

Part Number: 3440560 3440560K

Product Description: SUMMIT COMBAR SUITS U.S. RANGER 2019 ON

Suited to vehicle/s: FORD RANGER U.S. FITTED WITH RADAR

Optional Kits: 3540310 Panel Infill Kit Wheel Intrusion (Recommended)

3500910 Fog Light Kit LED

3500680 Fog Lamp Housing Clear Lens Kit **3540280** Winch Install Kit Ford Ranger U.S.

3500520 Loom Fog (For vehicles not equipped with factory fog light)

NOTE: ARB recommends purchase of correctly colour coded sensors from a Ford dealer. Painting over sensors is not recommended as sensor operational faults can result.

WARNING

REGARDING VEHICLES EQUIPPED WITH SRS AIRBAG;

When installed in accordance with these instructions, the front protection bar does not affect operation of the SRS airbag.

ALSO, NOTE THE FOLLOWING:

- This product must be installed exactly as per these instructions using only the hardware supplied.
- In the event of damage to any bull bar component, contact your nearest authorised ARB stockist. Repairs or modifications to the impact absorption system must not be attempted.
- ◆ Do not use this product for any vehicle make or model, other than those specified by ARB.
- Do not remove labels from this bull bar.
- ♦ This product or its fixing must not be modified in any way.
- The installation of this product may require the use of specialized tools and/or techniques
- It is recommended that this product is only installed by trained personnel
- ♦ These instructions are correct as at the publication date. ARB Corporation Ltd. cannot be held responsible for the impact of any changes subsequently made by the vehicle manufacturer
- During installation, it is the duty of the installer to check correct operation/clearances of all components
- Work safely at all times
- Unless otherwise instructed, tighten fasteners to specified torque

ARB 4x4 ACCESSORIES

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Fitting instructions# 3789948

GENERAL CARE AND MAINTENANCE

By choosing an ARB Bar, you have bought a product that is one of the most sought after 4WD products in the world. Your bar is a properly engineered, reliable, quality accessory that represents excellent value. To keep your bar in original condition it is important to care and maintain it following these recommendations:

- Prior to exposure to the weather your bar should be treated to a Carnauba based polish on all exposed surfaces. It is recommended that this is performed on a six monthly basis or following exposure to salt, mud, sand or other contaminants.
- As part of any Pre Trip Preparation, or on an annual basis, it is recommended that a thorough visual inspection of the bar is carried out, making sure that all bolts and other components are torqued to the correct specification. Also check that all wiring sheaths, connectors, and fittings are free of damage. Replace any components as necessary. This service can be performed by your local authorized ARB Stockist

Important electrical system information

The 2011-On Ford Ranger uses an advanced wiring system allowing new chassis control systems to be used. Due to this, placing large amounts of additional load to the wiring harness may trigger faults in the ECU or cause permanent damage to the wiring harness.

Maintenance of adaptive cruise control components (if fitted, available on 2015 ON Ranger) must only be performed by an authorized ARB workshop. No adjustments to the radar and/or bull bar are permissible following original fitment unless conducted by your local authorized ARB stockist. Regular cleaning of the radar must be carried out in order to ensure optimal operation. Ensure that no foliage, dirt or material is obstructing the radar's field of vision as this may impact the performance of the radar

FITTING REQUIREMENTS

REQUIRED TOOLS FOR FITMENT OF PRODUCT:

BASIC TOOL KIT	ELECTRIC DRILL & Ø2, Ø5.5,Ø7 & Ø10MM BITS
JIG SAW OR MULTI-TOOL WITH BLADE SUITABLE FOR PLASTIC	MATTE BLACK SPRAY PAINT
FILE OR SAND PAPER	MASKING TAPE
BASIC MEASURING TOOLS	ELECTRICAL TAPE (BLACK)
CORRIGATED SPLIT TUBE (7MM & 12MM)	HACK SAW OR EQUIV.
TORQUE WRENCH 9-100 Nm CAPACITY	LARGE G-CLAMP
LOW TAC PLASTIC TO PROTECT BUMPER	150MM ANGLE GRINDER WITH CUTTING DISC
PAINT MARKER PEN	

HAVE AVAILABLE THESE SAFETY ITEMS WHEN FITTING PRODUCT:

Protective eyewear



Hearing protection



NOTE: 'WARNING' notes in the fitting procedure relate to OHS situations, where 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.

FASTENER TORQUE SETTINGS:

SIZE	Torque (Nm)	Torque (ftlb)
Plastics Screws	0.8	0.6
M6	9	7
M8	22	16
M10	44	32
M12	77	57
M16	90	66

		PARTS LISTING	
APPLICATION.	PART NO.	DESCRIPTION	QTY
_	4654647	MOUNT ASSEMBLY MAIN	1
	4654745R	ASSY REINF DRIVERS RH	1
	4654745L	ASSY REINF DRIVERS LH	1
	4654739R	ASSY REINF PSNGR RH	1
	4654739L	ASSY REINF PSNGR LH	1
	6151360	BOLT M12 x 1.75 x 35 Gd 8.8 ZP	8
FIT MOUNTS TO	4581011	WASHER FLAT M12 x 27 x 4	8
CHASSIS	6151428	NUT FLANGE M12 X 1.75 ZP	8
	6151381	BOLT M10 x 1.5 x 80 Gd 8.8 ZP	2
	4721743	TUBE SPACER 50mm	2
	4581040	WASHER FLAT M10	2
	6151321	NUT FLANGED M10	2
	6151021	BOLT M8 x 1.25 x 20 Gd 8.8 ZP	4
	4584336	WASHER FLAT M8x17x1.6 TZP480	4
	3752435	BRACKET RADAR	1
	6151234	BOLT M8 x 1.25 x 25 Gd 8.8 BP	4
	6151702	SCREW BTN HD TX M6X25 BTZP480	1
FIT RADAR TO	4581307	WASHER FLAT, M8 x 20 x 2 BLK ZN	8
BAR	4584295	WASHER FLAT, M6 BLK ZN	2
	6151547	NUT HEX NYLOC M8 x 1.25 PC8 BTZP480	4
	6151223	NUT HEX NYLOC M6 x 1.0 PC8 BTZP480	1
	3163178	ADAPTIVE CRUISE CONTROL COVER	1
	3194293	NUT PLATE	2
	6151306	NUT CAGED M12 1.8-3.2	6
FIT BAR TO	6151360	BOLT M12 x 1.75 x 35 Gd 8.8 ZP	6
MOUNTS	4581007	WASHER FLAT 1/2 x 1.1/2 x 4MM SILVER	6
	6151357	BOLT SEMS M10 X 30 ZP Gd 8.8	4
	6151321	NUT FLANGE M10 x 1.5 ZP	4
MISC	180302	CABLE TIE 4.8 X 180 MM BLACK	12
	6151256	SCREW BTN HEAD M6 x 1.0 x 16 SS	2
FIT LICENSE	4581304	WASHER FLAT M6 X 12 X 1.2 SS	2
PLATE TO BAR	5848302	PACKER NYLON OD 20 x ID 6 x 4.8 BLK	2
	6151128	NUT FLANGE M6 x 1.0 ZP	2
	6151213	BOLT M6 x 1.0 x 20 Gd8.8 BZ	4
FIT WINCH	4584295	WASHER FLAT M6 X 12 X 1.3 BLK ZN	4
ACCESS PANEL	6151128	NUT FLANGE M6 x 1.0 ZP	4
-	6523251	PRESS FORM WINCH COVER PANEL	1

	PARTS LISTING		
APPLICATION.	PART NO.	DESCRIPTION	QTY
	6523297	PANEL CENTRE STONE GUARD	1
	6523296R	PANEL WING RH	1
	6523296L	PANEL WING LH	1
	6523298R	PANEL FILL IN RH	1
	6523298L	PANEL FILL IN LH	1
	3758957	BRACKET WING PANEL	2
	6151132	NUT FLANGE M8 x 1.25 ZP	9
	4581082	WASHER FLAT, M6 x 19 x 1.6 BZ	10
FIT UNDER	4581047	WASHER SPRING M8 x 3/32 x 3/33 BLK	14
PANELS	4581287	WASHER SPRING M6 x 2.5 x 1.6 BLK ZN	10
	6151234	BOLT M8 x 1.25 x 25 Gd 8.8 BP	16
	6151213	BOLT M6 x 1.0 x 20 Gd8.8 BZ	10
	6151300	NUT CAGED M6 2.6-3.5	10
	6151301	NUT CAGED M8 3.3-4.7	7
	6522838	PANEL SPLASH RANGER T6	1
	6151357	BOLT SEMS M10 X 30 ZP Gd 8.8	2
	6151321	NUT FLANGE M10 x 1.5 ZP	2
	4581307	WASHER FLAT, M8 x 20 x 2 BLK ZN	16
	6821287	LAMP LED INDICATOR CLEARANCE	1
	3163082	KIT SURROUND ARB FOGLIGHT	1
LIGHTS AND	6821116	GROMMET NYLON SNAP IN TYPE	4
MOULDINGS	3500880	GRILLE SPLIT PAN KIT	1
	5100200	BUFF KIT 2PCE FRONT SECTION	1
	5100210	BUFF KIT 2PCE REAR UPRIGHT BAR	1
PARKING SENSORS	3540290	SENSOR SURROUND KIT (4) SUITS U.S. RANGER	1
WINCH INSTALL KIT	3540280	WINCH INSTALL KIT SUITS U.S. RANGER	1
FOG LIGHT KIT LED	3500910	FOG LIGHT KIT LED	1
	4654796R	INFILL PANEL RH	1
INFILL PANEL KIT	4654796L	INFILL PANEL LH	1
(OPTIONAL)	6151234	BOLT HEX M8 x 1.25 x 25	2
(3, 11010,12)	4581307	WASHR FLAT M8 x 20 x 2	2
	6151132	NUT FLANGE M8 x 1.25	2

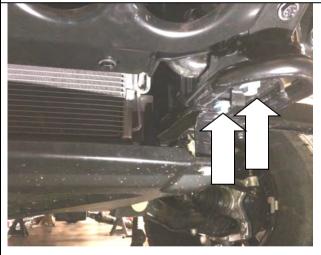




Note: Read the instructions thoroughly before starting.

- 1. Remove fasteners surrounding number plate.
- 2. Pop lower plastic piece off to expose steel bumper attachment area.
- 3. Remove steel bumper (8x nuts) and shroud behind it taking care to disconnect sensors, radar and fog light connectors in the process.





 Remove factory tow hooks from both sides of chassis rail including factory stone guard and set aside along with fasteners removed.



5. Remove captive bolt assembly from each side of the chassis rail.



- 6. Mark line onto tow hook as shown and cut tab off using an angle grinder with cutting disc.
- 7. File away any burs left behind and spray cut surface with black spray paint.





Warning: Cutting operations can result in flying debris, safety glasses should be worn.



8. Carefully remove 4x front parking sensors and wiring harness from steel bumper and set aside.

Note: When fitting parking sensors to the bar it is important that they are installed in the correct orientation. Take note of orientations and mark with white felt tip pen.





Discard OE Housings

Keep Sensor & Grommet



- 9. Carefully remove radar and radar mount bracket from steel bumper and set aside.
- 10. Detach radar from bracket.
- 11. Remove and dispose of plastic clip on cover located on front of radar.

CAUTION: Radar units are sensitive devices. Handle with care. Avoid dropping or bumping the unit as it is being prepared for fitment.



- 12. Position the factory radar bracket onto the ARB supplied radar bracket as shown.
- 13. Using radar unit as a guide, mark lines across top and bottom of radar bracket removed in step 10 as shown.
- 14. Using an angle grinder with cutting disk, cut along sections marked in previous step.
- 15. File away any burs left behind.
- 16. Spray cut edges with black touch up paint.



Warning: Cutting operations can result in flying debris, safety glasses should be worn.

FITTING PROCEDURE - FOG LIGHTS

17. Following fitting instructions 3789197 supplied in kit 6821287; install the LED combination lamp looms (also supplied in same kit).

Notes:

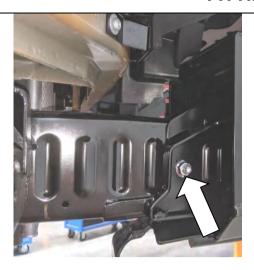
- -Use a test light or multimeter to pick the appropriate wire to attach the loom to.
- -Cover each joint with either insulation tape or heat shrink tube.
- Use cable ties to secure all wiring

Function	LED Wire	Vehicle Wires (Based off XLT)
Ground	Black	Green (RHS)
		Green (LHS)
Indicator	Green	Brown (RHS)
		Brown (LHS)
Clearance	Red	Yellow (RHS)
		Yellow (LHS)



INDICATOR

*LHS shown

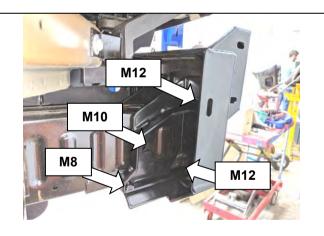


18. Loosely fasten 4x reinforcement brackets to chassis using M10x1.5x80mm Bolts, M10 washers, 50mm spacer tubes and M10 flange

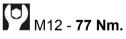
CAUTION: Take care not to drop spacer tube into chassis whilst feeding through.



- 19. Loosely fasten together mounts and reinforcement brackets to front face of chassis using 8x M12 fastener sets.
- 20. Make reference measurement to body work or grille in order to get mounts as central as possible to vehicle.



- 21. Loosely fasten reinforcement brackets to mounts using M8 fasteners sets.
- 22. Tighten all fasteners starting with M12's, M10's and finishing with M8's.





M10 - **44 Nm**.



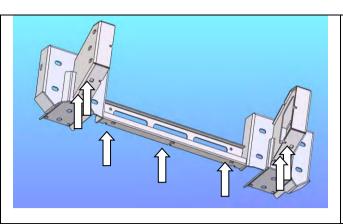
M8 - **22 Nm**.



Fasten factory tow hooks back onto chassis 23. using factory fasteners removed in Step 4.



M12 - **77 Nm**.



24. Fit 7x M8 cage nuts into mount locations as shown.



25. Fit 3 x M12 cage nuts to each of the cage nut plates as shown.



26. Fasten factory radar bracket with radar in place to ARB radar bracket using M8 fasteners sets as shown.



M8 - **22 Nm**.

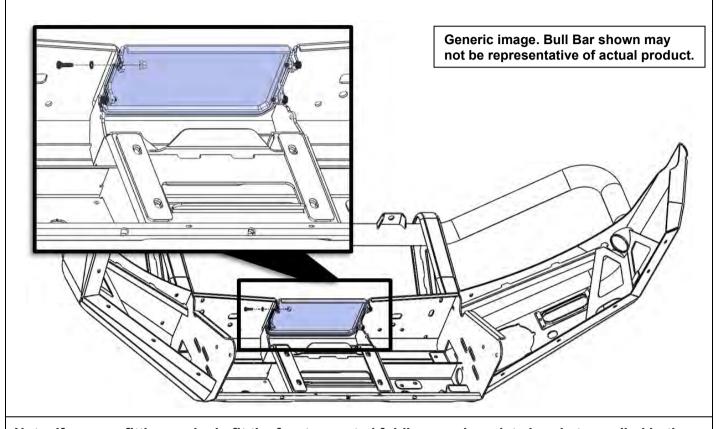


27. Use a square edge to check that the radar front faces are perpendicular to the inside faces of the Upper and Lower Pan at the front of the bar. Make any adjustments if necessary.

Note: If fitting a winch proceed from here using fitting instructions 3789883 supplied with 3540280 winch install kit. Once the winch is fitted please continue to step 39. If no winch is being fitted continue from here.

- 28. Slide the winch cover panel from the bottom up until it is level with the top face of the bar.
- 29. Fit the winch cover panel to the bar using 4 x M6 x 20 hex bolts, flat washers and flange nuts.

Warning: Be careful not to scratch the finish of the winch cover panel.



Note: If you are fitting a winch, fit the front mounted folding number plate bracket supplied in the winch install kit "3540280 WINCH INSTALL KIT" Supplied with the bar – See fitting instructions 3789883

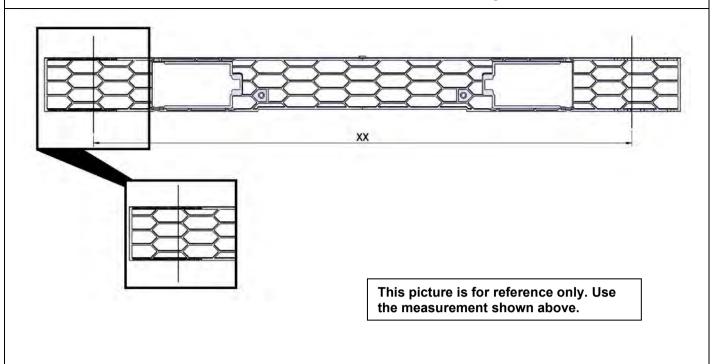
Note: The following steps show the fitment of the plastic moulded parts. The mouldings are supplied in kits along with all fasteners required for fitment. It is important that the fasteners supplied with each kit are only used for the mouldings from the same kit. The kits included in this bar kit are as follows:

30. Layout the contents of each of the following kits ensuring the contents are kept separate from each other.

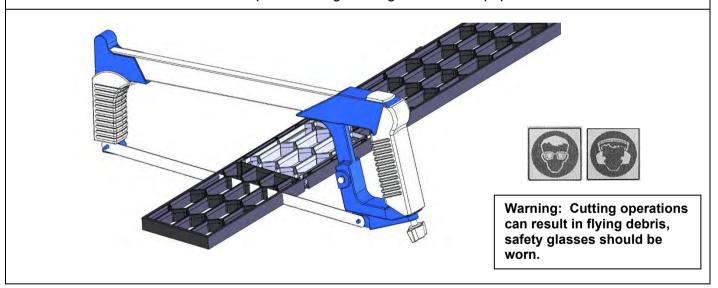
Kit No.	Description
5100200	BUFF KIT 2PCE FRONT SECTION
5100210	BUFF KIT 2PCE REAR UPRIGHT BAR
3500880	SPLIT PAN MESH KIT
3163082	FOG SURROUND KIT

31. Mark the grille panel to be cut at the 810mm marks at each end on the back face.

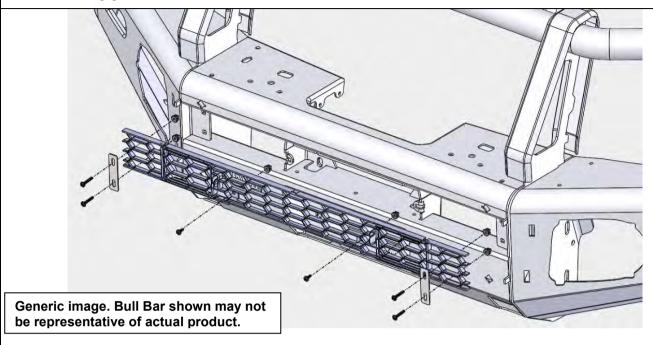
Note: When marked, double check the measurement with a measuring tool.



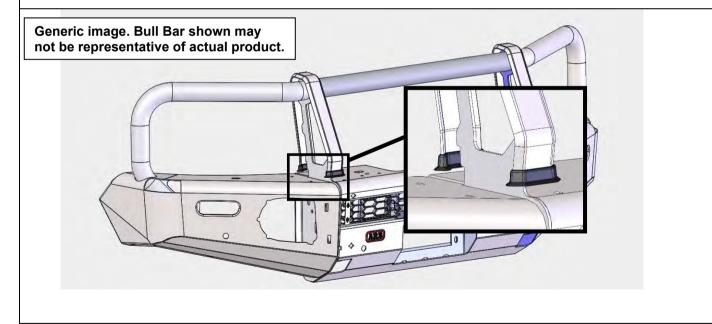
- 32. Use a hacksaw or similar cutting tool to carefully cut the grille panel at the positions marked in the step above.
- 33. Discard the off cuts and clean up the cut edges using a file or sandpaper.



- 34. Insert the 6 x plastic grommets into the 6 square holes in the front face of the bar.
- 35. Insert the grille into the bar so that the hatches open outward (facing the front of the bar).
- 36. Attach the grille to the centre of the bar using the short screws into the grommets fitted above.
- 37. Attach the ends of the grille to the bar using the longer screws, through the clamp plates into the remaining grommets.



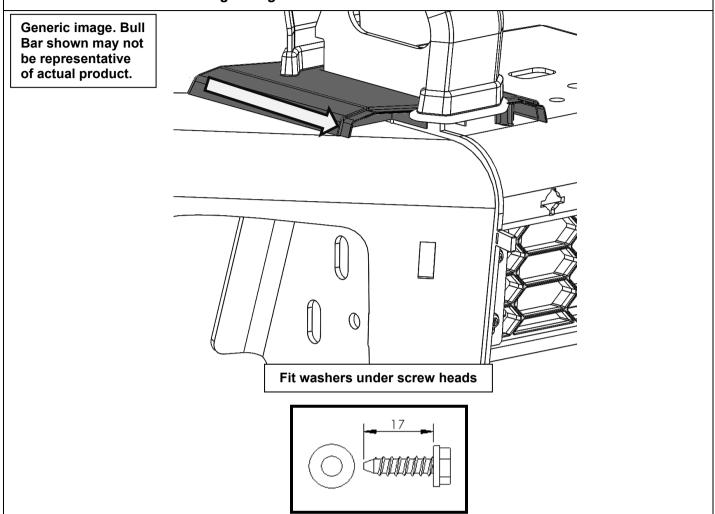
38. Fit the rubber intersection mouldings to the base of each upright cover strap.



39. From the rear of the bar, slide the rear buffer sections under the rubber mouldings.

Fit 4 x screws and washers. Do not tighten screws. Leave enough play in buffers for adjustment later.

Note: Ensure that the skirts of the rubber intersection mouldings are not folded back on themselves and are sitting flat against the buffers.

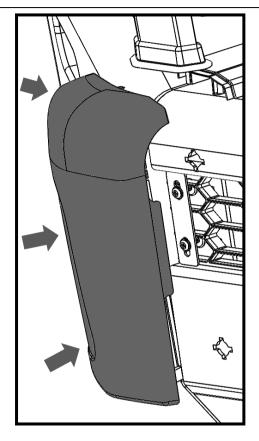


40. By aligning the front buffer with the tongue of the rear buffer, attach the front buffers to the front face of the bar. Ensure each buffer sits flat against the face of bar and is keyed into the top section of the rear buffer.

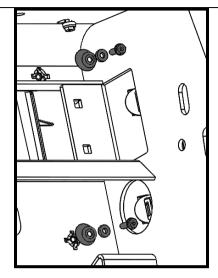
Secure wing side using retaining clips.

Secure inner side using the angled cup washers, flat washers and screws.

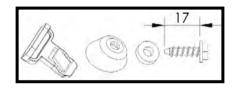
The widest point of the cup washers goes to the top of the bar.

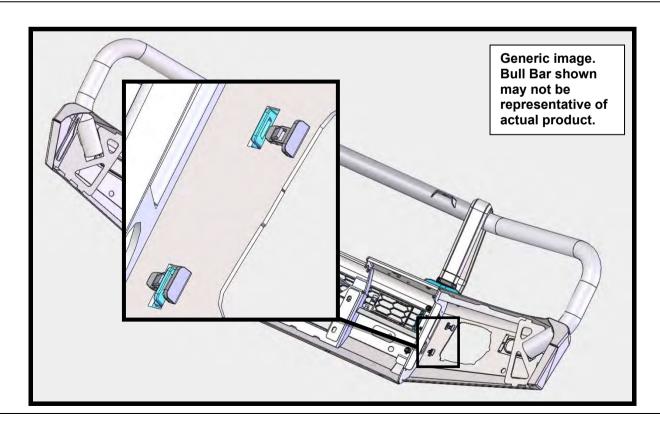


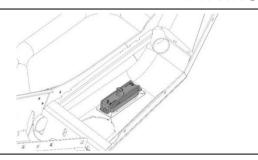
Generic image. Bull Bar shown may not be representative of actual product.



Fit washers under screw heads.



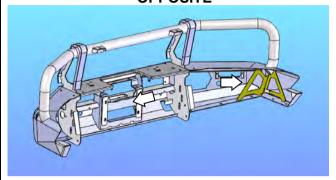




41. Fit the small plastic grommets to the bar and attach the combination LED lamps to the bar using the screws provided with the lamp kit.

Caution: Cable tie all cables together and keep all cables clear of sharp edges and moving parts.

SENSOR ORIENTATION: RHS SHOWN, LHS OPPOSITE



PARKING SENSOR FITMENT:

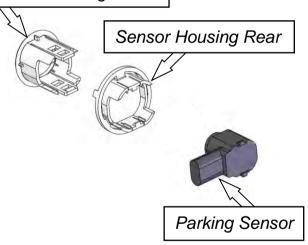
NOTE: Painting over sensors is not recommended as sensor operational faults can result. ARB recommends purchase of correctly colour coded sensors from a Ford dealer.

HINT: Tale note of markings on sensors performed earlier in the fitment.

Note: When fitting parking sensors to the bar it is important that they are installed in the correct orientation. The arrows to the left show the direction the plug end of the sensors should face.

42. Fit the Sensor Housing Front to the bull bar. Placing the housing through the bar from the front of the vehicle.

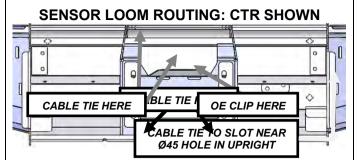
Sensor Housing Front



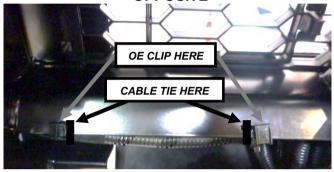
- 43. From the rear of the bar clip the Sensor Housing Rear to the Front Housing. Check that both clips are engaged properly. If clips don't engage apply pressure on the outer ring of the Rear Housing.
- 44. Clip the sensor into the housing. Check that both clips are engaged properly.

IMPORTANT:

- 45. Ensure that the rubber Sleeves remain on the sensors.
- 46. Ensure that each sensor is central in the hole and not pressed to one side.
- 47. Ensure that each sensor is installed in the correct orientation.



SENSOR LOOM ROUTING: LHS SHOWN, RHS OPPOSITE



- 48. Beginning on the LHS, route the parking sensor loom around the wing brace and through the 2x 45mm holes in the bull bar uprights. Use the 1x integrated OE clip on the harness and 1x cable tie to secure the loom segment with the main connector to the Wing Brace as shown.
- 49. Connect loom to sensors.
- 50. Centre loom on bar and cable tie to 2x slots at centre of Lower Pan in the lower return.
- 51. Secure loom to bull bar on each side of the winch cradle using the 2x integrated OE clips on the harness and 2x cable ties through the 2x slots in the Lower Pan return flanges.

NOTE: Wiring harness must not be pulling on sensors.



52. With the assistance of another person, place the bar on the mount brackets.

Warning: Due to the weight of the bar and winch if fitted, it is advised that you use some form of mechanical assistance when lifting the bar onto the vehicle such as an elevating trolley.

BEFORE:



RADAR HARNESS CONNECTION:

53. Locate the OE radar harness and cut the cable tie that creates the loop near the connector end. The two integrated "arrow" clips will be used later to attach the harness to the bar.

AFTER:

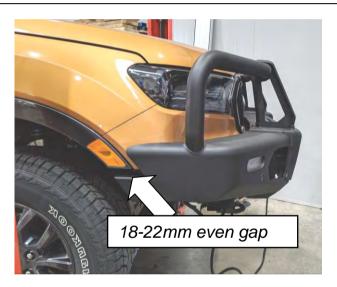




54. As the bar is being offered up to the vehicle, locate and connect the OE radar harness to the connector on the back of the radar unit.



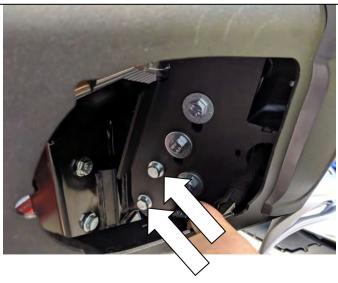
- 55. Attach the bar to the mount bracket using 3 x M12 x 35 bolts and 3 large diameter M12 flat washers, into the nut plates which are placed inside the box upright sections of the mount bracket. *Leave loose at this stage.*
- 56. Repeat for LH side



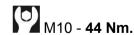
- 57. Centralise the bar and tighten all mounting bracket related fasteners to the specified torque.
- 58. Position the bar so that it is level and there is an even gap of approximately 18-22mm at the outside feature edge where wing meets flare.
- 59. Tighten all remaining fasteners to the specified torques for M10 and M12 sizes.



NOTE: Reposition mounts laterally if bar not central.



- 60. Double check the position of the bar.
- 61. When happy with the position of the bar drill 2 x Ø10mm pinning holes using the pre-cut holes in the bar uprights as guides.
- 62. Use paint or rust protection on the drilled holes.
- 63. Pin the holes using 2x M10 x 30 SEMS bolts and 2x M10 flange nuts.
- 64. Repeat for LH side.







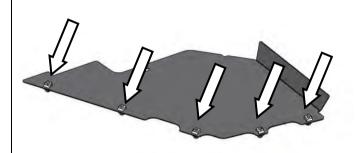
Warning: Drilling operations can result in flying metal debris, safety glasses should be worn.



- 65. Assemble and install combination light surrounds (p/n 3163082) as per instructions no. 3789190 supplied with surround kit. Note: Optional fog lamps can be installed at this point as per fitting instruction supplied with fog lamp kit no. 3500910.
- 66. Connect indicator loom and reconnect parking sensor loom, secure cabling.

 Check the operation of parking sensors and all lights wired.

CAUTION: Cable-tie all cables together and keep all cables clear of sharp edges and all moving parts.

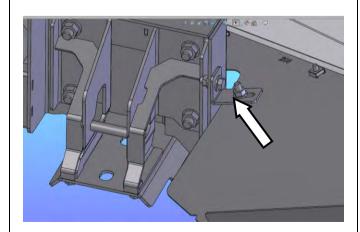


67. Fit 5 x M6 cage nuts to each of the under wing panels as shown.

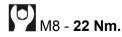


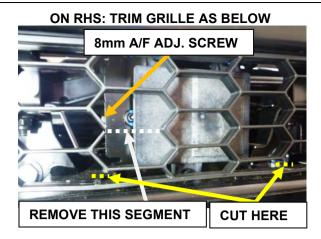
- 68. Fit the RH under wing panel to the RH wing as shown and attach using 5 x M6 x 20 hex bolts and 5 x M6 flat washers.
- 69. Repeat on the LH side.





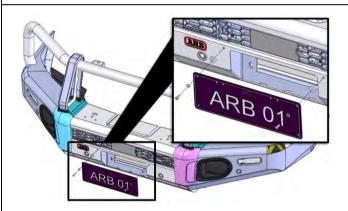
70. On each side of the bar attach the underwing panel to the mount bracket with the wing panel bracket using 2 x M8 x 25 hex bolts, 2 x M8 flat washers and 2 x M8 flange nuts.





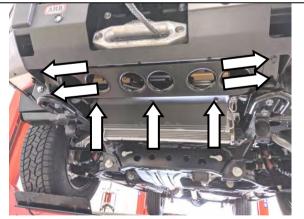
- 71. **RHS**: Use side cutters to trim the plastic grille to enable access to the 8mm radar adj. screw and central fitment of the cover.
- 72. **IMPORTANT:** Front face of radar should be perpendicular to ground. If not adjust accordingly.
- 73. Fit the adaptive cruise control cover to the front of the grille as shown below.





74. Fit the number plate to the front face of the lower pan on the bar using 2 x button bead screws M6 x 16 SS, 2x washer flat M6x12 SS, 2x Packer Nylon and 2x M6 flange nuts as shown.

Note: Non-winch set up shown.



75. Attach the centre stone guard to the mount bracket using 7x M8 x 25 hex bolts and 7x M8 flat washers into the cage nuts fitted earlier.





76. Re-fit Factory stone guard.

Note: ARB recommends fitting ARB UVP Kit to replace FX4 style factory stone guard if fitted.

FITTING PROCEDURE INFILL PANEL KIT 3540310 (RECOMMENDED)



77. Loosen outermost M12 bolt on wheel intrusion bar on both sides.



- 78. Position panel onto intrusion beam as shown and mark hole centre from infill panel onto wheel intrusion bar.
- Remove panel and drill 9mm hole at position marked.
- 80. Remove burs on edges of hole drilled and spray with black spray paint.





Warning: Cutting operations can result in flying debris, safety glasses should be worn.



Fasten panel onto wheel intrusion bar using M8 hardware supplied in 3540310 and retighten factory M12 bolt.



M8 - **22 Nm**.



NOTICE: ONCE SUMMIT BAR IS FITTED:

- **♦** Ensure all bolts are tensioned correctly.
- All wiring is clear of sharp edges or moving surfaces and secured properly.
- ♦ Piping is secured well away from sharp or moving components.
- **◆** Check operation of winch, if fitted.
- ♦ Check all wiring and connections to turn signal lamps, sensors, radar, headlamp washers etc. are functioning correctly.
- ♦ Misalignment of parking sensors may cause malfunction.
- ♦ Misalignment of radar to bull bar may cause malfunction.
- ♦ Test operation of parking sensors and radar after fitment.

NOTE:

Do not add any accessories to the Bull Bar on or around the radar or sensors as this may affect their function.

Radar and Sensors may not function well under the following conditions:

- ♦ After the vehicle, has been sitting out in hot or cold weather.
- ♦ When the system is affected by electrical equipment or devices generating an ultrasonic wave.
- ♦ When operating in bad weather.
- ♦ If the radar or sensors are covered with ice, snow, dirt etc.

FITTED PRODUCT

