

Rokid GLASS

RG201 User Manual



Hangzhou Lingban Technology Co., Ltd.

Table of Contents

1. Product Introduction	1
1-1. Introduction	
1-2. Features	
1-3. SDK	
1-4. Rokid Glass Mobile Companion	
2. Product Package	3
3. Product Description (Dimensions & Functions)	4
4. Specifications	9
4-1. Glasses Specifications	
4-2. Edge Computing Center Specifications	
5. Names and Content of Hazardous Substances in the Product (RoHs: Restriction of Hazardous Substances)	10
6. How to wear the glasses	11
6-1. Prescription Lens (Purchase separately)	
6-2. Connecting the glasses to Edge Computing Center	
6-3. How to wear the Edge Computing Center	
6-4. The Edge Computing Center Clip and the USB Type-C Cabel Clip	
6-5. Wearing and adjustment	
6-6. Removing and attaching the cover-glass	
6-7. Attaching accessories	

7. Buttons & Touchpad (Glasses & Edge Computing Center)	18
7-1. Glasses	
7-2. Edge Computing Center	
8. LED Indicator Lights	20
8-1. Status lights	
8-2. Battery indicator	
9. Care and Cleaning	21
9-1. Daily maintenance for the product (Glasses & Edge Computing Center)	
9-2. Care for Lens	
9-3. Glasses & Edge Computing Center Storage	
10. Notices	22
11. Safety Precautions	24
12. Additional Notes	25
13. Legal Notices	26
14. Disclaimer	27

1. Product Introduction

1-1. Introduction

Rokid Glass RG201 is the smart AR glasses with the foldable and light-weight design, the AI-powered edge computing center, the clear and sharp AR display and the high extensibility. Rokid Glass RG201 with Tethered mode design, includes Glasses and Edge Computing Center. The Patented Ultra-Soft 3mm High-speed data cable ensures the high speed data communication. Plus, it enjoys the multi-modal interactions including the head-moving and voice control, the physical buttons and easy-to-use touchpad. It helps to connect, interact and solve problems in a variety of mission-critical situations in various industries like logistics, manufacturing, education, and exhibition.

Online User Guide (Scan the QR code to view more user instructions)



1-2. Features

1. Eyeglasses style design, light-weight, comfortable to wear
2. Industry-leading geometric waveguide optical solution
3. Powerful edge computing engine
4. Industry-leading artificial intelligence algorithms
5. Multi-modal interaction as buttons, and touchpad, voice and head-moving with immersive 2D & 3D experiences
6. Ultra-long usage life with the 10,000 mAh battery
7. Easy-to-plugin prescription lens
8. Removable cover-glass for different environmental light conditions
9. Expandable for adaptive modules
10. WiFi network, and Bluetooth connections

1-3. SDK

In addition to the powerful hardware, Rokid Glass RG201 offers a set of software development kits (SDK) optimized for the solutions in different scenarios. SDK can help the developers to reduce development cost and improve development efficiency.

1-3-1. Voice Control

1-3-2. Head-Moving Control

1-3-3. AR Perspective Graphic Rendering

1-3-4. UX Components

1-3-5. Face Recognition (Configuration for Customized application may vary.)

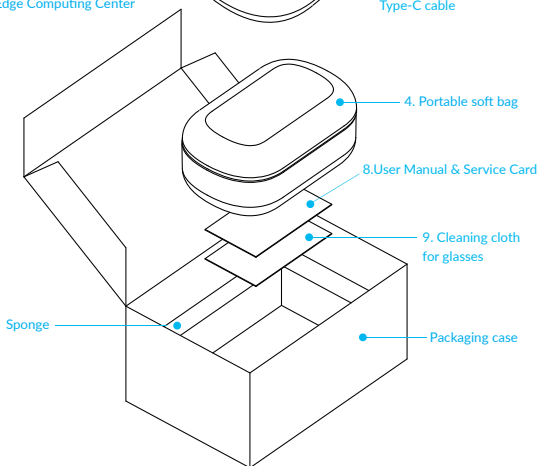
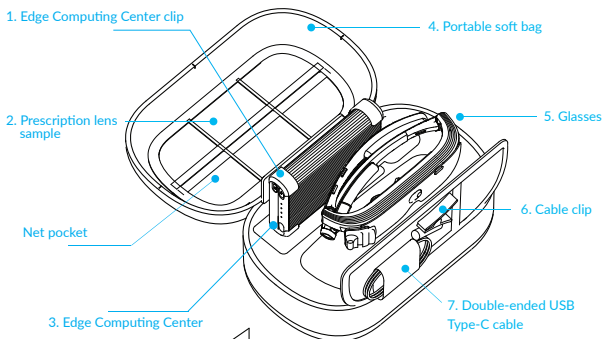
1-3-6. License Plate Recognition (configuration for customized application may vary.)

1-4. Rokid Glass Mobile Companion

Rokid Glass Companion APP (Only for Android smartphone now. Please use the mobile device to scan the QR code below for downloads and installation)

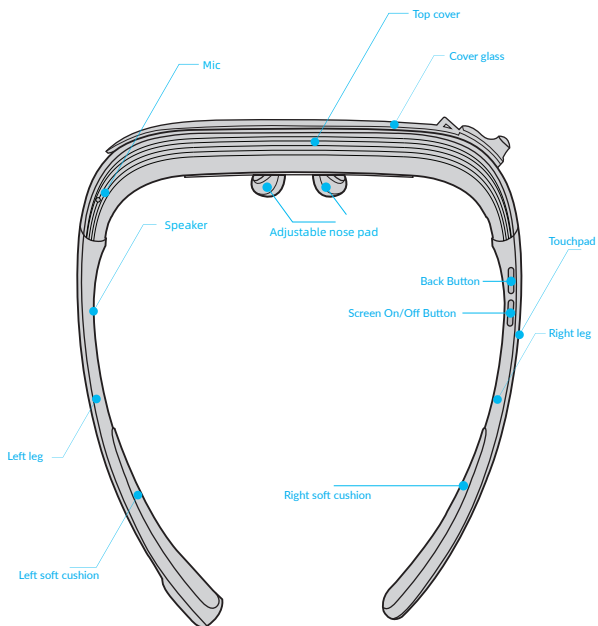


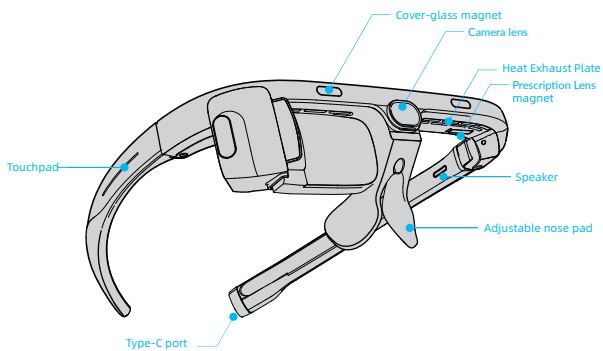
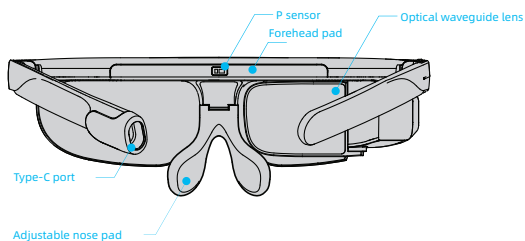
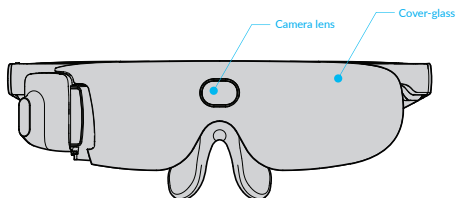
2. Product Package

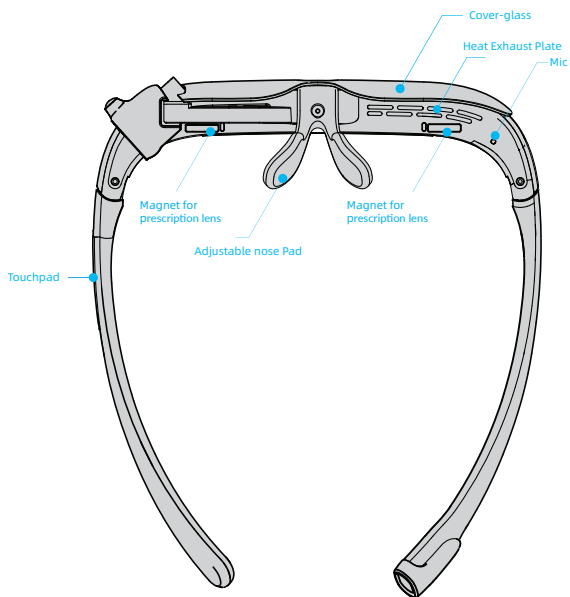


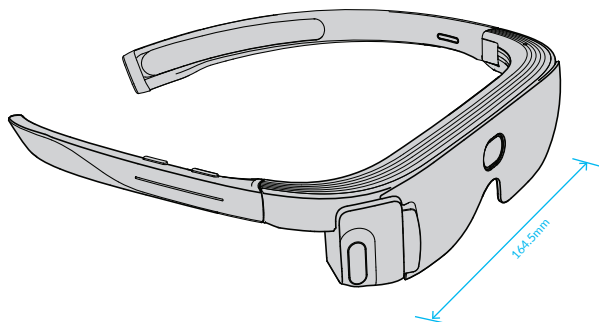
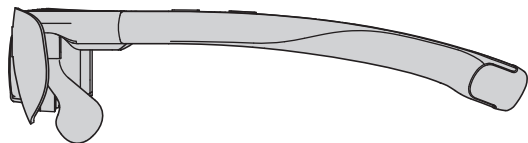
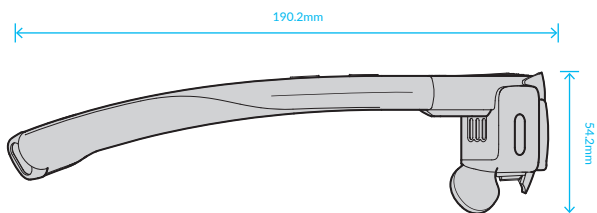
- | | | |
|----------------------------------|-------------------------------|-------------------------------|
| 1. Edge Computing Center clip | 2. Prescription Lens Sample | 3. Edge Computing Center |
| 4. Portable soft bag | 5. Glasses | 6. Cable clip |
| 7. Double-ended USB Type-C cable | 8. User manual & Service Card | 9. Cleaning cloth for glasses |

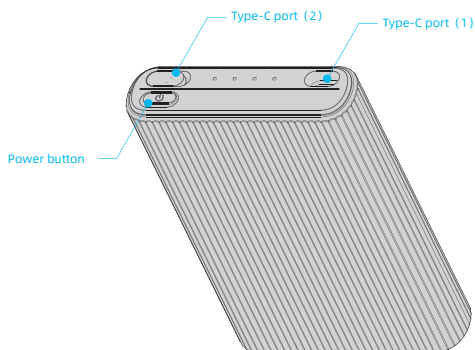
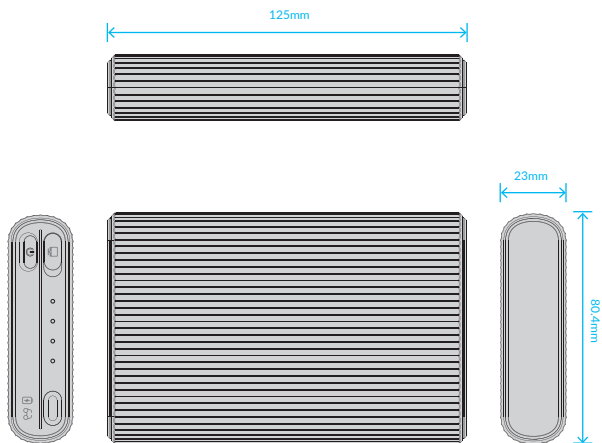
3. Product Description (Dimensions & Functions)











4. Specifications

4-1. Glasses Specifications

Total weight: 105g

Overall dimensions: 190.2 mm (length) x 164.5 mm (width) x 54.2 mm (height)

Operating temperature: $\leq 113^{\circ}\text{F}$ ($\leq 45^{\circ}\text{C}$), ambient temperature: 32°F $\sim 95^{\circ}\text{F}$ ($0^{\circ}\text{C} \sim 35^{\circ}\text{C}$)

Optical display: optical array waveguide, angle of field 40° , resolution: 1280 x 720 pixels

Refresh rate: 60 Hz

Camera: 8 megapixels

Sensors: Enhanced 9-axis sensor fusion scheme; distance sensor; optical sensor

Touch Interaction: Touchpad

Physical buttons: 2 buttons for navigating back, screen on/off and support customization

Interface: USB Type-C port

4-2. Edge Computing Center Specifications

Weight: 273g

Overall dimensions: 125mm (length) x 80.4 mm (width) x 23 mm (height)

Operating temperature: $\leq 113^{\circ}\text{F}$ ($\leq 45^{\circ}\text{C}$), ambient temperature: 32°F $\sim 95^{\circ}\text{F}$ ($0^{\circ}\text{C} \sim 35^{\circ}\text{C}$)

Processor: Amlogic S905D3

RAM: 2GB; Storage: 32GB

Battery: 10,000mAh, 3.8V

WiFi / Bluetooth: 2.4G & 5G, WiFi 802.11a/b/g/n/ac, BT5.0 + EDR / BLE

Indicator lights: working-status light, battery-status light

Interface: USB Type-C (1) port for connecting to glasses and charging

USB Type-C (2) port for connecting to control interface and function expansion

Operating System: Android 9.0

5. Names and Content of Hazardous Substances in the Product (RoHs: Restriction of Hazardous Substances)

Lingban Technology discloses hazardous substances in this product according to component classification as follows:

Part Name	Toxic or Hazardous Substances and Elements									
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated Biphenyls (PBB)	Polybrominated Diphenyl Ethers (PBDE)	Diisobutyl phthalate (DIBP)	Phthalic acid (2-ethylhexyl ester)(DEHP)	Dibutyl phthalate (DBP)	Butyl benzyl phthalate(BBP)
Printed Circuit Board Assemblies*	X	O	O	O	O	O	O	O	O	O
Battery	X	O	O	O	O	O	O	O	O	O
Data Cable	O	O	O	O	O	O	O	O	O	O
Housings and Accessories	O	O	O	O	O	O	O	O	O	O
Camera Module	O	O	O	O	O	O	O	O	O	O

This table is prepared in accordance with the provisions of 2011/65/EU.

O: Indicates that the concentration of the listed hazardous substance in all homogeneous materials in this part is below the limit required in 2011/65/EU.

X: Indicates that the concentration of the listed hazardous substance in all the homogeneous materials in this part is above the limit required in 2011/65/EU.

Hazardous substances in the components marked with “X” in the table cannot be replaced due to limitations of global technological development.

*Printed circuit board assemblies include printed circuit boards and their electronic and other components.

Depending on the product model, the product you purchased may not contain all of the above components.



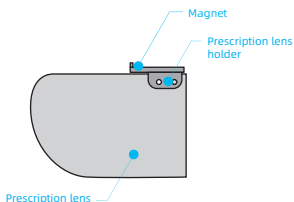
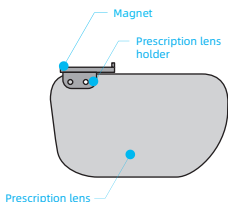
The circled number represents the normal environmental protection service life of the product. The user manual contains the important product information. DO NOT DISCARD.

6. How to wear the glasses

6-1. Prescription Lens (Purchase separately)

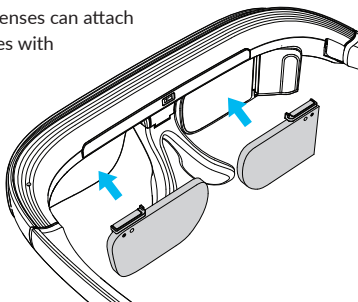
6-1-1. Prescription Lens Sample: Users can use sample lens frame to fill in the prescription lens which meet their vision prescription.

6-1-2. We provide the prescription lenses from 100 to 600 degrees (-1 to -6 diopters) at an increment of 100 degrees (1 diopter) for both left and right eye. Please select the appropriate lenses for yourself. You can purchase separately. (Please consult your provider for the prescription lenses customization).



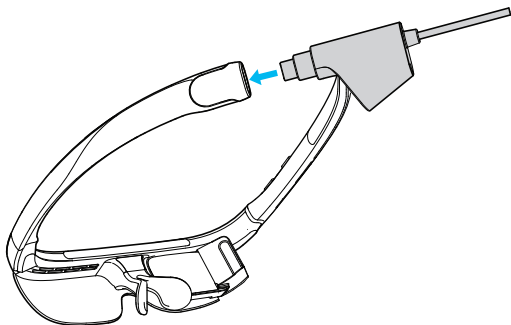
6-1-3. Attach the customized lenses the appropriate position on both left and right frame of Rokid Glass RG201.

Please note the left / right lenses can attach onto the frame of the glasses with magnets. To order to avoid smudging the lens with fingerprints, please use the lens with the gloves.

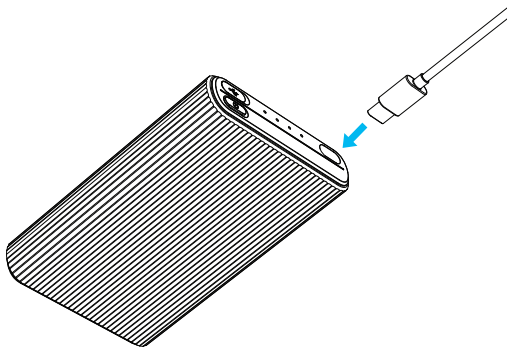


6-2. Connecting the Glasses to Edge Computing Center

6-2-1. Use the double-ended USB Type-C cable to connect to the glasses.

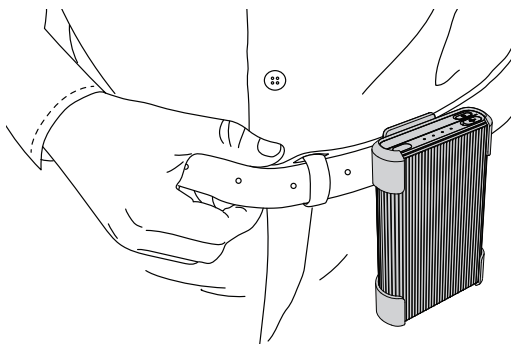


6-2-2. The USB Type-C cable is connected to the Edge Computing Center with USB Type-C (1) port.



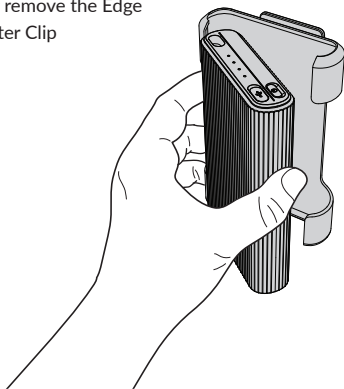
6-3. How to wear the Edge Computing Center

Clip the Edge Computing Center on a belt or clip it into the trouser pocket by itself.

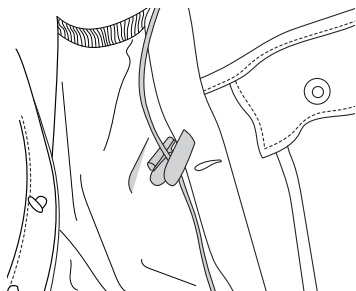


6-4. The Edge Computing Center Clip and the USB Type-C Cabel Clip

6-4-1. Attach or remove the Edge Computing Center Clip



6-4-2. Use the double-ended Type-C cable Clip

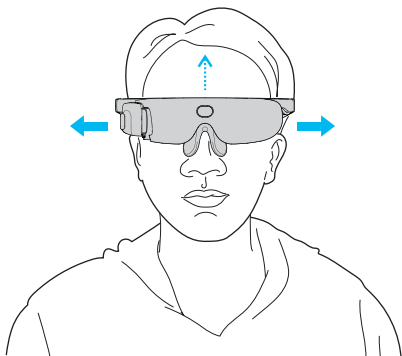


The cable clip can clamp the cable and fix it in the position to free the hands of users.

6-5. Wearing and Adjustment.

6-5-1. Put on the glasses and power on.

6-5-2. Adjust the glasses up, down, left, and right to ensure the text and UI elements are clear within the user's vision.

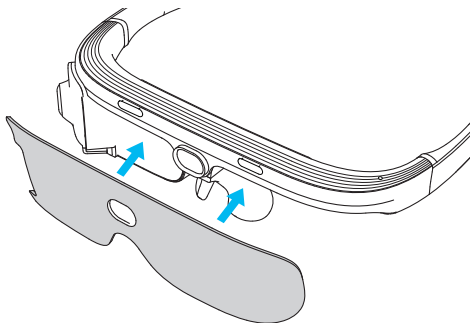


6-5-3. Adjust the nose pad to the ideal height and angle.



6-6. Removing and attaching the cover-glass.

The cover-glass is removable and can be attached to Rokid Glass 2 by the magnets. When the magnets of the cover-glass are aligned with the magnetic area on the glasses, they will automatically attach each other.

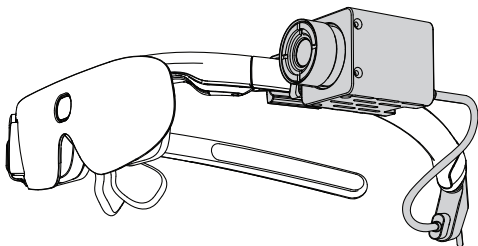


6-7. Attachable Accessories

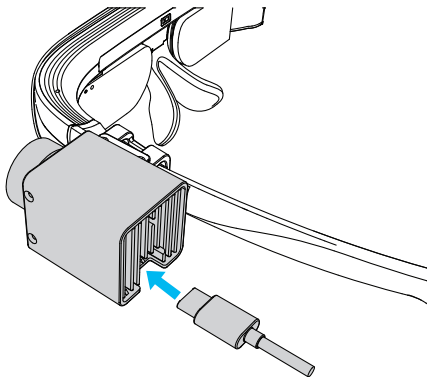
Infrared thermal module

6-7-1. Attach the infrared thermal module*

*Only for infrared module version

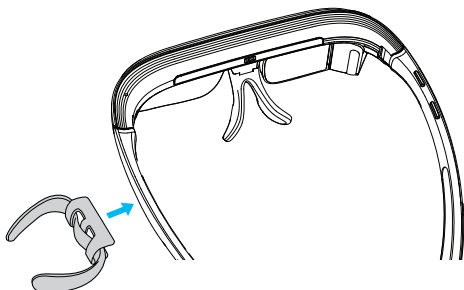


6-7-2. Connect the infrared thermal module to Rokid Glass

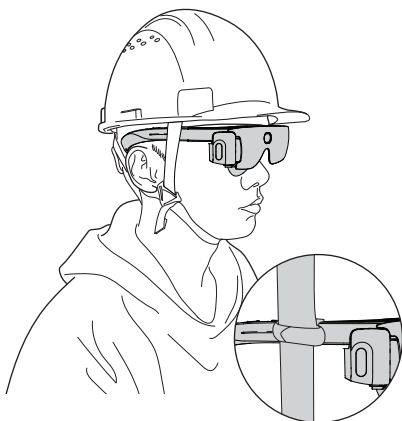


Helmet accessories

6-7-3. Clip the attachable accessories to the glasses. (The helmet accessories can be purchased separately and are compatible with industrial helmets)



6-7-4. Wrap the Hook & Loop to the elastic band of the helmet and secure it firmly.



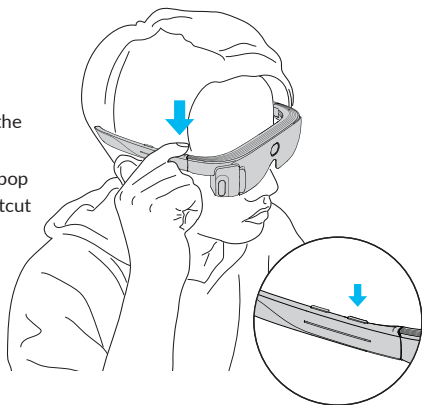
7. Buttons & Touchpad (Glasses & Edge Computing Center)

7-1. Glasses

7-1-1. Back Button

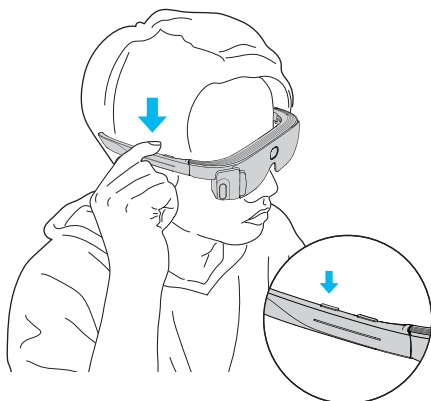
*Click to return to the previous screen

*Press and hold to pop up the system shortcut menu



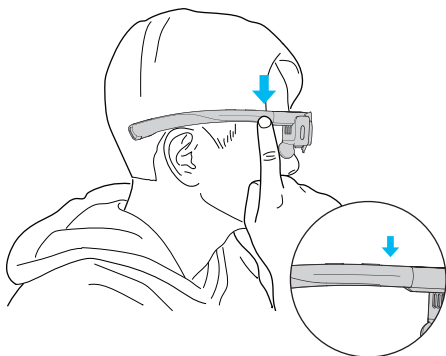
7-1-2. Screen On/Off key

* Click to return to the previous screen



7-1-3. Touchpad

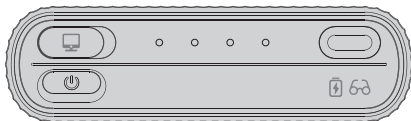
- * Swipe forward and backward on the touchpad to select the items
- * Tap the touchpad to confirm



7-2. Edge Computing Center

7-2-1. Power button

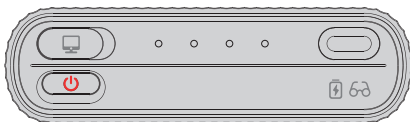
- * Press and hold for 2 seconds to power on and off
- * Press to check the battery level
- * Press and hold for 6 seconds to reset if the edge computing center is not functioning normally or not responding



8. LED Indicator Lights


8-1. Status light

- * Steady Blue: System in working or standby status
- * Blinking Red: System with Errors (for example, the cable is plugged into the wrong Type-C port on the glasses)
- * Blinking blue: System Loading
- * Steady yellow: System in sleep status



8-2. Battery Indicator

8-2-1. Battery charge status

	Battery Capacity	LED1	LED2	LED3	LED4
	0%-25%	Blinking	Off	Off	Off
	25%-50%	On	Blinking	Off	Off
	50%-75%	On	On	Blinking	Off
	75%-100%	On	On	On	Blinking
	Charge completed	On	On	On	On

8-2-2. Battery test

After clicking the power button, the battery indicator LEDs will light up one by one in sequence, for at most 2 seconds. When the battery is low and the system can not be powered on, the first battery indicator light will flash twice when the power button is clicked.

9. Care and Cleaning

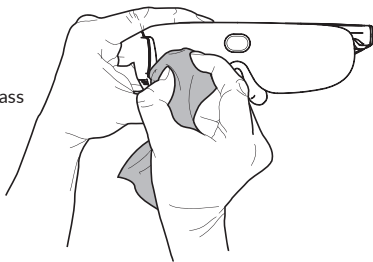
9-1. Daily maintenance for the product (Glasses & Edge Computing Center)

Use an air-blowing tool or a soft brush to clean the internal surface of the optical waveguide lens or their gap.

9-2. Care for Lens

9-2-1. Cleaning cover-glass

Wipe the cover-glass with the cleaning cloth provided in the product package.

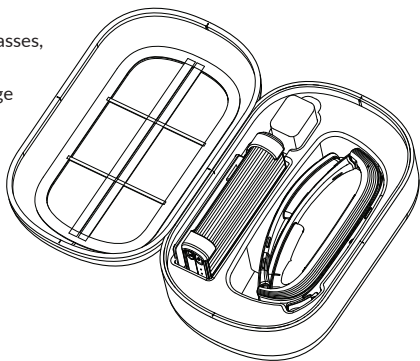


9-2-2. Cleaning the optical waveguide lenses

Wipe the optical waveguide lenses with the cleaning cloth provided in the product package.

9-3. Glasses & Edge Computing Center Storage

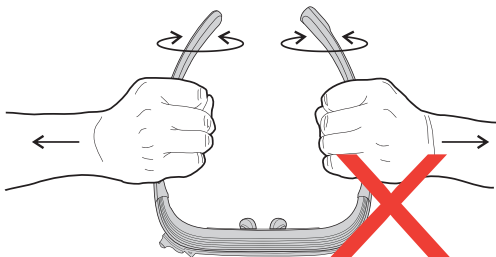
When storing or transporting the glasses, please keep the glasses and the edge computing center in the official portable soft bag to avoid the damages.



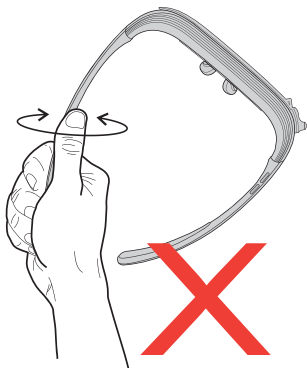
10. Notices

The following actions are prohibited to prevent functional failure of the device through premature mechanical fatigue.

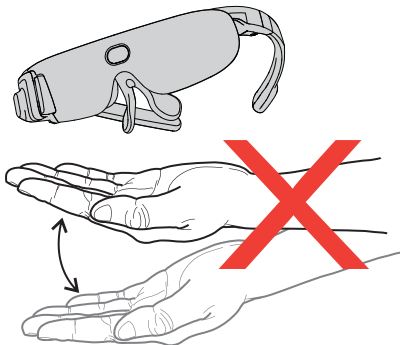
10-1. DO NOT extend the legs excessively beyond the mechanical strength limitation of the product.



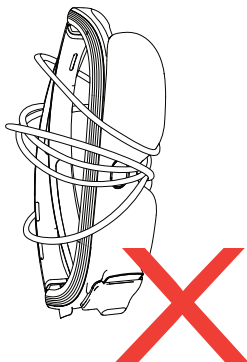
10-2. DO NOT continuously rotate or manipulating the glasses, as shown as in the picture.



10-3. DO NOT throw the glasses. (The lenses are fragile).



10-4. DO NOT use the cables to tie the devices together.





Warning

11. Safety Precaution:

11-1. Please keep the device dry. Do not use it in a dusty, dirty, humid, or high-salinity environment (such as beach, seaside). This may cause the circuit failure in the device.

11-2. Do not use the device during a thunderstorm. The thunderstorms can cause the malfunction of device and increase the risk of electric shock.

11-3. Please use the device within its approved operating temperature range from 32°F (0°C) to 95°F (+35°C) and use it below 6562 feet (2,000 meters) of altitude, and keep it within its approved storage temperature range from -4°F (-20°C) to 113°F (+45°C). The environment with extreme temperature may damage the device.

11-4. Please charge the device using the official charger provided by the manufacturer.

11-5. Please charge the device with the certificated USB Type-C cable conforming to USB Type-C standards.

11-6. Do not put the device into the environment with the high temperatures, such as strong sunlight, the heaters, the microwave or the conventional ovens. If the device overheats it may cause the battery to explode.

11-7. Do not attempt to disassemble or remanufacture the device, insert foreign objects into it, or place it in the water or other liquids. Doing these may lead to a short circuit in the device, battery leakage, overheating, the fire, or even the explosion.

11-8. Do not put the device on the fire as it may catch fire and even explosion.

11-9. Please dispose of the device in accordance with local regulations. Do not dispose of the device as the normal household waste. Improper device disposal could cause the explosion. Please respect the local laws and recycling policy on the disposal of the product and its accessories.

11-10. Do not allow children or pets to chew or suck the device or its accessories. Doing so may result in the damages or the explosion.

11-11. Do not drop, squeeze, or pierce the device. Excessive pressure on the device may damage the device or cause a failure, short circuit, fire or the explosion.

11-12. Using an unapproved or incompatible charger, adapter or battery may cause a fire, explosion, or other dangers.

11-13. The device and its accessories may contain the small components. Keep them out of the reach of children, who may damage them by mistake or swallow these small components, which may lead to the dangers such as choking.

11-14. This device features a non-removable built-in rechargeable battery. Do not attempt to replace the battery by yourself. This may cause the malfunction of device or may damage the battery.

12. Additional Notes

* Prescription Lens: 100-600 degree/-1 to -6 diopter (available in 100 degree/1 diopter increments) lenses can be purchased separately. Please consult your provider for the customization and the purchase of the prescription lenses.

* Due to the physical and chemical properties of lithium ion battery materials, the battery capacity will decay to some extent over time. As the charging and discharging times increases, the battery capacity will also decay to some extent.

13. Legal Notice

Copyright ©Lingban Technology 2014~2020. All rights reserved. This document is for reference purposes only and does not constitute any form of commitment.

The visual representation of the product here is indicative only. If there is any inconsistency, the actual product shall govern.

* Please respect the privacy rights of others when recording video with this product. It is prohibited to use this product for any unauthorized surveillance activities, including but not limited to surveillance of other people, groups, events, performances, exhibitions or buildings.

* Please note that in some countries and regions even non-commercial use of the camera to record, record or take pictures of others, groups, events, performances, or exhibitions will also violate copyrights or the legal rights of others. Therefore, make sure that you understand and comply with local laws and regulations carefully before use.

14. Disclaimer

* This product is NOT a toy and is not suitable for children under the age of 18. Adults should keep this product out of the reach of children and exercise caution when using it in the presence of children.

* Read this user manual carefully before use. The information in this document are important to your safety and your legal rights and responsibilities.

* The company is responsible only for official system software and system updates. Any unofficial third-party software will have potential security risks.

* The company recommends the users update the system via official channels. Unofficial Updating the system software via unofficial channel may bring security risks.

* **Warning!** The operating system of this product supports the official system updates. If the user installs a third-party ROM system or removes security features from the system files, it may cause system instability or other problems. The company will not provide support or assume any responsibility for the end user in such situations.

* This product is a smart glasses product that provides a smart wearable device experience when the power supply is working properly and no components are damaged. Lingban Technology reserves the right to update this disclaimer. Please visit the official website of the product www.lingbanAR.com and check your email regularly for the latest version.

Read this entire document carefully before using this product to understand your legal rights, responsibilities and safety instructions. Failure to read and follow the instructions and warnings in this document may result in property damage, safety accidents, and personal safety hazards. By using this product, you hereby signify that you have read this disclaimer carefully and that you understand and agree to abide by the terms and conditions herein. You agree that you

are solely responsible for your own conduct while using this product, and for any consequences thereof. You agree to use this product only for purposes that are proper and in accordance with all terms, any relevant policies and guidelines that Lingban Technology has made and may make available. Technology has made and may make available.

* Lingban Technology accepts no liability for damages, injury or any legal responsibility incurred directly or indirectly from the use of this product.

CE statement :

Restricted to indoor use, for EU this product can be used in the following countries:

AT	BE	BG	CH	CY	CZ	DE	DK
EE	ES	FI	FR	GB	GR	HR	HU
IE	IS	IT	LI	LT	LU	LV	MT
NL	NO	PL	PT	RO	SE	SK	SI

Operating Frequency Band (RF) :

BT: 2402-2480 MHz (TX/RX);

Wi-Fi (2.4G): 2412-2472 MHz (TX/RX);

Wi-Fi (5G): Band 1/2/3/4: 5150-5850 MHz(TX/RX);

The WLAN function for this device is restricted to indoor use due to its operation in the 5.15 to 5.35 GHz frequency range.

RF output power(Max) :

Bluetooth: 7dBm

WiFi 2.4G: 17dBm

WIFI 5G Band 1/2/3/4: 17dBm

Specific Absorption Rate (SAR) Certification

THIS DEVICE MEETS INTERNATIONAL GUIDELINES FOR EXPOSURE TO RADIO WAVES

Body parts	Test value	Test distance	Limit
Head	0.986W/ Kg 10g	0cm	2.0 W/Kg 10g

CAUTION:

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 USB type C.
3. EUT Temperature: $-0^{\circ}\text{C} \sim +35^{\circ}\text{C}$.
4. Input: DC 3.8V by battery
5. The device complies with RF specifications when the device used at 5 mm from your body, and the holder must not be of metal composition.
6. USB cable are shielded.

7: Hereby, Hangzhou LingBan Technology Co., LTD declares that the radio equipment type RG201 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.rokid.com/en/compliance/rg201.pdf.

FCC statement:

The SAR limit of USA (FCC) is 1.6 W/kg averaged over one gram of tissue. Device has also been tested against this SAR limit. This device was tested for typical body-worn operations with the back of the handset kept 0mm from the body, and also tested for in-front-of-the face operations with the back of the handset kept 15mm from the head; To maintain compliance with FCC RF exposure requirements, use accessories that maintain a 0mm separation distance between the user's body and the back of the handset, and a 15mm separation distance between the user's head and the back of the handset. The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with FCC RF exposure requirements, and should be avoided.

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.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

5G WIFI statement

The device is restricted to indoor use when operated in 5150MHz~5350MHz to reduce the potential for interference.

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:

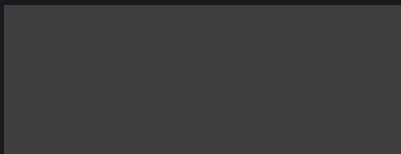
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help
- This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

Rokid Glass

Model: RG201

Hangzhou Lingban Technology Co., Ltd.



400-113-0099



www.rokid.com/en