# FITTING INSTRUCTIONS



## **Document Title:**

FI-190

#### **Model Number:**

SA190AA190 - Non-Winch SA190AA191 - Winch

#### Application:

Toyota HiLux (09/2015 to 07/2018) Toyota HiLux (08/2018 to 07/2020) Toyota HiLux (05/2020+)

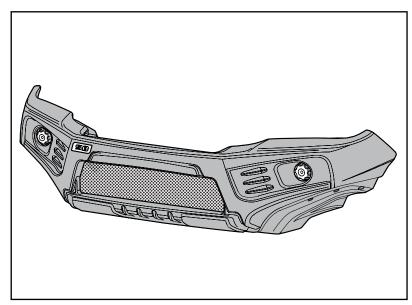
### **Fitting Time:**

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

#### **Revision:**

E (01 February 2021)











#### **Additional Kits:**

SA190AR Antenna Bracket RH (Includes 190-ABS spacer) SA190AL Antenna Bracket LH (Includes 190-ABS spacer)

SAHLJ1 High Lift lack Adaptor

SAALK SmartBar All in 1 Light requires SA190LBK SmartBar All in 1 Light Bracket Kit

SA268PSK 2020+ Parking Sensor Kit

SA190GBK 2020+ Facelift Grille retention brackets

#### 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 plague or label from the VFPS (SmartBar).
- Do not modify the structure of the VFPS in any way.

- 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.

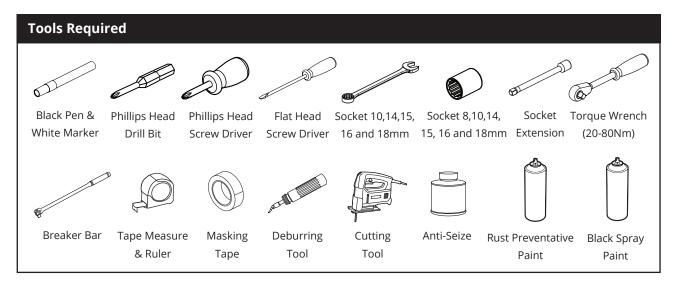


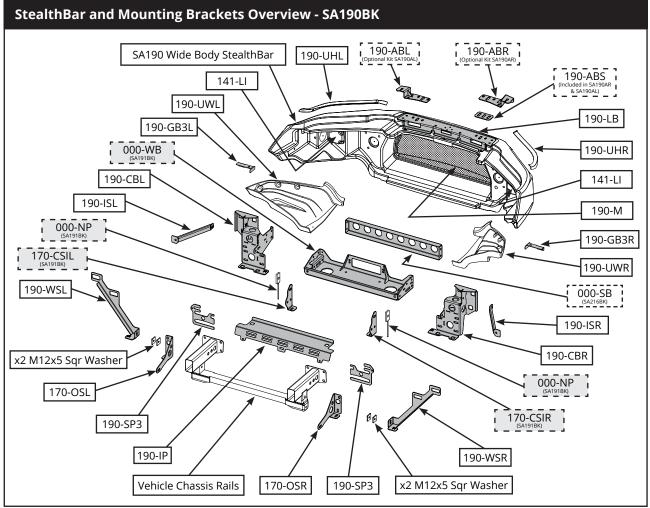
CAUTION A torque specification of 28Nm is required for the M10 bolts and 55Nm for M12 bolts into the SmartBar nutserts. THESE MUST NOT BE OVERTIGHTENED.

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









| 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             |  |  |











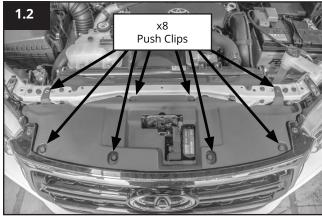
## **Step 1: Vehicle Disassembly**

Remove the number plate.

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

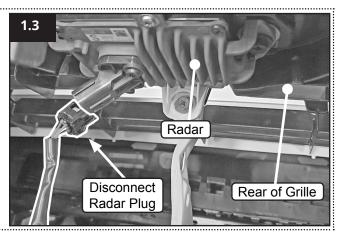


Remove push clips from the grille cover and remove from vehicle.

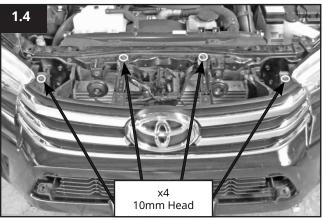


Note: For 2018 & 2020+ Facelift models only

1.3 Disconnect front radar behind badge.

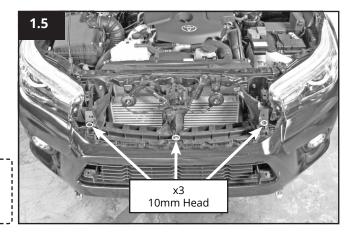


1.4 Remove bolts retaining the grille to bumper and body.





Remove the screws retaining the bumper to the body, for outer screws on 2020 facelift see step 1.6.

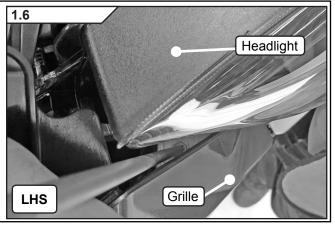


## 08/2018 & 07/2020 Toyota HiLux Facelift Models

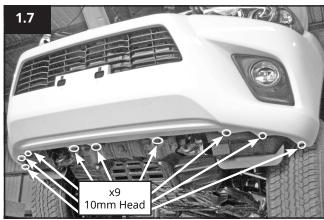
Remove grille and bumper together

Note: For 2020+ Facelift model only

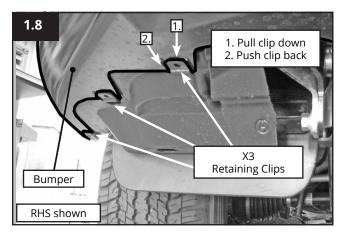
1.6 Pull the grille back to access bumper screw under headlight, both sides.



Remove screws retaining bumper to fender liner and skid pan.



1.8 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.

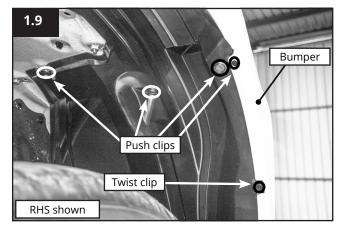




1.9 Remove clips retaining fender liner to the bumper. Repeat on LHS.

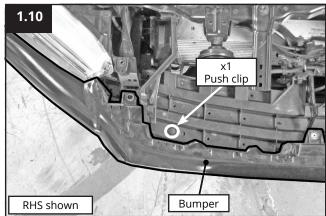
**Note:** If foglights are present in the bumper, with the fender liner loose disconnect the fog lights both sides.

**Note:** If parking sensors are present refer to Fitting Instruction FI-268PSK.

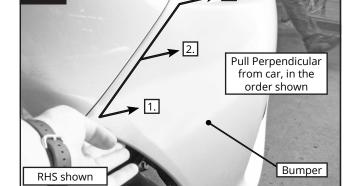


## Note: For 2018 & 2020+ Facelift models skip to step 1.11

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



1.11 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.

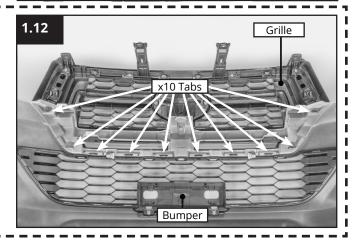


# 08/2018 & 07/2020 Toyota HiLux Facelift

Bumper is not used, continue to step 1.12

## 08/2018 & 07/2020 Toyota HiLux Facelift Models

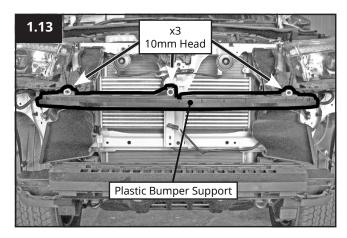
1.12 With the bumper and grille removed together you can now split them from each other, to do this remove the clips as shown. Retain bumper for later use.



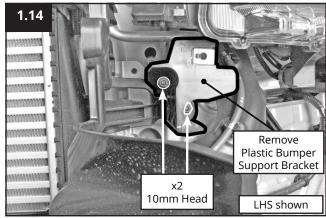
1.11



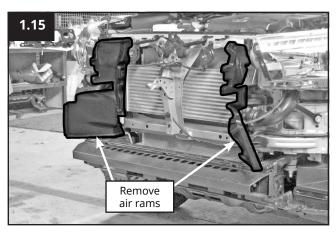
1.13 Remove screws holding the plastic bumper support to the body. Unclip from the centre and remove from vehicle. Discard plastic bumper support.



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



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



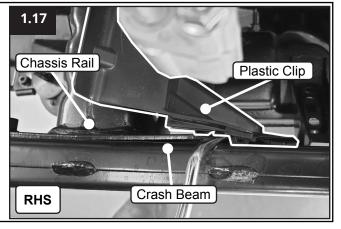
1.16 Remove plastic crash beam by pulling firmly away and discard.



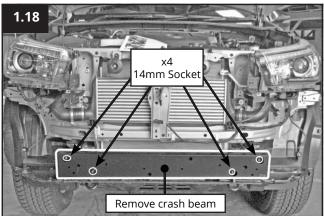


## Note: For 2020+ Facelift Model Only

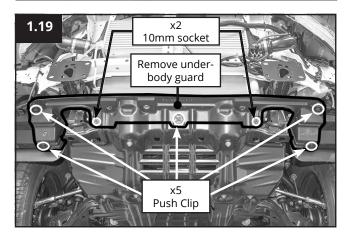
1.17 Remove plastic trims on inside of chassis to rear of crash beam, both sides and discard.



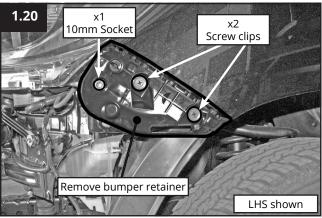
1.18 Remove crash beam and discard.



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

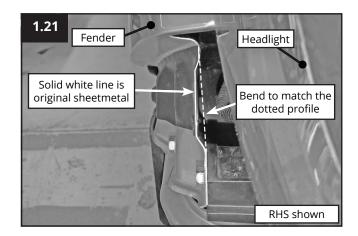


1.20 Remove bumper retainer and discard, repeat on RHS.

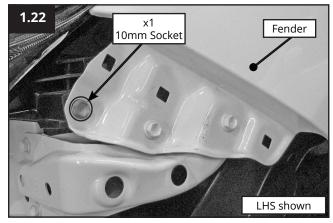




1.21 Tape up bodywork and bend to shape shown.

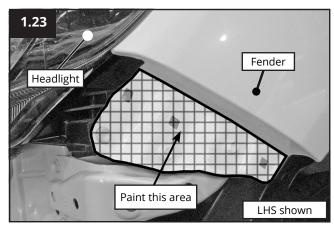


1.22 Replace the bolt removed from step 1.2 as this retains the headlight to the body. Repeat on RHS.



1.23 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.

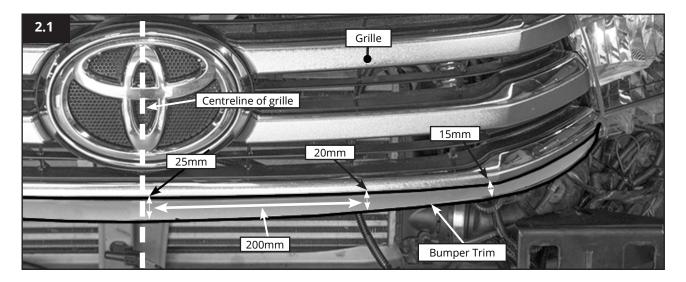




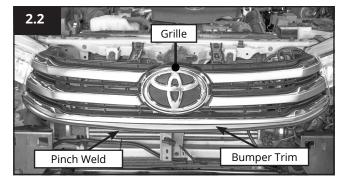
## **Step 2: Bumper and Grille Trimming**

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

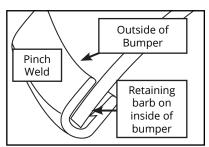
For 08/2020+ Toyota HiLux Facelift skip to step 2.5.



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.

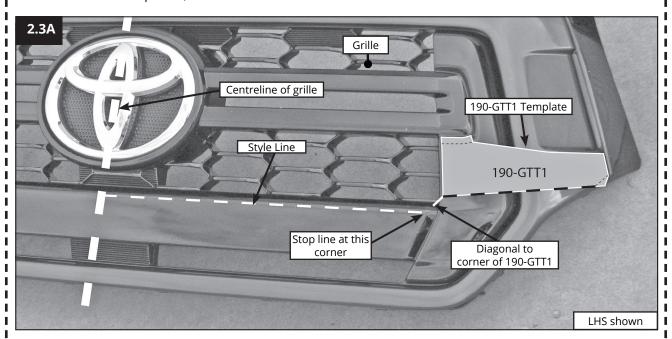




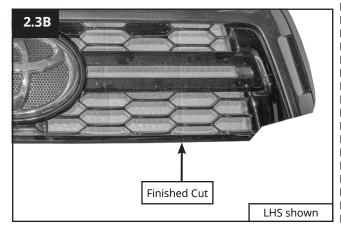
## 08/2018 - 07/2020 Toyota HiLux Facelift

## **NOTE: USE 190-GTT1-TOYOTA HILUX 2018 FACELIFT**

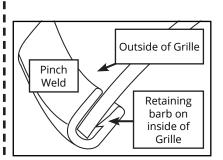
2.3 Grille trim required, follow 2.3-2.4.

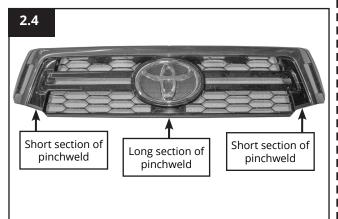


2.3A Tape the area to be trimmed as to not damage the grille. Place 190-GTT1 on the LHS as shown and mark the trim line, flip over and mark on the RHS. Mark a line along the style line as shown. Cut trim line using an appropriate trimming tool and debur edge.



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



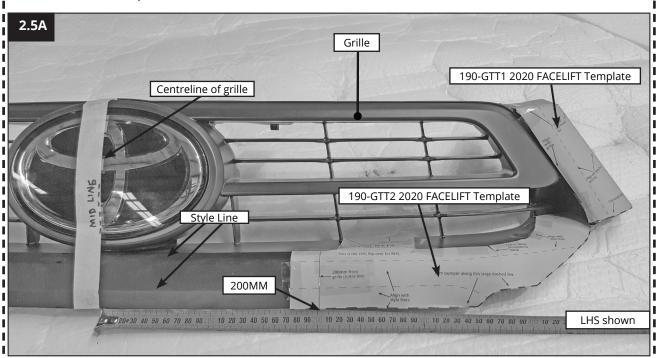




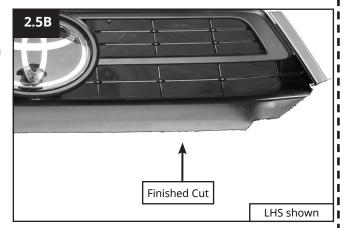
## 08/2020+ Toyota HiLux facelift

## NOTE: USE 190-GTT-TOYOTA HILUX 2020 FACELIFT

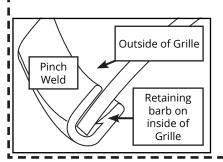
2.5 Grille trim required, follow 2.5-2.7.

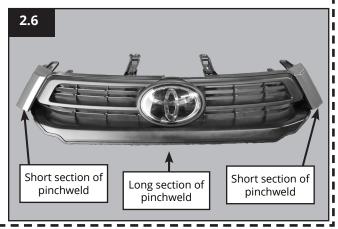


2.5A Tape the area to be trimmed as to not damage the grille. Place 190-GTT1 & 190-GTT2 on the LHS as shown and mark the trim line, flip over and mark on the RHS. Mark a line along the style line as shown. Cut trim line using an appropriate trimming tool and debur edge.



2.6 Attach the pinch weld supplied to the cut edge of the grille, apply as shown.

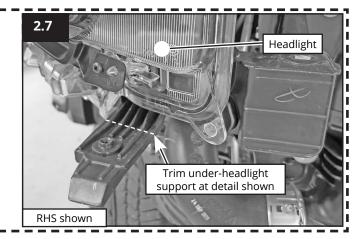






Note: For 08/2020+ Facelift models only

2.7 Trim under-headlight support, RHS shown repeat on LHS.



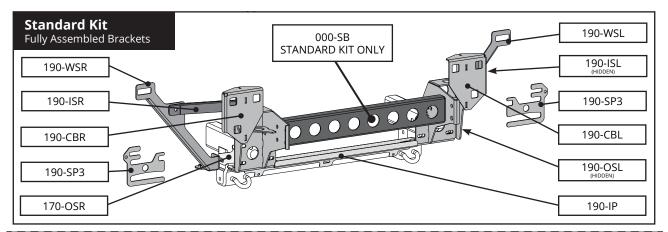
## Step 3: Wiring

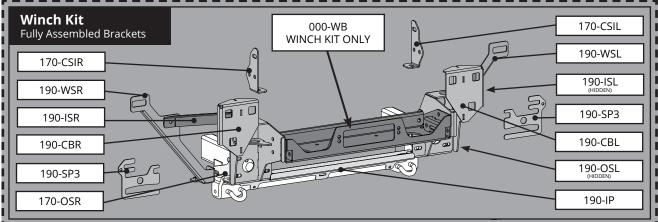
- 3.1A If refitting the OE fog lights, using the provided cable, extend the fog light wires by 150mm.
- If fitting optional SmartBar All in 1 light follow wiring in document FI-ALK.

**Note:** If parking sensors are present refer to Fitting Instruction FI-268PSK.

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.



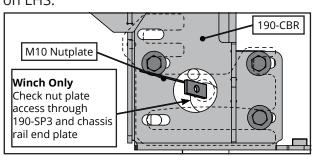


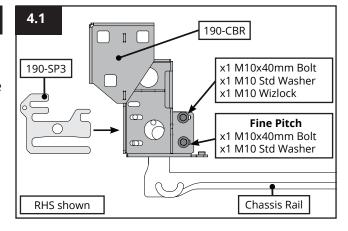


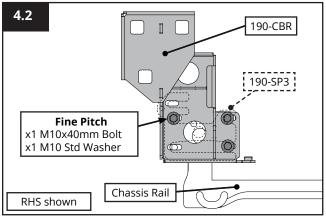
## **Step 4: Bracket Installation**

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.

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

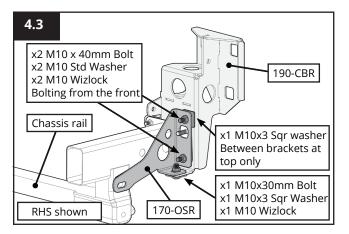




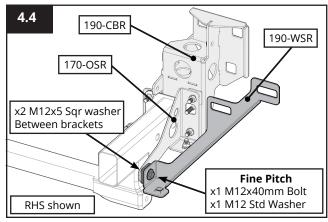




4.3 Attach the 170-OSR as shown, repeat on LHS with 170-OSL.

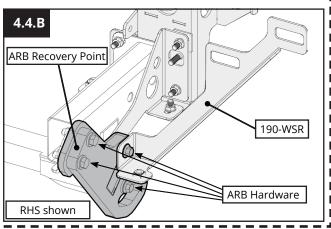


4.4 Attach 190-WSR as shown, repeat on LHS with 190-WSL.

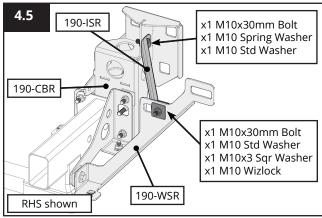


## **Optional ARB - Recovery Point**

■ 4.4.B If ARB recovery points are being fitted omit the x2 M12x5 Sgr 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.



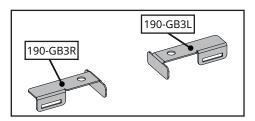
4.5 Attach 190-ISR as shown, repeat on LHS with 190-ISL.

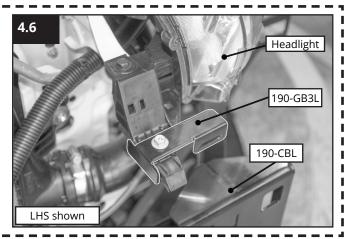




## 08/2018 - 07/2020 Toyota HiLux Facelift

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

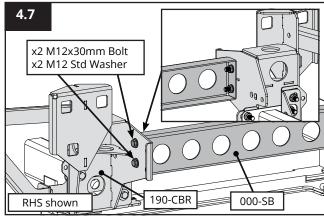




## **Standard Kit Only Install**

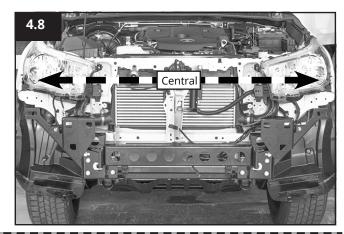
If installing the Winch Kit skip to step 4.9

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



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

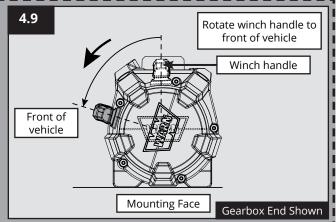
Note: Leave outer strap brackets 190-ISR/ISL and 190-WSR/WSL loose at this stage.



## **Winch Kit Only**

4.9 Rotate winch handle to forward facing position of vehicle.

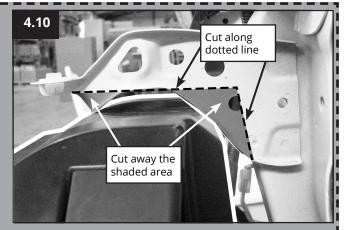
**Note:** Consult winch supplier instruction manual for correct winch handle rotation procedure.





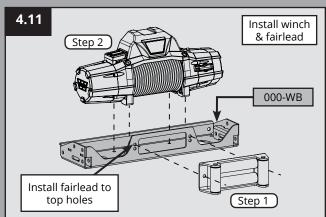
## **Winch Kit Only**

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.

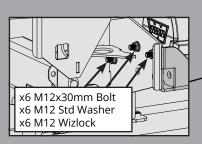


4.11 Attach the fairlead and the then the winch to winch bracket using hardware supplied with winch.

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.

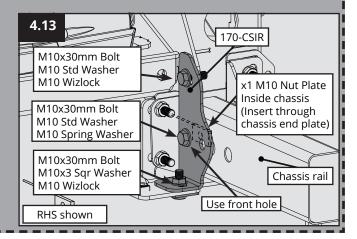


Loosely attach winch bracket

000-WB

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.

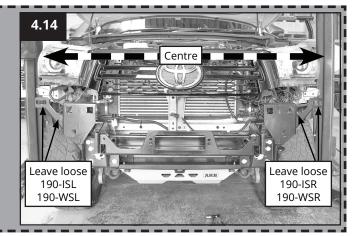




## **Winch Kit Only**

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.

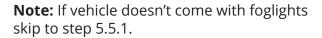


## Step 5: StealthBar Preparation

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

Remove mesh and fasteners from StealthBar and discard.

**Note:** If parking sensors are present refer to Fitting Instruction FI-268PSK.



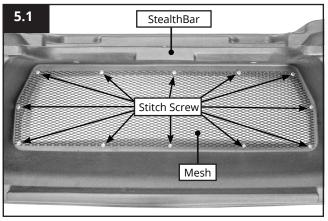
Note: If fitting SmartBar All in 1 Light Option (SAALK) skip to step 5.4.A.

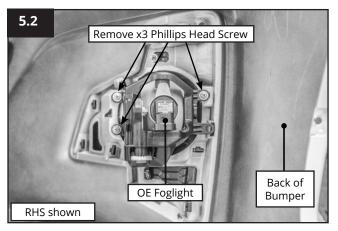
5.2 If vehicle comes with foglights remove them from the bumper as shown, repeat on LHS.

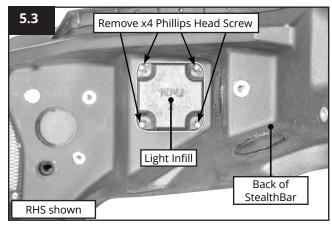
## 08/2018+ Toyota HiLux Facelift

The bumper can now be discarded.

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

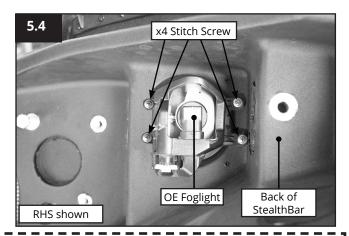








5.4 Place OE foglight into StealthBar centre to hole and fasten using hardware shown. Repeat on LHS.



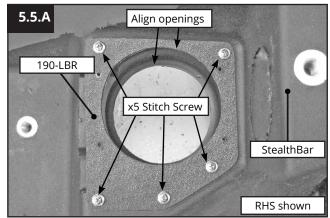
## **Optional All in 1 Light (SAALK)**

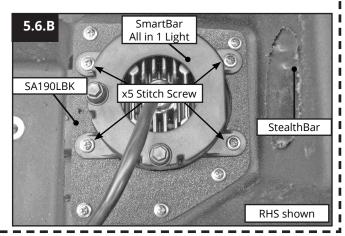
Fitment of the SAALK requires the SA190LBK Kit also.

Note: Remove Infills as per step 5.3

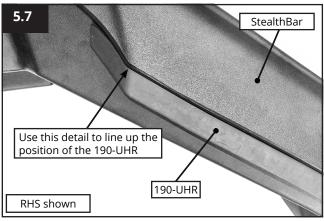
5.5.A To fit the All in 1 Light option (SAALK) first attach 190-LBR to the back of the StealthBar aligning the circular openings as shown, repeat on LHS.

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.



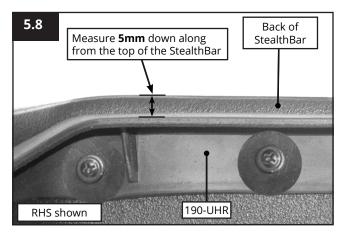


5.7 To install 190-UHR first align it with the detail in the StealthBar as shown.

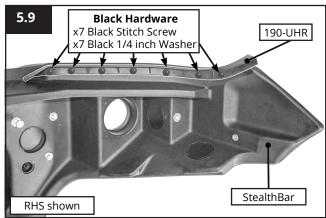




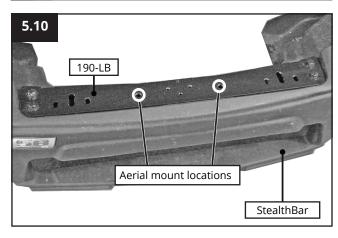
The top of the 190-UHR should be aligned 5mm lower than the top edge of the StealthBar.



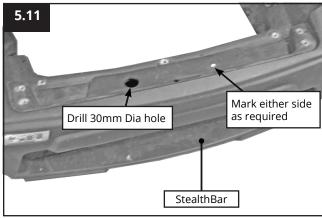
Once 190-UHR is aligned to the StealthBar fasten it using the hardware as shown. Repeat on the LHS with the 190-UHL and hardware shown.



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.



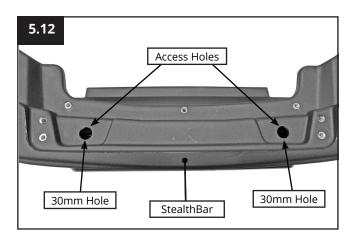
5.11 With the hole marked drill a 30mm clearance hole in the bar and debur.



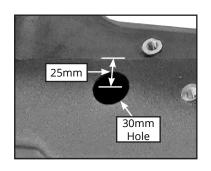


5.12 Follow step 5.10 to mark the centre location for spotlight access. Drill holes as shown.

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



5.13 Drill the underside as shown.

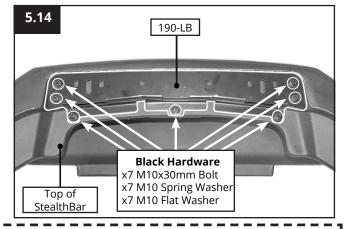


5.13 Centreline of StealthBar 240mm 240mm StealthBar

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

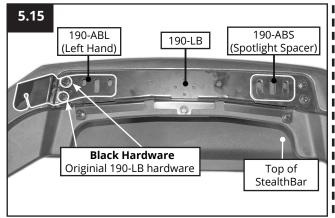


## **Optional - Aerial Mount Bracket**

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

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.

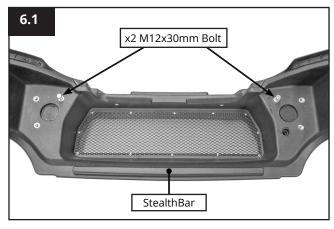
**Note:** If parking sensors are present refer to Fitting Instruction FI-268PSK.

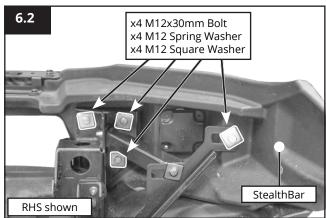
6.2 With the StealthBar hanging loose on the brackets install the hardware as shown. Repeat on LHS.

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

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

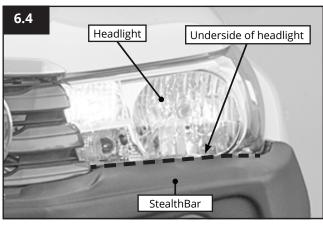
6.3 Align StealthBar to vehicle centrally left to right.







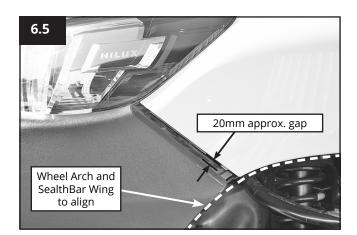
6.4 Align StealthBar height so it sits level with the underside of the headlight.





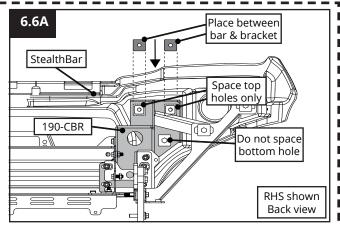
6.5 With the height of the bar aligned check clearance to fender and alignment to wheel arch.

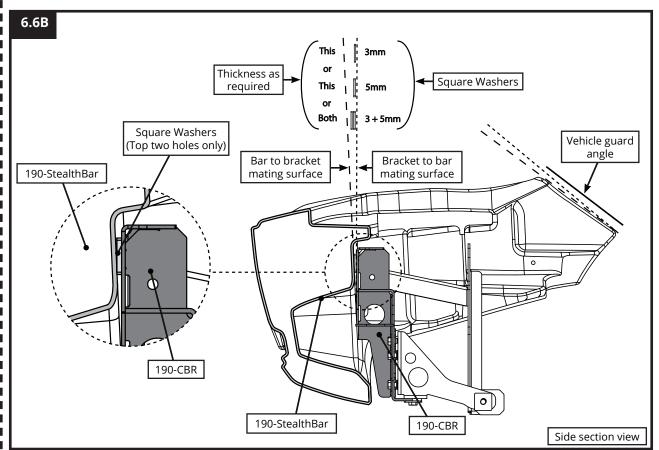
Note: If the angle of the bar does not match the angle of the fender liner proceed to step 6.6.



# If angle adjustment is required

6.6A&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

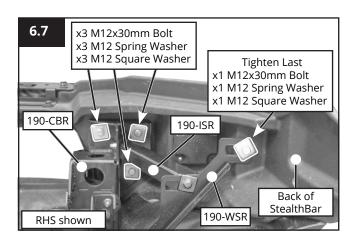
Note: Check all other bracket hardware has been tightened.

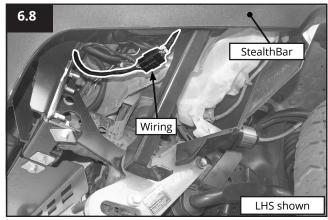
If lights are fitted make sure they are wired up.

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

**Note:** If parking sensors are present refer to Fitting Instruction FI-268PSK.

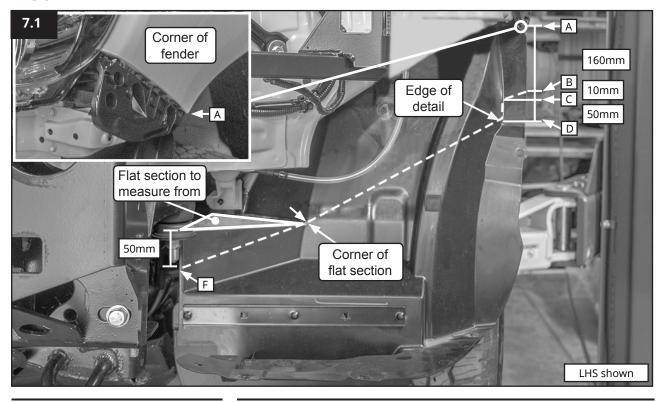
**CAUTION: Ensure cables are securely** fastened away from hot, sharp and moving surfaces.





## **Step 7: Fender Liner Trim**

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

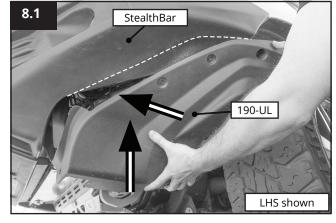




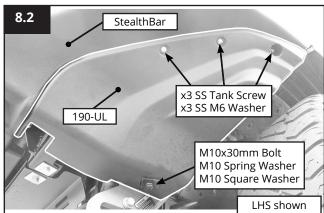
## **Step 8: Underwing Panel Install**

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

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.

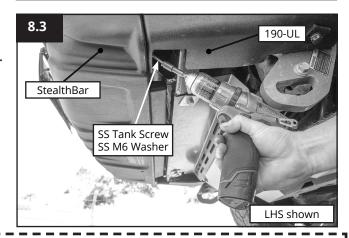


8.2 With the 190-UL in position place the bolt hardware in loosely, then fasten with the screws as shown.



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

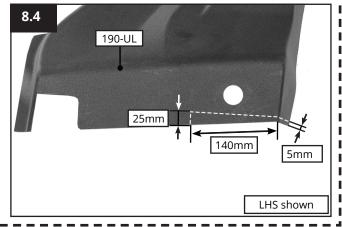
Repeat steps 8.1 to 8.3 on the RHS using 190-UR.



## **ARB - Recovery Point**

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.

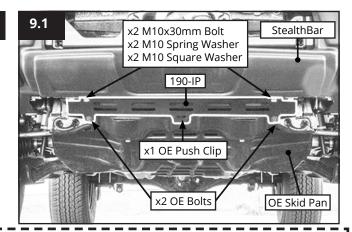
Once the 190-UL and 190-UR have been trimmed move back to step 8.1 for install.





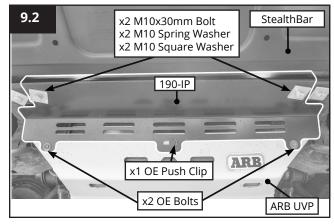
## Step 9: Infill Panel Install

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



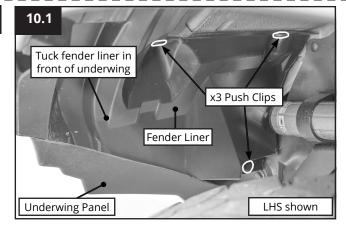
## **ARB - UVP**

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



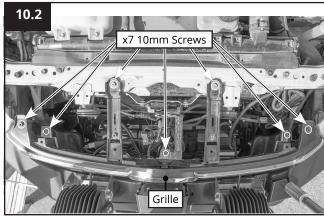
## **Step 10: Finishing**

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



## Note: For 08/2020+ Facelift model skip to step 10.3

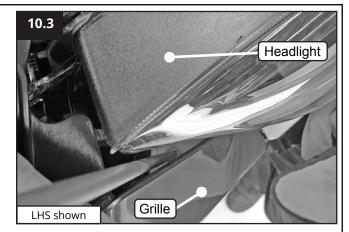
10.2 Re-insert fasteners holding bumper and grille to vehicle.





## Note: For 08/2020+ Facelift models only

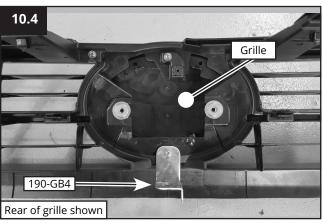
10.3 Pull the grille back to access bumper screw under headlight, LHS shown repeat on RHS.

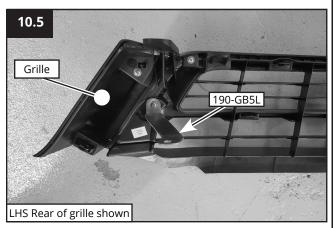


10.4 Attach 190-GB4 to grille as shown.

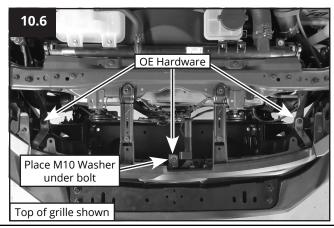


10.5 Attach 190-GB5L to grille as shown, repeat on RHS with 190-GB5R.





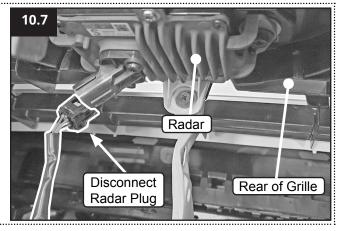
10.6 Fix grille to vehicle with OE hardware as shown. Fit washer under OE bolt before fixing through 190-GB4 and



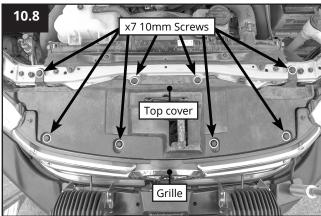


Note: For 2018 & 2020+ Facelift models only

10.7 Connect front radar behind badge.

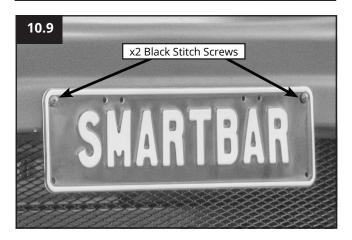


10.8 Place top cover on using original clips.



10.9 Install the number plate using the hardware as shown.

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





# 10.10 Congratulations the StealthBar is now complete.



Winch Kit Shown Parking Sensor Model



| Code      | Description                         | Qty  | ок |
|-----------|-------------------------------------|------|----|
| 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 Plt Spring Wash          | 4    |    |
| BP1125    | 10Mwlnbu M10 Wiz Lock Nut           | 12   |    |
| BP1103    | 6Mg304W M6 G304 Washer              | 8    |    |
| BP1147    | 084371 10X38X38X3 Zinc Plt Sq       | 10   |    |
| MM1244    | 12X40X40X5Zpg Square Washer         | 14   |    |
| BP80325   | M12 SQ WASHER 12X38X3MZPSQW         | 4    |    |
| 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      | 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 |    |

| Sec 11210 & 11131 packing list for below kits | See FI216 & FI191 | packing list for below kits |
|---|-------------------|-----------------------------|
|---|-------------------|-----------------------------|



For winch install **SA191BK** is required.

For standard install **SA216BK** 



| SA190 SmartBar |                                |     |    |  |  |  |
|----------------|--------------------------------|-----|----|--|--|--|
| Code           | Description                    | Qty | ок |  |  |  |
| 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  |    |  |  |  |

