OUTDOOR ROUTER

EZR23T QUICK GUIDANCE
EZR23T KURZANLEITUNG

EZR23T.Router.Works

Scan the QR code on a smartphone camera to view the full online manual or type the URL on any device's web browser bar.

Scannen Sie den QR-Code auf einer Smartphone, um das vollständige Online-Handbuch anzuzeigen, oder geben Sie die URL in die Webbrowserleiste eines beliebigen Geräts ein.
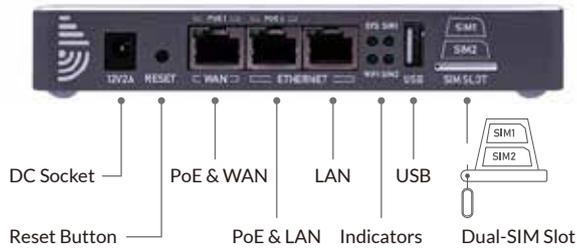
WORKING PRINCIPLE
WIE FUNKTIONIERT ES

INTERNET

4G ROUTER
WITH SIM SLOT

PACKAGE CONTENTS
PACKUNGSINHALT

Check and count the package contents.
Please inform our support team if any components are missing.

4G Router *SIM-Karten-Router*	2 x 4G Antennas *2 Stück 4G-Antennen*	2 x WiFi Antennas *2 Stück WLAN-Antennen*
DC Power Adapter *AC-DC-Netzteil*	LAN Cable *LAN-Kabel*	

Note: The AC to DC power adapter contains the appropriate regional electrical plug to match the destination, whether UK, EU, US, or AU standards.

INTERFACE OVERVIEW
PORTS & SCHNITTSTELLEN

DC Socket — PoE & WAN — LAN — USB

Reset Button — PoE & LAN — Indicators — Dual-SIM Slot

INSTALL ANTENNAS
ANTENNEN INSTALLIEREN

The EZR23T router has four antenna sockets. All of them are the SMA-female connectors with central pin holes.

Firstly, locate the antenna sockets on the enclosure. "Mobile" is for the 4G paddle antennas, and "Wi-Fi" is for the WiFi antennas.

4G Antenna * MAIN

4G Antenna * DIV

WiFi Antenna

WiFi Antenna

When installing the antennas, put the router and antennas in a straight direction to avoid bending the pins. Twist the SMA-male connector on the antennas in the clockwise direction to install the antennas on the router.

UPGRADEABLE

You may replace the default antennas with upgraded or external antennas. Ensure the new antennas have correct frequency spectrums and have the SMA-male connector with a pin in the center.

SIM CARD & POWER SUPPLY
SIM-KARTE & STROMVERSORGUNG

DC Socket 9~48Volt — PoE & WAN — PoE & LAN — LAN — PINHOLE

SIM1
SIM2

Pin — SIM-CARD TRAY

FOR NANO-SIM (0.5" x 0.3")

DC ADAPTER

The router includes an AC/DC power adapter.

Plug the AC connector into a 110-240V electrical outlet, and connect the DC plug to the DC socket on the router.

The router will power on automatically when DC power is connected.

ALTERNATIVE POWERS

1) DC POWER
The DC socket could take a wide range of 9~48Volt DC power. Do not overload it!

The typical DC power is 12Volt 2Amps. The DC jack should be Ø5.5 x 10mm, the inner pin is Ø2.1mm.

2) PoE POWER
You can use an IEEE802.3af/at standard PoE injector or PoE switch to input electric power on the "PoE & WAN" and "PoE & LAN" ports.

They activate the WAN and LAN connections through the PoE LAN cable.

ETHERNET

Connect a computer or another router to the "PoE & LAN" or "LAN" ports on the EZR23T router to get the Ethernet.

You can also input Internet to the router on its "PoE & WAN" port.

SIM CARD

Please turn off the power while inserting or taking out a SIM card.

Use the **PIN** to push the **PINHOLE**, and the **SIM-Card Tray** pops out.

Insert a SIM card in the **SIM1** Slot.

Reposition the **SIM-Card Tray** in the slot and push it back.

INDICATORS

The indicators turn on green color when a related function is activated. They flash when having data flow.

Router System	**SYS**
WiFi Hotspot	**WIFI**
SIM Card #1	**SIM1**
SIM Card #2	**SIM2**

PoE Injector or Switch
** Not Included **

LOCATION & SIGNALS
STANDORT & SIGNALE

CHOOSE A LOCATION

The mobile signal quality is crucial to mobile internet speed and stability! Ensure the location has a fair 4G signal coverage for the router and less Radio Frequency (RF) interference.

The router should be installed in a suitable location, such as elevated, near a window, and away from obstructions and other RF equipment.

The mobile modem sensitivity is -101dBm. We should input at least 2-bar 4G signals for the router. You can use your phone, walk around, and choose a location with a strong 4G signal reception. To measure the signal quality accurately, please check the tutorial at *https://www.outdoorrouter.com/signal/*.

Outdoorrouter	RSSI	SINR (dB)	RSRQ (dB)	RSRP (dBm)
Technology	LTE & 3G	LTE Only	LTE Only	LTE Only
Excellent	> -65	> 12.5	> -5	> -84
Good	-65 to -75	10 to 12.5	-6 to -10	-85 to -102
Fair	-75 to -85	7 to 10	-6 to -10	-103 to -111
Poor	< -85	< 7	< -11	< -112

After connecting and logging into the router, you can find the mobile signal quality on the front page when the mobile modem is connected. You can change the router location and adjust the 4G antenna directions to improve the signal reception.

ADJUST ANTENNA

The two wide panels on the 4G paddle antennas have a higher performance. Adjust the paddle side point to outside or cellular tower direction to receive a better signal.

360°

FIRMWARE CONFIGURATION
FIRMWARE KONFIGURATION

CONNECT BY WIFI OR LAN

Plug the DC adapter into an electric outlet, then connect the DC plug to the DC socket on the router. The EZR23T will power on and take 3-4 minutes to boot up.

Use a phone, tablet, or laptop to search for and join the hotspot "*Cellular-WiFi-xxxx*". The default hotspot has no encryption enabled.

Alternatively, use the included LAN cable to connect your wired device to either the "*LAN*" port or "*PoE & LAN*" port located on the router.

After connecting to the router, open a web browser, enter the router IP *http://192.168.20.1* on the address bar. Click the *Login* button to access the admin panel.

• • • http://192.168.20.1
AUTHORIZATION REQUIRED
Please enter your router password!
Password [Default has no password!]   Login

* If unable to access the login page, change a web browser and recheck the Wi-Fi or LAN connection.

SET ADMIN PASSWORD

After accessing the router, navigate to *System > System* from the top menu. Under the *General Settings* tab, click the *Sync with browser* button to sync the time.

Go to *System > Administration*, input new custom *router password* twice, then click the *Save and Apply* button to save settings.
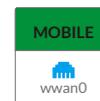** Keep the password in a safe place.*

SETUP MOBILE MODEM

The router comes pre-configured with generic mobile broadband settings that work with most carriers. On the homepage, the right panel displays the mobile connection's modem details and real-time status.

If the mobile fails to connect, first check the mobile signal coverage on a phone, then verify and ensure the SIM card is activated and has a data allowance.

--- **MOBILE INTERFACE** ---

Go to *Network > Interfaces*. Check the protocol, uptime, data flow, SIM, and IP.

Click the *Edit* button to configure the advanced Mobile parameters.

MOBILE

wwan0

Protocol: Mobile Data
Uptime: 12h 12m 12s
RX: 757.03 KB (1782 Pkts.)
TX: 1.66 MB (11551 Pkts.)
SIM: Primary SIM1
IPv4: 10.xx.xx.xx/xx

Protocol	The default "**Mobile Data**" protocol works well in urban regions and for most major carriers. Rural areas with limited cellular infrastructure and virtual operators may require the "**Cellular PPP**" protocol instead. `https://how.router.works/mobile/protocol`
Active SIM	Choose the SIM card slot that inserts a SIM card. The router uses SIM card #1 as the primary card.
Auto Switch SIM Card	Enable it when inserting two SIM cards on both SIM1/2 slots. It switches to another slot when Active SIM Card is offline.
Supported Modes & Bands	The router allows limiting cellular connectivity to specific network modes and licensed frequency bands under the "Supported Modes" and "Supported Bands" settings. Keep default settings for the most compatible connectivity.

--- Primary SIM1 / Secondary SIM2 ---

APN	Access Point Name - Gateway to access a carrier's mobile Internet. Refer to the tutorial below to set the APN parameters. `https://how.router.works/mobile/apn`
PIN	Leave it blank when using the default SIM card PIN code.
Authentication	Usually use *PAP* or *PAP/CHAP* authentication.
IP Type	Please choose *IPv4 only* or *both IPv4/IPv6*.

LAN NETWORK

Turn on DHCP mode on the phone or computer to obtain a local IP address from the router. To use a static IP address, please comply with the below format.

Computer IP   192.168.20.100~249   (pick one IP from 100~249)
Subnet mask   255.255.255.0 (24 on Windows)
Gateway   192.168.20.1

SET WIFI HOTSPOTS

Go to *Network > Wireless*, there are two WiFi hotspots on the wireless overview.

[radio0]   Generic MAC80211 802.11bgn   SSID: **Cellular-WiFi-xxxxxx**   [on]
                                                             SSID: **Guest-WiFi-xxxxxx**   [off]

Click the *Disable (Enable)* buttons to turn off (on) the WiFi hotspots.
Associated Stations are the active WiFi connections and their working status.

Click the *Edit* buttons on each SSID row to enter their configuration pages.
On the **General Setup** tab, you can monitor the hotspot's working status.
Suggest using default settings of Mode, Channel, Width, and Transmit Power.

WIFI SSID & PASSWORD

Scroll down to **Interface Configuration**, and change WiFi SSID on the *ESSID* field.
Click the tab of **Wireless Security**, and choose *WPA*, *WPA2*, or *mixed mode* on
the *Encryption* option. Input the WiFi password in the *Key* field.

Click the **Save & Apply** button on the bottom right corner. The WiFi hotspot
takes 2~3 minutes to reboot. Then re-connect to the new hotspot.

WIFI RELAY

You can connect the EZR23T router to a WiFi hotspot to get an Internet connection.

Go to "Network > Wireless," click the *Scan* button, and *Join Network* on the scanning
result page. Enter the target WiFi hotspot password and leave the other default
settings unchanged.

RECOVERY

| Reboot | Rebooting the router could solve glitches after a long period of work. Go to **System > Reboot** or replug the DC adapter to reboot the router. |

| Soft Reset | If the router works unstable after changing settings, go to **System > Backup / Flash Firmware**. Click the *Perform Reset* button to reset it. |

| Hard Reset | To run a hard reset, tap and hold the **Reset** button for 5 seconds when the router is powered on. Release it and wait 5 minutes until boots up. |

IMPORTANT!
DO NOT TURN OFF POWER WHILE RESETTING THE ROUTER!

Thanks for reading! If you have questions while using the router,
please check the online manual at `https://EZR23T.Router.Works`

Please feel free to contact us if you need any further assistance.

OutdoorRouter
www.outdoorrouter.com

Please contact our customer support team if you need
any additional help or have any questions.

*Bitte wenden Sie sich an unser Kundensupport-Team,
wenn Sie weitere Hilfe benötigen oder Fragen haben.*

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