



**BEC 9900VA**  
**Active Ethernet Fiber**  
**802.11ac Gateway with VoIP**

**Quick Start Guide**

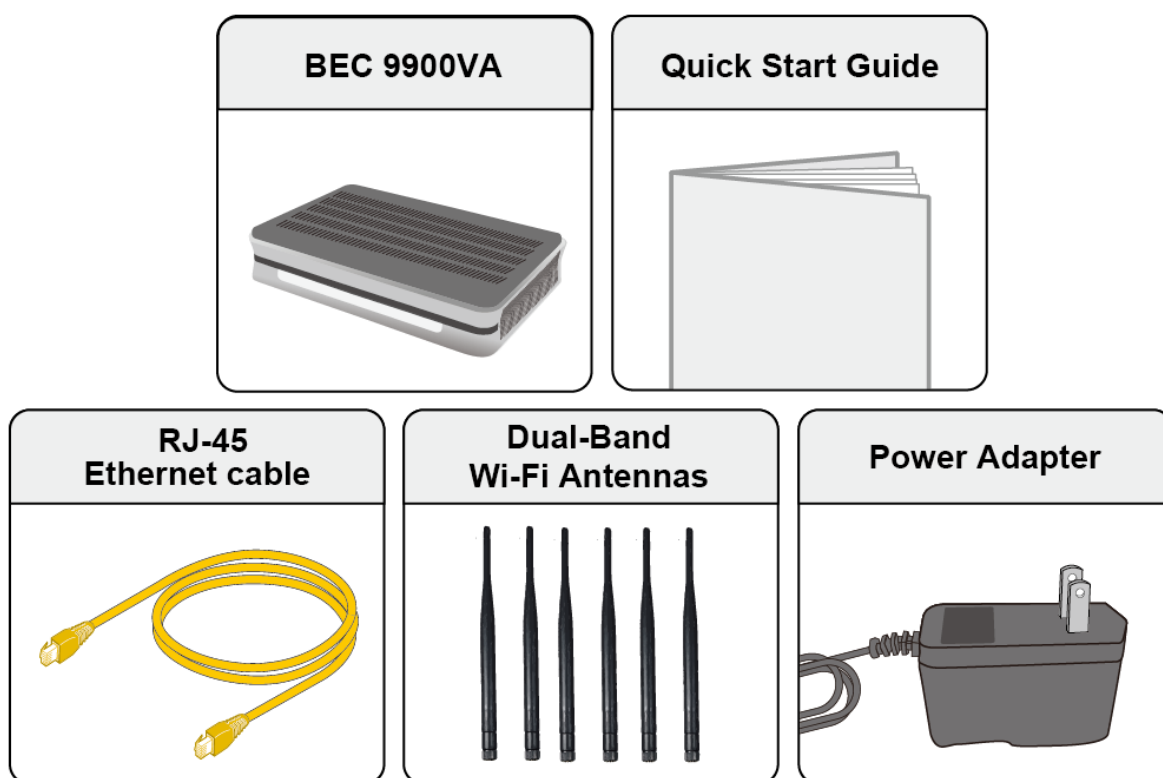




PLEASE READ THE QUICK START GUIDE AND FOLLOW THE STEPS CAREFULLY. THIS QUICK START GUIDE WILL HELP YOU INSTALL THE DEVICE PROPERLY AND AVOID IMPROPER USAGE. IF YOU NEED MORE INFORMATION ON THIS SOFTWARE CONFIGURATION, PLEASE REFER TO THE ONLINE USER MANUAL.

## Package Contents

- ✓ BEC 9900VA Active Ethernet Router \* 1
- ✓ This Quick Start Guide \* 1
- ✓ RJ-45 Ethernet Cable \* 1
- ✓ Dual-Band Wireless Antenna \* 6
- ✓ DC Power Adapter \* 1



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



Warning

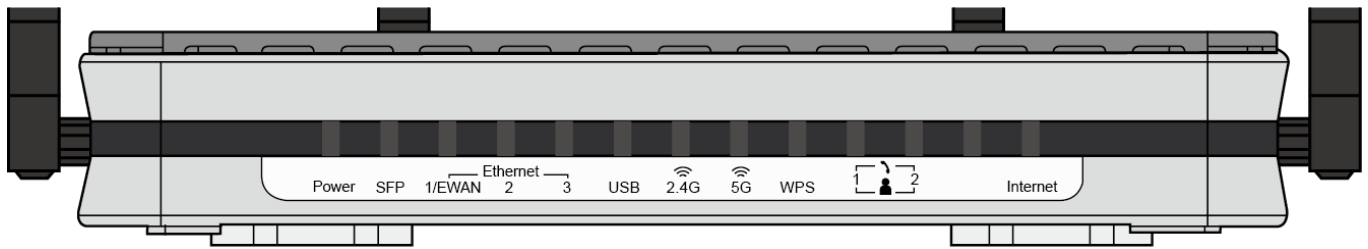
- Do not use the router in high humidity or at high temperature.
- Do not use the same power source for the router as other equipment.
- Do not open or repair the case yourself. If the router is too hot, turn off the power immediately and have it repaired at a qualified service center.
- Avoid using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



Attention

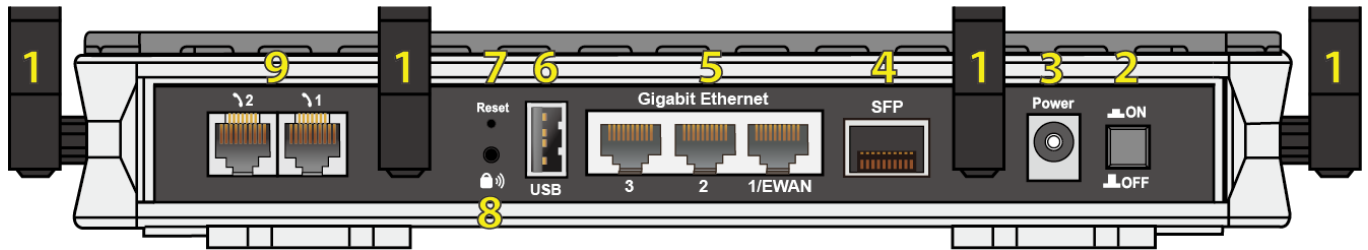
- Place the router on a stable surface.
- Only use the power adapter that comes with the package. Using a different voltage rating power adapter may damage the router.


## Front Panel LEDs



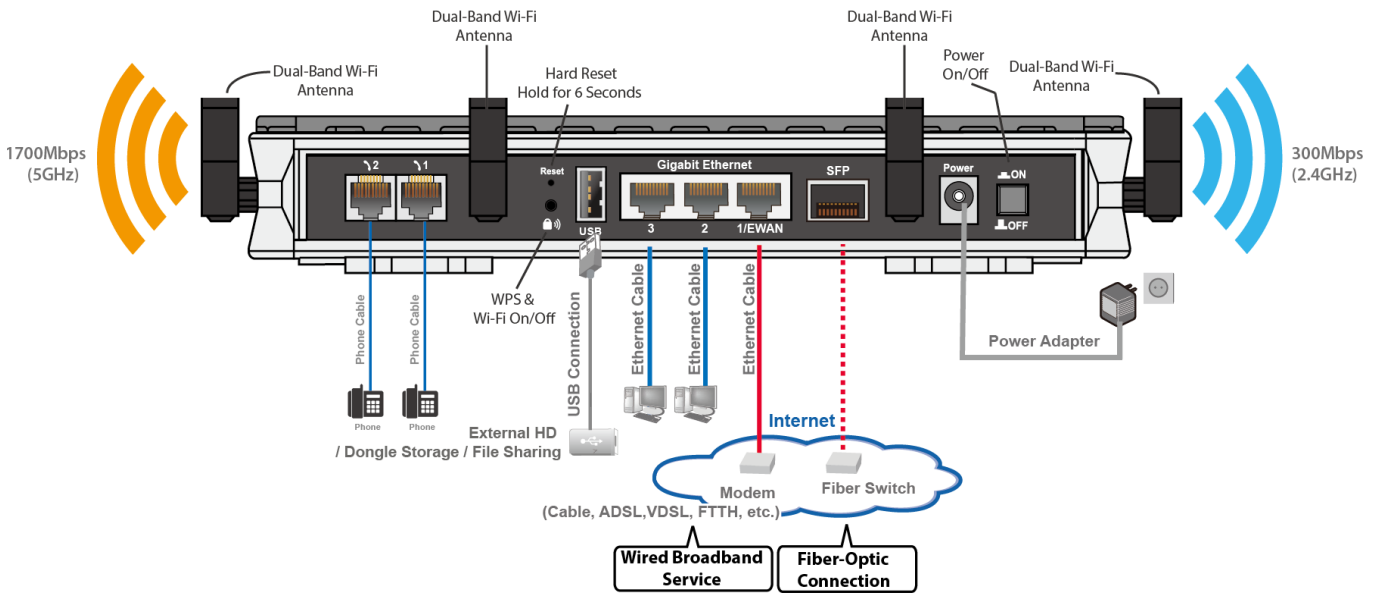
LED	STATUS	DESCRIPTION
Power	Green	System is up and ready
	Red	System failure
SFP	Green	SFP fiber connection is ready
Gigabit LAN1 / EWAN	Interchangeable LAN/WAN Ethernet – WAN management & configuration via GUI	
	Green	<b>(Default) Ethernet LAN:</b> Connected with a gigabit Ethernet device. <b>(Configured via GUI) Ethernet WAN:</b> Successfully connected with a broadband device, e.g. ADSL / VDSL / Cable Modem / FTTH router/modem.
	Orange	LAN port is connected with a 10/100Mbps Ethernet device
	Blinking	Data is being transmitted/received
	Off	No device is connected to the Ethernet port
Ethernet Port LAN 2 - 3	Green	Transmission speed is at Gigabit speed (1000Mbps)
	Orange	Transmission speed is at 10/100Mbps
	Blinking	Data is being transmitted/received
USB	Green	Connected with a USB dongle or a hard drive.
Wireless 2.4GHz / 5GHz	Green	Wi-Fi connection is established
	Blinking	Data is being transmitted / received
	Off	Wi-Fi connection is turned off
WPS	Green	Wireless device(s) is connected successfully via WPS mode
	Blinking	WPS is enabled and trying to establish a WPS connection
	Off	WPS is turned off
Phone	Green	Successfully registered and ready to use.
	Orange	Phone is off-hook, in-use.
Internet	Green	IP address has received, and traffic is passing thru the device.
	Red	IP address request has failed.

## Rear Panel Connectors



INTERFACE		MEANING
1	<b>Wi-Fi Antenna Connectors</b>	Female RP-SMA connectors, total of 6. Manually screw the dual-band Wi-Fi antennas tight to each connector.
2	<b>Power</b>	Power on/off button.
3	<b>Power Jack (DC IN)</b>	Connect the supplied power adapter to this jack.
4	<b>SFP</b>	Insert and gently push a 1000Base SFP module until it snaps into the slot tightly.
5	<b>Gigabit Ethernet (LAN 1 - 3)</b>	Connect an Ethernet cable (Cat-5 or Cat-5e) to one of the LAN ports with a 10Mbps /100Mbps /1000Mbps PC or an office/home network device. <b>* 1/EWAN</b> Connect to Fiber/ Cable/ xDSL Modem with a RJ-45 cable for broadband connectivity. <b>Note: LAN 1 automatically becomes an EWAN port when ETH WAN interface is selected and configured in the GUI.</b>
6	<b>USB</b>	Connect with a USB hard drive for storage/file sharing.
7	<b>Reset</b>	After the device is powered on, press it <b>6 seconds or above</b> : to restore to factory default settings (this is used when you cannot login to the router, e.g. forgot your password).
8	 <b>WPS &amp; Wi-Fi On/Off</b>	By controlling the pressing time, users can achieve two different effects: <b>(1) WPS*</b> : Press & hold the button for <b>2 seconds</b> to trigger WPS function. <b>(2) Wireless ON/OFF button</b> : Press & hold the button for <b>more than 6 seconds</b> to turn on/off the wireless. <b>* For WPS configuration, please refer to the WPS section in the User Manual.</b>
9	<b>FXS Ports (1-2)</b>	Connect your analog phone(s) to the FXS port(s) with RJ-11 cable(s).

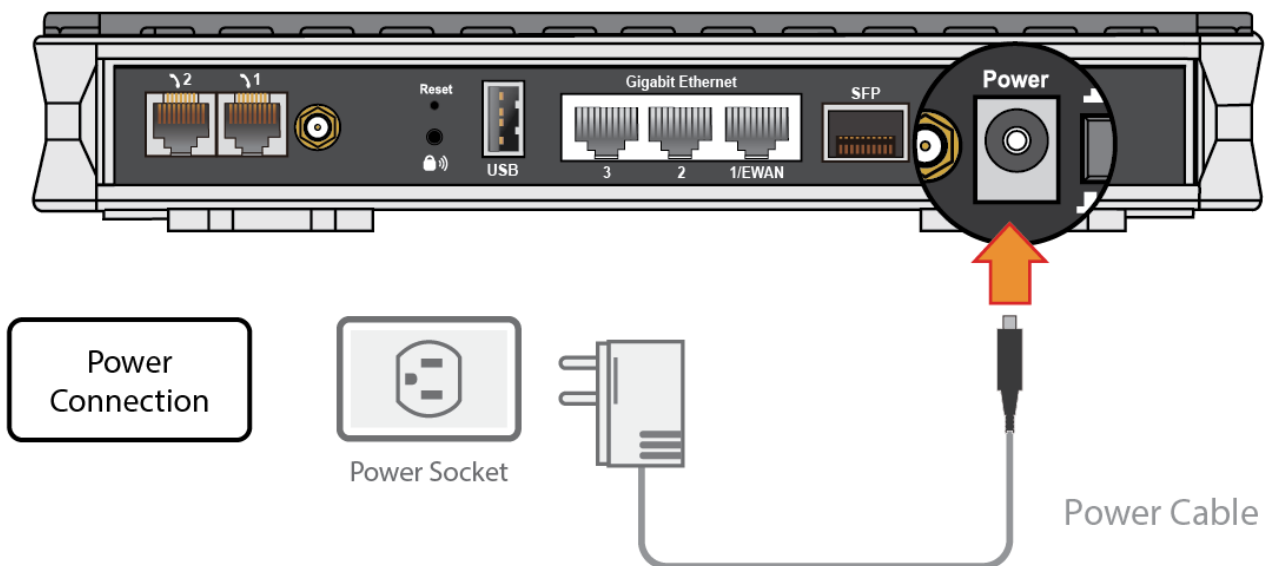
# Application Diagram



# Hardware Installation

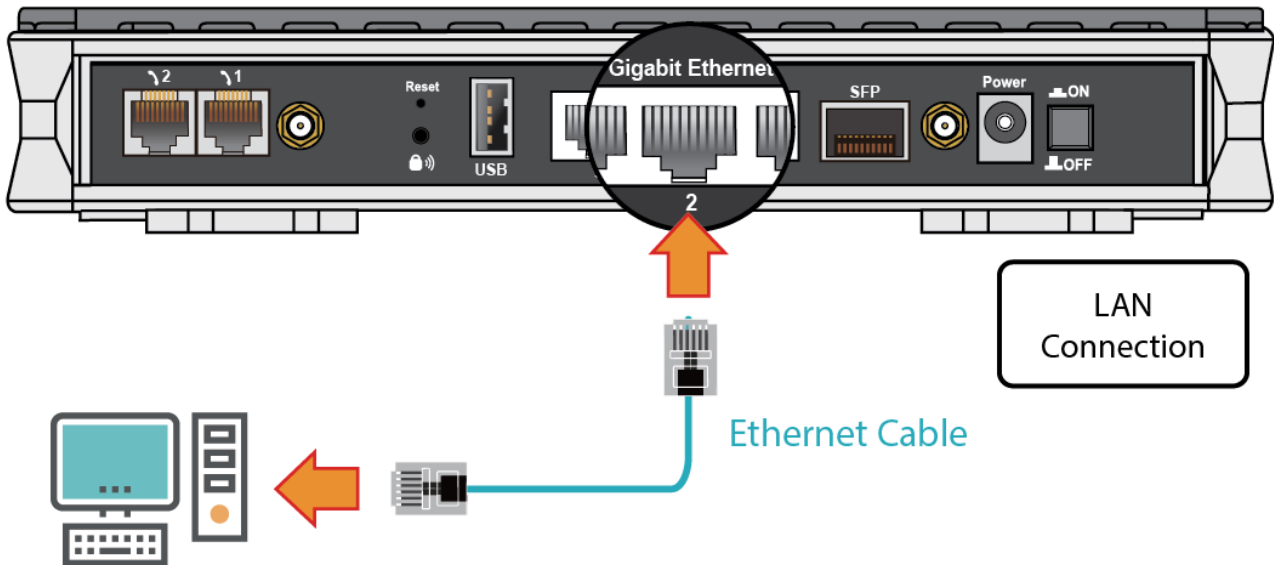
## 1. Power Connection

Plug in the supplied power adapter to the wall jack, the other side to the BEC 9900VA then power it **ON** the by pressing the Power on/off button.



## 2. LAN Connection

Plug the RJ-45 Ethernet cable to one of the Ethernet ports, and the other side to the any network devise's Ethernet port.

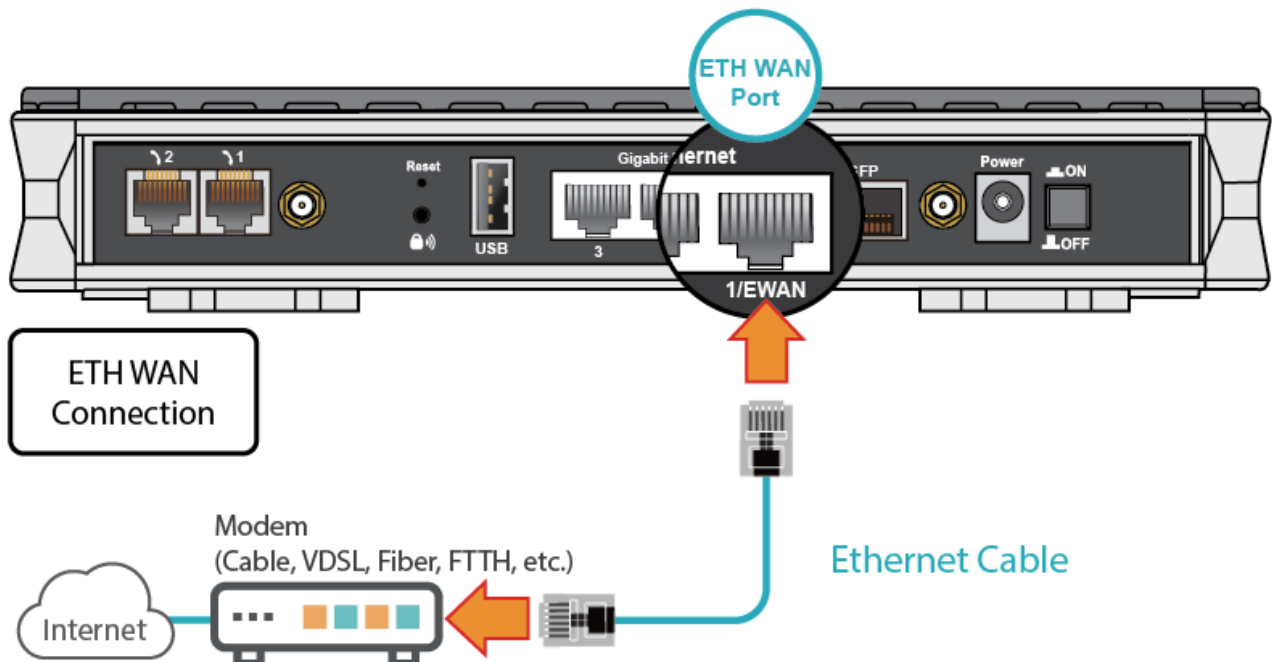


## 3. WAN Link Interface and Connection

BEC 9900VA supports failover and failback to another WAN interface, SFP or Ethernet WAN. <Please refer to user manual for detailed setup>

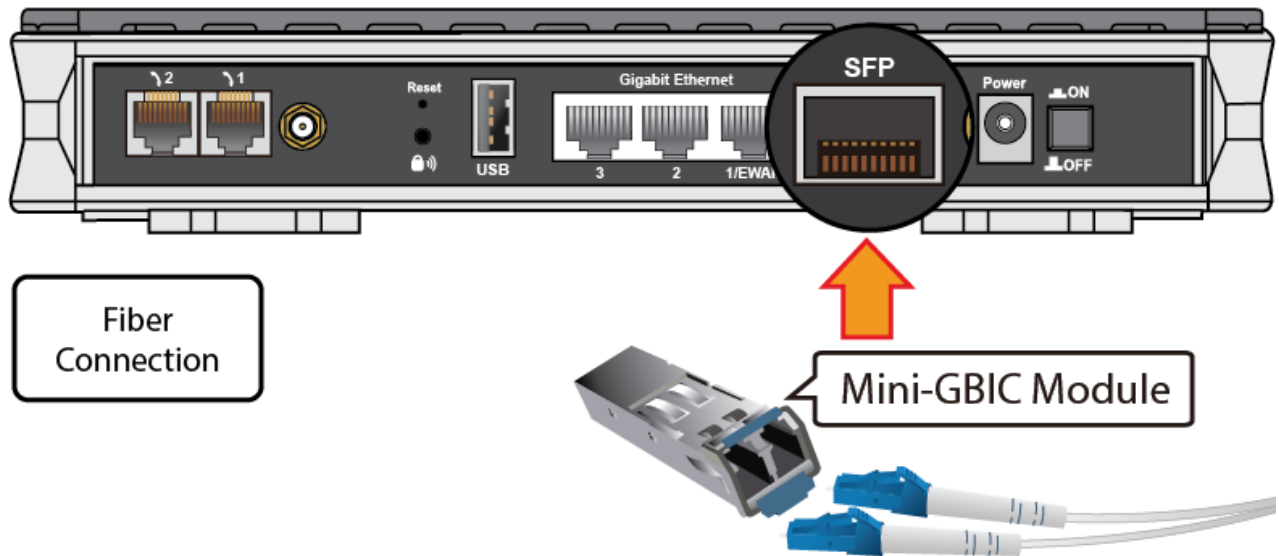
### 3.1 Ethernet WAN Connection

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



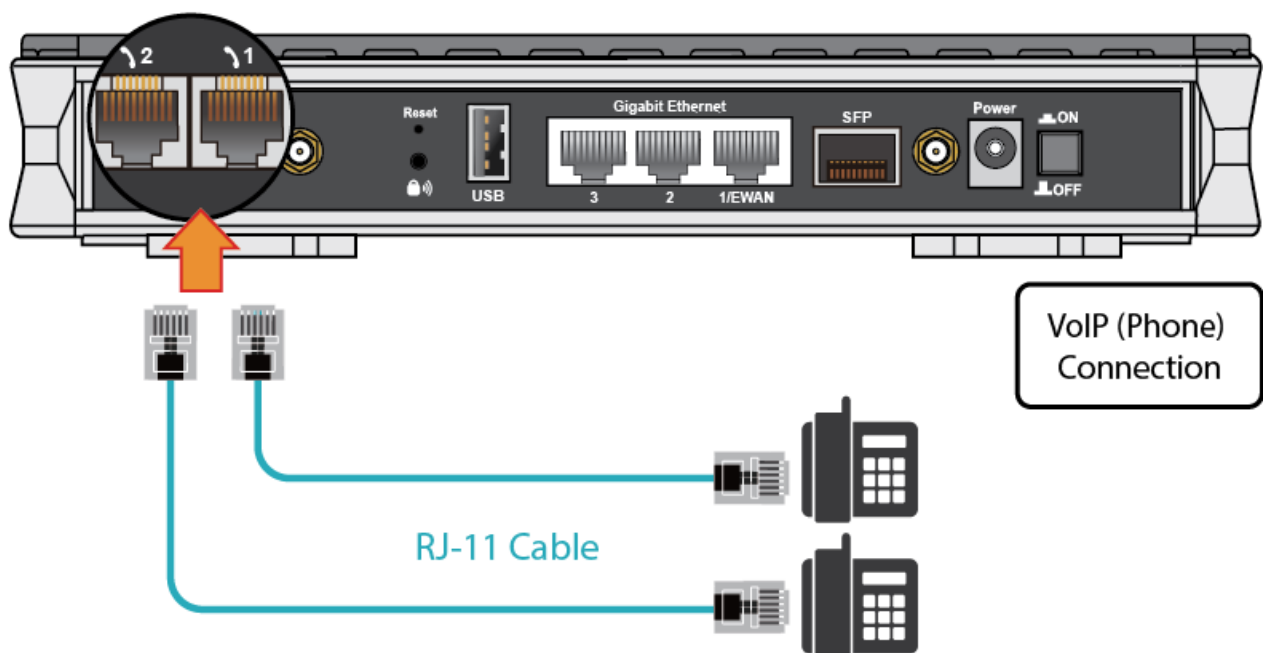
### 3.2 SFP Connection

Insert then gently push the Mini-GBIC SFP module into the **SFP cage** until it is tightly locked to the cage, and then connect the fiber cable to the module.



### 4. Phone Connection

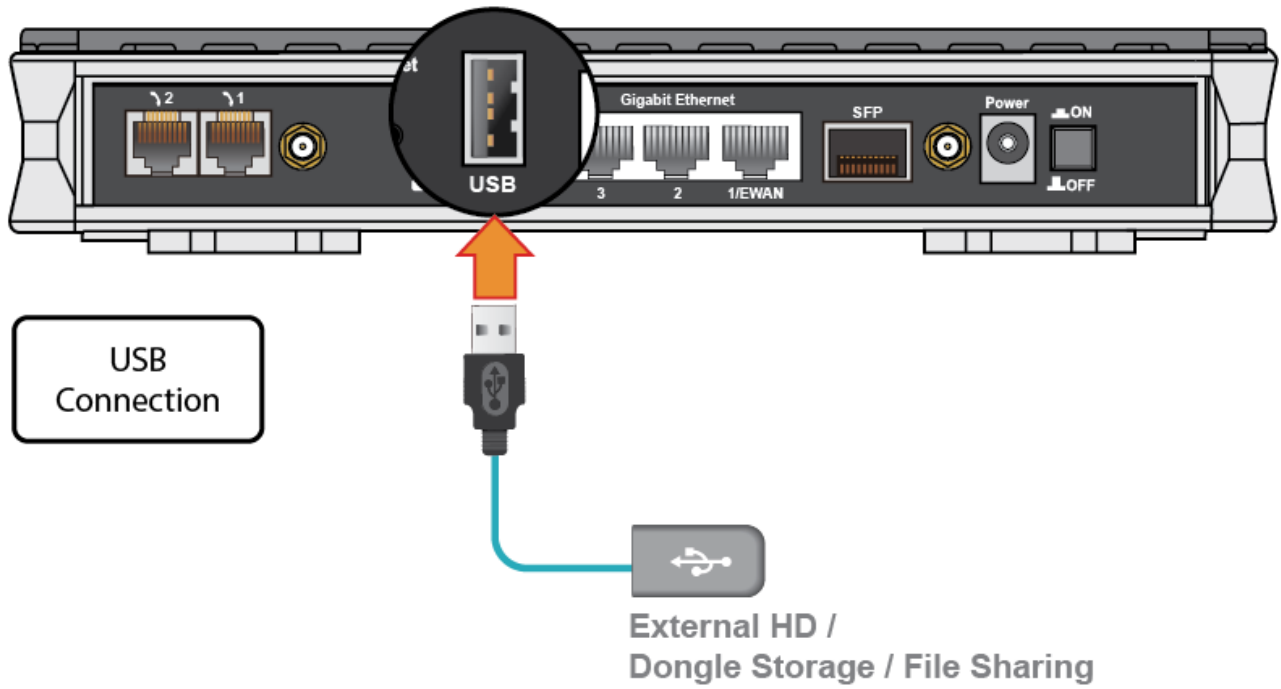
Connect RJ-11 cable(s) to Phone1 and/or Phone2 to analog phone. Go to 9900VA web GUI to setup your VoIP account(s). You can place VoIP calls simultaneously once registered with a VoIP service.





## 5. USB Connection

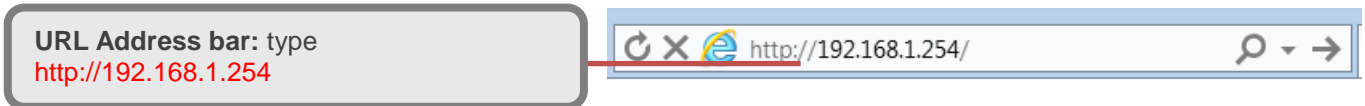
FTP or Samba Server attached to the USB port. Simply plug in an external USB HD and do a setup in the web GUI. **<Please refer to User Manual for detailed instruction.>**



## 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.



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

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

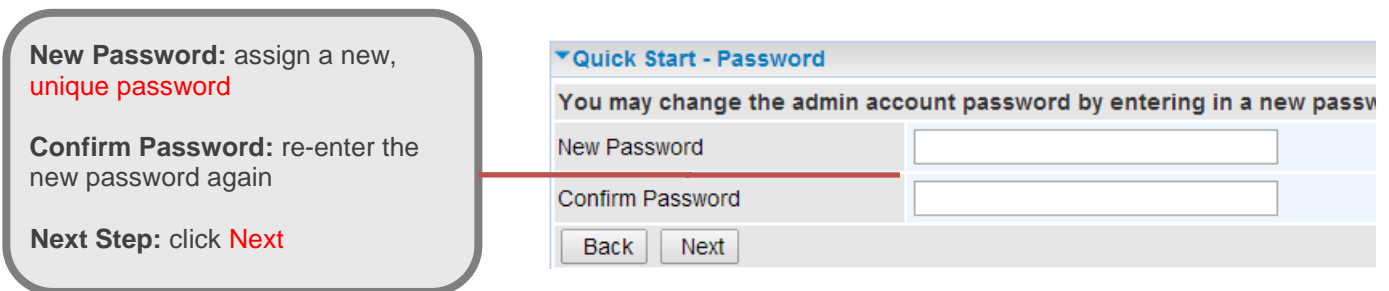
## Quick Setup Your Router

**For Wired Broadband Connection (Ethernet WAN) - Before start configuring the device, make sure you connect the 9900VA with your primary router.**

### Step 1: Change administration password

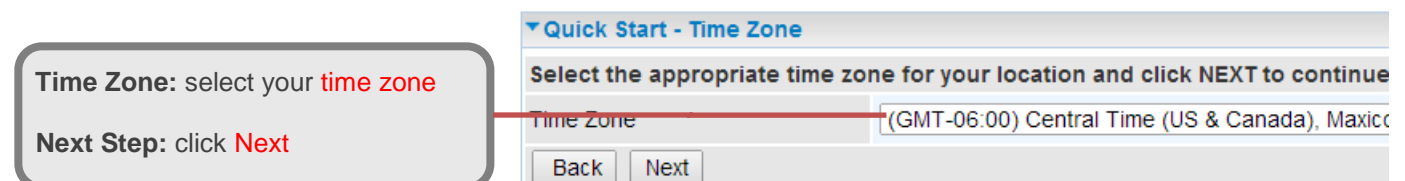
Setup a new password for "admin" account for device management. The default password is "admin". Click Continue to go on to the next step.

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



### Step 2: Time Zone configuration

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



### 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**

### Step 4: WAN / Internet Connection Setup

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

**Protocol:** select one of them

- **Dynamic IP Address** (Obtain an IP address automatically)
- **Static IP Address** (Manually assign an IP)
- **PPPoE**
- **Bridge Mode**

**Net Step:** click **Next** to continue

### 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.**

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## Troubleshooting

### 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](http://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.