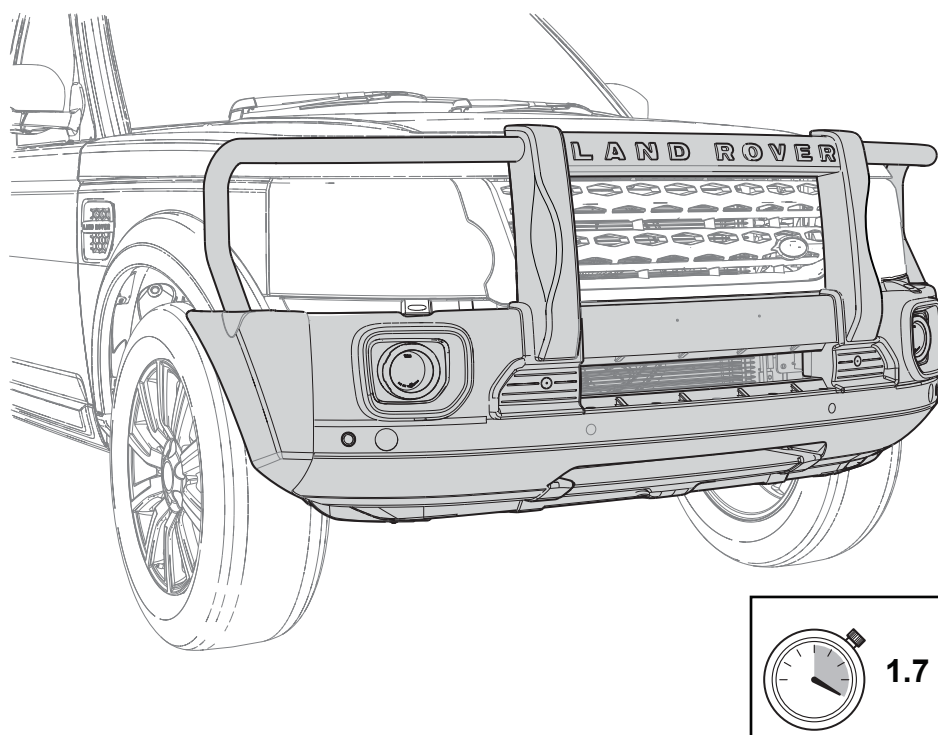


LAND ROVER

Front Protection Bar *FITTING INSTRUCTION*



WARNING: Not Compatible with ACC (Adaptive Cruise Control)

LAND ROVER DISCOVERY 4 FRONT PROTECTION BAR

Installation Instructions

INSTALLATION PRECAUTIONS

Follow all standard workshop and occupational health and safety practices during the installation and re-work process.

Safety glasses and hearing protection must be used.

Do not attempt to fit the Front Protection Bar to the vehicle alone, get assistance.

Avoid contact with the hot plastic when the bumper fascia is being drilled or cut.

Clean up the swarf from the bumper fascia re-work immediately to avoid a slipping hazard.

Further Cautions

(a) Do not attach VFPS to the vehicle using anchorages not intended for this purpose (e.g engine mountings bolts).

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

(c) Do not remove plaque or label from the VFPS.

(d) Do not modify the structure of the VFPS in any way.

GENERAL INFORMATION

Before starting the Land Rover Discovery 4 Front Protection Bar installation thoroughly read through these installation instructions then follow the fitting sequence as described.

Check and note any existing marks or damage to the vehicle.

Remove the battery cover and disconnect the negative lead from the battery.

Check the Front Protection Bar kit is complete, there is no damage and all parts listed are included.

Where possible leave the protection materials on the Front Protection Bar until installation is complete to avoid damage to the polished aluminium surfaces.

Take all possible precautions to avoid damaging the vehicle bumper fascia during its re-work.

Ensure all torque settings are followed.

At the completion of the installation check the operation of the headlights; fog lights; headlamp washer jets; and parking sensors/cameras (if fitted).

Place the fitting instructions in the vehicle glovebox for further reference.

Place the T30 Torx Drive Key in the glovebox for use if the tow hook cover needs to be removed.

WARNING

WARNING: The vehicle CANNOT be sold with the Front Protection Bar fitted, anywhere in the EU. The Front Protection Bar must be removed from the vehicle before the vehicle is used on any public highway within the EU.

WARNING: Do not work on or under a vehicle supported only by a jack. Always support the vehicle on safety stands.

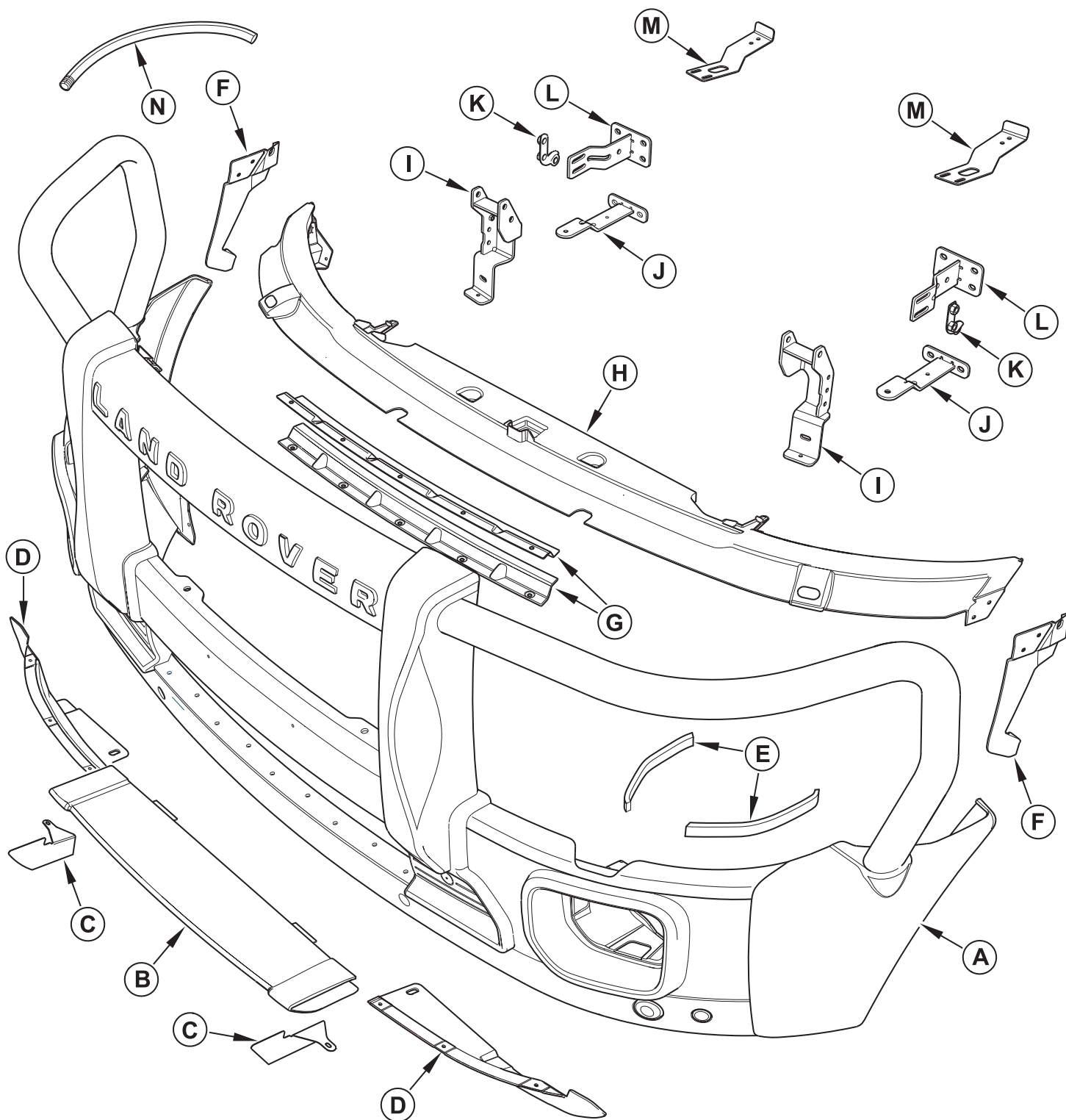
WARNING: Vehicles fitted with Xenon headlamps, the following precautions must be observed. Failure to comply may result in exposure to ultra violet rays, severe electric shock, burns or the risk of explosion. Ensure the headlamps are switched off at all times.

Eye and hand protection must be worn. Never switch on the lamps or test the bulbs with the lamp holder released from the headlamp.

WARNING: Always wear personal protective equipment when using cutting tools – safety glasses, earplugs and gloves.

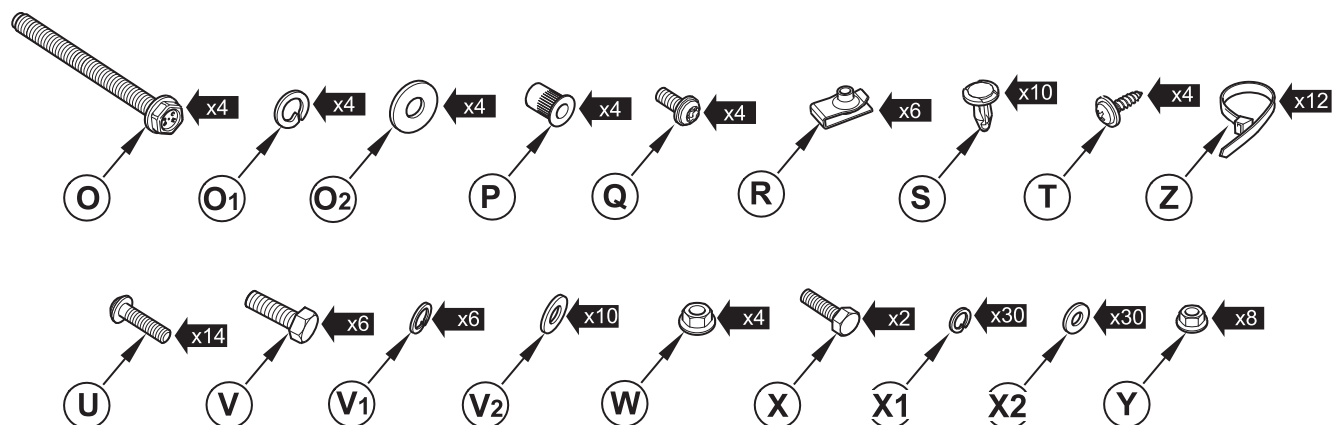
WARNING: Heavy weight. A second person may be required to help lift the Front Protection Bar and position.

WARNING: Not Compatible with ACC (Adaptive Cruise Control)



Parts List Components

A	Front Protection Bar Assy	1
B	Tow Hook Cover	1
C	RH/LH Cover Panel	1ea
D	RH/LH Skid Plate	1ea
E	Foam Tape - 19 x 19mm x 0.35m	2
F	RH/LH Bumper Side Blade	1ea
G	Air Dam	2
H	Bumper Infill Panel	1
I	LH/RH Front Mount Bracket	1ea
J	LH/RH Lower Mount Bracket	1ea
K	RH/LH Nut Plate	1ea
L	Rear Mount Bracket	1
M	RH/LH Upper Steady Bracket	1ea
N	Corrugated Protective Wiring Wrap 0.5m	1

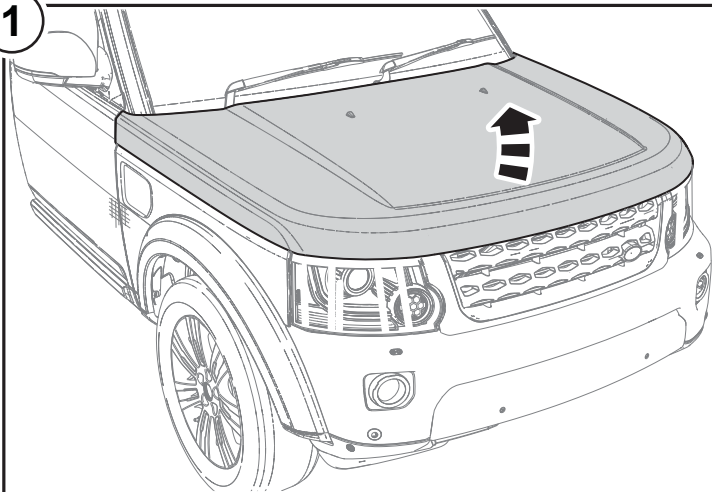


Parts List Fixings

O	M10 x 120mm Hex Head Bolt	4
O ₁	M10 Flat Washer - M10 x 25 x 3mm	4
O ₂	M10 Spring Washer	4
P	M6 Rivnut	4
Q	M6 x 20mm Button Head Screw Head Painted Black	4
R	M6 Speed Nut	6
S	Scrivet M6	10
T	10G x 3/4" Self Tapping Screw	4
U	M6 x 25 Button Head Screw T30 Torx Drive	14
V	M8 x 25mm Hex Head Bolt	6

V ₁	M8 Flat Washer	10
V ₂	M8 Spring Washer	6
W	M8 Hex Nut	4
X	M6 x 20mm Hex Head Bolt	2
X ₁	M6 Spring Washer	22
X ₂	M6 Flat Washer	30
Y	M6 Hex Nut	8
Z	Small Cable Tie	12
TX	T30 Torx Drive Key	1

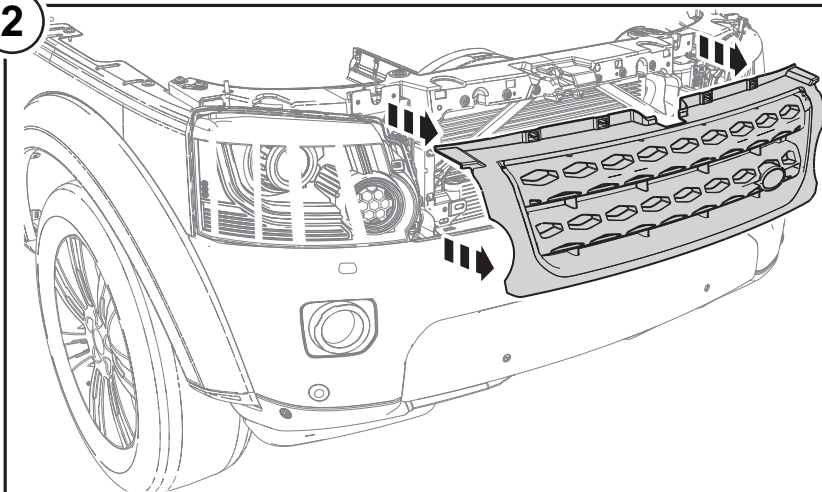
1



INSTALLATION PROCEDURE

Open the bonnet.

2



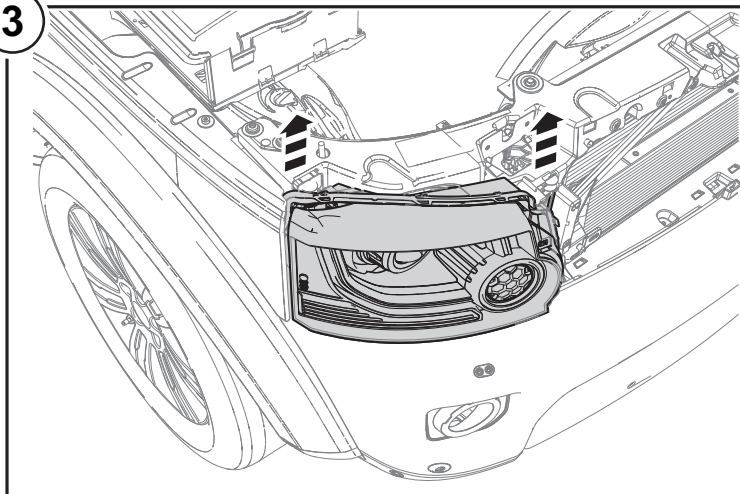
GRILLE REMOVAL

Release the four clips along the top of the grille by depressing each and slightly pulling the grille forward.

Remove the grille by pulling directly forward and releasing off the two internal clips at the sides.

Place the grille in a safe place for later installation.

3



HEADLAMP ASSEMBLY REMOVAL

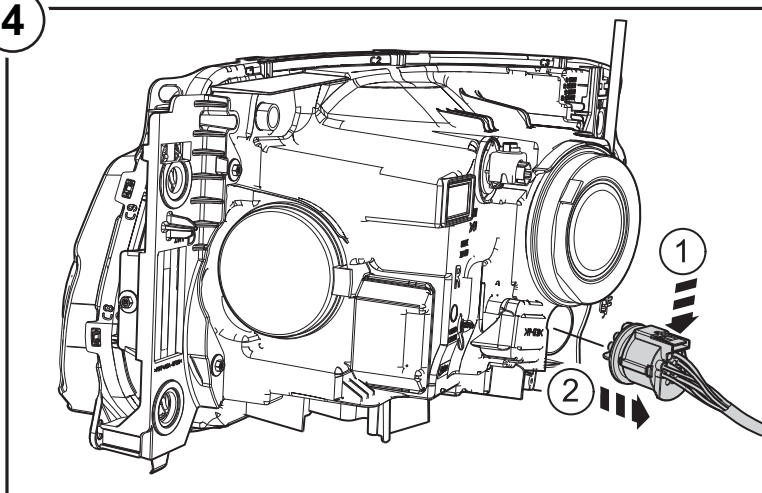
WARNING: Vehicles fitted with Xenon headlamps, the following precautions must be observed.

Failure to comply may result in exposure to ultra violet rays, severe electric shock, burns or the risk of explosion. Ensure the headlamps are switched off at all times. Eye and hand protection must be worn. Never switch on the lamps or test the bulbs with the lamp holder released from the headlamp.

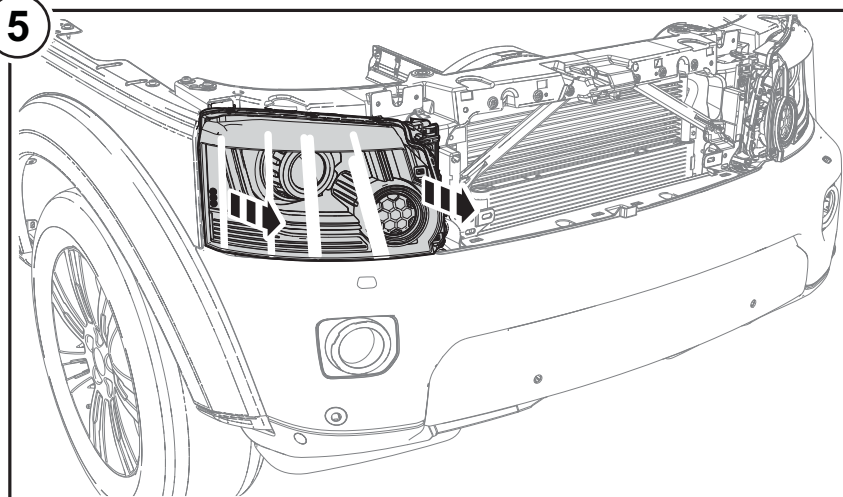
Disconnect the battery ground cable.

Release headlamps by pulling upwards on the two retaining brackets. A pair of pliers may be needed if the brackets are stiff or hard to release.

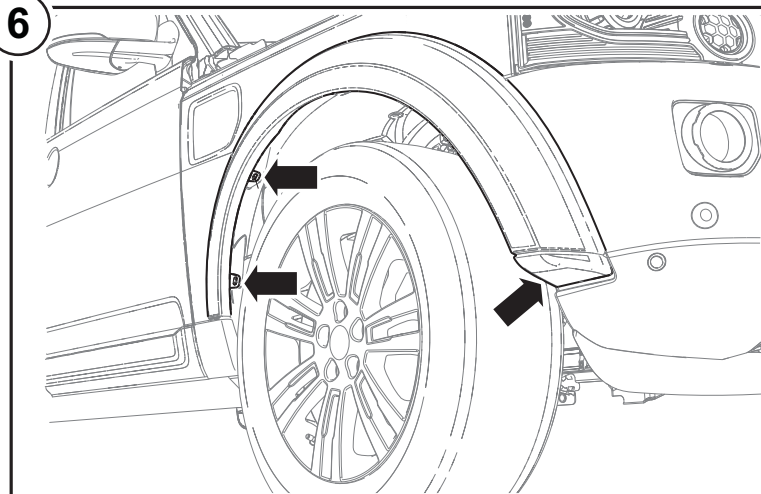
4



Remove the battery cover and disconnect the electrical connector from the rear of the headlamp assembly.



Remove the headlamps by pulling forward out of the vehicle. Place the headlamp assembly in a safe place for later installation. Repeat for the other side.

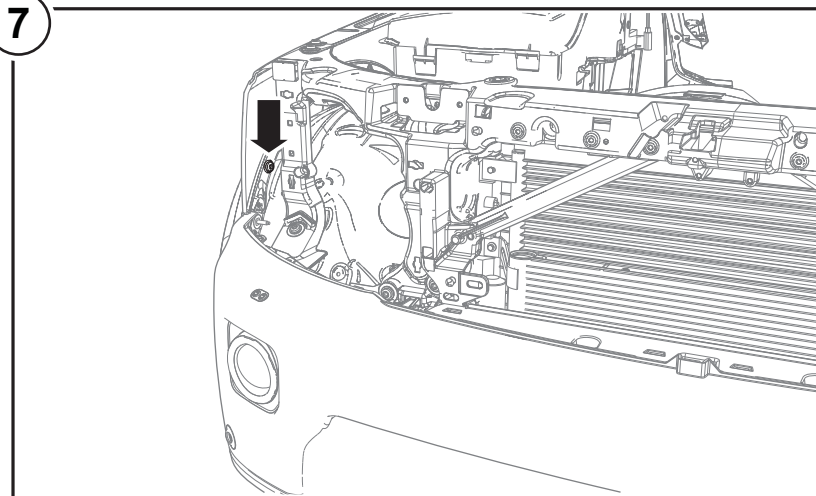


FENDER MOULDING REMOVAL

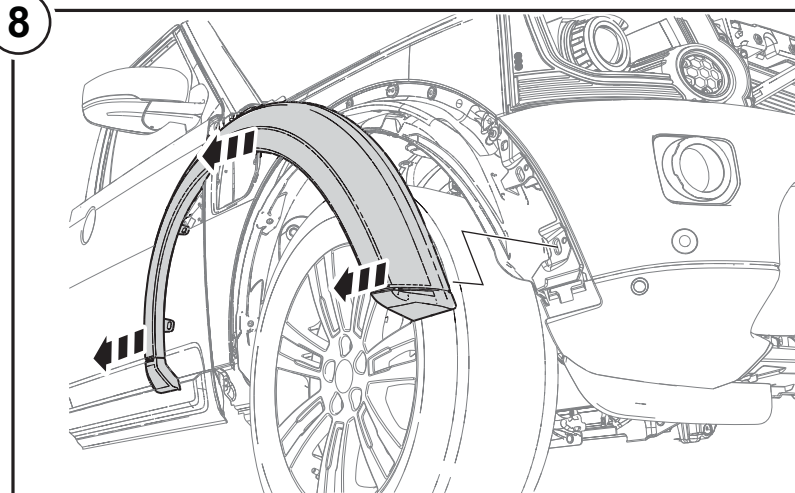
WARNING:
Do not work on or under a vehicle supported only by a jack. Always support the vehicle on safety stands.

Remove the 3 retaining screws and remove mudflap (if fitted).

Remove the two retaining scrivets by prising out the centre first and then removing the body of the fastener from the hole. Remove the screw at the front lower corner of the fender moulding.

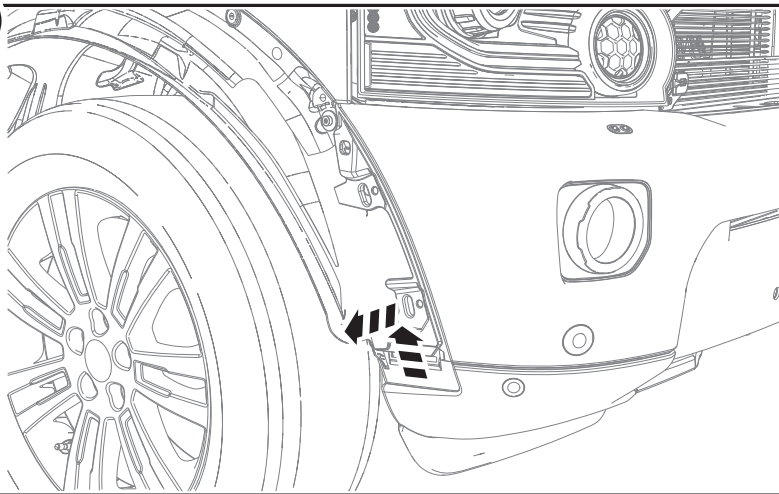


Remove the fender moulding retaining screw from inside the headlamp opening of the fender.



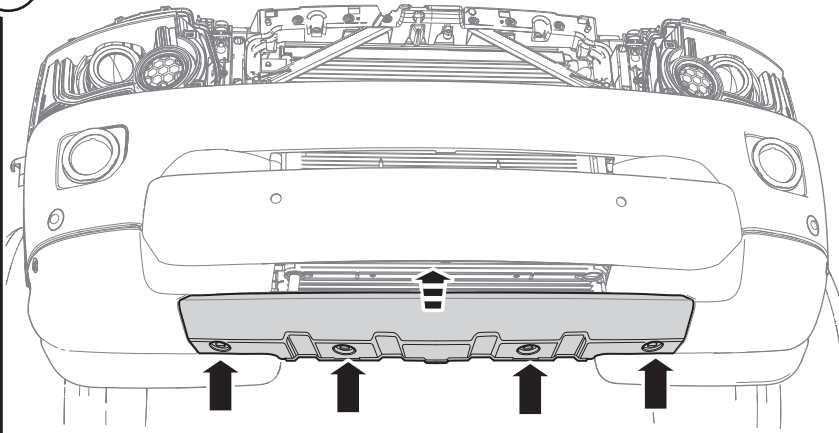
Starting at the rear of the moulding, carefully pull the fender moulding out from the vehicle and release the retaining clips one by one – you will hear a distinct click when they release.

9



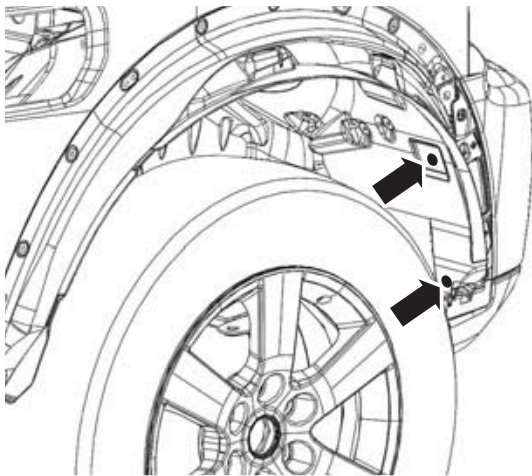
Work towards the front of the vehicle and then remove fender moulding from the vehicle by pulling whole part up and out of the T-slot in the bumper.

10



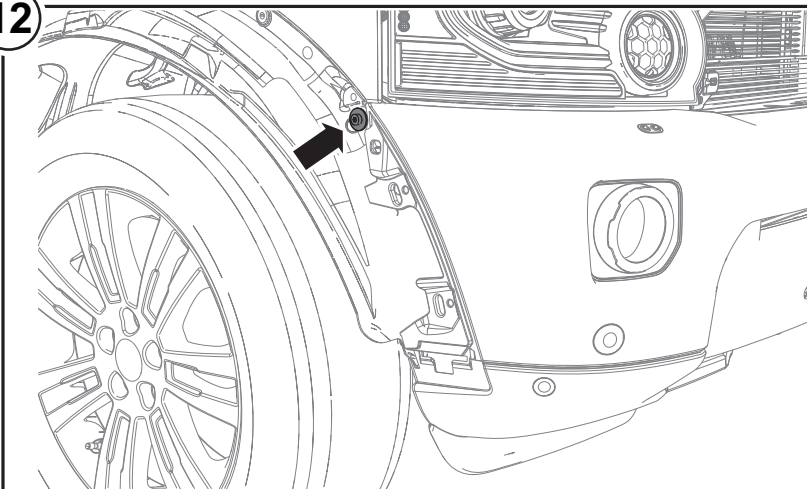
Using a flat blade screwdriver, turn the four fasteners a quarter turn to release. Remove tow hook cover by pulling forward off vehicle.

11



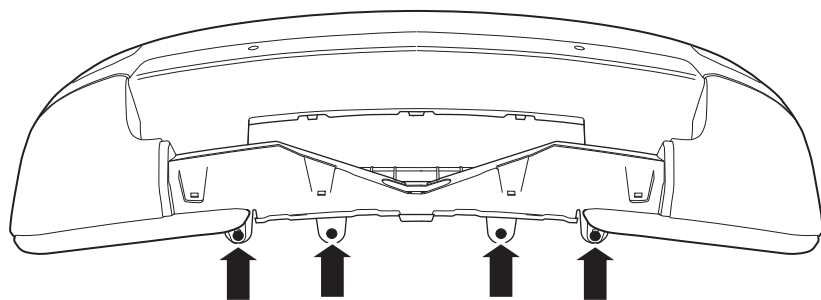
Remove the two screws from each wheel well liner.

12



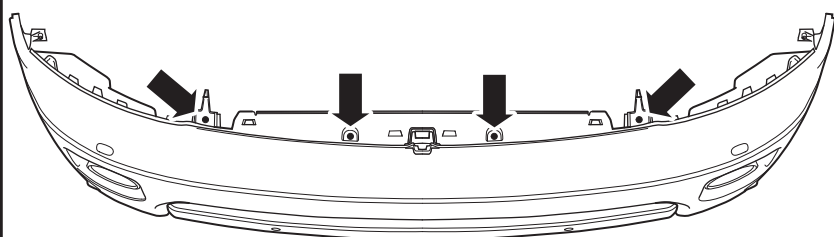
Remove the screw from each side where the bumper attaches to the lower front corner of the fender.

13



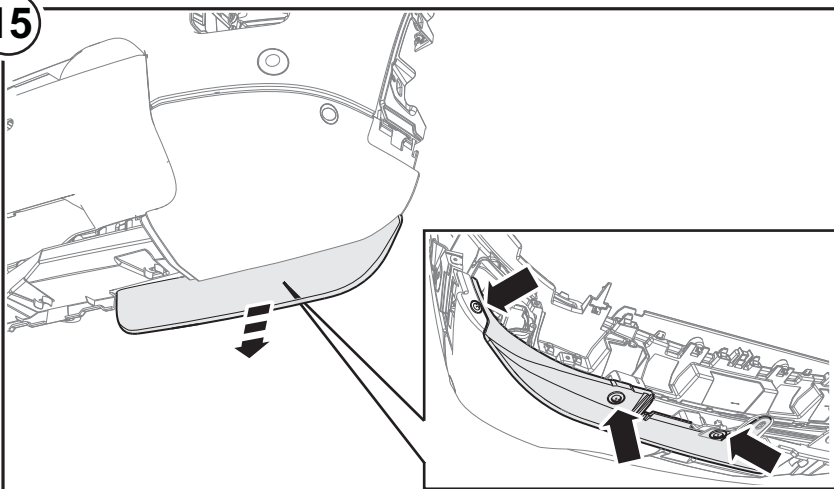
Remove the four screws where the bumper attaches to the chassis underneath the front of the vehicle.

14



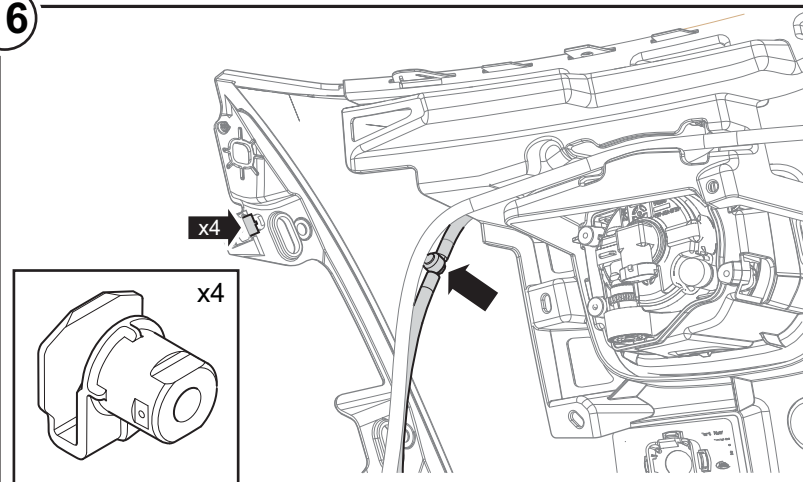
Remove the four screws from the top edge of the bumper.

15



Remove the screws that retain the aero extensions and remove them from the bumper. Place the aero extensions and retaining screws in a safe place for later installation.

16



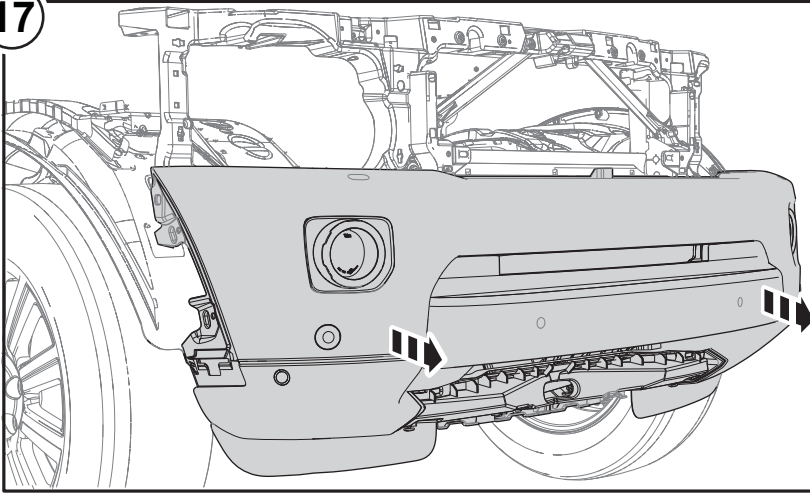
FRONT BUMPER ASSEMBLY REMOVAL

Locate electrical connectors under the RH Headlight location and disconnect harnesses that run to the bumper. (For park assist sensors and front cameras - if fitted).

Access the two headlamp washer lines from inside the left hand headlamp opening and disconnect by pulling apart at the connectors.

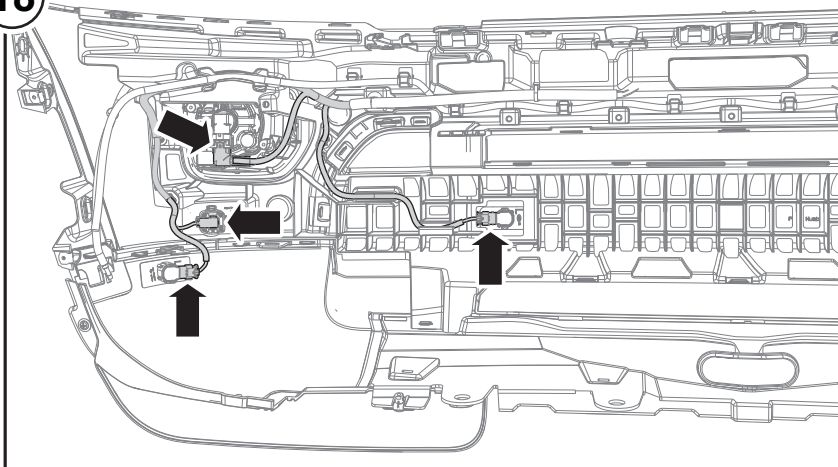
Remove x4 white plastic speed clips and fit to the outer blades (see step 26)

17



Remove the bumper assembly by releasing locating bosses on the sides and then pulling forwards from the vehicle. Place the retaining screws in a safe place for later installation.

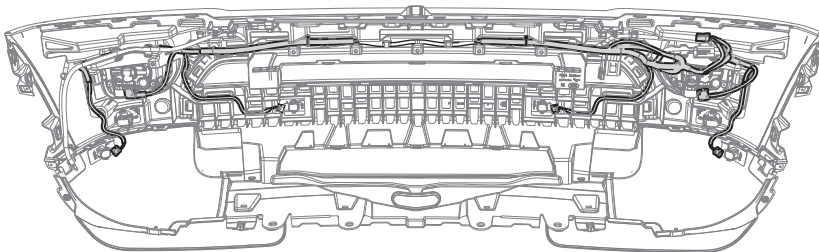
18



WARNING: Always wear personal protective equipment when using cutting tools – safety glasses, earplugs and gloves.

Disconnect wiring harness connectors from foglamps, parking sensors and cameras (if fitted) – note and label each electrical connector as they are disconnected.

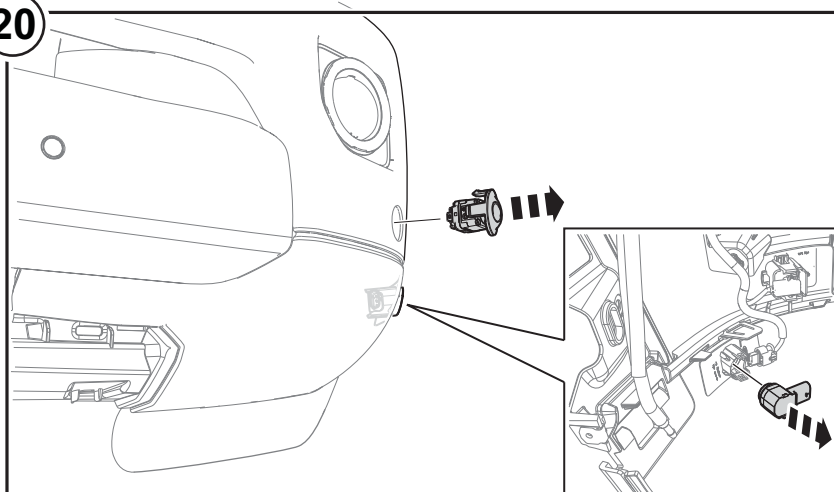
19



Cut fasteners that retain the wiring harness to the bumper assembly. Remove entire wiring harness from the bumper assembly.

Place the wiring harness in a safe place for later installation.

20

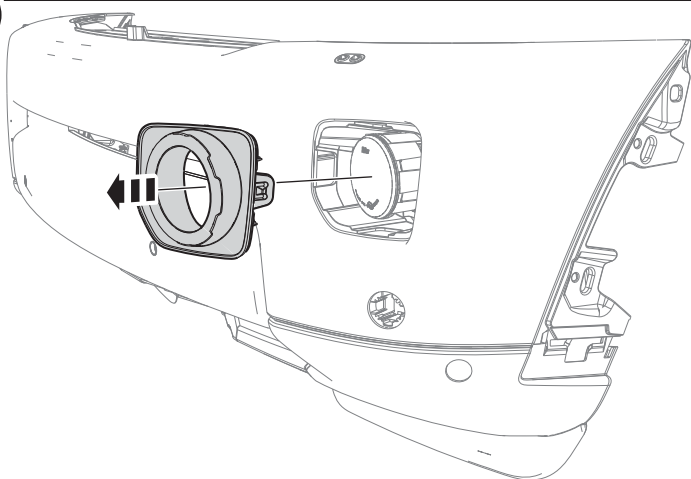


ELECTRICAL COMPONENT REMOVAL FROM FRONT BUMPER ASSEMBLY

Note: Follow this step if the vehicle is fitted with parking sensors and/or cameras. If vehicle does not have these components, proceed to next step.

Remove the parking sensors and cameras (if fitted) by releasing their retaining tangs on their housings. Note and label each electrical component as they are removed. Place the electrical components in a safe place for later installation.

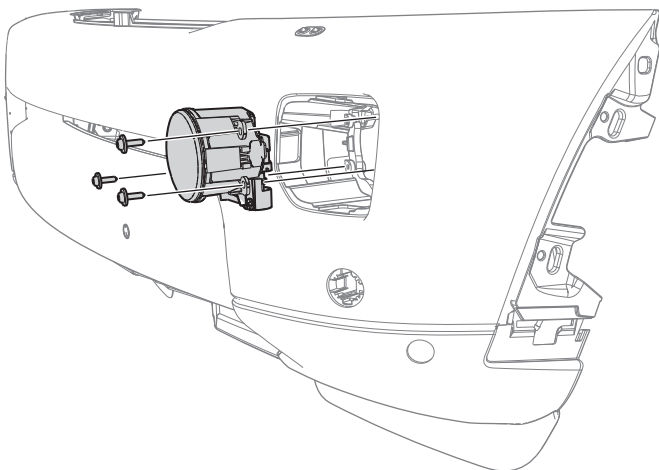
21



FOGLAMP REMOVAL FROM FRONT BUMPER ASSEMBLY

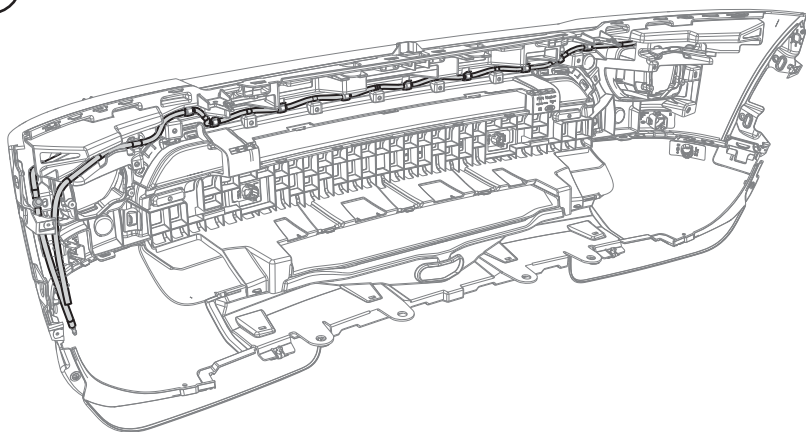
Remove foglamp bezels from bumper assembly by prising up and pulling forward out of bumper.

22



Remove three retaining screws from each fog lamp and remove fog lamps from the bumper assembly, noting which is LH and RH. Place the foglamps and screws in a safe place for later installation.

23

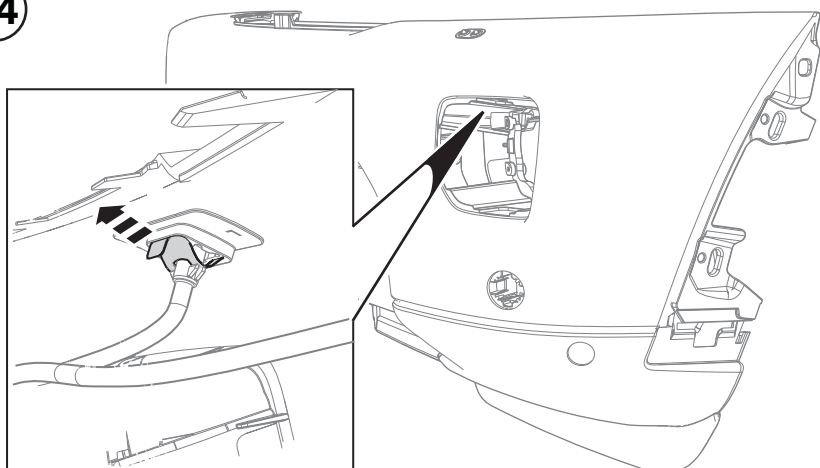


HEADLAMP WASHER REMOVAL FROM FRONT BUMPER ASSEMBLY

WARNING: Always wear personal protective equipment when using cutting tools – safety glasses, earplugs and gloves.

Follow headlamp washer lines along bumper and release from each retaining clips and cut from any tie clips if fitted.

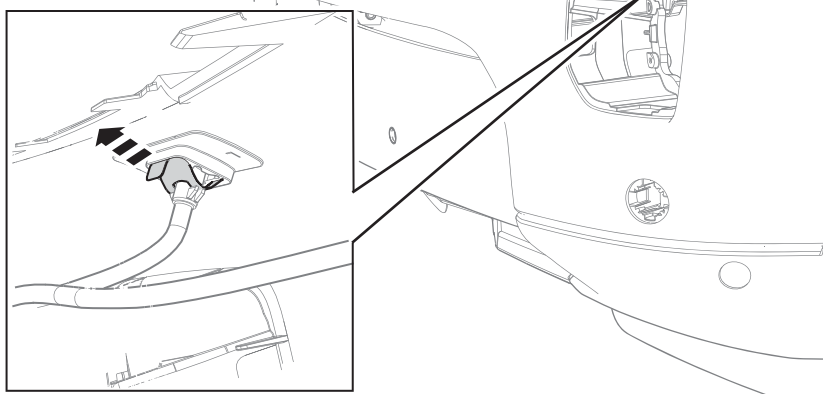
24



Access the steel retaining plate that holds the washer jets to the bumper through the foglamp openings and remove by pushing rearward.

Remove headlamp washer lines and jets from the bumper assembly. Place the washer jets and washer lines in a safe place for later installation.

25



HEADLAMP WASHER INSTALLATION TO FRONT BUMPER ASSEMBLY

WARNING: Always wear personal protective equipment when using drilling tools – safety glasses, earplugs and gloves.

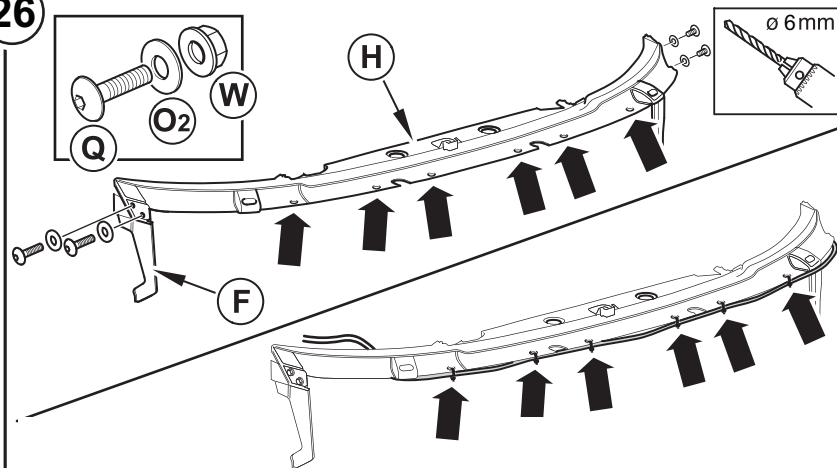
Thread the headlamp washer lines down through the washer jet hole in the bumper and place the washer jets into the holes.

Retain the washer jets to the bumper with the steel retaining plates.

Fasten the washer lines through the drilled holes with zip ties – do not over tighten.

Feed the two loose ends of the headlamp washer lines inside the left hand headlamp opening and push back onto the connectors.

26



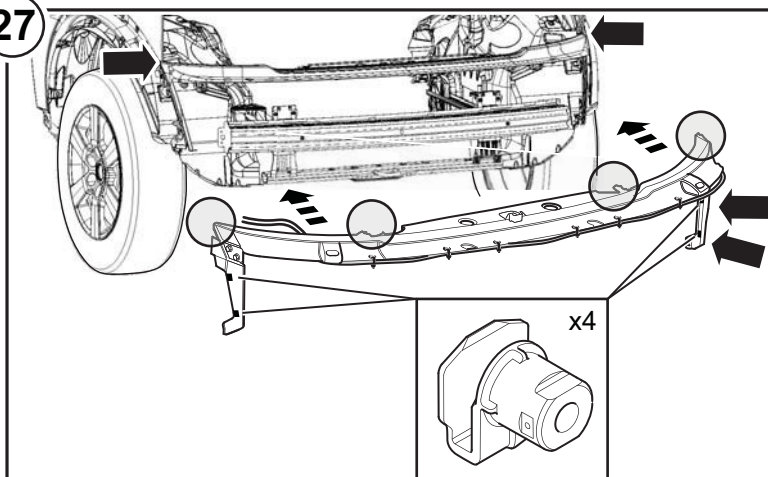
BUMPER INFILL

Assemble the LH and RH Side Blades to the Infill Panel using the x4 nuts, washers and bolts provided. N.B: These fixings are black in appearance.

Drill x6 6mm diameter holes through the front edge of the Infill Panel at even intervals.

Attach the headlamp washer tube to the Infill Panel using x6 tie clips through the drilled holes on the front edge of the Infill Panel - do not over tighten.

27



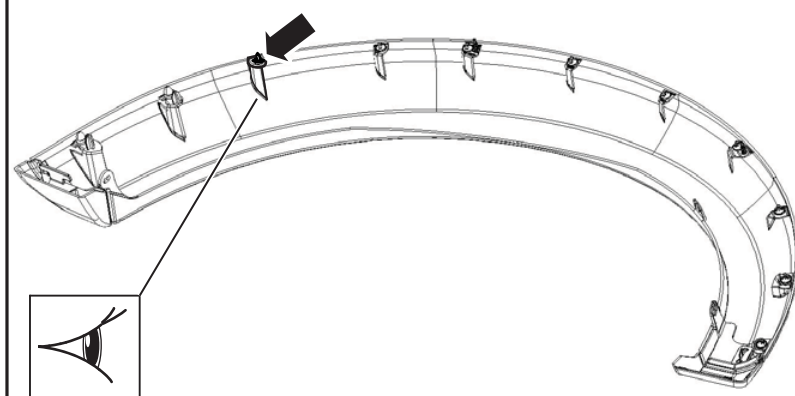
Add x4 white plastic speed clips to the LH and RH Side Blades

Fit the assembled Infill Panel to the vehicle ensure the clips are aligned prior to final fitment.

Fit x2 screws through each front wheelarch liner to the Side Blades of the Infill Panel.

Align Infill Ends with Body Horizontal Panels.

28



FENDER MOULDING TRIM LINE MARKING OUT
WARNING: Always ensure adequate amounts of masking tape cover the surfaces of the Fender Moulding.

Failure to do so may result in bumper and/or paint damage.

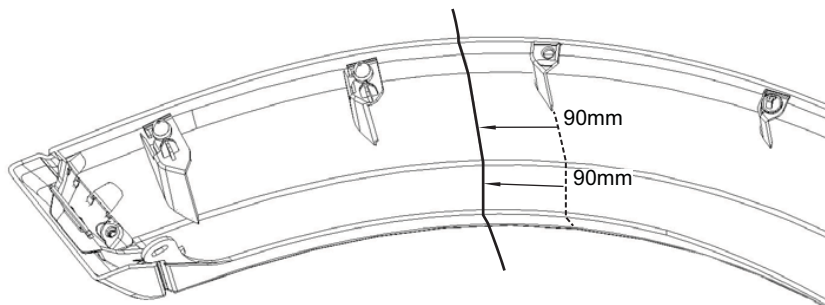
Locate and note the third plastic boss from the front of the fendermoulding – it should contain a steel nut.

Mark a straight line from the point to the inside edge of the fender moulding.

Apply masking tape to the fender moulding's painted surface in this area.

Mark out dimensions and draw cut lines as shown.

29

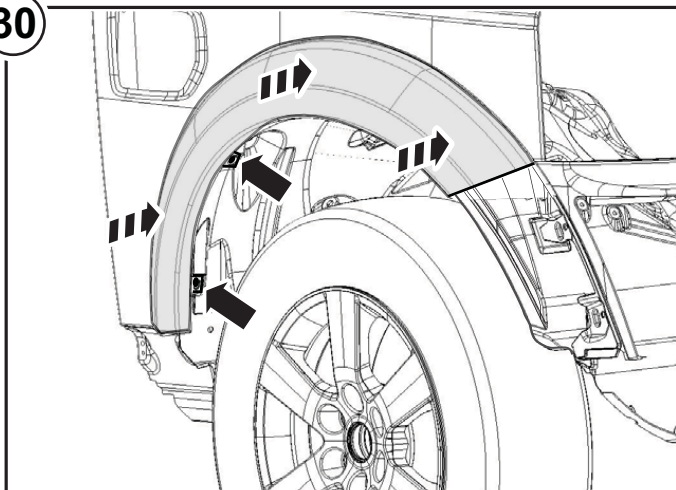


FENDER MOULDING TRIM

WARNING: Always ensure adequate amounts of masking tape cover the surfaces of the bumper. Failure to do so may result in bumper and/or paint damage. Always wear personal protective equipment when using cutting tools – safety glasses, earplugs and gloves.

Using a fine tooth hacksaw (or similar) cut along the line marked in the previous step.

30



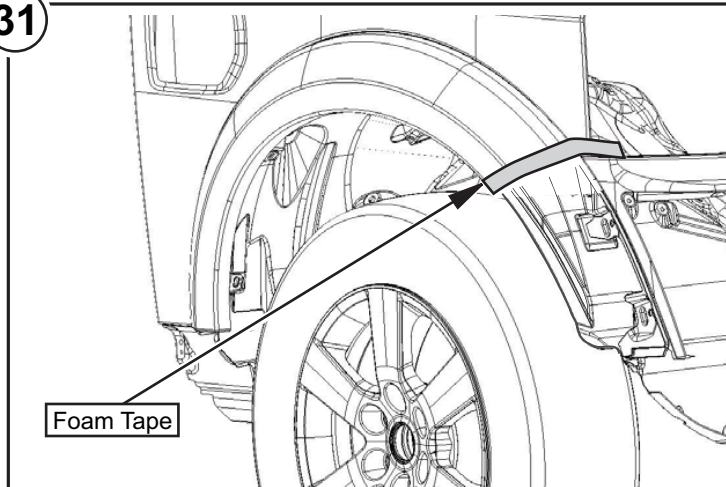
FENDER MOULDING INSTALLATION

Locate the fender moulding at the rear of the part and then work forward pressing onto the retaining clips one at a time – you will hear a distinct click when they engage.

Install the screw from inside the headlamp opening of the fender.

Install the two retaining scrivers by pushing the body of the fastener into the hole and then pushing the centre into the body of the scrivet.

31

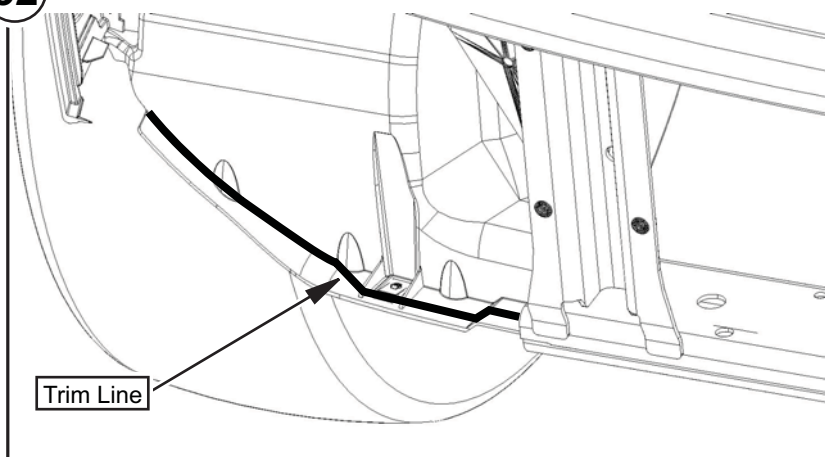


FOAM TAPE INSTALLATION

WARNING: Always wear personal protective equipment when using cutting tools – safety glasses, earplugs and gloves.

Cut lengths of foam tape and adhere to the fender mouldings and bumper as shown.

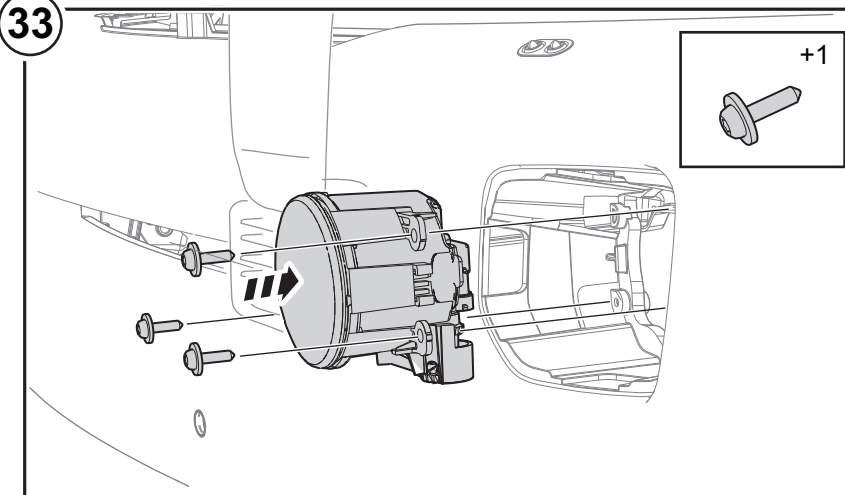
32



WHEEL ARCH LINER TRIM

WARNING: Always wear personal protective equipment when using cutting tools – safety glasses, earplugs and gloves.

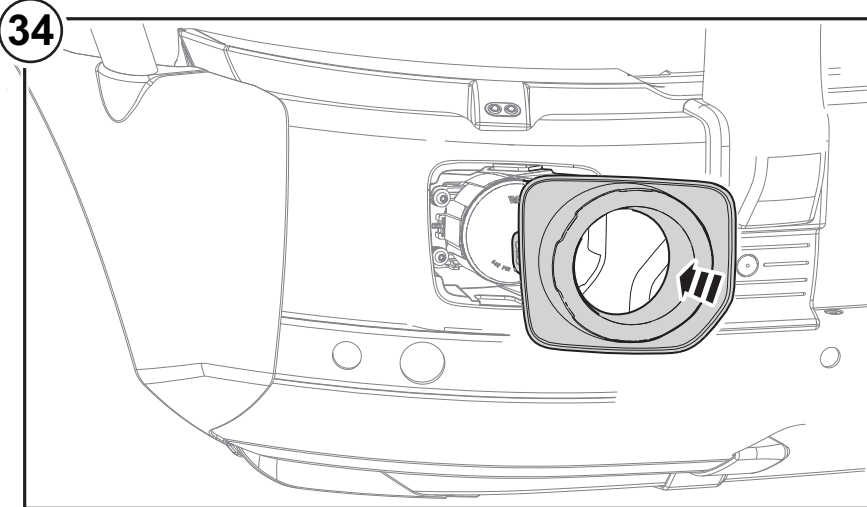
Cut off the forward protruding piece of wheel arch liner as shown, using a fine tooth hacksaw blade (or similar).



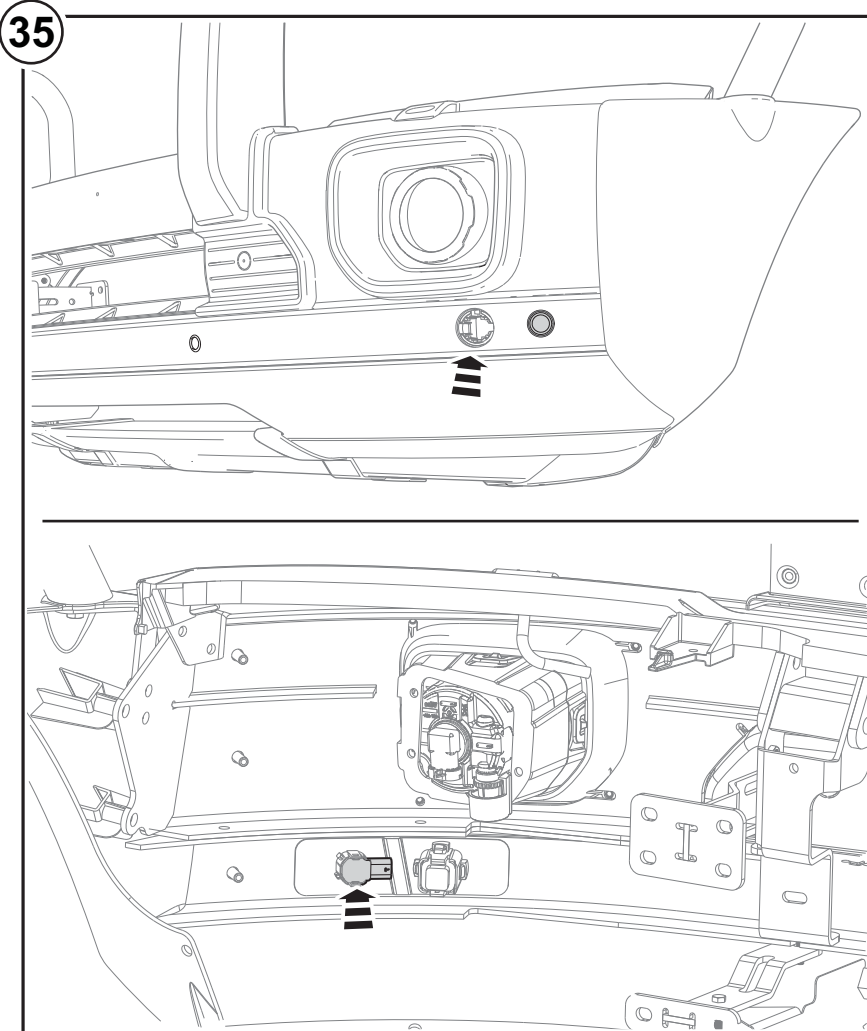
FOGLAMP INSTALLATION TO FRONT PROTECTION BAR

Install the LH and RH foglamp to their respective locations and retain using the three existing vehicle screws.

Retain at the fourth fixing zzone each side



Fit foglamp trims to both sides of the vehicle.



ELECTRICAL COMPONENT INSTALLATION TO FRONT PROTECTION BAR

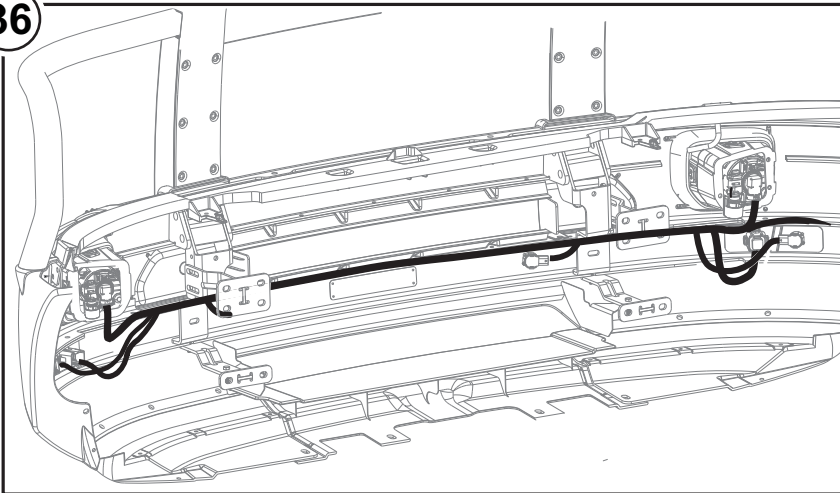
Note: Follow this step if the vehicle is fitted with parking sensors and/or cameras. If vehicle does not have these components, proceed to next step.

Note location and orientation of camera housings and trial fit to ensure the raised lip on camera housings go into the holes. Do not remove tape backing at this time. Note areas on plastic Front Protection Bar component where the tape will adhere. Add primer to these locations and wait for approximately 2 minutes for the primer to activate. Remove the tape backing and adhere the camera housings to the plastic Front Protection Bar components.

Apply pressure to the taped areas to gain full adherence

Install the cameras and parking sensors to their respective housingsby pushing in past the retaining tangs. (if fitted to vehicle)

36

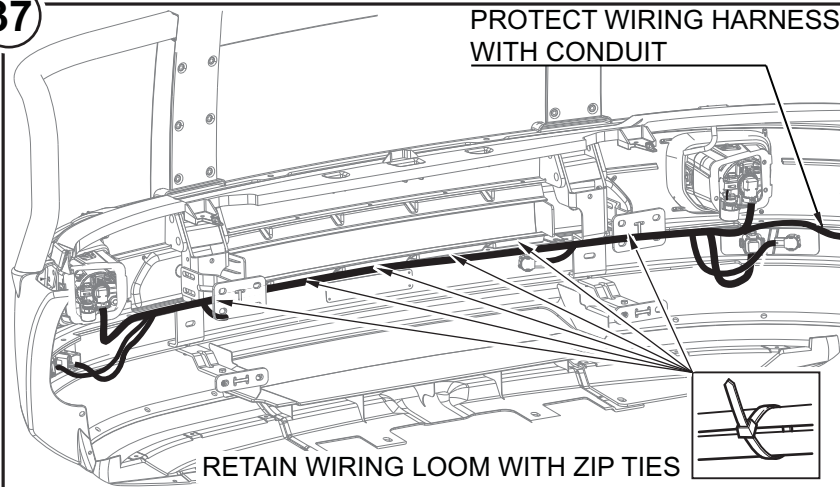


WIRING HARNESS INSTALLATION TO FRONT PROTECTION BAR

WARNING: Always wear personal protective equipment when using cutting tools – safety glasses, earplugs and gloves. Lay the wiring harness into the Front Protection Bar into the location shown.

37

PROTECT WIRING HARNESS WITH CONDUIT



RETAIN WIRING LOOM WITH ZIP TIES

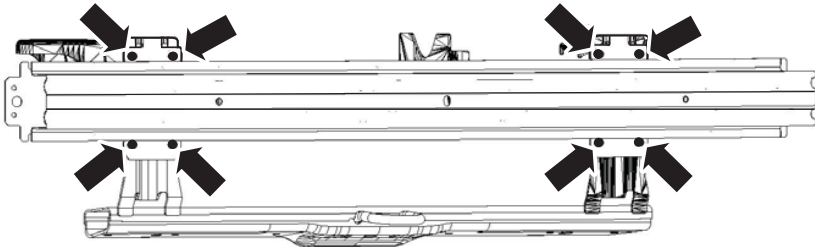
Working from the LH side, retain the wiring harness to the holes in the aluminium flange of the Front Protection Bar using zip

Note where the wiring harness contacts the RH side of the Front Protection Bar.

Add a short piece of protective wiring conduit at this location and retain to the wiring harness with tape.

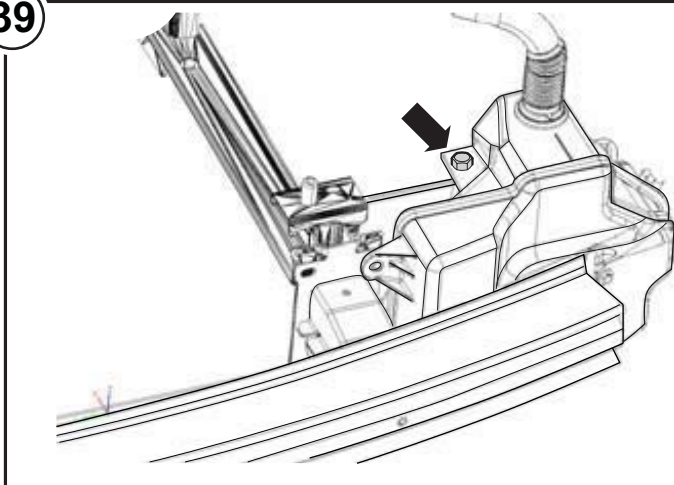
38

MOUNT BRACKET INSTALLATION TO VEHICLE



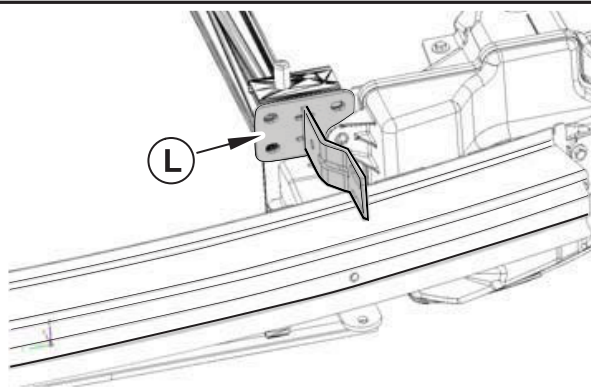
Remove the four bolts from each side of the chassis cross beam and retain. Note the chassis cross beam has locating lugs and will not fall from vehicle.

39

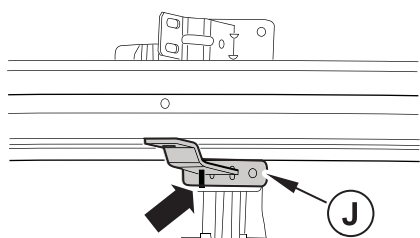


Loosen (but do not fully remove) the small bolts that locate the washer reservoir- one on top and two on the front.

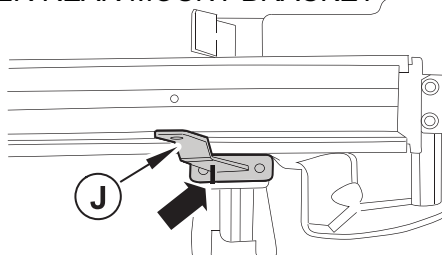
40



LH LOWER REAR MOUNT BRACKET



RH LOWER REAR MOUNT BRACKET

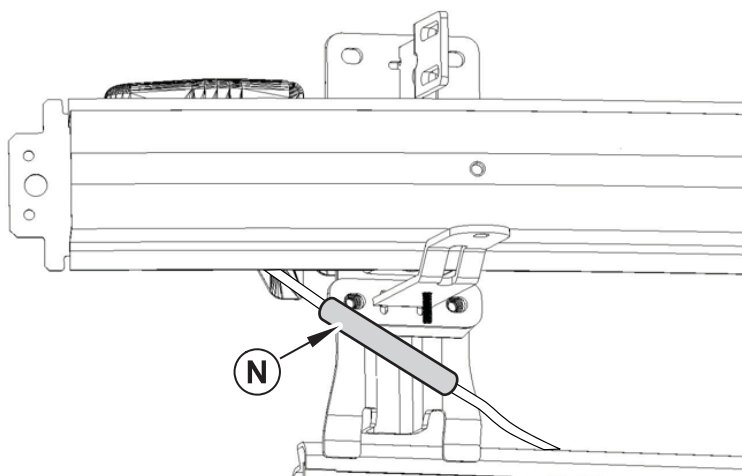


Install the rear mount brackets (same fits both sides) and lower mount brackets (marked LH and RH) and retain using the bolts previously removed from the vehicle. Note the rear mount bracket on the LH side slides between the chassis and the washer reservoir boss.

Do not fully tighten bolts.

Leave the lower mount brackets loose enough so they hang 5-10mm below the chassis cross beam.

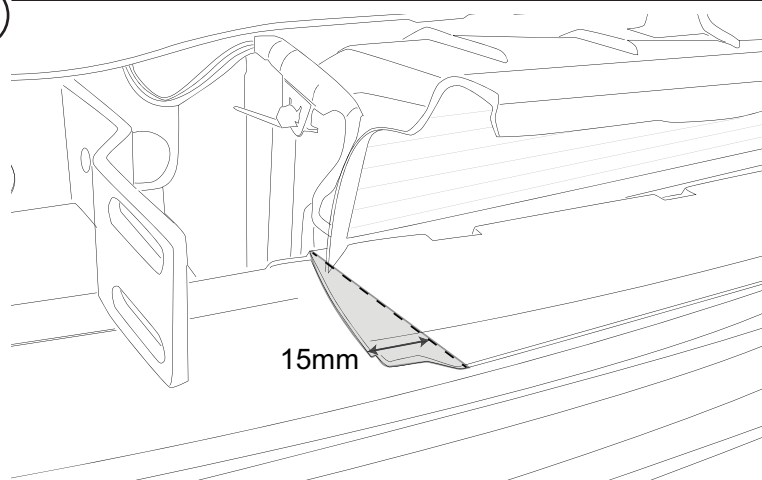
41



MOUNT BRACKET INSTALLATION TO VEHICLE

Note the RH lower mount bracket is near to the black suspension airline. Wrap the suspension airline in this area with the remaining protective wiring conduit and secure with tape.

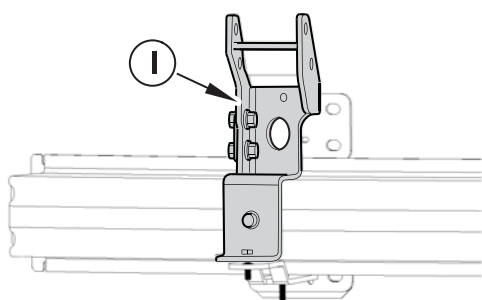
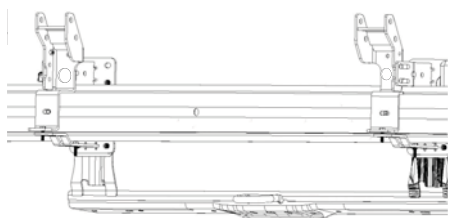
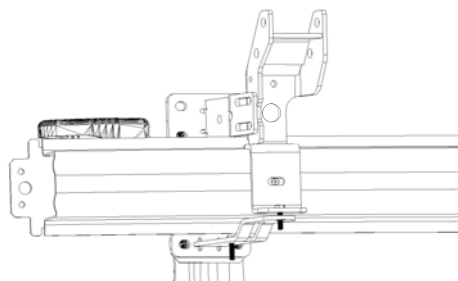
42



TRIM AIR DAM

Measure 15mm in from the sides of the air dam and trim.

43



Install the front mount brackets (marked LH and RH), ensuring that the lower threaded stud goes through the hole in the lower mount bracket.

Fasten to the chassis cross beam using an M8 bolt, spring washer and flat washer through the front.

Fasten the front mount brackets to the rear mount brackets using M8 bolts, spring washers, flat washers and hex nuts through the two side holes. Do not fully tighten bolts.

Offer up the Front Protection Bar to the front mount brackets to check the distance between the brackets is correct.

Move the brackets sideways to suit the location of the Front Protection Bar and to ensure it is central on vehicle.

Remove Front Protection Bar and tighten bolts to the following torque

M6 bolts that locate the washer reservoir to 5 Nm.

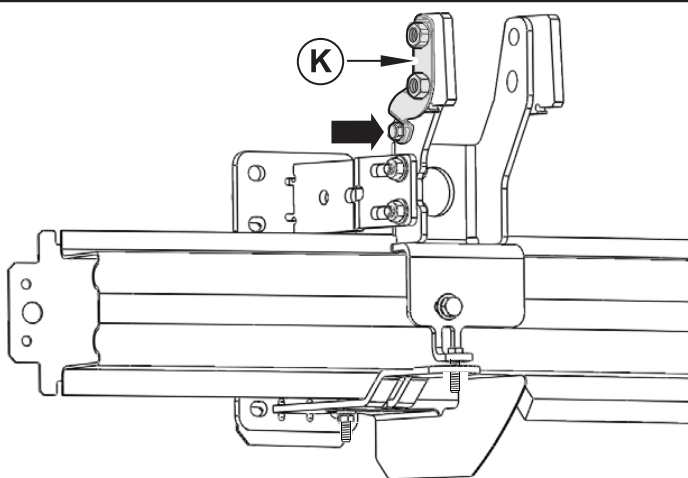
M8 bolt through the front of the front bracket to 19 Nm.

M8 bolts that retain the rear mount bracket to the chassis to 19 Nm.

M8 bolts that join the rear mount bracket and front mount bracket to 19 Nm

Leave the bolts that retain the lower mount bracket to the chassis loose so there is room between this bracket and the bottom of the front mount bracket.

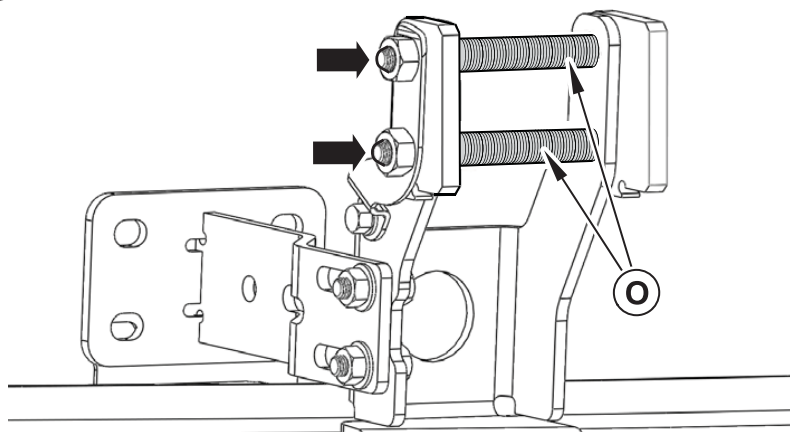
44



MOUNT BRACKET INSTALLATION TO VEHICLE

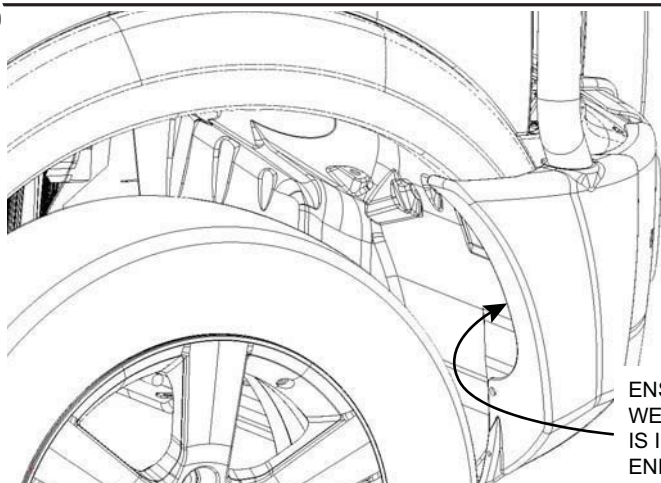
Install the nut plate to each of the front mount brackets using the M6 bolt and washer.

45



Ensure the nut plate is aligned by testing if the M10 x 120mm bolts start in the thread of the nuts.

46



ENSURE WHEEL
WELL LINER
IS IN BEHIND
END CAP

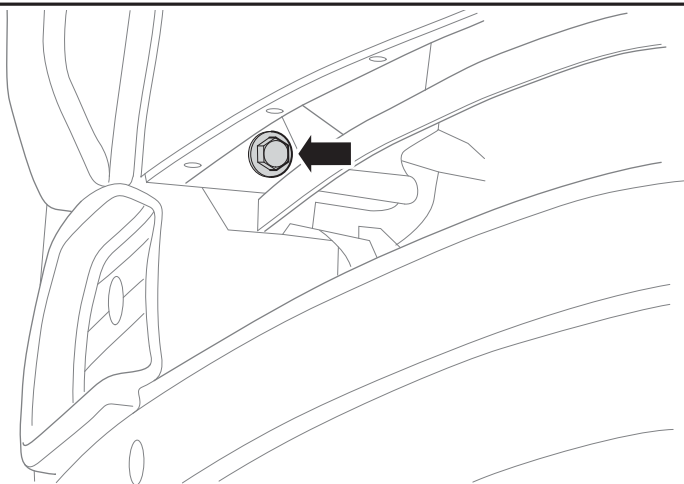
FRONT PROTECTION BAR INSTALLATION TO VEHICLE

WARNING: Heavy weight. A second person may be required to help lift the Front Protection Bar and position.

Using two people, mount the Front Protection Bar onto the vehicle by aligning with the front mount brackets.

As the Front Protection Bar is brought in and upwards, ensure that the wheel well liners are flipped inside the end caps and that the foam tape on the fender mouldings and bumper go down behind the end cap.

47

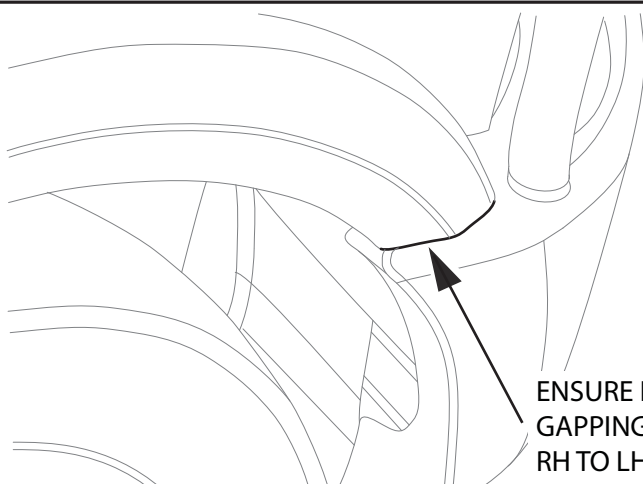


FRONT PROTECTION BAR INSTALLATION TO VEHICLE

While holding the Front Protection Bar in place, install one M10 x 120mm bolt, spring washer and flat washer into each of the front mount brackets by reaching in through the opening - this will retain the Front Protection Bar in place.

Install the second M10 x 120mm bolt, spring washer and flat washer into each of the front mount brackets.

48

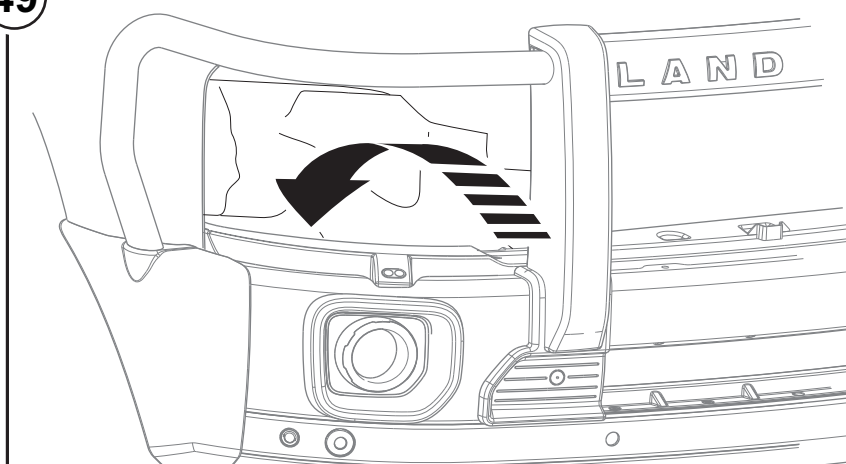


ENSURE EVEN
GAPPING FROM
RH TO LH

Ensure that the Front Protection Bar has even gapping around the end cap to fender moulding interfaces.

If not even; remove front protection bar and move mount bracket assemblies sideways on the vehicle. Re-install front protection bar and re-check gapping.

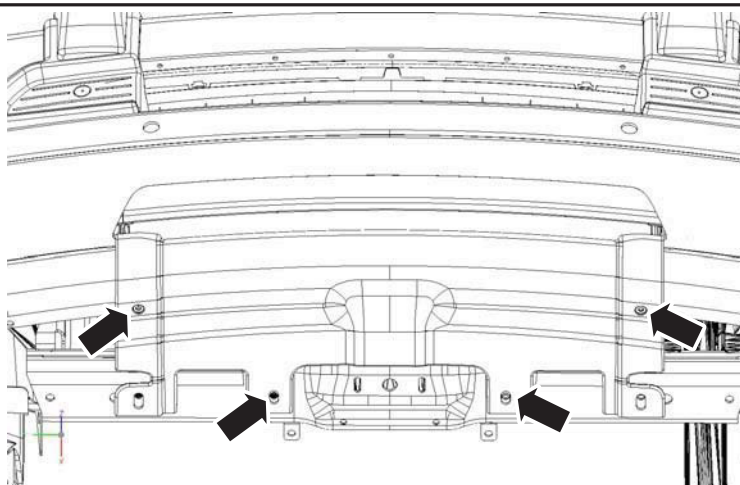
49



FRONT PROTECTION BAR INSTALLATION TO VEHICLE

Connect the wiring harness plugs from up through the right hand side headlamp opening.

50

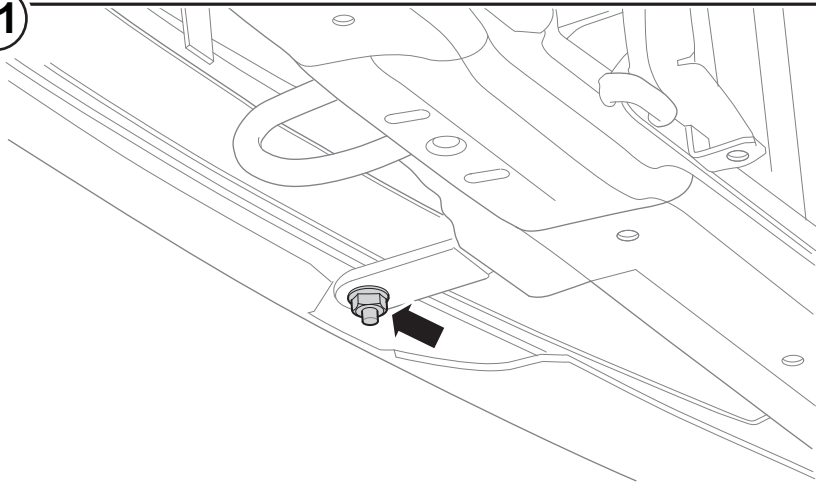


Trial fit the tow hook cover and ensure that the slots in the underside match up with the holes in the vehicle chassis - the Front Protection Bar may need to be rotated slightly to achieve this.

Remove the tow hook cover.

Tighten the four main mounting bolts to 30Nm using a socket, universal joint, extension bar and ratchet handle to access the bolts.

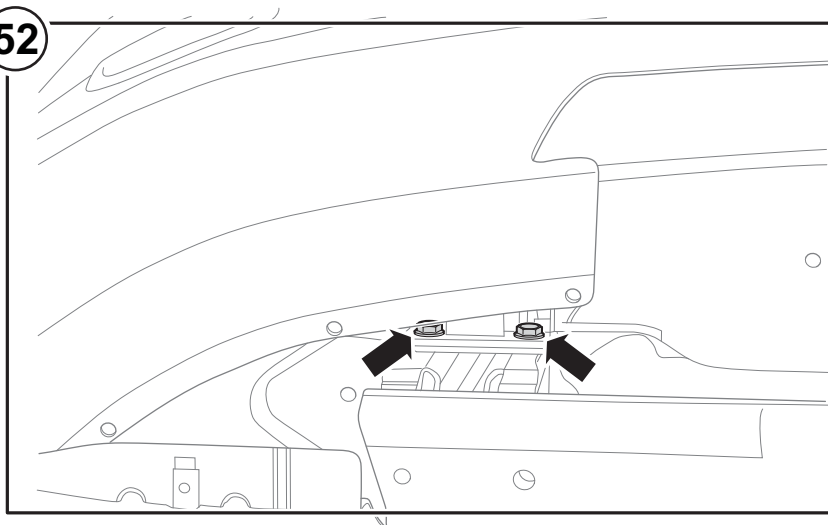
51



FRONT PROTECTION BAR INSTALLATION TO VEHICLE

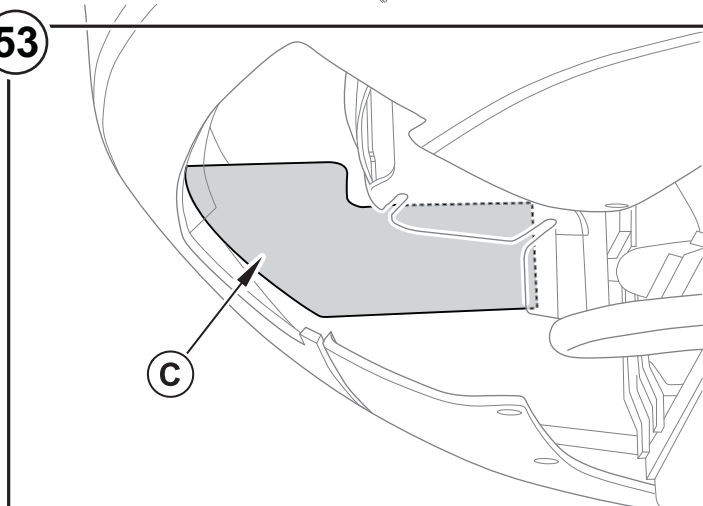
Install M6 flat washer, M6 spring washer and M6 nut on the stud that protrudes from the main mount bracket through the hole in the lower mount bracket. Torque to 5 Nm.

52



Torque the M8 bolts that retain the lower mount bracket to the chassis to 19 Nm.

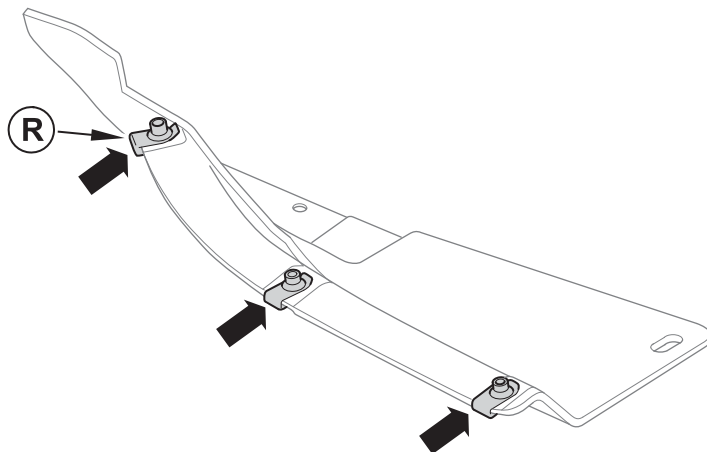
53



UNDER BODY COMPONENT INSTALLATION

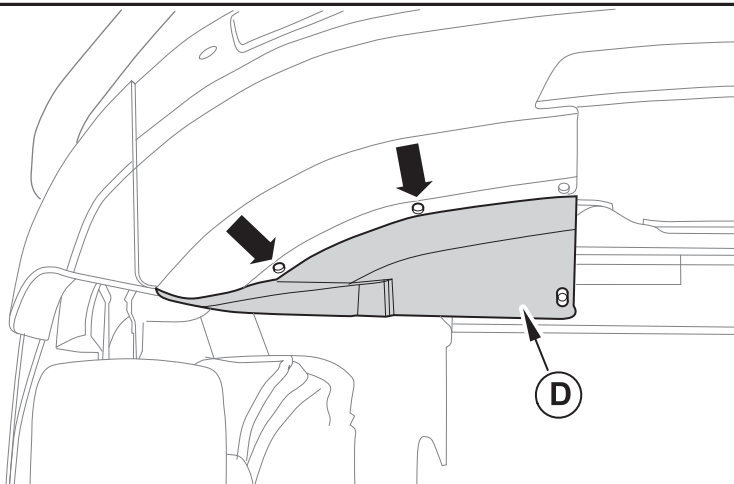
Install the side cover panels using M6 flat washers, spring washers and hex nuts to the studs in the lower mount brackets.

54



Note the three holes on each side skid plate with a depression around hole.
Install M6 u-nuts at these locations, ensuring threaded side of u-nut is located as shown.

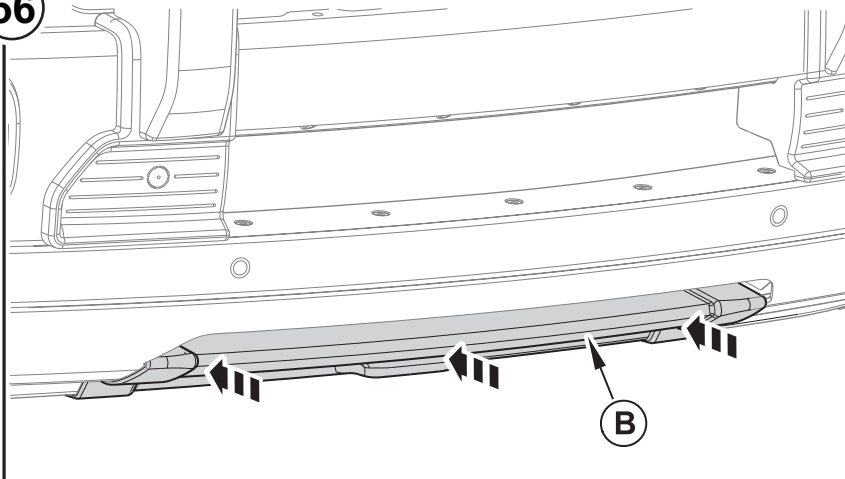
55



UNDER BODY COMPONENT INSTALLATION

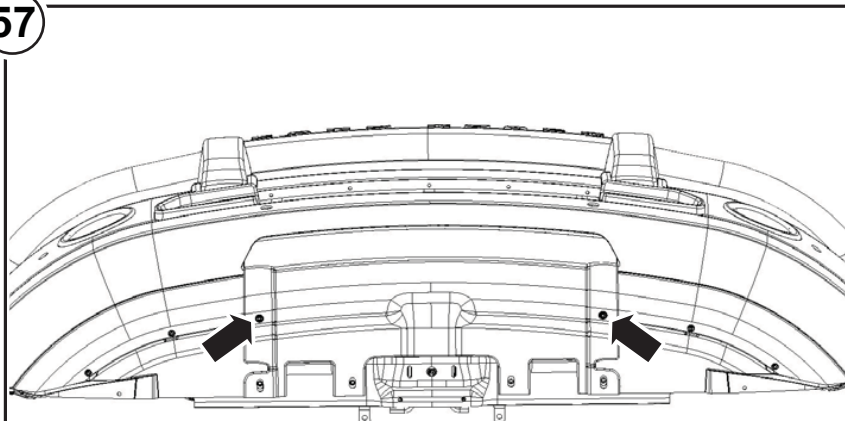
Fasten skid plates to the Front Protection Bar at the outer two locations only with M6 screws, spring washers, and flat washers.

56



Install the tow hook cover, ensuring that the rubber lip is tucked under the rear edge of the part.

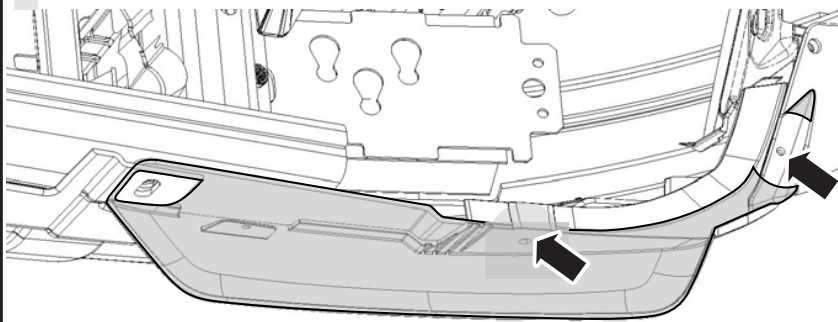
57



UNDER BODY COMPONENT INSTALLATION

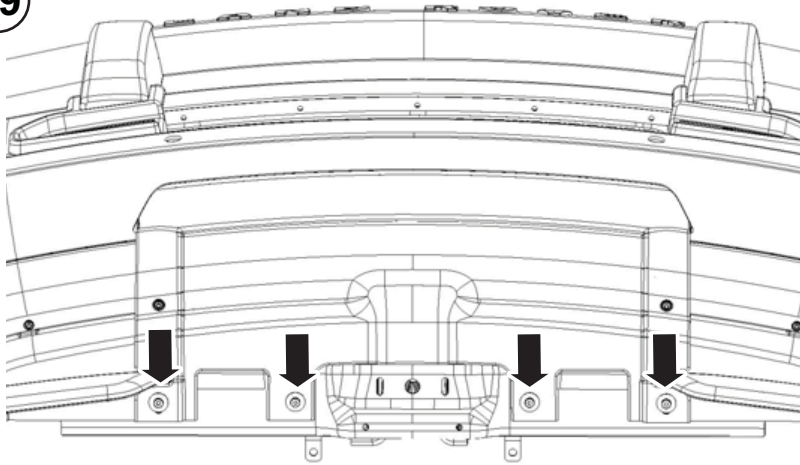
Fasten tow hook cover at front two holes using M6 screws, spring washers, and flat washers.

58



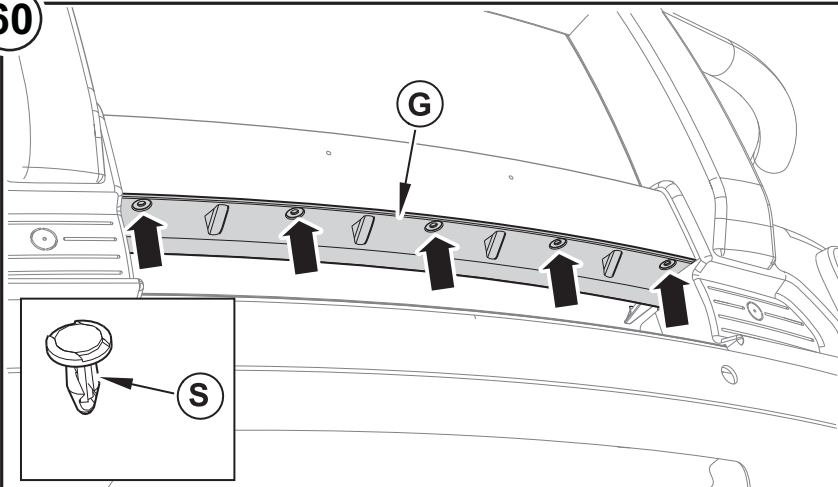
Install the aero components by poking the long tail in between the end cap and the aluminium Front Protection Bar body. Fasten at two locations shown with existing screws previously removed.

59



Fasten the tow hook cover at the rear four holes using the existing vehicle screws with large captive washers previously removed. The two outer screws should go through the tow hook cover, aero component and side skid plate holes.

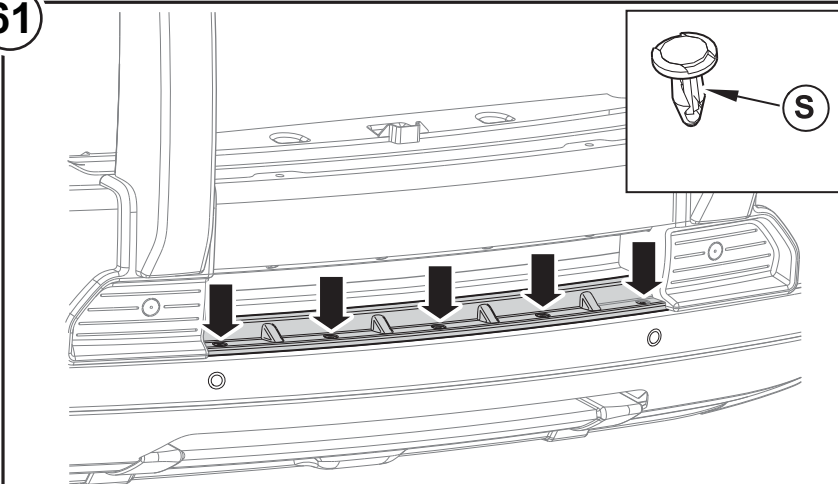
60



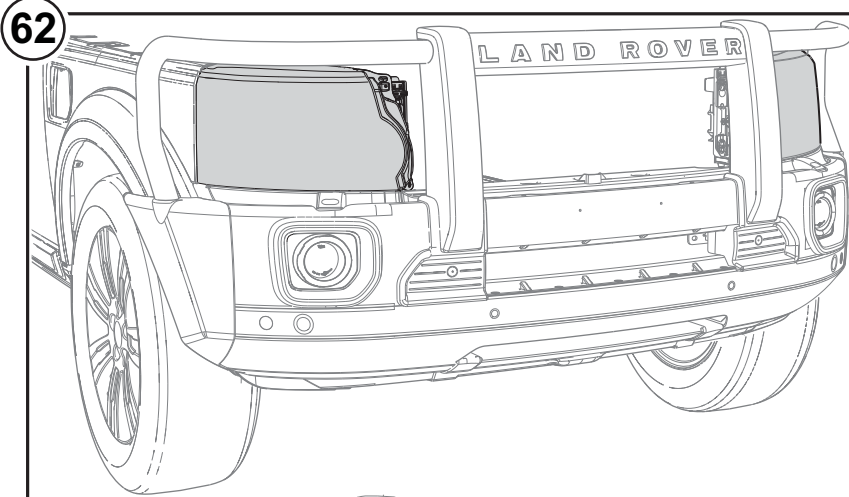
AIR DAM INSTALLATION

Install the upper and lower air dams and line up the holes in the parts with the holes in the aluminium Front Protection Bar.

61



Push scrivets into the holes and push in centre section of scrivet to secure air dam in place.



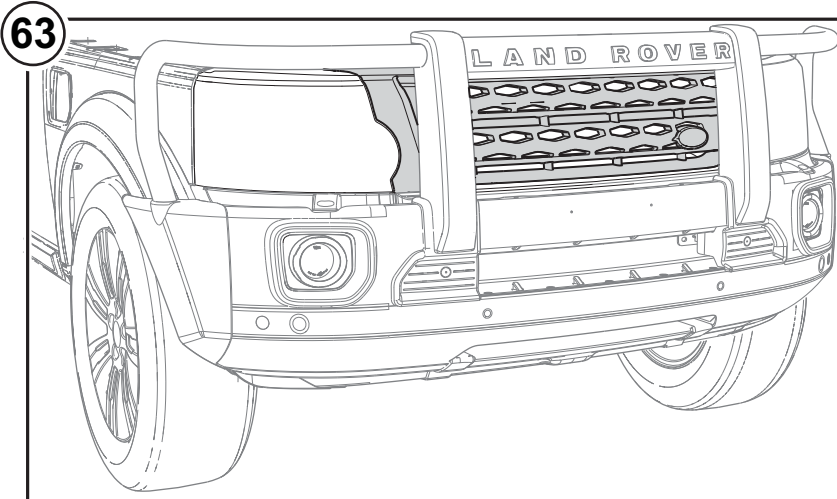
HEADLAMP ASSEMBLY INSTALLATION

WARNING: Vehicles fitted with Xenon headlamps, the following precautions must be observed. Failure to comply may result in exposure to ultra violet rays, severe electric shock, burns or the risk of explosion. Ensure the headlamps are switched off at all times. Eye and hand protection must be worn. Never switch on the lamps or test the bulbs with the lamp holder released from the headlamp.

Connect the electrical connector to the rear of each headlamp assembly.

Install the headlamps by pushing into openings in vehicle. Engage the two retaining brackets by pushing downwards on the top handles.

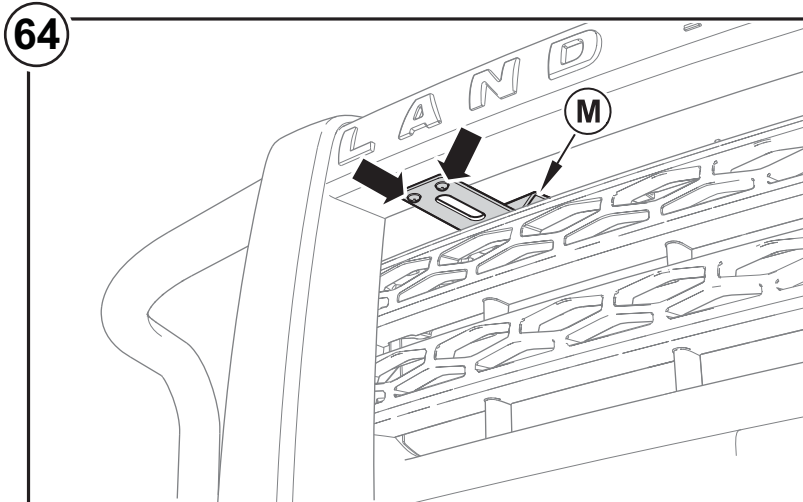
Connect the battery ground cable and replace battery cover.



GRILLE INSTALLATION

Install the grille by pushing directly into the vehicle and on each side to engage the two internal clips.

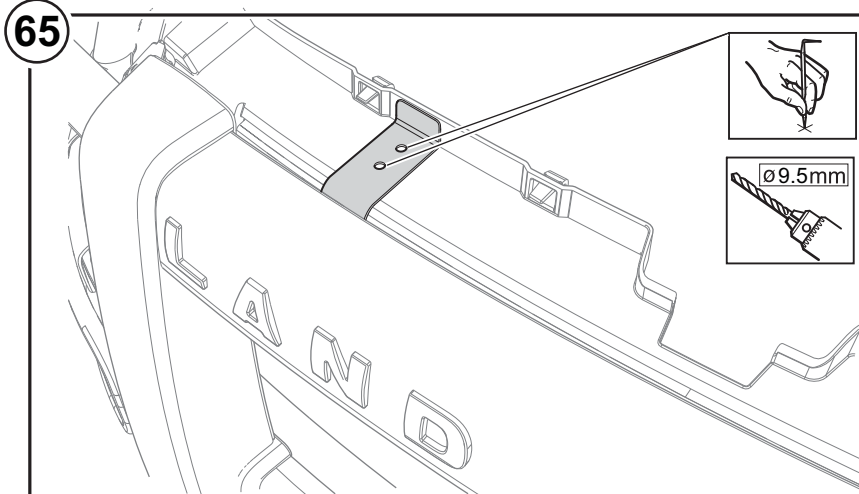
Ensure the four clips along the top of the grille are engaged by pushing reward at each clip location.



UPPER STEADY BRACKET INSTALLATION

Attach the LH and RH Upper Steady Brackets to the underneath of the top rail using M6 x 25

Button Head Screws, M6 Spring Washers and M6 Flat Washers.

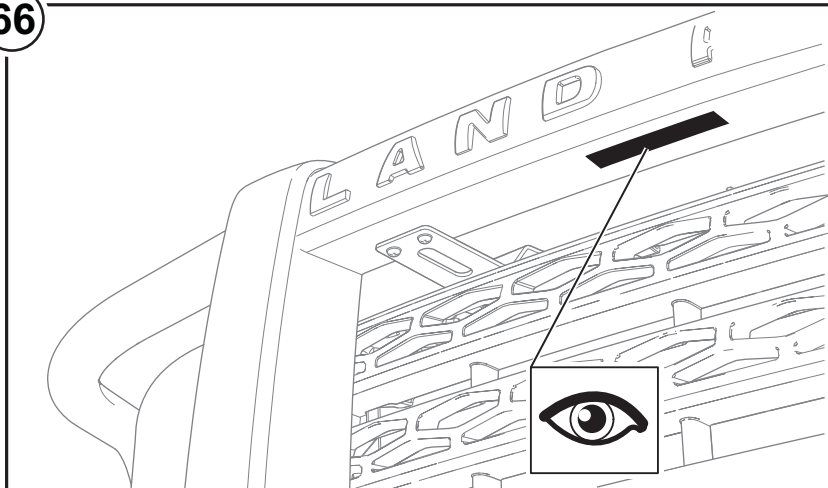


Mark out the hole locations where the bracket sits onto the vehicle grille.

Remove the Upper Steady Brackets and drill a 9mm diameter hole at the four marked locations.

Install an M6 Nutsert at each hole.

Re-install the LH and RH Upper Steady Brackets to the underneath of the top rail and the grille nutserts using M6 x 25 Button Head Screws, M6 Spring Washers and M6 Flat Washers.



LABEL LOCATION

Ensure that the label is adhered and visible in the location shown.