GL60 ZOOM云台灯说明书

用户说明书 V1.0
2021.01.20

目录

一、云台灯系列介绍

　　成至云台灯系列产品，适用于无人机夜间巡查搜索、影视补光、电力抢修、应急照明等用途。

　　采用大疆DJI SKYPORT V2通用型转接环，无需额外供电，即插即用，完美适配DJI M300系列/DJI M200 V2系列无人机。

二、免责声明与警告

　　感谢您购买成至智能产品。本文所提及的内容关系到您的安全以及合法权益与责任。使用本产品之前，请仔细阅读本文以确保已对产品进行正确的设置。不遵循和不按照本文的说明与警告来操作可能会给您和周围的人带来伤害，损坏本产品或其它周围的物品。本文档及所有相关的文档最终解释权归成至智能所有。如有更新，恕不另行通知。请访问www.gzczzn.com 官方网站以获取最新的产品信息。

警告事项

　　GL60 ZOOM属于精密光学设备，机体需要极高的密封性以防尘防水。如遇硬件问题，请返厂联系售后服务，切勿自行拆卸维修，否则将失去保修、维修资格。

注意事项

　　1、GL60 ZOOM云台灯的安装方式与大疆无人机云台相机相同，起飞前请确认是否正确安装。

　　2、GL60 ZOOM在无人机起飞前工作，功率会限制在50%以下；起飞后，功率可达100%。

三、GL60 ZOOM介绍

　　成至GL60 ZOOM无人机云台探照灯仅重740克, 额定功率高达65W, 由多片透镜组成的光学成像结构, 发光角度由7.5°到33°。有效照射距离可达200米, 亮度均匀, 颜色一致性高, 为无人机夜间作业提供前所未有的空中照射效果。通过 DJI SkyPort V2.0接口, 可直接挂载在大疆经纬 M200 V2、M300 RTK 等系列无人机上使用。连接DJI Pilot APP即可控制开关、切换常亮及爆闪等模式, 且能自动跟随云台相机的转动与变焦。GL60 ZOOM无风扇的机身实现全密封设计, 具备优异的防水防尘性能。能在恶劣气候条件下可靠工作, 是DJI M300 RTK行业无人机的最佳搭档。具备先进的自动温控系统, 工作1000小时后的光衰减小于5%。
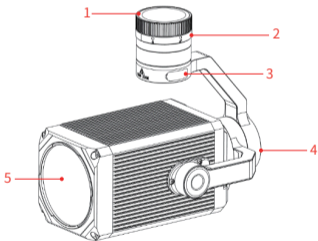
1.防尘盖　　2.DJI SKYPORT V2.0转接环　　3.内存卡插槽

4.三轴增稳云台　　5.出光口

3

技术参数

型号	GL60 ZOOM		
电气接口	DJI SKYPORT V2.0		
重量/g	740		
尺寸/mm	L166*W110*H137		
总功率/W	65		
LED功率/W	60		
光通量/lm	4000±3%		
FOV/°	7.5~33(±0.5)		
中心光照度/Lux	50m	7.2°	125lx
	100m	7.2°	28lx
云台可控转动范围	俯仰	-110°~+30°	
	水平	±135	
云台结构设计范围	俯仰	-110.3°~+40°	
	水平	全向360°	
	水平	-90°~60°	
工作温度	-20°C~+50°C		

四、DJI Pilot使用教程

1、点击DJI Pilot进入主界面。

2、进入到主界面，左下角显示出GL60 ZOOM字样，说明GL60 ZOOM变焦云台灯负载识别成功，可进行下一步操作，点击手动飞行。
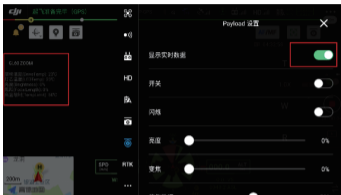
3、进入主界面后点击**多云台联动**按钮，选择云台Ⅰ和云台Ⅱ，实现云台同步，在同步跟随时，与被跟随负载水平角度一致。

4、点击菜单栏，点击第三方负载选项，进入GL60 ZOOM操作界面。

5、点击显示实时数据按钮，在主界面左上角会弹出状态显示框，可观察GL60 ZOOM实时温度及功率等参数状态。

6、点击**开光**按钮，实现灯的亮灭状态控制；点击**闪烁**按钮，可开启灯爆闪模式；滑动亮度进度条选项，可对云台灯进行**亮度**调节；滑动**变焦**进度条选项，可对云台灯进行出光角度调节。

7、使用H20和GL60 ZOOM时，可通过**俯仰微调按钮**、**航向微调按钮**及**水平微调按钮**，对画面中的光斑位置进行微调，使光斑保持在画面中央。单次微调后需点击**保存微调按钮**。每次最大微调±5°，保存微调后可再次微调±5°，直至达到控制限位角度。
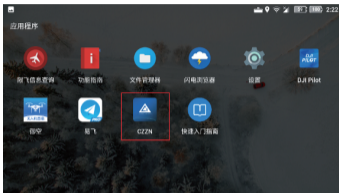

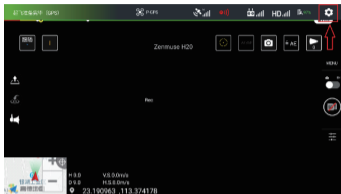8、对目标进行观测时，如遇相机曝光过曝情况，可滑动画面上的光圈按钮进行调节。

五、CZZN使用教程

1. 点击CZZN进入软件界面。

2、进入到主界面，界面下方显示出GL60 ZOOM字样，说明GL60 ZOOM变焦云台灯负载识别成功，可进行下一步操作，点击进入设备。

3、进入到操作界面，点击右上角**设置**按钮，弹出菜单栏。

4、点击菜单栏的**通用设置**按钮，并点击GIMBAL LIGHT选项，打开云台灯悬浮框。（**温馨提示：云台灯悬浮框，方便于用户对云台灯的使用操作，建议开启。**）

5、弹出下图所示的提示框，点击**确认**按钮，跳转到DJI Pilot软件。

6、悬浮框介绍：
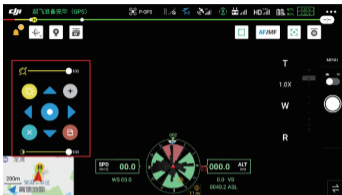
"⚙"-**开灯**按钮

"➕"-**爆闪**按钮

"▲""▼""◀""▶"-**云台微调**按钮

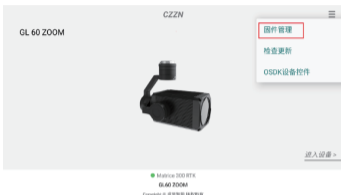"🖫"-**云台微调保存**按钮

"◎"-**焦距调节**

"◑"-**亮度调节**

备注: 首次连接云台灯时，需要进行步骤2~5的操作。往后将直接在CZZN主界面弹出
DJI Pilot跳转提示框。

六、固件升级

6.1 在线固件升级

1、打开CZZN软件，点击右上方的**菜单**按钮，点击**固件管理**。

2、进入到**固件管理**界面，找到最新版本固件，点击**刷新**或**升级**。

3、点击**立即更新**。

4、等待固件升级成功。

5、固件升级成功，云台灯进入重新校准状态，等待几秒钟即可完成升级操作。(温馨提示：如云台灯无反应，需重启飞机，等待校准成功。)

6.2 TF卡固件升级

1、打开成至智能官网：www.gzczzn.com，选择云台照明灯系列，点击查看详情。

15

2、点击软件下载，进入到下载中心。

无人机负载装备
UAV LOADING EQUIPMENT

产品信息　　　软件下载

3、找到最新固件，将固件下载到TF卡内。

固件下载

GL60 ZOOM云台灯固件V13-14更新固件　　　　　　　　2021-01-27　　zip

4、将下载好固件的TF卡，插入到云台灯TF卡槽内；连接上飞机和云台灯后，云台灯进入重新校准状态，等待几秒钟即可完成升级操作。

了解GL60 ZOOM云台灯固件更新情况或下载最新版本固件，请关注成至智能官网：www.gzczzn.com 。
如遇到无人机固件更新导致云台灯无法正常工作情况，请及时联系当地代理商或厂家。

ChengZhi Support
成至 技术支持
www.gzczzn.com

如您对说明书有任何疑问或者建议
请通过以下电子邮箱联系我们：
service@gzczzn.com

Printed in China

Contents

Ⅰ. Introduction of Gimbal Spotlight

This series of products are suitable for UAV night patrol search, film and television light supplement, electric power repair, emergency lighting and other purposes.

It uses the DJI Skyport V2 universal adapter ring, no extra power, plug and play, perfect for DJI M300 RTK and M210 V2 UAVs.

Ⅱ. Disclaimer and warning

Thank you for purchasing our products. The content mentioned in this article is related to your safety, legal right and responsibilities. Before using this product, please read this article carefully to ensure that the product has been set up correctly. Ignoring the instructions and warnings in this article to operate may cause harm to you and your friends, may also damage the product. The right to interpret this

Cautions

GL60-ZOOM is a precision optical equipment, the body needs a high seal for dust and water proof. If there is any problem with the hardware, please send it back to the manufacturer and contact after-sales service. You must not disassemble and repair by yourself, otherwise you will lose the warranty and maintenance qualification.

NOTE:

1. The installation method of GL60 ZOOM is the same as that of DJI the PTZ camera. Please confirm whether the installation is correct before taking off.

2. When GL60 ZOOM works before the UAV takes off, its power will be limited below 50%; After take-off, the power can reach 100%.

III. The introduction of GL60 ZOOM

The GL60 Zoom weighs only 740g and has a power rating of up to 65W. It consists of an optical imaging structure of up to multiple lenses that emit light from angles ranging from 7.5° to 33°, with an effective irradiation distance of up to 200 meters. Its brightness uniformity and color uniformity are extremely high, providing unprecedented aerial lighting for unmanned aerial vehicles operating at night. Through the DJI SKYPORT V2.0 interface, this product can be directly mounted on DJI M300 RTK, M210 V2 for use.

Connect DJI Pilot APP to control switch, switch regular light and flash mode, and automatically follow the rotation of the PTZ camera. It has a fan - free fuselage to achieve a fully sealed design, providing excellent waterproof and dustproof performance, can work reliably in harsh weather conditions. It has an advanced automatic temperature control system. The attenuation of light after 1000 hours is
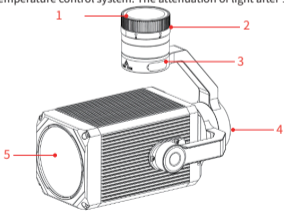

1、Dust Cover   2、DJI SKYPORT V2.0 adapter ring   3、Memory card slot

4、Triaxial stabilized Gimbal   5、Light export

Description of parameters

Model	GL60 ZOOM		
Electrical	DJI SKYPORT V2.0		
Weight /g	740		
Size /mm	L166*W110*H137		
Power /W	65		
LED Power	60		
Luminous Flux /lm	4000±3%		
FOV/°	7.5~33 (±0.5)		
Central illumination/Lux	50m	7.2°	125lx
	100m	7.2°	28lx
Controllable Angle	Pitch Angle	-110°~+30°	
	Horizontal Angle	±135	
Structural design scope	Pitch Angle	-110.3°~+40°	
	Horizontal Angle	Omnidirectional (360°)	
	Roll	-90°~60°	
Working	-20°C~+50°C		

## IV. How to use the DJI Pilot

1. Click DJI Pilot to enter the
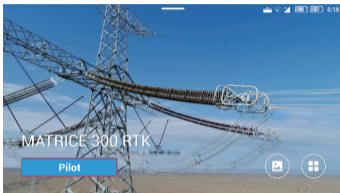
2. Enter the main interface and the word GL60 ZOOM is displayed in the lower left corner, indicating that the LOAD identification of GL60 ZOOM is successful. You can proceed to the next step and click manual flight.
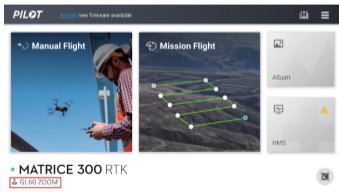
3. Enter the main interface and then click the **Multi-Gimbal Connection** button, and then select the Gimbal Ⅰ and Gimbal Ⅱ , achieve the result of two Gimbalssynchronization.
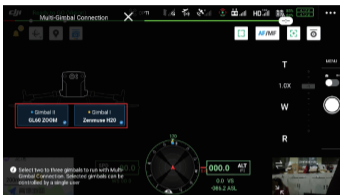

4. Click the menu bar and click the third-party load option to enter the GL60 ZOOM operation interface.
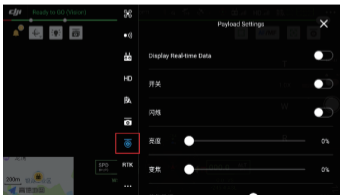
5. Click the button to display real-time data, and a status display box will pop up in the upper left corner of the main interface to observe real-time temperature, power and other parameter states of GL60 ZOOM.
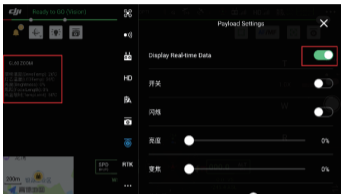

6. Click the **switch** button to control the on-off state of the light; Click the **Twinkle** button to turn on the flash mode. Slide the **Brightness** bar option to adjust the brightness of the GL60 ZOOM. Sliding **Zoom** bar option, you can adjust the light Angle
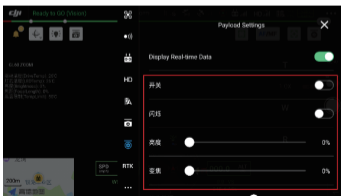
7. When H20 and GL60 ZOOM are used simultaneously, the **Pitch adjustment** button **Roll adjustment** button and **Yaw adjustment** button can be used to keep the spot in the center of the screen. Click the save fine adjustment button after a single fine adjustment. Each time the maximum fine adjustment range is ±5°. You need to **save** the adjustment and then make another fine adjustment of ±5°.
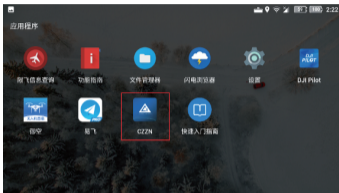

8. When observing the target, if the camera is overexposed, it can be adjusted by the aperture button on the sliding screen.
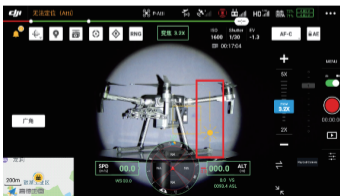
Ⅴ. How to use the CZZN

1. Click CZZN to enter the software interface.

2. Enter the main interface, and the words GL60 ZOOM are displayed at the bottom of the interface, indicating that the load identification of GL60 ZOOM has been successful. You can proceed to the next step and click to enter the device.
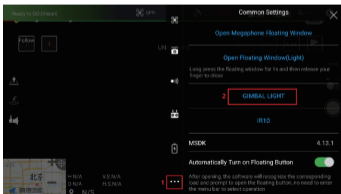
3. Enter the operation interface, click the **setting** button in the upper right corner, and the menu bar pops up.
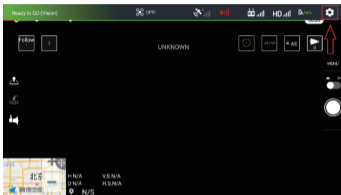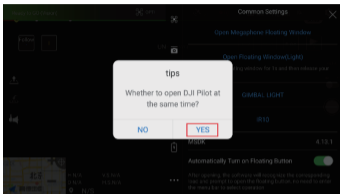

4. Click the **"Common Settings"** button in the menu bar and click the "Gimbal Light" option to open the suspend button of the GL60 zoom.

(Tips: Open the suspend button is more convenient for users to use.)

5. Click **"Yes"** to jump to DJI Pilot software.

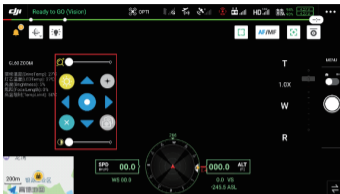
6. Meaning of a symbol：

"⚙"-Turn on the light

"⊕"-Lights flashing

"▲" "▼" "◀" "▶"-Fine-tuning Gimbal

"💾"-Save fine tuning data

"🔍"-Adjust the focal length

"🌓"-Adjust the brightness

NOTE: When connecting GL60 ZOOM for the first time, steps 2~5 are required. In the future, the prompt box for DJI Pilot will pop up directly on the main interface of CZZN.

VI. To upgrade the firmware
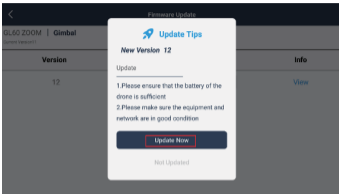
ⅰ. Online firmware upgrade

1. Open the CZZN software, click the **button** in the upper right, and click the **Firmware.**

2. Find the latest version of firmware and click **Upgrade**.

3. Click **Update Now**.

4. Wait for the firmware upgrade to succeed.

5. After the firmware upgrade is successful, GL60 ZOOM will enter the recalibrated state. You need to wait a few seconds to complete the upgrade operation. (Reminder: if GL60 ZOOM does not respond, you need to restart the aircraft and wait for the successful calibration.)
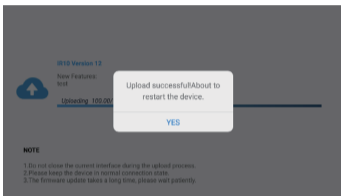
ii . TF card firmware upgrade

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

2. Click to enter the download center.

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

Firmware download

MP100/F5DKJ	2021-01-05	PDF
MP100/F5DKJ_V1.0.1.5_CN Update the firmware instruction	2021-01-05	PDF
MP100/F5DKJ_V1.0.1.5_ENG Update the firmware	2021-01-05	ZIP
MP100/F5DKJ_V1.0.1.5_CN Update the firmware	2021-01-04	ZIP
GL60 V13-14 Update the firmware instruction	2021-01-05	DOCX
GL60 V13-14 Update the firmware	2021-01-05	ZIP
MP100/F5DKJ_V1.0.1.3_CN Update the firmware instruction	2021-01-05	PDF
MP100/F5DKJ_V1.0.1.2 ENG Update the firmware	2021-01-05	ZIP
MP100/F5DKJ_V1.0.1.2_CN Update the firmware	2021-01-03	ZIP
GL60 ZOOM V13-14 Update the firmware	2021-01-27	zkz
MP100/F5DKJ_V1.0.1.5_EN Update the firmware instruction	2021-01-18	pdf

4. Insert the TF card with the downloaded firmware into the TF card slot of GL60 ZOOM. After the GL60 Zoom is installed on the aircraft, it enters the recalibration state and waits for a few seconds to complete the upgrade operation.

To learn about GL60 ZOOM firmware update or to download the latest version of the firmware, please visit the official website of CZI: www.gzczzn.com.
In case GL60 ZOOM cannot work normally due to UAV firmware update, please contact the local agent or manufacturer in time.

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