



ELITE 3-LOOP WINCH BAR

FITTING INSTRUCTIONS



FORD RANGER RAPTOR 2018-2021

PK105FGLED0ELF/PKFG1LFFRR18E

Fitting Time : approx. 3 hours

BULL BAR SAFETY NOTICE:

INSTALLATION SHOULD ONLY BE DONE BY APPROPRIATELY QUALIFIED OR EXPERIENCED PERSONS
IN ACCORDANCE WITH THESE INSTRUCTIONS.

IT IS THE RESPONSIBILITY OF THE INSTALLER TO ENSURE THAT THE PRODUCT IS CORRECTLY FITTED.

WARNING:

Do not attach Vehicle Frontal Protection System (**VFPS**) to the vehicle using anchorages
not intended for this purpose. (e.g. engine mounting bolts)

Do not use this product for any vehicle make or model, other than those specified by the
VFPS manufacturer.

Do not remove the plaque or label from the VFPS.

Do not modify the structure of the VFPS in any way.

The VFPS has been produced to provide continued functionality of parking sensors and
other "driver assist" features as closely as possible to Original Equipment. However,
as all possible road conditions and combination of other accessories fitted to the
vehicle which may affect functionality characteristics cannot be anticipated, ***the driver
remains responsible at all times for properly controlling the vehicle, monitoring all "driver
assist" features and intervening where required to ensure the vehicle is safely operated.***

IMPORTANT INFORMATION:

Before installing the VFPS:

Check that all components, as listed in the assembly table, are available.

Thoroughly read all instructions.

This product or its fasteners must not be modified in any way.

These instructions are accurate as at the revision date and do not take into account any changes
made by the vehicle manufacturer to vehicle design after the revision date or other
accessories that are or have been fitted to the vehicle. Piak cannot be held responsible for
such changes and appropriate enquiries should be made before installation.

Before installing, inspecting and/or maintaining the VFPS, the work space should be safe and
clear of fuel, debris, electrical or other components.

During installation:

It is the responsibility of the installer to confirm correct operation/clearance of all components.
All holes drilled shall have all burrs and swarf removed then coated with a suitable rust
preventative paint.

Ensure that all hardware is fastened to torque list as detailed in these instructions.

MAINTENANCE AND CARE:

To ensure continued safety and correct operation of the product, the VFPS must be routinely inspected and regularly serviced (including bolt torque checked for correct tension) by an appropriately qualified or experienced person.

The high tensile fasteners supplied with this product were used to achieve the specified rating. If replacement of the fasteners is required, fasteners of the same rating and quality must be used.

If this VFPS is fitted with a hinged number plate bracket, extra care must be taken when returning back to public roads following the use of the winch or conducting a deep water crossing.

The driver must ensure that the number plate bracket is returned back to the down position allowing full visibility of the number plate when returning to public roads.

EQUIPMENT:

These safety products should, at a minimum, be used when fitting or working on the product.



Protective Glasses



Hearing Protection

Installation in accordance with these instructions and adherence to warnings will ensure compliance with relevant regulatory and safety standards as at the revision date.

Failure to adhere to these instructions may affect the roadworthiness of the vehicle or cause personal injury, death or damage to property.

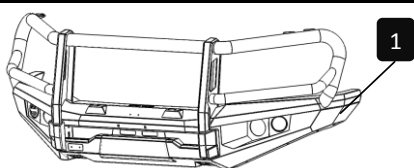
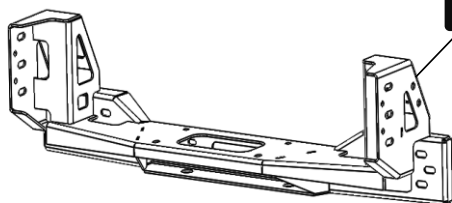
BY USING THIS PRODUCT YOU ACKNOWLEDGE AND AGREE THAT TO THE EXTENT PERMITTED BY LAW PIAK WILL NOT ACCEPT LEGAL OR OTHER LIABILITY FOR ANY LOSS, INJURY OR DAMAGE CAUSED BY INCORRECT OR INAPPROPRIATE INSTALLATION OR USE OF THE PRODUCT.

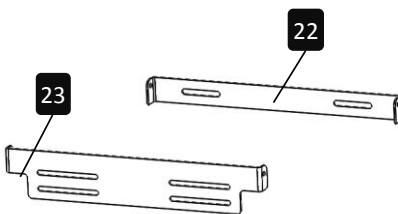
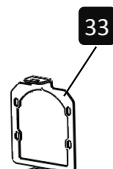
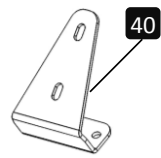
TOOLS REQUIRED

1. Torque , Socket wrench
2. Screw driver
3. Open spanner
4. Flexible plug socket
5. Long offset wrench
6. Adhesive Tape
7. Masking Tape
8. Fine sandpaper
9. Drill and metric drill bits

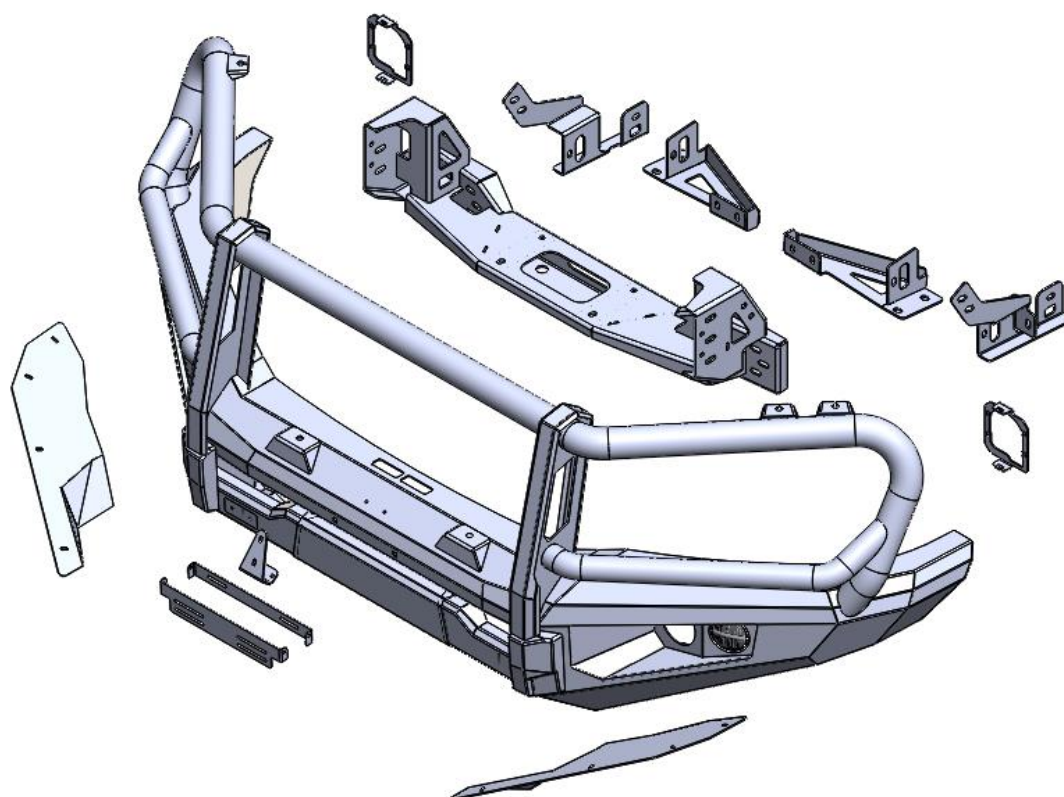
PARTS LIST

⚠ Important : Check contents of fitting kit before commencing fitment and re port any discrepancies.

Steel Bull Bar			
Item	Component Name	Q'ty	Remarks
1	Winch Bull Bar	1	
Mounting Bracket (RH & LH)			
Item	Component Name	Q'ty	Remarks
2	Chassis Mounting Bracket	1	
3	Mounting Bracket Support (LH&RH)	2	
4	Mounting Bracket Support(Outer)(LH&RH)	2	
5	Plate nut M12x1.5	2	
6	Hex Bolt M10x35x1.5	24	
7	Hex Bolt M10x90x1.25	2	
8	Spring Washer M10 Zn	26	
9	Flat Washer M10 OD27	40	
10	Hex Nut M10x1.5	12	
11	Flange Nut M10x1.25	2	
12	Hex Bolt M12x35x1.5	8	
13	Spring Washer M12	8	
14	Flat Washer M12 OD33	14	
15	Hex Nut M12x1.5	6	

License Plate Bracket			
Item	Component Name	Q'ty	Remarks
22	License Plate Bracket (Inner)	1	
23	License Plate Bracket (Outer)	1	
24	Hex Bolt M6x20x1.0	4	
25	Spring Washer M6	4	
26	Flat Washer M6 OD20	6	
27	Button Head Bolt M6x20x1.0	2	
28	Nyloc Nut M6x1.0	2	
29	Nylon Washer M6	4	
30	Flat Washer M6 OD14	4	
31	Flange Nut M6x1.0	2	
32	Cage Nut M6x1.0x3T	2	
Fog Light Bracket			
Item	Component Name	Q'ty	Remarks
33	Fog Light Bracket	2	
34	Hex Bolt M6x20x1.0	4	
35	Spring Washer M6	4	
36	Flat Washer M6 OD20	8	
37	Flange Nut M6x1.0	12	
38	Hex Bolt M6x15x1.0	8	
39	Flat Washer M6 OD14	16	
Winch Control Plate			
Item	Component Name	Q'ty	Remarks
40	Winch Control Plate	1	
41	Hex Bolt M6x20x1.0	2	
42	Spring Washer M6	2	
43	Flat Washer M6	4	
44	Flange Nut M6x1.0	2	

COMPONENTS OVERVIEW



TORQUE SETTING OF FASTENER

Mounting bolts must be tightened to torque's specified following ;

Bolt Diameter (mm.)	Class 8.8		Class 10.9	
	Torque (Nm.)	Torque (ft-lb.)	Torque (Nm.)	Torque (ft-lb.)
M6	10.5	7.7	15	11.1
M8	25.5	18.8	36.5	26.9
M10	50.5	37.2	72.2	53.3
M12	88	64.9	126	92.9
M14	140	103	200	148

FITTING PROCEDURE



- 1 Then remove OEM Plastic radiator cover attached to the top of grille.



- 2 Unclip and remove the grille from vehicle and place on a soft surface.

Notice- Refer to vehicle repair manual for correct removal procedure.



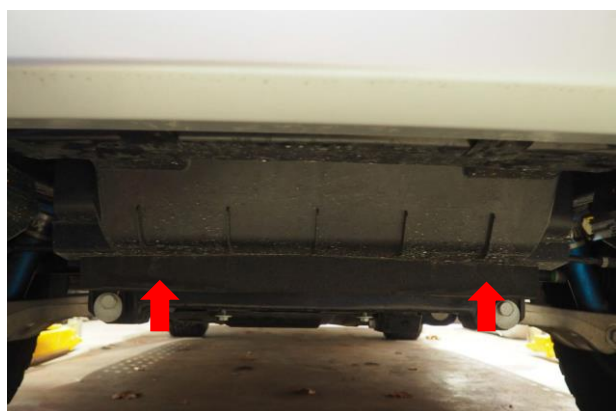
- 3 Remove and discard the screws retaining the bumper bar in the wheel arch.

Repeat the opposite side.

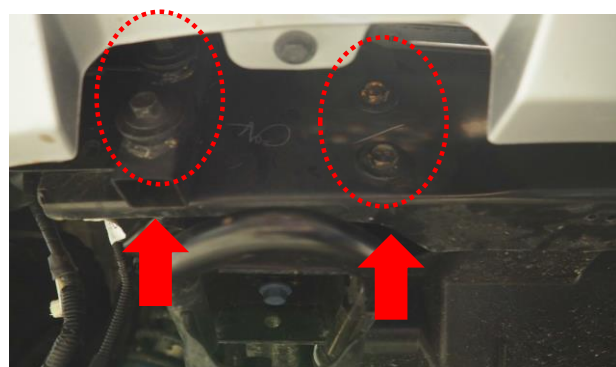
FITTING PROCEDURE



- 4 Remove and retain the under bodyplate and its fasteners.



- 5 Remove the 2 white plastic clips that are retaining the inner plastic underbody plate to the chassis at the back.



- 6 Remove the 4x Bolts retaining the bumper assembly to the vehicle. Do this on both sides.



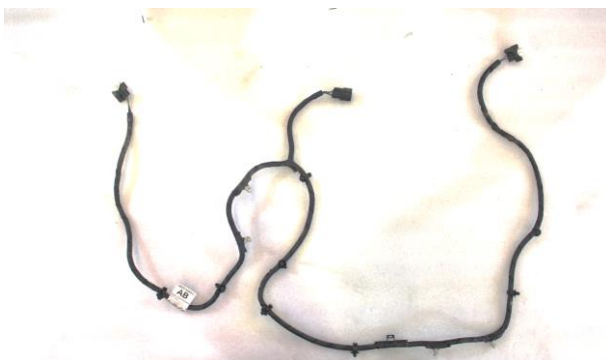
- 7 Remove the bumper assembly from the vehicle.

Carefully remove and retain the key-less entry module from the bumper.

FITTING PROCEDURE



- 8 Remove the key-less entry module.



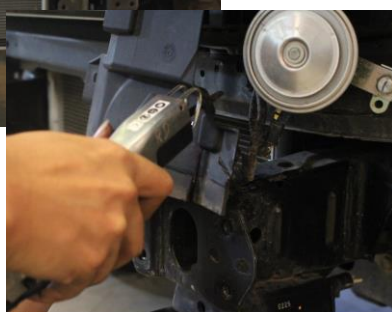
- 9 Remove the fog light loom .



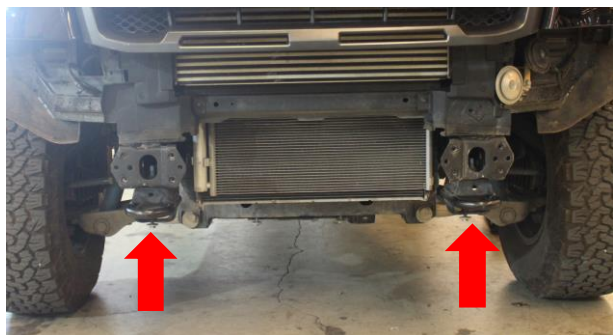
- 10 Reinstall the key-less entry module onto the vehicle under the drivers side head light as seen in image.



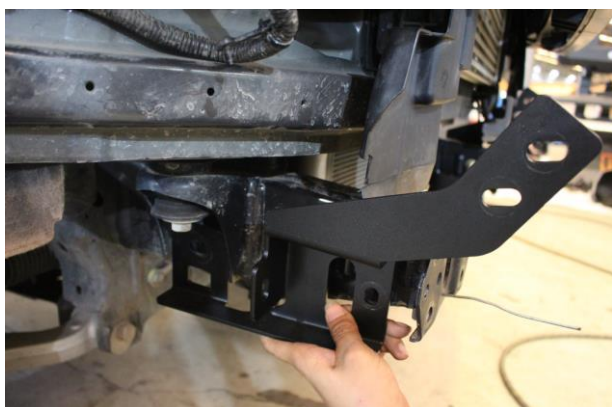
- 11 Trim off the bottom section of the air dam plastic as shown in image.



FITTING PROCEDURE



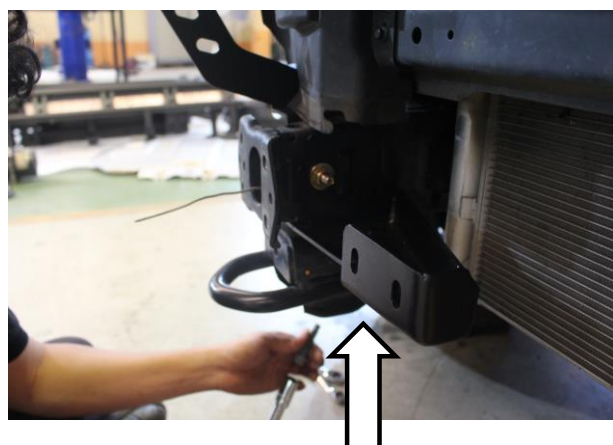
- 12 Remove and retain the tow points on the vehicle along with the mounting bolts.



- 13 Connect chassis support bracket (outer) onto the chassis mount and insert wire bolt through the hole of bracket.

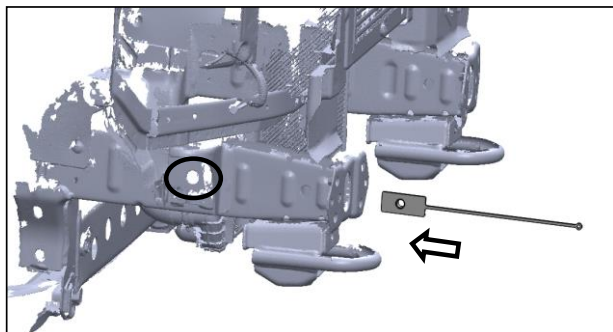


- 14 Connect chassis support bracket onto the chassis mount and insert wire bolt through the hole of bracket.

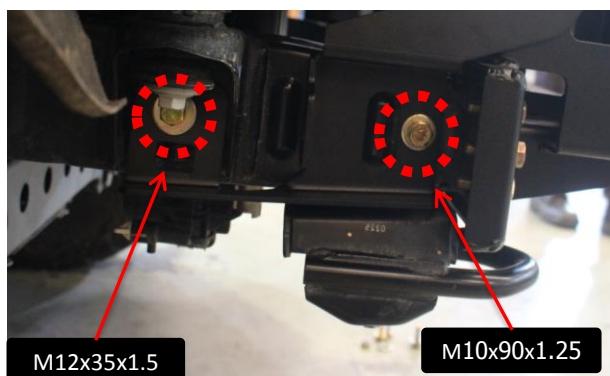


- 15 Reinstall the retain the tow points on the vehicle along with the mounting Using original bolts.

FITTING PROCEDURE



- 16** Insert Plate nut M12x1.5 into the LH /RH chassis mount of vehicle as shown.



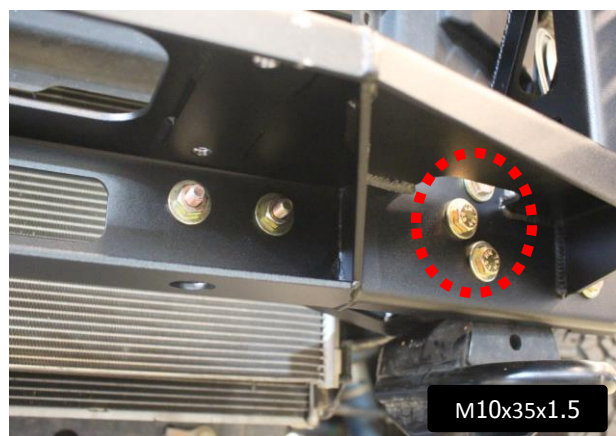
- 17** Using M12 x 1.5x 35mm hex bolts ,M12 spring ,flat washers and Plate nut M12x1.5 .

M10 x 1.25x 90mm hex bolts, M10 spring ,flat washers and Flange nut loosely fit the chassis support bracket .



- 18** Lift the chassis mounting bracket onto the chassis of vehicle.

Using threet M10 x 1.5 x 35mm hex bolts, M10 spring , flat washers and hex nut loosely fit the chassis mount bracket.



- 19** Using threet M10 x 1.5 x 35mm hex bolts, M10 spring , flat washers and hex nut loosely fit the chassis mount bracket.

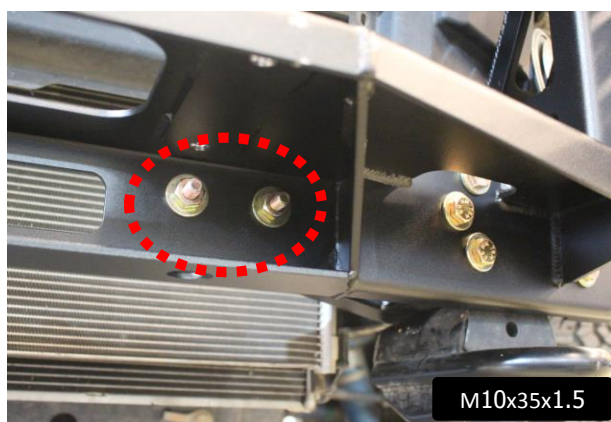
Repeat the opposite side.

FITTING PROCEDURE



- 20** Secure the chassis mount bracket to the chassis support assembly with two M10 x 1.5 x 35mm hex bolts, M10 spring , flat washers and hex Nut.

Repeat the opposite side.

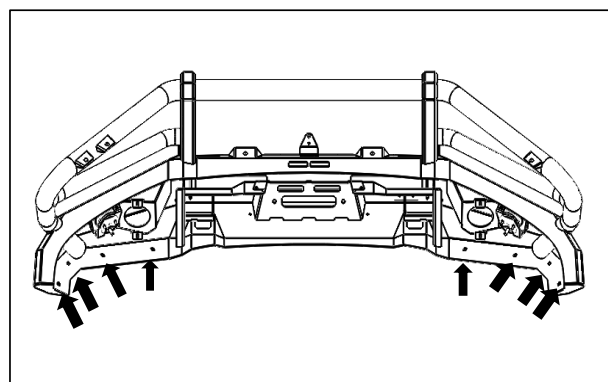


- 21** Secure the chassis mount bracket to the chassis support assembly with two M10 x 1.5 x 35mm hex bolts, M10 spring , flat washers and hex Nut.

Repeat the opposite side.



- 22** location of winch on the chassis mount bracket.
Reinstall original under body plate .

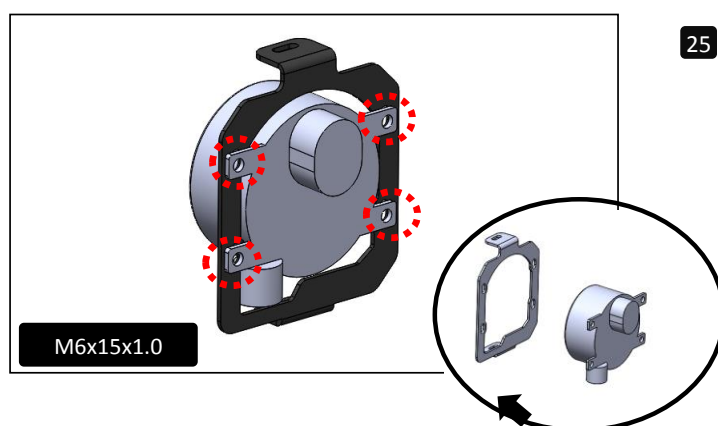


- 23** Insert eight M6x1.0x3T cage nuts onto the bullbar as indicators.

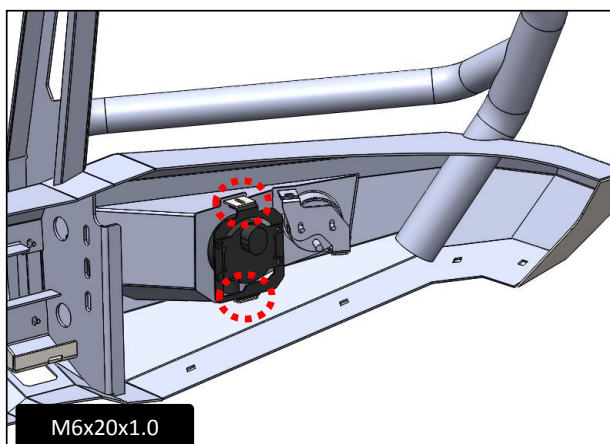
FITTING PROCEDURE



- 24** remove the original fog light from the bumper bar.



- 25** Fit original fog light on the Fog light Bracket. using M6 x 1.0 x 15 hex bolts flat washers and Flange Nut M6.



- 26** Fit Fog light Bracket on bar. using two M6 bolts (flat washers and Flange Nut.

Repeat the opposite side.

Using a LED test lamp or multi meter locate the "Parking Lights" wires. Wires are located behind the headlamp inside the engine bay.

PIAK LED Harness codes

- Indicator Yellow
- Park brown
- Earth White



- 27** Lift the bullbar onto the chassis of the vehicle.

Secure bull bar onto the chassis mounting bracket by using three M12 bolts (M12x35x1.5), spring washers and flat washers

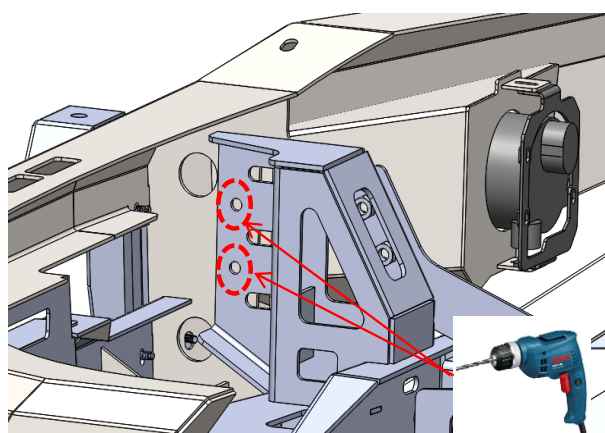
Repeat for the opposite side.

FITTING PROCEDURE



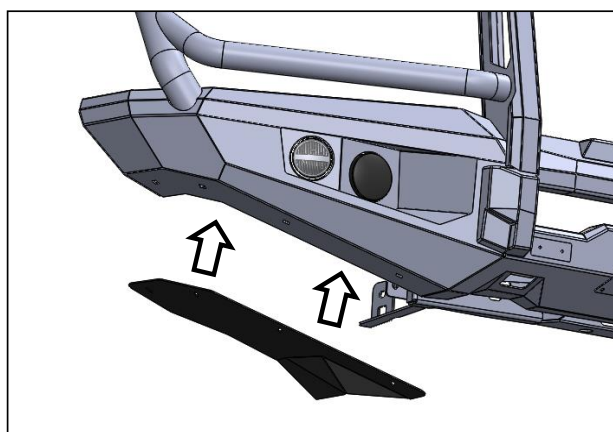
- 28** Position bar onto vehicle, making sure it is centered, lining up with the wheelarch and has a 20mm gap between the quarter panel and the wing of the bar.

If the bar does not sit centrally across the front of the vehicle, loosen the chassis mount and adjust accordingly. Tighten all bolts to the correct torque.

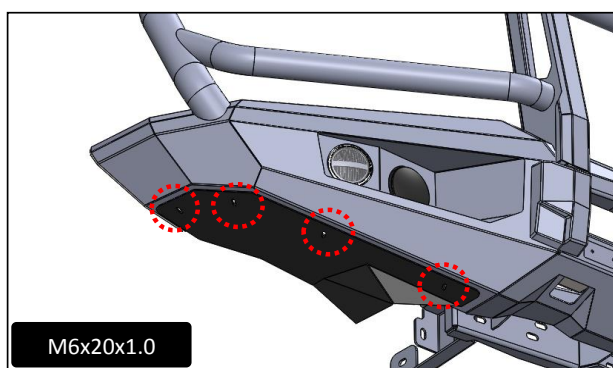


- 29** Drill two 10 mm holes through the chassis mount bracket by using holes on the bullbar as a guide. Secure with two M10 bolts (M10x35x1.5) and flange nuts.

Repeat the opposite side.



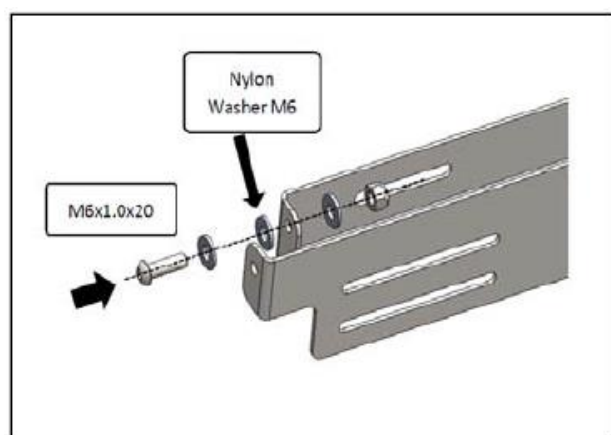
- 30** Fit the wing protection plate onto the bullbar. Using four M6 x 1.0 x 20mm hex bolts, M6 spring and flat washers.



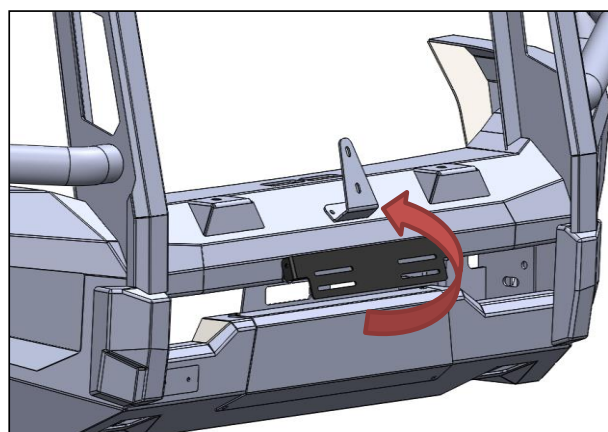
FITTING PROCEDURE



- 31 Re-install the front grill removed earlier and OEM Plastic radiator cover to the vehicle by using four original bolts.



- 32 Assemble License plate bracket by using two M6 button head, flat washer, Nylon Washer M6 and nyloc nut as shown. Do not fully tighten.



FITTING PROCEDURE

