



FORD RANGER PX SERIES

2011-2022

PREDATOR & TORO FRONT BAR

IMPORTANT! – READ BEFORE INSTALLATION

- When installed in accordance with these instructions, the front protection bar does not affect the operation of the vehicles SRS airbags.
- This product must be installed exactly as per these instructions using only hardware supplied.
- Take a few moments to read instructions thoroughly before beginning work.
- In the event of damage to any bar component please contact OFFROAD ANIMAL to arrange repair/replacement of components.
- Do not use this product for any vehicle make or model other than that specified on these instructions.
- Do not remove labels from this product.
- This product and its fixings must not be modified in any way unless stated in these fitting instructions.
- The installation of this product is recommended for trained personnel.
- These instructions are correct at time of publication. OFFROAD ANIMAL cannot be held responsible for the impact of any changes subsequently made by the vehicle manufacturer. If you find something has changed please contact us to let us know!
- During installation it is the duty of the installer to check correct operation/clearances of all components.
- If Instructions are to be printed for reference in the workshop, it is recommended that they are printed in colour, for best legibility.

GENERAL CARE AND MAINTENANCE

Only wash the product with a PH neutral car wash to prevent paint damage and discolouration.

Plastic parts may be maintained with silicone spray.

Do not use acidic or alkaline based cleaning products.

It is important to perform regular checks (pre trip or on an annual basis) on the installed product. Checks include:

- Visual inspection for damage (eg. cracks, chips, dents etc.)
- Electrical wiring is not rubbing anything or worn out
- Bolts are torqued to correct specification (see torque guide below)

For touching up small stone chips, Offroad Animal recommends the following paint products:

- Dupli-Color Trim & Bumper Paint Black (TB101)
- VHT Hood, Bumper & Trim Paint Black (SP27)

BOLT TORQUE SETTINGS

Use the following bolt torques on all general fasteners, unless otherwise specified.

| GENERAL FASTENERS | |
|-------------------|-----------|
| Size | Torque Nm |
| M5 | 5 Nm |
| M6 | 9 Nm |
| M8 | 22 Nm |
| M10 | 44 Nm |
| M12 | 77 Nm |

Use the following bolt torques on all structural front bar mount and tow point fasteners, and rear towbar fasteners, unless otherwise specified.

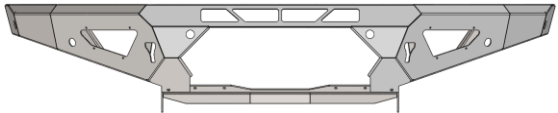
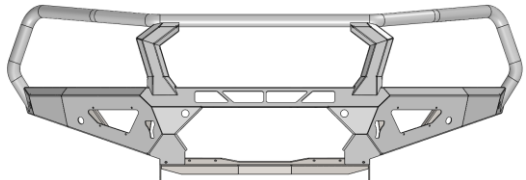
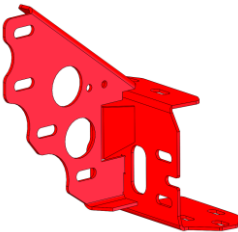
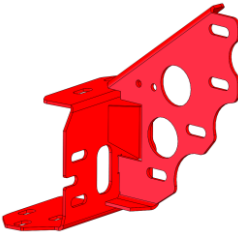

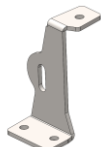
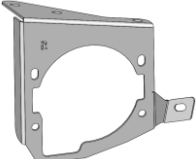
| FRONT BAR MOUNTS AND TOW POINTS + REAR TOWBAR | |
|--|-----------|
| Size | Torque Nm |
| M10 | 57 Nm |
| M12 | 100 Nm |
| M14 | 164 Nm |
| M16 | 248 Nm |

Always use a torque wrench to set correct torque settings. Ensure torque wrench is set to Nm unit of measurement. Otherwise perform conversion to lb-ft.

PARTS LISTING



IMPORTANT: Check all parts are present before beginning work! Contact OFFROAD ANIMAL if something is missing.

Base Kit – In the Main Box

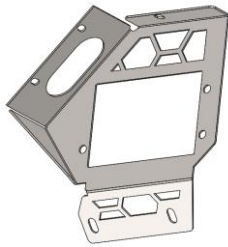
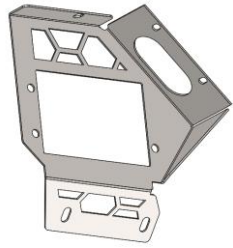
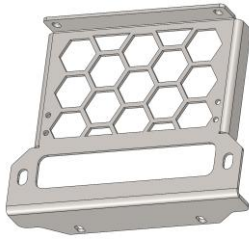
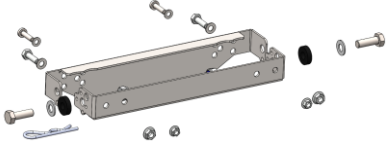

| Qty | Part Number | Description | Image |
|-----|------------------------|---------------------------------------|---|
| 1 | FB-FRA-PX3-19-PR-ASM1 | Ford Ranger PX3 Predator Bar Weldment |  |
| OR | | | |
| 1 | FB-FRA-PX3-19-TOR-ASM1 | Ford Ranger PX3 Toro Bar Weldment |  |
| 1 | FB-FRA-PX-11-PR-ASM2R | IMPACT ASSY PREDATOR PX RANGER RH |  |
| 1 | FB-FRA-PX-11-PR-ASM2L | IMPACT ASSY PREDATOR PX RANGER LH |  |
| 1 | B-0082R | PX CHASSIS BRKT GUSSET RH |  |
| 1 | B-0082L | PX CHASSIS BRKT GUSSET LH |  |
| 1 | B-0186R | Fog Lamp Bracket - Ranger PX RH |  |

| | | | |
|------------------|-------------------------------|---|---|
| 1 | B-0186L | Fog Lamp Bracket - Ranger PX LH |  |
| 1 | B-0216 | Ranger Winch control box bracket |  |
| 1 | B-0607 | PX Ranger Front Bar - Center Section Brace |  |
| 1 | M-0002R | Light Cover Mesh RH |  |
| 1 | M-0002L | Light Cover Mesh LH |  |
| 1 | U-0003R | PX under panel RH |  |
| 1 | U-0003L | PX under panel LH |  |
| 1 | U-0010 | PX Ranger Bash Plate |  |
| 1 | OFA-LOGO | Offroad Animal Metal Logo |  |
| 1 | FB-FRA-PX- 11-PR- ADRCP | ADR Compliance Plate Ranger PX1 |  |
| TORO ONLY | | | |
| 2 | B-0494 | Ranger Toro - Antenna Bracket |  |

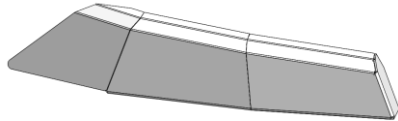
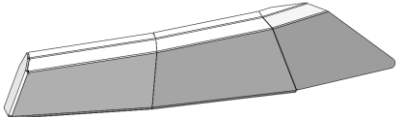
PX1 Only Parts

| Qty | Part Number | Description | Image |
|-----|-------------|---------------------------------|--|
| 1 | B-0242R | PX1 Headlight Infill Bracket RH |  |
| 1 | B-0242L | PX1 Headlight Infill Bracket LH |  |

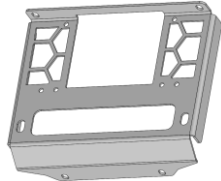
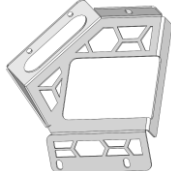
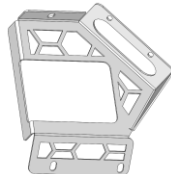
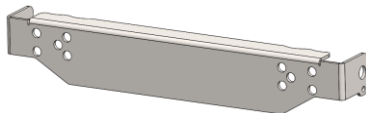

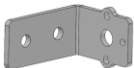

PX1 + PX2 Common Parts

| Qty | Part Number | Description | Image |
|-----|-----------------|--|---|
| 1 | M-0003R | PX MESH MID RH |  |
| 1 | M-0003L | PX MESH MID LH |  |
| 1 | M-0004 | PX Mesh centre |  |
| 1 | NPF-COM-SM-ASM0 | Number plate flip asm Small |  |
| 6 | CPHP020 | Plastic Hole Insert, 28MM, Black, Tigerlink Hardware CPHP020 |  |

PX2 + PX3 Common Parts

| Qty | Part Number | Description | Image |
|----------|-------------|----------------------------|--|
| 1 | B-0083R | PX2 HEADLIGHT INFILL RH |  |
| 1 | B-0083L | PX2 HEADLIGHT INFILL LH |  |

PX3 Only Parts

| Qty | Part Number | Description | Image |
|----------|-------------|--|---|
| 1 | M-0009 | PX3 Mesh Fairlead Mount |  |
| 1 | M-0010R | PX3 Mesh Infil Panel RHS |  |
| 1 | M-0010L | PX3 Mesh Infil Panel LHS |  |
| 1 | B-0086 | Flip ORA bar |  |
| 1 | B-0194 | PX3 ACC Support Bracket |  |
| 2 | B-0210 | PX Ranger Grille Bracket |  |
| 2 | B-0217 | Ranger Number Plate Flip Base Bracket |  |
| 2 | CPHP020 | Plastic Hole Insert, 28MM, Black, Tigerlink Hardware CPHP020 |  |

Predator Base Kit Small Parts – Contained in Small Parts Kit Bag

| Qty | Part Number | Description |
|-----|----------------------------|--|
| 8 | M5X15 PAN | SCREW, PAN HEAD PHILLIPS, M5X15X0.8 GR4.6 ZP |
| 8 | M5 FLANGE NUT | Flange Nut, M5x0.8 G8.8 ZP |
| 1 | M6x12 BHCS | SCREW, BUTTON HEAD CAP, M6X12X1 GR12.9 ZP |
| 23 | M6x16 BHCS BLACK ZINC | SCREW, BUTTON HEAD CAP, M6X16X1 GR12.9 BLACK ZP |
| 16 | M6 FLAT WASHER BLACK ZINC | M6 FW BLACK ZP |
| 18 | M6 FLANGE NUT | Flange Nut, M6x1 G8.8 ZP |
| 6 | M6CN3MM | CAGE NUT M6x2.6-3.5 |
| 4 | M8X20 | Bolt Hex, M8X20X1.25, GR8.8 ZP |
| 10 | M8 X 16 BHCS BZP | SCREW, BUTTON HEAD CAP, M8X16X1.25 GR12.9 BLACK ZP |
| 6 | M8 X 20 BHCS BLACK ZINC | SCREW, BUTTON HEAD CAP, M8X20X1.25 BLACK ZP |
| 6 | M8 FLAT WASHER | M8 Flat Washer |
| 14 | M8 FLAT WASHER- BLACK ZINC | M8 FW- BLACK ZINC |
| 16 | M8 FLANGE NUT | Flange Nut, M8x1.25 G8.8 ZP |
| 20 | M10 x 30 | Bolt Hex, M10X30x[1.5], GR8.8 ZP |
| 2 | M10X20 BHCS | SCREW, BUTTON HEAD CAP, M10X20X1.5 GR12.9 ZP |
| 30 | M10 Flat Washer | M10 Flat Washer |
| 12 | M10 FLANGE NUT | Flange Nut, M10x1.5 G8.8 ZP |
| 8 | M10 NYLOC | M10 NYLOC |
| 8 | M12X30 | Bolt Hex, M12X30x1.75, GR8.8 ZP |
| 16 | M12 FW LHD | M12 FW Large Heavy Duty |
| 8 | M12 Nyloc nut | M12 NYLOC NUT |

PX3 Only Small Parts – Contained in PX3 Mesh Kit

| Qty | Part Number | Description |
|-----|---------------------------|---|
| 2 | M5X15 PAN | SCREW, PAN HEAD PHILLIPS, M5X15X0.8 GR4.6 ZP |
| 2 | M5 Flat washer | M5 Flat washer |
| 2 | M5 FLANGE NUT | Flange Nut, M5x0.8 G8.8 ZP |
| 6 | M6 X 20 HEX | M6X20 HEX BOLT, ZP, 8.8 |
| 2 | M6x16 BHCS BLACK ZINC | SCREW, BUTTON HEAD CAP, M6X16X1 GR12.9 BLACK ZP |
| 6 | M6 FLAT WASHER | M6 Flat Washer |
| 2 | M6 FLAT WASHER BLACK ZINC | M6 FW BLACK ZP |
| 8 | M6 FLANGE NUT | Flange Nut, M6x1 G8.8 ZP |
| 2 | M8 X 25 HEX | Bolt Hex, M8X25x1.25, GR8.8 ZP |
| 2 | M8 FLAT WASHER | M8 FLAT WASHER |
| 2 | M8 NYLOC | NYLOC SELF LOCKING NUT, ST STL A2 ISO |
| 2 | HDPE SPACER- BLACK | HDPE SPACER - OD 20 X ID 8 X 5MM THICK BLACK |

Toro Base Kit Small Parts – Contained in Small Parts Kit Bag

| Qty | Part Number | Description |
|-----------|----------------------------|--|
| 8 | M5X15 PAN | SCREW, PAN HEAD PHILLIPS, M5X15X0.8 GR4.6 ZP |
| 8 | M5 FLANGE NUT | Flange Nut, M5x0.8 G8.8 ZP |
| 1 | M6x12 BHCS | SCREW, BUTTON HEAD CAP, M6X12X1 GR12.9 ZP |
| 23 | M6x16 BHCS BLACK ZINC | SCREW, BUTTON HEAD CAP, M6X16X1 GR12.9 BLACK ZP |
| 16 | M6 FLAT WASHER BLACK ZINC | M6 FW BLACK ZP |
| 18 | M6 FLANGE NUT | Flange Nut, M6x1 G8.8 ZP |
| 6 | M6CN3MM | CAGE NUT M6x2.6-3.5 |
| 4 | M8X20 | Bolt Hex, M8X20X1.25, GR8.8 ZP |
| 10 | M8 X 16 BHCS BZP | SCREW, BUTTON HEAD CAP, M8X16X1.25 GR12.9 BLACK ZP |
| 10 | M8 X 20 BHCS BLACK ZINC | SCREW, BUTTON HEAD CAP, M8X20X1.25 BLACK ZP |
| 6 | M8 FLAT WASHER | M8 Flat Washer |
| 18 | M8 FLAT WASHER- BLACK ZINC | M8 FW- BLACK ZINC |
| 16 | M8 FLANGE NUT | Flange Nut, M8x1.25 G8.8 ZP |
| 20 | M10 x 30 | Bolt Hex, M10X30x[1.5], GR8.8 ZP |
| 2 | M10X20 BHCS | SCREW, BUTTON HEAD CAP, M10X20X1.5 GR12.9 ZP |
| 30 | M10 Flat Washer | M10 Flat Washer |
| 12 | M10 FLANGE NUT | Flange Nut, M10x1.5 G8.8 ZP |
| 8 | M10 NYLOC | M10 NYLOC |
| 8 | M12X30 | Bolt Hex, M12X30x1.75, GR8.8 ZP |
| 16 | M12 FW LHD | M12 FW Large Heavy Duty |
| 8 | M12 Nyloc nut | M12 NYLOC NUT |

TOOLS REQUIRED

The following tools will be required to install the product.

| Hand Tools | Power Tools | Workshop Supplies |
|-------------------------------|---------------------------------------|--------------------------------|
| Metric Socket Set 8-19mm | Electric Drill 6mm Drill Bit | Double Sided Adhesive Tape |
| Socket Extension Bar | Air Hacksaw or Angle Grinder | Panel Stand or Soft Blanket |
| Metric Spanner Set 10-19mm | Electric/Air Impact Driver (Optional) | Cable Ties |
| Torx Drivers T25-T30 | | Masking Tape |
| Hex (Allen) Key Set 4-6mm | | Black Automotive paint |
| Trim Puller Tool | | Scotch Brite or Fine Sandpaper |
| Flat Blade Screwdriver set | | Automotive Sealant/Adhesive |
| Phillips Head Screwdriver set | | |
| Utility Knife | | |
| Side Cutters | | |
| Pliers | | |

WORKSHOP SAFETY

It is the responsibility of the installer to always complete works in a safe manner. Make sure the following safety equipment is available and precautions are observed whilst fitting this product.

| | |
|---|--|
| <p>Hearing Protection</p>  | <p>Always wear ear protection when using power tools.</p> |
| <p>Eye Protection</p>  | <p>Ensure eye protection is always worn when cutting or drilling.</p> |
| <p>Manual Handling</p>  | <p>Do not attempt to lift bar assemblies or rock sliders on your own.</p> <p>Always use two people to lift or use mechanical Lifting aid such as hydraulic lifting trolley.</p> |
| <p>Vehicle Support</p>  | <p>Always ensure vehicle is properly supported when working on it. Do not attempt to fit products whilst suspension work is being carried out. Do not work under a vehicle supported only by a jack.</p> |



Note: The bumper removal process shown is for the PX3 Ranger. PX1 and PX2 Rangers are largely similar. Where possible, known differences will be highlighted.

1. Open bonnet of vehicle.
2. Remove 5x plastic push rivets by levering center section upwards using flat bladed screwdriver or trim tool, as shown.
3. **PX3 only.** Remove 2x T30 Torx screws securing air intake.

TOOLS REQUIRED

Flat Blade Screwdriver
or
Trim Tool

T30 Torx Driver

FASTENERS

5x Plastic Push Rivet
2x T30 Bolt

Retain for Re-assembly

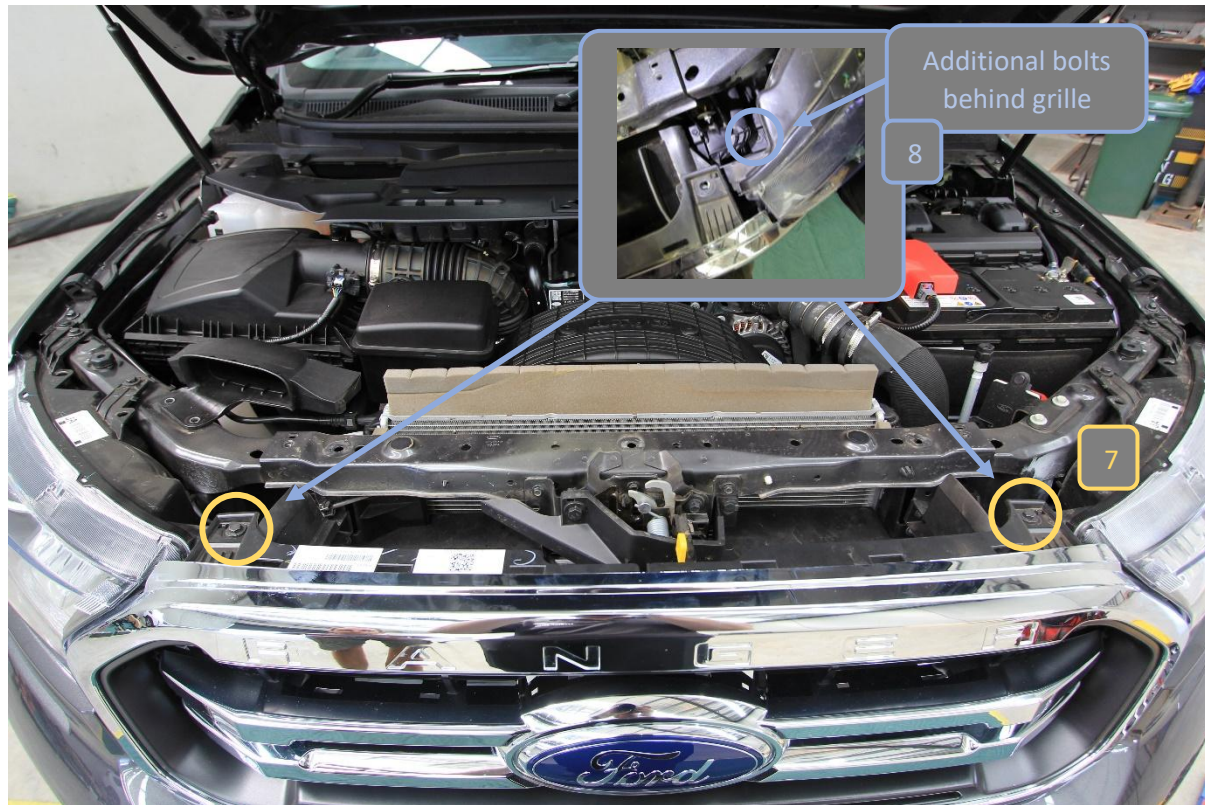


4. Carefully lift up the plastic top shroud trim to unfasten concealed plastic clips securing trim to grille.
5. A trim tool can be used to assist if required. Take care not to scratch/scuff the finish of grille if tool is used.
6. Remove shroud and place aside.

TOOLS REQUIRED

Trim Tool

FASTENERS



7. Remove bolts securing the radiator grille using 10mm socket.
8. There are 2 bolts, one each side, recessed behind the grille that will require an extension bar to reach.


TOOLS REQUIRED

10mm Socket
Extension Bar

FASTENERS

4x 10mm head flanged
bolts

Retain for re-assembly

| | | |
|--|--|--|
|  | | |
| <ol style="list-style-type: none">9. In the wheel arch remove the fasteners securing inner wheel arch liner to the bumper.10. Remove Torx Screw with T30 Torx Driver.11. Remove scrivets by using trim tool to prize out center section of rivet.12. Remove concealed bolt with 8mm Socket. | TOOLS REQUIRED 10mm Socket T30 Torx Driver Extension Bar | |
| | FASTENERS 6x Scrivet 2x T30 Torx Screw 2x 8mm head Bolt Discard | |



13. Remove the 6x Bolts securing lower bumper to the support brackets behind, using 8mm socket.
14. The bolts fastening the lower valance panel to the bumper do not need to be removed.

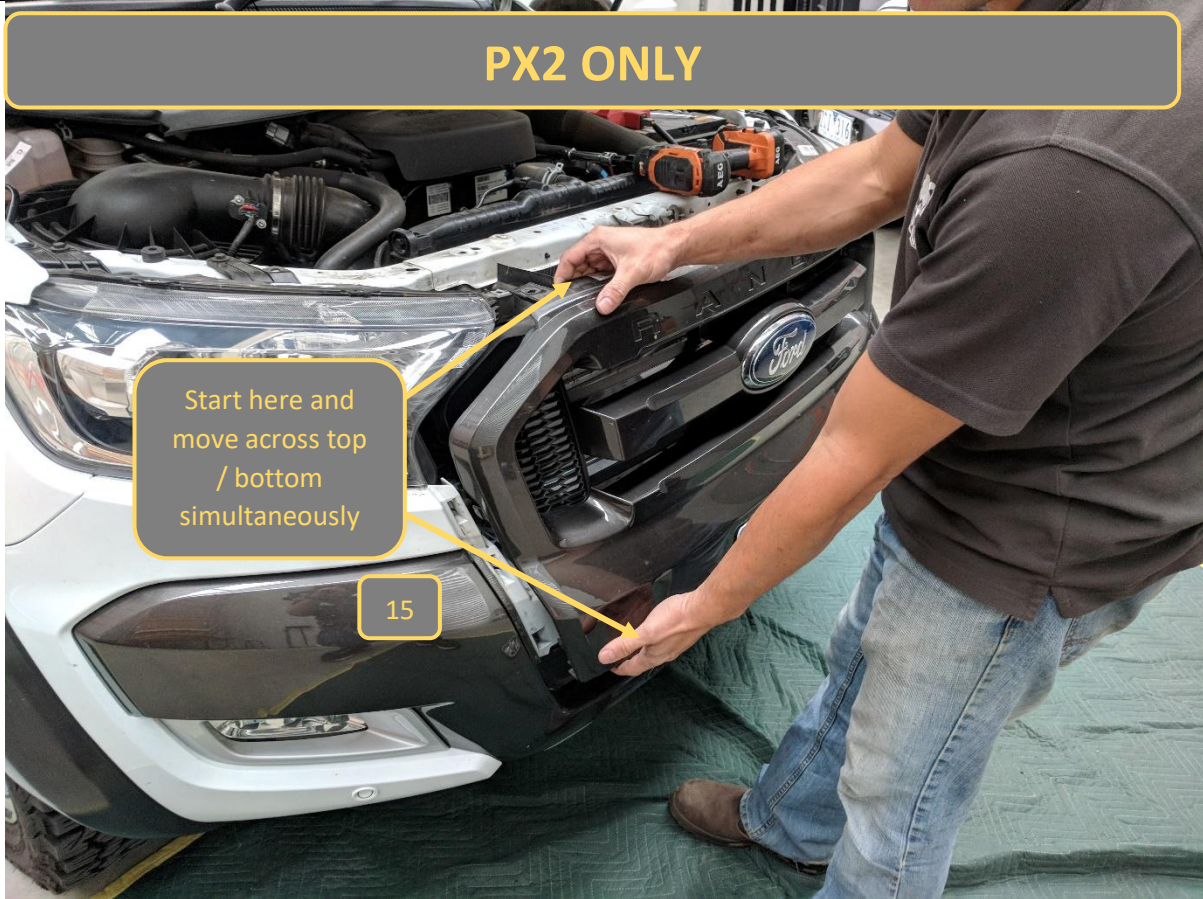
TOOLS REQUIRED


8mm Socket
Extension Bar

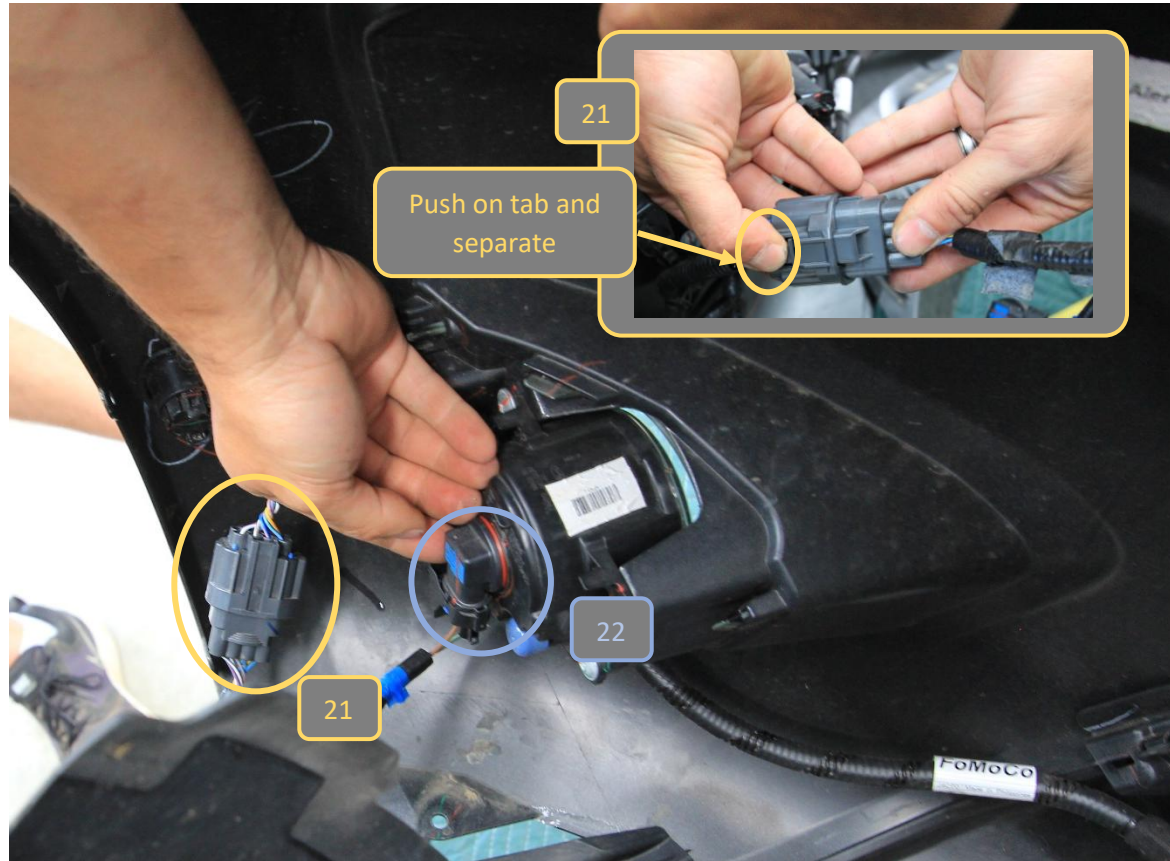
FASTENERS

6x 8mm head flanged
bolts

Discard


| PX2 ONLY | | |
|--|----------------|--|
|  | | |
| <ol style="list-style-type: none">15. PX2 only. Starting at the headlamp firmly but carefully pull the grille away from the bumper to release the clips.16. PX2 only. As the clips release move the pressure toward the opposite side, simultaneously on the top and bottom edge of grille until the next clip releases. Continue until all clips are free.17. PX2 only. Carefully lift of grille once free and place on a non-marking surface. | TOOLS REQUIRED | |
| | FASTENERS | |

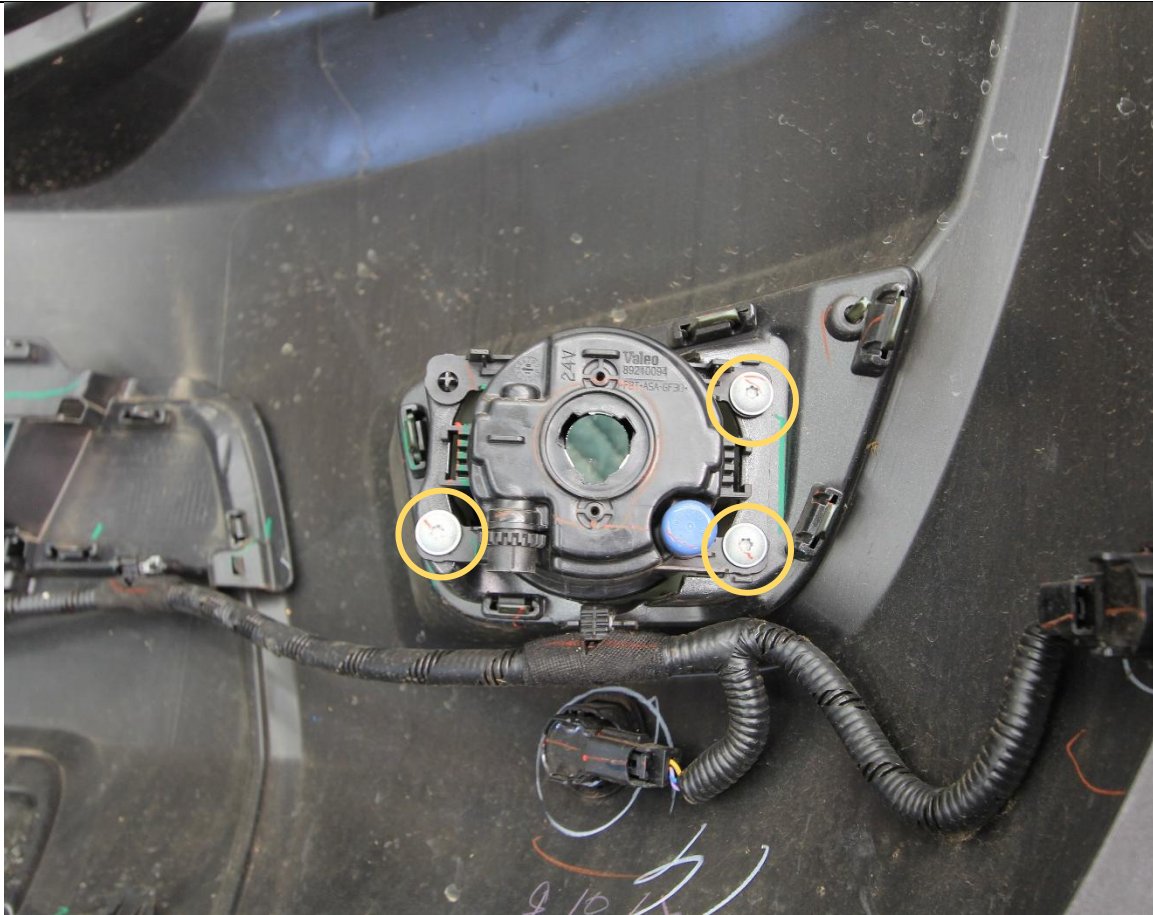
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|  | |
| <p>18. Starting at the wheel arch firmly but carefully pull the bumper away from the panel to release the clips.</p> <p>19. As the clips release, move the pressure toward the center of the car until the next clip releases. Continue until all clips on each side are free. The final clips are located underneath the headlight.</p> <p>20. Repeat clip release on both sides of the bumper.</p> | TOOLS REQUIRED |
| | FASTENERS |



21. Disconnect the main parking sensor loom, on the front LH passenger side by pushing down on the tab and pulling the connector apart.
22. Disconnect fog lights by rotating lamp holder 90 degrees and removing lamp from fog light assembly. Repeat fog lamp disconnection on both sides of vehicle.

TOOLS REQUIRED**FASTENERS**

| | | |
|---|--|--|
|  | | |
| <p>23. Once all clips are free and all wiring disconnected, lift the bumper off the car from the center grille section.</p> <p>24. Place the bumper on a panel stand or blanket to ensure the grille is not marked.</p> | | TOOLS REQUIRED Panel Stand or Soft Blanket |
| | | FASTENERS |



25. Remove fog lamp from bumper by removing the 3x T25 Torx screws.
26. Repeat for other fog lamp on opposite side of bumper. Retain fog lamps for re-fitment to front bar.

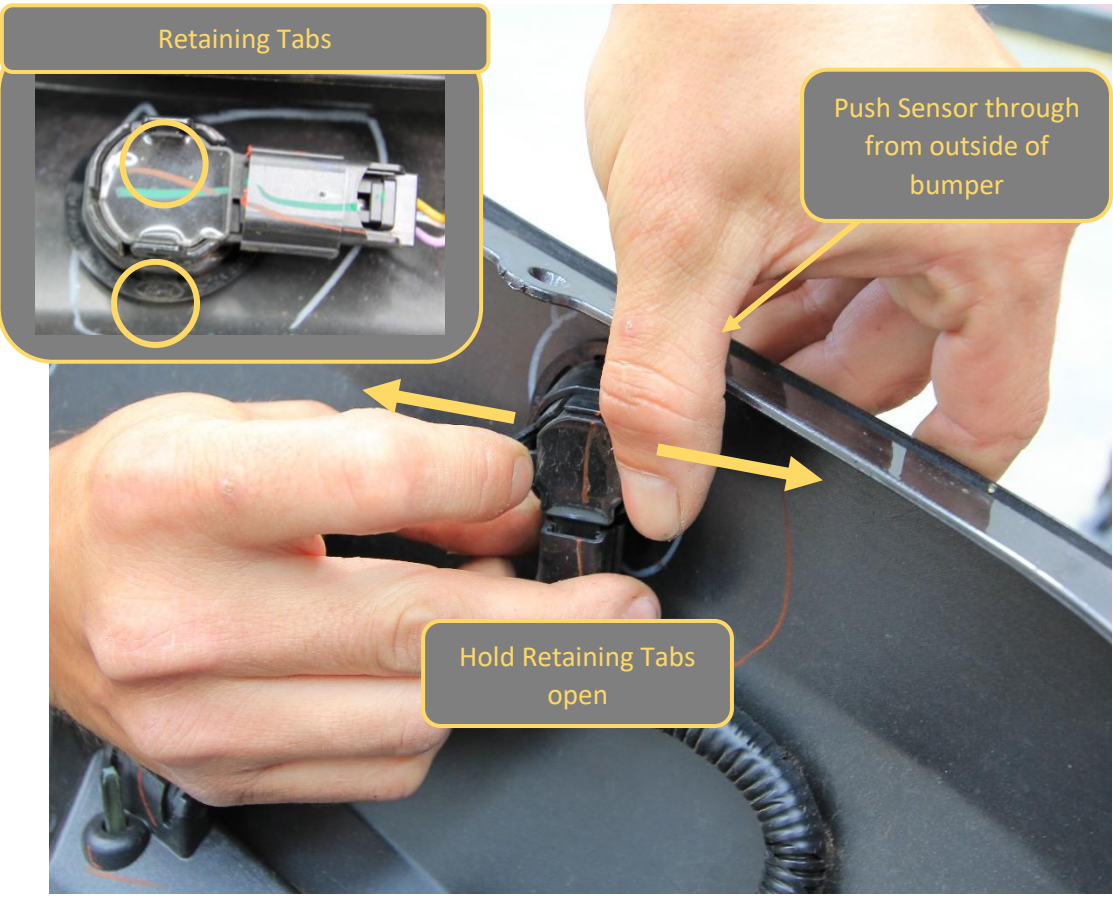
TOOLS REQUIRED

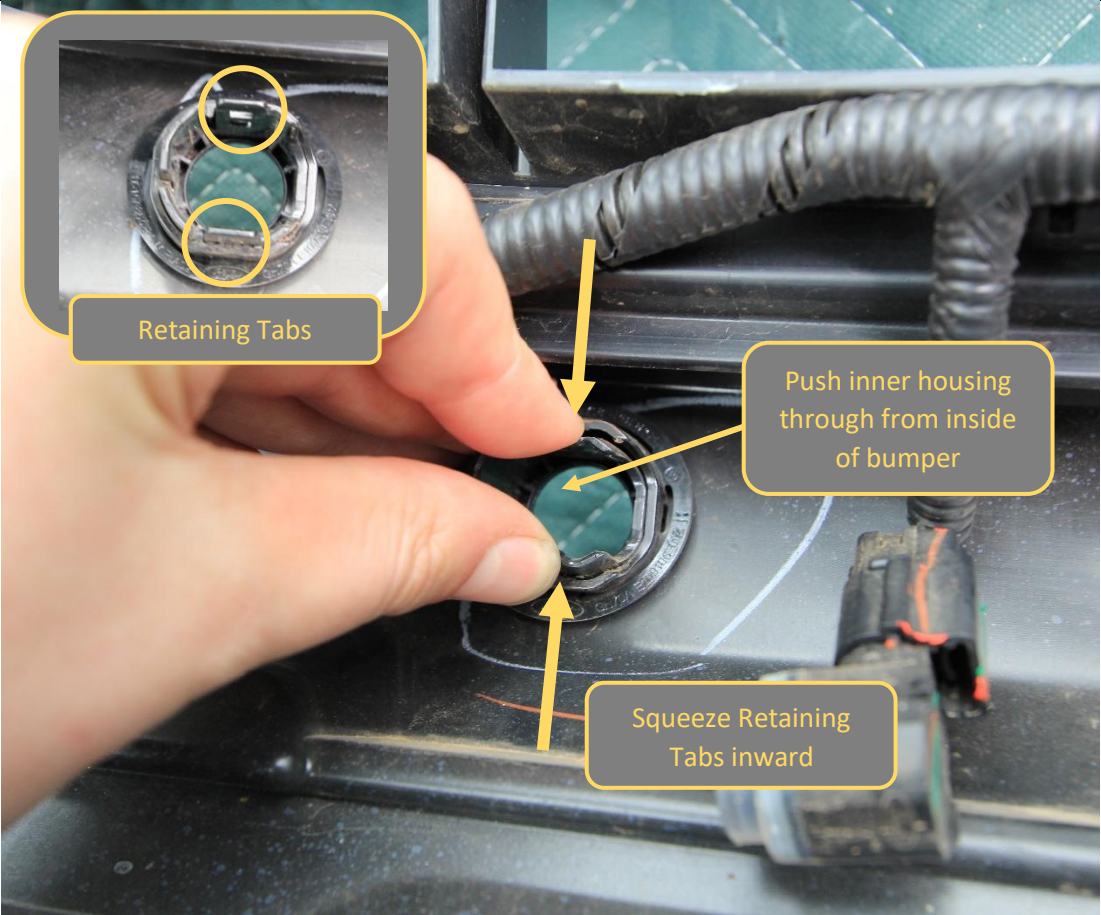
T25 Torx Driver

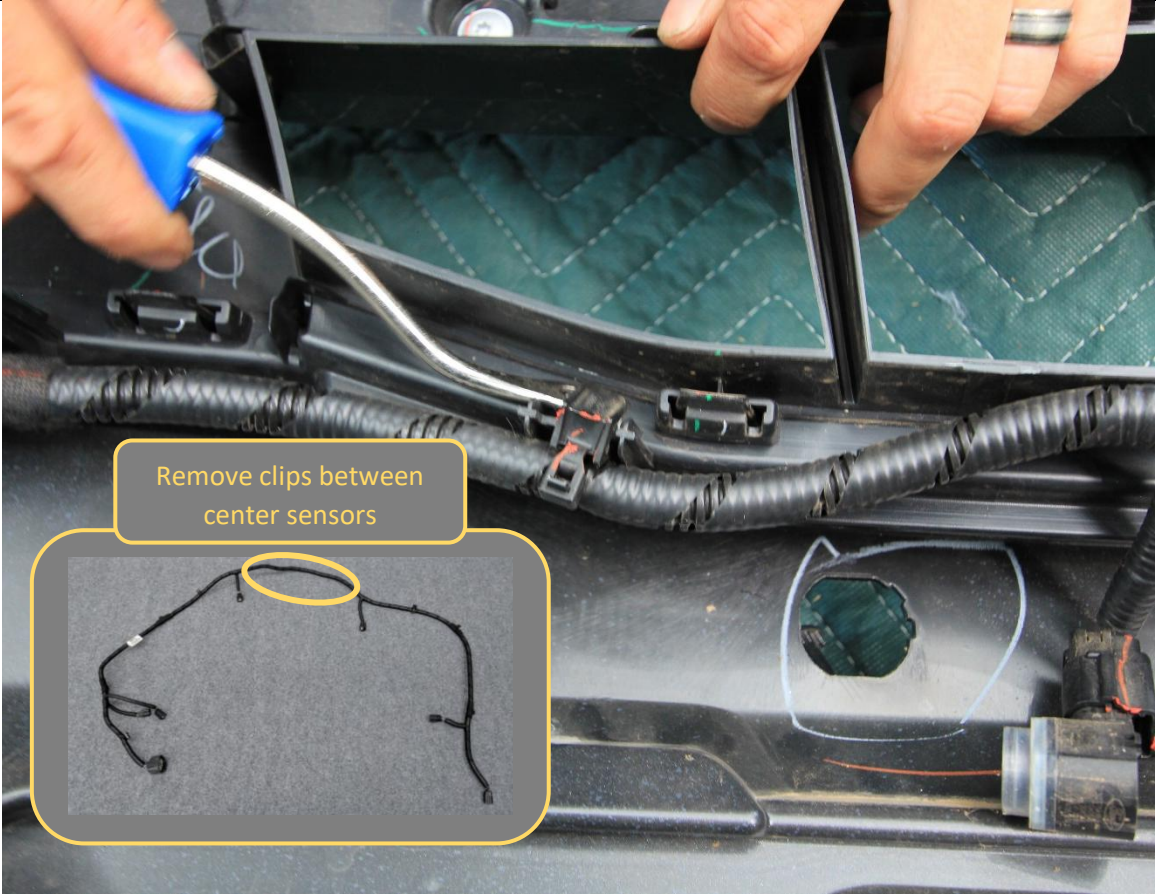
FASTENERS

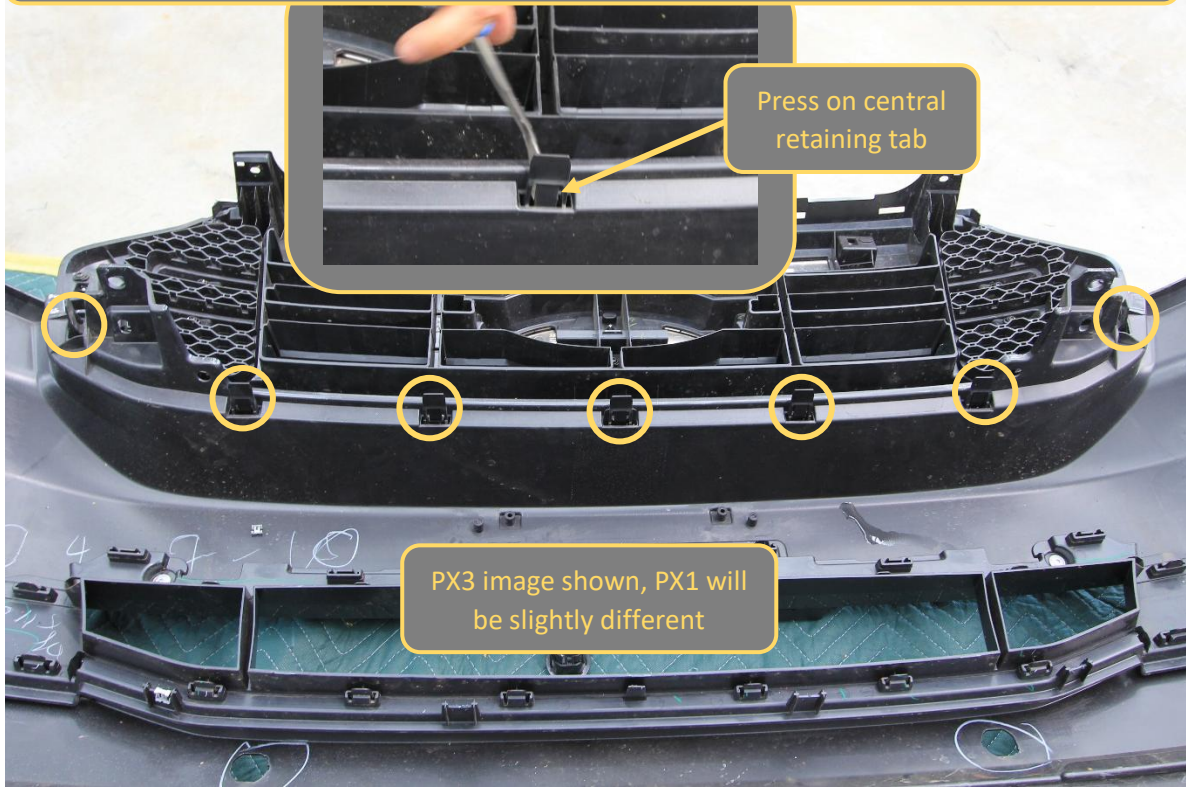
6x T25 Screw

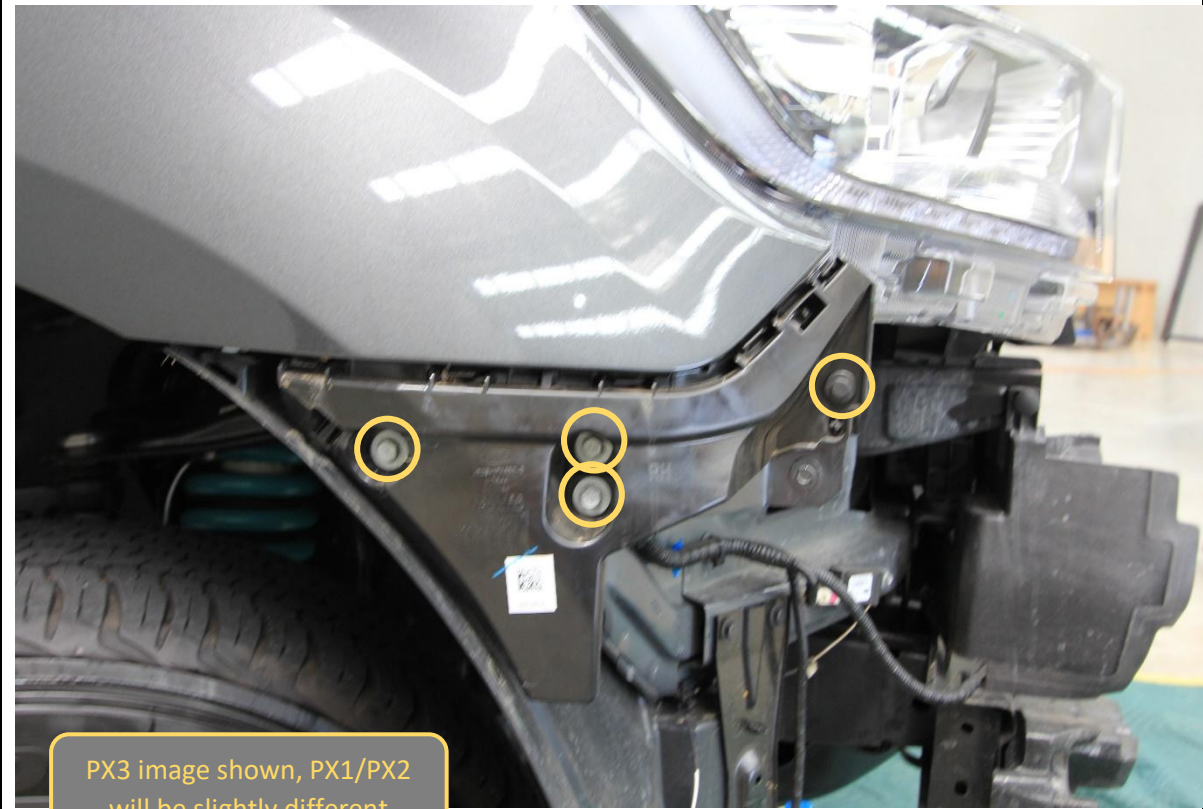
Discard

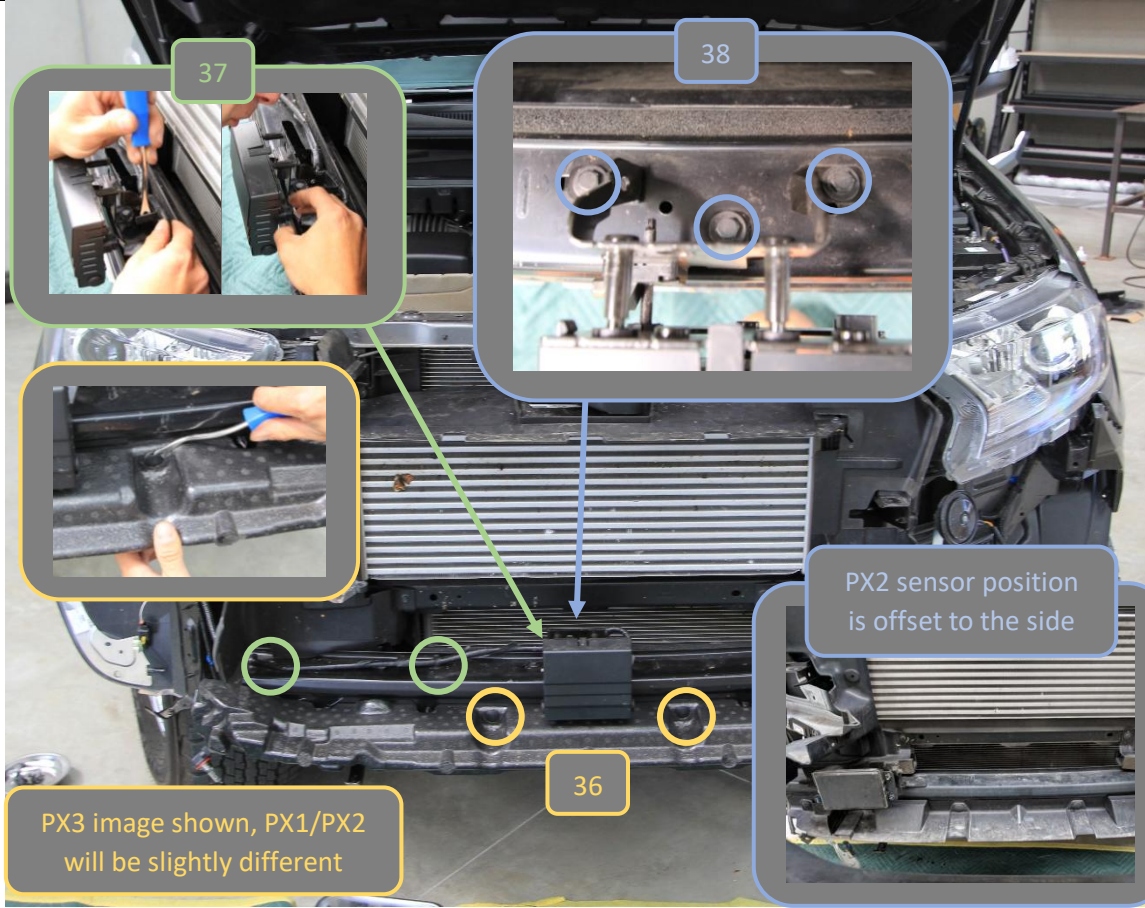
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|  | |
| <p>27. If equipped, remove parking sensors from housings, by holding open the retaining tabs, whilst pushing the sensor through the housing from the outside of the bumper</p> <p>28. Repeat for all sensors in the bumper.</p> | TOOLS REQUIRED |
| | FASTENERS |

| | |
|---|-----------------------|
|  | |
| <p>29. Remove parking sensor housings from bumper by squeezing the retaining tabs whilst pushing the inner housing through the bumper from the inside.</p> <p>30. Repeat for all sensors in the bumper. Take care to ensure that each inner and outer housing are matched. Label positions of housings to aid with re-fitment to bar.</p> | TOOLS REQUIRED |
| | FASTENERS |


| | |
|---|--|
|  | |
| <p>31. If equipped, separate parking sensor loom from bumper by prying off all the retaining clips using trim tool.</p> <p>32. Remove the retaining clips between the two middle sensors by carefully cutting the zip tie part of the retaining clip with side cutters.</p> | TOOLS REQUIRED Trim Tool Side Cutters |
| | FASTENERS |

| PX1 + PX3 ONLY | | |
|---|------------------------|--|
|  | | |
| <p>33. Separate grille from bumper by releasing the clips securing it to the lower bumper and pulling the grille forward.</p> <p>Use a trim tool or small flat blade screwdriver to depress the center retaining tab whilst pulling grille forward to release the clips</p> | TOOLS REQUIRED | |
| | FASTENERS | |
| | Trim Tool | |
| | Flat Blade Screwdriver | |

| | | |
|--|---|--|
|  <div>PX3 image shown, PX1/PX2 will be slightly different</div> | | |
| <div>34. Remove the plastic bumper retainer by removing the 4x securing bolts using a 10mm Socket.</div> <div>35. Repeat for other side of vehicle</div> | <div>TOOLS REQUIRED</div> <div>10mm Socket</div> | |
| | <div>FASTENERS</div> <div>4x 10mm head bolts</div> <div>Discard</div> | |



| | |
|---|--|
| <p>36. Remove the plastic air guide (PX2) or foam impact absorber (PX3) by removing the 2x split head clips. Use a trim tool to pry top part of head to release clip.</p> <p>37. Unplug and unfasten wiring loom from adaptive cruise control radar sensor (if equipped). Press down on tab on connector to release plug.</p> <p>Use trim tool to pry off all harness clips securing loom to the bracket and impact beam.</p> | <p>TOOLS REQUIRED</p> <p>8mm Socket Trim tool</p> |
| <p>38. Remove from adaptive cruise control radar sensor (if equipped), using a 10mm socket.</p> <p>Important: Do not drop the radar sensor. Take care not to damage it.</p> | <p>FASTENERS</p> <p>10mm head bolts Split head clips</p> <p>Discard</p> |

| | |
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|  <p>PX2 sensor bracket looks slightly different</p> <p>PX3 image shown</p> | |
| <p>39. Separate the adaptive cruise control bracket from the support bracket by pulling the bracket out of the ball and socket clips.</p> <p>40. Take care not to drop or damage the adaptive cruise control module. Start with the side with the single clip and release clips one by one. A moderate to firm amount of force is required to release the clips.</p> | TOOLS REQUIRED |
| | FASTENERS |



41. Remove the lower bumper retaining brackets, by removing the 2x 10mm head bolts. Discard bracket.
42. Repeat for other side of vehicle.

TOOLS REQUIRED

10mm Socket

FASTENERS

4x 10mm head bolts

Retain 1x
Discard 3x




43. Remove the FM radio antenna from the lower section of the wheel arch liner on the driver's side, using a trim tool to pry it up.
44. Release the cable clip securing the antenna wire from the body panel.
45. Remove the FM radio module from the chassis using 7mm socket / spanner.


TOOLS REQUIRED

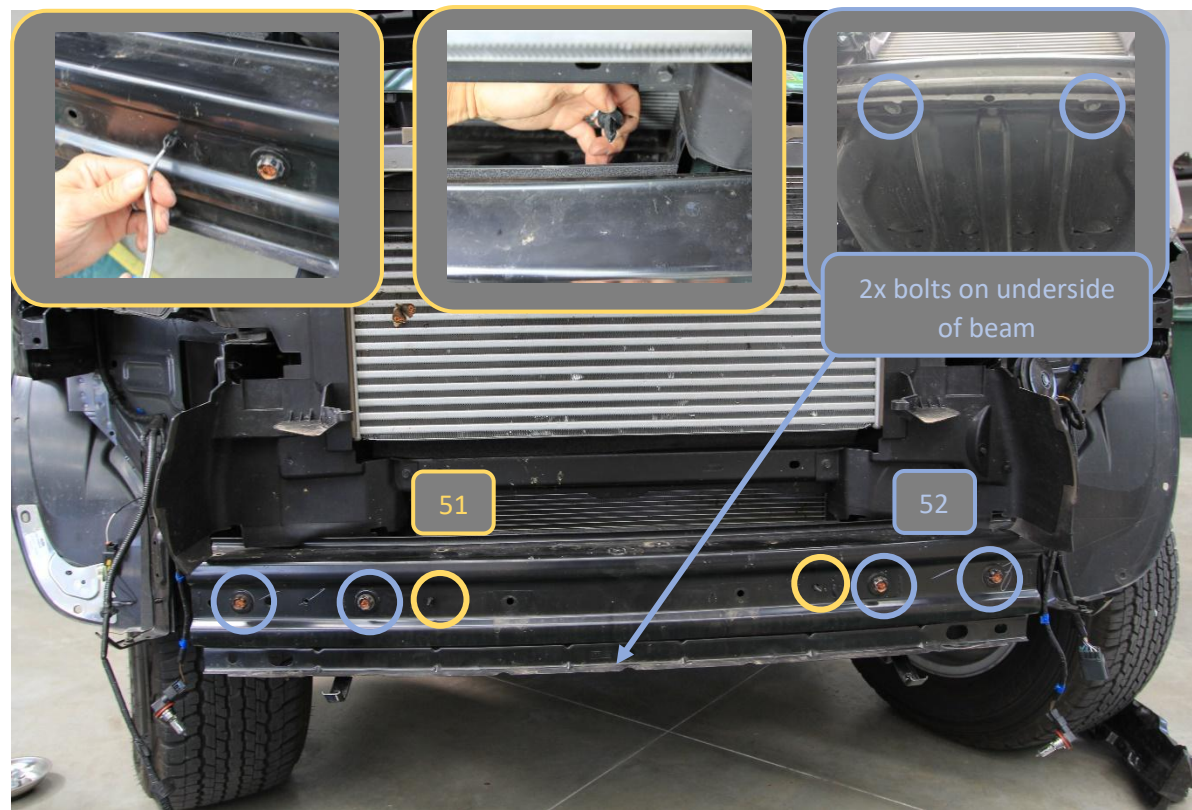
Trim tool
7mm Socket

FASTENERS

Discard

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| <p>46. Using electric drill and 6mm drill bit, open mounting hole of FM radio module to 6mm.</p> <p>47. Re-secure the FM radio module to the chassis using the threaded inserts and bolts originally used for the bottom bumper support bracket. Tighten with 10mm socket.</p> | TOOLS REQUIRED Drill 6mm Drill Bit 10mm Socket |
| | FASTENERS 1x 10mm head bolts Re-use from step 41 |

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| <p>48. Apply double sided adhesive tape (not supplied) to rear of FM radio antenna.</p> <p>49. Reconnect the radio antenna cable.</p> <p>50. Re-secure the FM radio antenna to the backside of the wheel arch liner, up behind the headlight, using the double-sided adhesive tape.</p> | |
| TOOLS REQUIRED | |
| Double sided adhesive tape | |
| FASTENERS | |



51. **PX3 only.** Remove the split clips securing the plastic air guide to the impact beam by using a trim tool to push out center of clip, then removing clip from the rear.
52. Remove the impact beam by removing the 4x M10 bolts securing it to the chassis and 2x bolts securing to bash plate, using a 15mm Socket.

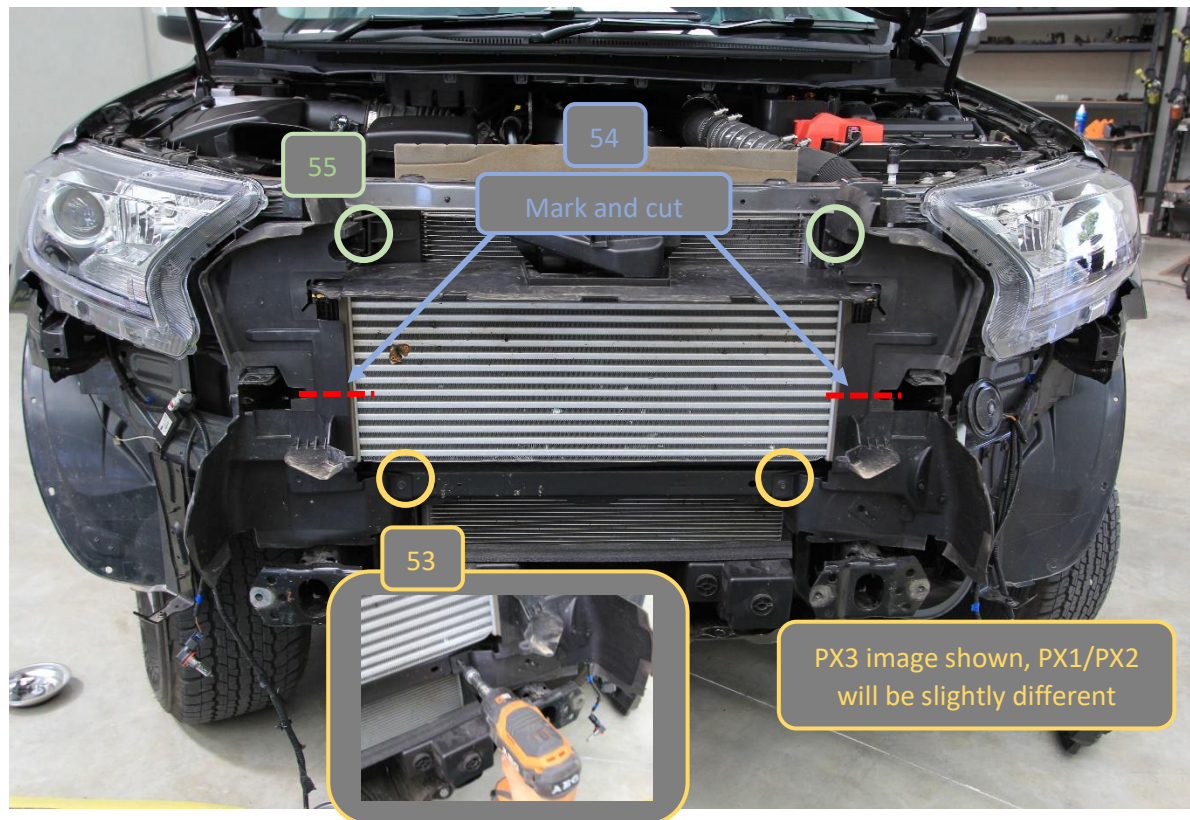
TOOLS REQUIRED

15mm Socket
Trim tool

FASTENERS

6x M10 Bolts
2x Split head clips

Discard



53. Remove 2x M6 bolts securing side air guide to the chassis cross member, using 10mm socket.
54. Mark the plastic air guide along the narrowest point, as indicated in figure above. Carefully cut along the mark using utility knife. Take care to ensure wiring looms are clear before cutting.
55. Remove both parts of the air guide from the vehicle. The top part is secured with 2x 10mm head bolts.

TOOLS REQUIRED

10mm Socket
Utility Knife

FASTENERS

4x M6 bolts

Retain 2x
Discard 2x



56. Remove the exterior air temp sensor from the bottom part of the air guide using a trim tool to pry up the clips.
57. Mark hole spacing required on top portion of air guide, using the sensor as guide.
58. Drill new mounting holes in top portion of air guide in positions marked using 6mm drill bit.

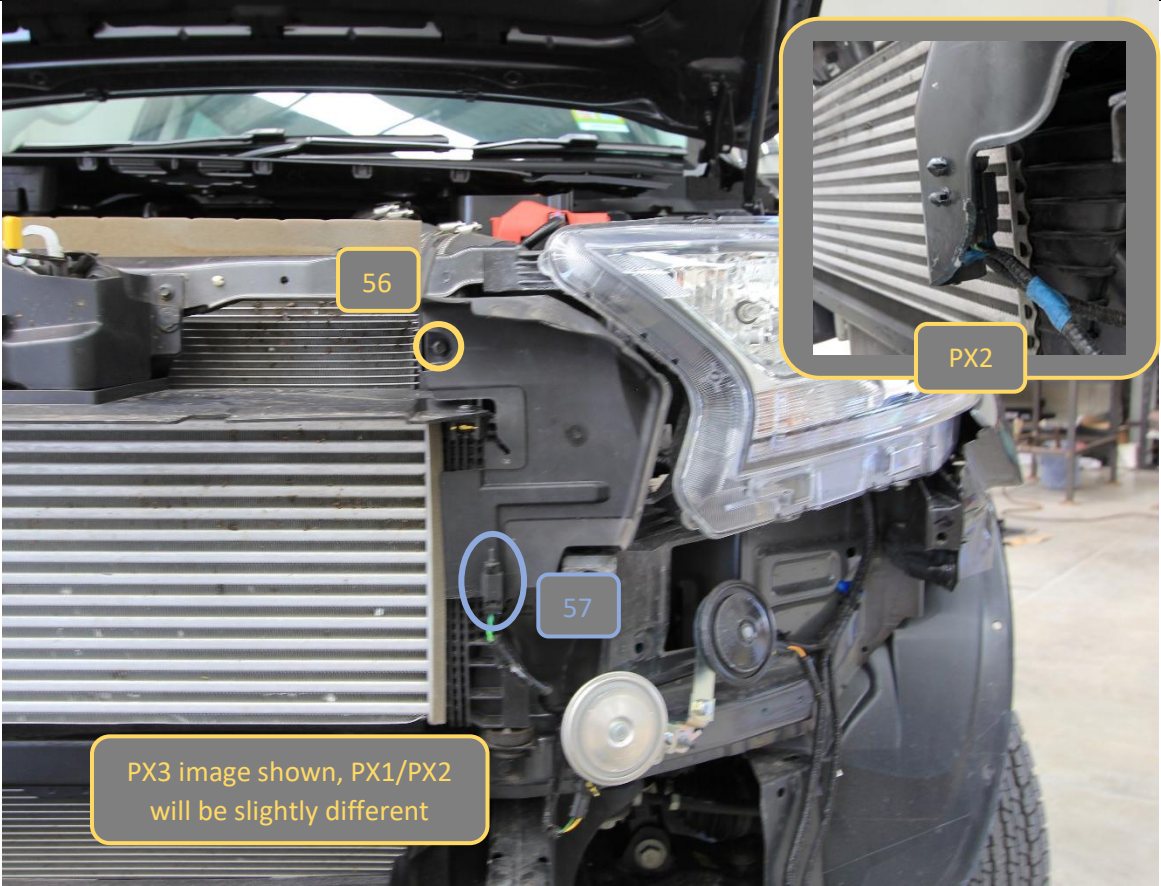
TOOLS REQUIRED

Trim Tool
Drill
6mm Drill Bit

FASTENERS

2x M6 Bolt

Retain for re-assembly

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| <p>59. Re-Fit top portion of air guide using original bolt.</p> <p>60. Re fit exterior temperature sensor by pushing clips into new holes drilled in top portion of air guide.</p> | TOOLS REQUIRED 10mm Socket | |
| | FASTENERS 2x M6 bolts from step 55 | |

62

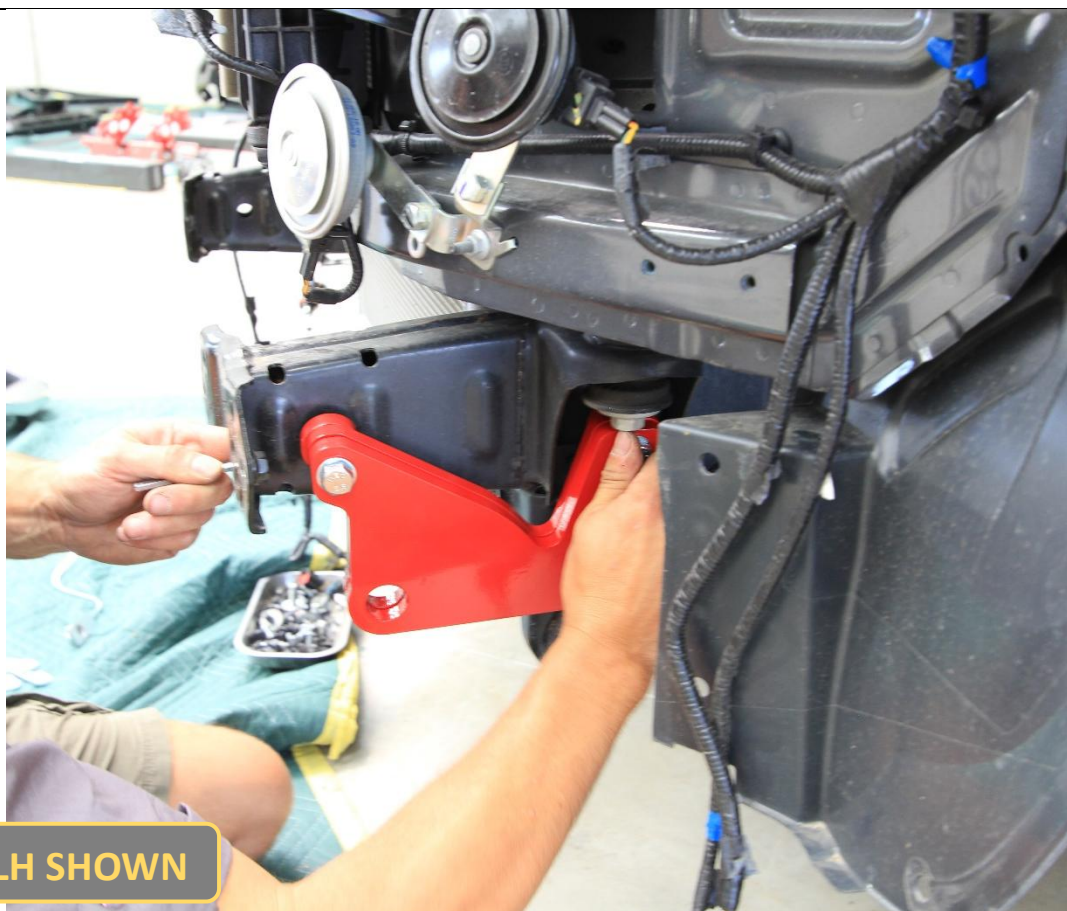
64

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| <p>61. If vehicle is a light colour it is a good idea to paint the areas below the headlight that will be visible behind / under the bar when it's fitted.</p> <p>62. Start by cleaning all dirt from areas to be painted and rough up surface with Scotch-Brite or fine sandpaper.</p> <p>63. Carefully mask underneath headlight.</p> <p>64. Spray paint area under headlight with matte black automotive paint.</p> | <p>TOOLS REQUIRED</p> <p>Masking Tape Scotch Brite / fine grit sandpaper Cloth/Rag Cleaning solvent Matte Black Automotive Paint</p> |
| | <p>FASTENERS</p> |



65. Allow paint to dry. It's a good idea to go on with further bar preparation steps whilst paint is drying.
66. Remove masking tape before fitting bar.

TOOLS REQUIRED**FASTENERS**

**LH SHOWN**

67. If fitting Offroad Animal tow points, do so at this stage.
68. Refer to fitting instructions supplied with tow points.

TOOLS REQUIRED

Refer to Tow point instructions

FASTENERS

Refer to Tow point instructions



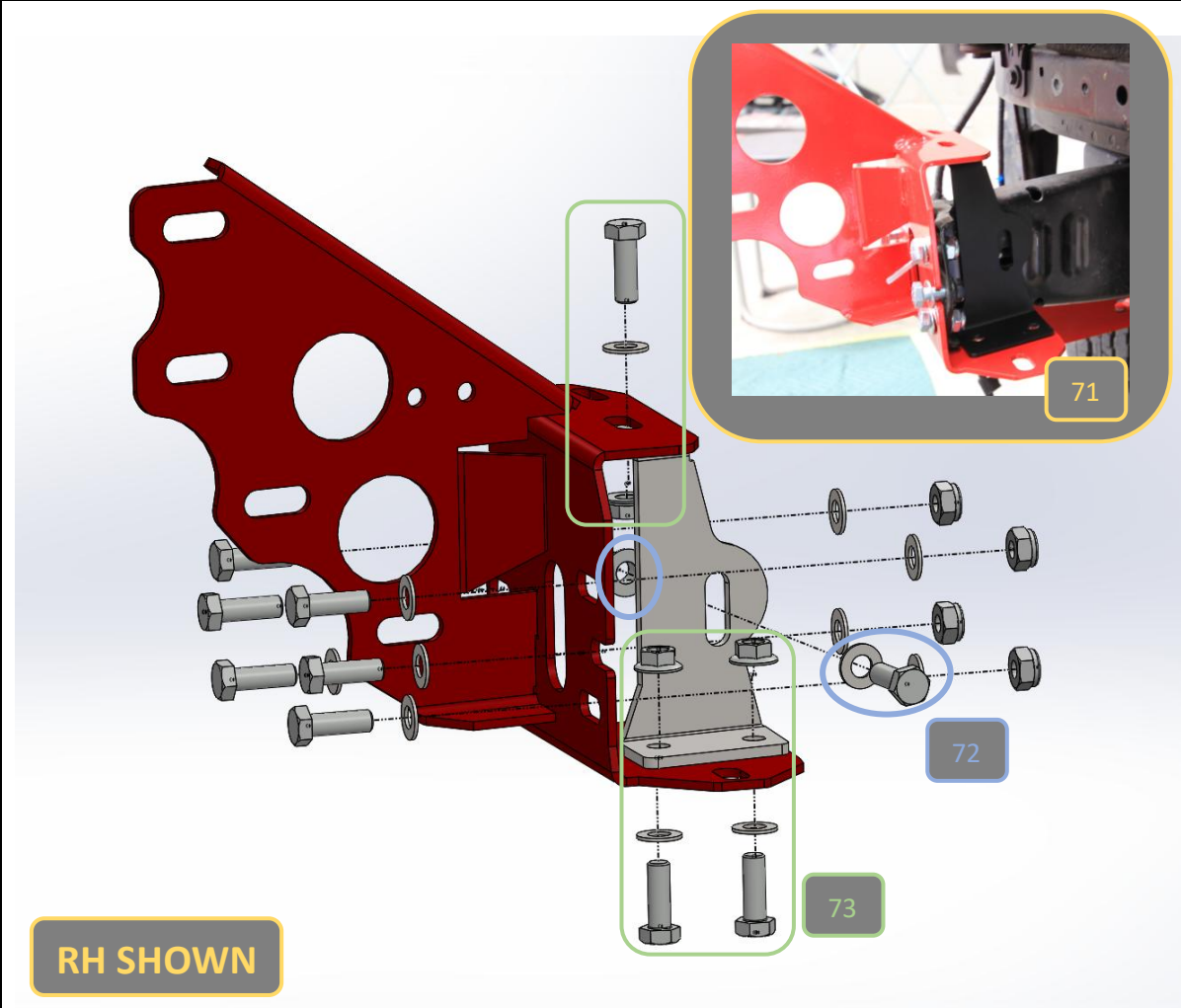
69. Fit front impact absorber mount assembly to the chassis.
- Secure with 2x M10x30 hex bolts and flat washers into existing threaded inserts on chassis, and 4x M10x30 Bolts, 8x flat washers and 4x Nyloc nuts in other locations (washer on both bolt and nut side).
70. Secure finger tight only at this stage. Repeat for other side of vehicle.

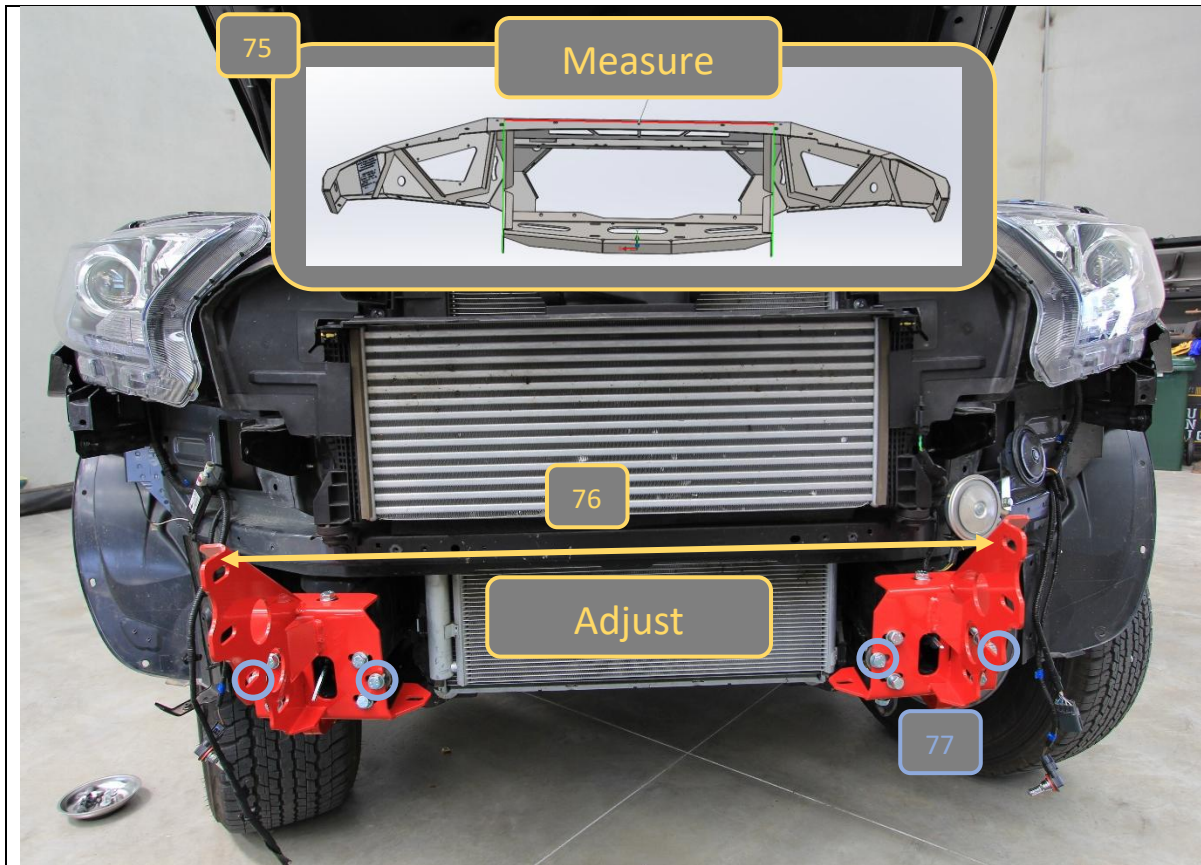
TOOLS REQUIRED

FASTENERS

6x M10x30 Hex Bolt
10x M10 Flat Washer
4x M10 Nyloc Nut

Per side

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|  | |
| <p>71. Fit Chassis bracket gusset to chassis and mounts. Bracket goes on the inside face.</p> <p>72. Secure gusset to chassis with 1x M10x30 hex bolt, flat washer and flange nut, inserted inside the chassis.</p> <p>73. Secure to mounts using 3x M10x30 hex bolts, flat washers and flange nuts.</p> <p>74. Secure finger tight only at this stage. Repeat for other side of vehicle.</p> | TOOLS REQUIRED |
| | FASTENERS 4x M10x30 Bolt 4x M10 Flat Washer 4x M10 Flange Nut Per side |



75. Measure and note distance between outside of uprights on bar.

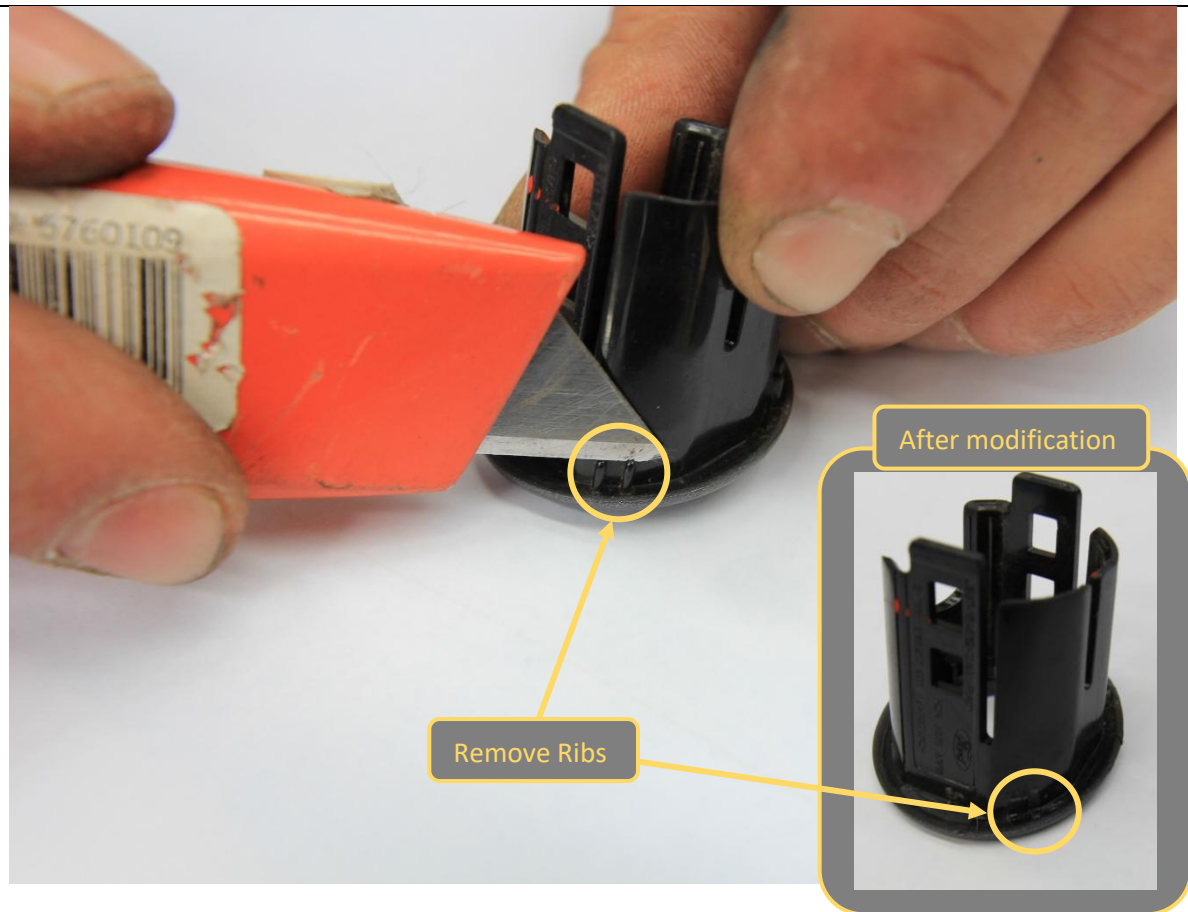
Upright Distance _____mm

76. Measure and adjust distance between mounts to be 1-2mm larger than the distance measured on bar.
77. Snug chassis insert bolts using 16mm Socket or spanner. Re check distance. Adjust distance with soft blow hammer if required.
78. Tighten all bolts using 16mm socket and spanner. Re check distance after all fasteners are secure.

TOOLS REQUIRED

Tape measure
16mm Socket & Spanner
Soft blow hammer

FASTENERS



79. If equipped, modify sensor housings to fit in front bar by removing the small locating ribs using a utility knife.
80. Complete these modifications for all sensor housings.

TOOLS REQUIRED

Utility Knife

FASTENERS



81. Re-fit sensor housings to new front bar in original locations.
82. Re-fitting is opposite of removal, insert the outer part through outside of bar, then replace inner and press together until an audible “click” is heard.
83. If required, prevent housings from moving by applying a small dot of automotive sealant (such as Sikaflex 227) between the bar and inner sensor housing.

TOOLS REQUIRED

Automotive sealant

FASTENERS

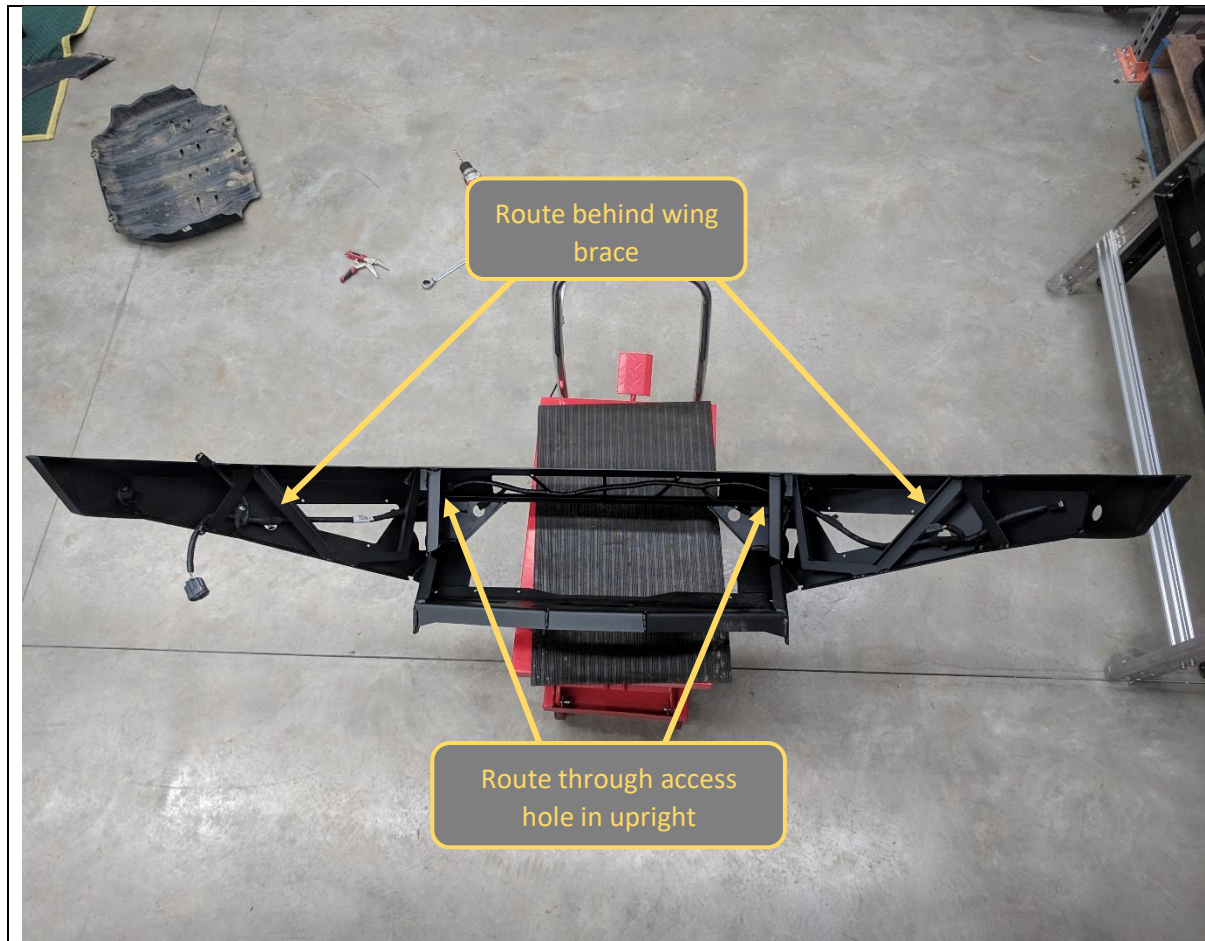


84. If fitting to XLS or PX2 models with only 4x sensors, fit the plastic blanking plugs to the far outside sensor holes in the bar.

85. If fitting to PX1 or base model PX2 with no sensors fit sensor plugs to ALL sensor holes.


TOOLS REQUIRED**FASTENERS**

Plastic blanking plugs



86. Route sensor loom through bar as shown, starting from the left hand side, ensuring loom is centered in bar.

TOOLS REQUIRED**FASTENERS**

| | |
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| <p>87. Plug sensors into loom, then insert into housing from behind. Push until audible click is heard and sensor can be seen to sit flush with housing on front side.</p> <p>88. The center two sensors may require additional manipulation / housing rotation to get in, due to tight clearance.</p> | TOOLS REQUIRED |
| | FASTENERS |



89. Insert cage nuts to square slots in bottom of wings, 3x per side. Seat cage nut against one edge of slot then, push other edge in with flat bladed screwdriver.

TOOLS REQUIRED

Flat bladed screwdriver

FASTENERS

6x M6 Cage Nuts



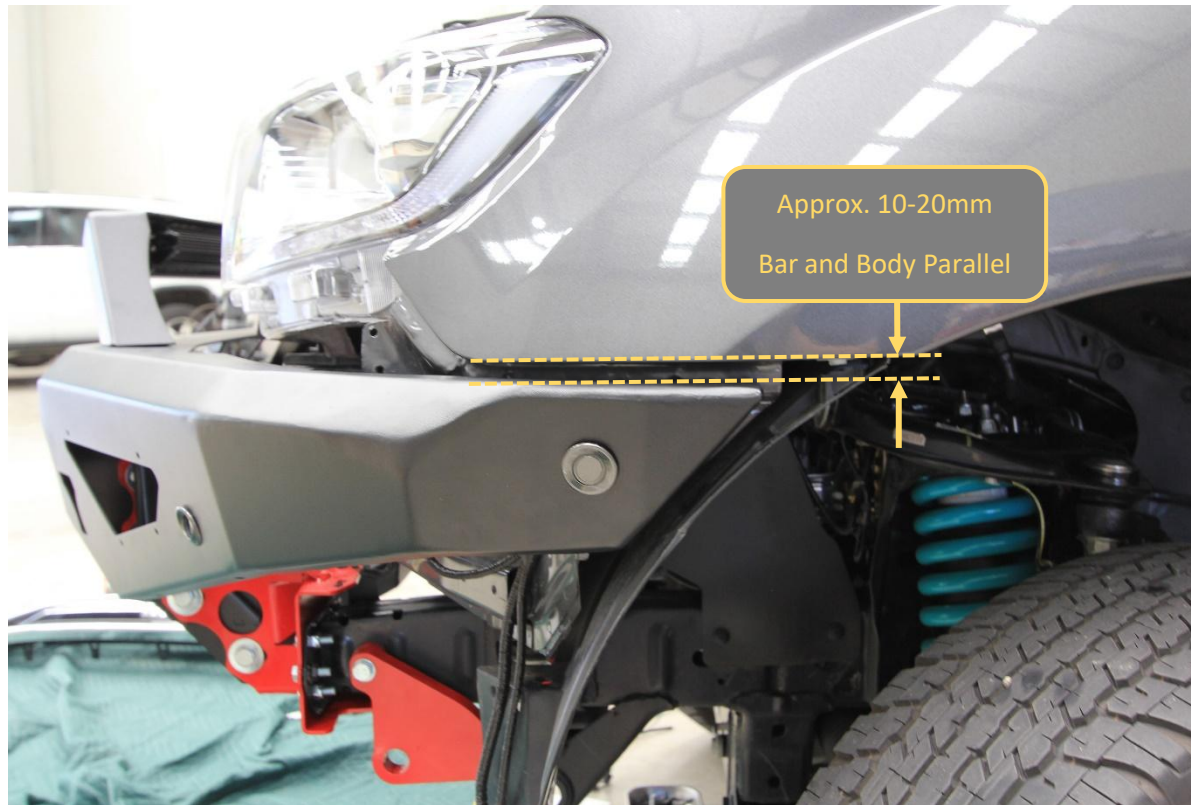
- 90. With assistance from either a lifting trolley or another person, lift the bar up to the vehicle mounts.
- 91. Secure with single M12x30 hex bolt, flat washers and Nyloc nut each side at this stage. Leave finger tight.

TOOLS REQUIRED

Lift trolley

FASTENERS

2x M12x30 Hex Bolt
4x Flat Washer
2x M12 Nyloc Nut



92. Fit the rest of the M12x30 bolts, Flat washers and Nyloc nuts to the bar to mount interface.

93. Set the clearance between the bar and body and tighten all mounting bolts.

This is best achieved by having another person hold the bar in the correct position whilst mounting bolts are tightened.

TOOLS REQUIRED

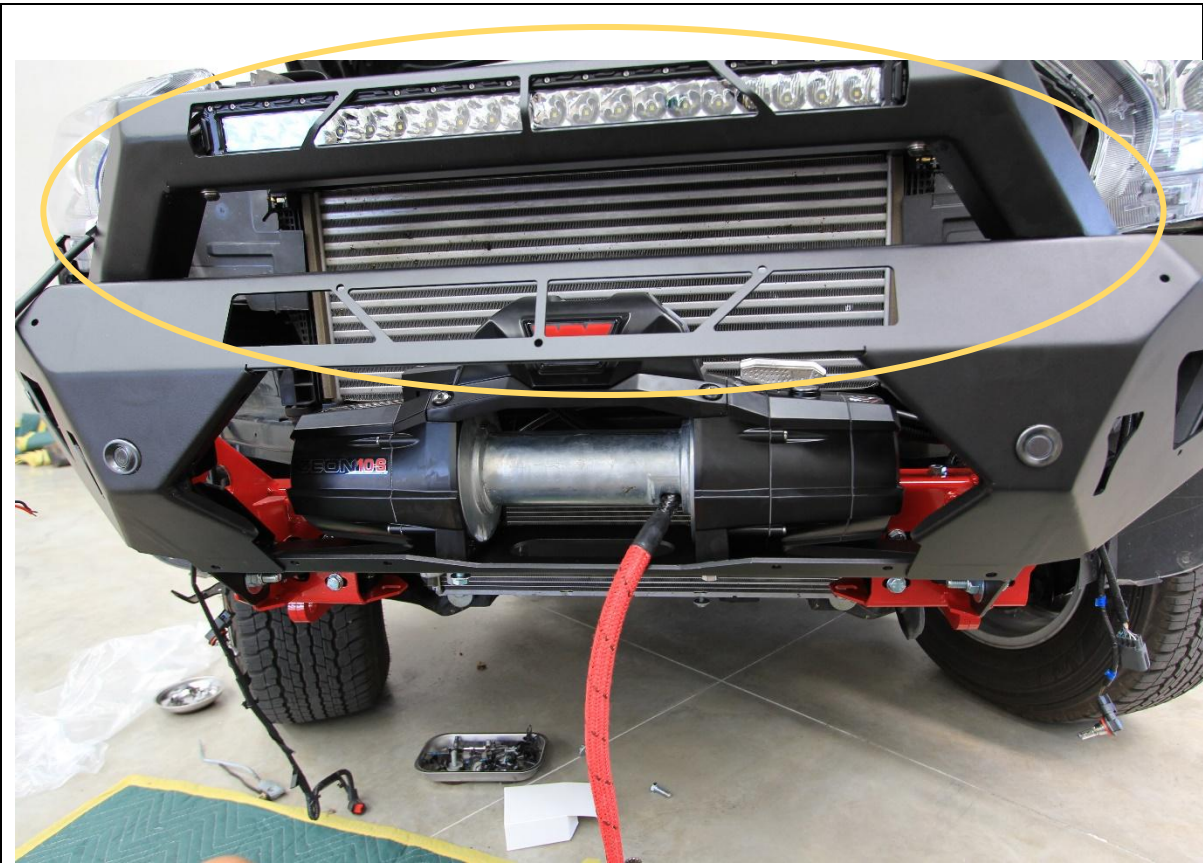
18+19mm Socket & Spanner

FASTENERS

6x M12x30 Hex Bolt
12x Flat Washer
6x M12 Nyloc Nut

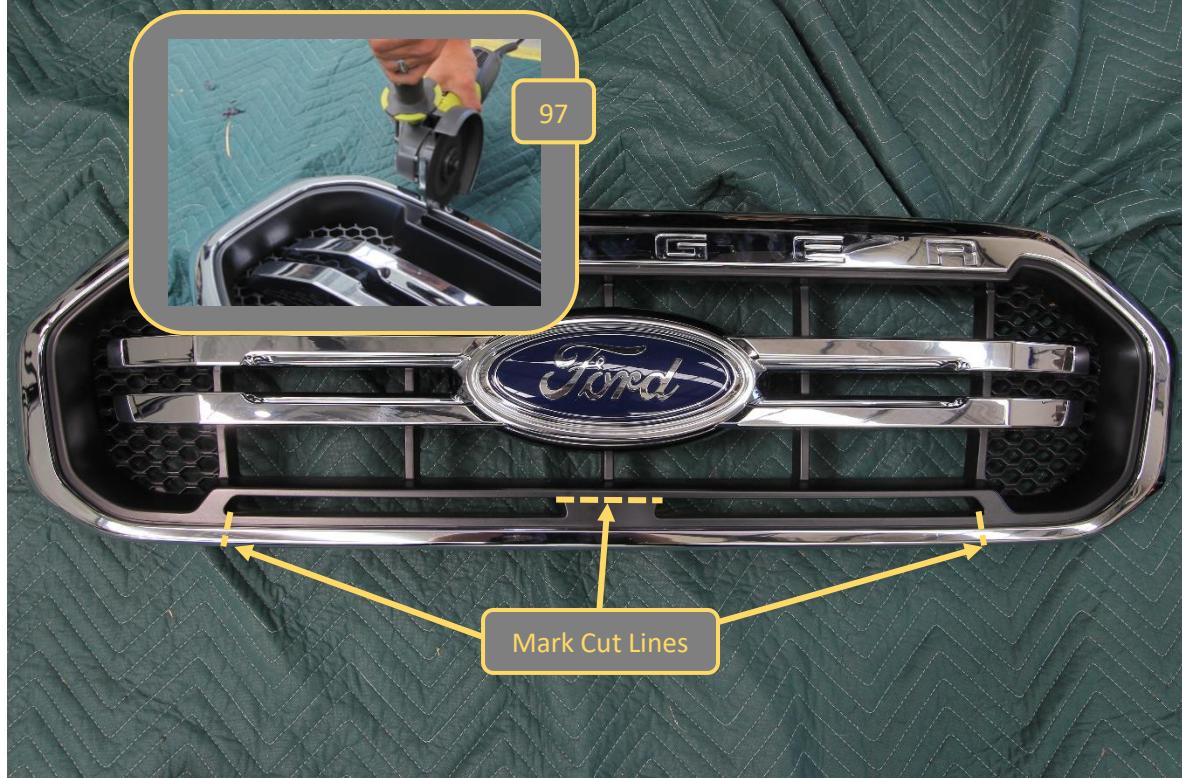


| | |
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| <p>94. If fitting a winch to the bar, do so at this stage. Follow the winch manufacturer’s instructions.</p> <p>95. The winch mounts feet down and is inserted through the front opening of the bar.</p> | <p>TOOLS REQUIRED</p> <p>Refer to winch instructions</p> |
| | <p>FASTENERS</p> <p>Refer to winch instructions</p> |



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| <div>96. If fitting a top hoop to the Predator bar, do so at this stage. Follow instructions supplied with the top hoop kit.</div> <div>97. It is also good time to complete any wiring required for fitment of Lights / UHF on the bar.</div> | <div>TOOLS REQUIRED</div> <div>Refer to hoop instructions</div> |
| | <div>FASTENERS</div> <div>Refer to hoop instructions</div> |

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| <div>98. Fit headlight infill panels to the top of the wing, using M6x16 button head bolts, M6 flat washers and Flange nuts. Secure finger tight only at first.</div> <div>99. PX1 Only. If fitting to PX1 Ranger, use alternative PX1 infill panels supplied with your order. Discard the standard PX2/PX3 Panel shown.</div> <div>100. Align panels to have even gap with headlight (not touching) and secure in place. Repeat for both sides of vehicle.</div> | <div>TOOLS REQUIRED</div> <div>4mm Hex key 10mm spanner</div> |
| | <div>FASTENERS</div> <div>4x M6x16 black button head 4x M6 black flat washer 4x M6 flange nut</div> |

PX3 (XLT AND BELOW) ONLY

101. For PX3 XLT and lower spec models, the grille does not need to be cut if not fitting winch with integrated control box.
102. If fitting a winch with an integrated control box, such as the WARN Zeon , a modification will need to be made to the bottom of the grille to allow the control box to fit.
103. Mark the cuts in the positions as shown above.
104. Cut the grille using an angle grinder or air hacksaw along the lines marked. Ensure cut is neat with no sharp edges (clean up with knife or deburring tool).

TOOLS REQUIRED

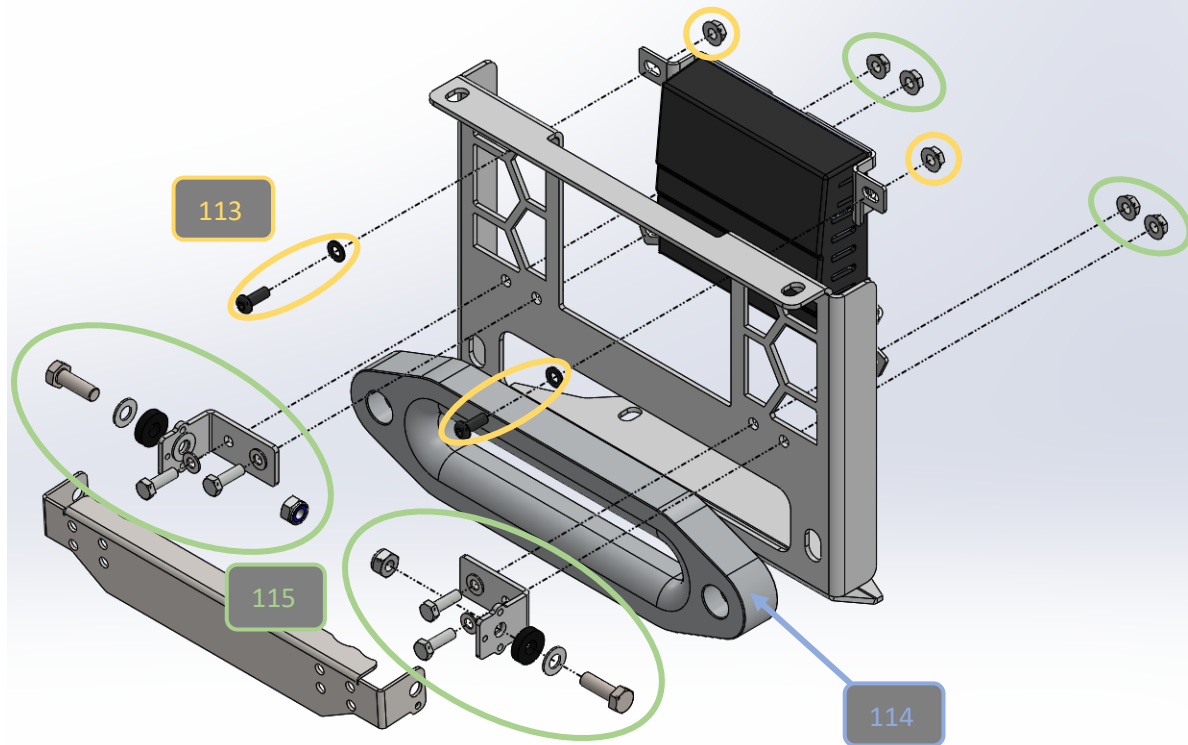
Angle Grinder
or
Air Hacksaw

Paint Marker

FASTENERS

| PX3 WILDTRAK AND ALL PX2 ONLY | |
|--|--|
| | |
| <p>105. PX3 Wildtrak and all PX2 model grilles are different and need to be trimmed to fit with new Offroad Animal bar.</p> <p>106. Mark the cuts in the positions as shown above.</p> <p>107. Cut the grille using an angle grinder or air hacksaw along the lines marked. Ensure cut is neat with no sharp edges (clean up with knife or deburring tool).</p> <p>108. This grille cut will also automatically allow the fitment of integrated control box winches.</p> | <div>TOOLS REQUIRED</div> <div>Angle Grinder or Air Hacksaw Paint Marker</div> <div>FASTENERS</div> |

| PX3 ONLY | | |
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|  | | |
| <p>109. If vehicle is equipped with adaptive cruise control, prepare the sensor for re-fitment to bar.</p> <p>110. If not already done so, carefully remove the plastic retaining clips from the back of the sensor module bracket by squeezing with pliers, whilst pushing clip through the bracket.</p> <p>111. Fit the sensor module to the B-0194 retaining bracket using 3x M6x16 black button head bolts, black washers and flange nuts.</p> | TOOLS REQUIRED Pliers 4mm Hex Key 10mm Spanner | |
| | FASTENERS 3x M6x16mm black button head 3x M6 black washer 3x M6 flange nuts | |

PX3 ONLY

112. Prepare the center mesh panel for installation. These steps show the PX3 mesh panels, for PX1 and PX2 models skip to step 119.
113. If equipped, fit the adaptive cruise control module (in the bracket) to the top of center panel using 2x M6x16 black button head bolts, black washers and flange nuts.
114. If fitting winch, fit the winch fairlead to the center panel, using fasteners supplied by the winch manufacturer.
115. Fit the number plate flip brackets, using 4x M6x20 Hex head bolts, flat washers and flange nuts.

Note that 2x of these bolts go through the adaptive cruise mount brackets.

Complete assembly of number plate flip with M8x25 Bolt, HDPE Spacer, flat washers and Nyloc Nut.


TOOLS REQUIRED

4mm Hex Key
10mm Spanner
13mm spanner & socket

FASTENERS

2x M6x16mm black button head
2x M6 black washer
4x M6x20 hex bolt
4x M6 flat Washer
6x M6 flange nut

2x M8x25 hex bolt
4x M8 flat washer
2x HDPE spacer
2x M8 nyloc nut

| PX3 ONLY | |
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|  | |
| <p>116. Fit the center mesh panel to the bar using:</p> <ul style="list-style-type: none">a. 2x M8x16 black button head bolts + black washers into the threaded inserts (top)b. 2x M8x20 black button head bolts + flat washers and flange nuts (bottom) <p>117. As the center mesh panel is offered up to the bar, reconnect wiring harness for adaptive cruise control sensor module.</p> <p>118. Fit the outside mesh panels, each using:</p> <ul style="list-style-type: none">a. 1x M8x16 black button head bolt + black washer (top)b. 2x M6x16 black button head bolts + black washers and flange nuts (side)c. Leave bottom holes empty for now | <p>TOOLS REQUIRED</p> <p>4mm Hex Key 5mm Hex Key 13mm Spanner</p> |
| | <p>FASTENERS</p> <p>4x M8x16 black button head 2x M8x20 black button head 2x M8 flat washer 4x M8 black washer 2x M8 Flange Nut</p> <p>4x M6x16 black button head 4x M6 black washer 4x M6 flange nut</p> |

PX1 + PX2 ONLY

119. The following steps detail mesh panels for PX1/PX2 vehicles.

120. If vehicle is equipped with adaptive cruise control, prepare the sensor for re-fitment to bar.

121. If not already done so, carefully remove the plastic retaining clips from the back of the sensor module bracket by squeezing with pliers, whilst pushing clip through the bracket.

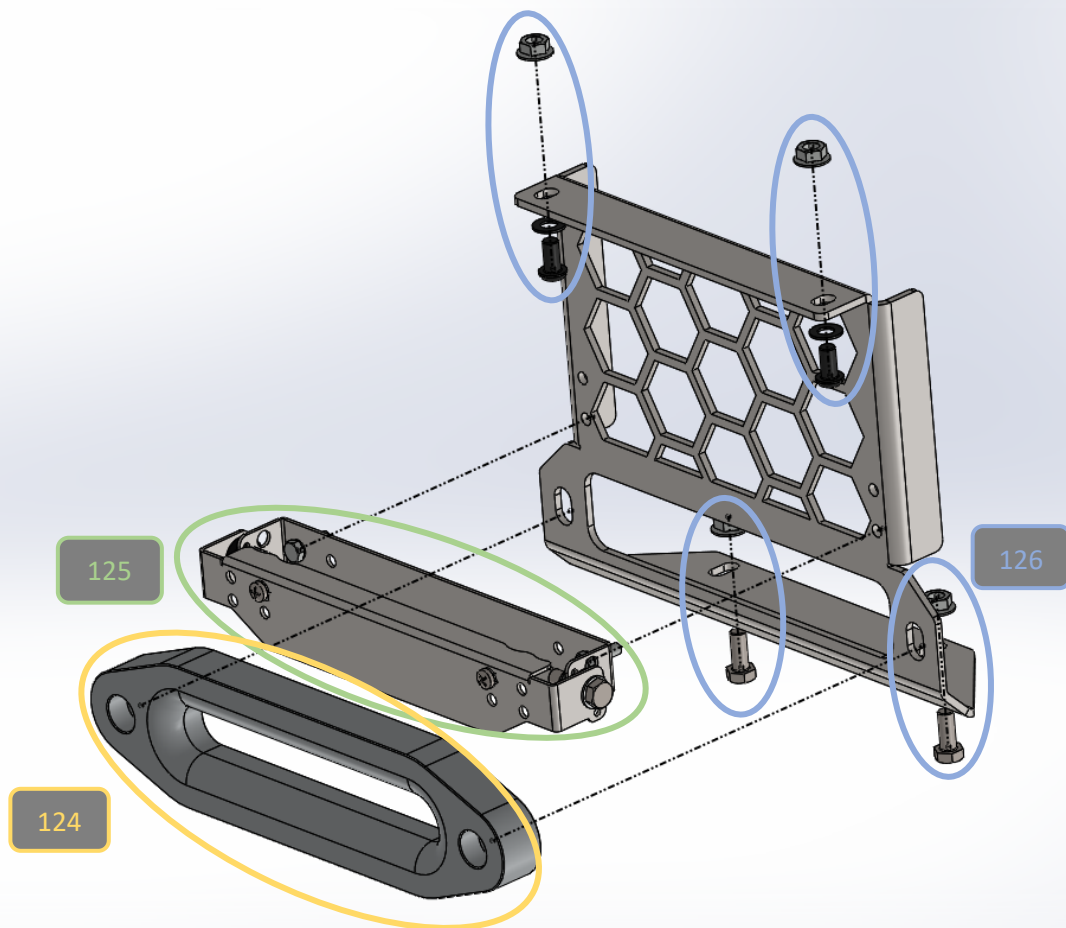
122. Fit the sensor module to the cutout in the **RHS Outer Mesh Panel** using 3x M6x16 black button head bolts, black washers and flange nuts.

TOOLS REQUIRED

Pliers
4mm Hex Key
10mm Spanner

FASTENERS

3x M6x16mm black button head
3x M6 black washer
3x M6 flange nuts

PX1 + PX2 ONLY

123. Prepare the center mesh panel for installation.

124. If fitting winch, fit the winch fairlead to the center panel, using fasteners supplied by the winch manufacturer.

125. Fit the number plate flip bracket, using 2x M6x20 Hex head bolts, flat washers and flange nuts.

126. Fit the center mesh panel to the bar using:

- a. 2x M8x16 black button head bolts + black washers into the threaded inserts (top)
- b. 2x M8x20 black button head bolts + flat washers and flange nuts (bottom)

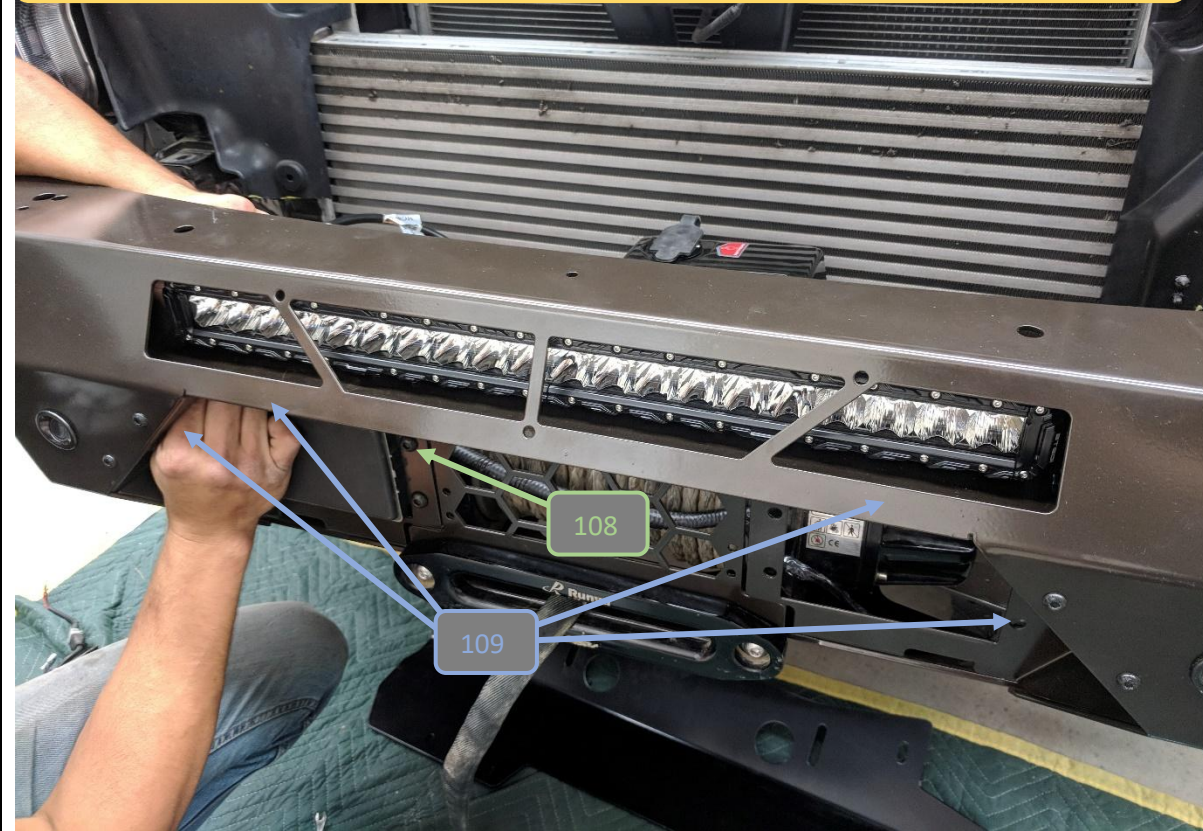
TOOLS REQUIRED

4mm Hex Key
5mm Hex Key
10mm Spanner
13mm Spanner

FASTENERS

2x M6x20 hex bolt
2x M6 flat washer
2x M6 flange nut

2x M8x16 black button head
2x M8x20 black button head
2x M8 flat washer
2x M8 black washer
2x M8 Flange Nut

| PX1 + PX2 ONLY | |
|--|--|
|  | |
| 127. Reconnect wiring harness for adaptive cruise control sensor module, if equipped. | TOOLS REQUIRED 4mm Hex Key 5mm Hex Key 10mm Spanner |
| 128. Fit the outside mesh panels, at the top only using M8x16 Button head bolts M8 Flat washers and M8 Flange nuts. | |
| 129. Fit the outside mesh panels, each using: <ul style="list-style-type: none">a. 1x M8x16 black button head bolt + black washer (top)b. 2x M6x16 black button head bolts + black washers and flange nuts (side)c. Leave bottom holes empty for now | FASTENERS 2x M8x16 black button head 2x M8 black washer 4x M6x16 black button head 4x M6 black washer 4x M6 flange nut |



130. If fitting an integrated light bar, do so now.

131. The bar is designed to fit an Offroad Animal 22in or light bar. If fitting this light bar, assemble bar with legs out, and it will line up with the slots in the center gusset.

132. The bar can accommodate most other "20- 22inch" size light bars.

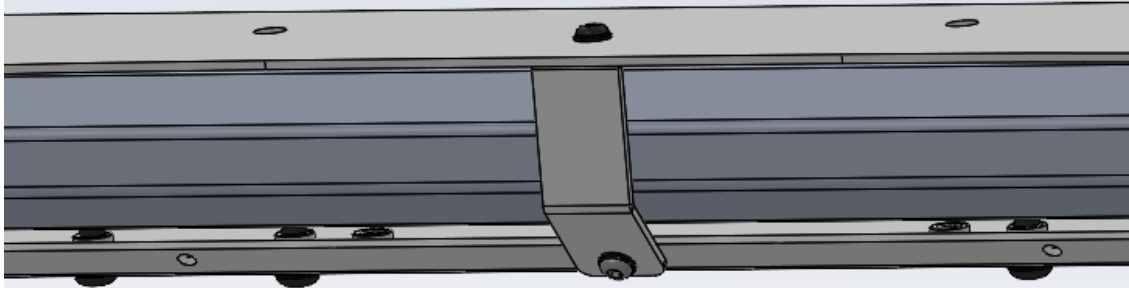
133. If not fitting a light bar, fit cover plate to front of bar. Refer to instruction with cover plate kit.

TOOLS REQUIRED

Refer to light bar instructions

FASTENERS

Supplied with light bar



134. Fit the center pan support brace, using 1x M6x12 button head bolt, black washer and Flange nut to gusset at bottom, and 1x M6x16 black button head bolt, black washer and flange nut to pan at top.

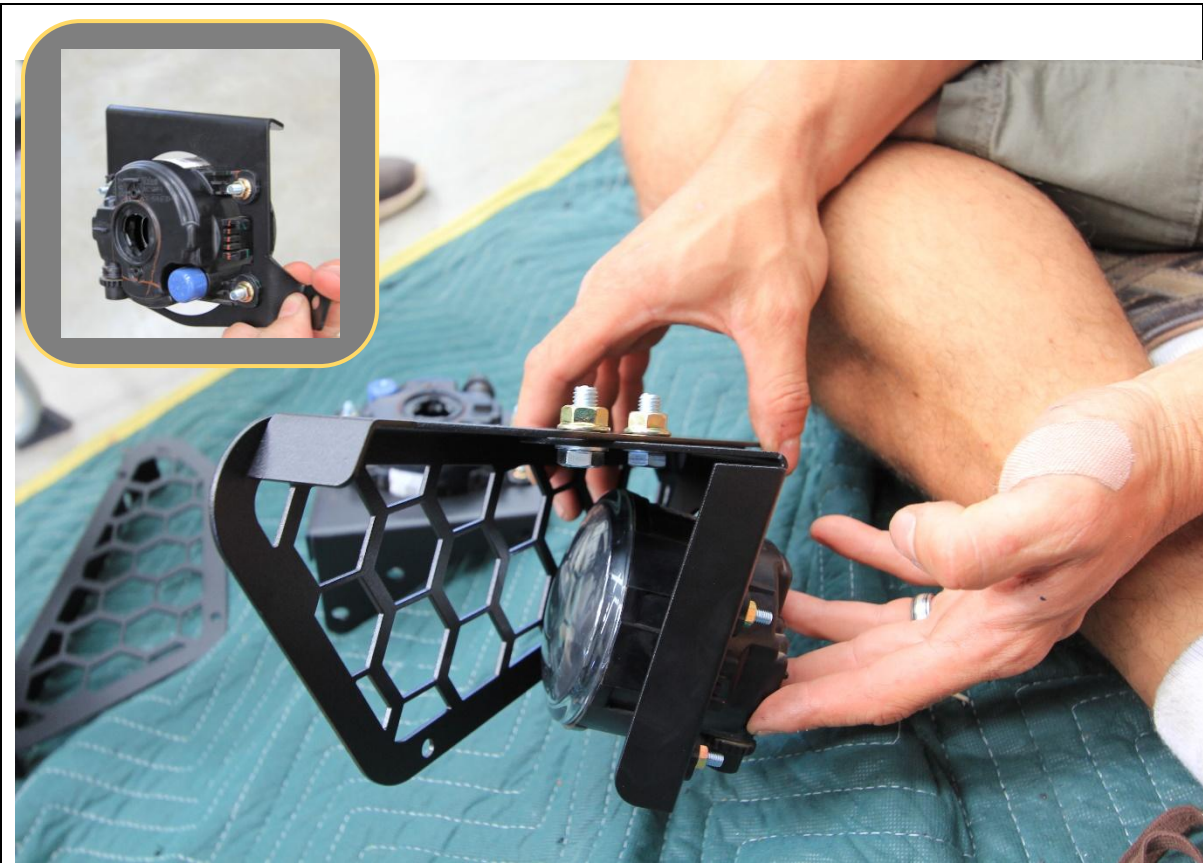
NOTE: If your bar does not come with the pan support brace, please contact Offroad Animal for retrofittable version.

TOOLS REQUIRED


4mm Hex Key

FASTENERS

- 1x M6x12 button head bolt
- 1x M6x16 black button head
- 2x M6 black washer
- 2xM6 flange nut



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| <p>135. If re-fitting factory fog lamps, fit the fog lamps to the supplied fog lamp brackets using the 4x M5x15 pan head screws and flange nuts provided.</p> <p>136. Fit the fog lamp brackets to the light mesh panels using 3x M8x16 black button head bolts, black washers and flange nuts.</p> <p>137. If fitting own lamps in light mesh, fit now using slots on panel, and hardware provided with lights.</p> <p>138. Repeat for both sides of vehicle.</p> | <p>TOOLS REQUIRED</p> <p>3mm Hex Key 5mm Hex Key</p> |
| | <p>FASTENERS</p> <p>(If fitting fog lamp) 4x M5x15 pan head screw 4x M5 flange nut</p> <p>3x M8x16mm Button head bolts 3x M8 Flat Washer 3x M8 Flange Nuts</p> <p>Per side</p> |

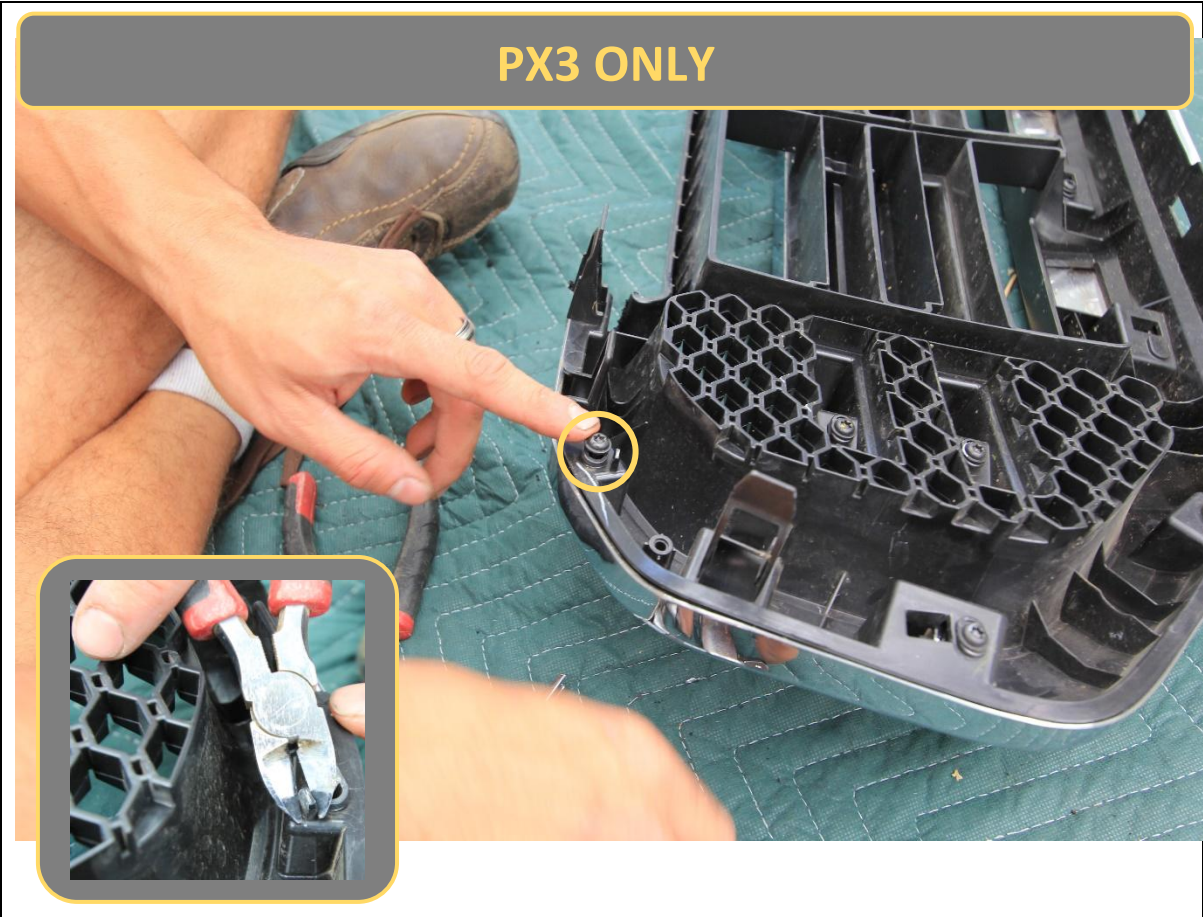
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| <p>139. Fit light mesh panels to the bar. Position the panel from underneath the bar and align with the mounting holes in the wing. Secure with 4x M6x16 black button head bolts and flange nuts (no washers).</p> <p>140. Repeat for other side of vehicle.</p> | <p>TOOLS REQUIRED</p> <p>4mm Hex Key</p> |
| | <p>FASTENERS</p> <p>4x M6x16 black button head 4x M6 flange nut</p> |



141. Reconnect fog light bulbs to housing, by inserting lamp at 90 degree angle and rotating to lock in place. Repeat for both sides of vehicle.

142. Reconnect parking sensor loom. Push connector together until click is heard.

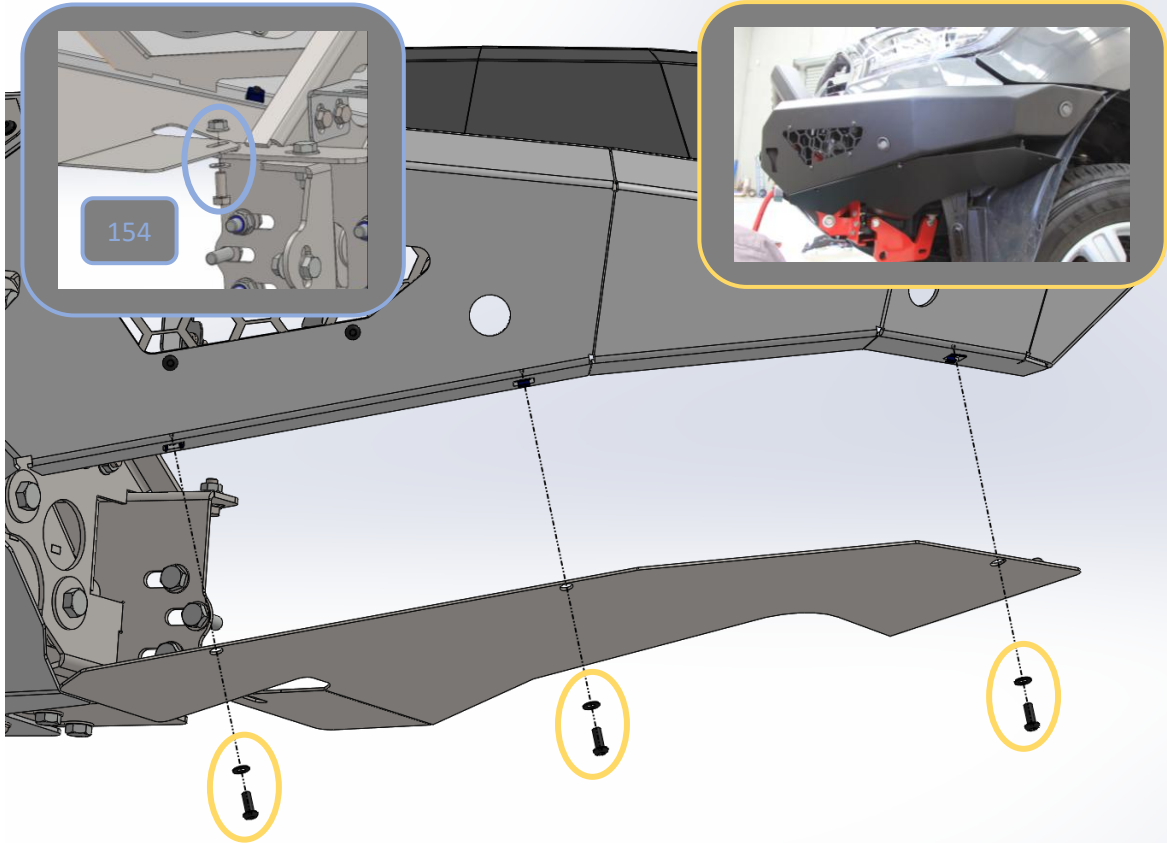
TOOLS REQUIRED**FASTENERS**

| PX3 ONLY | |
|---|---|
|  | |
| 143. PX3 only. Prepare grille for refitment by fitting grille retaining brackets. Skip this page for PX1+PX2. | TOOLS REQUIRED T25 Torx Driver Side Cutters FASTENERS 2x T25 Screws |
| 144. Remove 2x T25 Torx Screws located in bottom corner of grille. | |
| 145. Remove the locating lugs adjacent to the screw hole, using side cutters. | |
| 146. Fit the B-210 grille retaining brackets to the grille using the original T25 Screw. Brackets should face outwards with the short side mounted to the grille. | |

| | |
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| <div>147. Re-fit grille to vehicle.</div> <div>148. Secure grille at top using original bolts, removed earlier.</div> <div>149. PX3 only. Secure bottom of grille to body using grille retaining brackets and 2x M6x20 hex bolts, flat washers and flange nuts.</div> | <div>TOOLS REQUIRED</div> <div>10mm Spanner & Socket</div> |
| | <div>FASTENERS</div> <div>Factory grille bolts</div> <div>2x M6x20 hex bolt</div> <div>2x M6 flat washer</div> <div>2x M6 flange nut</div> |



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| <p>150. Fit bash plate to bar first using 4x M8x20 black button head bolts, black washers and flange nuts.</p> <p>151. Secure bottom of bash plate to mount using 2x M10x20 button head bolts, flat washer and flange nuts.</p> <p>152. Re-fit factory underbody bash plate using original bolts. Secure to Offroad Animal bash plate using supplied M10 flange nut, positioned through access hole.</p> | <p>TOOLS REQUIRED</p> <p>5mm Hex Key 6mm Hex Key 15mm Spanner & Socket 16mm Spanner & Socket</p> |
| | <p>FASTENERS</p> <p>4x M8x20 black button head = 4x M8 black washer 4x M8 flange nut</p> <p>2x M10x20 button head 2x M10 flat Washer 4x M10 flange nut</p> <p>4x OE Flange Head Bolts (for bash plate)</p> |



153. Fit side underpanel to bar and secure with 3x M6x16 black button head bolts and black washers, into the M6 cage nuts fitted earlier.

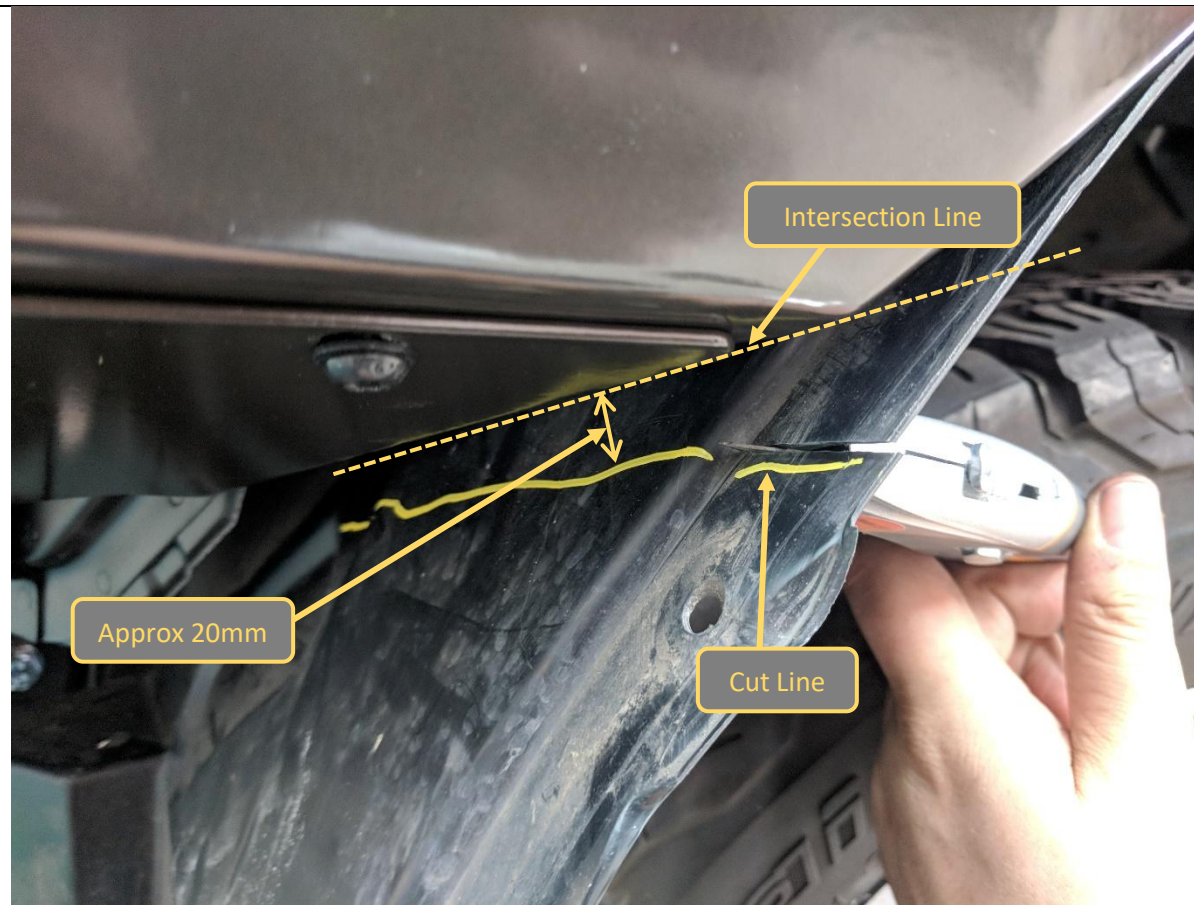
Fitting center bolt first will make it easier to align panel to bar.

154. Secure the back corner of underpanel to mount using 1x M8x20 hex bolt, flat washer and flange nut.

155. Repeat for other side of vehicle.

| TOOLS REQUIRED | |
|--|--|
| 4mm Hex Key 13mm Socket and Spanner | |

| FASTENERS | |
|--|--|
| 6x M6x16 black button head 6x M6 Flat Washer | |
| 2x M8x20 hex bolt 2x M8 flat washer 2x M8 flange nut | |

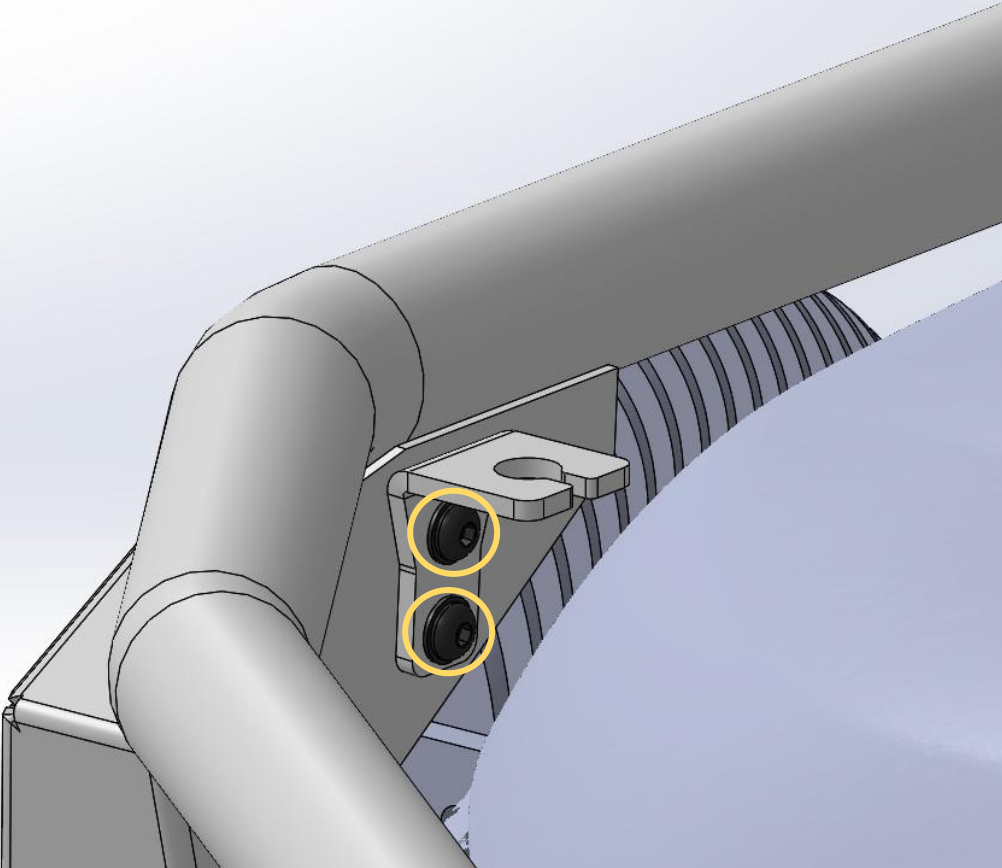


156. Mark where wheel arch liner intersects with side under panel with paint pen or similar.
157. Create line offset approximately 20mm below intersection point.
158. Trim wheel arch liner to this line using utility knife.
159. Insert wheel arch liner behind flange on side under panel.
160. Repeat for both sides of vehicle.

TOOLS REQUIRED

Marker
Utility Knife

FASTENERS

| TORO BARS ONLY | | |
|---|---|--|
|  | | |
| <p>161. Toro only. Fit antenna brackets to Toro uprights using M8x20 black button head bolts and black washers.</p> <p>162. Toro only. Else fit the 2x M8x20 black button head bolts and black washers to the back of each bullbar upright, to protect nut threads in bar for future use.</p> | <p>TOOLS REQUIRED</p> <p>5mm Hex Key</p> | |
| | <p>FASTENERS</p> <p>2x M8x20 Button Head Bolt 2xM8 Flat Washer</p> <p>Per side</p> | |



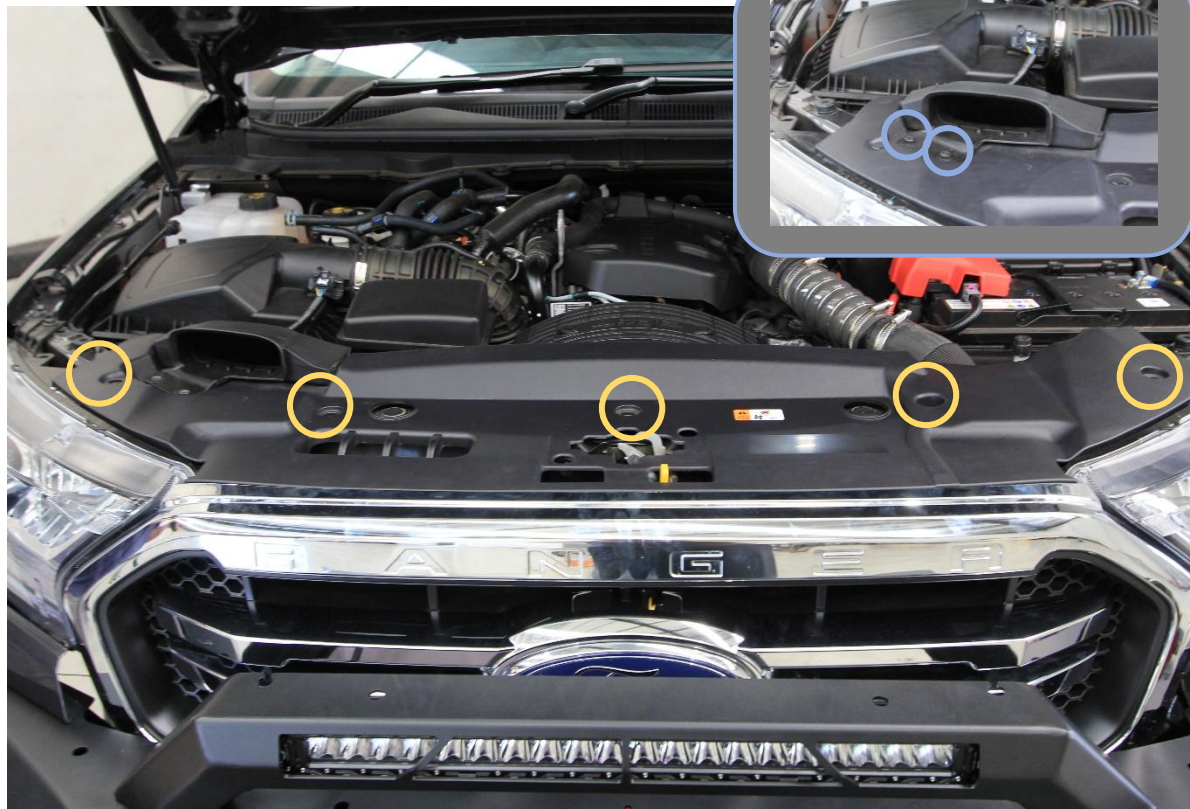
163. Re-fit the number plate to the number plate flip, using the M5x15 pan head screws, washers and flange nuts.
164. Fit the Offroad Animal logo to front face of bar, using the pre-applied double side adhesive.
165. Fit the compliance plate in a visible location on the underside of the bar. We recommend placing it on the bottom of the centre bash plate.

TOOLS REQUIRED

Phillips head screwdriver

FASTENERS

2x M5x15 Phillips Head
2x M5 flat washer
2x M5 flange nut



166. Replace plastic radiator trim. Replace 5x plastic push rivets inserting in hole, then pushing down center part.

167. **PX3 only.** Replace 2x T30 Torx screws securing air intake.

168. Close the bonnet and you are done!

TOOLS REQUIRED

T30 Torx Bit

FASTENERS

5x Plastic Push Rivet
2x T30 Bolt



Congratulations!
Head for the tracks and enjoy your newly protected Ford Ranger!