



WD1

Watch Scanner

User Guide



Disclaimer

© 2020 Newland Auto-ID Tech. Co., Ltd. All rights reserved.

Please read through the manual carefully before using the product and operate it according to the manual. It is advised that you should keep this manual for future reference.

Do not disassemble the device or remove the seal label from the device, doing so will void the product warranty provided by Newland Auto-ID Tech. Co., Ltd.

All pictures in this manual are for reference only and the actual product may differ. Regarding the product modification and update, Newland Auto-ID Tech. Co., Ltd. reserves the right to make changes to any software or hardware to improve reliability, function, or design at any time without notice. The information contained herein is subject to change without prior notice.

The products depicted in this manual may include software copyrighted by Newland Auto-ID Tech. Co., Ltd or third party. The user, corporation or individual, shall not duplicate, in whole or in part, distribute, modify, decompile, disassemble, decode, reverse engineer, rent, transfer or sublicense such software without prior written consent from the copyright holders.

This manual is copyrighted. No part of this publication may be reproduced, distributed, or used in any form without written permission from Newland.

Risk Warning Regarding Unauthorized System Updates:

You should use the Newland-provided tool to update this product's system. Modifying system files through installing a third-party ROM system or using any cracking method may result in product malfunction or data loss and this will void your warranty.

Newland Auto-ID Tech. Co., Ltd. reserves the right to make the final interpretation of the statement above.

Newland Auto-ID Tech. Co., Ltd.

No.1, Rujiang West Rd., Mawei, Fuzhou, Fujian, China 350015

<http://www.newlandaidc.com>

Revision History

Version	Description	Date
V1.0	Initial Release.	2021-05-14
V1.1	Add description about security level of ITF code	2021-05-19
V1.2	Update with new product model NLS-WD1	2021-08-08

Contents

Chapter 1 About This Guide	7
Introduction	7
Documentation Set	7
Chapter Descriptions	7
More Information	8
Chapter 2 Getting Started	9
Introduction	9
Unpacking	9
Accessories (Optional)	9
Getting Started	10
The WD1	10
Installing the Nano SIM Card	12
Charging the Battery	13
Keypad	14
Gestures (Swipe Left/Right)	14
Swipe from top to bottom	15
Communicating with PC	16
Chapter 3 Basics	17
Introduction	17
Switching On/Rebooting/Switching Off/the WD1	17
Shortcut Icons	18
Swipe the home screen from up to bottom to view all the shortcut icons	18
Status Icons	19
Installing App	20
Uninstalling App	20
Date & Time	21
Display	22
Ringtones	23
Restoring Factory Settings	24
Language & Input Method	25
Floating Button Settings	26
Chapter 4 Scanning Barcodes	27
Introduction	27
Programming Scanner	27
Enable Scan	28
Output Mode	28

Scan Mode	29
Sensor Select	30
Scan Trigger	31
Prefix & Suffix	32
Good Read Indicator	33
Encoding	34
Data Edit	35
Broadcast-output Settings	36
Symbologies	37
Chapter 5 Bluetooth	39
Chapter 6 Wi-Fi	41
Introduction	41
Wi-Fi Settings	41
IP Settings	42
Chapter 7 Mobile Network	43
Introduction	43
Mobile Network Settings	43
APN Settings	44
Chapter 8 Others	45
Camera	45
GPS	46
Key Map	47
Chapter 9 System Update	49
Introduction	49
Online Update	49
Local Update	50
Chapter 10 App Development Guide	51
Development Environment	51
Use of Non-standard Interfaces	51
Chapter 11 Maintenance & Troubleshooting	52
Introduction	52
Important Safety & Handling Information	52
Disassembly and Retrofit	52
External Power Supply	52
Abnormal Situation	52
Drop Damage	52
LCD Screen	52

Stacking Heavy Objects.....	52
Mounting Location.....	52
Wireless Functionalities	53
Use & Maintenance.....	53
Battery Safety Guidelines	53
Troubleshooting	54

Chapter 1 About This Guide

Introduction

This guide provides instructions for programming and operating the NLS-WD1 wearable data collector (hereinafter referred to as “the **WD1**” or “the **terminal**”).

Documentation Set

The documentation set for the **WD1** includes:

- ✧ **NLS-WD1 Wearable Data Collector Quick Start:** Describes how to get the NLS-WD1 up and running.
- ✧ **NLS-WD1 Wearable Data Collector User Guide:** Describes how to program and use the NLS-WD1.

Chapter Descriptions

- ✧ *Chapter 1 About This Guide* Provides a general description of this manual.
- ✧ *Chapter 2 Getting Started* Provides information on getting the WD1 up and running for the first time.
- ✧ *Chapter 3 Basics* Describes how to program the WD1 for the use of its basic features.
- ✧ *Chapter 4 Scanning Barcodes* Provides the instructions as to how to scan 1D/2D barcodes and how to program the scanner.
- ✧ *Chapter 5 Bluetooth* Explains how to use Bluetooth functionality.
- ✧ *Chapter 6 Wi-Fi* Explains how to use Wi-Fi functionality.
- ✧ *Chapter 7 Mobile Network* Explains how to use Mobile Network functionality.
- ✧ *Chapter 8 Others* Explains how to use Camera, GPS, and Key Map functionalities.
- ✧ *Chapter 9 System Update* Explains how to update the system.
- ✧ *Chapter 10 App Development Guide* Describes the app development environment and the use of non-standard interfaces.

✧ *Chapter 11 Maintenance & Troubleshooting*

Provides troubleshooting solutions for issues that might occur when using the WD1.

More Information

For more product and support information, please visit our website: <http://www.newlandaidc.com>.

Chapter 2 Getting Started

Introduction

This chapter lists the parts and accessories for the WD1 and explains how to charge the battery, and power on the WD1 for the first time.

Unpacking

Carefully remove all protective materials from the pack. Verify that you received the following:

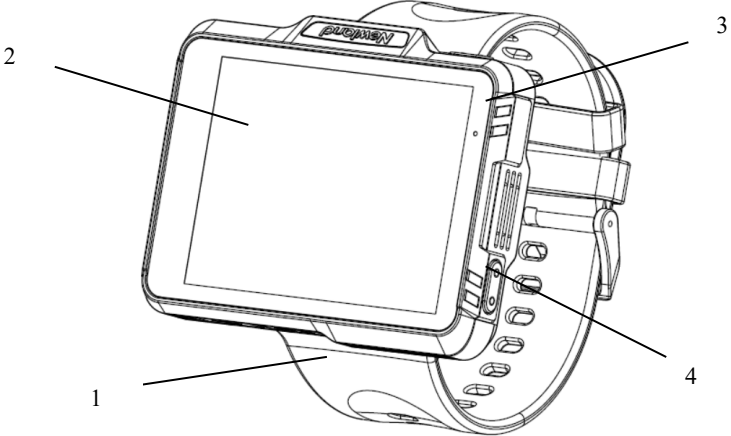
- ✧ 1 x WD1 wearable data collector
- ✧ 1 x USB cable
- ✧ 1 x AC adapter
- ✧ 1 x Hand strap
- ✧ 1 x Quick start manual
- ✧ 1 x Warranty card

Accessories (Optional)

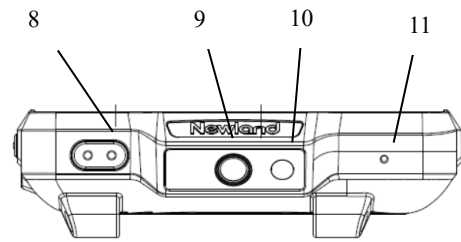
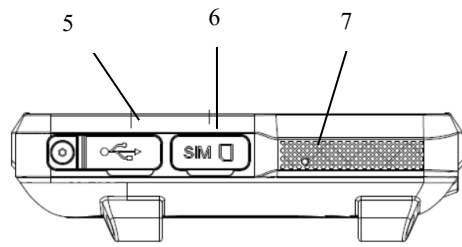
- ✧ AC adapter
- ✧ USB cable
- ✧ Watchband

Getting Started

The WD1



1	Watch Band	2	Screen
3	LED	4	Power Key



5 USB Connector

6 SIM Card Tray

7 Microphone

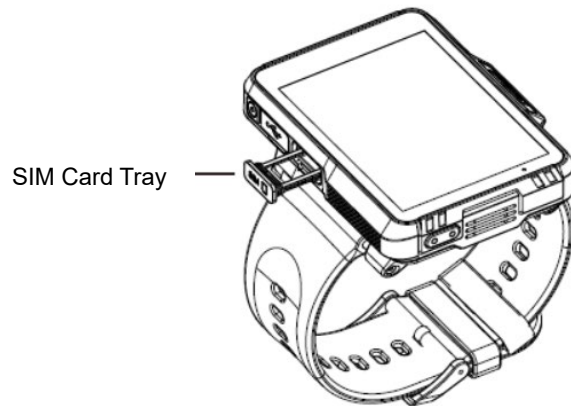
8 User-defined Key

9 Camera

10 Flashlight

11 Microphone

Installing the Nano SIM Card



Step 1: Power off the terminal, then pull out the SIM card tray;

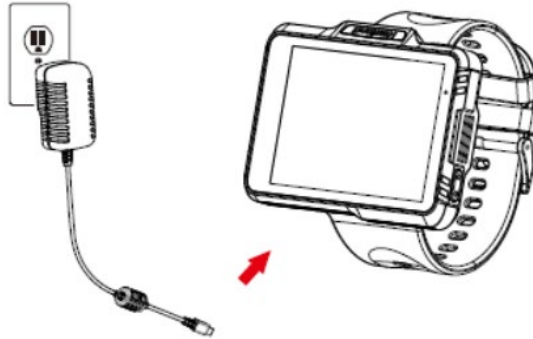
Step 2: Insert the Nano SIM card into the corresponding slot, with its metal contacts facing towards the screen;

Step 3: Gently push the tray all the way into the slot until it locks in place.

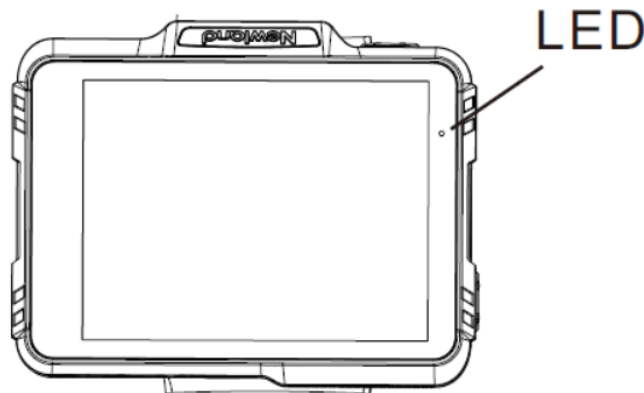
PS: Hot-swap is not supported.

Charging the Battery

Connect the WD1 to a power outlet using the included AC adapter. When the terminal's battery is less than 5%, it takes about 4 hours to fully charge it (The terminal is shut down or in sleep mode).



When charging the WD1 with an AC adapter, the user is notified of the charging statuses by the LEDs on the terminal.

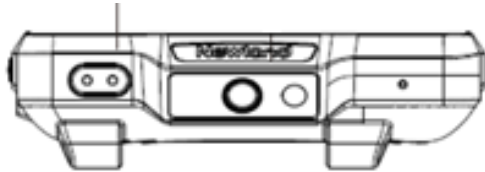


LEDs on the WD1	
Blue LED on	Fully charged
Red LED on	Charging in progress
Red LED flashes constantly	Low-battery alert

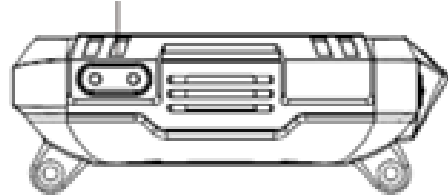
Note: If the WD1 battery is completely drained, please press the power key to turn it on after 15 minutes of being charged.

Keypad

User-defined key



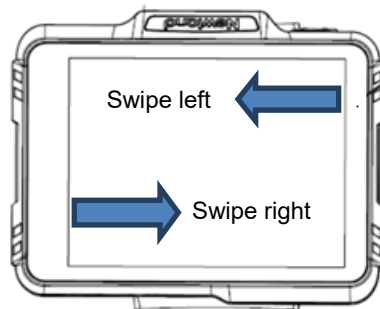
Power key



The WD1 has 2 physical keys: User-defined key and power key.

Note: You can define the function of the user-defined key in Key Remap app.

Gestures (Swipe Left/Right)



1. Swipe left or right on the home screen to view different home screens.
2. Swipe left or right on the app, there will be different functions:
 - 1) Swipe to the left on the app will directly return to the home screen.
 - 2) Swipe to the right on the app will go back to the previous screen.

Swipe from top to bottom



Swipe the home screen from top to bottom can quickly set the Wi-Fi, Bluetooth, GPS, and other functions.

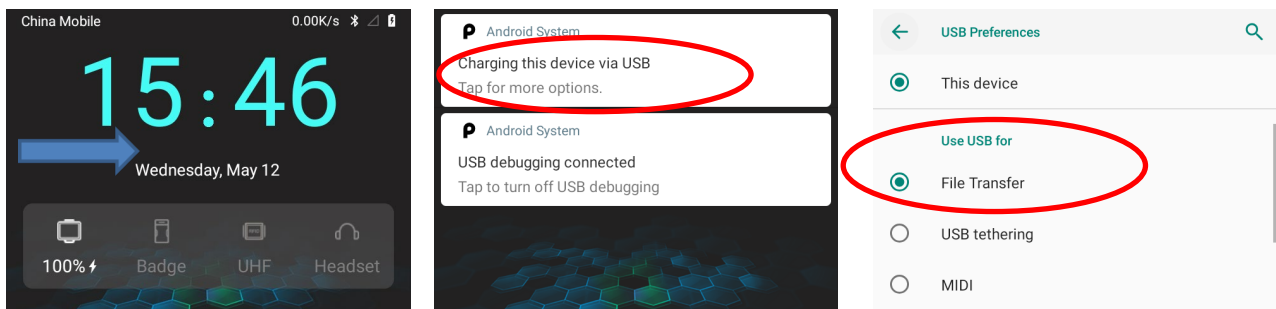
Communicating with PC

Step 1: Connect the Micro USB port on the WD1 to your computer with the included USB cable.

Step 2: Switch the WD1 on. On the Home screen, swipe from left to right with one finger in one smooth motion to open the notification bar as shown below.

Step 3: Tap “Tap for more options”.

Step 4: Select “Files Transfer”. Navigate to the “My Computer” section of your computer and look for the newly added drive. Double-click it and you will be connected to the WD1. Then you may handle the files on the terminal through your computer.



Chapter 3 Basics

Introduction

This chapter provides the basics of setting and using the WD1

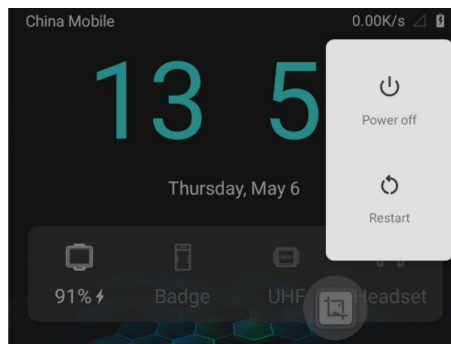
Switching On/Rebooting/Switching Off/the WD1

After installing the SIM card and having the WD1 fully charged, you may switch the terminal on.

Switch the WD1 on: Hold down the Power key on the right side of the terminal until the Android logo is displayed. Note that the initialization is going to take some time before the WD1 displays the Home screen.

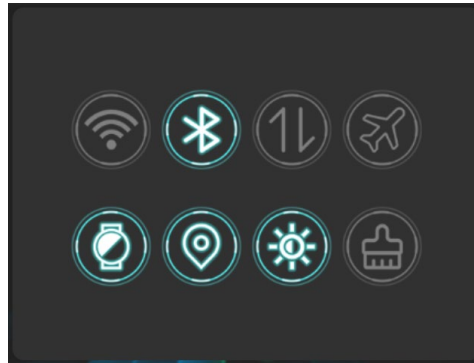
Reboot the WD1: Hold down the Power key on the right side of the terminal until the window below pops up, then tap “Restart”.









Switch the WD1 off: Hold down the Power key on the right side of the terminal until the window below pops up, then tap “Power off”.



Shortcut Icons





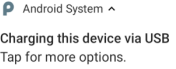
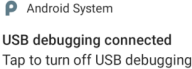



Swipe the home screen from up to bottom to view all the shortcut icons.



Shortcut Icon	Description	Shortcut Icon	Description
	Wi-Fi shortcut, long press to enter Wi-Fi setting		Airplane mode shortcut
	Mobile network shortcut		Brightness setting, three options are available
	Lift to wake shortcut, long press to enter display setting		Bluetooth shortcut, long press to enter Bluetooth setting
	Positioning shortcut, long press to enter location setting		Memory cleaning shortcut, long press to display a list of thumbnail images of apps you've worked with recently

Status Icons

The icons in the status bar at the top of the screen give information about the WD1.

Status Icon	Description	Status Icon	Description
	WLAN on		Signal Strength
	Bluetooth on		Airplane Mode on
	USB Connected		USB Debugging
	Missed Calls		Battery Charging in Progress
	Power Saving Mode		

Installing App

Use the below method to install a new app on the WD1:

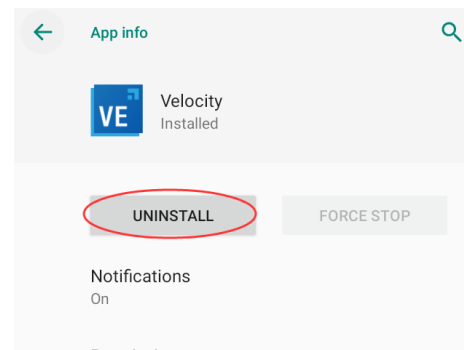
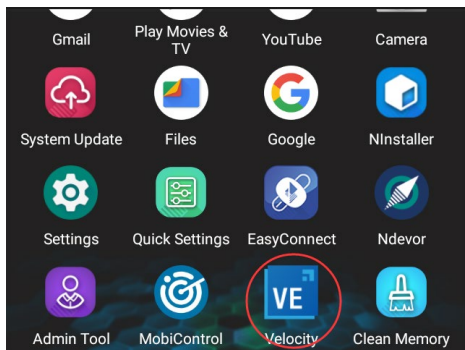
Download the software package on PC and copy it to your terminal. Then install it with File Manager (Files app).

Uninstalling App


Follow the procedure below to remove an app from the WD1:

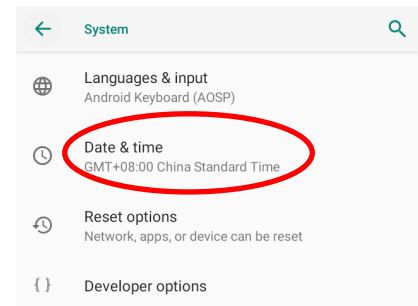
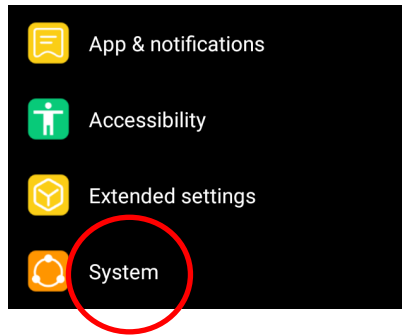
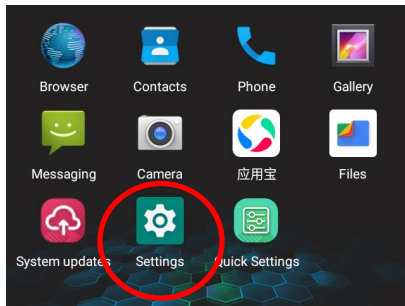
Tap and hold your desired app until “App info” appears, then tap “UNINSTALL” and uninstall it.

*The application that comes with the system cannot be uninstalled.




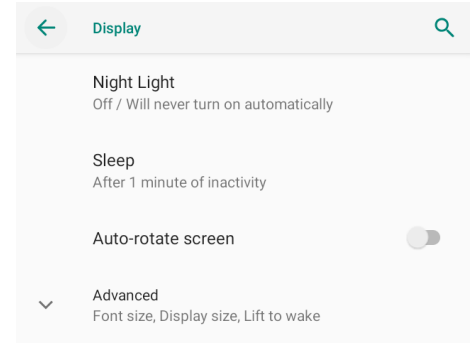
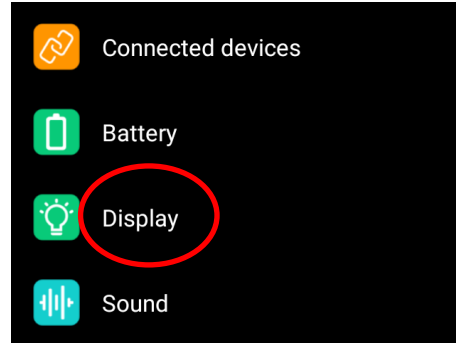
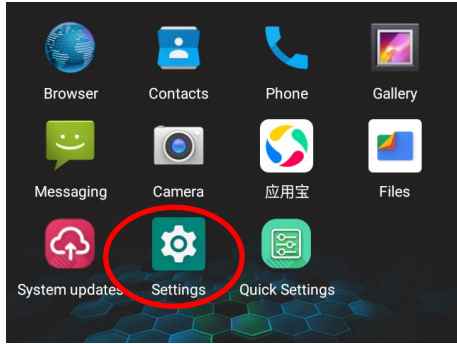
Date & Time

Set the date and time: Tap the app icon  and then “System” -> “Date & time” and set the date and time on the screen shown below as per your needs.



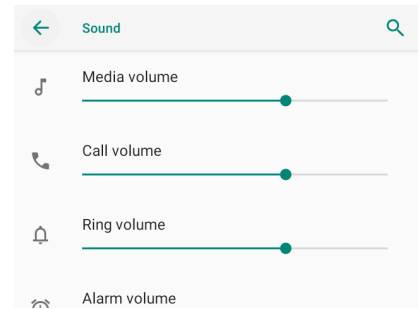
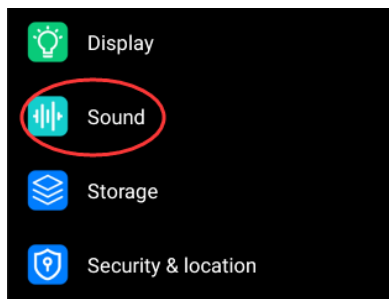
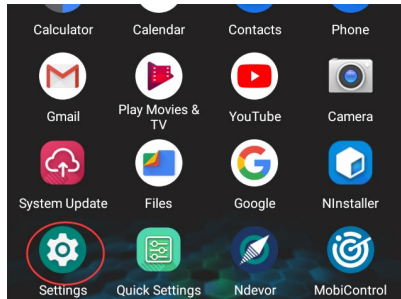
Display

Tap the app icon  and then “Display”, and set the brightness level, night light, sleep, auto-rotate screen, and other parameters on the screen shown below as per your needs.




Ringtones

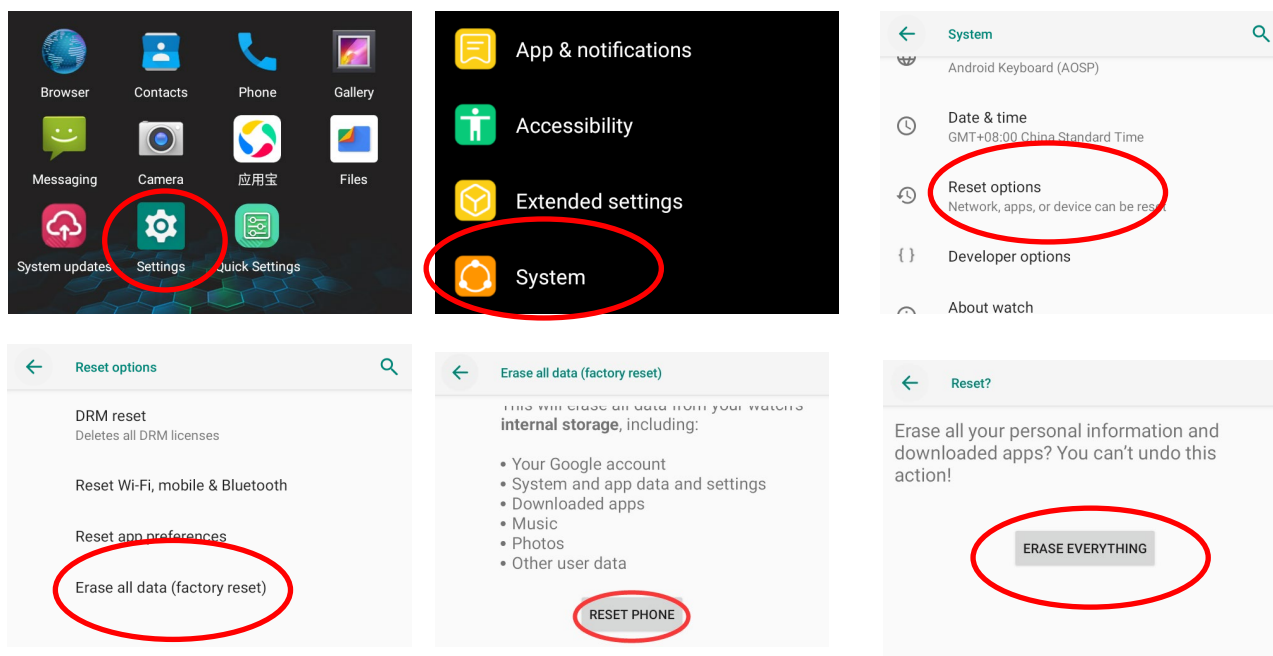
Tap the app icon  -> "Sound". Then set the ringtones and other notification sounds as per your needs.




Restoring Factory Settings

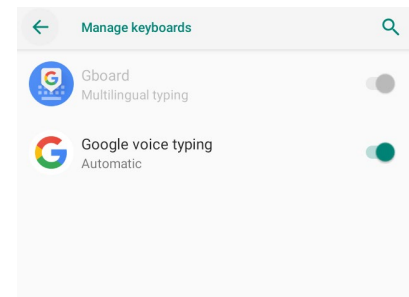
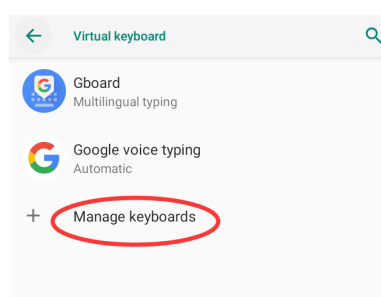
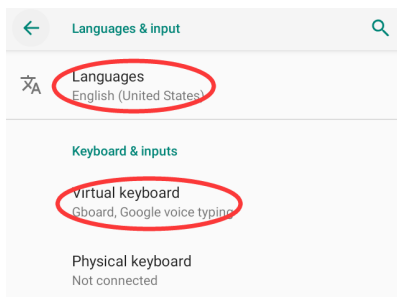
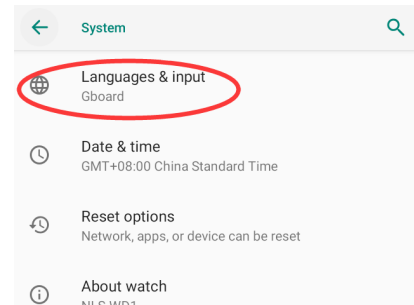
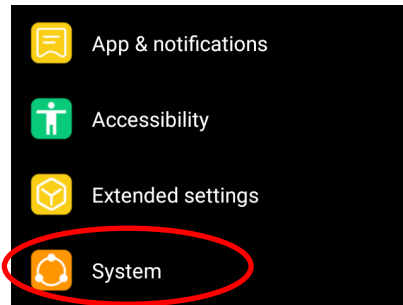
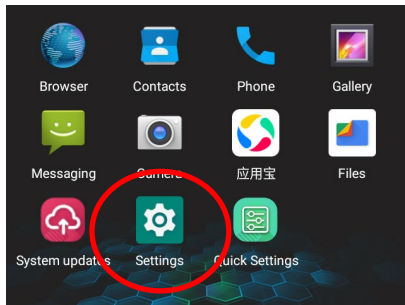
Tap the app icon  -> "System" -> "Reset options" -> "Erase all data (factory reset)" -> "Reset Phone" -> "ERASE EVERYTHING".

After this operation, the terminal will be reset to factory defaults and all the personal data on the internal storage, such as music and photos, will be deleted.



Language & Input Method


Tap the app icon  -> "System"-> "Languages & input". Then set the language and input method as per your needs.

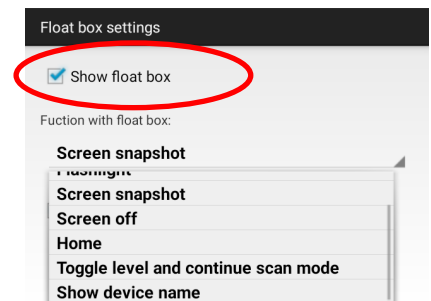
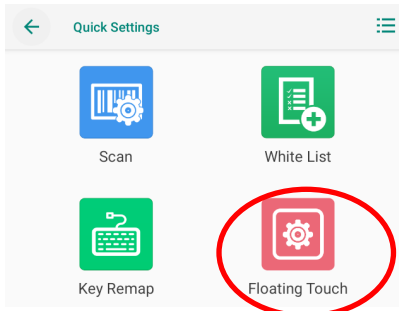
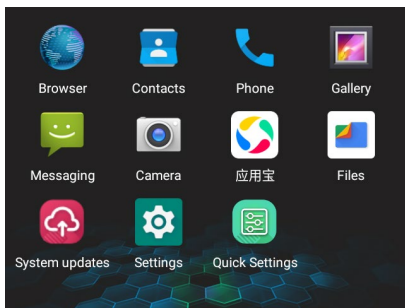


Floating Button Settings

Tapping the floating button can perform tasks such as scanning barcode (**Scan**), turning on/off flashlight (**Flashlight**), taking a screenshot (**Screen snapshot**), turning off screen (**Screen off**), going to the Home screen (**Home**), switching between level and continue scan mode (**Toggle level and continue scan mode**), or showing device name (**Show device name**).

Holding down the floating button  can make it movable.

Show/Hide the floating button: Tap the app icon “Quick Settings”  -> “Floating Touch”-> select/unselect “Show float box”.






Chapter 4 Scanning Barcodes

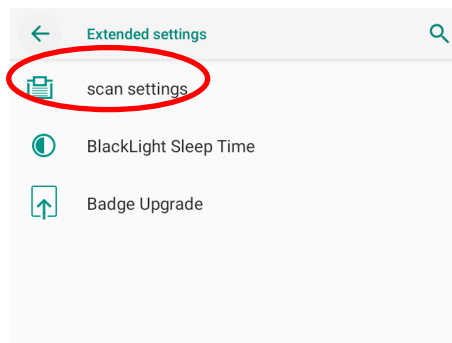
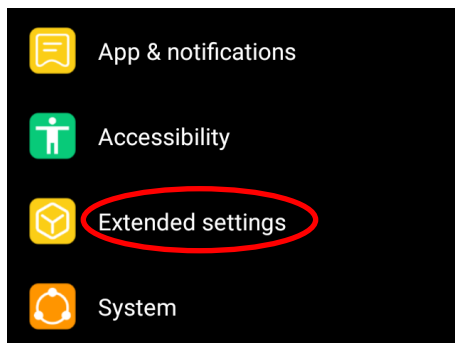
Introduction

WD1 can read barcodes by its equipped camera or connecting to other barcode reading devices such as Bluetooth badges. This chapter is mainly introducing how to use its equipped camera to read barcodes.

Programming Scanner

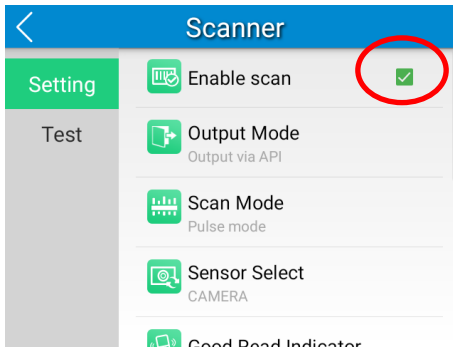
Tap the app icon  -> "Extend Settings" -> "Scan Settings". Alternatively, tap the app icon  on the Home screen

-> scan icon  . Then configure the scanner parameters as per your actual needs.



Enable Scan

Check or uncheck the “Enable scan” item to enable or disable the scanning feature of the WD1.



Output Mode

The WD1 provides three output modes: Simulate keystroke, Output via API, and Fill in EditText directly.

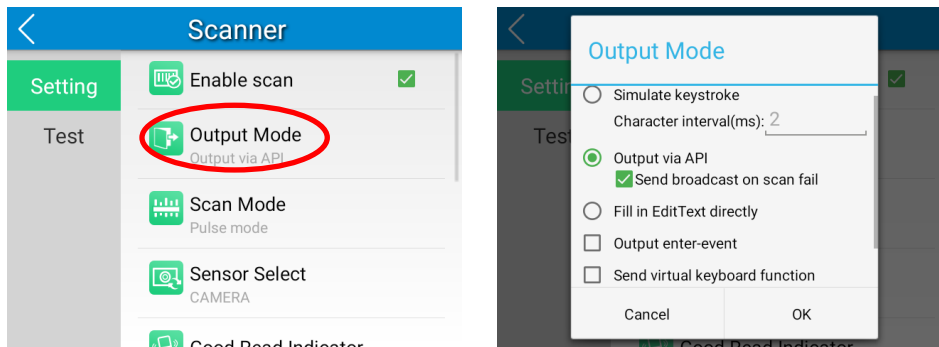
1. **Simulate keystroke:** Output scanned data to keyboard buffer to simulate keyboard input.

Character interval (ms): A character interval of 0-100 milliseconds may be placed between the transmissions of each character of scanned data.

2. **Output via API:** The application acquires scanned data by receiving system broadcasts.
3. **Fill in EditText directly:** Output scanned data at the current cursor position in EditText.

Output enter-event: Send an Enter Key after each barcode is scanned.

Send virtual keyboard function: Make send virtual keyboard function as “action done”, “action search”, “action previous”, action search, etc.



Scan Mode

The WD1 provides the following three scan modes:

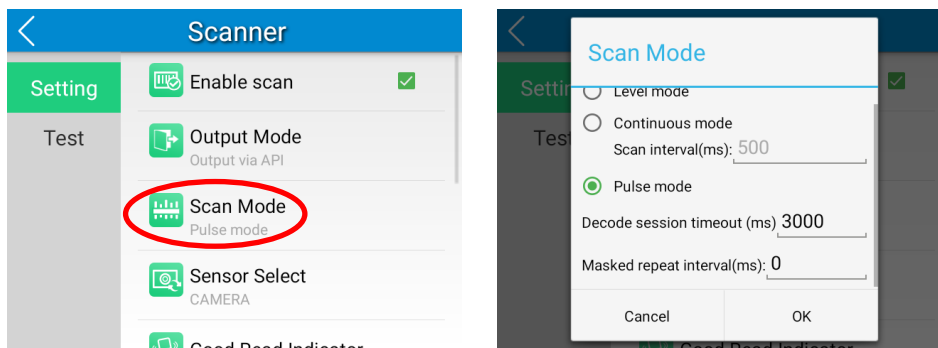
1. **Level mode:** Press and hold the scan trigger to start a decode session which continues until the trigger is released.
2. **Continuous mode:** Press the scan trigger to continuously read barcodes. To suspend or resume scan operation, simply press the scan trigger.

Scan interval (ms): This parameter sets the timeout between decode sessions.

3. **Pulse mode:** Press the scan trigger to start a decode session which continues until the decode session timeout expires.

Decode session timeout (ms): This parameter sets the maximum time decode session continues during a scan attempt.

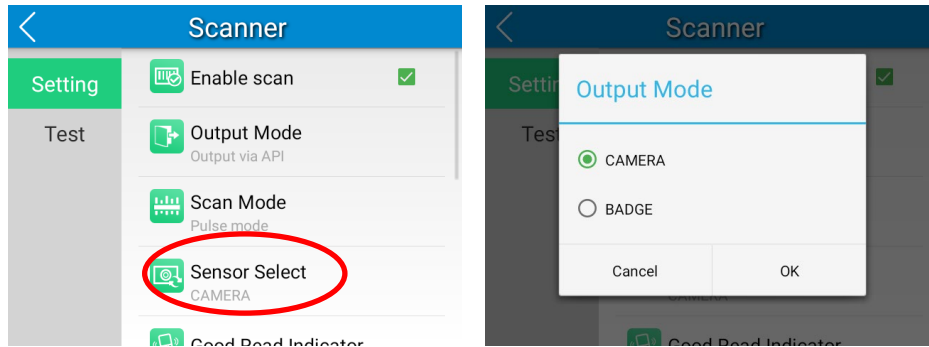
Masked repeat interval (ms): This parameter sets the time interval between two successive reads on the same barcode.



Sensor Select

The WD1 provides two output modes: Camera or Badge

1. **Camera:** Scan the barcode with the built-in camera.
2. **Badge:** Scan the barcode with the Bluetooth badge made by Newland, such as BS30.





Scan Trigger

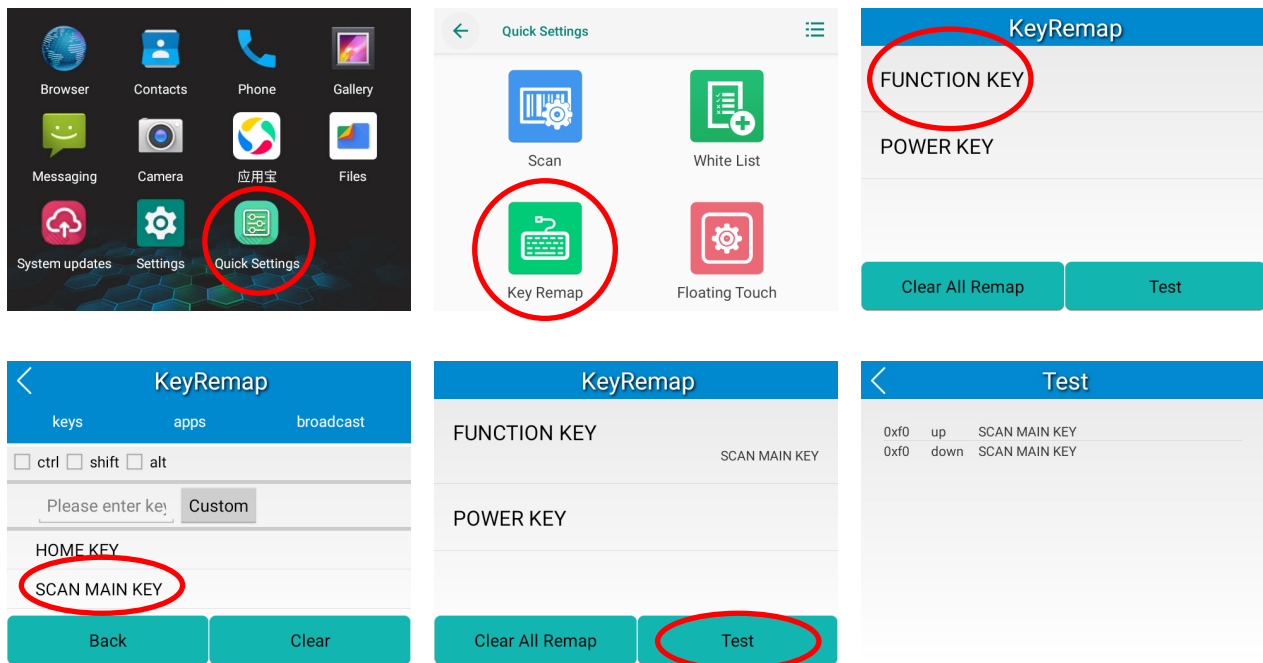
There is no dedicated key on the WD1 that served as a scan trigger. But you can set keys as scan trigger by following two ways:

1. User-defined key.

There is a user-defined key on the WD1 that can be set as a scan trigger by the Key Remap function. Tap the “Quick

Settings” app icon  on the Home screen -> “Key Remap”  -> “Function Key” -> “Scan Main Key”.

*The function can be tested in the “Test” function.

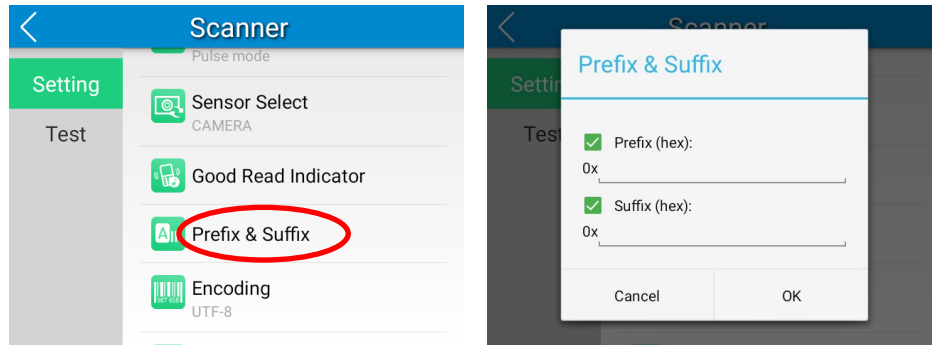


2. Floating Touch.

For the setting part, please refer to the **Floating Button Settings** mentioned in previous chapter.

Prefix & Suffix

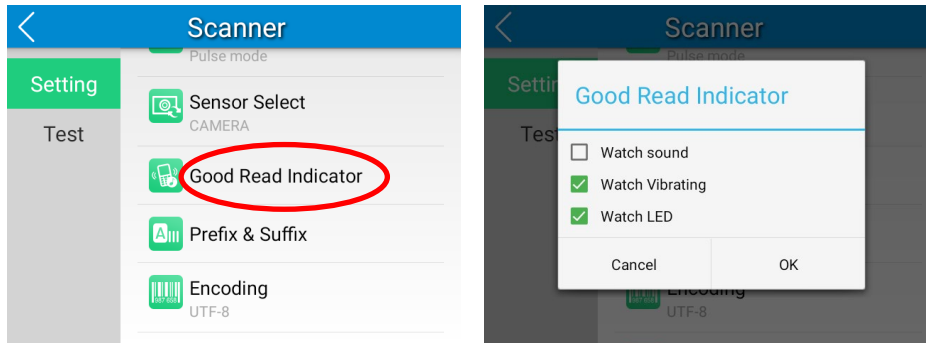
To set the prefix/suffix, enter the hexadecimal value of a desired prefix/suffix, and then tap “OK”. For example, if you want to add a Line Feed character after each barcode, set the suffix to “0A”; if you want to add a Carriage Return character after each barcode, set the suffix to “0D”.



Good Read Indicator

The terminal can use sound/ vibration/ LED to indicate a good read. Choose one or more options as per your actual needs.

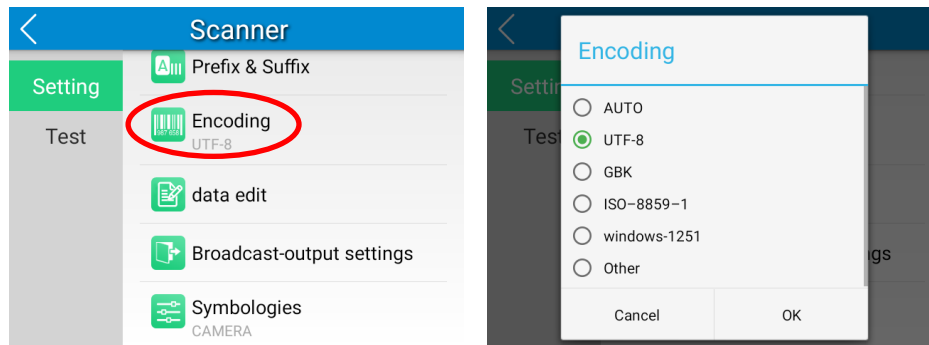
1. **Sound:** The WD1 issues a short beep to indicate a good read.
2. **Vibrating:** The WD1 vibrates to indicate a good read.
3. **LED:** The blue LED on the WD1 flashes once to indicate a good read.



Encoding

Choose a character encoding to interpret barcode data.

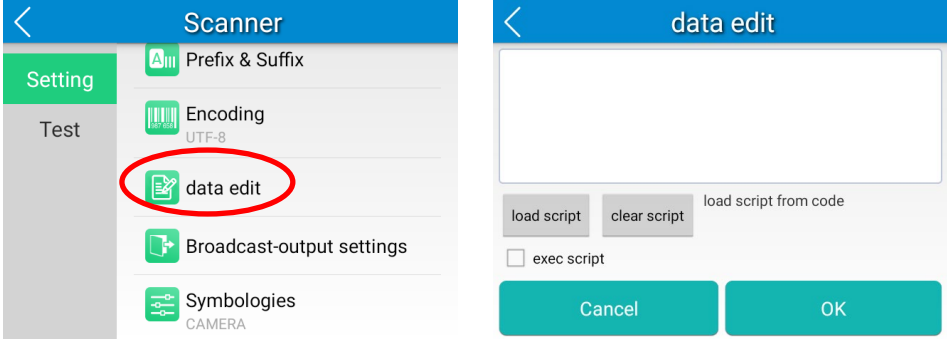
1. **AUTO**: The terminal determines automatically if the target barcode uses UTF-8, GBK, or ISO-8859-1 encoding. If the terminal produces the wrong output, you may need to choose or enter a specific character encoding.
2. **UTF-8**: Dominant Unicode encoding.
3. **GBK**: A character encoding for Chinese characters.
4. **ISO-8859-1**: A common character encoding that covers Western European languages.
5. **windows-1251**: A character encoding designed to cover language that uses the Cyrillic alphabet such as Russian, Bulgarian, Serbian Cyrillic, and other languages.
6. **Other**: Enter a different character encoding when UTF-8, GBK, ISO-8859-1, and windows-1251 are not applicable. If the terminal does not support the encoding entered, this setting will fail.



Data Edit

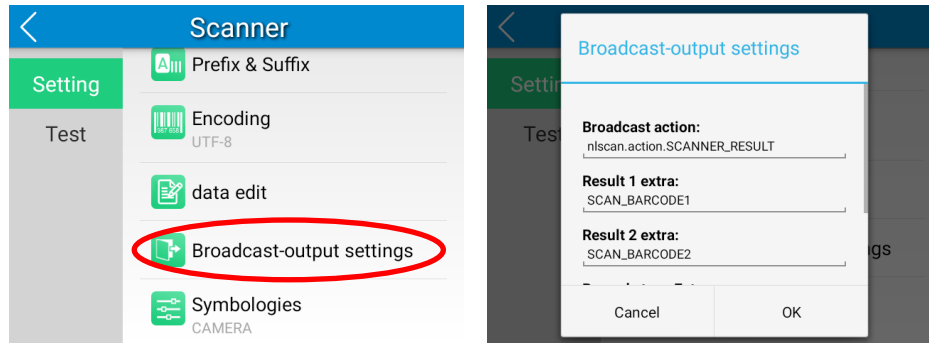
This feature allows you to edit barcode data with a script.

Tap “load script” and then select the desired script file on the terminal, or scan the 2D barcode that contains a script, to load the script. Then select “exec script” and tap “OK”.



Broadcast-output Settings

When using broadcast as the scan output method, the WD1 will output the scan information with the specified broadcast ACTION and EXTRA.



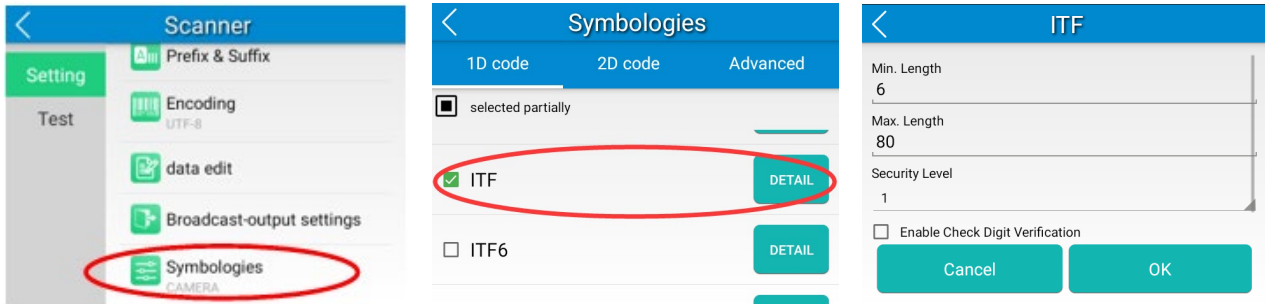
Symbologies

The symbologies settings based on the camera integrated in the terminal

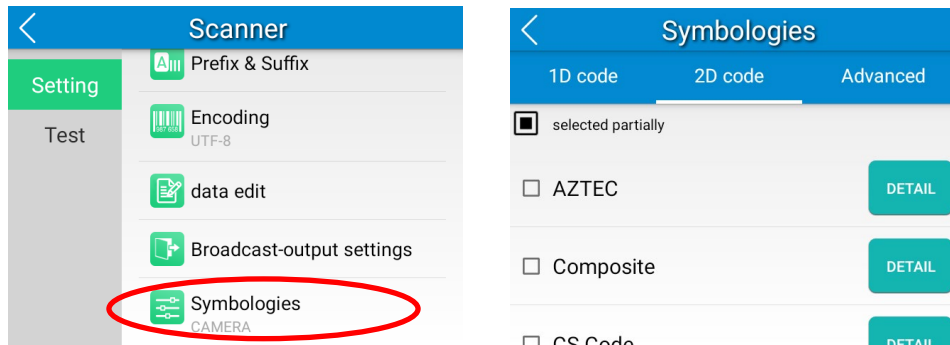
1D code: Enable or disable 1D symbologies and set other barcode parameters.

Below is remarks for ITF codes:

- 1) The higher the security level, the lower the error rate of ITF code.
- 2) The barcode reading performance at the higher security level is not as smooth as that at low security. Therefore, the default security level is 1. Increase the security level only when the error rate is high.



2D code: Enable or disable 2D symbologies and set other barcode parameters.



Advanced: The features listed here are designed to improve the scanning performance and energy efficiency of the terminal.

1. **Acuscan Decoding:** When selected, the terminal only decodes the barcode aimed squarely by the aiming pattern. It is advised to select it to ensure that only the desired barcodes are read if multiple barcodes are placed closely together.
2. **Output AI in brackets:** When selected, enable the function that outputs AI in brackets.

3. **Multiple Barcodes:** When selected, the terminal can decode multiple barcodes at the same time, and the maximum number of the barcodes can be set per actual needs.

4. **Other:** Tap **DETAIL** to access the following parameter settings.

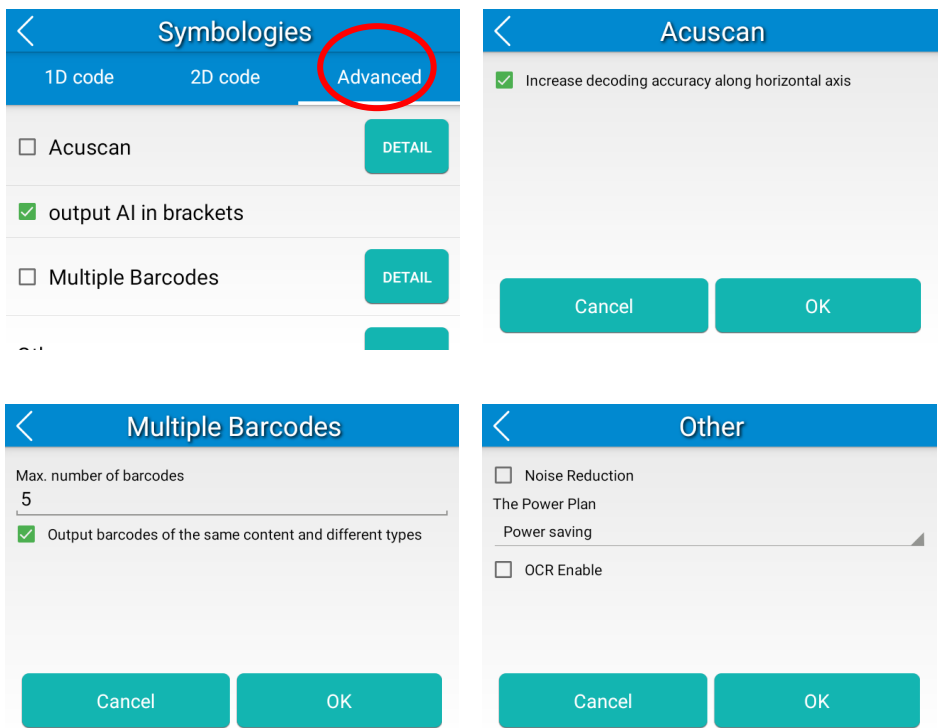
Noise Reduction: This feature is designed to reduce noise in images produced by the terminal. However, the terminal shows a slight decrease in scanning speed when using this feature. It is recommended to enable it only when necessary.

Power Plan: Two options are provided.

Power Saving: The terminal's built-in scanner turns off automatically after 3 seconds of inactivity.

High-performance: The terminal's built-in scanner turns off automatically after 15 seconds of inactivity.

OCR Enable: Select this check box when reading passports (compliant with ICAODoc9303 standards, TD1/TD2/TD3 supported).





Chapter 5 Bluetooth


This chapter describes how to connect the WD1 to other Bluetooth devices.

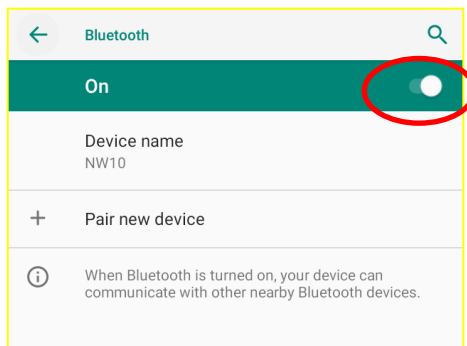
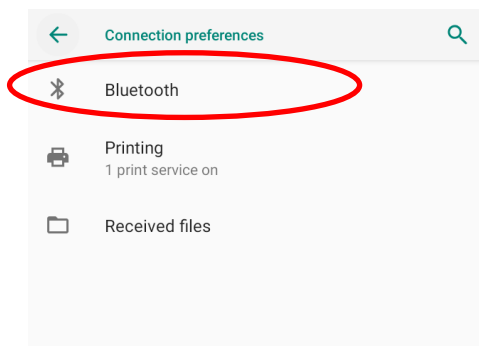
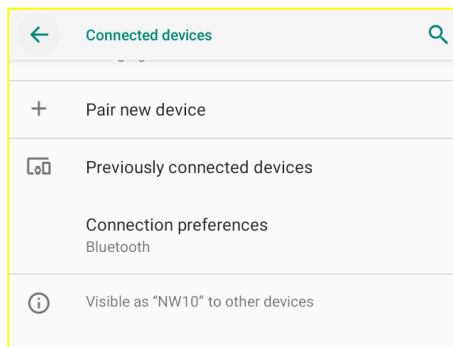
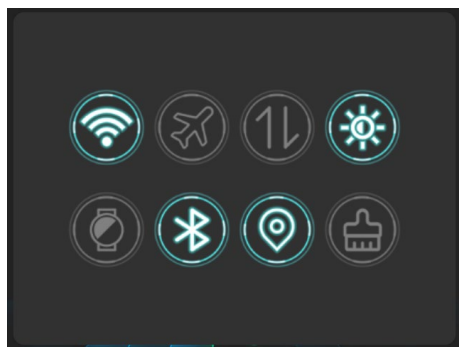
You can set up a Bluetooth connection between the WD1 and other Bluetooth devices, such as PC, mobile phone, badge. Note that the Bluetooth connection works better if there are no obstacles between them.

Before you can use a Bluetooth device with the WD1, you must first pair them.

1. Make the Bluetooth device visible to the WD1.

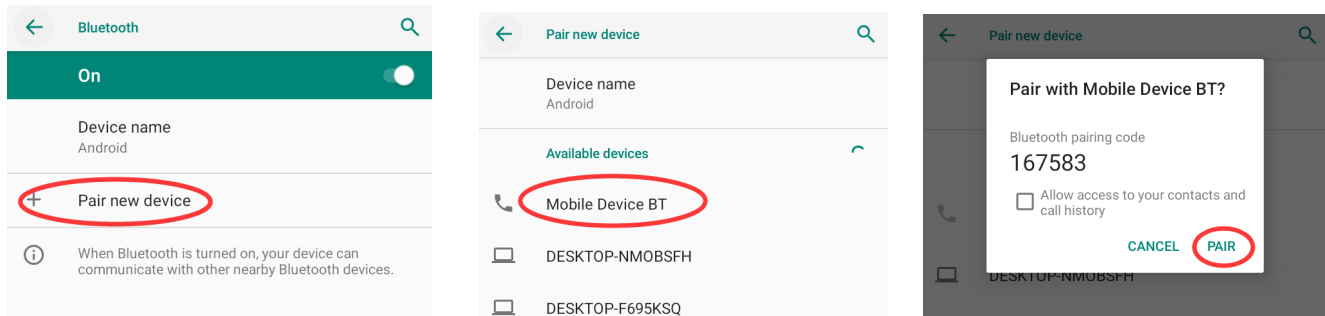
2. Swipe the home screen from top to bottom, then tap  to turn on the Bluetooth, long-press the icon  can enter the detailed setting of the Bluetooth.

Or tap the app icon  then "Connected devices" -> "Connection preferences" -> "Bluetooth", and turn Bluetooth on to search for available Bluetooth devices.

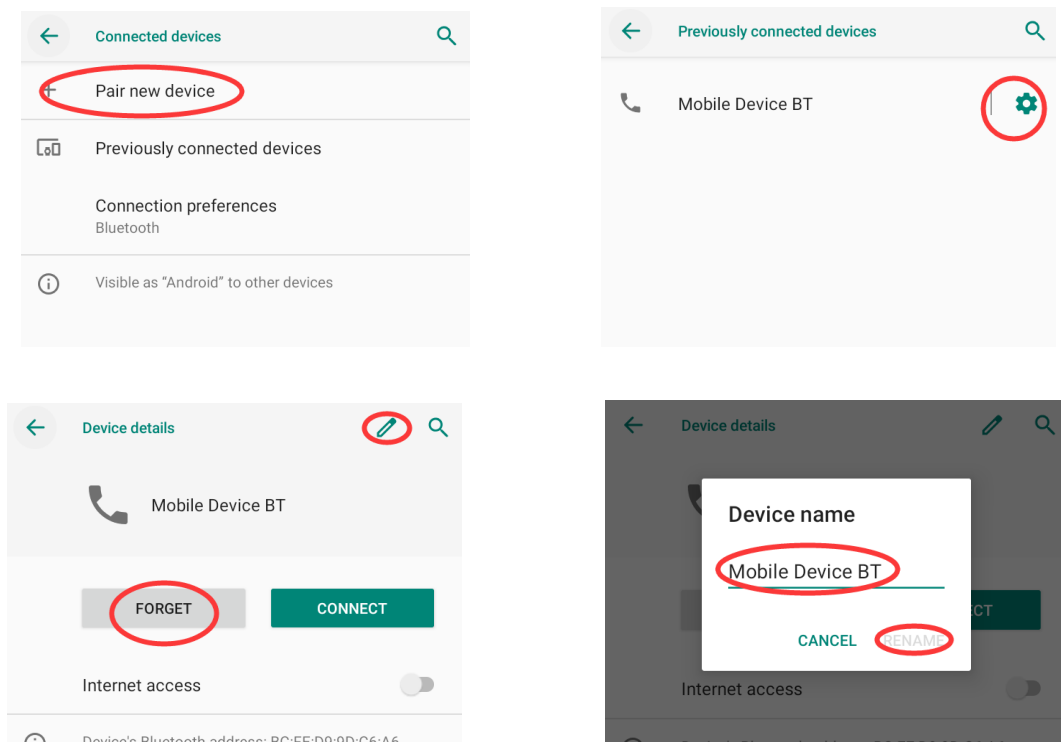


3. Select the device from the search results to pair.

4. If prompted, input the pairing code and then tap “OK”; or if the pairing code is given automatically, then tap “PAIR”.



Unpair/rename a paired Bluetooth device: To rename the paired Bluetooth device, edit its name manually and then tap “OK”. To unpair it, tap “FORGET”.






Chapter 6 Wi-Fi

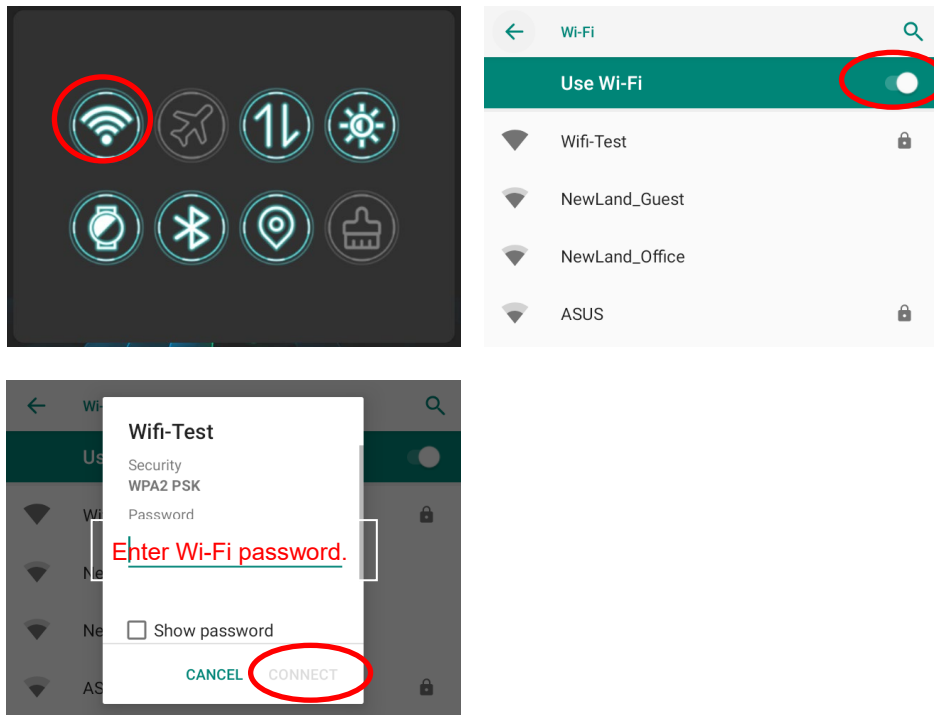
Introduction

This chapter describes how to connect the WD1 to a Wi-Fi network.

Wi-Fi Settings

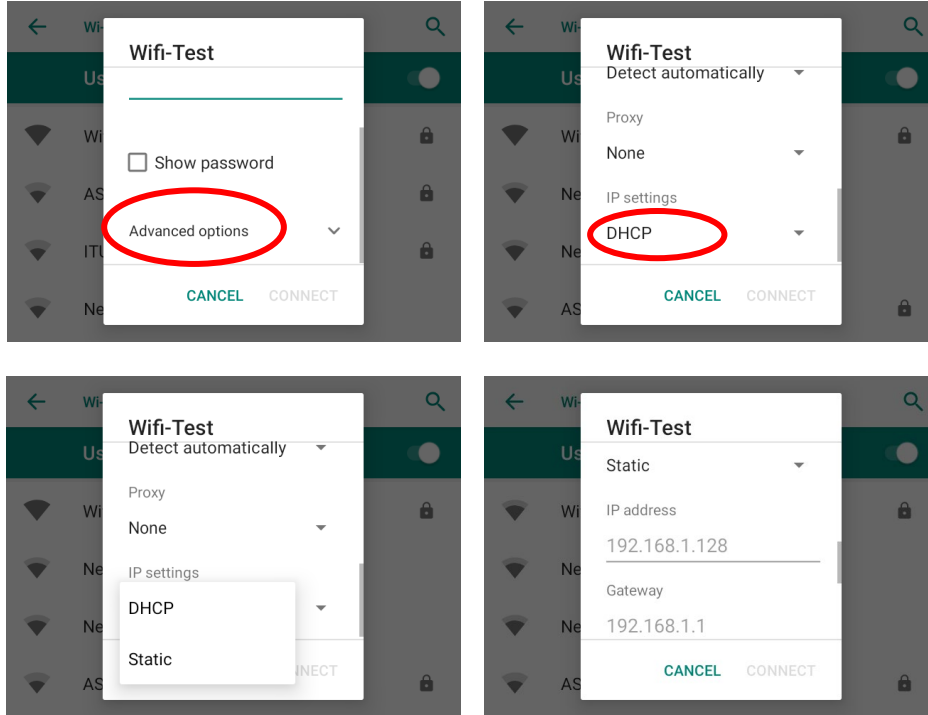
Join a Wi-Fi network:

1. Swipe the home screen from top to bottom, then tap  to turn on the Wi-Fi, long-press the icon  can enter the detailed setting of the Wi-Fi. Or tap the app icon  then “Network & Internet” -> “Wi-Fi”, and turn Wi-Fi on to find available Wi-Fi networks. If Wi-Fi is already ON, then the terminal will automatically search for available networks.
2. Tap a network and then enter the password.
3. Tap “CONNECT”.



IP Settings

To set the IP, follow the first two steps of joining a Wi-Fi network, tap “Advanced options” then “DHCP”, and select the desired option.



Chapter 7 Mobile Network

Introduction


The WD1 can also use a 4G network to connect to the internet. To establish a 4G connection, you must have a SIM card installed in your WD1.

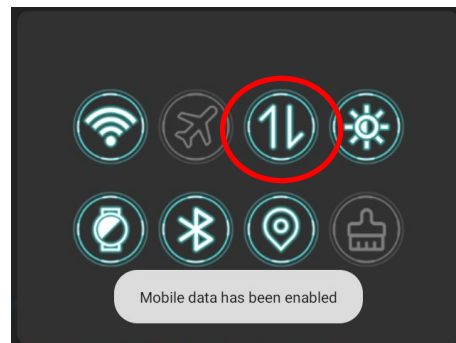
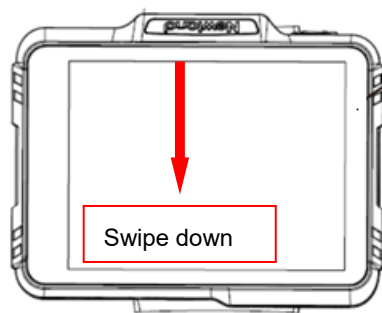
This terminal can support 4G/3G/2G network provided by Telecom, Unicom, or Mobile

Mobile Network Settings

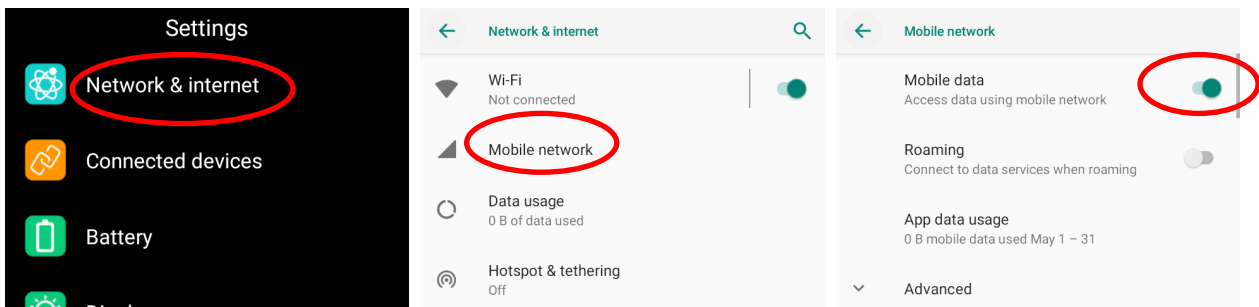
If no Wi-Fi networks are available, or if you have turned Wi-Fi off, then the WD1 connects to the Internet via your cellular data network when available.

Turn on the cellular network:

1. Swipe down from top to bottom on the home screen and it will display the drop-down mean, Find  and tap it to turn Cellular data on.
2. Or go to Settings-> "Network & Internet" -> "Mobile network" -> turn on "Mobile data".



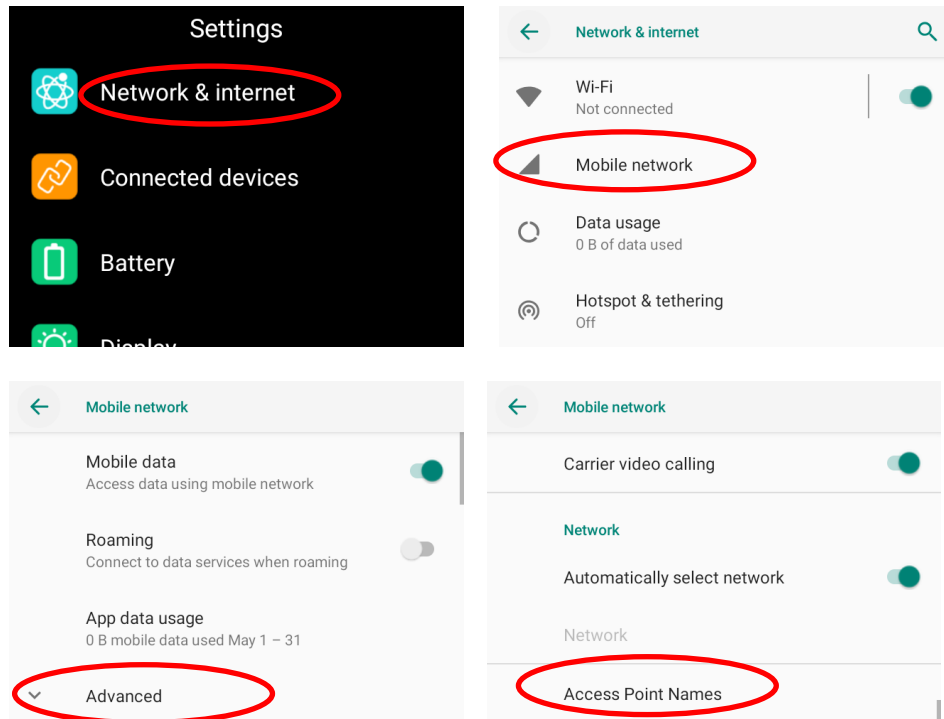
Option Two:




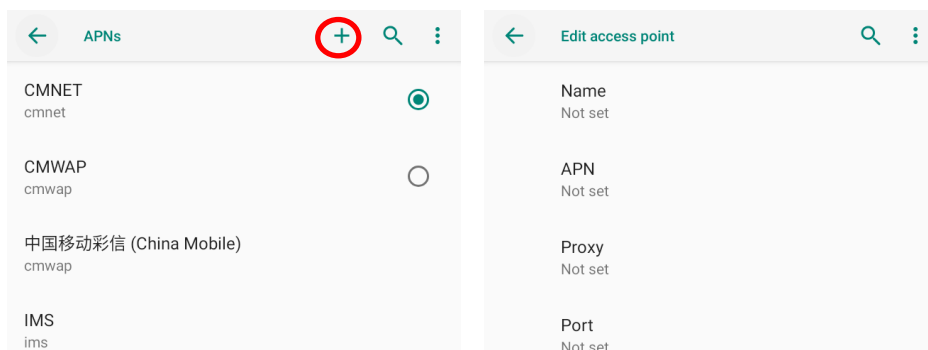
APN Settings

If you cannot connect to the internet when using your terminal's cellular data, you may need to change your APN settings on the WD1 to fix it:

1. Go to Settings -> "Network & Internet" -> "Mobile network" -> "Advanced" -> "Access Point Names".



2. Tap  in the top right corner of the screen or tap the carrier of your SIM card on the screen. Then manually enter the APN settings. You can contact your carrier or visit their website to get the correct APN settings, or check the APN settings on a mobile device that can access the internet using the SIM card.



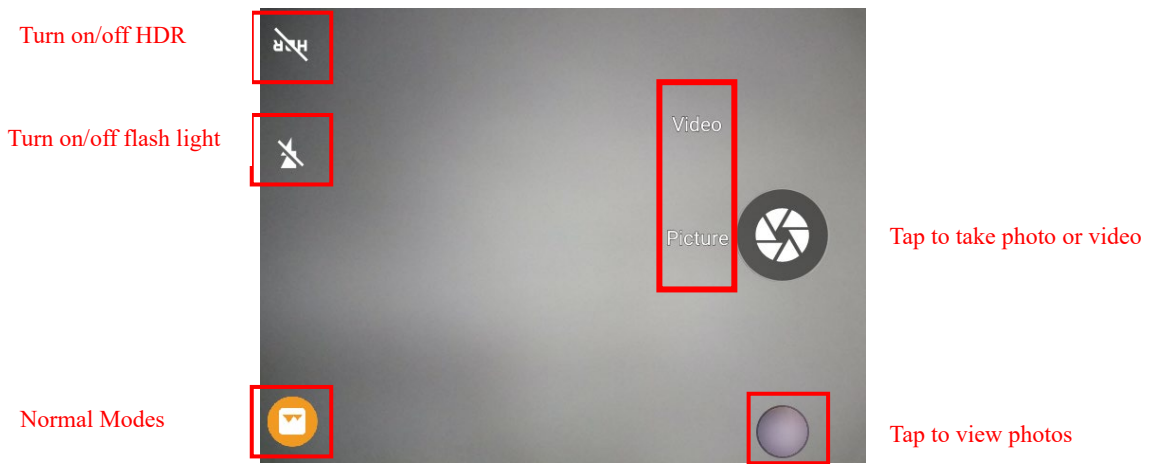
3. Press the Return key on the WD1 to go back to the previous screen and then select the APN you just added.



Chapter 8 Others

Camera



Tap the app icon  to launch the Camera app.





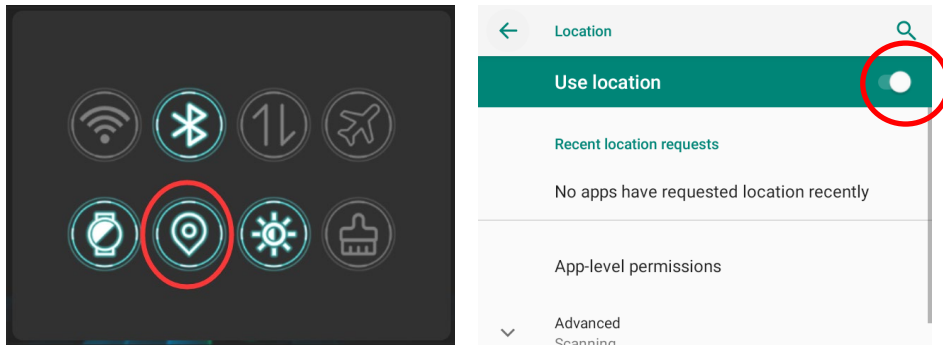
Tap normal modes icon  > Tap settings , then the user can set parameters such as scene mode, self timer, picture size, ZSD, white balance, etc.

You can also download a camera app from the internet or develop an app for the camera feature.

GPS

Turn on the Location on:

1. Swipe down from top to bottom on the home screen and it will display the drop-down mean, Find  and tap it to turn location on.
2. Or Go to Settings  -> "Security & location" -> "Location", and then turn Location on.

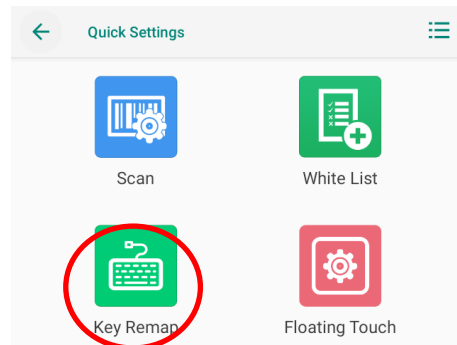
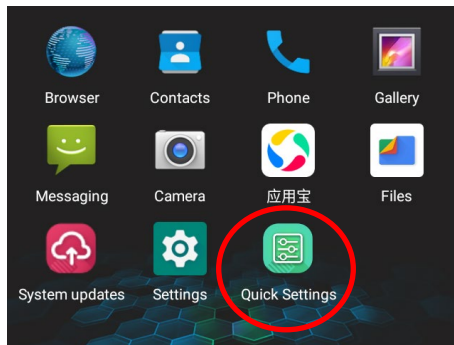


Key Map

This app allows you to remap the keys on the terminal to function as a different key or to make them into shortcuts to launch an application.

1. Remap a key to another key:

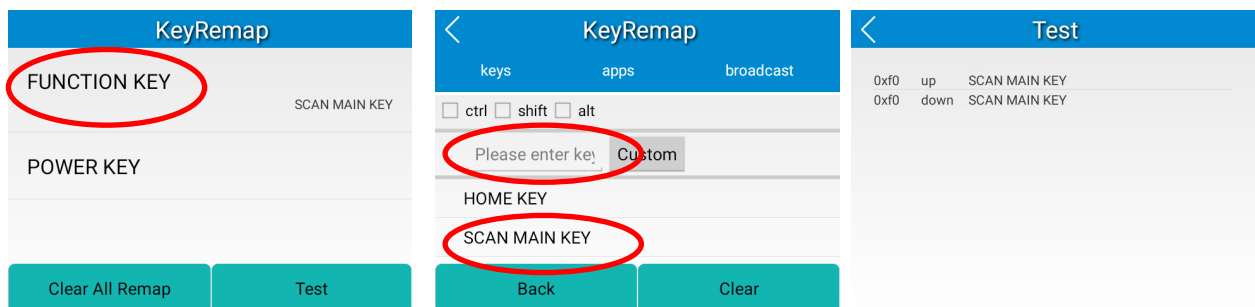
- 1) Start the Key Remap app: Tap the quick setting app icon  on the Home screen then .



- 2) **Remap a key to another key:** After starting the Key Remap app, select the key you want to remap, and then tap “keys” and select/enter the key to which you want to remap it.

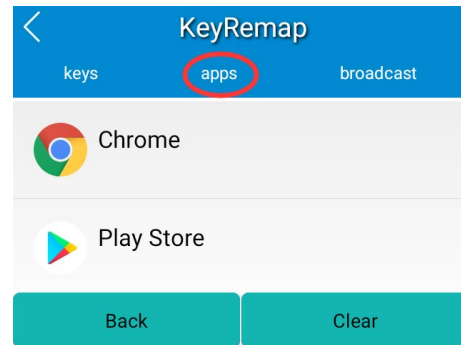
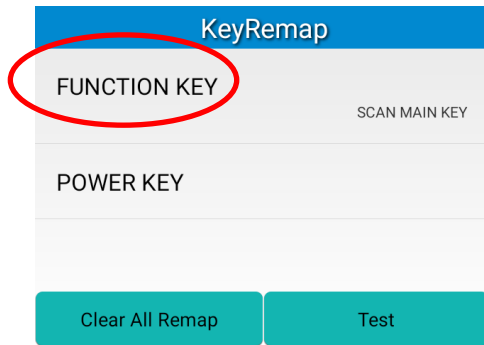
Clear All Remap: Clear all remap to return to default settings.

Test: Test the function of the remap key you just set.



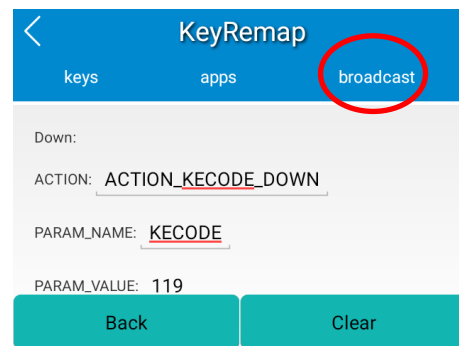
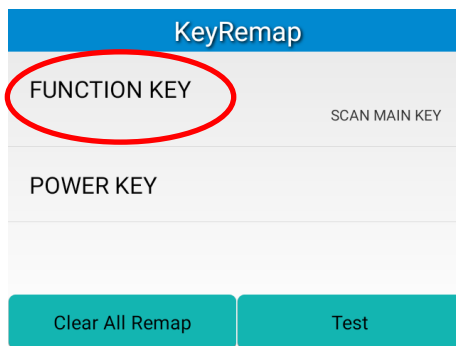
2. **Remap a key to an app:** After starting the Key Remap app, select the key you want to remap, and then tap “apps” and select the app to which you want to remap it.

Clear All Remap: Clear all remap to return to default settings.



3. **Remap a key to broadcast:** After starting the Key Remap app, select the key you want to remap, and then tap “broadcast” and defined the action for pressing remap key up or down.

Clear All Remap: Clear all remap to return to default settings.




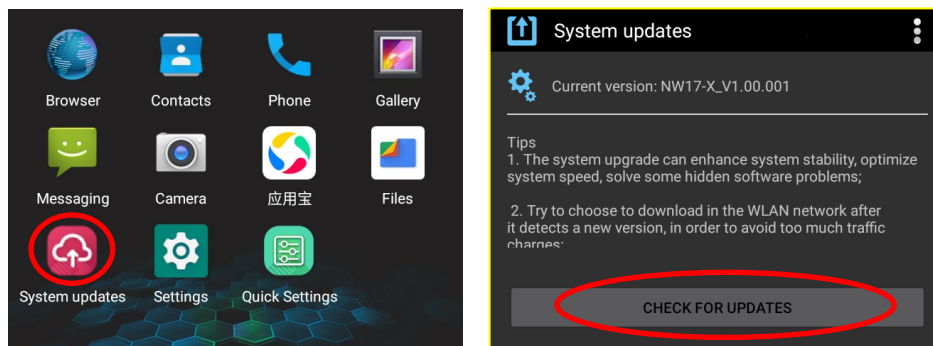
Chapter 9 System Update

Introduction

This chapter introduces two methods to update the system software of the terminal: Online update and local update.

Online Update

Update the system online: Tap system updates icon  ->“CHECK FOR UPDATES”.



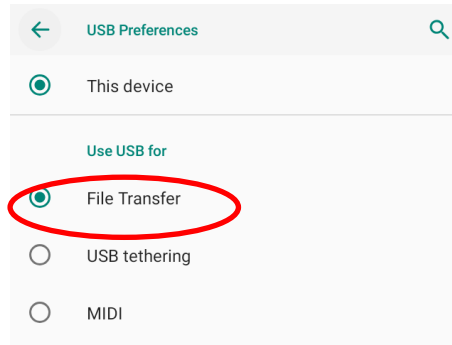
Local Update

Zip File to the WD1 Drive


1. Connect the terminal to a PC with the included USB cable. Swipe the home screen from left to right with one finger in one smooth motion to open the notification bar. Tap “USB file transfer turned on”. Then select “File Transfer”.




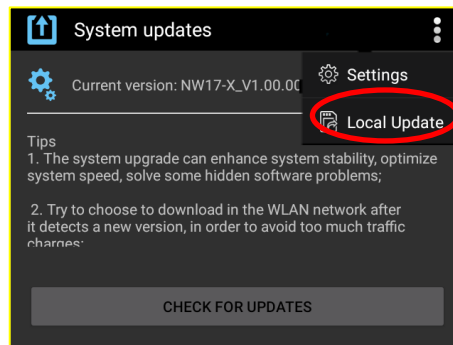
The file name might be different based on each version



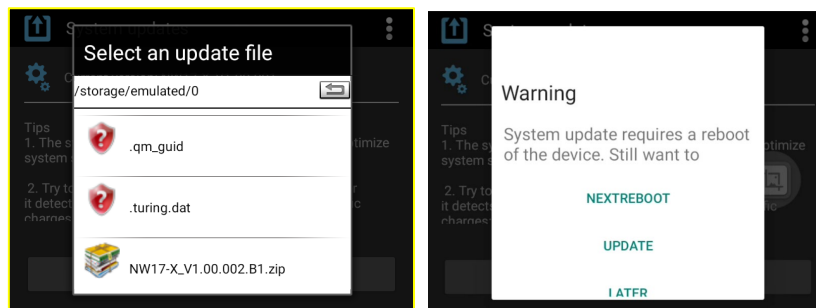
2. Copy the update zip file to the WD1 drive.

3. Tap  to access the System Update screen.

4. Tap  in the top right corner of the System Update screen then select “Local Update”.



5. Select the update zip file. Then select **“NEXTREBOOT” or “UPDATE”**.



Chapter 10 App Development Guide

Development Environment

The WD1 runs on the Android 9 operating system, so you should use Android SDK 9 or higher when developing apps for the WD1.

Use of Non-standard Interfaces

See *Newland Android PDA API Handbook*.

Chapter 11 Maintenance & Troubleshooting

Introduction

This chapter includes important safety and handling information and provides troubleshooting solutions for issues that might occur when using the terminal.

Important Safety & Handling Information

Disassembly and Retrofit

Do not attempt to disassemble or retrofit the terminal yourself. Unauthorized disassembly or retrofit will void the warranty.

External Power Supply

Use only the included AC adapter. Otherwise, there is a risk of damage to the terminal.

Abnormal Situation

Keep the terminal away from fire or heat sources. If there is unusual odor, overheating or smoke during charging, immediately cut off the power and disconnect the AC adapter, and contact your dealer or Newland customer service center. Continued use in this case may result in fire or electric shock.

Drop Damage

If the terminal is damaged due to a drop from a high place, immediately cut off the power and contact your dealer or Newland customer service center.

LCD Screen

Do not press against or strike the LCD screen. Otherwise, it may damage the screen. When handling a cracked or shattered screen, do not touch the liquid that has leaked from it to avoid skin burn or infection.

Stacking Heavy Objects

Do not place heavy objects on the terminal as those objects may fall and cause injury.

Mounting Location

Do not place the terminal on unstable or uneven surfaces as it may fall and cause injury. Do not expose the terminal to humidity or dust as this may cause fire or electric shock. Do not expose the terminal to direct sunlight for extended periods.

Wireless Functionalities

Do not use the terminal's wireless functionalities where wireless device use is prohibited or where it may cause interference or danger, such as petrol stations.

Use & Maintenance

- ✧ If the terminal crashes, please press and hold the power key for more than 30 seconds to force restart.
- ✧ Do not throw, drop or strike the terminal. Doing so may damage the LCD display, interrupt running programs, cause data loss in memory and result in malfunction.
- ✧ Clean the scan window regularly. Do not touch it with hands. Scratched or smudged window may degrade reading performance.
- ✧ Do not tap the touch screen with sharp objects. Doing so may damage the screen or cause internal short circuits.
- ✧ Use only a dry soft cloth to clean the terminal. Cleaning it with wet cloth or benzene/ thinner/ other volatile chemicals may deform and shorten the service life of the keypad and shell of the terminal.

Battery Safety Guidelines

- ✧ **Do not dispose of batteries in a fire as they may explode.**
- ✧ The battery can be charged and discharged over 300 times. If the battery life is unreasonably short, please replace the battery with a new one.
- ✧ Use only the included battery and AC adapter.
- ✧ Do not continue to charge a battery that is fully charged. Overcharging will shorten battery lifespan. If a fully charged battery is not used, it will discharge slowly, which does not affect its normal use.
- ✧ If the terminal does not need to be used for a long time, please charge the power to about 60% and place it in a cool environment.

Troubleshooting

Problem		Possible Cause & Solution
Type	Description	
Key	Unresponsive or incorrect response to any key entry.	Ensure that there is no contaminant inside the key; if a key malfunction occurred, please check whether the key has been remapped to other functions.
Battery	Charging LED is OFF when charging.	Ensure the AC adapter is plugged in properly.
	Noticeably short battery life.	<ol style="list-style-type: none"> 1. Check the battery level. If the battery is almost depleted, recharge it. 2. If the problem remains, please contact the after-sales service center.
	The fully charged battery is depleted after the terminal is switched on.	If the battery is faulty, replace it with a new one.
USB	USB communication failure	<ol style="list-style-type: none"> 1. Ensure that the USB cable connections are secure. 2. Ensure that there is no contaminant inside the Micro USB port. 3. If the problem remains, please contact the after-sales service center.
LCD Screen	No display	<ol style="list-style-type: none"> 1. Ensure the terminal is switched on. 2. If the terminal is in sleep mode, press the Power key to wake it up. 3. Check the battery level. If the battery is depleted, recharge it. 4. If the problem remains, please contact the after-sales service center.
System	Cannot switch on	<ol style="list-style-type: none"> 1. Check the battery level. If the battery is depleted, recharge it. 2. Switch the terminal on after using the included AC adapter to connect it to a power outlet. If the problem disappears, then continue to charge the terminal. If the problem remains after charging the terminal for 30 minutes, please contact the after-sales service center.
	System halted	<ol style="list-style-type: none"> 1. The problem may be caused by bugs in downloaded apps. Ensure that only reliable apps are used. 2. The problem may be caused by a sudden or unexpected power loss. Please press and hold the power key for 30 seconds to reset the terminal.



Newland

SCANNING MADE SIMPLE

Newland EMEA HQ
+31 (0) 345 87 00 33
info@newland-id.com
newland-id.com

Need more info?
Contact us or one of our [partners](#)