



MC432/MC432L

Portable data terminal

User's Manual

Version 2.0 2023/07/18

About This Manual

Thank you for purchasing the iMozen MC432/MC432L Enterprise Mobile Computer. This manual explains how to install, operate and maintain our product. No part of this publication may be reproduced or used in any form, or by any electrical or mechanical means, such as photocopying, recording, or information storage and retrieval systems, without permission in writing received from iMozen. The material in this manual is subject to change without prior notice.

Regulatory

This device 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 with radio communications. However, there is no guarantee that interference will not occur in a particular installation.

Signal Interference from TV or Radio

Data transmission or reception may fail or be affected by signal interference from nearby TV or radio devices.

Bluetooth Precautions

This device is designed based on standard Bluetooth specifications, but compatibility problems may occur when connecting with other Bluetooth devices. To avoid wireless signal interference, make sure there are no other wireless devices operating nearby in the same application area.

General Safety Precautions

Please read this User Manual thoroughly before using this device. Use only the components and accessories supplied by the manufacturer. Do not attempt to disassemble the MC432/MC432L, as it does not contain parts that can be repaired by the user. Any tampering will void the warranty. When replacing the battery pack or at the end of life of the MC432/MC432L, disposal must be performed in compliance with the laws of your jurisdiction.



Laser Safety

Do not stare into the beam of the laser light from this device. The MC432/MC432L uses an Imager Aiming System with a laser light that is visible to the human eye and is emitted from the scan window at the top of the device.



Hearing Safety

Do not listen to earphones at high volume levels to prevent the possibility of hearing damage.



Hot Part Warning

The temperature of battery surface may increase during operation.

Body-worn Operation Safety

This device was tested for typical body-worn operations. A minimum separation distance must be maintained between the user's body and the handset, including the antenna: 0.5 cm to comply with the RF exposure requirements in Europe. 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.

Important Notices and Precautions

The manufacturer has made safety the first priority during the design stage. To avoid potential mishaps, please observe the following notices:

- ❗ Do not stock this device under high temperature conditions that may cause the battery to overheat.
- ❗ Do not charge longer than required.
- ❗ Charge this device in a place without water-spray or moisture.
- ❗ Use a dry cloth to wipe any dust off the AC Adaptor plug to avoid potential fire.
- ❗ Do not drop this device on hard surfaces.
- ❗ Do not place heavy objects on this device to avoid cracking the enclosure.
- ❗ Do not unplug the AC Adaptor with wet hands to avoid electric shock.
- ❗ Do not use the MC432/MC432L AC Adaptor with any other devices.
- ❗ Do not place the device in liquids to prevent short-circuits or fire.
- ❗ Do not place this device near an open fire.
- ❗ If the power or USB cable is seriously twisted or broken, stop using it immediately to prevent electric shock, short-circuit, or fire.
- ❗ Stop using immediately if there is any unusual smell or overheating during charging or operation.
- ❗ Stop using immediately if there is liquid or dew on the device.
- ❗ Do not use the AC Adaptor outdoors.
- ❗ Do not wrap the AC Adaptor with cloth or other objects that could block heat dissipation and cause electric shock or fire.
- ❗ When not charging, remove the AC Adaptor plug from the wall AC outlet socket to avoid a fire hazard.
- ❗ The manufacturer will not be responsible for warranty claims if damage is caused due to improper personal use.

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Chapter 1: Getting Started

Introduction

The MC432/MC432L Enterprise Mobile Computer is a compact enterprise-focused mobile computer that is ideal for industrial and commercial applications such as retail, warehousing, logistics, and field service. The thin, lightweight, and rugged MC432/MC432L offers secure and reliable management of corporate data and wireless communications.

The MC432/MC432L's key features include a rapid Qualcomm®

Snapdragon™ 660 Octa core 64-bit processor, 4.3" touchscreen display, barcode imager, 23-key backlit keypad, long lasting battery, quick charge adaptor, and rugged durability.

This User's Manual provides information on how to use this device and its accessories.

Unpacking

Carefully remove and unpack the MC432/MC432L device and other package items from the protective material. Save the containers for later storage and shipping.

Check that you have received the following items:

- MC432/MC432L mobile computer
- Battery pack
- Adaptor (Optional)
- USB charging cable (Type C) (Optional)
- Quick start guide
- Hand strap

Inspect the items for damage. If any item is damaged or missing, contact your

customer support representative. Before using the MC432/MC432L, remove the protective film that covers the display, camera window, and scan window.

Features

The illustrations and tables below describe the features of the MC432/MC432L and a description of their functions.

Front View

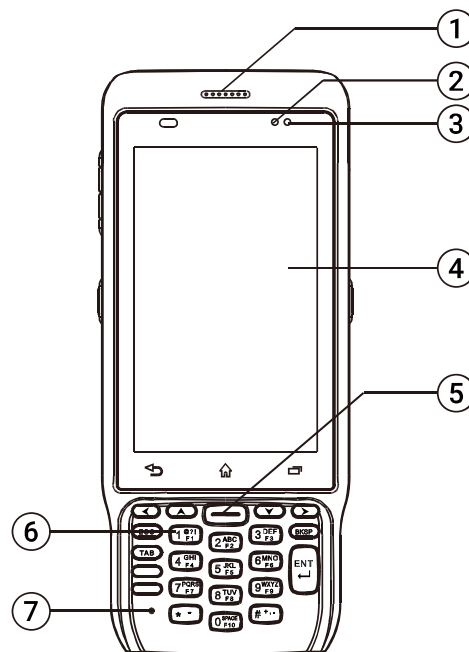


Table 1 – MC432/MC432L Front View Features and Functions

No.	Feature	Function
①	Receiver	Audio output when answering a call.
②	Scan LED	Lights red during scanning, and green when scan is acquired.
③	Charging LED	Lights red during charging, green when battery is fully charged, and blue for message notification.
④	Touch Screen	Interact with the device via the touch screen.
⑤	Scan Buttons	Press to scan for data capture.

⑥	Keypad	Interact with the device via keys.
⑦	Microphone	Receives or records voice, music, and other audio.

Side Views

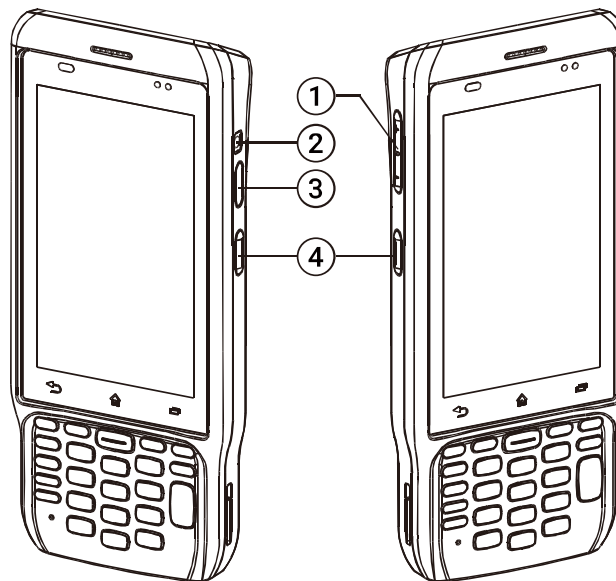


Table 2 – MC432/MC432L Side Views Features and Functions

No.	Feature	Function
①	Volume Button	Increase or decrease audio volume.
②	Headphone Jack	Connect headphones with this input.
③	Power Button	Press and hold to power on the device. Press briefly to turn the display on and off. Press and hold to power off.
④	Scan Button	Press to scan for data capture.

Back View

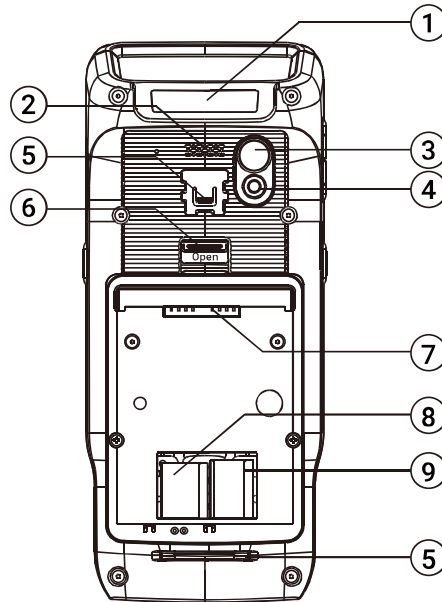


Table 3 – MC432/MC432L Back View Features and Functions

No.	Feature	Function
①	Laser Warning Label	Warns users not to stare into the laser light beam.
②	Speaker	Audio output for music, videos, and speakerphone.
③	Back Camera	Takes photos and videos.
④	Flash LED	Provides camera flash.
⑤	Hand Strap Attachments	Connects the hand strap
⑥	Battery Cover Lock Switches	Use these switches to lock or open battery/cover.
⑦	Battery Pins	Connects battery.

⑧	Micro SD Card Slot	Slot for installing Micro SD Card.
⑨	SIM Card Slot	Slot for installing SIM. (Only for MC432L)

Top View

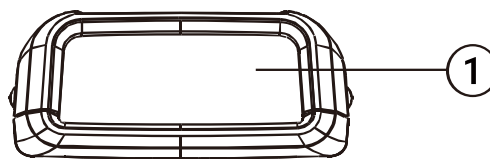


Table 4 – MC432/MC432L Top View Features and Functions

No.	Feature	Function
①	Scan Window	Scans and captures data.

Bottom View

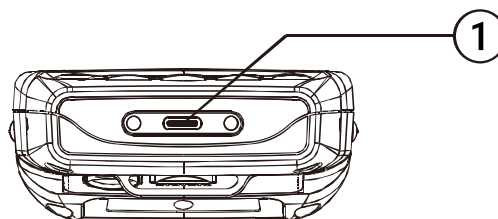


Table 5 – MC432/MC432L Bottom View Features and Functions

No.	Feature	Function
①	Cradle IO Connector / USB Connector	Connects to cradle for charging and communications, or connects USB cable for device charging, file transfer and MIDI use.

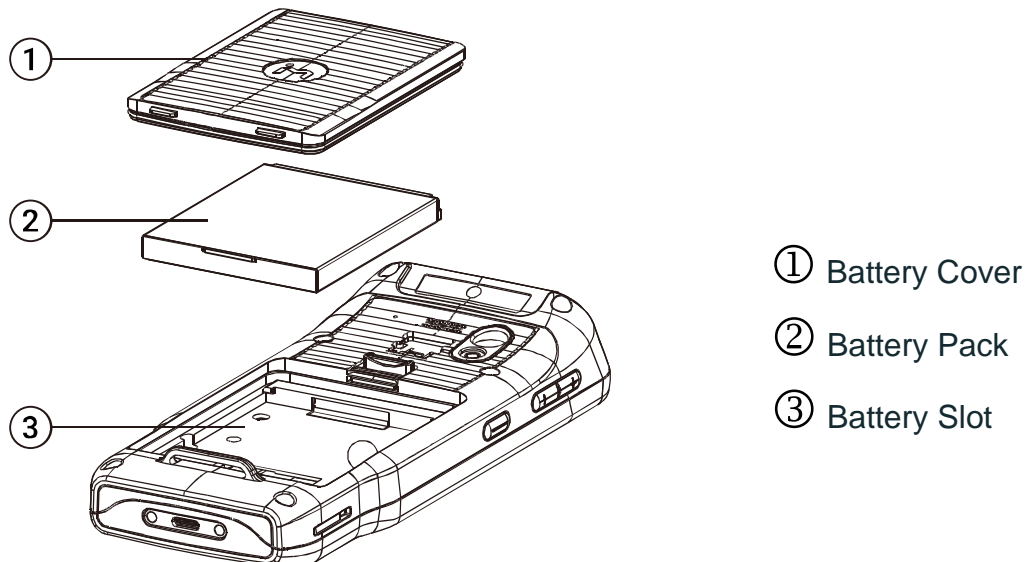
Initial Setup

Before using the MC432/MC432L device for the first time, please perform the following procedure.

1. Install SIM and/or Micro SD cards for secondary storage (optional).
2. Install the battery.
3. Charge the battery.
4. Power on the MC432/MC432L.

Battery Installation

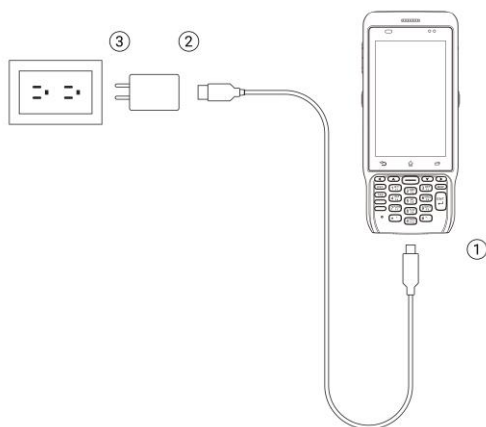
1. Open the two-battery lock switches, and remove the battery cover.
2. Align the connectors of the battery pack and the device connectors and slide it into place.
3. Slide the battery cover into place.
4. Push the battery lock switches to Closed to secure the battery cover.



Charging the Battery

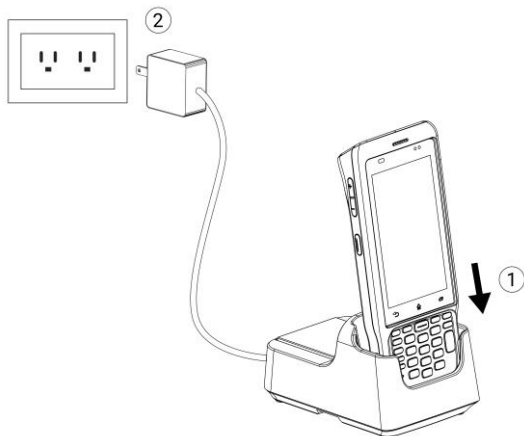
The MC432/MC432L is shipped with a lithium-ion battery that is not fully charged. Before using the MC432/MC432L for the first time, you must fully charge the battery. For general use, if the battery has been discharged for several days, you may need to charge it for several minutes before powering on the device. Use only the Adaptor and the USB cable that came with this device or the optional charging cradle to charge the battery. When the battery power is low, use either the power Adaptor or the charging cradle to charge instead of using the USB cable to charge from your computer.

Charging via USB cable and Power Adaptor



1. Insert the USB cable's Type-C connector to the connector on the bottom of the device.
2. Insert the USB cable connector to the power Adaptor.
3. Plug the power Adaptor into a power outlet to begin charging.

Charging via the Charging Cradle



1. Insert the device into the charging cradle.
2. Plug the power cord into a power outlet to begin charging.

Nano SIM Card/Micro SD Card Installation

To install Nano SIM cards and/or a Micro SD card, please follow the steps below:

1. Turn off the MC432/MC432L or put it in Battery Swap Mode.
2. Open the two-battery lock switches, and remove the battery cover.
3. Remove the battery pack.
4. Locate the Nano SIM/Micro SD Card tray on the upper right side of the battery slot.
5. With your fingernail, gently pull the Nano SIM/Micro SD Card tray out.
6. Insert the Nano SIM card(s) and/or Micro SD card into the proper slots.
7. Slide the SIM tray back into place.
8. Return the battery pack and battery cover and lock the battery cover latch switches into place.

Andriod Learning Center

For the operation of Android, please follow the setup SOP or go to the [Android Learning Center](#) for inquiries.








Chapter 2: Using the MC432/MC432L

This chapter describes using the MC432/MC432L's unique or important special functions.

Managing Settings

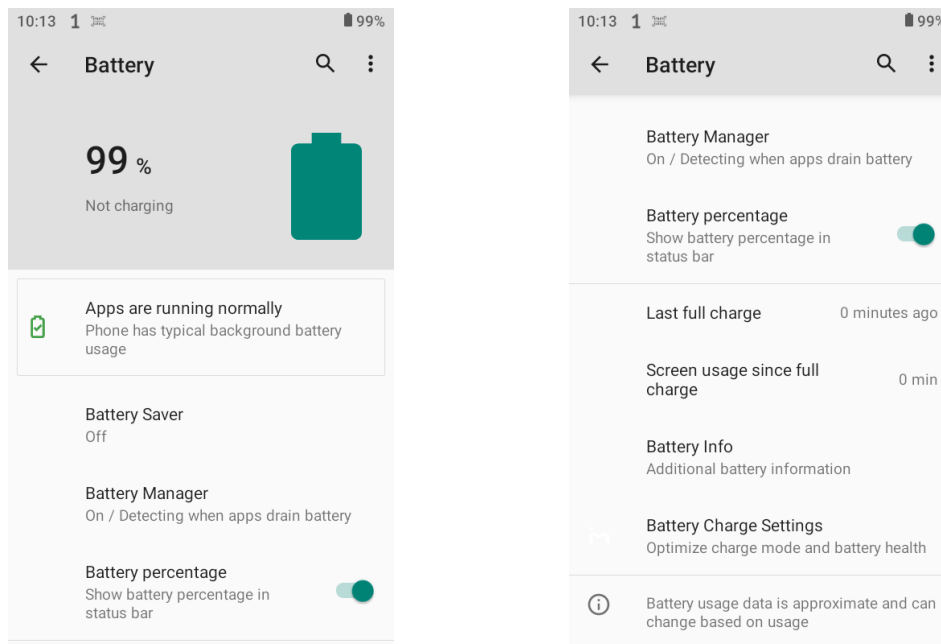
You can control the MC432/MC432L's settings for wireless & networks, device, personal, and system using the system settings below.

1. Swipe down from the status bar to open the quick access panel.
2. Tap the **Settings** icon: 
3. Swipe to scroll down and choose from among the main device and settings below.
4. Adjust settings as needed.

Category	Settings
 Battery	Battery saver, Battery Manager, Battery percentage, Last full charge, Screen usage since full charge, Battery charge settings
 Barcode Settings	Enable Scanner, Scanner settings, Good read, Formatting, Wedge, Symbology Settings, Enable all symbologies, Disable all symbologies, Reset configuration, Export Settings Profile
 NTP Server	Default NTP Server, Self-definition, Current NTP Server
 Programmable key	Redefine key, View redefined key list


Battery Management

To manage the battery, you can monitor battery use via the battery status icons in the status bar as well as the battery settings screen; you can also save the battery by reducing the device's energy consumption.



Monitoring Battery Use

Besides keeping an eye on the battery icons in the status bar, you can also access the Battery screen in Settings for information on battery usage.

1. Swipe down from the status bar to open the quick access panel.
2. Tap the  icon to access **Settings**.
3. Scroll to **Battery** and tap to open.
4. The **Battery** screen displays percent of charge remaining and estimated time left on the battery.
5. Tap the **Battery** screen to show the discharge graph with details on usage, such as the rate of discharge since last charge.
6. Tap the applications to see details on their power consumption.

Battery charge Settings

Optimize charge mode and battery health.

- Full AI Smart Charging Mode : Full AI Smart Charging mode can automatically adjust the charging mode based on user behavior to protect the battery.
- Full Charging Mode : Full Charging Mode without battery overcharge protection.
- Balanced Charging Mode : Device stops charging at 80% capacity.
- Battery Protect Mode : Device stops charging at 60% capacity.

Optimizing Battery Savings

The following tips can help you save on battery consumption.

- Reduce screen brightness.
- Set the screen to turn off after short periods of non-use.
- Turn off Wi-Fi and Bluetooth when not in use.
- Turn off automatic syncing.
- Minimize use of applications such as for music and videos that prevent the device from entering suspended mode.

Barcode Scanning

The MC432/MC432L supports barcode data capture using an integrated 2D scan engine that provides omnidirectional reading of a wide variety of common barcode symbologies including postal, QR Code, PDF417 and 2D matrix code types. The easy point-and-shoot operation utilizes advanced LED crosshair and dot aiming. The imager takes a picture of the barcode, stores the image, and uses the latest decoding algorithms to acquire data from the barcode.


Scanning a Barcode Label

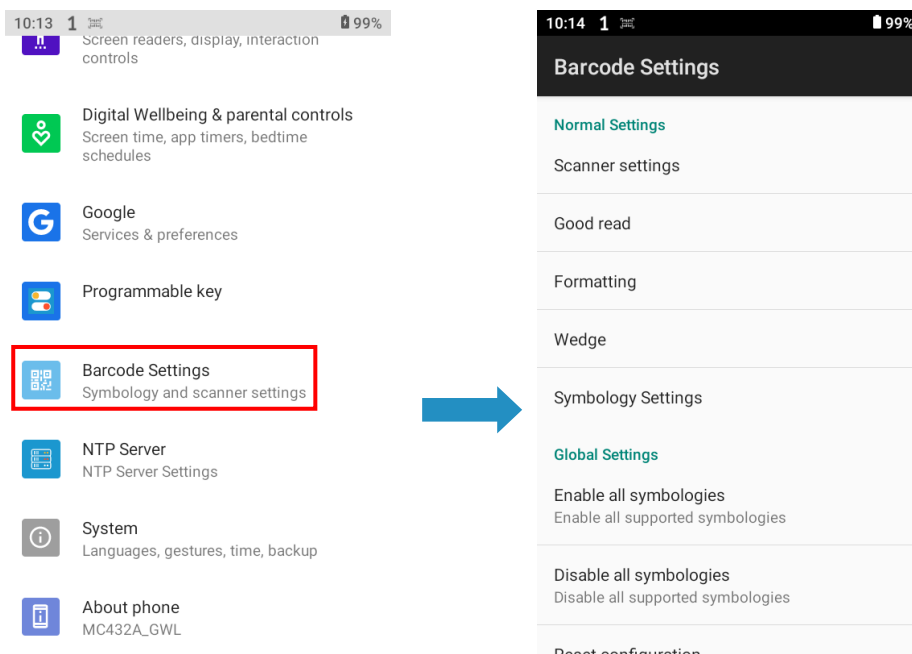
1. Point the MC432/MC432L's scan window at the barcode you wish to scan.
2. Press the scan button on either side of the device. You can also access the Scan App described below and tap the scan or trigger button.
3. The imager projects an aiming pattern to position the barcode in the

imager's field of view. Center the red aiming pattern on the barcode.

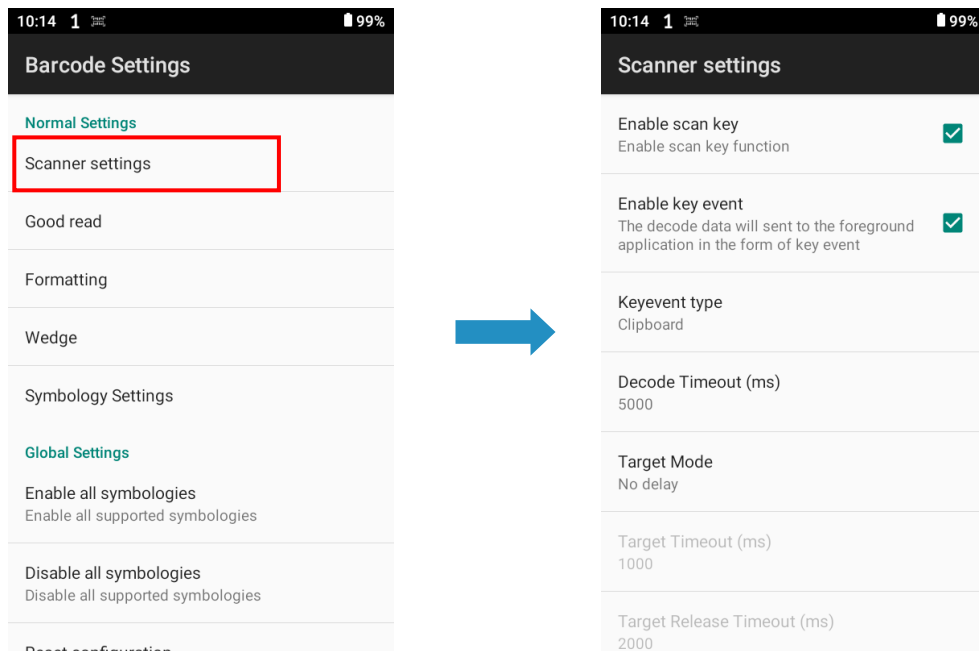
4. Release the scan button or press stop on the trigger button to capture and decode the image.

Scanner Settings

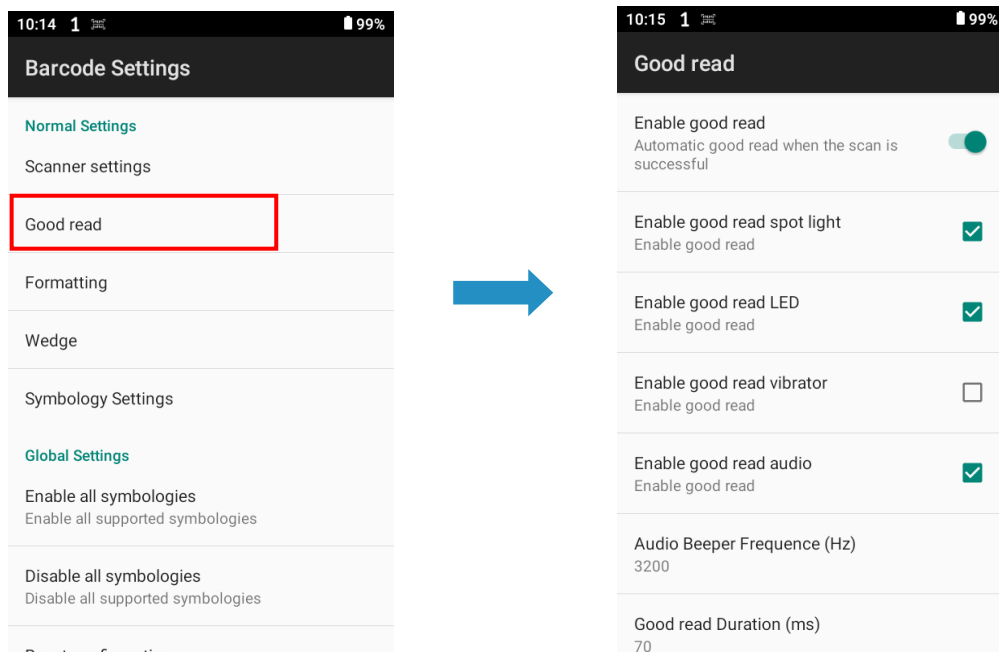
1. Swipe down from the status bar to open the quick access panel.
2. Tap the **Settings** icon: 
3. Tap **BarcodeSettingsX** to go to the barcode settings screen.



4. Normal Settings
 - a. Scanner Settings : From the barcode settings screen, tap Scanner settings to set scanner engine behavior.
 - i. Tap Scanner Settings to go to the barcode setting.

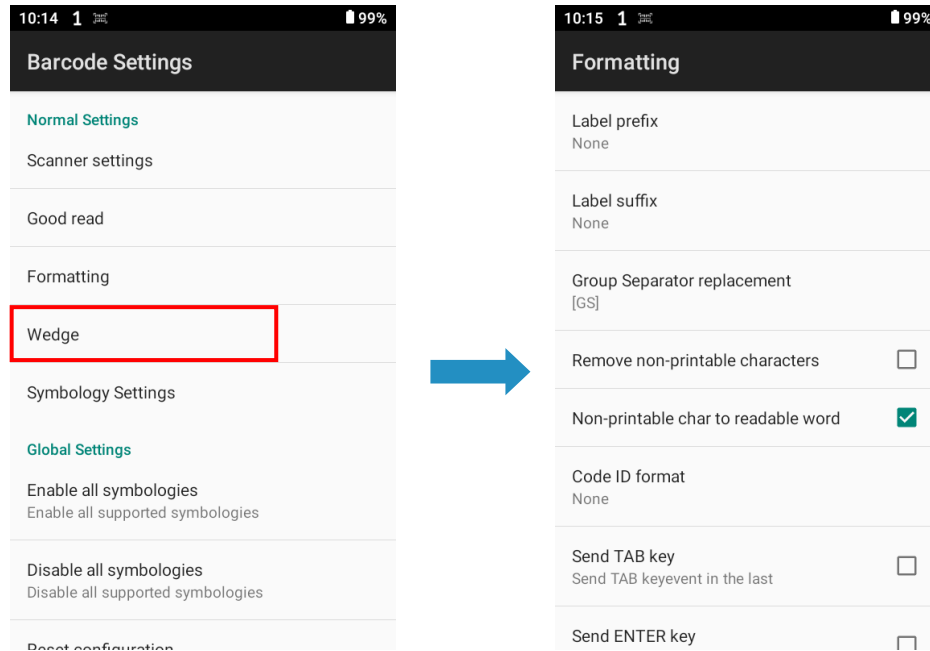


- b. Good Read : From the barcode settings screen, tap Good read to enable / disable vibrator and other behavior settings.



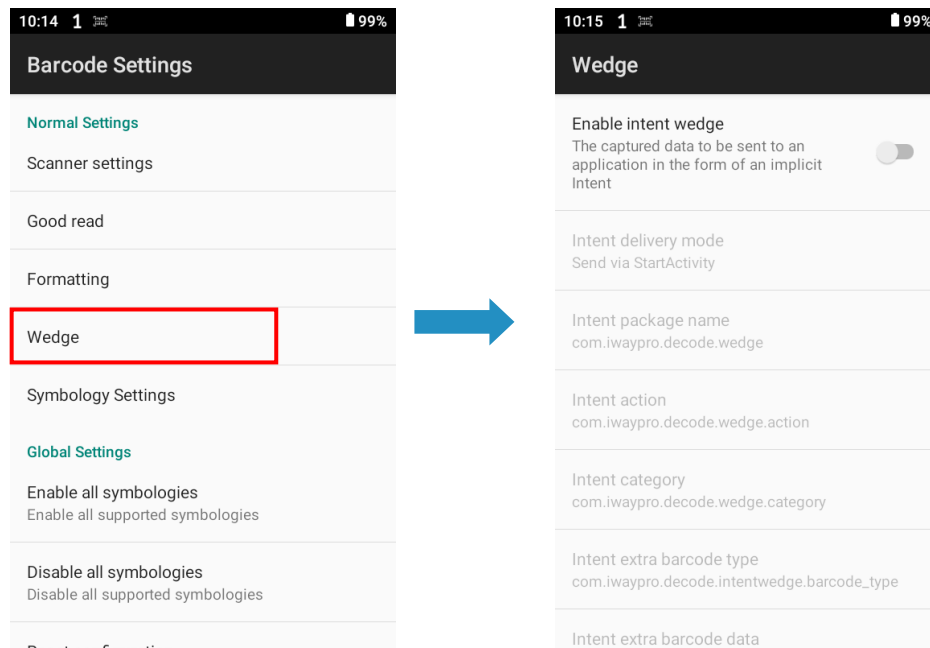
- c. Formatting : From the barcode settings screen, tap Formatting to set Label prefix /suffix.
- i. Enable or disable code ID, or set up separator characters

of data formats when you scan a barcode.

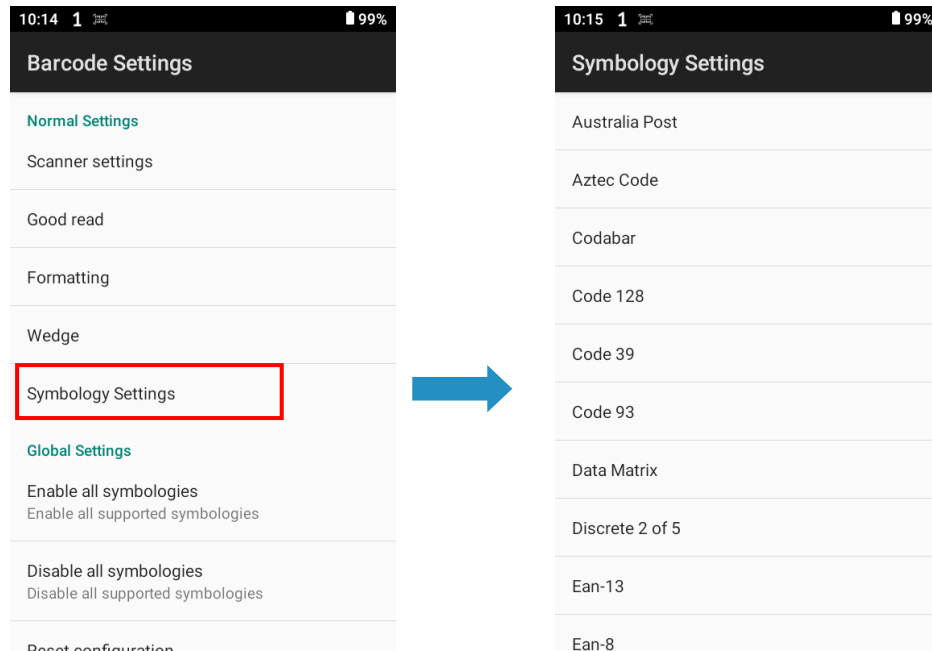


d. **Wedge** : From the barcode settings screen, tap **Wedge** to enable or disable intent wedge / keyboard wedge.

i. Enable or disable the other settings of intent wedge.

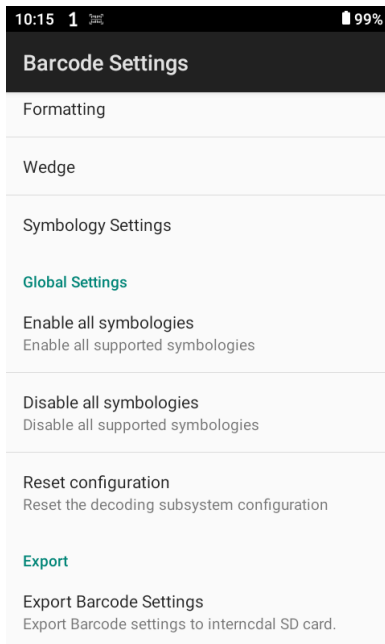


- e. Symbology Settings : Tap Symbology Settings. Parameters of each code are different.



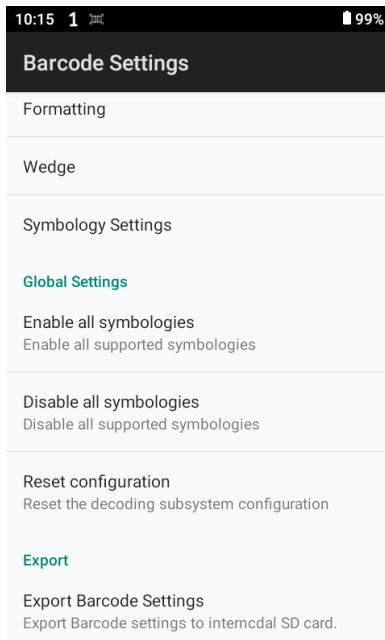
Note: For a list of the codes supported, please refer to **Barcode Support Information** in the Appendix.

5. Global Settings
 - a. Enable all symbologies
 - b. Disable all symbologies
 - c. Reset configuration




6. Export

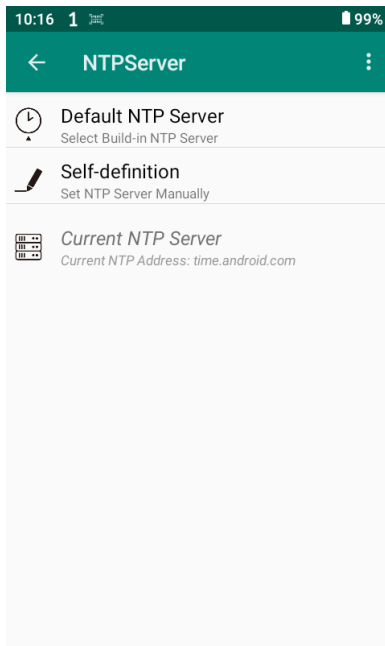
a. Export Barcode Settings




7. Tap the **Home Key** to return to the Home screen.

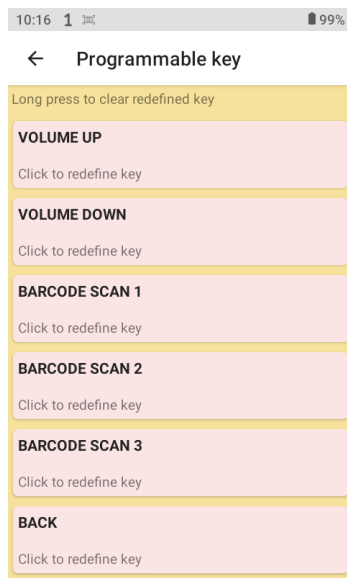
NTP Server

1. Swipe down from the status bar to open the quick access panel.
2. Tap the **Settings** icon: 
3. Tap **NTP Server** to go to the barcode settings screen.




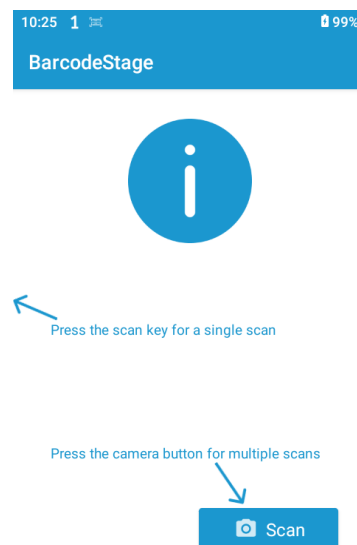
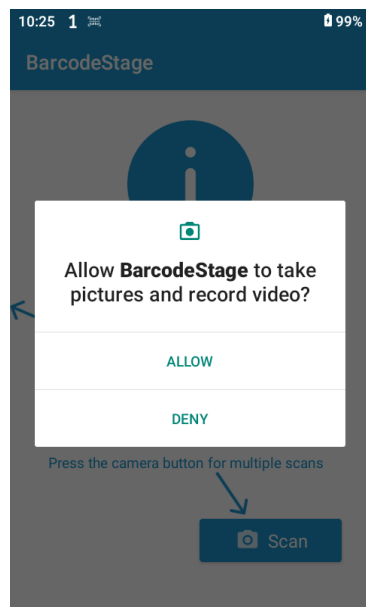
Programmable key

1. Swipe down from the status bar to open the quick access panel.
2. Tap the **Settings** icon: 
3. Tap **Programmable key** to go to the barcode settings screen.




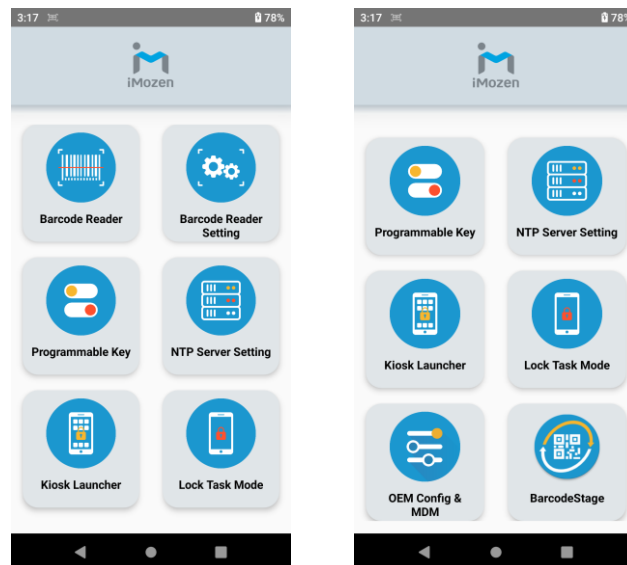
BarcodeStage

1. In the Home screen, swipe up from the bottom to access apps.
2. Tap  to open BarcodeStage.
3. Allow the program to take photos and record videos.
4. Use the Scan key or camera to scan the Board code; this function is a shortcut function for customized settings.




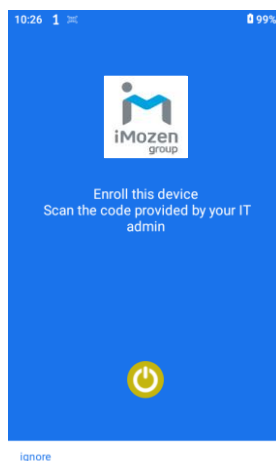
iMDemo

1. In the Home screen, swipe up from the bottom to access apps.
2. Tap  to open iMDemo.
3. iM's unique functions.




MDMClient

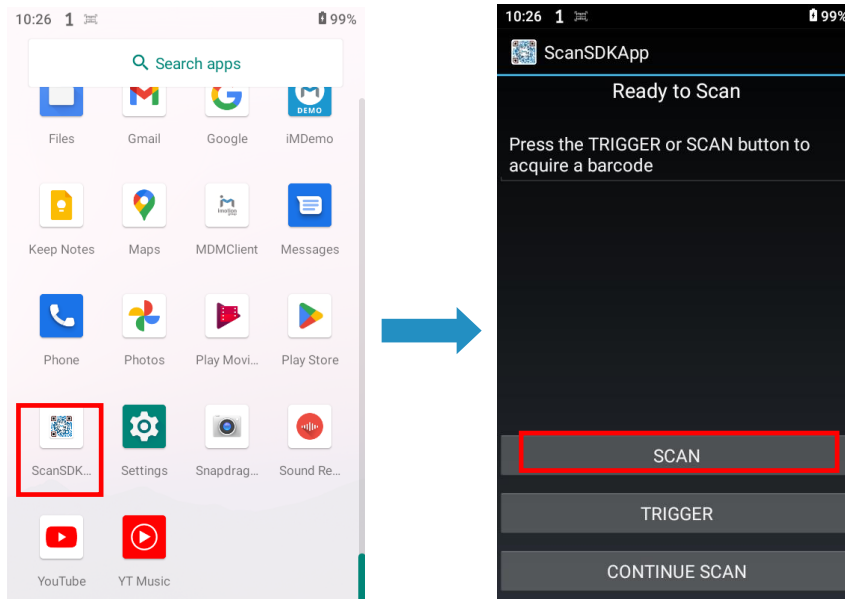
1. In the Home screen, swipe up from the bottom to access apps.
2. Tap  to open MDMClient.
3. This function is customized, please contact iMozen for details.



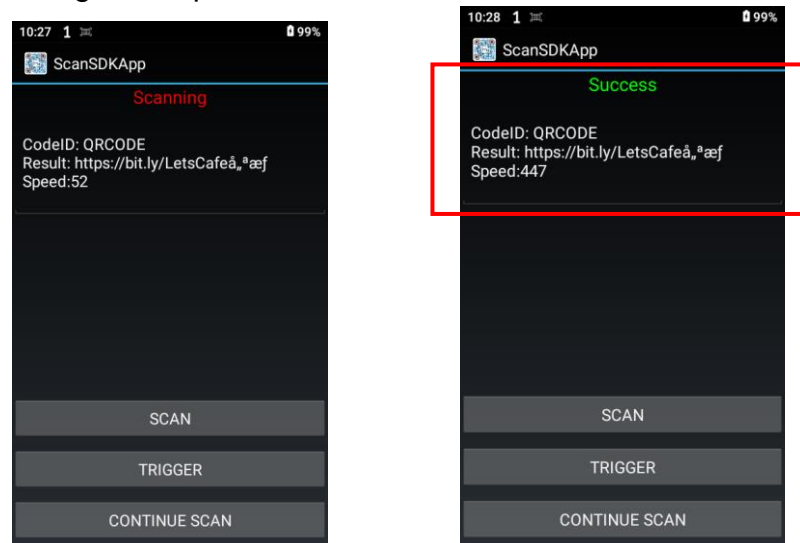
ScanAPPx

1. In the Home screen, swipe up from the bottom to access apps.

2. Tap  to open ScanSDKApp.



3. Tap the **Scan** button on the screen and aim at a barcode. Note that you can also use the scan buttons on each side of the MC432/MC432L. The content of the barcode is displayed when decoding is complete.

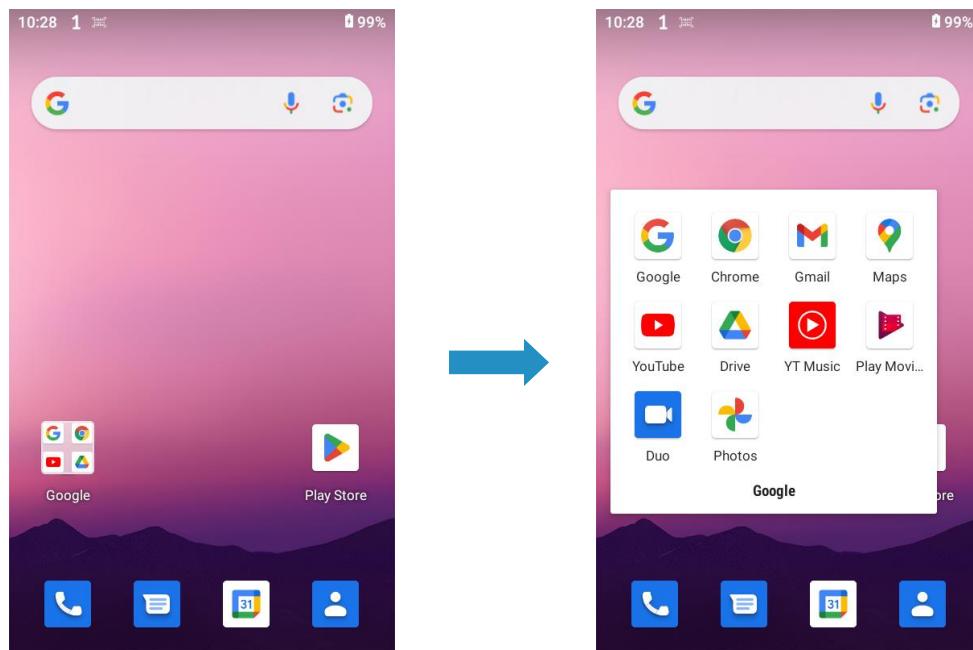


4. Tap the **Home Key** to return to the Home screen.




Chapter 3: Utility Applications











Google Mobile Services


The MC432/MC432L comes preinstalled with Google Mobile Services (GMS), and comes with Google apps.



The bundled GMS apps include:

	<p>Google –The Google app keeps you in the know about things that matter to you. Find quick answers, explore your interests, and stay up to date with Discover. The more you use the Google app, the better it gets.</p>
	<p>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.</p>
	<p>YouTube –See what the world is watching in music, gaming, entertainment, news and more. Subscribe to channels, share videos with friends, edit and upload videos, and watch on any device.</p>

	Google Drive – A smart online storage and backup that puts all your files within reach from any smartphone, tablet, or computer. Every file in Drive — like your photos, PDFs and documents — is backed up safely so you can't lose it. You can even invite others to view, download, and collaborate on all the files you want.
	YT Music –A new music service with official albums, singles, videos, remixes, live performances and more for Android, iOS and desktop.
	Play Movie –The Movie streaming service.
	Google Duo –Simple, high-quality video chat for everyone.
	Photos –The home for all your photos and videos that help you find, relive and share your memories. Automatically organized and searchable by the people, places, and things in them, your photos and memories are always easy to find and share.
	Calendar –Integrated online calendars designed for teams. Spend less time planning and more time doing with shareable calendars that integrate seamlessly with Gmail, Drive, Contacts, Sites and Meet so you always know what's next.
	Contacts –Integrated online calendars designed for teams. Spend less time planning and more time doing with shareable calendars that integrate seamlessly with Gmail, Drive, Contacts, Sites and Meet so you always know what's next.
	Clock –Combines all the clock functionality you need into one simple package.
	Play Store – Your entertainment unbound brings together all of the entertainment you love and helps you explore it in new ways, anytime, anywhere. We've brought the magic of Google to music, movies, TV, books, magazines, apps and games, so you get more from your content every day.
	Gmail –An easy-to-use email app that saves you time and keeps your messages safe. Get your messages instantly via push notifications, read and respond online & offline, and find any message quickly.

	Chrome –Browse fast on your Android phone and tablet with the same Chrome browser you love on your desktop. Pick up where you left off on your other devices with tab sync, search by voice, and save up to 60% of data usage while browsing.
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The Google apps offer both free and subscription services. Click the app icons for more information on signing up and using the apps.

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Chapter 4: Basic Care

This chapter provides information on basic care and troubleshooting for the MC432/MC432L.

Basic Care of the MC432/MC432L

The following basic care tips will ensure long, trouble-free use of the MC432/MC432L.

- ❗ Protect the MC432/MC432L from temperature extremes. Do not leave the device in high temperature conditions such as near open heat sources or in a closed vehicle on a hot day.
- ❗ Do not store this device in harsh conditions, such as dusty or damp locations.
- ❗ Do not drop this device on hard surfaces.
- ❗ The MC432/MC432L's touchscreen is glass. Do not scratch the screen.
- ❗ Clean the MC432/MC432L housing with a soft dry lens cloth.
- ❗ Clean the touchscreen with a soft cloth and diluted window-cleaning solution.

Product Storage

When storing the MC432/MC432L make sure it is kept at a reasonable temperature in a dry location. Make sure the battery is charged at least 50%.

Cleaning

Clean the MC432/MC432L as frequently as required depending on your environment. Do not apply liquid directly, but wipe the device with a soft cloth or pre-moistened wipes and then allow it to air dry before use. Clean the camera window from time to time for optimum performance.

Housing

Wipe the housing including the buttons with a soft cloth or alcohol wipes.

Touchscreen

Clean the touchscreen with alcohol wipes and immediately dry with a soft lens cloth or lens tissues.

Camera

Wipe the camera windows occasionally with lens tissues.

Connectors

Carefully clean the connectors using cotton swabs and isopropyl alcohol. Dry the connectors with dry cotton swabs.

Troubleshooting

Common problems, their causes, and suggested solutions are covered in the table below.

Problem	Cause	Solution
The MC432/MC432L does not turn on.	1. Battery depleted. 2. System crash.	1. Charge the battery. 2. Reset the device.
Battery does not charge.	1. Device disconnected from the charge cable. 2. Ambient temperature out of range.	1. Reconnect the charge cable. 2. Charge battery with ambient temperature between 0°C (32°F) and 40°C (104°F).
No characters in the display	Device not on.	Press the power button.
Data not	1. Wi-Fi or Bluetooth not	1. Turn on Wi-Fi or

transmitting over Wi-Fi or Bluetooth	on. 2. Out of range of access point.	Bluetooth. 2. Move closer to access point.
No sound.	Volume off or set too low.	Adjust volume.
Display keeps shutting off.	1. Inactivity. 2. Battery depleted.	1. Set Display Sleep to a longer setting 2. Charge the battery.
No response to tapping buttons or tiles.	System crash.	Perform a reset.
The device is not reading barcode	1. Barcode is unreadable. 2. Scanner is not in range. 3. Device is not programmed for the barcode. 4. Device does not beep when reading barcode. 5. Battery low.	1. Make sure the barcode is not damaged. 2. Scan closer to the barcode. 3. Program the device to read that type of barcode. 4. Set the application to beep. 5. Check battery level if scanner does not emit a light beam. If low, charge battery.
Device does not unlock.	Incorrect password entered.	Enter correct password.

Appendix A: Technical Specifications

The tables below provide product specifications for the MC432/MC432L mobile computer.

Key Features

- Qualcomm® Snapdragon™ 660 2.2GHz Octa Core 64-bit Processor
- 4.3" Color TFT WVGA LCD Module
- Gorilla (rugged glass) capacitive touch panel
- 4000mAh Replaceable Battery

Specifications

Physical Characteristics	
Dimensions	<ul style="list-style-type: none">• 181.55mm x 77mm x 23.2mm (Main body) / 33.77mm (Scanner)
Weight	<ul style="list-style-type: none">• 323 grams (with standard battery)
Display and Panel	<ul style="list-style-type: none">• 4.3", WVGA 480x800 IPS panel• Gorilla® Glass• Multi-touch projected capacitive; fingertip (bare or gloved) input• Wet Finger, Glove
Expansion Slots	<ul style="list-style-type: none">• Micro SD card slot x 1 (with SDHC compliance and software image upgrade features)• Nano SIM slot x 2• Type C supported USB OTG and DC in 5V/3A• Cradle connector DC power input
Keys and Buttons	<ul style="list-style-type: none">• Virtual key x 3

	<ul style="list-style-type: none"> • Side key: Scan key x 2, Volume key x 2, Power key, Function key (programmable) • Physical keypad: 23 keys with white color backlight
Notification	<ul style="list-style-type: none"> • Vibration • Ring tone • LED behavior <ul style="list-style-type: none"> ➤ Charging <ul style="list-style-type: none"> - Charging: Red - Charge full: Green ➤ Scan <ul style="list-style-type: none"> - Scan Start: Red - Decoder: Green (Blinking once) ➤ Information <ul style="list-style-type: none"> - Battery swap: Red
Audio and Voice	<ul style="list-style-type: none"> • Speaker x 1 (95dB @ 10cm) • Receiver x 1, Dual noise-cancelling microphones x 2 • 3.5mm DIA headset
Performance Characteristics	
Operating System	<ul style="list-style-type: none"> • Android 10 with GMS
CPU	<ul style="list-style-type: none"> • Qualcomm® Snapdragon™ 660 • 2.2GHz Octa Core
Memory	<ul style="list-style-type: none"> • eMCP 4GB LPDDR4x +64GB eMMC 5.1
User Environment	
Operating Temp.	-20~50°C
Storage Temp.	-40~70°C (without battery)
Charging Temp.	0~45°C
Humidity	5%~90% non-condensing
Sealing Standard	IP65 Standard
Drop Spec.	1.8m MIL-STD 810G with boot and 1.6m MIL-STD

	810G
Tumble Spec.	0.5m tumbles for 300 cycles and 600 drops
ESD	±8KV contact discharge, ±15KV air discharge
Network Connection	
Wireless PAN	<ul style="list-style-type: none"> • Bluetooth 5.0
Wireless LAN	<ul style="list-style-type: none"> • 802.11a/b/g/n/ac Wireless LAN, 2.4GHz and 5GHz • Compliant with WEP, WPA and IEEE 802.11i WPA2 • Fast roaming • 2x2 MIMO
Wireless WAN	<ul style="list-style-type: none"> • GSM: 850,900,1800,1900 MHz • WCDMA: B1, B2, B4, B5, B8 • LTE: B1, B2, B3, B4, B5, B7, B8, B12, (B17), B20, B28A, B28B, B38,B39, B40, B41
GPS	<ul style="list-style-type: none"> • aGPS, GPS, GLONASS, Beidou, Galileo, QZSS, SBAS
Data Capture	
Scanner	<ul style="list-style-type: none"> • Support 1D/2D • Scan engine: <ul style="list-style-type: none"> - Honeywell N4603 - Honeywell N6703 (Optional) - Datalogic H2 (Optional) • Scanning Angle: 30°
Camera	<ul style="list-style-type: none"> • Rear camera: 16M pixels CMOS color camera with auto focus • LED flashlight
NFC	<ul style="list-style-type: none"> • ISO14443-4 (Type A, Type B), ISO15693 • Mifare, Felica (ISO/IEC18092)
Sensors	

Sensors	Accelerometer, Gyroscope, e-Compress, Light sensor, Proximity sensor
Power	
Battery	Replaceable main battery: 3.85V/4000mAh
Power Adaptor	<ul style="list-style-type: none"> • 100~240Vac, 50/60Hz Input • 5V/3A 15W, 9V/2A 18W output (QC3.0)
Regulatory Compliance	
Certifications	<ul style="list-style-type: none"> • CB, CE, UKCA, FCC/IC, NCC, NTC Class B • RoHS, REACH, WEEE, CP65
Accessories	
Accessories	<ul style="list-style-type: none"> • Adaptor (Optional) • Data Cable (Type C) (Optional) • LCM Protector (Optional) • Hand Strap • Protective Boot (Optional) • Spare Battery (Optional) • Cradle (1 Terminal + 1 External Battery) (Optional)

Technical characteristics

The table below describes power and frequency range from EU-Type Examination Certificate.

Radio Type	Description	Frequency	Maximum Conducted Power
Bluetooth	Bluetooth BR+EDR	2400~2483.5 MHz	10dBm
	Bluetooth 5.0-LE	2400~2483.5 MHz	2.3dBm
WLAN	2.4GHz	2400~2483.5 MHz	17.2dBm
	5GHz	5150~5350 MHz	14.9dBm
		5475~5850 MHz	15.2dBm
GSM	GSM 900	1850~1910 MHz	33dBm
	GSM 1800	824~849 MHz	30dBm
WCDMA	WCDMA Band I	1920~1980 MHz	24dBm
	WCDMA Band VIII	880~915 MHz	24dBm
LTE	LTE Band 1	1920~1980 MHz	23dBm
	LTE Band 3	1710~1785 MHz	23dBm
	LTE Band 7	2500~2570 MHz	23dBm
	LTE Band 8	880~915 MHz	23dBm
	LTE Band 20	832~862 MHz	23dBm
	LTE Band 28	703~748 MHz	23dBm
	LTE Band 38	2570~2620 MHz	23dBm
	LTE Band 40	2300~2400 MHz	23dBm
Other	NFC	13.56 MHz	-12.00 dBuA/m
	GPS	1575.42 MHz	

Appendix B: Battery & Adaptor Notes

This appendix describes precautions for using the battery and Adaptor with the MC432/MC432L.

Battery Precautions

It is important to consider the temperature when the battery pack is charging. Charging is most efficient at normal room temperature or in a slightly cooler environment. It is essential that batteries are charged within the stated range of 0°C to 45°C. Charging batteries outside of the specified range could damage the batteries and shorten their life cycle.

Replacing Batteries

1. To guarantee optimal performance, it is recommended that rechargeable batteries be replaced every year, or after 500 charging cycles are completed. It is normal for the battery to balloon or expand after one year or 500 cycles. Although it does not cause damage, it cannot be used again and must be disposed of according to your location's safe battery disposal procedures.
2. If a battery performance decreases more than 20%, the battery is at the end of its life cycle. Stop use and ensure the battery is disposed of properly.

Storing Batteries

Although charged batteries may be left unused for several months, their capacity may be depleted due to a buildup of internal resistance. If this happens, the batteries require recharging prior to use. Batteries may be stored at temperatures between -20°C to 60°C, however they may deplete more rapidly at higher temperatures. It is recommended to store batteries at room temperature.

Adaptor Precautions

Please follow the power Adaptor precautions below:

- Do not leave the power Adaptor in the socket when it is not connected to the MC432/MC432L for charging.
- Remove the power Adaptor when the battery is fully recharged.
- The bundled power Adaptor that comes with your iMozen product is not meant to be used outdoors. An Adaptor exposed to water or rain, or a very humid environment can cause damage to both the Adaptor and the product.
- Only use the bundled power Adaptor or same specification of Adaptor to charge the MC432/MC432L. Using the wrong power Adaptor can damage this device.

Appendix C: Barcode Types

The MC432/MC432L supports the following bar code types that can be individually enabled or disabled.

Linear	Composite Code	Postal
Codabar	GS1 Composite	Chinese Postal
Code 11	TLC-39	Korean Postal
Code 128		
ISBT 128	2D Barcode	Combination Limit Postal
GS1-128	Aztec Code	Australian Postal
Code 39	Codablock-F	Canadian Postal
Code 32	Data Matrix	Japanese Postal
Trioptic	DotCode	KIX Code/Dutch Postal
Code 93	HAN XIN	UK Royal Mail
Industrial 2 of 5	Maxicode	US Planet
EAN-13	Micro PDF417	US Postnet
EAN-8	PDF417	UPU 4-State
GS1 DataBar-14	QR Code	USPS 4CB/IMb
IATA 2 of 5		
Interleaved 2 of 5		Advanced Setup
Matrix 2 of 5		OCR
MSI		Misc. Properties
Telepen		
UPC-A		
Coupon Code		
UPC-E		
UPC-E1		

Appendix D: Product Certification

FCC Interference Statement

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.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one 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.

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.

Operations in the 5.15-5.25GHz band are restricted to indoor usage only.

This device meets all the other requirements specified in Part 15E, Section 15.407 of the FCC Rules.

FOR PORTABLE DEVICE USAGE

Radiation Exposure Statement:

The product complies with the FCC portable RF exposure limit set forth for an uncontrolled environment and is safe for intended operation as described in this manual. Further RF exposure reduction can be achieved if the product is kept as far as possible from the user body or if the device is set to a lower output power if such function is available. This equipment should be installed and operated with a minimum distance of 10mm between the radiator device and your body.

FOR MOBILE DEVICE USAGE (>20cm/low power)

Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator device and your body.

FOR COUNTRY CODE SELECTION USAGE (WLAN DEVICES)

Note: The country code selection is for non-US models only and is not available for all US models. Per FCC regulation, all Wi-Fi products marketed in the US must be set to US operation channels only.

NCC Interference Statement

1. The operations near the radar system shall not be influenced.
2. The directed antenna with high gain must apply to the fixed point-to-point system only.

3. Without permission granted by the NCC, any company, enterprise, or user is not allowed to change frequency, enhance transmitting power or alter original characteristic as well as performance to an approved low power radio-frequency device. The low power radio-frequency devices shall not influence aircraft security and interfere legal communications; If found, the user shall cease operating immediately until no interference is achieved. The said legal communications means radio communications is operated in compliance with the Telecommunications Management Act. The low power radio-frequency devices must be susceptible with the interference from legal communications or ISM radio wave radiated devices.
4. Standard SAR value: 2.0 W/kg, actual value measured on product: 0.297 W/kg.
5. Risk of possible damage to vision in case of excessive use
6. Protect your eyes: rest your eyes 10 minutes for every 30 minutes of use. It is advised to keep children under 2 years old from looking at the screen and children above 2 years old from watching for more than an hour every day.

Partners

<https://www.imozengroup.com/imozen-partners/>

Power and Frequency Ranges

The table below describes power and frequency range specifications. The frequency band is mainly in accordance with local laws and regulations and cooperation with telecommunications operators.

Radio Type	Description	Frequency	Maximum Conducted Power
Bluetooth	Bluetooth BR+EDR	2400~2483.5 MHz	10dBm
	Bluetooth 5.0-LE	2400~2483.5 MHz	2.3dBm
WLAN	2.4GHz	2400~2483.5 MHz	17.2dBm
	5GHz	5150~5350 MHz	14.9dBm
		5475~5850 MHz	15.2dBm
GSM	GSM 850	1920~1980 MHz	33dBm
	GSM 900	1850~1910 MHz	33dBm
	GSM 1800	824~849 MHz	30dBm
	GSM 1900	880~915 MHz	30dBm
WCDMA	WCDMA Band I	1920~1980 MHz	24dBm
	WCDMA Band II	1850~1910 MHz	24dBm
	WCDMA Band V	824~849 MHz	24dBm
	WCDMA Band VIII	880~915 MHz	24dBm
LTE	LTE Band 1	1920~1980 MHz	23dBm
	LTE Band 2	1850~1910 MHz	23dBm
	LTE Band 3	1710~1785 MHz	23dBm
	LTE Band 4	1710~1755 MHz	23dBm
	LTE Band 5	824~849 MHz	23dBm
	LTE Band 7	2500~2570 MHz	23dBm
	LTE Band 8	880~915 MHz	23dBm
	LTE Band 12	699~716 MHz	23dBm
	LTE Band 19	830~845 MHz	23dBm
	LTE Band 20	832~862 MHz	23dBm
	LTE Band 28	703~748 MHz	23dBm
	LTE Band 38	2570~2620 MHz	23dBm
	LTE Band 39	1880~1920 MHz	23dBm
	LTE Band 40	2300~2400 MHz	23dBm
	LTE Band 41	2496~2690 MHz	23dBm
Other	NFC	13.56 MHz	-12.00 dBuA/m
	GPS	1575.42 MHz	

DoC hyperlink

<https://www.imozen.com/support-category/download/>