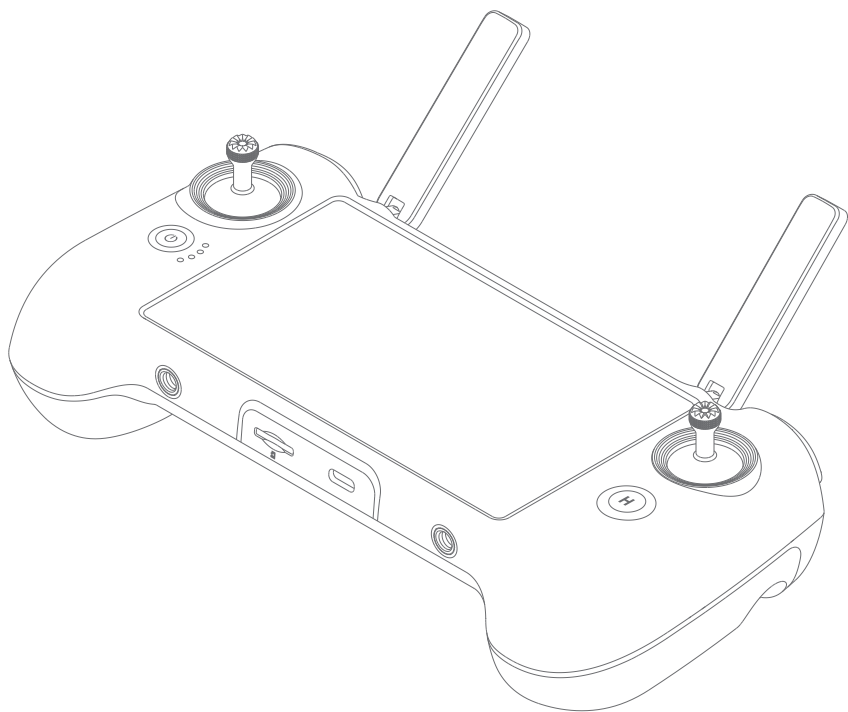


PTD 1 Remote Controller



DANGER

Only suitable
for ages 16+



User Manual

RV02. 25. 12

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1. Disclaimer and Precautions

» 1.1 Disclaimer

Please read the PTD 1 「User Manual」 thoroughly before using this product to fully understand the detailed usage instructions. By using this product, you agree to all terms and conditions associated with it.

This product is not intended for use by children. Store the product out of children's reach when it's not in use.

Do not disassemble or modify components. Unauthorized alterations resulting in product failure will be the user's responsibility.

This document's copyright and ownership belong to Shenzhen Deep Sea Investment Co., Ltd. The content may be updated or changed without prior notice.

» 1.2 Safety and Precautions

Keep Away from Moisture

This product is not waterproof. Avoid contact with water, oil, or high-humidity environments to prevent malfunctions or damage caused by moisture affecting internal components.

Keep Away from Heat Sources

This product is composed of metal, plastic, and electronic components. Keep it away from heat sources and avoid prolonged exposure to high temperatures to prevent malfunction, casing deformation, or damage.

Battery Health

This product contains a built-in 3.6V lithium battery that does not require replacement. Use only FCC/CE-certified USB chargers to charge the remote controller battery. To maintain optimal battery health, recharge every 3 months to maintain cell activity.

2. Reading Guide

» 2.1 Symbol Legend

 • Prohibited

 • Operation & Usage Tips

 • Important Notes

 • Terminology and Reference Information

» 2.2 Usage Recommendations

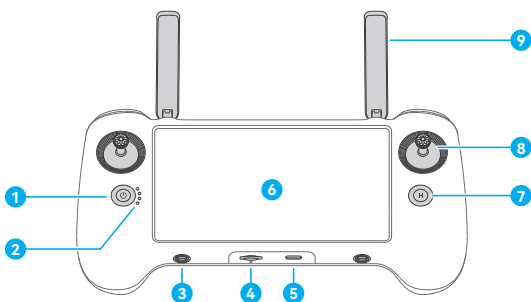
1. We recommend watching the tutorial videos and reviewing the 「Quick Start Guide」 prior to reading the 「User Manual」.
2. When reading the 「User Manual」, always begin with the **Disclaimer and Precautions** section.

3. Product Overview

» 3.1 Introduction

The PTD 1 remote controller utilizes advanced 2.4GHz wireless communication technology, enabling long-range, low-latency control signal transmission under ideal conditions. Featuring an integrated design, it incorporates a 5.5-inch 1920×1080p touchscreen with GNSS positioning and screen recording capabilities, and supports Wi-Fi connectivity to the internet. It can be used with various compatible receiver devices, enabling control and configuration of target equipment through function keys and the built-in system. It is mainly used for operating products with mobile camera functions such as unmanned vehicles, unmanned boats, and industrial endoscopes. Because this remote control uses the RK3568 main control chip, it has the functions of video and image processing as well as control information decoding. This remote control is compatible with devices that have the AR8032 module. These devices can automatically pair with the remote control for frequency matching. The remote control and the controlled device establish a connection through frequency matching. The frequency matching process can be referred to in Section 5.3. The button and joystick functions of the remote control can be set on the built-in APP. The remote control incorporates a speaker, comes with 32GB of built-in storage, and supports microSD card expansion for additional capacity. It houses a high-capacity lithium battery, providing up to approximately 3 hours of continuous operation.

» 3.2 Remote Controller Component Names



1. Power Button

Press once to check battery level; press and hold for 2s to power on/off. Press and hold the power button for 10s to force a shutdown.

2. Power Indicator

Displays battery level or status.

3. 1/4 Nut Mounting Slot

For attaching straps. (Sold separately)

4. Micro SD Card Slot

Can insert micro SD card.

5. USB-C Port

For charging or connecting to a computer.

6. Touchscreen Display

Operate by tapping the screen. (Avoid exposure to water to prevent screen damage)

7. Function Button

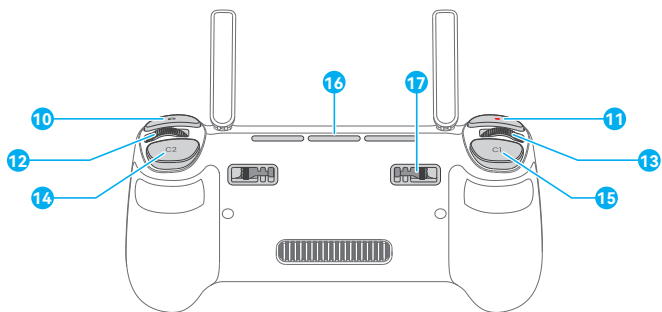
Press and hold to activate specific preset functions (Press once more to cancel. Press briefly to pause the current automatic operation.

8. Control Sticks

Control changes in the motion or field of view of controlled devices.

9. Foldable Dual Antenna

Send control signals.



10. Function Button A

Press briefly to execute Preset Function A.

11. Function Button B

Press briefly to execute Preset Function B.

12. Right Dial

Control preset parameter C.

13. Left Dial

Control preset parameter D.

14. Customizable C2 Button

Single-click and double-click control preset parameters respectively, and can be combined with the left/right dial for setting controls.

15. Customizable C1 Button

Single-click and double-click control preset parameters respectively, and can be combined with the left/right dial for setting controls.

16. Cooling Holes

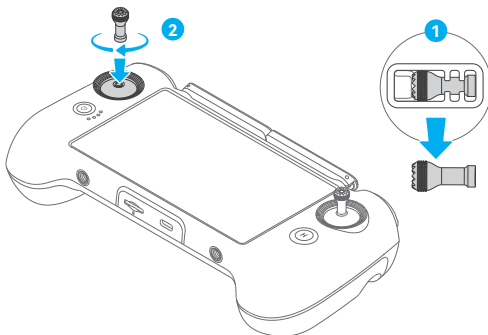
17. Control Stick Storage Slot

For storing control sticks.

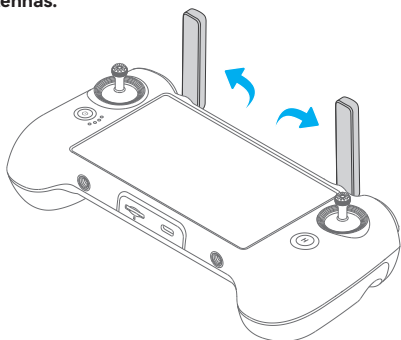
4. First-Time Use

» 4.1 Remote Controller Preparation

1. Remove the control sticks and screw them clockwise into the remote controller's stick mounting holes.



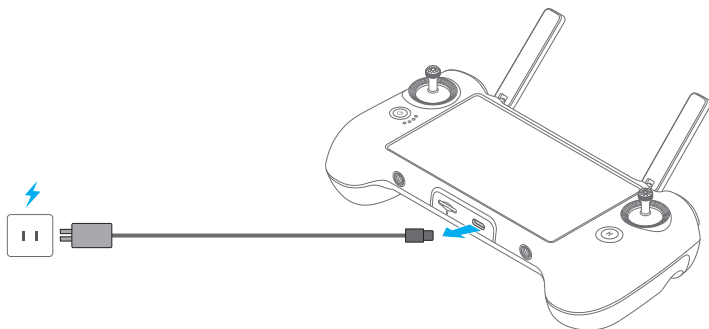
2. Unfold the antennas.



» 4.2 Charging/Power On/Off

Charging

Connect the remote controller's USB-C charging port to a USB charger with AC power supply. The fastest charging time to reach 90% is approximately 1 hour 25 minutes (when using a 9V/3A output USB charger).



- It is recommended to recharge every 3 months to maintain battery cell activity.
- This product does not come with a USB charger. Users should use FCC/CE-compliant chargers. To enable fast charging functionality, ensure your charger supports the Power Delivery (PD) 2.0 or later fast charging protocols.
- Please use a USB-C to USB-C cable that is either original or supports the PD fast charging protocol with a current of 3A or higher. Using incompatible charging cables may result in failure to charge or damage to the battery.

Power On/Off

Press the power button once to display the current battery level via the indicator lights.

Press and hold the power button for 2 seconds to power the remote controller on/off.

» 4.3 Remote Controller Activation

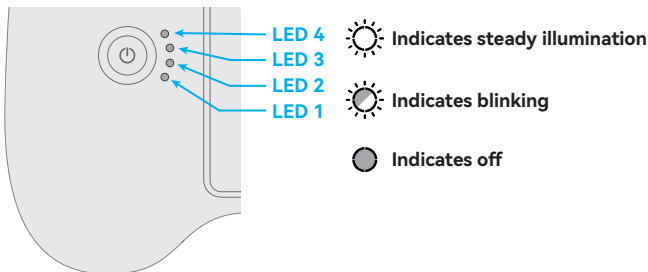
The remote controller must be activated before its first use. An internet connection is required for activation. Ensure good network connectivity, press and hold the power button for 2 seconds to power on the remote controller, then follow on-screen instructions to complete activation.

- If activation fails, check network connection. Retry activation after ensuring a stable network connection. If issues persist, contact customer support.

5. Remote Controller Functions

» 5.1 Remote Controller Indicator Lights

As shown in the diagram, the remote controller has 4 LED lights that indicate battery level and status.



Charging Indicators

LED 1	LED 2	LED 3	LED 4	Current battery level
				0% ~ 25%
				25% ~ 50%
				50% ~ 75%
				75% ~ 99%
				99% ~ 100%

Status indicators (shown via LED 1 color)

Status	LED 1
Connected	 Solid green
Not connected	 Solid blue
Updating	 Blinking yellow
Critically low battery	 Solid red

» 5.2 Remote Controller Audio Alerts

The remote controller produces corresponding audio alerts depending on its status or mode. Common alerts are listed below:

Status	Alert Type
Press any button briefly	Single "beep"
Power off	Two "beep beep" sounds
Remote controller activates a function	Two "beep beep" sounds
Remote controller terminates a function	Single "beep"
Low battery	Slow triple "beep..beep..beep.." (repeating)

-
-  • The remote controller auto-powers off after 5 minutes of inactivity with warning beeps. Press the power button to stop the beeps.
-

» 5.3 Remote Controller Pairing

Pairing Steps:

1. Power on the remote controller and navigate to the pairing interface via the Eve App > Settings > Calibration > Pairing interface.
 2. Press and hold the power button to power on the controlled plant. Then, quickly double-press the controlled plant's power button - the tail LED will flash green rapidly, indicating that the controlled plant has entered pairing mode.
 3. During pairing, the LED 1 on the remote controller will flash blue. A single beep indicates successful pairing. The battery indicator will switch from flashing blue to solid green, and the Eve App will display "Pairing Successful".
During pairing, keep the remote controller and controlled plant within 1 m of each other and ensure there is no 2.4G interference in the surrounding area.
- If pairing fails, please check for possible sources of interference, whether other drones are also in pairing mode, if the remote controller is too far from the controlled plant or if there are obstructions, and retry after addressing these issues.
 - Do not move or operate the remote controller and controlled plant during pairing.

6. Appendix

PTD 1 Remote Controller	
Model	DSRC24A
Battery Type	18650 Lithium-ion Battery
Battery Capacity	23.04Wh (3.6V, 3200 mAh×2)
Maximum Operation Time ^[1]	3 hours
Charging Port	USB-C
Operating Temperature	0°C~40°C
Charging Temperature	5°C~40°C
Charging Time	1 hour 25 minutes (fast charge to 90%)
Charging Method	Supports up to 9V/3A fast charging
Screen Brightness	700 nits
Screen Resolution	1920×1080
Screen Size	5.5 inches
Screen Refresh Rate	60 Hz
Screen Touch Points	Multi-touch
Internal Storage ^[2]	32GB (supports microSD card expansion)
Supported Memory Card	Micro SD card (minimum requirement: C10 or U1)
Dimensions	Without sticks: 225.4×111.6×52.7 mm With sticks: 225.4×111.6×68.8 mm
Weight	Approx. 450g

Video Transmission / Wi-Fi	
Video Transmission Solution	PixSync 4.0
Video Transmission Frequency ^[3]	2.4000 - 2.4835 GHz
Video Transmission Power (EIRP)	FCC: <24 dBm, CE/SRRC: <20 dBm
Video Transmission Specification	1080p@30 fps
Video Transmission Latency ^[4]	120 ms
Maximum Video Transmission Bitrate ^[5]	6 Mbps
Maximum Video Transmission Range	10 km
Video Transmission Antenna	Dual antenna
Wi-Fi Protocol	802.11 a/b/g/n/ac
Wi-Fi Frequency ^[3]	2.4000 - 2.4835 GHz, 5.725 - 5.850 GHz
Wi-Fi Transmission Power (EIRP)	2.4 GHz: <17 dBm (FCC/CE/SRRC) 5 GHz: <13 dBm (FCC/CE/SRRC)
Wi-Fi Maximum Download Speed	Wi-Fi 5, 5GHz mode: 25MB/s
Wi-Fi Antenna	Single antenna

- [1] The Operation Time is a laboratory reference value.
- [2] Actual available storage is approximately 23 GB.
- [3] Available frequency bands vary by country/region. For details, please refer to local laws and regulations.
- [4] This data is based on laboratory testing. Actual performance may vary depending on usage scenarios.
- [5] The maximum average video transmission bitrate is 5 Mbps, with peak values reaching up to 6 Mbps.
Actual performance may vary depending on environmental factors such as interference and distance.

Support

Country/Region:

United States Continental (Excluding Puerto Rico, Guam, Saipan, and the Virgin Islands)

Tel: +1 833 549 7772

Service Time:

Sat-Mon 7:00 - 22:00 (EST/EDT)

Tue-Fri 9:00 - 18:00 (EST/EDT)

Manufacturer: Shenzhen Deep Sea Investment Co., Ltd.

Address: Third to fourth Floor, Building No.4, Guigu Compound, Qingquan Road, Longhua District, Shenzhen, China

Made in China/中国制造

FCC Compliance:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1) This device may not cause harmful interference, and
 - 2) this device must accept any interference received, including interference that may cause undesired operation.
- 15.105 Information to the user.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC RF Exposure Warning Statement:

This equipment has been tested for SAR compliance. This equipment should be installed and operated with minimum distance 0 mm between the radiator and your body. This transmitter must not be collocated or operating in conjunction with any other antenna or transmitter.

For USA: The frequency stability of all transmission frequencies of U-NII-1, U-NII-3 meets the requirements of 47 CFR FCC Part 15.407(g), and the manufacturer declares that their transmission is maintained at Band U-NII-1, U-NII-3.

IC Statement

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) L'appareil ne doit pas produire de brouillage;
- (2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This EUT is compliance with SAR for general population/uncontrolled exposure limits in ISSED RSS-102 and had been tested in accordance with the measurement methods and procedures specified in IEC/IEEE 62209-1528. This equipment should be installed and operated with minimum distance 0 mm between the radiator and your body. This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter. Cet EUT est conforme aux limites d'exposition SAR pour la population générale/non contrôlée de l'ISDE RSS-102 et a été testé conformément aux méthodes et procédures de mesure spécifiées dans la norme IEC/IEEE 62209-1528. Cet équipement doit être installé et utilisé à une distance minimale de 0 mm entre le radiateur et votre corps. Cet appareil et ses antennes ne doivent pas être situés ou fonctionner en conjonction avec une autre antenne ou un autre émetteur. Operation of this device is restricted to indoor use only. (5150-5250MHz)

Le fonctionnement de cet appareil est limité à une utilisation en intérieur uniquement. (5150-5250MHz)

For Canada: The frequency stability of all transmission frequencies of U-NII-1, U-NII-3 meets the requirements of RSS-Gen Issue 5, Section 6.11, and the manufacturer states that their transmissions remain within the U-NII-1, U-NII-3 bands.

Pour le Canada : La stabilité de fréquence de toutes les fréquences de transmission U-NII-1, U-NII-3 répond aux exigences de la norme CNR-Gen, édition 5, section 6.11, et le fabricant déclare que leurs transmissions restent dans les bandes U-NII-1, U-NII-3.

