

FITTING INSTRUCTIONS



Document Title:

FI-190 Europe

Model Number:

SA190AA190 - Non-Winch
SA190AA191 - Winch

Application:

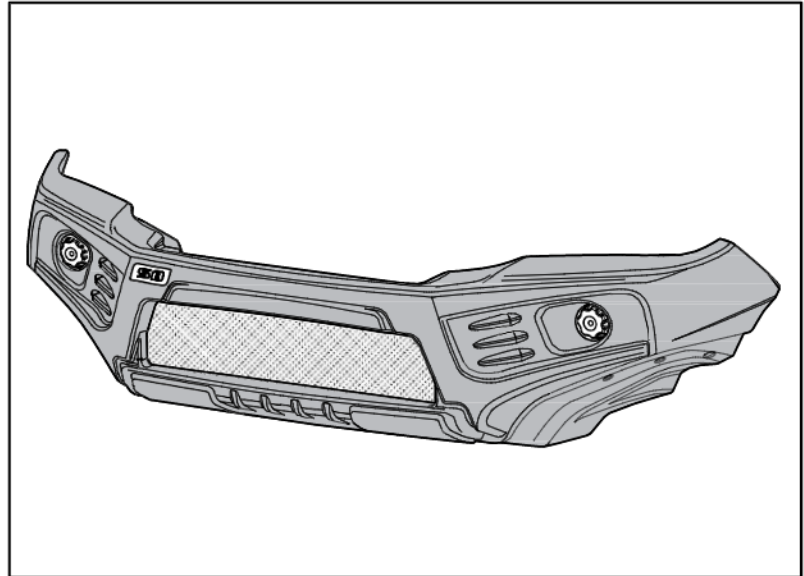
Toyota HiLux (09/2015 to 07/2018)
Toyota HiLux (08/2018+)

Fitting Time:

Minimum 3 hours - Non-Winch
Minimum 4 hours - Winch

Revision:

B (18 February 2019)



PROUDLY
AUSTRALIAN MADE



Additional Kits:

SA190AR Antenna Bracket RH (Includes 190-ABS spacer)
SA190AL Antenna Bracket LH (Includes 190-ABS spacer)
SAHLJ1 High Lift Jack Adaptor
SAALK SmartBar All in 1 Light requires SA190LBK SmartBar All in 1 Light Bracket Kit

Warning:

- Do not attach VFPS to the vehicle using anchorages not intended for this purpose (e.g. engine mounting bolts).
- Do not use this product for any vehicle make or model, other than those specified by the VFPS manufacturer.
- Do not remove the plaque or label from the VFPS (SmartBar).
- Do not modify the structure of the VFPS in any way.

Note:

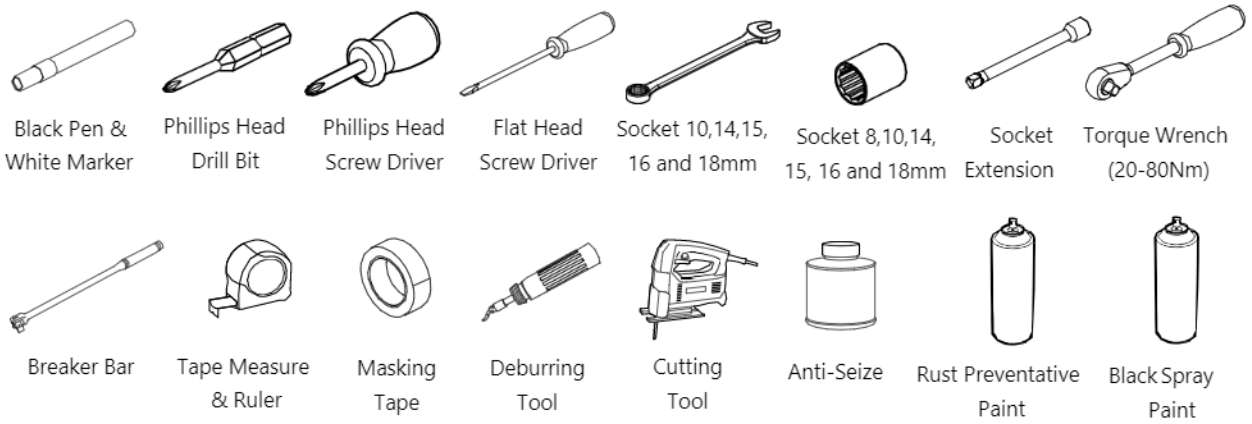
- Left and Right hand sides of the vehicle and SmartBar throughout this instruction are from the view of being in the drivers seat looking forward.
- Please take the time to read the instructions thoroughly before proceeding with fitment of the SmartBar.
- Ensure all components, as listed in the bill of materials on the back page, are received prior to commencing the fitment. Please retain all hardware until fit-up is complete.
- All wiring should be completed by a qualified auto electrician. SmartBar bears no responsibility for any electrical failure caused by the incorrect fitment of the lamps.
- Ensure these fitting instructions are passed onto the vehicle owner and/or operator.
- We recommend the **use of anti-seize on all threaded fittings.**

CAUTION A torque specification of 28Nm is required for the M10 bolts and 55Nm for M12 bolts into the SmartBar nutserts. THESE MUST NOT BE OVERTIGHTENED.

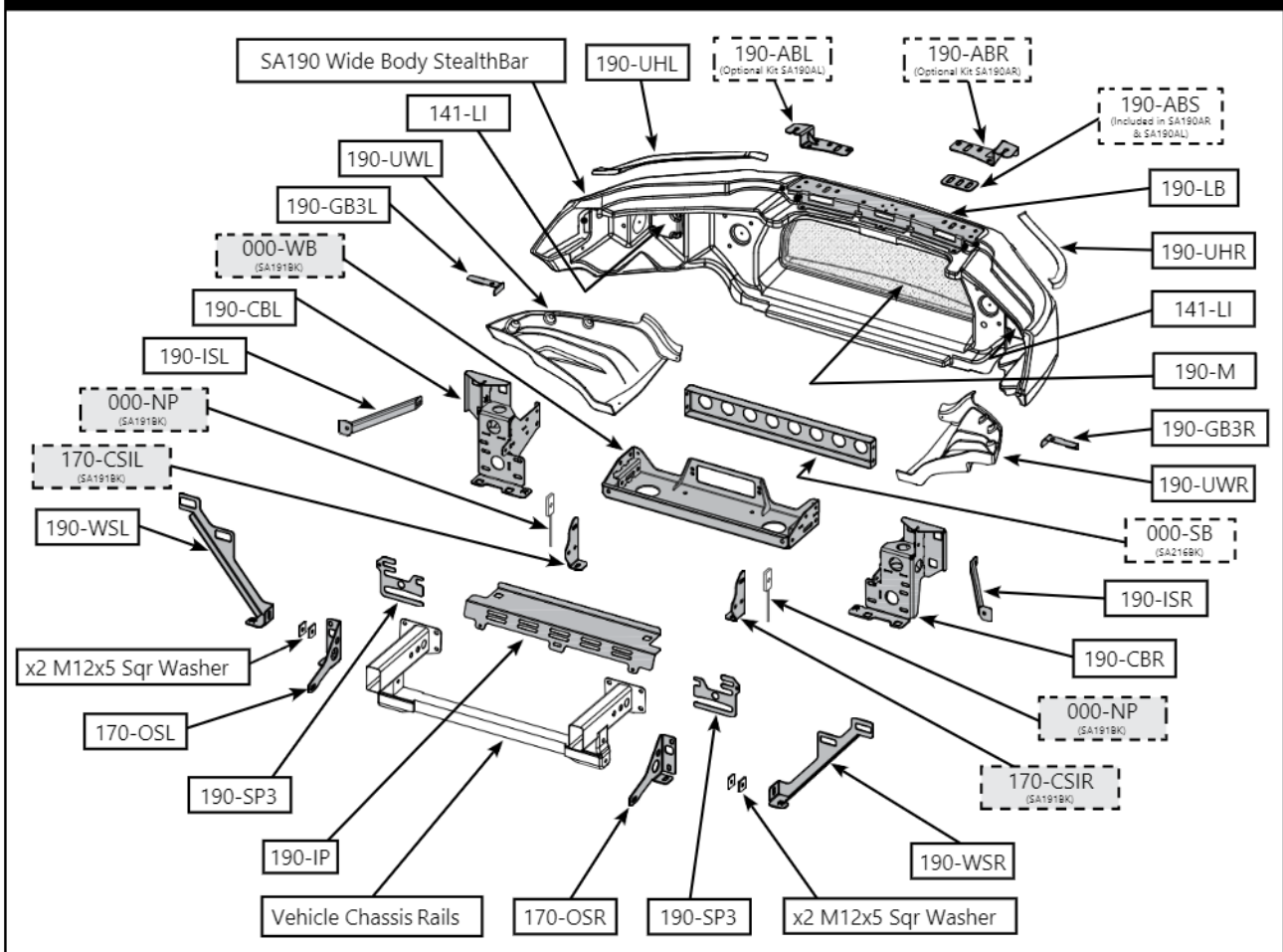


If you have any queries regarding this product and its installation please contact the retailer it was purchased from.

Tools Required



StealthBar and Mounting Brackets Overview - SA190BK



Torque Specs (into SmartBar Nutserts)

Bolt Size	Torque (Nm)	Torque
M10	28	20
M12	55	40

Torque Specs (Metal to Metal Mounts)

Bolt Size	Torque (Nm)	Torque
M10	44	32
M12	78	57

09/2015 - 07/2018 Toyota HiLux - Pre Facelift



08/2018 + Toyota HiLux Facelift



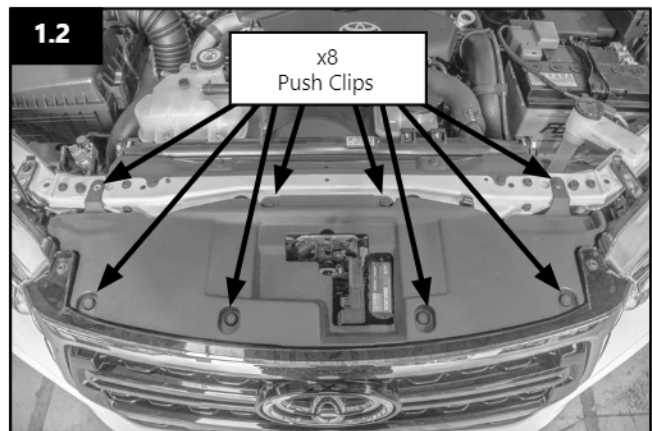
Step 1: Vehicle Disassembly

1.1 Remove the number plate.

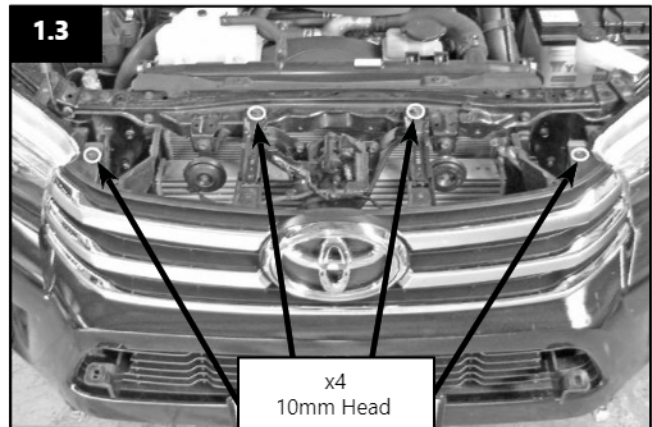
Note: Please retain all hardware removed from the vehicle until fitment is complete.



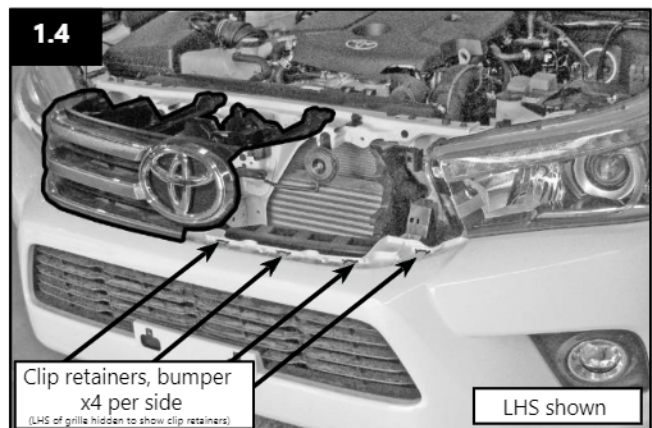
1.2 Remove push clips from the grille cover and remove from vehicle.



1.3 Remove bolts retaining the grille to bumper and body.



1.4 To remove the grille start at one end and pry the clips retaining the grille to the bumper and remove from vehicle.



08/2018+ Toyota HiLux Facelift

Do not remove grille from bumper at this stage.

Skip to step 1.5.

1.5 Remove the screws retaining the bumper to the body.

08/2018+ Toyota HiLux Facelift

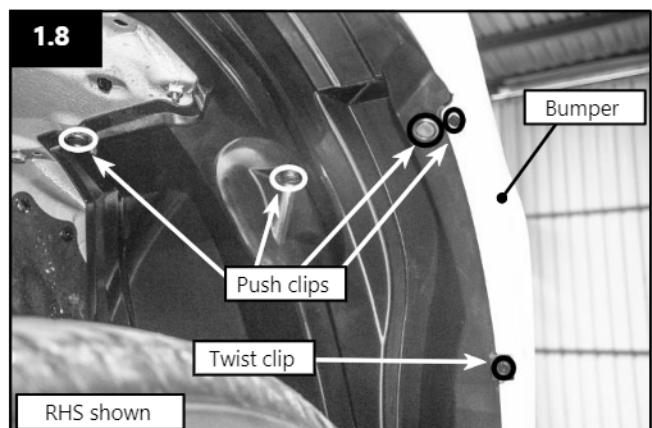
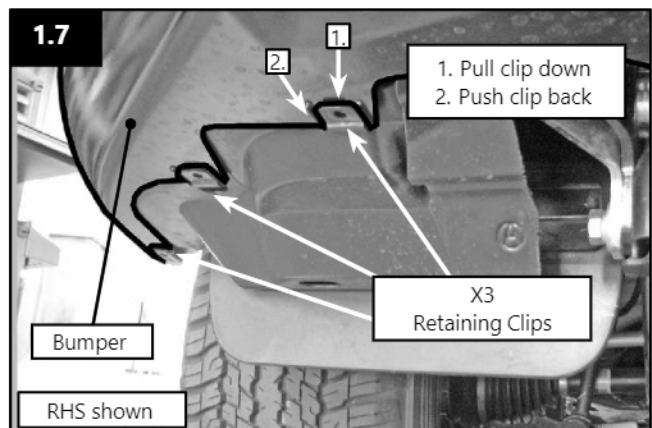
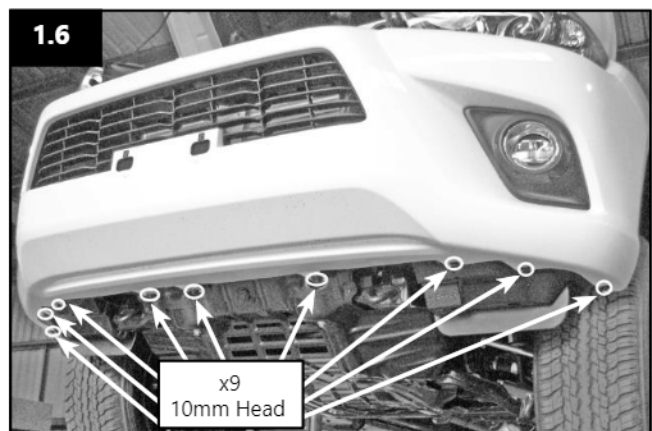
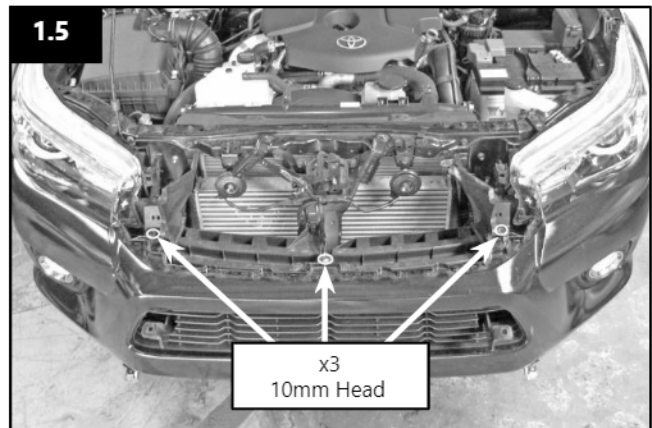
Grille will still be in position.

1.6 Remove screws retaining bumper to fender liner and skid pan.

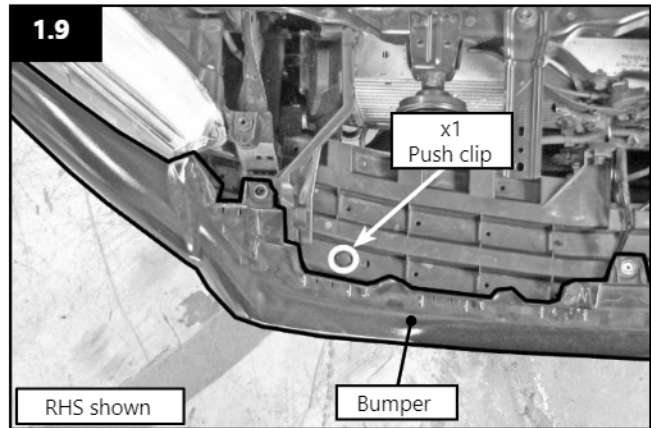
1.7 Ensure the bumper has been released from the lower section of the wheel arch liner, to do this unclip the retaining clips as shown. Repeat on LHS.

1.8 Remove clips retaining fender liner to the bumper. Repeat on LHS.

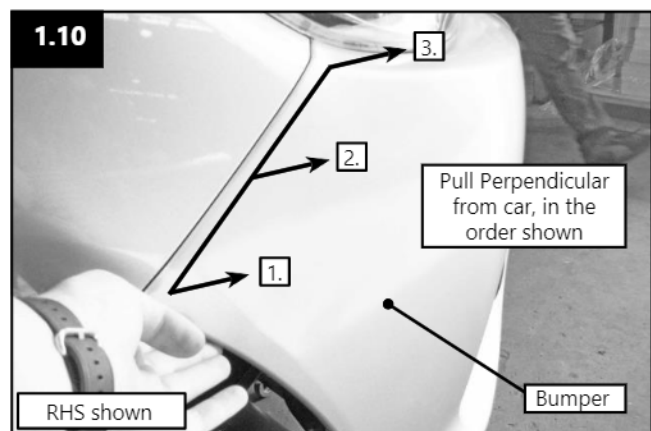
Note: If foglights are present in the bumper, with the fender liner loose disconnect the fog lights both sides.



1.9 Remove push clip retaining bumper to body. Repeat on LHS.



1.10 Remove the bumper from the vehicle. With all the fasteners removed, start on one side and pull the top of the bumper away from the body, this will require a bit of pressure. Repeat on LHS, retain bumper for later use.

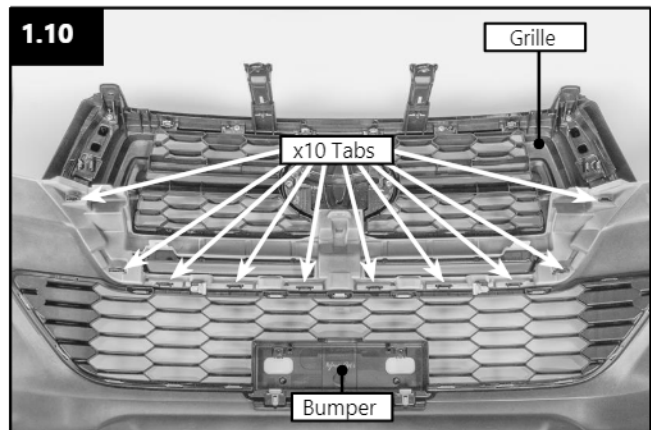


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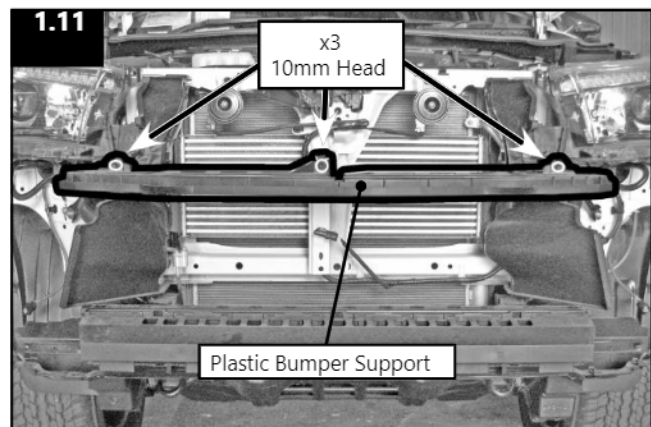
Bumper is not used, continue to step 1.10

08/2018+ Toyota HiLux Facelift

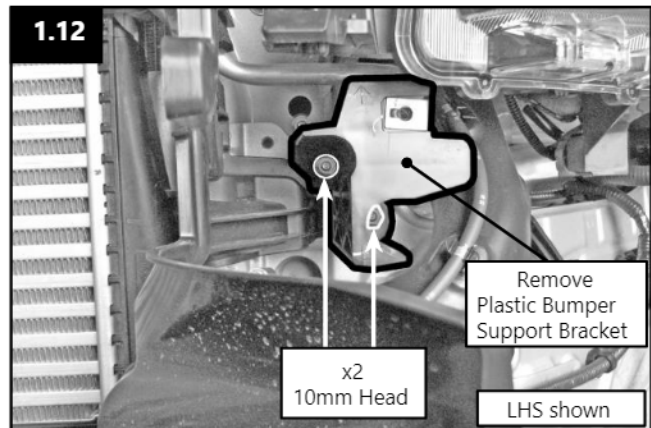
1.10 With the bumper and grille removed together you can now split them from each other, to do this remove the clips as shown. Retain bumper for later use.



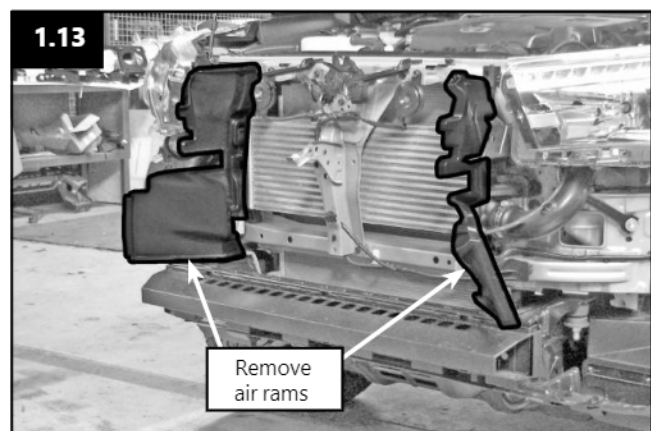
1.11 Remove screws holding the plastic bumper support to the body. Unclip from the centre and remove from vehicle. Discard plastic bumper support.



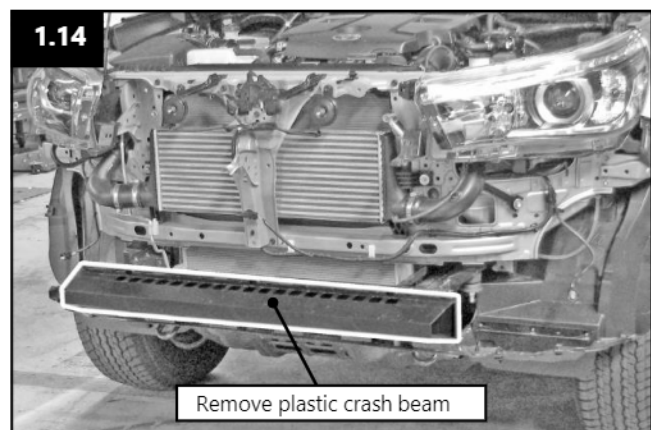
1.12 Remove the plastic bumper support brackets and discard, repeat on RHS.



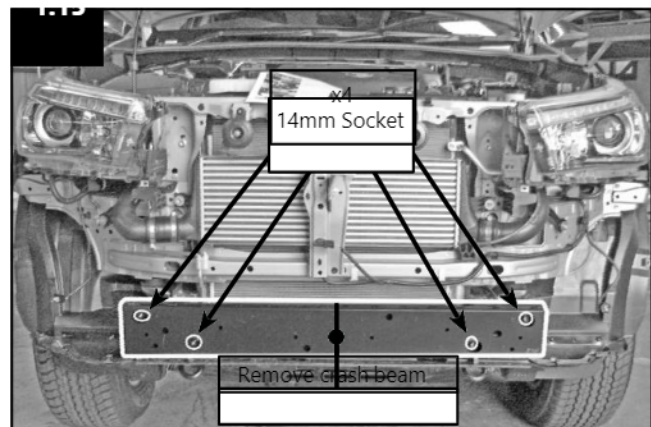
1.13 Remove air rams by pulling firmly away from the body until the clips release, and discard.



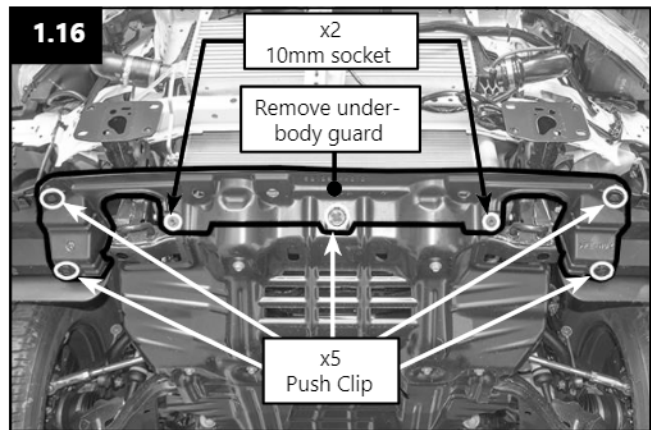
1.14 Remove plastic crash beam by pulling firmly away and discard.



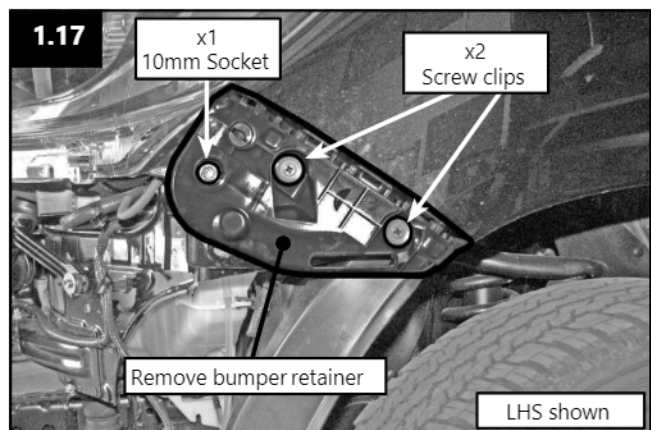
1.15 Remove crash beam and discard.



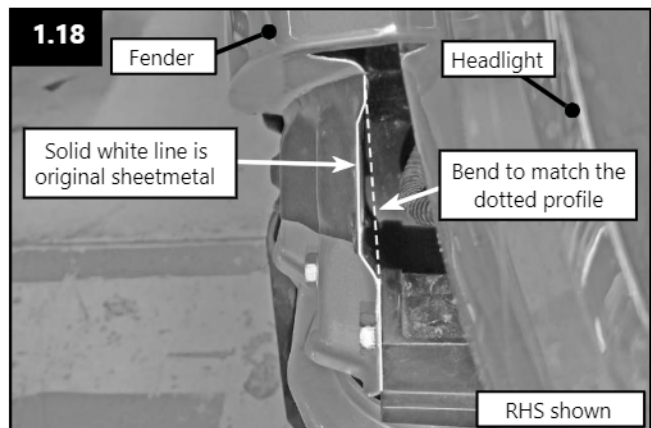
1.16 Remove the under-body guard by removing fasteners as shown. Retain under-body guard for later use.



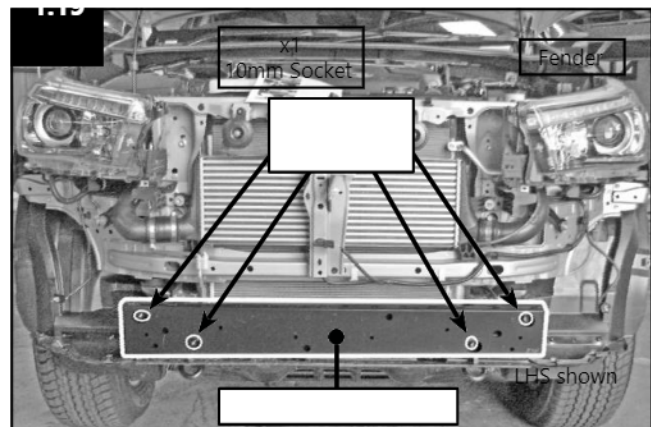
1.17 Remove bumper retainer and discard, repeat on RHS.



1.18 Tape up bodywork and bend to shape shown.

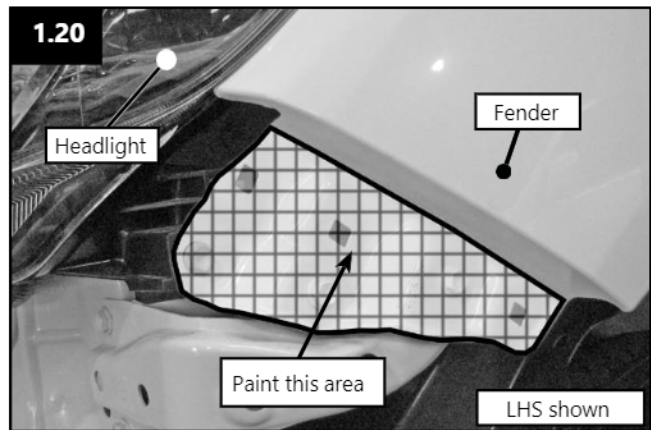


1.19 Replace the bolt removed from step 1.17 as this retains the headlight to the body. Repeat on RHS.



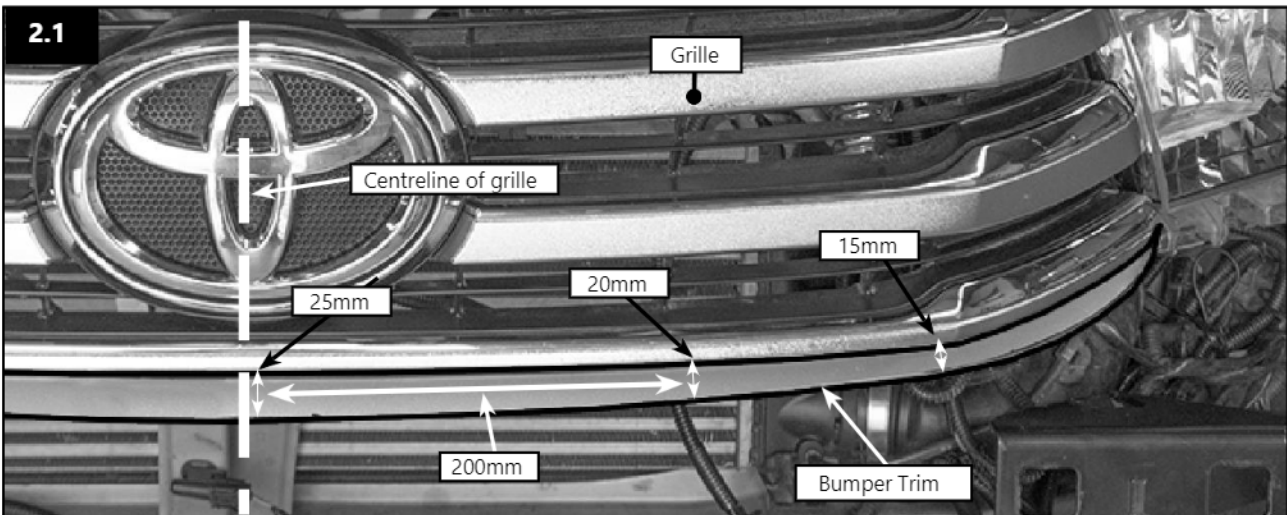
1.20 Remove dirt and grease from paint work and mask of fender, headlight and bodywork and paint the highlighted area. Repeat on RHS.

Note: This step is not required on black vehicles.

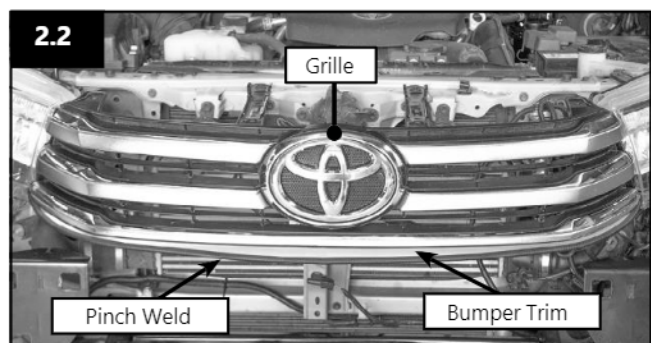


Step 2: Bumper and Grille Trimming

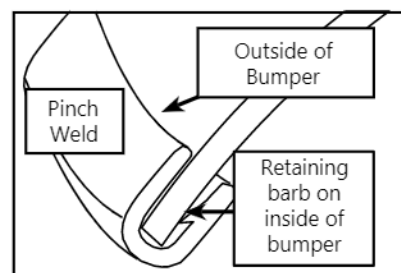
For 08/2018+ Toyota Hilux Facelift skip to step 2.3.



2.1 Tape the area to be trimmed as to not damage the bumper, measure out dimensions shown in. Draw a line through them following the profile of the grille, do the same on the opposite side of the grille centreline. Trim using an appropriate trimming tool and debur edge.

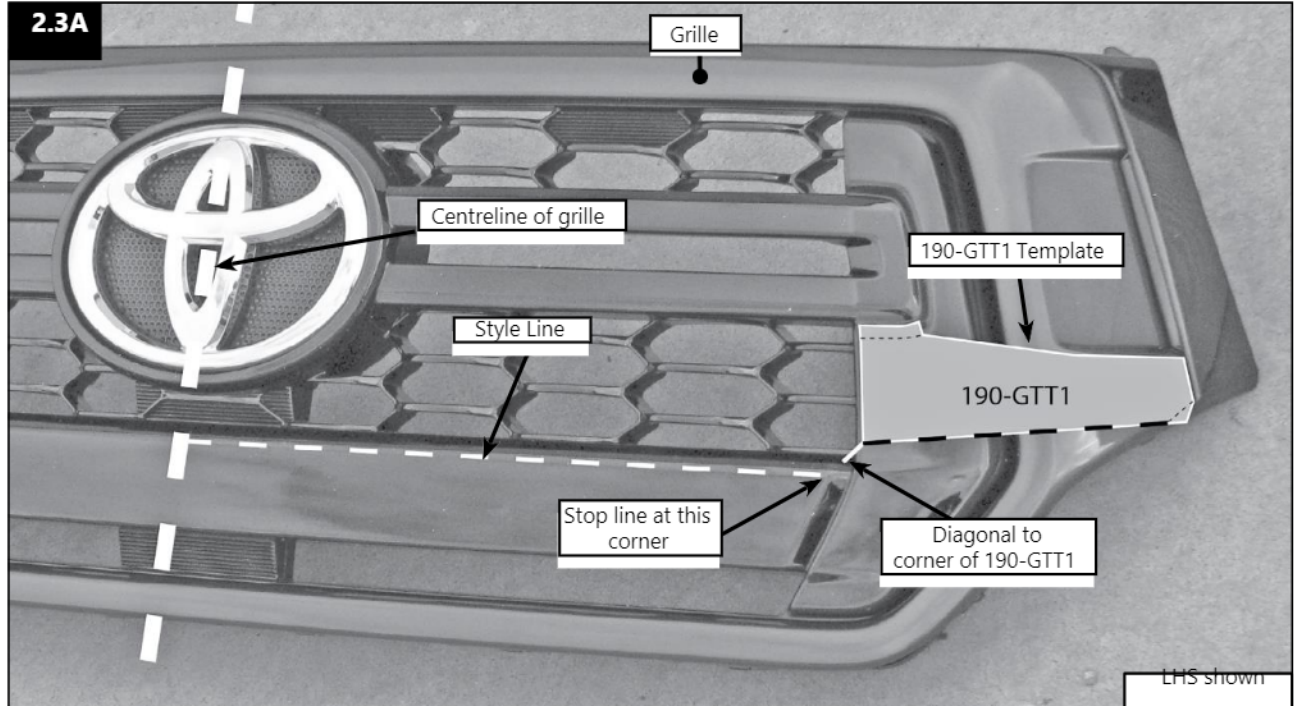


2.2 Attach the pinch weld in the kit to the cut edge of the bumper skin.

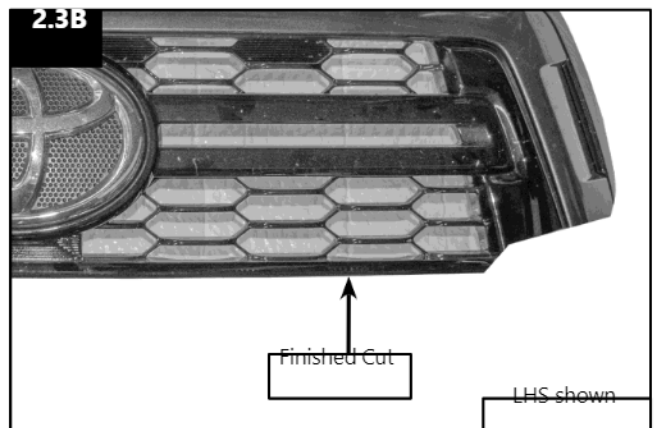


08/2018+ Toyota HiLux Facelift

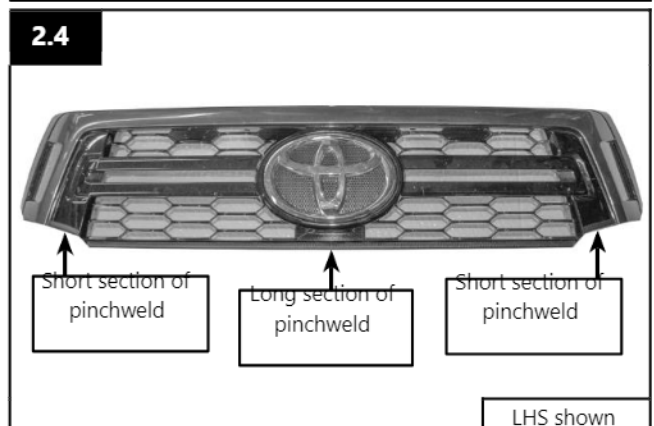
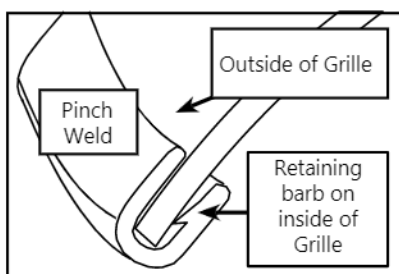
2.3 Grille trim required, follow 2.3-2.4.



2.3A Tape the area to be trimmed as to not damage the grille. Place 190-GTT1 on the LHS as shown and mark the trim line, flip over and mark on the RHS. Mark a line along the style line as shown. Cut trim line using an appropriate trimming tool and debur edge.



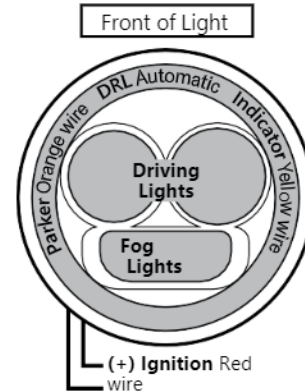
2.4 Attach the pinch weld supplied to the cut edge of the grille, cut into three sections and apply as shown.



Step 3: Wiring

3.1 If refitting the OE fog lights, using the provided cable, extend the fog light wires by 150mm.

NOTE: All wiring should be completed by a qualified auto electrician. SmartBar bears no responsibility for any electrical failure caused by the incorrect fitment of the lights.



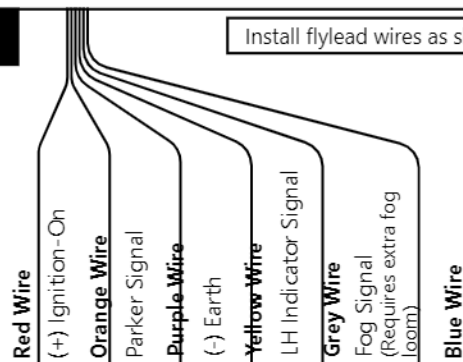
Optional SmartBar All in 1 Light Wiring;

3.2 Install the left flylead 0.7m (BP80468) and right flylead 2.0m (BP80469) as shown to the corresponding signals.

See following steps if connecting fog and/or driving light functions.

3.2

Install flylead wires as shown



Top View

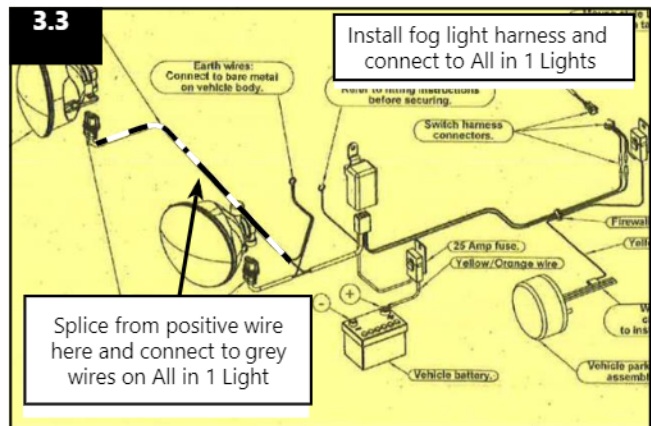
Optional All-in-1 Fog Light function

3.3 Install ARB (3500530) Fog Light Wiring Loom.

Once installed, splice the positive wire to the grey wires on the All-in-1 light.

3.3

Install fog light harness and connect to All in 1 Lights



Optional All-in-1 Driving Light function

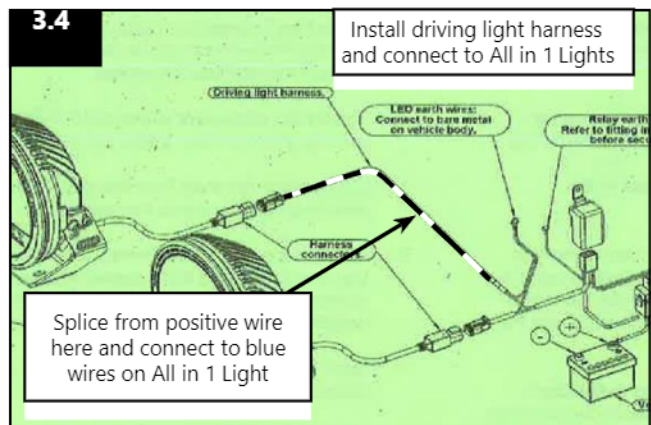
3.4 Install ARB (3500520) Driving Light Wiring Loom.

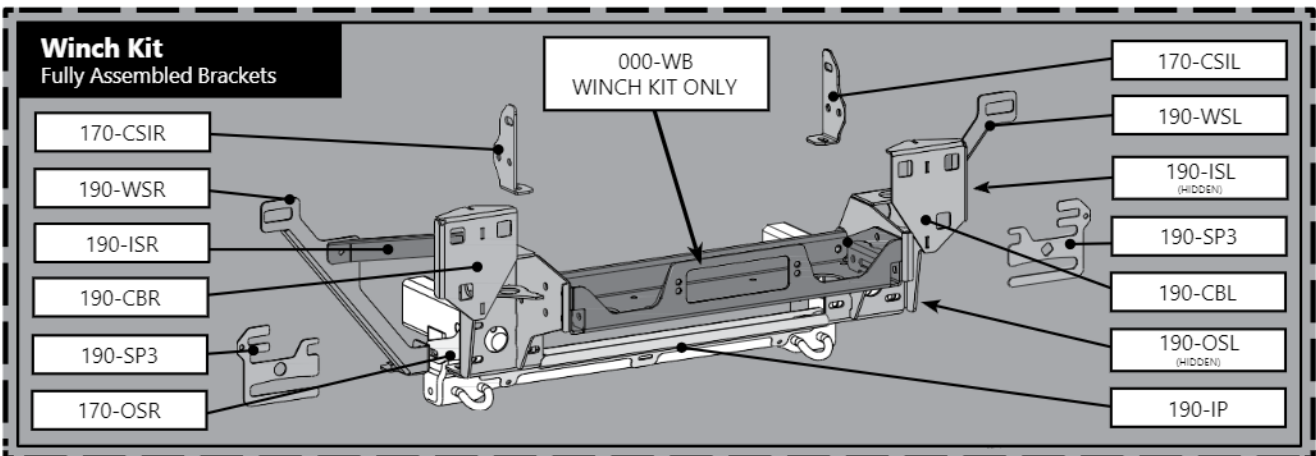
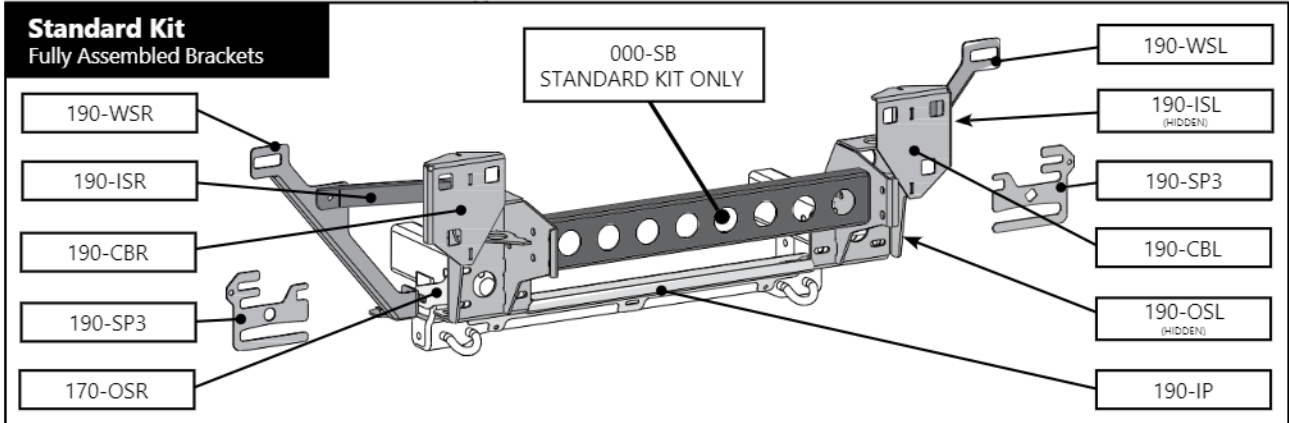
Once installed, splice the positive wire shown to the blue wires on the All-in-1 light.

Note: This harness can be used to fit additional spot lights.

3.4

Install driving light harness and connect to All in 1 Lights



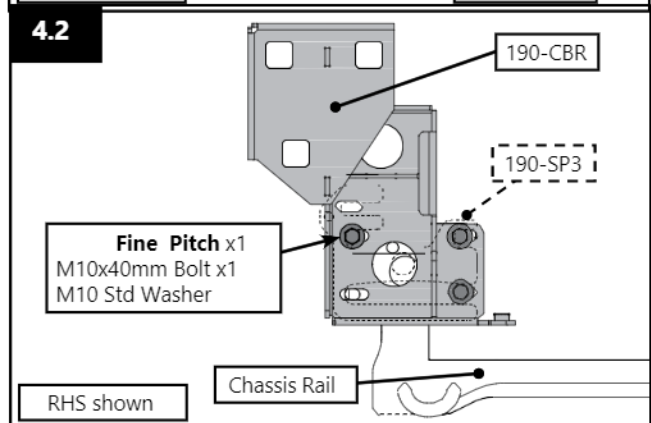
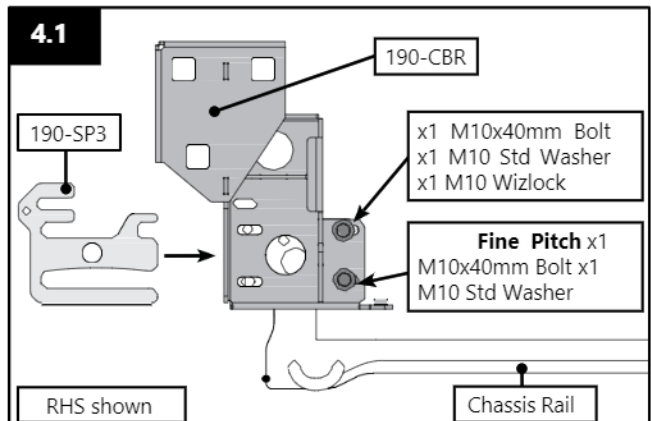
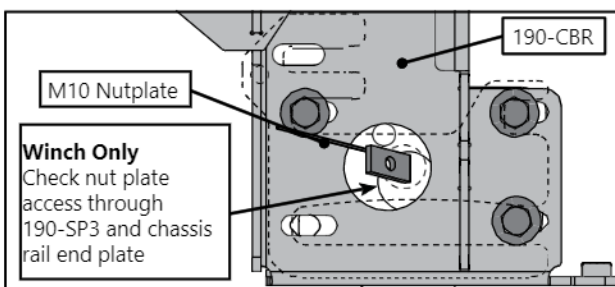


Step 4: Bracket Installation

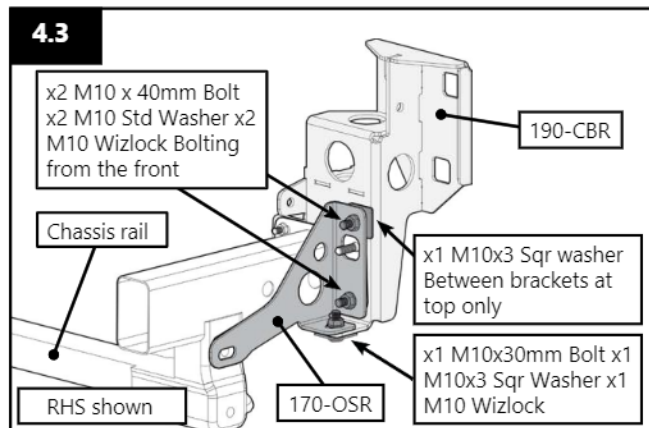
Note: Do not fully tighten any of the brackets until final alignment of the bar is finished. This will assist in correctly fitting the bar.

4.1 Place 190-SP3 onto the front of the chassis end plate, place 190-CBR up to 190-SP3 and chassis end plate and insert the hardware shown. Repeat on the LHS.

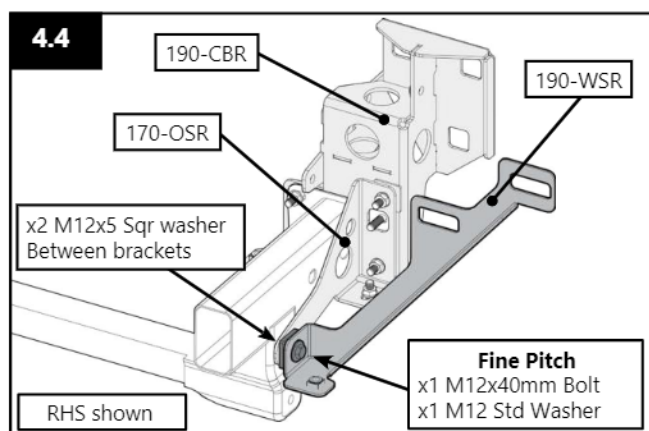
4.2 With the 190-CBR bracket in position and the 190-SP3 in between that and the chassis insert the hardware shown. Repeat on LHS.



4.3 Attach the 170-OSR as shown, repeat on LHS with 170-OSL.

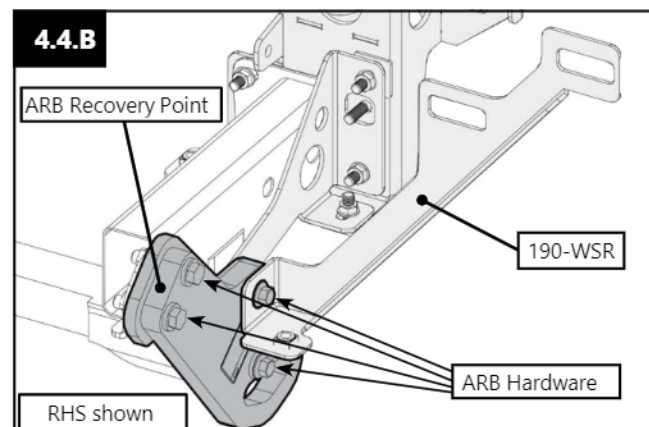


4.4 Attach 190-WSR as shown, repeat on LHS with 190-WSL.

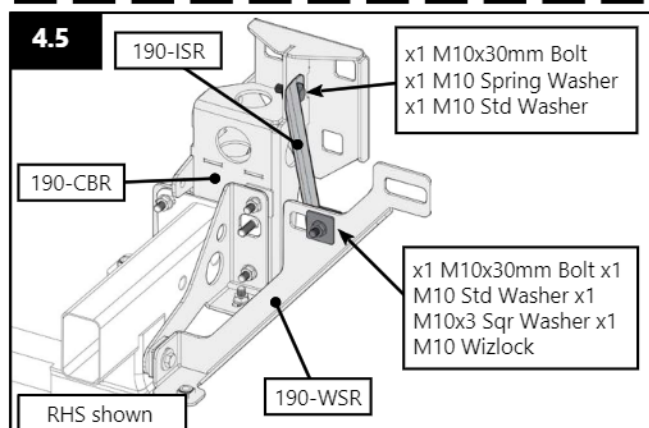


Optional ARB - Recovery Point

4.4.B If ARB recovery points are being fitted omit the x2 M12x5 Sqr washers and M12x40mm fine pitch bolt. Place recovery point against 170-OSR and then the 190-WSR against that as shown, using the hardware that came with the ARB recovery point attach to the chassis. Repeat on the LHS with the 190-WSL and hardware shown.

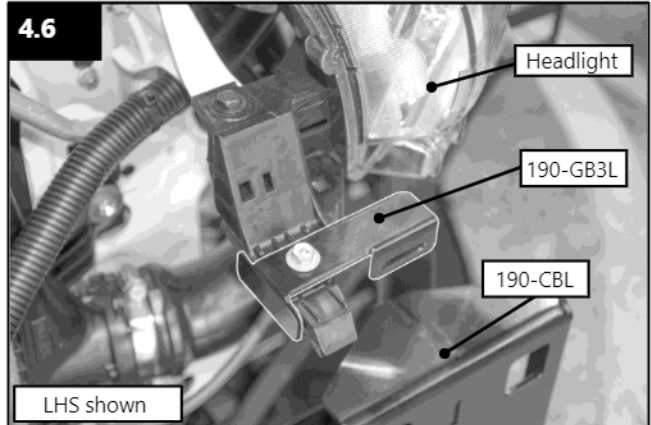
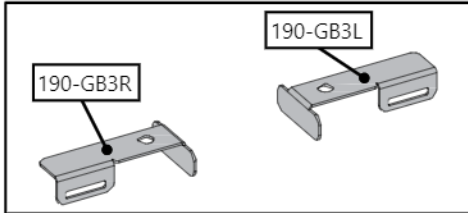


4.5 Attach 190-ISR as shown, repeat on LHS with 190-ISL.



08/2018+ Toyota HiLux Facelift

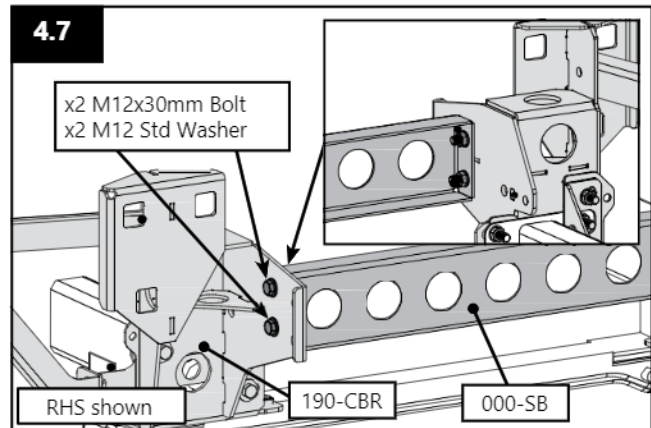
4.6 Fasten grille support bracket 190-GB3L using hardware as shown. Repeat on RHS.



Standard Kit Only Install

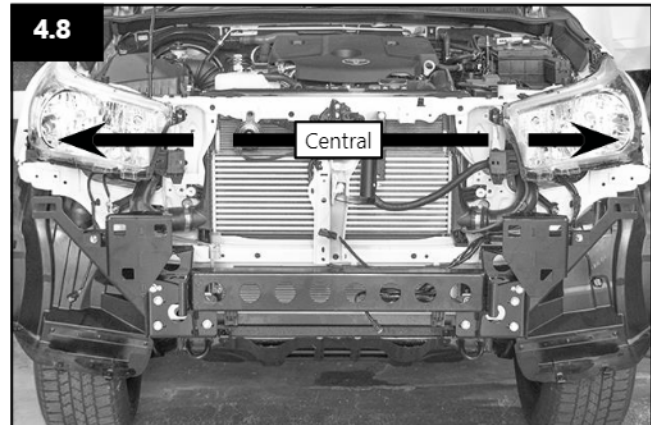
If installing the Winch Kit skip to step 4.9

4.7 Attach 000-SB between 190-CBR and 190-CBL using the hardware shown and tighten. Repeat on LHS.



4.8 Centrally align bracket assembly to vehicle. Once aligned tighten bolts between 190-CBR & 190-CBL to the chassis.

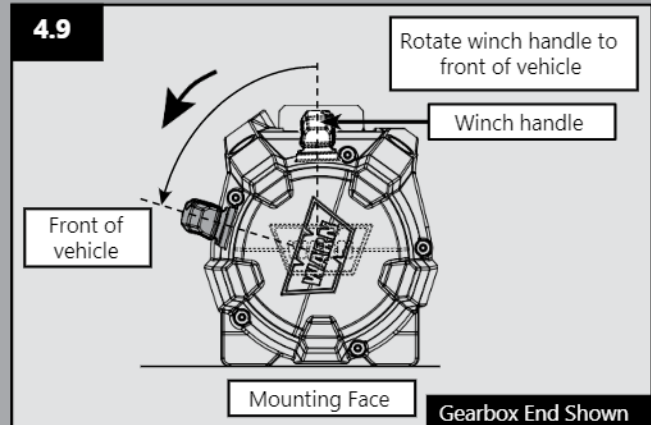
Note: Leave outer strap brackets 190-ISR/ISL and 190-WSR/WSL loose at this stage.



Winch Kit Only

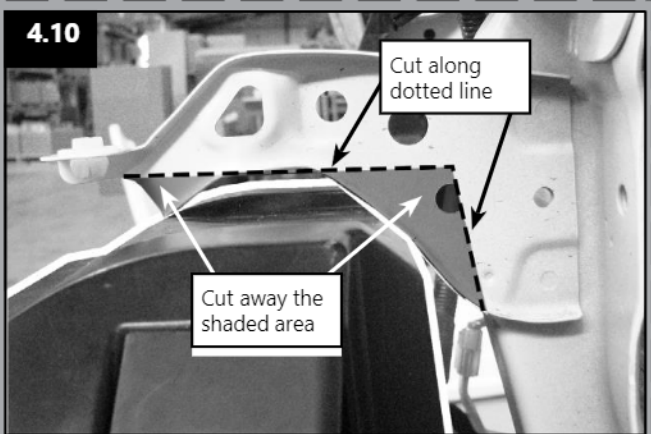
4.9 Rotate winch handle to forward facing position of vehicle.

Note: Consult winch supplier instruction manual for correct winch handle rotation procedure.



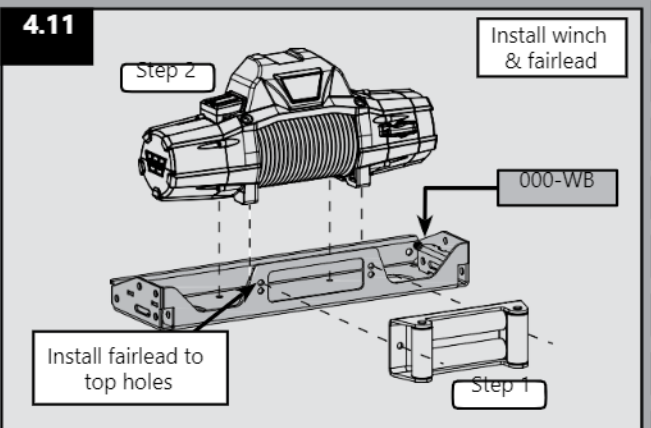
Winch Kit Only

4.10 If the Warn Zeon is being installed then clearance will need to be made for the control box. Mark and cut along the dashed line shown on the grille support bracket. Treat the cut area with rust preventative paint once trimmed.

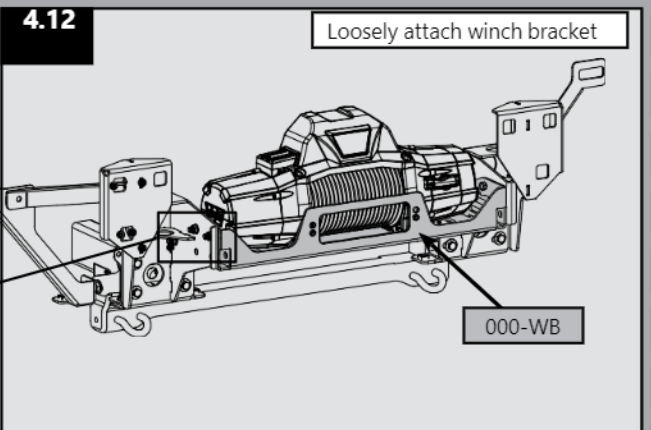
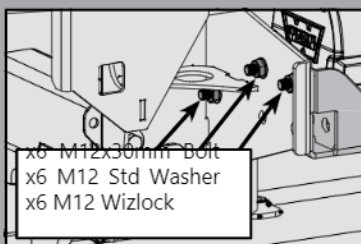


4.11 Attach the fairlead and then the winch to winch bracket using hardware supplied with winch.

Consult winch manufacturer installation manual for correct installation procedure to install winch and fairlead.

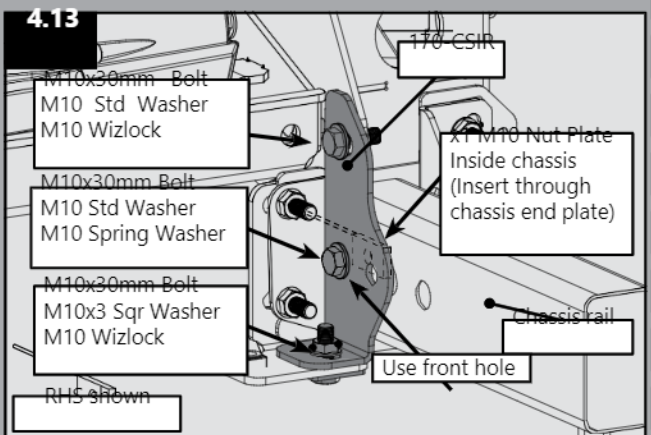


4.12 Install winch bracket 000-WB between 190-CBR and 190-CBL using the hardware shown and tighten. Repeat on LHS.



4.13 Place 170-CSIR on the inside of the chassis rail and insert fasteners as shown. Use the hole in the Chassis End Plate to position the M10 Nut Plate. Repeat on the LHS using the 170-CSIL.

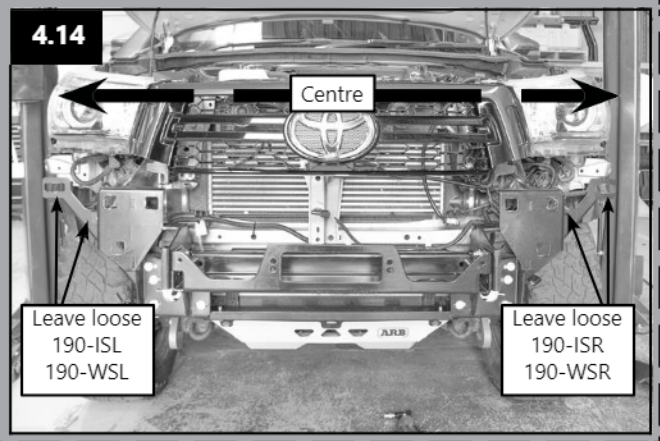
Hand tighten only.



Winch Kit Only

4.14 Centrally align bracket assembly to vehicle. Once aligned tighten bolts between 190-CBR & 190-CBL to the chassis and 190-CSIR & 190-CSIL.

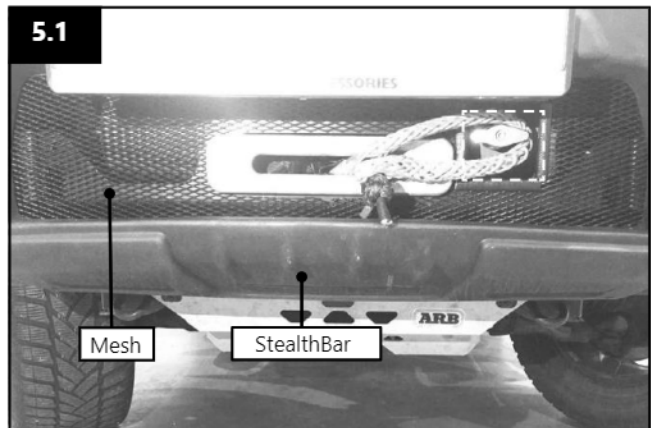
Note: Leave outer strap brackets 190-ISR and 190-WSR loose at this stage, and on LHS.



Step 5: StealthBar Preparation

Note: If no winch is installed skip to step 5.2.

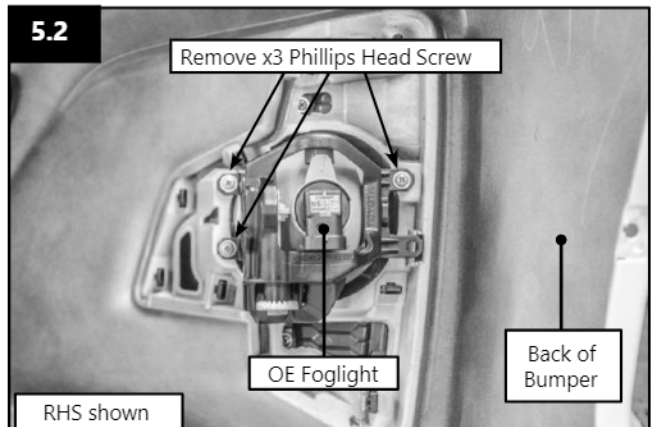
5.1 Cut mesh for winch access



Note: If vehicle doesn't come with foglights skip to step 5.5.1.

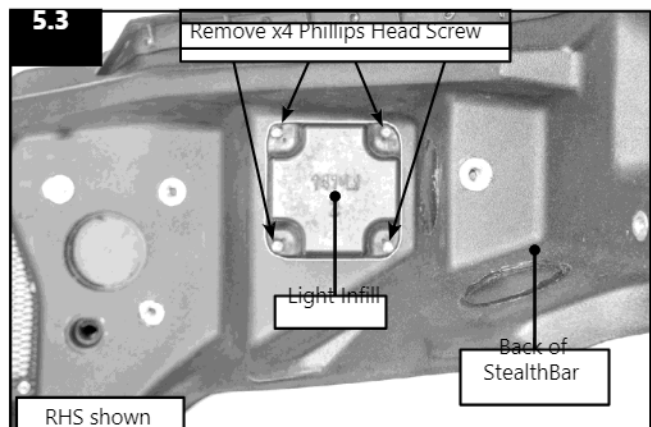
Note: If fitting SmartBar All in 1 Light Option (SAALK) skip to step 5.4.1.

5.2 If vehicle comes with foglights remove them from the bumper as shown, repeat on LHS.

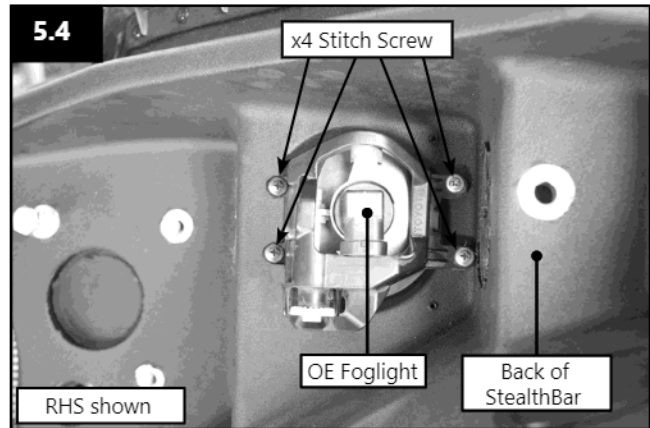


08/2018+ Toyota HiLux Facelift
The bumper can now be discarded.

5.3 Remove fasteners retaining light infill into the StealthBar and discard. Repeat on LHS.



5.4 Place OE foglight into StealthBar centre to hole and fasten using hardware shown. Repeat on LHS.

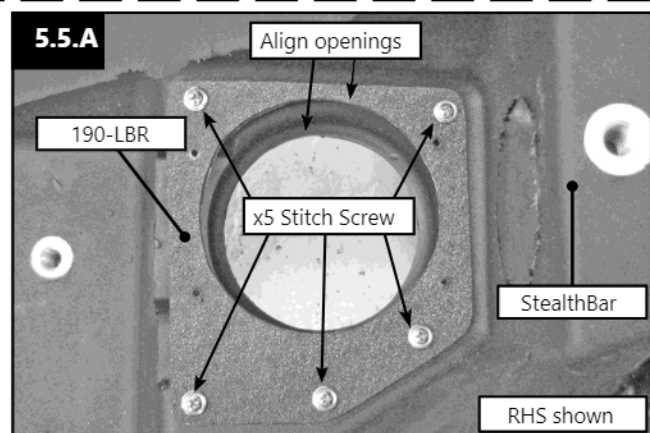


Optional All in 1 Light (SAALK)

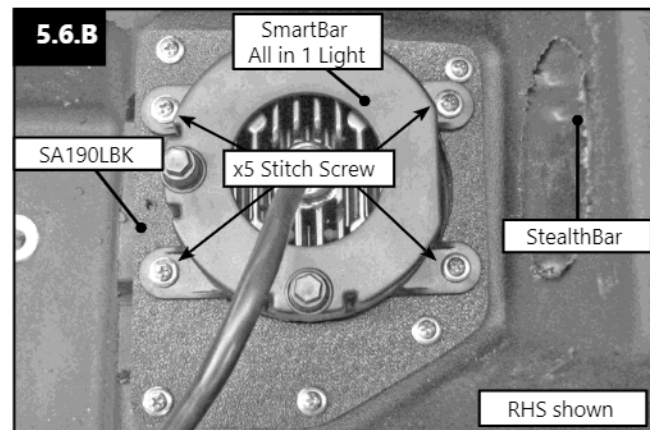
Fitment of the SAALK requires the SA190LBK Kit also.

Note: Remove Infills as per step 5.3

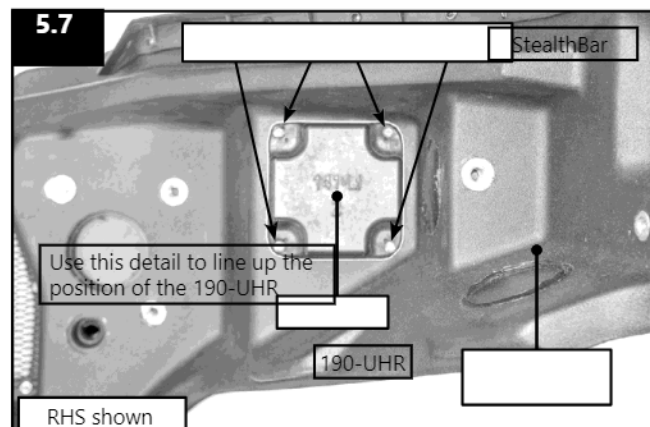
5.5.A To fit the All in 1 Light option (SAALK) first attach 190-LBR to the back of the StealthBar aligning the circular openings as shown, repeat on LHS.



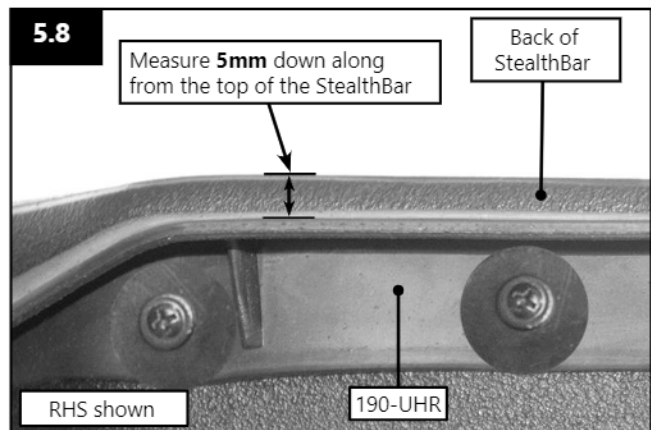
5.6.B With 190-LBR & 190-LBL fitted to the StealthBar place the All in 1 Light onto the bracket and attach using hardware shown, repeat on LHS.



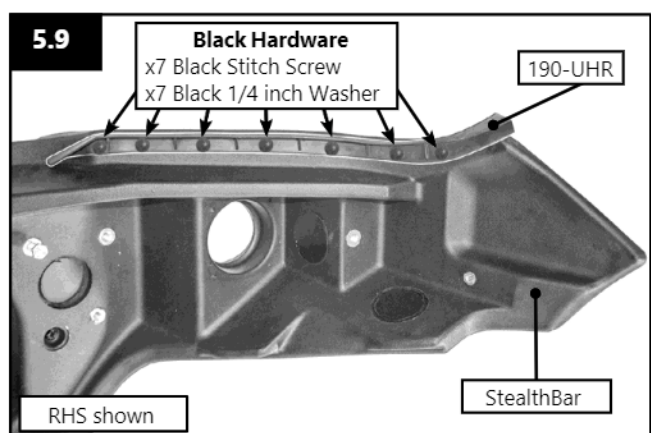
5.7 To install 190-UHR first align it with the detail in the StealthBar as shown.



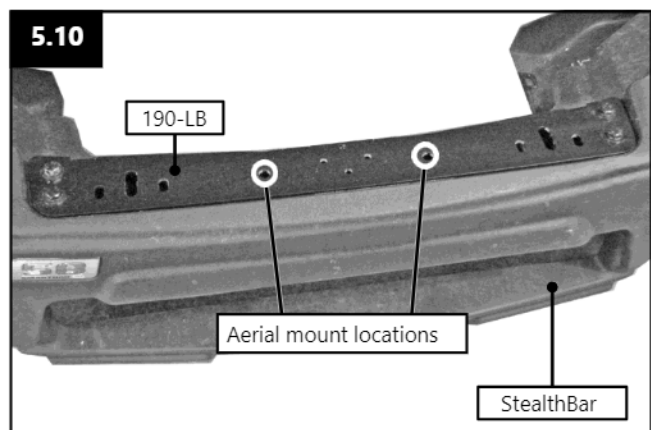
5.8 The top of the 190-UHR should be aligned 5mm lower than the top edge of the StealthBar.



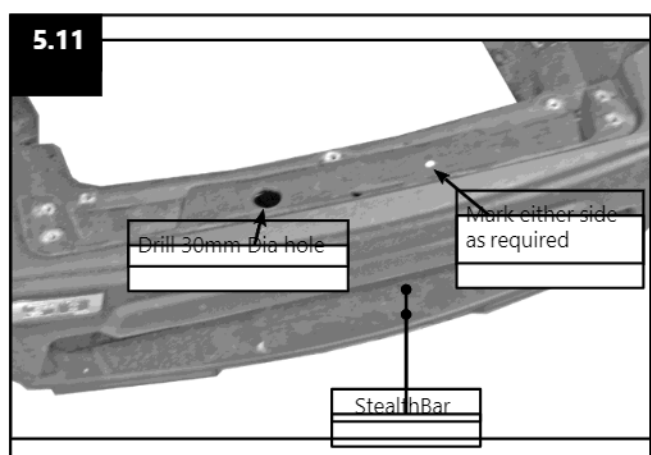
5.9 Once 190-UHR is aligned to the StealthBar fasten it using the hardware as shown. Repeat on the LHS with the 190-UHL and hardware shown.



5.10 An aerial or flag can be installed on the 190-LB in the locations shown. Mark the hole you want to fit the aerial to on the bar and remove the 190-LB.

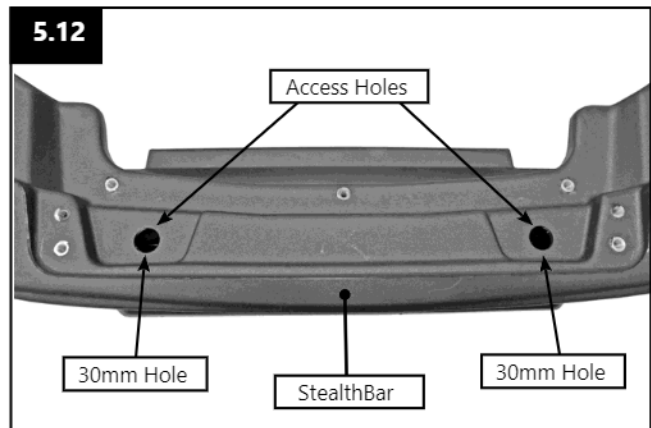


5.11 With the hole marked drill a 30mm clearance hole in the bar and debur.

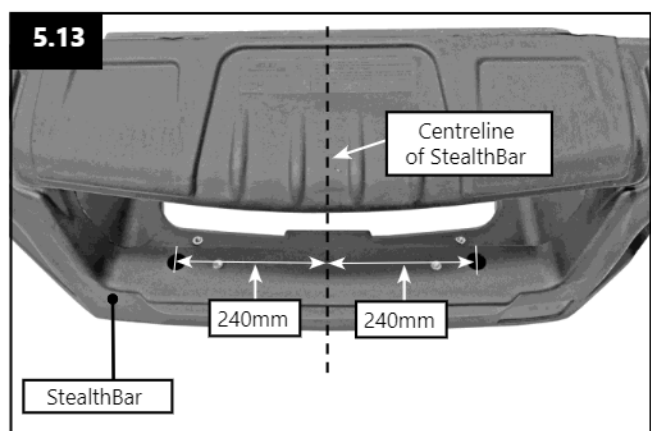
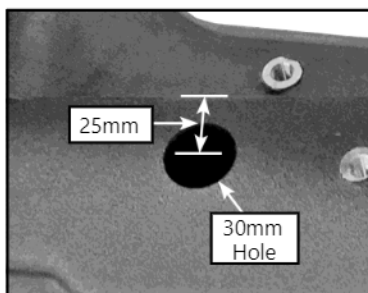


5.12 Follow step 5.10 to mark the centre location for spotlight access. Drill holes as shown.

Note: Access hole position can vary depending on where spotlights are fixed.



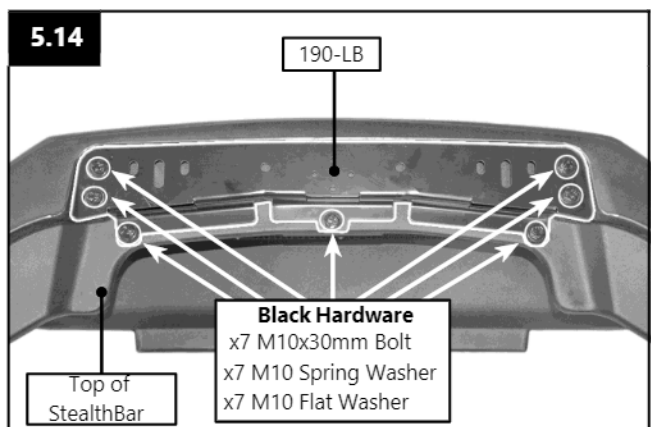
5.13 Drill the underside as shown.



5.14 Install the 190-LB accessory bracket to the StealthBar using the hardware shown.

Note: Use anti-seize on all hardware inserted into the StealthBar.

Note: Torque specs into StealthBar;
M10 Fasteners: Max 28Nm

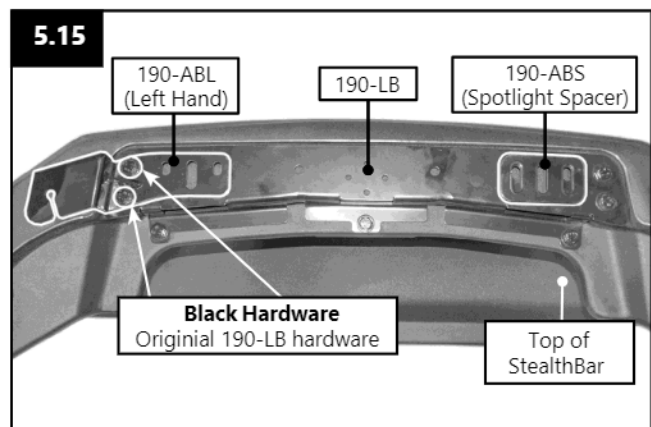


Optional - Aerial Mount Bracket

5.15 Aerial mount brackets can be added if required as an option, 190-ABL (shown in image) is for the left hand side and 190-ABR is for the right hand side.

Kit - SA190AR (inc SA190ABR & 190-ABS)
Kit - SA190AL (inc SA190ABL & 190-ABS)

Note: Aerial bracket kits come with spacer (190-ABS) for spotlight height difference.



Step 6: StealthBar Install

6.1 Loosely place hardware in StealthBar as shown. This will allow the StealthBar to hang on the brackets while you insert the rest of the fasteners.

Note: Use anti-seize on all hardware inserted into the StealthBar.

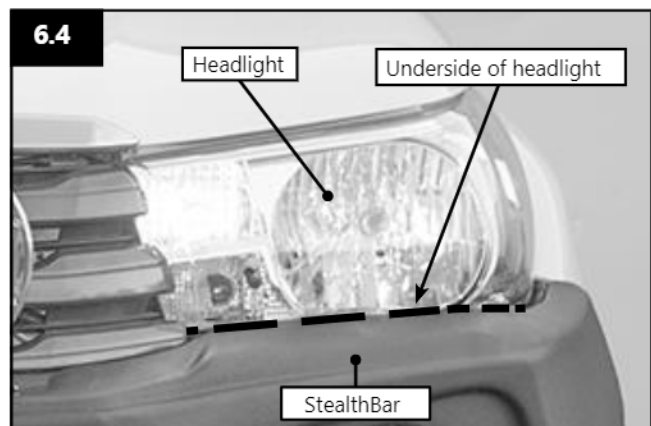
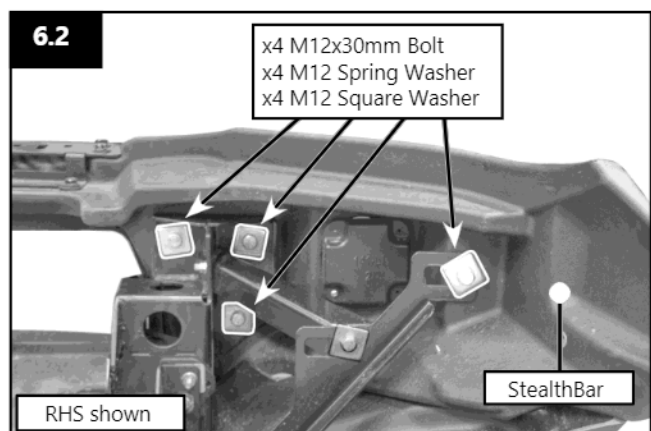
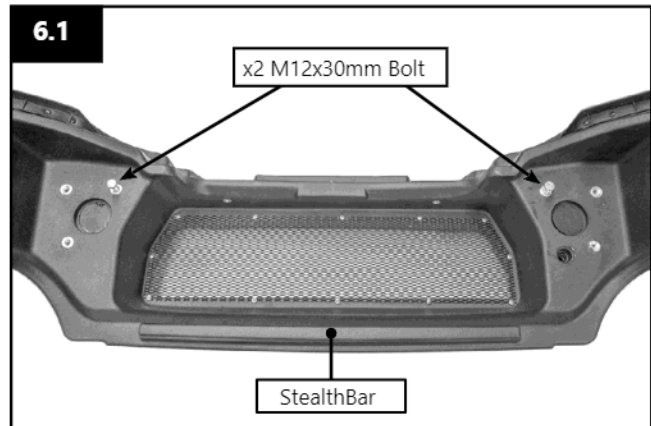
6.2 With the StealthBar hanging loose on the brackets install the hardware as shown. Repeat on LHS.

Note: Use anti-seize on all hardware inserted into the StealthBar.

Note: Do not fully tighten hardware at this stage.

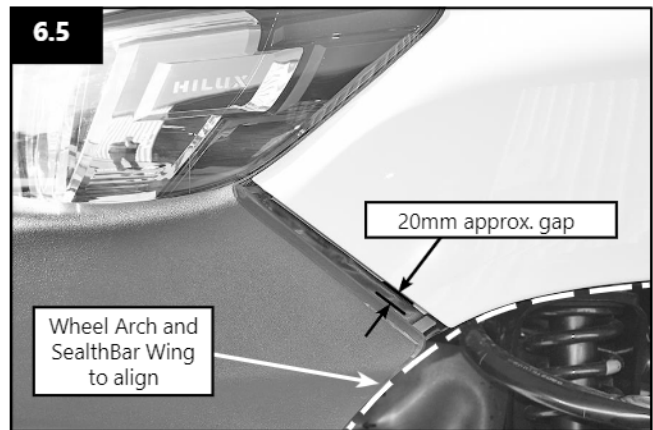
6.3 Align StealthBar to vehicle centrally left to right.

6.4 Align StealthBar height so it sits level with the underside of the headlight.



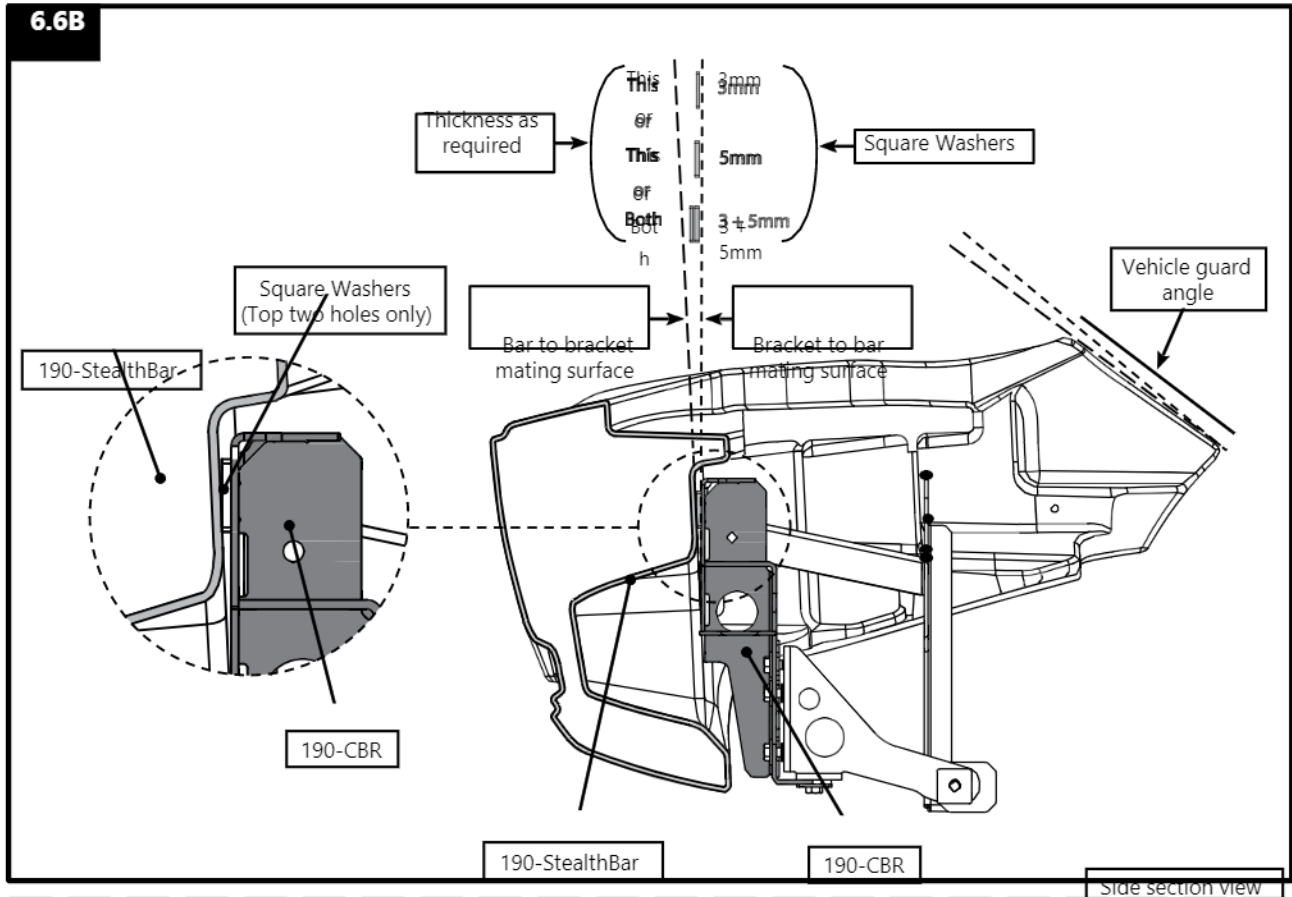
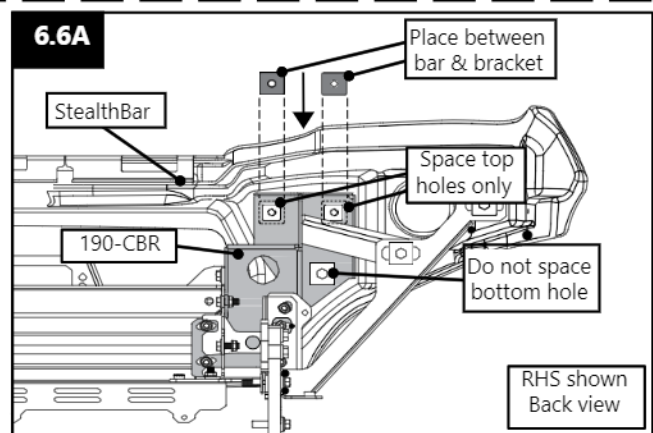
6.5 With the height of the bar aligned check clearance to fender and alignment to wheel arch.

Note: If the angle of the bar does not match the angle of the fender liner proceed to step 6.6.



If angle adjustment is required

6.6 A&B Space the Bar to achieve the angle as shown.



6.7 With the StealthBar aligned tighten the three fasteners shown, repeat on LHS. Tighten the 190-ISR and 190-WSR, repeat on the LHS with the 190-ISL and 190-WSL. Now tighten the outer fastener, repeat on LHS.

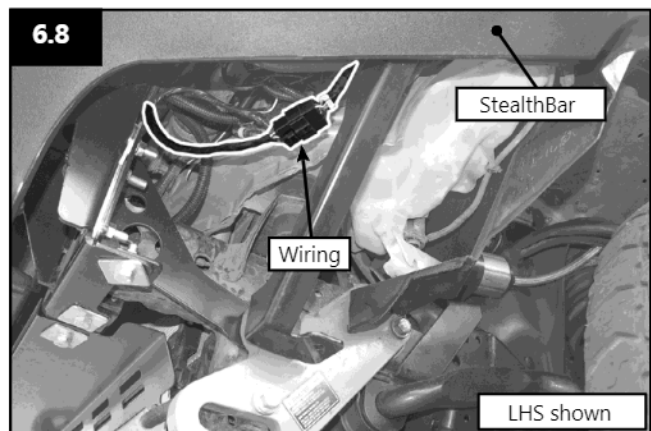
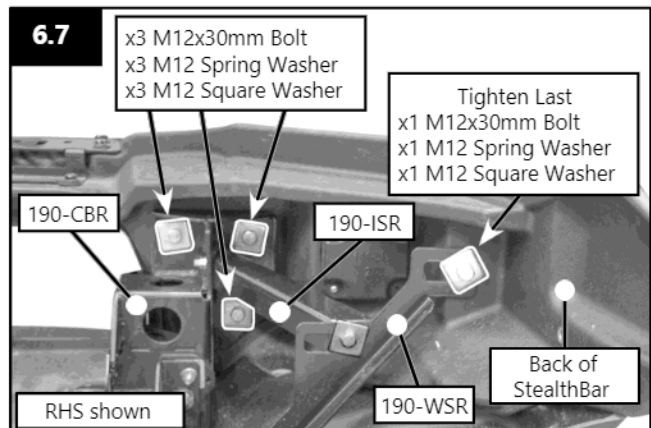
Note: Torque specs into StealthBar;
M12 Fasteners: Max 55Nm

Note: Check all other bracket hardware has been tightened.

6.8 If lights are fitted make sure they are wired up.

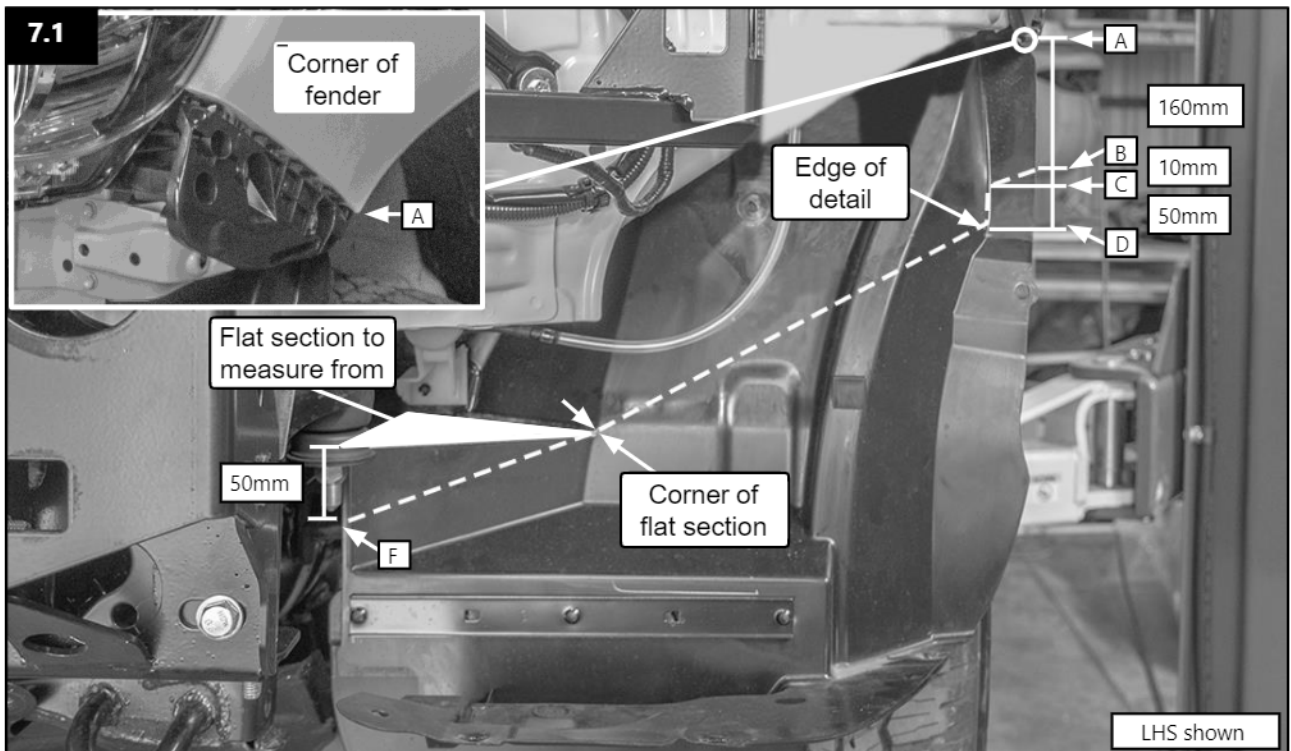
Note: Test lights before moving onto next step, clean up any wiring by zip tying behind the StealthBar.

CAUTION: Ensure cables are securely fastened away from hot, sharp and moving surfaces.



Step 7: Fender Liner Trim

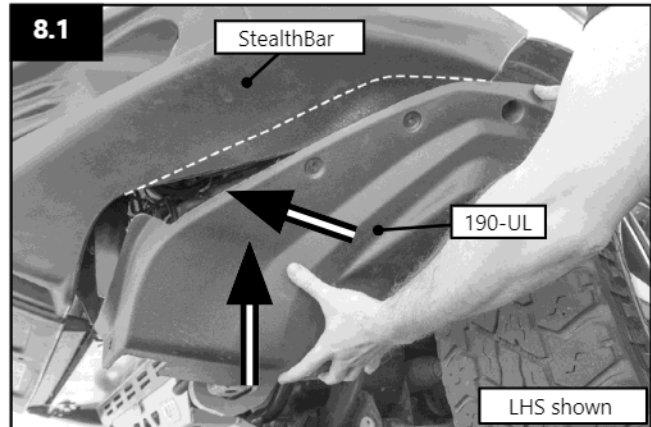
7.1 Mark the fender liner on each side for trimming as shown. Trim fender liner. **REPEAT PROCESS FOR RHS SIDE.**



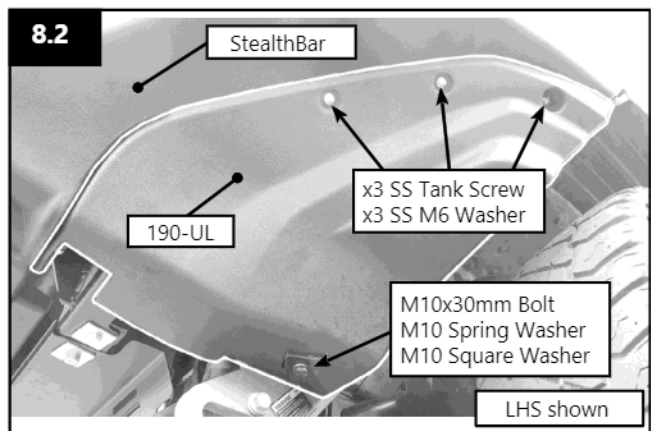
Step 8: Underwing Panel Install

Note: If ARB Recovery Points are installed then skip to step 8.4 before installing.

8.1 Lift the underwing (190-UL) into place sliding the front into the back of the bar. Position the 190-UL to the dotted line shown.

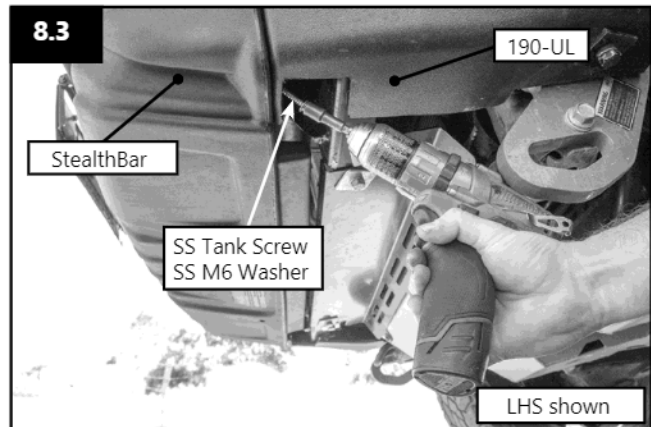


8.2 With the 190-UL in position place the bolt hardware in loosely, then fasten with the screws as shown.



8.3 Place the final tank screw up through the 190-UL and into the StealthBar on the angle shown. Now tighten the bolt hardware.

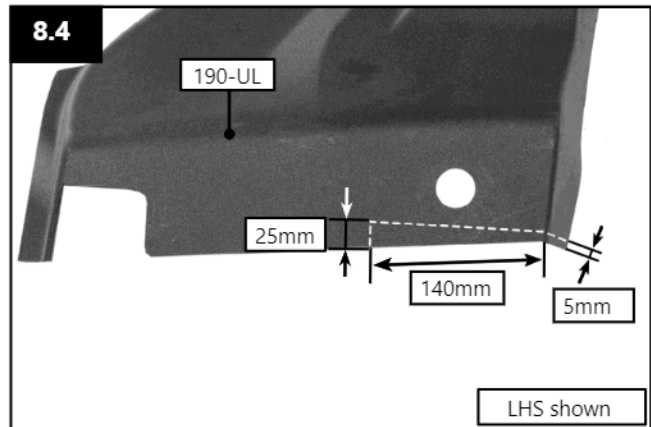
Repeat steps 8.1 to 8.3 on the RHS using 190-UR.



ARB - Recovery Point

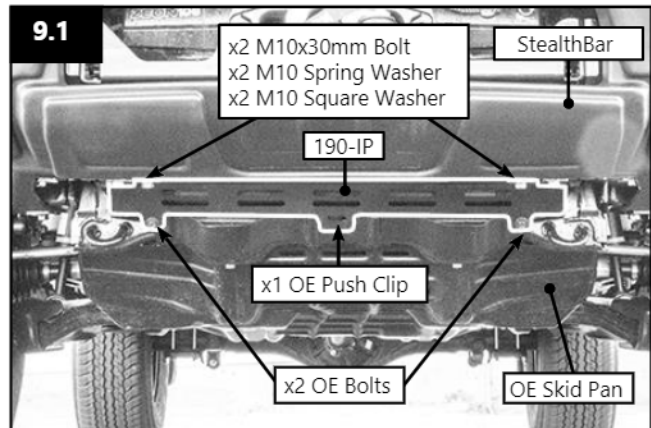
8.4 If ARB Recovery points are installed then the 190-UL and 190-UR will need to be trimmed. Mark the trim line shown and cut. Repeat on the RHS.

Once the 190-UL and 190-UR have been trimmed move back to step 8.1 for install.



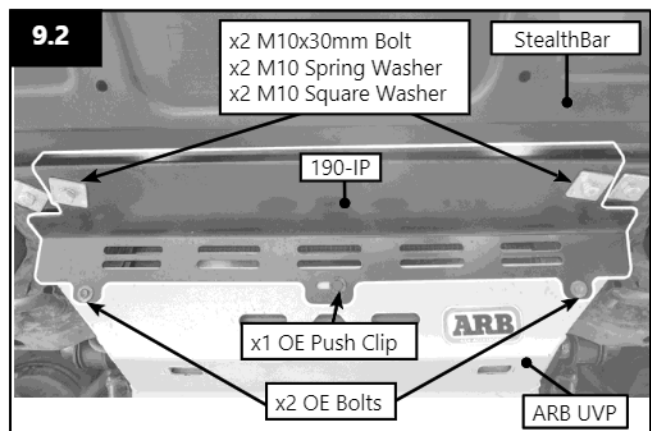
Step 9: Infill Panel Install

9.1 Install 190-IP to the OE skid pan at the back and brackets at the front using the hardware as shown.



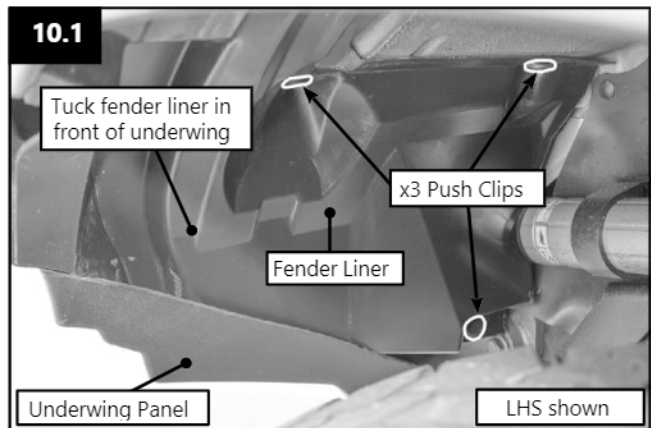
ARB -

9.2 If ARB UVP is installed or going to be installed fitment of the 190-IP is the same as OE.

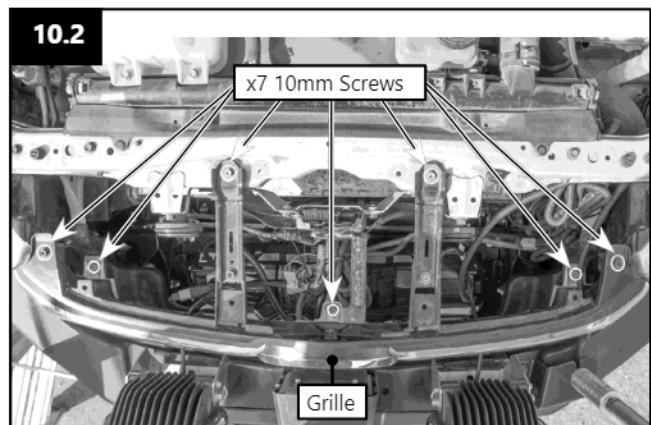


Step 10: Finishing

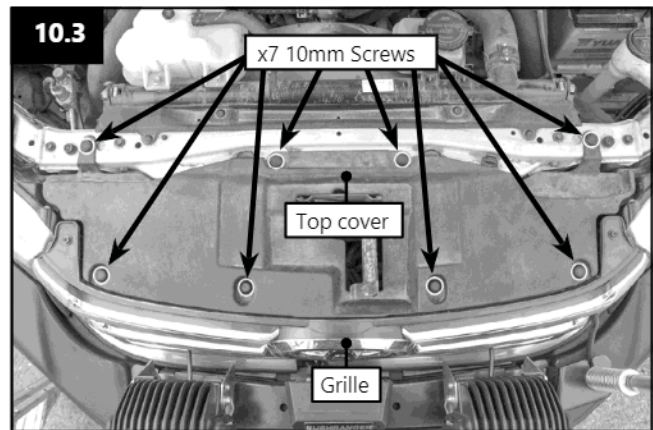
10.1 Using the original push clips replace in position as shown. Repeat on RHS.



10.2 Re-insert fasteners holding bumper and grille to vehicle.

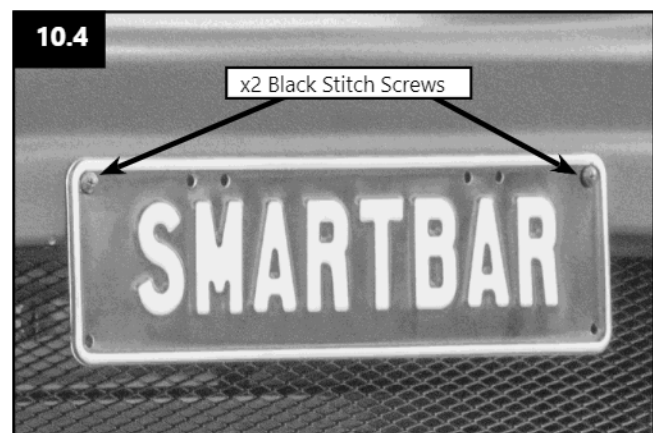


10.3 Place top cover on using original clips.



10.4 Install the number plate using the hardware as shown.

Note: A flip up number plate (part number 3500630) bracket is recommended for winch bars.



10.5 Congratulations the StealthBar is now complete.



Note:

STD Kit shown.

ARB AR21 Intensity spotlights are not included with the StealthBar

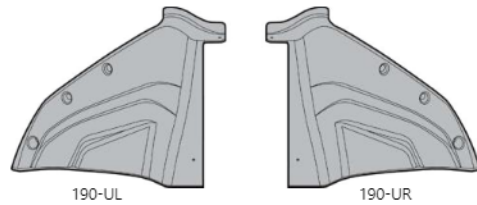
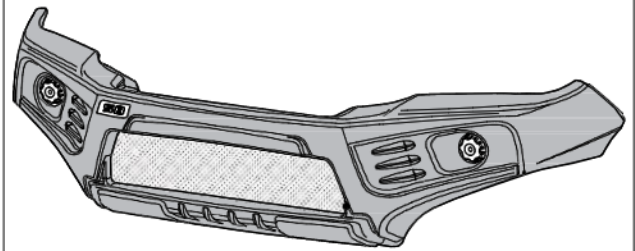
ARB UVP not included with StealthBar

190 SmartBar Common Kit SA190BK

Code	Description	Qty	OK
MM80857	190-CBR	1	
MM80858	190-CBL	1	
MM50761	170-OSL	1	
MM50762	170-OSR	1	
MM80859	190-ISR	1	
MM80860	190-ISL	1	
MM80861	190-SP3	2	
MM80862	190-LB	1	
MM80863	190-WSR	1	
MM80864	190-WSL	1	
MM80856	190-IP	1	
MM80852	190-GB3R	1	
MM80853	190-GB3L	1	
BP80455	Under Head Light Rubber Right Hand	1	
BP80456	Under Head Light Rubber Left Hand	1	
MM1243	Offset Washer	2	
BP33298	10-1.25 X 40 Hex Cad Bolt	4	
BP1263	10X40M88Zpb Hex Bolt	6	
BP1017	10 X 30 M88Zpbhexs Cad Bolt	10	
BP1093	10Mzpw-53530	12	
BP1193	10Msw Zinc Pit Spring Wash	4	
BP1125	10Mwinbu M10 Wiz Lock Nut	12	
BP1103	6Mg304W M6 G304 Washer	8	
BP1147	084371 10X38X38X3 Zinc Pit Sq	10	
MM1244	12X40X40X5Zpg Square Washer	14	
BP80325	M12 SQ WASHER 12X38X3MZP5QW	4	
BP1094	12Mzpw M12 Washers	2	
BP1140	12Msw M12 Zinc Pit Spring Wash	8	
BP1064	12X1.25X40 M88Zpb Hex Cad Bolt	2	
BP1024	12 X 30 M88Zpb Hex Cad Bolt	8	
BP38781	Screw Stitch 8Gx15Mm Eco Black	14	
BP39337	1/4X1X1.6Mm Washer E-Coat Blk	14	
BP80383	CABLE TIES 300X5 CTB305BK	6	
BP2010	TANK SCREW 12-11X45MM 302 S/L	8	
BP38729	Bolt 10X30 M88 Eco Black	7	
BP38750	Washer Spring M10 Eco Black	7	
BP38767	Washer Flat M10 Eco Black	7	
BP24784	Pinchweld #ninvf Pw21	1.2	
BP1163	ECA3-500 (3MM WIRE)	0.6	
BP42962	SmartBar Warranty Card	1	
NA	190-GTT1-TOYOTA HILUX 2018 FACELIFT	1	
Packed By		Date	

SA190 SmartBar

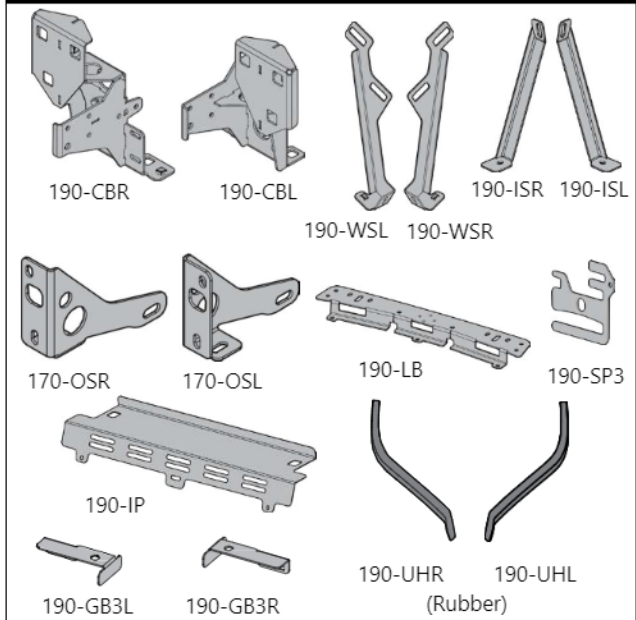
Code	Description	Qty	OK
MK51015	Moulded StealthBar	1	
SA190ULBL	SA190 Underwing Left	1	
SA190URBL	SA190 Underwing Right	1	
MM80868	190-M	1	
BP80445	141-LI	2	
BP80168	SB Bar Badge	1	
BP1279	10GX1G304PCRST	8	
BP38781	Screw Stitch 8Gx15Mm Eco Black	12	



190-UL

190-UR

SA190BK SmartBar Brackets



190-CBR

190-CBL

190-ISR

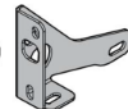
190-ISL

190-WSL

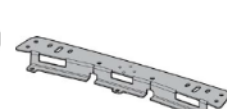
190-WSR



170-OSR



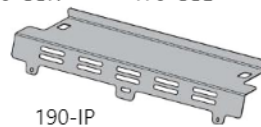
170-OSL



190-LB



190-SP3



190-IP



190-GB3L



190-GB3R



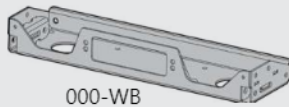
190-UHR

190-UHL

(Rubber)

See FI216 & FI191 packing list for below kits

Winch Kit SA191BK



000-WB



170-CSIL



170-CSIR

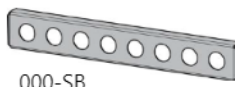


000-NP

For winch install **SA191BK** is required.

For standard install **SA216BK** is required.

Standard Kit SA216BK



000-SB

Optional Kits

SA190AL

Antenna Bracket LH



190-ABS

190-ABL

SA190AR

Antenna Bracket RH



190-ABS

190-ABR