INSTALLATION INSTRUCTIONS

BBP125A

APEX TRIPLE HOOP FRONT BUMPER TO SUIT TOYOTA LAND CRUISER (2024+)

Weight: 54kg (120lb) ±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

6 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: BBP125A/241125

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 colors 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-colored 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)

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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 equalizing 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

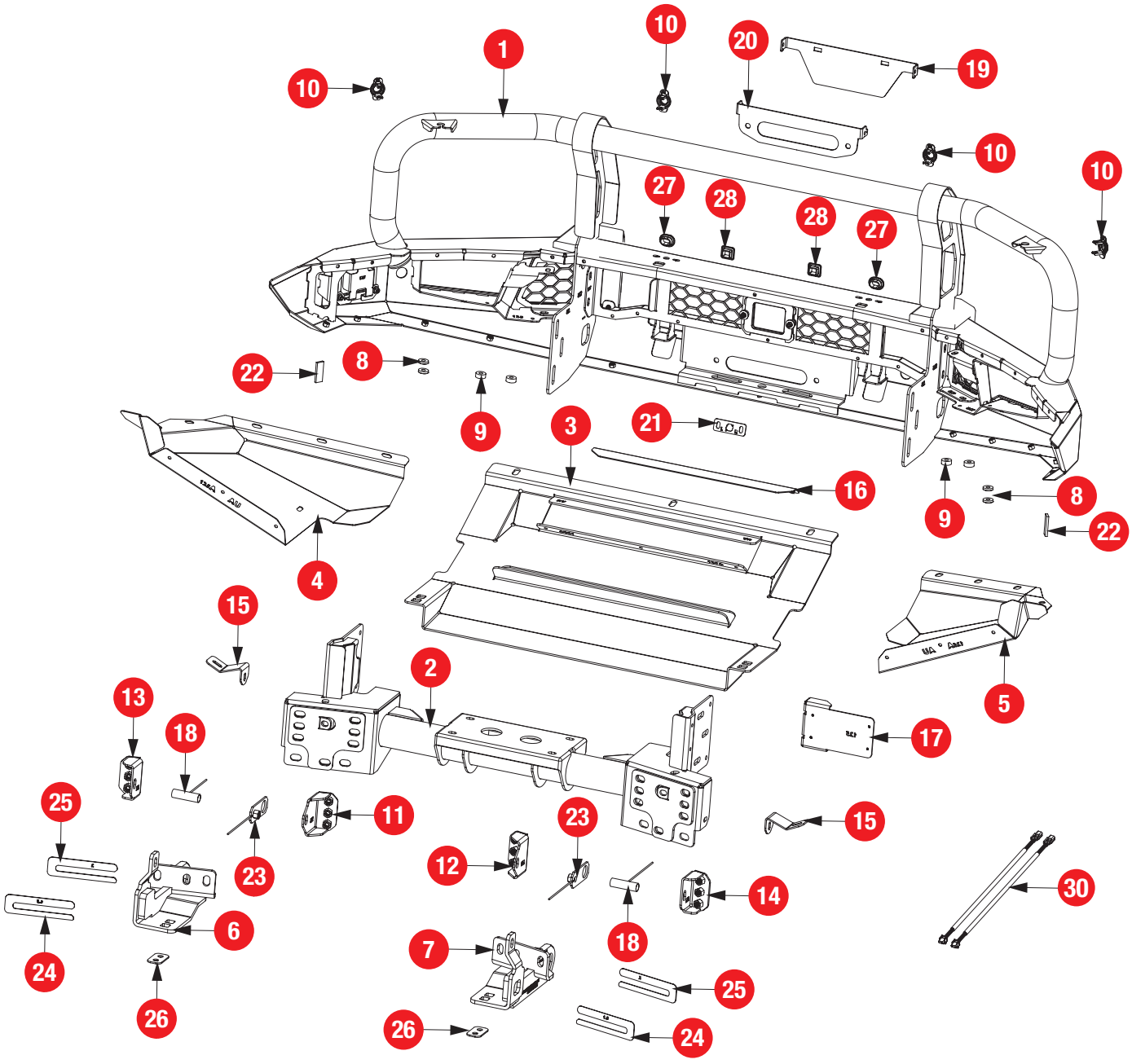
- This product has been tested for airbag compatibility; therefore, the mounting system or any part of the bull bar **MUST NOT** be modified.
- Some images contained in these instructions are generic and are a representation of the actual model and/or parts used.
- Some steps may show parts out of sequence 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.	Front underbody protection plate	1
4.	Side wing protection plate - LHS	1
5.	Side wing protection plate - RHS	1
6.	Recovery point - LHS	1
7.	Recovery point - RHS	1
8.	Cube light spacer 5mm	4
9.	Cube light spacer 10mm	4
10.	Sensor holders (PSH090)	4
11.	Inner chassis bracket - LHS	1
12.	Inner chassis bracket - RHS	1

No.	Part Description	Qty
13.	Outer chassis bracket - LHS	1
14.	Outer chassis bracket - RHS	1
15.	Side wing plate bracket	2
16.	Air deflector plate	1
17.	Winch control box mounting bracket	1
18.	Wired crush tube	2
19.	Number plate flip bracket	1
20.	Number plate hawse bracket	1
21.	Camera mounting bracket	1
22.	EPDM foam pad	2
23.	Wired M12 nut plate	2
24.	Shim plate - 1.5mm	2

No.	Part Description	Qty
25.	Shim plate - 2mm	2
26.	M12 Double washer plate	2
27.	Rubber grommet - Round (For international Prado 250's)	2
28.	Rubber grommet - Square (For international Prado 250's)	2
29.	Number plate nylon spacer	2
30.	Parking sensor looms (IBBPSL090)	2
31.	ACC warning sticker (not shown)	1
32.	Recovery point sticker (not shown)	2
33.	Adhesive logo badge (not shown)	1
34.	Adhesion promoter (not shown)	1



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

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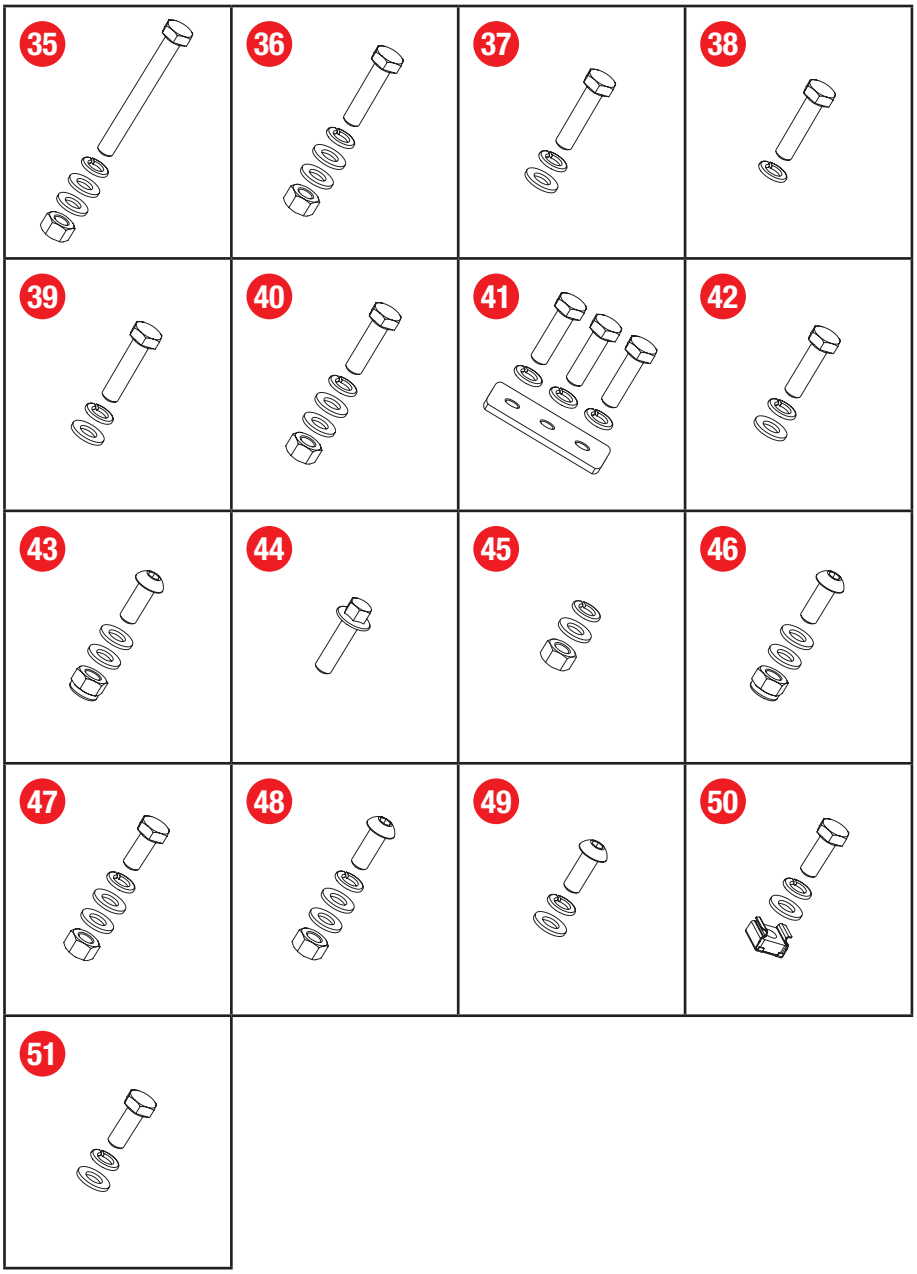
PARTS LIST (ITEM)

No.	Part Description	Qty
35.	Hex Head Bolt M12 x 100mm x 1.25 Flat Washer M12 (36.5 x 14 x 4mm) x 2 Spring Washer M12 Hex Nut M12	2
36.	Hex Head Bolt M12 x 50mm x 1.25 Flat Washer M12 (36.5 x 14 x 4mm) x 2 Spring Washer M12 Hex Nut M12	2
37.	Hex Head Bolt M12 x 50mm x 1.25 Flat Washer M12 (36.5 x 14 x 4mm) Spring Washer M12	2
38.	Hex Head Bolt M12 x 50mm x 1.25 Spring Washer M12	4
39.	Hex Head Bolt M12 x 50mm x 1.25 Flat Washer M12 (32 x 13 x 3mm) Spring Washer M12	2
40.	Hex Head Bolt M12 x 40mm x 1.25 Flat Washer M12 (36.5 x 14 x 4mm) x 2 Spring Washer M12 Hex Nut M12	8
41.	Hex Head Bolt M12 x 40mm x 1.25 Flat Triple Washer Plate M12 Spring Washer M12	4
42.	Hex Head Bolt M12 x 40mm x 1.25 Flat Washer M12 (36.5 x 14 x 4mm) Spring Washer M12	2
43.	Dome Head Bolt M10 x 30mm x 1.5 Flat Washer M10 (29.5 x 10.5 x 3mm) x 2 Nyloc Nut M10	2
44.	Hex Head Flange Bolt M10 x 30mm x 1.5	4
45.	Flat Washer M10 (29.5 x 10.5 x 3mm) x 2 Spring Washer Hex Nut M10	2
46.	Dome Head Bolt M8 x 30mm x 1.25 Flat Washer M8 (16 x 8.5 x 2.5mm) x 2 Nyloc Nut M8	2
47.	Hex Head Bolt M8 x 25mm x 1.25 Flat Washer M8 (22.5 x 8.5 x 2.5mm) x 2 Spring Washer M8 Hex Nut M8	2
48.	Dome Head Bolt M8 x 25mm x 1.25 Flat Washer M8 (22.5 x 8.5 x 2.5mm) x 2 Spring Washer M8 Hex Nut M8	2
49.	Dome Head Bolt M8 x 20mm x 1.25 Flat Washer M8 (22.5 x 8.5 x 2.5mm) Spring Washer M8	13
50.	Hex Head Bolt M6 x 20mm x 1.0 Flat Washer M6 (22.5 x 6.5 x 2.5mm) Spring Washer M6 Cage Nut M6	2
51.	Hex Head Bolt M6 x 20mm x 1.0 Flat Washer M6 (22.5 x 6.5 x 2.5mm) Spring Washer M6	5



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ACCESSORIES

OPTIONAL

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

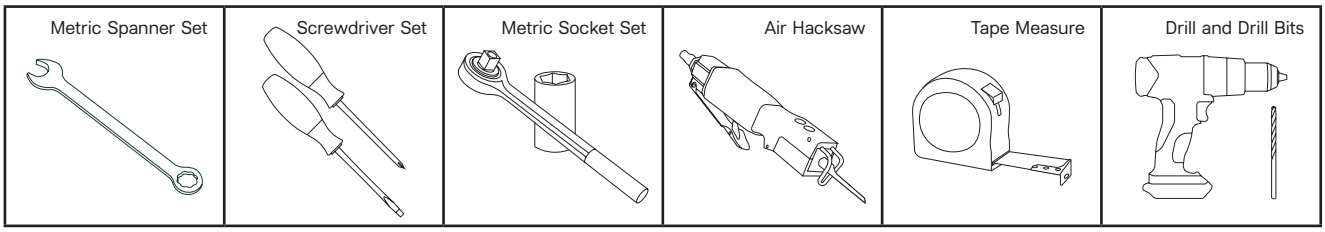
- Lightbar patch loom - **ILBWL001**

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.

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 bumper application is compatible with the vehicle.

   Before installation, unwrap the hardware and bumper, taking care not to damage or scratch in the process. Inspect bumper 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.

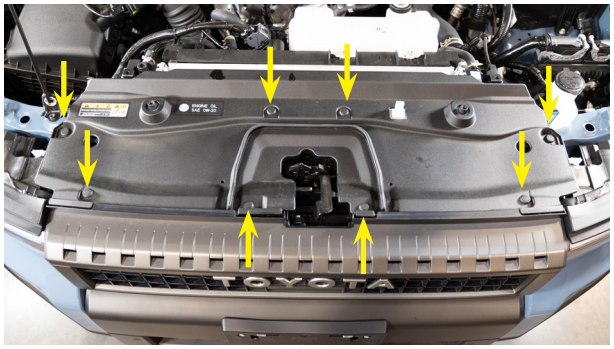
STRIP DOWN AND PRE-INSTALL PROCEDURES

2. Grab a 10mm wrench to disconnect battery and discharge the system.

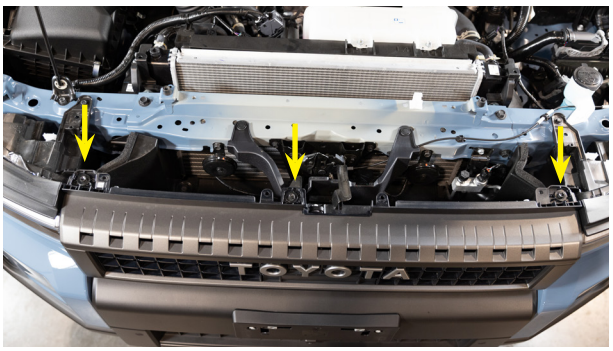
WARNING

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

3. Pop and remove the plastic retainer clips on the top radiator shroud and remove.

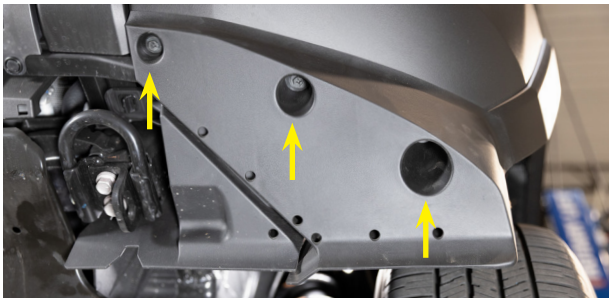


4. Use a 10mm socket and remove the three (3) hex bolts holding the top of the grill in place.



5. Start removing front half of fender flares by removing bolts and plastic clips, using a 10mm socket and a body clip removal tool.

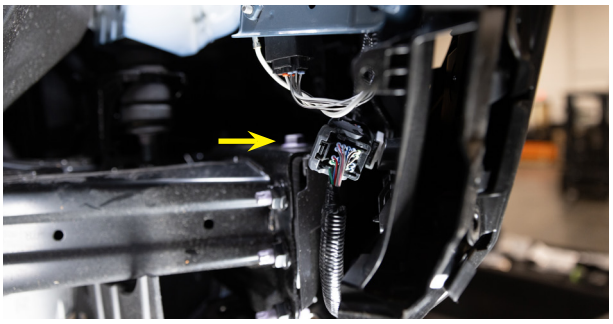
Remove hex bolts on the inside of the front fender liner and the bottom of the front splash guard with 10mm socket.

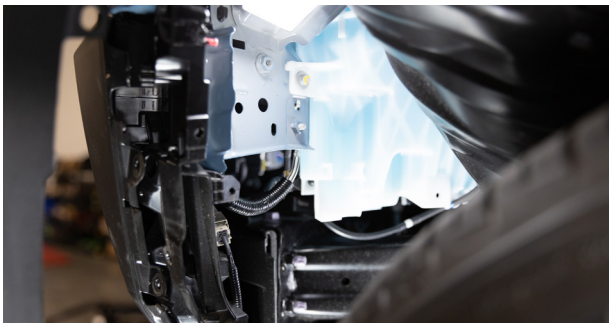


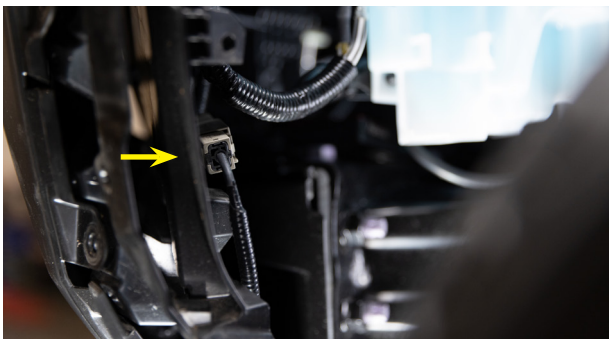
TIP

Set the bolts and clips on a piece of cardboard or foam to keep track or not lose them.

6. Disconnect the bumper harness plugs in the bottom right and left corners just below the headlights.







7. Pry plastic clip and remove two (2) 10mm bolts holding the plastic cover in front of skid plate, remove cover.

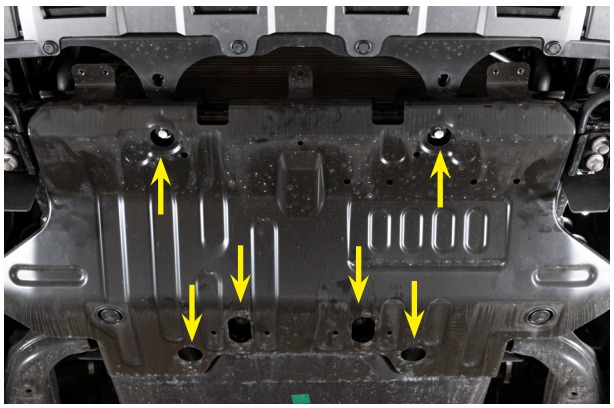
Remove four 10mm bolts on bottom edge of front bumper.

8. To remove fender flare, carefully pry tab on the bottom front edge to release from bumper plastic.

Carefully pop clips away from quarter panel and pull fender flare back.

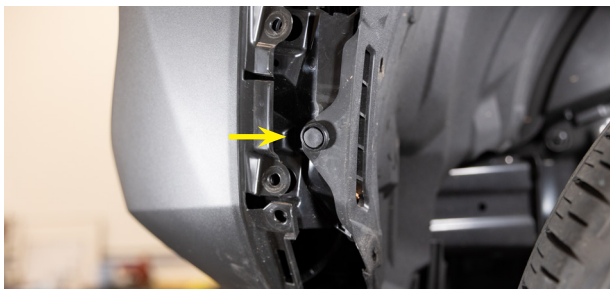
Put a rag in between flare and quarter panel to keep it spaced away and prevent scratching the paint.

9. Use a 12mm socket to remove the six (6) front skid plate bolts and remove plate.



10. Use 10mm socket and remove remaining bolts on the bottom front edge of the bumper.

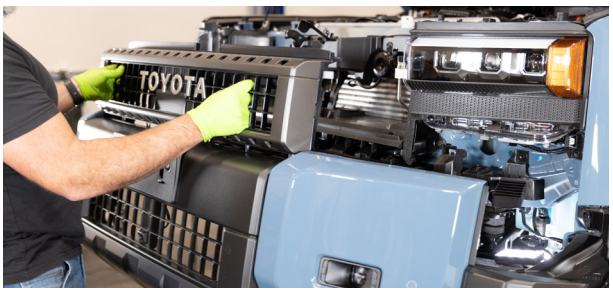
Also, remove the remaining bolt on each bottom outer corner.

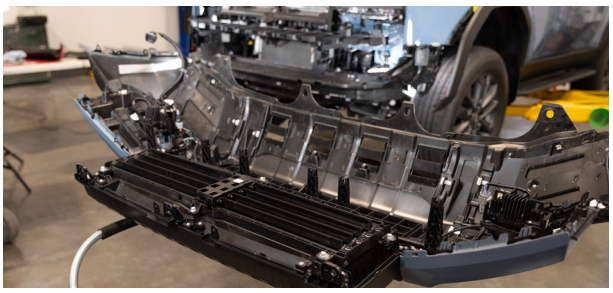


11. Carefully pop out plastic bumper corners below the headlights by pushing down on the painted plastics and pulling until it snaps free.

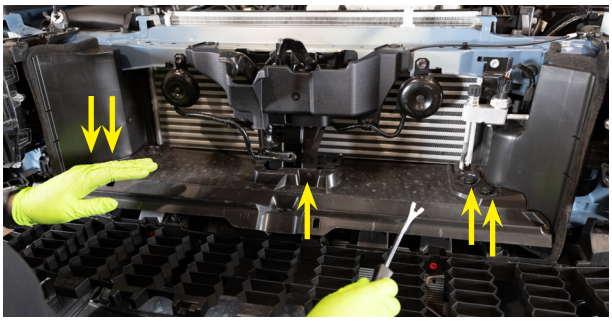
Lift and remove OEM front bumper from vehicle and set aside to access later.

As you lift the bumper away, make sure no wires are left connected or get snagged.



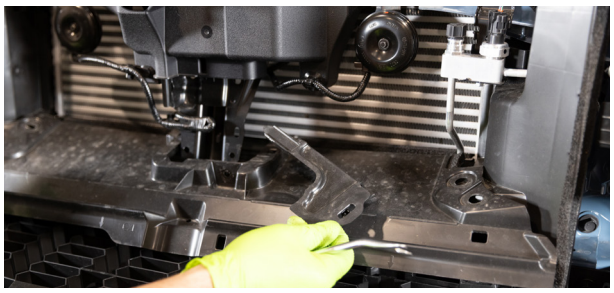


12. Use pry tool to remove the five (5) plastic clips holding the lower radiator shroud; two (2) on each side and one (1) in the center.



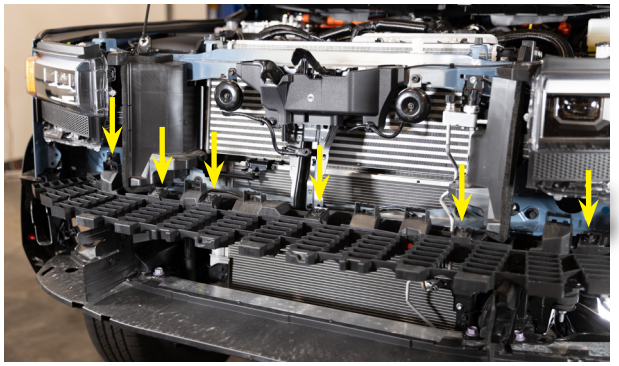
13. Use a pry tool to release the clip holding the back filler plate of the lower radiator shroud.

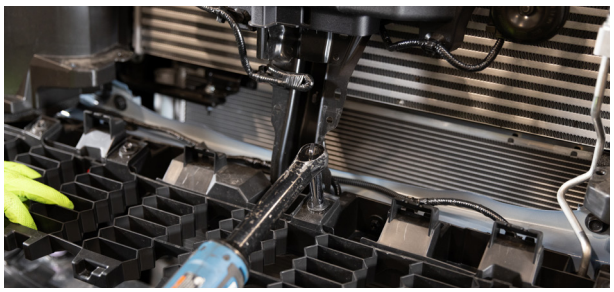
Remove the small plastic plate and the lower radiator shroud.

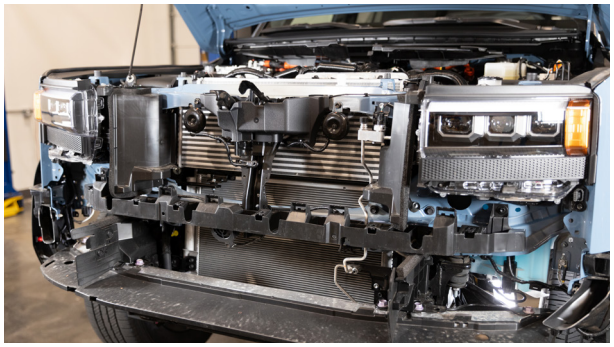


14. Use a 10mm socket and remove six (6) bolts holding the plastic crush grate in place.

Remove and discard.

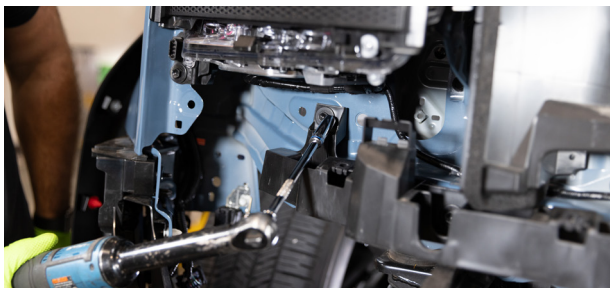


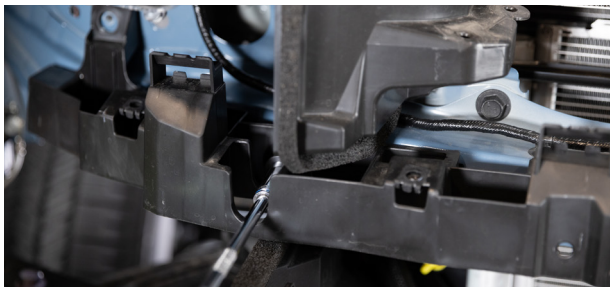


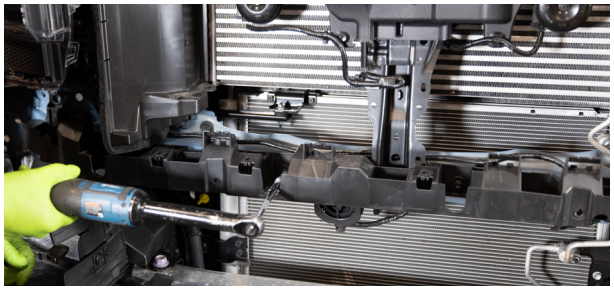


15. Use a 10mm socket to remove the several hex bolts holding the bumper support bracket in place.

Remove support bracket and set aside for later.







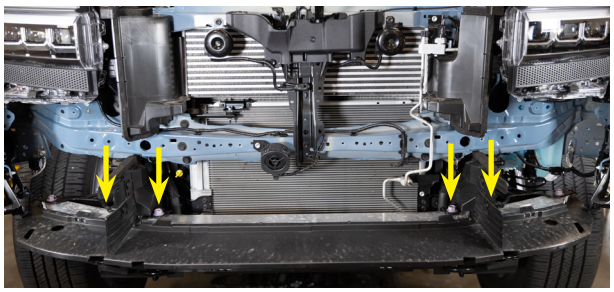
16. Use pry tool to remove the inner and outer clips holding the side air dam panels to the bumper crash bar.

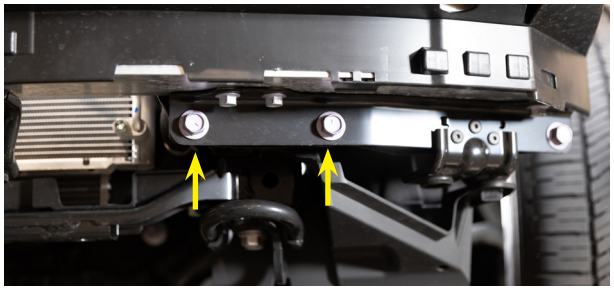
Remove and discard.

17. Use a 17mm socket and remove the two (2) sets of bolts on the top of the front crash bar, two on each side.

Then remove the four (4) bottom front facing bolts on the crash bar, two on each side.

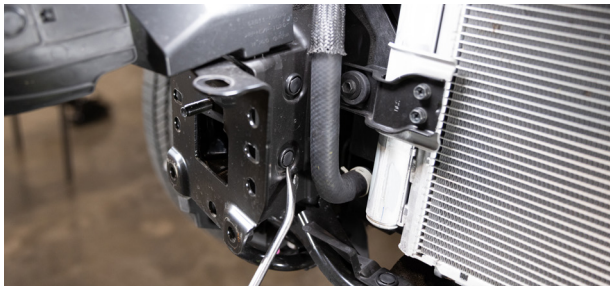
Remove crash bar and discard.





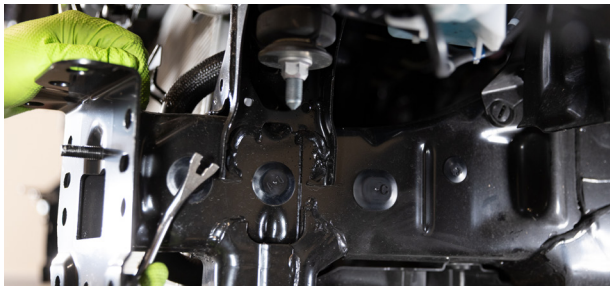
18. Use pry tool and remove the three (3) clips holding the plastic shroud against the front frame horns, both sides.

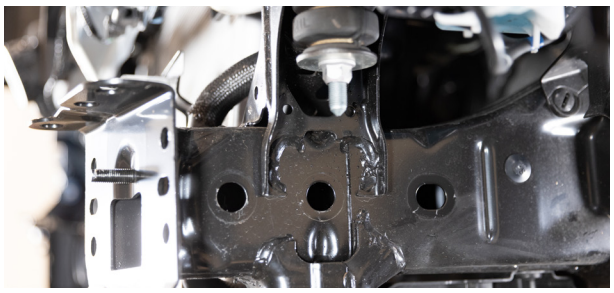
Remove plastic shrouds and discard.



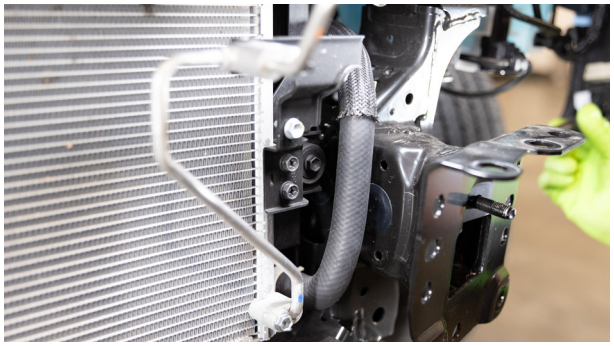
19. Use 17mm socket and remove both front tow hooks.

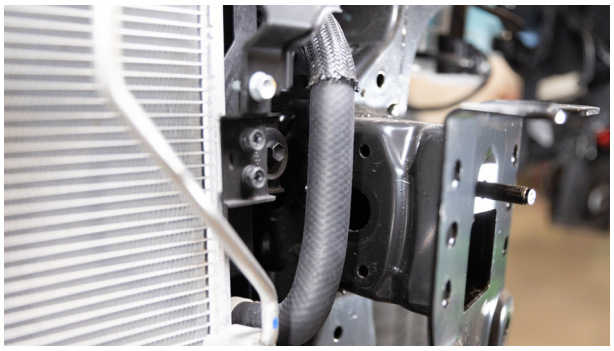
20. Use pry tool and remove the three (3) plastic plugs on the outer front frame, both sides.





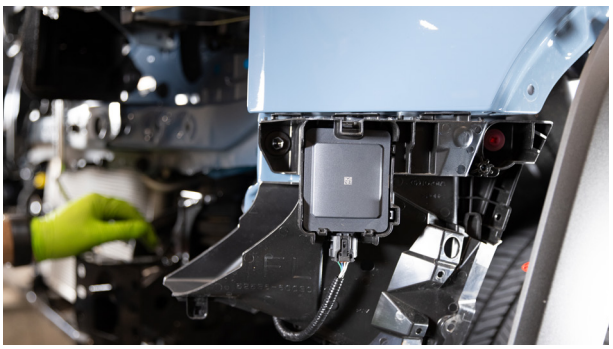
21. Punch out the plastic plugs on the inside of the frame, both sides.





22. Remove the Blind Spot Monitoring (BSM) sensors by pressing down the two (2) clips on the bottom and popping out of their cradle.

Unplug the sensors and set aside for later.

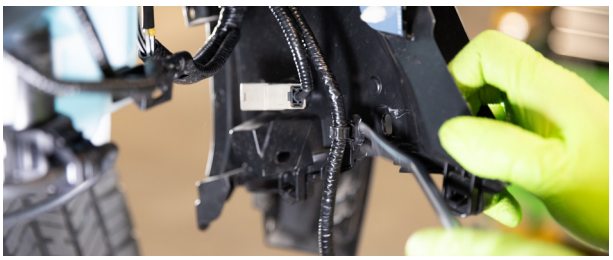


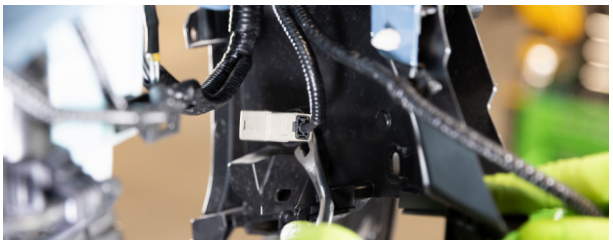
23. Use a pry tool and remove the BSM harness, and bumper harnesses from the corner bumper support brackets on both sides.

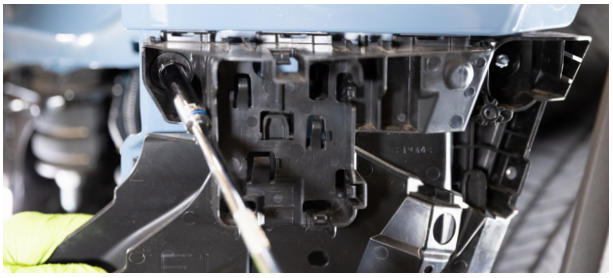
Use pry tool to pry out red clips by the fender liner as indicated by photo below.

Use 10mm socket and remove the bolt holding the corner bumper support bracket to the front quarter panel.

Remove both corner bumper support brackets and set aside for later.



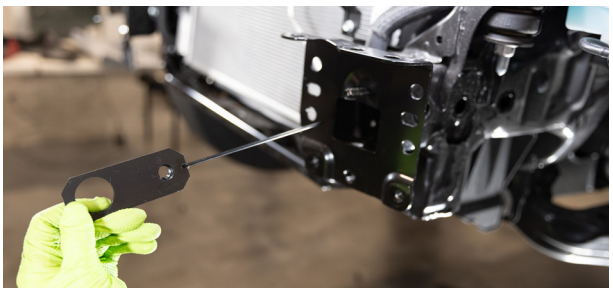


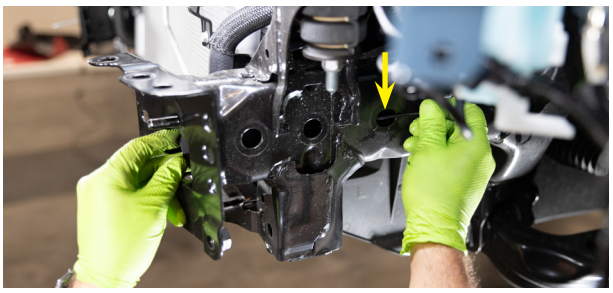


24. Grab the two (2) M12 nut plates on a stick and insert into the front frame horn, one on each side.

Make sure the stick pokes out of the third hole back of the outside of the frame, as indicated in the photo.

Item: 23

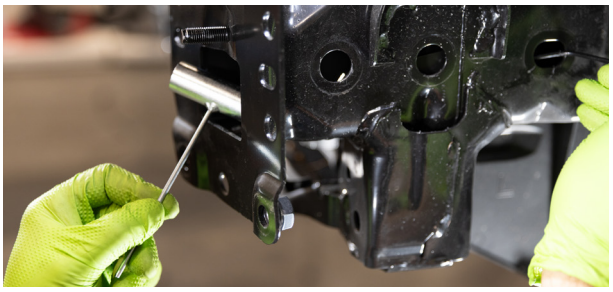


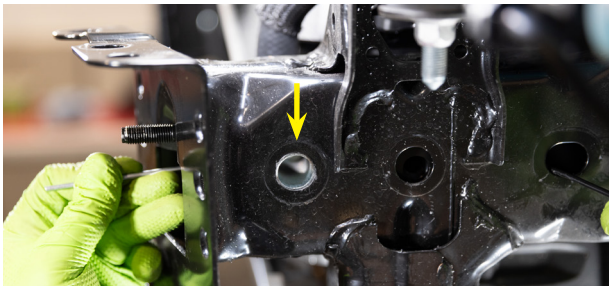


25. Grab the crush tubes on a stick and insert them into the front frame horn.

Align with the forward most sidehole.

Item: 18





26. Grab the outer chassis bracket along with the M12 x 100mm x 1.25 hex bolts, washers, spring washers, and nuts.

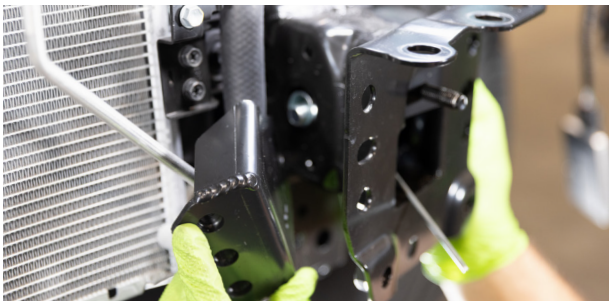
Insert bolt through the outer chassis bracket, align bolt with crush tube and insert through the frame.

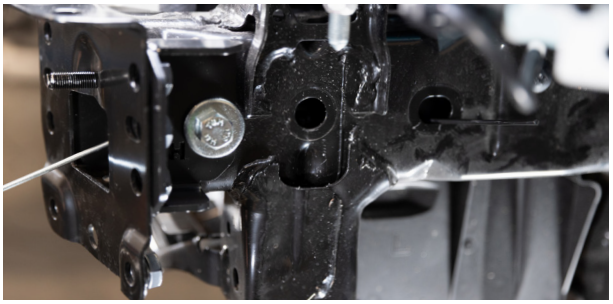
Grab the inner chassis bracket and place over the bolt on the inside of the frame and secure with the M12 hardware.

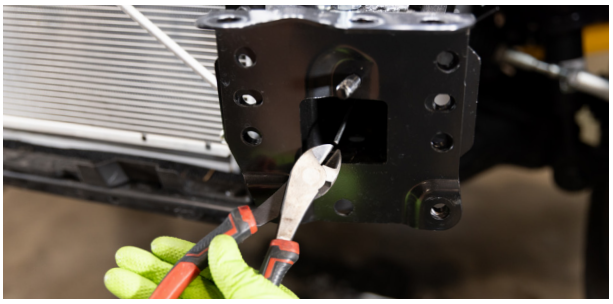
Leave finger tight for now. Do the same for both sides.

Use side cutters and snip off the excess wires on the crush tubes NOT the nut plates yet.

Item: 11, 13 (LHS)
Item: 12, 14 (RHS)
Item: 36



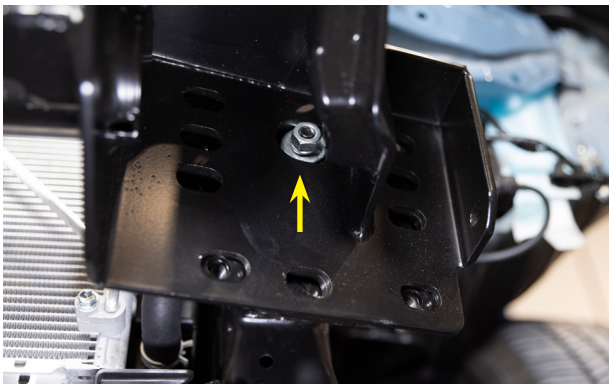




27. Grab the winch cradle and install onto the front of the frame.

Loosely secure in place using the M10 nuts and washers.

Item: 2, 46



28. Grab the red recovery points and install into the middle hole of the frame, first using M12 x 50mm x 1.25 hardware.

Leave finger tight for now.

Item: 6, 7, 37

29. Grab the nut plate wire that's poking out of the frame to align middle hole in frame with the top side mount of the recovery point.

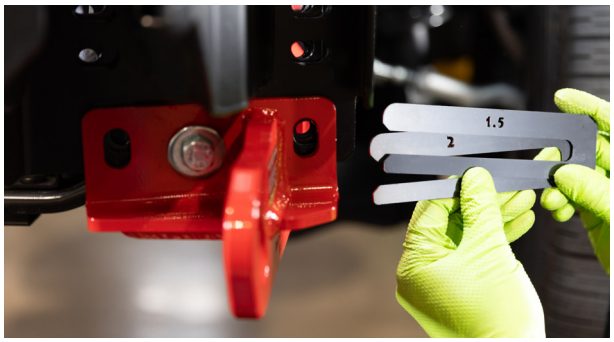
Loosely secure in place using an M12 x 40mm x 1.25 bolt, washer, split washer; both sides.

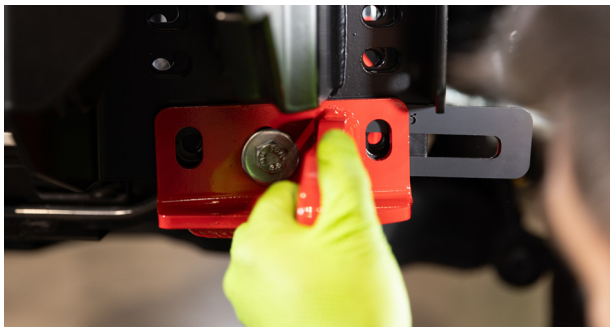
Item: 43

30. Some vehicles require shim plates in between the front of the frame and the recovery points.

We provided 1.5 and 2mm shim plates, use as needed.

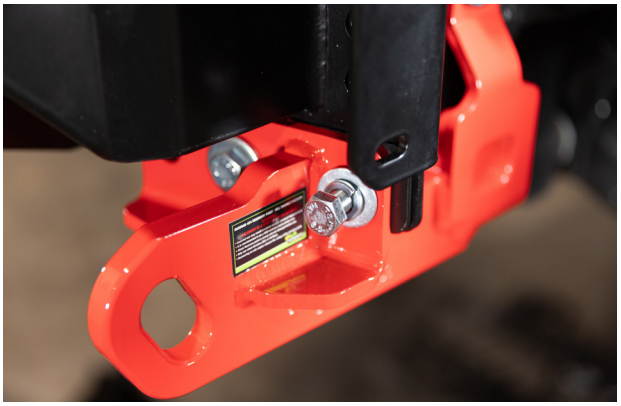
Item: 24, 25





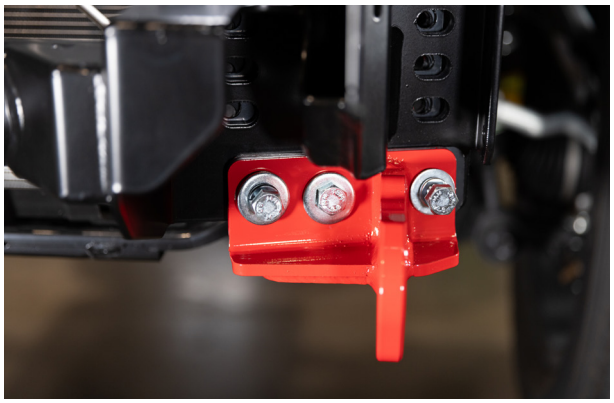
31. Loosely secure the outer hole of the recovery points with M12 x 50mm x 1.25 bolts, flat washers, and spring washers.

Item: 40



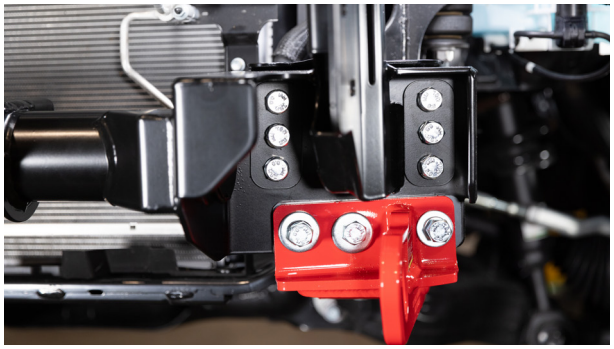
32. Loosely secure inner hole of the recover points with M12 x 50mm x 1.25 bolts, flat washers, and spring washers.

Item: 38



33. Grab the triple washers plates and loosely secure onto the front of the winch cradle using M12 x 40mm x 1.25 bolts and spring washers.

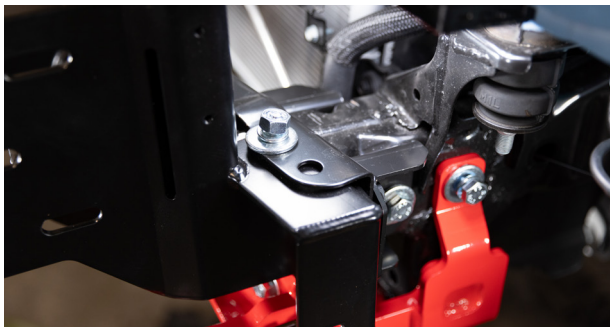
Item: 42



34. Loosely install M12 x 40mm x 1.25 bolts, flat washers, spring washers, and nuts through the top holes of the winch cradle.

One M12 bolt per side.

Item: 41

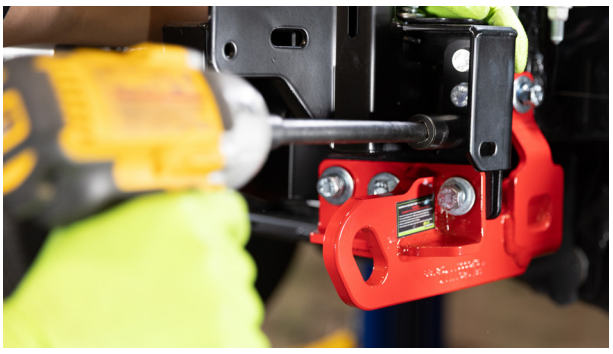


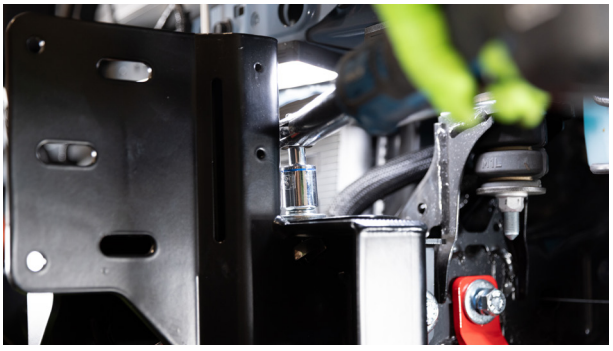
35. Use a tape measure to verify that the winch cradle is square and centered to the body.

It can adjust left to right on the frame.

Once centered to the body, tighten the M12 x 1.25 nuts using a 17mm socket.

36. Now tighten all of the front facing bolts with the triple washers using a 19mm socket as well as the top bolt.



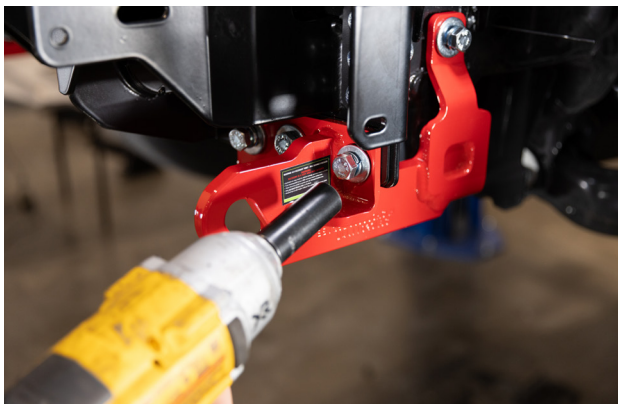


37. Grab the M12 double washer plates and the M12 x 50mm x 1.25 bolts and spring washers.

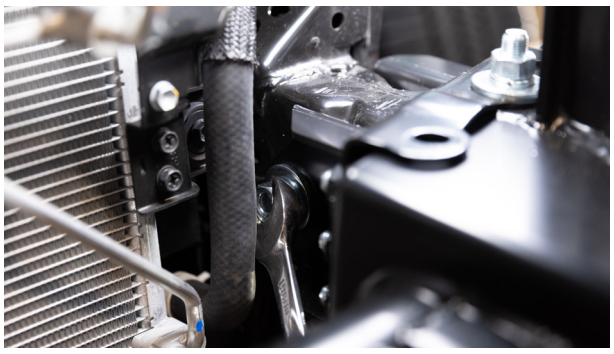
Secure in the two bottom holes of each recovery point with a 19mm socket.

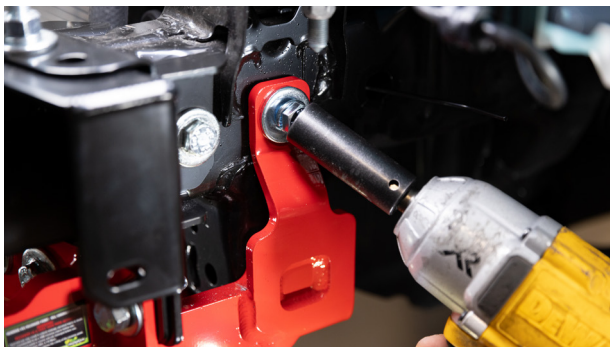
Item: 26, 39

38. Use a 19mm socket and tighten the three front bolts of the recovery points.



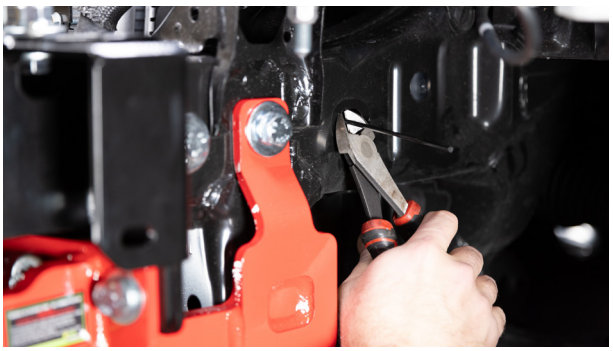
39. Use a 19mm socket and wrench to tighten the side bolts of the recovery points.



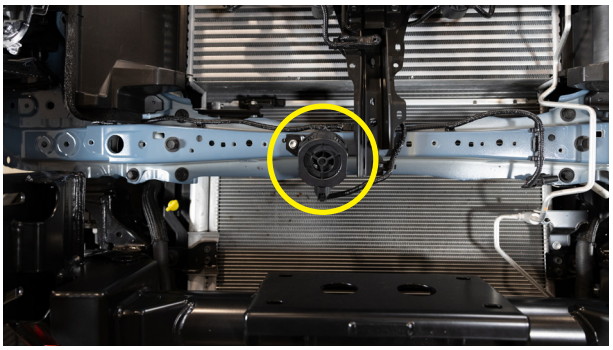


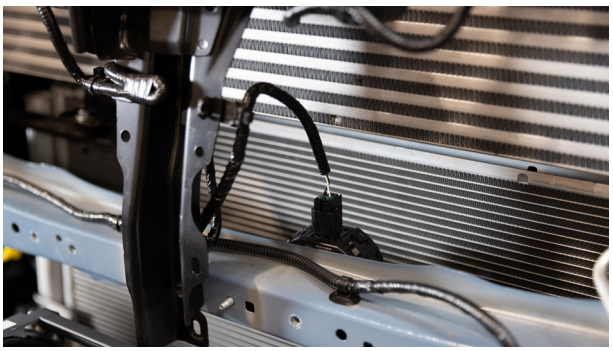
40. Now that everything is tight, use side cutters to cut the excess wire off the nut plate.

Use one of the plastic frame caps that you removed earlier and replace to cover the hole.



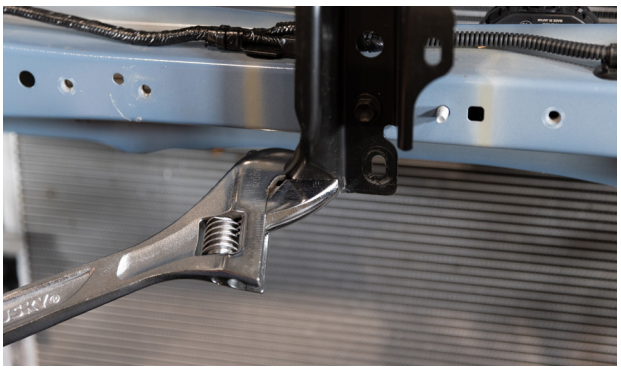
41. Use a 10mm socket and relocate the front speaker to the back side of the cross member, as indicated.





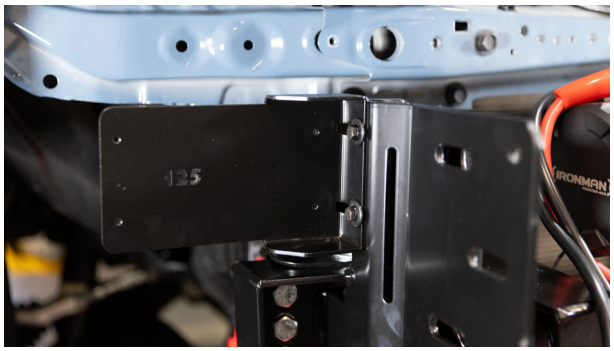
42. When installing a winch, the center bracket may interfere.

Either bend it out of the way or cut for clearance around the winch.



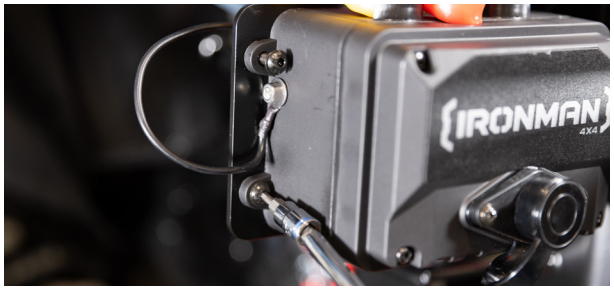
43. If installing the IRONMAN winch, then grab the winch control box mounting bracket and secure to the winch tray using the M6 x 20mm bolts, flat washers, and spring washers with a 10mm socket.

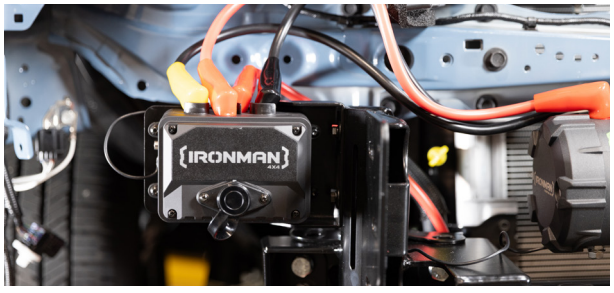
Item: 17, 52



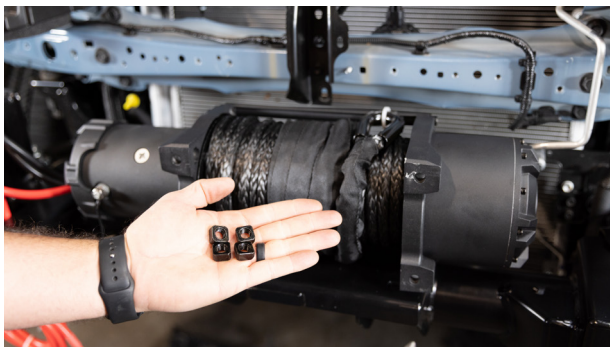
44. Grab the winch control box and the M5 allen bolt supplied by the winch and install to the mounting bracket.

Tighten with a 3mm allen wrench.





45. Grab the square nuts included with the IRONMAN winch and install into the winch mounting feet.



46. Put some red loctite on the winch mounting bolts.

Carefully rotate winch onto winch cradle and line up mounting holes.

Install the bolts and tighten with 16mm wrench.

TIP

Pull winch forward and tighten bolts so winch is seated in the cradle.

47. Wire up the control box to the winch motor using the following steps:

Short red wire with red end from control box to red post.

Short black wire with yellow end to yellow post.

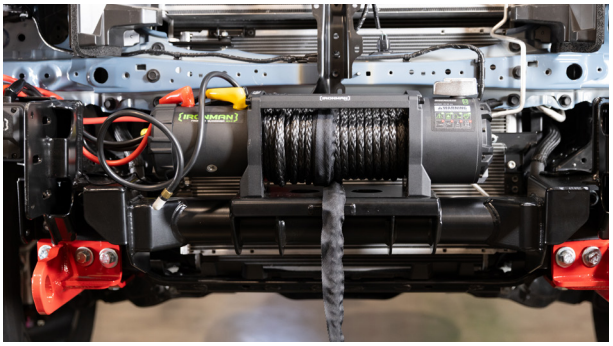
Short black wire with black end to black post.

Long red wire back to the battery positive terminal in rear cargo area.

Long black wire from bottom of winch motor back to battery negative terminal in rear cargo area.

Short small gauge wire from control box to same terminal on bottom of winch motor.

Install winch motor breather to an elevated position in the engine bay.

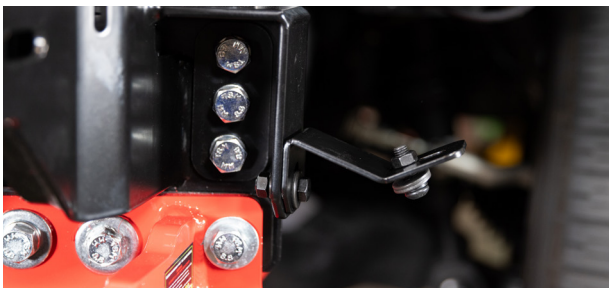


NOTE

Because all North America Land Cruisers are hybrids, the 12V battery is located in the rear cargo area. The positive and negative cables from the winch will need to be extended to reach.

48. Install side plate brackets onto winch cradle using M8 x 25mm x 1.25 hardware.

Item: 15, 48



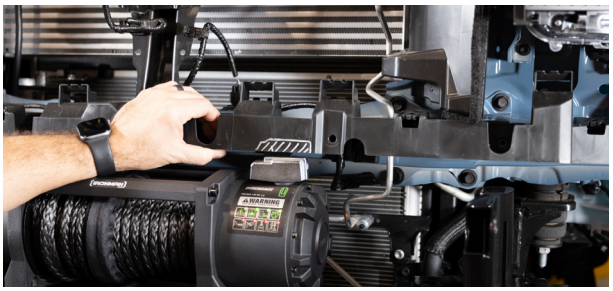
49. Reinstall the plastic bumper support using OEM hardware with a 10mm socket.

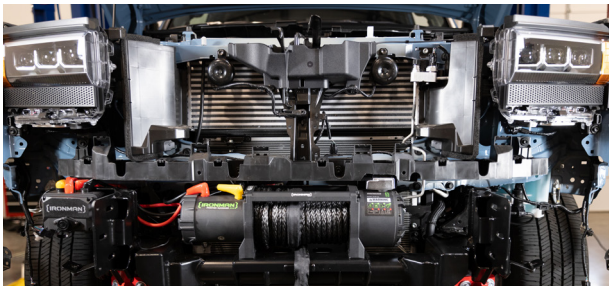
Check clearance around the winch clutch handle.

If there is interference with the handle, there are two ways to solve it:

You can clock the winch, so the handle is facing forward.

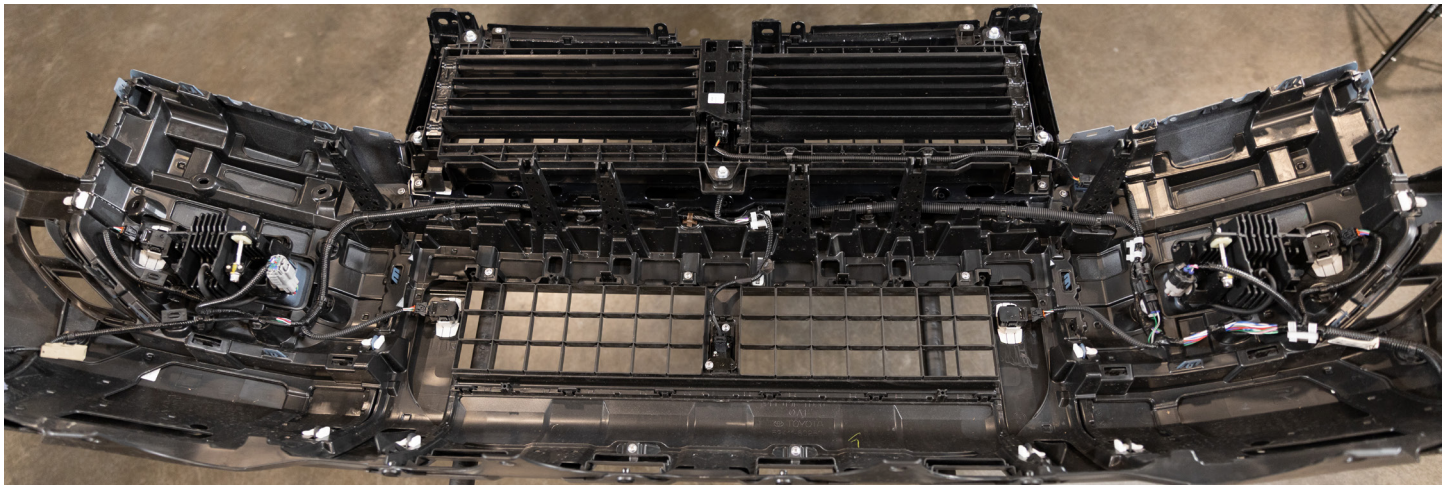
Or simply trim away some of the plastic material, so the handle clears, is easy to operate, and rotates freely.



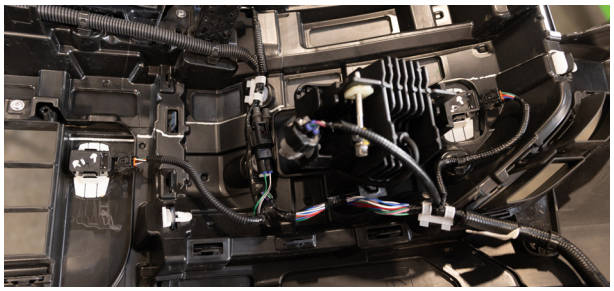


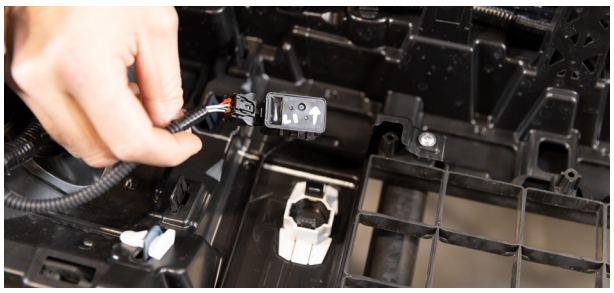
50. Onto the factory bumper.

Locate and label each of your parking sensors L and R, because it's important these go back in the same order.



51. Carefully unclip and remove the parking sensors from the bumper shell.





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 bumper, 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 center “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 color-coding parking sensors when installing a bumper 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.

52. Use a pry tool and unclip the parking sensor wiring harness from the bumper shell.

Unplug the OEM fog light.

53. Unplug the front camera harness.

Use a pry tool to remove the first clip holding the harness to the bumper, giving you a bit more slack.

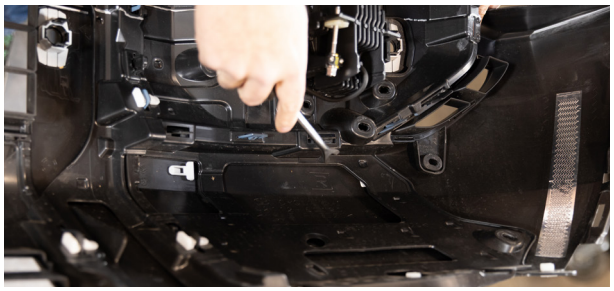
54. Use a P2 Phillips and remove the two screws holding the camera bracket to the grill.

Remove camera and bracket, set aside for later.

55. Next, we need to remove the black plastic outer bumper covers.

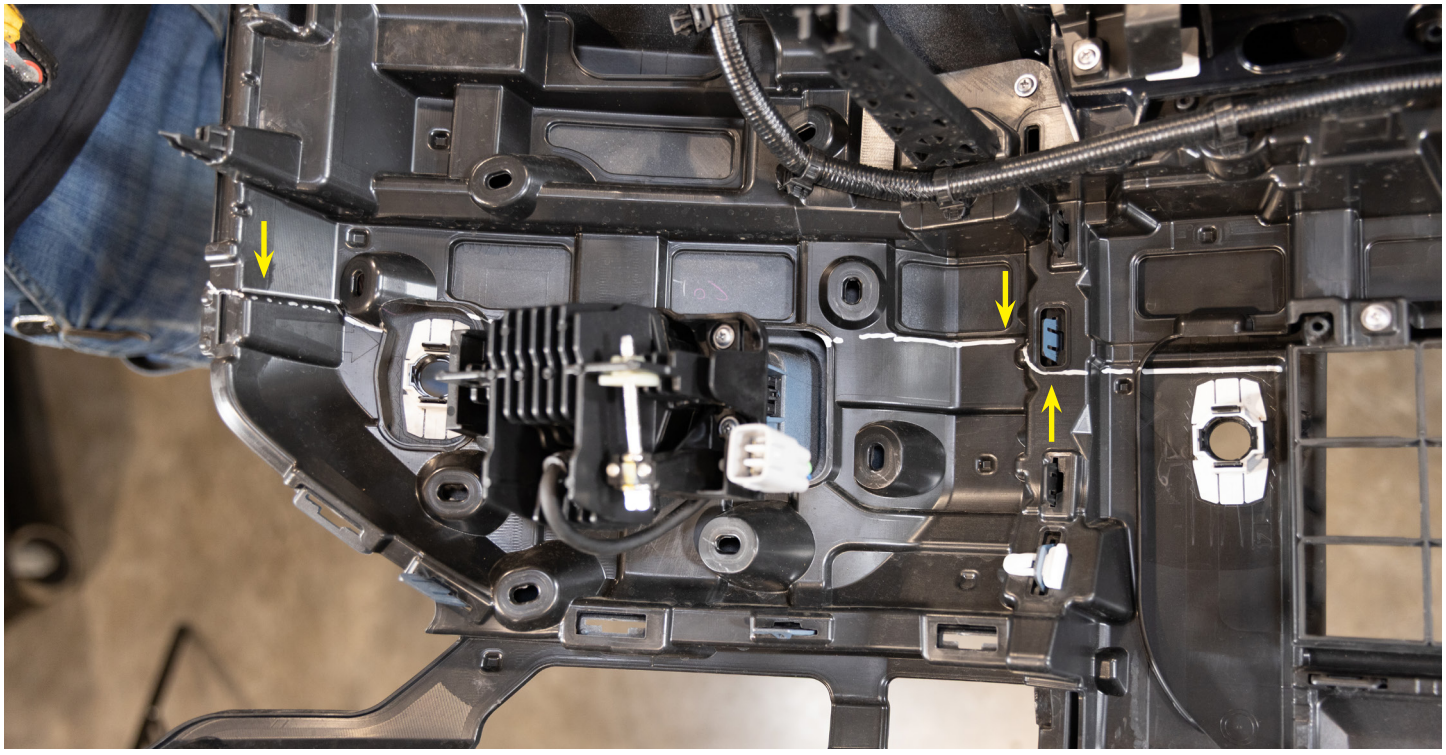
Do this by prying out the plastic clips holding it in place.

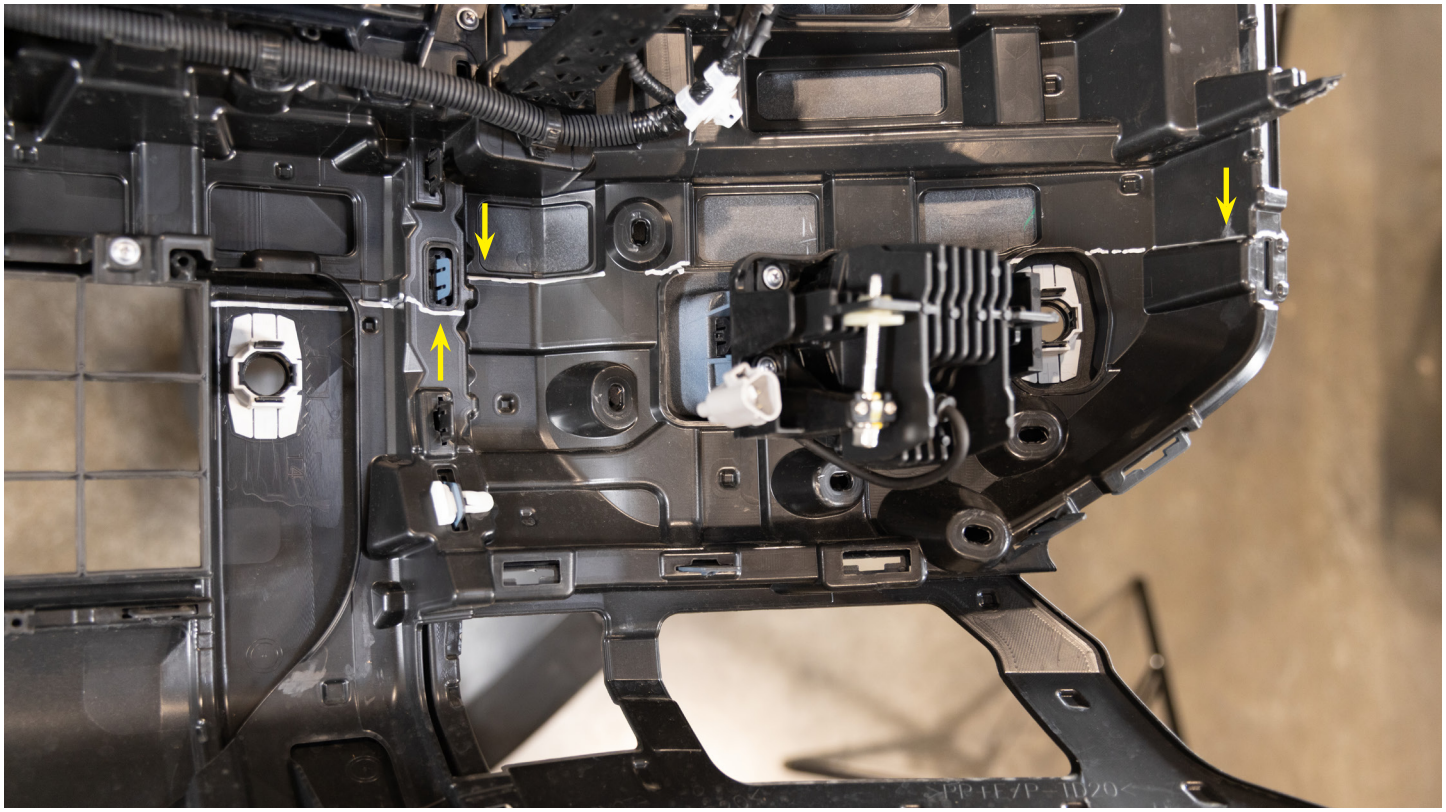
Use a pry tool to pry the black clips to release the bumper covers and remove.



56. Draw a cut line for each corner, as indicated below.

We want to retain as much structure for rigidity as possible. Make your cut line straight across, just above the fog light. Before you get to the grill, drop down and around just below the blue clips so those remain intact and continue across above the parking sensor.

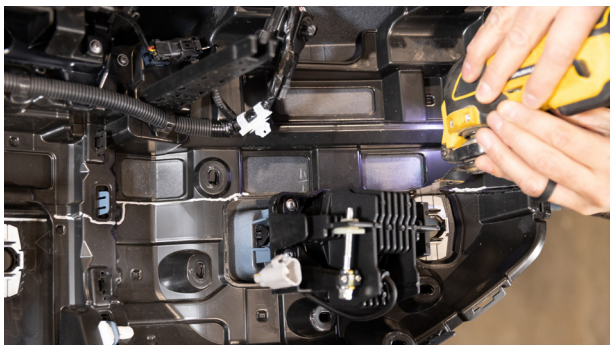




57. Make your right and left side cuts.

We recommend using an oscillating multi-tool or an air saw to make a clean cut.

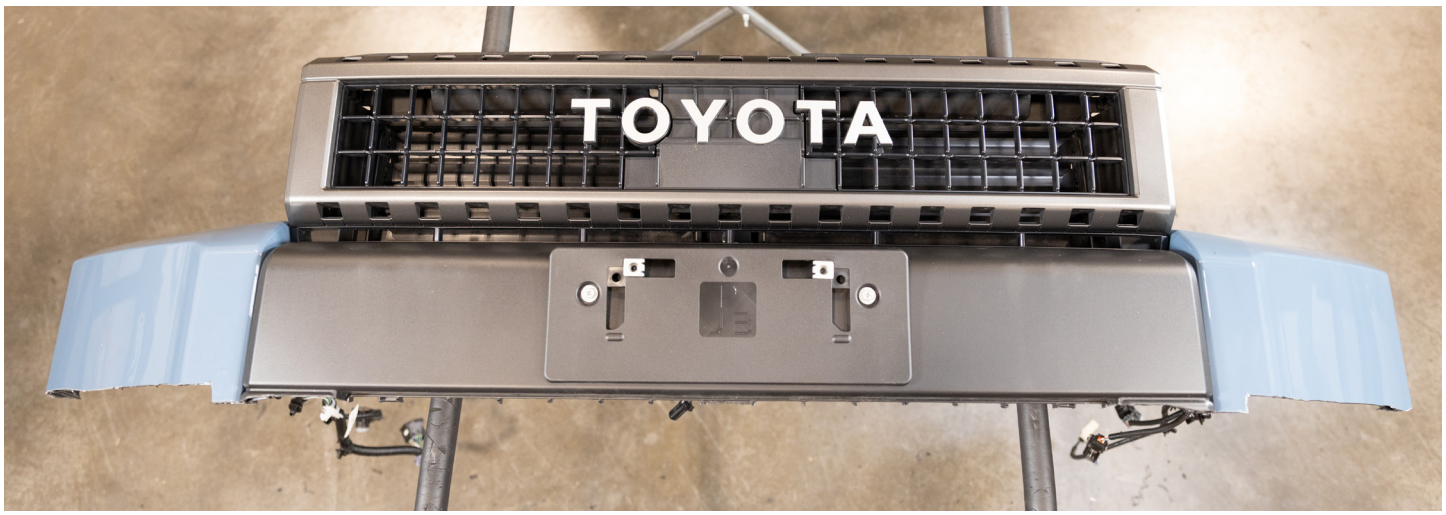
Once initial cut is made, clean up any sharp edges.



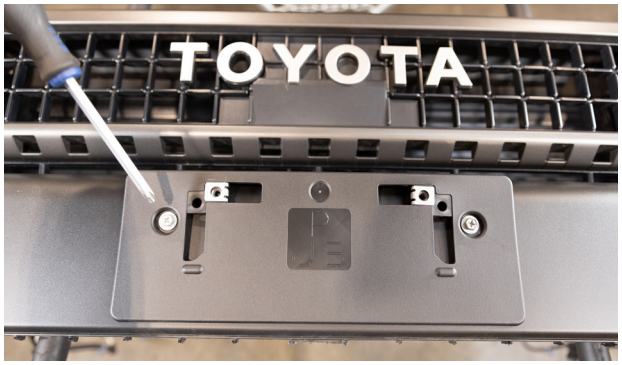
58. The center cut is simply a straight line across the top of the grill, from right to left connecting your corner cuts.

Reference image below and image on next page.

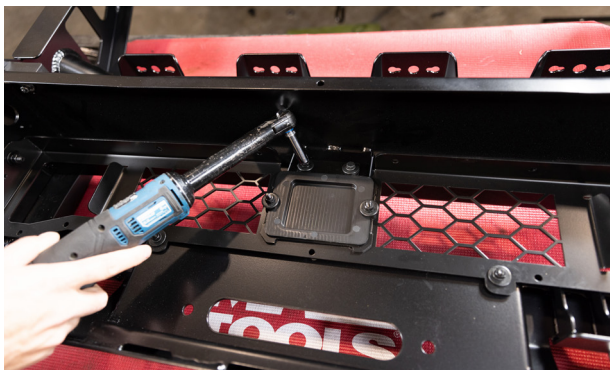
Clean up any sharp edges.



59. Use a P2 Phillips and remove the license plate bracket from the bumper skin and discard.



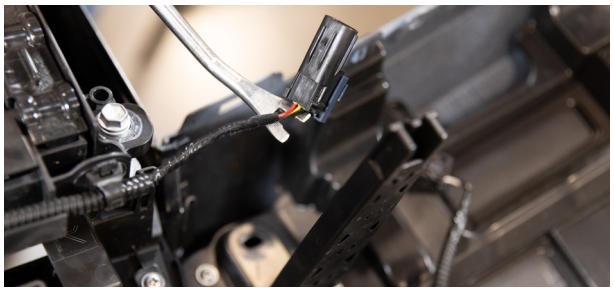
60. Use a 10mm socket and remove the camera blank cover from the bumper.

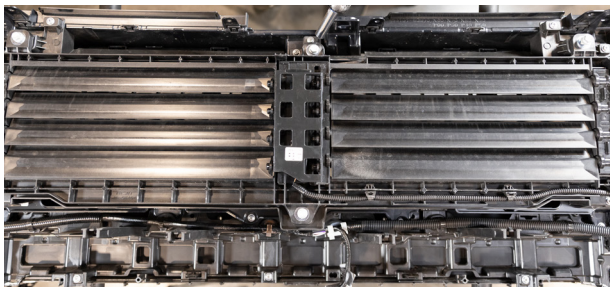


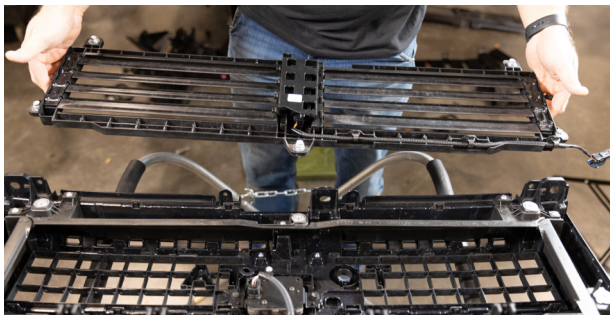
61. Disconnect the grill louver motor plug.

Use a 10mm socket and remove bolts holding the grill louver assembly to the grill.

Carefully lift and remove the grill louver assembly to gain access to the radar sensor.



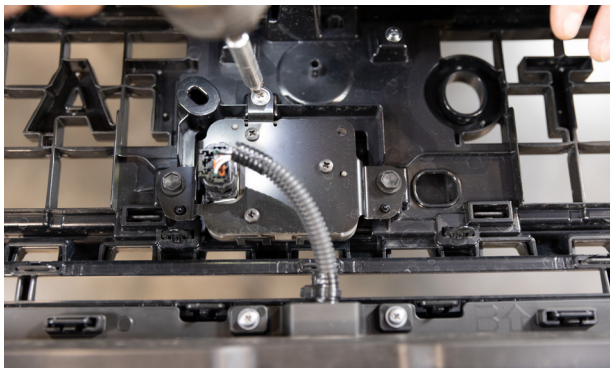




62. Use a P2 Phillips to remove the top screw on the radar sensor.

Use a 10mm socket and remove the L and R bolts on the radar sensor.

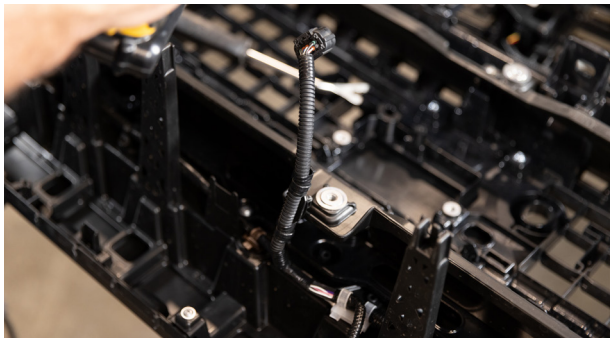
Unplug the radar sensor and remove from bumper.



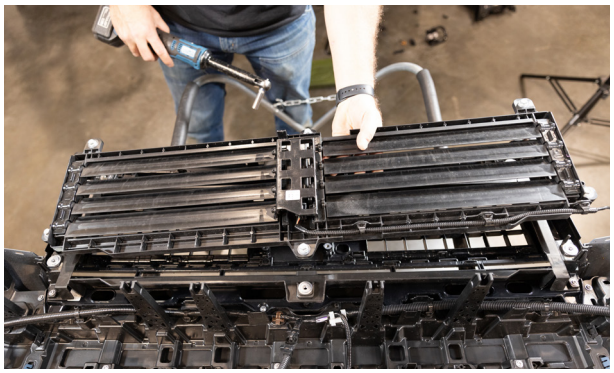
63. Use a P2 Phillips and remove the bracket covering the radar sensor harness.

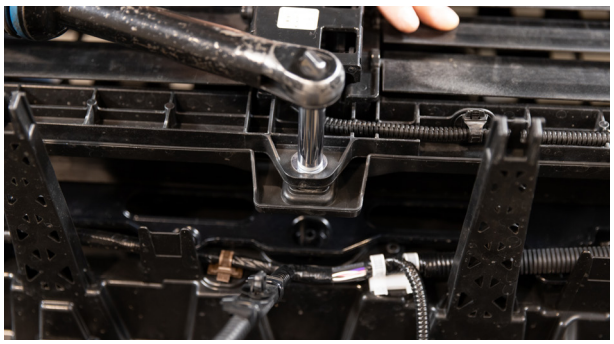
Unclip radar wire harness and replace bracket.

This gives you some extra slack in the wire harness.



64. Use a 10mm socket and reinstall the grill louver assembly to the bumper.





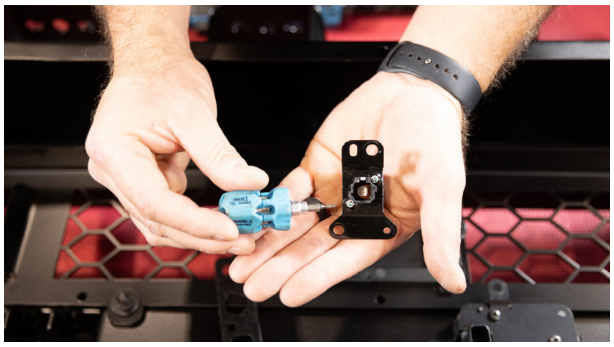
65. With a T6 Torx, remove the torx screws holding the camera to the OEM bracket.

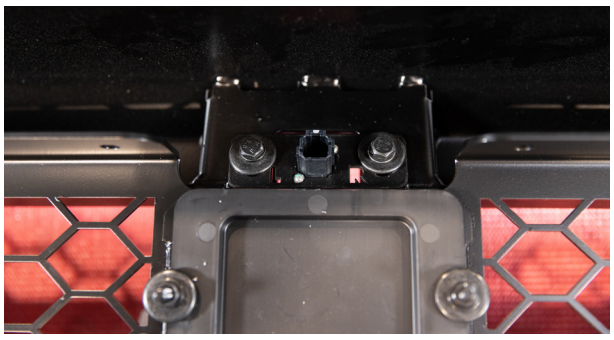
Grab front camera mounting bracket and attach camera reusing OEM torx screws.

Make sure camera is oriented correctly.

Install the front camera mounting bracket assembly using the two hex bolts you just removed in step 60.

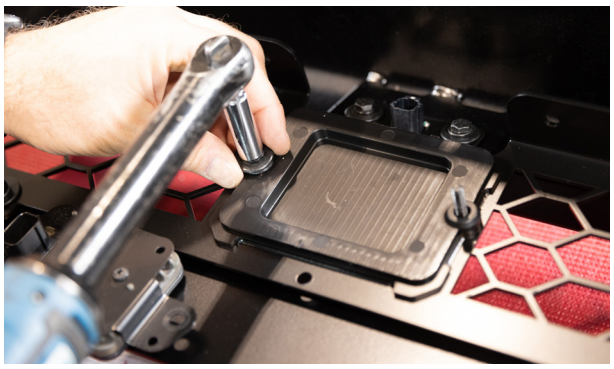
Item: 21

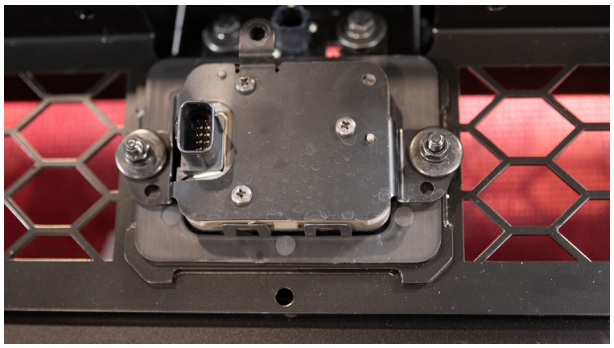




66. Use a 10mm socket and remove the nuts and washer on the bumper radar bracket.

Install radar sensor with hardware and tighten.

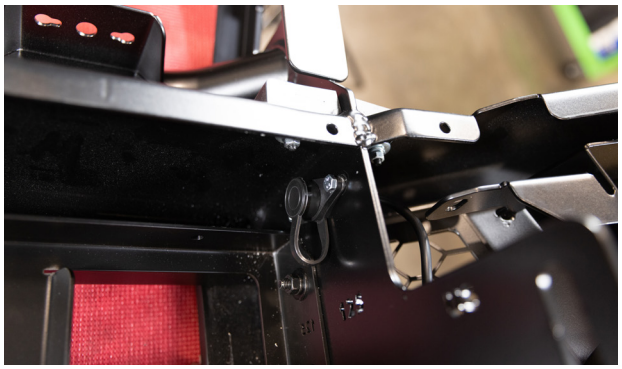




67. OPTIONAL: This bumper has provision to remotely mount the winch control plug.

Use M4 hardware and mount the winch control plug extension to the desired side of your bumper shell. (WWB030, WWB031, WWB032 sold separately).

We recommend mounting it on the same side of the bumper that the control box is on. But the world is your oyster :)



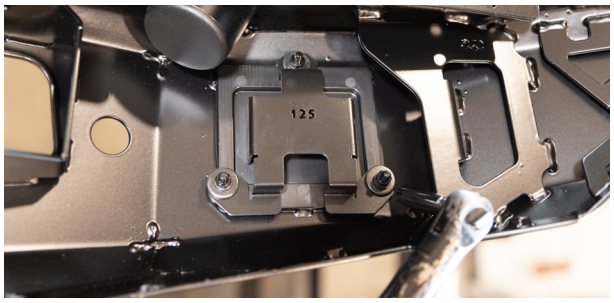
68. Use a 10mm socket and remove the three nuts holding the BSM brackets to the bumper.

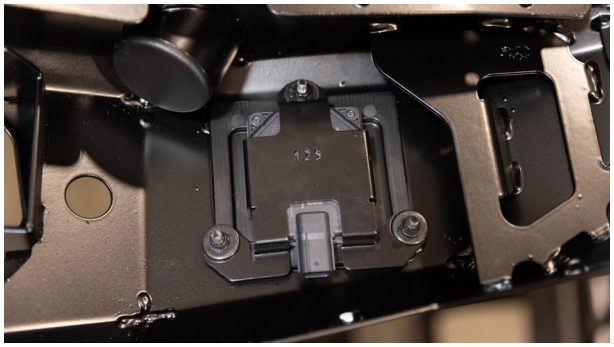
Grab the BSM and apply the EPDM foam pad to the back of each one.

Item: 22

Place BSM into the bumper and install the bracket over the top.

Secure with the hardware you just removed.





69. Glove up for this next part; grab the parking sensor plastic holders, the parking sensor adhesives, and 3M adhesion promoter.

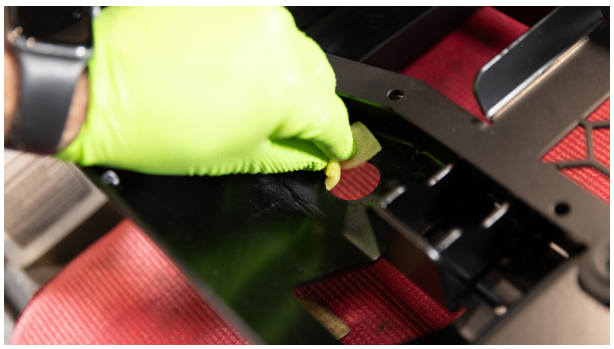
Grab an abrasive -- like steel wool or emery cloth, and scuff up the area around the inside of each parking sensor hole.

Open up the 3M adhesion promoter packet and remove the applicator.

Apply the adhesion promoter around the inside surface of each of the four parking sensor holes in the bumper shell and the plastic parking sensor holders.

Apply the parking sensor adhesives to the plastic holders and tamp down with a blunt tool, such as a body panel tool.

Item: 10, 34



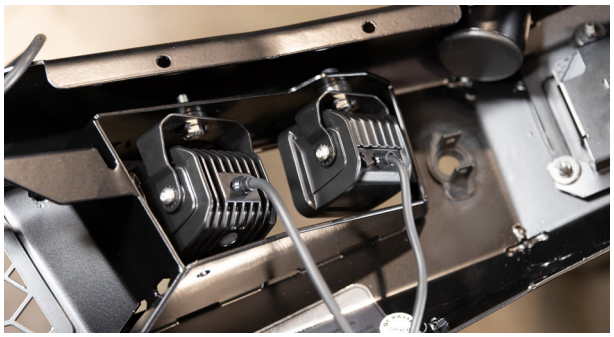
70. Peel off adhesive backing and apply parking sensor holders to the four bumper holes in a vertical orientation.

Press firmly and hold, allowing the adhesion promoter to work its magic.

71. On to the bumper lights, larger size podlights mount in-board, smaller size podlights mount out-board.

Grab the 5mm or 10mm thick spacers and use as many as required to center the lights in the housing to your liking.

Item: 8, 9

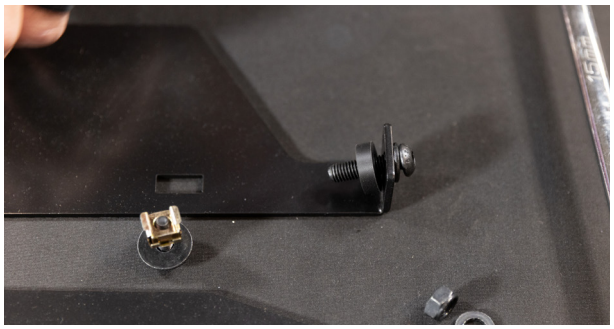


72. Grab the parts for the flip up license plate bracket and attach with the Allen button head bolts, nyloc nuts, and nylon spacers.

Snug up using a 5mm Allen wrench and 13mm socket.

Also, install M6 hex bolts and cage nuts onto license plate bracket.

Item: 19, 20, 29, 47, 51



73. Grab the M10 button head bolts and place fairlead onto license plate flip up bracket.

Install assembly onto the fairlead mounting position on the front face of the bumper and secure with nuts, using a 8mm Allen wrench and 19mm socket.

Item: 44

74. Hang the bumper onto the winch tray.

An easy way to do this is to put the lower bolts in first, one on each side, to allow bumper to hang in place. The lower bolts are M12 x 1.25 x 40mm hex bolts.

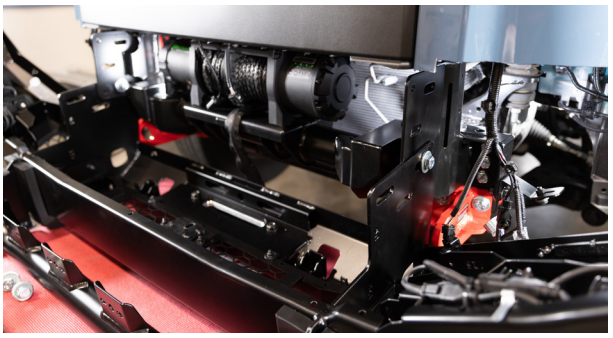
Item: 1, 41

Place some rags or cardboard or something to protect the bumper shell from contacting the recovery points as it hangs.

With the bumper hanging in place, take the time to connect all of your wiring before you rotate it up and lock it down.

Also, wire up your fog lights as desired. This could be spliced into the OEM fog light harness or wired up to a stand alone switch panel of your choice.

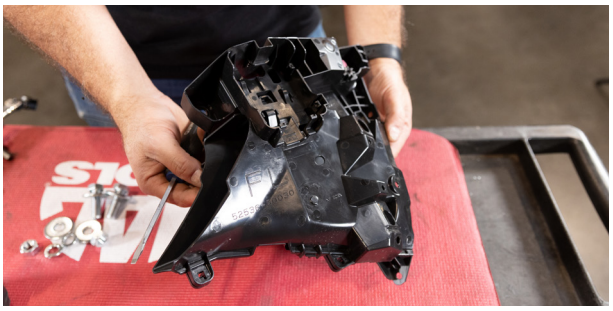
On the last couple of pages we included some wiring diagrams to help you out.

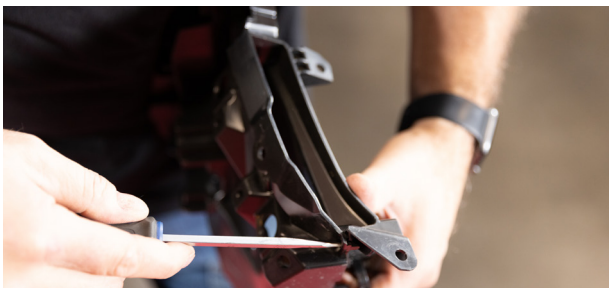


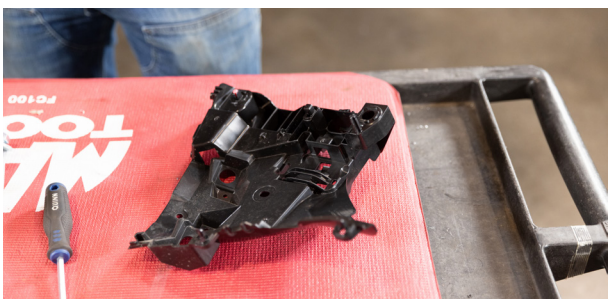
75. Grab the corner bumper support brackets that you removed earlier.

Pry up the tabs to separate the two halves.

Discard the outside half.

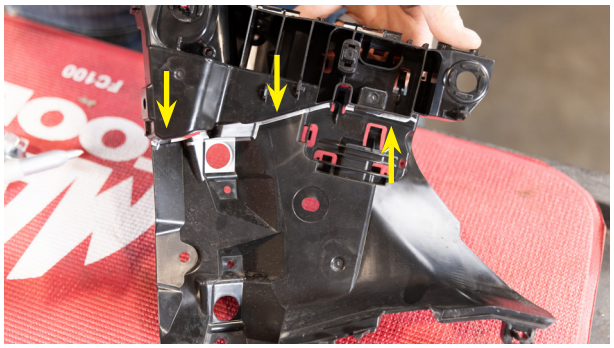


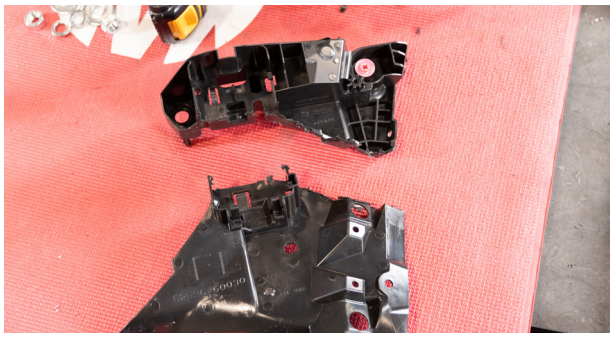




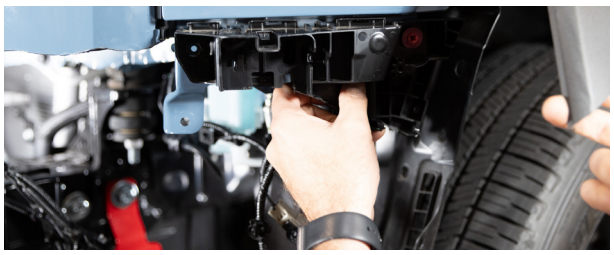
76. Now that the halves are separated, draw a cut line as indicated in the photo.

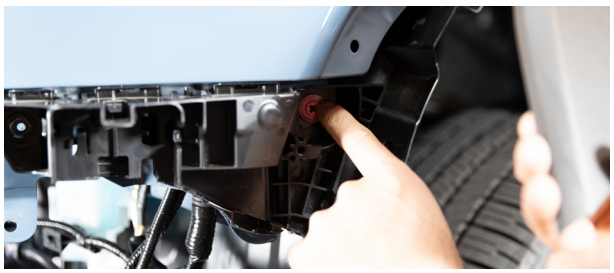
The idea is to keep the top portion in order to keep the fender flare leading edge in place and discard the lower portion as they would be in the way.





77. Reinstall the cut corner brackets back onto the truck with the OEM fasteners.





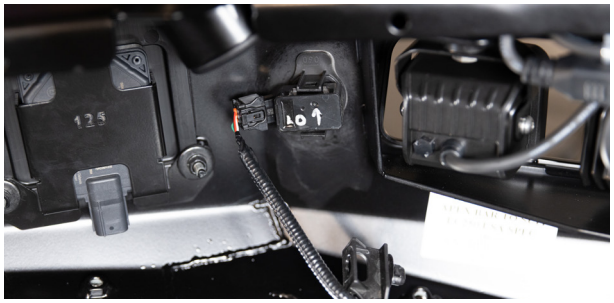
78. Before you rotate the bumper up, let's take some time to connect the parking sensors and wire up our lights.

Take some WD-40 and spray it on a rag then wipe on the silicon ring on the parking sensor.

Snap the parking sensors into their appropriate locations of the bumper.

Use the supplied parking sensor extensions on the two inboard sensors.

Item: 30



79. Measure 1.5" up from the bottom edge of your cut centered on the bumper.

Drill a hole large enough for the OEM camera harness plug to feed through.

Once hole is drilled, feed the harness through.

If you are feeling fancy, put a rubber grommet on the drilled hole.

80. Connect winch control box extension plug to the control box.

Also don't forget to feed the winch line through the fairlead on the bumper.

81. Now that all of your wiring is connected and done, carefully rotate bumper up into place.

Make sure no wires get caught, tangled, or pinched.

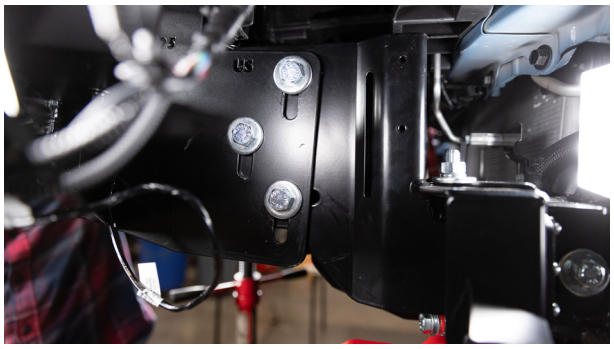
Install M12 bolts and snug them up, but don't fully tighten yet.

Bumper shell has three vertical slots on each side and winch tray has three horizontal slots on each side. This allows you to adjust the bumper shell in relation to the truck to your liking.

We recommend lining the wings up with the fender flares.

Once you've adjusted it, lock down the three hex bolts on each side with 19mm wrenches.

Item: 41



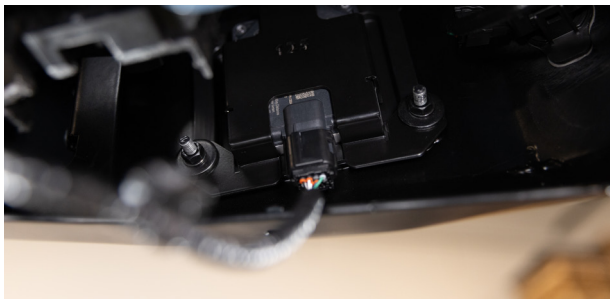
82. Reconnect the BSM plugs and the bumper harness plugs.

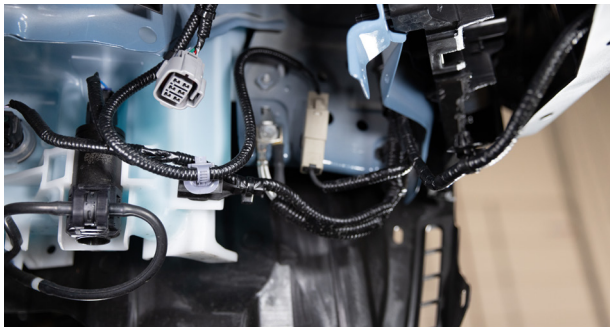
Secure all wiring with zip ties.

There are cable pass throughs on each side to get to the outer wings and zip tie anchor cut outs throughout the bumper shell.

It is really important to take your time and do a clean job. Ensure the harness is secure to prevent future issues.

Avoid any wires around the area of the winch fairlead.

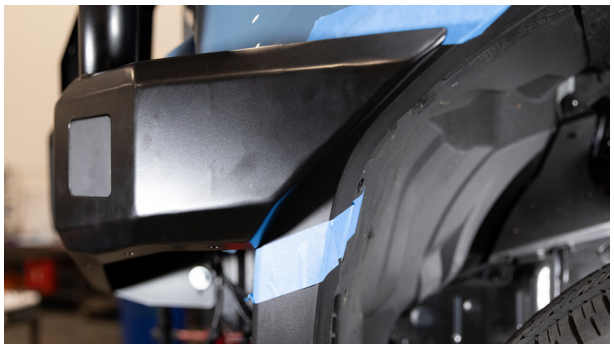


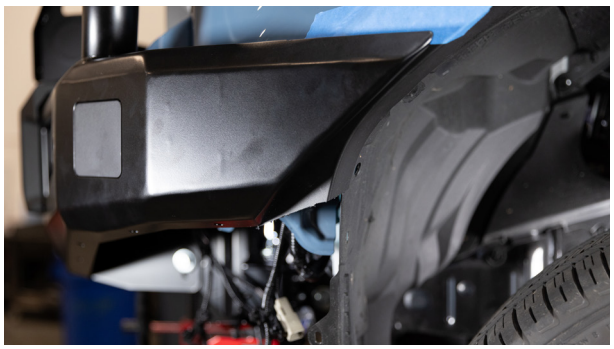


83. Mark the fender flares, starting at the bottom edge of the bumper up to the bottom edge of the fender liner mount.

Make the cut on both sides.

You can audition the side plates up into place to see where the fender flare tucks behind it. This will help you visualize the cut.





84. VERY IMPORTANT!

Once the bumper has been adjusted and locked in place, you MUST install the pinning bolts to ensure the bumper won't move.

The winch tray has two pinning bolt holes provided on each side, next to the three slotted holes.

Use a 11/32nd drill bit to drill out pinning bolt holes through the bumper shell mounts using the winch tray existing holes as your guide.

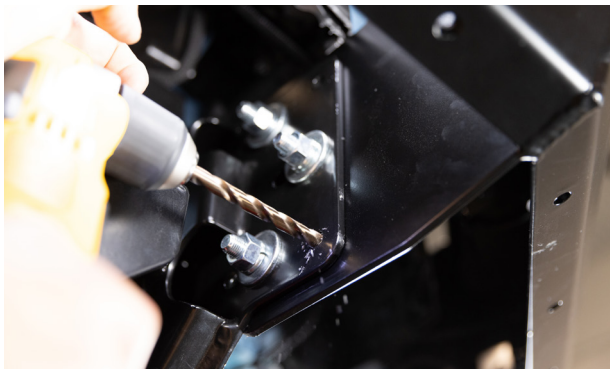
Once four holes are drilled (two on each side), use some satin black paint to seal the exposed metal.

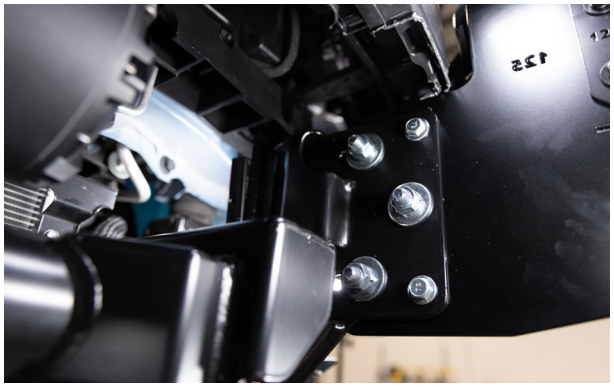
Grab the self tapping M10 x 30mm x 1.5 hex flange bolts and install into the drilled out pinning bolt holes.

This locks the bumper shell into its position and prevents it from coming out of adjustment.

If you ever need to take off the bumper shell to service anything, the pinning bolts will ensure that you don't have to readjust it back to where it was.

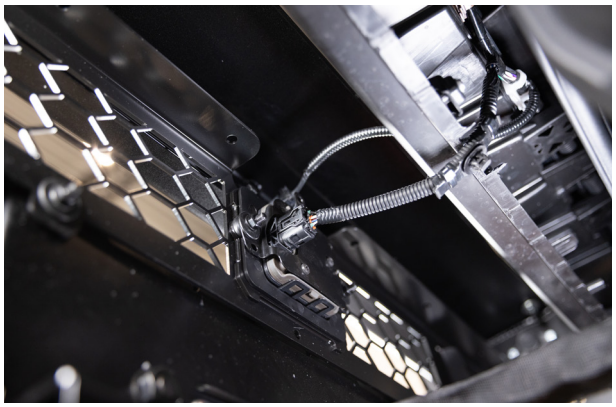
Item: 45





85. Reconnect the camera harness and the radar harness.

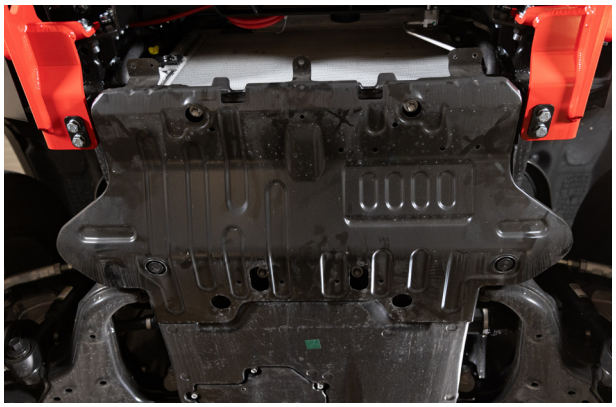
Double check that all other wiring is connected and secured.



86. Install the side wing protection plates using the provided M8 hardware and tighten with a 5mm allen.

Item: 4, 5, 49, 50

87. Reinstall OEM skid plate using OEM hardware and tighten with 12mm socket.



88. Grab the center protection plate and the air trap plate.

Install air trap plate to the center protection plate using three (3) remaining M6 x 20mm x 1.0 hex bolts and tighten.

Item: 3, 16, 52

89. Install center plate onto bumper shell.

Start with the center bolt hole first, and hand tighten with provided three (3) remaining M8 x 20mm x 1.25 button head bolts, spring washers, and washers, so plate can hang and free up your hands.

Grab the M12 double washers, the M12 x 50mm x 1.25 hex bolts, and spring washers to install rear plate mounts to the frame.

Tighten in place with a 19mm socket.

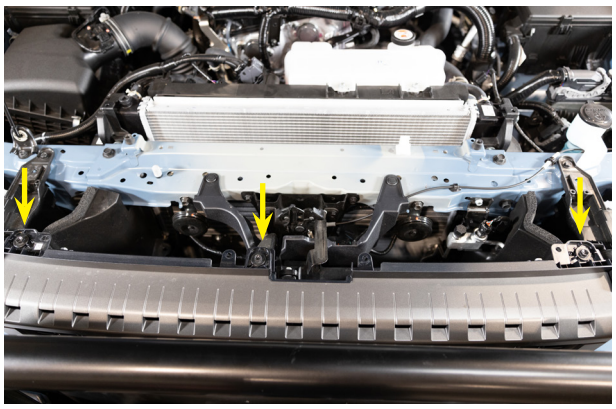
Install the remaining two front button head bolts and tighten all three with a 5mm Allen.

Item: 3, 50

90. Reuse OEM hardware to secure fender liner back into place.

Also if you are feeling fancy, we provided holes in the back lip of the side plates as zip tie anchor points. So if your zip tie budget is fat, run some of them through the fender liner and to the side plates for a secure fit.

91. Reinstall OEM grill top bolts.

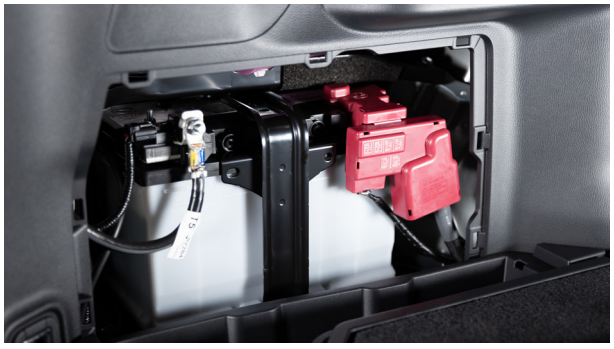


92. Reinstall radiator shroud and secure with OEM pop clips.

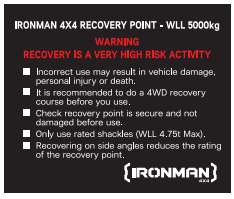
93. Reconnect battery cables and connect winch power cables.

With the winch power connected, test the winch and spool in excess rope.

Be sure to double check everything before you close the hood. Don't leave that 10mm socket in the engine bay!



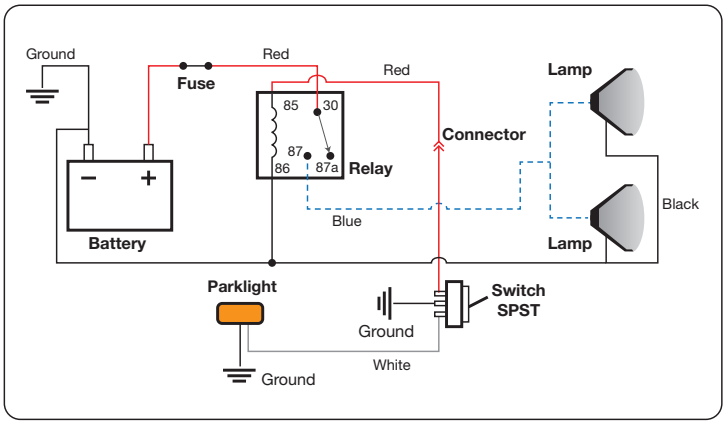
94. Reinstall the number plate to the vehicle if previously removed and apply warning decals to each recovery point.



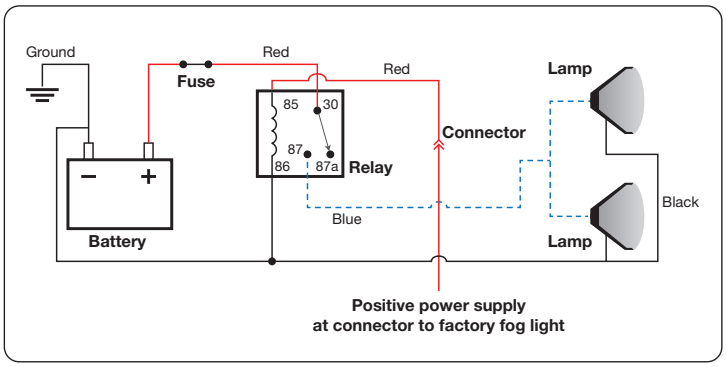
95. Test all lights, indicators, sensors, radar, and cameras are functioning correctly.

WIRING DIAGRAMS

WITH FACTORY FOG LIGHTS

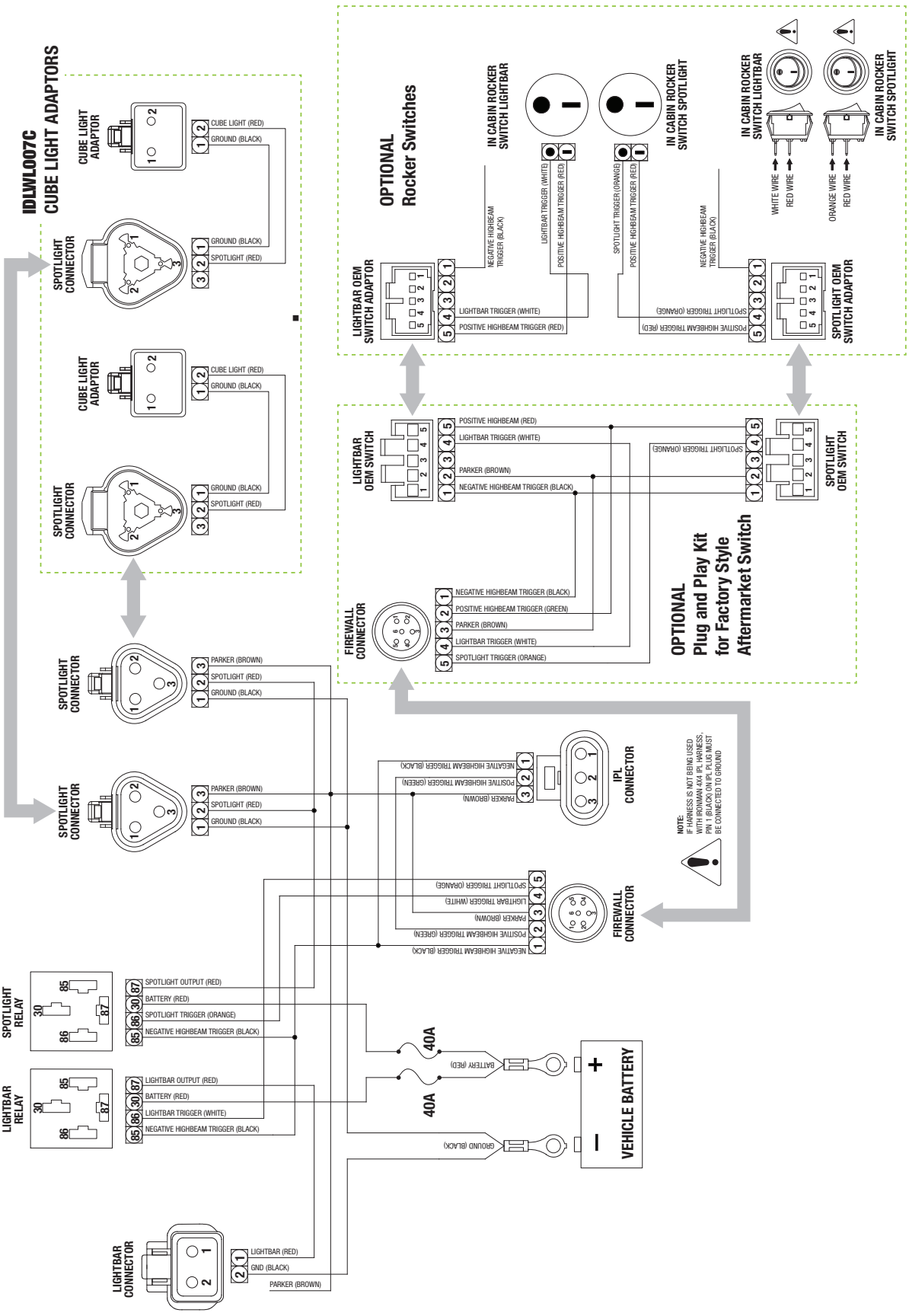


WITHOUT FACTORY FOG LIGHTS



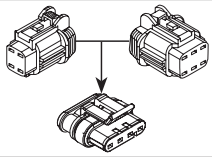
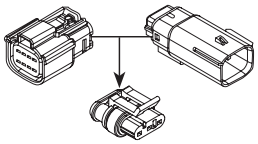
WIRING DIAGRAMS

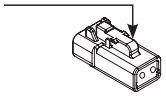
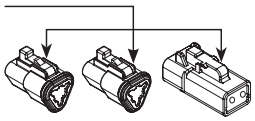
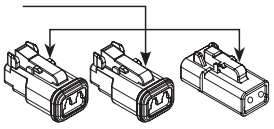
IDLWL001 WIRING LOOM TO SUIT SCOPE 7" DRIVING LIGHTS

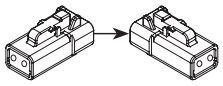
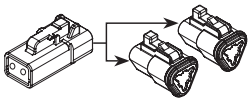
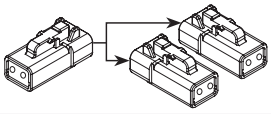
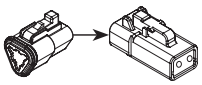
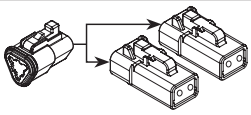
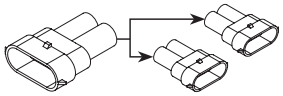


PLEASE REFER TO LIGHT WIRING INSTRUCTIONS FOR SCOPE 9" DRIVING LIGHTS

WIRING LOOM - GENERIC ADD ONS

Part No	IBBPL	IPLS
Function	Bull bar parker / indicator and high beam trigger	High beam trigger
		
Description	Vehicle specific XX pin to 3 pin plug *Plug and play connection for bull bar indicators / parkers* *Allows for expansion with cube lights, driving lights or lightbars*	Vehicle specific XX pin to 3 pin plug *Allows for expansion of adding additional lights*

Part No	ILBWL001	IDLWL001	IDLWL002*
Function	Single lightbar	Scope 7” driving lights	Scope 9” driving lights
			
Description	1 x 2 pin plug *For adding a lightbar or work light*	2 x driving light 3 pin plugs and 1 x lightbar 2 pin plug *For adding Scope 7”driving lights*	2 x driving light 4 pin plugs* and 1 x lightbar 2 pin plug *For adding Scope 9”driving lights*

IDLWL003R	2 pin to 2 pin 2.5m extension *For adding roof or rear mounted lightbar*	
IDLW004E	2 pin to 2 x 3 pin Scope 7” plug *For adding additional Scope 7” driving lights*	
IDLWL006M	2 pin to 2 x 2 pin plugs *For adding additional lights ie. Cube, Blast, small lightbars or work lights*	
IDLWL007C	3 pin to 2 pin reducer plug *For adding a single cube light from a Scope 7” plug*	
IDLWL008C	3 pin to 2 x 2 pin reducer plugs *For adding two cube lights from a Scope 7” plug*	
IBBPL001P	IBBPL plug to 2 x 2 pin *Indicator / parker strip light loom for some Raid bull bars*	

*** Important Note: Scope 9” driving lights require 1 x IDLWL002 loom for each pair added to a vehicle**

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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 bumper and hardware, retension bumper 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.