

Nudge Bar Kit

Fitting Instructions

General Notes

- Read through the fitting instructions before installation of accessory. Install accessory as described. Do not use any other mounting method other than described in this instruction. Failure to do so may cause damage to the vehicle or the accessory.
- Do not attach the Nudge Bar using anchorages not intended for this purpose (e.g. engine mount bolts.)
- It is advisable to seek assistance of another person when installing this product.
- Do not repair or modify the structure of the Nudge Bar and/or its mounting hardware in any way. Repairs or modifications may affect the operation of the accessory and can result in non-compliance with ADR Requirements, which may result in serious injury or death.
- Do not remove the plaque or label from the Nudge Bar.
- If damage or concerns are identified that may interfere with the installation of the accessory, or affect the function or safety of the vehicle, inform the customer prior to proceeding with the installation.
- Ensure special care is taken to prevent any damage to the vehicle and the applicable repair manual is followed. Safely store and protect any removed vehicle components.
- Toyota Motor Company Australia recommend that this accessory is fitted by a qualified Toyota Technician.
- Ensure all recyclable discarded vehicle accessory components and packaging are recycled following local recycling regulations.
- Do not use this product for any vehicle make or model other than those specified by the Nudge Bar manufacturer.

Nudge Bar Notes

- This accessory is an airbag compatible accessory.
- Non recommended use of the Nudge Bar (e.g. ladder rack support or fishing rod holder) may cause damage to the accessory or vehicle and may impair the operation of the airbag system.
- Nudge Bar fixings must be checked and re-tightened to the specified torque during every service.
- Daily exposure to pollution in the air, road grime and corrosive environments such as sea side roads can affect the appearance and finish of the accessory. Regularly wash the accessory using a reputable automotive wash detergent, rinse with fresh water and chamois to dry.

Safety Notes

- Check that all work practices comply with safety standards.
- Please wear appropriate clothing and use safety equipment.



Fitting Time



45 minutes

Recommended Tool List



Torque Wrench



Ratchet



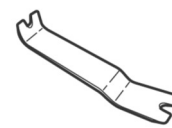
T50, 10,13,14, 15
& 16 mm sockets



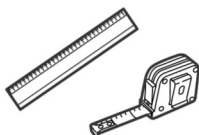
Spanner



Screwdriver



Trim Removal
Tool



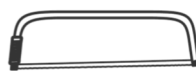
Steel Rule or
Tape Measure



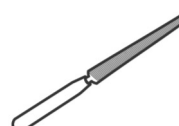
Masking Tape



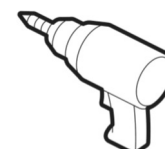
Clean Rags



Hacksaw or
Multi-tool

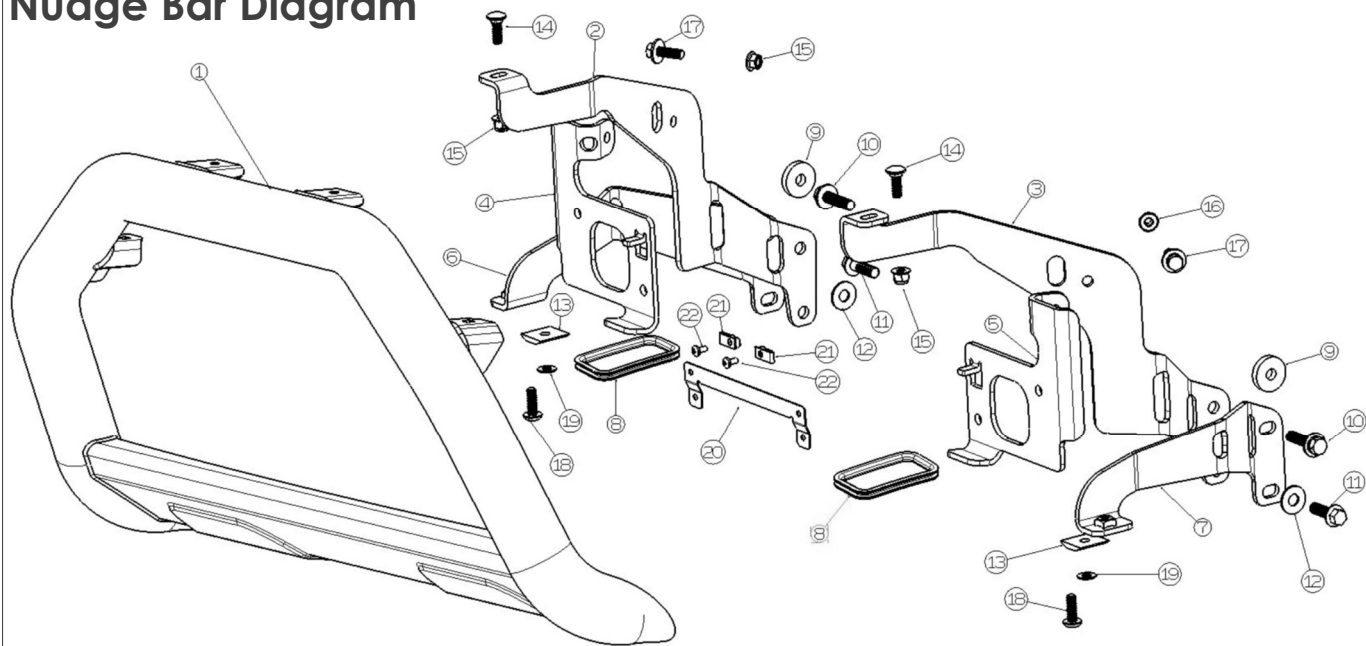


Metal File



Ø22mm Drill

Nudge Bar Diagram

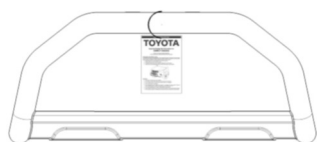


Item	Component Name	Part No.	Qty	Torque
1	Nudge Bar Hoop Assembly (SUV)	PZQ29-89350 (Polished) PZQ29-89490 (Black)	1	—
2	Bracket, Support RH	PZQ29-83940-BK	1	—
3	Bracket, Support LH			
4	Bracket, Upper RH			
5	Bracket, Upper LH			
6	Bracket, Lower RH			
7	Bracket, Lower LH			
8	Pinch Weld	PZQ29-89350-FK (for polished) PZQ29-89490-FK (for black)	2	—
9	Spacer - 8mm		2	—
10	Bolt, Flat Flanged - M12 x 45 x 1.25p		2	77 Nm
11	Bolt, Flat Flanged - M12 x 40 x 1.25p		2	77 Nm
12	Washer, M12		2	—
13	Spacer, Lower Hoop Mount		2	—
14	Bolt, Dome Head - M10 x 30 x 1.5p		2	—
15	Nut, Nyloc - M10 x 1.5p		2	44 Nm
16	Nut, Flange - M10 x 1.5p		2	—
17	Bolt, Flat Flanged - M10 x 30 x 1.5p		2	44 Nm
18	Screw, Dome - M10 x 35 x 1.25p (for polished) Torx Cap Screw - M10 x 30 x 1.5p (for black)		2	44 Nm
19	Washer, - M10		2	—
20	Bracket, Licence Plate		1	—
21	Nut, U - M6		2	—
22	Screw - M6 x 12mm		2	—

NOTE :

- Change from Dec-17 production, Items 11 & 12 replaces SEMS Bolt M12 x 40
- Change from Feb-18 production, Item 10 replaces SEMS Bolt M12 x 50 & Item 17 replaces SEMS Bolt M10 x 35

Parts Supplied



Hoop Assembly - Polished OR Black Powder Coated x1



Licence Plate Bracket x1 (SUV ONLY)



Screw - M6 x 16 x2 (SUV ONLY)



Nut U - M6 x2 (SUV ONLY)



Spacer - 8mm x2



Spacer - Lower Mount x2



Nut Flange - M10 x2



Nut Nyloc - M10 x2



Bolt Dome - M10 x 30 (SUS or SUS Black Top) x2



Screw Button - M10 x 35 OR Black Torx Cap Screw - M10 x 30 x2



Washer - M10 (Silver or Black) x2



Washer - M12 x2



Bolt Flat Flanged - M10 x 30 x2



Bolt Flat Flanged - M12 x 40 x2



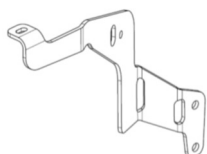
Bolt Flat Flanged - M12 x 45 x2



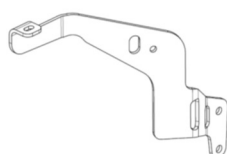
Pinch Weld x2



Fitting Instructions x1



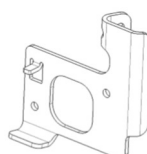
Bracket Upper - RHS x1



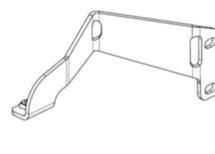
Bracket Upper - LHS x1



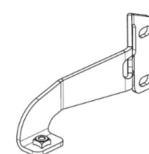
Bracket Support - RHS x1



Bracket Support - LHS x1



Bracket Lower - RHS x1



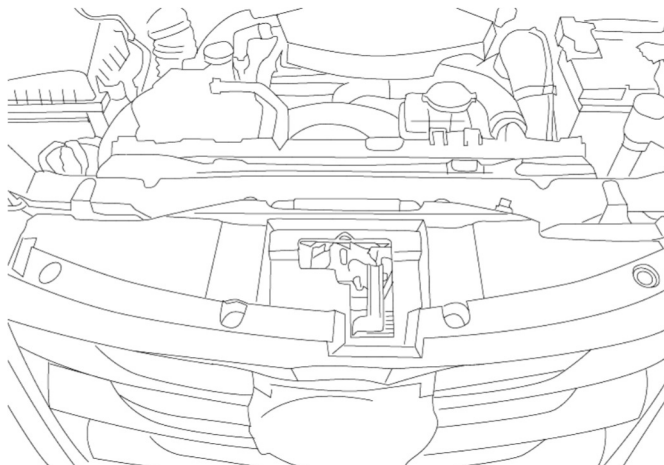
Bracket Support - LHS x1

NOTE :

- From Dec-17 production, SEMS Bolt M12 x 40 replaced by Flat Flanged Bolt M12 x 40 & Flat Washer.
- From Feb-18 production, SEMS Bolt M12 x 50 replaced by Flat Flanged Bolt M12 x 45 & SEMS Bolt M10 x 35 replaced by Flat Flanged Bolt M10 x 30

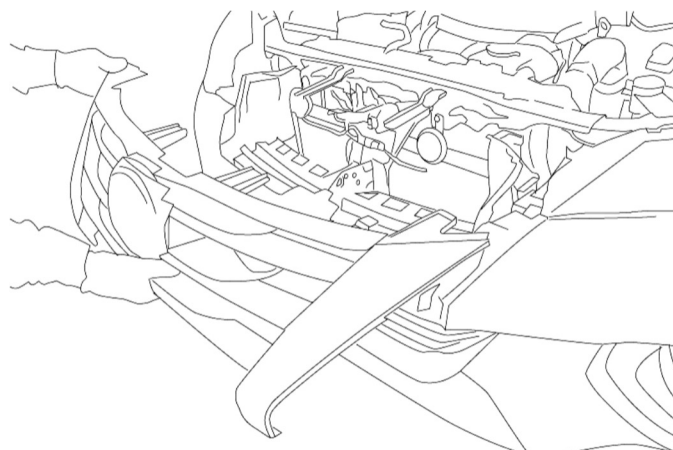
Step 1

- Disconnect the negative terminal from battery.
- Remove and retain radiator cover including its fasteners from the engine bay.



Step 2

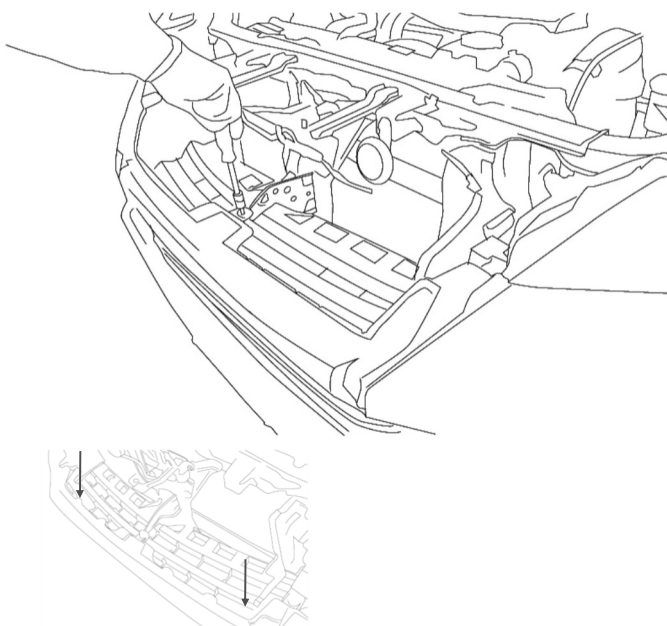
- Remove and retain Upper Grille including its fasteners from the vehicle.



Step 3

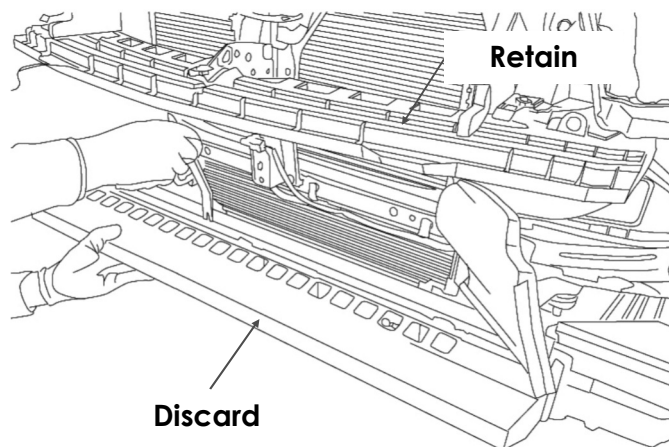
- If the vehicle is fitted with fog lamps, disconnect the wiring and connection of harness to housing.
- Remove and retain the bumper cover including its fasteners from the vehicle.

Note - the two quick clips attaching the bumper cover to the upper absorber.



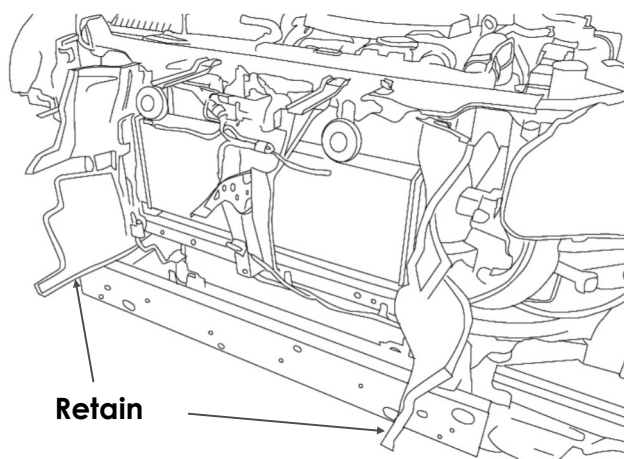
Step 4

- Remove and retain top bumper absorber.
- Remove and **discard** bottom bumper absorber.



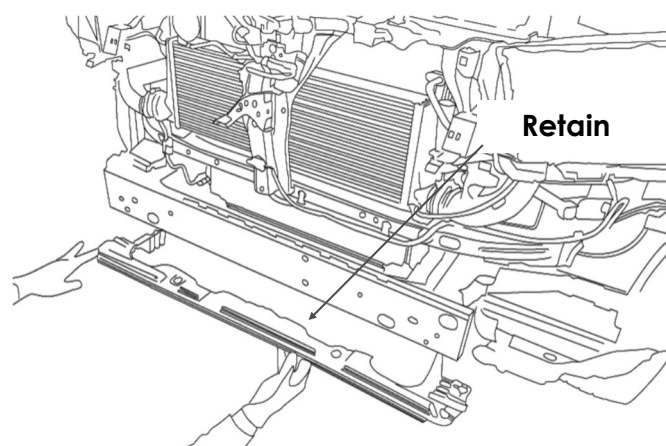
Step 5

- Remove and retain Air Deflectors.



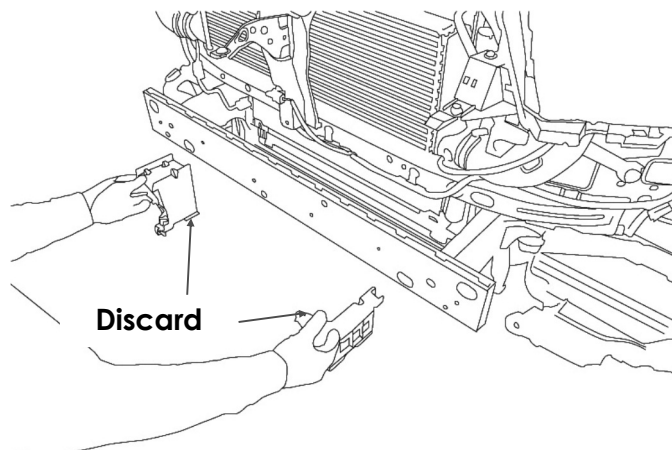
Step 6

- If fitted to the vehicle, remove and retain Engine Undercover.



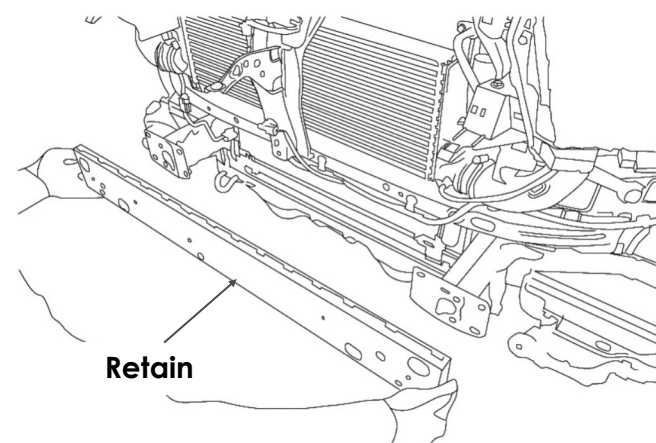
Step 7

- Remove and **discard** lower Air Deflectors.



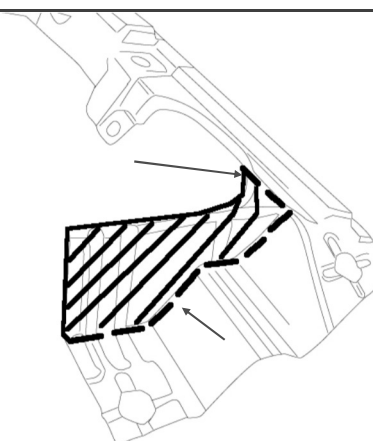
Step 8

- Remove and retain the Bumper Reinforcement Bar.



Step 9

- If fitted to vehicle, modify the Engine Undercover.
 - Cut out and discard the highlighted portion of the RHS undercover as highlighted in the image.
 - Use bend lines in the moulding as reference to modify the component.
 - Complete on both RH and LH sides.
 - Skip next step

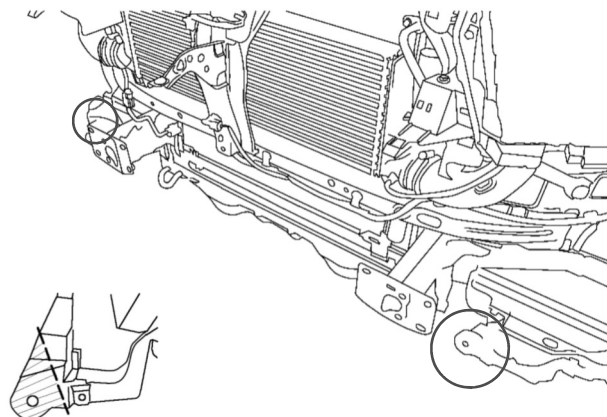


Engine Undercover - Upper RHS shown

Step 10

⚠ If vehicle was fitted with Engine Undercover, do NOT modify Fender Liner. Go to next step.

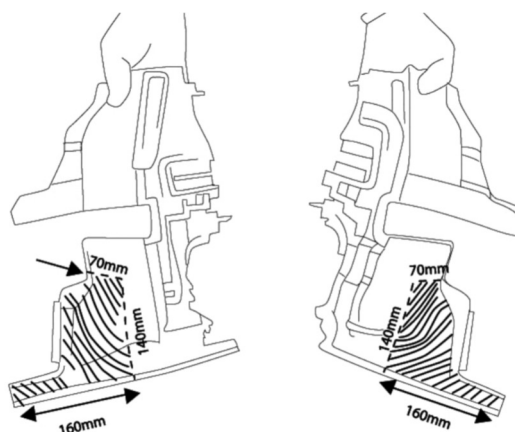
- Modify RHS and LHS Fender Liner.
- Cut out and discard the small section as indicated in the image.



Fender Liner - Lower RHS shown

Step 11

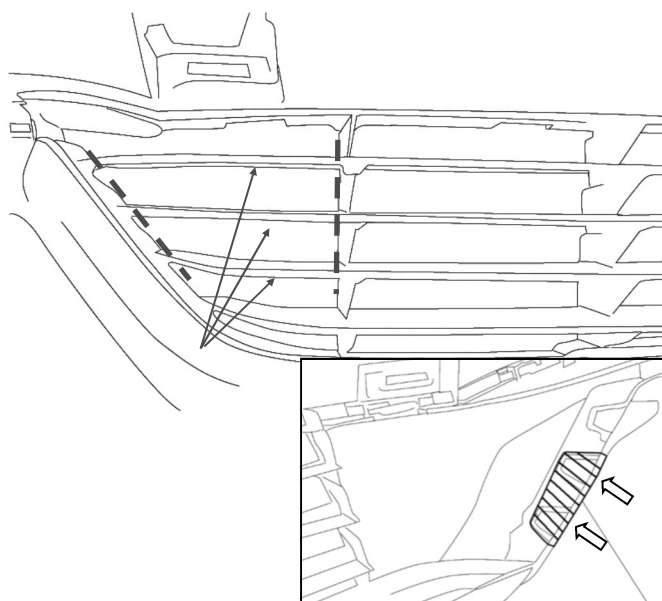
- Modify the LHS Air Deflector.
- Cut out and discard the highlighted portion as indicated in the image.



Inboard side shown

Step 12

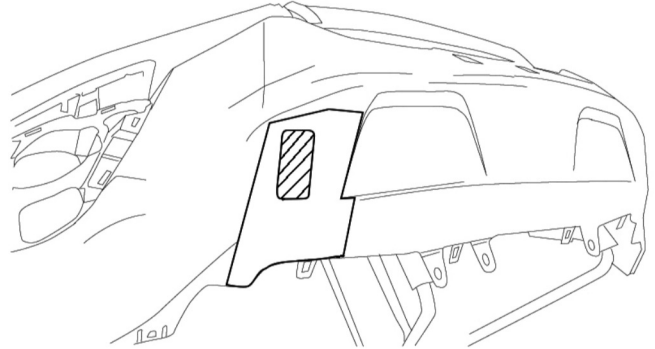
- Modify the Lower Grille.
- Protect the surrounding areas to be cut using masking tape.
- Cut out the three ribs as highlighted in the image.
- On the backside of the grille, cut out and discard the portion of plastic highlighted in insert image.
- Complete on both the RH and LH side of the Grille.



Backside view shown

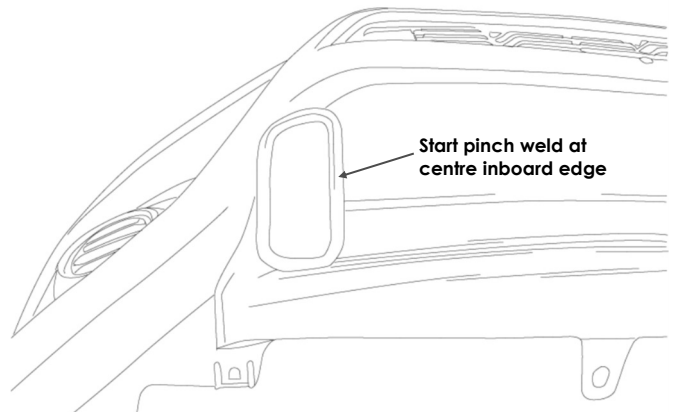
Step 13

- Modify the Bumper Cover.
- Use template at the back of these Instructions to modify the Bumper Cover.
- Complete on both the RH and LH side of the Bumper Cover.



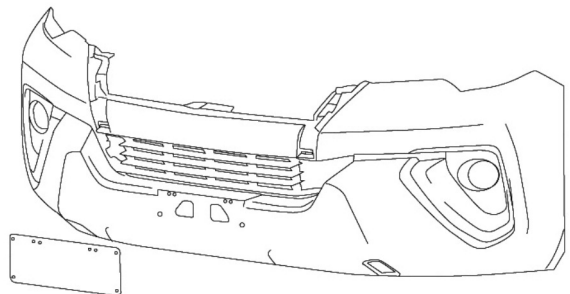
Step 14

- Attach Pinch Welds around the modified bumper cover.
- Start at the centre of the inboard edge and work Pinch Weld around the cut out.
- Cut off excess Pinch Weld.
- Complete on both the RH and LH side of the bumper cover.



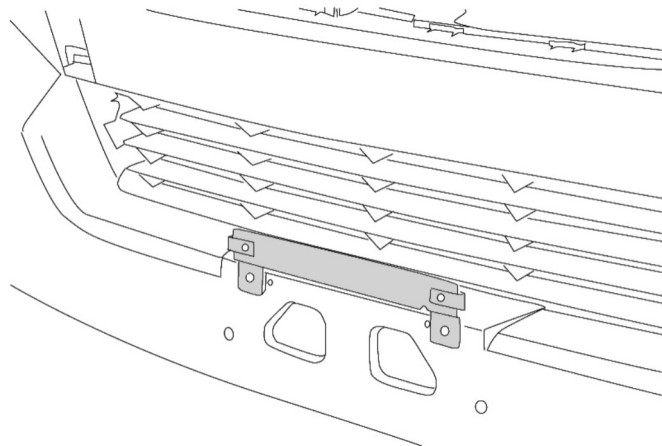
Step 15

- Remove Number Plate from the vehicle.
- Retain the fasteners for the next step.



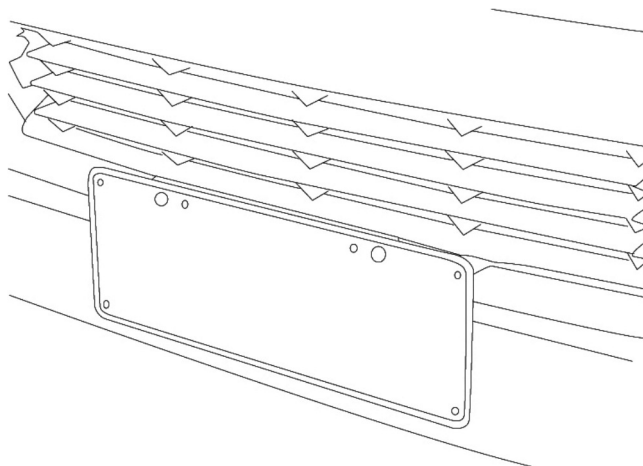
Step 16

- Attach the Number Plate bracket to the vehicle at the Number Plate location using fasteners removed from the previous step.
- Attach the U-Nuts to the bracket as shown in the image.



Step 17

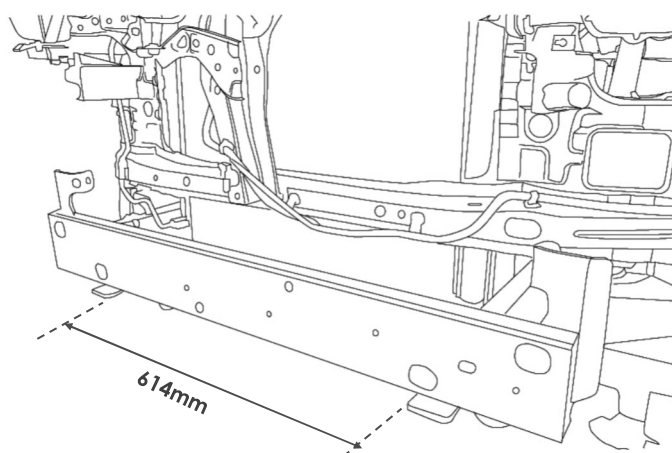
- Attach Number Plate to the U-Nuts using the M6 Screws.



Step 18

- Attach the Support Brackets together with the bumper reinforcement bar to the vehicle crush box using the original retained M10 bolts.
- Distance between support bracket inner edges should be 614mm.

Torque 4 x M10 Bolts to 44Nm.

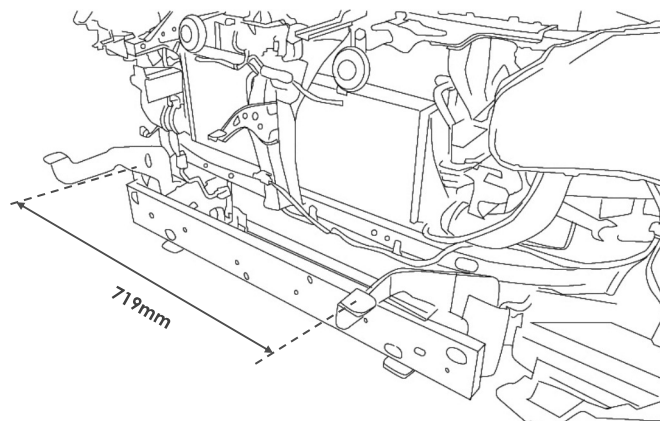


Step 19

- Attach Upper Brackets to both the support brackets and the vehicle chassis.
- Distance between upper bracket inner edges should be 719mm.
- **Support to Upper Bracket Fastener (A) order is:**
 - i. M10 Bolt
 - ii. Support Bracket
 - iii. Upper Bracket
 - iv. M10 Nut, Flange

⚠ Torque 2 x M10 Bolts to 44Nm.

- At upper chassis connection, use the M12 x 45/50 bolt and 8mm thick spacer to connect upper bracket to chassis. Hand tight only.
- At lower chassis connection, use the M12 x 40 bolt and M12 Washer to connect upper bracket to chassis. Hand tight only.

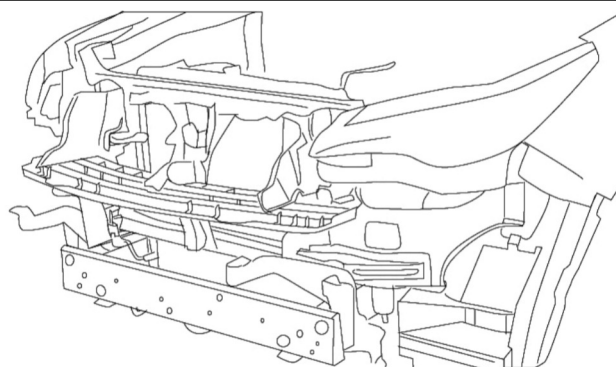


NOTE :

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- From Feb-18 production, SEMS Bolt M12 x 50 replaced by Flat Flanged Bolt M12 x 45 & SEMS Bolt M10 x 35 replaced by Flat Flanged Bolt M10 x 30

Step 20

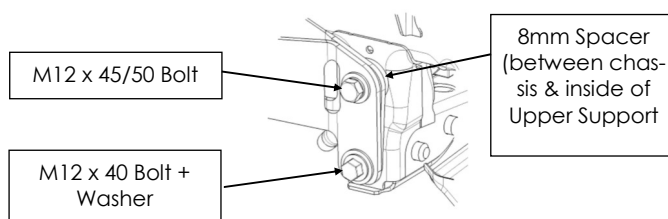
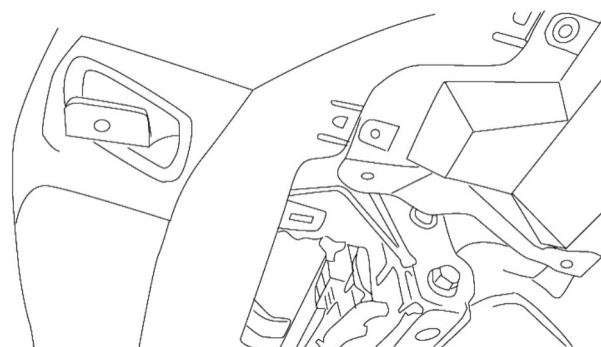
- Refit both RH and LH side air deflectors.
- Refit the top bumper absorber.
- Refit the bumper cover.
- If vehicle is fitted with fog lamps, reconnect wiring.



Step 21

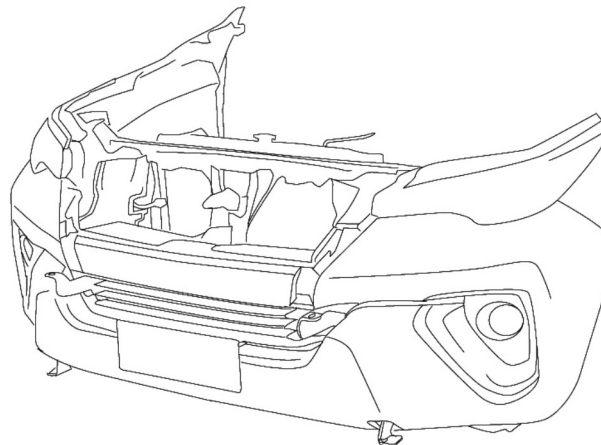
- Feed the lower brackets through the cut bumper cover and attach to chassis connection points using the hand tight M12 bolts. Attach in central slot position.
- **Lower Bracket to Upper Chassis Fastener order is:**
 - i. M12 x 40 Bolt
 - ii. Lower Bracket
 - iii. Upper Bracket
 - iv. 8mm Thick Spacer
 - v. Chassis Weld Nut
- **Lower Bracket to Lower Chassis Fastener order is:**
 - i. M12 x 45/50 Bolt
 - ii. M12 Flat Washer
 - iii. Lower Bracket
 - iv. Upper Bracket
 - v. Chassis Weld Nut

⚠ Do not torque bolts at this step, leave loose.



Step 22

- Inspect clearance between Brackets and Bumper and Lower Grille opening.
- Adjust bracket if required, aim for at least 10mm clearance (in width) between the Brackets to the Lower Grille and bumper cover.



Step 23

- Refit Engine Undercover.
- Refit Upper Grille.

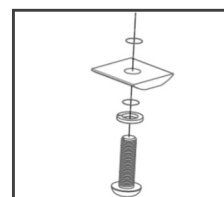
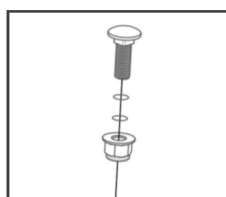
Step 24

- Attach the Nudge Bar hoop assembly to upper and lower brackets.
- **Upper connection Fastener order is:**
 - M10 Bolt, Dome Head
 - Mounting Tab, Nudge Bar
 - Upper Bracket
 - M10 Nut, Nyloc
- **Lower connection Fastener order is:**
 - M10 Screw, Button Head
 - M10 Washer
 - Nudge Bar Hoop
 - Spacer Lower Mount
 - Lower Bracket Weld Nut

 **Torque 2 x M10 Nuts to 44Nm.**

Torque 2 x M10 Screws to 44Nm.

 **Torque 4 x M12 Bolts to 77Nm.**



Step 25

- Reconnect battery.
- Wipe down Nudge Bar.

