



INSTALLATION INSTRUCTIONS

BBR125I

RAID INSERT BUMPER TO SUIT TOYOTA LANDCRUISER
Prado 250 2024+



Weight: 50kg (110lb) \pm 2kg (4.4lb)



NOTE

Some images contained in these instructions are generic and are a representation of the actual model and/or parts used. Some steps may also show parts out of sequence to the instructional steps.



**Bumper Cut
Required**



**5 Hours
Approximately**



SAFETY WARNING

IRONMAN 4X4 requires you read and understand the safety and pre-install directions on page 2 and 3 before commencing installation of this product.

Document No: BBR125I/220525

**This product has been tested for airbag compatibility
and therefore the mounting system MUST NOT be modified**

PRE-INSTALLATION INFORMATION



SAFETY WARNING

- It is always good practice to disconnect the battery while working on 12 Volt systems.
Please check the owner's manual for vehicle-specific requirements as some models may need battery backup.
- Auto electrical work should be carried out by a competent person. Vehicle wire colours are listed as a guide only and may vary on some makes and models.
- The function of each wire should be checked before any connections are made. All wires tapped into should be soldered and then insulated with electrical tape or heat shrink.
- Grounding/Earth points must always be connected to the factory grounding points, not to the battery negative terminal. See owner's manual.
- Using only a LED test light, test all electrical components of the vehicle before and after wiring. This is to ensure everything works correctly.
- IRONMAN 4X4 does not recommend the installation of large or light-coloured antennas or aerials to the front of a bull bar as this may cause the lane departure system to malfunction.



NOTE

- Only a competent person should perform accessory installations. It is the responsibility of this person to ensure correct fitment.
- Whilst working on this vehicle, always use appropriate safety equipment.
- Read and understand instructions fully before commencing fitment.
- Check the hardware supplied against the contents list on the following pages.
- Do not use this product for any vehicle make or model other than specified in these instructions.
- This product and or hardware must not be modified in any way. Do not remove labels from this product.
- Recording the batch number on the customer's job card is good practice for future reference, or complete the information below and file with customer job card.



CARE INSTRUCTIONS

- To maintain the finish of the product, wash regularly using a PH neutral car wash, hose off and chamois dry.
- Do not use acidic or alkaline cleaners.
- Plastic components can be maintained with a silicone spray or similar (non-acidic or alkaline based).



CUSTOMER INFORMATION

Customer Name: _____ Date: _____

Contact: _____

Part Number: _____ Batch Number: _____

(Located on label behind bull bar wing)



IMPORTANT WARNINGS

Due to the increasing complexity of new cars with cameras, sensors and radars, it is imperative that when installing bar work to cars, the vehicle is not turned on at all - not even to accessories - without having all cameras, sensors and radars connected.

All late model vehicles with push-button start use a proximity sensor, which is continually searching for a signal. Keys located in the vehicle or nearby will retain residual power within the vehicle, causing faults once the key safety features are unplugged.

DO NOT leave keys within the vehicle, or locate nearby.

As newer vehicles become more technically advanced, some will flag fault codes if turned on when cameras, sensors and radars are not plugged in. This can result in error messages on the dash that cannot be cleared, requiring the car to be taken back to a dealership to be cleared and recalibrated.

Please be aware of this when working on any car with cameras, sensors or radars.

VEHICLE FRONTAL PROTECTION SYSTEM (VFPS)

Do not attach VFPS to the vehicle using anchorages not intended for this purpose (e.g. engine mountings bolts)

Do not use this product for any vehicle make or model, other than those specified by the VFPS manufacturer.

Do not remove the plaque from the VFPS.

Do not modify the structure of the VFPS in any way.

- IRONMAN 4X4 includes specific mounting hardware to ensure correct fitment to your 4WD. The correct fitment of these components is critical for your safety.
- Do not use this bull bar or recovery point for any other vehicle make or model other than the one intended and specified by IRONMAN 4X4.
- Do not alter or modify the bull bar or recovery point in any way. Doing so may compromise the strength and integrity of the product.
- Do not remove warning labels from bull bar or recovery points. Bull bar and recovery points require warning labels to be installed, these are supplied and must be installed at the time of fitting.
- IRONMAN 4X4 recovery points are FEA tested during design and destruction tested during development to establish the Working Load Limits (WLL).
- IRONMAN 4X4 recovery points have been designed as a matching pair, supplied as right and left sides for vehicle-specific fitment.
- It is advised to use an equalising or bridle strap. Failure to do so correctly can result in recovery point fatigue or bending and void your warranty.
- Never use a single recovery point combined with a side load pull.
- Recovery Points are designed for a straight-line pull, by pulling on an angle or sideways pull may result in a reduction of the WLL.
- Ensure all bolts are tightened to the specified torque.



NOTE

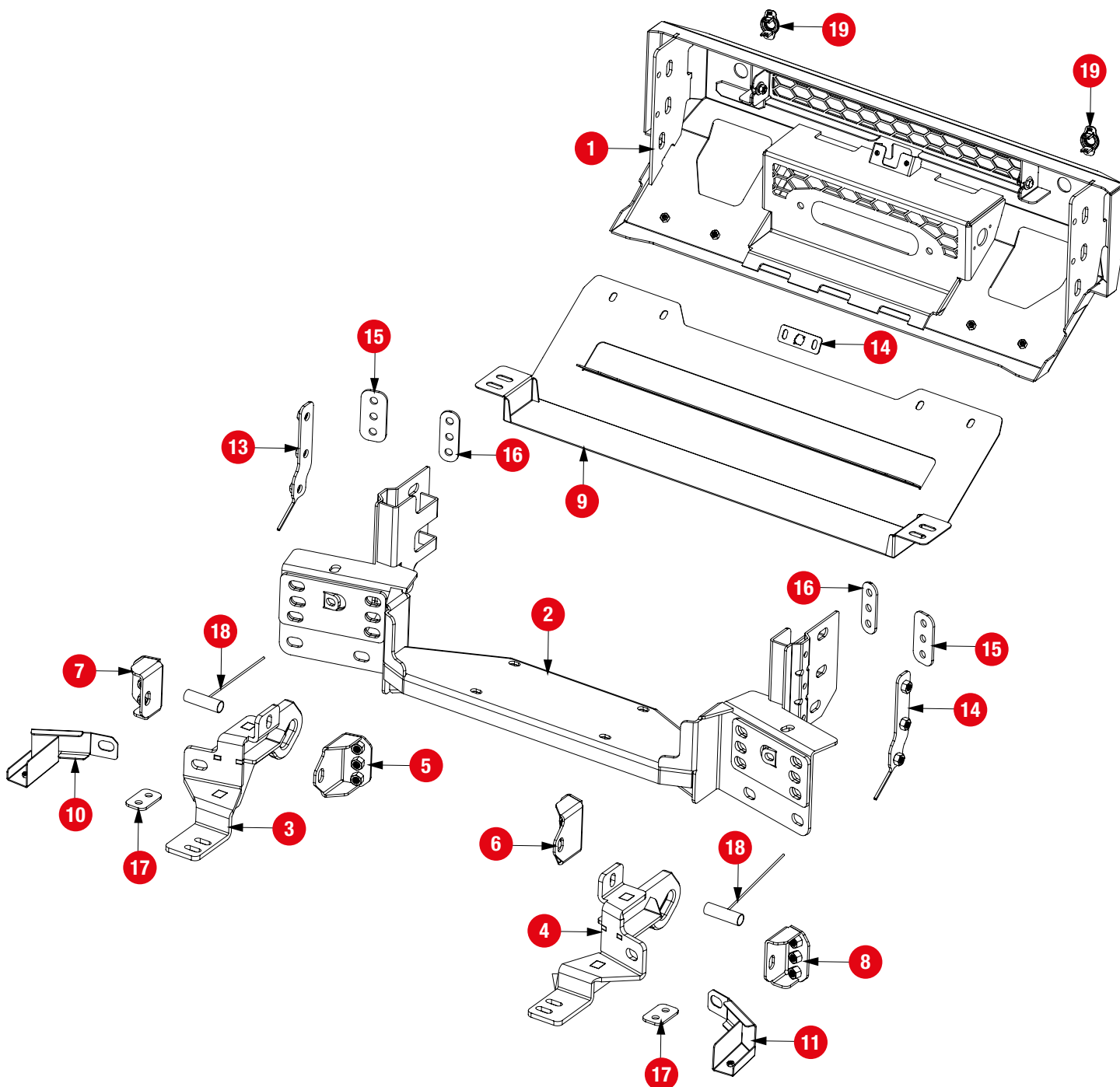
- This product has been tested for airbag compatibility; therefore, the mounting system or any part of the bull bar **MUST NOT** be modified.
- Some images contained in these instructions are generic and are a representation of the actual model and/or parts used.
- Some steps may show parts out of sequence to the instructional steps.
- Fitting instructions are correct at the time of publication date and IRONMAN 4X4 cannot be held responsible for any vehicle changes from the manufacturer. It is the responsibility of the installer to ensure correct fitment.

PARTS LIST (ITEM)

No.	Part Description	Qty
1.	Bull bar assembly	1
2.	Winch cradle	1
3.	Recovery point - LHS	1
4.	Recovery point - RHS	1
5.	Inner chassis bracket - LHS	1
6.	Inner chassis bracket - RHS	1
7.	Outer chassis bracket - LHS	1
8.	Outer chassis bracket - RHS	1
9.	Underbody protection plate	1

No.	Part Description	Qty
10.	Bumper fixing return bracket - LHS	1
11.	Bumper fixing return bracket - RHS	1
12.	Wired triple nut plate - LHS	1
13.	Wired triple nut plate - RHS	1
14.	Camera cover plate	1
15.	Washer plate A	2
16.	Washer plate B	2
17.	Washer plate C	2
18.	Wired crush tube	2

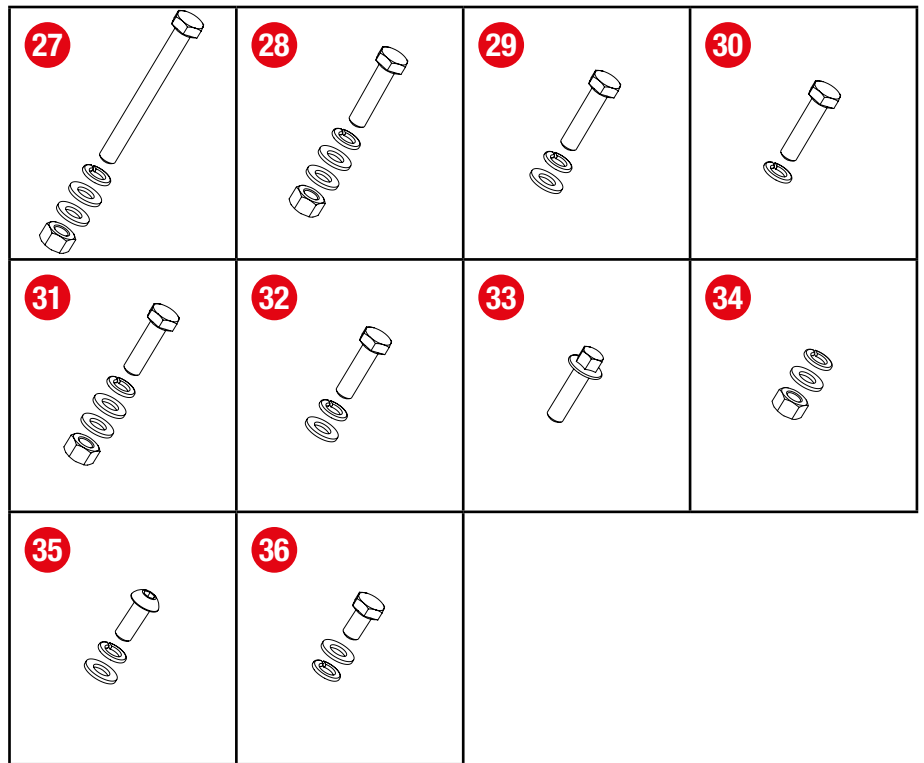
No.	Part Description	Qty
19.	Sensor holders (PSH090)	2
20.	Sponge - 910 x 20 x 5mm (not shown)	1
21.	Parking sensor loom (not shown)	2
22.	ACC warning sticker (not shown)	1
23.	Recovery point sticker (not shown)	2
24.	Adhesive logo badge (not shown)	1
25.	Adhesion promoter (not shown)	1
26.	Zip tie (not shown)	10



Any damage or losses caused by improper installation and application, goes beyond our quality warranty.

PARTS LIST (ITEM)

No.	Part Description	Qty
27.	Hex Head Bolt M12 x 110mm x 1.75	2
	Flat Washer M12 (36.5 x 14 x 4mm) x 2	
	Spring Washer M12	
	Hex Nut M12	
28.	Hex Head Bolt M12 x 50mm x 1.25	2
	Flat Washer M12 (36.5 x 14 x 4mm) x 2	
	Spring Washer M12	
	Hex Nut M12	
29.	Hex Head Bolt M12 x 50mm x 1.25	4
	Flat Washer M12 (36.5 x 14 x 4mm)	
	Spring Washer M12	
30.	Hex Head Bolt M12 x 50mm x 1.25	16
	Spring Washer M12	
31.	Hex Head Bolt M12 x 40mm x 1.25	2
	Flat Washer M12 (36.5 x 14 x 4mm) x 2	
	Spring Washer M12	
	Hex Nut M12	
32.	Hex Head Bolt M12 x 40mm x 1.25	6
	Flat Washer M12 (36.5 x 14 x 4mm)	
	Spring Washer M12	
33.	Hex Head Flange Bolt M10 x 30mm x 1.5	4
34.	Flat Washer M10 (29.5 x 10.5 x 3mm)	2
	Spring Washer M10	
	Hex Nut M10	
35.	Dome Head Bolt M8 x 25mm x 1.25	4
	Flat Washer M8 (22.5 x 8.5 x 2.5mm)	
	Spring Washer M8	
36.	Hex Head Bolt M6 x 20mm x 1.0	4
	Flat Washer M6 (22.5 x 6.5 x 2.5mm)	
	Spring Washer M6	



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ACCESSORIES

MANDATORY

To meet some State Regulations, bull bar plug-and-play wiring harnesses to access parker/indicator/fog light may be required to be fitted - **IBBPL125** / **IPLS125**

OPTIONAL

If installing driving lights or lightbar, you will require suitable wiring harnesses.

- Lightbar patch loom - **ILBWL001** and **IPLS125**

If fitting a winch, a winch extension cable may be required dependent on the proximity of the winch.

- Winch extension cable, varying lengths - **WWB030** (500mm), **WWB031** (1000mm), **WWB032** (1500mm)
- Hidden control box mount kit - **WWBCP001**

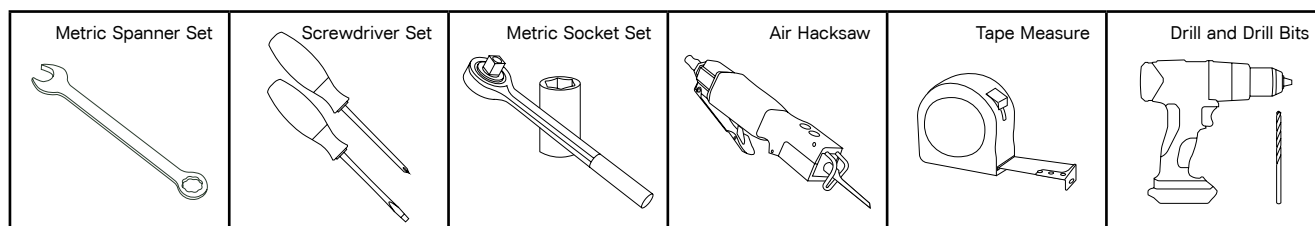
All wiring looms and any additional lights must be ordered separately.



NOTE

Please refer to specific wiring loom instructions for correct installation.

TOOLS REQUIRED



BOLT TENSION GUIDE

PROPERTY CLASS	TORQUE MA	NOMINAL DIAMETER – COARSE THREAD			
		M6 X 1	M8 X 1.25	M10 X 1.25	M12 X 1.25
8.8	NM	10.5	25	49	88
	FT/LB	7.7	18	36	64

1. Ensure bull bar application is compatible with the vehicle.

Before installation, unwrap the hardware and bull bar, taking care not to damage or scratch in the process. Inspect bar for any damage.



TIP

It is good practice to lay out all hardware to cross-reference against the parts list and to record the Batch Number.



Generic image used for illustrative purposes only

STRIP DOWN AND PRE-INSTALL PROCEDURES

2. Remove and retain the number plate if fitted, to be reinstalled later.

Disconnect the negative battery terminal if applicable.

Remove the plenum cover and three (3) bolts securing the top of the grille. Carefully place aside.



WARNING

Please check owner's manual for vehicle specific requirements, as some models may require battery back up.



3. Remove the clips and bolts securing the factory flare, guard liner and front mud flap to the fender and factory bumper.



NOTE

We strongly suggest using masking tape along the edges of the grille and factory bumper to prevent damage in the removal process.



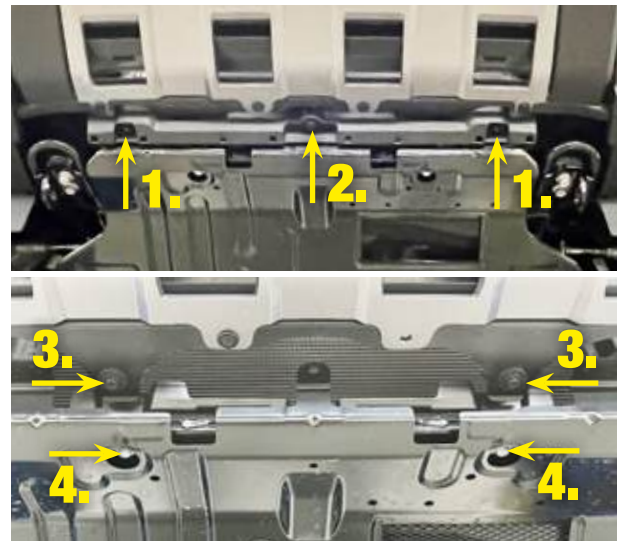
- 4.** Gently pull the flare away from the fender panel, popping 4-5 of the clips.
- Take care not to break the clips while pulling away from the fender.
- Remove the hidden screw and clip securing the wing of the factory bumper to the fender.
- Repeat procedure on opposite side.

**TIP**

We suggest placing a clean rag between the flare and the fender to protect the panel from any damage while completing the installation.



- 5.** Under the front, remove the bolts **(1)** and clip **(2)** securing the brace supporting the lower front of the factory bumper.
- Remove the two (2) bolts **(3)** behind the support brace and the two (2) bolts **(4)** at the front of the factory protection plate to drop it down.



6. Remove the three (3) screws and three (3) clips at the rear securing the factory bumper front mud flap panel.

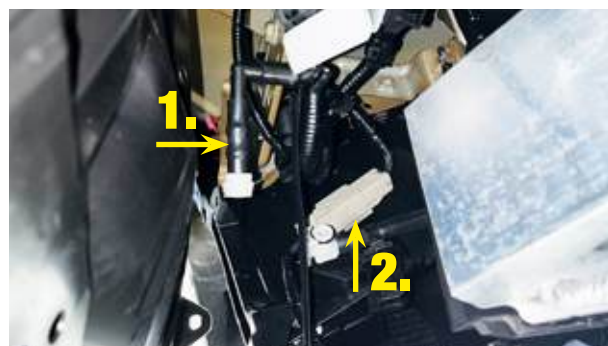
Remove the panel to access the two (2) clips **(1)** and bolts **(2)** supporting the underside of the factory bumper.

Safely place these items aside.



7. On the left hand side of the bumper, reach up from underneath to clamp and then disconnect the headlight washer pipe **(1)**. Carefully disconnect the camera loom **(2)**.

On the right-hand side, reach up from underneath and disconnect the bumper loom plug **(3)**.



8. Commencing on the left-hand side of the factory bumper, gently pull the wing away from the fender and work your way across to the other side, carefully popping the clips as you go.

Remove the factory bumper from the vehicle and place aside in a safe location.



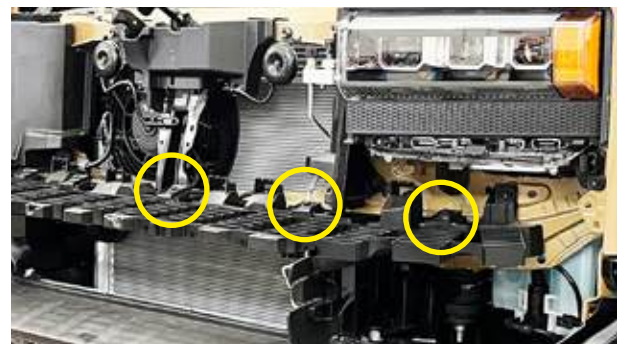
WARNING

We recommend two (2) persons complete this task to avoid personal injury or damage to the vehicle and/or components.



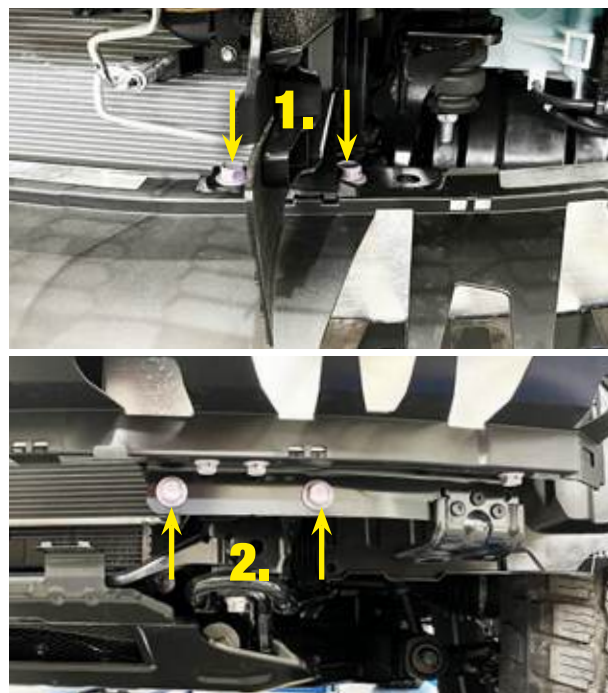
9. If fitting a winch, you may need to temporarily remove the factory bumper upper support. This support and the mounting point support bar may also require slight trimming dependent on the location of the winch control box.

Remove the three (3) bolts on each side of the upper bumper support, unclip from the rear and lift off.



Generic image used for illustrative purposes only

- 10.** Remove the two (2) bolts **(1)** from the top of the crash reo and the two (2) bolts **(2)** underneath. Repeat procedure on opposite side. Remove the plastic support.



- 11.** Removal or trimming of the air dams may be required. Remove both from the vehicle if required.



- 12.** Remove the bolts securing the factory tie down points and discard both. Repeat procedure on opposite side.

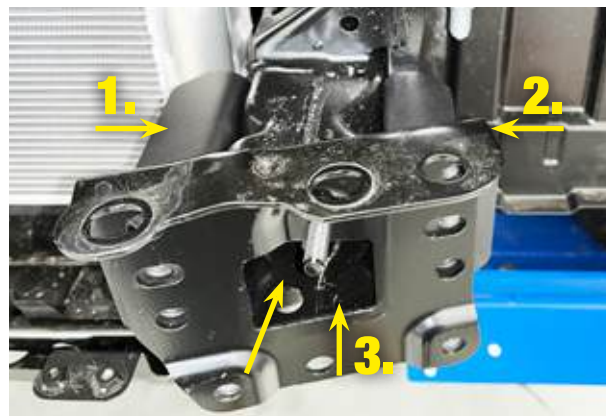


INSTALLING THE CRADLE AND RECOVERY POINTS

- 13.** Starting on the left-hand side, place the inner **(1)** and outer **(2)** chassis brackets around the chassis rail.

Insert a wired crush tube inside the chassis rail **(3)**, aligning with the holes in each side of the rail and both brackets.

From the outside of the rail, slide an M12 x 110mm bolt **(4)** through the holes and loosely secure on the inner side.



NOTE

The forward facing holes on the brackets should align with the holes in the fish plate.

Repeat procedure on opposite side.

Item: 5, 7, 18 and 27 - LHS

Item: 6, 8, 18 and 27 - RHS

- 14.** Lift the cradle into position, aligning over the protruding bolt studs on each side.

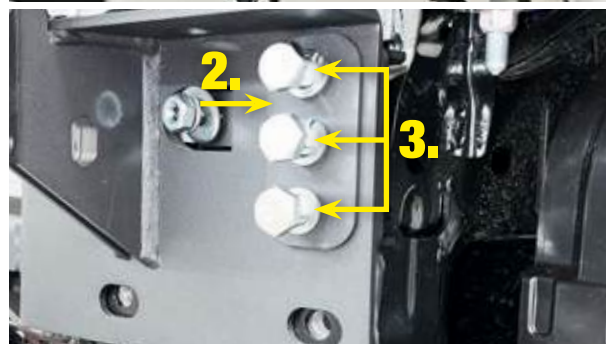
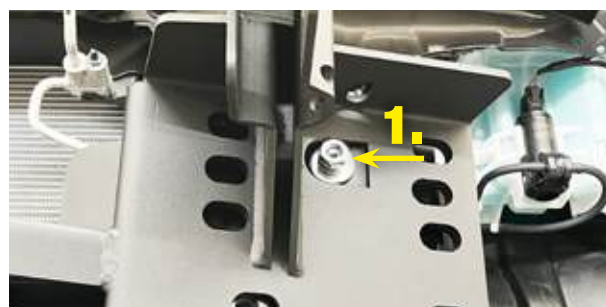
Loosely secure the cradle in place using an M10 nut and washer set **(1)** onto the protruding bolt stud on each side.

Place washer plate A **(2)** against the three **(3)** outer holes on the cradle and secure using M12 x 50mm bolts **(3)**.

Place washer plate B **(4)** against the three **(3)** inner holes on the cradle and secure using M12 x 50mm bolts **(5)**.

Repeat procedure on opposite side.

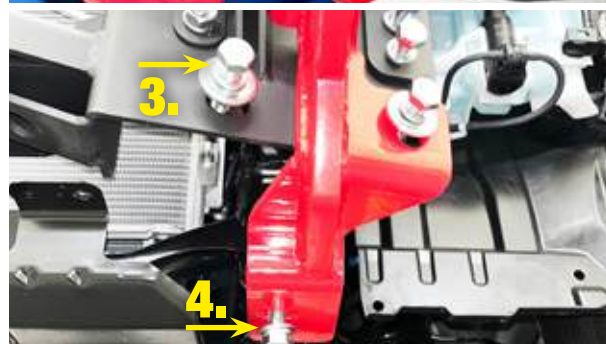
Item: 2, 15, 16, 30 and 34



- 15.** Position the recovery point against the face of the fish plate and the outer side of the cradle upright. Secure the side of the recovery point through the cradle upright using an M12 x 50mm bolt set **(1)** and an M12 x 50mm bolt **(2)** loosely through the face, the fish plate and into the welded nut on the outer chassis bracket. This will be removed in the following step.



Use an M12 x 50mm bolt **(3)** the last forward facing hole, and into the captive nut on the rear of the inner chassis bracket.



Install M12 x 50mm bolts **(4)** into underside of the recovery point and chassis. Leave loose, these will be removed later for the underbody plate.

Repeat procedure on opposite side.

Item: 3, 28, 29 and 30 - LHS

Item: 4, 28, 29 and 30 - RHS

- 16.** Remove the forward facing bolt from the outer side of the recovery point and place the bumper fixing return bracket **(1)** against it. Secure the bracket reusing the M10 bolt **(2)**.

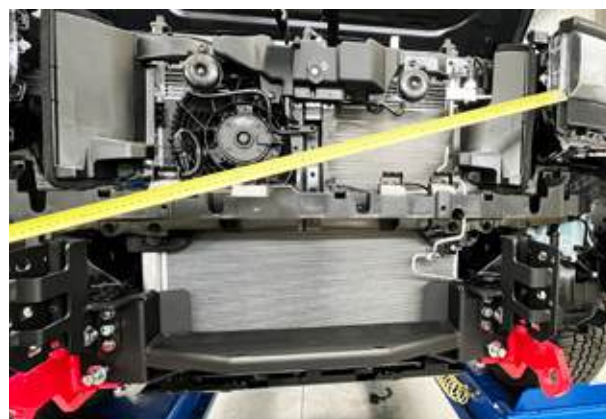


Repeat procedure on opposite side.

Item: 10 - LHS

Item: 11 - RHS

- 17.** Find a fixed point on the vehicle and opposing side of cradle as shown. Take measurement to square up and centre cradle.



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Repeat from left and right fixed points until the cradle is centred.



TIP

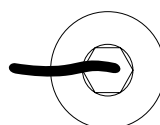
Use the inside edge of the headlight as a guide.

Lightly tighten the side bolts, check measurements and readjust if necessary.

When cradle is centred, tighten forward facing bolts and again check the alignment.

When happy with the alignment, tighten all bolts to torque guide specifications, excluding the two (2) bolts in the underside of each recovery point. Refer page 6.

Paint mark across bolt heads, washer and onto the surface underneath.



INSTALLING THE WINCH

18. WINCH OPTION

If installing a winch, you may need to trim the factory bumper upper support and the mounting point support bar as shown.

If not fitting a winch, you may skip these steps.



PLEASE NOTE

The trimming depicted in the images may vary and are dependent on the location of the electrical control box and the mounting plate.

We suggest dummy fitting the winch and grille to ensure adequate clearance between both items and the bumper upper support when permanently fitted.

When fitting a winch you can use an optional winch control box bracket and control box extension wiring loom. Length based on location of winch control box.

P/N: WWBCP001 (Bracket)

P/N: WWB030 / WWB031 / WWB032 (Cable)



- 19.** Select the desired mounting position on the vehicle.

The top plate can be bolted into multiple positions depending on space available.



- 20.** Once the chosen position is found, screw the top and side brackets together using the hardware supplied.



- 21.** The electrical control box also has multiple mounting positions. Once the desired position is found, bolt down using supplied hardware.

 **NOTE**

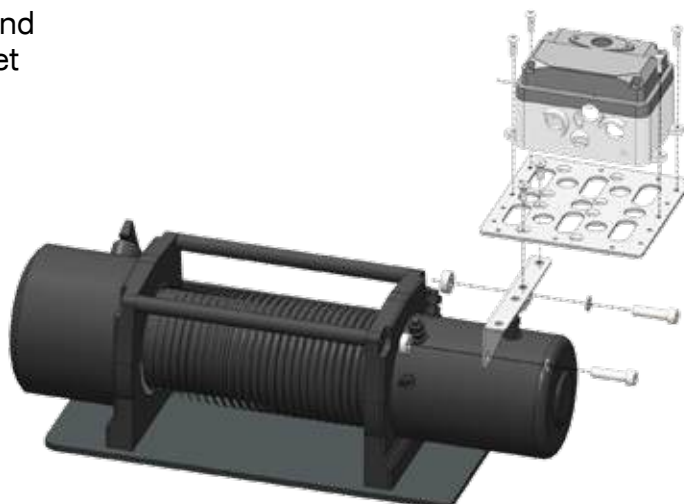
Earthing/grounding points must always be connected to the factory grounding points and not to the battery negative terminal. See the owner's manual.



- 22.** Remove 8mm side-mounted Allen-head bolts, and with the hardware supplied, bolt the side bracket to the winch using the supplied spacer kit.

 **NOTE**

Control box bracket can bolt over the electrical motor or gearbox side.



- 23.** Install winch into the cradle using bolts supplied with the winch.

Connect winch power cables, colour to colour to the winch.



Generic image used for illustrative purposes only

REMOVING AND REINSTALLING SENSORS

24.



NOTE

If the vehicle doesn't have factory-fitted parking sensors, the Parking Sensor Holders will still need to be installed into the new bull bar to fill sensor provision holes.

IMPORTANT

For parking sensors to function correctly, these instructions must be followed.

Before removing sensors from the original factory bumper, note the location and orientation of each sensor. This is to ensure when refitted into the new bull bar, their original location and orientation is replicated.

IMPORTANT - Do Not Paint Parking Sensors

Parking sensors are a delicate piece of the vehicle safety system. The centre "eye" of the sensor is responsible for detecting objects within a specified distance of the vehicle.

Painting a parking sensor does not damage it, but inhibits the sensor's ability to detect objects in its surroundings, causing a malfunction or premature detection.

IRONMAN 4X4 highly recommends not colour-coding parking sensors when installing a bull bar as excessive paint thickness will adversely affect the operation of the park assist system.

Parking sensors should only be painted once; only by the OEM.

28. Remove the parking sensor wiring and parking sensors from the factory bumper taking note of the position order and orientation of each sensor.



Generic image used for illustrative purposes only

- 29.** Remove the centre of the plastic sensor holder and lightly scotch brite to scuff the surface and promote better adhesion.

Clean around the sensor hole on the inside of the bull bar and lightly scotch brite.

If the vehicle doesn't have factory parking sensors, leave the centre complete and skip the next step.

Item: 19



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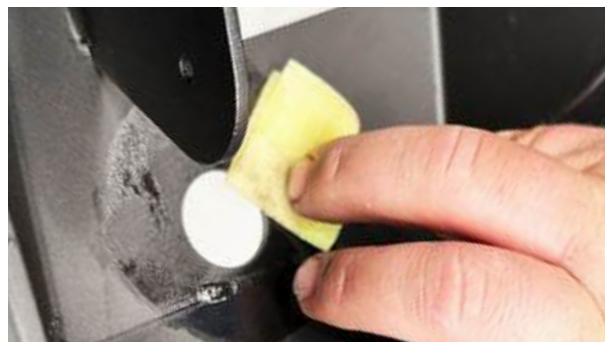
- 30.** Using the Adhesion Promoter, wipe around the mounting surface of the sensor holders and around the sensor holes on the bull bar.



NOTE

This step is important to ensure the sensor holders adhere properly to the bull bar.

Item: 25



Generic image used for illustrative purposes only

- 31.** Once Adhesion Promoter is dry, remove one side of the protective film on the double-sided tape and apply to the back of the sensor holder.

Remove the other side of the protective film and place the sensor holder into the correct position and direction on the rear of the bull bar.

Press down firmly until securely adhered.



Generic image used for illustrative purposes only

- 32.** Run the factory harness cabling in between the brackets and clip in parking sensors into parking sensor housings.

Plug in sensor extension cables.



NOTE

Don't cable tie off yet, leave wiring loom loose.

Item: 21



Generic image used for illustrative purposes only

DRESSING THE BULL BAR

- 33.** If fitting a lightbar we recommend installing at this stage for ease of access. Remove the central mesh and fit between the side tabs from the rear. Reuse bolts removed to secure in place.



NOTE

If connecting a wiring harness, we strongly recommend using the IRONMAN 4X4 IBBPL125 or IPLS125 due to the complexity of new vehicle wiring. These should be installed at this point.

See page 6 for compatible looms available.

Please see product specific instructions for correct fitting procedures.



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- 34.** If fitting a winch, use the optional winch extension plug based on the length required and secure in place with bolts supplied with the winch.



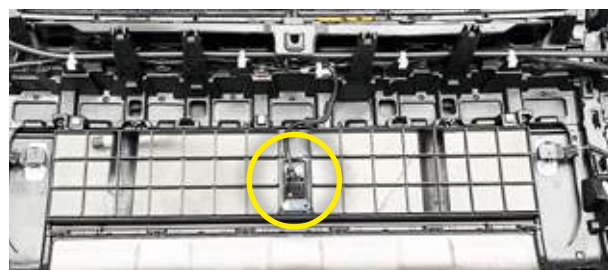
Generic image used for illustrative purposes only

- 35.** Disconnect the camera, remove the screws securing the bracket to the rear of the factory bumper.

Remove the complete unit and transfer to the central point of the bull bar. Secure in place reusing the bracket and the new cover plate supplied.

Reconnect the camera plug.

Item: 14



- 36.** Complete dressing the bar with the fairlead, using hardware supplied.

Check all bolts, fittings and overrides are tightly secured. Fix all wiring in place with cable ties.

Apply IRONMAN 4X4 badge to front of bull bar and adhere ACC warning sticker to the bar if not already attached.

Item: 22 and 24



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- 37.** Remove the solid panel from the rear of the factory bumper and discard.

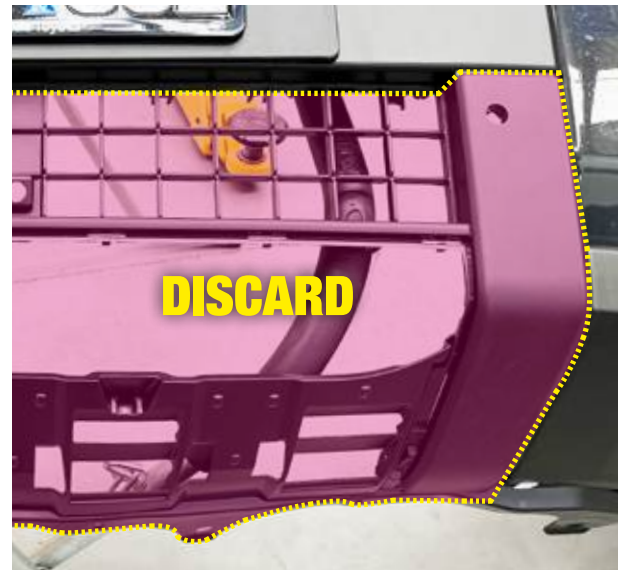
Carefully turn the bumper over and mark the trim line as shown on half of the photo. Repeat on the opposite side.

Carefully trim the lower centre section as shown, deburr the trimmed edges and apply pinchweld.



IMPORTANT NOTE

We strongly recommend disassembling the factory bumper to prevent possible damage to the painted surfaces when trying to manage a larger item.



INSTALLING THE BULL BAR AND FINISHING

38.



NOTE

To aid in fitting the bar it is advised to tape nut plate to the outer face of the cradle upright as shown.

Item: 13 - LHS

Item: 14 - RHS



Generic images used for illustrative purposes only

39. Lift the bull bar into position and align with the chassis mounting holes and triple nut plate. Secure in place using M12 x 40mm bolts on both sides.

Centralise the bull bar to the vehicle body and nip up lower bolt on each side to allow for manipulating into correct position.

Temporarily refit the factory bumper to assist with alignment and final positioning of the insert bar.

Remove the bumper when happy with final position and tighten all bolts.

Repeat procedure on opposite side.

Item: 1 and **32**



WARNING

Unless using a bull bar assist lift, we recommend two (2) persons complete this task to avoid personal injury or damage to the vehicle and/or components.



Generic images used for illustrative purposes only

- 40.** Drill pinning holes and pin the bar in place using M10 x 30mm pinning bolt sets.

Tighten all bolts using torque guide specifications. Refer page 6.

Paint mark across bolt head, washer and onto the surface underneath.

Repeat procedure on opposite side.

Item: 33



- 41.** Refit the factory bumper, securing at the top and sides.

Reconnect the headlight washer pipe, the camera loom, bumper loom plug and centre sensors.

Test all functions.



- 42.** Attach the base of the factory bumper to the bumper fixing return bracket.

Replace the two (2) clips and bolts to secure the underside of the factory bumper.

Reusing the OE screws and clips, replace the front mud flap panel to the underside of the factory bumper.

Repeat procedure on opposite side.

Item: 33



- 43.** Resecure the side cheek of the factory bumper, refit the flares and all screws, bolts and clips on the guard liners.

Repeat procedure on opposite side.



- 44.** If a winch is fitted, connect the extension harness to the control box. Test all functions operate correctly.

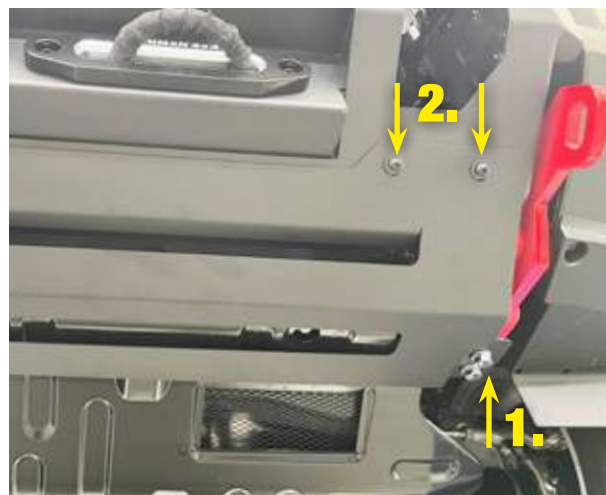
- 45.** Remove the bolts in the underside of the recovery points and lift the underbody protection plate into place, overlaying the factory plate.

Place washer plate C **(1)** at the rear fixing points of the plate and secure into the underside of the recovery points reusing the bolts just removed.

Repeat procedure on opposite side.

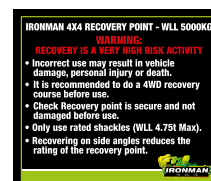
Secure the front of the underbody plate into the captive nuts in the underside of the insert bar using M8 x 25mm bolts **(2)**.

Item: 9, 17 and 35



- 46.** Reinstall the number plate to the vehicle if previously removed and apply warning decals to each recovery point.

Item: 23



- 78.** Refit the plenum cover and test all lights, indicators, sensors, radar, camera and washers are functioning correctly.

ONCE INSTALLED...

- Ensure all bolts are tensioned correctly
- Doing a pre-trip check before heading away, or every 10,000km (6,200 miles) is good practice.
- Visually inspect bull bar and hardware, retension bull bar hardware or when needed.
- Check the operation of the blinkers, park lights, fog lights and winch if installed and ensure that they are all functioning correctly.
- Ensure all electrical wiring is clear of sharp edges and correctly secured.
- If vehicles are fitted with parking sensors, radars and/or front cameras, check they are operating correctly.
- Some makes and models may need to return to the dealership for recalibration.
- Stand back and admire your work.

