



# FITTING INSTRUCTIONS

Part Number: **3940550**  
Product Description: **BUMPER SUITS FORD RAPTOR**  
Suited to vehicle/s: **AUSTRALIAN FORD RAPTOR**

Optional Kits: **AR21 ARB INTENSITY V2 21 SPOT AND FOG LIGHTS**  
**AR32 ARB INTENSITY V2 32 SPOT AND FOG LIGHTS**  
**3500480 ABB Driving light wiring harness SUITS V2 (1 harness per pair of lights)**

**AR40 ARB INTENSITY 40 LIGHT BAR**  
**3500810/3500820 ARB light bar wiring loom/ ARB light bar loom extension**

## 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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# 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 Ford Raptor 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.*

### FITTING REQUIREMENTS

#### REQUIRED TOOLS FOR FITMENT OF PRODUCT:

BASIC TOOL KIT	ELECTRIC DRILL AND Ø10mm DRILL BIT
TORQUE WRENCH 9-100 Nm CAPACITY	BASIC MEASURING TOOLS

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

Protective eyewear		Hearing protection	
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**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

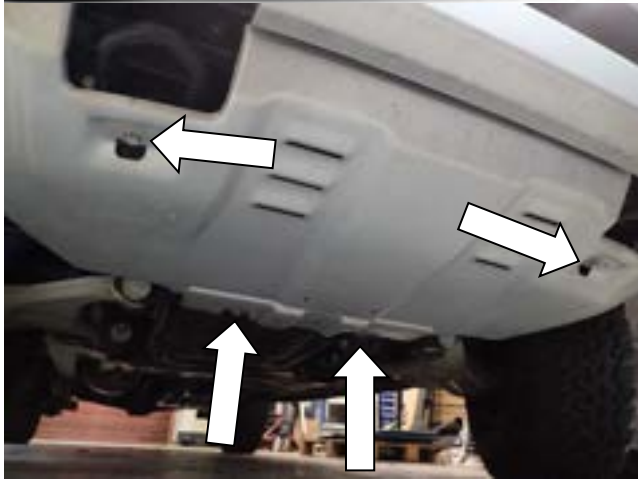
APPLICATION.	PART NO.	DESCRIPTION	QTY
FIT MOUNT BRACKET TO CHASSIS	3752511L	BRACKET CHASSIS CLAMP LH	1
	3752511R	BRACKET CHASSIS CLAMP RH	1
	3752512L	BRACKET CHASSIS TOP CLAMP LH	1
	3752512R	BRACKET CHASSIS TOP CLAMP RH	1
	4654668	RAPTOR REX CHASSIS MOUNT ASSY	1
	5818170	SLEEVE RAPTOR 2019	2
	4581011	WASHER FLAT M12X27X4 ZP	2
	6151480	NUT FLANGE M12X1.25 PC8.8 TZP480	2
	6151689	BOLT HXHD M12X1.25X90 PC10.9 ZP	2
	6151898	NUT FLANGE M10X1.5 PC10 ZAS1000	10
	6151232	BOLT HXHD M10X1.5X30 PC8.8 TZP480	10
	4581040	WASHER FLAT M10x25x3 TZP480	10
FIT BAR TO MOUNT BRACKET	6151480	NUT FLANGE M12X1.25 PC8.8 TZP480	6
	6151545	BOLT HXHD FL M12X1.25X35 PC8.8 BTZP480	6
	6151898	NUT FLANGE M10X1.5 PC10 ZAS1000	4
	6151232	BOLT HXHD M10X1.5X30 PC8.8 TZP480	4
	4581040	WASHER FLAT M10x25x3 TZP480	4
	4654667	RAPTOR BUMPER	1
FIT LICENSE PLATE TO BAR	6151443	SCREW BHD M6 x 20 BZP	2
	6151173	NUT FLANGE M6 ZNB480	2
	4584329	WASHER FLAT M6 X 12.2 X 1.2 BTZP480	2
FIT UNDER PANELS	6523304L	PANEL UNDER WING RAPTOR	1
	6523304R	PANEL UNDER WING RAPTOR	1
	3752510L	BRACKET WING BRACE LHS RAPTOR	1
	3755210R	BRACKET WING BRACE RHS RAPTOR	1
	6523305	RAPTOR REX UNDER TRAY	1
	6523306L	AIR DEFLECTOR LHS	1
	6523306R	AIR DEFLECTOR RHS	1
	4584404	WASHER FLAT M12X31.75X2.5   SUPAZINC 480HR	8
	6151094	BOLT HXHD M12x1.25x30   PC8.8 ZP	8
	6151315	NUT CAGED M6 0.7-1.6	12
	6151715	NUT CAGED M6 3.6-4.5	4
	4581082	WASHER FLAT M6 X 20 ZNB480	24
	6151213	BOLT HXHD M6 X 20 PC8.8 ZNB480	20
	4581307	WASHER FLAT M8 X 20 X 2 BZP BLACK	4
	6151234	BOLT HXHD M8 X 1.25 X 25 PC8.8 BTZP480	4
	6151301	NUT CAGED M8 3.3-4.7 1238-C	4
	6151173	NUT FLANGE M6 ZNB480	4
	6151480	NUT FLANGE M12 X 1.25 PC8.8 TPZ480	8
FOG LIGHTS	3163197	FOG LAMP HOUSING SUITS TOYOTA	1
	3752693L	BRKT LED FOG LAMP MOUNT LH	1
	3752693R	BRKT LED FOG LAMP MOUNT RH	1
MISC	3789963	F/INST 3940540 SUITS FORD RAPTOR	1
	180302	CABLE TIE 4.8 X 180 MM BLACK	10

## FITTING PROCEDURE



**Note: Read the instructions thoroughly before starting.**

1. Remove factory under panel and factory tow/recovery mounts.  
Set aside and retain all fasteners for reinstall later.



2. Remove the 2x screws used to secure the lower plastic front bar. Carefully detach piece from vehicle and set aside.



3. Disconnect the Bumper wiring loom, 2 x connectors.



4. Remove the 2 outside fasteners from each side of the bumper mounts. These fasteners are to be kept and reused.

## FITTING PROCEDURE



5. Using a blunt object, push the retaining clips for the Factory air scoop to loosen.  
One for each side.



6. Supporting the Bumper, undo and remove 2 fasteners per side and carefully remove the bumper. These fasteners are to be kept and reused.



7. Place the Bumper so that the front face is down.

Disconnect the fog light connectors and antenna.

Remove the antenna and set aside with fasteners for later.



8. Remove the outside plastic covers.
9. Remove the Factory Air Scoop
10. Remove all fasteners and separate the bumper from Steel frame
11. Remove wiring loom and fog lights, set aside.





12. While there is easy access, fit the antenna using the factory fastener.



13. Using the retaining clips, fit the antenna up onto the plastic above



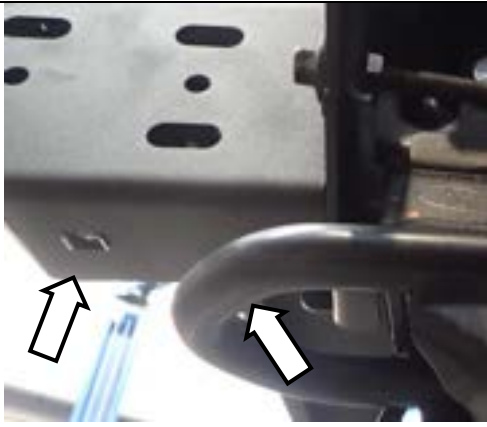
14. Insert crush tube through chassis being careful not to drop, access is attained through the front if needed.



15. Fit Chassis mount and install factory fasteners. Take note of the position of the 90mm long bolts.

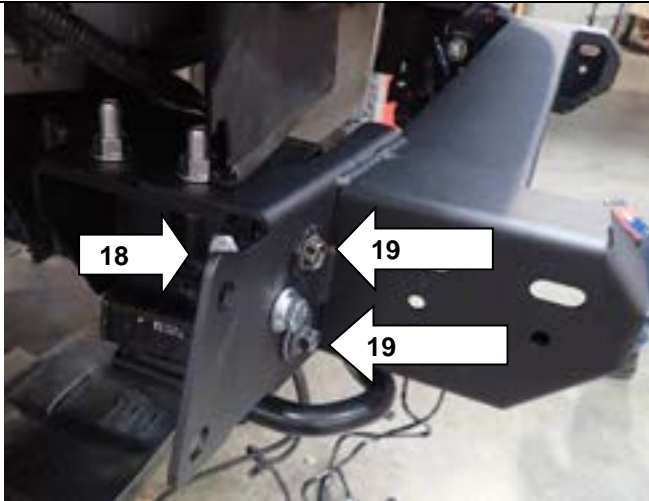
16. Using the factory fasteners for the tow point, fit the rear most bolt to support the outside chassis clamp.





17. Install 4 x M8 cage nuts inside chassis mount.

**Keep these fasteners loose at this stage.**



18. Fit the inside chassis clamp and install the M12 x 90mm fastener through the 2 side plates and the crush tube.

19. Install the short OE fasteners and centralize the Chassis mount.

20. Torque up the bolts and fit the remaining fasteners, all bolts are installed from the bottom for easy access to bolt heads.

21. Reinstall the Factory tow points.



M10 - 44 Nm.



M12 - 77 Nm.





22. Move OE loom to behind rubber skirt.
23. If fitting AR21, AR32 or AR40 use F/INST appropriate to the model and install loom now.  
Horn mount is an appropriate location for the earth.

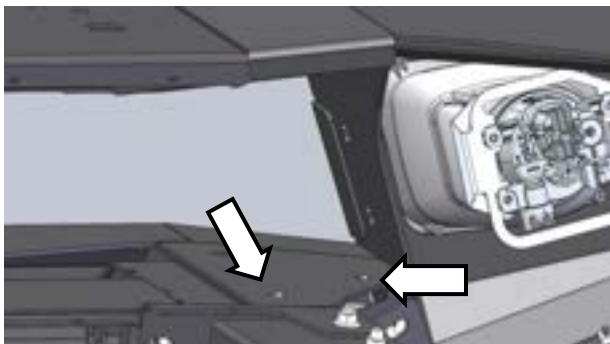


24. Fit Fog Light brackets to Fog Light housing. Take note of the 2 notches in bracket for direction, this is UP.  
Disregard the brackets supplied in the kit.

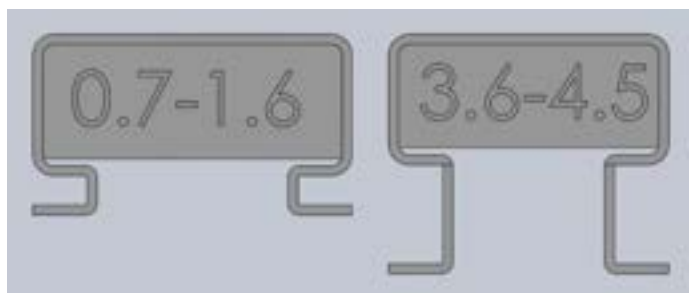


25. Fit fog light housing to bumper, refer to instructions in kit 3163197.

## FITTING PROCEDURE



26. Fit 2 x M6 Cage nuts per side in locations shown. These cage nuts are for 3.6-4.5 thickness material. (4 off included ONLY in the Fitting kit)





27. Support the bar and carefully offer it up to the Chassis mount. Install 6 x M12 bolts (3 per side) into the slots from the inside pointing out. Fit the nuts then align the bar and tighten all 6 fasteners.
28. Check alignment and gaps, 20mm is the ideal gap between the bar and the vehicle body. The rear wing tip should align with the wheel arch. Realign if needed and torque to the correct figure.
29. Using a  $\text{Ø}10.0\text{mm}$  drill bit, drill the 4 pinning holes and install the M10 fasteners using the correct torque figure.



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



M10 - 44 Nm.



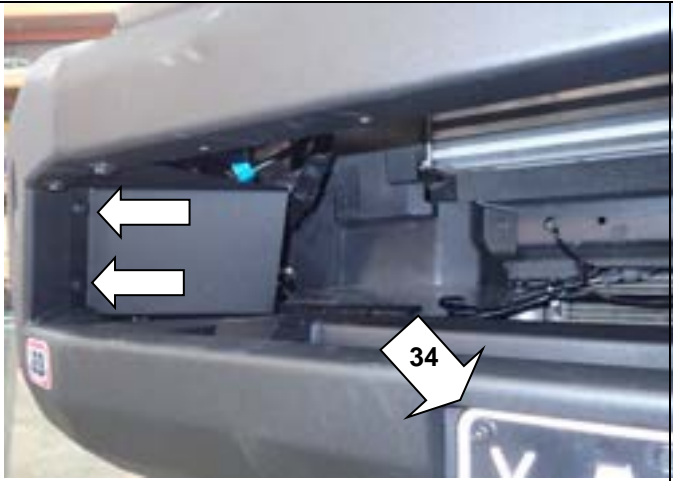
M12 - 77 Nm.



30. Install wing braces using 4 x M12x25 bolts, 4 x M12 washers and 4 x M12 nuts per side.  
LHS shown



31. Re-Install the factory fog light loom and connect the antenna. Use the zip-ties and slots provided and tie off the loom.
32. Check that all lights and radio are functional before fitting under panels.




33. Fit 1x M6 0.7-1.6 cage nut to the slot in the air deflectors then fit to each side of the opening of the Bumper, 5 x M6x20 bolts and 5 x M6 flat washers per side. The 2 x M6 bolts going into the uprights have flat washers and nuts fitted inside. Shown by Arrows.



34. Fit the number plate using 2 x M6 button head cap screws, 2 x M6 washers and 2 x M6 flange nuts.



 M6 - 9 Nm.

35. Fit 5 x M6 cage nuts to each under wing panel then fit to bar using 5 x M6x20 bolts and 5 x M6 flat washers.



36. Using the M8x25 bolts and M8 flat washers, fit the undertray to the chassis mount. Align keeping minimum of 5mm clearance.



37. Reinstall the factory under panel with factory fasteners.



**ONCE BAR IS FITTED:**

**Ensure all bolts are tensioned correctly.**

**All wiring is clear of sharp edges or moving surfaces and secured properly.**

**Check all wiring and connections to fog lights and optional ARB driving lights are functioning correctly.**



Please dispose of the packaging and excess components appropriately.