Lixel L2 Pro-16/120

User Manual
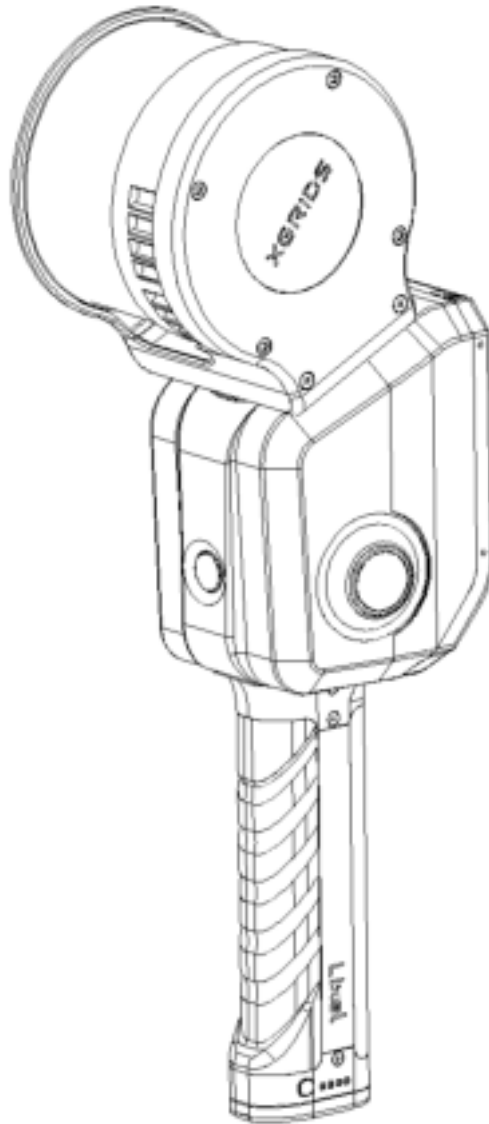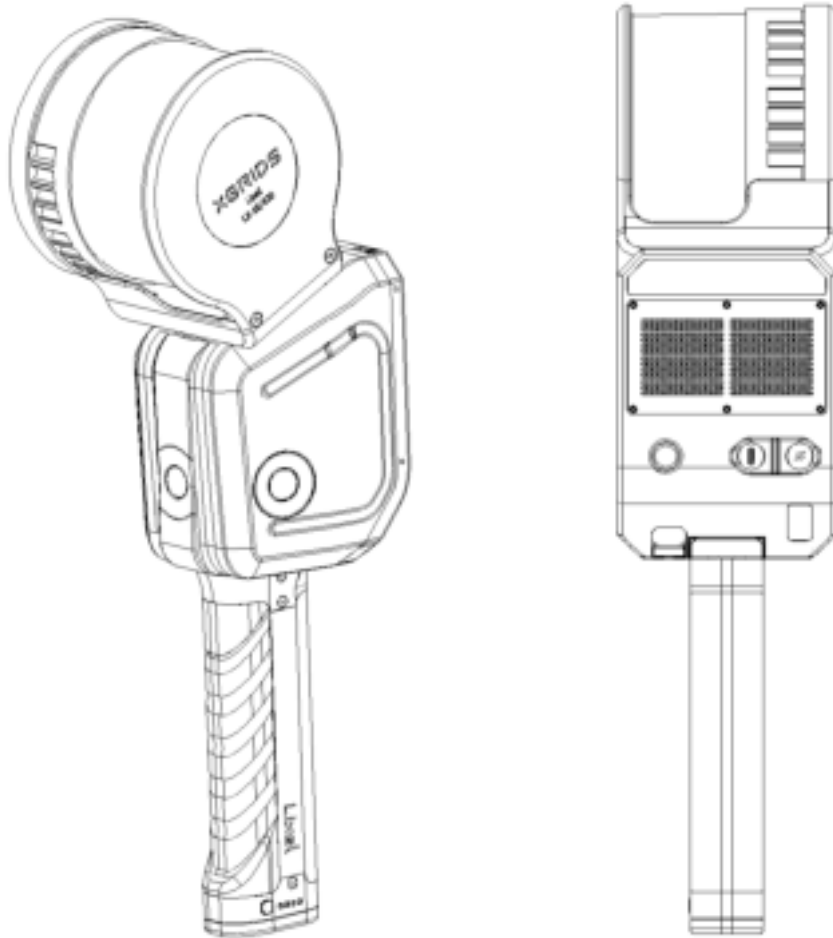
User Manual Contents

Product Overview

Lixel L2 PRO, a highly integrated and lightweight handheld 3D reconstruction device. With the 3D real-time reconstruction algorithm, Lixel L2 PRO can directly obtain the true color point cloud. The results are calculated in real time and can be viewed and used immediately.
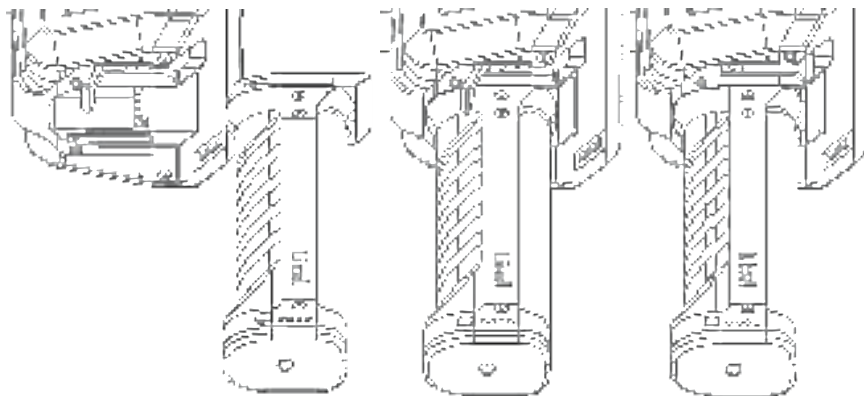
About Lixel L2 Pro-16/120

Operation

Battery installation

1.Open the lever.

2.Insert the battery into the bottom of the device along the guide dovetail slot. Ensure that the battery is inserted into the correct position.

3.Press the lever back and lock the battery tightly.

Note: An unsecured battery may cause the device to slip.

Function Button

Function	Operation	State
Open	Long press 4 seconds	The indicator light turns from slow blinking blue light to steady green light;
Close	Long press 4 seconds	Indicator light off;
Start Scanning	Double Click	When the device is in standby state, double-click the indicator. The indicator status changes from steady green to blinking green at short intervals and then to blinking green at long intervals. And the lidar starts to rotate, that is, the scan is started successfully.
Stop Scanning	Double Click	When scanning, double click the button, the indicator state will change from green slow flashing to green quick flashing and then to steady green. Meanwhile, the lidar will stop rotating and the scanning will be stopped successfully.
控制点记录	单击	当设备出于扫描模式时，单击按键，指示灯状态常亮 1S 左右后恢复到绿灯慢闪，则表示控制点记录成功。
切换 U 盘模式	单击+ LED 显示白色+单击	当设备出于待机模式时，单机按键， 指示灯变成白色并最多持续 3S, 在白灯期间再单击一次按键，触发切换 U 盘模式。白色灯秩序 3S 内无按键动作，则设备依然处于原模式。 当设备出于 U 盘模式时，单机按键， 指示灯变成白色并持续 3S, 在白灯期间再单击一次按键，触发切换到待机模式。白色灯秩序 3S 内无按键动作，则设备依然处于原模式。

Note:

1 Please put the device on the flat table before starting the scan. After starting the scan, the device can be moved for scanning only after the lidar rotates.

2 It takes about 30 seconds to start scanning.

3 During the scanning stop, if the indicator blinks green quickly, scanned files are being stored. If the power is off at this time, files may be lost or saved incompletely.

4 After the scan is stopped, the waiting time for stored files may be long, it's depending on the size of the scene being scanned.

Indicator Light Description

| Indicator blinking status	Significance
None	The device is not started.
The green light blinking slowly（about 30s）	Scanning
Green light normally on	The device is in standby mode
Blue light normally on	USB disk mode
Yellow light normally on	The device is not activated
Red light normally on	Serious device failure
The blue light blinking slowly（about 30s）	The device is starting up.
White light normally on	Switching between standby mode and USB disk mode
The green light blinking fast	The scan is being started/stopped

Data Copy Description

Use the USB3.1 cable that matches the device. Connect the device to the computer in standby mode and turn on the USB mode in the App. After identifying the device, the data can be copied.

Note:

1 The USB mode is automatically disabled after a restart.

2 After turning on the USB mode, you need to manually turn off the USB mode if you want to continue scanning without shutting down or power off.

3 Using a non-standard USB cable may cause slow data copy. Or may cause forward insertion can be used, reverse insertion can not be used.

Battery
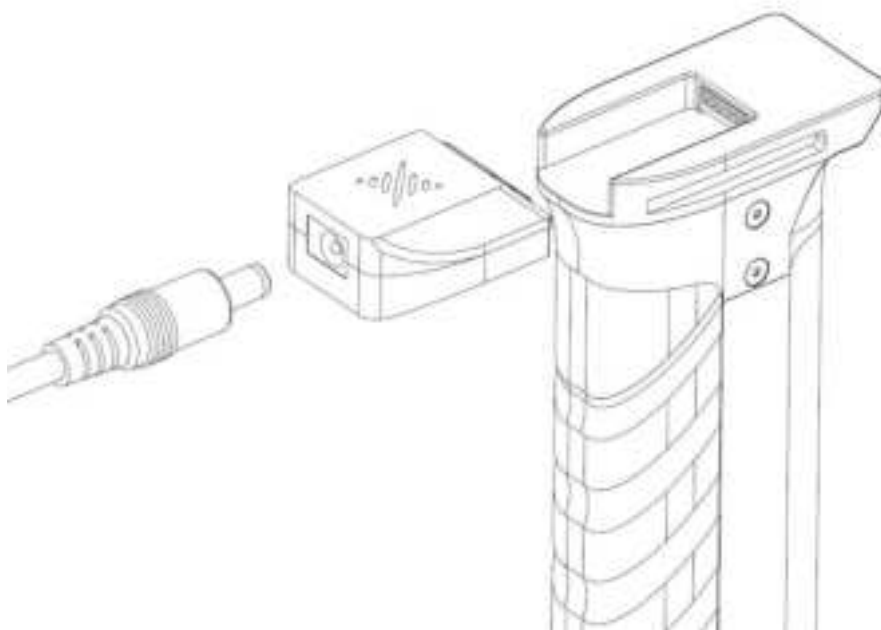
Use the standard charging cable and connect the charging adapter to the battery to charge the battery.

Charging time: about 2 hours. During the charging process, the indicator light will show the current electric quantity. Please refer to the following table for details.

Indicator blinking status	electricity
Only one green light on	0-24%
Two green lights on	25%-49%
Three green lights on	50%-74%
Four green lights on	75%-99%

Maintenance

The storage status of the device is as shown in the figure below. After use, remove the battery and put it back into the storage box according to the figure.

Note: It is a precision device, not storing as required may cause damage to the device.
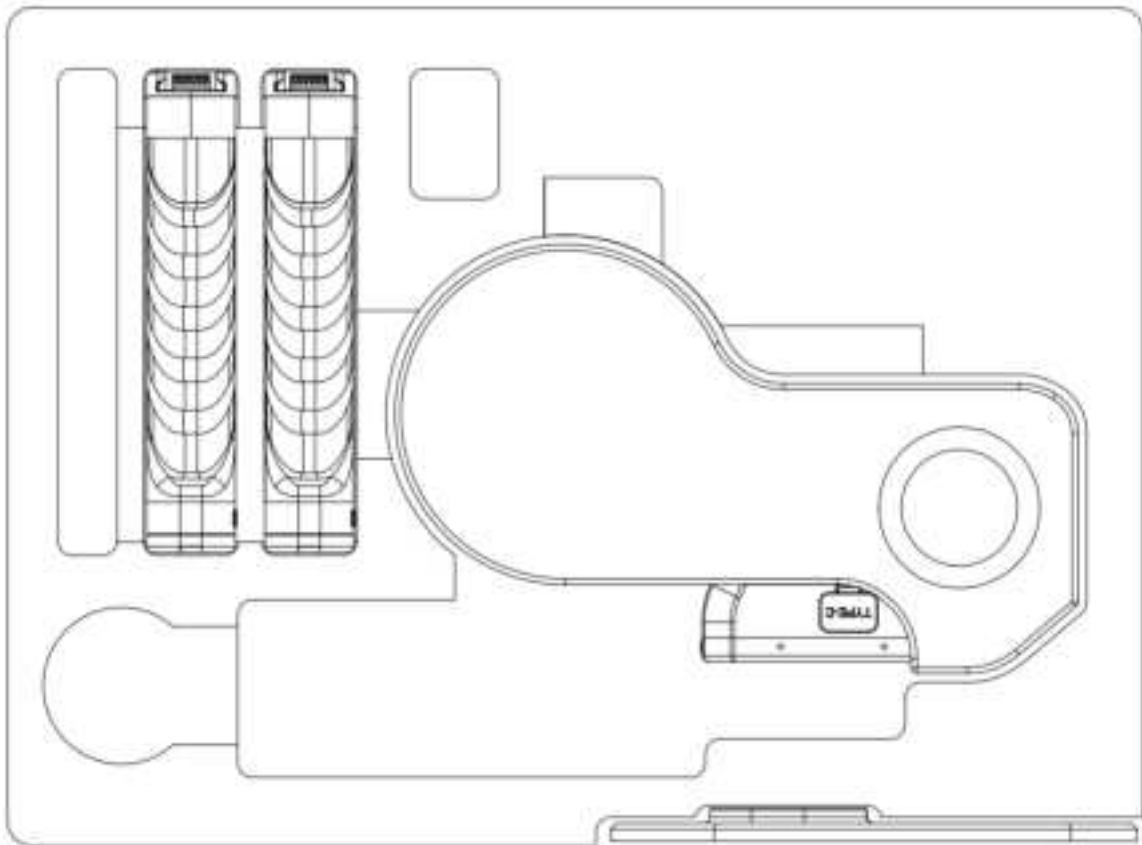
Matters needing attention

1. Lixel L2 PRO is a precision device. Falling or being hit by external forces may damage the equipment and result in abnormal or inaccurate accuracy.
2. Ensure that after Lixel L2 PRO is turned on, lidar rotation is not blocked by external forces.
3. Try to avoid using tripod support devices for initialization as much as possible, and use the metal base that comes with L2 PRO to effectively ensure the accuracy of device initialization; Additionally, avoid initializing on uneven surfaces as it may result in initialization failure or an increase in mapping thickness.
4. Lixel L2 PRO waterproof grade is IP54, do not use in the environment beyond this protection grade. Use a soft dry

cloth or standard cleaning cloth to clean the device. Keep the lidar and the camera clean, do not touch it directly.

5. The device will generate heat during use. Please do not touch the fuselage to avoid burns.

6. Do not cover or touch the heat sink during use. The device may automatically shut down when the temperature is too high.

Appendix

Specification

L2 PRO	Item	Content	Remark
Overall performance	Operating Temp Range	-20℃~50℃	
	Power	<30W	
	Data socket	USB 3.1 Gen2	
	Internal storage	1T SSD	
	Single usage duration	1.5h	
	weight	<1.9kg	
	Size	180mm×130mm×400mm	
	Wireless module	wifi，Bluetooth 802.11a/b/g/n/ac, 2.4~2.4835Ghz 以及 5.15~5.85Ghz	
	Scan effective distance	0.5m~120m 0.5m~300m	
	Laser level	Class 1 / 905nm	
	FOV	360°×270°	
	Point cloud frequency	320000 points/s 640000 points/s	

	Rated voltage	14.4V	
Lidar	Capacity	46.8wh	
	Input	100V~240V,50 ~ 60 HZ 1.5A 80VA	
	Output	16.8V 2.0A	
	Rated power	34W	
Battery	Rated voltage	14.4V	
	Capacity	46.8wh	
Charger	Input	100V~240V,50 ~ 60 HZ 1.5A 80VA	
	Output	16.8V 2.0A	
	Rated power	34W	

CE Maintenance

1.Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

2.The product shall only be connected to a USB interface of version USB3.0.

3.EUT Operating temperature range: -20° C to 50°C.

4.Adapter：

The plug considered as disconnect device of adapter Input: AC 100-240V, 50/ 60Hz,1.5A
Output: 16.8V 2A

Declaration of Conformity

SHENZHEN XGRIDS-INNOVATION CO., LTD hereby declares that this Lixel L2 Pro-16/120 is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. This product is allowed to be used in all EU member states.

Bluetooth Frequency range:2402-2480MHz, Maximum E.I.R.P: 7.27dBm
2.4GWi-Fi Frequency range: 2412-2472MHz, Maximum E.I.R.P: 9.85dBm
5.2G Wi-Fi Frequency range: 5150-5250MHz, Maximum E.I.R.P: 12.69dBm
5.8G SRD Frequency range: 5745-5825MHz, Maximum E.I.R.P: 12.09dBm

The Lixel L2 Pro-16/120 used at 0mm from body.

FCC Warning

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.

NOTE 1: 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.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The device has been evaluated to meet general RF exposure requirement.

Product after-sales information
Please check the XGRIDS website www.xgrids.cn for the latest after-sales information.