

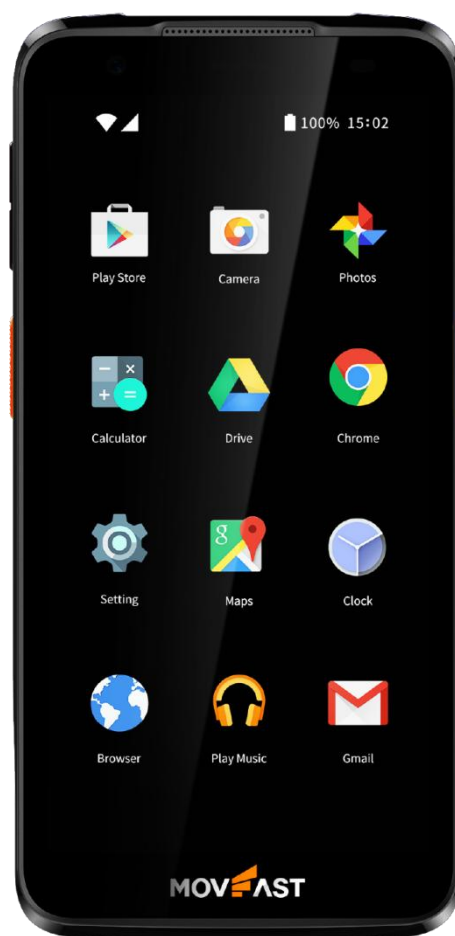


Coletor de Dados MovFast R2N

Coletor de Dados MovFast Ranger 2N é um equipamento robusto, prático e com grande capacidade e uso para empresas de médio a grande porte. Com leitura 1D/2D, bateria com capacidade para um turno de trabalho intenso e índice de proteção IP67, o Coletor MovFast R2N é um equipamento indispensável para quem deseja agilidade, conexões e confiabilidade.

RANGER 2 (N)

Rugged Mobile Computer



USER MANUAL

Revision History

Description	Version	Date
Initial Release	V1.0	2025-08-05

Terms of Use

Thank you for choosing Ranger 2K(N). This device provides high performance data collection and mobile communications that meet industrial standards.

This user help users to understand the the characteristics of Ranger 2K(N) device and how to use it.

- Please carefully read this manual before using the device to ensure safe and proper use, as well as to prevent accidents that may occur when the device is used.
- This manual is created based on current status. The details on this manual may be changed without prior notice.
- The contents of this manual may be delayed from the firmware version.
- The descriptions of this manual are based on the device's default settings.
- Images and screenshots are described with the latest software version.
- This manual is created under the assumption that the device has all options. For detailed information on available options, contact the local distributor or refer to our Web site (<https://www.movfast.com>).
- MovFast does not have any legal responsibility for any performance problem that may occur when a user uses an application that is supplied by a third party.
- MovFast does not have any legal responsibility for any performance degradation or compatibility problem that may occur because of the user's mistake or negligence.
- MovFast does not have any legal responsibility for copyright or patent breach by the user.
- MovFast can request all or part of the applications developed by a user or a third party. The request is for the improvement of user experience or device performance.
- Higher OS Firmware may be released after you purchase the device with the existing OS. If you want to receive information on the latest OS, please contact your local distributor.
- This device can be operated in at least one Member State without infringing applicable requirements on the use of radio spectrum.
- This manual may include technical or editing errors.

Copy Right

XC.tech. is the designer and manufacturer of handheld mobiles.

This manual and the programs in this device are protected under international copyright laws, without authority, copied, distributed, translated, or removed by any means are all illegal.

Trademark

MOVFAST logo is registered as trademarks of XC tech with copyright protected.

MovFast is an emerging global brand, striving to lead the market in performance and mobility. Their products represent reliability, innovation, and innovative technology.

Safety Rules

- Do not use the device while driving.
 - May caused traffic accidents.
 - Follow the rules for using the device while driving
 - Do not touch the power plug with wet hands.
 - May cause electrocution.
 - Be careful when using the battery.
 - Avoid causing a strong impact on the battery or breaking a hole through it with a sharp thing.
 - Do not put water on the battery or submerge it in water.
 - Do not let the charging terminal of the battery come into contact with a metal material.
 - Keep the device, battery, or charger away from direct heat sources.
 - Heat may cause the device to become deformed, or an explosion or fire may occur.
 - If the device is placed inside a vehicle, the battery may explode due to increase in temperature.
 - Do not use the device when there is thunder or lightning.
 - Lightning or fire may cause the device to break down or you may be electrocuted.
-

- Turn off power of the device when device use is prohibited.
 - Hazardous or wave-related problem may occur.
 - Turn off power of the device when you board a plane. The electromagnetic waves generated from the device may affect the plane's electronic equipment.
 - Turn off power of the device when you are in a hospital. Observe the device rules while in a hospital. The electromagnetic waves generated from the device may affect the medical equipment in the hospital.
- Turn off power of the device in hazardous areas where explosions may occur.
 - Observe the regulations, instructions, or signs of a hazardous area where explosions may occur.
 - Turn off power of the device while refueling.
- Be careful when a headset is used.
 - Avoid long-term exposure to loud sounds to prevent damage to your hearing.
 - Loud sounds while walking or driving distract your attention and may cause traffic accidents.



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Chapter 1. Quick Start Guide

1.1. What's in the box (Standard):



Ranger 2(N) Device



Quick Manual

Optional



Battery



Hand Strap



Type-C Cable



Power Adapter

Note

- The type and number of accessories varies according to region. Please contact distributor for details.
- Components are missing or damaged, please contact the distributor onsite.
- In case of the device is used for purposes other than the original device use or remodeled, you may be exposed to electromagnetic waves.

1.2. First-Time Setup:

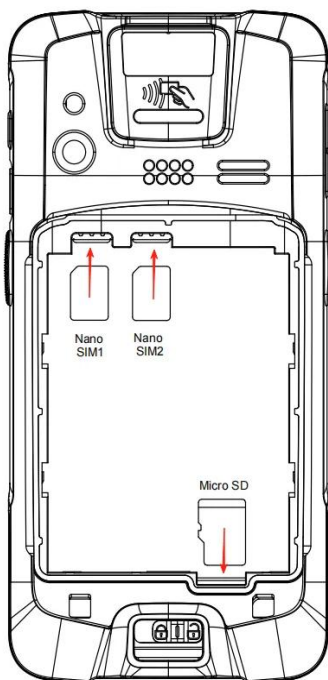
1.2.1. Uninstall battery



Note

- Remove the battery cover with the battery lock button to the left.
- The battery back cover can be snapped open from the left and right reserved slits.

1.2.2. Insert SIM/TF card



Note

- Ranger 2(N) support 2 pcs of **Nano** SIM card and 1 TF card.
- Please pay attention to the insertion direction and size of cards.
 - There are three kinds of SIM cards in the market:
 - **SIM**: Size 25mm×15mm×0.8mm
 - **Micro SIM**: Size 12mmx15mm×0.8mm
 - **Nano SIM**: Size 12.3mm×8.8mm×0.7mm

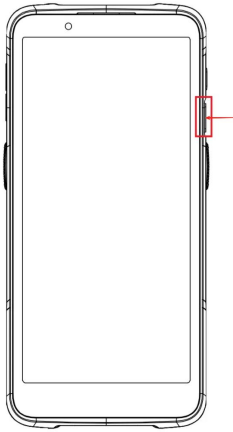


1.2.3. Install battery

Note

- Please ensure battery cover lock is locked.
- If not, the system will determine that there is no battery present and will trigger the screen-off function to conserve energy.

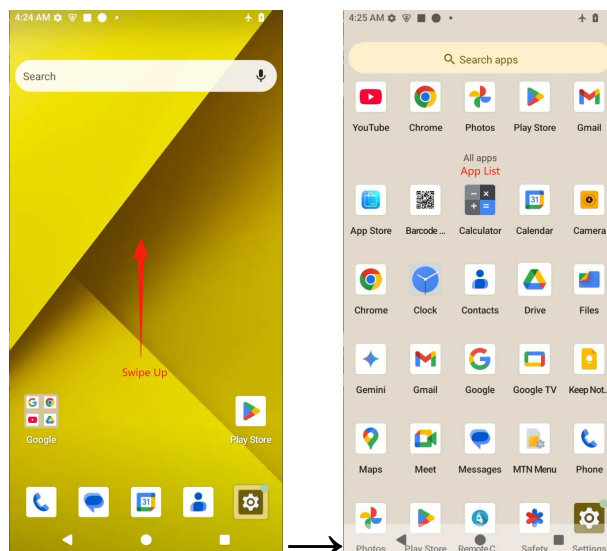
1.2.4. Power on device



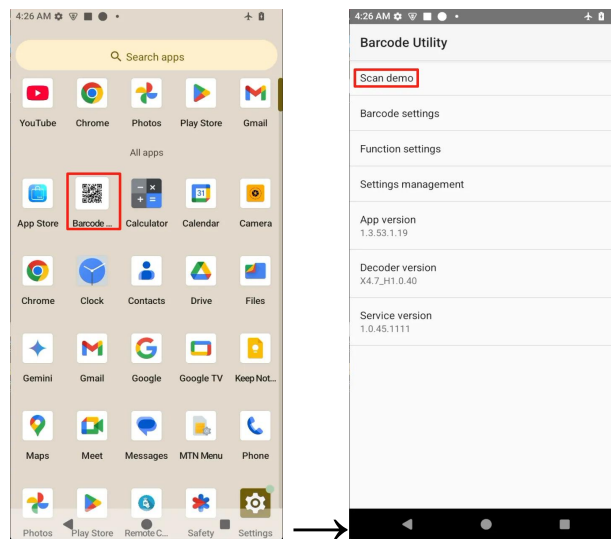
Note

Press and hold Power Button till device boot. The device will be boot and display initial screen.

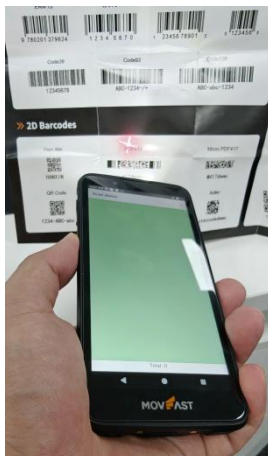
1.2.5. For the Home Page



1.2.6. Launch the "Barcode Utility" app



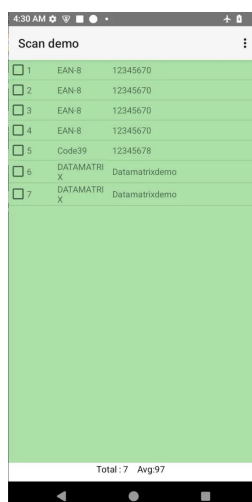
1.2.7. Press the scan button and aim at the barcode



Note

- There are 2 scan buttons on Ranger 2(N).
- Here is an example, another one will be mentioned in the following sections

1.2.8. Check decoded data in the app



Note

Contact MovFast for more details about using Barcode Utility.

Chapter 2. Product Overview

The **Ranger 2(N)** is a rugged handheld terminal designed for demanding industrial and commercial applications. Equipped with **MovFast's self-developed E5 scan engine**, a **0° angled scanning window**, which also supports **30° angled scanning window**, and running **Android 15**, the device ensures superior scanning ergonomics and system compatibility for logistics, warehousing, healthcare, and retail environments.

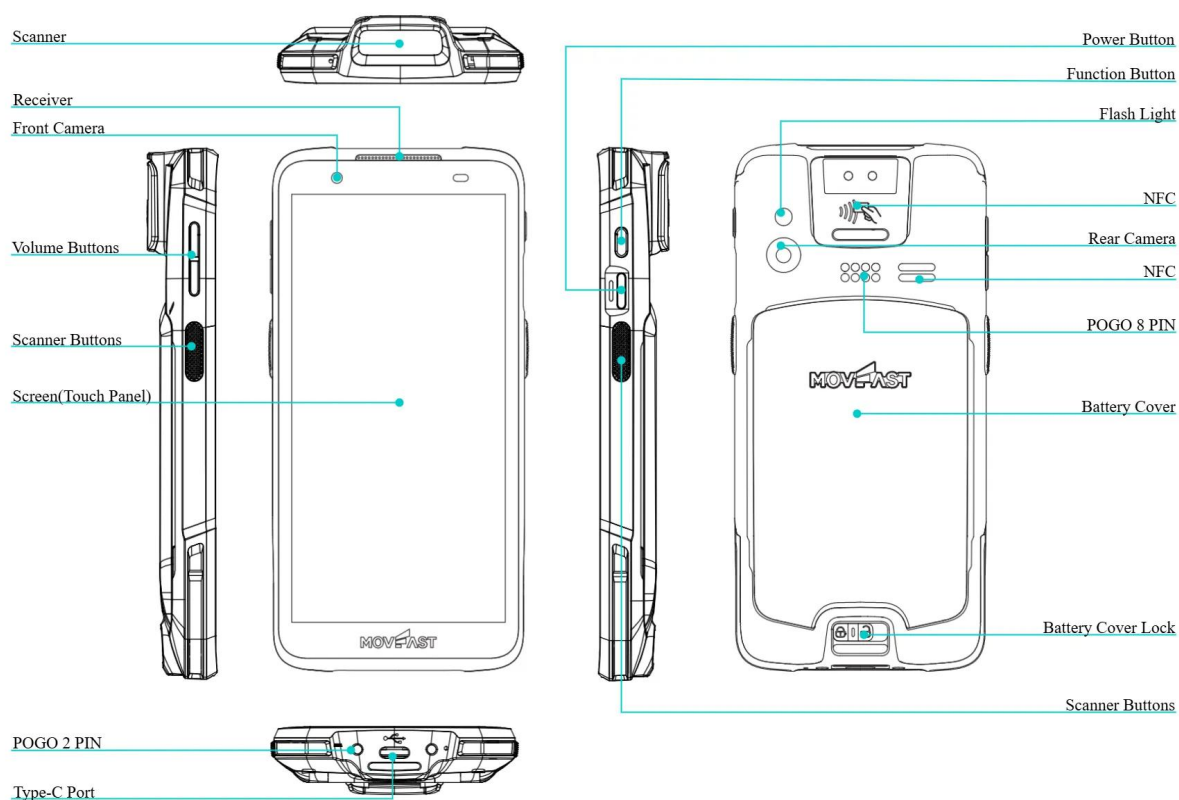
2.1. Product Specifications

<i>Feature</i>	<i>Description</i>
Model	Ranger 2(N)
CPU Feature	2*A75@2.0GHz+6*A55@1.8GHz
GPU Model	Mali-G52
Operating System	Android 13
SIM Card Type&Slot Numbers	1*Nona SIM+1*Nona SIM/1*TF Card
Weight with Battery (g)	~255g
Level of protection	IP67
Operating Temperature	-20°C ~ +50°C
Storage Temperature	-40°C ~ +75°C
Humidity	5%~95% Non-condensing
Drop	1.5m Drop Resistance
Low Temperature Working Hours	7 hours in -20°C
High Temperature Working Hours	11 hours in 50°C
Battery Capacity	Typical Capacity: 5000mAh Rated Capacity: 4900mAh Rated Voltage: 3.85V
Charging time	< 4 hours (Normal charging) <2 hours (Quick charging) 18W
Working time	≥12 hours

Backup battery (charging)	58mAh
LTE Band	Europe&Asia&Africa: GSM B2/3/5/8 UMTS B1/5/8 LTE B1/3/5/7/8/20/34/38/39/40/41(120M)
UMTS Band	Latin & America: GSM B2/3/5/8 UMTS B1/2/4/5/8 LTE B1/2(25)/3/4/5(26)/7/12/17/28/38/41(120M)
GSM Band	Latin & North America 2G: B2/3/5/8 3G: B1/2/4/5/8 4G: B1/2/3/4/5/7/12/17/25/26/28/38/41(120M)/B13/B66/ B71
Memory Type	4GB+64GB (Up to 256GB)
Main Screen Resolution	1440*720
Front Camera Spec & Type	2M FF
Rear Camera Spec & Type	13MP PDAF
Scanner Module	E5 (Self-developed)
USB type	Type-C
Bluetooth Revision	Ver 5.0
WLAN	IEEE 802.11 a/b/g/n/ac, 2.4G&5G

NFC	SL6550, HW compatible ,Option; ISO14443A&B, FeliCa, mifare, ISO15693; 14443 A $\geq$ 2.5cm; 14443 B $\geq$ 2cm; 15693 $\geq$ 6cm
Navigation Technology	GPS/A-GPS/BD/GLONASS
POGO pin (Bottom)	Compatible 2 pins for Charging only
POGO pin (Back)	Compatible 8 pins

Chapter 3. Hardware CMF



Chapter 4. Battery & Charging

4.1. Removable 5000mAh battery & Rated Voltage 3.85V



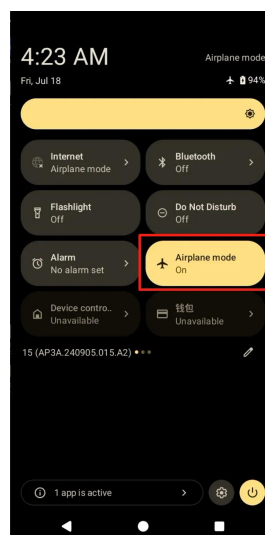
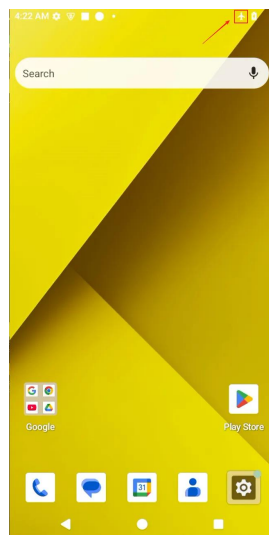
Warning

- Do Not use unauthorized battery, it may explode.
- Please compliance the Local regulation to discard the battery.
- Make sure the battery is inserted in right direction.
- Discard the battery if it's bulging.
- Avoid touching the battery or electrodes with sharp objects.

4.2. Build-in 60mAh Hot Plug Battery

MovFast Ranger 2(N) support Hot Plug, contained Built-in 60mAh battery in the device.

When battery removed, the device will be switch to fly mode and the screen will be turn off to reduce energy consumption.



4.3. Support for multi-slot charging dock

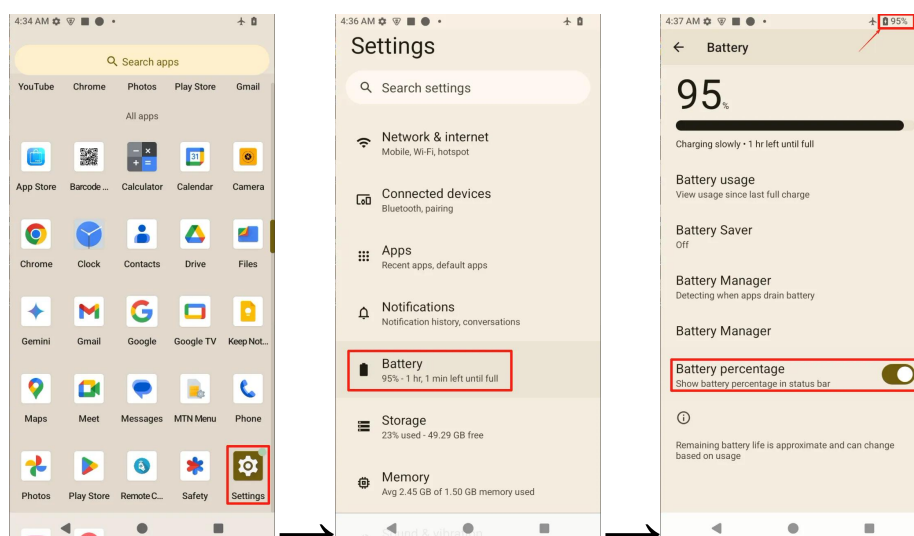
We also provide simultaneous charging of multiple batteries. This feature is especially valuable for enterprise environments such as warehouses, retail stores, and delivery hubs, where multiple units are deployed and require centralized charging and management.



Note

- Individual Battery Port can be charged by using the DC power adapter only.
- The AC adapter is suitable for 100-240V input and 5V 3A output. The device may be damaged, if the voltage is out of the supply range.
- The dock support device charging and USB data transform at the same time.

4.4. Battery in Settings



Path: Setting → Battery

Chapter 5. Barcode Scanner

The Ranger 2(N) contain 1D/2D Barcode Scanner, but different sub-version may have difference in the performance and setting option, Please contact after-sales team for more details.

5.1. Self-developed Scan Engine — E5

The Ranger 2(N) equipped with our self-developed scanner - E5.



5.1.1. Product Feature

1. Compact, Undecoded 1D/2D Scan Engine.
2. Support MIPI interface, Easy and Flexible Integration.
3. Fast reading barcodes, easy to read even at a distance.
4. Friendly lighting, not blinding, long working hours without shaking eyes.
5. Clear aiming, easy to accurately scan and positioning.
6. As an accessory, suitable for PDA devices, tablet devices, mobile lightweight devices and other products.

5.1.2. Symbologies

1D Barcode	UPC-A/E, EAN 8/13, UPC/EAN 8/13 with supplementals, Code11, Code 32, Code 39, Code 93, Code128, Codabar, GS1-128, GS1 DataBar variants, ITF 25, Matrix 25, IATA 25, Industrial 25, HK25, MSI, Telephen
2D Barcode	DOT code, PDF417, MicroPDF, QR Code, MicroQR, Data Matrix, Aztec, Maxicode, Han Xin, Grid Matrix

5.1.3. Read Ranges (Typical)

Symbology/Resolution	Near distance	Far distance
code39 (3mil)	3.5 ±1.5cm	25.0 ±3.0cm
code39 (5mil)	3.4±1.5cm	31.0 ±3.0cm
code39 (20mil)	12.3 ±1.5cm	117.0 ±5.0cm
code128 (15mil)	8 ±1.5cm	102.0 ±5.0cm
EAN13 (13mil)	5.8 ±1.5cm	71.0 ±5.0cm
PDF417 (6.7mil)	5.3 ±1.5cm	29.0 ±3.0cm
DM code (10mil)	5.7±1.5cm	30.0 ±5.0cm
QR code (15mil)	5.3 ±1.5cm	50.0 ±5.0cm

5.1.4. Environmental

Ambient light	0-100000Lux (total darkness to bright sunlight)
Temperature	Operating temperature: -30~60°C Storage temperature: -40-70°C
Humidity	Operating humidity: 5%-95% RH, non-condensing at 60° C
Regulatory	Class 2, IEC 60825-1:2014 Safety of laser products

5.2. Barcode Utility: Pre-installed configuration tool

The Barcode Utility is the build-in application for barcode reading, setting and configurations. The Scanner can not use as camera and can not concurrent use with camera applications.



5.3. *Supported Barcode*

Barcode Utility supports many types of barcodes. The following list presents a portion of the coding systems. For detailed information, please refer to "Barcode Utility Operation Manual".

1D Barcodes	2D Barcodes
Code 128	QR Code
Code 39	DataMatrix
UPC-A / UPC-E	PDF417
Interleaved 2 of 5	Aztec
Codabar	MaxiCode
MSI	Micro QR
EAN-13 / EAN-8	GS1 DataBar

5.4. How to scan

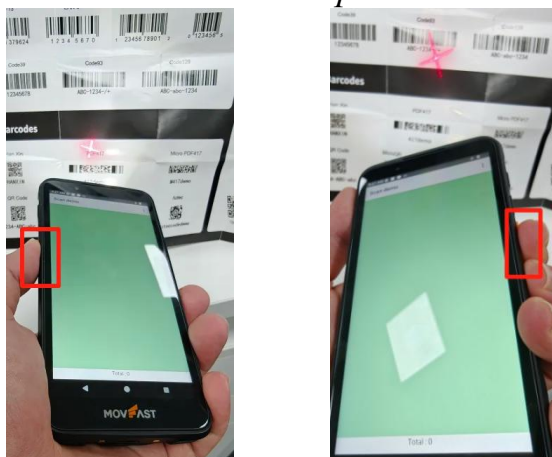
5.4.1. For demo test

There are 2 trigger modes: stop on release and stop on timeout. Press 1 of 3 scan keys to scan the Barcode and output in the defined position.

5.4.2. For ERP

The T2251 device supports flexible scanning integration methods to work seamlessly with custom ERP applications. Developers can configure how barcode data is captured and delivered into the ERP app using Android system features such as Intent Broadcast, StartActivity, Service, and Focus Input.

5.4.2.1. Barcode Scan Output Modes



The device provides multiple output modes to suit different application architectures:

Output Mode	Description
Broadcast Intent	Sends the scanned data via Android Intent broadcast. Your ERP app can register a Broadcast Receiver to receive data.
Keyboard Output	Simulates keyboard input — scans go to the currently focused input field.
Cursor Output	Directly injects scan data into editable text fields (Edit Text) via Input Method Manager.
Broadcast/Focus	Combines Intent broadcast and keyboard focus — ideal for hybrid apps.

5.4.2.2. Recommended Method: Intent Broadcast Integration

For most ERP applications, we recommend using Broadcast Intent due to its non-intrusive, flexible, and background-friendly nature.

Please refer the example steps (Please determine the actual code based on the real situation.):

1. Enable “Broadcast Output” in the Barcode Utility.
2. Set:
 - **Scan Result Action:** e.g., com.example.erp.SCAN_RESULT
 - **Data Key:** e.g., scan_data
 - **Permission** (optional): e.g., com.example.erp.permission.RECEIVE_SCAN
 - **Receiver Package:** e.g., com.example.erp
 - **Receiver Class Name** (optional): e.g., com.example.erp.ScanReceiver
3. In your ERP app:

```
public class ScanReceiver extends BroadcastReceiver { @Override
    public void onReceive(Context context, Intent intent)
    { String data = intent.getStringExtra("scan_data");
      // Process scanned barcode data
    }
}
```

4. Register the receiver in your manifest or at runtime:

```
<receiver android:name=".ScanReceiver">
  <intent-filter>
    <action android:name="com.example.erp.SCAN_RESULT"/>
  </intent-filter>
```

5.4.2.3. Alternate Method: Keyboard Input Mode

If your ERP app contains text fields (e.g., EditText, WebView, or other input components), you can enable Keyboard Output:

- Scan data will be **injected as if typed by the user**.
- Works with **HTML input, POS forms, or legacy UI fields**.
- Optional: add suffix (e.g., Enter or Tab) to simulate “form submit” or “move to next field”.

Best for apps that are **not modified** to receive intents, or developed with **no SDK access**.

5.4.2.4. Best Practice for ERP Integration

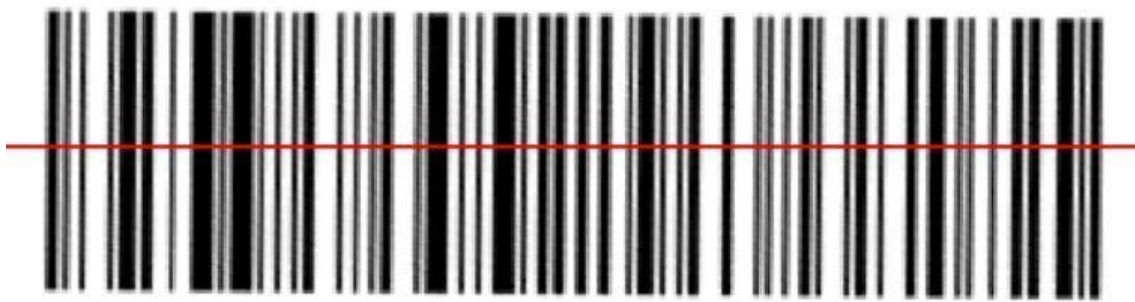
- Use **Broadcast Mode** with custom actions for clean integration.
- Add **PIN protection** for scanner configuration to avoid user wrong configuration.
- Use **Scanner profiles** to manage different behavior in ERP vs other apps.
- If using **Web ERP**, prefer **Keyboard Output** + suffix Enter or Tab.

5.5. Suggestion

To have better performance, we suggest to scan as following

Recommended:

For 1D Barcode:



For 2D Barcode:



Unrecommended:

For 1D Barcode:



For 2D Barcode:

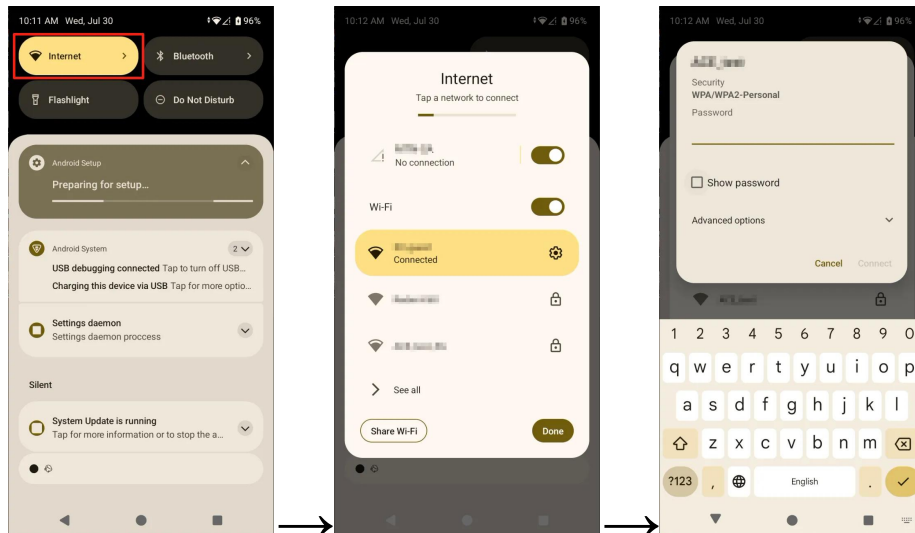
**Warning**

- **DO NOT AIM TO EYES ! (Class 2 Laser).**
- User may be exposed to harmful electromagnetic waves if the using purposes not maintain under current manual.
- Avoid touching the battery or electrodes with sharp objects.

Chapter 6. System Application

6.1. WiFi

6.1.1. Enable the Wi-Fi

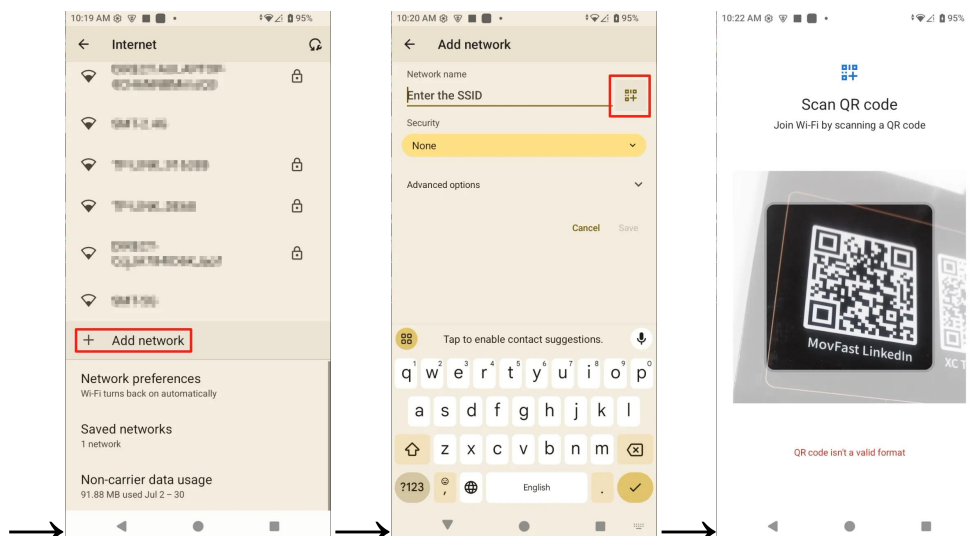
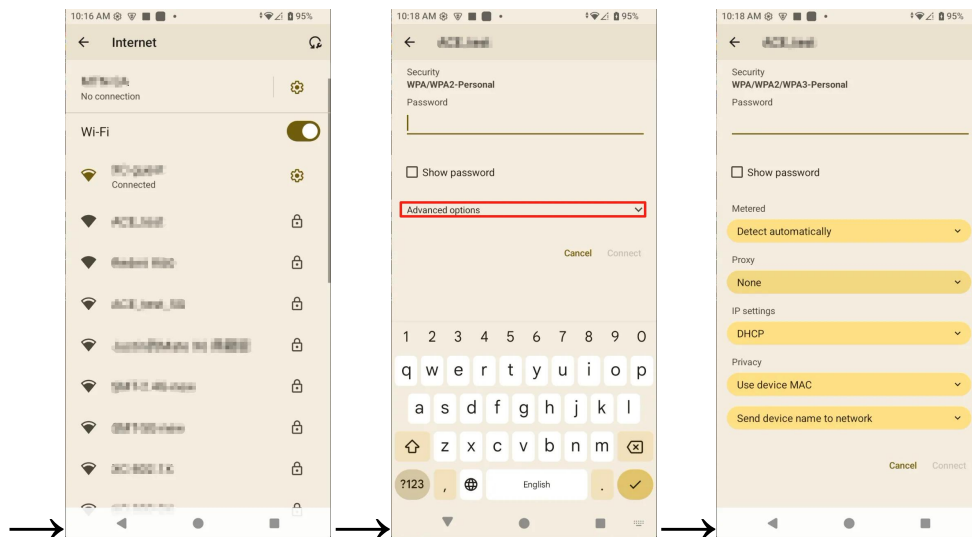
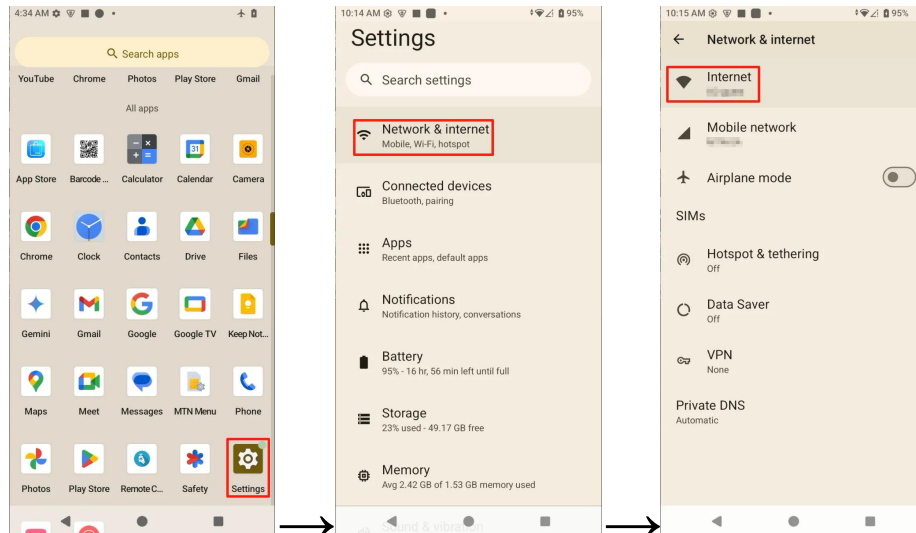


1. Enabled the Wi-Fi from notification bar, and select the WiFi signal from the list.
2. Select the network from the list.
3. The system will auto load the Security verification type, you have to enter the password of the network.
4. Advanced Options are available in the page.

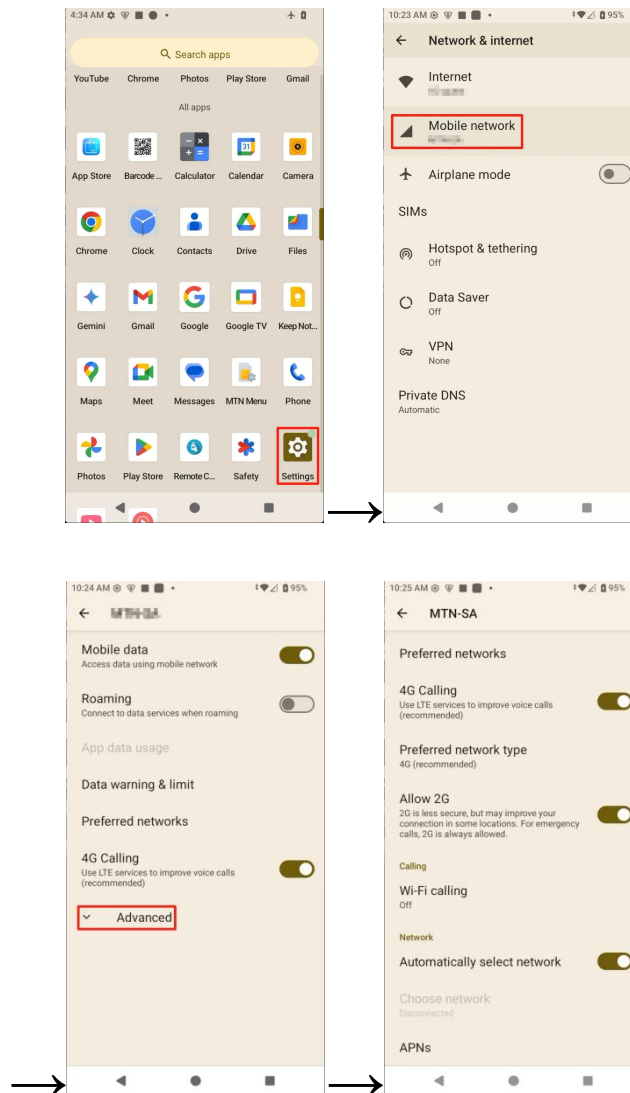
6.1.2. From Settings

The options can be from in Setting → Network & Internet

1. Click the Network & Internet and click the [Internet], all signal are available in the list.
2. Select the network from the list.
3. The system will auto load the Security verification type, you have to enter the password of the network or Scanner the QR code to join the internet.
4. Advanced Options are available in the page.
5. For advanced scene, support to join the network by manually enter SSID and Security verification by click [+ Add Network].



6.2. Internet

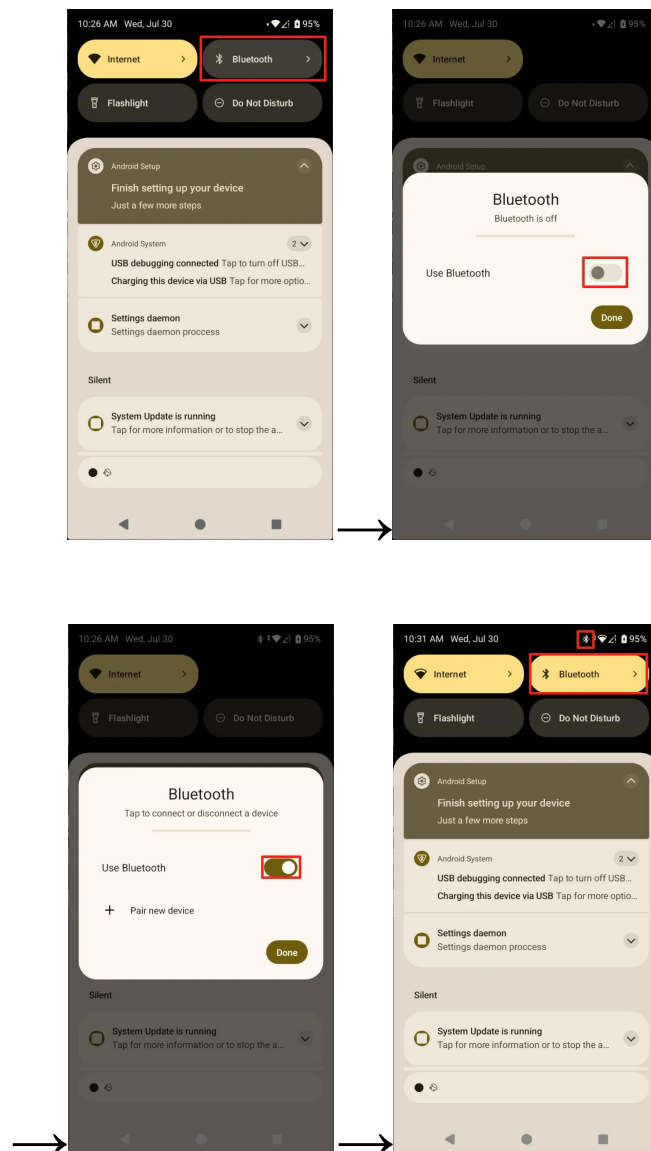


The system will auto load 4G/3G signal when SIM Card had been installed The 4G Data can be disabled.

The Mobile data/ Data Roaming/ Data Usage/ Warning & Limit/ VOLTE are all available in the Setting → Network & Internet.

6.3. Bluetooth

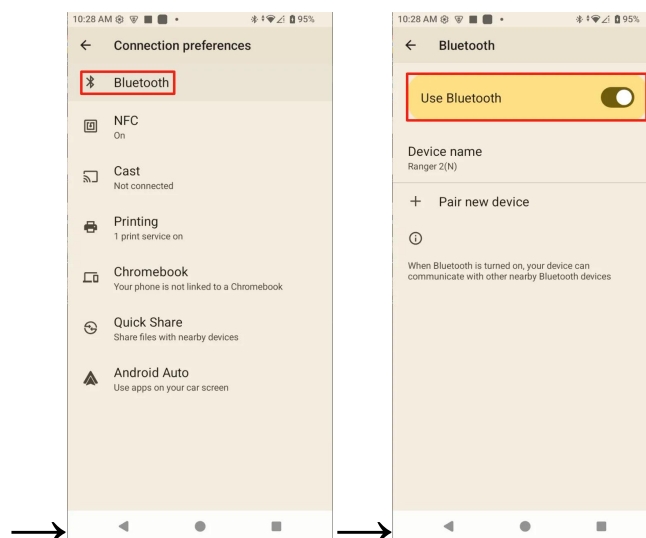
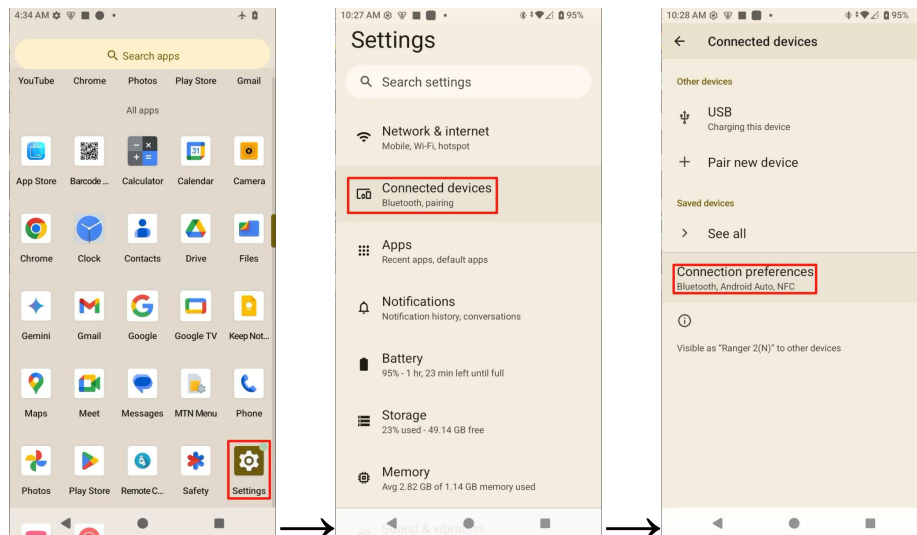
This feature provides Ranger 2(N) device with the ability to add, associate, and manage different Bluetooth devices.



Switch: The shortcut of the Bluetooth Switch in on the Notification Bar(Swipe down from the top of the screen)

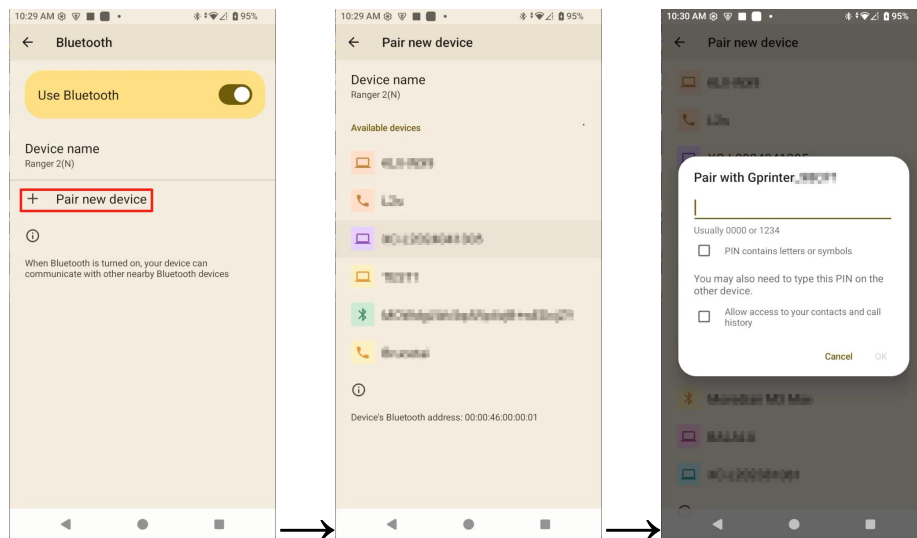
State: The Bluetooth icon  will be showed in the Notification Bar when Bluetooth have been enabled

Path: Setting → Connected Device → Connection Preference → Bluetooth



6.3.1. How to Connect with Bluetooth device?

Select the device in list of Pair new device to connect new Bluetooth device in the [Connected devices] page.



Click the device that you want to pair with Ranger 2(N), and confirm the connection by pairing code.

6.4. NFC

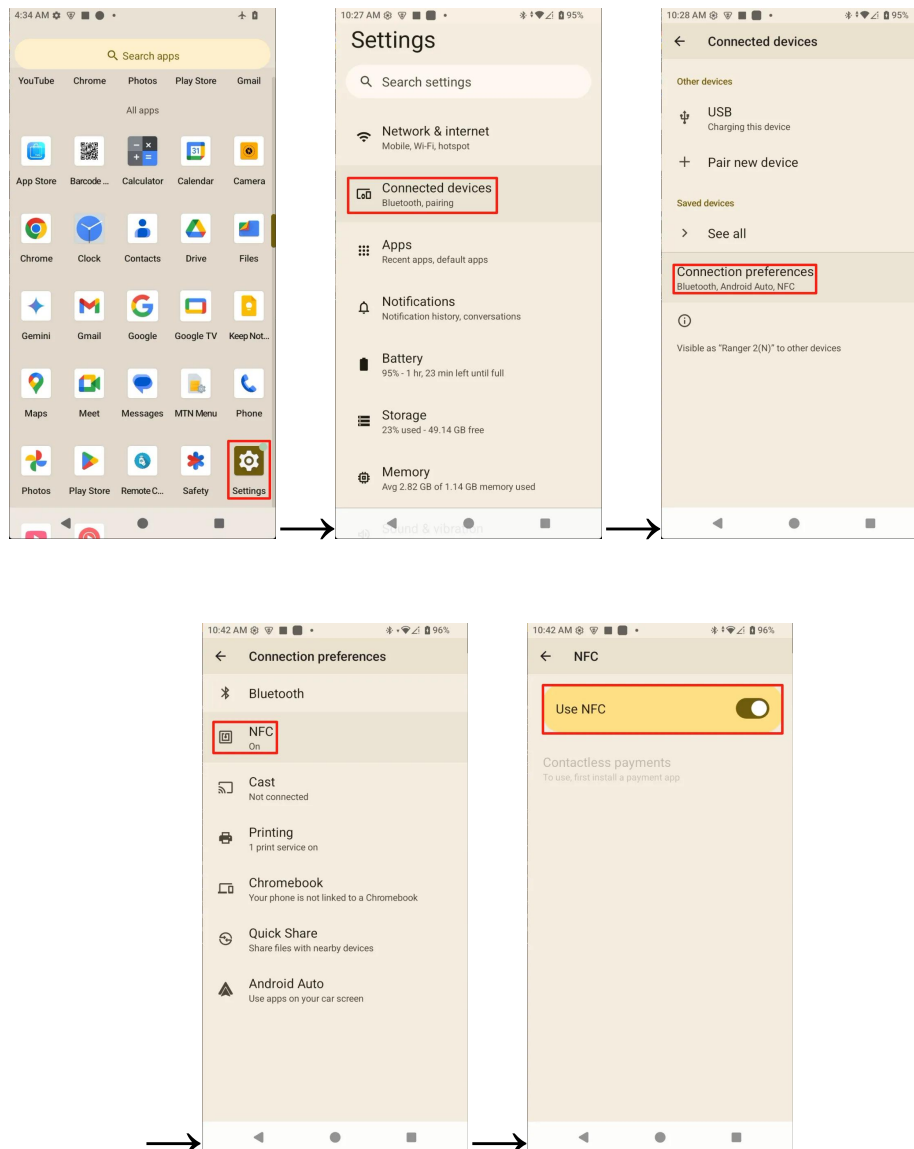
6.4.1. Settings & Feature Position

The NFC position is behind the device scanner as the images shows bellow, The icon already marked on-position as the photo shows below



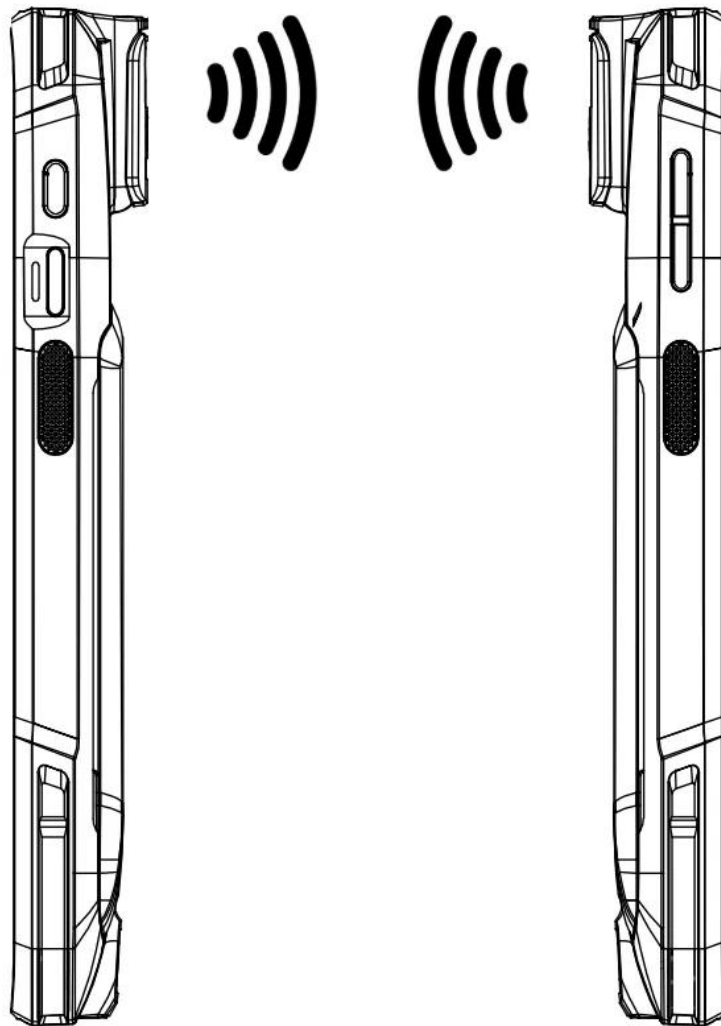
6.4.2. Enable the NFC

Path: Settings → Connected device → Connection performance



6.4.3. Connecting and Data Transform

1. Enable the Android Beam (Path: Settings →Connected device →Connection performance-Android Beam).
2. Select the file or photos and share as Android Beam.
3. Place the NFC of both devices close to each other and click the screen to transform.



Note

- Support third party application to use the NFC for payment, NFC read & write function.
- When NFC read and write data, the distance from the device should less than 5cm.
- When NFC transferring data, the distance between 2 device should less than 5cm.

6.5. USB

Please follow the process to connect device with your PC

1. The following option will be show when device have been connected to PC(Windows) via Cradle or Type-C USB Cable.
2. PC will recognizes the device and auto installs the driver.
3. Files will be able to transfer when driver is installed.

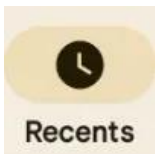
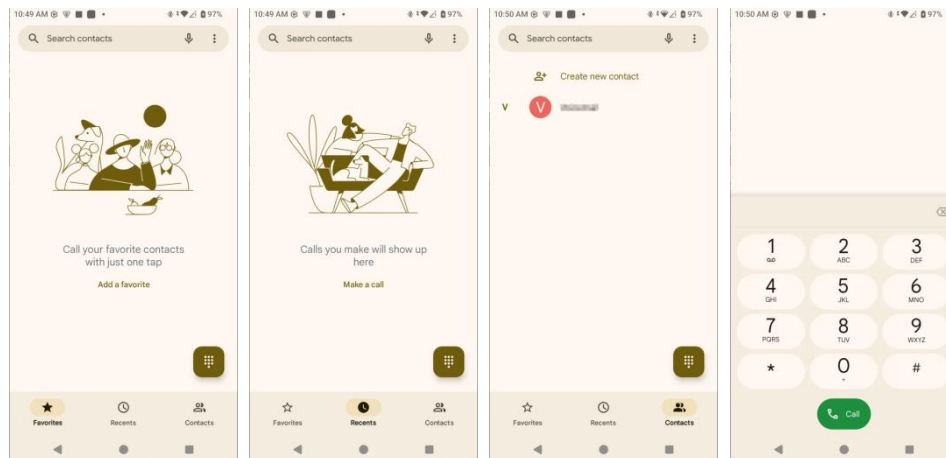
Note

If the connection is not stable or can not connect, Please check the following:

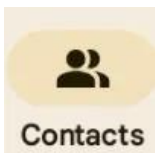
- Confirm the cable connection properly.
- Confirm the cable is normal(No damage).
- Turn on the device screen and select the connection way of USB.

6.6. Phone

Network Support: 2G(GSM)/ 3G(UMTS,HSPA+)/ 4G(LTE)



Recents is the page for recent history phone calls



Contacts is the page for the Contacts and Address-book

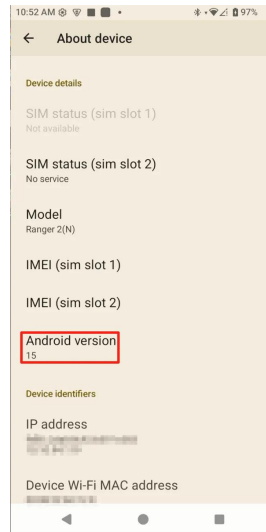


Keyboard icon is the function for manually enter the phone number to call

Note

Please make sure that the SIM card is installed and service is available before making the phone call

Chapter 7. Operating System



7.1. Android 15

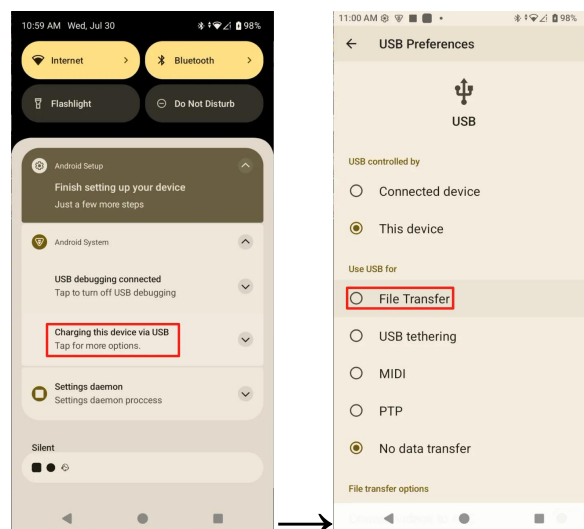
The Ranger 2(N) runs on Android 15, offering enhanced performance, security, and compatibility with modern enterprise applications. With its stable and developer-friendly OS foundation, the device supports custom app deployment, device management, and advanced barcode scanning services optimized for field operations.

Item	Description
OS Version	Android 15 (Vanilla AOSP or GMS optional)
API Level	API Level 34
System Type	64-bit
Update Method	OTA / Manual / USB Flash

7.2. Core System Capabilities

1. Multi-Language UI: Supports English, Chinese, and other international languages for global deployment.
2. OTA Upgrade Support: Seamless firmware and system updates via network or local SD card.
3. Enterprise API Support: Includes APIs for barcode scanning, power management, key mapping, system control, and more.
4. Custom App Autostart: Allows configuration of kiosk mode or boot-up launch of ERP/WMS applications.
5. Edge-to-Edge UI: Android 15 introduces full-screen "edge-to-edge" mode for immersive app experience.
6. Security Features.

7.3. Connect with PC



1. Connect the Micro USB port on the Ranger 2(N) to your computer with the included USB cable.
2. Switch Ranger 2(N) on. On the home screen, swipe from the top to open the notification bar.
3. Tap "Charging this device via USB", and then "Tap for more options".
4. Select "Files Transfer ". and navigate to the "My Computer" section of your computer and look for the newly added drive.
5. Double-click it and you will be connected to the Ranger 2(N). Then you may handle the files on the terminal through your computer.

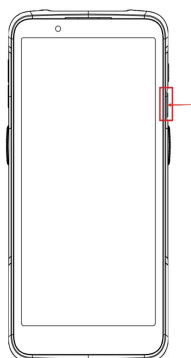
7.4. Key & Button

Key & Button	Description
Scanner Button	Activate and operate the Scanner
Volume Up	Increase Volume
Volume Down	Decrease Volume
Function Button	Multi-function Button which function can be defined in the Setting -->Key Map
Menu	Open Android Back-end Menu
Home	Go to Homepage
Back	Return to the previous stage, pages .etc

7.5. Power ON/OFF

7.5.1. Power ON

Press and hold Power Button till device boot. The device will be boot and display initial screen.

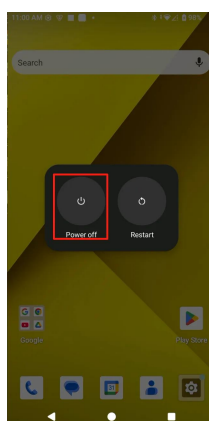


Note

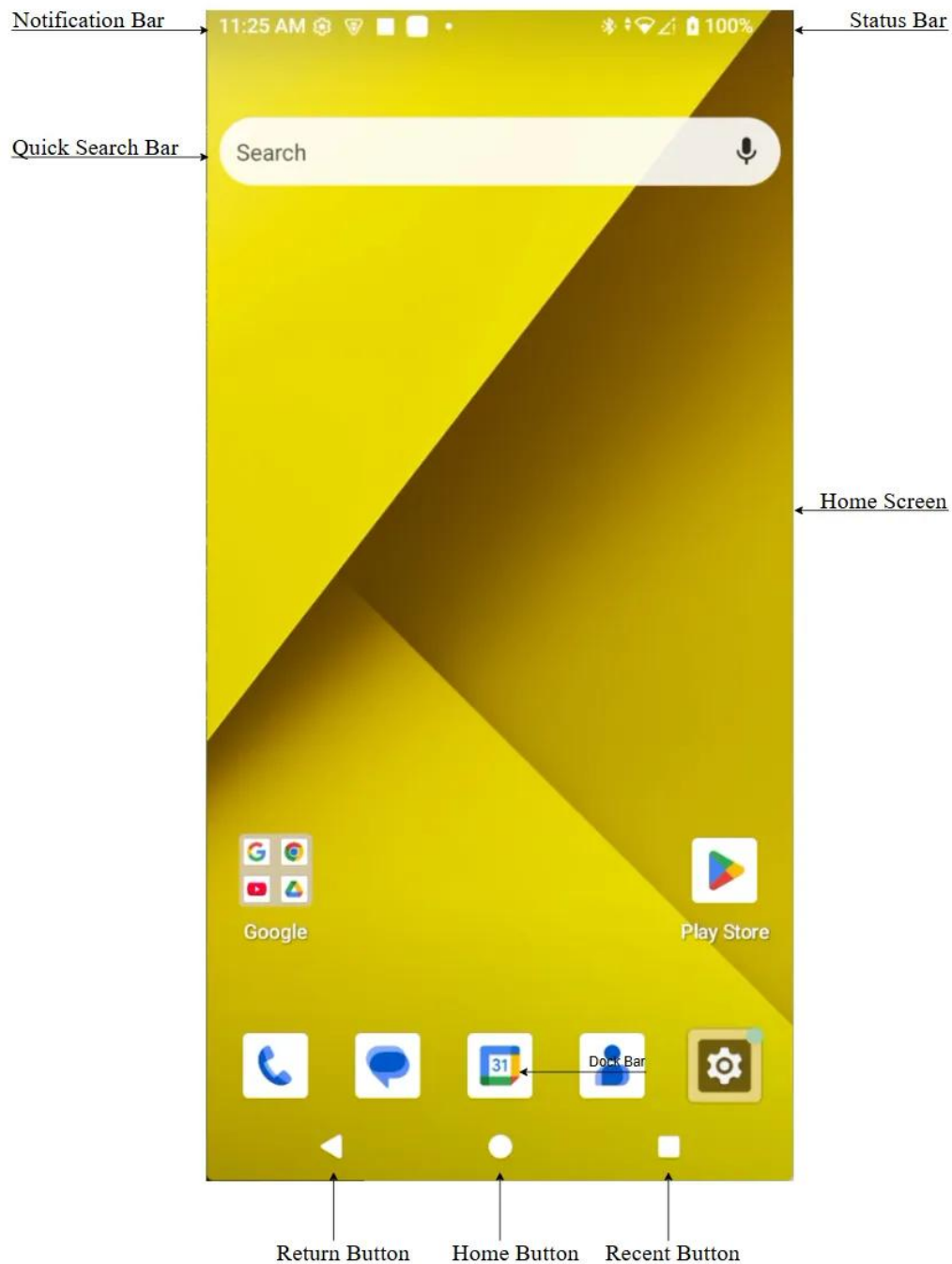
- If the battery is completely empty, there may be an error or issue that prevents the device boot, please charge the device in advance before boot.
- If the Device stocked or dead, please pass and hold Power Key 9 seconds to reboot the device.

7.5.2. Power OFF

Press and hold the Power button till display the following interface. Click the Power off to turn off the power.



7.6. Home Page



7.6.1. 3-button Navigation

1. **Return Button:** Tap it to go back to the previous screen.
2. **Home Button:** Tap it to go back to the home screen.
3. **Recent Button:** Tap it to display a list of thumbnail images of apps you've worked with recently.

7.6.2. Status Bar

The status bar and the notification bar differ in their position. The status bar is located at the top-right of the display. This is where you will see the current time, battery status, and connections. See the usual list of status icons you can find on the status bar.

Section	Icon	Name	Description
Battery		Battery	The icon represent the battery status follow the percentage. (Enable the percentage number in Setting → Battery)
		Charging	This icon indicates the device is being charged.
Signal		No Signal	This icon indicates a weak or no signal at the device location.
		Strong Signal	The icon represent the varies with the strength of the signal, hollow icons indicate weak signal.
		Data Roaming	Data Roaming enabled. Please note the operator's charges.
		4G	Connected to 4G Network.
		3G	Connected to 3G Network.
		GPRS	Connected to GPRS Network.
		Data Saver	The icon indicates Data Saver Mode enabled.
Connection		Lose Internet	The icon indicates the current internet have no data transferred.
		Wi-Fi	The icon represent the varies with the strength of the signal, hollow icons indicate weak signal.
		Bluetooth	This icon display when Bluetooth enabled.
		NFC	The icon indicates NFC enabled.
		Hot Spot	The icon indicates Hot Spot enabled.
		Hot Spot Disconnection	The icon indicates Hot Spot has no data connection or lose connection.
Position		Position	The icon indicates Device positioning in progress.
Alarm		Alarm	The icon indicates Alarm enabled.
Airplane Mode		Airplane Mode	The icon indicates Airplane Mode enabled.

No SIM		No SIM	The icon indicates no SIM card have been connected.
Notification		DND mode	The icon indicates Do not disturb mode have been enabled.

7.6.3. Notification Bar

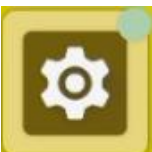
Icon	Name	Description
	More	The More notifications pending to be read.
	Sync	Data Synchronization in progress.
	Error	Error occurs in Data Synchronization, please check internet connection and follow the instruction on device.
	Schedule	There are Schedule have been preset.
	Wi-Fi	Accessible Wi-Fi within range.
	Play	Music or Audio being Played.
	Upload	Data or File upload in progress.
	Download	Data or File download in progress.
	Nearby Share	The Nearby Share mode enabled.
	SD Card Full	The icon indicates Capacity of SD card is full.
	Message	The icon indicates the message received and unread.
	Missed Call	The icon indicates there are missed calls.

The Notification Bar also contains notifications, which you can open with a swipe-down gesture. This gesture reveals a lot of information—examples of which include recent screenshots, a WhatsApp message, Facebook notifications, and email alerts. For multiple notifications, the number of icons appearing is limited to 3 to 4 and will show the latest.

7.6.4. Dock Bar

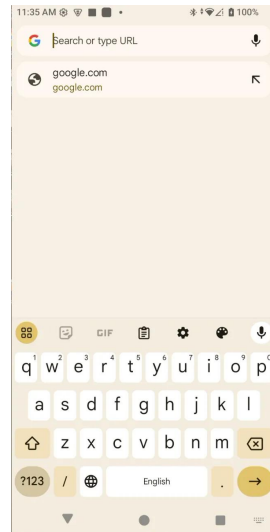


You can place shortcut icons below to quickly execute frequently used programs. Up to 4 shortcut icons can be added or removed from the Dock bar.(Press and hold icon to remove or edit)

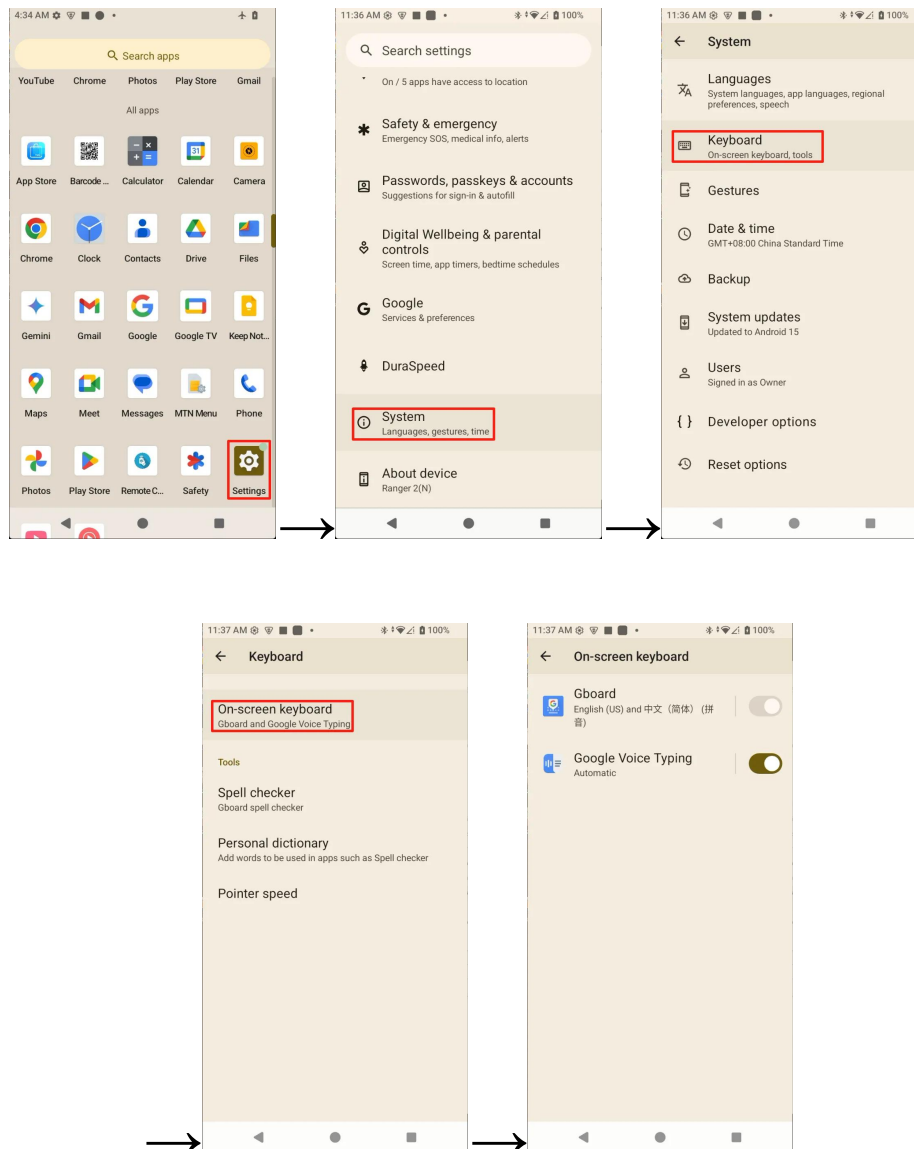
Icon	Name	Meaning
	Phone	Application for make or receive a phone call.
	Message	Receive or Send a test message.
	Calendar	Application for check date and set up schedule
	Contacts	Application for store contact information
	Recent	Recent use applications will be display in this position, click to use shortcut to access the recent use application.

7.6.5. Data Input

Ranger 2(N) only support Virtual Keyboard



The Virtual Keyboard will be automatically displayed when click input box.



System Path: Settings → System → Keyboard → On-screen keyboard

7.7. Locking/Unlocking

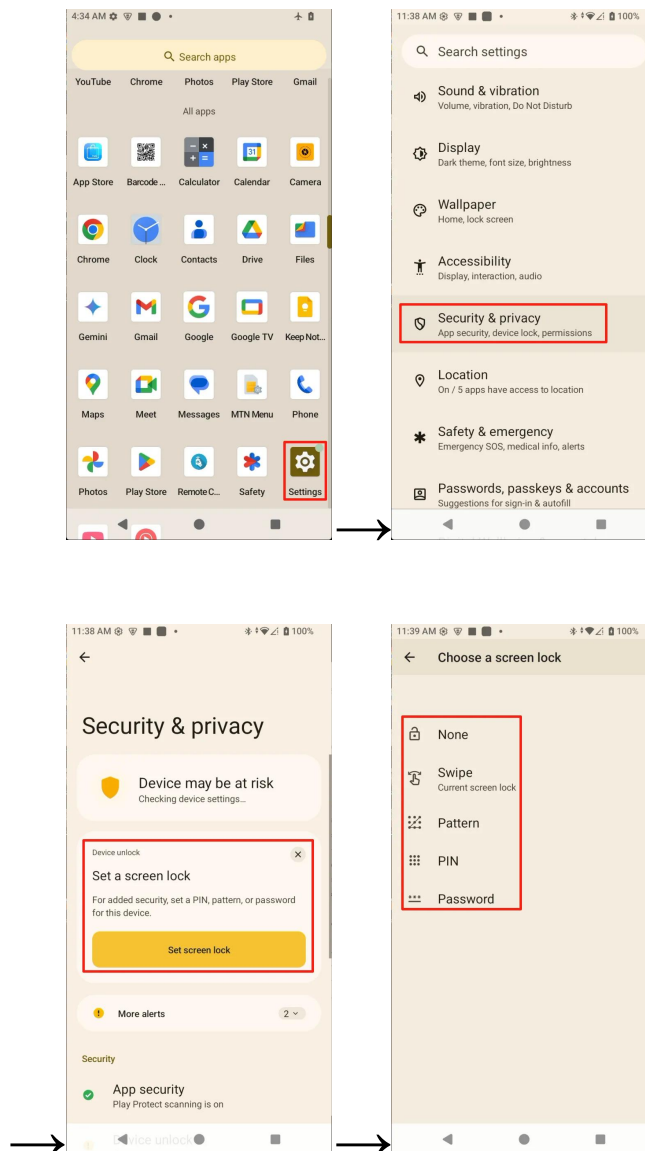
7.7.1. Lock the Ranger 2(N)

Briefly press the power button at the lower left corner of the physical keyboard. If no operation is performed on the Ranger 2(N) for a preset period, the Ranger 2(N) locks automatically. You can change how long it takes for the Ranger 2(N) to lock.

7.7.2. Unlock the Ranger 2(N)

Briefly press the power button at the lower left corner of the physical keyboard and swipe up from the bottom of the screen to unlock.

7.7.3. Setting Lock/Unlock



System Path: Settings → Security & privacy → Set screen lock → Choose a screen lock

1. None: No lock screen protection. The device wakes directly to the home screen. Suitable for low-security environments or kiosk mode.
2. Swipe: Users swipe the screen to unlock, but no authentication is required. This provides minimal protection.
3. Pattern: The user draws a predefined pattern on a 3×3 dot grid. Offers moderate security with a quick unlock experience.
4. PIN: Users enter a numeric PIN (usually 4–6 digits) to unlock the device. Provides good balance between convenience and security.
5. Password: User enter an alphanumeric password (letters, numbers, symbols). This is the most secure method but requires more effort to unlock.

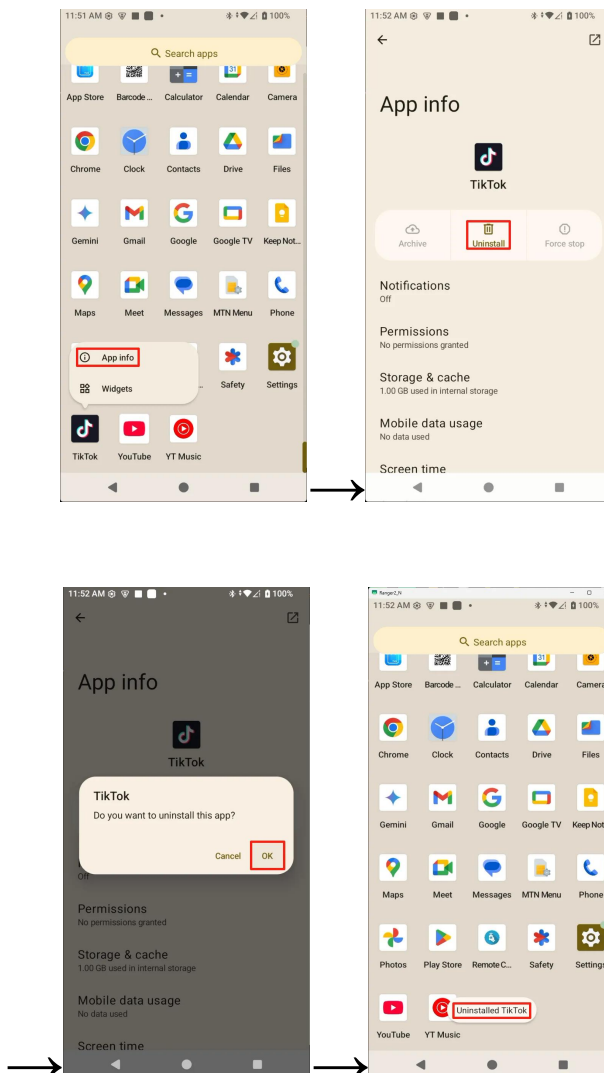
7.8. Install/Uninstall App

7.8.1. Install App

Use one of the following methods to install a new app on the Ranger 2(N):

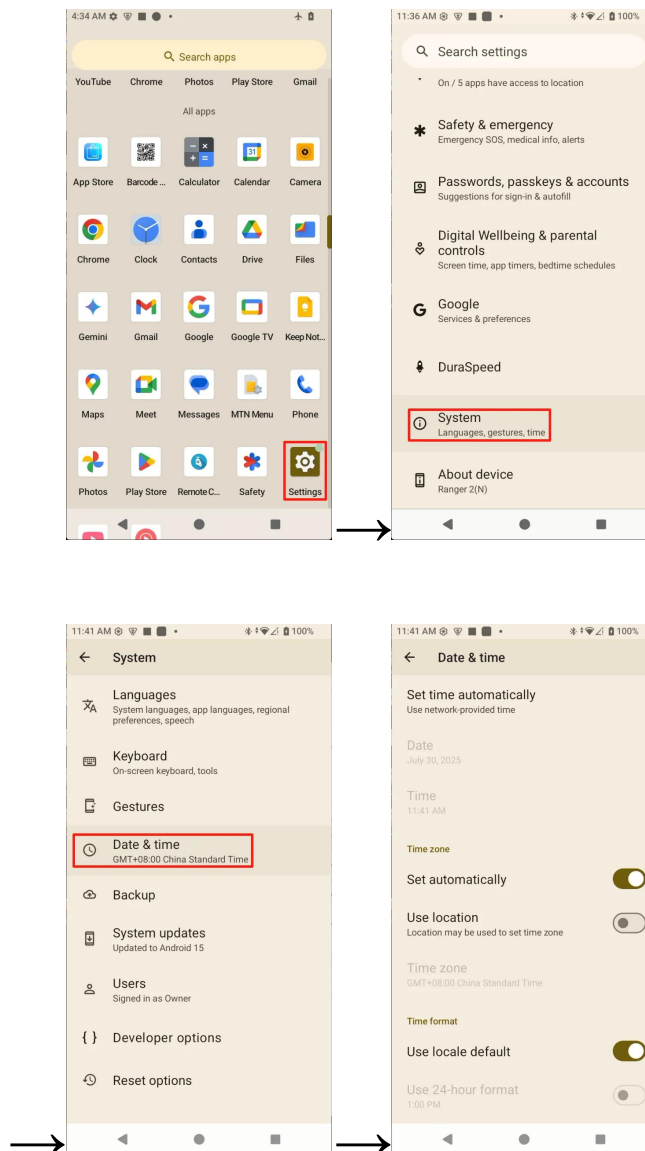
1. Install the App via Google Play Store
2. Download APK onto PC and copy it to Ranger 2(N). Then install it with File Manager.
3. Download APK onto PC and use ADB (Android Debug Bridge) via USB to install Apps.
4. Add SN (Serial Number) to our MDM (Mobile Device Management) Platform "Angel Watch" to manage.

7.8.2. Uninstall App



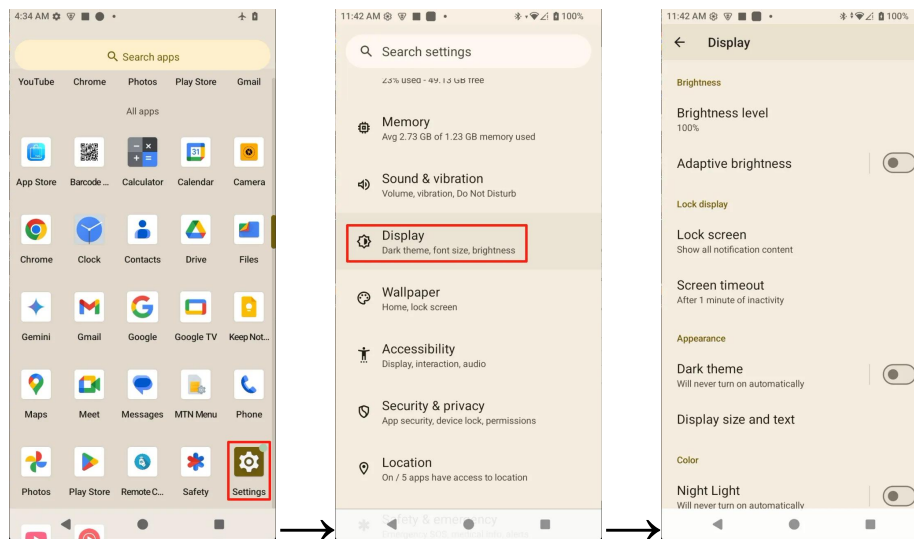
1. Tap and hold your desired app until "App info" appears, and tap "Uninstall" to uninstall it.
2. Add SN (Serial Number) to our MDM (Mobile Device Management) Platform "Angel Watch" to manage.

7.9. Data and Time



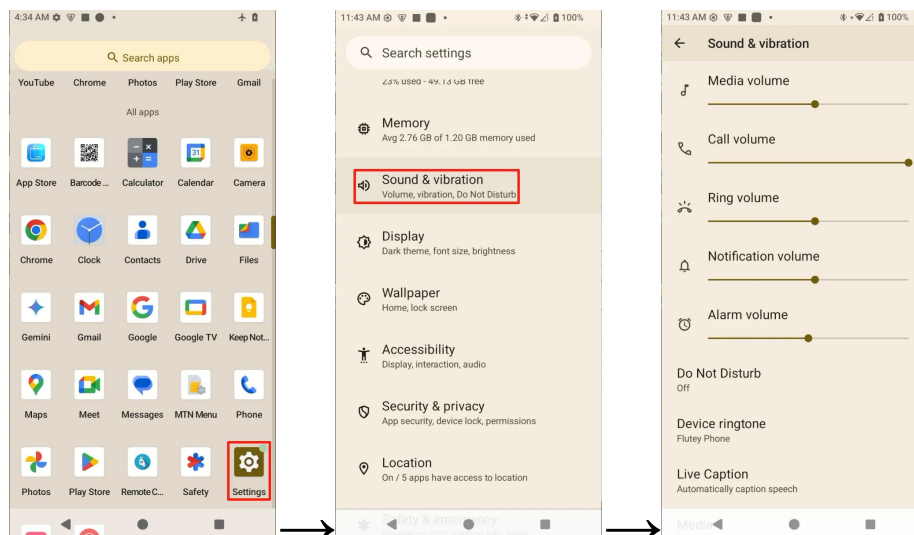
System Path: Settings → System → Date & time → Set the date and time

7.10. *Display*



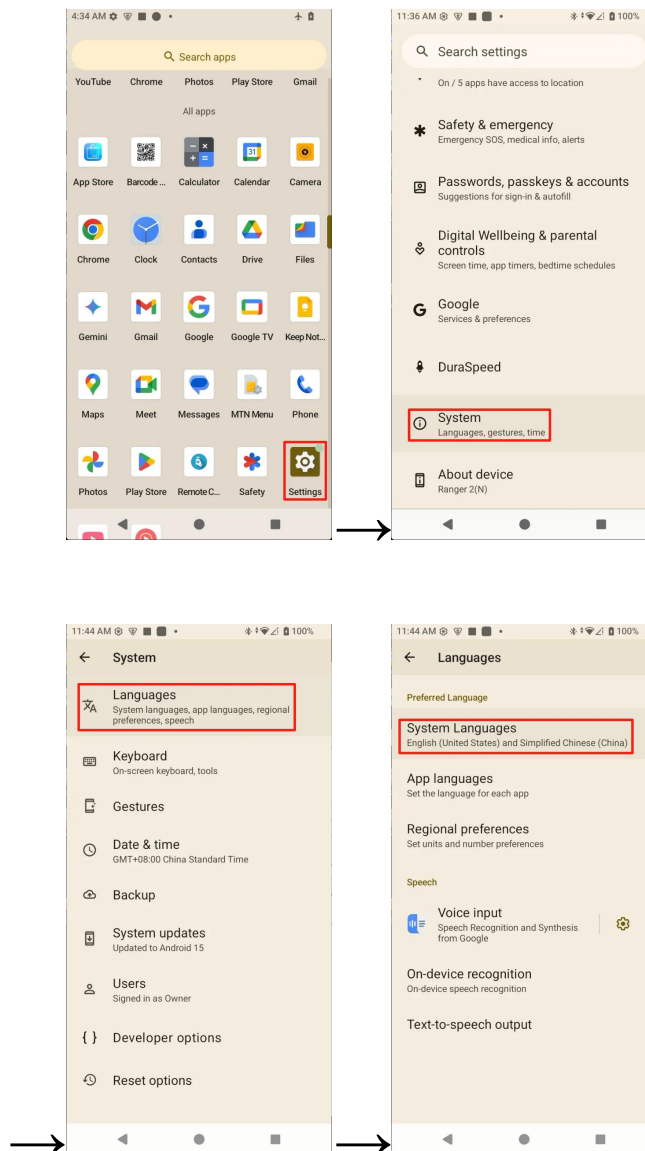
System Path: Settings → Display → Set the brightness level, dark theme, night light, adaptive brightness, and other parameters.

7.11. *Ringtones*



System Path: Settings → Sound & vibration → Set the ringtones and other notification sounds.

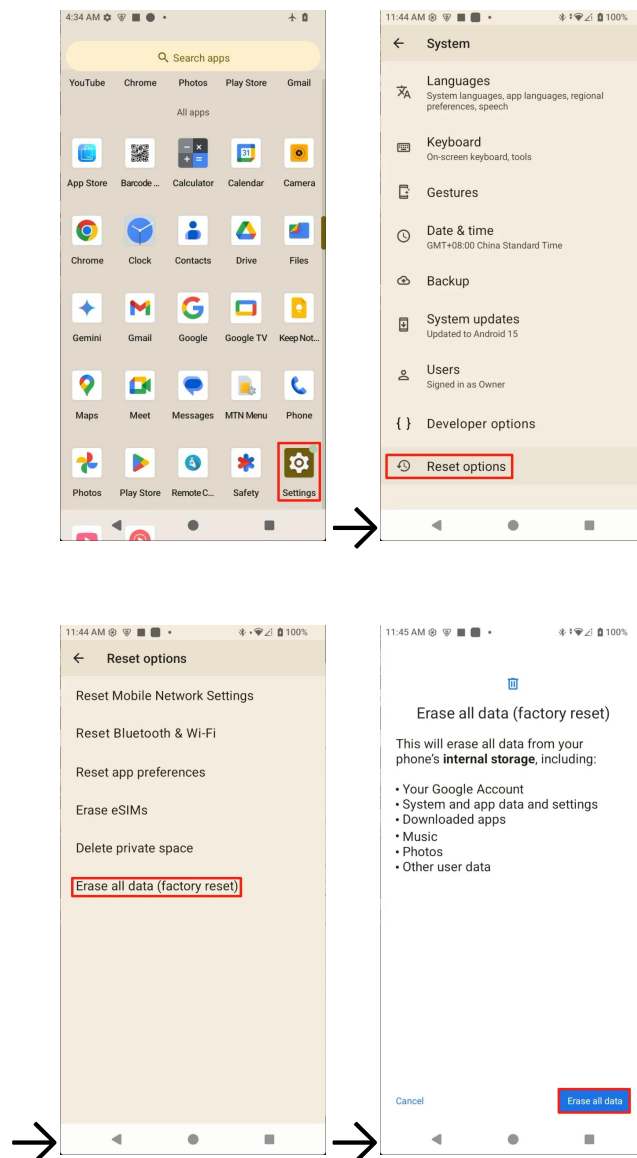
7.12. Languages



System Path: Settings → System → Languages → System Languages

7.13. Device Reset

If any wrong configuration or software issue which is not solved by Reboot, please use Factory Reset to reset your device.



System Path: Settings → System → Reset Options → Erase all data (factory reset).

This option will erase all data from your device's internal storage, including:

- Google Account
- System and app data and setting
- Downloaded apps
- Other user data
- Music
- Photos

Warning

All actions can not revocation!

7.13.1. Factory Reset Protection (FRP) Feature

7.13.1.1. What is Device Protection, or Factory Reset Protection (FRP)?

Android devices provide built-in security features you can use to protect your device and information, including screen locks and data encryption. Data protection, or Factory Reset Protection (FRP), is a security feature on Android devices with Lollipop 5.1 or higher.

FRP is automatically activated when you set up Google Account on your device. Once FRP is activated, it prevents use of a device after factory data reset, until you log-in using Google username and password previously set up on the device.

7.13.1.2. How does FRP work?

When you perform a Factory Data Reset, all settings are returned to the factory default settings. All data is erased including files and downloaded apps.

If you have a Google Account set up on the device, FRP is active. This means that after reset, you'll be required to log-in to the Google Account using the username and password. If you have multiple Google Accounts set up on the device, you can log-in using any of the accounts.

If an unauthorized person tries to reset the device by another method, the device would still require log-in using the Google username and password. This means that if your device is lost or stolen, another person would not be able to reset it and use it.

7.13.1.3. What do I need to know about FRP?

If you want to reset your device to factory defaults, make sure you know your Google Account and password, because you'll need to log-in at the end of the reset.

If you want to reset your device to factory defaults, but don't remember your Google username and/or password, you can do one of these:

- Check your device's Account settings for your account name and reset your password via the device or at <https://www.google.com>.
- It can take 24 hours for the password reset to sync with all devices registered to the account. Remove the account before you reset device.

If you already reset your device, but don't remember your Google username and/or password, the device can't be used. In that case, you can do one of these:

- If you know your Google username but can't remember the password, you can reset your password on the device, or at <https://www.google.com>.
- It can take up to 24 hours for a new password to sync with all registered devices. After 24 hours, you can try to log-in your phone with the new password.
- If you have multiple Google Accounts, and you can't remember which Google Account you set up on your device, visit <https://www.google.com/android/devicemanager>.

- Log in with your Google username and password and check the list of devices registered to the account.
- If you don't see the device listed on the account, it means the device is registered to a different account. Use the same process to check for devices linked to your other Google Accounts. When you find the registered account, use it to log-in your device.
- If you can't remember any of your Google Account information, you can send your device, along with proof of purchase, to an authorized M3Mobile supplier. M3 has special tools to reset the phone to factory defaults with no protection enabled.

Chapter 8. Advanced Configuration

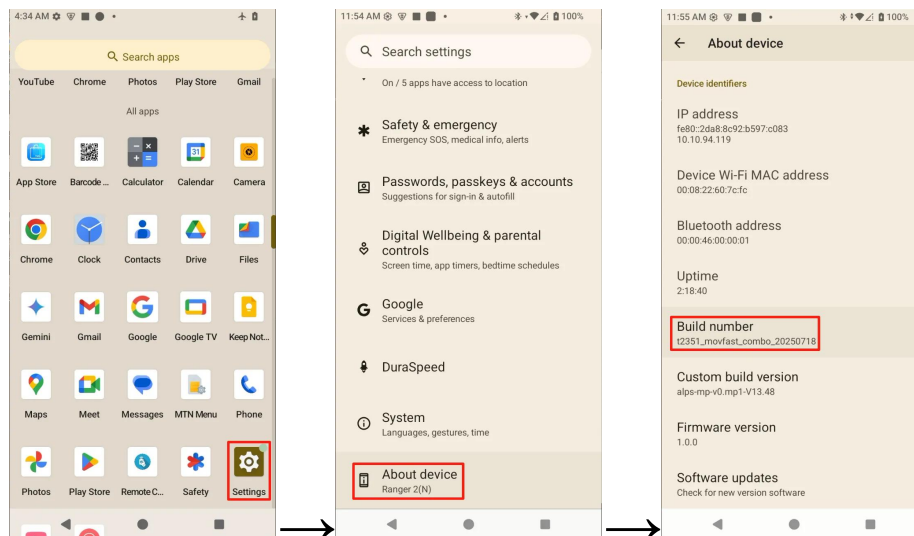
8.1. Operation System Upgrade

8.1.1. Firmware Version

Base on product development and maintenance schedule, MovFast have regular Firmware upgrade and debug to optimize the device performance.

Warning

- Before the Firmware upgrade, please check the device build number and confirm the upgrade details with MovFast or distributors to avoid errors and damage of the device.
- Ranger 2(N) ONLY SUPPORT official Firmware provided by MovFast , and MovFast takes no responsible of the damage or function disabled by use third party firmware.



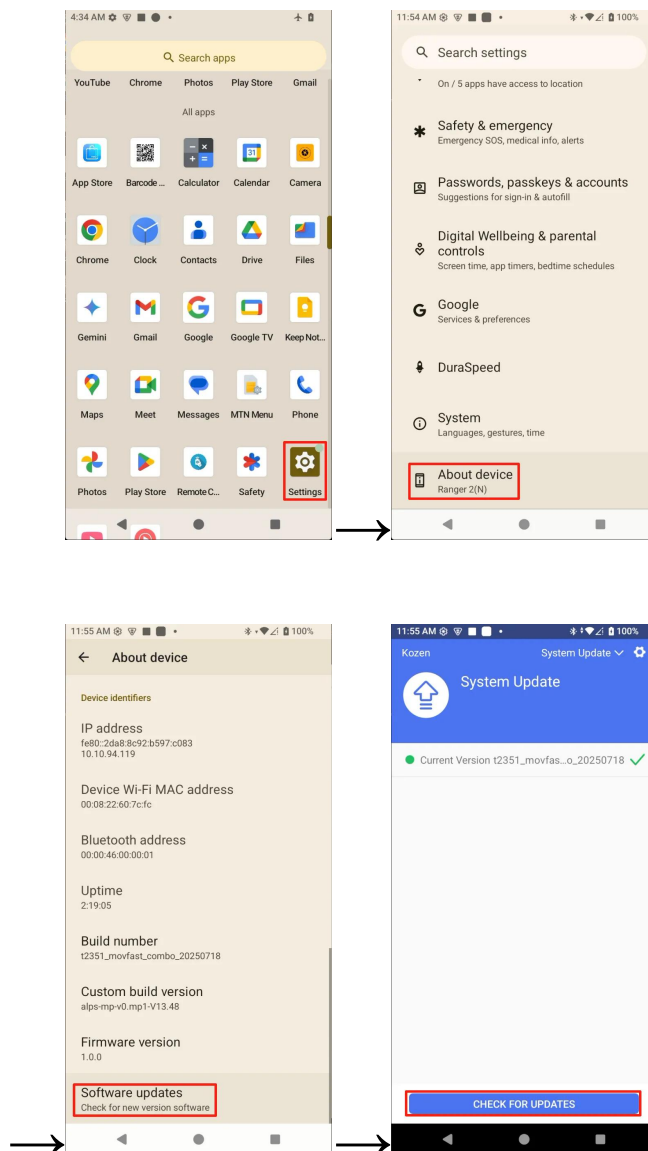
Path: Setting → About Device → Build Number

8.1.2. Upgrade Methods

8.1.2.1. OTA

For MovFast TMS users, MovFast will provide the OTA package for upgrade

- Click software updates and check update.
- The new firmware will be uploaded by MovFast and distributors.



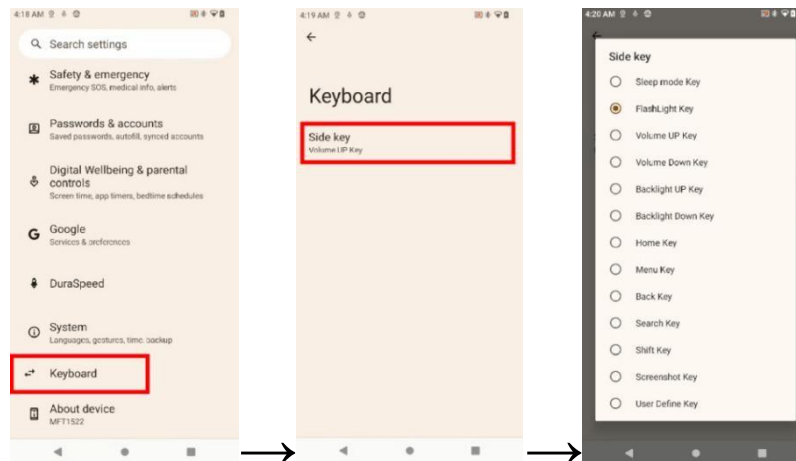
8.1.2.2. Firmware Flash Tool

Contact MovFast for more details about the full size firmware package.

8.2. Key Mapping

The Key Mapping is the user interface to define the shortcut and functions about the function key:

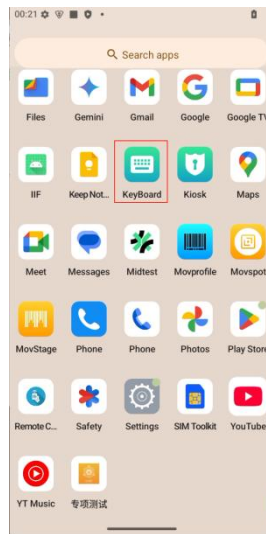
1. Find the keyboard option in the Settings.
2. Click Side Key.
3. Select the option of key mapping you need.



Note

Key Mapping is the previous function in settings, in Ranger 2(N), this function is **replaced** by **KeyBoard**.

8.3. *KeyBoard*



Key Mapping is a powerful tool that allows you to fully customize the behavior of your phone's physical buttons. Whether you want to remap standard keys, launch apps with a single press, or send system-wide broadcast events, Key Mapping gives you complete control over how your device responds to button inputs.

8.3.1. What You Can Do with Key Mapping

With Key Mapping, you can:

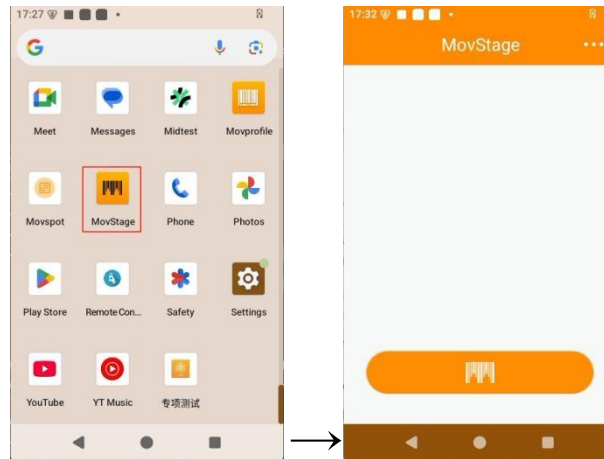
- **Remap Physical Keys:** Change the function of hardware buttons like the Volume Up/Down keys. For example, you can set the Volume Up key to act as the Home button.
- **Launch Applications Instantly:** Assign any physical button to open your favorite apps—like launching the Camera app with a single key press.
- **Send Broadcast Events:** Trigger custom system events or interact with other apps by sending global broadcasts from a physical key.
- **Create Custom Key Combinations:** Define actions based on multiple key presses for advanced control.

8.3.2. How It Works

1. Open Key Mapping App
2. Select the Button You Want to Customize (e.g., Volume Up)
3. Choose the Action:
 - Remap Keyboard (e.g., Home, Back, Call)
 - Launch Application (e.g., Camera, Messaging)
 - Send Broadcast (custom intent action)
4. Save and Test: The new mapping takes effect immediately

Chapter 9. Device Management & Control

9.1. *MovStage*

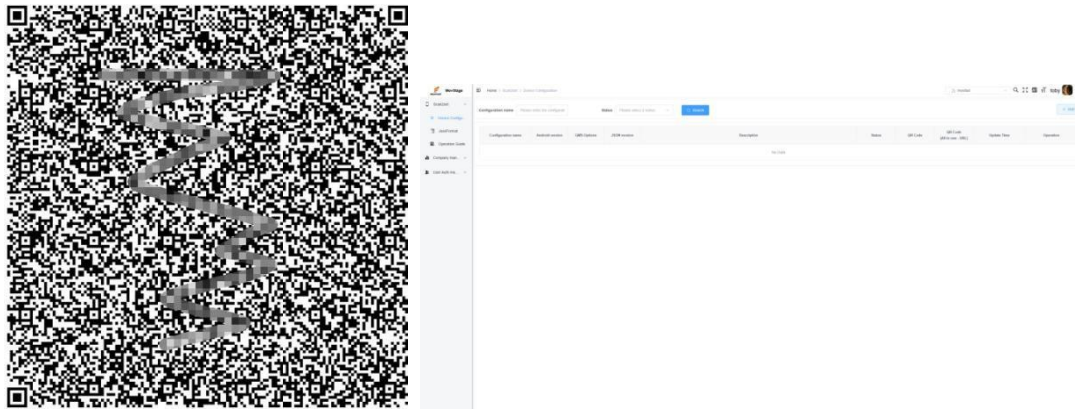


User can scan the Scan to Set Web service generated QR code in Movstage and sync the defined configurations.

The Movstage APK is preinstalled in device firmware, and help user to distribute configurations from QR code which generated from web service.

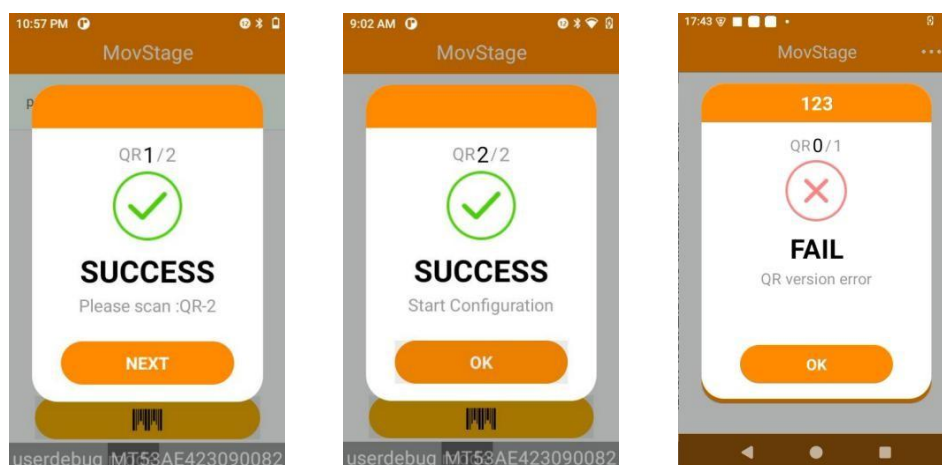
Contact MovFast for more details about using MovStage.

9.1.1. QRrcode



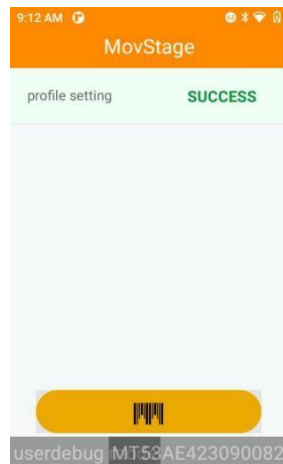
MovStage supports a web application to create a QR code to configuration settings on devices in enterprise.

9.1.2. Multi QR code

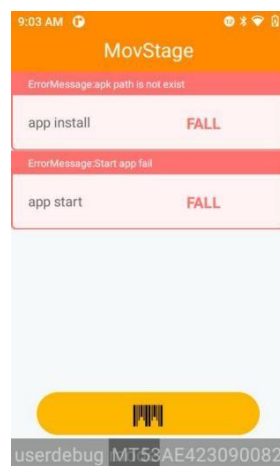


1. The function support multi QR code When content exceeds a single QR code limit.
2. System will mark and detect each Sub-QR code and remind user the current Stage.
3. The missed QR code will be marked and Remind.
4. No need Click Next, just scan the QR code Continually.
5. Completed all QR code and click [OK] to apply.

9.1.3. Apply

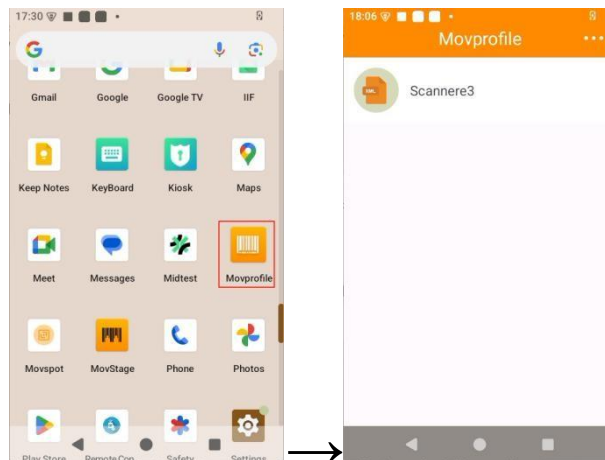


The stages will be applied on device follow the configuration and Delay. The Succeed Stage will be mark as **SUCCESS**.

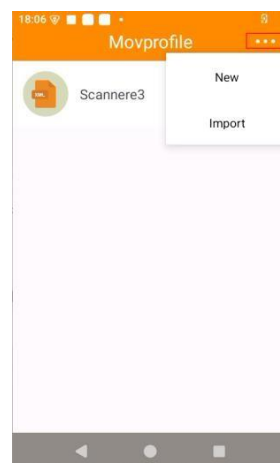


The Failed Stage will be mark as **FALL**. The reason of failure will also be listed.

9.2. Movprofile

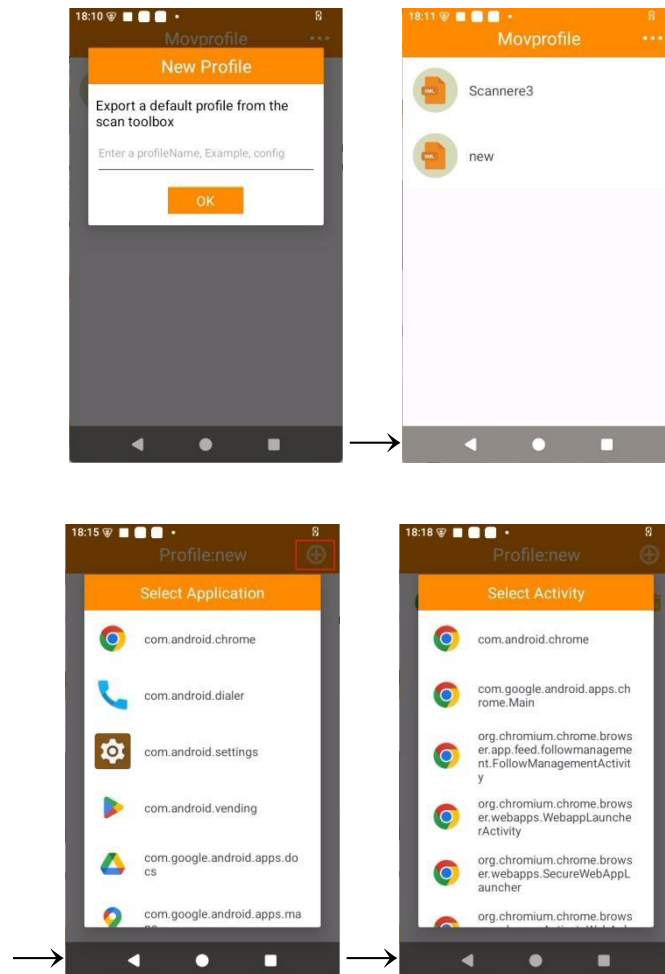


Configuration Profile management tool to associate the applications, profile applied when associated application, activity or service run.



1. To manually create profile by Click **New**.
2. Import profile from device's storage by click **Import** and enter the profile path.

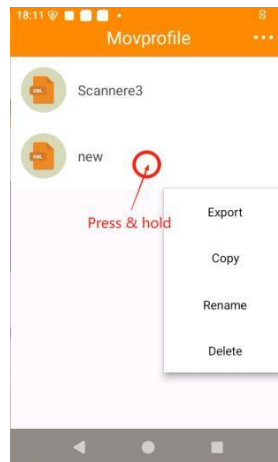
9.2.1. New



Click the new and enter the new profile name.

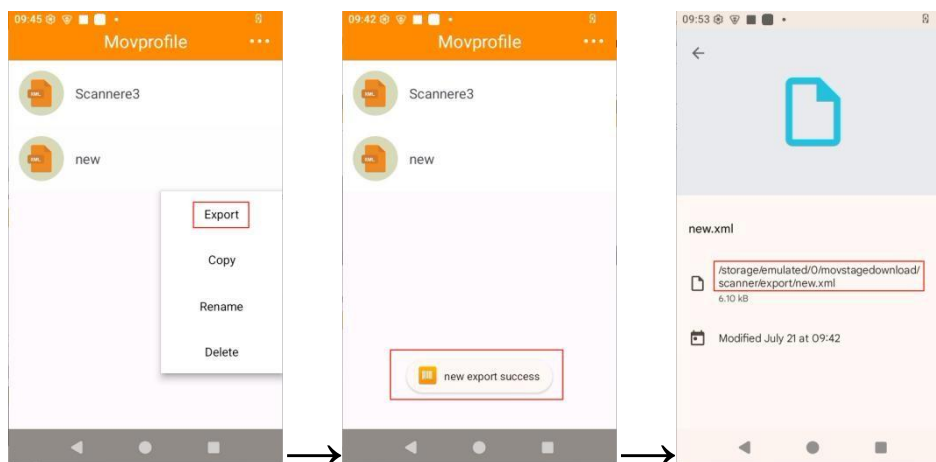
Click the new profile to associate with packages & action.

9.2.2. Export & Copy & Rename & Delete



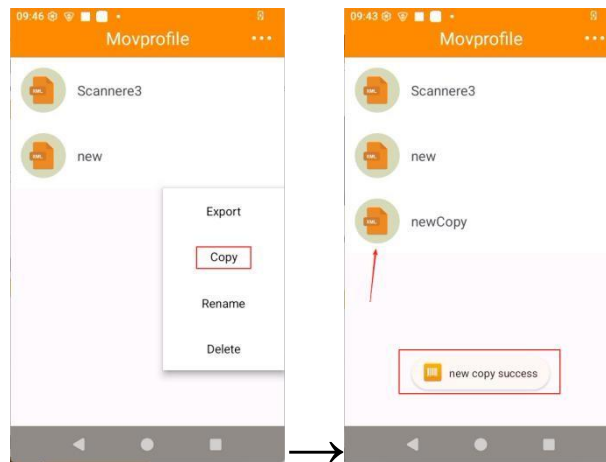
Press and hold on new profile, user can select to Export, Copy, Rename and Delete the profile.

9.2.2.1. Export

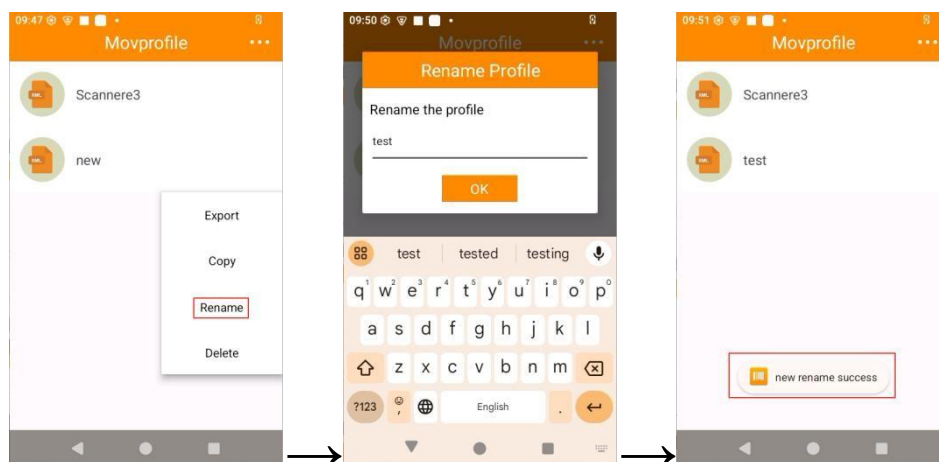


Documents Path: movstagedownload/scanner/export/

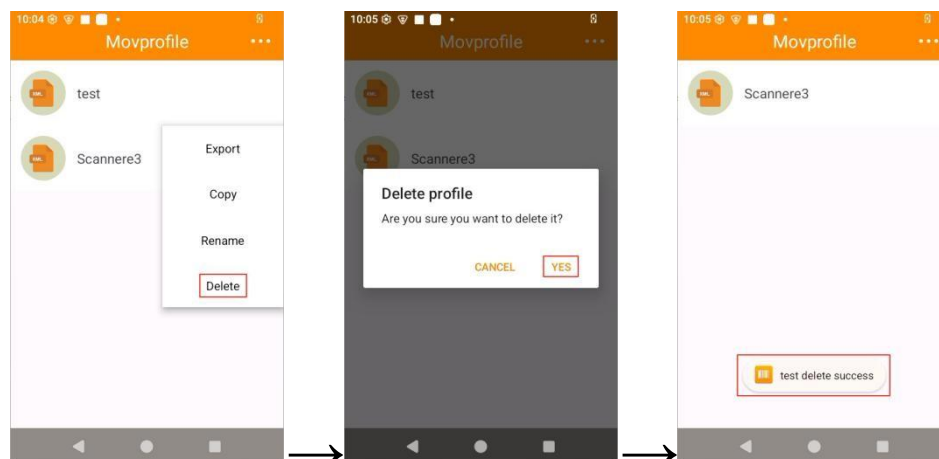
9.2.2.2. Copy



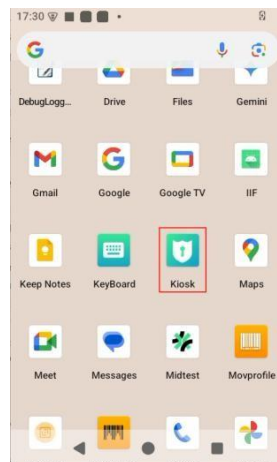
9.2.2.3. Rename



9.2.2.4. Delete

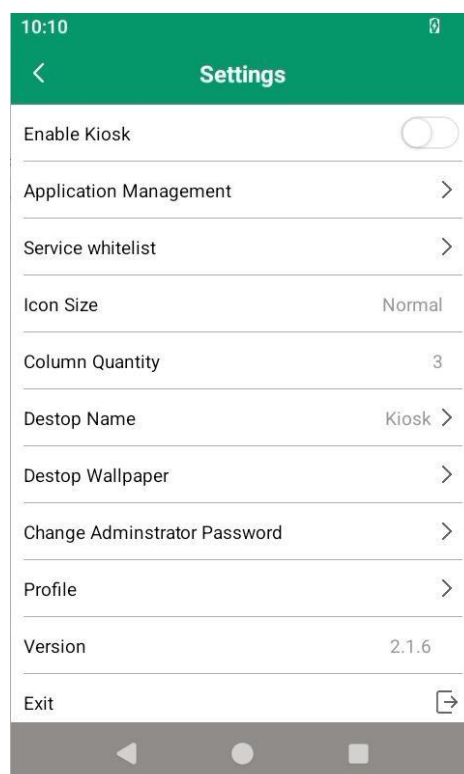


9.3. Kiosk



This function helps enterprises to manage and limit each device, limiting the available applications and ensuring that each device in the hands of an employee can only run software for the job.

9.3.1. Configuration

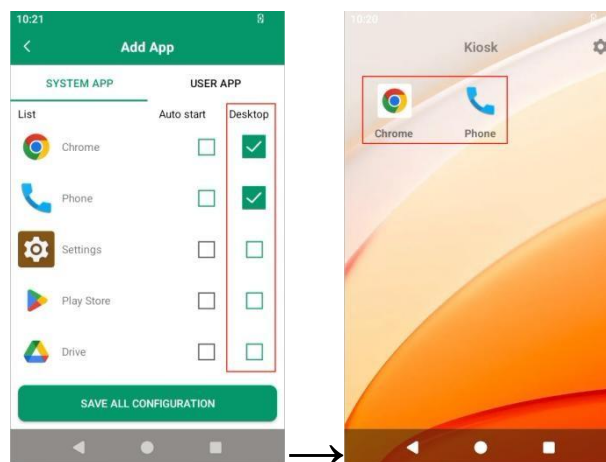


Kiosk can give end user a limited system for daily work and avoid the wrong configuration. The Administrator Password can be set by MovStage, or first time open the Kiosk in new device. Only with Administrator Password can assess APP Menu and Setting Options.

9.3.1.1. Enable Kiosk

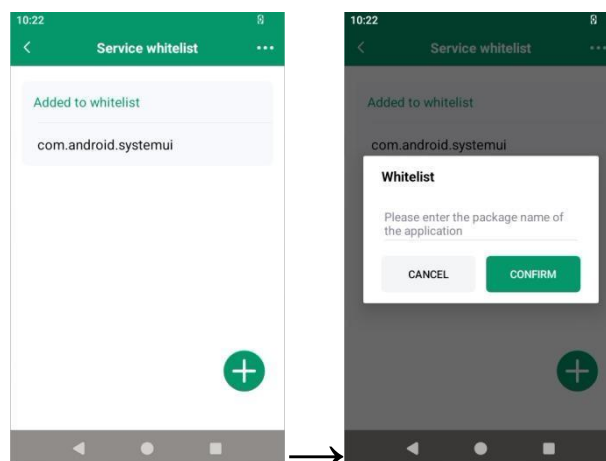
Determine whether to enable Kiosk.

9.3.1.2. Applications Management



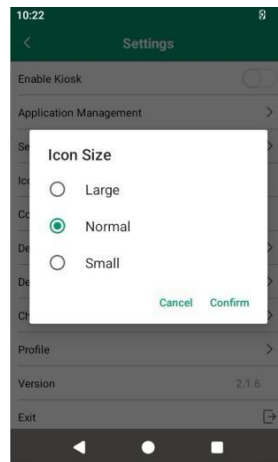
In Applications Management, administrators can determine which applications users are allowed to use. The selected applications will display on desktop of Kiosk.

9.3.1.3. Service whitelist



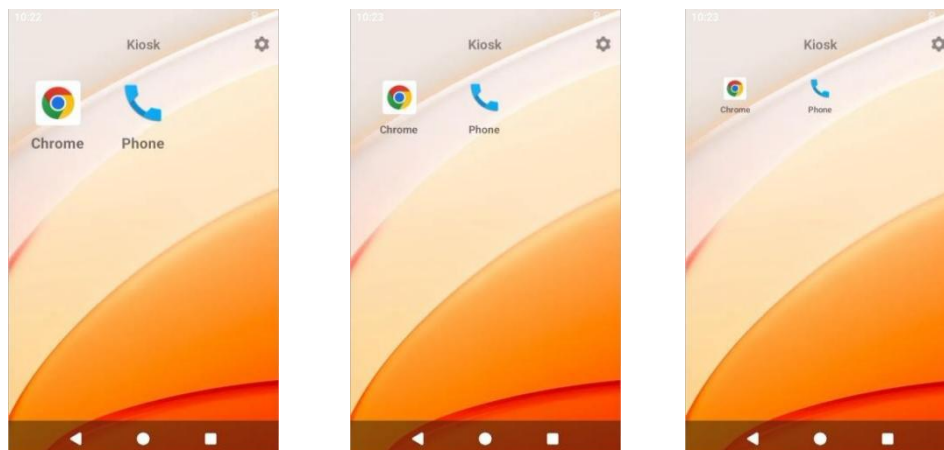
The administrator can add certain applications to the whitelist. Applications on the whitelist are not subject to Kiosk management. When adding an application to the whitelist, the name of the application's package is used.

9.3.1.4. Icon Size



The administrator can set the size of the application icon on the desktop.

Kiosk supports three sizes, large, normal and small, as shown in the figure below.

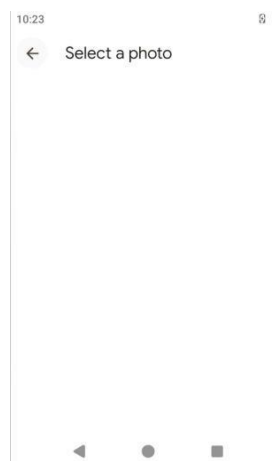


9.3.1.5. Column Quantity



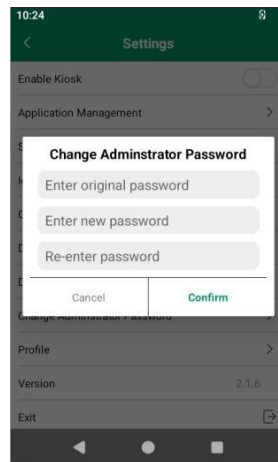
Administrators can set how many app icons are placed in each row on the desktop.

9.3.1.6. Desktop Wallpaper



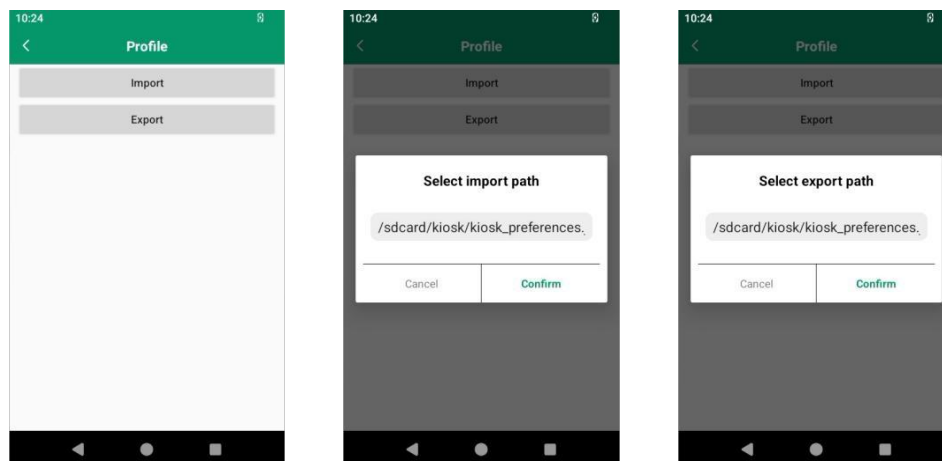
Administrators can set the desktop wallpaper, the wallpaper image source is Ranger 2(N) photo album.

9.3.1.7. Change Administrator Password



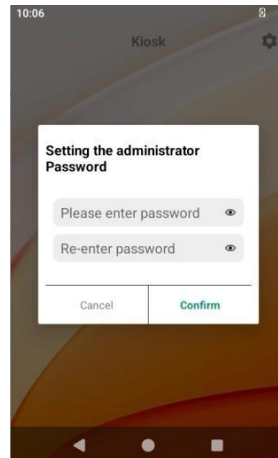
The administrator can change the administrator password by entering the old password and the new password.

9.3.1.8. Profile



The administrator can import and export Kiosk configurations, both of which require a path to be specified.

9.3.2. First time access



The first time access to Kiosk will be required to setup the admin password. Password can be modified in Settings.

9.3.3. From MovStage

All of the aforementioned configurations can be synchronized from MovStage.

Chapter 10. Conclusion and Support

We hope this manual has provided a clear and comprehensive guide to understanding and operating your device. Whether you're configuring system settings, customizing barcode behavior, or managing devices across your organization, our tools are designed to help you work more efficiently and securely.

If you encounter any issues or have further questions, please don't hesitate to contact our technical support team. We are committed to providing continuous updates, detailed documentation, and responsive assistance to ensure your long-term success.

Thank you for choosing our solution.



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