

RACKS BRAX.®



XD BAROUD 270 ADAPTOR

Assembly and Mounting Instructions

XD BAROUD 270 ADAPTOR (DOUBLE) (9116)

Congratulations on purchasing the RacksBrax XD Baroud 270 Adaptor. The product has been engineered and manufactured to the highest standards to ensure safety, quality and ease of use to adapt the RacksBrax XD Hitch to the **James Baroud 270 Awning** and the **James Baroud Frontier Awning**.

Table 1 XD Baroud 270 Adaptor Parts List
(see Figure 1A and Figure 1B)

		Quantities Supplied
ITEM	PART	XD BAROUD 270 ADAPTOR (DOUBLE) 9116
1	SS304 Set Screw M8 x 25**	6
2	SS304 Washer Flat M8 x 17 x 1.2**	6
3	SS304 Washer Mud M8 x 22 x 1.8*	
4	SS304 Nut Hex M8*	
5	SS304 Holder Washer M8 x32 x 22.5 x 2*	
6	M10 T Bolts x 22mm***	
7	M10 Washer Flat x 20***	
8	M10 Nylon Insert Lock Nut***	
9	RB-INS-022 - XD Baroud 270 Adaptor Instructions	1
10	RB-POL-004 - Warranty and Safety Warnings	1

- * These fasteners only supplied with the XD Hitch
- ** Also use fasteners supplied with the XD Hitch
- *** Use 12 of the fasteners supplied with the James Baroud 270 Awning

WHY AN XD BAROUD 270 ADAPTOR?

The RacksBrax XD Hitch is designed to permit the fast release or fast loading of wing style awnings with vertically spaced mounting points in the range of 100mm to 120mm. A number of awnings do not fit this requirement including the Baroud 270 and the Baroud Frontier awnings. The XD Hitch, in combination with the **XD Baroud 270 Adaptor (DOUBLE) 9116**, enables these awnings unique mounting points and M10 fasteners to be fitted to the XD Hitch.

For dimensional details on the **XD Baroud 270 Adaptor** see Figure 2. Note that the XD Hitch does **not** fit to the James Baroud brackets. RacksBrax recommend the RacksBrax XD Adjustable Bracket Range (DOUBLE) or the RacksBrax XD Side Twist Range (DOUBLE) for this. See more information below relating to the correct bracket for your roof rack.

NOTE: Read these instructions in conjunction with the instructions for the RacksBrax XD Hitch RB-INS-009 supplied with the RacksBrax XD Hitch. Some fasteners supplied with the XD Hitch are used in the attachment of the Adaptor to the XD Hitch Holder.

WARNING

(Read in conjunction with RacksBrax "SAFETY WARNINGS")

- 1) Bolt torque settings: M8 = 6N·m (5 ft·lb).
- 2) Do not use nylon-insert lock nuts more than once.
- 3) To reduce the chance of threads seizing use an **anti-seize compound** and tighten thread **slowly to avoid heat buildup in the threads**.
- 4) **DO NOT USE DRILL TO TORQUE BOLTS.**
- 5) **Maximum load** per single Hitch is 20kg/44lb.
A lesser roof rack capacity may reduce this.
- 6) Loads must not exceed the rated load capacity of the Hitch (20kg/44lb), the bracket (20kg/44lb), the roof rack nor the vehicle manufacturers' specifications.
- 7) Awnings must be restrained in windy conditions, drained during rain and cleared during snow.

Figure 1A XD Hitch with XD Baroud 270 Adaptor – Front View (refer Table 1 for key)

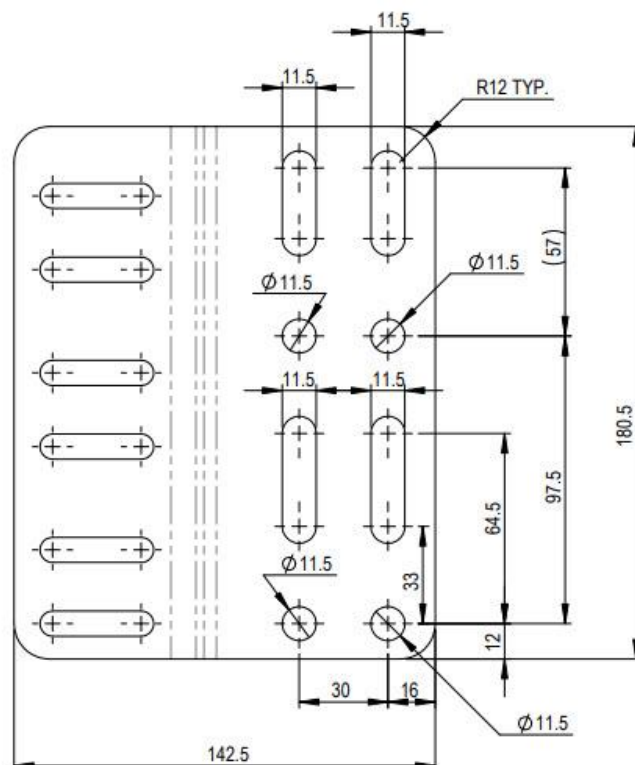


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Figure 1B XD Hitch with XD Baroud 270 Adaptor – Rear View (refer Table 1 for key)



Figure 2 XD Baroud 270 Adaptor Dimensions



HOW MANY XD HITCHES/XD BAROUD 270 ADAPTORS?

Racksbrax XD Hitches and the XD Baroud 270 Adaptors are sold as separate products. The **James Baroud 270 Awning** and the **James Baroud Frontier Awning** require 2 brackets, 2 Hitches and 2 Baroud 270 Adaptors.

FITTING INSTRUCTIONS

GENERAL

Both Baroud 270 awnings have a triple spine (frame/backbone) mounting track and are supplied with 2 very unique brackets and unique M10 T Bolts. These brackets are **not** compatible with the XD Hitch and so require an alternative bracket but **you will need to use the M10 T bolts, M10 washers and M10** lock nuts supplied with the James Baroud 270 awnings (6 per XD Hitch/Holder/XD Baroud 270 Adaptor) to attach the awning to the adaptors. See Figure 8.

RACKSBRAX BRACKETS FOR ROOF RACK BARS AND FOR PLATFORM STYLE ROOF RACKS WITH LATERAL (EAST – WEST) SLATS

RacksBrax XD Adjustable Bracket Short Foot (DOUBLE) 9100

When using the Baroud rooftop tent (RTT) in conjunction with a Baroud 270 awning **on roof rack bars**, you may wish to attach the brackets from underneath (only suits *some* roof rack bars) if the bar length is too short to accommodate the brackets above the bars. If also mounting a Baroud RTT, this RTT sits flush on the roof bars so the bracket foot cannot sit directly under the RTT without packing under the roof top tent. Not all RTT sit flush so may not exhibit this issue. However, If the bars are long enough you will be able to accommodate the foot on the top of the bar, stiffeners up or down.

Figure 3 shows different ways to mount this bracket on roof rack bars. The quick release XD Hitch will fit to this bracket.

Figure 3 XD Adjustable Bracket Mounting Scenarios for some Roof Rack Bars



RacksBrax XD Side Twist Bracket Short Foot (DOUBLE) 9104

Alternatively, you can use the RacksBrax XD Side Twist Brackets. Once the awning is removed in seconds, these can be rotated 90 degrees to reduce the headroom requirement of the attached XD Hitch from 150mm down to 50mm. This could be an advantage if removing a RTT to project a lower vehicle roof profile. The clearance requirements for the XD Side Twist Short Foot Bracket are 123mm of clear space between the RTT base and the end of the roof rack bar. See Figure 4 below.

Figure 4 XD Side Twist Short Foot Bracket on Roof Bars in the Deployed Position (Left) and Stowed Position (Right). Top of Roof Rack Bar Mounting Only



BRACKETS FOR PLATFORM STYLE ROOF RACKS WITH LONGITUDINAL (NORTH – SOUTH) SLATS

RacksBrax XD Adjustable Bracket Long Foot (DOUBLE) 9102

For platform style racks with longitudinal slats (north- south) use the RacksBrax XD Adjustable Bracket Long Foot which will allow the brackets to reach across to the 2nd slat. If a Baroud RTT is fitted this may require raising (packing) the RTT for the long bracket foot (and fasteners) to fit under the RTT. For this reason, platform racks are generally not ideal for roof top tents.

RacksBrax XD Side Twist Bracket Long Foot (DOUBLE) 9106

Alternatively, you can use the RacksBrax XD Side Twist Brackets, once the awning is removed in seconds, they can be rotated 90 degrees to reduce the headroom requirement of the attached XD Hitch from 150mm down to 50mm. This could be an advantage if removing the RTT. Again, if a Baroud RTT is fitted this may require raising (packing) the RTT for the long bracket foot (and fasteners) to fit under the RTT. For this reason, platform racks are generally not ideal for roof top tents.

FEATURES AND FITMENT – XD HITCH AND XD BAROUD 270 ADAPTOR

Figure 5 RacksBrax Quick Release XD Hitch Features



The XD Baroud 270 Adaptor is shown below attached to XD Hitch Holder. The horizontal slot adjustment is not a required adjustment for the Baroud awning, thus M8 fasteners supplied need to attach the XD Baroud 270 Adaptor as shown below (fully to the left or fully to the right on the horizontal slot depending which way up the Adaptor is set).

Typically, that part of the Adaptor that attaches to the awning will face to the rear of the vehicle, thus awnings fitted on the left side of a vehicle will mount as shown in Figure 6 left and those mounted to the right will be mounted as shown in Figure 6 right.

Figure 6 XD Baroud 270 Adaptor Set for Left Side of Vehicle (Left) and Right Side of Vehicle (Right)



Figure 7 XD Hitch with XD Baroud 270 Adaptor fitted for Right Hand Side Mounting (side view)



Figure 8 XD Hitch Holder with XD Baroud 270 Adaptor fitted (front view on left, rear view on right) showing 6 No James Baroud M10 T Bolts where the Adaptor fits to the awning spine



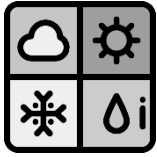
ASSEMBLY INSTRUCTIONS

Fitting instructions of the XD Hitch in conjunction with the supplementary instructions below.

- 1) Park the vehicle on level ground.
- 2) When fitting this kit to your vehicle its best to fasten everything but keep it **loose unless mentioned otherwise below**. This way Hitches will hang vertically and parallel when the awning is loaded during fitting. Work the gravity!
- 3) Start by assembling the brackets keeping the height as low as possible (height adjustment only available on the RackBrax XD Adjustable Bracket, not the XD Side Twist but ensuring it's not so low it interferes with the doors opening! Bracket components (both of these types of brackets) can be assembled and **tightened** before fitting to the roof rack using the instructions provided with the brackets.
- 4) Before fitting the brackets to the roof rack fit the lanyards to the XD Hitch Bodies and the nylon Pins to the XD Hitch Bodies. Now fit the XD Hitch Bodies to the brackets keeping them a little **loose** noting the washer sizes Inside the Hitch Body are 22mm diameter M8 and back of bracket, 17mm diameter M8. See Figure 1A and Figure 1B.
- 5) Fit the 2 brackets (with XD Hitch Bodies fitted) to the roof rack but keep these a little **loose**. Place one bracket as far to the rear as possible and one bracket as far to the front as possible (on bars, this is the rear bar and the forward bar).
- 6) Fit the two Adaptors to the two XD Hitch Holders ensuring that each Adaptor is fitted in the same orientation. Refer also to Figure 6 above in relation to mounting on the left or right side of the vehicle. Fasten these so the minimum amount of Adaptor with the M10 holes/slots protrudes past the XD Hitch (with 3 No M8 x 25 mm set screws and washers supplied as well as the M8 nuts supplied with the XD Hitch) (Figure 8) making special note of the 2 No 22mm diameter washers and the single rectangle washer (Figure 8 right). Ensure these are exactly parallel to the Holder and **tighten**.
- 7) Measure the centre-to-centre distance between the roof bars where you have fixed the forward and rear brackets. This needs to be reasonably accurate (to within 3mm). Call this distance X mm.
- 8) At this point it's important to determine the optimal location of the rear (hinge/spigot end) Holder /Adaptor combo so the awning is mounted neither too far forward on the vehicle nor too far backward. The Adaptor can "slide" along the awning to achieve this.
- 9) Fasten the Adaptor/Holder combo to the awning spine using the M10 T Bolts but **so it can just slide ie not too tight at this point**. Ensure the combo is sitting vertical and the nominal X mm apart. The Holder/Adaptor combo can now slide a little left or right to mate with the XD Hitch Bodies on the bracket.
- 10) Lift the awning onto the XD Bodies on the vehicle (2-man job!) and the Hitch Bodies on the brackets should align vertically (remember, work the gravity!). Note the ears on the Hitch Holder sit in the saddles on the Hitch Bodies then the awning

will fold or “hinge” down into the Hitch Bodies. Position the awning thus then insert the nylon Hitch pins into the Hitches.

- 11) **Tighten** the rear and forward bracket feet to the roof rack.
- 12) Unpin the Hitches and carefully lift off the awning without moving (knocking) the Hitch Bodies on the brackets and **tighten** the Bodies to the brackets.
- 13) Lift the awning back on and check for fit, noting at this stage the Hitch Holder/Adaptor combo is still **loose**. This process is iterative and **may need to be repeated**.
- 14) Now **tighten** the outer 3 No M10 nuts on each Adaptor/awning interface at **each** location. Unpin the awning and fold or “hinge” it upwards, say 60 degrees then reseal. This should be a silky-smooth action. If not smooth, loosen off the M10 T bolts at one location and repeat until the action is smooth.
- 15) Once the load/unload action is smooth place the awning on a table and tighten the remaining 3 No M10 T bolts at each Holder/Adaptor location.
- 16) Lift the awning back into position in the Hitch Bodies and pin the Hitch together with the nylon pins provided in the XD Hitch kit. Lock the Hitches.
- 17) Voila! Job done! Now you can remove or reload in seconds.



AWNINGS: WIND, RAIN AND SNOW

The XD Hitch/XD Baroud 270 Adaptor mounting system is designed with a high load capacity relative to the weight of even the heaviest awnings. However, in the deployed state, loads from high winds, pooled rainwater, and accumulated snow can exceed the XD Hitch/XD Baroud 270 Adaptor load capacity.

Always follow the awning manufacturer's recommendation with respect to awning use under conditions of wind, rain and snow. In addition, it is recommended that in windy conditions poles and guy ropes are always installed, and that during rain and snow events, that steps are taken to prevent excessive loading on the awning. For example, do not leave un-guyed awnings unattended if weather conditions may deteriorate.

Due to the high number of variables associated with wind direction, awning size and arrangement, local terrain, and other factors, it is not possible to provide meaningful wind speed recommendations.

The 3 enemies of "freestanding" wing awnings are: wind, rain and snow.

WIND: The wind loads on the awning mounting system relate to wind direction, wind strength, local terrain and awning area. In gusty conditions in particular, the loads on the awning are unpredictable, and may vary from upwards to downwards in a short space of time. It is recommended that in all but calm conditions, regardless of the awning manufacturer's instructions, that awnings should be restrained with poles and guy ropes to prevent damage to the mounting system.

RAIN: Most wing awnings come with a means to deflect runoff water from rain to avoid stretching the awning material (and causing other damage) when water collects in pools. Typically, this is accomplished with guy ropes set midway between the rafters and with poles at the rafters. To prevent potential overloading of the mounting system during heavy rain, drainage measures are recommended.

SNOW: The awning mounting system (and the awning) may be overloaded under snow loads. In snow conditions where heavy snow loads may develop, snow needs to be periodically cleared or the awning needs to be stowed.

Failure to adhere to any of these recommendations may void the RacksBrax Warranty.