



Quick Start Guide

Model | **MX-241NP**

Product | **4G LTE CBRS Wi-Fi Router**

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PLEASE READ THE QUICK START GUIDE AND FOLLOW THE STEPS CAREFULLY. THIS QUICK START GUIDE WILL HELP YOU INSTALL THE DEVICE PROPERLY AND AVOID IMPROPER USAGE. IF YOU NEED MORE INFORMATION ON THIS SOFTWARE CONFIGURATION, PLEASE REFER TO THE ONLINE USER MANUAL.

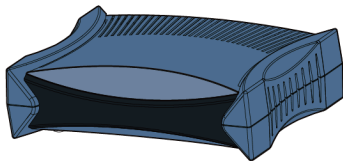
Package Contents

- BEC MX-241NP X 1
- Quick Start Guide X 1
- RJ-45 Ethernet Cable X 1
- 4G/LTE Antenna X 2
- DC Power Adapter X 1

NOTE:

ALL IMAGES SHOWN ARE FOR ILLUSTRATION PURPOSE ONLY. PACKAGE CONTENTS MAY DIFFER FROM ACTUAL PRODUCTS.

BEC MX-241NP

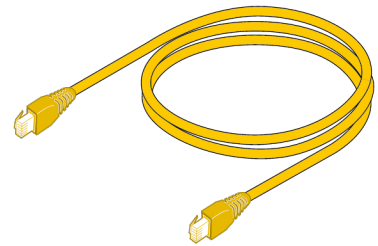


Quick Start Guide

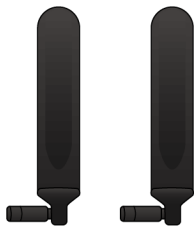
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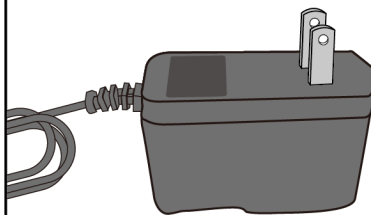
RJ-45 Ethernet cable



4G/LTE Antennas



Power Adapter



Gigabit PoE Intector



Sold Separately



Warning

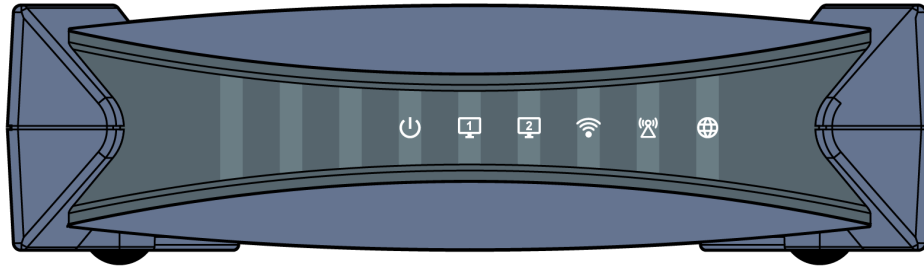
- Do not use the router in high humidity or at high temperature.
- Do not use the same power source for the router as other equipment.
- Do not open or repair the case yourself. If the router is too hot, turn off the power immediately and have it repaired at a qualified service center.
- Avoid using this product and all accessories outdoors.



Attention

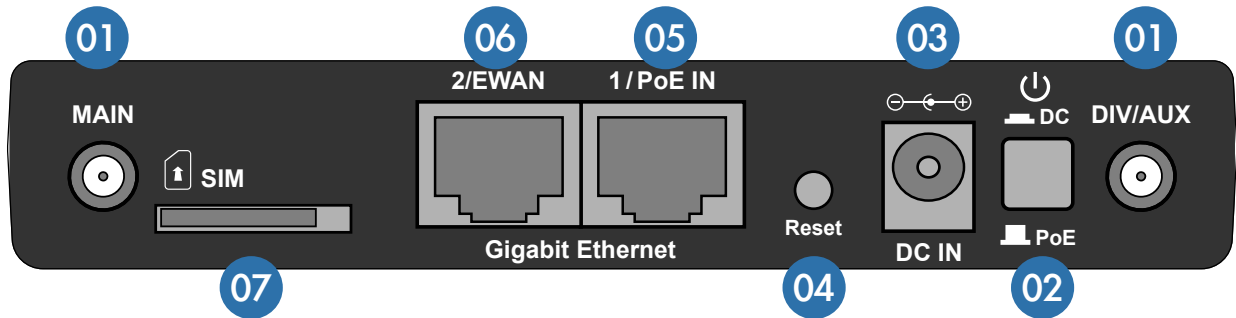
- Place the router on a stable surface.
- Only use the power adapter that comes with the package. Using a different voltage rating power adapter may damage the router.

Front Panel LEDs



LED	STATUS	DESCRIPTION
Power 	Green	System is up and ready
	Red	Boot failure
Ethernet Port LAN 1 - 2	Green	Transmission speed is at Gigabit speed (1000Mbps)
	Orange	Transmission speed is at 10/100Mbps
	Blinking	Data being transmitted/received
Wireless 	Green	Wireless connection established
	Green blinking	Data being transmitted / received
	Orange	WPS configuration is in progress
LTE  (Received Signal Strength Indicator)	Green	RSSI greater than -69 dBm. Excellent signal condition
	Green Flashing quickly	RSSI from -81 to -69 dBm. Good signal condition
	Orange Flashing quickly	RSSI from -99 to -81 dBm. Fair signal condition.
	Orange Flashing slowly	RSSI less than -99 dBm. Poor signal condition.
	Orange	No signal and the cellular module is in service
	Off	No LTE module or LTE module fails
	Green & Orange	MX-241NP is either in debug mode or in upgrading firmware process
Internet 	Green	IP address has received; traffic is passing thru the device.
	Red	IP address request has failed.
	Off	MX-241NP is either in bridged mode or WAN connection not ready.

Rear Panel Connectors

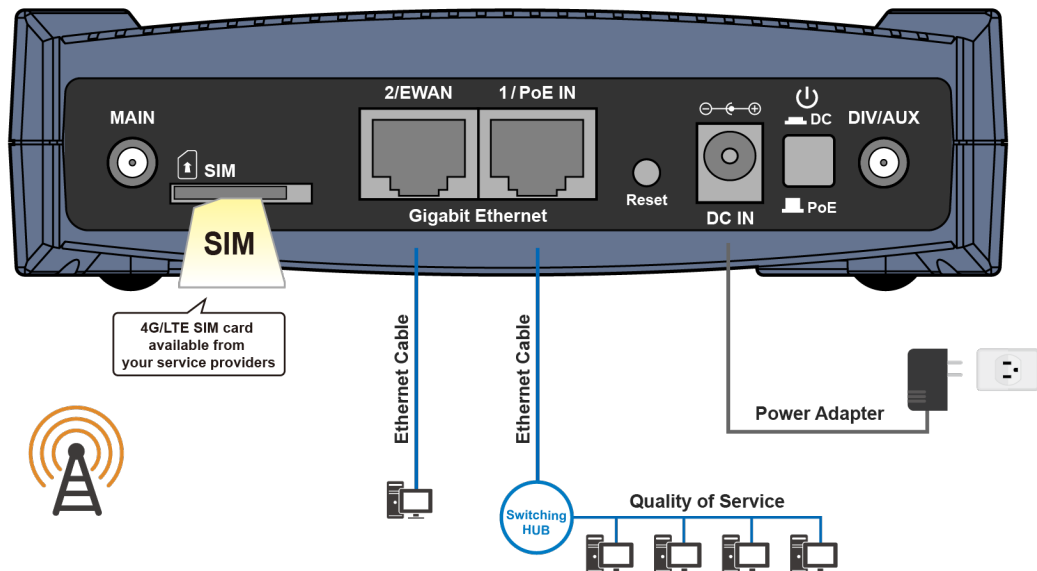


INTERFACE		MEANING
1	4G/LTE Antenna Connectors (Main/Aux)	SMA female connectors. Manually screw the cellular antennas tight to the female connectors. Connect to Main if decide to use single antenna instead of two.
2	Power Source	Power ON/OFF switch (1) with Power Switch ON: power up by the supplied DC power adapter (2) with Power Switch OFF: power up by the PoE Injector unit
3	Power Jack (DC IN)	Connect the supplied Power Adapter to this jack.
4	Reset	After the device is powered on, press it 6 seconds or above : to restore to factory default settings (this is used when you cannot login to the router, e.g. forgot your password)
5	Gigabit Ethernet (LAN 1 / PoE)	Ethernet LAN: Connected to a 10/100/1000Mbps Ethernet device Ethernet PoE: Connect to an 802.3at Gb PoE injector to provide power to the MX-241NP
6	Gigabit Ethernet (LAN 2 / EWAN)	Ethernet LAN: Connected to a 10/100/1000Mbps Ethernet device Ethernet WAN: Software configurable in the GUI. Connect to a broadband device such as a cable modem, ADSL/VDSL modem or fiber modem.
7	SIM Card Slot	Insert the mini SIM card (2FF) with the gold contact facing down. Push the mini-SIM card (2FF) inwards to eject it <i>* Power off the MX-241NP before inserting or removing the SIM card(s)</i>



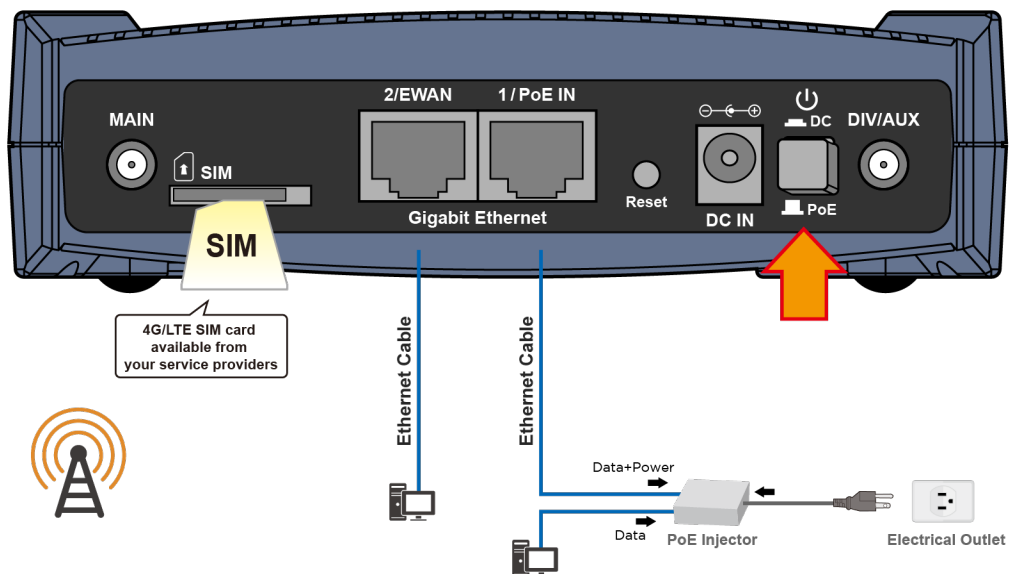
Hardware Connection

- I. **WAN:** 4G/LTE | Power Source: DC Power (ON) | **LAN:** Ethernet Devices



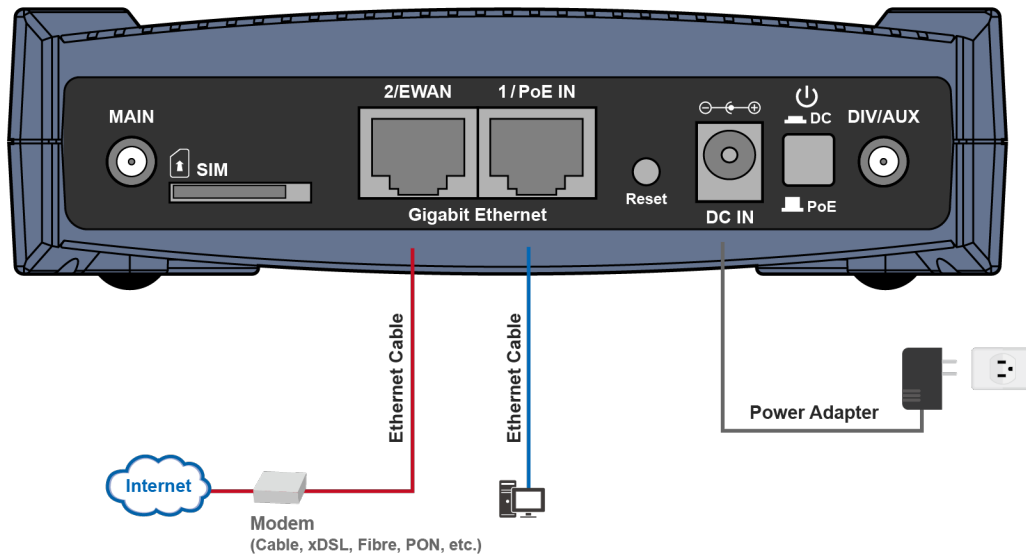
- II. **WAN:** 4G/LTE | Power Source: PoE Injector (OFF).

LAN1: Connect to the PoE injector | **LAN2:** Ethernet Device (notebook, switch, etc.)



III. **WAN:** Ethernet WAN (LAN2) | Power Source: DC Power Adapter (ON).

LAN1: Ethernet Device (notebook, switch, etc.) | LAN2: Wireline Modem



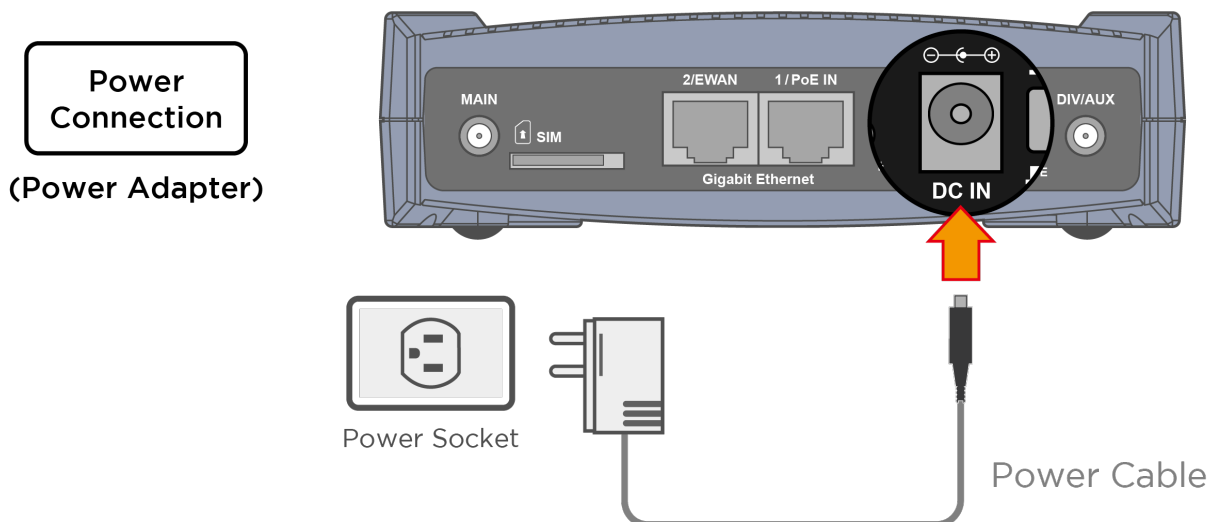
Hardware Installation

1. Power Connection

Select power source from using a (1) DC power adapter or (2) PoE Injector

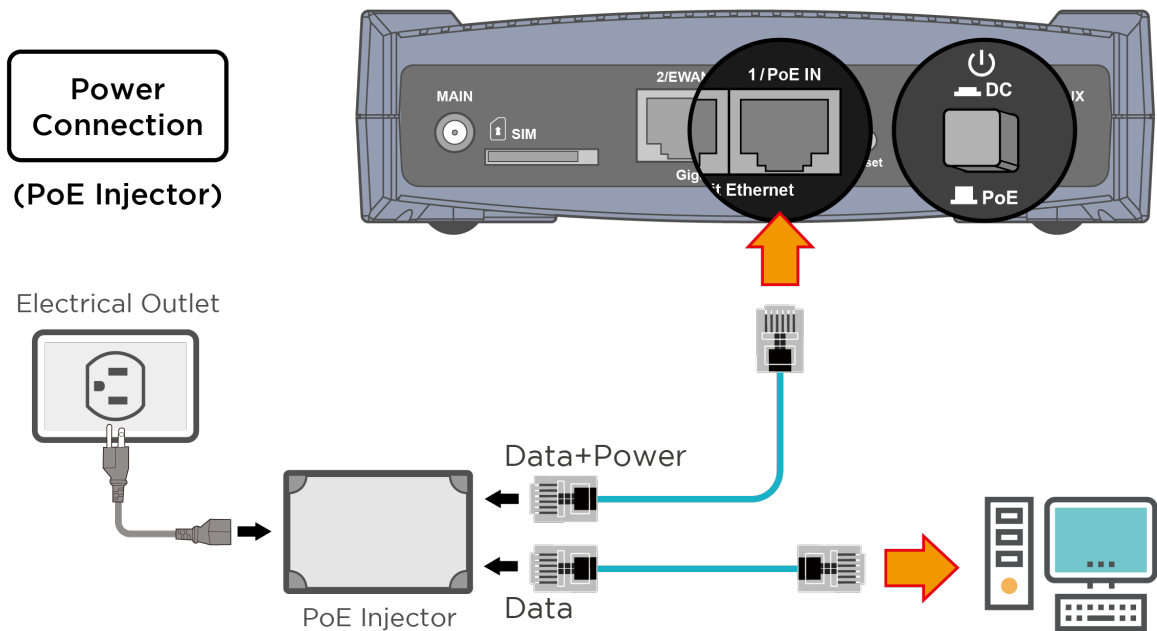
1.1 Using the Supplied DC Power Adapter

Plug in the supplied power adapter to the wall jack, the other side to the MX-241NP then power it **ON** the by pressing the Power On/Off button.



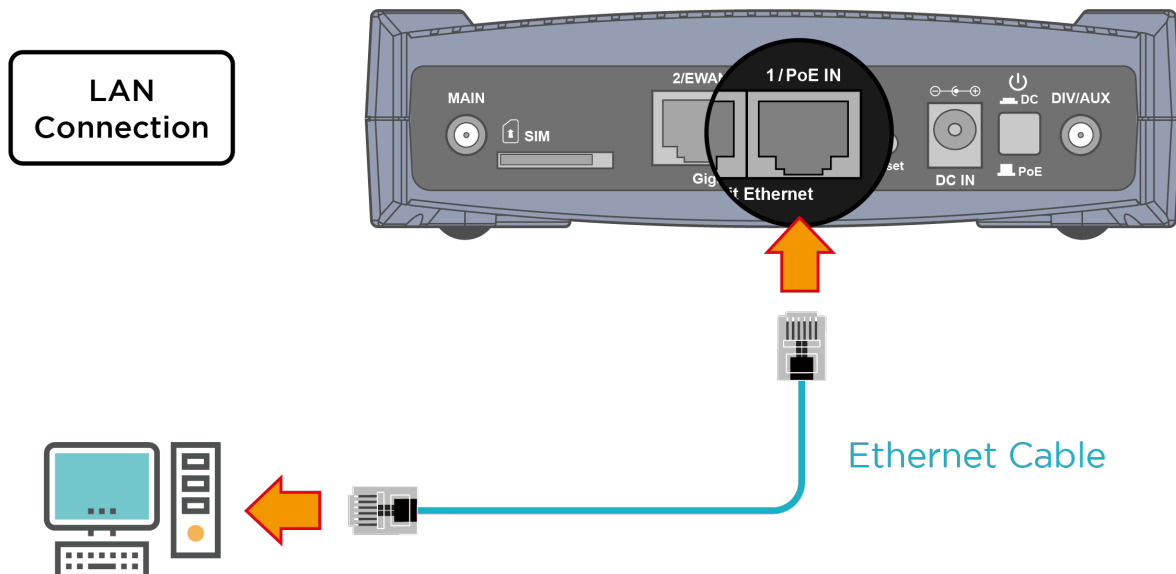
1.2 Using a PoE Injector

Power **OFF** the power source button then plug an Ethernet cable (RJ-45) to the **LAN 1/PoE IN** port and the other end of the cable directly to the **Data+Power** of the PoE injector.



2. LAN Connection

Plug the RJ-45 Ethernet cable to one of the Ethernet ports, and the other side to the PC's Ethernet interface.

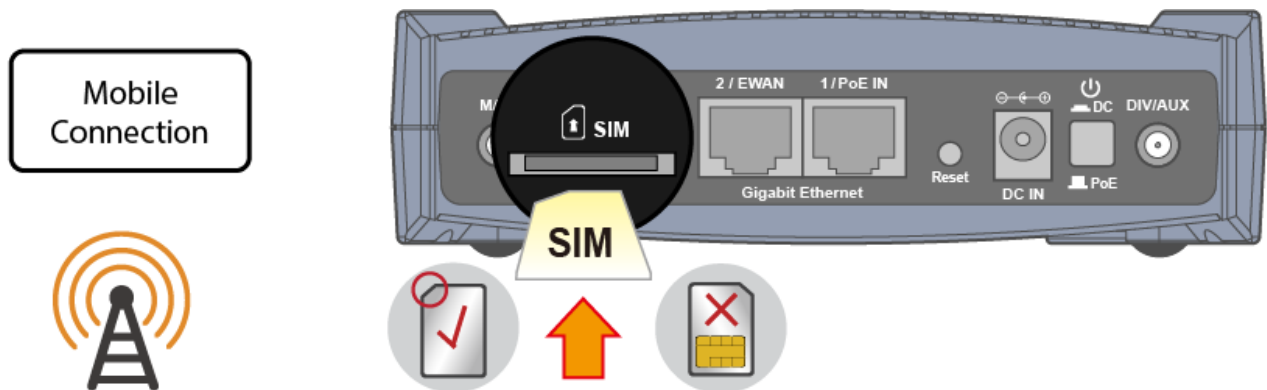


3. WAN Link Interface and Connection

BEC MX-241NP supports failover and failback on dual WAN interfaces, 4G/LTE and ETH WAN. <Please refer to User Manual for detailed Internet setup>

3.1 Mobile 4G/LTE Connection

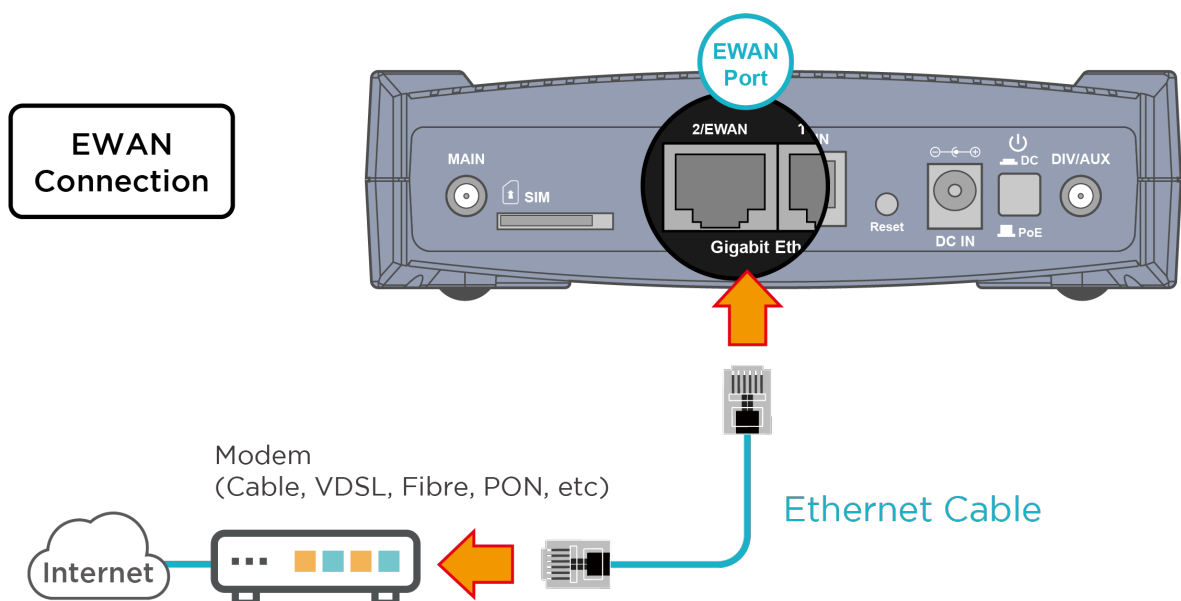
Slide the SIM card into the card slot of the device with the gold contact facing down. Make sure that the SIM card has been slid into the bottom of the slot with a click. When removing the SIM card, press the SIM card again it will be ejected from the card slot.



WARNING: Please power off the device before inserting or removing the SIM card.

3.2 Ethernet WAN Connection

Connect RJ-45 Ethernet cable to the **EWAN port**, and connect the other side to another alternative broadband device, such as Cable Modem, VDSL, Fiber Modem or PON optic lines.



Connecting to the Router

The default IP of modem is **192.168.1.254** with subnet 255.255.255.0. Make sure the attached PC to this router is in the same subnet and has an IP address in the range between 192.168.1.1 ~ 192.168.1.253.

Open a web browser and type **http://192.168.1.254** in the URL address bar.

URL Address bar: type
http://192.168.1.254



The login prompt will appear. Input the default username and password.

***This username / password may vary by different Internet Service Providers.**

Quick Setup Your Router

Use the **Quick Start** for fast connection setup.

Wired Broadband Connection - before start configuring the MX-241NP, make sure you have the LAN2/EWAN port connect to your Internet box or fiber line.

Step 1: Change administration password

Setup a new password for “admin” account for device management. The default password is “admin”. Click Continue to go on to the next step.

***The password may vary by different Internet Service Providers.**

New Password: assign a new, **unique password**

Confirm Password: re-enter the new password again

Next Step: click **Next**

Step 2: Time Zone configuration

Enable and select your Time Zone then click Continue to go on to the next step.

Time Zone: select your **time zone**

Next Step: click **Next**

Step 3: Setup Wireless Connection

Access Point: select **Activated**

SSID: Assign a **unique name**

Channel: pick from **1~11**

Security Type: select a mode

- **Disable (No security)**
- **WPA**
- **WPA2 (Most secure one)**
- **WPA / WPA2 (auto detect WPA mode with wireless clients)**
- **WEP (Less secure one)**

Pre-Shared Key: key for wireless authentication

- **WPA / WPA2 Share Key:** Assign a key between 8 ~ 63 characters.
- **WEP:** select **Open System**, use default WEP Key 1 then assign **26 Hex** codes

Next Step: click **Next**

Quick Start - Wireless

Configure your wireless network, authentication type and click NEX

Access Point	☒ Activated ☐ Deactivated
SSID	BEC345
Broadcast SSID	☒ Yes ☐ No
Channel	UNITED STATES ▼ 11 ▼
Security Type	Mixed WPA2/WPA-PSK ▼
WPA Algorithms	AES ▼
Pre-Shared Key	1234567890
Key Renewal Interval	600 seconds (10 ~ 4194303)

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Step 4: WAN / Internet Connection Setup

Select the appropriate WAN protocol then fill out the information provided by your ISP in all relevant parameters.

4.1 WAN Interface: 4G/LTE

Quick Start

Quick Start - ISP Connection Type

Select the WAN Interface and Internet Connection Type to connect to your ISP. Click **NEXT** to continue.

WAN Interface	4G/LTE ▼
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4.2 LTE carrier setting. Input all relevant 4G/LTE parameters that are provided by Your carrier or ISP. If no settings are provided, you can leave as is. In this example we use Verizon and it only require APN in the setting.

Quick Start

Quick Start - 4G/LTE

The settings may be vary by carrier and plan. Enter the settings provide by your carrier and click **NEXT** to continue.

TEL No.	*99***1#
APN	vzwinternet
Authentication Protocol	Disable
Username	
Password	
PIN	
Keep Alive	☐ Yes ☒ No
MTU	1428 (0 means use default: 1500)

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Next

Step 5: Save Confirmation Settings

Click "Next" to save and complete the Quick Setup. You should now be able to access to the Internet.

Please see the relevant sections of User Manual for detailed information.

Trouble Shooting

1. None of the LEDs are on when you turn on the router.

Check the connection between the adapter and the router. If the error persists, you may have a hardware problem. In this case you should contact technical support.

2. You have forgotten your router login and/or password.

Try the default login and password, please refer to User Manual. If this fails, you can restore your router to its factory settings by holding the Reset button on the back of your router for 6 seconds or more.

3. Can't ping any PCs on the LAN.

Check the Ethernet LEDs on the front panel. The LED should be on for a port that has a PC connected. If it is off, check the cables between your router and the PC. Make sure you have uninstalled any software firewall for troubleshooting. Verify that the IP address and the subnet mask are consistent between the router and the workstations.

Product Support and Contact Information

Most problems can be solved by referring to the **Troubleshooting** section in the User Manual. If you have other inquiries or need further technical support, please contact with your Internet Service Provider or visit us at www.bectechnologies.net.

FCC Statement

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.

FCC Caution:

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
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

