GL60 Plus Gimbal Searchlight User Manual

V1.0

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Contents

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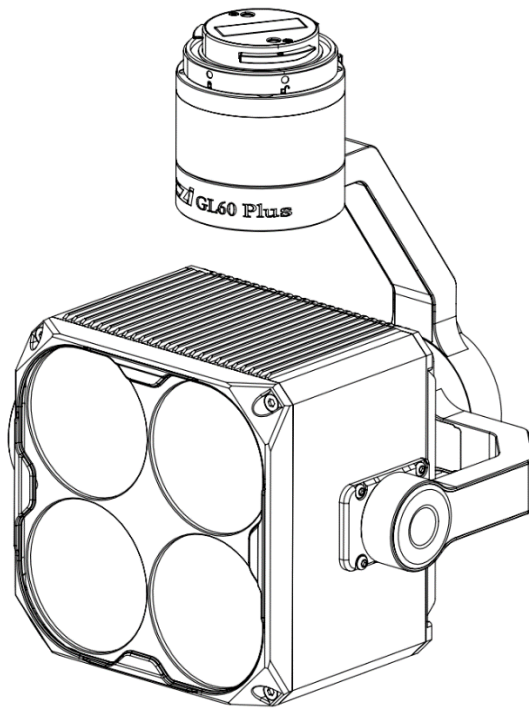
Introduction of Gimbal Searchlight Series

The czi Gimbal Searchlight series are suitable for nighttime drone inspection and search, film and TV making fill-in light, power grid repair, serves as emergency lighting and used in other scenarios.

GL60 Plus gimbal searchlight interfacing with DJI SKYPORT V2 adapter ring and DJI M300 RTK drone OSDK adapter, no extra power supply needed, plug and play, perfect payload for DJI M300 RTK.

II.

Disclaimer and Warning

Thank you for purchasing czi products. The contents mentioned herein are related to your safety and legal rights and responsibilities. Before using this product, please read this document carefully to ensure that you have set up the product properly. Failure to follow and comply with the instructions and warnings in this document may result in injury to you and others , damage to the product or other surrounding items. This document and all related documents are subject to the final interpretation of czi. Updates are subject to change without notice. Please visit the official website at www.gzczzn.com for the latest product information.

Caution

GL60 Plus is a precision optical device, the main body is fully sealed to prevent dust and water. In case of hardware problems, please return to the manufacturer and contact the after-sales service, do not disassemble and repair by unauthorized personnel, otherwise you will lose the warranty and repair eligibility.

1. The installation method of GL60 Plus Gimbal Searchlight is the same as DJI drone gimbal camera, please make sure it is correctly installed before taking off.
2. The GL60 Plus works before the drone takes off, the power is limited to 30% by default (power can be **manually adjusted to 50% or 100%**); after takeoff, the power can reach 100%.

III.

Introduction to the GL60 Plus Gimbal Searchlight

The GL60 Plus Gimbal Searchlight weighs 750 grams and is rated at 120 W. The optical imaging structure consists of multiple lenses, with a $15°$ angle of illumination and an effective irradiation distance of 150 m. With uniform brightness and high colour consistency, it provides unprecedented aerial illumination for drone operations at night. With the DJI SKYPORT V2 adapter ring, it can be directly mounted on the DJI M300 RTK. The GL60 Plus is the perfect partner for the DJI M300 RTK as it is waterproof and dustproof and can work reliably in harsh weather conditions; with an advanced automatic temperature control system, the light attenuation is less than 5% after 1000 hours of operation. The GL60 Plus is a reliable partner for the DJI M300 RTK.
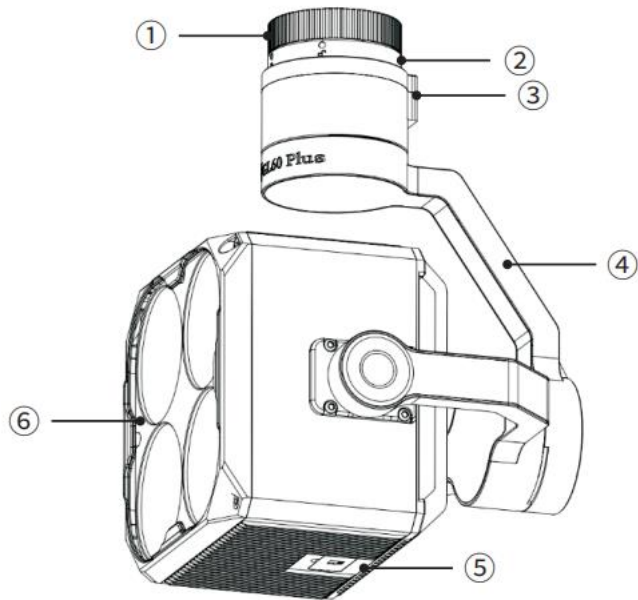
（1）GL60 Plus Gimbal Searchlight

1、Dust cover　2、DJI SKYPORT V2 adapter ring

3、OSDK power supply port 4、Tri-axis stabilized gimbal

5、TF card slot cover　6、Light outlet

⑦ Port 1   ⑧ Port 2

（2）OSDK Power Cable

7. Power cable port 1 (connects to the OSDK end on top of the DJI M300 RTK)

8. Power cable port 2 (connects to the OSDK power supply port ③ of the GL60 Plus)

Specification:

| Model	GL60 Plus					
Electrical interface	DJI SkyPort V2.0					
Control link	PSDK					
Weight/g	＜750					
Dimensions/mm	L126*W131*H167					
FOV/°	15					
Supply voltage /V	PSDK 17V+OSDK 24V			PSDK 17V		
Total power/W	128			68		
LED power/W	120			60		
Luminous flux/lm	13400±3%			8000±3%		
Luminous efficacy(lm/W)	111.67			133.33		
Illumination distance/m	50	100	150	50	100	150
Spot diameter/m	13.2	26.4	39.5	13.2m	26.4	39.5
Illumination area/m²	136	544	1225	136	544	1225
Central illuminance/Lux	85	24	11	45	12	6
Function Mode	Normally on	120W		60W		
	Sharp flash	120W		60W		
	Adjusting the gimbal angle					
	Following automatically					
	Adjusting brightness					
Range of rotation of the gimbal	Pitch		-99°~+23°			
	Horizontal		±99°			
Design range of the gimbal	Pitch		-100°~+24°			
	Horizontal		±100°			
	Roll		-90°~60°			
Operating temperature	-20°C~+50°C					

Ⅳ. GL60 Plus Gimbal Searchlight Installation Tutorial

1、 Remove the protective cover of the GL60 Plus gimbal searchlight interface, align it with the no. 2 gimbal port of the drone, push upwards and gently rotate the GL60 Plus gimbal interface counter-clockwise to align the two red markers and lock the gimbal. After installation is complete, check the GL60 Plus Gimbal Searchlight is securely mounted.

(1)   (2)
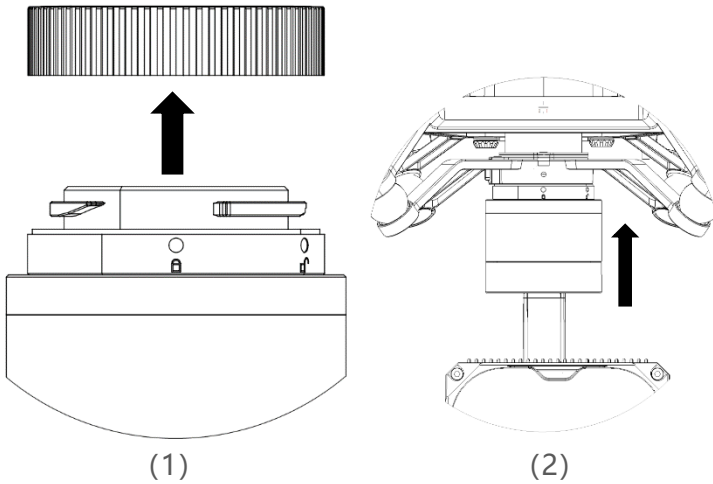
2. Connect the **OSDK power cable**, to the **OSDK port** of the DJI M300 RTK and the **GL60 Plus Gimbal Searchlight.**

(Note: Do not operate with DJI M300 RTK ON. must be OFF)
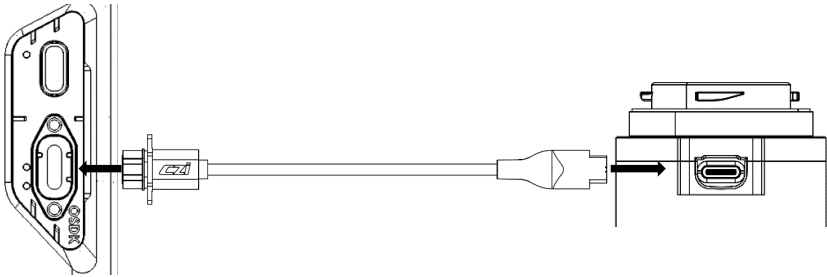
V. CZZN APP installation and use tutorial

1、Download the CZZN APP and copy it to a flash disk, and install it on DJI remote control, to get the installation package.
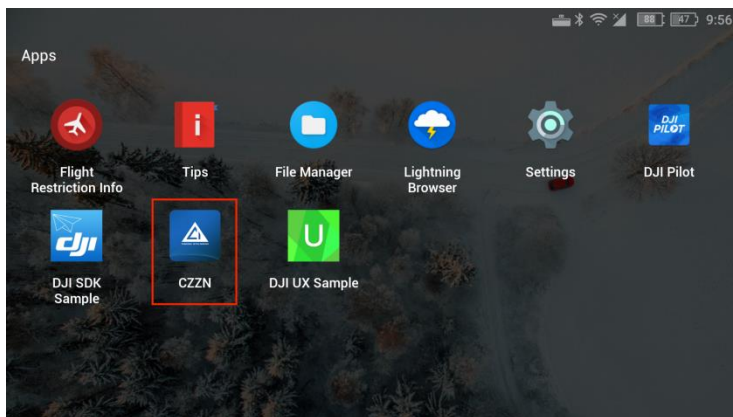
① Go to the official website

http://en.gzczzn.com/?lg=1

to download CZZN APP and copy it to your flash disk or TF high-speed card.

②Use the CZZN APP installation package already in the TF high-speed card or flash disk.

2、Click CZZN to enter the software interface.

3, (correctly install the GL60 Plus gimbal searchlight) to enter the main interface, pop up notice "detected GL60 Plus, whether to open and use DJI Pilot", click to confirm, to enter the DJI Pilot main interface, and open the hovering dialogue window.
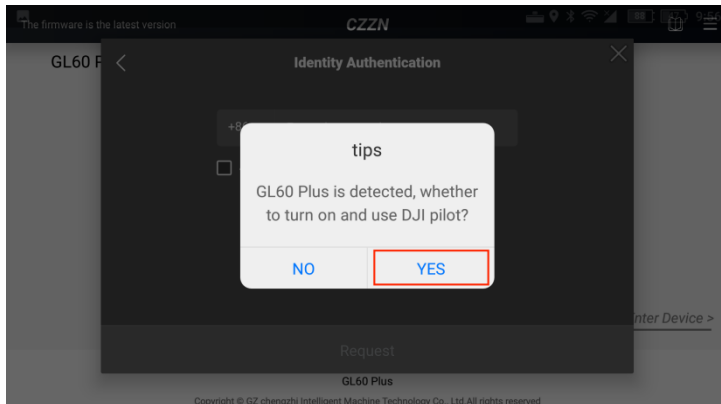
1. switch to the main interface of DJI Pilot APP. The wording GL60 Plus is displayed in the lower left corner, indicating that the GL60 plus gimbal searchlight loading is successfully identified; on the interface, the blue virtual button is the hovering window for options. Click on manual flight.
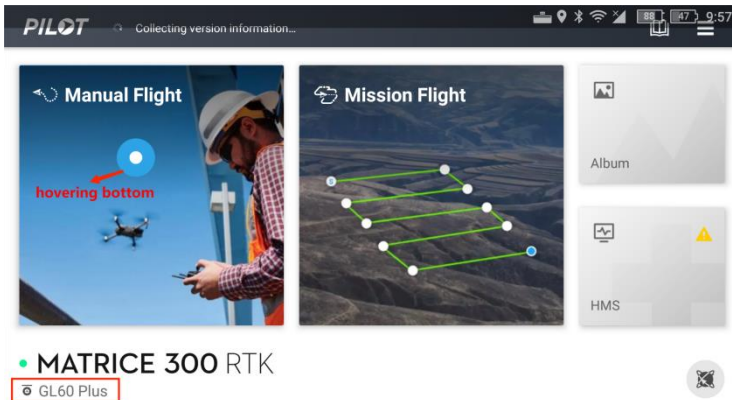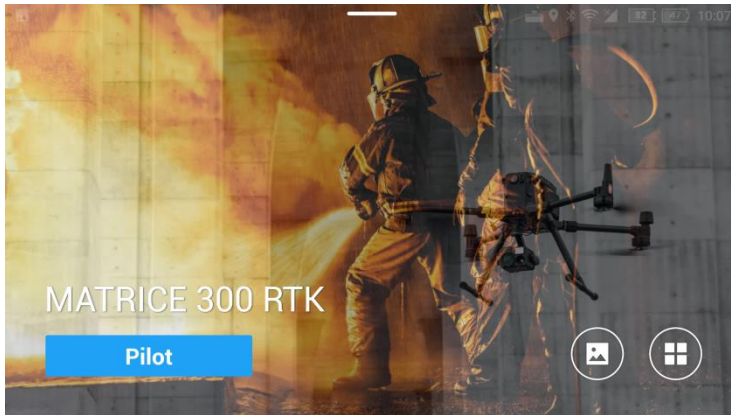
5、hovering options： " ⚙ " —— turn the light on

" ✦ " —— flashing mode

" 🔼 "、" 🔽 "、" ◀ "、" ▶ " —— gimbal fine tune

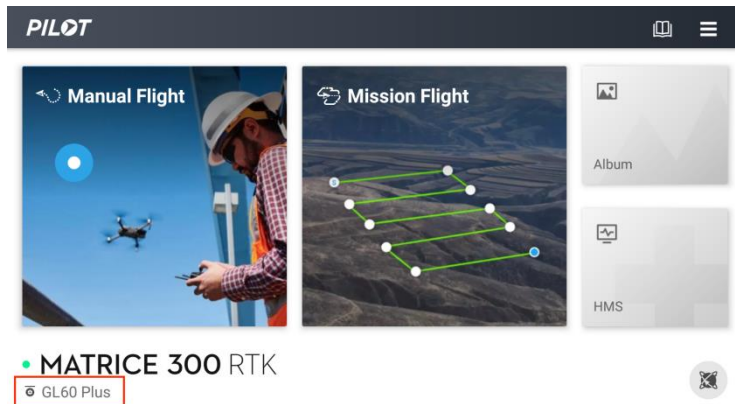" 📷 " —— Double gimbals synchronized button

" ◐ " —— brightness tuning
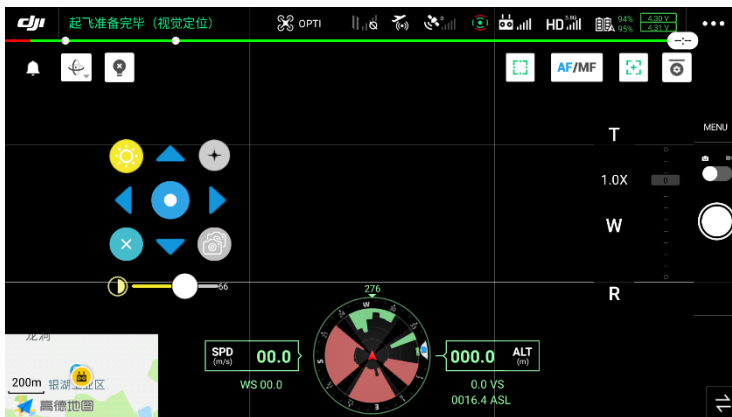
VI.

DJI Pilot APP use tutorial

1、Click DJI Pilot to enter the main interface.

2, into the main interface, the lower left corner shows the word GL60 Plus, indicating that the recognition success, you can proceed to the next step, click on the manual flight.

3、After entering the main interface, click on the multi-gimbals synchronization button, select gimbal Ⅰ and gimbal Ⅱ to synchronize the gimbals, and when synchronizing the payloads following, the horizontal angle of GL60 plus is the same as the payload being followed.
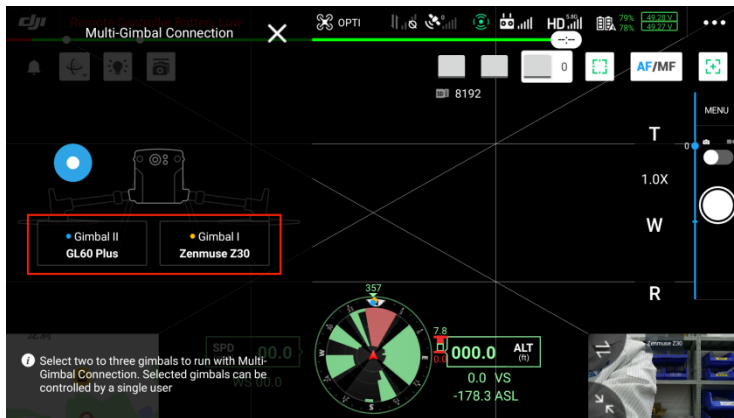

4. Click on the menu bar and click on the third party payload option to enter the GL60 Plus gimbal searching light interface.
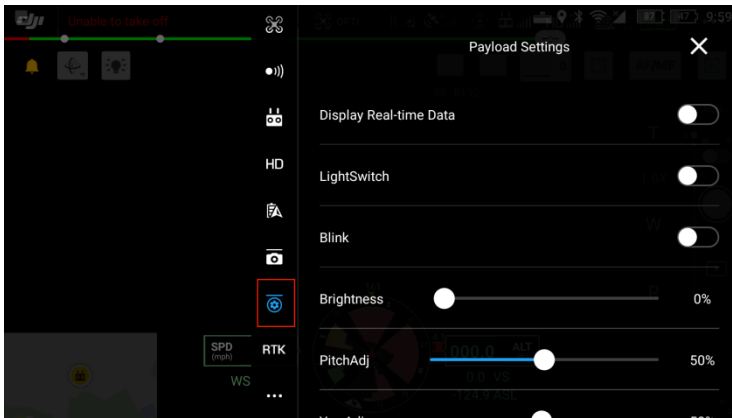
5. Click on the Data button and a status display dialogue box will pop up in the top left corner of the main interface, where you can observe the status of parameters such as real-time temperature and power of the GL60 Plus.
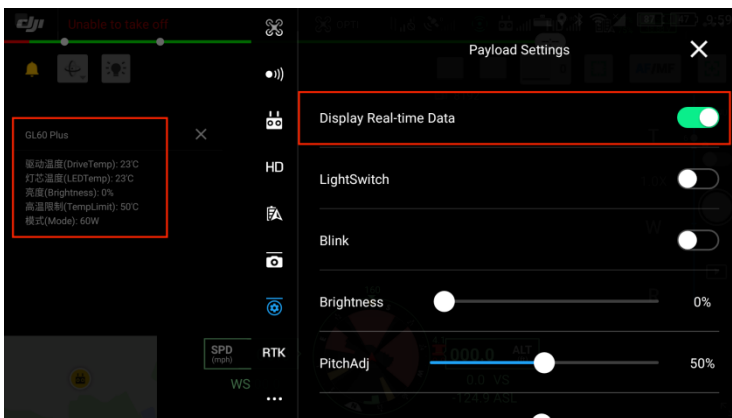
6. Click on the light button to control the light's brightness; click on the flashing button to turn on the bursting mode; slide the brightness progress bar option to adjust the brightness of the light.
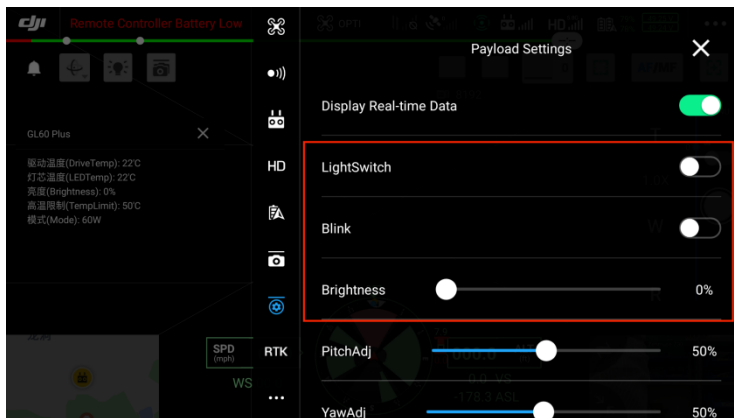
7. Use the H20 and GL60 Plus Tilt fine tuning button, the Heading fine tuning button and the Horizontal fine tuning button to make fine tuning to the position of the light spot in the frame so that the light spot remains in the center of the view. After a single fine tuning you need to click the Save Fine Tuning button. The maximum fine tuning is ±5° at a time and after saving the fine tuning you can fine tune it again by ± 5° until the control limit angle is reached.
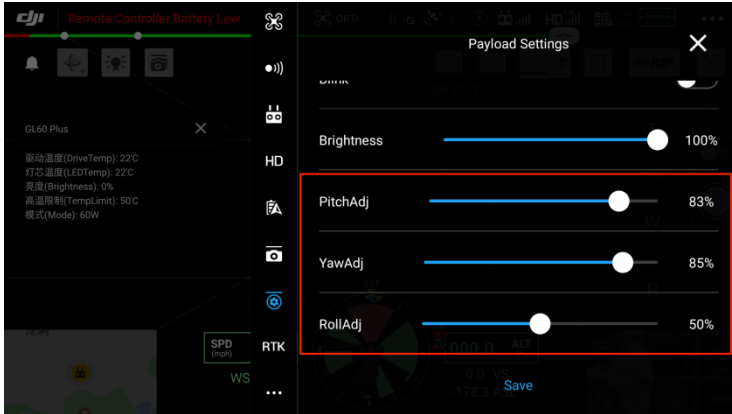
8. When observing the target, if the camera is overexposed, slide the **exposure** button on the screen to adjust it.
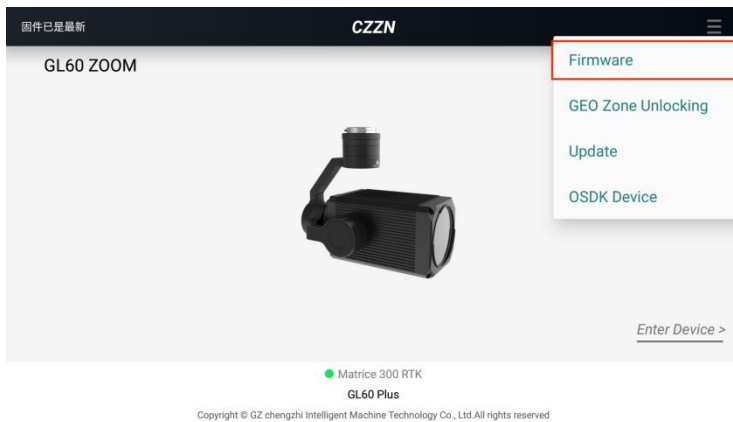
VII.

Firmware Upgrade
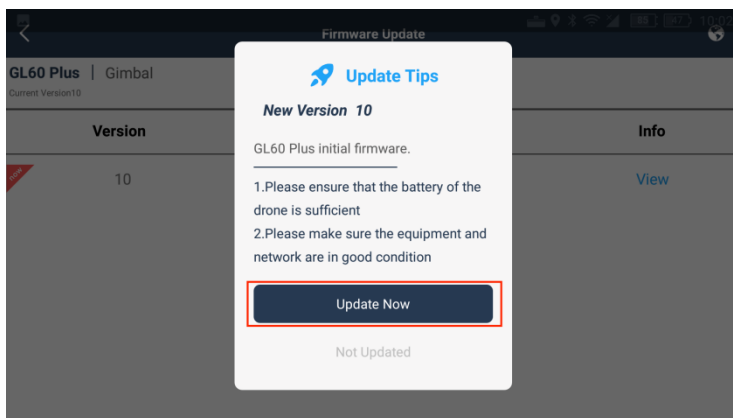
7.1 Online firmware upgrade

1. Open the CZZN software, click on the **menu** button at the top right and click on **Firmware Management**.
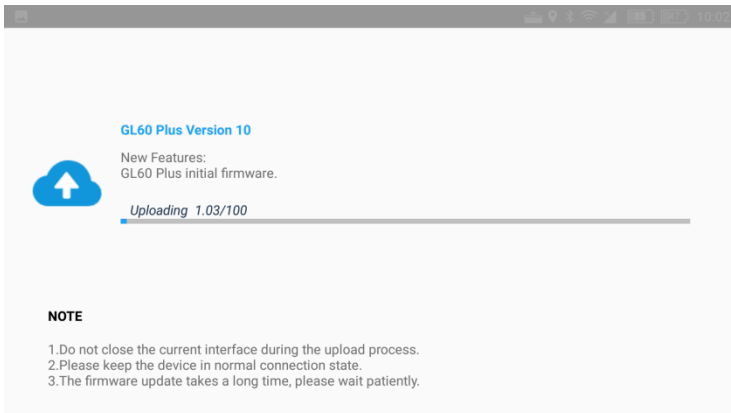

2. Go to the firmware management interface, find the latest version of Firmware and click Refresh or Upgrade.

3、Click update

4、Wait for Firmware update successfully

GL60 Plus Version 10

New Features:
GL60 Plus initial firmware.

Uploading 1.03/100

NOTE

1.Do not close the current interface during the upload process.
2.Please keep the device in normal connection state.
3.The firmware update takes a long time, please wait patiently.
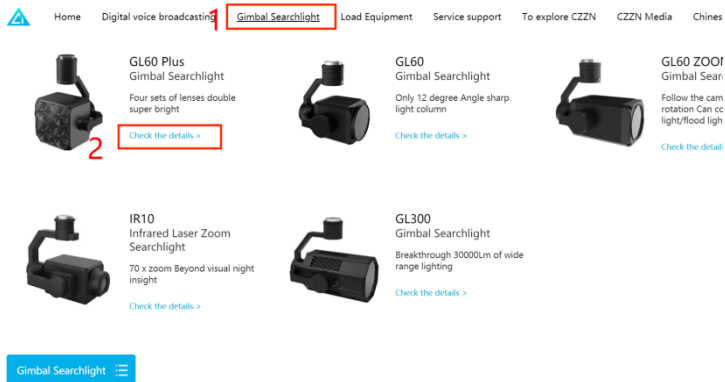
5, firmware update successfully, the GL60 plus is into the re-calibration status, wait a few seconds to complete the update operation. (tips: If the GL60 plus does not respond, you need to restart the drone and wait for the successful calibration.)

GL60 Plus Version 10

New Features:
GL60 Plus initial firm

Uploading 100.00/

Upload successful!About to
restart the device.

YES

NOTE

1.Do not close the current interface during the upload process.
2.Please keep the device in normal connection state.
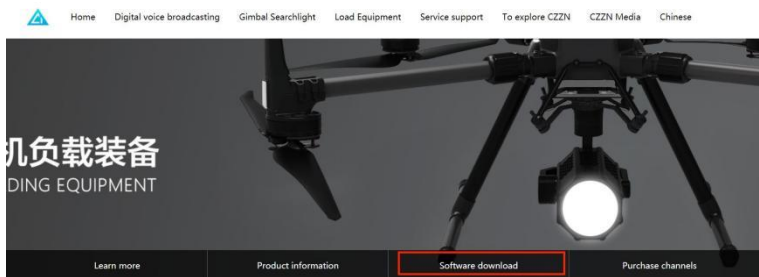3.The firmware update takes a long time, please wait patiently.
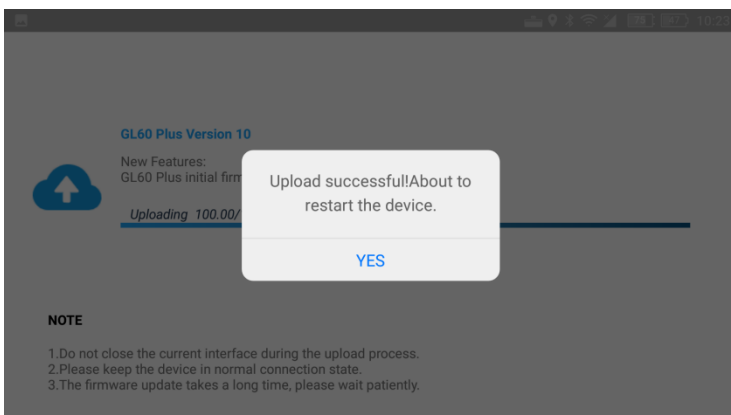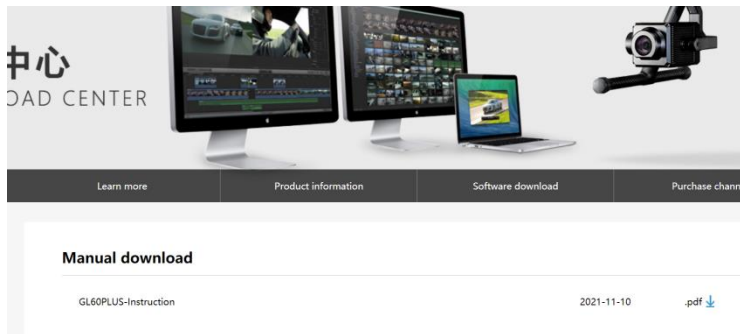
7.2 TF card firmware update

1. Open the official website of CZZN: www.gzczzn.com, select the lighting series and click to view details.

2. Click on software download go to the download center.

3. Find the latest firmware and download the firmware to the TF card.

4, download the firmware and save in TF card, inserted the TF card into the GL60 plus TF card slot; connect the drone and the GL60 plus, the GL60 plus runs into the re-calibration status, wait a few seconds to complete the update operation.

To learn about the firmware update of GL60 Plus gimbal search light or to download the latest version of firmware, please follow the official website of CZZN: www.gzczzn.com

If you encounter a drone firmware update that causes the GL60 plus not working properly, please contact your local agent or the manufacturer ASAP.

ChengZhi Technical Support

www.gzczzn.com

If you have any questions or suggestions regarding the manual, please contact us at：dev@gzczzn.com

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