

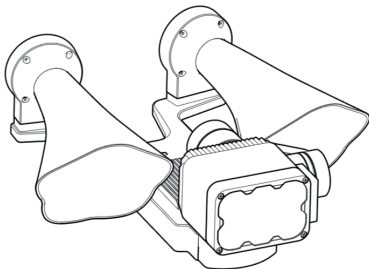
LP35

探照广播一体机

Searchlight and Broadcasting System

用户说明书 (V1.1)

2024.5



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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。请访问 www.czi.com.cn 官方网站以获取最新的产品信息。

⚠ 警告事项

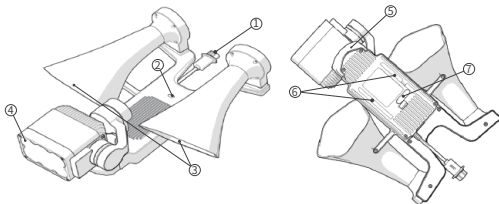
LP35 探照广播一体机属于精密设备，如遇硬件问题，请返厂联系售后服务，切勿自行拆卸维修，否则将失去保修、维修资格。

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 探照广播一体机，适配大疆 M350RTK 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 m^2 ，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

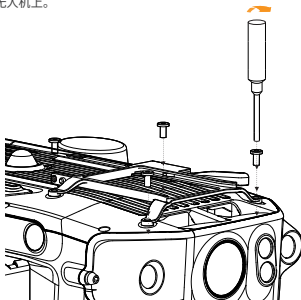
技术参数

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、蓝光爆闪		
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)		
探照灯灯光通量/lm	6000±3%		
探照灯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/m ²	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	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)、成至助手上位机 (PC)	

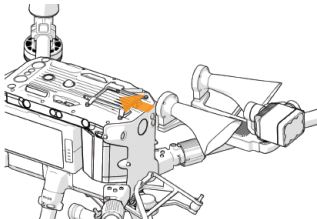
三、安装-拆卸教程

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

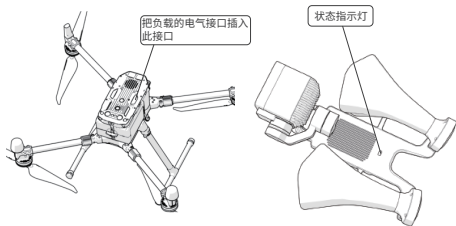


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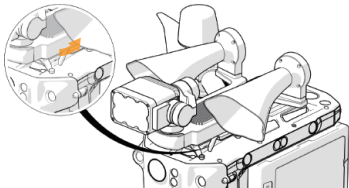
①安装负载：将LP35探照广播一体机，沿着快拆架滑轨，滑动至滑轨尽头，并晃动LP35底部确保安装到位。



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。



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,待LP35滑出后再松开手柄。



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、 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 负载装载在 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。

czi



LP35

上台

● Matrice 350 RTK

[进入设置](#)

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，探照灯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：点击确认会清除云台参数，并进行校准，校准前请把负载放平，并耐心等待。



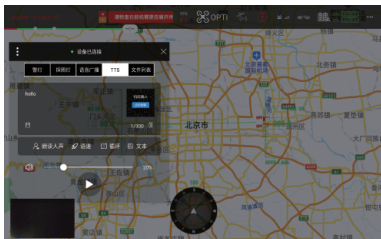
4、语音广播包含实时广播与录音广播功能,点击红框内按钮可切换实时广播和录音广播。实时喊话可以进行实时采集遥控器麦克风声音并且传输到负载设备播放;录音广播可以录制遥控器麦克风声音上传到负载设备播放(同时可以调节循环模式/单次模式),还可以保存在遥控器录音列表内,保存录音列表的音频可以随时点击再次播放。



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。在遥控器联网状态下点击扫码输入,使用手机扫描二维码,在手机上输入文字,可快捷输入文字到遥控器的TTS文本框。

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。点击列表循环按钮，可打开或关闭音乐循环播放。



7、设备信息显示

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。



五、音频文件上传与固件升级

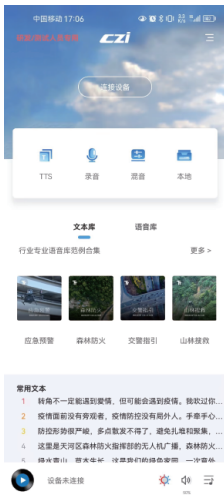
1、智声

请从手机应用商店或成至官网 - 服务与支持 - 下载中心页面下载智声并安装。

①音频上传：打开手机蓝牙开关，在智声首页点击连接设备，点击本地查看本地音频列表，选择需要的音频，点击上传按钮。



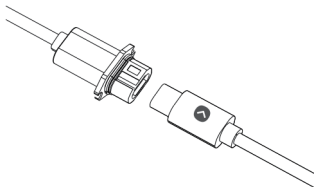
② 智声上传音频需要在 czi pilot 里实现播放。



③ 升级固件：在设置里面点击设备详情跳转至设备详情界面，即可选择在线升级或者离线升级。点击更新检查即可获取最新固件（需联网），如果当前设备固件版本小于最新固件版本，则可进行在线升级。离线升级则是选择本地已有的 bin 文件（可通过成至官网下载保存至手机本地）进行升级。

2、电脑软件 - 成至助手

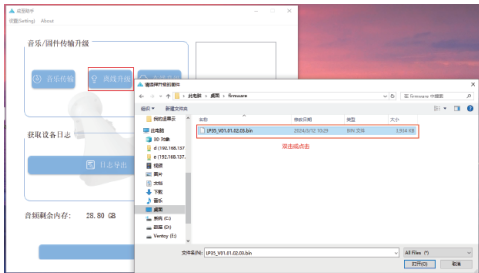
①打开成至官网 -LP35 页面 - 下载中心，下载并安装成至助手，按照图示方法用附赠 Type-C 线连接 LP35 与电脑。



等待 20s~1min (不同设备有差异) 后,软件会提示负载已连接并跳转至相应操作界面。



②离线升级：用户在官网下载对应负载的固件到 PC 本地，升级此指定固件。
点击离线升级按钮，再选择在官网下载好的固件，点击选择固件或拖拽固件开始升级。



开始将固件传输到设备。



传输完成后，设备会重启并开始升级。（注意：这个时候仅将固件传输到设备，升级流程仍未完成，需要等待设备自行升级并重新连接至成至助手后才可以断开 USB 连接线！）



设备升级完成后会重新连接到成至助手并提示升级成功。此时可以点击设备信息按钮查看固件版本，检查是否成功升级。



点击”设备信息”按钮，可以查询版本，激活时间等通用设备信息。



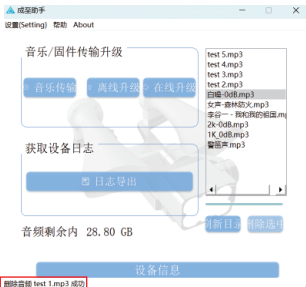
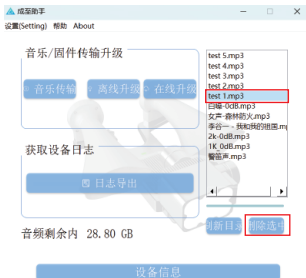
③音频传输

查询媒体目录：

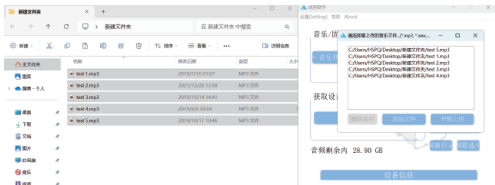
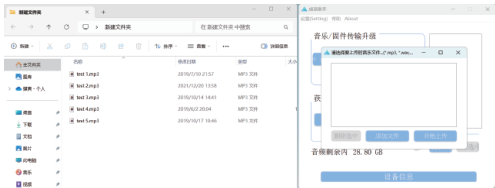
点击”刷新目录”按钮，等待设备响应媒体目录



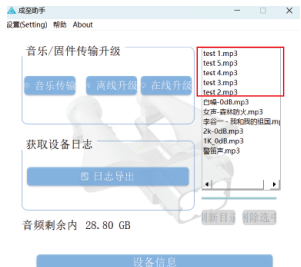
选中要删除的媒体文件，点击”删除选中”删除目标文件。



点击音乐传输按钮弹出待选窗口，将要上传的音频文件复制并粘贴入目标窗口以待上传。仅支持以下 mp3、flac、wav、aac 四种格式，上传后保存格式为 mp3。



点击开始上传，音频开始批量上传，等待上传完成。



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.czi.com.cn for the latest product information.

Warnings

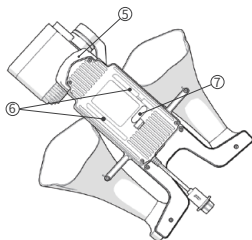
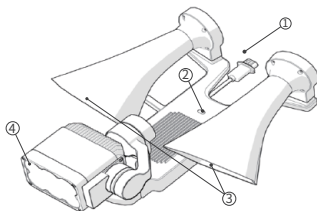
LP35 is a precision device. In case of hardware problems, please return to the manufacturer and contact the after-sales service, do not disassemble and repair by unauthorized personnel, otherwise you will lose the warranty and repair eligibility.

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 | |

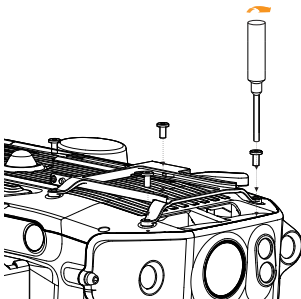
Specification

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	M350	
APP support	czi Pilot, DJI Pilot, czi Audio (Android) , czi Assistant (PC)	

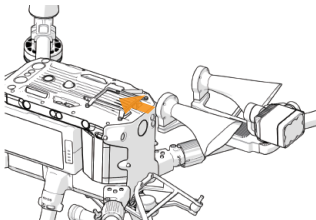
III. Installation - Disassembly Tutorial

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.

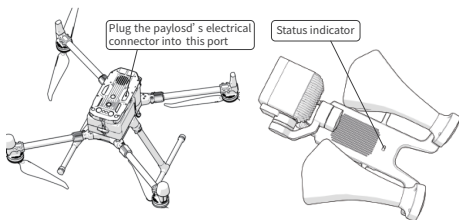


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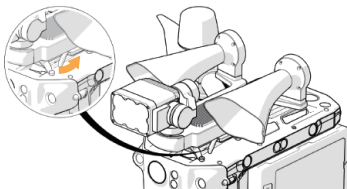
① Installation load: Slide the LP35 Searchlight and Broadcasting System along the quick release bracket slide rail to the end of the slide rail, and shake the bottom of the LP35 to ensure installation is in place.



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.



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, wait for the LP35 to slide out before releasing your hand.



IV. 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 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.

czi



LP35

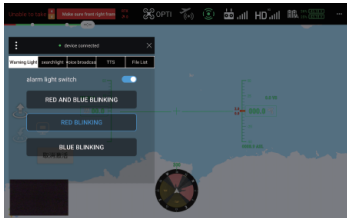
gimbal up

● Matrice 350 RTK

[connect device >>](#)

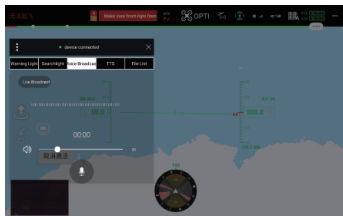
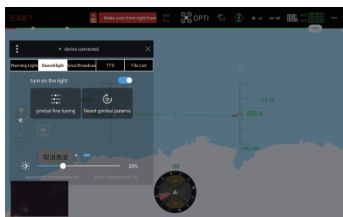
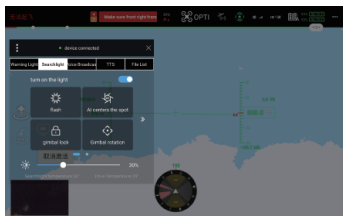
2. Click to enter the device, enter the camera screen, click the LP35 control panel button, and the following interface will pop up. The alarm light control panel controls the flashing of red and blue lights for warning, and three modes can be selected from: red and blue blinking, red blinking, and blue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

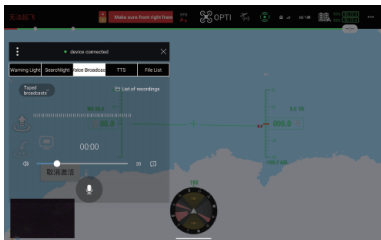
- 1) Red and blue blinking: The red and blue lights have sharp flash in the order of they lighting up in turn.
- 2) Red Blinking: Only the red light flashes rapidly.
- 3) Blue Blinking: Only the blue light flashes rapidly.



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.

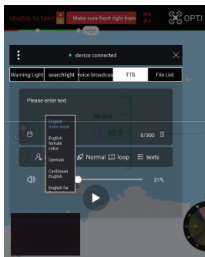
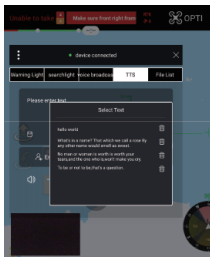
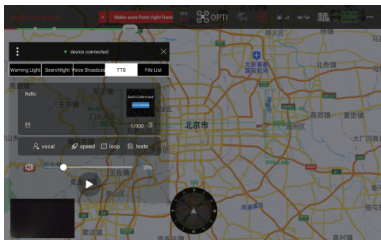




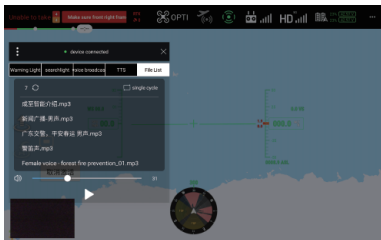
4. TS control panel can be in the text input box to enter the text you want to broadcast the content, select the appropriate language, as well as the corresponding playback speed, click on the playback, LP35 will be based on the input content as well as the selected language and speed of speech synthesis, playback of the text content. The played text can be selected to be saved as frequently used, and the next time you open the software, you can directly select the content for synthesis and playback. Click Scanning Input in the remote control network state, use mobile phone to scan the QR code and input the text on the mobile phone, you can quickly input the text to the TTS text box of the remote control.

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

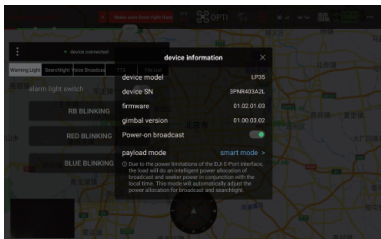


5. File ListControl panel displays the audio files stored in LP35, click on the audio file you want to play for one-click playback. Drag the Volume Adjustment drag bar to adjust the sound level of the playback. Click the Play/Stop button to control the audio play and stop. Click the list loop button to turn on or off the music loop playback.



6. 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.

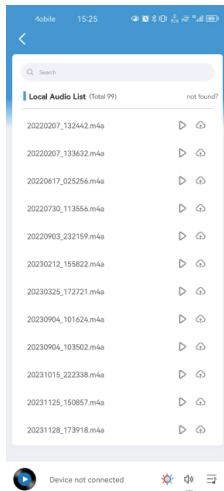


V . Audio File Upload and Firmware Upgrade

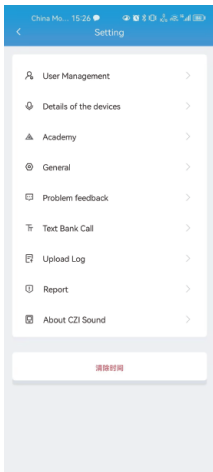
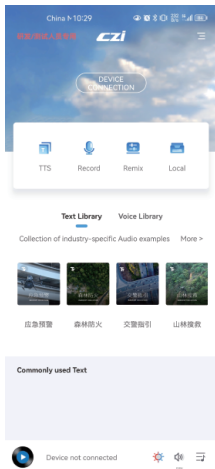
1. Smart Sound

Please download and install SmartSound from your mobile phone application shop or from the official website of ChengZhi - Service and Support - Download Centre page.

① Audio upload: Turn on the Bluetooth switch of your mobile phone, click Connect Device on the home page of Smart Sound, click Local to view the local audio list, select the desired audio and click Upload button.



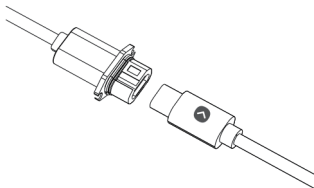
②The uploaded audio needs to be played in czi pilot.



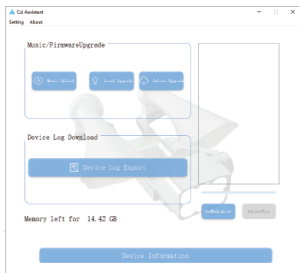
③Upgrade Firmware: Click Device Details inside Settings to jump to the device details interface, you can choose online upgrade or offline upgrade. Click update check to get the latest firmware (requires internet connection), if the current device firmware version is smaller than the latest firmware version, then you can upgrade online. If the current device firmware version is less than the latest firmware version, then you can upgrade online. Offline upgrade is to select the local bin file (can be downloaded and saved to the mobile phone locally through the official website) to upgrade.

2. Computer Software - Sungji Assistant

① Open the official website of LP35 - LP35 page - Download Centre, download and install the LP35 Assistant, and then connect the LP35 to the computer with the supplied Type-C cable as shown in the picture.

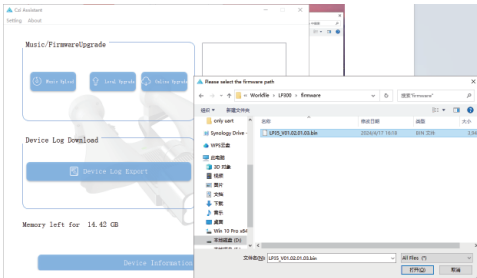


After waiting for 20s~1min (different equipment varies), the software will prompt that the load is connected and jump to the corresponding operation interface.

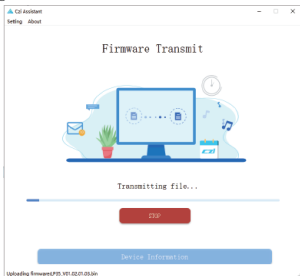


② Offline upgrade: Users download the firmware of the corresponding load to PC locally from the official website and upgrade this specified firmware.

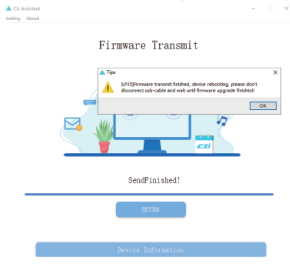
Click the Offline Upgrade button, then select the firmware you have downloaded from the official website, click Select Firmware or drag and drop the firmware to start the upgrade.



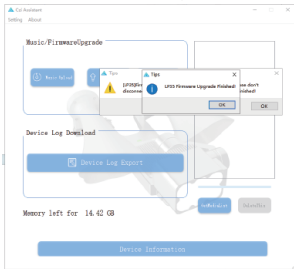
Starts transferring firmware to the device.



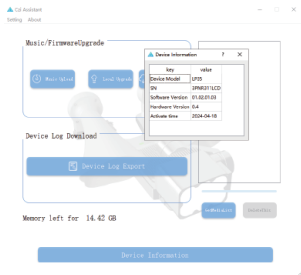
After the transfer is complete, the device will reboot and start upgrading. (Note: At this time only the firmware will be transferred to the device, the upgrade process is still not complete, you need to wait for the device to upgrade itself and reconnect to the ChengZhi assistant before you can disconnect the USB cable!)



When the upgrade is completed, the device will reconnect to czi Assistant and indicate that the upgrade was successful. At this time, you can click the device information button to check the firmware version, check whether the upgrade is successful.



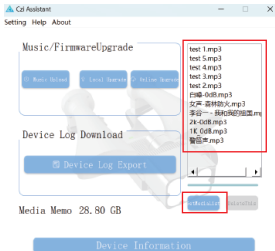
Click the "Device Information" button to check the version, activation time and other general device information.



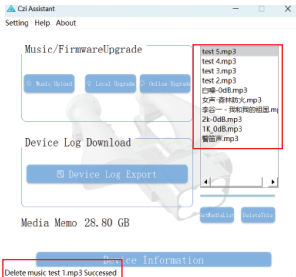
③Audio Transmission

Query Media Catalogue: Click "Refresh Catalogue" button and wait for the device to respond to the media catalogue.

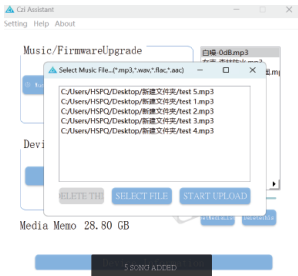
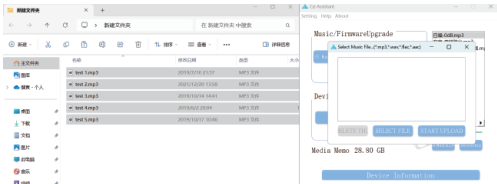
Click the "Refresh Catalogue" button and wait for the device to respond to the media catalogue.



Select the media files you want to delete.



Click the Music Transfer button to bring up the pending window, copy and paste the audio files to be uploaded into the target window for uploading. Only the following four formats of mp3, flac, wav and aac are supported, and the format is saved as mp3 after uploading.



Click Start Upload to start the audio batch upload, and wait for the upload to complete.

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服务热线: 400-008-8306

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:

czzn@czi.com.cn

ChengZhi Support

www.czi.com.cn

Service Hotline: 400-008-8306

If you have any questions or suggestions
regarding the manual, please contact us at:

czzn@czi.com.cn

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