

# FITTING INSTRUCTIONS



## Document Title:

FI-190

## Model Number:

SA190AA190 - Non-Winch  
SA190AA191 - Winch

## Application:

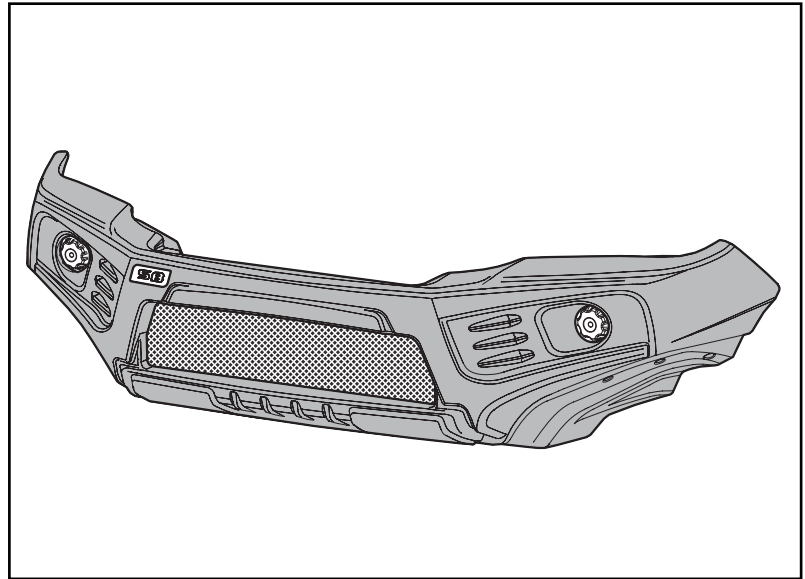
Toyota HiLux (09/2015+)

## Fitting Time:

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

## Revision:

A (18 September 2018)



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

## 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:

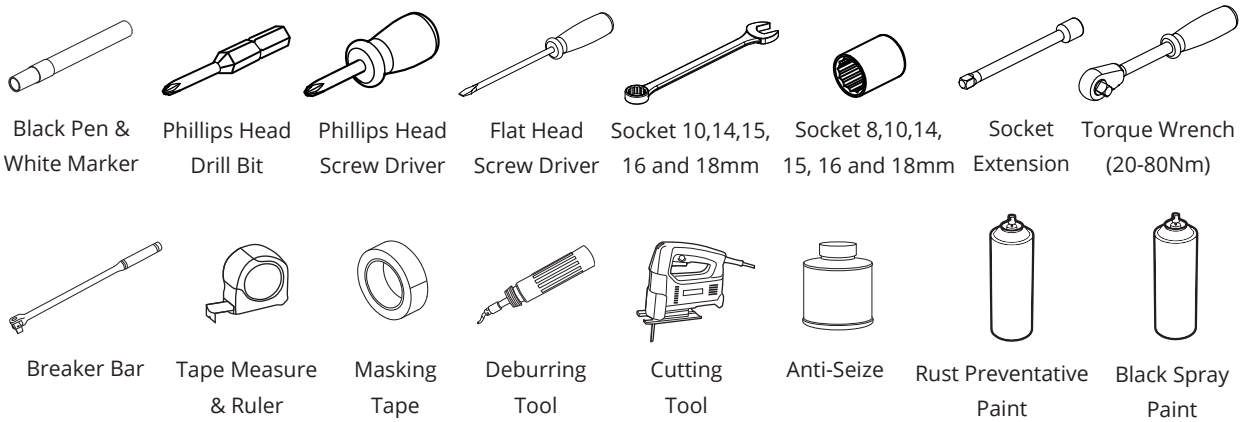
- Left and Right hand sides of the vehicle and SmartBar throughout this instruction are from the view of being in the drivers seat looking forward.
- Please take the time to read the instructions thoroughly before proceeding with fitment of the SmartBar.
- Ensure all components, as listed in the bill 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.**



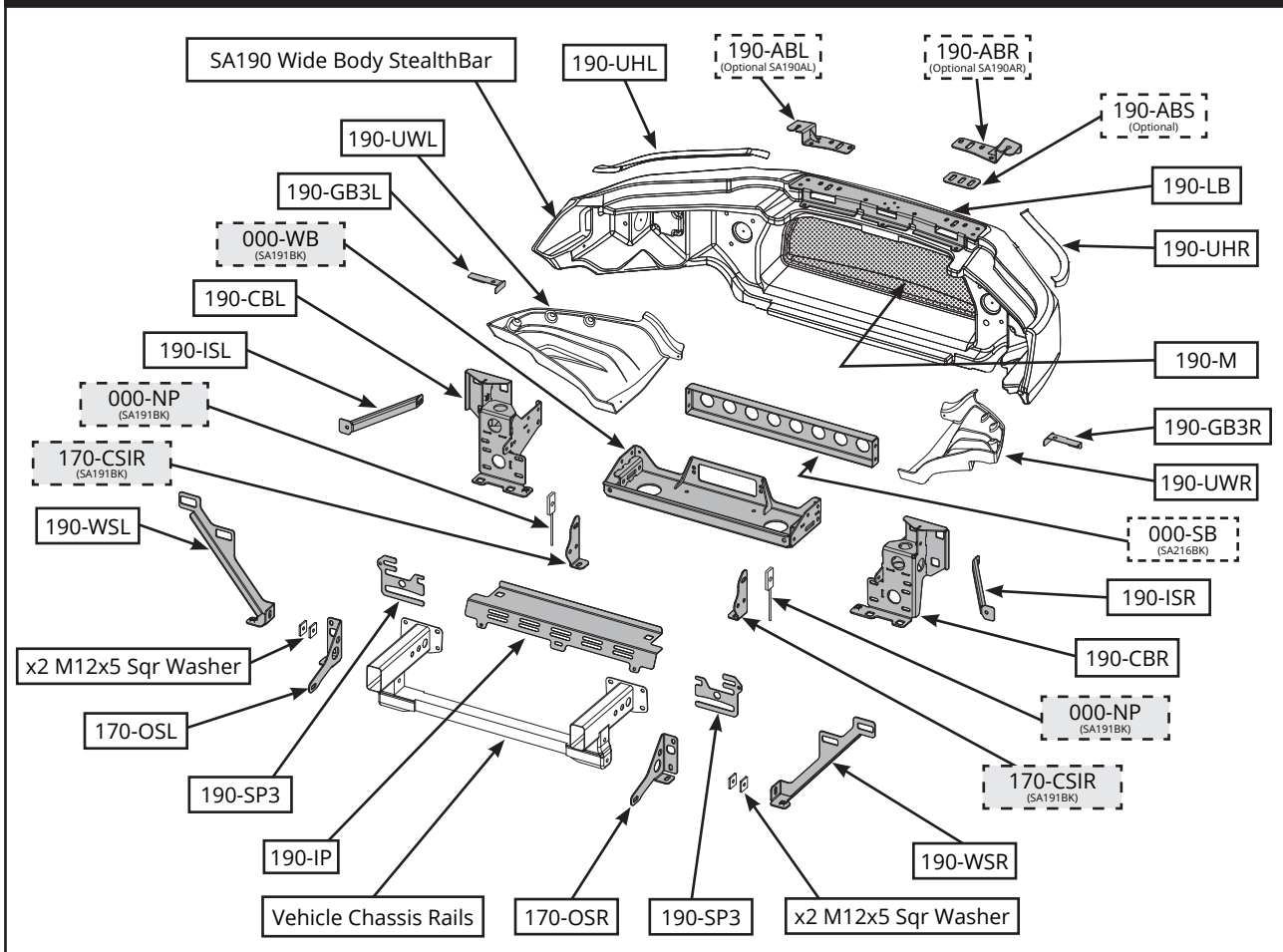
**CAUTION A torque specification of 28Nm is required for the M10 bolts and 55Nm for M12 bolts into the SmartBar nutserts. THESE MUST NOT BE OVERTIGHTENED.**

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 (lb/ft)
M10	28	20
M12	55	40

### Torque Specs (Metal to Metal Mounts)

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

09/2015 - 07/2018 Toyota HiLux



08/2018 + Toyota HiLux Facelift



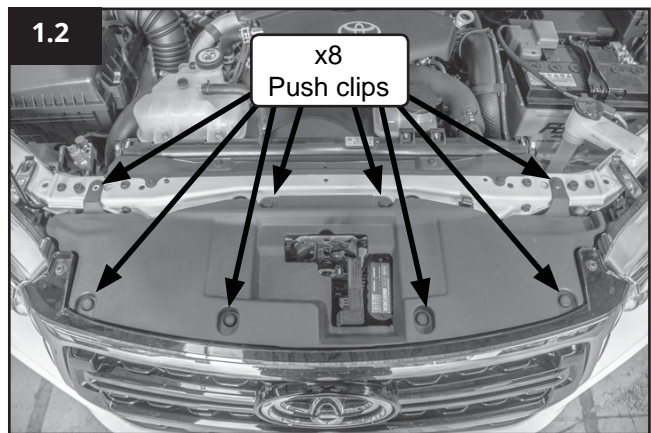
**Step 1: Vehicle Disassembly**

1.1 Remove the number plate.

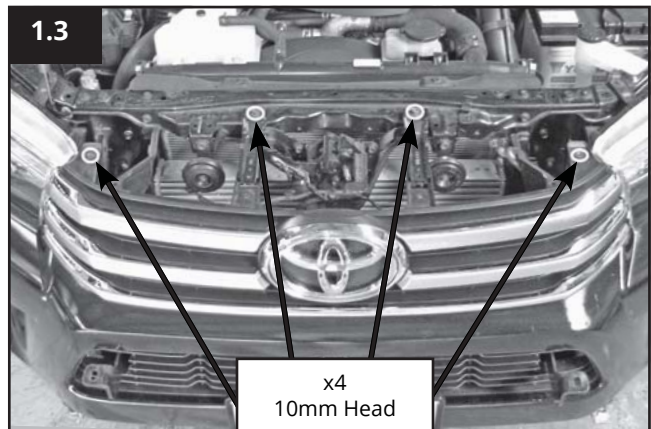
**Note:** Please retain all hardware removed from the vehicle until fitment of the StealthBar is completed.



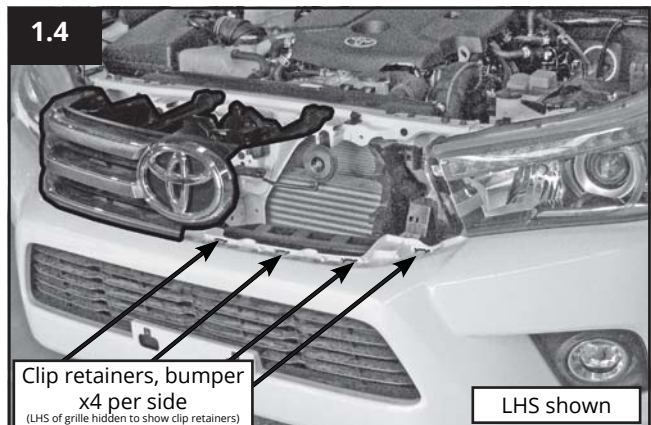
1.2 Remove push clips from the grille cover and remove from vehicle.



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**

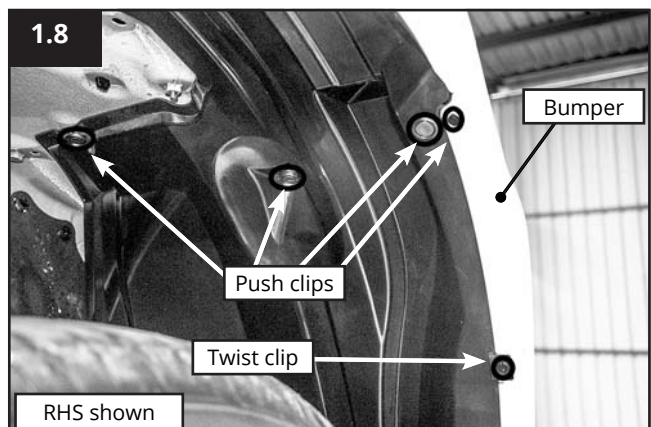
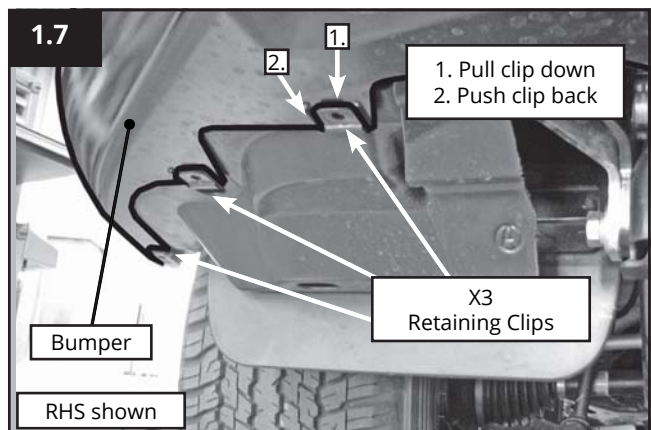
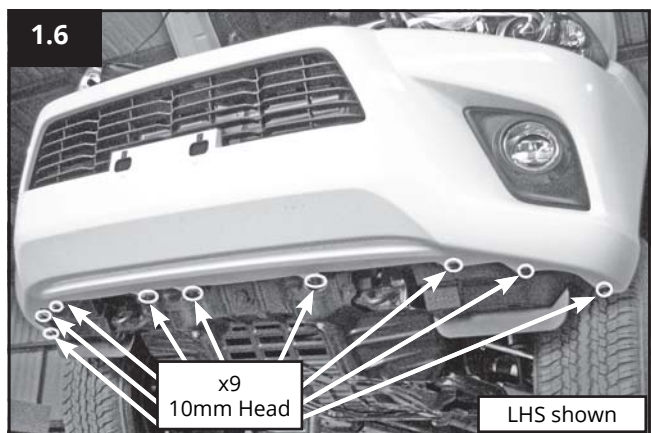
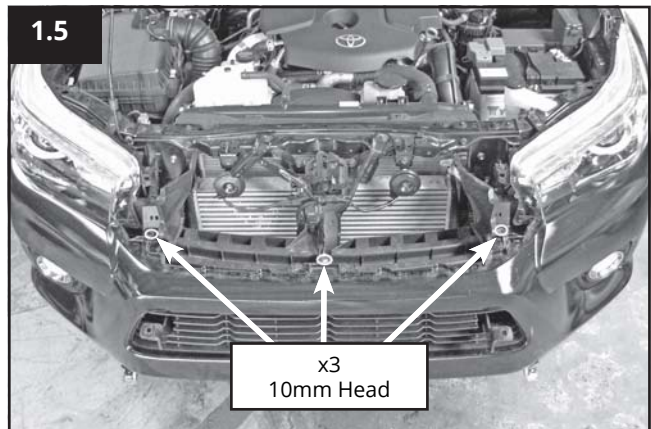
Grille will still be in position.

1.6 Remove screws retaining bumper to fender liner and under-body guard.

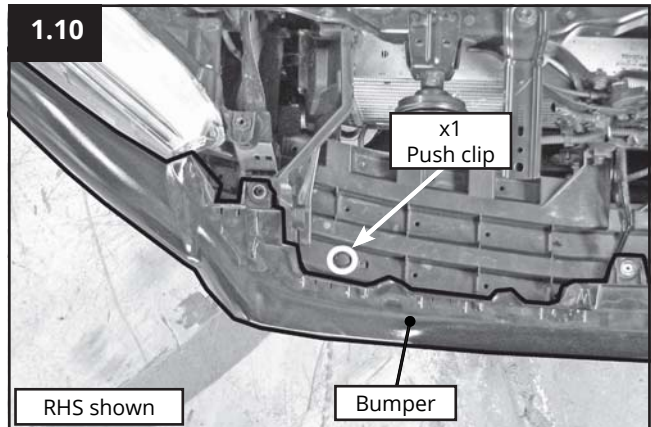
1.7 Ensure the bumper has been released from the lower section of the wheel arch liner, to do this unclip the retaining clips as shown. Repeat on LHS.

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

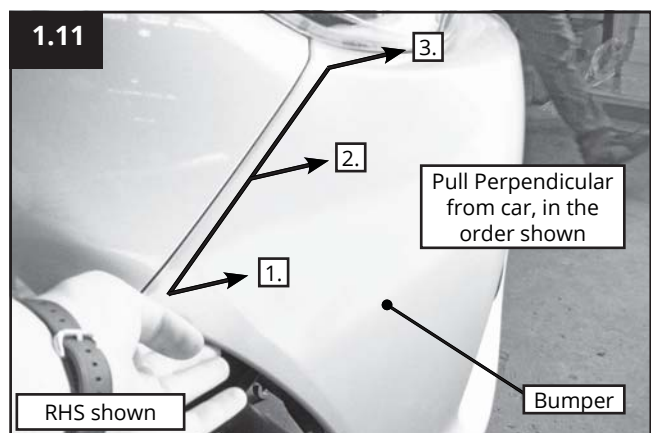
1.9 If foglights are present in the bumper, with the fender liner loose disconnect the fog lights. Repeat on RHS.



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



1.11 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 and remove bumper from vehicle. Retain bumper for later use.



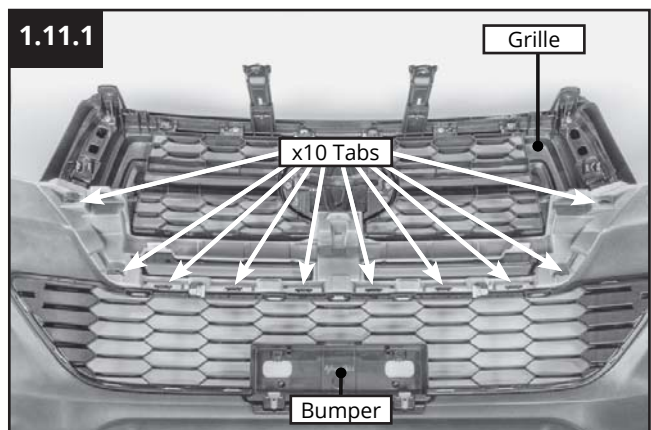
**08/2018+ Toyota HiLux Facelift**

Bumper is not used, continue to step 1.11.1.

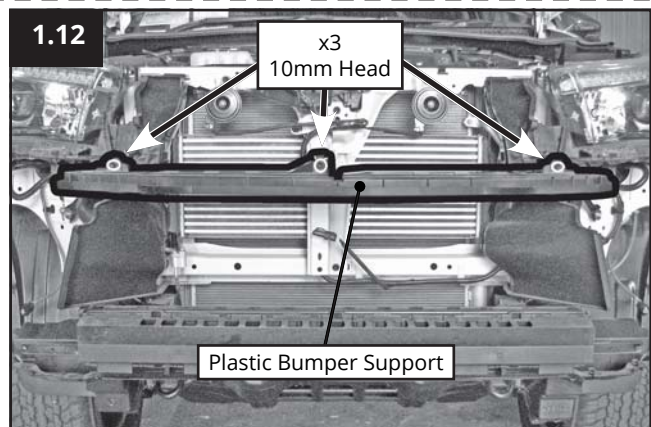
**08/2018+ Toyota HiLux Facelift**

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

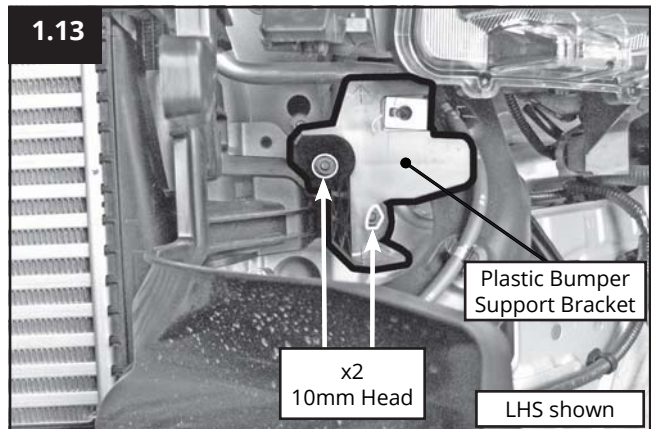
**Note:** The bumper is not needed so it can be discarded after step 4.1.



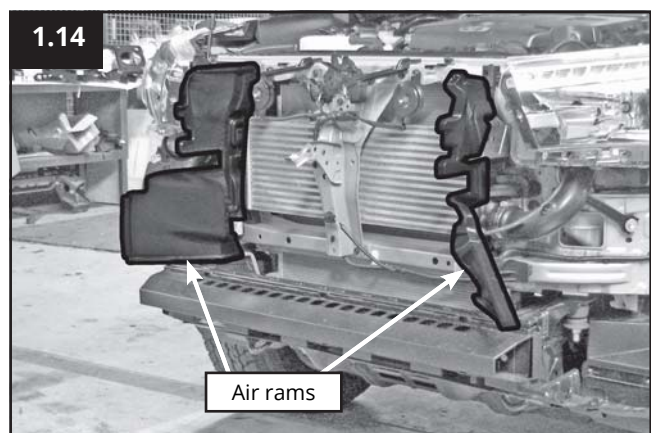
1.12 Remove screws holding the plastic bumper support to the body. Unclip from the centre and remove from vehicle. Discard plastic bumper support.



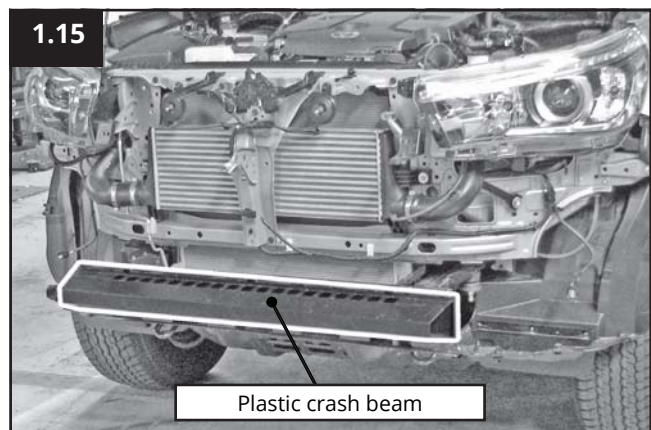
1.13 Remove screws retaining the plastic bumper support brackets. Repeat on RHS. Discard plastic support bracket.



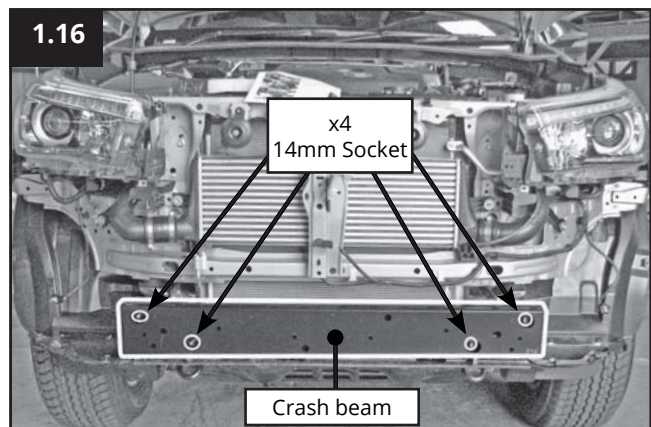
1.14 There are no fasteners holding the air rams to the body, pull firmly away from the body until the clips release. Discard both air rams.



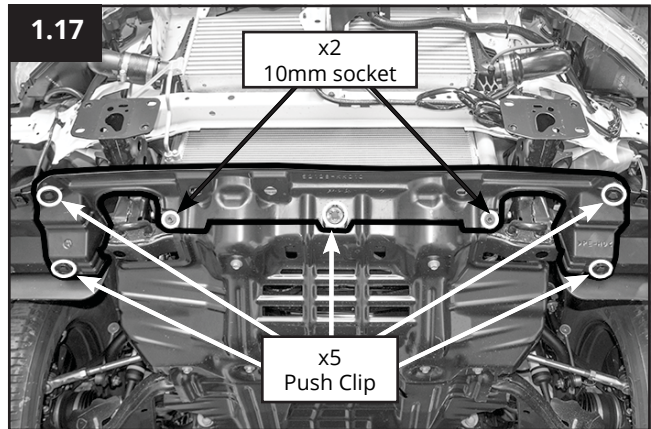
1.15 There are no fasteners holding the plastic crash beam to the steel crash beam, pull firmly away from the steel crash beam until the clips release. Discard the plastic crash beam.



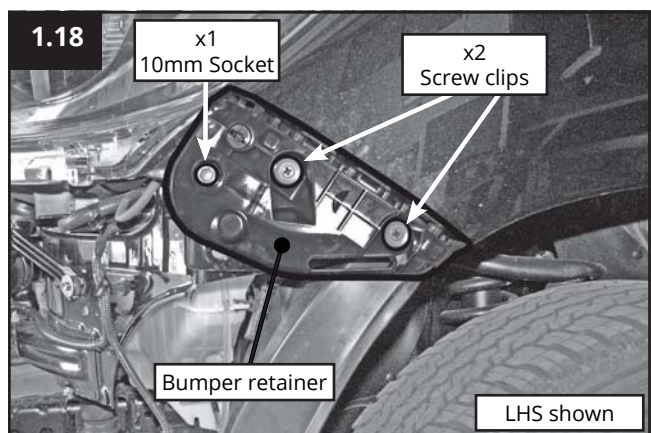
1.16 Remove the bolts retaining the crash beam. This may require a breaker bar as the bolts are at a higher torque. Discard the crash beam.



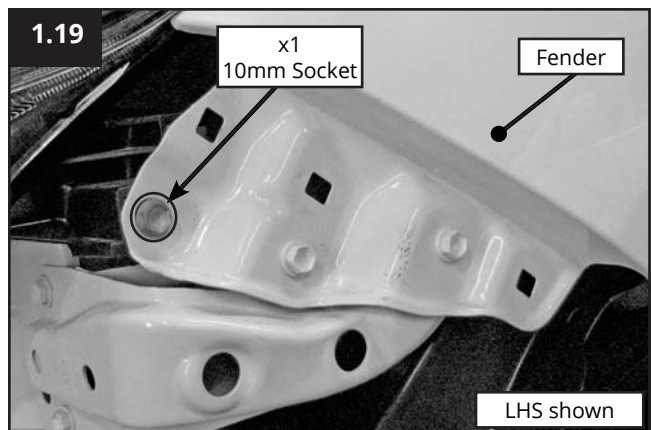
1.17 Remove the under-body guard. There are push clips and bolts holding it to the body. Retain under-body guard for later use.



1.18 Unscrew the plastic screw clips from the bumper retainer. Remove the bolt and pull firmly away from the body until the clips release. Repeat on RHS. Discard the bumper retainer.

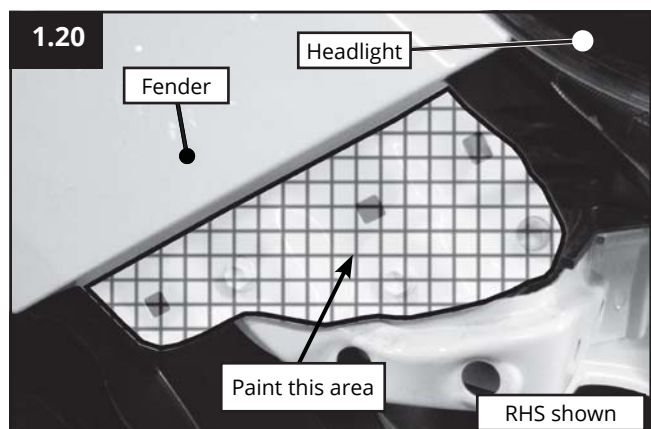


1.19 Replace the bolt removed from step 1.18 as this retains the headlight to the body. Repeat on RHS.



1.20 Mask of fender, headlight and bodywork and paint the highlighted area. Repeat on LHS.

**Note:** This step is not required on black vehicles

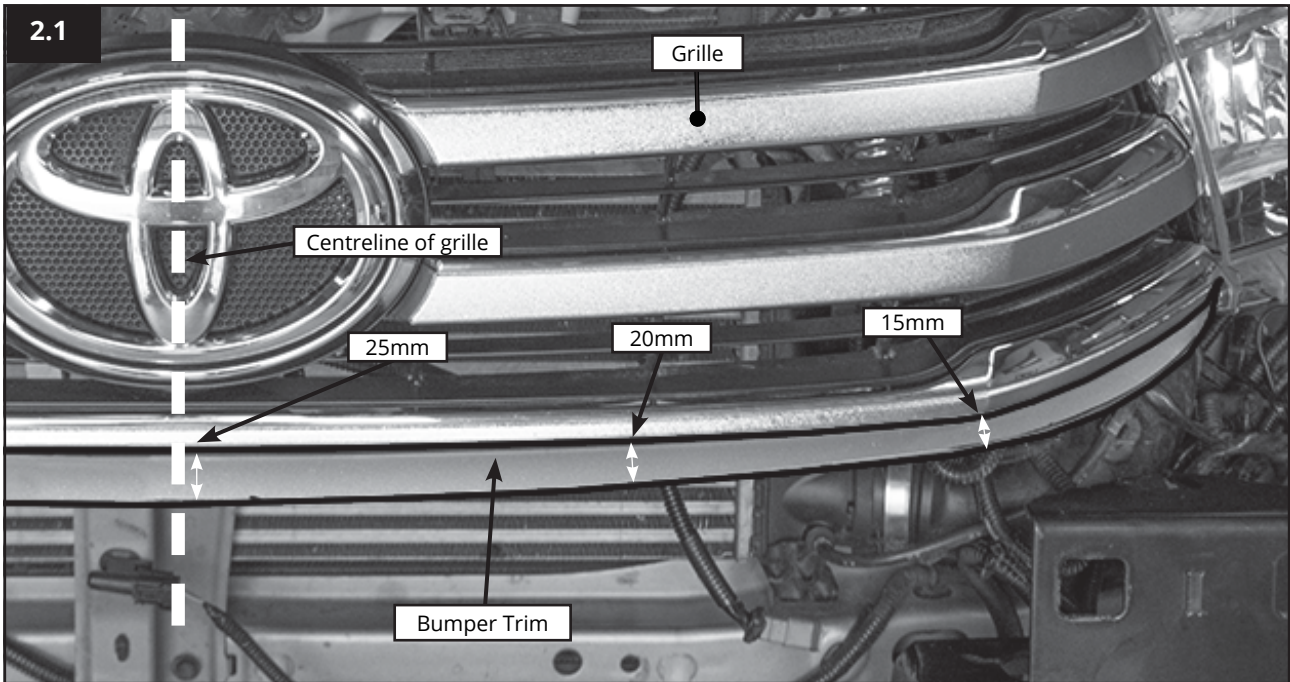




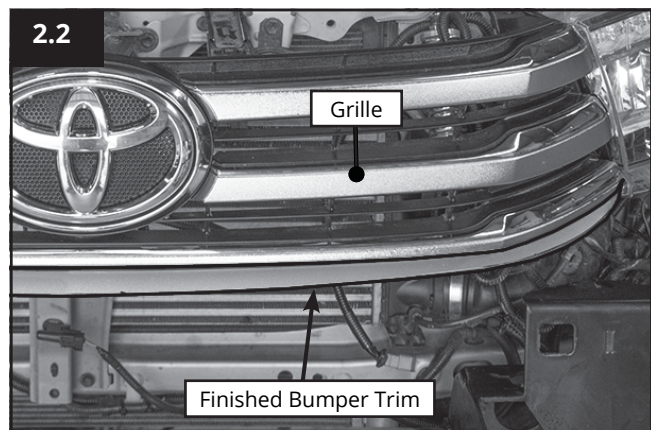
**Step 2: Bumper and Grille Trimming**

For 08/2018+ Toyota Hilux Facelift skip to step 2.0.1.

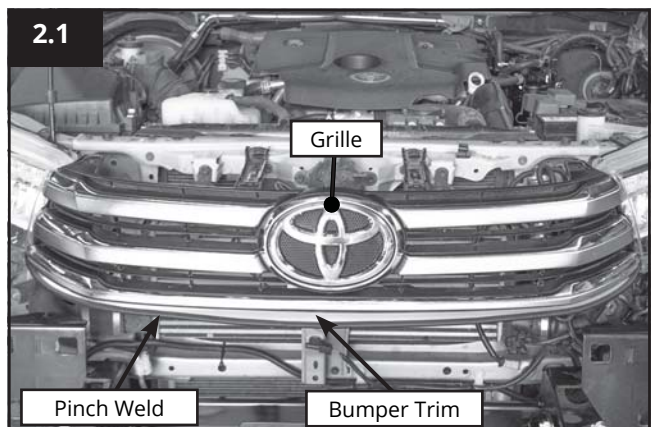
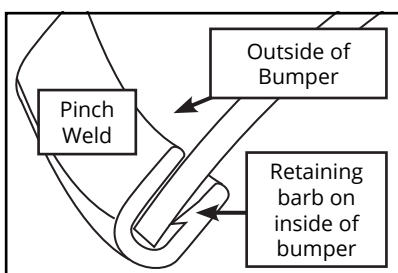
For 09/2015 - 07/2018 Toyota HiLux follow step 2.0.



2.1 Tape the area to be trimmed as to not damage the bumper, measure out dimensions shown in 2.1. 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.

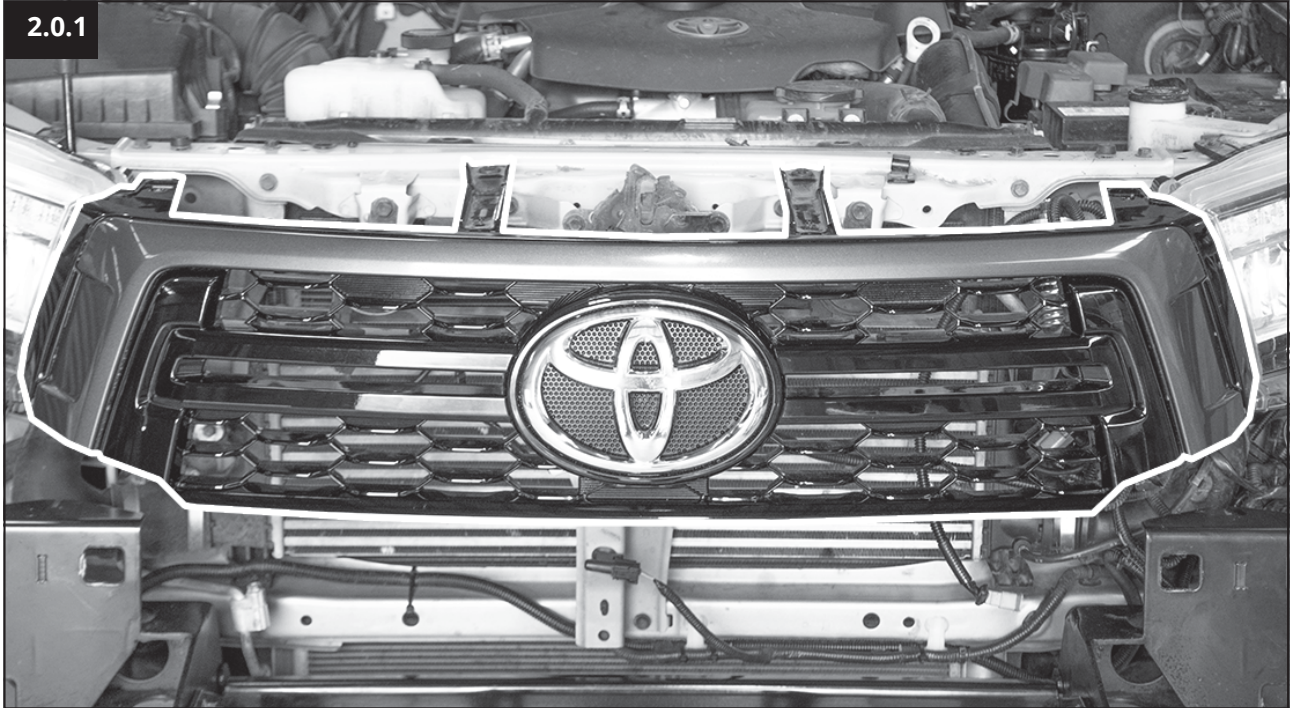


2.2 Attach the pinch weld in the kit to the cut edge of the bumper skin.



**08/2018+ Toyota HiLux Facelift**

2.0.1 Grille trim required follow **steps \*\*\*\*\***, bumper can be discarded.

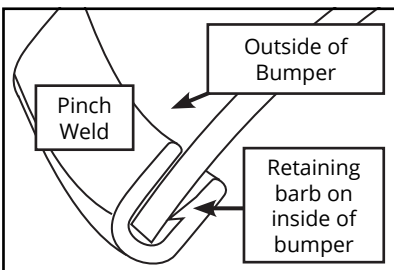


2.0.2

**2.0.2**

2.0.3

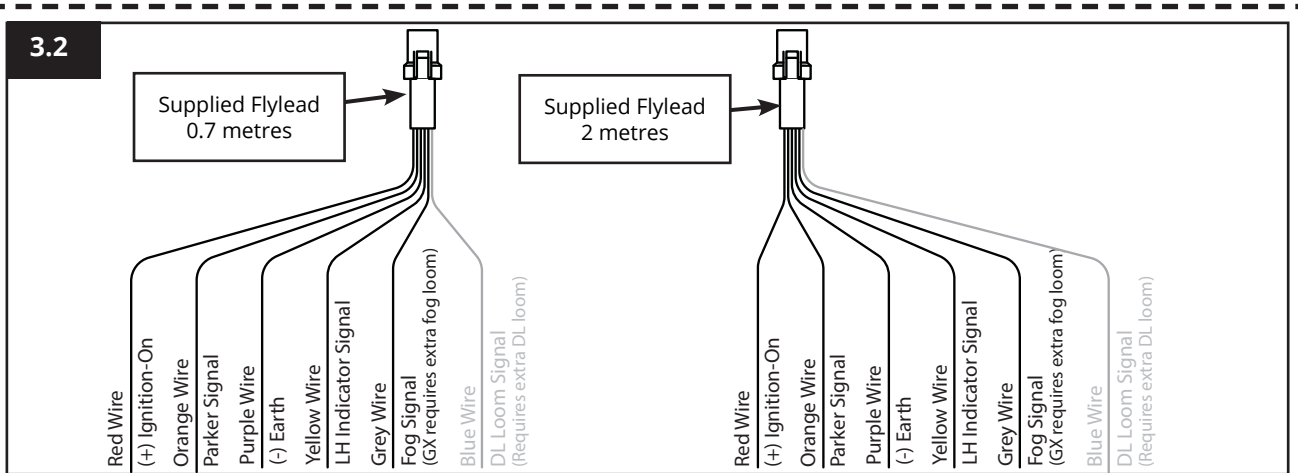
**2.0.3**



**Step 3: Wiring**

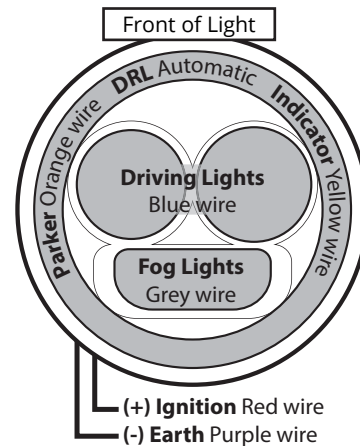
3.1 If refitting the OE fog lights, using the provided cable, extend the fog light wires by 150mm.

**Note:** If installing the SmartBar All-in-one lights follow instructions 3.2.



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

Note: To wire up the the driving light function ARB wiring loom (3500520) is required.

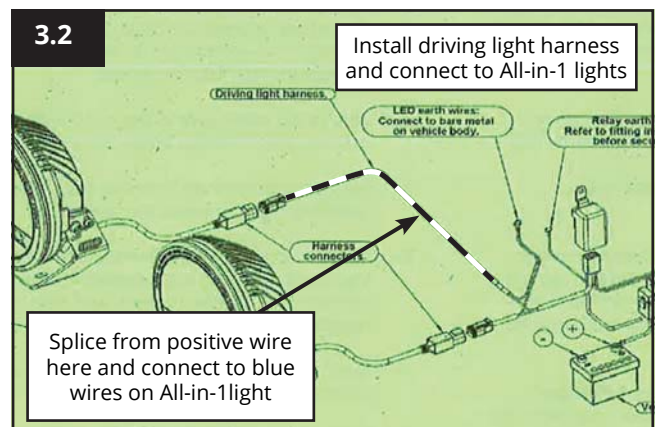


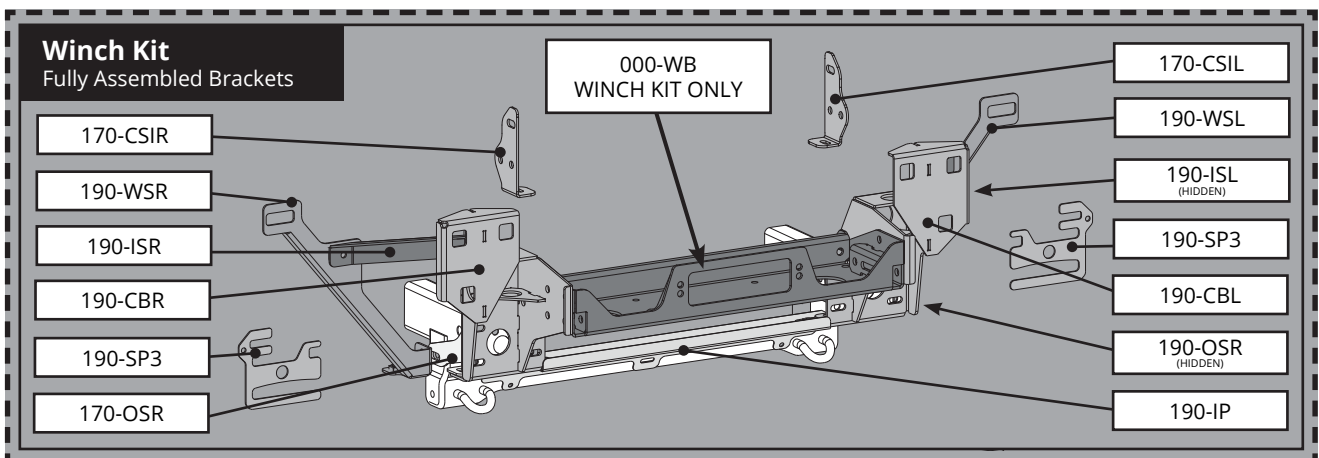
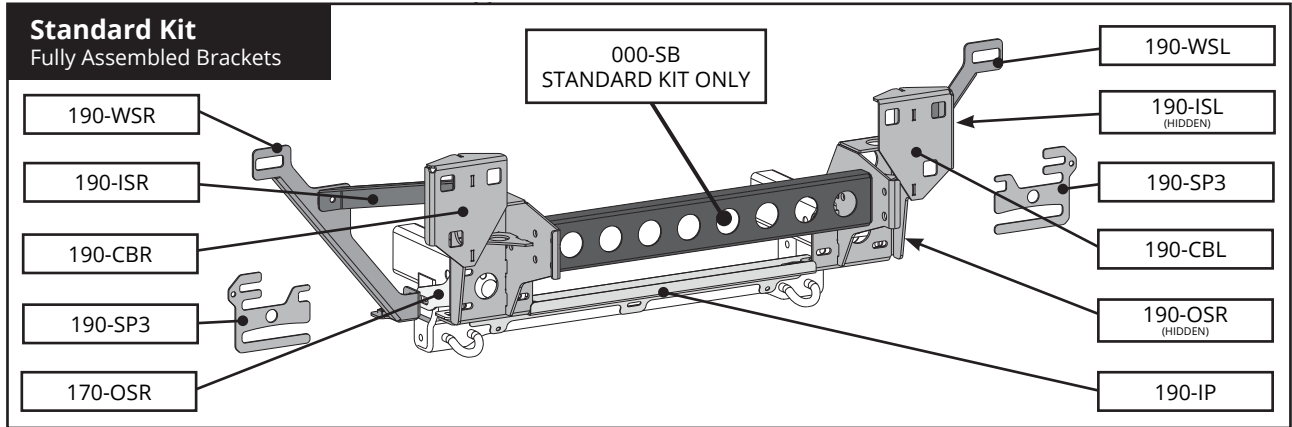
**Optional All-in-1 Driving Light function**

3.3 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.

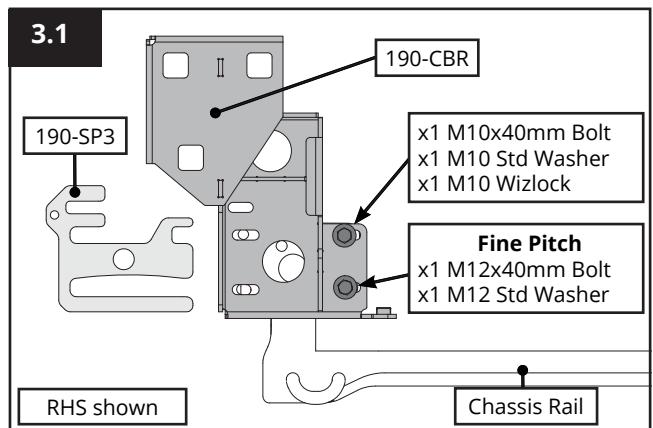




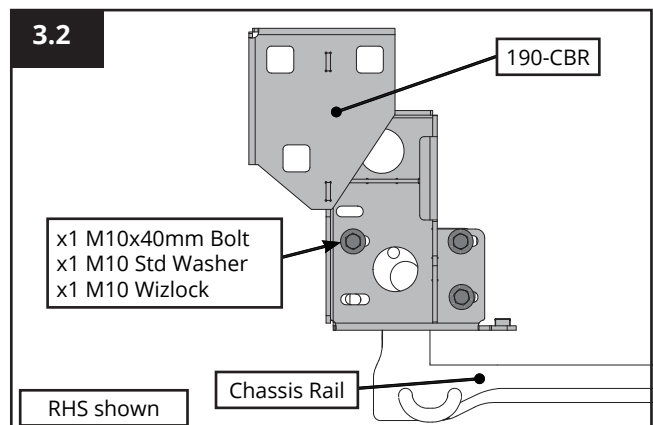
### Step 3: Bracket Installation

**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.

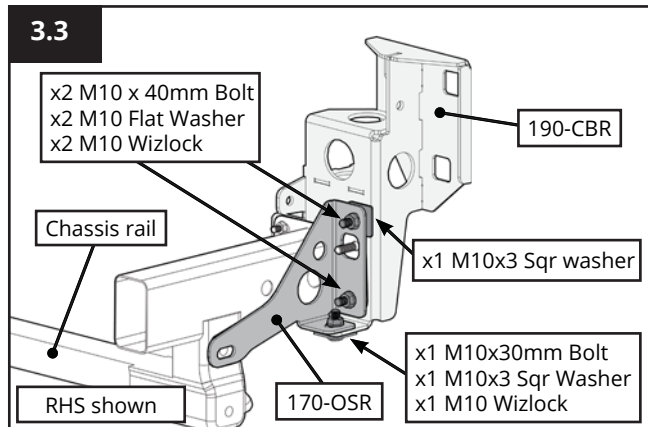
3.1 Place 190-SP3 onto the front of the chassis end plate, place 190-CBR up to 190-SP3 and chassis end plate and insert the hardware shown. Repeat on the LHS.



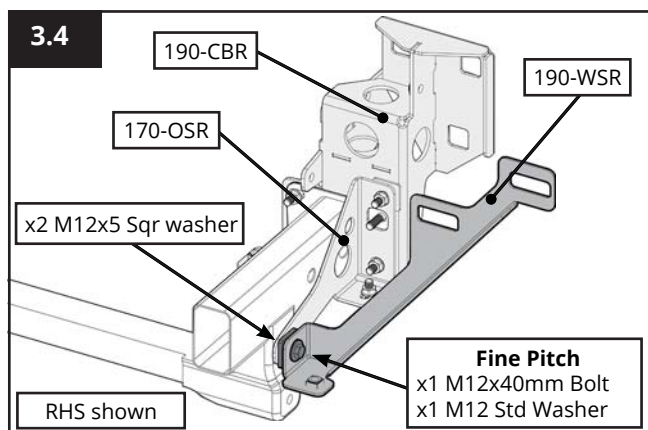
3.2 With bracket 190-CBR fixed with the 190-SP3 in between insert the hardware shown. Repeat on LHS.



3.3 Place the 170-OSR behind the 190-CBR and attach them through the front using the M10x40mm hardware shown, be sure to place the M10x3mm Sqr washer between the 190-CBR and 170-OSR. Attach the bottom using the M10x30mm hardware. Repeat on the LHS with the 170-OSL and hardware shown.

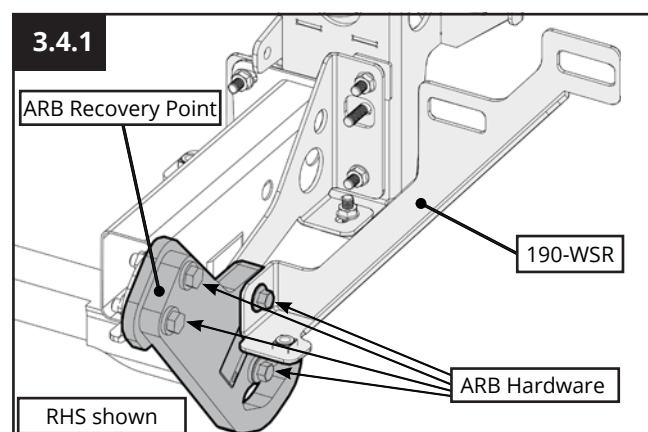


3.4 Place x2 M12x5 Sqr washers against the 170-OSR, place the 190-WSR against the washers and using the fine pitch hardware shown attach to the chassis. Repeat on the LHS with the 190-WSL and hardware shown.

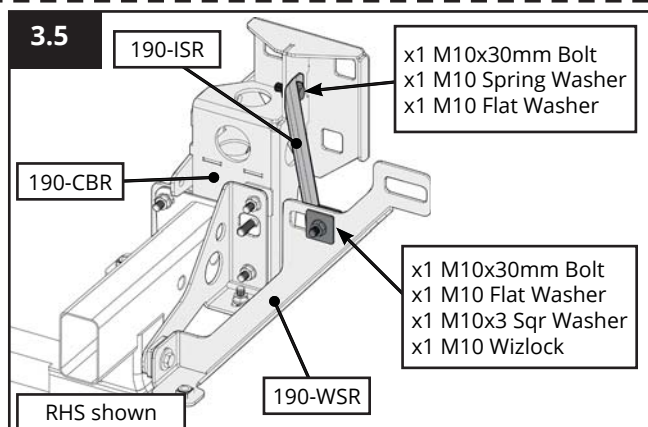


### ARB - Recovery Point

3.4.1 If ARB recovery points are present 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.

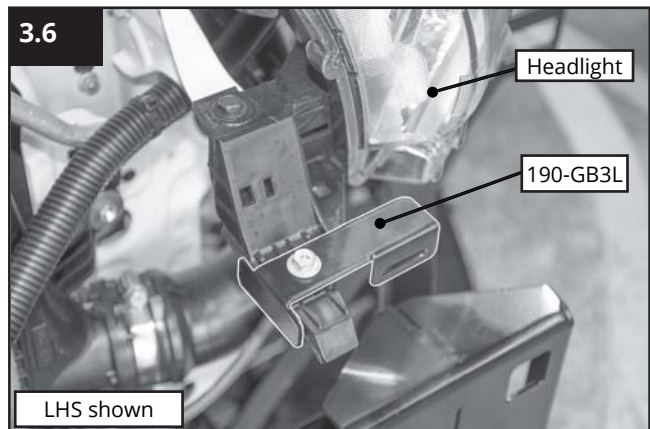


3.5 Attach bracket 190-ISR to bracket 190-CBR using the hardware shown. Attach the other end to bracket 190-WSR using the hardware shown. Repeat on the LHS with the 190-ISL and hardware shown.



**08/2018+ Toyota HiLux Facelift**

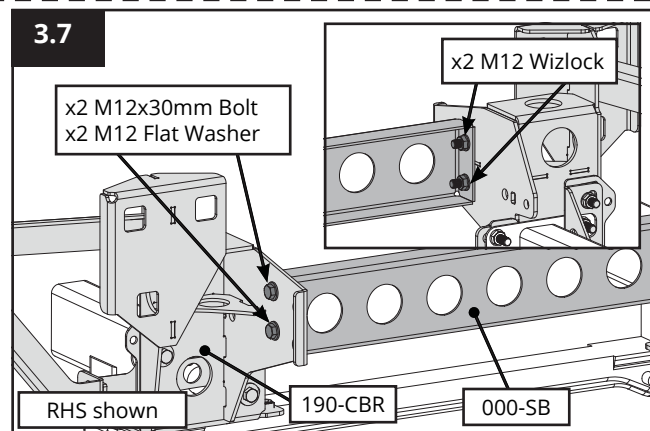
3.6 Fasten grille support bracket 190-GB3L using hardware as shown. Repeat on RHS.



**Standard Kit Only Install**

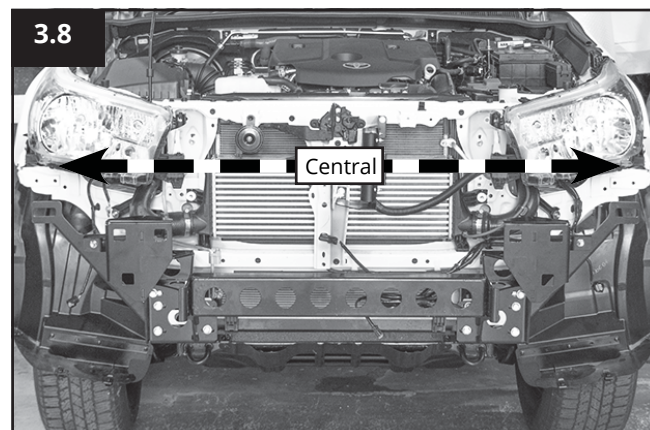
If installing the Winch Kit skip to step 3.9

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



3.8 Centrally align bracket assembly to vehicle.

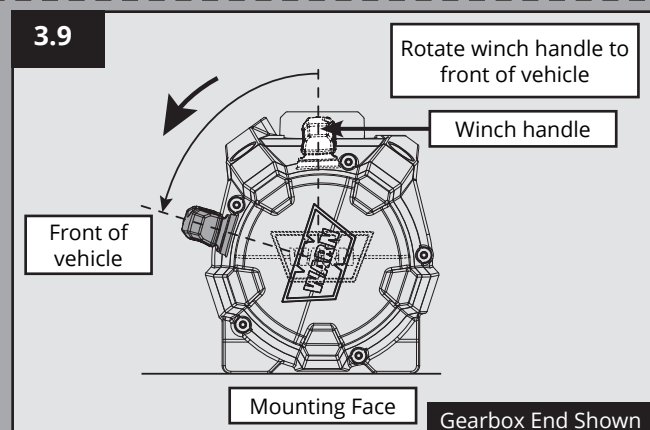
Once aligned tighten bolts between 190-CBR & 190-CBL to the chassis.



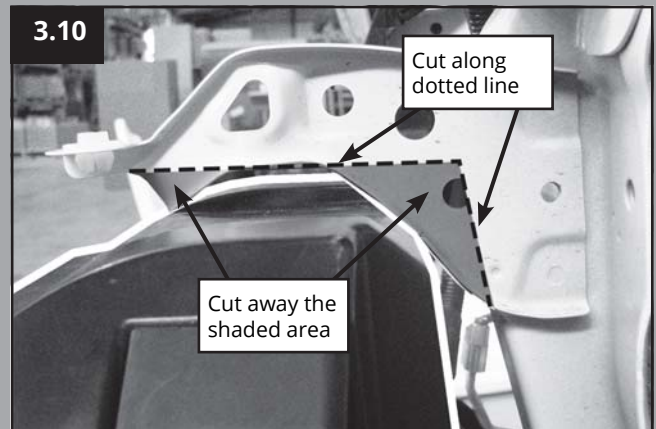
**Winch Kit Only**

3.9 Rotate winch handle to forward facing position of vehicle.

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

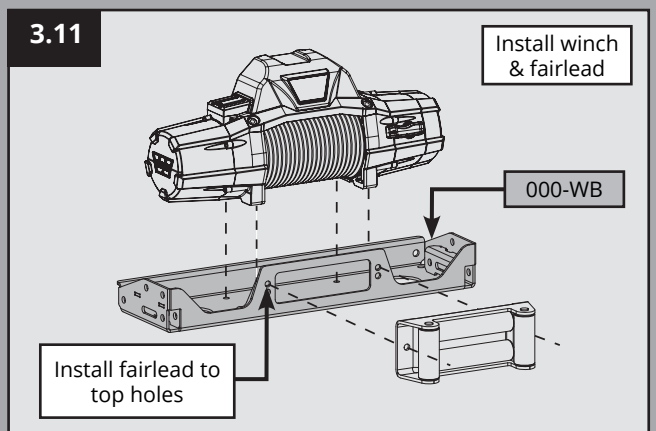


3.10 If the Warn Zeon is being installed then clearance will need to be made for the control box. Mark and cut the dashed line shown on the grille support bracket. Treat the cut area with rust preventative paint once trimmed.



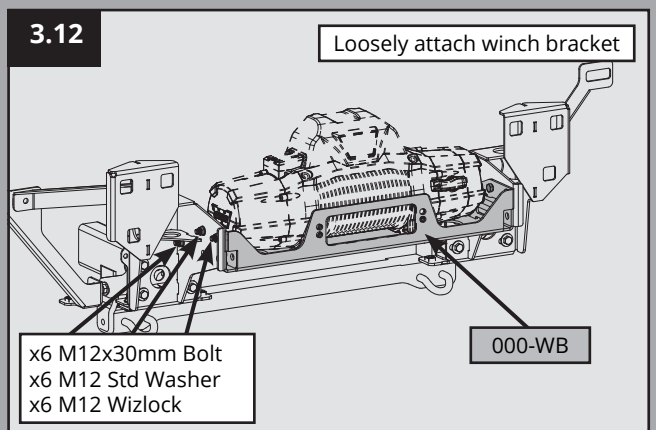
3.11 Attach winch and fairlead to winch bracket using hardware supplied with winch.

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



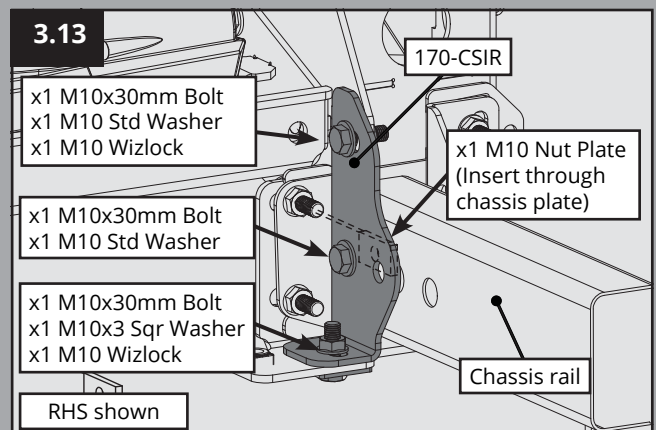
3.12 Install winch bracket (000-WB) to bar brackets.

Hand tighten only.



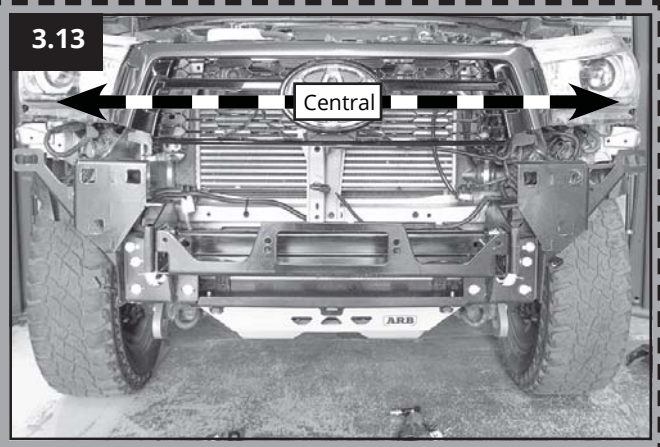
3.13 Place 170-CSIR on the inside of the chassis rail and insert fasteners as shown. Use the hole in the Chassis End Plate to position the M10 Nut Plate. Repeat on the LHS using the 170-CSIL.

Hand tighten only.



3.13 Centrally align bracket assembly to vehicle.

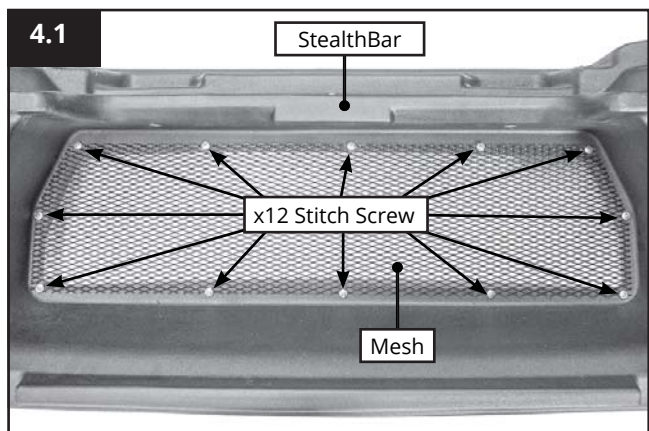
Once aligned tighten bolts between 190-CBR & 190-CBL to the chassis.



#### Step 4: StealthBar Preparation

**Note:** If no winch is installed skip to step 4.2.

4.1 Remove mesh and fasteners from StealthBar and discard.

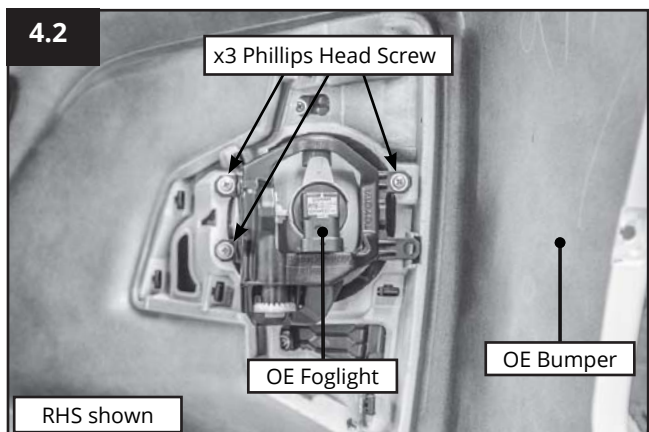


**Note:** If vehicle doesn't come with foglights skip to step 4.5.1.

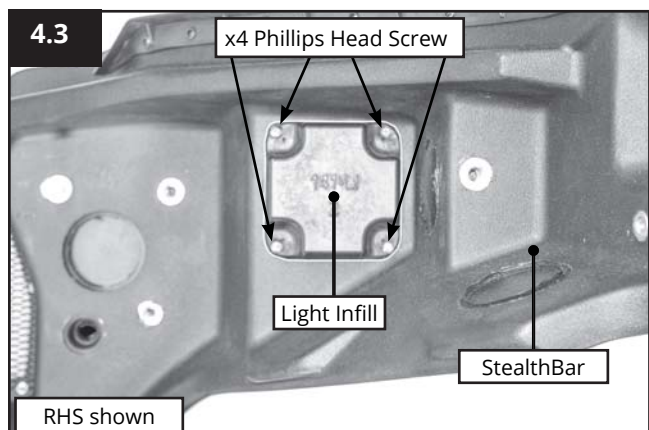
**Note:** If fitting option '\*\*\*\*' Smartbar All-in-one light skip to step 4.4.1.

4.2 If vehicle comes with foglights, remove fasteners as shown and discard. Repeat on LHS.

**Note:** For Toyota HiLux 08/2018+ Facelift the bumper can now be discarded.

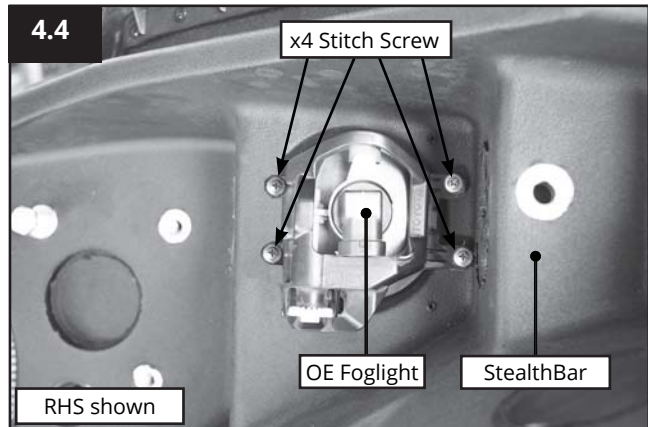


4.3 Remove fasteners retaining lightinfill into the StealthBar and discard. Repeat on LHS.





4.4 Place OE foglight into StealthBar and fasten using hardware shown. Repeat on LHS.



**Option '\*\*\*\*' SmartBar Combo Light**

4.4.1 To fit SmartBar combo light (option \*\*\*) attach 190-\*\*\* to combo light using hardware shown.

4.4.1

Need picture of combo light attaching to bracket

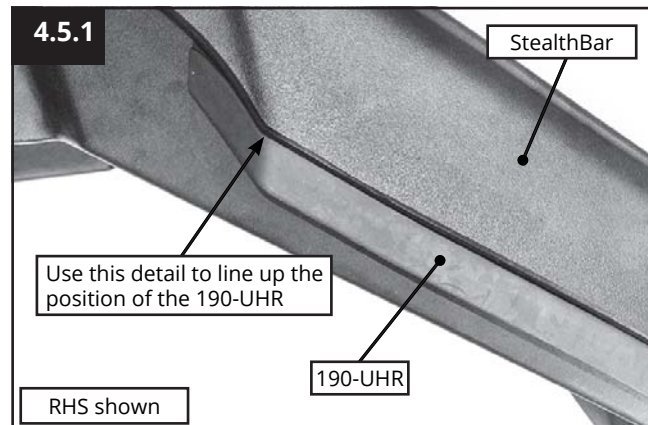
**Option '\*\*\*\*' SmartBar Combo Light**

4.4.2 Fasten SmartBar combo light with bracket attached to the StealthBar using the hardware shown. Repeat on the LHS.

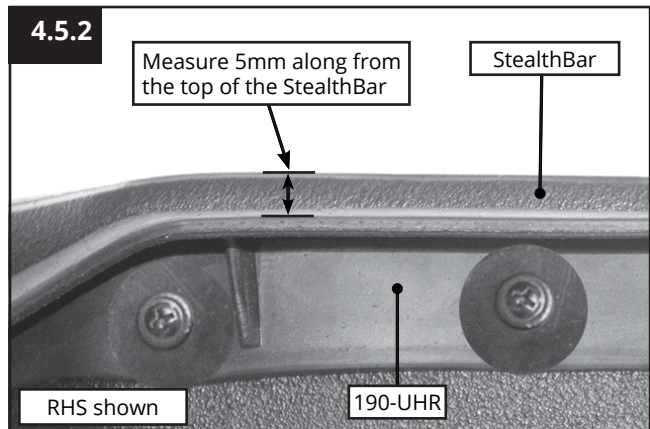
4.4.2

Need picture of combo light and bracket being attached to the back of the bar

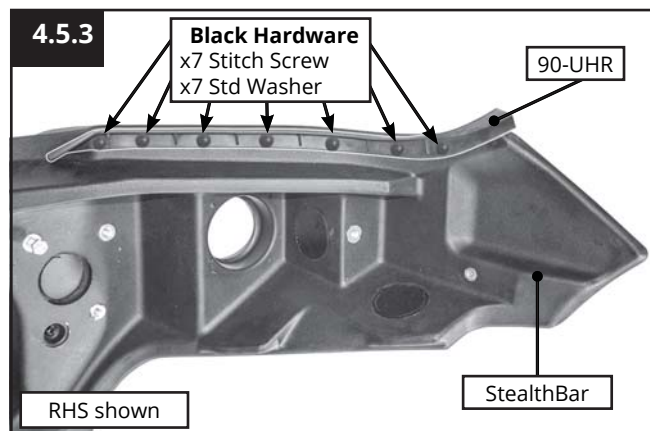
4.5.1 To install 190-UHR first align it with the detail in the StealthBar as shown.



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



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



4.6 An aerial or flag can be installed on the 190-LB in the locations shown. Mark the location you want to fit remove 190-LB.

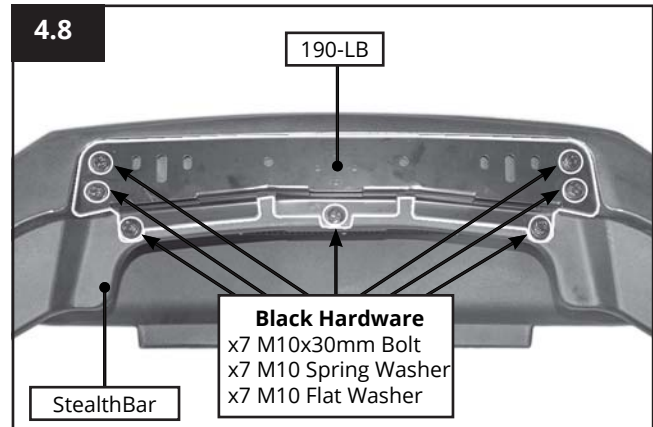


4.7 With the hole marked drill a 25mm clearance hole in the bar and debur.



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

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

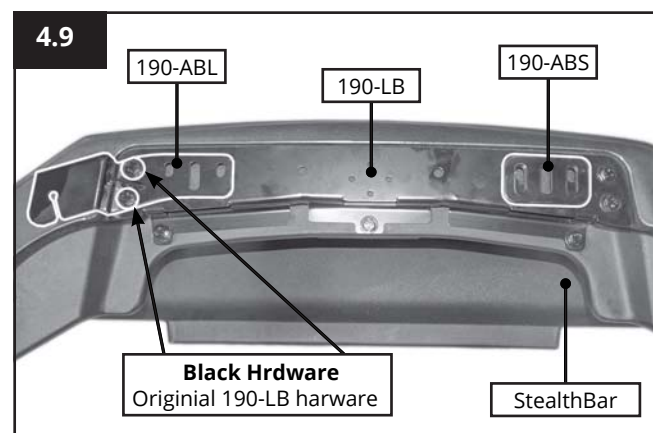


### Option - Aerial Mount Bracket

4.9 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.

**Need kit names here**

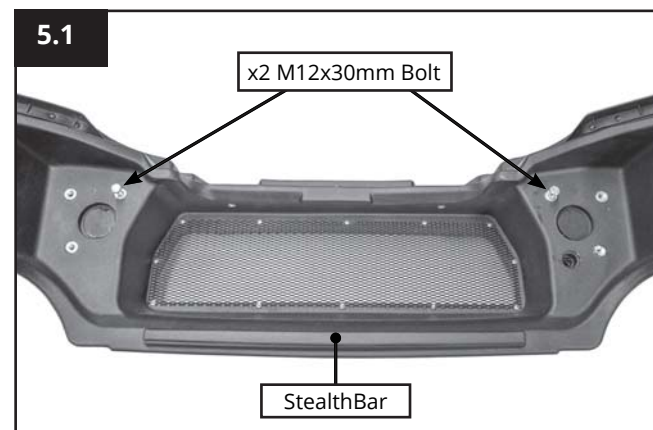
**Note:** If installing spotlights on top of either 190-ABR or 190-ABL, part 190-ABS will be needed to compensate for the height difference.



### Step 5: StealthBar Install

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

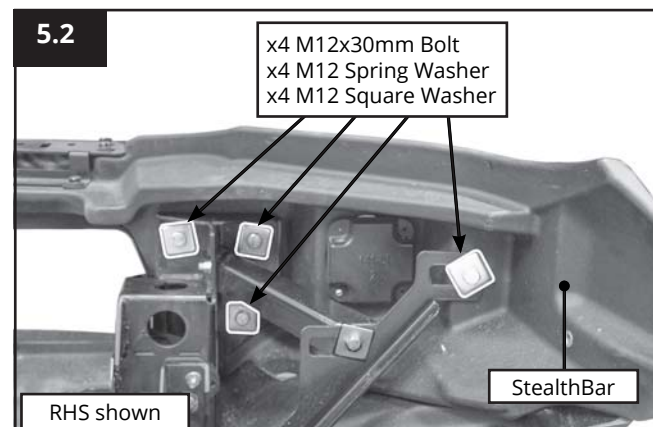
**Note:** Use anti-seize on all hardware inserted into the StealthBar.



5.2 With the StealthBar hanging loose on the bracketry install the hardware as shown. Repeat on LHS.

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

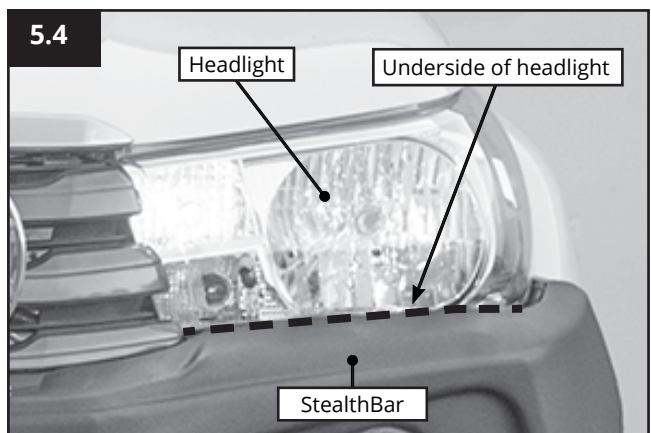
**Note:** Do not fully tighten hardware at this stage.



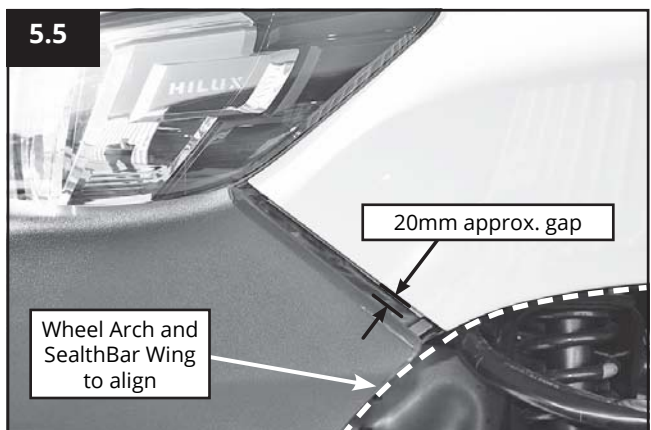
5.3 Align StealthBar to vehicle centrally left to right.



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



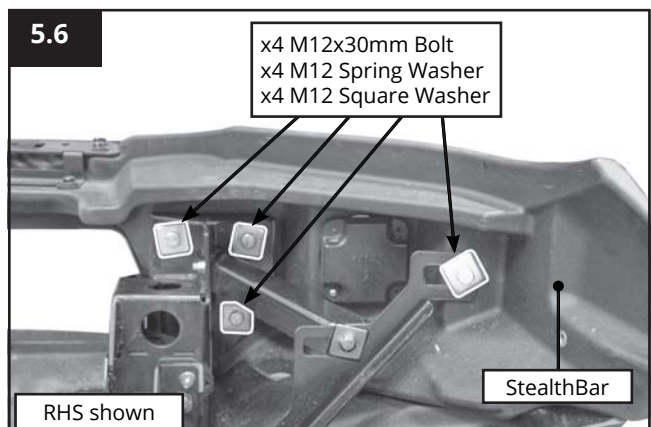
5.5 With the height of the bar aligned check clearance to fender and align to wheel arch.



5.6 Once the StealthBar is aligned tighten all loose hardware.

**Note:** Torque specs into StealthBar;  
M12 Fasteners: Max 55Nm  
M10 Fasteners: Max 28Nm

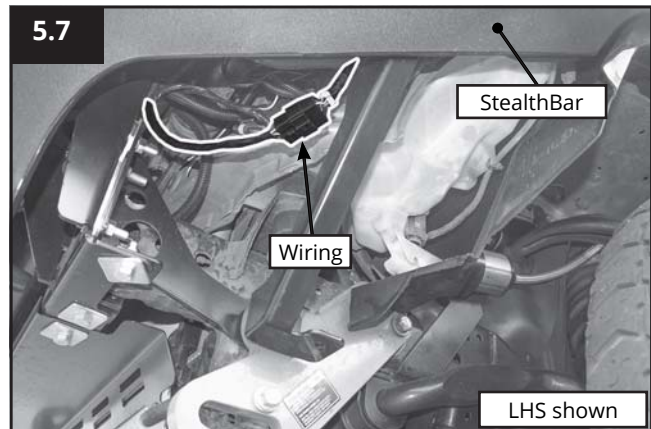
**Note:** Check all other hardware has been tightened.



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

**Note:** Test lights before moving onto next step.

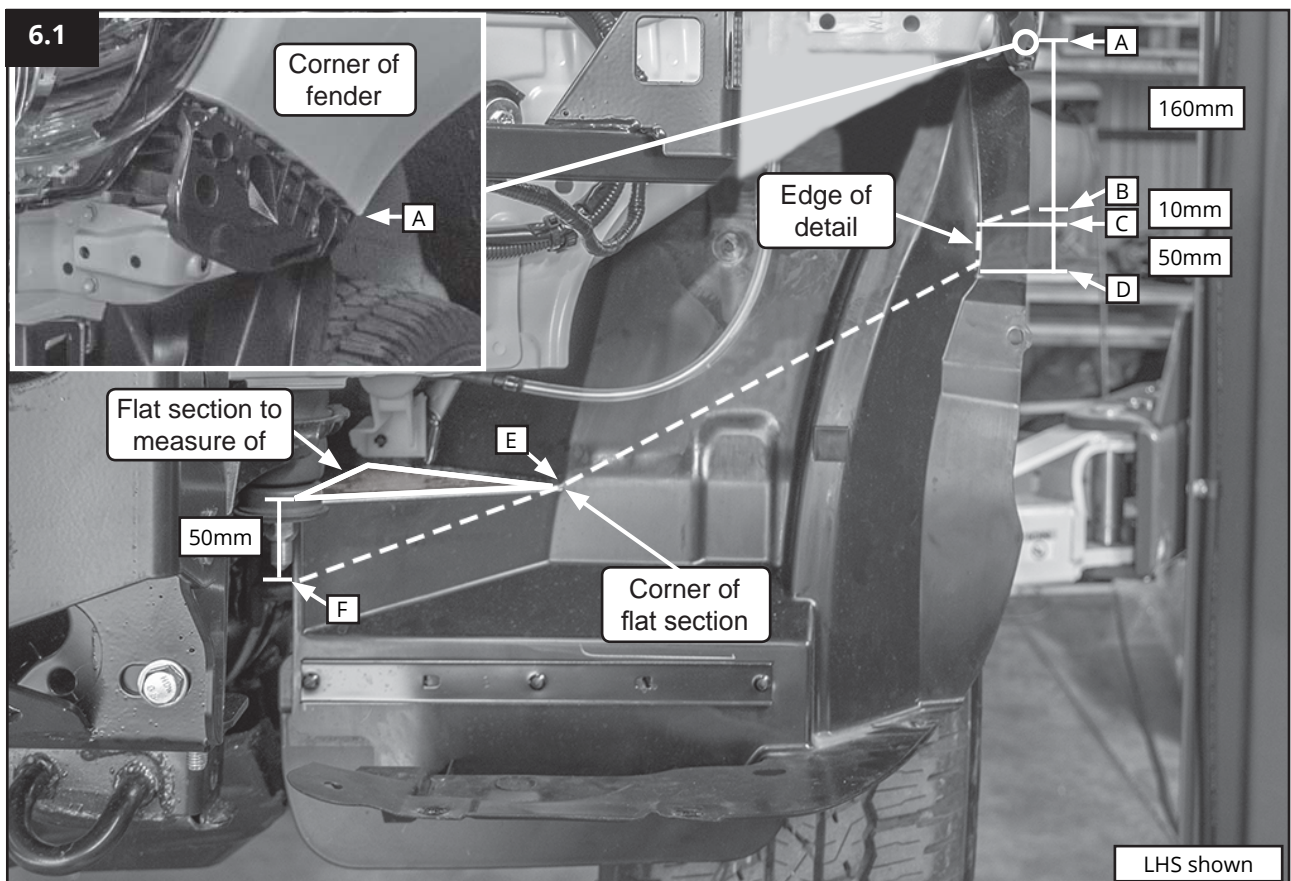
**Note:** Clean up any wiring by zip tying behind the StealthBar.



### Step 6: Fender Liner Trim

6.1 With the SmartBar aligned, mark the fender liner on each side.

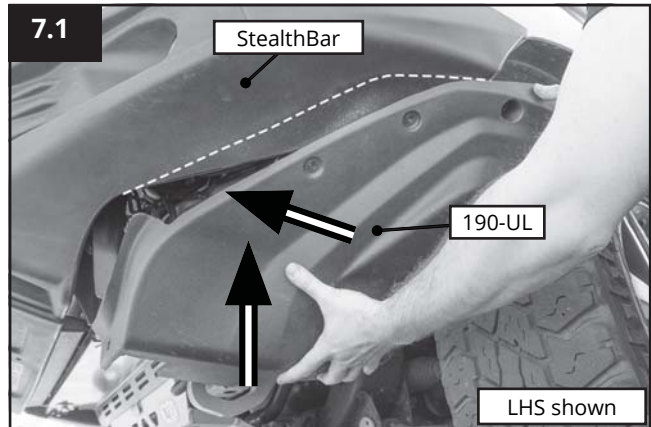
1. Starting at point 'A' measure 160mm to point 'B' and mark.
2. From point 'B' measure 10mm down and mark on edge detail, point 'C'.
3. Draw a straight line between mark 'B' and 'C'.
4. From point 'C' draw a line down the edge detail 50mm and mark point 'D'.
5. Locate and mark point 'E', corner of flat section.
6. Mark a line from point 'D' to point 'E'.
7. Locate flat section and measure 50mm down, mark point 'F'.
8. Mark a line between point 'E' and point 'F'.
9. Trim the line marked from point 'B' through to point 'F'. **REPEAT PROCESS FOR RHS SIDE.**



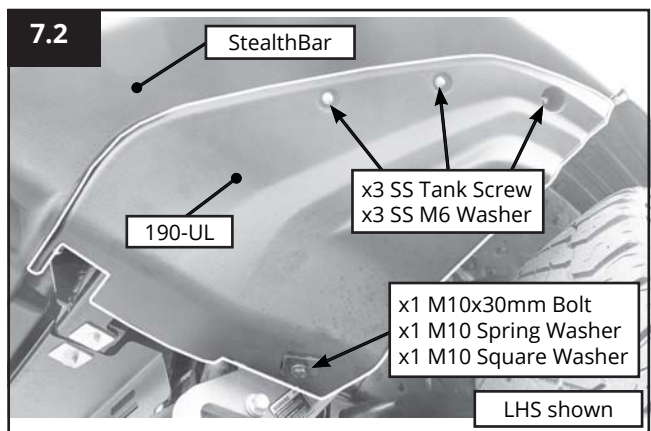
**Step 7: Underwing Panel Install**

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

**Note:** If ARB Recovery Points are installed then skip to step 7.4 before installing.

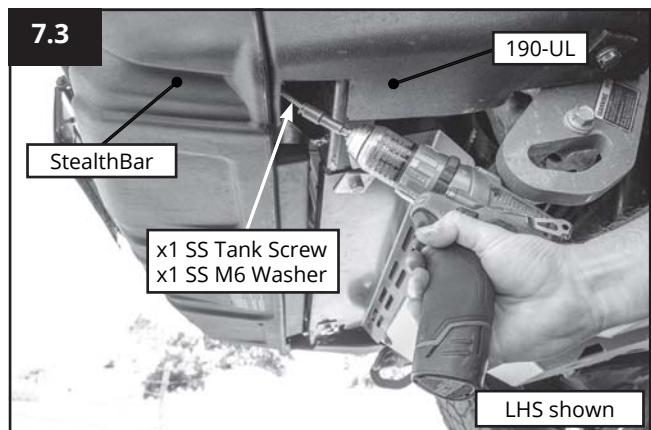


7.2 With the 190-UL in position place the bolt hardware in loosely, then fasten with the screws as shown.



7.3 Place the final tank screw up through the 190-UL and into the StealthBar on the angle as shown.

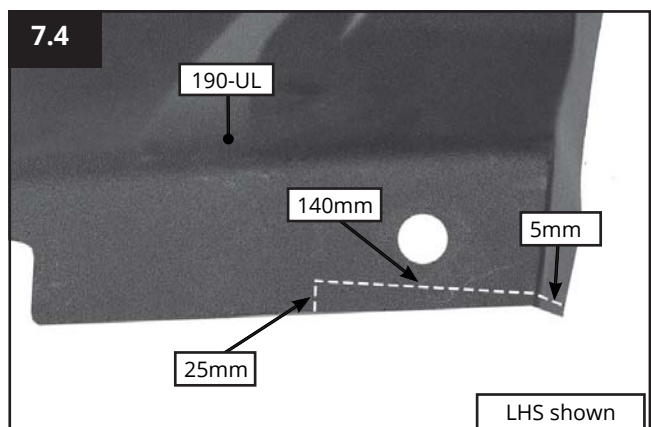
Repeat steps 7.0 to 7.2 on the RHS using 190-UR.



**ARB - Recovery Point**

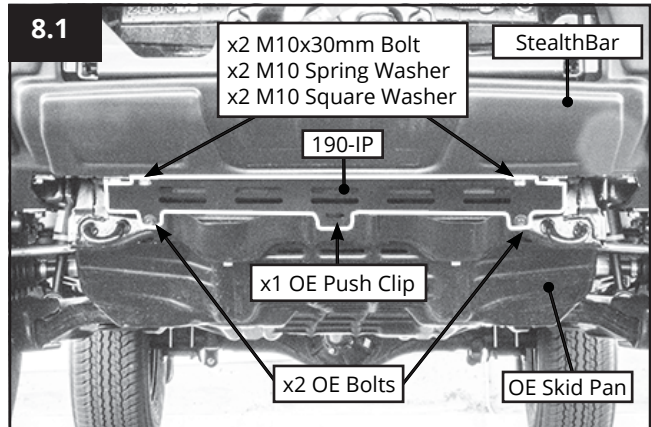
7.4 If ARB Recovery points are installed then the 190-UL and 190-UR will need to be trimmed. Follow the trim line as shown and repeat on the RHS.

Once the 190-UL and 190-UR have been trimmed move back to step 7.1 for install.



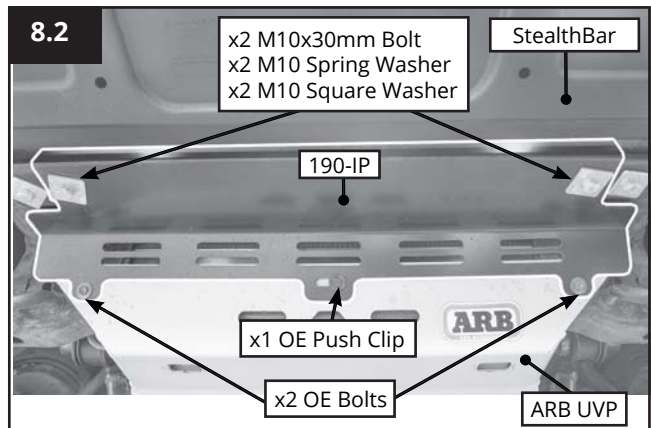
**Step 8: Infill Panel Install**

8.1 Install 190-IP to the OE skid pan using the hardware as shown.



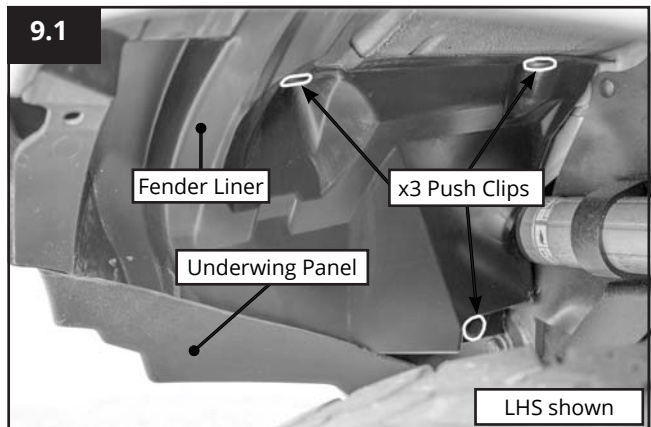
**ARB - UVP**

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

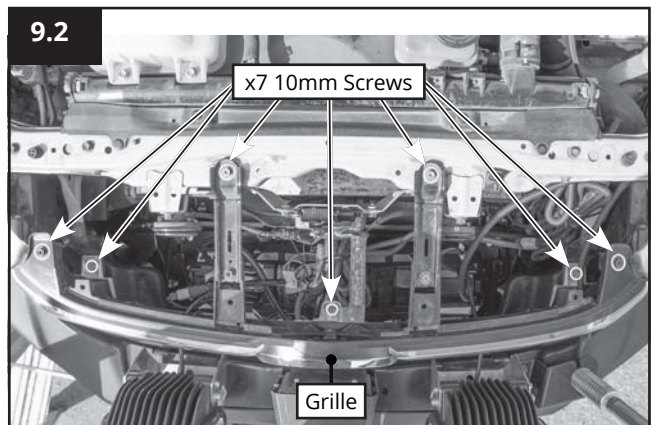


**Step 9: Finishing**

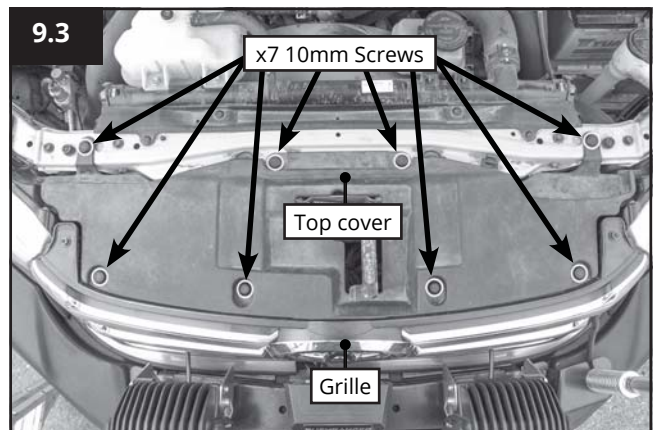
9.1 Using the original push clips replace in position as shown. Repeat on RHS.



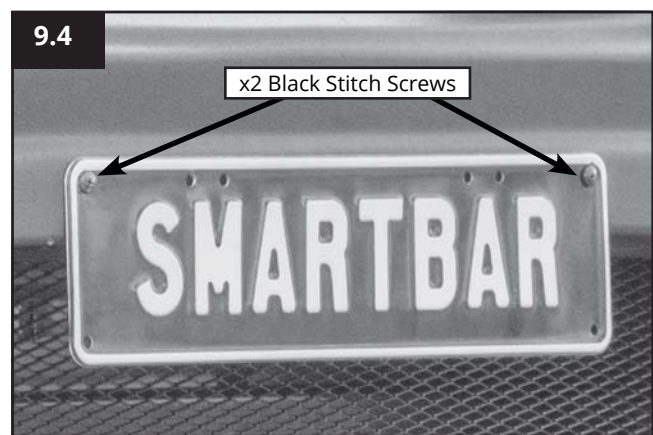
9.2 Re-insert fasteners holding bar and grille to vehicle.



9.3 Place top cover on using original clips.



9.4 Install the number plate using the hardware as shown.



9.5 Congratulations the StealthBar is now complete.



Note:  
ARB AR21 Intensity spotlights are not included with the StealthBar  
ARB UVP not included with StealthBar  
STD Kit shown.

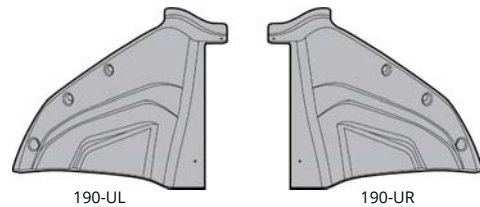
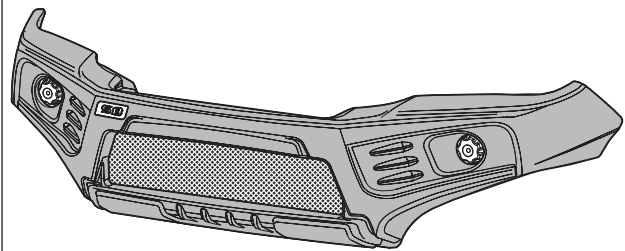


## 190 SmartBar Common Kit SA190BK

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	8	
BP1093	10Mzpw-53530	12	
BP1125	10Mwlnbu M10 Wiz Lock Nut	12	
BP1103	6Mg304W M6 G304 Washer	8	
BP1147	084371 10X38X38X3 Zinc Plt Sq	8	
MM1244	12X40X40X5Zpg Square Washer	12	
BP1094	12Mzpw M12 Washers	2	
BP1140	12Msw M12 Zinc Plt 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	12	
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	
Packed By		Date	

## SA190 SmartBar

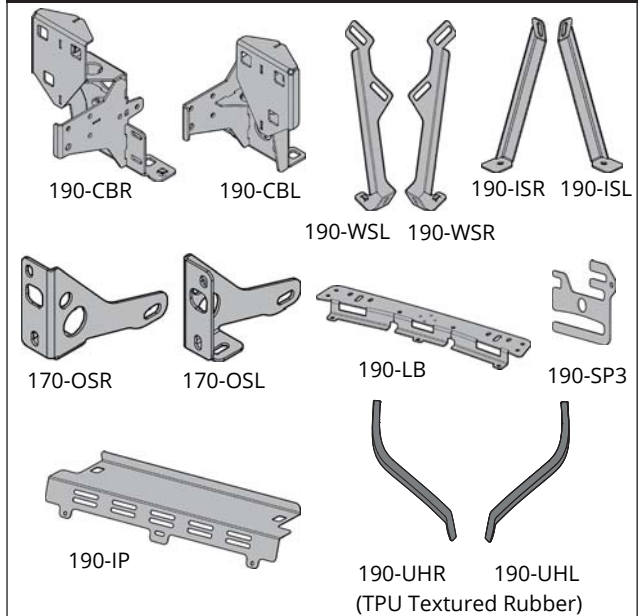
Code	Description	Qty	OK
MK51015	Moulded StealthBar	1	
SA190ULBL	SA190 Underwing Left BL	1	
SA190URBL	SA190 Underwing Right BL	1	
MM80868	190-M	1	
BP80445	141-LI	2	
BP80168	SB Bar Badge	1	
BP1279	10GX1G304PCRST	8	
BP38781	Screw Stitch 8Gx15Mm Eco Black	12	



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-UHR

190-UHL

(TPU Textured 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