



FLEXIGLASS FITTING MANUAL - SECTION 5.1C

FITTING A FLEXIRACK TO A CANOPY - ISSB1

Note: Familiarise yourself with the instructions before you start to ensure you are clear on all aspects of the fit

SAFETY EQUIPMENT

- Hearing protection as required
- Eye protection as required

TOOLS REQUIRED

- Drill - Electric / air 10mm capacity
- Hacksaw - Air / Hand
- Rivet Gun - Air / Hand 5mm capacity
- Air driver to suit socket

TOOLS REQUIRED

- Socket 10mm
- Combination spanner 10mm
- Drill bits 1/4" & 3/16"
- Hexagon wrench (Allen key)
- Rubber mallet
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These instructions are for fitting a FlexiRack Kit to a thin shell fibreglass canopy

For fitting KIT127 please refer to the specific fitting instructions for each canopy

Apart from **KIT104** and **124** all kits will contain the following parts **PER CROSSBAR**.

It will be noted that all double kits contain **KITC20** which is a **KITC25 times 2**.

To fit **KIT124** to a Workezy refer to separate instruction **5-0C Fitting-a-Flexirack-to-a-Workezy**

If using an assembly bench, for safe installation it is recommended that the canopy be secured at each corner with clamps to prevent unwanted movement.

During the installation process it will be necessary to remove securing clamps one at a time and caution must be taken that the other clamps hold the canopy securely, removing and replacing the clamps in a rotating pattern is part of this procedure.

SINGLE Flexirack KIT contents				
Type No.	Description	Quantity per	Unit of Measure Code	
Item BARXXXXPC	T/mans Bar Only XXXXmm Coat	1	EACH	
Item LEGX00C	Support Leg X00 COATED	2	EACH	
Item TBARXXXXC	T/Bar F/Rack (interior)	1	EACH	
Item RK340	Flexi Rack Insert Rubber	2	EACH	
Item PEDXXCC	Pedestal XXmm T/mans Rack Coat	2	EACH	
Item KITC25	Kit Single Flexirack Fasteners	1	EACH	
KITC25 Kit Single Flexirack Fasteners - Kit BOM				
Type No.	Description	Quantity per	Unit of Measure Code	
Item CAP230	Cap Black End Flexiglass	2	EACH	
Item BLTLR2000C	Bolt Ladder Rack Tie WNut Coat	2	EACH	
Item SCRCSH1020	Screw Cap Socket Head 10x20mm	2	EACH	
Item BLT1900M	Bolt Adjuster Machine	2	EACH	
Item BLTCHSS625	Bolt Cup Head S/S 6x25mm	4	EACH	
Item BLTHHZP640	Bolt & Nut Hex ZP 6X40mm	8	EACH	
Item STIC100	Sticker Load Rating 75Kg	1	EACH	
Item STIC140	Sticker Caution Label	1	EACH	
Item NUT6N	Nut Nylon Insert Lock 6MM ZP	12	EACH	
Item GKT20	Gasket Pedestal	2	EACH	
Item WSH180	Washer Brt Z/P 1/4x5/8x18G	12	EACH	
Item PIN120	Pin Cotter S/S GR304 3.2x32mm	2	EACH	
Item PLTBLK600	Plate base & mounting block.	2	EACH	

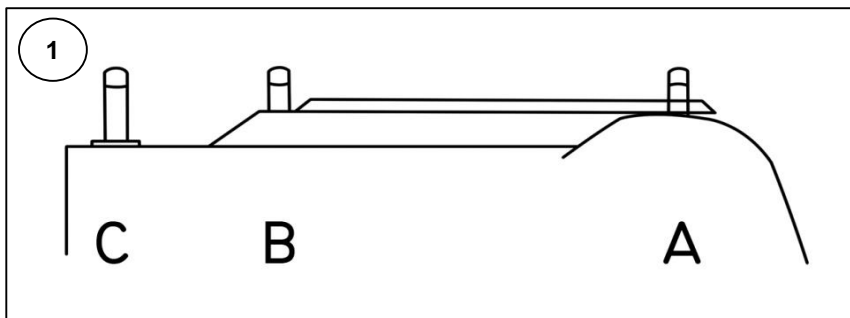
There are only three positions that a flexirack is fitted depending on the type of canopy style.

Front (C)

On the Rise (B)

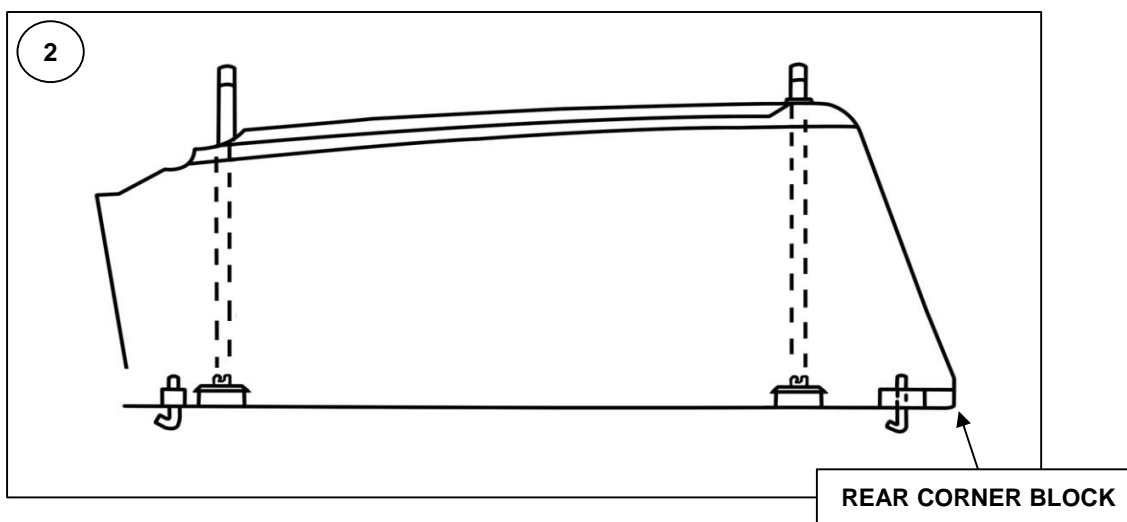
Optional depending on whether the canopy is a Hi Profile model.

Rear (A)

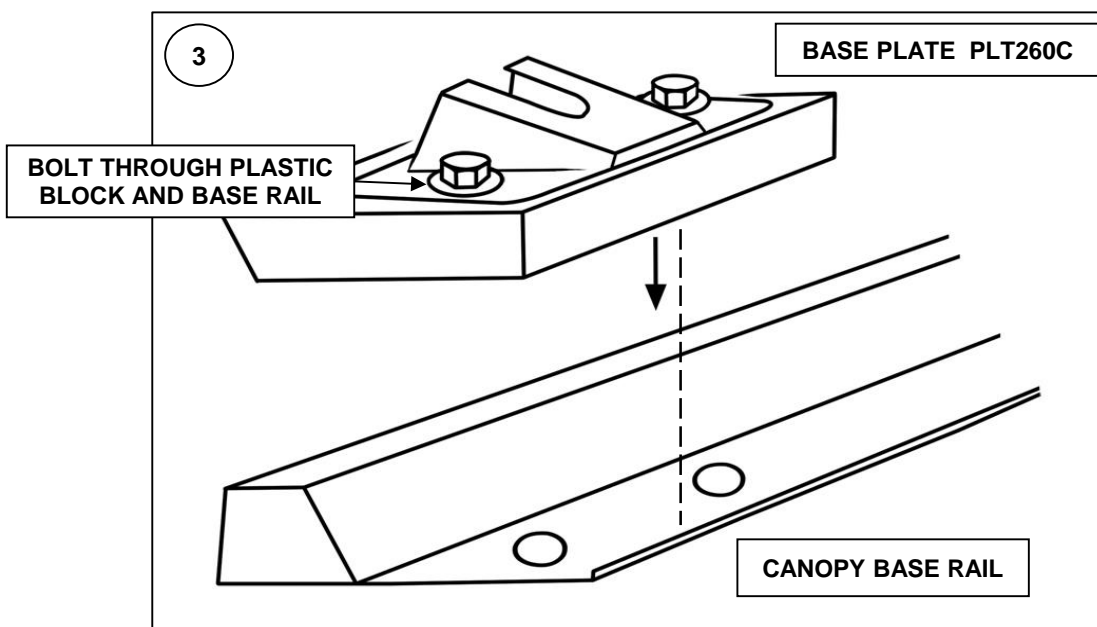


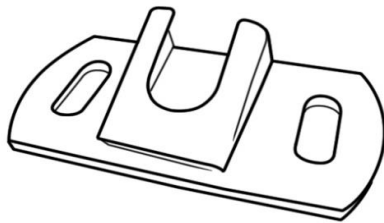
Position the Flexirack internal bows as required. Picture 2 below shows the positioning for a Commodore or Falcon front and rear.

For a front panel model the front bar should be positioned on the flat between the front panel and the rise. Position C.

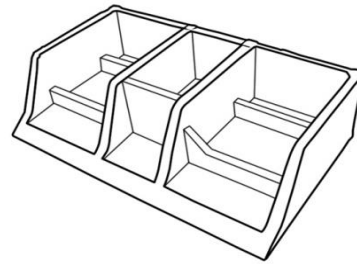


Wherever possible canopy mount point and flexirack mount point should be made to coincide. This will allow the 'J' bolt to be used as a common attachment on one side, requiring the use of only one bolt on the other side of the mounting. The use of a common attachment may not be possible in the event of a retro fit in which case the FlexiRack mount will need to be bolted independantly.

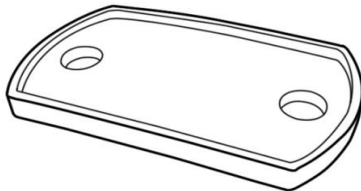




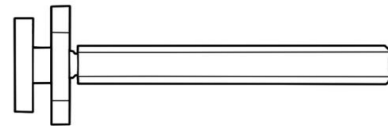
**FLEXIRACK BASE PLATE
PLT260C**



**MOUNTING BLOCK
BLK100**



**PEDESTAL GASKET
GKT20**



**FLEXIRACK ADJUSTMENT BOLT
BLT1900M**

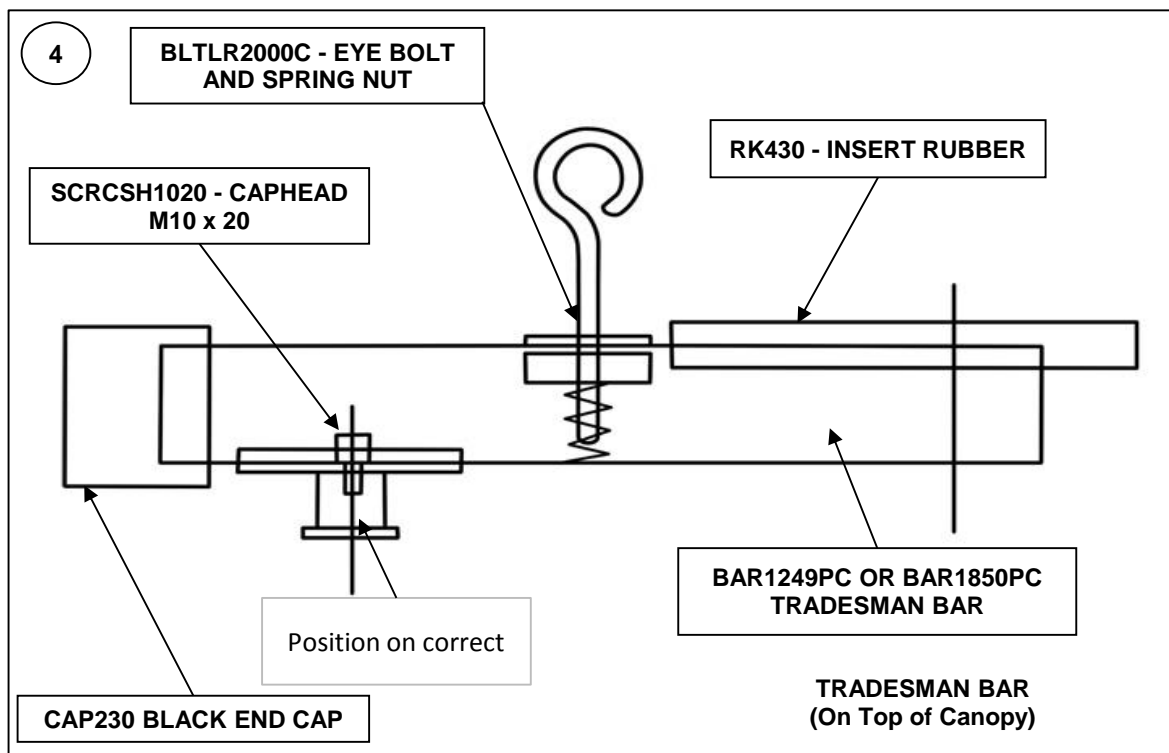
Note: 02/11/10. Parts PLT260C & BLK100 will be supplied glued together to make alignment, when drilling, easier. Current separate parts will have to be used up first.

FITTING INSTRUCTIONS

- 1 Find and mark the centre line of the canopy roof with a tape measure and pencil.
- 2 Measure back from the front panel the positions of the FlexiRack bars.
- 3 From these positions mark out from each side of the centre line one half the distance between the hole centres on the top bar mount plates.
- 4 Ensure that these marks are square to the canopy by measuring back from the front panel.
Note: Make sure your marks are visible when holding the top bar in position.
- 5 Hold the top bar in position with one hand and use the mount plate as a guide to drill a hole through the roof.
- 6 Drop a 6mm bolt through the hole from outside then locate one end of the top bar on it from inside, so that it can't move while drilling the other side of the canopy.
- 7 Hold the bar in place and check it is parallel with the front panel.
- 8 Drill the remaining holes using the mount plate holes as a guide.
Note: Dropping a bolt through the first hole drilled at the second end will ensure the movement of the bar is minimal.
- 9 Repeat items 5 to 8 for the second top bar.
- 10 Apply a little sealant around the holes on the underside of the pedestal gaskets and carefully lay them over the holes on the outside of the canopy.
- 11 Stand the required pedestal in each gasket ensuring the pedestal leg is vertical in both directions.
- 12 Fit 2 x stainless steel **BLTCHSS620** cup head bolts through the base plates, gasket and canopy for each pedestal.
- 13 From inside the canopy, carefully lift the cross bar into position, over the four projecting bolts.
- 14 Fit four nuts onto the bolts.
Note: The bolts can be stopped from pushing up and turning, while fitting the nuts, by sliding the top tube along the underside of the roof so as to jam the bolts and hold them.

- 15 Repeat for the other top bar.
- 16 It is recommended that the channel cross bars be fitted to the pedestals at this stage, the cap screws being finger tightened only. This prevents any chance of the holes not lining up after the pedestals are bolted down tight.
- 17 From inside the canopy, pull down on the top bar so that the square shank of the bolts are located in the square holes firmly.
- 18 Tighten the nyloc nuts in pairs one end at a time and repeat on the other top bar.
Note: Don't tighten one bolt at a time, tighten them sequentially like cylinder head bolts so that pressure into the square socket of the mount plate is maintained for both bolts.
- 19 Set up the adjuster foot **PLT260C** on the mount block **BLK100** at each fixing point.

See Note above regarding PLT260C and BLK100 upgrading.
- 20 To achieve the required leg length measure from the underside of the top tube, between the leg plates, to the top of the adjuster and deduct 25mm.
- 21 Cut each pair of legs to the resulting dimension.
- 22 Fit the adjuster bolt into the bottom of the leg and slip the foot over it.
- 23 Position the leg between the top bar leg plates and the adjuster foot on top of the mount block. Wind the adjuster bolt in or out to achieve a good fit.
- 24 Use the cross tube bracket holes as a guide to drill the two holes through the top of the legs. Keep them on the centre line of the leg as closely as possible.
- 24 Fit the **BLTHHZPF640** (M6 x 4) bolts, nuts and washers through the top of the leg and plates.
- 25 Drill all necessary holes through the base rails and mount blocks.
- 26 Fit **BLTHHZPF640** bolts through the base rail and foot assemblies and tighten fully.
Note: If there is insufficient room to allow the fitment of bolts, follow the "INSTRUCTION for RIVETED FLEXIRACK MOUNTING BLOCKS" below, for the attachment of the feet to base rails using pop rivets and modified mount blocks.
- 27 Tighten all interior bolts and adjust leg adjusters so that they are under light pressure.
- 28 Fit a split cotter pin **PIN120** across the back of the adjuster bolt socket to prevent the bolt vibrating out of the socket and spread the exposed ends to lock it.
- 29 Tighten the channel tradesman bar cap head screws.
- 30 Fit channel bar load rubbers and plastic end caps.



INSTRUCTION for RIVETED FLEXIRACK MOUNTING BLOCKS

Note: These instructions are to be used whenever there is a retro fit flexirack or a fit where the mounting bolts for the canopy are not able to be used to secure one side of the Flexirack foot.

These modifications to the standard **BLK100** mount block have been devised to allow more flexibility in the fitting process while retaining the strength of the product.

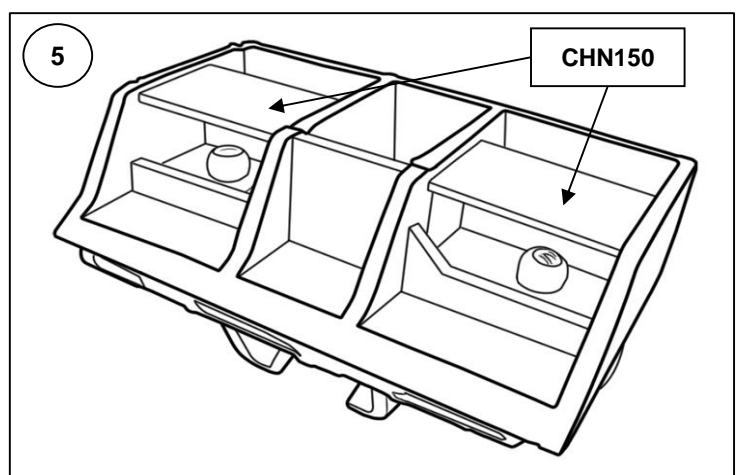
It should be kept in mind that the flexirack system was designed to be bolted through the canopy base rail. Therefore, although this method has proven itself equal to the task, it is only to be used in situations where bolting is not possible due to physical obstructions.

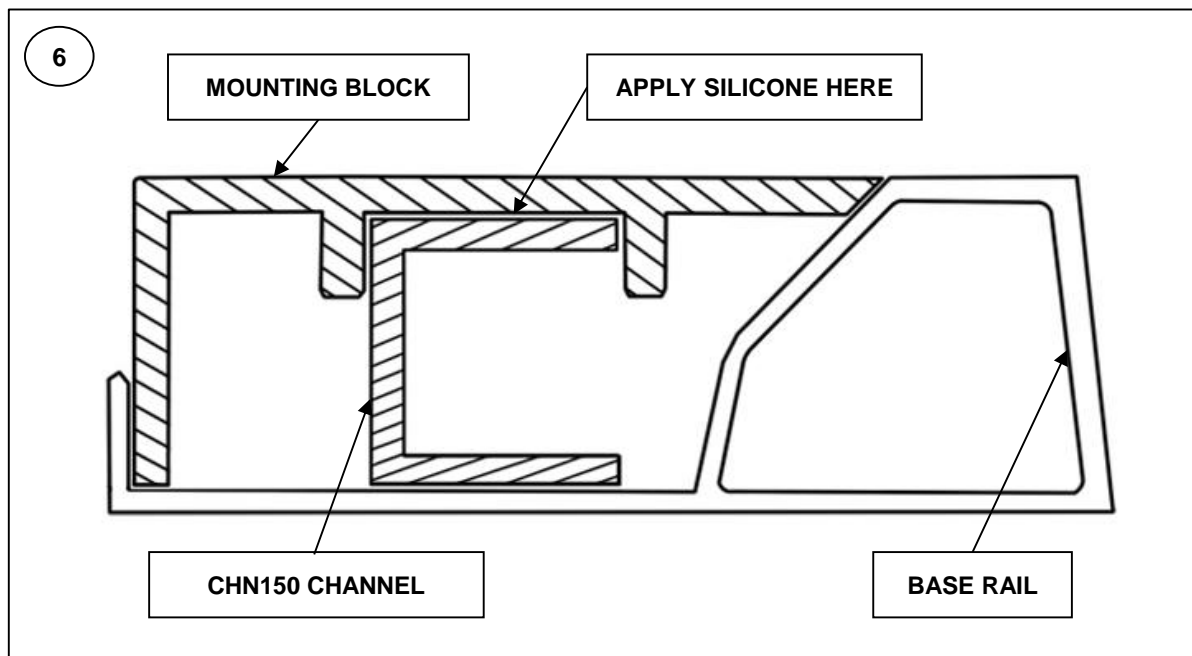
The XF/XH Falcon and Commodore Utes will utilise this method at all times. Some other vehicles may require it if a liner has been fitted.

In general if there is room to fit a "J" bolt and saddle then there is room to bolt the flexirack base.

To fabricate the mounting blocks, proceed as follows :

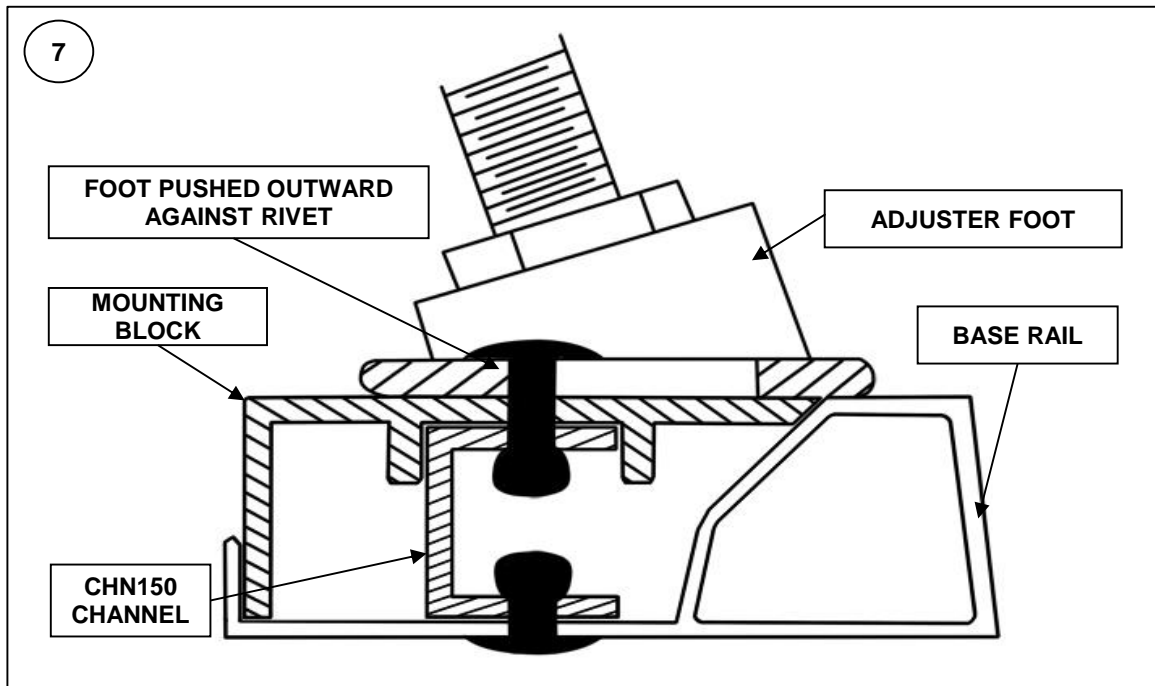
- Select the required number of **BLK100** mount blocks (2 or 4 usually).
- Select double that number of **CHN150** channel pieces.
- Apply a blob of silicon sealant to the two rectangular recesses on the under side of the mount block.
- Fit 2 channel pieces into the recesses refer to photograph and section view.
See Image 5 & 6.





FITTING THE MOUNT BLOCKS TO THE CANOPY BASE RAIL

- 1 Fit the required Flexirack frame into the canopy in the usual manner. Refer to Instructions on page 2.
- 2 When you reach the stage that the legs, adjustors and adjustor feet are in place and ready to be fixed, proceed as follows.
Note: Unbolting and lifting of the canopy will be required if a retro fit is being undertaken.
- 3 Use the foot plate slotted holes as a guide to drill 5mm dia holes through the block and channel flange.
See Image 7.
- 4 Fit **RIVET210** steel pop rivet into each hole and push the adjustor foot outwards until it is stopped by the pop rivet. Now pull up the rivets.
Note: Movement of the PLT260C will not be possible on the bonded assemblies but the bonding itself will prevent slippage.
- 5 From underneath the base rail drill up through the rail and the other flange of the channel pieces using a 5mm dia drill bit.
- 6 Fit and tighten 2 x **RIVET200** rivets.
- 7 Repeat until all feet are fixed.
- 8 Continue the fit as per Instruction on Page 2.

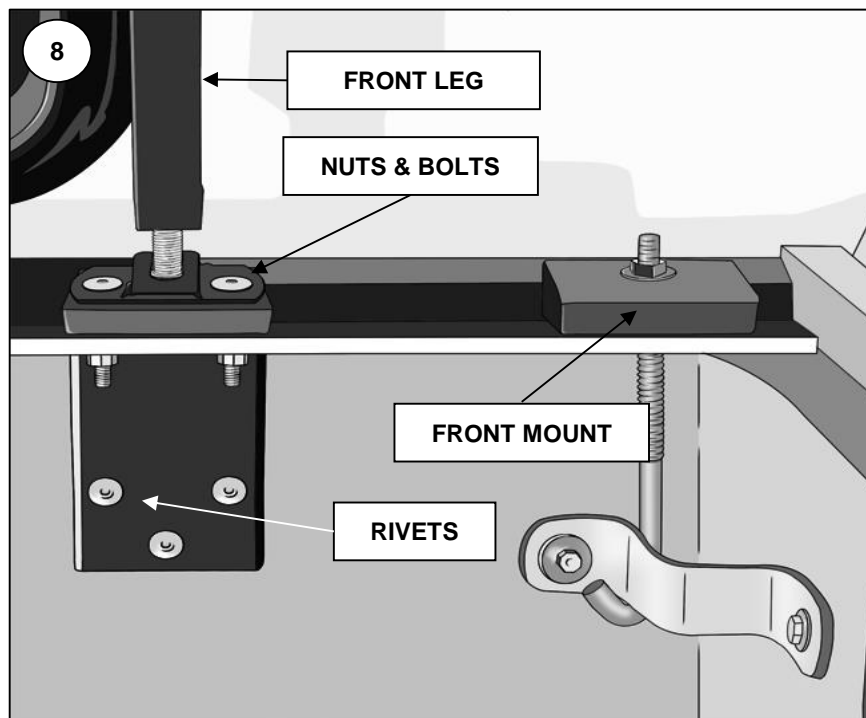


VARIATIONS TO A STANDARD FITMENT OF FLEXIRACKS

AU FALCON RACKS

The AU racks are fitted exactly the same way as a standard rack except there is a support bracket under each mounting flexirack foot. The support bracket **BKT300C** is positioned underneath the canopy base rail and is riveted through the side of the liner and fastens to the steel of the AU tub.

This gives structural strength to the base rail and the load of the Flexirack is then taken directly to the steel tub of the body, not through the tub liner.



FITTING THE BKT300C - FLEXIRACK SUPPORT BRACKET

- 1 Drop the **BLTHHZP640** bolts down through the holes. Place the **BKT300C** bracket in position onto the bolts and against the ute side.
- 2 Drill and rivet each bracket with **RIVET210** steel rivets. (3 per bracket)
- 3 Tighten the M6 bolts and nuts on the base plates.
- 4 Tighten the adjuster bolts until the top of the leg is touching the top tube. Drill two holes through the leg top using the cross bar end plates as a guide and bolt securely with **BLTHHZP640** bolts and nuts. Adjust leg pressure. (Do not over tighten and distort the canopy!)

VU COMMODORE FLEXIRACK FIT

Base rail fixing points are identical on canopies with or without flexiracks. The base rails are thus better drilled as soon as they are cut to length. In a retro - fit the **BKT310** fixing bracket can be used as a guide to drill the necessary 6 mm holes without moving anything. These instructions refer to a canopy on the builders bench.

- 1 Move the canopy rearward on the build bench far enough to allow access to the fixing holes.
- 2 Clamp the mount block and base plate **BLK100** and **PLT260C** over the pre-drilled holes in the base rails. Drill upwards through the block and plate using the base rail holes as a guide.
- 3 Fit 4 off 6 mm bolts through the holes and tighten sufficiently to hold in place.
- 4 Cut the **LEG600** support legs to length; Rear - 585 mm : Front - 500 mm.
- 5 If you use a drill jig, pre-drill the top of the legs with the necessary 2 off 6 mm dia holes. If not they can be drilled in-situ.
- 6 Fit the adjuster bolt **BLT1900M** to each leg leaving about 30 mm of thread exposed.
- 7 Fit the rear legs into the prepared base plates.
- 8 Attach the rear top bar to the tops of the legs (the front of the pedestal mounting plates are higher than the rear, ensure you have the bar facing the correct way before proceeding any further).
- 9 Loosely fit the four **BLTHHZP640** bolts through the leg tops and fish plates.
- 10 Wind up the adjuster bolts until the pedestal mounting plates contact the canopy roof.
- 11 Measure from the rear door lock ring to the rear face of the top bar a distance of 100 mm. Check the bar is central in the roof by measuring the gap each side of the canopy.
- 12 Use the pedestal mount plates as guides to drill the four 6 mm holes through the canopy roof.
- 13 Fix the **PED35C** and **BAR1049PC** pedestal & tradesman bar in the usual manner.
- 14 Lift the canopy forward to clear the front fixing point holes.
- 15 Proceed in the same manner as for the rear rack except measure from the rear rack to the front 1190 mm centre to centre instead of from the door lock ring **See Item 11**.