

Hi, please see attached **(and below pictures NB)**.

You will notice that there are two sets of instructions, the one that is the "Owners Manual" is the original copy from Portugal. This manual covers most of the fitting but does not cover the Adaptive cruise control. At the bottom of this email we have included a number of different pictures showing how the sensor is mounted. The "Installation Draft" document covers some of the removal and trimming of the air ducts. **Also please ignore step 13 drilling into the chassis is not required!**

Also please use the separate instruction for cutting of the grill as the one in the "Owners Manual" is not correct.

Please feel free to contact us should you require any additional information.









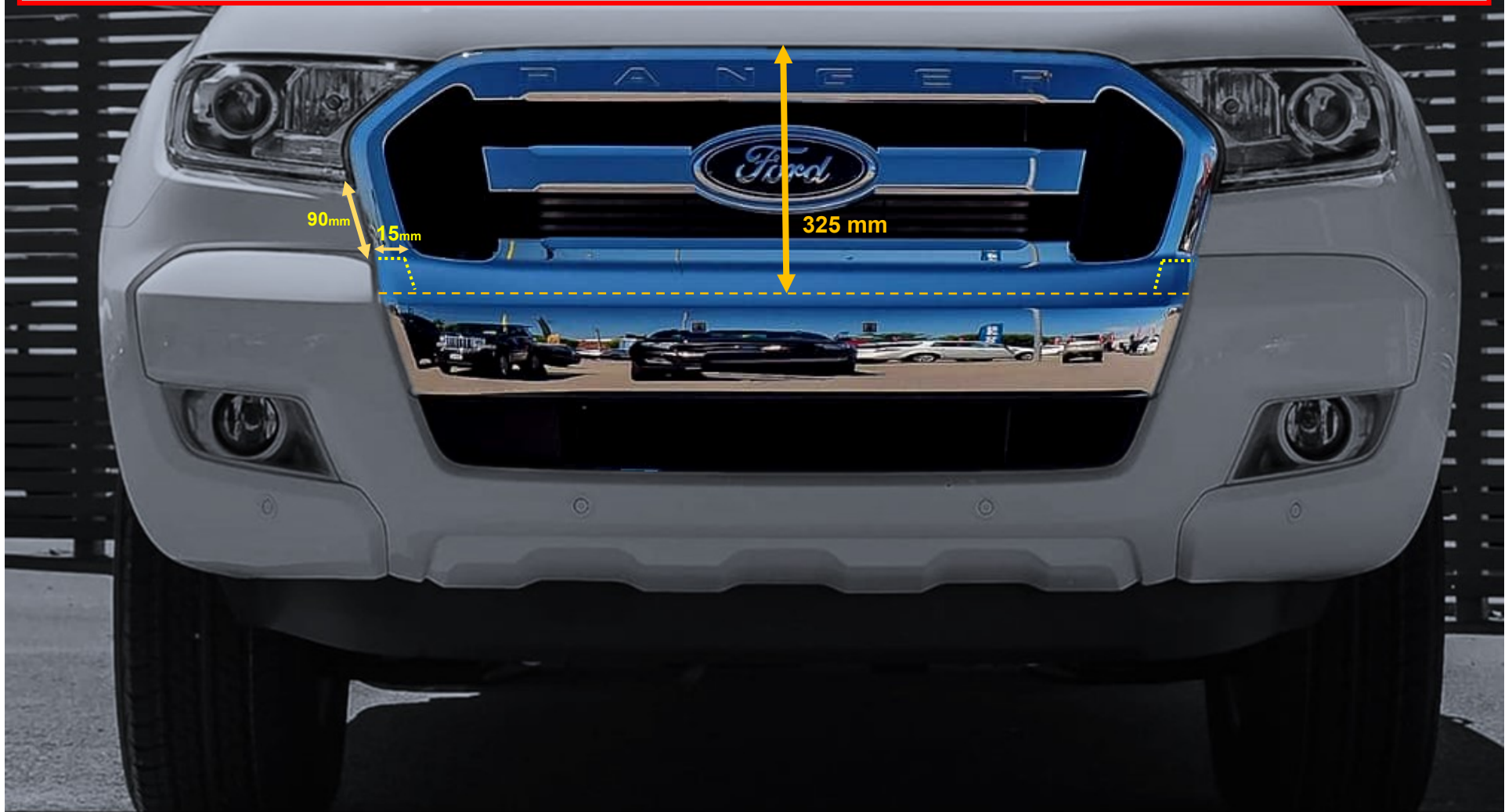




This bracket also needs to be fitted before the bottom goes on.



1. Measure and mark out 325mm from the top of the grille downwards.
2. Cut on the marked line, removing the bottom half of the grille (follow the curved shape of the grille when cutting)
3. Measure and mark out 90mm from the bottom corners of the headlights, downwards
4. From that marked line, cut out a 15mm notch following the angle of the grille and headlights (towards the bottom of the grille)



CRAFTED LIKE NO OTHER

DON'T JUST SETTLE
FOR THE SAME
OLD BULL

OWNER MANUAL

Ford
Ranger PX 2016+

AFN
4 X 4 ACCESSORIES



This manual contains the
Ford Ranger PX +2016
fitting instructions for
Bull Bar Ref.: 48002380
Front Bumper Ref.: 48002394

WELCOME TO THE
AFN COMMUNITY

1 INTRODUCTION

The Company

Founded in 1995, AFN - 4x4 Accessories dedicates itself to the production and commerce of all-terrain accessories. Its constant concern in its customers total satisfaction, and in the ideals of innovation and transformation have granted a position of notability both in the national and international panorama.

The only company in Portugal in the mass production of 4x4 accessories, relies on specialized and experienced technicians, with the most adequate knowledge, to an efficient response capability to its customers demands.

Thanks to the specialization in the several areas of design and manufacture and to a constant investment in technology, AFN has been broadening its wide range of products, without ever neglecting the quality factor.

4x4 Accessories

In its diversity of products we can include, with all-terrain quality, protection, safety and aesthetic accessories.

And it is here that AFN invest on the best technology, the best cut precision of the raw material, and the transformation of products with the quality recognized in the marketplace.

AFN has, at its disposal, resources to test and analyse the resistance of its products and stands in the front row regarding the European homologation of materials dedicated to all terrain.

The contact with the most important test laboratories for vehicles, both in England, Spain and Germany, provides AFN with the know-how to manufacture a wide range of quality products.

Our Design Approach

AFN designs each accessory taking into consideration the original model lines and fitting points. We refuse to have a "one design fits all" solution and we are always looking forward to embrace new challenges on how to adjust a new product into a new model!

The days of just throwing on a bit of steel together to form a protection system are gone. AFN is leading the way modern vehicle protection components are manufactured. Other will follow, and it won't be long where the AFN approach to Styling, Fit, Form and Function will become the benchmark for all other manufacturers.





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AFN 4x4 Accessories

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Part Ref.: **48002380**

Product: **Front Bumper**

Part Ref.: **48002394**

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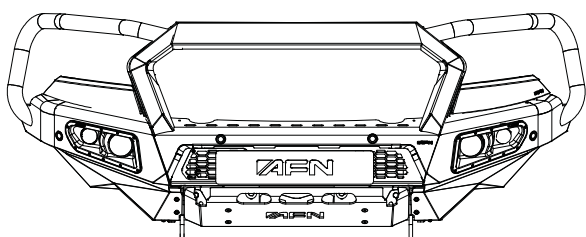
5 AFN 4x4 Partners 18



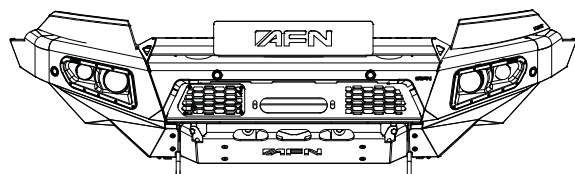
1 CHECKLIST

- In this section you have a checklist with all parts included for the installation of your AFN product
- This product should be installed as demonstrated in the product fitting instructions
- If verified that any component is damaged, please contact your nearest AFN distributor
- The specified parts will only fit in the models specified by AFN
- Do not modify any component of the product

This checklist is for both product **48002380** and **48002394**.



Ref.: 47001856



Ref.: 47001888



Ref.: 48002404

☐ X4



Ref.: 48002390

☐ X1



Ref.: 48002389

☐ X1



Ref.: 47001860

☐ X1



Ref.: 47001859

☐ X1



Ref.: 47001858

☐ X1



Ref.: 47001857

☐ X1



Ref.: 47001483

☐ X2



Ref.: 46007386
Thickness: 2 mm

☐ X2



Ref.: 46007385
Thickness: 4 mm

☐ X2



Ref.: 46007041

☐ X1



Ref.: 46007039

☐ X1



Ref.: 46007038

☐ X1



Ref.: 46007037

☐ X2



Ref.: 46007036

☐ X2



Ref.: 46007035

☐ X2



Ref.: 46007034

☐ X2



Ref.: 46007033

☐ X2



Ref.: 46007032

☐ X1



Ref.: 46007031

☐ X1



Ref.: 46007029

☐ X1



Ref.: 46007028

☐ X1



Ref.: 46007027

☐ X1



Stainless Steel

Ref.: 46007001
M12x40x40

☐ X4



Stainless Steel

Ref.: 46007000
M10x40x40

☐ X12



Ref.: 46005518

☐ X1



Stainless Steel

Ref.: 46000341
M16x1,5x60

☐ X2



Stainless Steel

Ref.: 45001124
M6x35

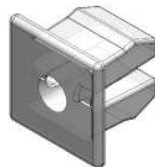
☐ X3



Stainless Steel

Ref.: 45001123
M3,5x16

☐ X6



Ref.: 45001113

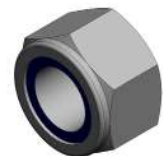
☐ X6



Stainless Steel

Ref.: 45001040
M10x90x30

☐ X2



Stainless Steel

Ref.: 45001033
M12

☐ X2



Ref.: 45001012
M6

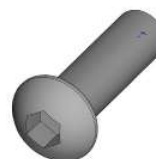
☐ X12



Stainless Steel

Ref.: 45001002
M5

☐ X4



Stainless Steel

Ref.: 45000998
M6x20

☐ X16



Stainless Steel

Ref.: 45000964
M6x20

☐ X4



Stainless Steel

Ref.: 45000956
M10x25

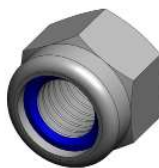
☐ X4



Stainless Steel

Ref.: 45000948
M6x20

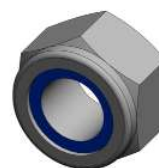
☐ X6



Stainless Steel

Ref.: 45000946
M5

☐ X4



Stainless Steel

Ref.: 45000935
M10

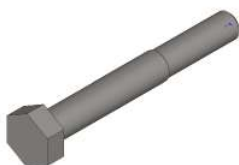
☐ X2



Stainless Steel

Ref.: 45000931
M6x15x1,6

☐ X15



Stainless Steel

Ref.: 45000699
M12x90x35

☐ X2



Ref.: 45000502

☐ X2



Stainless Steel

Ref.: 45000500
M6

☐ X10



Stainless Steel

Ref.: 45000400
M6

☐ X6



Stainless Steel

Ref.: 45000388
M5x16

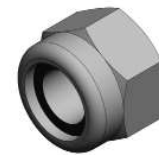
☐ X4



Stainless Steel

Ref.: 45000311
M10

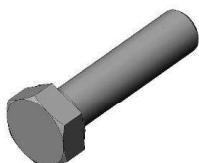
☐ X4



Stainless Steel

Ref.: 45000294
M6

☐ X13



Zinc Plated

Ref.: 45000220
M10x40

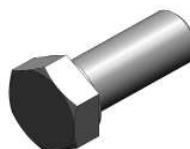
☐ X8



Zinc Plated

Ref.: 45000039
M10

☐ X8



Zinc Plated

Ref.: 45000037
M12x30

☐ X4



Zinc Plated

Ref.: 45000036
M12

☐ X4



Zinc Plated

Ref.: 45000017
M10

☐ X22



Zinc Plated

Ref.: 45000010
M10

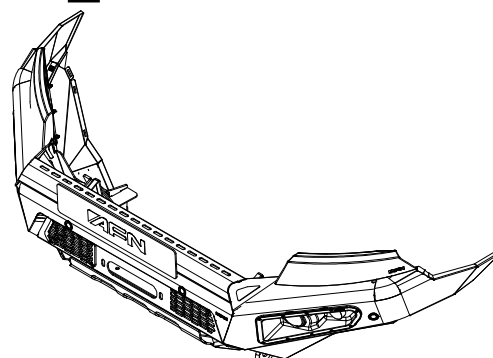
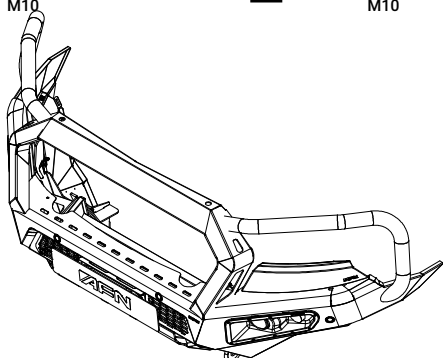
☐ X14



Zinc Plated

Ref.: 45000007
M10x30

☐ X14





2 FITTING INSTRUCTIONS

WARNING:

Before you begin installation, read all instructions thoroughly.
Proper tools will improve the quality of installation and reduce the time required.

- This product should be installed as demonstrated in the *Product «Fitting Instructions»*;
- The specified parts, will only fit the models specified by **AFN**;
- Do not modify any component of the product;
- It is recommended that this product is installed by specialized and trained personnel;
- AFN doesn't take responsibility for changes made in the vehicle by its manufacturer;
- Work safely and use specialized tools at all times;
- **Always use protective gear.**

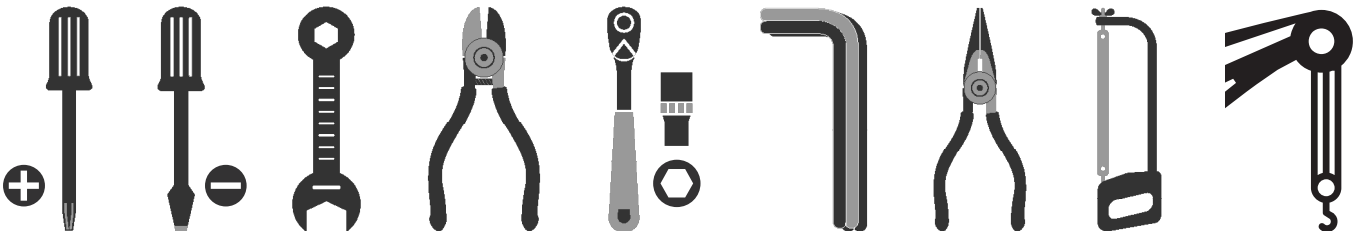


Size	Torque Nm	Torque lbft
M6	9 Nm	7 lbft
M8	22 Nm	16 lbft
M10	44 Nm	32 lbft
M12	77 Nm	57 lbft

Mouting Time

- 4 hours
- 2 persons (recommended)

Tools Required



- Screwdriver star head
- Screwdriver flat head
- Wrench
- Wire cutter
- Ratchet wrench
- Allen wrench
- Needle plier
- Hacksaw
- Crane

Step 1

Remove the OEM* bumper just as specified by the vehicle manufacturer in your maintenance manual. *(Be aware that you must save the OEM bolts and nuts.)*

In order to be perfect, some adjustments needs to be done in the grill so, remove it aswell.

Be careful so you don't break the fasteners on the grill.



Step 2

After removing the grill, place it on a flat work surface. Once the basic measures are ready, it's time to do the curves that follow the **AFN's** bumper shape.

1 - 10 cm | 3.94 inches *(from edge to edge)*

2 - 9 cm | 3.54 inches *(from edge to edge)*

3 - 13 cm | 5.12 inches *(from edge to edge)*

Tip: we recommend the use of a hacksaw.



If you done it correctly this is what it should look like.

Step 3

Before inserting the **AFN** Bullbar on the vehicle there are some details that we advise to do first (so, place it on a flat working surface):

Take on part number **48002404 - Parking Sensor Bracket**, and remove the inner circle using an utility knife.



*Only remove the inner circle if your vehicle has the **Parking Sensor System** installed.*

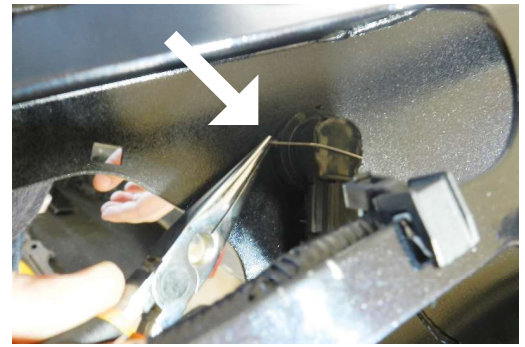


Step 3 (Continuation)

Insert part number **48002404 - Parking Sensor Bracket** on the Bull Bar.

Check the image on the left to see how it's done.

If you prefer, you may use a needle plier.



Check the image on the left to see how it must be look like.

Be aware to put the cables inside the space where it belongs, you may need some zip ties.

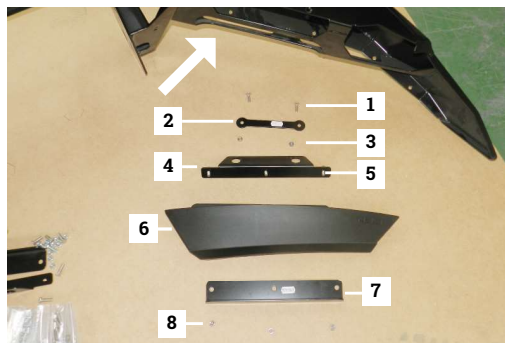


Step 4

While the Bullbar is still standing on a flat working surface, is time to fit the parts for the **Headlight Rubber - 46007038**.

Parts needed:

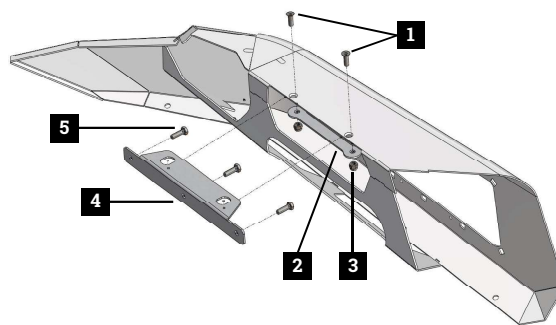
- 1** - 45000964; **M6x20**
- 2** - 46007035;
- 3** - 45000294; **M6**
- 4** - 46007037;
- 5** - 45000948; **M6x20**
- 6** - 46007038;
- 7** - 46007036;
- 8** - 45000294; **M6**



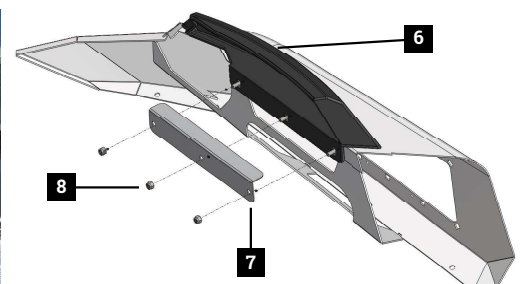
Follow the order as mentioned above.

Repeat this step on the other side for part **46007039**.

Fully tight then loose it a bit to have room to do some adjustment, on **ref. 45000964**, if necessary.



Tip: use a second wrench to prevent the nut to rotate.



Step 5

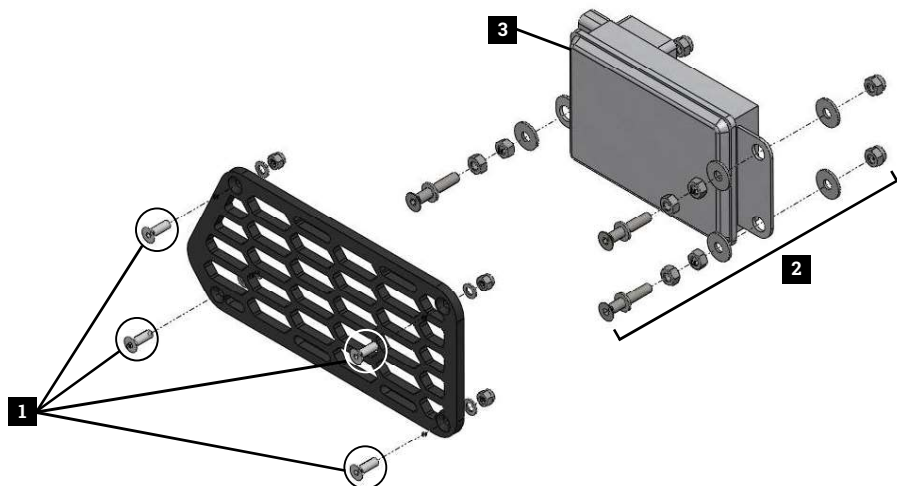
Fit part **46007041** - grill.
Fit the **Adaptive Cruiser Control Sensor**** between the washers (see number **2** - **45000500**)

Bolts needed:

1 - 45000388; 45001002;
45000946; **M6**

2 - 45001124; 45000500;
45000400; 45000294; **M6**

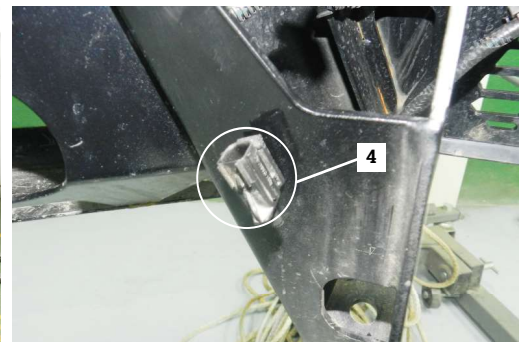
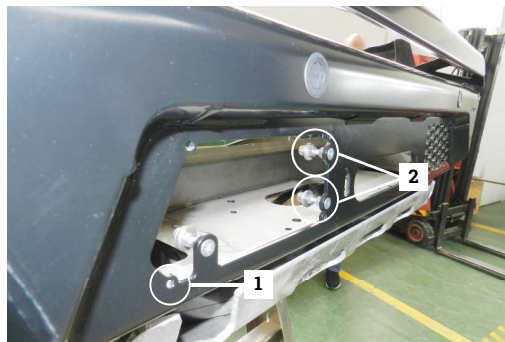
3 - Adaptive Cruiser Control
Sensor



Give the final torque.

****NOTE:** This step only applies for vehicles which have the **Adaptive Cruiser Control Sensor**. If not, you can skip it.

4 - Air Temperature Sensor



Step 6

Be sure that all the cables won't be crushed and are correctly fitted in the appropriate spaces. You may need some zip ties.

Fit part **45000502** - Rubbers and attach them on the **AFN Bull Bar 48002380 | Bumper 48002394**.



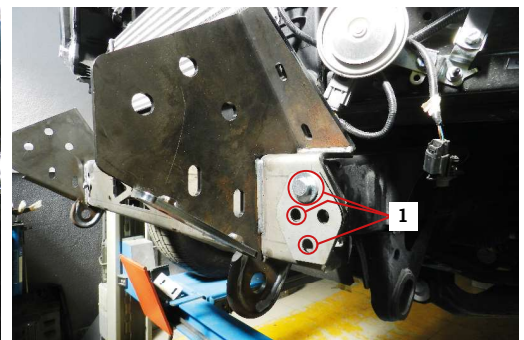
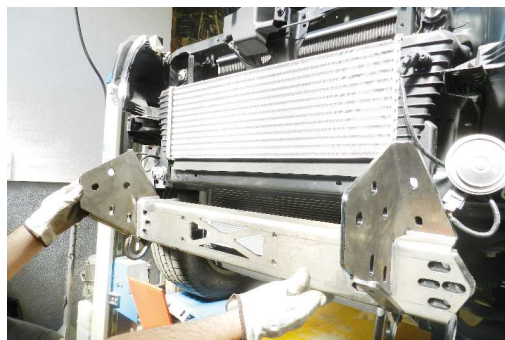
Step 7

Fit part **47001858** - Reinforcement for the **AFN Bullbar**.

Fit parts **46007034**, one on each side, on **Reinforcement 47001858**.

Remind to finger tight all bolts and nuts - **Do Not tighten yet.**

Bolts needed:
1 - 45000007; 45000010;
45000017; **M10x30**



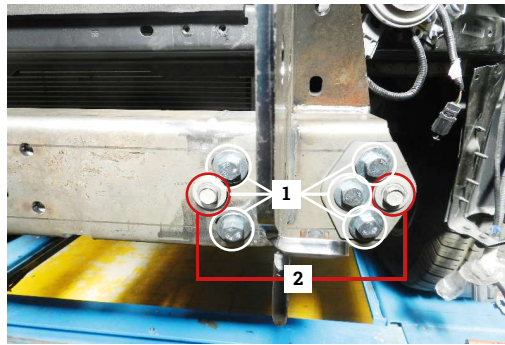
Step 7 (Continuation)

Fit parts **46007033**, one on each side, on the **Rear Reinforcement 47001858**.

Bolts needed:

1 - 45000007; 45000010; 45000017; **M10x30**

2 - Reuse the OEM* Bolts.



Step 8

Fit the **Winch mount - 47001857** on the **Reinforcement**.

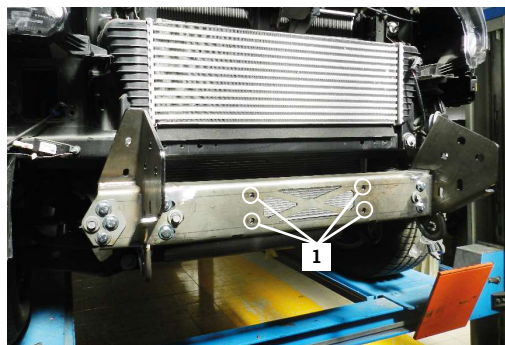
Bolts needed:

1 - 45000037; 45000036; **M12x30**

Give the final torque.

Now fit the grill that have been previously trimmed.

Check the image on the right to see how it must be look like.



*If you are using a **Loopless Bumper**, you can fit the grill after you fit the Bumper.*

Step 9

Fit parts **46007032**, one on each side. Bolts needed:

1 - 46007032;
2 - 45000699; 46007001; 45000010; 45000017; **M10**

On the upper side of part **47001859**, fix it to chassis.

Bolts needed:

3 - 45000007; 45000017; 45000039; **M10**

With help of another person or a crane, lift the **AFN Bull Bar 48002380 | Bumper 48002394** and place it over the **Winch Bracket**.

Mind that this is a precision task, please take time to correctly assemble this step. Just finger tight all bolts and nuts - **Do Not tighten yet.**



Step 9 (Continuation)

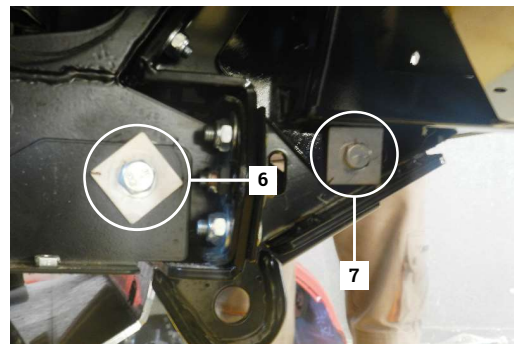
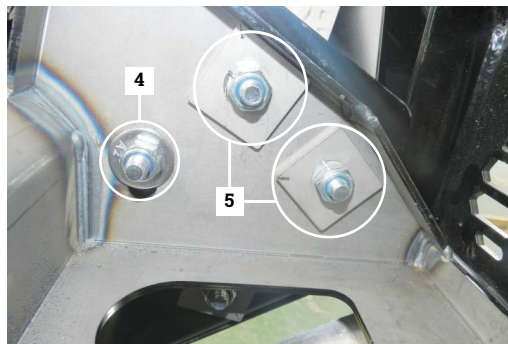
When the **Bull Bar | Bumper** is in place, start tightening all the bolts. If the gap between the chassis and body are not even with the Bull Bar | Bumper use the supplied shims. Bolts needed:

4 - 45000220; 45000010; 45000017; **M10**

5 - 45000220; 45007000; 45000017; **M10**

6 - 45000699; 46007001; 46000341; 45001033; **M12**

7 - 45000220; 46007000; 45000010; 45000017; **M10**



Step 10

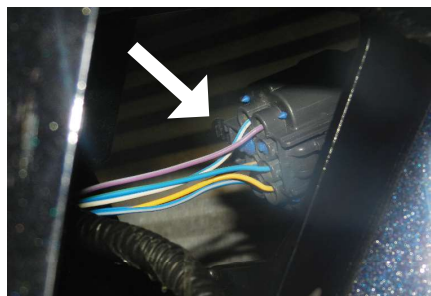
Once the **AFN Bull Bar 48002380 | Bumper 48002394** is placed, start connecting the electrical plug and fasteners for the parking sensor.

We advise to do a simple approach test in order to check if the sensors are correctly working.

Use the supplied shims with different thickness to adjust the best way the Bull Bar | Bumper to the body and chassis.

We recommend to use the supplied shims if the **Bull Bar | Front Bumper** is not aligned with the body, there are different thickness for the best align. Check the figure to fit them in the right places.

Give the final torque on the winch bracket's bolts.

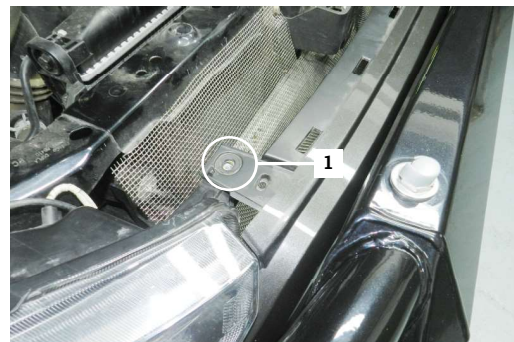


Step 11

This step only applies to the Bull Bar version, because in the Front Bumper there is enough space to fit the grill.

So, push the Bull Bar towards you and fit the grill. Once the grill is in place, reuse the OEM* bolts as showed on the image on the right.

Give the final torque.



Step 12

Adjust bumper until you have an equal gap between vehicle body and the bumper on both sides.

Note: The gap must be almost the same size as the rubber's thickness - **45000502**.

Check to make sure the bullbar is levelled. Adjust if necessary and fully tighten all hardware.

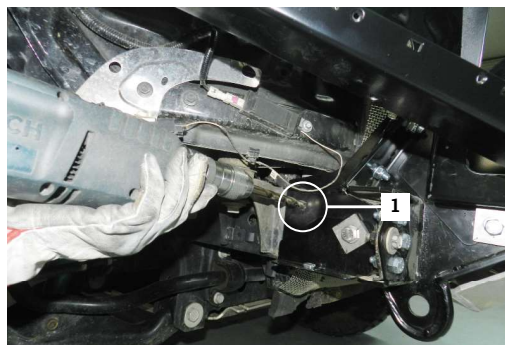
Give the final torque.



Step 13

Once everything is in place and correctly fitted, drill a 12mm diameter hole on the chassis for an extra reinforcement when using the hi lift jack.

Bolts needed:
1 - 45001040; 45007000;
 45000935;

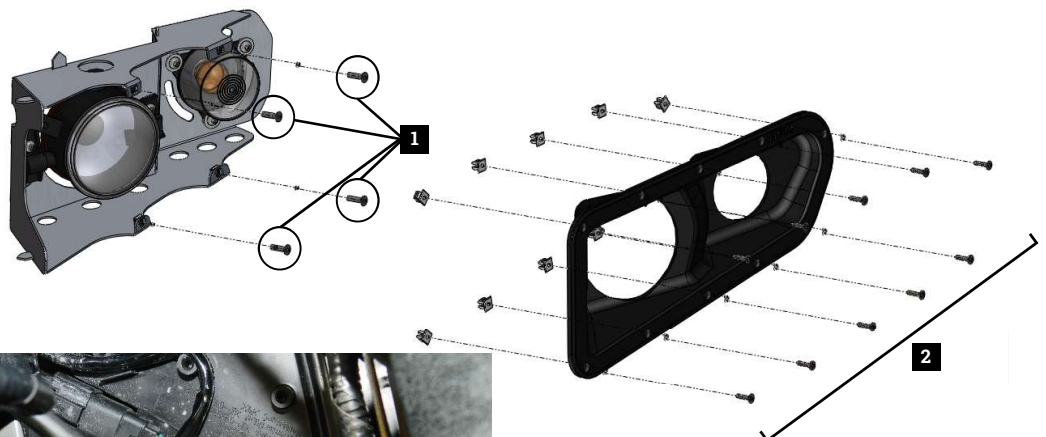
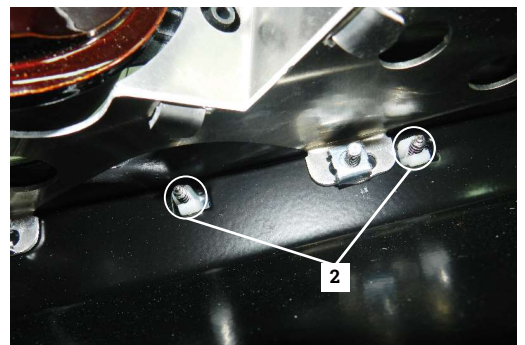


Step 14

Fit part **48002389** on the **AFN Bull Bar 48002380 | Bumper 48002394**. Bolts needed:
1 - 45000834; 45000949**;
M4
 Repeat this step for part **48002390**.

Fit the plastic cover of part **48002389** on the Bumper.
 Bolts needed:
2 - 45001113; 45001114; **M3,5**
 Do the same on the other side for part **48002390**.

****NOTE:** These references for the Fog Lights, are not in this checklist, but they follow the kit **48002389** and **48002390**.



Once the light supports were fitted, reattach the electrical wires for the fog lights and indicators.

We advise to do a test in order to check if all the lights are correctly working.



Step 15

Fit part **46007027**.

Finger tight all bolts and nuts before given the final torque.

Bolts needed:

1 - 45000998; 45000931;
45001012; **M6**

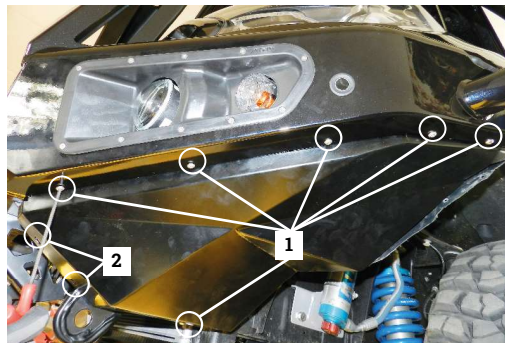
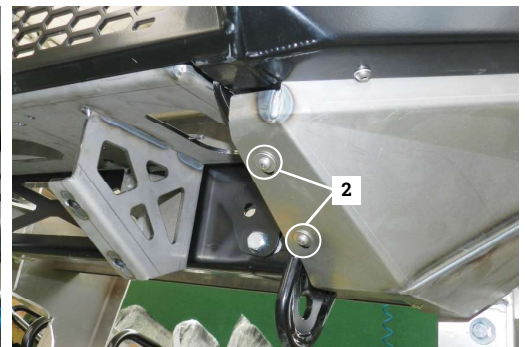
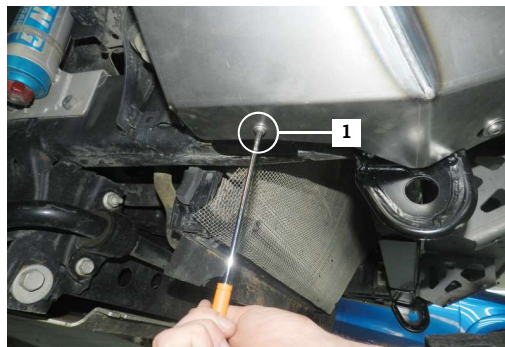
2 - 45000998; 45000500; **M6**

Repeat this step on part
46007028.

Do Not tighten yet.

Repeat this step on part
46007028.

Give the final torque.



Step 16

Push the flaps **46007027** to OEM* plastic fenders and mark the cut line, then cut OEM* plastic fender. Mark a hole on the inner side of wheel fender from both left and right side of vehicle.

Drill a 2mm diameter hole. Fix the flaps through these holes using:

1 - 45001123; 45001113; **M3,5**

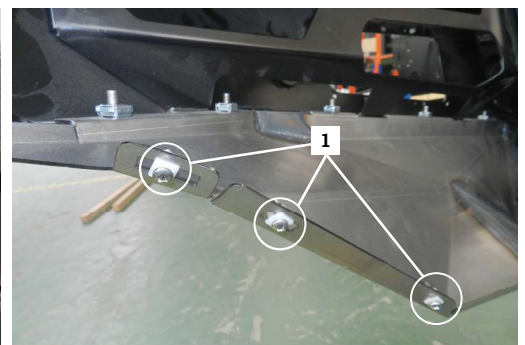
Repeat this step on part
46007028.

Give the final torque.

Relocate the OEM* **Aerial Mast** with ref. number **EB3T-18A-886-BB** up, as shown in the image on the right.



It's easier to cut plastic fender when the flaps are not installed.



*It's easier to install all the **45001113** before fitting the **46007027** and **46007028**.*



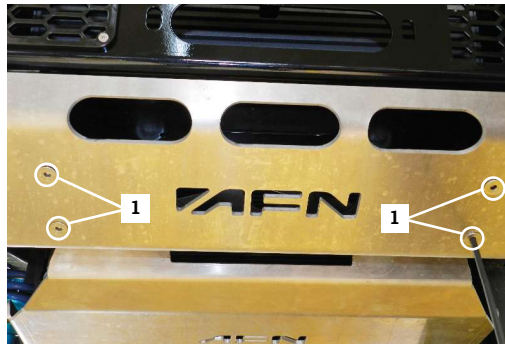
Step 17

Fit underbody armour part **46007029**.

Bolts needed:

1- 45000956; **M10x25**

Give the final torque.



Step 18

Your new **AFN BULLBAR** is now installed on your **Ford Ranger**!

Have Fun!



Reminder !

Before operating a vehicle fitted with an AFN Bullbar:

- Make sure all fittings are tightened
- Check winch operation (if installed)
- Check all electrical wiring attached to lights and parking sensors

Maintenance | Care

Periodically check and tighten all nuts. Stripped, fractured or bent bolts or nuts need to be replaced.



3 RANGER PX CATALOGUE

AFN 4x4 Accessories is becoming a well known brand for its products due to its quality, design and safety which are challenged for thousands of people everyday, worldwide.

In its diversity of products we can include, with all-terrain quality, protection, safety and aesthetic accessories. With that being said, **AFN 4x4** has some other accessories that every offroad passionate would like to have, such as **Body Protections, Underbody Protections, Light Holders, Storage** (Wheel Supports and Jerry-can carriers) and others related to the **Aesthetics**.

We have some 4x4 accessories that combine with the original model lines that if you take a closer look you will see that they don't appear to be an accessory, but a must-have.

Please be in mind that some accessories are available only to some models.

Feel free to check all the products that may interest you in our website at: www.afn.pt



Ref.: 48002394 - Front Bumper



Ref.: 48002380 - Bull Bar with fog lights



Ref.: 48002393 - Side Steps



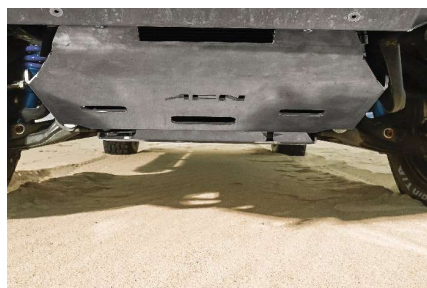
Ref.: 48002387 - Rear Step Bar w/ trailer hitch



Ref.: 48002397 - Nerf Bars



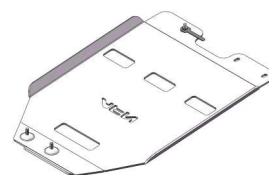
Ref.: 48002403 - Rear Bumper w/ Wheel and Jerry-can carrier



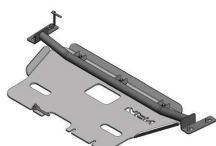
Ref.: 48002392 - Radiator Skid Plate (*Al)



Ref.: 48001831 - Sump Skid Plate (*Al)



Ref.: 48001833 - Gearbox Skid Plate (*Al)



Ref.: 48001834 - Transfer Box Skid Plate (*Al)

4 WARRANTY TERMS

AFN4x4 products are warranted free from defects in materials and workmanship for a period of two (2) years from the date of initial retail purchase. Third-party components are delivered under the original manufacturer warranty.

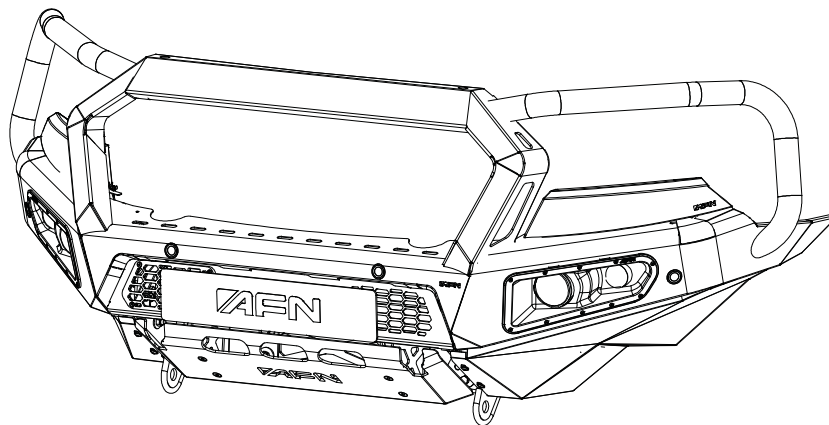
Under the present warranty, **AFN4x4** obligation shall be limited to repairing, replacing or crediting, at its option, any part found to be defective.

AFN4x4 does not warrant or make any representations concerning its goods when:

- a) The products are purchased used, scratch and dent or when the box was opened.
- b) The products are not installed, used, and maintained strictly in accordance with **AFN4x4**'s instructions.
- c) The products are installed in vehicles that are used in competition.
- d) The products are installed in vehicles fitted with aftermarket non-standard tires with diameters in excess of OEM* specifications.
- e) The products are installed in vehicles with engines that have been modified to increase performance.

AFN4x4 will not be responsible for goods damaged in transit. If any goods arrive damaged, please contact the **AFN4x4** as soon as possible. **AFN4x4** will assess and may arrange to have the damaged goods returned to a **AFN4x4** Distributor and arrange for a replacement of the goods. Damaged goods must be returned in the condition received by you with all original packaging, accessories and/or manuals. If they are not returned in same condition sent there may be an additional fee charged.

To file a claim under this warranty please contact **AFN4x4** at +351 256 808 300 or via email at geral@afn.pt to request a *Returned Goods Authorization (RGA)* number and instructions for returning the defective component.





5 AFN 4x4 PARTNERS



01

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03

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WELCOME TO THE AFN COMMUNITY



WWW.AFN.PT | SALES@AFN.PT | FACEBOOK.COM/AFN4X4



Rua da Madeira, 113
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3700-176 S. João da Madeira
PORTUGAL

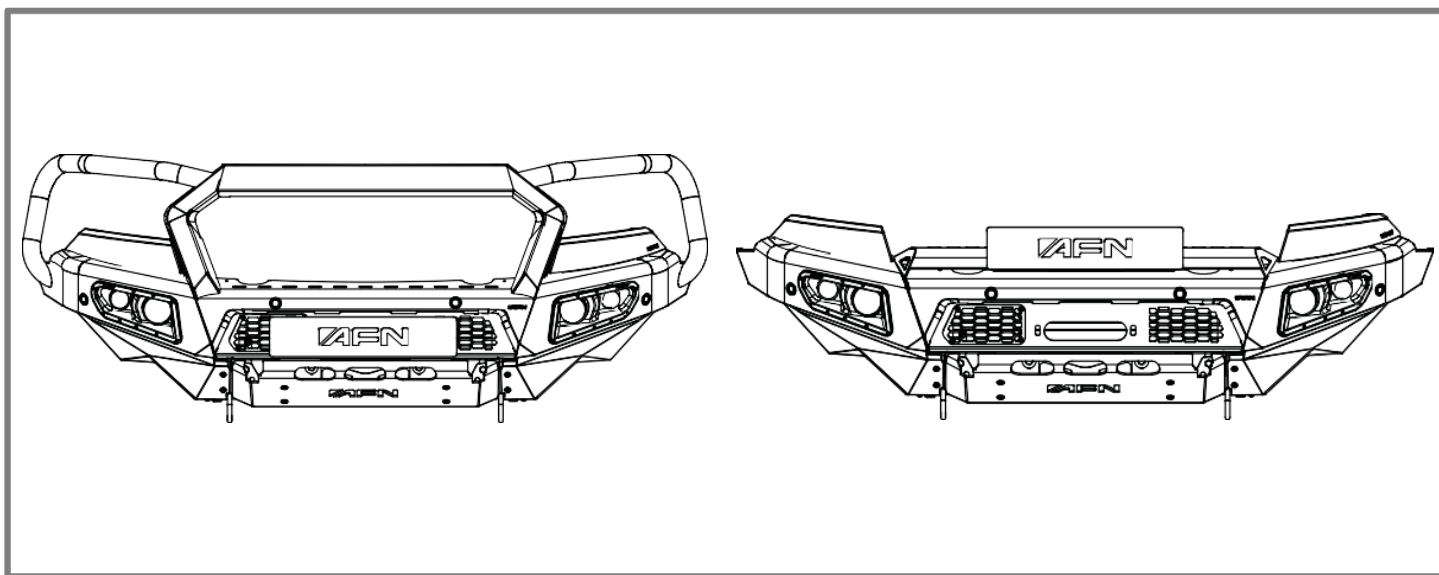
T: (00351) 256 838 300/7
F: (00351) 256 838 305
NIF: PT 503 495 042
geral@afn.pt | www.afn.pt

FORD RANGER PXII 2015+

**** COMPATIBLE WITH PARKING SENSORS / TECH PACK**

BULLBAR (48002380)

LOOPLESS (48002394)



7 Hours



X2

Parking Sensor Brackets



☐ X4 Ref: 48002404

LH Reinforcement Mounting Bracket



☐ X1 Ref: 47001859

Shim Plate 2mm



☐ X2 Ref: 46007386

LH Headlight Rubber



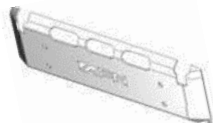
☐ X1 Ref: 46007038

Outer Alignment Plate



☐ X2 Ref: 46007034

Aluminum Protector Plate



☐ X1 Ref: 46007029

M10x40x40 Washer



☐ X12 Ref: 46007000

RH Fog/Indicator Light Assembly



☐ X1 Ref: 48002390

Bar Reinforcement Mount



☐ X1 Ref: 47001858

Shim Plate 4mm



☐ X2 Ref: 46007385

Headlight Rubber Base Plate



☐ X2 Ref: 46007037

Inner Alignment Plate



☐ X2 Ref: 46007033

RH Wing Panel



☐ X1 Ref: 46007028

Number Plate Bracket



☐ X1 Ref: 46005518

LH Fog/Indicator Light Assembly



☐ X1 Ref: 48002389

Winch Mount



☐ X1 Ref: 47001857

Radar Cover



☐ X1 Ref: 46007041

Headlight Rubber Insert Plate



☐ X2 Ref: 46007036

RH Wing Reinforcement



☐ X1 Ref: 46007032

LH Wing Panel



☐ X1 Ref: 46007027

Inner Chassis Tube M16x1.5x60



☐ X2 Ref: 4600341

RH Reinforcement Mounting Bracket



☐ X1 Ref: 47001860

Indicator Light Wiring



☐ X2 Ref: 47001483

RH Headlight Rubber



☐ X1 Ref: 46007039

Headlight Rubber Clamp Plate



☐ X2 Ref: 46007035

LH Wing Reinforcement



☐ X1 Ref: 46007031

M12x40x40 Washer



☐ X4 Ref: 46007001

M6x35 Countersunk



☐ X3 Ref: 45001124

M3.5x16 – Light Surrounds Screw



M3.5 Insert Clips – Light Surrounds



M10x90x30 Bolt



M12 Nyloc Nut



☐ X20 Ref: 45001123

M6 – Wing Panels



☐ X20 Ref: 45001113

M5 Small Washer



☐ X2 Ref: 45001040

M6x20 Bolt



☐ X2 Ref: 45001033

M6x20 Countersunk



☐ X6 Ref: 45001123

M10x25 Countersunk



☐ X4 Ref: 45001002

M6x20 Bolt



☐ X16 Ref: 45000998

M5 Nyloc Nut



☐ X4 Ref: 45000964

M10 Nyloc Nut



☐ X4 Ref: 45000956

M6x15x1.6 Washer



☐ X6 Ref: 45000948

M12x90x35 Bolt



☐ X4 Ref: 45000946

Fender Rubbers – Sides



☐ X2 Ref: 45000935

M6 Large Washer



☐ X15 Ref: 45000931

M6 Nut



☐ X2 Ref: 45000699

M5x16 Bolt



☐ X2 Ref: 45000502

M10 Washer



☐ X10 Ref: 45000500

M6 Nyloc Nut



☐ X6 Ref: 45000400

M10x40 Bolt



☐ X4 Ref: 45000388

M10 Washer



☐ X4 Ref: 45000311

M12x30 Bolt



☐ X13 Ref: 45000295

M12 Washer



☐ X8 Ref: 45000220

M10 Nyloc Nut



☐ X8 Ref: 45000039

M10 Washer Large



☐ X4 Ref: 45000039

M10x30 Bolt



☐ X4 Ref: 45000036

☐ X22 Ref: 45000017

☐ X14 Ref: 45000010

☐ X14 Ref: 45000007

1. Remove 5x retainer clips and pull the top cover off.



2. Remove 2x 10mm bolts from the top of the grille tabs once the top cover has been removed.



3. Remove 2x 10mm Bolts from the grille tabs that are located below the headlight area, behind the grille.



4. Remove the grille by unclipping 12x push clips from behind and 2x tabs on top.

(it is easier to remove the grille first, as there are 2x retainer clips holding the bumper to the vehicle that are not easily accessible while the grille is still fitted)



5. Remove retainer clips from the inner wheel guards.

(only remove clips from where it is connected to the bumper)



6. Remove 4x 10mm bolts from the base of the bumper.

(2x either side and 2x in the center of the bumper)



7. Remove 2x retainer clips from the center section of the bumper.

(the clips are accessible once grille has been removed)



8. Remove the bumper by pulling outwards from the guards on each side to unclip from the inner brackets, then firmly pull the entire bumper from the center, outwards from the vehicle.



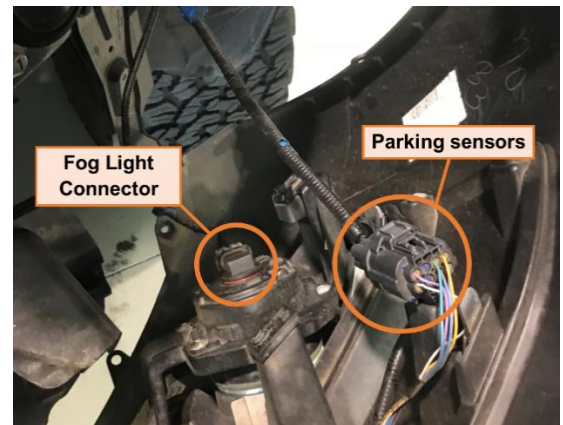
9. Disconnect the keyless entry antenna that is located on the inside of the right-hand side inner wheel guard.



10. If the vehicle has fog lights/parking sensors fitted, disconnect the main plugs from the bumper.

(Fog Light Connector on both sides/1x main connector on the left-hand side for the parking sensors)

***If vehicle does not have a Tech Pack (Adaptive Cruise Control) fitted, please go to Step 14.*

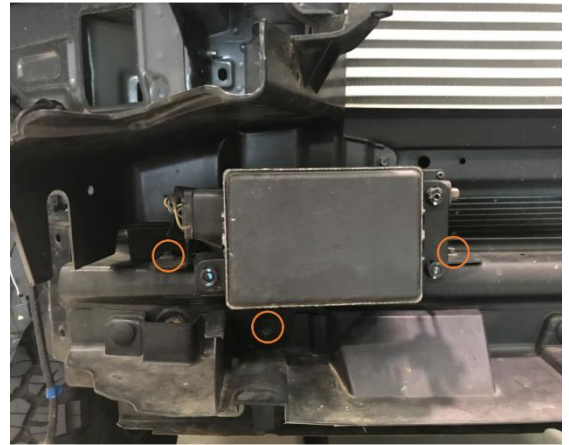


11. Once bumper has been removed, disconnect the Radar plug for the Adaptive Cruise Control.



12. Remove 3x 8mm Bolts on the Radar Housing Bracket.

(1x per side/1x below Radar)



13. Once removed from the vehicle, pull the Radar from the Housing Bracket.

(the Radar will pull over the bracket, no tools are required)



14. Remove all brackets that supported the OEM Bumper, as indicated.



15. Remove 2x 10mm Bolts from the lower support bracket.



16. Remove 5x 8mm Bolts from each of the side brackets that held the bumper in place.



17. Ensure that an 8mm Bolt is re-fitted once the side brackets are removed – this bolt braces the headlight bracket to the vehicle



18. Remove the 4x retainer clips from the lower plastic cover.

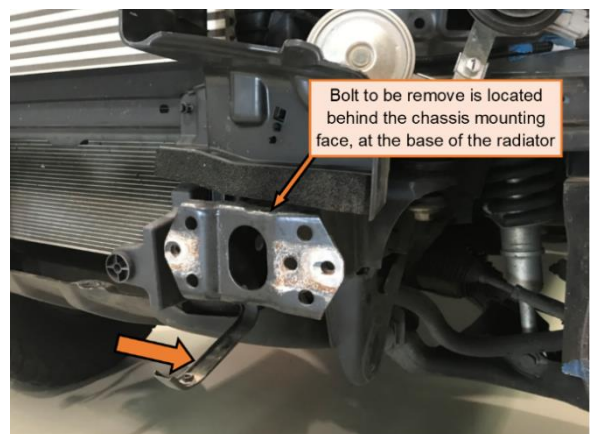


19. Remove 6x 15mm Bolts from the beam connected to the vehicles chassis.

(4x on the face of the bar/2x underneath)



20. Remove the 2x base arm brackets located under the chassis mounting face – the bolt is located behind.



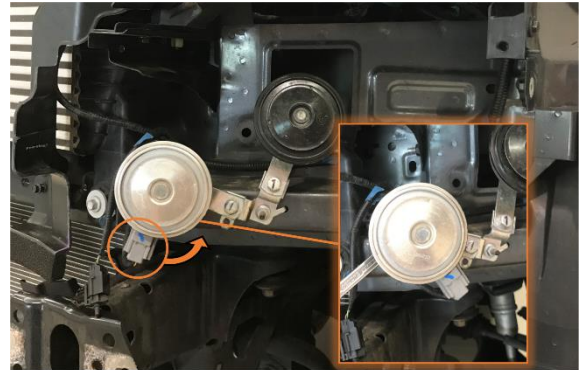
21. Remove the Temperature Sensor from the air duct shield.

(left hand side of vehicle near the radiator and horn), this will later be fitted to the bar.



22. Slightly loosen the 13mm Bolt holding the Horn to the vehicle, and rotate the fixture anti-clockwise so that the connector is facing out towards the left hand side of the vehicle.

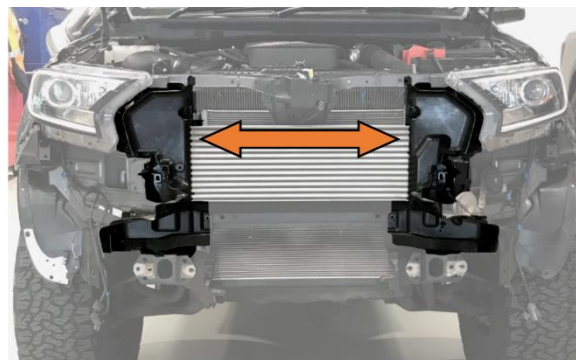
(the Bolt is located on the back of the horn – this rotation will allow the connector to not interfere with the winch mount of the bar)



23. Loosen the 2x 15mm Bolts that are holding the OEM protection plate to the crossmember of the vehicle. Once bolts are loose, but not removed, you will be able to slide the plate away from the bolts as the plate is open slotted.

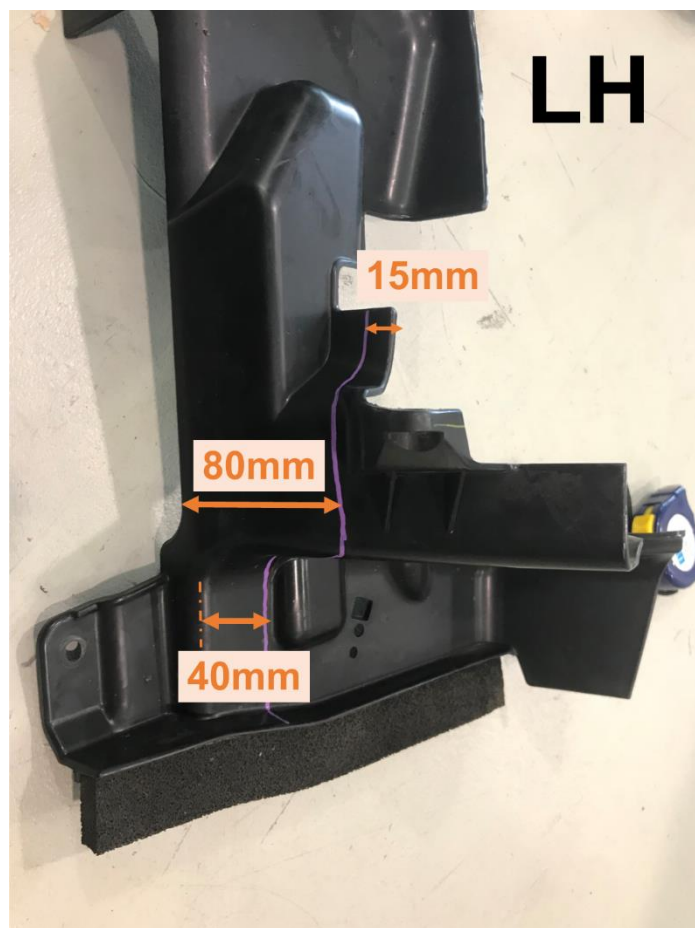


24. The Air Ducts will need to be modified to allow sufficient space for the bar. Remove the left and right hand pieces for easy application of cut lines.



25. Measure/mark where to cut, as shown below:

***use the shape of the air ducts as a guide when trimming – follow the lines/grooves of the plastic
These plastics are quite hard and will require a grinder for cutting.*

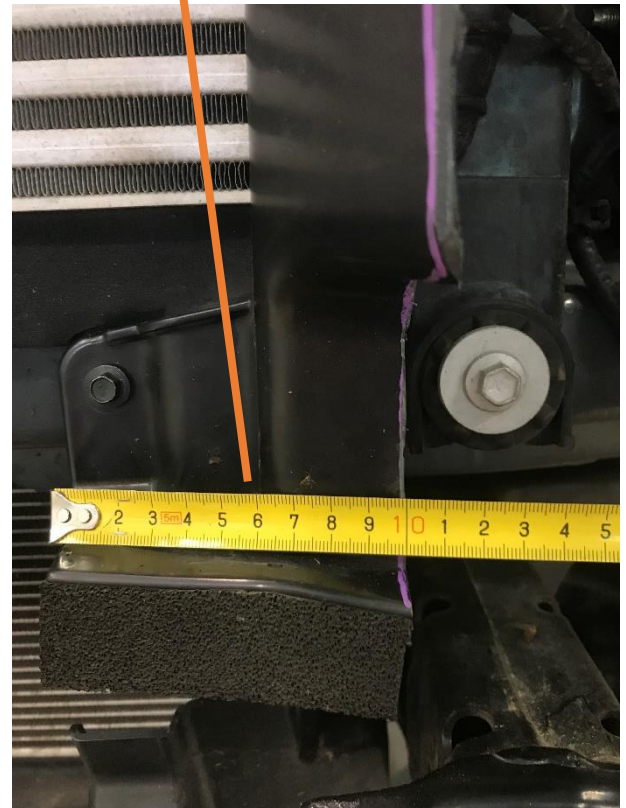
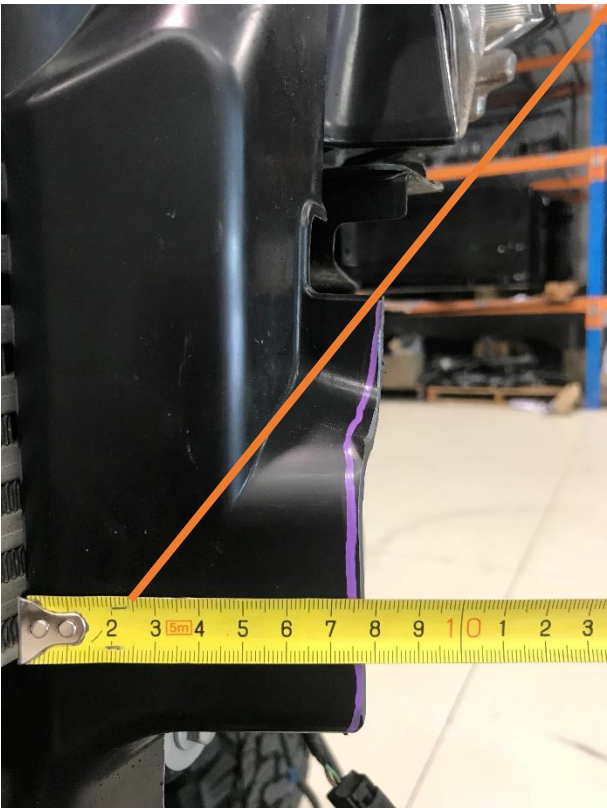


26. Once trimming has been complete, re-fit to vehicle. Photos below show the measurements after trimming.

RIGHT HAND SIDE



LEFT HAND SIDE



27. Prepare the Bar for fitment by fitting all additions, including Parking Sensors and Radar (Adaptive Cruise), as well as Rubbers.

(These items must be fitted prior to the Bar being fitted to the vehicle)

If vehicle does not have Parking Sensors or Tech Pack, please go to step.....