MF928 User Manual



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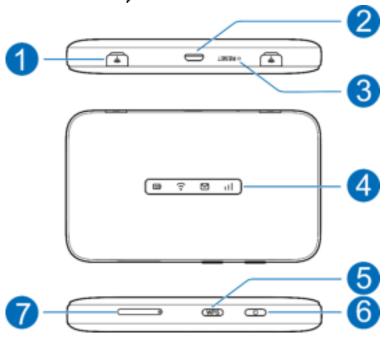
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Getting Started

Introduction

ZTE MF928 is a 4G LTE mobile hotspot device, working on the LTE network. You can connect your devices to it via Wi-Fi . The device supports data services, enabling you to communicate anytime and anywhere.

The following figure shows the appearance of the device. It is only for your reference. The actual device may be different.



1	External Antenna Connector	Connect the antenna when the signal is poor.
2	Charging/Micro USB Jack	Charge the device or connect to the USB port of a computer.
3	RESET Button	Press and hold for three seconds to restore your device to the factory settings.
4	LED Indicators	View colored icons for information about battery, Wi-Fi, messages and signal strength.
5	WPS Button	 Press to wake up the device when the hotspot is in sleep mode. When Wi-Fi is enabled on the hotspot, press and hold for about three

		seconds to activate the WPS function.
6	6 Power Button	Press and hold for about three seconds to turn the device on or off.
		Press to wake up the device from the sleep mode.
7	nano-SIM Card Tray	Install the nano-SIM Card.

Indicators

When the device is powered on, the following icons will light up on the surface of the device. The corresponding indicators are listed in the tables below.

ICON	STATUS	DESCRIPTION
	Red solid	The battery is from 0% to 5% (not charging). Please charge the battery.
	Red blinking	The battery is from 0% to 5% (charging).
	Yellow solid	The battery is from 6% to 33% (not charging).
Battery	Yellow blinking	The battery is from 6% to 33% (charging).
	Green solid	The battery level is medium or high (charging from 95% to 100%), not charging from 34% to 100%).
	Green blinking	The battery is from 34% to 94% (charging).
	LED light off	The device is powered off with no charger connected.
	Blue solid	Wi-Fi is on.
Wi-Fi	Blue blinking	WPS is active.
""	LED light off	Wi-Fi is off.
	Blue solid	You have unread messages.
∑ Messages	Blue blinking	You have new messages or your inbox is full.
i incoorges	LED light off	No unread messages or no new messages.
		The device is in error status.
	Red solid	The device is not registered to the mobile network.
		There is no nano-SIM card inserted.
III Network		There is no network service available.
	Green solid	Registered to the LTE network.
	Green blinking	Registered and connected to LTE network.
	Blue blinking	Software upgrading.
	LED light off	In Power Save/Sleep mode.

Connection Scenario

The following picture is an example of device connection. All of these devices can surf the Internet at the same time.



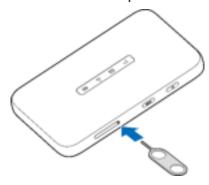
You can use Wi-Fi or micro-USB cable to connect to the MF928 device.



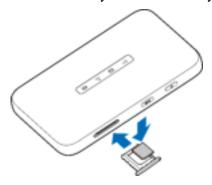
Setting Up Your Device

Installing the nano-SIM Card

1. Insert the tip of the SIM ejector tool into the tray hole.



2. Remove the SIM tray. Place the nano-SIM card on the tray as shown. Carefully, slide the tray back into place.



Powering On/Off Your Device

Press and hold the **Power Button** for about three seconds to power on the device. After a moment the device will connect to the Internet automatically.



If the battery is extremely low, you may be unable to power on the device. Please charge your device first.

Charging Your Device

You can charge your device by using the USB cable or adapter. Please charge your device for more than two hours when you use it the first time or when you haven't used it for a long time.

Use the USB cable to connect your device and PC directly.



Use the adapter to connect the wall outlet and your device.



NOTES:

- The plug only fits one way to connect your device. Do not use excessive force to insert the plug.
- The charging time varies depending on your battery level. The device will stop charging if the temperature of the battery exceeds 113° F (45° C).

Sleep Mode

If you enable the Wi-Fi function, use the battery to supply power to the device, and do not connect to the device within the specified time, the device will enter sleep mode. In sleep mode, the Wi-Fi function will be disabled. Press the **WPS Button/Power Button** to wake up the device and Wi-Fi function.

Accessing the Internet

- Power on your MF928.
- 2. Access the Internet in the following two ways:
 - Wi-Fi: The default Wi-Fi name (SSID) and password can be found on the
 device label. Connect to the Wi-Fi network with your Wi-Fi enabled device
 and then access the Internet.



micro-USB cable: Connect the MF928 device to your computer via USB port and then access the Internet.



NOTES:

- Once your MF928 is powered on and has been activated, it automatically connects to the Internet, provided that mobile broadband service is available and one or more Wi-Fi devices are connected.
- The LED lights on your MF928 indicate whether service is available and if the device is ready to connect.

Accessing the Configuration Page

 View the label on the MF928 device to get the default Device Manager. Website IP address and WebUI password.



- 2. Make sure your device is connected to the MF928 device.
- 3. Launch the Internet browser and enter the *Device Manager Website IP address* in the address bar.

NOTE:

It is recommended that you use Internet Explorer * (8.0 or later), Firefox * (30.0 or later), Opera™ (21.0 or later), Safari * (6.0 or later), or Google™ Chrome™ (35.0 or later).

4. The login page appears as follows. The following is only for your reference.



5. On the login page, input the WebUI password and click Login.

Navigating Your Web Interface

The interface is divided into three parts. Related functions can be executed by operation in the related areas.

- Index area: Shows the configuration list for your device.
- Content area: Shows the detailed configuration.
- System Information area: Shows the system status and different kinds of tips.

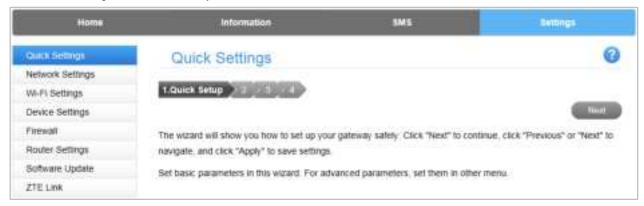
Signal	Tail	Shows the network signal intensity;
strength	1.1111	5 stages from none 🏗 to strong 📶
Connection	∰†1	Connected to the Internet.
status	₩ 1†	
		Disconnected from the Internet.
Wi-Fi status	1	Wi-Fi status and number of connected users.
Battery		Shows the battery level;
level	-	4 stages from none — to high ——.

Settings

IMPORTANT: Do not modify any settings unless instructed by your service provider.

Quick Settings

- In the main interface, click Settings > Quick Settings.
- Read the guide carefully, and then click Next.



3. Set SSID Configuration as shown in the following figure:



Service Set Identifier (SSID) is used to uniquely identify your wireless local area network (WLAN). If you enable **Broadcast Network Name (SSID)**, the gateway will broadcast the SSID, and other devices can detect and connect to it.

4. Set Security Configuration as shown in the following figure:



Encryption will keep your traffic from being monitored and accessed without authorization. Select an encryption mode from the list, and then set a password for it.

The configuration will look as shown in the following figure:



Make sure that all the parameters shown in the figure are correct, and then click. **Apply**

Network Settings

Data Roaming

Select **Network Settings > Data Roaming**. You can connect to internet in the roaming status. Check the box and then click **Apply**.



APN

Select **Network Settings** > **APN**. You can set the Access Point Name on this page.



Wi-Fi Settings

Basic

Select **Settings > Wi-Fi Settings > Basic Settings.** The wireless network basic parameters are shown in the following figure:



- Network Name (SSID): Service Set Identifier (SSID). Enter a string of fewer than 32 characters as the name for your WLAN.
- Broadcast Network Name (SSID): Disable or Enable (Default) this function.
 If Enable is selected, the device broadcasts the SSID, and other devices can
 find and connect to it. When you select Disable, other devices cannot find
 the SSID. If you want someone to connect, tell them the SSID and let them
 set up manually.
- Security Mode: The security modes are described below:

Mode	Description
	Authentication and encryption won't be performed. There are
OPEN	risks that private information will be intercepted or
	unauthorized individuals will use the network.
WPA2(AES)-	A more secure version of WPA with implementation of the
P5K	802.11i standard.
WPA-	Apply both the WPA-PSK and WPA2-PSK schemes.
PSK/WPA2-	
P5K	

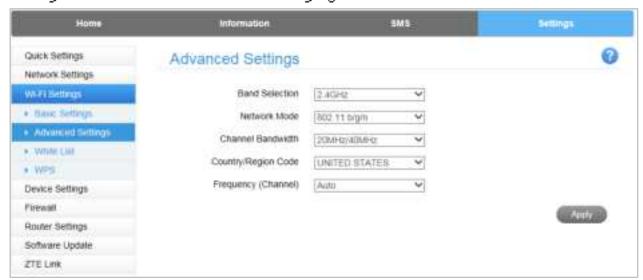
- Encryption Type: Select an encryption type from the drop-down list.
- Max Connections: Choose the maximum number of stations that connect the AP simultaneously.

Click Apply to confirm your configuration.

Advanced Settings

This chapter provides information on how to configure advanced settings for your MF928, such as Wi-Fi network options, WAN and router settings, and more.

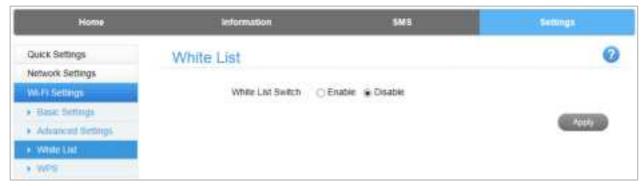
Select **Settings > Wi-Fi Settings > Advanced Settings**. The Advanced Settings configuration is shown in the following figure:



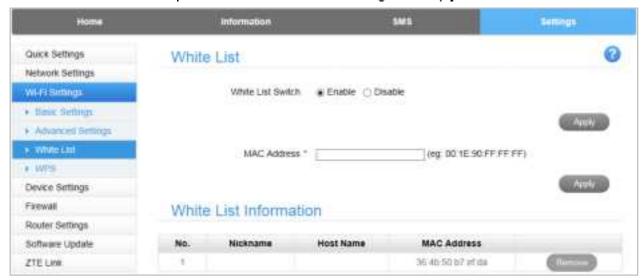
- Band Selection Select the Wi-Fi band range used for your network(s). The 2.4 GHz band uses less power and has a longer range than the 5 GHz band, but the 5 GHz band can provide higher speeds with less interference.
- Network Mode Select the WLAN protocol. The recommended mode depends on the Wi-Fi band. When using the 2.4 GHz band, select 802.11 b/g/n. When using the 5 GHz band, select 802.11 a/n/ac.
- Channel Bandwidth Select a bandwidth option, if necessary (not recommended without prior experience). When using the 2.4 GHz band, select 20MHz or 20MHz/40MHz; when using the 5 GHz band, select 20 MHz, 20 MHz/40 MHz, or 20 MHz/40 MHz/80 MHz.
- Country/Region Code Select the country in which your device is located.
- Frequency (Channel) Select the frequency (channel) for your Wi-Fi
 network(s). The recommended option is Automatic, which will select the
 channel with the least potential interference.

White List

A White List is a list of Wi-Fi devices that are approved to connect to this Wi-Fi hotspot. Select **Settings** > **Wi-Fi Settings** > **White List**, The White List configuration is shown in the following figure:



Select Enable > Apply and the White List settings will appear as shown below:



MAC Address: Enter an approved MAC address to connect to this Wi-Fi
hotspot.

Click **Apply** to confirm your configuration.

Device Settings

Account Management

Select **Settings > Device Settings > Account Management.** The administrator settings information is shown in the following figure:



You can change the administrator's password. Click **Apply** to confirm your configuration.

Wi-Fi Power Save

Select Settings > Device Settings > Power Save, You can set Wi-Fi performance and Wi-Fi sleep to save power.

Wi-Fi Performance Settings

Short Wi-Fi Range: Increases battery life.

Medium Wi-Fi Range: Balances battery life and Wi-Fi range.

Long Wi-Fi Range: Extends coverage of hotspot, which will decrease battery life.

Wi-Fi Sleep Settings

Sleep Time: Select a time from the drop-down list. When there's no Wi-Fi connection made within the specific time, Wi-Fi will be unavailable and the system will turn to sleep mode to save power.

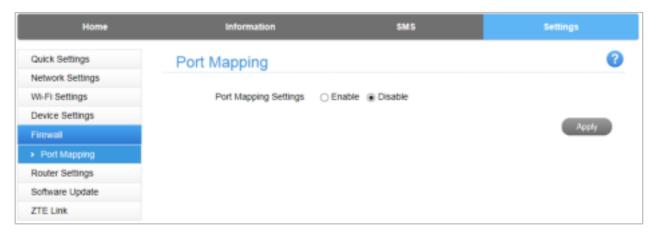


Firewall

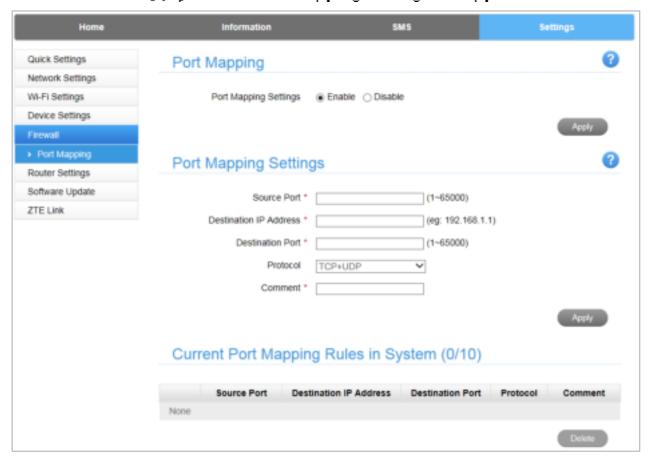
You may set up firewall rules to protect your network from viruses and other malicious activity on the Internet.

Port Mapping

You can set up Port Mapping to enable external computers to access www, FTP, or other services provided by LAN. Select **Settings > Firewall > Port Mapping**. The Port Mapping page is shown in the following figure:



Select Enable > Apply and the Port Mapping Settings will appear.



- Source Port: Set the source port of the computer that provides services.
- Destination IP Address: Specify a computer located at LAN to provide services.
- Destination Port: Set the destination port of the computer that provides services.
- Protocol: Set which protocol will be applied by services.
- Comment: Type comment for the Port Mapping Settings.

Click Apply to add a new rule.

Select a rule and click Delete > Yes to delete it.

Router Settings

Select **Settings > Router Settings**. The router information is shown in the following figure:



- IP Address: IP address for LAN interface.
- Subnet Mask: Subnet mask for the IP address.
- DHCP Server: Enable or disable DHCP Server function.
- DHCP IP Pool: Allocate beginning and ending IP addresses for IP pool.
- DHCP Lease Time: Define how long the leased IP address will be expired.
 The new IP address will be relocated after the IP address is expired.

Click Apply to confirm your configuration.

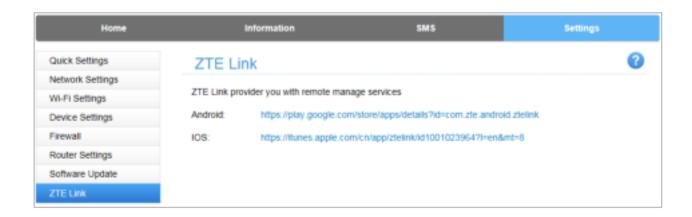
Software Update

Select **Settings** > **Software Update** to check if a software update is available.



ZTE Link

The ZTE Link application lets you view the status of your mobile broadband device and manage its network connections. Select **Settings > ZTE Link** and click the URL below to download it for Android or IOS.



Using the WPS

If your computer or other Wi-Fi enabled device supports WPS, you don't have to input the password manually once your WPS has been set up in your web UI. To set up, follow these steps:

 Select Settings > Wi-Fi Settings > WPS. You can enable WPS function by PIN(PIN code) or PBC(push-button) mode and then click Apply.



- PIN: Enter PIN that is generated by wireless access client.
- PBC: Select PBC or press PBC button on your device.
- Press and hold the WPS Button for three seconds to start the Wi-Fi Protected. Setup authentication process.
- 3. To respond to this authentication process, enable the WPS function on the device you wish to connect.
- 4. Follow the system prompts on your device to finish the connection.

Verifying SIM PIN Code

If the PIN code of your SIM card is enabled, you will need to input the PIN code when you log in the first time.

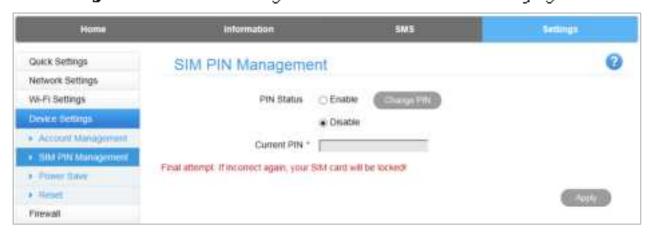
NOTE:

The SIM card will be locked if you enter the wrong PIN code three consecutive times.



SIM PIN Management

If you want to modify the PIN status, select **Settings > Device Settings > SIM PIN Management**. The PIN management is shown in the following figure:



- PIN Status: Shows the current PIN status and allows you to select PIN status.
- Current PIN: Type the PIN code.

If you select Change PIN, you will see the following modification parameters:



Type the old PIN code, and then type the new PIN code twice. Click **Apply** to confirm your configuration.



- Entering the wrong PIN code three consecutive times will lock the SIM card.
- After you change the PIN code, you don't need to input the PIN code again. It is required after the device is restarted.

Resetting Your Device

There are two ways to reset your device.

 Select Settings > Device Settings > Reset. Click Reset > Yes to set all the settings to their factory default values. The device will restart automatically.



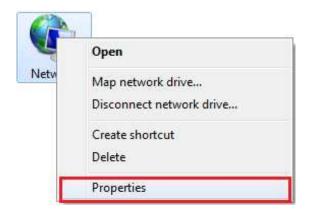
- Reset your device by pressing and holding the RESET Button.
- Find the hole marked RESET on the side of the device.
- Use the tray ejector tool to press and hold the RESET Button for three seconds or longer.
- 3. Factory reset will take effect and then the device will restart.

Configuring Your PC

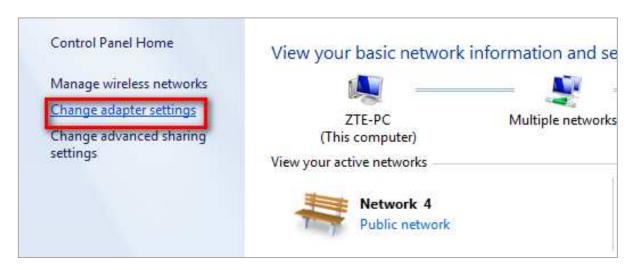
Verifying IP Address and DNS

The following steps and figures reflect configuration for the Wireless Internet Protocol for your connections with a Windows* 7 operating system.

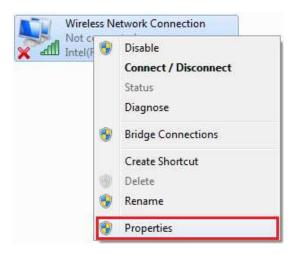
1. Right-click Network and select Properties.



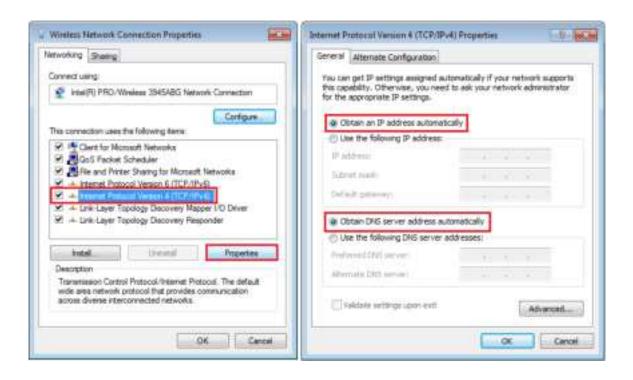
2. Select Change adapter settings.



3. Right-click Wireless Network Connection and then select Properties.



- 4. Select Internet Protocol Version 4 (TCP/IPv4), and then click Properties.
- Select Obtain an IP address automatically and Obtain DNS server address automatically, and then click OK to finish the configuration.



SMS

This function allows you to receive messages from your ISP.

Operating Messages in Your Inbox

You can check the messages saved in your device.

Inbax

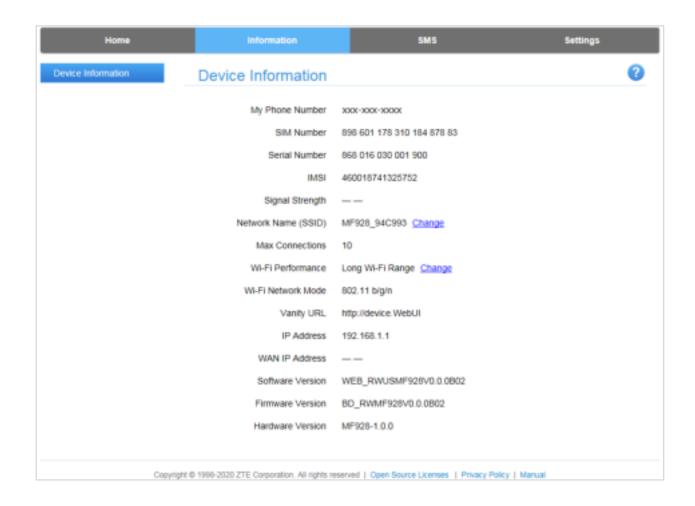
Select **SMS** > **Inbox** to access the following figure:



All the received messages saved in your device will be displayed here. Select a message and click **Delete > Yes to** delete it.

Information

This function allows you to check system information.



For Your Safety

To the Owner

- Some electronic devices, such as the electronic system of vehicles, are susceptible to electromagnetic interference sent by your device if inadequately shielded. Please consult the manufacturer of your device before using if necessary.
- Operating your device may interfere with medical devices like hearing aids and pacemakers. Please always keep them more than 20 centimeters away from such medical devices when they are turned on. Turn your device off if necessary. Consult a physician or the manufacturer of the medical device before using your device.
- Be aware of the usage limitation when using your device at places such as oil warehouses or chemical factories, where there are explosive gases or explosive products being processed. Turn off your device if required.
- The use of electronic transmitting devices is forbidden in aircrafts, at gas stations, and in hospitals. Please observe and obey all warning signs and power off your device in these conditions.
- Do not touch the inner antenna area if not necessary, it will affect your device's performance.
- Store your device out of the reach of little children. Your device may cause injury if used as a toy.
- Do not touch the metallic parts of your device when the device is operating as this may cause burns.

Using Your Device

- Please use original accessories or accessories that are authorized. Using any unauthorized accessories may affect your device's performance, and violate related national regulations about telecom terminals.
- Avoid using your device near or inside metallic structures or establishments
 that can emit electromagnetic waves; it may influence signal reception.
- Your device is not waterproof. Please keep it dry and store in a shady and cool
 place.
- Do not use your device immediately after a sudden temperature change. In such case, it will produce moisture inside and outside your device. Wait until

it becomes dry.

- Handle your device carefully. Do not drop, bend, or strike it; your device may get damaged.
- No dismantling by non-professionals and only qualified technicians can undertake repair work.

Keep Your Device at its Normal Operating Temperature

- Although your device may get warm sometimes, it has a built-in safeguard to protect itself if the temperature exceeds the normal operating range.
- Factor that can affect your device's performance;
 - Using your device outside of normal operating conditions, which are ambient temperatures between 32 and 95 degree Fahrenheit.
 - Placing your device on or near a heat source, leaving it in a parked car
 on a hot day, or continual use in direct sunlight.
 - Using & transmitting data for long periods of time.
 - Charging the device with a non-ZTE, incompatible, or defective charger and USB cable.
- This device is equipped with Battery Temperature Protection Feature. This feature is designed to protect the battery. If the battery gets overheated, the phone will automatically turn off. Allow the device to cool down before using it again.

Battery Handling

- Do not short-circuit the battery, as this can cause excessive heat and fire.
- Do not store battery in hot areas or dispose of it in a fire, as this can cause an explosion.
- Do not disassemble or modify the battery.
- When not using the battery for a long period, remove it from your device and store it in a cool, dry place.
- Never use a damaged or worn-out charger or battery.
- Return the worn-out battery to the provider or put it in an approved recycling container. Do not put it in your regular house trash.
- Do not connect the charger while using the device for a long period.

 Failing to do so will trigger the protection mechanism of the battery, and the battery will not be charged. If you want to charge the battery, please

reconnect the charger.

 Do not connect the charger while using the device for a long period or use the device and battery in non-operating temperature. Failing to do so will shorten battery life or cause battery swelling or leakage. If the battery shows signs of swelling or leakage, please stop use immediately.

WARNING! If the battery is broken, keep away from it. If it touches your skin, wash your skin with abundant fresh water and ask a doctor for help if necessary.

WARNING! The battery is not removable. Removal may cause fire or explosion.



WARNING: This product can expose you to chemicals including Carbon Black, which is known to the State of California to cause cancer, and Toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

Limited Warranty

- This warranty does not apply to defects or errors in the Product caused by:
 - i. Reasonable abrasion.
 - ii. End User's failure to follow ZTE's installation, operation or maintenance instructions or procedures.
 - iii. End User's mishandling, misuse, negligence, or improper installation, disassembly, storage, servicing or operation of the Product.
 - iv. Modifications or repairs not made by ZTE or a ZTE-certified individual.
 - v. Power failures, surges, fire, flood, accidents, actions of third parties or other events outside ZTE's reasonable control.
 - vi. Usage of third-party products, or usage in conjunction with third-party products provided that such defects are due to the combined usage.
 - vii. Any other cause beyond the range of normal usage intended for the Product.
- End User shall have no right to reject or return the Product, or receive a refund for the Product from ZTE under the above-mentioned situations.
- This warranty is End User's sole remedy and ZTE's sole liability for defective or nonconforming items, and is in lieu of all other warranties, expressed, implied or statutory, including but not limited to the implied warranties of merchantability and fitness for a particular purpose, unless otherwise required under the mandatory provisions of the law.

Limitation of Liability

ZTE shall not be liable for any loss of profits or indirect, special, incidental or consequential damages resulting from or arising out of or in connection with using of this product, whether or not ZTE had been advised, knew or should have known of the possibility of such damages, including, but not limited to lost profits, interruption of business, cost of capital, cost of substitute facilities or product, or any downtime cost.

Radio Frequency (RF) Energy

This model device meets the government's requirements for exposure to radio waves.

This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government:

The exposure standard for wireless devices employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg. Tests for SAR are conducted using standard operating positions accepted by the FCC with the device transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the device while operating can be well below the maximum value. This is because the device is designed to operate at multiple power levels so as to use only the position required to reach the network. In general, the closer you are to a wireless base station, the lower the power output.

The highest SAR value for the model device as reported to the FCC when worn on the body, as described in this user guide, is **1.41 W/kg**.

While there may be differences between the SAR levels of various devices and at various positions, they all meet the government requirement.

The FCC has granted an Equipment Authorization for this model device with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this model device is on file with the FCC and can be found under the Display Grant section of http://www.fcc.gov/oet/ea/fccid/after searching on FCC ID: SRQ-MF928.

FCC Compliance

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.

Caution: Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

NOTE: 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 or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
 - Consult the dealer or an experienced radio/TV technician for help.

Troubleshooting

Problem	Suggested Solution
Cannotestablish the Wi-Fi connection between the MF928 device and your Wi-Fi enabled device.	 Make sure the Wi-Fi function is active. Refresh network list and select the correct SSID. Check the IP address to make sure your device can obtain an IP address automatically in the Internet protocol (TCP/IP) properties. Type the correct network key (Wi-Fi password) when you connect to the MF928 device.
Your connected device cannot access the Internet.	 Make sure your nano-SIM card is installed. Change the location to find a place with a good signal. Make sure the APN is correct. Contact your service provider to obtain the APN and add it manually.
Cannot access the web configuration page.	 Enter the correct address. The default address is http://192.168.1.1. Only use one network adapter in your PC. Do not use any proxy server.

	 The default password can be found on the label of your MF928 device. If you changed the password and forgot the new password, you will need to reset the device to factory default settings.
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For more assistance, please visit www.ztedevices.com

Specifications

Network	4G LTE
Operating System	Linux
Technology	LTE Band
	LTE B2/B4/B5/B12/B13/B66/B71
Wi-Fi Support	2.4 GHz, IEEE 802.11 b/g/n
	5 GHz, IEEE 802.11 a/n/ac
Dimensions	2.52" (H) x 4.17" (W) x 0.59" (D)
Weight	3.63 oz (with battery)
Standard Battery	2,000 mAh (nonremovable)
Standby Time	TBD
Internal Memory	256 MB RAM/512 MB ROM