ARB BASE RACK
FITTING INSTRUCTION

Part Number: **1780400 & 1780410**

Product Description: **Roof Rack Wiring Kit - Wired & Provisional**

WARNING

- Care must be taken to ensure the vehicle is not damaged. In particular be aware of curtain airbags, air vents and sunroof cavities
- Vehicle roof linings are easily damaged by creasing, as well as easily marked by dirt and grease. Caution should be used during lowering/removal steps
- If the roof rack is intended to be removed regularly, it is recommended to add an optional connector housed inside the roof (connector not provided)
- This product must be installed exactly as per these instructions using only the hardware supplied
- These instructions are correct as at the publication date
- During installation, it is the duty of the installer to check correct operation/clearances of all components
- Work safely at all times

ARB 4x4 ACCESSORIES

Corporate Head Office

www.arb.com.au

42-44 Garden St
Kilsyth, Victoria
AUSTRALIA 3137

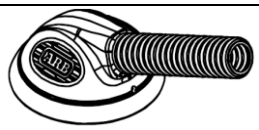
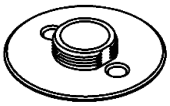
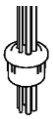
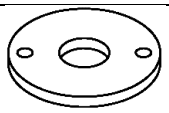
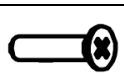
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REQUIRED TOOLS FOR FITMENT OF PRODUCT:

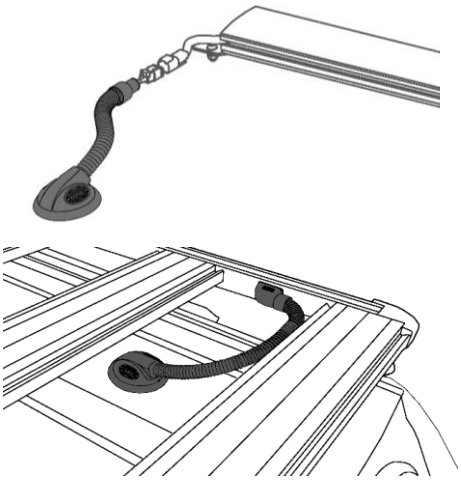
Phillips head screwdriver	**Trim removal tools**
Metal tray	**Deburring tool**
Touch up paint	**Ruler**
Scissors	**7mm(9/32") drill + drill stop**
25mm sheet metal hole saw (ARB recommends Sutton Tools H1190250)	**Centre punch**

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PARTS LISTING			
APPLICATION.	**SPARE PART KIT #**	**QTY**	**DESCRIPTION**
	6980350	1	BOOT MAIN MOULDING
		1	GROMMET BASE RACK EXIT
		1	GROMMET DIRECT EXIT
	6980380	1	GROMMET MAIN BODY
with 1780400 		1	GROMMET WITH WIRES
with 1780410  	6980310	1 1	GROMMET INSERTABLE TYPE 1 GROMMET INSERTABLE TYPE 2
	6980310	1	NUT MOULDED M27x1.5
with 1780400  **OR** **with 1780410** 	6980310 6980310	1 1	O-RING BS018 SLIP RING
	6980370	2	SEAL GROMMET MAIN
	6980360	1	GROMMET BOOT TO BASE RACK
	6980340	1	PLATE NUT GROM BACKING M5
		2	SCREW CSK M5x20
		2	NUT U M5 0.5-3.0mm
		2	ORING BS 901 4.7X1.42MM
	6980330	6	CLIP CABLE TIE EDGE

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FITTING PROCEDURE



1. Refer to BASE Rack fitting kit instructions where, suitable drilling locations may be provided.
2. Plan the location

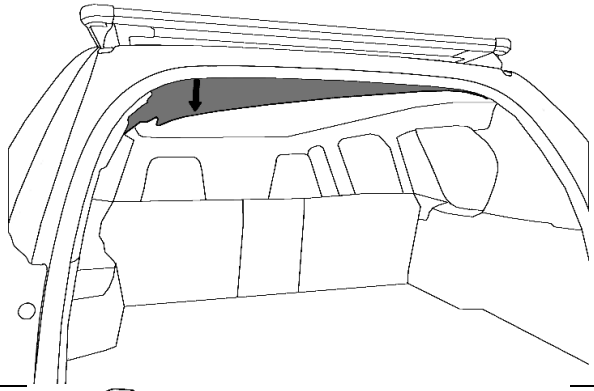
   Option 1 - Direct to device or through rack

   Wiring may run inside a rack, or go straight to a device (e.g. a light)

   Option 2 - Vehicle exit point (front or back, left or right)

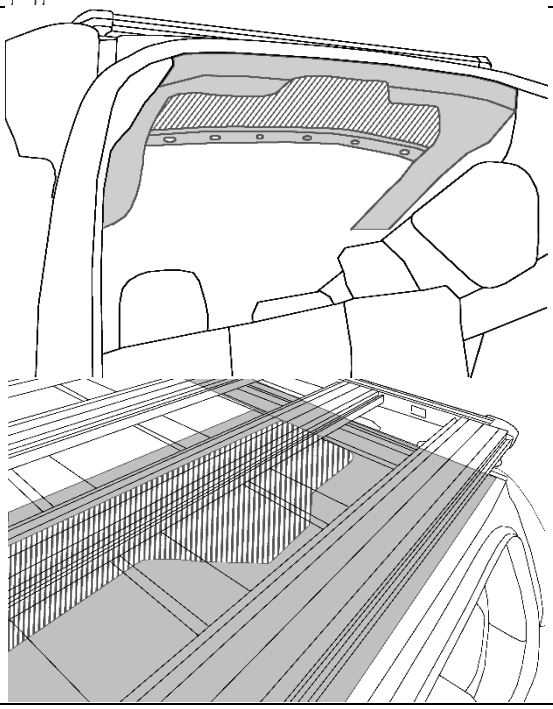
   It is recommended to exit from the rear where possible

   - Read all instructions before starting work



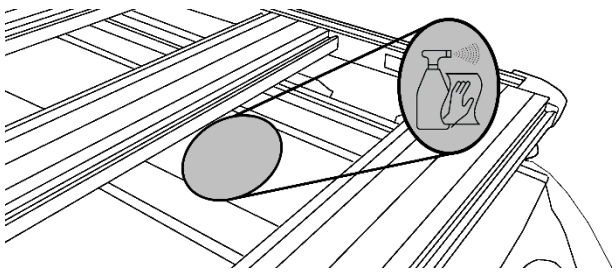
3. Lower the roof lining near the exit point

! Caution - roof linings are easily damaged by creasing as well as easily marked by dirt and grease!



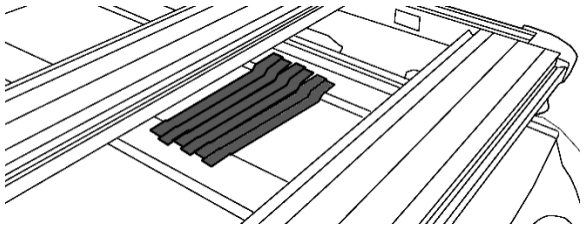
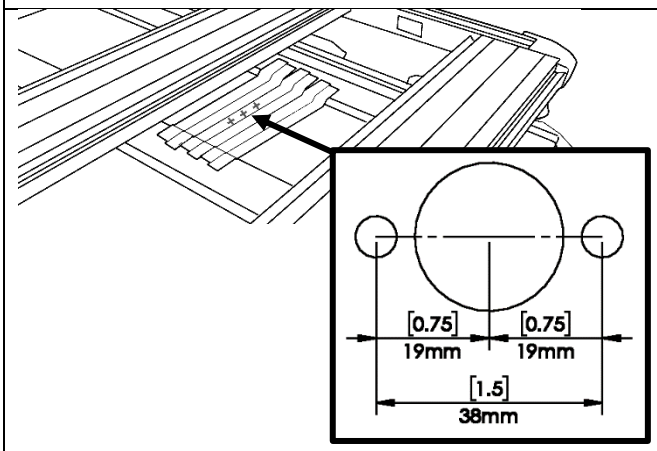
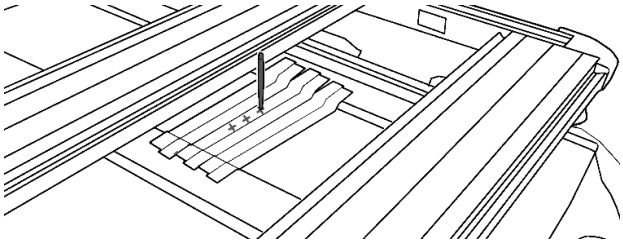
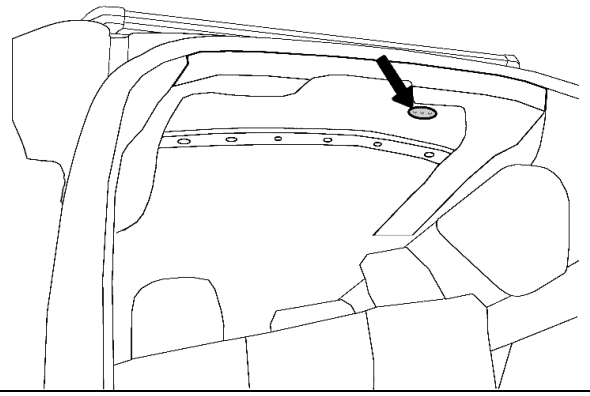
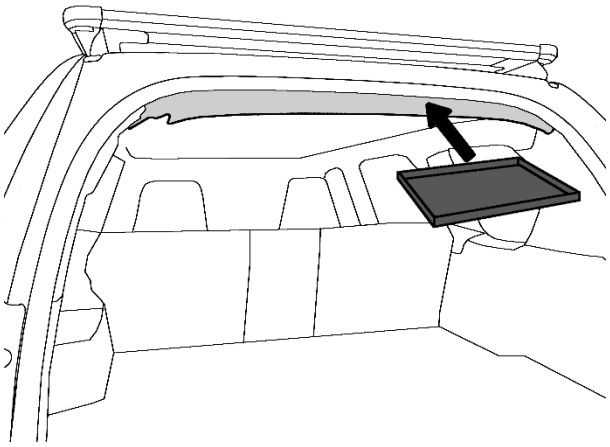
4. Locate a clear area of the roof skin for exit
5. Confirm the area clears the roof rack

! Caution – particular care must be taken to avoid curtain airbags, cross members and air vents!

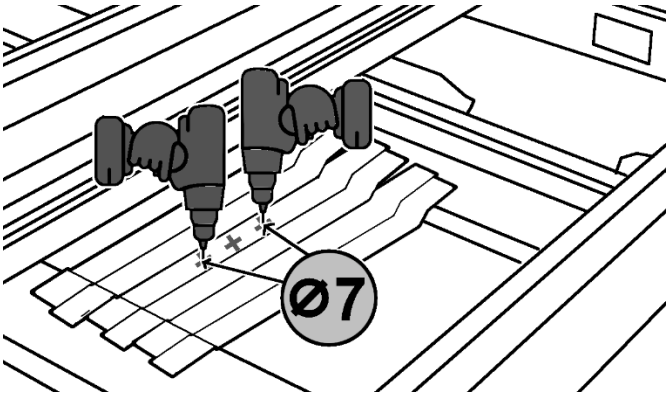
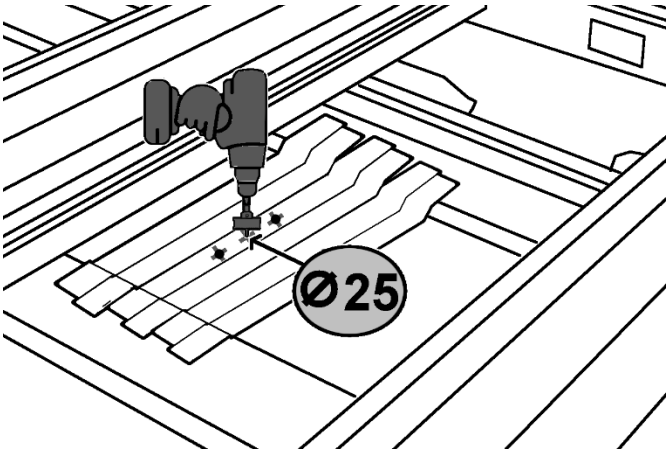
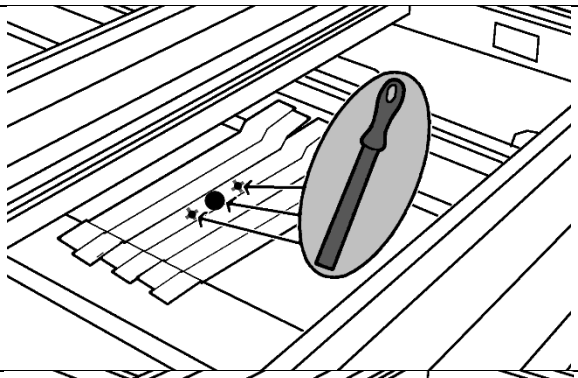
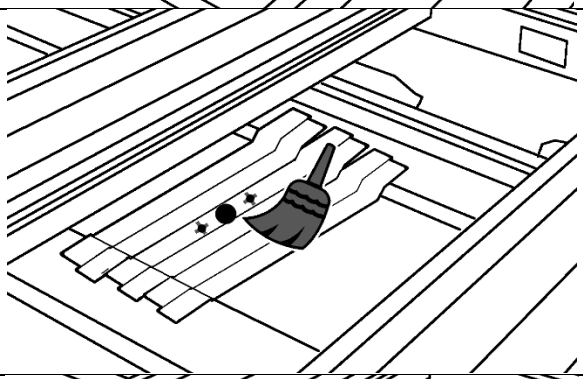
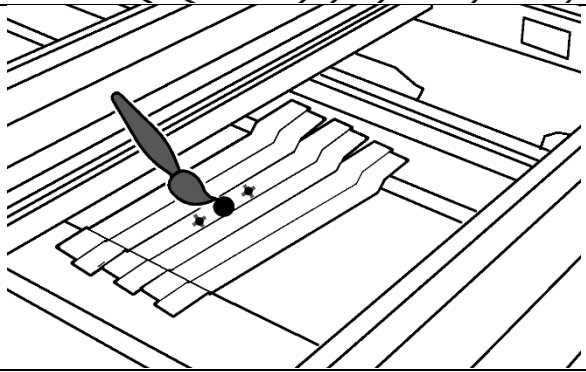


6. Clean the roof near the exit point

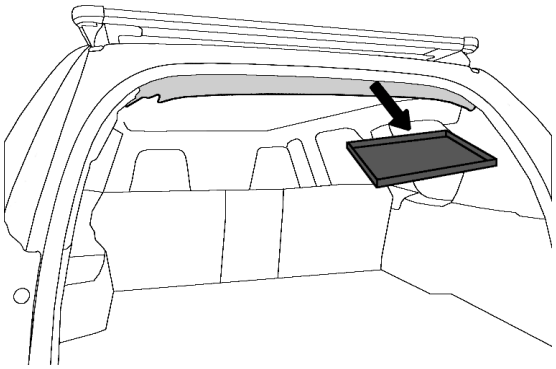
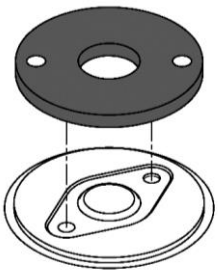
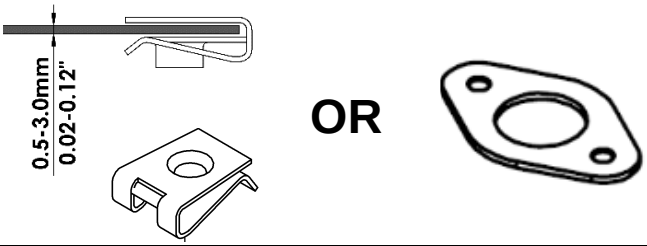
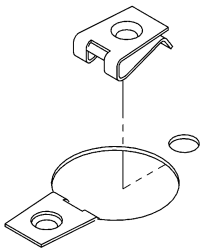
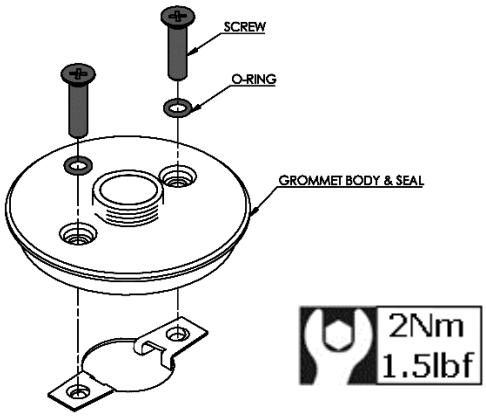
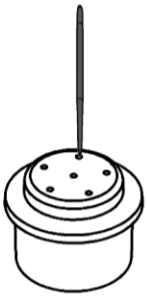
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	7. Lay masking tape over the exit area to protect paint
	8. Mark out the hole locations as per the diagram
	9. Peen the hole positions, to assist drilling and check location
	10. Look inside the roof, check the peen marks are in the correct location
	11. Slide a tray between the head lining and roof skin. Ensure the tray will catch drilling swarf and protect against drilling through roof lining ***Hint: attaching a rod to the tray will make it easier to install and remove***

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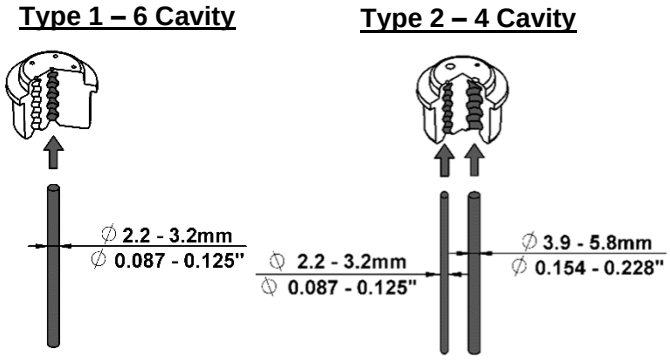
	12. Drill the outer 2 holes to 7mm (9/32”) **! Caution – drill bits may grab on sheet metal, always use a drill stop !**
	13. Drill the centre hole to 25mm (1”) ***Hint: for best results use a sharp good quality sheet metal hole saw. ARB recommends Sutton Tools H1190250*** **! Caution – drill bits may grab on sheet metal, always use a drill stop !**
	14. Deburr all holes
	15. Clean away swarf and debris
	16. Remove tape 17. Paint holes to protect from corrosion

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	18. Remove the tray
	19. Install the mastic seal to the grommet base
	20. For roof thickness up to 3mm(1/8”) use the supplied U-nuts 21. For thick roofs (such as canopies), use the supplied backing plate (note this must be fitted from the inside of the roof)
	22. If using U-nuts, install over Ø7 (9/32”) holes as shown
	23. Fasten the grommet to the roof with the supplied O-rings and M5 screws. Tighten to specified torque
For Non-Wired Kit Only 	24. Use a sharp tool to pierce a hole in the grommet for each wire to be installed. Use the location points on the top surface to guide

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For Non-Wired Kit Only

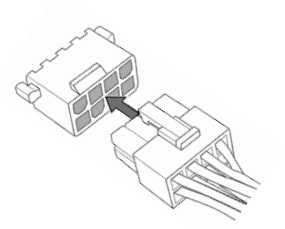


25. Insert one wire through each hole in the grommet. Wire should be in the size range shown to ensure sealing
26. Type 1 and Type 2 grommets suit different wires gauges – refer to diagram for correct wire diameters

Hint: soapy water will aid installation

! Caution: excessive force and dragging may damage the seal!

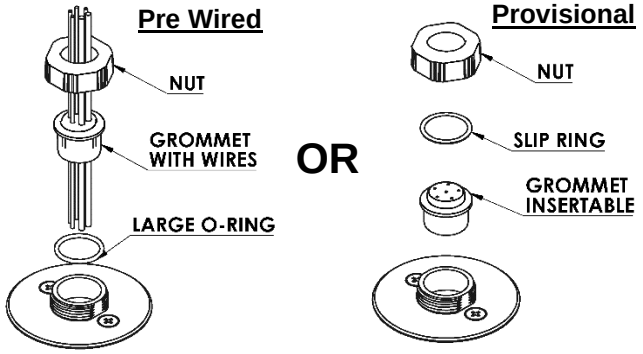
Optional Step



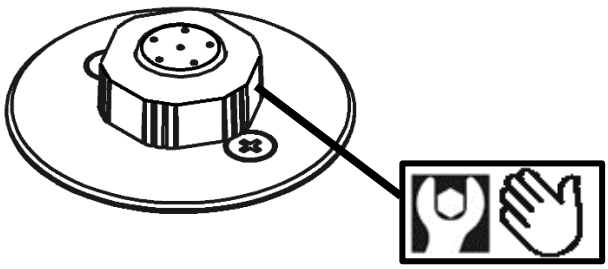
27. Add inline connector(s) to fit inside roof (connector not supplied)

    Adding a connector(s) will aid removal and reinstallation of rack

! Caution: ensure the connector(s) will not cause rattles in roof and can pass through the 20mm (0.79”) drilled hole!

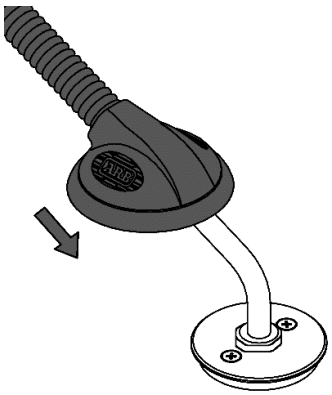


28. Install the wiring gromet, nut and parts as per the diagram
    - For pre-wired version, fit the supplied o-ring, then grommet with wires, then the nut
    - For provisional/insertable version install the insertable grommet, then the supplied plastic slip ring, then the nut



29. Tighten nut by hand

30. The nut will come to a hard stop on the thread



31. Install the boot over the wires and clip the boot over the grommet

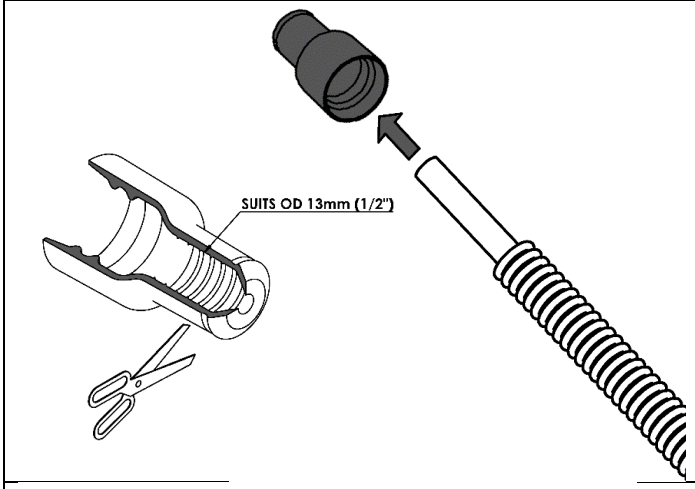
Hint: soapy water will aid installation

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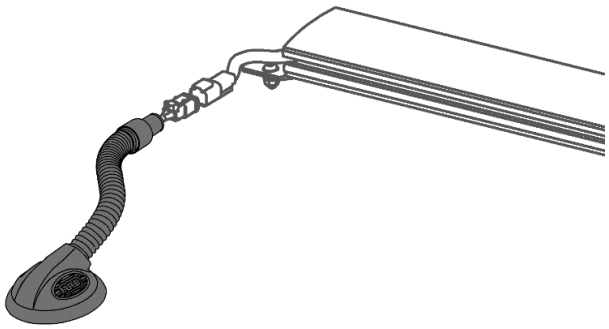
For Direct to Device fitment go to Step 32

For installation into BASE Rack go to Step 35

For Direct To Device

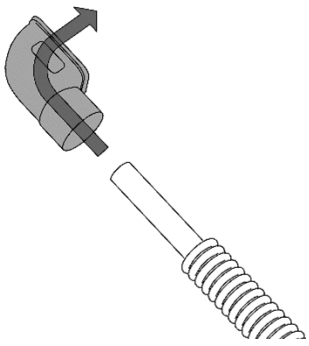


32. Install the direct end boot over the cable and boot tail
33. If the wires do not fit through the hole, the grommet can be cut to accept 13mm (1/2") Outer Diameter convoluted tubing

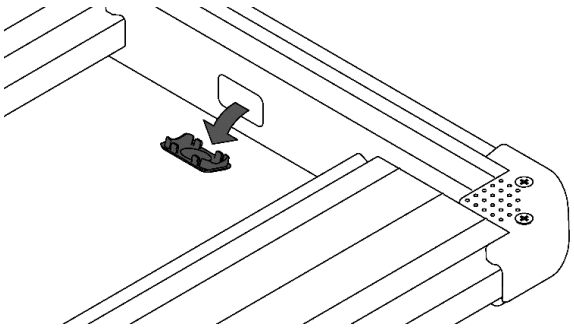


34. Connect to device

For BASE Rack

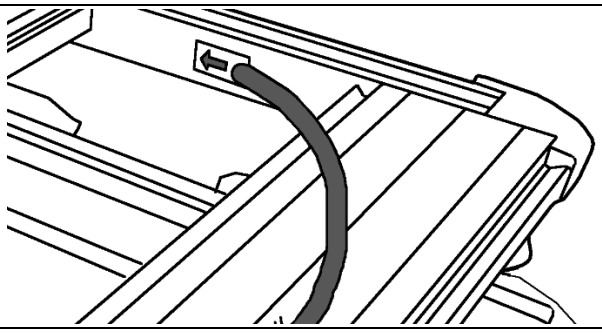
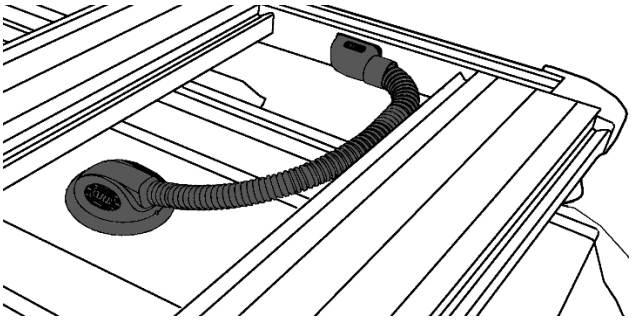


35. Install the BASE Rack Boot over the cable and boot tail



36. Remove the plastic cover from the rack, closest to the roof exit

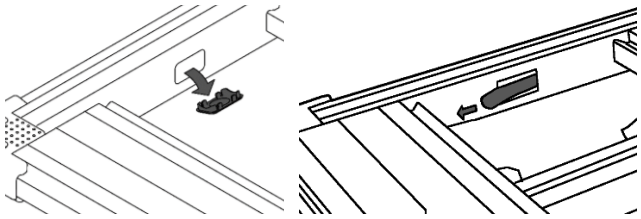
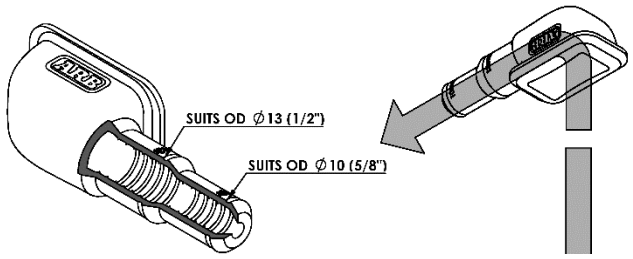
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	37. Pass the wires though the hole in the rack
	38. Clip the BASE Rack Boot into the square hole

EXITING THE BASE RACK

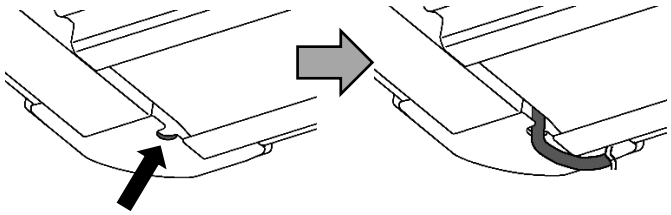
Please note there are multiple options for exiting the rack

Using the square exit boot

	39. Remove the plastic cover from the rack 40. Pull wires through the hole
	41. Pull the wires through the exit boot 42. If the wires do not fit through the hole, the grommet can be cut to accept 10mm (3/8) or 13mm (1/2") Outer Diameter convoluted tubing 43. Clip the boot into the hole

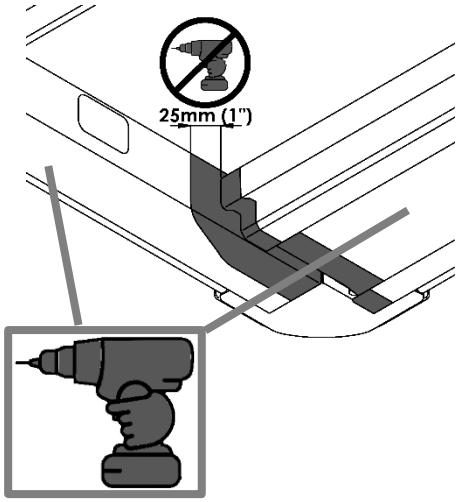
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Notching the end cap



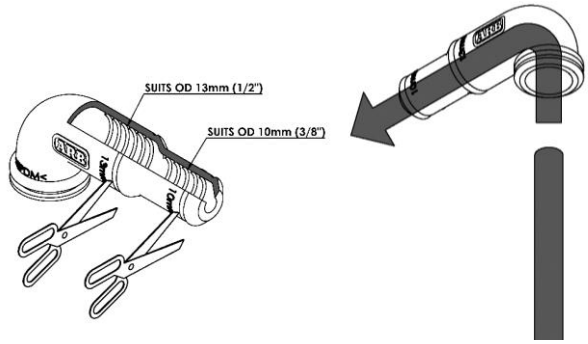
44. Create a small notch in the lower roof rack end cap
45. Guide the wires from the end of the extrusion and out through the notch in the cap

Using optional 6980320 16mm 90º Boot Sold Separately

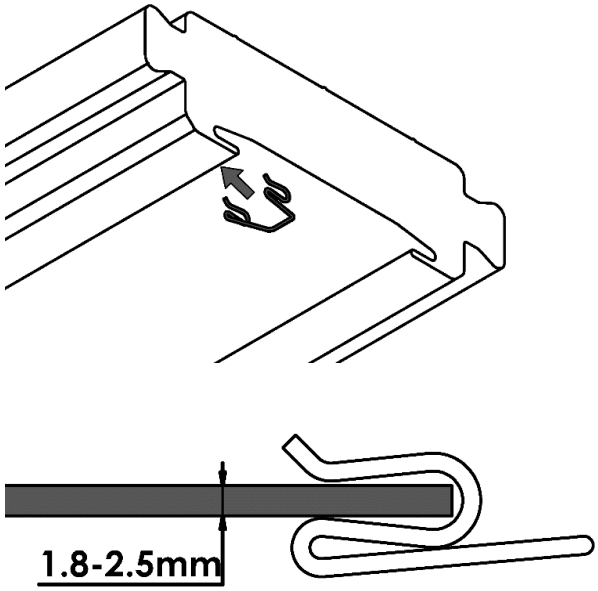


46. Use the boot to exit the BASE Rack, through a 16mm (5/8”) hole
47. Note additional boots can be purchased separately
48. The hole can be drilled in the BASE Rack alloy, minimum 25mm (1”) away from welds areas

! Caution: never drill in welded areas, it may lead to failure !



49. Feed the wires through the 90^{O} Grommet
50. If the wires do not fit through the hole, the grommet can be cut to accept 10mm (3/8) or 13mm (1/2”) Outer Diameter convoluted tubing



51. Use the cable ties and edge clips to neatly route wiring

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