

# RHINO-RACK®

## Leg Instructions

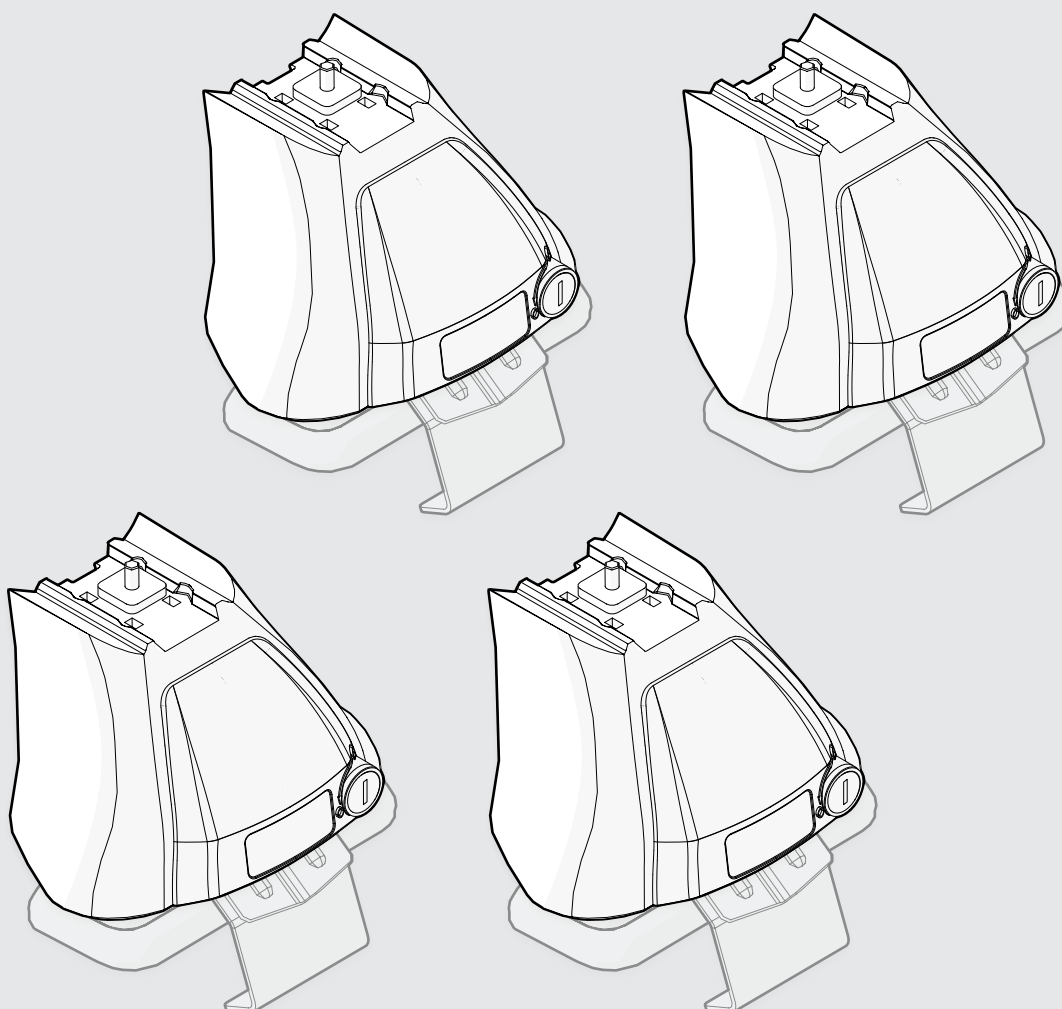
RLKVA (Two Bars) / RLKVAH (One Bar)

### 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:** 30 mins

Instruction includes new **SPORTZ** Bar steps.



**RHINORACK.COM**

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Issue No: 16

Issue Date: 06/08/2025







Carrying Capacity

Check the website and the **vehicle owners hand book** for your vehicle manufacturer’s maximum carrying capacity. Load must be evenly distributed over the system.





2 BARS



DYNAMIC ROAD LOAD LIMIT (NOTE: DIFFERENT ON AND OFF ROAD CARGO LIMIT) *USE THE VEHICLE MANUFACTURER’S MAXIMUM ROOF ALLOWANCE IF IT IS LOWER THAN THE FIGURE LISTED			
 LOAD LIMIT	 SYSTEM WEIGHT	 ON ROAD CARGO LIMIT	 OFF ROAD CARGO LIMIT (ON ROAD CARGO LIMIT / 2)
UP TO 75 kg * 165 lb	– 5 kg 11lb	= UP TO 70 kg 154 lb	OR UP TO 35 kg 77 lb

1 BAR



DYNAMIC ROAD LOAD LIMIT (NOTE: DIFFERENT ON AND OFF ROAD CARGO LIMIT) *USE THE VEHICLE MANUFACTURER’S MAXIMUM ROOF ALLOWANCE IF IT IS LOWER THAN THE FIGURE LISTED			
 LOAD LIMIT	 SYSTEM WEIGHT	 ON ROAD CARGO LIMIT	 OFF ROAD CARGO LIMIT (ON ROAD CARGO LIMIT / 2)
UP TO 35 kg * 77 lb	– 2.5 kg 6lb	= UP TO 32.5 kg 72 lb	OR UP TO 16 kg 35 lb



Cargo Load Limit

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



System Weight

Total weight of the roof rack system. (e.g. Crossbars, Backbone, Platform)



Max System Load Capacity

Please ensure you use the vehicle manufacturer’s maximum roof allowance if it is lower than the figure listed in the fitting chart/supplement.



Vehicle Manufacturer’s Load Limit

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

In service maintenance checks

- All bolt 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.
- Off-road conditions are more rigorous. Check all bolted connections and your load more regularly.
- Ensure that your vehicle manufacturer’s GVM, and gross axle weights are not exceeded (refer to vehicle owner’s manual).

Torque Settings:

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

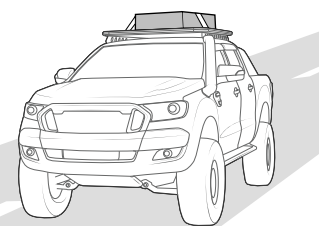
 4-5Nm  
3-4lbs/ft

 8-10Nm  
6-7.5lbs/ft


 16-18Nm  
12-13lbs/ft

Note for Dealers and Fitters

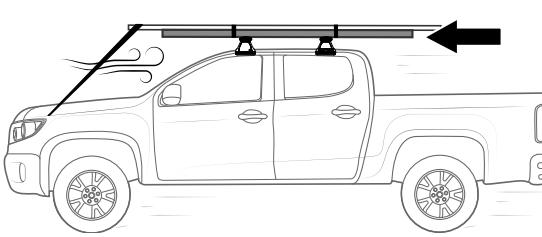
It is your responsibility to ensure these fitting instructions are given to the end user or client. These instructions remain the property of Rhino-Rack Australia Pty. Ltd. and may not be used or changed for any other purpose than intended.



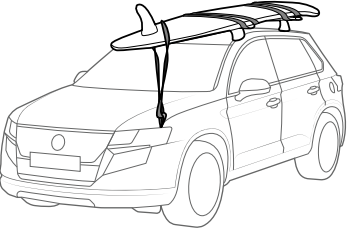
Exercise extreme care when transporting wind-resistant loads. Special consideration must be taken when cornering and braking.




Off-road conditions can be much more rigorous. Extreme care must be taken on any driven path that does not contain a surface protection layer (tar/bitumen).



Long flexible loads must be securely attached to a **rigid support** and be tied down to the bonnet.

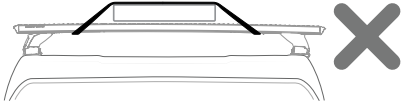


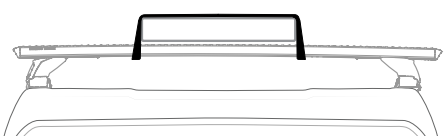
Paddle/ Surfboards should be fixed to the front of the vehicle.

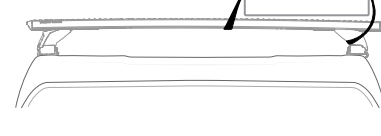


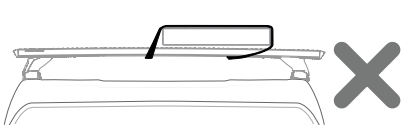
Use only **non-stretch** fastening ropes or straps to attach cargo to roof racks. Always ensure you fasten your load to the crossbar securely,

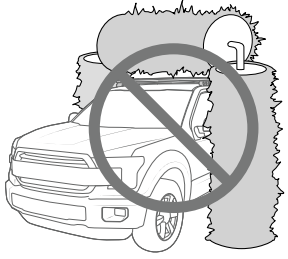
Loads must be tied down to roof rack, **NOT** around legs











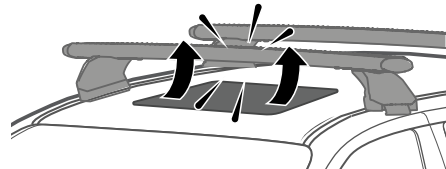



Racks must be removed when vehicle is put through an automatic car wash.




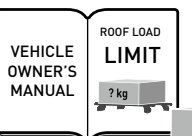
Ensure sunroof will not collide with roof rack system.








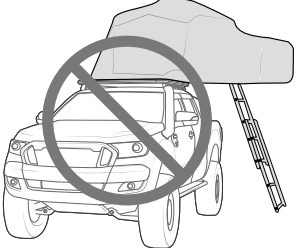





VEHICLE OWNER'S MANUAL

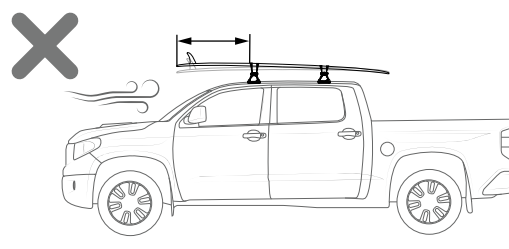


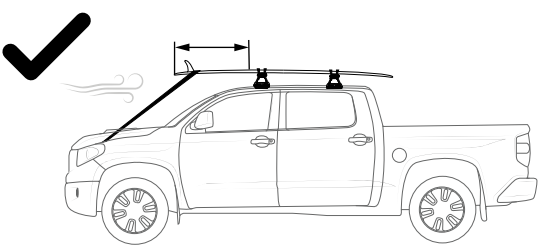
? kg





Rooftop tents are not recommended.





Surfboard Overhang greater than **600mm / 23 1/2in** must be tied to the bonnet



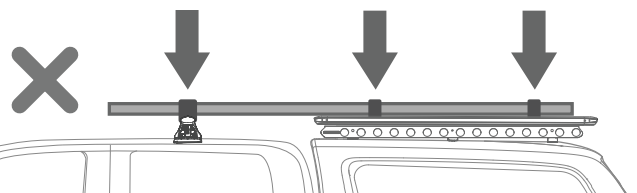
Do NOT obstruct windscreen camera sensors

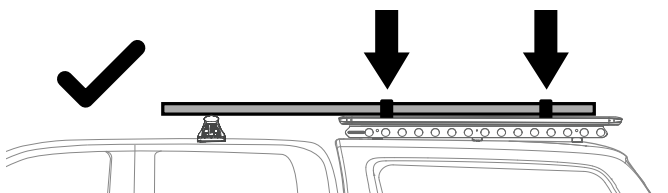




Warranty for roof rack system will be void if the front of the kayak is not secured to the bonnet

Tub/tray/canopys can move independently from the vehicle cabin. Rigidly fix to either the cabin roof racks **or** the tub/tray/ canopy roof racks but not both simultaneously.

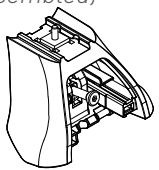






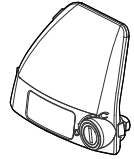
**P1 RLKVA Parts List**

Leg Assembly  
(Preassembled)



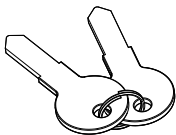
**A** x2 (RLKVAH)  
**A** x4 (RLKVA)

Cover (Preassembled)



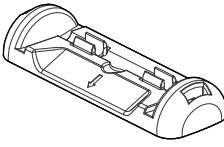
**B** x2 (RLKVAH)  
**B** x4 (RLKVA)

Metal Key (Pair)




**C** x1

Foot Plate




**D** x2 (RLKVAH)  
**D** x4 (RLKVA)

Torque Key



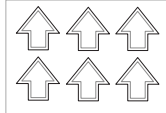
**E** x1

Location Decals Sheet



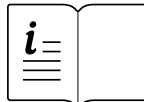
**F** x1

Positioning Decals Sheet



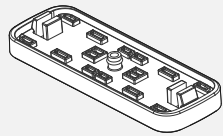
**G** x1

Instruction

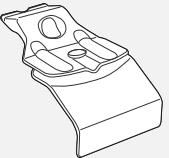


**H** x1

**P2 DK PARTS** (Included in Base Kit)



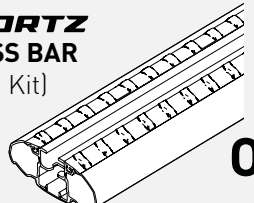
**I** x2 (RLKVAH)  
**I** x4 (RLKVA)



**J** x2 (RLKVAH)  
**J** x4 (RLKVA)

**P3 CROSS BAR** (Included in Bars Kit)

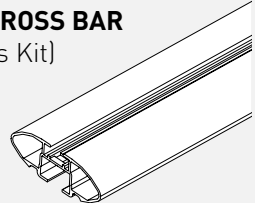
**SPORTZ CROSS BAR**  
(Bars Kit)



**K** x1 (RLKVAH)  
**K** x2 (RLKVA)

OR

**VA CROSS BAR**  
(Bars Kit)

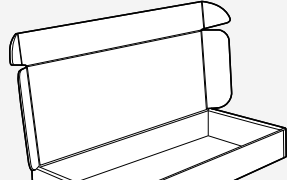


**K** x1 (RLKVAH)  
**K** x2 (RLKVA)

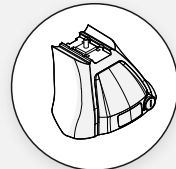
**TOOLS REQUIRED:**

- T1** - Scissors / Cutters  
**T2** - Measuring Tape

**P1**

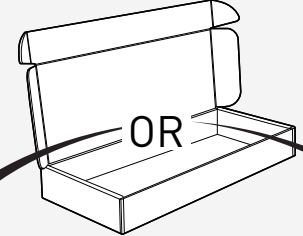
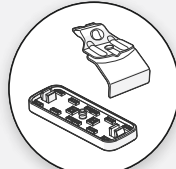


**LEGS**



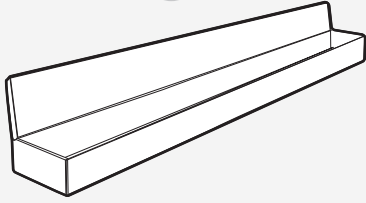
**P2**

**BASE KIT**

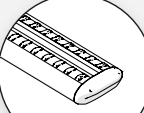


OR

**P3**





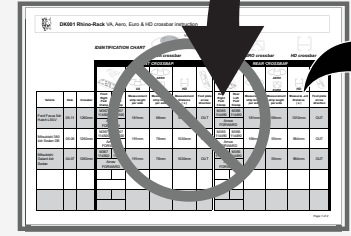
**VA BAR**




**SPORTZ BAR**

OR


 **EXAMPLE**



If the **DK sheet** in your **BASE KIT** **P2** box looks like this, please follow the **QR code** below to our online **"Fit My Vehicle"** journey to find the **correct** supplement sheet **specific to your vehicle**.



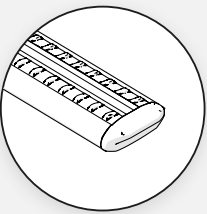
**EXAMPLE**

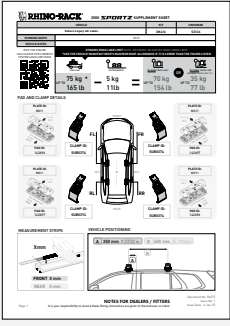


Proceed to the next step to see **examples** of the sheet you need.



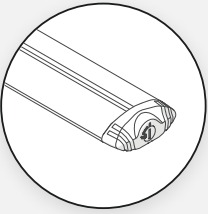
**SPORTZ BAR**

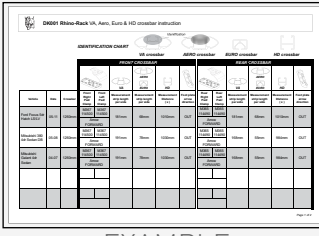




**EXAMPLE**


**VA BAR**

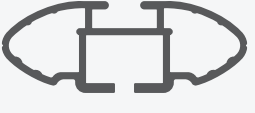




**EXAMPLE**

OR

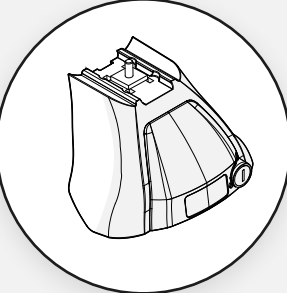
  
For RLKVA Leg with **SPORTZ** Bar go to Step **1** - **23**.

  
For RLKVA Leg with **VORTEX** Bar go to Step **24** - **44**.

System Components

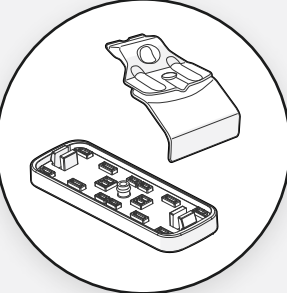
To complete the installation ensure you have **Base Kit**, **Legs** and **Crossbars**.

**LEGS**



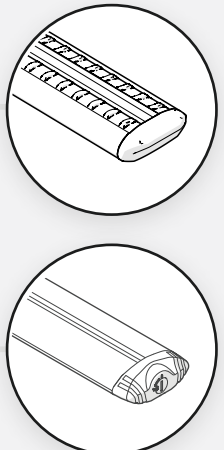
**P1**

**BASE**



**P2**

**BARS**

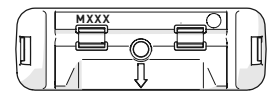



**P3**

FOR SPORTZ BAR INSTALLATION

(For VORTEX Bar, skip to Step **24** )

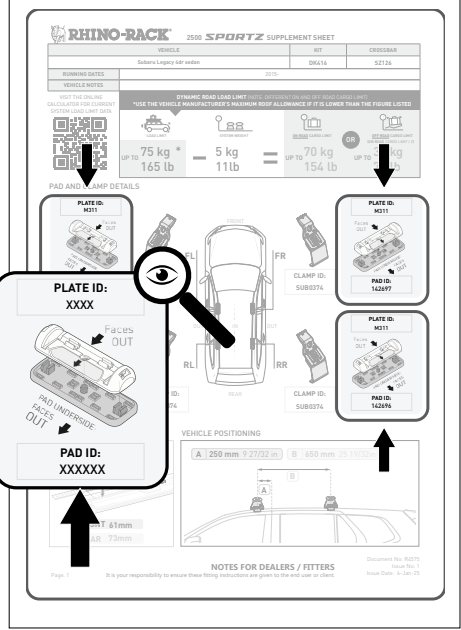
**1**

Plate Arrow Faces  
**IN / OUT**  
← →  
  
TOP VIEW:  
EXAMPLE

Pad Arrow Faces  
**FRONT / REAR**  
**IN / OUT**  
↕  
  
PAD UNDERSIDE:  
EXAMPLE

**D** PLATE

**I** PAD



**EXAMPLE**

REFER TO ONLINE FITTING SUPPLEMENT SHEET

**FL**

**FORWARD**

**FR**

**LEGS**

**D**

**I**

**OUT**

**IN**

**OUT**

**BASE KIT**

**D**

**I**

**RL**

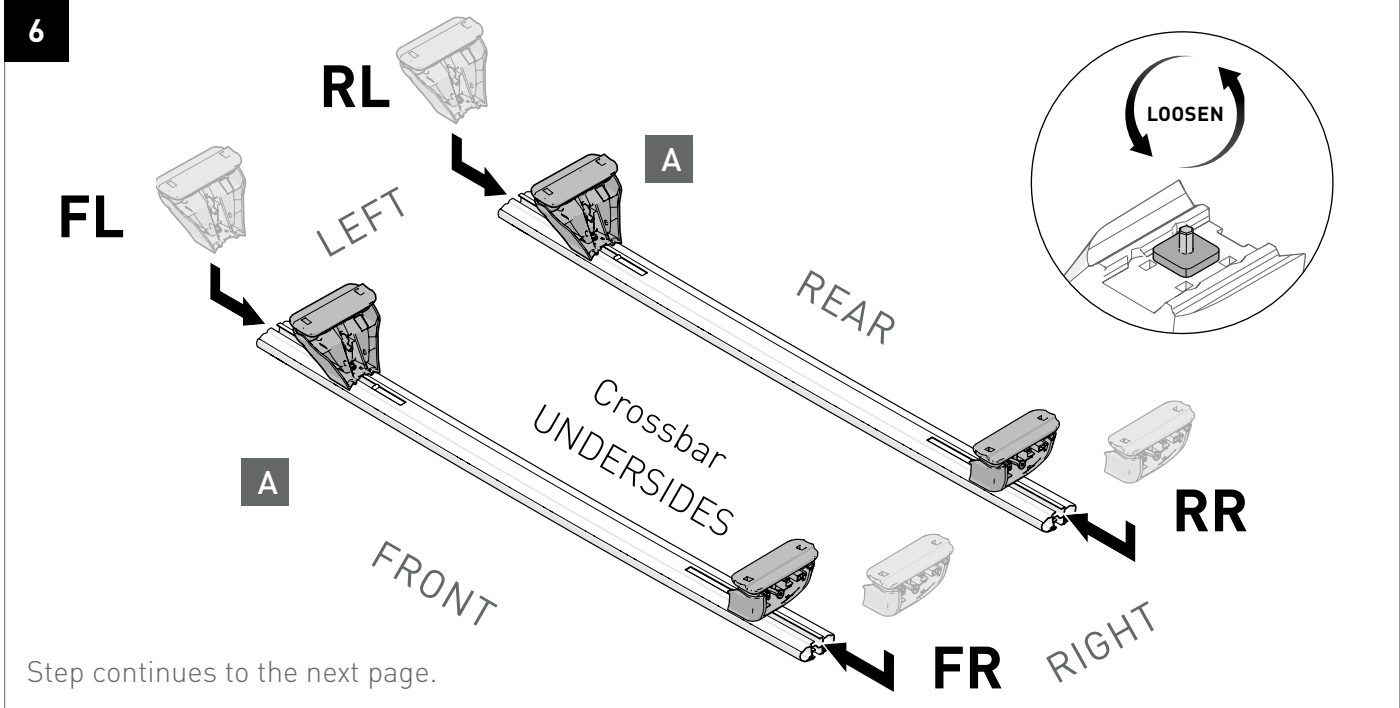
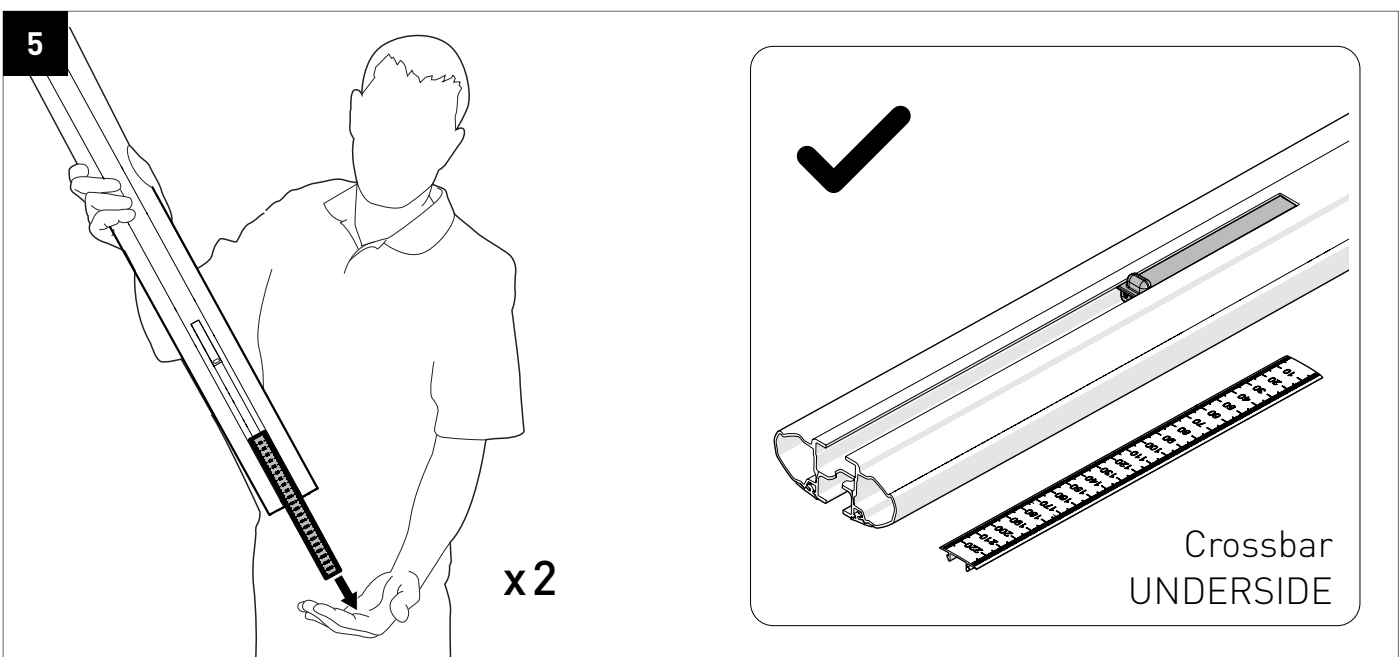
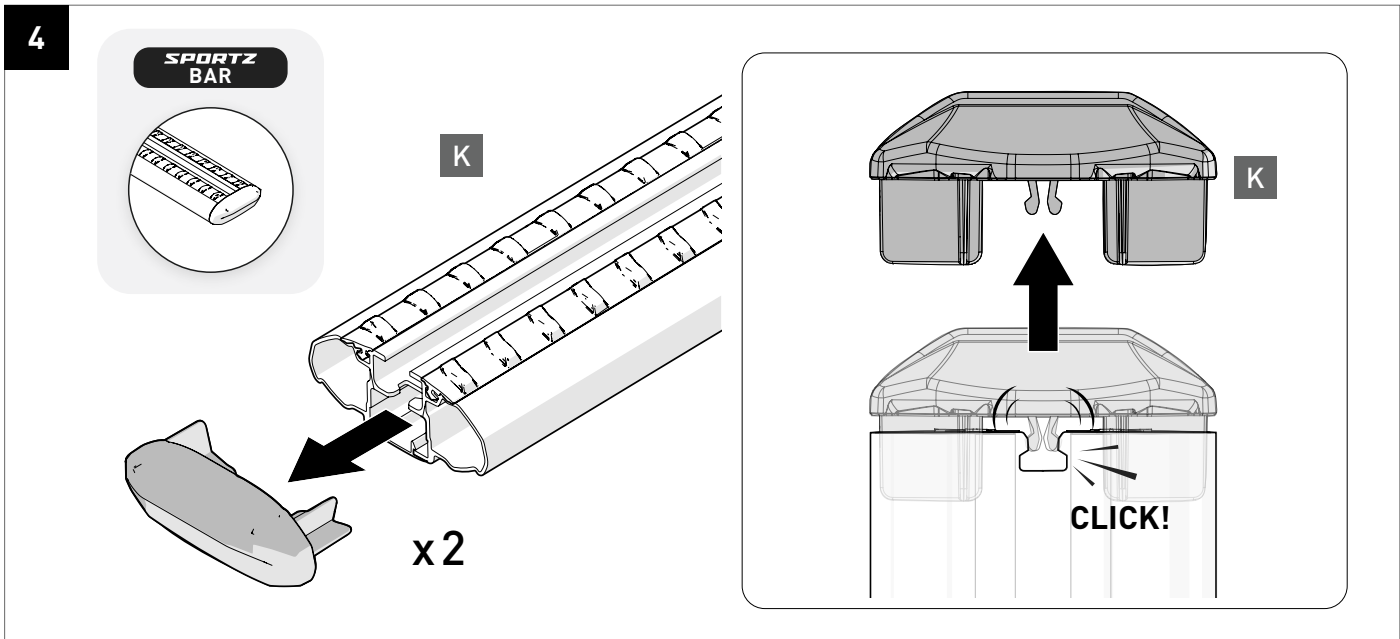
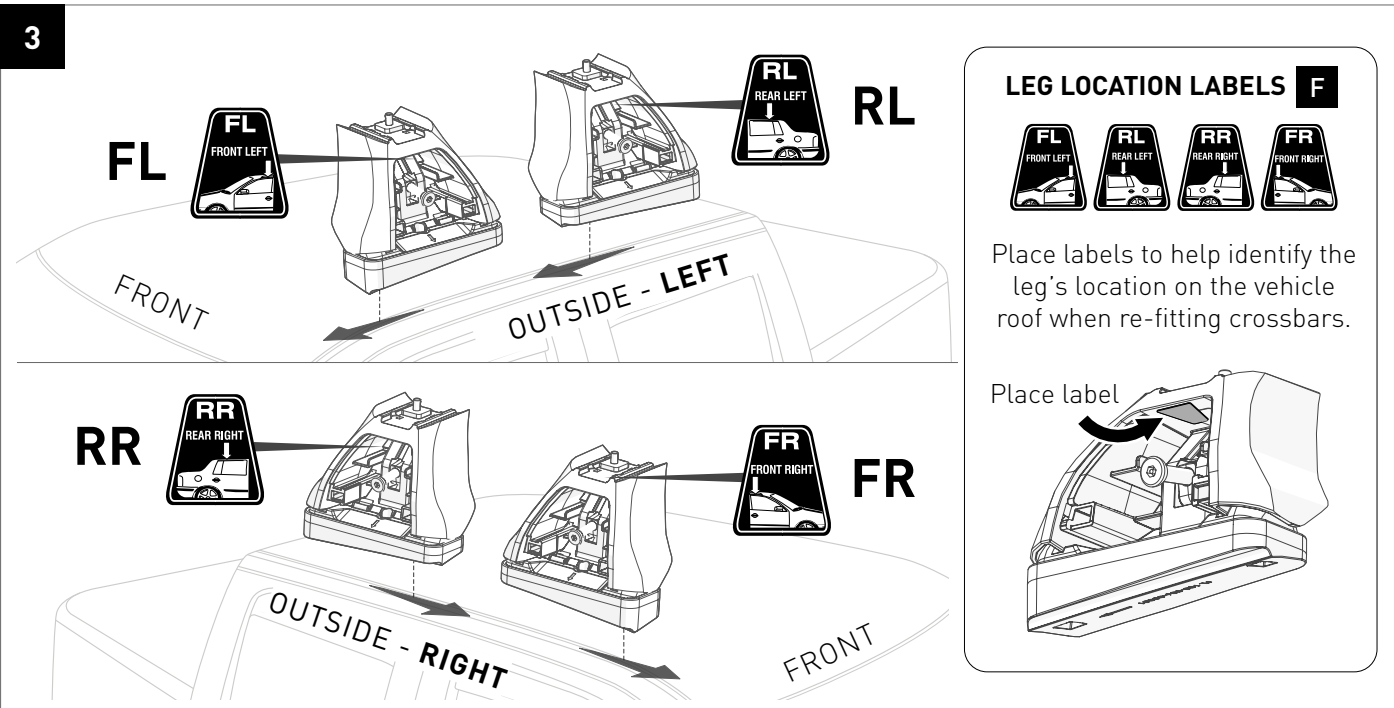
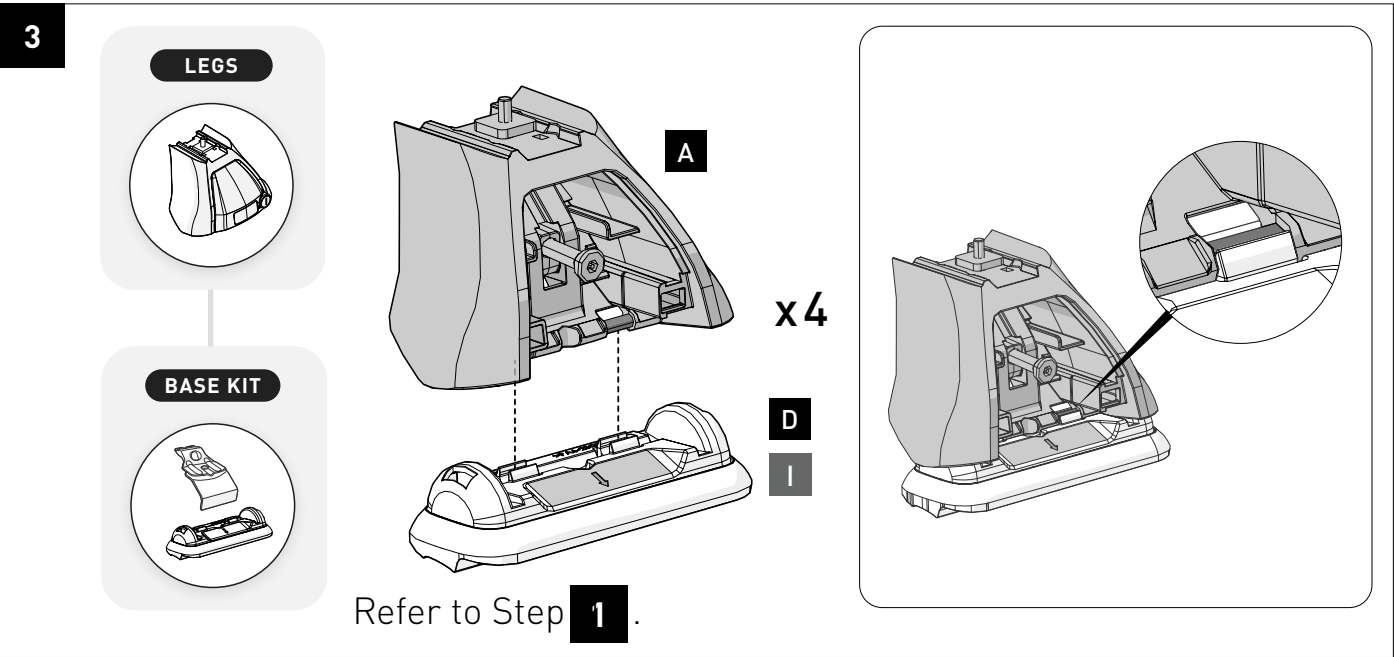
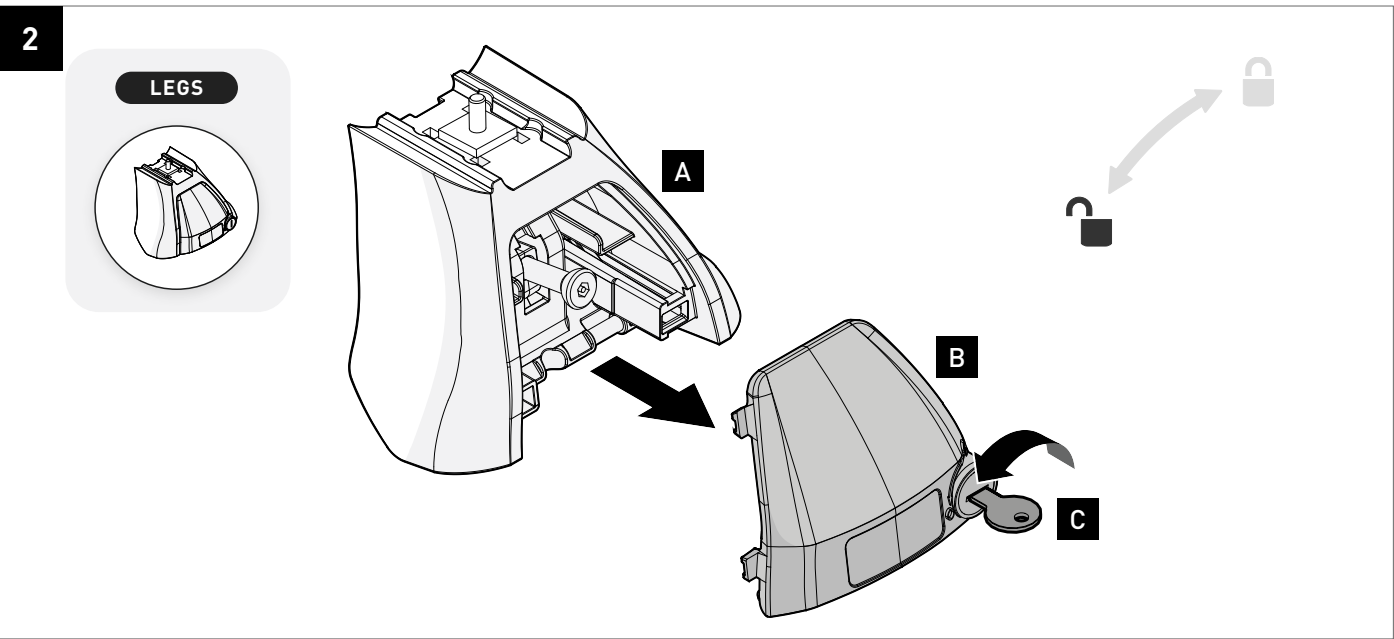
**REAR**

**RR**

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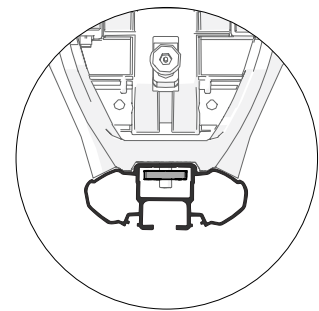
Page 7 of 28



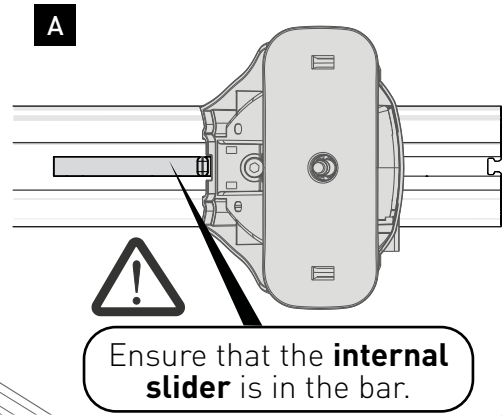
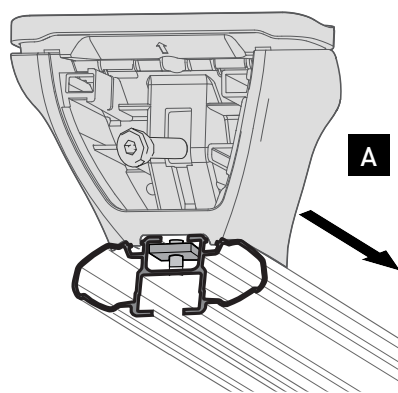




BOTTOM VIEW:



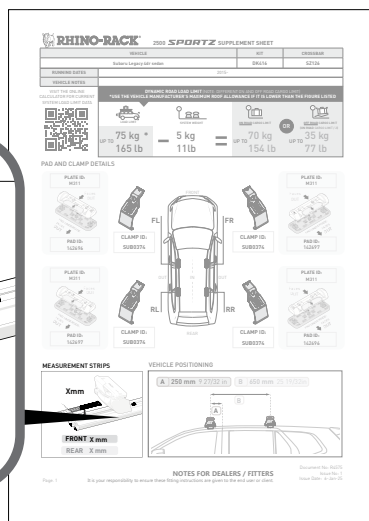
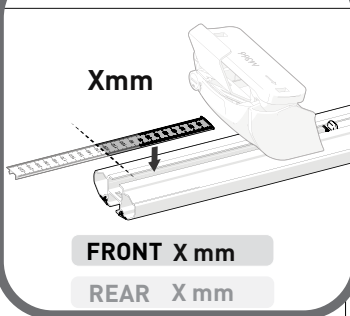
Channel nut slides into **underbar** channel



7



MEASUREMENT STRIPS



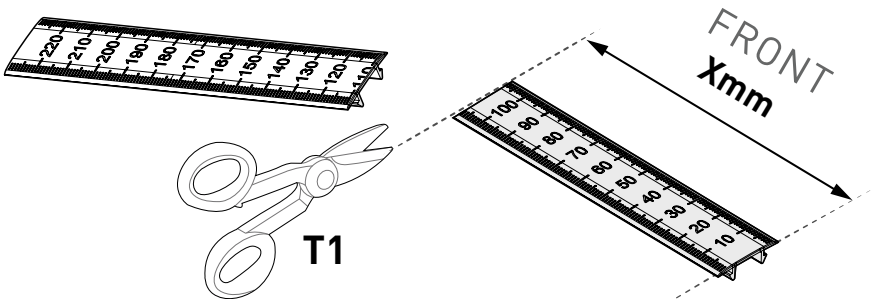
EXAMPLE



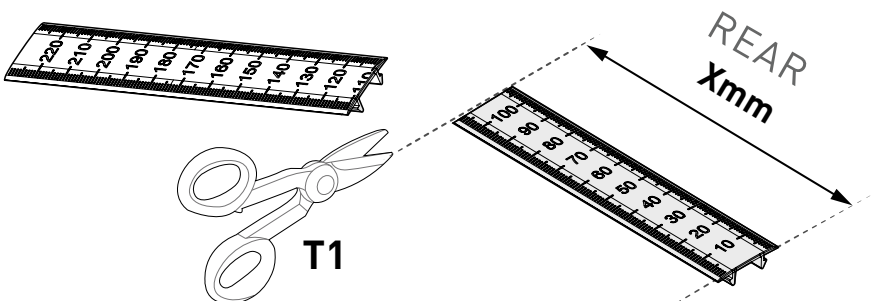
**Warning:** Length of measurement strip is very important to ensure proper fitment of racks.

REFER TO ONLINE FITTING SUPPLEMENT SHEET

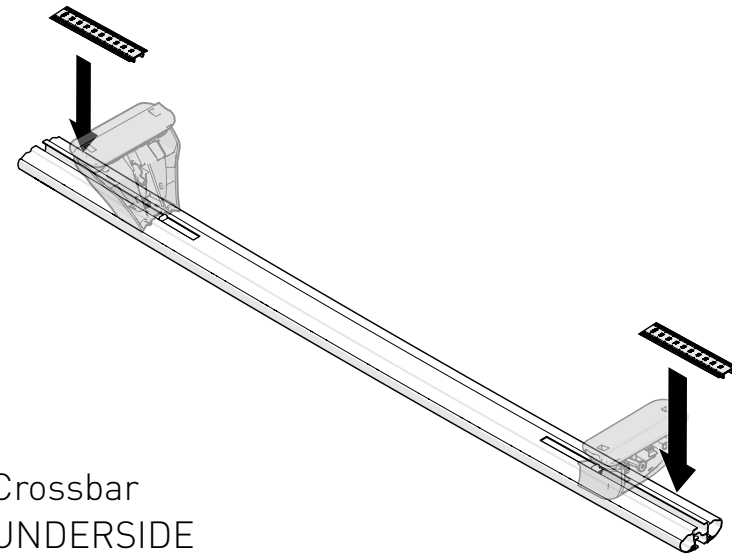
FRONT  
x2



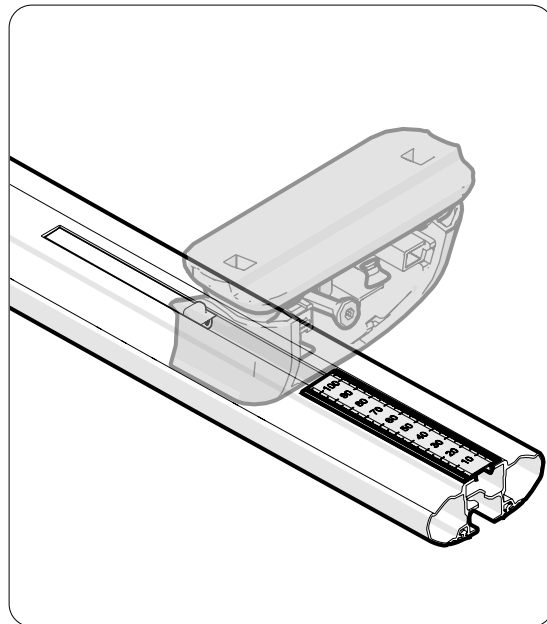
REAR  
x2



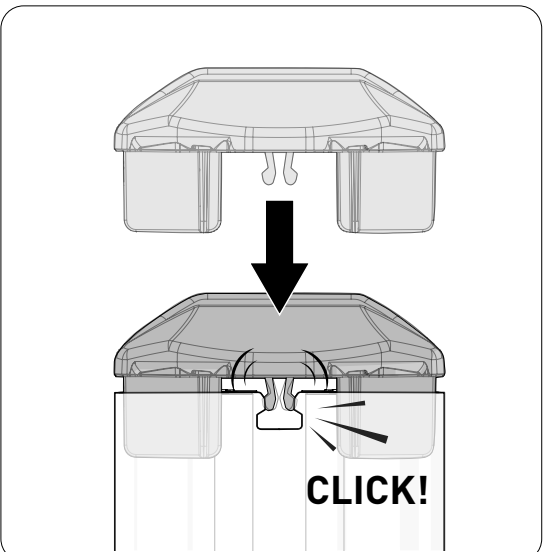
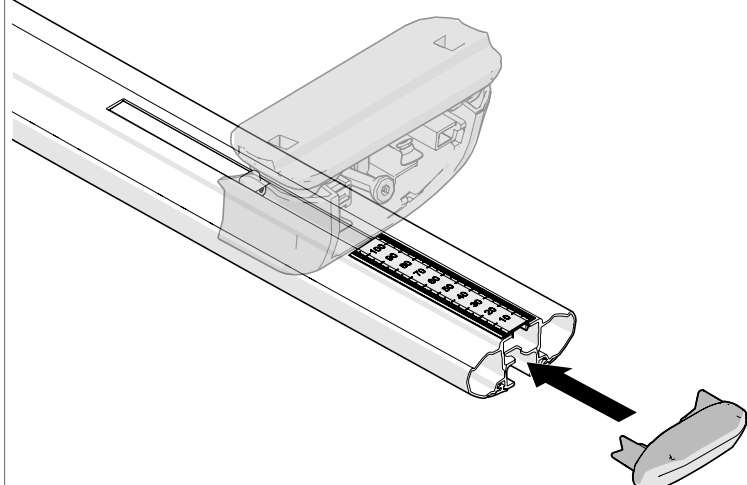
8



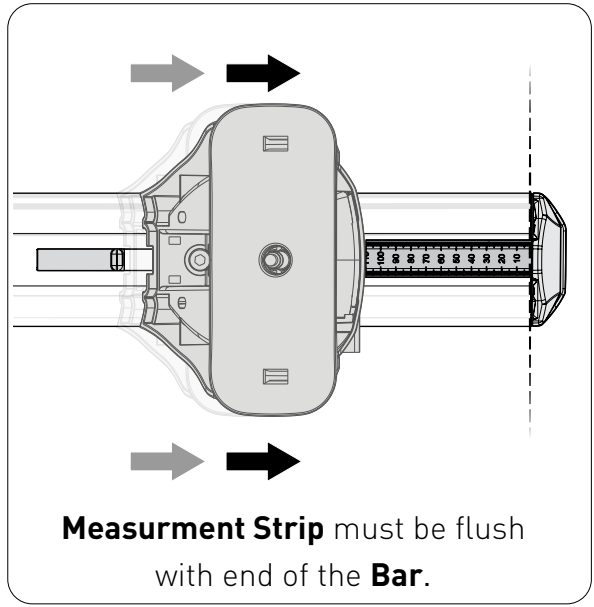
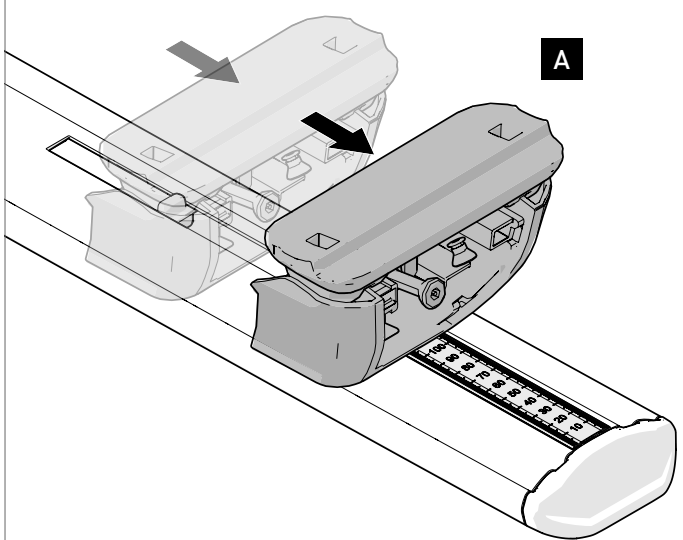
Crossbar  
UNDERSIDE



9



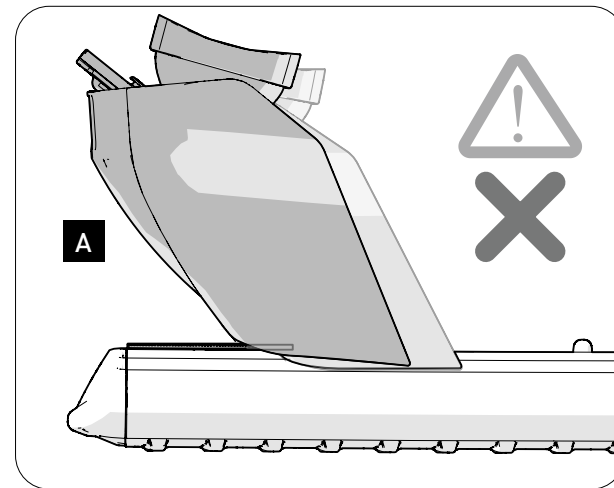
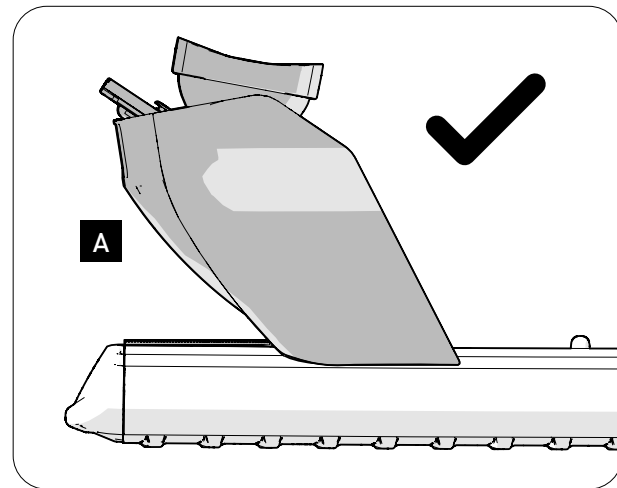
10



**Measurement Strip** must be flush with end of the **Bar**.

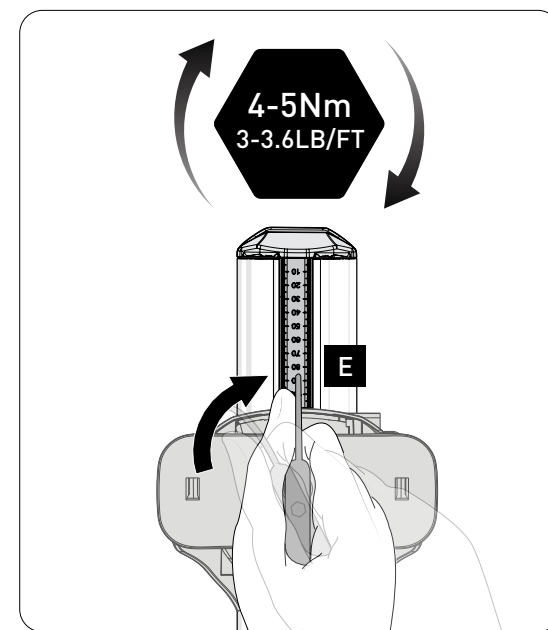
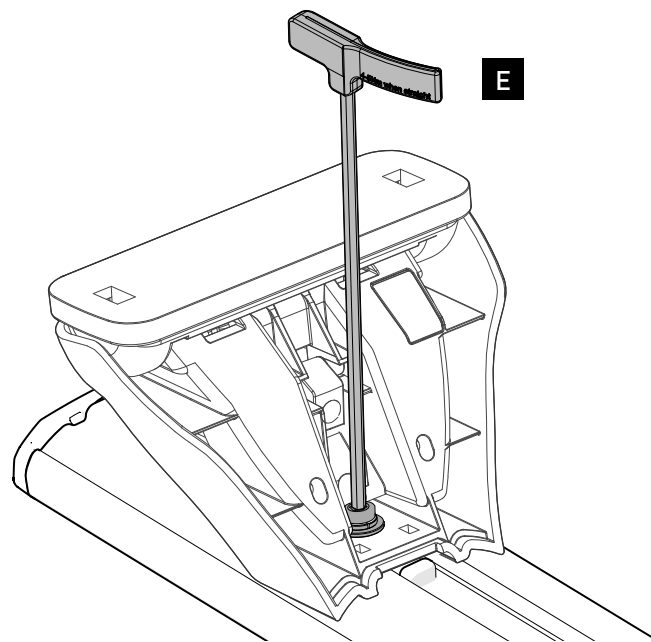
Step continues to the next page.



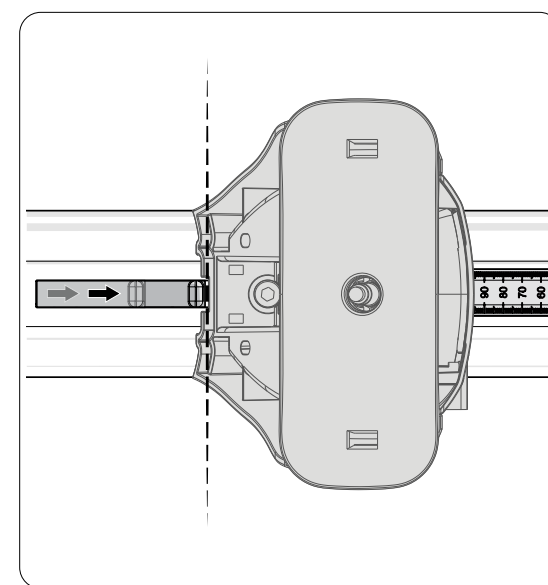
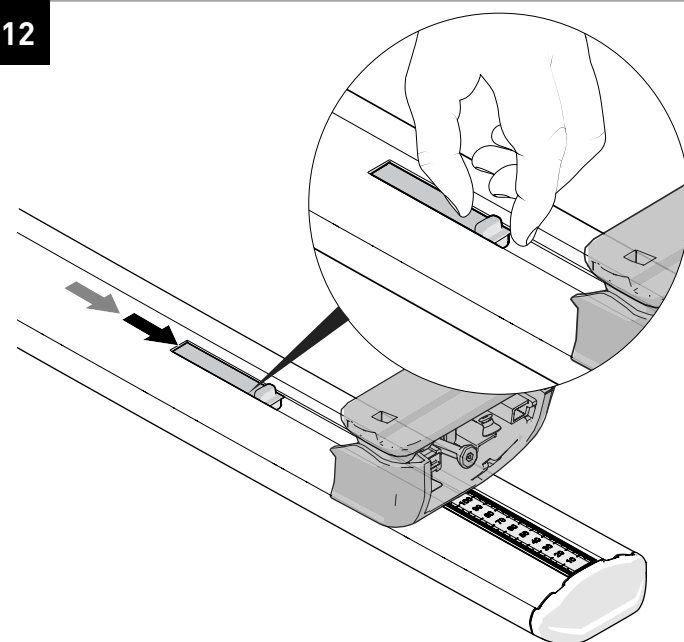


Ensure the legs ( **A** ) **DO NOT** sit on top of the *measuring strip*.

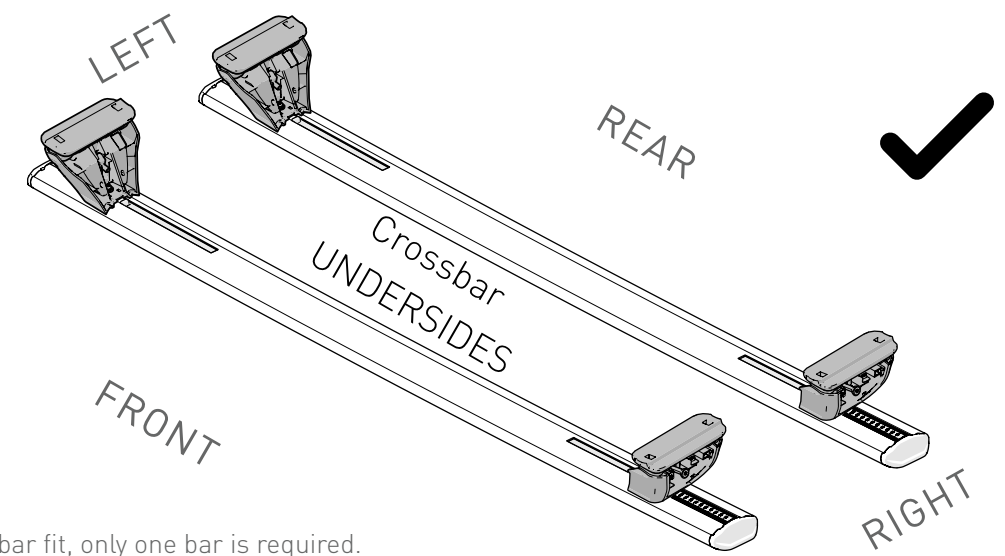
11



12

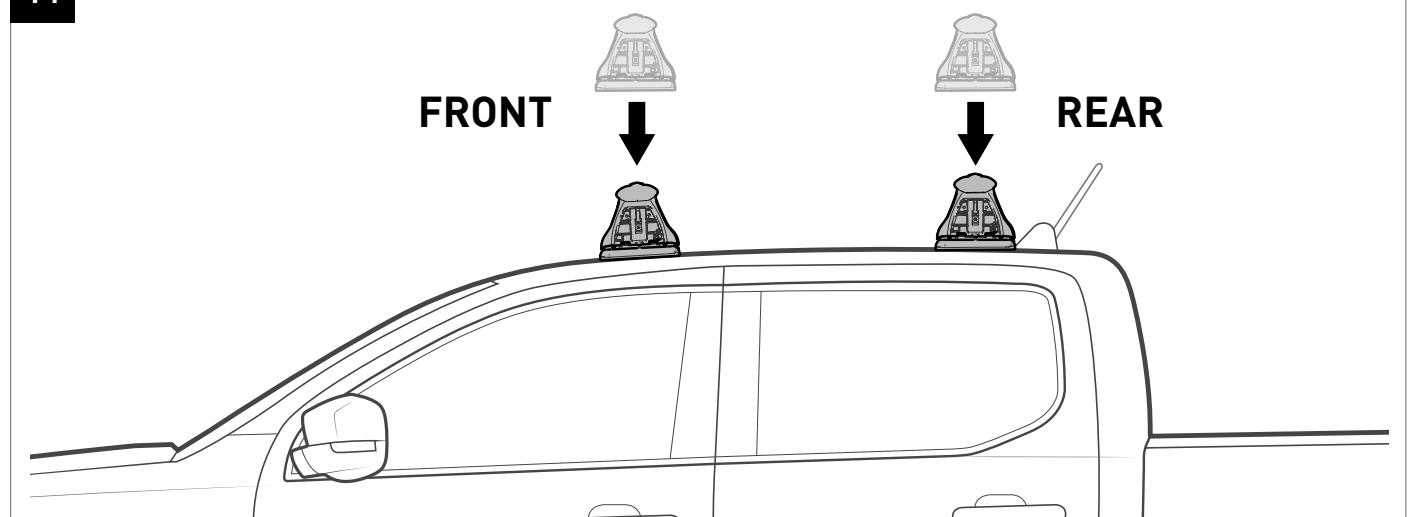


13



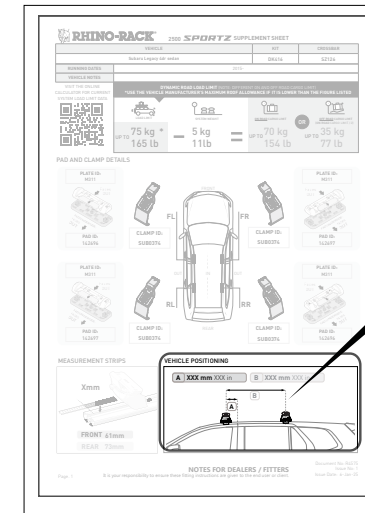
Note: If a single bar fit, only one bar is required.

14



15

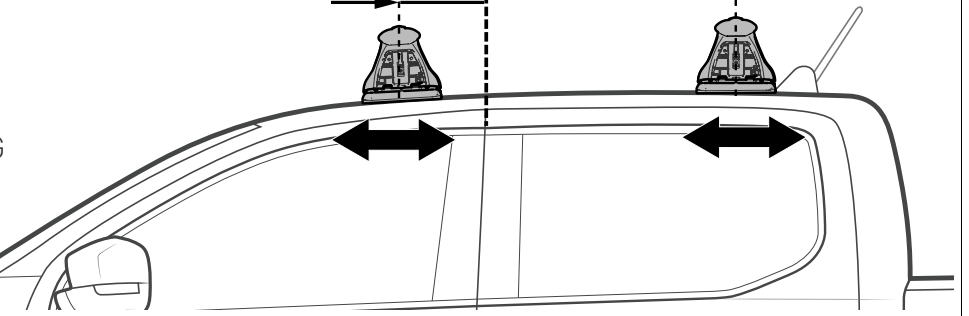
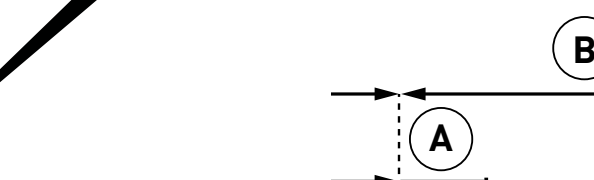
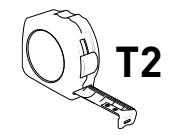
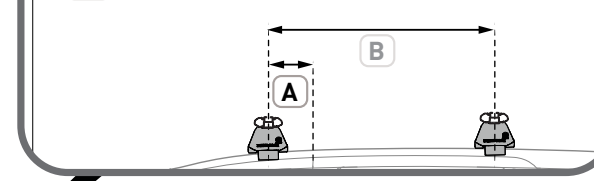
EXAMPLE



REFER TO ONLINE FITTING SUPPLEMENT SHEET

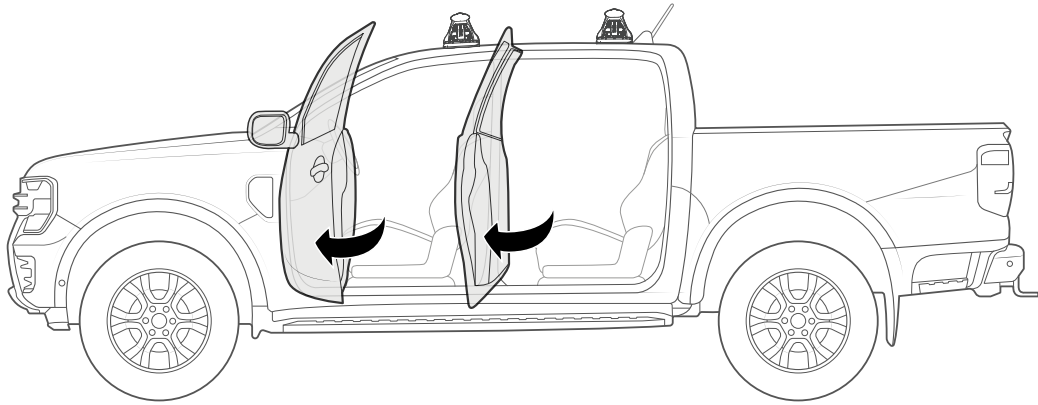
VEHICLE POSITIONING

A XXX mm XXX in B XXX mm XXX in



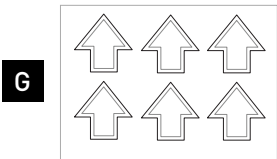


16



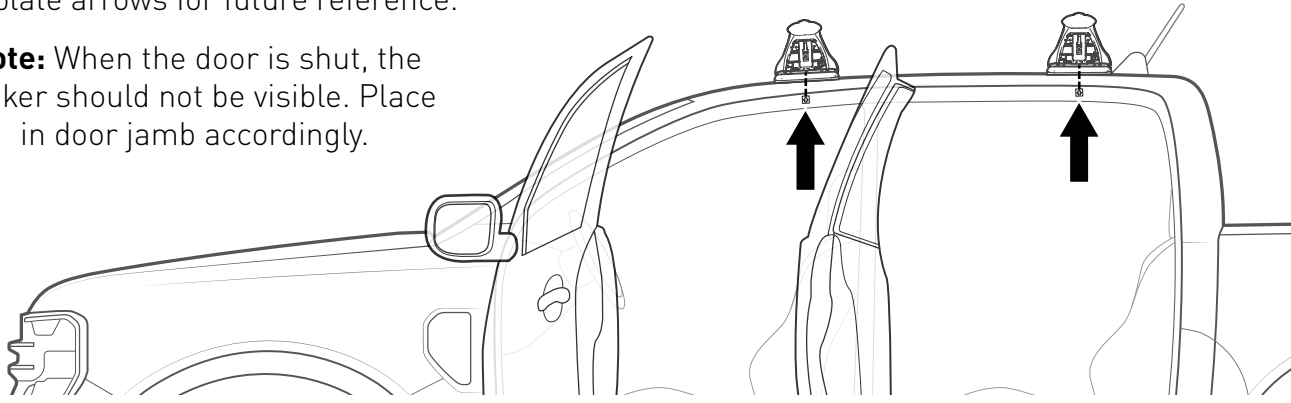
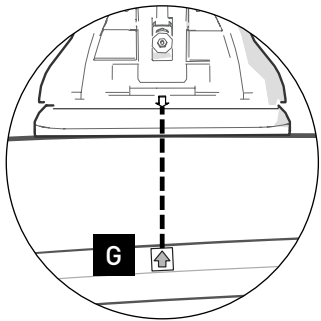
17

LEG POSITION DECALS

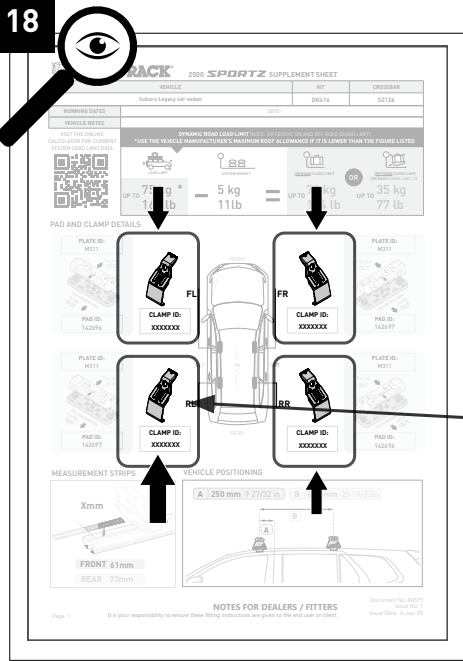


Adhere the arrow decals in line with foot plate arrows for future reference.

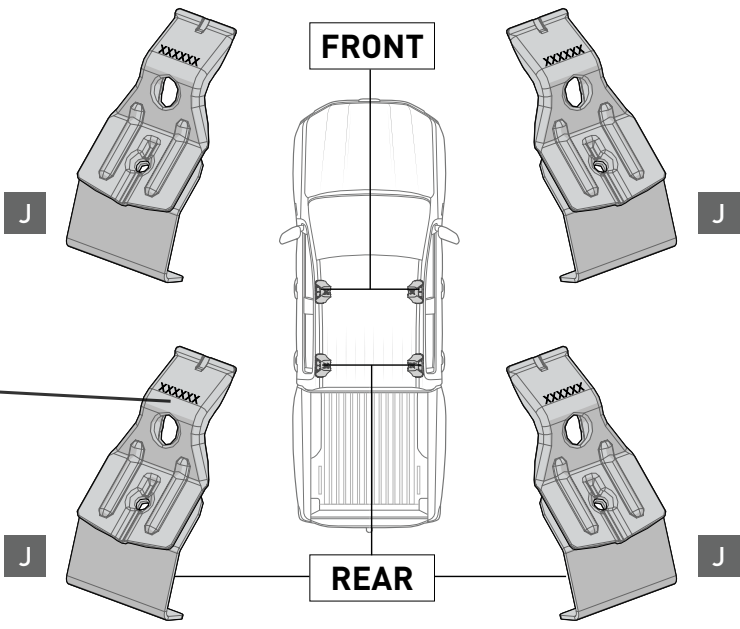
**Note:** When the door is shut, the sticker should not be visible. Place in door jamb accordingly.



18

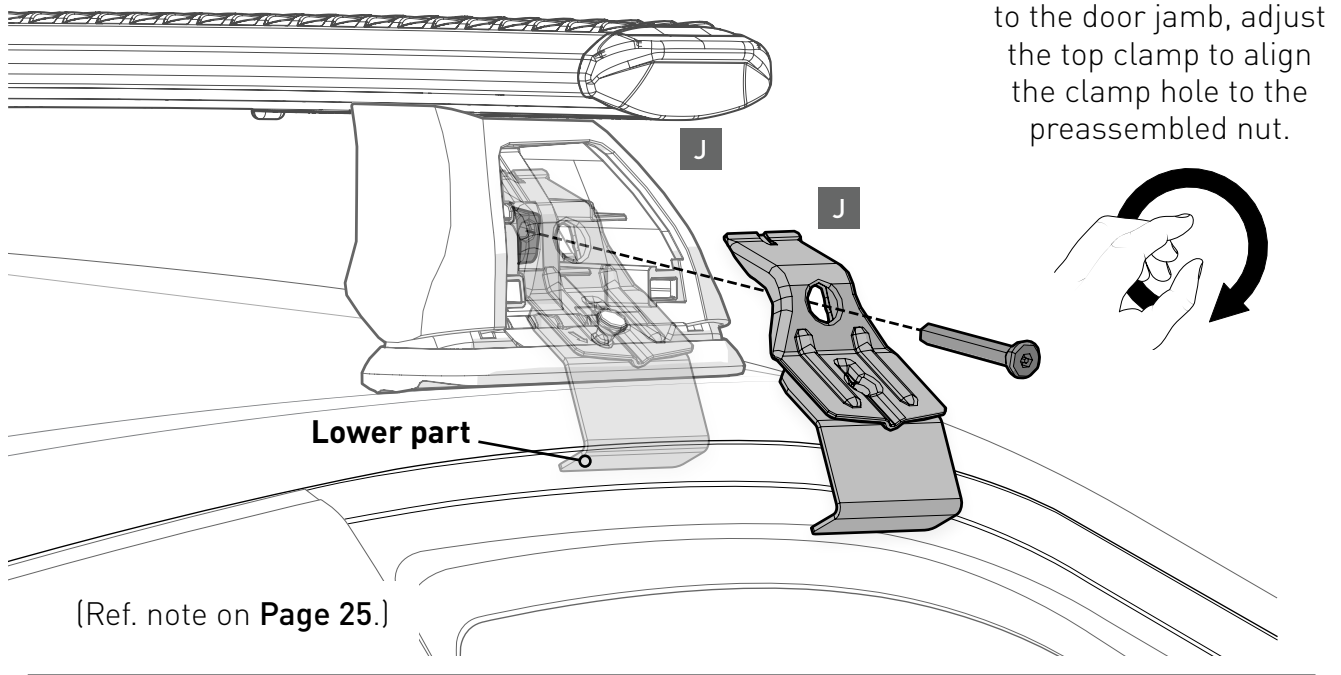


EXAMPLE

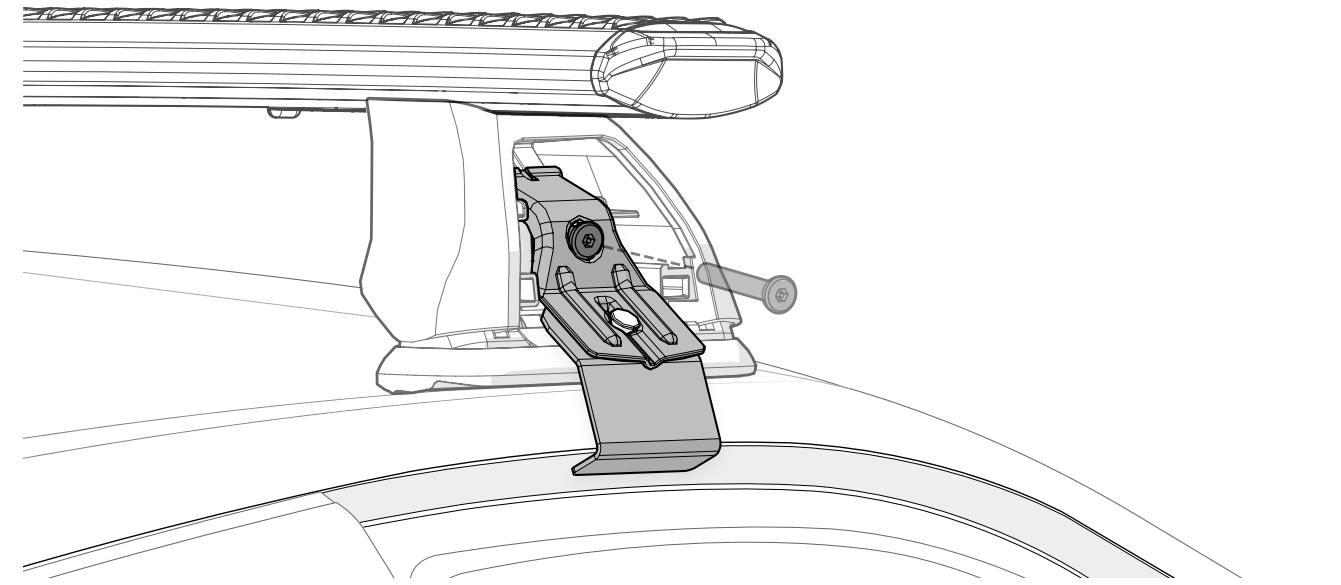


19

Hook the lower part of **J** to the door jamb, adjust the top clamp to align the clamp hole to the preassembled nut.



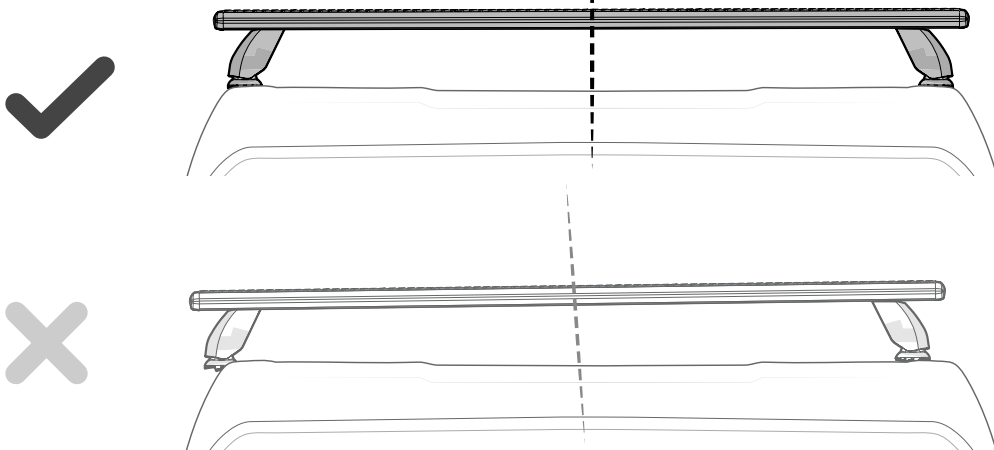
[Ref. note on Page 25.]



20

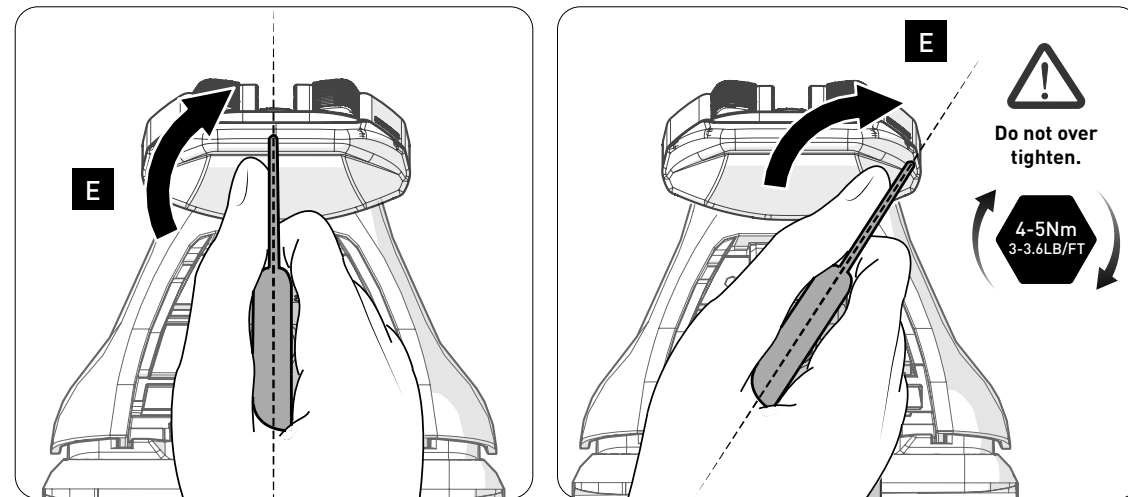
Visually inspect and ensure that the pads are correctly seated against the body of the vehicle.

FRONT VIEW

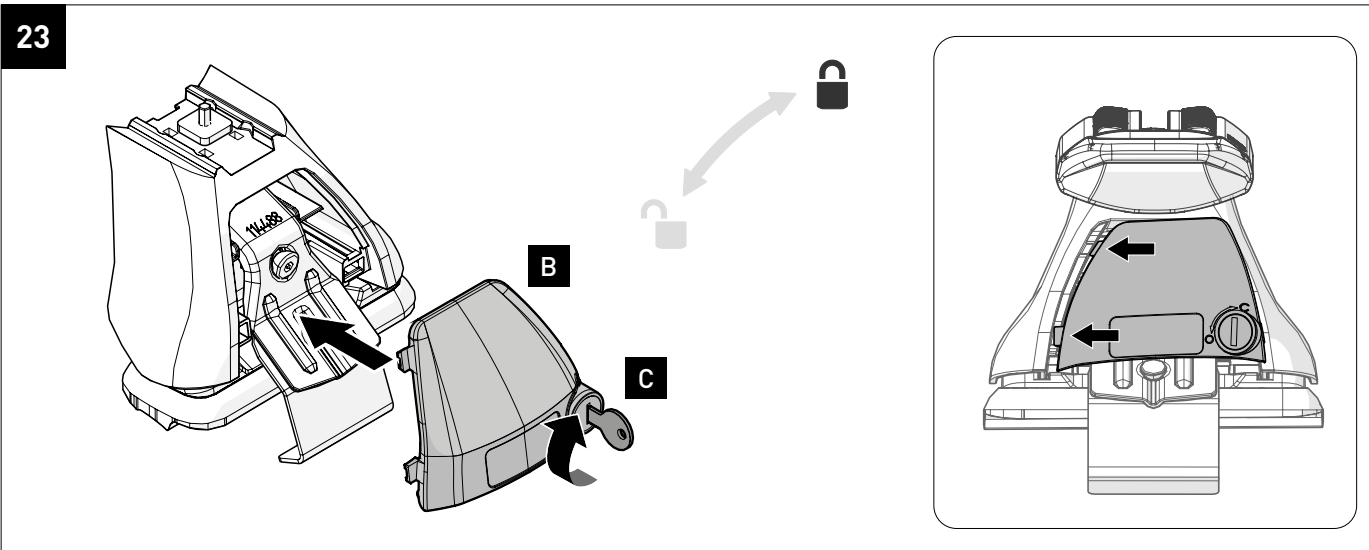
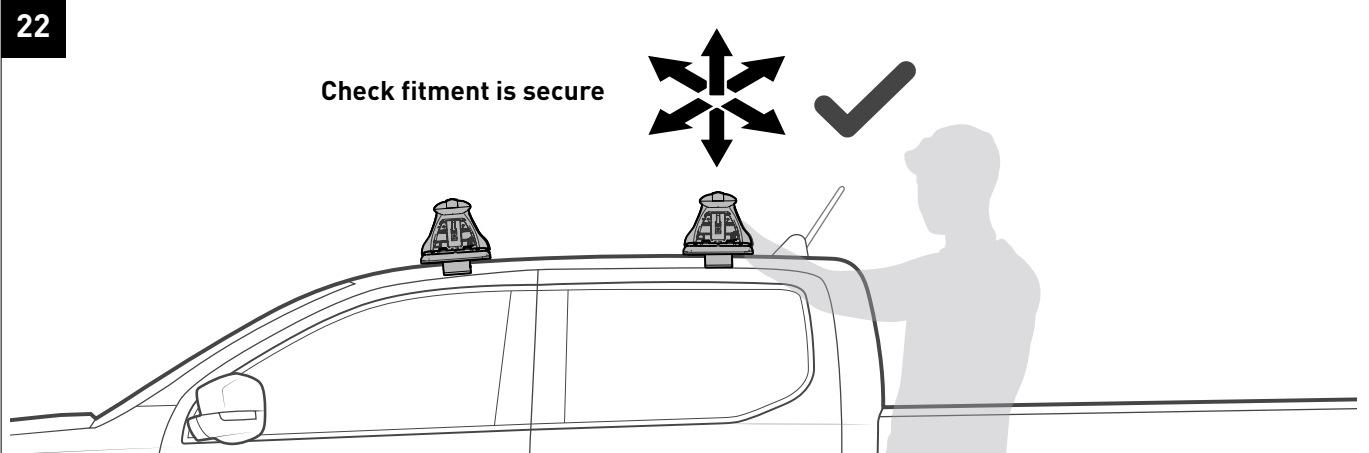
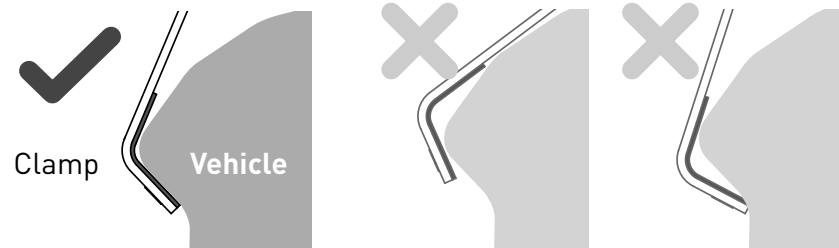




- 21 Tighten bolts **incrementally** and **evenly** on each side of the vehicle to avoid pulling the rack to one side.

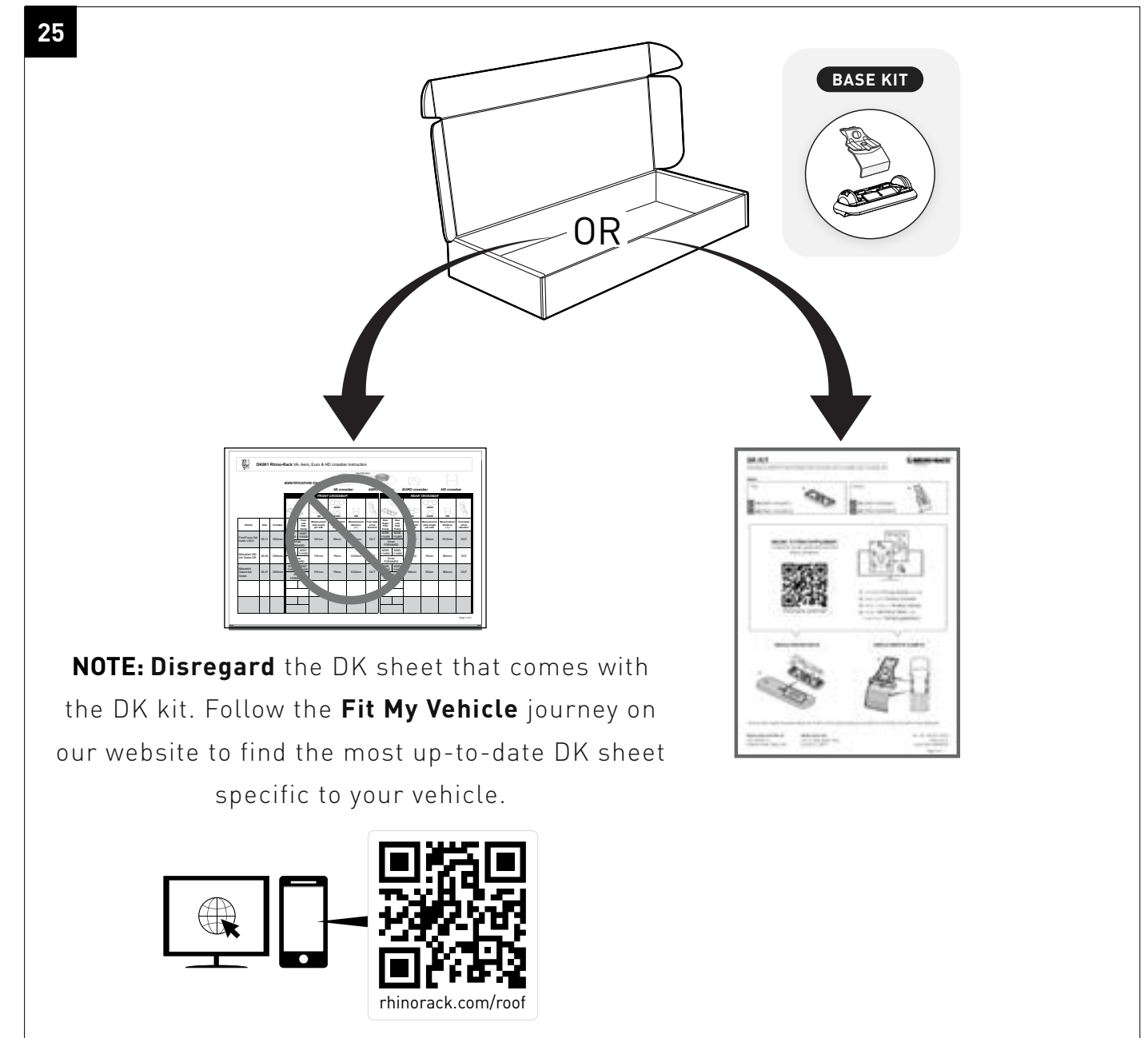
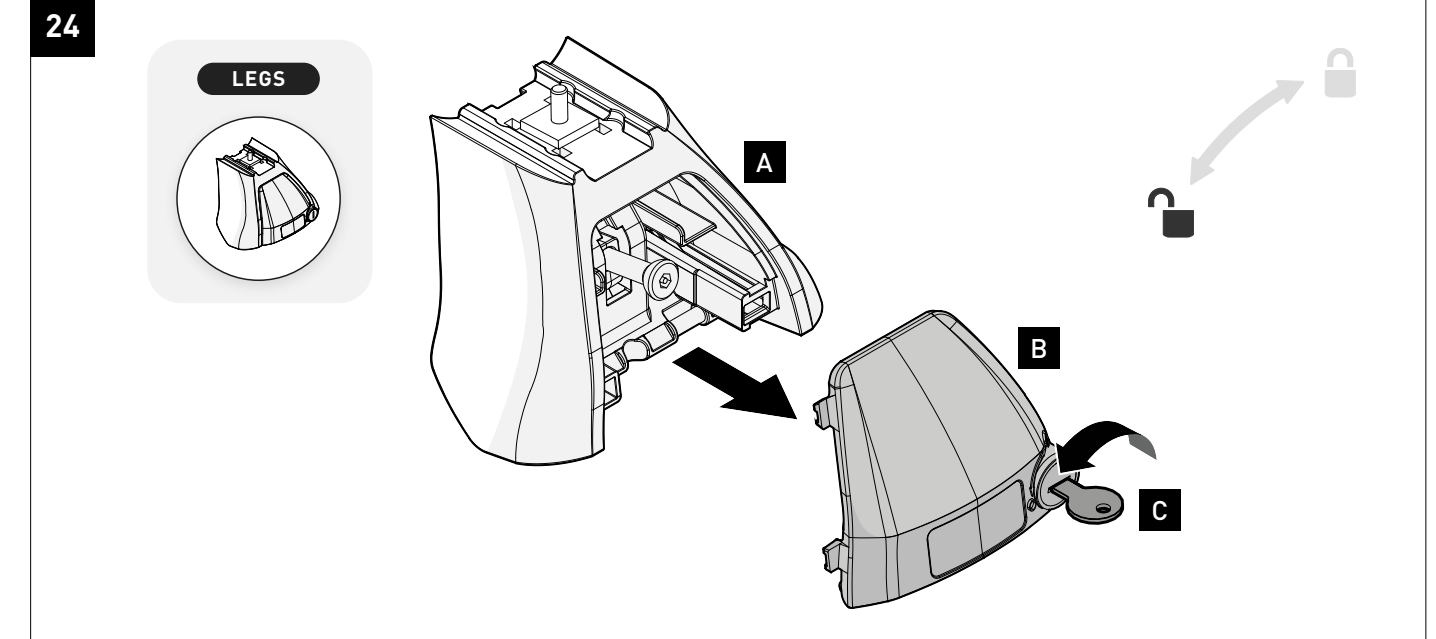


SIDE VIEW  
The clamp must have full contact along its face.

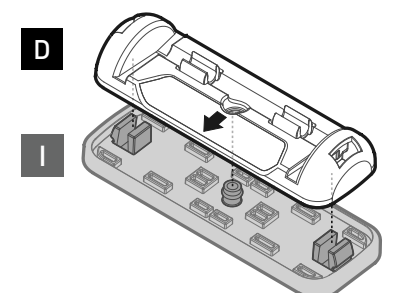


**SPORTZ** Bar Installation Complete.

## FOR VORTEX BAR INSTALLATION

















**RL** **RR**



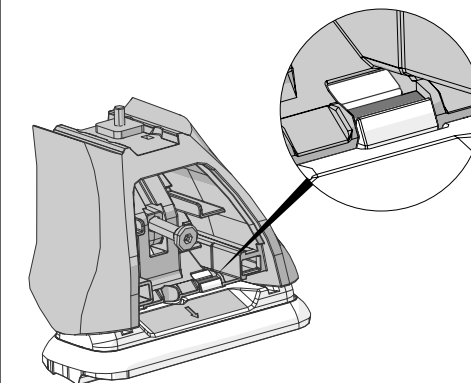
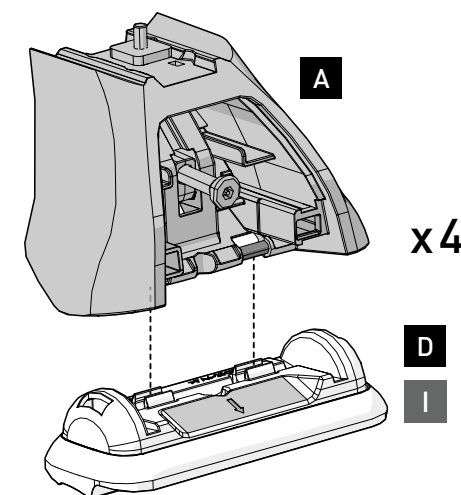
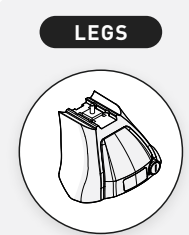
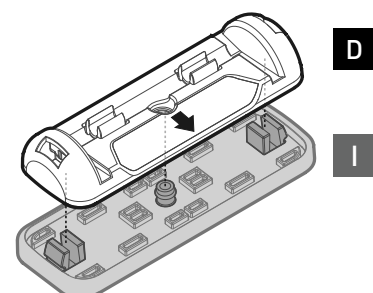
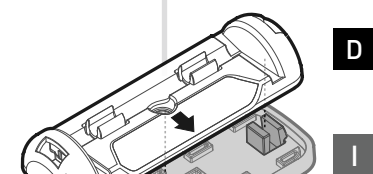
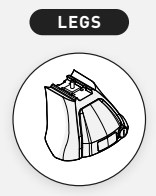
FIGURE 1 Rhino-Rack VS, Aero, Euro & HD crossbar instructions

IDENTIFICATION CHART

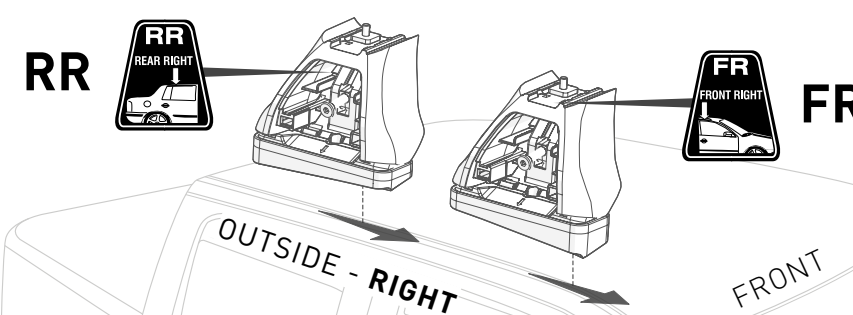
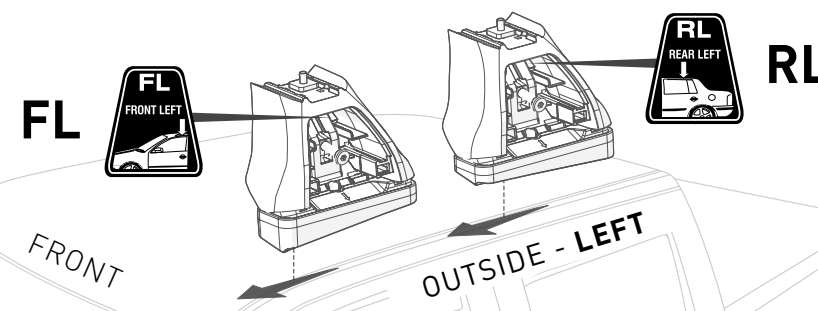
	VS crossbar		AERO crossbar		EURO crossbar		HD crossbar			
	PROCEED		STOP		PROCEED		STOP			
										
<b>Fasten Set Screws</b>	<b>PROCEED</b> Tighten the set screws on the crossbar.	<b>STOP</b> Do not tighten the set screws on the crossbar.	<b>PROCEED</b> Tighten the set screws on the crossbar.	<b>STOP</b> Do not tighten the set screws on the crossbar.	<b>PROCEED</b> Tighten the set screws on the crossbar.	<b>STOP</b> Do not tighten the set screws on the crossbar.	<b>PROCEED</b> Tighten the set screws on the crossbar.	<b>STOP</b> Do not tighten the set screws on the crossbar.	<b>PROCEED</b> Tighten the set screws on the crossbar.	<b>STOP</b> Do not tighten the set screws on the crossbar.
<b>Check for Proper Fit</b>	<b>PROCEED</b> The crossbar is properly fitted.	<b>STOP</b> The crossbar is not properly fitted.	<b>PROCEED</b> The crossbar is properly fitted.	<b>STOP</b> The crossbar is not properly fitted.	<b>PROCEED</b> The crossbar is properly fitted.	<b>STOP</b> The crossbar is not properly fitted.	<b>PROCEED</b> The crossbar is properly fitted.	<b>STOP</b> The crossbar is not properly fitted.	<b>PROCEED</b> The crossbar is properly fitted.	<b>STOP</b> The crossbar is not properly fitted.
<b>Check for Proper Fit</b>	<b>PROCEED</b> The crossbar is properly fitted.	<b>STOP</b> The crossbar is not properly fitted.	<b>PROCEED</b> The crossbar is properly fitted.	<b>STOP</b> The crossbar is not properly fitted.	<b>PROCEED</b> The crossbar is properly fitted.	<b>STOP</b> The crossbar is not properly fitted.	<b>PROCEED</b> The crossbar is properly fitted.	<b>STOP</b> The crossbar is not properly fitted.	<b>PROCEED</b> The crossbar is properly fitted.	<b>STOP</b> The crossbar is not properly fitted.

Page 2

OR REFER TO ONLINE  
FITTING INSTRUCTION



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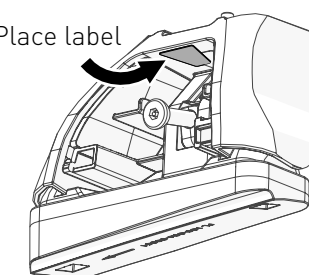


## LEG LOCATION LABELS **F**

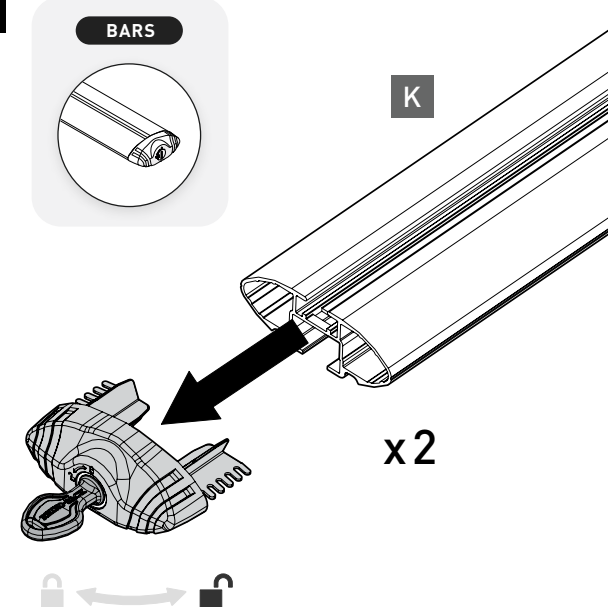
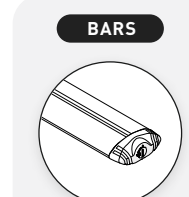


Place labels to help identify the leg's location on the vehicle roof when re-fitting crossbars.

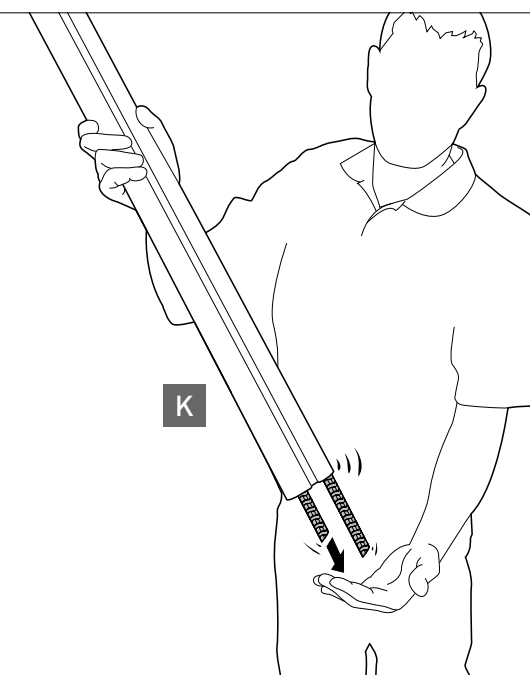
Place label



29



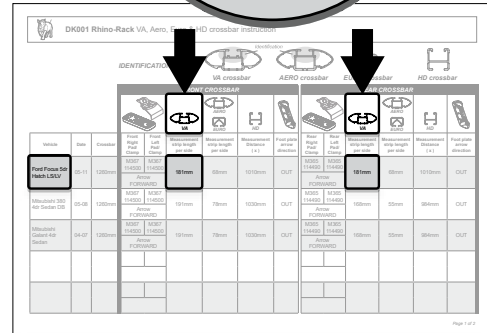
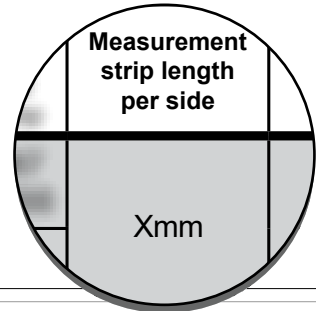
30



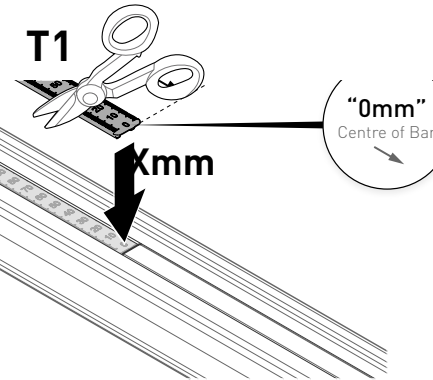


31

## EXAMPLE

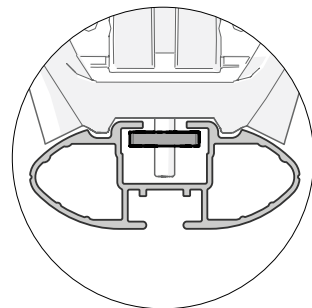
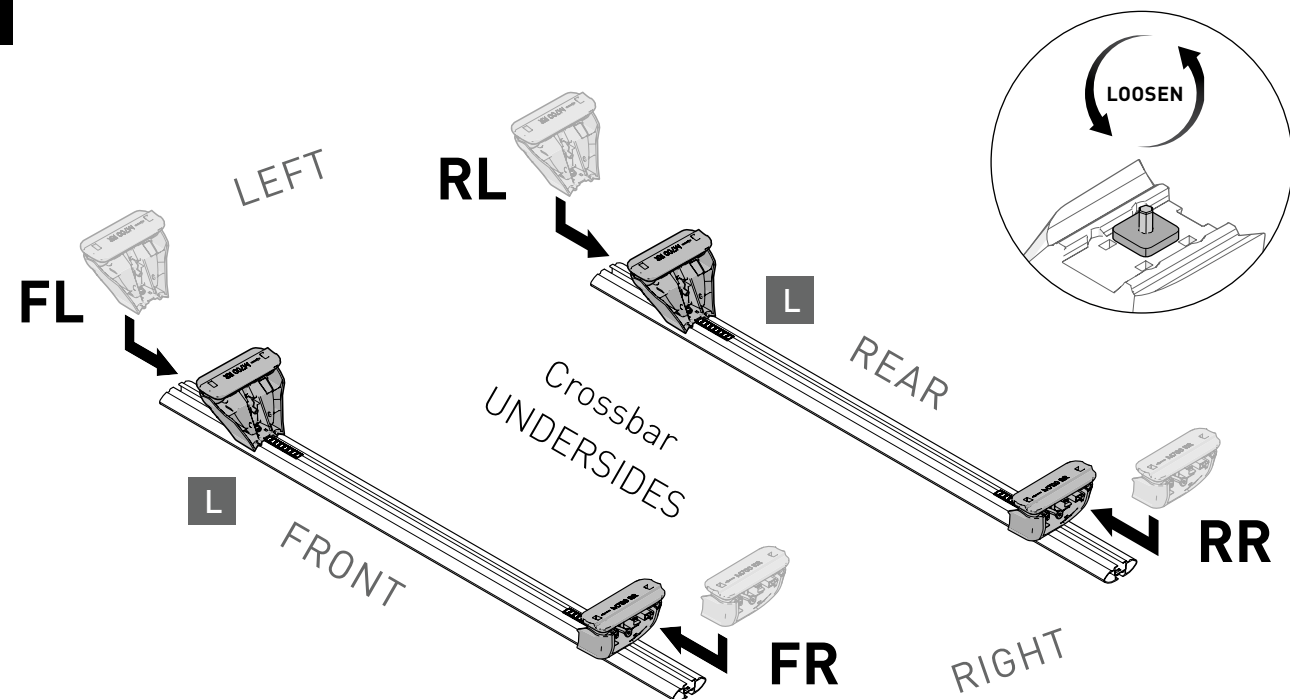


CHECK UNDERSIDE OF MEASUREMENT  
STRIP FOR ORIENTATION:



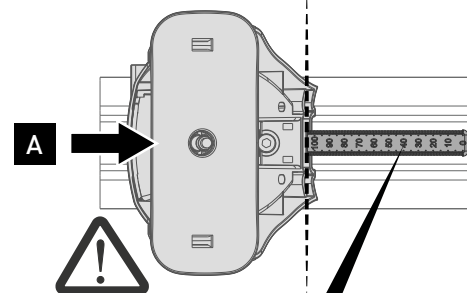
Crossbar  
UNDERSIDE

32



Channel nut slides into **underbar** channel.

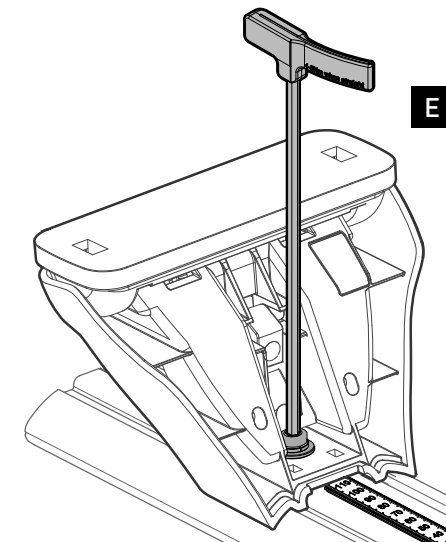
BOTTOM VIEW:



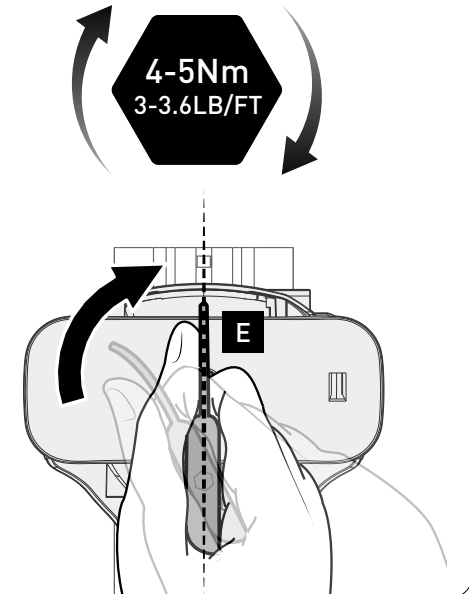
Ensure that the **Inner Strip** is in place.

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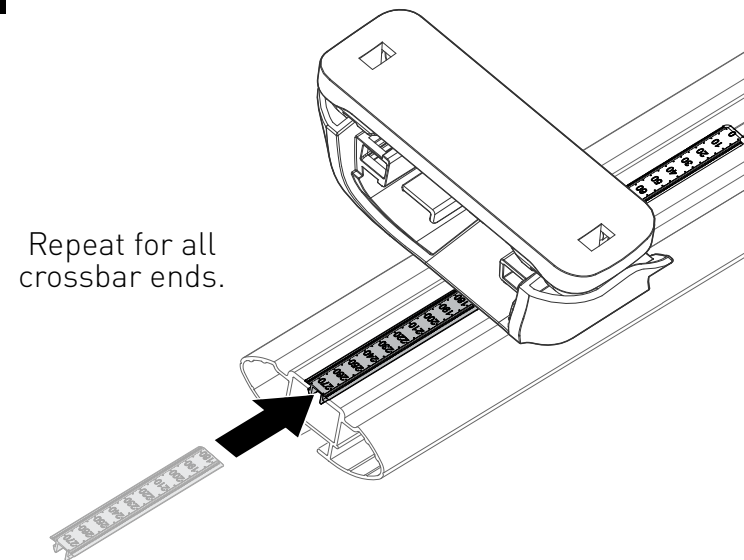
33



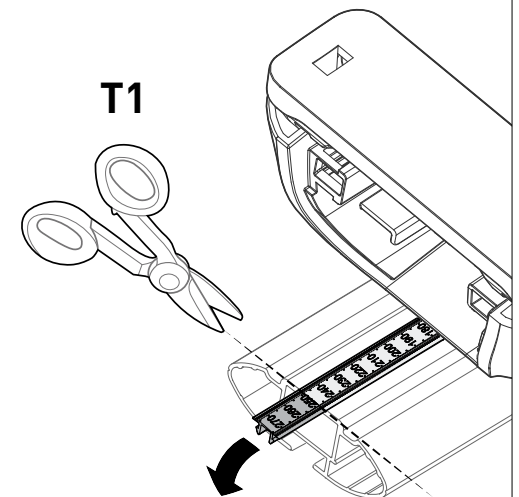
**Ensure the measuring strip sits flush against the leg. Do not push the leg over the strip.**



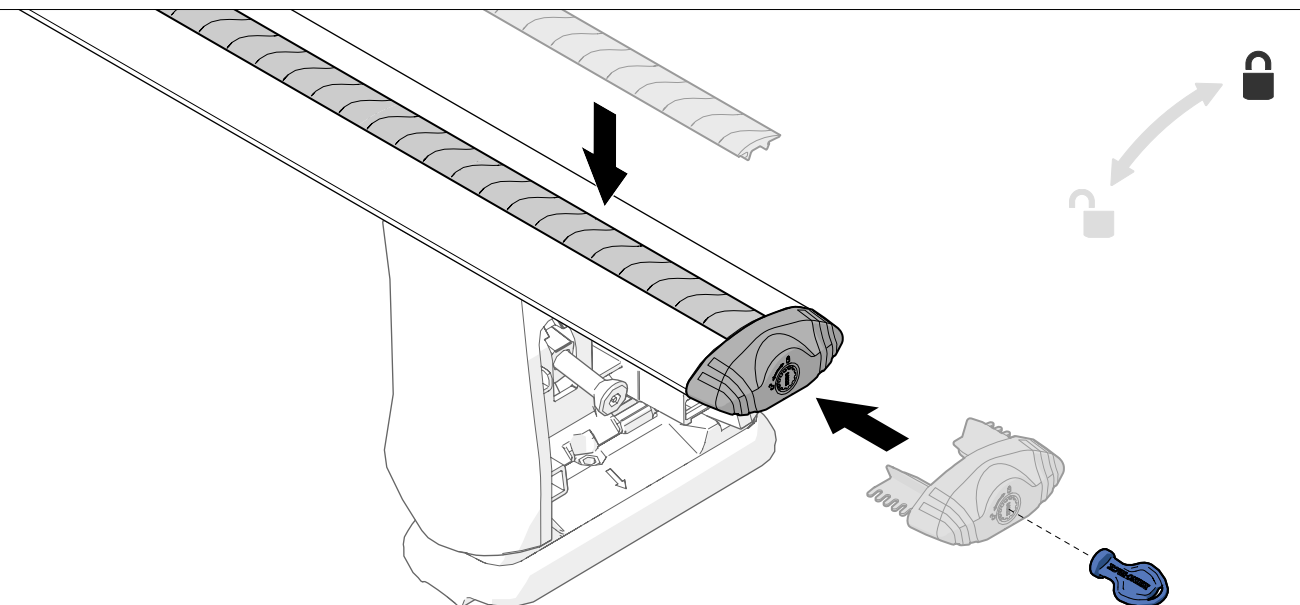
34



Repeat for all crossbar ends.



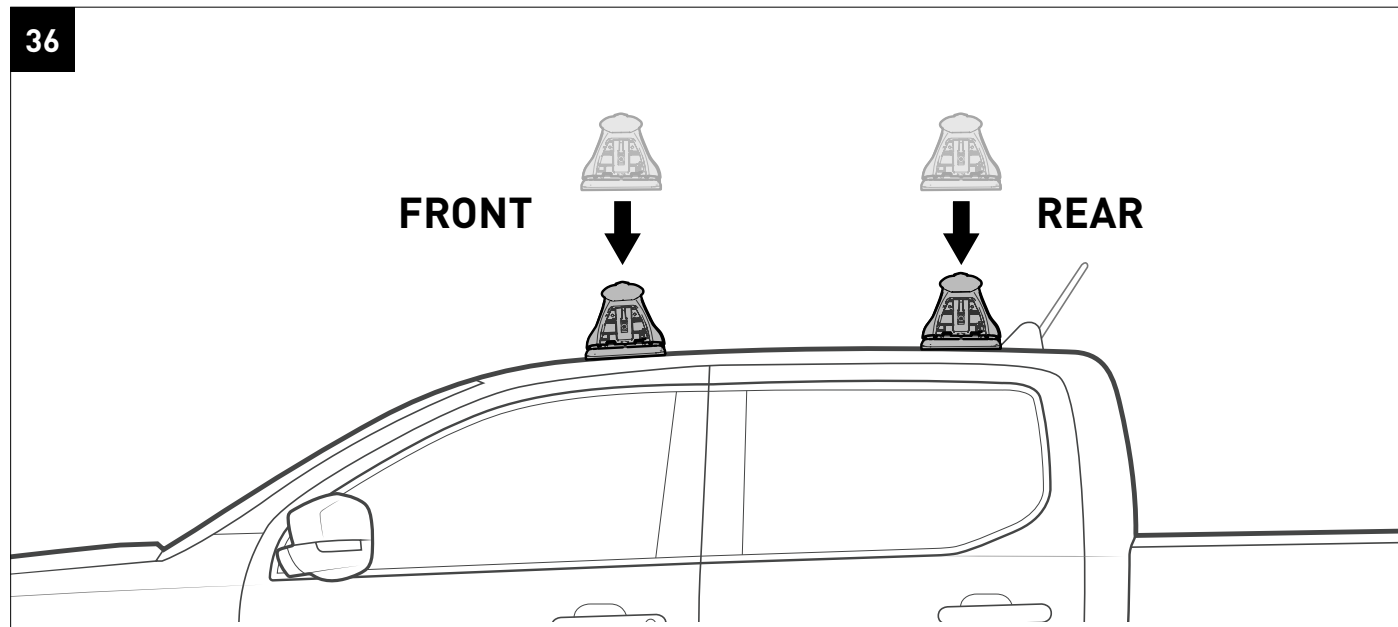
35



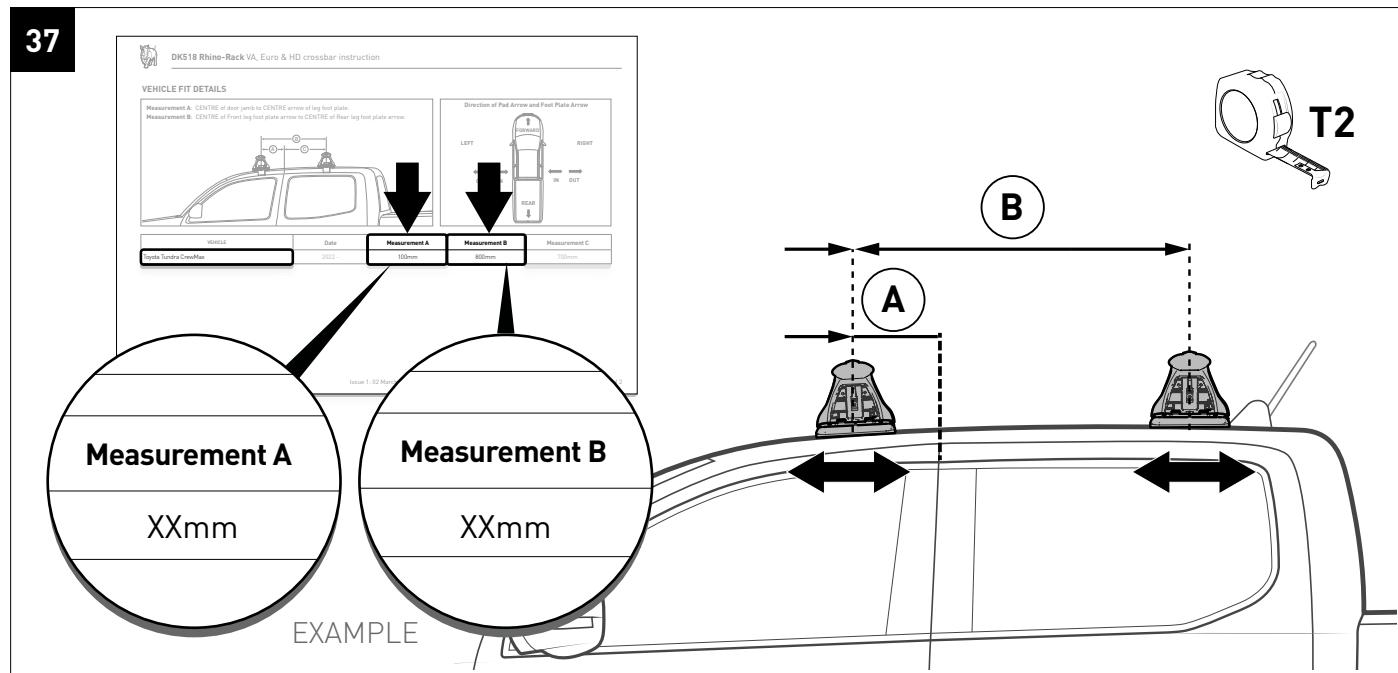
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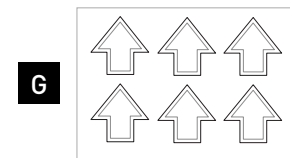


37



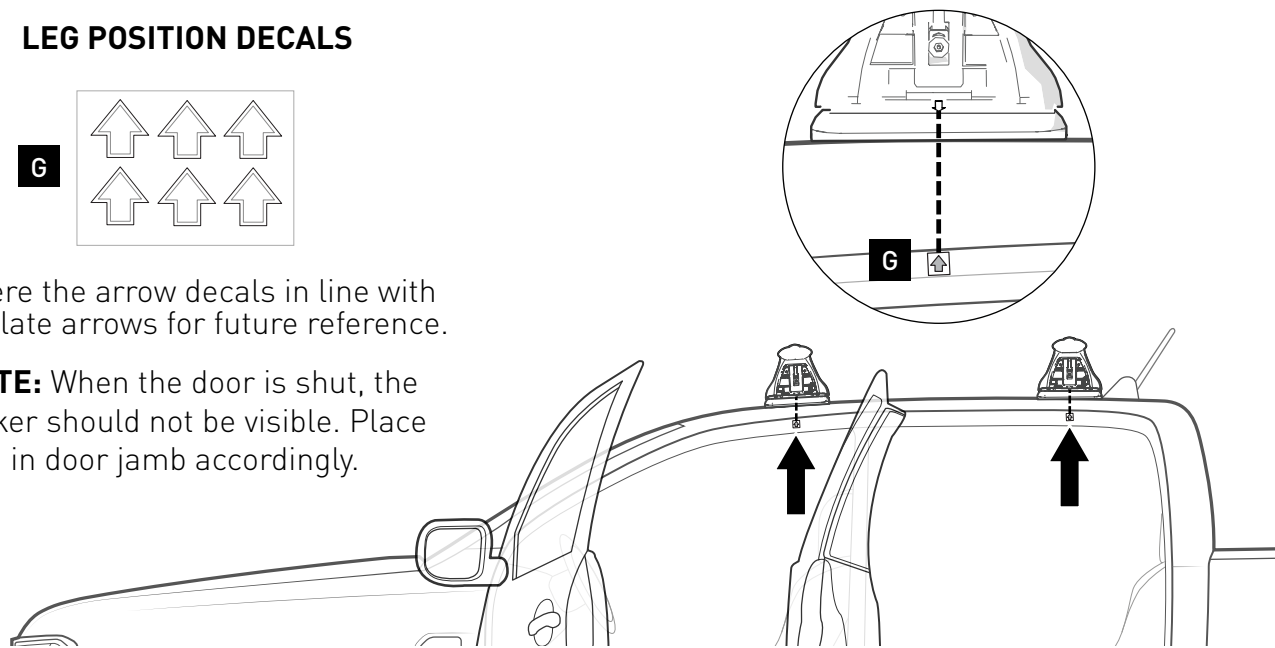
38

### LEG POSITION DECALS

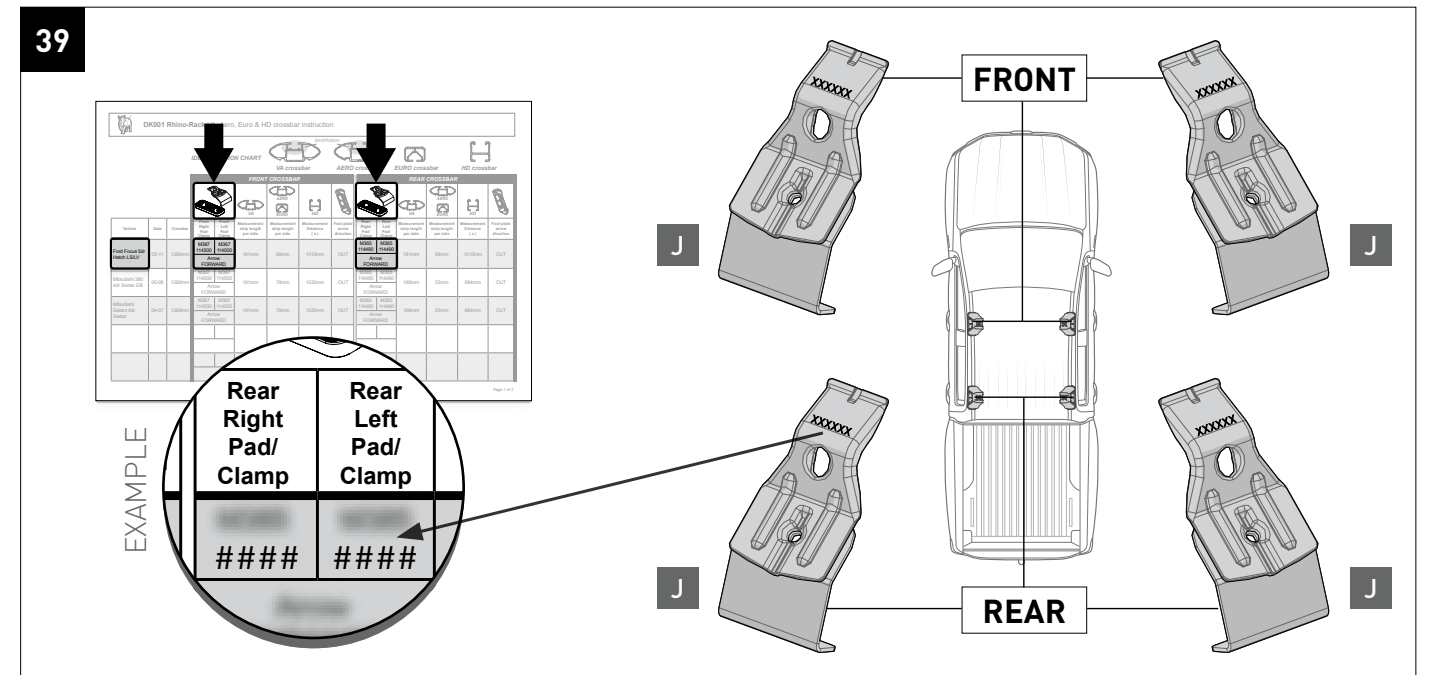


Adhere the arrow decals in line with foot plate arrows for future reference.

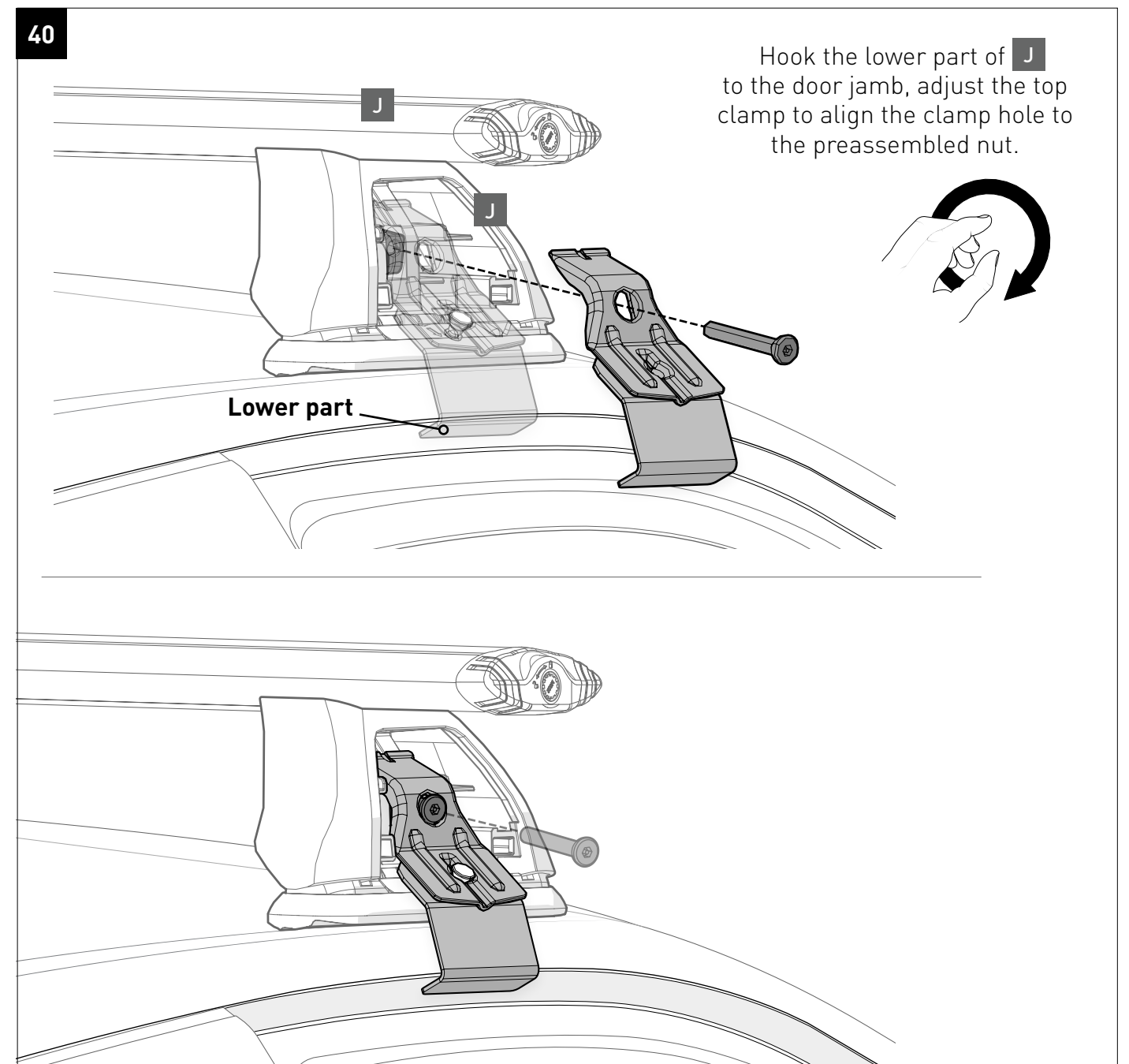
**NOTE:** When the door is shut, the sticker should not be visible. Place in door jamb accordingly.



39



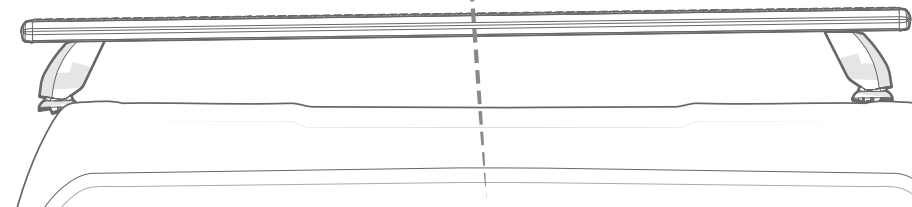
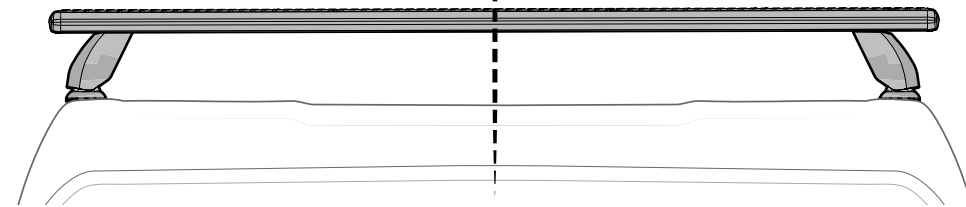
40





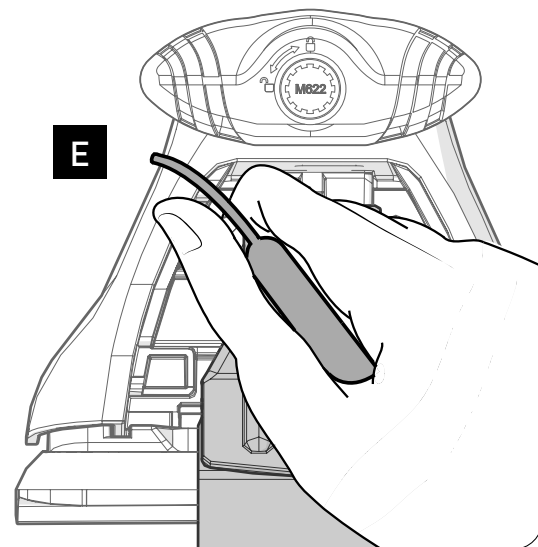
- 41 Visually inspect and ensure that the pads are correctly seated against the body of the vehicle.

FRONT VIEW

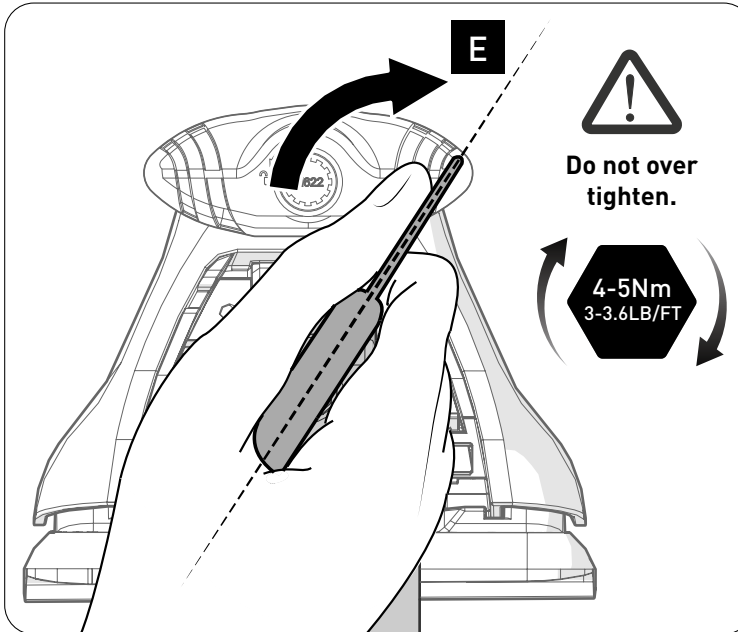


- 42 Tighten bolts **incrementally** and **evenly** on each side of the vehicle to avoid pulling the rack to one side.

E



E

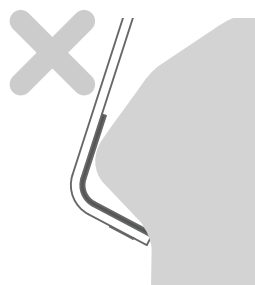
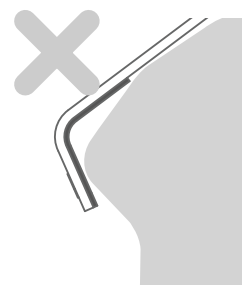


SIDE VIEW  
The clamp must have full contact along its face.



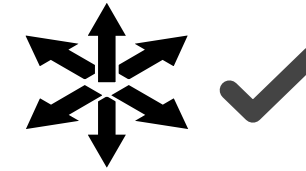
Clamp

Vehicle

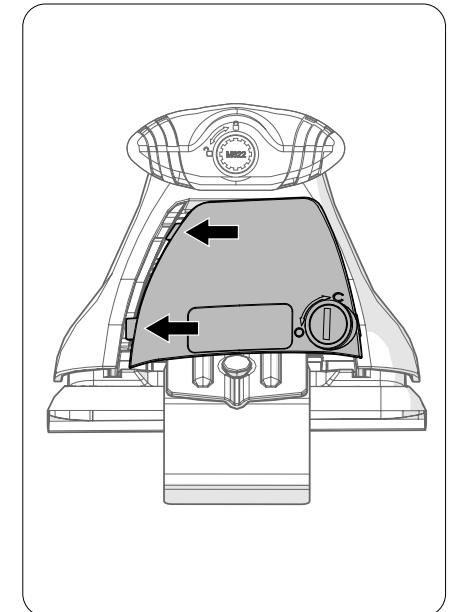
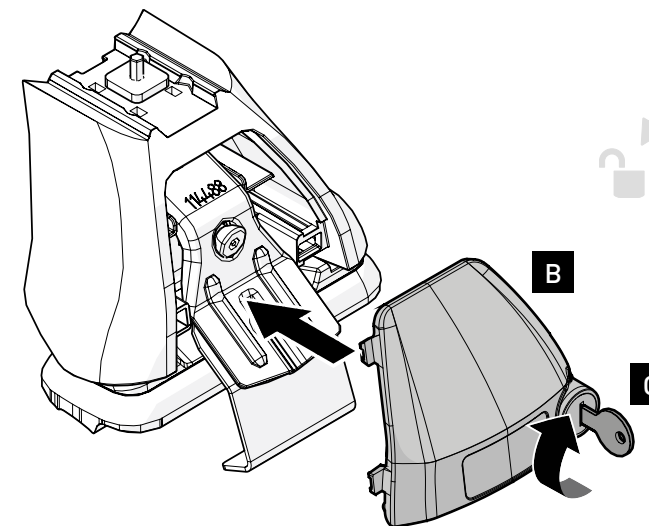


43

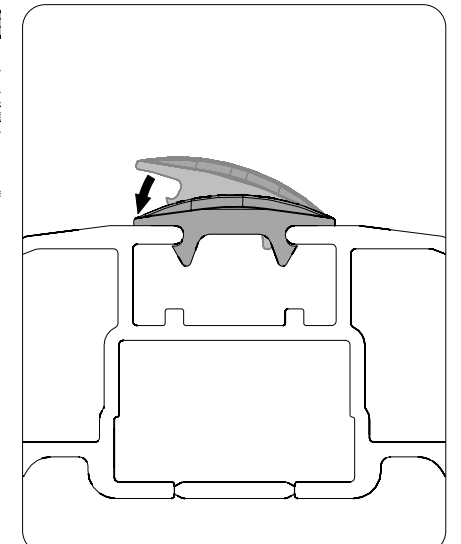
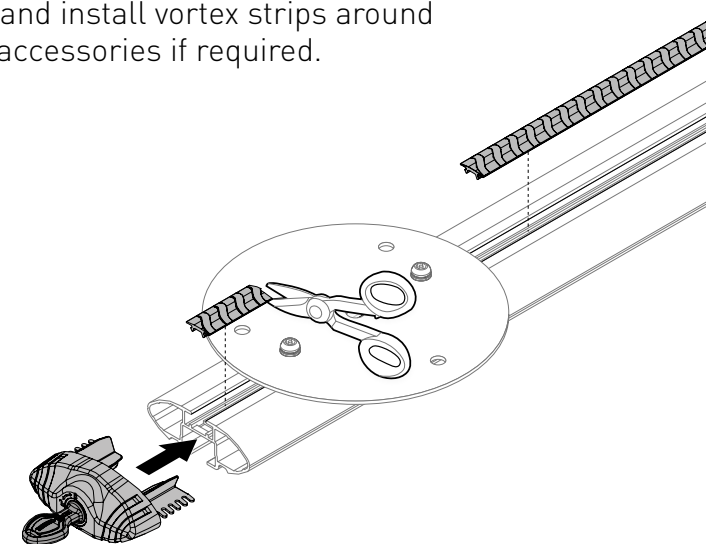
Check fitment is secure



44

**NOTE**

Cut and install vortex strips around the accessories if required.

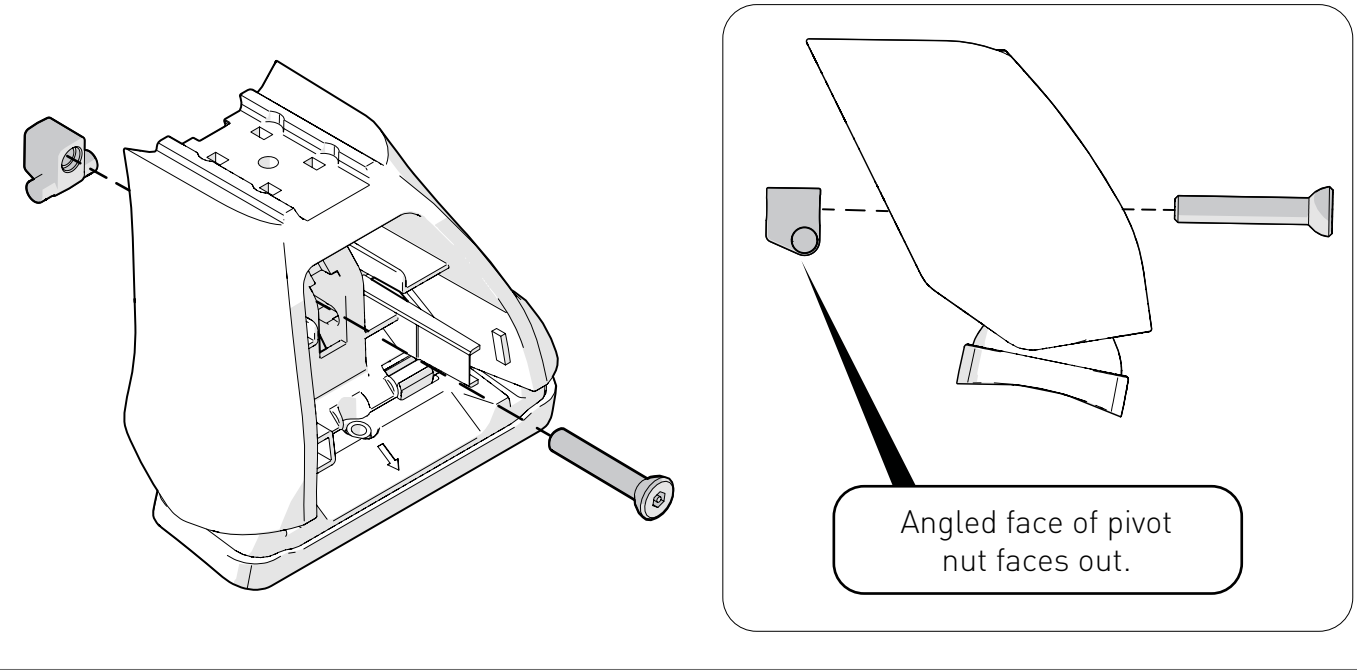


Vortex Bar Installation Complete.





**NOTE** The RLKVA Legs will come with hardware assembled, however if the Pivot Nut is not attached to the leg, install as shown with the angled face of the nut facing outwards (as below).



NOTES

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NOTES



**RHINORACK.COM**

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22A Hanson Pl,  
Eastern Creek, NSW, 2766

**Rhino-Rack USA**  
19822 E 22nd Ave,  
Aurora, CO, 80011