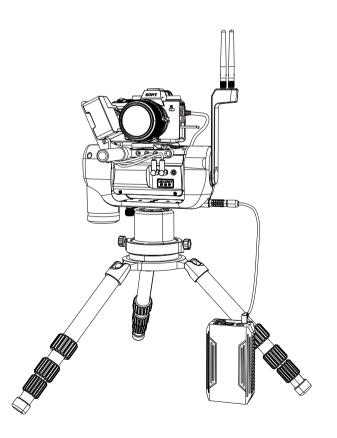
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Installation and use manual of Remote Camera Assistant mini

Sony version



UELERET 野拍宮

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Thank you for your trust in choose UELERET Remote Camera Assistant mini. We will serve wholeheartedly for you.

The Remote Camera Assistant mini is a highly integrated smart device that controls digital camera shooting and smart gimbal movement through a handle and tablet. When the transmission signal is unblocked or slightly blocked, the distance between the camera and the operator can be 0-500 meters or 0-1000 meters.

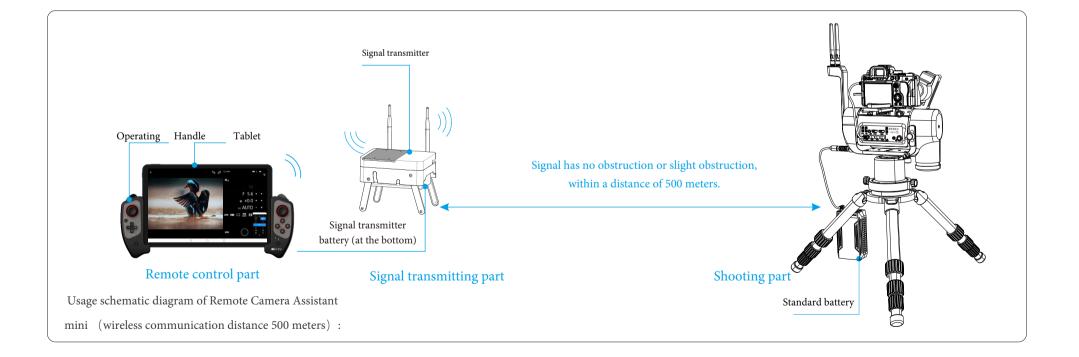
1. This manual applies to the following products Remote Camera Assistant mini (wireless communication distance 500 meters)

Remote Camera Assistant mini1000 (wireless communication distance 1000 meters)

2. The user pays to download the firmware from the official website of UELERET and purchase the communication package to upgrade to the Remote camera assistant mini 1000.

3. The above products are installed in the same way.

4. In order to ensure that you successfully use the Remote Camera Assistant mini product, please read the instructions carefully and master the operation proficiently.



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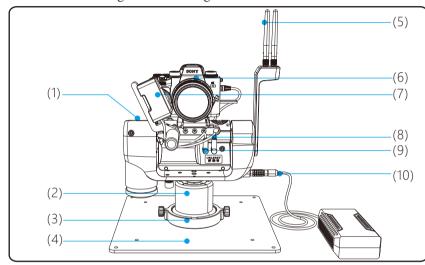
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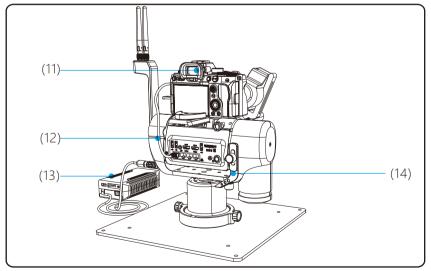
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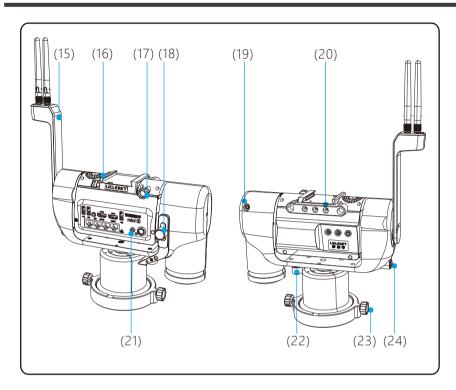
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Chapter 1. Structure and parts introduction of RCA mini

The contents of this chapter are introduced using the Remote camera assistant mini (500 meter communication distance) product as a model. 1,Structure diagram of smart gimbal





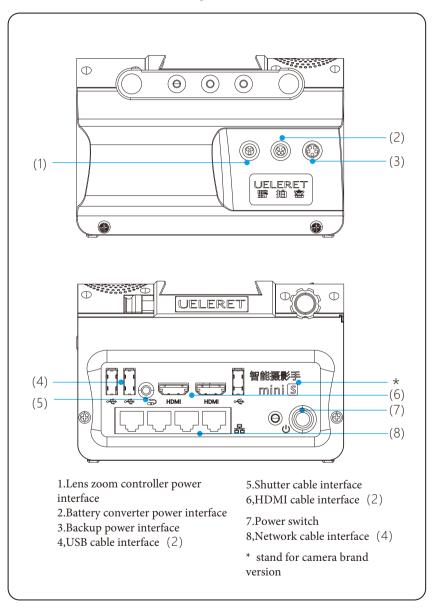


2,Name of each parts of Remote Camera Assistant mini

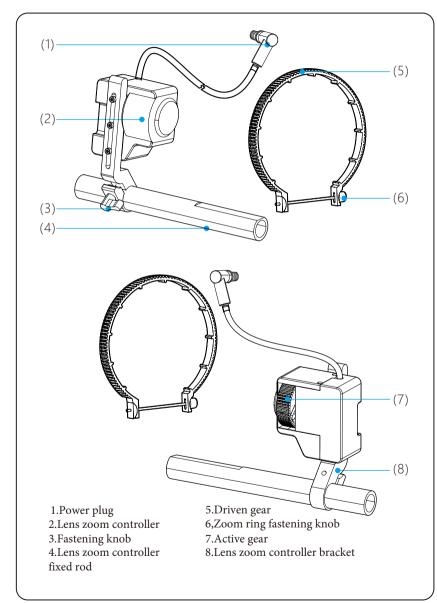
1.Smart gimbal11.Digital camera (m2.Rotary support base12.Network cable(O3.Shooting direction base13. Cable clamp(not4.Low position camera14.Antenna bracketboard(Optional)15.Loudspeaker sup5.Antenna16.Quick release pla6.Zoom ring17.Thumb screw on7.Lens zoom controller17.Thumb screw on9.Lens zoom controller18.Trail camera info1.Gimbal power cablepower connection in

19.Lens zoom fixed rod base

3,Each interface functions of smart gimbal



4. Lens zoom controller accessories



Installation and use manual of Remote Camera Assistant mini

5. Functions introduction of Remote Camera Assistant mini

1) Smart gimbal

1 Normal erection, pitch angle: 22° down, 40° up (horizontal balance is 0° . Rotation angle: leftward 130°, rightward 130°.;

② Weight of gimbal ≈ 2.3 KG

③ Load capacity < 4.2KG

2) Lens zoom controller accessories

①After using the Remote camera assistant mini, the frequency of using the zoom lens on the digital camera will significantly increase. Photographers can capture shots of animals while keeping a safe distance, allowing the animals to move around with greater peace of mind and up close to the digital camera. Using the zoom lens enables adaptation to various situations. ②The lens zoom controller is used to drive the expansion and contraction of the zoom lens, enabling lens zooming.

(3) The zoom ring installed on the zoom lens comes in various specifications (depending on the diameter of the lens).

(4) The compatible zoom rings for different lens models are listed in the table below:

Zoom Ring (Recommended)	Sony Lens model	Zoom Ring (Recommended)	Sony Lens model
	FE 12-24mm F2.8 GM		
	FE 16-35mm F2.8 GM		
Inner diameter	FE 24-70mm F2.8 GM FE 24-105mm F4 G OSS FE 24-240mm F3.5-6.3 OSS FE 70-200mm F2.8 GM OSS	Inner diameter 90mm 100mm	
40-84mm Soft zoom			FE 100-400mm F4.5-5.6 GM OSS FE 200-600mm F5.6-6.3 G OSS
ring			TE 200-0001111 F5.0-0.5 G 055
	FE 70-300mm F4.5-5.6 G OSS		

Notes:

1)Soft zoom ring: Inner diameter 40-84mm. When using small-body cameras with medium-short focal length lenses, these lenses do not have lens brackets, and the quick-release plate is mounted on the bottom of the camera body. If a hard material zoom ring is used, it may collide with the quick-release plate during zooming. This issue can be avoided by using a soft material zoom ring. You can download a detailed demonstration of installing short focal length lenses on the official website.

2)After installing the battery grip and handle on the camera, the height of the camera body increases, allowing the use of a hard material zoom ring.

3) Even the total weight of the camera body and lens is within 4.2kg, if the lens is too long, it will affect the balance of the gimbal. Insufficient pitching force may occur during tilting, making it unable to drive the zoom function. Therefore, please consider carefully whether to use a large zoom lens.

4) When using a fixed lens, the lens zoom controller can be used as a focus controller, similar to manual focusing.

5) Manual focusing is used in the following situations:

(1) When shooting subjects with very weak background contrast or minimal color differences, the auto focus function may have difficulty distinguishing and focusing accurately.

② When the subject to be focused on is being interfered with by other objects, making the auto focus function be difficult to accurately focus on the desired subject.

③ When using a telephoto lens and the desired focal distance is significantly different from the current focal distance, the auto focus (AF) may lack sufficient driving force to achieve clear focus. In such cases, it is common to perform manual focusing to gradually achieve clarity and then switch to AF for faster and accurate focusing.

3) Shooting direction base

The smart gimbal has an independent battery power cable connection, communication signal transmission and other reasons, it is difficult to achieve 360° arbitrary rotation. The Remote camera assistant mini has a shooting angle of 130° to both left and right. The gimbal support base is marked with a triangle as a reference for the rotation angle of the gimbal.
 When setting up a tripod in water or muddy ground, the following situation may arise: If the tripod is inserted into water or placed on muddy ground before installing the smart gimbal, it may not be possible to achieve 130° rotation angle in both left and right directions for the required shooting angle. Adjusting the direction of the tripod at that point will be quite inconvenient.

Therefore, it is recommended to install the shooting positioning base on the tripod in advance. This will provide a clear indication of the orientation of the tripod, ensuring that 130° rotation angle in both left and right directions for shooting can be achieved.

4. Ruyi quick release plate instructions

Telephoto lenses have fixed feet, and some fixed feet have only one threaded hole. Short-focus lenses generally do not have fixed feet and are installed on the camera body, with only one screw hole at the bottom of the body for installation. Only one threaded hole is connected to the quick release plate, which is not stable.



When a force is applied in the opposite direction of the bolt tightening, the tightened bolt is prone to rotation and loosening, which will affect the stability of the camera and lens during shooting. RCA mini needs to be installed and use the lens zoom adjuster, and the zoom rings must be tightly engaged to push the zoom gear to move.

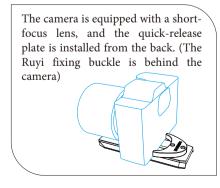
It also requires the camera lens foot (or body) to be tightly connected to the quick release plate. If it is loose, it will affect the normal use of the RCA mini.

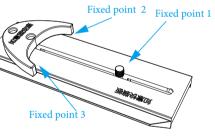
The three-point installation structure of the Ruyi quick release plate can prevent the quick release plate from loosening

(1). Picture of Ruyi quick release plate

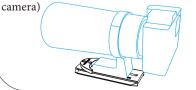
The Ruyi quick release plate is fixed at three points to ensure that after the quick release plate is connected to the lens support and the { camera body, it will not loosen even if it is pushed by lateral force.

(2). Ruyi quick release plate installation Ruyi quick release plate has two installation methods: Install in front and in the back





The camera is equipped with a telephoto lens or a lens tripod ring, and the quick-release plate is installed from the front (the Ruyi fixing buckle is in front of the



5. Battery

(1) The RCA mini requires two batteries.---- the standard battery (24V 82.88Wh), comply with boarding requirements.

(2) One is used to power the smart gimbal, and the other one is for powering the signal transmitter

(3) There are two options for large-capacity batteries:

One option is the standalone UBO1 battery. It cannot be remotely monitored for battery level and is not suitable for air travel. It is more affordable and convenient for carrying during car trips for photography purposes. The battery level displayed on a tablet will always show 50% regardless of the actual battery level until it is completely depleted, at which point it will display 0.

Battery Usage Time:

(1)With a standard battery, the standby time of the smart gimbal is 4-4.5 hours; uninterrupted operation of equipment and shooting can meet the power supply of 2-2.5 hours

(2)With large-capacity battery or smart battery pack, the standby time of the smart gimbal is about 20 hours, and the uninterrupted operation of equipment and shooting can satisfy 11-13 hours of power supply

(3)There are many factors that affect the battery life, so the marked time is interval data.
(4)The Remote camera assistant mini has a power-saving hibernate mode. During hibernate mode, the gimbal stops working, and only the power required for restarting the gimbal is retained, with no communication signals transmitted. When the hibernate time ends, the gimbal will automatically power on and resume operation. For specific instructions, please refer to the "Power-saving operation and hibernate mode settings for the Remote camera assistant mini" section.

6. External camera battery converter

(1) List of Canon camera models compatible with the power converter.

(2) When using the camera's original battery, it may not guarantee sufficient battery life. Having to replace the battery on-site during a shoot can disturb animals and disrupt the planned photography session.

(3) By using the power supply from the smart gimbal, the insufficient battery life of the camera can be resolved. UELERET has developed camera battery converters for different camera models.

Installation and use manual of RCA mini

Camera model	Battery converter model
A1、A9Ⅲ、A7SⅢ、A7MIV、A7R5、FX3、FX30	U/BC-Z100

The figure below shows the installation of the Sony A1 camera battery converter:

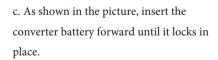
a. Sony cameras do not have a battery converter power cord outlet, you need to remove the

compartment cover when installing the battery converter.

Open the battery compartment cover as shown in the picture.

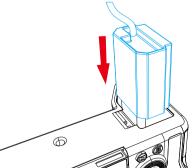
b. Move the latch block under the battery compartment cover, retract the latch on the battery compartment cover to remove the battery compartment cover.



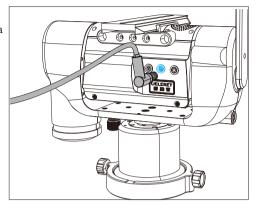


Note: Please keep the removed battery compartment cover properly to avoid loss.





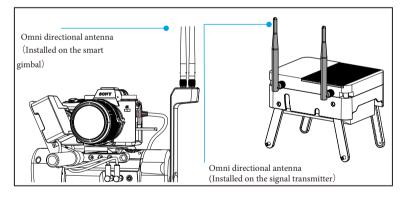
d. As shown in the picture, the battery converter is connected to the digital camera power interface on the front panel of the RCA mini, which is located in the middle position.



7. Omni directional antenna

(1)Include 4 omni directional antennas.2 antennas are installed on the smart gimbal, and the other two antennas are installed on the signal transmitter.;

(2)Used for wireless signal transmission between the smart gimbal and the controller.



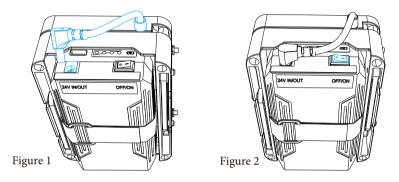
8. Cables

(1). The camera battery converter and lens zoom adjuster each have one connection cable; one power cable that powers the smart gimbal. Sony cameras do not need a shutter cable, just connect the USB cable and HDMI cable.

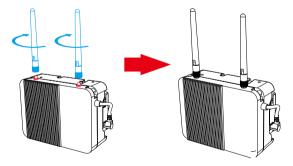
(2) The connectors for the cables have unique shapes and a single interface, making them easy

9.Signal transmitter

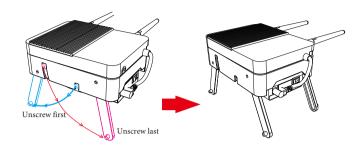
(1) After removing the signal transmitter from the packaging box, insert the power cord plug located on the side of the signal transmitter panel into the battery discharge port at the bottom (as shown in Figure 1). Then, turn on the battery switch (as shown in Figure 2). The signal transmitter will then be in working condition.



(2). Screw the two omnidirectional antennas into the two protruding screw positions on the top of the signal transmitter panel.



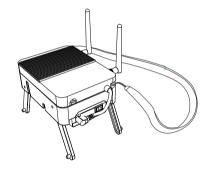
(3). The bottom of the signal transmitter has a retractable stand that can be opened and placed on the ground or at a high position. First, extend the shallower grooved stand, then extend the deeper grooved stand. The other side's stand is extended in the same way.



(4) Bend the signal transmitter's antennas90° upwards so that the omnidirectional antennas point towards the sky.

(5) The signal transmitter has a back rope that can be used to tie it to objects hanging high up, such as tree trunks.

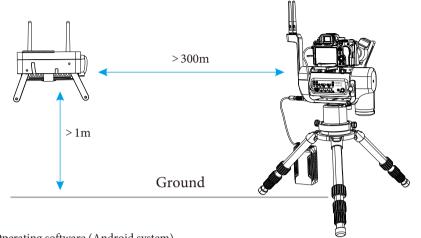




(6). Use the signal transmitter near the handle operation end, transmitting the signal received by the omnidirectional antennas to the tablet and the operation handle.(7). The signal transmitter can be separated from the operation handle and the tablet. In an unobstructed environment, the separation distance should not exceed 100m. Beyond 100m, the wireless signal weakens, reducing signal strength and affecting the operation of the tablet and handle.

(8). The operation handle and the tablet are connected via Bluetooth.

(9). Mount the signal transmitter as high as possible to reduce communication signal blockage. When the distance between the signal transmitter and the camera exceeds 300m, ensure that the signal transmitter is at least 1m above the ground.



10. Operating software (Android system)

11.Operating Handle

*Note: For details on items 9 and 10, please refer to the "Software operation and camera function setting instructions of RCA mini and infrared trigger version" (Canon version) for more information.

Chapter 2: Installation of RCA mini product

1. Prepare in advance, inspect items and pack neatly

(Strongly recommended, develop a habit)

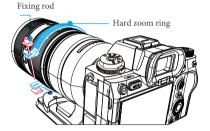
(1). The User must ensure that the batteries are charged in advance. Before setting out for a shoot, check the battery levels of various devices to ensure they are sufficiently charged.

- (1) Battery level of the tablet/phone.
- ⁽²⁾ Battery level of the power source for charging the tablet/phone (e.g., power bank).
- ③ Battery level of the signal transmitter/ smart gimbal system/operating handle.

2.If you need to use a zoom lens for this shoot, it is recommended to install the zoom ring securely on the lens in advance. This will save time during the on-site setup. Please refer to the diagram below:

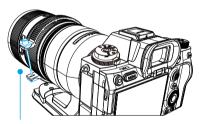
 (1). Choose a soft or hard zoom ring according to the lens used. When a camera with a smaller body is used with a medium or short focal length lens, it is recommended to use a soft zoom ring.
 (2). When using a medium telephoto lens, it is recommended to use a hard zoom ring. As shown in the picture, unscrew the fixed rotating lever, insert the hard zoom ring into the camera's zoom ring, and then tighten the rotating lever again. Soft zoom ring





* When installing the zoom ring, it is important not to over tighten it. If it is excessively tightened, it can cause deformation of the circular shape, resulting in poor zoom operation. The zoom adjuster may have difficulty driving the zoom, produce loud noises, or even fail to operate the zoom.

* How can you determine if the tightness of the zoom ring installed on the zoom lens is appropriate? After installing the zoom ring, try rotating the lens by hand. It should have a similar tightness as when the zoom ring was not installed.



When using a quick-release plate, the zoom ring locking screw needs to be installed on the right side of the lens, ensuring that it does not interfere with the mounting bracket of the quick-release plate during zooming.

3) Before departure, it is recommended to pre-install the camera quick-release plate to save time during on-site setup.

4) Set the desired mode on the camera in advance, such as AF-C mode,. This function is manually switched on the camera and cannot be controlled by the software.

Installation and use manual of RCA mini

Directions needed for shooting

- 2, Site survey and selection for shooting (Strongly recommended, develop a habit)
- Clearly define the shooting objectives for this session and carefully observe the shooting location. Determine the placement position for the smart gimbal and the desired location for operating the handle or parking the car.
- Based on the shooting scene and subject, first choose the placement point for the tripod and determine the desired height for the tripod support.
- 3) It can be inconvenient for user to install the smart gimbal and camera first, and then search for the placement point and adjust the height of the tripod.

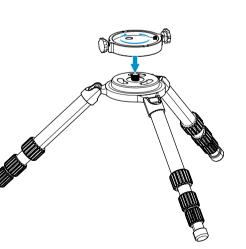
3. Installation steps of smart gimbal

The installation of the Remote camera assistant mini can vary depending on the shooting location, such as different installations for hard land surfaces and water or muddy areas.

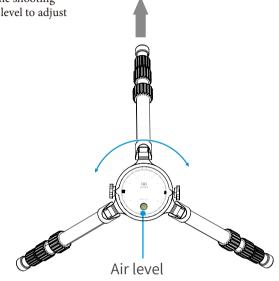
Case 1: Smart gimbal installed on a hard floor1) Mount the shooting direction base on the tripod.

Note: When installing on a hard floor, it may not be necessary to use the shooting direction base. However, it is still recommended to install the shooting direction base on the tripod or low-level shooting board as it provides more convenience during equipment setup.

① Install the shooting positioning base on the tripod and tighten it.

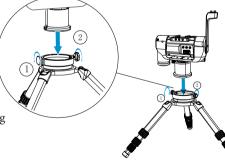


⁽²⁾ Position the tripod according to the desired shooting direction indicated on the shooting positioning base. Observe the air level to adjust the balance of tripod.



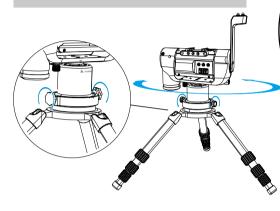
2) Mount the smart gimbal on the shooting direction base.

Align the square portion on the gimbal support base with the part on the shooting positioning base that has a hand-screwed screw. Mount the gimbal on the base and tighten the locking knob. (Note: The side of the gimbal with the triangular symbol should be facing away from the subject being photographed). Rotate the gimbal until the rotation angle positioning markers (two triangles) are aligned, ensuring that the shooting angle is in the desired direction. If the arrows are not aligned, the smart gimbal will not be able to achieve a 130° rotation to the left and right.



- 1. Loosen the locking knob counterclockwise.
- 2. Mount the gimbal on the shooting direction base.

Note: When mounting the gimbal, the "**A** gimbal rotation position" marking on the bottom sleeve should be facing away from the subject being photographed.



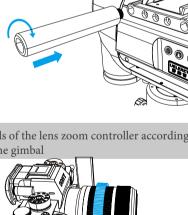
3) Install the lens zoom controller.

- No need to install this component if the lens you used is not a zoom lens No need to install this component if using Sony electric zoom lens. You can operate the lens zooming on
- Creators'App, will be smoother.

Note: There are two different installation methods of the lens zoom controller according to the distance between the lens zoom ring and the gimbal

Method 1 : The zoom ring is close to the gimbal

The driving gear side is close to the gimbal

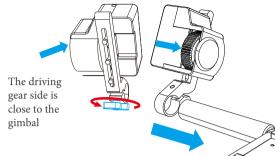


After tightening the knob on the shooting direction base, manually

rotate the gimbal back to align with the rotation angle positioning

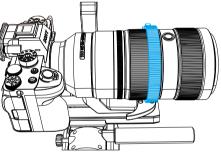
markers (two triangles).

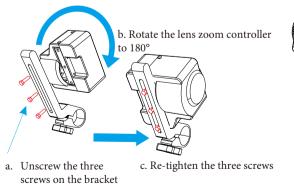
2,Loosen the fastening nut of the lens zoom controller, and then insert the fixed rod with the direction of driving gear of the controller facing inward.



Method 2 The zoom ring is far away from the gimbal

In this case, when installing the zoom adjuster, you need to move the adjuster's driving gear outwards away from the gimbal.





Insert the fixing rod on one side of the driving gear away from the gimbal.



Installation and use manual of RCA mini

The following installation steps will be continued under the condition that the zoom adjuster is installed in case 1 (that is, the camera zoom ring is close to the gimbal).

(2) After inserting the zoom adjuster into the fixing rod, tighten the tightening knob on the zoom adjuster clockwise to tighten the zoom adjuster on the fixing rod.

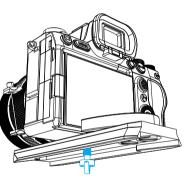
4) Attach the zoom ring to the camera lens.

This step is not necessary if it was already installed in advance or if using a fixed lens.

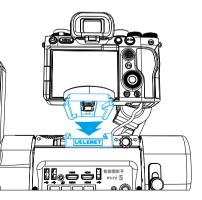
5) Mount the camera onto the smart gimbal.

①Mount the camera with the lens installed (and the zoom ring attached if applicable) onto the quick-release plate. Align the thumb screw on the quick-release plate with the 3/4 screw hole on the bottom of the camera and tighten it.

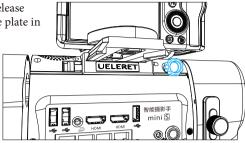
⁽²⁾Place the quick-release plate with the camera and lens onto the quick-release plate bracket of the gimbal.



6)



③ Tighten the thumb nut on the quick-release plate clockwise to secure the quick-release plate in place and prevent it from sliding.



6) Install the camera battery converter

(No need this step if using the camera's original battery.) Please refer to Chapter 1, Point 7 for the specific installation of the camera battery converter..

Note: Use the original battery of the camera. Due to battery capacity limitations, it may not be able to be used for a long time.

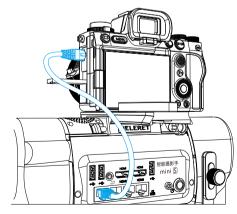
7) Connect the cables

- ① Among the compatible models of Sony, some models can be connected via network cables, such as A1, A9 Ⅲ, and FX6. Except for FX6, all models can be connected via Wi-Fi wirelessly.
 - Wireless connection is very convenient, and wired connection signals are more stable.
- ② Match and connect the cables according to the markings on the main control board.

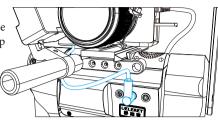
Using Sony A1 camera as an example:

(1).Plug one end of the network cable into the network cable port of the digital camera, and the other end into the network cable port on the back panel of the gimbal.

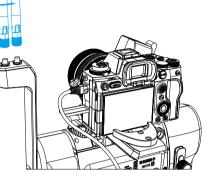
The USB port on the gimbal can be plugged into the first three on the left. Suggest to plug in the first one.



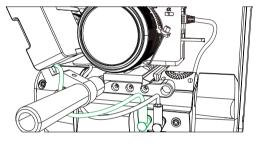
(2). Connect the camera battery converter cable as instructed in Chapter 1, Point 5 of the battery converter installation guide. (This step is not necessary if using the camera's original battery.)



8) Screw the two antennas clockwise onto the corresponding interfaces at the top of the gimbal antenna arm.

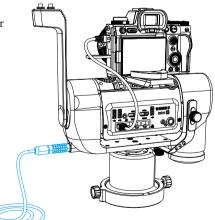


(3). Connect the power cable of the lens zoom controller to the power port on the front panel of the gimbal. See the diagram for the location, the first one on the left.

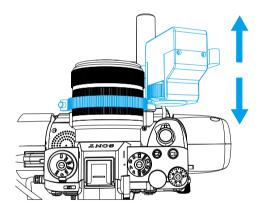


(4). Connect the power cable of the standard battery, with one end inserted into the battery interface on the side of the gimbal and the other end plugged into the 24V output port of the standard battery.

Note: When connecting the power cable to the gimbal's power interface, make sure to align the directional markings on the interface before insertion.

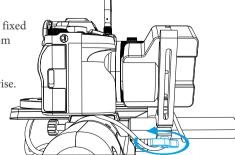


9) Move the lens zoom controller. Align the teeth on the adjustment wheel of the lens zoom controller with the zoom ring (This step is not necessary for fixed focal length lenses without a lens zoom controller).



10) Ensure a tight fit between the lens zoom controller and the camera lens zoom gear. The following steps are not needed if using a fixed zoom controller without installing a lens zoom controller,

1 Loosen the fastening knob counterclockwise.



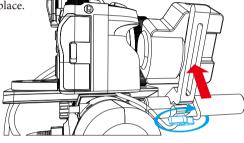
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Air level

②adjuster with the gear on the zoom ring, following the illustrated direction.



③Tighten the lens zoom controller in place.



Note: It is important to press down the metal rod of the lens zoom controller with your finger, ensure tight engagement between the two gears before tightening the thumb knob. Pressing on the plastic casing may result in loose engagement.

Case 2: Installing the smart gimbal on water or muddy ground

When installing the gimbal on a water surface or muddy terrain, it is necessary to mount the shooting direction base on the tripod at the first. Because it becomes difficult to make adjustment once the tripod is inserted into the muddy ground or water.

Additionally, the process of retrieving items and moving back and forth between muddy paths and water can be quite inconvenient for the user.

Therefore, different installation steps should be taken in such scenarios.

1.Install the shooting direction base. When installing on a hard floor, it is not necessary to mount the shooting direction base on a tripod. (1).Mount the shooting direction base on the tripod and tighten it. (2). Based on the desired shooting direction at the shooting site, insert the tripod into the water or mud according to the indications on the shooting direction base. Observe the air level and Directions needed for shooting adjust it to ensure its balance. 2. Place the smart gimbal on the car seat or a hard surface. Install the smart gimbal according to the steps described in the first case, and then install the smart gimbal on the tripod at one time

Chapter 3. On-site debugging of the smart gimbal

1. Install the battery for the signal transmitter at the bottom of the device. Attach the two antennas to the signal transmitter. Open the support bracket at the bottom of the signal transmitter and place it on a suitable surface.

2. Connect the power cable of the signal transmitter to the battery and turn on the power switch.

3. Turn on the tablet/mobile phone and connect to the Wi-Fi signal U9B**** to establish a stable connection.

4. Connect the operating controller via Bluetooth to ensure a successful connection with the tablet/mobile phone.

5. Camera connect to the WIFI signal of gimbal:U9A****

6. Log in the Creators'App, connect to the camera, and the camera's live view screen will appear.

7. Log in the RCA mini APP on tablet or mobile phone。

8. Debug the functions on the tablet/mobile phone to ensure they can all be operated.
 9. Debug the operating controller's rotation and tilt functions, as well as the lens zoom controller, to ensure that the camera lens zooms properly.

10. Debug the focus point movement, focus, shutter button, camera shutter release on the Sony official Creators' App, and ensure the functions are workable.

Take photos and record videos to confirm that the shooting and recording are working.
 Leave and proceed to the predetermined shooting location after completing the above

steps.

Chapter 4. Remote preparation for remote shooting

- 1. Upon reaching the designated location for operating the controller or parking the car, use a rangefinder to ensure the distance is within 500 meters between you and the smart gimbal.
- 2. Set up the signal transmitter at your end, preferably in a high position to minimize obstacles that may block the communication signal. Ensure there are no significant obstructions between the antennas, ideally with a clear line of sight. If the distance to the camera is over 300 meters, the signal transmitter must be must be placed at a height of more than 1 meter from the ground.
- 3. Connect the power cable to the signal transmitter and turn on.
- 4. If the subject is within a safe distance from you, where there is no need for hiding or obstruction, and you will not affect the safety and movement of the subject, then you can stay together with the operating controller, tablet, and signal transmitter.
- 5. If the subject is not within a safe distance from the owner, that is, the owner needs to hide so as not to affect the safety and movement of the subject, then the user, operating handle, and tablet computer can be separated from the signal repeater by the separation distance within 100 meters, a triangular arrangement is adopted.

Chapter 5. On-site debugging of the RCA for remote shooting

Debug the tablet/mobile phone, software and operating handle, and read the relevant operation section in the software operating manual carefully. The following is a brief operating instruction.

1. Securely attach the tablet/mobile phone to the operating controller.

2. Turn on the tablet/mobile phone and connect to Wi-Fi "U9B $\,^{\star\star\star\star\prime\prime}{}_{\circ}$

3. Connect the operating controller via Bluetooth.

4. Log in the Creators'App, connect to the camera, and the camera's live view screen will appear.

5. Log in the RCA mini APP on tablet or mobile phone, Zoom out to a suitable size.

6. Debug the various functions on the tablet/mobile phone to ensure they can all be operated.

7. Debug the operating controller to ensure its functions are working properly.

8. If everything is working properly, you can proceed with the shooting and patiently wait for the subject to appear. If the image from the smart gimbal is not displayed or the operation is not smooth, carefully review the installation steps for any potential issues.

Chapter 6. Power-saving and sleep mode settings for the RCA mini

Power-saving and sleep mode settings for the RCA mini

- 1. In the absence of operating controller and when the gimbal is not running, although the battery life can be extended, the gimbal system is still active, maintaining communication and consuming power.
- 2. This setting serves two purposes: energy saving for long battery life and timed power on/off of the gimbal. It helps users capture shots during the optimal lighting conditions.
- 3. The sleep mode setting may be needed in the following situations:
- (1). The Remote camera assistant is pre-installed at the shooting location instead of installing it on-site before shooting, which minimizes disturbance to animals and birds.[For example, the user sets up the RCA at the chosen shooting location in the evening before

(before 6 PM) and schedules it to power on half an hour before sunrise the next morning (around 5:30 AM). This way, the device will automatically power on, and the user can remotely control it for shooting without having to go to the site in person. This approach avoids disturbing animals and saves the user time and effort. Without the sleep mode setting, the device would consume power continuously from at 6 PM on the previous day, even though there is no operation, the remaining battery capacity may not be sufficient for shooting the next day.]

Installation and use manual of RCA mini

(2) After capturing shots in the morning during good lighting conditions, the subsequent lighting, especially during the midday period, becomes too intense, resulting in poor image quality. Without the sleep mode setting, the device would continue to consume power, and by the time the suitable shooting time in the afternoon arrives, the battery capacity may not be sufficient for the desired shooting duration.

(3) If the owner needs to stop shooting for a longer period of time, such as eating, resting, a little urgent need to leave for a few hours, etc.

- 4. The RCA mini relies on wireless communication to connect the two ends of the device to keep be able to operate and the device running. When it goes into sleep, the signal at both ends will be interrupted. Without the wireless signal, it will not be possible to operate the device remotely. If the signal is not interrupted, it means that the device has not entered the hibernation state, still running and the device is still constantly consuming power. Therefore, the RCA mini solution is: set the sleep mode time.
- 5. After the sleep mode, the RCA mini automatically start the power, smart gimbal starts to run and resume transmission of wireless signals. At this time you can operate the tablet / phone and handle, remote control equipment and camera.
- 6. Specific operation procedure (see the following figure)

(1). Click "sleep mode settings" in the upper right corner of the tablet (sleep mode on the phone is in the lower right corner of More Functions);

(2). In pop-up interface, set the "start time" and "end time";

- (3). The tablet will automatically calculate the "Sleep mode duration";
- (4). On the page "Confirm" and "Cancel", if you change your mind, you can click "Cancel".
- (5). Click "Confirm", RCA mini starts to enter the sleep mode according to the set time.



- 7. During sleep mode, the status of the device cannot be changed via the tablet, because there is no communication signal transmission from both ends. You must wait until the sleep time is over, the RCA mini power automatically start, and you can enter the operation after there is communication signal. Unless, you have to manually start the power switch of RCA mini to operate the device. But this will affect the animals at the shooting site, and it is possible to disturb the animals to leave the shooting site resulting in the inability to continue shooting.
- 8. When setting the sleep mode, please pay attention:

(1). Before setting the sleep mode, according to the needs of shooting, please carefully considering the time of this sleep, so as not to delay the effective shooting.

(2). Check the time of the tablet with the phone and watch.

It is possible that the tablet is not in the mobile network when it is outdoors. Therefore, the time of the tablet may not be consistent with the actual time. Therefore, it is better to check the time of the tablet with your cell phone or watch before setting the hibernation time. There are two ways to check and adjust the time:

- a. The tablet is connected to a 4G/5G network by connecting to a mobile hotspot and the time can be adjusted automatically.
- b. If there is no local 4G/5G network, you can directly adjust the time on the tablet to match the time on the watch.

9. To set the sleep mode, the following conditions must also be met:

The camera must be powered by a battery converter, and is powered by the gimbal for remote power-saving sleep operation.

Chapter 7. Safety precautions for the RCA mini

For safe use of the product, be sure to read these precautions.

Please follow these precautions to prevent damage or injury to user or others.

Warning: Indicates a risk of serious injury or dead.

- 1. Please keep the product out of the reach of children. Power cords, cords and straps wrapped around a person's neck may cause suffocation.
- 2. It is dangerous to swallow the product parts or accompanying items or accessories. If swallowed, please seek medical attention immediately.
- 3. Swallowing batteries is dangerous. If swallowed accidentally, seek medical attention immediately.
- 4. Use only the power source specified in these instructions for use with the product.
- 5. Do not disassemble or modify the product.

- 6. Do not subject the product to strong impact or vibration. Do not touch any exposed internal parts.
- 7. Do not use of the product if there is any abnormality such as smoke or odor.
- 8. Do not use organic solvents (alcohol, gasoline or paint thinner) to clean the product.
- 9. Do not get the product wet. Do not insert foreign objects into the product or pour liquid into the product.
- 10. Do not immerse the battery in water.
- 11. Do not use the product in an environment where flammable gases may be present. Failure to do so may result in electric shock, explosion or fire.
- 12. Do not touch the product when it is connected to an electrical outlet during a thunderstorm. Failure to do so may result in electric shock.
- 13. When using the battery charger or AC adapter, follow the precautions below :
 - (1). Use the battery only for the specified product.
 - (2). Do not heat the battery or expose it to ignition sources.
 - (3). Do not use a battery charger other than the specified one to charge the battery.
 - (4).Do not expose the terminals to dust or contact with metal nails or other metal objects.
 - (5). Do not use leaking batteries.
 - (6). When handling the battery, isolate the terminals with tape or by other means.

(7). Do not touch the battery charger or AC adapter connected to the power outlet during a thunderstorm. Failure to do so may result in electric shock, explosion or fire.

(8). If the battery leaks and the leaking material comes in contact with skin or clothing, rinse the contact area thoroughly with running water.

(9). In case of contact with eyes, rinse thoroughly with plenty of clean running water and seek immediate medical attention.

(10). Use a dry cloth to regularly clean all dust accumulated on the power plug and power outlet.(11). Do not plug or unplug the power plug with wet hands.

(12). Do not use the product without the power plug fully inserted into the power outlet.

(13).Do not expose the power plug and terminals to dust or allow them to come into contact with metal nails or other metal objects.

- 14. Do not place heavy objects on the power cord. Do not damage, break or modify the power cord.
- 15. Do not wrap the product in cloth or other material while the product is in use or when it has just been used and is still
- 16. Do not unplug the power supply by pulling on the power cord
- 17. Do not leave the product connected to the power supply for long periods of time when not in use.
- 18. Do not charge the battery at temperatures outside the 0-40° C range. Otherwise, it may cause electric shock, explosion or fire.
- 19. Do not leave the product in contact with skin in same position for a long time during use.
- 20. In places where the use of the product is prohibited, please follow the signs to turn off the product. Otherwise, the influence of electromagnetic waves may lead to the failure of other equipment, and may even cause accidents.

Attention:Please observe the following precautions. Failure to do so may result in personal injury or property damage.

- 1. Do not place the product in a high or low temperature environment. The temperature of the product may become high or low and may cause burns or injuries when touched.
- 2. In addition, do not shake the product or subject it to strong impact.
- 3. Do not squeeze the product by force or cause it to collide with objects. Doing so may cause injury or damage to the product.
- 4. Please mount the product only on a tripod or fixture that is sufficiently stable.
- 5. Do not touch any parts inside the product. Otherwise, it may cause injury.
- 6. If an abnormal reaction or inflammation of the skin occurs during or after the use of this product, please stop further use and seek medical attention promptly.

Operating precautions: (Maintenance of RCA mini)

#ZThis equipment is a precision instrument. Do not drop it or expose it to physical impact. SZThis equipment is not waterproof and cannot be used underwater.

- % To prevent sand, dust, dirt or water from accidentally falling on the equipment and getting inside the equipment, the equipment is designed to be dust-proof and drip-proof, but it cannot completely prevent dirt, dust, water or salt from getting inside the equipment. Try not to let dirt, dust, water or salt fall on the equipment.
- EXIf water falls on the equipment, wipe it off with a clean, dry cloth. If dirt, dust or salt falls on the equipment, wipe it off with a clean, wrung-out damp cloth.
- ' žUsing the product in a dusty or dirty location may cause damage to the equipment.
- (ŽIt is recommended to clean the equipment after use. Leaving dirt, dust, water or salt on the equipment may cause equipment failure.
-) ŽIf the device accidentally falls into water or if you are concerned that moisture (water), dirt, dust, or salt may have entered the device, contact Eimmediately.
- *žDo not place the product near objects with strong magnetic fields, such as magnets or motors. Also avoid using the device near objects that emit strong radio waves or placing the device close to such objects, such as large antennas. Strong magnetic fields may cause equipment malfunction or damage image data.
- +žDo not place the equipment in places where the temperature is too high, such as in a car in direct sunlight. High temperatures may cause the device to malfunction.
- $\#"\check{z}$ $\;$ The equipment contains sophisticated electronic circuitry. Do not disassemble the equipment yourself.
- ##Ž Do not use cleaning agents containing organic solvents to clean the body and lens.
- **#Sž** If condensation occurs on the equipment, do not use the equipment to avoid damage. Please turn off the equipment and wait until all the moisture has evaporated before using it again.
- #% If the device is not used for a long time, disconnect the battery and place the device in a well-ventilated, dry and cool place. Please use the device every once in a while during storage to make sure it works properly.

- 14. Avoid storing the equipment in places where there are chemicals that cause rust and corrosion, such as chemical laboratories.
- 15. If the equipment has not been used for a long time, test all functions before shooting.

Chapter 8. Product specifications and technical parameters

Item/Sub-item		Function				
Function		Within 500m, In unobstructed or slightly obstructed situations, remotely control the smart stabilzier and camera through a tablet and operating handle				
Version		Sony version				
Models		Subject to instruction				
	Main component	Smart gimbal, signal transmitter, battery, lens zoom controller,operating handle;				
Components	Software	RCA mini ' APP				
	Software	Sony Creators'App				
	Communication rate	5.GHz				
	Communication	The communication distance of smart gimbal and signal transmitter≤500m, No or slight obstruction				
	distance	Via upgrade, The communication distance of smart gimbal and signal transmitter≤1000m,				
Communication	Bluetooth	The operating handle is connected to the tablet via Bluetooth				
	Wireless	The camera is connected to the smart gimbal via Wi-Fi				
		The tablet is connected to the signal transmitter via Bluetooth				
		The distance between tablet and signal transmitter≤100m				
	Operating handle control	Rotation and pitching,				
Smart gimbal	Operating handle control	Drive lens zoom				
control function	APP control	The movement speed can be adjusted; super fast, fast, medium, slow, super slow				
	APP control	One click to return to center				
		Remotely adjust camera exposure mode and exposure parameters				
		Remote camera focus point movement and focusing				
		Remote shutter release to take pictures				
Camera		Remote camera video recording,				
function	APP control	Remote photo/video mode one-touch switching;				
		Camera restart				
		Smart gimbal and camera timed sleep and start function				
		Remotely read some camera pictures for playback and browsing				

	APP control	Music play				
Other function		Fan cooling for the device				
Other function		Real-time monitoring of system power, camera power, and device temperature				
		Firmware and APP software can be upgraded online				
	Communication distance upgrade	Remote control distance 1000 meters version; upgrade firmware and related accessories to extend the remote control distance				
Upgrade or	Upgrade 1	Infrared trigger version; add infrared sensor and control system to achieve full-automatic shooting and remote control shooting two-in-one				
customization	Upgrade 2	Multi-device control version: With one handle and a tablet, the host can connect 2-4 RCA mi and cameras to control shooting at the same time;				
	gimbal weight	2.3 kg				
	Maximum load	≤4.2kg				
	gimbal size	295*257*105mm				
	Working temperature	0-45°C (Same as camera)				
Gimbal parameters	Operating voltage	24V				
	Rated Power	16W				
	Rated current	1.5A				
	Using duration	Standard battery, \leq 4.5h (Standby time) ; \leq 2.5h (Continuous use) ; Depends on the camera model used				
) (Rotation	Left 130°, right 130°				
Movement angle	Pitch	Down 22°, Up40°, (Horizontal forward0°)				
	Working temperature	0-+45℃ (Same as camera)				
Environmental	Storage temperature	0-+40℃ (Storage humidity: 20%-60%)				
indicators	Waterproof level	Not waterproof				
	Weight	0.475kg				
	Dimension	150*110*60mm				
Signal transmitter	Input voltage	DC24V				
	Channel rate	5.2-5.8GHz				
	Transmit power	27dBm				
	Weight	0.24kg				
	Dimension	235*128*45mm				
Operating handle	Signal transmission method	Bluetooth				
	Operating voltage	DC 3.7V				
	Operating current	< 15mA				

	Using duration	≥15h
	Sleep current	< 15 µA
Operating handle	Charging voltage/ current	DC5V/500mA
	Battery capacity	380mH
	Standby time	> 30 days (Full power)
	Model	UB04
	Battery type	Rechargeable lithium-ion battery
	Versatility	Standard battery for smart gimbal and signal transmitter
	Capacity	82.88Wh
	Nominal voltage	24V
	Battery dimension	138mm*80mm*39mm
Battery	Battery weight	418g
Dattery	Charging voltage	29.4V
	Charging time	Standard charging 4 hours
	Charging time	Fast charging 2 hours
	Charging current	Standard charging 0.2C
	Charging current	Fast charging 0.5C
	Working temperature	Charging temperature 0-45℃
	working temperature	Discharging temperature -20-60℃
	Carton	1PC/ctn
	Inner box dimension	356*268*248mm
Packing	Carton dimension	450*300*305mm
i ucking	Packing method	EPE + waterproof cloth bag+carton
	Inner box material	EPE + waterproof cloth bag
	Carton material	Corrugated paper + kraft paper

Chapter 9. Power supply specifications and

1.Battery specifications and parameters list

UB-04 battery

RCA mini standard battery

and signal transmitter battery

Battery type: Rechargeable lithium-ion battery	y Capacity: 82.88Wh		
Nominal voltage : 24V	Charging voltage: 29.4V		
Charging current: Standard charging 0.2C	Charging time: Standard charging 4 hours		
Fast charging0.5C	Fast charging 2 hours		
Operating temperature: Charging: 0°C~45°C	Battery size : 138mmX80mmX39mm		
Discharging: -20°C~60°C	Battery weight 1 418g		

UB-01 battery (Optional)

Battery type: Rechargeable lithium-ion battery	Capacity: 363Wh
Nominal voltage : 25.9 V	Charging voltage : 29.4 V
Charging current: Standard charging 0.2C	Charging time: Standard charging 6 hours
Fast charging0.5C	Fast charging 4.5 hours
 Operating temperature: Charging: 0°C~45°C	Battery size: 155mmX88mmX76mm
Discharging: -20°C~60°C	Battery weight 1720g

2.Battery usage time table:

	attery Qty	Usage	e time		Solution	
Battery		Gimbal/Camera nun-stop use	Standby	Feedback		
Signal transmitter battery	1	24H		Enough to use		
82.88 Wh Standard battery	1	2-2.5H	4-4.5H		Battery manager, 2-6 batteries auto-replacing use to meet the ultra long battery life	
372 Wh large capacity battery	1	11-13H	20H	Further increase the endurance		
Tablet	1	6H			Carry a power bank, fully charge before departure.	
Operating handle	1	40H			Carry a power bank	

Note: When used at temperatures below -5 $^\circ C$, Battery l ife will decrease as temperature decreases

3, Precautions for battery use:

(1). Charge

a. When using the included adapter to charge the battery, the indicator light on the adapter will display red.

b. It is necessary to first switch the power button to the discharge state "-" before charging. c. During the charging process, please keep the battery placed stably and pay attention to ventilation and heat dissipation.

d. The light will turn to green after fully charged, never charge the battery for a long time after it is fully charged.

e. When the battery level is below 25%, it is advisable to charge it promptly.

(2). Discharge

a. Use the included aviation plug cable, one end connected to the

battery discharge port, one end connected to the Remote camera assistant mini power interface. Turn on the battery switch to discharge.

b. Discharge will generate heat, if used outdoors in strong light, please put the battery in the shade, and pay attention to ventilation and heat dissipation.

c. When the tablet displays a low battery alert signal, please try to turn off the power to avoid over-discharge.

(3). Battery maintenance

To prolong the life of the battery, please maintain it as follows:

a. The l it hium battery needs to be placed at a s uitable temperature, $25^\circ\!\mathbb{C}$ is appropriate.

b. The charging method of lithium battery is the most important among the correct usage of lithium battery. Incorrect charging method can cause safety problems; correct discharge and daily maintenance can extend the life of the battery.

c. Use the matching adapter for charging. Too high charging voltage will overcharge the battery, and vice versa, undercharge will occur.d. If the battery has not been used for a long time (e.g. 30 days), the owner must remember to complete a deep charge and discharge cycle for the lithium battery once a month.

Chapter 10: Wireless communication

- 1. Wireless LAN data and restrictions, when using wireless networks, please be sure to follow local regulations.
- 2. Operating frequency range: 5150- 5350 MHz
- Equivalent isotropic radiated power (EIRP) :≤200 mW
- Maximum power spectral density :≤10 dBm / H
- Carrier frequency tolerance: 20 ppm
- Broadband external transmit power: ≤-80 dBm / Hz:
- Spurious emission (radiated) power:
- ≤-36 dBm/ 100 KHz (30~ 1000 MHz)

 \leq -54 dBm/ 100kHz (48.5 ~72.5 MHz .76~118 MHz 167~223 MHz. 470~798 MHz) \leq -40

- dBm / 1 MHz (2400~ 2483.5 MHz)
- ≤-33 dBm / 100KHz(5150~5350 MHz)
- ≤-40 dBm / 1 MHz (5470 ~5850 MHz)
- ≤-30 dBm / 1 MHz(other 1~40GHz)
- 3. Operating frequency range: 5725~5850 MHz
- Transmission power: \leq 500 mW and \leq 27 dBm
- Equivalent isotropic radiated power (EIRP) (EIRP):≤2W and ≤33 dBm
- Maximum power spectral density :<13 dBm/ MHz and <19 dBm / MH (EIRP)

- Carrier frequency tolerance::20 ppm
- Broadband external transmit power: :≤-80 dBm/ Hz (≤5725 MHz or 5850 MHz)
- Spurious emission (crystal emission) power:

≤36 dBm/ 100 KHz (30~ 1000 MHz)

≤-40 dBm/1 MHz (2400~ 2483.5 MHz)

≤-40 dBm/1 MHz (3400~ 3530 MHz)

≤-33 dBm / 100 KHz (5725~ 5850 MHz)

(Note: 2.5 times the channel bandwidth of the corresponding carrier)

 \leq -30 dBm/1 MHz (other 1~ 40 Ghz)

Note

- 1. Do not change the transmission power without authorization, increase the transmission power (including additional RF power amplifiers), and do not connect external antennas or use other transmission antennas without authorization;
- 2. Do not cause harmful interference to various legal radio communication services during use: once any interference is found, stop using it immediately and take measures to eliminate the interference before continuing to use it;
- 3. The use of micro-power radio equipment must endure interference from various radio services or radiation interference from industrial, scientific and medical application equipment;
- 4. Not for use near airplanes and airports.

Chapter 11. Product Certification and Compliance

1.Certification

The batteries used in this device have passed national safety standard tests and will also undergo CCC certification according to the latest national requirements (before August 1, 2024). The charger used has already obtained CCC certification (for related certifications, please refer to the UELERET smart official website).

	Harmful substances					
Name of parts	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr(VI))	(PBB)	(PBDE)
Plastic parts	О	О	О	О	О	О
Metal parts	0	0	0	0	0	0
Circuit board components	х	0	0	0	0	0
Touchpad	0	0	О	О	О	О
Internal wires	О	О	О	0	О	О
External wires	О	О	О	0	О	О
Package material	0	0	О	0	0	О
Accessories	О	О	О	О	О	О
Battery	Х	0	0	0	0	0
Print	0	0	0	0	0	О

This table is prepared in accordance with the provisions of SJ/T 11364

O : Means the content of the hazardous substance in all homogeneous materials of the part is below the limit requirement specified in GB/T 26572

X : It means that the content of the hazardous substance in at least one homogeneous material of the part exceeds the limit specified in GB/T 26572



People's Republic of China Restricted Use Mark for Hazardous Substances in Electrical and Electronic Products This mark applies to electrical and electronic products sold in the People's Republic of China, and the number in the center of the mark represents the environmental use period of the product. As long as you observe the safety and usage precautions related to this product, there will be no environmental pollution or serious impact on human body and property within the above mentioned period of time from the date of manufacture.

Chapter 12, Remote camera assistant mini 1000m version

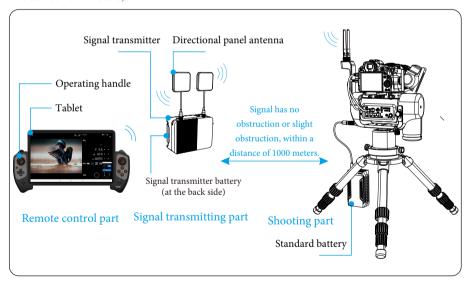
1, Remote camera assistant mini 1000

(1) It refers to the wireless communication distance of 1000 meters when the signal is unblocked or slightly blocked. The Remote camera assistant mini1000 product can be obtained through the following methods:

(2) The owner purchased the Remote c amera assistant mini, and then pay to download the firmware and purchased the communication package to upgrade to the Remote camera assistant mini 1000.

(3) If the owner has a Remote camera assistant mini-infrared trigger version, it will also be upgraded to mini 1000-infrared trigger version.

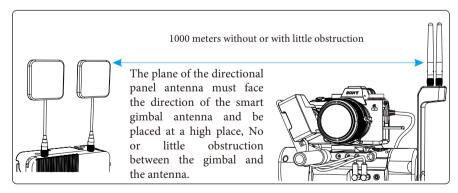
2. Usage schematic diagram of Remote camera assistant mini (wireless communication distance 1000 meters)



3. The installation method of mini1000 and mini are same, please refer to page 10.

b. Unscrew the omnidirectional antenna and rotate it 90 degrees.

(3).Directional flat panel antenna installation requirements



Disclaimer: As this product is an original patented product, there may be changes in its features or specications in the future. In the event of any changes, please refer to the official website of our company. UELERET reserves the right to interpret any changes.

(1). The Signal transmitter of 500 meters communication distance are working with omnidirectional antenna