



# FITTING INSTRUCTIONS

## TUB SUPPORT & INTERNAL FRAMES

### Ascent Canopy AC19C – Toyota Tacoma (2024+ Vehicle Production Onwards)



FITTING KIT: 4123101

**! PLEASE PROVIDE A COPY OF THESE INSTRUCTIONS TO THE CUSTOMER!**

#### IMPORTANT:

- It is advisable to have this kit fitted by an authorised dealer.
- This product is designed for fitment of the Ascent Canopy with either Ascent Canopy roof bars or roof racks. **These are vehicle specific and sold separately, refer to the application chart via you ARB dealer, or call ARB.**
- It may be necessary to readjust the Ascent Canopy's lift up window and door latches after fitment of roof racks due to deflection of the canopy through the tightening of bolts. Please refer to the Ascent Canopy fitting instructions in section entitled "Operational Checks and Adjustments for Windows and Doors" for latching adjustment steps. Call ARB for a copy if required.

#### CARE OF YOUR CANOPY:

Please refer to the "Owner's Manual Supplement" on the second last page of this instruction, to be given to the purchaser on installation.

#### OWNERS MANUAL SUPPLEMENTS:

Please fill out the "Owner's Manual Supplement" on the second last page of this instruction prior to giving this to the customer.

#### RECORDS OF FITMENT:

Please complete the last page of these instructions for the "Fitment Check List" and retain these records at the dealer.

#### WARRANTY:

Please refer to ARB "Warranty against defects" booklet contained within the hardware kit. Please ensure this booklet is given to the customer.

#### SAFETY:

The ARB Ascent Canopy Racks, and ARB Ascent Canopy Roof bars (sold separately) must never be fitted to another product. These products **MUST** all be fitted with this internal frame support kit as fitted to ARB Ascent Canopies only.

## **HAVE AVAILABLE THESE SAFETY ITEMS WHEN FITTING PRODUCT:**

- Protective eyewear



- Hearing protection



*NOTE: 'WARNING' notes in the fitting procedure relate to OH&S situations. 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.*

## **TOOL LIST FOR FITMENT:**

- Torque Wrench 25Nm
- Torque Wrench 80Nm
- Ratchet Wrench
- Sockets 10, 13 & 16mm
- Socket Extension Bar
- Universal Joint Socket Adaptor

- Ratchet Spanner 10 and 13mm
- T30, T40, T50 and T55 Torx Socket Driver Bits
- 5.2mm Drill Bit
- Drill
- Pop-rivet gun

## **FITTING IS UNDERTAKEN THE FOLLOWING STAGES:**

1. Canopy must be fitted first
2. Installing the tub support brackets.
3. Fitting the internal frame brackets.
4. Owner's manual supplement (must be given to the customer by law)
5. Check list and sign off.
















## **SCREW TORQUES:**










These must be adhered to avoid warranty issues and should be checked at vehicle service intervals.

**!! IMPORTANT !! other than specifically specified in this instruction**

**REQUIRED SCREW TORQUES: M6=9Nm M8=20Nm M10=60Nm M12=80Nm**

## THE FITTING KIT CONTAINS:

Kit No	Part No	Picture	Qty	Description
<b>6178529</b> BAGGED F/KIT	6151625		12	TORX PAN HEAD SCREW - M8 x 25mm
	6152149		8	TORX PAN HEAD SCREW - M10 x 30
	6151684		8	HEX HEAD BOLT- M8 x 30
	4584399		8	FLAT WASHER - M10 x 25 x 3mm
	4581303		12	FLAT WASHER- M8 x 25.4 OD x 3mm -BLACK
	6609101		12	POP RIVET- 3/16" x 14mm
	6253453		2	SPACER- 46 OD x 16 ID x 12mm
	667AQ010		6	BRACKET – M8 NUT PLATE
	6253456		2	BRACKET- PLATE SPACER
	6151660		6	SCRIVET – 20 x 7.4 x 20mm
	667PB004		4	FOAM GASKET – INTERNAL FRAME
	665505		2	RUST INHIBITOR SACHET
<b>6178528</b> HARDWARE KIT	667AQ008		2	BRACKET – FRONT STAY - INTERNAL FRAME (SHORT)
	667AQ009		2	BRACKET – REAR STAY - INTERNAL FRAME (LONG)
	37500309		4	BRACKET – TOP - INTERNAL FRAME

6582549R		1	BRACKET- RIGHT HAND – FRONT - INTERNAL FRAME
6582549L		1	BRACKET- LEFT HAND – FRONT - INTERNAL FRAME
6582550R		1	BRACKET- RIGHT HAND – REAR - INTERNAL FRAME
6582550L		1	BRACKET- LEFT HAND – REAR - INTERNAL FRAME
667PD022R		1	BRACKET - RIGHT HAND – REAR - TUB SUPPORT
667PD022L		1	BRACKET – LEFT HAND - REAR - TUB SUPPORT
667PD023R		1	BRACKET - RIGHT HAND - FRONT - TUB SUPPORT
667PD023L		1	BRACKET - LEFT HAND - FRONT - TUB SUPPORT
667PD029		2	PLATE - CLOSE OUT

## SECTION 1: INSTALLING THE TUB SUPPORT BRACKETS

Remove bolts in this location at rear of tub both sides



Remove bolts in this location at front of tub both sides



- 1.0) **The internal tub support brackets are to be installed after the canopy is fitted.** Remove the M12 bolts each side of the floor at the rear tub floor end, using a T55 drive. Remove the M12 bolts each side of the floor of the tub at the front corners. **Retain all bolts for reuse.**



Locate the top holes of the bracket to the existing rear canopy mounting bracket.

Re-use the existing M12 bolt to secure the bracket to the floor.



- 1.2) Assemble the left-hand rear tub support bracket (667PD022L) in the left-hand rear corner of the tub. Align the top end of the bracket with the existing slotted holes in the canopy's rear mounting bracket.
- 1.3) Re-use the existing M12 bolt through the lower end of the bracket. **Loosely tighten.**
- 1.4) Assemble M8 x 25.3 x 3mm flat washers (4581303) onto M8 x 25 Torx screws (6151625) and locate these through the top slots in the bracket. Slide in the M8 nut plate (667AQ010) behind the existing rear canopy mount bracket and loosely tighten the screws through into the nut plate.
- 1.5) Once all fasteners are in place and the bracket is aligned top to bottom, **first tighten the M8 Torx screws at the top to 20Nm and then tighten the M12 floor bolts to 80Nm.**
- 1.6) Repeat steps 1.2 to 1.5 for the right-hand side using bracket (667PD022R).



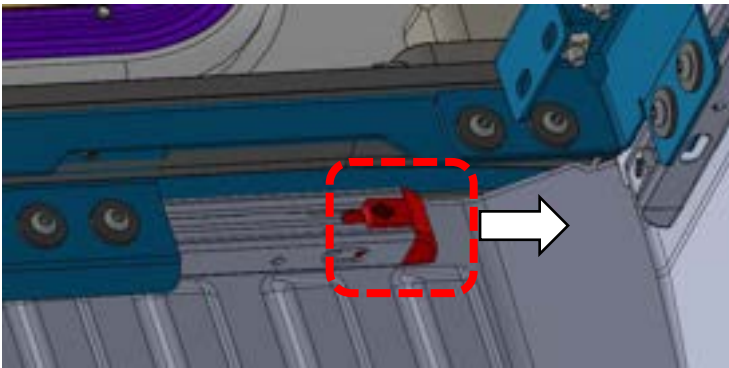


- 1.7) Drill a 5.2mm hole through the existing hole in the top centre of the rear tub support bracket. Repeat for the opposite side.
- 1.8) Apply rust inhibitor (665505) to each hole.
- 1.9) Install pop rivets (6609101) into the holes.





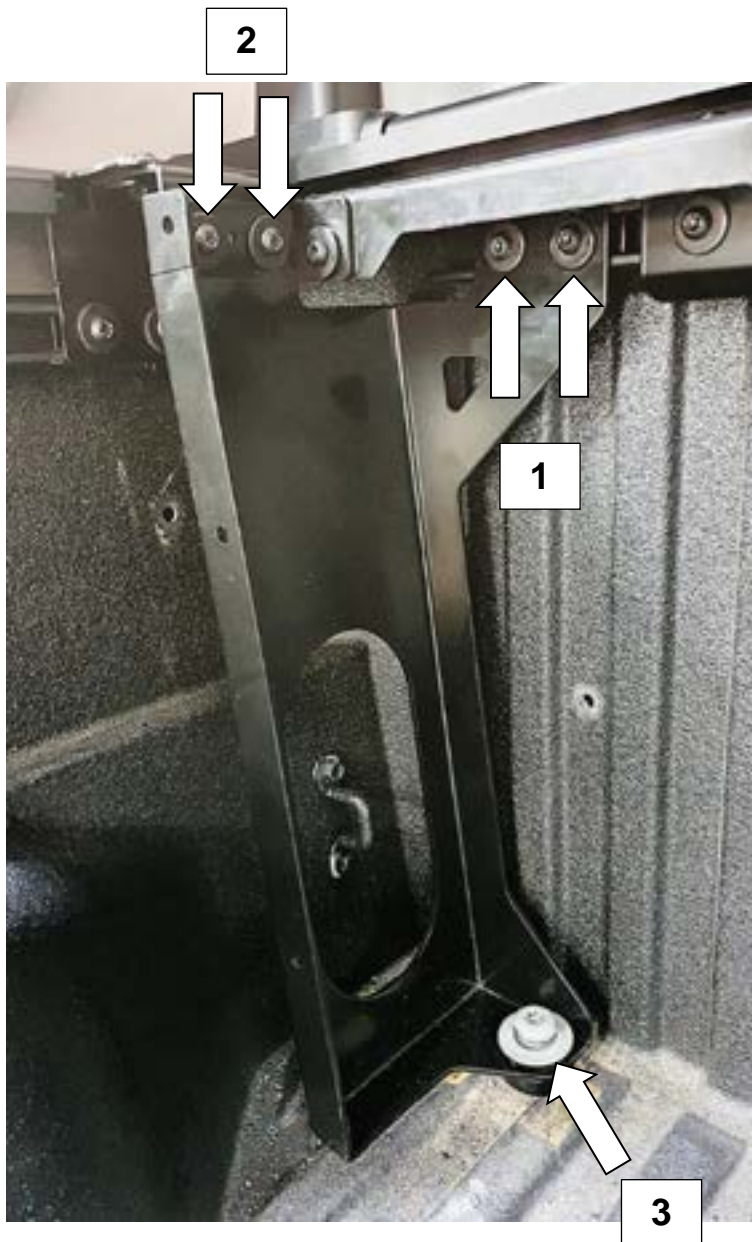
1.10) At the front corners of the tub (where the M12 bolts were previously removed), place the round 46 OD x 12mm thick spacers (6253453) over the holes.



1.11) On the front of the tub remove the end caps at each end of the OE CMS tie down rail. Assemble an M8 Nut plate (667AQ010) and spacer plate (6253456) each side, into the channel of OE CMS accessory tie down by sliding them in from the ends of the rail. Ensure the nut side of the nut plates are positioned to the side against the wall of the tub.







**TIGHTENING SEQUENCE PER NUMBERS ABOVE**

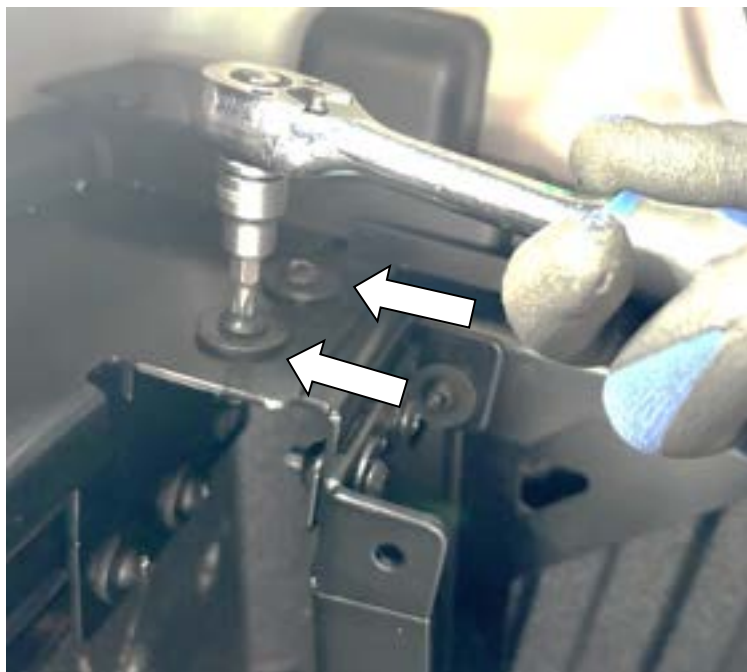
- 1) M8 bolts to 20Nm
- 2) M8 bolts to 20Nm
- 3) M12 bolts to 80Nm)

- 1.12) Locate the left-hand front tub support bracket (667PD023L) with the front top leg aligned to the face of the front CMS mount rail on the tub and the side top of the bracket located up against the existing front corner mount bracket of the canopy.
- 1.13) Align bottom hole in the bracket with the M12 blot hole in the front corner floor of the tub and re-use the M12 bolt through the bracket with the spacer (6253453) underneath. **Tighten this loosely.**
- 1.14) Align the top slots in the bracket to the side of the tub against the existing front corner mount bracket for the canopy. Assemble M8 x 25 Torx screws (6151625) with M8 x 25.4 x 3mm thick flat washers (4581303) through the top two holes of the tub support bracket. On the inside assemble M8 nut plate (667AQ010) behind and **tighten the screws loosely.**
- 1.15) On the front CMS rail position the spacer bracket (6253456) and nut plate (667AQ010) behind the holes in the front top leg of the tub support bracket. Assemble M8 x 25 Torx screws (6151625) with M8 x 25.4 x 3mm thick flat washers (4581303) through the top two holes of the tub support bracket through the spacer plate (6253456) and into the M8 nut plate (667AQ010) nut plate behind. **Tighten screws to lose fit.**
- 1.16) **Follow the tightening sequence as per opposite.**

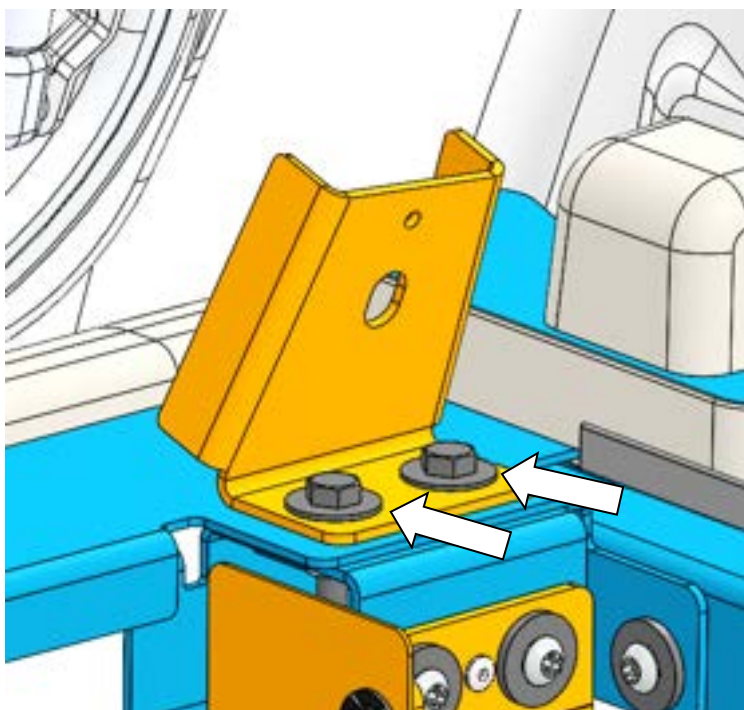


- 1.17) Repeat steps 1.12 to steps 1.16 for the right-hand front corner of the tub using the right-hand tub support bracket (667PD023R)
- 1.18) Drill a 5.2mm hole through the existing hole in the front tub support brackets at the top between the top fasteners on each side of the tub.
- 1.19) Apply rust inhibitor (665505) to each hole.
- 1.20) Install pop rivets (6609101) into the drilled holes on each side of the tub.

## SECTION 2: FITTING THE INTERNAL FRAME BRACKETS



2.1) At the front left-hand side of the canopy, on top of the canopy's base rail, remove the M8 Torx bolts. Discard the bolts **but retain the washers and M8 nut plate**. Repeat on opposite side of the tub.

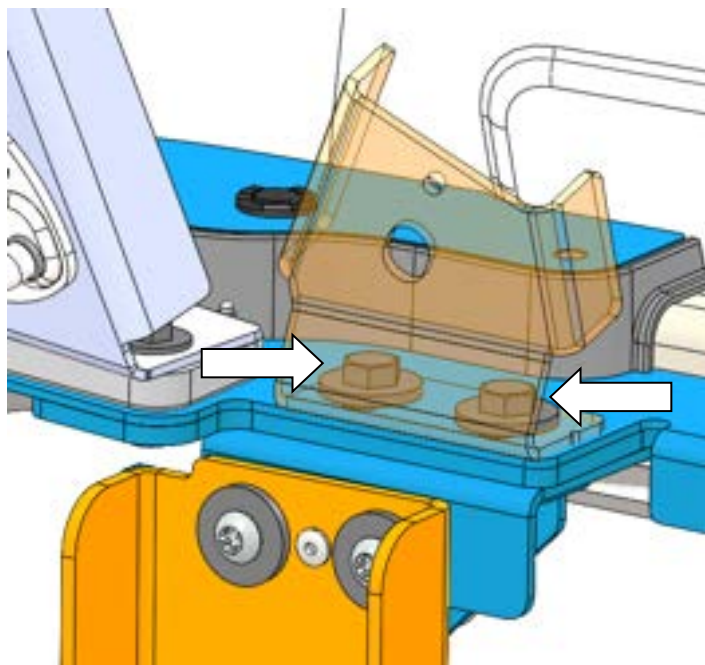


2.2) Assemble on top of the canopy's left-hand base rail at the front, the front left-hand internal frame bracket (6582549L). Use hex head bolts M8 x 30 (6151684) with the retained washers installed down through the bracket and **loosely tightened** into the retained nut plate underneath. Repeat this process for right-hand side using the right-hand bracket (6582549R).

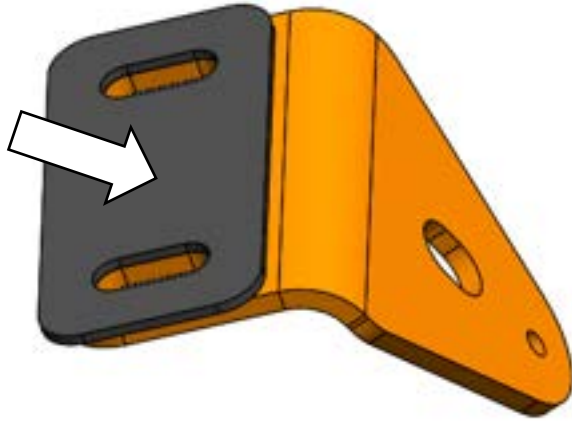




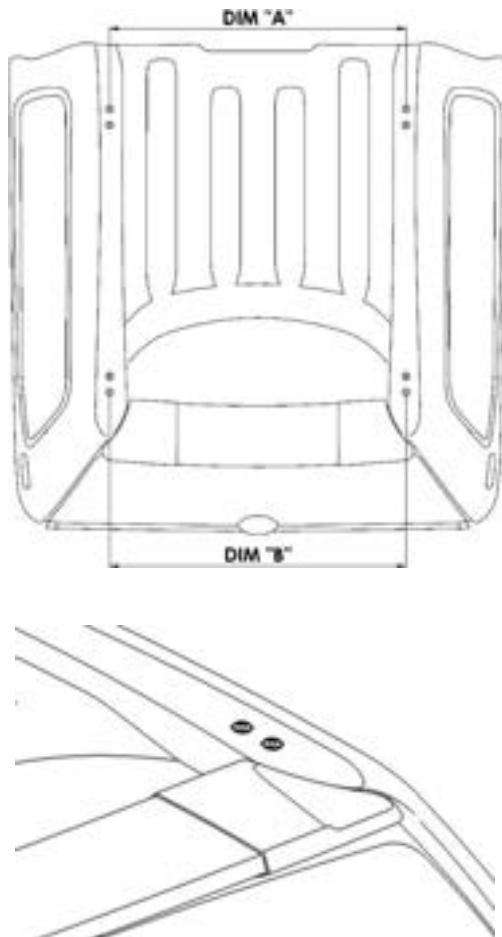
- 2.3) At the rear of the left-hand base rail inside the canopy, remove the M8 Torx bolts on top of the base rail. Discard the bolts **but retain the washers and M8 nut plate**. Repeat on opposite side of the tub.



- 2.4) Assemble on top of the canopy's left-hand base rail at the rear, the rear left-hand internal frame bracket (6582550L). Use hex head bolts M8 x 30 (6151684) with the retained washers installed down through the bracket and **loosely tightened** into the retained nut plate underneath. Repeat this process for right-hand side using the right-hand bracket (6582550R).



- 2.5) Assemble the four adhesive foam pads (667PB004) to four top internal frame brackets (37500309) over two slotted holes in each of the brackets.



- 2.6) **Before installing the top internal frame brackets (37500309) to the inner roof of the canopy, fitting steps for either:**

**Base Rack 17923050 (fitting instruction number 37800346)**

**or**

**Roof Bars 4123201 (fitting instruction number 37800356)**

**must be completed to then be able to continue fitment of the rest of this hardware kit.**





- 2.7) To the inside roof of the canopy in four locations, **use hardware in the base rack or roof bar fitting kit** to assemble the two M8 x 35mm Torx bolts (6151881) with two flat washers M8 x 19 through the top internal frame brackets (37500309) by pushing the bolts through the holes in the bracket and foam pad seals through the spacers in the roof of the canopy and **secure as per the base rack or roof bar installation instructions.**



- 2.8) At the front left-hand side inner roof area of the canopy, locate the shorter length front stay internal frame bracket (667AQ008) behind the top internal frame bracket. Install an M10 x 30 Trox screw (6152149) with an M10 x 25mm flat washer (4584399) through the hole in the top internal frame bracket into the weld nut on the front stay internal frame bracket. **Loosely tighten.**



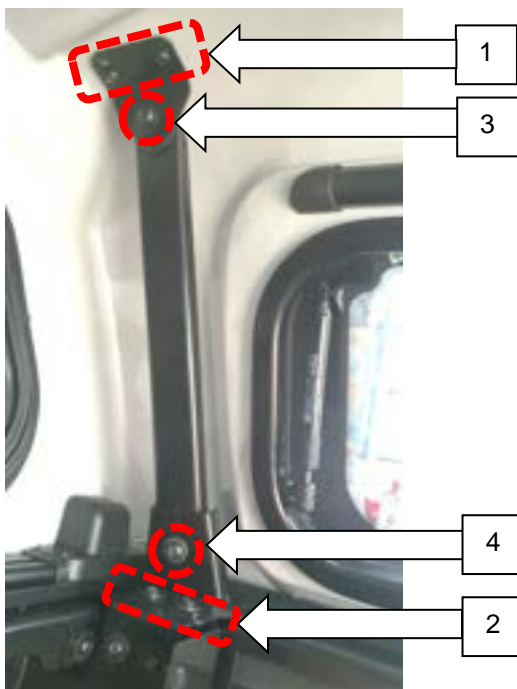
- 2.9) Position the bottom end of the front stay bracket (667AQ008) behind the lower left-hand internal frame bracket (6582549L). Install an M10 x 30 Trox screw (6152149) with an M10 x 25mm flat washer (4584399) through the hole in the lower internal frame bracket into the weld nut on the front stay internal frame bracket. **Loosely tighten.**  
**Repeat on the opposite side of the canopy.**



2.10) At the rear left-hand side inner roof area of the canopy, locate the longer length rear stay internal frame bracket (667AQ009) behind the top internal frame bracket. Install an M10 x 30 Trox screw (6152149) with an M10 x 25mm flat washer (4584399) through the hole in the top internal frame bracket into the weld nut on the rear stay internal frame bracket. **Loosely tighten.**



2.11) Position the bottom end of the rear stay bracket (667AQ009) behind the lower rear left-hand internal frame bracket (6582550L). Install an M10 x 30 Trox screw (6152149) with an M10 x 25mm flat washer (4584399) through the hole in the lower internal frame bracket into the weld nut on the front stay internal frame bracket. **Loosely tighten.**  
**Repeat on the opposite side of the canopy.**



2.12) Once all brackets have been installed, **tighten the fasteners in the following positional sequence:**

1. M8 bolts at top to 30Nm.
2. M8 bolts at bottom to 30Nm.
3. M10 bolt at top to 60Nm.
4. M10 bolt at bottom to 60Nm.

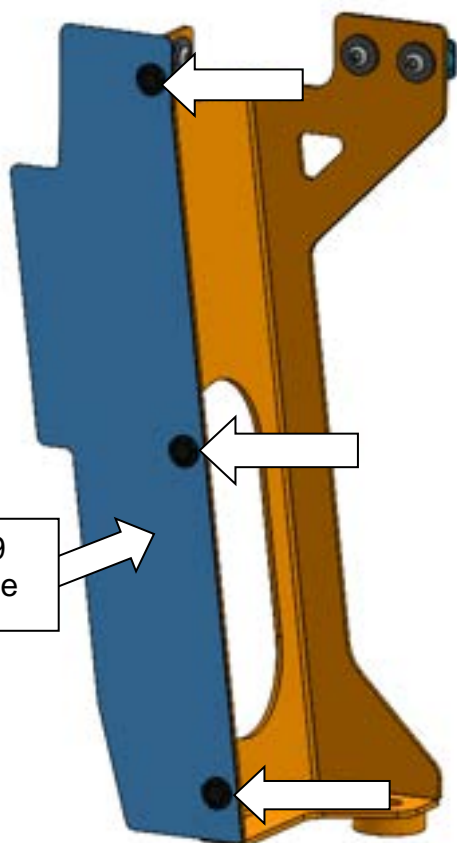


2.13) At both the top and bottom internal frame brackets drill 5.2mm holes through the existing holes in the upper and lower internal frame brackets through the stay brackets. (Eight places total).

2.14) Apply rust inhibitor (665505) to each hole.



2.15) Install pop rivets (6609101) in eight places.



2.16) Assemble the close out plate (667PD029) to the left-hand front tub support bracket (667PD023L) by aligning the holes on the cover plate with the corresponding holes on front tub support bracket. Fit three scrivets (6151660) to secure the cover plate to the front tub support bracket.  
**Repeat this on the opposite side of the tub.**



### **SECTION 3: OWNERS MANUAL SUPPLEMENT** (Give to the customer).

#### **ARB - Ascent Canopy Tub support & Internal Frames**

Canopy kit part number

4	1	2	3	1	0	1
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#### **Warranty**

- Refer to ARB Products “Warranty Against Defects” booklet contained within the hardware kit, to be delivered to the customer upon purchase.
- ARB provides a 3 year warranty with this product from date of purchase via the original purchaser.
- This warranty does not cover modifications / alterations, improper installation, abuse / misuse, accident, lack of maintenance, normal wear and tear and exposure to harsh chemicals or solvents.

#### **!! Safety Warnings !!**

- Always load roof racks and roof bars in accordance with their provided specifications.
- This product is only to be used on ARB Ascent Canopies.
- This product is **rated to a net payload as is stated on the load rating sticker as applied to this product**, when fitted with an ARB roof rack or ARB supplied Thule or Rhino Vortex roof bars.
- **Roof payload must be evenly distributed over the loading area, with the centre of gravity kept as low as possible. Narrow and heavy load should be kept close to the mounting feet.**
- Always observe local safety laws for long/overhanging loads.
- **Always tie down loads with quality straps. Check and retighten loads during the journey. Elastic straps are not suitable for securing loads**
- Large objects such as surfboards should preferably stacked, instead of laid side by side. This reduces the aerodynamic lifting force. They should be strapped both front and rear.
- For carrying special items such as bicycles, skis and kayaks, specially designed carriers are recommended to be used.
- Loaded roof rack systems will affect the vehicles cross wind sensitivity, cornering and braking characteristics. **Driving techniques should be altered to suit by reducing corner speed and increasing braking distance.**
- **Do not make any modifications to interior the brackets such as drilling or bending.**
- ARB recommends only fitting ARB approved accessories, designed for your canopy and frame system
- **Do not use internal frame bracket systems as hanging points or tie down points for loads**
- Do not allow solvents, chemicals or oils to contact the canopy or internal frames, as damage can occur. Clean interior canopy surfaces with water and mild detergent.

#### **Maintenance Requirements**

- **After the first 500km and at routine vehicle service schedules, screw torques as described in this fitting instruction should be checked. (Please ask the company that fitted your canopy for a copy of the fitting instructions) or contact ARB.**
- To clean, only use quality car care mild detergents, waxes and polishes. Do not use abrasive compounds on painted surfaces unless conducting repairs.
- **Interior support and internal frame brackets and roof carrier systems are highly structural, routinely check for signs of corrosion and movement. Consult you ARB dealer immediately if you have concerns**





## **SECTION 4: ARB INTERNAL FRAME FITMENT CHECKLIST**

**To be completed by the installer and records kept at the dealer.**

ARB - Ascent Canopy Tub support & Internal Frames			
Vehicle make and model:			
Dealer Name and code:		Date:	
Vehicle registration:		Vehicle Vin No:	
Number of Kms:		Order No:	
Canopy serial number: (left inside corner on canopy pillar on inside of ARB badge recess)			
Roof top accessories (tick):	Aluminium Rack: <input type="checkbox"/> Steel Rack: <input type="checkbox"/> Base Rack: <input type="checkbox"/> Thule Roof bars: <input type="checkbox"/>	Rooftop tent: <input type="checkbox"/> Awning: <input type="checkbox"/>	Other: (specify)
Vehicle pre-existing damage / condition check (details):			
(Tick)			
All screw torques completed as detailed in the instructions – ! Important !			
Lift up windows operate via push button to open and close manually, without latches binding.			
Door operates via push button to pop open and close manually, without latches binding.			
Water test with high pressure hose has been completed around all mounting point holes in the roof of the canopy.			
<b>The owner's manual supplement page, a copy of the fitting instructions and the ARB warranty booklet has been given to the customer and explained. (By law).</b>			
Comments:			
Fitted by:			
Checked by:			