

CipherLab Reference Manual

RK96 Mobile Computer
Android™ 15

Version 1.0



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CIPHERLAB CO., LTD.
Website: <http://www.CipherLab.com>

IMPORTANT NOTICES

FOR USA

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 communication. 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 complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Radiation Exposure Statement

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment and it also complies with Part 15 of the FCC RF Rules. This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and consider removing the no-collocation statement.

FCC Caution:

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

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Find the certificate information from:

Settings → Legal information → Electronic authentication



Tested to Comply with FCC Standards

FOR HOME OR OFFICE USE

FOR PRODUCT WITH LASER

- ▶ This laser component emits FDA / IEC Class 2 laser light at the exit port. Do NOT STARE INTO BEAM DIRECTLY.
- ▶ Do not aim the beam at the eyes.
- ▶ Any adjustments or performance excluding those specified herein may result in hazardous laser light exposure.



ENVIRONMENT

- ▶ Operate the mobile computer at ambient temperatures from -20°C to 50°C and with humidity range from 5% to 95%.
- ▶ Store the device at ambient temperatures from -30°C to 70°C and with humidity range from 5% to 95%.
- ▶ Charge the device at ambient temperatures from 0°C to 45°C.
- ▶ This device is built with a dust-proof and splash-proof structure that conforms to protection class IP65.

SPECIFIC ABSORPTION RATE (SAR) INFORMATION

- ▶ The product complies with the FCC / Canada portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. The further RF exposure reduction can be achieved if the products can be kept as far as possible from the user body or set the device to lower output power if such function is available.
- ▶ For body-worn operating conditions please use belt-clips, holsters, and/or accessories that have no metallic component in the assembly and must provide at least 10mm separation between the device and the user's body.
- ▶ FCC SAR Value (Standard limit is 1.6 W/Kg)
- ▶ USA (1g): Max. 1.42 W/Kg
- ▶ A minimum separation distance of 0.5 cm must be maintained between the user's body and the device, including the antenna during body-worn operation to comply with the RF exposure requirements in Europe.
- ▶ To compliance with RF Exposure requirements in Europe, third-party belt-clips, holsters or similar accessories used by this device should not contain any metallic components. The use of accessories that do not satisfy these requirements may not comply with RF exposure requirements, and should be avoided.
- ▶ CE SAR Value (Standard limit is 2 W/Kg)
- ▶ EU (10g): Max. 0.868 W/Kg

► 台灣 NCC 注意事項

第十二條 經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第十四條 低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

前項合法通信，指依電信法規定作業之無線電通信。

低功率射頻電機需忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

註：若要減少電磁波影響，請妥適使用。SAR 標準值 2.0W/Kg。

► Brazil SAR Caution:



Modelo: RK96

"Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados."

"Para informações do produto homologado acesse o site: <https://sistemas.anatel.gov.br/sch>"

"Este produto está homologado pela Anatel de acordo com os procedimentos regulamentados para avaliação da conformidade de produtos para telecomunicações e atende aos requisitos técnicos aplicados, incluindo os limites de exposição da Taxa de Absorção Específica referente a campos elétricos, magnéticos e eletromagnéticos de radiofrequência no valor máximo de 0,516W/kg (10g)."

- (1) L'appareil ne doit pas produire de brouillage;
- (2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

► Thailand

“เครื่องโทรคมนาคมและอุปกรณ์นี้มีความสอดคล้องตามมาตรฐานหรือข้อกำหนดทางเทคนิคของ กสทช.”

“เครื่องวิทยุคมนาคมนี้มีอัตราการดูดกลืนพลังงานจำเพาะ (Specific Absorption Rate - SAR)

อันเนื่องมาจากเครื่องวิทยุคมนาคมเท่ากับ 0.247 W/kg

ซึ่งสอดคล้องตามมาตรฐานความปลอดภัยต่อสุขภาพของมนุษย์จากการใช้เครื่องวิทยุคมนาคมที่คณะกรรมการกิจการโทรคมนาคมแห่งชาติประกาศกำหนด”



เครื่องวิทยุคมนาคมนี้ ได้รับยกเว้น ไม่ต้องได้รับ
ใบอนุญาตให้มี ใช้ซึ่งเครื่องวิทยุคมนาคม
หรือตั้งสถานีวิทยุคมนาคมตามประกาศ กสทช.
เรื่อง เครื่องวิทยุคมนาคม และสถานีวิทยุ
คมนาคมที่ได้รับยกเว้นไม่ต้องได้รับใบอนุญาต
วิทยุคมนาคม ตามพระราชบัญญัติวิทยุ
คมนาคม พ.ศ. 2498



กสทช. | โทรคมนาคม
กำกับดูแลเพื่อประชาชน
Call Center 1200 (Insw5)

IMPORTANT SAFETY INSTRUCTIONS AND WARNINGS FOR LI-ION/POLYMER BATTERY

Lithium batteries are prone to capacity loss and swelling when exposed to high temperatures, excessive discharge, or overcharging. While CipherLab pre-charges batteries before shipment to prevent excessive discharge, it's crucial for customers to follow the guidelines below for battery usage and storage:

1. If the batteries will not be used for long periods, store them in an environment at room temperature and charge them to 60% to 70% of capacity every 3 to 4 months.
 2. Please avoid leaving the battery installed in the device for long periods, even when the device is powered off. Standby power consumption may occur, leading to potential excessive discharge of the battery.
 3. Avoid prolonged charging of the batteries. It is recommended to unplug the charging cable within 48 hours after the battery is fully charged to avoid damaging the battery's lifespan.
- ▶ It is important for users to be aware of the risks associated with lithium batteries.
 - ▶ Lithium Polymer and Li-ion batteries are volatile. Failure to read and follow the below instructions may result personal injury and damage to device if charged or used improperly.
 - ▶ Lithium Polymer/Li-ion batteries have limited life cycle for charging and discharging. When life cycle has been reached, battery may swell.
 - ▶ Must keep Lithium Polymer and Li-ion battery away from children.
 - ▶ Never make wrong polarity connection when charging and discharging battery. Always double check polarity of battery's connector.
 - ▶ If battery has not been using or staying in device for 2 months, please do battery complete discharging and charging once before use. Always detach battery from device if you will not use device for long period of time.

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.

DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS

- ▶ Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery that can result in an explosion.
- ▶ Leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas.
- ▶ A battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas.

GENERAL GUIDELINE AND WARNING

- ▶ Use specific Lithium Polymer/Li-ion charger from CipherLab only. Failure to do so may cause fire, which may result in personal injury and property damage.
- ▶ Never charge batteries unattended. When charging Lithium Polymer/Li-ion batteries, you should always remain in constant observation to monitor the charging process and react to potential problems that may occur.
- ▶ Some Polymer/Li-ion chargers on the market may have technical deficiencies that may cause it to charge the LiPo/Li-ion batteries incorrectly or at an improper rate. Assure the charger you purchased works properly and always monitor charging process to ensure batteries are being charged properly. Failure to do so may result in fire.
- ▶ If at any time you witness a battery starting to balloon, swell up, smoke or hot; stop using this battery at once and contact your dealer immediately.
- ▶ If you accidentally short the battery polarity, the battery must be placed in a safe area for observation for approximately 15 minutes. Additionally, if a short occurs and contact is made with metal (such as rings on your hand), severe injuries may occur due to the conductivity of electric current.
- ▶ In the event of a crash due to bad shipment or other reasons, you must remove damaged battery for observation and place the damaged batteries from other good batteries.
- ▶ Never drop the batteries.
- ▶ Do NOT expose battery to water.
- ▶ Do NOT attempt to dis-assemble battery.
- ▶ Recommended to put the battery in an enclosure to protect it from damages by liquid or dropping from height accidentally.

CHARGING PROCESS

- ▶ Please ensure to charge battery indoor such as a well-ventilated room between 20°C to 30°C.
- ▶ Do NOT charge battery under direct sunlight.
- ▶ When selecting the cell count or voltage for charging purposes, select the cell count and voltage as it appears on the battery label. As a safety precaution, please confirm the information printed on the battery is correct.
- ▶ Lithium Polymer/Li-ion batteries has limited life cycle for charging and discharging. When life cycle has been reached, battery may swell.
- ▶ The allowed charging temperature is from 0°C to 40°C.
- ▶ During discharge and handling of batteries, do not exceed 50°C.

STORAGE & TRANSPORTATION

- ▶ CipherLab battery is charged in manufacturing to around 30% of its full capacity. It is a good capacity for long-term storage & transportation.
- ▶ Battery should NOT be stored in full-charged or full-discharge state; otherwise it will damage battery permanently.
- ▶ Battery subjects to discharge even when not installed in a device. For any stored & un-used battery, it is highly recommended for every 3 months to charge battery to 40%~60% of its original capacity to prolonged storage.
- ▶ Always detach battery from device if you will not use device for long period of time.
- ▶ Store battery indoor temperature between 0°C to 30°C for the best performance.
- ▶ Do NOT store battery in temperature exceeding 50°C, and never expose battery pack to high external pressure for extended periods, which can lead to an internal short circuit and overheating.
- ▶ When transporting or temporarily storing in a vehicle, temperature range should be greater than 0°C but no more than 45°C.
- ▶ Storing battery at temperatures greater than 50°C for extended periods of time (more than 2 hours) may cause damage to battery.

TO USE, HANDLE, AND DISPOSE BATTERY

- ▶ For Li-ion / Li-polymer battery, it is normal to balloon, expand, or swell after one year or 500 cycles (full charge-discharge cycles). Although we guarantee it will NOT cause any damage, it can't be used again and must be disposed at once, therefore we strongly recommend to replace battery every year or after 500 cycles, depend on which comes first.
- ▶ If a battery performance decreases more than 20%, it means the battery is at the end of its life cycle. Please stop using this battery, dispose properly according to the location's safe battery disposal procedures, and replace with a new / healthy one.
- ▶ The actual number of charge cycle will vary depending on usage conditions, patterns, ambient temperature, and other variables.
- ▶ Do NOT discharge battery to a level below 5V per battery under load. Deep discharge below 3V can deteriorate battery performance.
- ▶ Use caution to avoid puncture of the battery. Puncture of battery may damage battery cell.
- ▶ Periodically and properly dispose used battery according to local regulations.

PRODUCT WARRANTY

- ▶ Product warranty is limited to original manufacturing defects in material only. Warranty will not apply to batteries with reduced capacity due to user scenario, unless determined to be a manufacturing flaw.
- ▶ Warranty does not cover collateral damage. Due misuse, abuse, incorrect charging and other inappropriate use of this product are not covered under warranty.

SAFETY PRECAUTIONS

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

For people's safety

- ▶ Do not listen at high volume levels for long periods to prevent possible hearing damage.
- ▶ Do not operate this device while walking, cycling or car driving.
- ▶ Overuse may damage your eyes.

For the equipment

- ▶ Do not use any batteries or charging devices which are not originally sold or manufactured by CIPHERLAB CO., LTD.
- ▶ Do not replace the battery with an incorrect type, to avoid the risk of heat generation, fire, or explosion.
- ▶ Do not disassemble, incinerate or short circuit the battery.
- ▶ Do not touch the contact pins of the battery pack.
- ▶ Do not expose the mobile computer or battery to any flammable sources.
- ▶ Do not expose the mobile computer to extreme temperatures or soak it in water.
- ▶ Do not use any pointed or sharp objects against the screen surface.
- ▶ Do not use the styluses which are not supplied or approved by CIPHERLAB CO., LTD., to prevent possible scratches to the touch screen.
- ▶ Water residue on the touch screen may cause abnormal behaviors or the fall of its sensitivity levels.
- ▶ On the surface of the terminal and the barcode reading window, the fog or water drops caused by low temperatures may influence barcode reading.
- ▶ Do not use bleaches or cleaners to clean the device. Use a clean, wet cloth instead.

BATTERY

- ▶ The main battery may not be charged to full for shipment. Charge the main battery to full before using the mobile computer for the first time.
- ▶ **Main battery:** The main battery powers the mobile computer to work. It takes approximately 4 hours to charge an **7000 mAh** main battery. For the first time charging the main battery, please charge it for at least 8 to 12 hours. The charging LED above the screen will light up in red while charging and will turn green when charging is complete.
- ▶ **Main battery for Cold Chain Model:** The main battery for Cold Chain model is **5500 mAh** and it takes approximately 6 hours to charge it to be full. For the first time charging the main battery, please charge it for at least 8 to 12 hours. The charging LED above the screen will light up in red while charging and will turn green when charging is complete. When the main battery is removed, RTC retention will be maintained for at least 30 minutes.
- ▶ **Backup battery:** The backup battery is mounted on the main board. Its role is to temporarily keep the mobile computer in suspension when the main battery is drained out so data in DRAM will be retained. The backup battery can be charged by the main battery or the power adapter, and takes approximately 4 hours to charge to full under the condition that it is always be charged except of power off.
- ▶ The allowed battery charging ambient temperature is between 0°C to 45°C. It is recommended to charge the battery at room temperature (18°C to 25°C) for optimal performance.
- ▶ Please note that battery charging stops when ambient temperature drops below 0°C or exceeds 45°C.
- ▶ In order to prevent system from shutting down after the battery is drained out, keep a fresh battery for replacement at all times, or connect the mobile computer to an external power.
- ▶ If there are drippings or dust on the device or battery pack, wipe them away with a soft clean cloth before battery replacement.
- ▶ Turn off the power before main battery replacement (except of battery hot swap at the available temperature range 0°C to 50°C).
- ▶ If you want to put away the mobile computer for a period of time, remove the battery pack from the mobile computer's battery compartment. Store the mobile computer and battery pack separately.
- ▶ Recycle batteries in a proper way for the green-environment issue.

SCANNER

▶ Scan a 1D barcode

- 1) Open **ReaderConfig** and tap **Scan Test** on the menu bar.
- 2) Aim the scanning window at the barcode to read. Move the device, having the barcode located in the center of the scanning area.
- 3) Press any of the two side triggers. The scanning light beams to read the printed barcodes. The buzzer beeps after scanning. The scanning light goes off once the data is decoded, or when the decode timeout period has passed.

▶ Scan a 2D barcode

- 1) Open **ReaderConfig** and tap **Scan Test** on the menu bar.
- 2) Aim the scanning window at the barcode to read. Move the device, having the barcode located in the center of the scanning area.
- 3) Press any of the two side triggers. The scanning light beams to read the printed barcodes. The buzzer beeps after scanning. The scanning light goes off once the data is decoded, or when the decode timeout period has passed.

CONNECTION

Via Bluetooth or WLAN

- ▶ Connection may fail when the mobile computer is around other wireless machines or power cables as the radio frequencies of those may cause interferences.
- ▶ If communication fails, move the devices much closer to each other, and try to communicate again.
- ▶ After turning on, Bluetooth power is sustained even when the mobile computer is suspended. However, if the power mode is switched to Airplane Mode, Bluetooth power will be turned off regardless of the settings.

To a Charging & Communication Cradle

- ▶ Do not insert the mobile computer to a Charging & Communication Cradle if water or drippings are staying on the device.
- ▶ The LED indicator on a Charging & Communication Cradle shows the status of battery charging only; the status of terminal charging is shown on the device itself.
- ▶ Not Charging could be the result of battery damage, battery's failure to touch the connector or AC plug coming off.
- ▶ Charging error could be due to high battery temperature.

CARE & MAINTENANCE

- ▶ This mobile computer is intended for industrial use. The mobile computer is rated IP65, however, damage may be done to the mobile computer if it is exposed to extreme temperatures or soaked in water.
- ▶ When the body of the mobile computer gets dirty, use a clean, wet cloth to wipe off dust and debris. DO NOT use bleaches or cleaners.
- ▶ Use a clean, non-abrasive, lint-free cloth to wipe dust off the LCD touch screen. DO NOT use any pointed or sharp objects against the surface. Always keep the LCD dry.
- ▶ If you want to put away the mobile computer for a period of time, download the collected data to a host computer, and then remove the battery pack from the mobile computer's battery compartment. Store the mobile computer and battery pack separately.
- ▶ If you encounter malfunction on the mobile computer, write down the specific scenario and consult your local sales representative.

E-LABEL

Mobile Computer 行動電腦

Model : RK96



INPUT 5V , 2 A

United States

FCC ID : Q3N-RK96



This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Canada

IC: 5121A-RK96

CAN ICES-3 (B) / NMB-3 (B)

Complies with Canadian ICES-003 Class B.
Conforme a la NMB-003 classe B du Canada.

This device complies withISED's licence-exempt RSSs. Operation is subject to the following two conditions :
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.



Taiwan



減少電磁波影響, 請妥適使用
使用過度恐傷害視力

Australia / New Zealand



Europe

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United Kingdom



**Russia / Belarus / Kazakhstan /
Armenia / Kyrgyzstan**



India

IS 13252 (PART1)



R-41077615
www.bis.gov.in

Made in Taiwan

 Declaration of Conformity

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Type of Equipment

Mobile Computer

Model(s) Declared

RK96

Initial Year of Manufacture **2025**

Reference to the specification under which conformity is declared in accordance with Council Directive- 2014/30/EU(EMC), 2014/35/EU(LVD), 2014/53/EU,(EU) 2022/30, (EU) 2023/2444 (RED), 2011/65/EU (RoHS).

EN 300 328 V2.2.2

EN 303 413 V1.2.1

EN 300 330 V2.1.1

EN 301 908-2 V13.1.1

EN 301 893 V2.1.1

EN 300 440 V2.2.1

EN 61000-3-2 :2014

EN 55035 : 2017+A11:2020

EN 55032: 2015+AC:2020

EN 62368-1:2020 +A11:2020

EN 62209-1 2016

EN 62209-2 2010+A1:2019

EN 301 489-1 V2.2.3

EN 301 489-3 V2.3.2

EN 61000-3-3 :2013

EN 301 489-52 V1.2.1

EN 301 489-17 V3.2.4

EN 301 489-19 V2.2.1

EN 50566:2017

62209-1528:2021

62311:2020

EN 303 687 V1.1.1

EN 18031-1:2024

EN 18031-2:2024

I the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s) and Standard(s).

Manufacture Signature

Richard Hsu

Full Name : Richard Hsu

Title : Supervisory Engineer

Date: 2025.11.13

RELEASE NOTES

Version	Date	Notes
1.01	Apr. 21 th , 2026	• Modify “Battery Saver Mode”, “Low Sub Battery Alert” part of Section 2.1.2 “Monitor Battery Level”. • Modify “Battery Swap” part of Section 2.1.3 “Replace Main Battery”. • Modify term “Quick Setting Menu” in all related sections. • Modify table title “LED 2 for Reader & System Notification”. • Modify description in 2.6.3 “Regional Preferences”. • Modify Section 3.4 “Orange Key”. • Modify description in 3.5.4 “Shift Key of 53-Key Model”. • Modify 3.8.3 “For 47-Key Model”. • Update figure in 3.11 “Keypad Sound & Keypad Backlight”, 4.6.1 “Erase All Data (Factory Reset)”. • Modify title 4.6.2 “Erase All Data (Factory Reset with Enterprise)”. • Modify description in 5.2.1 “Automatic Mode”. • Modify 5.3.1 “Pre-Heat”, 5.3.2 “Defrost”. • Modify Appendix II.
1.00	Mar. 17 th , 2026	• Initial release

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INTRODUCTION

The **RK96** mobile computer, powered by Android 15, is light-weight, easy to use, providing powerful and handy tools for the purpose of delivering flexibility in customization.

Specifically designed to work as an industrial PDA, it provides rich options of data collection, voice and data communication, long-lasting working hours, and so on. Its large color transmissive display guarantees ease in reading in all lighting conditions. Integrated with Bluetooth 802.11 a/b/g/n/ac/ax/be/d/h/i/r/k/v/w, dual band, MU-MIMO 2x2 networking technologies, the mobile computer gains greater speeds and optimal mobility.

This manual serves to guide you through how to install, configure, and operate the mobile computer. The [Care & Maintenance](#) section is specifically crucial for those who are in charge of taking care of the mobile computer.

We recommend you to keep one copy of the manual at hand for quick reference or maintenance purposes. To avoid any improper disposal or operation, please read the manual thoroughly before use.

FEATURES

- ▶ Built tough to survive drop test and sealed against moisture/dust to industrial standard IP65.
- ▶ Android 15 operating system with a powerful Qualcomm Q-6690 Octa-core CPU.
- ▶ 128GB eMMC flash memory to store OS and software programs.
- ▶ 8GB LPDDR4 SDRAM to store and run programs, as well as store program data.
- ▶ One expansion slot for microSDHC card up to 32GB and microSDXC card up to 2TB.
- ▶ Built-in autofocus 16 megapixels rear camera with LED flash.
- ▶ Left and right side triggers for ambidextrous scanning.
- ▶ Total wireless solution — connectivity includes Bluetooth 802.11 a/b/g/n/ac/ax/be/d/h/i/r/k/v/w, dual band, MU-MIMO 2x2 networking, and near field communication (NFC, available on request).
- ▶ A 4.3-inch, LCD, Corning® Gorilla® Glass display with 480x800 pixels to deliver excellent visibility in all lighting conditions.
- ▶ Configurable feedback indicators including speaker and vibrator.
- ▶ Built-in scan engine setting tool Reader Configuration which serves out-of-the-box keyboard wedge functionality.
- ▶ E-Ink display for identifying mobile devices and businesses.

INSIDE THE PACKAGE

The following items are included in the kit package. Save the box and packaging material for future use in case you need to store or ship the mobile computer.

- ▶ RK96 Mobile Computer
- ▶ Rechargeable Li-ion Battery
- ▶ Quick Start Guide
- ▶ Pistol Grip (optional)
- ▶ Rubber Boot (optional)
- ▶ AC Power Adapter (optional)
- ▶ Hand Strap (optional)
- ▶ Snap-on Charging & Communication Cable (optional)

ACCESSORIES

- ▶ 1-slot Charging and Communication Cradle
- ▶ Pistol Grip
- ▶ Protective Rubber Boot
- ▶ 4-Slot Battery Charger
- ▶ 5-Slot Charging Cradle
- ▶ 5-Slot Terminal Cradle
- ▶ 4-Slot Terminal and 4-Slot Battery Cradle
- ▶ 4-Slot Charging and 4-Slot Battery Cradle

RELATED DOCUMENTATION

Please visit [CipherLab website](#) to access the related documentation about the RK96 mobile computer.

Chapter 1

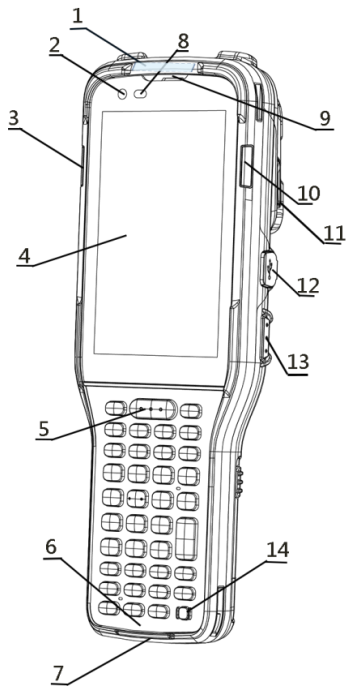
QUICK START

This chapter helps you get ready for starting using the mobile computer.

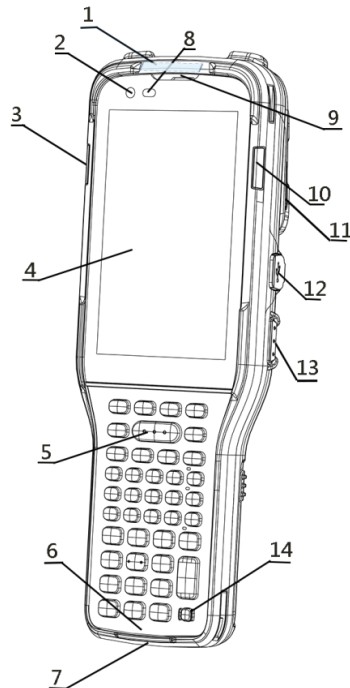
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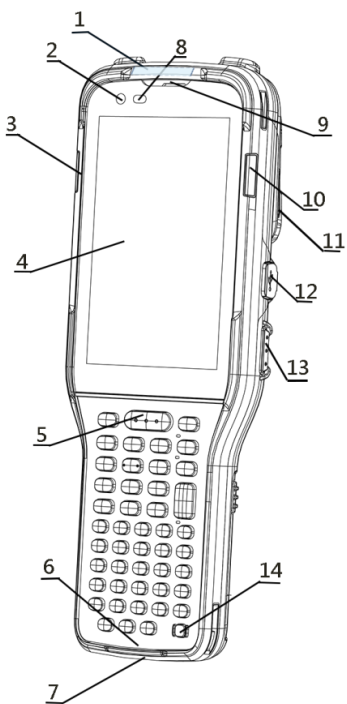
1.1. OVERVIEW



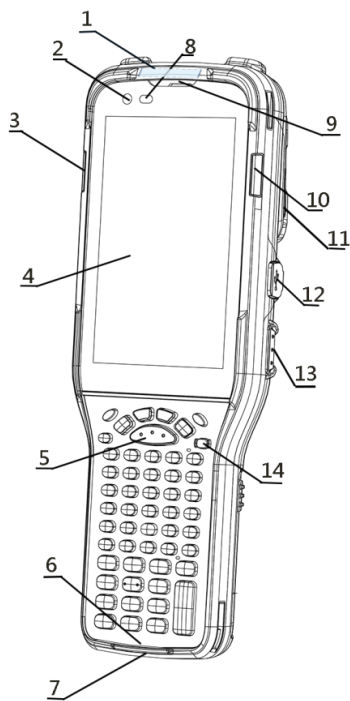
38-Key Model



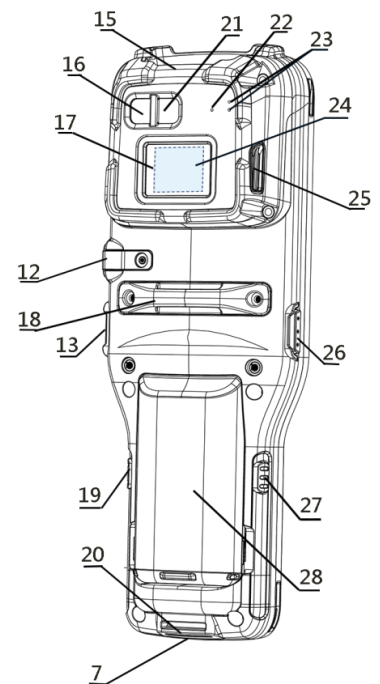
41-Key Model



47-Key Model



53-Key Model



No	Description	No.	Description
1.	NFC Detection Area 1	15.	Scan window
2.	Front Camera	16.	Rear Camera
3.	Status LED (Left)	17.	E-Ink Display
4.	Touchscreen	18.	Handstrap Cover
5.	Scan Key	19.	Battery Cover Release Button (Right)
6.	Microphone	20.	Handstrap Hole
7.	Charging & Communication Pins	21.	Camera Flash
8.	Proximity + ALS Sensor	22.	Rear Microphone
9.	Receiver	23.	Temperature Sensor
10.	Status LED (Right)	24.	NFC Detection Area 2 (for E-Ink only)
11.	Speaker (Right)	25.	Speaker (Left)
12.	USB-C Port with Cover	26.	Side Trigger (Left)
13.	Side-Trigger (Right)	27.	Battery Cover Release Button (Left)
14.	Power Button	28.	Battery (with Cover)

1.1.1. INSTALL/ REMOVE BATTERY

For shipping and storage purposes, the mobile computer and the main battery are saved in separate packages.

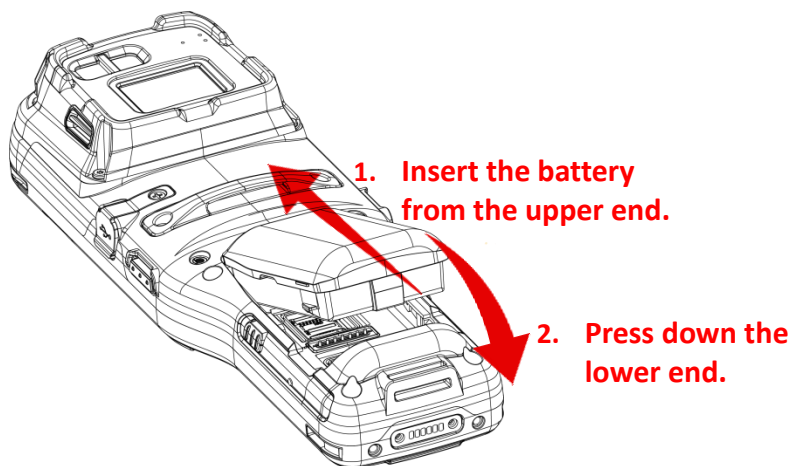
Note:

- (1) Any improper handling may reduce the battery life.**
 - (2) Always use a fully-charged main battery for battery replacement.**
-

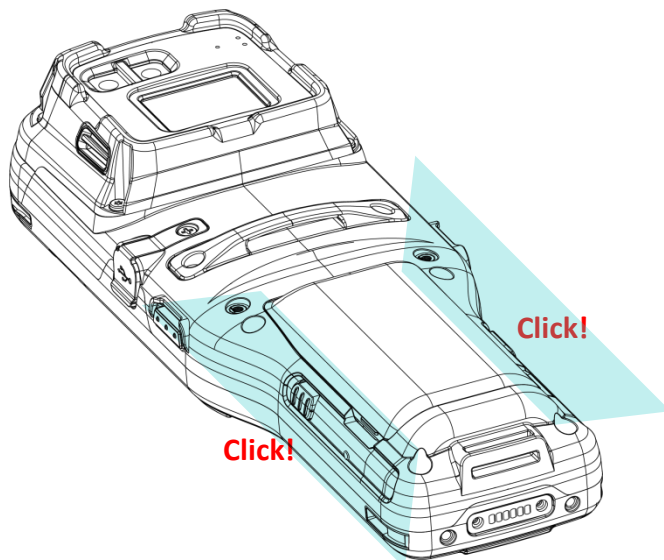
INSTALL BATTERY

To install the main battery:

- 1) Insert a fully-charged main battery into the battery chamber from the upper end, and then press down the lower edge of the battery.



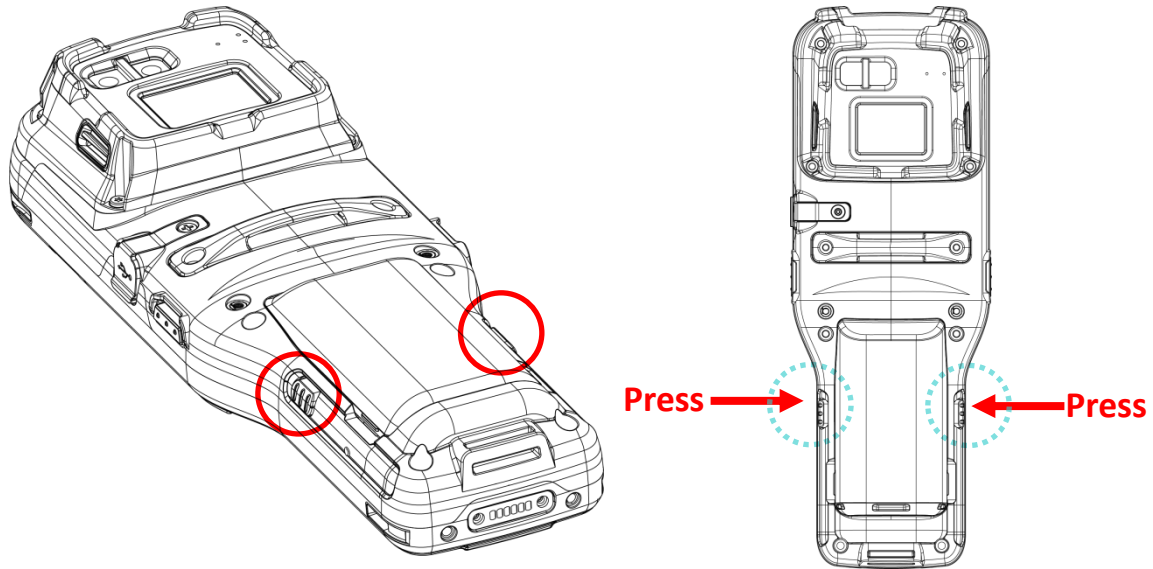
- 2) A click sound is made once the battery is in place.



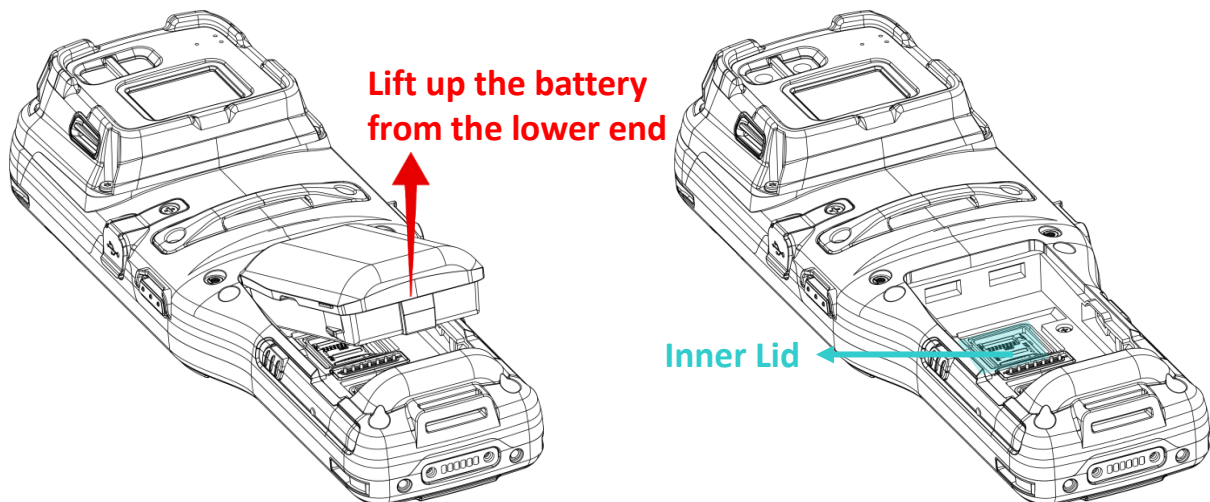
REMOVE BATTERY

To remove the battery:

- 1) Press the release button on the two sides of the device at the same time.



- 2) The battery slightly tilts up and is ready to be removed. By holding the two sides of the battery cover, lift up the main battery (which is with the battery cover) from its lower end to remove it.



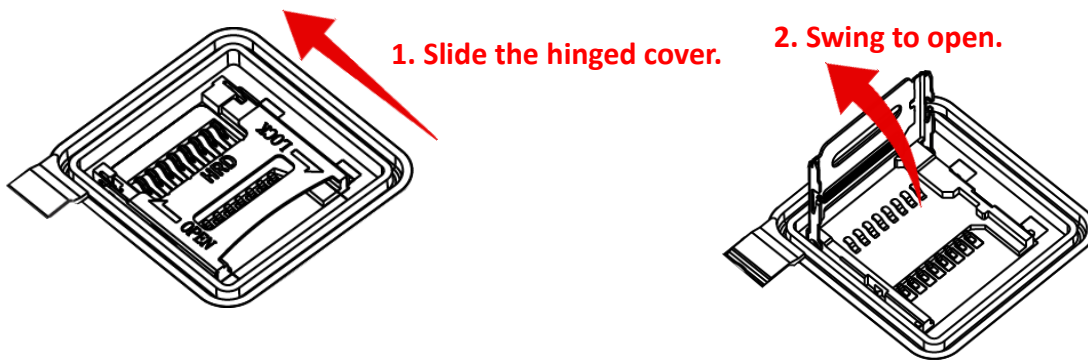
1.1.2. INSTALL/ REMOVE MEMORY CARD

The RK96 mobile computer is equipped with 1 memory card slot.

To **install/ remove the card**:

1) Remove the battery as described in [Remove Battery](#).

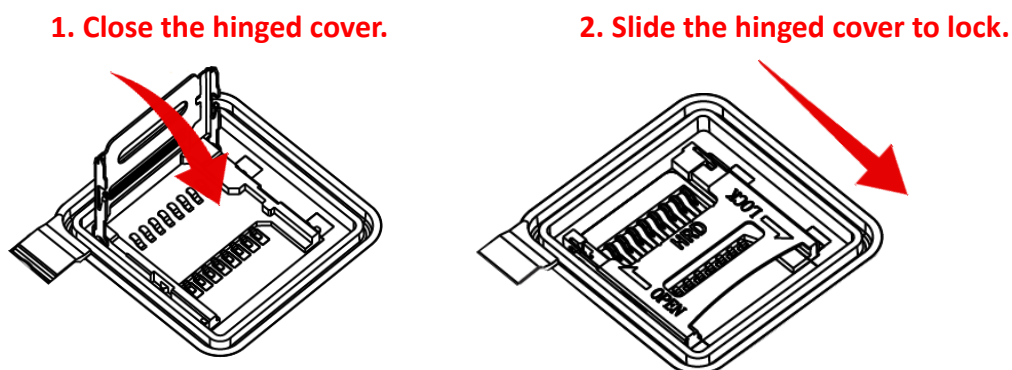
2) Slide the hinged cover backward, and swing the top to open.



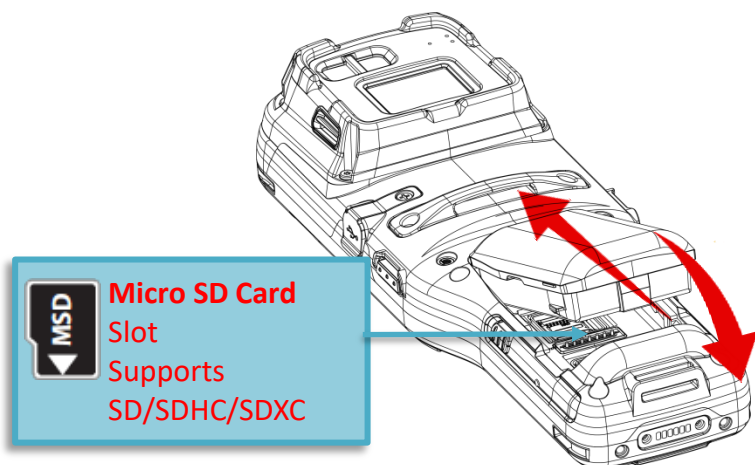
3) **Install:** Place the card into the slot with its metal contacts downward.

Remove: take out the card directly from the slot.

4) Close the hinged cover, and then slide it to lock.



5) Install the battery.



1.1.3. POWER ON/OFF MOBILE COMPUTER

POWER ON

To power on the mobile computer, press and hold the power button  located on the keypad of the device. The mobile computer will turn on and show the **Home Screen** after splash screen.

38-Key Model



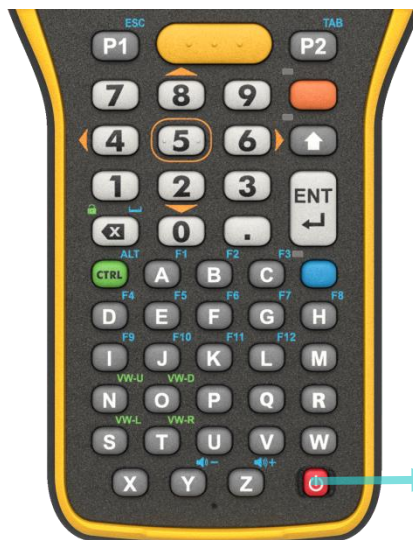
→ Power Button

41-Key Model



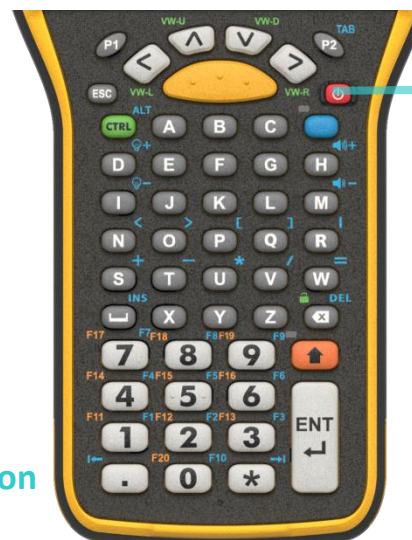
→ Power Button

47-Key Model



→ Power Button

53-Key Model

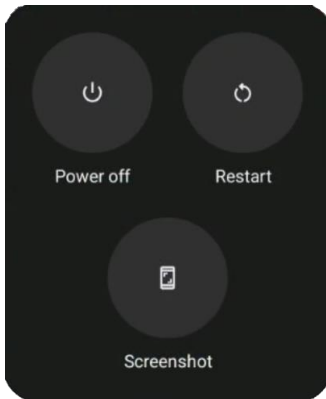


→ Power Button

Note: For the mobile computer to power on, the battery must be secured in place.

POWER OFF

To power off the mobile computer, press and hold the power button  for more than three seconds. A menu will appear on-screen which allows you to power off the device. Make sure all user data and tasks have been stored before tapping on **Power off**.



1.1.4. PHYSICAL KEYPAD



1.2. CHARGING & COMMUNICATION

1.2.1. CHARGE MOBILE COMPUTER

The main battery may not be charged to full for shipment. When you first receive the kit package, you will need to charge the main battery to full before using the mobile computer. You may use the Snap-on Charging Cable or Charging & Communication Cradle along with a power adapter to charge the mobile computer.

Your device can also be charged by connecting to a host computer using a USB Type-C cable. It's slower than charging using the supplied snap-on cable or Charging & Communication Cradle.

CHARGING TIME

► **Main battery:**

The main battery powers the mobile computer to work. It takes approximately 4 hours to charge an **7000 mAh** main battery to full. For Cold Chain model battery whose capacity is **5500 mAh**, it takes approximately 6 hours to charge it to be full.

For the first time charging the main battery, please charge it for at least 8 to 12 hours. The charging LED located on the both side of the screen will light up in red while charging and will turn green when charging is complete.

When the main battery is removed, RTC retention will be maintained for at least 30 minutes.

► **Backup battery:**

The backup battery is mounted on the main board. Its role is to temporarily keep the mobile computer in suspension when the main battery is drained out so data in DRAM will be retained. The backup battery can be charged by the main battery or the power adapter, and takes approximately 4 hours to charge to full under the condition that it is always be charged except of power off.

CHARGING TEMPERATURE

The allowed battery charging ambient temperature is between 0°C to 45°C. It is recommended to charge the battery at room temperature (18°C to 25°C) for optimal performance.

Please note that battery charging stops when ambient temperature drops below 0°C or exceeds 45°C.

OPERATION ON BATTERY POWER

When Bluetooth 802.11 a/b/g/n/ac/ax/be/d/h/i/r/k/v/w, dual band, MU-MIMO 2x2 networking are all enabled on battery power, the main battery level will drop down substantially. Prolonged use of the display and continued scanning of barcodes will also affect battery level.

In order to prevent system from shutting down after the battery is drained out, we suggest that you keep a fresh battery for replacement at all times, or connect the mobile computer to an external power.

BATTERY STATUS & STATUS LED DURING CHARGE

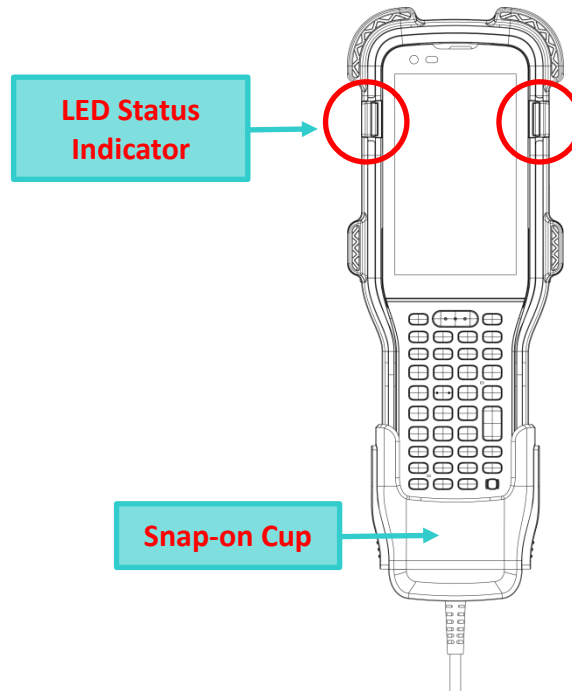
To prevent the battery from keeping being continuously charged and discharged, RK96 mobile computer will automatically stops charging the battery when the battery level reaches 100% even if it is connected with a snap-on cable or a charging & communication cradle for external power supply.

When RK96 mobile computer is connected with the external power source, the Status LEDs located on the both side of the touch screen show as below:

LED Status	Description
Red, solid	Charging the mobile computer (0-99%)
Red, blink	Charging error
Green, solid	Charging complete (100%)
No light	The cable is not correctly connected

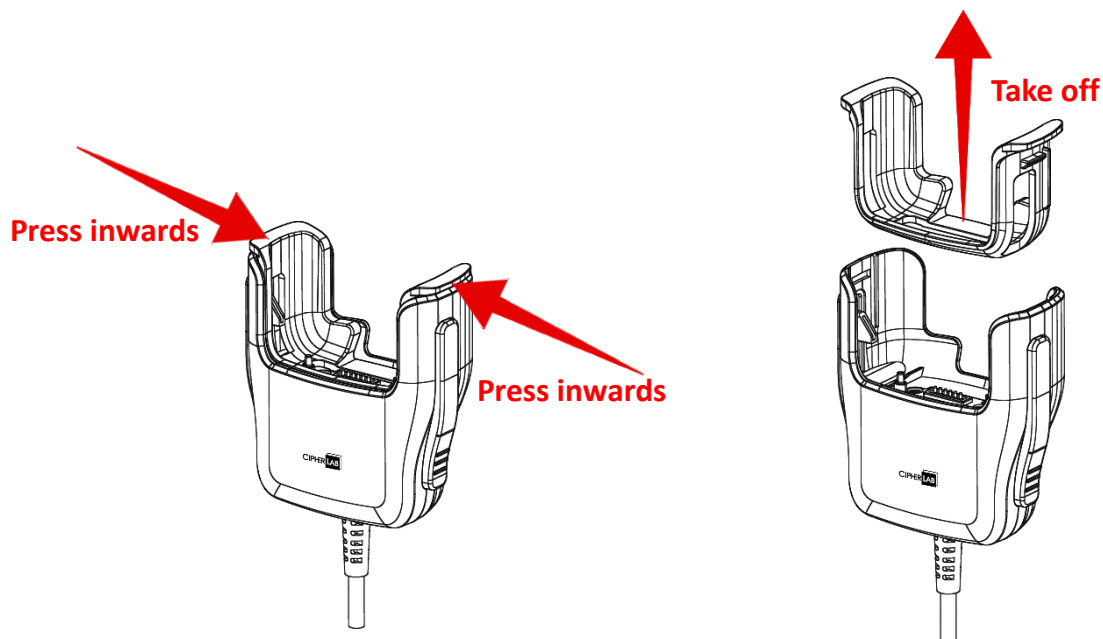
USE SNAP-ON CABLE

The Snap-on Cable provides a convenient way to charge your mobile computer as well as data communication.



Before connecting the snap-on cable with the RK96 mobile computer, the internal cup must be removed if the device is equipped with the rubber boot:

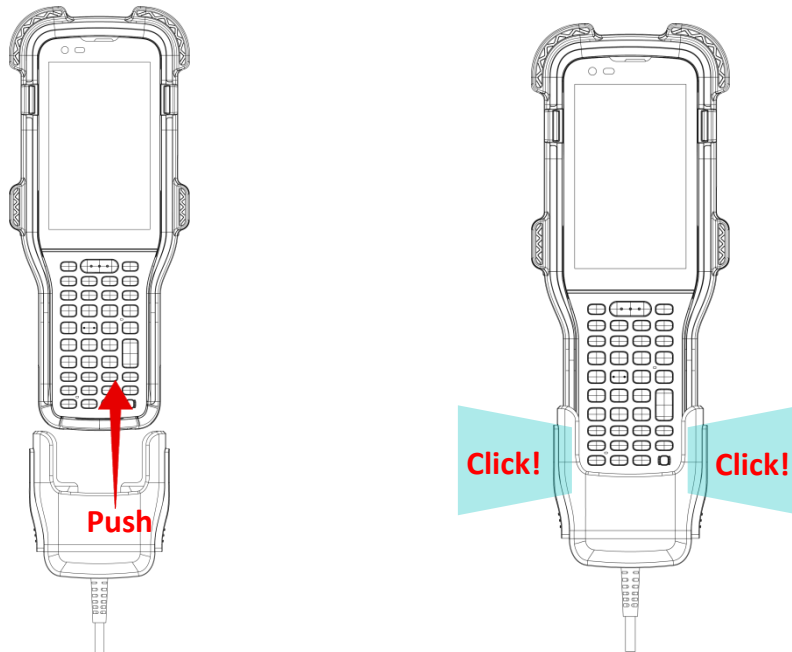
- 1) Press the two top edges inward.
- 2) Take off the internal cup.



To install the internal cup, simply push it into the snap-on cup till a "click" sound is made.

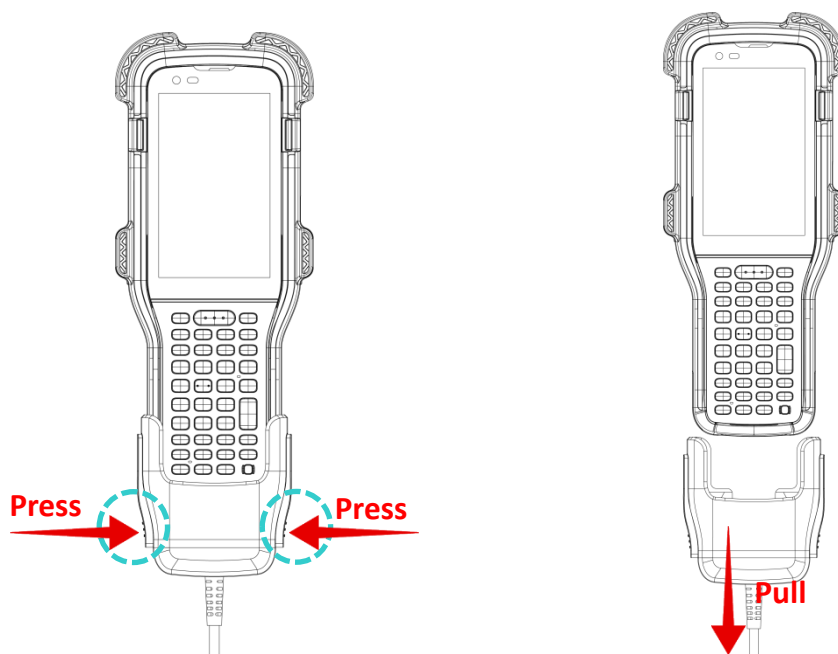
To install the snap-on cup:

- 1) Push the Snap-on cup upwards to make its another side to be attached to the RK96 mobile computer.
- 2) A "click" sound is made once the Snap-on cable is connected with the bottom of the RK96 mobile computer in place.



To remove the snap-on cup:

- 1) Hold the RK96 device and press the release buttons.
- 2) Pull the snap-on cable downwards to make the device and the snap-on cup apart.



While the device battery is being charged, the LED on mobile computer will indicate charging status.

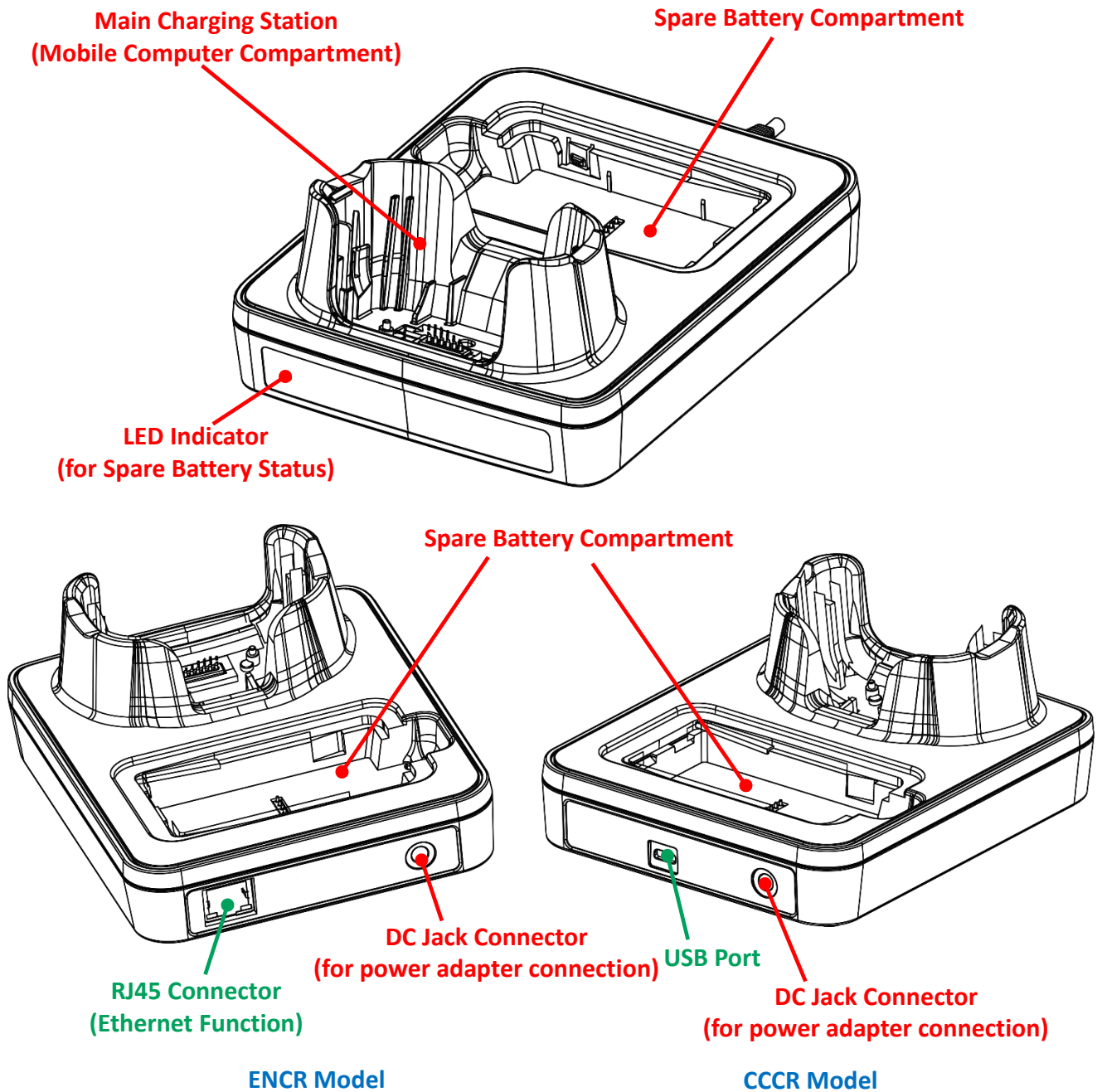
LED Indicator	Status	Description
Charging	Red, solid	Charging the mobile computer
	Red, blink	Charging error (charging will be stopped)
	Green, solid	Charging complete
	No light	The cable is not correctly connected

Note:

- (1) The USB Type-C cable must be removed before installing the snap-on cable.**
 - (2) For data communication, you could also use a USB Type-C cable to connect the mobile computer to your PC or laptop.**
-

USE CHARGING & COMMUNICATION CRADLE

The Charging & Communication Cradle charges your mobile computer and a spare battery at the same time, and it could also be used for data communication.

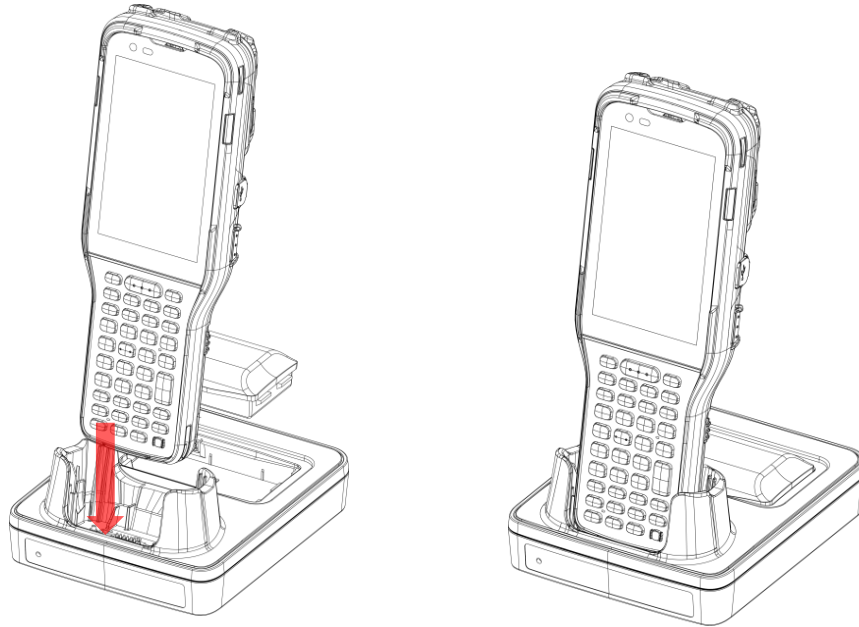


Note:

The USB Type-C cable must be removed before installing the snap-on cable. The Charging & Communication Cradle is equipped with either one Micro USB Port (CCCR Model) or one RJ45 Connector (ENCR Model).

To charge your mobile computer on the Charging & Communication Cradle:

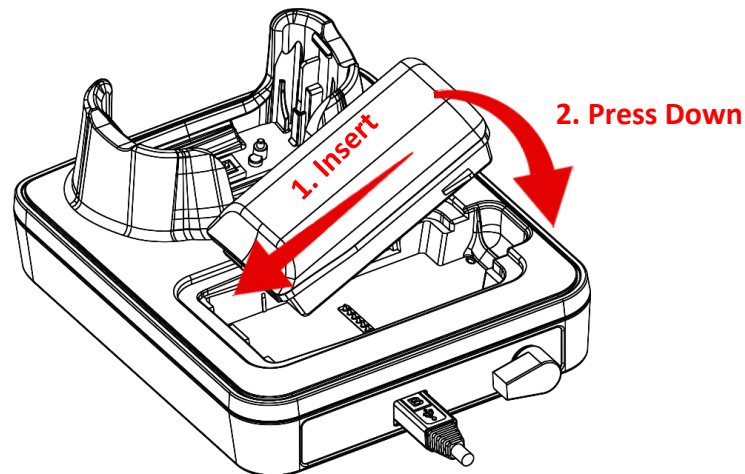
- 1) Remove the USB Type-C cable if it is connected with the RK96 mobile computer.
- 2) Insert the RK96 mobile computer onto the Cradle. The installed rubber boot is not necessary to be removed in advance before inserting the mobile computer.
- 3) Connect the adapter to the Cradle, and plug the other end into an electrical outlet.



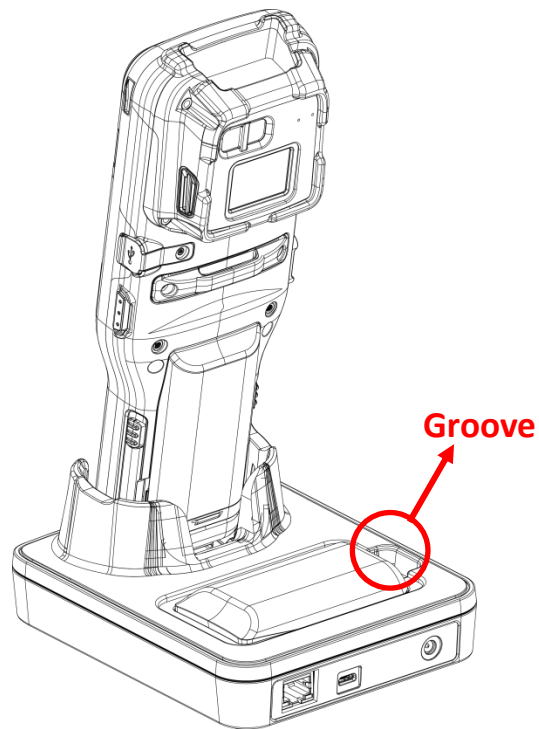
To remove, please directly take the device out.

To install the spare battery into the Charging & Communication Cradle:

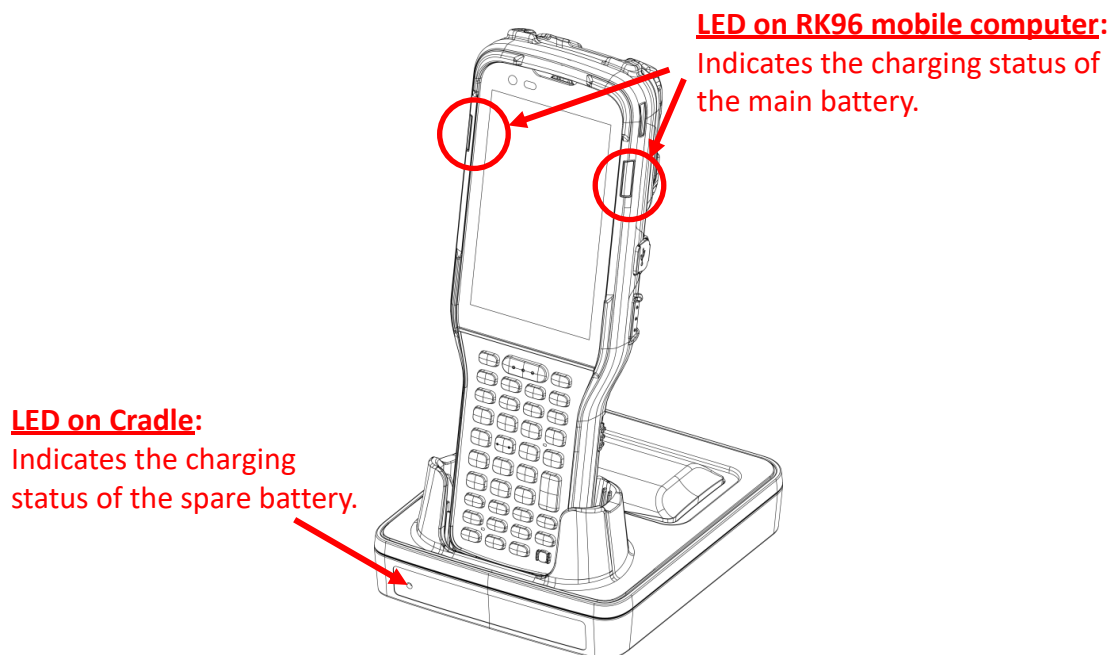
- 1) Insert the battery from its top side into the spare battery compartment.
- 2) Press down the bottom side of the battery. A “click” sound is made once the battery is in place.
- 3) Connect the adapter to the Cradle, and plug the other end into an electrical outlet.



To remove the battery from the spare battery compartment, please place your finger into the groove and pull to take the battery out.



The status of the mobile computer charging is shown on the device itself, while the LED indicator on RK96 Charging & Communication Cradle shows the status of battery charging as below:



Cradle LED Indicator	Status	Description
Charging	Red, solid	Charging the mobile computer
	Red, blink	Charging error (the charging stopped)
	Red, flash once	No battery (when the adapter is plugged in)
	Green, solid	Charging complete
	No light	Not charging (the spare battery is inserted incorrectly)

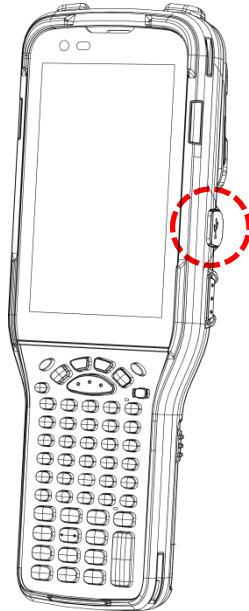
Note:

- (1) Not Charging** could be the result of battery damage, battery's failure to touch the connector, or AC plug coming off.
- (2) Charging error** could be due to high battery temperature.
- (3) The USB Type-C cable must be removed before inserting the device onto the cradle.**
-

1.2.2. WIRED DATA TRANSMISSION

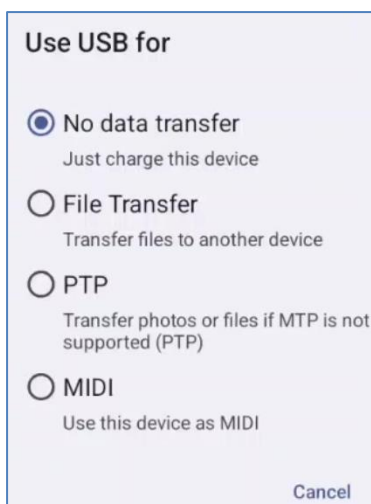
Use a USB Type-C cable or the snap-on Cable or the cradle to connect the mobile computer to your PC for data transmission.

- 1) Connect your device to the computer with a USB Type-C cable/ Snap-on Cable / Cradle.

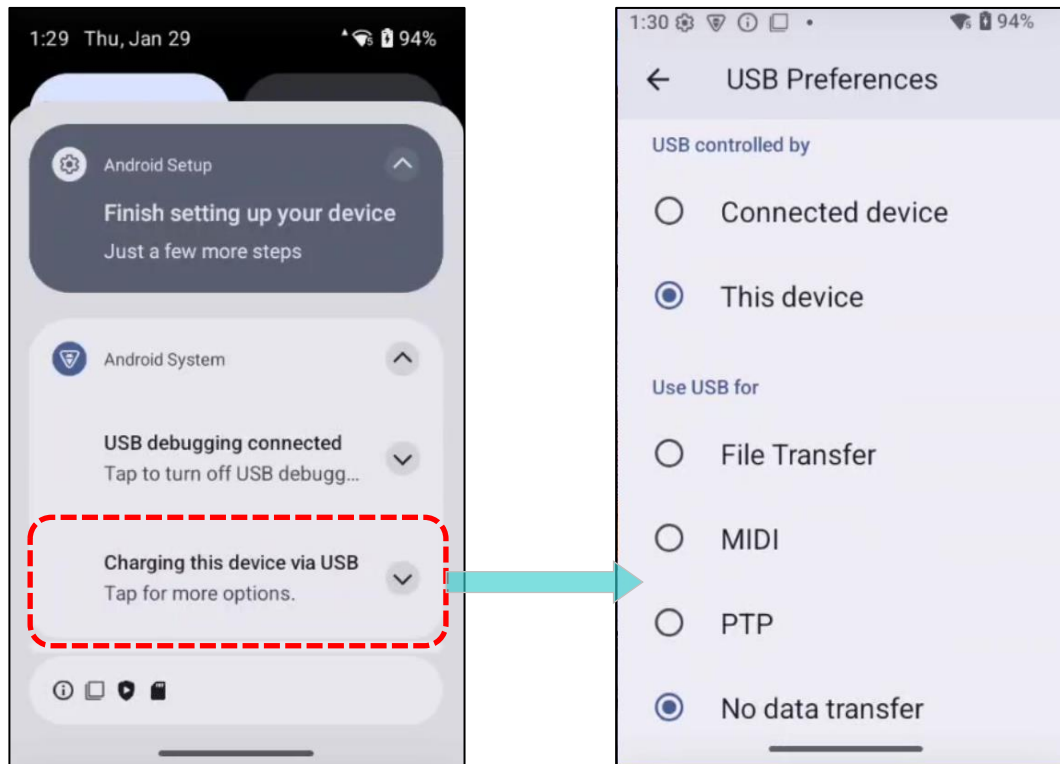


- 2) Once connected, "**USB Preferences**" page shows up. By default, the device will be in charging mode with the status "**No data transfer**", in which you are unable to access the files on this device from the PC client.

- ▶ To transfer all types of files between your device and PC, choose "**File Transfer**".
- ▶ To transfer videos and photos, you can select "**PTP**", in which your device will share only videos and photos in DCIM and Pictures folders.



To change the USB usage after you leave “**USB Preferences**” page, please swipe down from the status bar to reveal [Notifications Drawer](#), and then tap on the system notification “**Charging this device via USB**” or other USB usage notification just like this (depending on what you chose last time) to enter “**USB Preferences**” to select the option you’d like to use USB for.



1.2.3. USING WIRELESS NETWORKS

The mobile computer supports widely applied wireless technologies including Bluetooth 802.11 a/b/g/n/ac/ax/be/d/h/i/r/k/v/w, dual band, MU-MIMO 2x2 networking is able to send/receive data in real time in an efficient way.

Chapter 2

USING RK96 MOBILE COMPUTER

This chapter walks you through the fundamental usage and features of this device.

IN THIS CHAPTER

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2.1. BATTERY

MAIN BATTERY

The mobile computer is powered by a rechargeable 3.6V / 7000mAh Li-ion battery pack, and it takes approximately 4 hours to charge it to full from the power adapter (for the first time charging the main battery, please charge it for at least 8 to 12 hours). However, the charging time may vary by your working condition.

MAIN BATTERY FOR COLD CHAIN MODEL

The main battery for Cold Chain Model is a rechargeable 3.7V / 5500mAh Li-ion battery pack. It takes approximately 6 hours to charge it to full from the power adapter (for the first time charging the main battery, please charge it for at least 8 to 12 hours). However, the charging time may vary by your working condition.

SPARE BATTERY

A spare battery pack is provided as an accessory. We recommend keeping a fully charged spare battery at hand in order to replace the main battery when it is nearly drained out.

BACKUP BATTERY

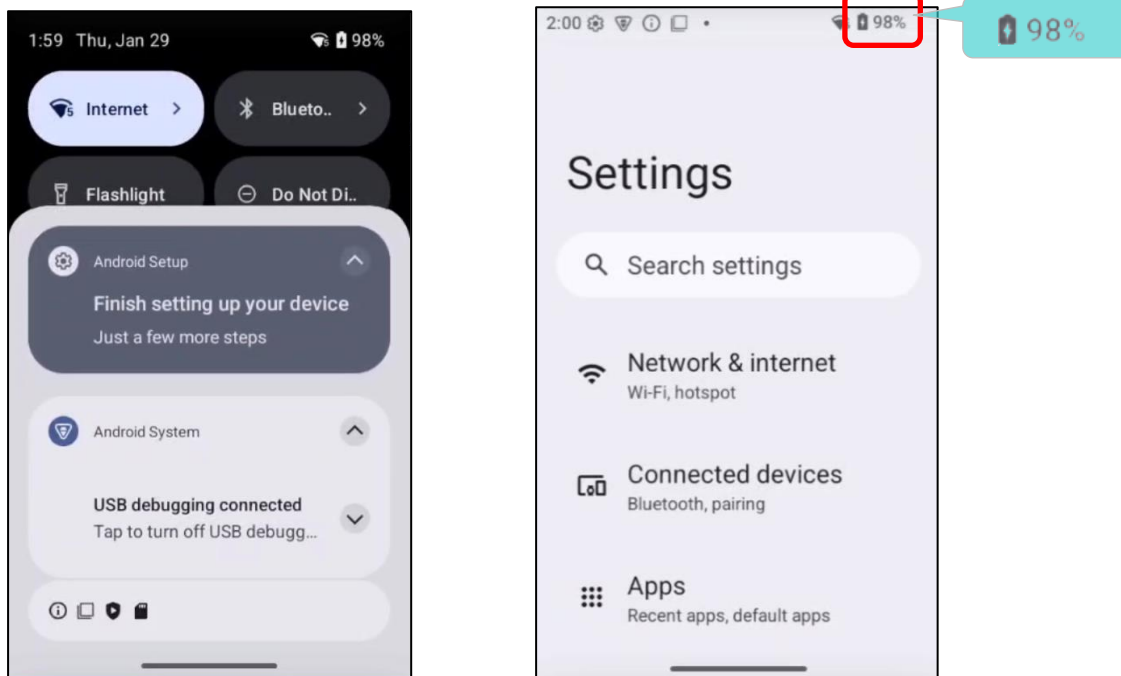
Settled on the main board is a backup battery that keeps the mobile computer in suspension when the main battery is depleted. The backup battery retains data in the DRAM for **3** minutes when it is fully charged (as long as wireless modules on the mobile computer are inactive). The backup battery can be charged by the main battery or the power adapter, and takes approximately 4 hours to charge to full.

Warning:

- (1) The battery cover must be secured in place.**
- (2) For a new battery, make sure it is fully charged before using.**
- (3) To avoid data loss, when replacing the main battery, make sure you replace it with a well-charged spare battery pack. Always prepare a spare battery at hand, especially when you are on the road.**
- (4) When the mobile computer has been on backup battery for 30 minutes, the system will shut down. Be sure to replace the main battery as soon as possible in order to avoid data loss.**

2.1.1. BATTERY STATUS INDICATORS

The main battery pack is the only power source for the mobile computer to work. Therefore, when the main battery level goes low, you need to replace the battery pack with a charged one or charge it as soon as possible. Most of all, you should backup important data on a regular basis.



By checking the battery status icon on **Status Bar**, you can tell the battery level remaining in the main battery.

Battery Icon	Description
	Main battery is fully charged.
	Main battery level is partially drained.
	Main battery level is low (5%~15%).
	Main battery level is very low and needs charging immediately (<5%).
	External power source is connected and main battery is being charged.

The percentage beside the battery icon on the status bar can be switched on or off in [App Drawer](#) | **Settings**  | **Battery**  | **Battery percentage**.



Warning:

- 1) Once the battery level drops below 15%, the low battery notification will be displayed on the screen.
 - 2) Data loss with RAM may occur when battery level is low. Always save data before the battery runs out of power or keep a fresh battery for replacement.
 - 3) Constant usage of the mobile computer at low battery level can affect battery life. For maximum performance, recharge the battery periodically to avoid battery drain out and maintain good battery health.
-

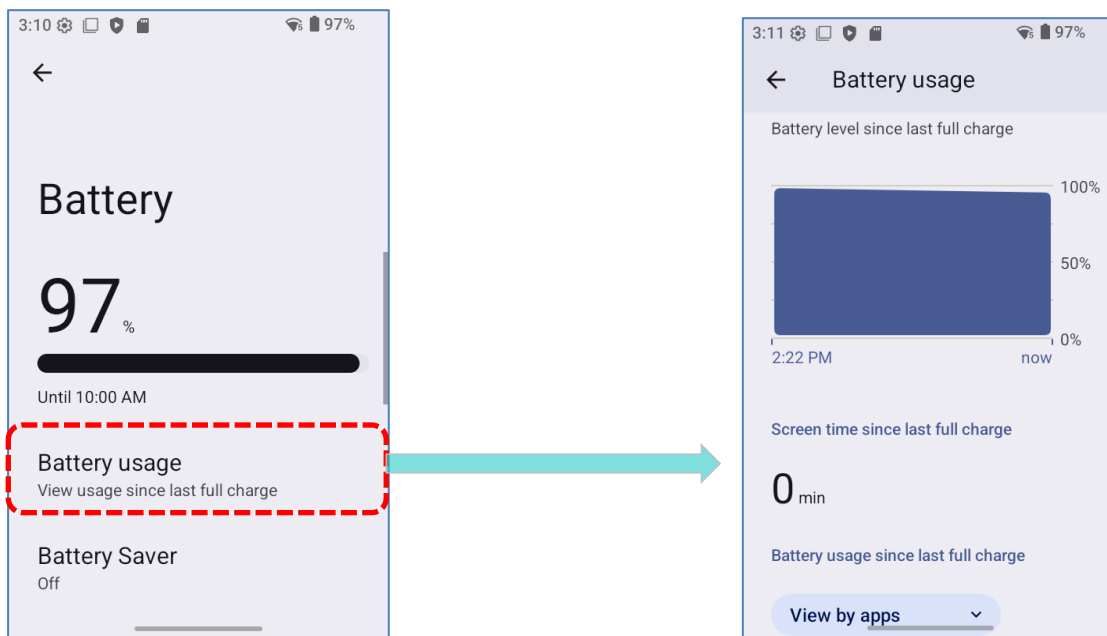
2.1.2. MONITOR BATTERY LEVEL

MAIN BATTERY LEVEL

The main battery is the only source that feeds the mobile computer to work. It also supplies the backup battery on the main board in order to retain the data stored in DRAM. When main battery level gets low, recharge it or replace it as soon as possible. Most critically, back up the important data from time to time to protect your work.

To check main battery level, please go to [App Drawer](#) | **Settings**  | **Battery**  .

Battery level percentage is shown to provide a clear grasp of the remaining battery power. Tap on "**Battery usage**", the screen shows the rate of battery discharge since the last battery charging session, how long the device has been running on battery power, and which applications are consuming the most battery power.

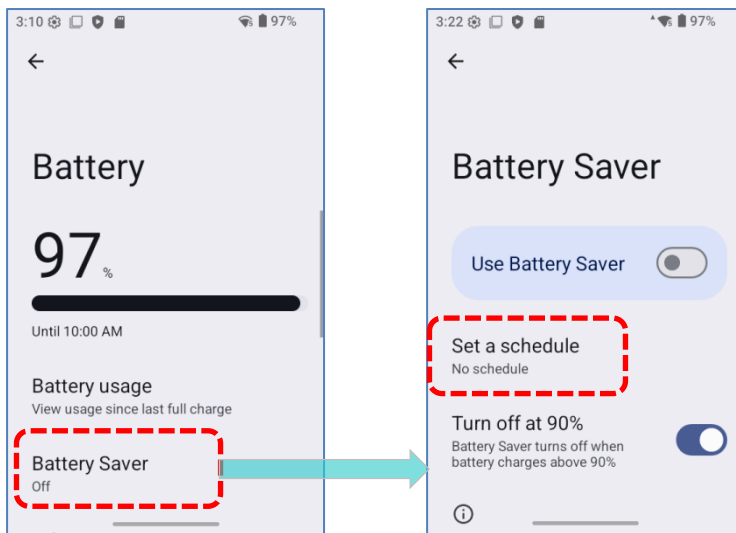


The screen also shows the rate of battery discharge since the last battery charging session, how long the device has been running on battery power, and which applications are consuming the most battery power.

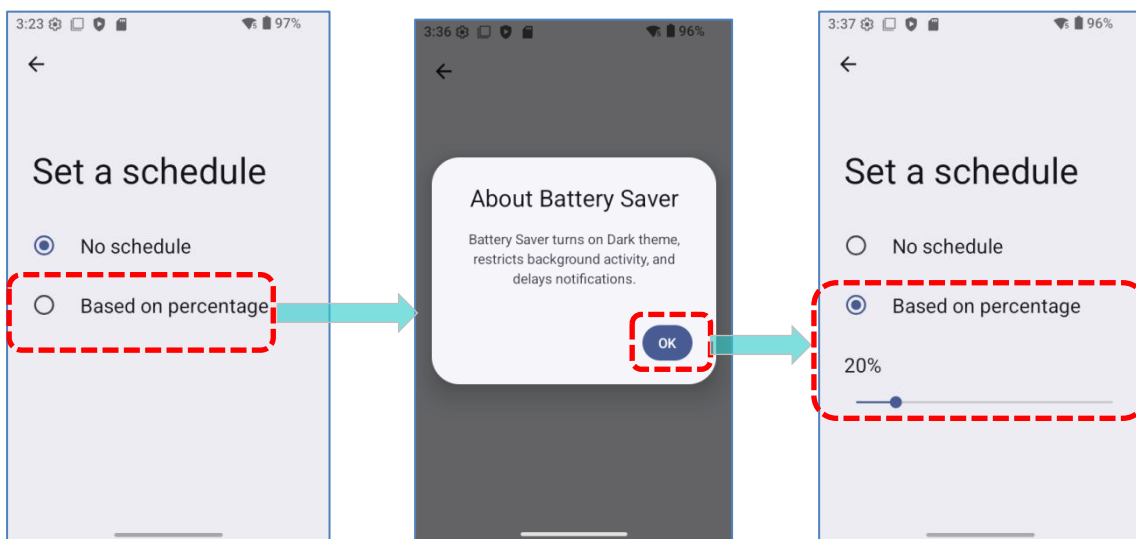
BATTERY SAVER MODE

You can have the **Battery saver mode** automatically turned on when the main battery gets low. This mode will limit the use of location services, vibration and most background processing data.

- 1) On Battery screen, tap "**Battery Saver**" to enter "**Battery Saver**" page.
- 2) Tap on "**Set a schedule**".

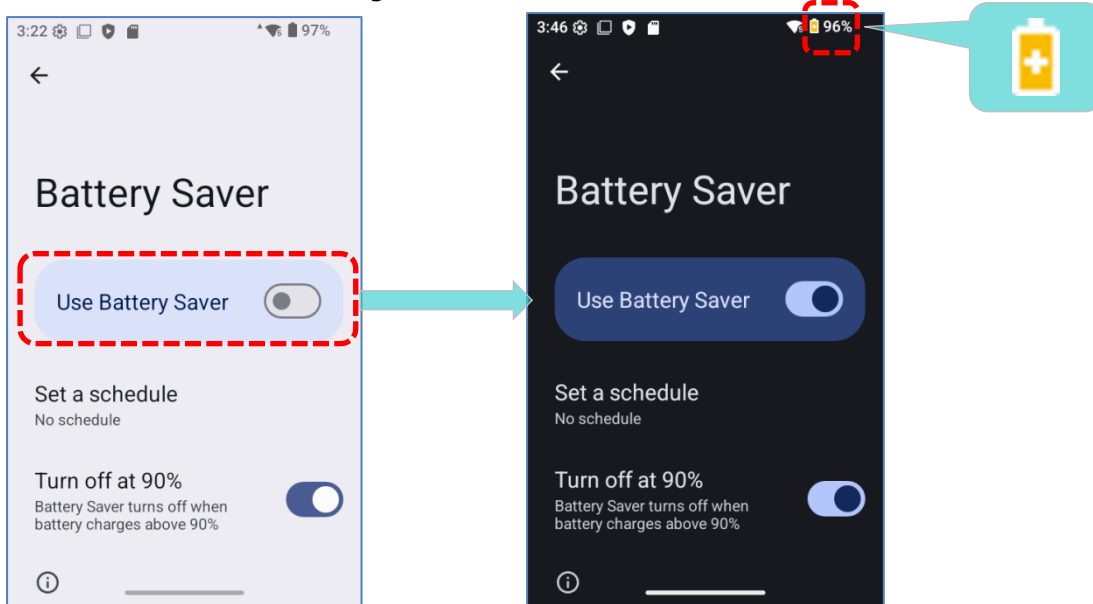


- 3) Tap the radio button of "**Based on percentage**" to display the slider which can be dragged to set when to enable the battery saver mode according to the battery power percentage (10-75%).

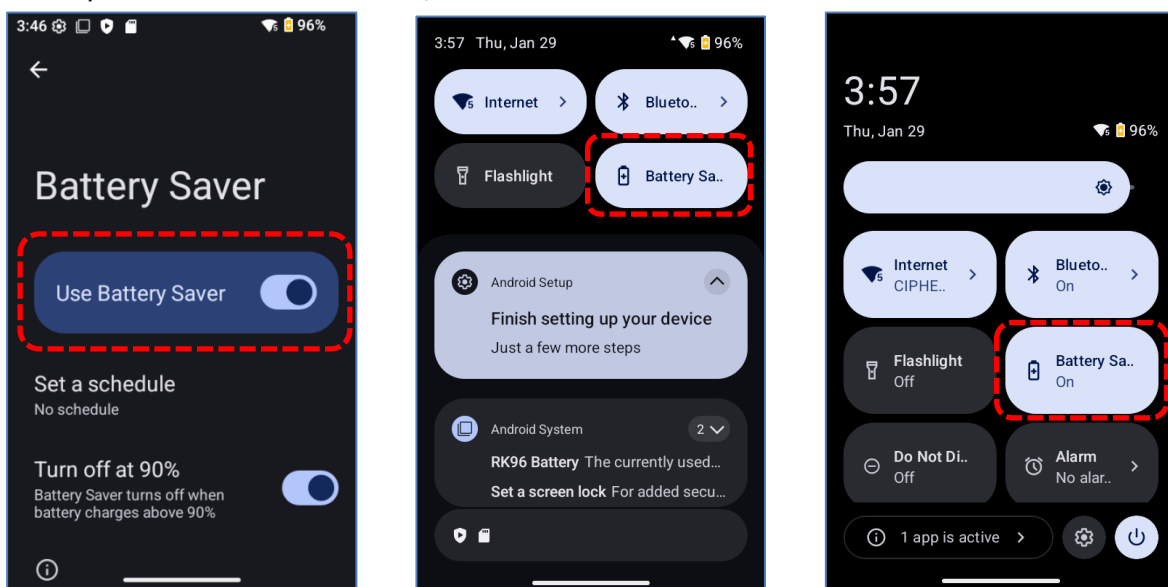


By enabling “**Turn off at 90%**” on “**Battery Saver**” page, the battery saver mode will be automatically off once the battery power is charged to be 90%.

Tap on “**Use Battery Saver** ” to directly enable battery saver function, and the battery icon on status bar will turn orange once this function is enabled.



Also, you can swipe down from the status bar to reveal **Quick Setting Menu**, and tap the battery saver icon  to enable/ disable it.



Icon	Description
	Battery saver mode is OFF .
	Battery saver mode is ON .

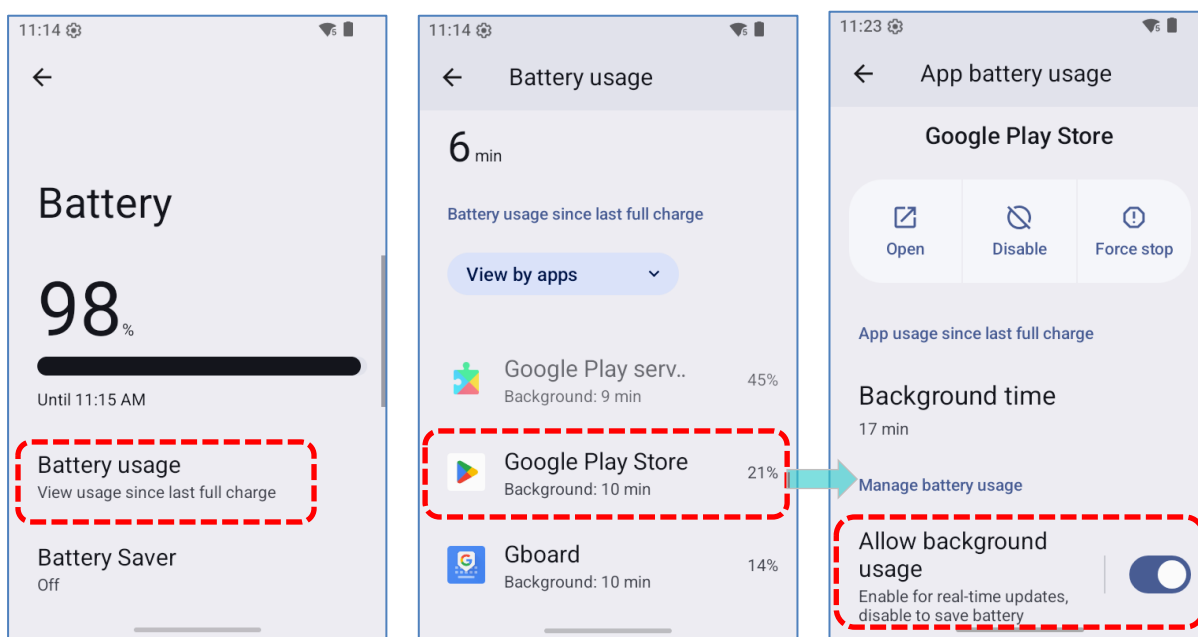
Note: This mode will automatically become inactive when your device is being charged.

BATTERY USAGE

With **Battery usage** for the applications, you can make sure they stay inactive when your device is idle or when they have not been used for days.

On **Battery** screen, tap on "**Battery usage**". Tap on any item under "**Battery usage since last full charge**" to enter its detail page.

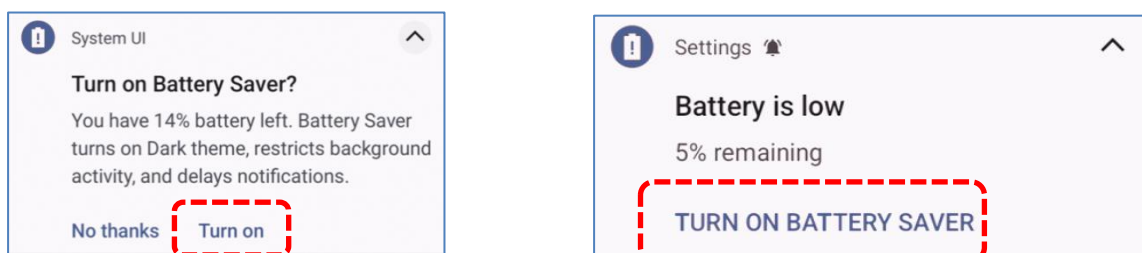
You can see the background time of the app you enter. Tap to switch off "**Allow background usage**" if you want to save battery.



LOW BATTERY ALERT

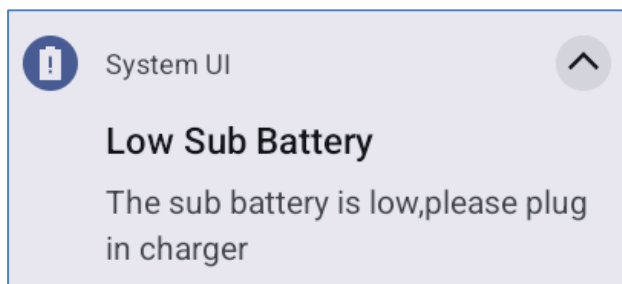
The mobile computer prompts a warning notification reminding you to charge the main battery when the main battery level drops to **15% or below**.

Opening [Notifications Drawer](#), you will also see this warning appearing on the notifications list; you may tap “**Turn on**” to activate [Battery Saver Mode](#), connect the mobile computer to an external power source, or replace the main battery pack as soon as possible. To replace the main battery pack, see [Replace Main Battery](#).



LOW SUB BATTERY ALERT

When the main battery’s power is drained out, RK96 mobile computer will automatically suspend by backup battery’s power for 3 minutes. When backup battery’s power is low, the “**Low Sub Battery**” notification will remind you to connect the device with an external power source to charge it immediately. Please note that do not replace the main battery at this moment, otherwise data loss may occur.



2.1.3. REPLACE MAIN BATTERY

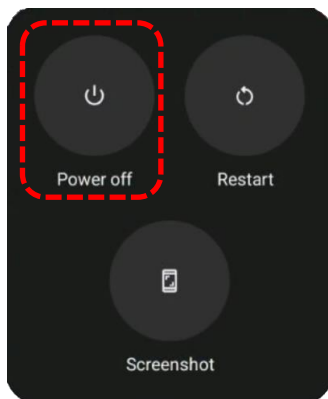
When main battery level is low, follow the steps below to replace the main battery.

Note: Always use a fully-charged main battery for battery replacement.

SHUT DOWN TO REPLACE THE MAIN BATTERY

Shut the device down to replace the main battery, please:

- 1) Make sure the sub battery (backup battery) and the new main battery are fully-charged.
- 2) Press and hold the power button on the [physical keypad](#).
- 3) Tap “**Power off**” in the pop-up menu. The mobile computer will power off.



- 4) Follow the steps as [Install/ Remove Battery](#) describes to remove the main battery and replace it with the new one.

BATTERY SWAP

RK96 backup battery supplies system power during battery swap. When battery cover is removed, the system will enter suspend mode and not wake up until battery cover is put back and the power button is pressed. Please refer to "[Low Sub Battery Alert](#)" section to make sure the sub battery is fully charged before battery swap process.

During the period of battery swap, the Wi-Fi and Bluetooth connections are remained for about 30 seconds.

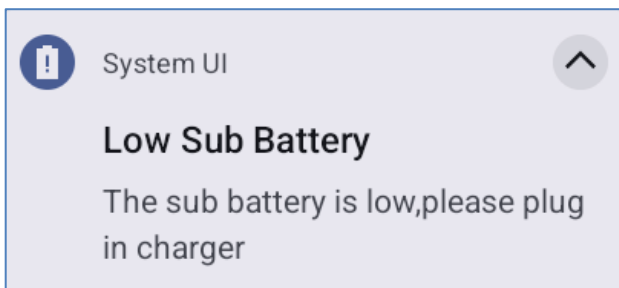
- 1) Directly [remove the main battery](#). The screen is off and the system enters suspend mode.
- 2) When the main battery is removed, system can stay in suspend mode for about **3** minutes. Please replace with a fully-charged main battery as soon as possible.
- 3) Install a fully-charged main battery by following the steps described in [Install/ Remove Battery](#).
- 4) Make sure the main battery is properly installed before pressing the power button to wake up the mobile computer from suspend mode.

Warning:

Please do not perform a battery swapping before the mobile computer's OS is ready. Removing the battery cover during powering up your mobile computer may cause system failure.

Note:

- (1) Make sure to remove the AC or USB Type-C cable before proceeding “Battery Swap”.
- (2) When main battery is removed, the system will stay in suspend mode for about 3 minutes. To prevent the system from being shut down without advance warning, please DO replace the main battery as soon as possible.
- (3) Backup battery keeps the mobile computer in suspension when the main battery is depleted. Thus, to prevent data loss, DO NOT replace the main battery when backup battery’s power is low. Please connect RK96 mobile computer with the external power source to charge it till the “Low Sub Battery” notification icon disappears from the status bar. Once the “Low Sub Battery” notification disappears, the main battery replacement could be proceeded.



2.1.4. POWER MANAGEMENT

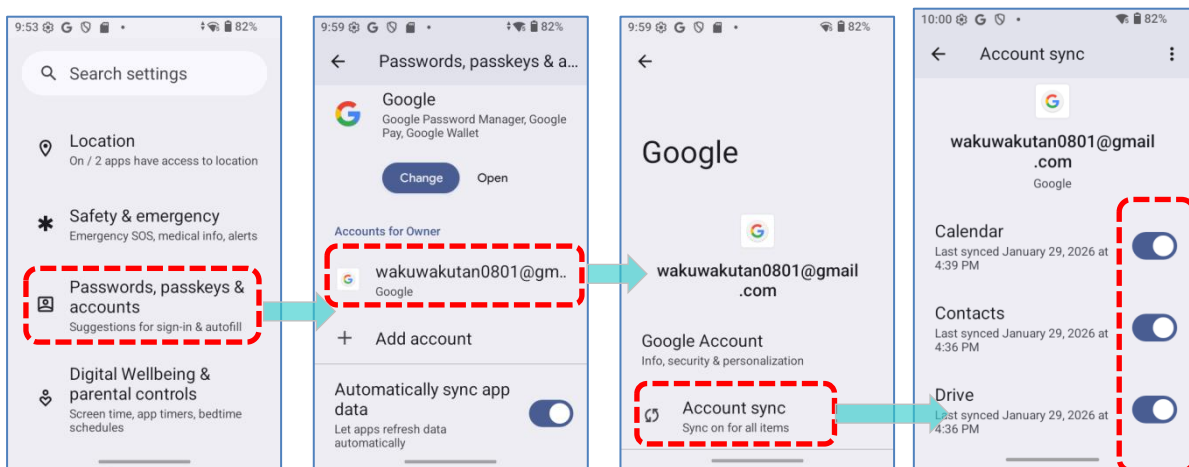
For any portable device, power management is a critical issue especially when you are on the road. Below are some tips to help you save battery power.

Warning:

Using backlight, wireless connectivity, and peripheral devices while on battery power will substantially reduce battery power.

- Bring an additional main battery pack with you on the road.
- End wireless connections (such as **Bluetooth transmission, wireless connection, NFC** and **GPS**) which are not in use.
- Shorten the screen off time. See [Screen Timeout Settings](#).
- Reduce the screen brightness level, see [Screen Brightness](#).
- If you have had your Google Account signed in on this device, you could turn off certain automatic data syncing of applications (such as Email, Calendar, and Contacts).

Go to [App Drawer](#) | **Settings**  | **Passwords, passkeys & accounts**  | **your Google Account**  | **Account sync**  and disable the data syncing services of your desired items.



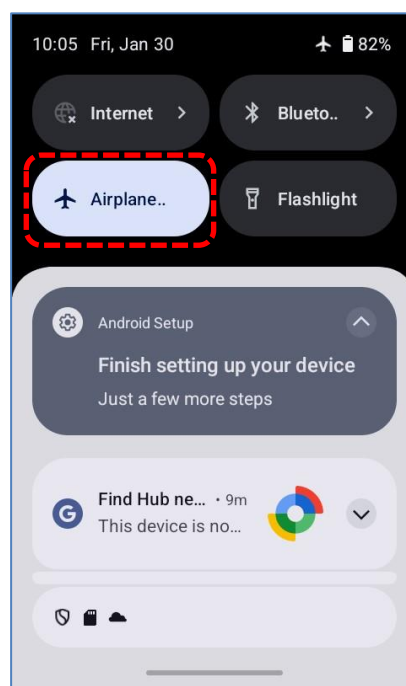
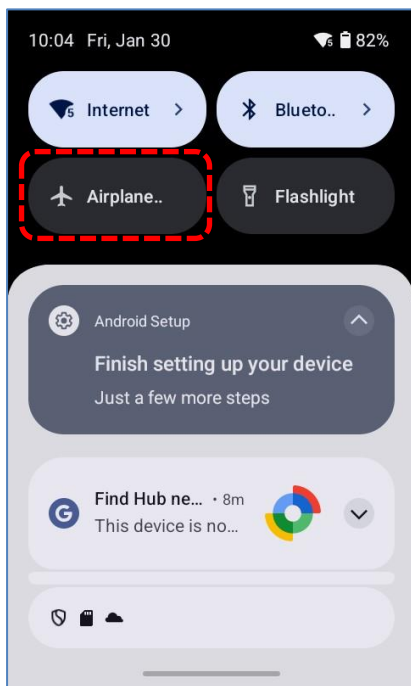
- Enable [Battery saver](#) mode.

ENTER AIRPLANE MODE

You can enable **Airplane** mode to have all the wireless radios (including call functions, data connections such as Bluetooth, Wi-Fi) on your mobile computer turned off, which will considerably reduce the power consumption of your battery.

To enter **Airplane** mode, please:

- 1) Swipe down from the top of the screen to open [Quick Setting Menu](#).
- 2) Tap on the **Airplane** mode icon to enable/disable the mode.



Icon	Description
	Airplane mode is OFF .
	Airplane mode is ON .

2.1.5. BATTERY MANAGEMENT

To preserve battery life and prevent battery bulge:

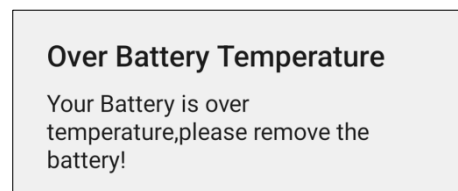
Avoid using your device while continuously connected to a power supply or charging cradle.

Refrain from repeatedly connecting your RK96 mobile computer to a power supply or charging cradle if the main battery is fully charged.

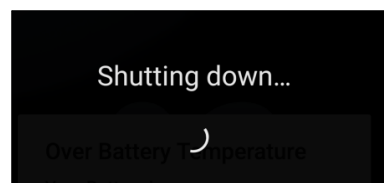
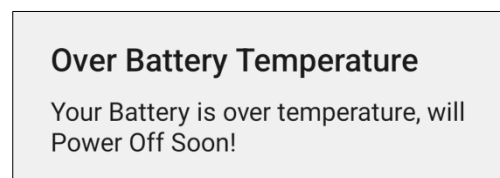
BATTERY TEMPERATURE ANOMALY

- 1) High ambient temperature or continuous use of the RK96 mobile computer while charging may cause the battery temperature to rise. For safety, the RK96 will automatically suspend battery charging or shut down until the battery temperature returns to normal levels.
- 2) If the battery temperature reaches **55°C**, an "**Over Battery Temperature**" warning will prompt you to remove the battery. Additionally, the RK96 will automatically shut down if the battery temperature reaches **58°C**, as the battery cannot discharge at such high temperature.

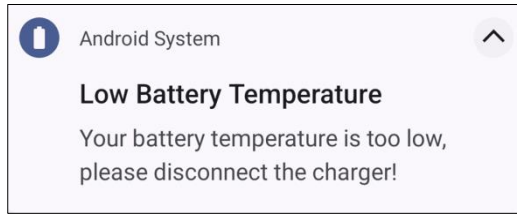
At **55°C**



At **58°C**



- 3) Using the RK96 mobile computer under a low-temperature environment may result in the device shutting down automatically. If the battery temperature drops to **0°C** or lower while charging, the red Status LED on the front panel will blink, accompanied by a warning window. This serves as a reminder for the user to disconnect the charger, and the RK96 mobile computer will automatically suspend battery charging.



- 4) To preserve battery life, it is recommended to promptly unplug the charger and charge your RK96 mobile computer under appropriate temperature conditions.

2.2. MEMORY

- **Flash Memory (ROM)**

128GB flash memory for storing the OS (Android 15 and custom application programs).

- **Random-access Memory (RAM)**

8GB RAM for storing and running programs, as well as storing program data.

- **Expansion Slot**

The mobile computer is equipped with one SD card slot which can accommodate a micro SD card, a **microSDHC** (up to **32GB**) or a **microSDXC** (up to **2TB**). When choosing an SD card for best compatibility and performance with RK96, please make sure of the capacity you need. For the use of SDXC card, please use a new card and make sure it has not been used in other host devices (computers, cameras, or readers).

CAUTION OF DATA LOSS

When the main battery is removed or drained, the backup battery on the main board takes over to supply the mobile computer and keep it in suspension. A fully charged backup battery will retain the data in the RAM for **3 minutes**. When the backup battery is drained out as well, the mobile computer will shut down, and only the contents of RTC will be retained. All other unsaved data will be lost.

If you want to put away the mobile computer for a couple of days, you should be aware that data loss occurs when the main battery and backup battery discharges completely. Therefore, it is necessary to backup data and files before putting away the mobile computer.

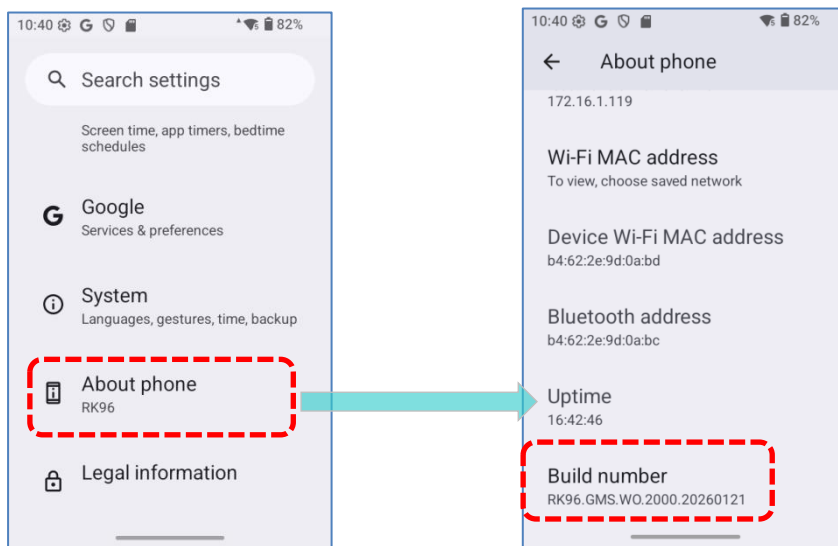
2.2.1. CHECK MEMORY USAGE

The memory manager can offer a glance of how the device is using its RAM. To check the memory usage, you have to enable "**Developer Option**" in advance.

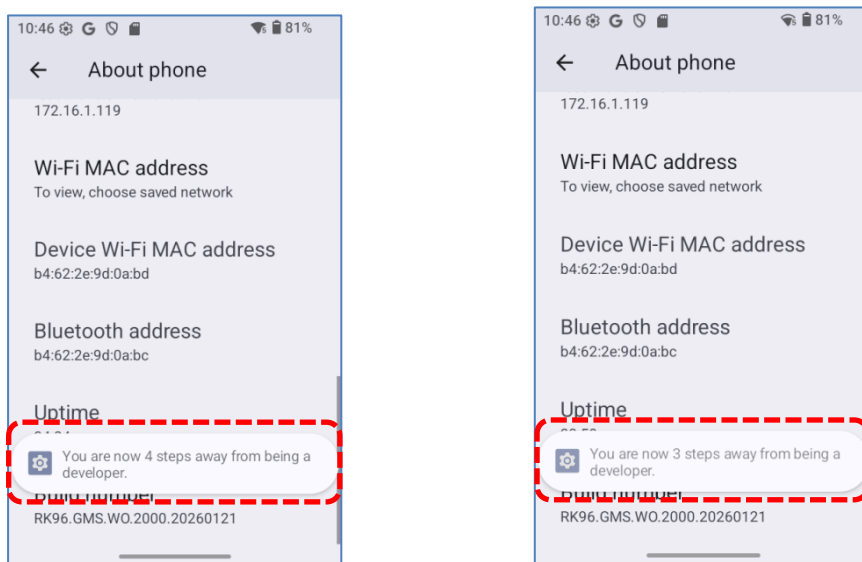
ENABLE DEVELOPER OPTION

Follow the steps below to enable "**Developer Option**":

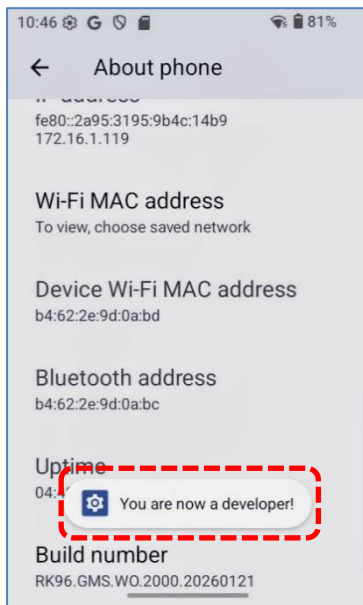
- 1) Go to [App Drawer](#) | **Settings**  | **About Phone** , and swipe to the bottom to find "**Build number**".



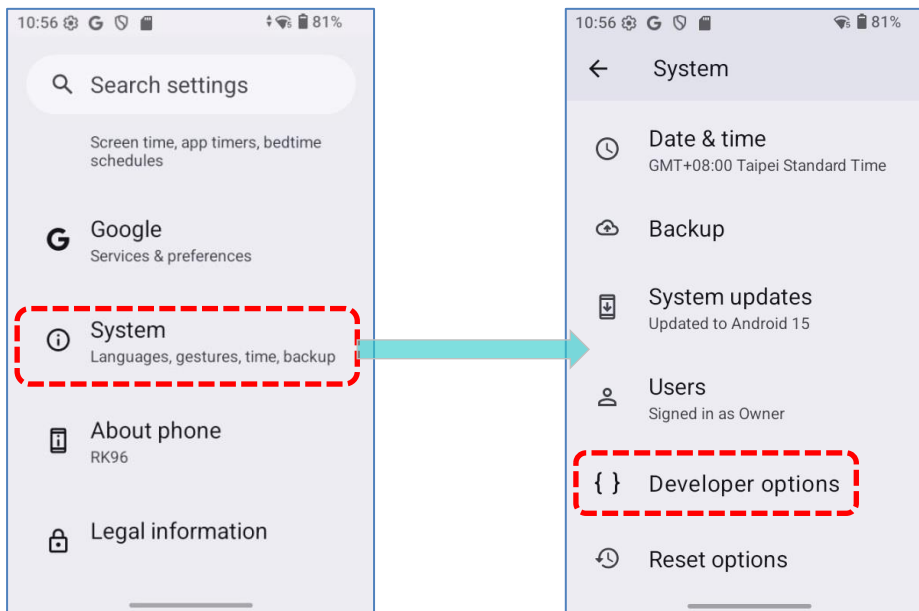
- 2) Tap on "**Build number**" 7 times to enable it. During the process, you'll see a prompt with a countdown reading "**You are now X steps way from being a developer.**"



- 3) Once the prompt “**You are now a developer!**” showing up, you have succeeded in entering developer mode.

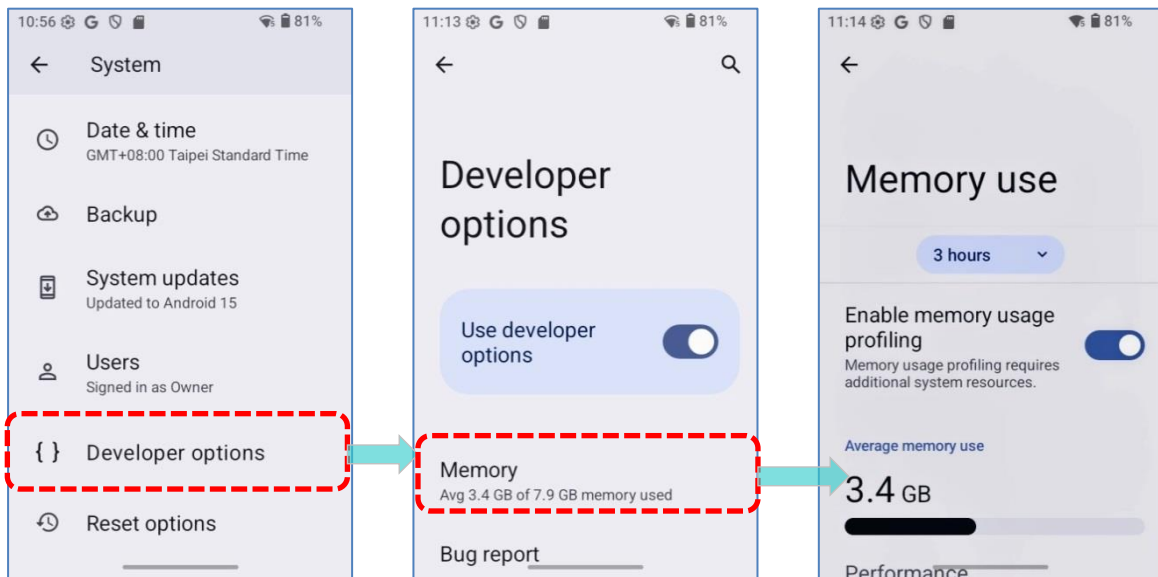


- 4) You can find Developer option { } is now enabled in **System** ⓘ page.

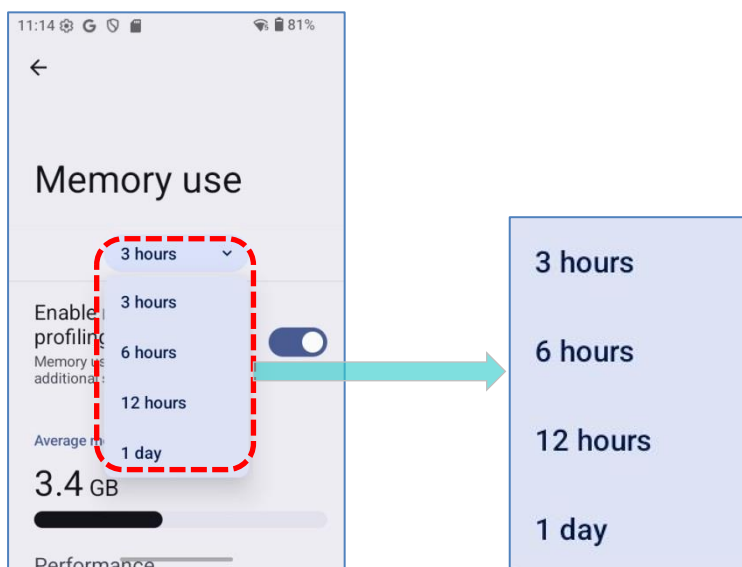


CHECK MEMORY USAGE

Go to [App Drawer](#) | **Settings**  | **System**  | **Developer option** { } | **Memory** to enter memory manager screen.

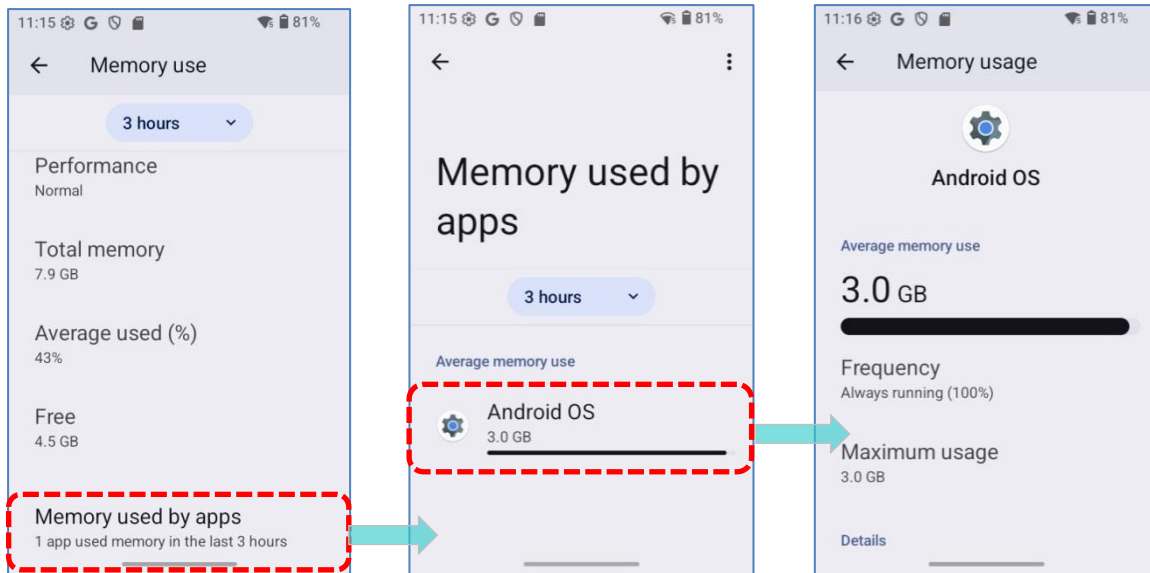


On the main screen, it tells you not only the used and free memory space of the RAM, but how your pattern of usage has impacted the device's overall performance. To figure out how the system and apps have been taking up the memory over a longer period, tap the dropdown list to choose a different time span.



To look at how individual apps are consuming the memory space, tap “**Memory used by apps**” to get a breakdown of memory usage by apps.

Tap an application name to check its memory usage. This allows you to make sense of how much memory a newly-installed application can potentially consume your RAM.



2.2.2. MANAGE STORAGE SPACE

To your Android device, the SD card can serve as an extension of your device's internal storage (which comes as 128 GB of flash memory to store the OS, applications and files) other than a portable storage place.

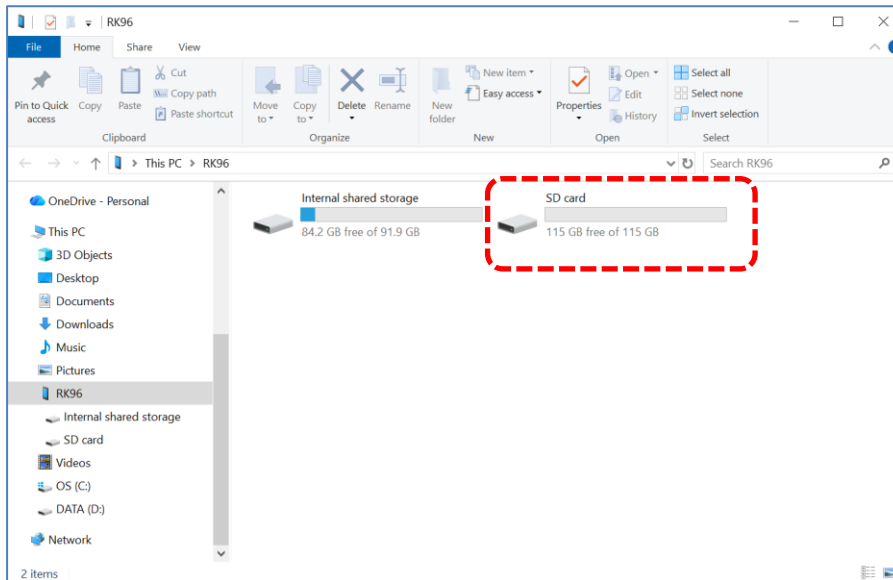
Go to [App Drawer](#) | **Settings**  | **Storage**  to check usage of the internal and external storage spaces.

By default, all the videos, photos and downloaded files are directly saved to the device's internal storage. If you have previously inserted and mounted an SD card as [portable storage](#), you could transfer/save photos & other media in this SD card; if the SD card is set as [internal storage](#), photos, files, and some apps could be moved to the SD card.

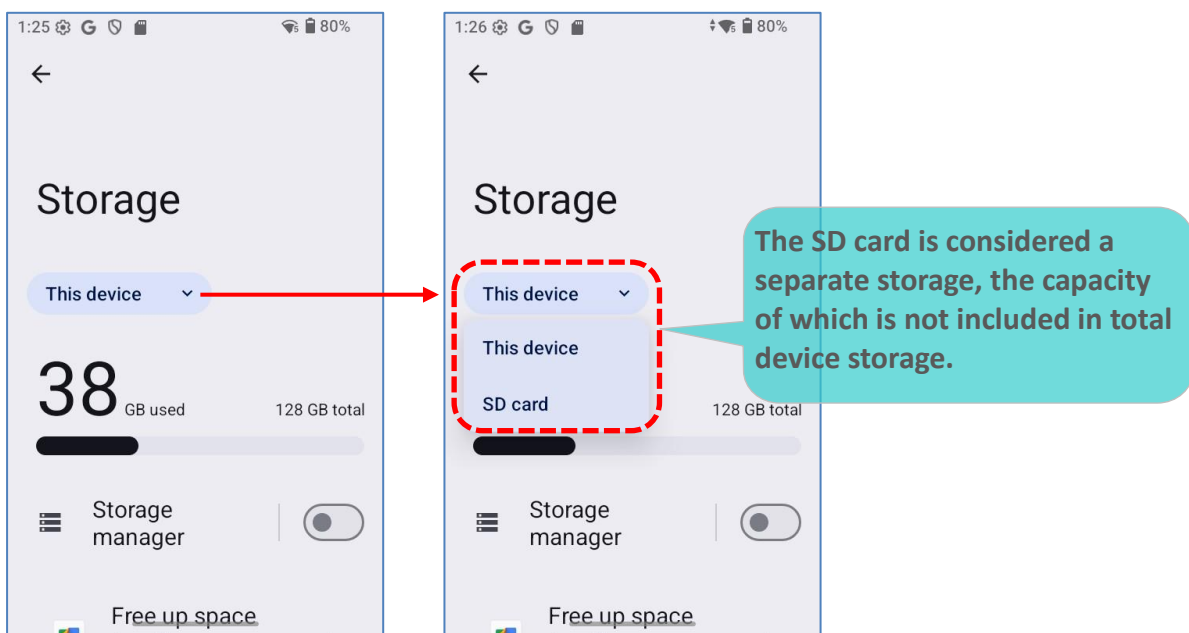
SET UP SD CARD AS PORTABLE STORAGE

Using SD card as a portable device allows you to treat it as a USB disk, by swapping it between your Android device and the computer to easily transfer files. This is quite handy when there is a need to offload files that are taking up too much storage space.

When this device is connected with PC, the disk content is readable from PC client:

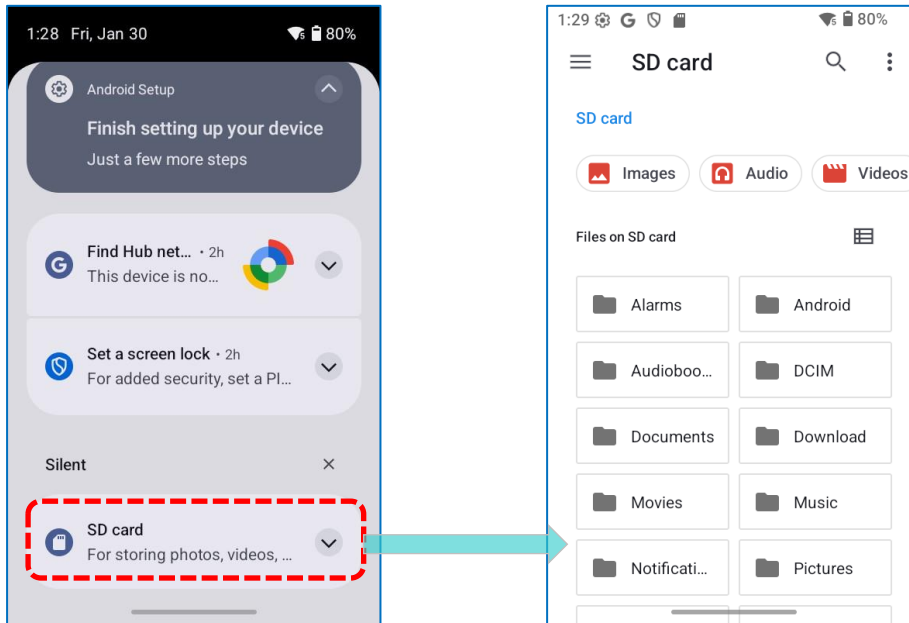


On **Storage** screen, this disk can be managed separately.

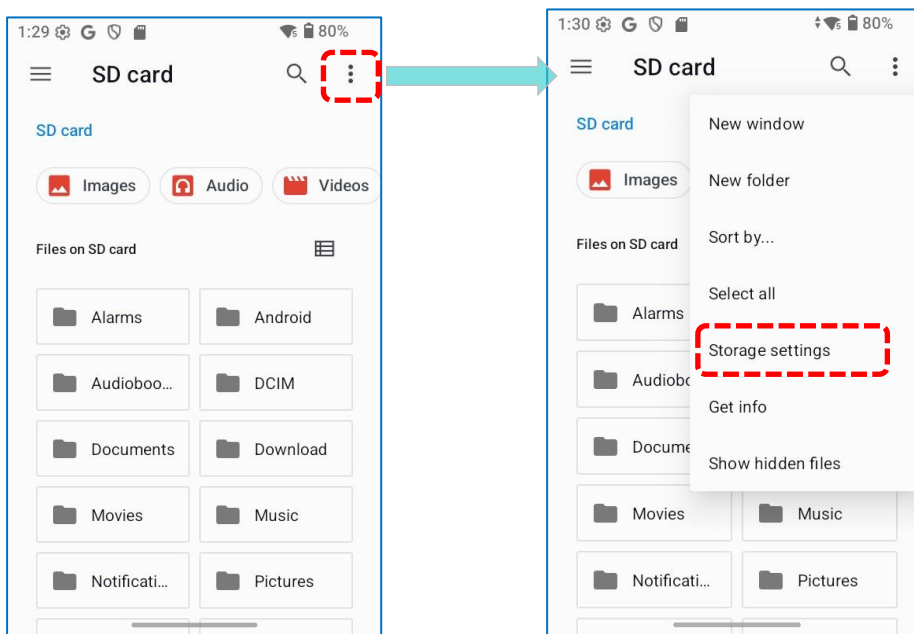


To start:

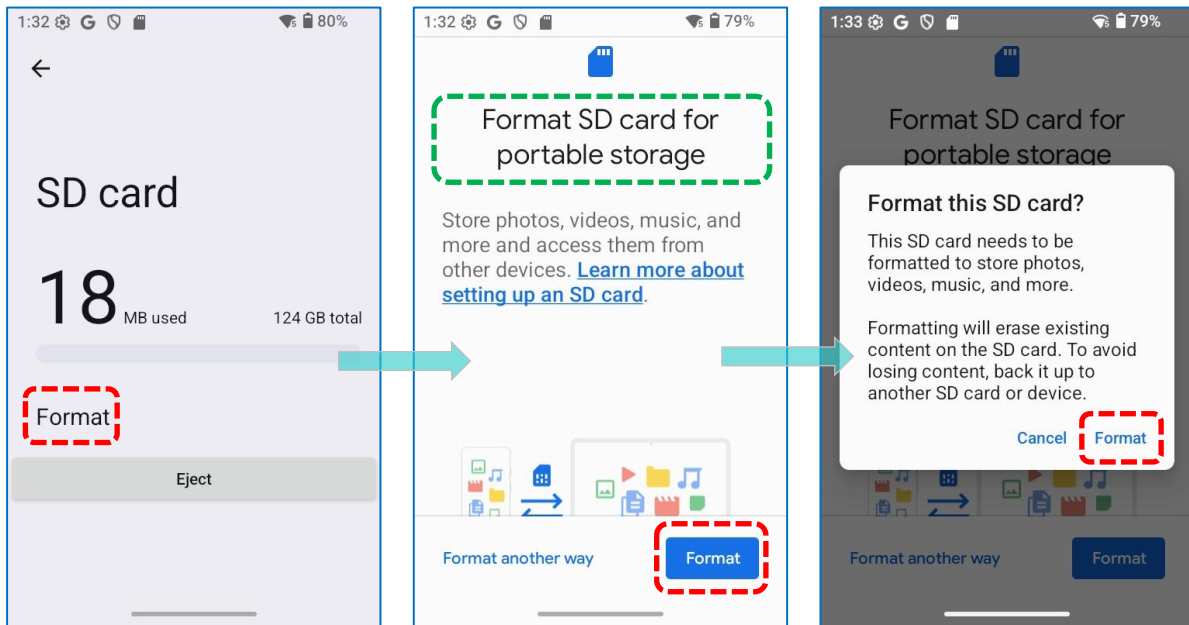
- 1) Insert the SD card. A notification icon  indicating that an SD card is detected will be shown in the status bar; swipe down from the status bar and tap to set up.



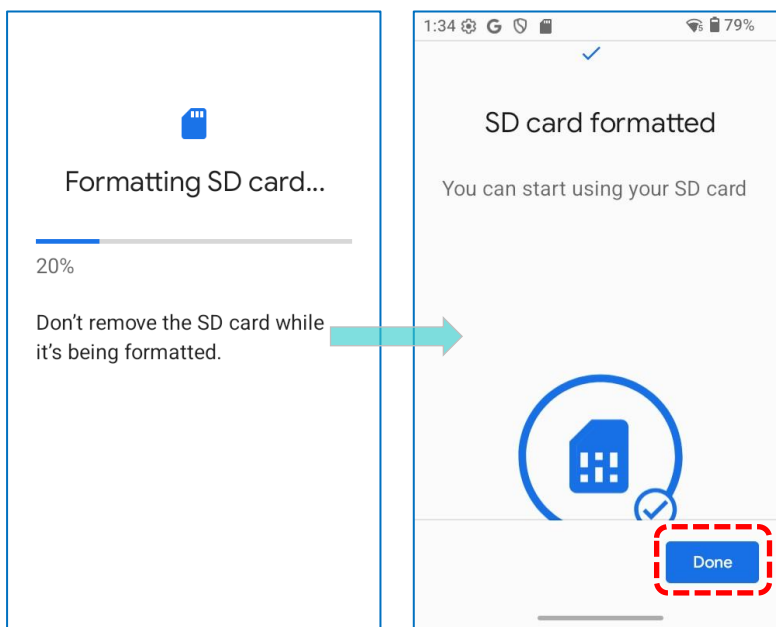
- 2) Tap **More**  and then tap "Storage settings".



- 3) Tap **"Format"**. A page will appear prompt in you to **Format SD card for portable storage**. Tap **"Format"** to execute the formatting.

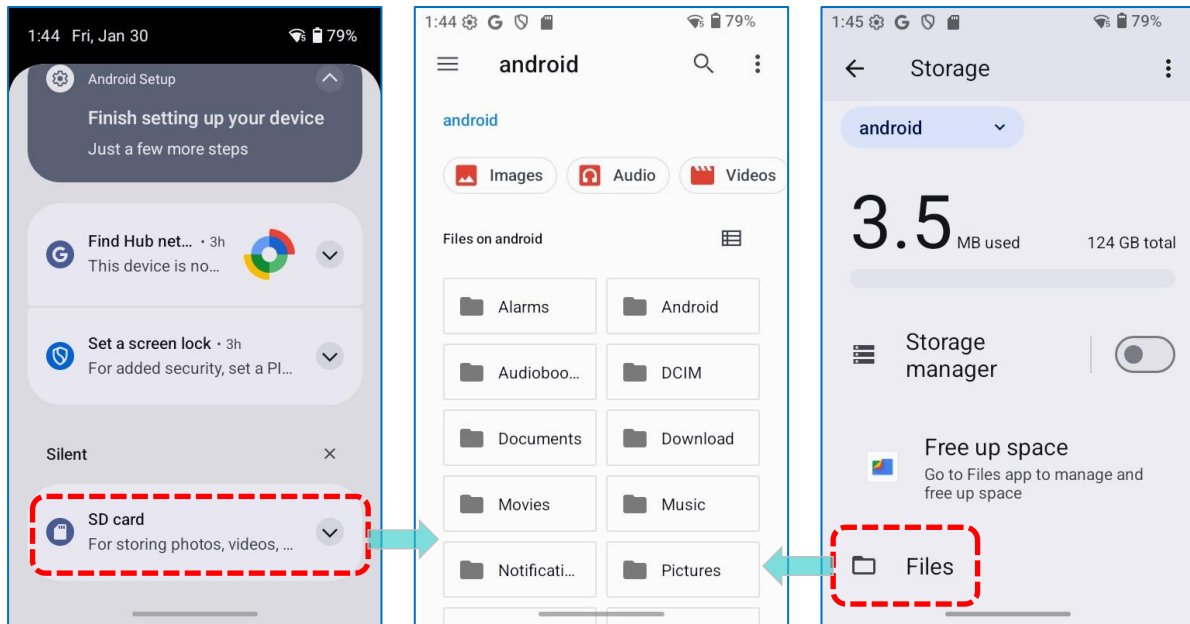


- 4) Tap **"Done"** to complete the setting.

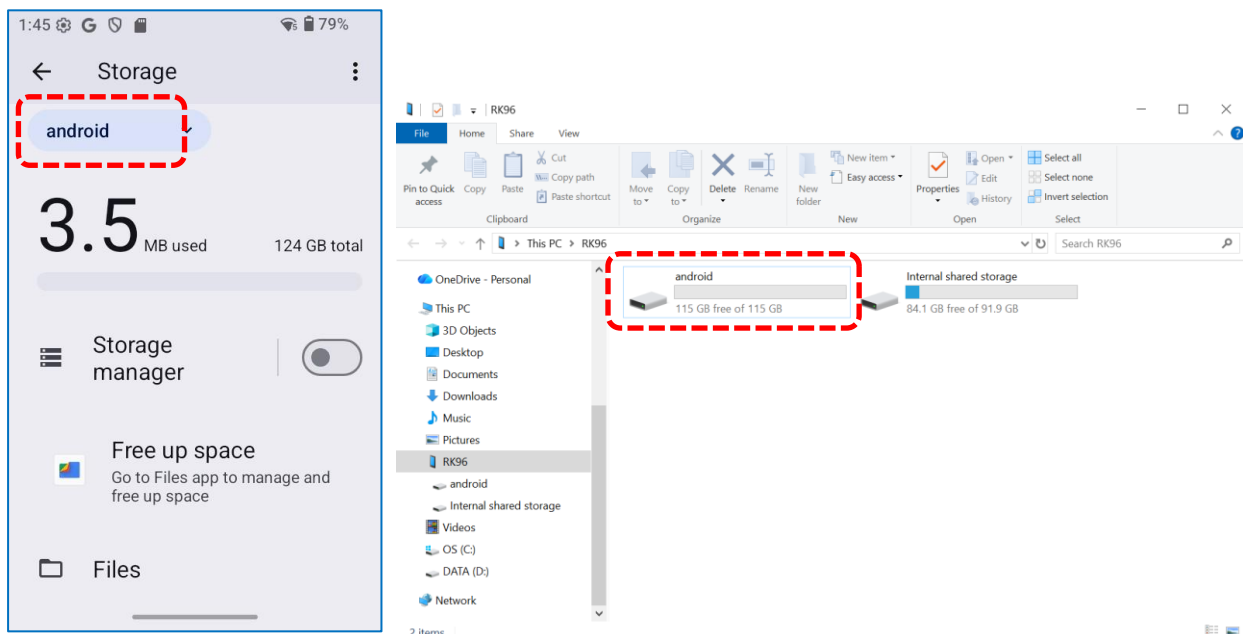


- 5) Once the SD card is formatted, swipe down from the status bar to reveal [Notifications Drawer](#) indicating that the SD card is ready for use. Tap to access the content.

Alternatively, you can check the SD card by tapping **"Files"** on the storage page



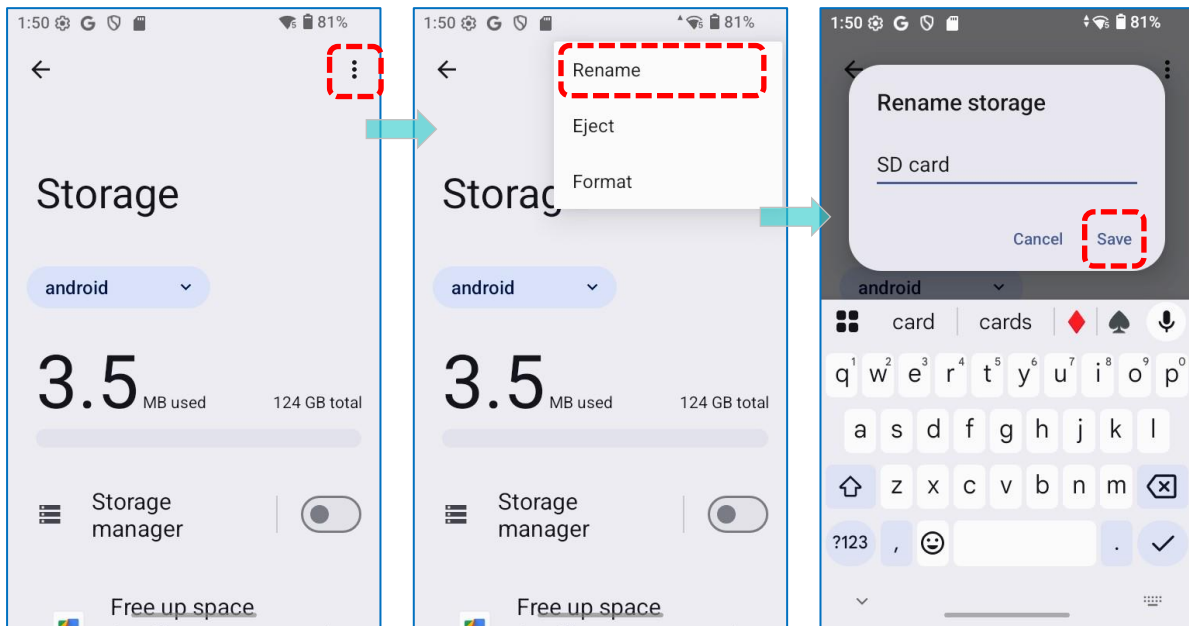
The SD card name may vary depending on the factory settings after formatting.



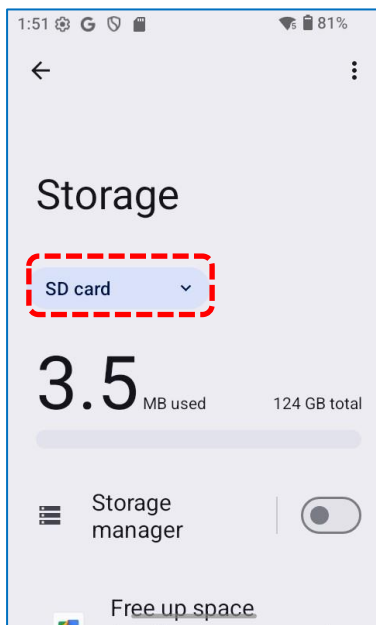
RENAME THE SD CARD

You can rename the SD card by following steps:

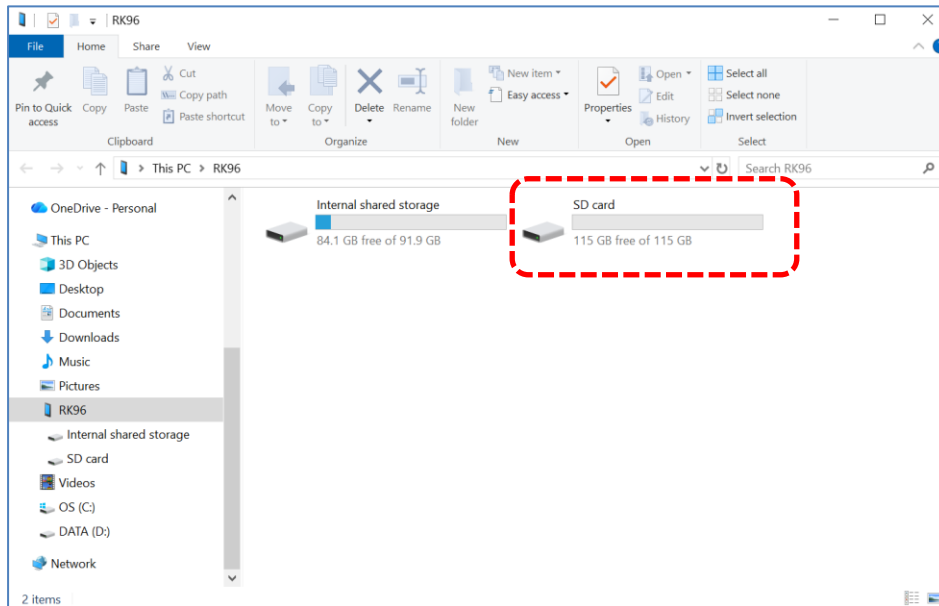
- 1) Tap **More** ⋮, "Rename". Enter the new name and then tap "Rename".



- 2) The device will display the updated SD card name.



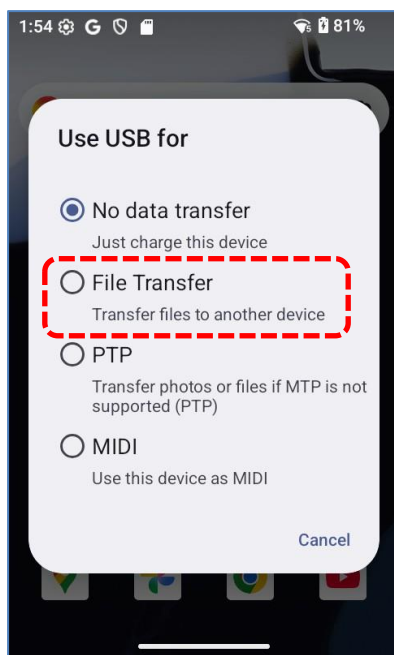
3) Once you reconnect your device to the PC, the PC will show the updated SD card name:



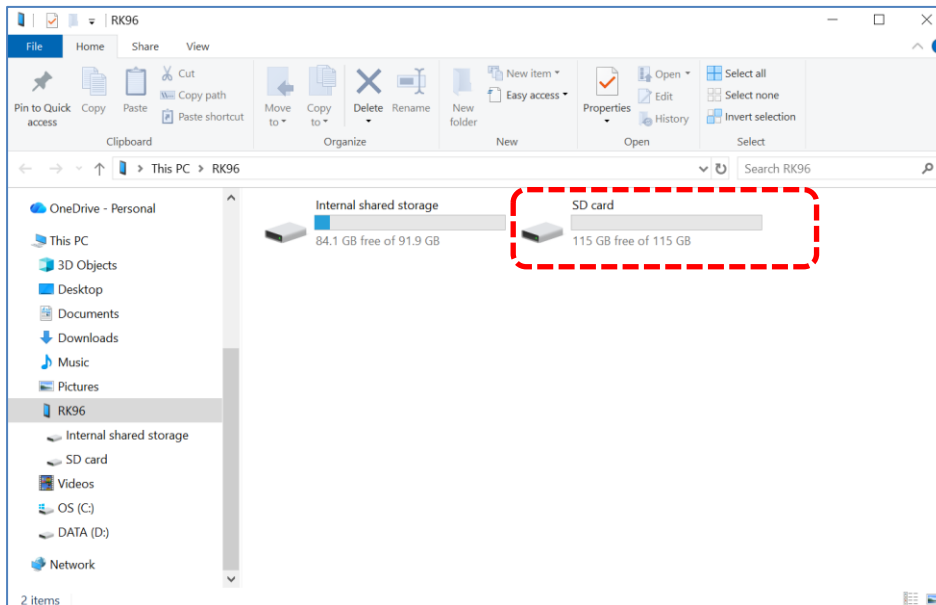
TRANSFER PHOTOS & MEDIA BETWEEN THE DEVICE & PC

To transfer photos and media between this device and PC when the mounted SD card is set as portable storage, please:

1) Connect your mobile computer with PC with a USB Type-C cable/ the snap-on cable/ the cradle, and "Use USB for" page shows up. Tap to choose "File Transfer".



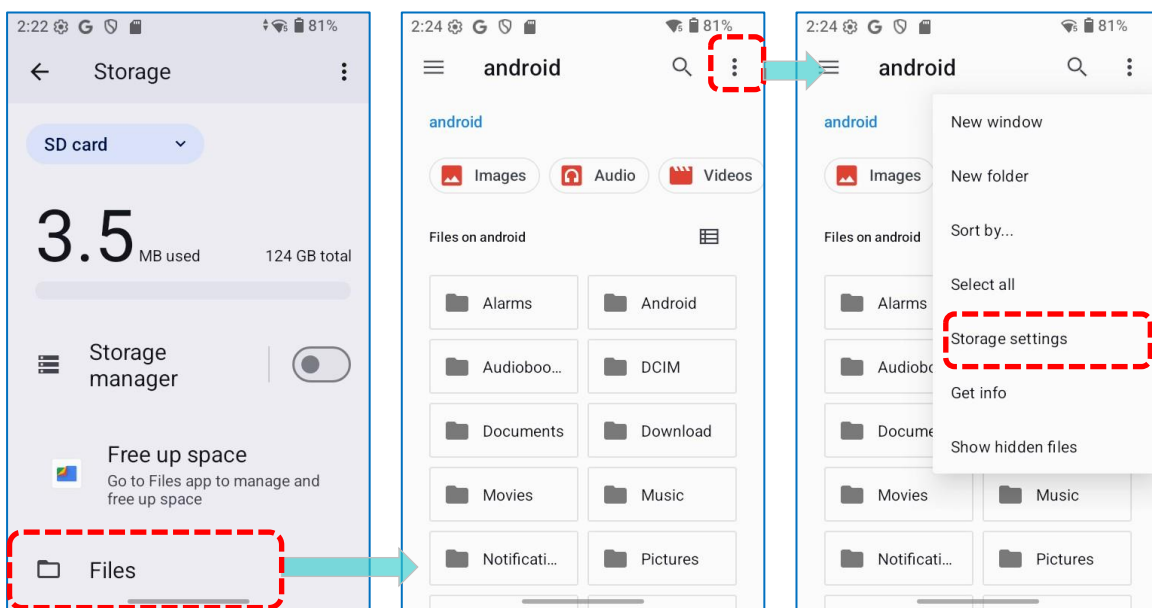
- 2) You will find the disk content is readable from PC client. Please make sure the USB cable is properly connected while transferring files over USB connection.



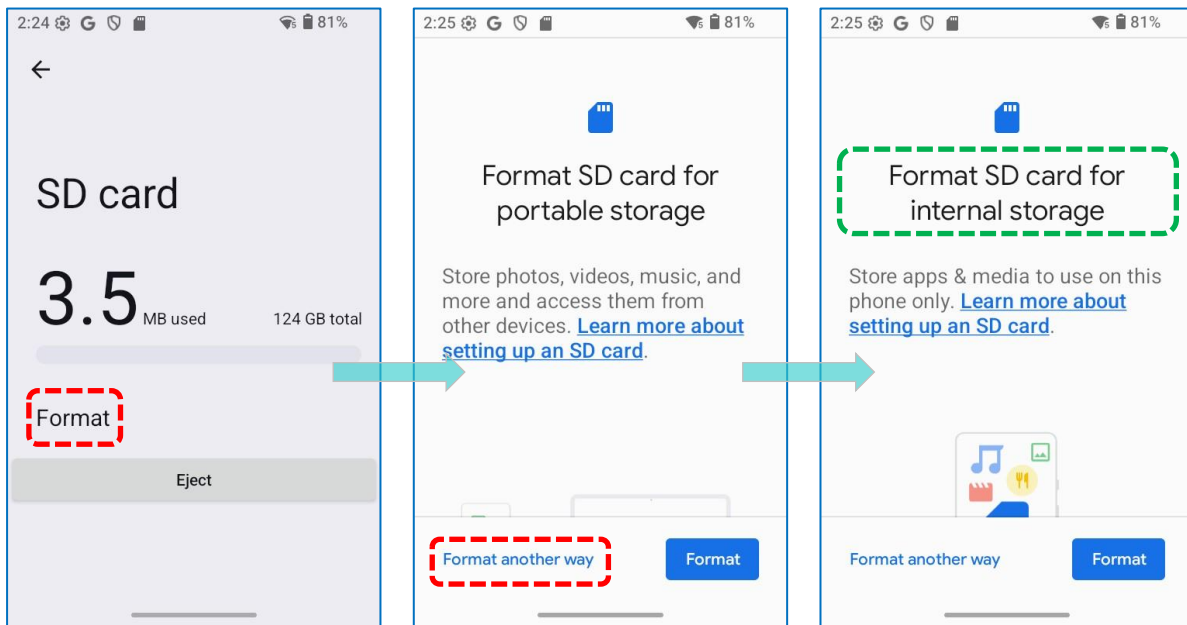
CONVERT THE SD CARD TO INTERNAL STORAGE

You can always convert the SD Card from portable storage to internal storage. Before you start, make a backup of the files on this disk if you would like to keep them.

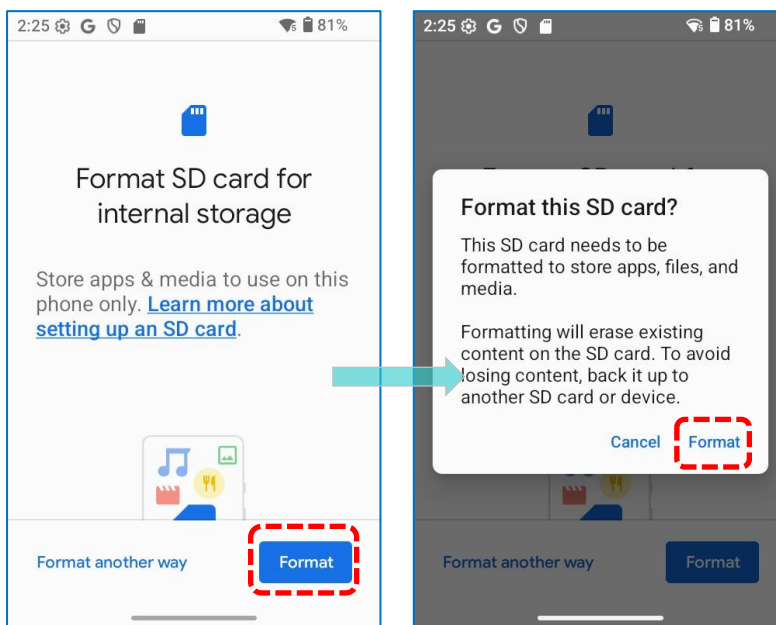
- 1) On **Storage** screen, tap the SD card to enter the SD card content screen. Tap **More** ⋮ and then select **"Storage settings"**.



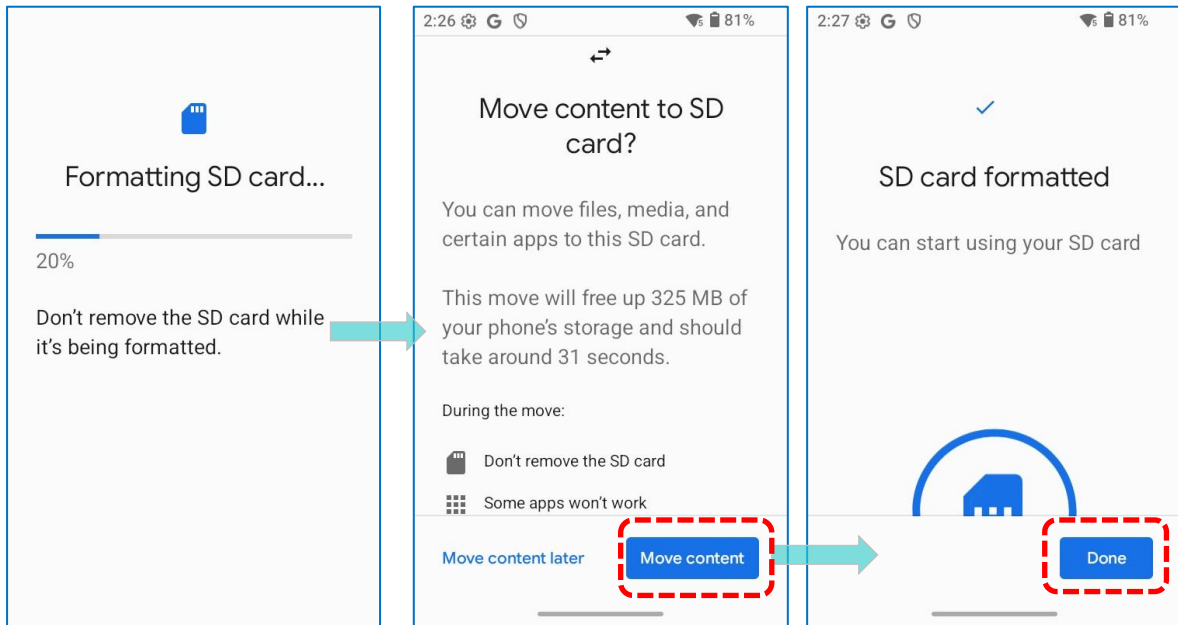
- 2) Tap **"Format"**. A page will appear prompt in you to Format SD card for portable storage.
Tap **"Format another way"** to change to **Format SD card for internal storage**.



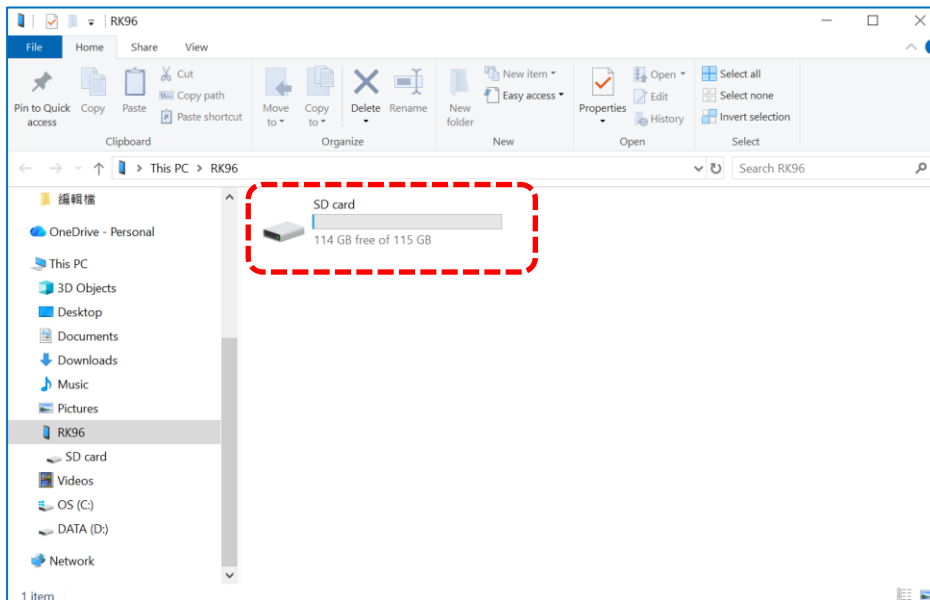
- 3) Tap **"Format"** to execute the formatting.



4) Tap **“Done”** to complete the setting.



5) When this device is connected with PC, it only shows the SD card content from PC client, which means the SD card is set as the role of internal shared storage.



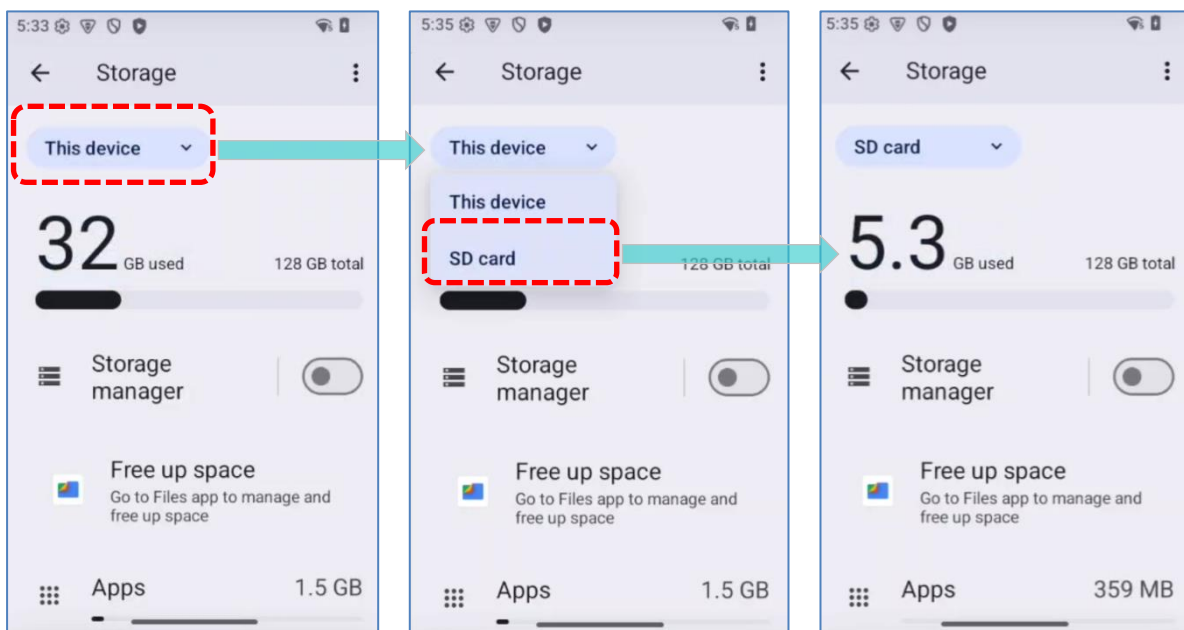
SET UP SD CARD AS INTERNAL STORAGE

Using SD card as internal storage which means the SD card is set as the role of internal shared storage. When this device is connected with PC, the disk content of your mobile computer is not readable from PC client. See [Convert the SD Card to Internal Storage](#) for more details. Please note that if you eject this SD card, the applications and media files stored on it will not be available until you reinsert the card.

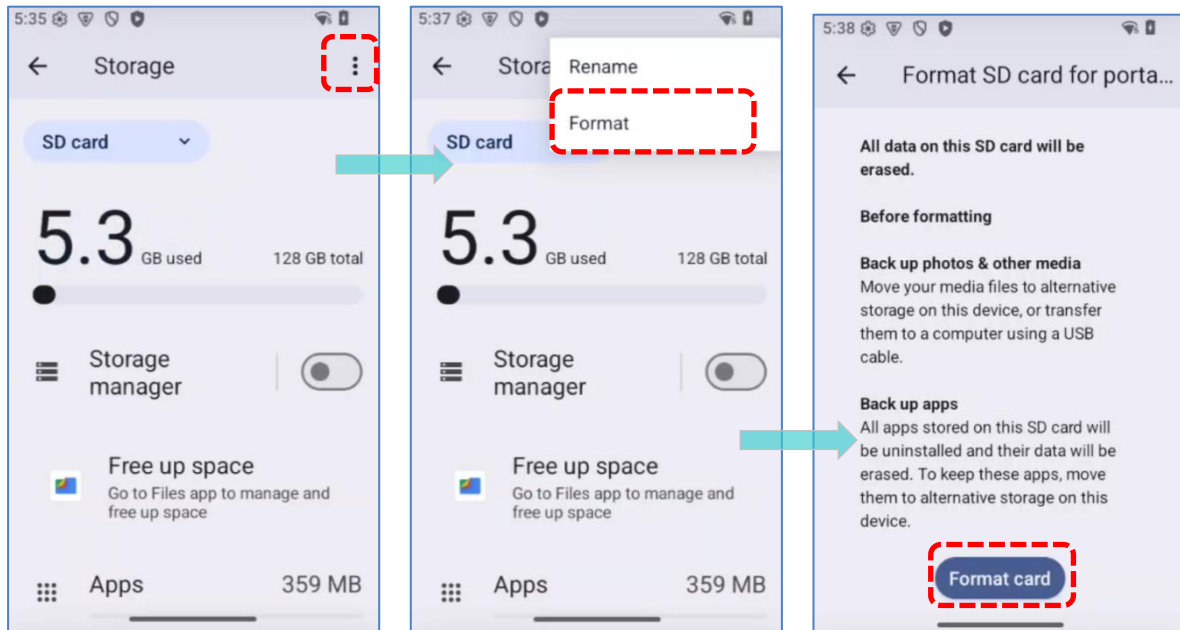
CONVERT THE SD CARD TO PORTABLE STORAGE

You can always convert the SD Card from internal storage to portable storage. Before you start, make a backup of the files on this disk if you would like to keep them.

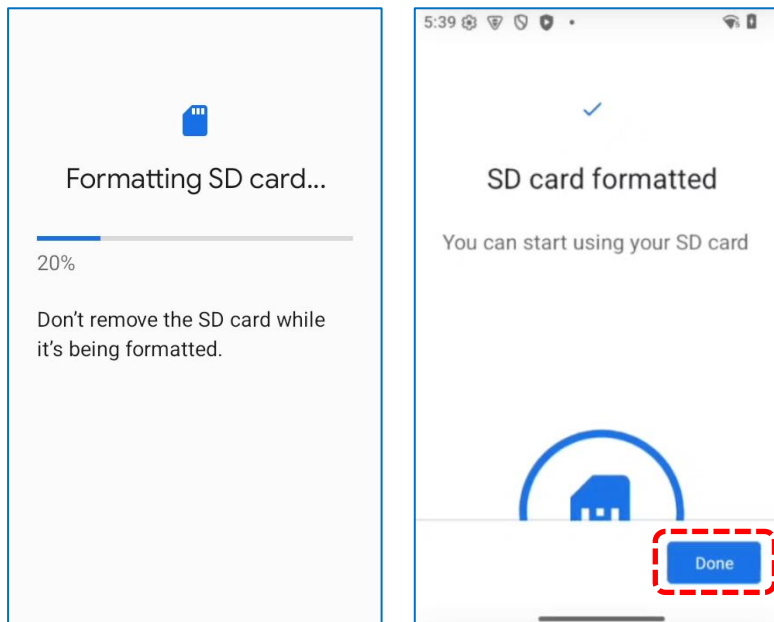
1) Enter the SD card content screen from **Storage** screen by tapping on “SD card”.



2) Tap **More** ⋮ and then tap “**Format**”. Tap “**Format card**”.



3) Tap “**Done**” to complete the setting.



Note: Please do back up important files on this SD card before proceeding formatting.

2.3. TOUCH SCREEN

The mobile computer comes with a 4.3-inch, LCD, Corning® Gorilla® Glass display with 480RGBx800 resolution. The LED backlight of the screen, which helps ease reading under dim environments, can be controlled manually and automatically.

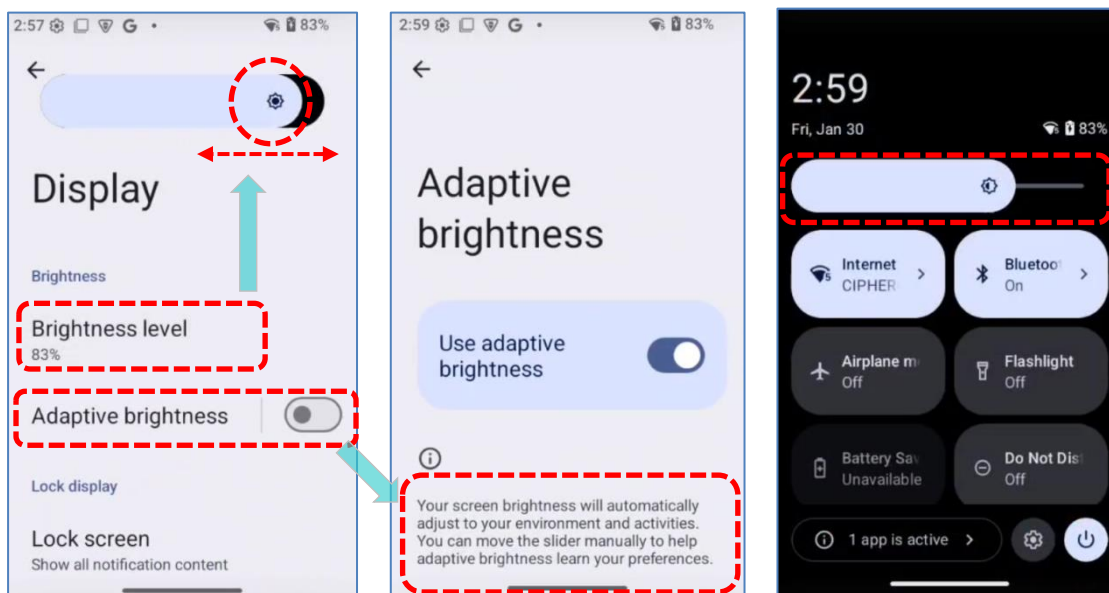
Warning: **DO NOT** use any pointed or sharp objects to move against the surface of the screen.

2.3.1. SCREEN BRIGHTNESS

Go to [App Drawer](#) | **Settings**  | **Display** .

Tap the **Brightness level** and drag the slider to the right (to increase brightness) or left (to reduce brightness). Or switch on the **Adaptive brightness** to enable automatic backlight adjustment with the mobile computer's built-in sensor.

You can also use the shortcut button on **Quick Setting Menu** to adjust the brightness level.



Note:

To save battery power, dim the screen brightness while working in a well-lit area, or set a shorter [sleeping plan](#) for the screen backlight to go off.

ADJUST SCREEN BRIGHTNESS BY KEYPAD

You can also trigger the brightness slider by keypad for rapidly adjustment.

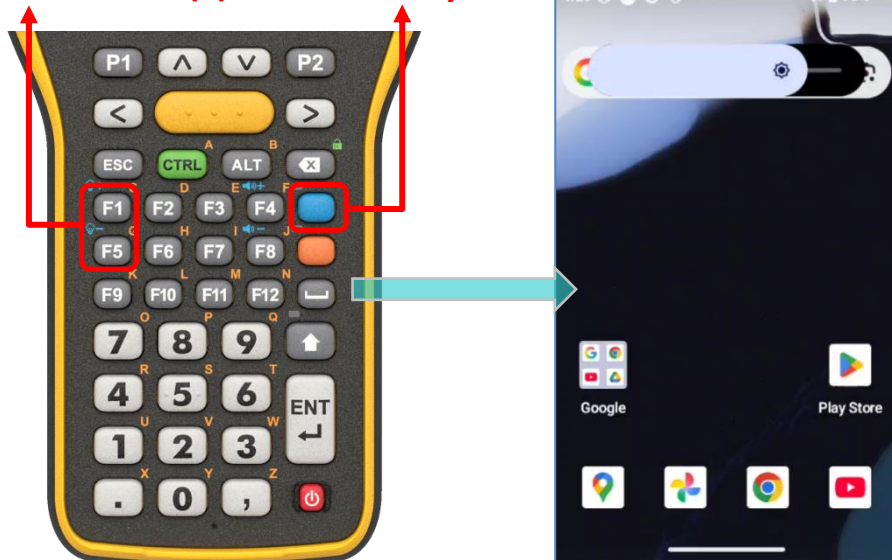
41-KEY MODEL

- 1) Press **Blue Key**  to enable **Blue Mode** .
- 2) Press **F1** key to trigger the brightness slider to brighten up the screen while press **F5** to dim the screen.

OR

- 1) Press **Blue Key**  twice to enable **Blue Lock Mode** .
- 2) Keep pressing **F1** or **F5** to adjust the screen brightness.

(2) Press F1 or F5 (1) Press Blue Key



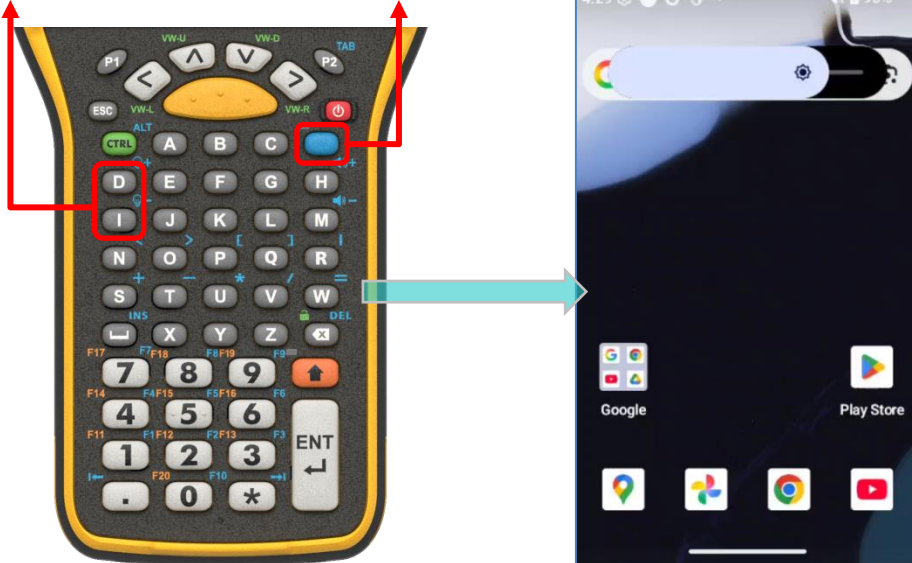
53-KEY MODEL

- 1) Press **Blue Key**  to enable **Blue Mode** .
- 2) Press **D** key to trigger the brightness slider to brighten up the screen while press **I** to dim the screen.

OR

- 1) Press **Blue Key**  twice to enable **Blue Lock Mode** .
- 2) Keep pressing **D** or **I** to adjust the screen brightness.

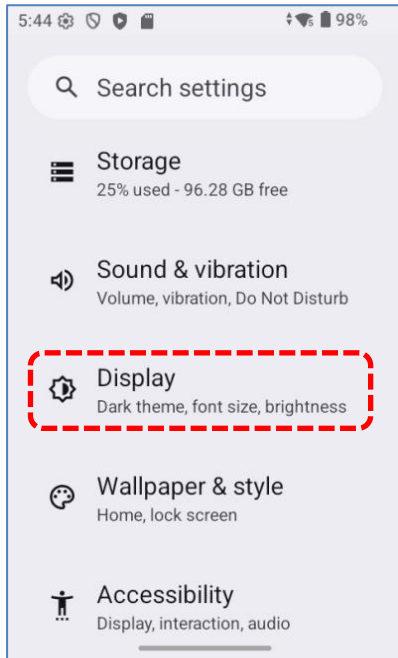
(2) Press D or I (1) Press Blue Key



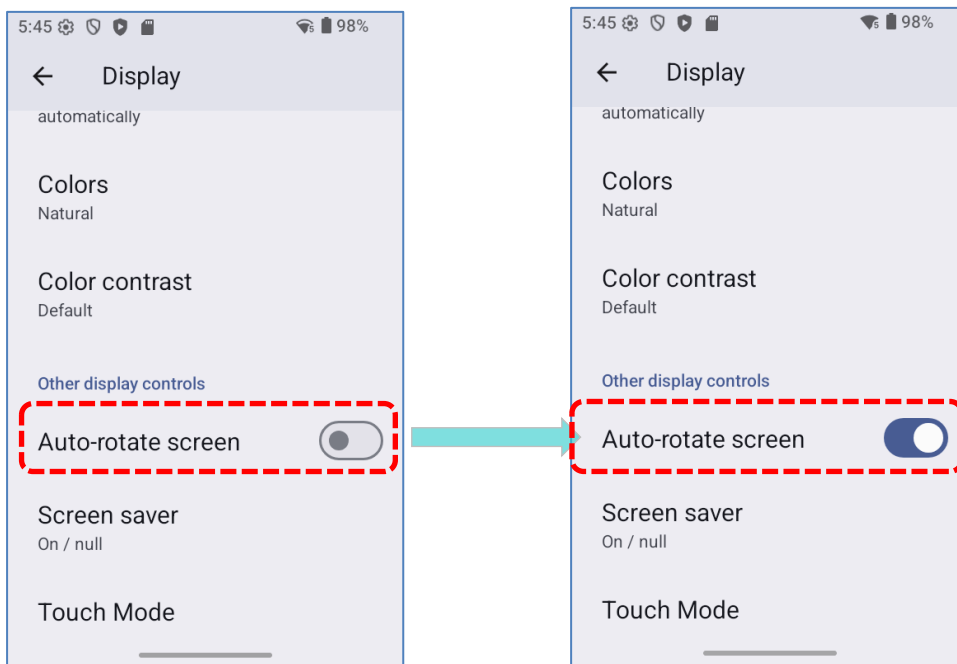
2.3.2. SCREEN ROTATION

By default, the device automatically rotates the screen to when you turn the device sideways. To switch this function on or off:

- 1) Go to [App Drawer](#) | **Settings**  | **Display** .



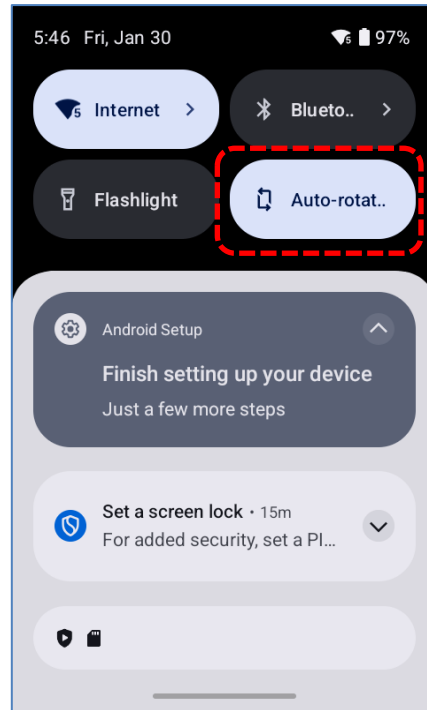
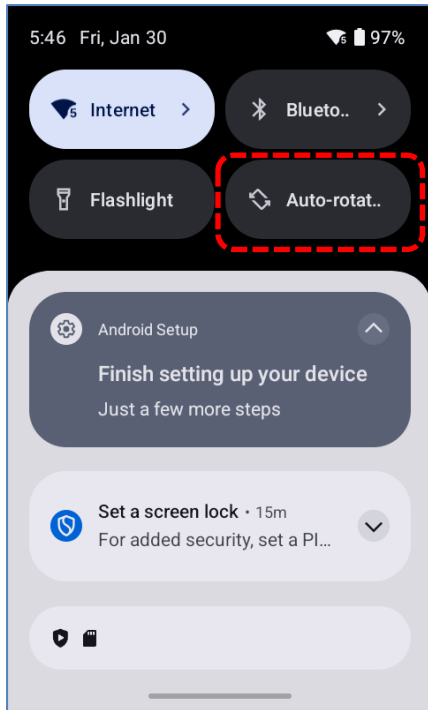
- 2) Switch on or off **Auto-rotate screen**.



OR

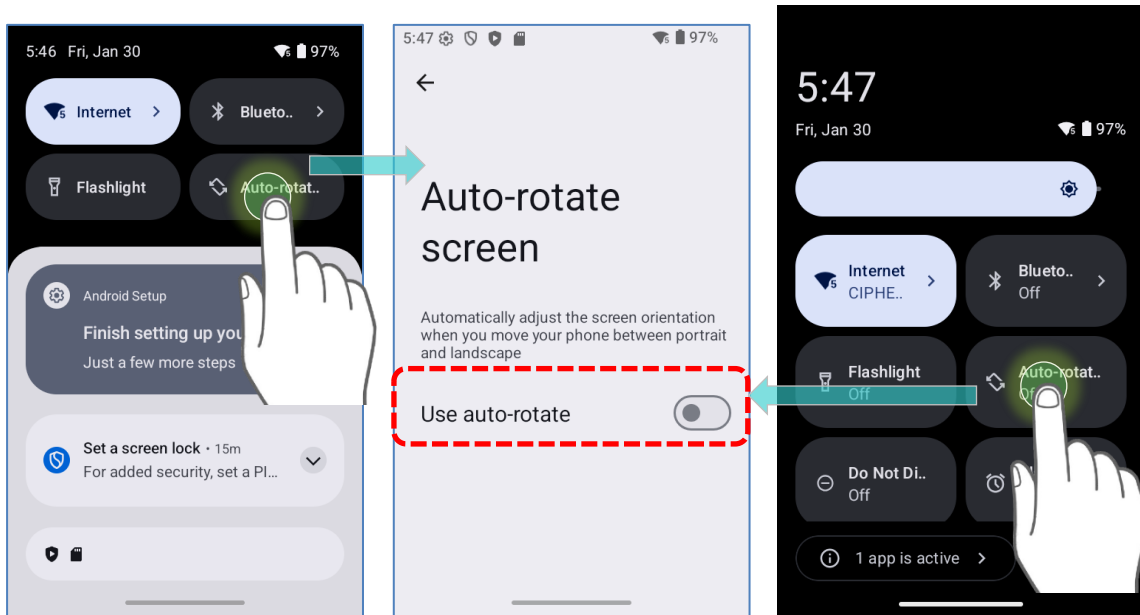
Swipe down from the top of the screen to open **Quick Setting Menu** and tap the **Auto rotate**

icon  to enable screen rotation.



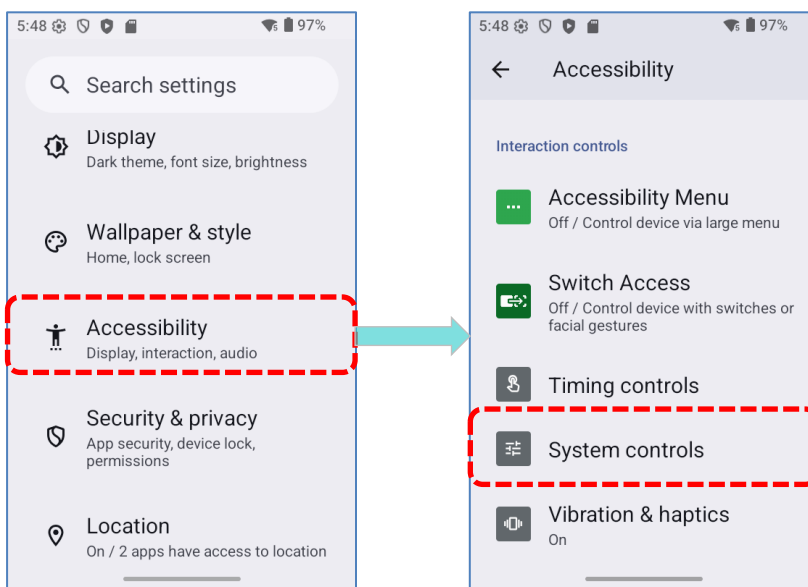
Icon	Description
	Auto rotate mode is OFF .
	Auto rotate mode is ON .

You can enter “**Auto-rotate screen**” page to enable or disable screen rotation by long pressing the **Auto rotate** icon on **Quick Setting Menu**.

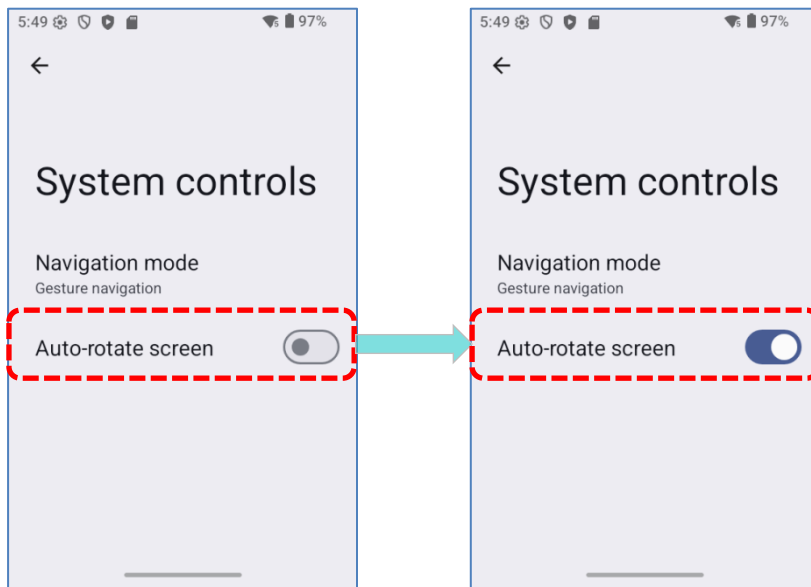


OR

1) On [App Drawer](#) | [Settings](#) | [Accessibility](#) | [System controls](#) .



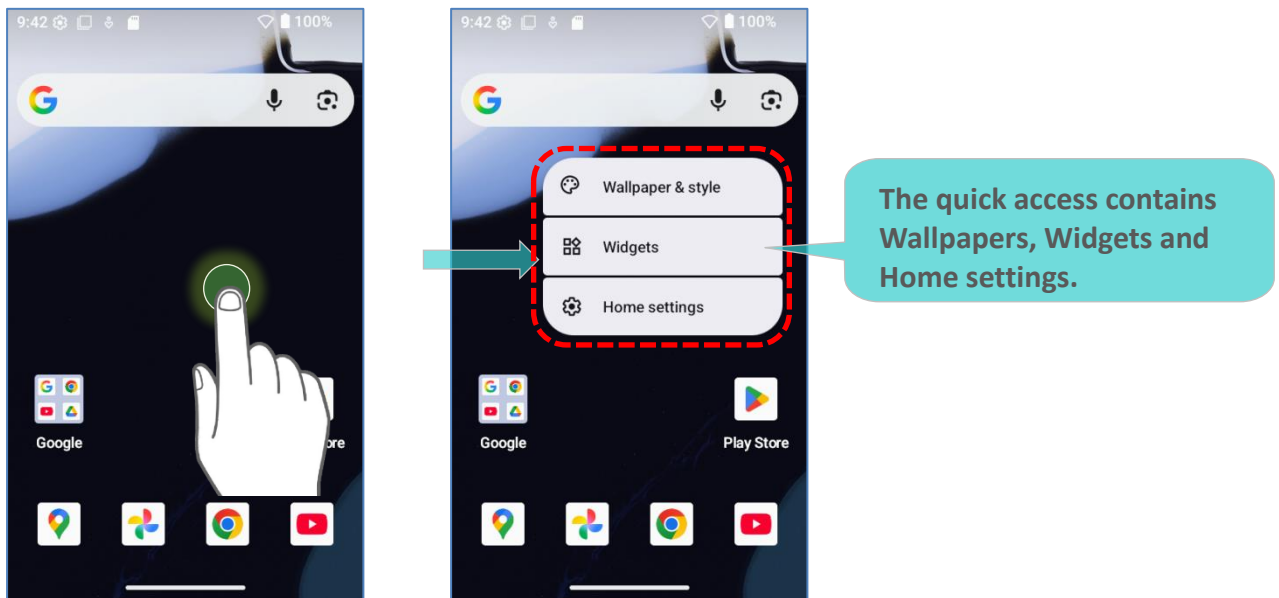
2) Switch on or off **Auto-rotate screen**.



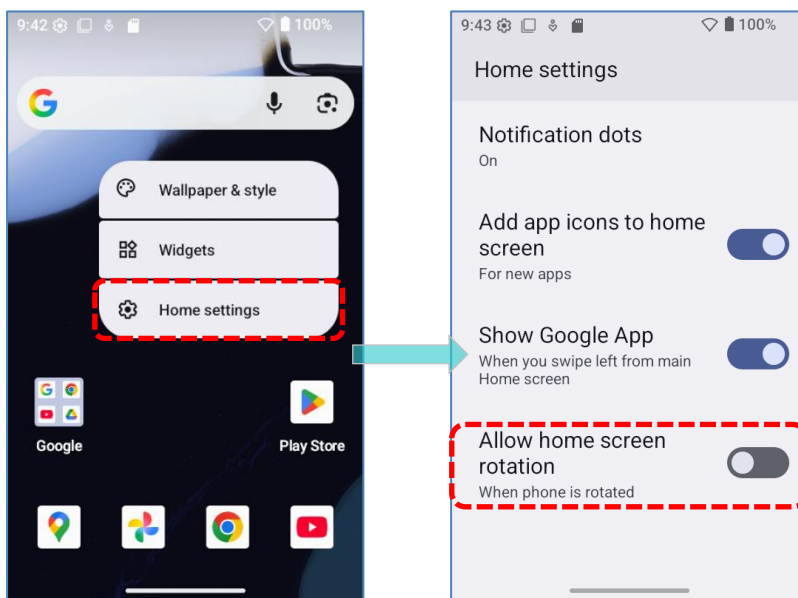
HOME SCREEN ROTATION

To enable Home screen rotation, please make sure **Auto Rotation** is enable.

1) Press and hold any empty spot on Home screen, and the quick access will be shown.



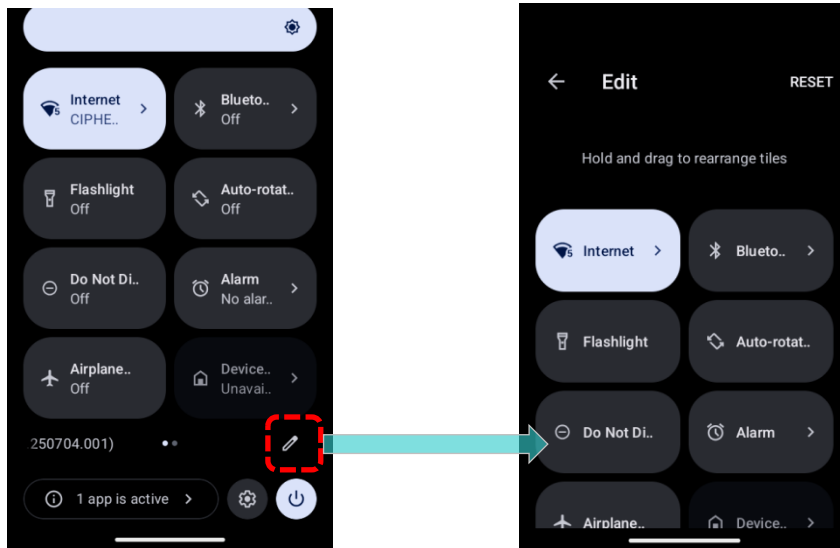
2) Tap “Home Settings” and enable “Allow Home screen rotation”.



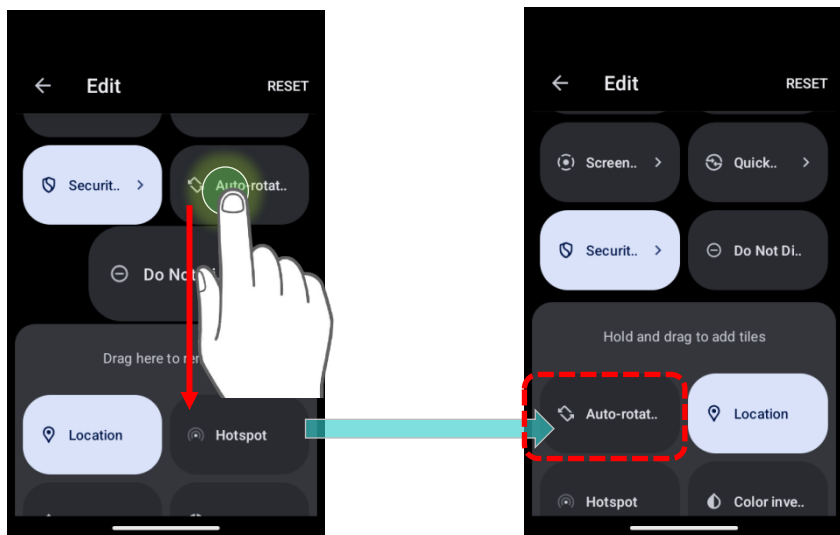
REMOVE AUTO ROTATION FROM QUICK SETTING MENU

You can remove the **Auto rotate** switch icon on **Quick Setting Menu** to minimize the possibility of accidentally turning on the auto-rotation function:

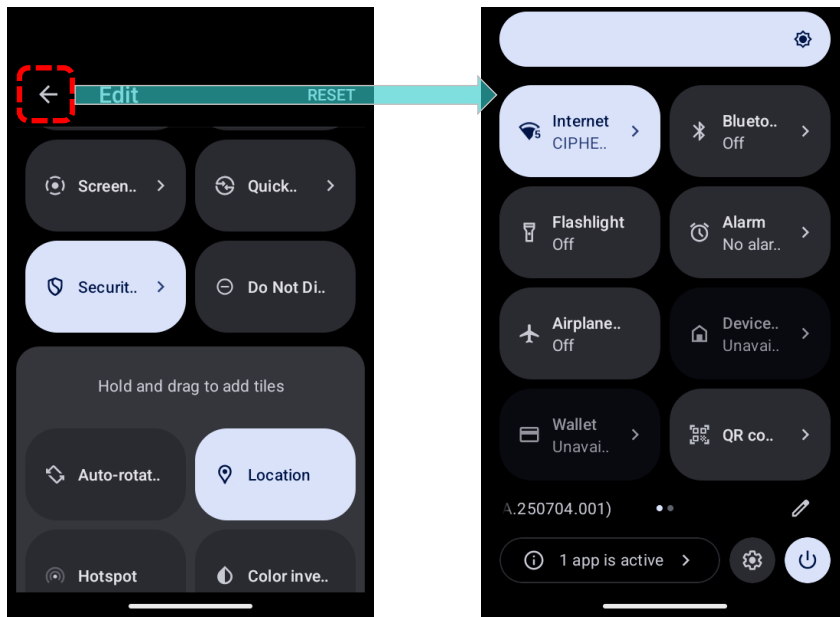
- 1) Swipe down from the top of the screen to open **Quick Setting Menu** and click on **Edit**  to get into **Edit** page.



- 2) Tap on and hold the **Auto-rotate** icon, and drag it under the “**Drag here to remove**” area and then release it.

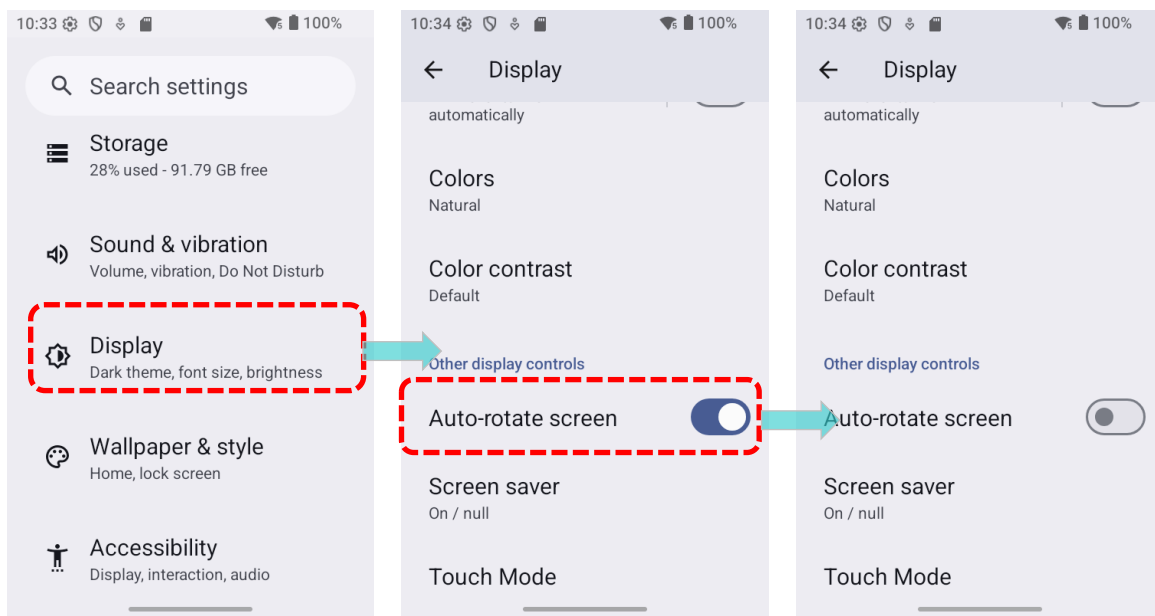


3) Return to the **Quick Setting Menu**, the **Auto-rotate** switch icon is now hidden.



REMOVE AUTO ROTATION FROM DISPLAY SETTINGS

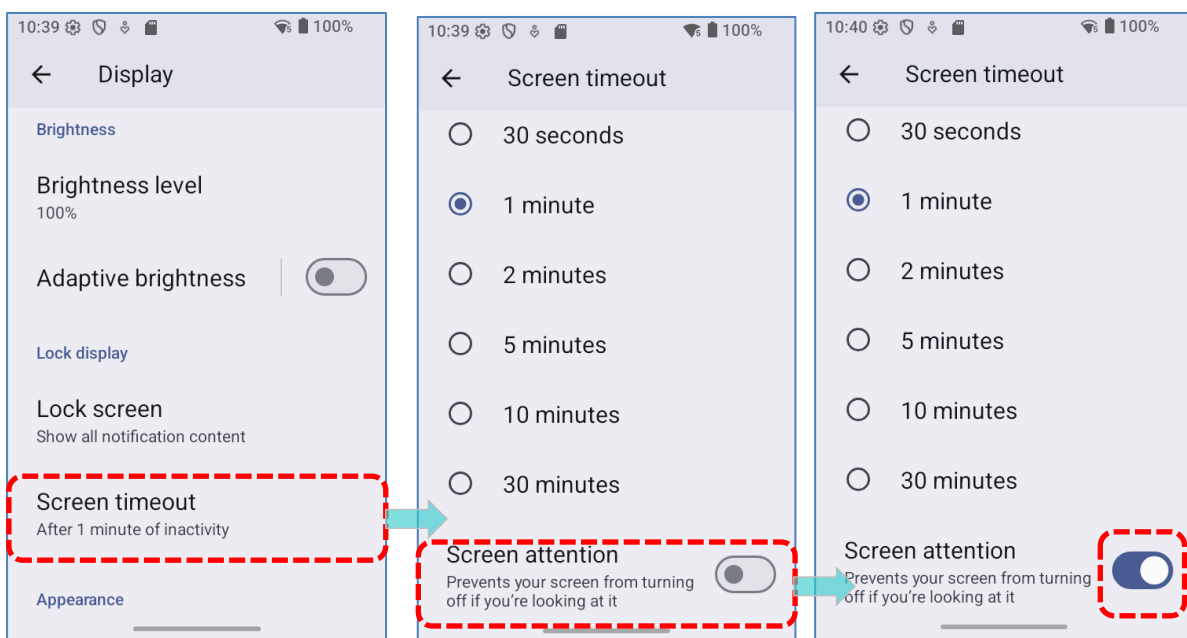
On [App Drawer](#) | [Settings](#)  | [Display](#)  | [Auto-rotate screen](#).



2.3.3. SCREEN TIMEOUT SETTINGS

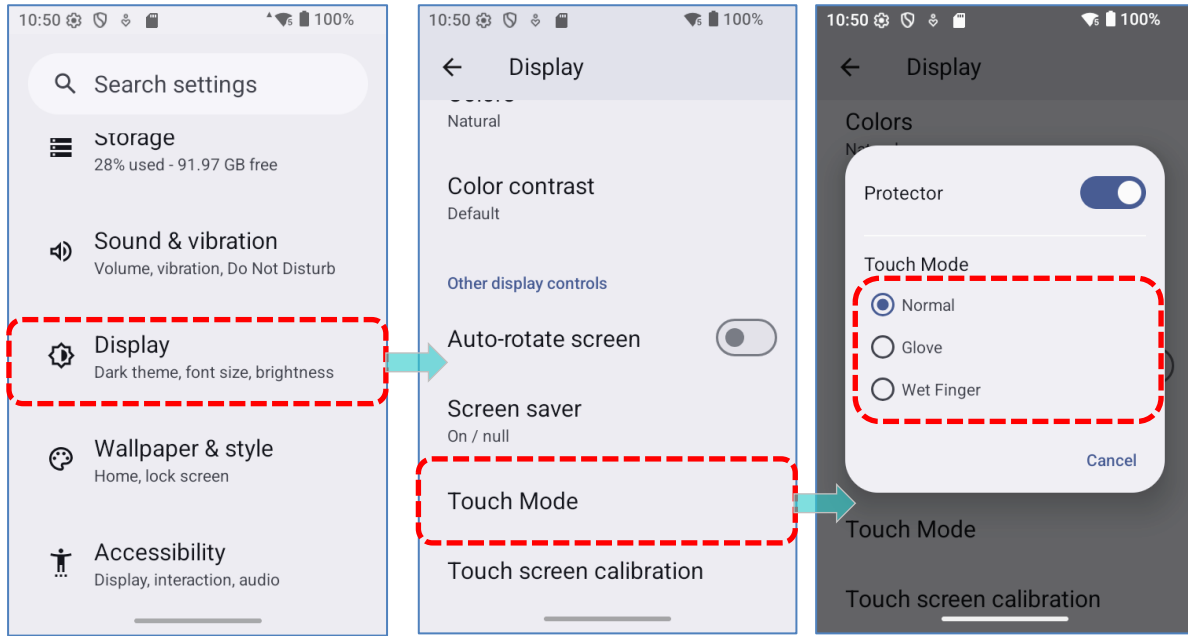
Go to [App Drawer](#) | **Settings**  | **Display**  | **Screen timeout**.

- 1) Select the time lapse for screen timeout.
- 2) If **Screen attention** is enabled, the device keeps the screen on while you are looking at it.
The **Screen timeout** you set will start once the system detects that you are no longer looking at the screen.



2.3.4. TOUCH MODE

Go to [App Drawer](#) | **Settings**  | **Display**  | **Touch Mode**. Select the touchscreen mode according to the environment you use with the mobile computer:

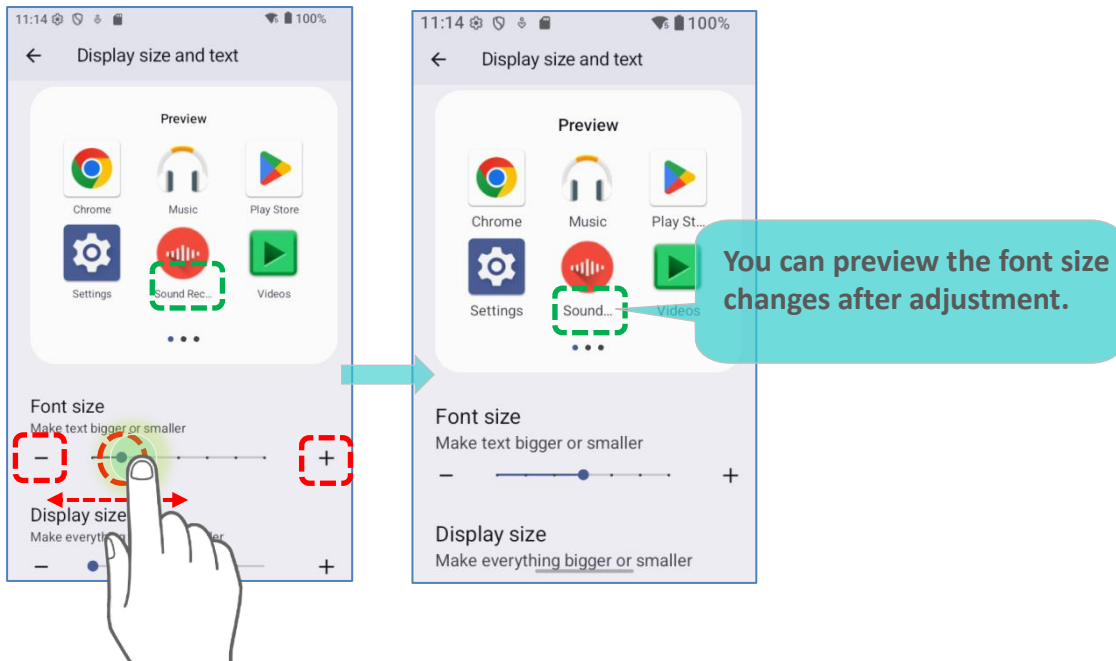


Touch Mode	Description
Normal	The default setting which is <u>for bare fingers and styluses</u> .
Glove	The Glove mode is applied to the users that <u>wears gloves</u> .
Wet Finger	The Wet Finger Mode is applied to a <u>humid environment or in drizzly weather with bare fingers only</u> .

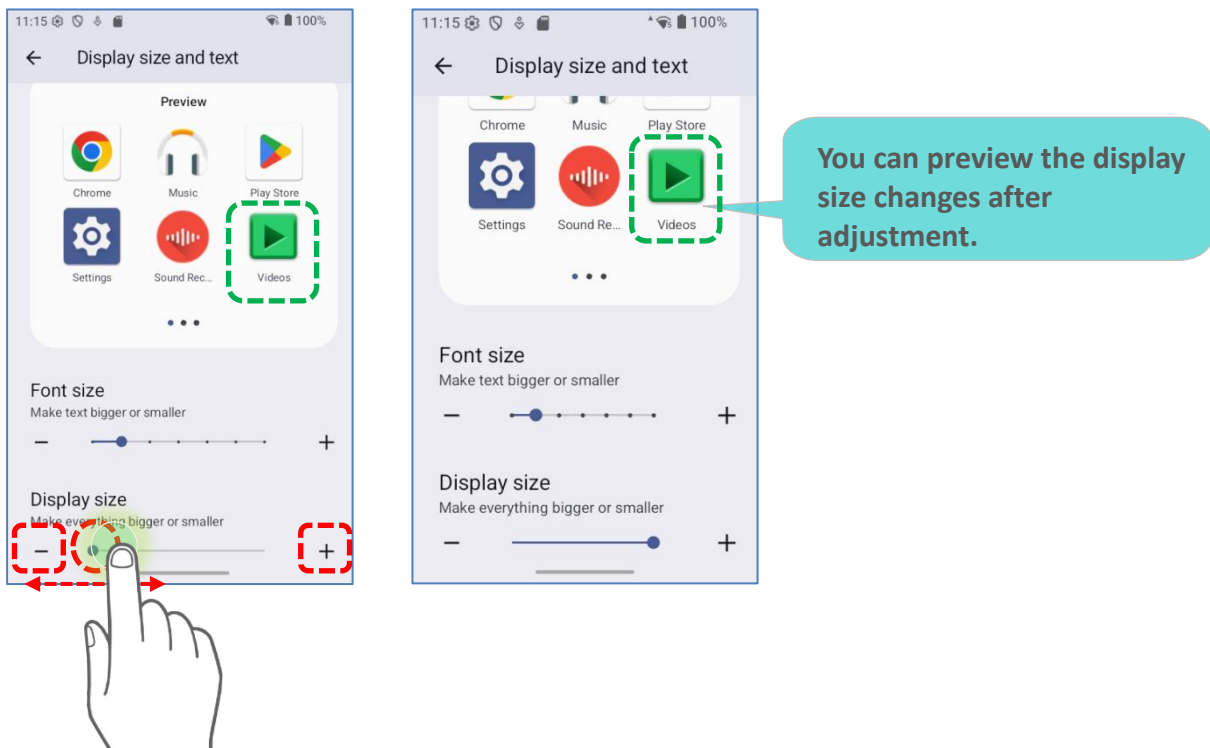
2.3.5. TEXT SIZE & DISPLAY SIZE

Go to [App Drawer](#) | [Settings](#)  | [Display](#)  | [Display size and text](#).

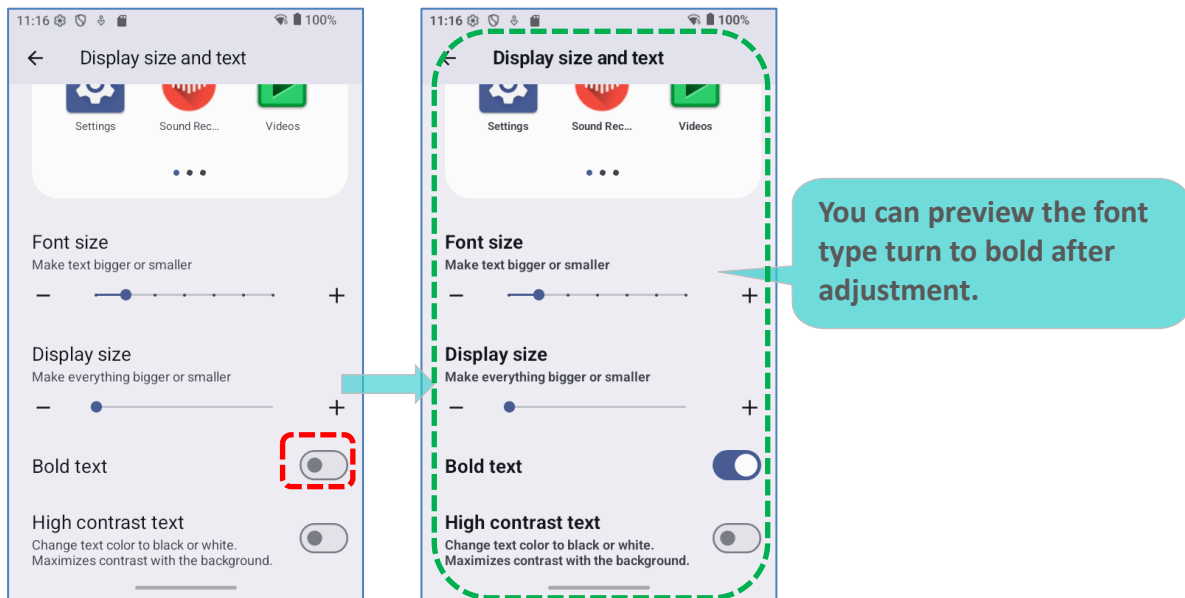
1) Tap "+", "-" or drag the slider to select the font size between the **Smallest** to the **Largest**.



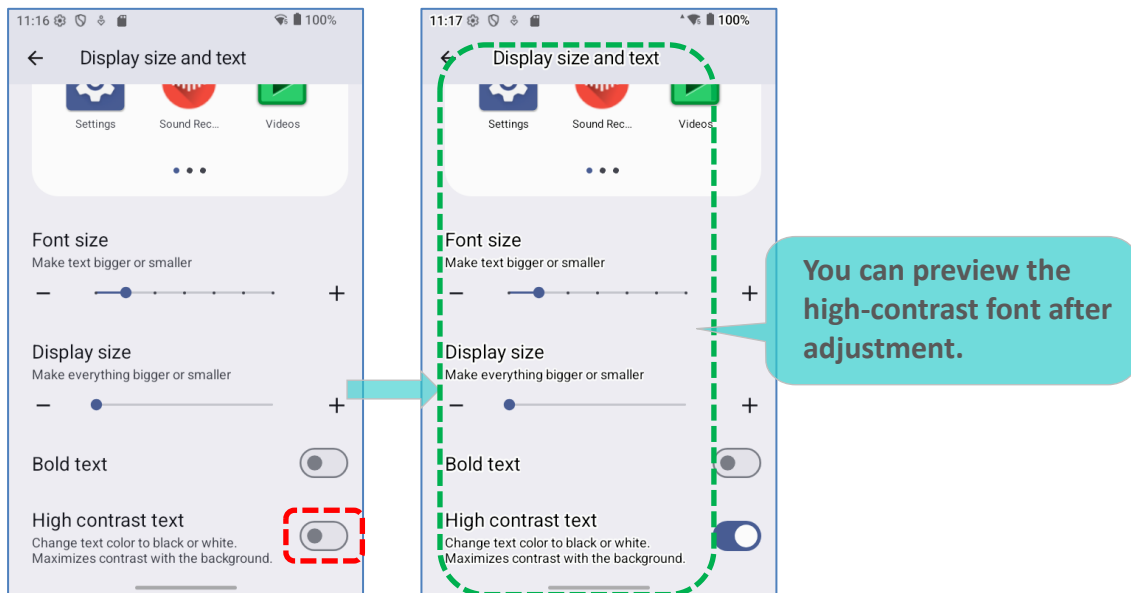
2) Tap "+", "-" or drag the slider to select the display size between the **Smallest** to the **Largest**.



3) Switch on “**Bold text**” and the font type turns to **Bold type** on screen.



4) Switch on “**High contrast text**” and the font type turns to high-contrast font in black and white on screen.



2.4. NOTIFICATIONS

2.4.1. STATUS LED

Two LED indicators located above the touch screen provide information about charging status, scanner light beam, and scanner "**Good Read**" during data collection.

LED 1 for Power Indication		
Indicator	Status	Description
Charging	Green, solid	Charging complete (more than 95%)
	Red, solid	Charging the mobile computer (0% to 95%)
	Red, blinking	Charging temperature error (lower than 0°C or exceed 45°C)

LED 2 for Reader & System Notification		
Indicator	Status	Description
Barcode decode	Green, flash once	Good read
System notification	Red, solid	New notification

Note: For Scanner decode and Scanner beam LED to function, LED notification must be enabled in the app "ReaderConfig".

2.4.2. AUDIO

The speaker is used to play sounds for events in windows and programs, or play audio files. In addition, it can be programmed for status feedback. In noisy environments, you may consider connecting a Bluetooth headset instead. The mobile computer also supports USB Type-C audio adapter for connecting headsets.

Supported audio file formats include: WAV, MP3, AAC, AAC+, Enhanced AAC+, AU (including ADPCM), Midi, XMF, AMR (NB and WB). Enhanced low delay AAC, FLAC, Vorbis, PCM.

Enter the [Sound and vibration](#) to adjust the system volume.

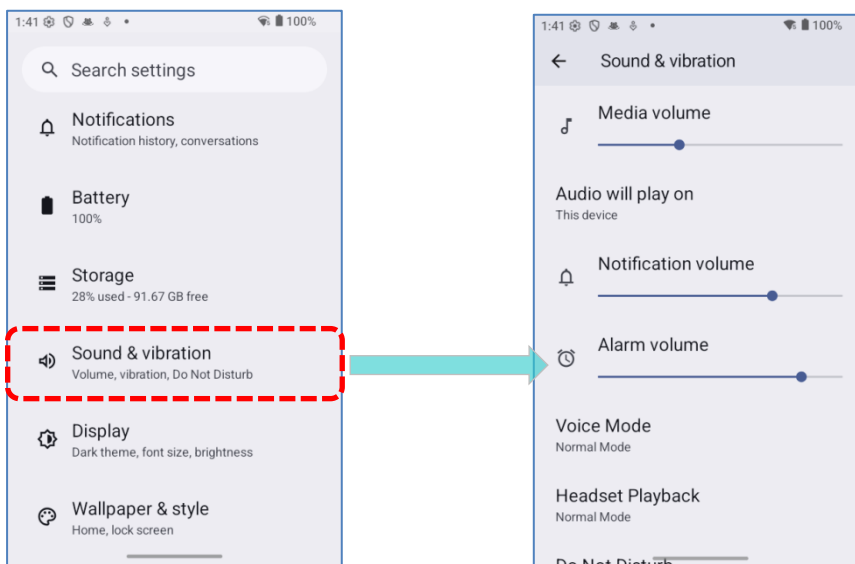
2.4.3. SOUND AND VIBRATION

The mobile computer is integrated with a vibrator, which is software programmable for tactile feedback. This can be helpful when working in noisy environments.

You may also set the mobile computer to vibrate only, in which all system sounds will be muted and replaced by the vibrator.

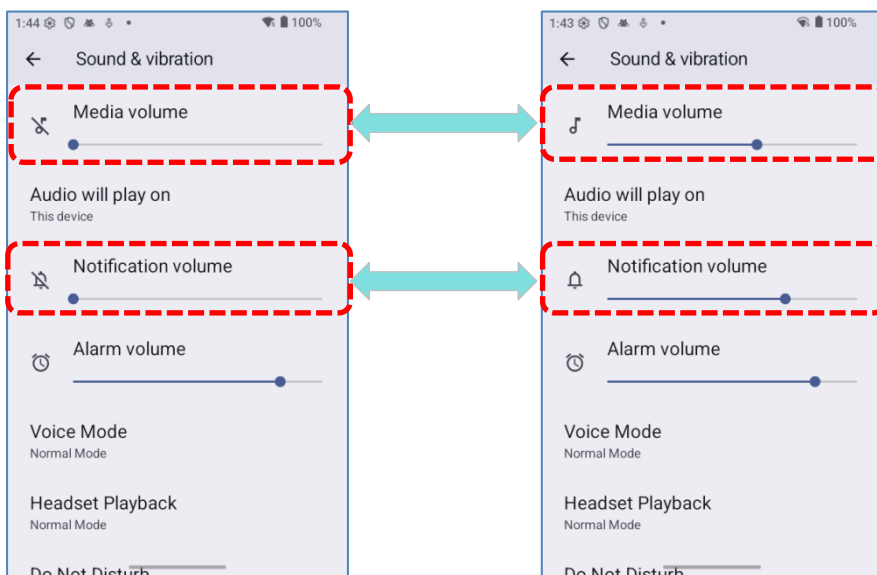
SOUND SETTINGS

Go to [App Drawer](#) | **Settings**  | **Sound & vibration**  for more sound settings.

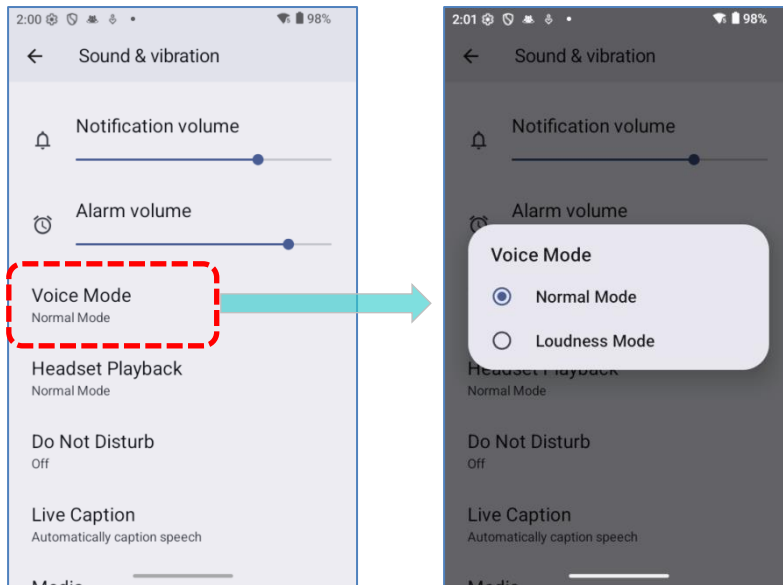


On “**Sound & vibration**” settings page, you can:

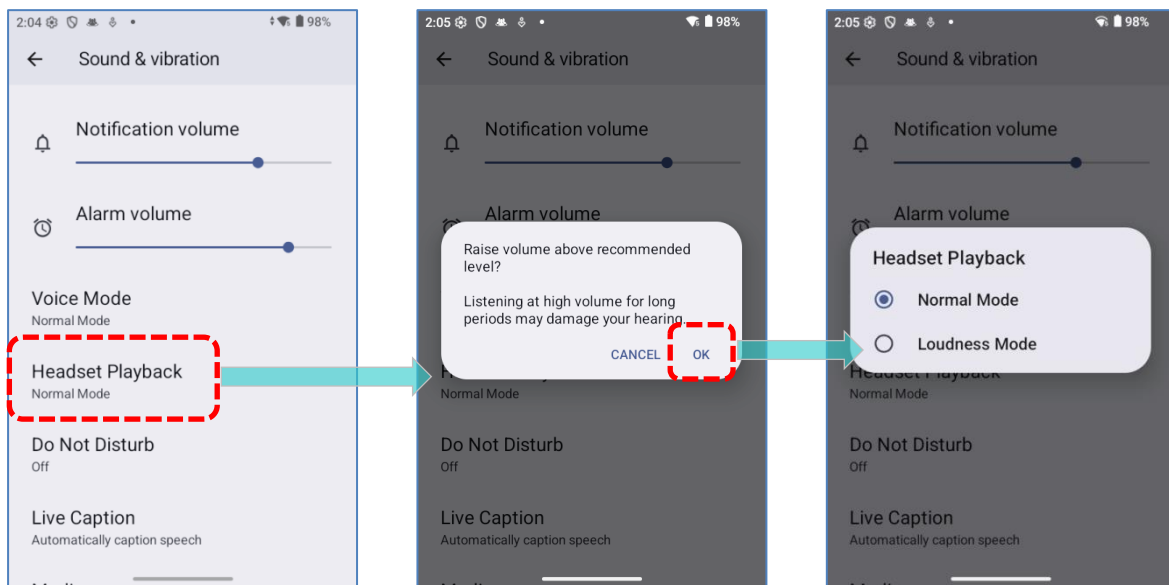
- Adjust the volume for **media** , **notification** , and **alarm**  by dragging the sliders.



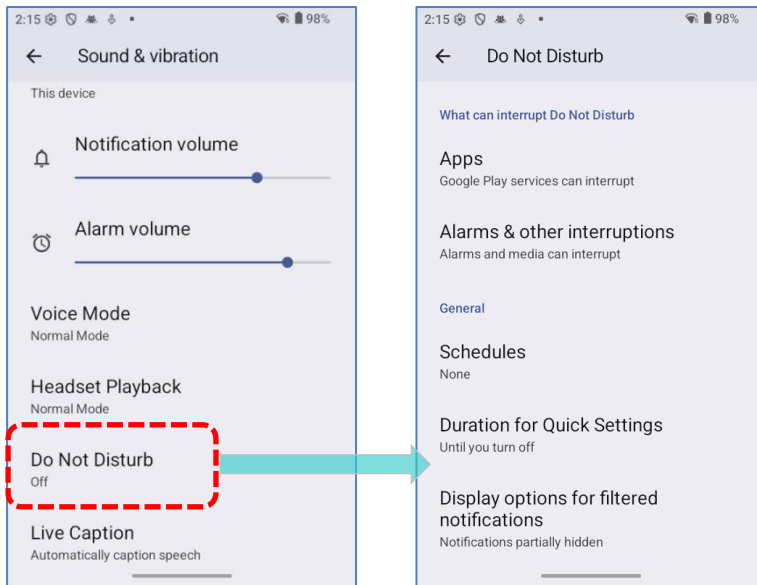
- Tap **"Voice Mode"** and select **Normal Mode** or **Loudness Mode**.



- Tap **"Headset Playback"** and select **Normal Mode** or **Loudness Mode** if the headset is plugged in.



- Enter the “Do Not Disturb” (DND) for its detailed settings.



Items	Description
Apps	Select the Apps that can interrupt the DND .
Alarms & other interruptions	Select the alarms or media that can interrupt the DND .
Schedules	Set the shcedules that activate the DND .
Duration for Quick Setting	Set the DND duration notification for Quick Setting.
Display options for filtered notifications	Set the displayed notifications when DND is on .

ADJUST THE SOUND BY KEYPAD

You can also trigger the volume slider by keypad for rapidly adjustment.

38-KEY MODEL

- 1) Press **Orange Key**  to enable **Orange Mode** .
- 2) Press **F10** key to trigger the volume slider to increase the volume while press **F9** to decrease the volume.

OR

- 1) Press **Orange Key**  twice to enable **Orange Lock Mode** .
- 2) Keep pressing **F10** or **F9** to adjust the volume.



41-KEY MODEL

- 1) Press **Blue Key**  to enable **Blue Mode** .
- 2) Press **F4** key to trigger the volume slider to increase the volume while press **F8** to decrease the volume.

OR

- 1) Press **Blue Key**  twice to enable **Blue Lock Mode** .
- 2) Keep pressing **F4** or **F8** to adjust the volume.

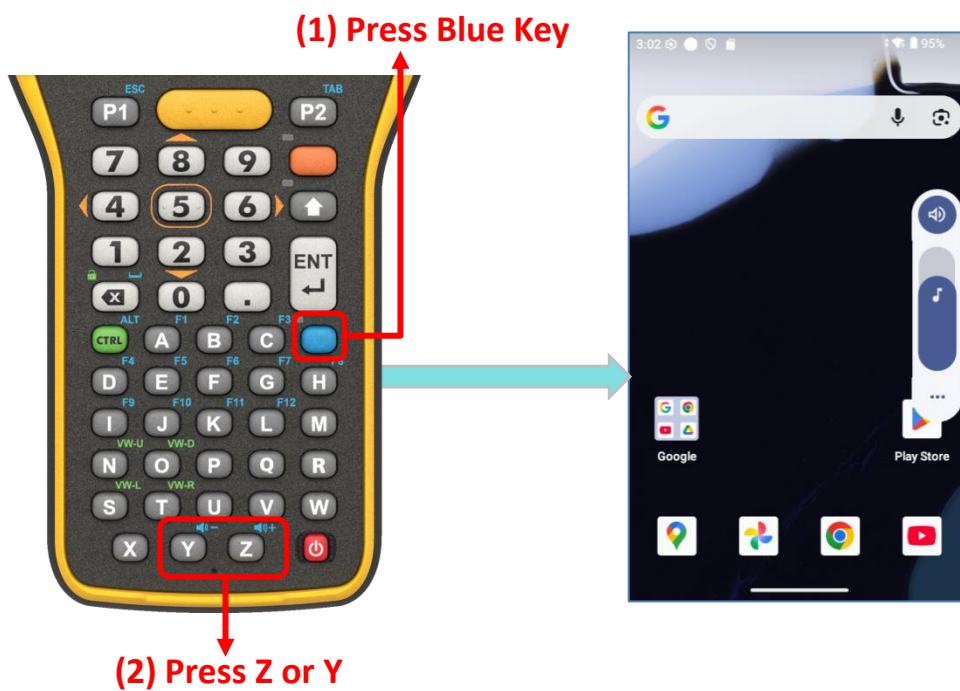


47-KEY MODEL

- 1) Press **Blue Key**  to enable **Blue Mode** .
- 2) Press **Z** key to trigger the volume slider to increase the volume while press **Y** to decrease the volume.

OR

- 1) Press **Blue Key**  twice to enable **Blue Lock Mode** .
- 2) Keep pressing **Z** or **Y** to adjust the volume.

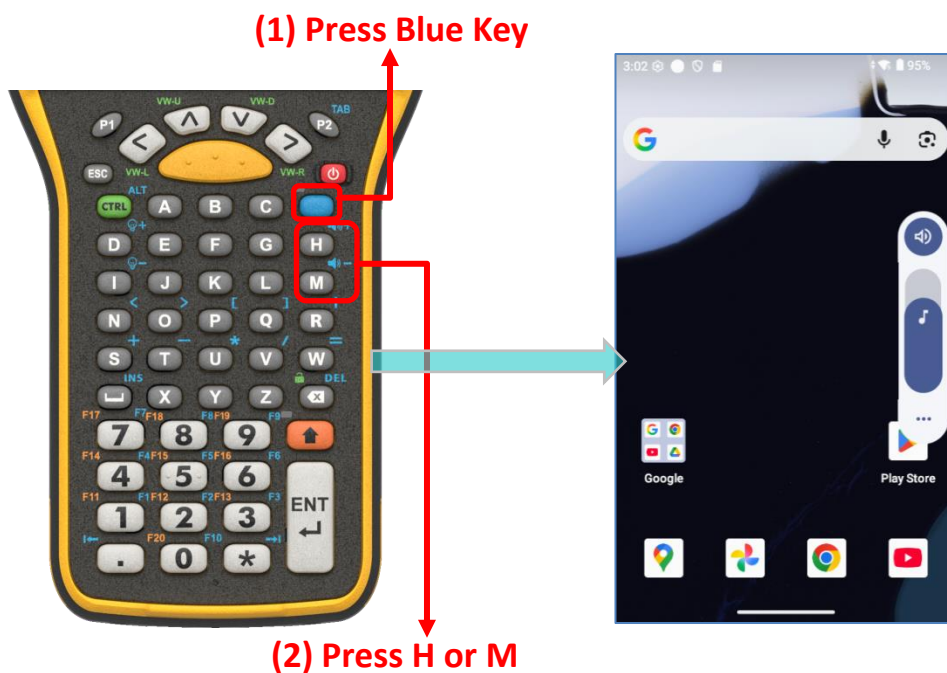


53-KEY MODEL

- 1) Press **Blue Key**  to enable **Blue Mode** .
- 2) Press **H** key to trigger the volume slider to increase the volume while press **M** to decrease the volume.

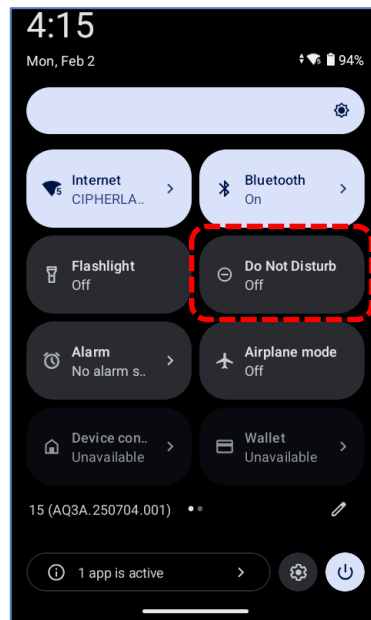
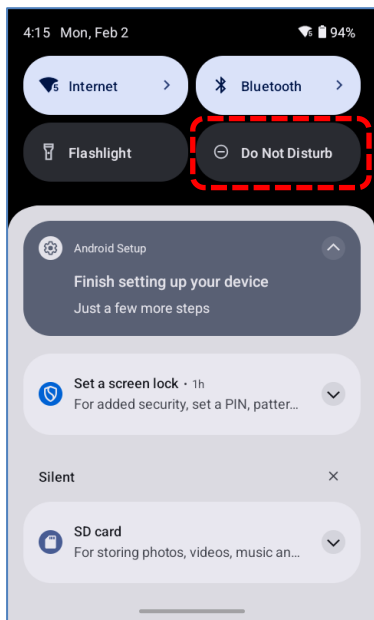
OR

- 1) Press **Blue Key**  twice to enable **Blue Lock Mode** .
- 2) Keep pressing **H** or **M** to adjust the volume.



DISABLE UNWANTED NOTIFICATIONS WITH “DO NOT DISTURB” (DND)

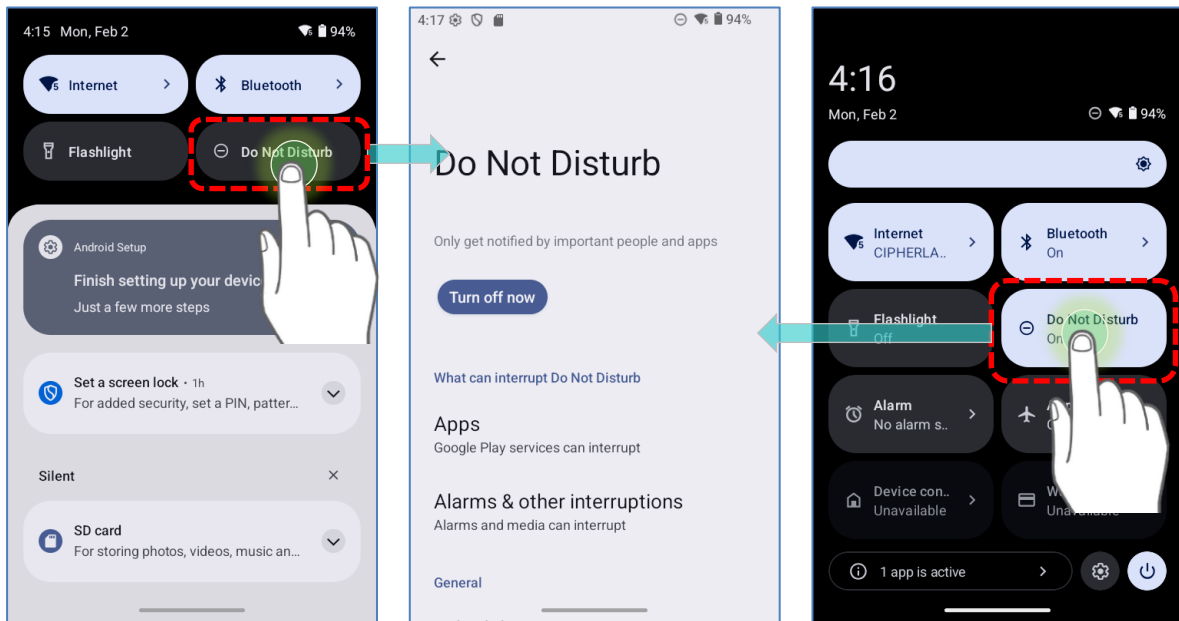
You can temporarily disable specific notifications (vibration or sound) using “**Do Not Disturb**” in **Quick Setting Menu**. What’s more, you can schedule the duration of the disabled status so that the notifications will switch to enabled state automatically based on your arrangement.



Swipe down from the status bar to open **Quick Setting Menu**, tap on “**Do Not Disturb**” to enable this feature and make further adjustment.

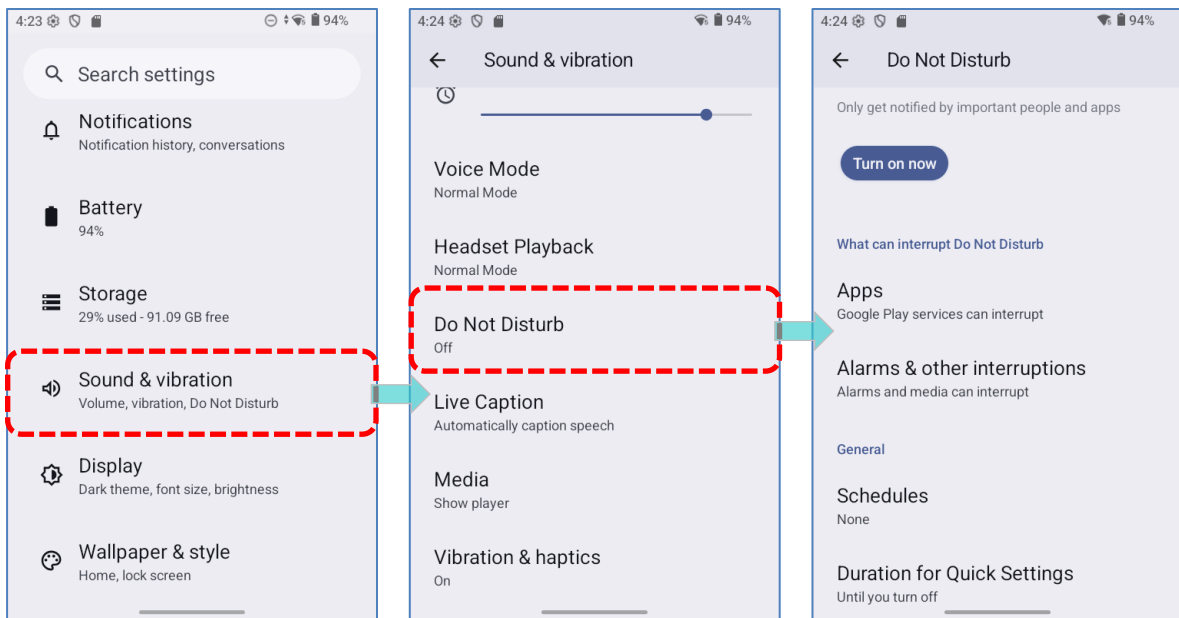
Icon	Description
	DND mode is OFF .
	DND mode is ON .

You can enter “Do Not Disturb” page for further settings by long pressing the “Do Not Disturb” on Quick Setting Menu.



OR

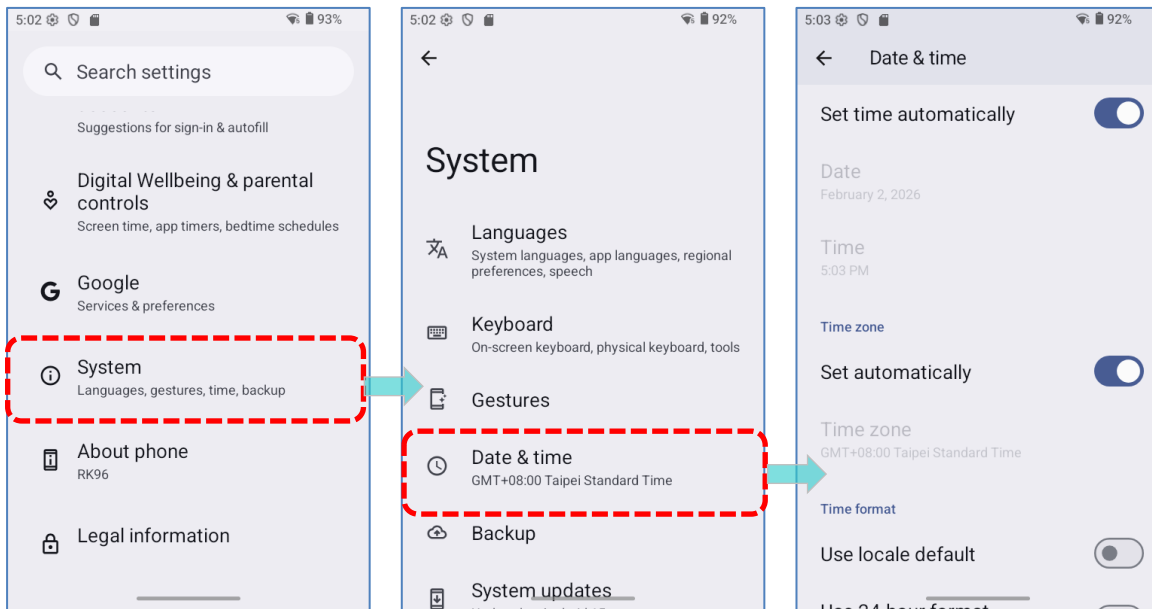
Go to [App Drawer](#) | [Settings](#)  | [Sound & vibration](#)  | [Do Not Disturb](#).



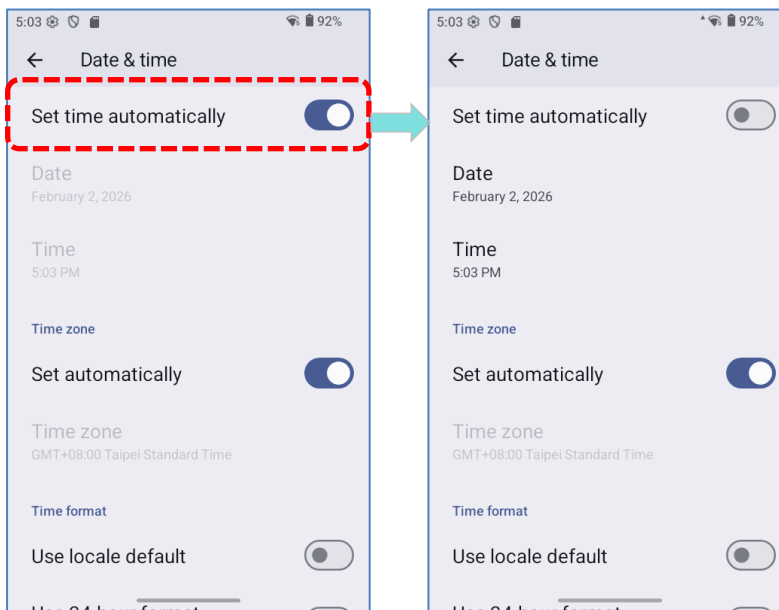
2.5. DATE AND TIME

By default, the mobile computer automatically synchronizes the date and time to the WWAN network (if connected). To set the date and time manually:

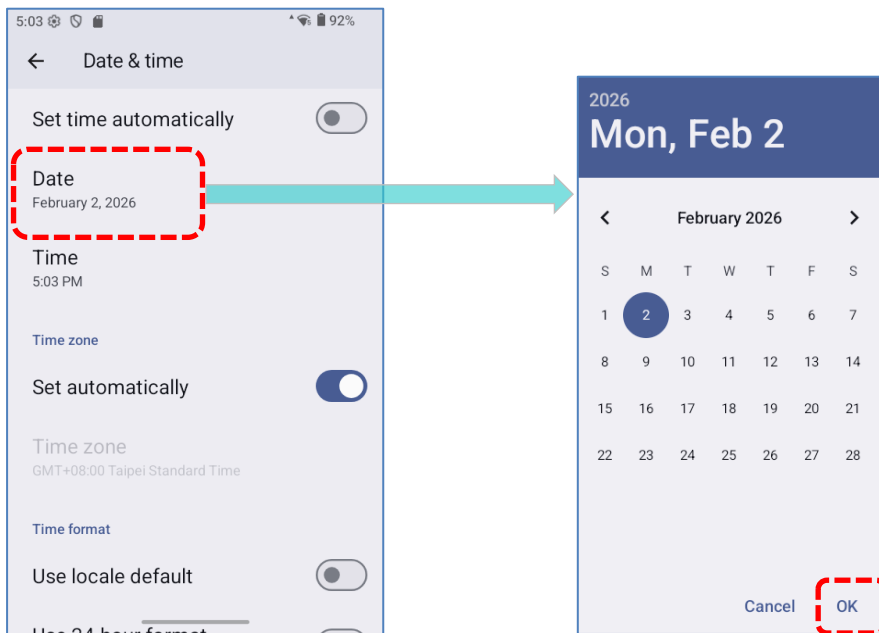
- 1) Go to [App Drawer](#) | **Settings**  | **System**  | **Date & time** .



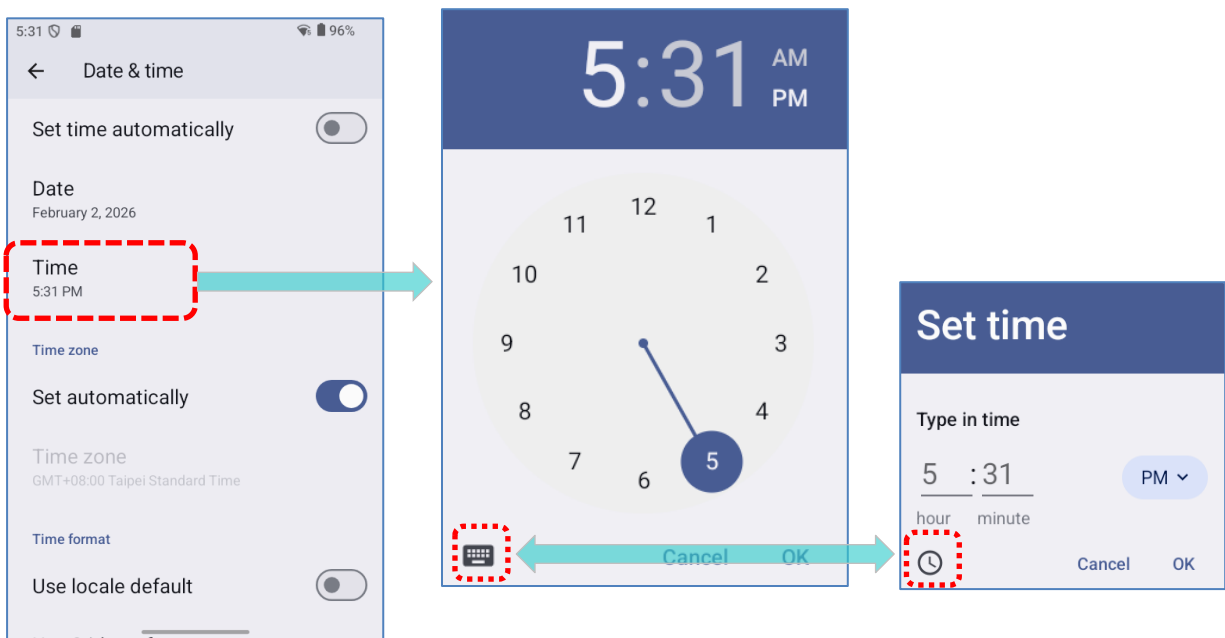
- 2) Switch off **Set time automatically** to disable using network-provided time.



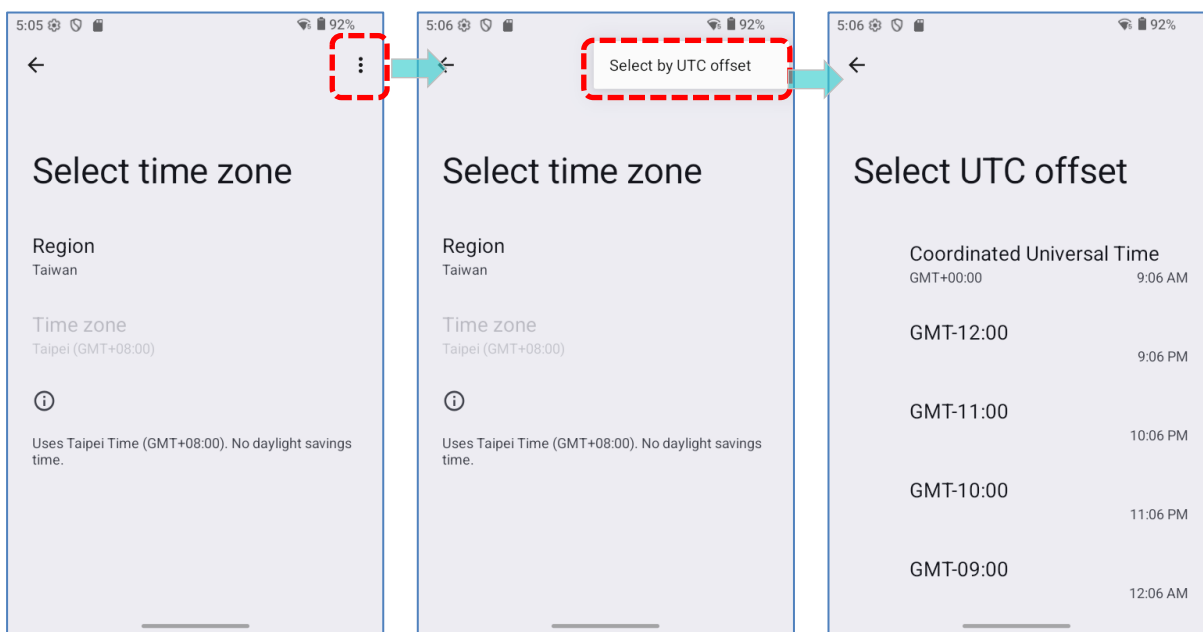
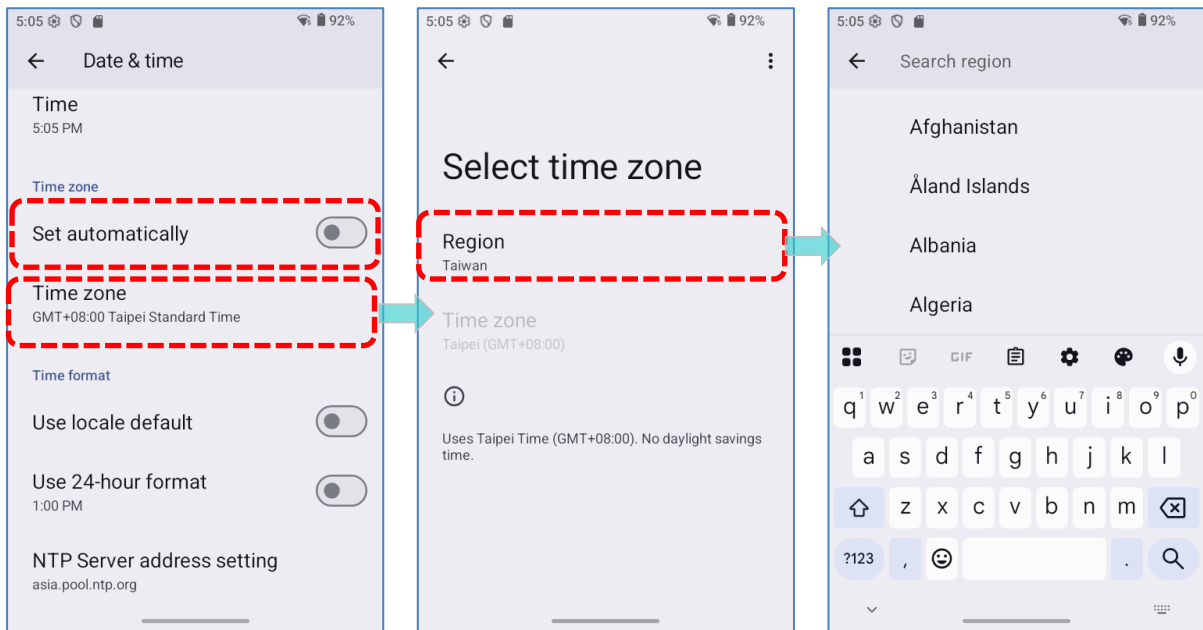
3) Tap **Date** to select the correct month, date and year. Tap **OK** to save.



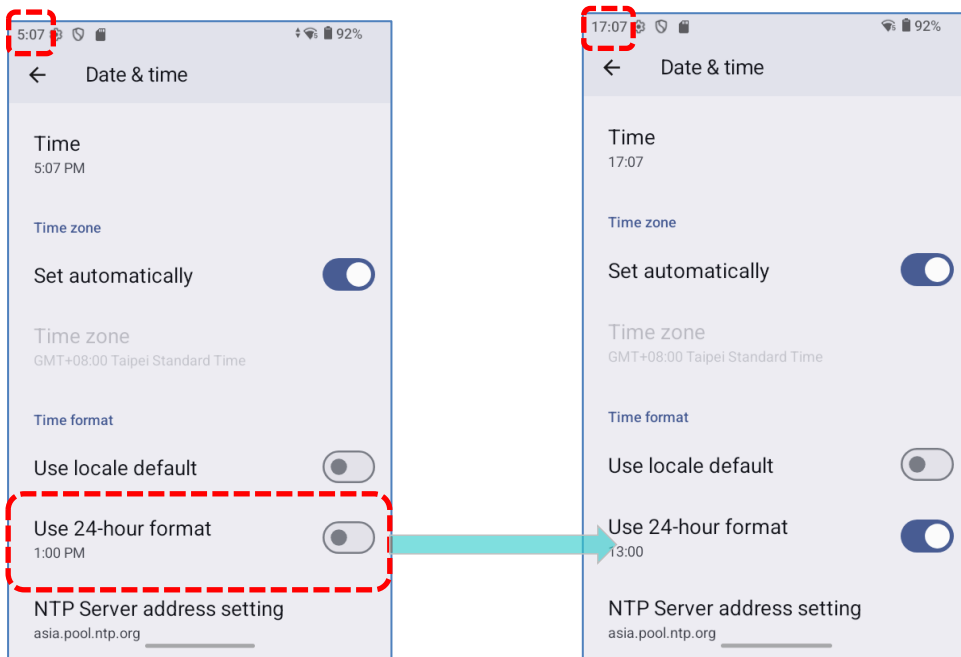
4) Tap **Time** to set the correct time. Tap **OK** to save.



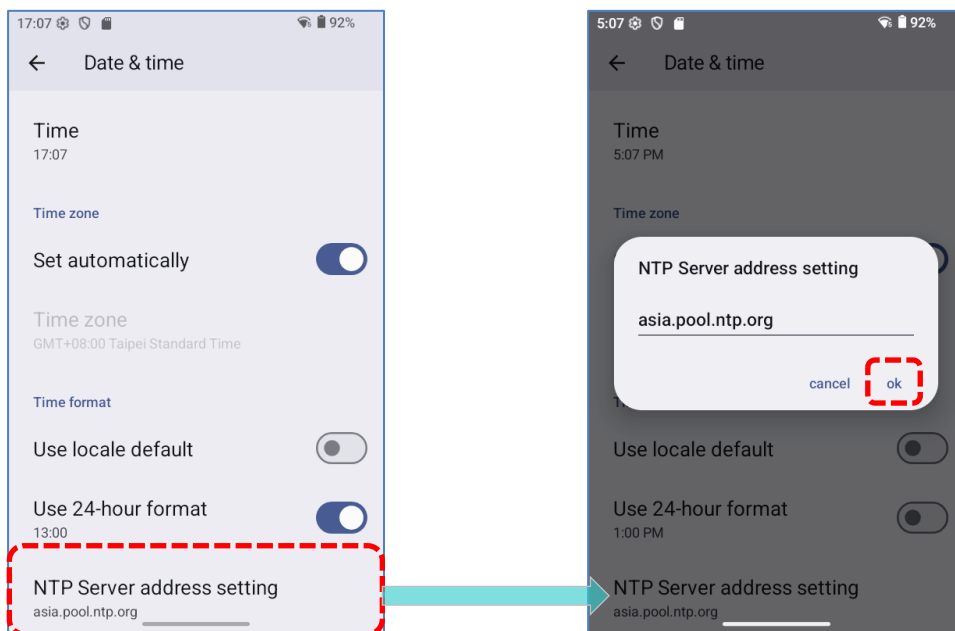
5) Disable **Set automatically** and then tap **Time zone** to select the correct time zone from the list.



6) Disable “Use locale default” and tap “Use 24-hour format” to switch on or off to change the displayed time.

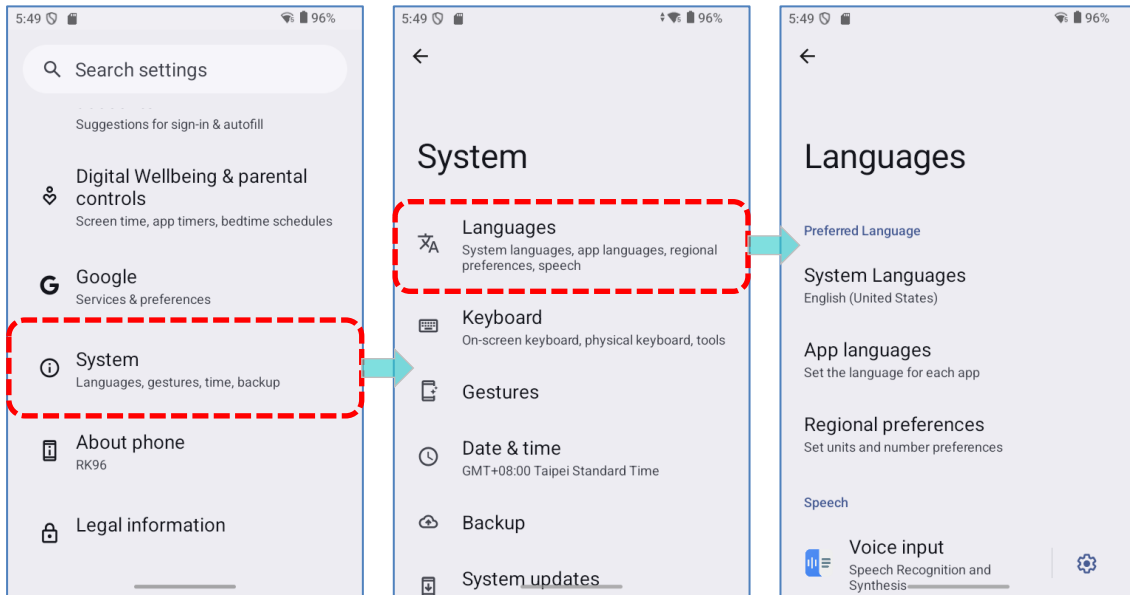


7) Tap “NTP Server address setting” to input NTP server address and tap “ok” to save.



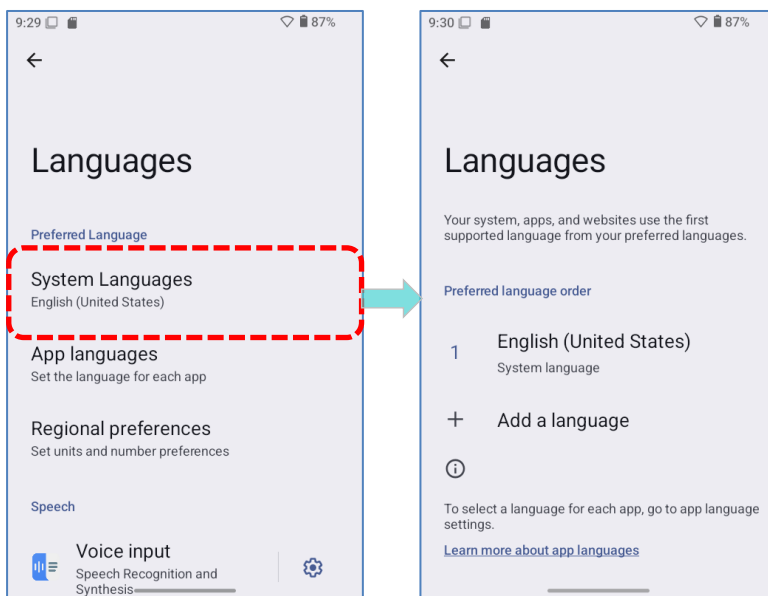
2.6. LANGUAGES

Tap [App Drawer](#) | **Settings**  | **System**  | **Languages**  to change the language settings.

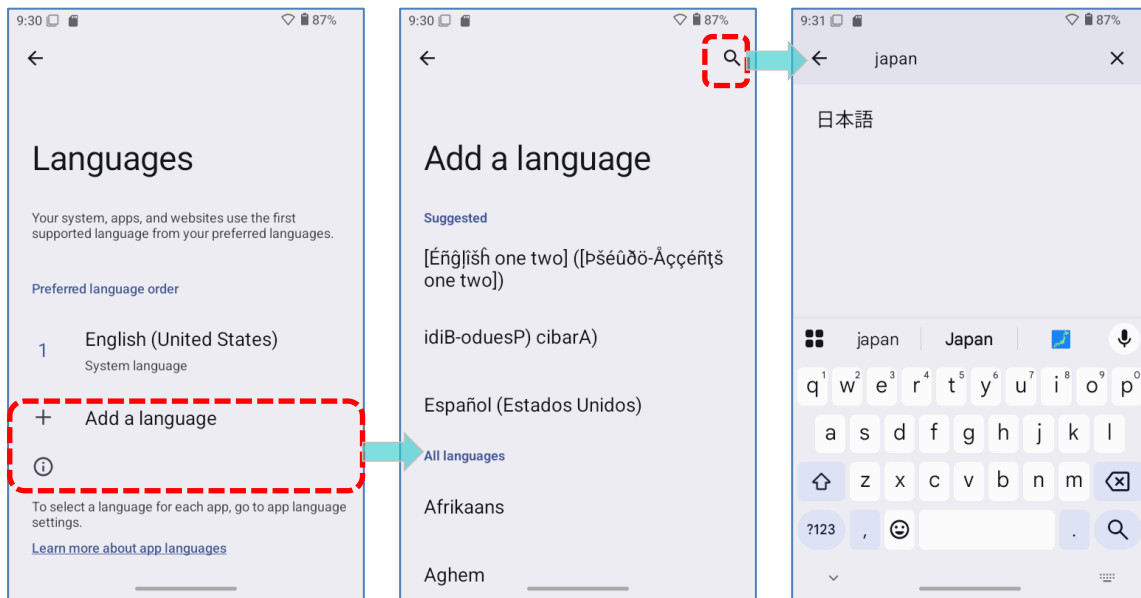


2.6.1. CHANGE SYSTEM LANGUAGES

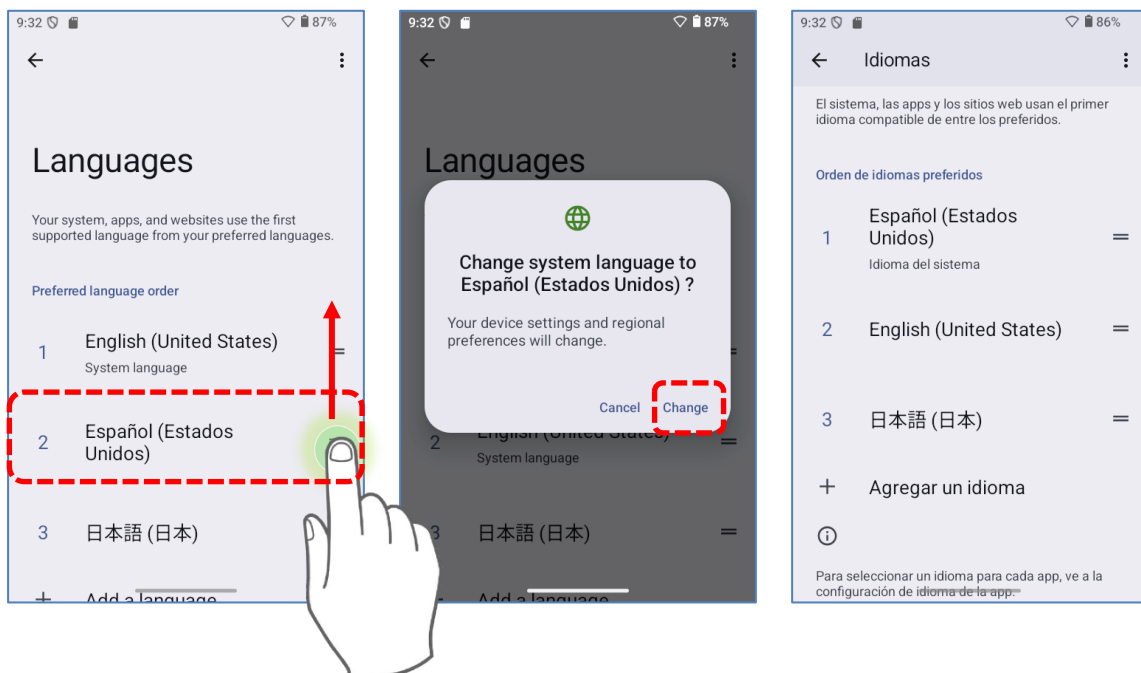
Tap **System Languages** to set system language.



1) Tap **"Add a language"** to add your desired system languages.

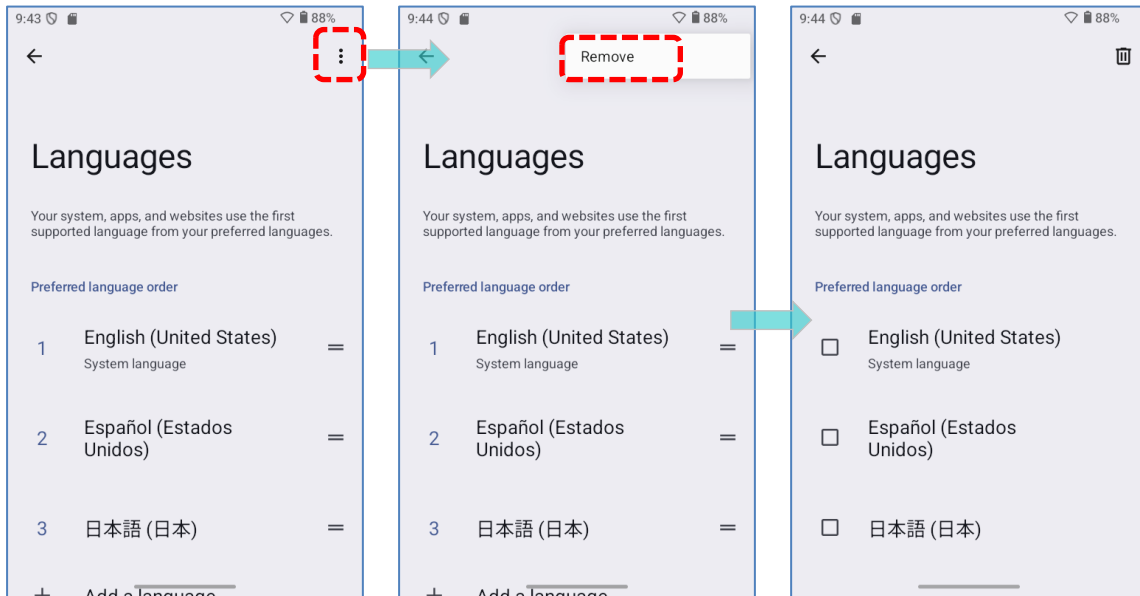


2) Press and hold your desired system language to change its sorting order to the 1st by dragging. Once it is released, tap **"Change"** and the new language setting will immediately be applied.

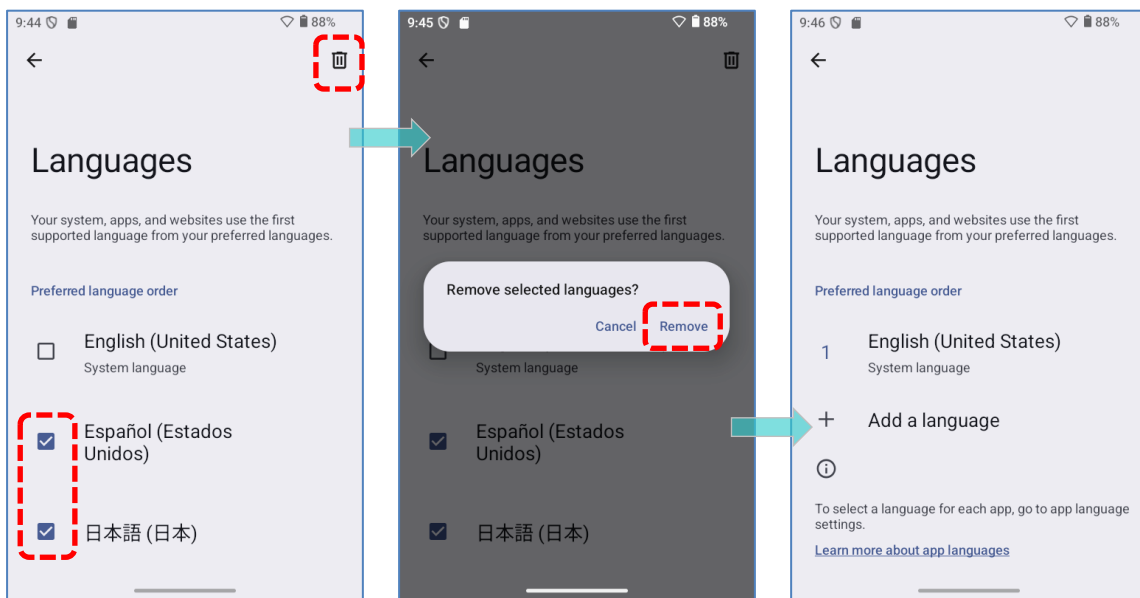


REMOVE LANGUAGE

Tap **More** , "Remove".

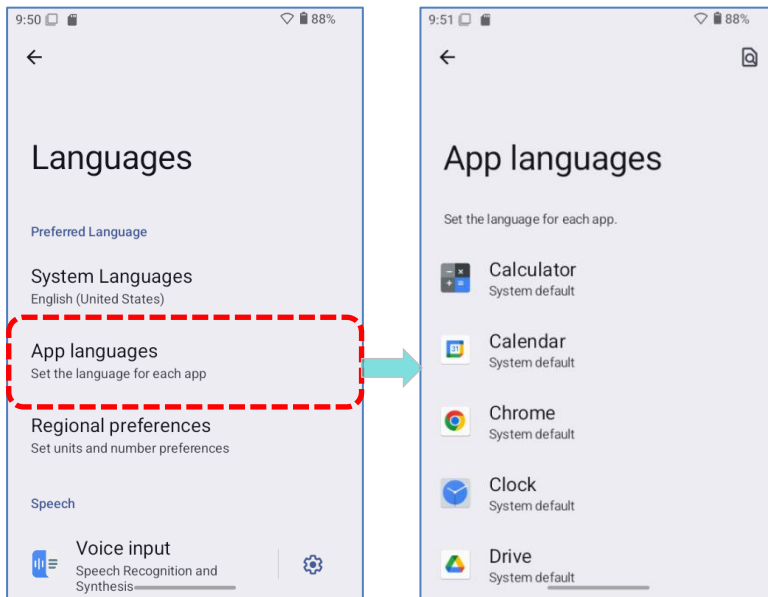


Select the language to delete. Tap trash bin icon , "Remove". At least one preferred language must be kept.

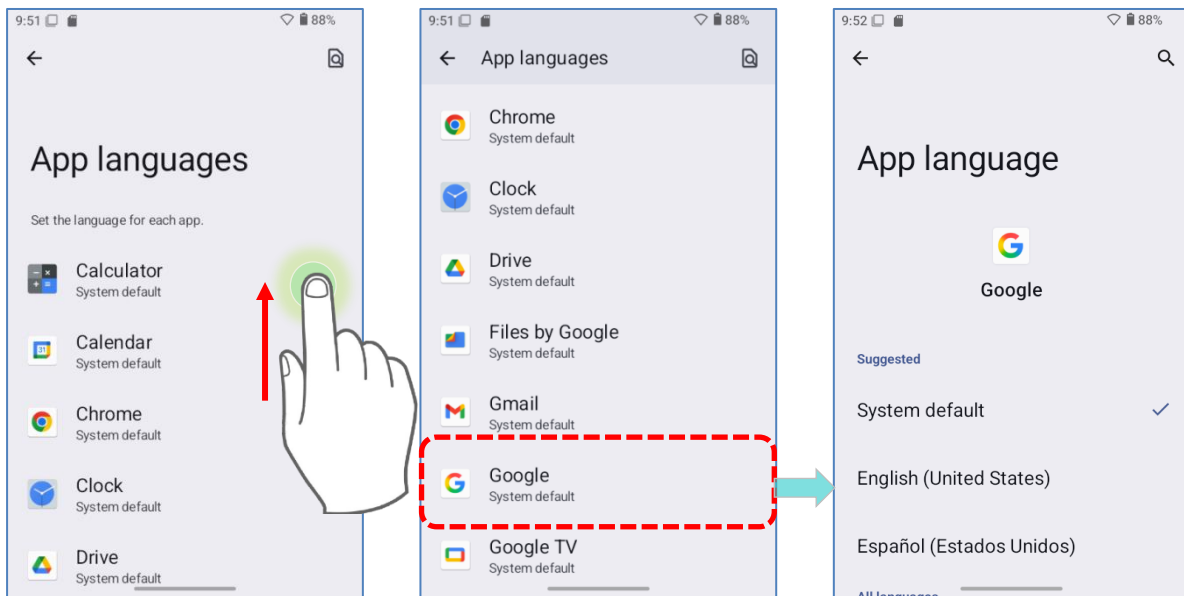


2.6.2. CHANGE APP LANGUAGES

Tap **App languages** to set the language for each app.

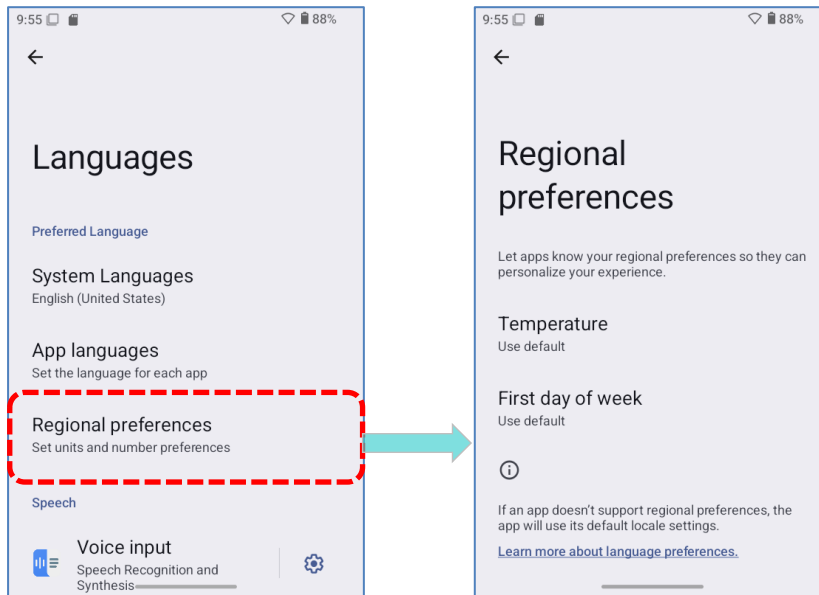


Scroll and tap the desired apps to set the language respectively.

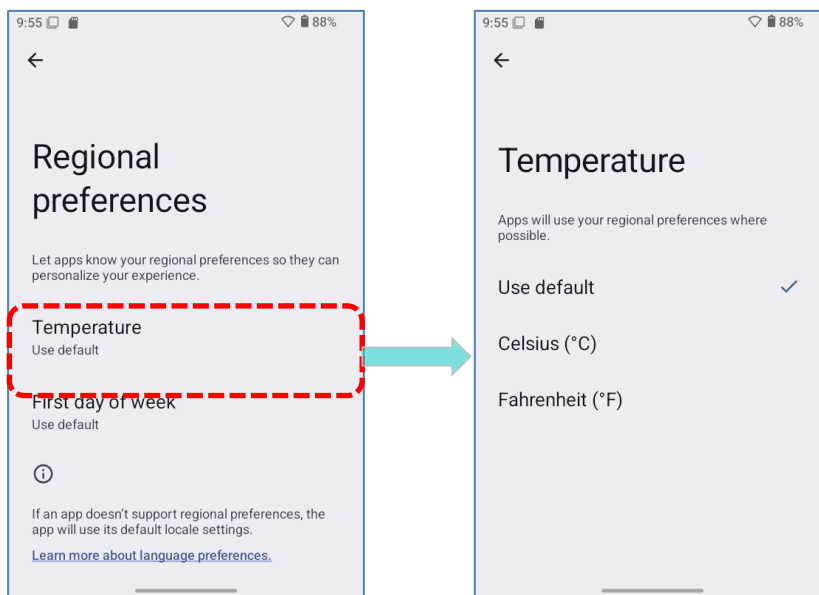


2.6.3. REGIONAL PREFERENCES

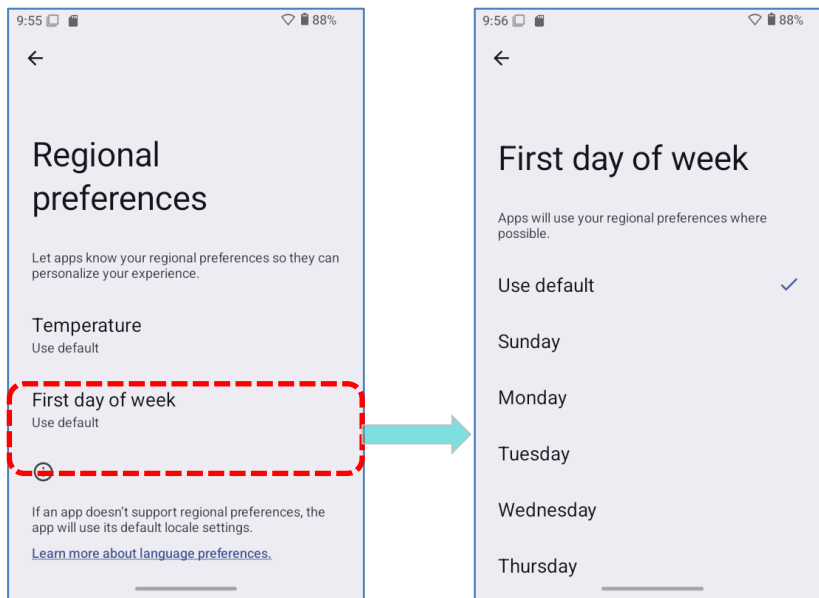
Tap **Regional preferences** to set the temperature display format and the starting day of the week.



Tap **"Temperature"** to set the temperature unit of **Celsius (°C)** or **Fahrenheit (°F)**.



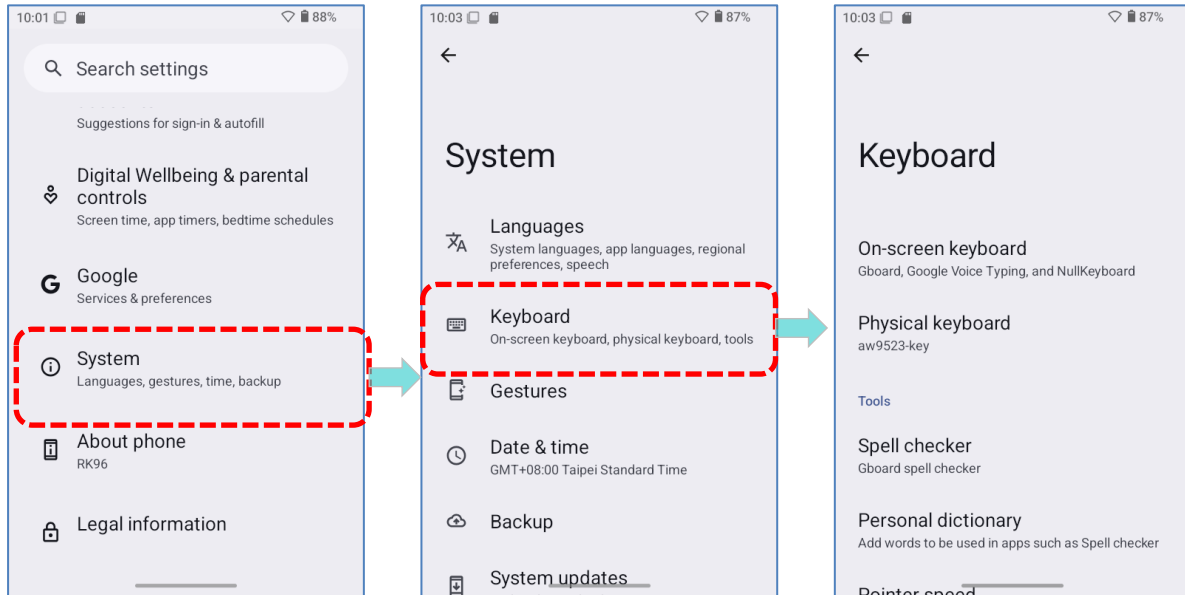
Tap **"First day of week"** to set the starting day of the calendar.



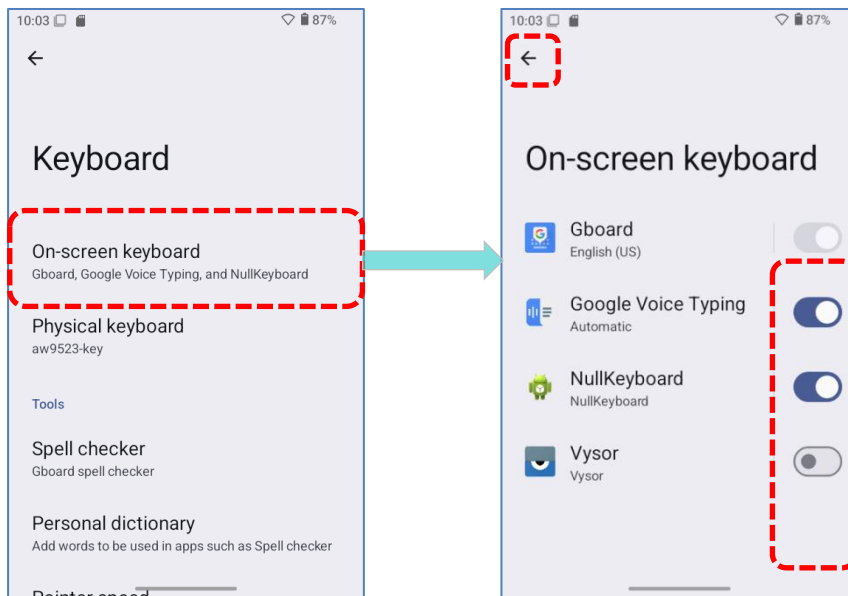
2.7. KEYBOARD

2.7.1. ON-SCREEN KEYBOARD

Go to [App Drawer](#) | **Settings**  | **System**  | **Keyboard**  to change the keyboard settings.

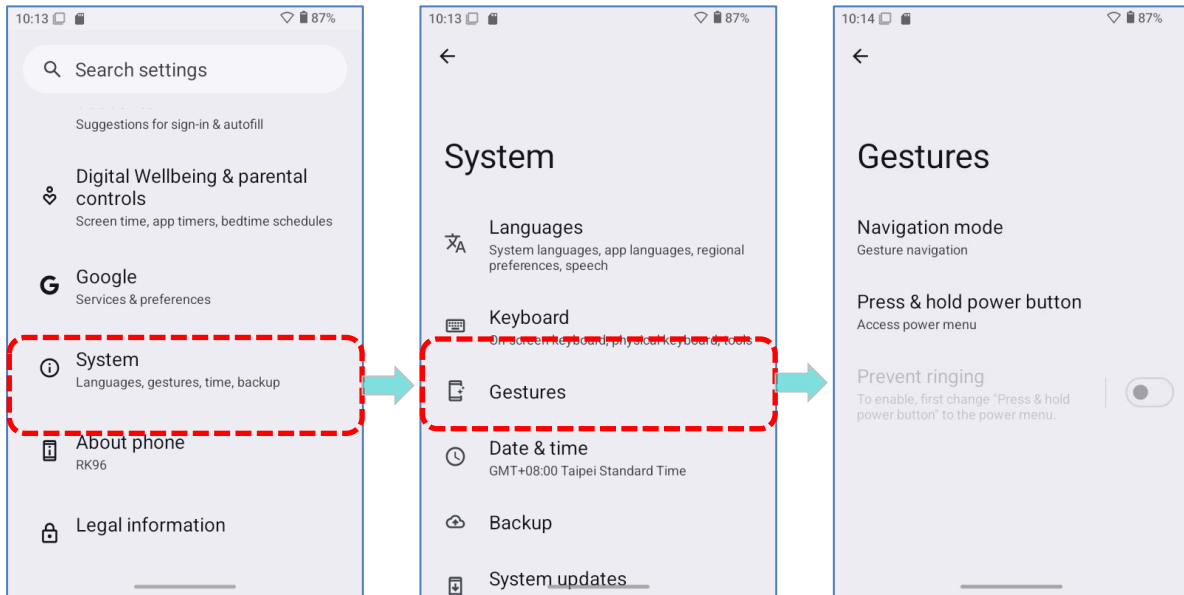


Tap **"On-screen keyboard"** and switch on/off the input methods you need.

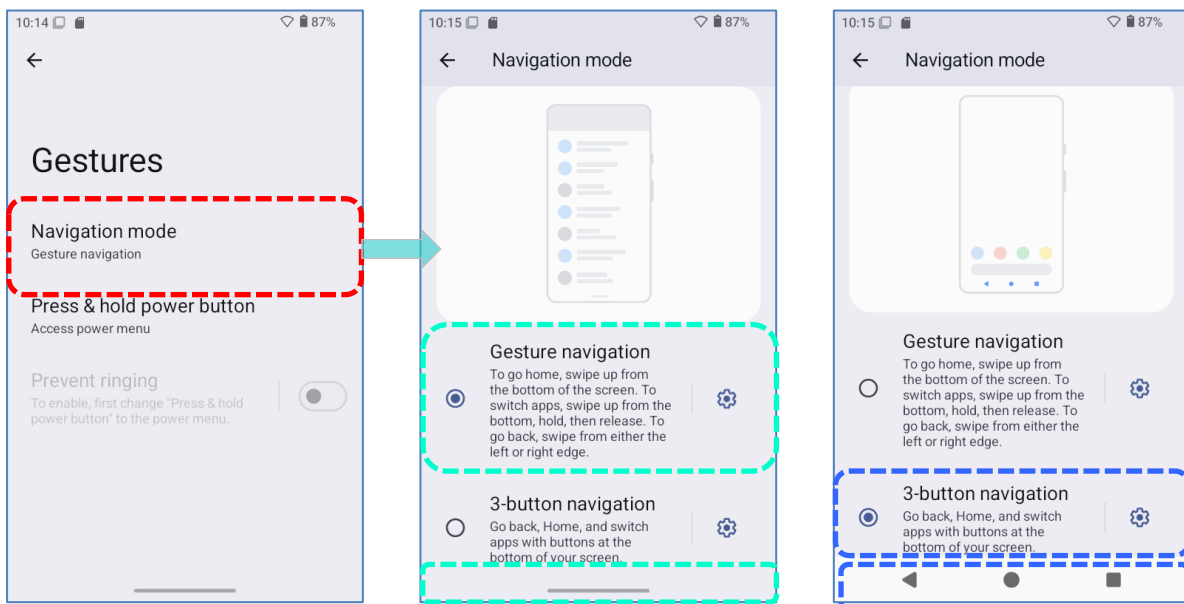


2.8. GESTURES

Tap [App Drawer](#) | **Settings**  | **System**  | **Gestures**  to configure the **hand gestures** for operation.



Tap "**Navigation mode**" and select the Gesture navigation / 3-button navigation for your operation.



2.8.1. GESTURES SETTINGS

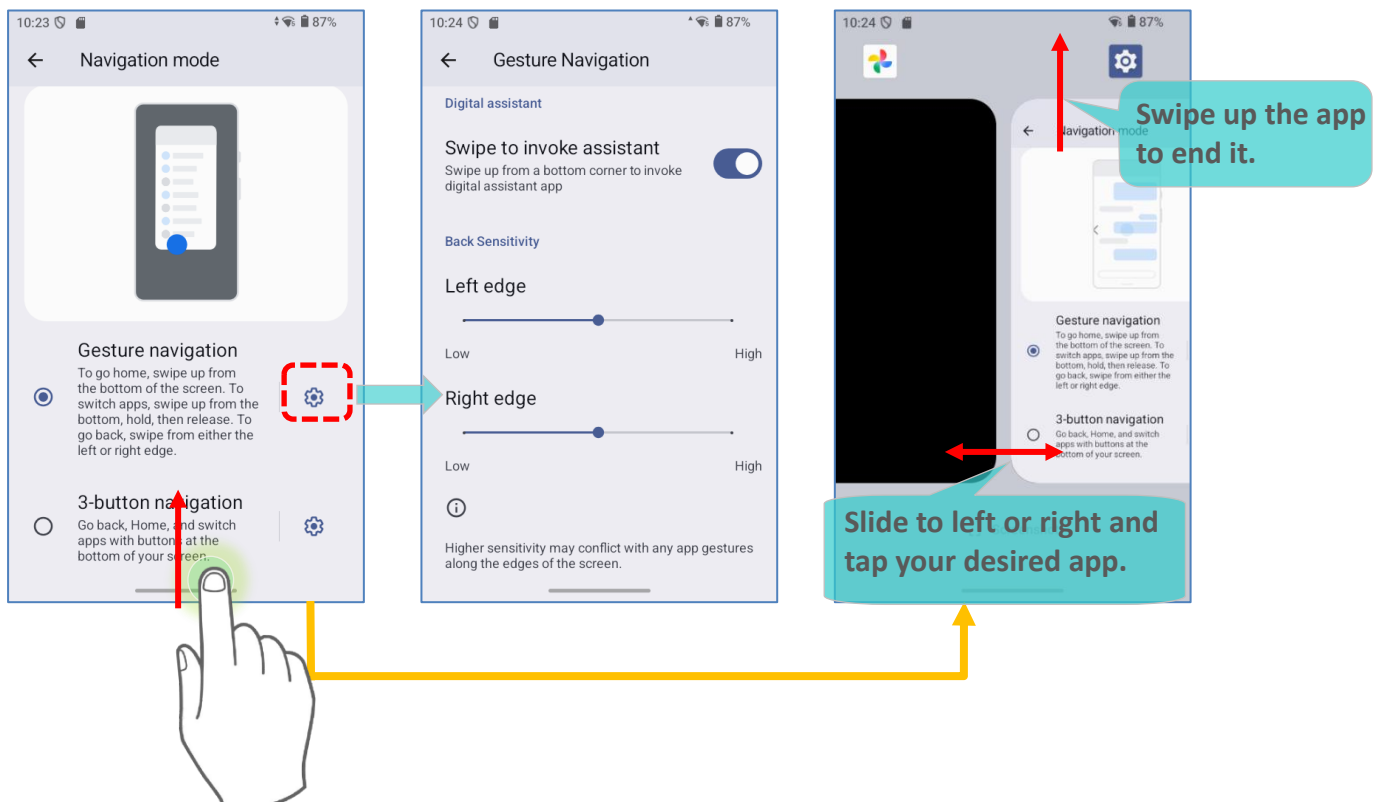
GESTURE NAVIGATION

“**Gesture navigation**” is for navigating through the screens and menus by gesture-based controls. Once is enabled, you can control the device screen by following the gestures:

Indicator	Description
Home	Quickly swipe up from the bottom of the screen.
Back	Swipe either on the left or the right edge of the screen.
Recently Used Apps	Swipe up from the bottom of the screen and then stop for few second before releasing your finger.
Google Assistant	Swipe up from one of the bottom corners toward the middle of the screen.
App Menus	Swipe on the screen from the left side or the right side with two fingers.

Tap on the setting button  to enter “**Gesture Navigation**” to configure the distance of the inward swipe from the screen side edge to trigger “**Back**” gesture. The higher sensitivity you choose, the farther distance from the screen edge you have to go to.

To reveal the **Recently Used Apps Menu**, swipe up from the bottom of the screen and then hold for few second before releasing your finger.

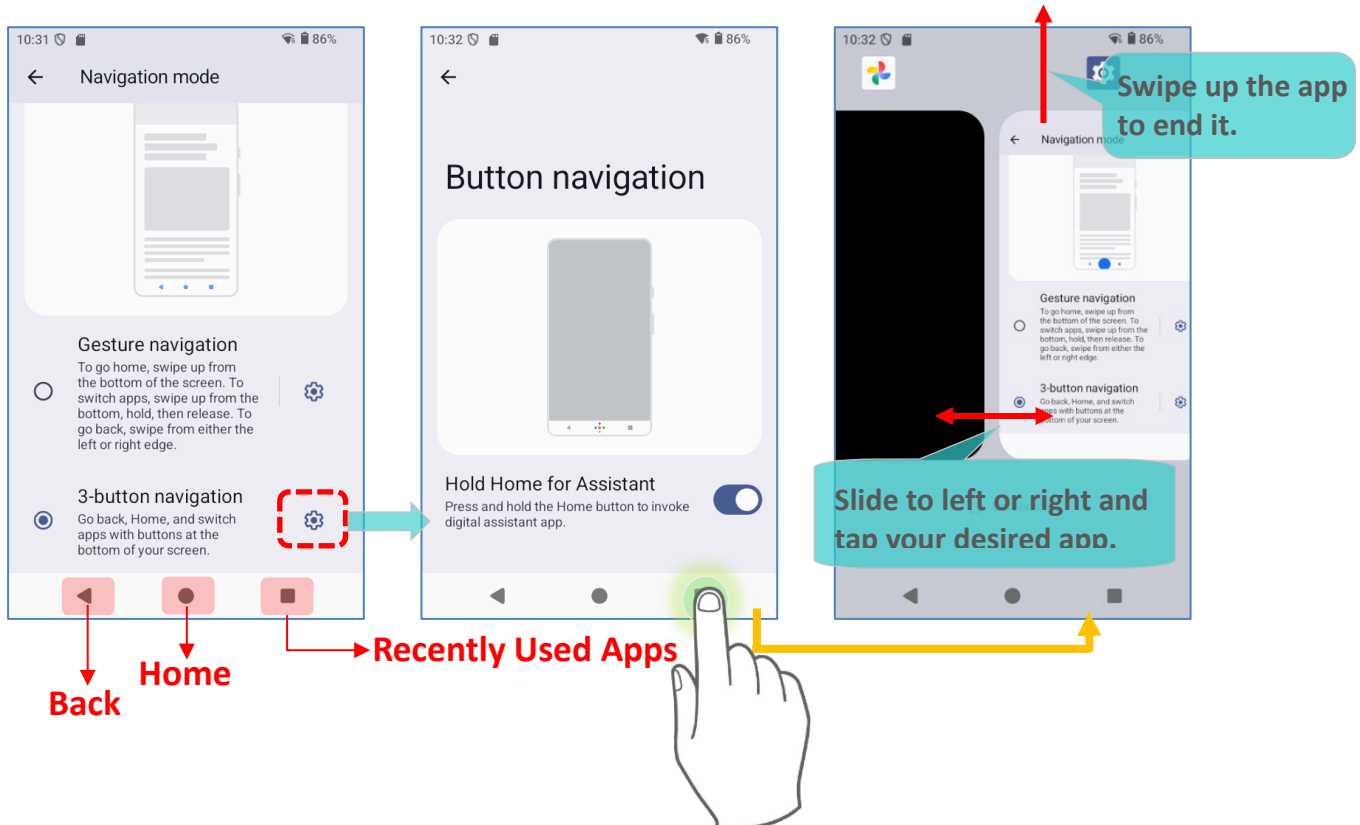


3-BUTTON NAVIGATION

3-button navigation is the default navigation method which displays **Home**, **Back**, and **Recently Used Apps**.

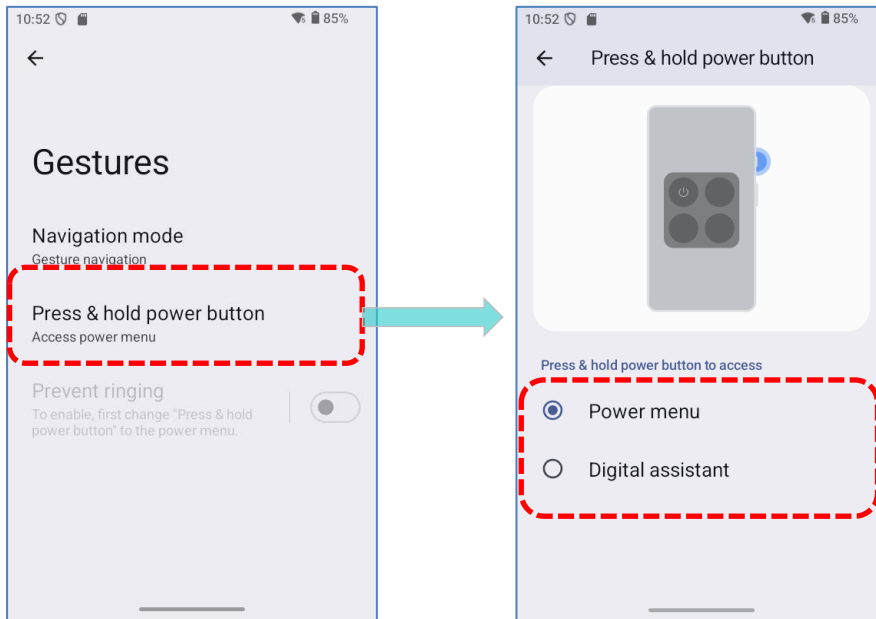
Tap on the setting button  to enter "**Button navigation**" to configure "**Hold Home for Assistant**" for activating the **Google Assistant**.

To reveal the **Recently Used Apps Menu**, tap "**Recently Used Apps**" button directly.



POWER BUTTON FUNTION

Tap "**Press & hold power button**" to select what appears when you press and hold the power button.



2.9. SOUND AND VOLUME

Enter the [Sound and vibration](#) to adjust the system volume.

2.10. DATA CAPTURE

2.10.1. BARCODE READER

A selection of scan engines is available for delivering flexibility to meet different requirements. Depending on the scan engine integrated, the mobile computer is capable of scanning barcodes of a number of symbologies that are enabled by default while running the ReaderConfig application. You won't be able to scan a specific barcode symbology which is not enabled. Run ReaderConfig.exe to enable/disable barcode symbologies.

2.10.2. DIGITAL CAMERA

An integrated autofocus 16 megapixels rear camera with LED flash in the mobile computer is specifically designed for collecting image data. You may use the image capture utility to turn on the camera and capture images. By default, the images taken by this camera application are saved as JPG files in the **DCIM** folder in the device's primary storage.

Chapter 3

PHYSICAL KEYPAD

This chapter introduces the physical keypad of RK96 mobile computer, including 38-key model, 41-key model, 47-key model, and 53-key model. The physical keypad receives supplementary backlight along with the screen, and supports multi-key operation, which normally requires two keys hit simultaneously. The keypad is capable of entering numbers, letters, symbols and punctuation marks.

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3.1. KEYPAD OVERVIEW

The physical keypad receives supplementary backlight along with the screen, and supports multi-key operation, which normally requires two keys hit simultaneously. The keypad is capable of entering numbers, letters, symbols and punctuation marks.

38-KEY MODEL



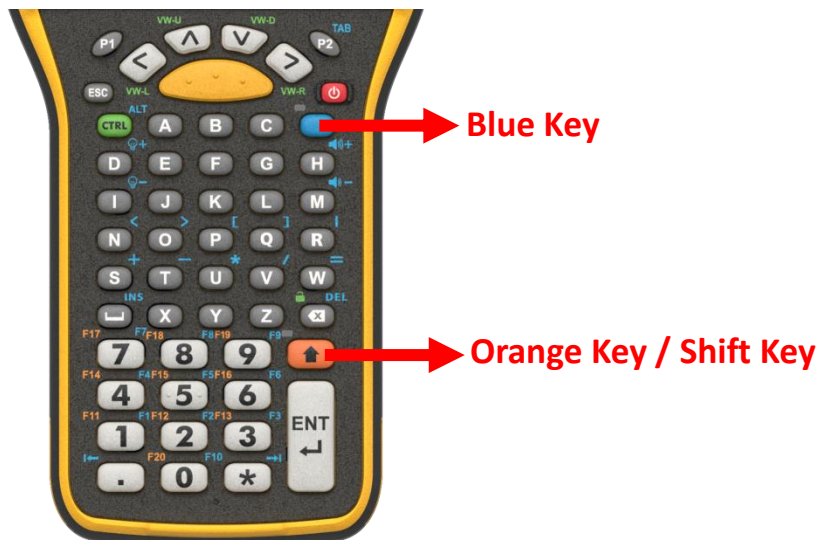
41-KEY MODEL



47-KEY MODEL



53-KEY MODEL



3.2. BASIC KEY

Basic Keys deliver the following functions:

BASIC KEYS OF 38-KEY MODEL

Key		Description
Scan		Press the scan key to read a barcode in place.
Backspace		To remove the input letter in front of the cursor.
Arrow		The arrow keys are used to move the cursor up, down, left or right during text input, or move between items in certain applications.
Enter		Enter key works as tap or double-tap.

BASIC KEYS OF 41-KEY MODEL

Key		Description
Scan		Press the scan key to read a barcode in place.
Backspace		To remove the input letter in front of the cursor.
Arrow		The arrow keys are used to move the cursor up, down, left or right during text input, or move between items in certain applications.
Enter		Enter key works as tap or double-tap.

BASIC KEYS OF 47-KEY MODEL

Key		Description
Scan		Press the scan key to read a barcode in place.
Backspace		To remove the input letter in front of the cursor.
Arrow		The arrow keys are used to move the cursor up (8), down (2), left (4), right (6) and select (5) during text input, or move between items in certain applications.
Enter		Enter key works as tap or double-tap.

BASIC KEYS OF 53-KEY MODEL

Key		Description
Scan		Press the scan key to read a barcode in place.
Backspace		To remove the input letter in front of the cursor.
Arrow		The arrow keys are used to move the cursor up, down, left or right during text input, or move between items in certain applications.
Enter		Enter key works as tap or double-tap.

3.3. BLUE KEY

3.3.1. BLUE KEY OF 41-KEY MODEL

The blue key is located next to the F4 button. Press the blue key and the **Blue Mode** icon  shows up in the status bar to indicate the **Blue Mode** is on:



Then press the blue key again, the **Blue Lock Mode** icon  shows up in the status bar and the keypad enter **Blue Lock Mode**, and the keys deliver the function as the text in blue on the upper left side of the keys (please refer to [Key Functions in Different Modes](#) for details).



To turn off **Blue Mode**, press the blue key again to return to the default input mode.

3.3.2. BLUE KEY OF 47-KEY MODEL

The blue key is located next to the C button. Press the blue key and the **Blue Mode** icon  shows up in the status bar to indicate the **Blue Mode** is on:



Then press the blue key again, the **Blue Lock Mode** icon  shows up in the status bar and the keypad enter **Blue Lock Mode**, and the keys deliver the function as the text in blue on the upper right side of the keys (please refer to [Key Functions in Different Modes](#) for details).



Default Input Mode

Blue Mode

To turn off **Blue Mode**, press the blue key again to return to the default input mode.

3.3.3. BLUE KEY OF 53-KEY MODEL

The blue key is located next to the C button. Press the blue key and the **Blue Mode** icon  shows up in the status bar to indicate the **Blue Mode** is on:



Then press the blue key again, the **Blue Lock Mode** icon  shows up in the status bar and the keypad enter **Blue Lock Mode**, and the keys deliver the function as the text in blue on the upper right side of the keys (please refer to [Key Functions in Different Modes](#) for details).



To turn off **Blue Mode**, press the blue key again to return to the default input mode.

3.4. ORANGE KEY

3.4.1. ORANGE KEY OF 38-KEY MODEL

The orange key is located bottom left corner of the keypad. Press the orange key and the **Orange Mode** icon  shows up in the status bar to indicate the **Orange Mode** is on:



Then press the orange key again, the **Orange Lock Mode** icon  shows up in the status bar and the keypad enter **Orange Lock Mode**, and the keys deliver the function as the text in orange on the upper right side of the keys (please refer to [Key Functions in Different Modes](#) for details).



To turn off **Orange Mode**, press the orange key again to return to the default input mode.

3.4.2. ORANGE KEY OF 41-KEY MODEL

The orange key is located next to the F8 button. Press the orange key and the **Orange Mode** icon  shows up in the status bar to indicate the **Orange Mode** is on:



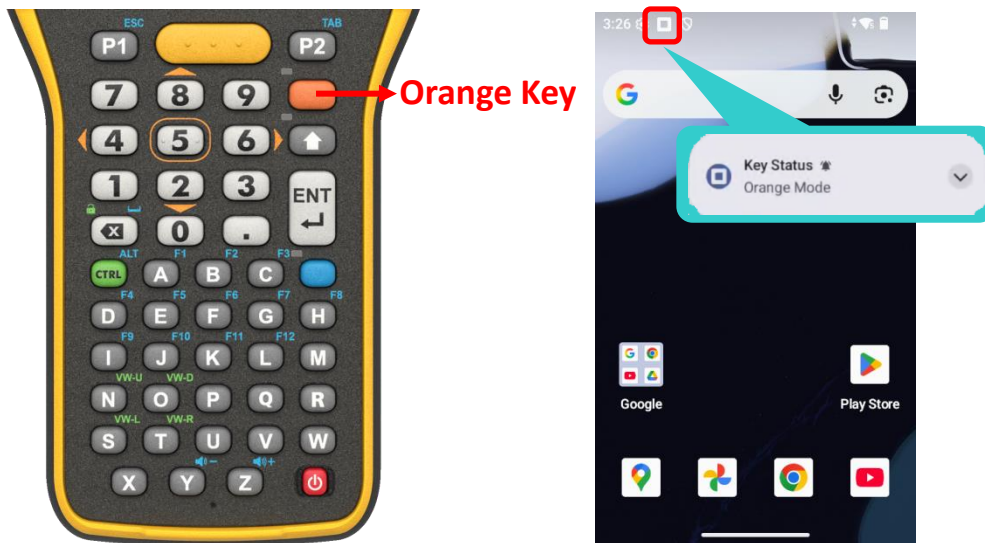
Then press the orange key again, the **Orange Lock Mode** icon  shows up in the status bar and the keypad enter **Orange Lock Mode**, and the keys deliver the function as the text in orange on the upper right side of the keys (please refer to [Key Functions in Different Modes](#) for details).



To turn off **Orange Mode**, press the orange key again to return to the default input mode.

3.4.3. ORANGE KEY OF 47-KEY MODEL

The orange key is located next to the 9 button. Press the orange key and the **Orange Mode** icon  shows up in the status bar to indicate the **Orange Mode** is on:



Then press the orange key again, the **Orange Lock Mode** icon  shows up in the status bar and the keypad enter **Orange Lock Mode**, and the keys deliver the function as the text in orange on 2 (down), 4 (left), 5 (select), 6 (right) and 8 (up) buttons (please refer to [Key Functions in Different Modes](#) for details).



To turn off **Orange Mode**, press the orange key again to return to the default input mode.

3.4.4. ORANGE KEY OF 53-KEY MODEL

The orange key (plus shift key) is located next to the 9 button. Press the orange key and the **Orange Mode** icon  and the **Shift Resume Mode** icon  show up in the status bar to indicate the **Orange Mode** and **Shift Resume Mode** are on:



Then press the orange key again, the **Orange Lock Mode** icon  and **Shift Lock Mode** icon  show up in the status bar and the keypad enter **Orange Lock Mode** and **Shift Lock Mode**, and the keys deliver the function as the text in orange on the upper right side of the keys (please refer to [Key Functions in Different Modes](#) for details).



To turn off **Orange Mode**, press the orange key again to return to the default input mode.

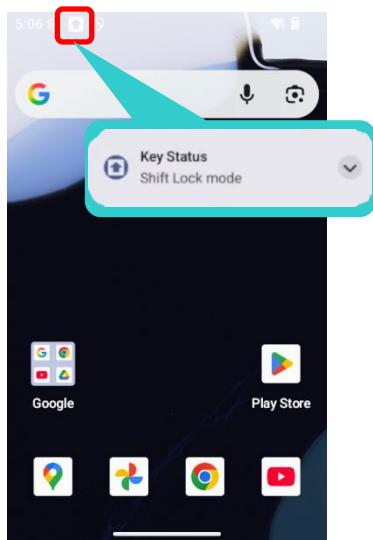
3.5. SHIFT KEY

3.5.1. SHIFT KEY OF 38-KEY MODEL

The shift key is located next to the 6 button. Press the shift key once, and the **Shift Resume Mode** icon  shows up in the status bar to indicate the **Shift Resume Mode** is on:



Press the shift key twice, and the **Shift Lock Mode** icon  shows up in the status bar and the keypad enter **Shift Lock Mode** (please refer to [Key Functions in Different Modes](#) for details).



The keypad will return to the **Default Input Mode** right after pressing any key (except of **Orange key**  and **Control key** ).

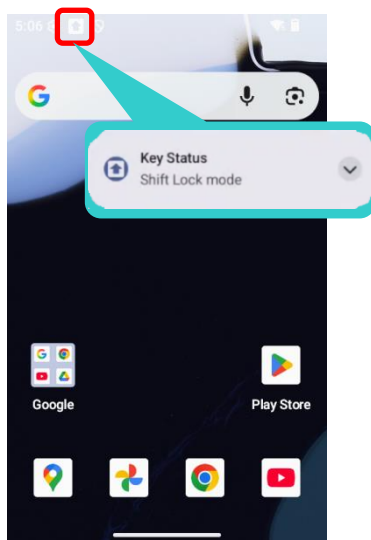
The keypad stays in **Shift Lock Mode** till the **Shift key** is pressed again.

3.5.2. SHIFT KEY OF 41-KEY MODEL

The shift key is located next to the 9 button. Press the shift key once, and the **Shift Resume Mode** icon  shows up in the status bar to indicate the **Shift Resume Mode** is on:



Press the shift key twice, and the **Shift Lock Mode** icon  shows up in the status bar and the keypad enter **Shift Lock Mode** (please refer to [Key Functions in Different Modes](#) for details).

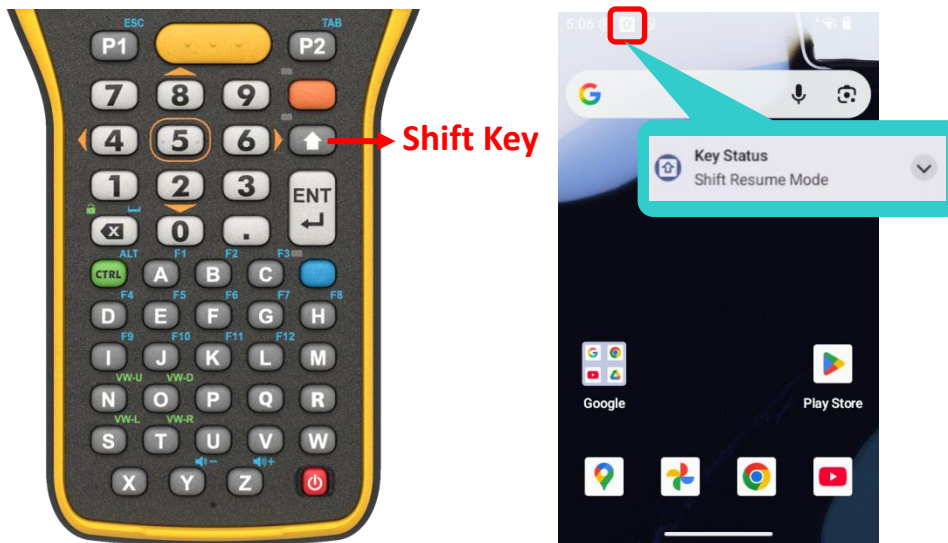


The keypad will return to the **Default Input Mode** right after pressing any key (except of **Blue Key** , **Orange key**  and **Control key** ).

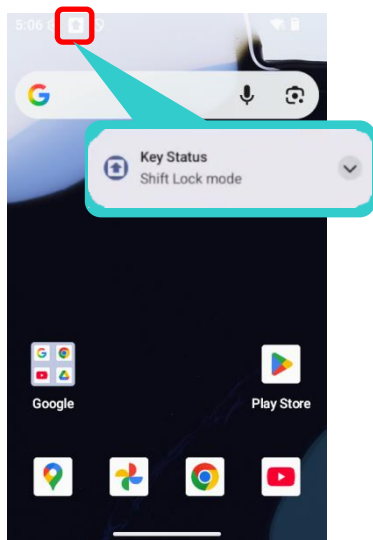
The keypad stays in **Shift Lock Mode** till the **Shift key** is pressed again.

3.5.3. SHIFT KEY OF 47-KEY MODEL

The shift key is located next to the 6 button. Press the shift key once, and the **Shift Resume Mode** icon  shows up in the status bar to indicate the **Shift Resume Mode** is on:



Press the shift key twice, and the **Shift Lock Mode** icon  shows up in the status bar and the keypad enter **Shift Lock Mode** (please refer to [Key Functions in Different Modes](#) for details).



The keypad will return to the **Default Input Mode** right after pressing any key (except of **Blue Key** , **Orange key**  and **Control key** .

The keypad stays in **Shift Lock Mode** till the **Shift key** is pressed again.

3.5.4. SHIFT KEY OF 53-KEY MODEL

The shift key (plus orange key) is located next to the 9 button:



Press the shift key once, and the **Shift Resume Mode** icon  shows up in the status bar and the **Shift Resume Mode** is on.

Press the shift key twice, and the **Shift Lock Mode** icon  shows up in the status bar and the **Shift Lock Mode** is on.

In 53-key model, the **Orange Mode** and **Orange Lock Mode** are also activated by pressing the shift key once or twice, respectively. Refer to [Orange Key of 53-Key Model](#) for details.

The keypad will return to the **Default Input Mode** right after pressing any key (except of **Blue Key** , **Orange key**  and **Control key** ).

The keypad stays in **Shift Lock Mode** till the **Shift key** is pressed again.

3.6. CTRL KEY

3.6.1. CTRL KEY OF 38-KEY MODEL

The ctrl key is located next to the alt button. Press the ctrl key, and the **Ctrl Resume Mode** icon  shows up in the status bar to indicate the **Ctrl Resume Mode** is on:



Press any key again to disable **Ctrl Resume Mode**.

3.6.2. CTRL KEY OF 41-KEY MODEL

The ctrl key is located next to the esc button. Press the ctrl key, and the **Ctrl Resume Mode** icon  shows up in the status bar to indicate the **Ctrl Resume Mode** is on:



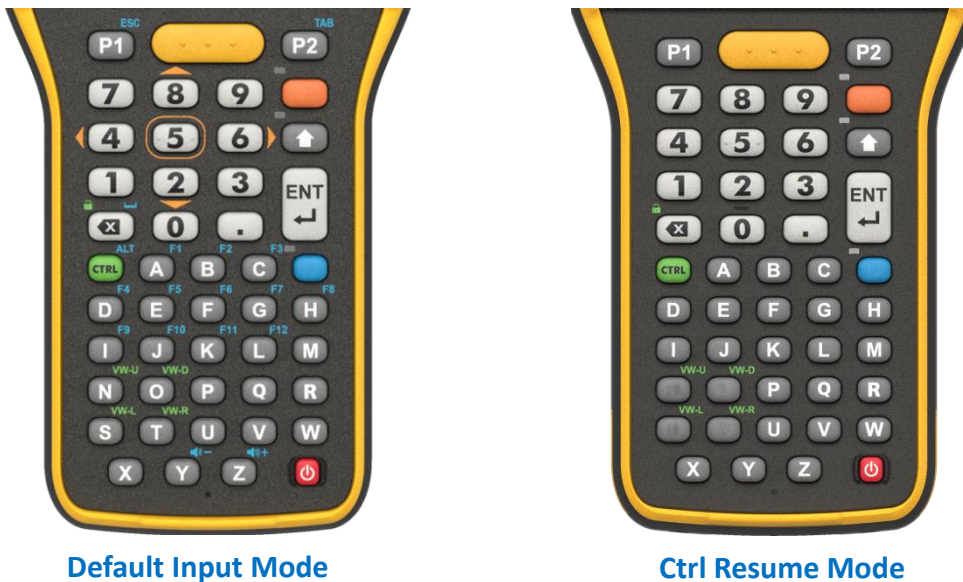
Press any key again to disable **Ctrl Resume Mode**.

3.6.3. CTRL KEY OF 47-KEY MODEL

The ctrl key is above to the D button. Press the ctrl key, and the **Ctrl Resume Mode** icon  shows up in the status bar to indicate the **Ctrl Resume Mode** is on:



The keypad returns from **Ctrl Resume Mode** to **Default Input Mode** once you press any key (except of **Blue key**, **Orange Key** and **Shift key**).



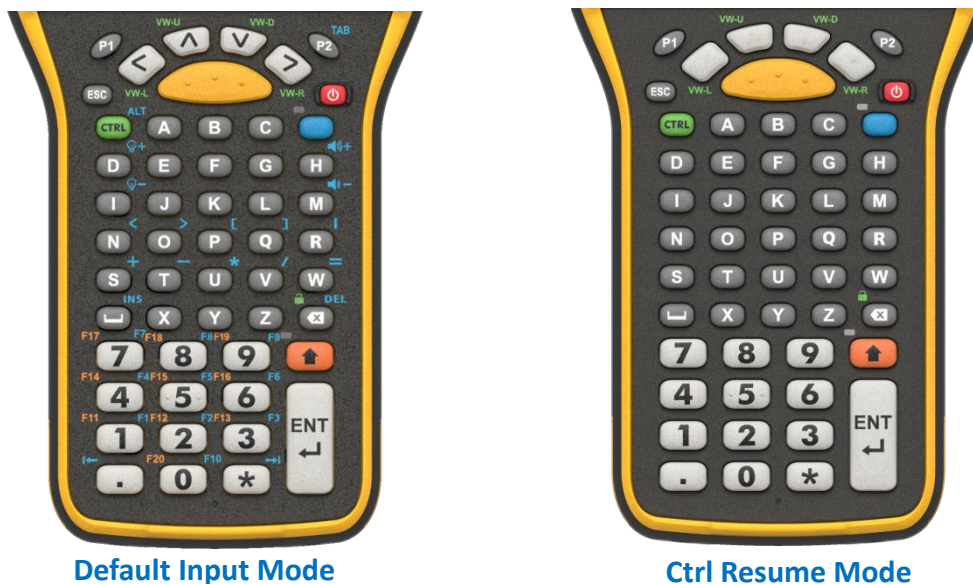
For key function details, please refer to [Key Functions in Different Modes](#).

3.6.4. CTRL KEY OF 53-KEY MODEL

The ctrl key is above to the D button. Press the ctrl key, and the **Ctrl Resume Mode** icon  shows up in the status bar to indicate the **Ctrl Resume Mode** is on:



The keypad returns from **Ctrl Resume Mode** to **Default Input Mode** once you press any key (except of **Blue key** and **Shift key**).



For key function details, please refer to [Key Functions in Different Modes](#).

3.7. ALT RESUME MODE

3.7.1. ALT RESUME MODE OF 38-KEY MODEL

The alt key is located next to the tab button. Press the alt key, and the **Alt Resume Mode** icon  shows up in the status bar to indicate the **Alt Resume Mode** is on:



In **Alt Resume Mode**, you can disable it and return to the **Default Input Mode** by pressing any key except of the following:

Key	Description
	Enable Ctrl Resume Mode .
	Enable Orange Mode .
	Enable Shift Resume Mode .

3.7.2. ALT RESUME MODE OF 41-KEY MODEL

The alt key is located next to the ctrl button. Press the alt key, and the **Alt Resume Mode** icon  shows up in the status bar to indicate the **Alt Resume Mode** is on:



In **Alt Resume Mode**, you can disable it and return to the **Default Input Mode** by pressing any key except of the following:

Key	Description
	Enable Ctrl Resume Mode .
	Enable Orange Mode .
	Enable Blue Mode .
	Enable Shift Resume Mode .

3.7.3. ALT RESUME MODE OF 47-KEY MODEL

Press blue key and then ctrl key, the **Alt Resume Mode** icon and the **Blue Mode** icon show up in the status bar to indicate the **Alt Resume Mode** and **Blue Mode** are on:



In **Alt Resume Mode**, you can disable it and return to the **Default Input Mode** by pressing any key except of the following:

Key	Description
	Keep only Blue Mode .
	Enable Orange Mode .
	Enable Blue Lock Mode .
	Enable Shift Resume Mode .

3.7.4. ALT RESUME MODE OF 53-KEY MODEL

Press blue key and then ctrl key, the **Alt Resume Mode** icon and the **Blue Mode** icon show up in the status bar to indicate the **Alt Resume Mode** and **Blue Mode** are on:



In **Alt Resume Mode**, you can disable it and return to the **Default Input Mode** by pressing any key except of the following:

Key	Description
	Keep only Blue Mode .
	Enable Orange Mode .
	Enable Blue Lock Mode .

Note:

For the 47-key and 53-key models, the Blue Mode is activated at the same time when Alt Resume Mode is on.

3.8. KEY FUNCTIONS IN DIFFERENT MODES

3.8.1. FOR 38-KEY MODEL

Normal Mode

Key	Normal	 + Key	 + Key
	1	!	Ctrl + 1
	2	@	Ctrl + 2
	3	#	Ctrl + 3
	4	\$	Ctrl + 4
	5	%	Ctrl + 5
	6	^	Ctrl + 6
	7	&	Ctrl + 7
	8	*	Ctrl + 8
	9	(	Ctrl + 9
	0	)	Ctrl + 0
	.	Shift + .	Ctrl + .
	,	Shift + ,	Ctrl + ,
	Up	Select Up	Ctrl + Up
	Down	Select Down	Ctrl + Down
	Left	Select Left	Ctrl + Left
	Right	Select Right	Ctrl + Right
	Enter	Shift + Enter	Ctrl + Enter
	Backspace	Shift + Backspace	Keypad Lock
	ESC	Shift + ESC	Ctrl + ESC
	TAB	Shift + TAB	Ctrl + TAB

Key	Normal	 + Key	 + Key
	Alt Modifier	Alt Modifier	Alt Modifier
	Orange Mode	Orange Mode	Orange Mode
	Ctrl Modifier	Ctrl Modifier	Ctrl Modifier
	Shift Modifier	Shift Modifier	Shift Modifier
	F1	Shift + F1	Ctrl + F1
	F2	Shift + F2	Ctrl + F2
	F3	Shift + F3	Ctrl + F3
	F4	Shift + F4	Ctrl + F4
	F5	Shift + F5	Ctrl + F5
	F6	Shift + F6	Ctrl + F6
	F7	Shift + F7	Ctrl + F7
	F8	Shift + F8	Ctrl + F8
	F9	Shift + F9	Ctrl + F9
	F10	Shift + F10	Ctrl + F10
	P1	Shift + P1	Ctrl + P1
	P2	Shift + P2	Ctrl + P2
Scan	Scan	Scan	Scan
Left Scan	Scan	Scan	Scan
Right Scan	Scan	Scan	Scan

Orange Mode

Key	Normal	 + Key	 + Key	 + Key
	m	M	Ctrl + m	Alt + m
	n	N	Ctrl + n	Alt + n
	o	O	Ctrl + o	Alt + o
	j	J	Ctrl + j	Alt + j
	k	K	Ctrl + k	Alt + k
	l	L	Ctrl + l	Alt + l
	g	G	Ctrl + g	Alt + g
	h	H	Ctrl + h	Alt + h
	i	I	Ctrl + i	Alt + i
	q	Q	Ctrl + q	Alt + q
	p	P	Ctrl + p	Alt + p
	r	R	Ctrl + r	Alt + r
	b	B	Ctrl + b	Alt + b
	c	C	Ctrl + c	Alt + c
	a	A	Ctrl + a	Alt + a
	d	D	Ctrl + d	Alt + d
	Enter	Shift + Enter	Ctrl + Enter	Alt + Enter
	Backspace	Shift + Backspace	Keypad Lock	Alt + Backspace
	Space	Space	Ctrl + Space	Alt + Space
	e	E	Ctrl + e	Alt + e
	f	F	Ctrl + f	Alt + f

Key	Normal	 + Key	 + Key	 + Key
	Orange Mode	Orange Mode	Orange Mode	Orange Mode
	Ctrl Modifier	Ctrl Modifier	Ctrl Modifier	Ctrl Modifier
	Shift Modifier	Shift Modifier	Shift Modifier	Shift Modifier
	s	S	Ctrl + s	Alt + s
	t	T	Ctrl + t	Alt + t
	u	U	Ctrl + u	Alt + u
	v	V	Ctrl + v	Alt + v
	w	W	Ctrl + w	Alt + w
	x	X	Ctrl + x	Alt + x
	y	Y	Ctrl + y	Alt + y
	z	Z	Ctrl + z	Alt + z
	Volume Down	Shift + Volume Down	Ctrl + Volume Down	Alt + Volume Down
	Volume Up	Shift + Volume Up	Ctrl + Volume Up	Alt + Volume Up
	F11	Shift + F11	Ctrl + F11	Alt + F11
	F12	Shift + F12	Ctrl + F12	Alt + F12
Scan	Scan	Scan	Scan	Scan
Left Scan	Scan	Scan	Scan	Scan
Right Scan	Scan	Scan	Scan	Scan

3.8.2. FOR 41-KEY MODEL

Normal Mode

Key	Normal	 + Key	 + Key	 + Key
	1	!	Ctrl + 1	Alt + 1
	2	@	Ctrl + 2	Alt + 2
	3	#	Ctrl + 3	Alt + 3
	4	\$	Ctrl + 4	Alt + 4
	5	%	Ctrl + 5	Alt + 5
	6	^	Ctrl + 6	Alt + 6
	7	&	Ctrl + 7	Alt + 7
	8	*	Ctrl + 8	Alt + 8
	9	(	Ctrl + 9	Alt + 9
	0	)	Ctrl + 0	Alt + 0
	.	Shift + .	Ctrl + .	Alt + .
	,	Shift + ,	Ctrl + ,	Alt + ,
	Up	Select Up	Ctrl + Up	Alt + Up
	Down	Select Down	Ctrl + Down	Alt + Down
	Left	Select Left	Ctrl + Left	Alt + Left
	Right	Select Right	Ctrl + Right	Alt + Right
	Enter	Shift + Enter	Ctrl + Enter	Alt + Enter
	Backspace	Shift + Backspace	Keypad Lock	Alt + Backspace
	ESC	Shift + ESC	Ctrl + ESC	Alt + ESC
	Space	Shift + Space	Ctrl + Space	Alt + Space

Key	Normal	 + Key	 + Key	 + Key
	Alt Modifier	Alt Modifier	Alt Modifier	Alt Modifier
	Orange Mode	Orange Mode	Orange Mode	Orange Mode
	Blue Mode	Blue Mode	Blue Mode	Blue Mode
	Ctrl Modifier	Ctrl Modifier	Ctrl Modifier	Ctrl Modifier
	Shift Modifier	Shift Modifier	Shift Modifier	Shift Modifier
	F1	Shift + F1	Ctrl + F1	Alt + F1
	F2	Shift + F2	Ctrl + F2	Alt + F2
	F3	Shift + F3	Ctrl + F3	Alt + F3
	F4	Shift + F4	Ctrl + F4	Alt + F4
	F5	Shift + F5	Ctrl + F5	Alt + F5
	F6	Shift + F6	Ctrl + F6	Alt + F6
	F7	Shift + F7	Ctrl + F7	Alt + F7
	F8	Shift + F8	Ctrl + F8	Alt + F8
	F9	Shift + F9	Ctrl + F9	Alt + F9
	F10	Shift + F10	Ctrl + F10	Alt + F10
	F11	Shift + F11	Ctrl + F11	Alt + F11
	F12	Shift + F12	Ctrl + F12	Alt + F12
	P1	Shift + P1	Ctrl + P1	Alt + P1
	P2	Shift + P2	Ctrl + P2	Alt + P2
Scan	Scan	Scan	Scan	Scan
Left Scan	Scan	Scan	Scan	Scan
Right Scan	Scan	Scan	Scan	Scan

Blue Mode

Key	Normal	 + Key	 + Key	 + Key
	1	!	Ctrl + 1	Alt + 1
	2	@	Ctrl + 2	Alt + 2
	3	#	Ctrl + 3	Alt + 3
	4	\$	Ctrl + 4	Alt + 4
	5	%	Ctrl + 5	Alt + 5
	6	^	Ctrl + 6	Alt + 6
	7	&	Ctrl + 7	Alt + 7
	8	*	Ctrl + 8	Alt + 8
	9	(	Ctrl + 9	Alt + 9
	0	)	Ctrl + 0	Alt + 0
	.	Shift + .	Ctrl + .	Alt + .
	,	Shift + ,	Ctrl + ,	Alt + ,
	Up	Select Up	Ctrl + Up	Alt + Up
	Down	Select Down	Ctrl + Down	Alt + Down
	Left	Select Left	Ctrl + Left	Alt + Left
	Right	Select Right	Ctrl + Right	Alt + Right
	Enter	Shift + Enter	Ctrl + Enter	Alt + Enter
	Backspace	Shift + Backspace	Keypad Lock	Alt + Backspace
	ESC	Shift + ESC	Ctrl + ESC	Alt + ESC
	Space	Shift + Space	Ctrl + Space	Alt + Space
	Alt Modifier	Alt Modifier	Alt Modifier	Alt Modifier
	Orange Mode	Orange Mode	Orange Mode	Orange Mode

Key	Normal	 + Key	 + Key	 + Key
	Blue Mode	Blue Mode	Blue Mode	Blue Mode
	Ctrl Modifier	Ctrl Modifier	Ctrl Modifier	Ctrl Modifier
	Shift Modifier	Shift Modifier	Shift Modifier	Shift Modifier
	Brightness Up	Shift + Brightness Up	Ctrl + Brightness Up	Alt + Brightness Up
	F2	Shift + F2	Ctrl + F2	Alt + F2
	F3	Shift + F3	Ctrl + F3	Alt + F3
	Volume Up	Shift + Volume Up	Ctrl + Volume Up	Alt + Volume Up
	Brightness Down	Shift + Brightness Down	Ctrl + Brightness Down	Alt + Brightness Down
	F6	Shift + F6	Ctrl + F6	Alt + F6
	F7	Shift + F7	Ctrl + F7	Alt + F7
	Volume Down	Shift + Volume Down	Ctrl + Volume Down	Alt + Volume Down
	F9	Shift + F9	Ctrl + F9	Alt + F9
	F10	Shift + F10	Ctrl + F10	Alt + F10
	F11	Shift + F11	Ctrl + F11	Alt + F11
	F12	Shift + F12	Ctrl + F12	Alt + F12
	P1	Shift + P1	Ctrl + P1	Alt + P1
	P2	Shift + P2	Ctrl + P2	Alt + P2
Scan	Scan	Scan	Scan	Scan
Left Scan	Scan	Scan	Scan	Scan
Right Scan	Scan	Scan	Scan	Scan

Orange Mode

Key	Normal	 + Key
	u	!
	v	@
	w	#
	r	\$
	s	%
	t	^
	o	&
	p	*
	q	(
	y	)
	x	X
	z	Z
	Up	Select Up
	Down	Select Down
	Left	Select Left
	Right	Select Right
	Enter	Shift + Enter
	Backspace	Shift + Backspace
	ESC	Shift + ESC
	Space	Shift + Space
	b	B
	Orange Mode	Orange Mode

Key	Normal	 + Key
	Blue Mode	Blue Mode
	a	A
	Shift Modifier	Shift Modifier
	c	C
	d	D
	e	E
	f	F
	g	G
	h	H
	i	I
	j	J
	k	K
	l	L
	m	M
	n	N
	P1	Shift + P1
	P2	Shift + P2
Scan	Scan	Scan
Left Scan	Scan	Scan
Right Scan	Scan	Scan

3.8.3. FOR 47-KEY MODEL

Normal Mode

Key	Normal	 + Key	 + Key
	1	!	Ctrl + 1
	2	@	Ctrl + 2
	3	#	Ctrl + 3
	4	\$	Ctrl + 4
	5	%	Ctrl + 5
	6	^	Ctrl + 6
	7	&	Ctrl + 7
	8	*	Ctrl + 8
	9	(	Ctrl + 9
	0	)	Ctrl + 0
	.	Shift + .	Ctrl + .
	Enter	Shift + Enter	Ctrl + Enter
	Backspace	Shift + Backspace	Keypad Lock
	Orange Mode	Orange Mode	Orange Mode
	Blue Mode	Blue Mode	Blue Mode
	Ctrl Modifier	Ctrl Modifier	Ctrl Modifier
	Shift Modifier	Shift Modifier	Shift Modifier
	a	A	Ctrl + a
	b	B	Ctrl + b
	c	C	Ctrl + c
	d	D	Ctrl + d
	e	E	Ctrl + e

Key	Normal	 + Key	 + Key
	f	F	Ctrl + f
	g	G	Ctrl + g
	h	H	Ctrl + h
	i	I	Ctrl + i
	j	J	Ctrl + j
	k	K	Ctrl + k
	l	L	Ctrl + l
	m	M	Ctrl + m
	n	N	VW-U
	o	O	VW-D
	p	P	Ctrl + p
	q	Q	Ctrl + q
	r	R	Ctrl + r
	s	S	Ctrl + s
	t	T	Ctrl + t
	u	U	Ctrl + u
	v	V	Ctrl + v
	w	W	Ctrl + w
	x	X	Ctrl + x
	y	Y	Ctrl + y
	z	Z	Ctrl + z
	P1	Shift + P1	Ctrl + P1
	P2	Shift + P2	Ctrl + P2
Scan	Scan	Scan	Scan
Left Scan	Scan	Scan	Scan
Right Scan	Scan	Scan	Scan

Blue Mode

Key	Normal	 + Key	 + Key
	1	!	Alt + 1
	2	@	Alt + 2
	3	#	Alt + 3
	4	\$	Alt + 4
	5	%	Alt + 5
	6	^	Alt + 6
	7	&	Alt + 7
	8	*	Alt + 8
	9	(	Alt + 9
	0	)	Alt + 0
	.	Shift + .	Alt + .
	Enter	Shift + Enter	Alt + Enter
	Space	Shift + Space	Alt + Space
	Orange Mode	Orange Mode	Orange Mode
	Blue Mode	Blue Mode	Blue Mode
	Alt Modifier	Alt Modifier	Alt Modifier
	Shift Modifier	Shift Modifier	Shift Modifier
	F1	Shift + F1	Ctrl + F1
	F2	Shift + F2	Ctrl + F2
	F3	Shift + F3	Ctrl + F3
	F4	Shift + F4	Ctrl + F4
	F5	Shift + F5	Ctrl + F5

Key	Normal	 + Key	 + Key
	F6	Shift + F6	Ctrl + F6
	F7	Shift + F7	Ctrl + F7
	F8	Shift + F8	Ctrl + F8
	F9	Shift + F9	Ctrl + F9
	F10	Shift + F10	Ctrl + F10
	F11	Shift + F11	Ctrl + F11
	F12	Shift + F12	Ctrl + F12
	m	M	Ctrl + m
	n	N	Ctrl + n
	o	O	Ctrl + o
	p	P	Ctrl + p
	q	Q	Ctrl + q
	r	R	Ctrl + r
	s	S	Ctrl + s
	t	T	Ctrl + t
	u	U	Ctrl + u
	v	V	Ctrl + v
	w	W	Ctrl + w
	x	X	Ctrl + x
	Volume Down	Shift + Volume Down	Ctrl + Volume Down
	Volume Up	Shift + Volume Up	Ctrl + Volume Up
	ESC	Shift + ESC	Ctrl + ESC
	TAB	Shift + TAB	Ctrl + TAB
Scan	Scan	Scan	Scan
Left Scan	Scan	Scan	Scan
Right Scan	Scan	Scan	Scan

Orange Mode

Key	Normal	 + Key	 + Key
	N/A	N/A	N/A
	Down	Select Down	Ctrl + Down
	N/A	N/A	N/A
	Left	Select Left	Ctrl + Left
	Select	Select	Select
	Right	Select Right	Ctrl + Right
	N/A	N/A	N/A
	Up	Select Up	Ctrl + Up
	N/A	N/A	N/A
	N/A	N/A	N/A
	N/A	N/A	N/A
	Enter	Shift + Enter	Ctrl + Enter
	Backspace	Shift + Backspace	Keypad Lock
	Orange Mode	Orange Mode	Orange Mode
	Blue Mode	Blue Mode	Blue Mode
	Alt Modifier	Alt Modifier	Alt Modifier
	Shift Modifier	Shift Modifier	Shift Modifier
	a	A	Ctrl + a
	b	B	Ctrl + b
	c	C	Ctrl + c
	d	D	Ctrl + d
	e	E	Ctrl + e

Key	Normal	 + Key	 + Key
	f	F	Ctrl + f
	g	G	Ctrl + g
	h	H	Ctrl + h
	i	I	Ctrl + i
	j	J	Ctrl + j
	k	K	Ctrl + k
	l	L	Ctrl + l
	m	M	Ctrl + m
	n	N	VW-U
	o	O	VW-D
	p	P	Ctrl + p
	q	Q	Ctrl + q
	r	R	Ctrl + r
	s	S	Ctrl + s
	t	T	Ctrl + t
	u	U	Ctrl + u
	v	V	Ctrl + v
	w	W	Ctrl + w
	x	X	Ctrl + x
	y	Y	Ctrl + y
	z	Z	Ctrl + z
	P1	Shift + P1	Ctrl + P1
	P2	Shift + P2	Ctrl + P2
Scan	Scan	Scan	Scan
Left Scan	Scan	Scan	Scan
Right Scan	Scan	Scan	Scan

Orange Mode + Blue Mode

Key	Normal	 + Key	 + Key
	N/A	N/A	N/A
	Down	Select Down	Alt + Down
	N/A	N/A	N/A
	Left	Select Left	Alt + Left
	Select	Select	Select
	Right	Select Right	Alt + Right
	N/A	N/A	N/A
	Up	Select Up	Alt + Up
	N/A	N/A	N/A
	N/A	N/A	N/A
	N/A	N/A	N/A
	Enter	Shift + Enter	Alt + Enter
	Space	Shift + Space	Alt + Space
	Orange Mode	Orange Mode	Orange Mode
	Blue Mode	Blue Mode	Blue Mode
	Alt Modifier	Alt Modifier	Alt Modifier
	Shift Modifier	Shift Modifier	Shift Modifier
	F1	Shift + F1	Ctrl + F1
	F2	Shift + F2	Ctrl + F2
	F3	Shift + F3	Ctrl + F3
	F4	Shift + F4	Ctrl + F4
	F5	Shift + F5	Ctrl + F5

Key	Normal	 + Key	 + Key
	F6	Shift + F6	Ctrl + F6
	F7	Shift + F7	Ctrl + F7
	F8	Shift + F8	Ctrl + F8
	F9	Shift + F9	Ctrl + F9
	F10	Shift + F10	Ctrl + F10
	F11	Shift + F11	Ctrl + F11
	F12	Shift + F12	Ctrl + F12
	m	M	Ctrl + m
	n	N	Ctrl + n
	o	O	Ctrl + o
	p	P	Ctrl + p
	q	Q	Ctrl + q
	r	R	Ctrl + r
	s	S	Ctrl + s
	t	T	Ctrl + t
	u	U	Ctrl + u
	v	V	Ctrl + v
	w	W	Ctrl + w
	x	X	Ctrl + x
	Volume Down	Shift + Volume Down	Ctrl + Volume Down
	Volume Up	Shift + Volume Up	Ctrl + Volume Up
	ESC	Shift + ESC	Ctrl + ESC
	TAB	Shift + TAB	Ctrl + TAB
Scan	Scan	Scan	Scan
Left Scan	Scan	Scan	Scan
Right Scan	Scan	Scan	Scan

3.8.4. FOR 53-KEY MODEL

Normal Mode

Key	Normal	 + Key
	1	Ctrl + 1
	2	Ctrl + 2
	3	Ctrl + 3
	4	Ctrl + 4
	5	Ctrl + 5
	6	Ctrl + 6
	7	Ctrl + 7
	8	Ctrl + 8
	9	Ctrl + 9
	0	Ctrl + 0
	.	Ctrl + .
	*	Ctrl + *
	Up	VW-U
	Down	VW-D
	Left	Ctrl + Left
	Right	Ctrl + Right
	Enter	Ctrl + Enter
	Backspace	Keypad Lock
	ESC	Ctrl + ESC
	Space	Ctrl + Space
	Shift + Orange Mode	Shift + Orange Mode

Key	Normal	 + Key
	Blue Mode	Blue Mode
	Ctrl Modifier	Ctrl Modifier
	a	Ctrl + a
	b	Ctrl + b
	c	Ctrl + c
	d	Ctrl + d
	e	Ctrl + e
	f	Ctrl + f
	g	Ctrl + g
	h	Ctrl + h
	i	Ctrl + i
	j	Ctrl + j
	k	Ctrl + k
	l	Ctrl + l
	m	Ctrl + m
	n	VW-U
	o	VW-D
	p	Ctrl + p
	q	Ctrl + q
	r	Ctrl + r
	s	Ctrl + s
	t	Ctrl + t
	u	Ctrl + u
	v	Ctrl + v
	w	Ctrl + w

Key	Normal	 + Key
	x	Ctrl + x
	y	Ctrl + y
	z	Ctrl + z
	P1	Ctrl + P1
	P2	Ctrl + P2
Scan	Scan	Scan
Left Scan	Scan	Scan
Right Scan	Scan	Scan

Blue Mode

Key	Normal	 + Key
	F1	Alt + F1
	F2	Alt + F2
	F3	Alt + F3
	F4	Alt + F4
	F5	Alt + F5
	F6	Alt + F6
	F7	Alt + F7
	F8	Alt + F8
	F9	Alt + F9
	F10	Alt + F10
	HOME	Alt + HOME
	END	Alt + END
	Up	Alt + Up
	Down	Alt + Down
	Left	Alt + Left
	Right	Alt + Right
	Enter	Alt + Enter
	DEL	Alt + DEL
	ESC	Alt + ESC
	INSERT	Alt + INSERT
	Shift + Orange Mode	Shift + Orange Mode
	Blue Mode	Blue Mode

Key	Normal	 + Key
	Alt Modifier	Alt Modifier
	a	Alt + a
	b	Alt + b
	c	Alt + c
	Brightness Up	Alt + Brightness Up
	e	Alt + e
	f	Alt + f
	g	Alt + g
	Volume Up	Alt + Volume Up
	Brightness Down	Alt + Brightness Down
	j	Alt + j
	k	Alt + k
	l	Alt + l
	Volume Down	Alt + Volume Down
	<	Alt + <
	>	Alt + >
	[	Alt + [
	]	Alt +]
	(pipeline)	Alt + (pipeline)
	+	Alt + +
	—	Alt + —
	*	Alt + *
	/	Alt + /
	=	Alt + =
	x	Alt + x

Key	Normal	 + Key
	y	Alt + y
	z	Alt + z
	P1	Alt + P1
	TAB	Alt + TAB
Scan	Scan	Scan
Left Scan	Scan	Scan
Right Scan	Scan	Scan

Orange Mode

Key	 + Key	 + Key
	Shift + F11	Ctrl + F11
	Shift + F12	Ctrl + F12
	Shift + F13	Ctrl + F13
	Shift + F14	Ctrl + F14
	Shift + F15	Ctrl + F15
	Shift + F16	Ctrl + F16
	Shift + F17	Ctrl + F17
	Shift + F18	Ctrl + F18
	Shift + F19	Ctrl + F19
	Shift + F20	Ctrl + F20
	Shift + .	Ctrl + .
	Shift + *	Ctrl + *
	Select Up	VW-U
	Select Down	VW-D
	Select Left	Ctrl + Left
	Select Right	Ctrl + Right
	Select Enter	Ctrl + Enter
	Shift + Backspace	Keypad Lock
	Shift + ESC	Ctrl + ESC
	Shift + Space	Ctrl + Space
	Shift + Orange Mode	Shift + Orange Mode
	Blue Mode	Blue Mode

Key	 + Key	 + Key
	Ctrl Modifier	Ctrl Modifier
	A	a
	B	b
	C	c
	D	d
	E	e
	F	f
	G	g
	H	h
	I	i
	J	j
	K	k
	L	l
	M	m
	N	n
	O	o
	P	p
	Q	q
	R	r
	S	s
	T	t
	U	u
	V	v
	W	w
	X	x

Key	 + Key	 + Key
	Y	y
	Z	z
	Shift + P1	Ctrl + P1
	Shift + P2	Ctrl + P2
Scan	Scan	Scan
Left Scan	Scan	Scan
Right Scan	Scan	Scan

Orange Mode + Blue Mode

Key	 + Key	 + Key
	F1	Ctrl + F1
	F2	Ctrl + F2
	F3	Ctrl + F3
	F4	Ctrl + F4
	F5	Ctrl + F5
	F6	Ctrl + F6
	F7	Ctrl + F7
	F8	Ctrl + F8
	F9	Ctrl + F9
	F10	Ctrl + F10
	Shift + .	Ctrl + .
	Shift + *	Ctrl + *
	Select Up	VW-U
	Select Down	VW-D
	Select Left	Ctrl + Left
	Select Right	Ctrl + Right
	Shift + Enter	Ctrl + Enter
	Shift + Backspace	Keypad Lock
	Shift + ESC	Ctrl + ESC
	Shift + Space	Ctrl + Space
	Shift + Orange Mode	Shift + Orange Mode
	Blue Mode	Blue Mode

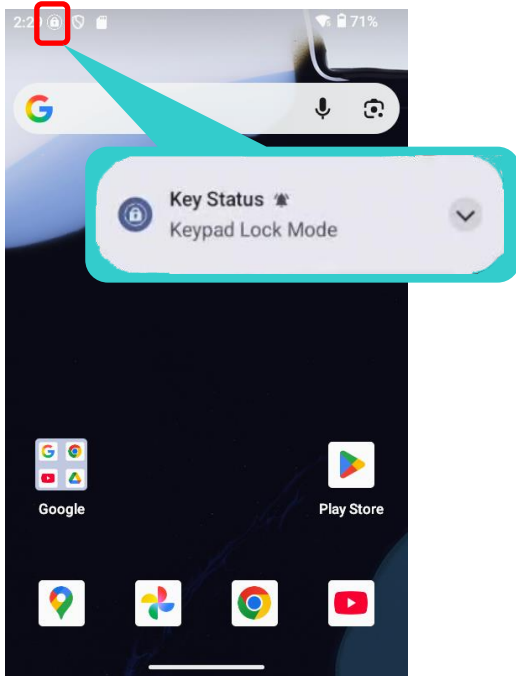
Key	 + Key	 + Key
	Ctrl Modifier	Ctrl Modifier
	A	a
	B	b
	C	c
	D	d
	E	e
	F	f
	G	g
	H	h
	I	i
	J	j
	K	k
	L	l
	M	m
	N	n
	O	o
	P	p
	Q	q
	R	r
	S	s
	T	t
	U	u
	V	v
	W	w
	X	x

Key	 + Key	 + Key
	Y	y
	Z	z
	P1	Ctrl + P1
	P2	Ctrl + P2
Scan	Scan	Scan
Left Scan	Scan	Scan
Right Scan	Scan	Scan

3.9. KEYPAD LOCK

Keypad lock is for users to lock all keys on the keypad to prevent any accidental pressing of the keys. When the **Keypad Lock Mode** is triggered, a keypad lock icon  will appear on the status bar to indicate keys are currently locked.

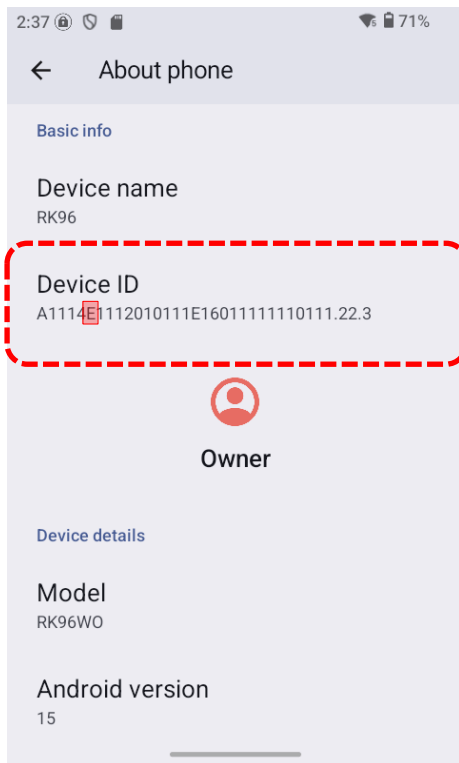
For all models, press the **Ctrl Key** and then press **Backspace Key** to activate the **Keypad Lock Mode**.



To turn off the keypad lock, press the **Ctrl Key** and then press **Backspace Key** again. The keypad lock icon will not be shown on status bar.

3.10. DEVICE ID

Go to [App Drawer](#) | **Settings**  | **About Phone**  and check the **Device ID** which is a sequence of digits that deliver information about the hardware integrated on the mobile computer.



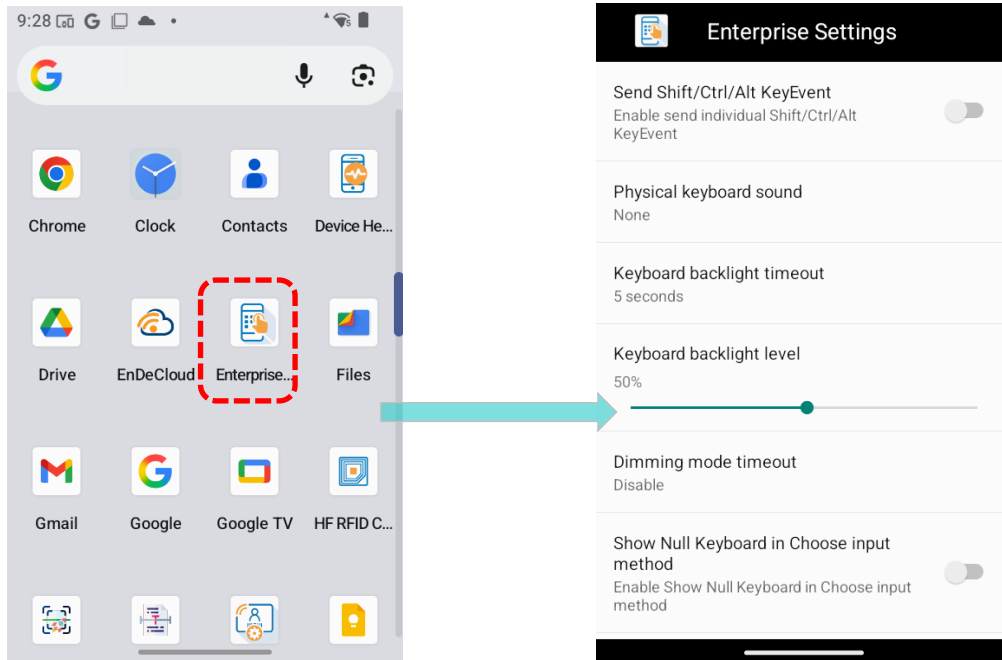
Check the six digit pair to find out which keypad type is equipped with your RK96 mobile computer:

Code	Description
D	47 keys
E	53 keys
F	38 keys
G	41 keys

3.11. KEYPAD SOUND & KEYPAD BACKLIGHT

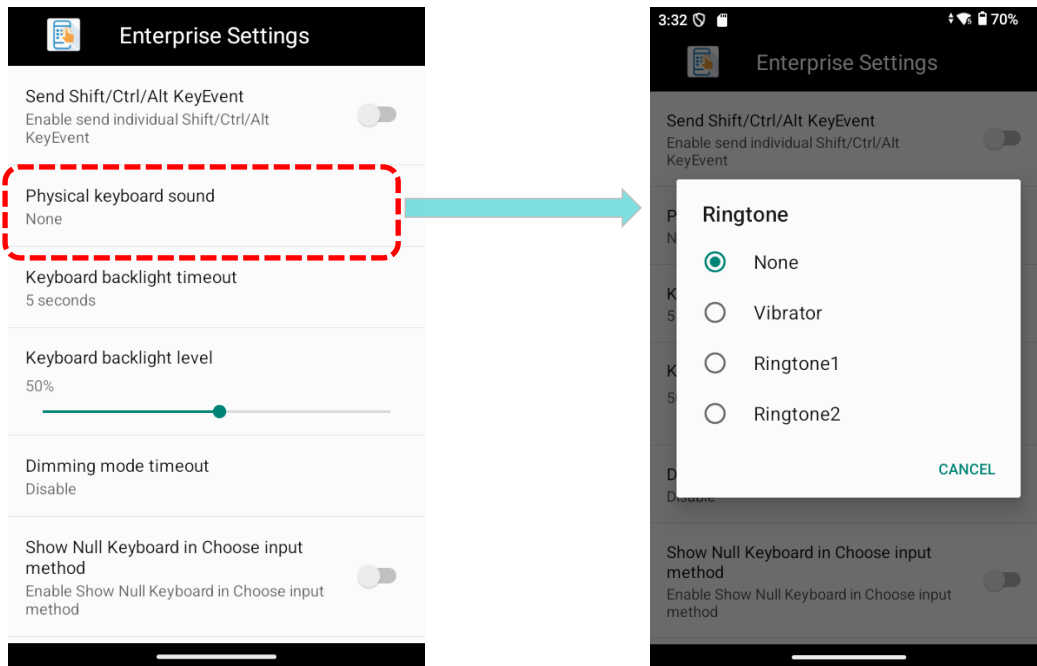
Through the built-in application “**Enterprise Settings**”  which helps you to control the physical keypad, you can further set the keypad sound and the keypad backlight.

Go to [App Drawer](#) and tap on “**Enterprise Settings**” .



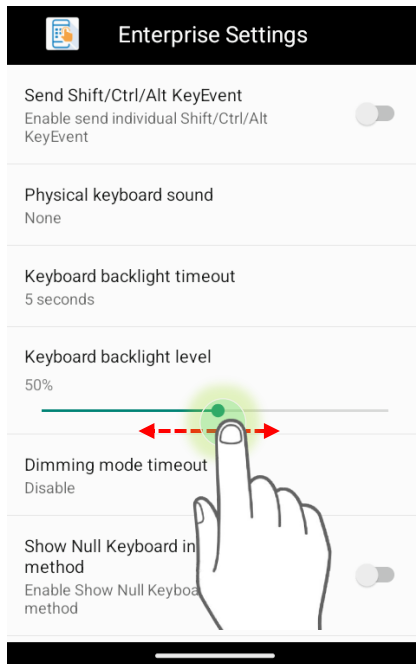
3.11.1. KEYPAD SOUND

Go to [App Drawer](#) | **Enterprise Settings**  | **Physical keyboard sound**. Select the sound from the popup. The default setting is "None".

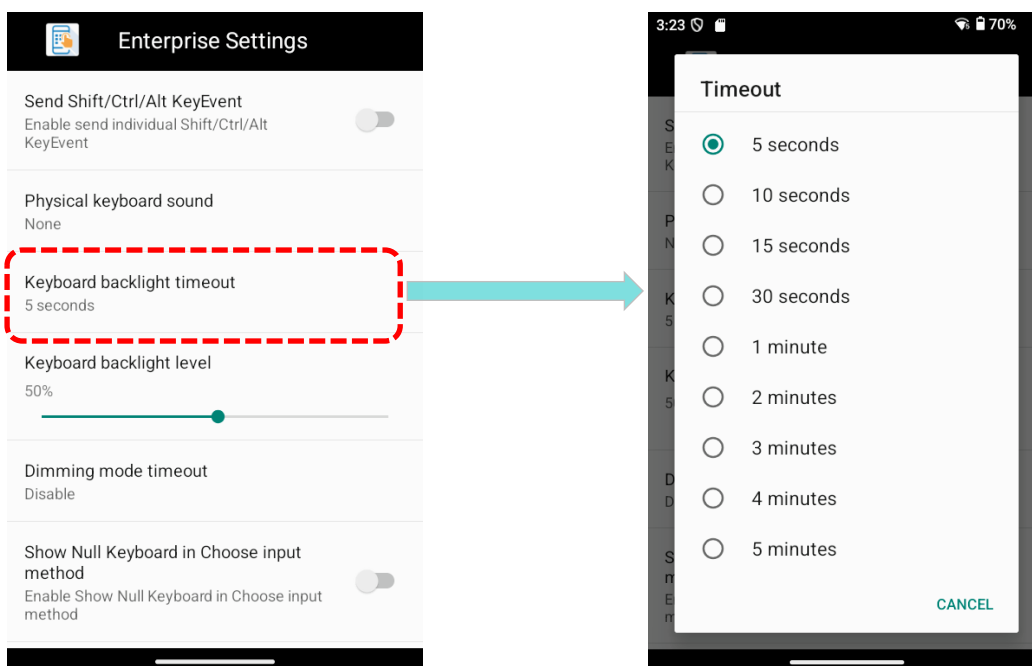


3.11.2. KEYPAD BACKLIGHT

Go to [App Drawer](#) | **Enterprise Settings**  | **Keypad backlight level**. Drag the slider to adjust the backlight brightness level.



To set the period that the keypad backlight is automatically turned off, please tap on **“Keyboard backlight timeout”** and select the timeout from the popup.



Chapter 4

BASIC OPERATION

This chapter describes the basic skills to work with the RK96 mobile computer, for instance how to operate the home screen, check system status and manage notifications. The add-on utilities for applications regarding data collection, processing, and transmission are introduced in the following chapters.

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4.1. HOME SCREEN

When the mobile computer is fully charged, press the Power key for three seconds to turn on the mobile computer. A locked screen will appear.

LOCK SCREEN

To enter the **Home** screen, you need to unlock the Lock screen.

Simply swipe up from the bottom of the screen toward “unlock” to unlock the screen. You may need to further draw the pattern, input PIN or password depends on the [screen lock](#) you set.

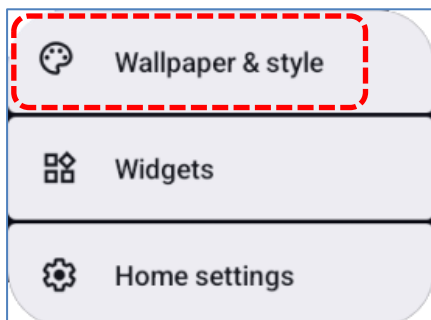
APP DRAWER

“**App Drawer**” is where all the applications installed on the device are listed.

To open **App Drawer**, please swipe up from the bottom of the screen.

CHANGE HOME SCREEN WALLPAPER

- 1) Tap and hold any empty spot on the home screen.
- 2) Tap **Wallpapers** in the menu that appears, and select the app you would like to use.



- 3) Select an image to apply as the wallpaper.
- 4) Tap “**Set wallpaper**”.

4.1.1. APPLICATION & WIDGET ON HOME SCREEN

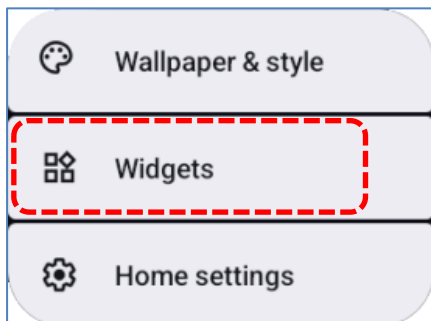
ADD APPLICATION TO HOME SCREEN

To add an application to the home screen:

- 1) Open [App Drawer](#) on the home screen you would like to customize.
- 2) Locate the application to add, tap and hold the application icon.
- 3) Tap and hold the application icon, then drag the app icon and move it to your preferred position and release to have it placed.

ADD WIDGET TO HOME SCREEN

- 1) Tap and hold any empty spot on the home screen, and select **"Widgets"** from the appeared menu.



- 2) In the widget selection list, scroll to locate your desired widget.
- 3) Tap and hold the widget until the home screen layout appears. Drag the widget to your preferred position and release to have it placed.
- 4) For a setting shortcut, you will have to select a specific setting from the shortcuts list.

ADD AN ACTION ICON FROM APP SHORTCUT TO HOME SCREEN

To create an **Action icon** from the **app shortcuts** to the home screen, please:

- 1) Long press an application icon (no matter on the **Home** screen or the [App Drawer](#)) to unfold its **app shortcuts**.
- 2) Tap and hold an **Action** from the **app shortcuts** and drag it to the preferred position on the Home screen.
- 3) Release the **Action** icon to have it placed.

ARRANGE THE APPLICATIONS, ACTIONS, AND WIDGETS ON HOME SCREEN

To move or remove an application:

- 1) Tap and hold the application icon, and its "**App info**" or "**app shortcuts**" menu shows up. Simply ignore the menu and directly drag it toward any position.
- 2) The layout edit mode shows up, and an option "**X Remove**" will appear on top of the screen, to which you can drag the unwanted application to remove it, or drag the icon to the preferred position and release it to have it placed.

To move or remove an action/widget:

- 1) Tap and hold the action icon to enter layout edit mode.
- 2) Drag it to area "**X Remove**" to delete it while drag it to the preferred position and release it to have it placed.

4.1.2. FOLDER ON HOME SCREEN

CREATE FOLDER

- 1) On the home screen you would like to customize, tap and hold the application/ action/ widget you would like to move, drag the icon on the top of another icon to create a folder.
- 2) As these icons overlap, a folder is created.
- 3) After you let go your finger, these icons are enclosed in a square.

NAME A FOLDER

- 1) Tap the folder you would like to name.
- 2) The folder will expand from a small square to a full rectangle to show all the shortcuts in it. Tap "**Edit Name**" and edit the folder name.
- 3) Tap ✓ button on the on-screen keyboard.
- 4) Tap elsewhere on the screen, the folder will shrink to a small square with its new name.

REMOVE FOLDER

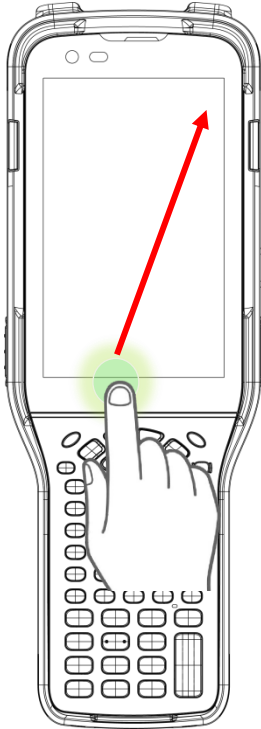
- 1) Tap and hold the folder you would like to remove.
- 2) Drag the folder to the top of the screen where the option "**X Remove**" is located.

Note:

Please note when you remove a folder, the shortcuts contained in it will be removed as well.

4.1.3. CURRENT APPLICATIONS

To reveal the **Recent App Menu**, please unlock the screen, tap and hold the bottom and swipe to the up-right.



On **Recent App Menu**, you can switch between applications or end application. Please refer to [Gestures Settings](#) for details.

Note:

Close unused applications in order to release RAM. Remember to save your data or settings before closing any application.

4.1.4. NAVIGATION METHOD

Navigation is to set how you control the device by using swipes and other actions or tapping on buttons. Please refer to [Gestures Settings](#) for details.

4.2. STATUS BAR

The left side of the status bar shows **notification icons**, and the right side of the status bar shows **status icons**.

4.2.1. ICONS ON STATUS BAR

STATUS ICONS

Icon	Description
	The device has been connected to a Bluetooth device.
	The device is currently connected to a Wi-Fi network and performing data transmission.
	Airplane mode is active, which means all radios are inactive now.
	Alarm is active.
	All sounds are silent except for alarms (Vibration mode).
	The main battery is fully charged.
	The main battery is partially drained.
	Main battery level is very low and needs charging immediately (<15%).
	External power source is connected and main battery is being charged.

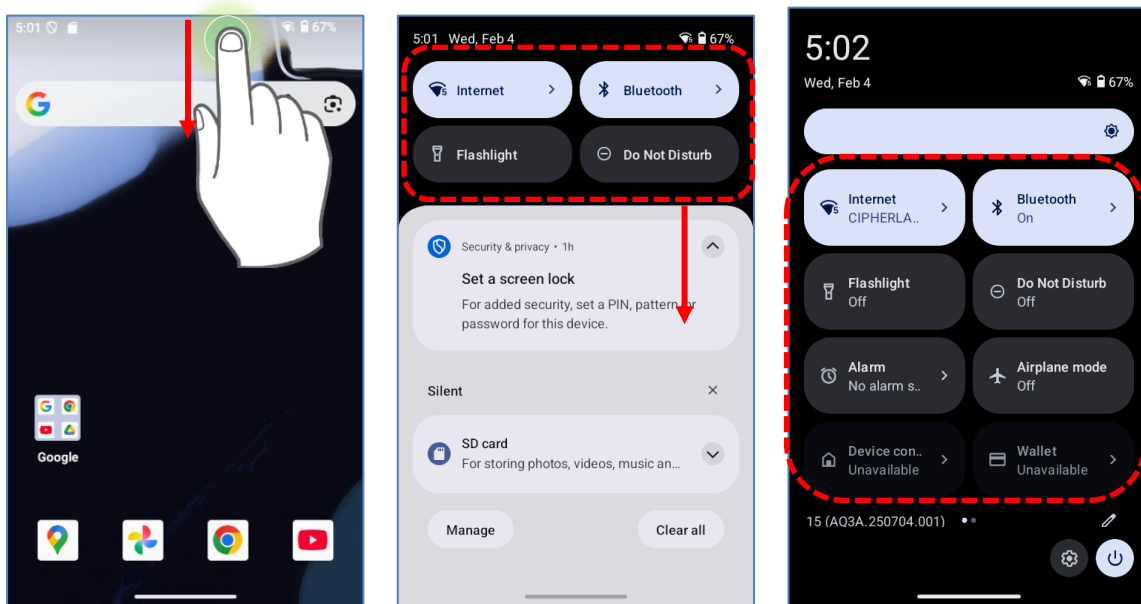
NOTIFICATION ICONS

Icon	Description
	Android System notification such as “ USB debugging connected ” or “ USB file transfer turned on ”. Open Notifications Drawer for more details.
	The device is performing data synchronization.
	There is an upcoming event.
	The device is downloading data. / Download completed.
	The device is uploading data. / Upload completed.
	An open Wi-Fi network is available.
	A memory card has been inserted.
	The headset has been inserted.
	Wi-Fi hotspot is active.
	Wi-Fi will turn on automatically when there's the saved network with a strong signal nearby.

4.2.2. OPEN QUICK SETTING MENU

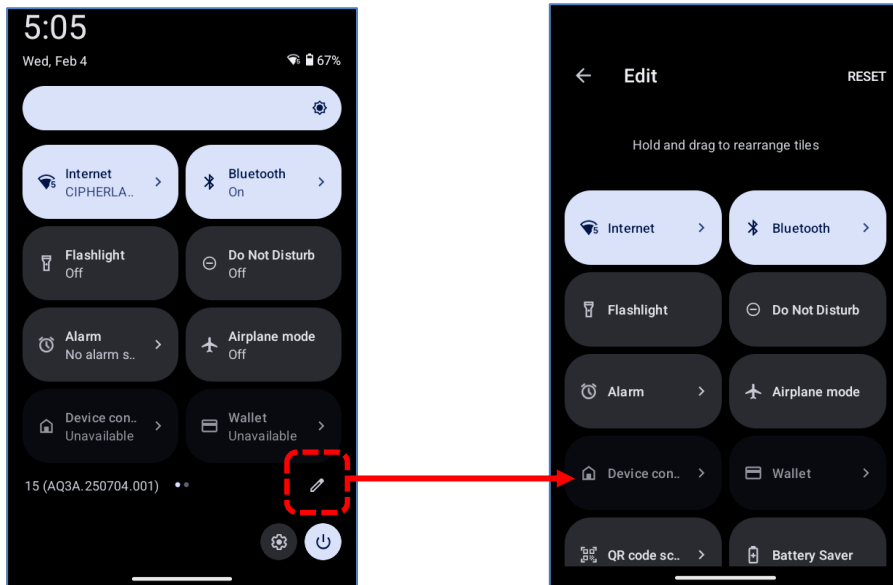
The **status icons** are related to essential settings regarding the device's remaining power, Bluetooth status or Wi-Fi connectivity status. The status bar offers a quick access for you to easily make adjustments of the settings.

To open **Quick Setting Menu**, please swipe down from the top to the bottom of the screen. You can tap on each status icon on the menu to switch among different modes or enter the settings.

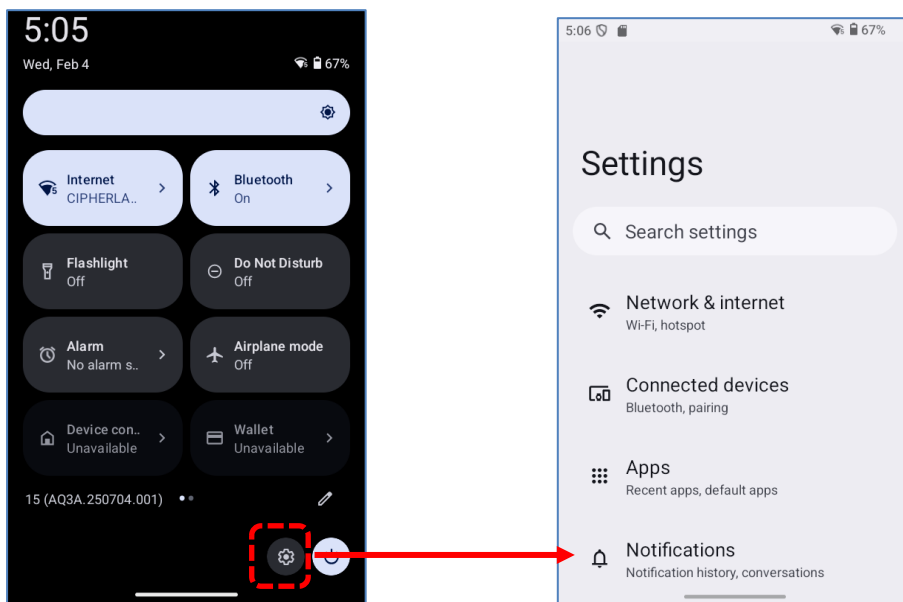


Tap on the two buttons,  and , on the bottom side of the **Quick Setting Menu** will respectively enter the below pages:

▪ **Quick Setting Menu Edit Page:**



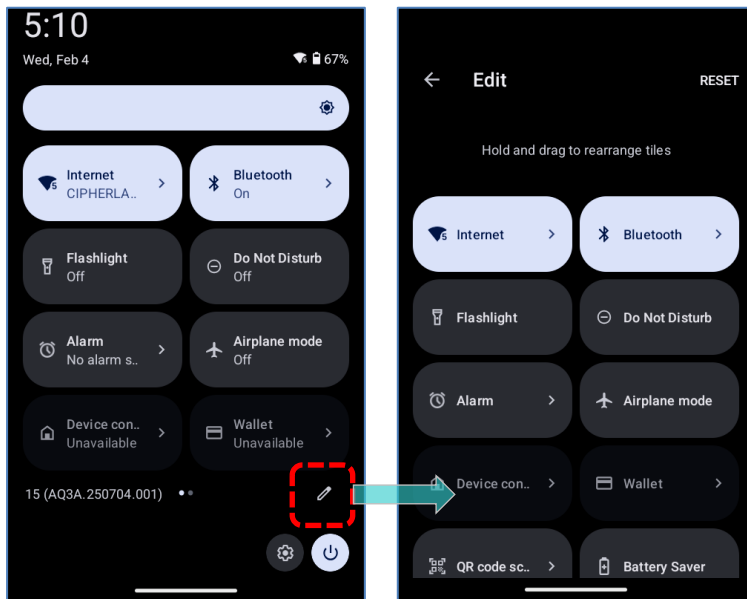
▪ **Settings Page:**



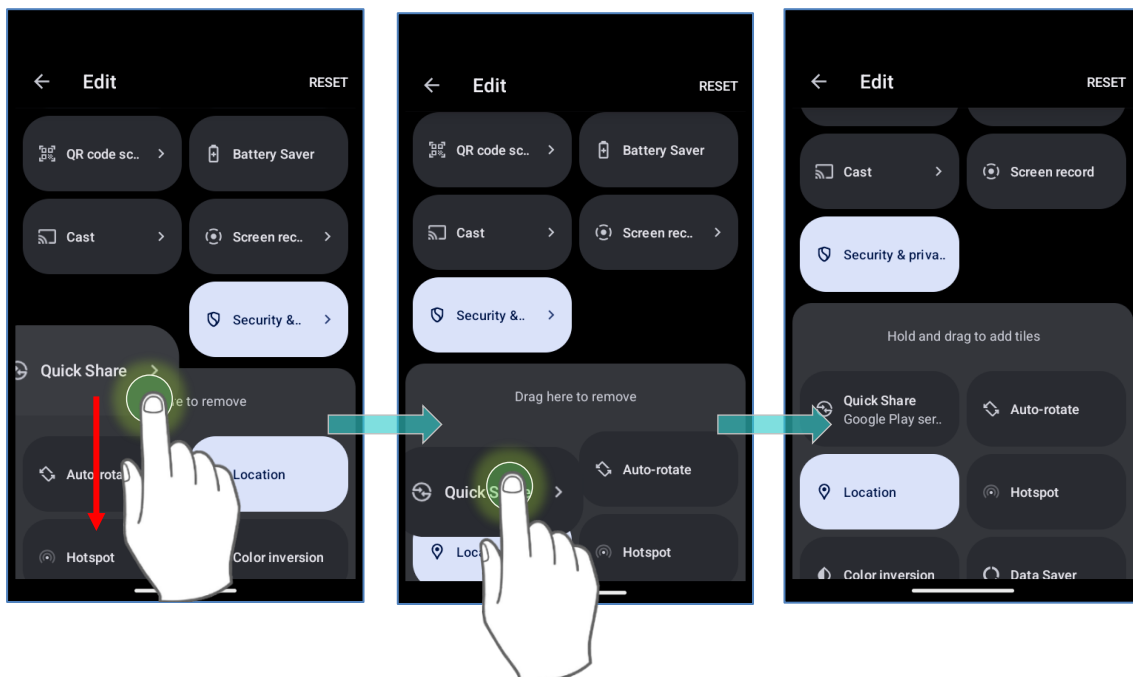
EDIT QUICK SETTING MENU

To customize **Quick Setting Menu**, please:

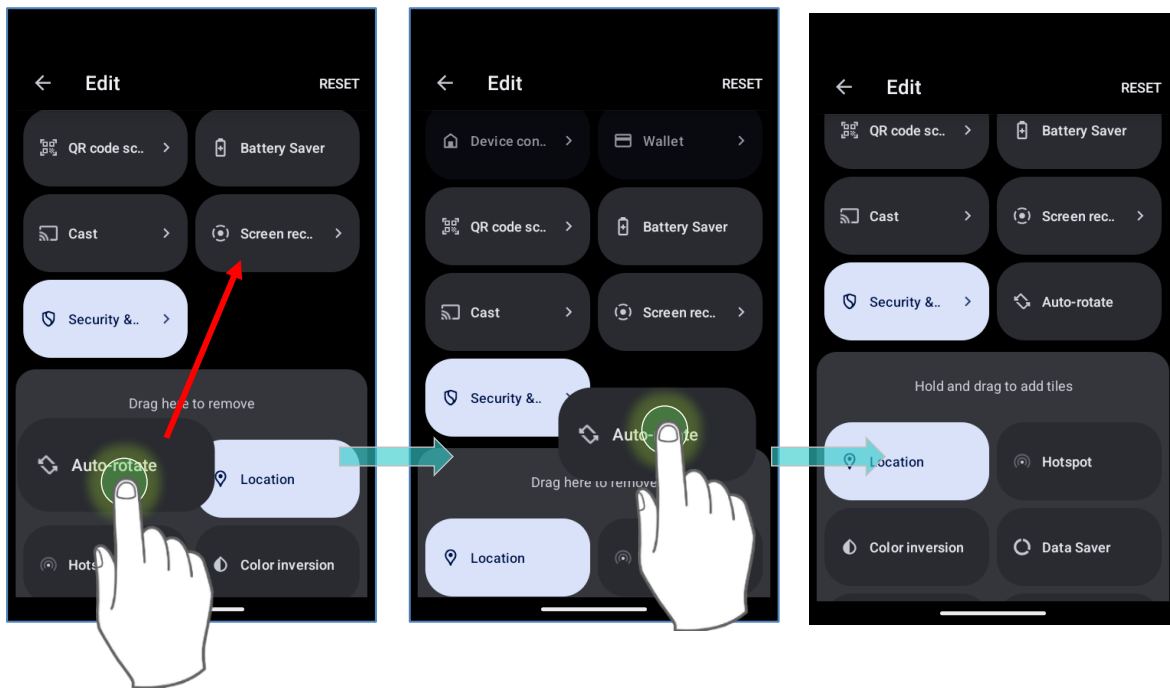
- 1) Tap **Edit** icon  to get into **Edit** page.



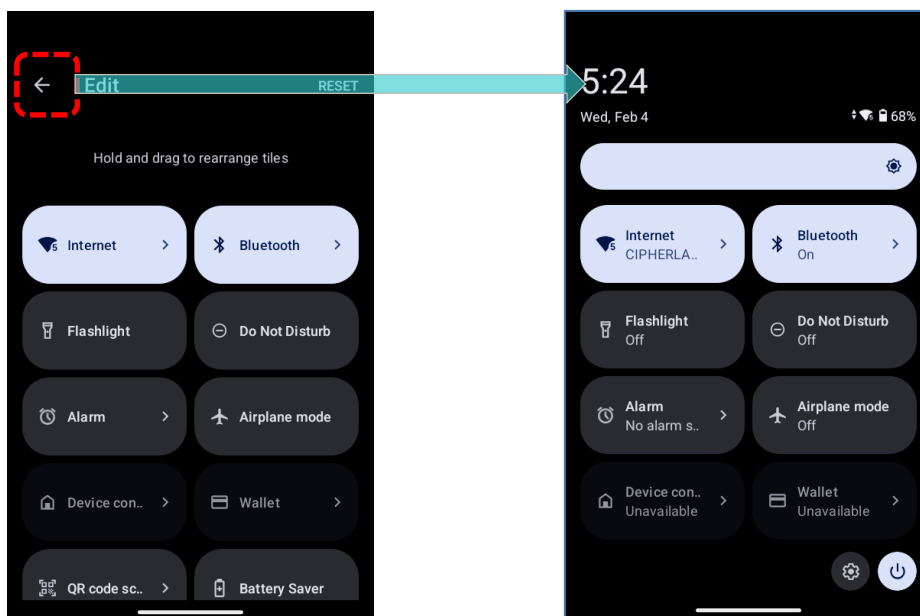
- 2) **Remove:** To remove certain item, please tap on and hold the icon to be removed, and drag it to the **"Drag here to remove"** area and then release it.



3) **Add:** To add certain item, please tap on and hold the icon to be added and drag it to the upper area and then release it.



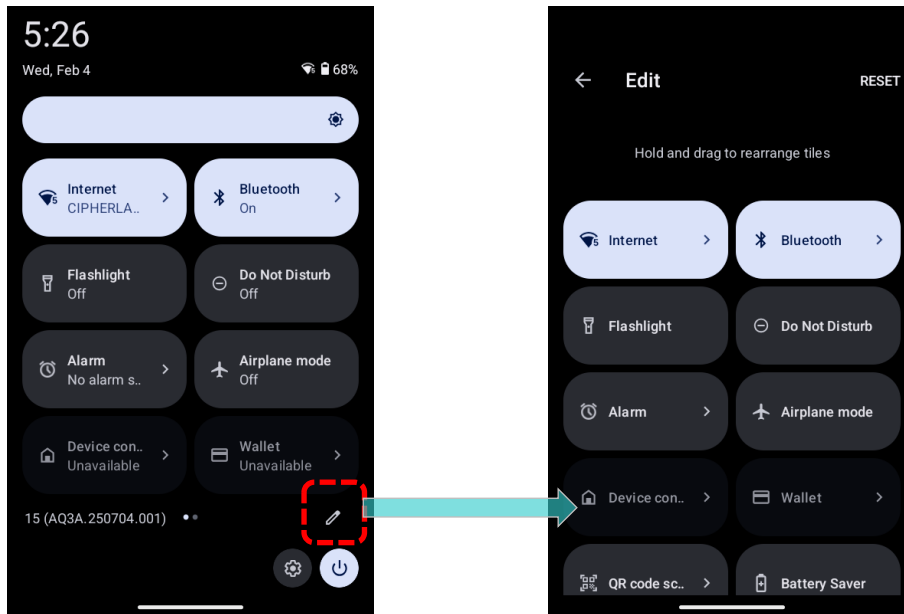
4) Return to the **Quick Setting Menu**, all the settings are done.



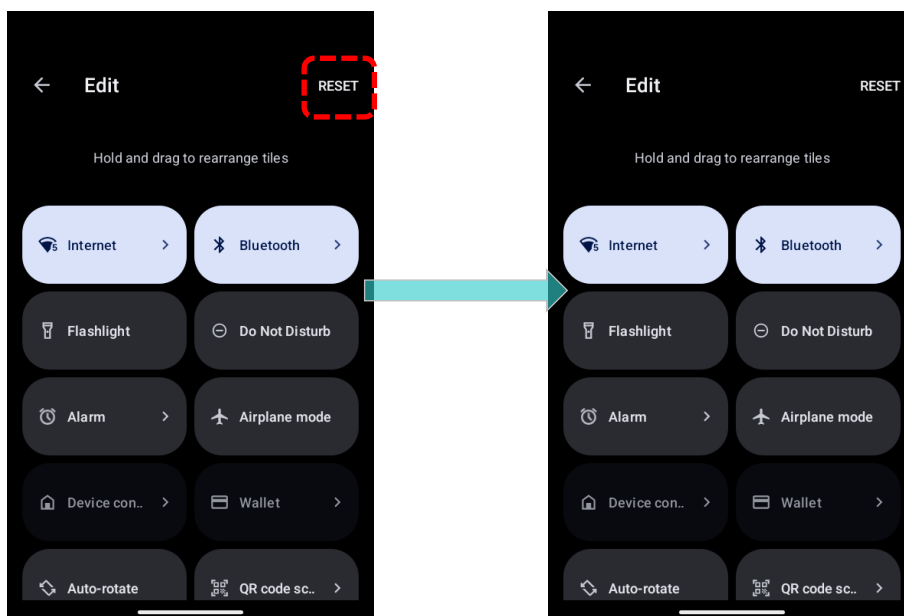
RESET QUICK SETTING MENU

To reset the **Quick Setting Menu**, please:

- 1) Tap **Edit** icon  to enter **Edit** page.



- 2) Tap **"RESET"** in the upper-right corner.



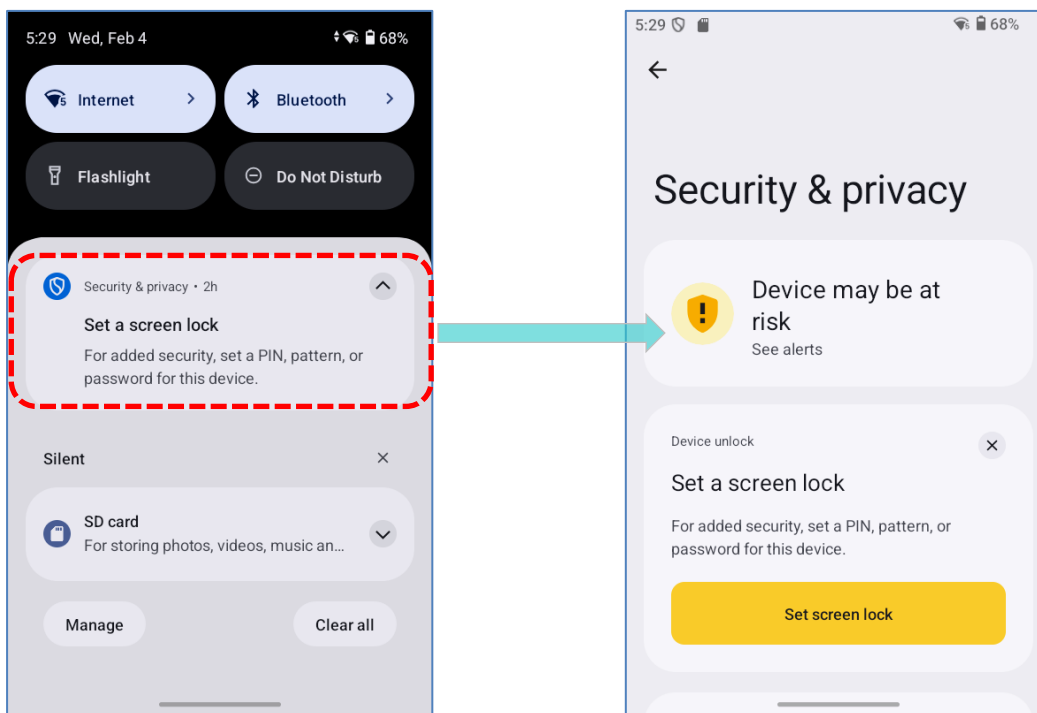
4.2.3. OPEN NOTIFICATIONS DRAWER

The **notifications icons** on status bar inform you of the new events such as incoming calls, messages or USB connection.

CHECK OUT NOTIFICATION

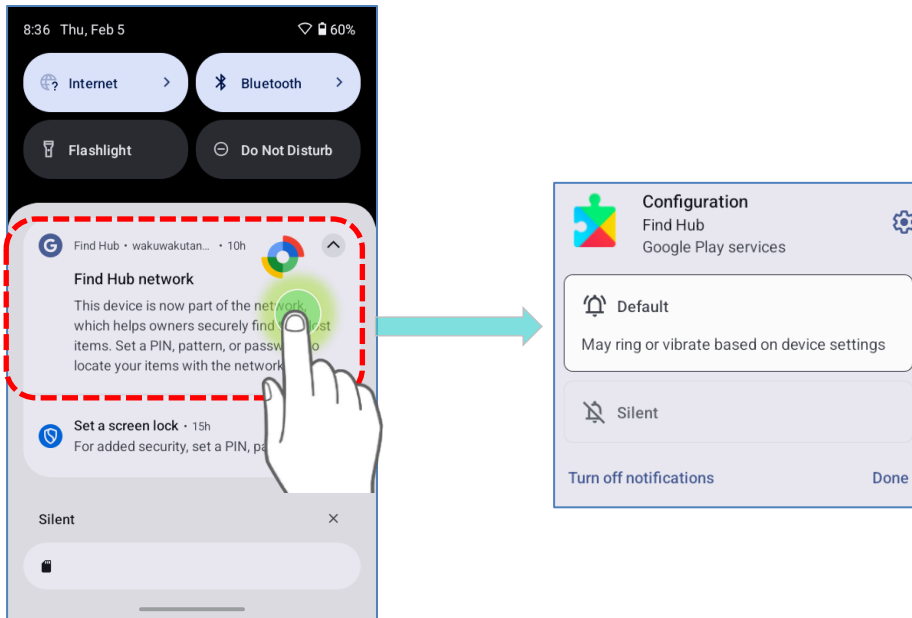
To check out details of the events, swipe down from the status bar to open [Notifications Drawer](#).

Tap on the individual notification card to carry out immediate action or to open the corresponding application.



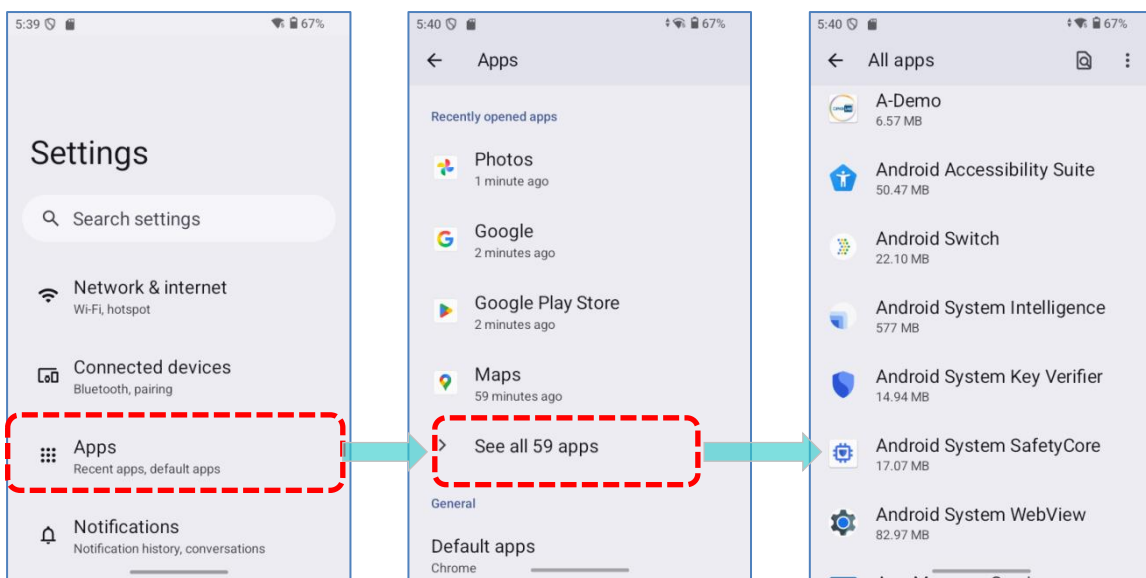
DISABLE NOTIFICATION

You can turn off the notification of a specific app by tapping and holding on the notifications card until the corresponding app name reveals. Tap to choose "**Default**", "**Silent**", or "**Turn off notifications**".

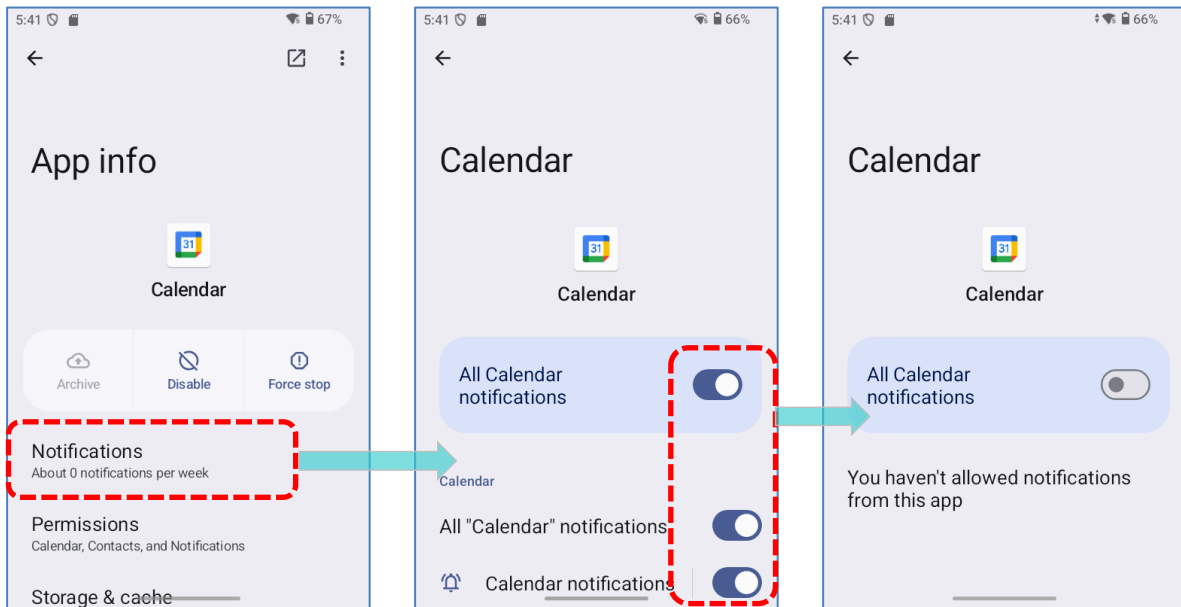


OR

- 1) Go to [App Drawer](#) | [Settings](#)  | [Apps](#)  | [See all XX apps](#) to find the app you would like to change its notification settings.

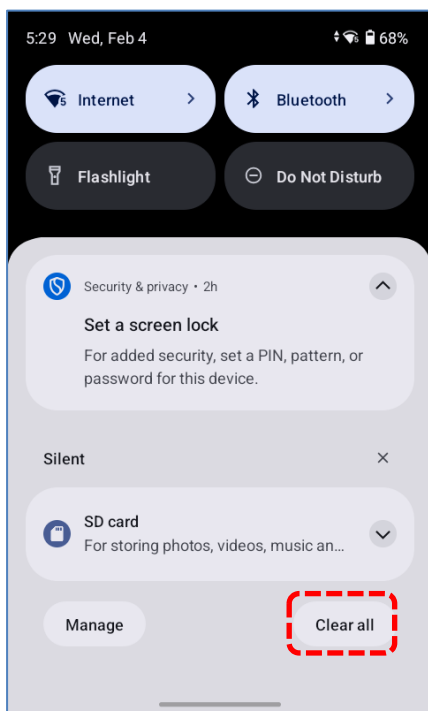


2) Tap to enter the **"App info"** page and tap **"Notifications"** to switch on or off **"Show notifications"** and other settings.



CLEAR NOTIFICATION

To dismiss all notifications at a time, please tap on **"Clear all"**. Ongoing notifications and notifications that require subsequent activity to be cleared will remain on the list.



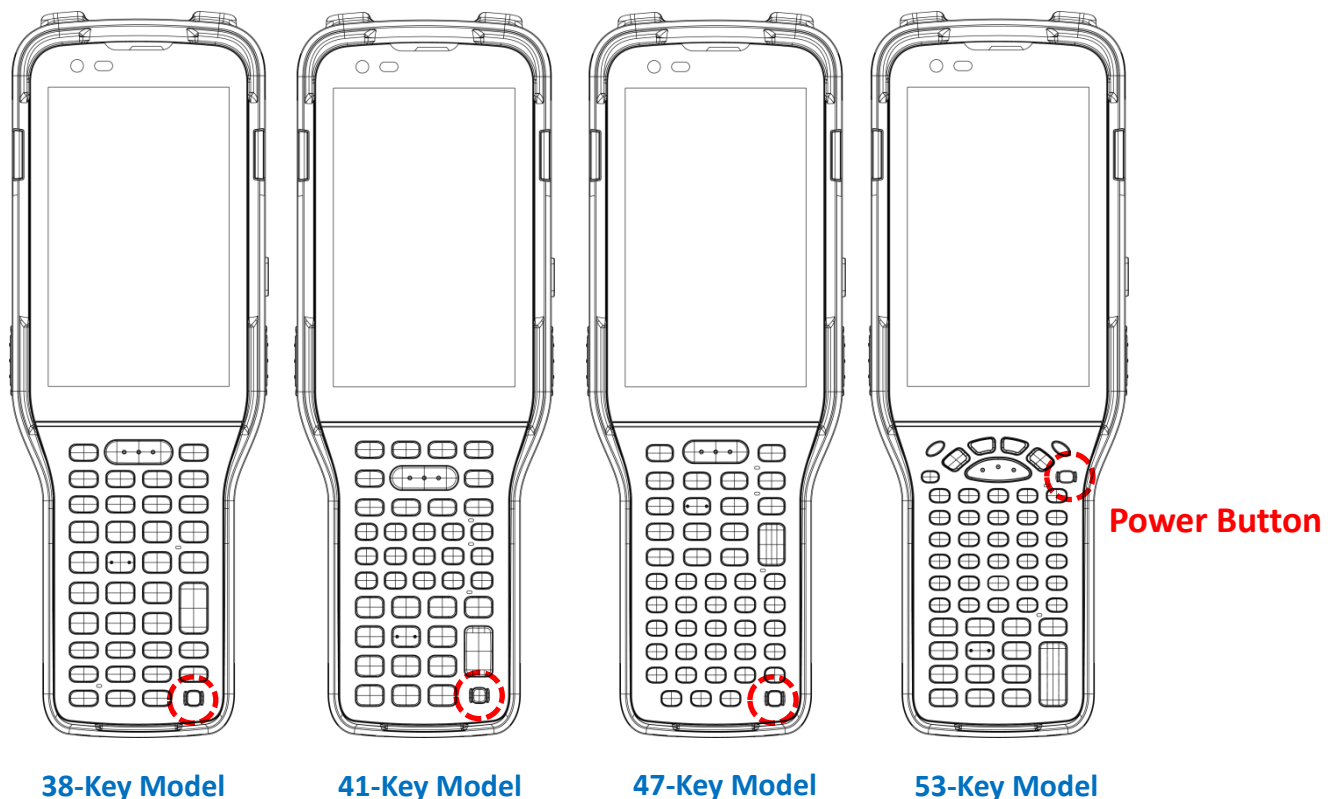
4.3. SUSPEND & LOCK

4.3.1. SUSPEND DEVICE

The mobile computer operates continuously once it is powered on. To minimize power consumption and prevent unintended operation, suspend the mobile computer if you are not actively using it. The mobile computer can be quickly awoken from suspend mode to operate as needed. When the mobile computer enters suspend mode, the system is in a power-saving status, meaning the device will not respond to screen touch, and volume keys and side buttons will also be unavailable until the device is unlocked.

SUSPEND RK96

Press the [power button](#) to suspend the mobile computer. The mobile computer will automatically suspend when the time period set in [Screen Timeout Settings](#) has passed without any activity.

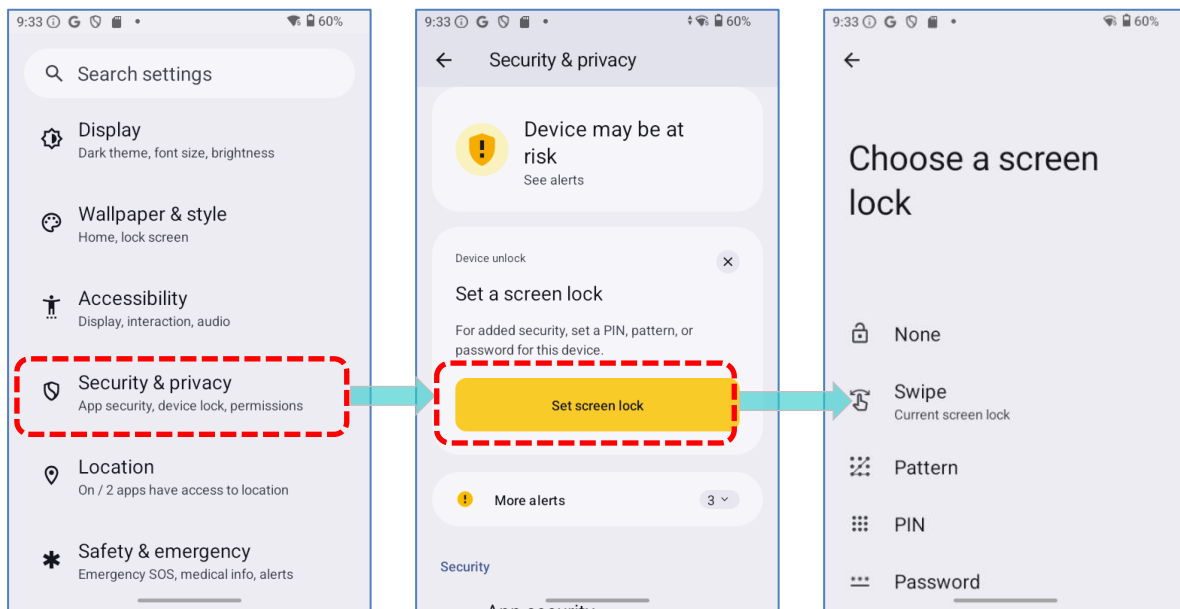


4.3.2. LOCK DEVICE

Setting a screen lock allows you to protect your personal data on this device while the device is not at your hand. With various types of screen lock available and Smart Lock, you can not only enjoy the benefits of this function but also great convenience.

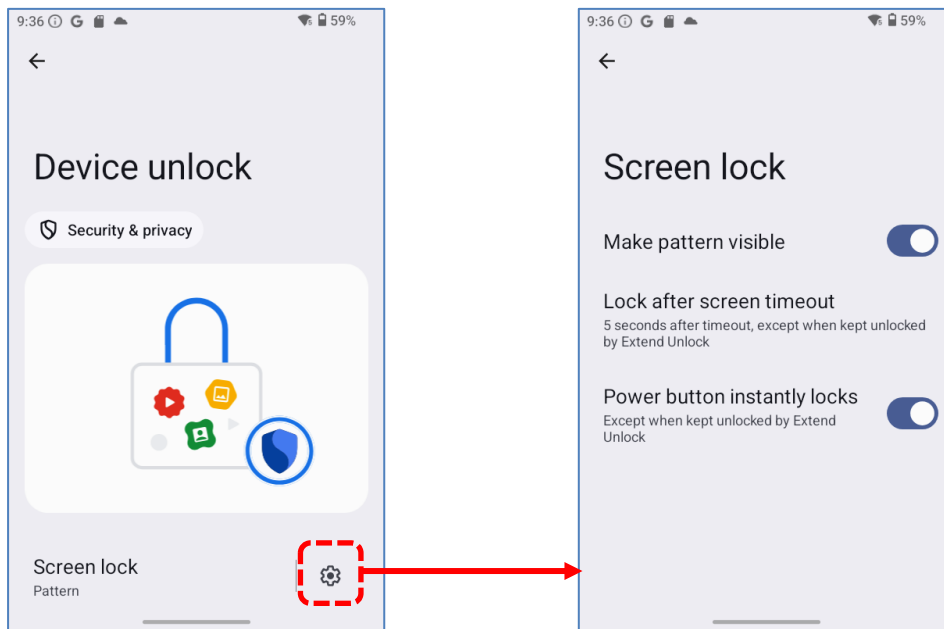
LOCK RK96

Go to [App Drawer](#) | **Settings**  | **Security & privacy**  | **Set screen lock** to change the lock method.



Item	Description
None	Disable screen lock.
Swipe	Default slide gesture.
Pattern	Enter a pattern to unlock.
PIN	Uses the PIN code to unlock.
Password	Enter a password of at least 4 characters to unlock.

By selecting a **Pattern**, **PIN**, or **Password** method, a setting icon appears next to “**Device unlock**”. Tap  to enter **Screen lock** page for further configurations.



Screen Lock advanced settings are:

Item	Description
Lock after screen timeout	Set the time interval between screen timeout and automatically locking the screen.
Power button instantly locks	Switch to enable/ disable instantly lock screen by pressing power button.

4.4. OS UPDATE

Updating the operating system on the mobile computer helps maintain it at an optimized state. You may choose to update the system by establishing a wireless network connection to the Internet and downloading the update file from the OTA server.

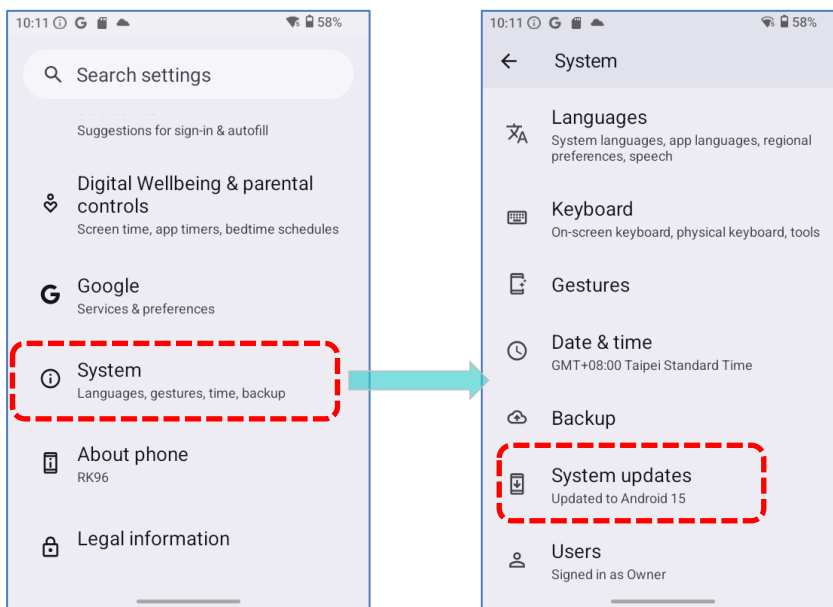
Note: The mobile computer will shut down during system update. Save any unfinished tasks and data before updating the system in order to avoid data loss.

4.4.1. NETWORK UPDATE

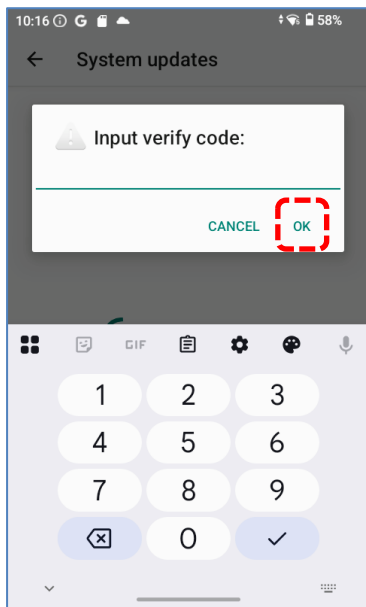
In order to check for and download the latest system update file on the server, make sure a wireless network connection to the Internet is established on the mobile computer.

Note: To avoid any additional charges to your wireless data plan, Wi-Fi connection to the Internet is recommended for downloading the file.

1) Go to [App Drawer](#) | **Settings**  | **System**  | **System updates**  .



- 2) A window pops up asking you to input the password for system update. Please contact with support@cipherlab.com.tw for the password. Enter the password and tap **OK**.



- 3) The mobile computer searches for the latest system update file on the server. Tap **DOWNLOAD AND INSTALL** to download the update file.
- 4) When a new system update file is detected on the server, a notification icon will appear on the status bar, and a text notification will pop up in the notifications panel.

AUTOMATIC UPDATE

The automatic update feature of RK96 mobile computer is off by default, and you can change the setting by **ADC (Android Deployment Configurator)** to turn it on.

By enabling automatic update feature, RK96 mobile computer automatically detects whether there's the latest OS update and downloads it. The update is scheduled to proceed on early morning when the device is on and left idle.

4.4.2. SD CARD UPDATE

RK96 mobile computer automatically searches the available update files in your mobile computer's storage and then install it.

Please obtain the latest system update image file, and then rename and copy the file as "**sdupdate.zip**" onto the folder "**sdupdate**" of your SD card. Insert the SD card into the memory card slot on the device. Press the power button to power it on.

OR

Transfer the update image file to the root directory of the device's internal storage via a USB Type-C cable/ the snap-on cable.

The newest version of OS will be automatically installed and take effect next time the device is booted up.

Note:

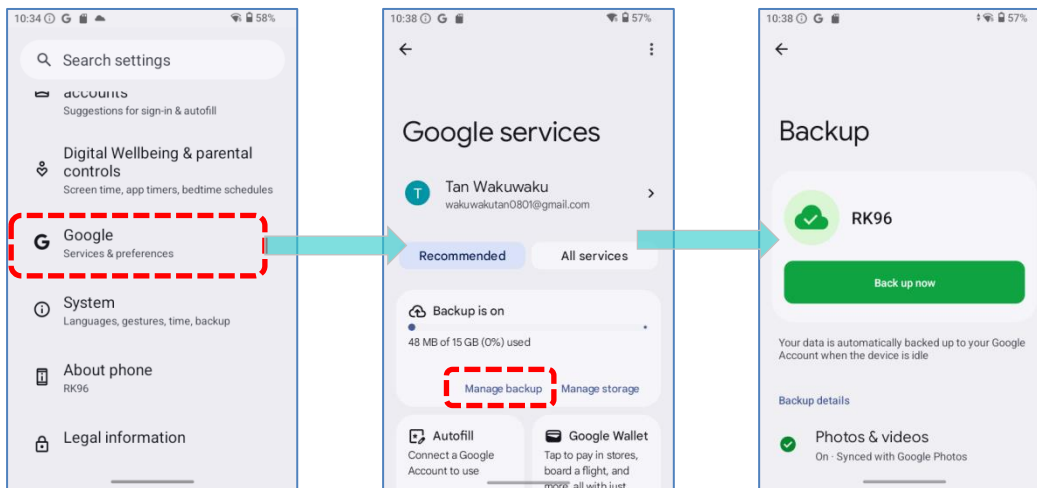
Make sure the SD card is properly inserted in the mobile computer; otherwise the system is regarded as currently up to date.

4.5. BACK UP YOUR DATA

With **Backup**, you can have your personal data (Google Calendar settings, Google contacts, Chrome browser data and Gmail settings) and certain system settings under your Google Account backed up (over network connection) on the cloud. This allows you to easily restore the settings on this device after a Factory Reset (refer to [Reset to Factory Default](#)). If you **have logged in your Google account**, follow the steps to start your backup settings:

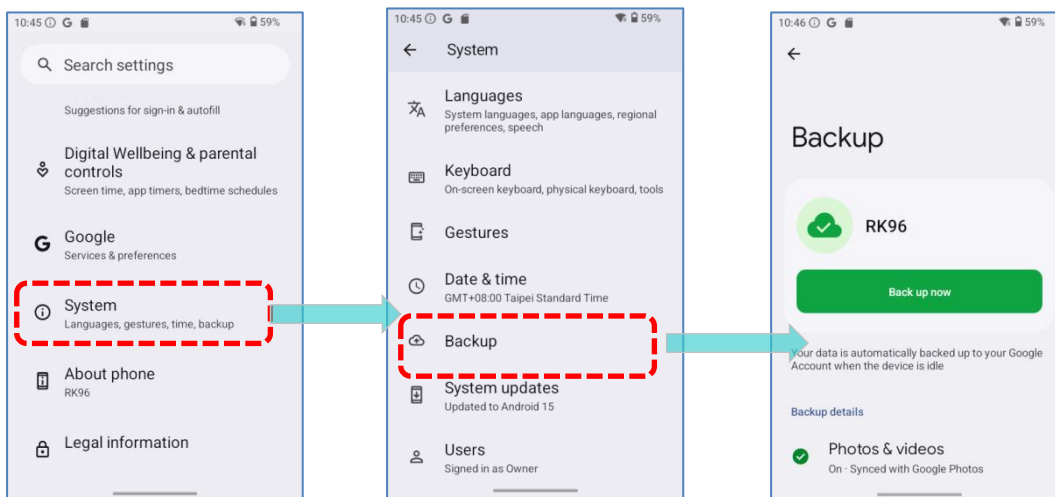
1) Make sure your device is connected with network.

2) Go to [App Drawer](#) | **Settings**  | **Google**  | **Manage backup**.



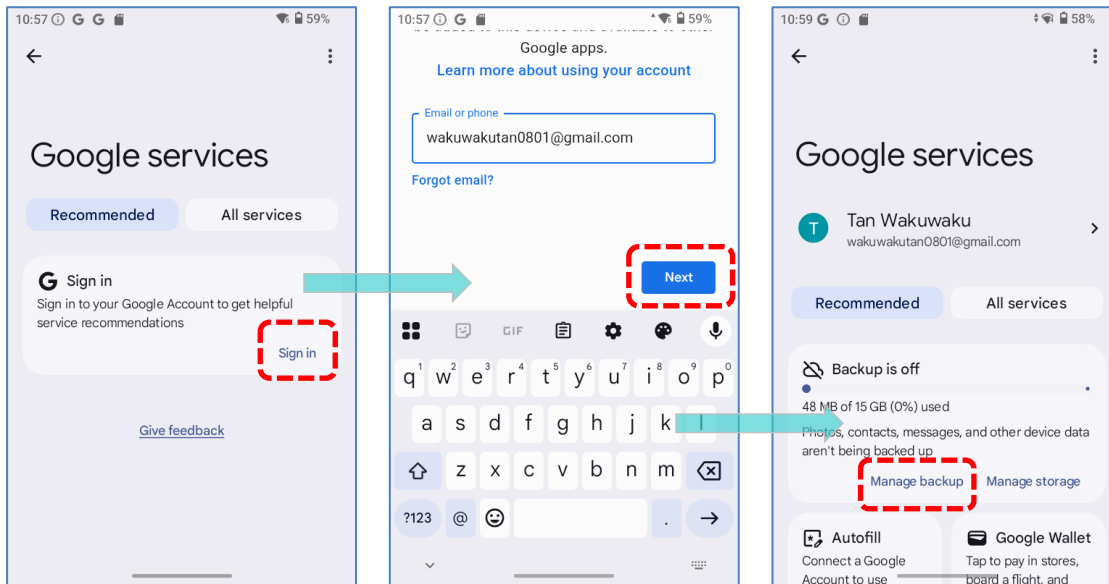
OR

[App Drawer](#) | **Settings**  | **System**  | **Backup** .

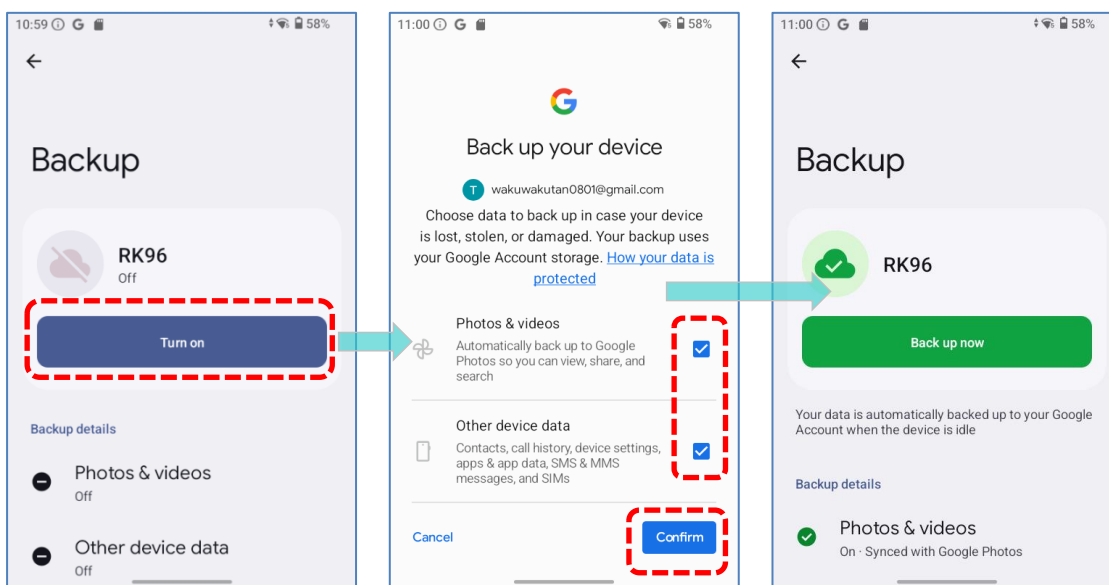


If you haven't logged in your Google account:

1) Tap **"Sign in"** and complete the login process, then tap **Manage backup**.

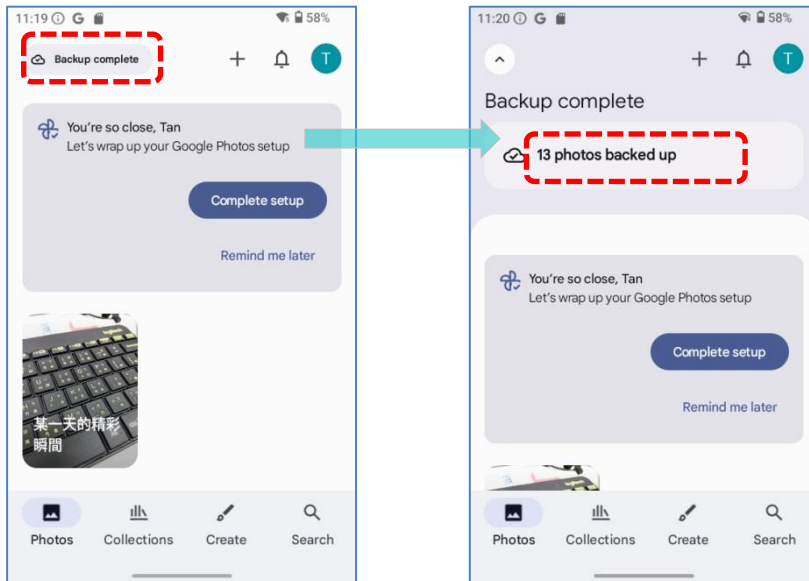


2) Tap **"Turn on"** and **"Confirm"**.



To back up your **photos and videos**:

- 1) Tap **Photos**  in [App Drawer](#) and log in your Google Account to sync the files on your device with Google Photo Library.



- 2) To back up other data such as audio or video files on the device's storage, you can make use of the Google Drive service.

Note: Backup may not handle certain app progress data and settings.

4.6. RESET TO FACTORY DEFAULT

Performing a factory reset will erase all data on your mobile computer (including, files as well as your installed apps and their associated data) and revert the device back to its original state in which it is powered on for the first time.

It is strongly recommended that following the instructions in [Back Up Your Data](#) to back up important data before performing a factory reset.

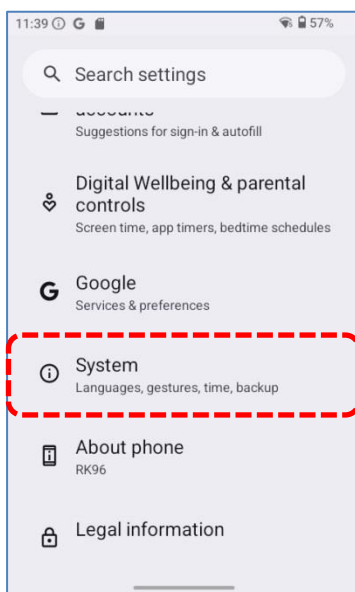
When setting your RK96 mobile computer by **ADC (Android Deployment Configurator)**, the settings will automatically backup to “**enterprise partition**” of your RK96 mobile computer, and the settings saved in enterprise partition will not be erased by proceeding “**Erase all data (factory reset)**”. To erase all the settings, please select “**Erase all data (factory reset with enterprise)**”.

4.6.1. ERASE ALL DATA (FACTORY RESET)

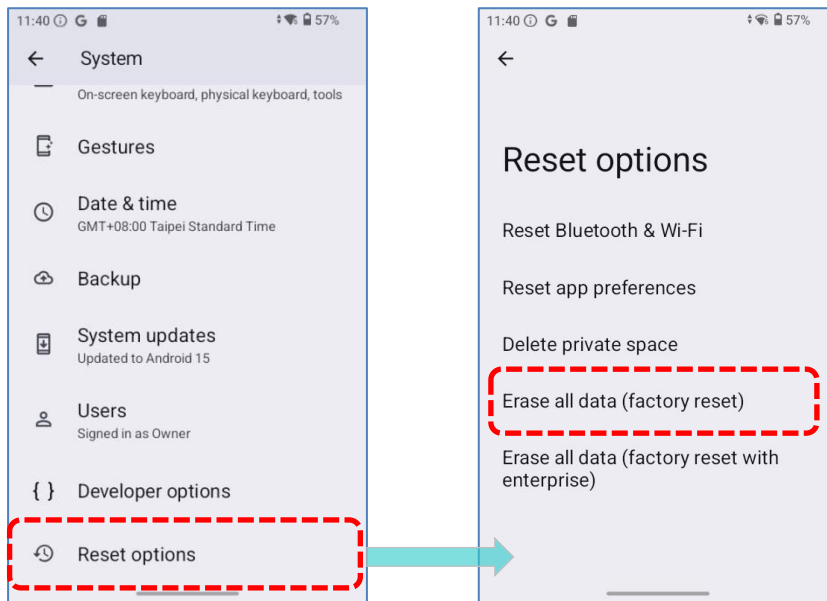
“**Erase all data (factory reset)**” will erase all the data except of the settings backed up in enterprise partition by **ADC (Android Deployment Configurator)**.

To start:

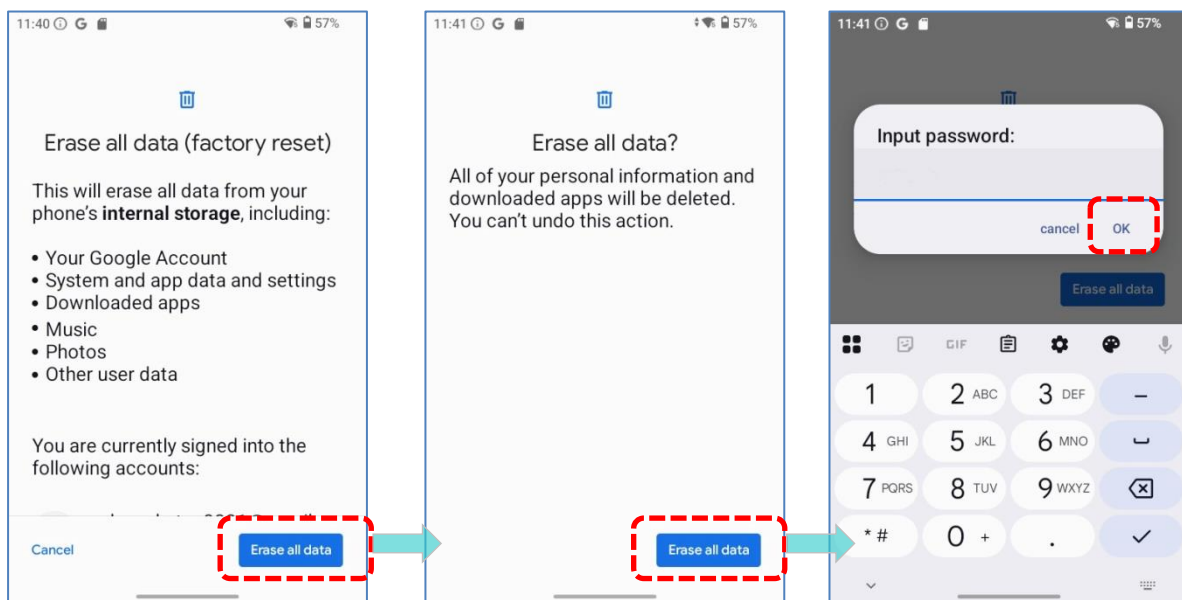
- 1) Go to [App Drawer](#) | Settings  | System  .



2) Tap on **Reset options**  and **Erase all data (factory reset)**.



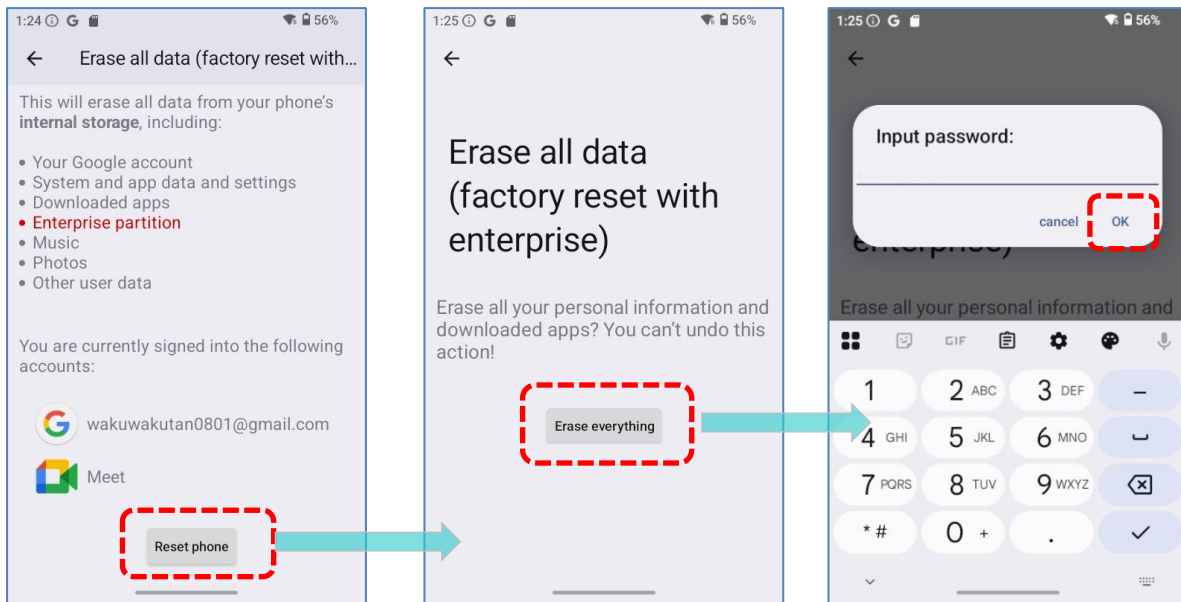
3) Confirm the action by tapping on the button **"Erase all data"** and input the verification code (Please contact with support@cipherlab.com.tw to obtain your verification code). Finally, tap **OK** to perform a factory reset.



4.6.2. ERASE ALL DATA (FACTORY RESET WITH ENTERPRISE)

Go to [App Drawer](#) | Settings  | System  | Reset options  | Erase all data (factory reset with enterprise).

Confirm the action by tapping “Reset phone”, “Erase everything” and input the verification code (Please contact with support@cipherlab.com.tw to obtain your verification code), and tap **OK** to perform a factory reset.



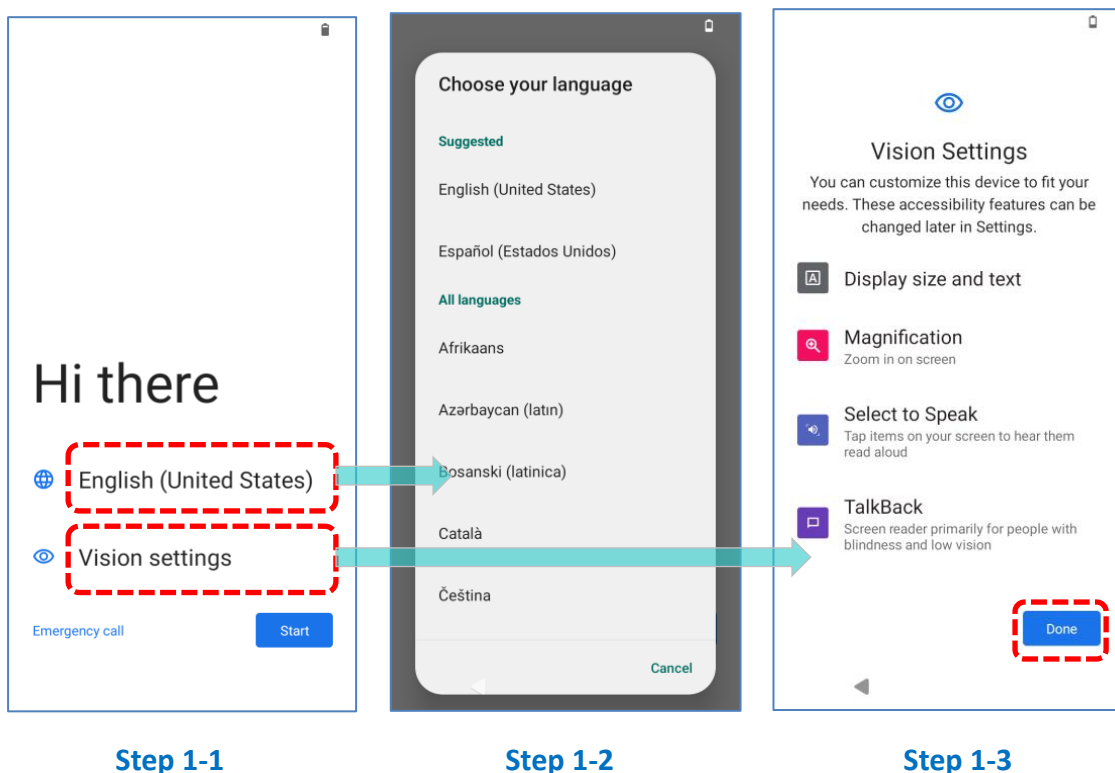
Please note that “Erase all data (factory reset with enterprise)” will erase all the data including the settings backed up in enterprise partition by **ADC (Android Deployment Configurator)**.

4.6.3. WELCOME WIZARD

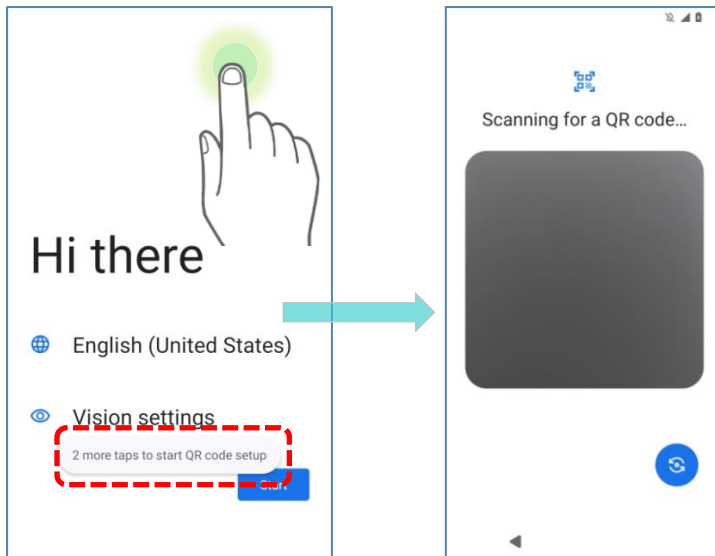
As the mobile computer boots up for the first time after the reset, the Welcome wizard will run you through setting up the environment as well as restoring apps and data. During setup, you can tap **SKIP** to continue to the next step (you can finish the respective settings in [App Drawer](#) | **Settings**  at any time).

Please note that to have the backed up data in your Google Account restored right in this stage, log in to a Wi-Fi network when prompted to **Connect to Wi-Fi**.

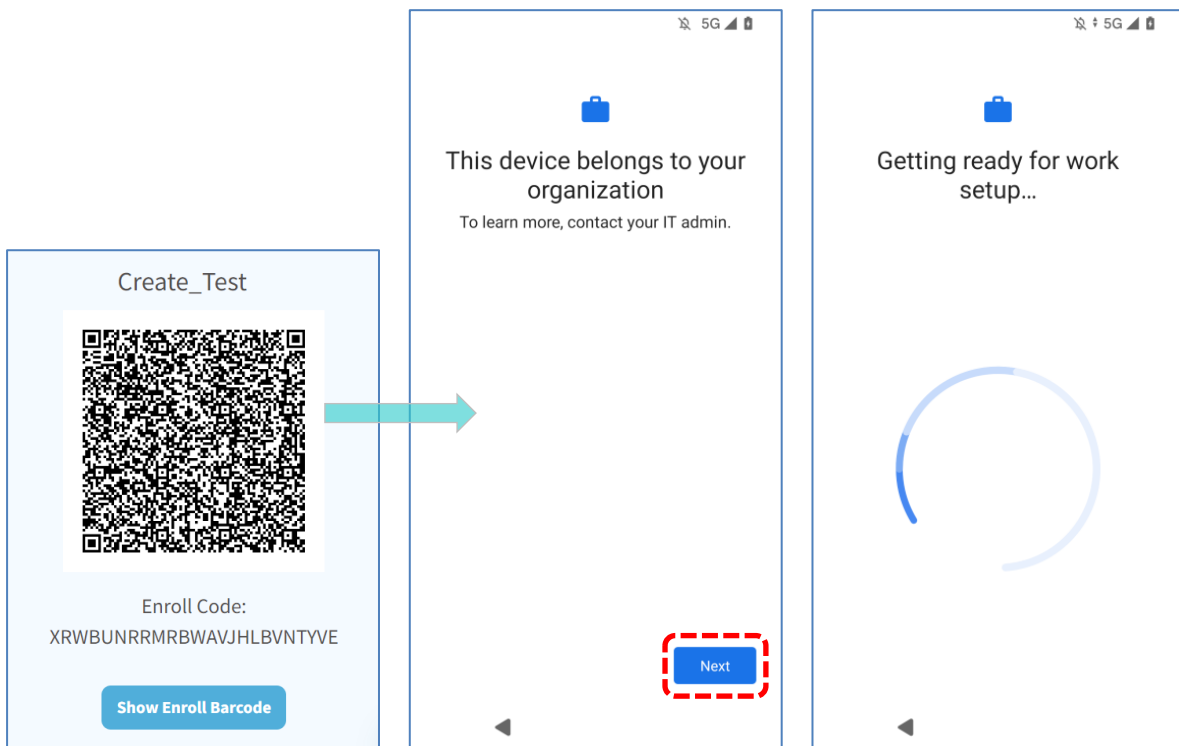
- **Step 1-1:** Tap “**Start**” to proceed, or tap to enter “**English (United State)**” (Step 1-2) / “**Vision settings**” (Step 1-3).
- **Step 1-2:** Scroll and choose your language to customize your device.
- **Step 1-3:** Tap the options you need to customize your device for easy-to-use. Tap “**Done**” .



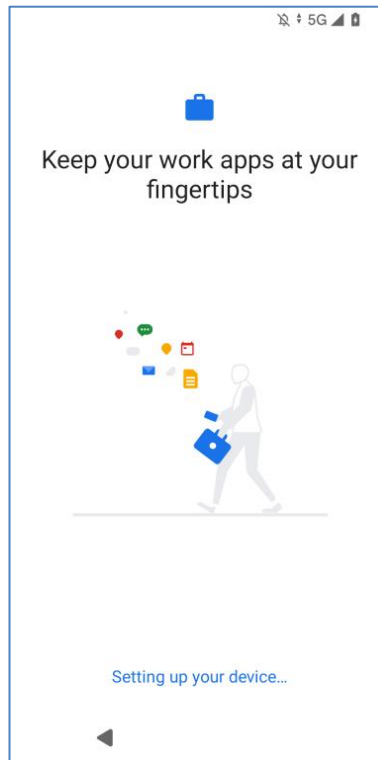
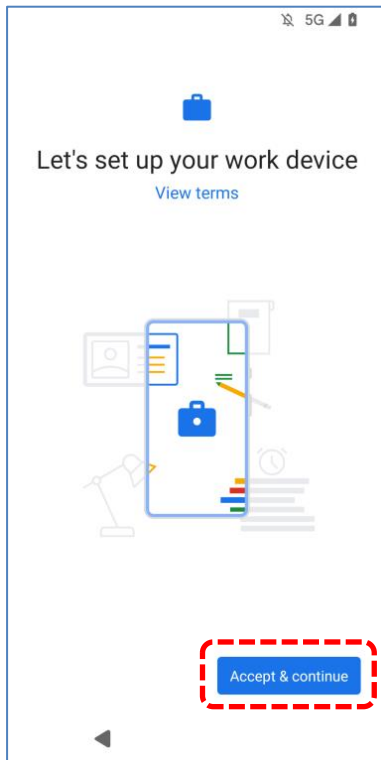
- **Step 2:** To complete the deployment of the device through the QR code generated by **ADC (Android Deployment Configurator)** or **ReMoCloud**, tap the blank space on the six times to access the scanning page.



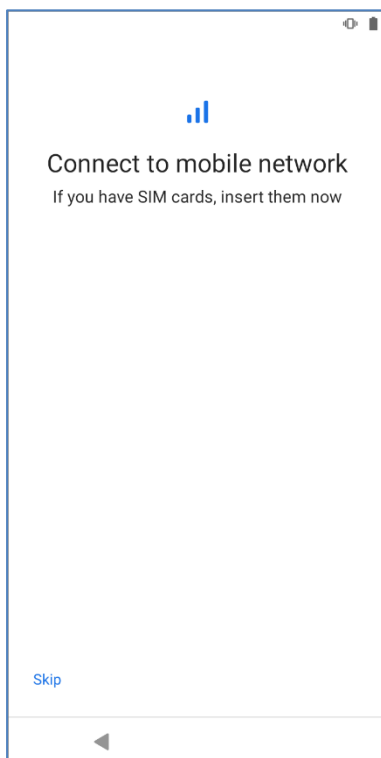
Step 3: Aim the device's camera at the QR code, and tap **"Next"** to confirm that the device will be managed as work device.



- **Step 4:** Tap “Accept & Continue” to proceed.

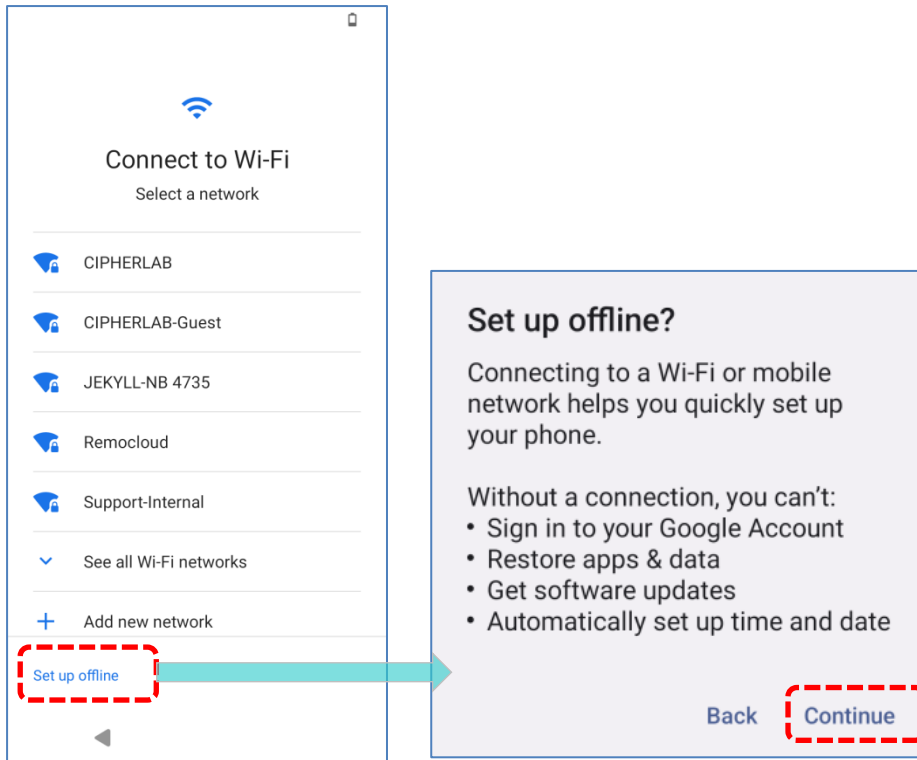


- **Step 5:** Insert your SIM to connect to mobile network, or tap on “Skip” to the next step.

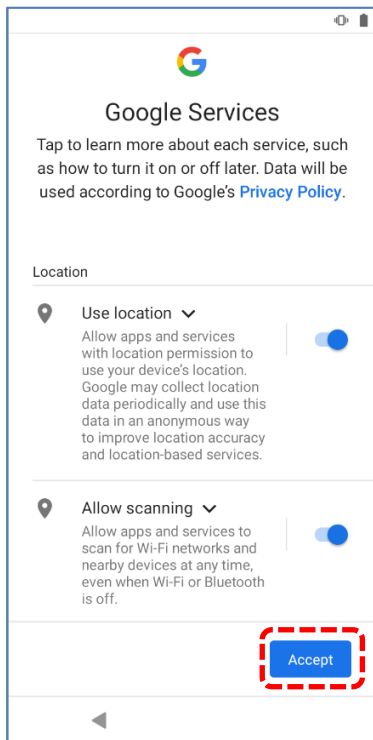


If not enrolling the device through **ADC** or **ReMoCloud**, tap **"Start"**.

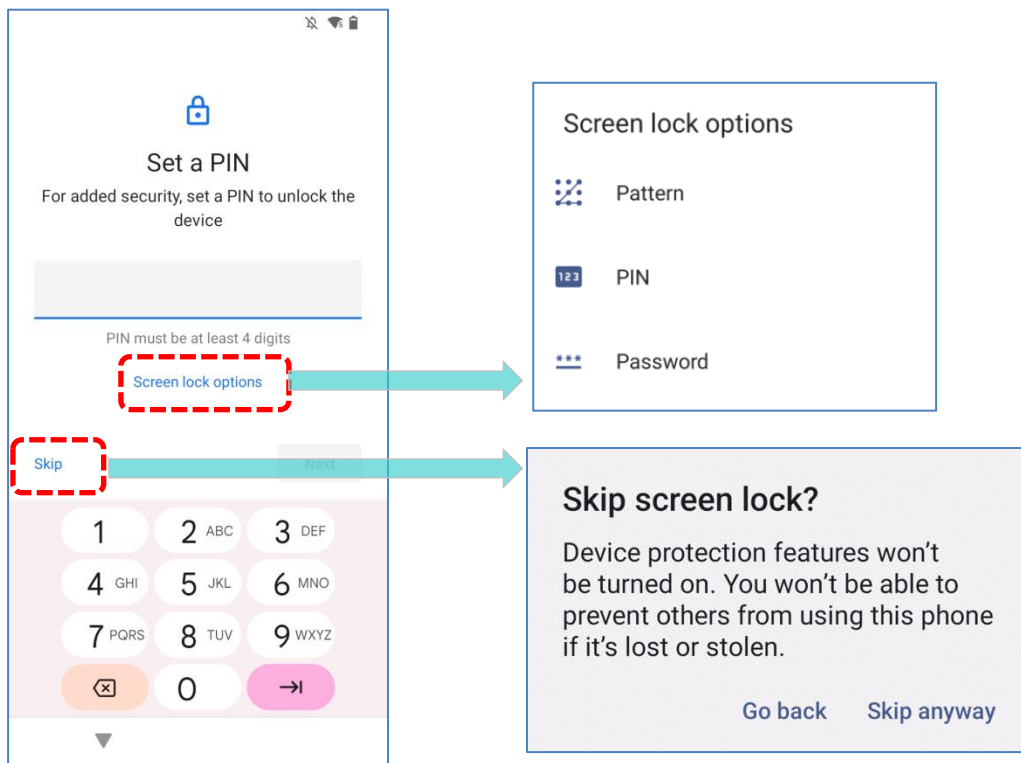
Choose a Wi-Fi network or to tap on **"Set up offline"**, then confirm with **"Continue"** to the next step.



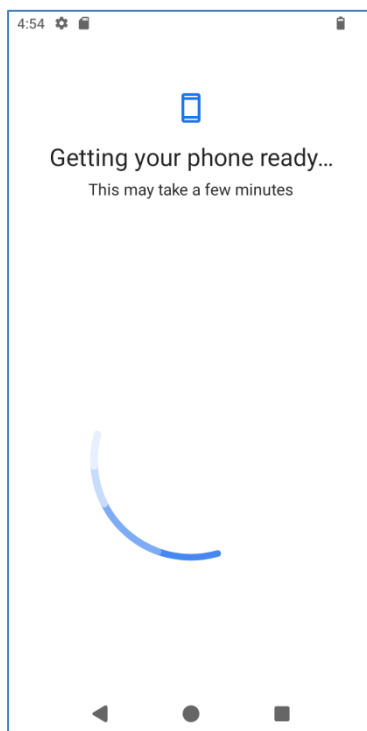
- **Step 6:** Choose Google services that you want to be enabled, and tap **"Accept"** to proceed.



- **Step 7:** Set up the protection methods to protect this device, or merely “**Skip**” this step.



- **Step 8:** It takes few minutes to complete the settings.



Once the initial setup is completed, the **Home** app screen shows up. Apps and settings will be restored in the background.

Chapter 5

COLD CHAIN MODEL

This chapter introduces the user interface of the RK96 mobile computer cold chain model.

IN THIS CHAPTER

5.1. CC Controller for Cold Chain: Overview	212
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5.1. CC CONTROLLER FOR COLD CHAIN: OVERVIEW

The default application “**CC Controller**” (**Cold Chain Controller**) is for monitoring the temperature of the device and the heater which helps you to control the heater settings.

To launch “**CC Controller**”, please go to [App Drawer](#) and tap **CC Controller**  .

The default setting is **Automatic Mode**. User can switch to the **Manual Mode**:

- In **Automatic Mode**: it maximizes battery life in cold storage environments and provides average window defrost time.
- In **Manual Mode**: the heater is control solely by the user.

The advanced settings are as below:

Item	Description
Turn heater on when the temperature has changed by	The <u>delta value of quick-rise temperature</u> (Delta T) that setting for device to exit cold storage or not. The default value is 0.5°C.
*Duration: heater	Set the length of time the heater stay on at full power (100%) once the device detects the Delta T occurs. The default values are 5 mins (Automatic Mode) and 40s (Manual Mode), respectively.
*Low battery threshold	The device will turn off the heater for conserving power when the battery power is lower than the threshold. The default value is 25%.
Heater enable temperature	The temperature value that device must be below in order to activate the heater. The Chill time starts once the device has reached the value. The default value is -10°C.
Chill time	Set the time limit that the device must remain at or below the Heater enable temperature. The default value is 5 mins. If the Preemptive Heating is disabled: The heater turns on when the device exits cold storage is detected. If the Preemptive Heating is enabled: The Preemptive Delay Time is enabled. Note: The heater will not be turned on if the device exits cold storage before Chill time expires.
Preemptive Heating	Toggle on to enable/ disable pre-heating (Automatic Mode only). The default is disabled.
Preemptive Duty Cycle	The percentage of time that the heater is on during Preemptive Heating. The default value is 50%.

Item	Description
Preemptive Delay Time	The time interval that between the Chill time ended and the low power pre-heat activates. The default value is 30 mins.
Duration: Scanner heater	The length of time that the scanner window heater is cycled on. The default value is 40s.
Fast monitoring interval	Set the sampling interval time used once the device detects cold storage entry (defined by the Heater enable temperature). The default value is 2s.
*Slow monitoring interval	Set the sampling interval time used once the device detects cold storage exit (defined by the Delta T). The default value is 3 mins.
*Power on time	The delay time before the heater turns on after it is enabled. The default value is 10 ms.
Disable temperature	The temperature limit that triggers turning off the heater. The default value is 20°C.
*Blanking	Toggle on to enable/ disable heater operation during scanning. The default is enabled.

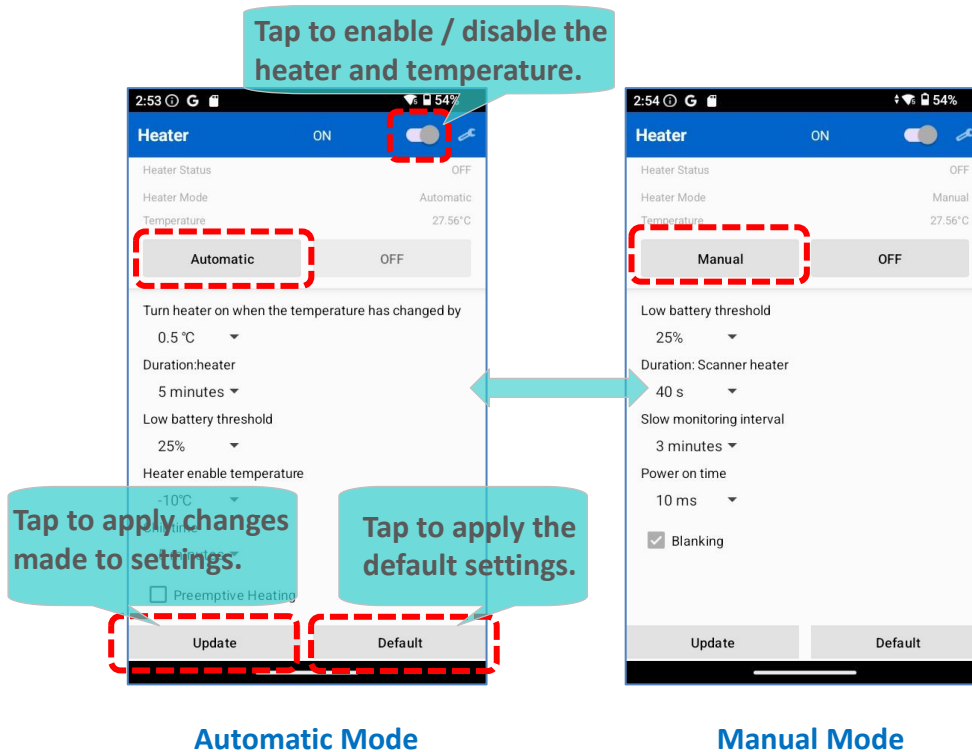
Note:

The user can only control the settings marked “*” above in manual mode. The rest of the items are only in the automatic mode.

5.2. SWITCH MODE

"CC Controller" is for monitoring the temperature of the device and the heater. Launch the "CC Controller" for advanced settings. The default setting is **Automatic Mode**.

Tap on **CC Controller**  and switch to the **Manual / Automatic Mode**.



5.2.1. AUTOMATIC MODE

This is the heater's default mode. In Automatic mode, the device maximizes battery life in cold storage and provides typical window defrost times. Battery life can last well beyond eight hours (with one scan every 20 seconds), and the window should defrost in about a minute or less using the factory settings.

If your application needs faster defrost times, you can enable the **Preemptive Heating** (pre-heat) feature. It shortens defrost time while still providing average battery life in cold storage. Because the heaters begin warming at low power before the computer detects a temperature increase, this feature slightly reduces battery life in cold conditions.

With Automatic mode and **Preemptive Heating** enabled, cold-storage battery life may still exceed five hours. Using the factory settings, window defrost time ranges from immediate to about one minute.

5.2.2. MANUAL MODE

This mode is disabled by default. When turned on, the user fully controls the heater. No temperature sensors or timers are used, and the user must manually switch the heater On or Off.

Note:

Refer to the [CC Controller for Cold Chain](#) to execute advanced settings for Automatic Mode or Manual Mode.

5.3. NOTIFICATIONS

The followings are the notifications and warnings shown on the status bar for you to monitor the status of your RK96 mobile computer cold chain model.

5.3.1. PRE-HEAT

When the device's heater turns on, the pre-heat notification icon  is displayed on the status bar.

5.3.2. DEFROST

When the device reaches or falls below the heater enable temperature you set in automatic mode, the defrost icon  is shown on the status bar.

5.3.3. LOW BATTERY

When the battery power is lower than Low Battery threshold (default value is 25%), the low battery icon  is shown on the status bar.

Note:

You may swipe down from the status bar to open the notification drawer for checking the related notification.

Chapter 6

WIRELESS RADIOS

The Wi-Fi module integrated on the mobile computer lets you configure and connect to network wirelessly.

IN THIS CHAPTER

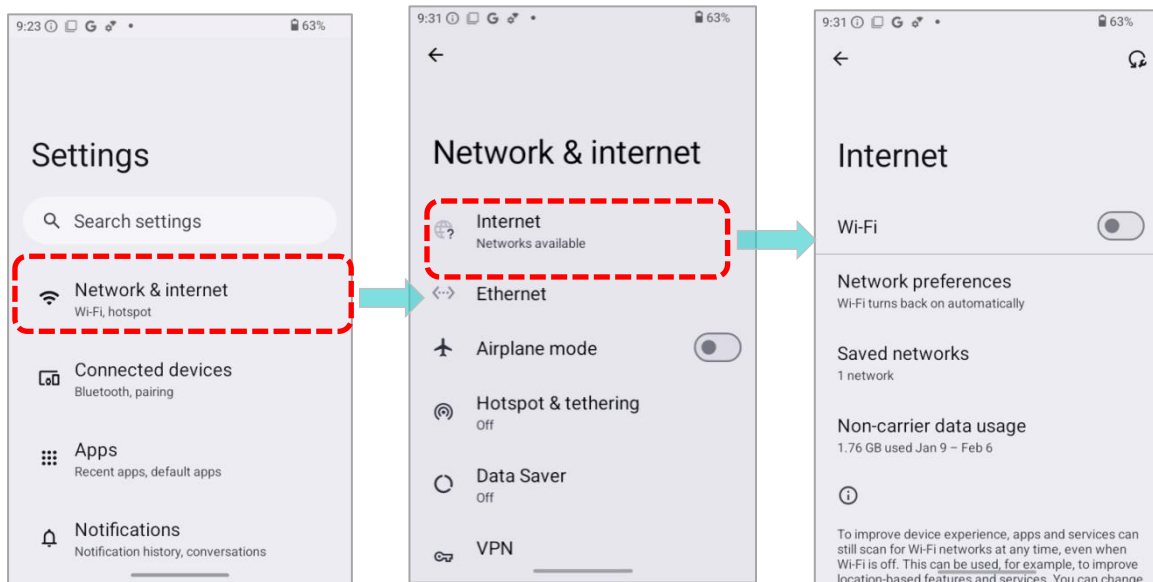
6.1. Use Wireless Local Area Network (Wi-Fi)	218
6.2. Use Bluetooth	229
6.3. Use Near Field Communications	237

6.1. USE WIRELESS LOCAL AREA NETWORK (WI-FI)

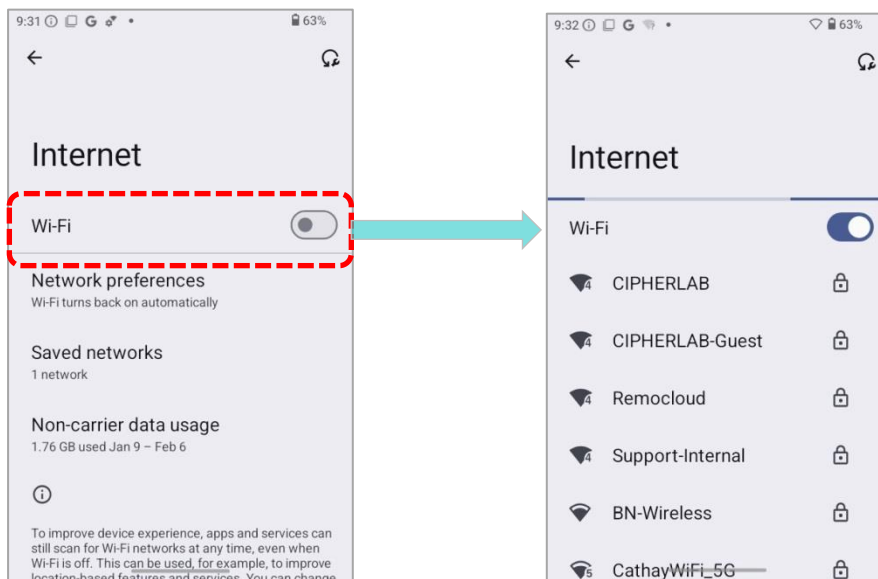
6.1.1. CONNECT TO WI-FI NETWORK

To power on Wi-Fi:

1) Go to [App Drawer](#) | **Settings**  | **Network & internet**  | **Internet** .



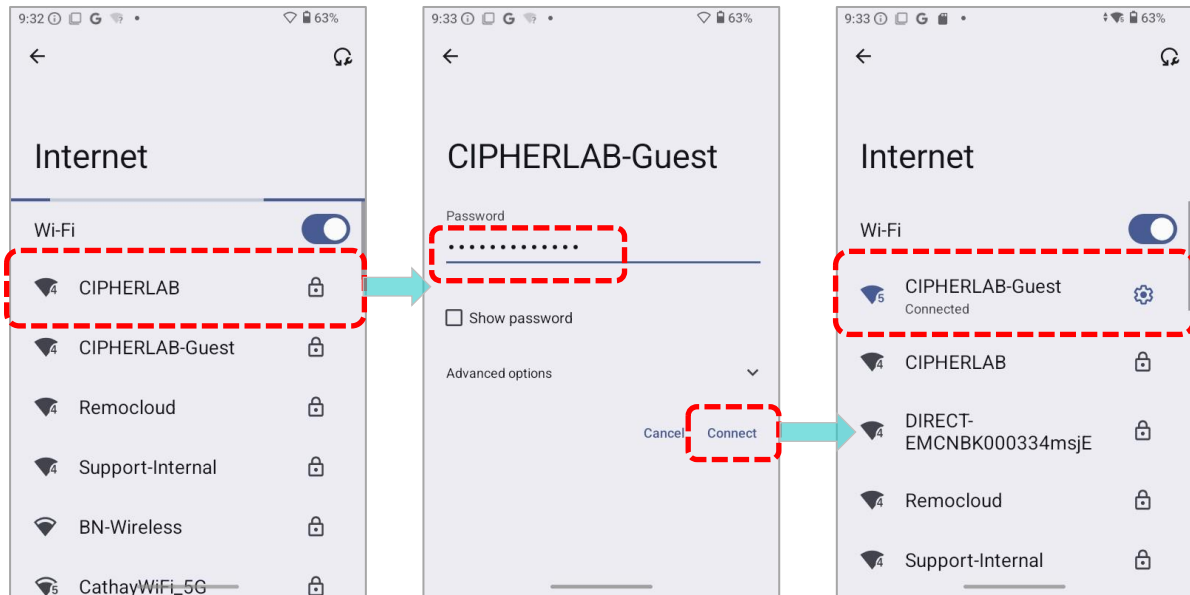
2) Switch on the Wi-Fi to scan for available networks.



3) Select a network to connect.

If the network is an open one, the mobile computer will attempt to connect to it directly. When connected, the status will change to show "**Connected**".

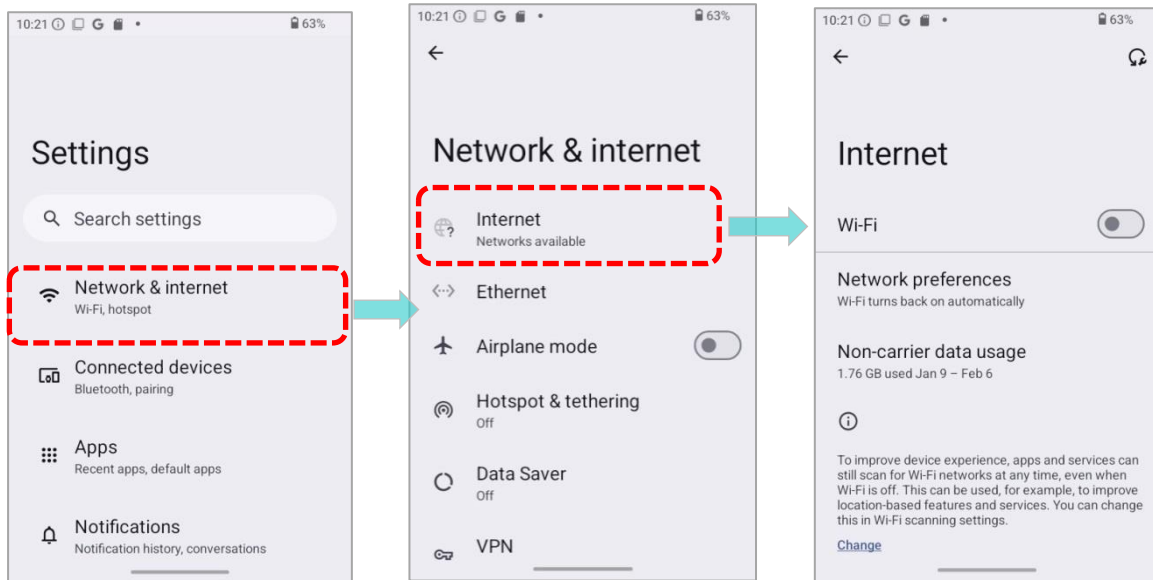
If the network is a secured one (with  icon), you need to enter the password for the connection.



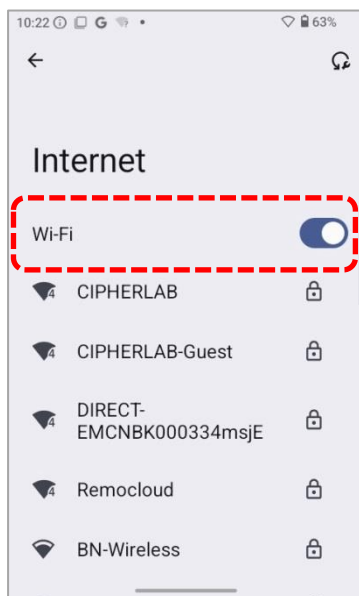
6.1.2. MANUALLY ADD WI-FI NETWORK

If the network you would like to connect to does not broadcast its SSID, or if the network is out of range, you may add it manually.

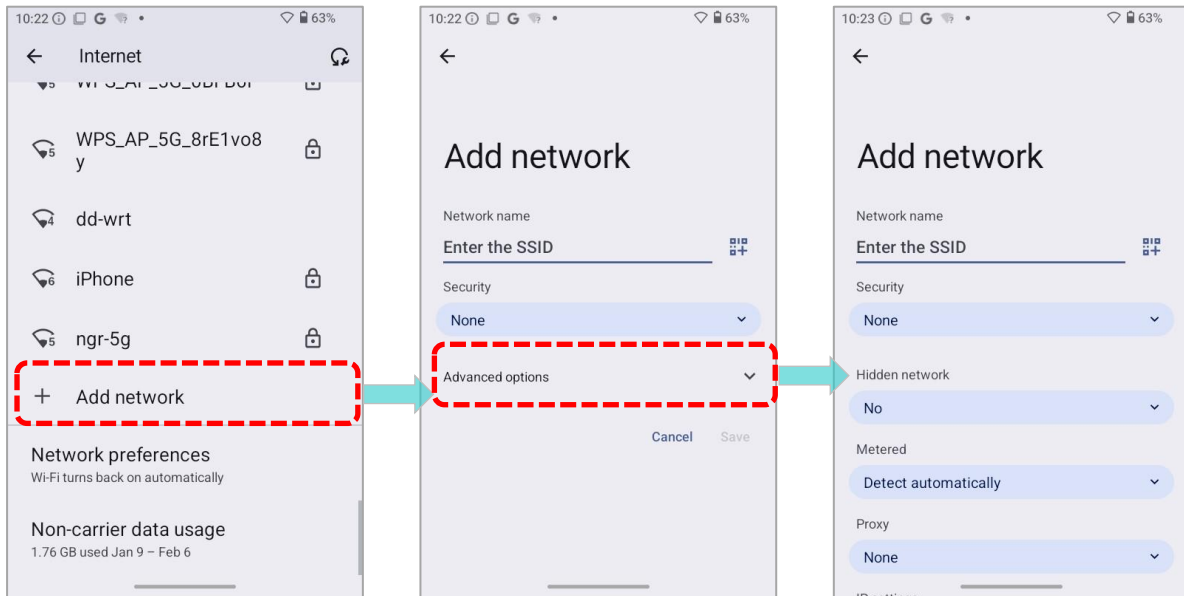
1) Go to [App Drawer](#) | **Settings**  | **Network & internet**  | **Internet** .



2) Switch the Wi-Fi on.



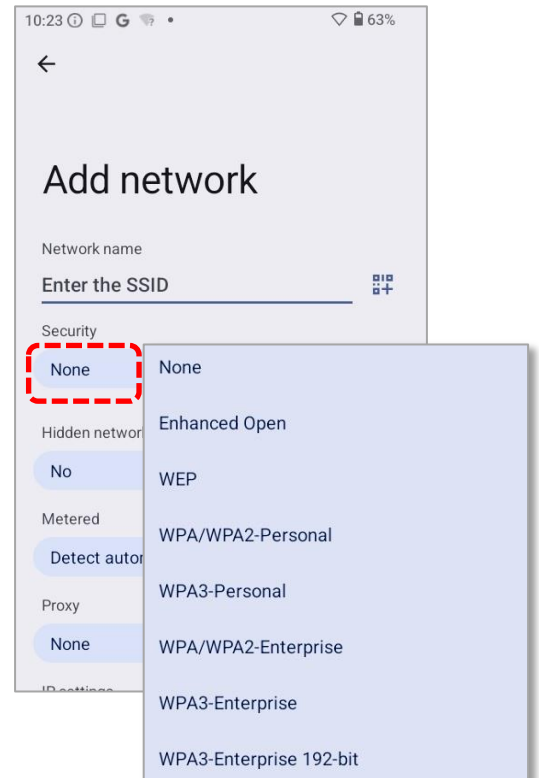
3) Scroll to the bottom of the page, and tap “Add network”, “Advanced options”.



4) On “Add network” page, enter the name of the network in the **Network name** field, and select a security method.

- **Enhanced Open** is for public networks and provides no authentication.
- For **WEP**, **WPA/WPA2-Personal**, and **WPA3-Personal** connections: Enter the required password and tap **Save**.
- For **WPA/WPA2-Enterprise**, and **WPA3-Enterprise** connections: Select the **EAP method** in the drop-down box (PEAP, TLS, TTLS, PWD), and the **Phase 2 authentication** in the drop-down box (MSCHAPV2, GTC). Select a **CA certificate** if required.

Enter your username in the Identity box and the password in the Password box if required.



Note:

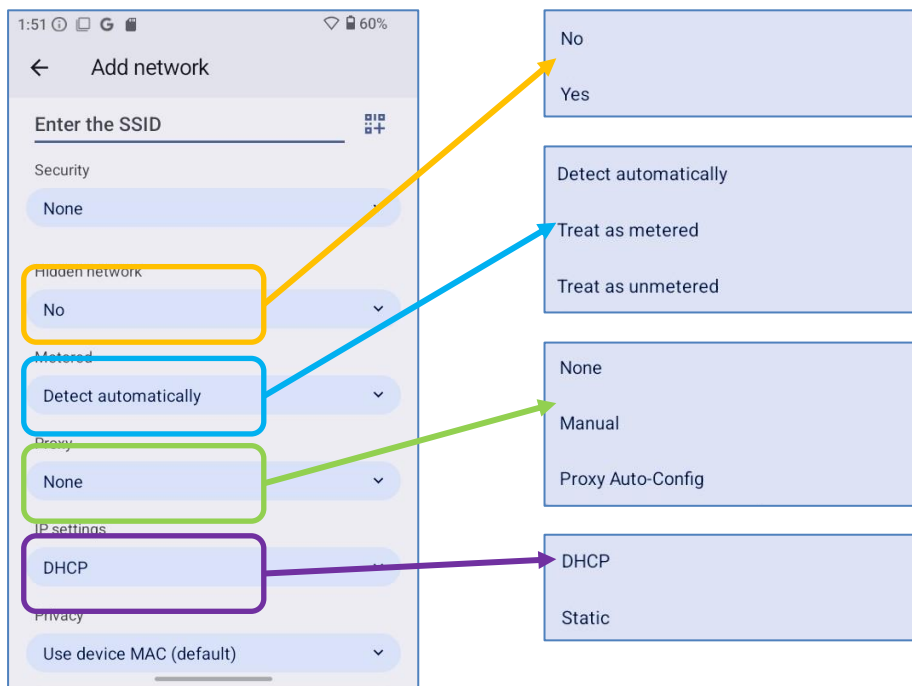
Certificates may be installed under:

[App Drawer](#) | Settings  | Network & internet  | Internet  | Network preferences | Install certificates.

The mobile computer supports the following certificate file extensions:

File Extension Type	Standard Certificate	Key Stored
Description	DER-encoded X.509 certificates saved in .crt or .cer files.	X.509 certificates saved in PKCS#12 key store files with a .p12 or .pfx extension.
How to install	change the extension to .crt or .cer.	Change the extension to .p12 or .pfx.

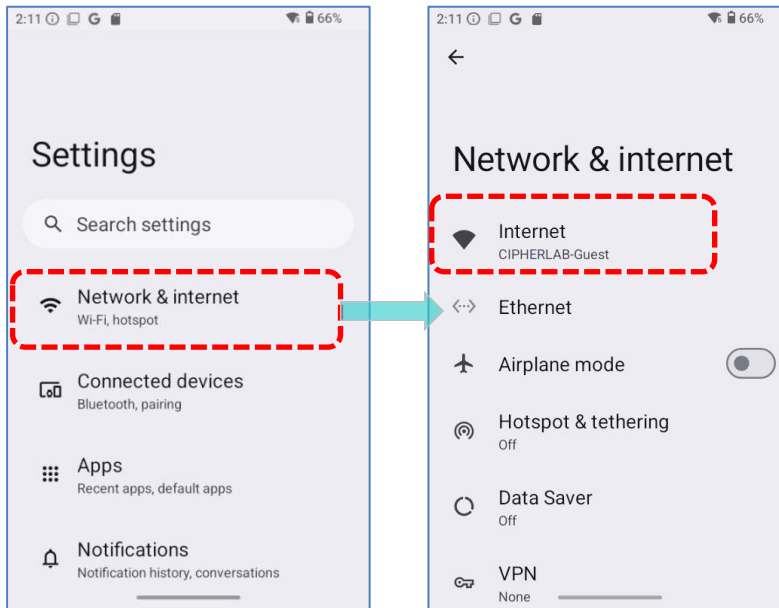
5) If necessary, select the **Proxy** server and **IPv4** settings. By default, no proxy is set and IP settings are set to **DHCP**.



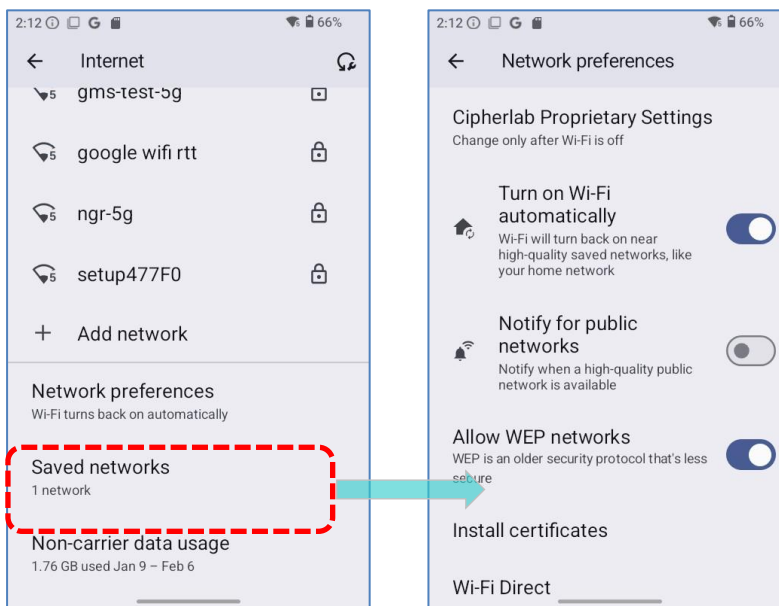
6.1.3. WI-FI PREFERENCE

To access Network Preferences:

1) Go to [App Drawer](#) | **Settings**  | **Network & internet**  | **Internet**  .



2) Scroll to the bottom of the page to find **"Network preferences"** and enter it.



The available settings are as below:

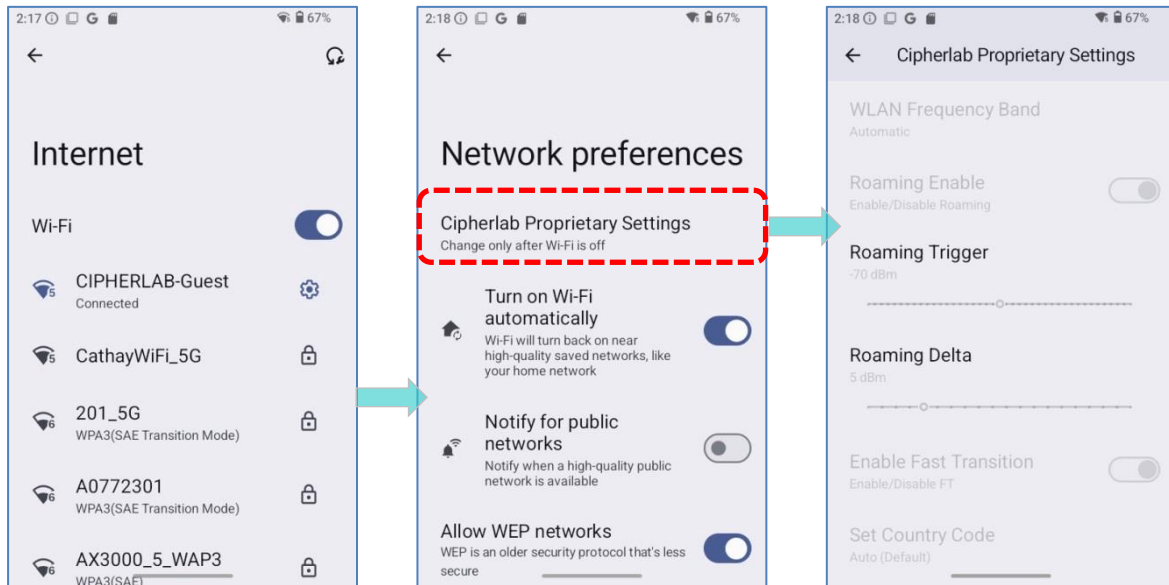


Item	Description
Cipherlab Proprietary Settings	Tap to enter the page for further settings. Please refer to Cipherlab Proprietary Settings for details.
Turn on Wi-Fi automatically	Even you've turned off Wi-Fi, the device will automatically turn on your Wi-Fi connection when there's the saved network with a strong signal nearby.
Notify for public networks	Notify when a high-quality open network is available.
Allow WEP networks	WEP is an older security protocol that's less secure.
Install certificates	Installs certificates recently downloaded or placed on the internal storage.
Wi-Fi Direct	Enables your device to connect with a Wi-Fi Direct-capable device.

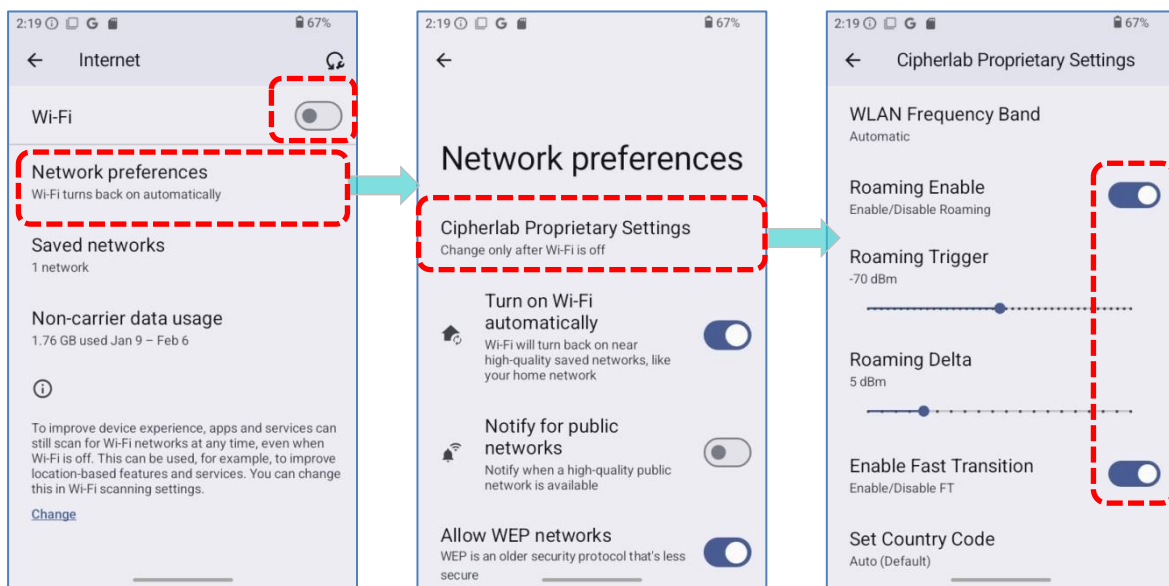
CIPHERLAB PROPRIETARY SETTINGS

Tap **"Internet"**, **"Network preferences"**, **"Cipherlab Proprietary Settings"**. You can only configure the options in **"Cipherlab Proprietary Settings"** when Wi-Fi is turned off.

■ Wi-Fi is ON



■ Wi-Fi is OFF



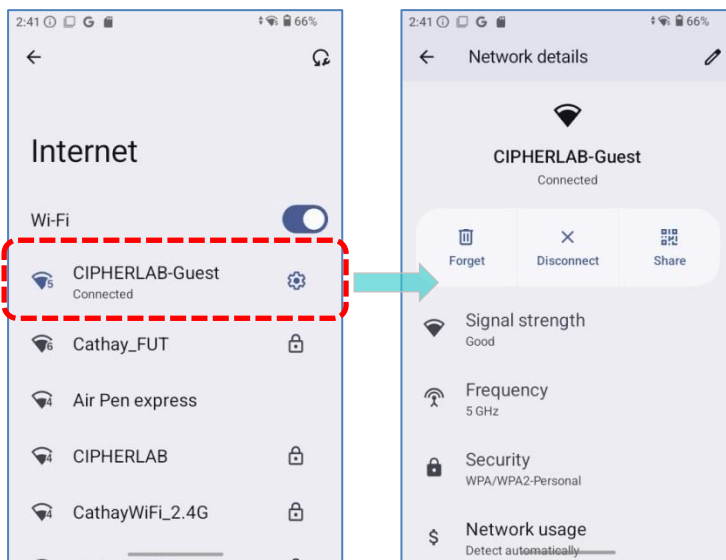
Item	Description
WLAN Frequency Band	Select the Wi-Fi frequency band for data transmission. The higher frequency means the faster connection speed.
Roaming Enable	Select whether to enable Wi-Fi roaming or not.
Roaming Trigger	The signal strength when triggering Wi-Fi roaming. The higher value means the sensitivity of triggering roaming is higher.
Roaming Delta	The qualification for roam candidates. The higher value means the signal strength of candidate APs should be higher than the current connected AP.
Enable Fast Transition	Enable 802.11r Fast Transition feature.
Set Country Code	Select the Wi-Fi country code for your device.
Enable WLAN Blacklist	Select whether to enable WLAN blacklist or not.
WiFi LowRssi Trigger Mode	Select whether to enable the trigger when the Wi-Fi signal is weak. You can set the LowRssi Trigger Value when the trigger is on.
Captive Portal Mode	When enabled, users are directed to the local network login page.
Enable TCPDUMP Logger	Select whether to enable TCPDUMP logger or not.
Keep device awake	When enabled, the device will not sleep when placed face down.
Target Wake Time mode	Select to enable / disable target wake time mode.
Wi-Fi Connection Timeout Mode	Select whether to enable Wi-Fi connection timeout for your device. You can set the timeout value when the Wi-Fi connection timeout is enabled.

6.1.4. MODIFY WI-FI NETWORK

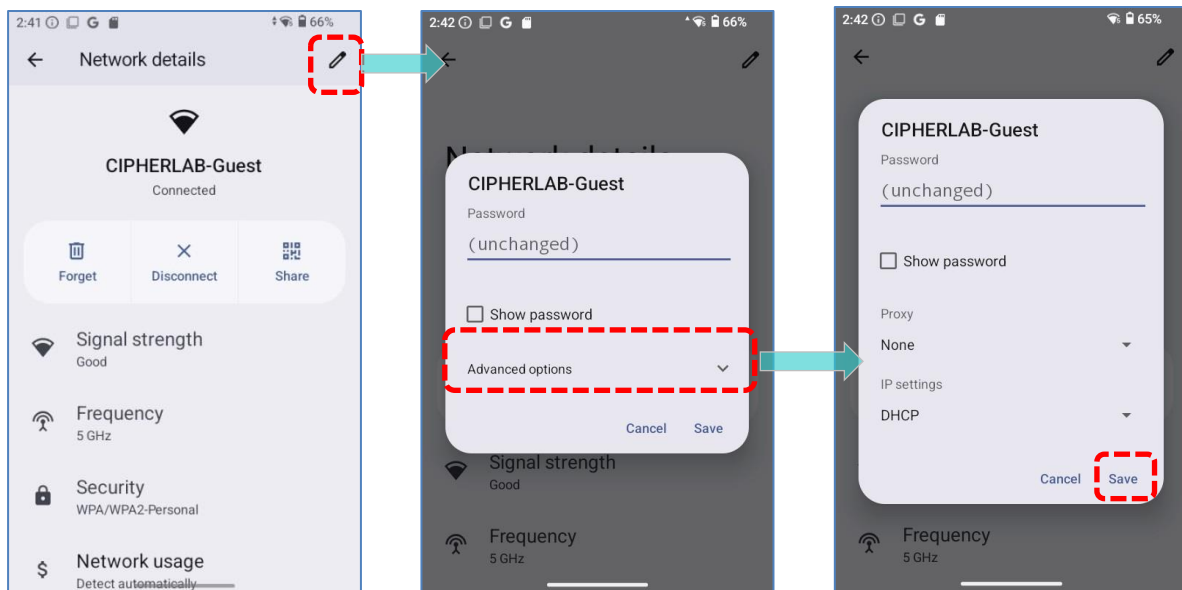
MODIFY THE CONNECTED NETWORK

To change the settings for a connected network:

1) Tap a connected network in the Wi-Fi hotspot list to enter its **"Network details"** page.



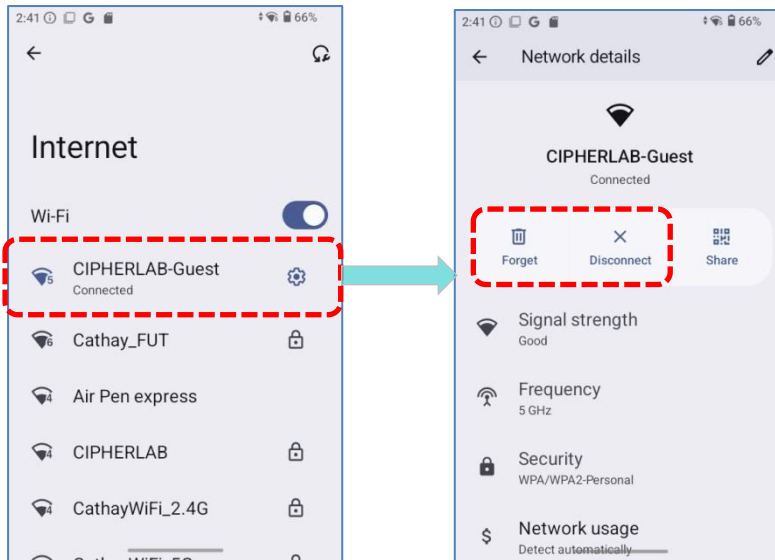
2) Tap **Edit**  to open the pop-up menu, modify the network settings, and **Save**.



6.1.5. DISCONNECT WI-FI NETWORK

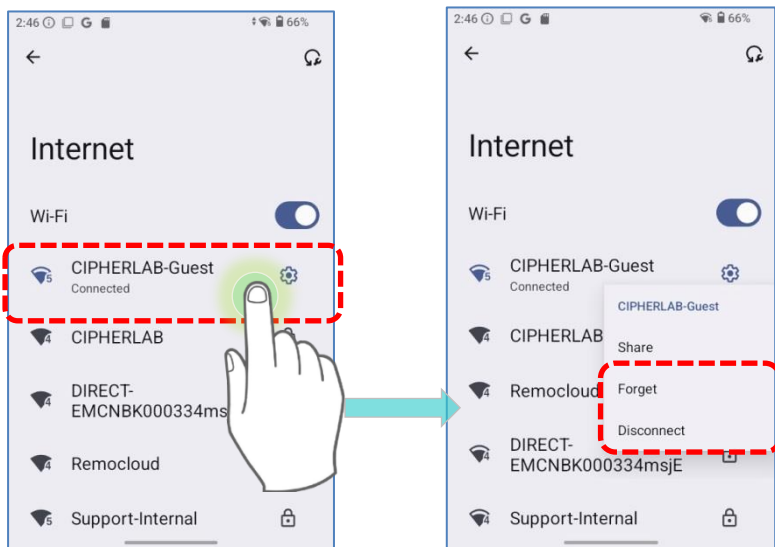
To disconnect a connected network:

- 1) Tap a connected network in the Wi-Fi hotspot list to enter its “**Network details**” page.
- 2) Tap **Forget** or **Disconnect** to disconnect the Wi-Fi connection.



OR

Tap and hold a saved network, and tap **Forget** or **Disconnect** to disconnect the Wi-Fi connection.



6.2. USE BLUETOOTH

The RK96 mobile computer lets you configure Bluetooth settings and manage Bluetooth services provided on remote devices.

6.2.1. BLUETOOTH PROFILES

Bluetooth Profile Supported

Generic Access Profile	(GAP)	For device discovery and authentication.
Service Discovery Access Profile	(SDAP)	Discovers services on remote devices.
Headset Profile	(HSP)	Describes how a Bluetooth enabled headset should communicate with a Bluetooth enabled device.
Serial Port Profile	(SPP)	Sets up a virtual serial port to connect two Bluetooth devices.
Human Interface Device Profile	(HID)	Provides a low latency Bluetooth connection with keyboards, pointing devices, etc.
Object Push Profile	(OPP)	Pushes and pulls objects to and from a push server.
Hands-Free Profile (AG1.5)	(HFP)	Allows using a hands-free device to place and receive calls.
Hands-Free Profile	(HFP 1.6)	Allows using a hands-free device to place and receive calls.
Advanced Audio Distribution Profile	(A2DP)	Streams stereo-quality audio to a wireless headset or speaker.
Audio/Video Remote Control Profile	(AVRCP)	Allows controlling of television and Hi-Fi equipment.
Generic Object Exchange Profile	(GOEP)	Provides a basis for other data profiles.
Personal Area Networking Profile	(PAN)	Uses Bluetooth Network Encapsulation Protocol for Bluetooth transmission.

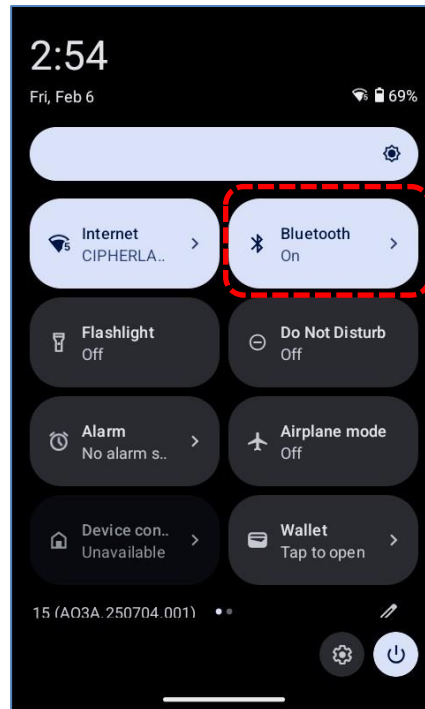
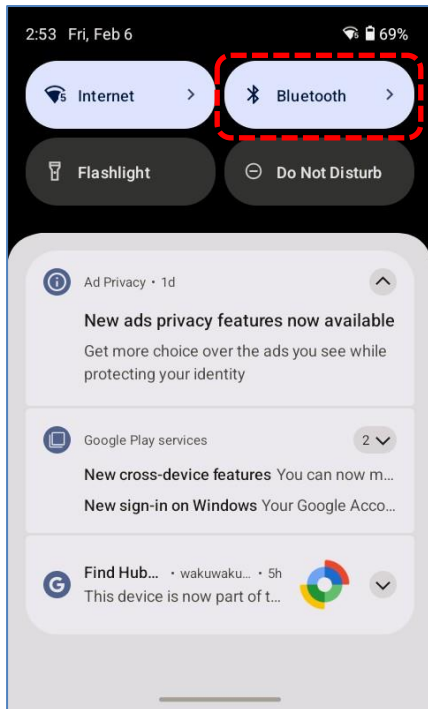
Bluetooth Profile Supported

General Audio/Video Distribution Profile	(GAVDP)	Provides a basis for A2DP and VDP.
Phone Book Access Profile	(PBAP)	Transfers Phone Book Objects to a car kit to display the information of an incoming call received on the mobile computer, or initiate a call.
Out of band and Near Field Communications	(OOB, NFC)	Manages the pairing process by using NFC.
Symbol Serial Interface Profile	(SSI)	Supports additional scanner.
Dial-up Networking Profile	(DUN)	Provides a standard to access the Internet and other dial-up services over Bluetooth.
HID over GATT Profile	(HOGP)	Defines the communication between a BLE (Bluetooth Low Energy) device and a host device.
Generic Attribute Profile	(GATT)	Defines how BLE (Bluetooth Low Energy) devices transfers data.

6.2.2. TURN ON BLUETOOTH

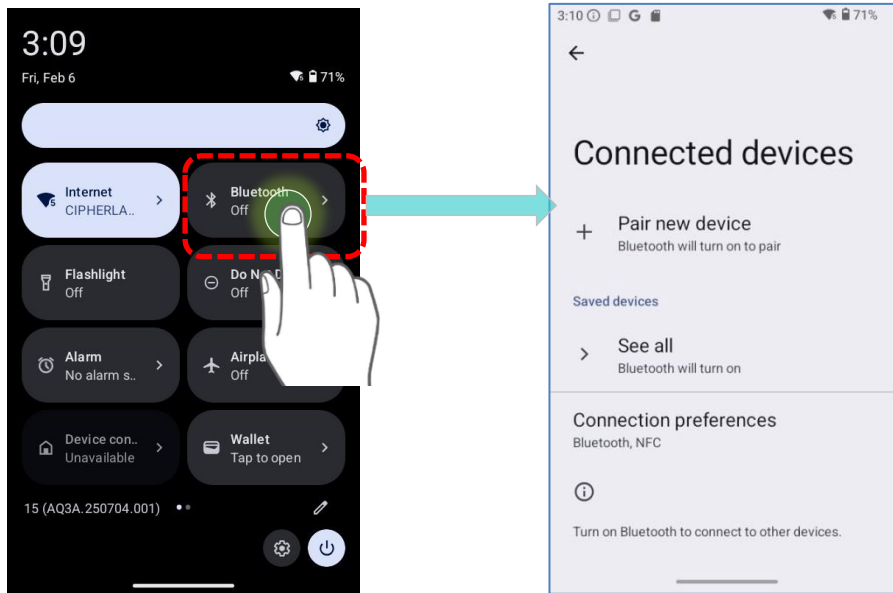
Bluetooth is turned off by default, and you can turn it on or off by tapping the Bluetooth icon

 on **Quick Setting Menu**:



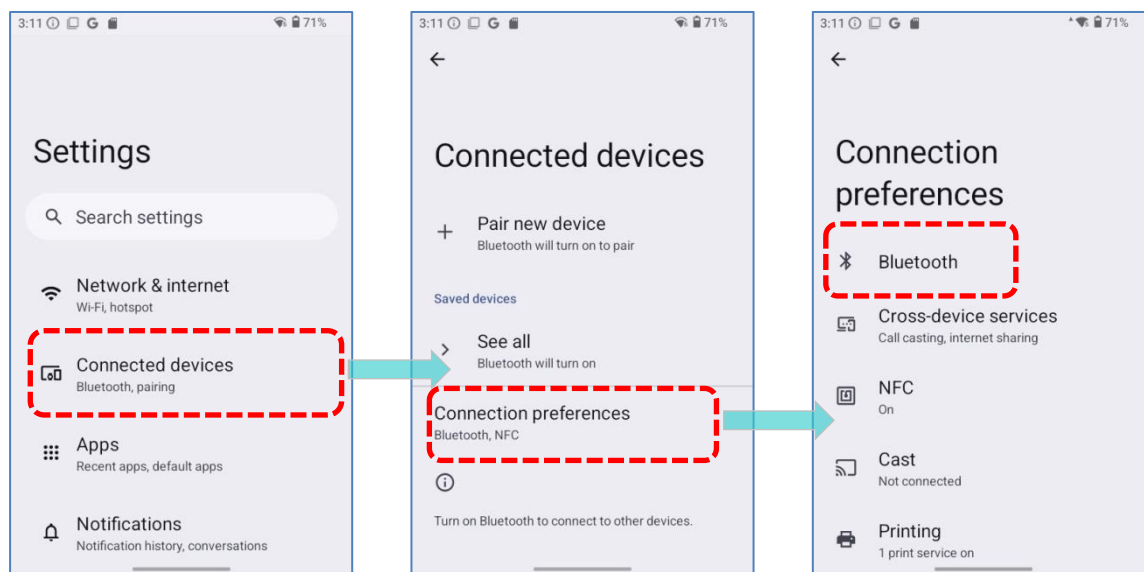
Icon	Description
	Bluetooth is OFF .
	Bluetooth is ON .

To enter “**Connected devices**” page for further Bluetooth settings, please long press the Bluetooth icon  on **Quick Setting Menu**:

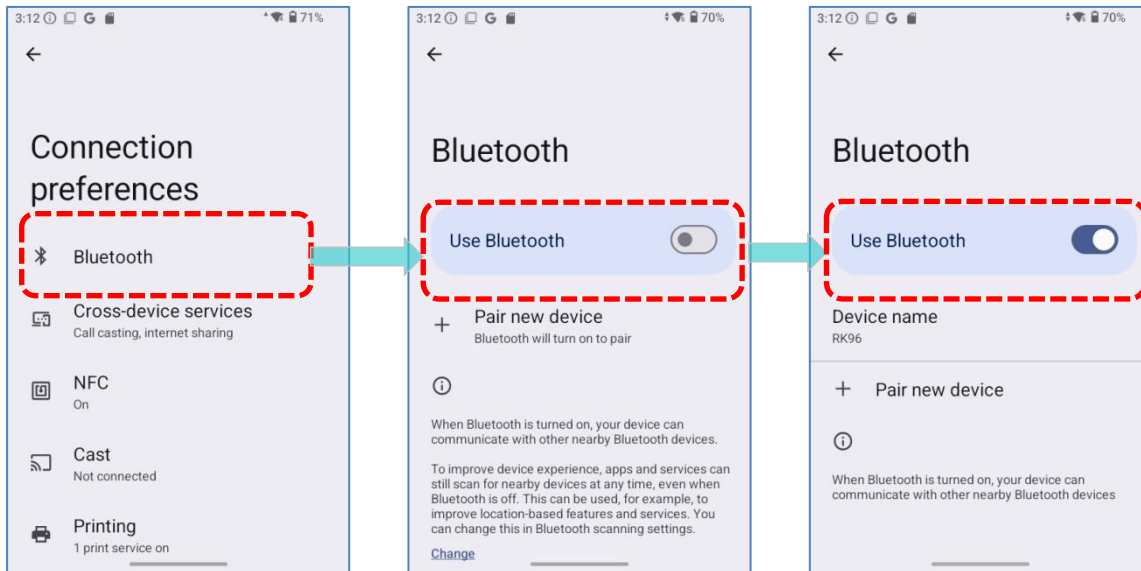


OR

1) Go to [App Drawer](#) | [Settings](#)  | [Connected devices](#)  | [Connection preferences](#) | [Bluetooth](#) .



2) Tap the switch to turn on this function while enabling the Bluetooth visibility of this device.



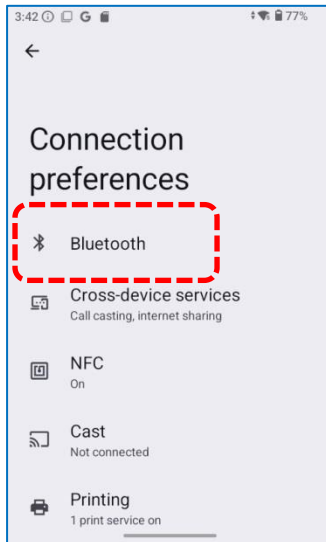
Note:

Having been turned on, Bluetooth is active even when the mobile computer is suspended. However, if the power mode is switched to Airplane Mode, Bluetooth power will be turned off regardless of the settings.

6.2.3. CHANGE BLUETOOTH NAME

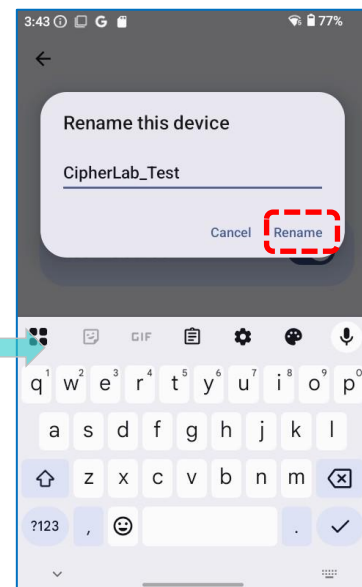
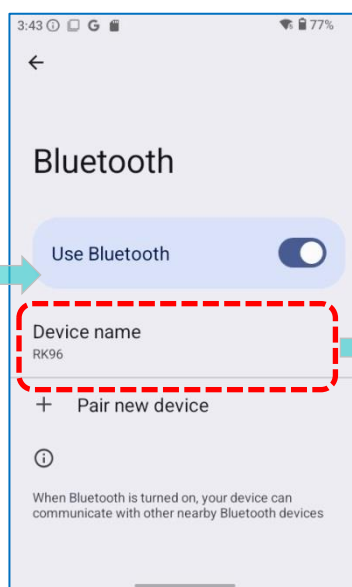
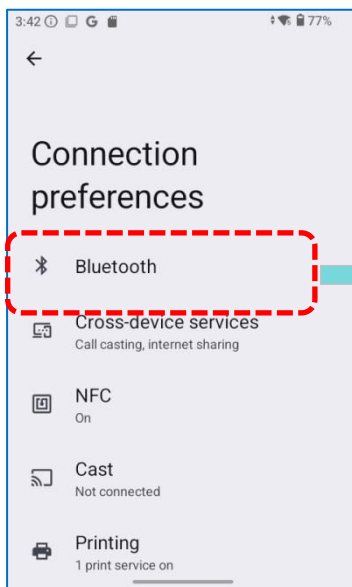
To change the Bluetooth name of this mobile computer:

- 1) Go to [App Drawer](#) | **Settings**  | **Connected devices**  | **Connection preferences** | **Bluetooth** .



- 2) Tap **"Device name"** and the pop-up window **"Rename this device"** shows up.

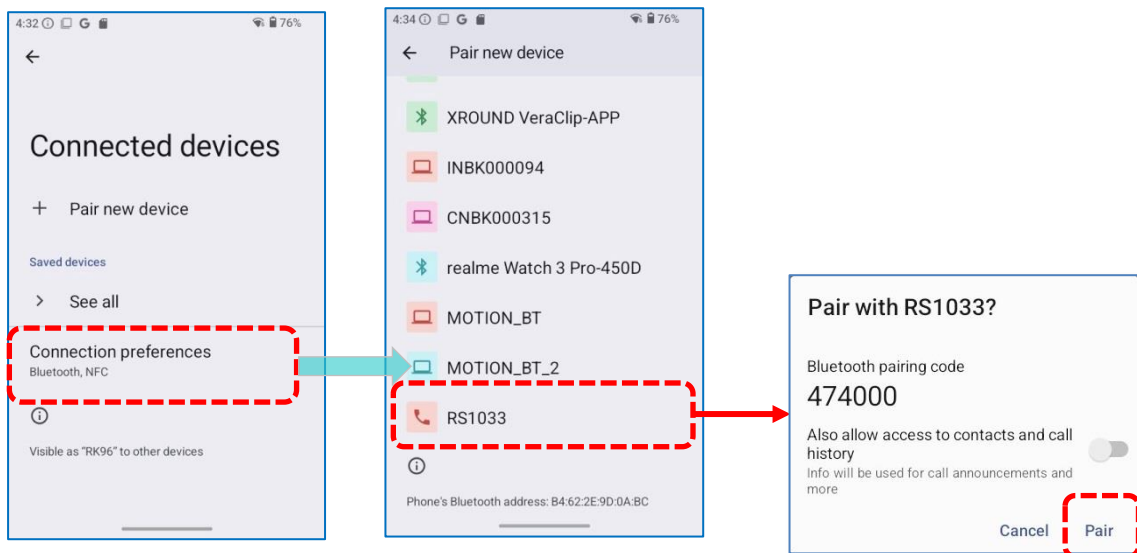
- 3) Enter a new name in the field and tap **Rename**.



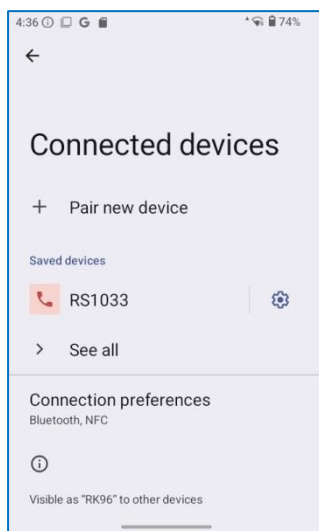
6.2.4. PAIR BLUETOOTH DEVICES

To pair Bluetooth device to this mobile computer:

- 1) Go to [App Drawer](#) | **Settings**  | **Connected devices**  | **Connection preferences** | **Bluetooth** .
- 2) Tap “**Pair new device**” and select the device you want to pair.
- 3) Enter a passkey, or confirm the assigned passkey on the device.



- 4) The paired Bluetooth device is listed under the **Connected devices** .



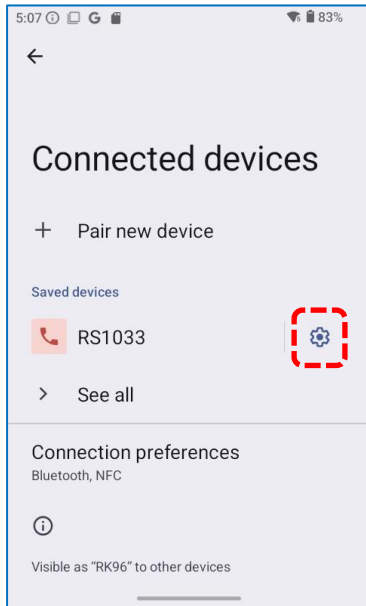
Note:

If the device you would like to pair with is not listed, make sure Bluetooth visibility is enabled on the device.

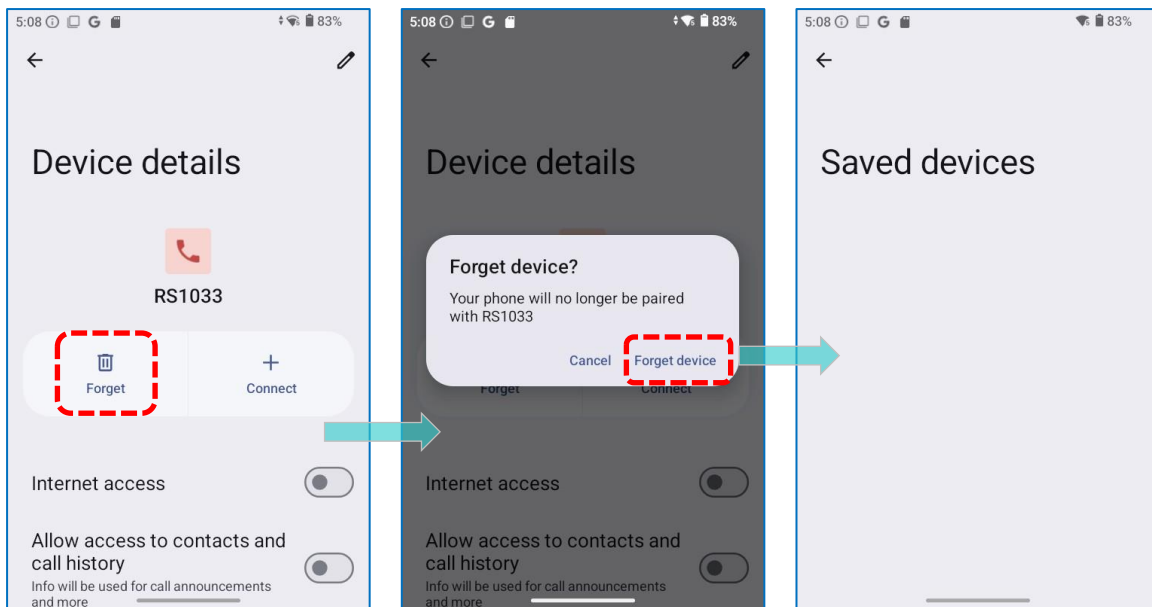
6.2.5. UNPAIR BLUETOOTH DEVICE

To unpair a paired device:

- 1) In the **Connected devices** list, tap the settings button .



- 2) On the **Device details** screen, tap **"Forget"**, **"Forget device"** to unpair the device.

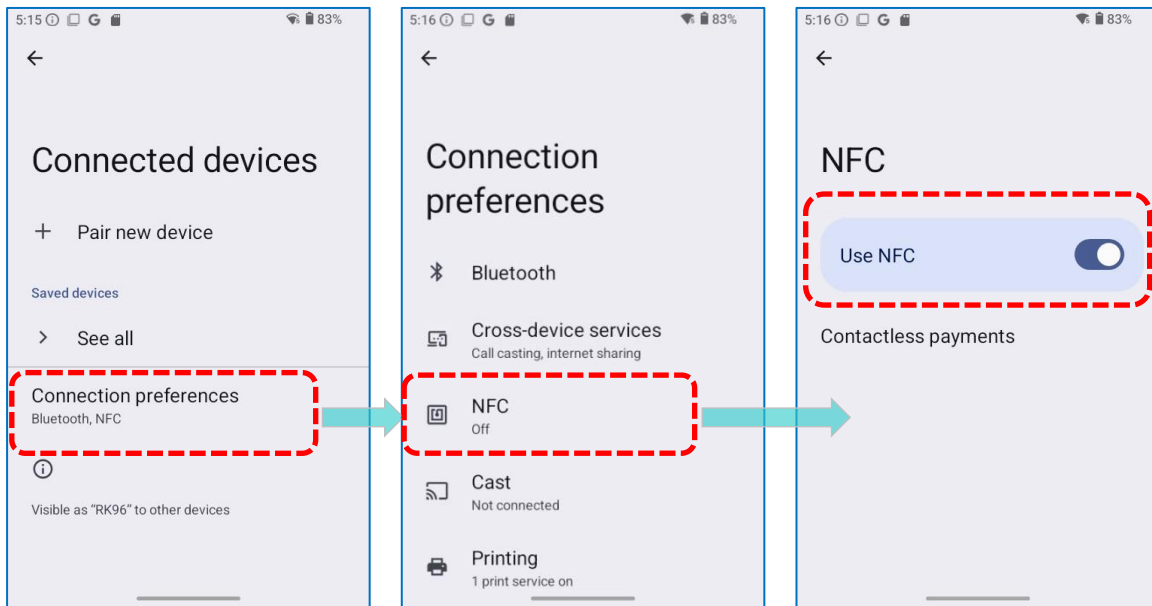


6.3. USE NEAR FIELD COMMUNICATIONS

Near field communications (NFC) uses close proximity (4 cm or less) to establish radio communication through electromagnetic fields. With NFC enabled, the mobile computer can collect information from NFC tags, exchange information with other NFC supported devices, and even change information on the NFC tag if authorized.

Before starting to communicate through NFC, perform the following:

- 1) Go to [App Drawer](#) | **Settings**  | **Connected devices**  | **Connection preferences** | **NFC** .
- 2) Tap to switch on "NFC" .



6.3.1. PAIR WITH NFC ENABLED BLUETOOTH DEVICES

- 1) On the device you would like to pair with, make sure NFC is enabled and Bluetooth discovery is enabled.
- 2) Hold the mobile computer without covering the antenna area.



- 3) Move the mobile computer in proximity with the device for pairing. A screen notification will appear to indicate that pairing is successful.

Note:

Once the data begins to transfer, just keep the two devices in the distance within 10 m (32.8 ft.); they no longer have to be held within close range in order to transfer successfully.

6.3.2. COMMUNICATION WITH NFC

- 1) On the mobile computer, launch an NFC enabled application.
- 2) Hold the mobile computer without covering the antenna area.
- 3) Place the mobile computer close to the NFC tag or device until the application indicates data transfer is complete.

Chapter 7

CIPHERLAB UTILITIES

This chapter gives the introduction about the built-in applications developed by CipherLab.

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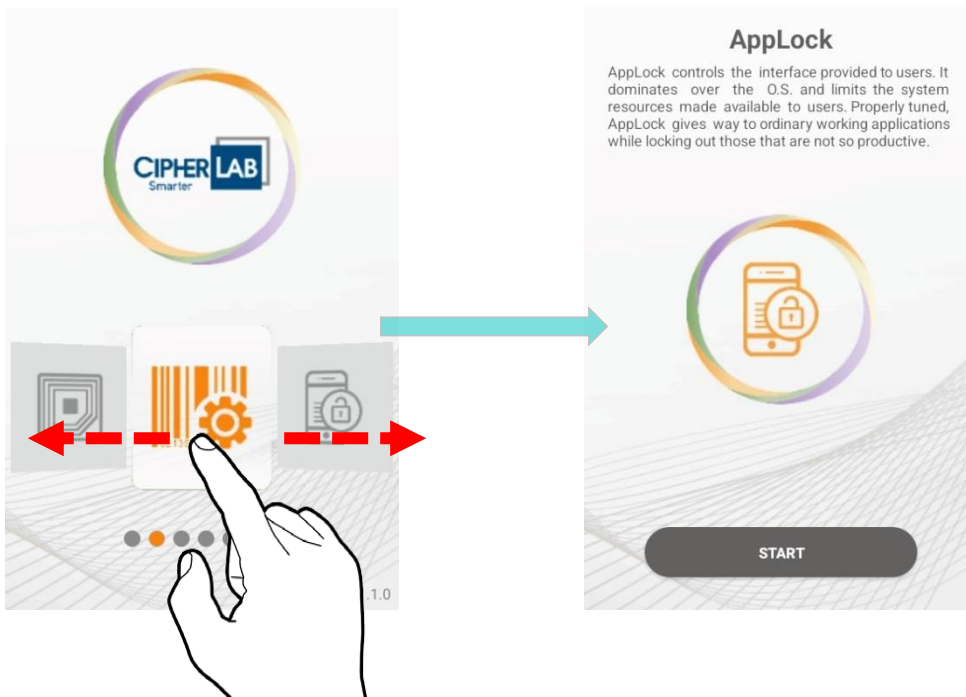
7.1. A-DEMO



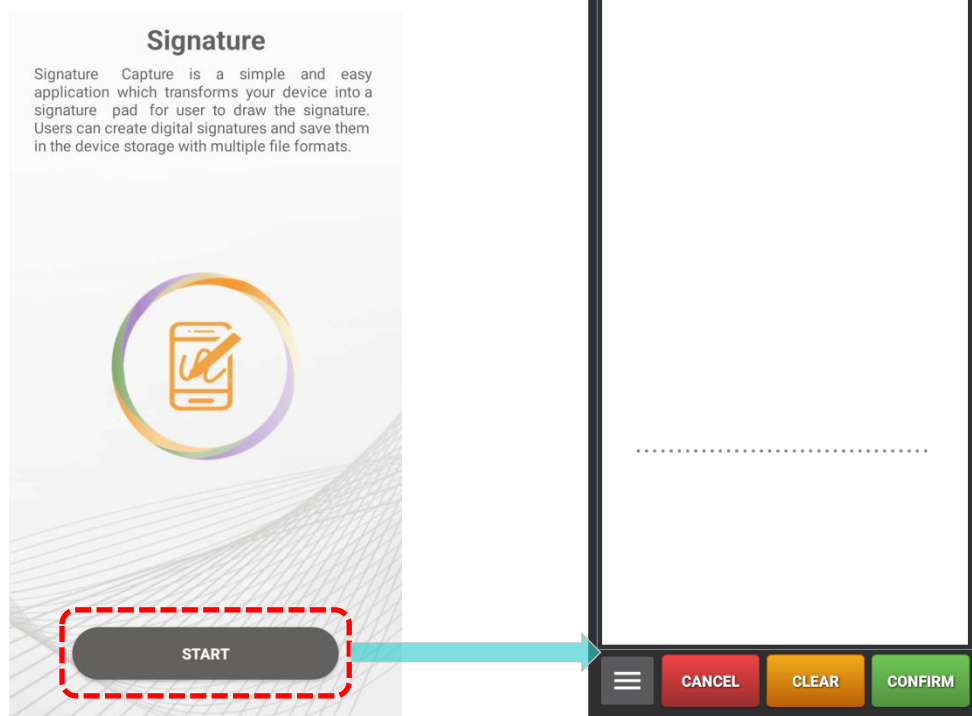
"A-Demo" is an application which gives the brief introduction about all the built-in applications developed by CipherLab.



Enter the main screen and swipe left or right to select the item to get the function introduction.



Users can launch those apps by tapping **"START"** on the App's introduction page.



7.2. APPLOCK



AppLock controls the interface provided to users. It dominates over the O.S. and limits the system resources made available to users. Properly tuned, AppLock gives way to ordinary working applications while locking out those that are not so productive.

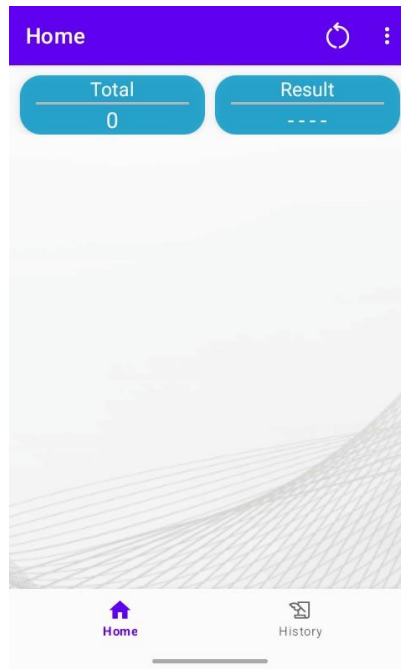
If you have a collection of mobile computers, you can apply a uniform user environment to the entire group without the need of great time and effort. This can be done easily by reduplicating a copy of master settings to your entire set of mobile computers.

For the operation instruction of **AppLock**, please refer to [AppLock User Guide for Android](#).

7.3. BARCODE TO SETTING



“BarcodeToSetting” is to read the setting barcodes generated by **ADC (Android Deployment Configurator)** to apply the configuration. Launch “BarcodeToSetting” and the main screen shows as below:



Item	Description
Total	The total amount of the barcodes to be scanned.
Result	The setting result will be “Success” or “FAIL”.

The setting barcode(s) you generated by **ADC** might be 1D or 2D as the example figures shows:

- 1D barcodes:

Project Name : Project 23

1.	
2.	
3.	
4.	
5.	
6.	
7.	

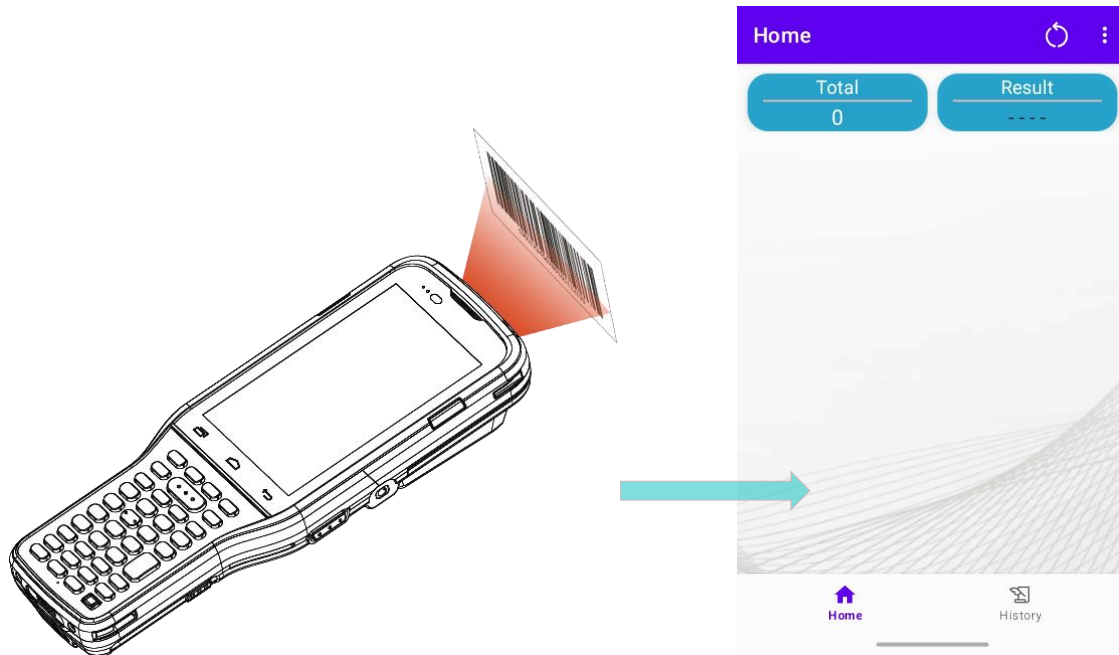
- 2D barcode:

Project Name : Project 23

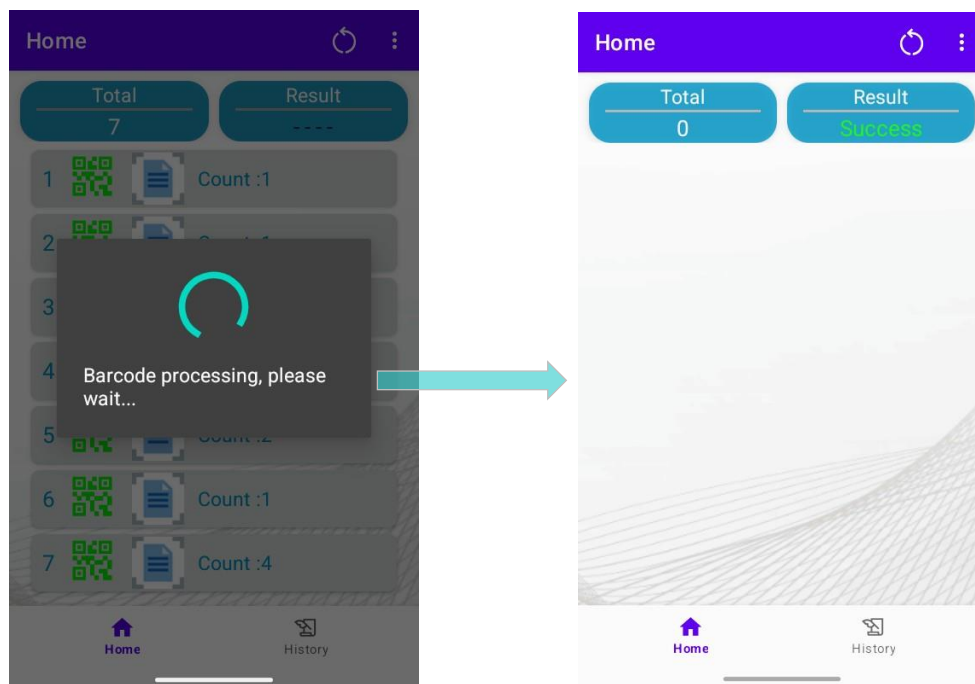
1.	
----	---

HOW TO APPLY THE SETTINGS BY SCANNING BARCODE(S)

Simply aim the scanning window at the barcode to read and press any of the side trigger. The scanning light beams to read the printed barcodes.

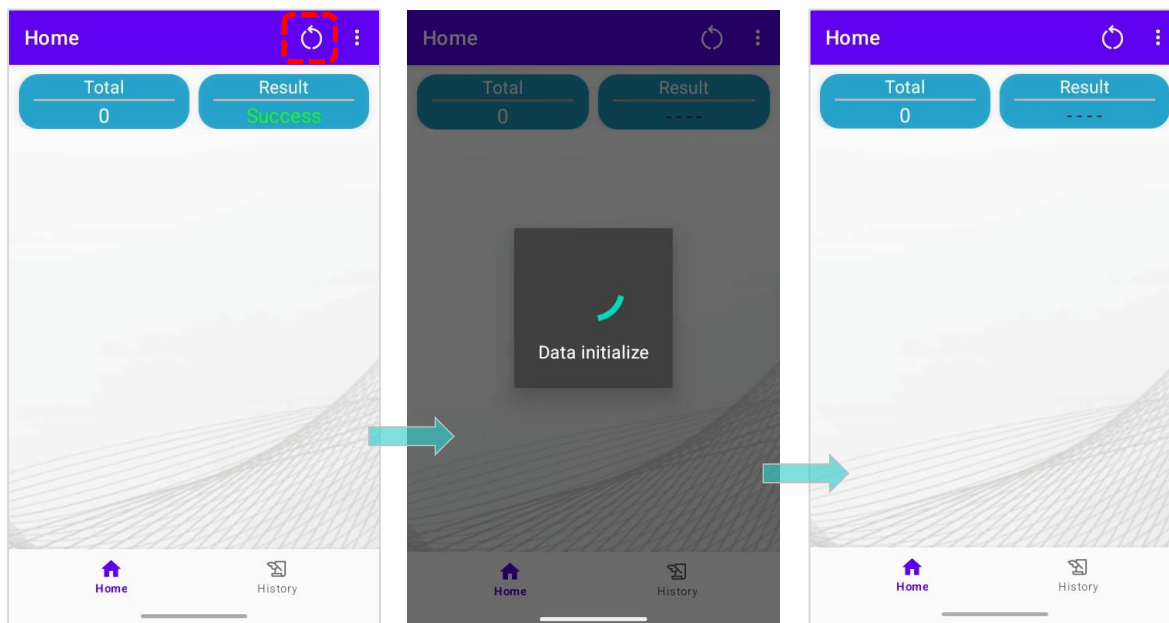


It takes few seconds for your device to apply the configuration after scanning the setting barcode(s) is done, then the configuration is complete.



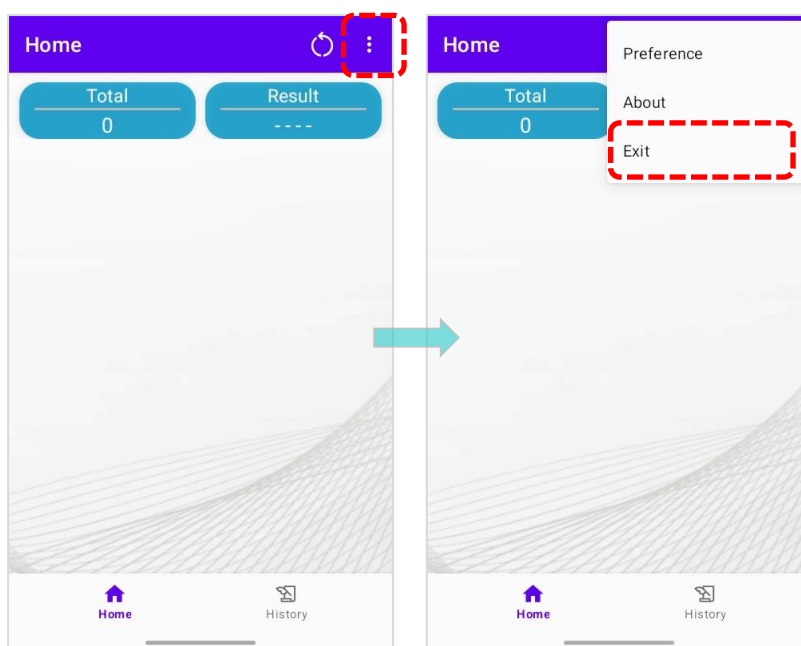
RESET DATA

You may reset your data during the scanning procedure (before it starts to apply the configuration) to start over, or after completing configuration.



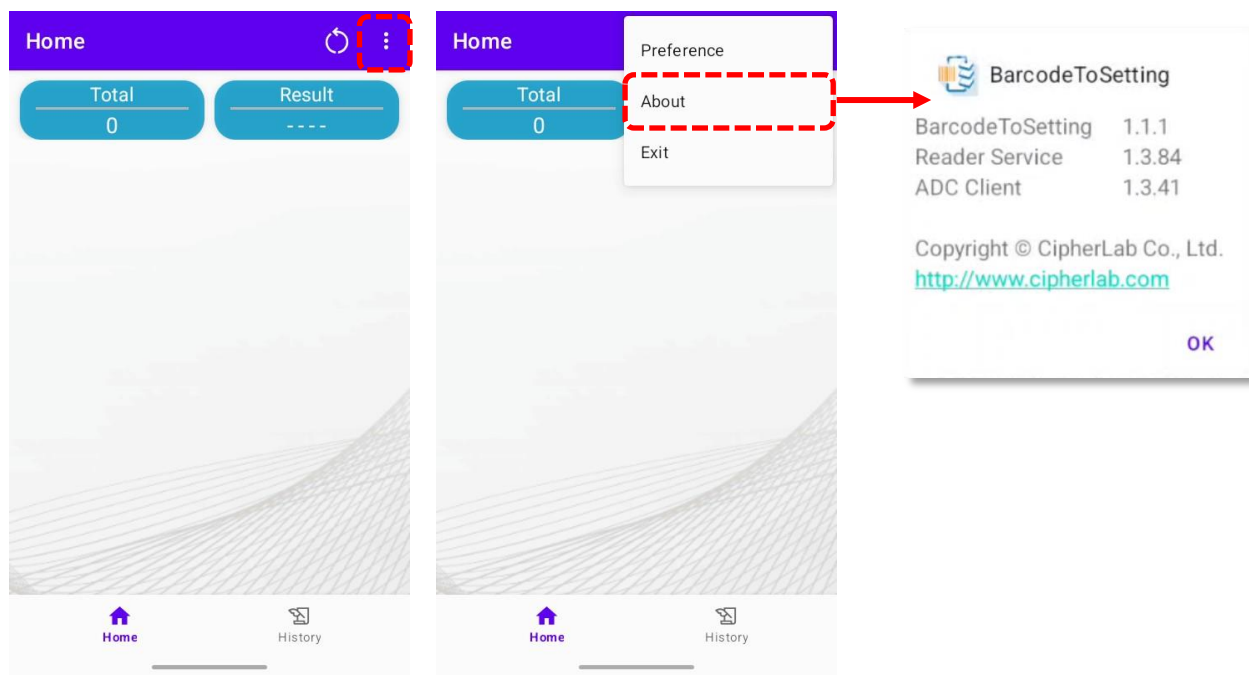
EXIT

Tap more button  and select **Exit** to quit "BarcodeToSetting".



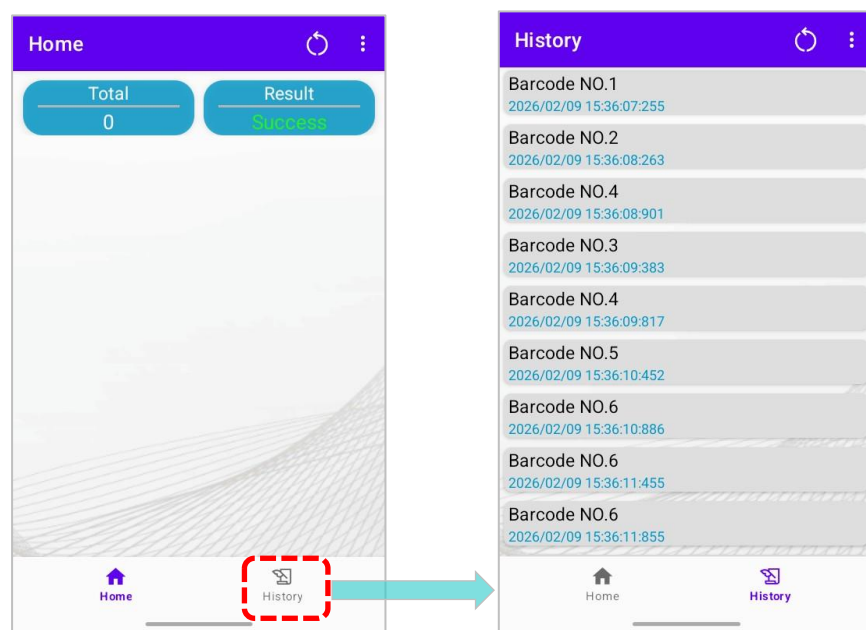
VERSION INFORMATION

Tap more button  and select **About** to check the current version of **BarcodeToSetting**.



SCAN HISTORY

Tap "**History**" to view the barcode scan record performed.



7.4. BT PRINTER MATE



BT Printer Mate is an application which provides user interface to pair with Bluetooth printers.

7.5. BUTTON ASSIGNMENT



Button Assignment can redefine the functions of physical keys so that they trigger different actions. Settings made to one or more keys can be saved as a profile, allowing users to switch conveniently in between different sets of settings.

Users can change key behavior of the device with keypad by the application “**Button Assignment**” while changing the key behavior of device without keypad by “**Programmable Keys**” in settings.

Please refer to [Button Assignment User Guide for Android](#).

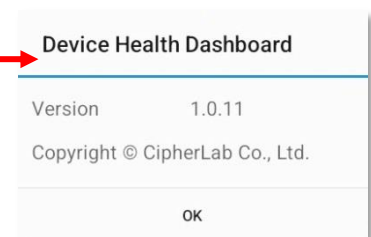
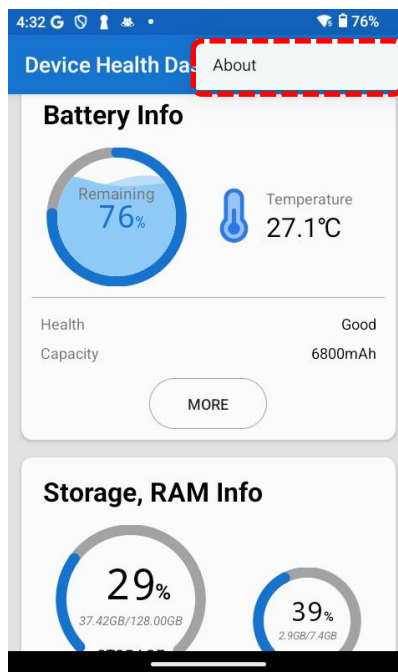
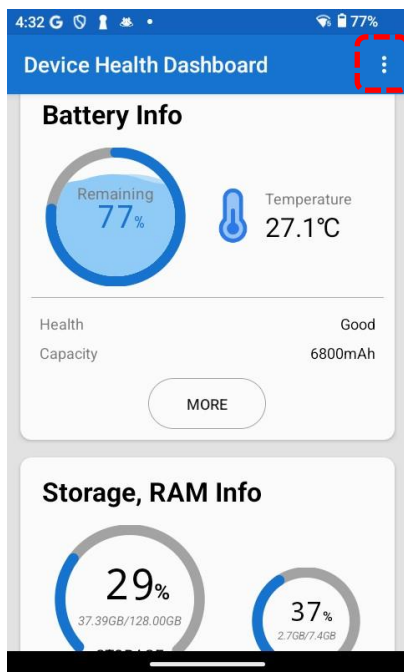
7.6. DEVICE HEALTH DASHBOARD



Device Health Dashboard is for detecting the battery health status and showing the storage & RAM information of the device



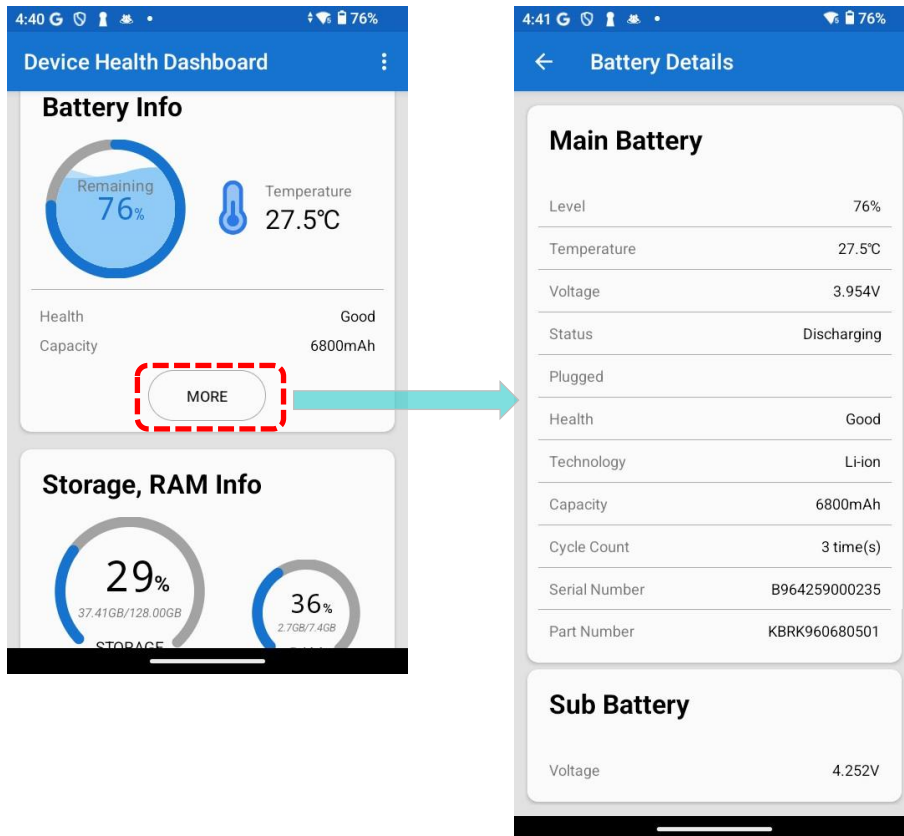
Please go to [App Drawer](#) and tap on  to enter its main page, and here you can check “**Battery Info**” and “**Storage, RAM Info**”.



To check the app version information, please tap on the more button  on the action bar, and then “**About**”.

CHECK THE BATTERY INFORMATION

To check the battery details, please tap on **MORE** of **Battery Info**.



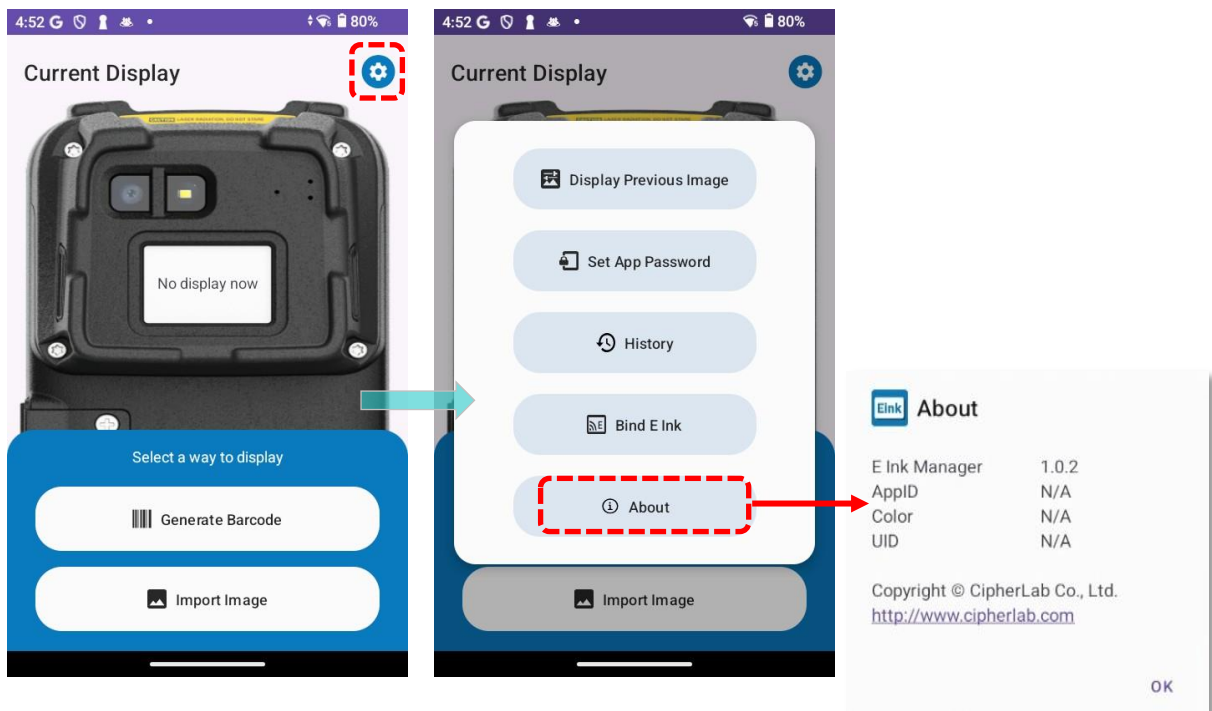
7.7. E INK MANAGER



E Ink Manager is an application which provides user to set the Barcode or Image shown on.



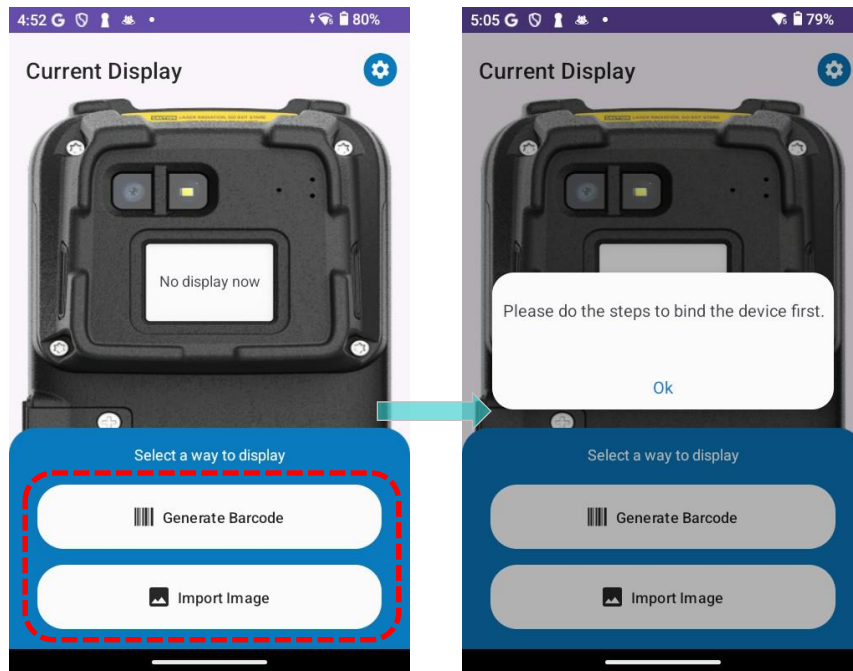
Please go to [App Drawer](#) and tap on  to enter its main page, and here you can tap “Generate Barcode” and “Import Image” for further setting.



To check the app version information, please tap on the set button  on the action bar, and then “**About**”.

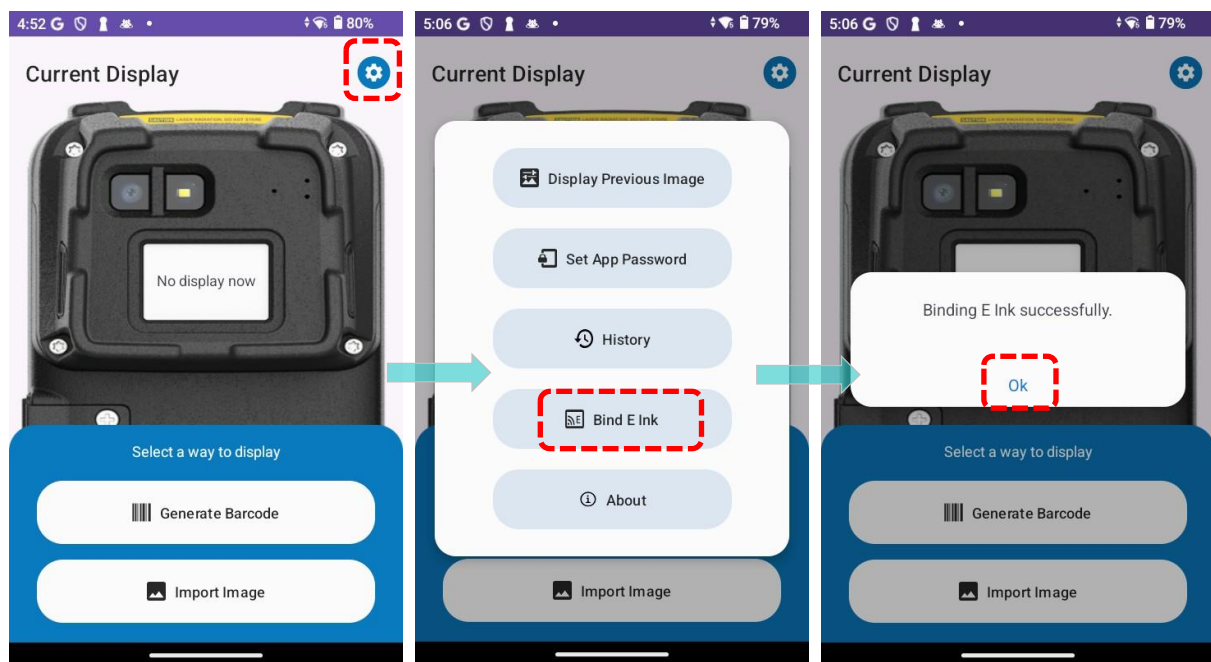
BIND E INK

The first time you enter the **E Ink Manager**, you must first bind your mobile computer to the E Ink display.



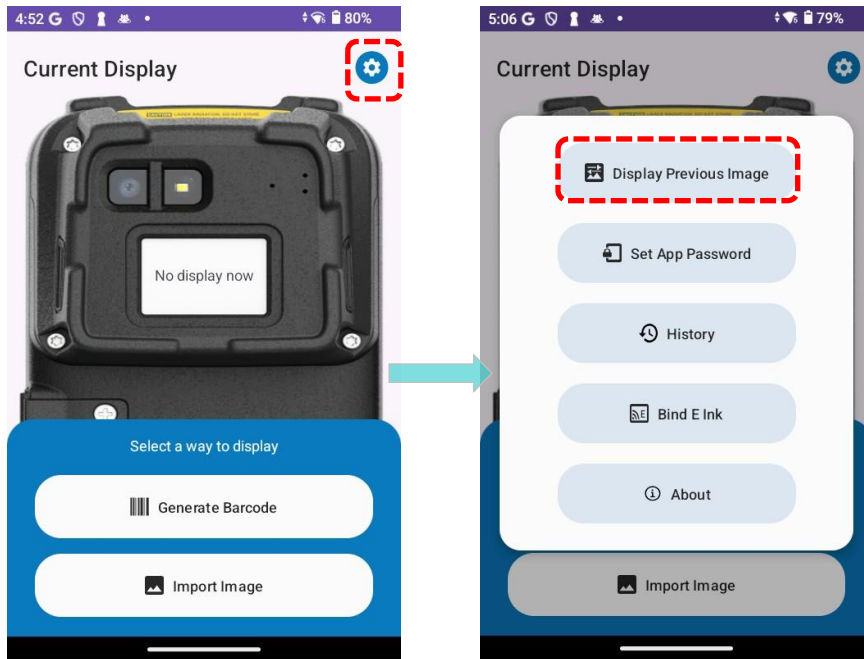
To bind your RK96 mobile computer to the E Ink display:

Tap on the set button  on the action bar, "**Bind E Ink**". Then "**Binding E Ink successfully**" is shown to complete the setting.

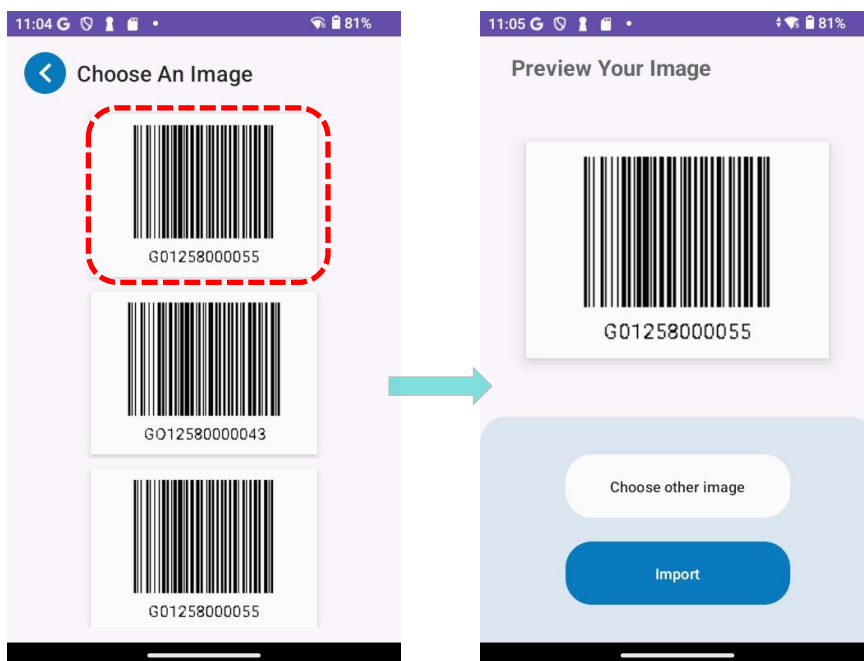


DISPLAY PREVIOUS IMAGE

To check the previous image shown on the E Ink display, please tap on the set button  on the action bar, and then “**Display Previous Image**”.

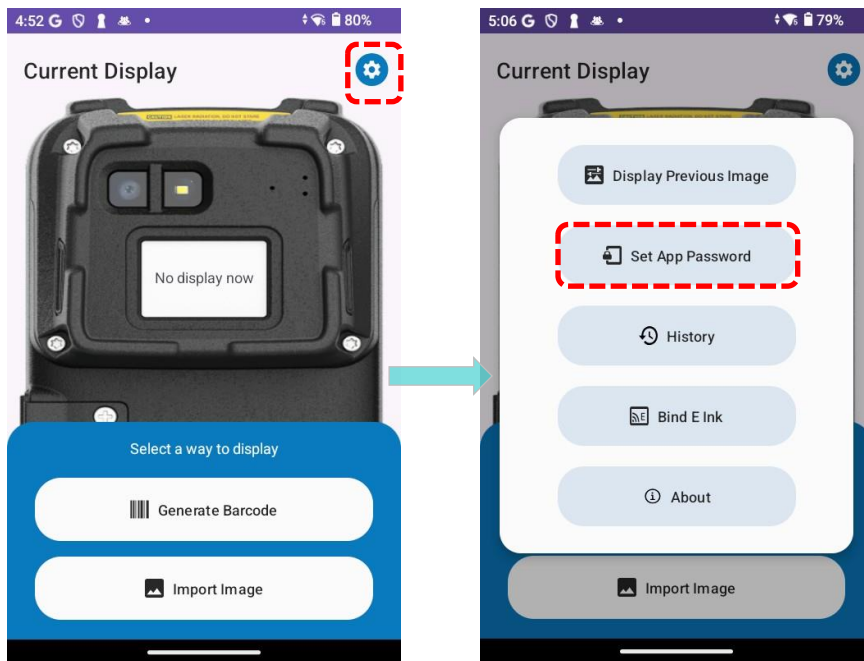


The previous images shown are listed on the main screen. Tap one to preview the image, then tap “**Import**” to apply or “**Choose other image**” to reselect it.

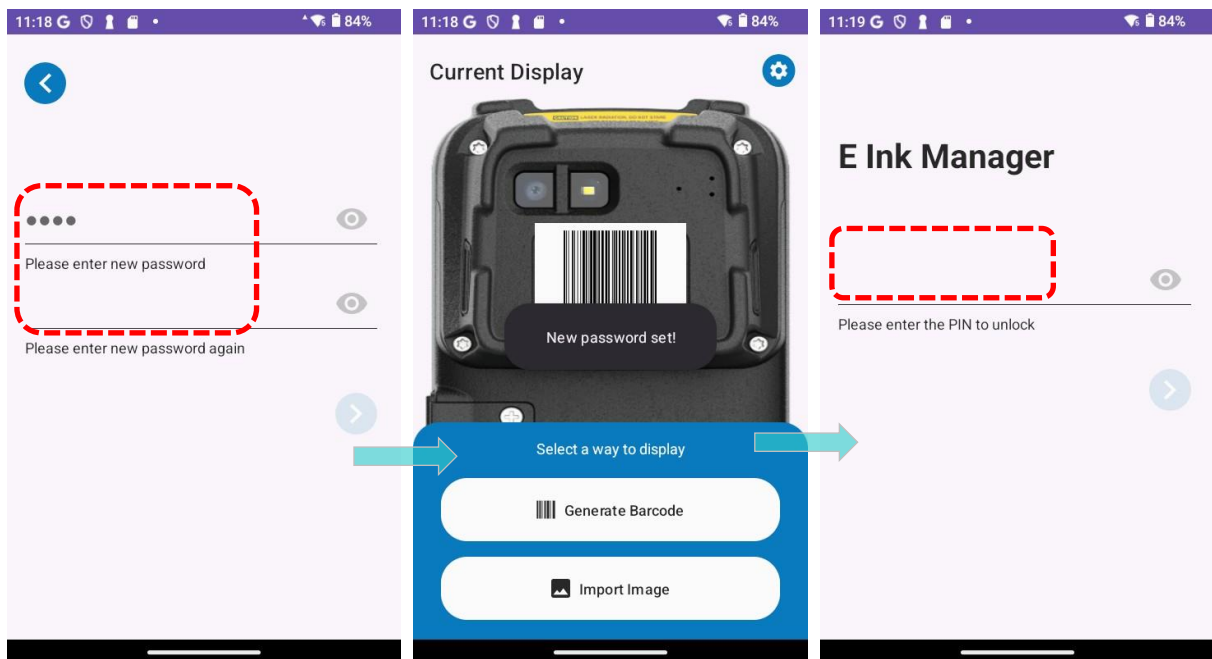


SELECT APP PASSWORD

To set the password of the E Ink Manager, please tap on the set button  on the action bar, and then **"Set App Password"**.

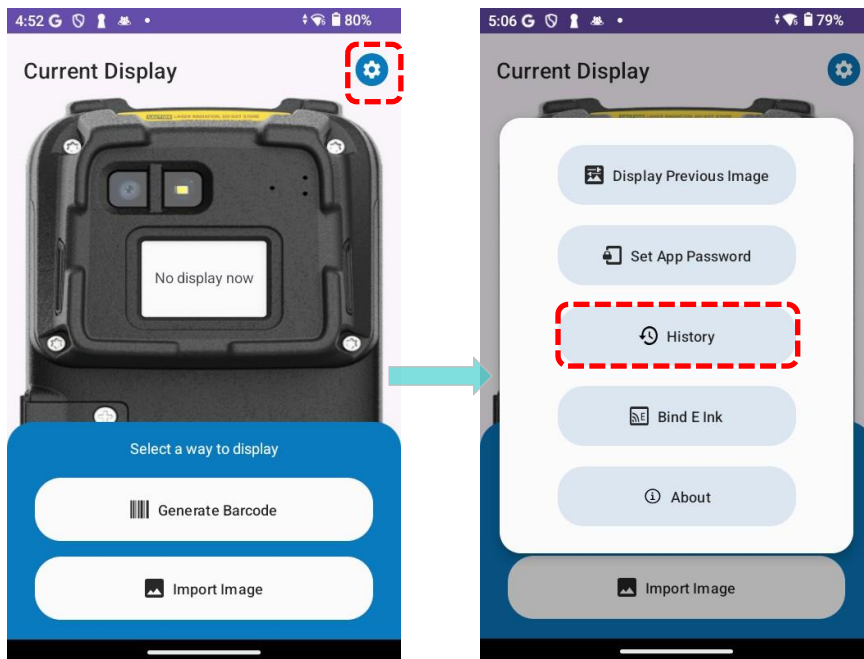


Set and confirm the password you set, then **"New password set!"** shown to complete setting. The user needs to enter the password to unlock the application afterward.

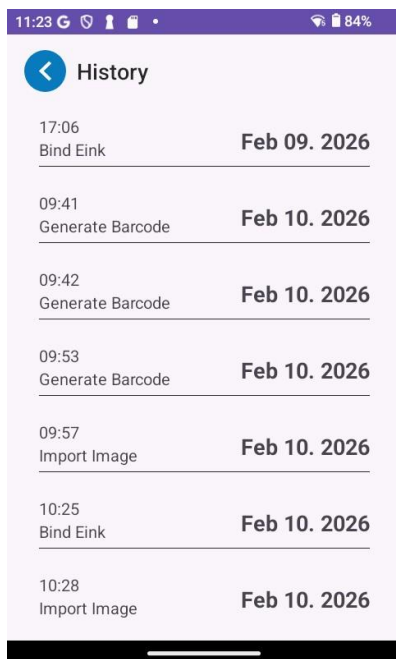


HISTORY

To review the operation history of the E Ink Manager, please tap on the set button  on the action bar, and then “History”.



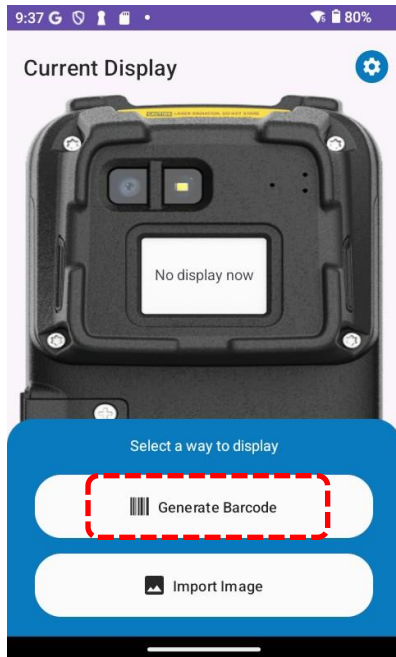
Swipe up or down to review the operation log. Tap  to return to the previous level.



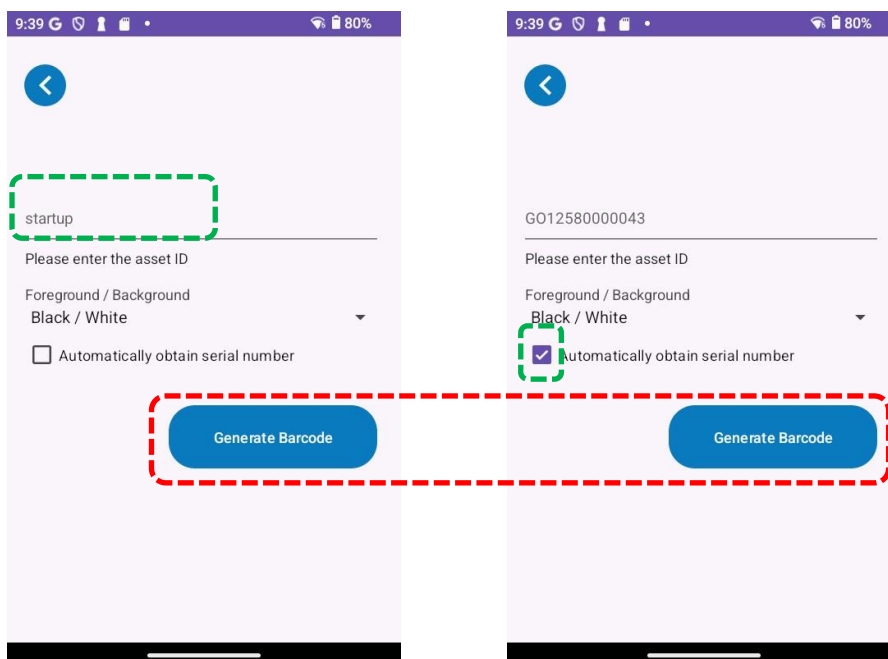
7.7.1 GENERATE BARCODE

If you want to import the barcode to the E Ink display:

- 1) Enter the E Ink Manager and tap "**Generate Barcode**".

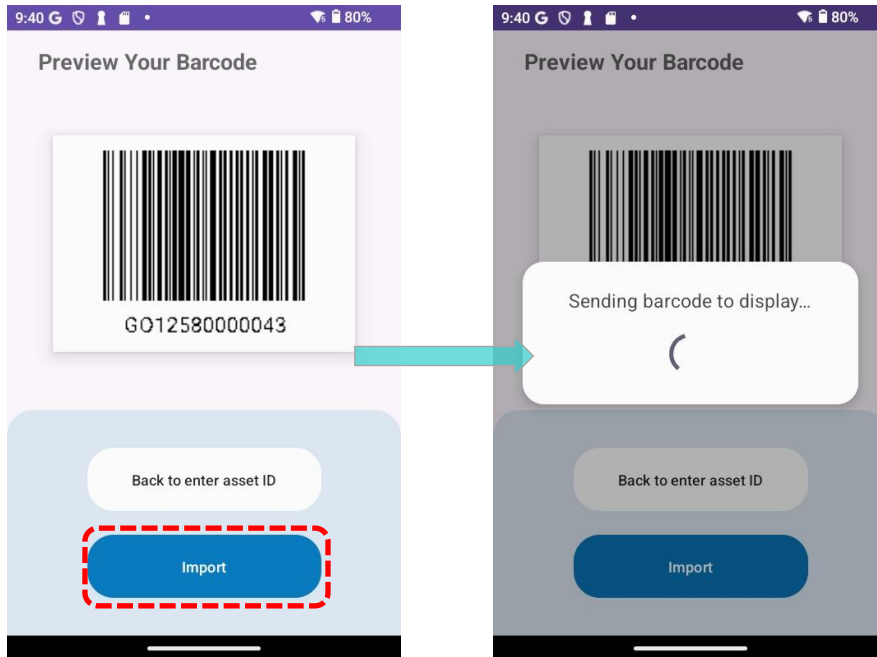


- 2) Enter the asset ID you want, or toggle to generate it automatically. Then tap "**Generate Barcode**".



- 3) The preview will display the barcode you set. Tap **"Import"** and the barcode start sending the barcode to E Ink display.

Tap **"Back to enter asset ID"** if you want to reset the barcode displayed on the E Ink.



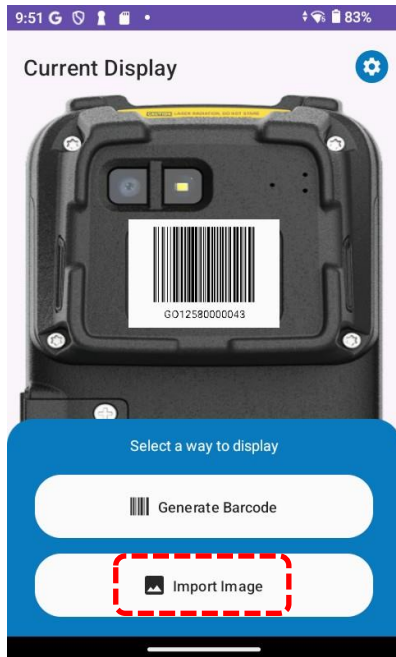
- 4) The barcode you set is completely sent to the E Ink.



7.7.2 IMPORT IMAGE

If you want to import the image to the E Ink display:

- 1) Enter the E Ink Manager and tap “**Import Image**”.

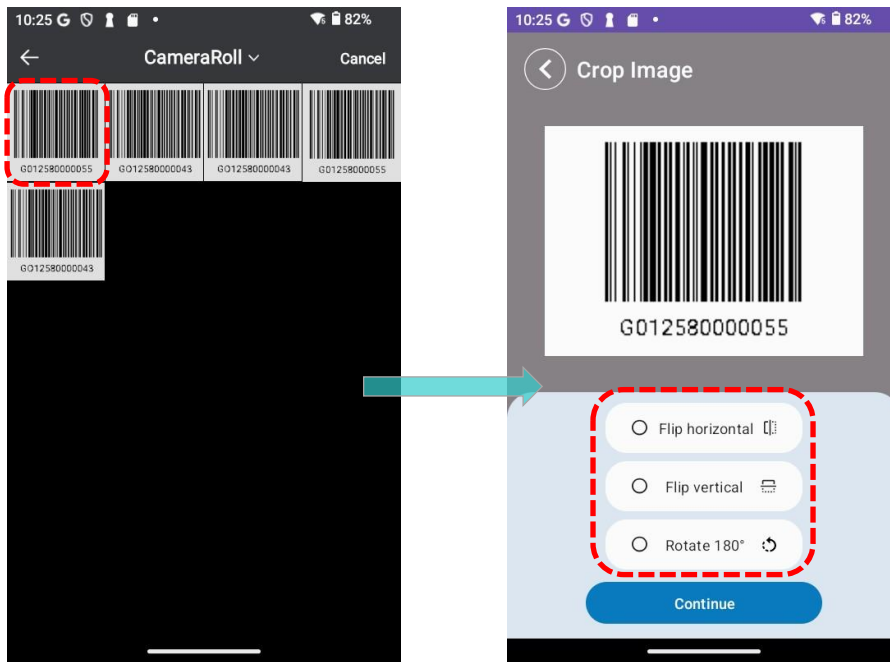


- 2) Tap drop-down menu to select the folder.



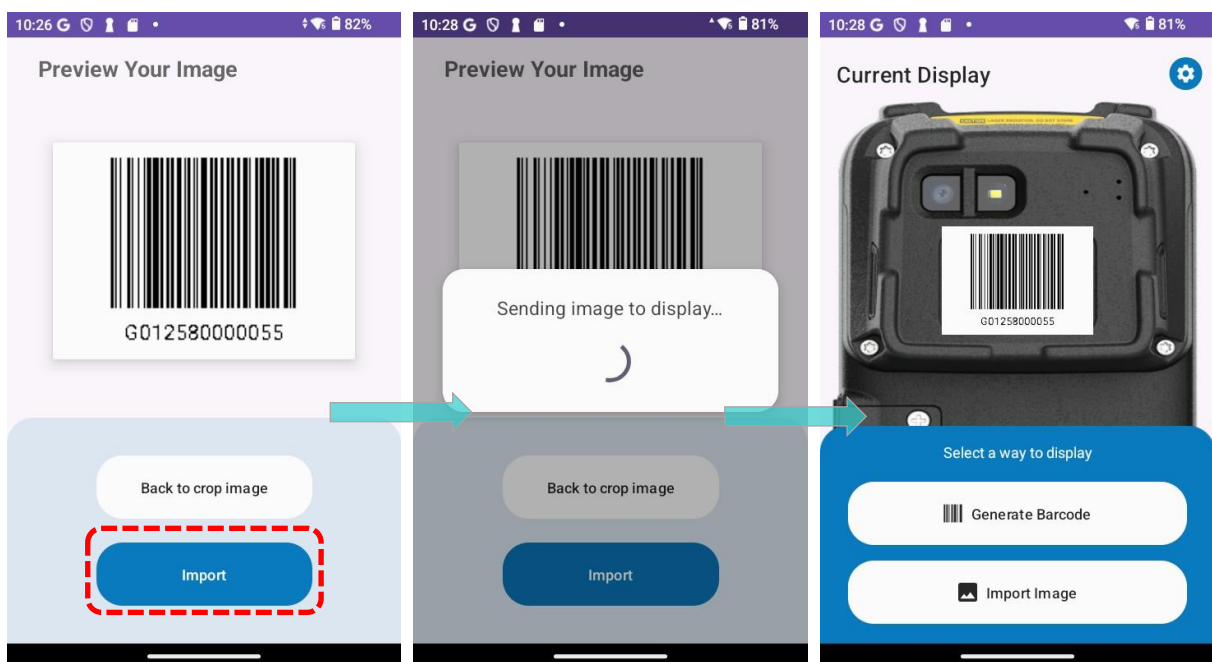
- 3) Select the image you want to import. The preview will display the barcode you set. Toggle on “**Flip horizontal**”, “**Flip vertical**”, or “**Rotate 180°**” to adjust the image.

If you want to exit the process, tap  to return to the E Ink main page.



- 4) Tap “**Continue**” to preview the image you set. Tap “**Import**” and the barcode start sending the barcode to E Ink display.

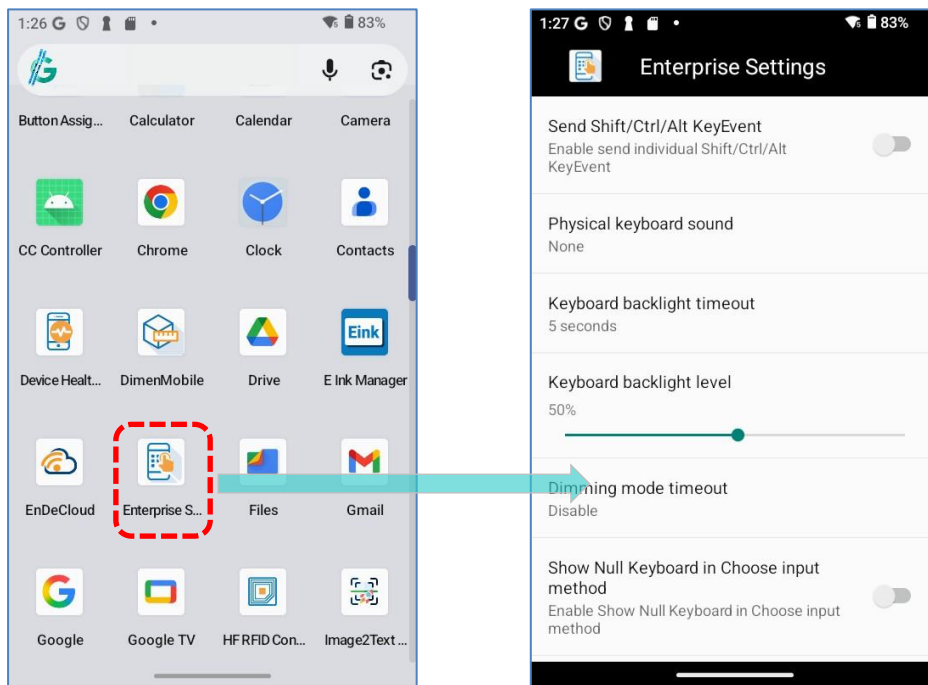
Tap “**Back to crop image**” if you want to reset the image displayed on the E Ink.



7.8. ENTERPRISE SETTINGS



Enterprise Settings in RK96 mobile computer offers various functional settings tailored to the project model.



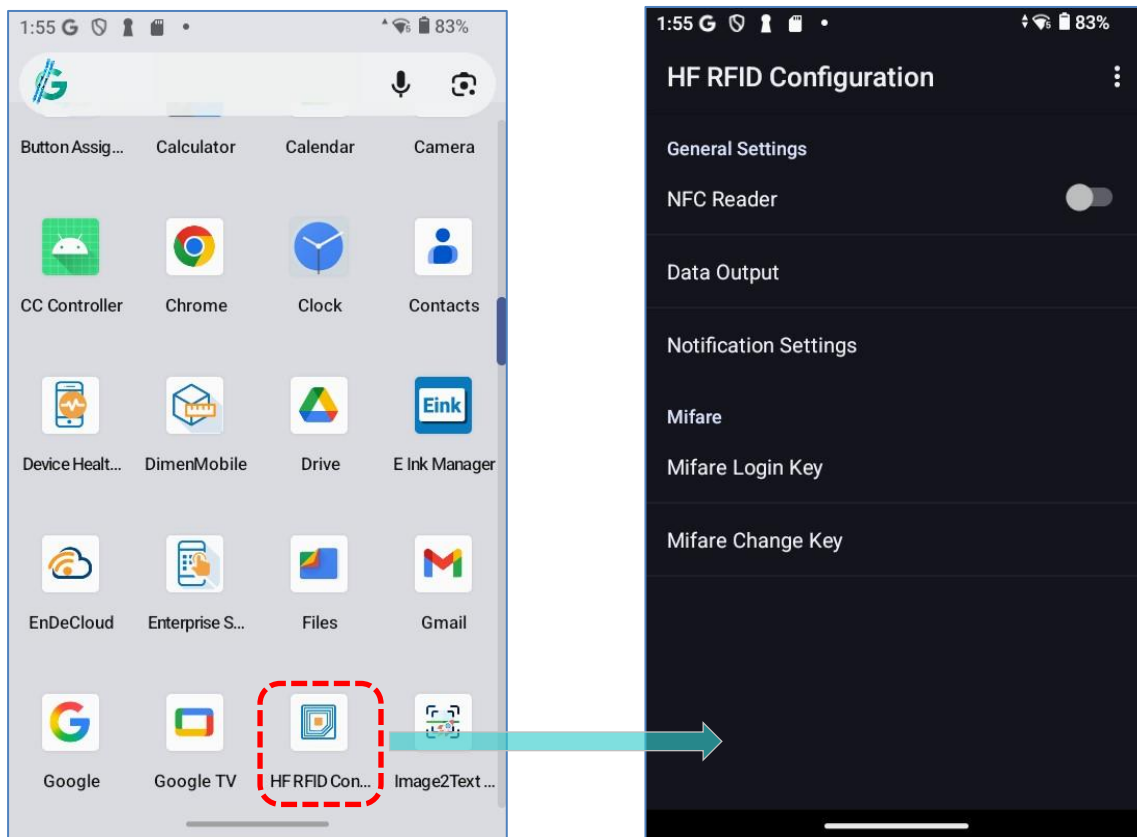
The app “**Enterprise Settings**” helps you to control the physical keypad. Go to [App Drawer](#) and tap on  for the following functions:

Item	Description
Send Shift/Ctrl Alt KeyEvent	Tap to switch on / off this function. The default is off .
Physical keypad sound	Select the physical keypad sound. The default is None .
Keyboard backlight timeout	Select the period to turn off the keypad backlight.
Keyboard backlight level	Adjust the illumination for the keypad.
Dimming mode timeout	The default is Disable . Tap to select the provided option of idle time. When the selected idle time is reached, the screen will automatically dim for power-saving purposes. Unlike the suspend mode, both the background and apps continue to run during the dimming mode.
Version	The version information about Enterprise Settings is listed right below “ Recording Indicator ”.

7.9. HF RFID CONFIGURATION



HF RFID Configuration is a NFC application which is for reading and writing NFC tags and RFID compatible chips by putting the NFC tag/ RFID chip close to the NFC detecting area of your device. User can control how the NFC reader works by settings in HF RFID Configuration and enabling it.

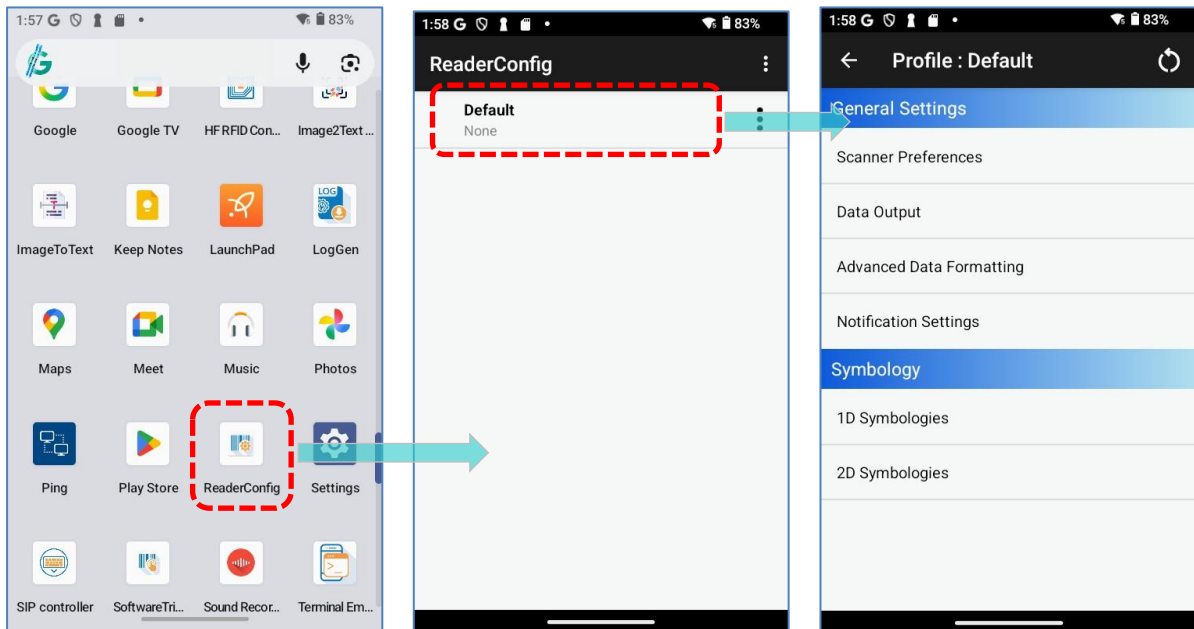


Please refer to [HF RFID Configuration User Guide for Android](#).

7.10.READERCONFIG



ReaderConfig, a built-in app for configuring the scan engine inside the mobile computer, allows users to set their scanner preferences and the way to output decoded data. Symbology and scanner settings can be saved and exported as a profile for importing again or implementing identical Reader Config settings on multiple devices.

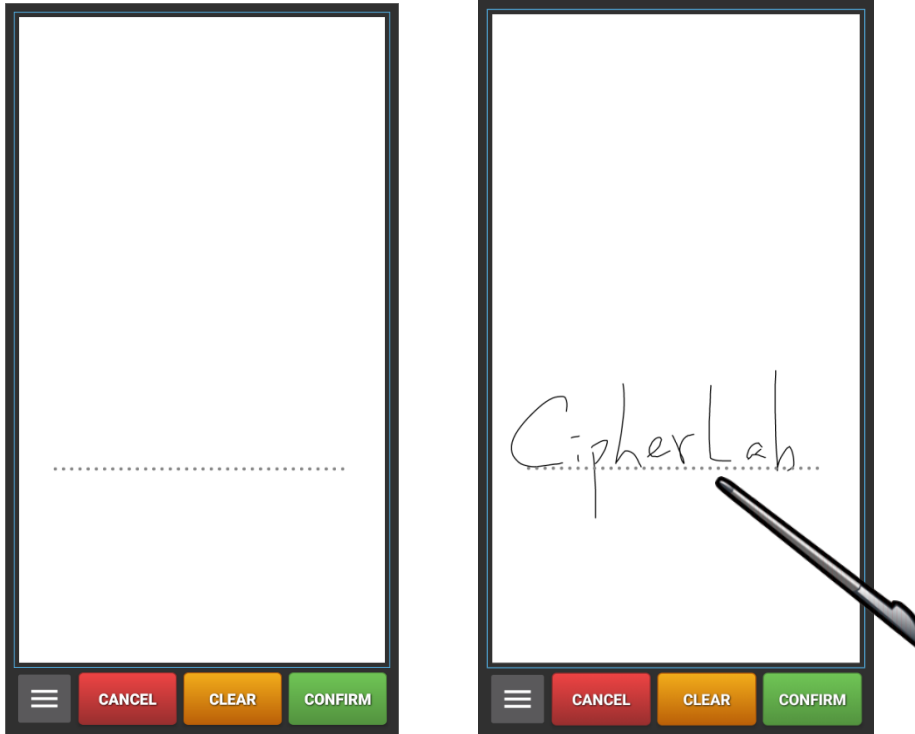


Please refer to [ReaderConfig User Guide for Android](#).

7.11.SIGNATURE CAPTURE



Signature Capture is a simple and easy application which transforms your device into a signature pad for user to draw the signature. Users can create digital signatures and save them in the device storage with multiple file formats.



Please refer to [Signature Capture User Guide for Android](#).

7.12.SIP CONTROLLER

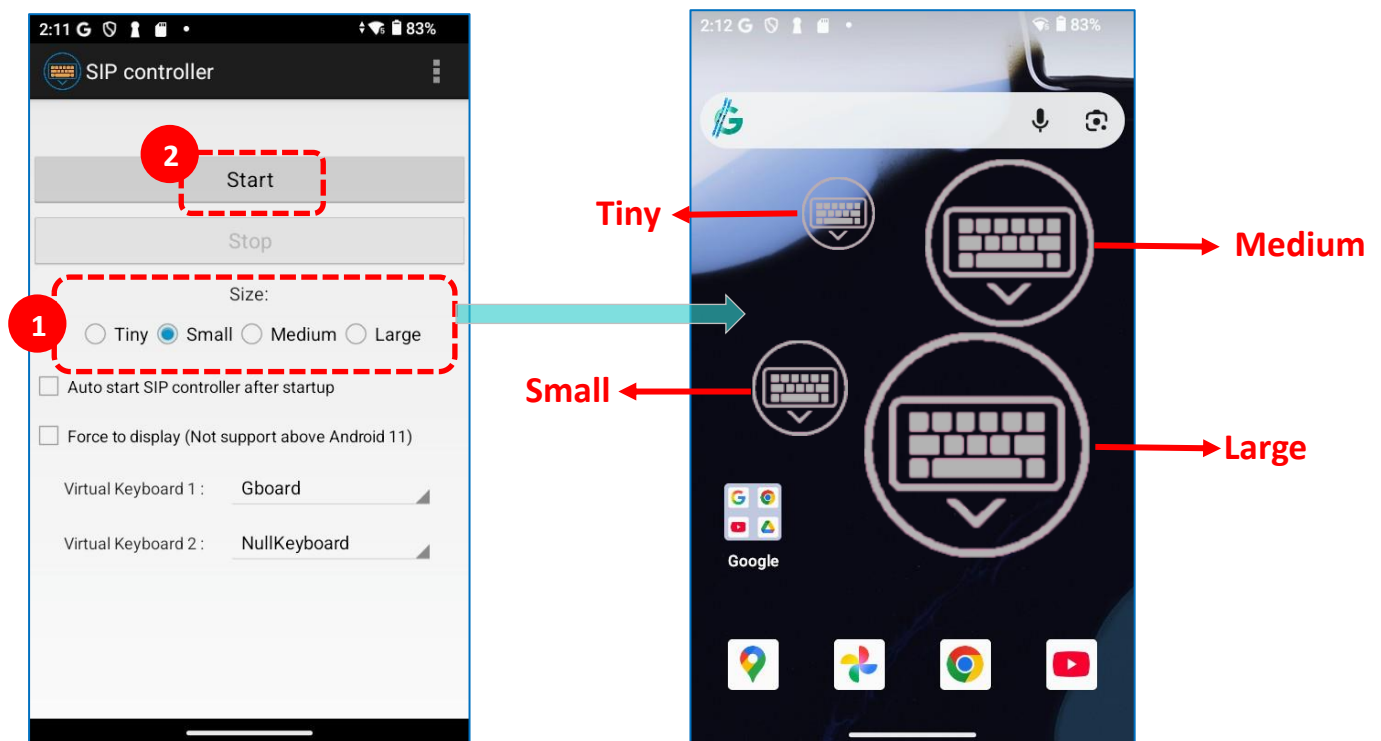


SIP Controller, a built-in application for quickly open or close virtual keyboard by tapping on the floating button.

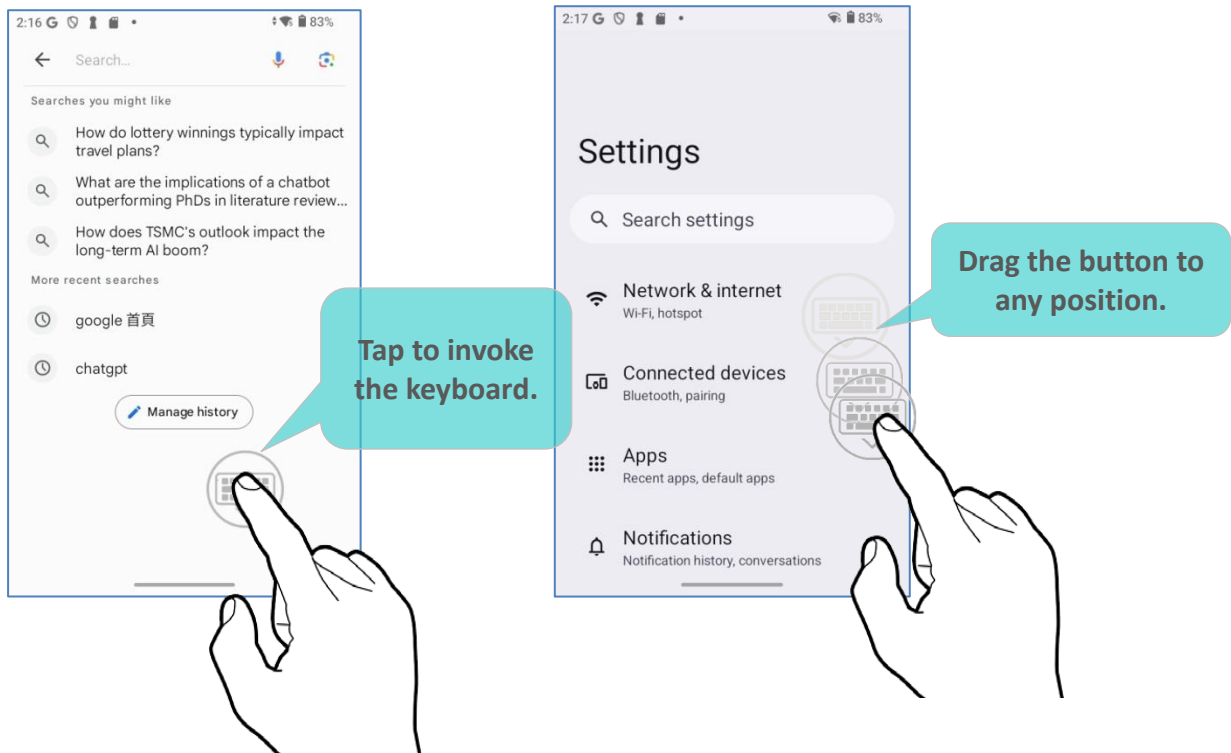
LAUNCH SIP CONTROLLER

To launch SIP Controller:

- 1) Go to [App Drawer](#) and tap on the app “**SIP Controller**”  to enter the main screen.
- 2) Select the button size, and then tap on “**Start**”.

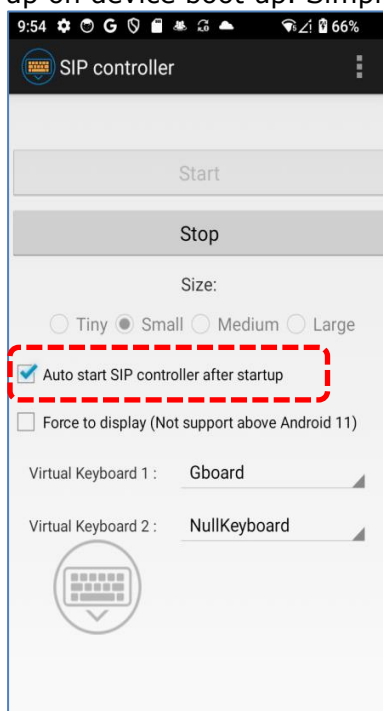


3) Now the **"SIP Controller"** button appears on screen, and you can invoke the virtual keyboard by tapping on it. You can drag this button to any position on the screen.



AUTO START

By enabling **"Auto start SIP controller after startup"**, **SIP Controller** will automatically start up on device boot up. Simply check the checkbox to enable this function.

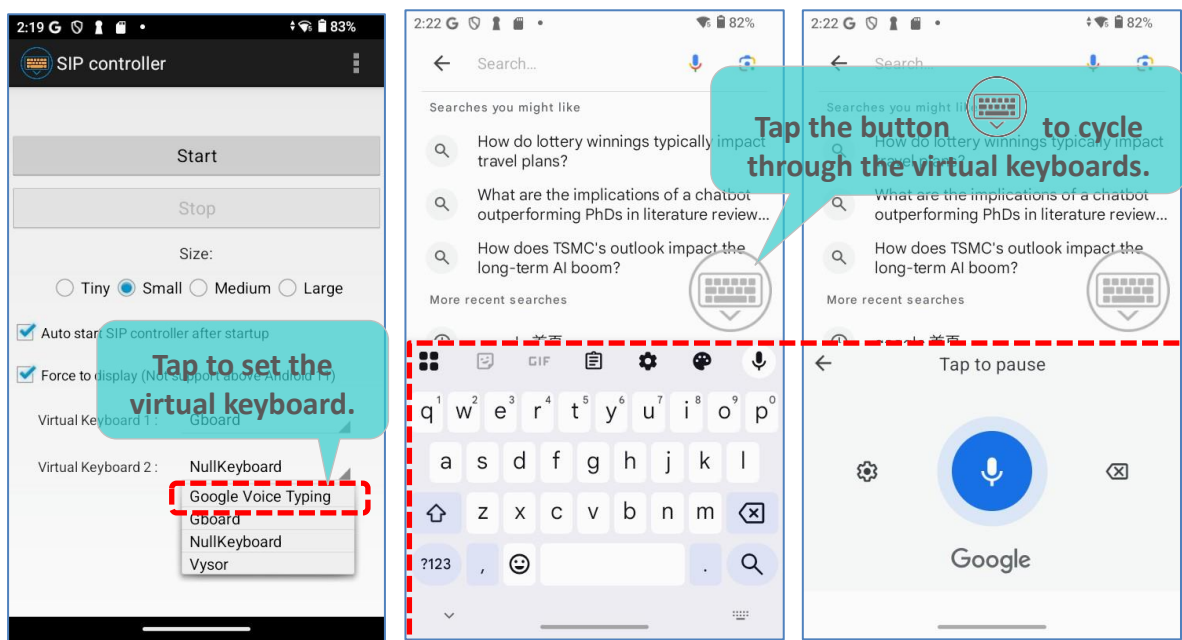


FORCE TO DISPLAY

“Force to display” is ineffective for the device dim whose OS is above Android 11.

SWITCH VIRTUAL KEYBOARD

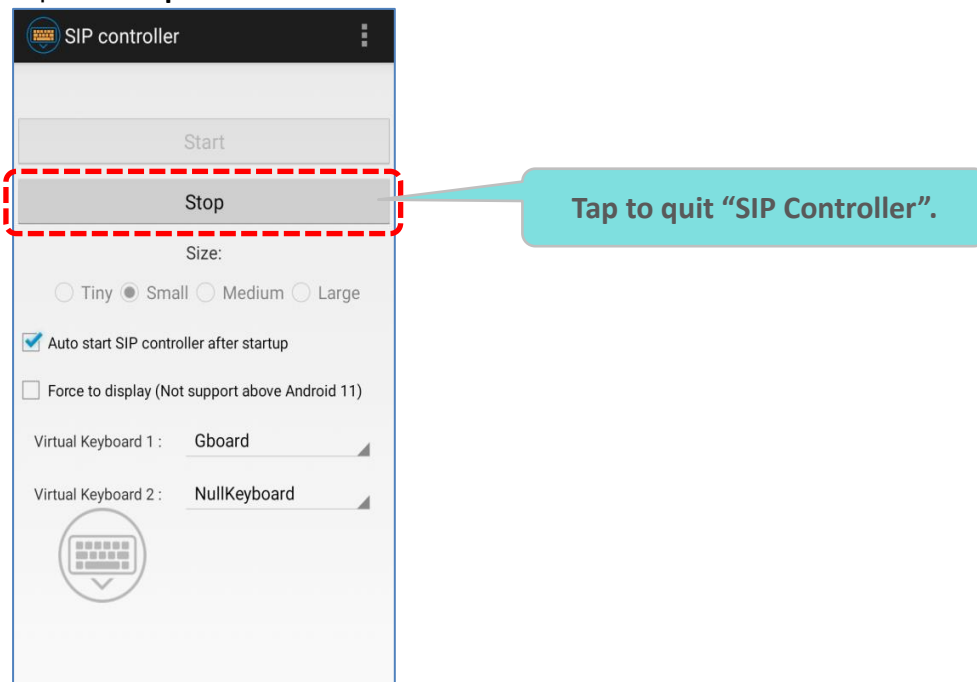
You can set “Virtual Keyboard 1” and “Virtual Keyboard 2” to be the keyboard invoked by SIP Controller. Tap on the button to cycle through “Virtual Keyboard 1” and “Virtual Keyboard 2” you set.



As to the keyboard to be selected on the drop-down menu, please refer to [On-screen Keyboard](#) for how to enable the keyboard.

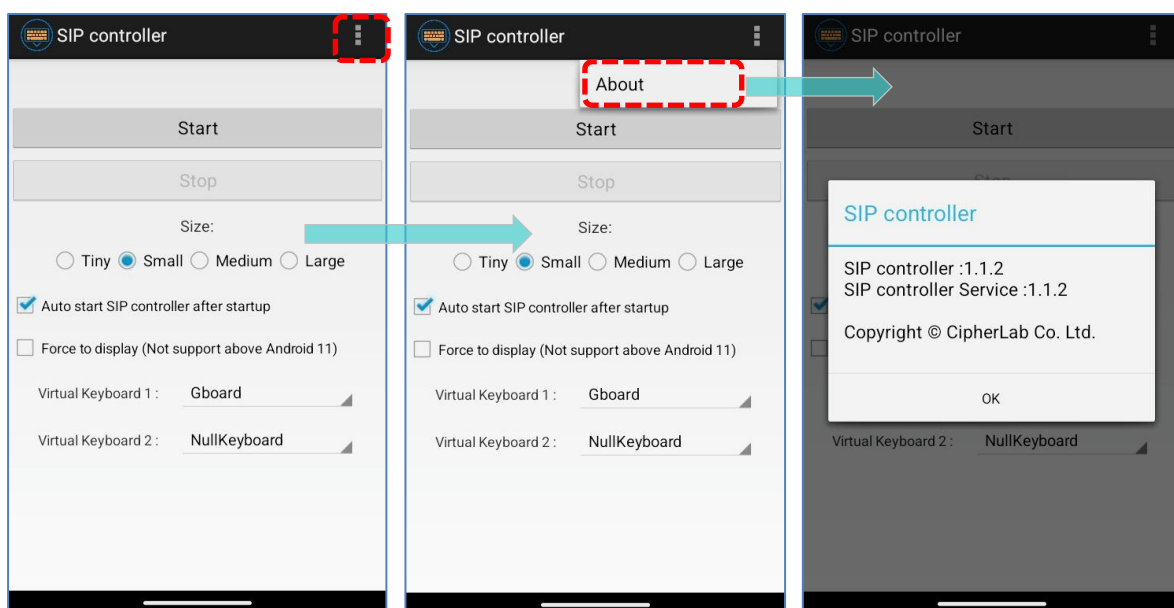
EXIT SIP CONTROLLER

Tap on **“Stop”** to disable **SIP Controller** on-screen button.



VERSION INFORMATION

Tap on the more button  on the action bar and select **“About”** to check the current version of **SIP Controller**.



7.13.SOFTWARE TRIGGER



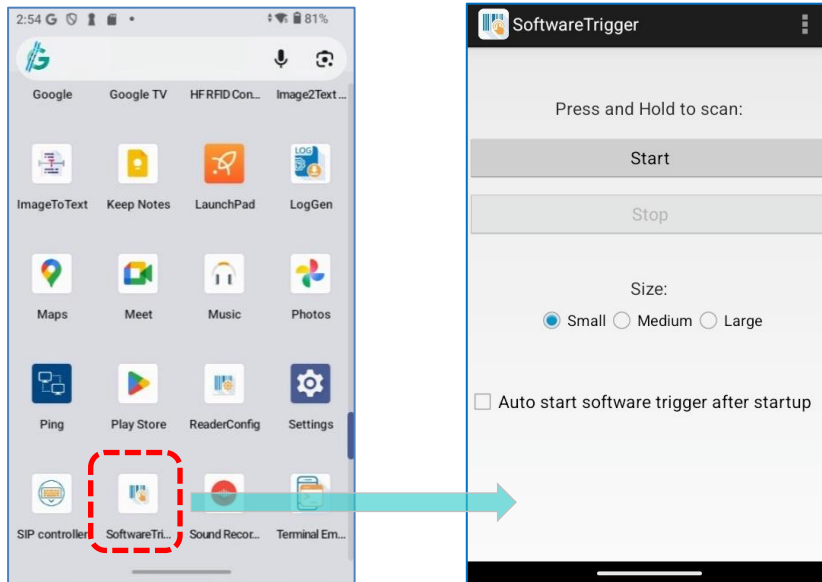
Software Trigger is an application running on mobile device. Serving as a real trigger key, it always floats on top of all other programs for convenient trigger control of the barcode scanner; by tapping and holding this virtual button, the device will keep casting a red beam to scan the code.



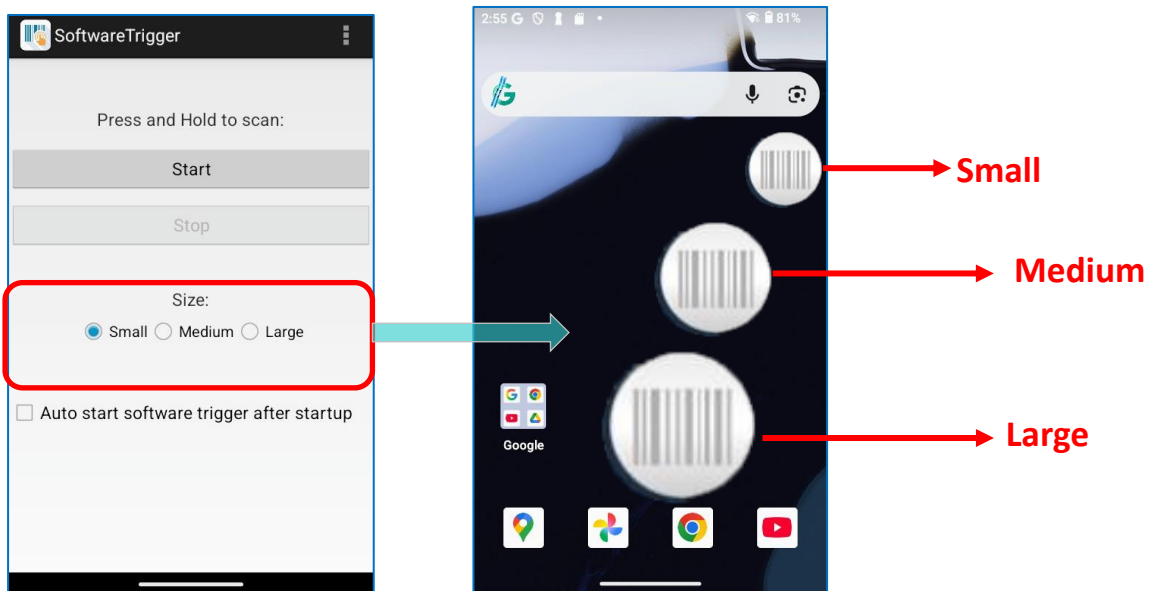
LAUNCH SOFTWARE TRIGGER

Please follow the steps below to launch **Software Trigger**:

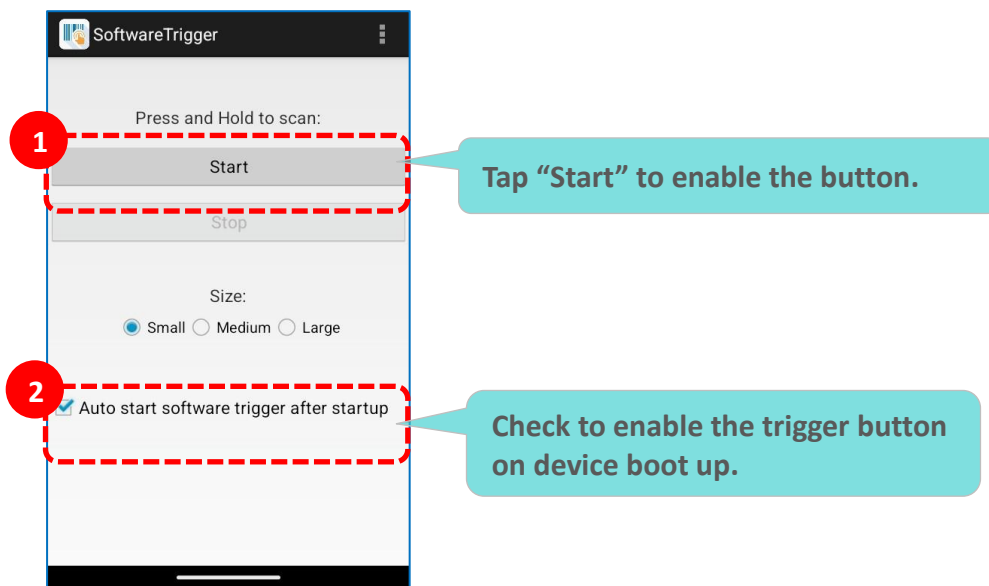
- 1) Go to [App Drawer](#) and tap on the app "**Software Trigger**"  to enter the main screen.



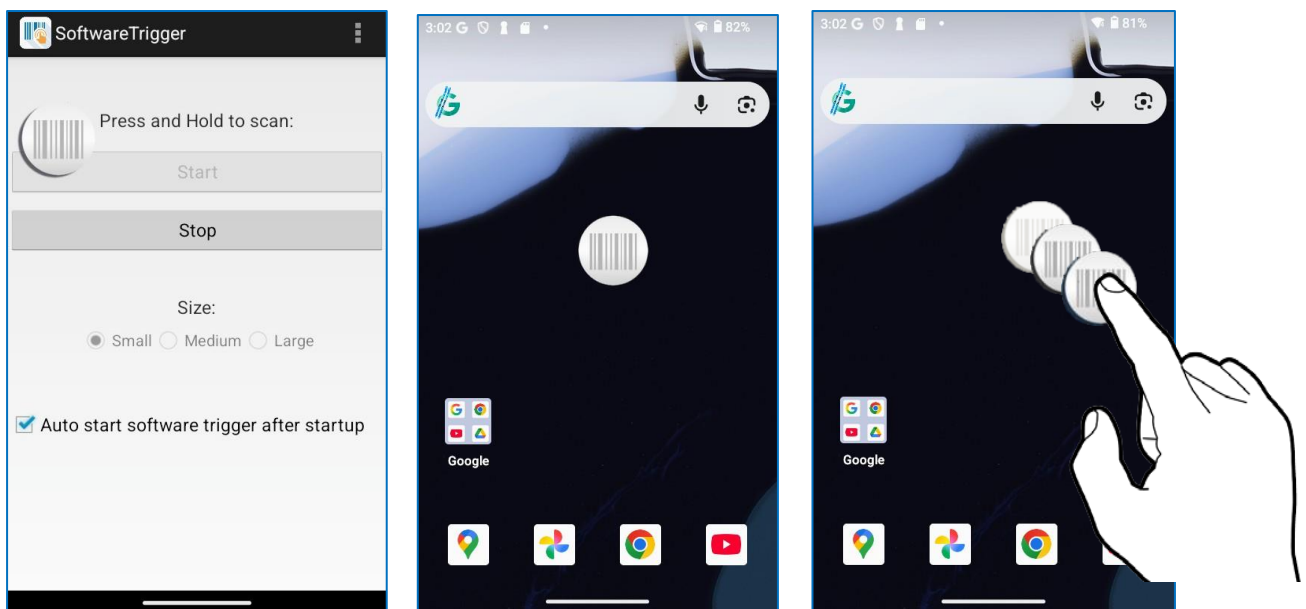
- 2) Select the size of the virtual trigger button:



- 3) Tap **"Start"** to enable the button. You can check **"Auto start software trigger after startup"** to have this application automatically launch right after the device starts up.

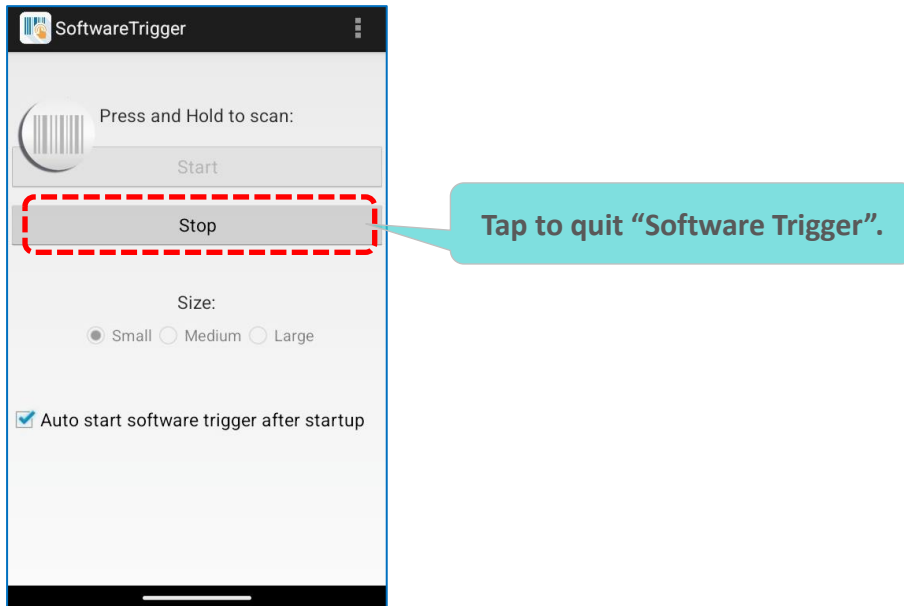


- 4) An always-accessible software keys will appear on your screen. This trigger button can be dragged to the position on the screen where you feel easy to control the trigger.



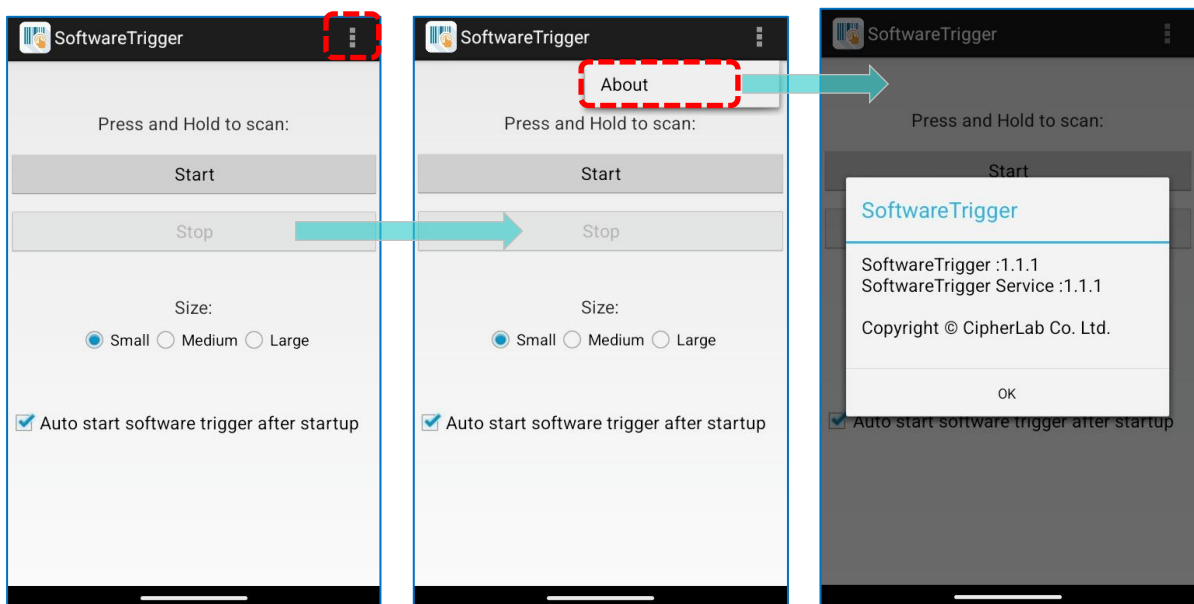
EXIT SOFTWARE TRIGGER

To disable this virtual trigger button, enter **Software Trigger** application screen, and tap **"Stop"**.



VERSION INFORMATION

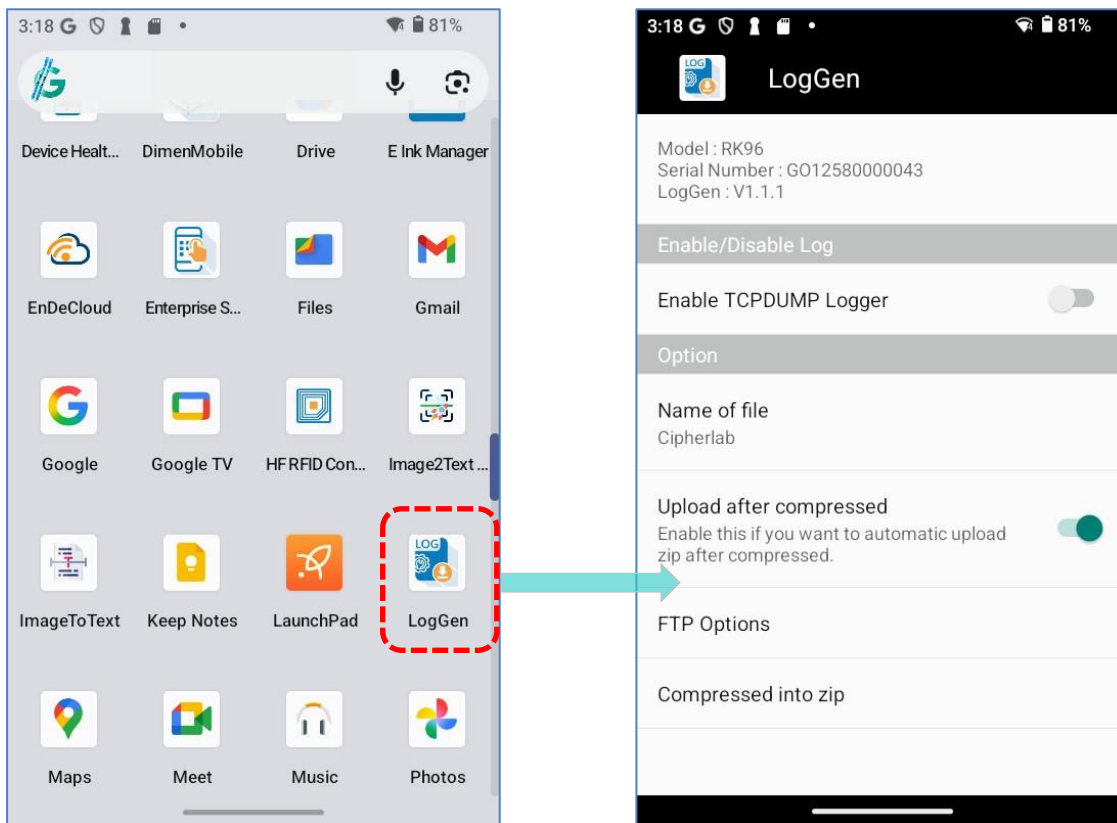
To check the current version of **Software Trigger**, please tap on the more button  on the action bar and select **"About"**.



7.14. LogGen



LogGen, a hostlog generator utility, is especially designed to assist on-site operator collecting all event logs (except TE log on Android 11) of mobile computers. Through the tap on one button of this App, logs belonging to this device will be generated easily. Based on the history of these events, IT personnel can simulate the real environment to solve the problem and remove the obstacle occurred locally/remotely.



Please refer to [LogGen User Guide for Android](#).

7.15.PING

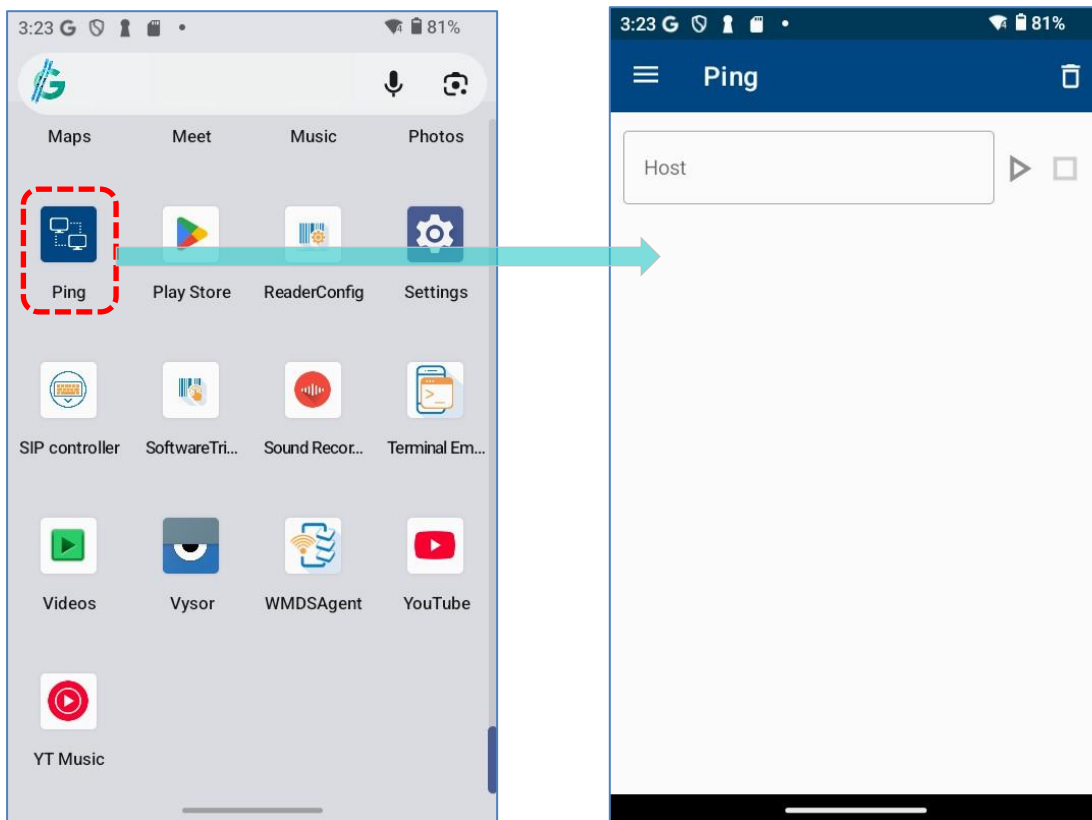


Ping, a handy network diagnostic utility, consists of **Ping**, **Traceroute**, and **Wi-Fi status** three useful tools to diagnose the current network status.

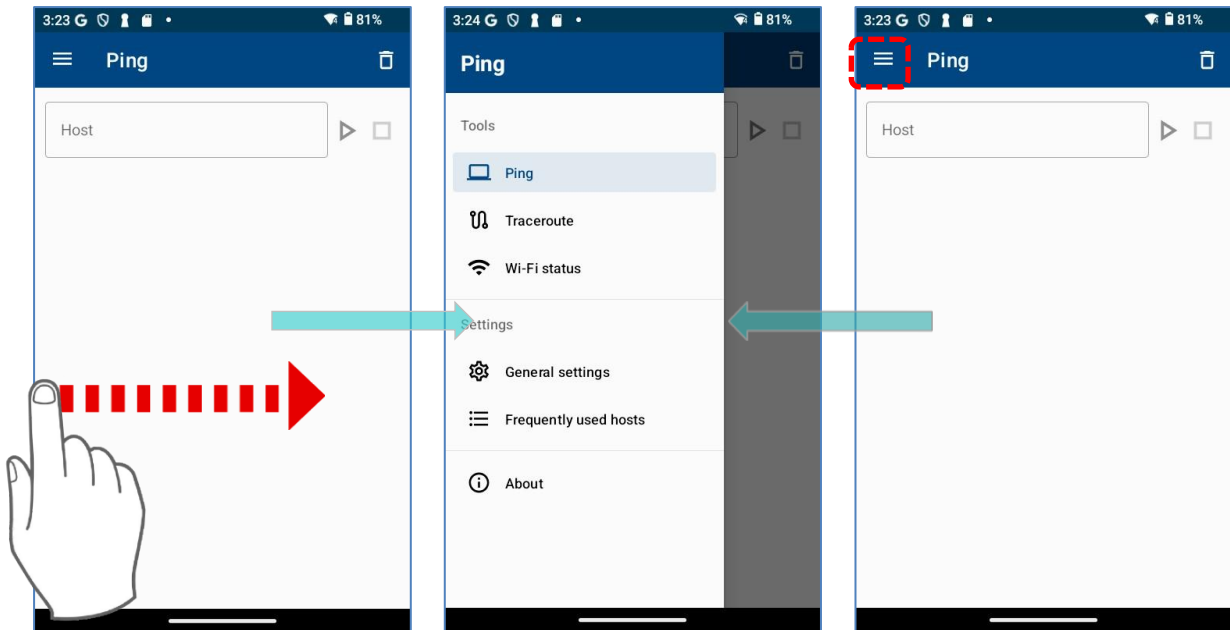
LAUNCH PING APPLICATION

Please follow the steps below to launch **Ping**:

- 1) Go to [App Drawer](#) and tap on the app “**Ping**”  to enter the ping screen directly.



- 2) **Option Menu** containing other functions can be revealed by tapping on the menu button  or swiping from the leftmost side of the screen to the right side.

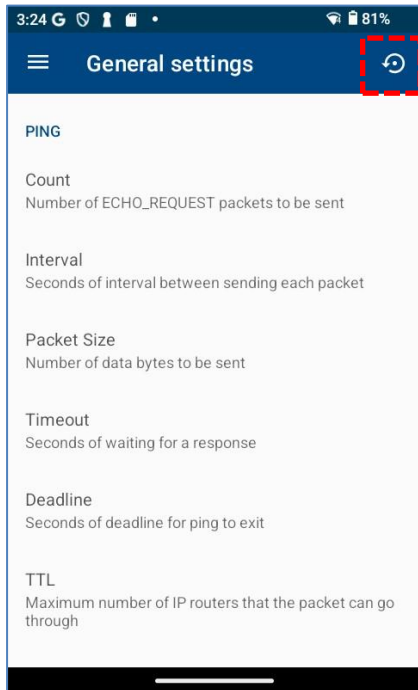


Tool	Description
Ping	To know that if the specific host still keeps alive by entering IP address, domain name or the host name of the remote host.
Traceroute	To track the route packets to a given host by entering IP address, domain name or the host name of the remote host.
Wi-Fi status	To view the current status of Wi-Fi connection.

GENERAL SETTINGS FOR TOOLS

To configure the tool-related settings, please tap **General Settings** on **Option Menu**. And the following setting page will be displayed. You can reset all settings of this application by

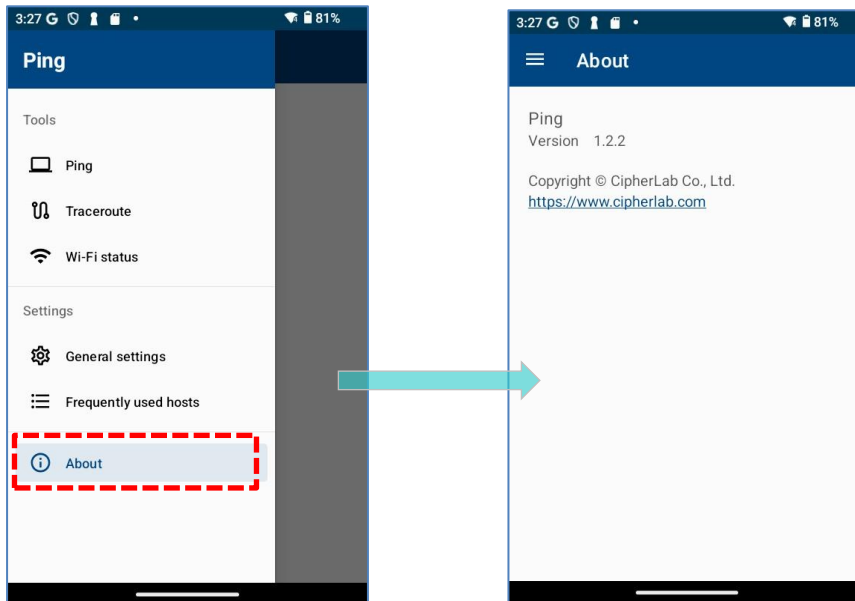
tapping **Reset** icon .



Settings	Description
PING	
Count	Specify the total amount of packets that will be sent to the destination host.
Interval	Specify the waiting time before sending the next packet to the destination host.
Packet Size	Specify the number of data bytes to be sent.
Timeout	Specify the waiting time for the host response.
Deadline	Specify the execution time of sending request to the remote host.
TTL	Specify the maximum number of routers that the packet can go through.
ToS (Type of service)	Increase the quality of service for the packet to be sent.
MTU Discovery strategy	Since the default MTU (Maximum Transmission Unit) of Ethernet is 1500 bytes, the packet will break into fragments if the data size is larger than 1500 bytes. You may optionally change MTU discovery strategy for some purpose. Three MTU Discovery strategies we provide are as follows: - Prohibit fragmentation, even local one - Do PMTU discovery, fragment locally when packet size is large - Do not set DF flag
TRACEROUTE	
Disable IP address mapping	By disabling the function of IP address mapping, Traceroute tool will only show IP address during tracking route without converting IP address into the host name.
NQueries	Specify the number of probe packets to be sent per hop.
Wait Time	Set up the waiting time of the response to one probe for the traceroute.
Max TTL	Specify the amount of TTL for the traceroute.
Wi-Fi STATUS	
Refresh Rate	Specify the updating refresh rate. Default is 3 seconds.

VERSION INFORMATION

To check the current version of Ping, please tap **About** on **Option Menu**.



7.16. TERMINAL EMULATION



Terminal Emulation is brought to support mobile devices, which are high performance products powered by the Android platform. The application is developed for industries which make extensive use of terminal emulators. It enables your mobile computer to act as a terminal emulator while communicating with a host of the same environment.

MIRROR VT/5250 Terminal Emulation is a telnet client with extended ability to launch and configure reader module(s). It links to available reader module(s) when a physical scan button is pressed, to collect decoded data and submit data to the host afar.

Please refer to [Terminal Emulation User Guide \(Android\)](#).

7.17. WMD AGENT & WMDS INSTALLER

WMDS (Wireless Mobile Deployment System) for Android is a windows-based server program that can deploy the configuration projects (created by **Android Deployment Configurator**) to Android devices through wireless network.



The preloaded application “**WMDSInstaller**” is for fetching the latest WMDS Agent version over the Internet and then perform auto-installation while the application



“**WMDSAgent**” makes this mobile computer become an enrolled device once it is successfully connected to WMDS server.

Please refer to [WMDS User Guide for Android](#) for details.

SPECIFICATIONS

PLATFORM, PROCESSOR & MEMORY

Operating System & CPU

OS Version	Android 15 (GMS and AER certified), upgradable to Android 18
CPU	Qualcomm Q-6690 Octa-core CPU

Memory

ROM	128GB Flash
RAM	8GB RAM
Expansion Slot	One Micro SD card slot - SDHC supported (up to 32GB) - SDXC supported (up to 2TB)

COMMUNICATION & DATA CAPTURE

Communication

USB Client	USB 3.1 Gen 1 Type-C / USB 2.0 OTG
WPAN	Bluetooth® Class II, v6.0 dual mode, V2.1 with Enhanced Data Rate (EDR); BLE long range
WLAN	IEEE 802.11 a/b/g/n/ac/ax/d/h/i/r/k/v/w, Wi-Fi 7 (802.11be), IPv4, IPv6, 2x2 MU-MIMO

Data & Image Capture

Digital Camera	Rear: 16 megapixels PDAF with LED flash and Optical Image Stabilization (OIS) Front: 5 megapixels
Barcode Reader	2D imager
NFC	Support ISO14443A&B, ISO15693, Mifare, Felica (Peer-to-Peer, Card Reader, Card Emulation)

ELECTRICAL CHARACTERISTICS

Battery

Main Battery Pack	Replaceable and rechargeable Li-ion battery: 3.6V, 7000mAh; 3.7V, 5500mAh (for Cold Chain Model) Minimum charging time: 4 hours (7000mAh) at 25°C 6 hours (5500mAh; for Cold Chain Model) at 25°C Charging temperature: 0°C to 45°C For the first time charging the main battery, please charge it for at least 8 to 12 hours. The allowed battery charging ambient temperature is between 0°C to 45°C. It is recommended to charge the battery at room temperature (18°C to 25°C) for optimal performance. Please note that battery charging stops when ambient temperature drops below 0°C or exceeds 45°C.	
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Power Adapter

Power Supply Cord with Universal Power Adapter	Input	AC 100~240 V, 47 ~ 63 Hz
	Output	DC 5V, 2A CE, CB, BSMI, FCC, CCC, PSE, KC, CU, INMETRO (AC plug only), BIS, PSB

Certification

FCC, BC, CA65, SRRC, CCC, NCC, BSMI, CE, WEEE, RoHS, REACH, Erp, BISWPC, IC, NrcAN, RCM

Working Time

Standard Battery	Supports working time for up to 14 hours (for 7000mAh) at 25°C.
Cold Chain Battery	Supports working time for up to 5 hours (for 5500mAh) at -30°C.

PHYSICAL CHARACTERISTICS

Color Touch Screen Display

Display	4.3 inch, LCD, Corning® Gorilla® Glass
E Ink Display	1.3 inch e-ink 144x220 pixel, display color: red/yellow/black/white
Resolution	800(RGB) x 480 Pixel (Display), 144x220 Pixel (E Ink)

Notifications

Status LED	Side Dual-color LED x 2 (Green & Red)
Audio	PTT voice; Speaker, Microphones with noise reduction and echo cancellation, Bluetooth® headset

Keypad

38-Key / 41-Key model	Numeric / Function Keypads
47-Key / 53-Key model	Alphanumeric Keypads with LED backlight

Dimensions & Weight

Dimensions	227.6 mm (L) x 79.8 mm (W) x 43 mm (H) 227.6 mm (L) x 79.8 mm (W) x 167.5 mm (H) (with pistol)
Weight	538.2g (with 7000 mAh battery pack and 2D imager for 53-key model)

ENVIRONMENTAL CHARACTERISTICS

Temperature

Operating	Standard: -20°C to 50°C Cold Storage: -30°C to 50°C
Storage	-30°C to 70°C (battery pack is not included)
Charging	0°C to 45°C

Humidity

Operating	5% to 95% (non-condensing)
Storage	5% to 95% (non-condensing)

Resistance

Impact Resistance	Meets MIL-STD 810G standards for up to 1.8 meter / 2.4 meter (with rubber boot) drops.
Tumble Test	1000 tumbles (1000 drops/hits) at 1 meter per applicable IEC tumble specifications
Splash/Dust Resistance	IP65 per applicable IEC sealing specifications.
Electrostatic Discharge	±15 kV air discharge, ±8 kV contact discharge

APPENDIX I

APPLICATION MENU

Icon	Name	Description
	A-Demo	An application which gives the brief introduction about CipherLab's applications. Users can launch those apps by tapping "START" on the app's introduction page.
	AppLock	An application used to limit the system resources made available to users.
	BarcodeToSetting	An application for reading the setting barcodes generated by ADC (Android Deployment Configurator) to apply the configuration.
	BT Printer Mate	An application which provides user interface to pair with Bluetooth printers.
	Button Assignment	The application "Button Assignment" can redefine the functions of physical keys so that they trigger different actions. Settings made to one or more keys can be saved as a profile, allowing users to switch conveniently in between different sets of settings.
	Calculator	Perform mathematical calculations.
	Calendar	Create and manages events, meetings and appointments.
	Camera	Take pictures and shoot videos.
	CC Controller	Manage the temperature of the device and the heater.
	Chrome	Chrome is a fast, secure browser built by Google that helps you search, browse, and get things done online.
	Clock	Set date, time, time zone according to your locale, and sets and manages alarms.
	Contacts	Manage contact information, and share or export/import the information to other devices or SD card.
	Drive	Store, access, and share securely with Google Drive, part of Google Workspace.

Icon	Name	Description
	E Ink	An application for users to set the barcode or image shown on the E Ink display.
	Enterprise Settings	An application for “Doze Mode” settings of RK96 mobile computer.
	File	Browse and manage files on the local storage and storage card.
	Gmail	Connect, create, and collaborate with Gmail, part of Google Workspace.
	Google	Find quick answers, explore your interests, and stay up to date with Discover.
	Google TV	Google TV brings together movies, shows, live TV and more from across apps and subscriptions and organizes them just for the user. And helps the user discover new things to watch with recommendations based on their interests.
	HF RFID Configuration	An application for the configuration of RFID & NFC.
	Maps	Google Maps gives you more than just reliable, real-time navigation. It also helps you find things to do and places you’ll love across the world and around the corner. With millions of businesses on Google Maps, you can connect with the places you’re interested in, and make your plans happen.
	Meet	Google Meet provides secure, easy-to-use video meetings that work for everyone so that you can connect and collaborate on what matters most.
	Ping	A network diagnostic application which contains the useful tools for analyzing the current network status.
	Photos	Google Photos is the home for all your memories to help you find and relive all the moments that matter.
	Play Store	Google Play is your entertainment unbound. It brings together all of the entertainment you love and helps you explore it in new ways, anytime, anywhere.
	Reader Config	Set scanner preferences, data output format and destination, symbology settings, and read barcodes.
	Settings	Open settings to configure the mobile computer.

Icon	Name	Description
	Signature Capture	A simple and easy application which transforms your device into a signature pad.
	SIP Controller	An application for quickly open or close virtual keyboard by tapping on the floating button.
	Software Trigger	An application serving as a real trigger key, floating on top of all other programs for convenient trigger control of the barcode scanner.
	Sound Recorder	Record and play audio information.
	Terminal Emulation	The application is developed for industries which make extensive use of terminal emulators. It enables your mobile computer to act as a terminal emulator while communicating with a host of the same environment.
	WMDSAgent	Wireless Mobile Deployment System for Android is a windows-based server program that can deploy the configuration projects (created by Android Deployment Configurator) to Android devices through wireless network.
	WMDSInstaller	The WMDSInstaller will fetch the latest WMDS Agent version over the Internet and then perform auto-installation.
	YouTube	Enjoy your favorite videos and channels with the official YouTube app.
	YouTube Music	The world of music dedicated to you.

APPENDIX II

38-KEY KEYMAPPING

Normal Mode

Key	Normal	 + Key	 + Key	 + Key
1	8	Shift + 8	Ctrl + 8	Alt + 8
2	9	Shift + 9	Ctrl + 9	Alt + 9
3	10	Shift + 10	Ctrl + 10	Alt + 10
4	11	Shift + 11	Ctrl + 11	Alt + 11
5	12	Shift + 12	Ctrl + 12	Alt + 12
6	13	Shift + 13	Ctrl + 13	Alt + 13
7	14	Shift + 14	Ctrl + 14	Alt + 14
8	15	Shift + 15	Ctrl + 15	Alt + 15
9	16	Shift + 16	Ctrl + 16	Alt + 16
0	7	Shift + 7	Ctrl + 7	Alt + 7
.	56	Shift + 56	Ctrl + 56	Alt + 56
,	55	Shift + 55	Ctrl + 55	Alt + 55
Up	19	Shift + 19	Ctrl + 19	Alt + 19
Down	20	Shift + 20	Ctrl + 20	Alt + 20
Left	21	Shift + 21	Ctrl + 21	Alt + 21
Right	22	Shift + 22	Ctrl + 22	Alt + 22
Enter	66	Shift + 66	Ctrl + 66	Alt + 66
Backspace	67	Shift + 67	600	Alt + 600
ESC	111	Shift + 111	Ctrl + 111	Alt + 111
TAB	61	Shift + 61	Ctrl + 61	Alt + 61
Alt Modifier	57	57	57	57
Orange Mode	506	506	506	506
Ctrl Modifier	113	113	113	113
Shift Modifier	59	59	59	59
F1	131	Shift + 131	Ctrl + 131	Alt + 131
F2	132	Shift + 132	Ctrl + 132	Alt + 132
F3	133	Shift + 133	Ctrl + 133	Alt + 133
F4	134	Shift + 134	Ctrl + 134	Alt + 134
F5	135	Shift + 135	Ctrl + 135	Alt + 135
F6	136	Shift + 136	Ctrl + 136	Alt + 136
F7	137	Shift + 137	Ctrl + 137	Alt + 137
F8	138	Shift + 138	Ctrl + 138	Alt + 138
F9	139	Shift + 139	Ctrl + 139	Alt + 139
F10	140	Shift + 140	Ctrl + 140	Alt + 140
P1	539	Shift + 539	Ctrl + 539	Alt + 539
P2	540	Shift + 540	Ctrl + 540	Alt + 540
Scan	505	505	505	505
Left Scan	507	507	507	507
Right Scan	508	508	508	508

Orange Mode

Key	Normal	 + Key	 + Key
1	41	Shift + 41	Ctrl + 41
2	42	Shift + 42	Ctrl + 42
3	43	Shift + 43	Ctrl + 43
4	38	Shift + 38	Ctrl + 38
5	39	Shift + 39	Ctrl + 39
6	40	Shift + 40	Ctrl + 40
7	35	Shift + 35	Ctrl + 35
8	36	Shift + 36	Ctrl + 36
9	37	Shift + 37	Ctrl + 37
0	45	Shift + 45	Ctrl + 45
.	44	Shift + 44	Ctrl + 44
,	46	Shift + 46	Ctrl + 46
Up	30	Shift + 30	Ctrl + 30
Down	31	Shift + 31	Ctrl + 31
Left	29	Shift + 29	Ctrl + 29
Right	32	Shift + 32	Ctrl + 32
Enter	66	Shift + 66	Ctrl + 66
Backspace	67	Shift + 67	600
ESC	62	Shift + 62	Ctrl + 62
TAB	33	Shift + 33	Ctrl + 33
Alt Modifier	34	Shift + 34	Ctrl + 34
Orange Mode	506	506	506
Ctrl Modifier	113	113	113
Shift Modifier	59	59	59
F1	47	Shift + 47	Ctrl + 47
F2	48	Shift + 48	Ctrl + 48
F3	49	Shift + 49	Ctrl + 49
F4	50	Shift + 50	Ctrl + 50
F5	51	Shift + 51	Ctrl + 51
F6	52	Shift + 52	Ctrl + 52
F7	53	Shift + 53	Ctrl + 53
F8	54	Shift + 54	Ctrl + 54
F9	25	Shift + 25	Ctrl + 25
F10	24	Shift + 24	Ctrl + 24
P1	141	Shift + 141	Ctrl + 141
P2	142	Shift + 142	Ctrl + 142
Scan	505	505	505
Left Scan	507	507	507
Right Scan	508	508	508

41-KEY KEYMAPPING

Normal Mode

Key	Normal	 + Key	 + Key	 + Key
1	8	Shift + 8	Ctrl + 8	Alt + 8
2	9	Shift + 9	Ctrl + 9	Alt + 9
3	10	Shift + 10	Ctrl + 10	Alt + 10
4	11	Shift + 11	Ctrl + 11	Alt + 11
5	12	Shift + 12	Ctrl + 12	Alt + 12
6	13	Shift + 13	Ctrl + 13	Alt + 13
7	14	Shift + 14	Ctrl + 14	Alt + 14
8	15	Shift + 15	Ctrl + 15	Alt + 15
9	16	Shift + 16	Ctrl + 16	Alt + 16
0	7	Shift + 7	Ctrl + 7	Alt + 7
.	56	Shift + 56	Ctrl + 56	Alt + 56
,	55	Shift + 55	Ctrl + 55	Alt + 55
Up	19	Shift + 19	Ctrl + 19	Alt + 19
Down	20	Shift + 20	Ctrl + 20	Alt + 20
Left	21	Shift + 21	Ctrl + 21	Alt + 21
Right	22	Shift + 22	Ctrl + 22	Alt + 22
Enter	66	Shift + 66	Ctrl + 66	Alt + 66
Backspace	67	Shift + 67	600	Alt + 600
ESC	111	Shift + 111	Ctrl + 111	Alt + 111
Space	62	Shift + 62	Ctrl + 62	Alt + 62
Alt Modifier	57	57	57	57
Orange Mode	506	506	506	506
Blue Mode	503	503	503	503
Ctrl Modifier	113	113	113	113
Shift Modifier	59	59	59	59
F1	131	Shift + 131	Ctrl + 131	Alt + 131
F2	132	Shift + 132	Ctrl + 132	Alt + 132
F3	133	Shift + 133	Ctrl + 133	Alt + 133
F4	134	Shift + 134	Ctrl + 134	Alt + 134
F5	135	Shift + 135	Ctrl + 135	Alt + 135
F6	136	Shift + 136	Ctrl + 136	Alt + 136
F7	137	Shift + 137	Ctrl + 137	Alt + 137
F8	138	Shift + 138	Ctrl + 138	Alt + 138
F9	139	Shift + 139	Ctrl + 139	Alt + 139
F10	140	Shift + 140	Ctrl + 140	Alt + 140
F11	141	Shift + 141	Ctrl + 141	Alt + 141
F12	142	Shift + 142	Ctrl + 142	Alt + 142
P1	539	Shift + 539	Ctrl + 539	Alt + 539
P2	540	Shift + 540	Ctrl + 540	Alt + 540
Scan	505	505	505	505
Left Scan	507	507	507	507
Right Scan	508	508	508	508

Blue Mode

Key	Normal	 + Key	 + Key	 + Key
1	8	Shift + 8	Ctrl + 8	Alt + 8
2	9	Shift + 9	Ctrl + 9	Alt + 9
3	10	Shift + 10	Ctrl + 10	Alt + 10
4	11	Shift + 11	Ctrl + 11	Alt + 11
5	12	Shift + 12	Ctrl + 12	Alt + 12
6	13	Shift + 13	Ctrl + 13	Alt + 13
7	14	Shift + 14	Ctrl + 14	Alt + 14
8	15	Shift + 15	Ctrl + 15	Alt + 15
9	16	Shift + 16	Ctrl + 16	Alt + 16
0	7	Shift + 7	Ctrl + 7	Alt + 7
.	56	Shift + 56	Ctrl + 56	Alt + 56
,	55	Shift + 55	Ctrl + 55	Alt + 55
Up	19	Shift + 19	Ctrl + 19	Alt + 19
Down	20	Shift + 20	Ctrl + 20	Alt + 20
Left	21	Shift + 21	Ctrl + 21	Alt + 21
Right	22	Shift + 22	Ctrl + 22	Alt + 22
Enter	66	Shift + 66	Ctrl + 66	Alt + 66
Backspace	67	Shift + 67	600	Alt + 67
ESC	111	Shift + 111	Ctrl + 111	Alt + 111
Space	62	Shift + 62	Ctrl + 62	Alt + 62
Alt Modifier	57	57	57	57
Orange Mode	506	506	506	506
Blue Mode	503	503	503	503
Ctrl Modifier	113	113	113	113
Shift Modifier	59	59	59	59
F1	221	Shift + 221	Ctrl + 221	Alt + 221
F2	132	Shift + 132	Ctrl + 132	Alt + 132
F3	133	Shift + 133	Ctrl + 133	Alt + 133
F4	24	Shift + 24	Ctrl + 24	Alt + 24
F5	220	Shift + 220	Ctrl + 220	Alt + 220
F6	136	Shift + 136	Ctrl + 136	Alt + 136
F7	137	Shift + 137	Ctrl + 137	Alt + 137
F8	25	Shift + 25	Ctrl + 25	Alt + 25
F9	139	Shift + 139	Ctrl + 139	Alt + 139
F10	140	Shift + 140	Ctrl + 140	Alt + 140
F11	141	Shift + 141	Ctrl + 141	Alt + 141
F12	142	Shift + 142	Ctrl + 142	Alt + 142
P1	539	Shift + 539	Ctrl + 539	Alt + 539
P2	540	Shift + 540	Ctrl + 540	Alt + 540
Scan	505	505	505	505
Left Scan	507	507	507	507
Right Scan	508	508	508	508

Orange Mode

Key	Normal	 + Key
1	49	Shift + 49
2	50	Shift + 50
3	51	Shift + 51
4	46	Shift + 46
5	47	Shift + 47
6	48	Shift + 48
7	43	Shift + 43
8	44	Shift + 44
9	45	Shift + 45
0	53	Shift + 53
.	52	Shift + 52
,	54	Shift + 54
Up	19	Shift + 19
Down	20	Shift + 20
Left	21	Shift + 21
Right	22	Shift + 22
Enter	66	Shift + 66
Backspace	67	Shift + 67
ESC	111	Shift + 111
Space	62	Shift + 62
Alt Modifier	30	Shift + 30
Orange Mode	506	506
Blue Mode	503	503
Ctrl Modifier	29	Shift + 29
Shift Modifier	59	59
F1	31	Shift + 31
F2	32	Shift + 32
F3	33	Shift + 33
F4	34	Shift + 34
F5	35	Shift + 35
F6	36	Shift + 36
F7	37	Shift + 37
F8	38	Shift + 38
F9	39	Shift + 39
F10	40	Shift + 40
F11	41	Shift + 41
F12	42	Shift + 42
P1	539	Shift + 539
P2	540	Shift + 540
Scan	505	505
Left Scan	507	507
Right Scan	508	508

47-KEY KEYMAPPING

Normal Mode

Key	Normal	 + Key	 + Key
1	8	Shift + 8	Ctrl + 8
2	9	Shift + 9	Ctrl + 9
3	10	Shift + 10	Ctrl + 10
4	11	Shift + 11	Ctrl + 11
5	12	Shift + 12	Ctrl + 12
6	13	Shift + 13	Ctrl + 13
7	14	Shift + 14	Ctrl + 14
8	15	Shift + 15	Ctrl + 15
9	16	Shift + 16	Ctrl + 16
0	7	Shift + 7	Ctrl + 7
.	56	Shift + 56	Ctrl + 56
Enter	66	Shift + 66	Ctrl + 66
Backspace	67	Shift + 67	600
Orange Mode	506	506	506
Blue Mode	503	503	503
Ctrl Modifier	113	113	113
Shift Modifier	59	59	59
A	29	Shift + 29	Ctrl + 29
B	30	Shift + 30	Ctrl + 30
C	31	Shift + 31	Ctrl + 31
D	32	Shift + 32	Ctrl + 32
E	33	Shift + 33	Ctrl + 33
F	34	Shift + 34	Ctrl + 34
G	35	Shift + 35	Ctrl + 35
H	36	Shift + 36	Ctrl + 36
I	37	Shift + 37	Ctrl + 37
J	38	Shift + 38	Ctrl + 38
K	39	Shift + 39	Ctrl + 39
L	40	Shift + 40	Ctrl + 40
M	41	Shift + 41	Ctrl + 41
N	42	Shift + 42	537
O	43	Shift + 43	538
P	44	Shift + 44	Ctrl + 44
Q	45	Shift + 45	Ctrl + 45
R	46	Shift + 46	Ctrl + 46
S	47	Shift + 47	Ctrl + 47
T	48	Shift + 48	Ctrl + 48
U	49	Shift + 49	Ctrl + 49
V	50	Shift + 50	Ctrl + 50
W	51	Shift + 51	Ctrl + 51
X	52	Shift + 52	Ctrl + 52
Y	53	Shift + 53	Ctrl + 53
Z	54	Shift + 54	Ctrl + 54
P1	539	Shift + 539	Ctrl + 539
P2	540	Shift + 540	Ctrl + 540

Key	Normal	 + Key	 + Key
Scan	505	505	505
Left Scan	507	507	507
Right Scan	508	508	508

Blue Mode

Key	Normal	 + Key	 + Key
1	8	Shift + 8	Alt + 8
2	9	Shift + 9	Alt + 9
3	10	Shift + 10	Alt + 10
4	11	Shift + 11	Alt + 11
5	12	Shift + 12	Alt + 12
6	13	Shift + 13	Alt + 13
7	14	Shift + 14	Alt + 14
8	15	Shift + 15	Alt + 15
9	16	Shift + 16	Alt + 16
0	7	Shift + 7	Alt + 7
.	56	Shift + 56	Alt + 56
Enter	66	Shift + 66	Alt + 66
Backspace	62	Shift + 62	Alt + 62
Orange Mode	506	506	506
Blue Mode	503	503	503
Ctrl Modifier	57	57	57
Shift Modifier	59	59	59
A	131	Shift + 131	Alt + 131
B	132	Shift + 132	Alt + 132
C	133	Shift + 133	Alt + 133
D	134	Shift + 134	Alt + 134
E	135	Shift + 135	Alt + 135
F	136	Shift + 136	Alt + 136
G	137	Shift + 137	Alt + 137
H	138	Shift + 138	Alt + 138
I	139	Shift + 139	Alt + 139
J	140	Shift + 140	Alt + 140
K	141	Shift + 141	Alt + 141
L	142	Shift + 142	Alt + 142
M	41	Shift + 41	Alt + 41
N	42	Shift + 42	Alt + 42
O	43	Shift + 43	Alt + 43
P	44	Shift + 44	Alt + 44
Q	45	Shift + 45	Alt + 45
R	46	Shift + 46	Alt + 46
S	47	Shift + 47	Alt + 47
T	48	Shift + 48	Alt + 48
U	49	Shift + 49	Alt + 49
V	50	Shift + 50	Alt + 50
W	51	Shift + 51	Alt + 51
X	52	Shift + 52	Alt + 52
Y	25	Shift + 25	Alt + 25
Z	24	Shift + 24	Alt + 24
P1	111	Shift + 111	Alt + 111
P2	61	Shift + 61	Alt + 61
Scan	505	505	505
Left Scan	507	507	507
Right Scan	508	508	508

Orange Mode

Key	Normal	 + Key	 + Key
1	N/A	N/A	N/A
2	20	Shift + 20	Ctrl + 20
3	N/A	N/A	N/A
4	21	Shift + 21	Ctrl + 21
5	N/A	N/A	N/A
6	22	Shift + 22	Ctrl + 22
7	N/A	N/A	N/A
8	19	Shift + 19	Ctrl + 19
9	N/A	N/A	N/A
0	N/A	N/A	N/A
.	N/A	N/A	N/A
Enter	66	Shift + 66	Ctrl + 66
Backspace	67	Shift + 67	Ctrl + 67
Orange Mode	506	506	506
Blue Mode	503	503	503
Ctrl Modifier	113	113	113
Shift Modifier	59	59	59
A	29	Shift + 29	Ctrl + 29
B	30	Shift + 30	Ctrl + 30
C	31	Shift + 31	Ctrl + 31
D	32	Shift + 32	Ctrl + 32
E	33	Shift + 33	Ctrl + 33
F	34	Shift + 34	Ctrl + 34
G	35	Shift + 35	Ctrl + 35
H	36	Shift + 36	Ctrl + 36
I	37	Shift + 37	Ctrl + 37
J	38	Shift + 38	Ctrl + 38
K	39	Shift + 39	Ctrl + 39
L	40	Shift + 40	Ctrl + 40
M	41	Shift + 41	Ctrl + 41
N	42	Shift + 42	537
O	43	Shift + 43	538
P	44	Shift + 44	Ctrl + 44
Q	45	Shift + 45	Ctrl + 45
R	46	Shift + 46	Ctrl + 46
S	47	Shift + 47	Ctrl + 47
T	48	Shift + 48	Ctrl + 48
U	49	Shift + 49	Ctrl + 49
V	50	Shift + 50	Ctrl + 50
W	51	Shift + 51	Ctrl + 51
X	52	Shift + 52	Ctrl + 52
Y	53	Shift + 53	Ctrl + 53
Z	54	Shift + 54	Ctrl + 54
P1	539	Shift + 539	Ctrl + 539
P2	540	Shift + 540	Ctrl + 540
Scan	505	505	505
Left Scan	507	507	507
Right Scan	508	508	508

Orange Mode + Blue Mode

Key	Normal	 + Key	 + Key
1	N/A	N/A	N/A
2	20	Shift + 20	Alt + 20
3	N/A	N/A	N/A
4	21	Shift + 21	Alt + 21
5	N/A	N/A	N/A
6	22	Shift + 22	Alt + 22
7	N/A	N/A	N/A
8	19	Shift + 19	Alt + 19
9	N/A	N/A	N/A
0	N/A	N/A	N/A
.	N/A	N/A	N/A
Enter	66	Shift + 66	Alt + 66
Backspace	62	Shift + 62	Alt + 62
Orange Mode	506	506	506
Blue Mode	503	503	503
Ctrl Modifier	57	57	57
Shift Modifier	59	59	59
A	131	Shift + 131	Alt + 131
B	132	Shift + 132	Alt + 132
C	133	Shift + 133	Alt + 133
D	134	Shift + 134	Alt + 134
E	135	Shift + 135	Alt + 135
F	136	Shift + 136	Alt + 136
G	137	Shift + 137	Alt + 137
H	138	Shift + 138	Alt + 138
I	139	Shift + 139	Alt + 139
J	140	Shift + 140	Alt + 140
K	141	Shift + 141	Alt + 141
L	142	Shift + 142	Alt + 142
M	41	Shift + 41	Alt + 41
N	42	Shift + 42	Alt + 42
O	43	Shift + 43	Alt + 43
P	44	Shift + 44	Alt + 44
Q	45	Shift + 45	Alt + 45
R	46	Shift + 46	Alt + 46
S	47	Shift + 47	Alt + 47
T	48	Shift + 48	Alt + 48
U	49	Shift + 49	Alt + 49
V	50	Shift + 50	Alt + 50
W	51	Shift + 51	Alt + 51
X	52	Shift + 52	Alt + 52
Y	25	Shift + 25	Alt + 25
Z	24	Shift + 24	Alt + 24
P1	111	Shift + 111	Alt + 111
P2	61	Shift + 61	Alt + 61
Scan	505	505	505
Left Scan	507	507	507
Right Scan	508	508	508

53-KEY KEYMAPPING

Normal Mode

Key	Normal	 + Key
1	8	Ctrl + 8
2	9	Ctrl + 9
3	10	Ctrl + 10
4	11	Ctrl + 11
5	12	Ctrl + 12
6	13	Ctrl + 13
7	14	Ctrl + 14
8	15	Ctrl + 15
9	16	Ctrl + 16
0	7	Ctrl + 7
.	56	Ctrl + 56
*	17	Ctrl + 17
Up	19	537
Down	20	538
Left	21	Ctrl + 21
Right	22	Ctrl + 22
Enter	66	Ctrl + 66
Backspace	67	600
ESC	111	Ctrl + 111
Space	62	Ctrl + 62
Shift + Orange Mode	59	Ctrl + 59
Blue Mode	503	Ctrl + 503
Ctrl Modifier	113	Ctrl + 113
A	29	Ctrl + 29
B	30	Ctrl + 30
C	31	Ctrl + 31
D	32	Ctrl + 32
E	33	Ctrl + 33
F	34	Ctrl + 34
G	35	Ctrl + 35
H	36	Ctrl + 36
I	37	Ctrl + 37
J	38	Ctrl + 38
K	39	Ctrl + 39
L	40	Ctrl + 40
M	41	Ctrl + 41
N	42	Ctrl + 42
O	43	Ctrl + 43
P	44	Ctrl + 44
Q	45	Ctrl + 45
R	46	Ctrl + 46
S	47	Ctrl + 47
T	48	Ctrl + 48
U	49	Ctrl + 49
V	50	Ctrl + 50
W	51	Ctrl + 51

Key	Normal	 + Key
X	52	Ctrl + 52
Y	53	Ctrl + 53
Z	54	Ctrl + 54
P1	539	Ctrl + 539
P2	540	Ctrl + 540
Scan	505	505
Left Scan	507	507
Right Scan	508	508

Blue Mode

Key	Normal	 + Key
1	131	Alt + 131
2	132	Alt + 132
3	133	Alt + 133
4	134	Alt + 134
5	135	Alt + 135
6	136	Alt + 136
7	137	Alt + 137
8	138	Alt + 138
9	139	Alt + 139
0	140	Alt + 140
.	122	Alt + 122
*	123	Alt + 123
Up	19	Alt + 19
Down	20	Alt + 20
Left	21	Alt + 21
Right	22	Alt + 22
Enter	66	Alt + 66
Backspace	112	Alt + 112
ESC	111	Alt + 111
Space	124	Alt + 124
Shift + Orange Mode	59	59
Blue Mode	503	503
Ctrl Modifier	57	57
A	29	Alt + 29
B	30	Alt + 30
C	31	Alt + 31
D	221	Alt + 221
E	33	Alt + 33
F	34	Alt + 34
G	35	Alt + 35
H	24	Alt + 24
I	220	Alt + 220
J	38	Alt + 38
K	39	Alt + 39
L	40	Alt + 40
M	25	Alt + 25
N	Shift + 55	N/A
O	Shift + 56	N/A
P	71	Alt + 71
Q	72	Alt + 72
R	Shift + 73	N/A
S	81	Alt + 81
T	69	Alt + 69
U	17	Alt + 17
V	76	Alt + 76
W	70	Alt + 70
X	52	Alt + 52
Y	53	Alt + 53
Z	54	Alt + 54

Key	Normal	 + Key
P1	539	Alt + 539
P2	61	Alt + 61
Scan	505	505
Left Scan	507	507
Right Scan	508	508

Orange Mode

Key	 + Key	 + Key
1	Shift + 141	Ctrl + 141
2	Shift + 142	Ctrl + 142
3	Shift + 601	Ctrl + 601
4	Shift + 602	Ctrl + 602
5	Shift + 603	Ctrl + 603
6	Shift + 604	Ctrl + 604
7	Shift + 605	Ctrl + 605
8	Shift + 606	Ctrl + 606
9	Shift + 607	Ctrl + 607
0	Shift + 608	Ctrl + 608
.	Shift + 56	Ctrl + 56
*	Shift + 17	Ctrl + 17
Up	Shift + 19	537
Down	Shift + 20	538
Left	Shift + 21	Ctrl + 21
Right	Shift + 22	Ctrl + 22
Enter	Shift + 66	Ctrl + 66
Backspace	Shift + 67	600
ESC	Shift + 111	Ctrl + 111
Space	Shift + 62	Ctrl + 62
Shift + Orange Mode	59	59
Blue Mode	503	503
Ctrl Modifier	113	113
A	Shift + 29	Ctrl + 29
B	Shift + 30	Ctrl + 30
C	Shift + 31	Ctrl + 31
D	Shift + 32	Ctrl + 32
E	Shift + 33	Ctrl + 33
F	Shift + 34	Ctrl + 34
G	Shift + 35	Ctrl + 35
H	Shift + 36	Ctrl + 36
I	Shift + 37	Ctrl + 37
J	Shift + 38	Ctrl + 38
K	Shift + 39	Ctrl + 39
L	Shift + 40	Ctrl + 40
M	Shift + 41	Ctrl + 41
N	Shift + 42	Ctrl + 42
O	Shift + 43	Ctrl + 43
P	Shift + 44	Ctrl + 44
Q	Shift + 45	Ctrl + 45
R	Shift + 46	Ctrl + 46
S	Shift + 47	Ctrl + 47
T	Shift + 48	Ctrl + 48
U	Shift + 49	Ctrl + 49
V	Shift + 50	Ctrl + 50
W	Shift + 51	Ctrl + 51
X	Shift + 52	Ctrl + 52
Y	Shift + 53	Ctrl + 53
Z	Shift + 54	Ctrl + 54

Key	 + Key	 + Key
P1	Shift + 539	Ctrl + 539
P2	Shift + 540	Ctrl + 540
Scan	505	505
Left Scan	507	507
Right Scan	508	508

Orange Mode + Blue Mode

Key	 + Key	 + Key
1	131	Ctrl + 131
2	132	Ctrl + 132
3	133	Ctrl + 133
4	134	Ctrl + 134
5	135	Ctrl + 135
6	136	Ctrl + 136
7	137	Ctrl + 137
8	138	Ctrl + 138
9	139	Ctrl + 139
0	140	Ctrl + 140
.	Shift + 56	Ctrl + 56
*	Shift + 17	Ctrl + 17
Up	Shift + 19	537
Down	Shift + 20	538
Left	Shift + 21	Ctrl + 21
Right	Shift + 22	Ctrl + 22
Enter	Shift + 66	Ctrl + 66
Backspace	Shift + 67	600
ESC	Shift + 111	Ctrl + 111
Space	Shift + 62	Ctrl + 62
Shift + Orange Mode	59	59
Blue Mode	503	503
Ctrl Modifier	113	113
A	Shift + 29	Ctrl + 29
B	Shift + 30	Ctrl + 30
C	Shift + 31	Ctrl + 31
D	Shift + 32	Ctrl + 32
E	Shift + 33	Ctrl + 33
F	Shift + 34	Ctrl + 34
G	Shift + 35	Ctrl + 35
H	Shift + 36	Ctrl + 36
I	Shift + 37	Ctrl + 37
J	Shift + 38	Ctrl + 38
K	Shift + 39	Ctrl + 39
L	Shift + 40	Ctrl + 40
M	Shift + 41	Ctrl + 41
N	Shift + 42	Ctrl + 42
O	Shift + 43	Ctrl + 43
P	Shift + 44	Ctrl + 44
Q	Shift + 45	Ctrl + 45
R	Shift + 46	Ctrl + 46
S	Shift + 47	Ctrl + 47
T	Shift + 48	Ctrl + 48
U	Shift + 49	Ctrl + 49
V	Shift + 50	Ctrl + 50
W	Shift + 51	Ctrl + 51
X	Shift + 52	Ctrl + 52
Y	Shift + 53	Ctrl + 53
Z	Shift + 54	Ctrl + 54

Key	 + Key	 + Key
P1	Shift + 539	Ctrl + 539
P2	Shift + 540	Ctrl + 540
Scan	505	505
Left Scan	507	507
Right Scan	508	508

CL CUSTOMIZE KEYCODE

New Keycode	Value
KEYCODE_ALT	57
KEYCODE_CTRL	113
KEYCODE_BLUE	503
KEYCODE_SHIFT	59
KEYCODE_TRIGGER	505
KEYCODE_ORANGE	506
KEYCODE_TRIGGER_LEFT	507
KEYCODE_TRIGGER_RIGHT	508
KEYCODE_TN_INS	520
KEYCODE_TN_HOME	521
KEYCODE_TN_RSET	522
KEYCODE_TN_PA1	523
KEYCODE_TN_PA2	524
KEYCODE_TN_PA3	525
KEYCODE_TN_ER_INP	526
KEYCODE_TN_FLD_MRK	527
KEYCODE_TN_ATTN	528
KEYCODE_TN_BCK_TAB	529
KEYCODE_TN_CLR_EOF	530
KEYCODE_TN_SYS_RQ	531
KEYCODE_TN_DUP	532
KEYCODE_TN_FLD-	533
KEYCODE_TN_//	534
KEYCODE_TN_PRNT	535
KEYCODE_TN_HELP	536
KEYCODE_TN_RL_UP	537
KEYCODE_TN_RL_DN	538
KEYCODE_P1	539
KEYCODE_P2	540
KEYCODE_BATTERY_COVER	541
KEYCODE_Fx	542
KEYCODE_Fy	543
KEYCODE_Fz	544
KEYCODE_PISTOL	545
KEYCODE_PISTOL_CONNECT	548
KEYCODE_F13	601
KEYCODE_F14	602
KEYCODE_F15	603
KEYCODE_F16	604
KEYCODE_F17	605
KEYCODE_F18	606
KEYCODE_F19	607
KEYCODE_F20	608

APPENDIX III

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