

HERA51 Mobile POS

Android™ 8.1, Oreo™

Version 1.00

IMPORTANT NOTICES

FOR USA

FCC ID: 2ASPU-HERA51

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 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.

How to find e-label information:

please select the menu items in the order as shown below on the phone display.

Setup → About Phone → Regulatory information



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 POS at ambient temperatures from 0°C to 50°C and with humidity range from 5% to 95%.
- ▶ Store the device at ambient temperatures from -20°C to 60°C and with humidity range from 5% to 95%.
- ▶ Charge the device at ambient temperatures from 0°C to 40°C.

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.

- ▶ FCC SAR Value (Standard limit is 1.6 W/Kg)
- ▶ USA (1g): Max. 1.59 W/Kg

Body-worn Operation

This device was tested for typical body-worn operations. To comply with RF exposure requirements, a minimum separation distance of 10 mm must be maintained between the user's body and the handset, including the antenna. Third-party belt-clips, holsters, and similar accessories used by this device should not contain any metallic components. Body-worn accessories that do not meet these requirements may not comply with RF exposure requirements and should be avoided.

SAFETY PRECAUTIONS

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.

For the equipment

- ▶ Do not use any batteries or charging devices which are not originally sold or manufactured by MPLUS TECHNOLOGY 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 POS or battery to any flammable sources.
- ▶ Do not expose the mobile POS 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 MPLUS TECHNOLOGY 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

- ▶ Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.
- ▶ The main battery may not be charged to full for shipment. Charge the main battery to full before using the mobile POS for the first time.
- ▶ **Main battery:** The main battery powers the mobile POS to work. It takes approximately 4 hours to charge an empty main battery to 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 POS in suspension when the main battery is drained out so data in DRAM will be retained. The backup battery takes approximately 4 hours to charge to full by the main battery or power adapter.
- ▶ The allowed battery charging ambient temperature is between 0°C to 40°C. It is recommended to charge the battery at room temperature (18°C to 25°C) for optimal performance.
- ▶ Battery charging stops when ambient temperature drops below 0°C or exceeds 40°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 POS 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 battery replacement.
- ▶ If you want to put away the mobile POS for a period of time, remove the battery pack from the mobile POS's battery compartment. Store the mobile POS 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. USA and Canada e-label

CONNECTION

Via Bluetooth or WLAN

- ▶ Connection may fail when the mobile POS 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 POS 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 cradle

- ▶ Do not insert the mobile POS to a charging cradle if water or drippings are staying on the device.
- ▶ The LED indicator on a charging 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

- ▶ Damage may be done to the mobile POS if it is exposed to extreme temperatures or soaked in water.
- ▶ When the body of the mobile POS 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 POS for a period of time, download the collected data to a host computer, and then remove the battery pack from the mobile POS's battery compartment. Store the mobile POS and battery pack separately.
- ▶ If you encounter malfunction on the mobile POS, write down the specific scenario and consult your local sales representative.

NCC CAUTION

- ▶ 本產品支援 LTE/WCDMA /WiFi/Bluetooth/NFC
- ▶ 減少電磁波影響，請妥適使用。
- ▶ SAR 標準值 2.0W/Kg；送測產品實測值為：0.441W/Kg。
- ▶ 應避免影響附近雷達系統之操作
- ▶ 低功率警語：
 - 經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。
 - 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。低功率射頻電機須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。

E-LABEL

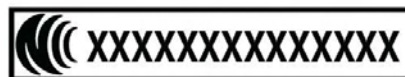
Mobile POS
Model : HERA51

US
FCC ID : 2ASPU-HERA51



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.

TW



減少電磁波影響,請妥適使用

RELEASE NOTES

Version	Date	Notes
1.00	March 27, 2019	Initial release

CONTENTS

IMPORTANT NOTICES.....	- 3 -
For USA	- 3 -
For Product with Laser	- 4 -
Environment	- 4 -
Specific Absorption Rate (SAR) information	- 4 -
Safety Precautions	- 5 -
Battery.....	- 6 -
Scanner.....	- 6 -
Connection.....	- 7 -
Care & Maintenance.....	- 7 -
NCC CAUTION	- 7 -
E-Label	- 8 -
RELEASE NOTES	- 9 -
CONTENTS.....	11
INTRODUCTION	14
Features.....	15
Inside the Package	15
Accessories	15
Related Documentation	15
QUICK START	16
1.1. Overview	17
1.1.1. Installing/ Removing Battery	18
1.1.2. Installing SIM Card, SAM Card and Memory Card	20
1.1.3. Power On/Off Mobile POS	22
1.1.4. Homescreen Selection.....	23
1.1.5. Using Hardware Buttons.....	24
1.2. Charging & Communication.....	25
1.2.1. Charge Mobile POS	25
1.2.2. Wired Data Transmission	28
1.2.3. Using Wireless Networks	29
USING THE HERA51 MOBILE POS.....	30
2.1. Battery	31
2.1.1. Battery Status Indicators.....	32
2.1.2. Monitor Battery Level	34
2.1.3. Replace Main Battery	38
2.1.4. Power Management	40
2.1.5. Battery Temperature Anomaly	42
2.2. Memory.....	43
2.2.1. Check Memory Usage	44

2.2.2.	Manage Storage Space	46
2.3.	Touch Screen	54
2.3.1.	Screen Brightness	54
2.3.2.	Screen rotation	55
2.3.3.	Screen Timeout Settings	59
2.3.4.	Text Size & Display Size	60
2.4.	Notifications	61
2.4.1.	Status LED	61
2.4.2.	Audio	62
2.4.3.	Sounds and Vibration	63
2.5.	Date and Time	67
2.6.	Language & Keyboard Input.....	69
2.6.1.	Change Display Language	69
2.6.2.	On-screen Keyboard	71
2.7.	Sound and Volume	83
2.8.	Button Assignment	84
2.9.	Data Capture	90
2.9.1.	Barcode Reader	90
2.9.2.	Digital Camera.....	90
BASIC OPERATION		91
3.1.	Home Screen.....	92
3.1.1.	Customize Home Screen	93
3.2.	Status Bar	96
3.2.1.	Icons on Status Bar	96
3.2.2.	Open Quick Settings Menu	98
3.2.3.	Open Notifications Drawer.....	101
3.3.	Manage Applications.....	104
3.3.1.	Application Menu.....	104
3.3.2.	Current Applications.....	106
3.4.	Suspend & Lock.....	107
3.4.1.	Suspend Device.....	107
3.4.2.	Lock Device	107
3.5.	OS Update	109
3.6.	Back up Your Data.....	111
3.7.	Reset to Factory Default	113
3.7.1.	Erase All Data (Factory Reset).....	113
3.7.2.	Erase All Data (Factory Reset with Enterprise)	115
3.7.3.	Welcome Wizard	116
WIRELESS RADIOS		118
4.1.	Use Wireless Wide Area Network.....	119
4.1.1.	Share WWAN Data	120
4.1.2.	Data Connection Settings	129
4.1.3.	SIM Card Settings.....	131
4.2.	Use Wireless Local Area Network (Wi-Fi).....	133
4.2.1.	Connect to Wi-Fi Network.....	133
4.2.2.	Manually Add Wi-Fi Network.....	135
4.2.3.	Wi-Fi Preferences	137
4.2.4.	Configure Proxy Server	139
		CONTENTS
4.2.5.	Use Static IP Address.....	139
4.2.6.	Connect With Wi-Fi Protected Setup (WPS).....	140

4.2.7.	Modify Wi-Fi Network.....	141
4.2.8.	Disconnect Wi-Fi Network.....	141
4.3.	Use Bluetooth.....	142
4.3.1.	Bluetooth Profiles.....	142
4.3.2.	Turn On Bluetooth	143
4.3.3.	Change Bluetooth Name.....	145
4.3.4.	Pair Bluetooth Devices	146
4.3.5.	Unpair Bluetooth Device	147
4.4.	Use Near Field Communications.....	148
4.4.1.	Pair with NFC Enabled Bluetooth Devices	149
4.4.2.	Share Information.....	149
4.4.3.	Communication with NFC	149
USING THE PHONE		150
5.1.	SIM Card Management.....	151
5.2.	Phone Application.....	153
5.2.1.	Phone Interface	153
5.2.2.	Place Call	155
5.2.3.	During A Call	156
5.2.4.	Receive Incoming Call	158
5.2.5.	Check Missed Calls	158
5.2.6.	Call History	159
5.2.7.	Call Settings	160
5.2.8.	Make Multi-Party Calls.....	161
5.3.	Audio Modes	162
5.4.	In-call Volume	163
USING READER CONFIGURATION UTILITY		164
6.1.	Configuring Reader	165
6.1.1.	General Settings.....	166
6.1.2.	Symbology	172
6.1.3.	Miscellaneous.....	175
6.1.4.	Reader Config Option Menu.....	176
6.2.	Read Printed Barcodes	183
SPECIFICATIONS		185
Platform, Processor & Memory		185
Communication & Data Capture		186
Electrical Characteristics.....		187
Physical Characteristics		187
Environmental Characteristics.....		188
Programming Support.....		189

INTRODUCTION

The **HERA51** mobile POS, powered by Android 8.1 Oreo, 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 capacitive display guarantees ease in reading in all lighting conditions. Integrated with Bluetooth 2.1EDR/4.0 BLE/V4.1, 802.11 b/g/n and 802.11 a/ac/n technologies, the mobile POS also includes a GSM/GPRS/EDGE/WCDMA/HSPA/HSPA+/LTE CAT 6 module to gain greater speeds and optimal mobility. In particular, an integrated GPS receiver is made available for use with third-party location-based applications.

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

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

- ▶ Android 8.1 Oreo operating system with a powerful Cortex 1.3 GHz Quad-Core processor
- ▶ 16GB eMMC flash memory to store OS and software programs
- ▶ 2GB LPDDR3 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 64GB.
- ▶ Built-in 13 Megapixel rear camera with white LED for flash and auto focus.
- ▶ One side trigger for scanning
- ▶ Total wireless solution — connectivity includes Bluetooth 2.1EDR/4.0 BLE/V4.1, 802.11 b/g/n and 802.11 a/ac/n networking, GSM/GPRS/EDGE/WCDMA/HSPA/HSPA+/LTE CAT6.
- ▶ A 4.7" color transmissive display with 720x1280 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
- ▶ Accessories and peripherals include Snap-on Charging Cable and Charging Cradle (both are capable of USB Charging and Data Transfer)

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 POS.

- ▶ HERA51 Mobile POS
- ▶ Rechargeable Li-ion battery pack
- ▶ Hand Strap
- ▶ Micro USB Charging and Data Transfer Cable
- ▶ Snap-on Charging Cable
- ▶ AC Power Adaptor
- ▶ Quick Start Guide

ACCESSORIES

- ▶ Handbelt
- ▶ Charging cradle

RELATED DOCUMENTATION

Log in to **GoBetween** to access related documentation about the HERA51 mobile POS from the CipherLab Central Service (CCS) platform. Download the **GoBetween desktop** or mobile device application, or launch the GoBetween Lite web application from the following site: <http://ccs.cipherlab.com/>.

Chapter 1

QUICKSTART

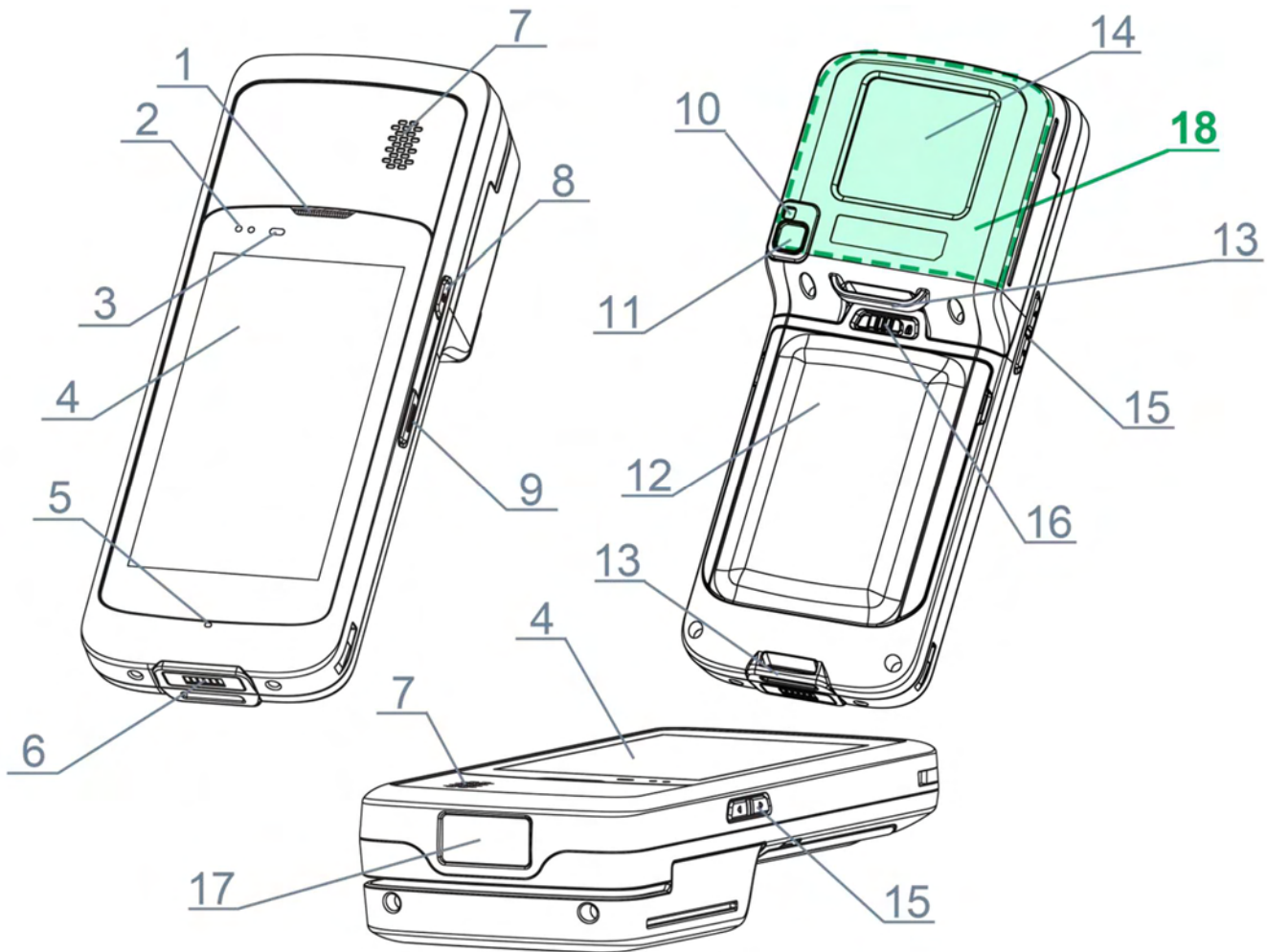
This chapter helps you get ready for starting using the mobile POS.

IN THIS CHAPTER

1.1 Overview 17

1.2 Charging & Communication 25

1.1. OVERVIEW



No.	Description	No.	Description
1	Phone Receiver	2	Status LEDs
3	Light Sensor & Proximity Sensor	4	Touch Screen
5	Microphone	6	Charging & Communication Port
7	Loudspeaker	8	Power Button
9	Side Trigger Key	10	Camera Flash
11	Camera	12	Battery (with Cover)
13	Hand Strap Hole	14	Card Reader
15	Volume Keys	16	Battery Latch
17	Scan Window	18	NFC Detection Area

1.1.1. INSTALLING/ REMOVING BATTERY

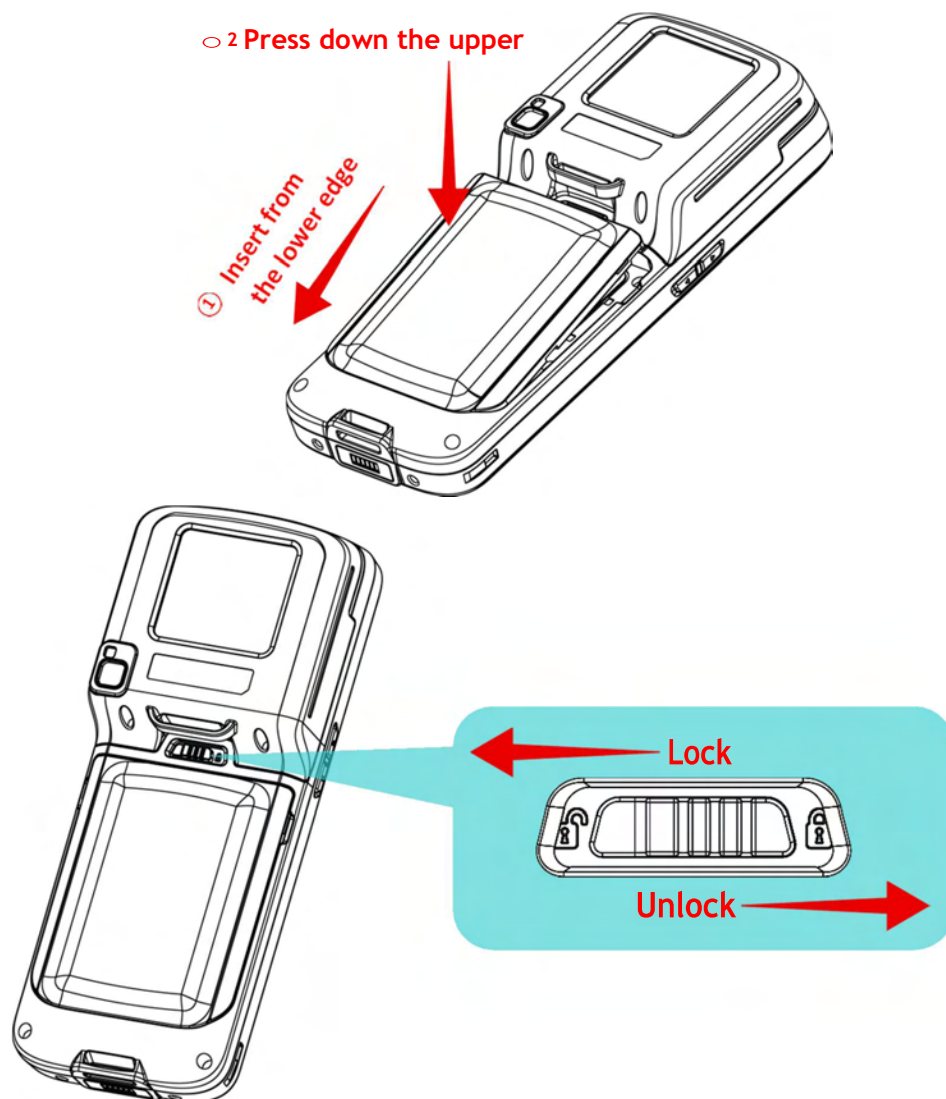
For shipping and storage purposes, the mobile POS and the main battery are saved in separate packages.

Note: Any improper handling may reduce the battery life.

INSTALL MAIN BATTERY

To install the main battery, please:

- 1) Insert the main battery with the contact pins facing the lower end. Fix the lower edge of the battery first.
- 2) Then push down the upper end. The battery latch will fit into place with a click sound.



IMPORTANT CHARGING INFORMATION

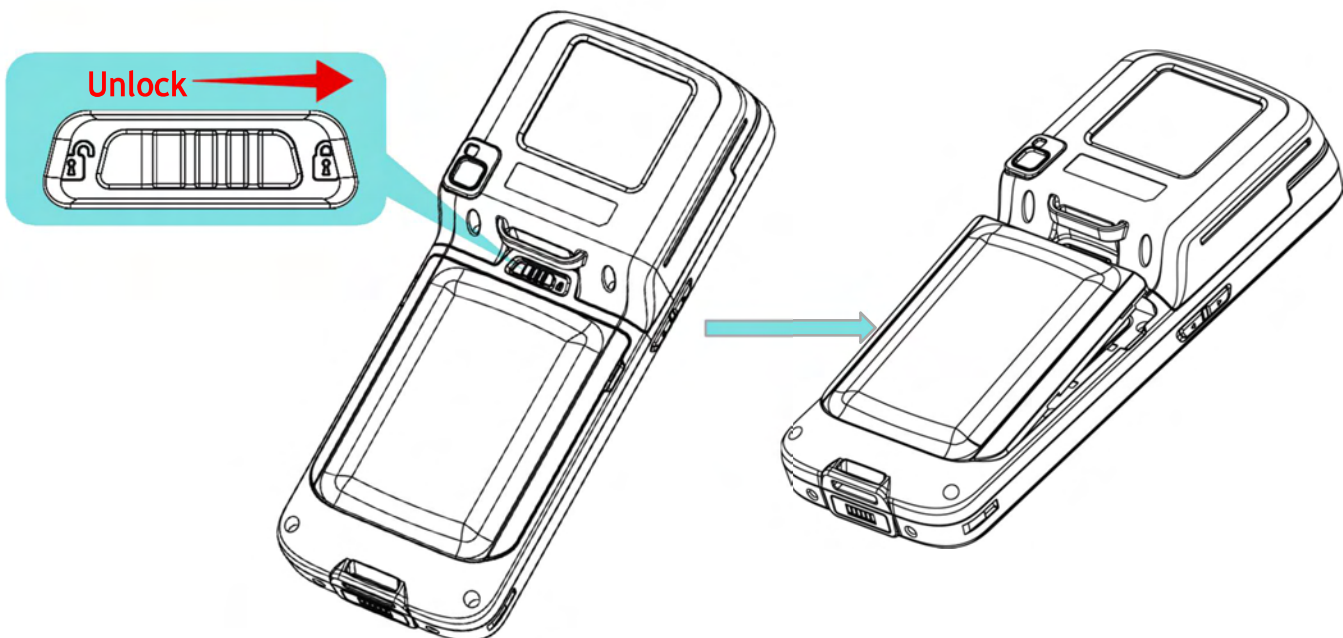
Power Adaptor	Input: AC 100-240V, 50-60Hz; output: 5V/2A CipherLab approved
Battery Pack	3.8V 4000mAh rechargeable Li-ion CipherLab proprietary
Charging time	Approx. 4 hours via adapter at 25°C For the first time charging the main battery, please charge it for at least 8 to 12 hours.

Note:

For initial use, insert a charged battery, and then press the Power key to power on the mobile POS.

REMOVE BATTERY

- 1) Shut down this device first.
- 2) Slide the key latch rightwards; the battery will be unlocked with a click sound.
- 3) Lift the battery up from its upper end.

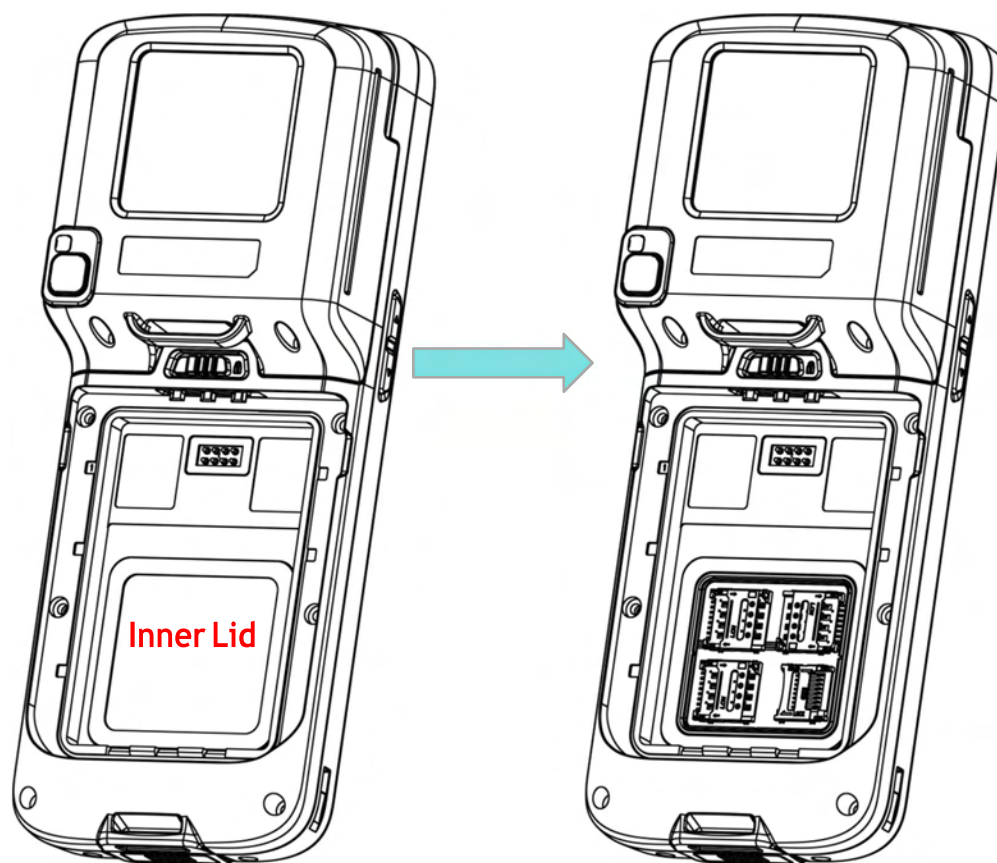


1.1.2. INSTALLING SIM CARD, SAM CARD AND MEMORY CARD

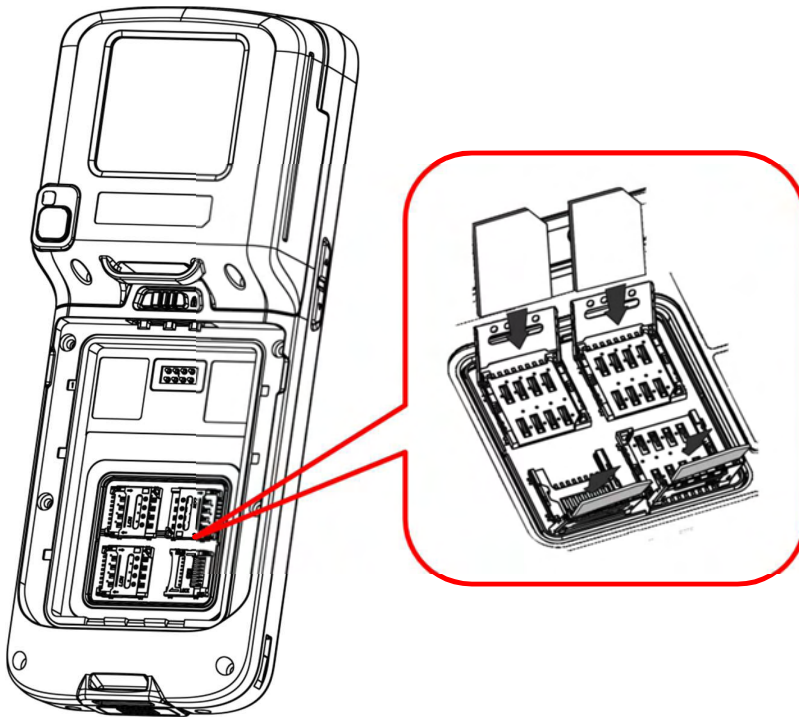
The HERA51 mobile POS is equipped with one SIM card slot, two SAM card slot and one memory card slot.

To insert the cards:

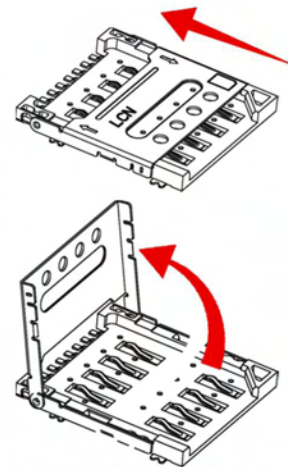
- 1) Remove the battery as described in [Remove Battery](#).
- 2) Insert your fingernail into the notch above the inner lid that protects the card sockets chamber, and lift it up.



- 3) After the chamber is revealed, insert SIM cards, the SAM card and the microSD card into their respective sockets. Close and push back the hinged cover till a click sounds.

**To Install the Cards:**

- 1) Slide the hinged cover back.
- 2) Swing the top to open.
- 3) Insert the cards, close the hinged cover, and then push it back.



- 4) Replace the inner lid.
- 5) Replace the battery.

Note:

Refer to [SIM Card Management](#) for details on managing SIM card.

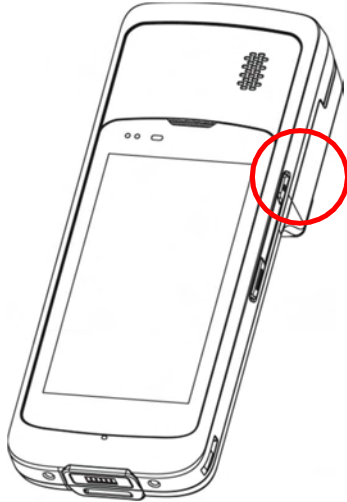
REMOVE CARDS

- 1) Remove the battery.
- 2) Remove the inner lid.
- 3) Unlock the card hinge cover and remove the card.
- 4) Mount the inner lid and the battery.

1.1.3. POWER ON/OFF MOBILE POS

POWER ON

To power on the mobile POS, press and hold the power button  located on the upper right side of the device. The mobile POS will turn on and show the [Home Screen](#) after splash screen.



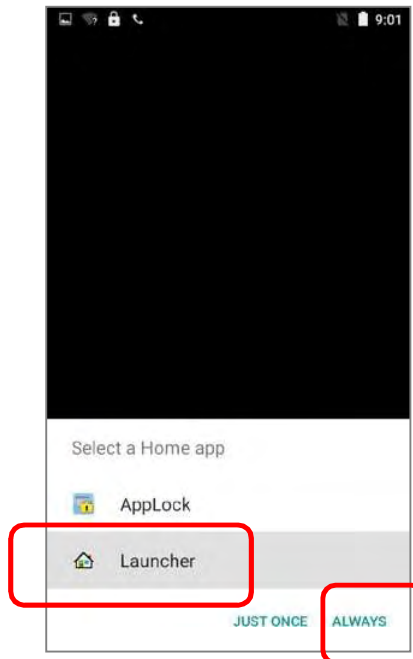
Note: For the mobile POS to power on, the battery cover must be secured in place.

POWER OFF

To power off the mobile POS, 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. HOMESCREENSELECTION

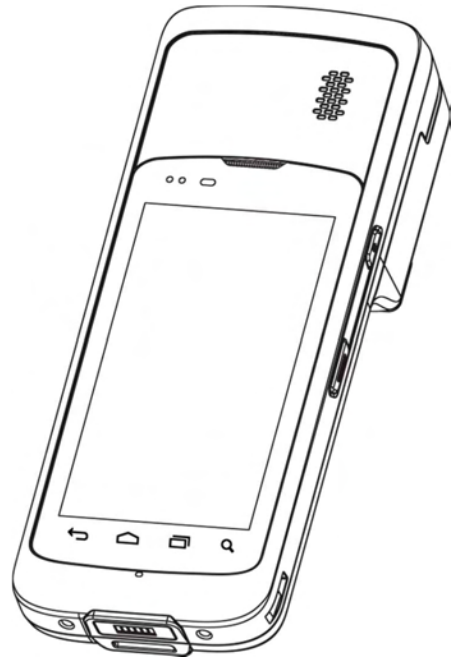
Upon the first time you launch the system, a **Select Home app** window will pop up to request your immediate choice of home screen. By selecting "**AppLock**", you will directly enter AppLock application (please refer to *AppLock User Guide* for detailed instructions on AppLock settings) to start configuring the interface provided to normal users of this device; by selecting "**Launcher**", you will enter the default Android 8.1 home screen.



1.1.5. USING HARDWARE BUTTONS

On the bottom of the mobile POS are three hardware buttons that deliver the following functions:

Button	Function	Description
	Back button	Returns to the previous screen or closes the active window or keyboard.
	Home button	Displays the Home screen.
	Recent apps button	Opens a list of recently used applications.
	Search button	Performs Google™ search online



1.2. CHARGING & COMMUNICATION

1.2.1. CHARGE MOBILE POS

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 POS. You may use the Snap-on Charging Cable or Charging Cradle along with a power adapter to charge the mobile POS.

Your device can be charged as well when connected to a computer via USB cable; however, charging from a USB port on a computer is slower than charging using the Snap-on Charging Cable/Charging Cradle (all powered by the AC power adaptor).

CHARGING TIME

▶ **Main battery:**

The main battery powers the mobile POS to work. It takes approximately 4 hours to charge an empty main battery to 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 (located on the right) 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 POS in suspension when the main battery is drained out so data in DRAM will be retained. The backup battery takes approximately 3.5 hours to charge to full by the main battery or power adapter.

CHARGING TEMPERATURE

The allowed battery charging ambient temperature is between 0°C to 40°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 40°C.

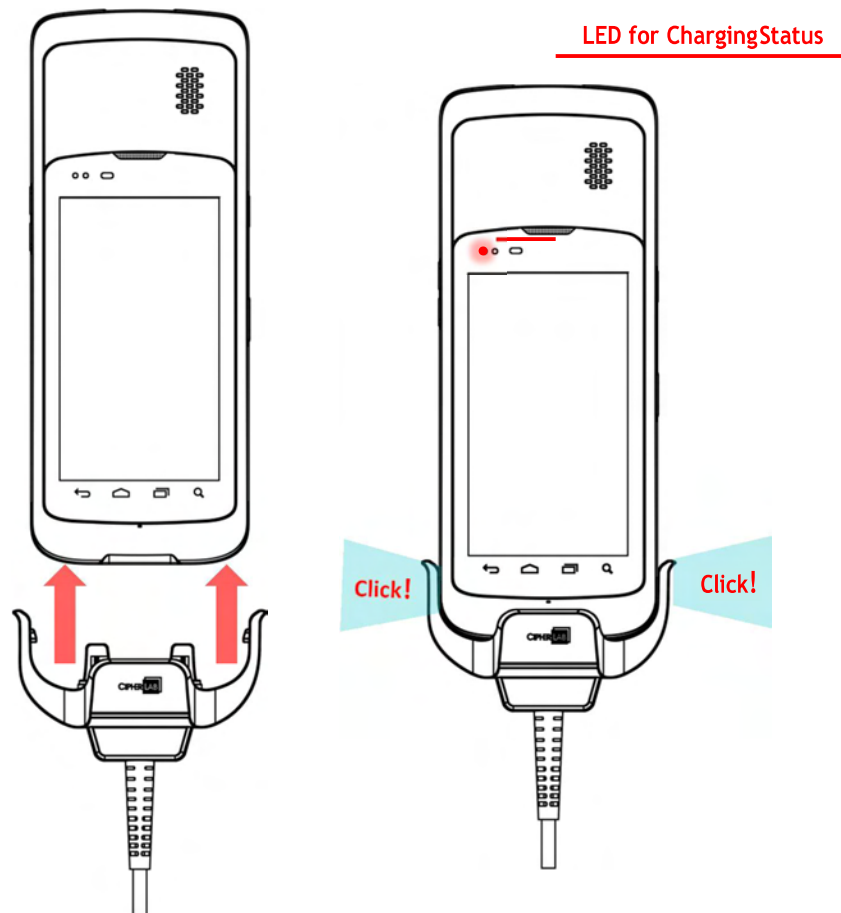
OPERATION ON BATTERY POWER

- ▶ When 802.11a/b/g/n/ac, GSM/GPRS/EDGE/WCDMA/HSPA/HSPA+/LTE CAT 6, Bluetooth v4.1 & v2.1+EDR and GPS 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 POS to an external power.

USE SNAP-ON CHARGING CABLE

The Snap-on Charging Cable provides a convenient way to charge your mobile POS.

- 1) Fasten the Snap-on Charging Cable to the lower end of the mobile POS.
- 2) Connect the other end of the cable to a USB port or the adaptor.
- 3) Fix the adapter plug onto the adapter, and plug in into an electrical outlet.



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

LED Indicator	Status	Description
Charging Status	Red, solid	Charging in progress
	Red, blink	Charging error
	Green, solid	Charging completes
	No light	The cable is not correctly connected

USE CHARGING CRADLE

The Charging Cradle can charge your mobile POS and a spare battery at the same time:

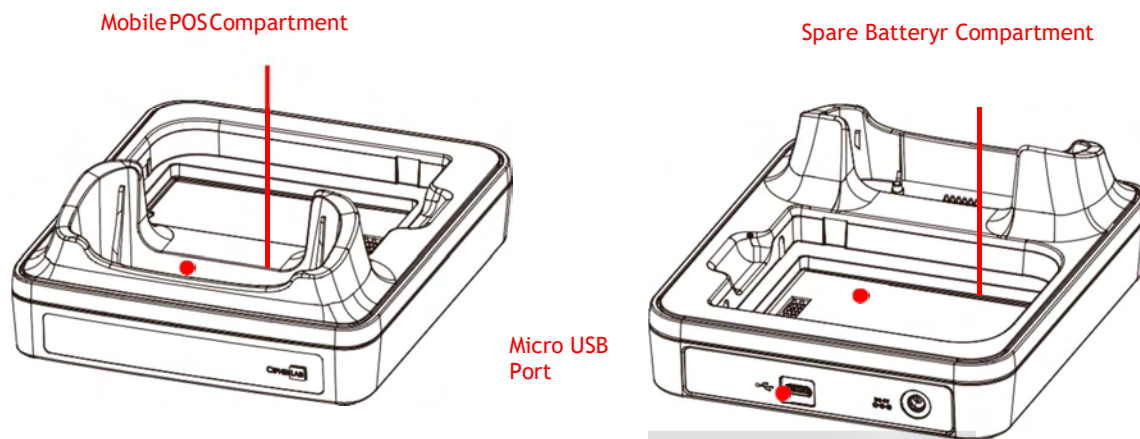
Presents charging compartment for mobile POS and spare battery

Provides micro USB socket on the back for charging

Supports USB Host Mode via a USB OTG cable

Completes charging in approximately 5 hours

Adapter input AC 100-240V, 50/60Hz; output DC 5V, 2A.



To charge your mobile POS via the Charging Cradle:

- 1) Smoothly insert the mobile POS into the Charging Cradle.
- 2) Connect the adapter to the Cradle, and plug the other end into an electrical outlet.

The status of the mobile POS charging is shown on the device itself; while the LED indicator on HERA51 Charging Cradle shows the status of battery charging as below:

Cradle LED Indicator	Status	Description
Charging	Red, solid	Charging the battery
	Red, blink	Charging error
	Green, solid	Charging completes
	No light	Not charging

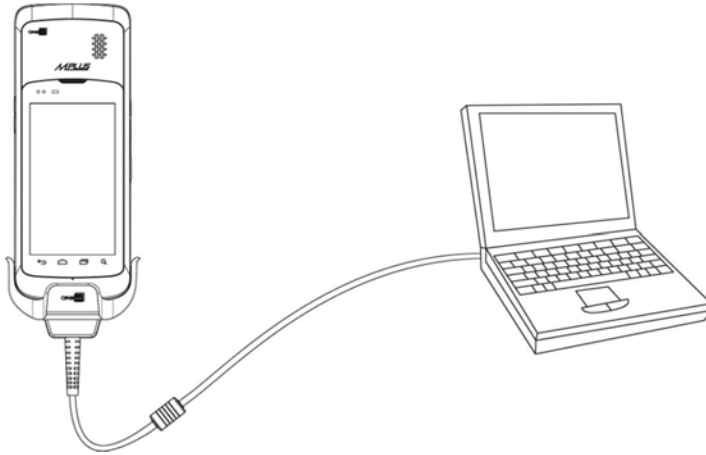
Note:

- (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.

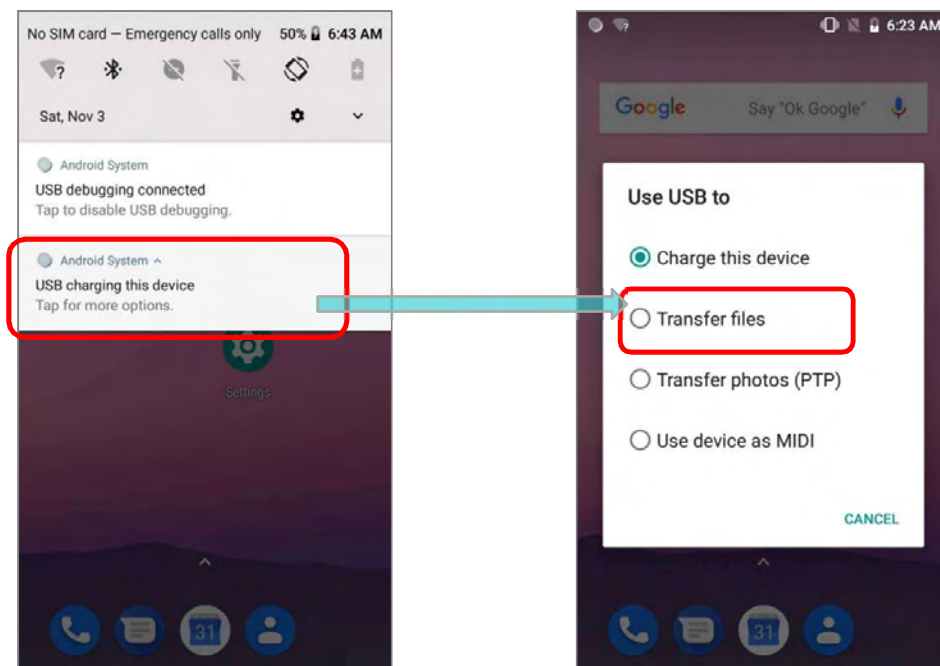
1.2.2. WIRED DATA TRANSMISSION

Use the Snap-on cable to connect the mobile POS to your PC for data transmission.

- 1) Connect your device to the computer with the supplied Snap-on cable.



- 2) Swipe down from the status bar to reveal Notifications Drawer.
- 3) Tap "**USB charging this device**" to enter USB options. "**Transfer files**" is set by default to transfer all types of files between your device and PC. To transfer videos and photos, you can select "**Transfer photos (PTP)**", in which your device will share only videos and photos in DCIM and Pictures folders. Choosing "**Charging this device**", the device will be in charging mode, in which you are unable to access the files on this device from the PC client.



1.2.3 USING WIRELESS NETWORKS

The mobile POS supports widely applied wireless technologies including Bluetooth v4.1 & v2.1+EDR, 802.11 a/b/g/n/ac, and is able to send/receive data in real time in an efficient way. Select GSM/GPRS/EDGE/WCDMA/HSPA/HSPA+/LTE CAT 6 modules embedded for a total wireless solution for data and voice communication.

Chapter 2

USING THE HERA51 MOBILE POS

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

IN THIS CHAPTER

2.1 Battery	31
2.2 Memory	43
2.3 Touch Screen	54
2.4 Notifications	61
2.5 Date and Time	67
2.6 Language & Keyboard Input	69
2.7 Sound and Volume	83
2.8 Button Assignment.....	84
2.9 Data Capture.....	90

2.1. BATTERY

▶ **Main Battery**

The mobile POS is powered by a rechargeable 3.8V / 4000 mAh Li-ion battery pack. It takes approximately 4 hours to charge it to full from the power adaptor (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 POS in suspension when the main battery is depleted. The backup battery is a 60 mAh rechargeable Li-ion battery, and can retain data in the DRAM for 30 minutes when it is fully charged (as long as wireless modules on the mobile POS are inactive). The backup battery can be charged by the main battery or the power adaptor, and takes approximately 3.5 hours to charge to full.

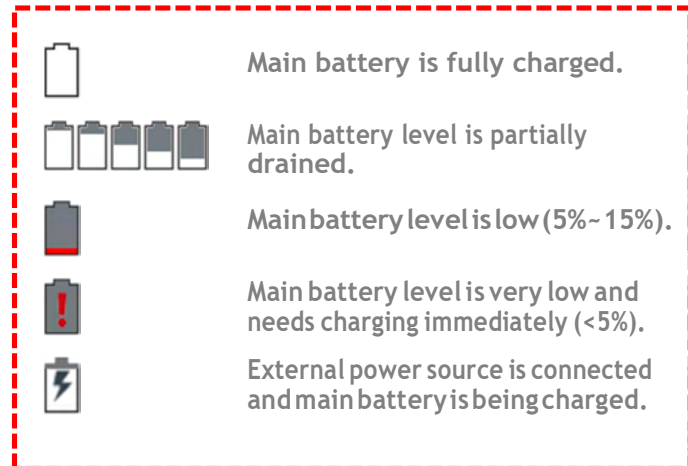
Warning:

- (1) The battery must be secured in position. If not, the mobile POS cannot turn on by pressing the power key.
 - (2) For a new battery, make sure it is fully charged before using, and for the first time charging the main battery, please charge it for at least 8 to 12 hours
 - (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 POS 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. BATTERYSTATUSINDICATORS

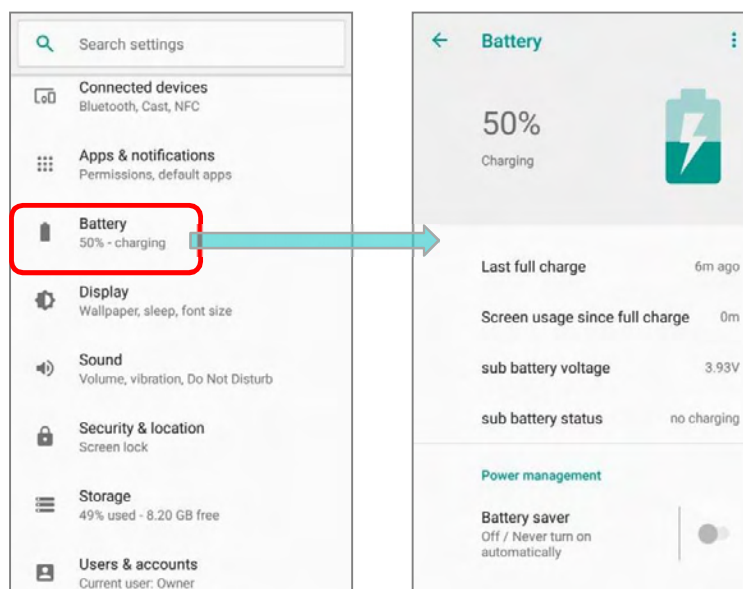
The main battery pack is the only power source for the mobile POS to work. Therefore, when the main battery level goes low, you need to replace the battery pack with a charged one or charge it as soon as possible. Most of all, you should backup important data on a regular basis.

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



To check the exact remaining percentage of power and battery life:

- 1) Use two fingers to swipe down from the top of the screen to open **Quick Settings**.
- 2) The percentage of remaining battery power is shown beside the battery icon; you can tap on the settings icon to enter **Settings** page and tap on "**Battery**" page for more details and configurations.



Note:

When the mobile POS is fully charged and battery level reaches 100%, the battery icon will change from  to  to indicate charging is completed.

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 POS 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. MONITORBATTERYLEVEL

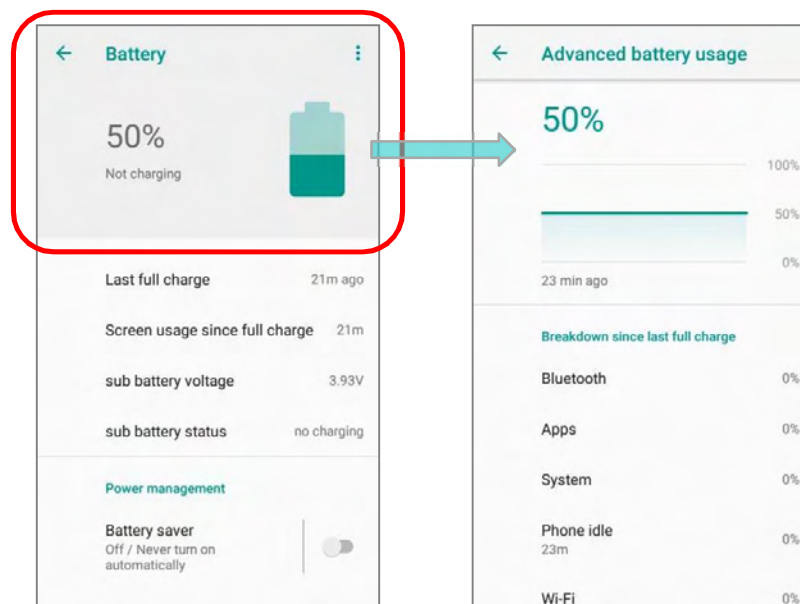
MAIN BATTERY LEVEL

The main battery is the only source that feeds the mobile POS 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:

Tap [App Drawer \(All Apps\)](#) | **Settings**  | **Battery** .

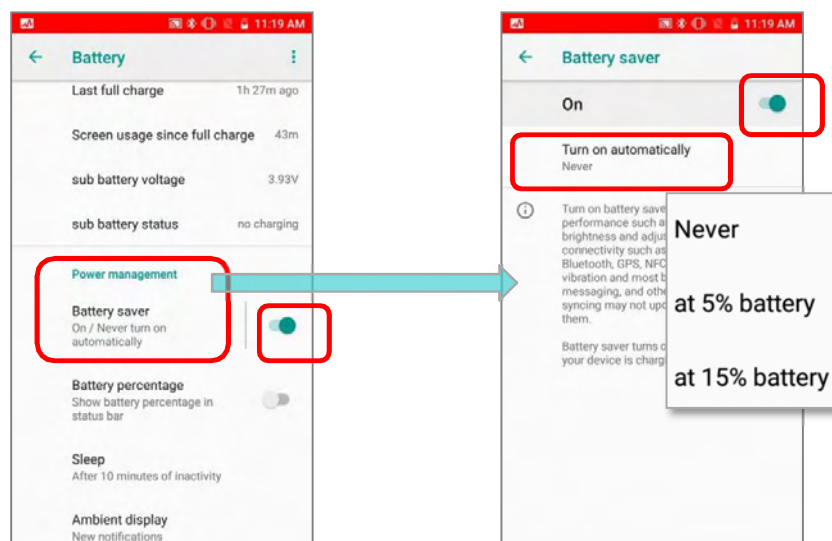
Battery level percentage is shown to provide a clear grasp of the remaining battery power. Tap on it to enter "**Advanced battery usage**" page, the screen shows the rate of battery discharge since the last battery charging session, how long the device has been running on battery power, and which applications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



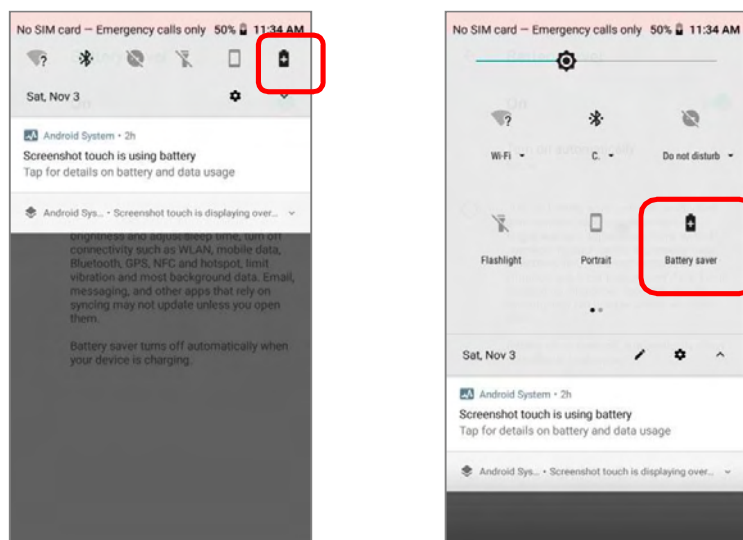
BATTERY SAVER MODE

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. Once **Battery saver** is enabled, the title bar of your screen will turn red.

On **Battery** screen, simply switch on "**Battery saver**" or tap on it to enter "**Battery saver**" page to switch it on and set choose when to have this mode automatically activated.



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

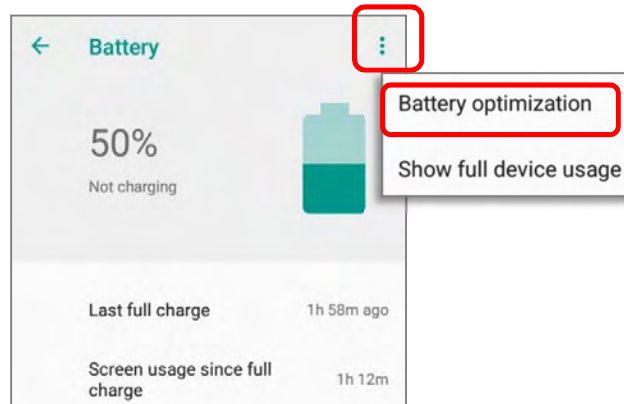


Note: This mode will automatically become inactive when your device is being charged.

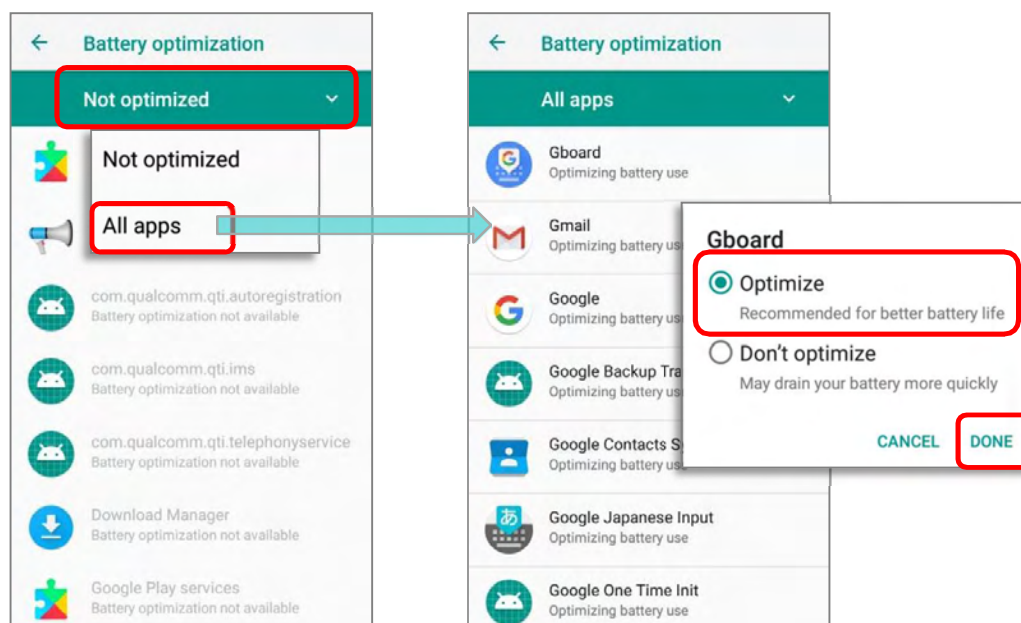
BATTERY OPTIMIZATION

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

- 1) On **Battery** screen, tap **More**  and then select "**Battery optimization**".



- 2) On the dropdown list, select "**All apps**", all the applications will be optimized by this function by default. You can individually turn off the optimization mode of a certain app if you would like it always activated by tapping on the app name and select "**Don't optimize**" and then "**DONE**".



LOW BATTERY ALERT

The mobile POS prompts a warning notification reminding you to charge the main battery when the main battery level drops to **15%** and **5%**. In the meantime, the device's status LED indicator will blink red.

Opening [Notifications Drawer](#), you will also see this warning appearing on the notifications list; you may turn on [Battery Saver Mode](#), connect the mobile POS 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](#).

2.1.3. REPLACE MAIN BATTERY

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

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 side of the mobile POS.
- 3) Tap "**Power off**" in the pop-up menu. The mobile POS will poweroff.
- 4) Follow the steps as [Installing/Removing Battery](#) describes to remove the main battery and replace it with the new one.

BATTERY SWAP

HERA51 mobile POS's backup battery supplies system power during battery swap. When the battery (with 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](#)" to make sure the sub battery is fully charged before battery swap process.

- 1) Press and hold the power button on the top end of the mobile POS, and select "**Battery Swap**" and then "**OK**" in the pop-up menus. The system will prepare to enter suspend mode with the red Status LED on the front panel lit.
- 2) Observe the red light on the front panel; as it goes off, the device is in complete suspend mode and Main battery is ready to be replaced. Follow the steps described in [Installing/Removing Battery](#) to remove the battery and replace it with the new one.
- 3) When the main battery is removed, system can stay in suspend mode at least 5 minutes. Please replace with a fully-charged main battery as soon as possible.
- 4) Make sure the battery latch is properly locked before pressing the power button to wake up the mobile POS from suspend mode.

Warning:

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

Note:

- (1) When main battery is removed, the system will stay in suspend mode for at least 5 minutes. To prevent the system from being shut down without advance warning, please DO replace the main battery within the 5 minutes.
 - (2) The system time will be set to default if the main battery is not replaced within 5 minutes.
 - (3) Backup battery keeps the mobile POS 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 HERA51 mobile POS 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.
-

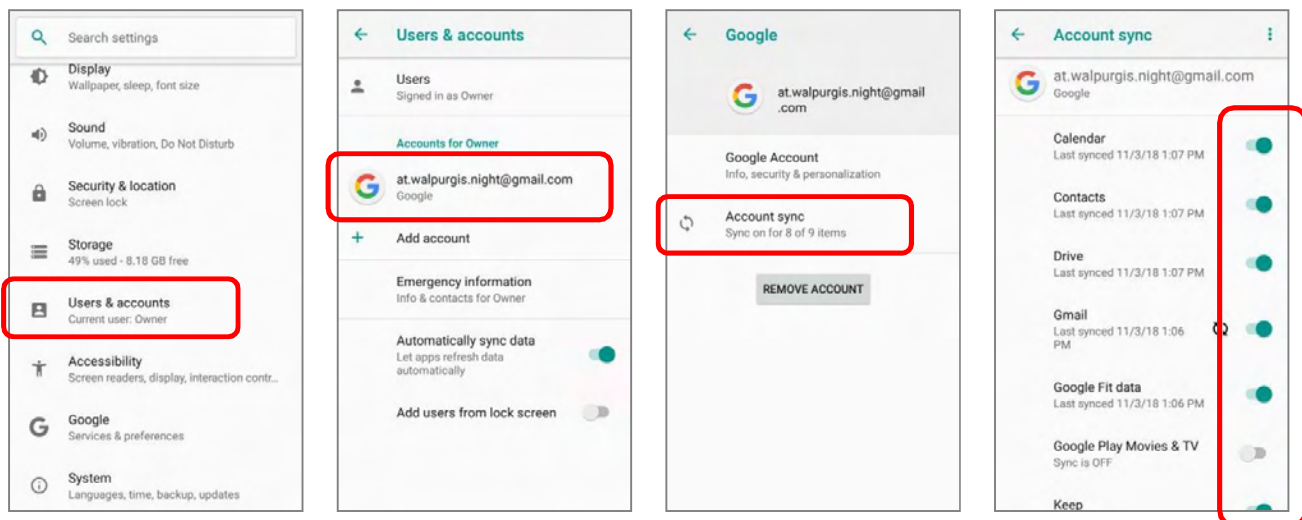
2.1.4. POWER MANAGEMENT

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 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, WLAN, WWAN, NFC and GPS) which are not in use.
- ▶ Shorten the time interval of turning off screen. 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 \(All Apps\)](#) | **Settings**  | **Users & Accounts**  | your **Google** account  | **Account sync**  and disable the data syncing services of your desired items.



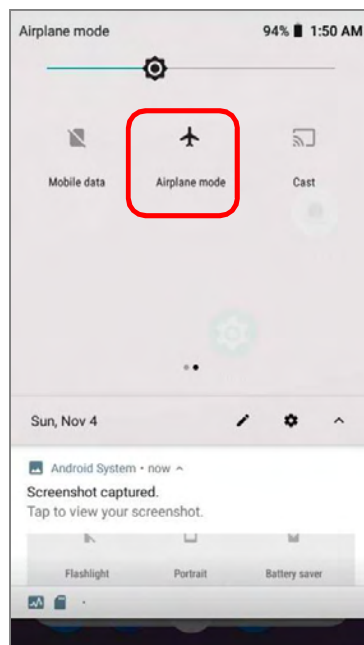
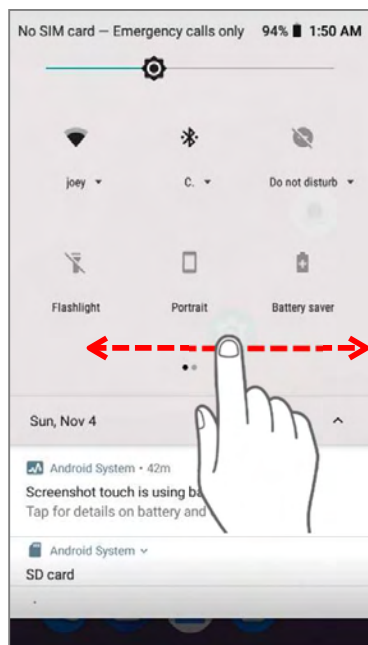
- ▶ Enable **Battery saver** mode and **Battery optimization** mode. See [Battery Saver Mode](#) and [Battery Optimization](#).

ENTER AIRPLANE MODE

You can enable **Airplane** mode to have all the wireless radios (including call functions, data connections such as Bluetooth, Wi-Fi and 3G/4G) on your mobile POS turned off, which will considerably reduce the power consumption of your battery.

To enter **Airplane** mode:

- 1) Use two fingers to swipe down from the top of the screen to open **Quick Settings menu**.
- 2) Swipe the **Quick Settings menu** right or left to find the **Airplane mode** icon and tap on it to enable/disable it.



2.1.5. BATTERYTEMPERATUREANOMALY

High ambient temperature or keeping using HERA51 mobile POS while charging might results in battery temperature rises. HERA51 mobile POS will automatically suspend charging battery or shut down for safety purpose. Once the battery temperature cools down to normal temperature, battery charging could be proceeded again.

Using HERA51 mobile POS under low-temperature environment may cause the device shut down automatically. If the battery temperature is at **0°C** or even **lower than 0°C** while charging, the red Status LED in the front panel blinks with a warning window popup to remind the user to disconnect the charger, and HERA51 mobile POS will automatically suspend charging the battery.



For battery life, please unplug the charger immediately and charge your HERA51 mobile POS under appropriate temperature conditions.

2.2. MEMORY

▶ **Flash Memory (ROM)**

16GB flash memory for storing the OS (Android 8.1 Oreo) and custom application programs.

▶ **Random Access Memory(RAM)**

2GB RAM for storing and running programs, as well as storing program data.

▶ **Expansion Slot**

The mobile POS is equipped with one SD card slot which can accommodate a micro SD card, a microSDHC, or a microSDXC card. When choosing an SD card for best compatibility and performance with HERA51, 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).

Card	Capacity
SDXC	64GB
SDHC	32GB

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 POS and keep it in suspension. A fully charged backup battery will retain the data in the RAM for **30 minutes**. When the backup battery is drained out as well, the mobile POS 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 POS 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 POS.

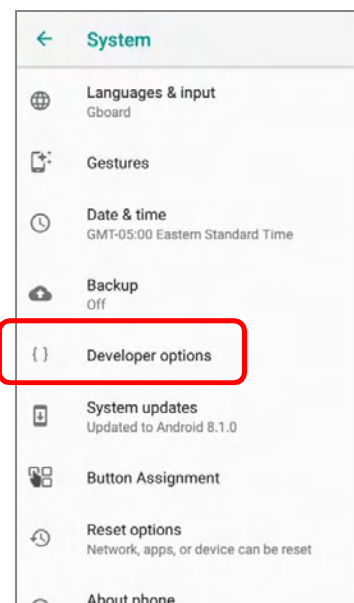
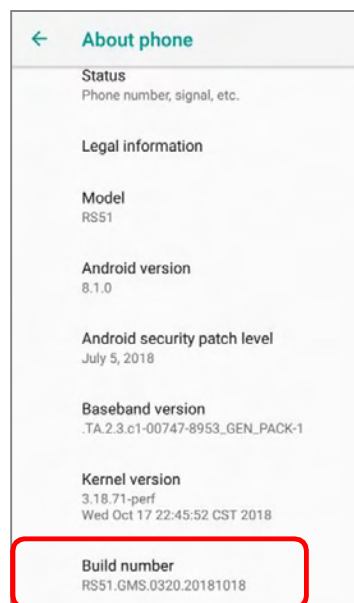
2.2.1. CHECK MEMORY USAGE

The memory manager can offer a glance of how the device is using its RAM.

ENABLE DEVELOPER OPTION

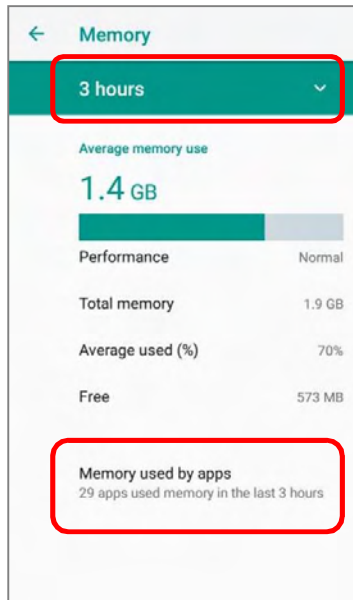
To check the memory usage, you have to enable "**Developer Option**" :

- 1) Go to [AppDrawer\(All Apps\)](#) | **Settings**  | **About Phone**.
- 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. You can find **DeveloperOption { }** is now enabled in **Settings**  page.



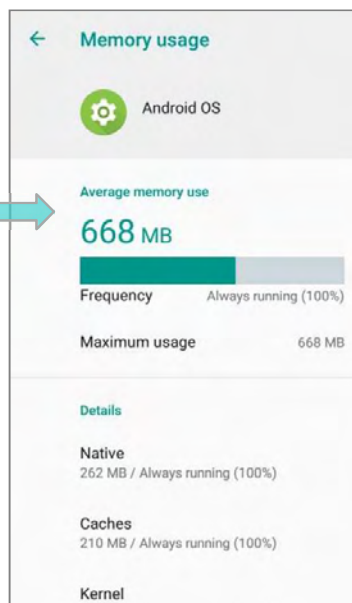
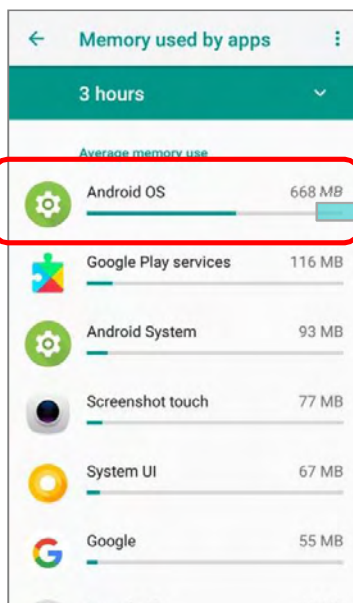
CHECK MEMORY USAGE

Tap [AppDrawer\(All Apps\)](#) | [Settings](#)  | [DeveloperOption](#) { } | [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.

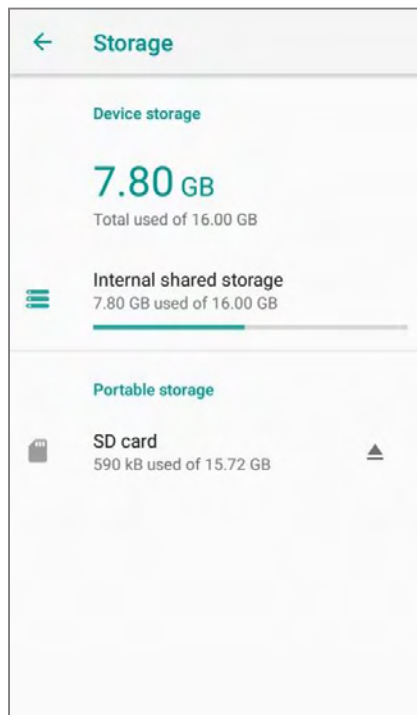
2.2.2. MANAGE STORAGE SPACE

To your Android device, the SD card can serve as an extension of your device's internal storage (which comes as 16 GB of flash memory to store the OS, applications and files) other than a portable storage place.

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

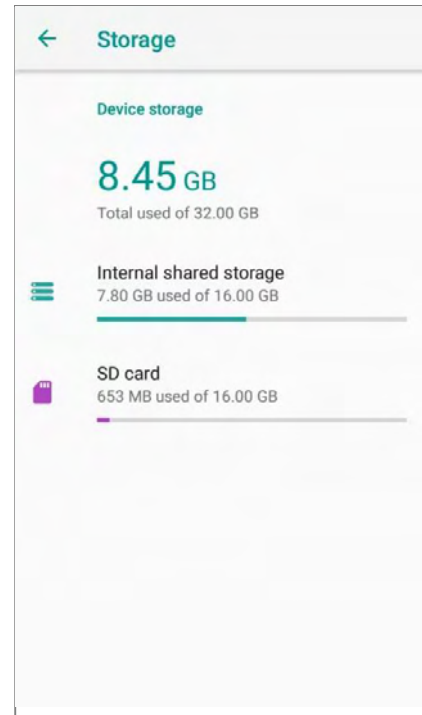
By default, all the videos, photos and downloaded files are directly saved to the device's internal storage. If you have previously inserted and mounted an SD card as portable storage, you could transfer/save photos & other media in this SD card; if the SD card is set as internal storage, photos, files,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

SD card as portable storage in Storage Settings page



The SD card is used for moving photos and other media between devices.

SD card as internal storage in Storage Settings page

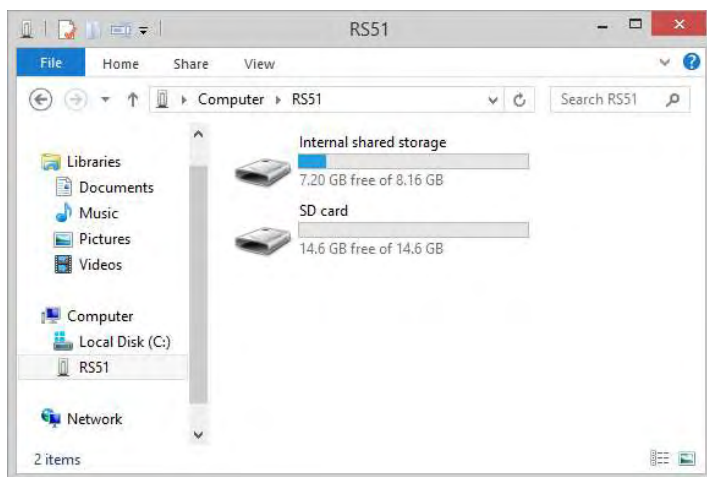


The SD card is used for storing anything on this device only, including apps and photos. Requires formatting that prevents it from working with other devices.

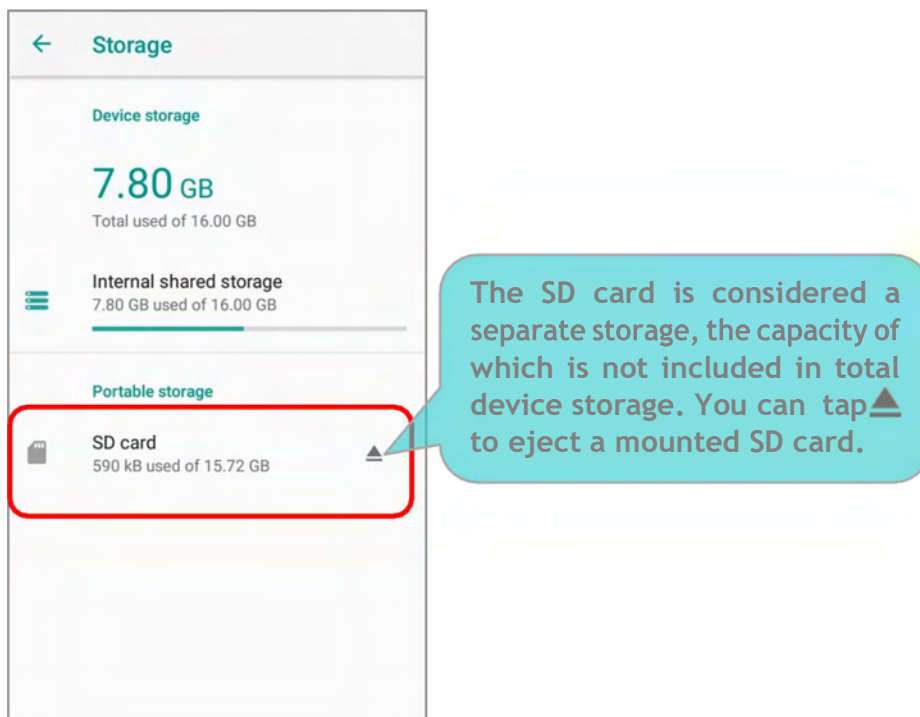
SET UP SD CARD AS PORTABLE STORAGE

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:

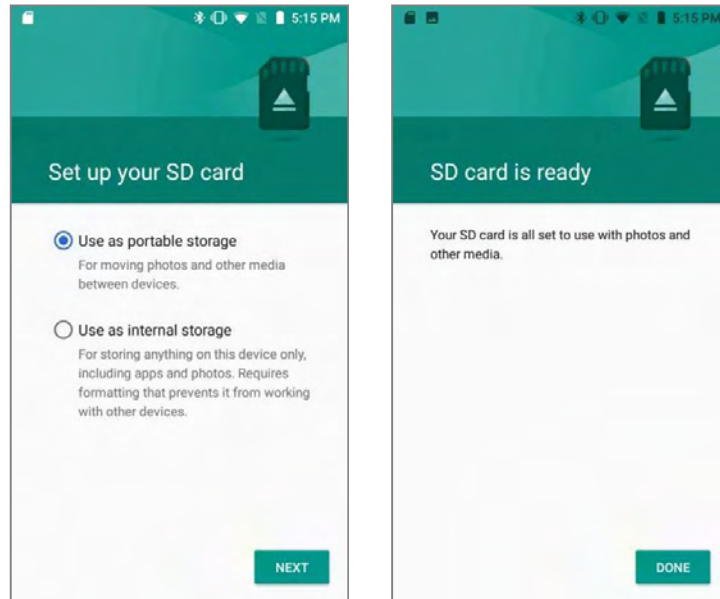


On **Storage** screen, this disk can be managed separately.

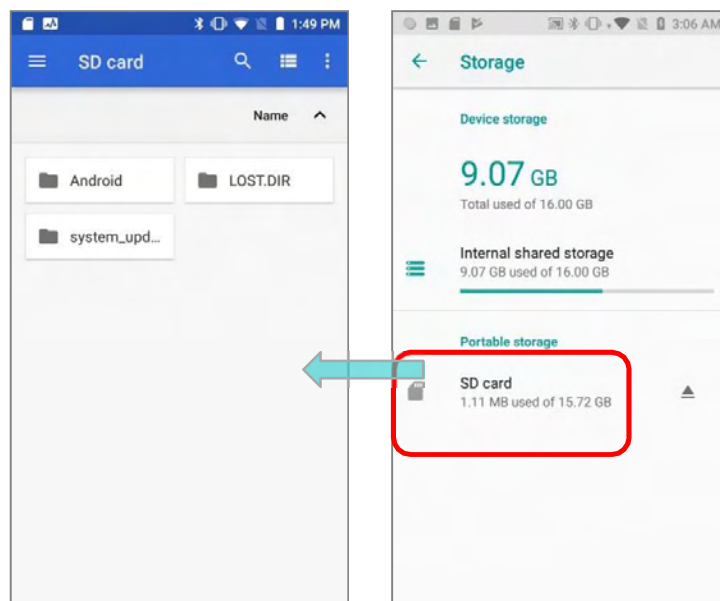


To start:

- 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 on "**SET UP**".
- 2) Tap "**Use as portable storage**" and then "**NEXT**".
- 3) When the setting is completed, tap "**DONE**".



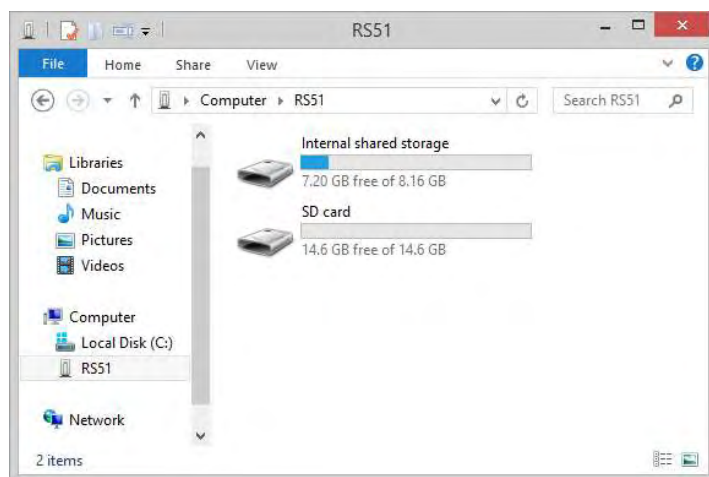
- 4) Swipe down from the status bar to reveal Notifications Drawer, and you will find a notification indicating that the SD card is for transferring photos and media; tap "**EXPLORE**" to check its content.
OR tap the SD card in Storage Settings page to check it.



TRANSFER PHOTOS & MEDIA BETWEEN THE DEVICE & PC

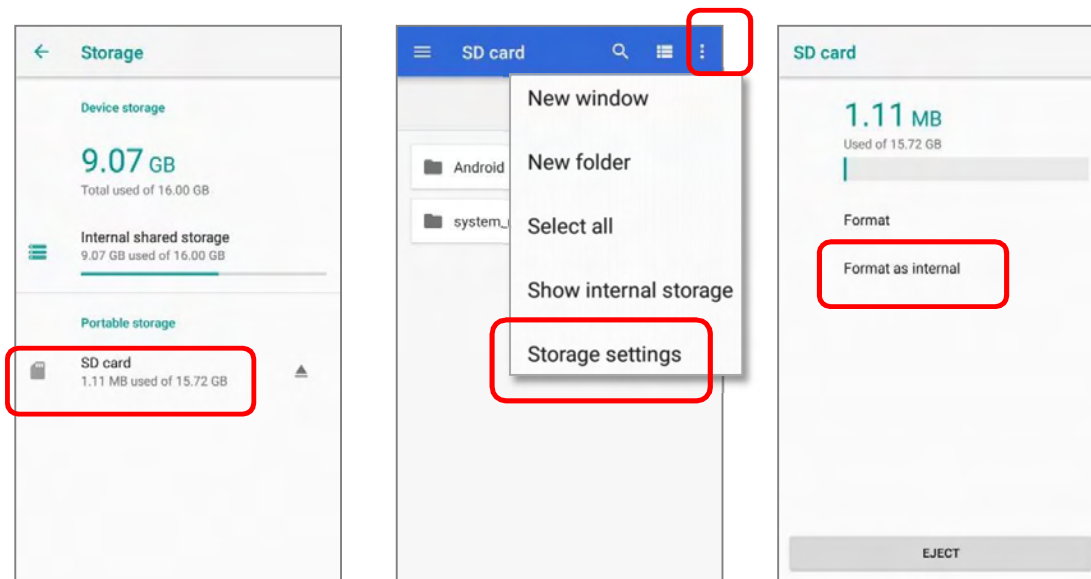
To transfer photos and media between this device and PC when the mounted SD card is set as portable storage, please:

- 1) Connect your mobile POS with PC with supplied USB cable.
- 2) Swipe down from the status bar to reveal Notifications Drawer, and tap "**USB charging this device**" to enter USB options menu.
- 3) Choose "**Transfer files**", and now 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.

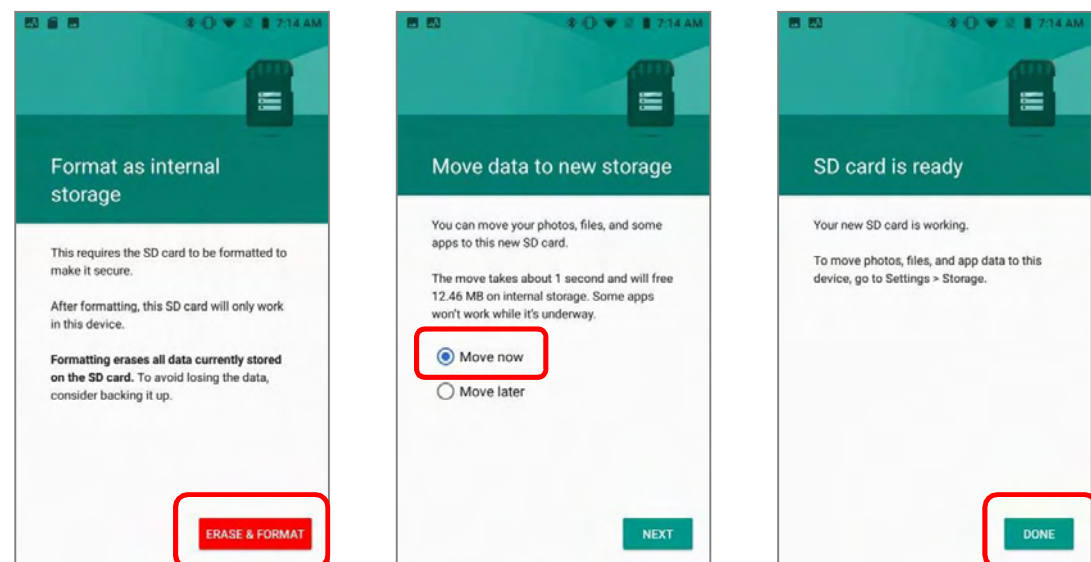


CONVERT THE SD CARD TO INTERNAL STORAGE

- 1) You can always convert the SD Card from portable storage to internal storage. On Storage screen, tap the SD card. Before you start, make a backup of the files on this disk if you would like to keep them.
- 2) On SD card content screen, tap **More**  and then tap "**Storage settings**".
- 3) By selecting "**Format as internal**", the device will eventually format this SD card into a specific file format only readable by this device.



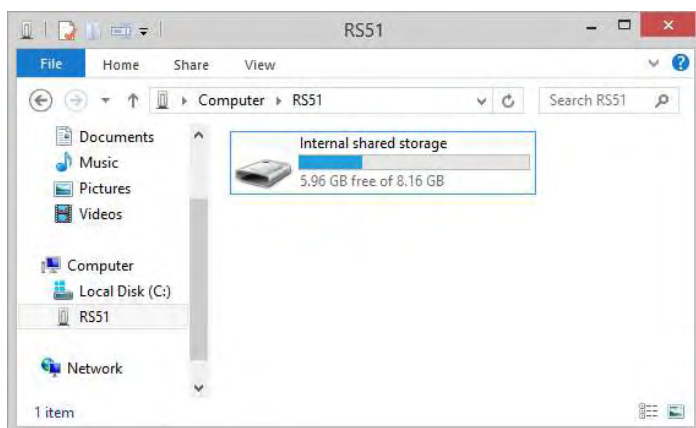
- 4) On Format as internal storage screen, tap "**ERASE & FORMAT**" to format the card.
- 5) You will then be asked whether to move multimedia files to this new SD card right away or later; make your choice and then tap "**Next**".
- 6) When the formatting is completed, tap "**DONE**".



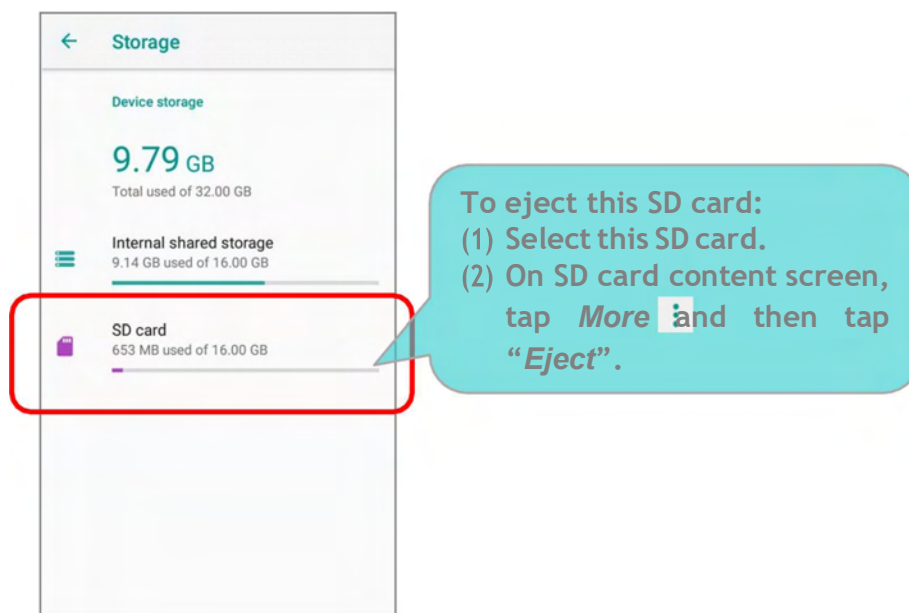
SET UP SD CARD AS INTERNAL STORAGE

Using SD card as internal storage allows you to extend your existing device storage and to store huge applications. This SD card will be reformatted and encrypted with a file format that is not readable by another device. Therefore, it is essential that you back up important files on this SD card in advance. 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.

When this device is connected with PC, the disk content is not readable from PC client:



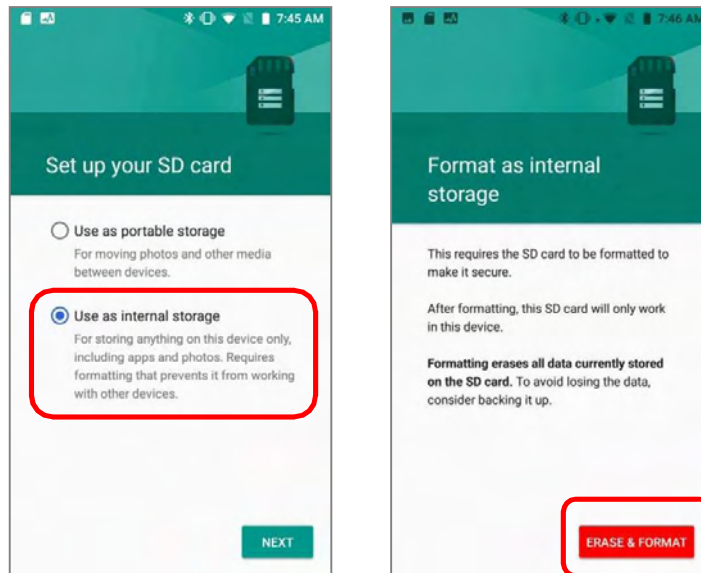
On the **Storage & USB** screen, the capacity of this SD card is merged into the total device storage. Please note that. In this setting, you will have no control of which files to be stored on SD card.



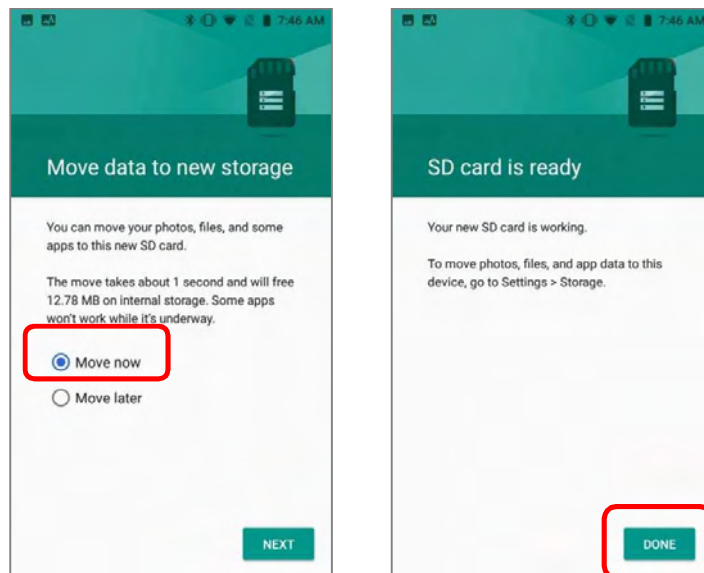
Warning: Do not physically remove the SD card from the device without ejecting this card in advance.

To start:

- 1) Insert the SD card. A notification will pop up indicating that an SD card is detected tap "**SET UP**".
- 2) Tap "**Use as internal storage**" and then "**NEXT**".
- 3) Tap "**ERASE & FORMAT**" to format this card.



- 4) You will then be asked whether to move media files to this new SD card; make your choice and then tap "**Next**".
- 5) When the setting is completed, tap "**DONE**".

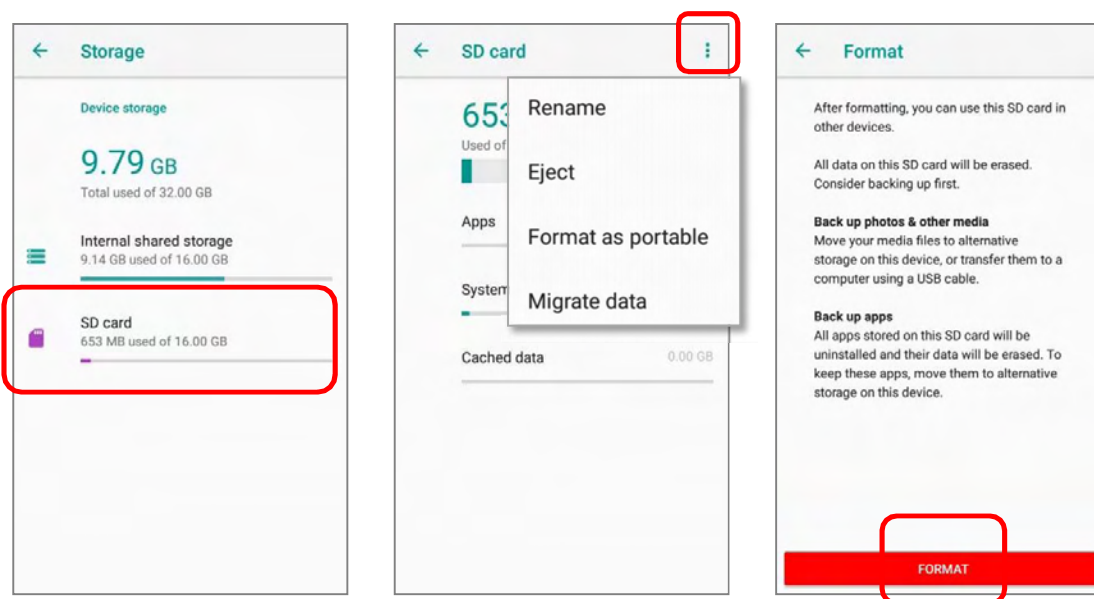


Note:

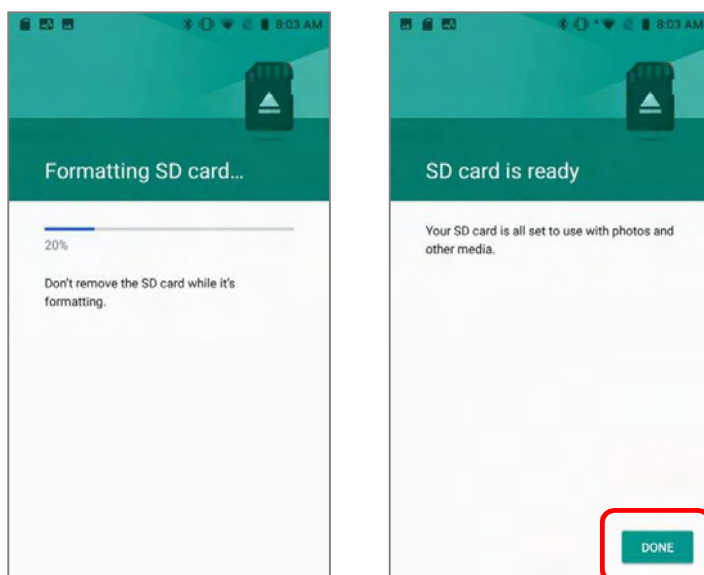
It is recommended that you select "Move now" at Step 4 to have the device immediately start making use of SD card space. If you select "Move later", the device will continue to consider device's original storage the primary location to save files.

CONVERT THE SD CARD TO PORTABLE STORAGE

- 1) You can always convert the SD Card from internal storage to portable storage. On **Storage & USB**, tap the SD card. Before you start, make a backup of the files on this disk if you would like to keep them.
- 2) On SD card content screen, tap **More**  and then tap **"Format as portable"**.
- 3) Tap **"Format"** to have this SD card re-formatted into a file type inaccessible by other devices.



- 4) When the formatting is completed, tap **"DONE"**.



Note:

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

2.3. TOUCHSCREEN

The mobile POS comes with a 4.7" transmissive LCD with 1280 by 720 pixels resolution (HD). The LED backlight of the screen, which helps ease reading under dim environments, can be controlled manually and automatically.

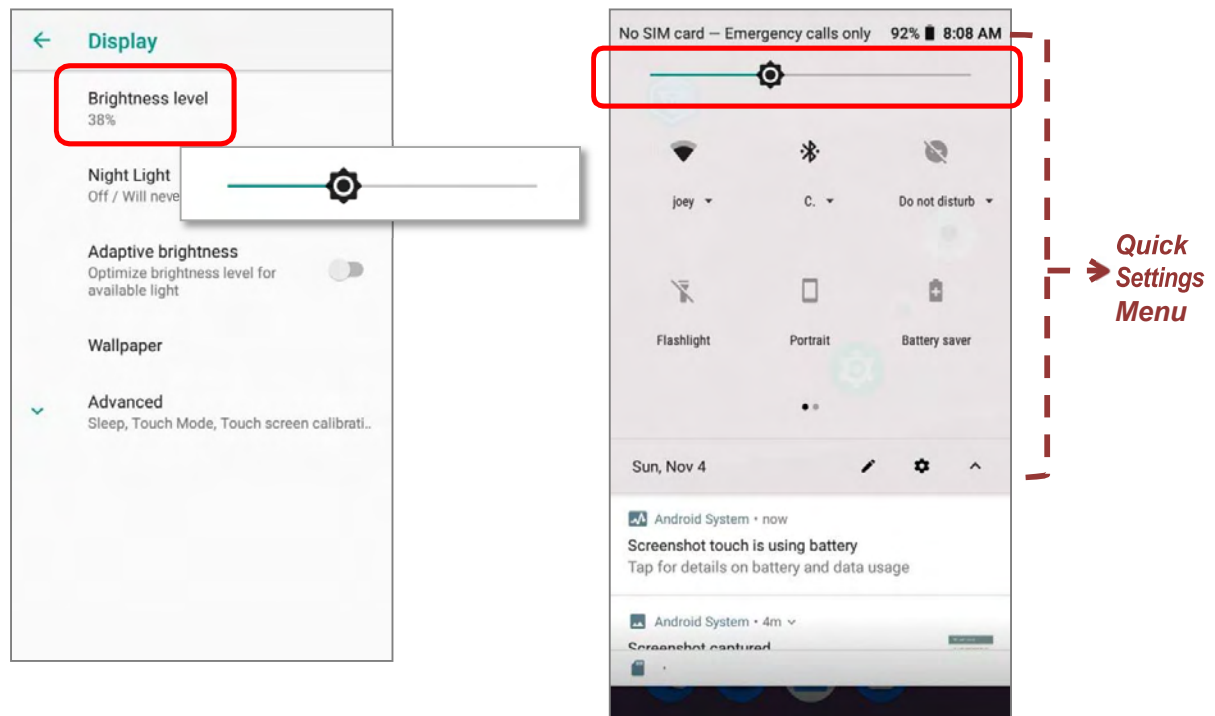
Warning: DO NOT use any pointed or sharp objects to move against the surface of the screen.

2.3.1. SCREEN BRIGHTNESS

Go to [AppDrawer\(All Apps\)](#) | **Settings**  | **Display**  | **Brightness level**.

Adjust screen brightness by dragging the slider to the right (to increase brightness) or left (to reduce brightness). Switch on the Adaptive brightness to enable automatic backlight adjustment with the mobile POS's built-in sensor.

You can also use the shortcut button on **Quick Settings menu** to adjust the brightness level.



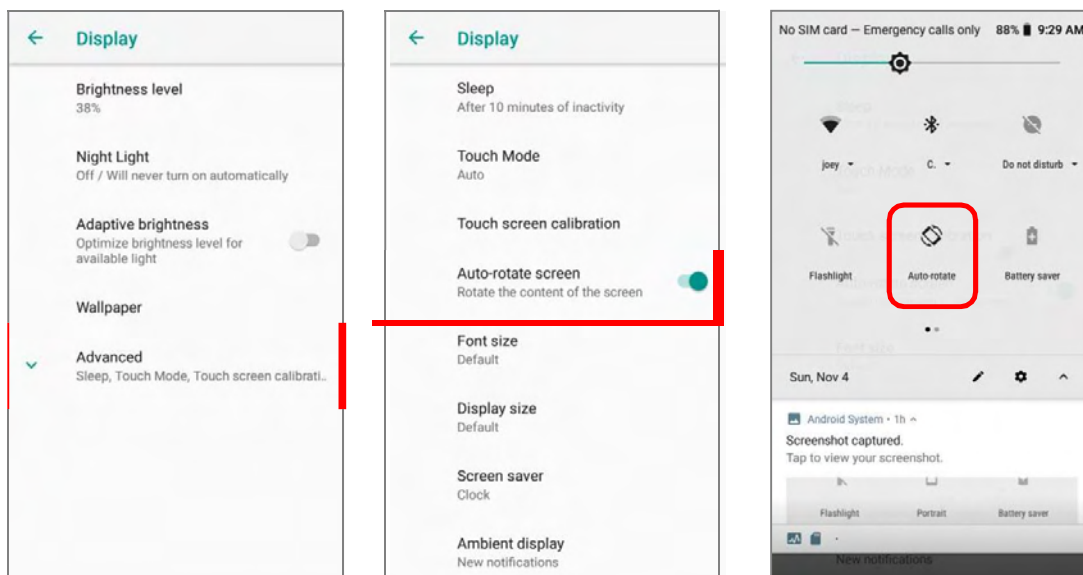
Note:

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.

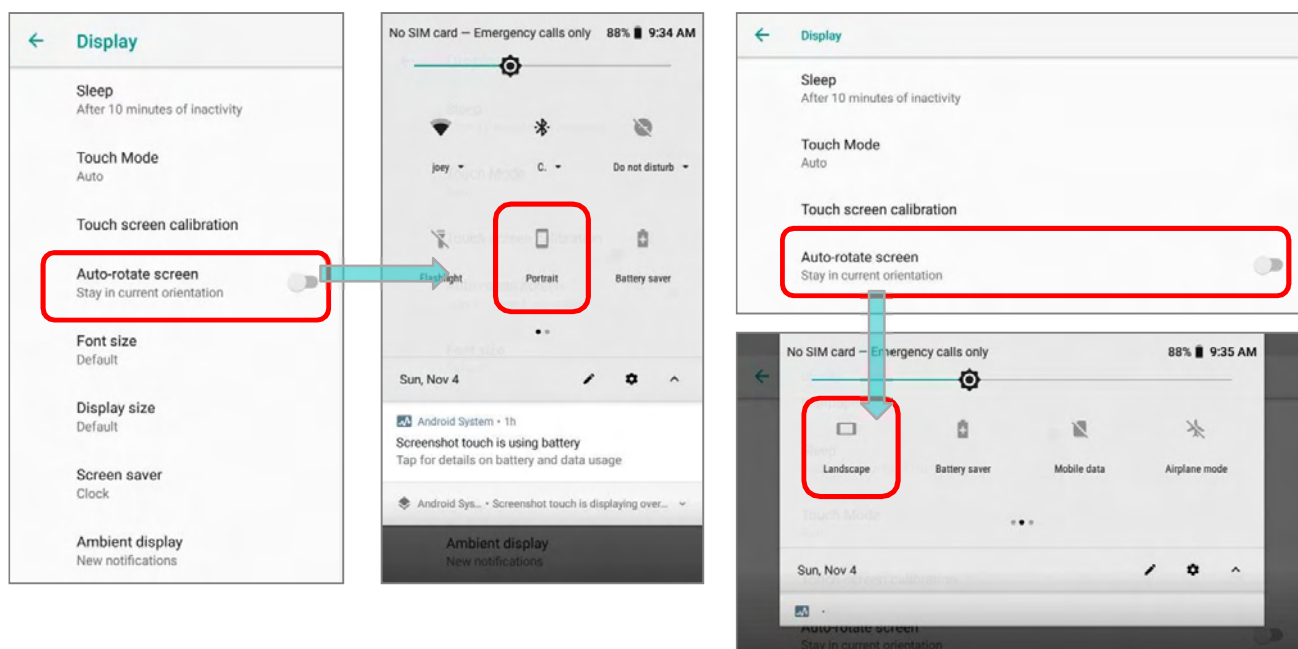
2.3.2. SCREENROTATION

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 [AppDrawer\(All Apps\)](#) | **Settings**  | **Display** 
- 2) Tap **Advanced** for more display settings, and switch on or off **Auto-rotate screen**.



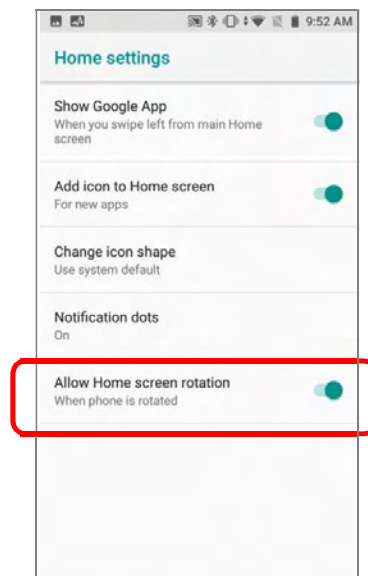
Please note that if **Auto-rotate screen** is switched off, the display orientation might be portrait or landscape depending on the screen display orientation when you switch it off.



OR

Use two fingers to swipe down from the top of the screen to open **Quick Settings menu** and tap the **Auto rotate** icon to enable screen rotation. This quick setting method allows you to temporarily enter landscape mode to enhance your typing experience by using a wide keyboard.

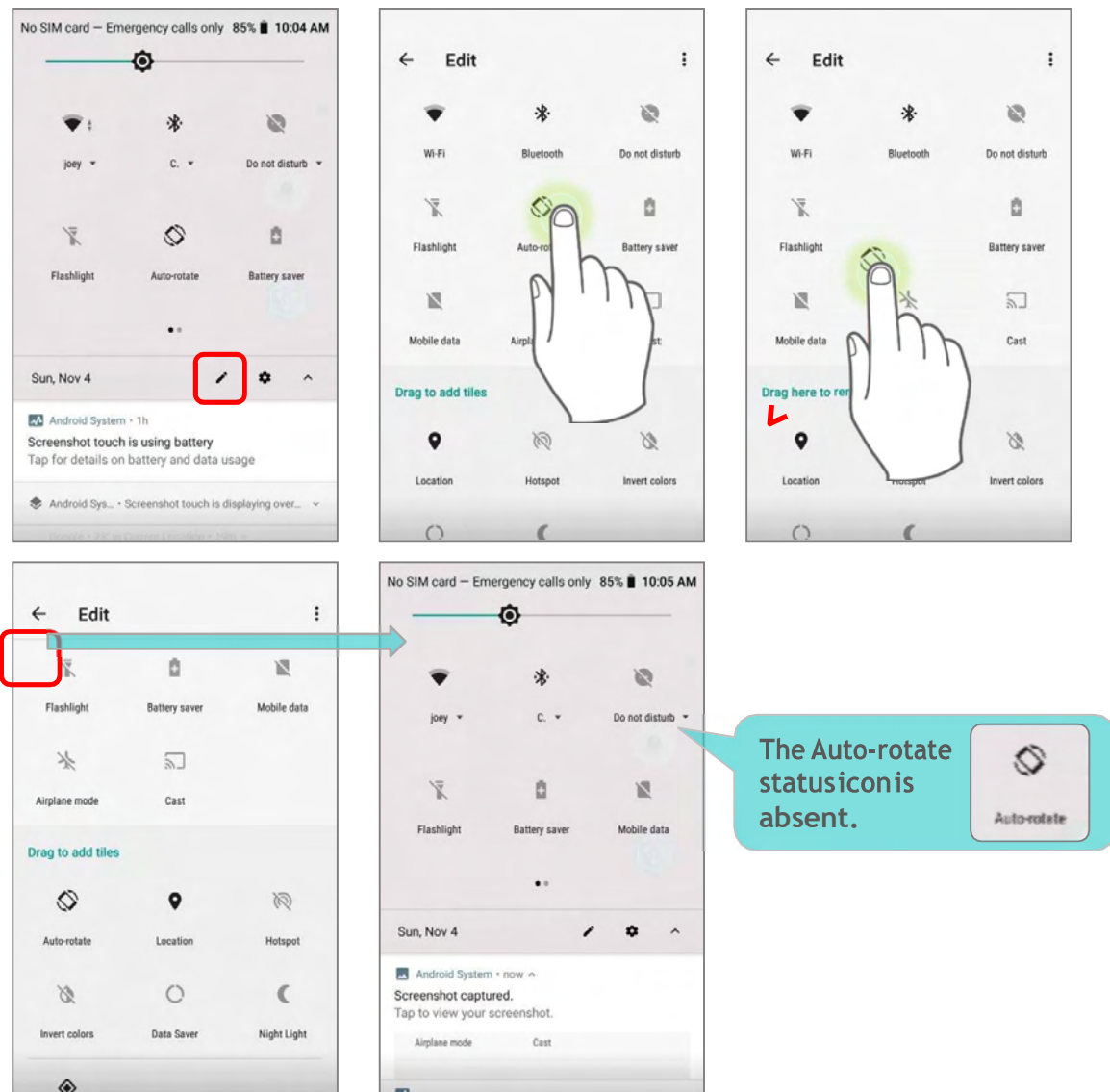
To enable Home screen rotation, please make sure Auto Rotation is enable. Press any empty spot on Home screen, tap "**Home Settings**" and enable "**Allow Home screen rotation**":



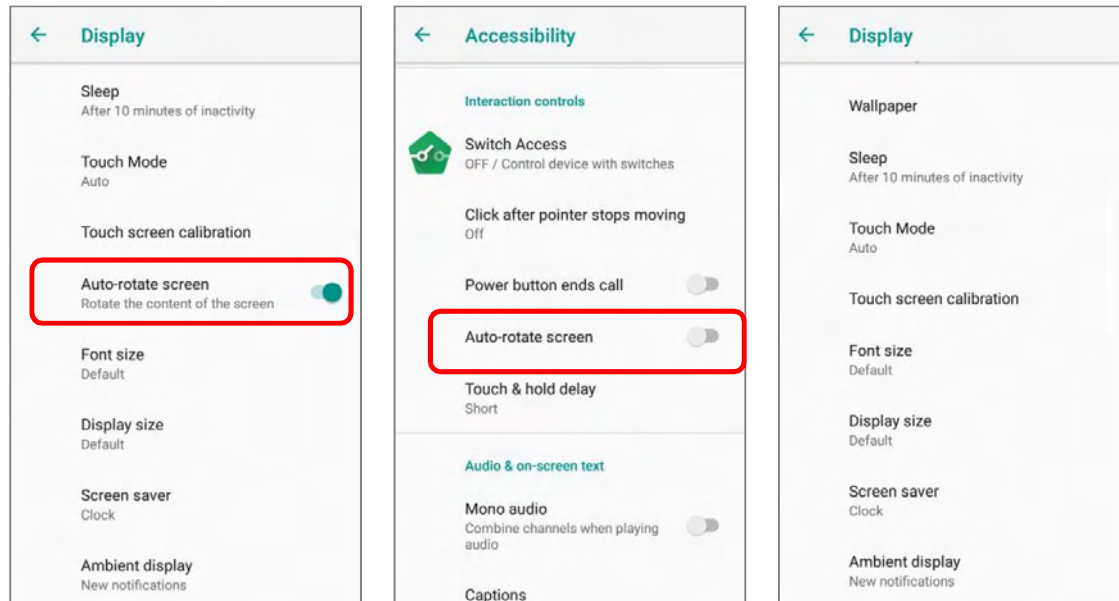
REMOVE AUTO-ROTATE FROM QUICK SETTINGS MENU & DISPLAY SETTINGS

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

- 1) Use two fingers to swipe down from the top of the screen to open **Quick Settings menu**.
- 2) Click  button to get into **Edit** page; tap on and hold the **Auto-rotate** switch icon, and drag it to the below area and then release it.
- 3) Return to the **Quick Settings menu**, the Auto rotate switch icon is now hidden.



Go to [App Drawer \(All Apps\)](#) | **Settings**  | **Accessibility**  and switch off Auto-rotate screen. By doing so, the auto-rotation option will be hidden in **Settings**  | **Display** .

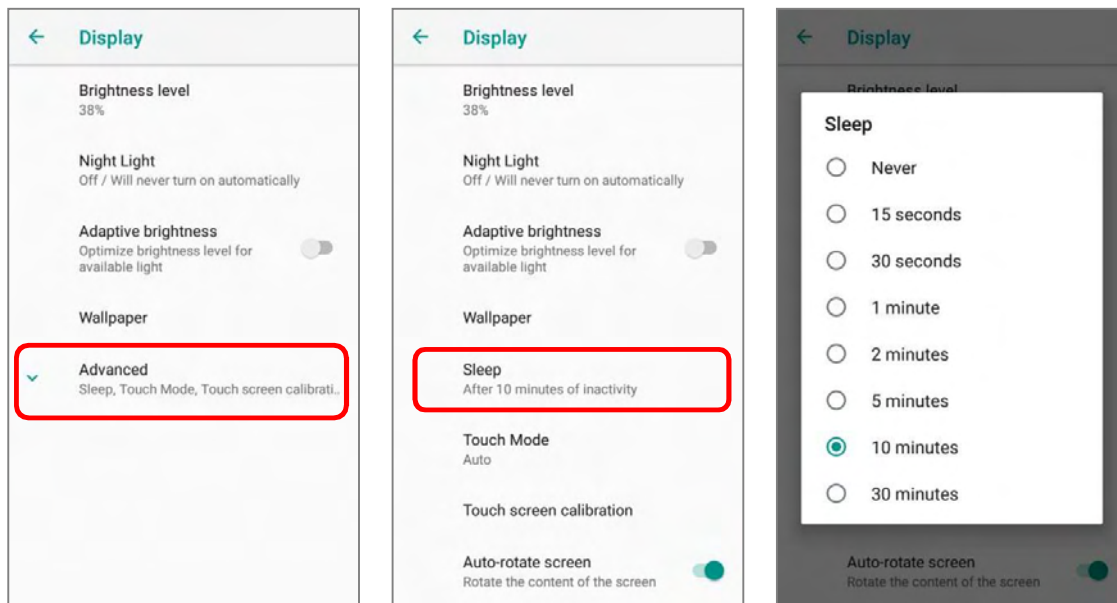
**Note:**

Auto-rotation is not supported for certain applications. Without enabling “[Allow Home Screen Rotation](#)”, auto-rotation is inapplicable in Home Screen and App Drawer screen.

2.3.3. SCREENTIMEOUT SETTINGS

Go to [AppDrawer\(All Apps\)](#) | **Settings**  | **Display**  | **Advanced** | **Sleep**.

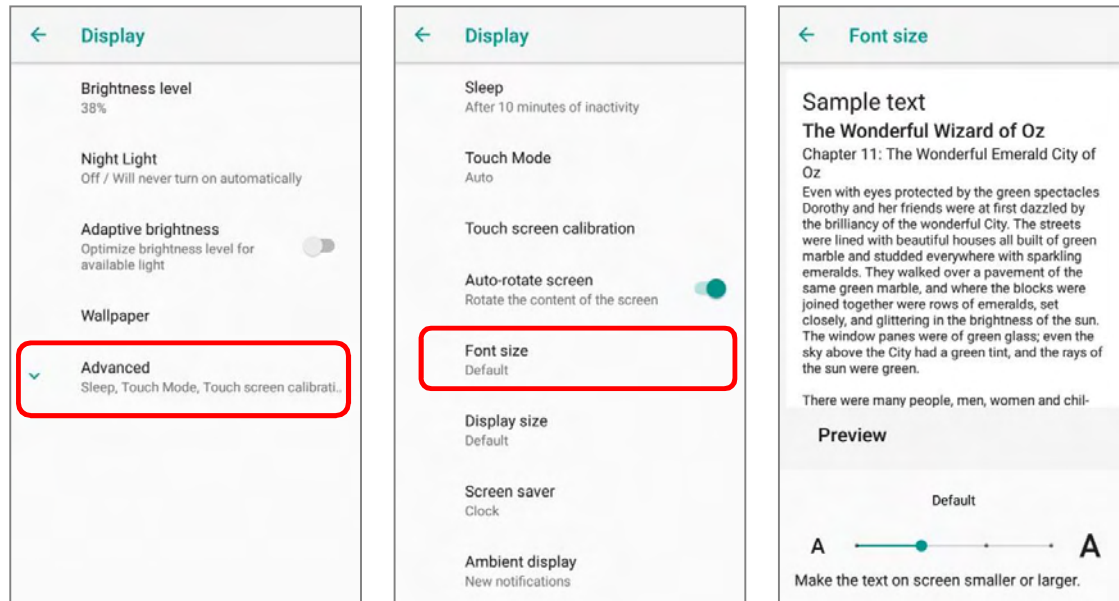
Select the time lapse for screen timeout.



2.3.4. TEXT SIZE & DISPLAY SIZE

To change text size, please go to [App Drawer \(All Apps\)](#) | **Settings**  | **Display**  | **Advanced** | **Font size**.

Tap the small A icon  or the large A icon  to select the font size between Small, Default, Large and Largest.



Go to [AppDrawer \(All Apps\)](#) | **Settings**  | **Display**  | **Advanced** | **Display size**,

and tap the plus icon  or the minus icon  to select the display size as Small or Default.

