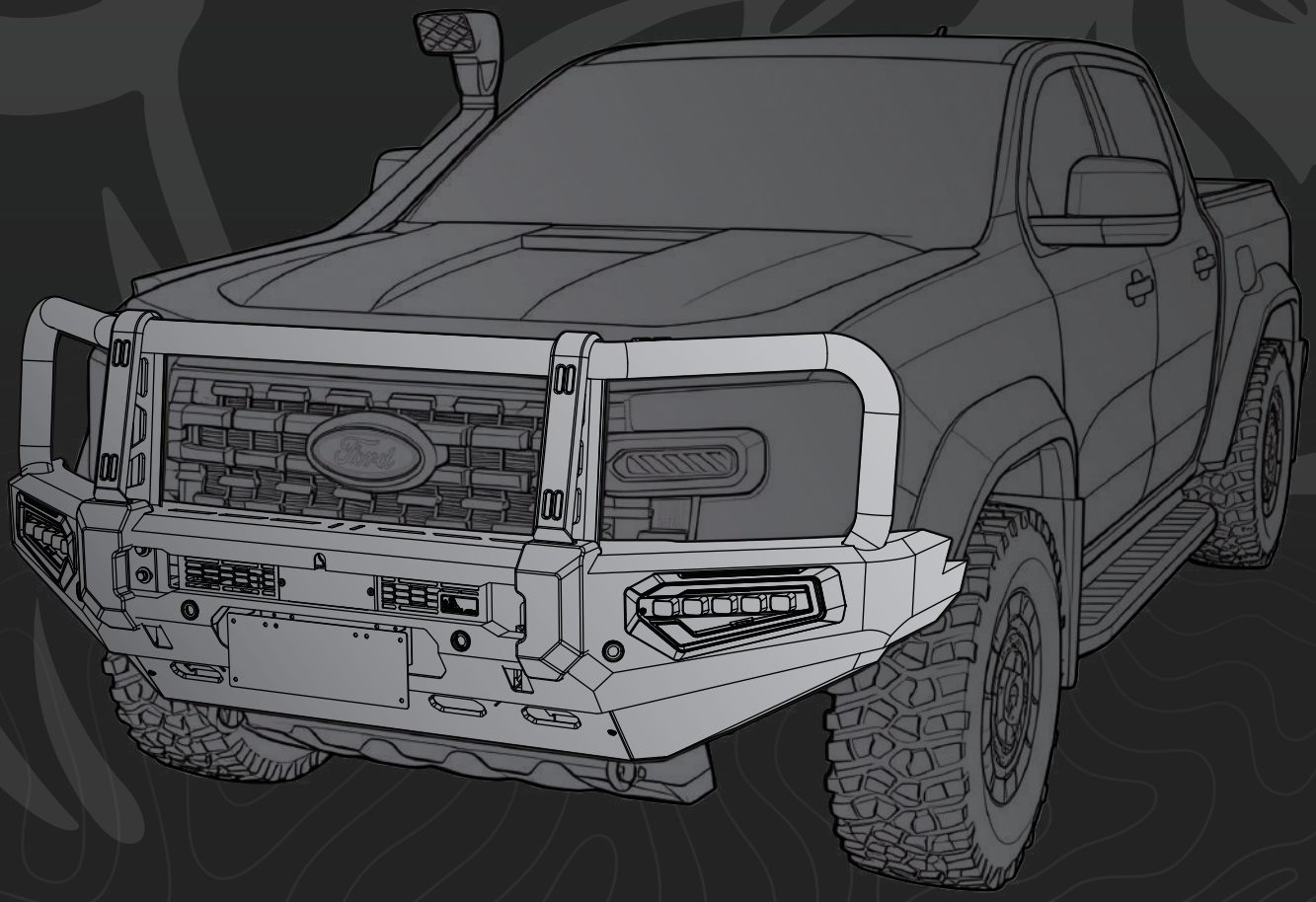
ZEUS 4X4

FRONT BULLBAR

FOR FORD RANGER SUPERDUTY

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

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

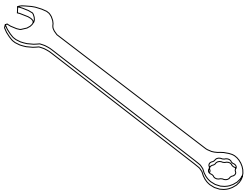
- All fasteners must be tightened using a calibrated torque wrench to the torque value specified in the manual, ensuring tightening accuracy.
- The final tightening process must not be performed using impact drills or power tools to prevent over-tightening and damage to components.
- Over-tightening 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

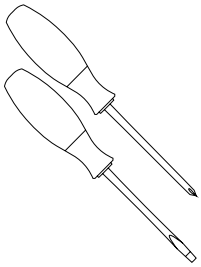
- Verify that all fasteners are tightened to the specified torque, with no loosening or stripping. Pay special attention to critical connections for M6 and M8 fasteners.
- Inspect all seals to ensure they are intact, continuous, without warping, and with tight gaps.
- Functional retest: Reconnect power, 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

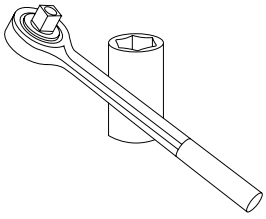
- The manufacturer accepts no liability for damage, injury, or loss resulting from installation, use, or maintenance not carried out in accordance with this manual.



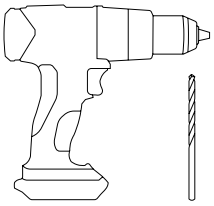
Metric wrench set



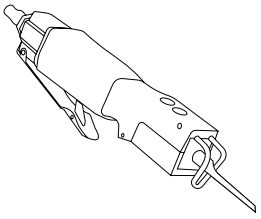
Screwdriver set



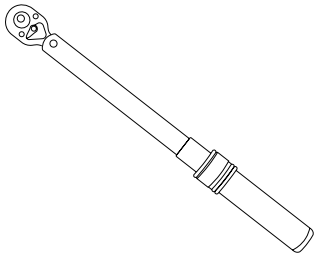
Metric sleeve assembly



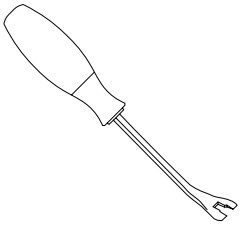
Drill and Drill Bits



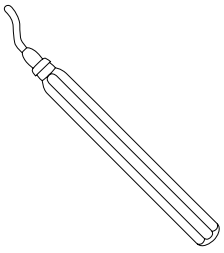
Air Hacksaw



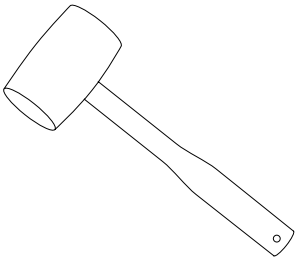
Torque Wrench



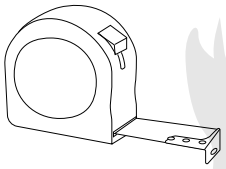
Clip Remover



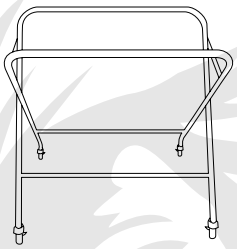
Deburring Tool



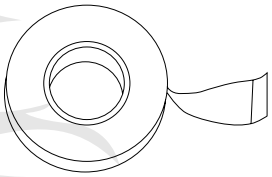
Rubber Mallet



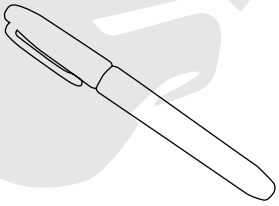
Tape Measure



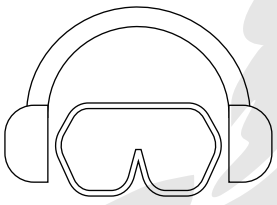
Bullbarr Support Stand



Masking Tape

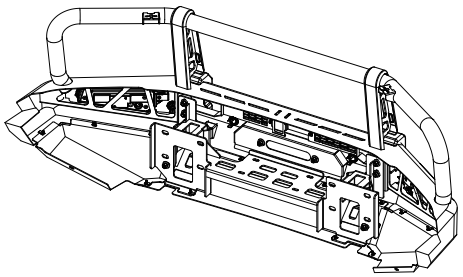


Marker and Paint Pens

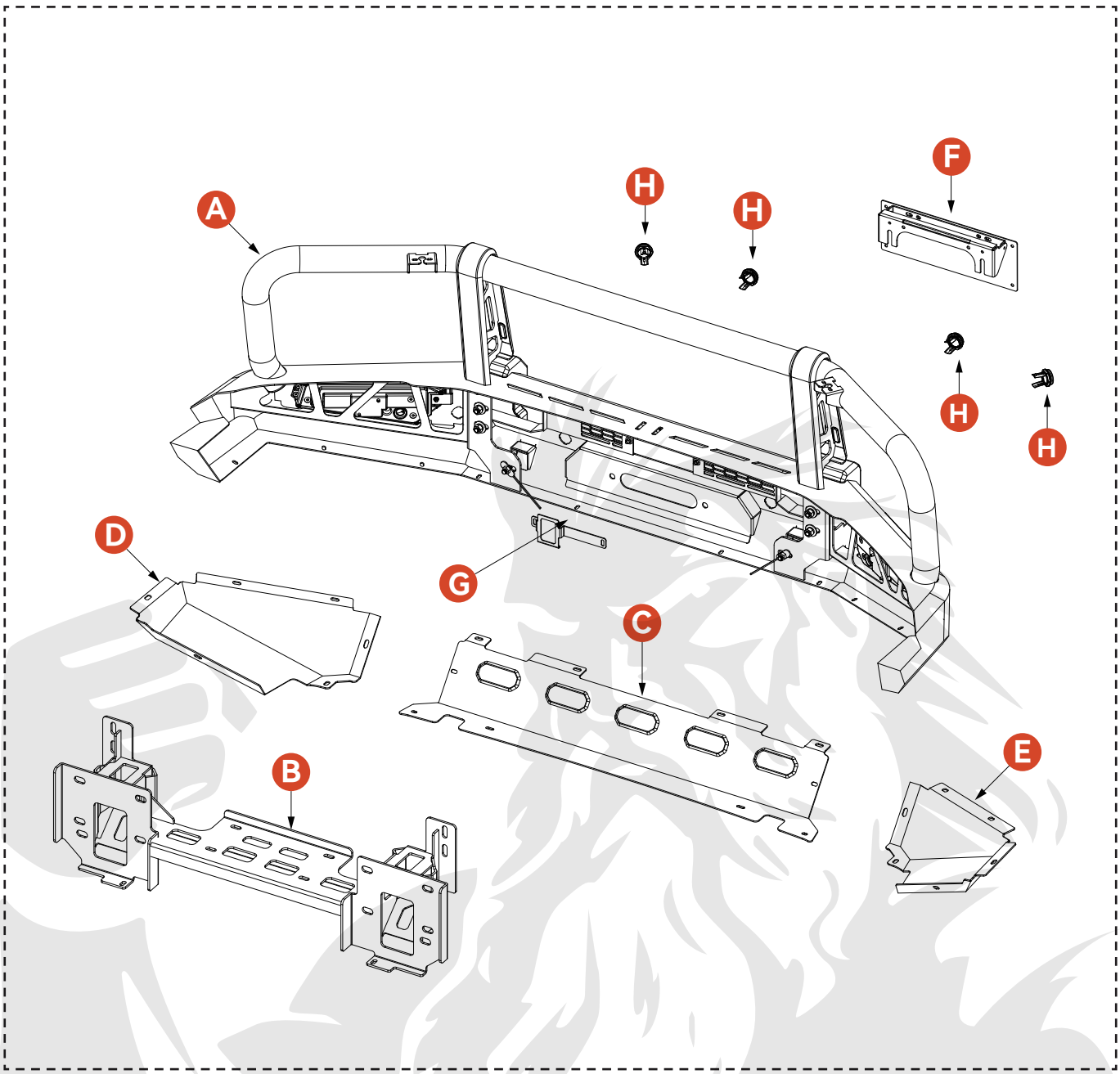


Personal Protective Equipment

PARTS 1



NO. Part name	NO. Part name
A. Front bullbar main welded assembly	E. Guard Plate - Left Side
B. Winch bracket	F. License plate base
C. Guard Plate - Middle	G. Camera bracket
D. Guard Plate - Right Side	H. Radar bracket



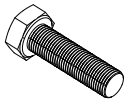
PARTS 2

Screws needed to fix the front bullbar body to the winch bracket

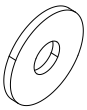
1. Flat Washer, Class A
12X37mm

2. Heavy-duty spring washers
12mm

3. Hex head bolts with full thread
M12X20-S

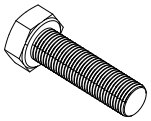


4. Large washers, Class A and C
10X30mm



5. Heavy-duty spring washers
10mm

6. Hex head bolts with full thread
M10X35-S



7. Hex nuts
M10-N

Screws needed to fix the module and radar

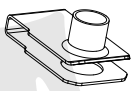
8. Large washers, Class A and C
6X12mm

9. Lightweight spring washers
6mm

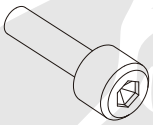
10. Pan head socket screws
M6X20

11. Hex nuts
M6-N

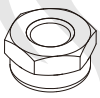
12. Standard quick-clamp nuts
M6



13. Hex socket head cap screws
M5X25-S



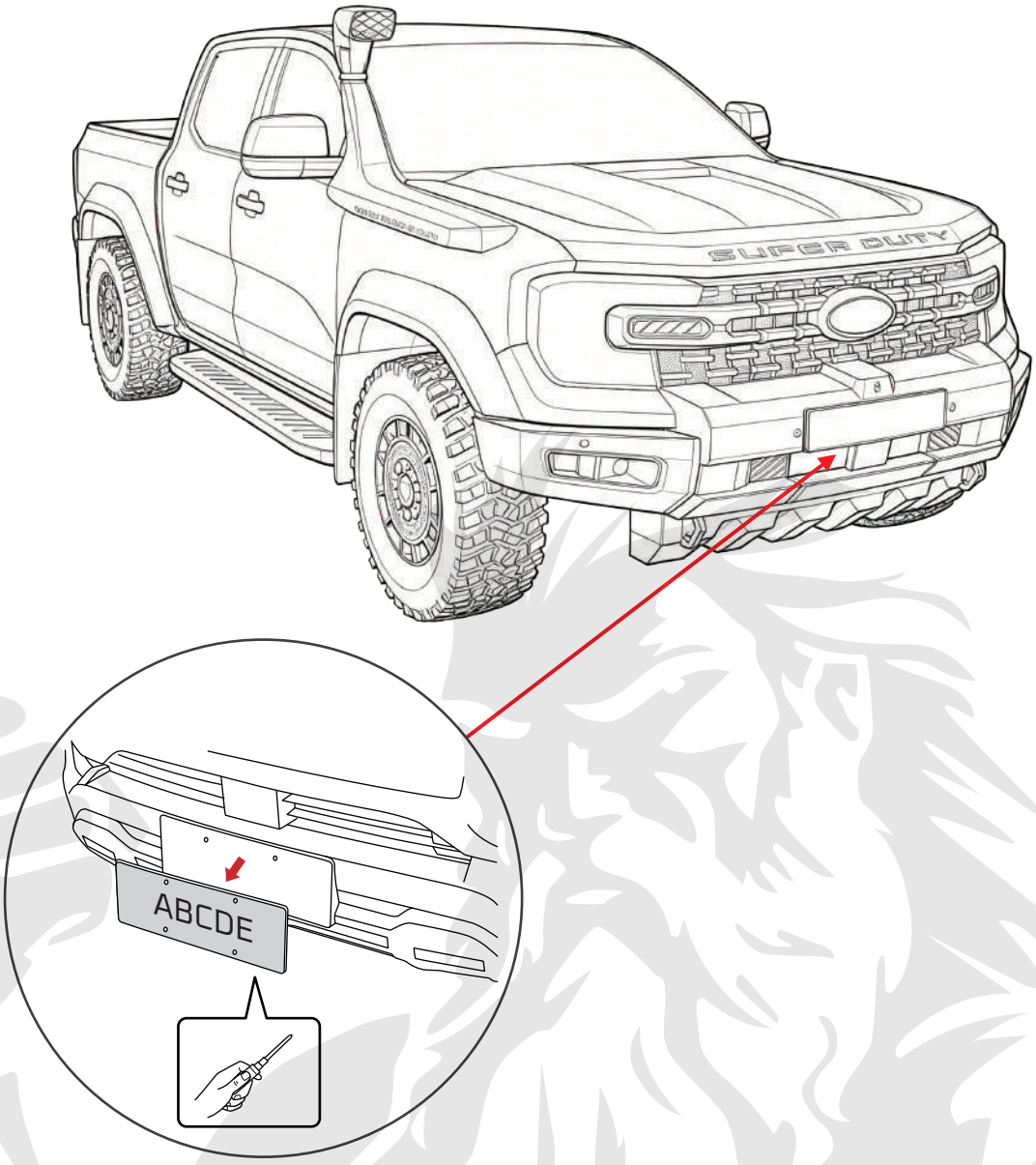
14. Flange nuts
M5-N



15. Hex socket flat head screws
M4X12

STEP 1

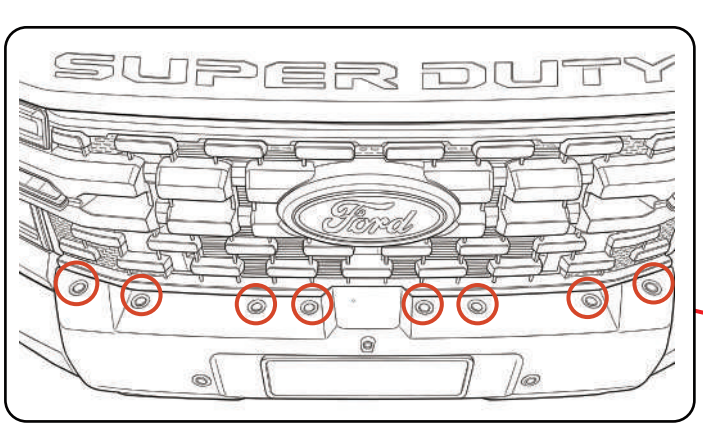
- DO NOT turn on or move car whilst any camera or radar systems are disconnected.
  Failure to observe this precaution will result in system errors that will need car to be taken to Ford Dealership to resolve.
  Keep proximity keys away from vehicle and out of range to minimise the chances of computers activating whilst modules are disconnected.
- Remove number plate from bumper and set aside.

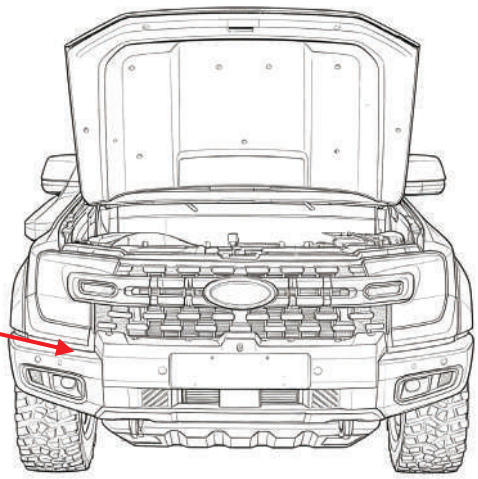


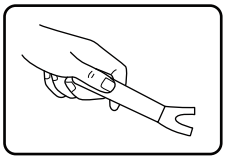
STEP 2

➤ Remove 8x plastic push clips holding the top of the plastic bumper trim..

Note: Use a flat blade screwdriver or trim tool to release the clips.



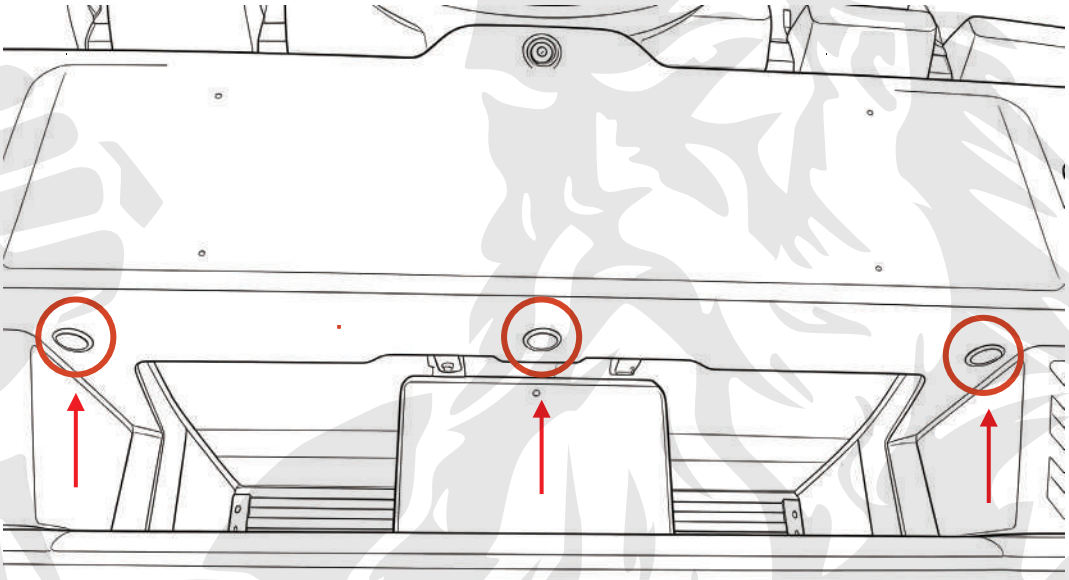




STEP 3

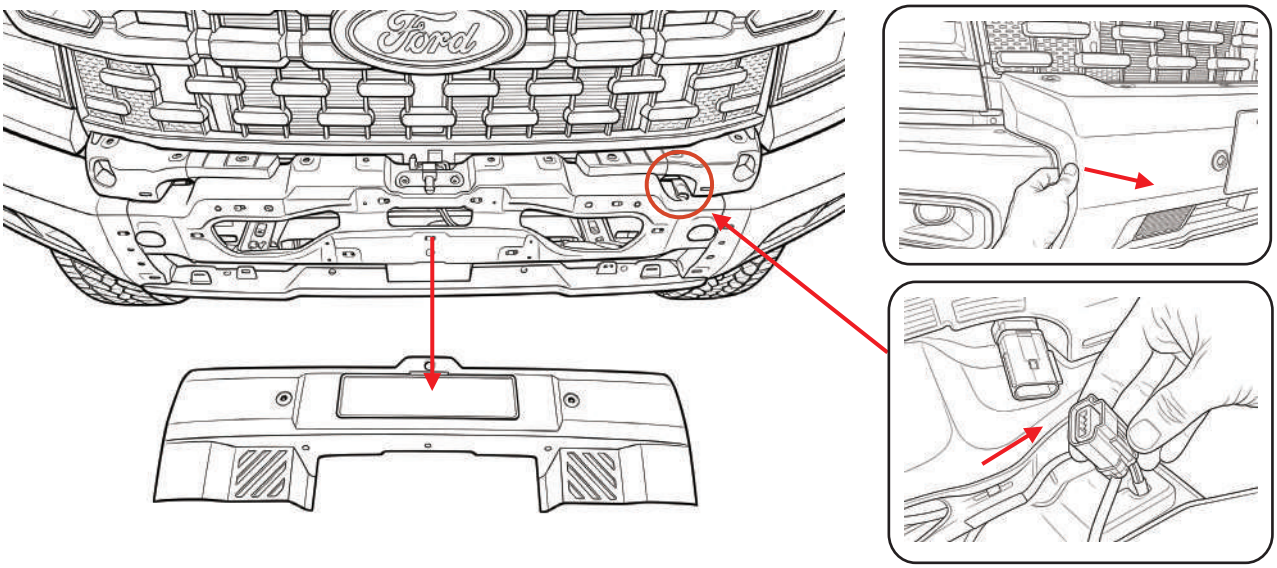
➤ Remove 3x plastic push clips holding the bottom of the plastic bumper trim.

Note: Use a flat blade screwdriver or trim tool to release the clips. Retain 1x clip for re-use.



STEP 4

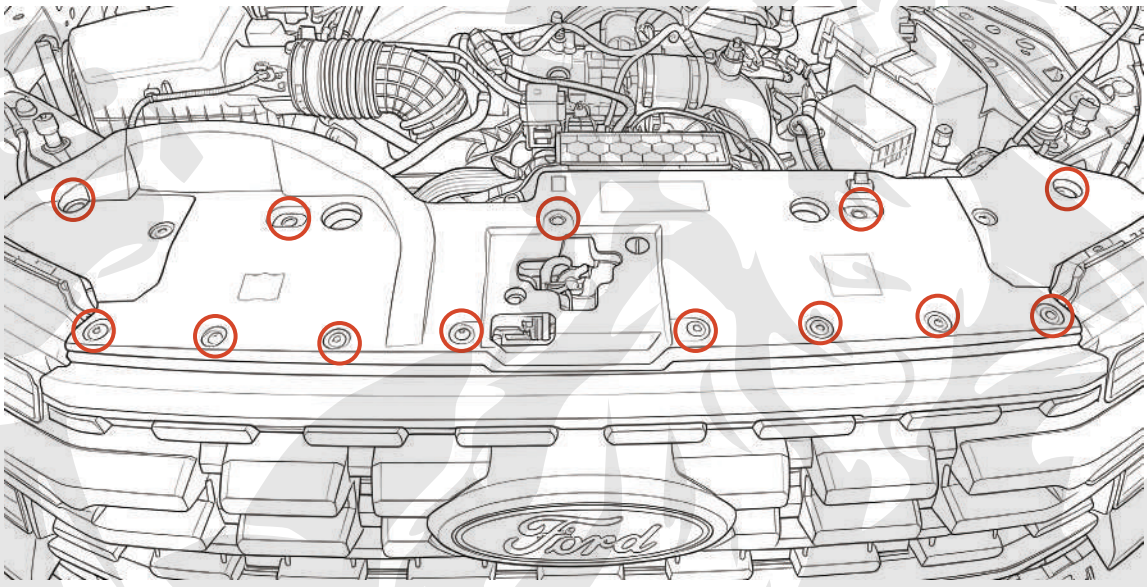
1. Start from both outer ends and pull the plastic bumper trim outwards to release the clips holding it to the vehicle.
2. Disconnect the parking sensor harness on the LH passenger side from the main bumper harness.
3. Set the plastic bumper trim aside for removing/relocating parking sensors later.



STEP 5

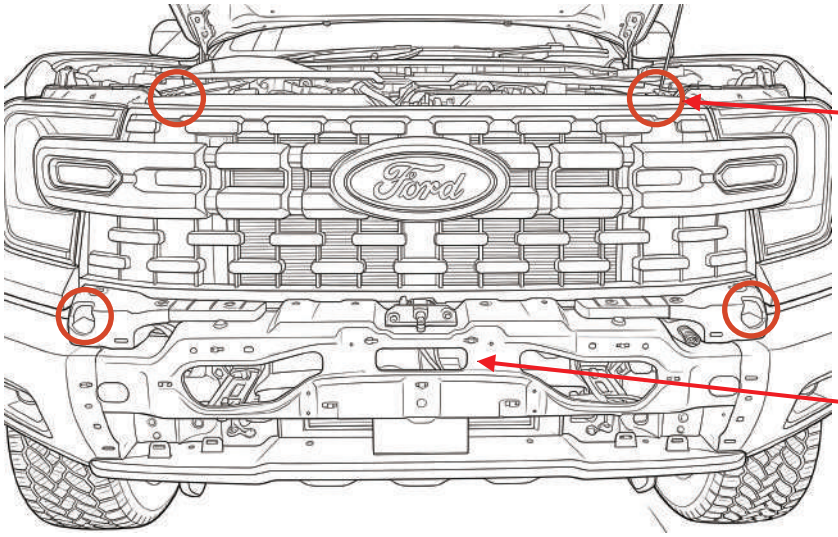
1. Open the bonnet. The bonnet release handle is on the LH passenger side.
2. Remove 13x scrivets holding the radiator top cover and set aside.

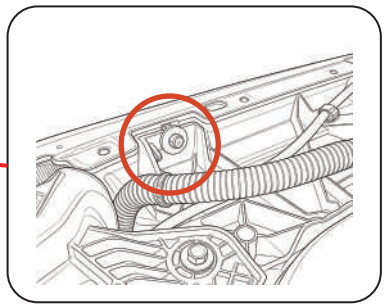
Note: Use a Phillips head screwdriver to unscrew the head of the scrivet, then use a flat head screwdriver or trim tool to lift up and remove the scrivet.

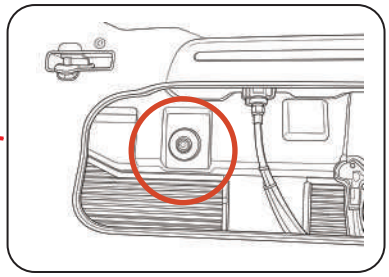


STEP 6

- Remove 5x 8mm hex bolts (2x top, 3x bottom) holding the grille.
  Note: A socket extension is required for the bottom 3x bolts.



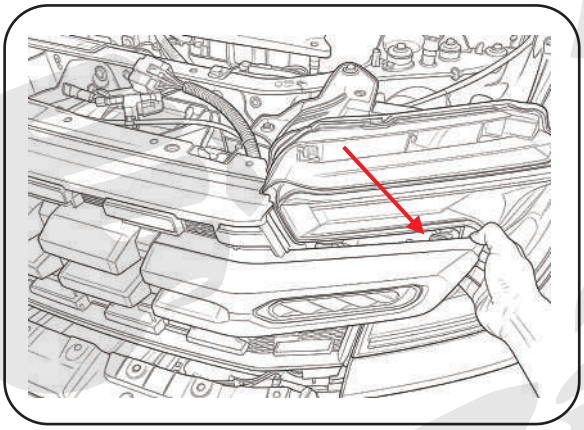


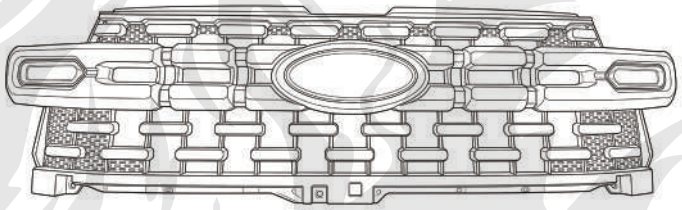


Middle bolt access through opening

STEP 7

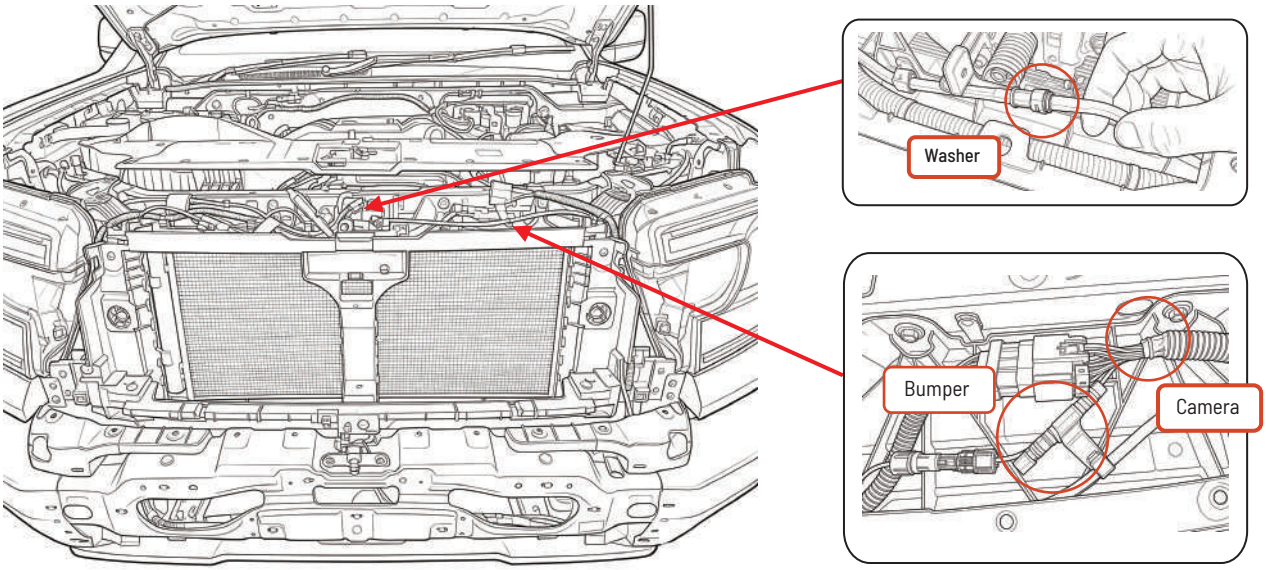
- Start from the outer corners and firmly pull the grille outwards to release the clips holding it to the vehicle. Set aside in a safe place.





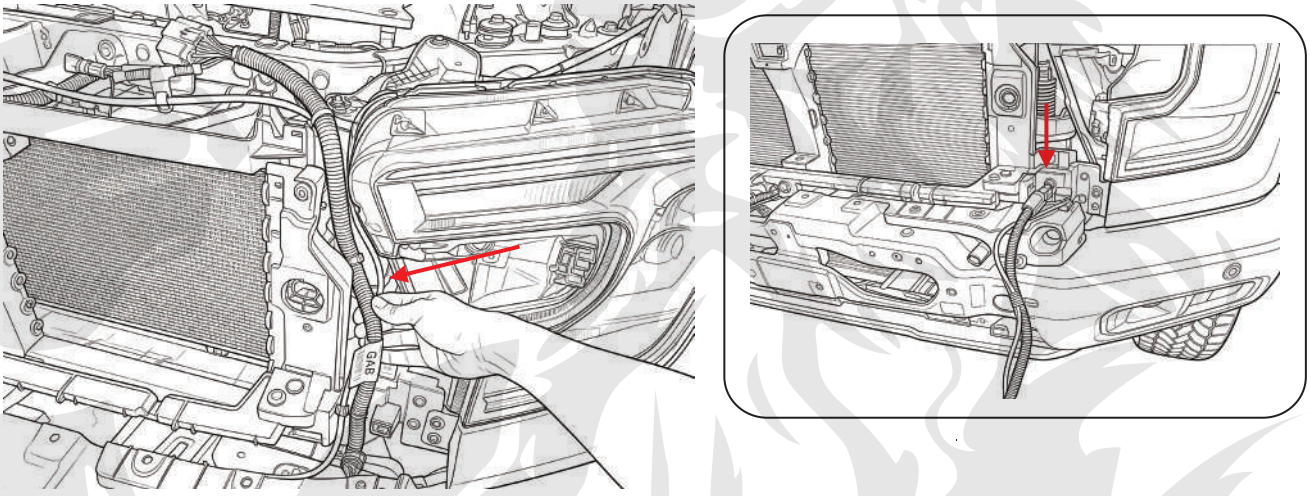
STEP 8

1. Disconnect the main bumper harness and camera harness at the top.
2. Either clamp the camera washer hose either side of the connector with cable ties and/or hose line clamps, or place a bucket underneath to let washer fluid drain out (this needs to be re-filled at the end, see maintenance section of Ford owner's manual).
3. Disconnect the camera washer hose.



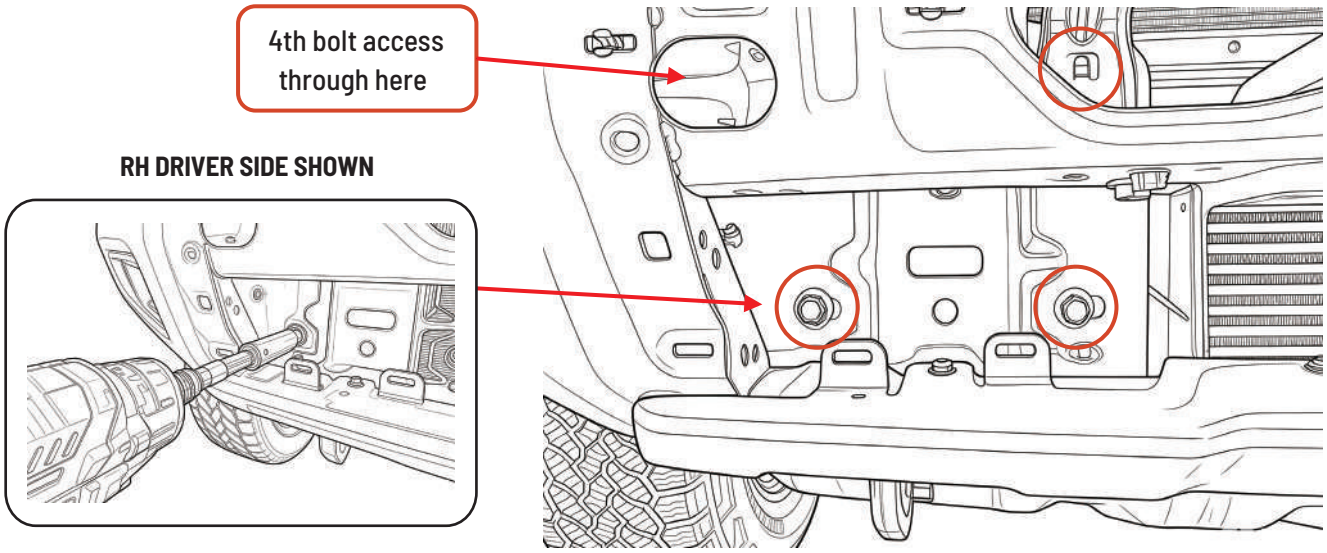
STEP 9

Unclip the bumper/camera harness and washer hose from the vehicle all the way down on the LH passenger side until you reach the steel bumper.



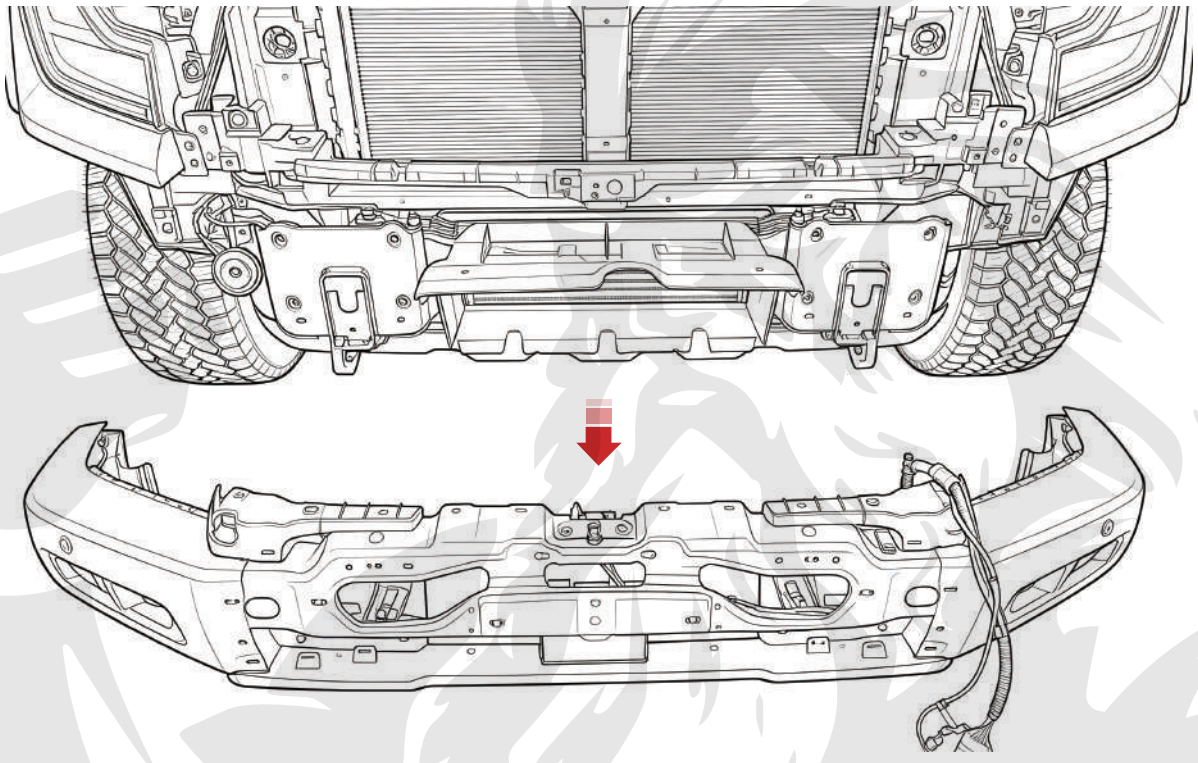
STEP 10

➤ Remove 8x 15mm hex bolts (4x per side) holding the steel bumper to the chassis.
Note: A socket extension bar is required.



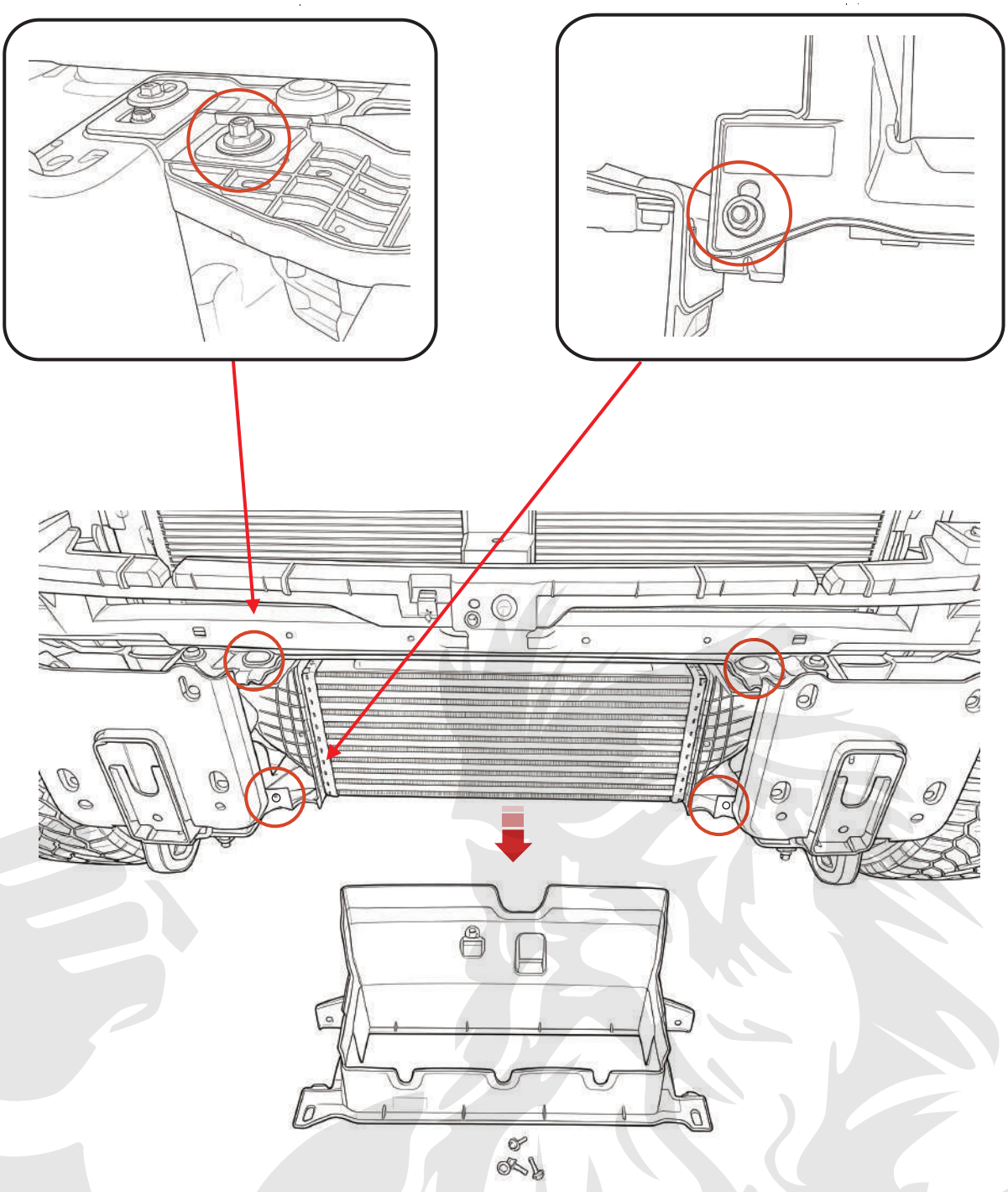
STEP 11

➤ Remove the steel bumper and set aside.



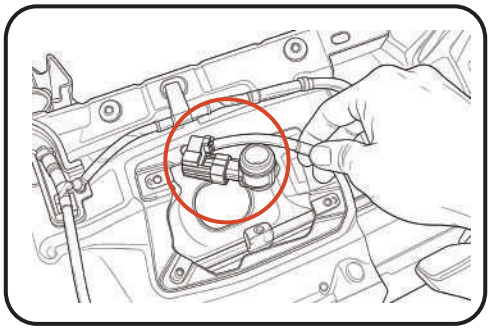
STEP 12

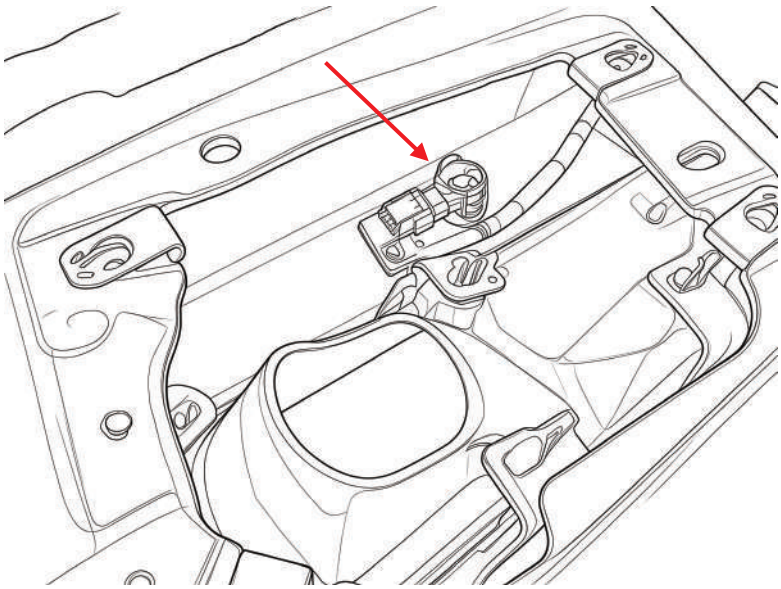
1. Remove 4x 8mm hex bolts holding the intercooler shroud.
2. Remove shroud and set aside. Retain bolts.



STEP 13

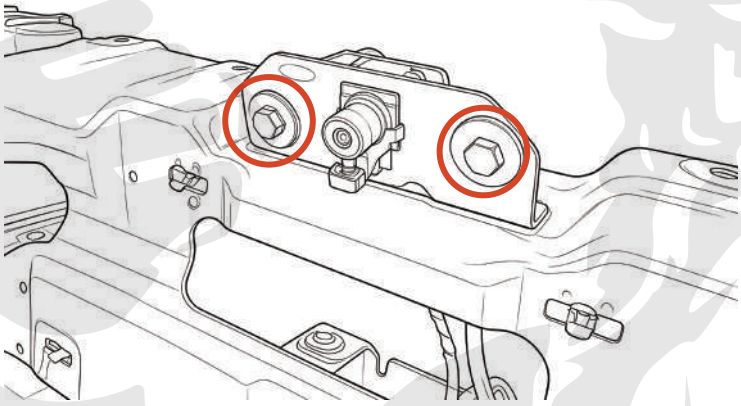
1. Pre-position 2x M12x40 hex bolts and heavy duty washers through the middle pair of holes on the impact assembly.
2. Pre-position 2x M10x40 hex bolts and heavy duty washers through the bottom pair of holes on the impact assembly.
3. On the back, pre-position 2x P-0551 spacer plates to each group of M10/M12 bolts.

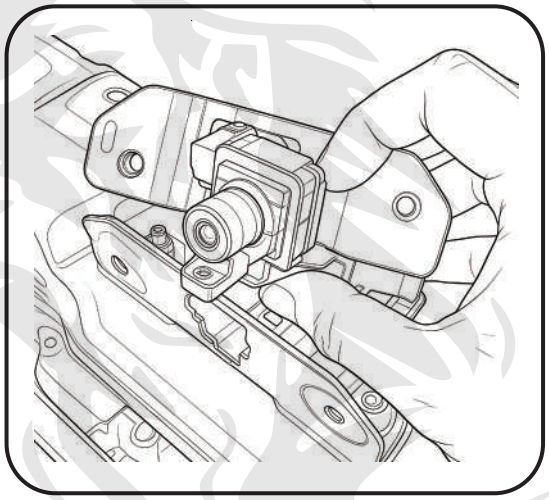




STEP 14

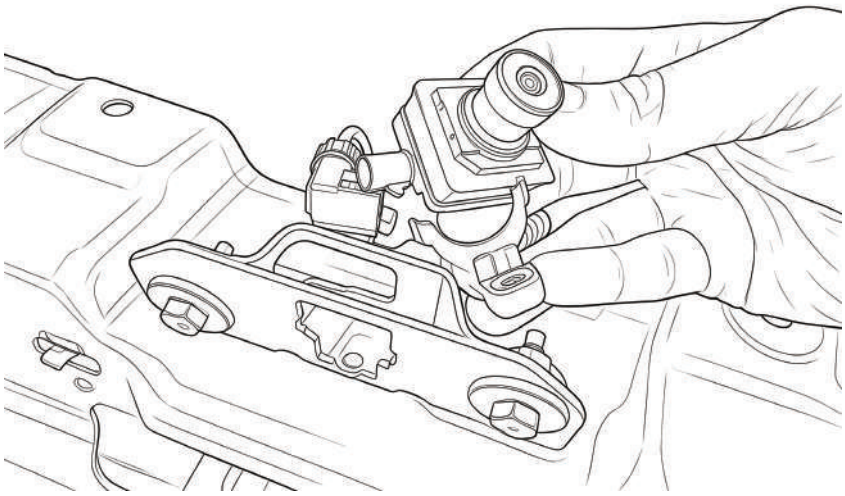
1. On the underside, remove the front 15mm hex bolt holding the factory recovery point.
2. Retain for re-use.





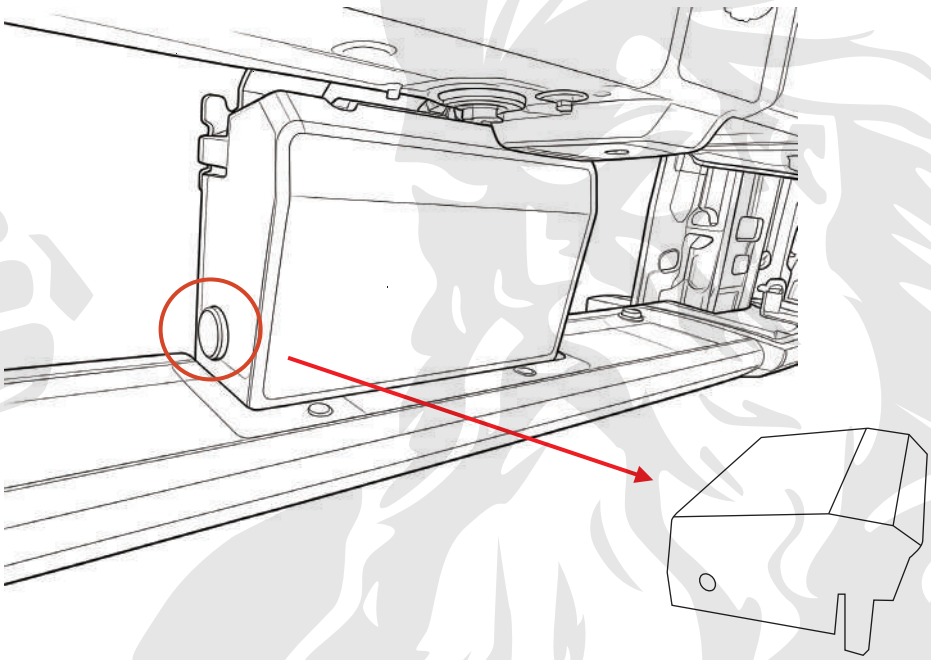
STEP 15

1. Pre-position 2x M12x40 hex bolts and heavy duty washers through the middle pair of holes on the impact assembly.
2. Pre-position 2x M10x40 hex bolts and heavy duty washers through the bottom pair of holes on the impact assembly.
3. On the back, pre-position 2x P-0551 spacer plates to each group of M10/M12 bolts.



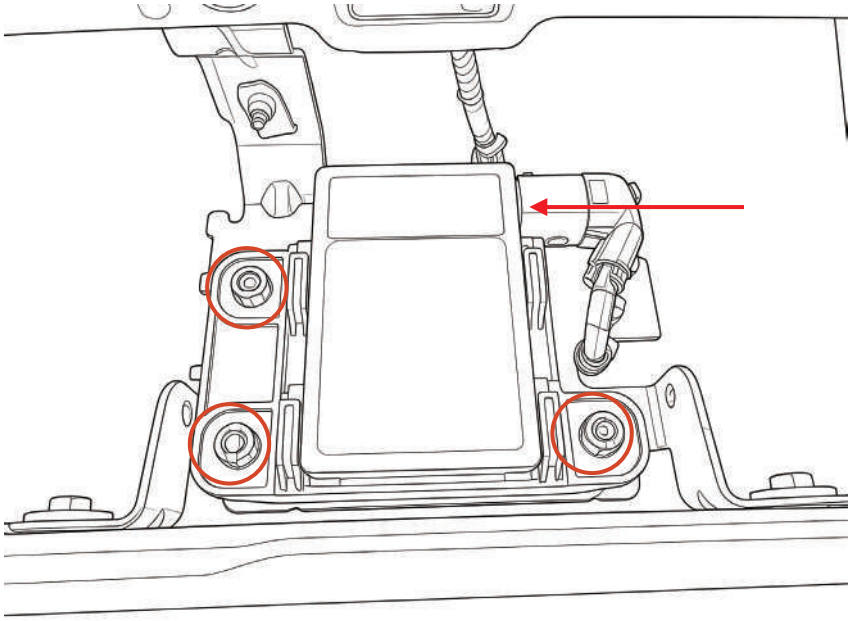
STEP 16

On the underside, remove the front 15mm hex bolt holding the factory recovery point.



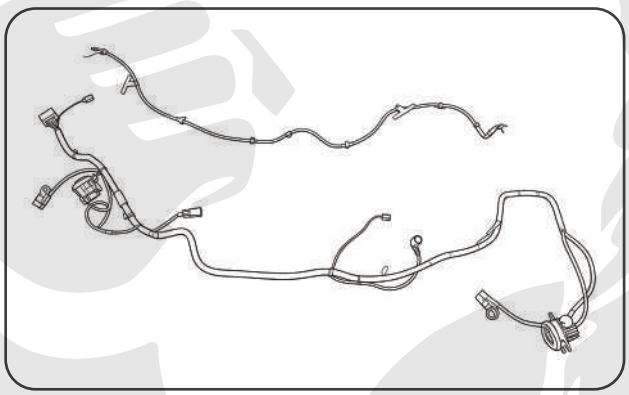
STEP 17

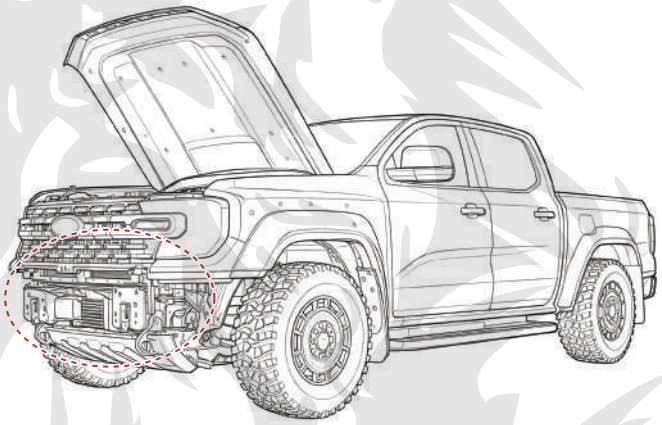
- Retain for re-use.



STEP 18

1. Pre-position 2x M12x40 hex bolts and heavy duty washers through the middle pair of holes on the impact assembly.
2. Pre-position 2x M10x40 hex bolts and heavy duty washers through the bottom pair of holes on the impact assembly.
3. On the back, pre-position 2x P-0551 spacer plates to each group of M10/M12 bolts.





IMPORTANT NOTE:

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

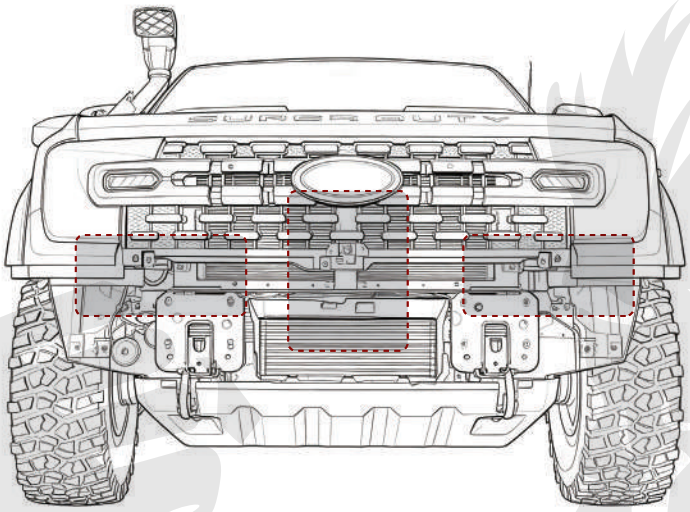
- Before removing the sensors from the original bullbar, record the position and orientation of each sensor. This will allow you to replicate their original position when reinstalling them on the bullbar.
- Do not paint the parking sensors. Parking sensors are precision components in a vehicle's safety 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.

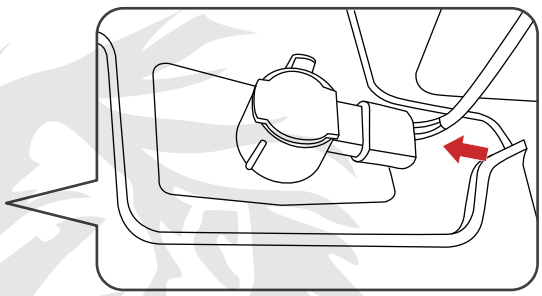
STEP 1

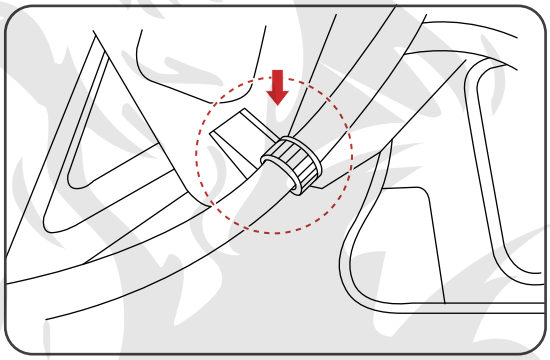
➤ Disconnect the parking sensor from the previously removed original bullbar, unfasten the clip, remove it, and carefully place it aside for transfer to the crash bar.

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 pay attention to the position, order, and orientation of each sensor to ensure they are reinstalled in the bullbar with the same configuration.
Note: Please ensure the radar is not dropped, as this may cause damage or malfunction.







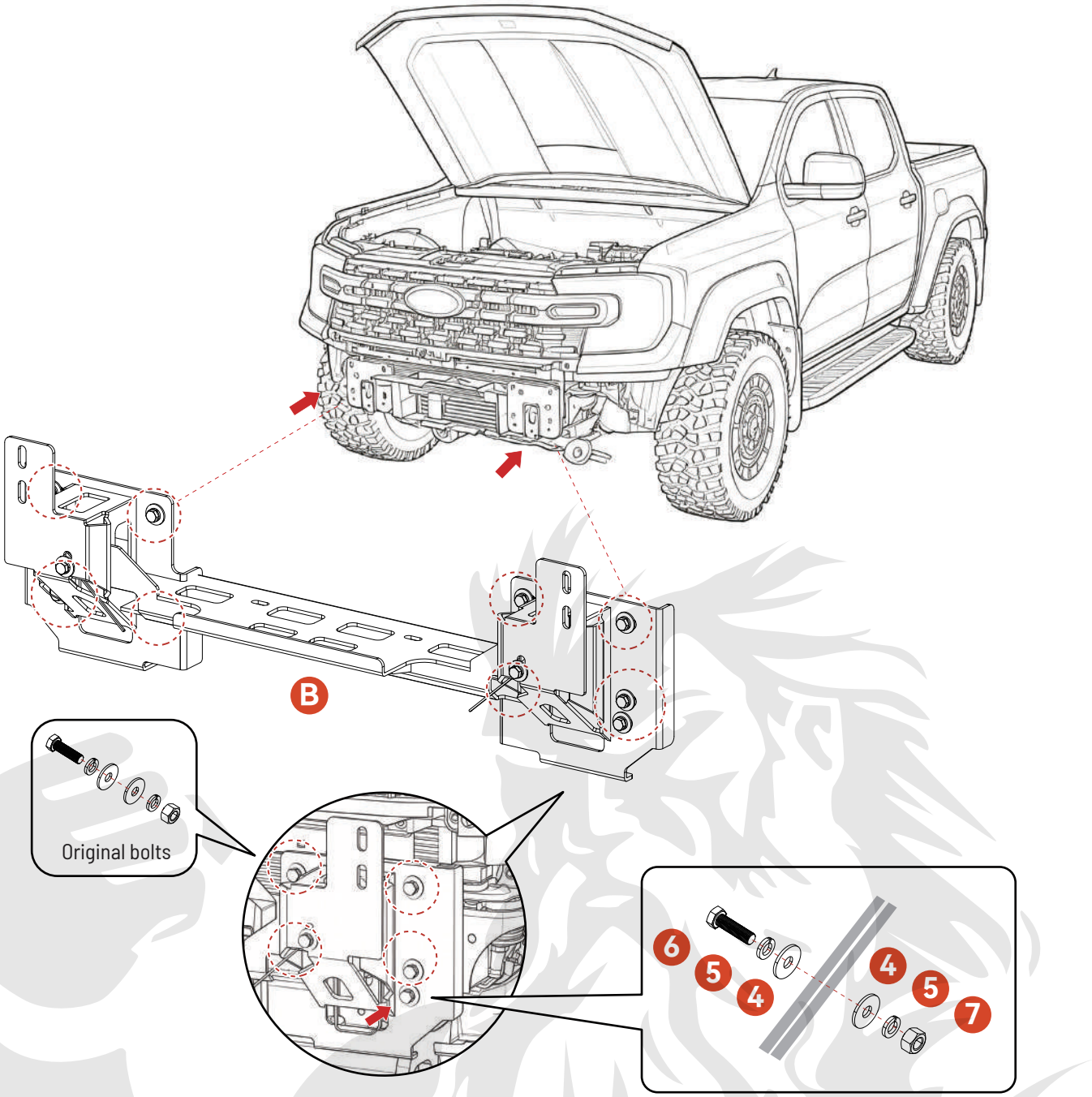
➤
1. Carefully remove the clips securing the original sensor and radar harness to the lower part of the bullbar, removing the clips on the harness as you go.
2. There is no need to remove or detach the harness from the grille. Leave it attached and in place.

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

STEP 2

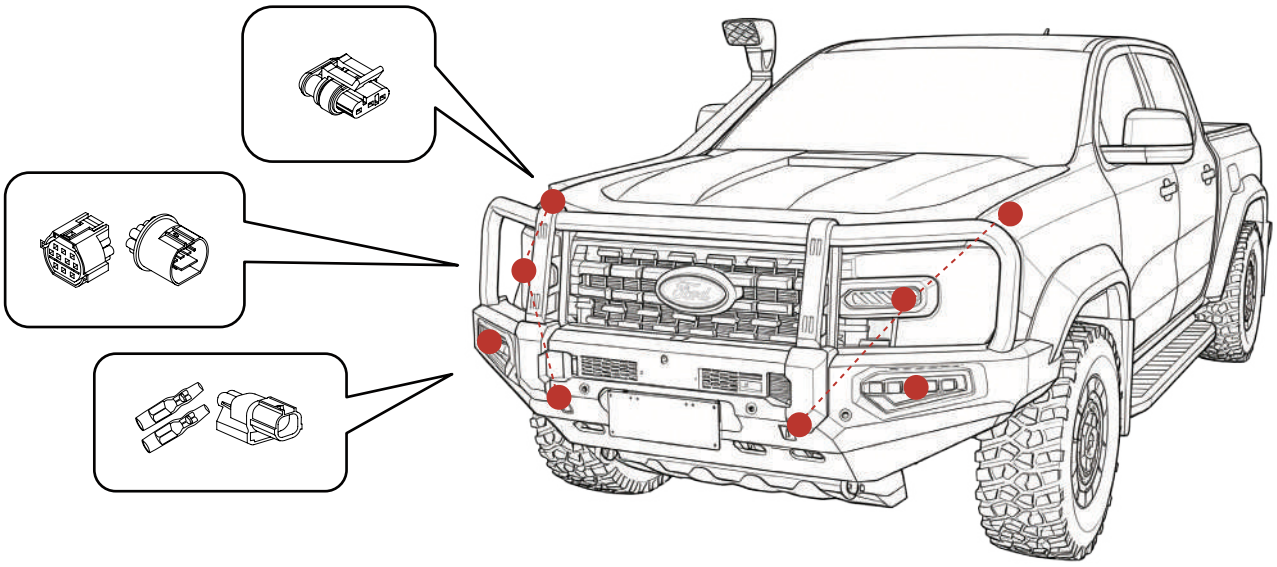
4 4X	5 4X	6 2X	7 2X

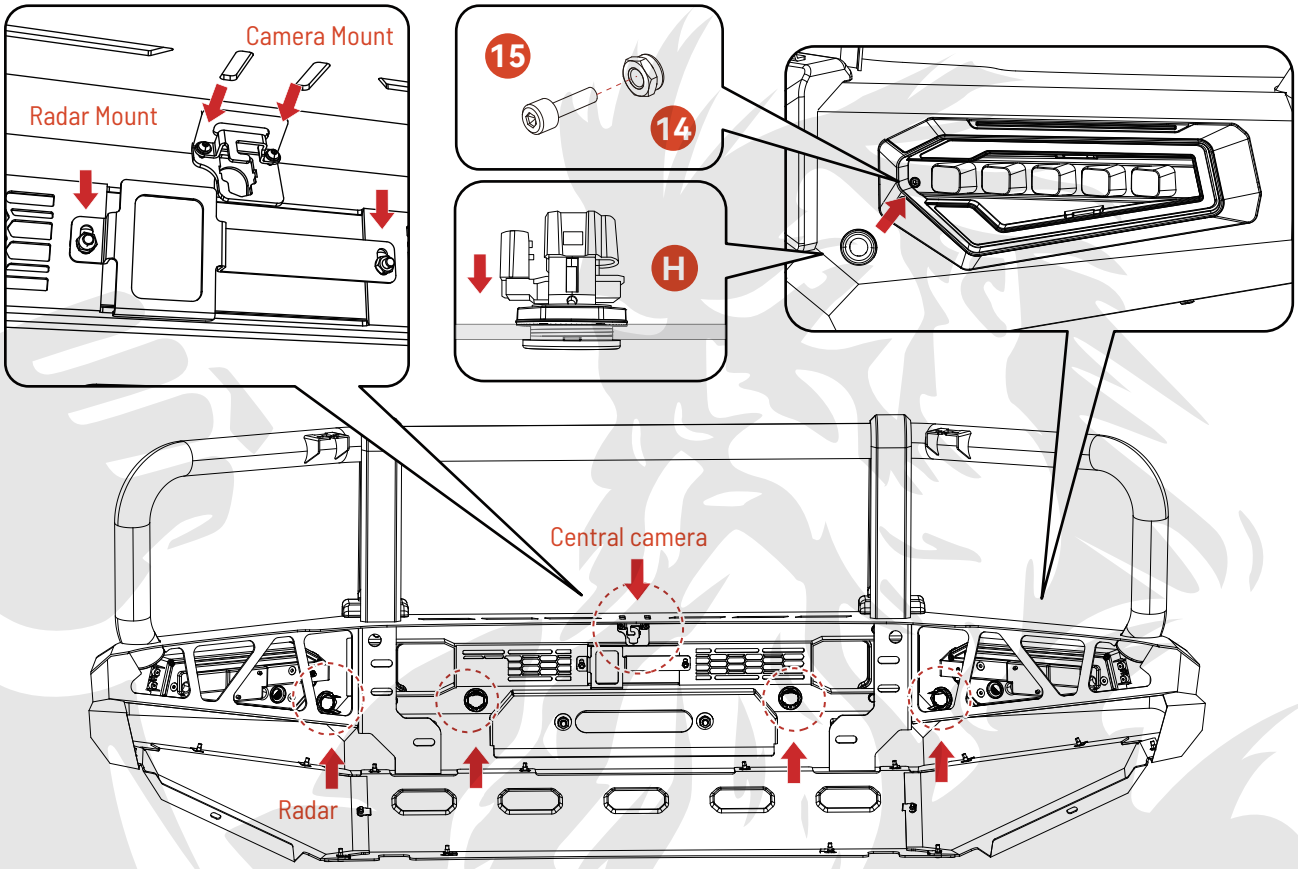
1. Install the winch bracket, aligning the holes at the connection points.
2. Use the original vehicle bolts to secure the four holes.
3. Use M10x35mm hex head bolts to secure the lower corner hole.



STEP 3

1. Install and secure the lights and wiring.
2. Insert the radar, radar extension, and camera into the factory wiring channels.
3. The radar bracket is secured with nuts.
4. Use cable ties to secure all wiring and cables to the clips.
5. Test all functions to ensure they are working properly.

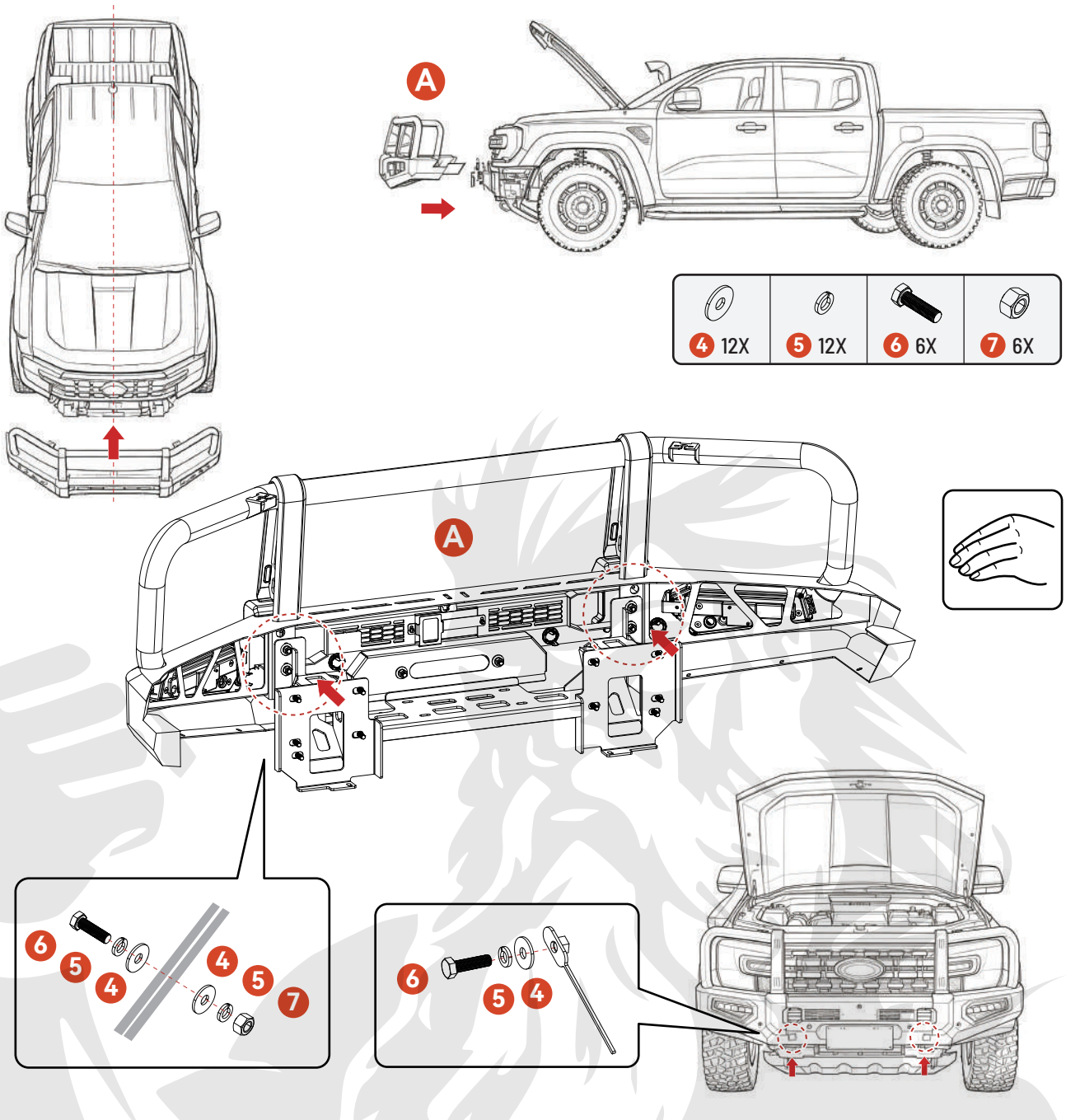




STEP 4

1. Position the vehicle on the ground or a four-post crane. Raise the bullbar to the correct position and align the side wing protection plates with the chassis mounting holes.
2. Use M10x35mm hex head bolts with full thread to secure the front bullbar main weld assembly to the fenders and brackets.
3. Repeat the same steps on the other side.
4. Center the bullbar to the vehicle body and lift the lower bolts on both sides to adjust it to the correct position.

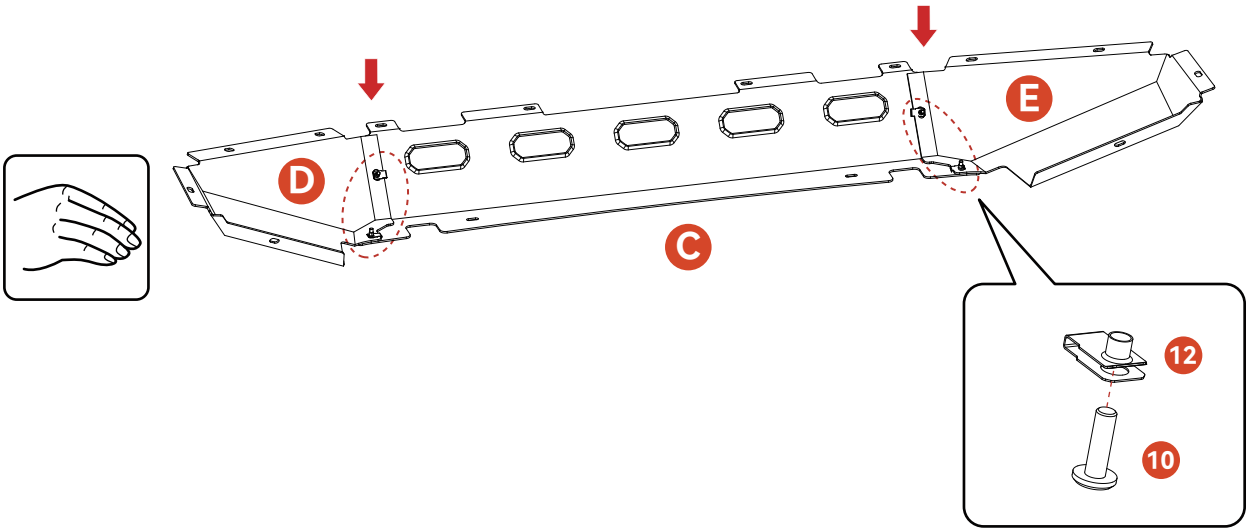
Note: A clearance of approximately 17 mm should be maintained between the bullbar and the bullbar wing. This is to allow for chassis flexibility and prevent contact between the body panels and the bullbar.
Warning: Unless a bullbar lift is used, it is recommended that two people work together to avoid personal injury or damage to the vehicle and/or its components.



STEP 5

10 4X | 12 4X

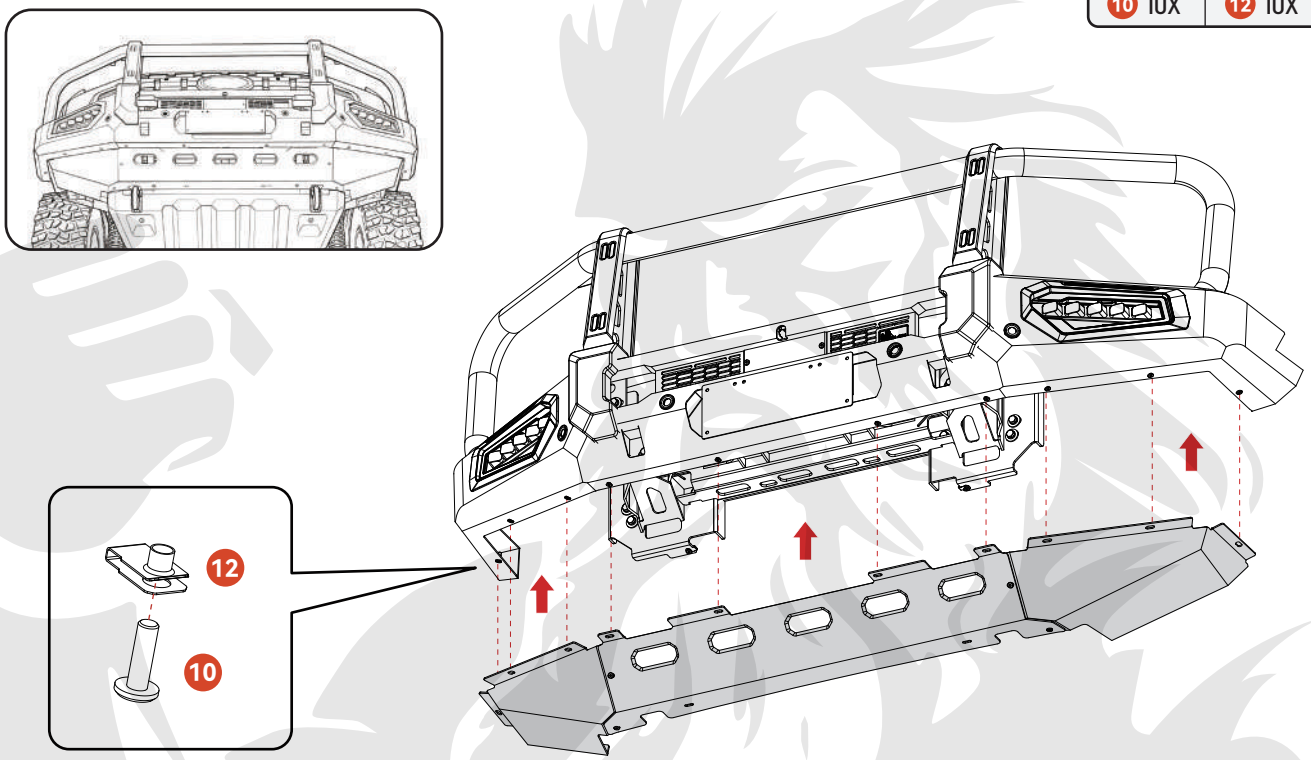
1. Install the protective plate, aligning the holes at the joints.
2. Secure the protective plate using M6x20mm bolts and clip nuts.



STEP 6

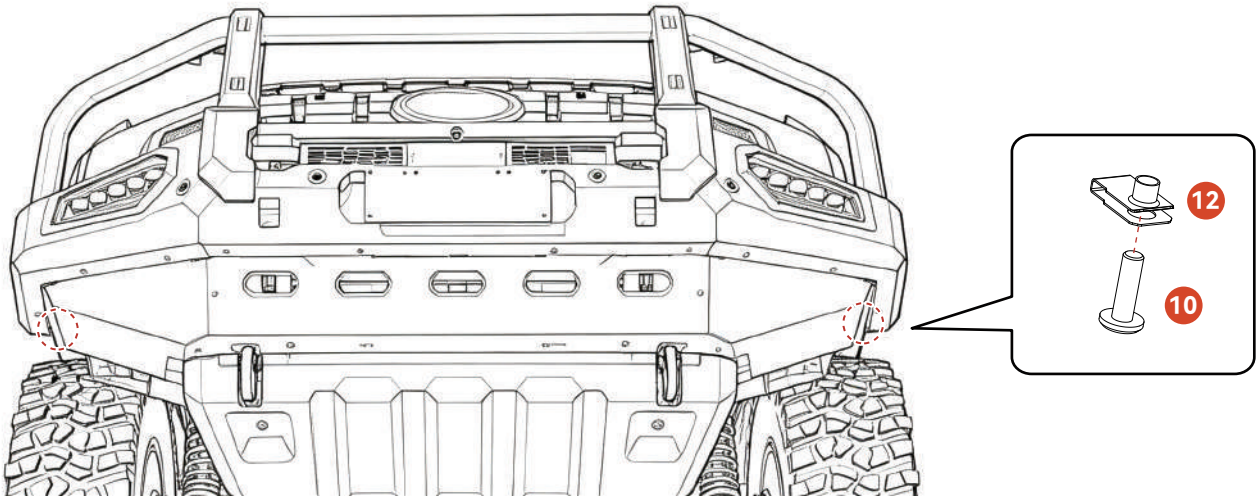
10 10X | 12 10X

1. Install the skid plate, connect it to the bottom of the front bullbar main assembly, and align the holes at the connection point.
2. Secure the skid plate using M6x20mm bolts and clip nuts.



STEP 7

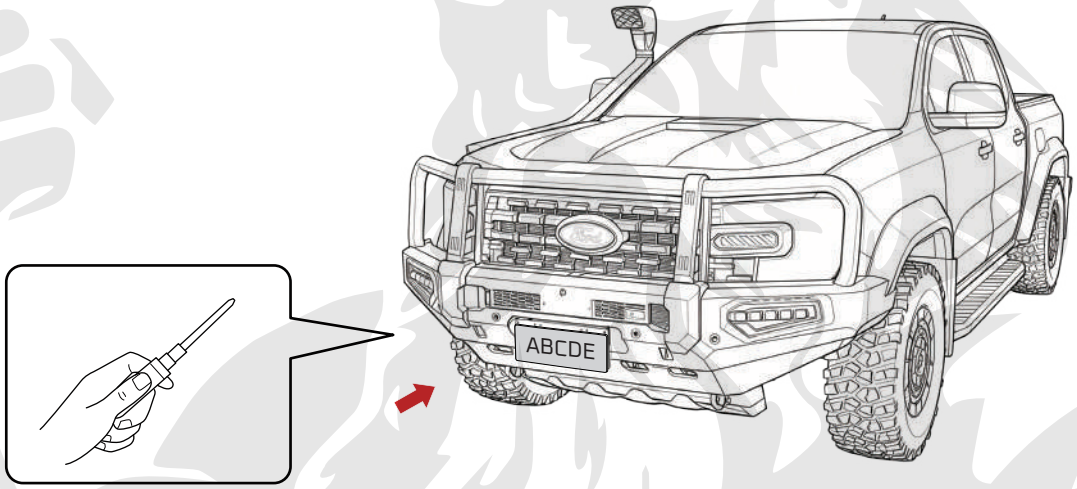
1. Raise the side wing plate to the correct position.
2. Use M6X20 pan head hex screws and M6 standard quick-release nuts to secure the side wing protection plate bracket to the side of the rocker arm and tighten.
3. Repeat this process on the other side.



STEP 8

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

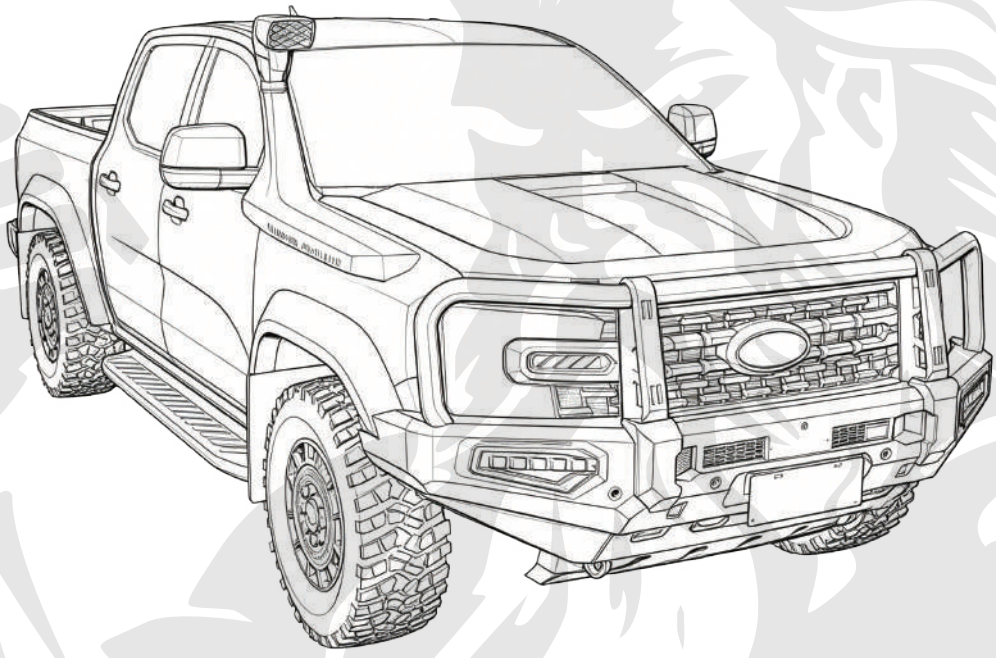
Lighting function test: Check in sequence whether the turn signals, brake lights, side marker lights, and added fog lights/strip lights illuminate normally without flickering or error messages.

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 obstructions; replace any deformed brackets; and take the radar to an automotive service center for recalibration.
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

ZEUS 4X4

THANKS FOR YOUR PURCHASE

PLEASE LET US KNOW IF YOU HAVE ANY QUESTIONS