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FIVERAY FR100C

User Guide

Contents

■ Brief Introduction	
Brief Introduction	1
■ Get to Know FIVERAY FR100C	
■ How to Charge	
How to Charge	3
■ How to Use	
How to Use	4
Button Description	4
Brightness/Color Temperature Settings (CCT Mode)	5
Hue (H)/Saturation (S)/Intensity (I) Settings (HSI Mode)	5
Max Power Settings	6
■ Firmware Upgrade	
■ Product Specifications	
■ Disclaimer and Warnings	
Reading Tips	11
Warnings	11
Safe Operation Guidelines	12
■ Warranty Card	
Warranty Period	15
Warranty Exclusions	15
Warranty Claim Procedure	15
■ Contact Card	

Brief Introduction

FR100C is a high-power portable LED fill light that enables RGB color adjustment and provides supplementary light in multiple scenarios, such as video filming, live interviews, and still life photography.

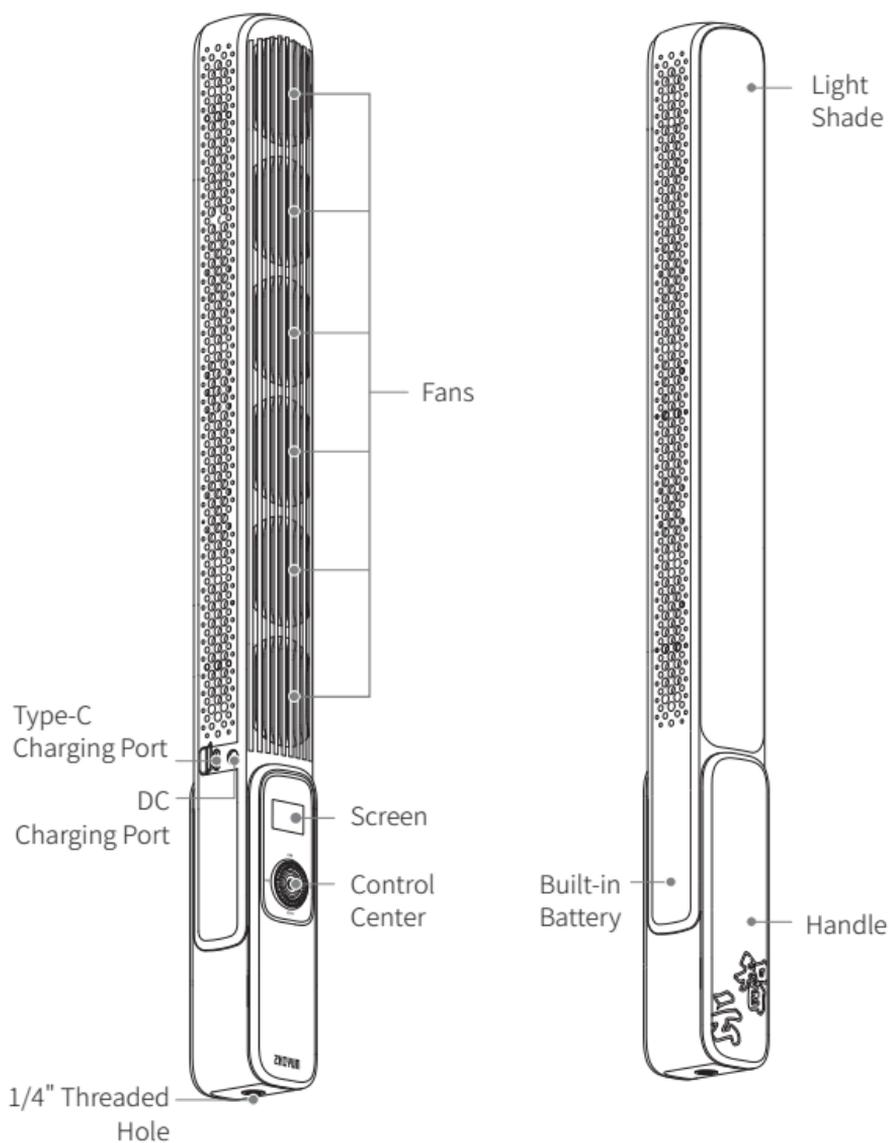
FR100C has the following features:

1. Slender and portable, easy to use.
2. Adjust brightness/color temperature/hue/saturation freely. Applicable to a wide range of scenarios.
3. High-intensity lighting that satisfies your night-shoot needs.
4. Great color rendering performance to show object colors more naturally.
5. Visible parameters on the screen, convenient for setting.
6. Built-in fans for an effective cooling effect.

Warnings:

-  1. This product is not waterproof. Prevent contacts of any kind of liquid with the FR100C. Never use the product in the rain or a humid environment.
-  2. Do not expose this product to corrosive chemicals, inflammable and explosive materials.
-  3. Do not touch the heating part when the product is working to avoid getting burned.
-  4. Do not wrap or block the fans to avoid cooling effect damage.
-  5. Do not turn the product directly to eyes to avoid eyesight damage.
-  6. Do not expose this product to environment above 40°C .

Get to Know FIVERAY FR100C

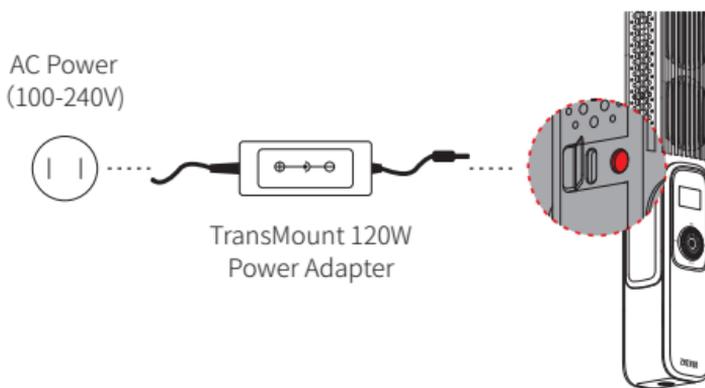
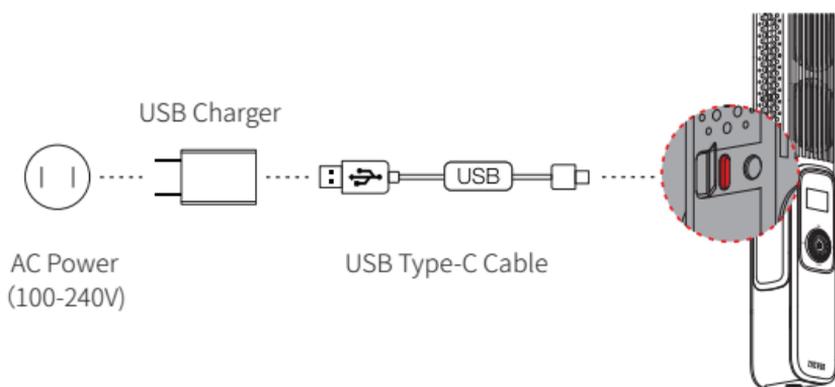


How to Charge

FR100C adopts built-in batteries. When using FR100C for the first time, please fully charge and activate the batteries to ensure normal use of the product.

The following two methods show how to charge your FR100C:

- ① Connect the Type-C port of FR100C to a USB charger via a Type-C USB cable. Plug the USB charger to an AC socket. It is recommended to use USB chargers that meet the PD protocol (support 28W at most).
- ② Connect the TransMount 120W Power Adapter to the DC charging port and an AC socket to charge FR100C. You can still use FR100C while charging it.

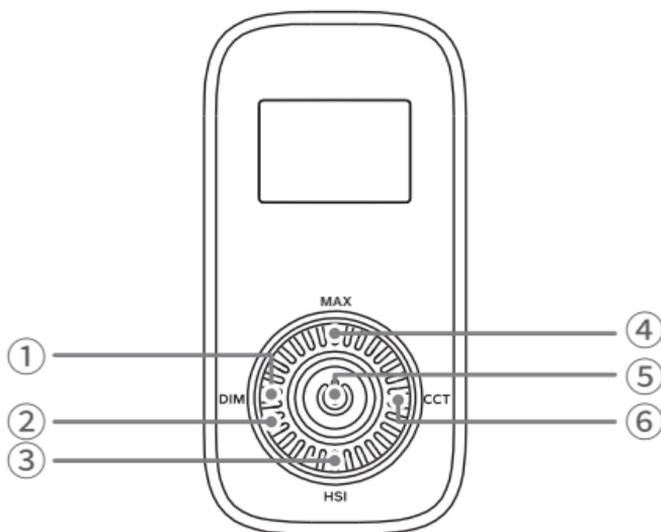


- 💡 ① It is recommended to fully charge FR100C before using it. Low battery might impair the product performance.
- ② USB chargers are not included in the package. FR100C COMBO offers a TransMount 120W Power Adapter.

How to Use

- ⚠ DO NOT stare at the LED chips when the device is operating.
- ⚠ The protection code of the outer case is IP20.

Button Description



① DIM Button:

Single Press:

Enter the brightness adjustment interface (CCT mode).

Switch between Brightness/Color Temperature (Brightness Adjustment Interface).

② Dial: Parameter control.

③ HSI Button:

Single Press:

Enter the HSI full-color mode interface.

Switch among Hue (H)/Saturation (S)/Intensity (I) (HSI full-color interface).

④ MAX Button: Single press to turn on/off the max-power mode.

⑤ Power Button: Long press to turn on/off the product.

⑥ CCT Button:

Single press:

Enter the color temperature adjustment interface (CCT mode).

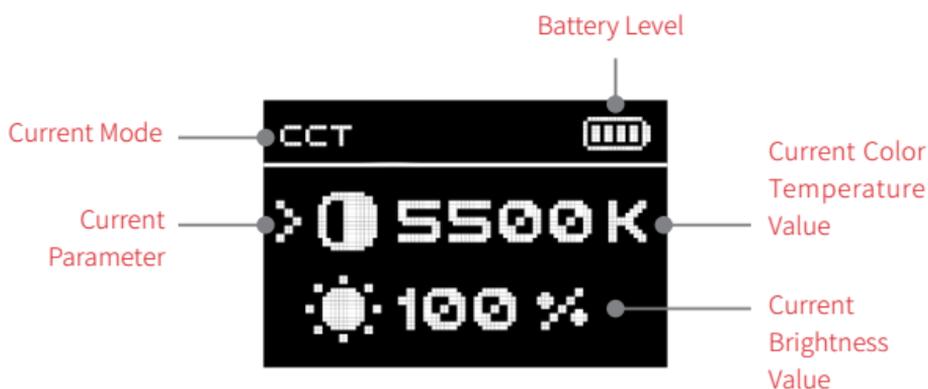
Switch between Brightness/Color Temperature (Color Temperature Adjustment Interface).

Long press:

See the current firmware version.

Brightness/Color Temperature Settings (CCT Mode)

Turn on FR100C. Single press the DIM/CCT button to enter the brightness/color temperature adjustment interface. Press the DIM/CCT button again to switch between Brightness/Color Temperature. You can turn the dial to adjust the brightness/color temperature value as needed.



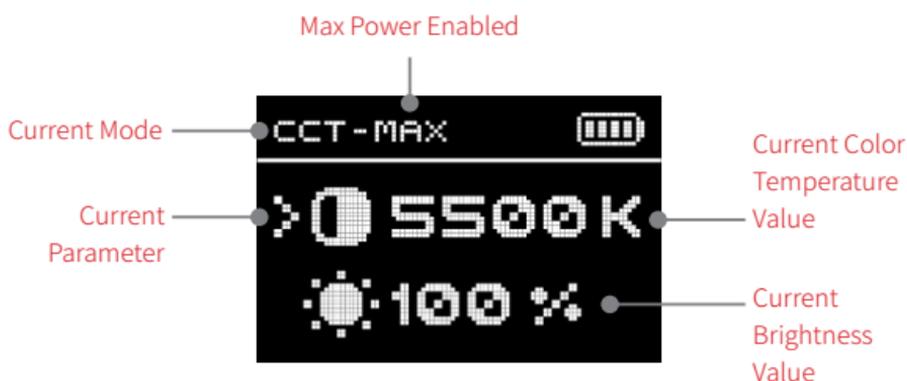
Hue (H)/Saturation (S)/Intensity (I) Settings (HSI Mode)

Turn on FR100C. Single press the HSI button to enter the HSI full-color mode interface. Press the HSI button again to switch among Hue (H)/Saturation (S)/Intensity (I). You can turn the dial to adjust the hue/saturation/intensity value as needed.



Max Power Settings

Turn on FR100C. Press the DIM/CCT button to enter the CCT mode. Single press the Max button to enter the max-power mode. The FR100C now works at the max power. You can turn the dial to adjust the brightness/color temperature value in the max-power mode as needed. In the CCT mode, single press the Max button to turn off the max-power mode. (On the HSI full-color interface, when the intensity value is the maximum value, the product works at the max power. Otherwise, the max-power mode can not be enabled.)

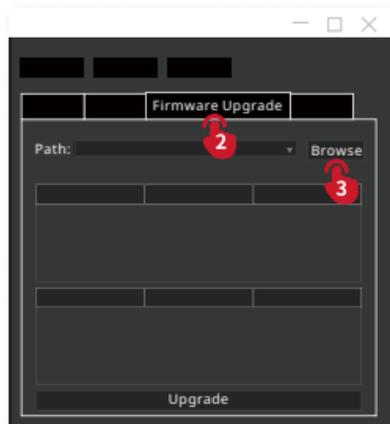
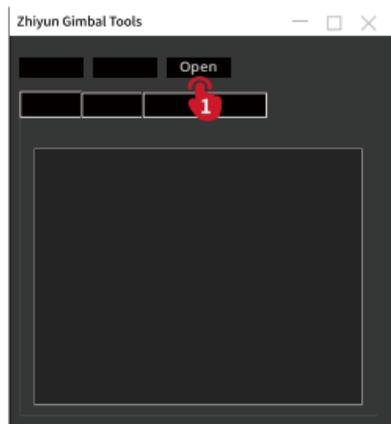
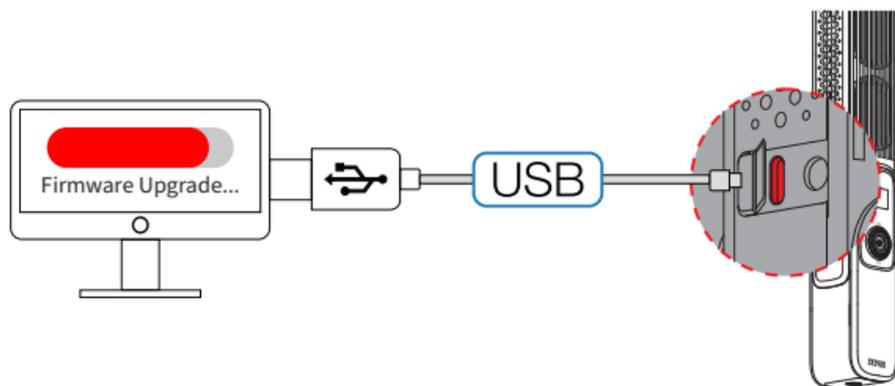


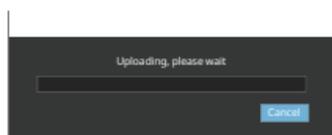
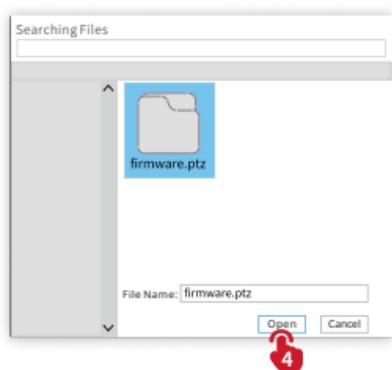
- ① The fans are enabled automatically to cool the product when its temperature exceeds a certain level.
- ② The product will be turned off automatically to protect itself when its temperature is too high.

FR100C supports firmware upgrade with “Zhiyun Gimbal Tools”.

The following steps show how to upgrade firmware:

1. Turn off FR100C.
2. Connect the Type-C port of FR100C to a computer USB port via a Type-C USB cable.
3. Visit the ZHIYUN official website www.zhiyun-tech.com and enter the FR100C page. Click "Download" to download the USB driver, Zhiyun Gimbal Tools, and firmware. (For Mac users, you don't need to download USB driver.)
4. Install the downloaded driver. Unzip the firmware file to get a file with the “ptz” extension.
5. Long press the CCT button and the Power button at the same time to enter the upgrade mode.
6. Launch “Zhiyun Gimbal Tools”. Choose the corresponding port and click “Open” above. Click “Firmware Upgrade”, and then click “Browse” to choose the latest firmware file (with the “ptz” extension). Click “Upgrade” below to get started. FR100C will be turned off automatically once the upgrade is successful.





Product Model: EX1F05

Battery Capacity	2600MAH Lithium-ion Battery	
Max Power	100W	
Color Temperature Range	2700K~6200K	
Dimming Range	0~100%	
RGB Range	0-360°	
CRI/TLCI	CRI ≥ 96 TLCI ≥ 97	
Lamp Amount	176PCS Cold/Warm +80PCS RGB	
PD Fast Charging Time	2h 30min	Experimental data 1
DC Charging Time	2h 33min	Experimental data 2
Illuminance (Max Power)	20708 lux	Experimental data 3
Battery Runtime (Max Power)	31min	Experimental data 4
Work Temperature	-10°~ 40°	
Size	502*46*47mm	
Weight	920g	
R Illuminance	23.3 lux	Experimental data 5
G Illuminance	62.2 lux	
B Illuminance	17.5 lux	
Effective Luminous Flux	2876 lm	Experimental data 6
Power Adapter Output Voltage/Current	24V / 5A	

Experimental data 1: When the temperature is 25°C , the charging time is 2h 30 mins via 22W Power Delivery. The actual charging time varies under different conditions: the lower the charging temperature, the lower the charging current, leading to a longer charging time.

Experimental data 2: When the temperature is 25°C , the charging time is 2h 33 mins via 25W -28W Power Delivery. The actual charging time varies under different conditions: the lower the charging temperature, the lower the charging current, leading to a longer charging time.

Experimental data 3: With 25°C temperature, indoor illuminance lower than 0.1lux, and 0.3m test distance, set the product at 4000k color temperature, 100% brightness, and the max power, and the illuminance is 20708 lux. The actual illuminance at the max power varies under different conditions.

Experimental data 4: With 25°C temperature and a full battery level, set the product at 4000k color temperature, 100% brightness, and the max power, and the battery runtime is 31 mins. The actual battery runtime varies under different conditions: the longer the operating time, the higher the charge and discharge frequency, and the less the battery activity, leading to a shorter battery runtime.

Experimental data 5: With 25°C temperature, indoor illuminance lower than 0.1lux, and 1m test distance, set the product at 100% saturation and 100% brightness, and the red/green/blue illuminance is 23.3lux/62.2lux/17.5lux. The actual red/green/blue illuminance varies under different conditions.

Lab Data 6: The data is collected under the following conditions: A specified temperature of 24-26°C ; The light stick is operating in CCT mode for 2 hours and the color temperature level is 6200K. The effective luminous flux is 2876 (lm). The actual luminous flux may differ due to different conditions.

The above data is gathered from internal experiments of ZHIYUN laboratories. Under different scenarios, data is different to some extent. Please refer to the actual use.

Thank you for purchasing FR100C. The information contains herein affects your safety, legitimate rights and obligation. Please read this instruction carefully to ensure proper configuration before use. Failure to read and follow this instruction and warnings herein may result in serious injury to you or bystanders, or damage to your device or property. Guilin Zhishen Information Technology Co., Ltd (hereinafter referred to as "ZHIYUN") reserves all rights for final explanation of this instruction and other documents related to FR100C. The information is subject to update without notice. Please visit www.zhiyun-tech.com to obtain the latest product information.

By using this product, you hereby signify that you have read this document carefully and that you understand and agree to abide by the terms and conditions herein. You agree that you are solely responsible for your own conduct while using this product, and for any consequences thereof. You agree to use this product only for purposes that are proper and in accordance with all terms, precautions, practices, policies and guidelines ZHIYUN has made and may make available.

ZHIYUN accepts no liability for damage, injury or any legal responsibility incurred directly or indirectly from the use of this product. Users shall observe safe and lawful practices including, but not limited to, those set forth herein.

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Reading Tips

Legends:  Hints and Tips

 Important

Warnings

Read the ENTIRE User Guide to become familiar with the features of this product before operating. Failure to operate the product correctly can result in damage to the product or personal property and cause serious injury.

This is a sophisticated product. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this product in a safe and responsible manner could result in injury or damage to the product or other property. This product is not intended for use by children without direct adult supervision.

DO NOT use with incompatible components or in any way otherwise as

mentioned or instructed in the product documents provided by ZHIYUN. The safety guidelines herein contain instructions for safety, operation and maintenance. It is essential to read and follow all of the instructions and warnings in the User Guide, prior to assembly, setup or use, in order to operate the product correctly and avoid damage or serious injury.

Safe Operation Guidelines

1. This product is a high-precision control device. Damage may be caused to FR100C if dropped or subject to external force, and this may result in malfunction.
2. It is recommended to keep your hands dry while using FR100C and use dry cloth for cleaning.
3. Keep this product out of the reach of children.
4. Protect FR100C from dust and sand during use.
5. Do not disassemble this product personally. In the event of malfunctions, it should be repaired by ZHIYUN's or other authorized maintenance personnel.

WARNING

To avoid fire, serious injury, and property damage, observe the following safety guidelines when using, charging, or storing your batteries.

1. Prevent the batteries from coming into contact with any kind of liquid. Do not leave batteries out in the rain or near a source of moisture. Do not drop the battery into water. If the inside of the battery comes into contact with water, chemical decomposition may occur, potentially resulting in the battery catching on fire, and may even lead to an explosion.
2. If the battery catches fire, use sand or dry powder fire extinguisher immediately to put out the fire.
3. Never use non-ZHIYUN batteries. If replacement or backup is needed, please purchase new batteries from ZHIYUN's official website or authorized channels. ZHIYUN takes no responsibility for any damage caused by non-ZHIYUN batteries.
4. Never use or charge swollen, leaky, or damaged batteries. Never use or charge if the battery smells, or overheats (exceeding the maximum temperature of 160 ° F/71 ° C). If your batteries are abnormal, contact ZHIYUN or a ZHIYUN authorized dealer for further assistance.
5. The battery should be used within the temperature range from -10° C to 60° C. Use of battery in environments above 60° C may lead to a fire or explosion. Use of battery below -10° C may lead to serious battery damage.
6. Do not use the battery in strong electrostatic or electromagnetic environments. Otherwise, the battery protection board may malfunction.

7. Do not disassemble or use any sharp object to puncture the battery in any way. Otherwise, the battery may leak, catch fire or explode.
8. Do not mechanically strike, crush, or throw the battery. Do not place heavy objects on the battery or charger.
9. Electrolytes inside the battery are highly corrosive. In case of accidental contact of any electrolytes with your skin or eyes, rinse immediately with water for at least 15 minutes and seek medical advice as soon as possible.
10. Do not use the battery if it has been involved in a crash or heavy impact.
11. Do not heat the battery and never put the battery in a microwave oven or in a pressurized container.
12. Do not place the battery on a conductive surface (such as a metal desk surface, eyeglasses, watch, jewelry, etc.)
13. Prevent use of wires or other metal objects that could cause positive and negative short-circuit to the battery.

Battery Charging

1. Do not put the battery and charger near flammable materials or on flammable surfaces (such as carpet or wood). Never leave the battery unattended during charging to prevent any accident.
2. Please disconnect the battery and the charger when fully charged.
3. Do not charge the battery immediately after use, because the battery temperature may be too high. Do not charge the battery until it cools down to normal room temperature. Charging the battery with its temperature over 45° C or lower than 0° C may lead to leakage, overheating, or damage.

Battery Storage

1. Keep batteries out of the reach of children and pets.
2. Do not leave the battery near heat sources such as a furnace or heater, or inside of a vehicle on hot days. Never expose the battery in any environment with temperature of over 60° C. The ideal storage temperature is 22° C-28° C.
3. Store batteries in a dry environment.
4. Do not leave the battery unused for too long after it has been completely discharged to prevent over-discharge of battery which may result in battery damage and permanent failure.

Battery Maintenance

1. Do not over-charge or over-discharge the battery, which will damage the battery;
2. The battery performance will be affected for not being used for a long time;

3. Never use the battery when the temperature is too high or too low;
4. Do not store the battery where the ambient temperature exceeds 60° C.
5. Recharge and discharge every 3 months to keep the battery active.

Battery Disposal

Please fully discharge the battery before putting it in the designated recycling bin. Batteries contain hazardous constituents and it is forbidden to put the battery in general waste bin. For related details please abide by the local laws and regulations on battery recycling and disposal.

Warranty Period

1. Customers are entitled to replacement or free repair service in case of quality deficits found in the product within 15 days upon receipt of the product.
2. Customers are entitled to free repair service from ZHIYUN for any product proven defective in material or workmanship that results in product failure during normal consumer usage and conditions within the valid warranty period, which is 12 months counting from the date of selling. However, warranty period varies by product component and country of purchase. Please contact our after-sales service team on ZHIYUN official website or your place of purchase for detailed warranty information.

Warranty Exclusions

1. Products subjected to unauthorized repair, misuse, collision, neglect, mishandling, soaking, accident, and unauthorized alteration.
2. Products subjected to improper use or whose labels or security tags have been torn off or altered.
3. Products whose warranty has expired.
4. Products damaged due to force majeure, such as fire, flood, lightning, etc.

Warranty Claim Procedure

1. If failure or any problem occurs to your product after purchase, please contact a local agent for assistance, or you can always contact ZHIYUN's customer service through email at info@zhiyun-tech.com or website at www.zhiyun-tech.com.
2. Your local agent or ZHIYUN's customer service will guide you through the whole service procedure regarding any product issue or problem you have encountered. ZHIYUN reserves the right to reexamine damaged or returned products.

Customer Information

Customer Name:

Phone Number:

Address:

Sales Information

Sales date:

Product Serial Number:

Distributor Name:

Distributor's Contact Number:

First Maintenance Record

Service Date:

Repairman Signature:

Cause of Problem:

Service Result:

Solved

Unsolved

Refunded/Replaced



Website



Weibo



Vimeo



Google+



Facebook
(Zhiyun Support)



Facebook
(Zhiyun Tech)



Youku



Youtube



Wechat



Instagram

Tel: +86 400 900 6868

USA Hotline: +1 808-319-6137,9:00-18:00 GMT-7,Mon-Fri

Europe Hotline: +49 (0) 61018132180,10:00-17:00 GMT+1,Mon-Fri

Web: www.zhiyun-tech.com

E-mail: info@zhiyun-tech.com

Address: 09 Huangtong Road, Tieshan Industrial Zone, Qixing District, Guilin, 541004, Guangxi, China

Certificate of Quality

This product is confirmed to meet quality standards and permitted for sale after strict inspection.

QC Inspector: _____



For full product information, please visit ZHIYUN's official website: Content on www.zhiyun-tech.com is subject to update without notice.

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