

RACKS BRAX.®



Rear Adaptor with XD Hitch and XD Adjustable Bracket* shown above.*

** Sold separately*

XD DESTINATION ADAPTOR

Assembly and Mounting Instructions

XD DESTINATION ADAPTOR (DOUBLE) (9118)

Congratulations on purchasing the RacksBrax XD Destination 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
Destination 4WD D270 Freestanding Awning
(This product NOT suited to the Destination 4WD D180 Awning)

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

		Quantities Supplied
ITEM	PART	XD DESTINATION ADAPTOR (DOUBLE) 9118
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*	0
4	SS304 Nut Hex M8* and ***	0
5	SS304 Holder Washer M8 x32 x 22.5 x 2*	0
6	SS304 Washer Flat M10 x18 x 1.2 ***	0
7	M10 Nylon Insert Lock Nut***	0
8	M8 set screws welded to rectangular "Washer Frame" ***	0
9	RB-INS-021 - XD Destination Adaptor Instructions	1
10	RB-POL-004 - Warranty and Safety Warnings	1

* These fasteners are only supplied with the XD Hitch

** Also use fasteners supplied with the XD Hitch

*** These fasteners are only supplied with the Destination 4WD awning

WHY AN XD DESTINATION 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 Destination 4WD D270 awning. The XD Hitch, in combination with the **XD Destination Adaptor (DOUBLE) 9118**, enables this awning's unique mounting points and M10 (4 No) fasteners (rear) and M8 (4 No) fasteners (forward) to be fitted to the XD Hitch.

For dimensional details on the **XD Destination Adaptor** see Figure 2. Note that the XD Hitch does **NOT** fit to the Destination 4WD brackets. RacksBrax recommend the RacksBrax XD Adjustable Bracket Range (DOUBLE) and **NOT** the XD Side Twist Range (DOUBLE) for this. See more information at RacksBrax.com 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 XD Destination Adaptors to the XD Hitch Holder. Fasteners supplied with the Destination D270 awning are used to attach the awning to the XD Destination Adaptor.

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 Destination Forward Adaptor – Front View
(refer Table 1 for key)

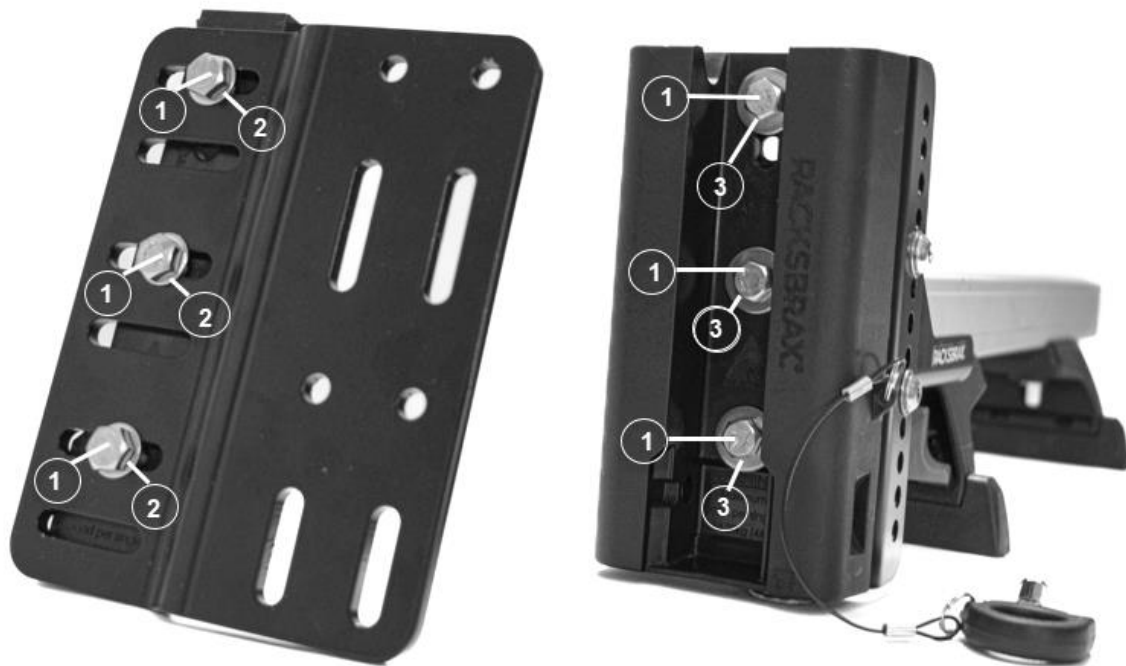


Figure 1B XD Hitch with XD Destination Forward Adaptor – Rear View
(refer Table 1 for key)

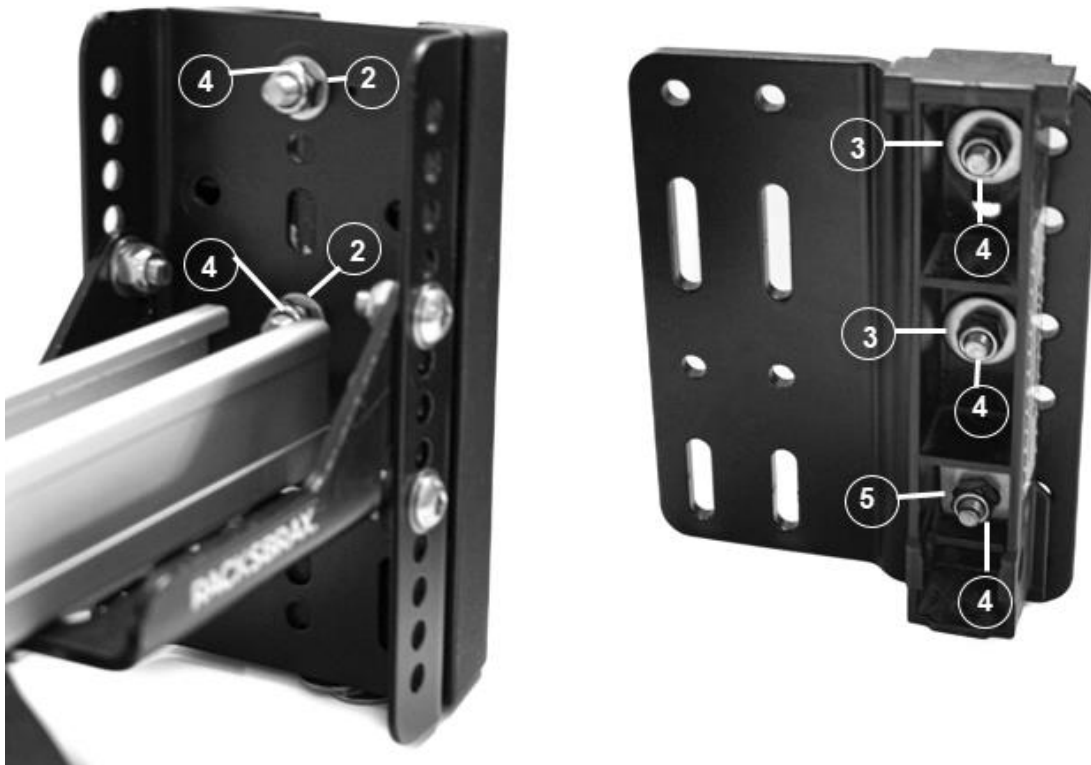


Figure 2A XD Destination Adaptor Dimensions of Forward Adaptor

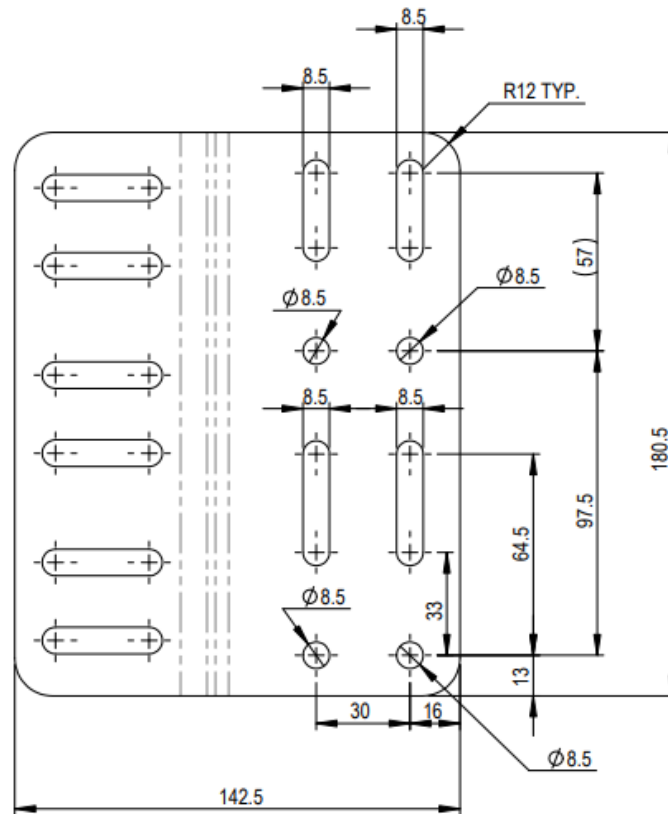
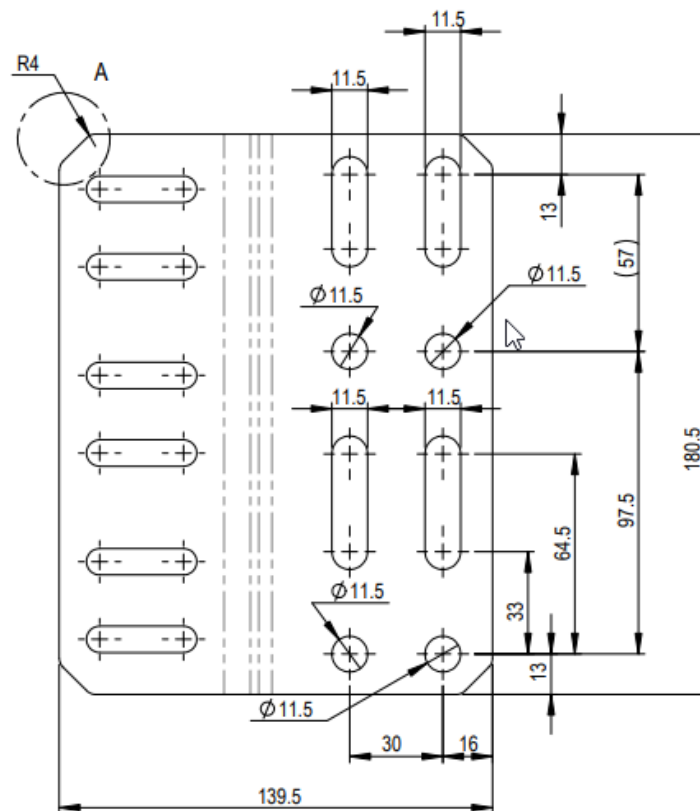


Figure 2B XD Destination Adaptor Dimensions of Rear Adaptor



HOW MANY XD HITCHES/XD DESTINATION ADAPTORS?

Racksbrax XD Hitches and the XD Destination Adaptors are sold as separate products. The **Destination Awning** require 2 brackets, 2 XD Hitches and 2 XD Destination Adaptors (Forward Adaptor and a slightly different Rear Adaptor). The latter is sold as a matched pair.

FITTING INSTRUCTIONS

GENERAL

The D270 Destination 270 Wing awning has a unique C Channel spine (frame/backbone) and is shipped with 2 very unique brackets and unique fasteners and fastener holes, M10 (rear) and M8 (forward) and corresponding M10 and M8 fastener sets respectively. As mentioned, the Destination 4WD brackets are **not** compatible with the XD Hitch. Therefore, you will require an alternative bracket **AND you will need to use the Destination 4WD Fasteners**. That is, 4 No M10 set screws (welded to awning rear pivot/hinge) and matching M10 lock nuts and washers. As well, use the Destination 4WD supplied 4 No M8 set screws welded to a unique "Washer Frame" and matching M8 lock nuts and washers to attach the awning to the XD Destination Adaptors. See Figure 10 and 10.

These fitting instructions show the set up for the awning mounted on the LHS of a vehicle. The XD Destination Adaptor/XD Hitch combo works just as well for awnings mounted on the RHS of the vehicle. For either LHS mounted awnings or RHS mounted awnings the part of the Adaptor that fits the awning (vertical slots) points to the rear of the vehicle for both the Forward and the Rear Adaptors which effectively means the Adaptors are inverted for the RHS compared to the photos in these instructions.

Adaptors have multiple height settings for positioning the awning. The lower the awning is fixed, the more stable the awning. See Figure 10 showing the Forward Adaptor at 3 height settings. This height setting must match the Rear Adaptor.

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

Recommended RacksBrax XD Adjustable Bracket Short Foot (DOUBLE) 9100

Figure 3 shows different ways to mount the XD Adjustable bracket **Short Foot** on roof rack bars. The quick release XD Hitch Body will fit to this bracket and the XD Destination Adaptor fits to the Holder portion of the XD Hitch for a quick release of the awning when not used.

Figure 3 XD Adjustable Bracket (Short Foot) Mounting Scenarios for Roof Rack Bars



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

Recommended 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 bracket foot to reach across to the 2nd slat inboard of the perimeter rail.

FEATURES AND FITMENT – XD HITCH AND XD DESTINATION ADAPTOR

Figure 4 RacksBrax Quick Release XD Hitch Features



The XD Destination Adaptor is shown in Figure 5 attached to XD Hitch Holder in the LHS vehicle mounting configuration for both the Forward and Rear Adaptors. The horizontal slots permit horizontal adjustment of the Adaptor dependent on the positions of the awning brackets on the roof rack. This ensures that the Adaptors will fit the holes already in the spine of the awning as shipped ie no drilling of the awning spine is required. Horizontal slots also allow fine height adjustment.

Figure 5 XD Destination Forward Adaptor (Left) and Rear Adaptor (Right) for awning mounted on Left Side of Vehicle



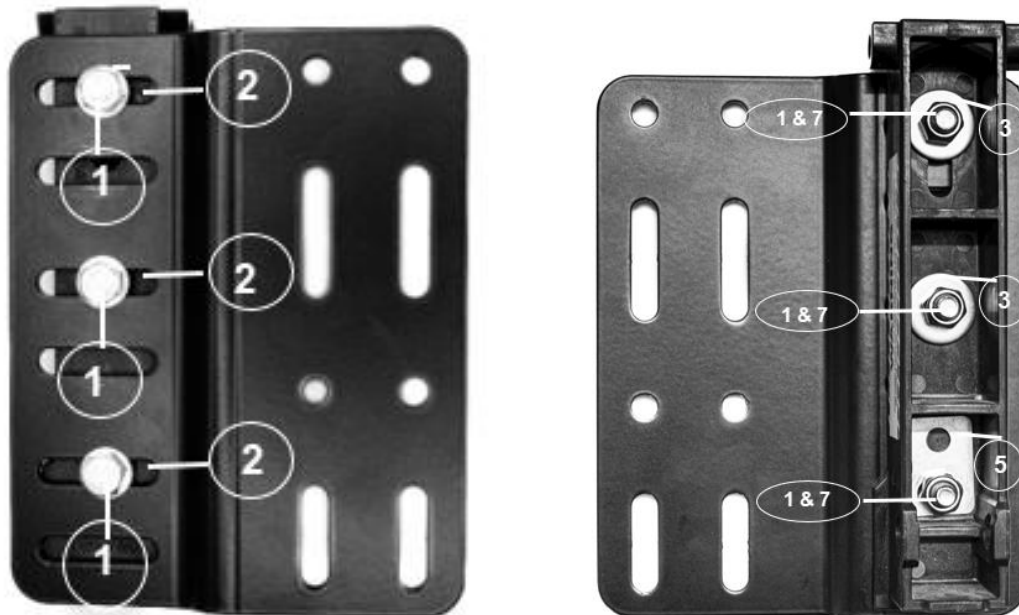
Figure 6 XD Hitch with XD Destination Forward Adaptor (Left) and Rear Adaptor (Right) for awning mounted on Left Side of Vehicle



FASTENERS

Figure 7 shows fasteners attaching the forward Adaptor to the XD Hitch Holder in both awning side (front) and vehicle side (back) views. Similar fasteners are used to attach the Rear Adaptor to the XD Hitch Holder. See table 1 for the key for this figure.

Figure 7 XD Hitch Holder with XD Destination Adaptor (Forward) fitted LHS of vehicle (awning side view, left picture and vehicle side view, right picture) see fastener key in Table 1



ASSEMBLY INSTRUCTIONS

FITTING BRACKETS AND XD HITCHES

1. Park the vehicle on level ground.
2. When fitting this kit to your vehicle it is best to fasten everything but keep it just **loose enough to move 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. When using the RackBrax XD Adjustable Bracket (recommended), ensure it's not so low it interferes with the doors opening! Bracket components 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 and nylon Pins to the XD Hitch Bodies. It's just easier done at ground level.
5. 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 and XD Hitch Assembly and Mounting Instructions.
6. Fit the 2 brackets (XD Hitch Bodies already fitted) to the roof rack but keep these a little **loose**. Place one bracket as far to the rear of the roof rack as possible and one bracket as far forward as possible (on bars, this is the rear bar and the forward bar). See also Destination 4WD Instructions in relation to fitting the D270 awning to roof rack bars.
7. Fit the two Adaptors (Forward Adaptor, rounded corners and Rear Adaptor, diagonal corners) to the two XD Hitch Holders ensuring that each Adaptor is fitted in the same orientation and the same height level (horizontal slots). Whether mounting to LHS or RHS of the vehicle that portion of the Adaptor with the vertical slots needs to point to the rear of the vehicle. See figures 5 and 7. This means the Adaptors for the RHS of the vehicle are inverted relative to the LHS settings in the diagrams in these instructions.
8. When fastening the Adaptors to each XD Hitch Holder make special note of the 2 No 22mm diameter washers and the single rectangle washer (Figure 7 right) supplied with the XD Hitch and that they are fitted as shown. Ensure each Adaptor is exactly parallel to the Hitch Holder and fix **loosely** so they can just slide horizontally.
9. Measure the centre-to-centre distance between the forward and rear brackets. This needs to be reasonably accurate (to within say 3mm). Simply pick one point on the bracket and measure to the same point on the 2nd bracket. Call this distance X mm.

REAR ADAPTOR/XD HITCH – FITTING TO AWNING

1. Place the awning on a large fitting table upside down and open, so there is access from inside the awning spine to attach the XD Hitch Holder/Adaptor combos to both the rear and forward ends of the awning.
2. Poke the rear M10 x 4 fasteners through the 4 No precut holes in the rear of the awning bag
3. Fit the Rear Adaptor/Hitch Holder combo first. There are 4 No M10 set screws welded into the spigot/hinge of the D270 awning. This group of 4 set screws fit into the 2 vertical slots and 2 holes on the XD Destination Adaptor. The "slot and hole" vertical position chosen in this step will dictate the height of the awning relative to the XD Hitch. 3 heights are possible but the mid height setting is preferable and most stable provided the awning spine permits door clearance.
4. Add Destination 4WD supplied M10 washers and M10 Lock Insert Nuts and tighten. Note that setting the height of the Rear Adaptor will dictate the same height setting for the Forward Adaptor.
5. At this point set the horizontal slots in the Rear Adaptor (slide them) so the awning is as far to the rear of the vehicle as possible. This may be moved again later if necessary and will depend on the design of the roof rack used. Do not tighten horizontal adjustment at this stage but ensure it can just slide.

FORWARD ADAPTOR/XD HITCH – FITTING TO AWNING

1. Choose the correct set of 4 holes at the forward end of the awning spine/backbone to fit the Forward Adaptor/Hitch Holder combo. The distance X (measured in Step 9 above) should equate to the distance between any point on the rear Hitch Holder and the equivalent position of the forward Hitch Holder.
2. Push the awning bag out of the way for now. **DO NOT CUT SET SCREW HOLES IN BAG FOR THE FORWARD FASTENERS YET.**
3. Move the forward Hitch Holder/Adaptor combo along the outside of the awning spine until it is X mm from the rear Hitch Holder. Choose the 4 holes in the spine that closest to this position and poke the "Washer Frame" M8 set screws through the awning spine from inside the awning. Thread the forward Hitch Holder/Adaptor over them noting there is 30mm of horizontal adjustment built into in the Forward Adaptor to achieve this.

Figure 8 "Washer Frame" from inside of awning spine



Figure 9 Destination 4WD forward "Washer Frame" that pokes through the awning spine and the awning bag from inside the awning, then into the XD Destination Adaptor (Forward)



Figure 10 XD Destination Adaptor (Forward) showing the "Washer Frame" at 3 possible heights (High, Middle, Low from left to right) determined by the equivalent height adopted at the Rear Adaptor-view from vehicle side



1. Slide the Forward Adaptor/Hitch Holder along the Forward Adaptor horizontal slots (these fasteners are still loose at this stage) until the forward **Hitch Holder** spacing is X mm from the equivalent rear Hitch Holder position. If the chosen position cannot be set at X mm, move the "Washer Frame" to the next set of holes in the spine and repeat until X mm is achieved.
2. At this point make the holes in the awning bag to suit the "Washer Frame" position.

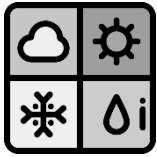
Figure 11 "Washer Frame" poked through awning bag



1. Push the "Washer Frame" from inside the spine, through the spine, the bag and into the Forward Adaptor and fasten **loosely**.
2. Lift the awning onto the XD Bodies on the vehicle (2-man job!). The Hitch Holders 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.
3. **Tighten** the rear and forward bracket feet to the roof rack.
4. 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.
5. Lift the awning back on and check for fit, noting at this stage both Hitch Holder/Adaptor combos are still **loose**.
6. Once the awning is seated, insert the nylon Pins and **tighten** all 3 No M8 set screws on each Hitch Holder/Adaptor interface using an open ended M8 spanner fitted between the outside of the Adaptor and the awning spine. Access is tricky but doable. 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 M8 set screws on the Adaptor/Hitch Holder interface at one location and repeat until the action is smooth. This step is iterative and **may need to be repeated**.
7. Once the load/unload action is smooth place the awning on a table and check all set screws on each Holder/Adaptor location for tightness.
8. 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.
9. Voila! Job done! Now you can remove or reload in seconds.
10. Special note. When inserting or extracting the nylon locking pins push or pull the pin in the line of the pin. Check the Hitch is not locked before attempting to slide the pin in or out. Pins may be stiff the first few times they are inserted or retracted.

Figure 12 XD Destination 4WD D270 Awning fitted to racksBrax XD Hitches. Fast on Fast Off!





AWNINGS: WIND, RAIN AND SNOW

The XD Hitch/XD Destination 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 Destination 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.