

HYDRA ALIEN PRO

CAR MOUNTING SYSTEM

• HDA-T18 •

— Alien Pro 減震臂 —

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DISCLAIMER

Thank you for purchasing a TILTA product.

Before using this product, please carefully read this document to ensure that the product has been set up correctly. The final interpretation of this document and all related documents for this product belongs to TILTA. For updates, please visit the official website at www.tilta.com for the latest product information. TILTA reserves the right to modify any information in this manual at any time without prior notice and without assuming any responsibility.

By using this product, you are deemed to have carefully read the disclaimer and warnings, understood, agreed, and accepted all the terms and content of this statement. You promise to take full responsibility for the use of this product and any consequences that may arise. You commit to using this product only for legitimate purposes and agree to this term as well as any related regulations, policies, and guidelines set by TILTA.

TILTA is not responsible for any damages, injuries, or legal liabilities caused directly or indirectly by the use of this product. Users should follow all safety guidelines mentioned in this document, including but not limited to those mentioned. Despite the above provisions, consumer rights are still protected by local laws and regulations and are not affected by this disclaimer.

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WARNING & PRECAUTION

Before using this product, please strictly follow the instructions below. Our company assumes no responsibility for any consequences caused by improper operation or misuse.

TEMPERATURE

- Please use the Hydra Alien Pro in environments with temperatures between -20°C and 80°C.

ROAD CONDITIONS

- For heavy payloads and bumpy roads, it is recommended to use speed rail car mounting kit as support for filming. It is safer, offers strong support rigidity, and is more vehicle-friendly.

PAYLOAD

- Do not exceed the weight limit of the equipment.
- For bumpy roads, it is better to use a vehicle with a chassis that offers high ground clearance and soft suspension.

GIMBAL ADJUSTMENT

- Proper adjustment of the gimbal is crucial for maintaining stable footage.
- Keep the camera setup as compact as possible, ensuring the center of gravity doesn't stray too far from the gimbal's motors.
- Select car mount mode on the gimbal if possible.

POWER MONITORING

- The shock absorbing arm uses electronic damping, so before use, ensure the battery is fully charged (using a high-capacity battery is recommended).

SAFETY CHECK

- Be sure to read the user manual before use, and avoid using the system without proper understanding.
- Before filming, check every tie-down and lock on the support frame to ensure they are securely fastened, ensuring safe shooting and production.

ATTENTION AND WARNINGS ABOUT THE ELECTRONIC SUCTION CUPS

The suction cup body is equipped with a built-in 3.7V 2000MAH lithium battery.

ACCESSORY REQUIREMENTS

- Charging at temperatures higher than 40°C (104°F) or lower than 5°C (41°F) may result in decreased battery performance, swelling, leakage, overheating, and other damage.
- Do not store the battery in an environment exceeding 60°C (140°F). The ideal storage temperature is 22°C (71.6°F) to 28°C (82.4°F).

OPERATING ENVIRONMENT

- Use the battery in an environment with a temperature between -20°C (-4°F) and 45°C (113°F). Excessive temperatures can cause the battery to swell abnormally, catch fire, or even explode. Before using the device in a low-temperature environment, it is recommended to fully charge the battery at room temperature to extend its life.
- Do not place the device near flammable or combustible materials (such as carpets and wood) while charging. Always pay attention to the charging process to prevent accidents.
- Store the device in a dry environment, with an ideal storage humidity not exceeding 40%.
- Do not disassemble the suction cup or alter its mechanical structure by yourself. We have completed the adjustments before shipment; otherwise, it may result in reduced performance or damage to the suction cup.

BATTERY SAFETY

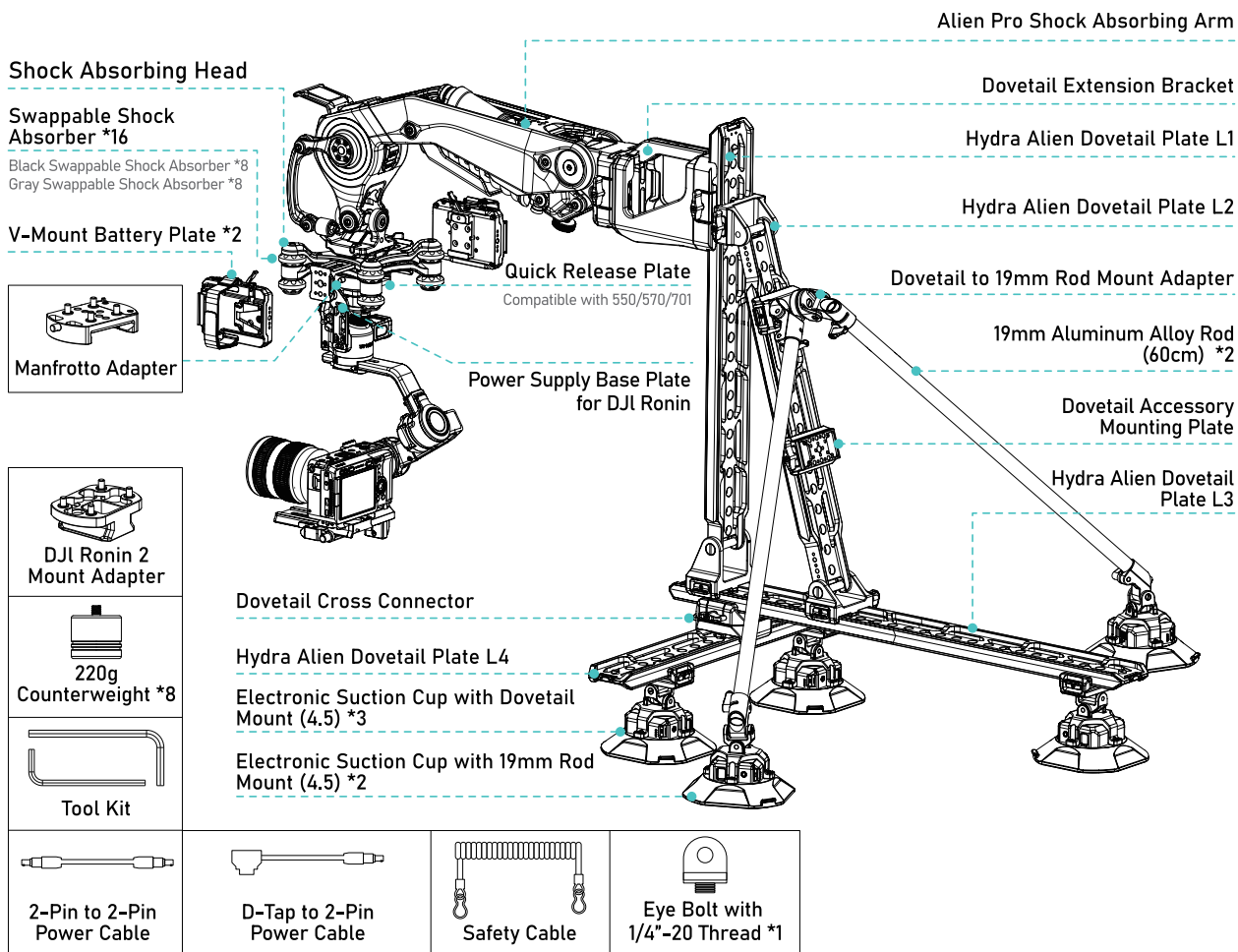
[WARNING]

- This device is equipped with a non-removable built-in battery. Please do not attempt to replace the battery yourself, as this may damage the battery or the device.
- Do not expose the battery to high temperatures or place it near heat-generating devices, such as sunlight, heaters, microwaves, ovens, or water heaters. Overheating the battery may cause it to explode.
- Do not disassemble or modify the battery, insert foreign objects, or immerse in water or other liquids, as this may cause the battery to leak, overheat, catch fire, or explode.
- The electrolyte inside the battery is highly corrosive. If it accidentally comes into contact with your skin or eyes, rinse immediately with clean water for at least 15 minutes and seek medical attention.
- Do not throw the battery into fire, as this can cause it to catch fire and explode.
- Do not drop, squeeze, or puncture the battery. Avoid subjecting the battery to external pressure, which may cause internal short circuits and overheating.
- Do not use damaged batteries.
- Do not store the battery for an extended period after it has been completely discharged, to avoid entering a deep discharge state that can cause damage to the battery cells, rendering it unable to be used again.
- Be sure to fully discharge the battery before disposing of it in a designated battery recycling bin. Batteries are hazardous chemicals and must not be disposed of in regular trash bins. For details, please follow the local laws and regulations regarding battery recycling and disposal. If the battery cannot be fully discharged, do not dispose of it directly in a battery recycling bin; instead, contact a professional battery recycling company for further processing.

MAINTENANCE & CARE

- Please keep the device clean and free of sand, dust, and other foreign objects. Use a clean, dry cloth to promptly clean any debris on the product.
- Do not subject the device and its accessories to strong impacts or vibrations, as this may damage them and cause device failure.

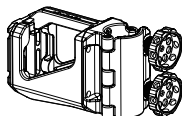
INTRODUCING HYDRA ALIEN PRO



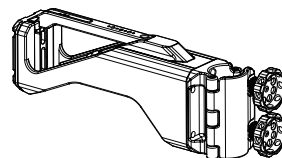
ADDITIONAL ACCESSORIES (PURCHASED SEPARATELY)



Nucleus Nano II Control Handle
(WLC-T05-CH)



Compact 50mm Mounting Clamp
(HDA-T18-CMC)



50mm Mounting Clamp
(HDA-T18-MC)



Freefly Mōvi Mount Adapter
(GR-T03-MA)



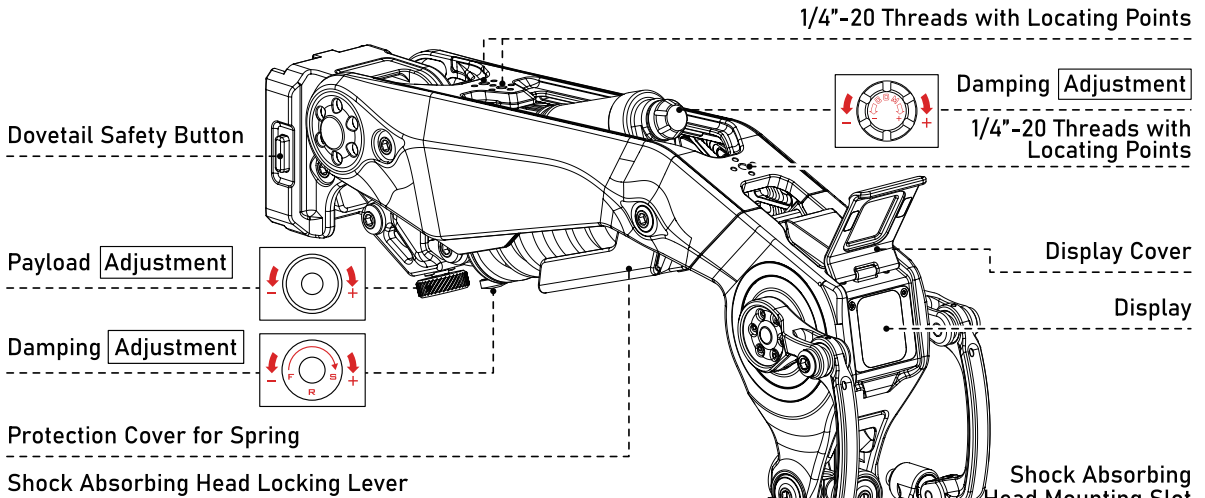
Power Module Mounting Bracket
(HDA-T18-PMB)



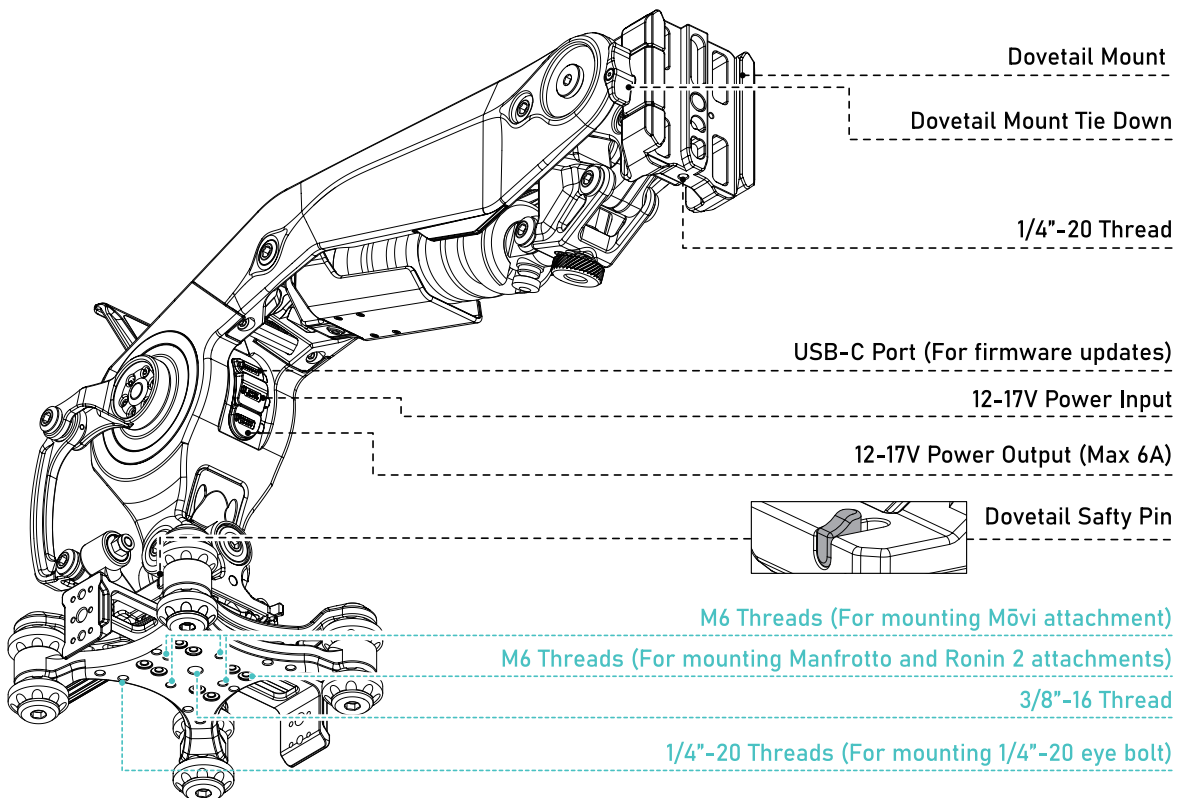
Wireless Control Receiver Module
for DJI Ronin
(TGA-WCR)

INTRODUCING ALIEN PRO SHOCK ABSORBING ARM & SHOCK ABSORBING HEAD

ALIEN PRO SHOCK ABSORBING ARM



SHOCK ABSORBING HEAD



INTRODUCING THE SUCTION CUP & SUPPORT BRACKET KIT

Dovetail Extension Attachment

1/4"-20 Thread with Locating Points

Dovetail Tie Down

Dovetail Mount

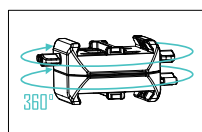
Hydra Alien Dovetail Plate L4

Dovetail Cross Connector

Dovetail Tie Down

Dovetail Mount

Adjustable Tie Down



Accessory Mounting Bracket

Dovetail Tie Down

1/4"-20 Thread with Locating Points

Strap Holder

3/8"-16 Thread with Locating Points

19mm Rod

Strap Holder 1/4"-20 Threads

Dovetail to 19mm Rod Mount Adapter

Dovetail Mount

Dovetail Tie Down

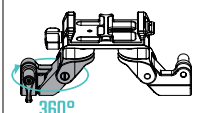
Rod Bracket

Rod Tie Down

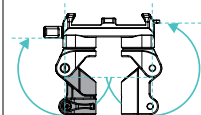
19mm Rod Mount

Hydra Alien Dovetail Plate L3

Safety Pin



The rod bracket can rotate 360° horizontally



The rod mount can rotate vertically

Hydra Alien Dovetail Plate L1

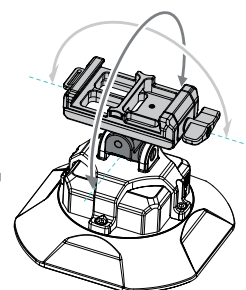
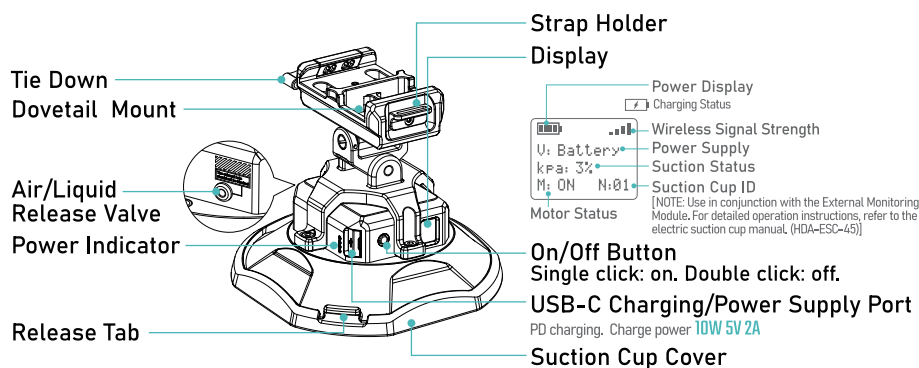
Dovetail Tie Down

Hydra Alien Dovetail Plate L2

Dovetail Mount (245° Adjustable)

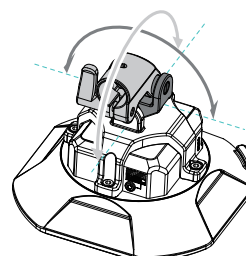
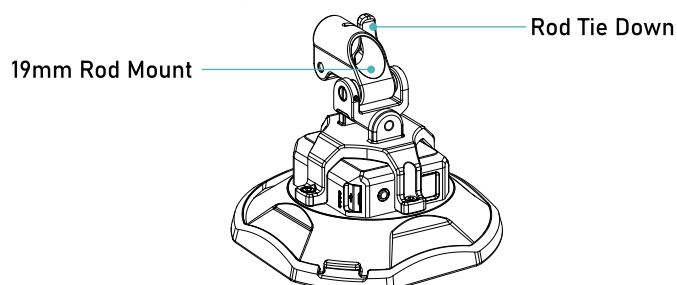
245°

Electronic Suction Cup with Dovetail Mount (4.5) >>



Angle Adjustment

Electronic Suction Cup with 19mm Rod Mount (4.5) >>

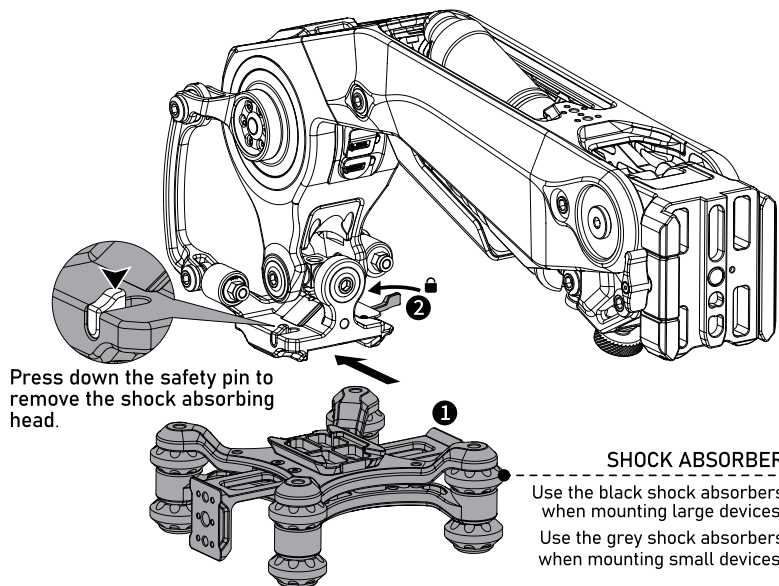


Angle Adjustment

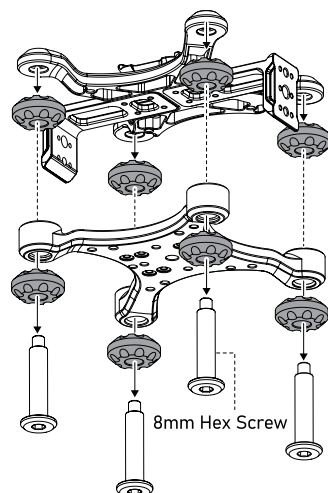
ASSEMBLING THE SHOCK ABSORBING ARM

ASSEMBLING THE SHOCK ABSORBING ARM & SHOCK ABSORBING HEAD

Slide ① the shock absorbing head into the receiver on the shock absorbing arm. Tighten ② the locking lever.



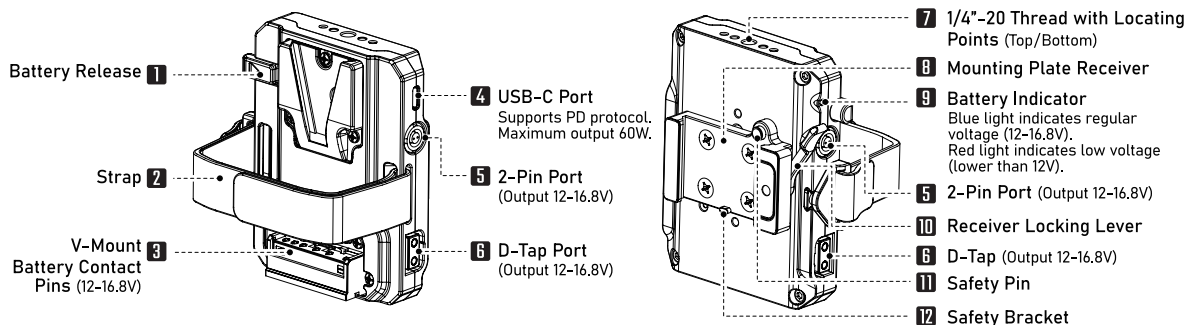
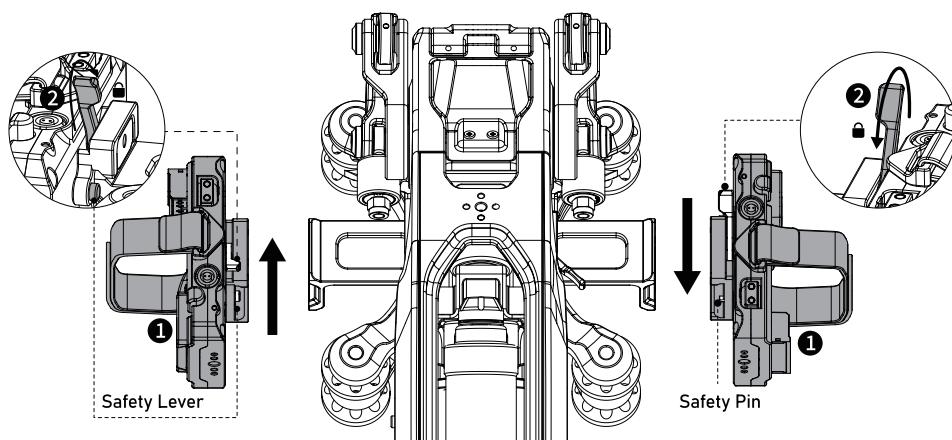
REPLACING THE SHOCK ABSORBERS



Remove the 8mm hex screws to disassemble the shock absorbing head and replace the shock absorbers.

INSTALLING V-MOUNT BATTERY PLATES

Slide ① the V-mount battery plate onto the mounting plate on the shock absorbing head. Tighten ② the locking lever.
NOTE: The battery plate has a built-in safety pin. It can only slide in from the direction of the safety lever.

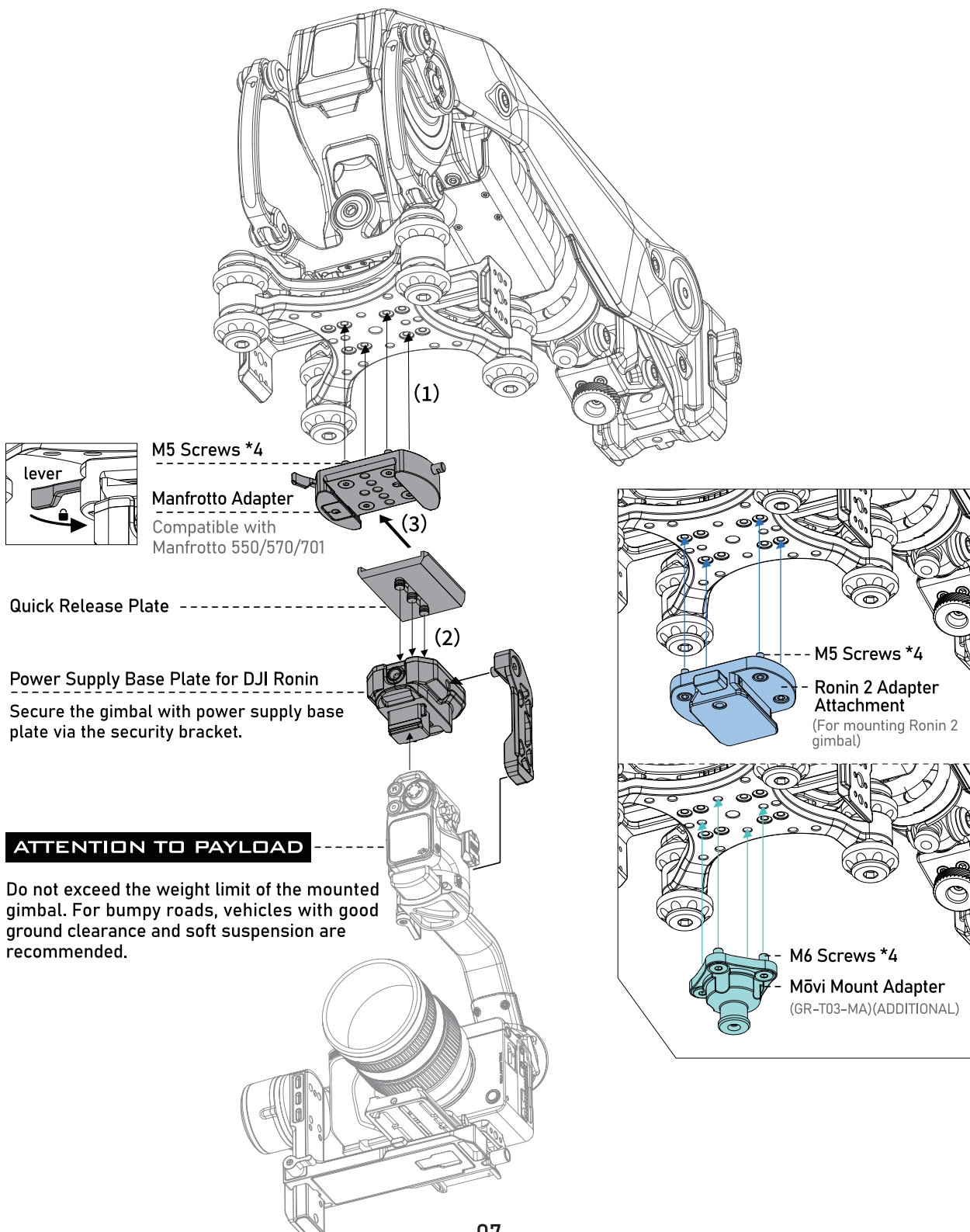


ASSEMBLING GIMBAL SYSTEMS

There are multiple threads under the shock absorbing head for mounting various types of systems.

As shown in the figure:

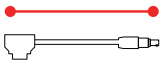
- (1) Secure the Manfrotto adapter to the bottom of the shock absorbing head with the M5 screws.
- (2) Connect the gimbal and the quick release plate to the DJI Ronin power supply base plate.
- (3) Slide the assembled gimbal into the Manfrotto adapter via the quick release plate, then lock it in place using the lever.



SHOCK ABSORBING ARM - EXTERNAL POWER SUPPLY

Mount V-mount batteries to the two sides of the assembled shock absorbing arm. Connect a battery with a power cable to power the shock absorbing arm and gimbal.

CONNECT POWER CABLE



The red line indicates the d-tap to the 2-pin power cable.

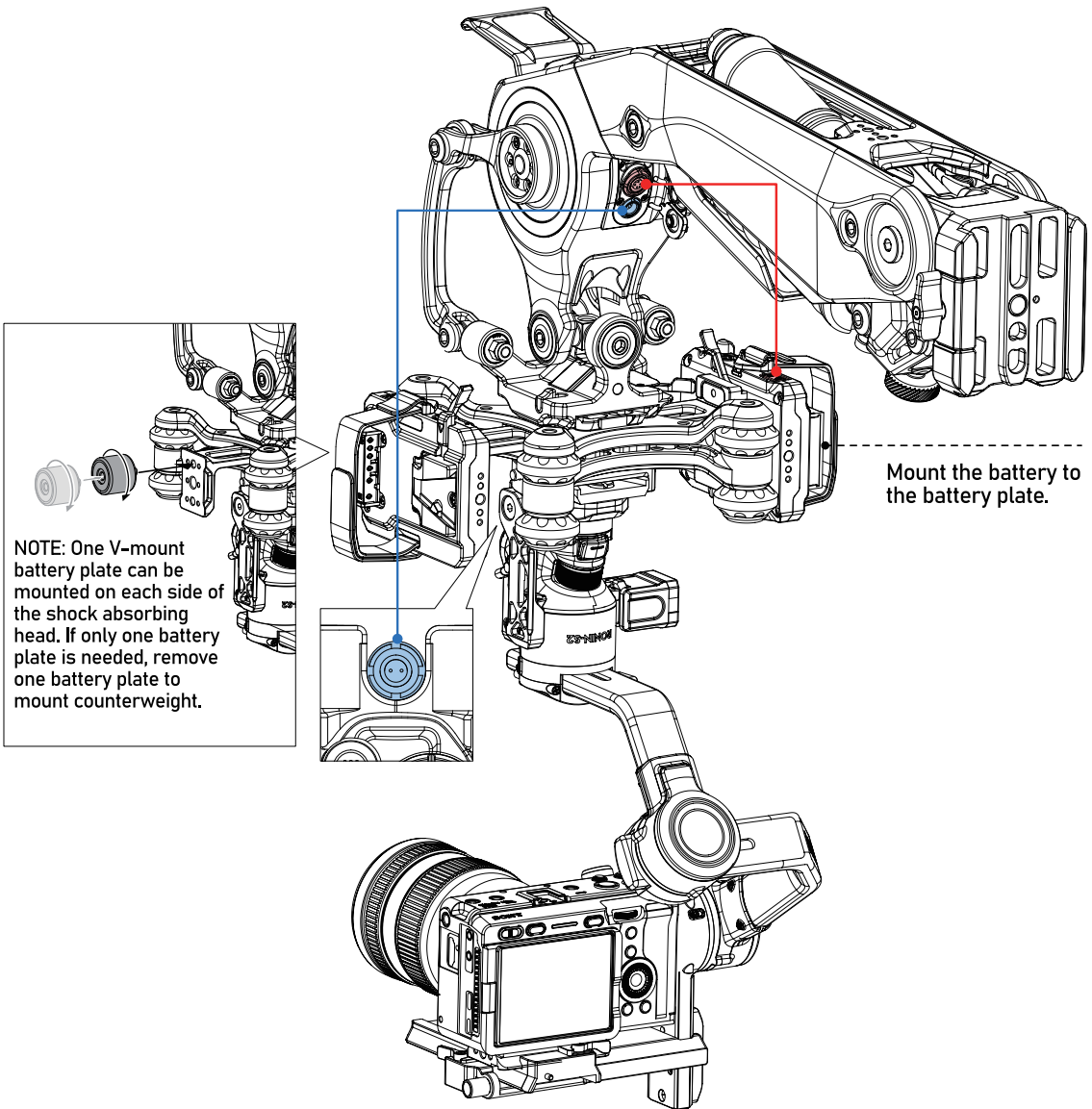
Connect the DC-IN input port on the main arm and the d-tap output port on the V-mount battery plate to provide the main power.



The blue line indicates the 2-pin to the 2-pin power cable to power the DJI Ronin series device.

Connect the DC-OUT output port on the main arm and the 2-pin input port on the power supply base plate for DJI Ronin to power the gimbal.

(NOTE: The power supply base plate for DJI Ronin can only power the DJI Ronin series gimbal. Please power other devices with an appropriate power supply.)



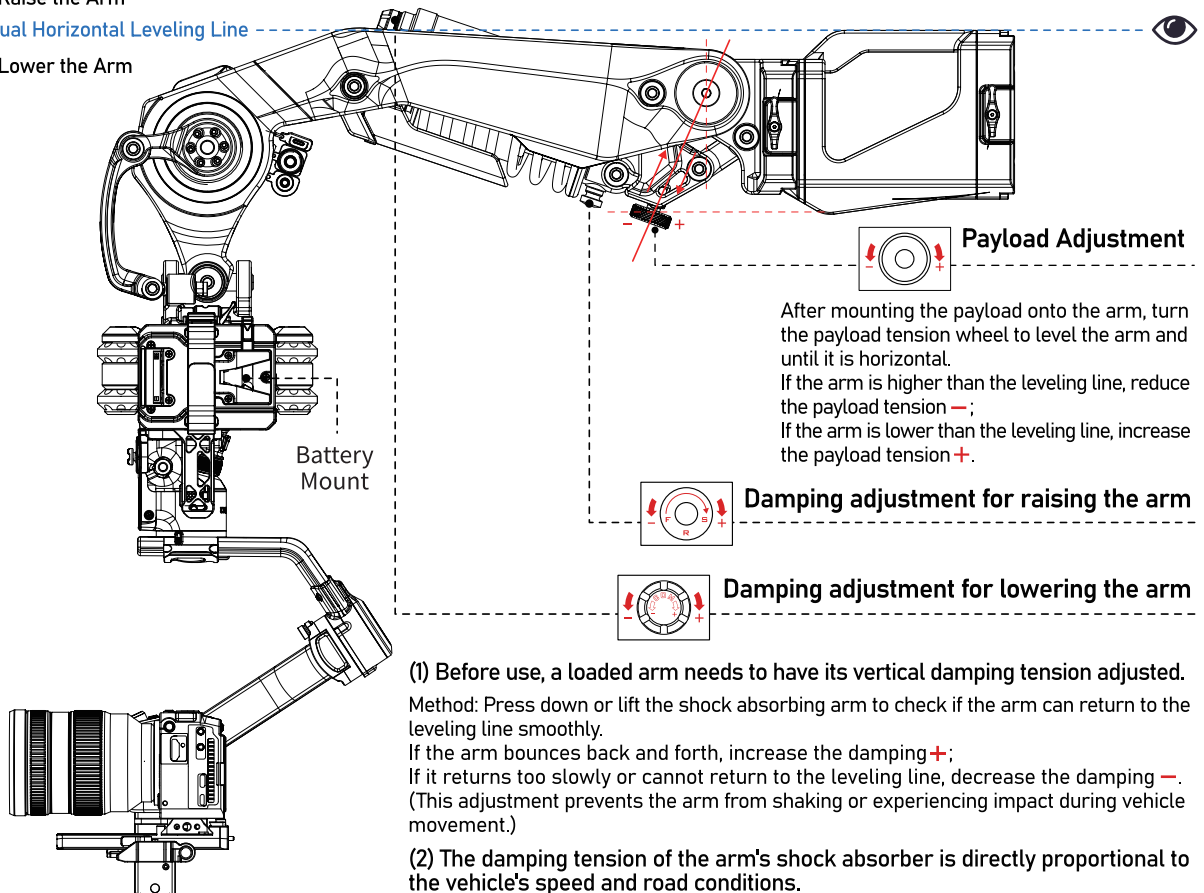
SHOCK ABSORBING ARM - BALANCING INSTRUCTIONS

- (1) Mount the devices (camera, gimbal, wireless video system, power supply, etc.) onto the shock absorbing arm to determine the final payload. Adjust the payload tension before use.
- (2) Adjust the balance (increasing/decreasing the arm position, adjusting damping, payload tension) according to the final shock absorbing arm payload, road condition, and driving speed. Adjust the damping on the right, left, front, and back sides of the shock absorbing head. (See details on the UI interface.)
- (3) Fine tune the parameters accordingly based on the image.

↑ Raise the Arm

Visual Horizontal Leveling Line

↓ Lower the Arm



Payload Adjustment

After mounting the payload onto the arm, turn the payload tension wheel to level the arm and until it is horizontal.

If the arm is higher than the leveling line, reduce the payload tension **-**;

If the arm is lower than the leveling line, increase the payload tension **+**.

Damping adjustment for raising the arm

Damping adjustment for lowering the arm

(1) Before use, a loaded arm needs to have its vertical damping tension adjusted.

Method: Press down or lift the shock absorbing arm to check if the arm can return to the leveling line smoothly.

If the arm bounces back and forth, increase the damping **+**;

If it returns too slowly or cannot return to the leveling line, decrease the damping **-**.
(This adjustment prevents the arm from shaking or experiencing impact during vehicle movement.)

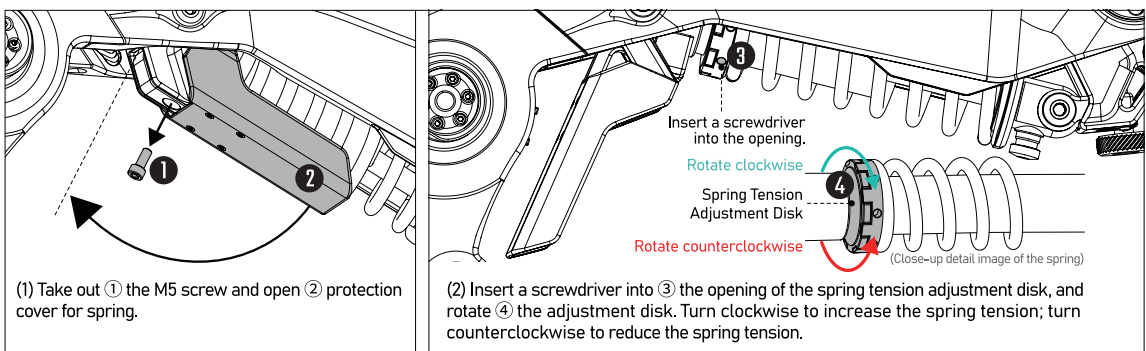
(2) The damping tension of the arm's shock absorber is directly proportional to the vehicle's speed and road conditions.

If the vehicle speed is high and the road is bumpy, increase the damping **+**;

If the vehicle speed is low and the road is smooth, decrease the damping **-**.

Spring Tension Adjustment (to be used only in special circumstances)

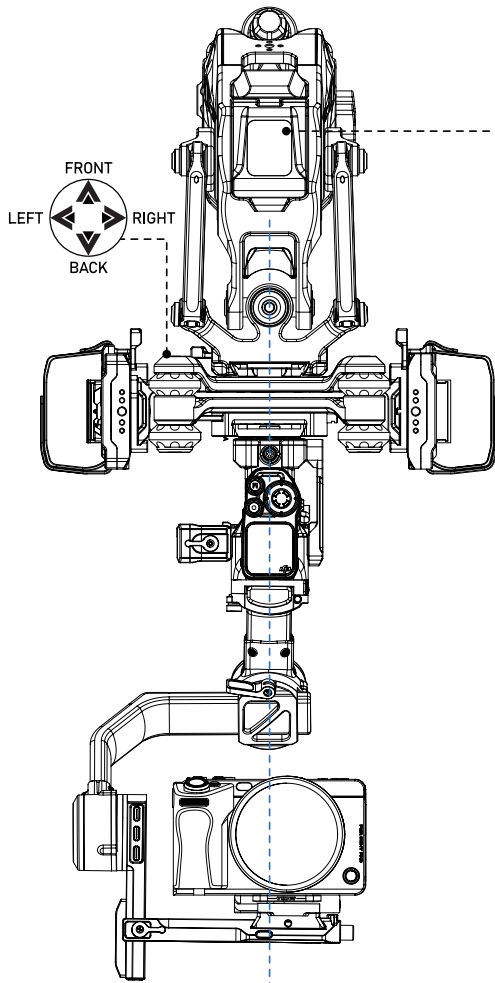
If, under the final load condition, adjusting the arm's load tension to the maximum still cannot bring the arm back to the visual horizontal leveling line, you can adjust the spring tension to align the arm with the visual horizontal leveling line.



SHOCK ABSORBING ARM & SHOCK HEAD LOADING/ DAMPING ADJUSTMENT GUIDE

Open the display cover, adjust the damping for forward, backward, and lateral movement of the shock head after loading.

MAIN INTERFACE OF THE SHOCK ABSORBING ARM SCREEN

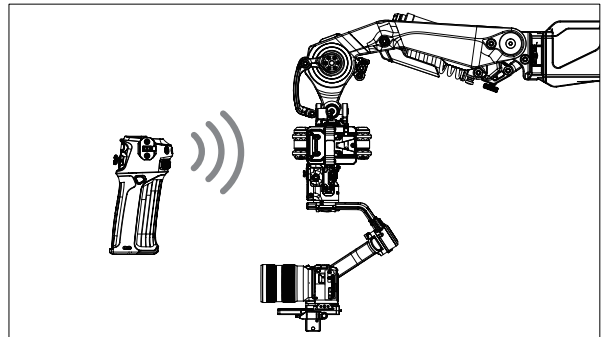


Visual Vertical Leveling Line



1 Wireless Connection Status (Wireless connection and the signal strength.)

Pair with Tilta Nucleus Nano II control handle to control the shock absorbing head's damping and payload adjustment. (See details on wireless control page.)



2 Damping Tension Adjustment (0-100, intervals of 5)

(1) Before use, a loaded arm needs to have its forward, backward, and lateral damping tensions adjusted.

Method: Swing the shock absorbing head to check if it can return to the vertical leveling line position smoothly.

If it bounces bouncing back and forth, increase the damping **+**;

If it returns too slowly or cannot return to the leveling line, decrease the damping **-**.

(This adjustment prevents the arm from shaking or experiencing impact during vehicle movement.)

(2) The damping tension of the head's forward, backward, and lateral movements is directly proportional to the vehicle's speed and road conditions.

If the vehicle speed is high and the road is bumpy, increase the damping **+**;

If the vehicle speed is low and the road is smooth, decrease the damping **-**.

3 Load Adjustment (LIGHT/MEDIUM/HEAVY, ◀ ▶ Left-Right Toggle Mode)

Select the appropriate mode based on the payload.

Light load mode - For mounting DJI Ronin 4D and mirrorless cameras with the DJI RS series gimbals, weighing between 4-7 kg, the damping reference value is (35-80).

Medium load mode - For mounting professional mirrorless and DSLR cameras with gimbals like Movi Pro and Ronin M, weighing between 7-10 kg, the damping reference value is (35-65).

Heavy load mode - For mounting professional cinema cameras with the DJI Ronin 2 gimbal, weighing between 10-13 kg, the damping reference value is (45-75).

4 Battery Voltage

When the battery voltage is too low and the display turns red, the wirelessly connected Nucleus Nano II control handle will vibrate and beep to alert you.

5 Vertical Status Display

6 Horizontal Status Display



Device Information Page

Firmware Upgrade

Swipe Up



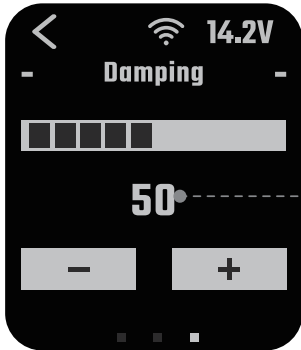
System Settings

Swipe Left



Swipe Down

Swipe Right



Damping Interface

Damping Tension Adjustment
(0-100, intervals of 1)
Make finer adjustments to the damping parameters based on the situation.

Shock Absorbing Arm ID
(01-15)
NOTE: Each shock absorbing arm can only be paired with one control handle, using a single ID to avoid signal interference. (See details on the wireless control page.)

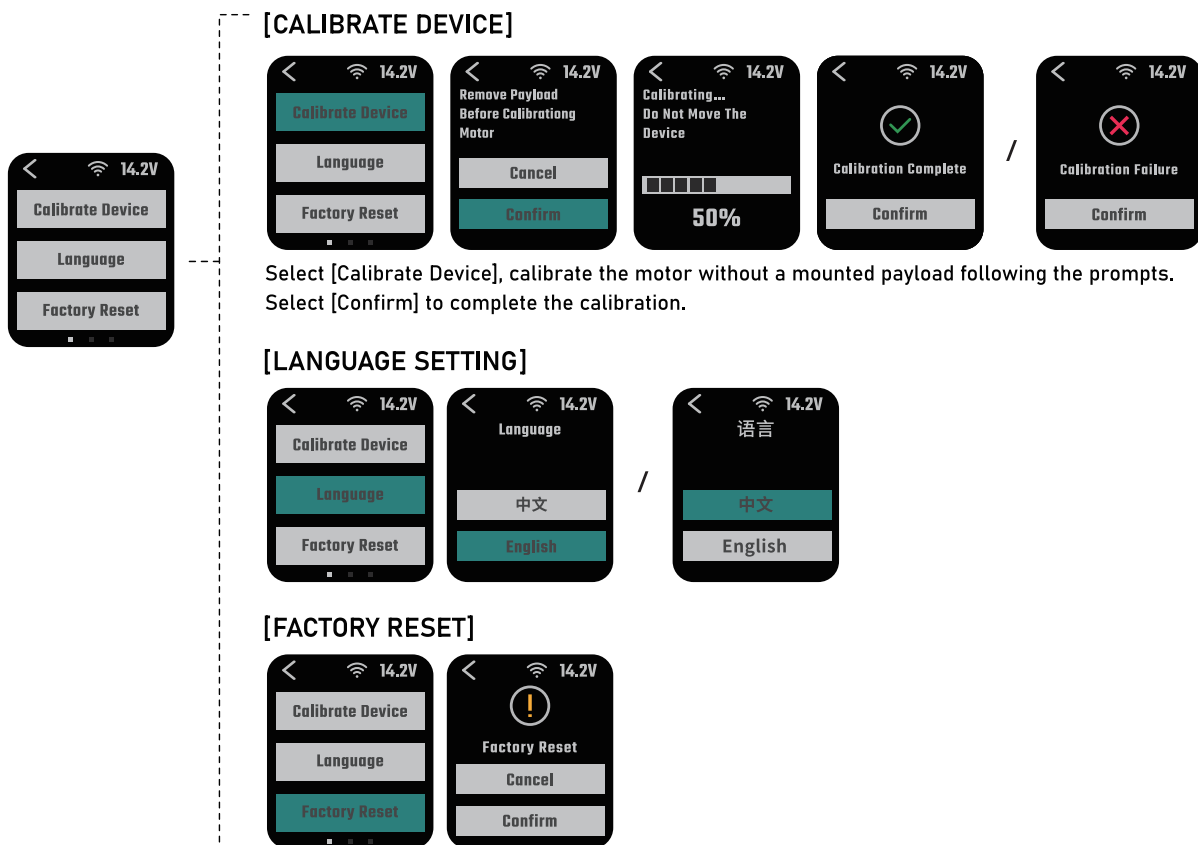


Selected Status Display



Wireless Connection Status

SYSTEM SETTINGS



FIRMWARE UPGRADE

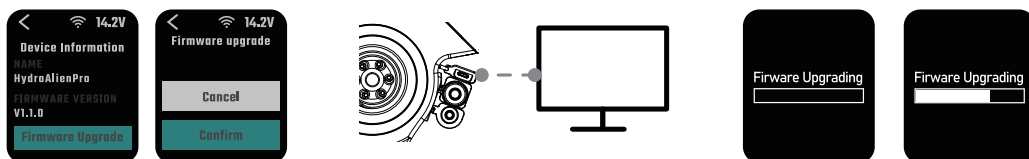
[Upgrade When Powered Off]

- (1) Download the firmware from the Tilta official website. Please contact our customer service with any installation questions. (www.tilta.com)
- (2) When powered off, connect the arm's USB-C port to a computer using a data cable.
- (3) When the computer recognizes the arm as a USB drive, the system will prompt you to format the USB drive first, then move the downloaded firmware upgrade to the arm's drive, and wait for the update process to complete.



[Upgrade During Operation]


- (1) Open [Version Info Interface], select [Firmware Upgrade]. The arm will restart after selecting [Confirm].
- (2) Download the firmware from the Tilta official website. Please contact our customer service with any installation questions. (www.tilta.com)
- (3) Connect the arm's USB-C port to a computer using a data cable.
- (4) When the computer recognizes the arm as a USB drive, the system will prompt you to format the USB drive first, then move the downloaded firmware to the arm's drive, and wait for the update process to complete.



SHOCK ABSORBING ARM - WIRELESS CONTROL INSTRUCTIONS

Pair with Tilta Nucleus N II control handle (not included) wirelessly to control the shock absorbing head's payload and damping adjustments.

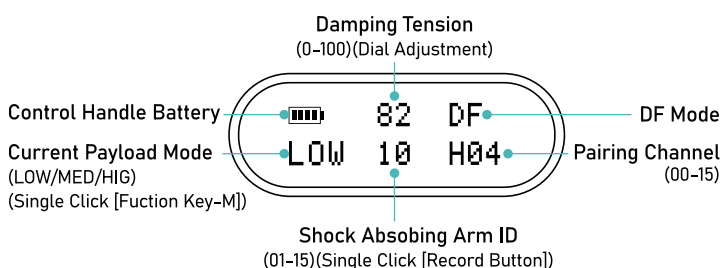
CONTROL HANDLE - [DAMP MODE]

- 1  Long press [Power Button] to turn on the handle.
Triple click to enter the menu.



Use the [JOYSTICK] to scroll and select [MODE SETTING].
Single click [MENU] to enter.
Use the [JOYSTICK] to scroll and select [DAMP MODE].
Single click [MENU] to confirm.

CONTROL HANDLE - [DAMP MODE INTERFACE]



CONTROL HANDLE - [DAMP MODE FUNCTIONS & PARAMETER ADJUSTMENT]



POWER BUTTON

Long press: Power on/off.
Triple click: Enter menu.



FRONT DIAL

Adjust the shock absorbing head's damping tension after pairing. (0-100)



MENU BUTTON

Single click: Confirm menu selection. /
After pairing, use the button to switch the shock absorbing head's payload mode. (LOW - light load, MEDIUM - medium load, HIGH - heavy load.)



JOYSTICK

When in menu interface, use the joystick to scroll up and down. /
Under [Wireless-2.4G-Channel], scroll up and down to select channel.



RECORD BUTTON

Single click: Return to the previous menu. /
Switch shock absorbing arm ID (01-15).



ROTATION LIMIT SWITCH

Switch between ▲ DF (no limit on the front dial rotation) and ▼ TF modes (no functions).
(NOTE: To control the shock absorbing arm adjust the parameters, first switch to DF mode.)

PAIR CONTROL HANDLE AND SHOCK ABSORBING ARM IN [DAMP MODE]

1 Select Channel



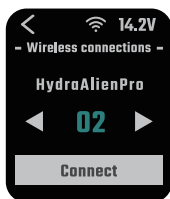
Select [Wireless]-[2.4G]-[Channel]-Select a channel (00-15. For example, 01.)
(There are 16 available channels. Any of them can be selected to avoid signal interference.)

After selection, the interface will display the selected channel (for example, H01).

TIPS: Use the [JOYSTICK] to scroll up and down to select menu, and to select channel (00-15); To confirm, use [M BUTTON]; To return to the previous menu, use [RECORD].

PAIR CONTROL HANDLE AND SHOCK ABSORBING ARM IN [DAMP MODE]

2 Select the Shock Absorbing Arm's ID



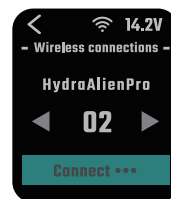
[Shock Absorbing Arm]

- 1 Open [Wireless Connections] on the shock absorbing arm, and select arm ID. (For example, 02)



[Nucleus Nano II Control Handle]

- 2 Single click [Record], and select arm ID. (For example, 02)



[Shock Absorbing Arm]

- 3 Select [Connect] to enter pairing mode. The control handle will start pairing.



[Nucleus Nano II Control Handle]

- 4 Press [Record] and [Menu] at the same time to enter pairing mode. When the arm is found, it appears as [Searching...1]. Single click [Menu] to confirm [Pairing...].



[Shock Absorbing Arm]

- 5 Pairing result will display after pairing. If failed, then proceed to repair.

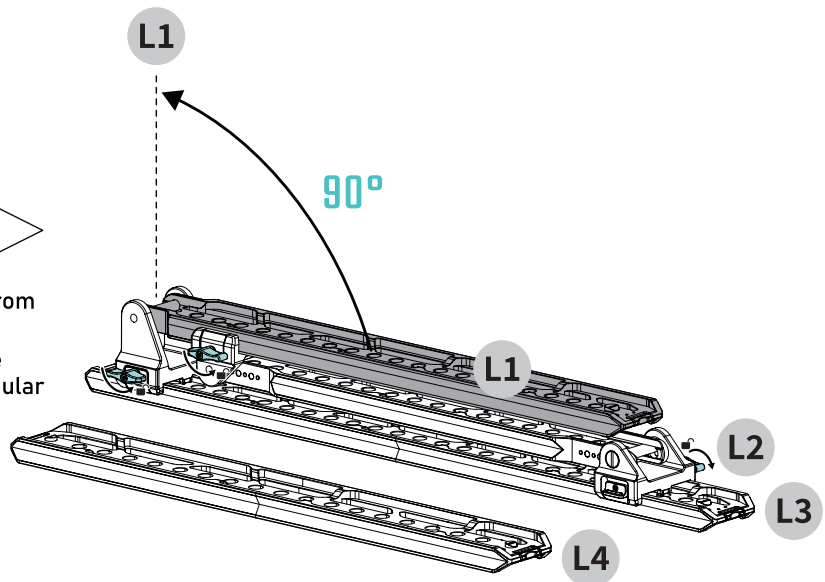
NOTE:

- (1) After successful pairing, the shock absorbing arm's ID number and the control handle must match to enable control.
- (2) The control handle can be paired with multiple arms. After successful pairing, you can control the paired shock absorbing arms by switching ID numbers.

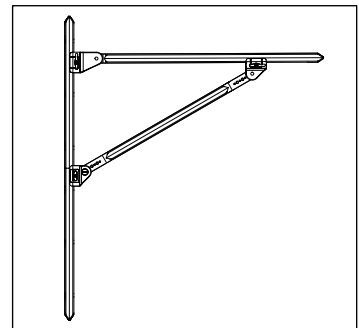
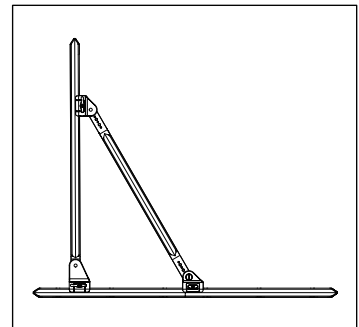
INTRODUCING DOVETAIL PLATES FOR HYDRA ALIEN PRO

Unboxing and Storage Status

- (1) Take out the dovetail plates from the box.
- (2) Loosen all tie-downs. Lift the dovetail plate L1 90° into a triangular position.



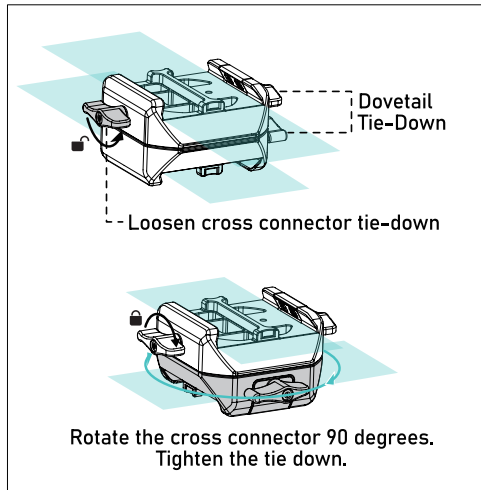
Unfolded into a Triangular Support Position



After folding the dovetail plates, adjust each plate to appropriate positions. Then tighten all tie-downs to secure the triangular support.

ASSEMBLY OF DOVETAIL PLATES FOR HYDRA ALIEN PRO

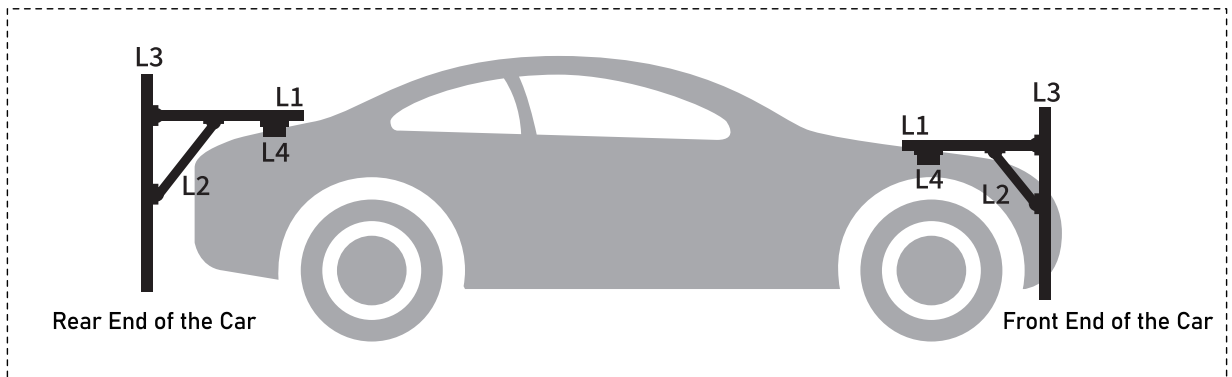
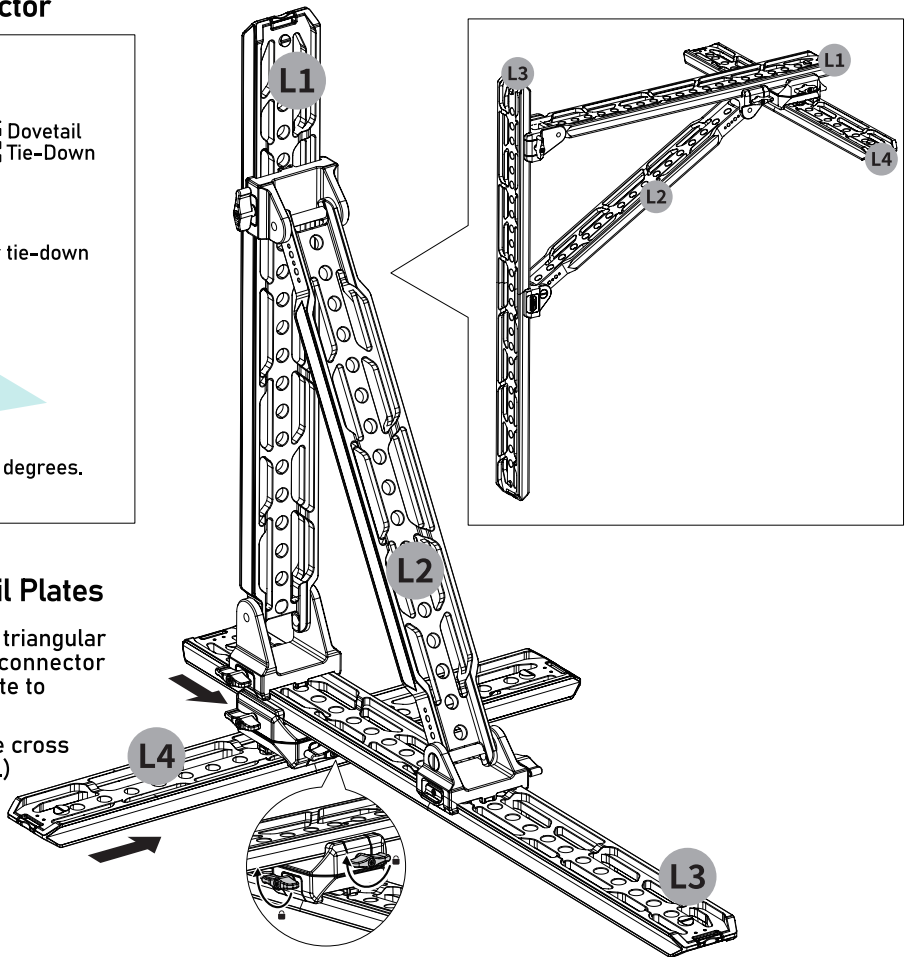
01 Dovetail Cross Connector



02 Assemble the Dovetail Plates

After the stand is unfolded into a triangular position, use the dovetail cross connector to connect the fourth dovetail plate to complete the assembly.

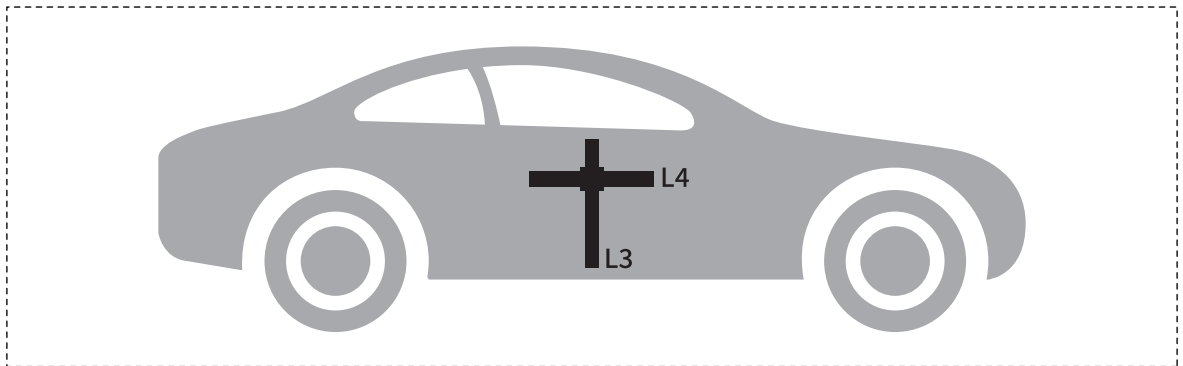
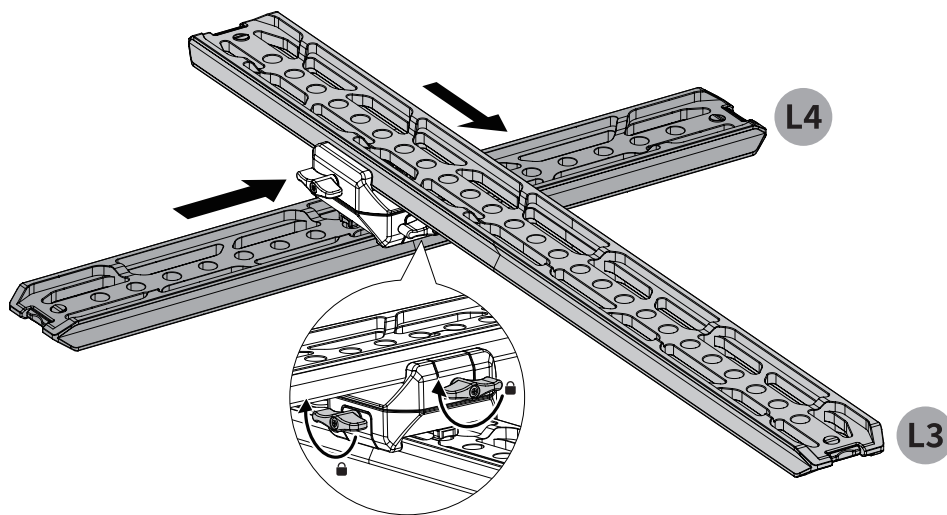
(Slide the dovetail plates onto the cross connector. Tighten the tie-downs.)



Inverted Triangular Support—Rear/Front of the car side view placement (for illustration only)
(The entire assembly needs to be completed.)

ASSEMBLY OF TWO DOVETAIL PLATES

Slide dovetail plates L3 and L4 into the dovetail cross connector to form a cross configuration. Tighten the tie-downs.



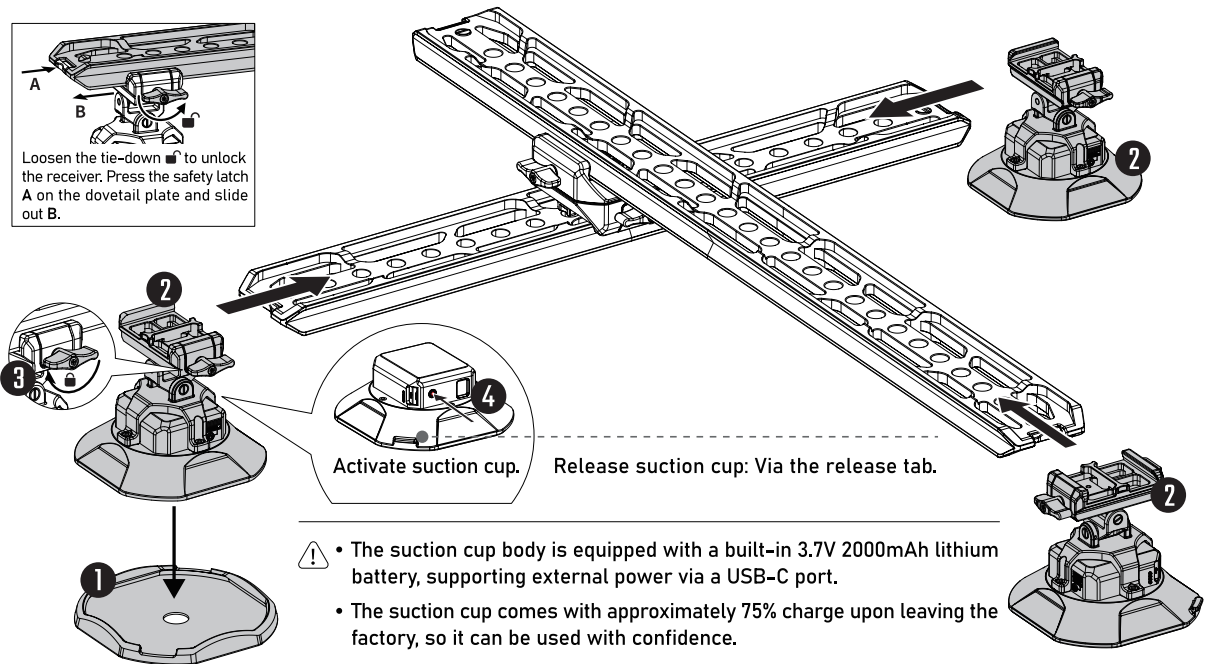
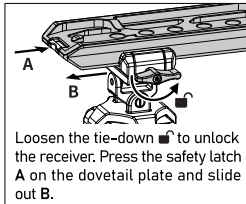
Cross Shaped Support—Car Side View Placement (for illustration only)
(The entire assembly needs to be completed.)

ASSEMBLING SUCTION CUPS

(Assemble the suction cups according to the set configuration)

ASSEMBLING ELECTRONIC SUCTION CUPS

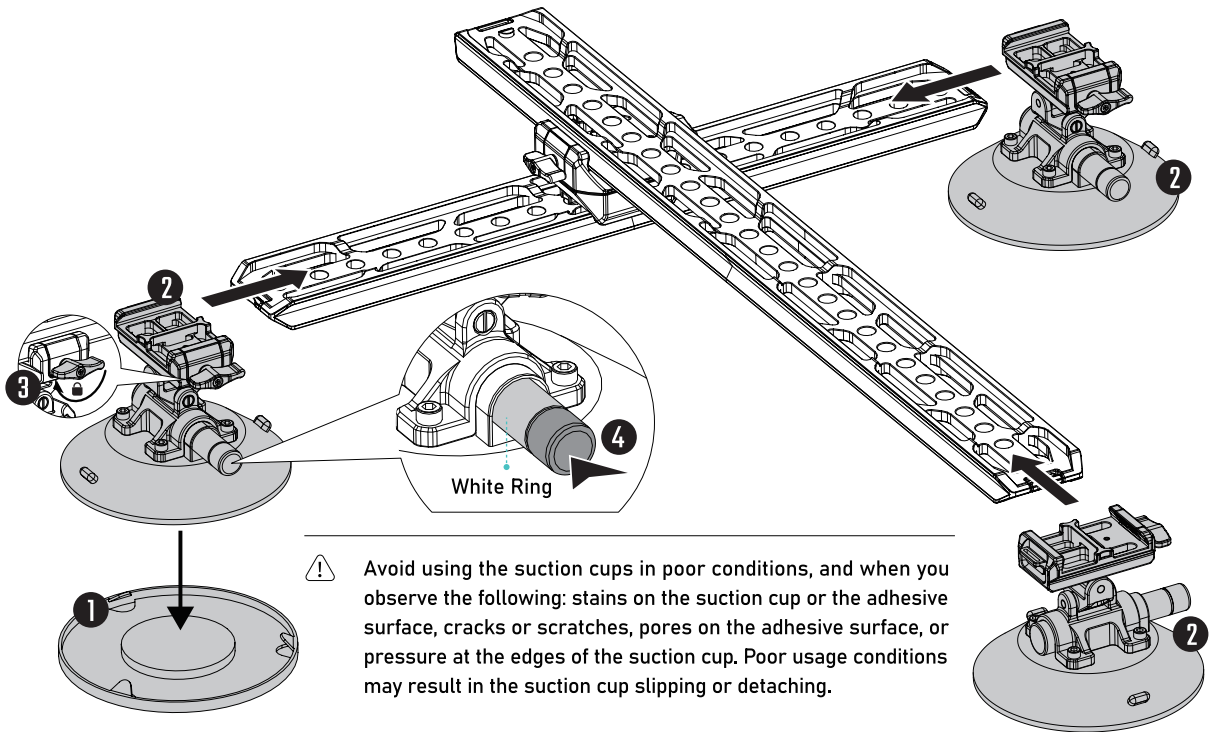
- (1) Remove the suction cup cover ①. Slide the 4.5" electronic suction cup ② onto the dovetail plate. Tighten the tie-down ③.
- (2) Place the assembled dovetail plates with suction cups onto the surface of a vehicle (engine hood, back, side, etc.).
- (3) Single click the [Power] button ④ to activate the suction cup. Manually press down the top of the dovetail plates to ensure the suction cup adheres to the surface. The vacuum will stop once the suction cup has fully adhered, indicating that the installation is complete.



- ⚠ • The suction cup body is equipped with a built-in 3.7V 2000mAh lithium battery, supporting external power via a USB-C port.
- The suction cup comes with approximately 75% charge upon leaving the factory, so it can be used with confidence.
- Pressure is monitored 1,000 times per second, automatically identifying the pressure status. In case of air leakage, it automatically activates the motor to ensure the suction cups remain secure at all times.
- When the suction cup is used on a surface with liquid, the exhaust/drain hole will expel liquid; this is a normal occurrence.

ASSEMBLING MANUAL SUCTION CUPS

- (1) Remove the suction cup cover ①. Slide the 6" suction cup ② onto the dovetail plate. Tighten the tie-down ③.
- (2) Place the assembled dovetail plates with suction cups onto the surface of a vehicle (engine hood, back, side, etc.).
- (3) Continuously press the air extraction valve ④ to remove air until the white ring on the valve is fully inside the pump.
- (If the white ring returns outside the pump body in a short time, it indicates a leak, and immediate inspection is required.)

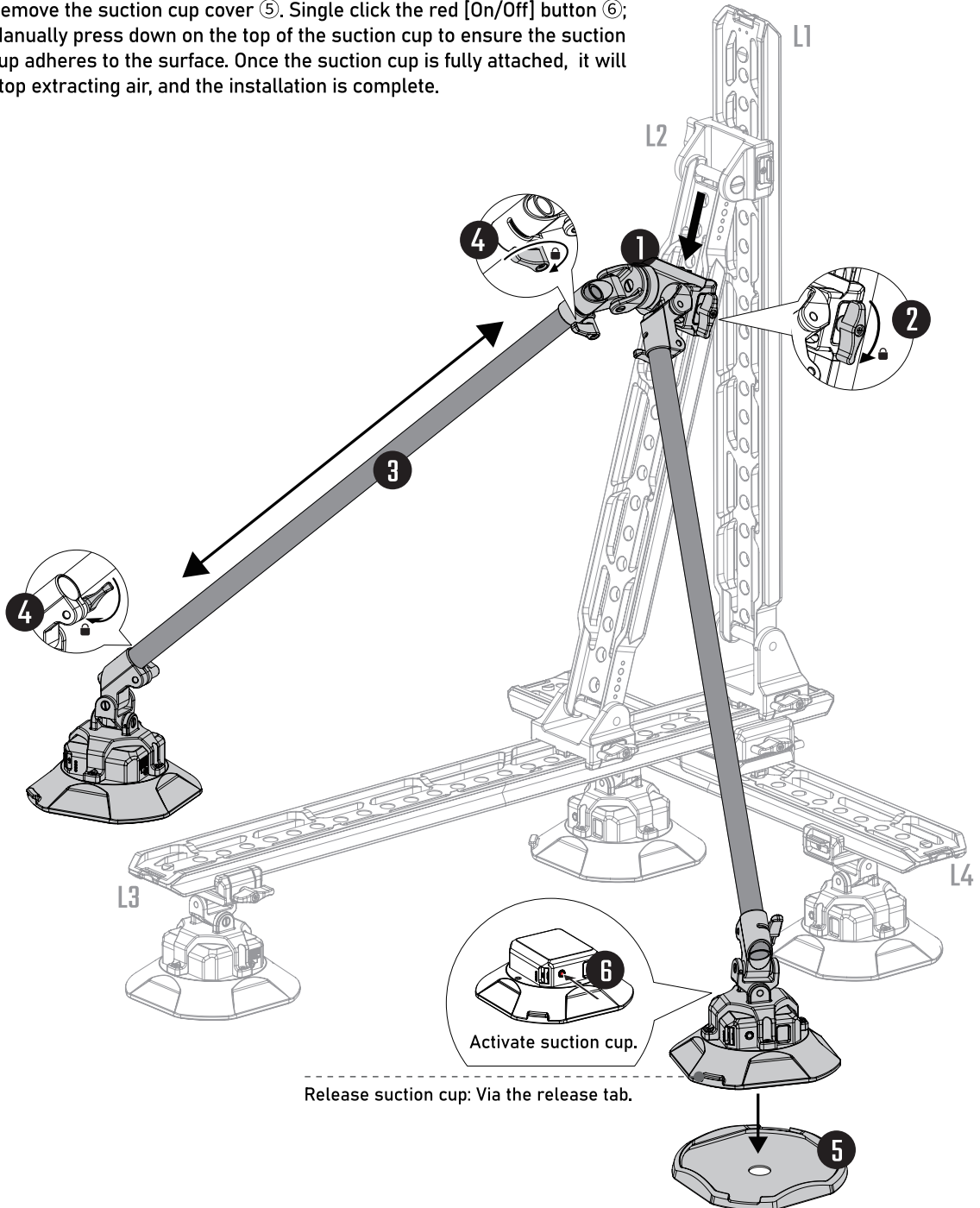


ASSEMBLING DOVETAIL TO 19MM ROD MOUNT ADAPTER & ADDITIONAL SUCTION CUPS (ELECTRONIC OR MANUAL)

- (1) Slide the dovetail to 19mm rod mount adapter ① onto dovetail plate L2. Tighten the tie-down ②.
- (2) Insert the 19mm rod ③ into the dovetail to 19mm rod mount adapter and the rod mount on the suction cup. Tighten the tie-down ④.
- (3) The dovetail to 19mm rod mount adapter' pitch and horizontal adjustments can be made. After adjusting angle and position, check the tie-downs are tightened.

■ USING ADDITIONAL SUCTION CUPS-ELECTRONIC VERSION (Based on the kit configuration)

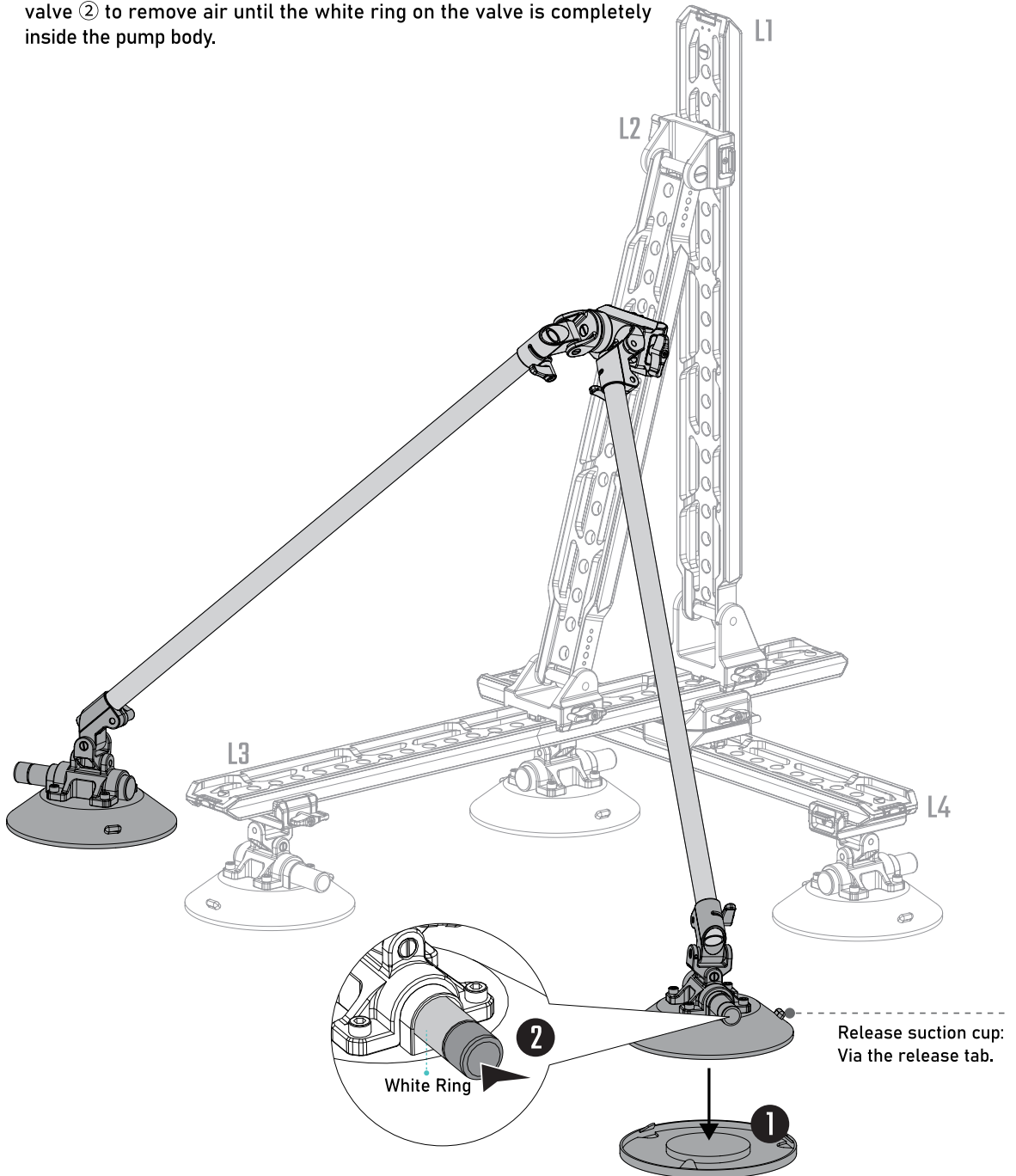
Remove the suction cup cover ⑤. Single click the red [On/Off] button ⑥;
Manually press down on the top of the suction cup to ensure the suction cup adheres to the surface. Once the suction cup is fully attached, it will stop extracting air, and the installation is complete.



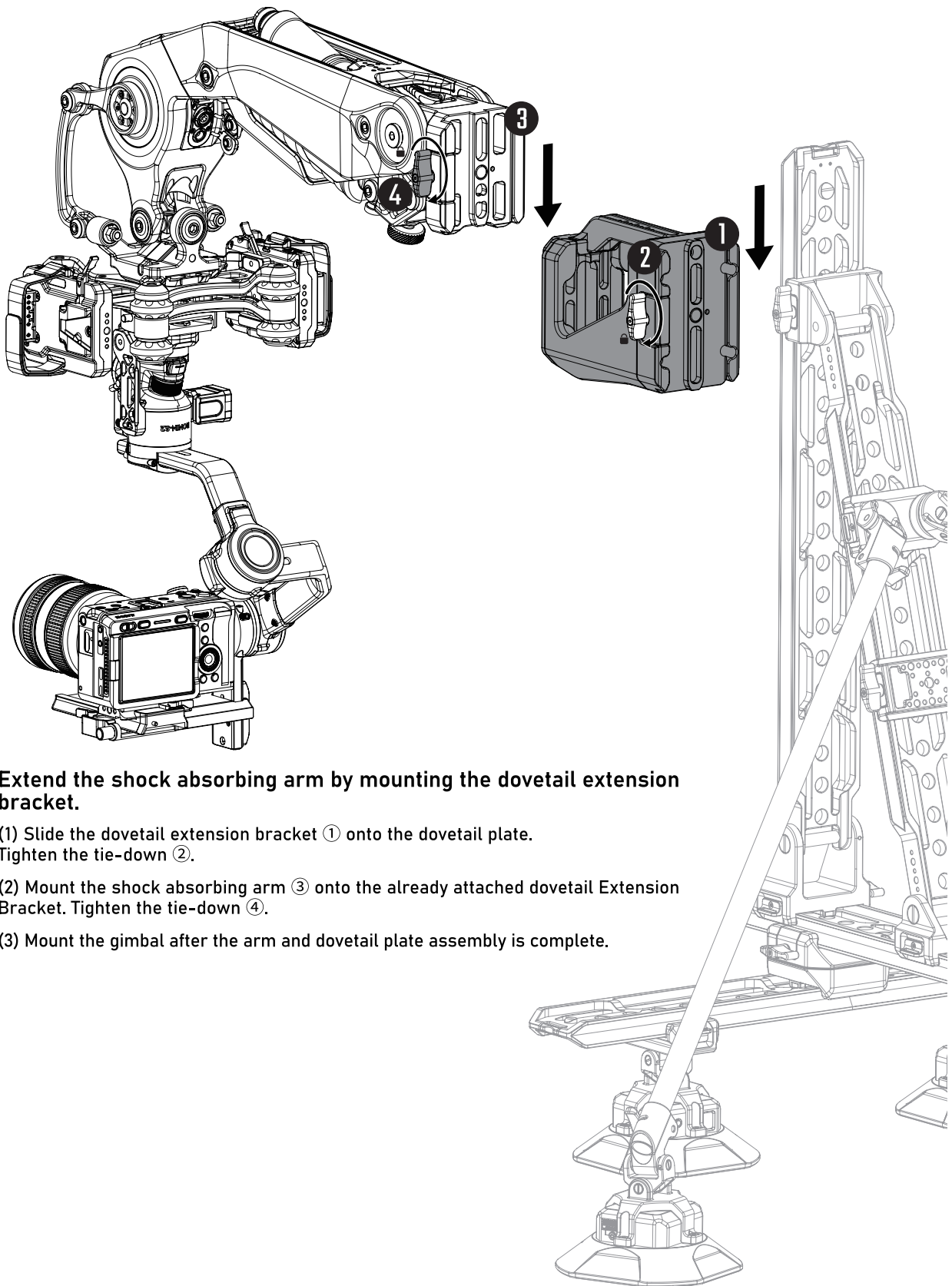
■ USING ADDITIONAL SUCTION CUPS-MANUAL VERSION

(Based on the kit configuration)

Remove the suction cup cover ①. Continuously press the air extraction valve ② to remove air until the white ring on the valve is completely inside the pump body.



ASSEMBLING THE DOVETAIL EXTENSION BRACKET



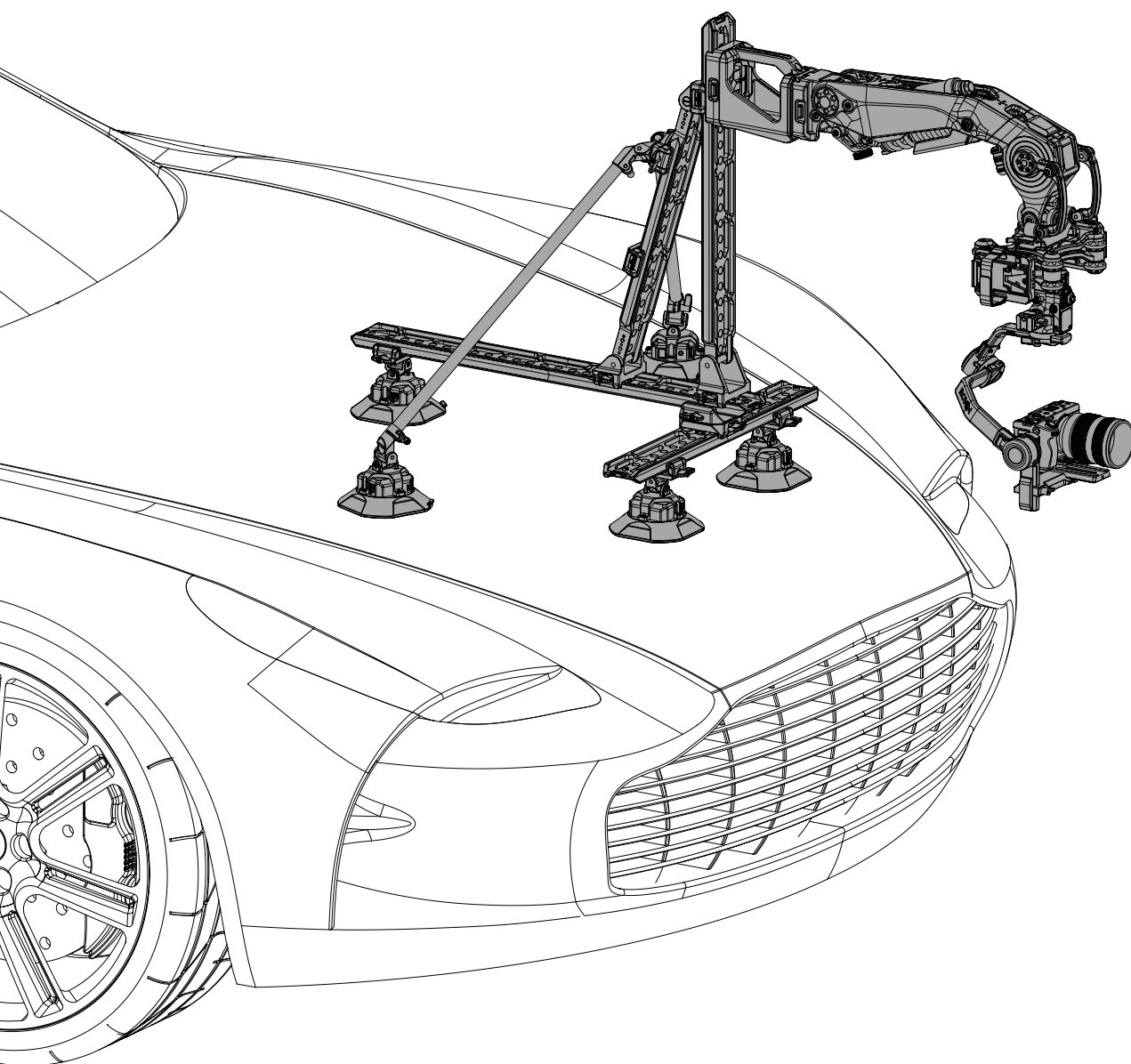
Extend the shock absorbing arm by mounting the dovetail extension bracket.

(1) Slide the dovetail extension bracket ① onto the dovetail plate.
Tighten the tie-down ②.

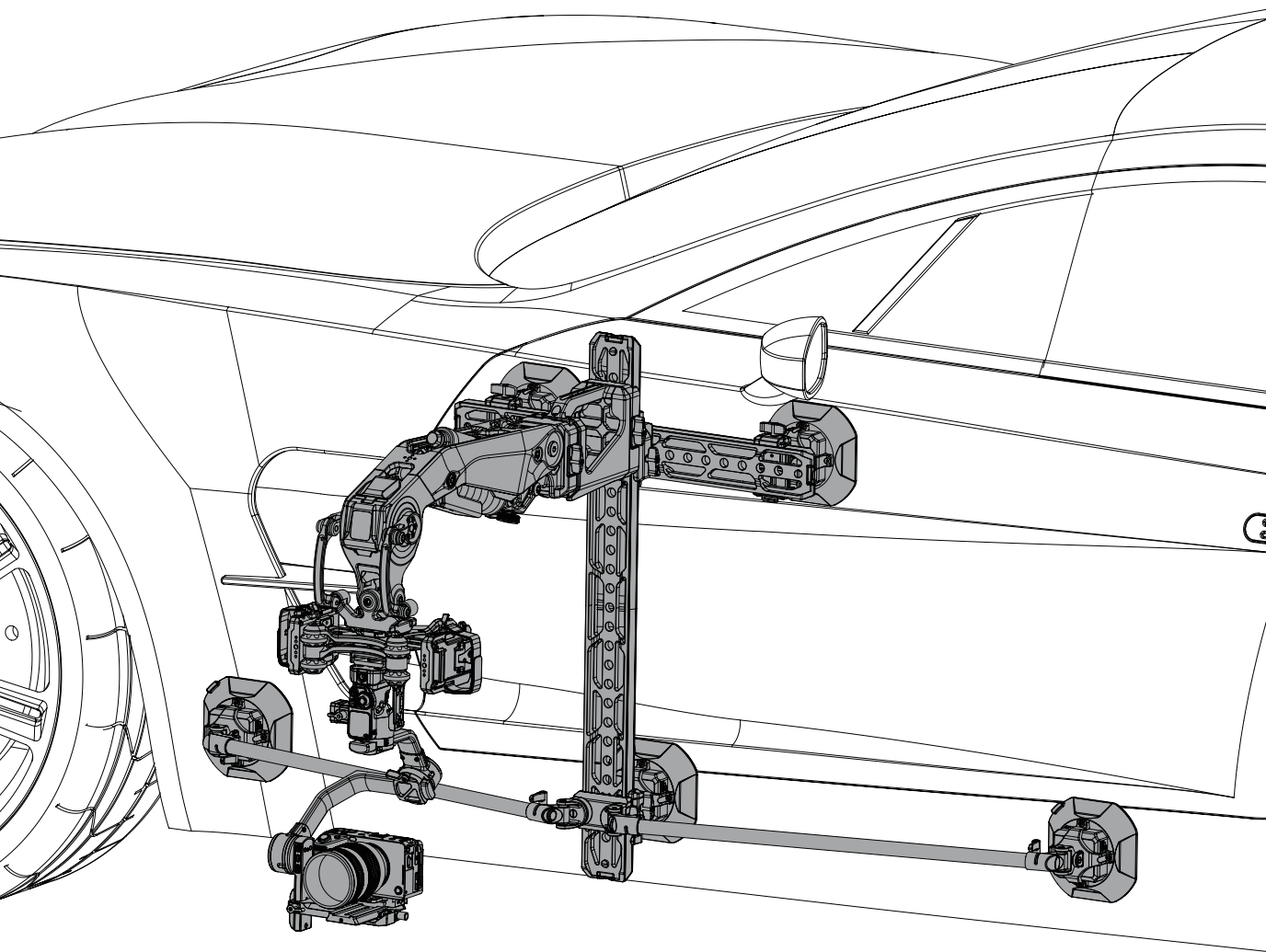
(2) Mount the shock absorbing arm ③ onto the already attached dovetail Extension Bracket. Tighten the tie-down ④.

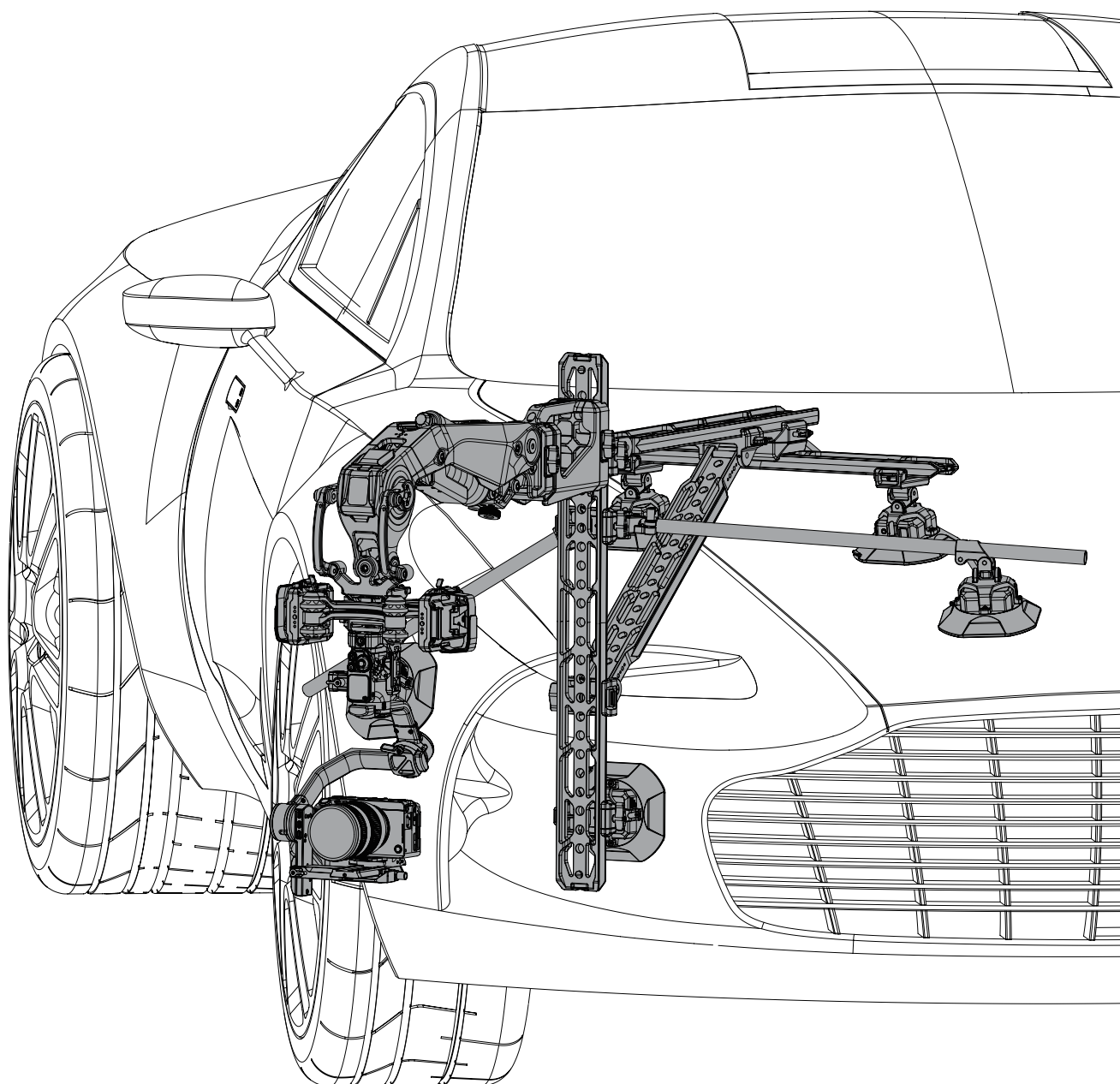
(3) Mount the gimbal after the arm and dovetail plate assembly is complete.

■ FRONT CAR HOOD CONFIGURATION

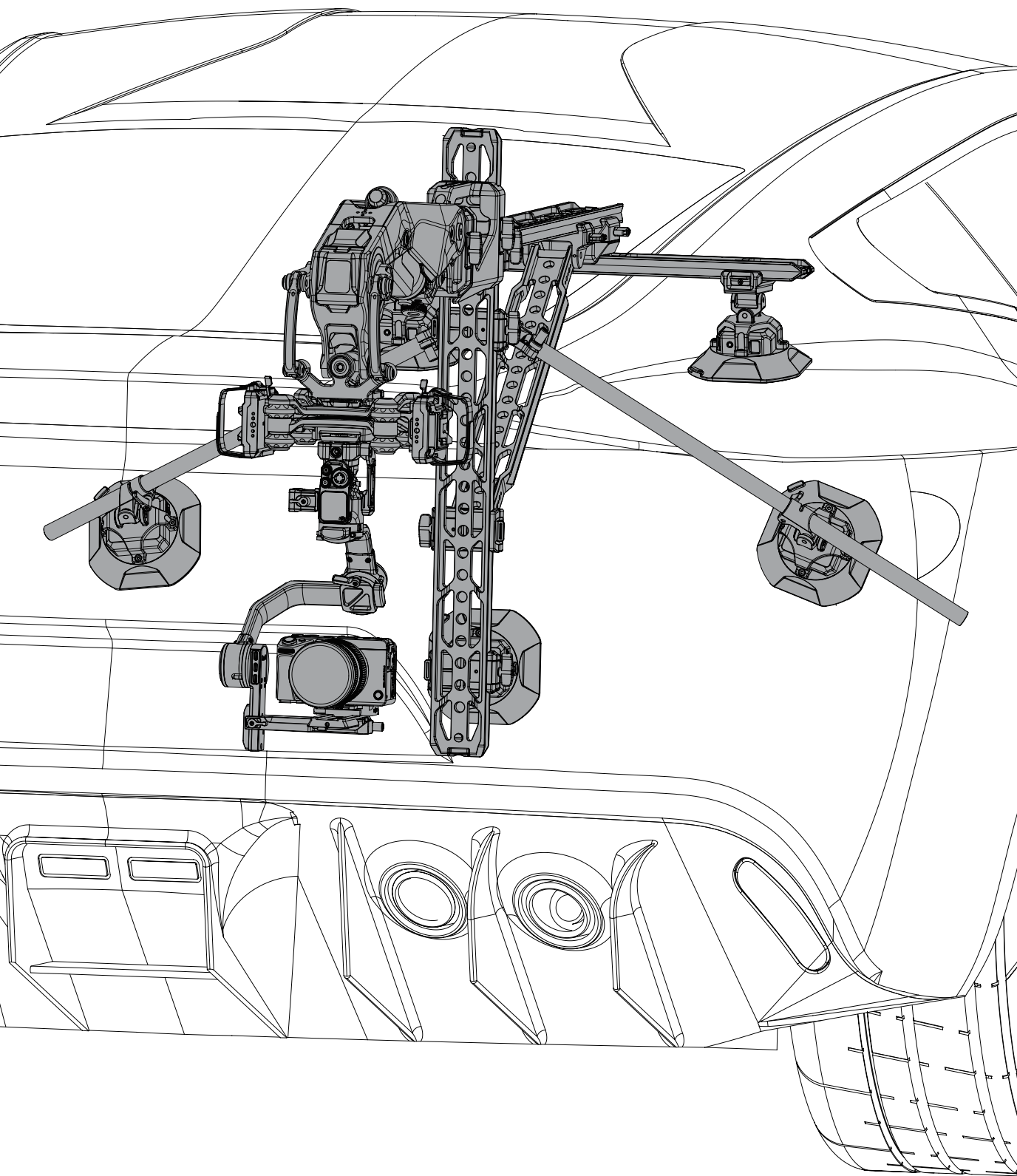


■ SIDE MOUNTING LOW ANGLE CONFIGURATION

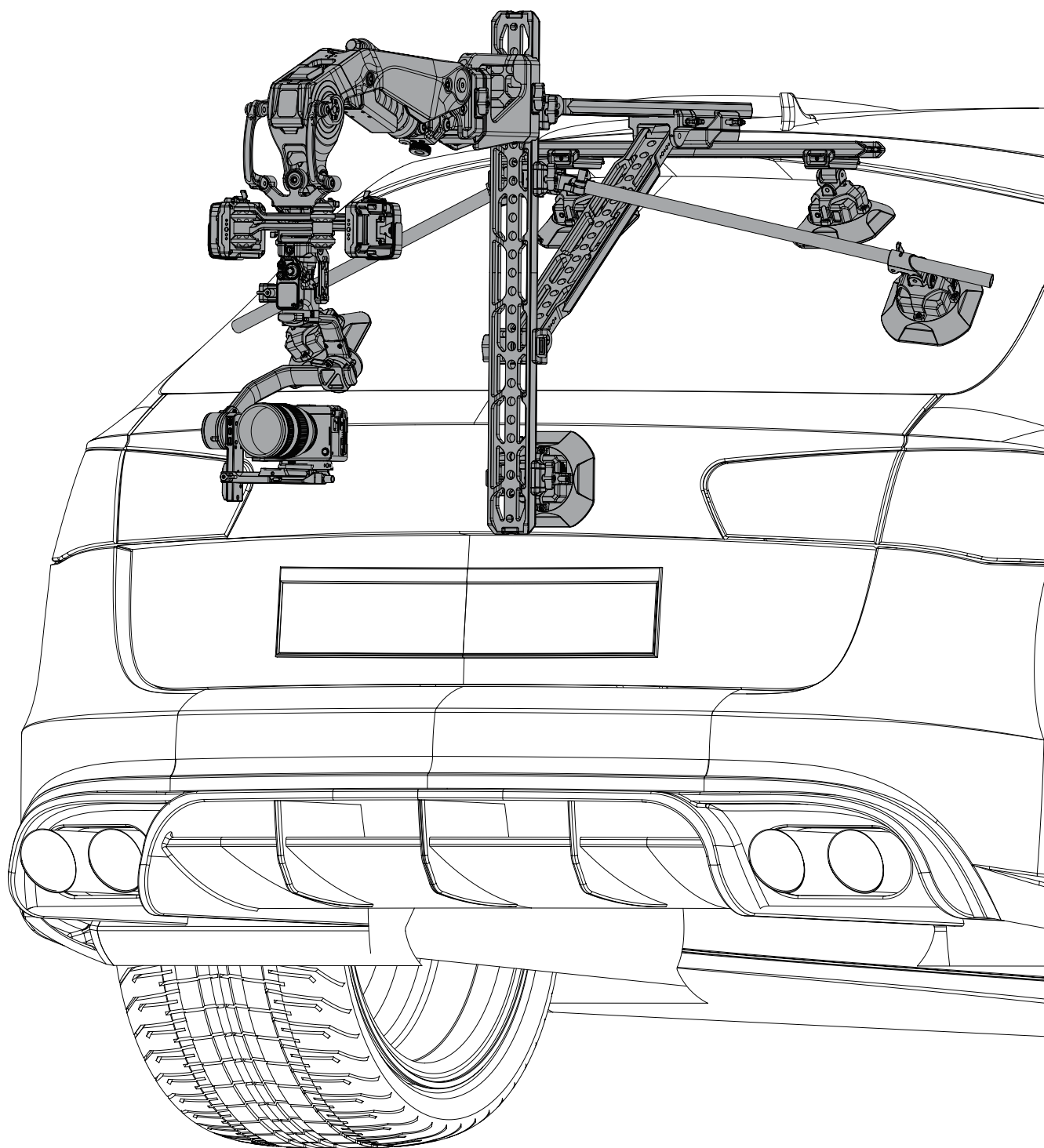




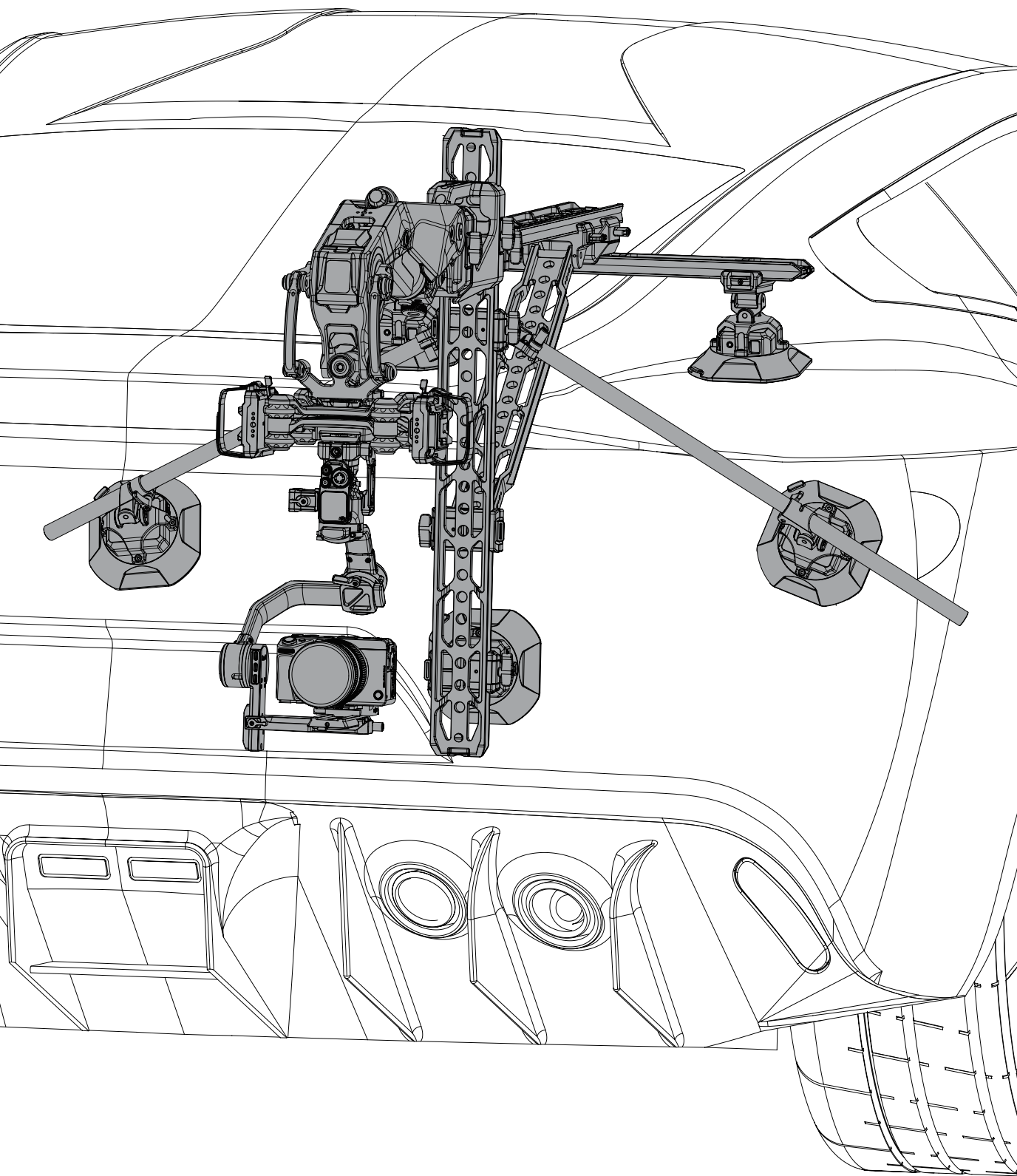
SEDAN REAR-END SIDE MOUNT CONFIGURATION



SUV REAR-END CONFIGURATION



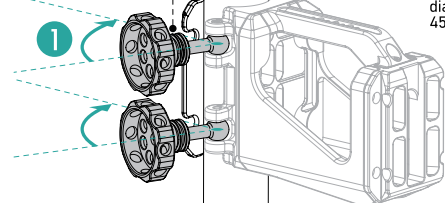
SEDAN REAR SIDE MOUNT MODE



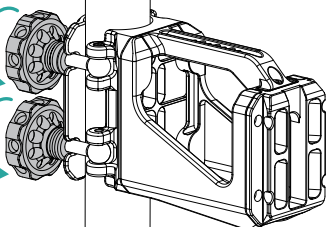
ASSEMBLY OF THE MOUNTING CLAMP FOR HYDRA ALIEN PRO (Based on the kit configuration)

50mm Speed Rail

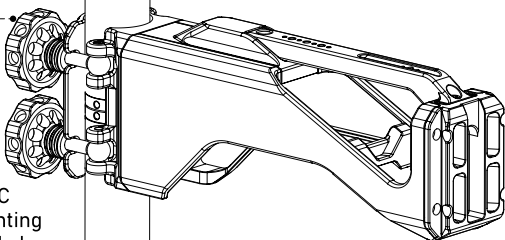
HDA-T18-CMC
Compact 50mm
Mounting Clamp
for Hydra Alien
Pro (Optional)



2



HDA-T18-MC
50mm Mounting
Clamp for Hydra
Alien Pro (Optional)

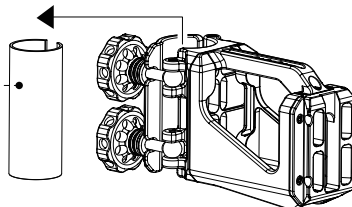


(1) Take out the 50mm to 45mm bushing from the mounting clamp. Attach the 50mm mounting clamp onto the 50mm speed rail. ① Fasten the knob and ② tighten the tie-down. The assembly is complete.

(TIPS: Using the 50mm to 45mm bushing allows you to use a 50mm mounting clamp on a 45mm speed rail.

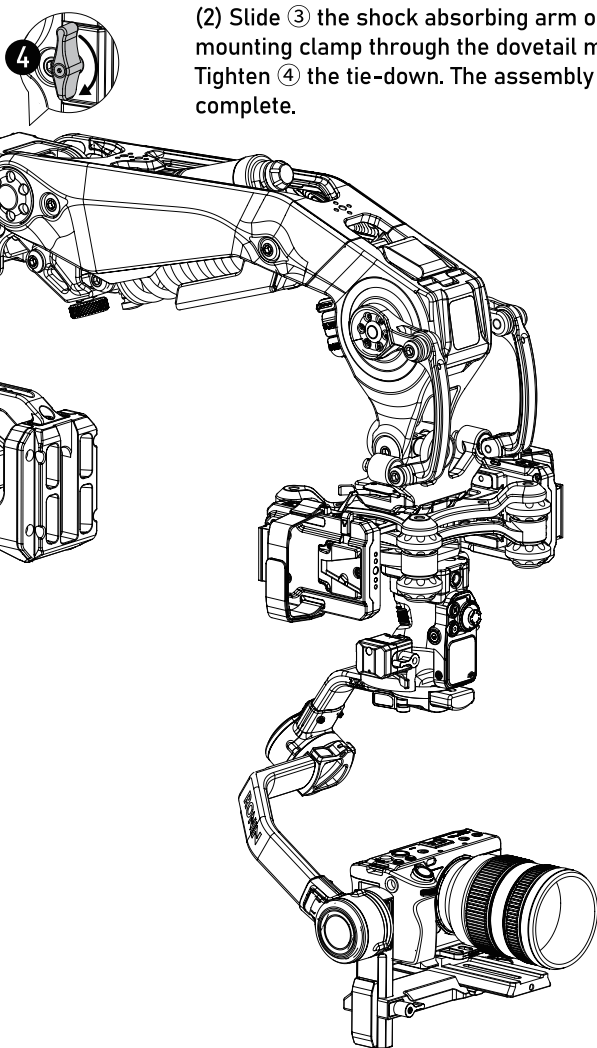
50mm to 45mm Bushing

(The mounting clamp bushing's
diameter expansion range is
45-50mm)



3

(2) Slide ③ the shock absorbing arm onto the mounting clamp through the dovetail mount. Tighten ④ the tie-down. The assembly is complete.



50MM SPEED RAIL CAR MOUNT CONFIGURATION (OPTIONAL)

The 50mm speed rail car mounting kit (HDA-SRK) can be selected according to your shooting needs. Assemble with the shock absorbing arm and mounting clamp to create the 50mm speed rail car mount shooting mode.

50mm to 45mm Bushing

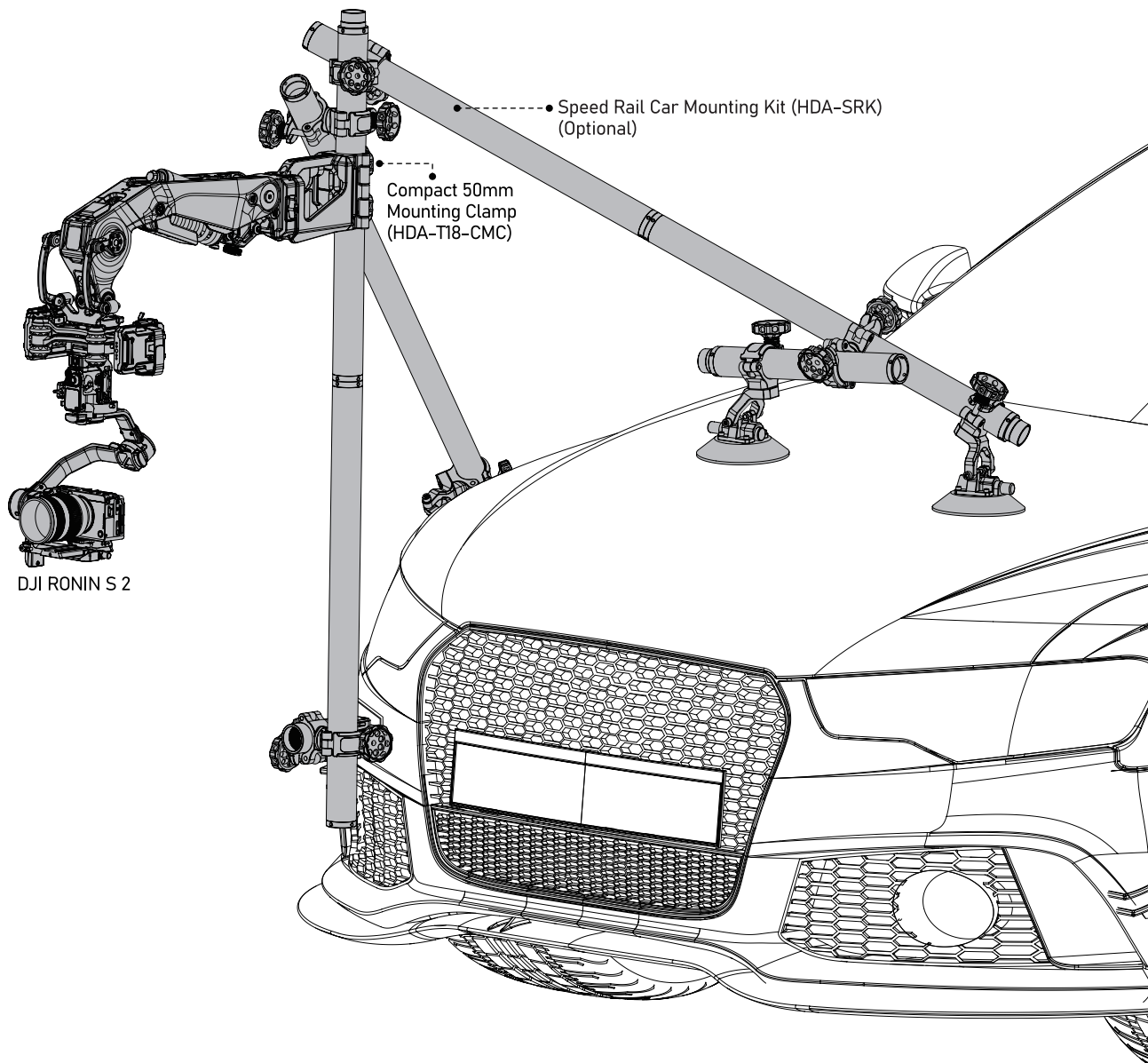
(The mounting clamp bushing's diameter expansion range is 45-50mm)



[NOTE]

If you already own the 45-48mm speed rail system, you can adapt it using the 50mm to 45mm bushing included with the mounting clamp.

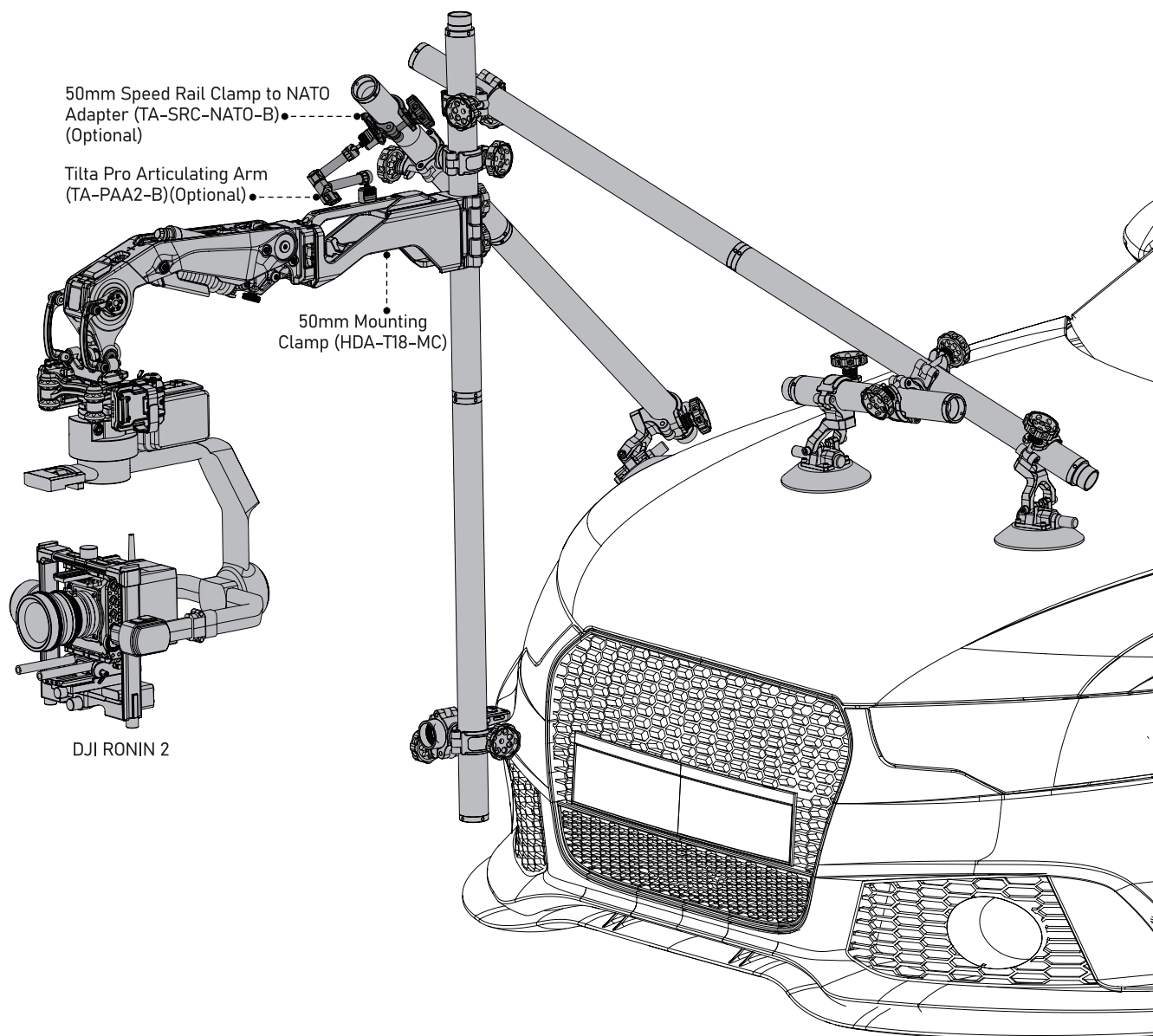
(The mounting clamp bushing's diameter expansion range is 45-50mm.)



DJI RONIN S 2

■ ASSEMBLING THE ANTI-SLIP MOUNTING ATTACHMENT SETUP (OPTIONAL)

Use the Tilta Pro Articulating Arm (TA-PAA2-B) and 50mm Speed Rail Clamp to NATO Adapter (TA-SRC-NATO-B) to assemble the anti-slip setup and prevent the mounting clamp from rotating with the speed rail while the vehicle is moving.



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免责声明

感谢您购买TILTA产品。

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注意事项和警告

使用本产品前,请严格遵守以下说明,如因失误操作或者不正当使用等造成的相关后果,我司不负任何责任。

温度

- 请在-20℃至80℃的环境下使用HYDRA ALIEN PRO。

路面

- 在重负载和颠簸路面的情况下,建议使用管架方式作为支撑来拍摄。安全可靠、支撑刚度强,对车体更友好。

负载

- 切勿搭载超过重量限制设备。
- 颠簸路面使用底盘通过性强、减震软的车型更合适。

稳定器调节

- 稳定器的调节对画面的稳定至关重要。
- 摄影机的安装体积尽可能小,尽可能让重心不偏离稳定器电机太远。
- 稳定器请选用车拍模式。

电源的监控

- 减震臂采用电控阻尼,请在使用前确保电池、电量充足(更建议使用大容量电池)。

安全检查

- 在使用前务必先阅读使用说明,切勿盲目使用。
- 在拍摄前务必逐个检查支撑架的每一个锁扣是否锁紧,保证安全拍摄,安全生产。

电动吸盘的注意事项和警告

电动吸盘主体内置 **3.7V 2000mAh** 锂电池。

配件要求

- 充电环境温度高于40°C或低于5°C可能导致电池性能下降、膨胀、漏液、过热等损坏。
- 切勿将电池存储在超过60°C的环境下。理想的存储环境温度为22°C至28°C。

操作环境

- 请在温度为-20°C至45°C之间的环境中使用电池。温度过高将会引起电池异常膨胀、着火，甚至爆炸。在低温环境下使用之前，建议先在常温环境中将电池充满电量，以延长电池使用寿命。
- 请勿将设备放置在易燃、可燃物（如地毯和木制品）附近充电。请时刻留意充电过程，谨防发生意外。
- 请在干燥的环境下存储设备，理想的设备存放环境湿度不高于40%。
- 请勿自行拆卸吸盘改变其机械结构。我们出厂前已完成调试，否则将会导致吸盘性能下降及损坏。

电池安全

【警告】

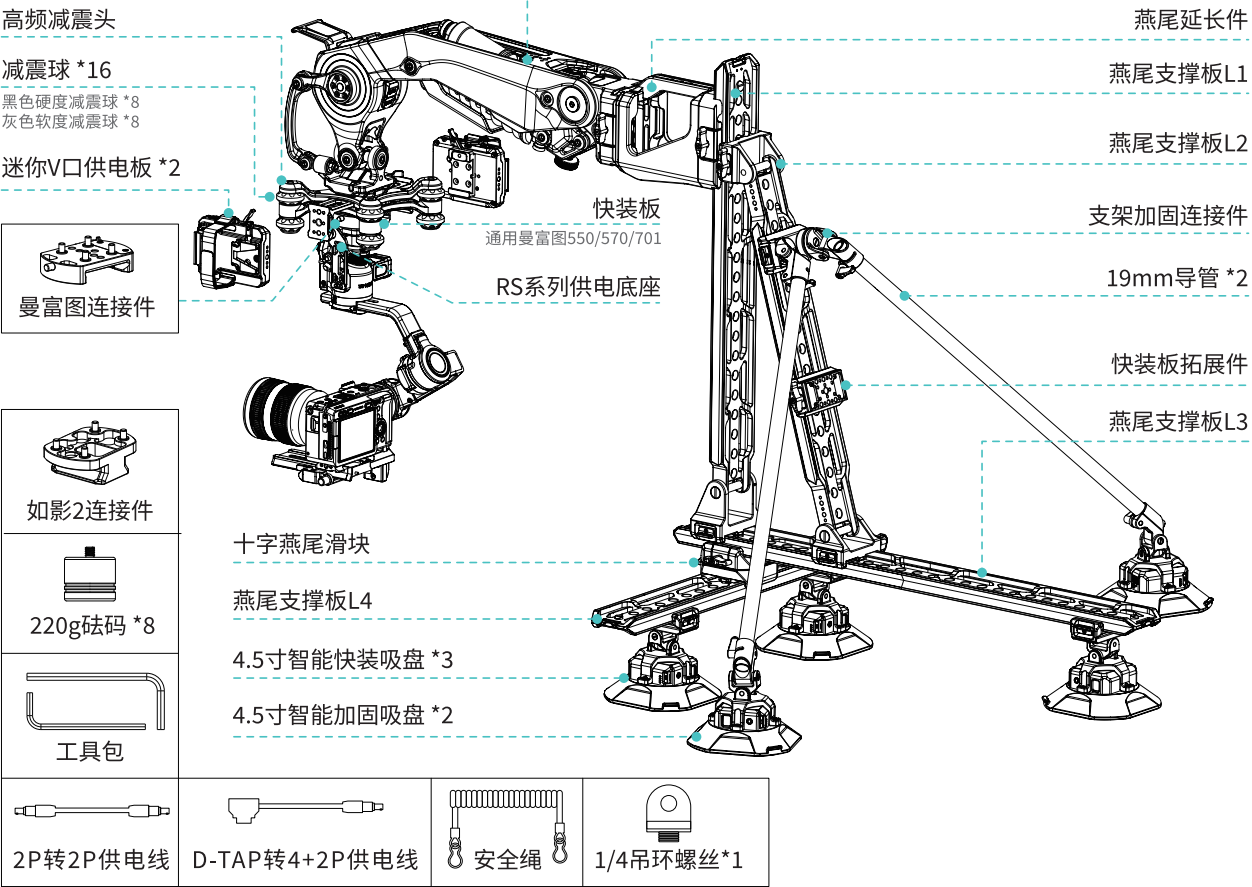
- 本设备配有不可拆卸的内置电池，请勿自行更换电池，以免损坏电池或设备。
- 请勿将电池暴露在高温处或发热设备的周围，如日照、取暖器、微波炉、烤箱或热水器等。电池过热可能引起爆炸。
- 请勿拆解或改装电池、插入异物、或浸入水或其它液体中，以免引起电池漏液、过热、起火或爆炸。
- 电池内部电解液具有强腐蚀性，如果不小心接触到皮肤或眼睛，请立即用清水冲洗至少15分钟并马上就医。
- 请勿把电池扔到火里，否则会导致电池起火和爆炸。
- 请勿跌落、挤压或穿刺电池。避免让电池遭受外部大的压力，从而导致电池内部短路和过热。
- 请勿使用已经损坏的电池。
- 切勿将电池彻底放完后长时间存储，以避免电池进入过放状态而造成电芯损坏，将无法恢复使用。
- 务必将电池彻底放电后，再将电池废置于指定的电池回收箱。电池是危险化学品，严禁弃置于普通垃圾箱。相关细节，请遵循当地电池回收和废置的法律法规。如电池无法彻底放电，请勿将电池直接弃置于电池回收箱，应联系专业电池回收公司做进一步的处理。

维护和保养

- 请保持设备清洁，无沙尘等异物。使用干净、干燥的布料及时清理产品上的异物。
- 请勿使设备及其配件受到强烈的冲击或震动，以免损坏设备及其配件，导致设备故障。

认识HYDRA ALIEN PRO

Alien Pro 减震臂

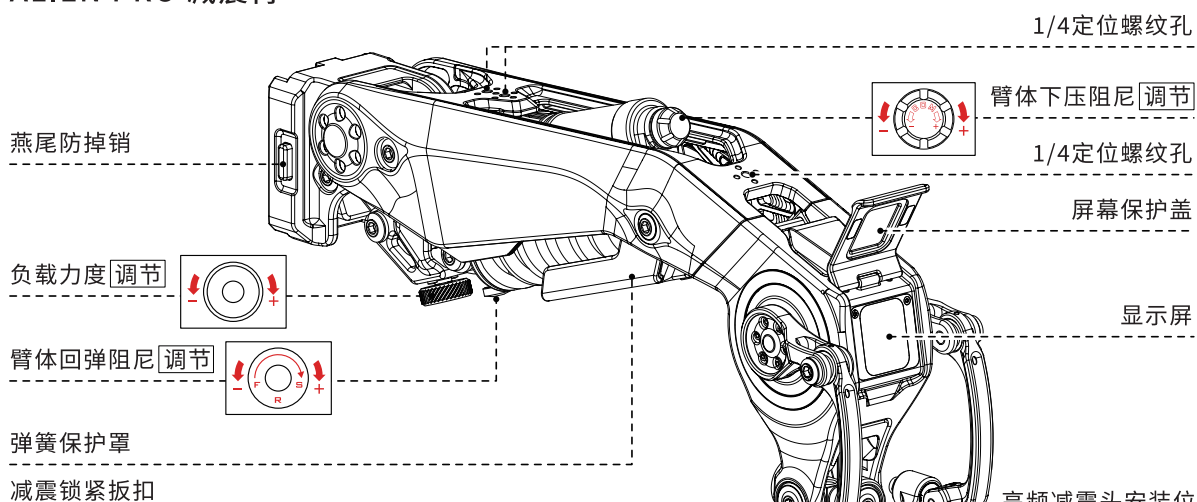


选配清单 (另购)

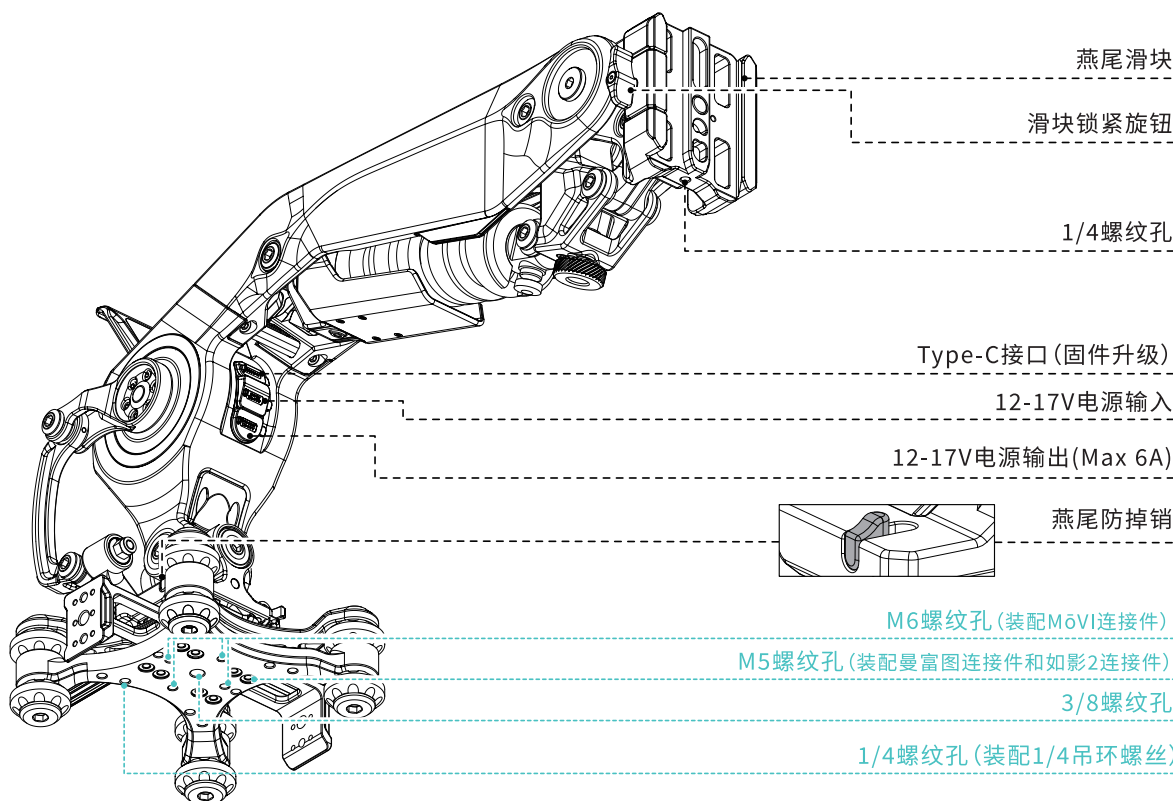
原力N2 多功能控制手柄 (WLC-T05-CH)	管卡延长件 (50mm) (短款) (HDA-T18-CMC)	管卡延长件 (50mm) (长款) (HDA-T18-MC)
MöVi转接件 (GR-T03-MA)	后置供电板连接件 (HDA-T18-PMB)	无线接收盒 (TGA-WCR)

了解ALIEN PRO减震臂和高频减震头

ALIEN PRO 减震臂



高频减震头



了解吸盘与支架组件

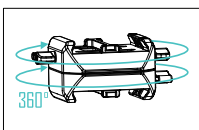
燕尾延长件

1/4定位螺纹孔
燕尾锁紧旋钮
燕尾滑块

燕尾支撑板L4

十字燕尾滑块

燕尾锁紧旋钮
燕尾滑块
万向调节锁紧旋钮



快装板拓展件

燕尾锁紧旋钮
1/4定位螺纹孔
3/8定位螺纹孔
挂线孔

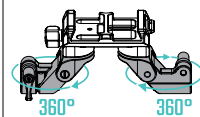
19mm导管

挂线孔 1/4螺纹孔

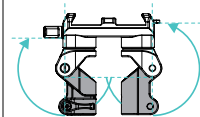
导管连接件
圆管锁紧旋钮
19mm圆管适配孔

燕尾支撑板L3

保险销



导管连接件
可360°水平旋转调节



圆管适配孔
可俯仰旋转调节

燕尾支撑板L1

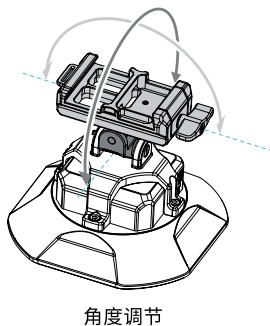
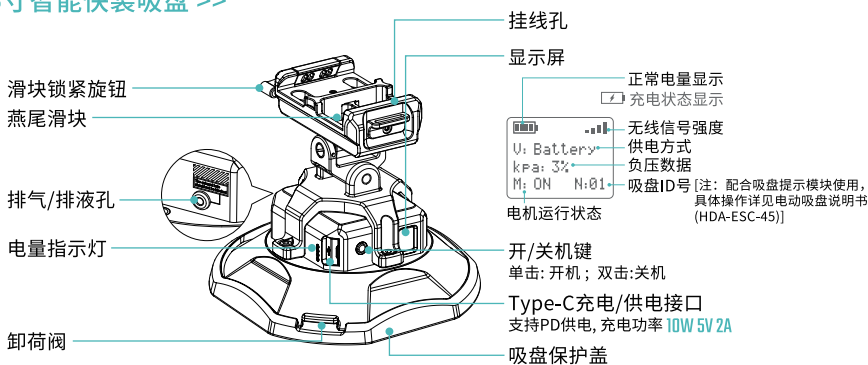
燕尾滑块
燕尾锁紧旋钮
燕尾滑槽

燕尾支撑板L2

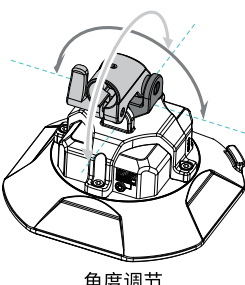
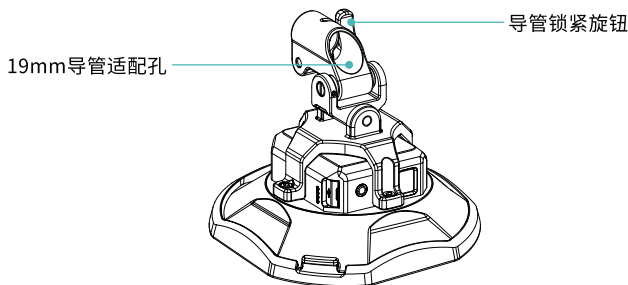
燕尾滑块(可245°旋转)

245°

4.5寸智能快装吸盘 >>



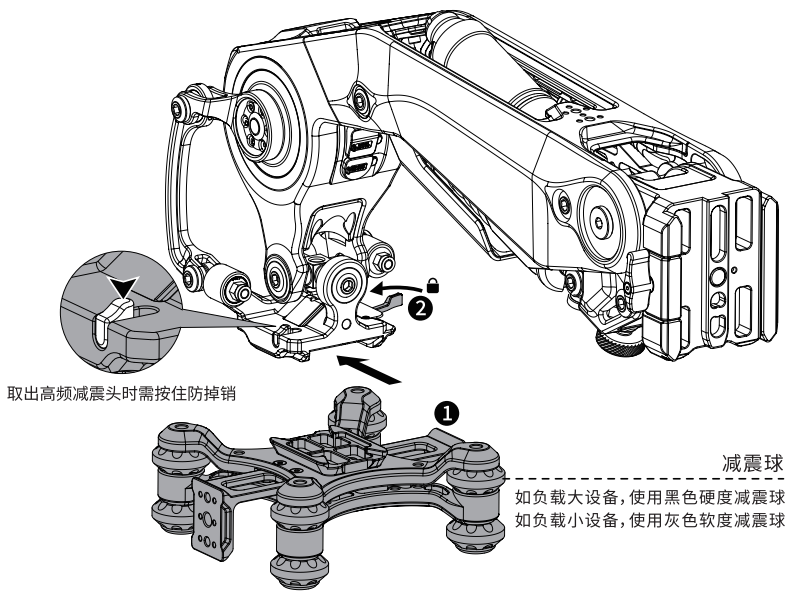
4.5寸智能加固吸盘 >>



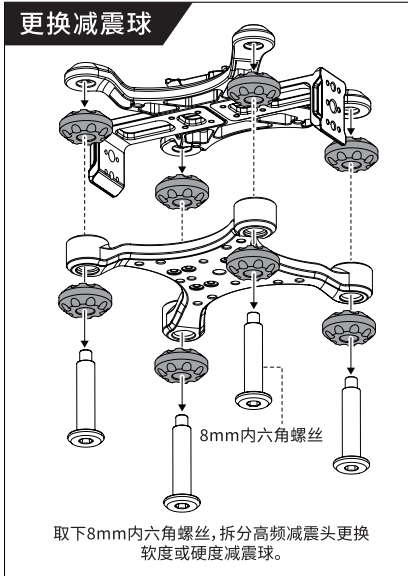
减震臂-装配介绍

■ 装配减震臂与高频减震头

将高频减震头①滑入减震臂的燕尾安装位上，锁紧扳扣②完成装配。



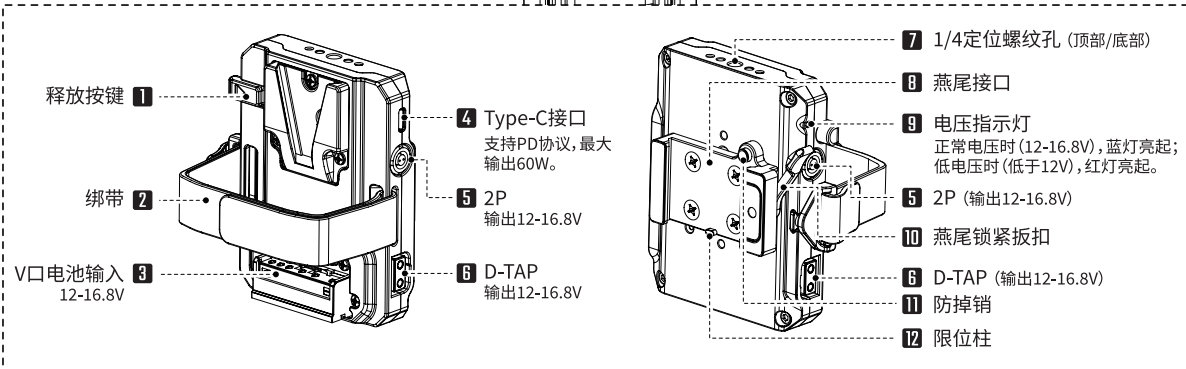
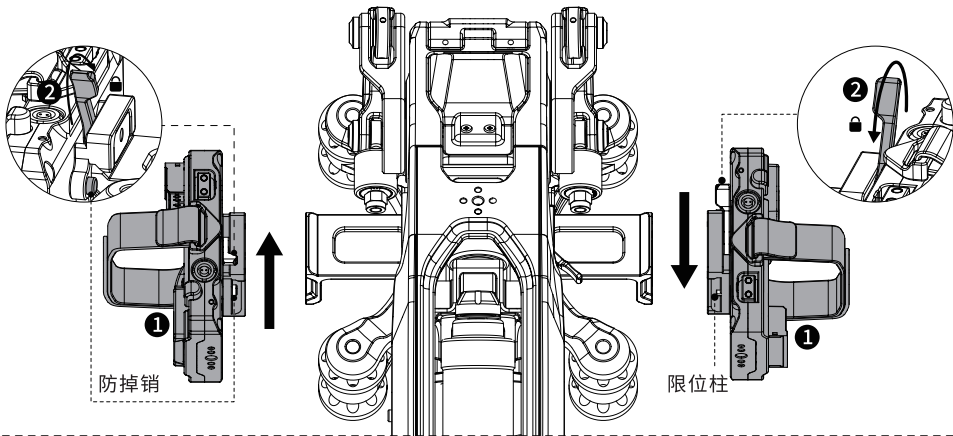
更换减震球



■ 装配迷你V口供电板

将V口供电板①滑入减震头侧面的燕尾滑块上，锁紧扳扣②完成装配。

注意：供电板带限位柱，仅可从带防掉销方向单向滑入。

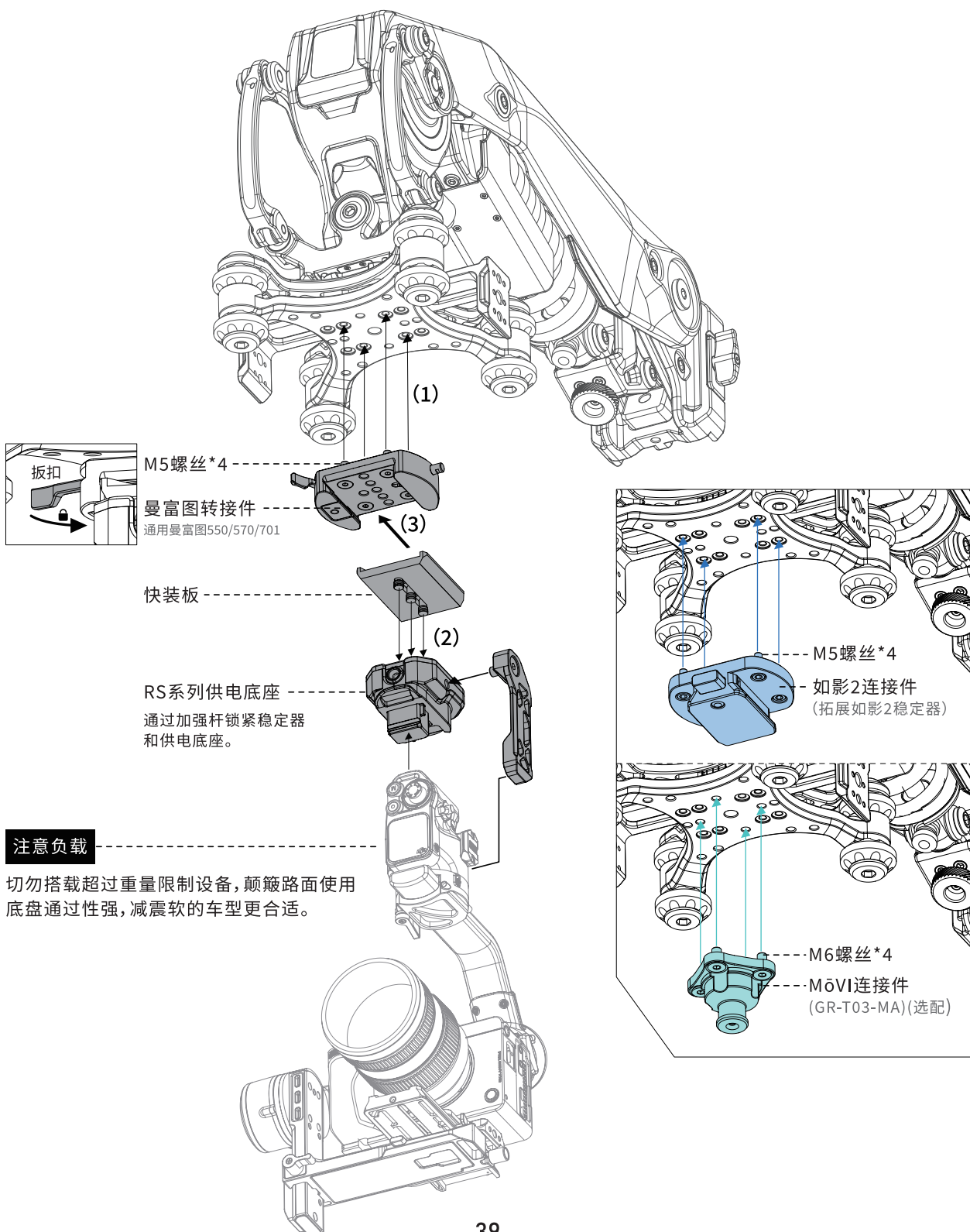


■ 装配负载设备

高频减震头底部含多个螺纹孔，可装配不同连接件负载设备。

如图所示，

- (1) 用M5螺丝将曼富图连接件安装在高频减震头底部。
- (2) 稳定器和快装板锁紧到RS系列供电底座上。
- (3) 将装配好的稳定器通过快装板滑入到曼富图转接件上，锁紧扳扣完成。



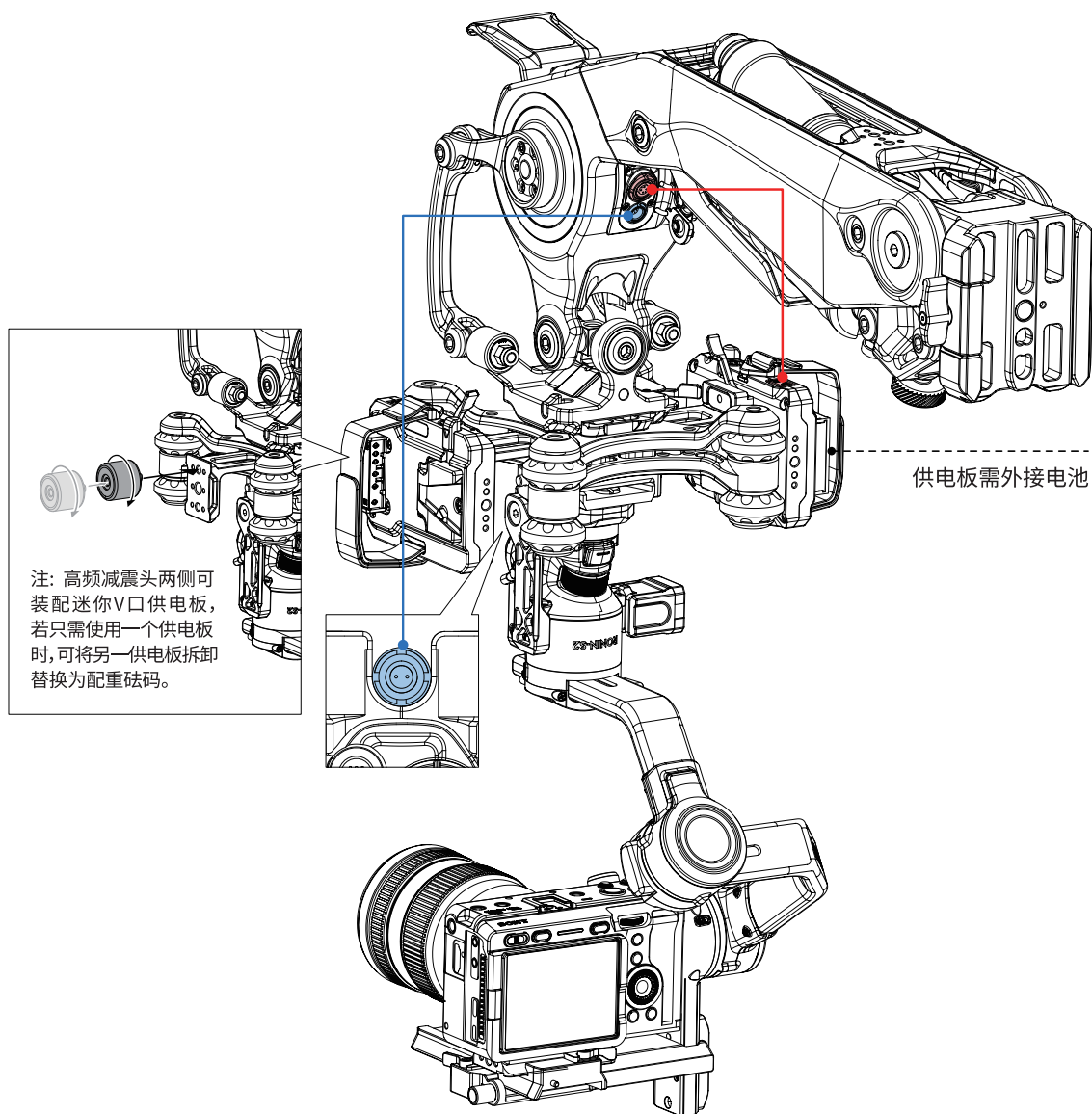
减震臂-外部供电说明

组装好的减震臂两侧可装上迷你V口供电板，配上电池与供电线可给减震臂与负载设备供电。

连接供电线

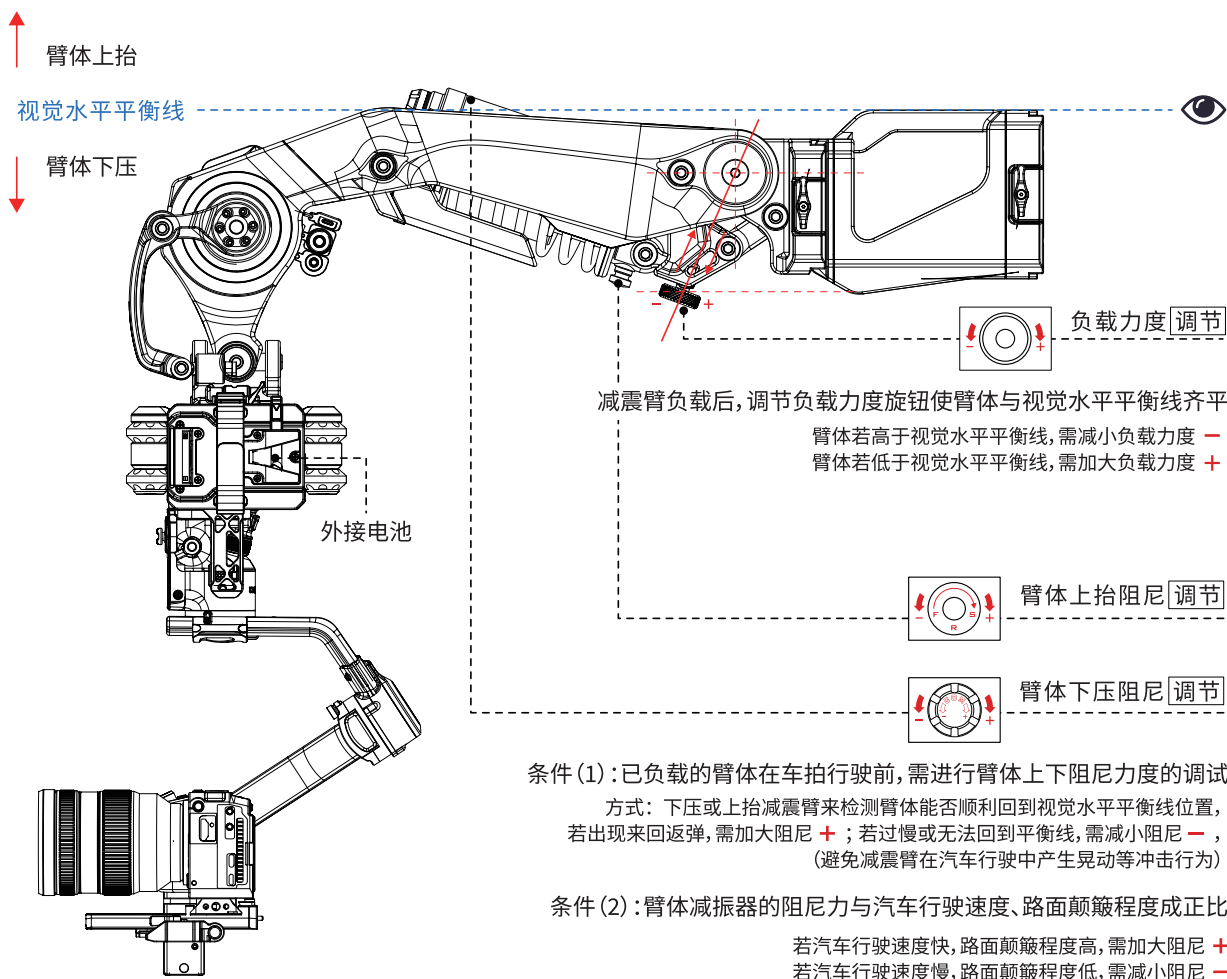
● 图上所示红色标线为D-TAP转4+2P供电线
● 供电线两端连接在主臂的DC-IN输入接口与V口供电板的D-Tap输出接口上，给主臂供电。

● 图上所示蓝色标线为2P转2P供电线
● 供电线两端连接在主臂的DC-OUT输出接口与RS系列供电底座的2芯输入接口上，间接给RS系列设备供电。
(注:RS系列供电底座只给RS系列设备间接供电,其他负载设备使用相应的供电装配)



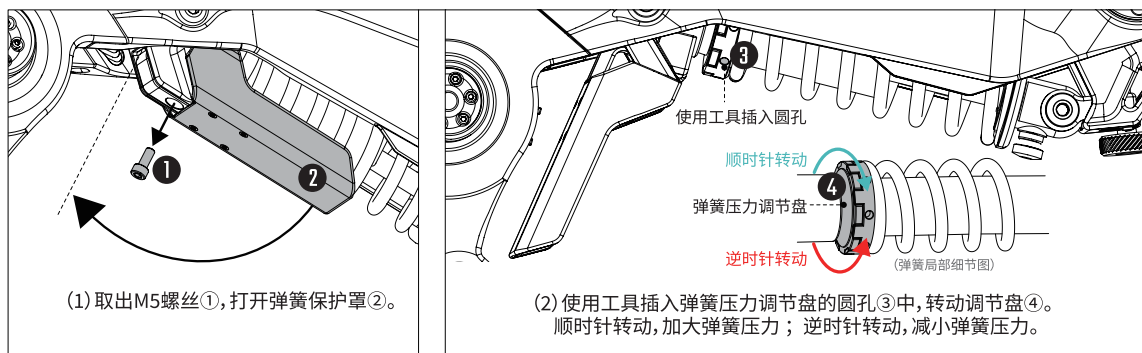
减震臂-负载后的调平说明

- (1) 把摄影机、稳定器、图传、供电等相关设备安装在减震臂上，确定最终负载状态。(车拍行驶前进行负载力度调节)
- (2) 根据臂体最终负载、路面颠簸情况和车辆行驶速度，进行手动平衡调节(如增减臂体上抬阻尼与下压阻尼、负载力度)及减震头前后左右的缓冲阻尼调节(详见UI界面操作)。
- (3) 最后根据画面的情况，再微调各项参数即可。



弹簧压力调节 (仅在特殊情况下使用)

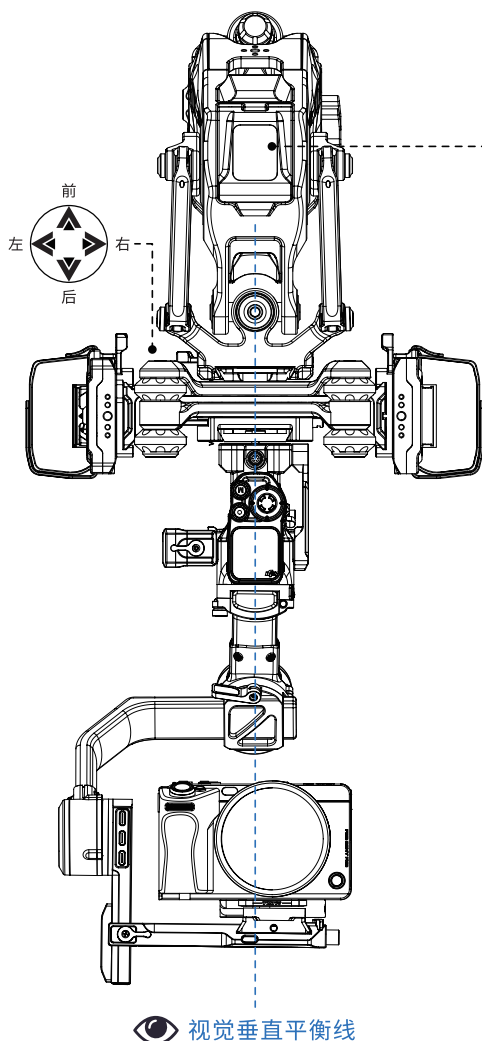
减震臂在最终负载状态下，调节臂体负载力度旋钮到极限后仍无法使臂体回到视觉水平平衡线时，可通过调节弹簧压力大小使臂体与视觉水平平衡线齐平。



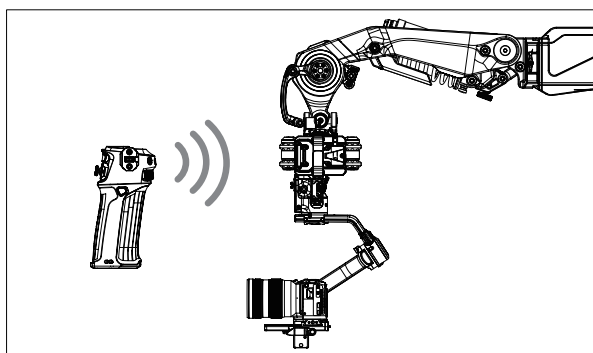
减震臂-减震头负载/阻尼调参说明

打开屏幕保护盖,进行负载后的减震头前后左右运动的阻尼调节

认识减震臂屏幕主界面



- 1** 无线信号状态(显示是否已配对无线与信号强弱)
与铁头 原力N2多功能控制手柄进行无线配对,控制减震头阻尼与负载调参。(详见无线控制页面操作)



2 阻尼力度数显调节(0-100, 每间隔5)

条件(1):已负载的臂体在车拍行驶前,需进行减震头前后左右阻尼力度的调试

方式:摆动减震头来检测减震头及设备能否顺利回到视觉垂直平衡线位置,

若出现来回反弹,需加大阻尼 **+**; 若过慢或无法回到平衡线,需减小阻尼 **-** (避免减震臂在汽车行驶中产生晃动等冲击行为)。

条件(2):减震头前后左右的阻尼力与汽车行驶速度、路面颠簸程度成正比

若汽车行驶速度快,路面颠簸程度高,需加大阻尼 **+**;

若汽车行驶速度慢,路面颠簸程度低,需减小阻尼 **-**。

3 负载模式调节(LIGHT/MEDIUM/HEAVY模式, ◀ ▶ 左右切换模式)

根据挂载情况选择合适的负载模式

轻载模式—对应大疆Ronin 4D、大疆RS系列稳定器挂载微单等摄影机,重量在(4-7KG),阻尼参考值(35-80)。

中载模式—对应Mövi-Pro、Ronin-M等稳定器挂载微单反等专业摄影机,重量在(7-10KG),阻尼参考值(35-65)。

重载模式—对应大疆如影2稳定器挂载专业摄影机,重量在(10-13KG),阻尼参考值(45-75)。

4 电源电压(对当前电压进行监测)

电压过低呈红色显示时,无线控制下的原力N2多功能控制手柄以振动/蜂鸣的形式提醒需要更换外部电池。

5 垂直状态数显

6 水平状态数显



固件升级设置

版本信息界面

向上滑

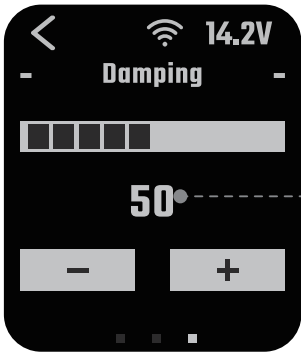


系统设置界面

向左滑



向下滑



阻尼调参界面

阻尼力度数显调节
(0-100,每间隔1)
根据情况进行更细的阻尼参数调节



选中状态显示



无线设置界面

减震臂ID号 (01-15)
注:每台减震臂仅可与一台手柄
配对一个ID,避免信号干扰。
(详见无线控制页面操作)

系统设置



【校准电机设置】

【选择电机校准设置】，根据提示确定在无负载状态下校准电机，【确定】后根据进度完成即可。

【语言设置】

【恢复出厂设置】

固件更新设置

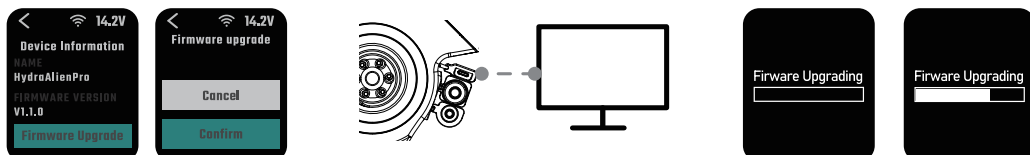
【关机状态下更新】

- (1) TILTA官网下载更新固件，如有安装疑问，可咨询铁头官方客服。（TILTA官网：www.tilta.com）
- (2) 减震臂在关机状态下，通过数据线连接减震臂Type-C接口至个人电脑。
- (3) 当电脑显示出减震臂U盘时，系统会提示先格式化U盘，再将下载好的更新固件移动到减震臂U盘里，待更新进度完成。



【使用状态下更新】

- (1) 打开【版本信息界面】，点击【固件更新】，【确认】后减震臂进入重启状态
- (2) TILTA官网下载更新固件，如有安装疑问，可咨询铁头官方客服。（TILTA官网：www.tilta.com）
- (3) 通过数据线连接减震臂Type-C接口至个人电脑。
- (4) 当电脑显示出减震臂U盘时，系统会提示先格式化U盘，再将下载好的更新固件移动到减震臂U盘里，待更新进度完成。



减震臂-无线控制调参说明

(搭配铁头 原力N2多功能控制手柄(选配) 进行无线配对, 控制减震头负载与阻尼的调参)

手柄-切换为【DAMP模式】


1  长按【开/关机键】开机, 三击进入菜单界面


2  模式设置  DAMP 模式

操控【摇杆】上下选择【模式设置】, 单击手柄【功能键-M】进入;
再【摇杆】上下选择【DAMP模式】, 单击【功能键-M】确定。

手柄-【DAMP模式主界面】


阻力力度 (0-100) (滚轮调节)


手柄电量  82 DF


当前负载模式 (LOW/MED/HIG)  LOW 10 H04 配对通道 (00-15)


减震臂ID号 (01-15) (单击【录制键】)


手柄-【DAMP模式手柄功能与调参说明】


 开/关机键
长按: 开/关机
三击: 进入菜单界面

 滚轮
配对后调节减震头阻尼力度 (0-100)

 功能键-M
单击: 在菜单界面下, 菜单确定 /
配对后切换减震头负载模式 (LOW-轻载模式/MED-中载模式/HIG-高载模式)




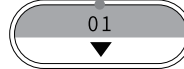
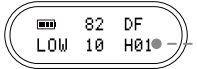
 摇杆
在菜单界面下, 上下选择菜单 /
【无线-2.4G-通道】设置界面下, 上下切换通道 (00-15)

 录制键
单击: 菜单界面返回上一级菜单/切换减震臂ID号 (01-15)

 功能切换键
切换 ▲DF (滚轮旋转无角度限制) / ▼TF档 (无功能) (注意: 控制减震臂需切换到DF模式才可进行调参)

【DAMP模式】下, 手柄与减震臂配对

1 选择通道

 无线设置  2.4G  通道  01  82 DF LOW 10 H01

选择【无线设置】-【2.4G】-【通道】-通道选择 (00-15, 如选01) (共16个通道可选1个通道, 避免信号干扰)。完成后界面上显示已设置好的通道 (如H01)

功能提示: 【摇杆】上下选择菜单, 上下切换通道 (00-15)、【功能键-M】确定、【录制键】返回上一级菜单

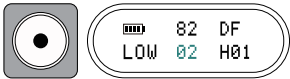
【DAMP模式】下,手柄与减震臂配对

2 选择减震臂ID号

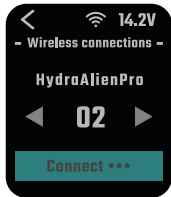
【减震臂】



【原力N2 多功能控制手柄手柄】

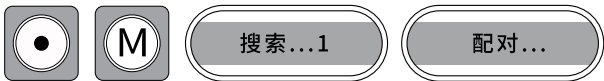


【减震臂】

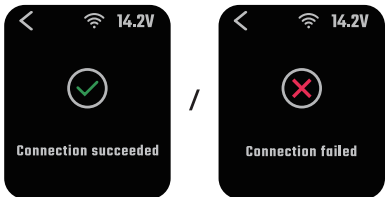


- ❶ 打开减震臂的【无线控制界面】，选择减震臂ID号 (如02)。
- ❷ 单击【录制键】，选择减震臂ID号 (如02)
- ❸ 点击【连接】进入配对，同时手柄也进入配对。

【原力N2 多功能控制手柄手柄】



【减震臂】



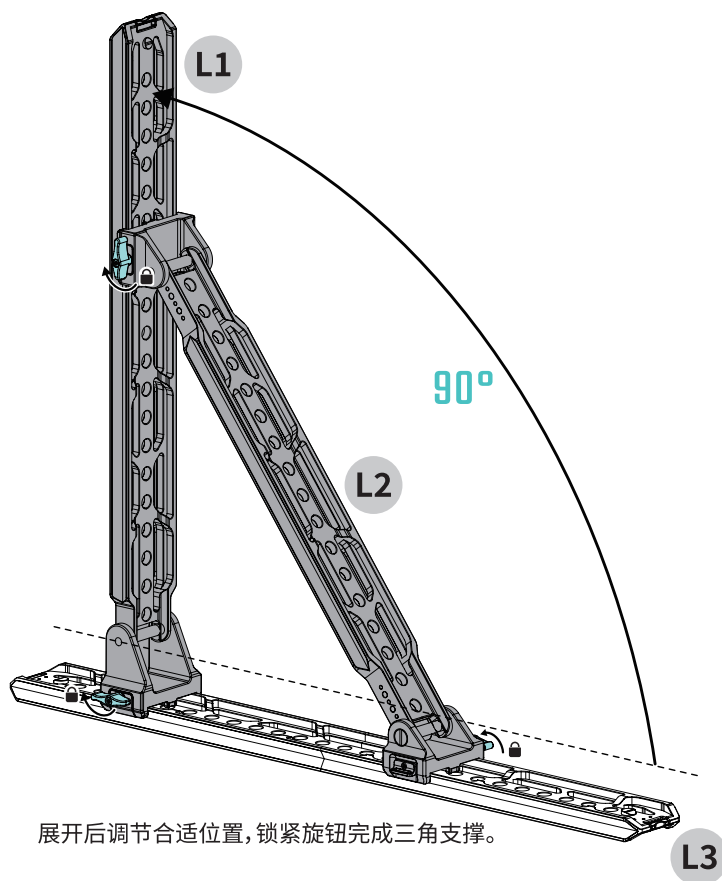
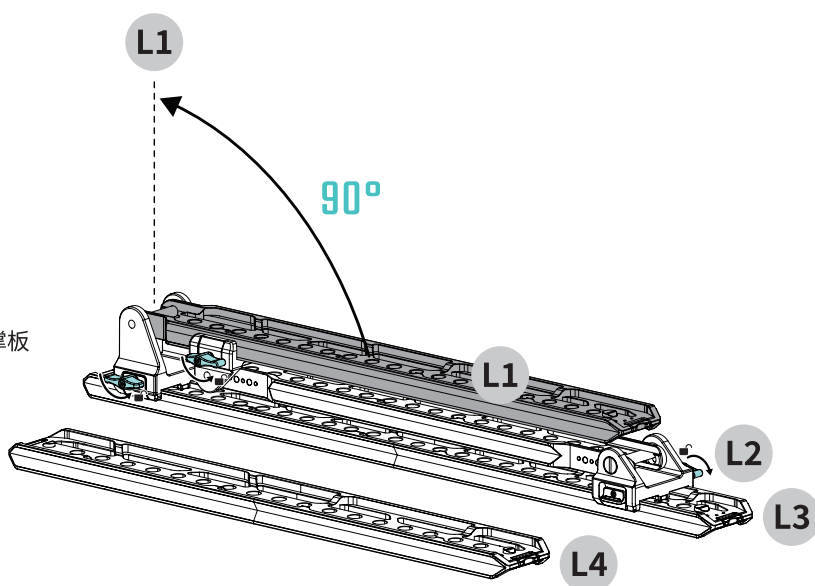
- ❹ 同时按住【录制键】和【功能键-M】进入配对，搜索到电机时【搜索...1】单击【功能键-M】确定【配对...】。
- ❺ 配对后显示配对结果，若配对失败需重新配对。

注意：(1) 配对成功后减震臂和手柄的ID号需一致才可进行控制。
(2) 手柄可与多个减震臂进行配对，配对成功后可通过切换ID号控制已配对的减震臂。

认识快装支架

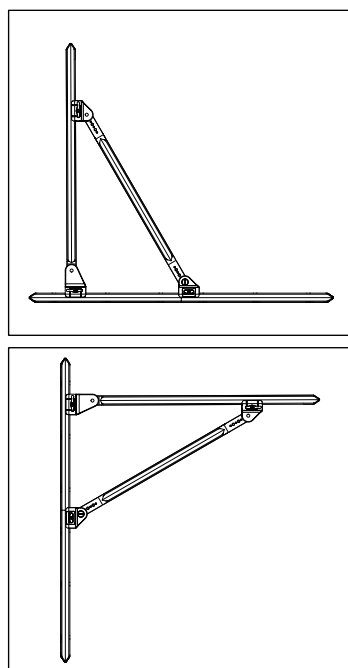
开箱收纳状态

- (1) 取出箱体中的快装支架
- (2) 松开所有旋钮, 90°抬起L1支撑板成三角支撑状态 (如下图)。

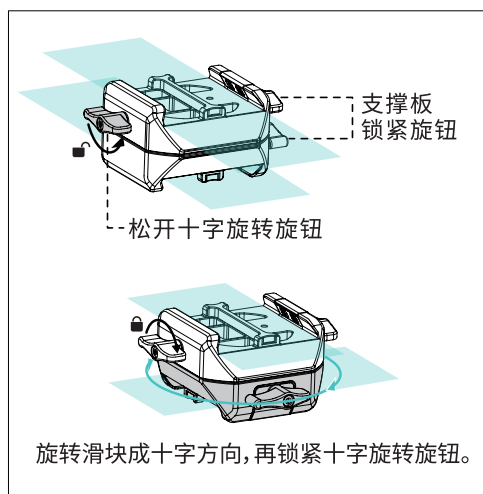


展开后调节合适位置, 锁紧旋钮完成三角支撑。

展开为三角支撑状态



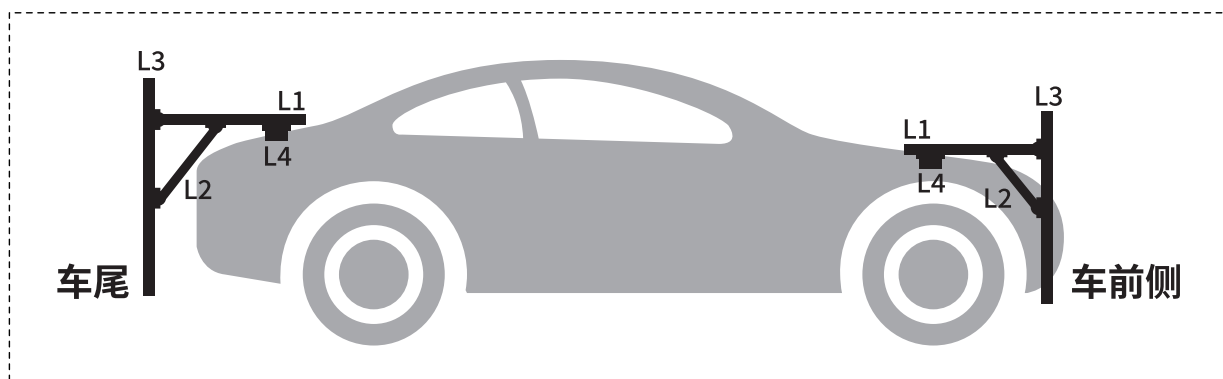
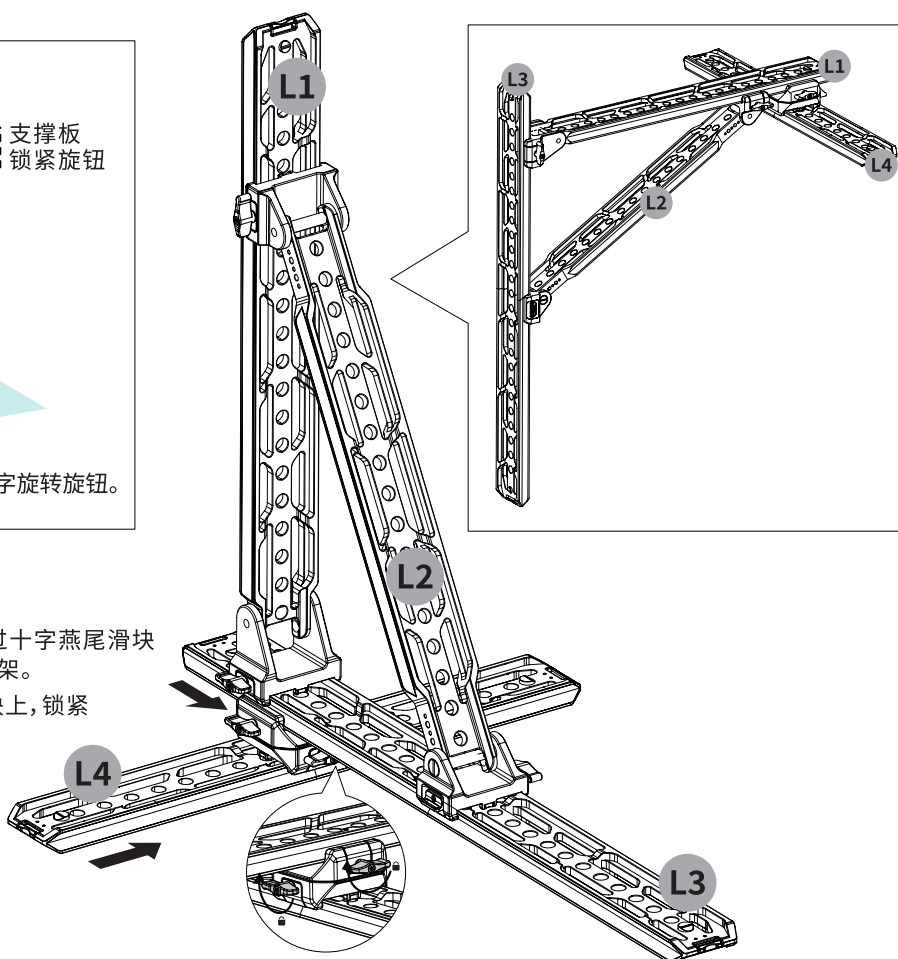
01 十字燕尾滑块



02 组合四根支撑板

支架展开为三角状态后, 通过十字燕尾滑块组合四根支撑板完成组合支架。

(将支撑板分别滑入十字滑块上, 锁紧旋钮完成。)

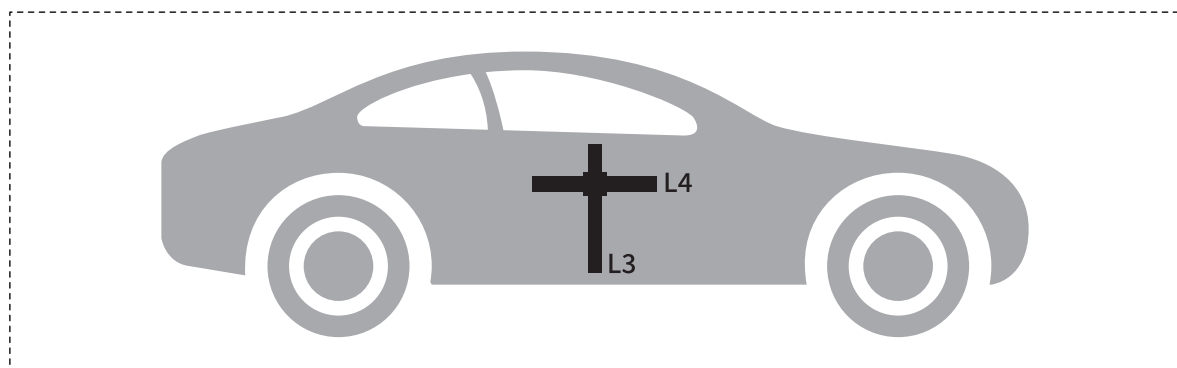
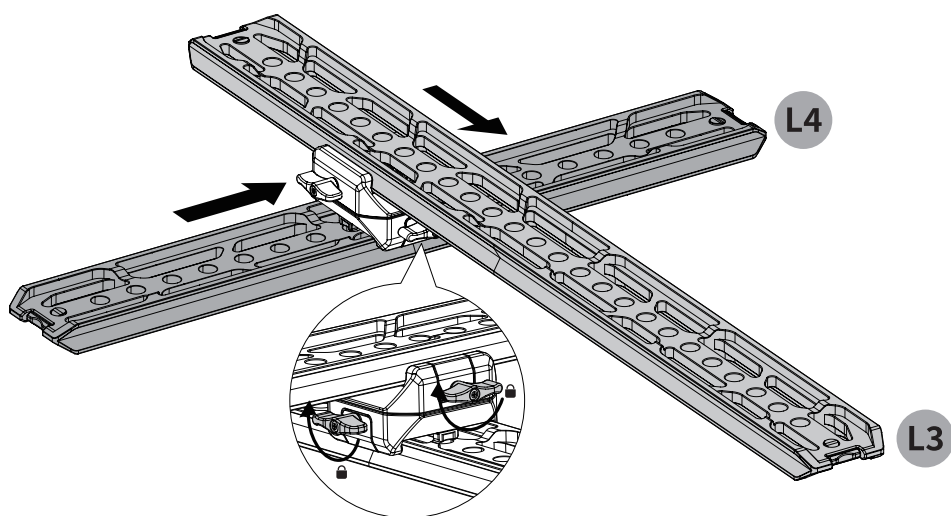


倒三角支撑——车尾/车前侧拍摆放形态 (仅示意)

(需安装完成整体的组装)

■ 快装支架——两根支撑板组装

将L3与L4支撑板分别滑入十字燕尾滑块中，成十字方向形态，锁紧旋钮完成。



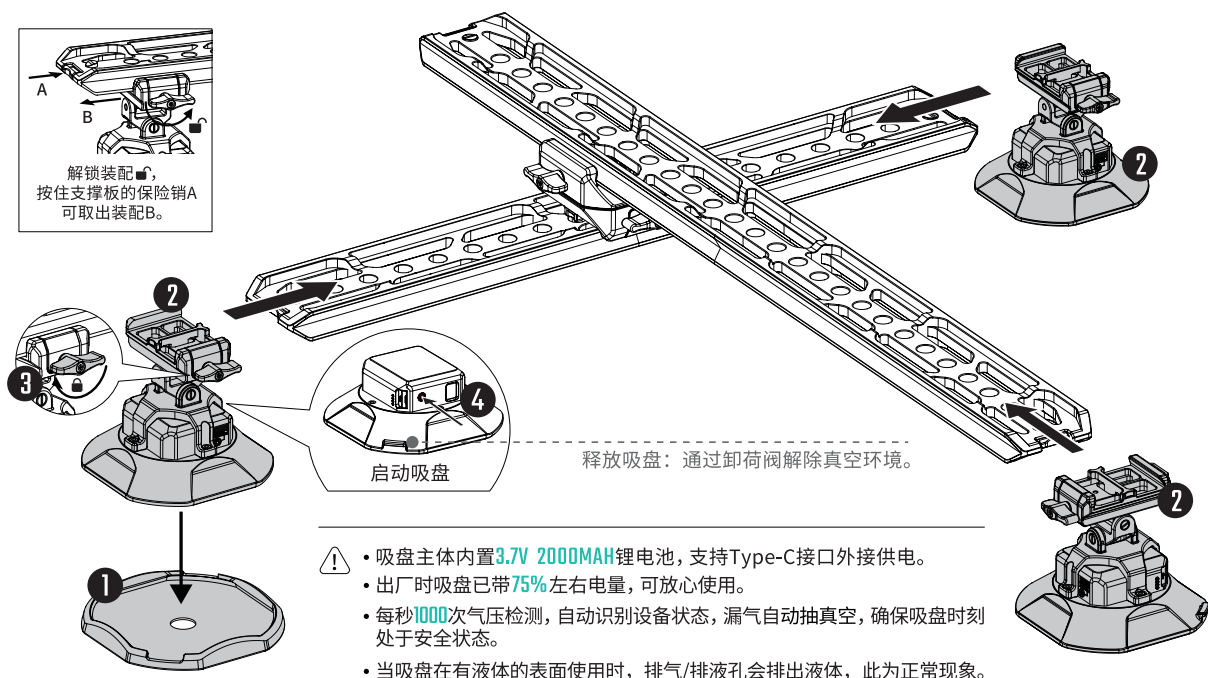
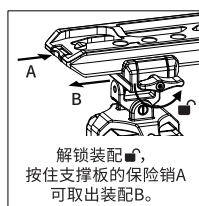
十字支撑——车侧摆放形态(仅示意)

(需安装完成整体的组装)

装配吸盘 (根据套装置装配吸盘)

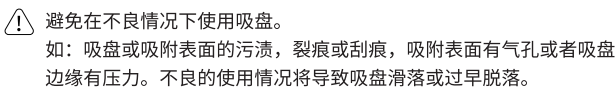
■ 装配电动吸盘

- (1) 移除吸盘保护盖①, 将4.5寸智能快装吸盘②滑入到支撑板上, 锁紧滑块旋钮③。
- (2) 将组装好吸盘的支架放置在车辆的表面上 (如引擎盖/后面/侧面等)。
- (3) 单击红色【开关机键】④, 启动吸盘; 手动按压支撑板顶部, 保证吸盘贴合吸附表面。待吸盘完全吸附停止抽气, 即吸附完成。



- (2) 将组装好吸盘的支架放置在车辆的表面上(如引擎盖/后面/侧面等)。

白色圈进入泵体内。
1/4"-20 Thread *1

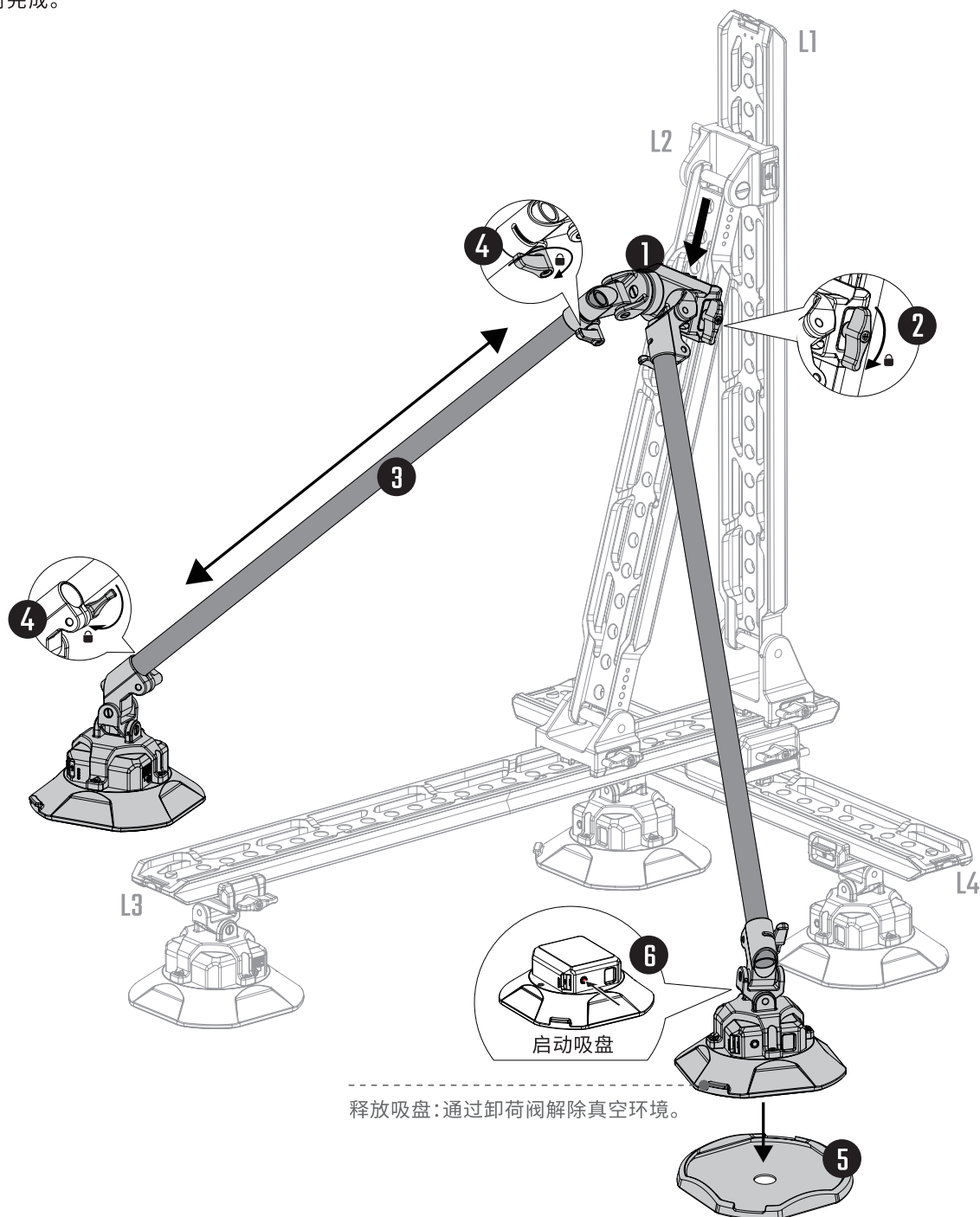


装配支架固定件与加固吸盘(电动或手动)

- (1) 将支架固定件①滑入L2支撑板上, 锁紧旋钮②。
- (2) 将19mm导管③装进支架固定件和吸盘的导管适配孔上, 锁紧旋钮④。
- (3) 支架固定件可进行俯仰和水平调节, 调节好角度和位置后检查是否锁紧旋钮。

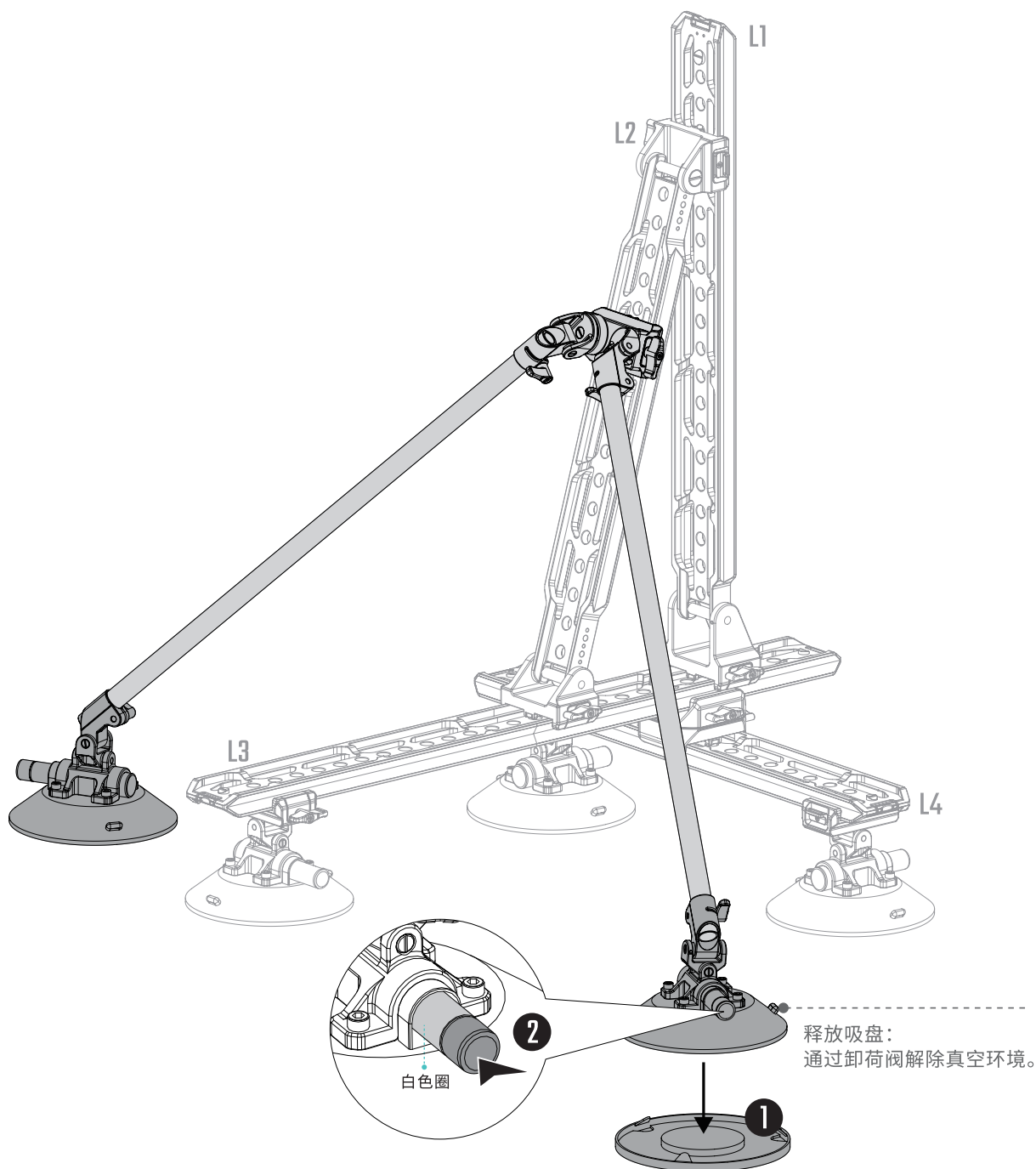
■ 使用加固吸盘-电动版(根据套装置而定)

移除吸盘保护盖⑤, 单击红色【开关机键】⑥; 手动按住吸盘顶部, 保证吸盘贴合吸附表面。待吸盘完全吸附停止抽气, 即吸附完成。

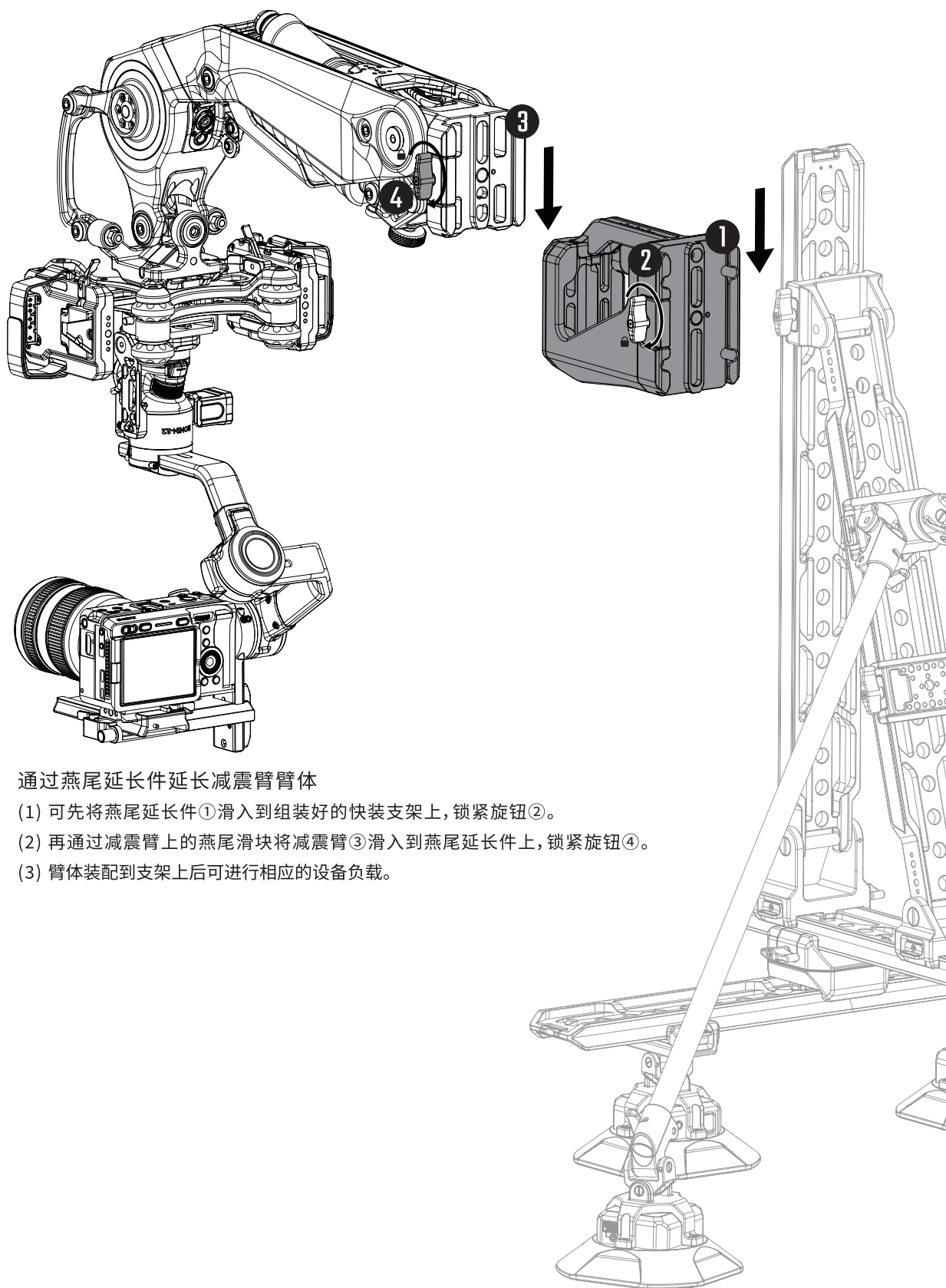


■ 使用加固吸盘-手动版(根据套装配置而定)

移除吸盘保护盖①, 连续按压抽气阀②抽出空气, 直到抽气阀上的白色圈进入泵体内。

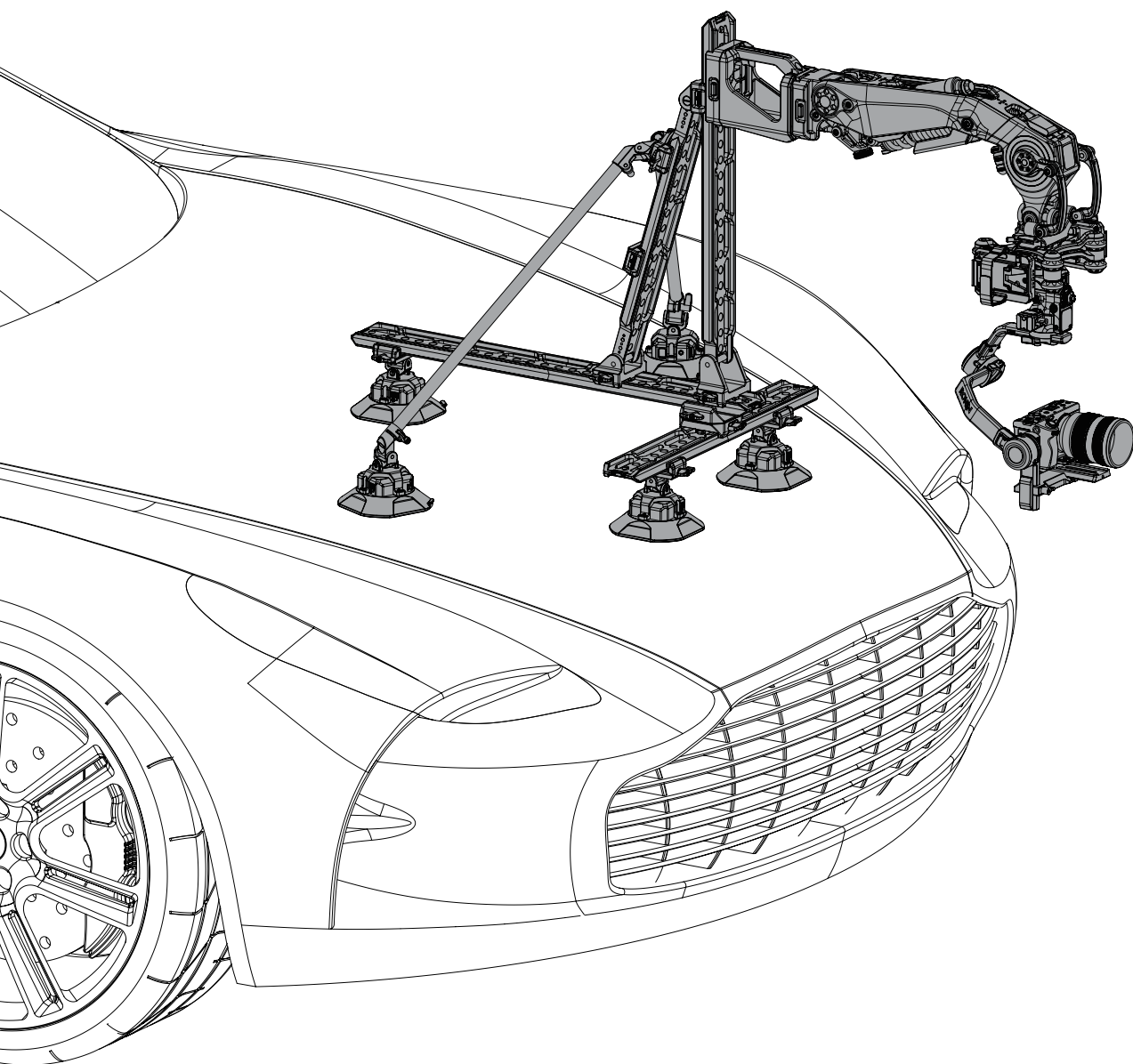


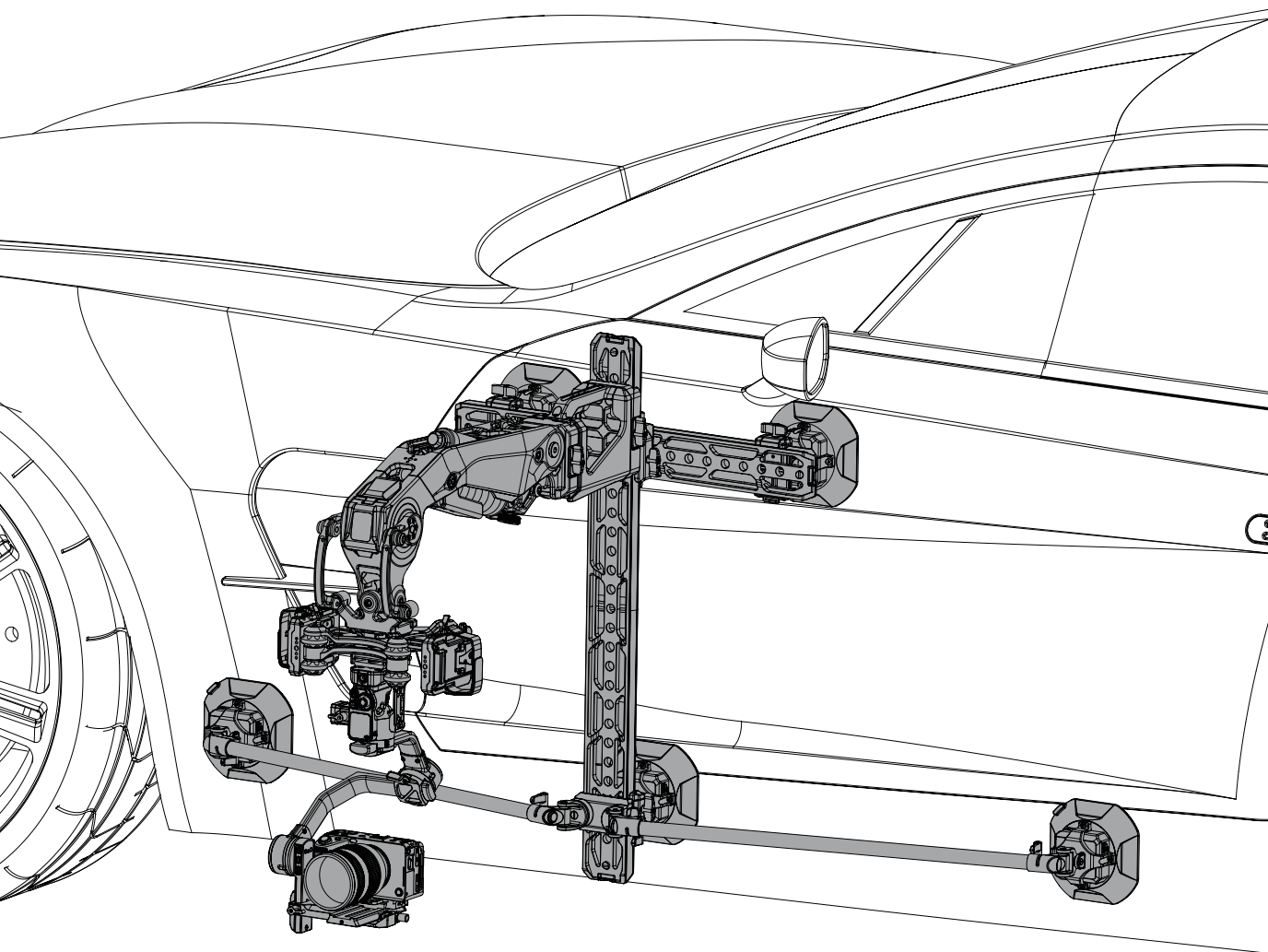
装配燕尾延长件

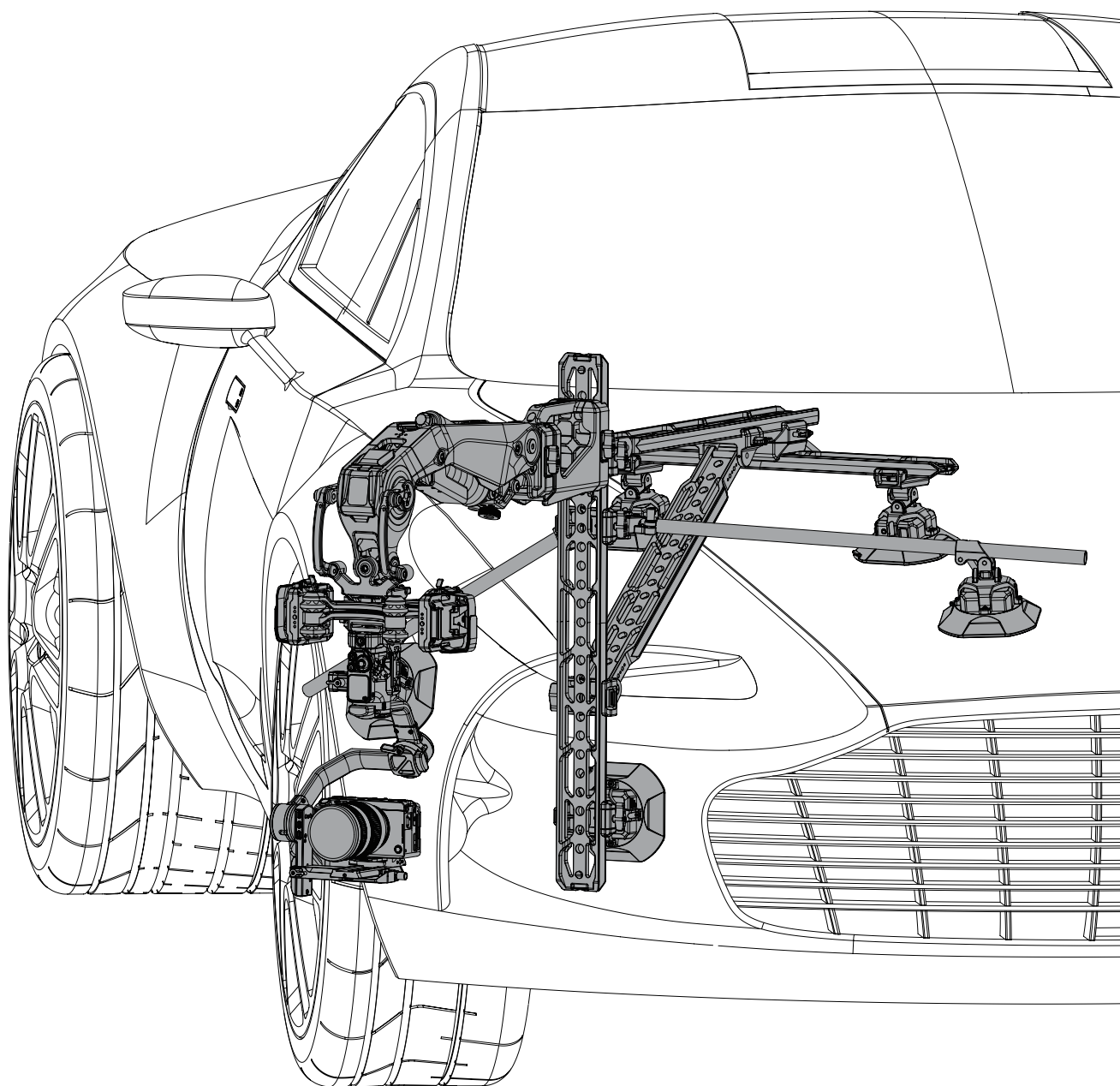


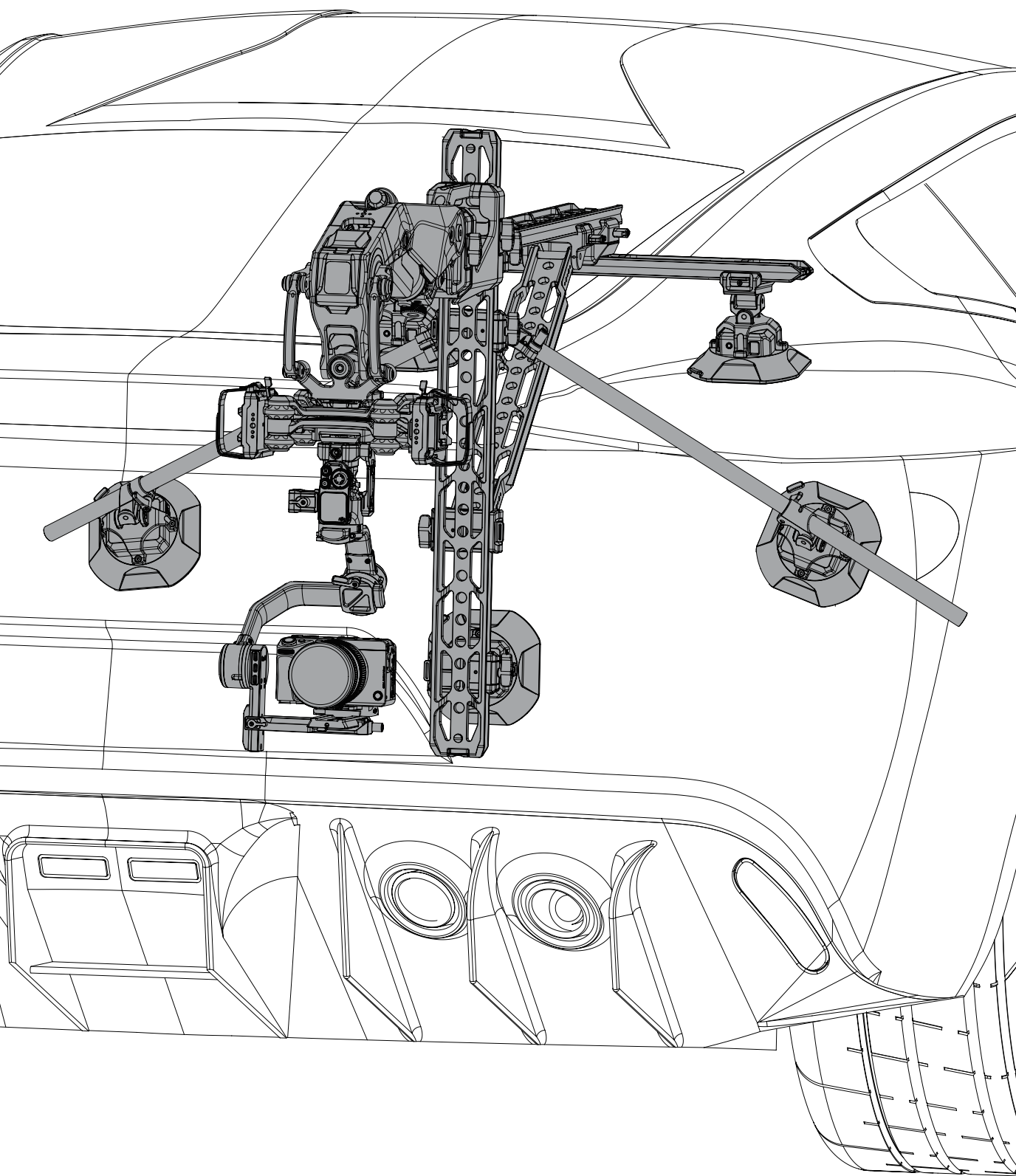
使用场景

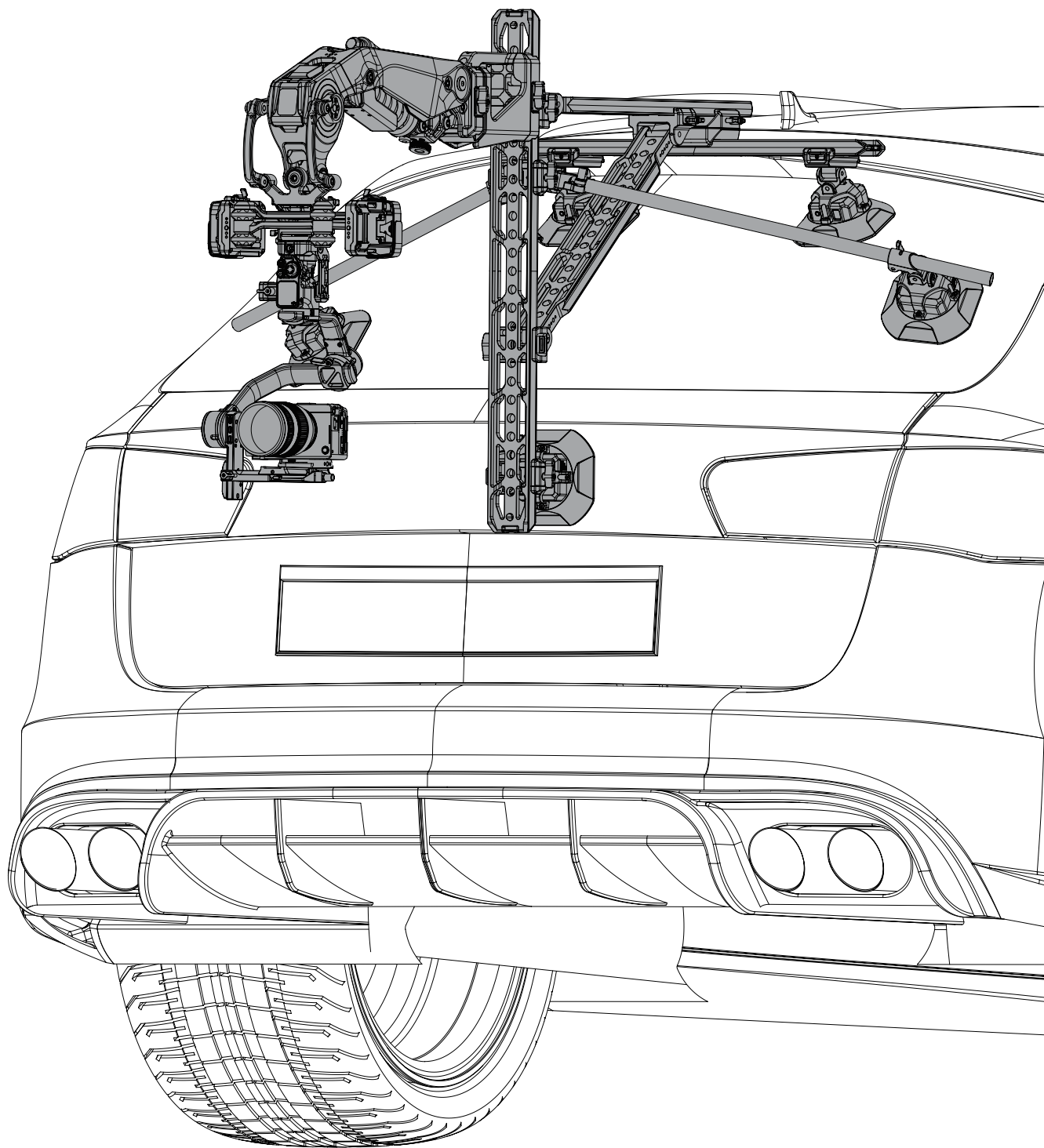
引擎盖拍摄方式

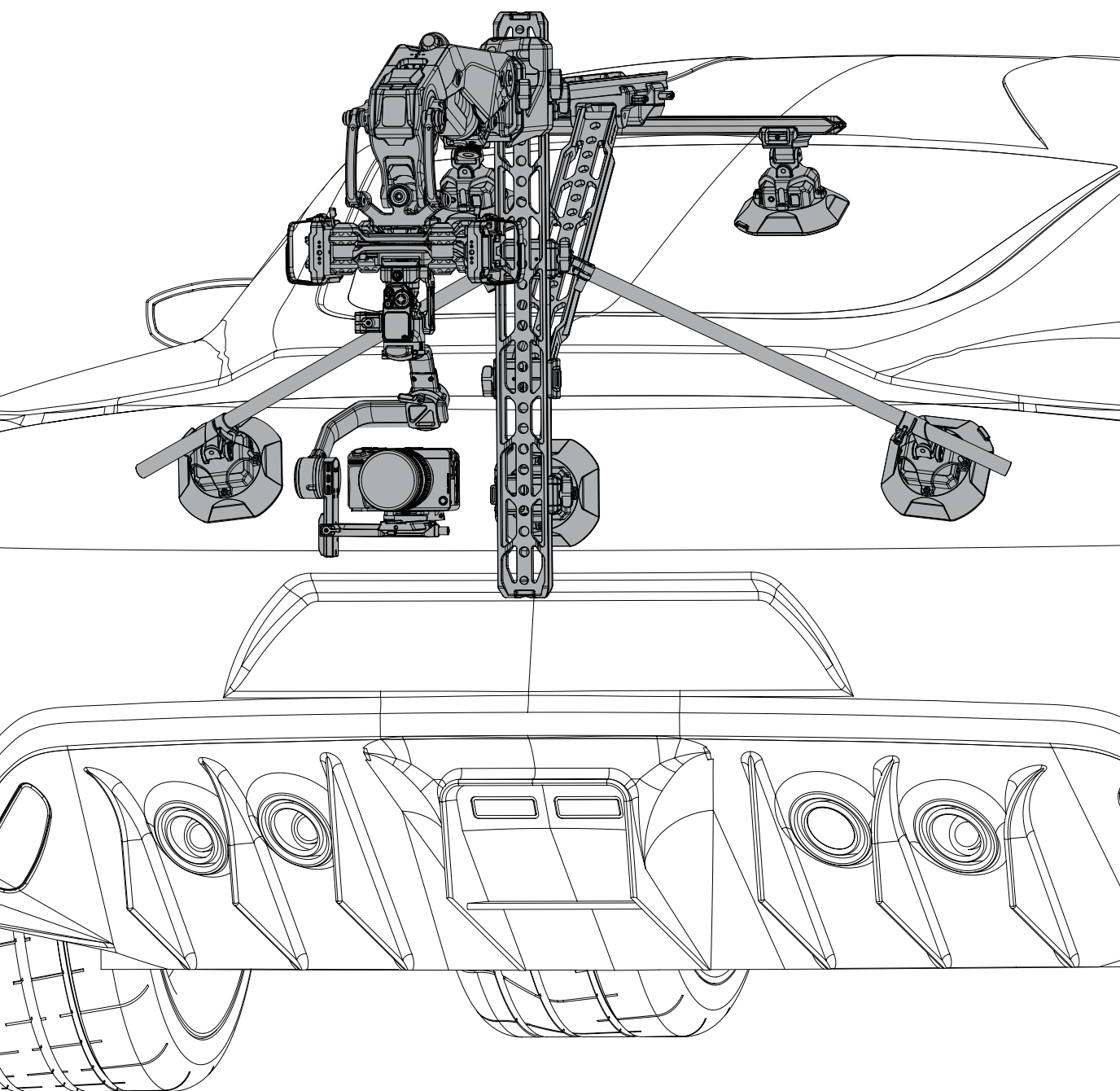




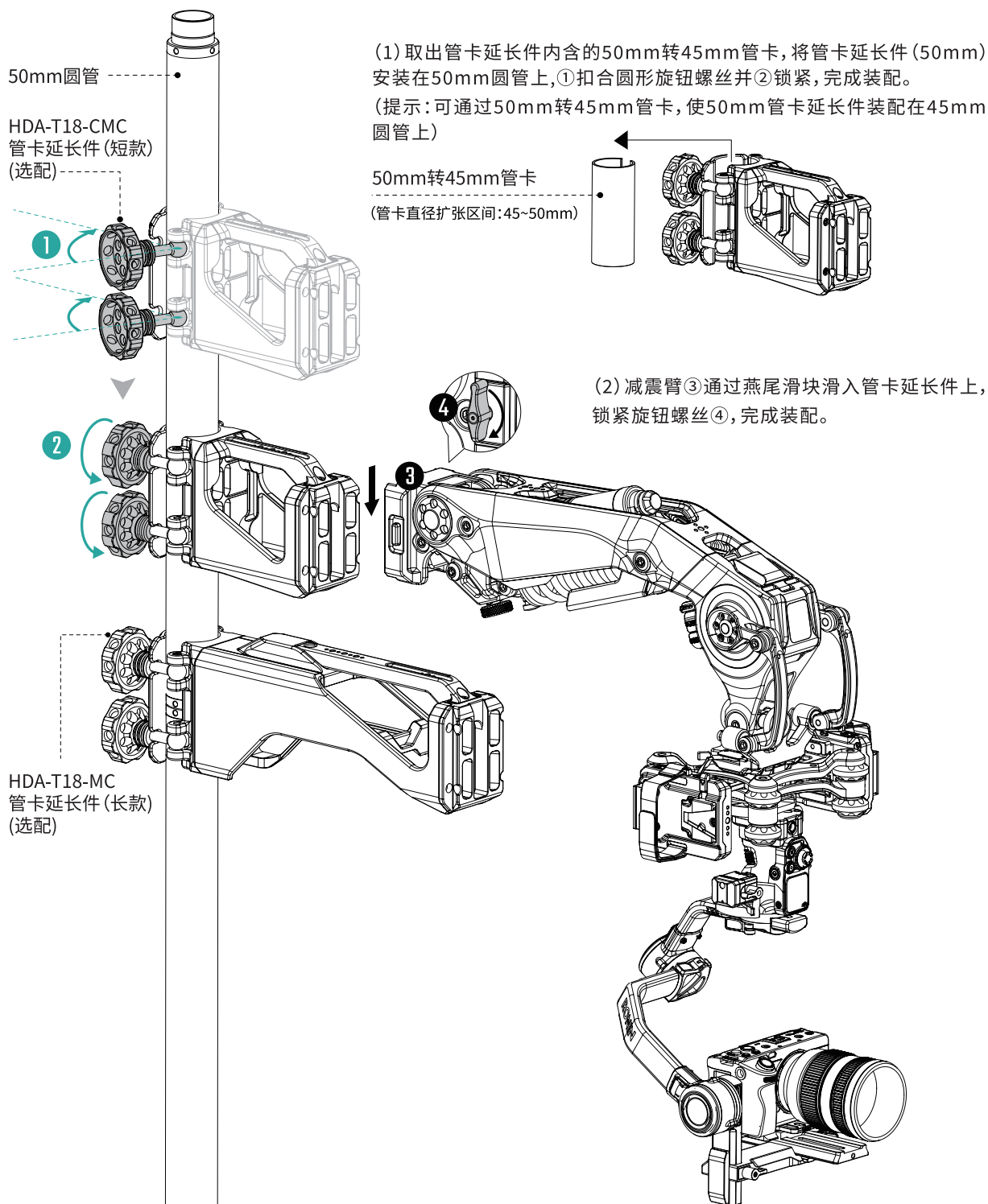








装配管卡延长件 (根据套装置而定)

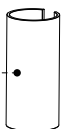


50mm车拍管架拍摄方式(选配)

可根据需求选配TILTA 50mm车拍管架套装(HDA-SRK), 装配减震臂和管卡延长件, 成50mm车拍管架拍摄方式。

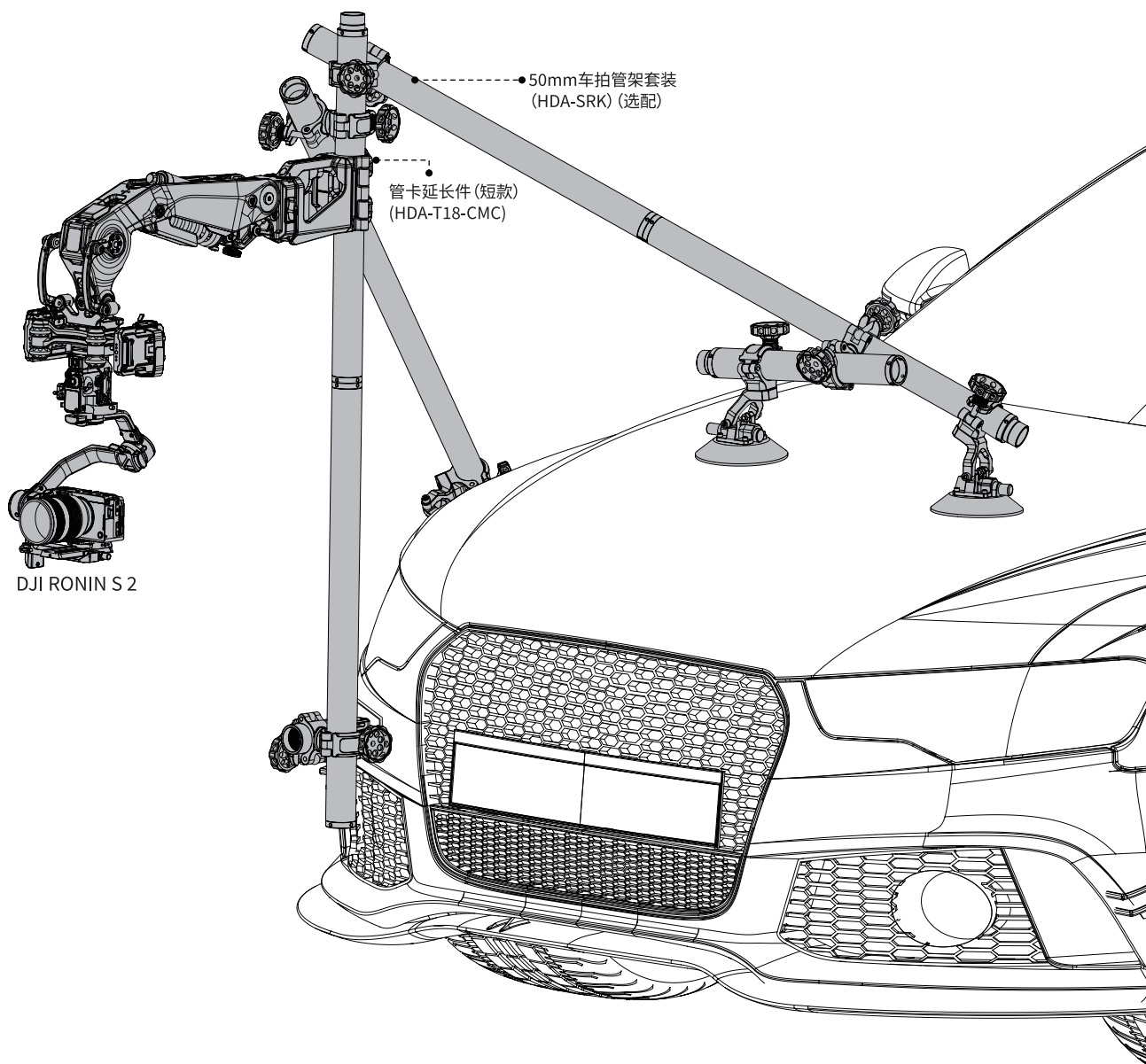
50mm转45mm管卡

(管卡直径扩张区间:45~50mm)



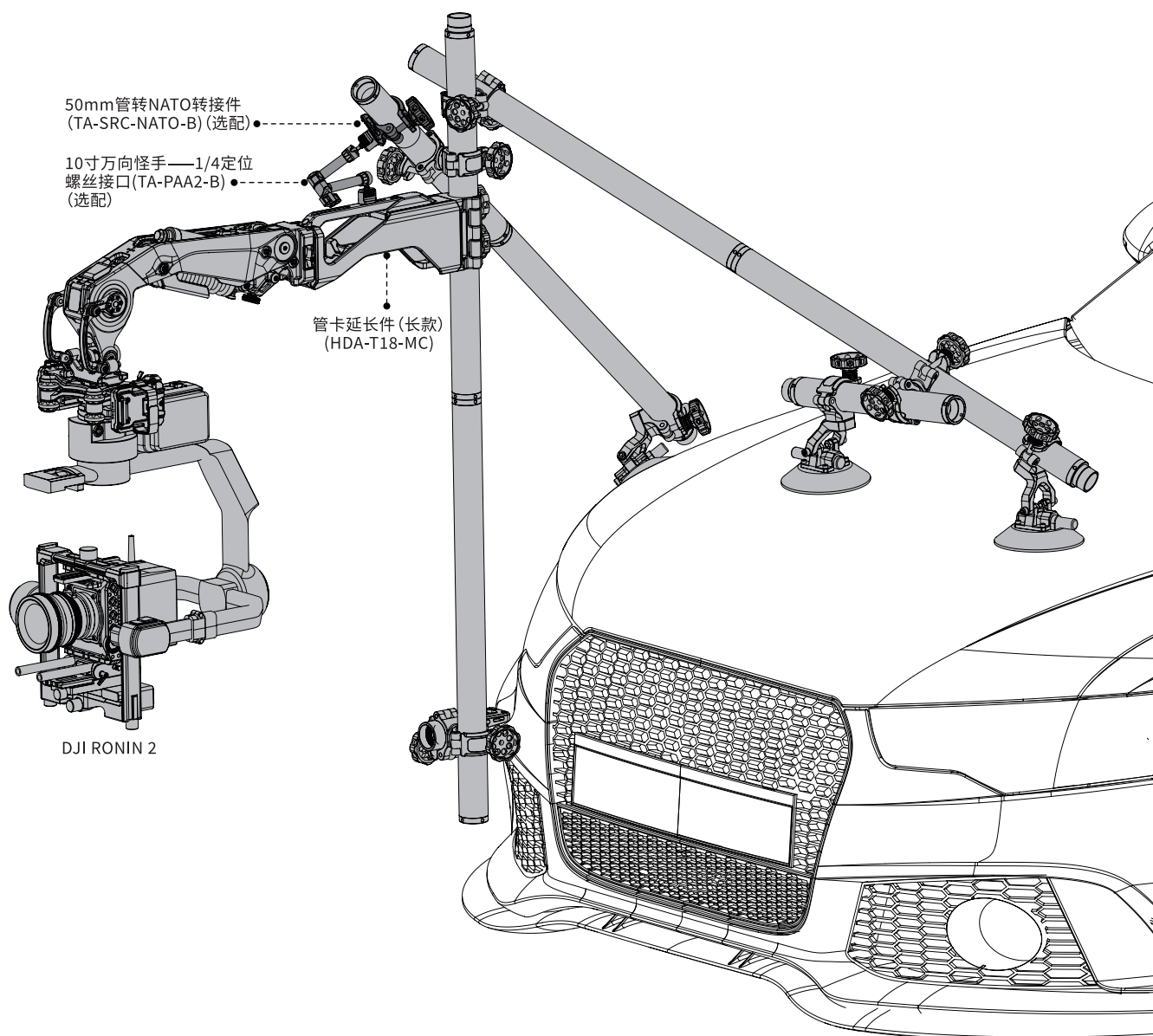
【提示】

如您已有45mm~48mm管架系统, 可使用管卡延长件配备的50mm转45mm管卡进行转接(管卡直径扩张区间:45~50mm)。



管卡延长件防偏转装配方式(选配)

搭配10寸万向怪手——1/4定位螺丝接口(TA-PAA2-B)和50mm管转NATO转接件(TA-SRC-NATO-B)进行管卡防偏转装配。防止管卡延长件在车拍行驶中绕圆管偏转。





HYDRA ALIEN PRO CAR MOUNTING SYSTEM

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