

BetterMAN-OmniSightGlove-IOT Quick Start Guide V1.1.3_EN

BetterMAN-OmniSightGlove



Quick Start Guide v1.1.3



Richvoice reserves the right to make changes to any product to improve reliability, function, or design. Richvoice does not assume any product liability arising out of, or in connection with, the application or use of any product, circuit, or application described herein. No license is granted, either expressly or by implication, estoppel, or otherwise under any patent right or patent, covering or relating to any combination, system, apparatus, machine, material, method, or process in which Richvoice products might be used. An implied license exists only for equipment, circuits, and subsystems contained in Richvoice products.

Shanghai Richvoice Technology Co., Ltd. For more information, please visit: www.richvoice.com

Shanghai Richvoice and/or its affiliates. All rights reserved.

OSG Product Name

PN	English name	Abbreviated in this document as
IOT-OSG-BASIC-001	BetterMAN-OmnisightGlove-IOT-OSG	IOT
HSR-OSG-001	BetterMAN-HandStrapRight-OSG	HandStrapRight
HSL-OSG-001	BetterMAN-HandStrapLeft-OSG	HandStrapLeft
DCC-OSG-001	BetterMAN-DoubleChargingCradle-OSG	DoubleChargingCradle
PSCC-OSG-001	PowersupplyforChargingCradle-OSG	PowersupplyforChargingCradle
ROU-OSG-001	BetterMAN-Router-OSG	Router

Abbreviations of the above names will be referenced in the content of this article.

OSG Hardware

1. IOT



2. Attachment



BetterMAN-HandStrapLeft



BetterMAN-HandStrapRight



BetterMAN-DoubleChargingCradle



PowerSupplyforChargingCradle

IOT Wearable

1. Wear HandStrap



- 1) Pass the finger strap through the index finger, and the wrist strap across the palm.



- 2) Move the trigger button to the side of the index finger and hold it, then adjust the Velcro to tighten the finger strap.



- 4) Wearing completed.

- 3) Adjust the Velcro according to the size of your hand and tighten the wrist strap.

2. IOT Installation

Insert the IOT along the bottom of the slot, then press the front end of the IOT and the tail end of the slot with two fingers respectively



Ensure proper installation, with the front end fully snapped into the groove of the fixing plate



3. IOT Removed

First remove the gloves, hold the IOT with one hand, and press down the fixing piece with the other hand



Slide the IOT out along the slot until the IOT part is completely removed



IOT Working Status and Feedback (Default)

1. Power On

Press and hold the IOT button for 3 seconds to turn it on. If the IOT is installed on the HandStrap, pressing the Handstrap button has the same function as pressing the button on the IOT.



Feedback during startup:Red/Yellow/Blue/Green flash once in sequence, the buzzer beeps briefly once, and the vibrator vibrates briefly once

2. Shutdown

Forced Shutdown:When the IOT is in the powered-on or connected state, if you need to perform a forced shutdown, you can long-press the button for 10 seconds

Automatic Shutdown: Automatically shuts down after 3 minutes of inactivity when IOT is not connected or 15 minutes of inactivity (no button presses, scanning, APP control of IOT, etc.) when connected. It also automatically shuts down when IOT is charging.

Feedback when shutting down:Red light flashes once, buzzer beeps once, and vibrator vibrates once

3. BLE Broadcast

When the glove is powered on, if the automatic broadcast configuration item is set to enable BLE broadcast, or if BLE broadcast is enabled and waits for the host computer to connect when powered on by long-pressing for 6 seconds (automatically turning off the broadcast if no host computer connects after the broadcast timeout)

Feedback during waiting for connection:Blue light stays on constantly, buzzer beeps briefly once every 3 seconds

Feedback when successfully connected: Blue light flashes twice, buzzer beeps once briefly, and vibrator vibrates once briefly

Feedback when the broadcast automatically closes due to timeout: Turn off the LED light, stop the beeping, and stop the vibration

4. Bluetooth connection disconnected

When the connection is disconnected due to the distance between the host computer and the glove being too far, the glove automatically starts BLE broadcasting with the previous broadcast name and waits for the host computer to reconnect. If the host computer still fails to connect after the reconnection timeout, the reconnection is considered to have failed.

Feedback when connection is disconnected: Light does not illuminate, buzzer emits a short beep

Feedback during waiting for reconnection: Light does not turn on, short beep once every 30 seconds

Feedback when reconnection is successful: Blue light flashes twice, buzzer beeps once briefly, and vibrator vibrates once briefly

Feedback after reconnection failure (without automatic broadcast): Red light flashes once every 10 seconds, buzzer sounds a long beep

5. Force Disconnect

When the host computer actively disconnects (the software in the host computer actively disconnects, or the system turns off Bluetooth), the connection is disconnected

Feedback when forced disconnection: Red light flashes 3 times, buzzer sounds a long beep, and vibrator vibrates for a long time once

6. Scan barcode

Decoding success feedback: Green light flashes once, buzzer beeps briefly

Feedback when BLE fails to connect or transmission fails after successful decoding: Red light flashes 3 times, buzzer beeps once continuously, and vibrator vibrates once continuously

Note: When scanning the instruction barcode, no transmission occurs, so there is also no feedback on transmission failure

7. Power feedback

Feedback when battery level is below 20%: Every 15 seconds, the red light flashes once, the buzzer beeps twice briefly, and there is a short vibration once

When the battery level is below 7%, feedback: Every 5 seconds, the red light flashes once, the buzzer beeps twice briefly, and there is a short vibration once

Automatic shutdown feedback when battery level is below 5%: Red light flashes once, buzzer beeps once, and vibrator vibrates once

8. Charging Feedback

Automatically shut down when charging (requires factory preset) , **feedback:** Red light flashes once, buzzer sounds a long beep, vibrator vibrates once for a long time

Feedback during charging:Yellow light stays on

Completion feedback:Green light stays on

9. OTA Upgrade (not supported in Basic Edition)

The host computer uploads a firmware file to the IOT device via the BLE OTA upgrade service to upgrade the firmware. During the upgrade process, scanning is prohibited to prevent it from re-entering pairing mode and interrupting the upgrade. After the firmware transfer is completed, the firmware file is verified, and if there are no issues, the device automatically restarts to apply the new firmware. If the upgrade fails (e.g., the connection is interrupted during the upgrade, the firmware file verification fails, or the host computer cancels the upgrade), the upgrade is automatically terminated, and after providing feedback on the upgrade failure (lasting 10 seconds), the device automatically restarts with the original firmware. **Note:** The MAC address of the upgraded firmware remains unchanged.

Feedback during upgrade:Red/Yellow/Blue/Green keep alternating and flashing

Upgrade failure feedback (lasting 10 seconds):Red light flashing continuously, intermittent long beeping

Feedback during restart: First turn off (red light flashes once, buzzer beeps long once, vibrator vibrates long once), then turn on (red/yellow/blue/green flash once in sequence, buzzer beeps short once, vibrator vibrates short once).

10. Take a photo

The host computer controls the button mode through the BLE button service to take photos and obtains photo data through the photo service. After the IOT device enters the photo-taking mode, it waits for the user to press the button. When the user presses the button, it takes a photo and uploads it. If it is the temporary photo-taking mode, it automatically exits the photo-taking mode after completing one photo-taking (or if the user fails to press the button within the timeout period).

Feedback while waiting for user to press a key:Scanner head activates crosshair, blue and green lights keep flashing alternately

Feedback during photo taking and uploading: Blue light stays on

Feedback when upload is successful: Green light flashes once, short beep once

Feedback when upload fails: Red light flashes 3 times, emits a long beep, and vibrates once strongly

Feedback when timing out and exiting: Red light flashes once, short beep once, short vibration once

IOT APP

When the host computer is running the Android system, the system version must be no lower than Android 10, with Bluetooth 5.0 and support for BLE.

The relevant example descriptions in this manual use WET3 as the Android host computer, with the APP name: **OSG Connector**.

1. APK file

1.1 Download Program

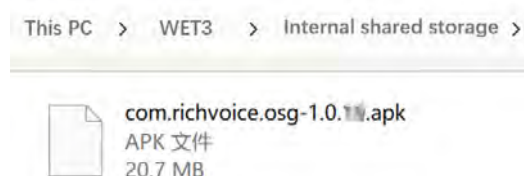
Search for OSG Connector in the Apple APP Store or major Android app stores to download the latest version of the APP.

You can also contact Richvoice to obtain the installation file for OSG Connector:

 com.richvoice.osg-1.0.32.apk

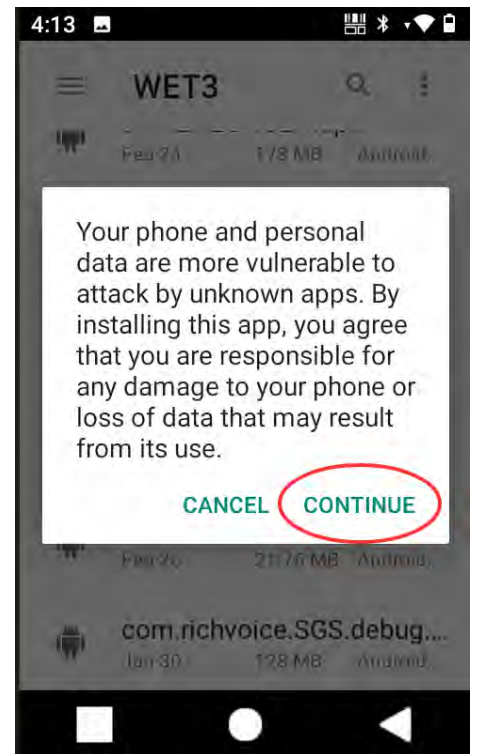
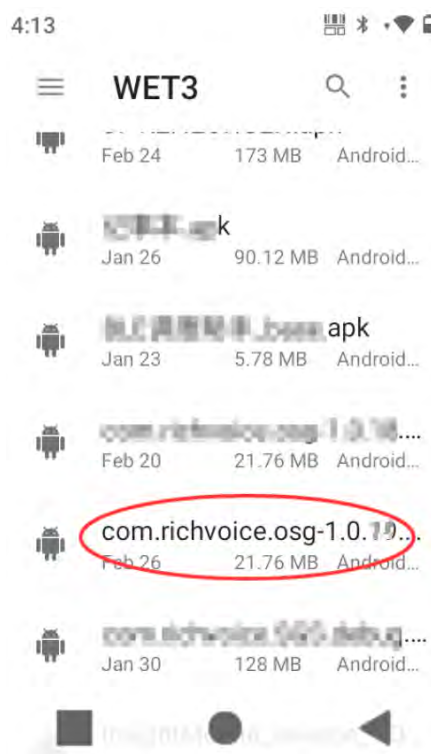
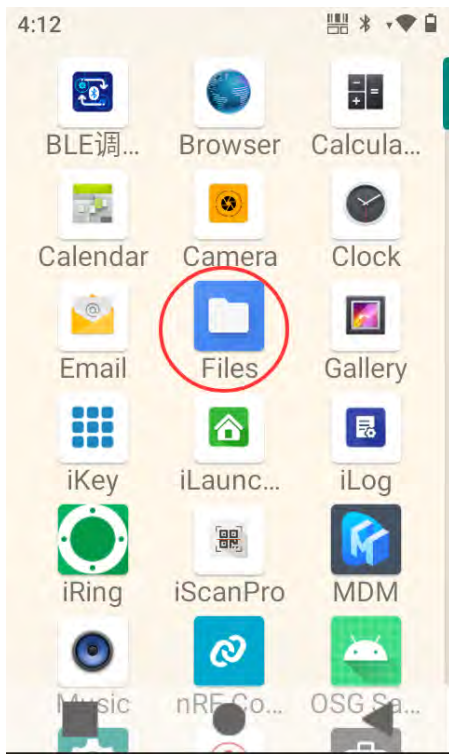
1.2 Copy File

Copy the APK file to the internal shared storage of the Android host computer:

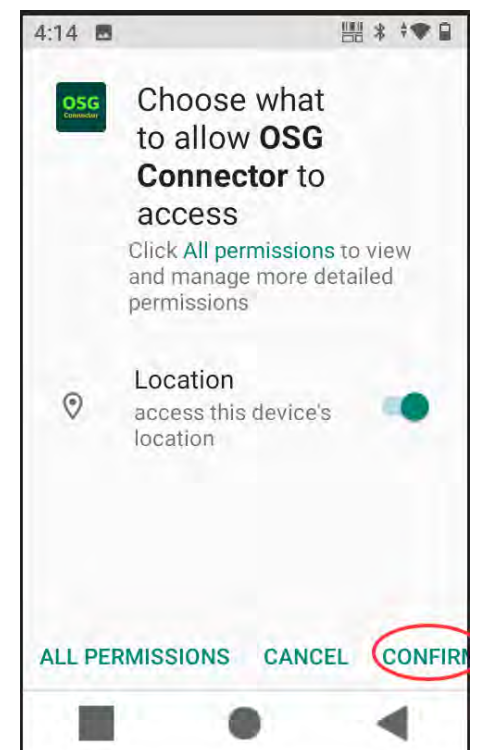
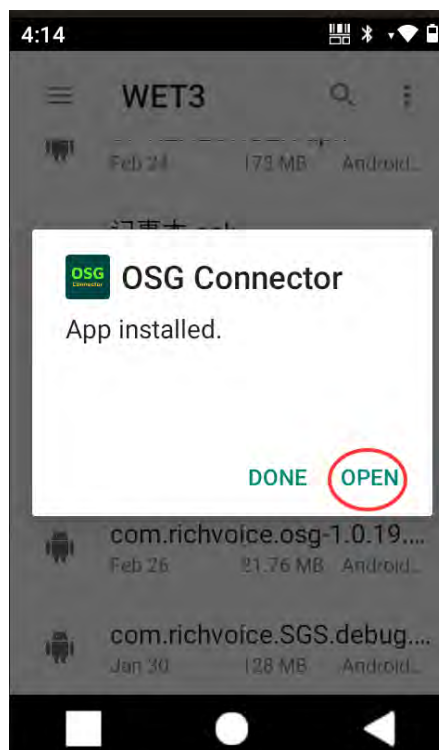
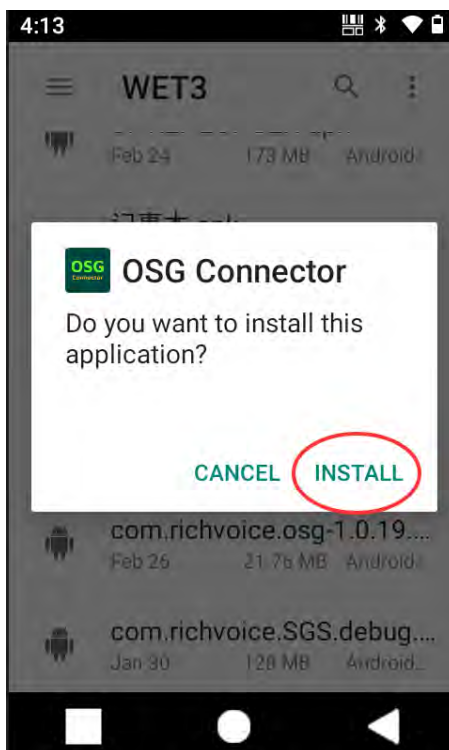


2. Install APK

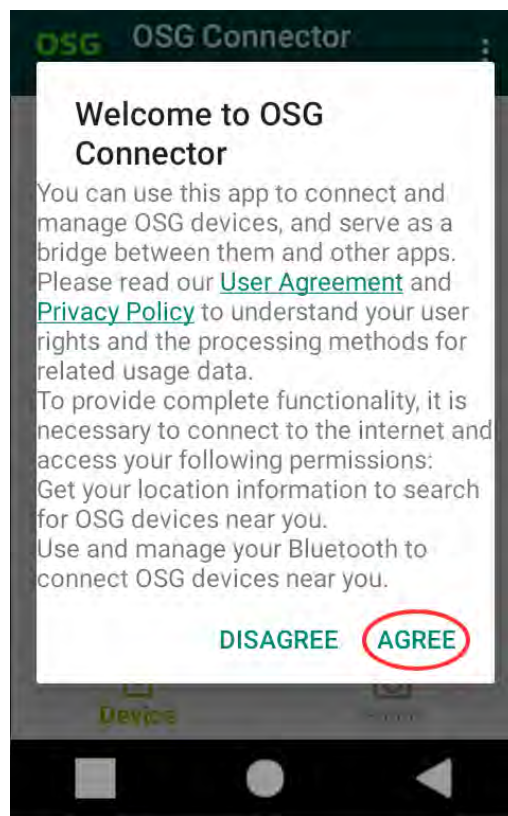
Open Files, find the APP installation package, click to open it, and when prompted about an unknown application, click CONTINUE:



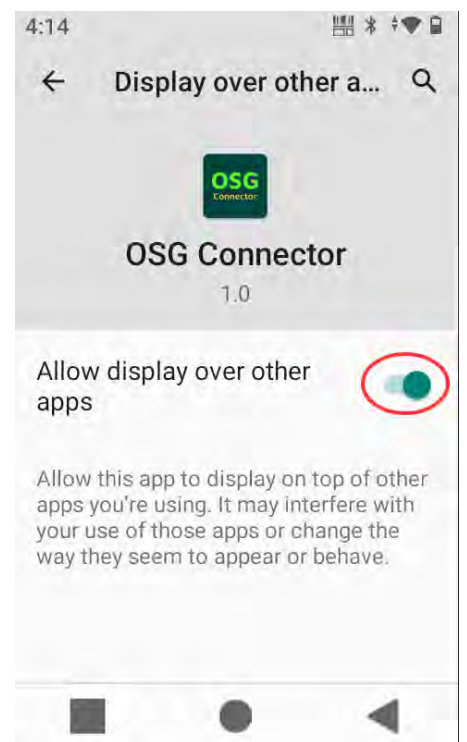
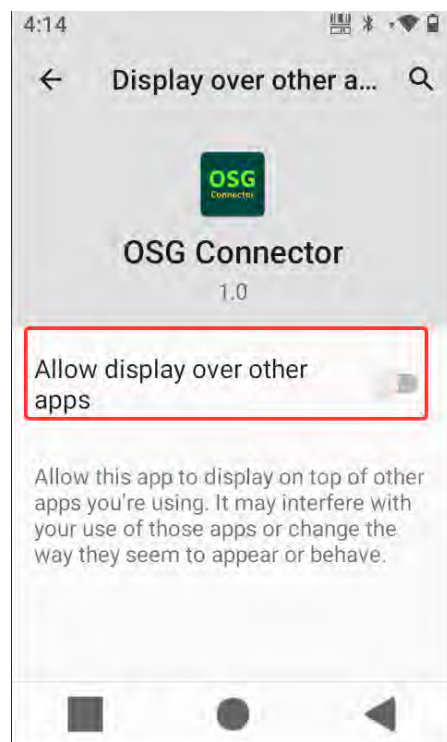
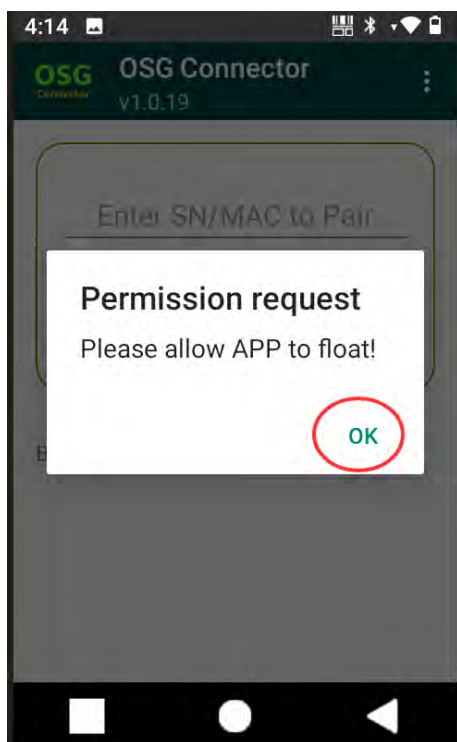
Click INSTALL to start the installation, and after completion, click OPEN to directly open the APP. When running for the first time, click CONFIRM on the permission prompt to confirm:



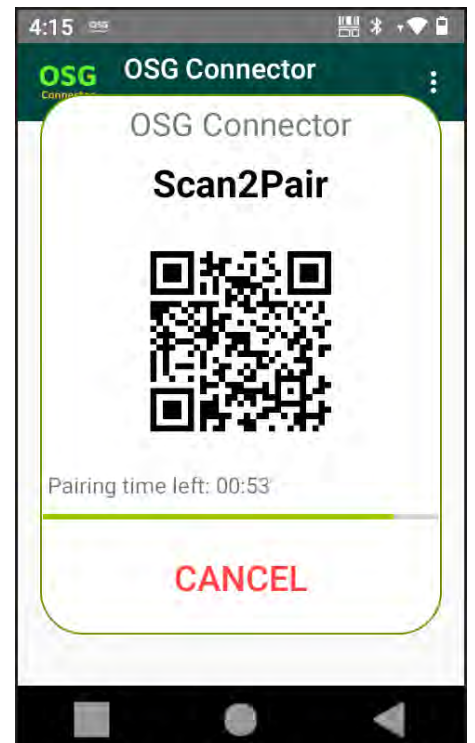
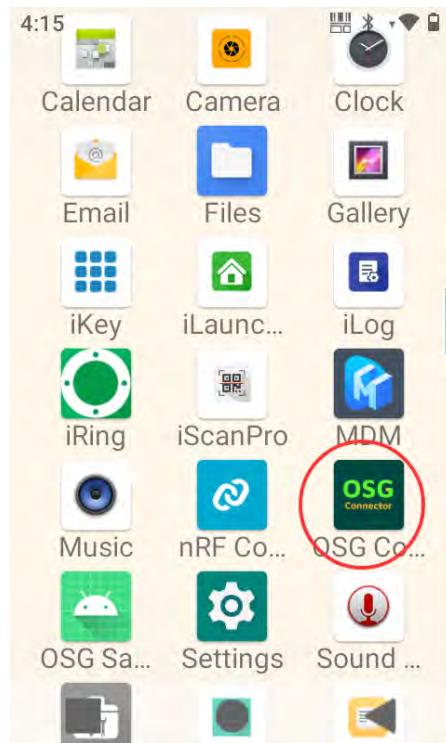
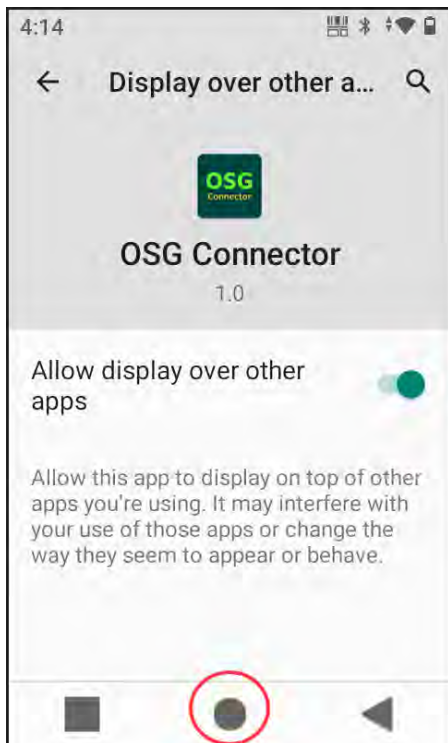
On the pop-up prompt interface, you can access the OSG Connector User Agreement and Privacy Policy via the Internet, then click "AGREE" to continue:



On the APP to float prompt interface, click OK, then enable Allow display over other apps:



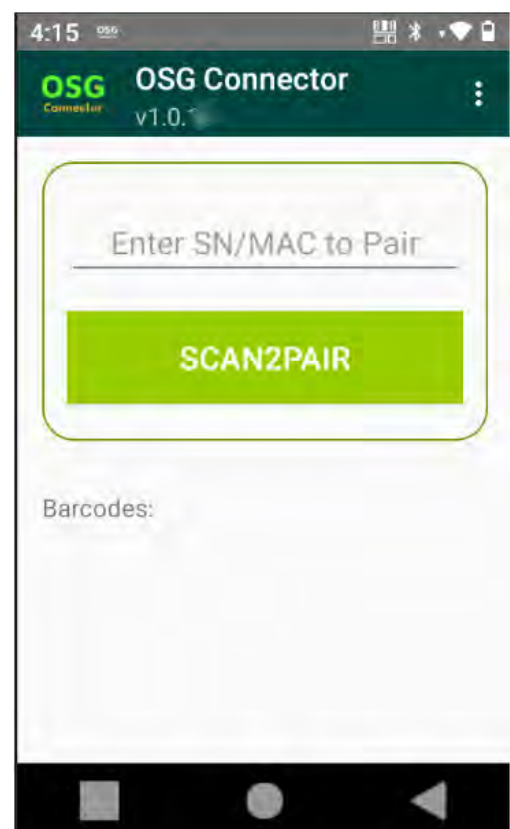
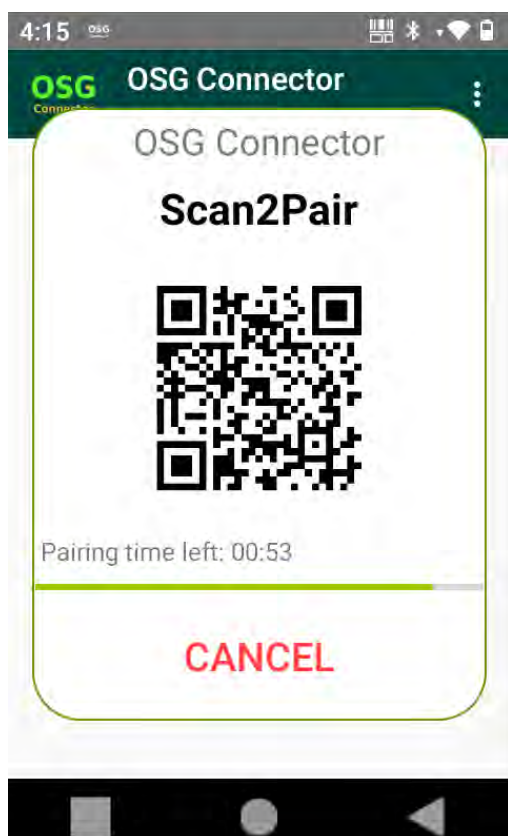
Press the Android home button to return to the program menu, tap the OSG program icon, and run the APP:



IOT Connection

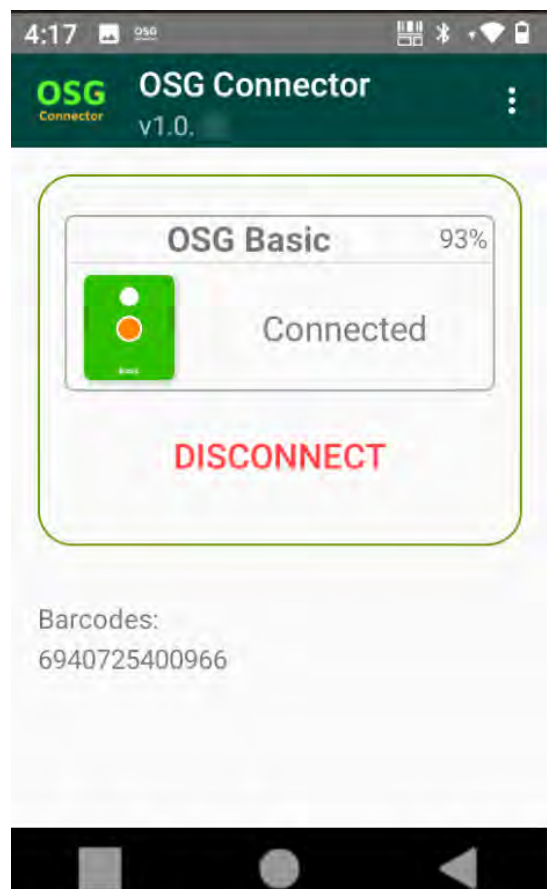
1. Scan the QR code of the APP to connect

Run the APP, and the pairing QR code will automatically pop up or click SCAN2PAIR to pop up the pairing code:



When the IOT is in the off state, press and hold for 3 seconds to turn it on (Feedback: Red/Yellow/Blue/Green flash once in sequence, the buzzer beeps once briefly, and the vibrator

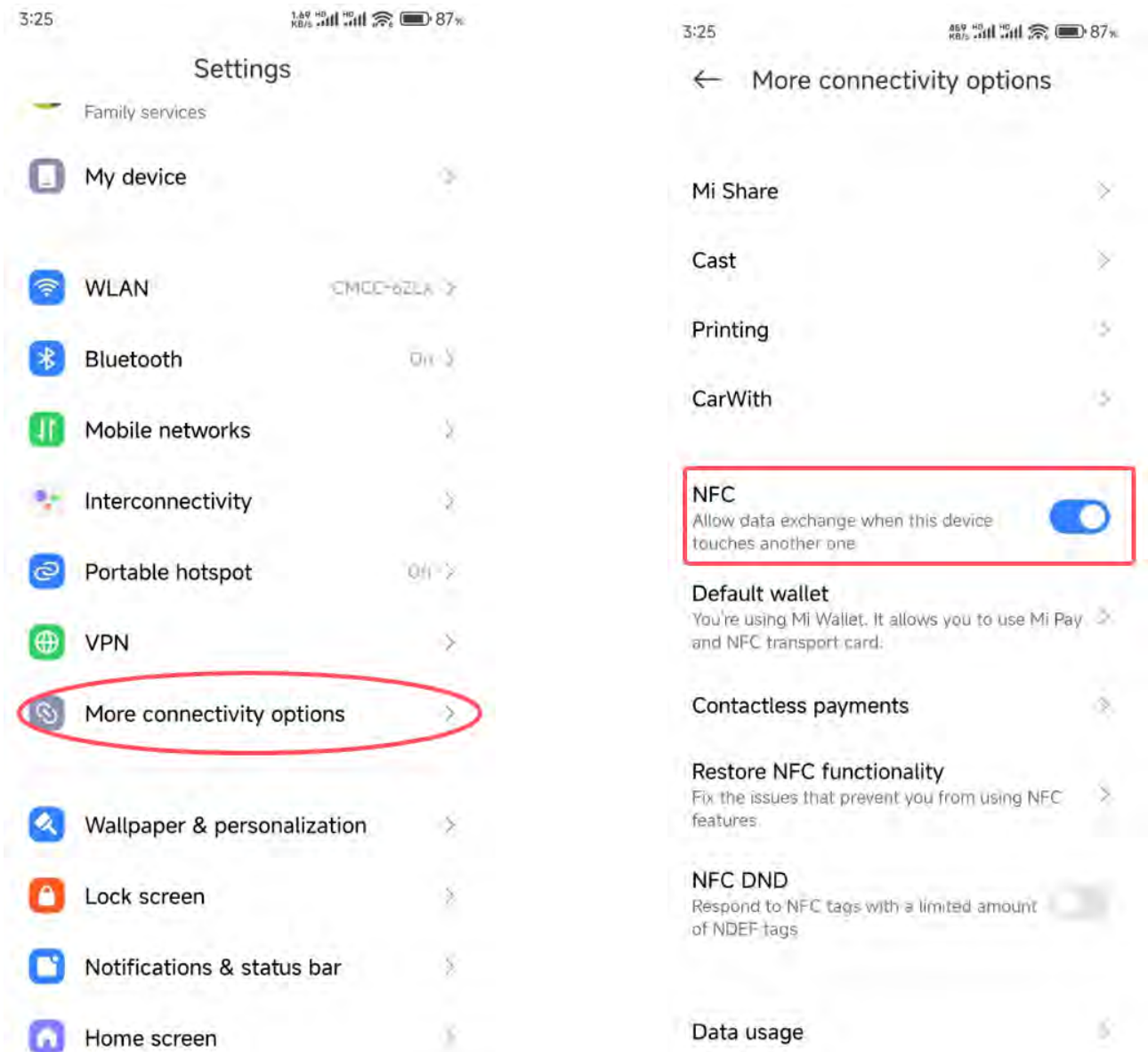
vibrates once briefly), then scan the popped-up pairing code to connect:



Feedback when successfully connected: IOT blue light flashes twice, buzzer beeps once briefly, and vibrator vibrates once briefly

2. The APP connects to IOT via NFC (NFC function: optional)

2.1 Android Host Computer Turns on NFC



2.2 IOT starts BLE broadcast

When the IOT is in the off state and turned on by long-pressing for 6 seconds, it will start BLE broadcasting and wait for the host computer to connect:

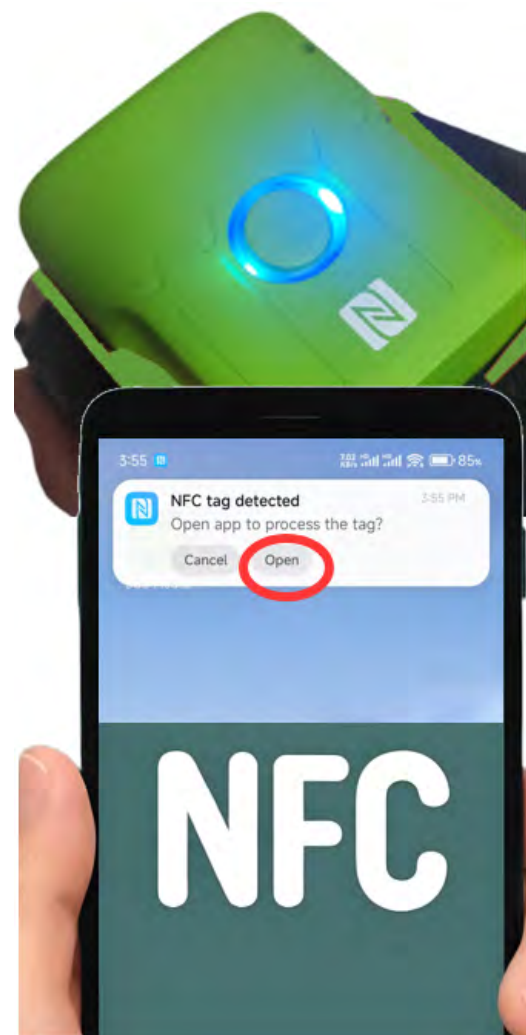
Feedback at 3 seconds: Red/Yellow/Blue/Green flash once in sequence, the buzzer beeps once briefly, and the vibrator vibrates once briefly

After 6 seconds, the feedback is: The blue light stays on constantly, and the buzzer beeps once every 3 seconds



2.3 Host computer connection

Bring the NFC reading area of the Android device (host computer) close to the NFC icon area of the IOT device, and after the NFC tag prompt appears, click Open:



Android system automatically opens the OSG app and completes the connection:



Feedback when successfully connected: IOT blue light flashes twice, buzzer beeps once briefly, and vibrator vibrates once briefly

3. APP connects via IOT machine number

3.1 IOT starts BLE broadcast

When the IOT is in the off state and turned on by long-pressing for 6 seconds, it will start BLE broadcasting and wait for the host computer to connect:

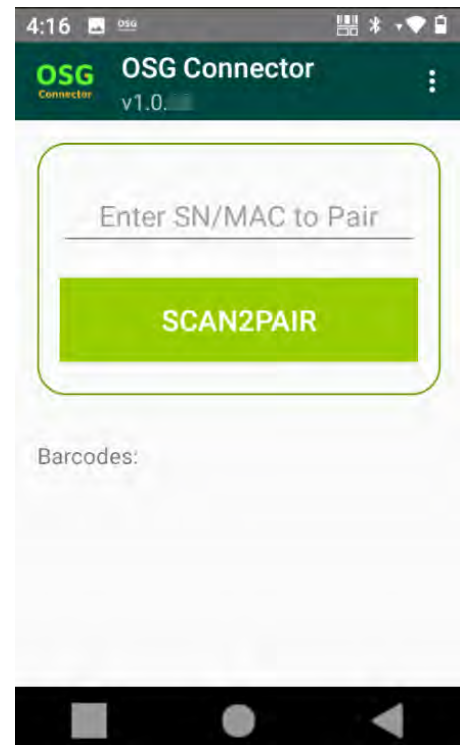
Feedback at 3 seconds: Red/Yellow/Blue/Green flash once in sequence, the buzzer beeps once briefly, and the vibrator vibrates once briefly

After 6 seconds, the feedback is: The blue light stays on constantly, and the buzzer beeps once every 3 seconds

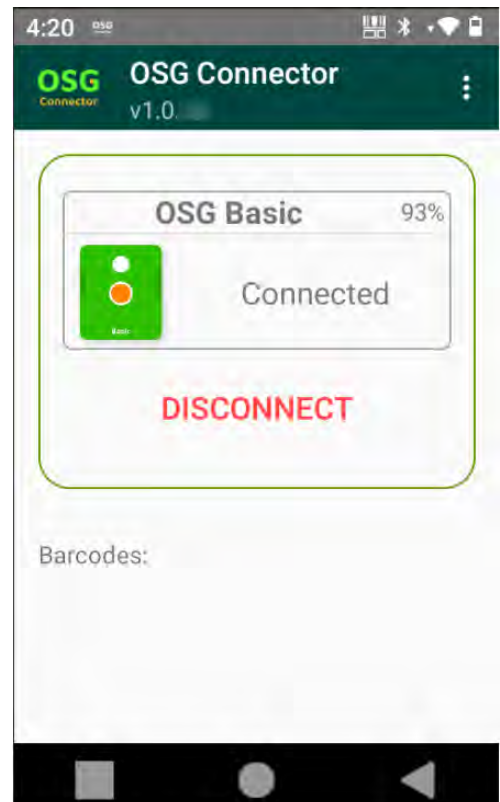
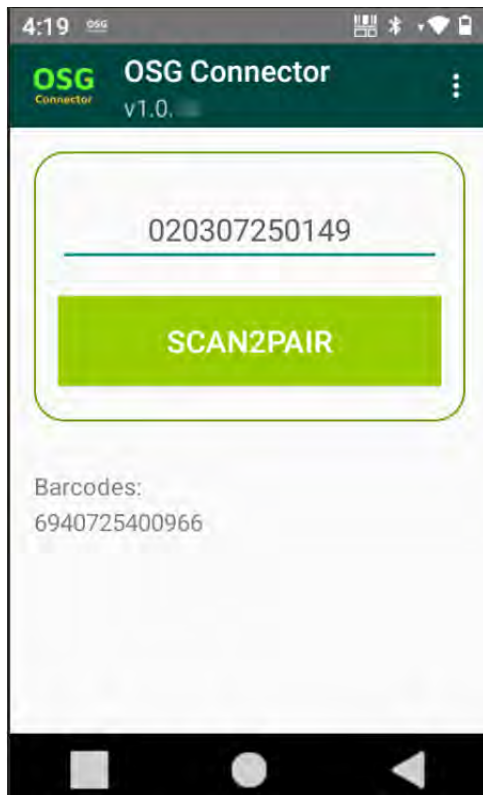


3.2 APP scans the IOT QR code

Find the QR code of the IOT bottom product, then run the OSG Connector software:



On the Enter SN/MAC to Pair interface, scan the QR code of the IOT product or enter the SN code (MAC address of the IOT):

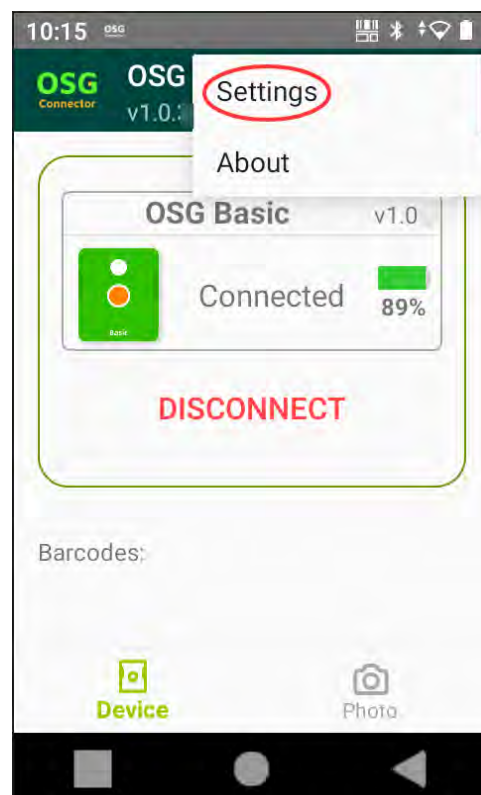
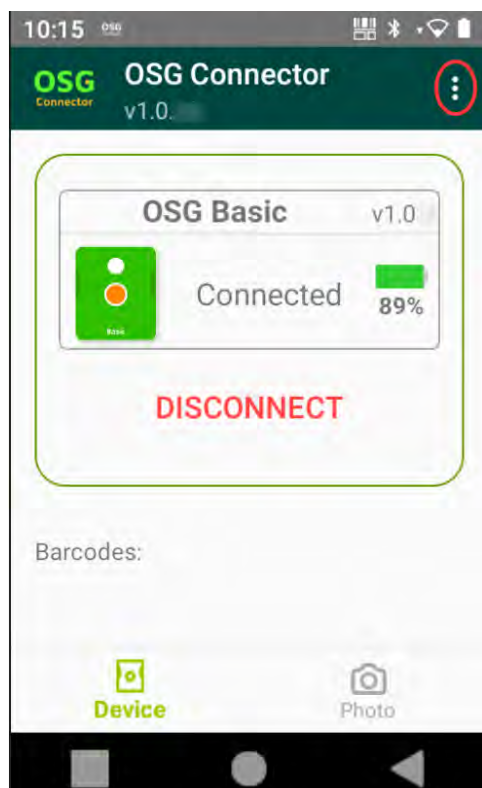


Feedback when successfully connected: IOT blue light flashes twice, buzzer beeps once briefly, and vibrator vibrates once briefly

IOT Configuration

1. Barcode configuration item

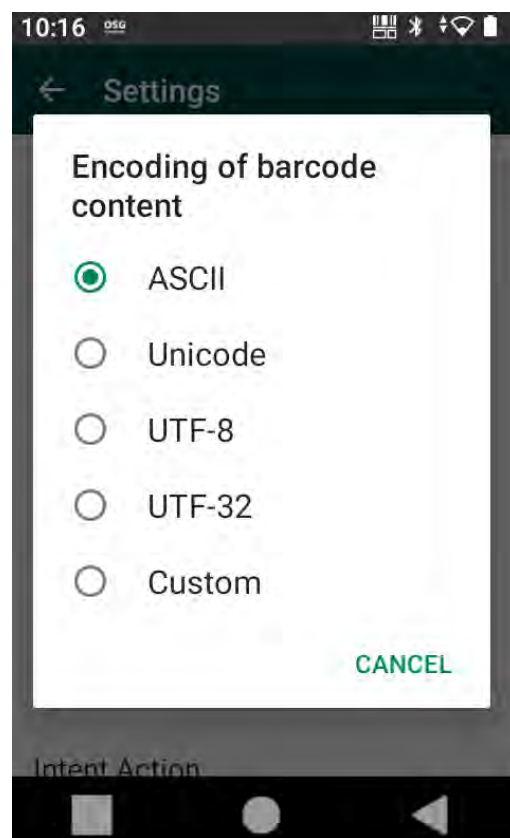
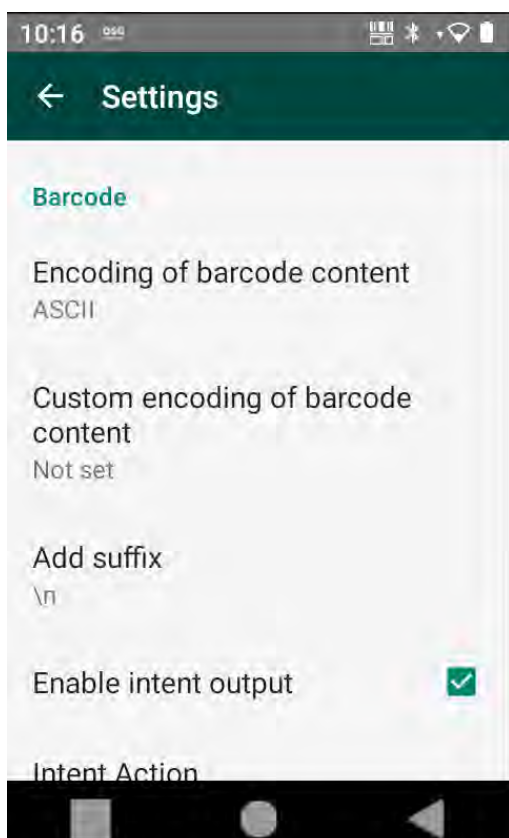
When the APP is connected to OSG, click the menu icon in the upper right corner and select Settings:



1.1 Barcode content encoding

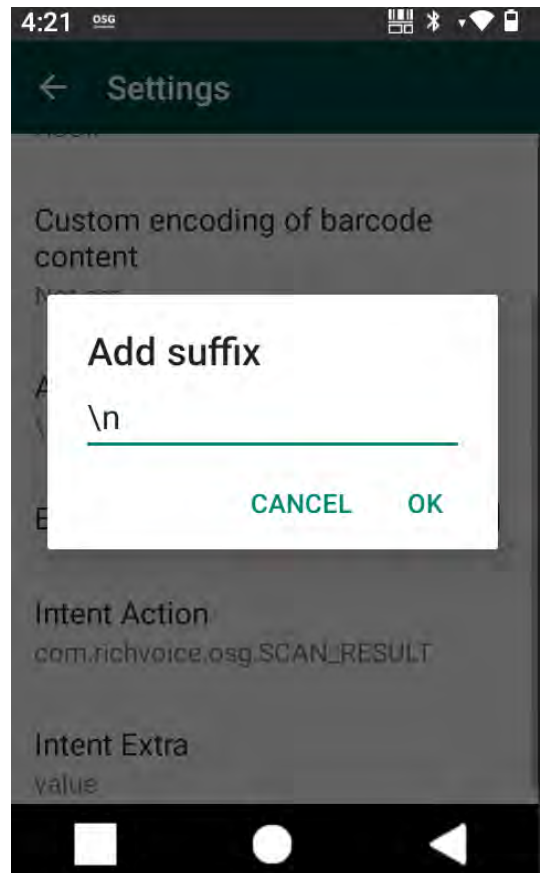
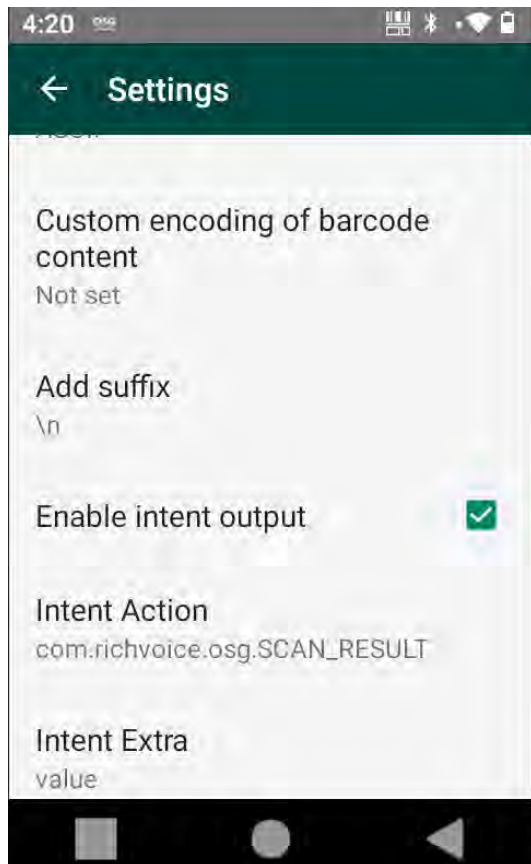
1.1.1 Set barcode content encoding

The encoding format of barcode content can be modified according to usage requirements, with the default value being: ASCII



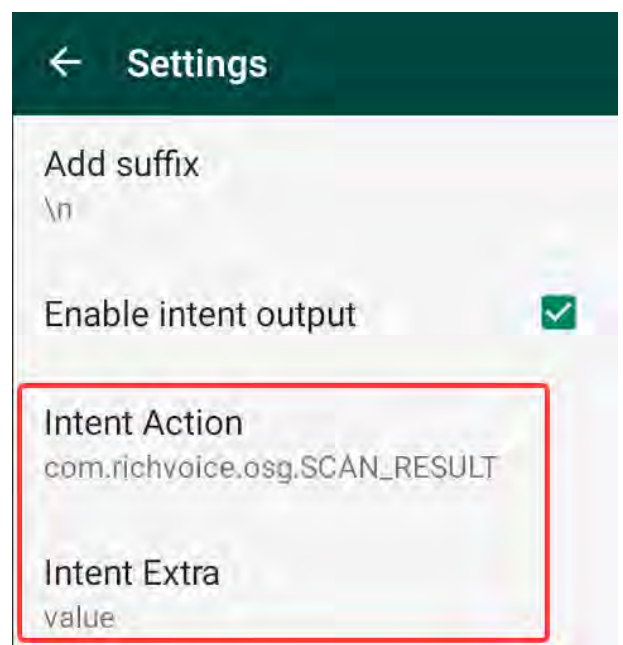
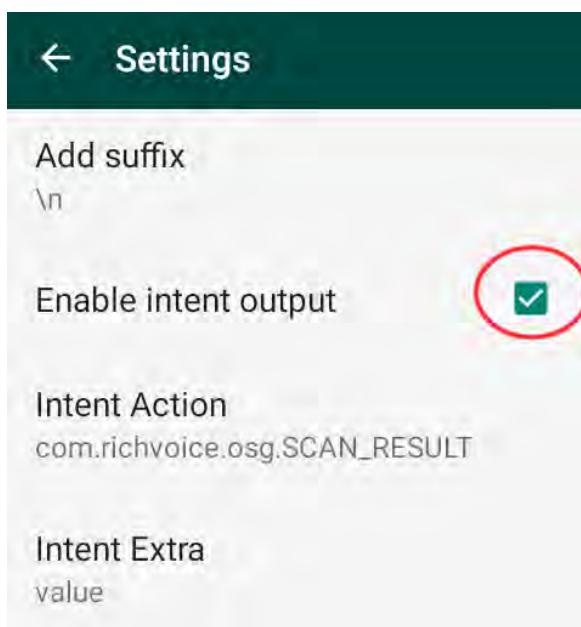
1.1.2 Set barcode content suffix

Modify the barcode content suffix according to usage requirements, Add Suffix default value:\n



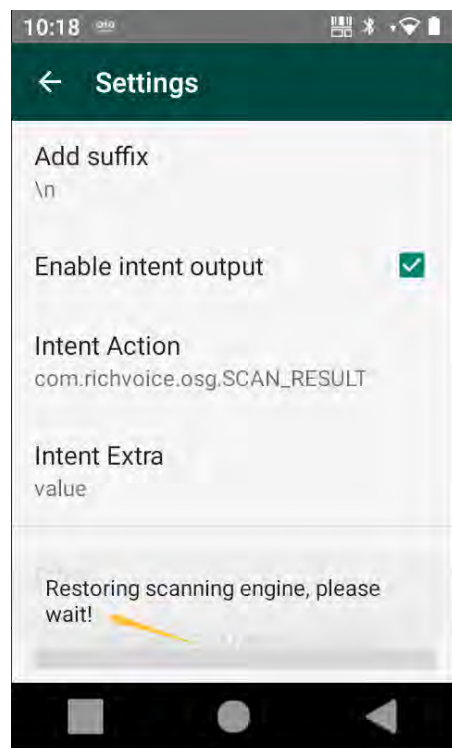
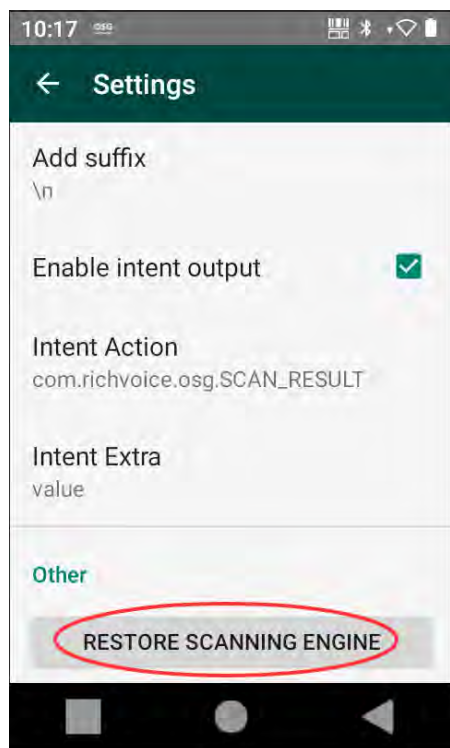
1.1.3 Set barcode content broadcast output

Modify the barcode content broadcast output items according to usage requirements. The following example shows how to enable broadcast output and define the default broadcast value

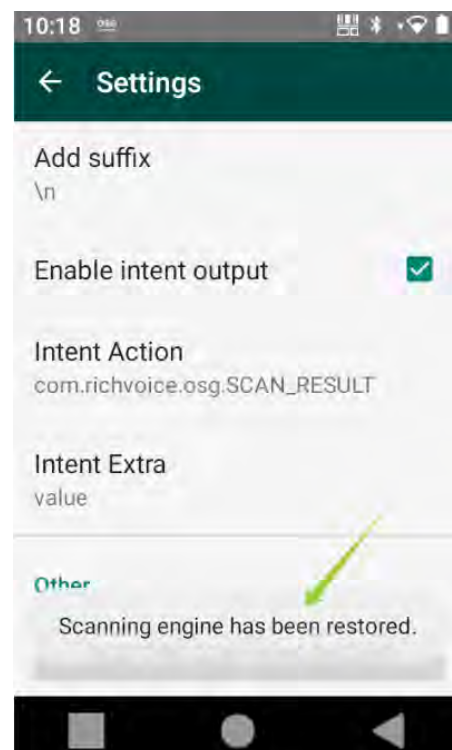


2. Restore Factory Settings

When a scanning setting failure occurs in IOT and the APP is connected to the OSG Connector, clicking "RESTORE SCANNING ENGINE" will pop up a message prompt during the process of restoring to factory settings:



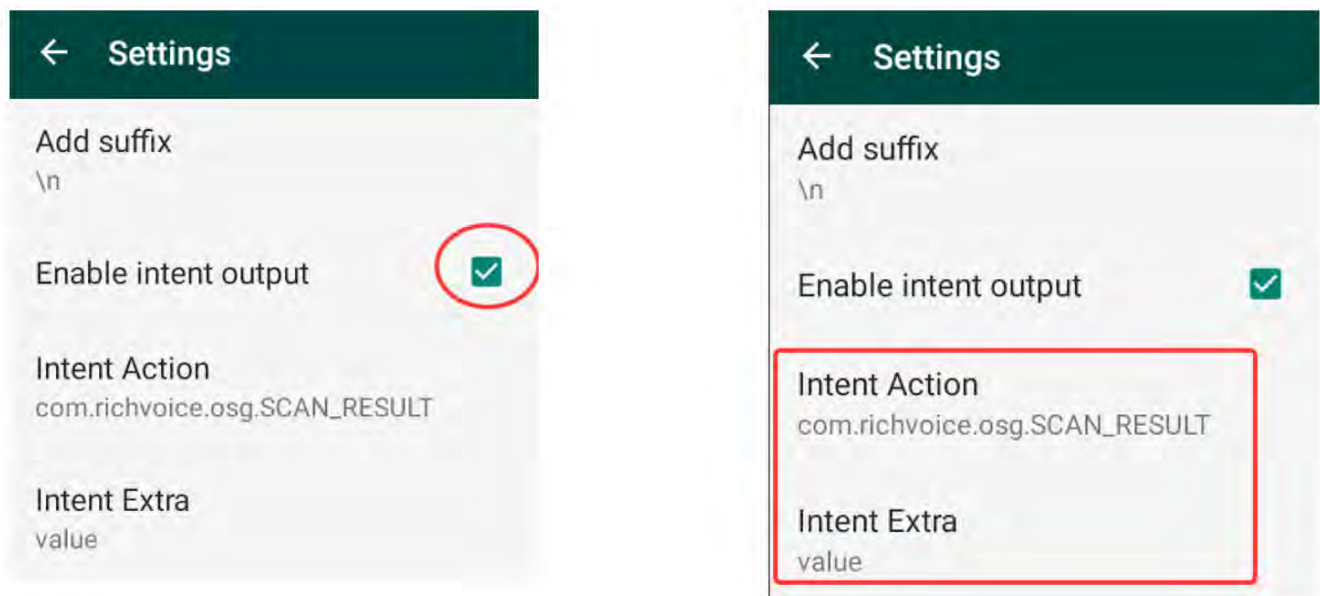
Feedback on successful factory reset: IOT indicator light **flashes green once** , vibrator **vibrates briefly once** , software interface prompts "Scan engine settings have been restored!"



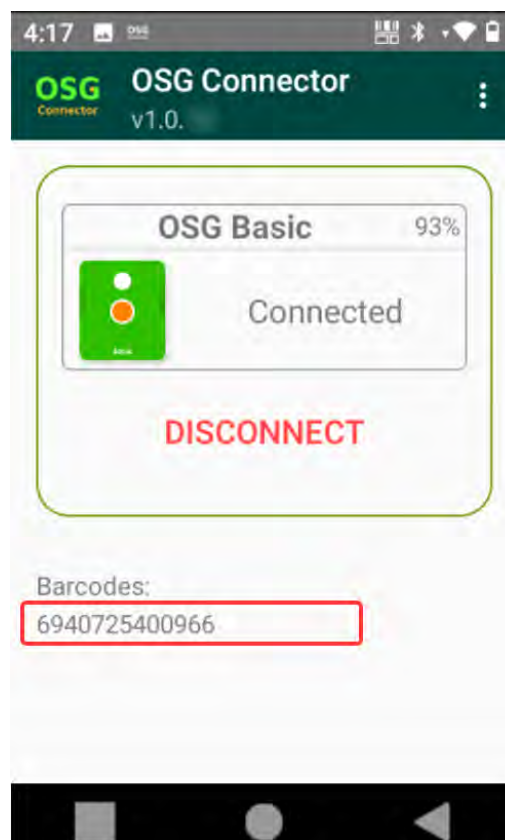
IOT Result Output

1. Barcode Result Broadcast Output

OSG APP defaults to broadcast output, with the broadcast values set as follows:



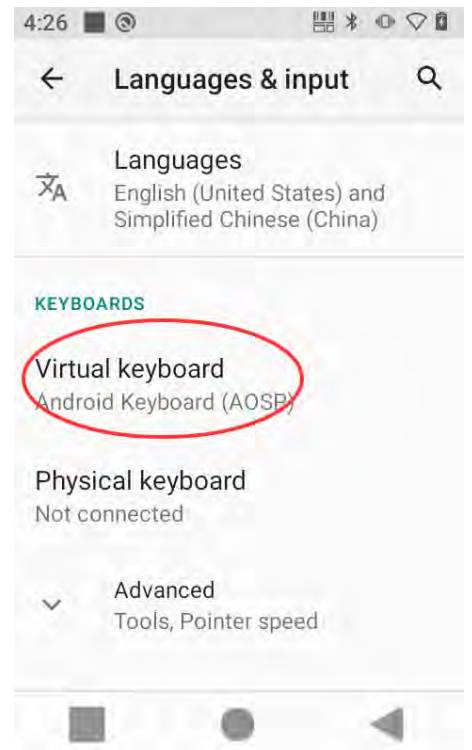
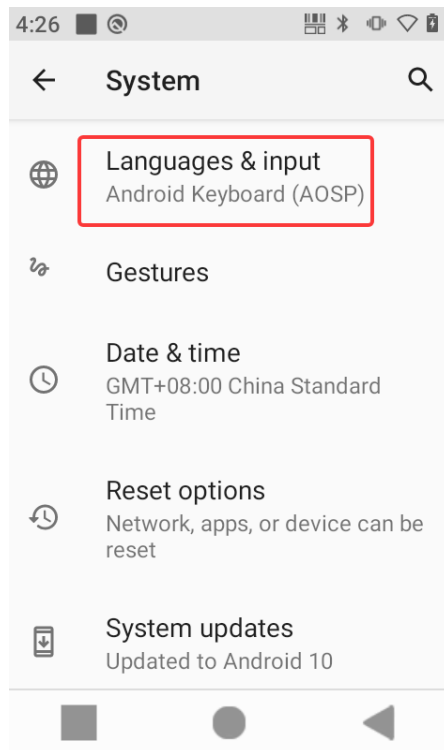
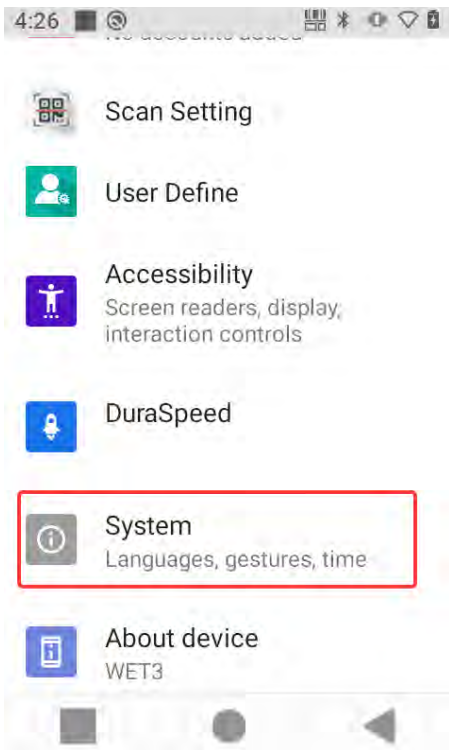
The scan results will be displayed in the Barcodes content box of the APP:



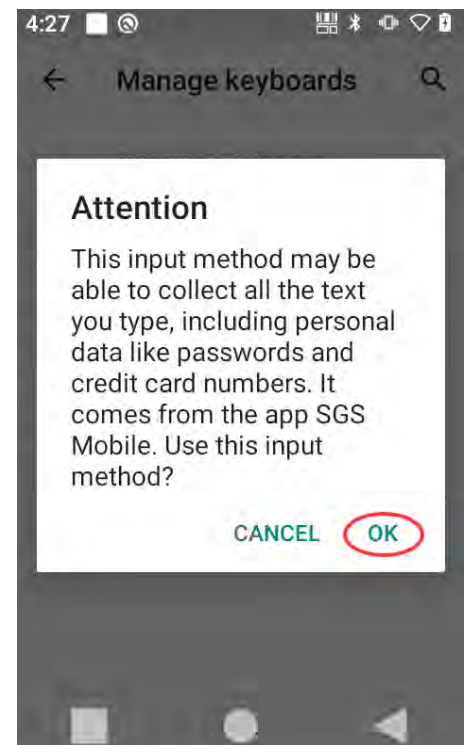
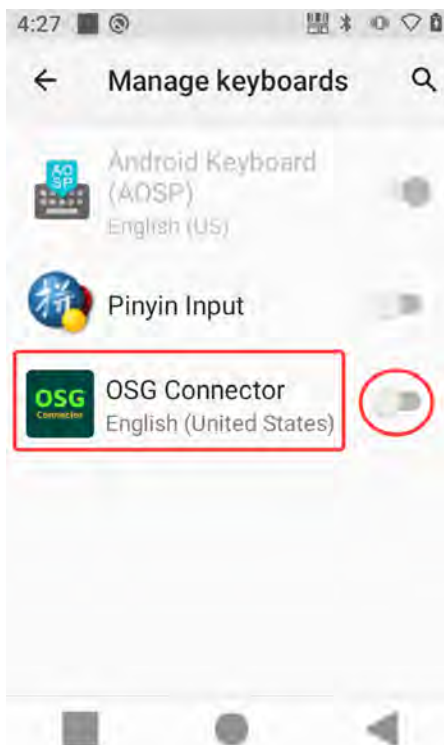
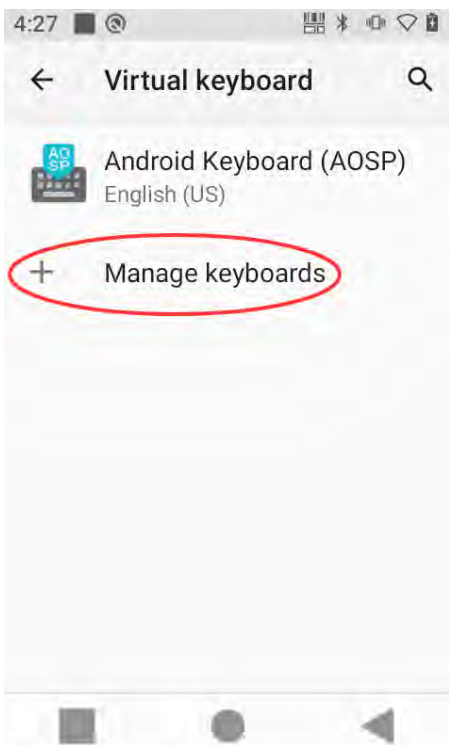
Note: When a third-party app wants to receive scan results via broadcast, the third-party app needs to define or modify the defined value of the OSG app's broadcast output according to the OSG default broadcast value.

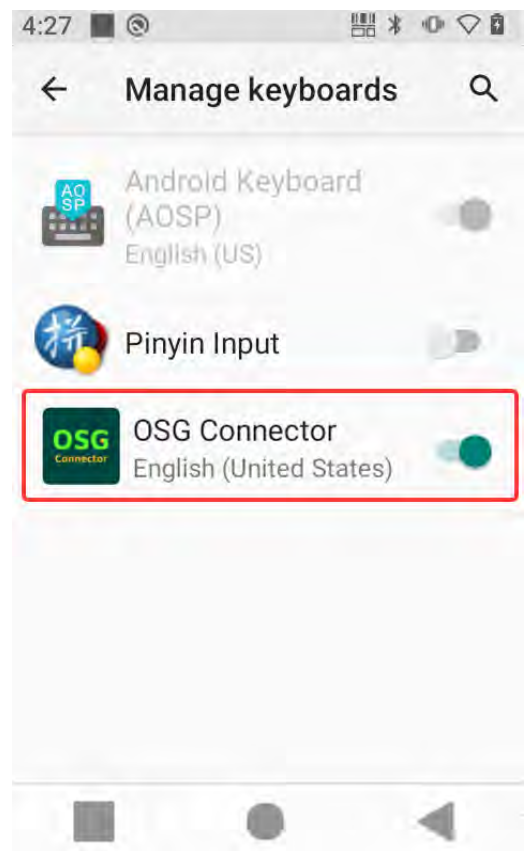
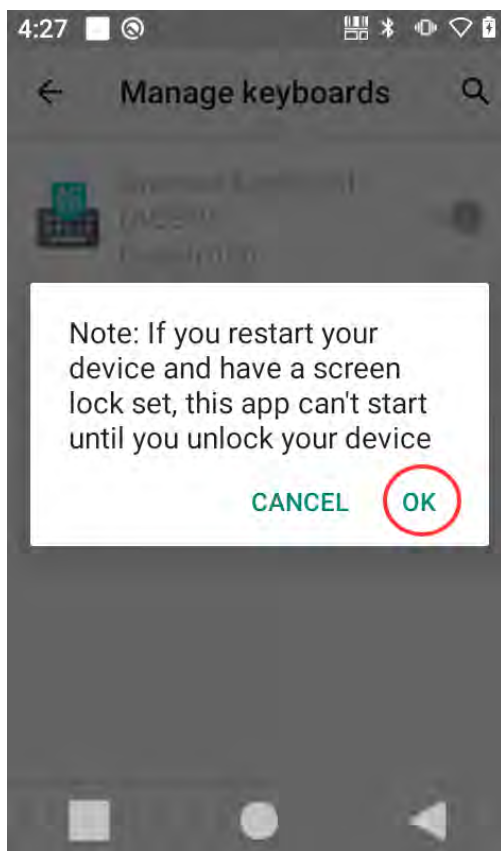
2. Barcode result simulates keyboard output

2.1 Manage Android Keyboard (AOSP)



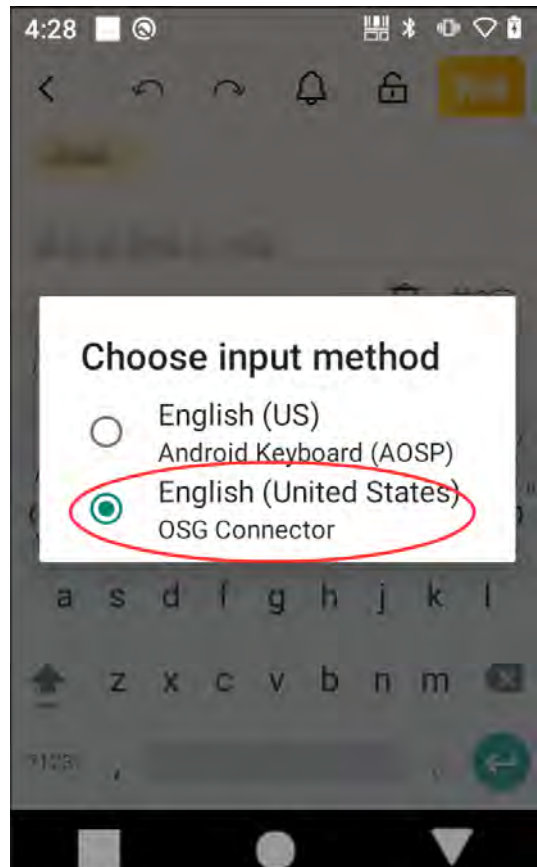
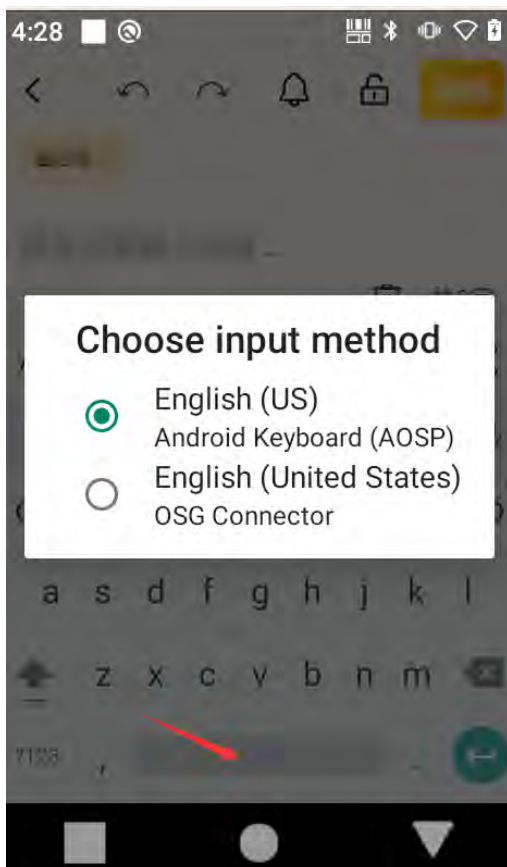
2.2 Enable OSG Connector Keyboard



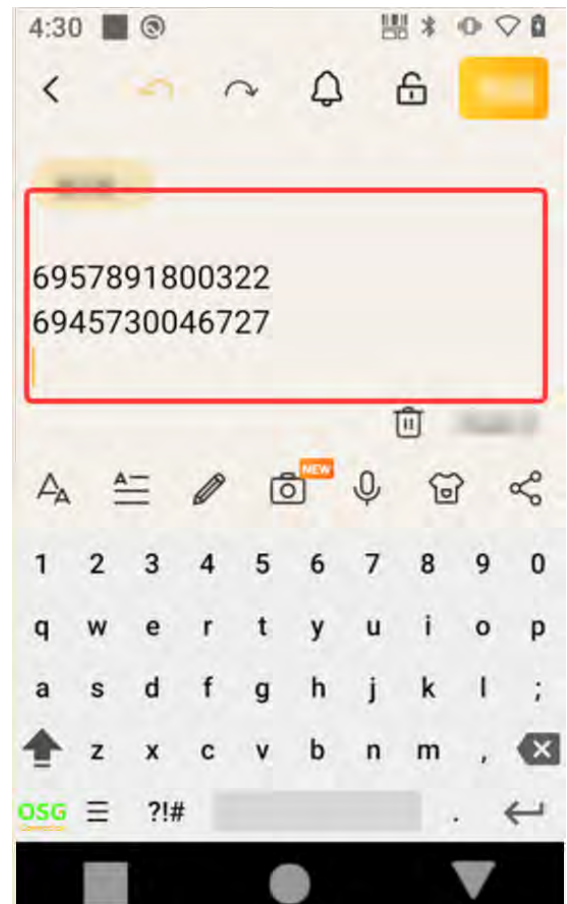


2.3 Switch to OSG Connector Keyboard

Open a text box in the Android system, and in the Keyboard popped up by the system, **long press the space bar** to pop up the input keyboard selection interface (Note: Devices other than WET3 may switch input methods in other ways):

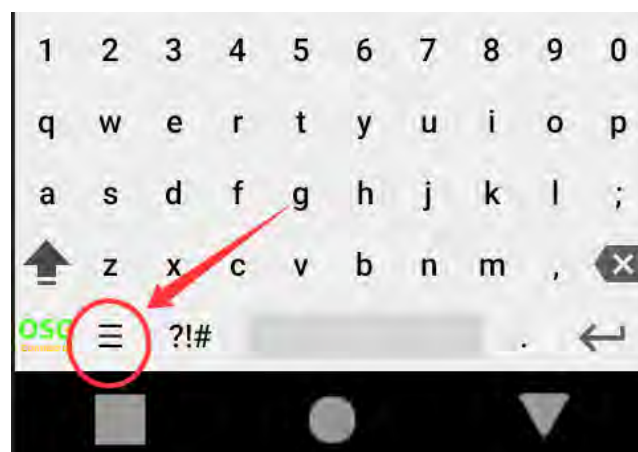


At this time, the content scanned by IOT can be output to the text cursor by simulating keyboard input:

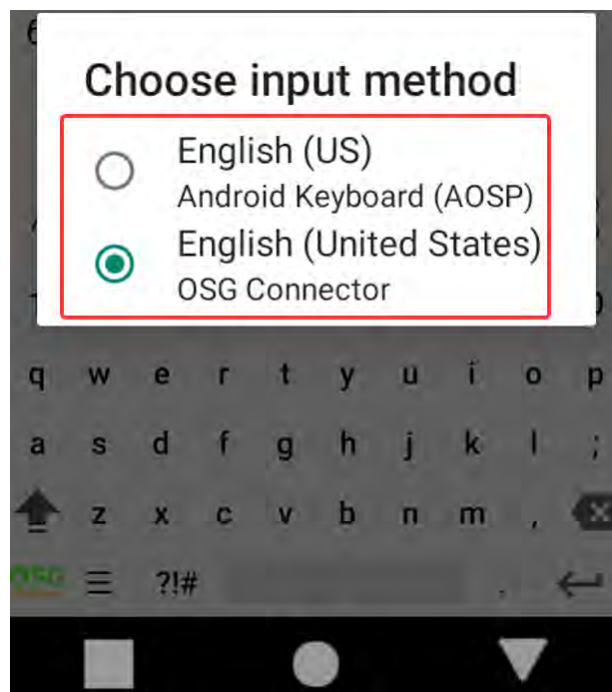


2.4 OSG Connector Keyboard switches to other input methods

On the OSG Connector Keyboard input method interface, if you want to switch to another input method, click the Keyboard list item shown in the figure below:



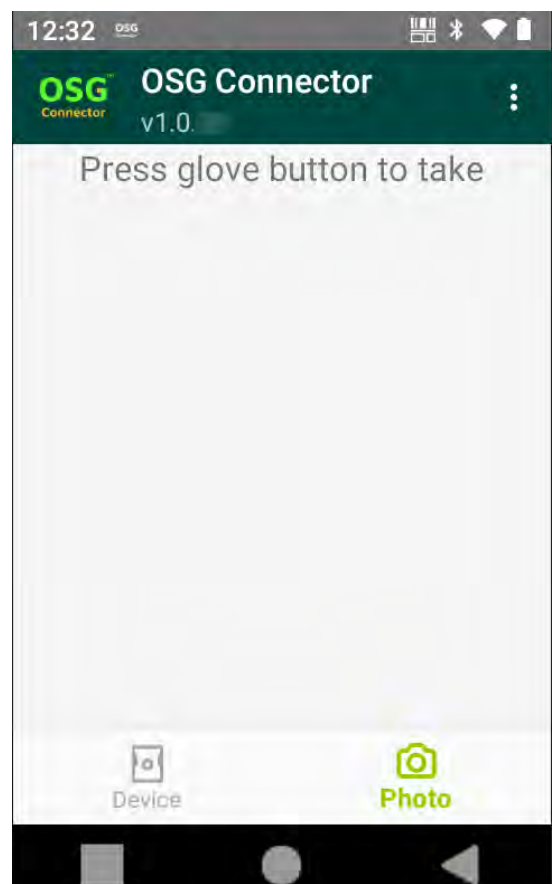
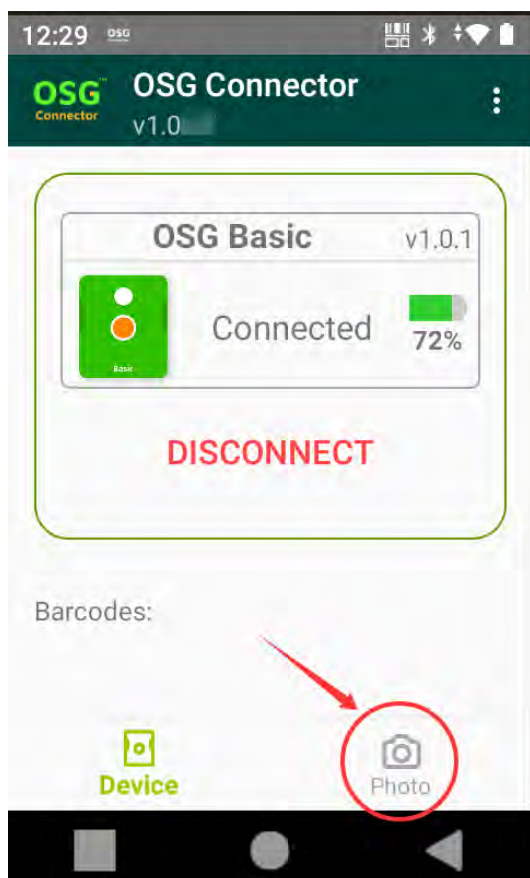
Select another input method in the pop-up Choose input method:



3. IOT Photography

3.1 Continuous shooting

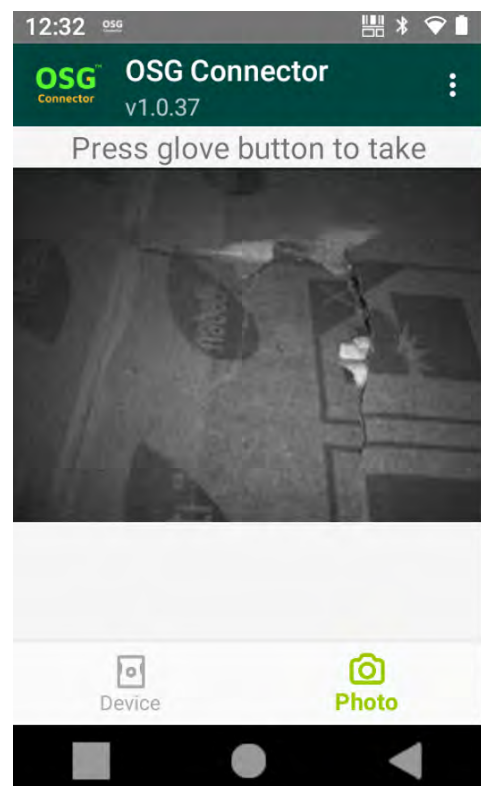
When the APP is connected to IOT, click the Photo icon in the bottom right corner:



Wait for the red aiming point of the IOT device to appear, as shown in the following figure:



At this time, the IOT indicator light alternately flashes blue and green continuously. Aim the crosshair at the object to be photographed and press the button to start taking pictures:



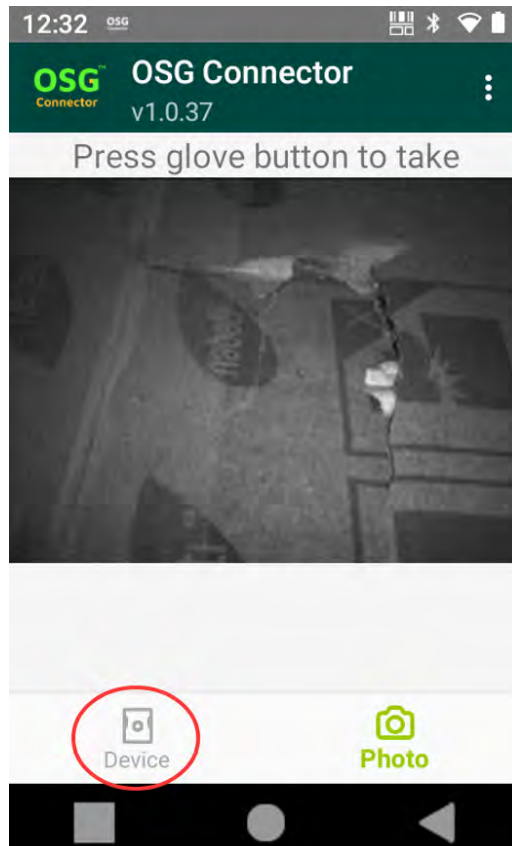
Feedback when photo upload is successful: Green light flashes once, short beep once

Feedback when photo upload fails: Red light flashes 3 times, emits a long beep, and vibrates strongly once

Feedback when exiting due to photo-taking timeout:Red light flashes once, short beep once, short vibration once

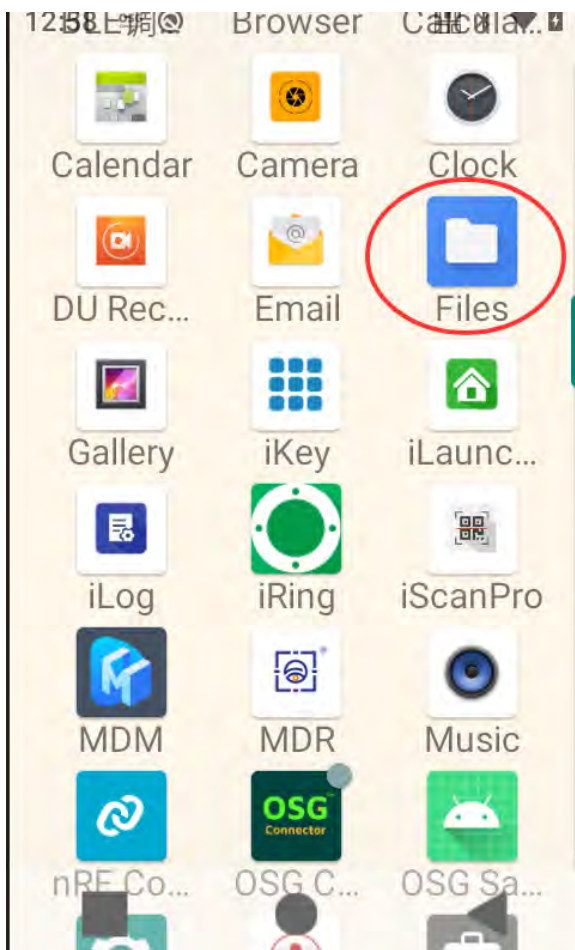
After completing one photo shoot, it automatically proceeds to the next photo shoot (at this time, the red aiming point of the IOT device appears, and the indicator light alternates between blue and green, flashing continuously).

If you want to exit the photo mode, you can click Device on the APP to switch to the scanning mode:



3.2 Photo Viewing

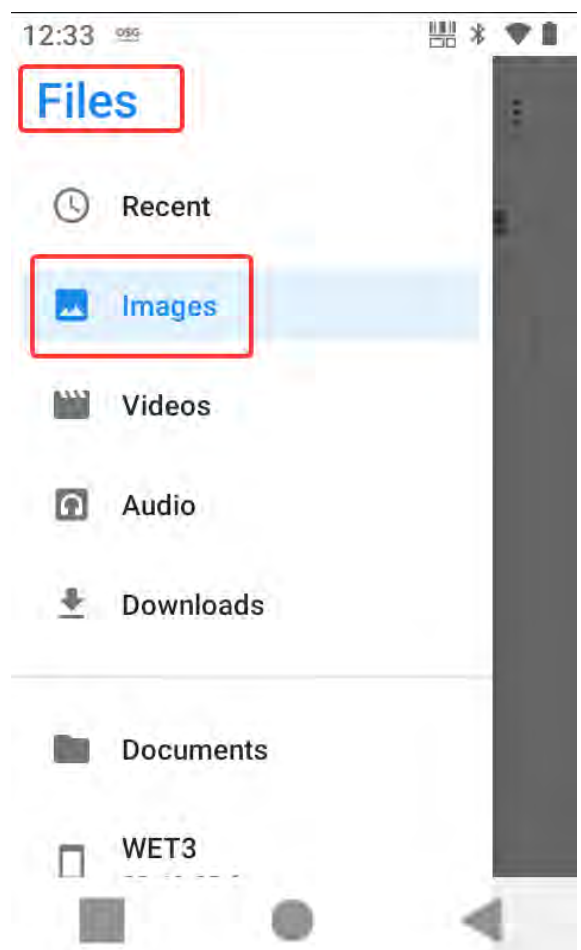
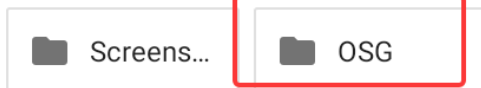
The uploaded photos can be found in the device's Files -> Images directory on the APP side. The directory where the photos taken and uploaded by IOT are located:



12:33 OSG

≡ Images 🔍 ⋮

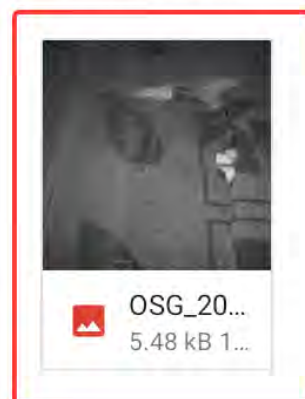
IMAGES ON PHONE



12:35 OSG

≡ OSG ⌵ 🔍 ⋮

IMAGES ON PHONE



IOT Charging

1. Double Charging Cradle supports two power supply methods (choose one)

1.1 Use DC 5V to power the power adapter

Use **DoubleChargingCradle** to charge the IOT device, insert one end of the Type-C data cable into the charging cradle, and connect the other end to a DC5V, 2A power adapter



1.2 Powered by a DC 12V power adapter

Use Baxter Smart Gloved IOT Module Dual Charging Dock Power Adapter - OSG (PN: PSCC-OSG-001) to power the dual charging dock



Connect the power input interface of the dual charging dock using the specified power adapter, then plug the adapter plug into an AC 100-240V (50-60HZ) power source, ensuring that the adapter plug is securely connected to the power interface and the green indicator light on the adapter lights up.

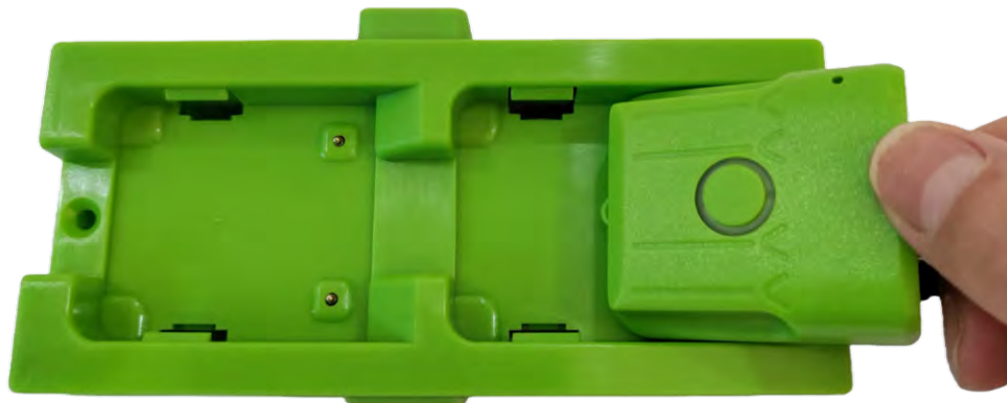


Note: When powered by a DC12V 5A power adapter (PN: DCC-OSG-001), up to **6** dual charging docks can be connected in series, allowing simultaneous charging of **12** IOT devices. However, when powered by DC 5V 2A Type-C, series connection of dual charging docks is not supported.

Special Notice: When the maximum number of two-unit charging bases connected in series exceeds 6, it may cause damage to the IOT or the functions of the two-unit charging bases. Please strictly control the number of units connected in series.

2. IOT Charging

First, place the IOT at the bottom of the charging dock slot, as shown in the figure below:



Then push the IOT along the bottom into the charging slot until you hear a "click", as shown below:



When IOT starts charging, the yellow indicator light will stay on constantly, and when charging is completed, the green indicator light will stay on constantly



3. Charging Time

The Double Charging Cradle is powered by a DC 5V, 2A power adapter or a 12V 5A power adapter for the dual charging cradle - OSG (PN: PSCC - OSG - 001), which takes approximately 2 hours to charge the IOT at 0°C - 40°C.

LED Indicator	Status
Yellow	Charging
Green	Charging completed
/	Battery status error or not properly inserted (if the issue cannot be resolved, please contact Richvoice for support)

4. Remove IOT

When removing the IOT after charging is completed, first pinch one end of the IOT's window with your hand, then lift it in the opposite direction of insertion into the charging slot to remove it.



5. Charging Safety Guide

	IMPORTANT - SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS
	Warning - When using this product, basic safety precautions should always be followed, including the following:

The area where the device is charged should be cleared of debris, flammable materials, or chemicals. Special care should be taken when charging in non-commercial environments.

- Read all instructions before using the product.
- Follow the device usage, storage, and charging guidelines in the user guide.
- Improper use of equipment may lead to fire, explosion, or other hazards.

To charge the device battery, the temperature of the device and charger must be between 0°C and +40°C.

Do not use incompatible chargers. Using an incompatible charger may pose risks of fire, explosion, leakage, or other hazards. If you have any questions about charger compatibility, please contact Richvoice Support.

Do not disassemble, open, crush, bend or deform, pierce or tear the device and battery. Damaged or modified batteries may exhibit unpredictable behavior, leading to a risk of fire, explosion or injury.

Severe impact from dropping any battery-powered device onto a hard surface may cause the battery to overheat.

Do not short-circuit the battery or allow metal or conductive objects to come into contact with the charging terminals of the device.

Do not modify, disassemble, or remanufacture, attempt to insert foreign objects into the battery, immerse or expose it to water, rain, snow, or other liquids, or expose it to fire, explosion, or other hazards.

Do not leave or store the device in or near areas that may become extremely hot, such as near parked vehicles, radiators, or other heat sources. Do not place the device in a microwave oven or dryer.

To reduce the risk of injury, close supervision is required when using near children.

Please comply with local regulations and promptly dispose of used equipment and its batteries.

Do not handle the device and its battery in fire. Exposure to temperatures exceeding 100°C (212°F) may cause an explosion.

If the device or battery is swallowed, seek medical advice immediately.

If battery leakage occurs, do not allow the liquid to come into contact with skin or eyes. If contact has occurred, wash the affected area with plenty of water and seek medical advice.

If you suspect that the device or battery is damaged, please contact Richvoice Support to arrange for an inspection.

Equipment Storage

- **Avoid high temperature and humidity**

Keep the device and accessories away from high temperature and humid environments to extend battery life and maintain material durability.

- **Avoid direct sunlight**

Long-term direct sunlight may accelerate the aging of woven fabrics and plastic components.

- **Temperature and Humidity**

It is recommended to store within the range of -30°C to 50°C (humidity 5% - 95%, non-condensing environment).

Following these maintenance and storage recommendations can effectively extend the service life and stabilize the performance of the equipment.

Company Profile



Shanghai Richvoice Technology Co., Ltd. is a global leader in voice picking solution, BetterMAN Voice Picking Solution is a product from Richvoice for enhancing logistics centres and warehouse operations. This innovative solution is specially designed for distribution centres and has been recognized as an effective, efficient and advanced technology in many countries, suitable for picking, route optimization, personal performance, dashboards, put-to-store, replenishment, put-away, cycle-counting, cross-docking and other warehouse activities. BetterMAN Voice Picking Solution can significantly improve efficiency and accuracy by freeing

up the hands and eyes. Moreover, it minimizes operator's walking distance through path optimization and provides labour management and incentive visualization by "gamifying" one's work experience. The system can seamlessly integrate with any WMS or ERP as well as data systems and support the widest range of mobile terminals, enabling enterprises to leverage on existing hardware for highest ROI.

For more information, please visit: www.richvoice.com