

ARB **BASE RACK**

FITTING INSTRUCTION

Product Description:
BASE RACK FITTING KITS

Part Number:
17965020
17965030
17965040 (2 boxes)

Suits BASE RACK:
1770080 **1770020***
1770100 **1770040***
1770140

* High roof only

Suits Vehicles:

MERCEDES	SPRINTER (NCV3, VS30)	2006 - on
DODGE	SPRINTER	2007 - 2009
FREIGHTLINER	SPRINTER (NCV3, VS30)	2007 - 2021
VW	CRAFTER (2E/2F)	2007 - 2017

WARNING

- ◆ Vehicle accessories which are not properly fitted can be dangerous.
- ◆ Please read these instructions carefully prior to fitting, and comply with the instructions at all times
- ◆ If in any doubt please contact your nearest ARB state office or the stockist from whom it was purchased.
- ◆ Do not use this product for any vehicle make or model, other than those specified by ARB.
- ◆ This product or its fixing must not be modified in any way.
- ◆ The installation of this product may require the use of specialized tools and/or techniques
- ◆ It is recommended that this product is only installed by trained personnel
- ◆ These instructions are correct as at the publication date. ARB Corporation Ltd. cannot be held responsible for the impact of any changes subsequently made by the vehicle manufacturer
- ◆ During installation, it is the duty of the installer to check correct operation/clearances of all components
- ◆ Work safely at all times
- ◆ Unless otherwise instructed, tighten fasteners to specified torque
- ◆ Check bolt torque after 500km & at regular service intervals

ARB 4x4 ACCESSORIES

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SAFETY

NET PAYLOAD FOR YOUR BASE RACK:

The net payload for your BASE RACK is calculated by subtracting the weight of the BASE RACK, vehicle mounting kit and other roof mounted accessories from the vehicle's roof capacity. It is also limited by other factors like the number of anchor points.

* Vehicle maximum roof load capacity: may vary between models and driving conditions. Refer to vehicle owner's manual for model and condition specific roof load capacities.

Mercedes SPRINTER Panel Vans	STANDARD ROOF	HIGH ROOF	SUPER HIGH ROOF
Vehicle roof capacity*	300 kg / 660 lb	150 kg / 330 lb	0 kg / 0 lb

MOUNT KIT	BASE RACK	Base Rack nominal DIMENSIONS	Base Rack + Mount kit WEIGHT (kg/lb)
17965020	1770080	1445 x 1545mm (6 Beams)	27.4 / 60.4
17965030	1770100	1445 x 2125mm (8 Beams)	36.9 / 81.3
17965040	1770140	1445 x 2995mm (11 Beams)	53.7 / 118.4

Base Rack NET PAYLOAD **	STANDARD ROOF			HIGH ROOF		
	17965020	17965030	17965040	17965020	17965030	17965040
SWB (Short Wheel Base)	122 kg 270 lb	162 kg 358 lb	X	122 kg 270 lb	112 kg 248 lb	X
MWB (Medium Wheel Base)	122 kg 270 lb	162 kg 358 lb	196 kg 432 lb	122 kg 270 lb	112 kg 248 lb	96 kg 212 lb
LWB (Long Wheel Base)				122 kg 270 lb	112 kg 248 lb	96 kg 212 lb
ELWB (Extra Long W. B.)				122 kg 270 lb	112 kg 248 lb	96 kg 212 lb

X: Does not fit. Includes Cab, Dual Cab and Super High Roof models.

** Net payload when using matching BASE RACK, specified in the middle table.

Weight of possible other equipment on the roof should be considered and can reduce the net payload.

It is important to follow the listed usage instructions;

- ◆ Maximum load per BASE RACK beam is 25kg.
- ◆ Load must be evenly distributed and adequately secured.
- ◆ Any weight carried on the roof of the vehicle will adversely affect its handling, particularly in cornering or in a cross-wind, the vehicle should therefore be driven with increased discretion.
- ◆ Regularly check the tightness of the securing clamps and the security of the load.
- ◆ Attention is directed to statutory requirements regarding maximum permissible projections from vehicles.

All bolts should be checked prior to touring to ensure the tray is fastened correctly.

GENERAL CARE AND MAINTENANCE

By choosing an ARB BASE RACK, you have bought a product that is one of the most sought after 4WD products in the world. Your BASE RACK is a properly engineered, reliable, quality accessory that represents excellent value. To keep your BASE RACK in original condition it is important to care and maintain it following these recommendations:

As part of any pre-trip preparation, or on an annual basis, it is recommended that a thorough visual inspection of the BASE RACK is carried out, making sure that all bolts and other components are torqued to the correct specification. Replace any components as necessary.

Please contact local Authorised ARB Stockist if you would like to have this service carried out on your behalf.

FITTING REQUIREMENTS

REQUIRED TOOLS FOR FITMENT OF PRODUCT:

10mm socket	13mm spanner
Tape measure	Pen/pencil
Masking tape	T30 Torx key (17965040)
10mm -or- Letter 'X' drill bit -or- Step drill bit (metric)	Nut Riveter -or- 5mm Allen key & 10mm spanner
Trim removal tool	

NOTE: 'WARNING' notes in the fitting procedure relate to OHS situations, where to avoid a potentially hazardous situation it is suggested that protective safety gear be worn or a safe work procedure be employed. If these notes and warnings are not heeded, injury may result.

FASTENER TORQUE SETTINGS:



SIZE	Torque Nm	Torque lbft
M6	9Nm	7lbft
M8	22Nm	16lbft

Optional: Air Deflectors and Base Rack Light Bar

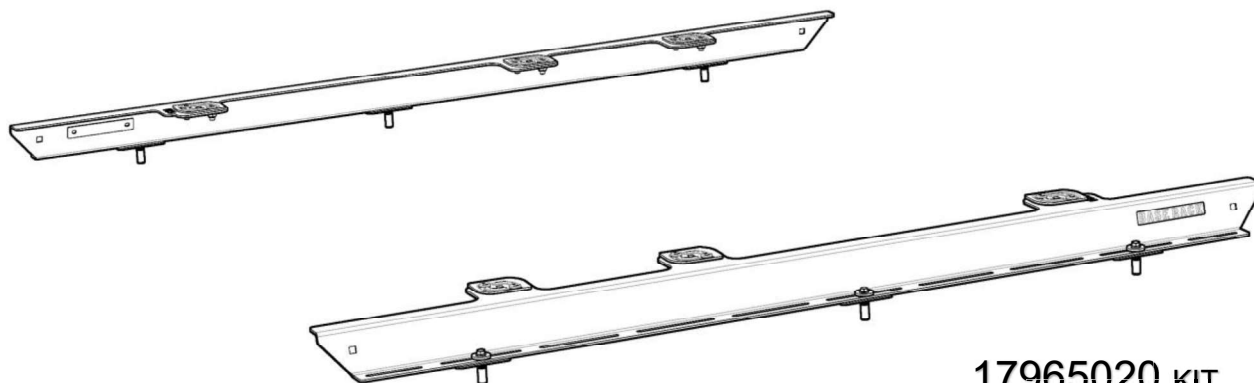
AIR DELECTORS reduce the noise created by the roof rack.
Refer to STEP 4 (page 14) for more information.

BASE RACK LIGHT BAR can be mounted in front or on top of the BASE RACK, but won't fit underneath.

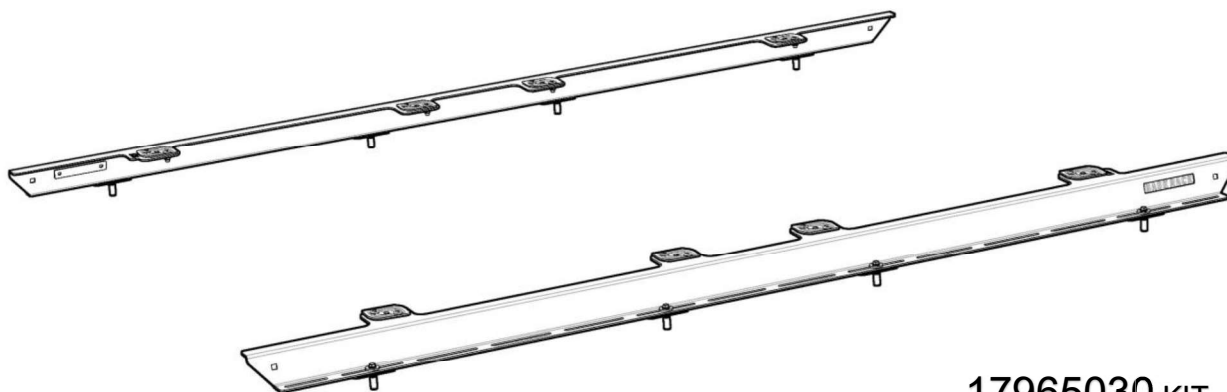
LIGHT BAR and AIR DELECTORS can be fitted together, but might require modifications to the deflector.
Refer to STEP 4 (page 14) and to the respective instruction manuals for more details.

		PART NUMBER
AIR DEFLECTORS (Left & Right)		17965050
BASE RACK LIGHT BAR		1780500

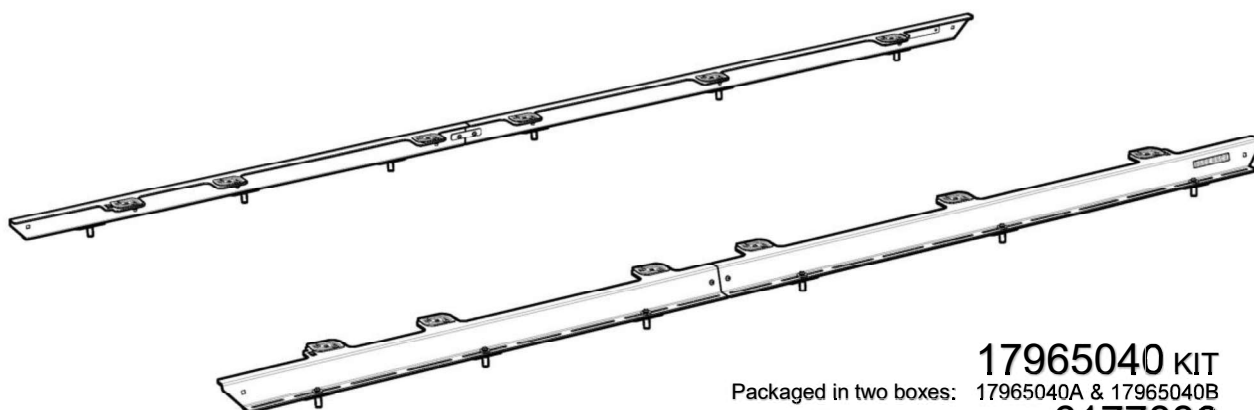
DIAGRAMS



17965020 KIT
Includes FASTENERS KIT **6177877**







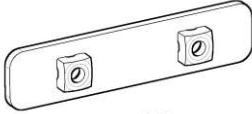
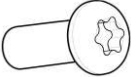
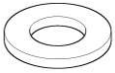
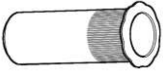
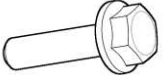
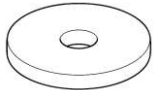
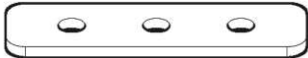
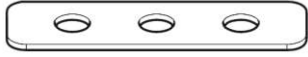


17965030 KIT
Includes FASTENERS KIT **6177879**

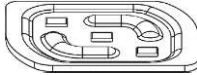
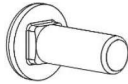

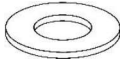





17965040 KIT
Packaged in two boxes: 17965040A & 17965040B
Includes FASTENERS KIT **6177880**

PARTS LISTING

PART NO.	PICTURE	QUANTITY			DESCRIPTION
		17965020	17965030	17965040	
BLADE BRACKETS					
3753920		2	-	-	BLADE SPRINTER 1545
3753921		-	2	-	BLADE SPRINTER 2125
3753922R		-	-	1	BLADE SPRINTER 2995 SPLIT 5S RH
3753922L		-	-	1	BLADE SPRINTER 2995 SPLIT 5S LH
3753923R		-	-	1	BLADE SPRINTER 2995 SPLIT 6S RH
3753923L		-	-	1	BLADE SPRINTER 2995 SPLIT 6S LH
APPLICATION – SPLIT BLADES JOINT (17965040)					
3195588		-	-	2	JOINER BLADE FLAT - BLACK ZINC
6151859		-	-	4	M6 x 16mm BUTTON HEAD TORX BOLT - BLACK
4584329		-	-	4	M6x12x1.2 FLAT WASHER - BLACK
APPLICATION – ROOF TO BLADE BRACKETS					
6151996		6	8	12	M6 NUTSERT BLIND & SEALED
6152008		6	8	12	M6x25mm HEX FLANGE HEAD BOLT - BLACK
4584371		6	8	12	M6x25x2.8 FLAT WASHER - BLACK
3195589		6	8	12	PLATE PACKER 78x22x3mm - BLACK ZINC
5848529		6	8	12	FOAM PACKER 78x22x1.6mm

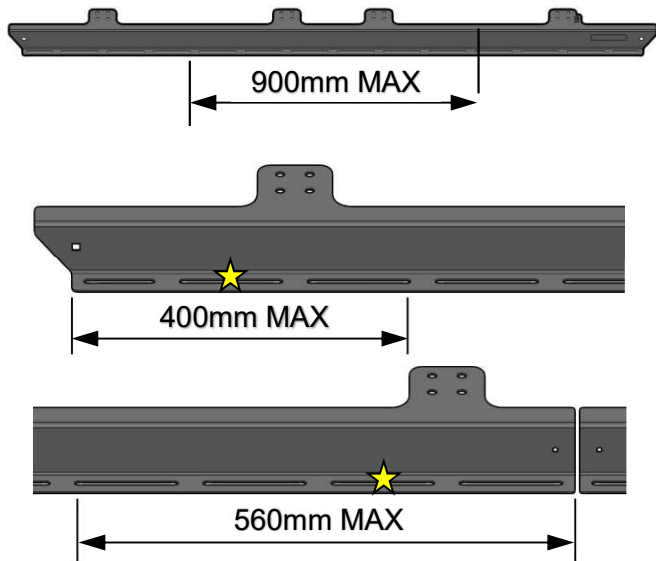
PARTS LISTING

PART NO.	PICTURE	QUANTITY			DESCRIPTION
		17965020	17965030	17965040	
APPLICATION – BLADE BRACKETS TO BASE RACK					
3195184		6	8	12	M8 STUD PLATE
6151921		12	16	24	M8x20mm STUD BOLT - BLACK
6151212		12	16	24	M8 NYLOC NUT - BLACK
4581085		12	16	24	M8x19x1.2 WASHER FLAT - BLACK
APPLICATION – NUT SERT INSTALLATION					
6151589		1			M6x35mm SOCK HEAD BOLT
6151031		1			M6 HEX NUT
6151046		1			M6x12x1.2 FLAT WASHER

BEFORE STARTING, READ ALL STEPS OF THE INSTRUCTIONS CAREFULLY AND CHECK ALL PARTS

STEP 1: CHOOSE POSITION AND DETERMINE ANCHOR POINTS

17965020: **2 x 3**
 17965030: **2 x 4**
 17965040: **2 x (3+3)**



ARB's SPRINTER BASE RACKs can be installed almost anywhere on the vans' roof, as long as the installation obeys these rules:



- ALL SETS OF ANCHORS MUST BE INSTALLED

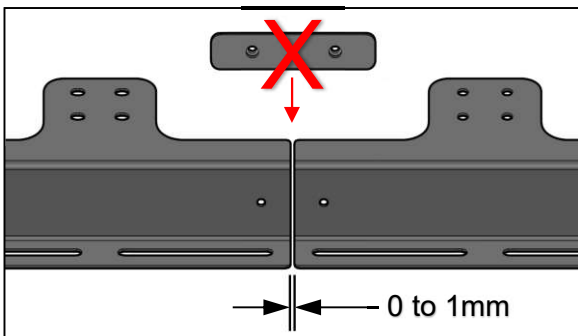
- 17965020: **2 x 3** anchors (3 per side)
- 17965030: **2 x 4** anchors (4 per side)
- 17965040: **2 x (3+3)** anchors (3 per half-blade)

- SPREAD ANCHORS AS EVENLY AS POSSIBLE

- **Distance between anchors ≤ 900mm**
(Less than or equal to 900mm)
- **Distance from end of blade to anchor ≤ 400mm**
(Less than or equal to 400mm)
Recommended distance ★ = 180mm
17965040:
- **Distance from blade split to anchor ≤ 560mm**
(Less than or equal to 560mm)
Recommended distance ★ = 220mm


- DO NOT OVERHANG AT FRONT OF ROOF

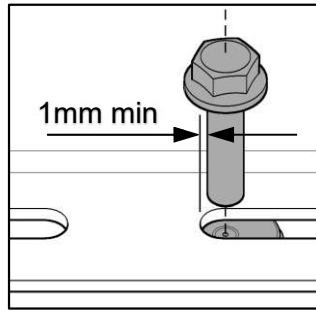
Base of blades should not go further than the roof's front silicon strip (behind the van's front doors).



1. Protect the van's roof and blades, while keeping the roof gutters visible.
2. Pick one blade bracket and place it gently in the roof gutter, where you roughly want the BASE RACK to be.

17965040:

- **DO NOT JOIN SPLIT BLADES (YET)** 
Joiner 4584415 will easily get bent when moving the blades, if not fixed to the Rack.
- Leave a 0 to 1mm gap between blades instead.



- Anchor points are covered by plastic plugs which have a dot in their centre. This dot is a good reference for where your fixing bolt will be.

- If an anchor point is close to a blade's slot end, use a provided M6x25 flange bolt to visually check if it will fit. Make sure there is at least 1mm margin outside of the bolt.

3. Following the notes and rules mentioned above, determine which van's anchor points you will be using.

- Mark the chosen anchor points using tape.

- Remove blade(s).

4. Mark the other side of the van. Use the same (symmetrical) van's anchor points.

STEP 2 – INSTALL NUTSERTS & PACKERS



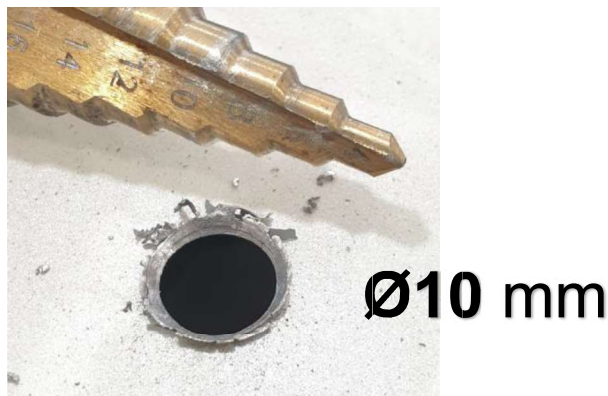
5. Remove plastic plugs from the chosen van's anchor points only.

Leave all other plastic plugs.
Blade brackets won't interfere with them.

- Use a blade to cut the paint around the side, then lift with a trim removal tool.

- Do not hammer plugs from the inside, doing so can bend the sheet metal.

- If necessary, drill through the plugs.

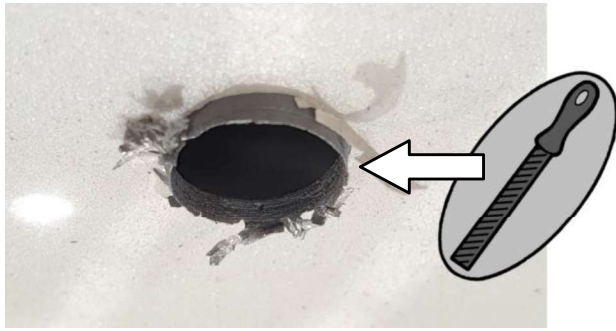



6. Enlarge holes to **Ø10 mm**.
(Imperial letter 'X' drill bit)

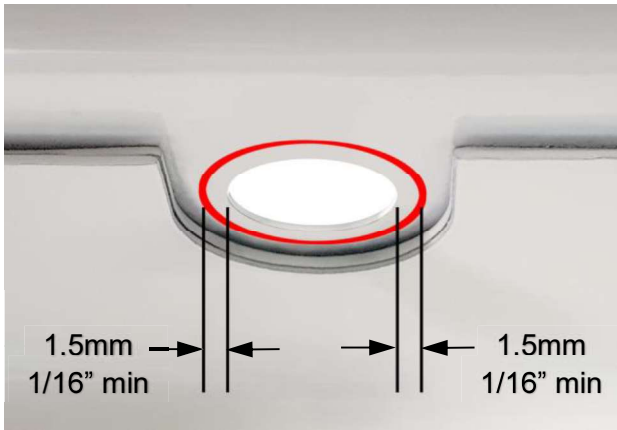
 Use **PRECISELY** 10mm (0.397"):

Any bigger size would compromise the safety of the installation.

Use of a step drill bit is highly recommended.

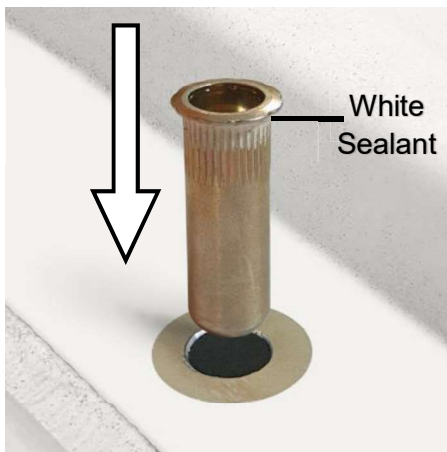



7. Clean / Deburr holes. 
- Sheet metal surface must be flat and clean **ON BOTH SIDES**, before installing the nutsert.
- Remove all swarf from roof & inside of vehicle.



8. Check that there is at least 1.5mm (1/16") all around the holes Inside the van, on the top sheet metal.
- That 1.5mm (1/16") ring is the space needed for the Nutsert to tighten properly.

- If they interfere with that space -
Grind and enlarge the cut-outs of the bottom sheet metal of the roof.
Protect from rust with touch-up paint.



9. Put Nutserts in place carefully.
-  **Sealant on the nutserts will rip off very easily.**
- Sealant is essential to the water tightness of the nutsert.



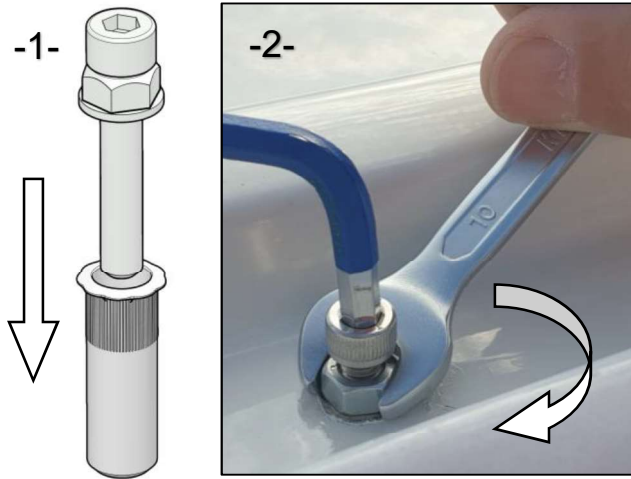
Example of Nut Riveter

10. Fix Nutserts

METHOD 1: (Recommended)

Use a dedicated Nut Riveter (Not included):

-Refer to tool's instruction manual for more details.



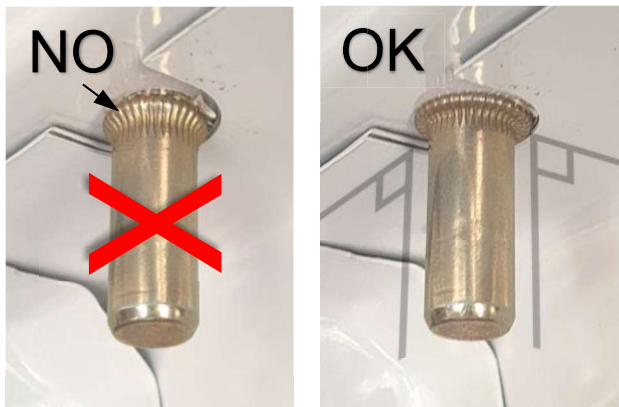
METHOD 2:

Use provided nut, bolt and washer:

-1- Fully screw the M6x35 bolt (6151589) into the Nutsert, with the M6 washer (6151046) and nut (6151031) in between (washer goes under).

-2- With the Nutsert in place, stop the bolt from turning with a 5mm Allen key, then screw the nut with a 10mm spanner, as shown in the picture.

This action will pull the bolt up, which will compress the Nutsert.



When installing the Nutserts, make sure:

! - Nutsert is perpendicular to the sheet metal.

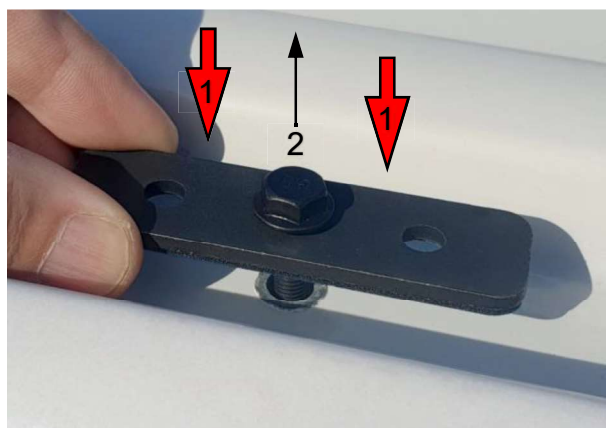
! - Nutsert is fully compressed (refer image).



11. Stick foam packers on steel packers:

-Remove the first liner from the foam packer.

-Aligning the edges, stick the foam packer on the steel plate packer.



12. Stick foam+steel packers on top of Nutserts:

- Remove the second liner.

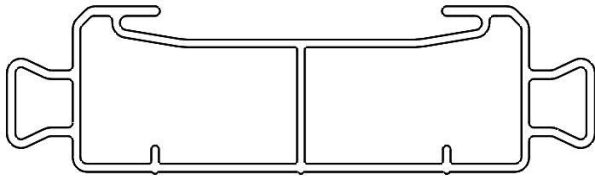
-1- Use M6x25 flange bolt as a guide to center the packer.

- Stick [foam+steel] packer on top of Nutsert, parallel with the rail.

-2- Remove M6 bolt.

(Use of the center hole is recommended. Side holes can be used when an anchor point is close to the end of a blade).

STEP 3 – ASSEMBLE BASE RACK WITH BLADE BRACKETS

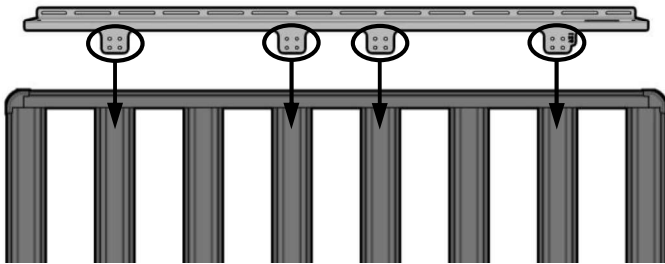


Top face of BASE RACK

13. Place the BASE RACK face down on a clean flat surface. Provide protection to the top face of BASE RACK to avoid marking of surfaces.

17965040:

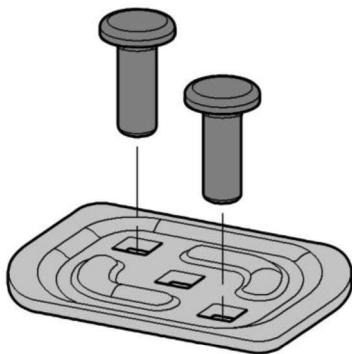
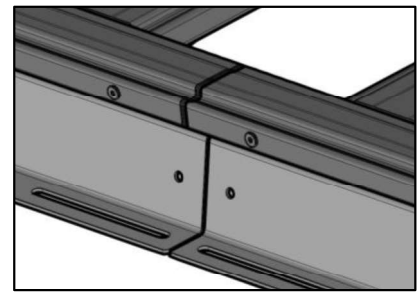
Assemble the two halves of the BASE RACK. Refer to BASE RACK's fitting instructions for details.



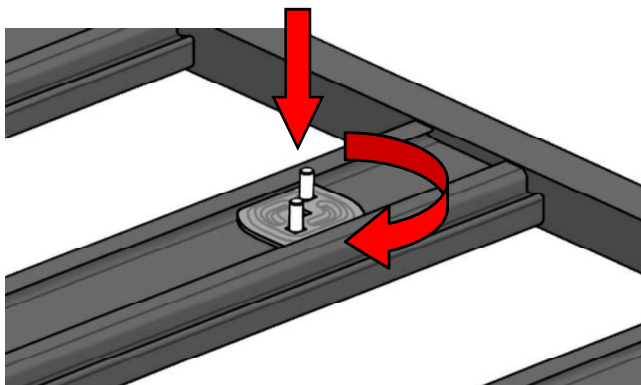
14. Check the position of the mounting plates (circled in image) on the blade brackets in relation to the channels on the BASE RACK.

17965040:

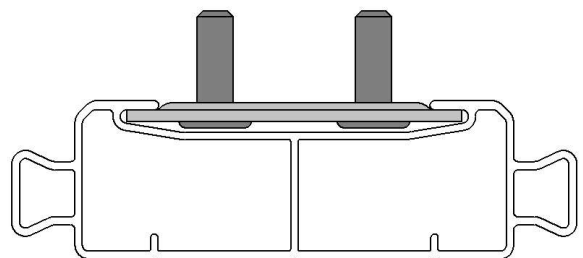
Align Blades split with BASE RACK split.
DO NOT USE BLADE JOINER YET

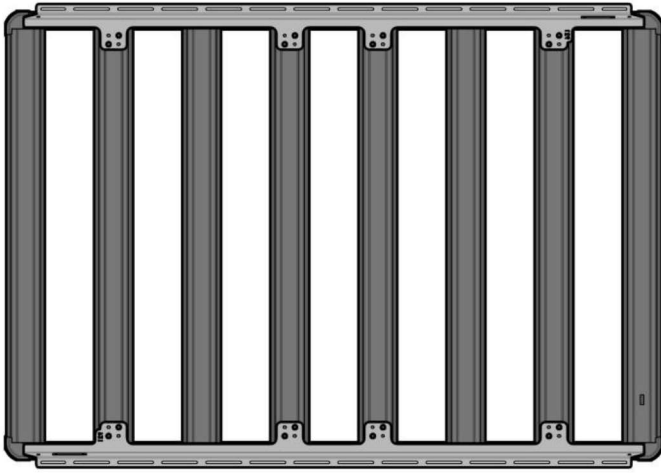


15. Insert 2, M8 x 25 Studs into each of the Stud Plates as shown.



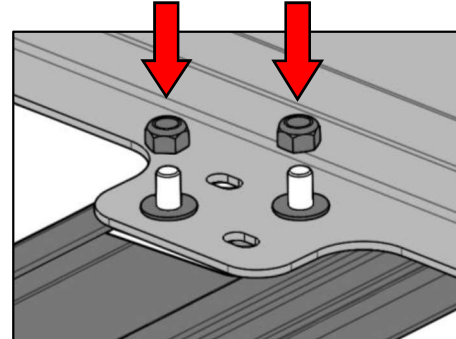
16. Insert the assembled stud plates into the correct BASE RACK channels. Rotate the plates 90 degrees.





Do not fully tighten, allowing each blade to move.

17. Flip the blade brackets over so they are upside down and carefully place on top of the BASE RACK. When doing so ensure the M8 studs in the stud plates go through the slots. Then **loosely** install the blade brackets to the BASE RACK using M8 flat washers and nyloc nuts.

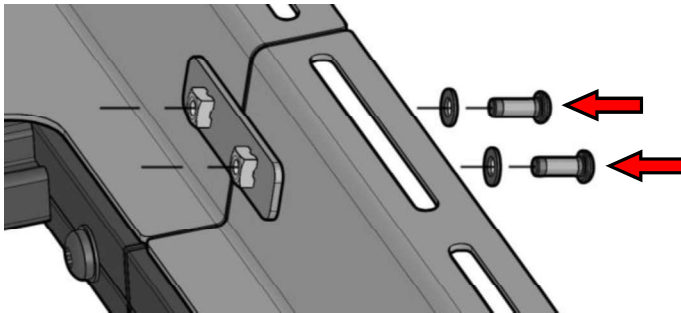


18. 17965040:

Install the Blade joiners, using the M6x16 Torx bolts and M6 washers.



Torque M6 to 9Nm (7lbft)



19.- Using the provided measurements X, adjust the location of the blade bracket on the BASE RACK.

- Ensure the distance between the blade bracket and the edge of the tray is the same on both sides.

- **On one side:**

Fully tighten all M8 Nyloc nuts.

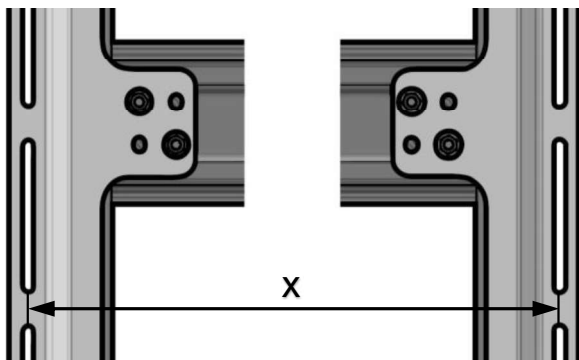


Torque M8 to 22Nm (16lbft)

- **On the other side:**

Tighten lightly only.

(Tight enough to keep the Blade in place when lifting the assembly, but light enough to be able to nudge it by hand later).



SPRINTER TYPE	X (center slot to center slot)
STANDARD ROOF	1495mm
HIGH ROOF	1318mm

Check the dimension before proceeding

STEP 4 – OPTIONAL: ASSEMBLE AIR DEFLECTORS & LIGHT BAR

- It is recommended to fit AIR DEFLECTORS and BASE RACK LIGHT BAR before assembling the BASE RACK on the roof.
They can be fitted afterwards, but installation will be more difficult then.
- Refer to the respective instruction manuals provided with the parts for details on the installation.

BASE RACK LIGHT BAR

- When installing a BASE RACK Light Bar, also prepare the electrical connections before assembling the BASE RACK on the roof.
- On Sprinter models, BASE RACK Light Bar will fit in front, but not underneath the Rack.

AIR DEFLECTORS

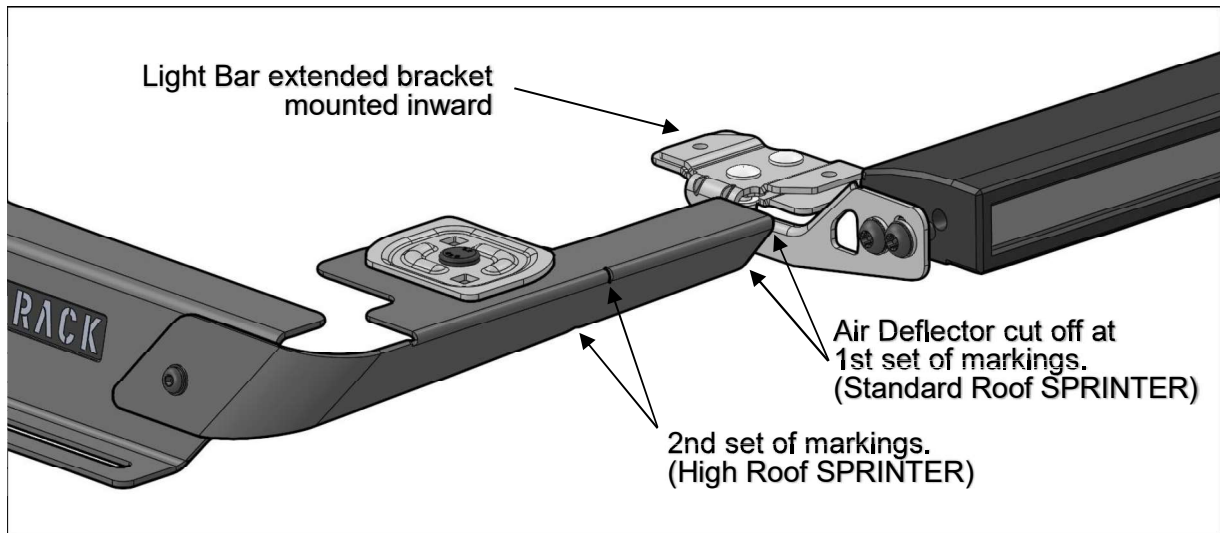
Assembling AIR DEFLECTORS is strongly recommended **when the BASE RACK reaches the front of the roof**. This is where the air flow produces the most noise.

When placed further back, a roof rack may still generate some noise. If it is an issue, using air deflectors will reduce the level of noise.

AIR DEFLECTORS TOGETHER WITH BASE RACK LIGHT BAR

- 1- Light Bar's extended front mount brackets should be assembled inwards.
- 2- Air Deflectors need to be modified as described:

- Double check the dimensions.
- Cut the air deflectors following the dedicated markings as shown below.
There are two sets of markings on the SPRINTER Air Deflectors:
 - 1st set is for assembly on Standard Roof SPRINTERS
 - 2nd set is for assembly on High Roof SPRINTERS.
- Discard the material removed.
- Remove any sharp edges and paint raw edges with black touch-up paint.



General assembly of Air Deflector + Light Bar - BASE RACK is hidden for clarity.

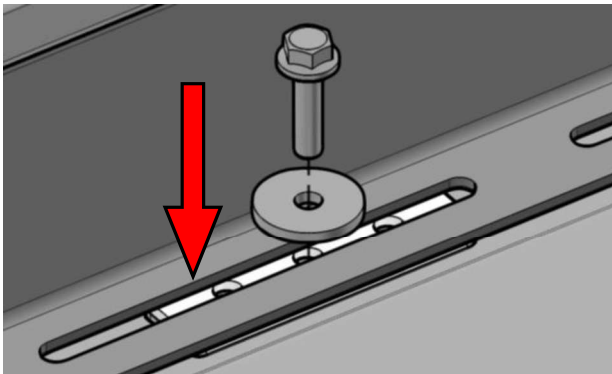
STEP 5 – ASSEMBLE BASE RACK TO ROOF



20. With assistance, carefully place the BASERACK on the vehicle so that the bottom part of the blade brackets rests on the steel packers.

The entire BASERACK assembly should be clear of the vehicle roof. All mounting holes and slots should align closely.

Note: Place protective material on roof to reduce the risk of accidental damage to vehicle when mounting the BASERACK to the vehicle.



21. Loosely screw in all M6x25 flange bolts and M6x25x2.8 washer, starting with the fully tightened blade. (See step 3.19)

If needed, nudge the other (loose) blade in position.

17965040:

It might be necessary to temporarily loosen the blade joiners as well.



22. Once all M6x25 flange bolts are in place, tighten them.



Torque M6 to 9Nm (7lbft)



DO NOT OVERTIGHTEN M6 BOLTS !

-Bolts will stretch and break if you do.
-Use of ¼ inch ratchet or torque wrench recommended.



23. Tighten the loose Blade Bracket to the BASE RACK.



Torque M8 to 22Nm (16lbft)

17965040:

Tighten Blade joiners if previously loosened.



Torque M6 to 9Nm (7lbft)

