



User Manual

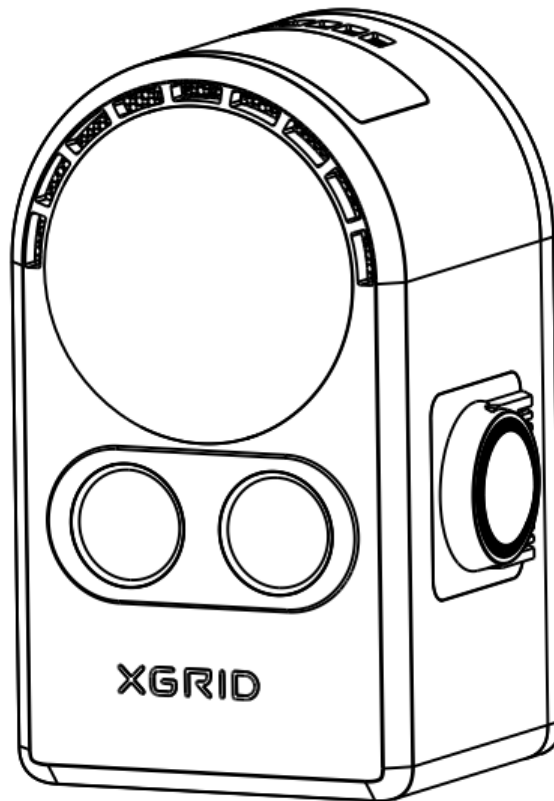


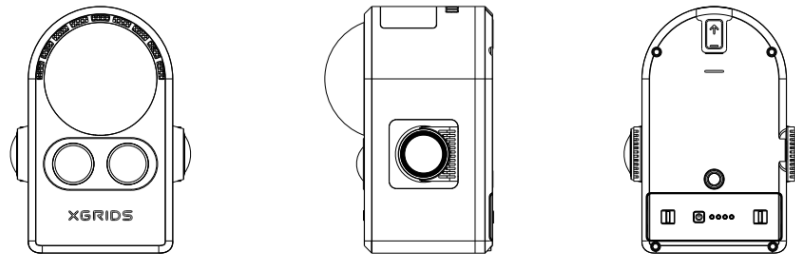
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Product Overview

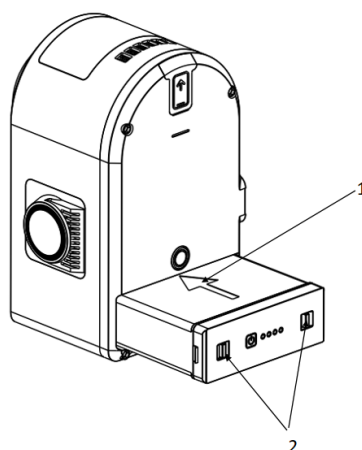
PortalCam is a highly integrated and high-precision spatial camera device. Featuring an all-in-one design, it combines a panoramic camera, a forward-looking camera, and a macro camera. Equipped with the independently developed LCC algorithm, it can restore high-definition details of scenes. It supports real-time browsing, enabling what you scan to be what you get, what you collect to be what you reconstruct, and what you export to be ready for use.

Getting to know the PortalCam



Operation

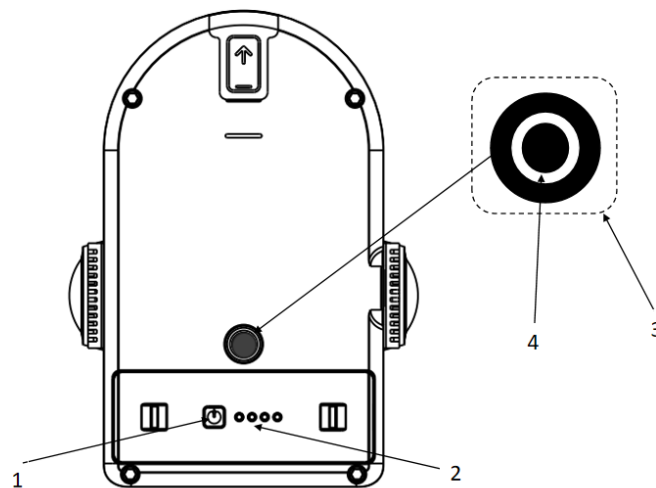
Battery installation



1. Insert the battery slowly with the arrow on the battery facing upward (as indicated by Position 1 in the figure above).
2. Insert the battery into the bottom of the device along the guide slot. Use two fingers to pinch the position indicated by Position 2 in the figure above, ensuring it is fully inserted. If it is not fully inserted, a red prompt will appear at the position indicated by Position 2.
3. To remove the battery, pinch the position indicated by Position 2 in the figure above with two fingers, and take out the battery once it pops out.

Function keys

- 1: Power button
- 2: Power indicator
- 3: Device button
- 4: Device indicator light



Function	Button operation	Device status
Power on	Short press + long press battery button	Press and hold the battery button briefly (first a short press, then a long press) until the battery indicator light cycles from left to right, then release it; the device will power on. When the device indicator light changes from a slowly flashing blue light to a steadily on green light, the device enters standby mode.
Shut down	Short press + long press battery button	When the device is in standby mode, press the battery button briefly and then long-press it until the battery indicator light cycles from right to left; this indicates that the shutdown is complete.
Start scanning	Double click the device button	When the device is in standby mode, double-click the device button. The status of the device indicator light will change from a steadily on green light to a rapidly flashing green light, and then to a slowly flashing green light. This indicates that the scanning has been started successfully, and the device has entered the scanning mode.
Stop scanning	Double click the device button	When the device is in scanning mode, double-click the device button. The status of the device indicator light will change from a slowly flashing green light to a rapidly flashing green light, and then to a steadily on green light. This indicates that the scanning has been stopped successfully, and the device has entered standby mode.

Control point record	Click the device button	When the device is in scanning mode, single-click the device button. If the device's indicator light stays solid blue for about 1 second and then returns to slowly flashing green, it means the control point has been recorded successfully. If it fails, the device's indicator light stays solid red for about 1 second and then returns to slowly flashing green.
Switch to USB drive mode	Click + LED displays white + click the device button	When the device is in USB flash drive mode, press the device button once. The device indicator will turn white and stay on for 3 seconds. If you press the button again within these 3 seconds while the white light is on, it will trigger the switch back to standby mode. If no button action is performed within the 3 seconds that the white light lasts, the device will remain in its original mode.

Note:

1. Before starting scanning, place the device on a flat tabletop. After starting the scan, wait until the radar rotates before moving the device to scan.
2. The boot-up time is approximately 30 seconds, and the scan start-up time is about 20 seconds.
3. During the process of stopping the scan, a rapidly flashing green light indicates that the device is storing the scan file. Powering off the device at this time may cause file loss or incomplete file saving.
4. The waiting time for the rapidly flashing green light after stopping the scan may be relatively long, and this time depends on the size of the scanned scene.

Device indicator light instructions

Device indicator light flashing method	Meaning
None	Device not activated
Slowly flashing green light	Scanning mode

Steadily on green light	Standby mode
Steadily on blue light	USB flash drive mode
Steadily on yellow light	Device not activated
Steadily on red light	Severe fault
Slowly flashing blue light	Powering on
Steadily on white light	switching between standby mode and USB flash drive mode
Rapidly flashing green light	In the process of starting/stopping scanning
Firmware upgrade	Alternately flashing red and green lights

Data Copy Instructions

Use the matching USB 3.1 data cable to connect the device to a computer when it is in standby mode. At the same time, switch to USB flash drive mode using the APP or shortcut keys. Once the device is recognized, you can copy data.

Note:

1. The USB flash drive mode will automatically turn off after a restart.
2. After enabling the USB flash drive mode, if you want to continue scanning without shutting down or powering off the device, you need to manually turn off the USB flash drive mode.
3. Using other USB data cables may result in slow data copying speed, or problems where data can be copied when inserted in the forward direction but not in the reverse direction.

Battery charging

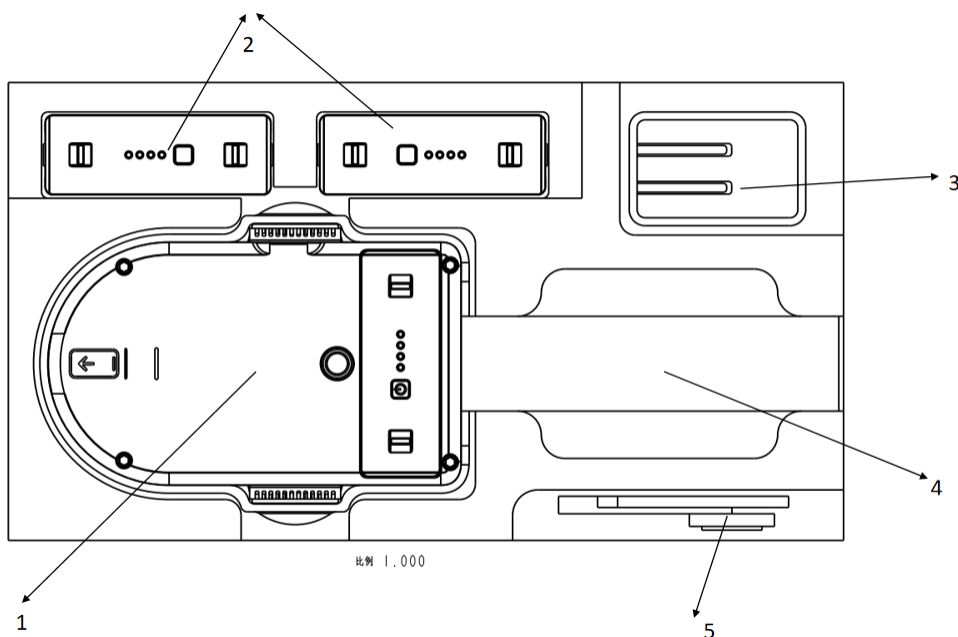
Use the standard charger and charging cable to connect the battery for charging. Press the button on the battery once to display the power level.

Charging time: It takes about 90 minutes to charge at room temperature; the charging time will increase to some extent under non-room temperature conditions. The charging environment temperature must be lower than 35°C and higher than 5°C. During charging, the battery indicator shows the current power level. For details, please refer to the table below.

Battery indicator flashing pattern	Power level
One green light flashing	0-24%
Two green lights flashing	25%-49%
Three green lights flashing	50%-74%
Four green lights flashing	75%-89%
Four green lights are on at the same time.	90%-99%
All lights are off.	100%

Maintenance and upkeep

Storage



Note:

- 1 - Complete device
- 2 - Battery
- 3 - Charger and cable
- 4 - Tripod
- 5 - Phone holder

Usage Instructions

PortalCam is a precision device. Dropping it or subjecting it to external collisions may cause damage to the device, resulting in abnormal operation or inaccurate precision.

Do not use it in dusty environments or rainy weather. It is recommended to clean the device with a soft dry cloth or the provided cleaning cloth. Keep the radar and lens parts clean and do not touch them directly with your hands.

The device will generate heat during use. Try to avoid touching the body part to prevent scalding.

Do not cover or block the heat dissipation area during use.

Severe blocking of the heat dissipation area will greatly reduce the heat dissipation efficiency, leading to automatic shutdown of the device.

Appendix

Specifications

Major category	Detailed parameters	PortalCam
Overall performance	Power input	7.2V
	Power	<20W
	Weight	870g（Without a tripod）
	Size	130mm×90mm×77mm
	Data Interface	USB 3.1 Gen2
	Internal Storage	EMMC 512G Available memory440G
	GPS Module	Support
	WiFi	2.4G Wifi 2412-2472MHz 5.2G Wifi 5180-5240MHz 5.8G Wifi 5745-5825MHz
	Bluetooth	802.11a/b/g/n/ac
	Operating Temperature	-20°C~40°C
	Product Shell	Aerospace aluminum
	Power Supply Mode	Insert or remove the battery
	Total Working Time	60min
	Battery Capacity	23.04wh
	Charging Time (at room temperature of 25°C)	0%~90%@70min 0%~100%@90min
	Charging Ambient Temperature	5~30°C
	Number of Cameras	4
	APP WiFi Distance	20m
	Image Format	JPG
Laser module	Laser Class	Class 1 / 940nm

	Number of Laser Lines	96
	Scanning Distance	0.1m~30m@10%, 60m@90%
	Field of View Range	Azimuth180° * Pitch -90~+90°
	Scanning Mode	Mobile
	Point Cloud Frequency	856,000 points per second
Visual module	Field of view of panoramic camera	HDV 360°*360°
	Field of view of forward-looking camera	H100°*V85°
	Field of view of macro camera	H100°*V85°
	Camera resolution	4000*3000
	Camera sensor size	1/2"
	Camera shutter	Rolling shutter
	Depth of field of forward-looking camera	0.5m~inf
	Depth of field of macro camera	0.25m~0.6m
Accessory	Backpack + inner liner	support
	Phone holder	Support

After-sales service and repair information

Please visit the official website of Xgrids at www.xgrids.cn for the latest after-sales service and warranty information.

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.