Fitting Instructions

Description：	TOYOTA PRADO 250 2024+ GT BULLBAR
Model：	Prado 250
SKU：	RA-250GT

Important Notice:

Before commencing the installation, please ensure you have carefully read and understood all instructions. Rockarmor products are engineered to the highest standards, using premium materials and finishes. This includes sandblasting all raw materials, e-coating to eliminate impurities, and applying a Tiger coat for enhanced durability. Should the product become damaged or scratched during off-road or on-road use, the affected surface must be repaired promptly to maintain longevity. Installation should be carried out by a qualified technician, and it is essential to follow the steps precisely to ensure a secure and proper fit.

Note: Please Read Before Attempting Installation

- This product and its fixings must not be modified in any way unless specified in these fitting instructions.
- Do not remove any labels from the product.
- This product is intended solely for use on the specified vehicle model as outlined in these instructions.
- It is the installer's responsibility to ensure the product is correctly installed, allowing for adequate tolerance between the chassis and body, and ensuring clearances for all components.
- Use Loctite on all nuts and bolts during installation.
- The installation of this product may require specialized tools and should be conducted by an experienced fitter.

For more information about this product, please visit www.rockarmor.com.au

Liability Waiver:

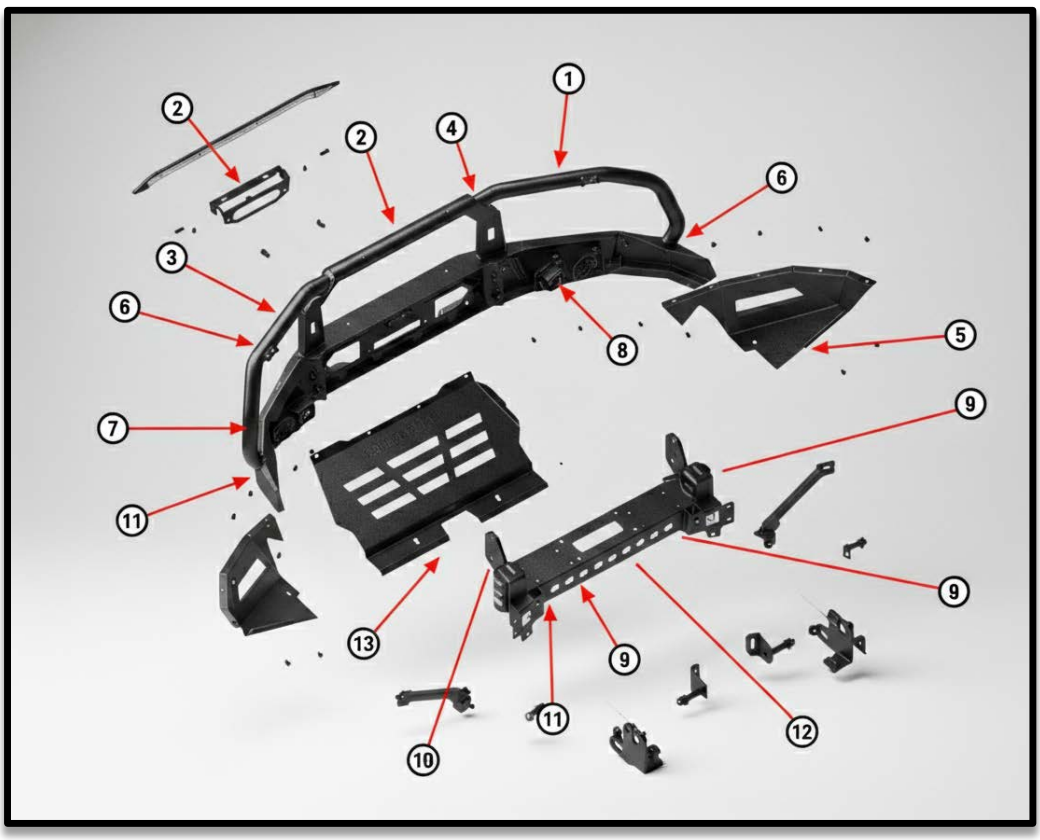
By proceeding with the installation, you acknowledge that the installer is responsible for following these instructions accurately. Rockarmor Pty Ltd will not be held liable for any damages, injuries, or vehicle malfunctions arising from improper installation or failure to adhere to the provided guidelines. Any modifications or deviations from the instructed process will void any warranties and transfer all risks and liabilities to the installer and/or vehicle owner.

The following tools will be required to install the product.

Hand Tools	Power Tools	Workshop Supplies
Metric Socket Set 10-18MM.	Impact Drill & Bit Set	Loctite
Socket Extension Bar	Electric/Air Impact Driver (Optional)	Cable Ties
Metric Spanner Set 10-18MM.		Masking Tape
Torque Drivers T25-T30		Satin Black Automotive Paint
Trim Removal Tool		Grease and wax Remover.
Screwdriver Set (Flat and Phillips head)		Scotch Brite or Fine sandpaper.
Utility Knife		
Side Cutters		
Pliers		

Standard locking torque

M6 - 11Nm | M8 - 18Nm | M10 - 80 Nm | M12 - 90 Nm | M16 - 90 Nm



Occupational Health and Safety (OHS) Guidelines for the Workshop

Hearing Protection

All personnel must wear appropriate hearing protection in high-noise areas or when operating loud machinery to prevent hearing damage.

Eye Protection

Approved safety glasses or goggles must be worn at all times to shield the eyes from debris, chemicals, and other hazardous materials.

Safe Manual Handling Procedures

Use correct lifting techniques to avoid strains and injuries. Where possible, utilize mechanical aids and never exceed personal lifting capacity.

Hazard Awareness and Prevention

Remain vigilant of potential hazards within the workshop. Adhere to all posted warning signs and follow established safety protocols to mitigate risks.

Video Instructions Available

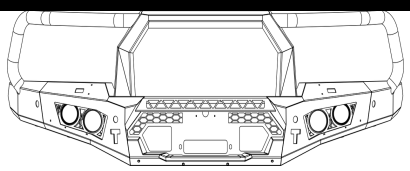
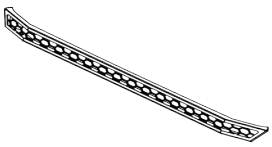
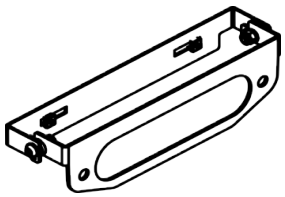
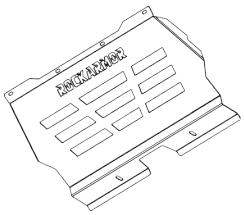
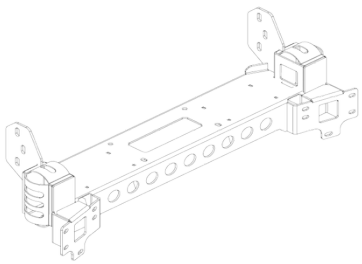
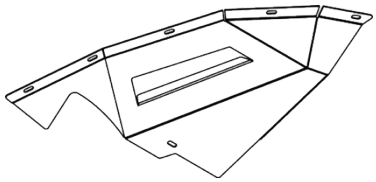
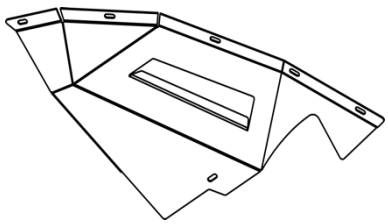
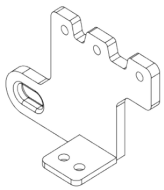
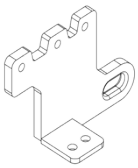
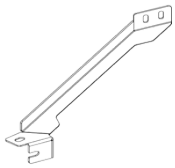
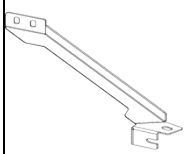
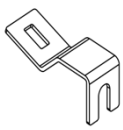
For a comprehensive guide on fitting the GT Bullbar, we highly recommend referring to our detailed video tutorial on YouTube:

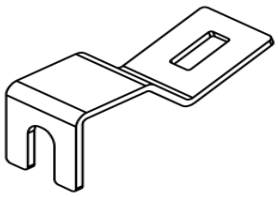
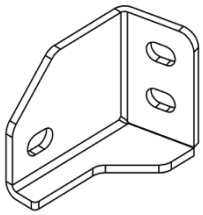
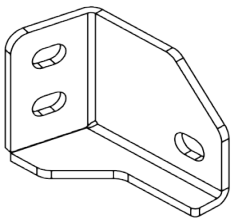
https://www.youtube.com/watch?v=_UindibfxRs

This video, created by a qualified fitter and auto electrician, provides clear, step-by-step visual instructions that are easier to follow than written instructions alone.

Wherever additional clarity is needed throughout these fitting instructions, please refer to the video for more details and demonstrations of specific steps.

Components List

Item	Description	Qty	Item	Description	Qty
1	 Bull bar assemble	1	2	 Grill Cover	1
3	 Number Plate Bracket	1	4	 Centre bash plate	1
5	 Winch Frame	1	6	 Bash plate (RH)	1
7	 Bash plate 2(RH)	1	8	 Recovery Point (RH)	
9	 Recovery Point (LH)	1	10	 Bull bar Support (RH)	1
11	 Bull bar Holder(LH)	1	12	 Bull bar Bracket (RH)	1

13	 Bull bar Bracket (LH)	1		14	 Corner Bracket (RH)	1
15	 Outside Bracket Holder	2		N/A	Pinch mold (2400mm)	**1**

Bolts, nuts & Accessories

Item	Description	Qty
16	Hex Socket Countersunk Screw M6	18
17	Pan Head Screw M4X16	8
18	Hex Nut M4X0.7	6
19	Socket Head Cap Screw M5X0.8	4
20	Spring Washer	4
21	Flat Washer M5	4
22	Hex Nut M5X0.8	4
23	Custom Part M6	40
24	Hex Nut M6X1	10
25	Spring Washer	42
26	Hex Bolt M6X20	30
27	Flat Washer M6	4
28	Hex Bolt (Fine Thread) M12X1.25X35	10
29	Spring Washer	16
30	Nyloc Nut M10X1.25	18
31	Flat Washer M10	12
32	Hex Bolt (Fine Thread) M10X1.25X30	20
33	Custom Part M10	26
34	Custom Part M6X1.0	10
35	Hex Nut (Fine Thread) M12X1.25	12
36	Custom Part M6	6
37	Flat Washer M12	4
38	Custom Part M6X16	4
39	Hex Bolt (Fine Thread) M12X1.25X120	2
40	Custom Part M12	4
41	Flat Washer M8	4
42	Custom Part M8X30	2
43	Custom Part M8X1.25	2
44	Hex Bolt (Fine Thread) M12X1.25X50	4

Flange Bolt and Flange Nut (Ribbed) – What They Are and Why We Use Them

A flange bolt is basically a strong bolt with a built-in washer under the head. Same goes for the flange nut – it's got a wide base like a washer and often comes with ribbing or serrations underneath. These ribs help the nut grip onto the surface, almost like tiny teeth locking it in place, so it doesn't work itself loose.

We've switched to using ribbed flange bolts and nuts for a good reason. When you're installing something solid like a bull bar on a 4WD – especially here in Australia – you need fasteners that can handle the punishment. Whether it's corrugated roads in the outback, rough trails, or just day-to-day off-road driving, the constant vibration and bumps can slowly shake standard nuts and bolts loose.

That's where flange hardware really shines. It spreads out the pressure better than a normal bolt and washer setup, and the ribbed surface helps lock everything down without needing extra spring washers or thread locker. It also speeds up installation – fewer loose bits to handle.

Here's why we rate them for 4WD use:

- **Better grip** – the ribbed flange bites in and stays put
- **Handles vibration** – perfect for corrugations and rough terrain
- **No need for washers** – one solid piece does the job
- **Faster to install** – less fiddling around
- **Cleaner finish** – looks neater once fitted

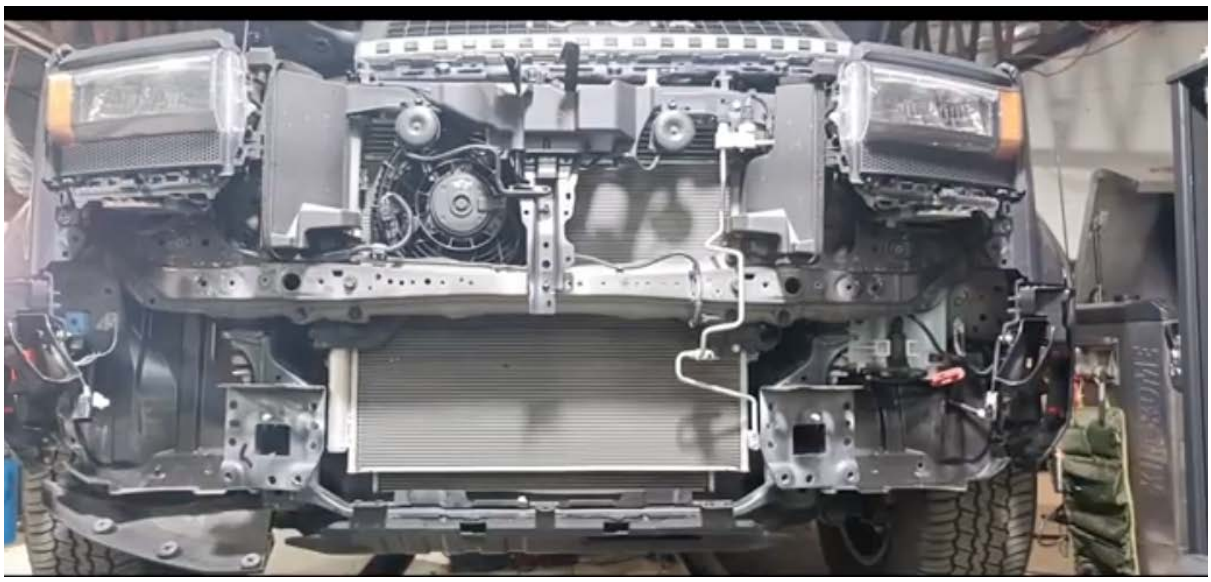
More secure – helps keep your bull bar where it belongs

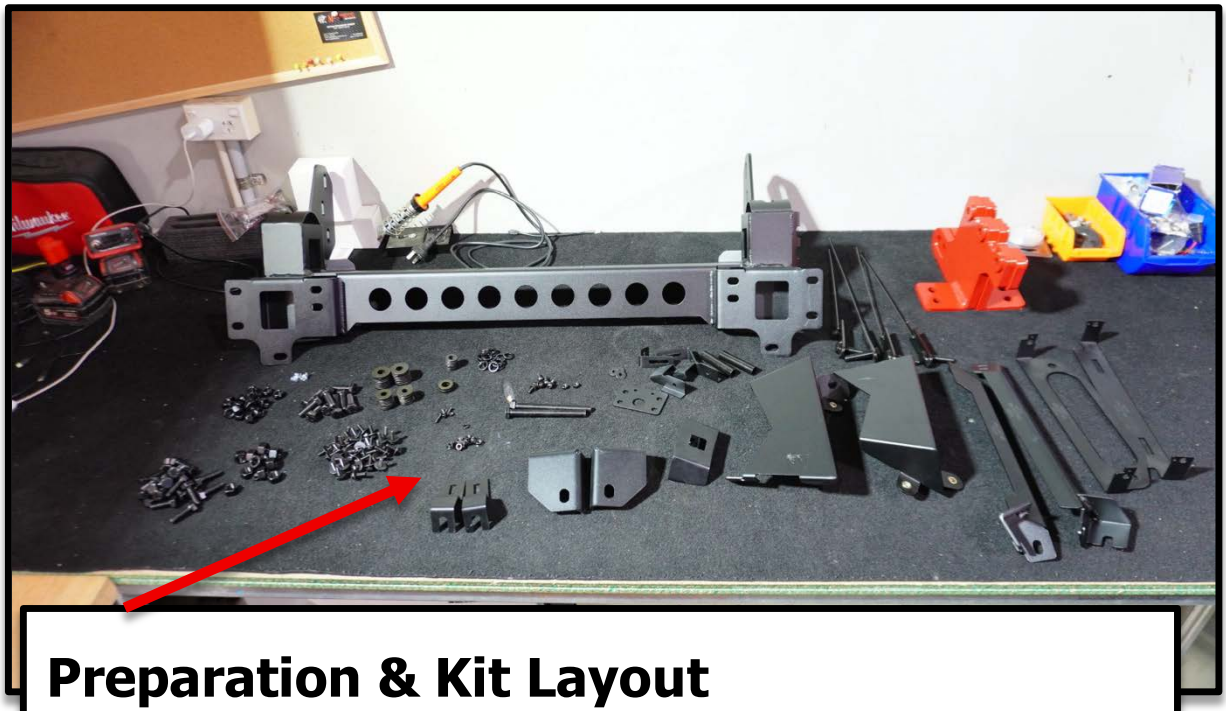
Note:

*You may notice some diagrams still show the older bolt setup with separate washers and nuts. We've now upgraded to ribbed flange bolts and nuts for a cleaner install and better durability on rough roads. For a quick summary of why this change matters, see the section titled "***Flange Bolt and Flange Nut (Ribbed) – What They Are and Why We Use Them** *?"*

Position Vehicle and Confirm Fitment

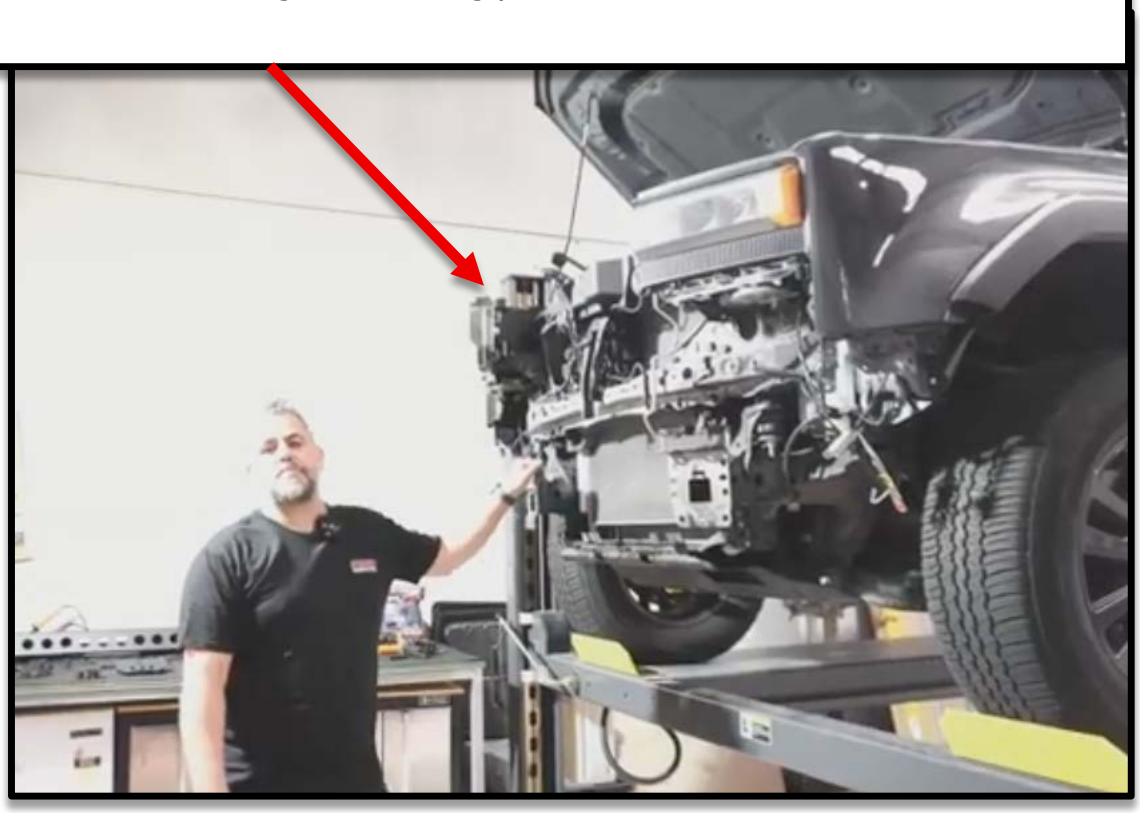
- Park the vehicle on a hoist or stable flat surface.
- Confirm vehicle is a Prado 250
- Verify factory tow bar is present and will remain fitted.
- Confirm kit is complete before proceeding.
- Remove factory front bumper and all accessoreis





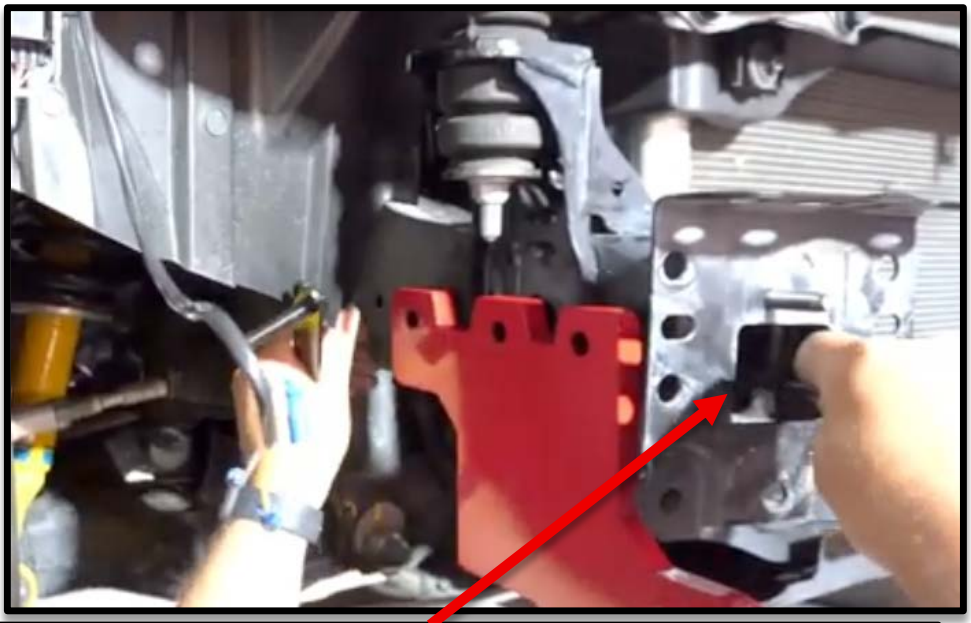
Preparation & Kit Layout

- Unpack the complete GT Bullbar fitting kit.
- Lay out all supplied hardware and components on a clean workbench.
- Verify that all bolts, brackets, sleeves, washers, and mounting plates are present before commencing installation.
- Strip the vehicle to the same configuration shown in the reference image (fully exposed front chassis).
- Ensure all original mounting points are clean and free of obstructions.



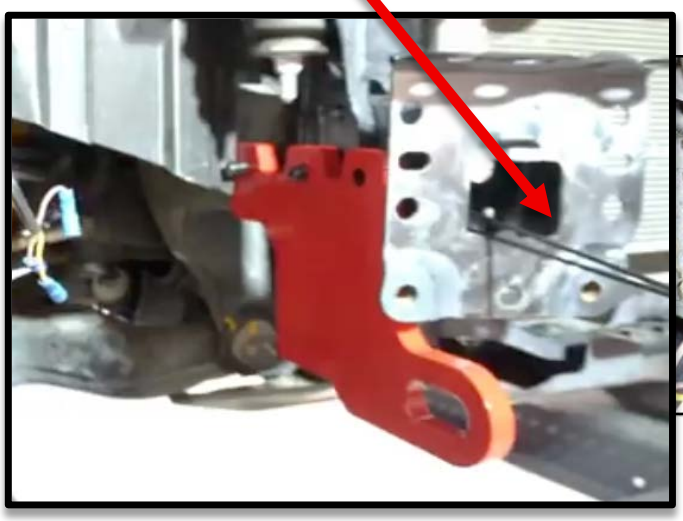
Install Recovery Points

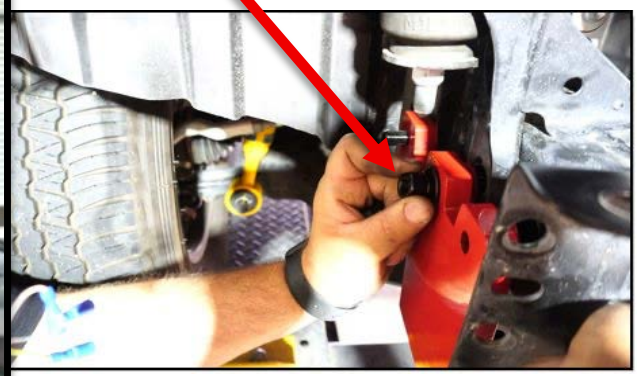
- Position the recovery points onto the chassis rails.
- Install the two lower M12 bolts per side.
- Insert the threaded rod bolts through the chassis from inside to outside.
- Align rods with the external recovery point mounting holes.
- Install flat washers, spring washers, and nuts.
- Hand-tighten only at this stage.

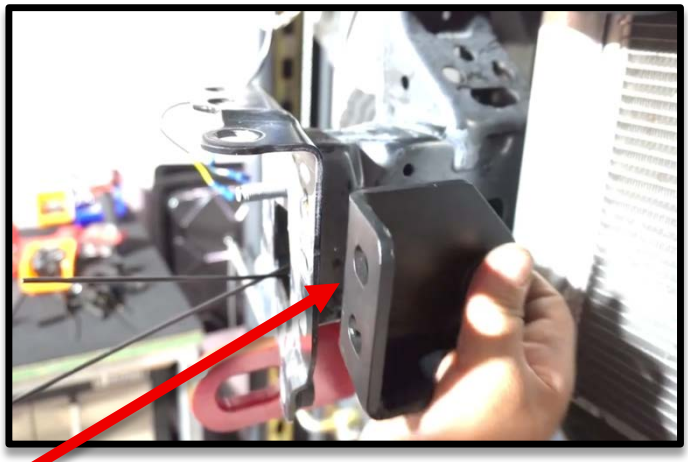


Install Rod Bolts Through Chassis

- After fitting the two M12 bolts at the bottom, take two rod bolts and feed them through the chassis from the inside.
- Thread them through the chassis rail openings and align them with the corresponding holes on the outside of the chassis.
- Line up the rod bolts with the mounting holes on the outside of the chassis. Start with the rear hole first, then align the middle hole. The third hole will be addressed later in the installation process

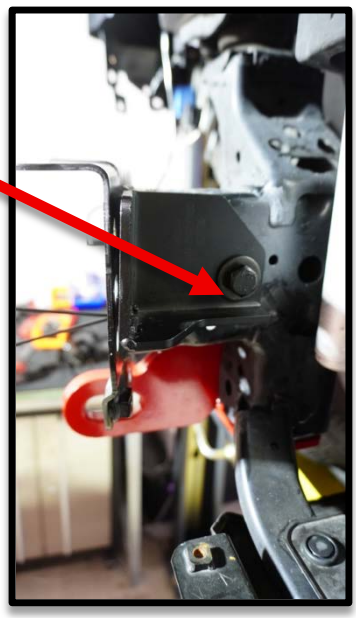


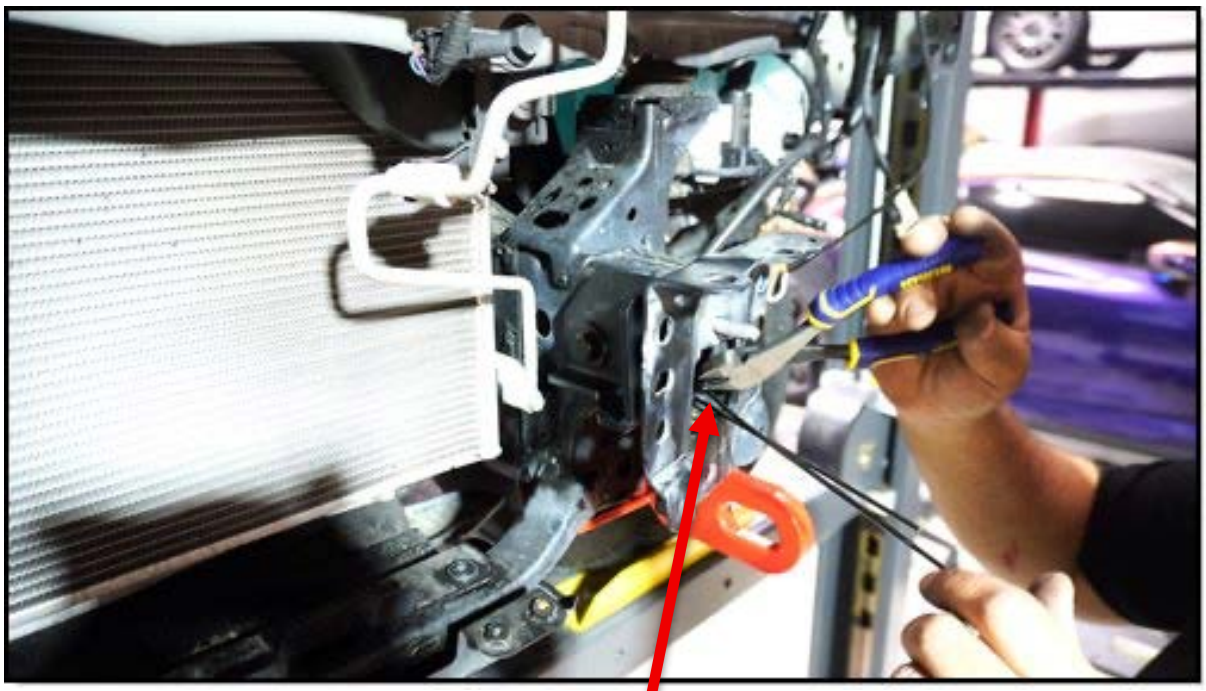




Install Third Chassis Bolt with Sleeve

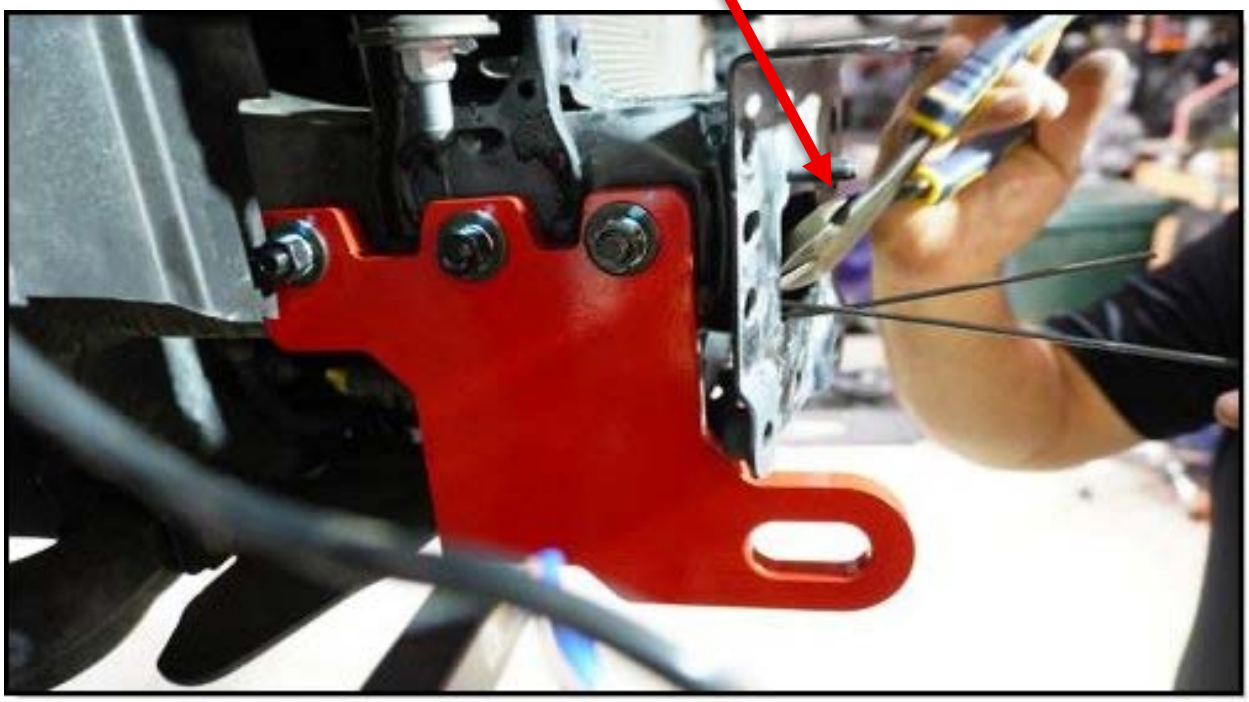
- Insert the long M12 bolt through the chassis.
- Install the supplied crush sleeve onto the bolt.
- Feed the bolt through the chassis and recovery point to fill the third mounting hole.
- Install washer, spring washer, and nut.
- Leave hand-tight only.
    - Repeat Steps on the opposite side

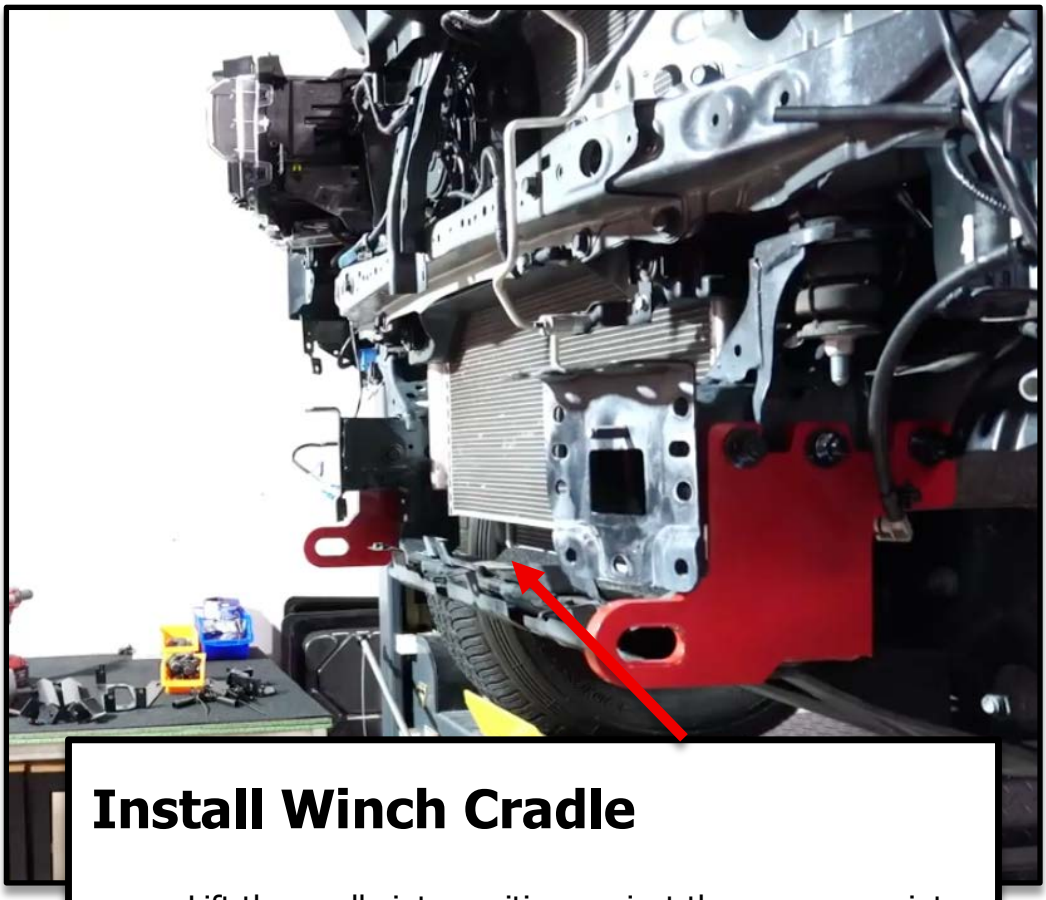




Cut Nutsert extension

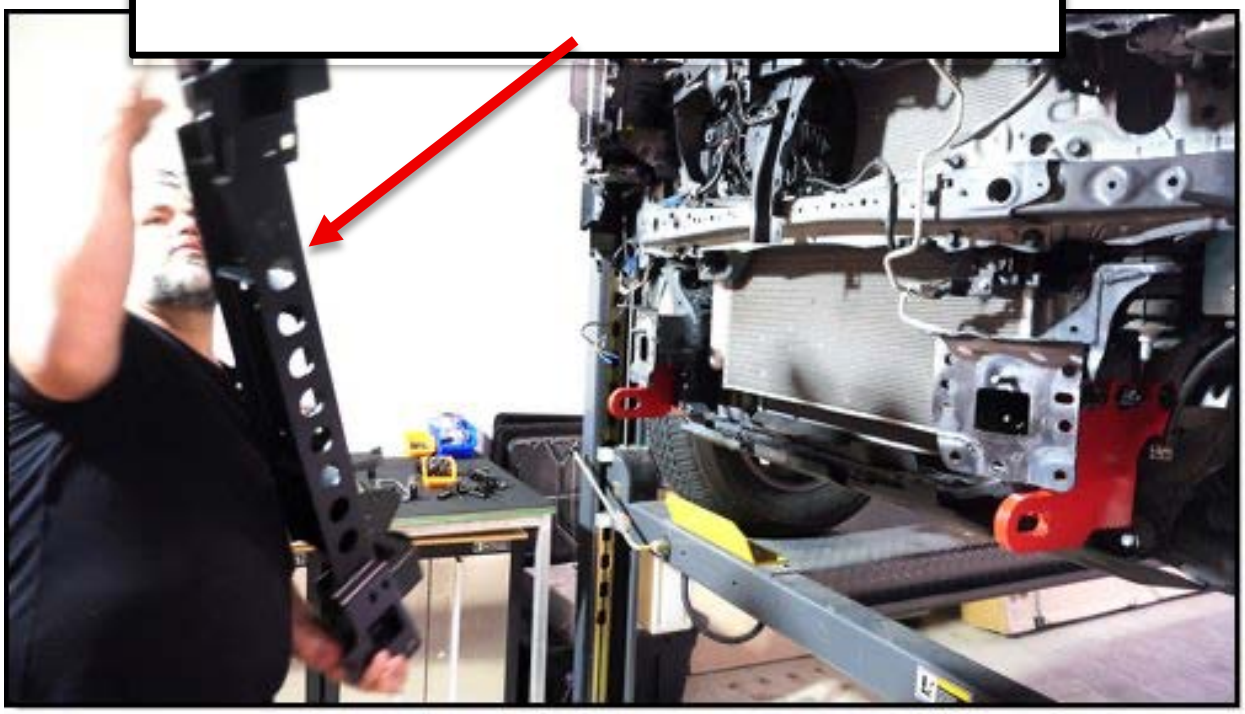
Carefully Cut the excess wire from the nutsert extension

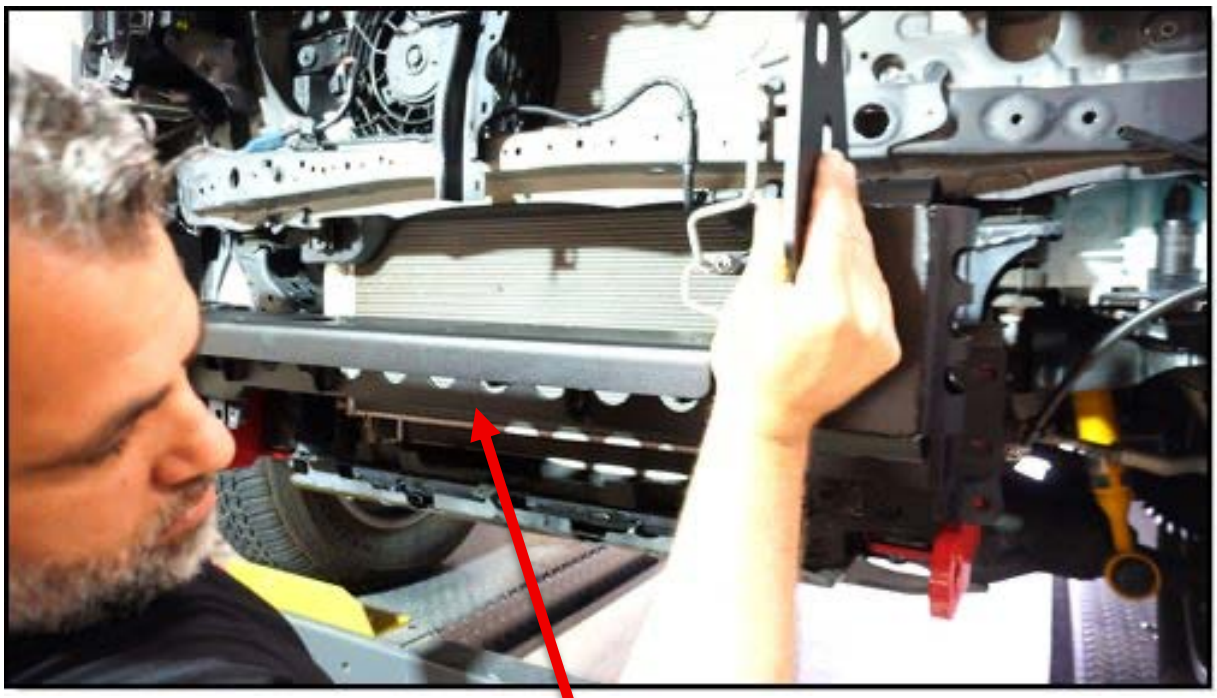




Install Winch Cradle

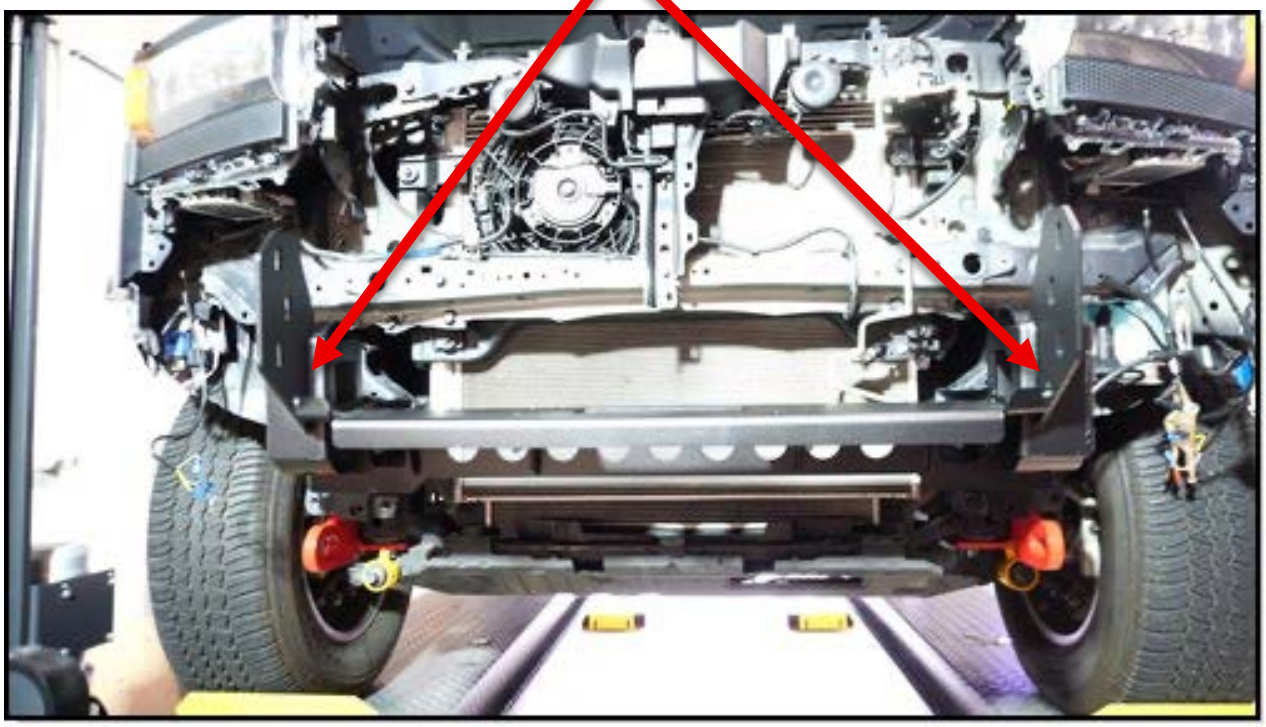
- Lift the cradle into position against the recovery point brackets.
- Install mounting bolts as follows:
  - Three outer bolts per side
  - Two inner bolts per side
  - Leave all bolts hand-tight to allow alignment.

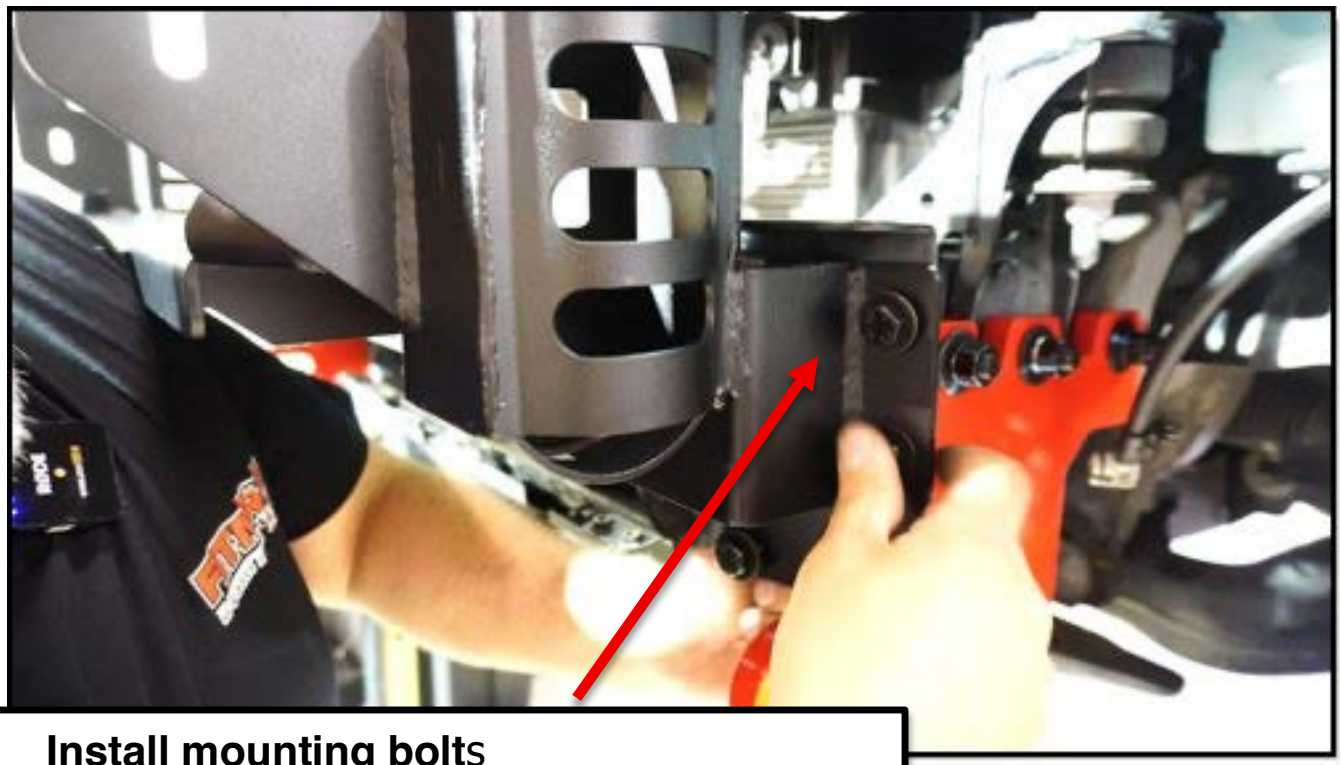




Align Winch Mounting Bracket

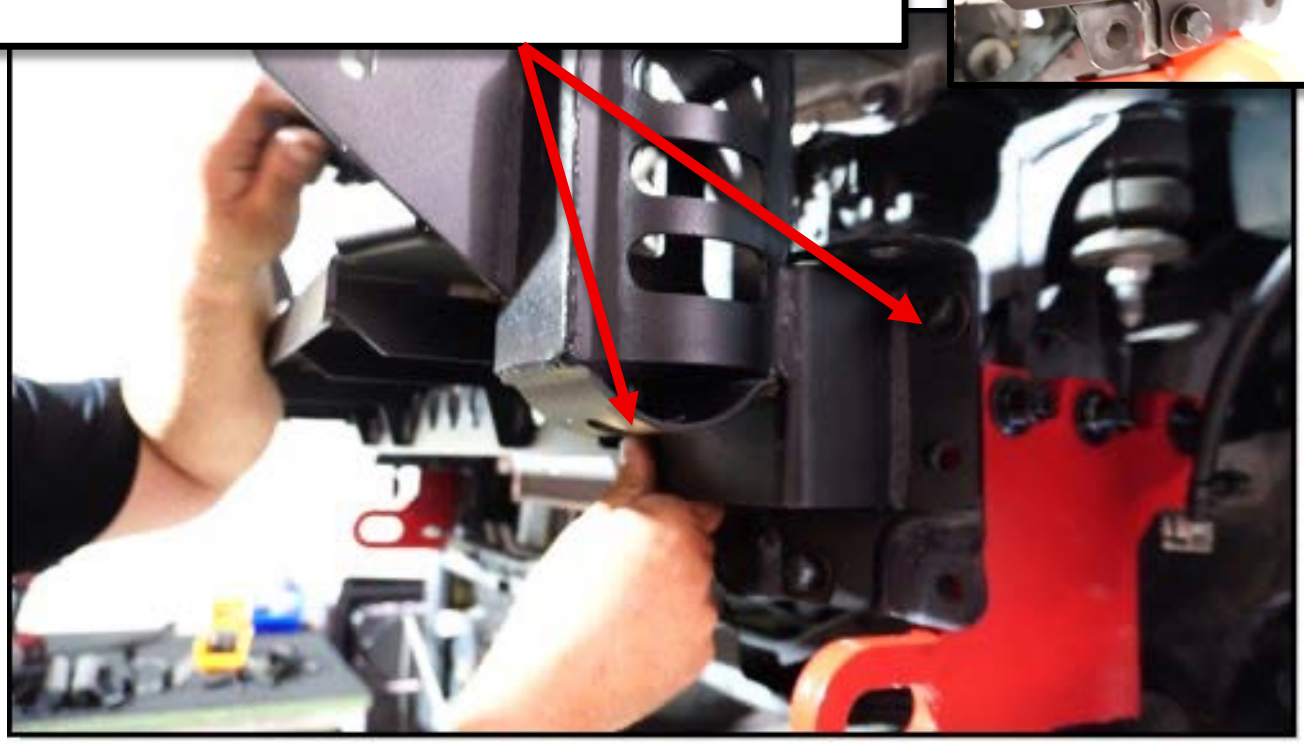
- Position the bracket against the vehicle's underside, aligning the mounting brackets with the chassis mounting points. Ensure the step sits level and maintains proper clearance from the vehicle body.

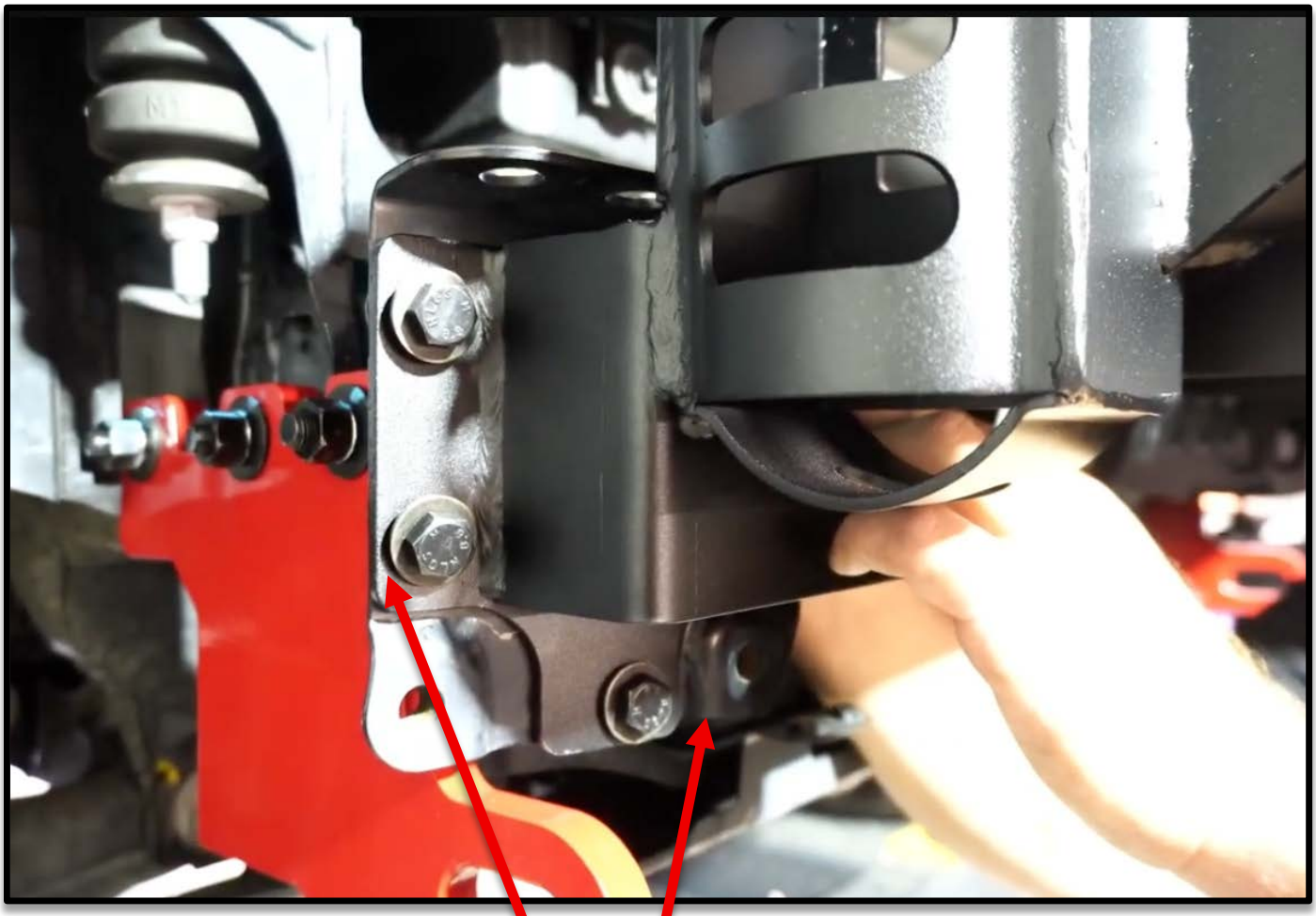




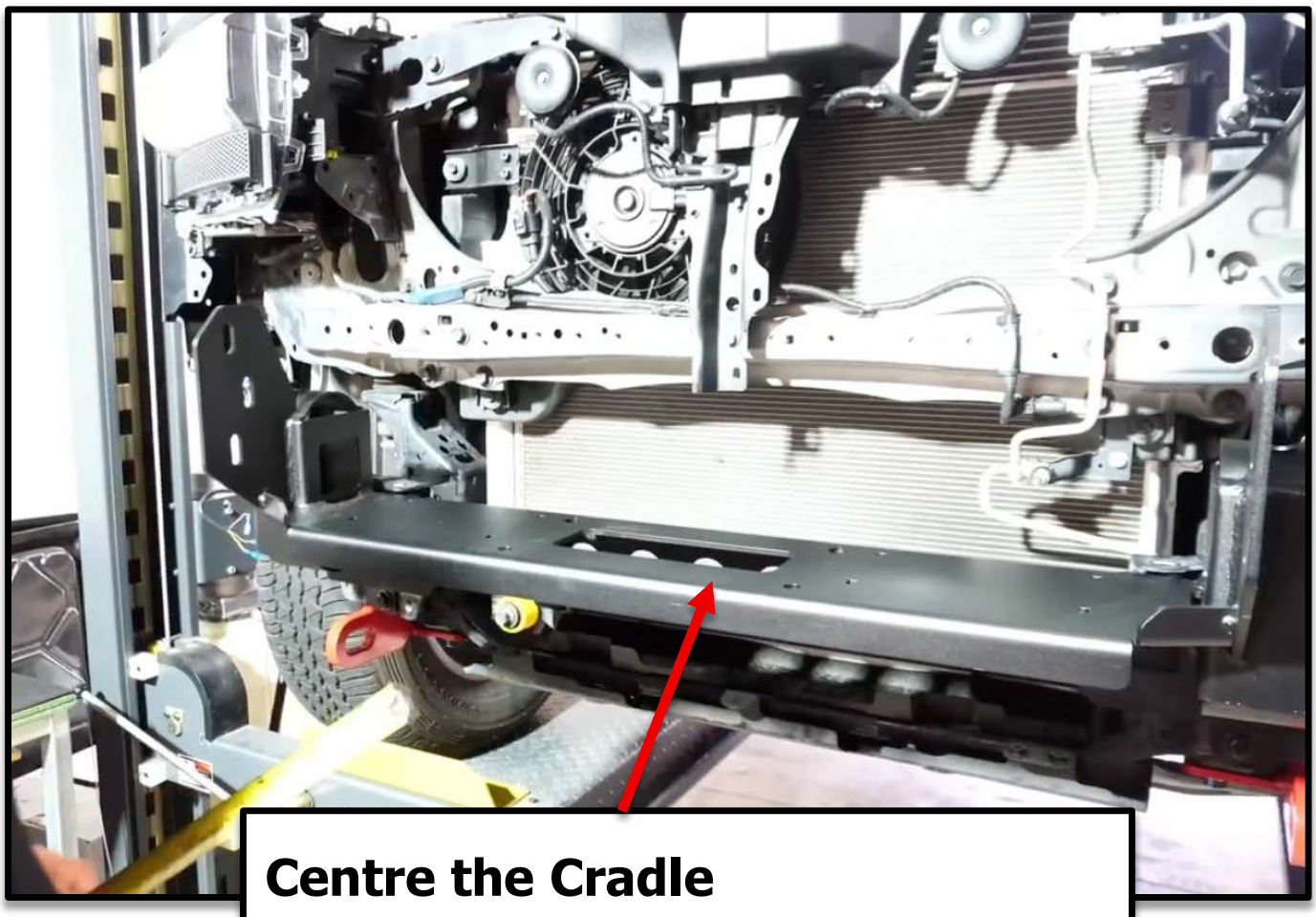
Install mounting bolts

- Install the mounting bolts in the specified sequence. Position three bolts in the visible outer mounting points, plus two additional bolts on the inside mounting locations.
- Ensure all five bolts are properly aligned with their corresponding mounting holes before tightening



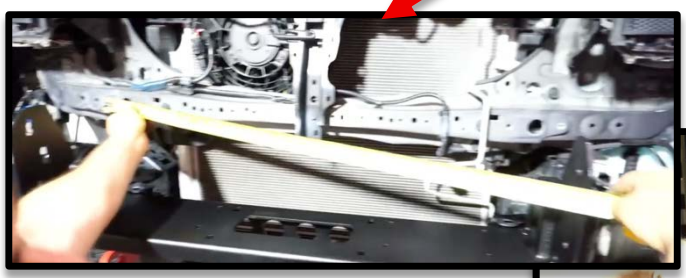


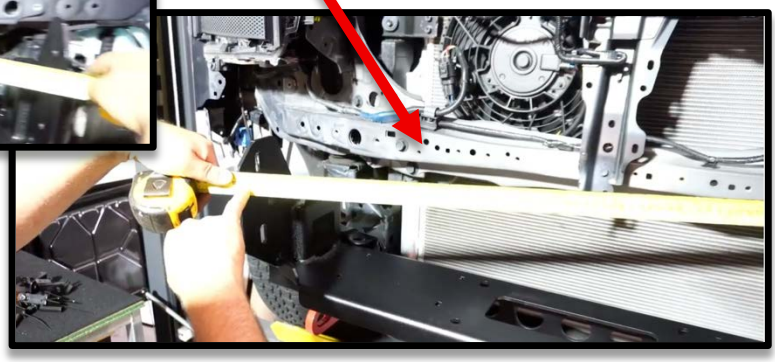
Replicate on the other Side



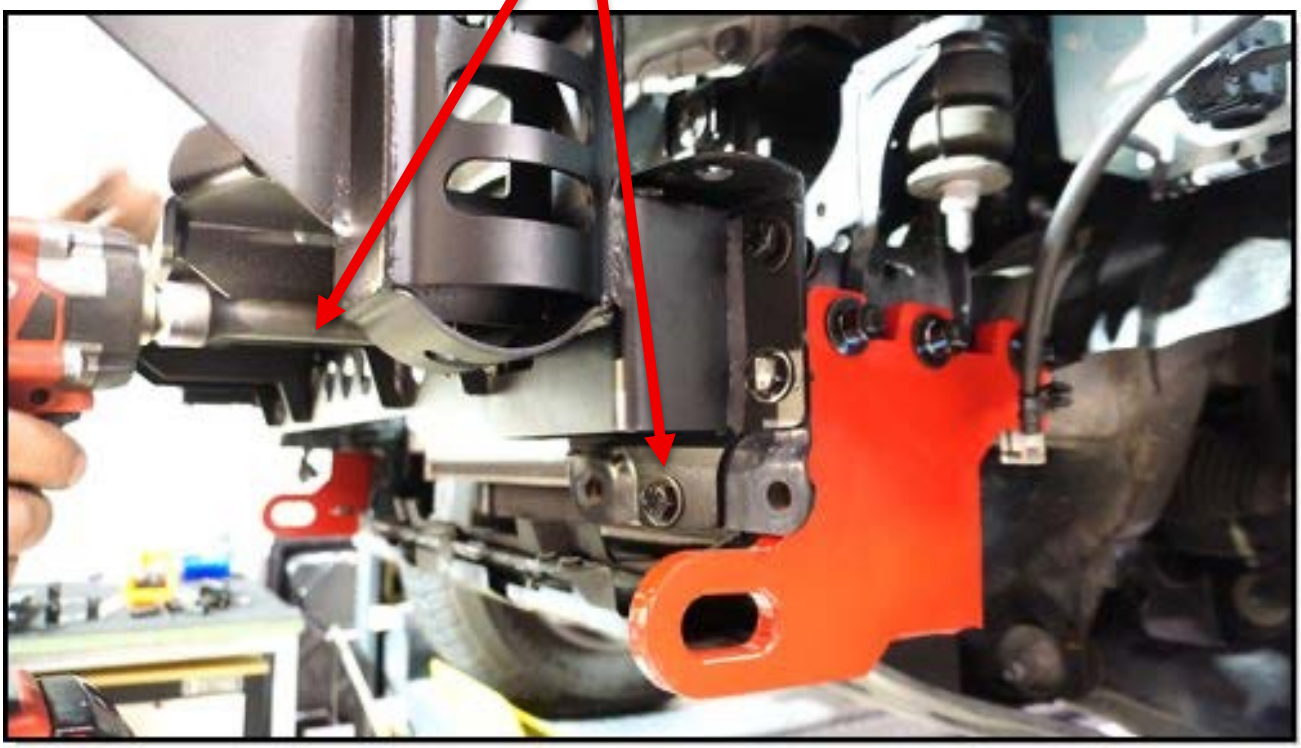
Centre the Cradle

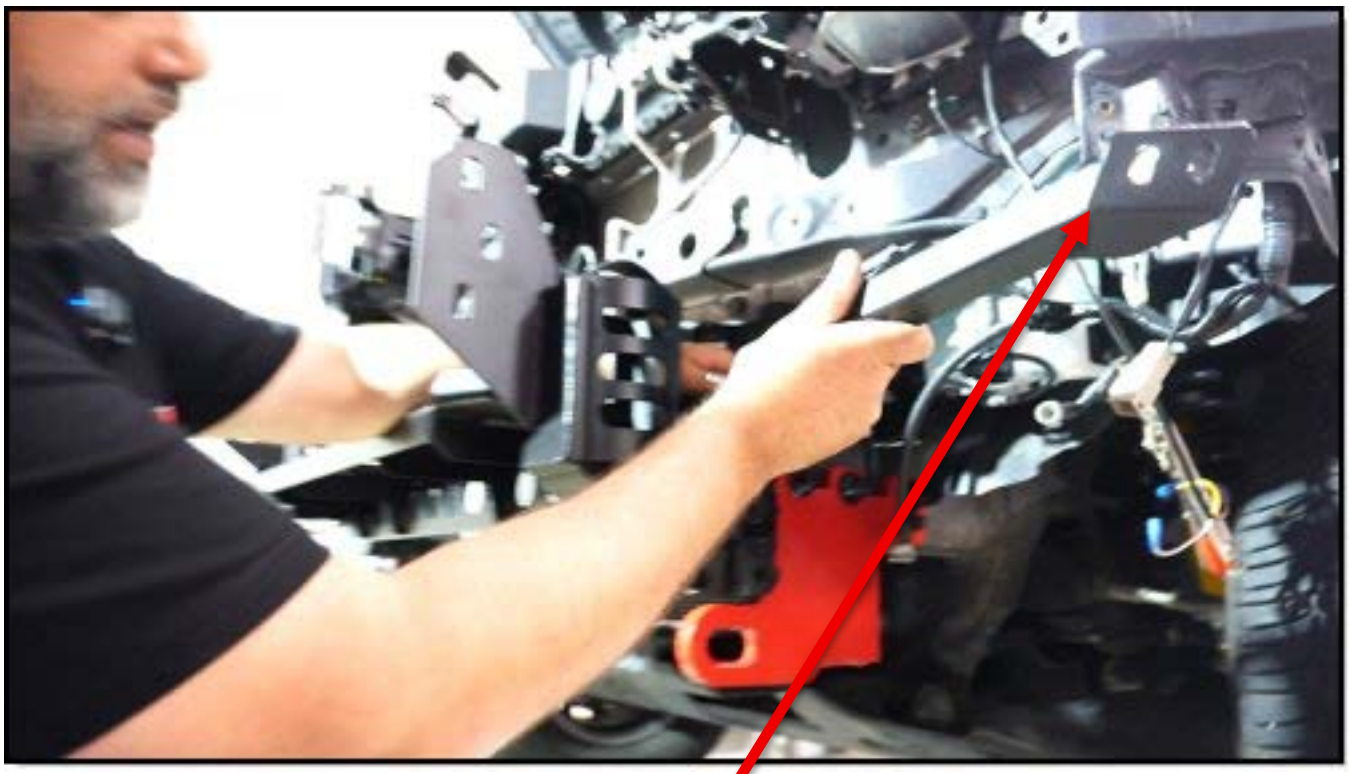
- Measure from a fixed chassis reference point to the cradle edge on both sides.
- Adjust cradle position until both sides measure evenly (within 1–2mm tolerance).





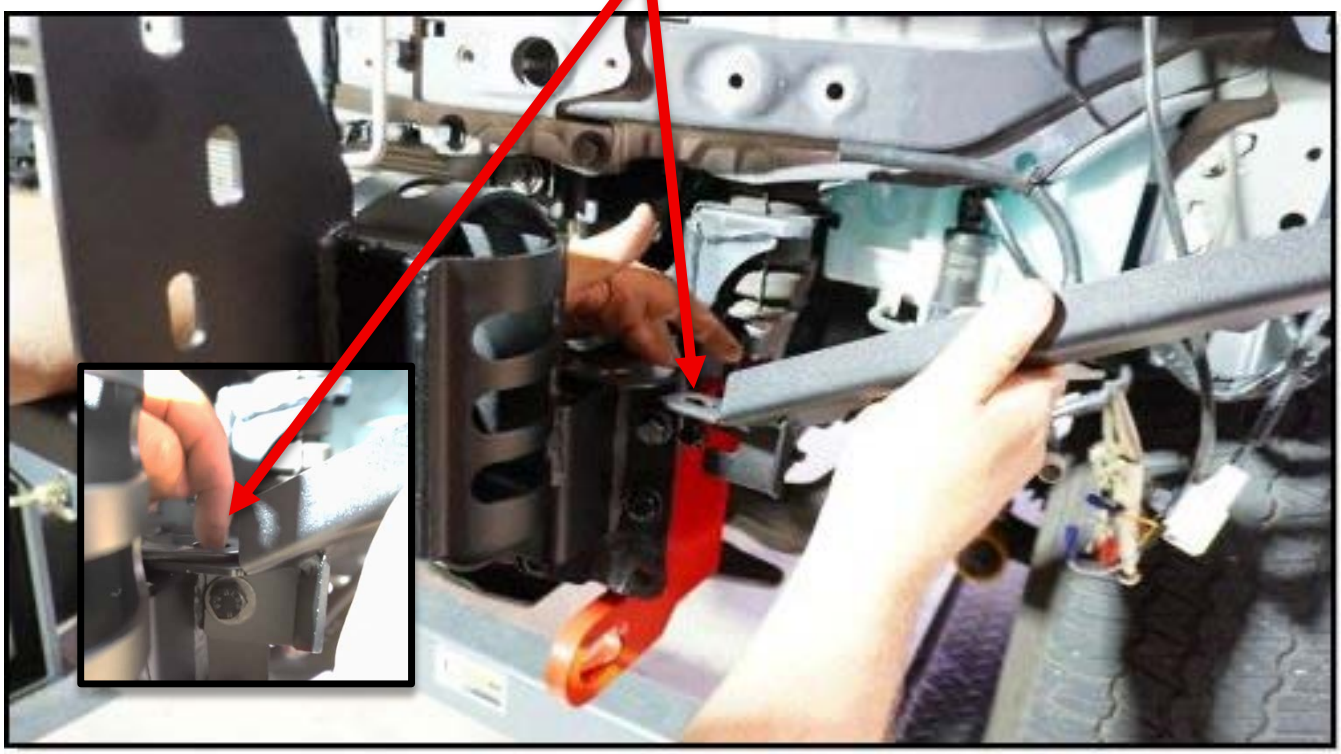
Tighten all bolts

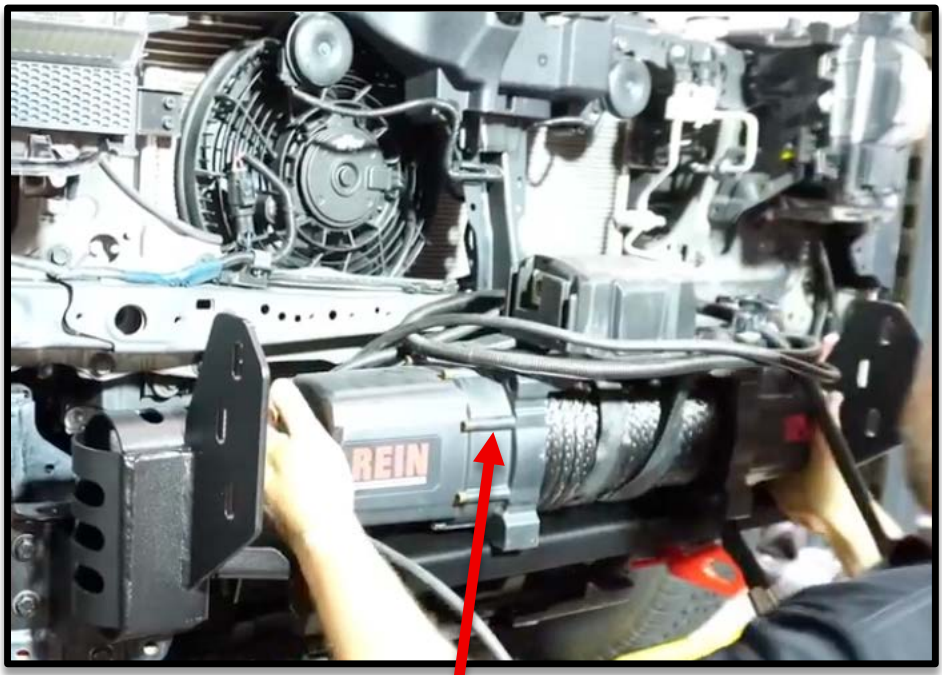




Test Bullbar Wing Bracket Fitment

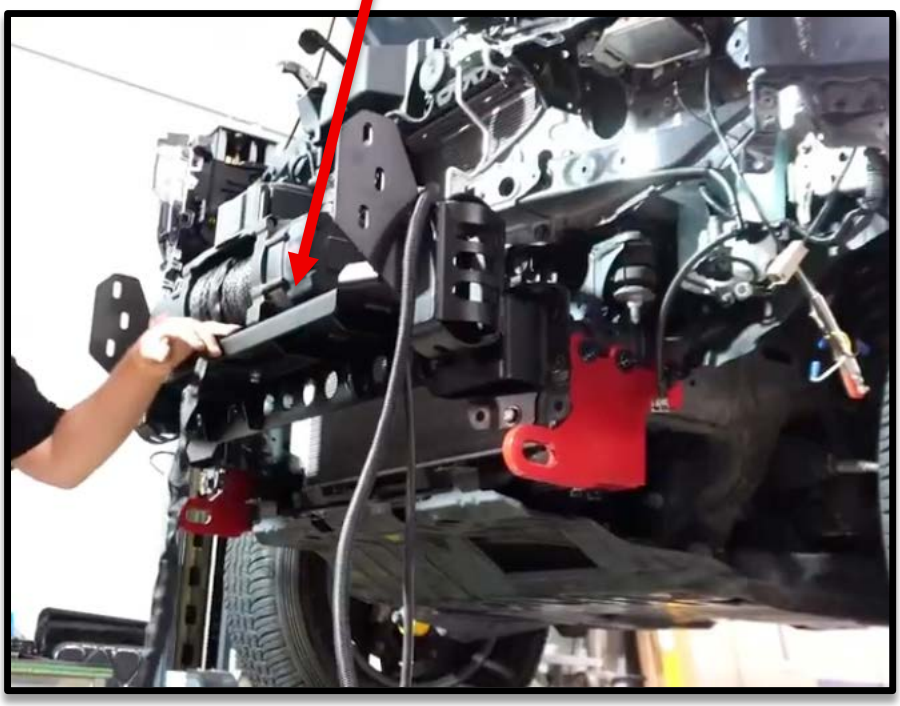
For testing only, do not fit Wing bracket as yet

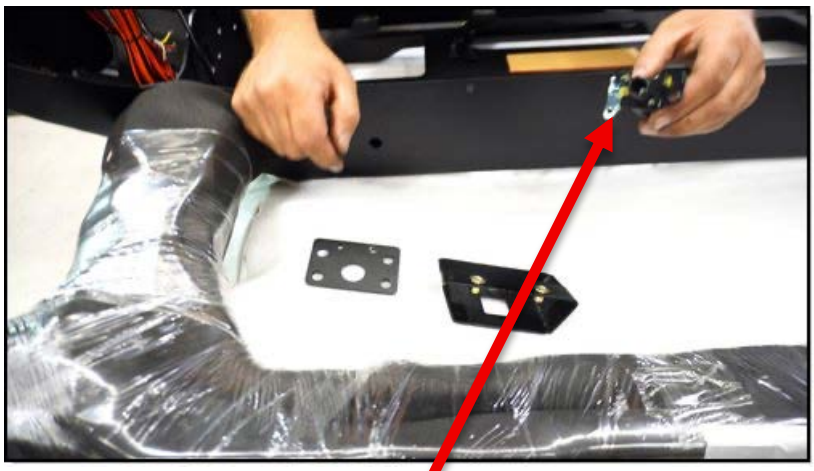




Winch Installation (If Applicable)

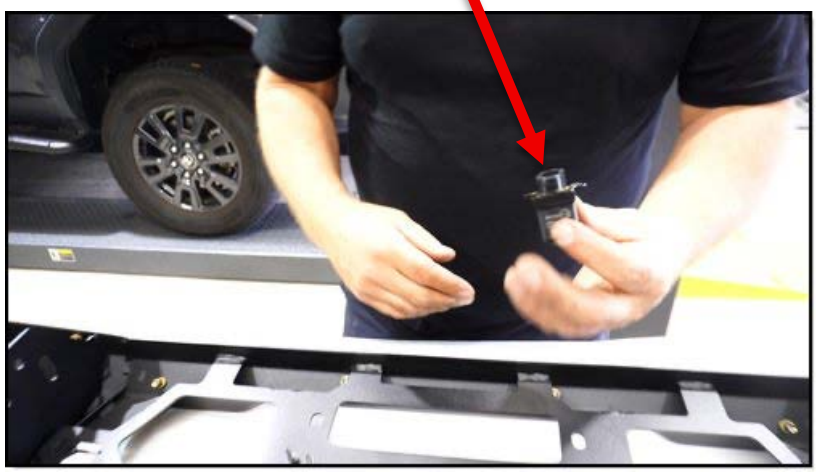
- With cradle secured, install the winch according to manufacturer specifications.
- Ensure correct alignment and cable routing before proceeding.

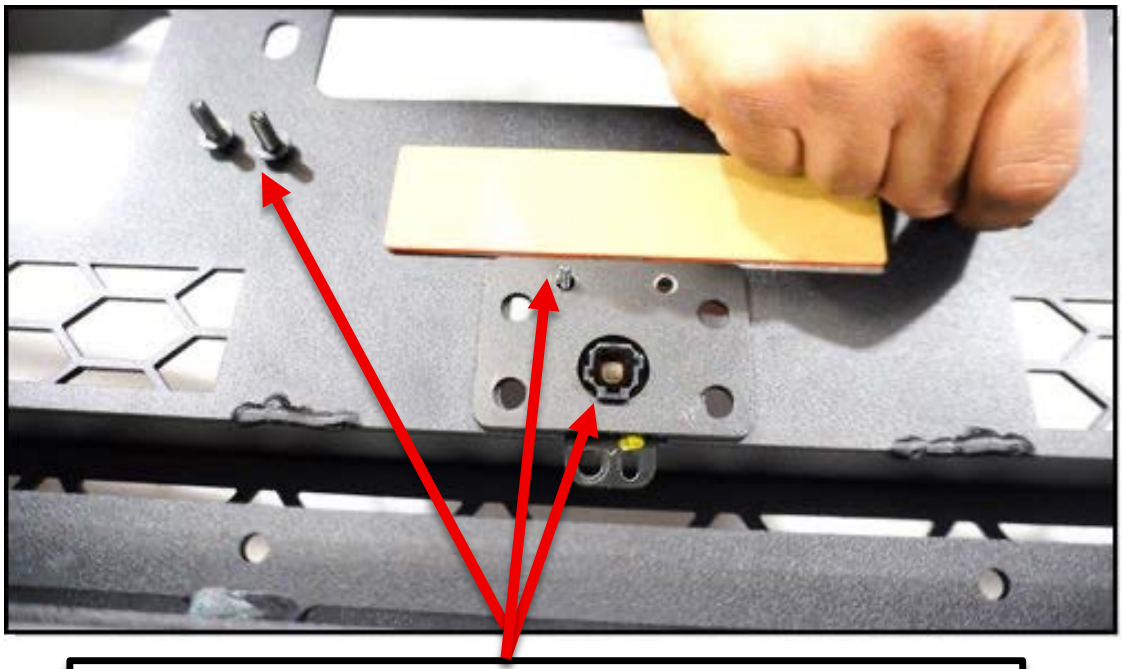




Install Front Camera

- Position the supplied camera bracket into the bullbar camera housing.





Install Front Camera

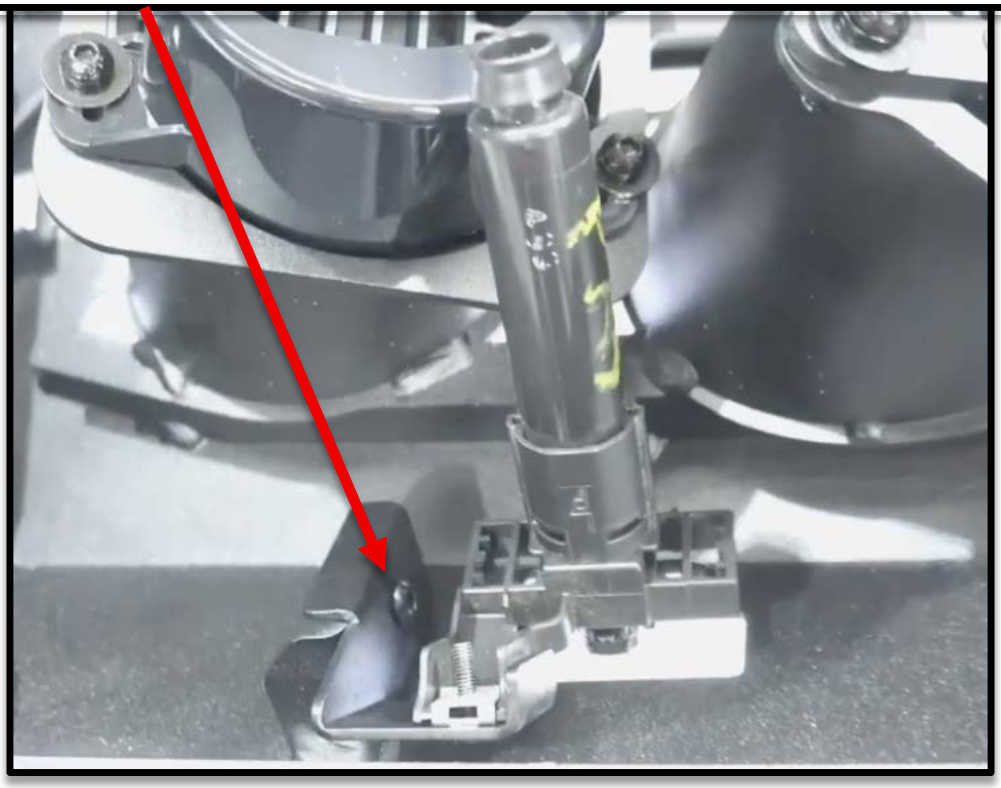
- Insert camera from underneath.
- Secure using supplied M4 screws (hand-tight initially).
- Align camera centrally.
- Install cover plate using M6 bolts.
- Fully tighten fasteners.

Install Washer Jet (Passenger Side)

- Secure washer jet bracket using M4 bolt.

Install Washer Jet (Passenger Side)

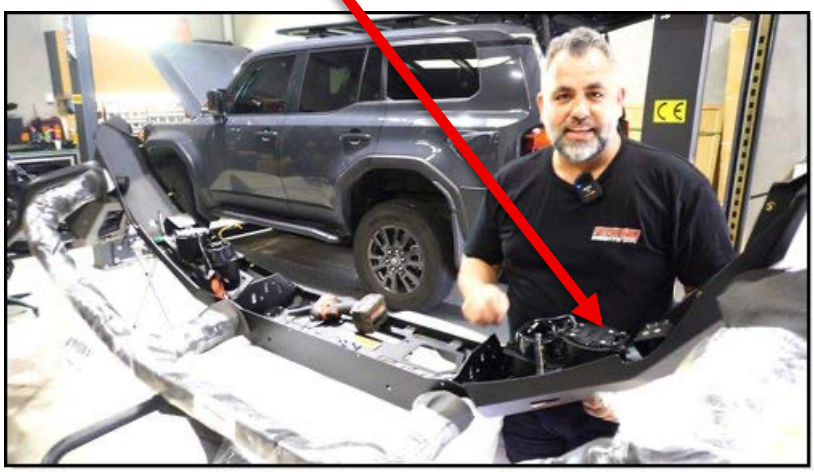
- Secure washer jet bracket using M4 bolt.
- Insert washer jet assembly into bullbar aperture.
- Align mounting holes.
- Secure with M6 bolt and nut.
- Install outer cover and clip into place.

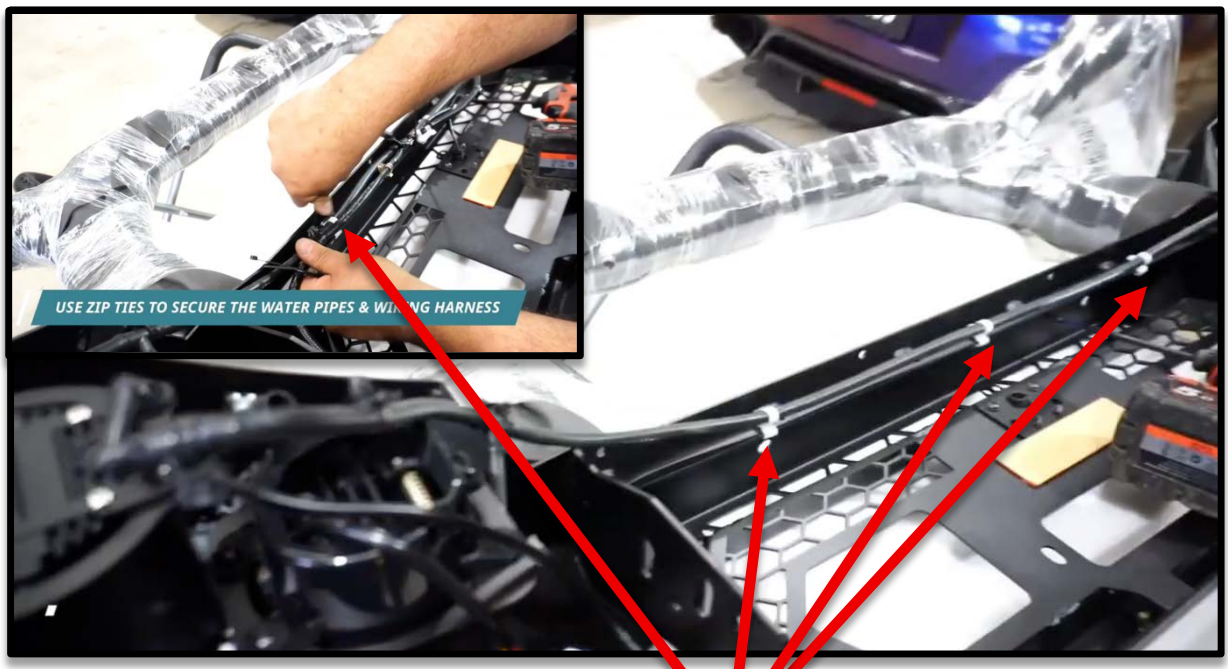


Install Washer Jet Cover (Passenger Side)

- Install outer cover and clip into place.

Repeat the Process (Passenger Side)





Wiring & Plumbing

- Route washer hoses through factory clips and into bullbar.
- Connect camera wiring harness.
- Route radar and grille wiring as required.
- Secure all wiring and hoses with zip ties.
- Ensure neat, secure routing away from moving or heat-affected components.

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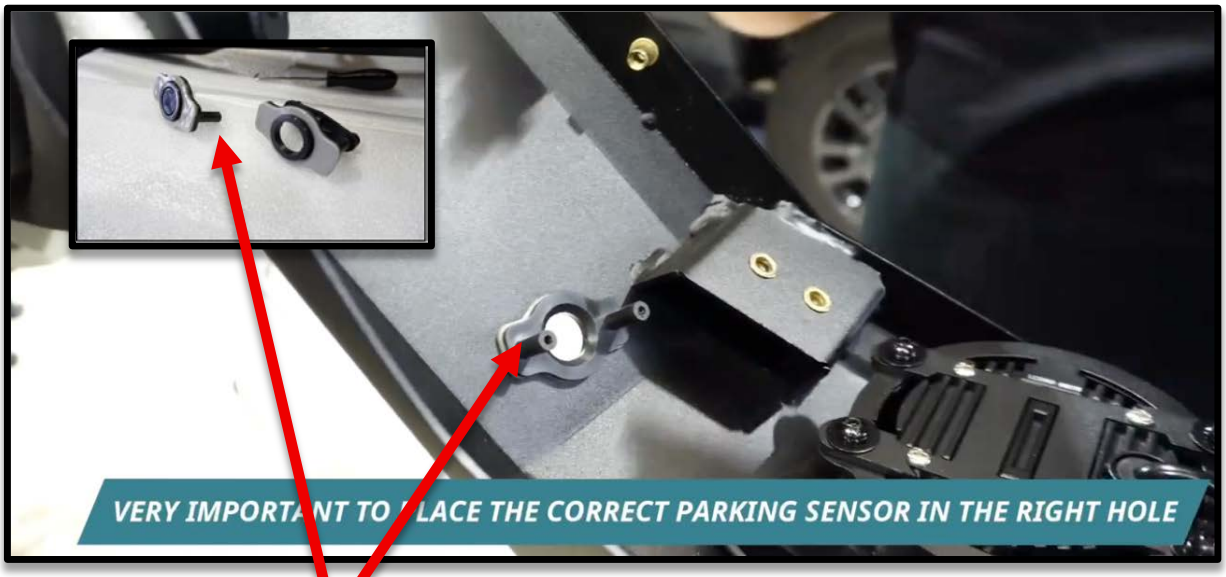
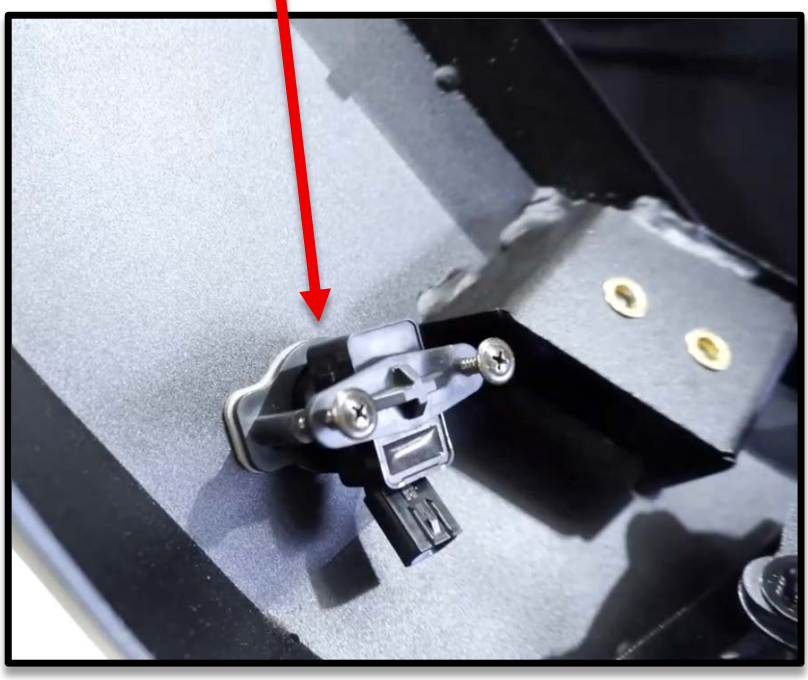


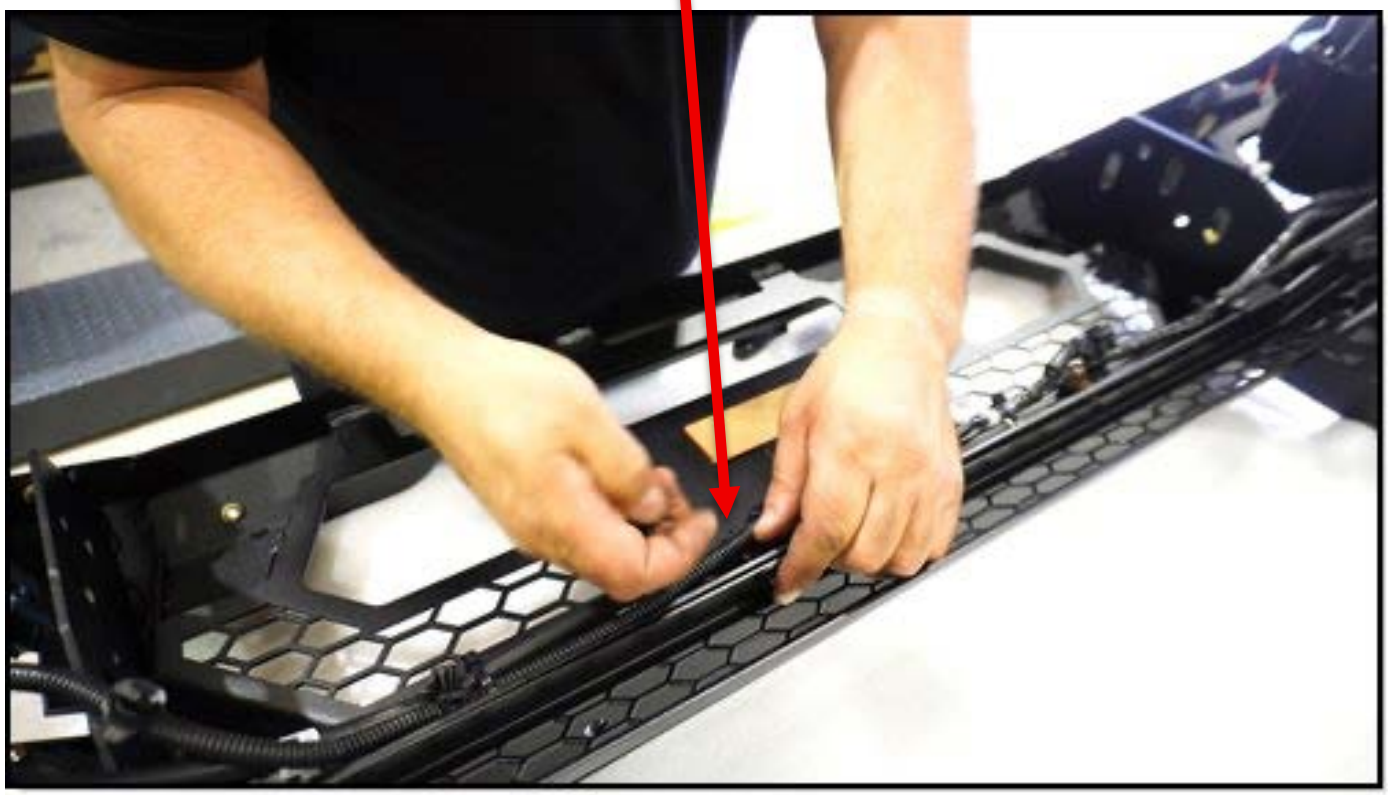
Install Parking Sensors

- Remove factory parking sensors from original bumper.
- Install Rockarmor sensor holders into bullbar.
- Insert sensors into correct positions (maintain original orientation).
- Secure with screws (do not overtighten).
- Confirm sensor face is flush and stable.

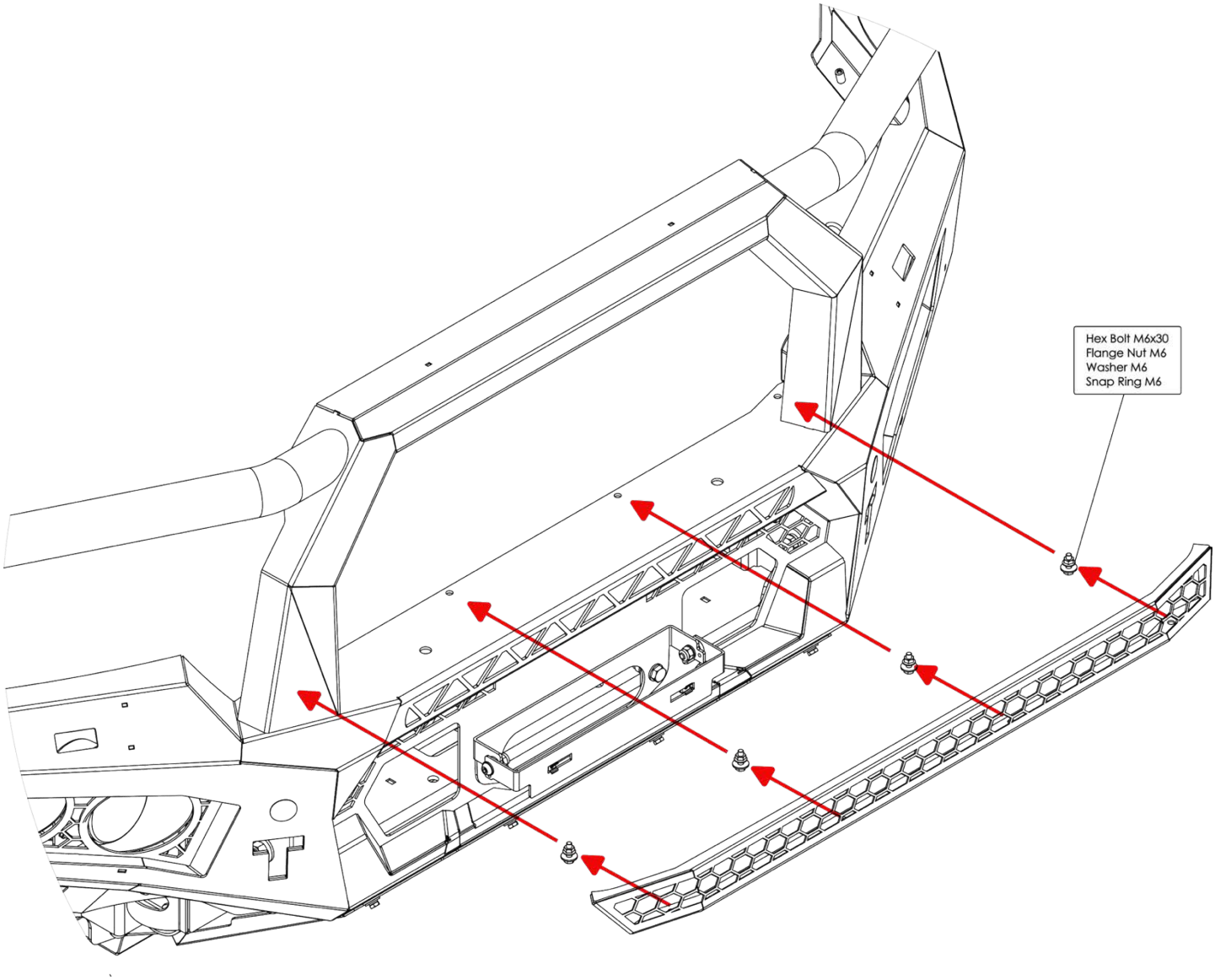


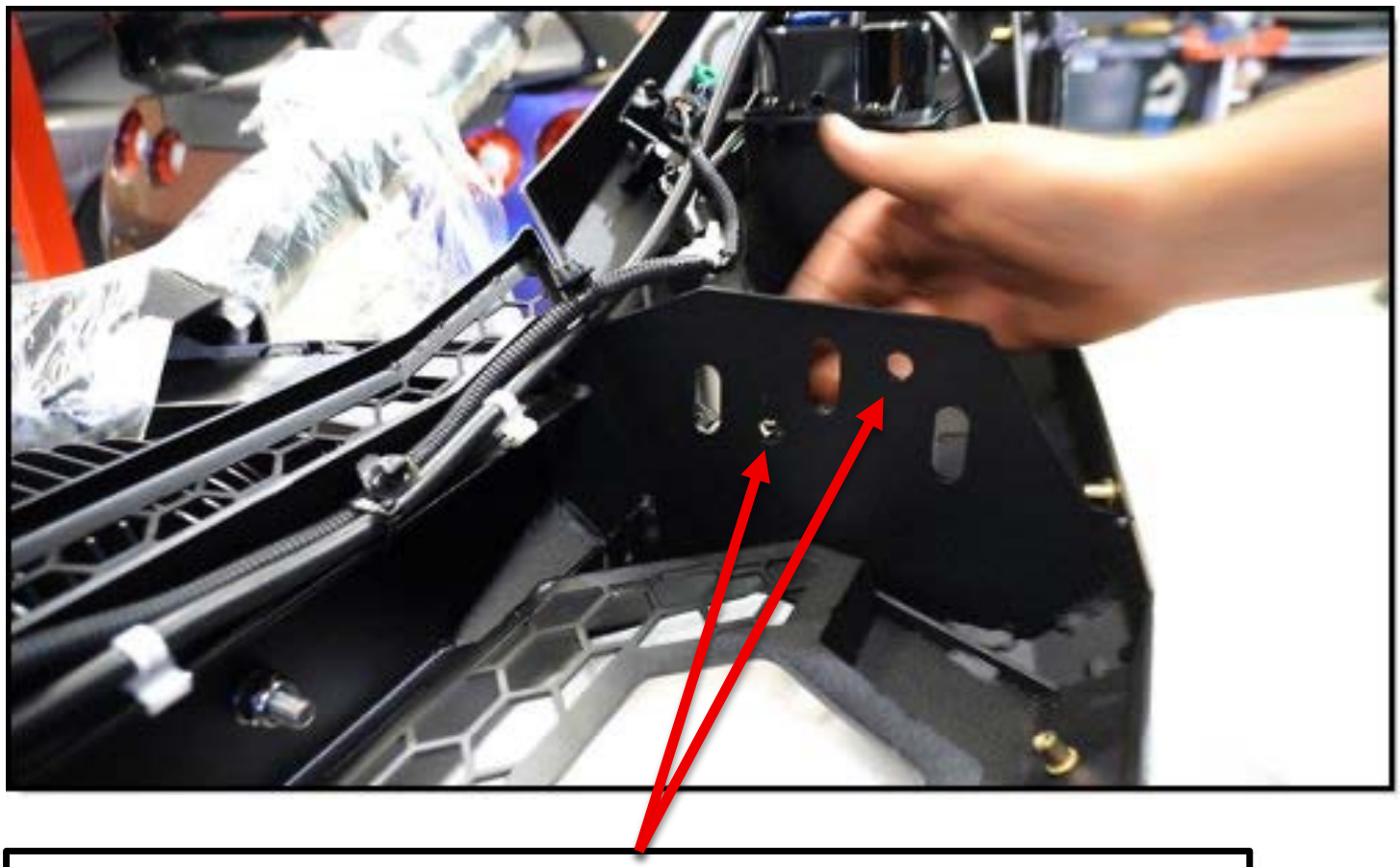
Install Upper Grille Extension

- Align grille extension holes with bullbar.
- Secure using supplied M6 screws.



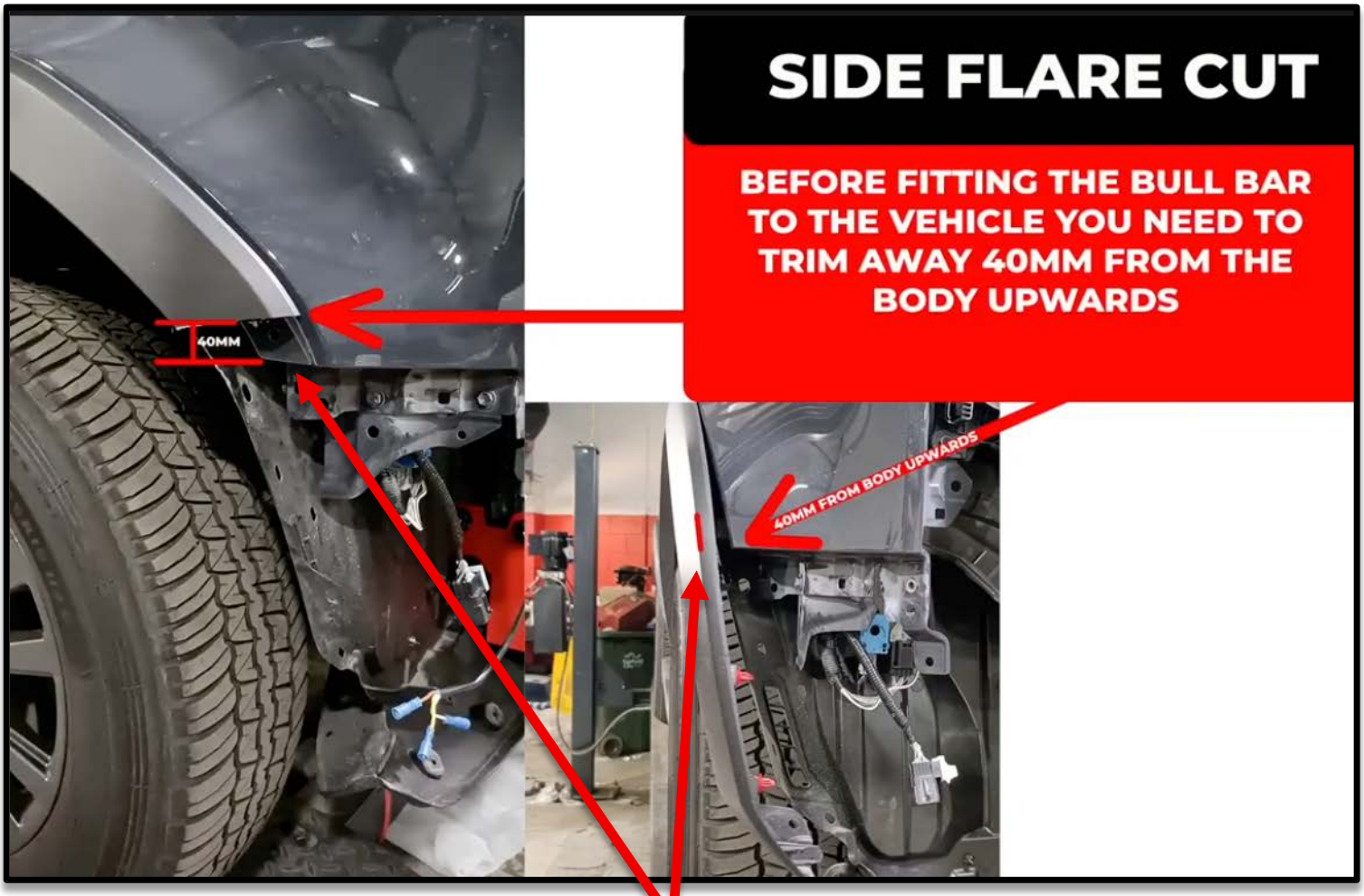
Install Upper Grill Extension





Locator Hole Explanation

- Identify main mounting slots and secondary locator holes.
- Drill through the marked locator holes from the bullbar bracket into the cradle. Ensure the drill bit size matches the bolts you will use to secure these points. Clean any metal shavings after drilling.
- Install bolt and nut to permanently secure bullbar position. Insert bolts through the drilled locator holes and secure with nuts. This creates additional fixing points that will make the bullbar installation stronger and eliminate any chance of movement. Tighten the locator bolts along with the main mounting bolts.

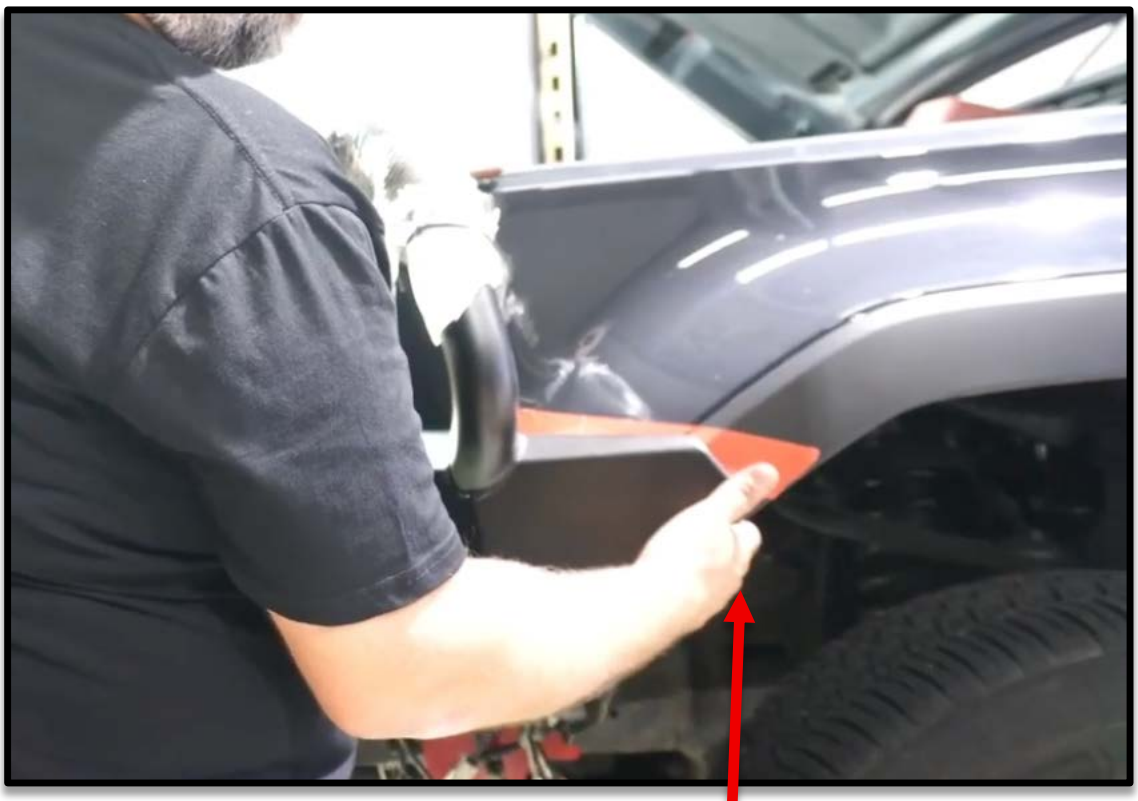


Flare Trim Modification

- Measure 40mm upward from bottom of flare/body panel.
- Mark cut line clearly.
- Carefully trim using grinder.
- Ensure cut matches reference image and provides adequate clearance.

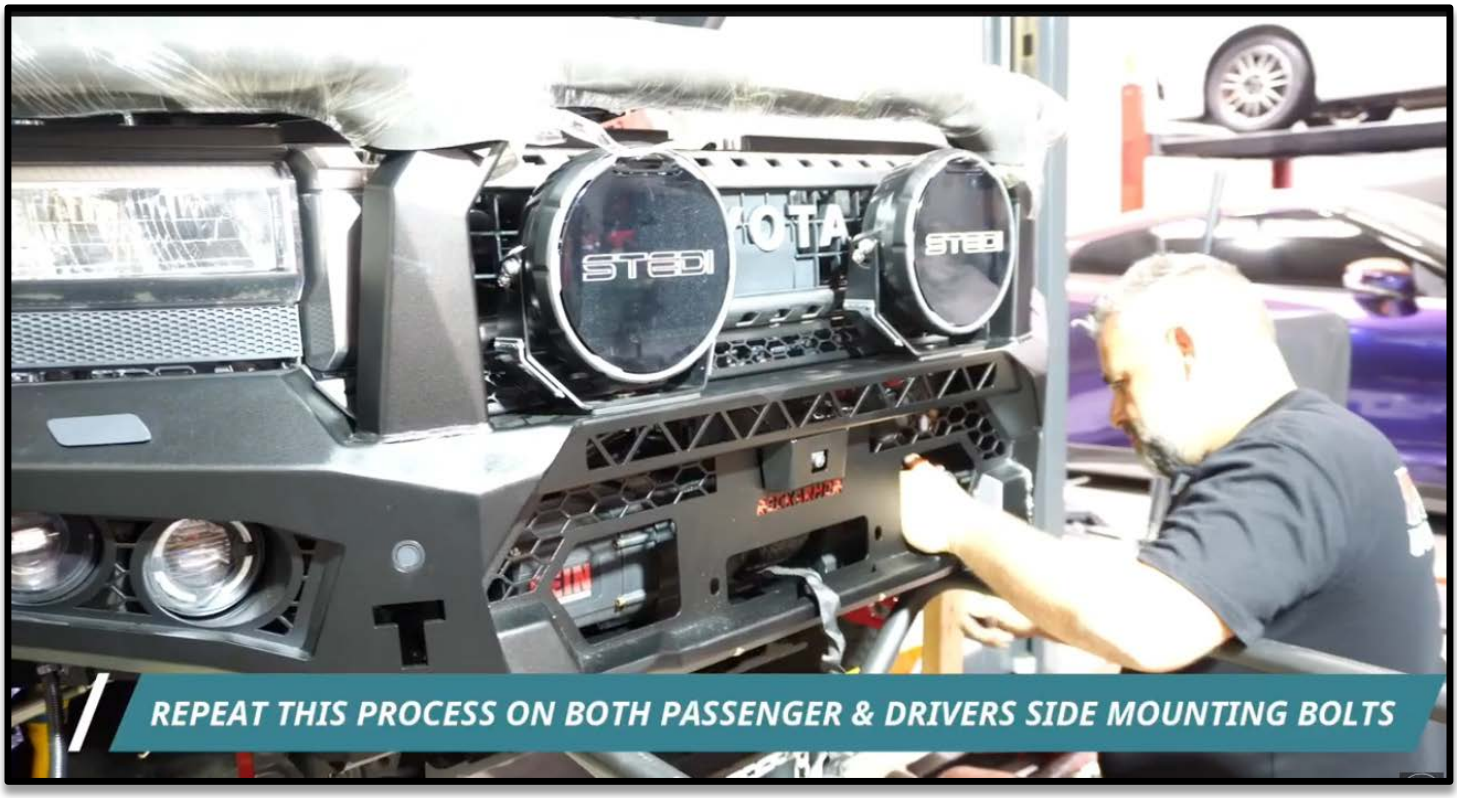
Fit Bullbar to Cradle

- Lift bullbar onto cradle.
- Align main mounting slots with cradle bolts.
- Adjust height to match wheel arch line for optimal appearance.
- 3 Bolts perside
- Hand-tighten mounting bolts.



Bullbar Fitting

- Align Bullbar with Wheel Arch before fastening the bolts to the cradle
- Adjust the bolts accordingly until the fitment is flush



Electrical – Installation of Fog Light & Indicators

- Slide wing bracket behind previously loosened bolt.
- Install additional bolt, washer, and nut.
- Hand-tighten.
- Install two M6 screws on outer wing mounting points.
- These prevent vibration and structural movement.

Tip: Suggest doing the auto electricals for the Parking Lights ,indicators and other Lighting needs.

We strongly advise you employ a qualified auto electrician to complete the auto Electrics on the Vehicle.

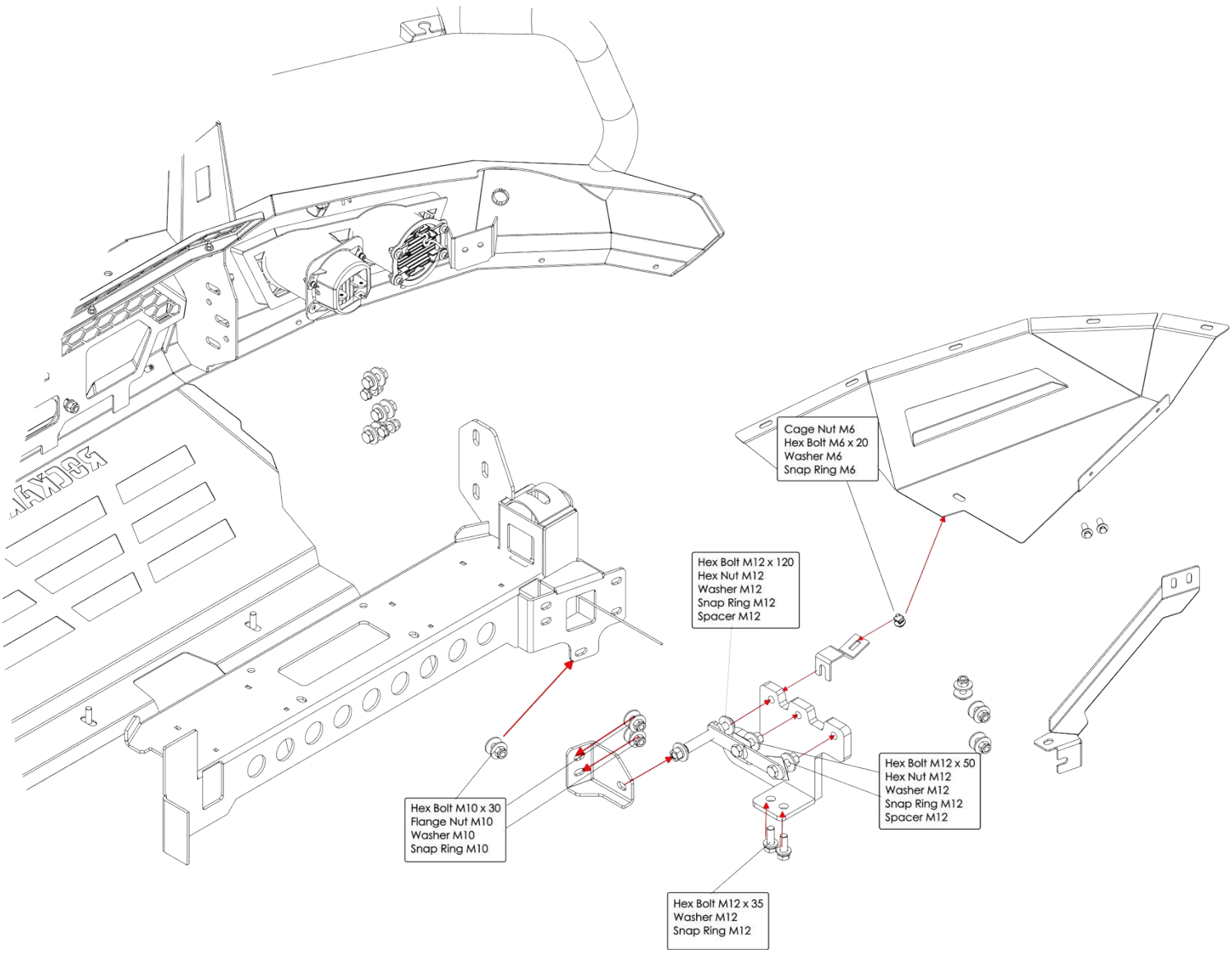
Wiring Colour Codes from lights on the Rockarmor Bullbar:

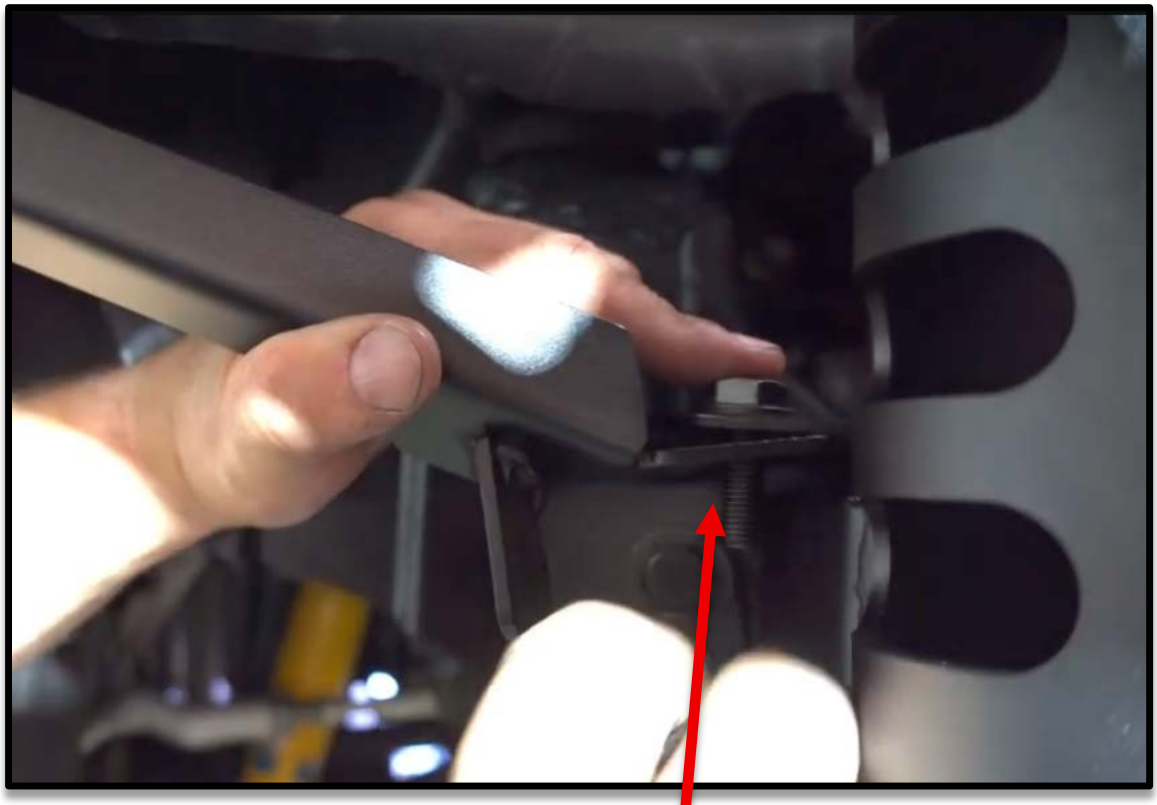
Red - Fog Light

White - Park Light

Yellow - Indicator Light

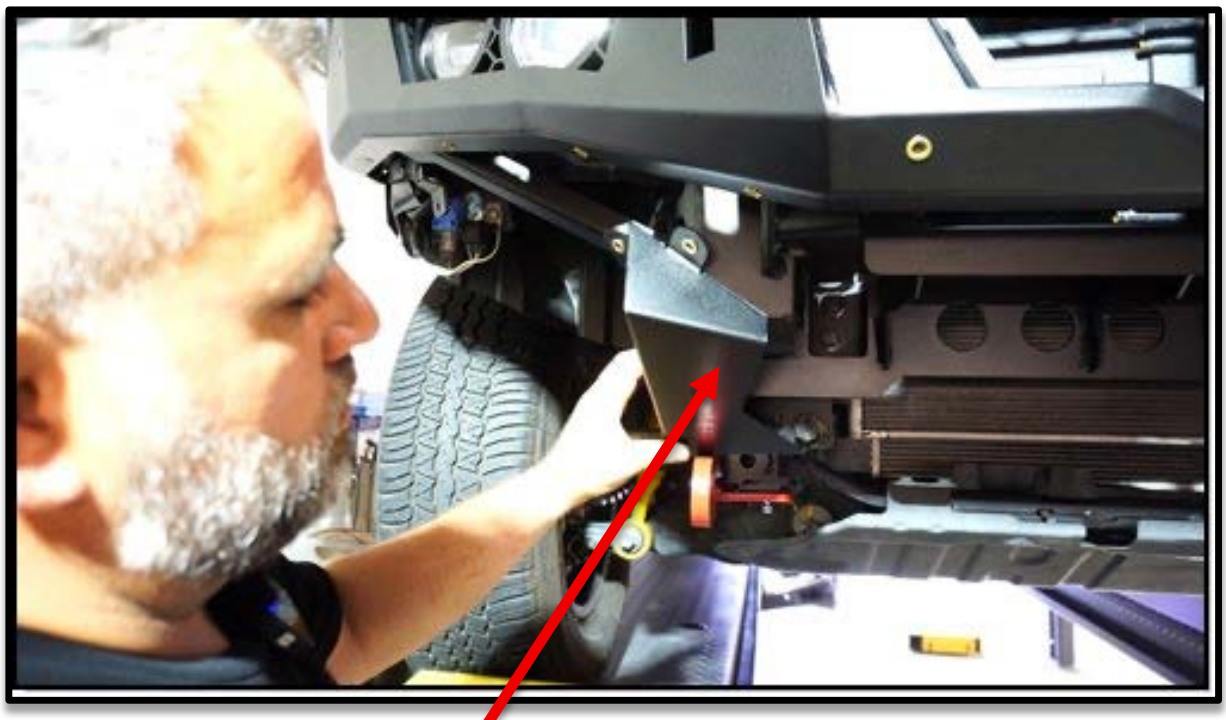
Black - Earth (Ground)


Cage Nut M6
Hex Bolt M6 x 20
Washer M6
Snap Ring M6
Hex Bolt M12 x 120
Hex Nut M12
Washer M12
Snap Ring M12
Spacer M12
Hex Bolt M12 x 50
Hex Nut M12
Washer M12
Snap Ring M12
Spacer M12
Hex Bolt M10 x 30
Flange Nut M10
Washer M10
Snap Ring M10
Hex Bolt M12 x 35
Washer M12
Snap Ring M12



Install Wing Support Brackets

- Slide wing bracket behind previously loosened bolt.
- Install additional bolt, washer, and nut.
- Hand-tighten.
- Install two M6 screws on outer wing mounting points.
- These prevent vibration and structural movement.



Install Side Skid Plates (Two-Piece System)

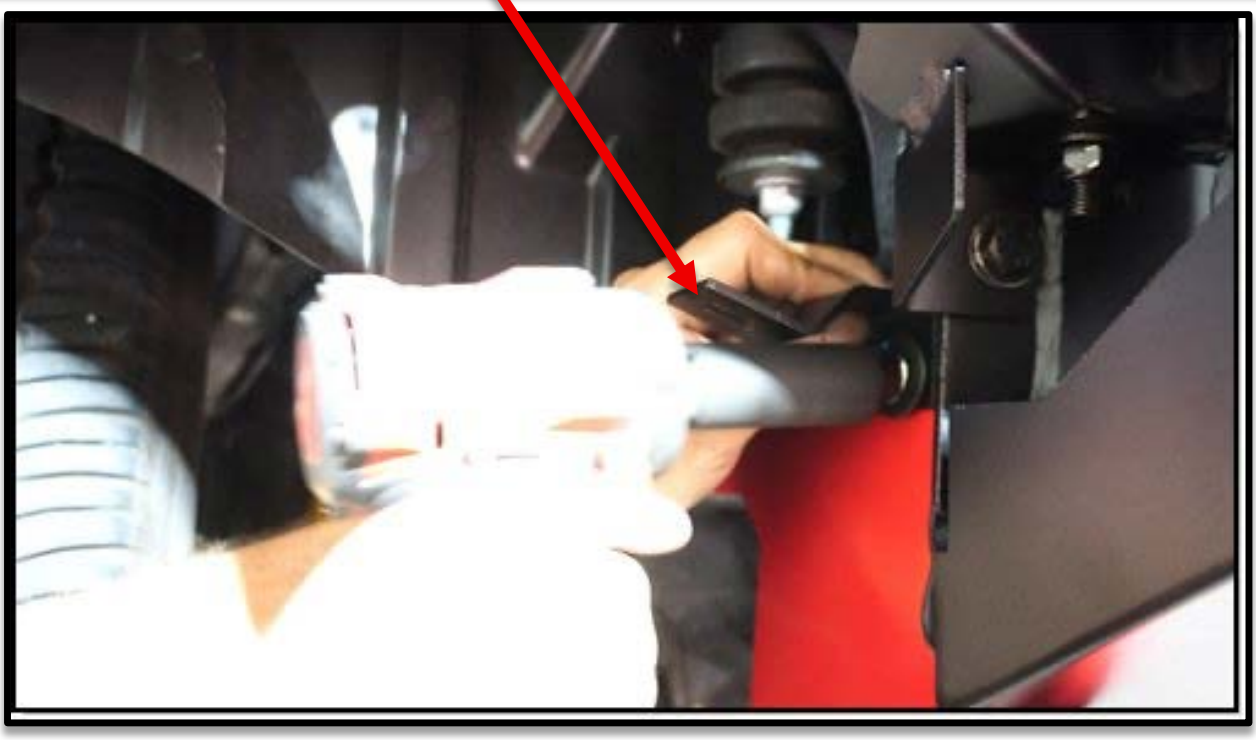
Small Skid Plate

- Position smaller skid plate first.
- Secure to bullbar mounting points.

Install Side Skid Plates (Two-Piece System)

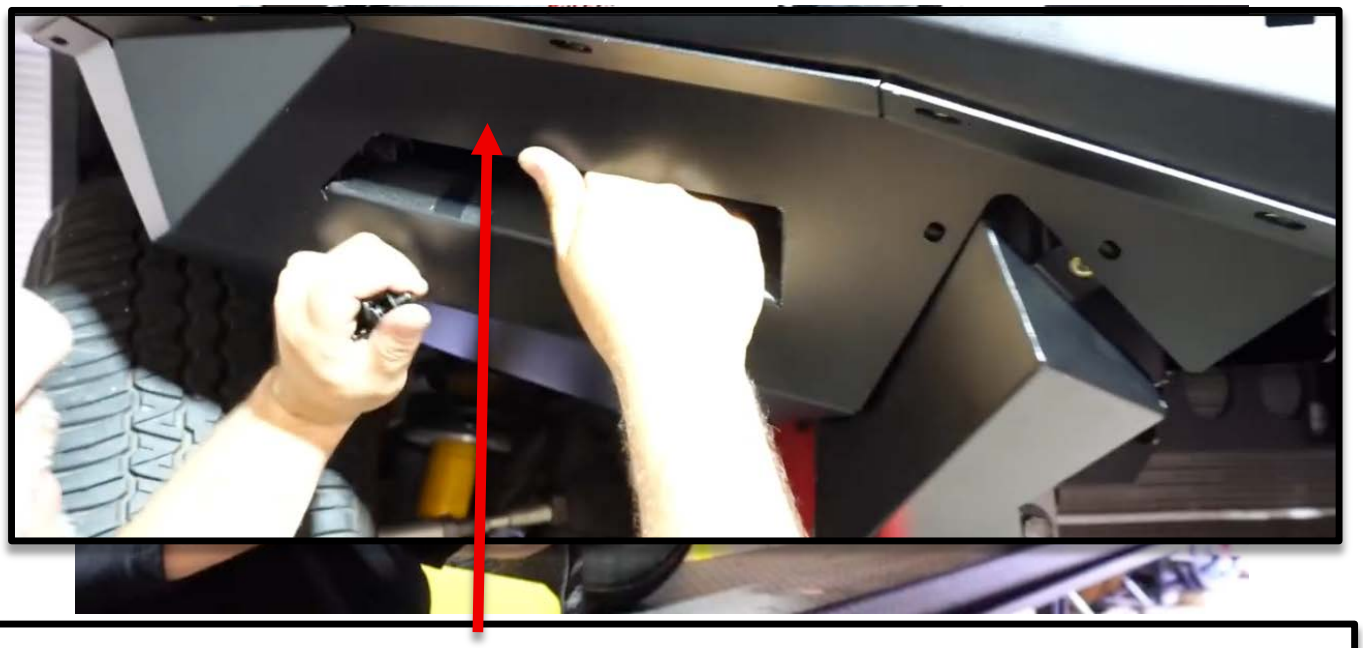
Mounting Bracket

- Loosen front recovery point bolt.
- Insert captured nut bracket.
- Re-tighten recovery point bolt.



Install Side Skid Plates

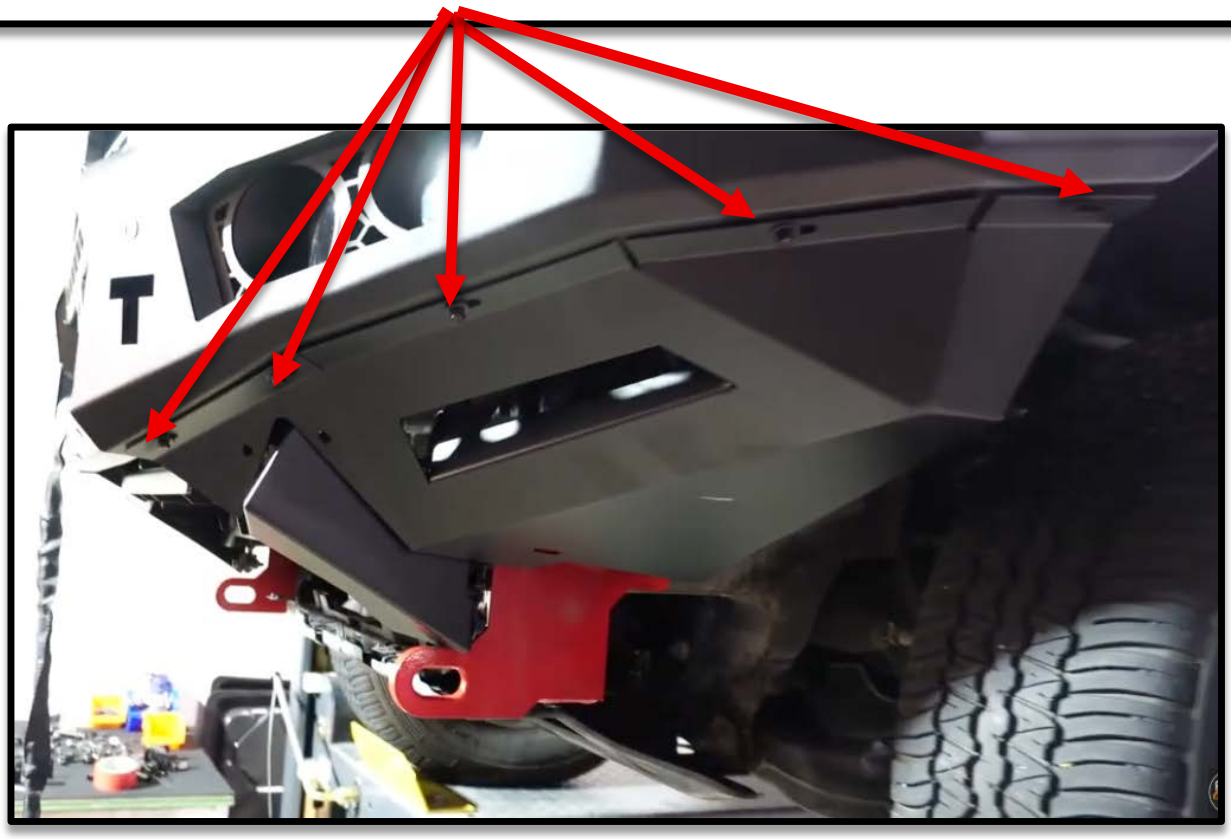
Configuration Below

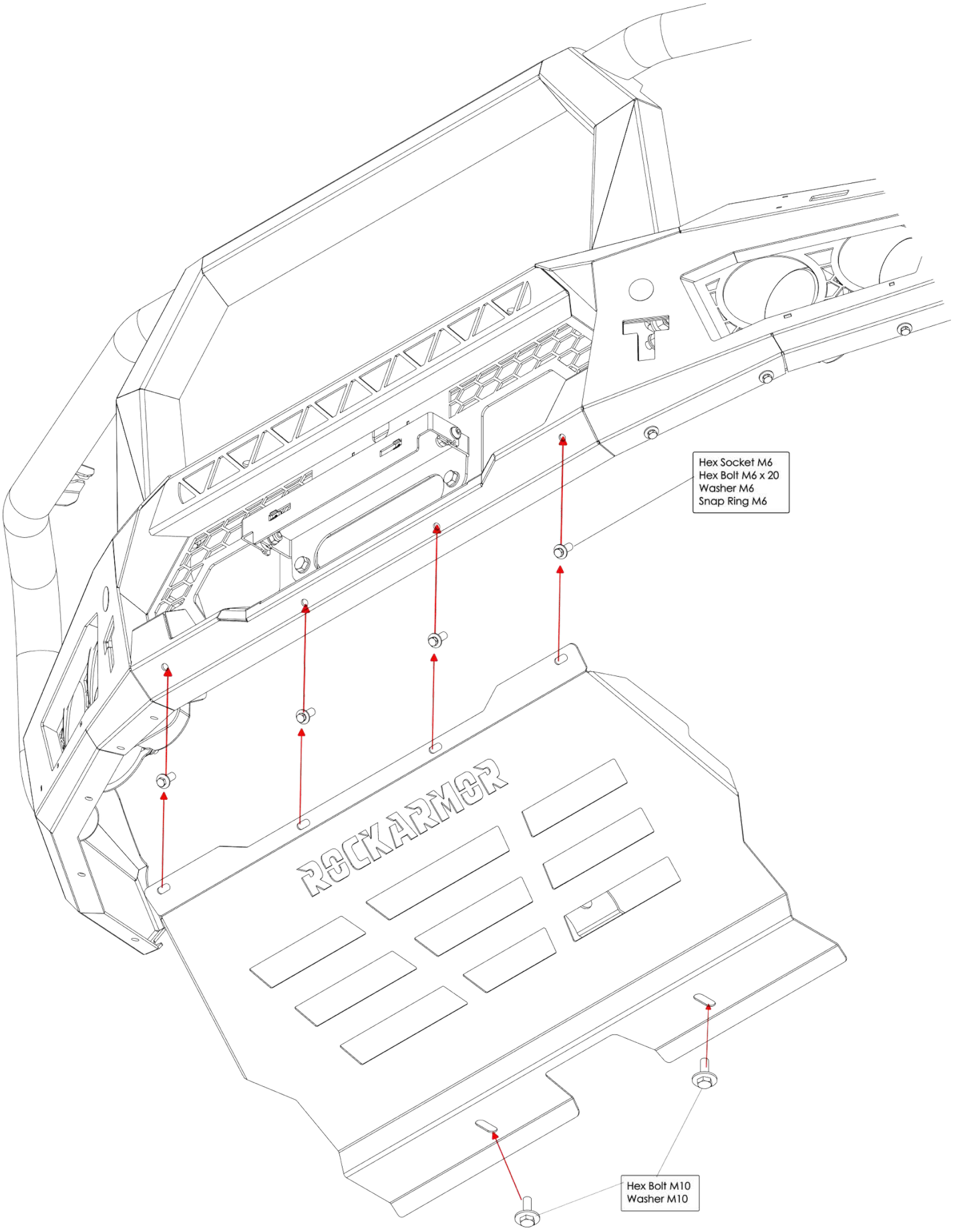


Install Side Skid Plates (Two-Piece System)

Large Skid Plate

- Align larger skid plate with bullbar and bracket.
- Install supplied bolts.
- Tighten using torque wrench.
- Repeat on opposite side.




Hex Socket M6
Hex Bolt M6 x 20
Washer M6
Snap Ring M6
ROCKARMOR
Hex Bolt M10
Washer M10

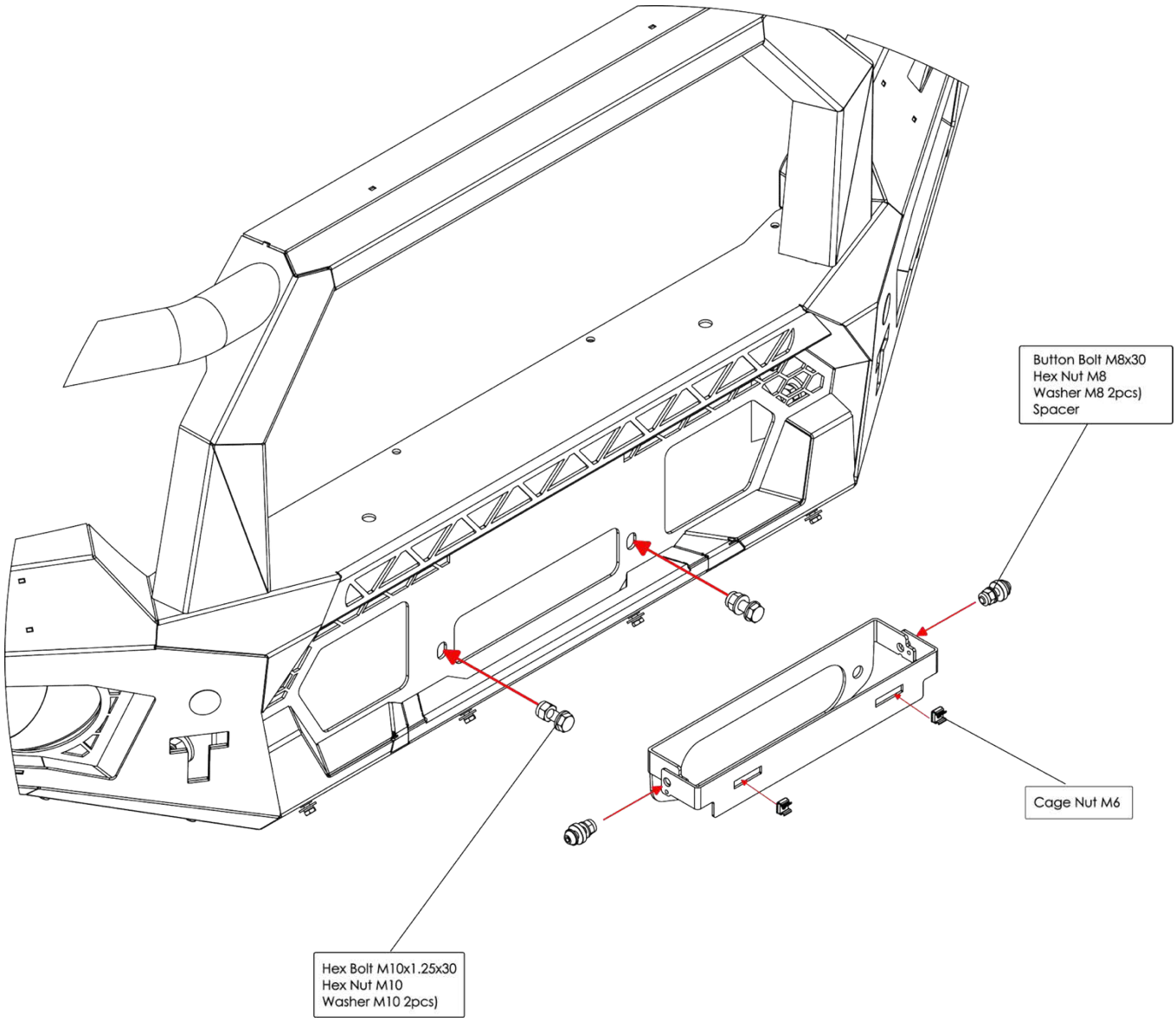
Install Side Skid Plates (Two-Piece System)

Large Skid Plate

- Align larger skid plate with bullbar and bracket.
- Install supplied bolts.
- Tighten using torque wrench.
- Repeat on opposite side.

Final Torque & Inspection

- Torque all fasteners to specified torque values as per table on page 3.
- Confirm:
    1. Cradle alignment
    2. Wing bracket secure
    3. Skid plates secure
    4. Camera aligned
    5. Sensors functional
    6. Washer jets operational
    7. Wiring secured
    8. Radar unobstructed



Sensor Recalibration Notice

If your vehicle is equipped with **factory-fitted sensors** (e.g., parking sensors, radar, front camera, adaptive cruise, etc.), please note the following:

- After installing the Bull Bar, you **may need to recalibrate** all sensors that have been **removed, repositioned, or reinstalled** into the new bull bar setup.
- All sensors **must be installed in accordance with the original vehicle manufacturer's specifications and positioning**.
- Ensure correct orientation, spacing, and alignment as per **OEM service manuals**, as failure to do so may impact sensor accuracy or functionality.
- In addition to the above, follow the **RockArmor fitting instructions** carefully for sensor mounting locations if applicable.

Important: Recalibration should ideally be performed using a **diagnostic tool or by a licensed technician** to ensure full sensor functionality and compliance with road safety requirements.

Rockarmor Disclaimer

Rockarmor Pty Ltd takes no responsibility for any damages, injuries, or vehicle malfunctions resulting from improper installation or failure to follow the provided fitting instructions. We strongly recommend that the installation of this product be carried out by a qualified and experienced fitter, using the appropriate tools and technical knowledge to ensure safety, performance, and correct fitment.
Any modifications to the product or deviations from the instructed fitting procedures will void all warranties and transfer full responsibility to the installer and/or vehicle owner.
Additionally, it is highly advisable for the vehicle to undergo a suspension upgrade when installing a bullbar — particularly if additional accessories such as a winch or driving lights are fitted. Rockarmor will not be held responsible for any damage to the bullbar or vehicle resulting from inadequate suspension or failure to compensate for increased front-end weight.

Ongoing Fitment Checks & Maintenance:

We strongly recommend that all installed products — including bullbars, side steps, underbody protection, and rear bars — be inspected regularly for secure attachment. This is especially critical after driving on corrugated or rough terrain, or prior to undertaking extended trips.

Bolts and nuts may loosen over time due to ongoing vibrations, flex between the chassis and body, and general off-road stress. To help prevent this:
- Inspect all mounting bolts regularly, especially after rough travel conditions.
- Retorque bolts as needed according to the product-specific requirements.
- Consider using professional-grade thread-locking compound (e.g. Loctite™) on fasteners, in line with advice from a qualified technician.
- Seek professional mechanical advice if you are unsure about correct torque settings or ongoing maintenance practices.

By proceeding with the installation, the installer and/or vehicle owner acknowledges and accepts all risks and responsibilities associated with both the fitting process and long-term maintenance of the product.

Suspension Upgrade Recommendation for Bullbar Installation

Installing a GT Bullbar? It's strongly recommended to upgrade your suspension system to handle the added weight — especially if you're also fitting a winch or other accessories. Failing to do so can cause front-end sag, reduced handling, and long-term damage to panels, lights, and chassis/body mounting points due to excessive flex.

Why It Matters:

The chassis and body of your vehicle move independently. A bullbar is typically mounted directly to the chassis rails. If the suspension isn't properly upgraded to compensate for the additional weight of the bullbar and accessories (like winches), it can result in:
- Uneven body/chassis movement
- Damage to headlights, grilles, and body panels
- Increased wear on suspension and steering components

This movement can be amplified on corrugated roads or off-road terrain, especially in Australian conditions.

Front Suspension Upgrades:

- Assess the Weight: Know the combined weight of the bullbar and front-mounted accessories. A winch can add 20–30 kg extra on top of a standard bullbar.
- Choose the Right Springs: Use heavy-duty coils rated for the correct weight (+80 kg, +100 kg, etc.). Mismatched springs can cause poor handling or over compression.

- Match the Shocks: Fit shock absorbers that complement the spring rate and expected load. This ensures balanced rebound and improved ride control.

Rear Suspension Considerations:

- Evaluate Rear Loads: If you're fitting rear bars, drawers, spare carriers, or auxiliary tanks, consider the rear suspension load impact.
- Upgrade if Needed: Use heavy-duty springs or add-on solutions like airbag helpers to prevent rear-end sag and uneven vehicle stance.

General Best Practices:

- Total Load Calculation: Always calculate the full combined accessory weight (front and rear) before choosing suspension.
- Different Setups = Different Ratings: A bullbar-only setup requires different front springs than a bullbar + winch combination.
- Get Expert Input: Always consult a suspension or 4WD specialist for a tailored solution based on your setup and usage.
- Inspect Regularly: Post-installation, check the bullbar mounts, suspension components, and wheel alignment periodically.

Final Recommendations:

Aligning your suspension setup with your bullbar and accessory load ensures:
- A safer, smoother ride
- Reduced risk of long-term damage
- Better vehicle control and off-road performance