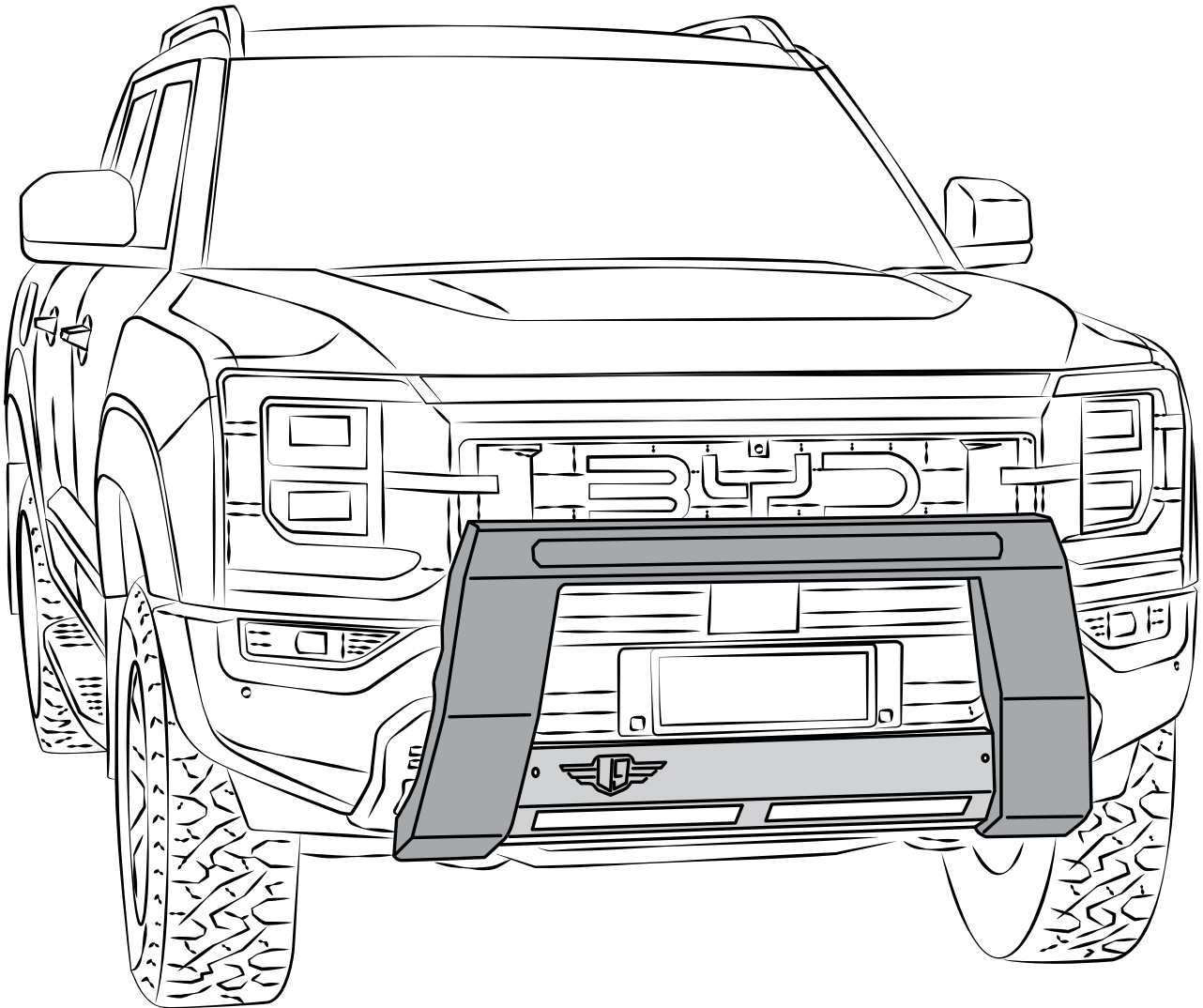




FITTING INSTRUCTIONS



NUDGE BAR TO SUIT BYD SHARK 6

WARNING!

When installed in accordance with these instructions, the VFPS (Vehicle Frontal Protection System) will not effect the operation of the vehicle's SRS airbag.

NOTE

- Do not attach the VFPS to the vehicle using anchorages not intended for this purpose (e.g. engine mounting bolts)
- Do not use this product for any vehicle make or model, other than those specified by Ultimate9®
- Do not remove the identification plaque or label from the VFPS.
- Do not modify the structure of the VFPS in any way
- The installation of this product may require the use of additional materials, specialised tools, and/or techniques. Please read and understand the instructions thoroughly before commencing any fitment.

THE FOLLOWING SYMBOLS ARE USED IN THESE FITTING INSTRUCTIONS

Warning - Read the included note carefully as damage may result



Danger - Must read before continuing as injury may result



Eye Protection - The following step requires the use of protective eye wear



Hearing Protection - The following step requires the use of protective ear muffs or plugs



Tip - Follow to make fitting easier or to save time



Tools required

GET THE LATEST INSTRUCTION UPDATE

Go to www.ultimate9.co for the latest downloadable PDF version of this instruction booklet.



FITTING INSTRUCTIONS

NUDGE BAR TO SUIT
BYD SHARK 6

GENERAL TOOLS REQUIRED FOR FITMENT

Metric Socket Set	Metric Ring & Open End Spanners
Phillips And Flat Blade Screw Drivers	Sharp Knife
Drill Bit Set - Metric	Tin Snips Or Hacksaw
File Or Sandpaper	Metric Allen/Hex key set

SPECIAL TOOLS REQUIRED FOR FITMENT

Torque Wrench 3/8" Drive	Torque Wrench 1/2" Drive
Step Drill - 6-20mm (if using round switch)	Plastic Trim/Clip Removal Tools
Wire Strippers	UTILUX #124 Crimp Tool
T25 Torx bit and driver	

GENERAL TORQUE SPECIFICATIONS

Note: In absence of notation or manufacturers spec use the below as a guide

SIZE	TORQUE (Nm)	TORQUE (lb/ft)
M6	9	7
M8	22	16
M10	44	32
M12	77	57

GENERAL CARE & MAINTENANCE

Ultimate9 Nudge Bars are finished in durable powder coatings that are best maintained by regular washing with automotive grade detergents. The surface should be protected by polishing with automotive grade waxes at no more than 6 month intervals to retain its original finish.

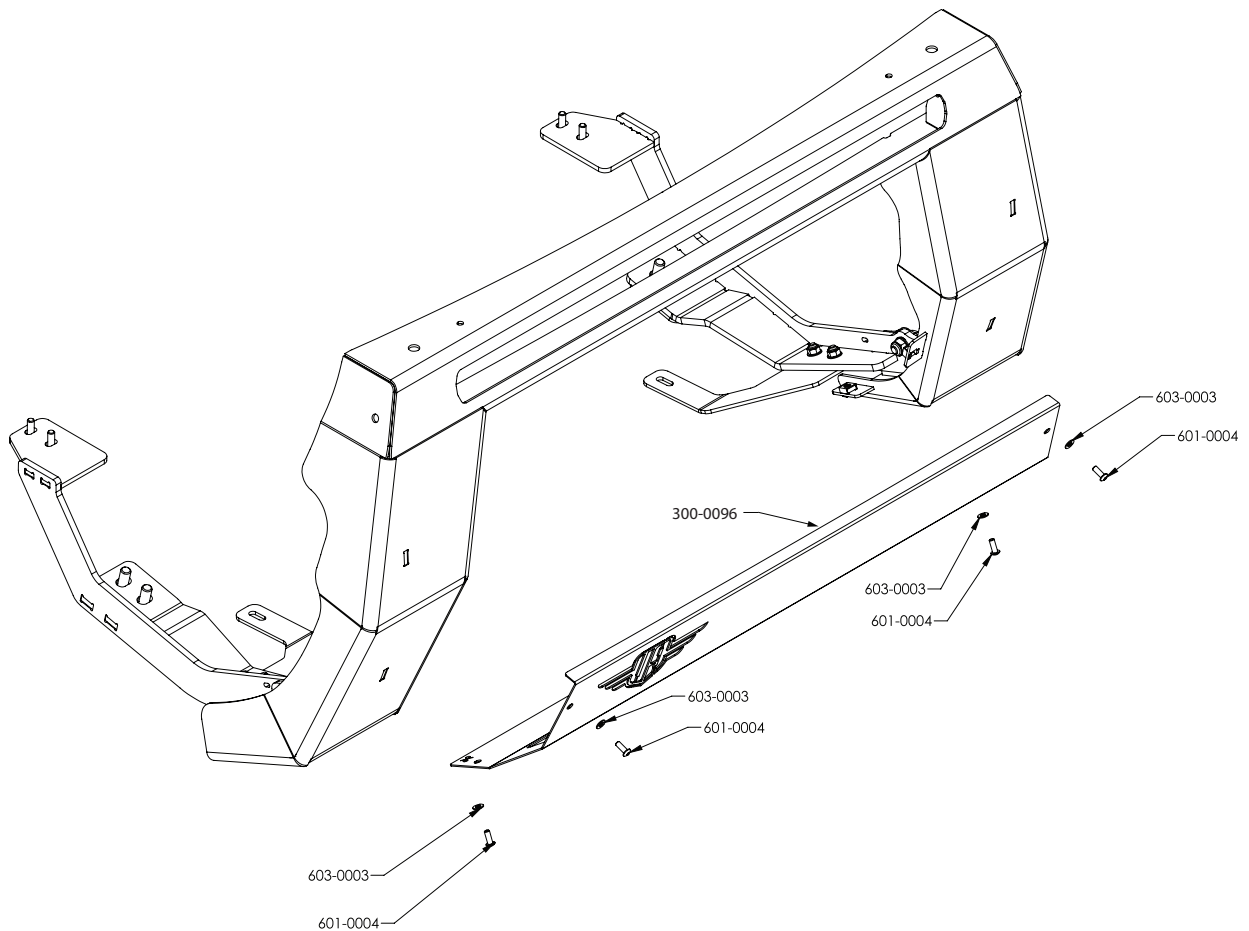
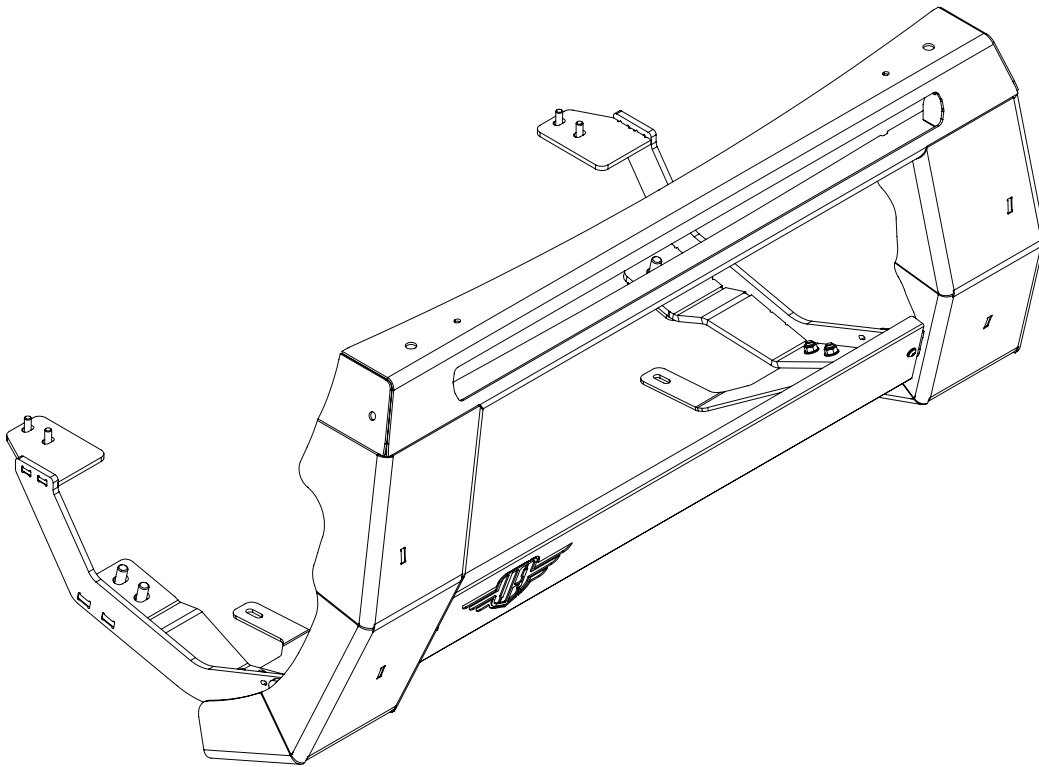
All fasteners should be checked for integrity at normal vehicle service intervals to ensure continued compliance with SRS airbag operation.

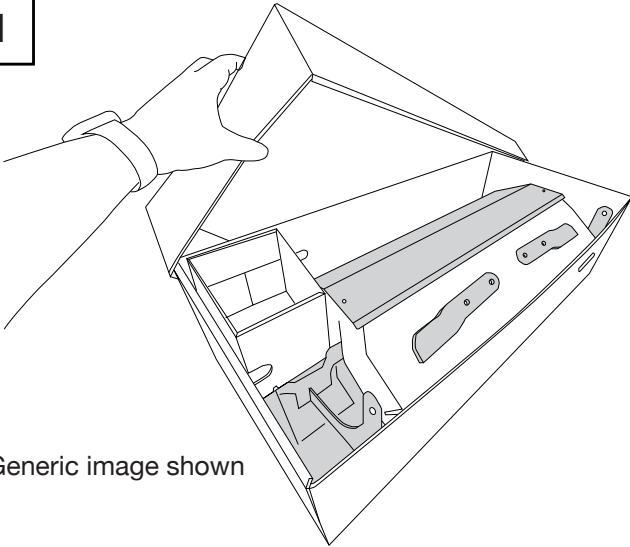


FITTING INSTRUCTIONS

NUDGE BAR TO SUIT
BYD SHARK 6

APPLICATION	QTY	PART N/O.	DESCRIPTION
Chassis mounts to chassis	1	700-0059R	ASSEMBLY - WELDED CHASSIS MOUNT RH
	1	700-0059L	ASSEMBLY - WELDED CHASSIS MOUNT LH
	4	601-0014	BOLT HEX HEAD-M12 X 1.25 X 50 GRADE 8.8
	4	603-0004	WASHER FLAT-M12 X 24 X 1.6
	4	200-0062	PLATE-SPACER
	8	603-0013	WASHER FLAT-M8 X 17 X 1.2
	4	603-0012	WASHER SPRING-M8
	4	602-0014	NUT NYLOC-M8
	4	601-0015	BOLT HEX HEAD - M8 X 25 GRADE 8.8
Bracing bracket to chassis mounts	1	300-0108R	BRACKET-BRACE RH
	1	300-0108L	BRACKET-BRACE LH
	4	603-0013	WASHER FLAT-M8 X 17 X 1.2
	4	601-0015	BOLT HEX HEAD - M8 X 25 GRADE 8.8
Light bar to nudge bar	2	300-0053	BRACKET - LIGHT MOUNT
	1	ULTLED30C	LED LIGHT BAR 30INCH COMBO
Nudge bar to chassis mounts	1	700-0060	ASSEMBLY WELDED - NUDGE BAR
	4	601-0001	BOLT HEX HEAD-M10 X 30 GRADE 8.8
	8	603-0002	WASHER FLAT-M10 X 21 X 1.6
	4	602-0002	NUT NYLOC-M10
Centre pan to nudge bar	1	300-0096	PANEL-CENTER FOLDED
	4	603-0003	WASHER FLAT SS-M6 X 12.5 X 1.2
	4	601-0004	BUTTON HEAD CAP SCREW-M6 X 16
	4	602-0003	NUT CAGED-M6 2.6 - 3.5
Wiring of light bar	1	ULTLEDHT	AUXILIARY LIGHT HARNESS (TWIN OUTPUT)
	1	ULTLEDPH10	PIGGYBACK HARNESS BYD SHARK 6 - 10/2024 ON
	20	606-0001	CABLE TIE - 280MM X 4.8MM
	1	300-0110	PLATE-RELAY MOUNT SINGLE SS 304 2B 2.0MM
	1	601-0008	BOLT-M5 X 12
	1	603-0007	WASHER FLAT-M5
	1	602-0008	NUT NYLOC-M5

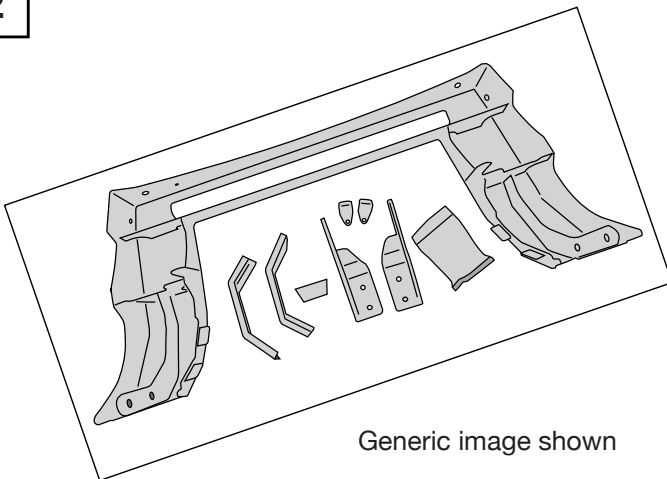


1

Generic image shown

Remove the nudge bar from its packaging.

NOTE: The nudge bar is wrapped in protective tape to prevent damage during transport. Carefully remove each component and the cardboard inserts. If using a knife to open packaging, take care as damage to the powder coated finish may result.

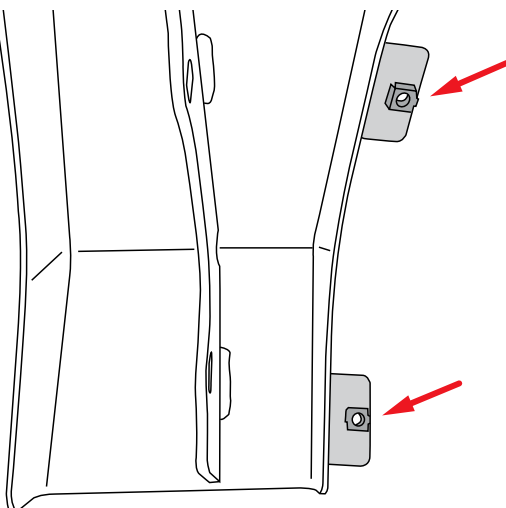
2

Generic image shown

Prepare the bar for fitting.

Lay the bar down on a protective surface such as cardboard or a blanket, preferably at bench height.

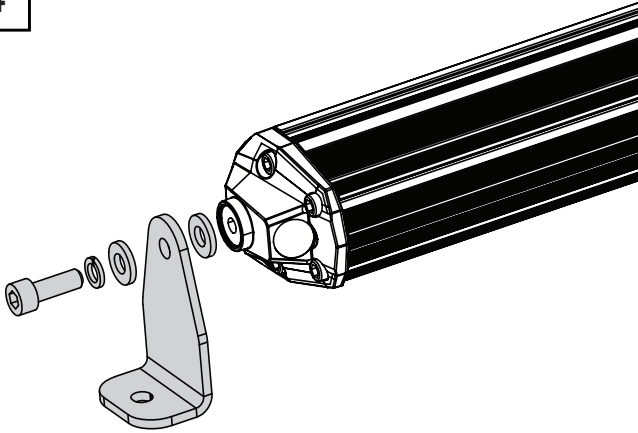
Unpack the fitting kit and check that all the components are complete as per the parts list.

3**Prepare the fasteners for attaching the centre pan.**

Place four M6 cage nuts (P/No. 602-0003) into the square holes on the two flanges as shown

Note: LHS shown, RHS same.

Ensure the nuts are fitted to the back of the flange.

4

Assemble the light bar brackets.

Unpack the light bar from its packaging and locate the fitting kit.

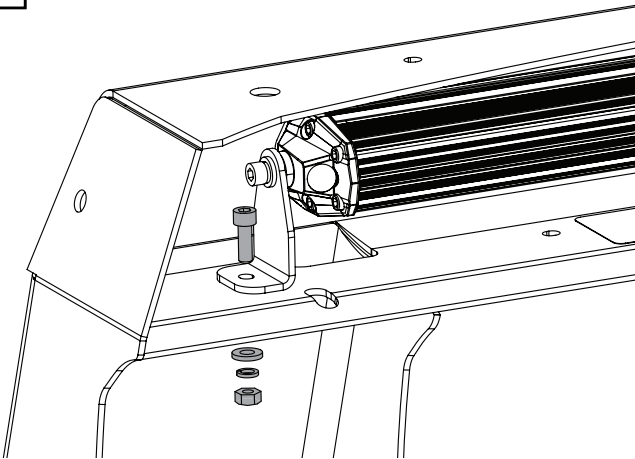
Discard the black mounting brackets (item 4) from the fitting kit.

Replace with the stainless steel mounting brackets supplied in the nudge bar fitting kit and assemble as shown.

Note: LHS shown, RHS same.



5mm Allen key

5

Assemble light bar to nudge bar.

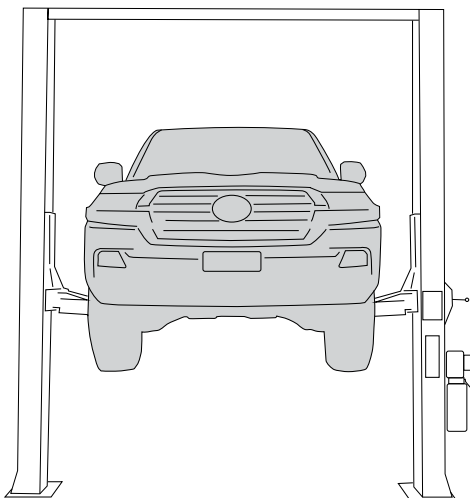
Fit the light bar to the nudge bar using two M6 x 20 stainless cap screws, flat washers, spring washers and M6 stainless nuts (supplied in light bar fitting kit) as shown.

Note: LHS shown, RHS same.

Note: Fitting antennas is best performed now before fitting the nudge bar to the vehicle as access will be limited.



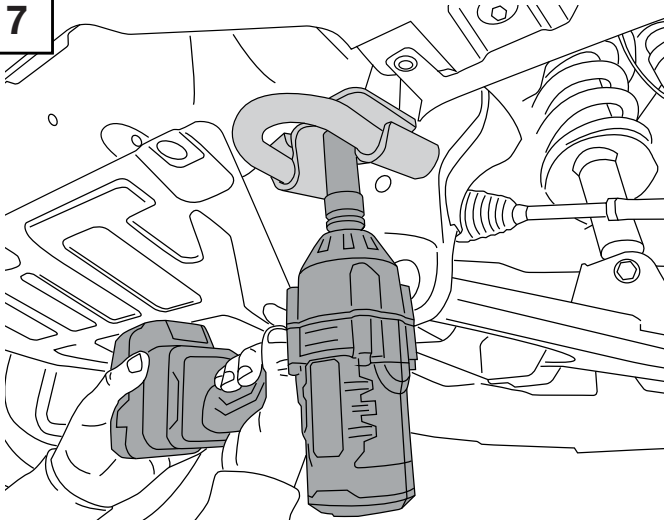
5mm Allen key/10mm spanner or socket

6

Prepare the vehicle for fitment of the nudge bar.

Note: Raising the vehicle - Always ensure the vehicle is supported by either vehicle stands or on a hoist. Consult the vehicle handbook for correct jacking locations. Never work beneath a vehicle that is unsupported or on a jack.



Wear eye protection when working beneath the vehicle as dirt and debris may be dislodged when removing bolts and under body panels.

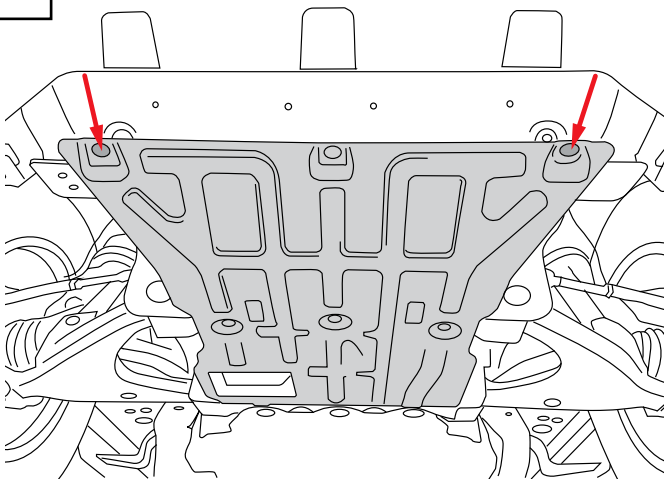
7

Remove the recovery points.

Remove the two M12 bolts that hold the recovery points to the chassis. Place the recovery points aside for re-fitment.

Note: Discard the M12 bolts as these will be replaced.



17mm socket & ratchet/rattle gun

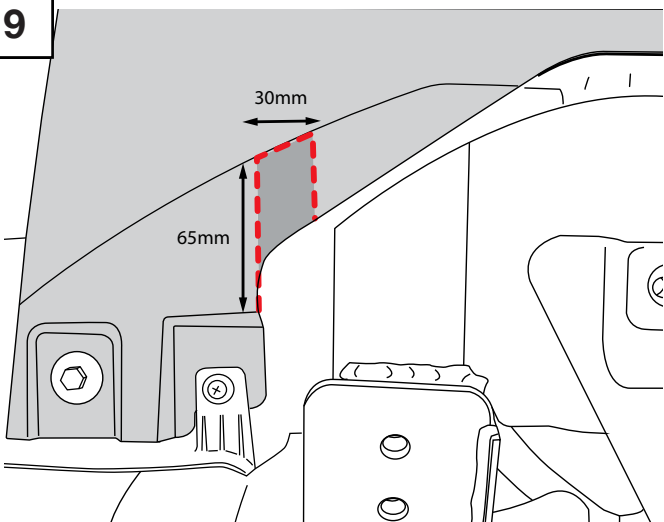
8

Remove the outer engine splash guard bolts.

Remove the two outer M8 bolts as shown.

Keep the bolts for re-fitment.



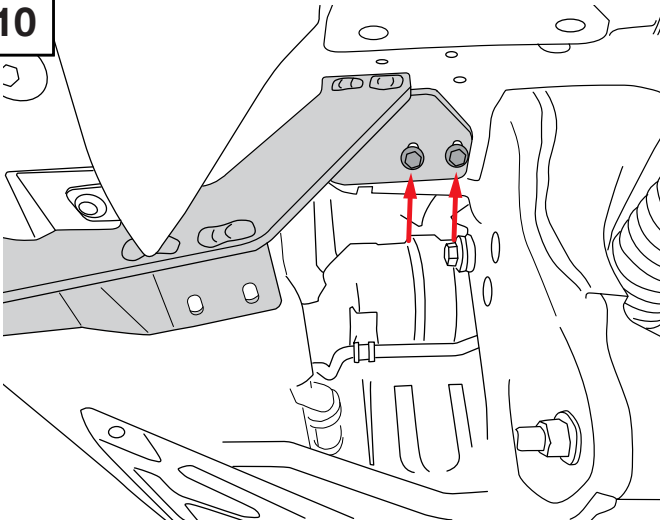
13mm socket and ratchet

9

Mark the bumper for cutting.

Mask the bumper with masking tape covering the general area for cutting. Using a steel rule or similar as a flexible straight edge, mark the cut line using the measurements shown as a guide.

Use a multi tool, tin snips or similar to cut out the area in dark grey.

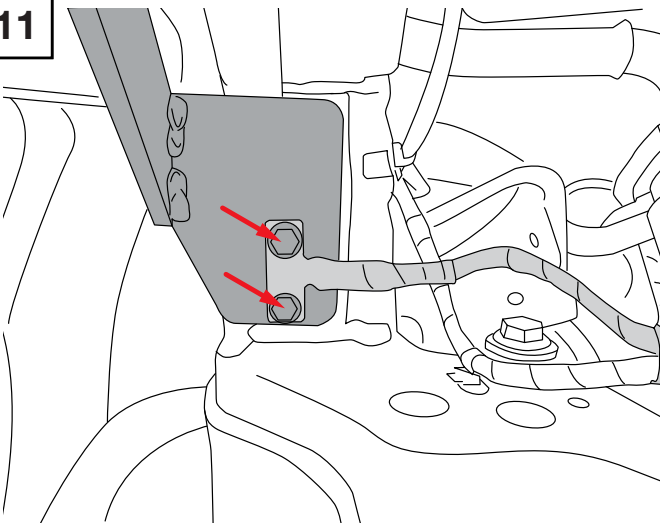
Note: This area is covered by the nudge bar so does not need to be precise.

10

Install the LHS chassis mount bracket.

Hold the LHS chassis mount bracket in place and using two M8x 25mm bolts with spring and flat washers, attach the mount to the chassis as shown.

Note: Install the bolts but do not torque at this stage.

Note: The vehicle chassis has a black anti corrosion coating that may be present in the threaded holes. The holes may require cleaning with a tap if the bolts cannot be started.

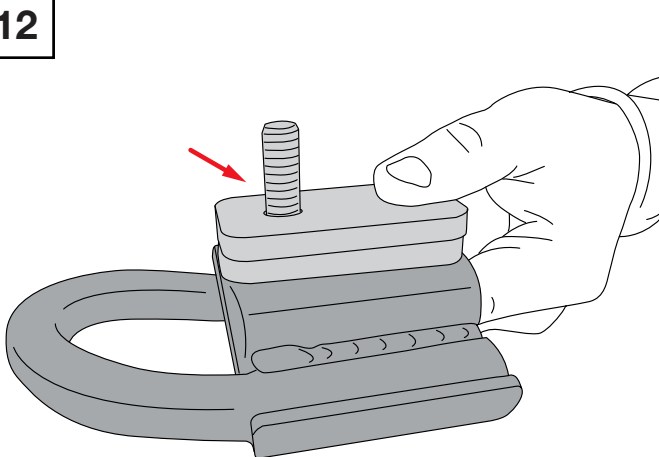
11

Install the RHS chassis mount bracket.

On the RHS of the chassis is an earth strap that is bolted to the points that will be shared by the chassis mount bracket.

Remove the two M8 bolts holding the earth strap and discard the bolts.

Hold the RHS mount bracket in place and using two M8x 25mm bolts with spring and flat washers, attach earth strap and the mount to the chassis as shown.

Note: Install the bolts but do not torque at this stage.

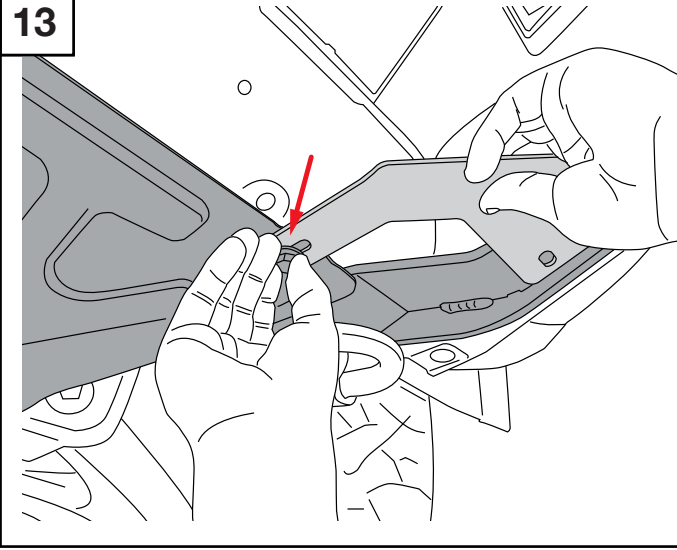
12

Reinstall the recovery point.

Place two 8mm spacers on top of the recovery point (as shown) and using two M12 x 50mm Bolts with spring and flat washers, install the recovery point over the mounting bracket.

Note: Install the bolts but do not torque at this stage.

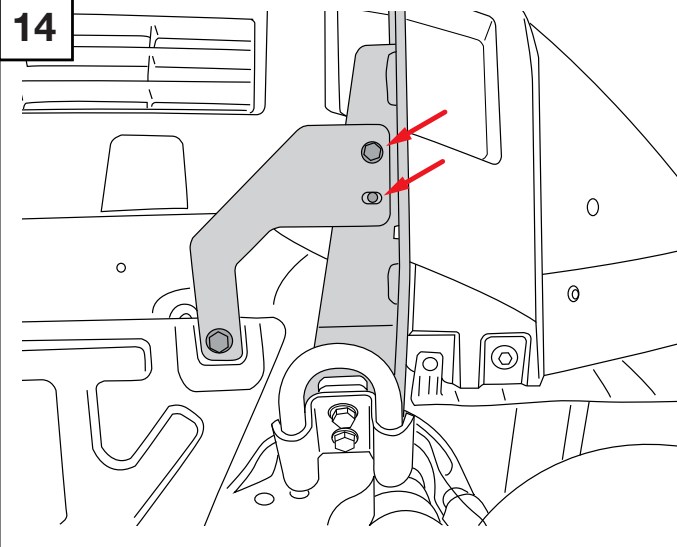


17mm socket & ratchet/rattle gun

13**Install the bracing brackets.**

Using the M8 bolts removed in step 8, attach the bracing bracket to the engine splash guard. Do not torque at this stage.

Note: LHS shown, RHS similar.

14

Using two M8 x 25mm bolts, flat washers and Nyloc nuts, attach the bracing brackets to the nudge bar mounts.

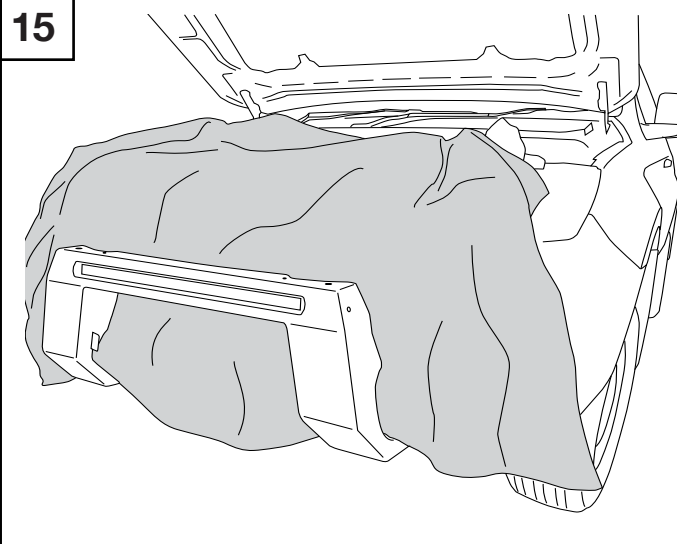
Fit with the bolt heads facing down.

Do not torque at this stage.

Note: LHS shown, RHS similar.

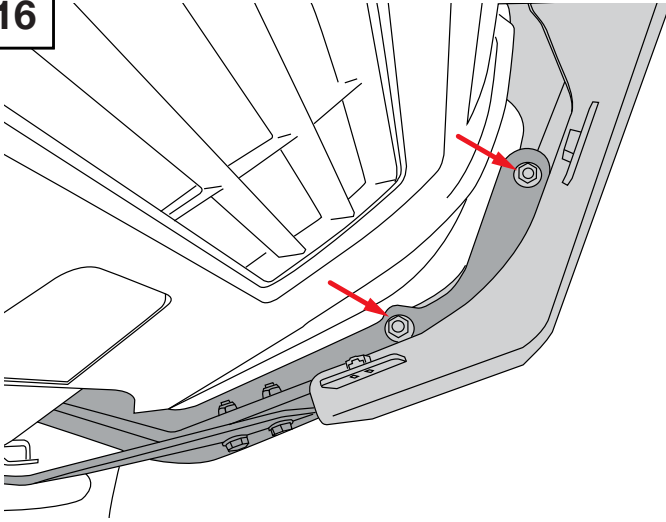


12mm/13mm socket/ratchet. 13mm spanner

15**Mounting the nudge bar.**

Note: This stage requires 2 or more people or a lifting device to lift & hold the nudge bar whilst it is bolted in place.

Warning: Due to close proximity of bar fitment to the vehicle, care should be taken not to scratch or dent the body. Use protective tape, rags or a blanket to protect areas of possible contact as shown.

16


Lift the nudge bar into place. Install four M10 x 40 bolts, flat washers and Nyloc nuts to hold the nudge bar to the mounts as shown (two per mount). Do not torque at this stage.

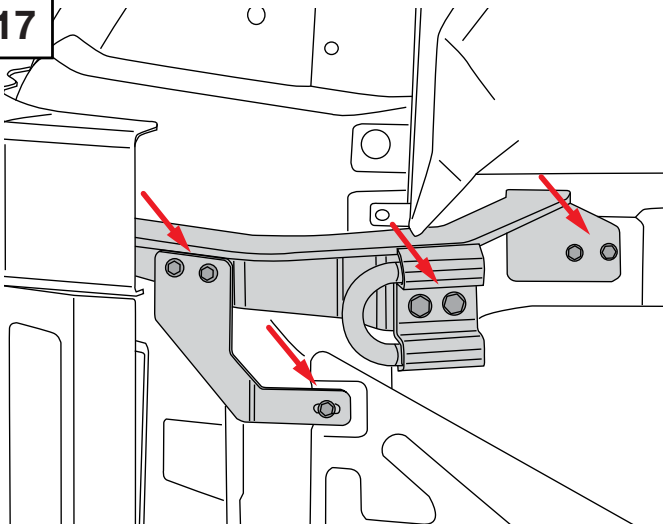
Once in place, the nudge bar can be allowed to rest loosely on the mounts and protective tape/rags/blanket used in previous step can be removed.

Note: LHS shown, RHS same

Note: Bolt threads should be facing inward as shown in the diagram.



17mm socket/ratchet & 16mm long ring spanner

17


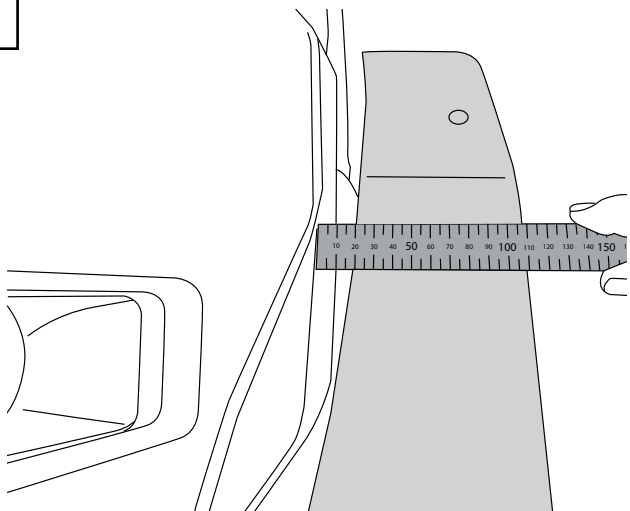
Tighten all mount bracket and brace bracket bolts to specified torque values.

M8 bolts: 22Nm (16lb/ft)

M12 bolts: 77Nm (57lb/ft)



13mm/17mm socket and torque wrench

18


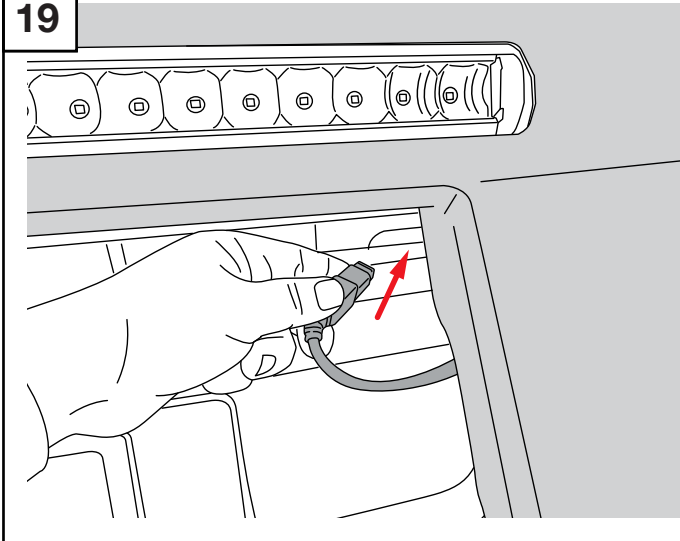
Adjust the nudge bar so that there is an even gap of approximately 20mm between the nudge bar and the vehicle bumper.



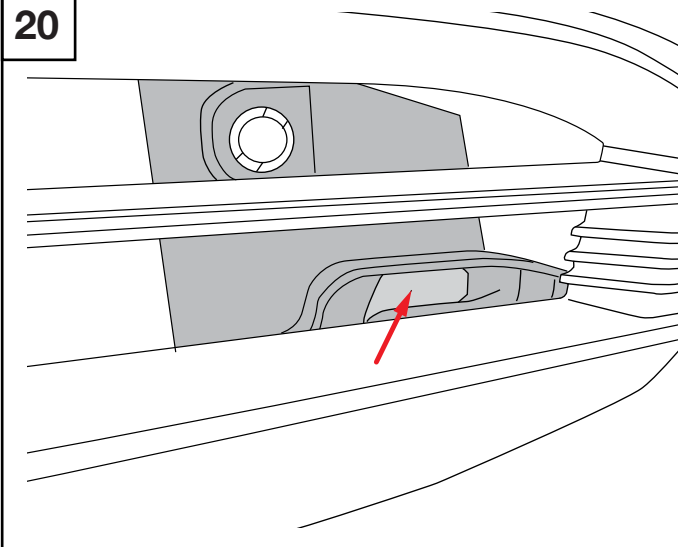
Note: Adjust the gap at the bottom of the bar by sliding in or out then tighten the rear bolts. The top of the bar can then be tilted in or out to achieve an even gap.



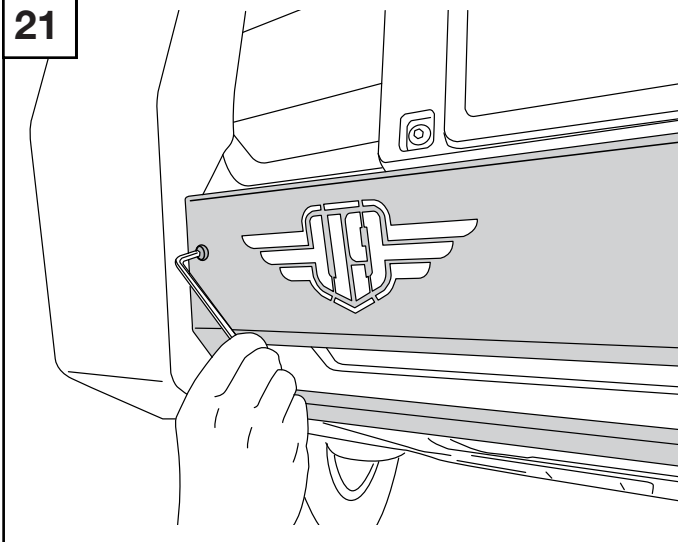
Tighten mounting bracket M10 bolts to 44Nm/16lb/ft

19**Route the LED light bar fly lead cable.**

Route the fly lead cable from the light bar through the lower grille.

20

Once through the grille, route the fly lead cable through the small access cutout in the plastic panel beside the radiator.

21**Install the centre pan.**

Using four M6 x 16 stainless steel cap screws and flat washers, install the centre pan as shown.

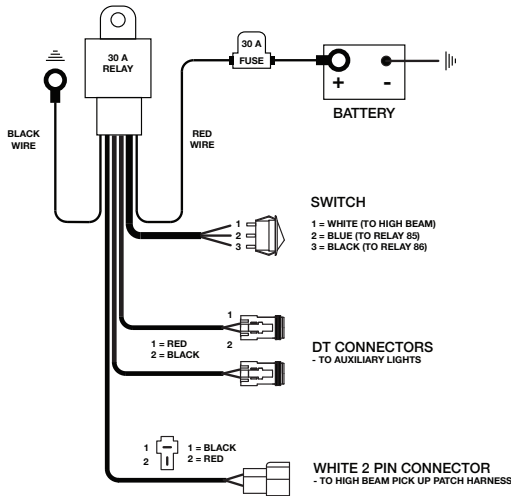


Note: Ensure the screws are done up tight to allow the cage nut to compress.

4mm Allen/hex key

Torque: 9Nm (7lb/ft)

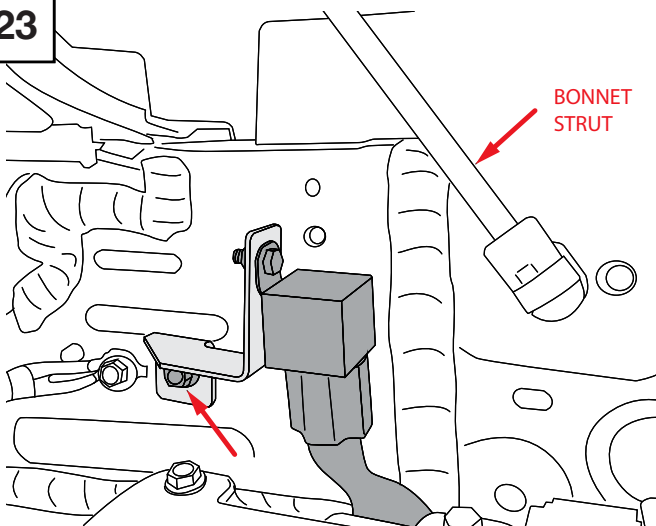
Alternatively use thread locking compound such as Loctite 243.

22

Install the wiring harness for the light bar.

Remove the wiring harness from the packaging and lay it out as shown.

Components to the harness are:

- Relay and mount
- Fuse and +/- wires
- Switch and cable
- DT connectors and cables
- Headlamp high beam pick up connector and cable
- High beam piggyback patch harness (not shown)

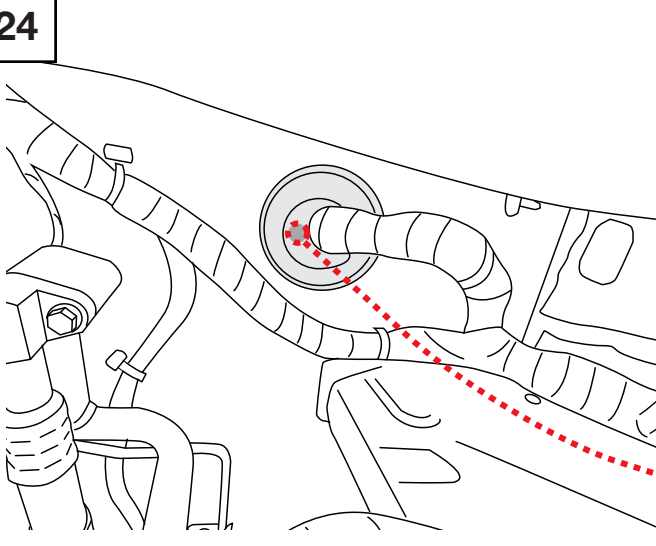
23

Mount the relay.

Using relay mounting bracket P/No. 300-0110, mount the relay to the bracket using M5 hardware, then attach the bracket to the inner guard with the OE M8 bolt and washer.

Note: do not connect positive and negative wires to the battery until step 33.



12mm/8mm socket/spanner

24

Feed the switch cable into the cabin.

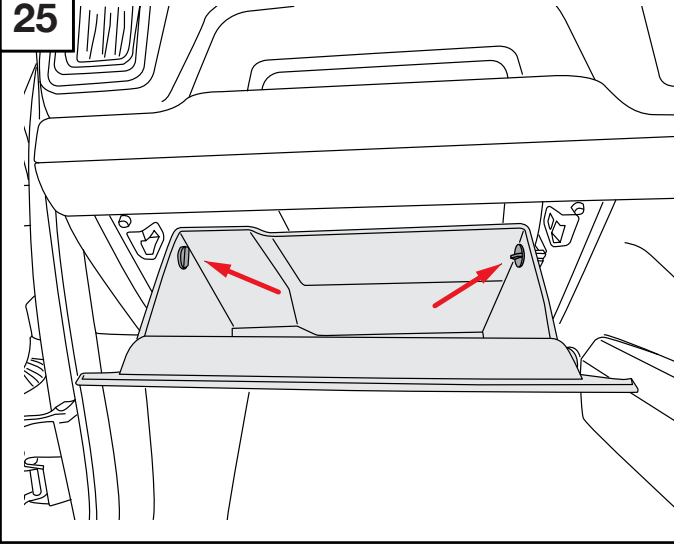
In the passenger (LH) side corner of the fire wall is a large grommet that the main engine wiring harness passes through. Route the switch cable along existing wiring to the grommet. Carefully pierce the grommet to pass the switch cable through into the cabin of the vehicle.



Use plastic tubing as a pull through and lubricant such as silicon spray to help feed the cable through the grommet.

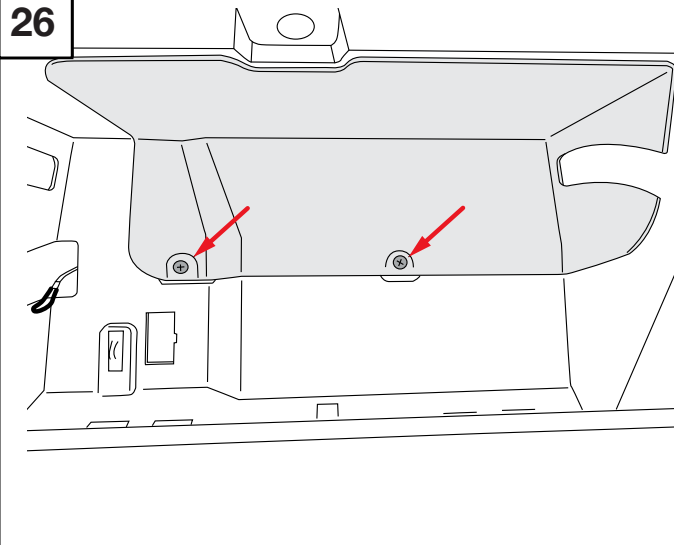


Note: do not use solid wire such as a coat hanger as damage to other wiring may result.

25

Remove the glove box.

Open the glove box and unlatch the retaining pins on either side by turning and pulling out. This will allow the glove box to open further giving access to the retracting cable on the left hand side.

Unhook the cable and allow the glove box to open fully. This will reveal a panel at the back of the glove box.

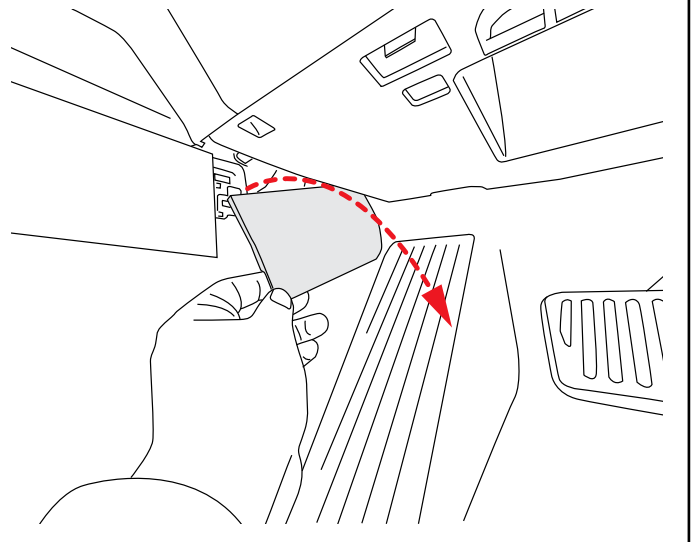
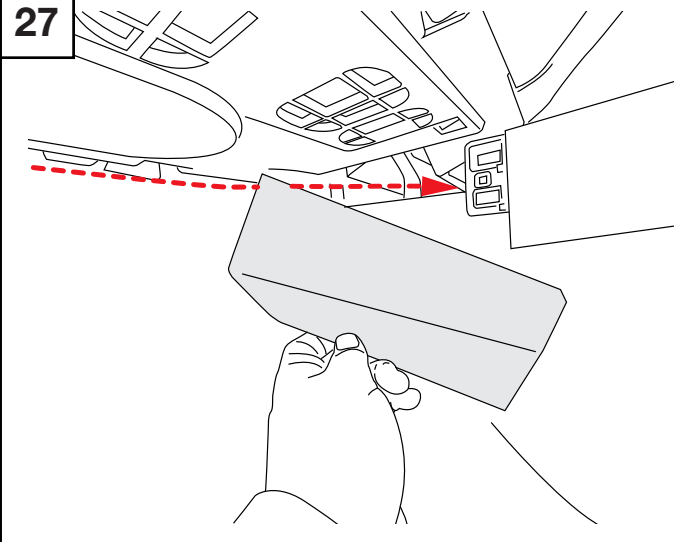
26


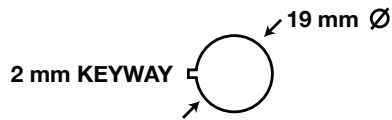
Behind the glove box is a panel held in place by two screws. Remove the screws and slide to the left to disengage three hidden clips on the right hand side.

Remove the panel to access the rear of the grommet in the firewall.

If not already pierced from the engine bay, this can be performed from inside the vehicle.

Pull the switch cable through from the engine bay and route it toward the drivers side by removing the LH and RH panels on the centre console as shown in next step.

27


28
SWITCH HOLE


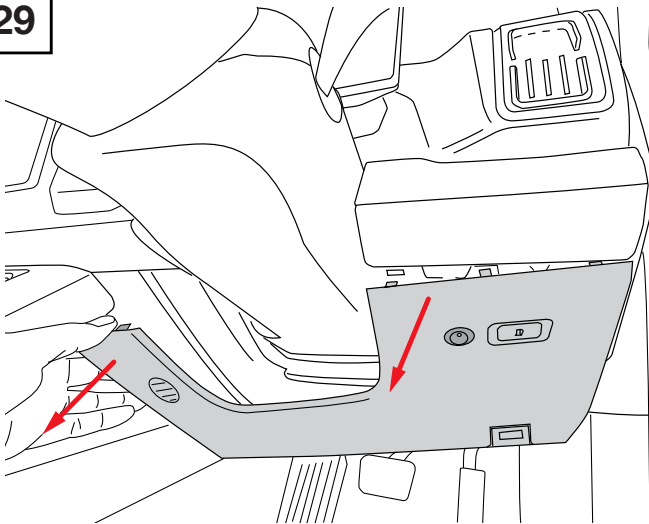
Drill a hole and mount the switch in the lower dash panel.



Mark the position for the switch approximately 25-30 mm to the left of the fuel door release button. Drill a hole out to 19mm. A step drill is best used for this which will result in a 20mm hole however the switch will still fit snugly.



To prevent the switch from rotating, the small key way slot should be filed as shown.

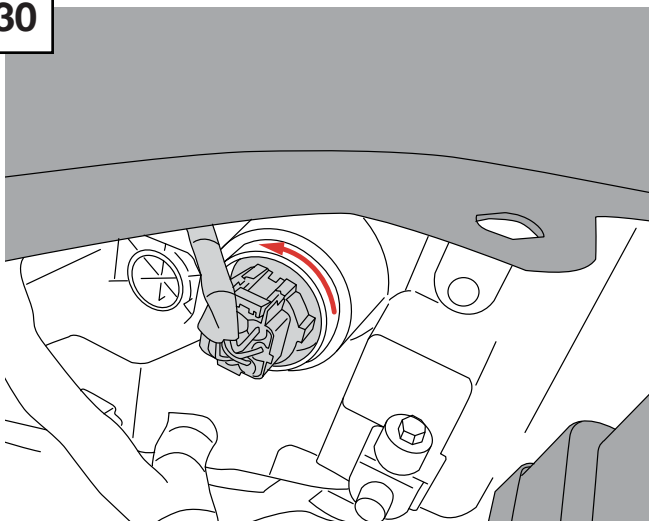
29


Remove the lower dash panel below the steering wheel.

Remove the two screws holding the bonnet release catch below the dash and pull forward on the lower dash panel to disengage the clips that hold it in place. This will give access to route the switch cable to the switch.

Reconnect the wires to the back of the switch and reattach the panel and screws.

Reattach the panels removed from the centre console in step 27.

30


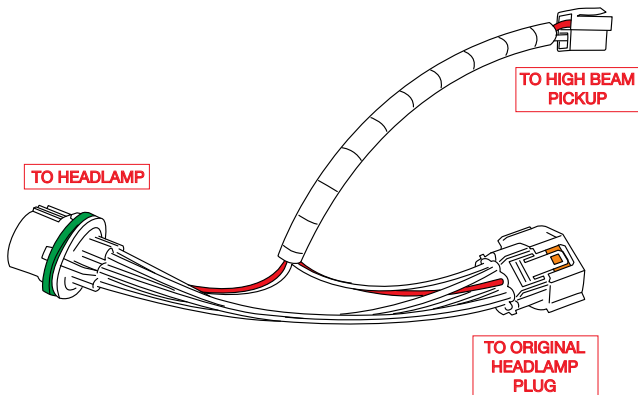
Install the high beam piggyback harness.

Remove the LH headlamp harness plug by rotating anti clockwise.

Note: The plug is hard to access due to the tight space between the inner guard and the fuse box.



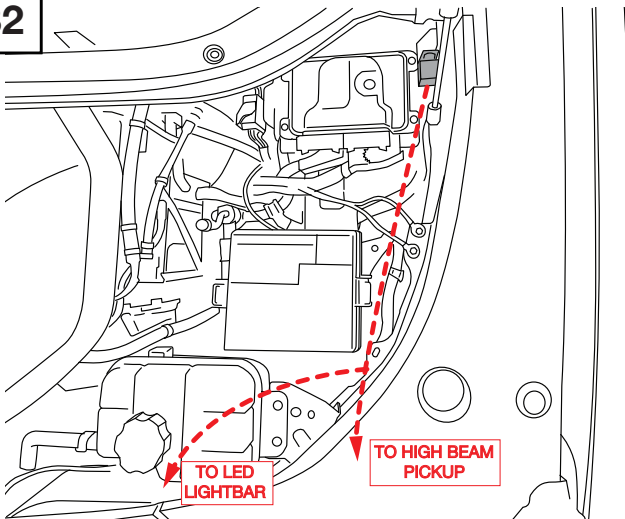
Familiarise yourself with the connector to make it easier to disconnect by checking the connectors on the piggyback harness first.

31


Attach the piggyback harness in-line by plugging the male plug into the back of the headlamp (twist clockwise to lock), and then push fit the headlamp harness into the female plug of the piggyback harness.

Cable tie neatly in place to existing wiring to prevent movement and rubbing.

Note: leave the 2-pin white high beam pickup plug accessible for next step.

32


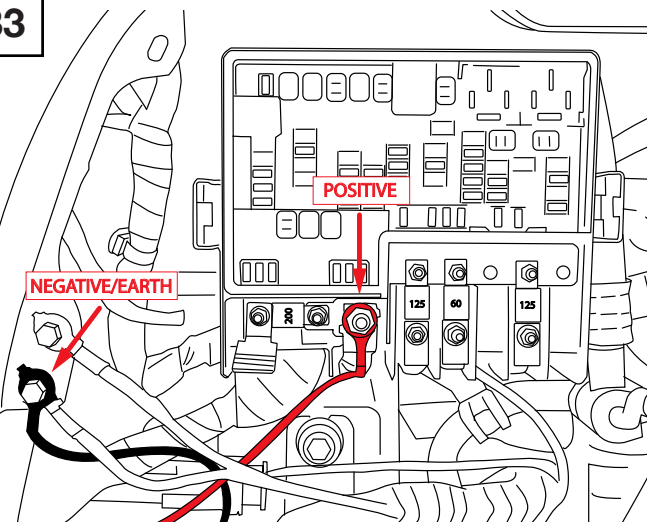
Connect the light bar.

The wiring harness includes two driving light cables with DT connectors. One for the light bar within the nudge bar and the other is for an optional additional light bar.

Route the driving light cables and headlamp pick up cable to the back of the headlamp. Connect the white two pin plug to the piggyback adapter.

Route one driving light cable down to the side of the radiator and connect to the driving light fly lead cable routed in step 20.

Secure all cables neatly with cable ties so as not to move or rub on other components.

33


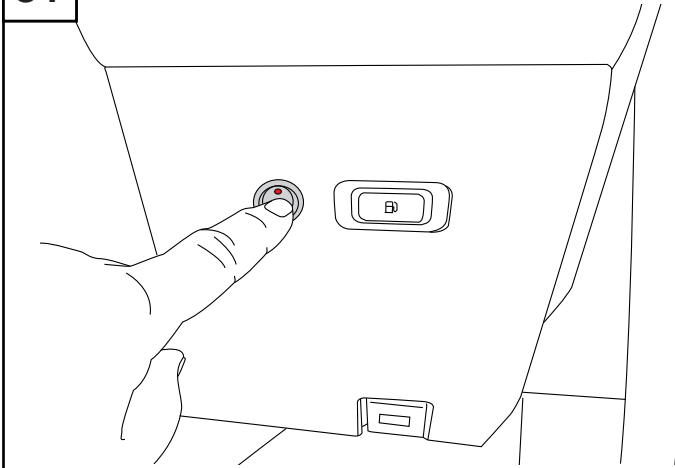
Connect the positive and negative cables.

From the relay, route the positive and negative cables to the fuse box.

Remove the fuse box cover and locate the 200A midi fuse. Attach the positive cable to the post as shown.

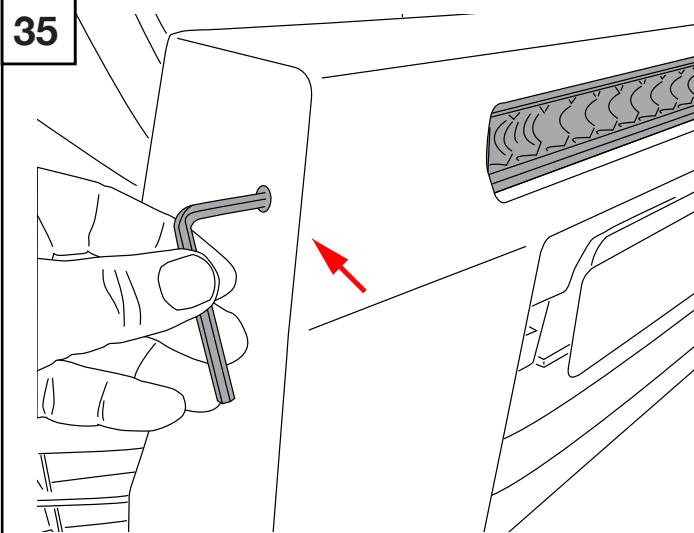
Route the negative cable to the two earth points on the inner guard. Remove one of the bolts and attach the earth cable.

Replace the fuse box cover and secure the cables with cable ties.

34**Test the operation of the light bar.**

Turn the vehicle ignition on and switch on the headlights. Check headlights for correct operation of high and low beam.

With the headlamps on high beam, depress the driving light switch. Check that the switch illuminates and that the light bar turns on. Toggle the headlamps between high and low beam to check driving light switches on and off with high beam.

35**Adjust the light bar.**

The light bar can be adjusted initially against a wall. Park the vehicle approximately 7.5 meters from the wall and switch the high beam lights on.

If the light bar is not already on, turn on by depressing the switch.

Included in the light bar fitting kit is a long 5mm Allen key. Insert the Allen key through the hole in either side of the light bar as shown to loosen/tighten the cap screws in the light bar mount.

Adjust the beam of the light bar so that it sits at a similar height to the high beam pattern. Re-tighten the light bar mount cap screws.

Fine tuning of the light bar can be performed at night on a quiet road.

INTENSIONALLY LEFT BLANK

WARRANTY

Ultimate9 provides to the original purchaser, a 12 month warranty against manufacturing faults or defects. Conditions resulting from normal wear & tear, modification, misuse, abuse or incorrect fitment are not covered and will void the warranty.

In order to make a claim under this warranty, the purchaser must:

- Return the product to the place of purchase with a valid receipt/invoice or proof of purchase or contact Ultimate9 customer service on 03 9729 8515.
- Provide Ultimate9 with any additional information as requested.

The purchaser is responsible for any return freight or fitting/removal costs incurred when making a claim under this warranty unless communicated otherwise by Ultimate9.

This warranty is limited to the original purchaser and is not transferable.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

HEAD OFFICE

Ultimate9

POSTAL ADDRESSFactory A/28a
Kalman Drive, Boronia
VIC, 3155**DELIVERY ADDRESS**Factory A/28a
Kalman Drive, Boronia
VIC, 3155**CONTACT**T +61 3 9729 8515
E sales@ultimate9.co
W www.ultimate9.co