------------------|-----------------|------------------|----------------------------|----------------------------------|---------------------------|
| 1. Power drill | 3. 9mm (3/8") drill bit. | 5. Marker. | 7. Nylon scrape. | 9. Cold galvanising paint. | 10. 13mm (17/32") socket wrench. | 11. 3mm (1/8") drill bit. |
| 2. Punch+hammer. | 4. Measuring tape. | 6. Rivnut tool. | 8. Drill stop. | | | |

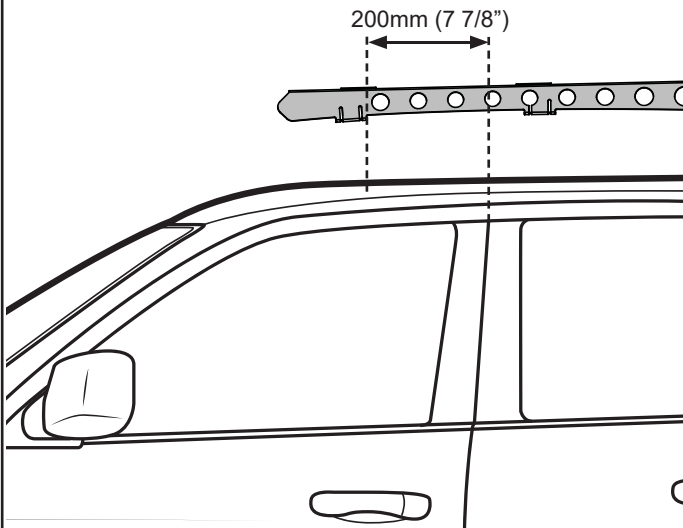
Instructions

- 1** 1: Starting at the front of the vehicle, remove the ditch mould from the vehicle. 2: Using a nylon scrape, clean out any material left in the ditch.

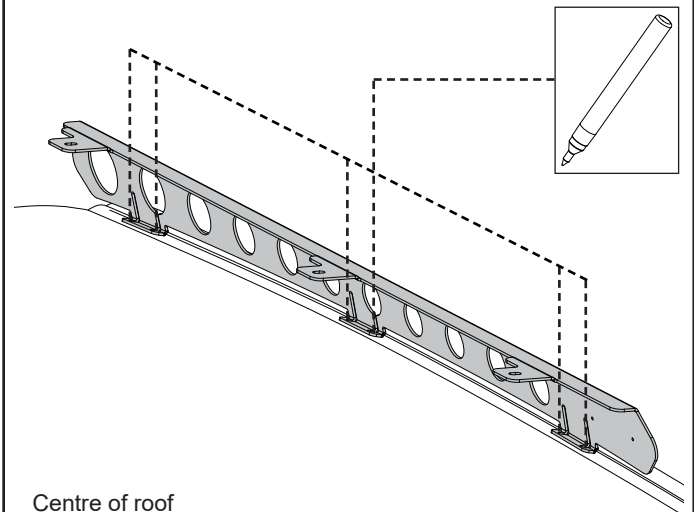


Note: Crew Cab variant shown throughout instruction. Mega Cab fits will follow the same steps.

- 2** Line the rear of the front foot of the backbone, 200mm (7 7/8") in forward of the B-pillar as shown.

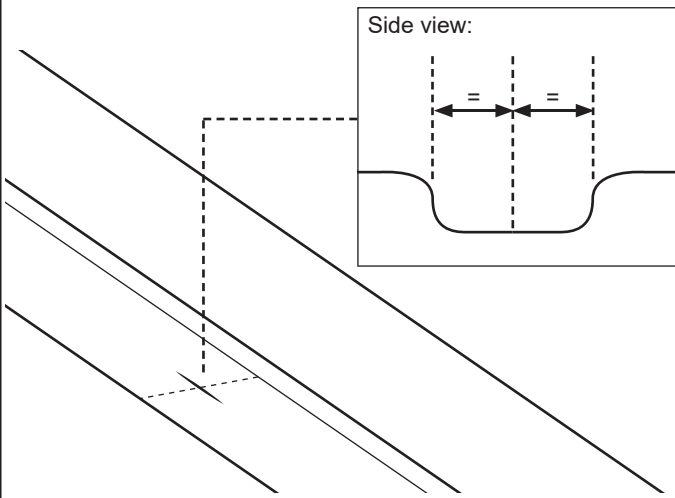


- 3** Using a marker, create a reference in the ditch through each hole in the feet of the backbone.

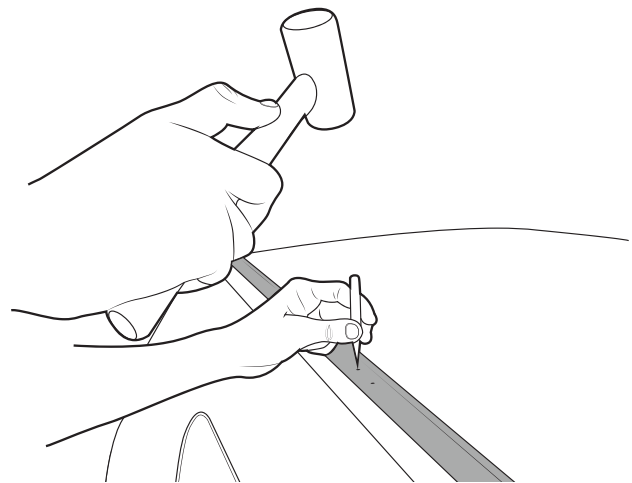


RAM 1500,2500,3500 Crew Cab & Mega Cab Backbone - RR1B1

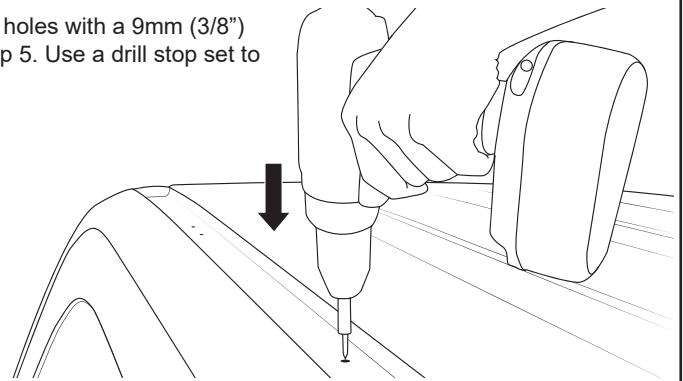
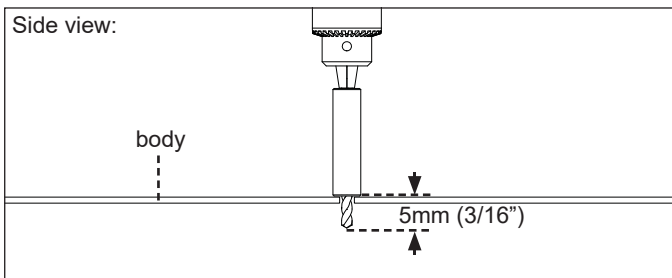
4 Remove the backbone. Find the centre of the ditch at each of the references made previous. Re-mark this spot.



5 Use a hole punch and carefully tap the references made previous. These will be used as a drill guide.

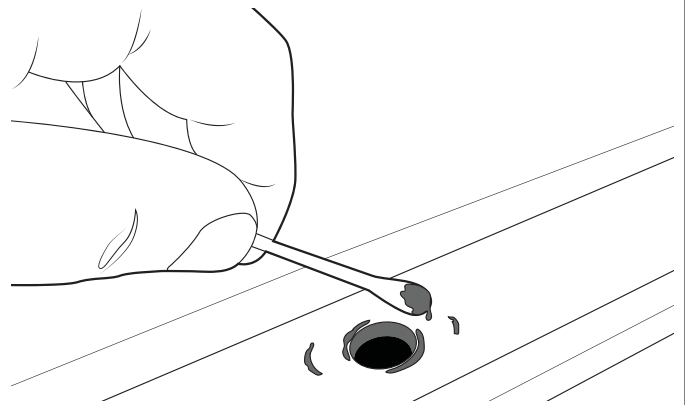
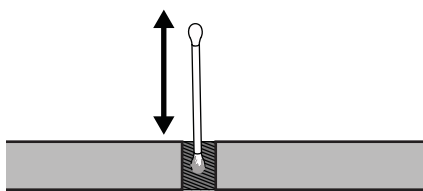


6 Drill a pilot hole with a 3mm (1/8") drill bit. Open out these pilot holes with a 9mm (3/8") drill bit and drill through the body at the references made in step 5. Use a drill stop set to 5mm (3/16").

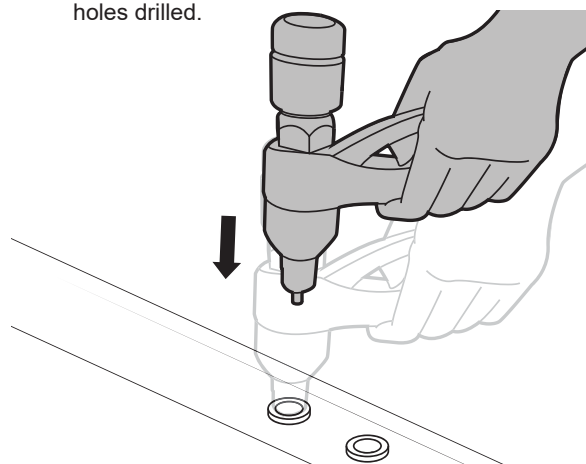


7 Vacuum any swarf from the roof of the vehicle. Using cold galvanising paint, coat any exposed bodywork. Allow 15min to dry (time weather dependent).

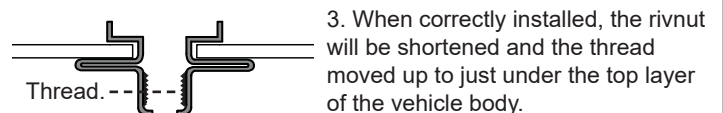
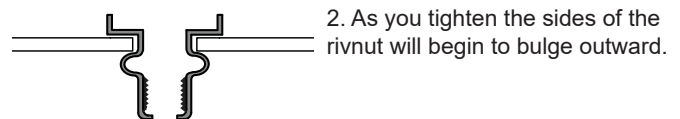
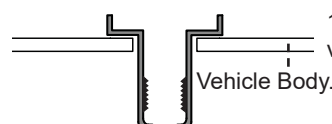
Side View:



8 Using a rivnut tool, install the rivnuts into each of the holes drilled.

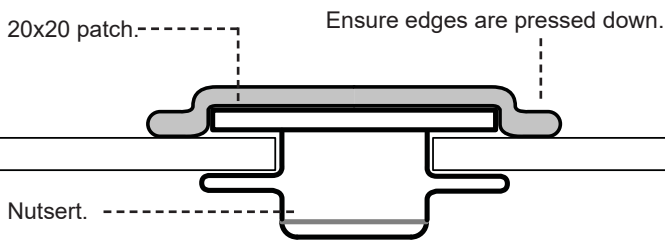
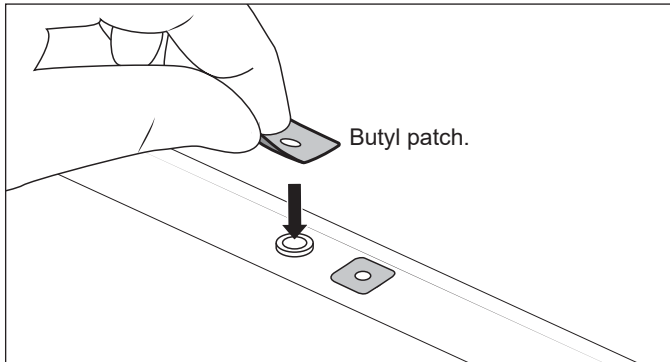


Note the rivnuts will deform as it is correctly fitted. The sides will bulge and grip the top layer of the body. As this occurs the rivnut shortens, bringing the thread higher.

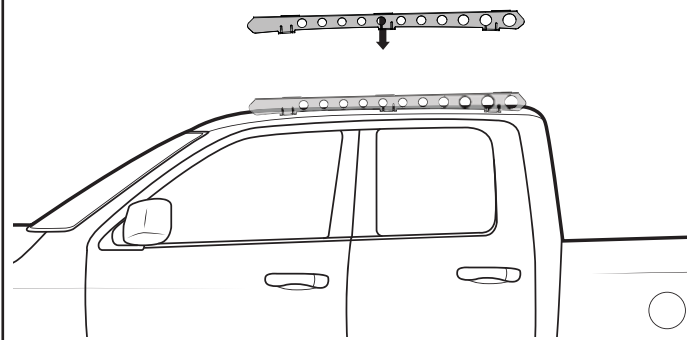
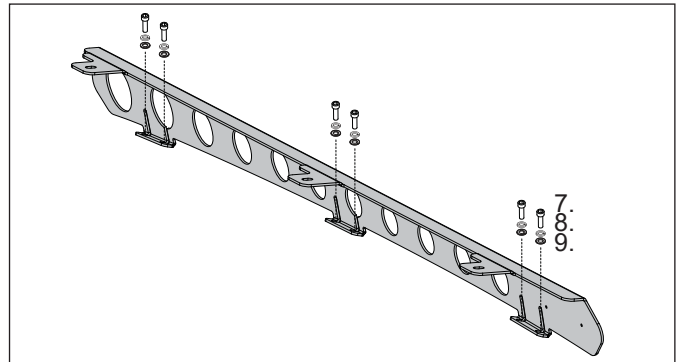


RAM 1500,2500,3500 Crew Cab & Mega Cab Backbone - RR1B1

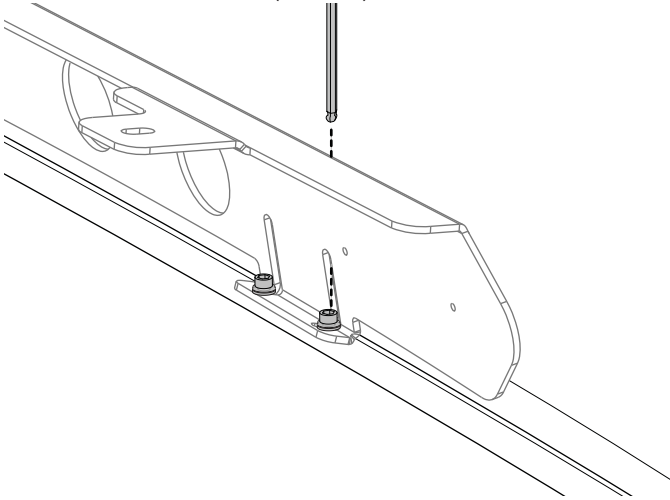
- 9** 1 - Peel one side of the backing tape off the 20mm x 20mm butyl patches and place over the rivnuts.
2: Remove the remaining tape from the patches.



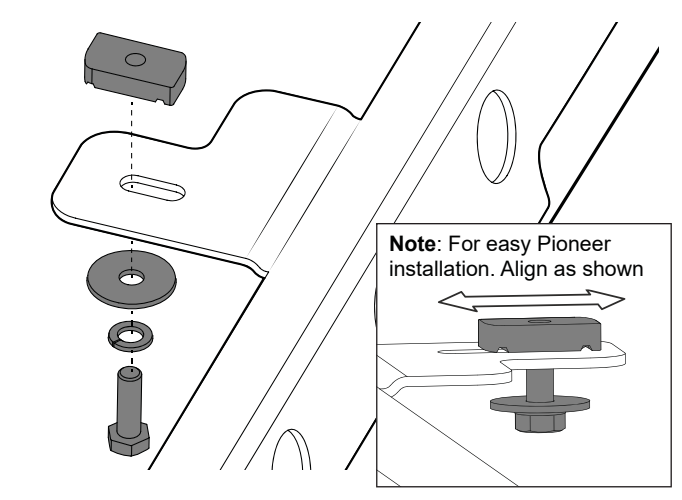
- 10** Place the M6 hardware into the backbone and then place the assembly onto the roof of the vehicle.



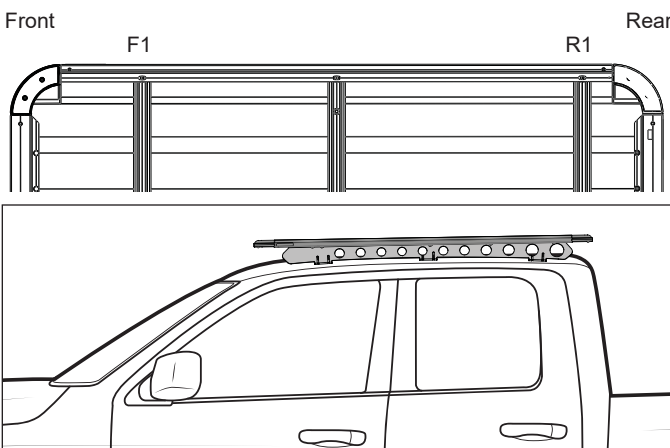
- 11** Using the ball end allen key provided, tighten the M6 hardware to 4-5Nm (3-4lbs/ft).



- 12** Assemble M8 hardware as pictured below. Complete this for the six tabs on top of the backbone rails.



- 13** Install the pioneer underbars with slots indicated (42113). Place onto the roof of the vehicle



- 14** Once Pioneer underbars have been aligned properly, tighten all M8 hardware using 13mm (17/32") socket wrench or 13mm spanner. Ensure channel nut has rotated within Pioneer underbar and is fixing Pioneer securely. Tighten to 8-10Nm (6-7lbs/ft).

