

M3 SM24

User Manual

Version 2.0

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1 Introduction

1.1 Terms of Use

Thank you for purchasing the M3 SM24. This device offers high-performance data collection and mobile communications that meet industrial standards.

This manual provides an overview of the M3 SM24 series and its uses.

- It is recommended that users carefully read this manual to ensure safe and proper use of the device, as well as to prevent accidents that may occur during improper use.
- This manual lists the current specs and capabilities of the device. The manual may be updated to reflect changes to the device.
- Images and screenshots reflect the latest software version.
- Some features and accessories described in this manual are optional and may be purchased separately. For more information on available options and accessories, contact your local distributor or refer to the M3 website (<http://www.m3mobile.net>).
- M3 Mobile bears no responsibility for any performance problems that may occur due to the installation of any third-party applications.
- M3 Mobile bears no responsibility for any performance or compatibility problems that may occur due to the mishandling of the device by the user.
- The user is liable for any breach of copyright or patent.
- M3 Mobile can request all or part of any applications developed by the user or third party, in order to improve the user environment or device performance.
- This device comes with the latest OS version. For information on future OS updates, please contact your local distributor.
- This device complies with radio spectrum regulations in at least one EU member country.
- Due to efforts to keep this manual up to date with the most recent changes to its software and capabilities, technical or miscellaneous errors may occur.

1.2 Copyright

Copyright © 2026 M3 Mobile Co., Ltd. All rights reserved.

This manual is protected under international copyright laws. No part of this manual may be reproduced, distributed, translated, or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or storing in any information storage and retrieval system, without the prior written permission of M3 Mobile.

1.3 Trademarks

- M3 Mobile and M3 logos are registered as trademarks of M3 Mobile.
- M3 SM24 is a registered trademark of M3 Mobile Co., Ltd.
- Google, Android, Google Play, YouTube, and related brands are trademarks of Google LLC.

1.4 Safety Information and Precautions

- Do not use the device while driving.
 - ✓ This increases the risk of traffic accidents.
 - ✓ Comply with local laws on device use while driving.
- Do not handle the power plug with wet hands.
 - ✓ This increases the risk of electric shock.
- Observe the following when using the battery.
 - ✓ Do not puncture the battery or subject it to strong impact.
 - ✓ Do not expose the battery to liquid or submerge it.
 - ✓ Keep the device away from metal objects while charging.
- Keep the device, battery, and charger away from direct heat sources.
 - ✓ Exposure to heat may damage the device or cause a fire or explosion to occur.
 - ✓ If the device is left inside a vehicle, the interior heat may cause the battery to overheat and explode.
- Do not use the device during thunderstorms.
 - ✓ Lightning may damage the device or cause electric shock.
- Power off the device when its use is prohibited.
 - ✓ Power off the device when boarding a plane. The device may generate electromagnetic interference that can affect the plane's electronic equipment.
 - ✓ Power off the device inside hospitals. The device may generate electromagnetic interference that can affect hospital medical equipment.
- Power off the device in hazardous environments where there is risk of explosion.
 - ✓ Observe all safety regulations and instructions in environments where explosions may occur.
 - ✓ Power off the device in environments where refueling occurs.
- Be careful when wearing a headset or in-ear listening devices.
 - ✓ Avoid long-term exposure to loud sounds to prevent hearing damage.
 - ✓ Loud sounds while walking or driving may cause accidents resulting in serious injury or death.

1.5 Instructional Icons

When using this manual, take note of the following icons:



Warning – Situations that may result in injury or damage



Caution – Measures to take to ensure safe and proper use of the device



Note – Usage tips or additional information

2 Getting Started

2.1 Package Contents

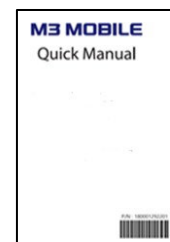
The **M3 SM24** package includes the following items:



M3 SM24



Battery



Quick Manual

If one or more of the above items are damaged or missing after opening the package, contact the store where you purchased the device.

* NOTE

Cradles and other accessories for the SM24 are sold separately. Cradles provide different functions depending on the available options. Please refer to the SM24 Accessory Guide.



If the device is used for purposes other than its intended use or has been modified, it may emit electromagnetic radiation.

2.2 Battery



2.2.1 Installation and Removal

Inserting the Battery

Slide in the bottom end of the battery first.

Push down on the top end until the left and right release buttons lock.



The M3 SM24 can use 3.85V  4,000mAh and 3.85V  6,000Ah Li-ion batteries.



Do not use an unapproved battery. The device may cause it to explode.
Follow proper disposal procedures when discarding batteries.

Removing the Battery

Press both release buttons to remove the battery.



Before removing the battery, close any running programs. Failing to close a program may cause errors the next time it starts.

If the battery is not properly removed, the battery terminal may be damaged.



The M3 SM24 can be used continuously for 6 to 18 hours on a single charge.
(The exact duration depends on the specific usage environment.)


2.2.2 Charging the Battery

A warning screen indicates when the battery's charge is low.

If the battery's charge runs out, the device will power off.

- 1) The battery can be charged directly by connecting a power adapter to the device's USB-C port.
- 2) Connect the device to a cradle that you can additionally purchase to charge the battery. As pictured below, place the device into the cradle to begin charging.



The AC adaptor can support 100–240V input, 9V  3A output. Any voltage beyond this range may seriously damage the device.

LED Color	Description
Red	The battery is charging.
Green	The battery is fully charged.


A discharged battery can reach a full charge in 2–3 hours for the 4,000mAh battery, and 3–4 hours for the 6,000mAh battery.

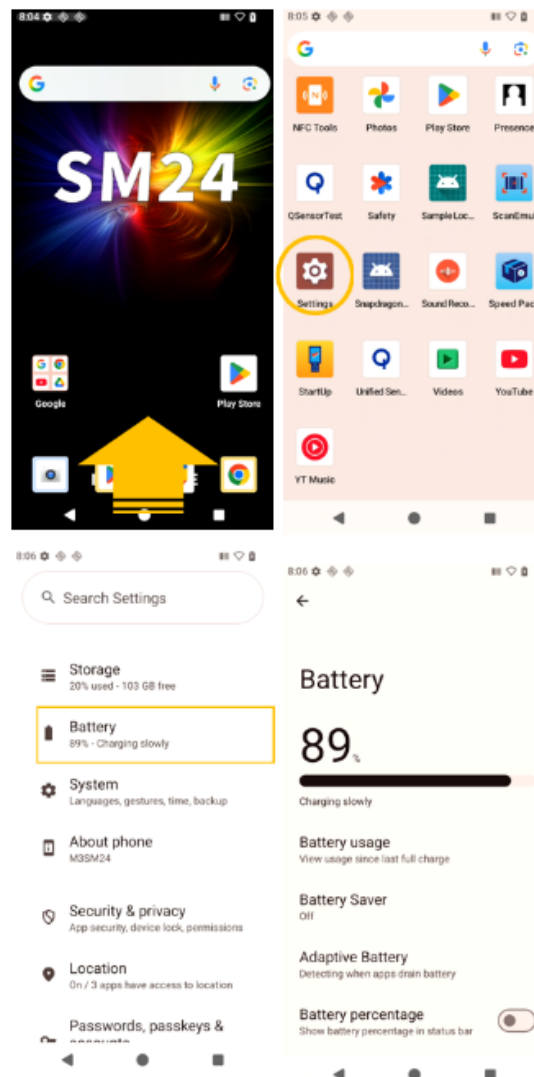


The battery is suited for temperatures between -20°C (-4°F) and 50°C (122°F). Temperatures outside this range may cause the device to malfunction or break down.



- 3) It is recommended to replace the battery every two years.
- 4) Keeping the battery continuously plugged in and charged will decrease its lifespan.

To view more information on the device battery: **[swipe up on the Home Screen → scroll down to the Settings icon  → scroll down to Battery].**



2.3 Turning the Device On/Off

2.3.1 Powering On

Press and hold the Power button until the device vibrates. This will turn the device on and display the device lock screen.



If the battery is completely discharged, the device may not turn on properly. In this situation, charge the battery before turning on the device again.



2.3.2 Powering Off

Press and hold the Power button until the Power menu appears, then press the Power off button.



If the device becomes unresponsive, press and hold the Power button for 10 seconds to force the device to power off.

2.3.3 Standby Mode

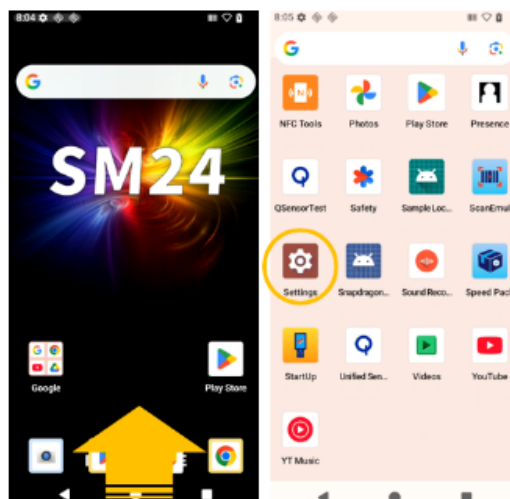
If the device is not used for a prolonged amount of time, it will automatically enter standby mode to limit battery consumption. To manually enter standby mode, briefly press the Power button.

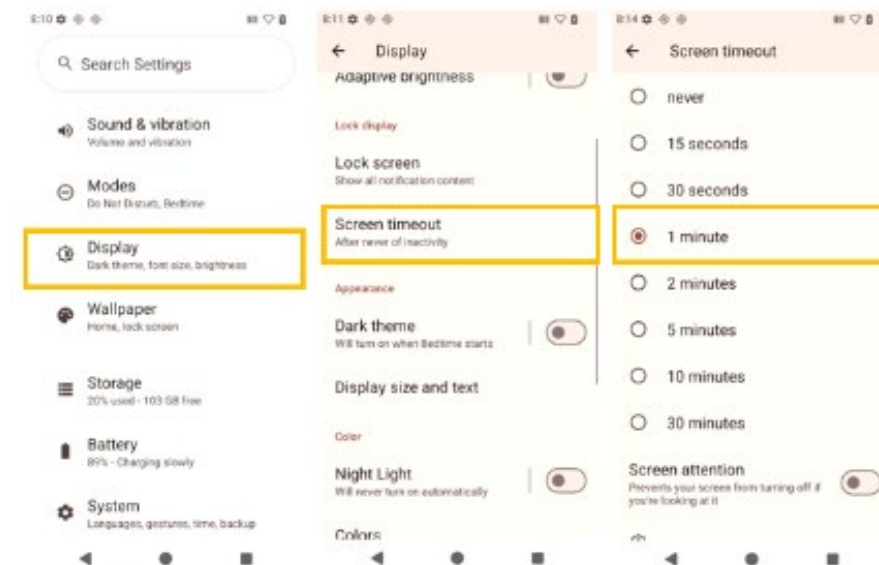
The screen timeout duration when the device enters standby mode is after one minute. This length can be changed in the device settings.

To change the screen timeout duration: **[swipe up on the Home Screen → press the Settings icon**



→ scroll down to Display → scroll down to Screen timeout].





2.4 Memory Card

2.4.1 Inserting an External Memory Card

The M3 SM24 supports microSD cards for additional storage.



To insert a microSD card, first remove the battery, then slide the card up into the microSD card slot.



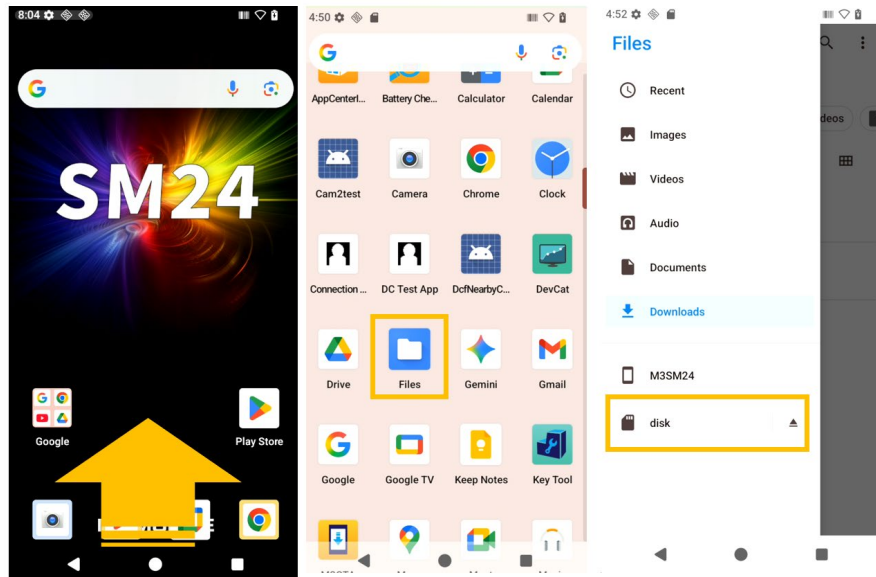
Android 16, the default OS in the M3 SM24, can support up to 2TB of external memory.

2.4.2 Checking the Card

To view the contents of the microSD card: [swipe up on the Home Screen → press the Files icon



→ press the Menu button at the top left of the screen → select the name of the microSD card].



2.5 SIM Card

2.5.1 Inserting a SIM Card

The M3 SM24 supports SIM cards for voice calls and data transfers over a mobile network. Only SIM cards from local network providers are supported.



To insert a SIM card, first remove the battery, then slide the card up into the SIM card slot.

For more information on phone functionality, see the [Phone Function](#) section.

3 Basic Use

3.1 Features

Device Layout



- ① Receiver
- ② Front Camera
- ③ Sensor
- ④ Charging LED
- ⑤ Screen
- ⑥ Scanner Button
- ⑦ Volume Buttons

- ⑧ Power Button
- ⑨ Camera Button
- ⑩ Scan Window
- ⑪ Camera Button
- ⑫ Speaker
- ⑬ 8 Pin
- ⑭ Microphone

- ⑮ Strap Holder
- ⑯ Battery
- ⑰ 2 Pin
- ⑱ Charging Contacts

3.2 Buttons

Button	Description
Scanner	Operate scanner while executing scanner program
Volume	Increase or decrease volume
Camera	Press once to launch the camera program, press again to take a photo
Power	Press to turn the screen on or off, hold to power on or off

3.3 Home Screen

The Home Screen is comprised of the following components:

Notification Bar



Status Bar

Search Bar

Home Screen








Home Screen Apps

Dock

3.3.1 Status Bar












The Status Bar may display the following indicators:







Icon	Icon Name	Description
	Battery	Battery charging / remaining battery charge
	Phone	Cellular signal strength / no connection

	Sound / Vibration	Sound / vibration status
	Wi-Fi	Wi-Fi signal strength / no connection
	Bluetooth	Bluetooth enabled / disabled
	GPS	Searching for location data
	Alarm	Alarm has been set
	Airplane Mode	Airplane Mode enabled
	NO SIM	No SIM card detected

3.3.2 Notification Bar







The Notification Bar may display the following device notifications:

Icon	Icon Name	Description
	More	More notifications are available
	Data Sync	Data is being synchronized
	Schedule	Scheduled event reminder
	Wi-Fi	A Wi-Fi network is available
	Music	Playing music
	Data Sync	Data could not be synchronized
	Data Upload	Data is uploading
	Data Download	Data is downloading
	SD Card Full	SD card is at full capacity
	USB	The device is connected via USB
	Debugging	USB debugging is available

	Received Message	There is a new message
	Missed Call	There was a missed call
	Wi-Fi Hotspot	Wi-Fi hotspot is active
	USB Tethering	USB tethering is active
	Bluetooth tethering	Bluetooth tethering is active
	Virtual Private Network (VPN)	Device is connected to a VPN

3.3.3 Home Screen

Various apps can be launched by pressing their shortcut icons on the Home Screen. Shortcut icons can be freely added or deleted from the Home Screen. The following is a list of common apps:

Icon	Icon Name	Description
	Google	Find what you need, explore your interests, and get a feed of stories and updates on topics that matter to you.
	Gmail	Get your messages instantly via push notifications, read and respond online & offline, find any message quickly and lots more.
	Google Chrome	Browse fast on a device 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.
	Google Maps	Explore and navigate your world with Google Maps. Find places you'll love, connect with businesses you're interested in, and get around with real-time traffic information.
	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.
	Google Drive	Google Drive is a smart online storage and backup that puts all your files within reach from a device.



YouTube Music

Easily find the albums, singles, live performances, covers and remixes you're looking for. Don't know a song's name? Just search the lyrics or describe it.



Google TV

You can access recommended content from various streaming services, all integrated into a single screen.



Google Meet

It is a video conferencing service that allows anyone to easily host online meetings and make video calls.



Google Photos

Automatically organized and searchable by the people, places, and things in them, your photos and memories are always easy to find and share.



Google Play Store

It is an app marketplace where you can download and manage a wide range of apps and content on Android devices.

3.3.4 Dock

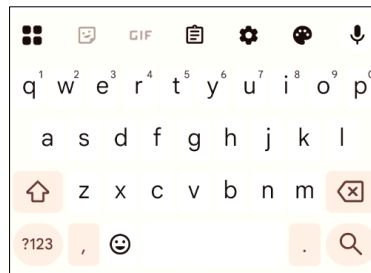
Shortcut icons can be placed on the lower section to rapidly execute frequently used programs.

On the Dock Bar, up to five shortcut icons may be added or deleted.

Icon	Icon Name	Description
	Phone	Make and receive calls
	Contacts	Manage contact information
	Message	Write and check text messages
	Camera	Take photos or record videos
	Calendar	Manage your schedule, events, and reminders all in one place.

3.4 Virtual Keyboard

Press a field that accepts text input (such as a search bar) to display the virtual keyboard.

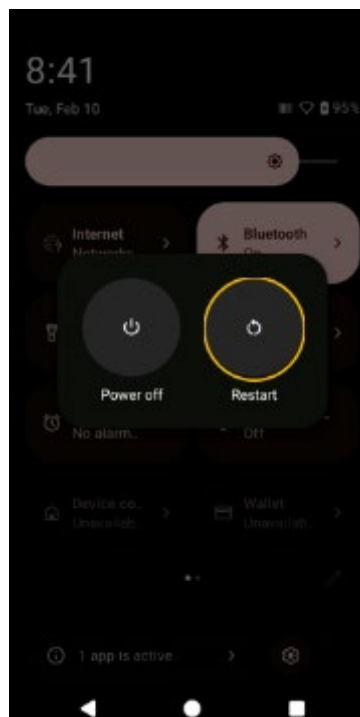


If the virtual keyboard does not appear after pressing a text field, press the keyboard icon in the lower right corner of the screen and enable **[Show virtual keyboard]**.

3.5 Device Reset

3.5.1 Soft Reset (1)

Press and hold the Power button to display the Power menu, then select **[Restart]**.




3.5.2 Soft Reset (2)

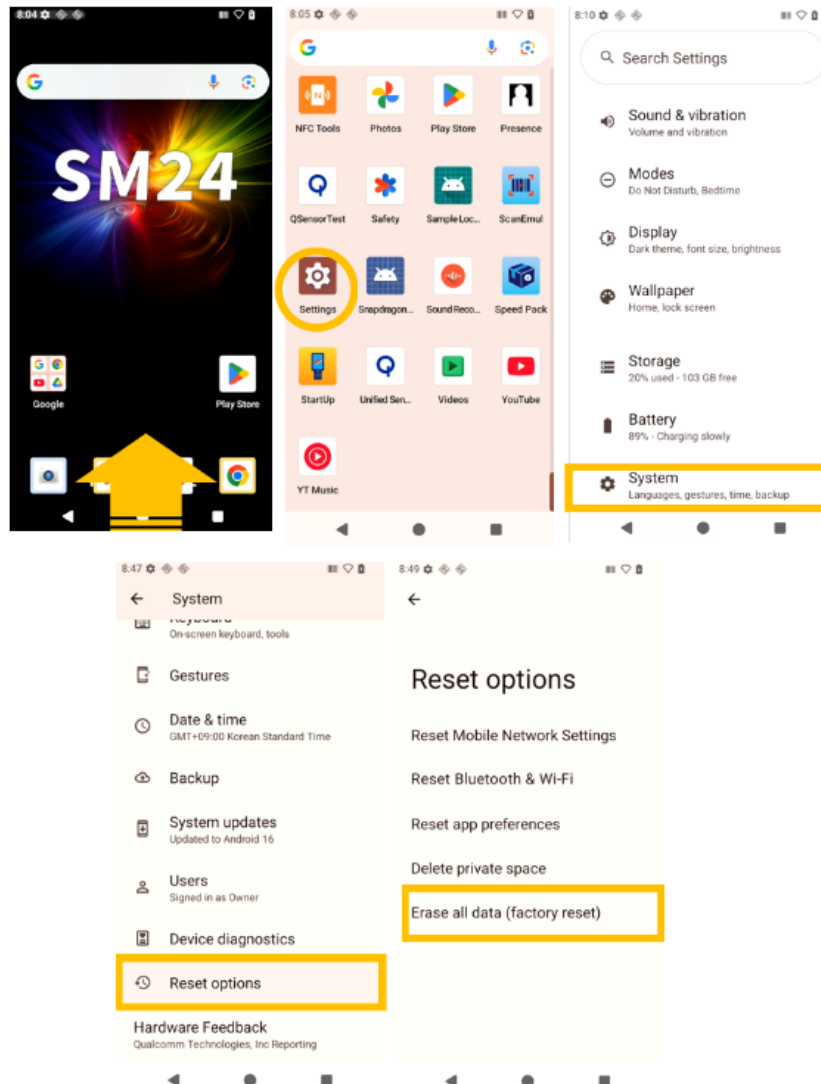
Press and hold the Power button for more than 10 seconds.

Any open programs will be closed and unsaved data will be lost. However, internal storage data will not be affected.

3.5.3 Factory Reset

If a serious problem occurs that cannot be solved with a soft reset, take the following steps to perform a factory reset:

[Swipe up on the Home Screen → press the Settings icon  → scroll down to System → scroll down to Reset options → select Erase all data (factory reset)].



- Check if Erase internal SD card is checked. → Reset device. → Erase everything
- According to options, documents in internal SD card or microSD card may be deleted. As such, please check the options. All settings will be reset.

Factory Reset Protection (FRP) Feature

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

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

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

How does FRP work?

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

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

If an unauthorized person managed to reset the device, they would still have to log in using the previous Google username and password. This means that lost or stolen devices are inaccessible without an associated Google account.

What do I need to know about FRP?

If you want to reset your device to the factory settings, you need to log in with the same Google username and password after the reset is completed.

If you want to reset your device to the factory settings but don't remember your Google username and/or password, try the following:

- Go to your account settings to check your account name and reset your password via the device or at <https://www.google.com>. It can take up to 24 hours for the password reset to sync across all registered devices.
- Unlink the account from the device before performing a factory reset.

If you already reset the device but don't remember your Google username and/or password, try the following:

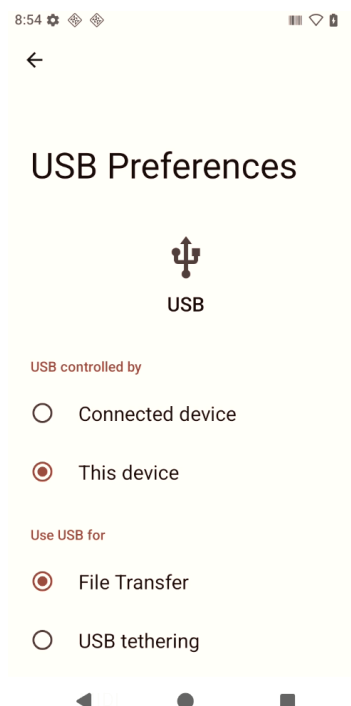
- If you know your Google username but don't remember the password, you can reset your password via the device or at www.google.com. It can take up to 24 hours for the password reset to sync across all registered devices. After 24 hours, you can try to log in with the new password.
- If you have multiple Google Accounts and you can't remember which account is linked to the device, visit <https://www.google.com/android/devicemanager>. Log in with your Google username and password and check the list of devices registered with the account. If you don't see the device listed on the account, try a different Google Account. When you find the account registered with the device, log in to the device with that account.

If you can't remember any of your Google Account information, you can send your device, along with proof of purchase, to an authorized M3 Mobile supplier. M3 has special tools to reset the device to factory settings with no protection enabled.

3.6 Connecting with a PC

To connect the device to a PC, perform the following steps:

1. Connect the device to a PC via cable or USB. The following screen will appear:



- File Transfer – Send files between devices.
- USB tethering – Share your device's mobile data connection with a PC via USB.
- MIDI – Use as a musical instruments app.
- PTP – Send photos between devices.

- The PC will recognize the device and automatically install the relevant driver.
- Once the driver is installed, files can be transferred through the file explorer.




If there is an issue connecting the device with a PC, try the following:

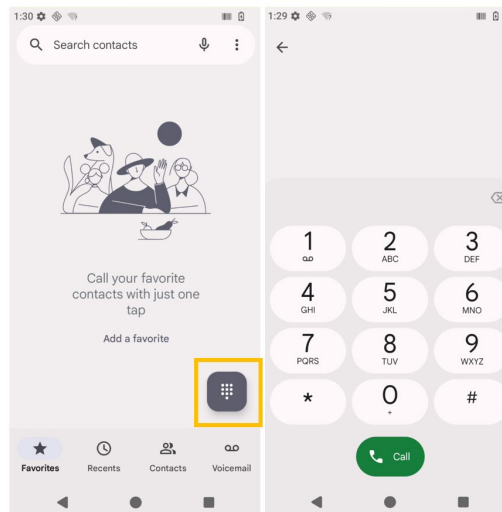
- Check if the USB cable is properly connected on both ends.
- Make sure the LCD screen of the device is turned on.


4 Home Screen Apps

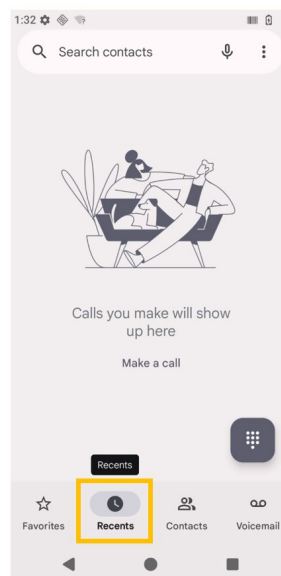
4.1 Phone Calls


The M3 SM30 supports the 2G (GSM), 3G (UMTS, HSPA+), 4G (LTE) and 5G(New Radio) networks.

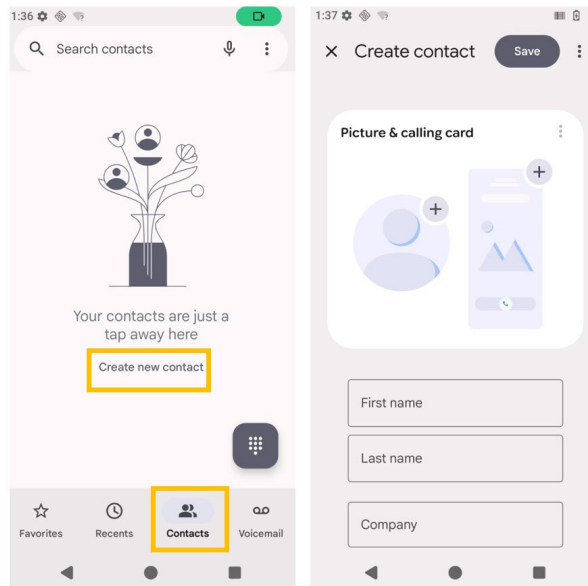
Press the  icon to open the Phone menu.



- Press the () icon to see all recent call history.



- Press the () icon to see the list of contacts.
- Press **[Create new contact]** to add a contact.

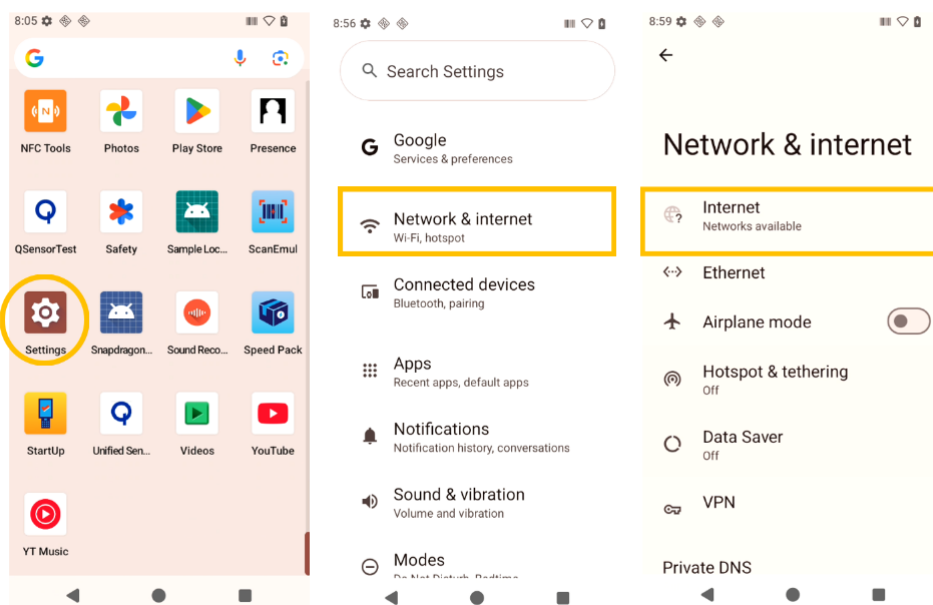


Make sure that the phone function is enabled in order to make calls and use the network to transfer data.

4.2 Wi-Fi


How to set up Wi-Fi:

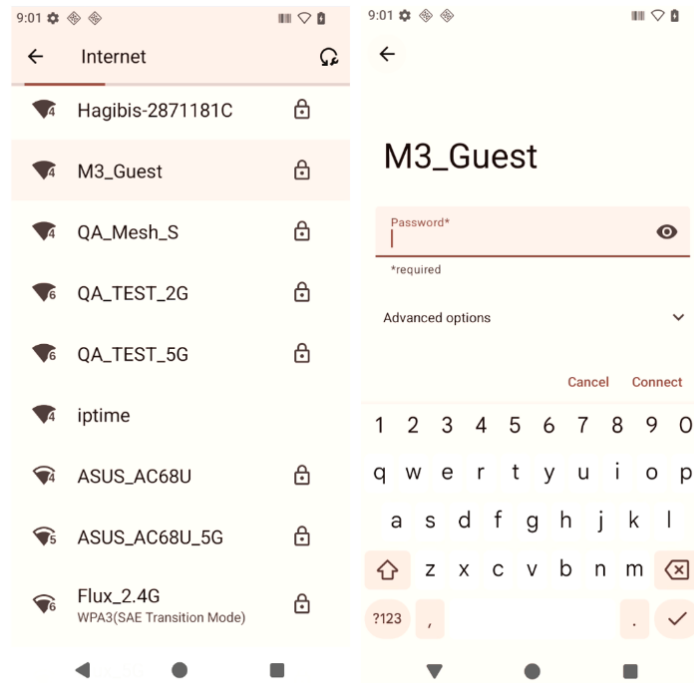
[Swipe up on the Home Screen → press the Settings icon  → go to Network & internet → go to Internet → enable Wi-Fi].



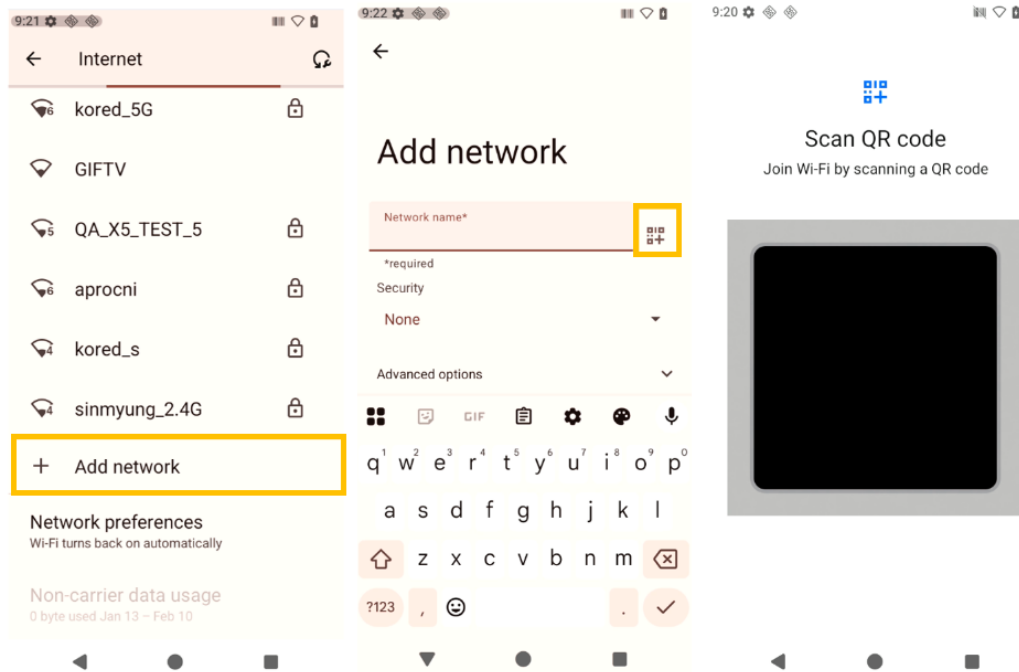
Connecting to a Wi-Fi network

To connect to an AP, perform the following procedure:

1. Select “Wi-Fi” menu of the  Settings icon.
2. the list, select an AP name to access. If necessary, enter password to complete the access.



3. You can also create a QR code to share your network and connect other devices through the shared QR code without entering your Wi-Fi password.



4.3 Scanner

The M3 SM24 supports 1D and 2D scanning. For detailed information, contact your local distributor or refer to the M3 website (<http://www.m3mobile.net>).

4.2.1 Using the ScanEmul app



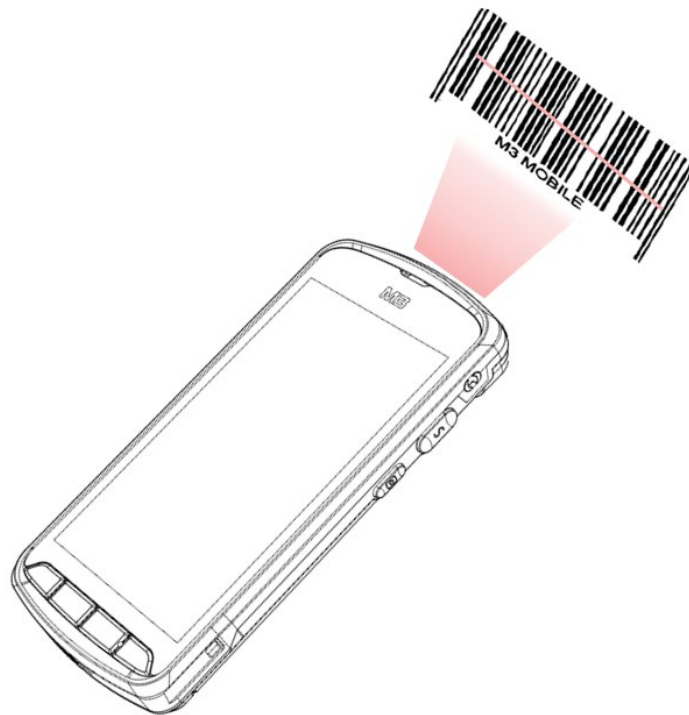
The scanner can be used with the ScanEmul app, M3 Mobile's proprietary keyboard wedge utility and scanning interface. It processes 1D and 2D scanned data and displays it as information.



In the case of 2D scanning, it cannot be simultaneously used with a camera.

4.2.2 Using the Scanner

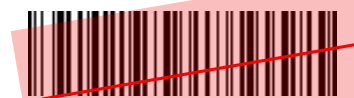
Aim the front of the device at a barcode and press one of the scan buttons.



The scanner's laser beam should completely cover barcode, as shown below:

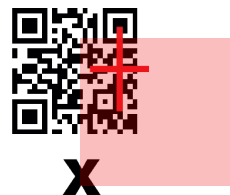


O



X

<1D Scanner>



<2D Scanner>




- 1) not look directly into the laser emitter.
(CLASS 2 LASER PRODUCT 1.0 mW, MAX OUTPUT: 650 nm)
- 2) the device is used for purposes other than those described in this manual,
there is a risk of exposure o harmful electromagnetic radiation.


4.4 Bluetooth

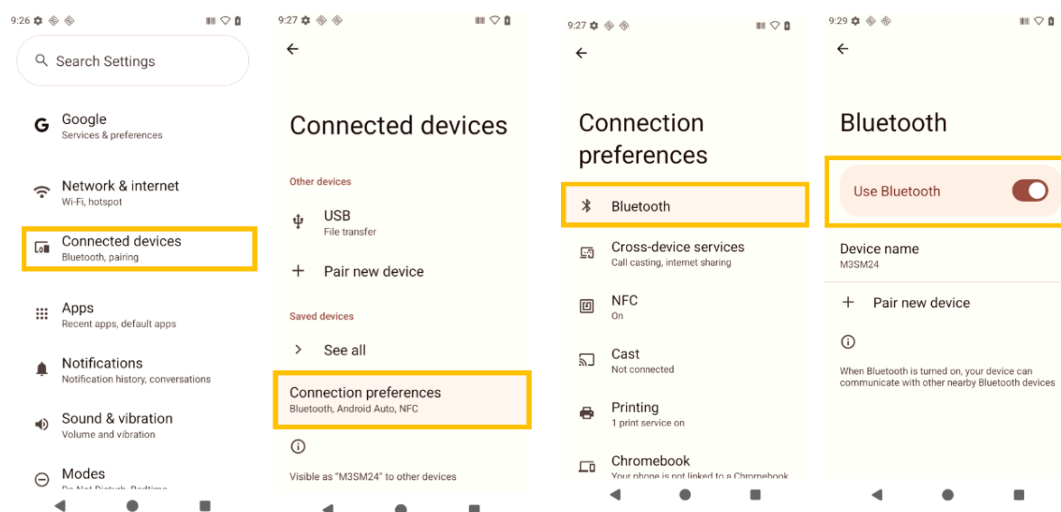
4.3.1 Setting Up Bluetooth

Frequently paired Bluetooth devices can be registered on the M3 SM24 or make the M3 SM24 discoverable by other devices.

How to enable Bluetooth:

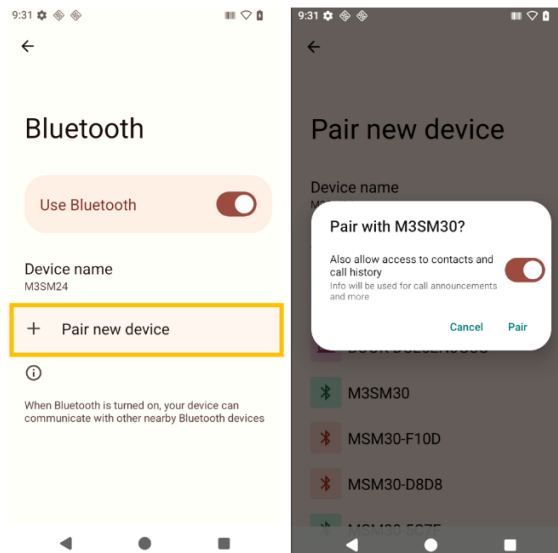
[Swipe up on the Home Screen → press the Settings icon  → go to Connected devices → go to Connection preferences → go to Bluetooth → enable Use Bluetooth → + Pair new device (a list of available devices will be displayed)].

If Bluetooth signal is turned on, Bluetooth icon () is displayed in the Status bar indicating that the Bluetooth feature is activated.



4.3.2 Connecting Using Bluetooth

On the **[+ Pair new device]** screen, a list of available devices will be displayed.



When another device attempts to connect to the M3 SM24 via Bluetooth, the **[Bluetooth pairing request]** pop-up will appear. Enter the Bluetooth pairing code from the other device to pair.

Guidelines on maintaining distance between device and user



- This device was tested under normal usage conditions while maintaining a **0.5 cm distance** between the user and the device.
- To comply with the **radiation safety standards set by the Ministry of Science and ICT**, the device and its antenna must be kept **at least 0.5 cm away from the user's body**, regardless of whether the antenna is in use.
- **Avoid using third-party belt clips, cases, or similar accessories.**
- If accessories are used, ensure that the **back of the device remains at least 0.5 cm away from the user's body.**

4.5 NFC


4.4.1 Setting Up NFC

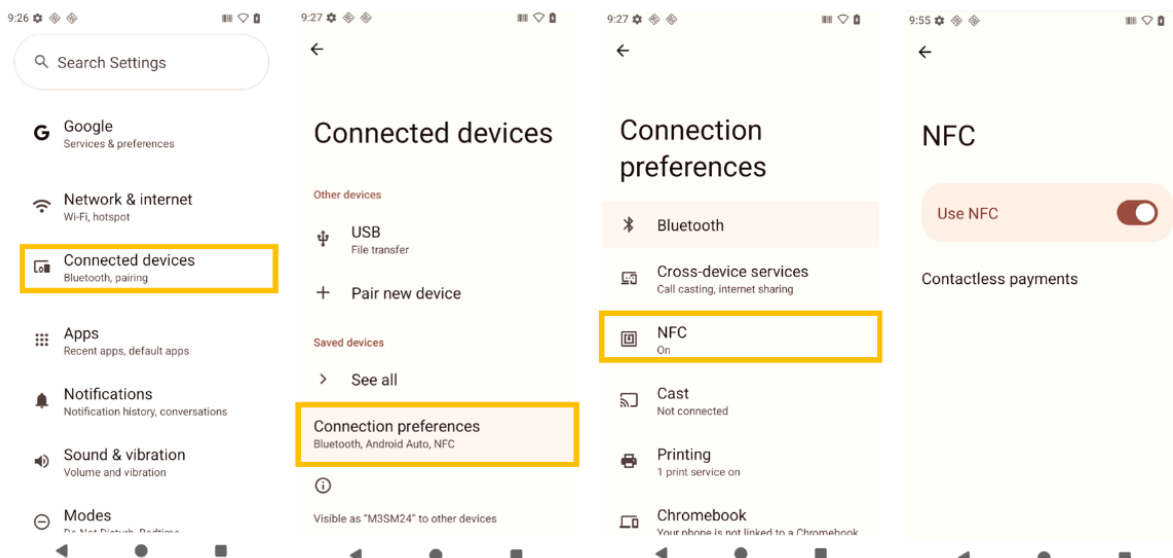
Enabling NFC

The NFC antenna is located at the top of the display on the SM24 device, so please align the device



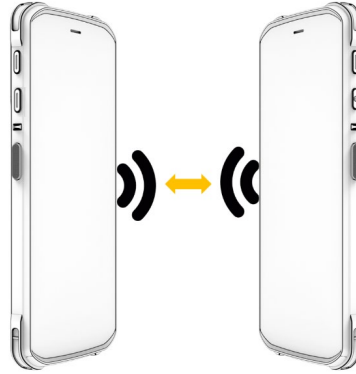
with that area when tagging..

[Swipe up on the Home Screen → press the Settings icon  → go to Connected devices → go to Connection preferences → go to NFC → enable Use NFC].



4.4.2 Connecting Using NFC

- Open a webpage or a screen displaying a video, photo, or contact.
- Align the surface of the NFC-enabled device with the front of the M3 SM24.
- Tap the screen to start data transfer.



To share data via NFC, the distance between the devices should be less than 5cm.

To transfer data between devices, the recommended distance between devices is within 10m.

Connecting to an NFC Chip / Tag Card

1. Hold the M3 SM24 as shown below. Do not obstruct or cover the antenna area near the speaker.
2. Place the NFC chip or tag card near the device until data transfer is completed. (The data transfer is displayed on the device screen.)




Connecting to a Bluetooth Device Using NFC

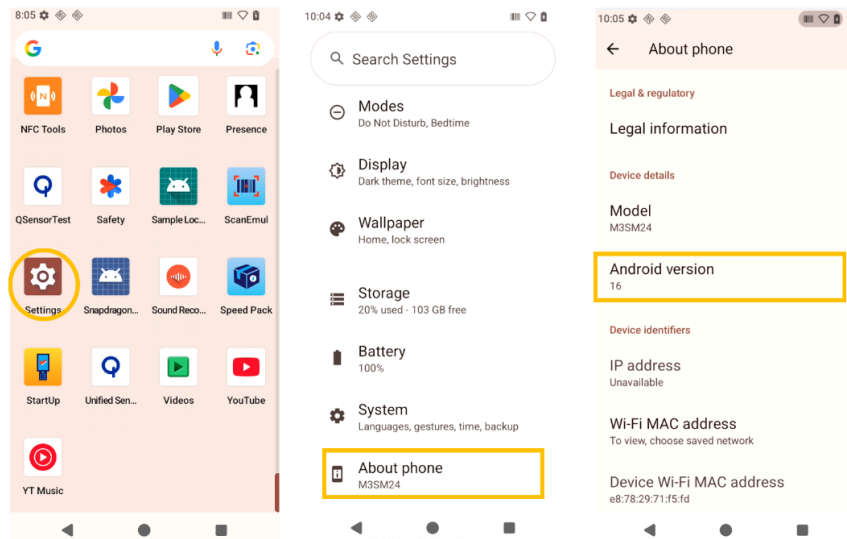
1. Hold the M3 SM24 as shown below. Do not obstruct or cover the antenna area near the top of the front display.
2. Place the NFC chip or tag card close to the device and keep it in position until the data transfer is complete. (The data transfer status will be displayed on the device screen.)

5 Advanced Use

5.1 OS Update

M3 Mobile provides OS updates to devices to improve quality and performance. To check the OS version installed on the device:

[Swipe up on the Home Screen → press the Settings icon  → scroll down to About phone → scroll down to Android version].



Details on the latest OS are provided on [M3 Mobile's online support page](#).


The device OS can be updated through one methods:

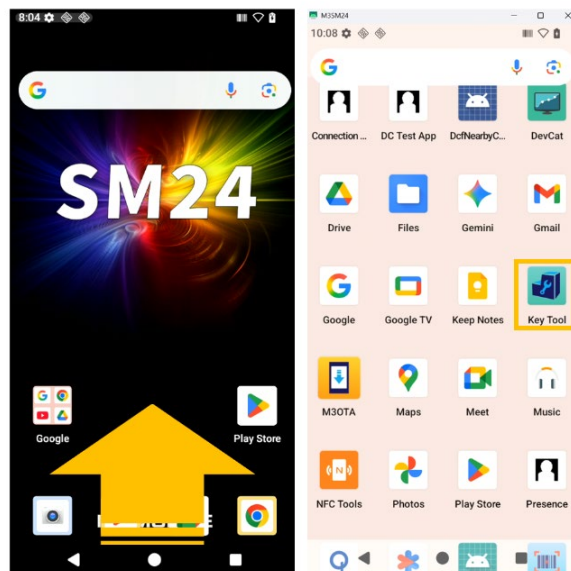
- microSD card

For detailed information on OS updates, refer to the M3 FAQ (FAQ [download](#)).

5.2 Key Customization

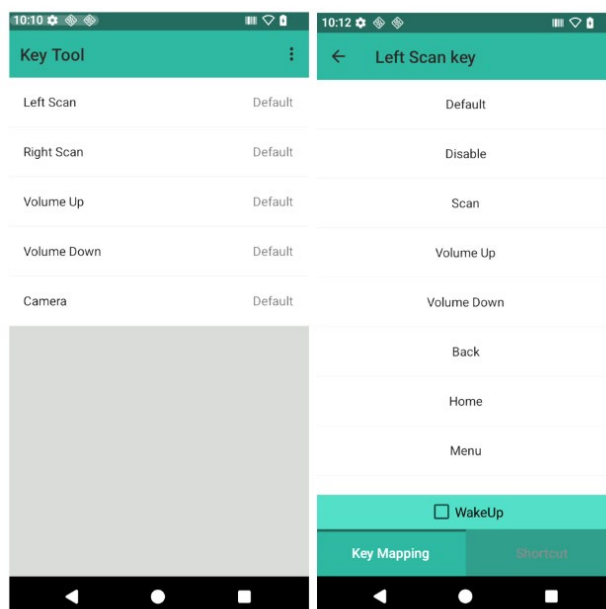
The M3 SM24 allows for convenient key customization.

[Swipe up on the Home Screen → press the Keytool icon .



The following list of keys can be freely customized:

Any physical button on the device can be assigned a new function (except the Power button).



5.3 Battery Hot Swap

The SM24 Series provide a Hot Swap mode where you can replace the battery without powering off the device. When you remove the battery, the display turns off and the devices enters the Hot Swap mode. The device enters a critical suspend mode with RAM data persistence for approximately 5 minutes. In the critical suspend mode, WLAN and Bluetooth radios are disabled and will only resume if you insert a battery with sufficient charge into the device.

Sometimes people want to swap the battery without rebooting a device. Because

- 1) Not saved application data is erased when device is rebooted.
- 2) Rebooting Time is too long.

Battery Hot swap function prevents this situation. SM24 can replace battery without any action

- 1) Just remove battery then device goes on sleep mode(Not a Power OFF)
- 2) Inset new battery
- 3) Wake up using power button

5.4 Fast Charging

The M3 SM24 battery allows for fast charging.

The reduces the charging time by 30 minutes compared to regular charging.

By using a PCM (Protection Circuit Module) in each cell, higher current flow shortens charging times and eliminates risk of battery explosion due to overcurrent.



Only use a 9V/3A power adapter for charging.

Only use accessories that are compatible with the M3 SM24 series.


5.5 Touch Sensitivity

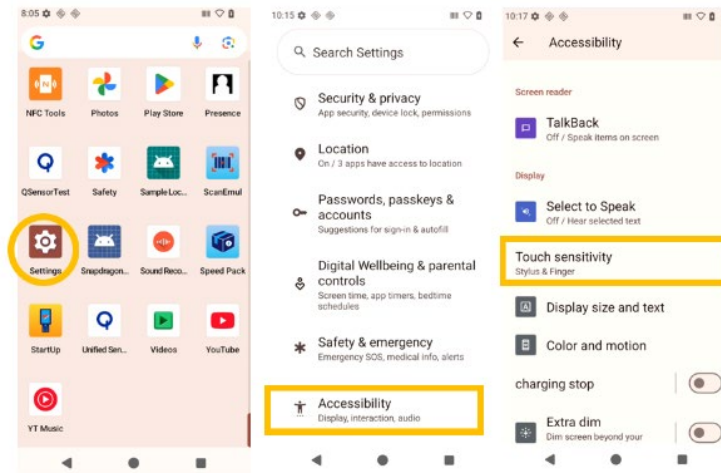
This function is designed to enable users to use the touch screen in different environments. There are three modes:

- Finger only
- Glove & Finger

Normal is a general environment that enables touch with finger and stylus pen, Glove increases sensitivity of touch and allows touch to be made while wearing gloves. Both are supported regardless of screen protector.

To adjust the Touch sensitivity mode:

[Swipe up on the Home Screen → press the Settings icon  → scroll down to Accessibility → scroll down to Touch sensitivity].



6 Other

6.1 SM24 Series Device Specifications

Physical Characteristics	
Dimensions	77 × 167 × 12.9 mm
Weight	240 g
Display	6 inch HD+ (720 × 1440)
Touch panel	Corning® Gorilla® 5 Glass touch panel. supports dual input mode with finger, gloved finger
Backlight	LED backlight display
Expansion Slot	User accessible microSD supports up to 2TB
SIM Slots	Dual SIM : 1 nano-SIM and 1 eSIM
Connections	USB-C, POGO
Notification	Audible tone, multi-color LEDs, vibration
Keypad	5 PROGRAMABLE SIDE SCAN KEYS + PW BUTTON
Voice	Internal speaker, Two microphone with noise cancellation; vibrate alert and Bluetooth wireless headset support; High quality speaker phone;
Audio	Built-in speaker and microphone
Performance Characteristics	
CPU	2.4 GHz Octa-core processor (Qualcomm SM6225)
OS	Android 16(Up to Android 19) with M3 Mobile's StartUp for control over GMS and other services; will support future Android releases committed support for Android 17 and 18, pending feasibility.
Memory	8GB/128GB
Power	All models come standard with a rechargeable Li-Ion 3.85V, 4,000mAh hard pack smart battery and support hot swap functionality that temporarily maintains WWAN/WLAN/Bluetooth sessions. A 6,000mAh extended battery (optional) is also available.
Data Capture	
Scanning	2D Imager (CM60E)
Camera	Front CAM : 8M pixels, Rear CAM : 16 M pixels auto-focus (PDAF)
NFC	ISO 14443 Type A and B; FeliCa and ISO 15693
Wireless WAN Data and Voice Communications (X model only)	
Radio Frequency Band	2G: 850/900/1800/1900 3G: 1/2/3/4/5/8 4G: B1/2/3/4/5/7/8/20/28/38/39/40/41
GPS	GPS, GLONASS, Galileo, Beidou, QZSS Dual-Band
Wireless LAN	
Radio	IEEE 802.11 a/b/g/n/ac/d/h/i/r/k/v/w/ax; 2x2 MU-MIMO; Wi-Fi 6E (801.11ax);

Operating Channels (depending on Regulatory)	Channel 1-13 (2412-2472 MHz): 1,2,3,4,5,6,7,8,9,10,11,12,13 Channel 36-165 (5180-5825 MHz): 36,40,44,48,52 56,60,64,100,104,108,112,116,120,124,128,132,136,140,144,149,153,157,161,165 Channel Bandwidth: 20, 40, 80 MHz Actual operating channels/ frequencies and bandwidths depend on regulatory rules and certification agency.
Security and Encryption	WEP (40 or 104 bit); WPA/WPA2 Personal (TKIP, and AES); WPA3 Personal (SAE); WPA/WPA2 Enterprise (TKIP and AES); WPA3 Enterprise (AES) — EAP-TTLS (PAP, MSCHAP, MSCHAPv2), EAP-TLS, PEAPv0-MSCHAPv2, PEAPv1-EAP-GTC, LEAP and EAP-PWD; WPA3 Enterprise 192-bit Mode (GCMP256) — EAP-TLS; Enhanced Open (OWE)
Fast Roam	PMKID caching; Cisco CCKM; 802.11r; OKC
Wireless PAN	
Bluetooth	Bluetooth 5.3 BLE
Regulatory	
EMI/EMC	EN 301 489-1; EN 301 489-3; EN 55024; EN 55032 Class A
Electrical Safety	IEC 62368-1, EN 62368-1
Cyber Security	EN18031-1, EN18031-2
RF Exposure	EU: EN 50364, EN 62369-1, EN 50566, EN 62311
User Environment	
Operating Temp.	- 20° C to 50° C / -4° F to 122° F
Storage Temp.	- 30°C to 70°C / - 22°F to 158°F
Humidity	5% to 95% RH (non-condensing)
Tumble Test	1,000 times 1.6ft. /0.5 m tumbles; without boot 1,000 times 3.2ft. /1 m tumbles; with boot
Drop Test	1.5m, 1.8m (with Boot) drops to concrete across the operating temperature range per MIL-STD-810H
Sealing	IP67
Vibration	4 g's PK Sine (5 Hz to 2 kHz); 0.04g2/Hz Random (20 Hz to 2 kHz); 60 minute duration per axis, 3 axis
Thermal Shock	-40° C to 80° C rapid transition
ESD	+/- 15kv air, +/-8kv contact discharge
Interactive Sensor Technology (IST)	
Light Sensor	Automatically adjusts the brightness of the display
Magnetometer Sensor	eCompass automatically detects direction and orientation
Motion Sensors	Gyro Sensor, Accelerometers: for X,Y, and Z movement, and gyroscopes for measuring the extent and rate of rotation in space

Proximity Sensor	Detect the presence of nearby objects without any physical contact, during a telephone call, proximity sensors play a role in detecting accidental touchscreen taps
Environmental Compliance	
Directive 2011/65/EU, Directive(EU)2015/863	
Warranty	
Subject to the terms of M3 Mobile's hardware warranty statement, the SM24 series are warranted against defects in workmanship and materials for a period of 1 (one) year from the date of shipment. For complete warranty statement.	

6.2 Service

If you have any questions or complaints with using our product, please contact M3 Service Center or visit our Web site ((<http://itc.m3mobile.net>)). We do our best to immediately respond to your inquiry.

The M3 FAQ document may help resolve general problems.

For any questions on work programs, please contact the program supplier for faster service.

6.3 Contacts

1) Head Office

Unit 1107~1109, Acetechnotower 10th round, 196, Gasan digital 1-ro, Geumcheon-gu, Seoul, Korea, 08502

Tel: +82 2 574 0037, Fax: +82 2 558 0155

www.m3mobile.net, sales@m3mobile.co.kr, sales_eu@m3mobile.co.kr

2) Service Center

Room 612, Building 201, Bucheon Techno Park 2,18, Bucheon-ro 198beon-gil, Wonmi-gu, Bucheon-si, Gyeonggi-do,420-857, Republic of Korea

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3) M3 Mobile GmbH

M3 Mbile GmbH, Am Holzweg 26, 65830 Kriftel, Germany

Tel: +49 6192 9222153, sales@m3mobile.co.kr

4) M3 Mobile GmbH Service Center

M3 Mbile GmbH, Am Holzweg 26, 65830 Kriftel, Germany

Tel: +49 6192 9222150, cs_gmbh@m3mobile.co.kr

5) ITC (M3 Mobile Information & Technology Center)

<http://itc.m3mobile.net>, it@m3mobile.co.kr

