

# **BiPAC 7820NZ**

**3G/4G LTE Embedded with  
Dual-SIM Slots ADSL2+  
Wireless-N VPN Firewall Router**

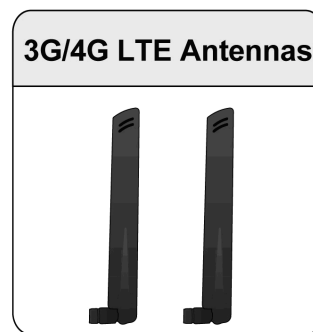
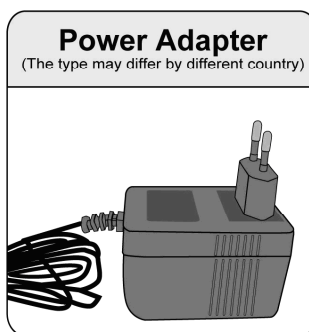
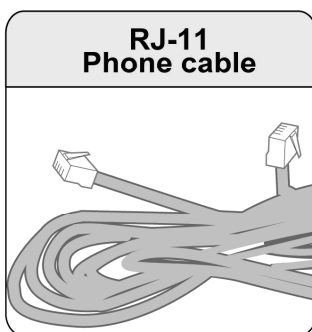
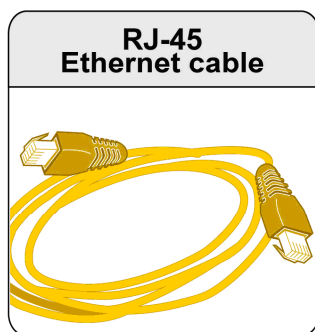
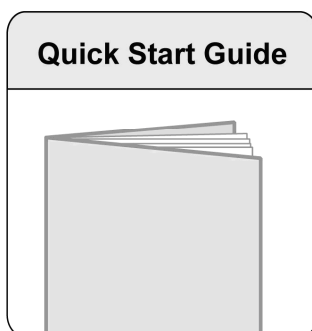
**Quick Start Guide**



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 USER MANUAL ON CD-ROM.

## Package Contents

- BiPAC 7820NZ 3G/4G LTE Embedded with Dual-SIM Slots ADSL2+ Wireless-N Router
- CD containing the on-line manual
- RJ-11 ADSL/ telephone cable
- Ethernet (RJ-45) cable
- Two detachable antennas for 3G/4G LTE mode / one detachable antenna for 3G mode
- Power adapter
- Quick Start Guide
- Splitter/ Micro-filter (Optional)



### Warning

- Do not use the router in high humidity or high temperatures.
- 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.

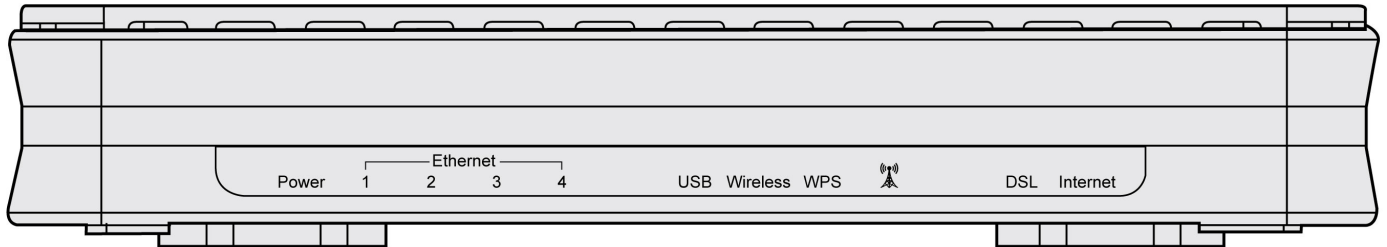



### Attention

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

## Hardware Overview

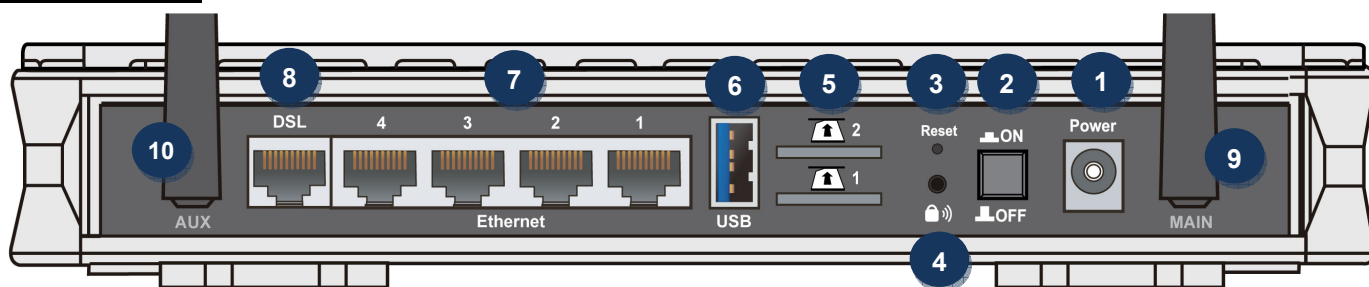
### The Front LEDs



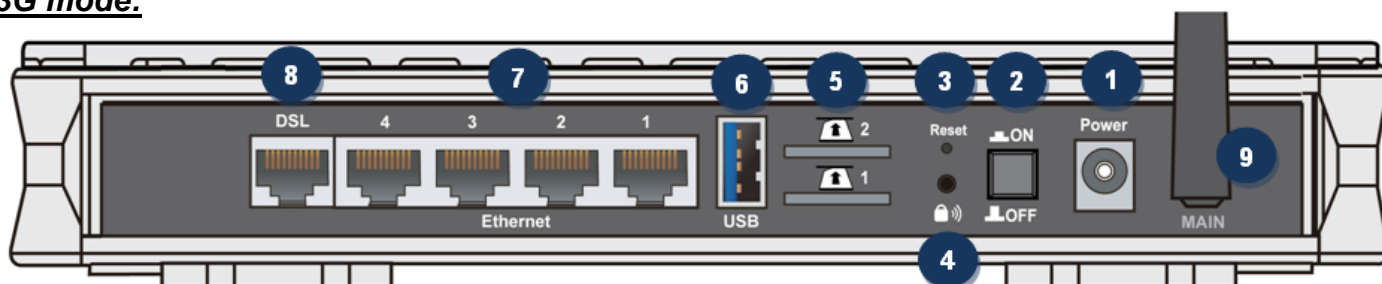
| LED  | STATUS                | DESCRIPTION  |
|--|-----------------------|--|
| <b>Power</b>   | Red                   | Boot failure or in emergency mode.                   |
|  | Green                 | System is up and ready.                              |
| <b>Ethernet<br/>1- 4</b>   | Green                 | Transmission speed is at 10/100Mbps.                 |
|  | Blinking              | Data being transmitted/ received.                    |
| <b>USB</b>   | Green                 | Connecting to a USB dongle or a hard drive.          |
| <b>Wireless</b>  | Green                 | Wireless connection established.                     |
|  | Green Blinking        | Data being transmitted/ received.                    |
| <b>WPS</b>   | Green blinking        | WPS configuration is in progress.                    |
|  | Off                   | WPS process completed or WPS is off.                 |
| <b>3G/ 4G LTE</b><br> | Green                 | 3G/ 4G LTE service is up.                            |
|  | Slow Orange blinking  | Weak 3G/ 4G LTE signal.                              |
|  | Quick Orange blinking | Moderate 3G/ 4G LTE signal.                          |
|  | Solid Orange          | Strong 3G/4G LTE signal.                             |
| <b>DSL</b>   | Green blinking        | DSL synchronizing or waiting for DSL synchronizing.  |
|  | Green                 | Successfully connected to an ADSL DSLAM (Line Sync). |
|  | Off                   | DSL cable unplugged.                                 |
| <b>Internet</b>  | Green                 | Having obtained an IP address successfully.          |
|  | Off                   | Router in bridge mode or DSL connection not present. |

## Rear Panel Connectors

### 4G LTE mode:



### 3G mode:

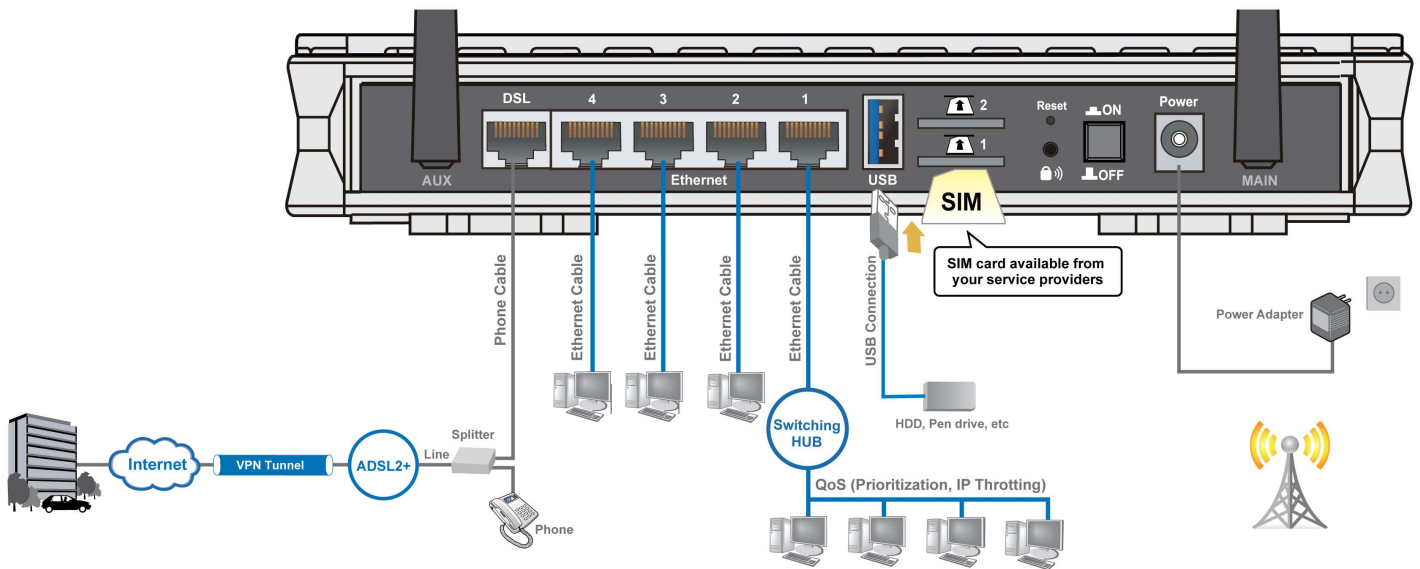


| PORT |                                | MEANING   |
|------|--------------------------------|---|
| 1    | <b>Power</b>                   | Connect the supplied Power Adapter to this jack.  |
| 2    | <b>Power Switch</b>            | Power ON / OFF switch.  |
| 3    | <b>Reset</b>                   | After the device is powered on, press it <b>5 seconds or above</b> : to restore to factory default settings (this is used when you cannot login to the router, e.g. forgot the password)  |
| 4    | <b>WPS</b><br>🔒📶               | By controlling the pressing time, user can achieve two different effects:<br><b>(1) <u>WPS</u></b> : Press & hold the button for <b>less than 2 seconds</b> to trigger WPS function.<br><b>(2) <u>Wireless ON/OFF button</u></b> : Press & hold the button for <b>more than 5 seconds</b> to On/Off the wireless.<br><b><u>Note: For WPS configuration, please refer to the WPS section in the User Manual.</u></b> |
| 5    | <b>SIM card slots</b>          | BiPAC 7820NZ provides dual-SIM failover mobile connection with two embedded SIM slots. Please plug SIM card into the slot.  |
| 6    | <b>USB</b>                     | Connect an external USB dongle or a hard drive.   |
| 7    | <b>Ethernet</b>                | Connect a UTP Ethernet cable (Cat-5 or Cat-5e) to one of the four LAN ports when connecting to a PC or an office/ home network of 10Mbps /100Mbps.<br><b><u>Note: Port #4 can be configured as a WAN Interface for Broadband connectivity.</u></b>  |
| 8    | <b>DSL</b>                     | Connect this port to the DSL network with the RJ-11 cable (telephone) provided.   |
| 9    | <b>Antenna<br/>(MAIN; AUX)</b> | <b>MAIN Jack:</b> For 3G mode and 4G LTE mode, screw the supplied antenna onto the MAIN antenna connector.<br><b>AUX Jack:</b> Only for 4G LTE mode, screw the supplied antenna onto the AUX antenna connector.<br><b><u>Note: 3G model comes with 1 antenna (MAIN) and 4G LTE model comes with 2 antennas (MAIN &amp; AUX).</u></b>  |
| 10   |                                |   |

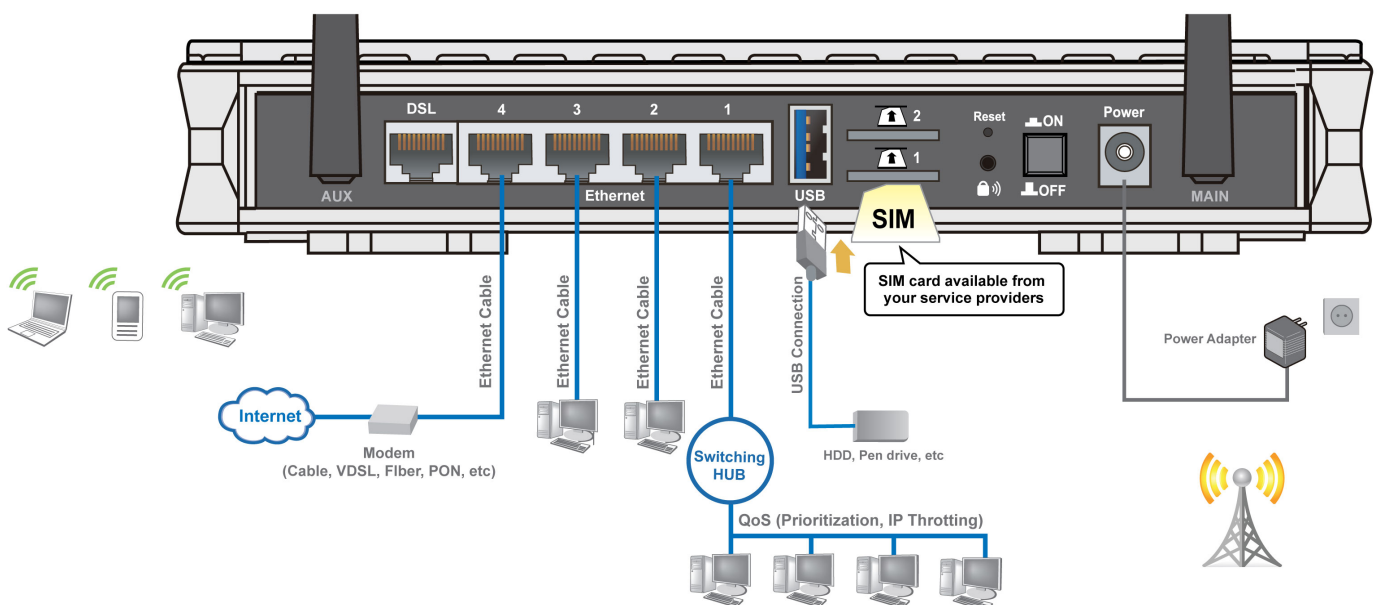
## Hardware Connection

BiPAC 7820NZ offers four modes to connect to the internet. Besides using ADSL, users can set EWAN (Ethernet port # 4) or 3G/4G LTE for internet connection. BiPAC 7820NZ also allows Dual WAN connection: ADSL fail-over to 3G/4G LTE, EWAN fail-over to 3G/4G LTE, ADSL fail-over to EWAN, 3G/4G LTE fail-over to the 3G/4G LTE, and counter likewise.

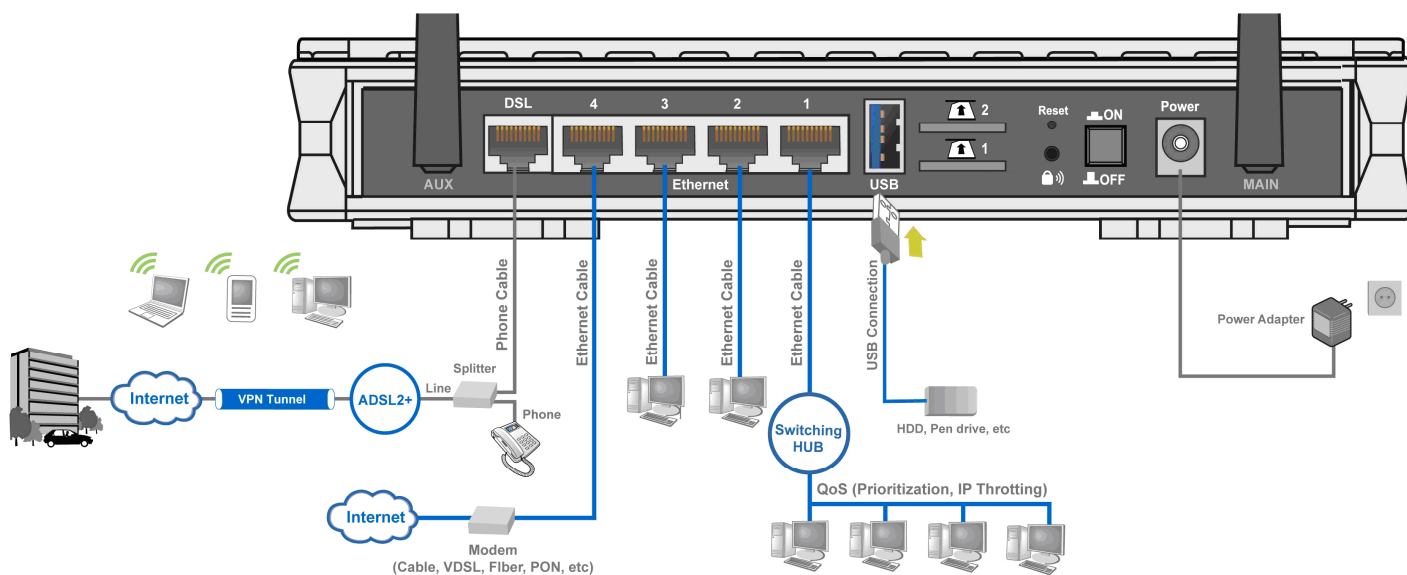
### ADSL fail-over to 3G/4G LTE



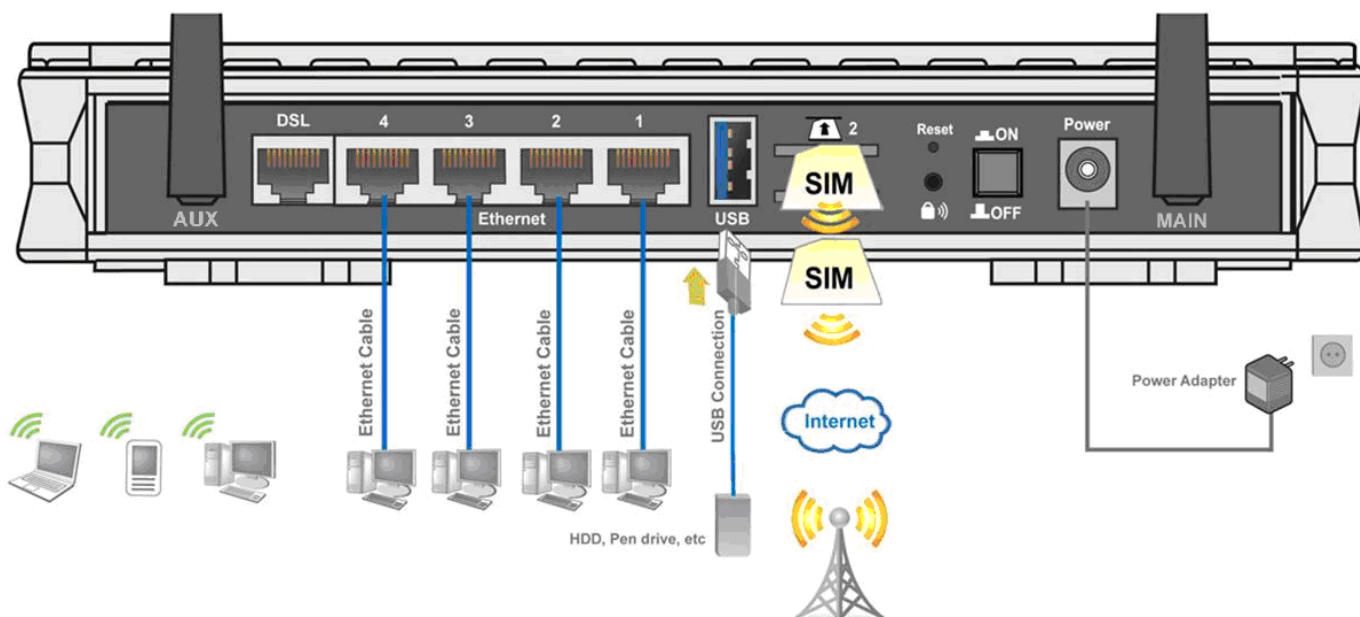
### Broadband (EWAN) fail-over to 3G/4G LTE



## ADSL fail-over to EWAN



## 3G/4G LTE fail-over to the 3G/4G LTE



## Hardware Installation

### 1. 3G/ 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. Dual-SIM card slots enable users to enjoy constant and seamless Internet experience by simply plugging 3G/4G LTE SIM cards into its built-in SIM slots without the needs of additional 3G/4G LTE USB modems. One SIM card is active and the other is backup.



**Attention**

Connect the detachable 3G or 4G LTE antennas to the jack (MAIN or MAIN and AUX) on the back of device as it shows as above. Making sure they are firmly screwed in.

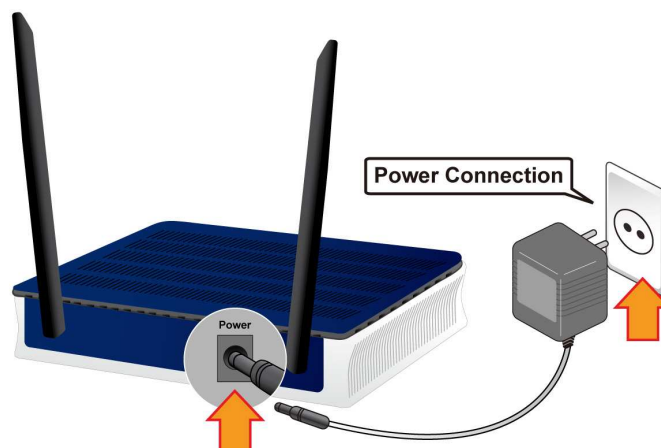


**Warning**

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

### 2. Power Connection

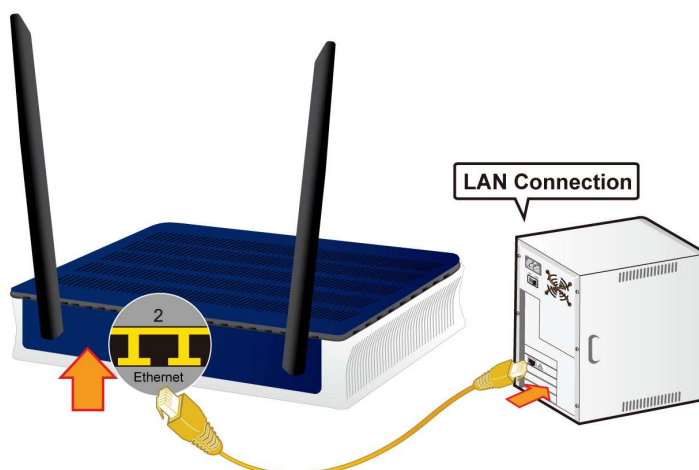
Plug in the supplied power adapter to the wall jack, the other side to the router then power it by pressing the Power On/Off button. Please note that the plug type may differ according to country. Please make sure when press Power Switch the front LEDs will be lit or off.





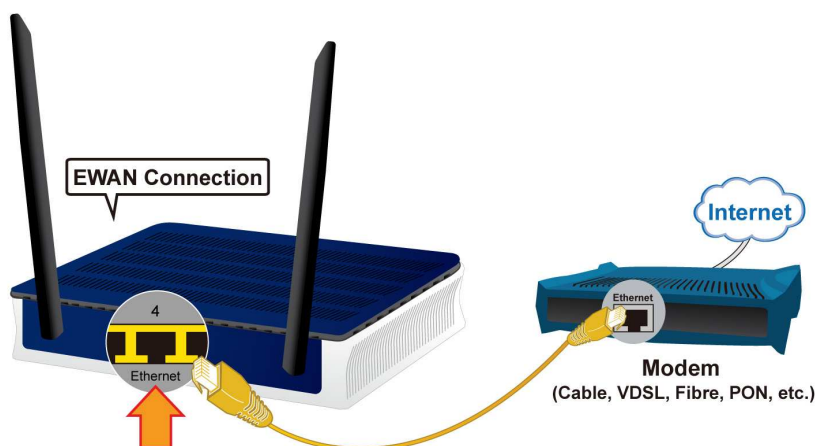
### 3. LAN Connection

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



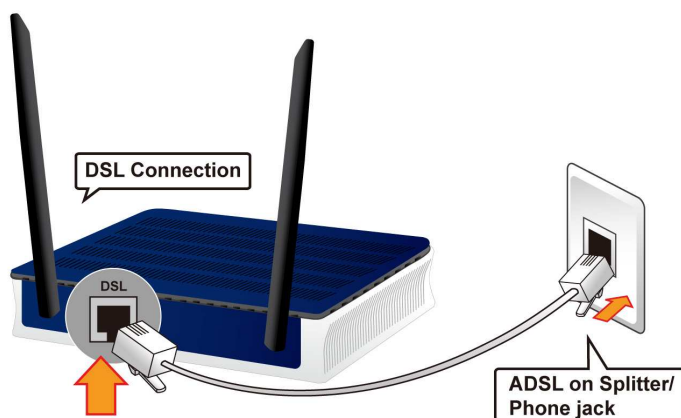
### 4. EWAN Connection

Connect RJ-45 Ethernet cable to the **Ethernet port # 4 (EWAN)**, and connect the other side to another alternative broadband device, such as Cable Modem, VDSL, Fibre Modem or PON optic lines. < Please refer to User Manual for detailed instruction. >



### 5. ADSL Connection

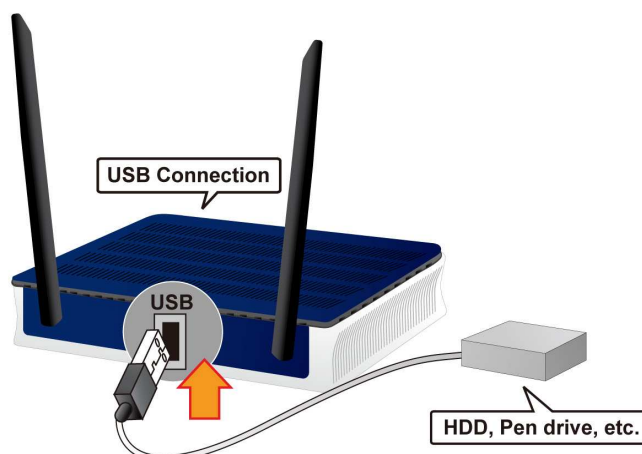
Connect the supplied RJ-11 phone cable to the router's DSL port, and the other side to the phone jack on the wall.





## 6. USB Connection

FTP or Samba Server attached to the USB port. Simply plug in an external USB HD and do a setup in the GUI. **<Please refer to User Manual for detailed instruction.>**

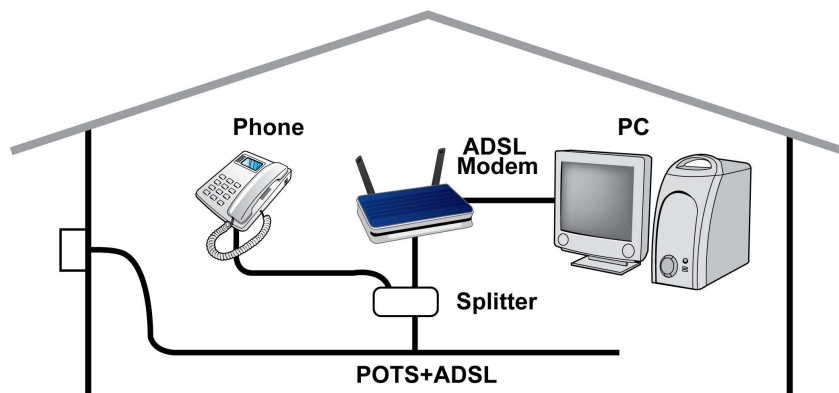


## 7. Splitter/ Micro-filter Connection

Splitter/Micro-filters are important for ADSL installation, they help ensure that high-frequency signals are directed to the ADSL modem, and low-frequency signals are directed to the telephone or other analog voice-channel device to prevent inter-modulation distortion and get good speeds and stable ADSL sync rate.

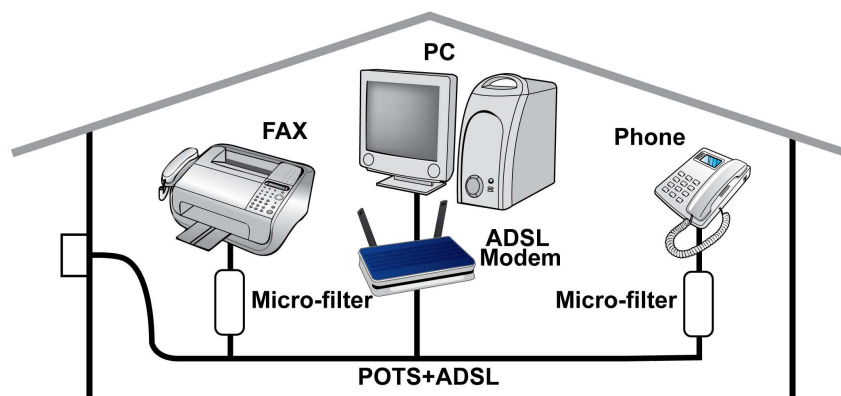
### a) Splitter connection

If the installation has only a single telephone and a single ADSL modem, then a splitter can be employed.



### b) Micro-filter connection

If the installation has several telephones or other analog devices then an internal micro-filter can be employed at each analog device.



## Connecting to the Router

1. Open the web browser and type **<http://192.168.1.254>** in the browser's address box. This number is the default IP address for this router. Press **Enter**.
2. A username and password window will appear. **The default username is “admin”, and password is “admin”**. Press **OK** to proceed.
3. You will get a status report web page and main menu screen.

**Please see the relevant sections of user manual for detailed instructions on how to configure your router.**

## Troubleshooting

1. **None of the LEDs are on when you turn on the router.**  
Check the connection between the adaptor and the router. If the error persists, you may have a hardware problem. In this case you should contact technical support.
2. **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.
3. **Frequent loss of ADSL line sync (disconnections).**  
Ensure that all other devices connected to the same telephone line as your router (e.g. telephones, fax machines, analogue modems) have a line filter connected between them and the wall socket (unless you are using a Central Splitter or Central Filter installed by a qualified and licensed electrician), and ensure that all line filters are correctly installed and the right way around. Missing line filters or line filters installed the wrong way around can cause problems with your ADSL connection, including causing frequent disconnections. If you have a back-to-base alarm system you should contact your security provider for a technician to make any necessary changes.
4. **Either 3G/4G LTE or wireless performance is limited.**  
Make sure you install the right antennas on the right jacks as mentioned in the package contents, hardware overview and hardware installation. If it remains occur, please refer to User manual or consult your service provider.

## Product Support and Contact Information

Most problems can be solved by referring to the **Troubleshooting** section in the User Manual. If you cannot resolve the problem with the **Troubleshooting** chapter, please contact the dealer where you purchased this product.

### Contact Billion

#### WORLDWIDE

<http://www.billion.com>