

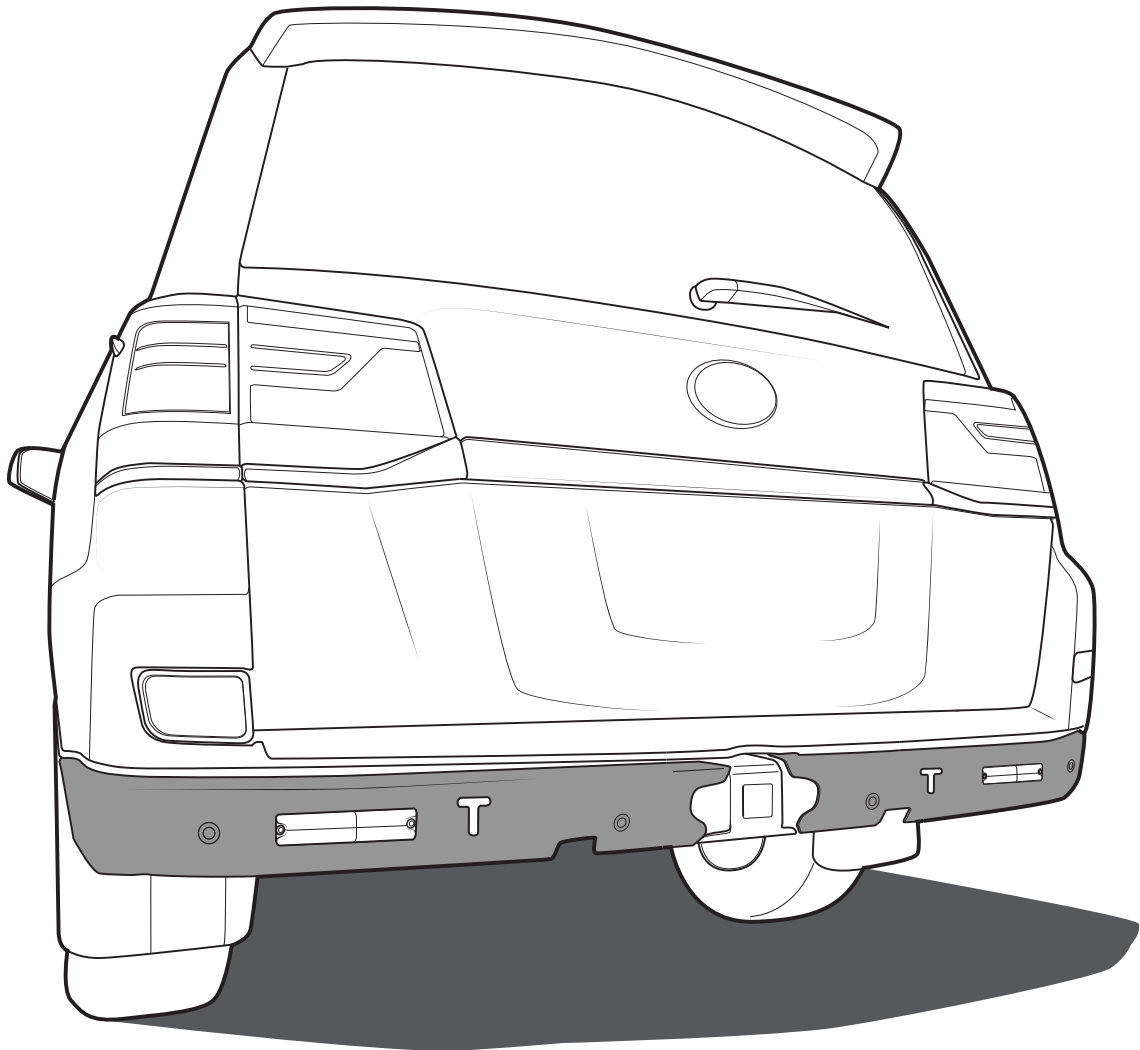
TOYOTA LC200 - BAR ONLY

Fitting Instructions for:

Applies to Kaymar Kits:

Vehicle: **Toyota Land Cruiser LC200**
Year: **All years**
Type: **Wagon**
Fitment: **Kaymar LC200 Bar Only Fitment
(No Carriers)**

K20000, K20000-S, K20100-S



⚠ CAUTION

Ensure correct tools & appropriate PPE are used whilst installing this accessory

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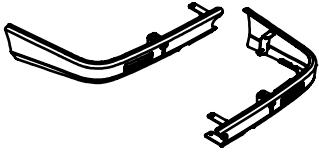
This kit weighs in excess of 15kg. Seek help to lift if required.

CARE INSTRUCTIONS

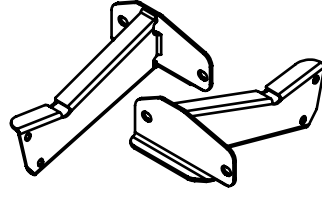
Wash with regular car wash products. Regularly check bolt torque settings.

LC200 BAR COMPONENTS

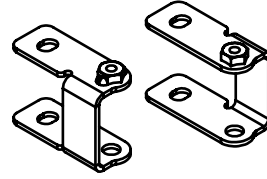
1 Bar Assemblies L&R



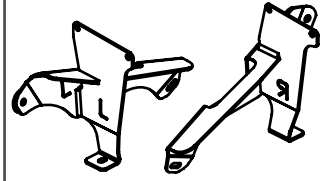
2 Wing Braces L&R



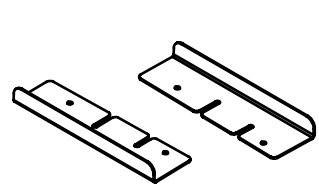
3 Chassis Mount Bracket L&R



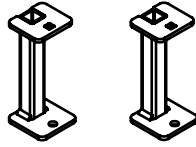
4 Mudflap Brackets L&R



5 Bumper Supports L&R



6 Square Tube Spacer x 2



 CHECK THAT THE CONTENTS OF THE REAR BAR KIT ARE COMPLETE & UNDAMAGED PRIOR TO FITMENT.

 IMAGES OF KAYMAR COMPONENTS AND VEHICLE ARE FOR REPRESENTATIVE PURPOSE

TOOLS REQUIRED

- Protective tape (masking tape)
- Metric Sockets and Spanners
- Torque Wrench
- Trim tool
- Scissors
- Drill
- Angle Grinder or Oscilating Multi Tool

BOLT KIT CONTENTS

Rear Bar Bolt Kit - BK20000

Supplied with bar

Description	Qty
M6x20 Black Phillips Head Bolt	8
M6 Serrated Flange Nut	8
M14x110 Hex Head Bolt	2
M10x30 Hex Head Bolt	4
M10x150 Hex Head Bolt	2
M14 Plain Washer	8
M14 Spring Washer	8
M10 Plain Washer	12
M10 Spring Washer	6
M14 Hex Nut	6
M10 Hex Nut	6
M6x40 Zinc Phillips Head Bolt	2
M6 Nylon Hex Nut	2
3/16" SS Rivet	4
M14x40 Hex Bolt on 300mm Wire	4
14x8mm Pinch Weld	3
65x21.3 Round Spacer Tube	2
M12x110 Hex Head Bolt	2
M12 Plain Washer	2
M12 Spring Washer	2
Chassis Bar Mount Bracket LH	1
Chassis Bar Mount Bracket RH	1
Foam Spacer w/ 9mm Hole	2

Bolt Torques

Individual steps will provide torque required for fasteners

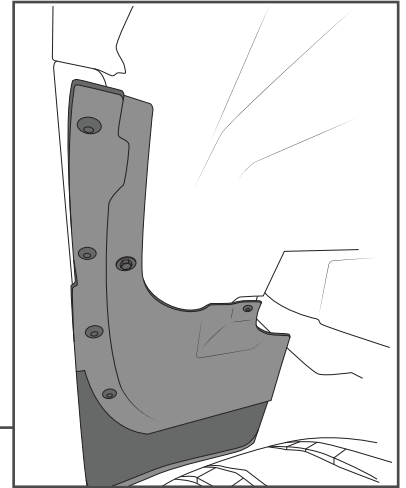
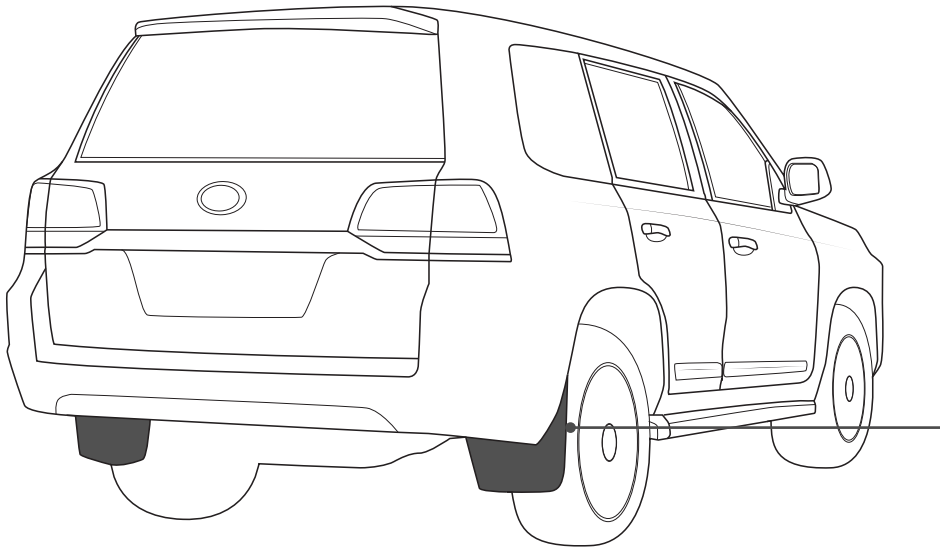
Bolt	Torque
M14x110 Hex Head Bolt	140 Nm
M14x40 Hex Bolt on 300mm Wire	140 Nm
M12x110 Hex Head Bolt	77 Nm
M10x150 Hex Head Bolt	44 Nm
M10x30 Hex Head Bolt	62 Nm



ENSURE ALL HARDWARE AND COMPONENT QUANTITIES ARE CORRECT BEFORE BEGINNING INSTALLATION.

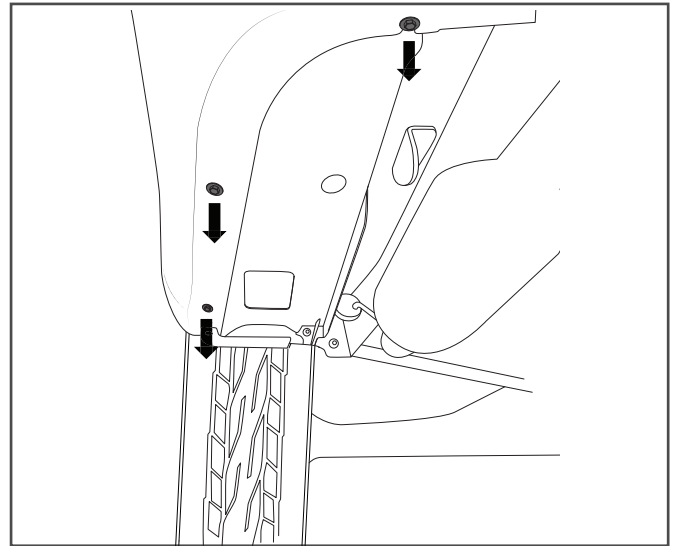
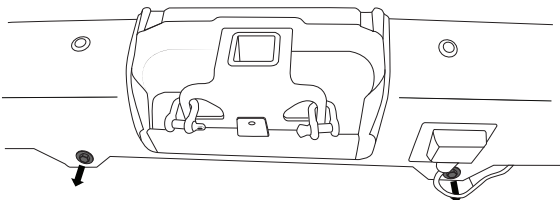
STEP 1 - Remove Fasteners

Undo and remove the screws and retainer clips holding the mudflaps in place and remove the mudflaps.



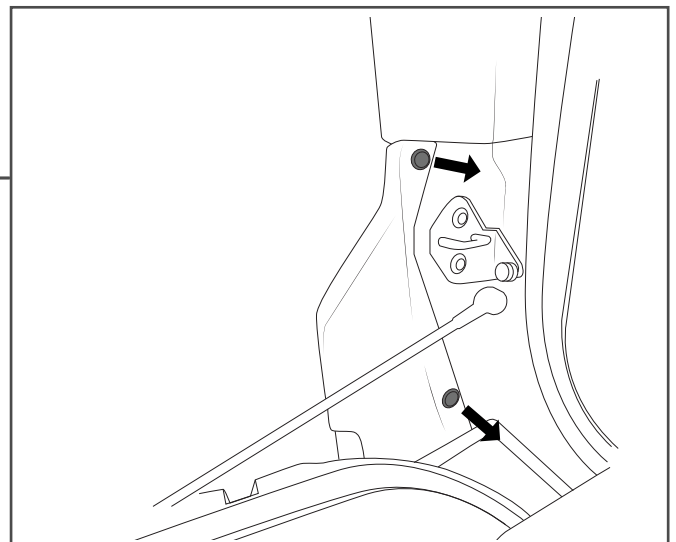
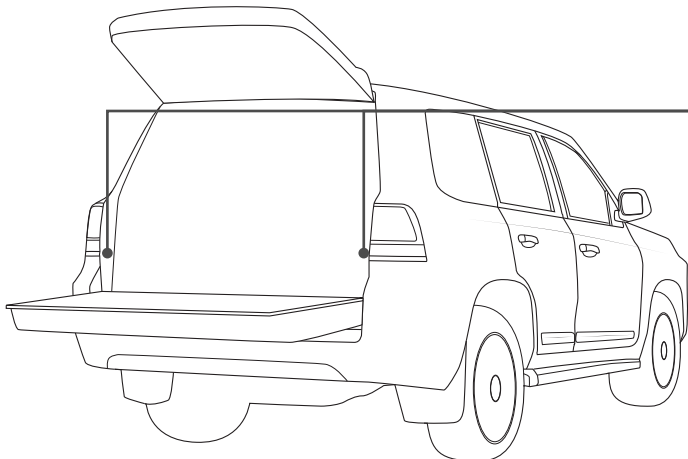
STEP 2 - Remove Fasteners

Undo and remove the fasteners fixing the bumper to the underside of the car on both sides. Unscrew the fasteners holding the trailer plug mounting bracket in position and remove.



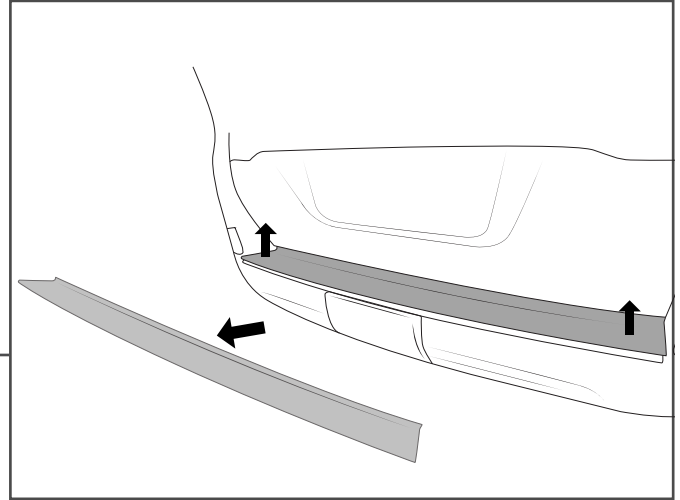
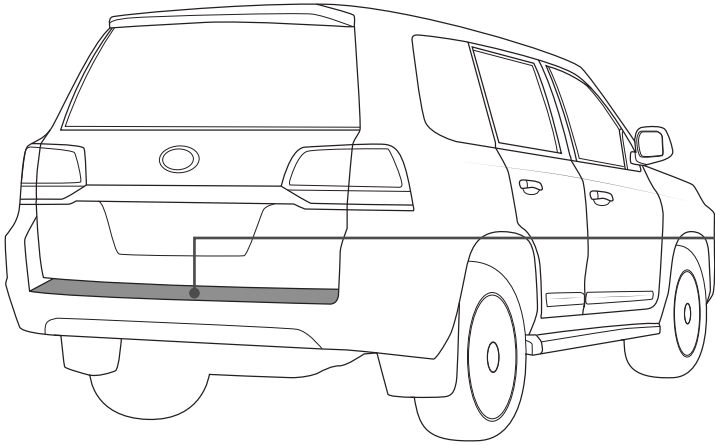
STEP 3 - Remove Fasteners

Remove the retainer clips in the rear door jamb, both sides.



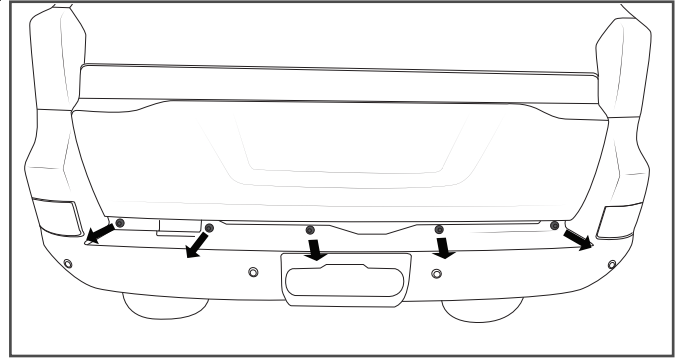
STEP 4 - Remove Tread

Gently lever off the plastic tread panel from the top of the step on the bumper using a trim tool.



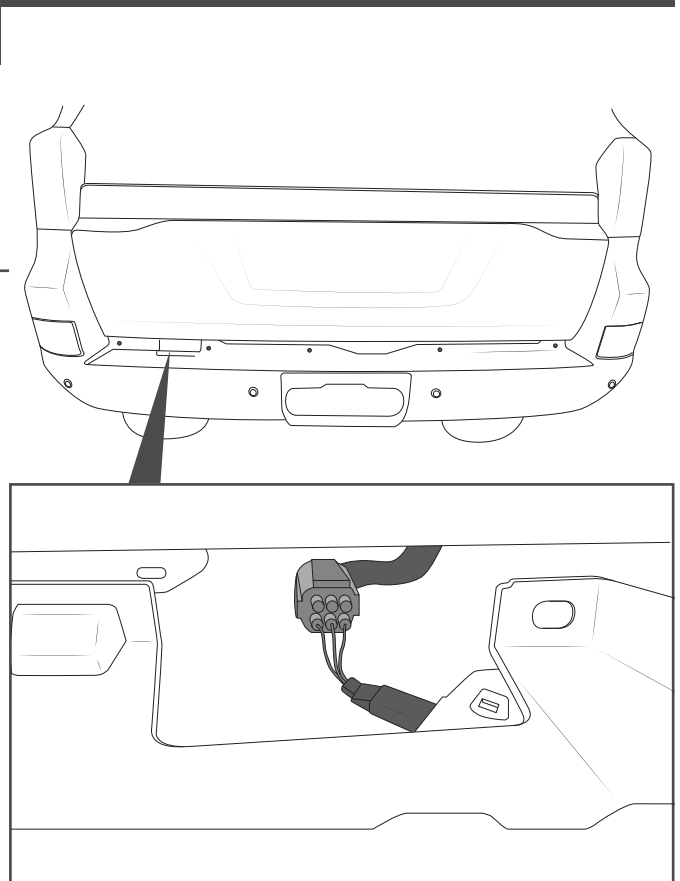
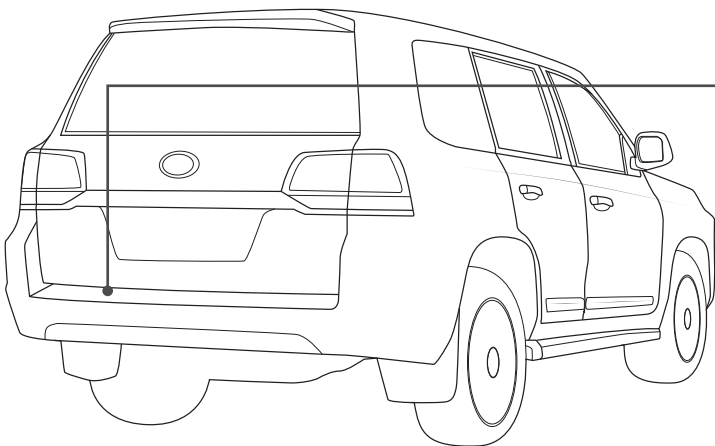
STEP 5 - Remove Fasteners

With the top cover panel removed, unscrew the exposed fasteners holding up the top of the bumper.



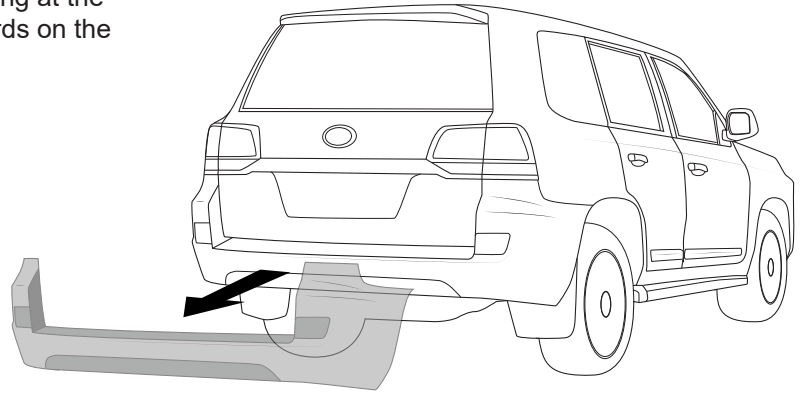
STEP 6 - Disconnect Sensors (Sensors Only)

If the car has parking sensors, disconnect the Sensor harness plug by releasing the clip on the underside of the plug.



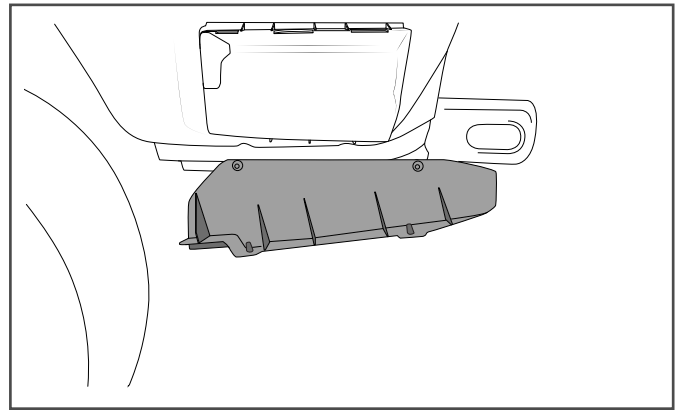
STEP 7 - Remove the Bumper

With all the fasteners fixing the bumper removed, starting at the wheel arch pry the bumper panel, gently pulling outwards on the panel to release it from the clips.



STEP 8 - Remove the Corner Splash Panel

Remove the rear corner splash panels that are situated behind the mudflaps by unscrewing the fasteners fixing it to the sill lip. Remove the plugs that the fasteners fix into.

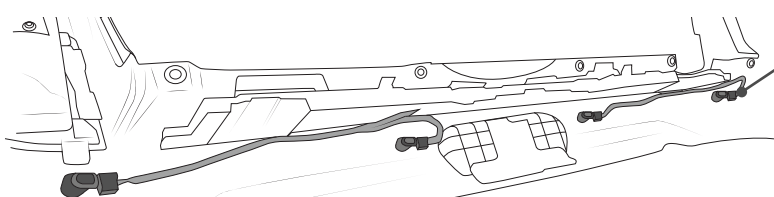
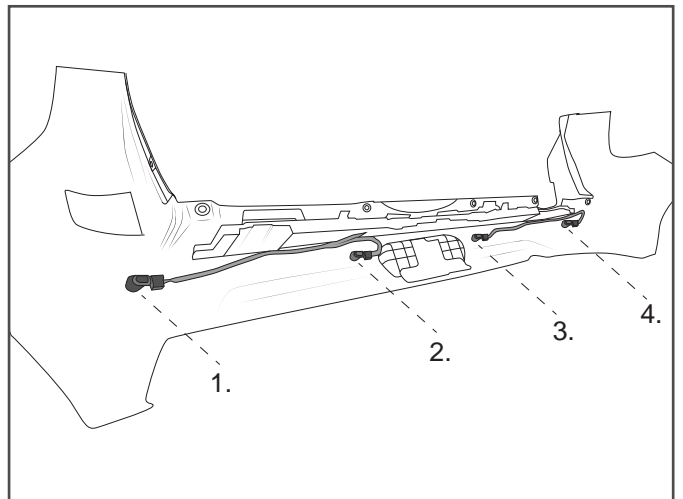


STEP 9 - Remove Sensor Harness (Sensors Only)

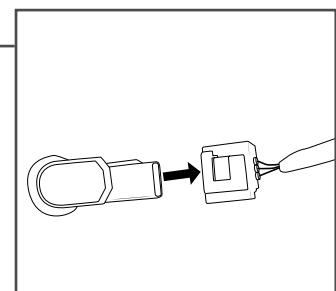
If the car has parking sensors, they will need to be removed and fitted to the Kaymar Bar. Before removing, note the location of each of the sensors as it is critical that they are located in the same position and orientation when being installed on the Kaymar bar.

Parking sensors will not function properly if you do not install them in the correct location and orientation.

Ensure there is no dirt or debris obstructing the clips on the sensors and harness plugs or on the clips holding the sensors in place on the bumper. Disconnect each of the sensors from the harness. Gently release each of the 4 clips holding the sensor in place on the bumper. With the clips free, push the sensor from the outside of the bumper through the hole.

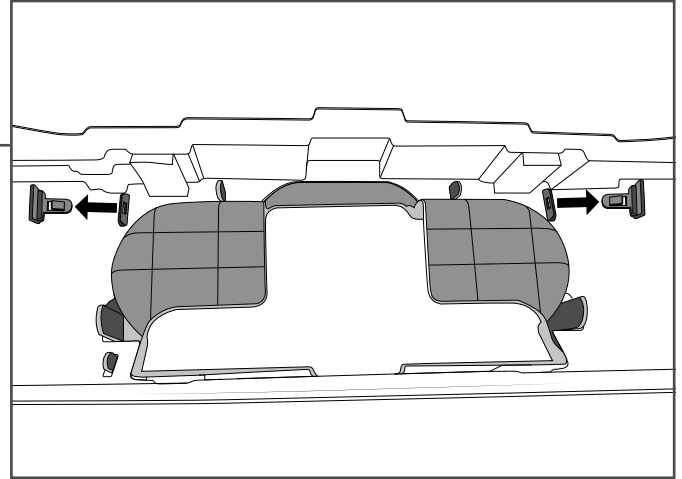
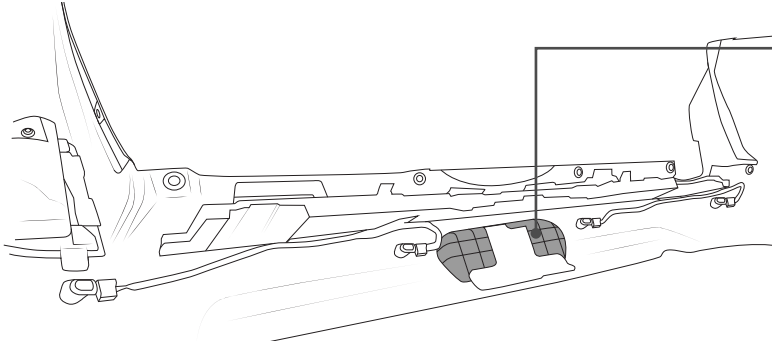


Interior of removed bumper



STEP 10 - Remove Tow Hitch Shroud

Remove the Tow Hitch shroud by depressing the clips on the blue retainers and sliding outwards.

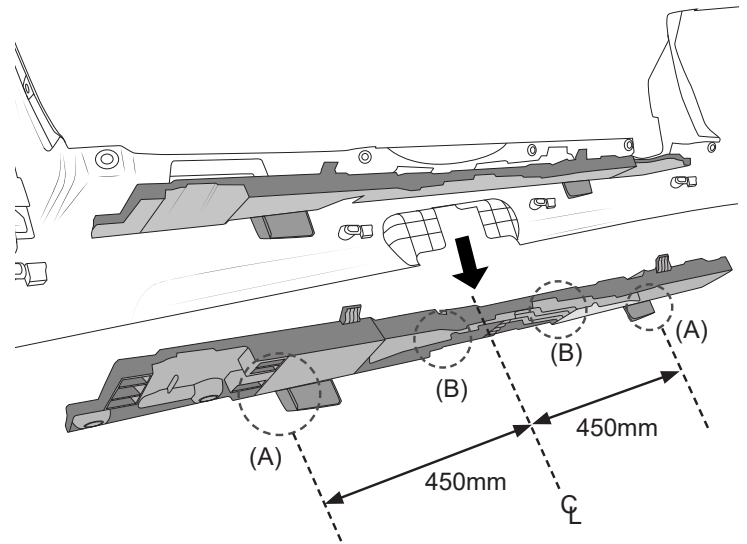


STEP 11 - Remove Plastic Reinforcement Panel

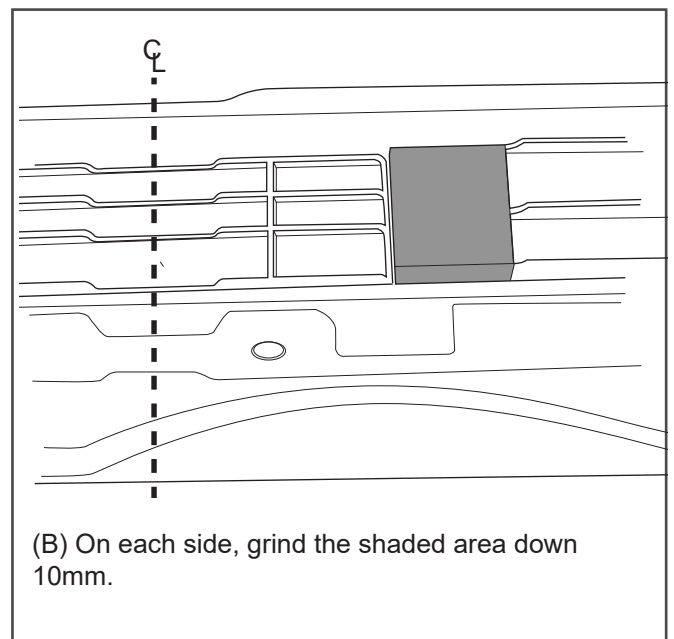
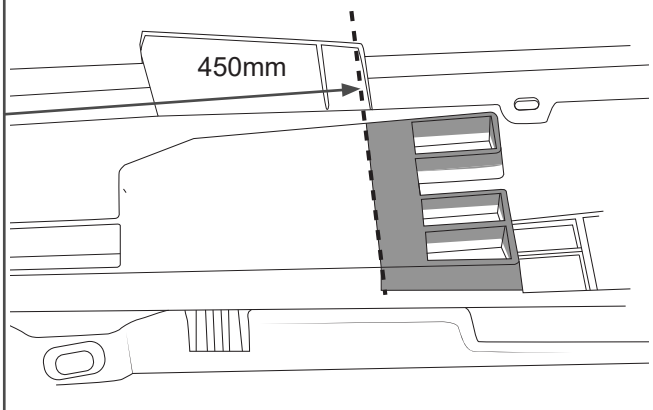
Remove the black plastic reinforcement panel that's fixed to the underside of the step on the bumper. This panel rests on the rear chassis crossmember when the bumper is fitted to the car.

For the bumper to sit in its correct position, the reinforcement panel requires approximately 10mm of material removed from regions (A) and (B) on the underside of the panel, where it would otherwise interfere with the Kaymar Components (Bar, Chassis Mount Bracket and fasteners). Grind these regions down on either side. You will need to check there is no interference in Step 26 - Fit Bar.

For vehicles with sensors, remove the sensor harness from the bumper and reinforcement panel. This is to avoid damaging the harness whilst making modifications to the panels. The harness will need to be refitted after the modifications have been made.



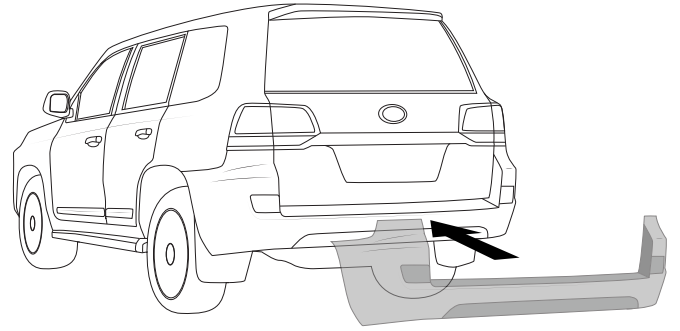
(A) On each side, measure 450mm from the centre of the reinforcement panel. Grind the shaded area down 10mm.



(B) On each side, grind the shaded area down 10mm.

STEP 12 - Put Bumper On

Put the bumper back into position on the vehicle ensuring that it re-engages the clips that seat it in its correct position. Do not install fasteners.



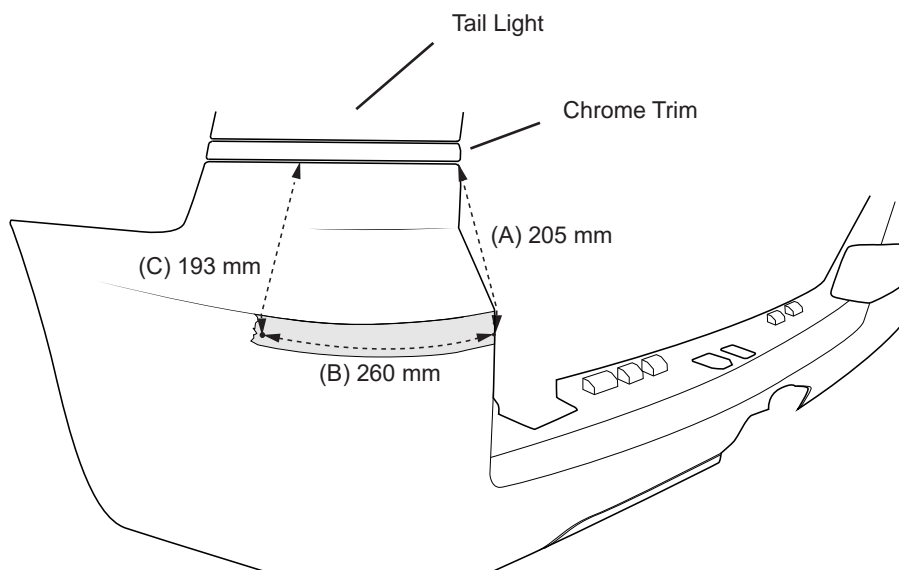
STEP 13 - Measure and Mark

To prevent damage to the bumper whilst marking out and cutting, apply masking tape to the bumper as shown in the next few steps.

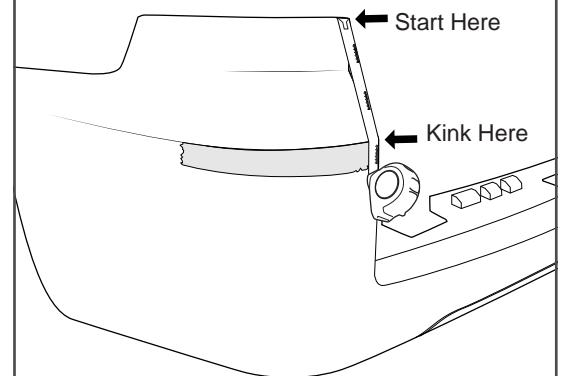
Measure down **205 mm** from the top edge of the bumper where it meets the tail light, near the tailgate opening as shown in (A), mark a point on the edge of the bumper.

Next measure from this point at the edge, measuring horizontally **260mm** around the corner of the bumper towards the front of the vehicle and mark a point. Last measure down **193mm** and find the intersection.

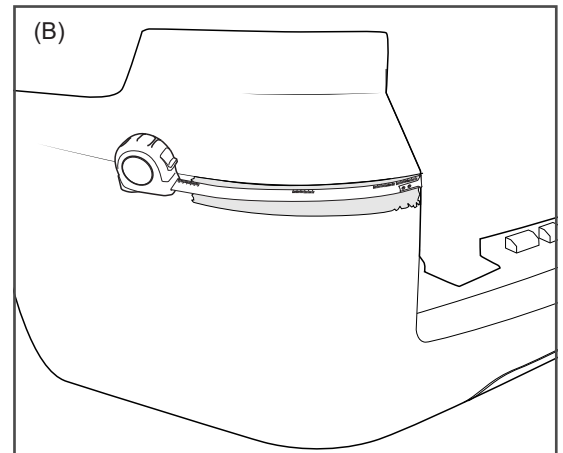
For the vertical measurements, hold the start of the tape measure in position on the top edge of the bumper where it butts against the tail light trim. Measure straight down, pulling down on the tape measure so that it is taut and then wrap the tape over the hump so that the tape kinks and is flat on the bumper panel where the measurement is taken. This is important to get an accurate measurement for the bumper cut.



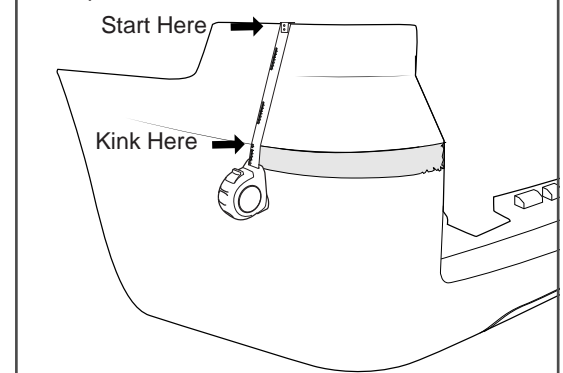
(A) Note tape measure is pulled taut between both points shown.



(B)

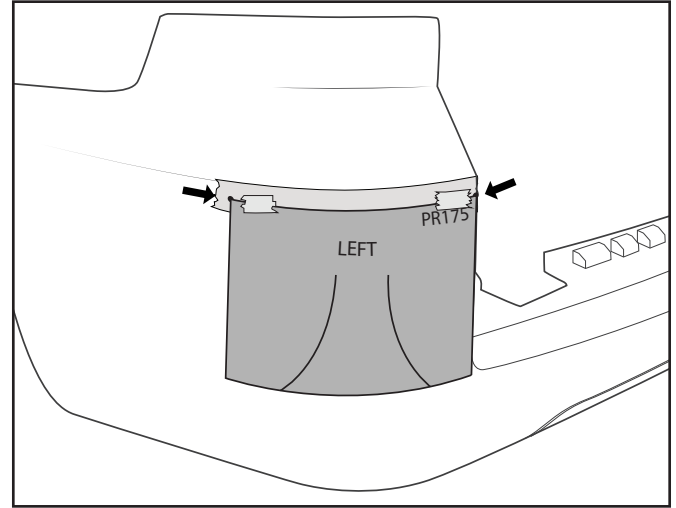


(C) Note tape measure is pulled taut between both points shown.



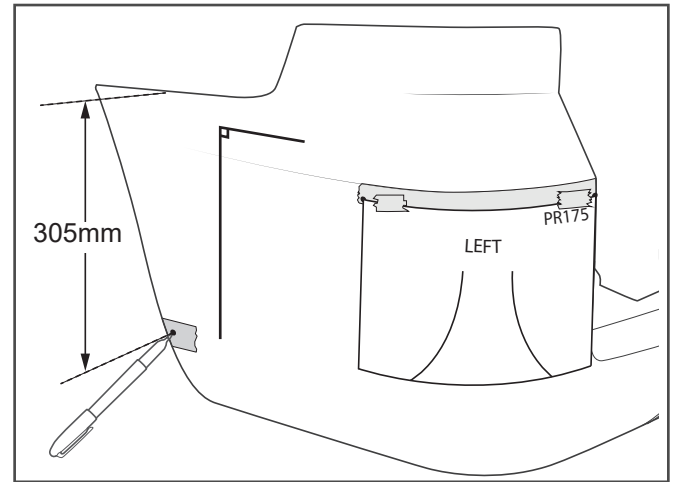
STEP 14 - Fix Template

Place the bumper cutting template so that the top corners meet up with the points measured and marked in the previous steps. Use tape to fix the template in place on the bumper ensuring the top corners of the template meet up with the points marked out.



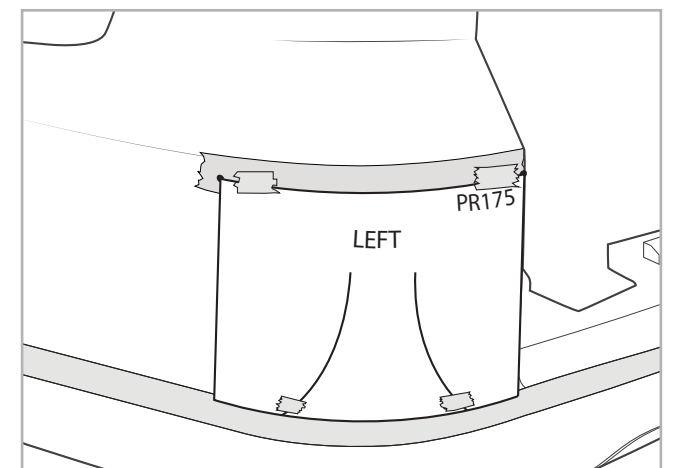
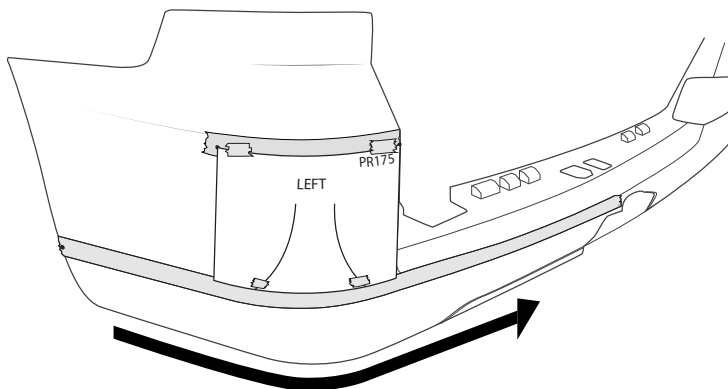
STEP 15 - Measure and Mark

At the wheel arches, measure straight down from the top of the bumper panel 305mm (apply masking tape) and mark a line where this measurement intersects the wheel arch.



STEP 16 - Protect Bumper

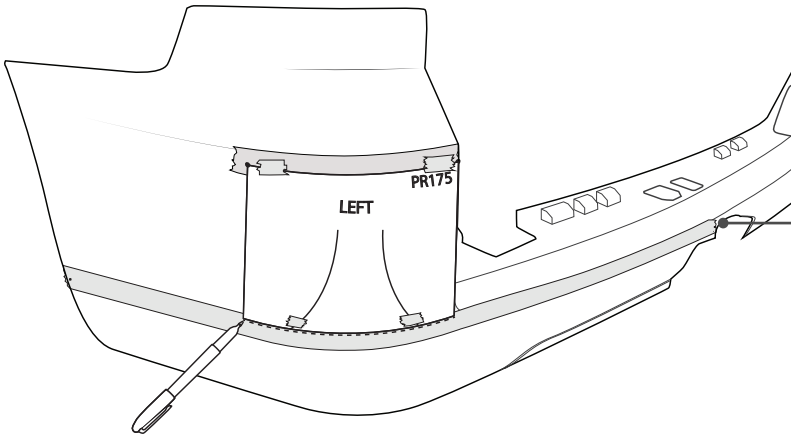
Apply masking tape around the rear corner of the bumper. Ensure that it runs straight between the mark made at the wheel arch, tucks under the template and across to the top of the opening of the tow hitch.



The template is split in three pieces along its bottom edge. Tuck the outer sections under the middle section and align the bottom edges so they make a smooth curve, then apply tape to fix it in position.

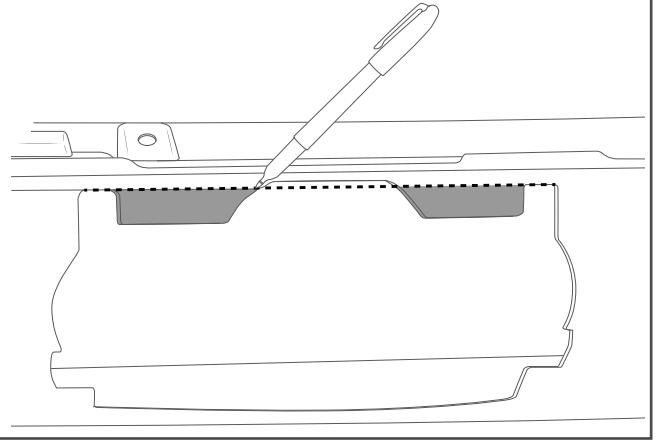
STEP 17 - Mark out Lines

Mark out the bottom edge of the template onto the masking tape.



Use a straight edge to rule a line across from the top edge of the outside notches in the center opening in the bumper. The tabs below (shaded) will be removed when you cut the bumper.

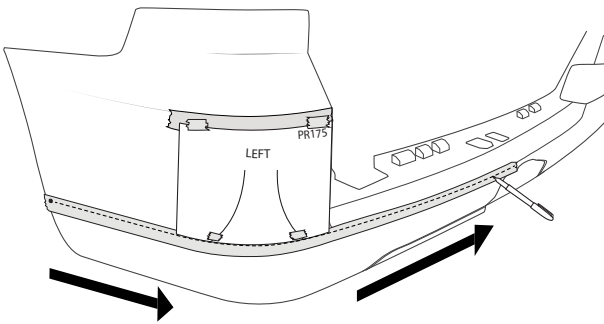
Note: The centre section above the tow hitch will be higher than your line.



STEP 18 - Mark out and Repeat

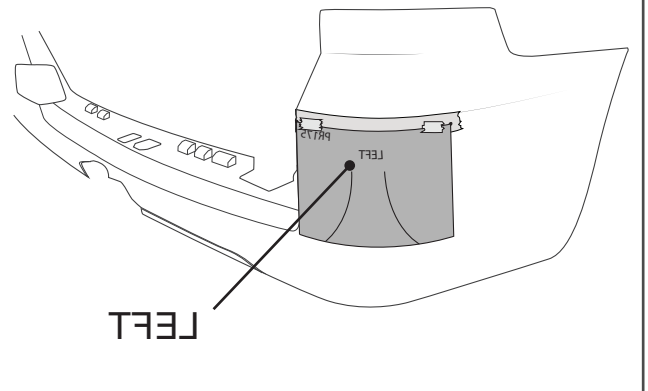
Use a straight edge or steel ruler to mark out a line that connects the point marked at the wheel arch previously, to the line marked out along the bottom edge of the template. Continue the line from the template across to the line marked between the notches in the tow hitch.

Note: the line should look uniform with the styling line that runs along the step of the bumper.



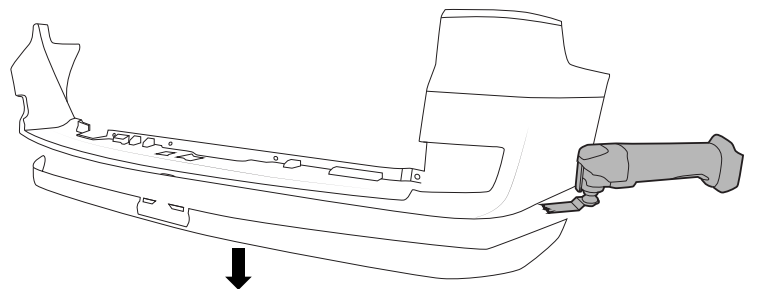
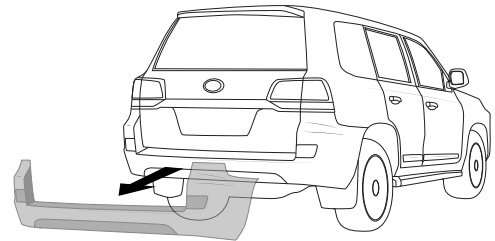
REPEAT STEPS FOR RHS

Repeat the process of measuring and marking out the bumper on the right hand side of the bumper with the template flipped over so that the word "left" on the template is backwards.



STEP 19 - Cut Bumper

Remove the bumper and cut along the lines marked out in the previous steps to remove the bottom section of the bumper and the tabs near the tow hitch. The cut can be made with an angle grinder with a cutting disc or using an oscillating multitool. After the cut is made, clean the burrs off the edge of the cut with a hand file.

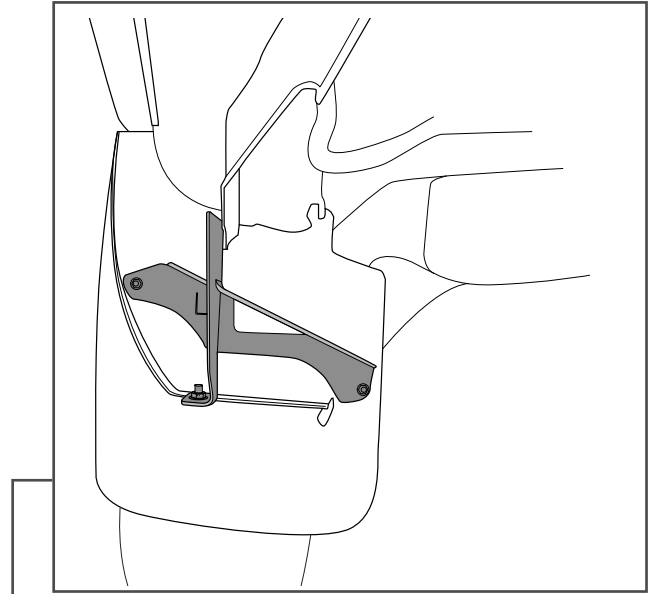
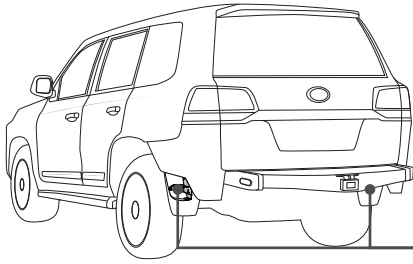


STEP 20 - Fit Mudflap Brackets

Refit the mudflaps to the vehicle. Fit the mudflap brackets (marked L and R respectively) to the rear of the mudflap using the supplied M6 fasteners.

Note: The mudflap brackets need to be fixed into place at the top edge by drilling holes in the sill lip and fastening, so that the mudflaps rest in their original factory installed position.

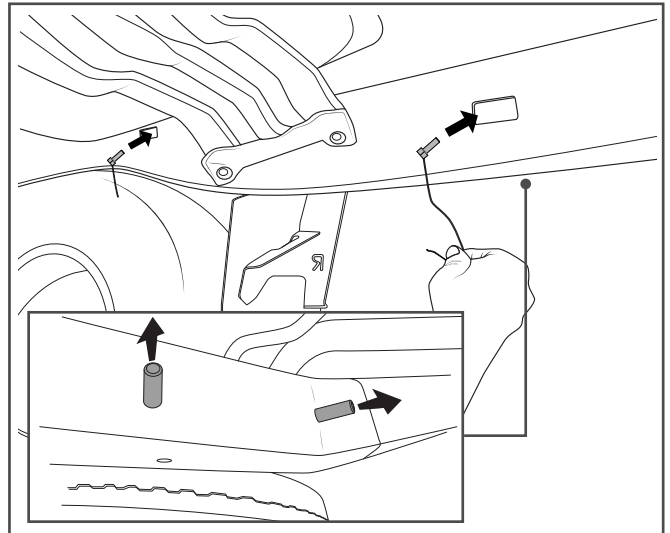
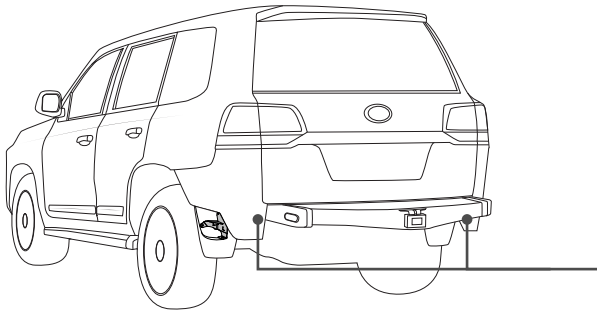
Before fixing the brackets into place we suggest you continue through the steps of these instructions and trial fit the Kaymar Bar to guarantee that the mudflaps end up butting neatly against the front edge of the Kaymar Bar.



STEP 21 - Fit Wing Braces

To fit the side wing support braces, unwind the wire on the M14x40 mm bolts. Locate the rectangular holes on the inside face of the chassis rail and the holes that the wing support braces mount to. Hold the end of the wire and feed the bolts through the rectangular holes, through the chassis rail then poke the bolts through the holes on the outer side of the chassis rail.

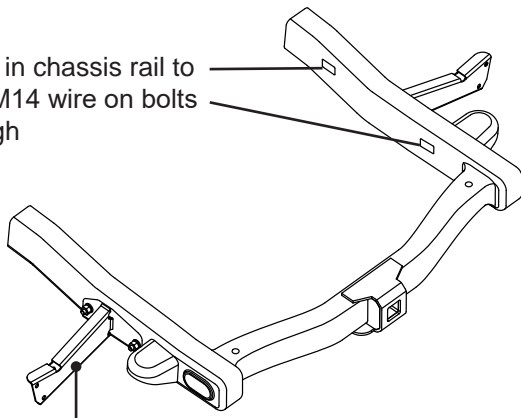
Note: This process is made easier with the spare tyre lowered using the supplied tools from Toyota.



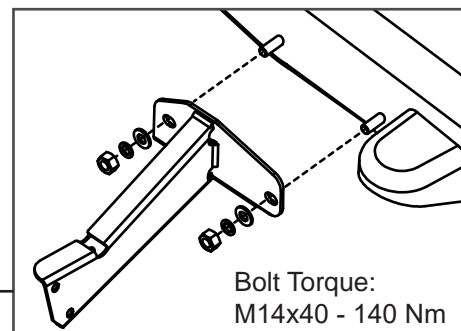
The wing support braces are marked L and R respectively. Mount the brace into position as shown in the pictures, ensuring that the brace is fit hard up to the bottom of the chassis, and fasten with the supplied nuts washers and spring washers.

Note: Tighten bolts, but not to full torque, these bolts may need to be loosened later, when fitting the wing support braces to the Kaymar bar.

Holes in chassis rail to feed M14 wire on bolts through



Rear of LC200 Chassis



Bolt Torque:
M14x40 - 140 Nm

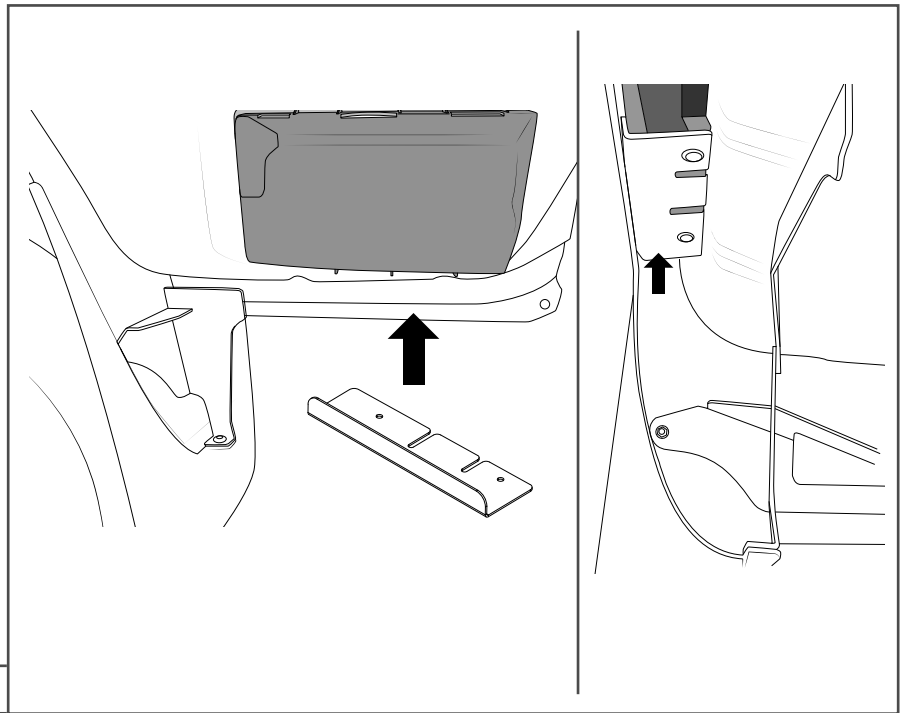
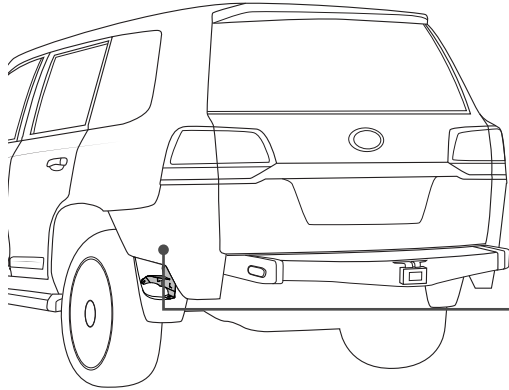
STEP 22 - Fit Bumper Support Bracket

Position the slotted Bumper Support angle bracket against the bottom of the body vent.

Fit the slots of the Bumper support bracket over the ribs of the vent and mark the location of the two holes.

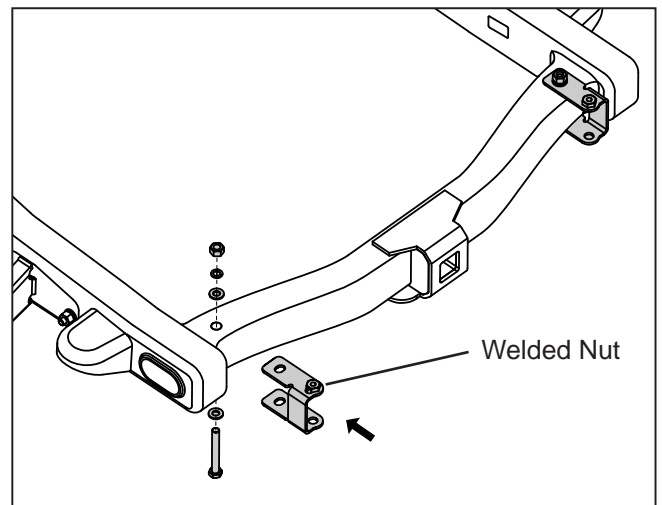
Drill 5mm holes and fix the Bumper Support Bracket to the vent with the pop rivets supplied. LHS is shown in the picture.

Repeat this process on the right side.



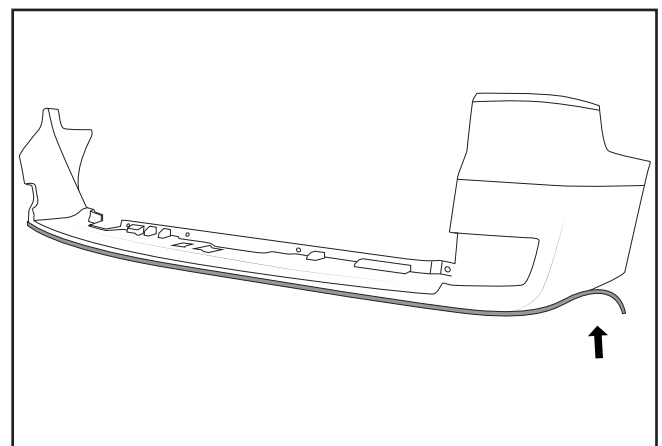
STEP 23 - Fit Chassis Mount Bracket

Slide each of the Chassis Mount brackets (L and R) over the chassis cross member so that the holes line up. Loosely install the supplied M14x110mm bolts with washers, spring washers and nuts. Align the brackets so they are running in line with the car and tighten the bolts so the brackets are sitting firmly in position.



STEP 24 - Fit Pinchweld to Bumper

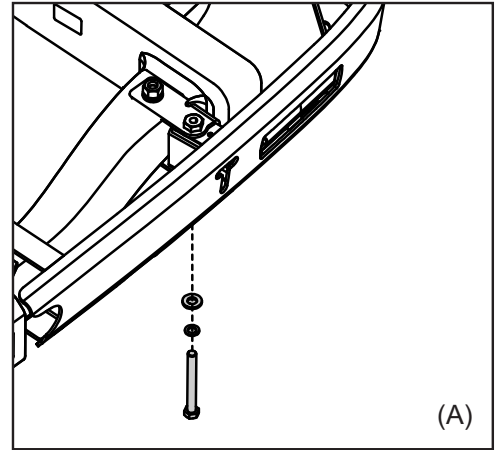
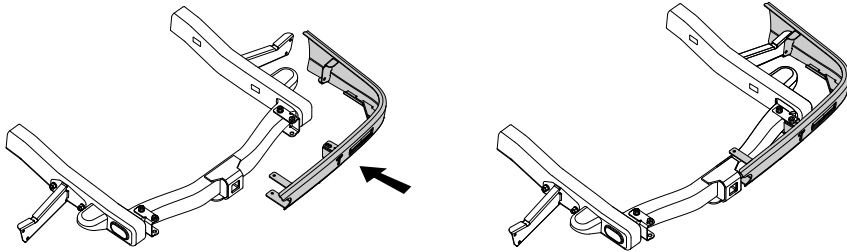
Working from one side of the bumper to the other, fit the pinchweld onto the cut edge of the bumper. Ensure that its firmly seated into position and is straight and uniform. Trim off the excess pinchweld with cutting pliers.



STEP 25 - Fit Bar

Lift one side of the Kaymar Rear Bar into position and slide it forward onto the chassis rear cross member. Ensure the bar locates correctly as illustrated. With the bar located in position on the chassis, loosely fit the M12x110 bolt shown in (A) so that the Bar is held in place and won't fall. You do not need to install the Crush Tube (A1) yet.

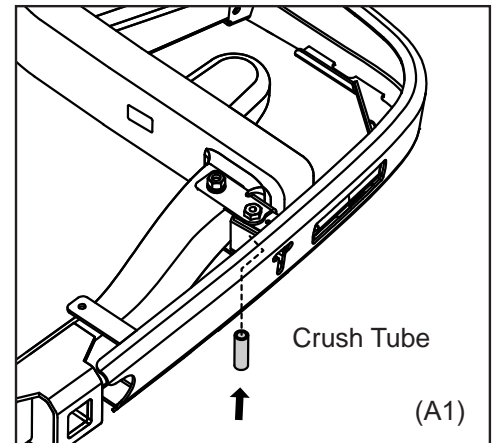
Note: This process may be easier with the spare tyre lowered using the supplied tools from Toyota.



Loosely fit the top M10x30 mm bolts with washers, spring washer and nuts, into the side wing bracket (B).

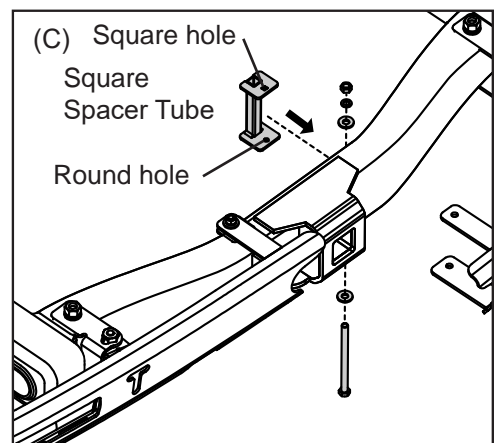
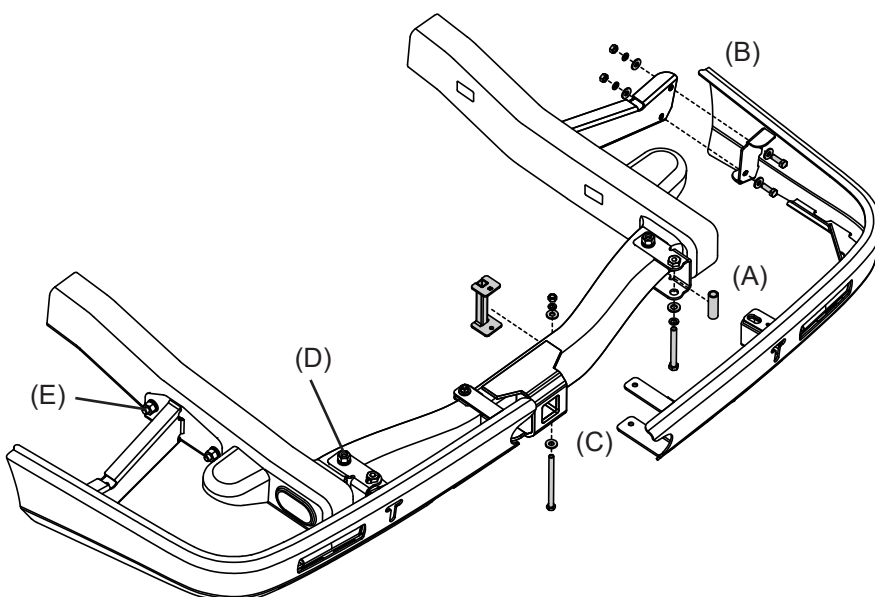
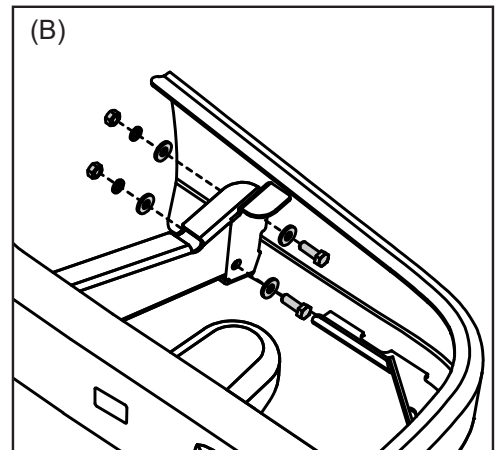
Note: You may need to loosen the fasteners connecting the wing brace to the chassis rail (M14x40 mm bolt on wire). This may be needed to allow the wing brace to bolt to the bar.

Place the Kaymar Square Spacer Tube into position so that it's tucked behind the chassis crossmember and it's sandwiched between the tabs that extend over the chassis crossmember (C). Ensure that the space tube is correctly orientated as shown in the image (square hole on top). Align the tube with the holes so that the M10x150 mm bolt can be fed through. Loosely fasten with the washers, spring washers and nut.



Move the bar into position and loosely fit the lower M10x30 bolts and fasteners that fix the wing braces to the wings (B).

Refit the bumper into position. Check that there is no interference between the Kaymar components/fasteners, and the black reinforcement panel, if the bumper step doesn't seat correctly on the chassis cross member, grind more material out of the underside of the reinforcement panels where required.



STEP 26 - Fit Bar

With the mudflaps fastened to the vehicle and brackets, position the top edge of the mudflap brackets so the mudflaps are as close to the factory position as possible and clamp the top edge against the sill lip with vice grips (or small clamp), so they don't move.

Push the bars forward towards the mud flaps and up so it sits inline with the bumper cut. Check the fit up against the bottom edge of the bumper is uniform. Now tighten the bolts so the Bar maintains a uniform accurate fitment against the bumper and mudflap.

If the mudflap is not sitting in an optimal position, release the vice grips holding it in position, adjust its position and then re-clamp.

Once the optimal fitment positions of the mudflap bracket and bar have been achieved mark the position of the holes on the top edge of the mudflap brackets.

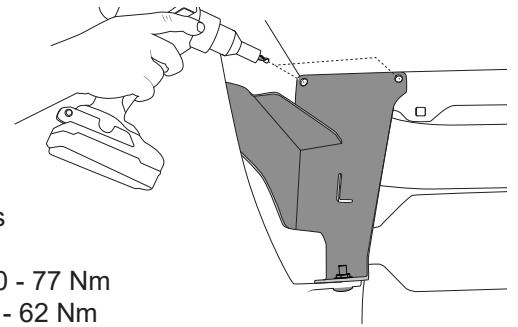
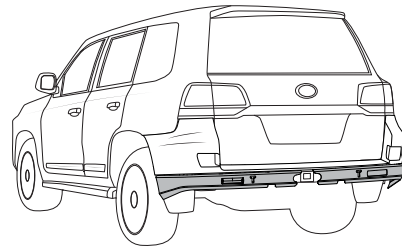
Drill 2 x 7mm diameter holes through the body sill lip and fix the mudflap bracket to the sill using the 6mm screws and flange nuts supplied.

If you need access to drill the holes remove the bar, and re-fit back into position, once the mudflap bracket is fixed in place.

Install the Crush Tube (A1) in position so that it sleeves the M12x110 bolt when assembled.

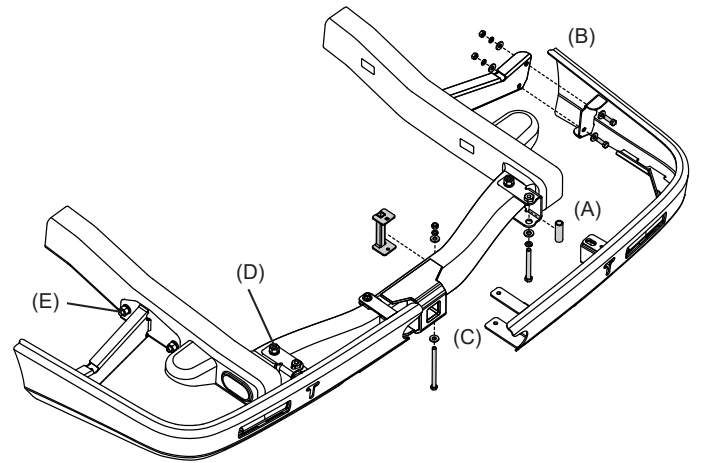
Torque the bolts as specified.

Note: If you have parking sensors re-fit the harness to the reinforcement panel and bumper under the step as they were before and fit the sensors into position on the Kaymar Bar. Check parking sensors are functioning as normal.



Bolt Torques

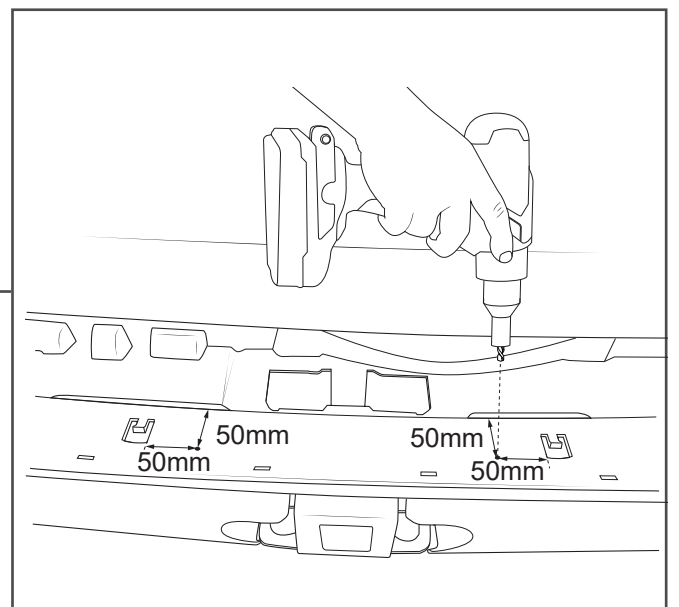
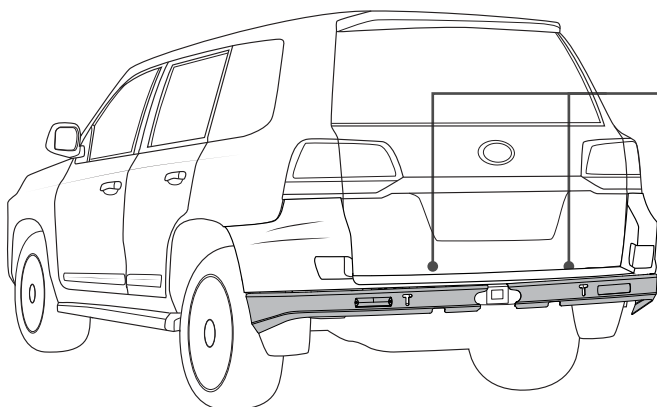
- (A) M12x110 - 77 Nm
- (B) M10x30 - 62 Nm
- (C) M10x150 - 44 Nm
- (D) M14x110 - 140 Nm
- (E) M14x40 - 140 Nm



STEP 27 - Drill Step

Looking down on the top of the plastic step of the bumper measure as follows and mark 2 points one on either side of the tow bar hitch.

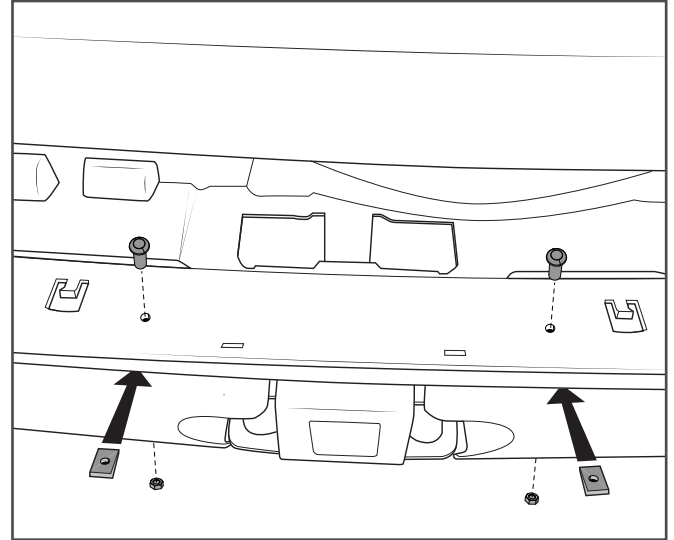
Drill a 7mm diameter hole down through the plastic and through the top of the Kaymar bar.



STEP 28 - Fix Step

Align the holes in the foam blocks with the holes drilled into the step and stick the foam blocks in position between the bumper step and the Kaymar Bar.

Fit the supplied M6 screw through the plastic, foam block and bar. Fit the nyloc nut and tension the screw very slightly, so as not to crush the plastic, but enough so that the plastic won't lift up.



STEP 29 - Fit Lights

Splice into the vehicle trailer plug wiring on the right hand corner of the body. Use wire supplied, long length goes across to the left side. Short length for the right hand side.

Do not splice into wiring behind the lights in the body.

Vehicle must have a trailer plug wiring harness fitted. It must be the flat style (not round).

Note: for facelift models after aug 2015 - if fitting a camera to a carrier or jerry can holder (k6314jc-kit, k6314-kit) refer to separate installation instructions.

Wiring Colours:

LED Lights

Yellow – Indicator
White – Earth
Red – Brake/Stop
Brown – Tail
Black - Reverse

Vehicle

Yellow – Left Hand Indicator
Green – Right Hand Indicator
White – Earth
Red – Stop
Brown – Tail
Black – Reverse

STEP 30 - Final Check

Refit all the fasteners fixing the bumper in position.

Refit the tread plate.

Refit the spare tyre if you removed it.

Final Checklist:

- 1) Lights are working
- 2) All Fasteners have been torqued to spec.
- 3) Sensors (if fitted) are functioning normally

