



FRONT BULLBAR FOR BYD SHARK

INSTRUCTION GUIDE ►►





- Prepare a clean work area.
- We recommend a minimum of 2 people for assembly and 4 people for installation.
- Ensure the required tools are present and all hardware contents are accounted for.
- Never use acetone or thinners on painted parts.
- Read through the entire instruction guide before starting this procedure and follow.
- The steps carefully to avoid any damage to the components or the vehicle.

DIRECTORY

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■ BEFORE INSTALLATION

- This product is a heavy-duty off-road modification component and must be installed by a professional with relevant vehicle modification experience.
- Before installation, be sure to read this manual carefully to ensure that all components, fasteners, and tools are complete and undamaged. Missing or damaged parts must be replaced immediately.
- Installation must be performed on a flat, stable surface, and the vehicle must be reliably supported to prevent displacement during installation.
- It is recommended to wear protective gloves to avoid cuts from metal parts and screws; disposable gloves should be worn when handling sealant to prevent skin irritation from chemicals.

■ DURING INSTALLATION

- Strictly follow the installation steps specified in the manual. Do not modify the process or skip key steps without authorization.
- Original Parts Removal: Carefully remove the original bullbar and sensors, retaining the original clip screws. Do not use excessive force to remove them, as this may break the clips.
- Beam Connection: The bullbar must be fixed to the pre-drilled holes in the original vehicle's longitudinal beams. Do not attempt to connect only to the body panels or adjust the original energy-absorbing box base structure. This must be done by two people to avoid damage to components or injury.
- Original Radar and Camera: The original radar and camera must be moved to the new bullbar in their original positions without changing their angle to avoid false alarms or image distortion.
- Lighting Wiring Harness: Wiring harnesses for the added lights must be run through corrugated conduit away from the exhaust pipe. After installation, check that the gap between the bullbar and the exhaust pipe, electric pedal, and license plate frame is no less than 10mm.
- Before installing any electrical components, disconnect the vehicle's power supply to avoid short circuits that could damage the electrical system or create safety hazards.

■ FASTENING & TORQUE SAFETY

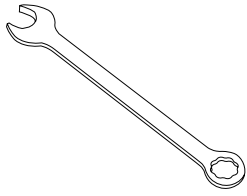
- All fasteners must be tightened using a calibrated torque wrench to the torque value specified in the manual, ensuring tightening accuracy.
- The final tightening process must not be performed using impact drills or power tools to prevent over-tightening and damage to components.
- Over-tightening may cause deformation of aluminum alloy components and damage to threads, thereby affecting structural stability and sealing performance; under-tightening may easily lead to loosening of components, posing a safety risk.

■ SEALING & WATERPROOFING

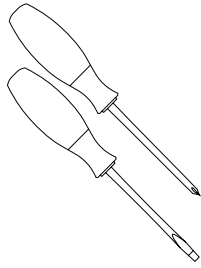
- Verify that all fasteners are tightened to the specified torque, with no loosening or stripping. Pay special attention to critical connections for M6 and M8 fasteners.
- Inspect all seals to ensure they are intact, continuous, without warping, and with tight gaps.
- Functional retest: Reconnect power, clear fault codes, and test the reversing radar, 360-degree camera, and blind spot monitoring for proper function and no persistent false alarms.
Perform a low-speed test drive with the steering wheel fully turned to the left and right, over speed bumps or uneven surfaces, confirming no metallic friction or collision noises.
- Regulatory compliance: Ensure that the original headlights, turn signals, license plate, and license plate light are not obstructed. Otherwise, the license plate must be relocated and the lighting must be compliant to avoid penalty points.
- Post-driving retightening: Retighten all connecting bolts after driving 50-100 kilometers. Afterward, check the torque markings every 5000 kilometers or after each off-road trip.

■ DISCLAIMER

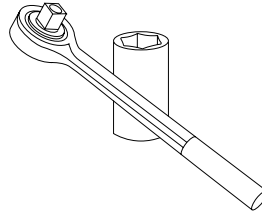
- The manufacturer accepts no liability for damage, injury, or loss resulting from installation, use, or maintenance not carried out in accordance with this manual.



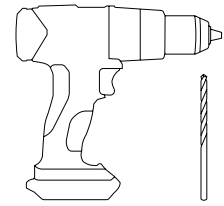
Metric wrench set



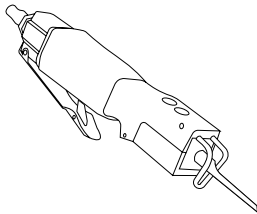
Screwdriver set



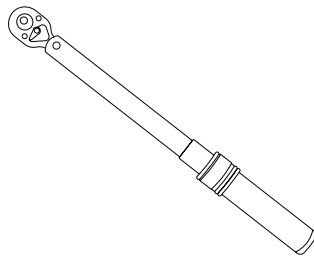
Metric sleeve assembly



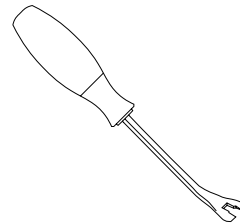
Drill and Drill Bits



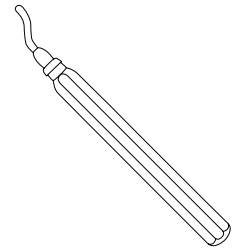
Air Hacksaw



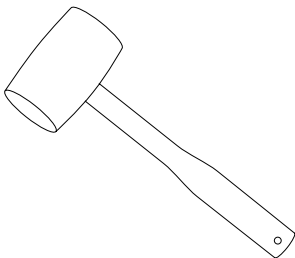
Torque Wrench



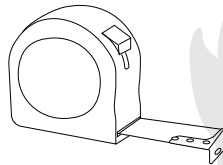
Clip Remover



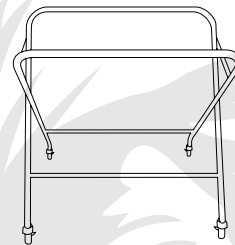
Deburring Tool



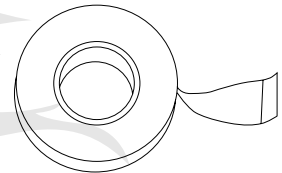
Rubber Mallet



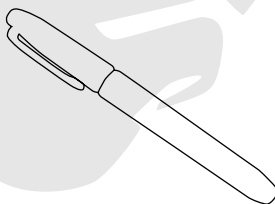
Tape Measure



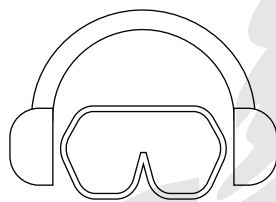
Bullbar Support Stand



Masking Tape

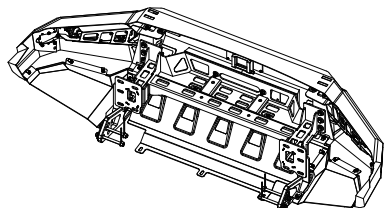


Marker and Paint Pens

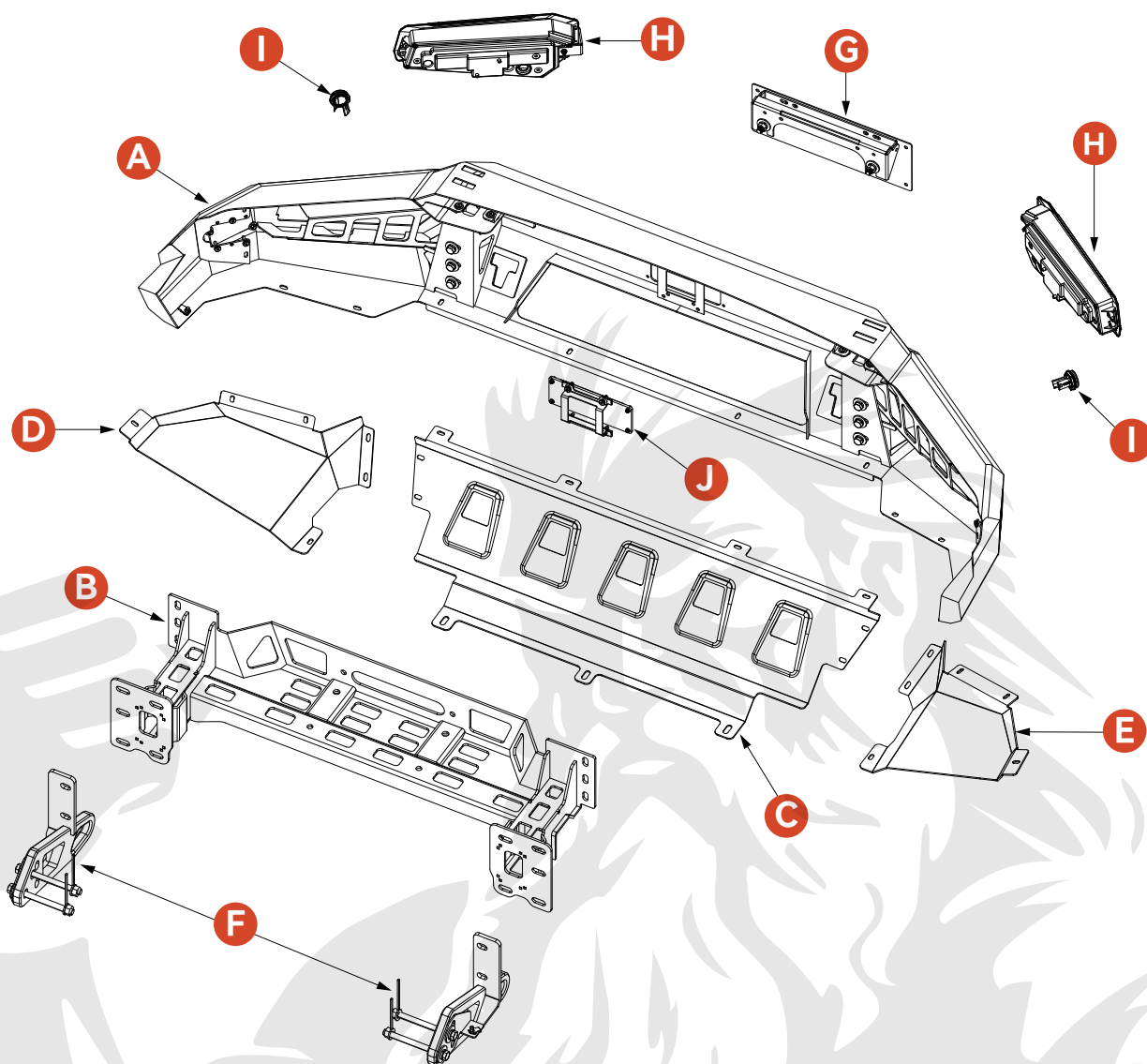


Personal Protective Equipment

■ PARTS 1



NO.	Part name	NO.	Part name
A.	Front bullbar main welded assembly	F.	Tow hook
B.	Winch bracket	G.	Car base
C.	Guard Plate - Middle	H.	Lighting modules
D.	Guard Plate - Right Side	I.	Radar bracket
E.	Guard Plate - Left Side	J.	Millimeter-wave radar mounting bracket



■ PARTS 2

● Front Bumper Main Body & Winch Bracket Fastening

1

Large Washer
10mm



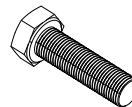
2

Spring Washer
10mm



3

Hex head bolts
M10X35-S



4

Hex nuts
M10-N



5

Large Washer
12mm



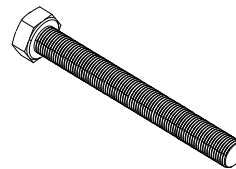
6

Spring Washer
12mm



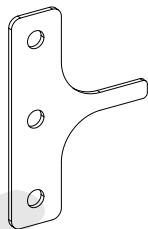
7

Hex head bolts
M12X140-S



8

Nut plate



9

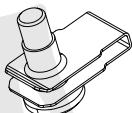
Nut plate



● Protective plate installation

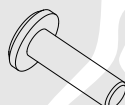
10

Protective plate screws,
nuts and fasteners
M6



11

Pan head socket screws
M6X20



12

M6 Standard Quick Clip Nut
M6



■ PARTS 2

● Bar Fitting Fixing

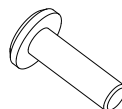
13

Flat Washer
6mm

14

Light Spring Washer
6mm

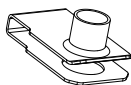
15

Pan head socket screws
M6X20

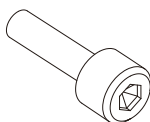
16

Hex Nut
M6-N

17

Standard Quick Clip Nut
M6

18

Hex socket head cap screws
M5X25-S

19

Hexagonal flange nut
M5-N

● Module and Radar Screws

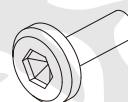
20

Flat Washer
4mm

21

Light Spring Washer
4mm

22

Pan Head Socket Screw
M4X16-N

23

Hex Nut
M4-N

04 DISASSEMBLY STEPS

STEP 1

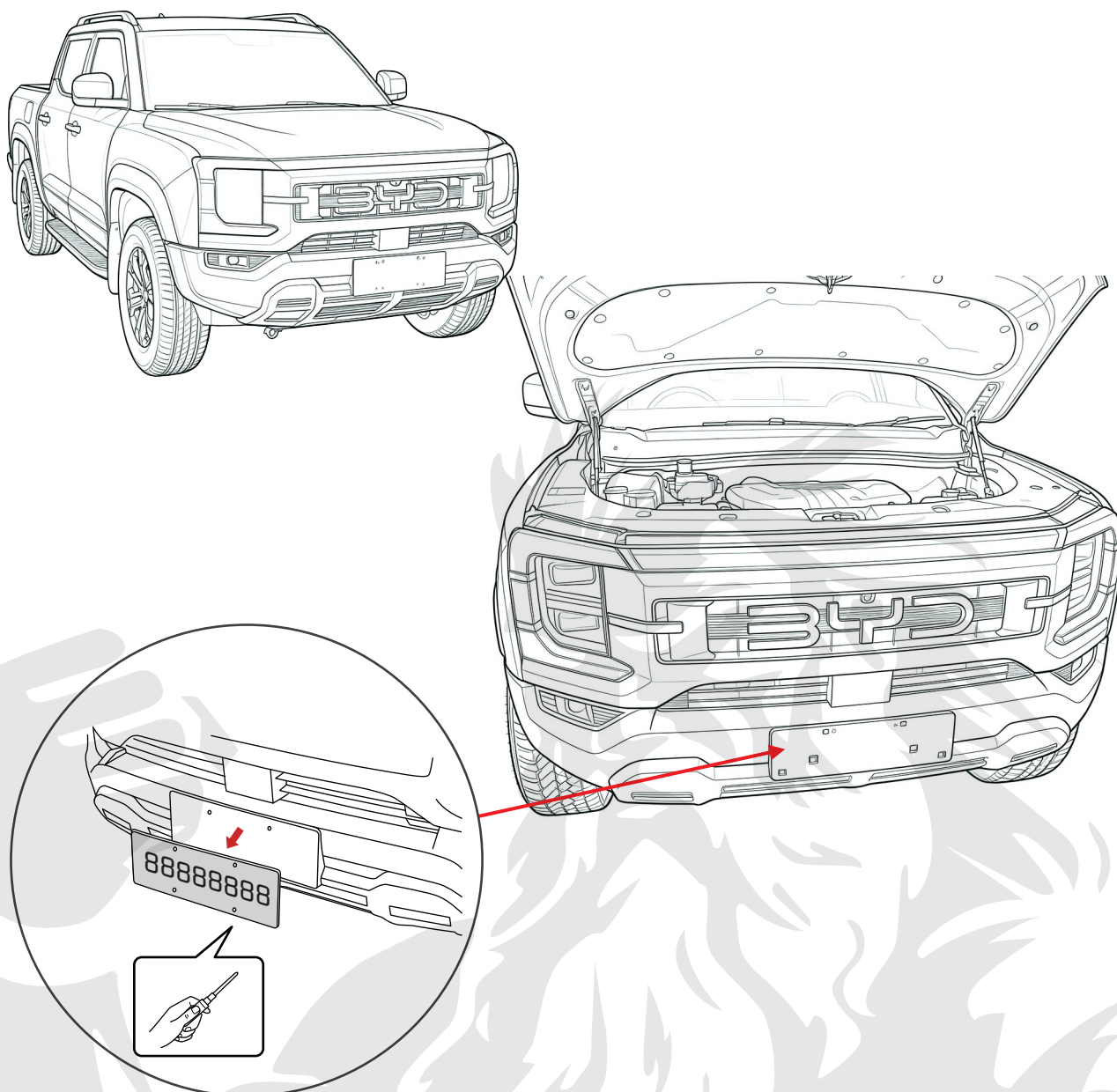
WARNING:

Do not attempt to turn on and move the vehicle while the radars, sensors and camera are disconnected. Do not drop or impact any of these parts. Failure to do so may cause sensor malfunction that can only be rectified by BYD.

HIGH VOLTAGE WARNING:

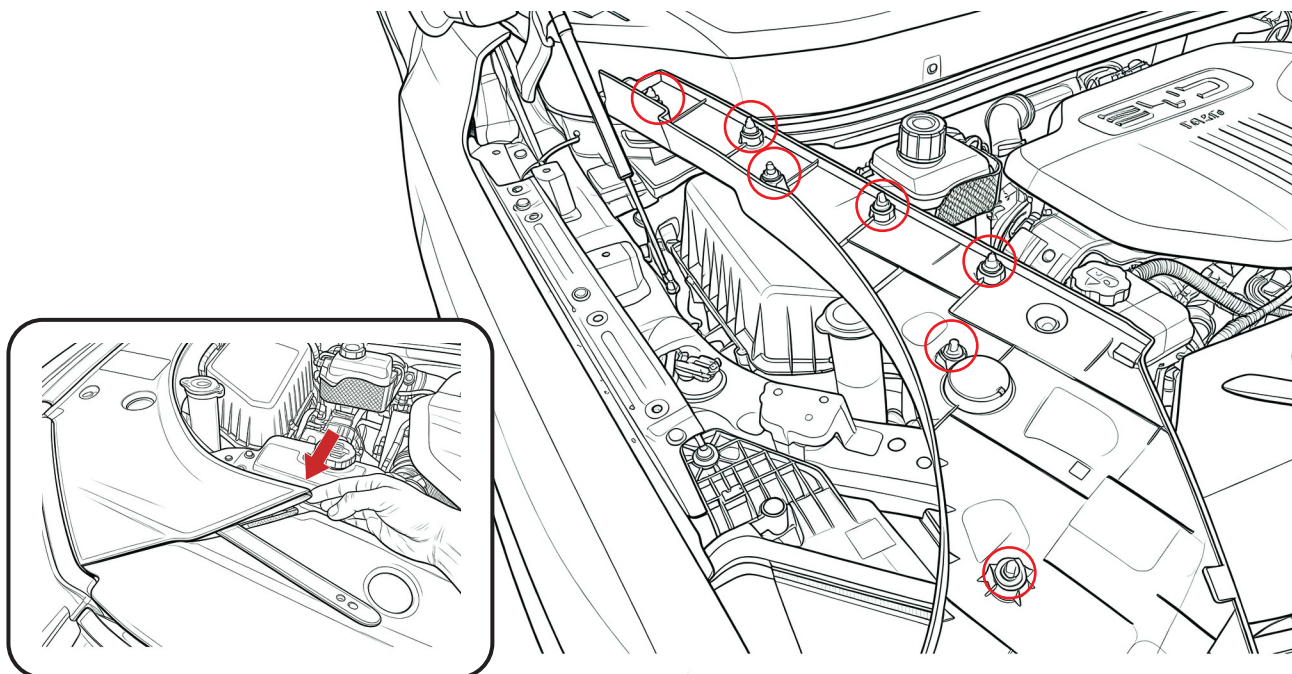
This vehicle has a high voltage (HV) system. When working in the engine bay for installing accessories, do not touch any of the orange coloured HV components or cabling. Electric shock may cause serious or even life threatening injuries.

- 1. Remove number plate from bumper and set aside.
- 2. Open the bonnet by pulling twice on the lever under the steering wheel on the driver's side.



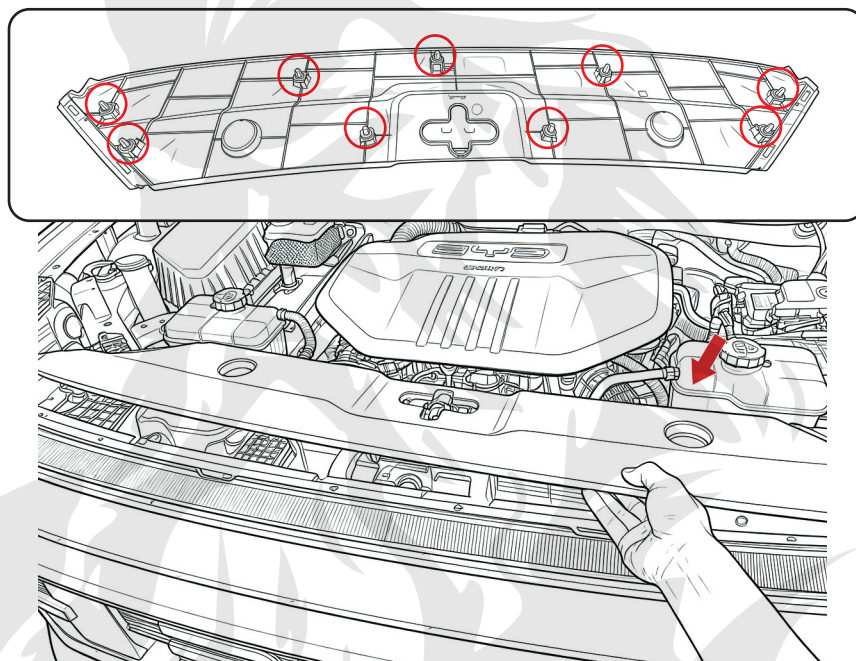
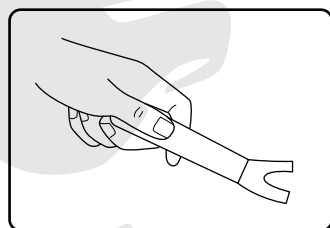
STEP 2

- 1. Remove the 2x plastic side covers on either side of the engine bay.
- 2. Use a plastic trim tool to assist with prying up and releasing the 2x tabs on the front edge first.
- 3. Then pull upwards and towards the front of the vehicle to release 7x plastic clips.



STEP 3

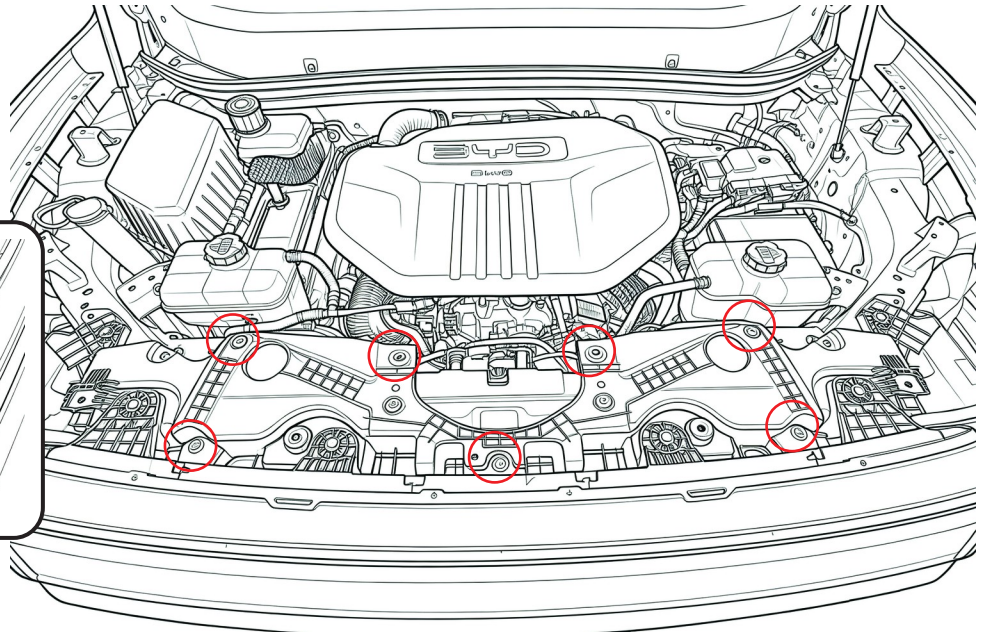
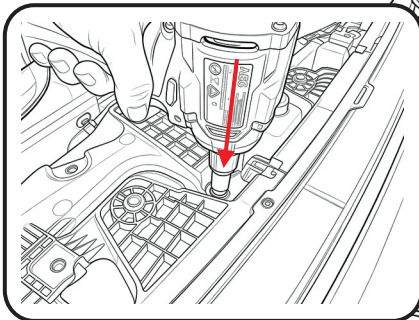
- Remove the centre plastic radiator cover.
- Use a plastic trim tool to pry up the cover and wiggle side to side to release 9x clips.



04 DISASSEMBLY STEPS

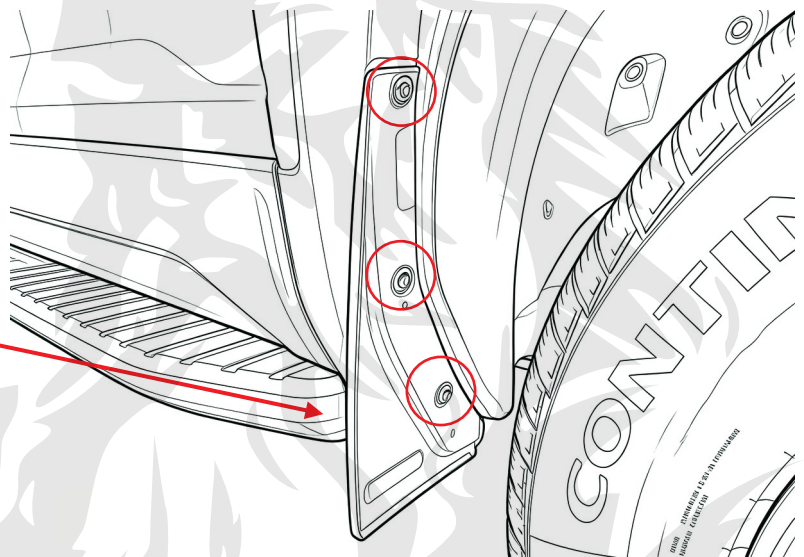
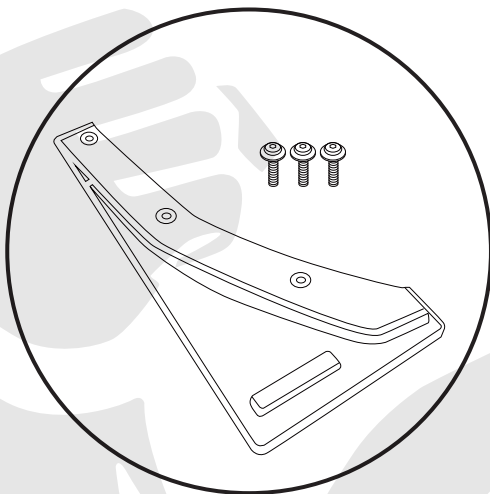
STEP 4

- Remove 7x 10mm silver coloured hex bolts holding the top of the grille to the vehicle. Retain these bolts



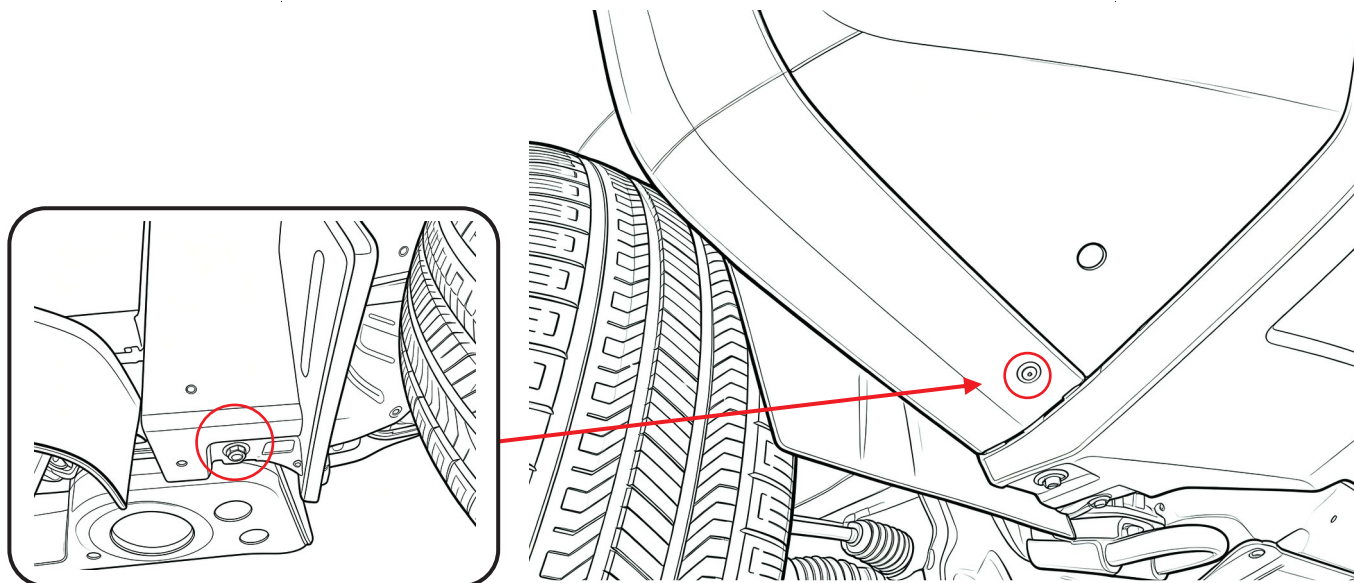
STEP 5

- 1. The front half of the flares need to be unclipped to remove the bumper, and will need to also be trimmed prior to fitting the bull bar.
These instructions will show the procedure for full removal of the flare. Some installers may not find this necessary and may choose to trim the flare while it is still on the car.
- 2. Remove 3x 10mm hex bolts holding each mudflap.



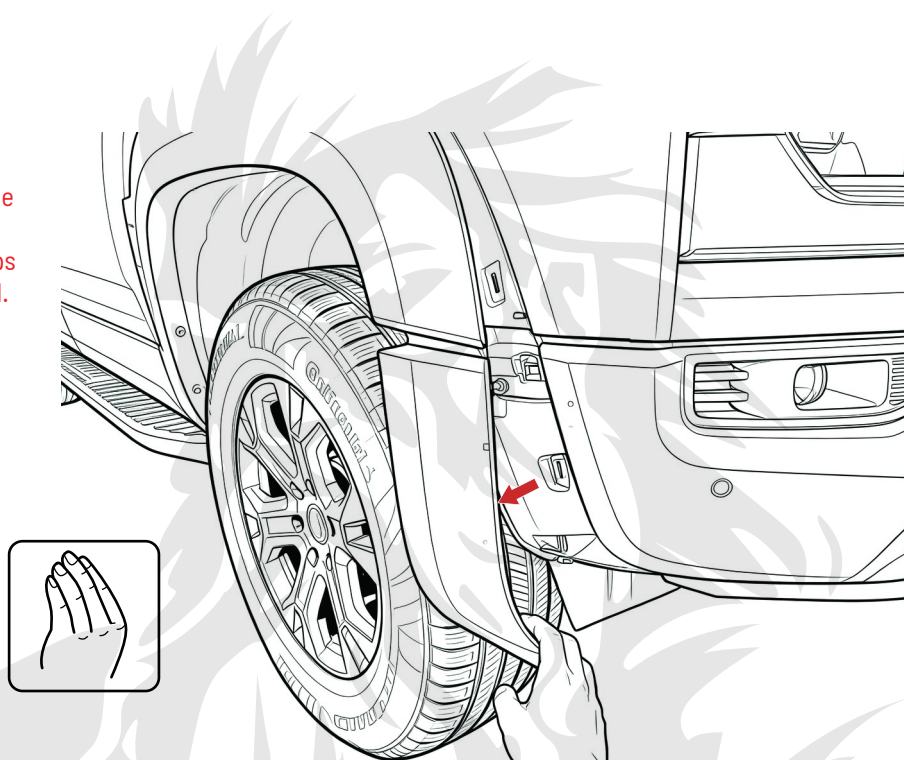
STEP 6

- 1.Remove 1x Phillips head screw holding the underside of each flare at the front to the bumper.
- 2.Remove 1x 10mm hex bolt holding the underside of each flare at the rear (see inset photo).



STEP 7

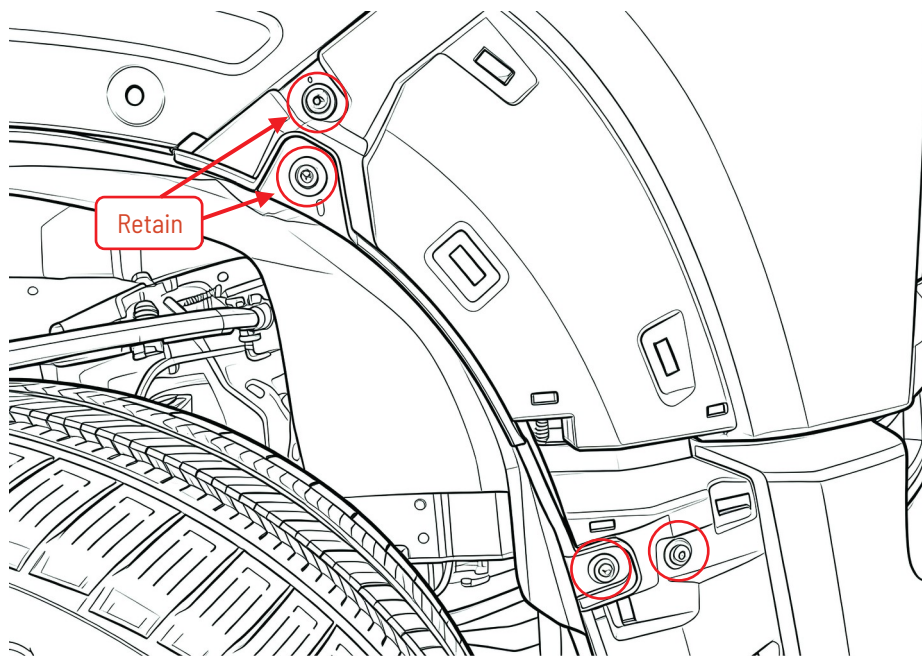
- Starting at the front, carefully pull outwards and unclip the flare.
- Hint:** It is possible to reach behind the flare via the engine bay and use an 8mm socket to help push out the clips holding the flare to the quarter panel.



04 **DISASSEMBLY STEPS**

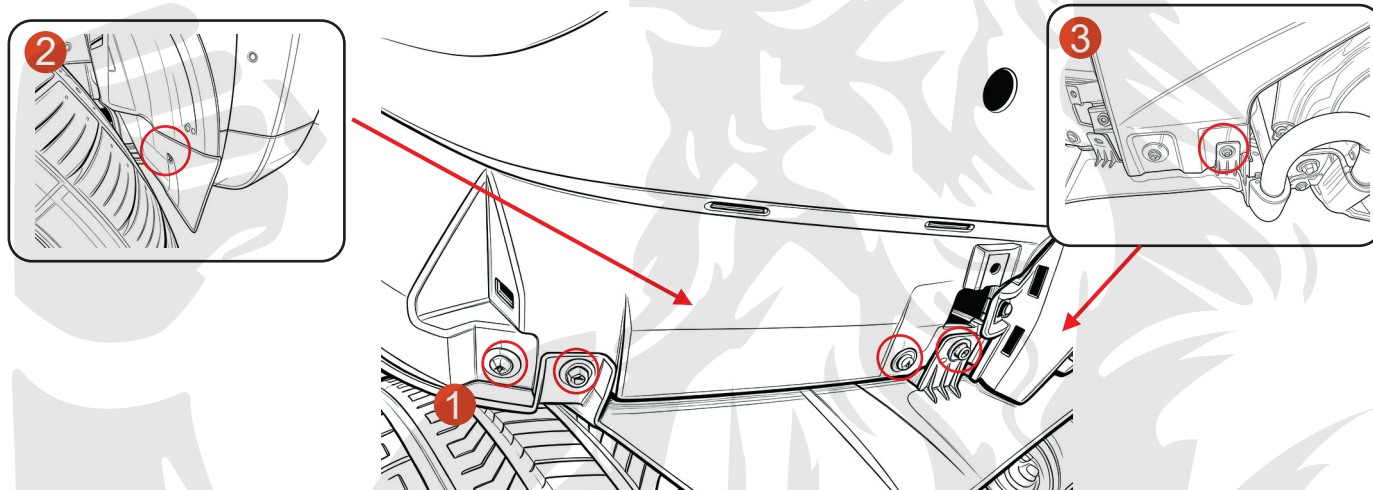
STEP 8

- Remove 4x screws on each side of the bumper with a Phillips head screwdriver and/or 8mm socket/spanner. Retain the top 2x screws on each side.



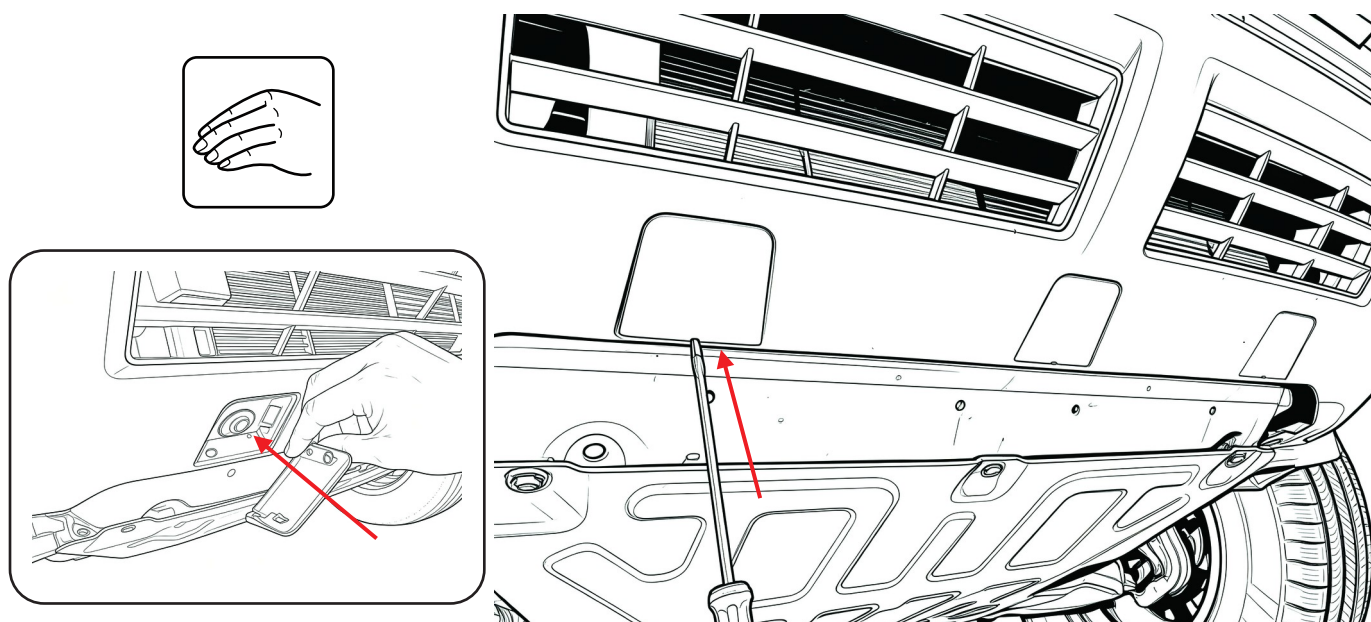
STEP 9

- 1. On the underside of the bumper, remove 4x screws on each side with a Phillips head screwdriver and/or 8mm socket/spanner.
- 2. Remove 1x screw next to each tie down hook.
- 3. Remove 1x screw on the inside of the wheel arch liner at the bottom front end.



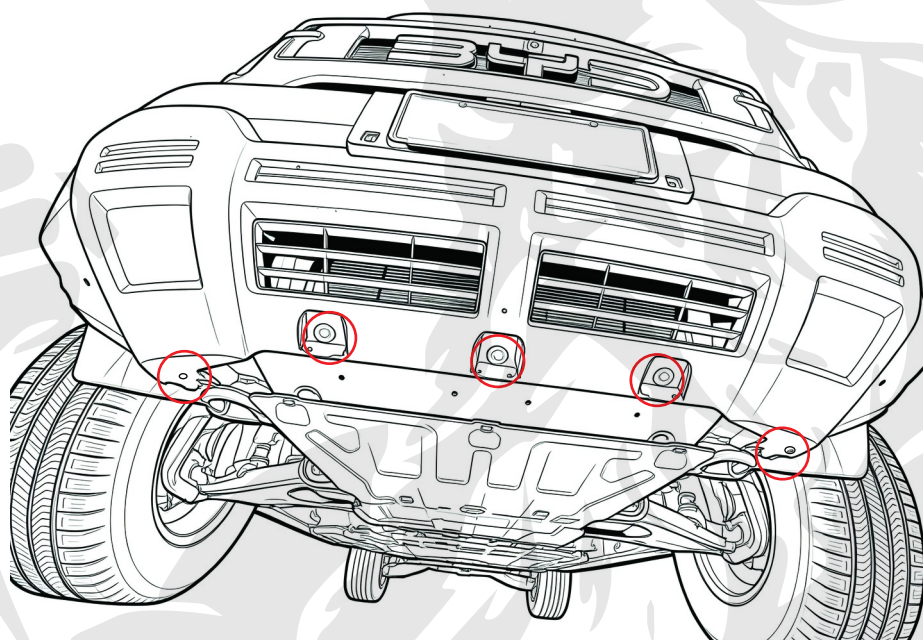
STEP 10

- Use a small flat blade screwdriver to remove the 3x cover panels on the bottom of the bumper.



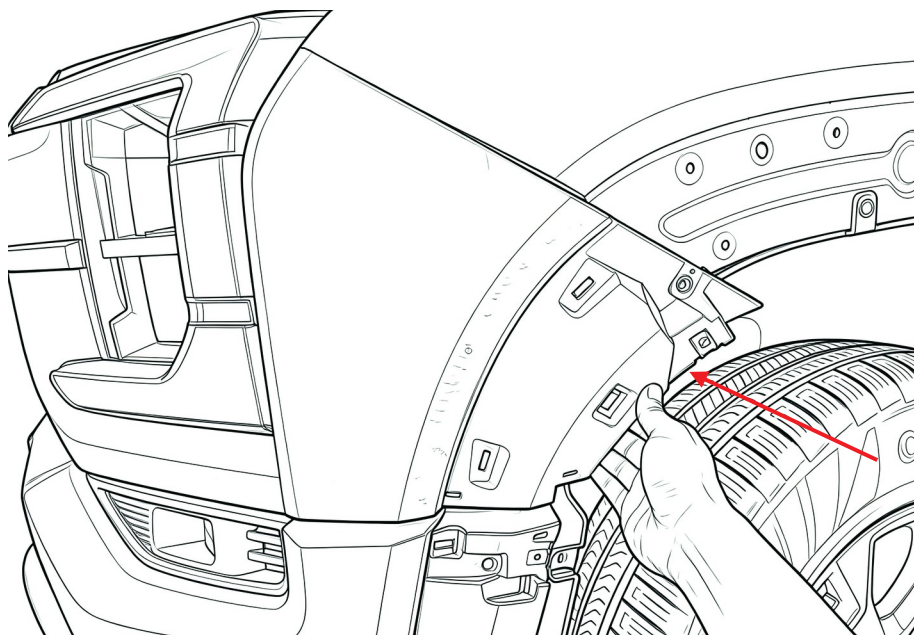
STEP 11

- Remove 5x 10mm hex bolts along the bottom of the bumper.



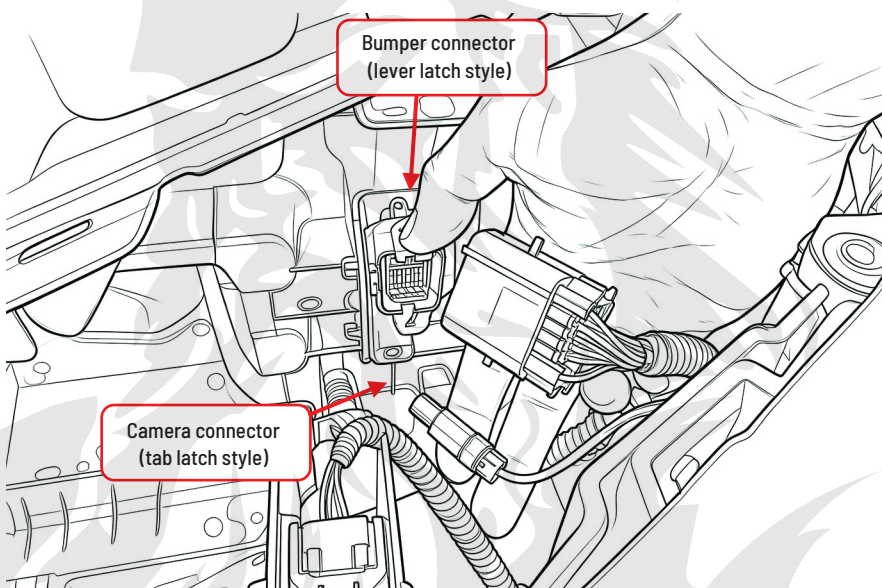
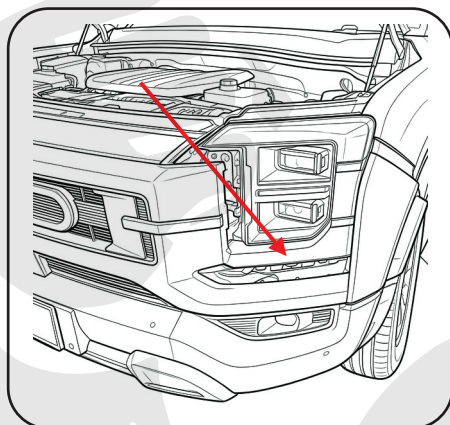
STEP 12

- Pull outwards and unclip the bumper from the LH corner.



STEP 13

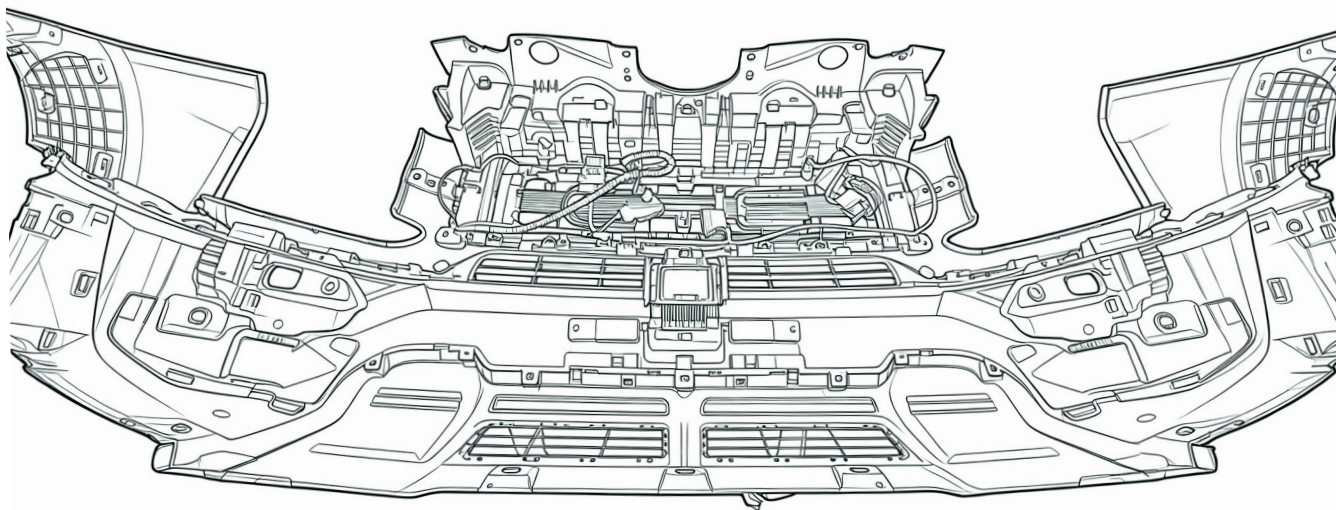
- Reach in behind the bumper underneath the LH headlight and unclip the bumper connector (lever latch style) and camera connector (tab latch).



04 **DISASSEMBLY STEPS**

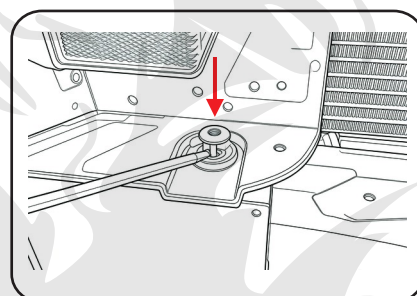
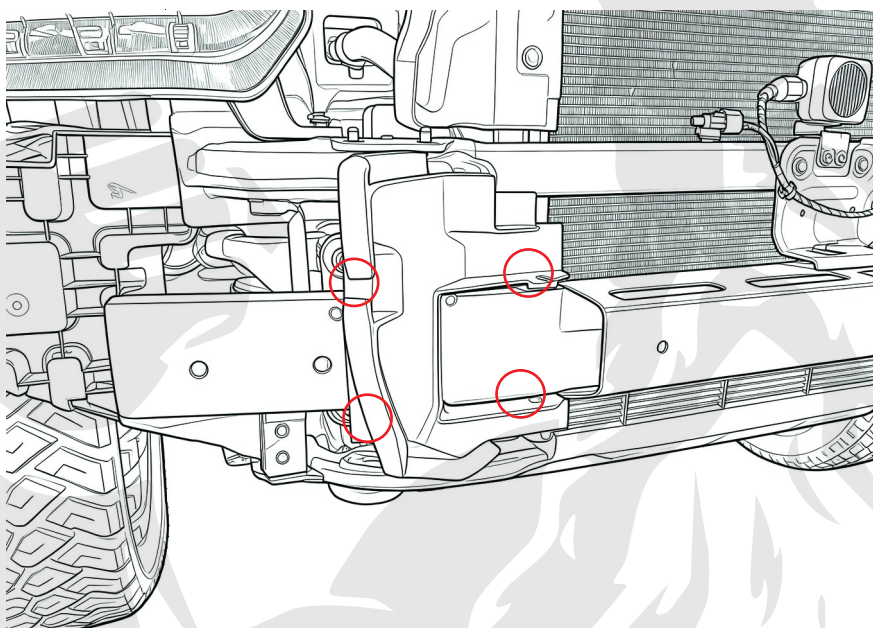
STEP 14

- Pull outwards and unclip the remainder of the front bumper. Set aside in a safe place.



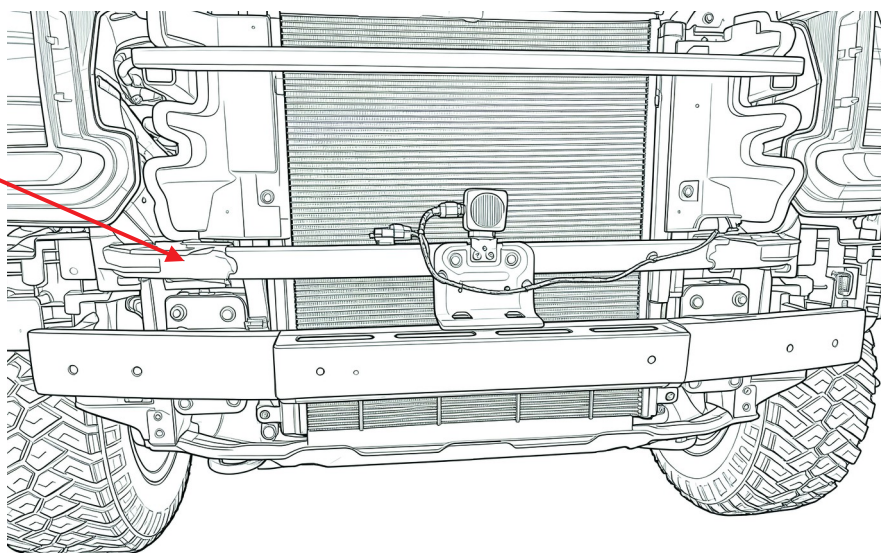
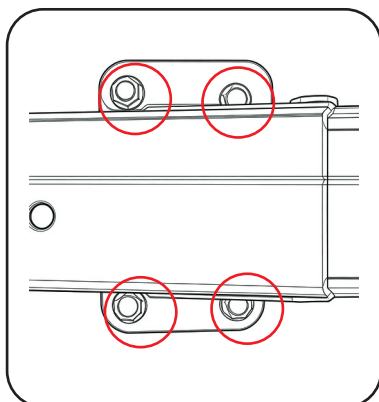
STEP 15

- Remove 4x plastic push clips holding each lower air dam to the front impact beam. Use a flat blade screwdriver or trim tool to assist.



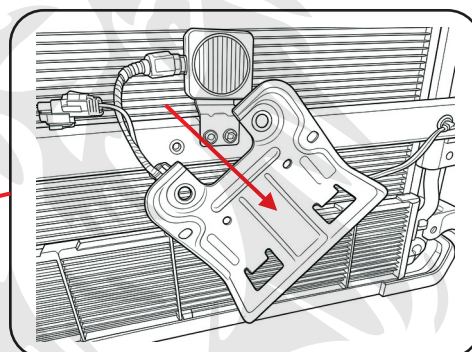
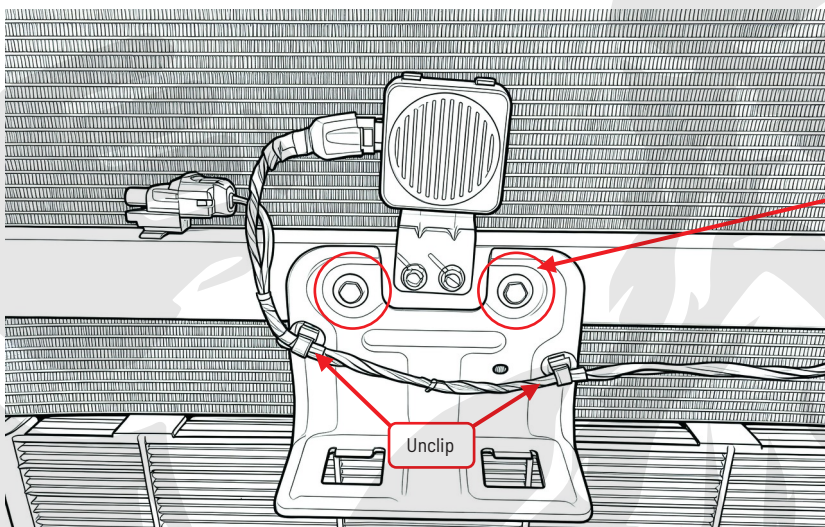
STEP 16

- 1.Remove the 17mm hex bolts and nuts holding the impact beam to the chassis. There are 3x bolts and 1x nut per side.
- 2.Remove and discard the impact beam.



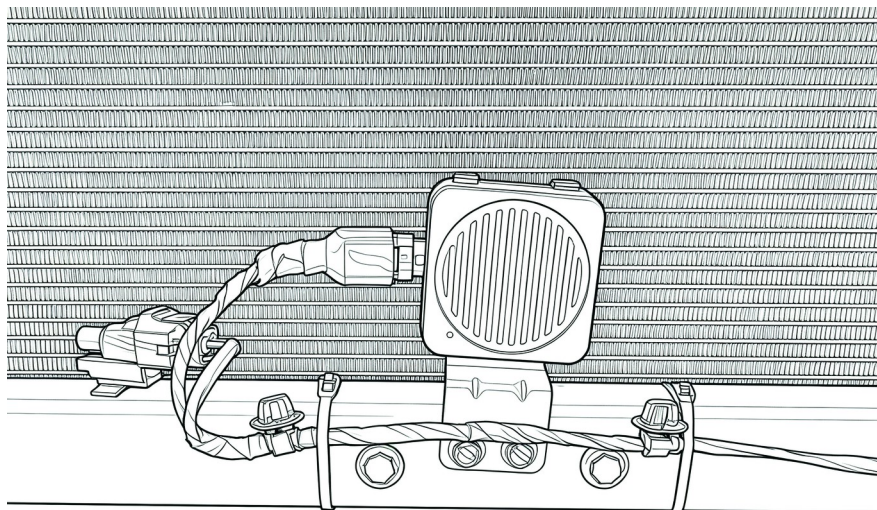
STEP 17

- 1.Unclip the pedestrian speaker and air temp sensor loom from the bracket.
- 2.Then remove 2x 10mm hex bolts holding the bracket to the car. Discard the bracket.



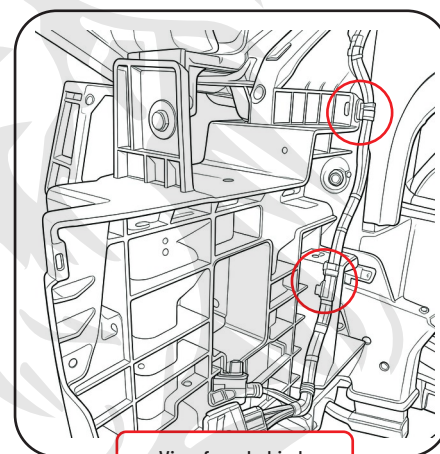
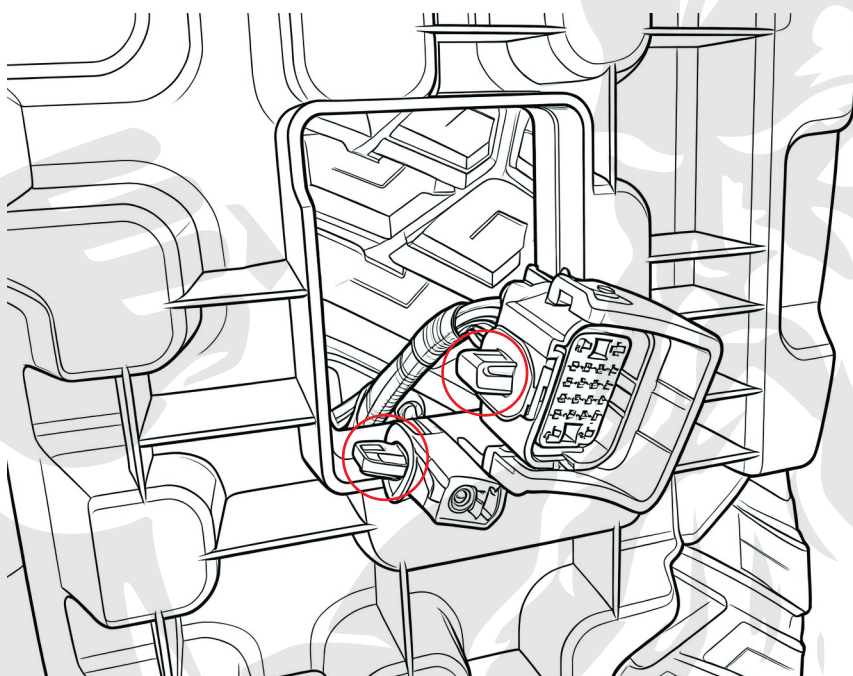
STEP 18

- 1.Re-fit the 10mm hex bolts back onto the car.
- 2.Secure the loom to the cross member frame with cable ties (not supplied).



STEP 19

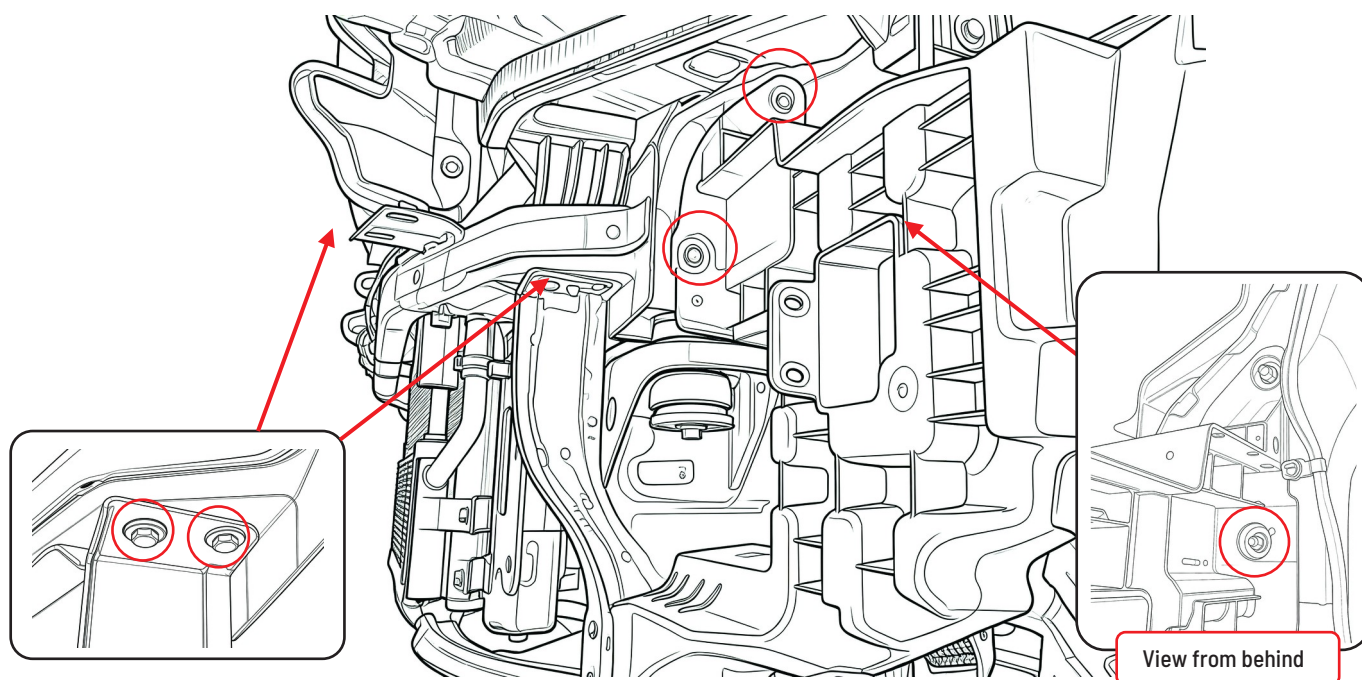
- Unclip 4x clips holding the bumper connector and camera connector to the LH bumper support.



View from behind

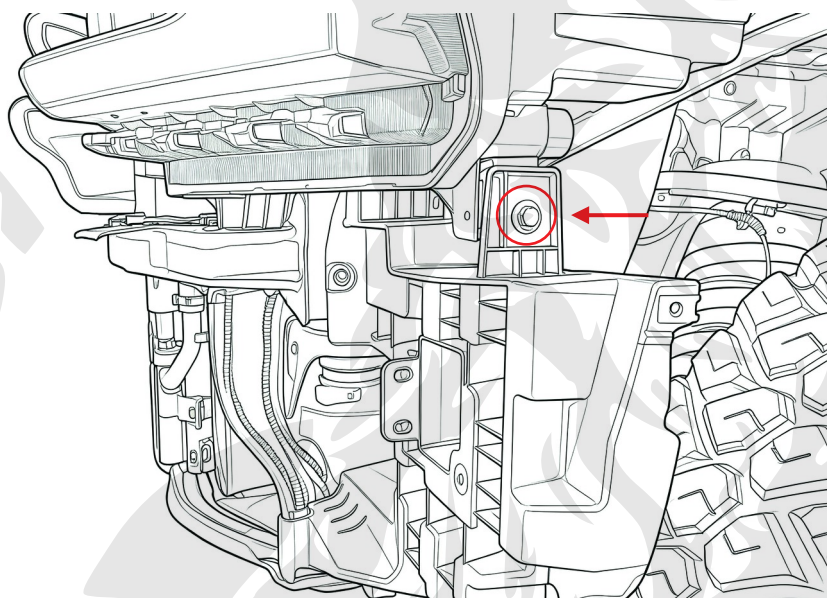
STEP 20

- Remove 3x 10mm hex bolts and 2x 10mm hex nuts holding the bumper support to the body on each side.



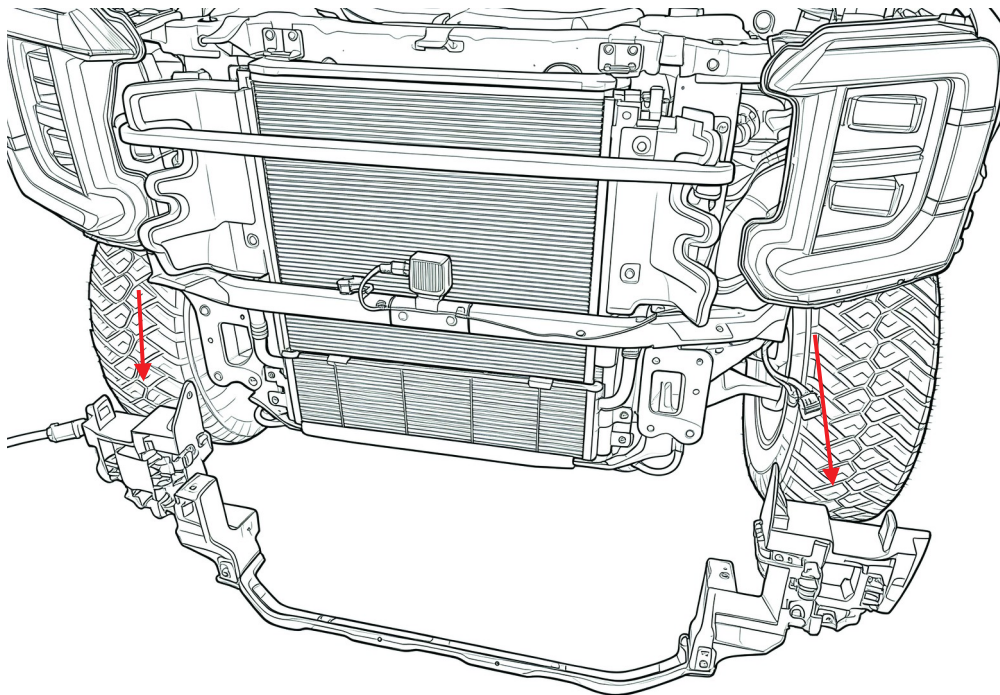
STEP 21

- Also remove 1x 10mm hex bolt holding the bumper support to the bottom outside corner of each headlight.



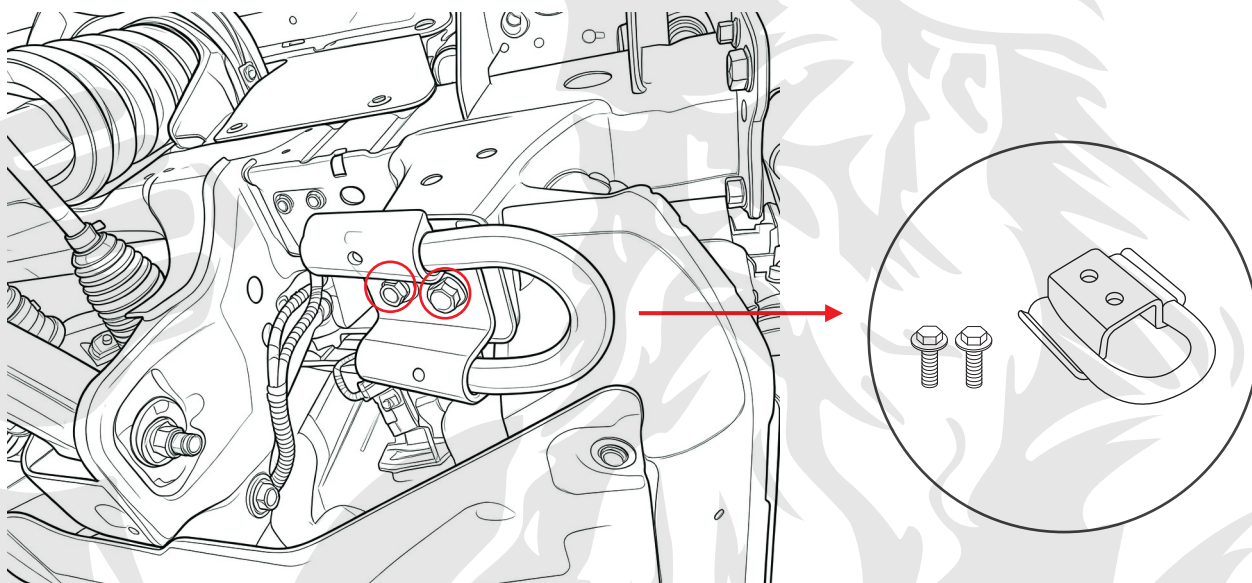
STEP 22

- Fully remove and discard the bumper support structure.



STEP 23

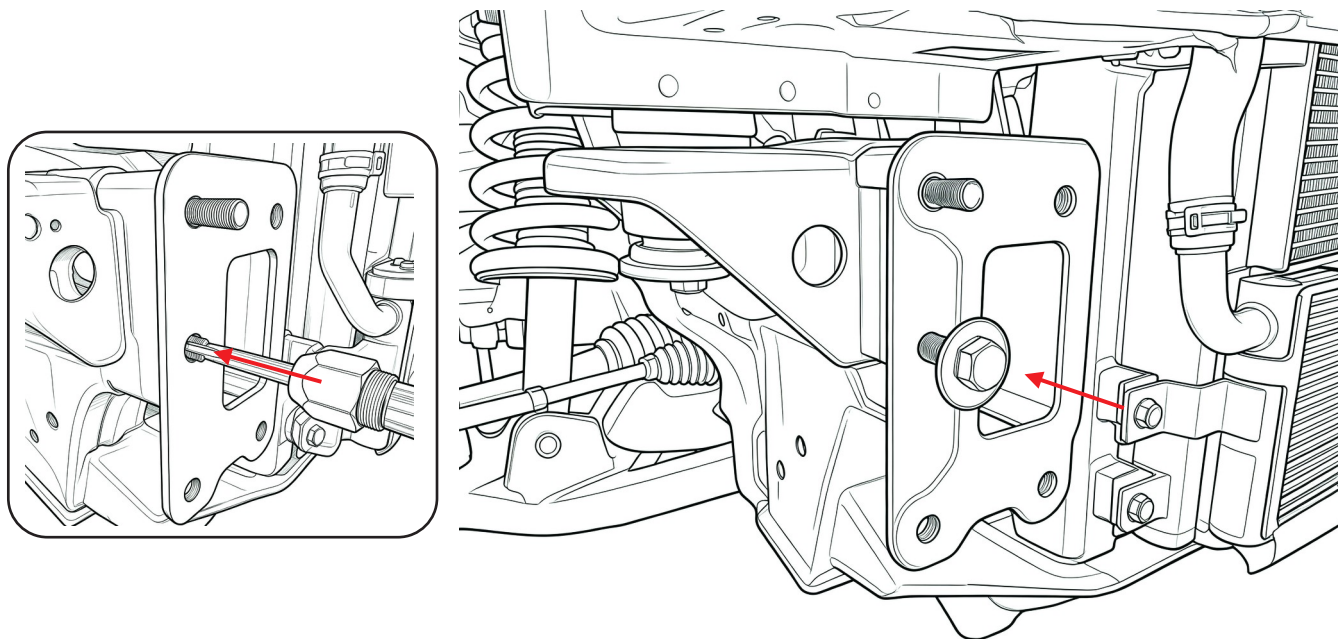
- 1.Remove and discard 2x 17mm hex bolts holding each factory tie down hook to the chassis.
2.Remove and discard the tie down hooks.



04 **DISASSEMBLY STEPS**

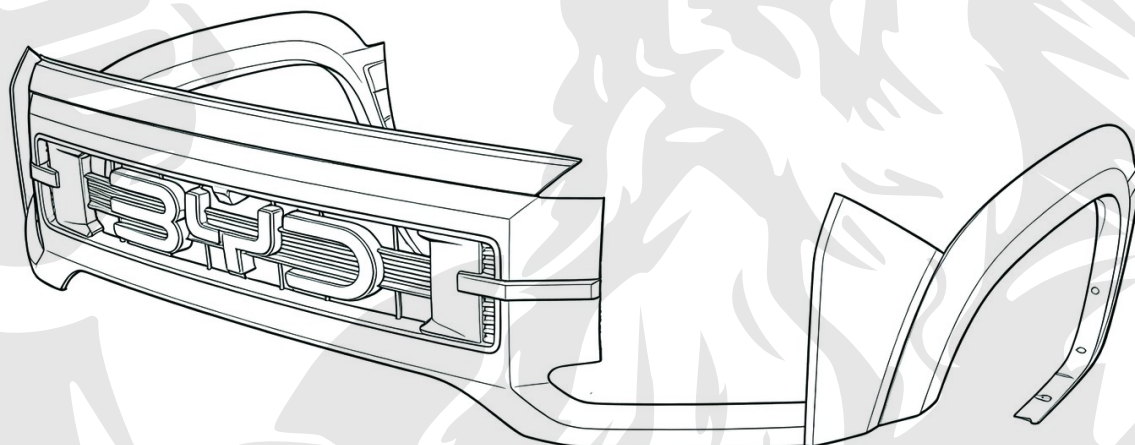
STEP 24

- 1. Check and clean all the chassis hole threads on the front face and where the tie down hooks were.
- 2. Clean thread with M12x1.25 fine pitch metric tap if necessary.



STEP 25

- **Modifying the windshield trim**
 The lower front edge of the trim needs to be trimmed to match the bullbar lines during installation.
 Flip the trim panel over and draw a line at the highest point on the back using a paint pen, as shown in the picture.
 Using a pneumatic saw or similar tool, carefully and slowly cut along the marked line from the inside of the flare.
 Deburr along the cut line.
 Repeat this process on the other side.

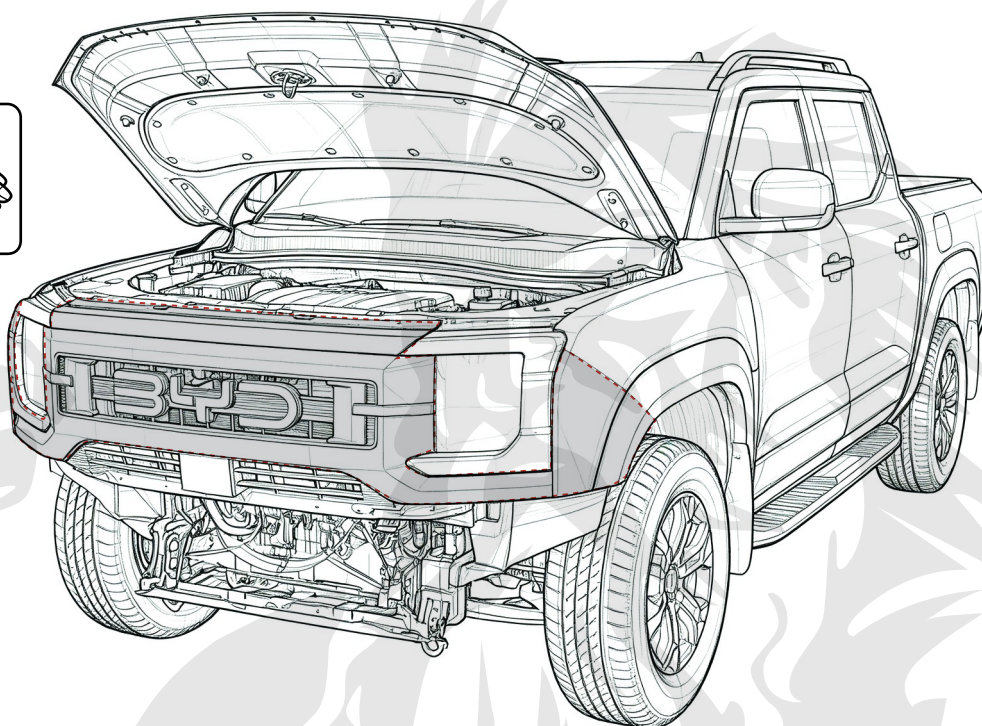
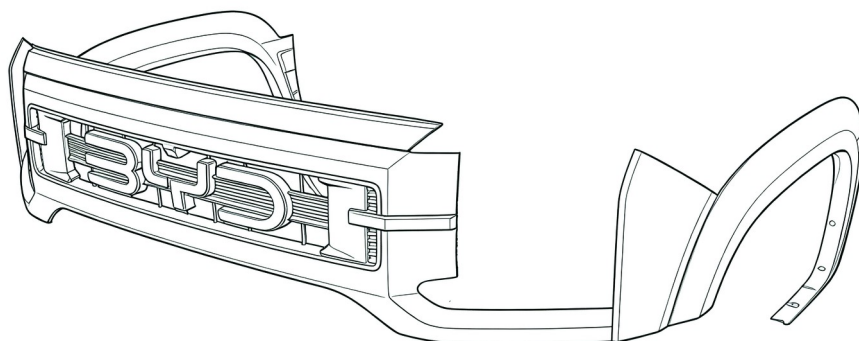


04 DISASSEMBLY STEPS

STEP 26



- Install the split grille, ensuring the headlights are properly positioned.
Install the windshield strip and reinstall the original mudguards, carefully pushing the retaining clips back onto the mudguards.
Repeat this process on the other side.



05 INSTALLATION STEPS



Safety Warnings:

- Due to the increasing complexity of new cars with cameras, sensors and radars, it is imperative that when installing accessories on 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 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.



Important Note:

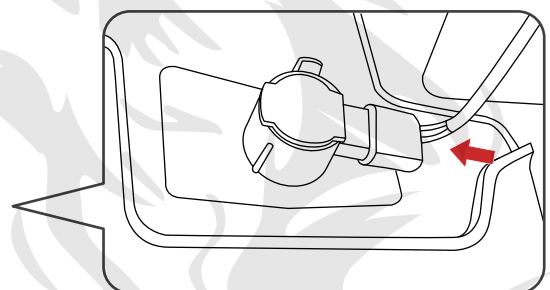
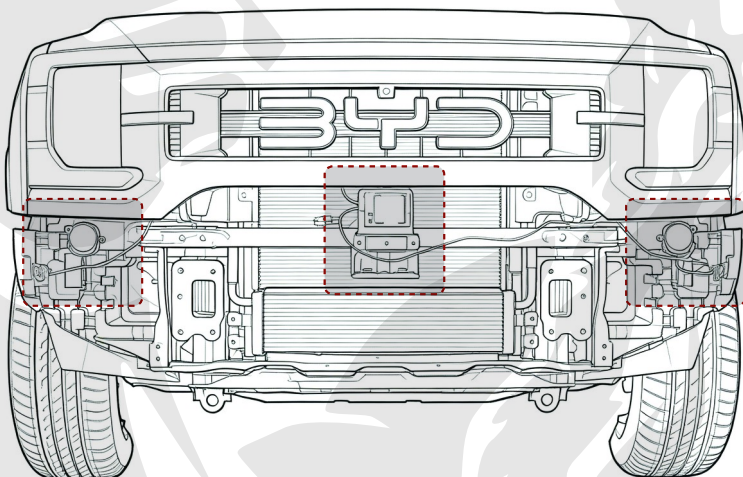
To ensure the parking sensors function properly, this instruction must be strictly followed.

- Before removing the sensors from the original bullbar, record the position and orientation of each sensor. This will allow you to replicate their original position when reinstalling them on the bullbar.
- Do not paint the parking sensors. Parking sensors are precision components in a vehicle's safety system. The sensor's central "eye" is responsible for detecting objects within a specified distance of the vehicle.
- Painting parking sensors will not damage them, but it will inhibit their ability to detect surrounding objects, potentially leading to malfunction or premature triggering. Parking sensors should only be painted once by the original equipment manufacturer (OEM).
- We strongly recommend against color-coding parking sensors when installing bullbar, as excessively thick paint can interfere with the proper functioning of parking assist systems.

STEP 1

- Disconnect the parking sensor from the previously removed original bullbar, unfasten the clip, remove it, and carefully place it aside for transfer to the crash bar.

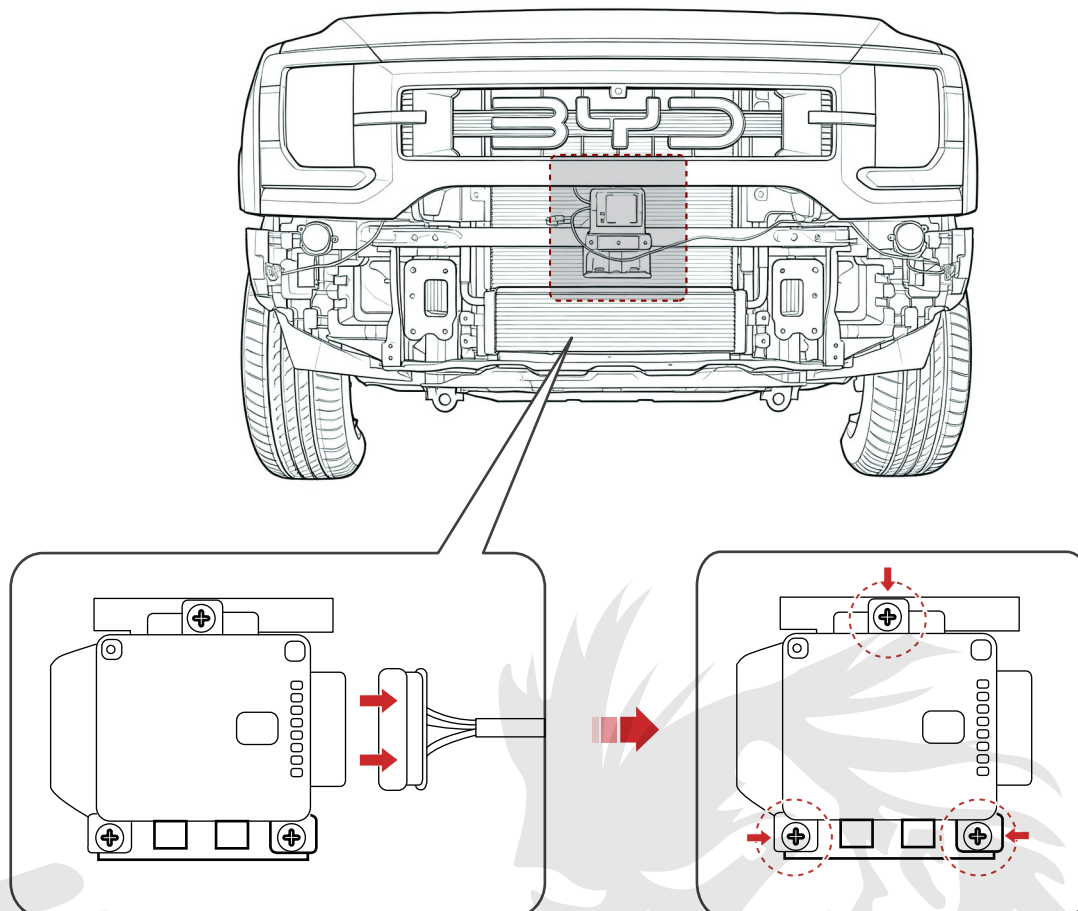
Note: Please pay attention to the positional order and orientation of each sensor to ensure they are reinstalled in the bullbar with the same configuration.



STEP 2

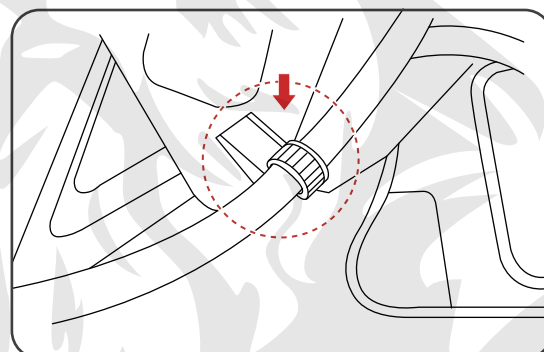
- 1. Mark the location and orientation on the rear of each side front radar.
- 2. Disconnect these connections and carefully remove them from each side of the original bullbar, removing the three screws securing them.
- 3. Carefully remove the radar and set it aside for transfer to the bullbar guard.

Note: Please ensure that the radar is not dropped, otherwise it may be damaged or malfunction.



- 1. Carefully remove the clips securing the original sensor and radar harness to the lower part of the bumper, removing the clips on the harness as you go.
- 2. There is no need to remove or detach the harness from the grille. Leave it attached and in place.

Note: Do not force or pull, as this may damage the wiring harness.



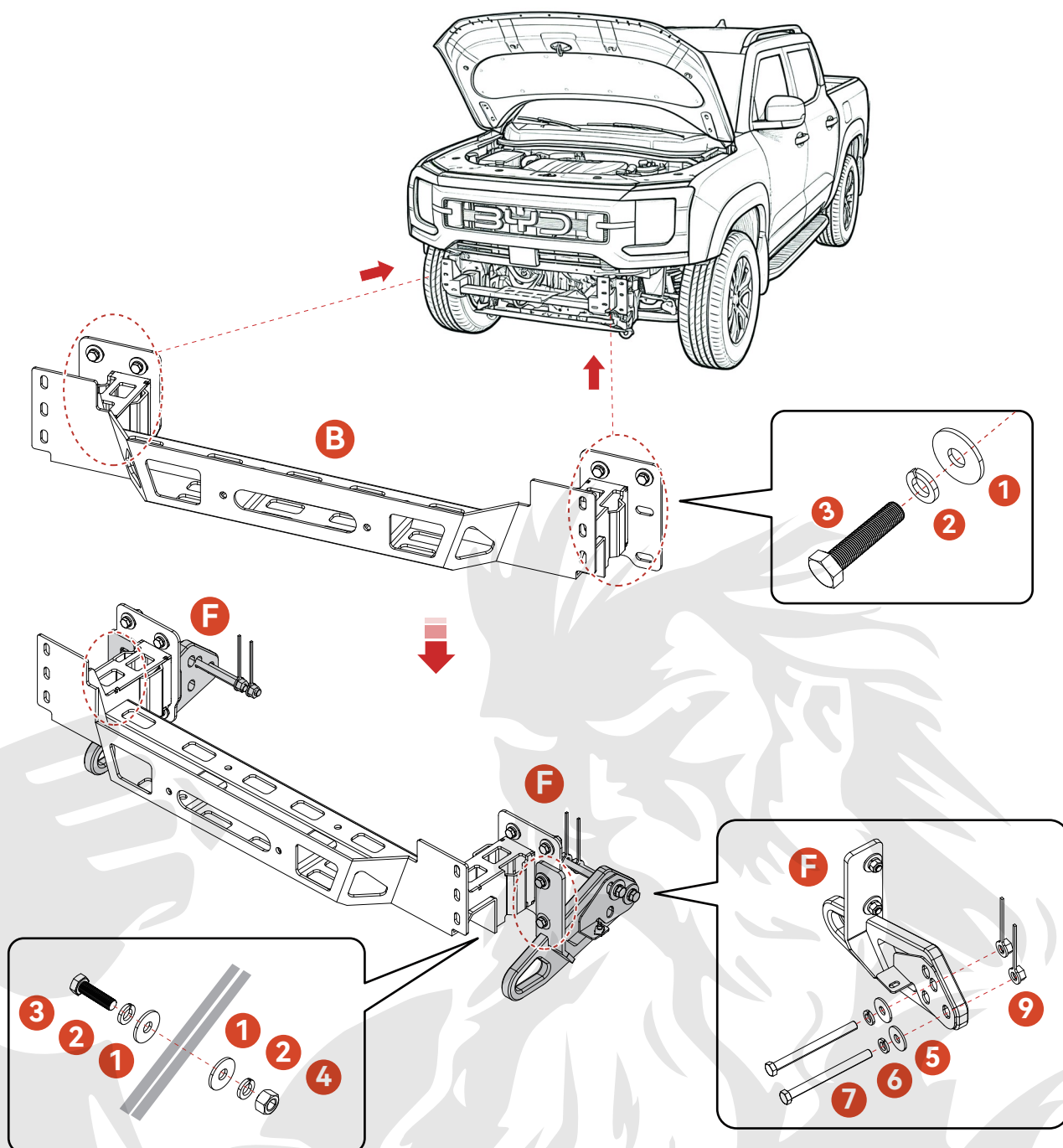
05 INSTALLATION STEPS

STEP 3

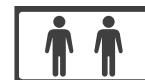


- 1. Install the winch bracket and align the holes at the connection points.
2. Secure with M10×35mm hex head bolts.
3. Mount the trailer hitches on both sides; align the holes of the connection points with those on the winch bracket.
4. Secure with M12×140mm hex head bolts.

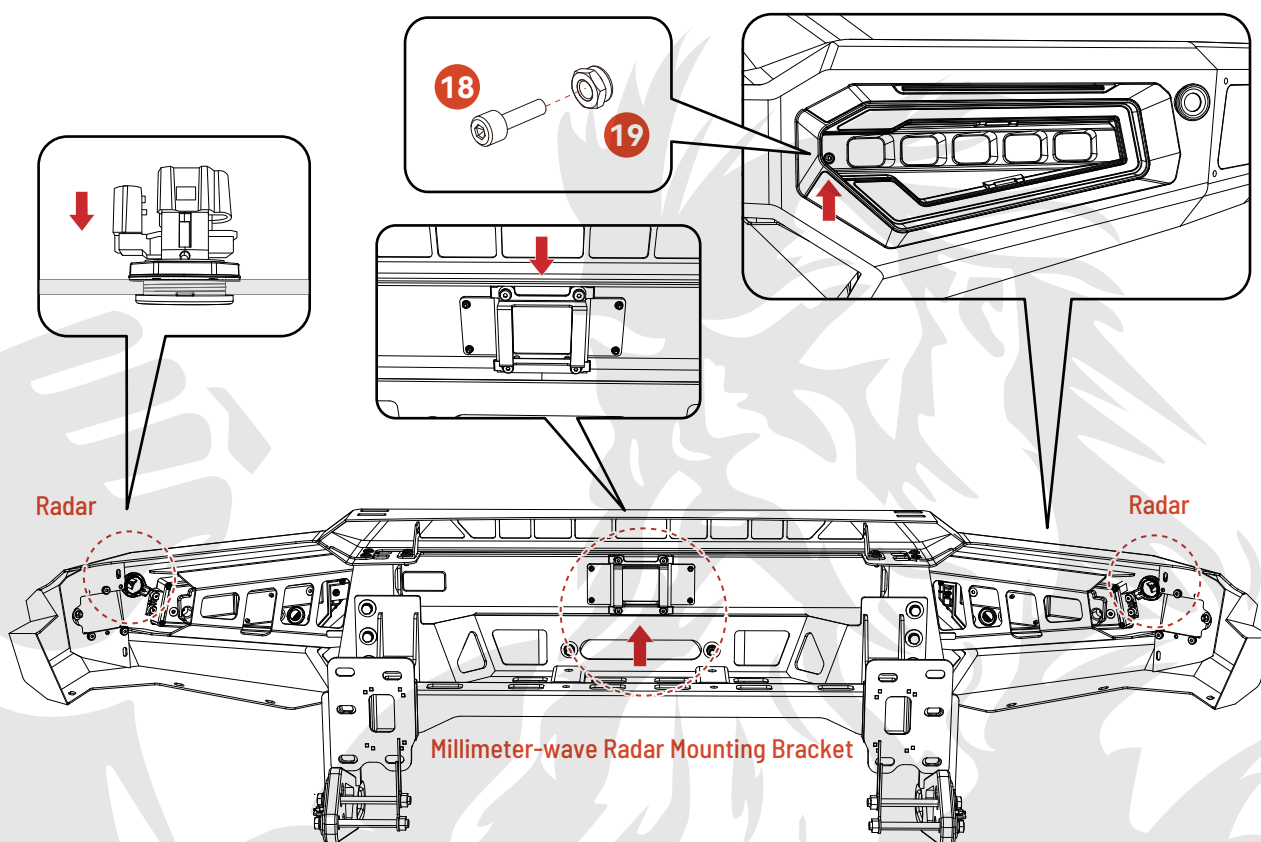
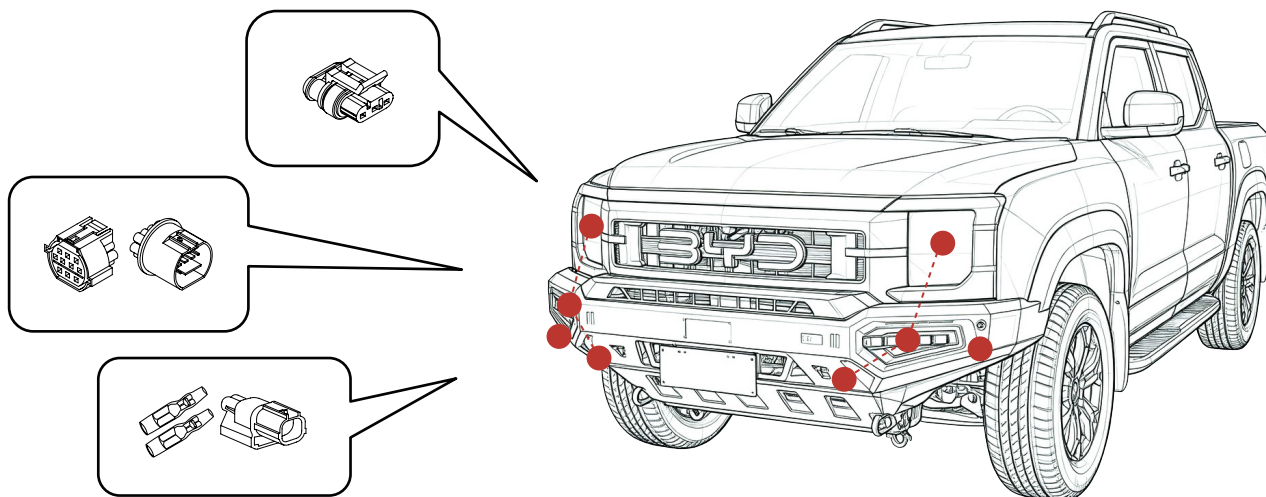
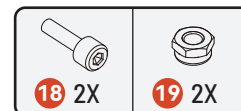
			
1 12X	2 12X	3 6X	4 4X
			
5 2X	6 2X	7 2X	9 2X



STEP 4



- 1. Secure and wire up the lights during installation.
2. Insert the millimeter-wave radar, sensor extension, side millimeter-wave radar extension and camera into the factory wiring duct.
3. The radar bracket is clamped by nuts.
4. Secure all wiring and cables to the clips with cable ties.
5. Test whether all functions operate normally.



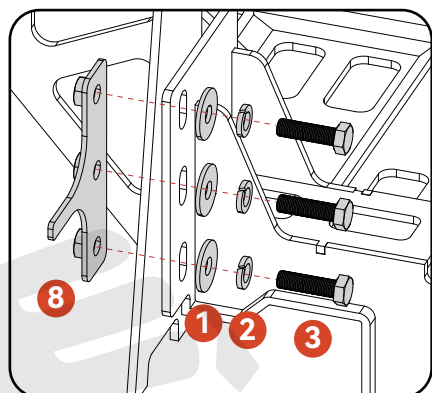
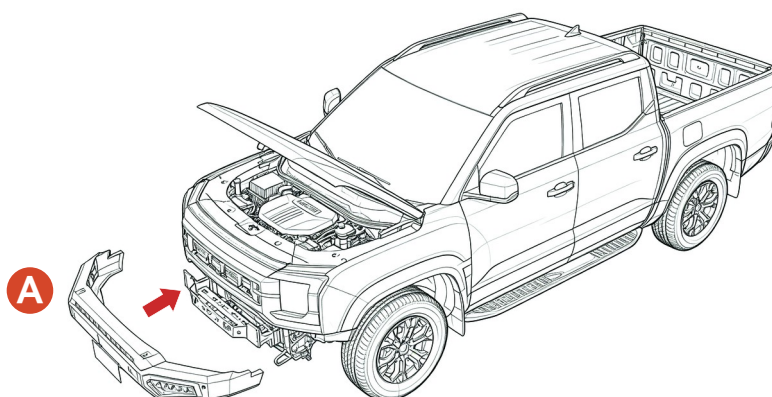
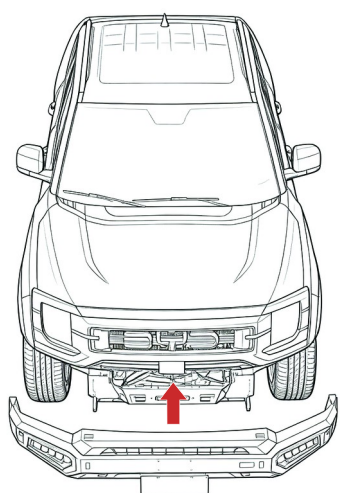
STEP 5



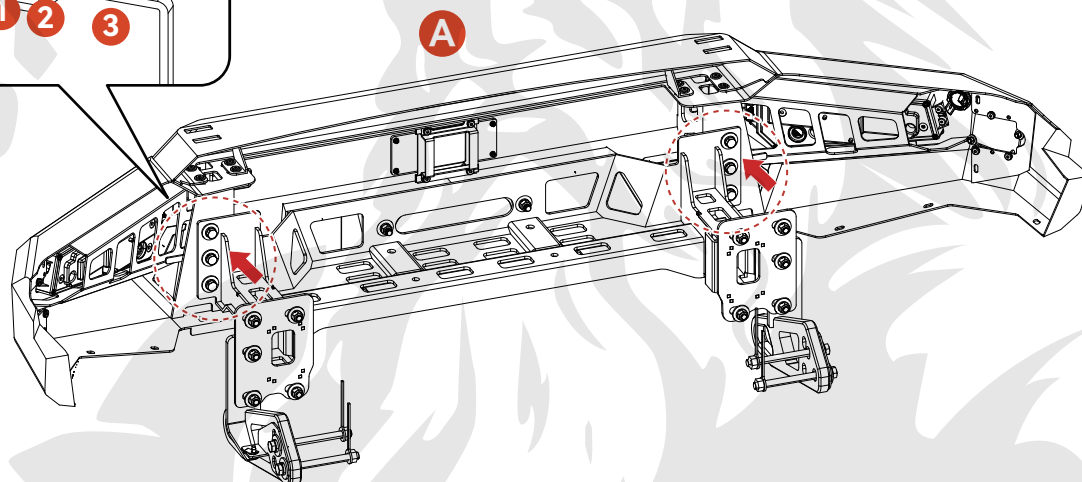
- 1. Place the vehicle on the ground or a four-post lift. Lift the bumper to the correct position, install the wing protectors on both sides and align them with the chassis mounting holes.
2. Use M10×35mm full-thread hex head bolts to secure the front bumper main welded assembly to the fenders and brackets.
3. Repeat the same steps on the other side.
4. Center the bumper on the vehicle body, and lift the lower bolts on both sides for adjustment to the correct position.

Tip: Reserve an approximately 17 mm gap between the bumper and bumper wings. This allows chassis flexibility and prevents contact between body panels and the bumper.

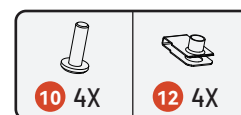
Warning: Unless a bumper auxiliary hoist is used, this task is recommended to be completed by two people to avoid personal injury or damage to the vehicle and/or components.



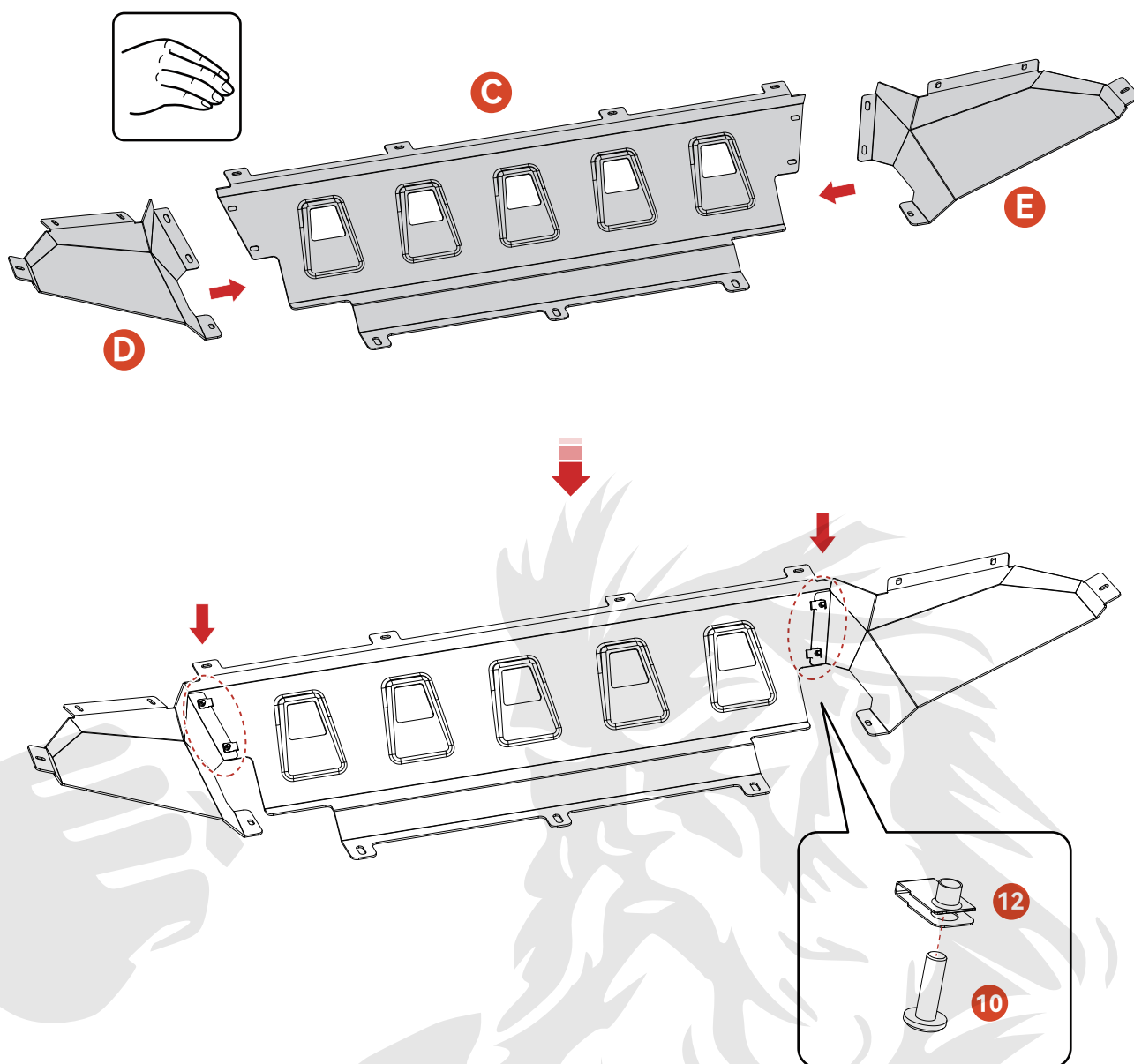
			
1 12X	2 12X	3 6X	8 2X



STEP 6



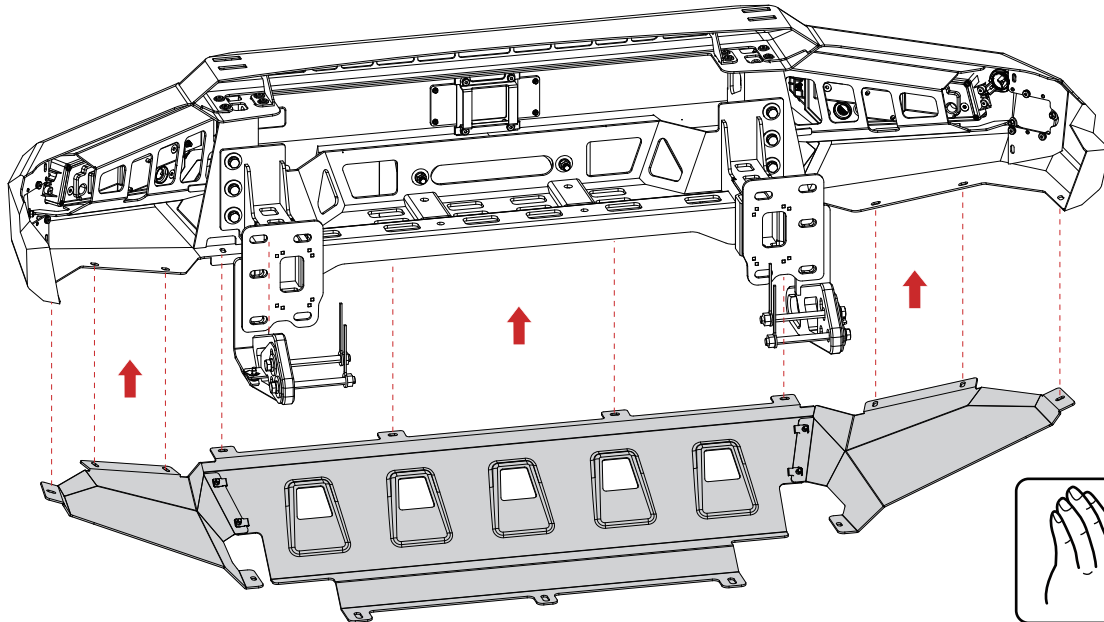
- 1. Install the protective plate and align the holes at the joints.
- 2. Secure the protective plate with M6×20mm bolts and clip nuts.



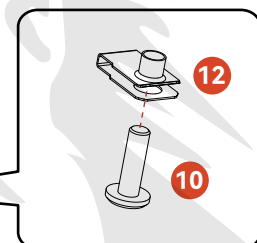
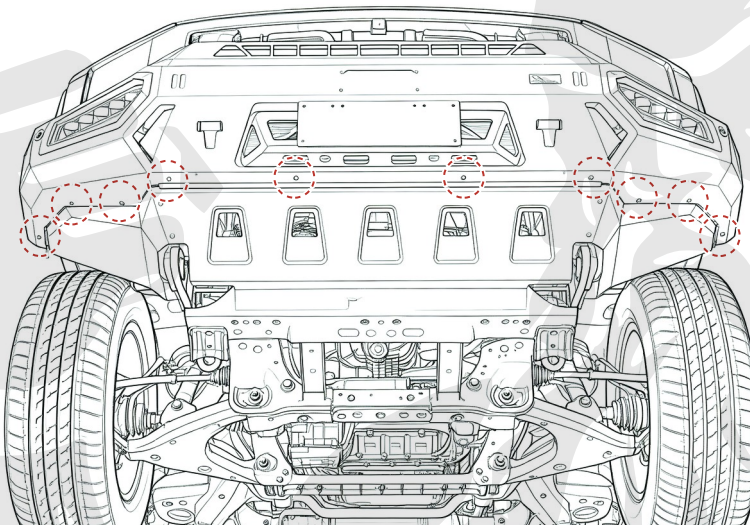
STEP 7



- 1. Install the protective plate to the bottom of the front bumper main welded assembly, aligning the holes at the joints.
2. Secure the protective plate with M6×20mm bolts and clip nuts.

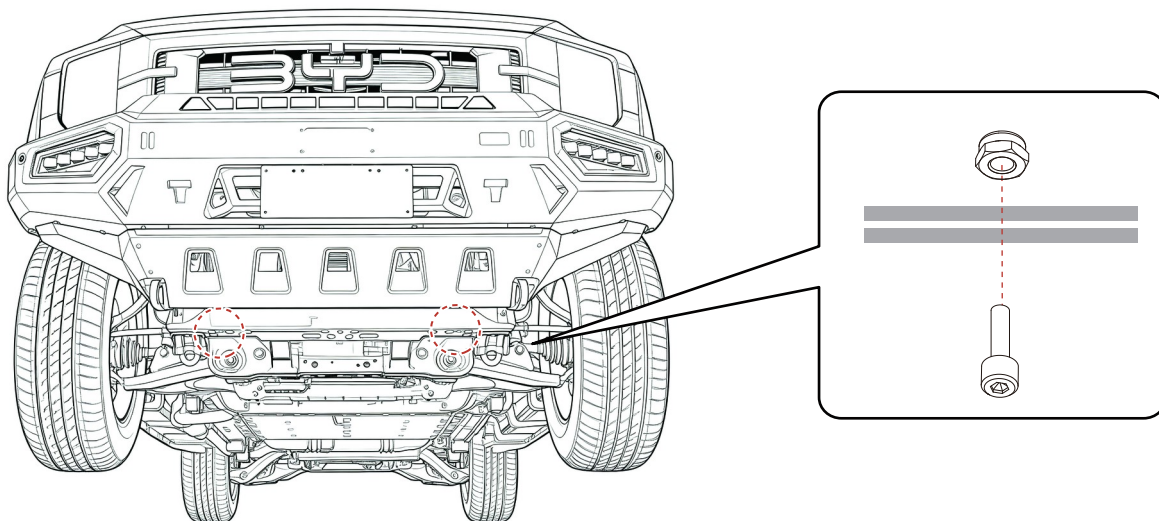


- 1. Lift the wing plate into the correct position.
2. Use M6×20 pan head hex socket screws and M6 standard clip nuts to fasten the wing protector bracket to the side of the rocker arm, then tighten.
3. Repeat this operation on the other side.



STEP 8

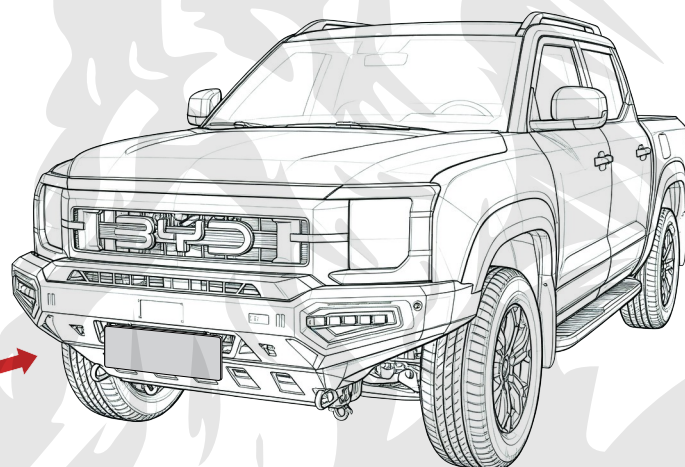
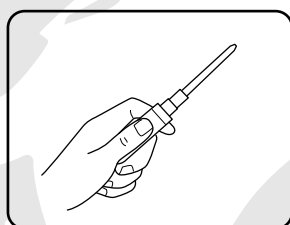
- 1. Align the mounting holes of the protective plate with those at the bottom of the bumper.
- 2. Secure the bottom with the original vehicle screws.



STEP 9

- 1. Apply safety warning stickers to the left and right edges of the rescue point.
- 2. Clean the recessed area for the badge.
- 3. Carefully attach the adhesive badge to the front of the crash bar.
- 4. Reinstall the license plate onto the flip-up bracket using the original bolts.

Note: Branding is important. Ensure the brand badge is placed straight and firmly attached to the surface of the bullbar.



■ POST-ASSEMBLY INSPECTION



Structural fastening inspection: Confirm that the crash bar has been securely installed in the reserved holes on the main beam using the matching bolts, without any shaking or displacement.



Bolt torque verification: Use a torque wrench to verify that all bolts have reached the specified torque value (M12: 100-120 N.m, M14: 140-160 N.m) and that thread-locking adhesive has been applied.



Wiring harness securely secured: Check that all added wires are not exposed, do not come into contact with sharp edges, and are reliably secured with flame-retardant cable ties, and keep them away from high-temperature components such as exhaust pipes.



Safety warning stickers: Ensure that the ACC adaptive cruise control calibration reminder and rescue towing point marking stickers have been affixed as required to prevent damage caused by accidental operation by others.



Lighting function test: Check in sequence whether the turn signals, brake lights, side marker lights, and added fog lights/strip lights illuminate normally without flickering or error messages.



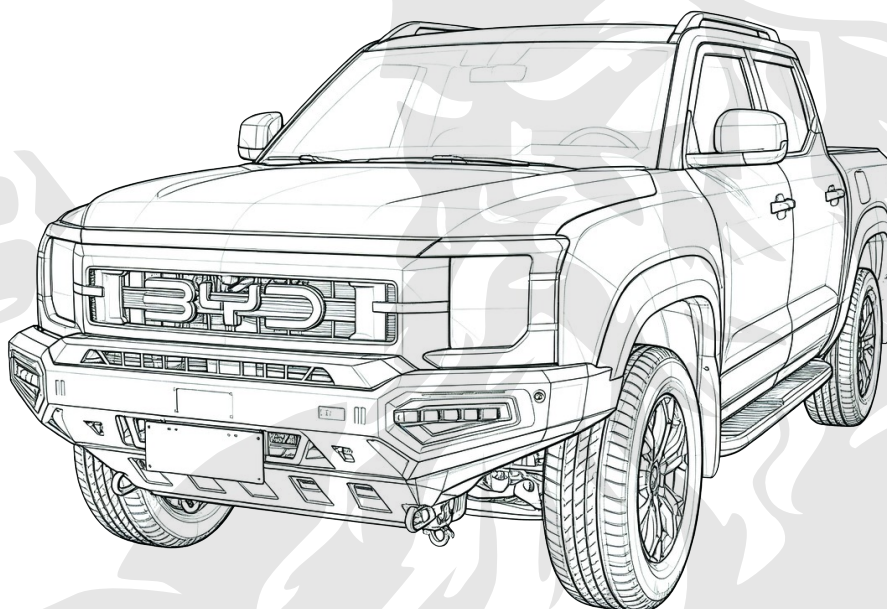
Sensor function verification: Test the working status of the reversing radar, parking sensor, and 360-degree panoramic front camera (if any) to confirm that there are no continuous false alarms and that the images are not obstructed or distorted.

■ MAINTENANCE RECOMMENDATIONS

- **Pre-departure inspection routine:** Before each long-distance or off-road trip, visually inspect the bullbar for any obvious deformation or cracks, and check if the bolt markings are misaligned.
- **Regular tightening and maintenance:** It is recommended to perform a full inspection every 10,000 kilometers (approximately 6,200 miles) and tighten all connecting bolts with a torque wrench.
- **Post-off-road inspection:** After heavy off-roading or a collision, immediately check whether the connection between the bar and the frame is deformed, whether the bolts are loose, and whether the sensors have shifted.
- **Rust prevention and cleaning:** Regularly clean the mud, sand and salt accumulated inside the bar body (especially in the de-icing agent area in winter), check the welds and bolts for rust, and spray rust inhibitor if necessary.



SYMPTOM	POSSIBLE CAUSE	SOLUTION
ACC adaptive cruise control unavailable or forward collision warning error	The front bullbar may have obstructed the millimeter-wave radar, or the radar bracket may have deformed, causing an angle shift.	Inspect and remove any obstructing parts. If the bracket is deformed, it needs to be replaced. Then, go to a BYD service center to recalibrate the radar.
The front parking radar continues to issue false alarms (alarms even when there is no object).	The gap between the radar probe and the bullbar is too small (less than 15mm), or the probe is installed at an off-center angle.	Increase the gap between the probe and the bullbar, and adjust the probe angle to the original vehicle orientation.
The active grille cannot open or close properly.	The grille linkage mechanism was squeezed or bumped during installation, or the wiring harness was compressed by the bracket.	Check if the grid blades move freely, restore the wiring harness connection, and adjust the bracket to avoid interference.
Front fog lights or added strip lights not working, flashing, or displaying error messages	Power supply and wiring issues or compatibility problems.	The battery was used to draw power independently, and a relay and fuse were added. The grounding point was re-polished, and a decoding harness was used.
metallic noises or resonance from the front of the vehicle while driving	The connecting bolts are loose, or the bar body interferes with the chassis guard plate and water tank frame.	Use a torque wrench to tighten all bolts, check for interference points and grind or add buffer shims.



BUMPERS



THANKS FOR YOUR PURCHASE

PLEASE LET US KNOW IF YOU HAVE ANY QUESTIONS