LP35
探照广播一体机
Searchlight and Broadcasting System

用户说明书 (V1.0)

2024.1

目录

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一、产品注意事项

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。不遵循本文并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。请访问 www.gzczzn.com 官方网站以获取最新的产品信息。

⚠️ 警告事项

LP35 探照广播一体机属于精密设备，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、近距离或者室内使用喊话功能会对人耳听力造成永久性伤害！请谨慎使用！

2、探照灯内含精密光学设备，请勿自行拆卸！光照强度高，请勿直视出光口！

二、产品概述

成至 LP35 声光一体机，适配大疆 M350RTK 与 M300RTK 无人机。使用快拆支架固定在飞机上，通过 OSDK 接口与飞机连接。内置红蓝爆闪警示灯，有效提升警用无人机的识别度。探照灯出光角度 13°，功率 60W，在 150m 高度下，中心照度 6.3lux，探照面积 917 ㎡，拥有良好的照射效果，同时可以和云台相机联动，完美配合相机作业。喊话器声音穿透力强，一米处声压 126dB，有效扬声距离 400 米，支持实时喊话、TTS 等功能，操作方便快捷。
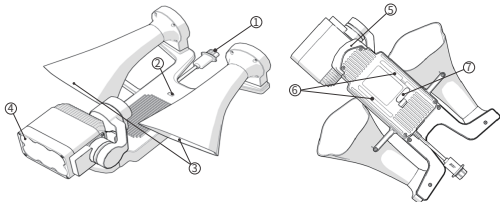

① OSDK电气接口	② 状态指示灯	③ 广播喇叭	④ 探照灯
⑤ 红蓝警示灯	⑥ 快拆滑轨	⑦ 复位按键	

技术参数

LP35	参数		
尺寸/mm	L235*W220*H85		
重量/g	≤550		
总功率/W	96(最大值)		
电气接口	DJI OSDK		
蓝牙协议	Bluetooth v4.2 BR&EDR 和 Bluetooth Low Energy		
蓝牙工作频段/MHz	2400–2483.5		
工作温度/°C	-20~+50		
警示灯模式	红蓝爆闪、红灯爆闪、蓝灯爆闪		
警示灯可视距离	200m		
喊话器声压	126dB@1m		
喊话器最大功率/W	30		
有效广播距离	400m		
广播方式	实时喊话 录音上传 音频文件播放(音频格式MP3) 文本转语音播放(支持文本记录)		
探照灯光通量/lm	6000±3%		
探照FOV/°	13		
中心光照度/Lux	6.3	14.4	57
探照距离/m	150	100	50
光斑直径/m	34	22.8	11.4
探照面积/m2	917	407	102

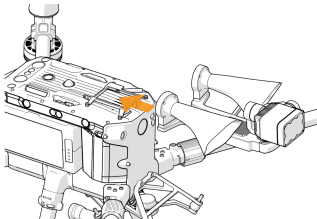| 探照灯LED功率/W	60	
云台控转动范围	俯仰	-55°~+65°
	水平	±35°
	横滚	±25°
探照灯功能	常亮模式 爆闪模式 亮度调节 云台角度调节 自动跟随相机 AI光斑居中	
无人机平台支持	M300/M350	
APP支持	czi Pilot（大疆经纬系列遥控器）、DJI Pilot（大疆经纬系列遥控器）、智声（Android）、成云助手上位机（PC）	

三、安装-拆卸教程

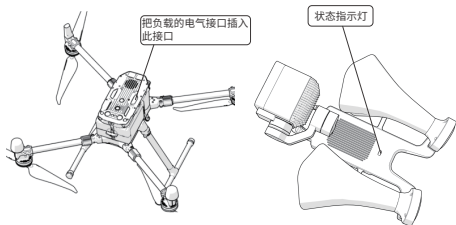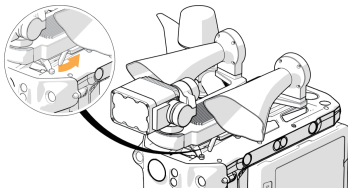在DJI经纬M350/M300无人机上安装快拆支架。使用H2.0六角螺丝刀以及M3X6螺丝，将快拆支架安装M350/M300无人机上
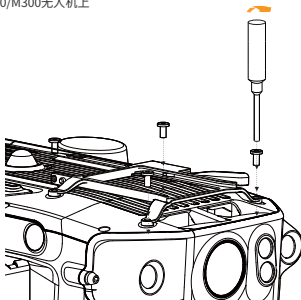
2、

①安装负载：将LP35探照广播一体机，沿着快拆架滑轨，滑动至滑轨尽头，并晃动LP35底部确保安装到位。

②把负载OSDK线接入飞机OSDK接口，等待指示灯变为绿灯慢闪说明连接成功。

把负载的电气接口插入此接口

状态指示灯

3、拆卸负载:先将负载OSDK线拔出飞机OSDK接口,然后沿箭头方向转动手柄,转动至尽头,最后将LP35探照广播一体机滑出滑轨。

注意:LP35不支持热拔插,请先安装好全部负载,开启遥控器后,再开启飞机。

四、激活

点击<进入设备>按钮,进入控制界面,如设备尚未激活,请根据提示进行设备激活,如果设备已激活,请跳过此步骤。

五、czi Pilot App 控制

1、首先在成至智能官网下载最新 czi Pilot，将其安装在大疆遥控器上，将 LP35 负载装载上 M300/M350 无人机上，打开无人机电源，打开遥控器中的 czi Pilot 软件进入首页，可见如下界面。

2、点击进入设备，进入相机画面，点击LP35控制面板按钮，可弹出如下界面，警灯控制面板控制红蓝灯的闪烁进行警示，可选择红蓝快闪，红红爆闪，蓝蓝爆闪三个模式。

1) 红蓝快闪:红蓝灯按照红蓝灯先后亮的顺序快速闪烁。

2) 红红爆闪:只有红灯进行快速闪烁。

3) 蓝蓝爆闪:只有蓝灯进行快速闪烁。

3. 探照灯控制面板控制探照灯的照明，可进行爆闪、AI 光斑居中、云台锁定、云台微调、灯光亮度调节等操作。

1）爆闪：灯光以较快的速度进行闪烁。

2）AI 光斑居中：当灯光的光斑不在遥控器屏幕图像中心时，根据算法计算，自动调整云台的角度，将光斑移动到屏幕中心。(此功能需要搭配相机，建议在光斑完整且边缘明显的情况下使用)

3）云台锁定：当云台锁定按钮按下时，云台不再随着相机的云台转动。(此功能需要搭配相机使用)

4）云台旋转：控制云台俯仰、偏航轴旋转以及云台一键回中 / 向下功能。

5）云台微调：云台回中后，可把云台俯仰、横滚以及偏航旋转轴调节到中立位。

6）重置云台参数：点击确认会清除进行云台参数重置，并进行校准，校准前请把负载放平，并耐心等待。

语音广播包含实时广播与录音广播功能，实时喊话可以进行实时采集遥控器麦克风声音并且传输到负载设备播放；录音广播可以录制遥控器麦克风声音上传到负载设备播放(同时可以调节循环模式/单次模式)，还可以保存在遥控器录音列表内，保存录音列表的音频可以随时点击再次播放。

5、TTS控制面板可在文本输入框中输入想要播报的文本内容,选择相应的语言,以及相应播放的速度,点击播放,LP35会根据输入的内容以及选择的语言和速度进行语音合成,播放文本的内容。播放过的文本可以选择保存为常用,下次打开软件可以直接选择该内容进行合成播放。
注意:朗读人声和输入语言需对应,某些语种无法进行中英文混合播放。

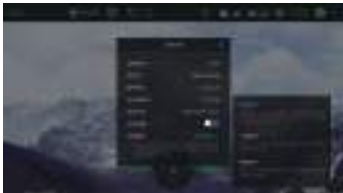| 语种	能否读英文	能否读英文字母
广东话	否	否
湖南话	否	能
四川话	否	能
东北话	否	能
河南话	否	能
陕西话	能	能
普通话男	否	否
普通话女	能	能

6、文件列表控制面板可以显示LP35中储存的音频文件，点击想要播放的音频文件可进行一键播放。拖动音量调节拖动条可调节播放的声音大小。点击播放/停止按钮可控制音频的播放和停止。

7、设备信息展示
点击左上角的 ▤ 图标可显示当前设备的固件版本号、激活时间及使用模式等信息。

六、音频文件上传与固件升级

浏览官网 LP35 下载中心，下载智声 APP 与成为助手软件：

1、手机 APP- 智声

①从手机应用商店下载智声，打开手机蓝牙，点击连接负载，根据APP提示升级固件与上传歌曲。
②智声上传音频需要在 czi pilot 里实现播放。

2、电脑软件 - 成为助手

①登录官网下载并安装成至助手，用 Type-C 线连接 LP35 与电脑 USB 口，打开成至助手软件，等待连接成功。如无负载则反插一下与负载连接的 Type-C 接口，等待连接成功，根据软件提示升级固件与上传歌曲。

I. Product Precautions

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. Please visit the official website at www.gzczzn.com for the latest product information.

⚠️Warnings

LP35 is a precision device. 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.

Precautions

1. The broadcasting function used in close range or indoor may cause permanent damage to human hearing! Please use with caution!

2. The searchlight is equipped with precision optical equipment inside, and please do not disassemble it by yourself! The light intensity is high, and please do not look directly at the light outlet!

II. Product Overview

czi LP35 Searchlight and Broadcasting System is suitable for the DJI M350RTK and M300RTK drones. Fix it on the drone by utilizing a quick release bracket and connect it to the drone through the OSDK interface. It is equipped with built-in red and blue flashing lights, effectively enhancing the recognition of police drones. The searchlight has a emitting angle of 13°, a power of 60 W, and a center illumination of 6.3 lux and the illuminance area of 917 m2 at a height of 150 m, and it has a good illumination effect. At the same time, it is capable of being linked with a gimbal camera to perfectly cooperate with camera operations. The Broadcasting has strong sound penetration, with a sound pressure of 126 dB at a distance of 1 m and an effective vocal distance of 400 m. It supports live broadcasting, TTS and other functions, characterized by convenient and fast operation.
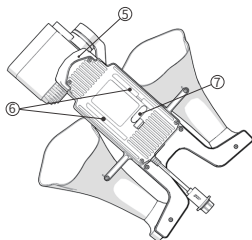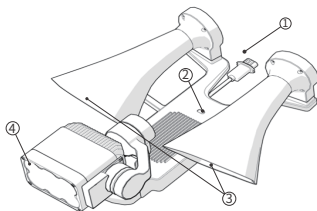
① OSDK Electrical interface ② Status indicator light

③ Loudspeaker ④ Searchlight

⑤ Red and blue flashing lights ⑥ Quick release slide rail

⑦ Reset button

Specification

LP35	Parameters		
Dimensions / mm	L235*W220*H85		
Weight / g	≤550		
Total power / w	96 (Max)		
Electrical interface	DJI OSDK		
Bluetooth Protocol	Bluetooth v4.2 BR&EDR and Bluetooth Low Energy		
Bluetooth operating frequency band / MHz	2400–2483.5		
Operating temperature / °C	-20~+50		
Flashing light mode	Red and blue blinking, Red blinking, blue blinking		
Visual distance of flashing light	200m		
Broadcasting sound pressure	126dB@1m		
Maximum power of Broadcasting / W	30		
Effective broadcasting distance	400m		
Broadcasting method	Live broadcasting Recording upload Audio file playback (audio format MP3) Text converted to voice playback (supports text recording)		
Light flux of searchlight / lm	6000±3%		
Searchlight FOV / °	13		
Central illuminance / Lux	6.3	14.4	57
Illumination distance / m	150	100	50
Spot diameter / m	34	22.8	11.4
Illumination area / m2	917	407	102

| Searchlight LED power / W		60
Range of rotation of the gimbal	Pitch	-55°~+65°
	Horizontal	±35°
	Roll	±25°
Searchlight functions		Normally on Flashing Adjusting brightness Adjusting the gimbal angle Automatically following camera AI spot centered
Drone platform support		M300/M350
APP support		czi Pilot、DJI Pilot、czi Audio (Android)、 czi Assistant (PC)

III. Installation - Disassembly Tutorial

1. Install quick release bracket on DJI M350RTK. Install the quick release bracket on the M350RTK drone by using an H2.0 hex screwdriver and M3X6 screws.
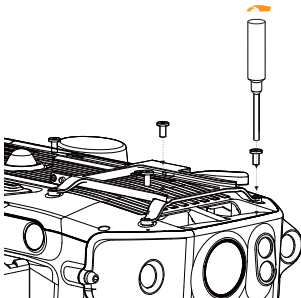
2.

① Installation load: Slide the LP35 Searchlight and Broadcasting System along the quick release bracket slide rail to the end of the slide rail, and shake the bottom of the LP35 to ensure installation is in place.
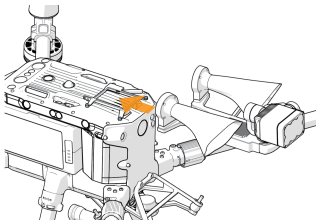
② Connect the load OSDK line to the OSDK interface of the drone and wait for the indicator light to turn green and slowly flash, which indicates a successful connection.

Plug the paylosd's electrical connector into this port

Status indicator
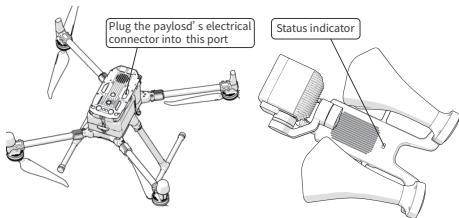
3. Disassemble the load: Rotate the handle in the direction of the arrow until it reaches the end, and slide the LP35 Searchlight and Broadcasting System out of the slide rail。
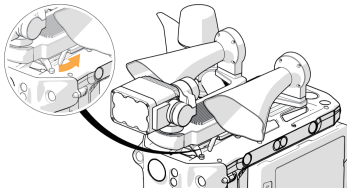
IV. Activation

Click the <Enter Device> button to enter the control interface. If the device has not been activated yet, please follow the prompts to activate it. If the device has been activated, please skip this step.

V. czi Pilot App Control

1. Firstly, download the latest czi Pilot from the official website of czi, install it on the DJI remote control, load the LP35 load onto the M300 or M350 drone, turn on the drone power supply, and open the czi Pilot software in the remote control to enter the homepage, and then you can see the following interface.

2. Click to enter the device, enter the camera screen, click the LP35 control panel button, and the following interface will pop up. The alarm light control panel controls the flashing of red and blue lights for warning, and three modes can be selected from: red and blue fast flash, red and red flashing, and blue flashing.

1) Red and blue blinking: The red and blue lights have sharp flash in the order of they lighting up in turn.
2) Red Blinking: Only the red light flashes rapidly.
3) Blue Blinking: Only the blue light flashes rapidly.

3. The searchlight control panel controls the lighting of the searchlight, and is capable of performing operations including flashing, AI spot centering, gimbal locking, gimbal fine-tuning, light brightness adjustment and so on.

1) Flashing: The light flashes at a faster speed.

2) AI spot centering: When the light spot is not in the center of the remote control screen image, according to algorithm calculation, the angle of the gimbal will be automatically adjusted to move the spot to the center of the screen.

3) Gimbal locking: When the gimbal locking button is pressed, the gimbal will be no longer rotates with the camera's gimbal.

4) Gimbal adjustment: it can be used to adjust the pitch and yaw angles of the gimbal slightly.

5) Gimbal resuming to center: Click to rotate the gimbal back to the neutral position.

6) Reset gimbal parameters: Click Confirm to clear the gimbal parameter reset and perform calibration. Before calibration, please level the load and wait patiently.

5. Text content to be broadcast can be input in the text input box on the TTS control panel. Select the corresponding language and playback speed, click play, LP35 will perform voice synthesis based on the input content, selected language and speed, and play the content of the text. The played text can be saved as commonly used, and the next time when the software is opened, this content can be selected directly to be synthetically broadcast.
Caution: The reading voice and the input language need to correspond, and some languages can not be played in amixture of English and Chinese.

language type	Ability to read English	Ability to read alphabet
Cantonese	No	No
Hunanese	No	Yes
Sichuanese	No	Yes
northeastern Chinese dialect	No	Yes
He'nan dialect	No	Yes
Shaanxi dialect	Yes	Yes
Mandarin(Male)	No	No
Mandarin(female)	Yes	Yes

6. The audio files stored in LP35 can be displayed on the file list control panel. Click on the audio file you want to play for one click playback. Drag the volume adjustment drag bar to adjust the volume of the played sound. Click the play/stop button to control the playback and stop of audio.

7. Device Information Display
Clicking on the icon ⋮ in the upper left corner, the information including the firmware version number, activation time, and usage mode of the current device can be displayed.

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.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.
-This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

VI. Audio File Upload and Firmware Upgrade

Browse the LP35 download center of the official website to download the czi Sound APP and czi Assistant software:

1. Mobile App - czi Sound

① Download czi Sound from the mobile app store, open the bluetooth in your cell phone, click on Connect Load, and follow the app prompts to upgrade firmware and upload songs.

2. Computer Software - czi Assistant

① Log in to the official website to download and install the czi Assistant software. Use a Type-C cable to connect LP35 to the computer USB port, open the czi Assistant software, and wait for the connection to be successful. If there is no load, reversely plug the Type-C interface connected to the load and wait for the connection to be successful. Follow the software prompts to upgrade the firmware and upload songs.

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