

High Canopy

PRODUCT

INSTALLATION

MANUAL

INSTALLATION & SAFETY PRECAUTIONS

BEFORE INSTALLATION

- This product is a heavy-duty off-road vehicle modification component designed for off-road and overland applications.
- Installation should be carried out by qualified personnel with appropriate vehicle modification experience.
- Read this manual thoroughly before installation and ensure all components, fasteners, and tools are present and undamaged.
- Installation must be performed on a level, stable surface with the vehicle securely supported.

DURING INSTALLATION

- Installation steps must be followed in the specified order. Do not modify or shortcut the installation process.
- All fasteners marked as "Do Not Tighten" must remain loose until the final fastening stage.
- When installing the roof panel, roof rails, side assemblies, and front/rear assemblies, ensure components are properly supported to prevent movement or collapse.
- Operations involving panel inversion or structural adjustment should be performed by two people.

Disconnect the vehicle power supply before installing any electrical components.

FASTENING & TORQUE SAFETY

- All fasteners must be tightened using a calibrated torque wrench in accordance with the specified torque values.
- Do not use impact drivers or power tools for final tightening.
- Overtightening may result in deformation of aluminium components, thread damage, or compromised structural and sealing performance.

SEALING & WATERPROOFING

- All sealing strips and B-type rubber seals must be applied in a single continuous length. Do not cut or join sections.
- Masking tape should be applied along both sides of joints before applying sealant.
- Sealant must be applied evenly in one continuous operation and finished before curing.
- Allow the sealant to fully cure before driving the vehicle or exposing it to water.

ELECTRICAL SAFETY

- All electrical functions must be tested prior to final sealing to ensure correct operation.
- Wiring harnesses must be securely fixed and kept clear of sharp edges, heat sources, and moving components.
- If any electrical fault is detected, discontinue use and inspect the installation immediately.

POST-INSTALLATION INSPECTION

- Verify that all fasteners are tightened to the specified torque values.
- Ensure all sealing points are complete and continuous.
- Confirm that the tailgate and side doors operate smoothly without interference.
- It is recommended to recheck all fasteners after the first 50–100 km of driving.

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.

Multifunctional High Canopy

(EXTERNAL TACTICAL PANEL, CLEARSTORY)



PRODUCTPARAMETER

Materials: Aluminum
Finish: Powder Coating Anodizing
Colour: Obsidian Black

***Version A**-Compatible with Ford Ranger, Toyota Tacoma, Jeep Gladiator and more
Version B-Compatible with large-size truck beds such as Raptor and TRX

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INSTALLATION (OPTIONAL)



FIVE-PIECE MOUNTING

TOP PLATE 1

REAR ASSEMBLY 2

FRONT ASSEMBLY ③

SIDE ASSEMBLY 4 5

INSTALLATION TOOLS & ACCESSORIES

TOOLS



1 10mm Open-end Wrench X 2

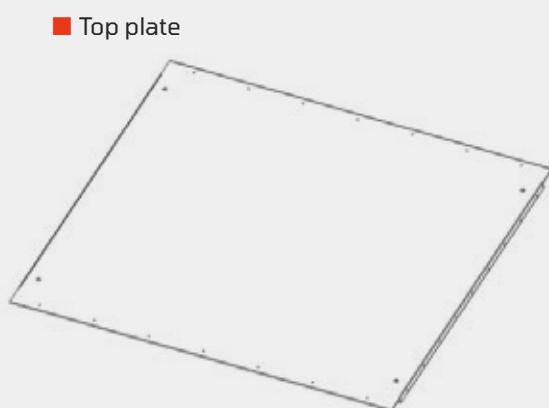
2 5mm Hexagon Socket Wrench
4mm Hexagon Socket Wrench

3 Sealant

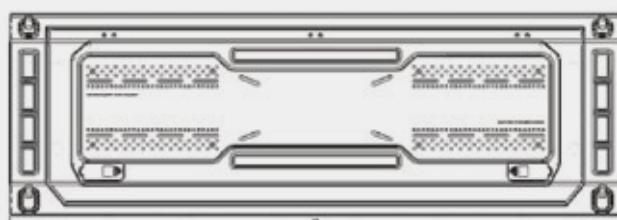
4 Caulk Remover

5 Masking Tape

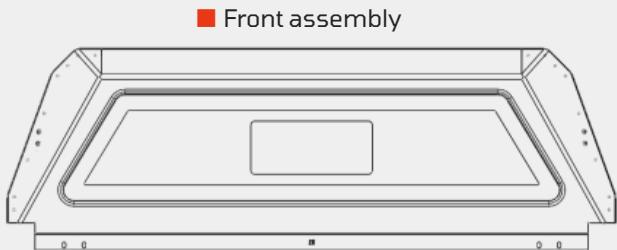
PARTS



Top plate



Side assembly X 2



Front assembly



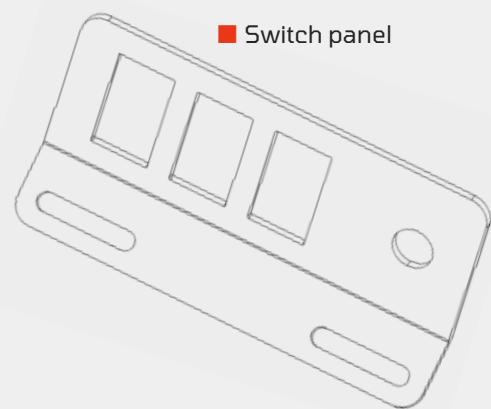
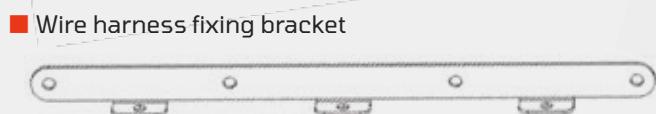
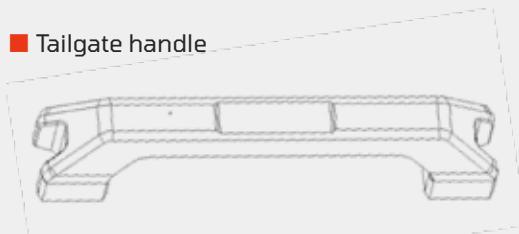
Luggage rack longitudinal bar X 2



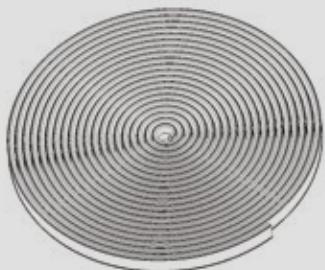
Top reinforcing ribs X 2



Rear assembly



■ Type B rubber strip



■ 25mm-wide sealing gasket



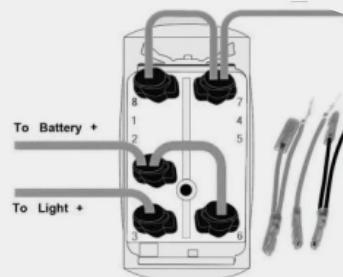
■ 10mm-wide sealing gasket



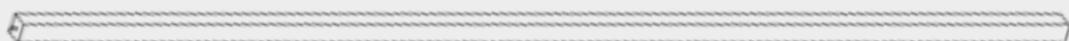
■ Internal lighting lamp



■ high cover wiring harness X 3



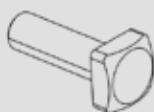
■ Rocker switch and wiring harness



SCREWS

M6*25

Square Head Screw



M6

Sealing Ring



M6

Flange Nut



M6

Self-locking Nut



M6*16

Flange Hex Head Screw

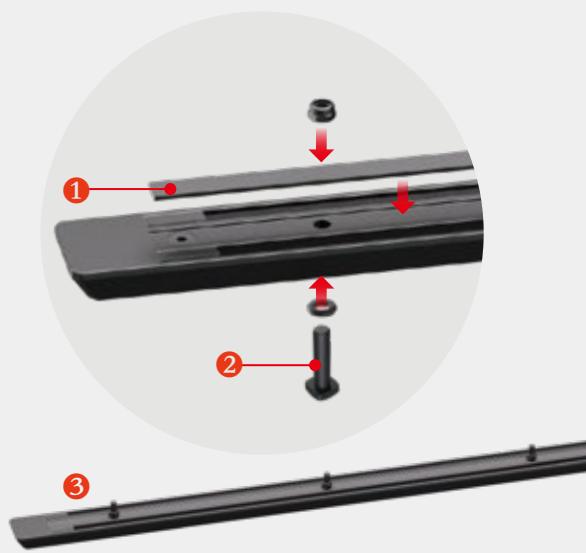


M8*12

Pan Head Screw



CANOPY TOP PLATE ASSEMBLY



A PRE-ASSEMBLY OF ROOF RACK LONGITUDINAL BARS

- ① Attach the 10mm-wide sealing gasket to the groove of the roof rack longitudinal bar, and cut out hollows corresponding to the reserved mounting holes;
- ② Fit the M6 sealing ring onto the M6x25 square head bolt;
- ③ Insert the assembled screw unit completely through the aligned holes on.

B ASSEMBLY OF ROOF RACK LONGITUDINAL BARS AND TOP PLATE

- ① Stick 25mm-wide gaskets to the inner sides of roof plate's left and right ends, then hollow out the covered holes;
- ② Install the pre-assembled roof rack longitudinal bars to the aligned mounting holes at both ends of the roof panel, pass the bolts through the sealing gaskets on the roof panel, and do not install the nuts temporarily;
- ③ Flip the roof plate 180°, with its top surface facing down. (It is recommended to place supports under the roof plate for suspension, facilitating subsequent assembly).



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REQUIRED PARTS: Roof panel (1 pc), 25mm wide gasket (1 roll), Pre-assembly of Roof Rack Longitudinal Bars (2 pcs)

KEY NOTES: The bracket must support the edge of the roof panel to avoid deformation caused by uneven force

CANOPY SIDE ASSEMBLY INSTALLATION

① Align the side assembly with the reserved holes at the end of the roof panel for installation (distinguish left and right according to marks, L for left, R for right)

② Embed the top reinforcement bar into the inner side of the top end of the side assembly, ensure hole alignment, screw in the M6 self-locking nut, and do not tighten temporarily



③ Repeat the above steps to install the other side assembly.



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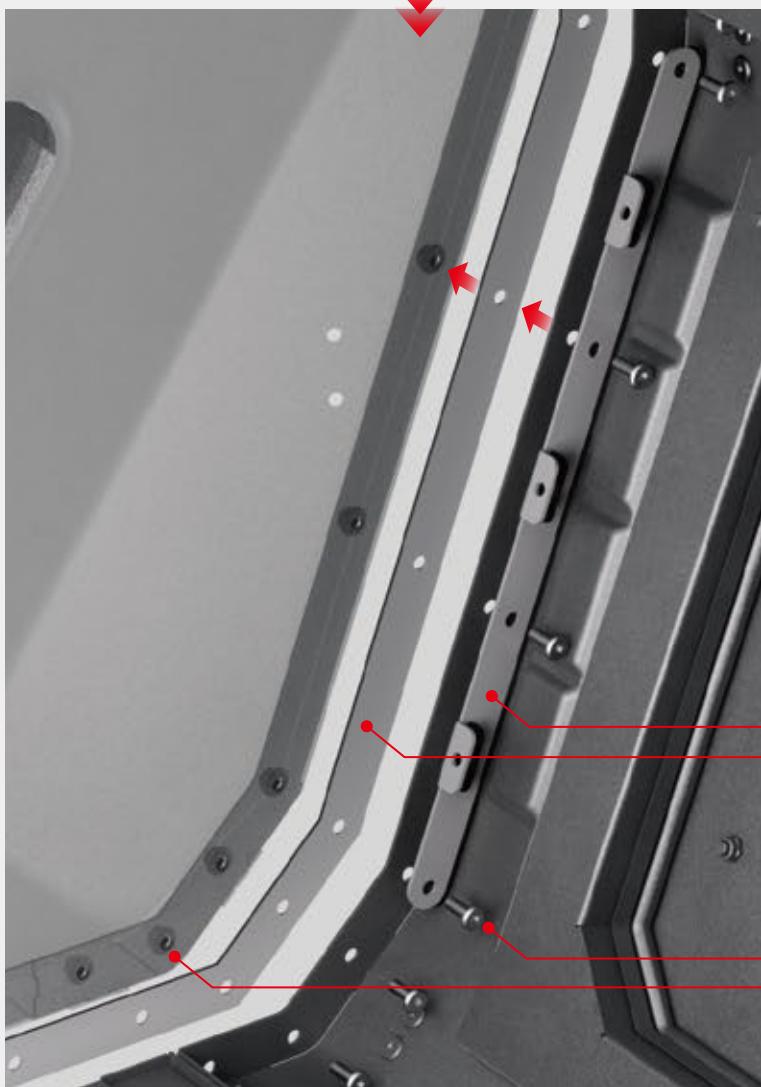
REQUIRED PARTS: Side assembly (2 pcs), top reinforcement bar (2 pcs), M6 self-locking nut (20 pcs)

KEY NOTES: Incorrect left and right installation for some vehicle models will affect the fit of front/rear assemblies and mismatch with the canopy fixing bracket

CANOPY FRONT ASSEMBLY INSTALLATION



① Clean the inner flange of the front assembly, paste the 25mm wide gasket, and hollow out the blocked holes aligned with the roof panel and side assembly;



② Align the front assembly with the splicing holes of the roof panel and side assembly for installation, put on the M6*16 flange hex head bolt and M6 flange nut, and do not tighten temporarily;

③ Install the wiring harness fixing bracket inside the front left of the side assembly.

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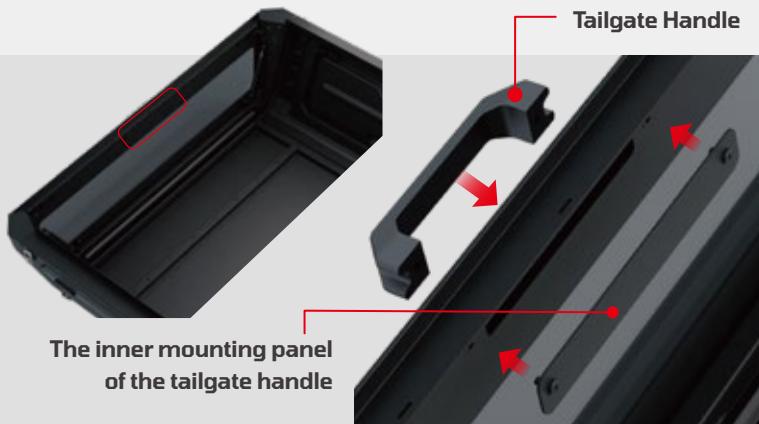
REQUIRED PARTS: Front assembly (1 pc), 25mm wide gasket, M6*16 flange hex head bolt (several), M6 flange nut (several), wiring harness fixing bracket (1 pc)

KEY NOTES: Ensure hole alignment, paste the 25mm gasket inward to facilitate subsequent gluing

CANOPY REAR ASSEMBLY INSTALLATION

① Remove the inner mounting panel of the tailgate handle with a 4mm hex key (to avoid scratching the paint finish).

② Use a 5mm hex key and M8×12 pan head hex socket bolts to fasten the tailgate handle to the corresponding mounting holes on the tailgate, with torque $\leq 20 \text{ N}\cdot\text{m}$, then reinstall the cover plate;



③ Insert the internal light into the pre-installed U-shaped bracket on the inner side of the rear assembly, then snap it into place and secure it;



④ Paste the 25mm wide gasket on the inner flange of the rear assembly, hollow out the blocked holes, align with the holes of the roof panel and side assembly for installation, put on the M6*16 flange bolt and nut, **and do not tighten temporarily**;



⑤ Install the switch panel inside the rear left of the side assembly, and embed 3 rocker switches (press lightly until fully engaged).



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REQUIRED PARTS: Rear Assembly (1 pc), Tailgate Handle (1 pc), M8×12 Pan Head Hex Socket Bolts (2 pcs), Internal Light (1 pc), 25mm-wide Sealing Gaskets, M6×16 Flange Bolts (some), M6 Flange Nuts (some), Switch Panel (1 set), Rocker Switches (3 pcs)

KEY NOTES: Ensure precise alignment of mounting holes. Attach the 25mm sealing gaskets to the inner side to facilitate subsequent gluing operations.

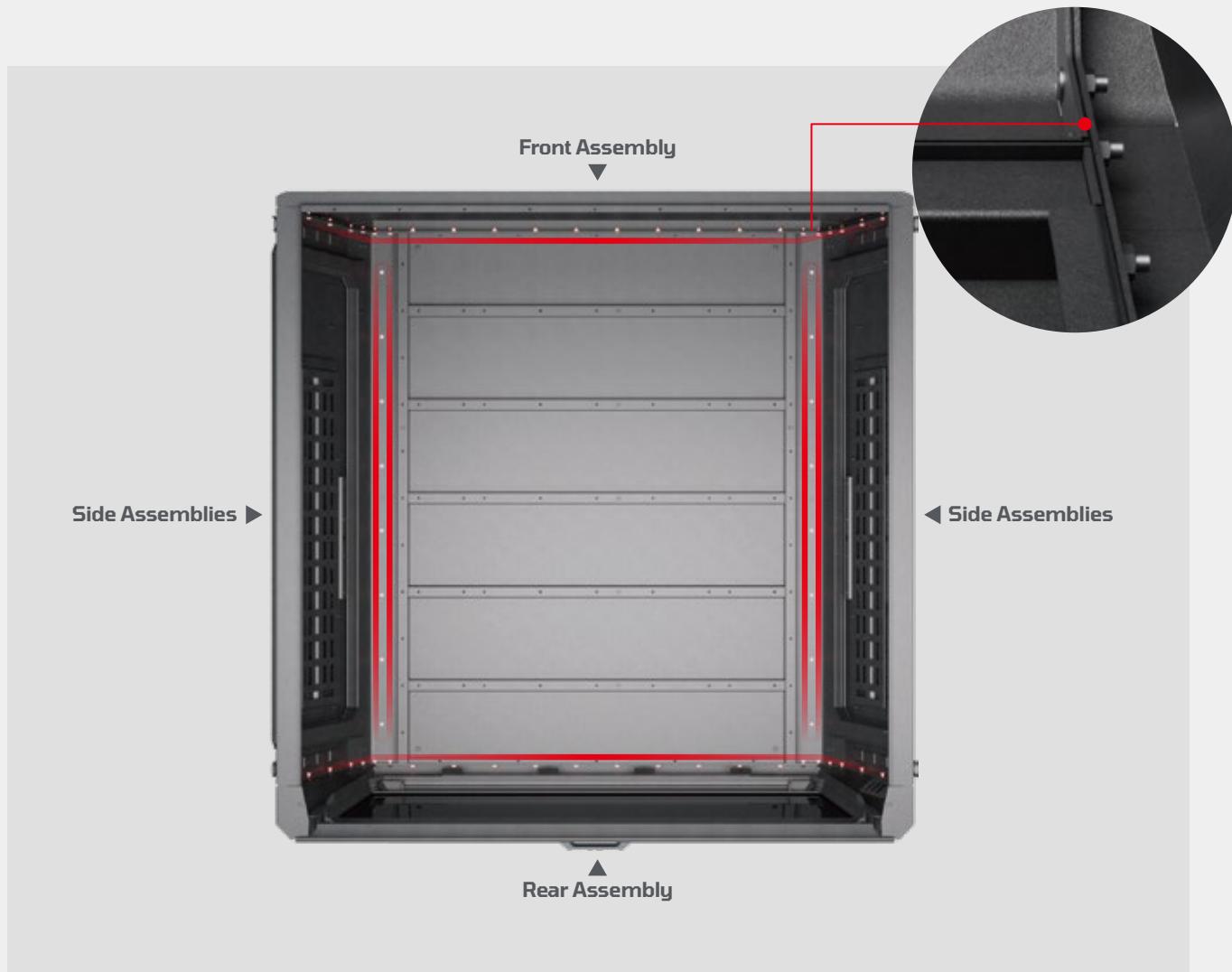
INTEGRAL CANOPY ASSEMBLY

(CRITICAL STEP)

① Use two 10mm hex wrenches to tighten all M6x16 flange bolts and nuts (torque $\leq 10 \text{ N}\cdot\text{m}$).

Tightening sequence: **front assembly** → **side assemblies** → **rear assembly** (tighten symmetrically to avoid canopy deformation);

② Use a 10mm hex key to tighten all M6 self-locking nuts (torque $\leq 6 \text{ N}\cdot\text{m}$). Focus on tightening the connections between the roof rack longitudinal bars and the canopy top plate, as well as between the reinforcing ribs and the side panel assemblies.



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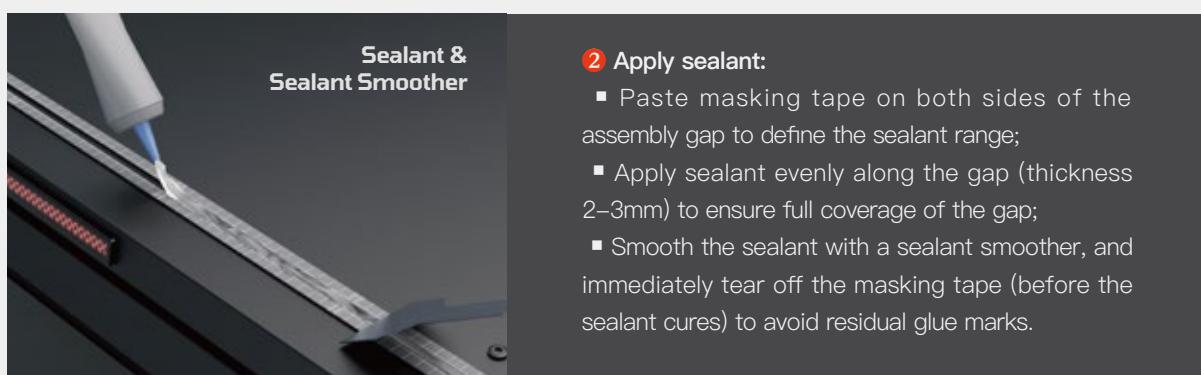
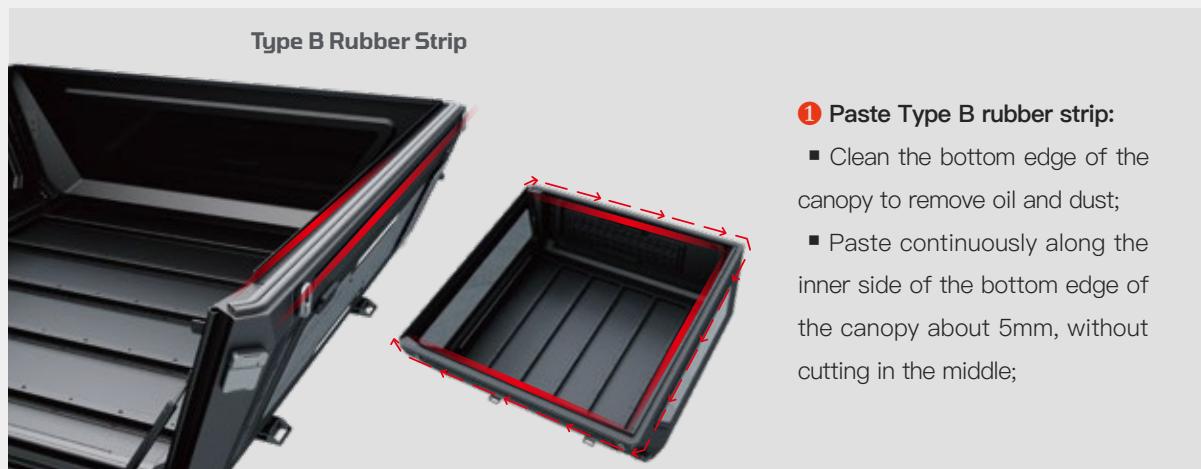
REQUIRED TOOLS: 10mm hex wrench (2 pcs), torque wrench (optional, for precise control)

REQUIRED PARTS: All M6 fasteners (bolts + nuts)

KEY NOTES: Over-tightening is easy to cause part deformation, and under-tightening is easy to loosen; use torque wrench first

SEALING TREATMENT

(WATERPROOF CORE)

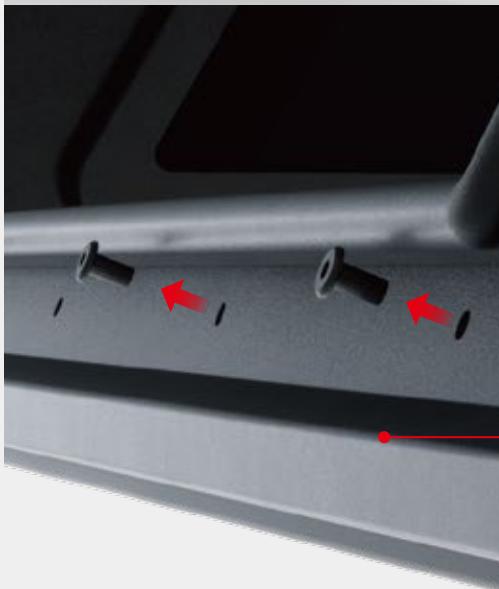


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KEY NOTES: Avoid rain within 24 hours to ensure full curing

INSTALLATION OF OPTIONAL FUNCTIONAL PARTS (SELECT AS NEEDED)

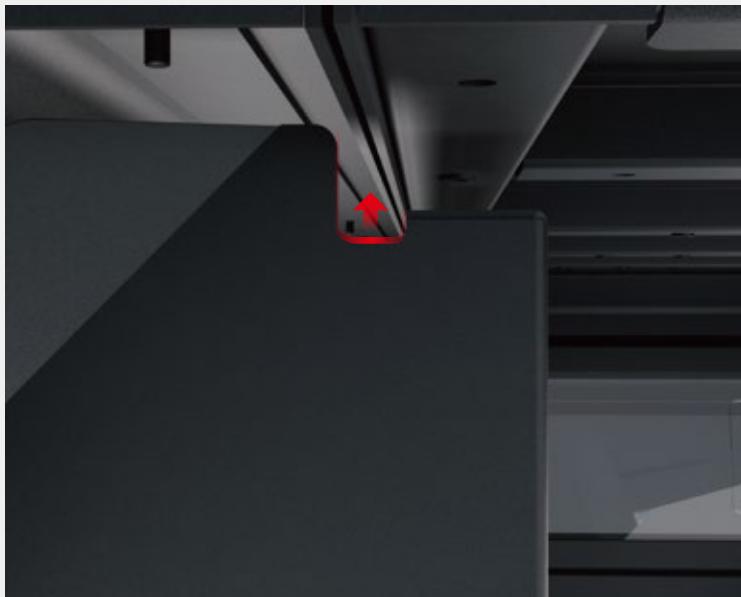
A INNER STORAGE BOX



① Disassemble:

Remove the M6 screws and nuts at the bottom of the side door frame;





② Embedding and Positioning:

- Embed the top of the storage box into the top of the high cover side door frame, align with the top holes and the holes at the bottom of the side door frame after disassembly, and initially install the screws and nuts;



③ Top Fixing:

- Lock the top of the storage box with M6*16 pan head hex socket screws;



④ Restoration and Locking:

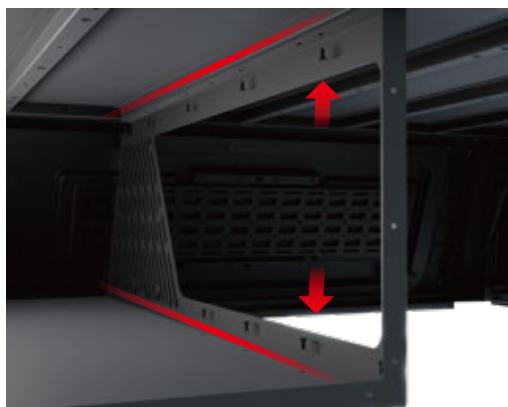
- Reinstall the removed M6 screws and nuts to the original positions at the bottom of the side door frame and lock them (torque: approximately 10 N·m)

B INTERNAL STORAGE PLATFORM



① Disassemble:

- Remove the two M6 screws and nuts near the front of the vehicle at the bottom of the right door frame;



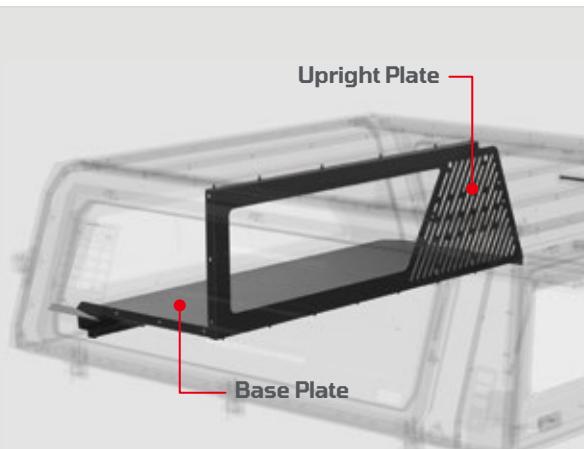
③ Install Storage Vertical Plate:

- Align the vertical plate with the holes of the high cover top plate beam and the storage bottom plate, fix the top plate beam holes with M6*12 pan head hex socket screws, and fix the matching holes between the bottom plate and the vertical plate with M6*12 pan head hex socket screws and locknuts;



② Install the Internal Storage Platform Base Plate:

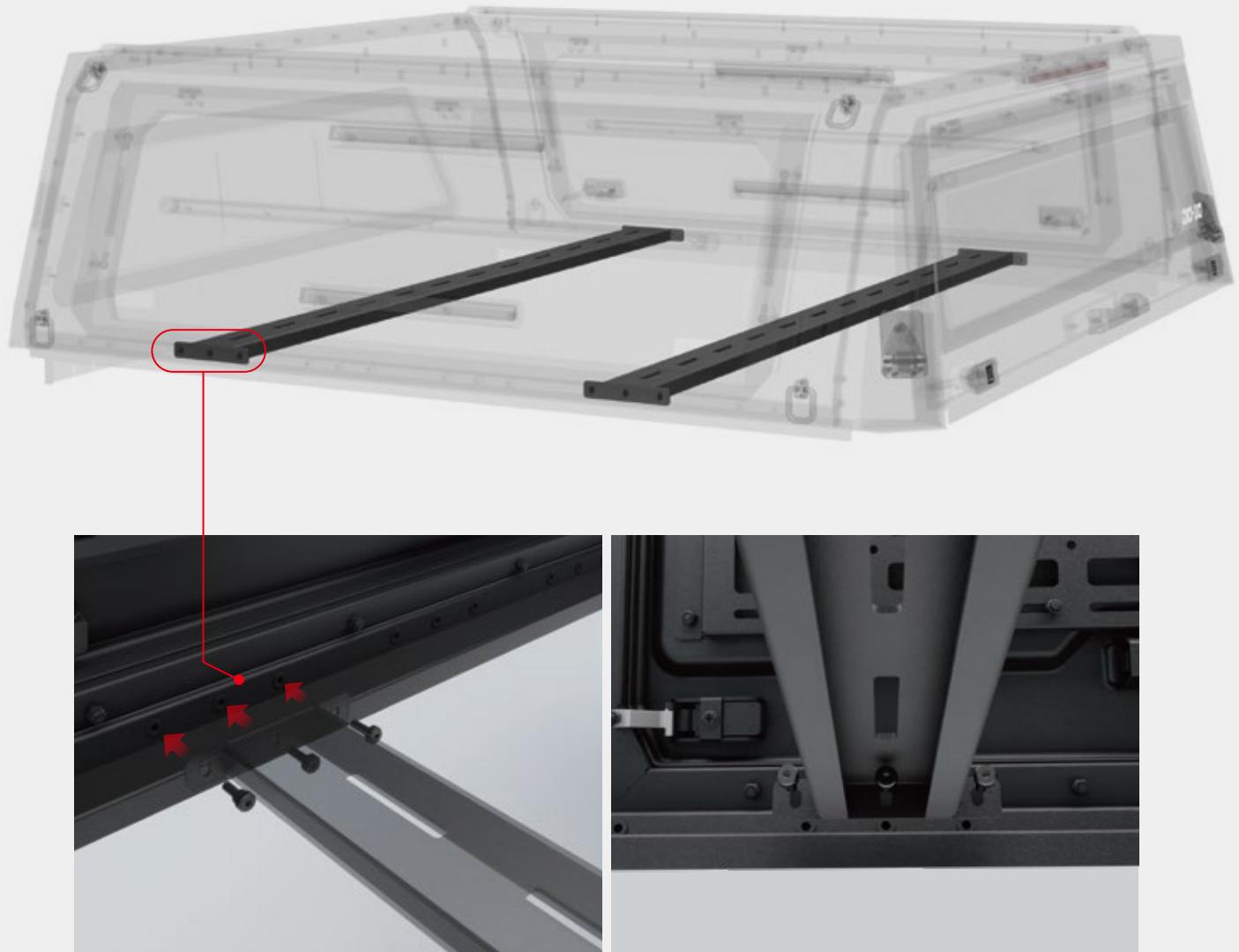
- Align the internal storage platform base plate with the holes left after removing the right door frame and the corresponding holes at the bottom of the front assembly, reinstall the removed M6 bolts and nuts, then fasten the base plate to the bottom of the front assembly using M6x12 pan head hex socket bolts and lock nuts; the front assembly with M6*12 pan head hex socket screws and locknuts;



④ Overall Locking:

- Tighten all screws
(torque: approximately 10 N·m)

C INTERNAL CARGO BOX REINFORCEMENT BEAM



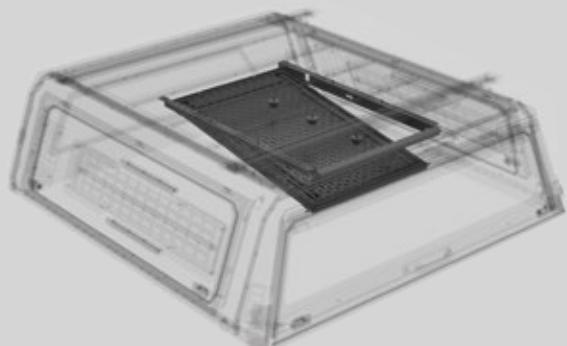
① Positioning and Placement:

- Place the internal cargo box reinforcing crossbeam at the bottom of the side assemblies on both sides, and align it with the reserved bottom mounting holes as required;

② Fixing and Locking:

- Lock with M6*16 flange external hex screws (torque: approximately 10 N·m)

OUTDOOR FOLDING TABLE KIT

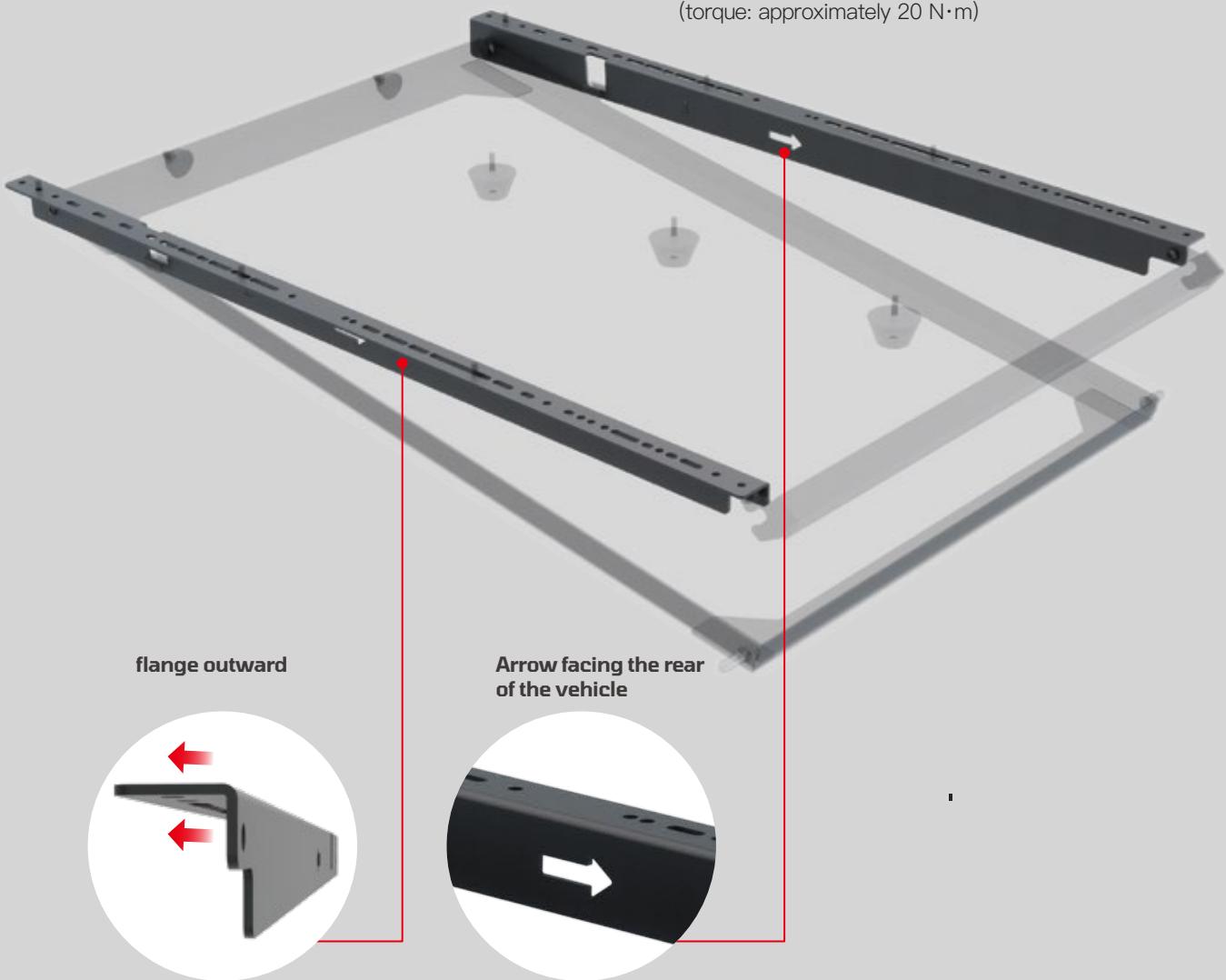


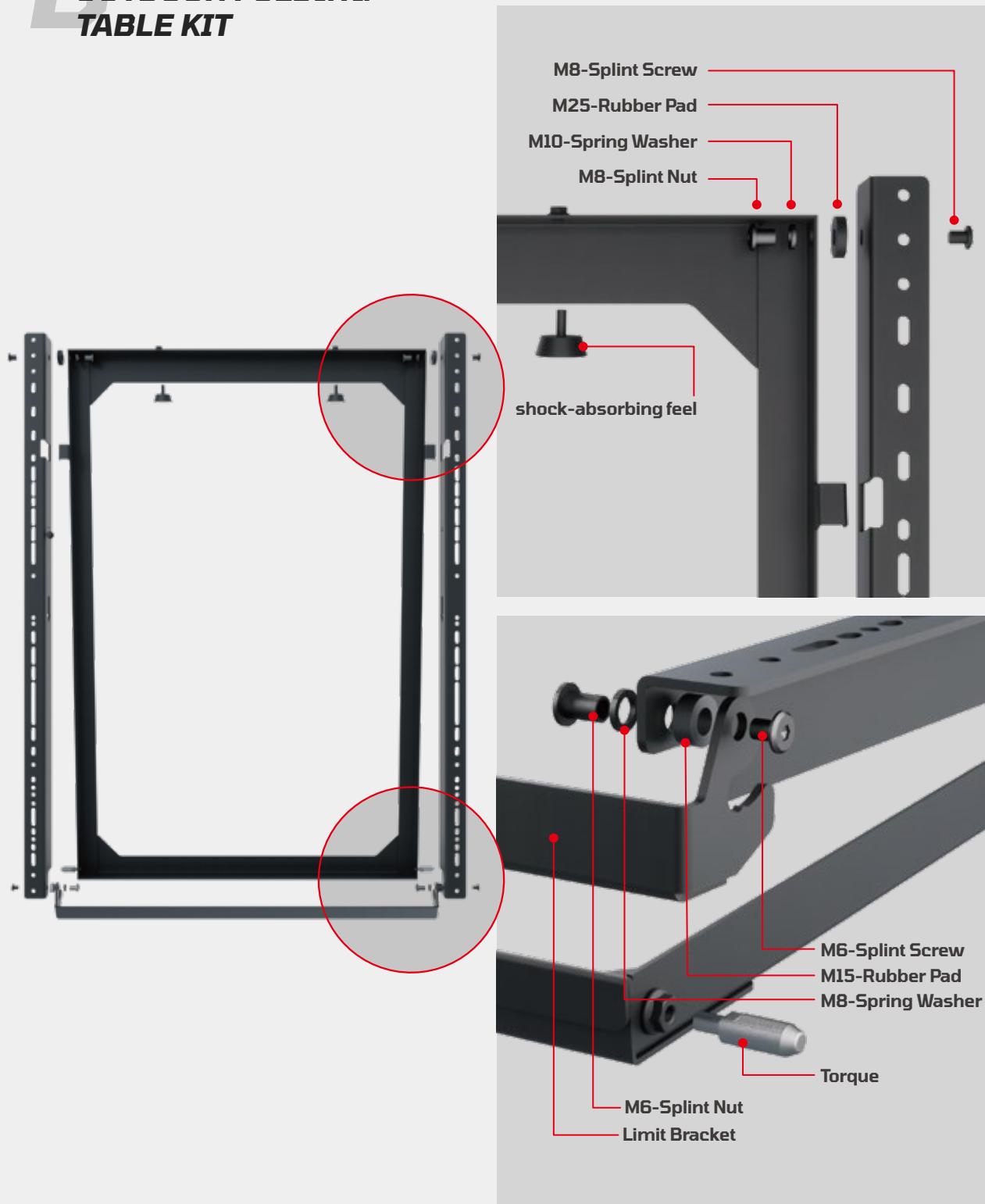
01

FOLDING TABLE FRAME ASSEMBLY

① Fix L-shaped Brackets (Distinguish Left and Right):

- Fix L-shaped Brackets (Distinguish Left and Right): Distinguish left and right brackets (Arrow facing the rear of the vehicle, flange outward), fix and lock with 2 sets of M8*12 splint screws, 2 M8 washers, 2 M10 spring washers and 2 M25*10*6 rubber pads (torque: approximately 20 N·m)





② Fix Limit Brackets:

- Fix and lock the limit brackets and L-shaped fixing brackets with 2 sets of M6*12 splint screws, 2 M6 washers, 2 M8 spring washers and 2 M15*8*6 rubber pads (torque: approximately 10 N·m), with L-shaped fixing brackets on both sides inside the limit brackets

D OUTDOOR FOLDING TABLE KIT

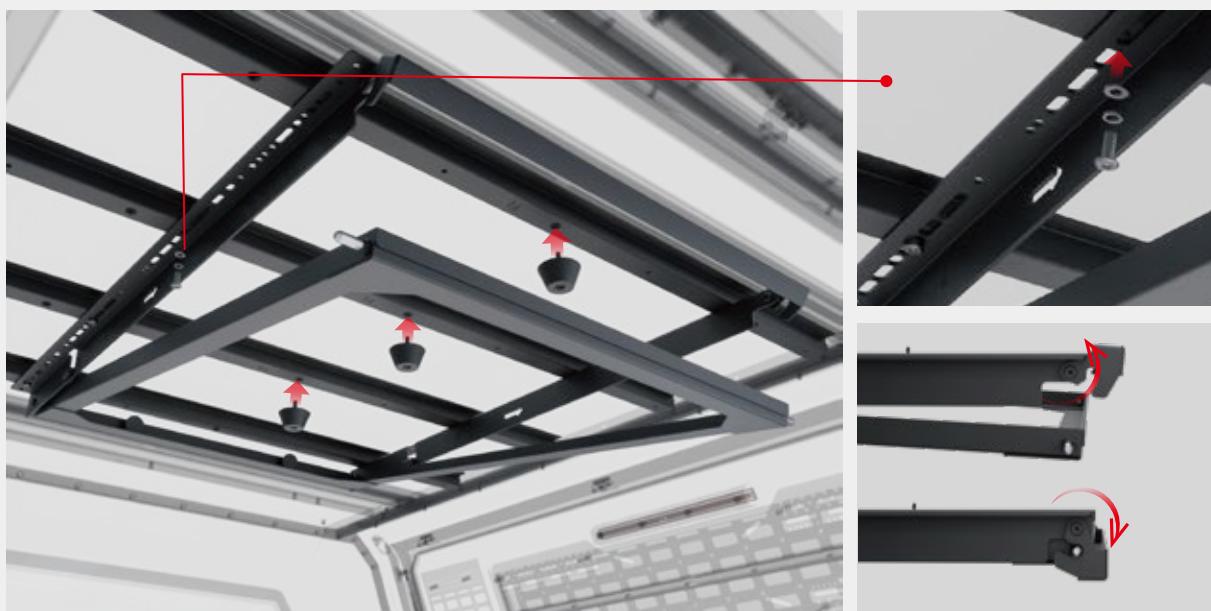
③ Install table accessories:

- Install 12mm shock-absorbing feet in the two pre-reserved holes at the front end of the table frame respectively; install positioning pins in the two pre-reserved holes on both sides of the rear end of the table frame respectively.



02

INSTALL FRAME TO HIGH COVER AND PLACE FOLDING TABLE



① Fix Folding Table Frame to High Cover:

- Install the assembled folding table frame to the reserved holes of the inner crossbeam on the canopy top plate, then fasten it with 6 M6×16 flange hex head bolts, 6 M6 spring washers and 6 M6 flat washers (torque: approx. 10 N·m);

② Install 25mm Shock-Absorbing Feet:

- Install 2 25mm shock-absorbing feet in the middle pre-reserved holes of the other 2 top plate beams

③ Place Folding Table:

- Rotate the limit bracket to open the folding table frame, put the folding table into the frame (smooth surface downward), and close the folding table frame

2-IN-1 FLAGPOLE MOUNT



① Disassemble:

- Remove the two pre-assembled screws and nuts on the side of the high cover front assembly



② Fix Flagpole Mount:

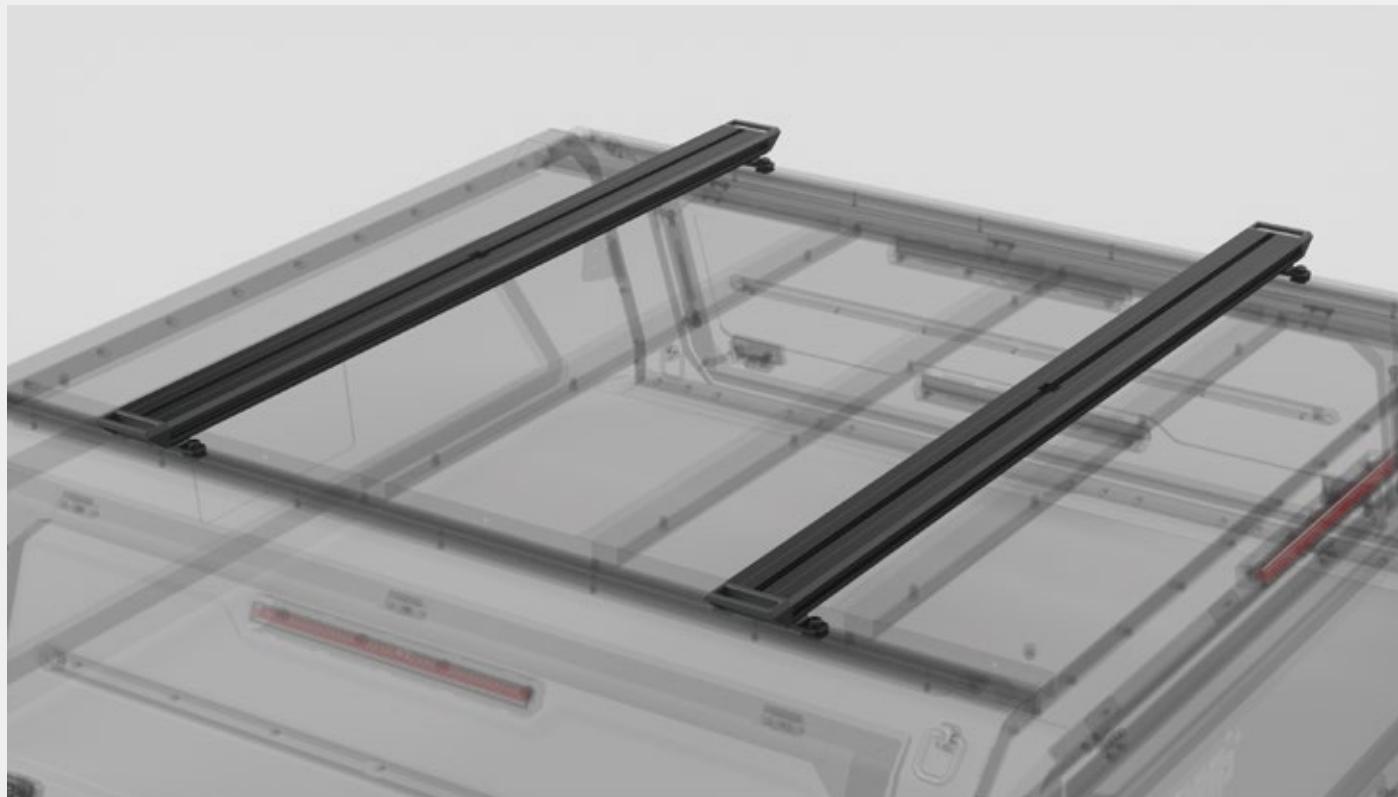
- Align the flagpole mount with the 2 holes after disassembly, install and lock with the removed screws

③ Adjust Rotation:

- Adjust the tightness through the 2 M6 set screws at the top of the flagpole mount to realize the rotation of the 2-in-1 flagpole mount



FTOP HEAVY-DUTY CROSSBAR



01

**PRE-INSTALL CROSSBAR
AND MOUNTING BASE**

① Single Base Assembly:

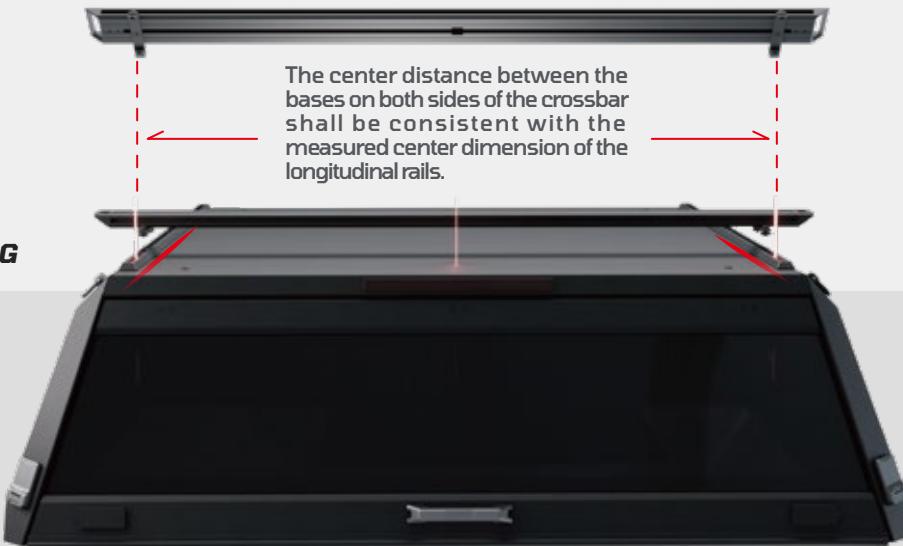
- Slide the M8×19×19×4mm square nuts into the middle groove of the crossbar, one at each end of the crossbar;



② Dual Base Installation:

- Pass the M8×25 countersunk head bolts through the mounting bases and screw them into the M8×19×19×4mm square nuts .

02
ADJUST BASE SPACING



① Measurement and Recording:

- Measure and record the center distance between the left and right sides of the assembled canopy roof rack longitudinal bars;

② Adjust Spacing and Lock:

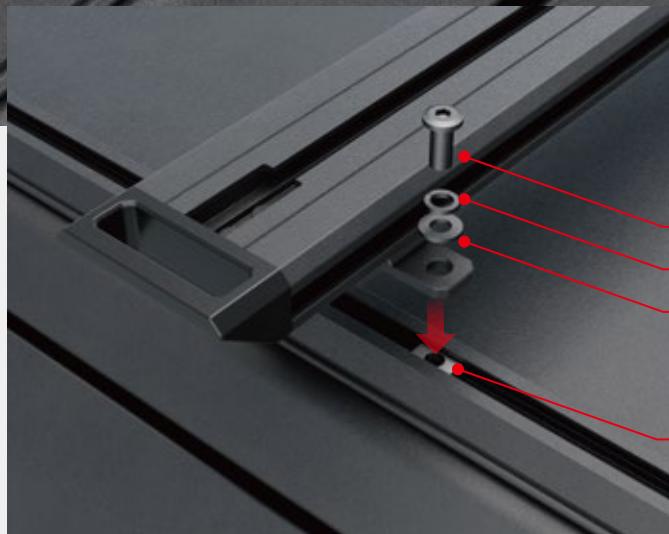
- Adjust the spacing of the mounting bases to be consistent with the recorded dimensions, tighten the M8*25 countersunk head screws with a 5mm hex key, and adjust and tighten the other crossbar in the same way

03

FIXING OF TOP HEAVY-DUTY CROSSBARS & ROOF RACK LONGITUDINAL BARS

① Pre-install Roof Rack Longitudinal Bar Nuts:

- Slide 8 M8×19×19×4mm square nuts into the longitudinal bars respectively through the middle grooves of the canopy roof rack longitudinal bars, 2 at each front and rear end of each longitudinal bar;



M8*20 pan head hex socket screws

M8 spring washers

M8 washers

M8*19*19*4mm Square Nuts

② Hole Alignment:

- Adjust the spacing and position of the square nuts, and align the pre-installed crossbar and mounting base with the square nut holes

③ Locking and Fixing:

- Screw 8 M8*20 pan head hex socket screws, 8 M8 washers and 8 M8 spring washers into the square nuts in sequence, adjust the front and rear distance of the crossbar as needed, and finally lock the screws

POST-ASSEMBLY INSPECTION & MAINTENANCE RECOMMENDATIONS

A

POST-ASSEMBLY INSPECTION



1 Fastener Check: Verify that all bolts and nuts are tightened to the specified torque, with no looseness (focus on M6/M8 critical connections);



2 Sealing Check: Inspect sealed areas for warping, gaps, or bubbles; ensure the Type B rubber strip is fully attached and the sealant covers all gaps;



3 Functional Check: Test the tailgate handle (smooth operation), interior light (normal illumination), and optional parts (e.g., folding table opening/closing, crossbar stability);



4 Appearance Check: Ensure no scratches or deformations on the canopy surface; confirm all parts are installed in the correct position.

B

MAINTENANCE RECOMMENDATIONS



1 Regular Inspection:

Recheck bolt tightness every 3 months; retighten any loose fasteners promptly;

2 Seal Maintenance:

Replace aged or damaged gaskets, rubber strips, and sealant annually to maintain waterproof performance;

3 Cleaning Care:

Clean the canopy and optional parts regularly; avoid using corrosive cleaners to prevent damage to the surface and seals;

4 Storage Protection:

If the vehicle is not used for an extended period, park it in a dry environment or cover the canopy to avoid prolonged exposure to harsh weather.

INSTALLATION OF REAR ASSEMBLY

**SYMPTOM****POSSIBLE CAUSE****SOLUTION**

Water leakage at joints

Incomplete sealant coverage; gasket wrinkles

Reapply sealant after cleaning; replace wrinkled gaskets

Loose parts after assembly

Insufficient torque; incorrect fastener

Retighten to specified torque; replace mismatched fasteners

Folding table cannot open/close

Incorrect bracket direction

Disassemble and reinstall brackets according to marks

Interior light not working

Poor connection; loose wiring

Check wiring harness connection; reattach loose wires