ASUS EBG19P

ASUS ExpertWiFi EBG19P Gigabit PoE+ VPN Wired Router Instruction Manual

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your ASUS ExpertWiFi EBG19P Gigabit PoE+ VPN Wired Router. The EBG19P is designed to provide a secure and stable network environment, particularly for small-to-midsized businesses, offering advanced features such as Power over Ethernet (PoE+), multiple WAN connectivity options, and robust network security protocols.

Figure 1: ASUS ExpertWiFi EBG19P Router Overview

2. PACKAGE CONTENTS

Verify that all items are present in the package before proceeding with installation:

- ExpertWiFi EBG19P Router
- Power adapter
- RJ-45 cable

- Quick start guide
- Warranty card

3. SETUP

3.1 Physical Connections

Follow these steps to connect your router:

1. **Connect the Power Adapter:** Plug the power adapter into the DC IN port on the rear of the router and then into a power outlet.

2. **Connect to the Internet (WAN):** Connect your modem or internet service provider's (ISP) device to the **WAN** port (Port 1) on the router using an RJ-45 Ethernet cable. The EBG19P also supports up to two additional WAN/LAN ports (Ports 2 and 3) for multi-line broadband usage or failover. A USB port is also available for a backup WAN connection via a mobile phone hotspot.

3. **Connect Local Devices (LAN/PoE+):** Connect your network devices (e.g., computers, switches, PoE-enabled devices) to the **LAN** ports (Ports 4-9). Ports 2-9 are PoE+ enabled, providing power to compatible devices.
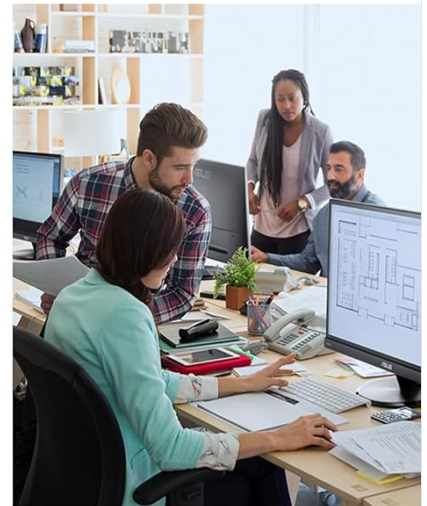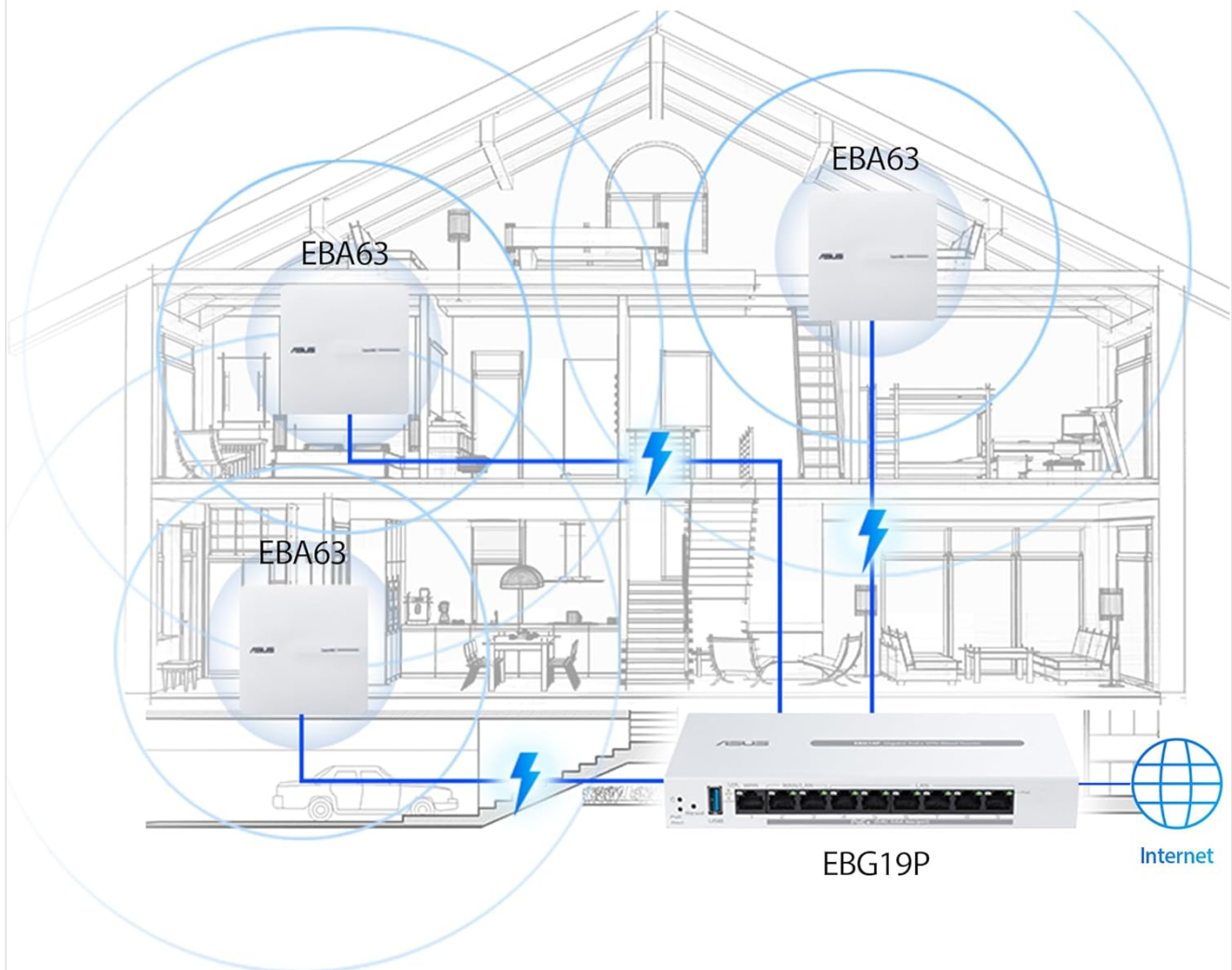

Figure 2: Front Panel Connectivity

Figure 3: Rear Panel Power Connection

3.2 Initial Configuration

After connecting the hardware, access the router's web interface or use the ASUS ExpertWiFi app for initial configuration. Refer to the included Quick Start Guide for detailed steps on accessing the setup wizard.

4. OPERATING INSTRUCTIONS

4.1 WAN Connectivity and Load Balancing

The EBG19P supports up to three WAN Ethernet ports (1 dedicated WAN, 2 configurable WAN/LAN) and one USB WAN port. This allows for:

- **Multi-line Broadband Usage:** Utilize multiple internet connections simultaneously for increased bandwidth.
- **Internet Backup:** Configure a secondary WAN connection (Ethernet or USB) to automatically take over if the primary connection fails, ensuring continuous internet access.

Figure 4: Multiple WAN Port Capability

ExpertWiFi SDN & Flexible Management

With APP/Web management tool, ExpertWiFi Self-defined Network (SDN) provides up to five SSIDs to separate and prioritize devices for various business usages and network alternatives.
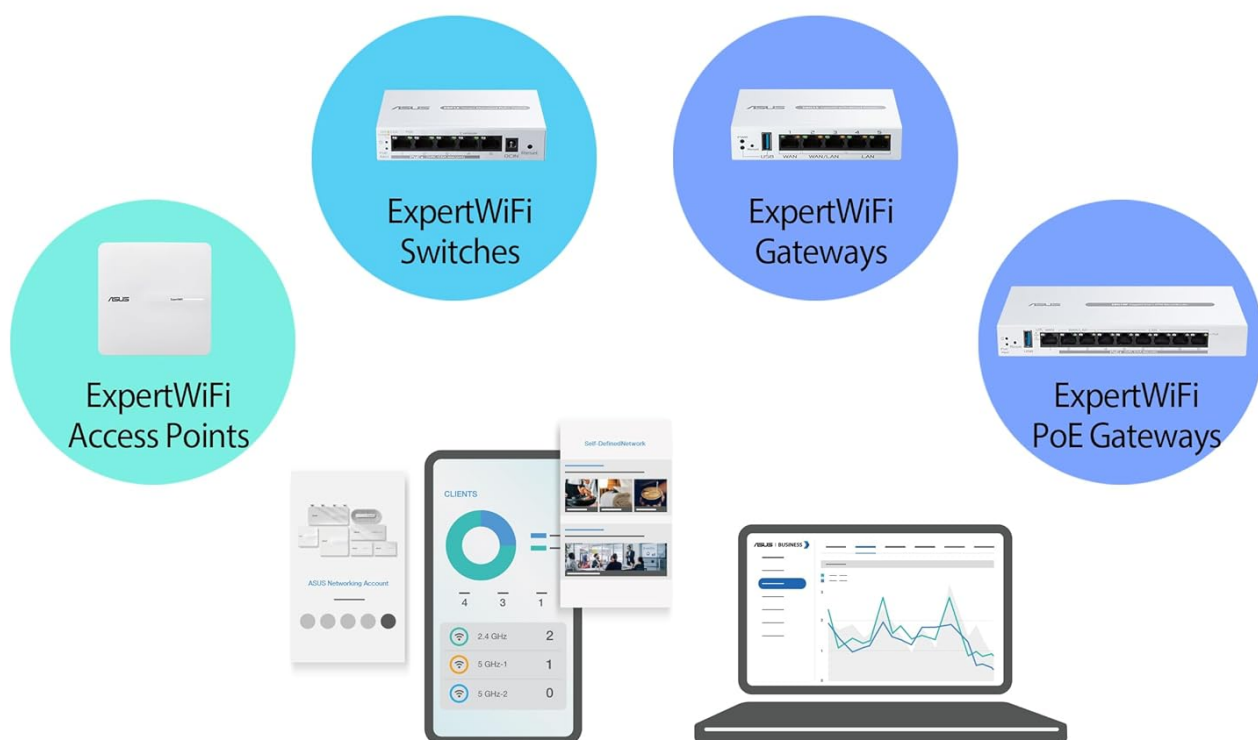
ExpertWiFi Switches

ExpertWiFi Gateways

ExpertWiFi Access Points

ExpertWiFi PoE Gateways

Figure 5: Versatile Connectivity Diagram

4.2 Power over Ethernet (PoE+)

The router features 8 PoE+ ports (Ports 2-9) capable of delivering up to 123 watts of total power. This allows for powering compatible PoE-enabled devices such as IP cameras, VoIP phones, and wireless access points directly through the Ethernet cable, simplifying deployment and reducing cable clutter.
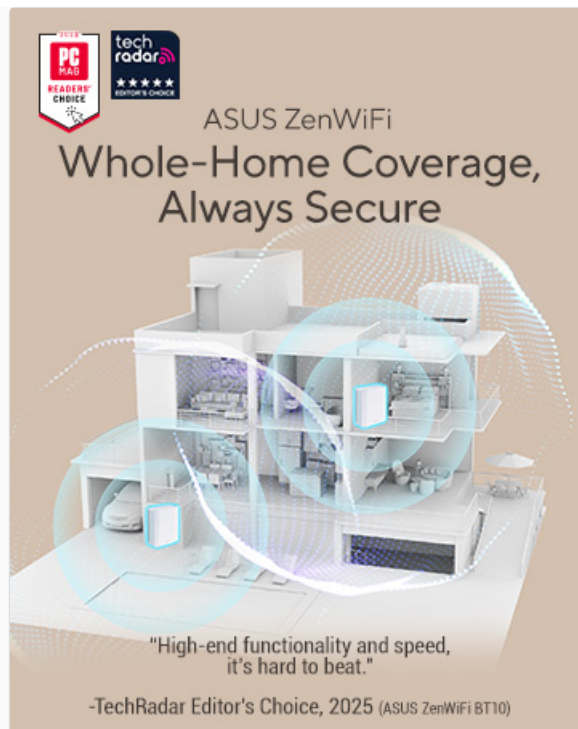

Figure 6: PoE+ Capability

Figure 7: PoE+ Device Connections

4.3 Network Security and VPN

The EBG19P integrates commercial-grade network security features to protect your data:

- **ASUS AiProtection Pro:** Provides robust intrusion prevention system (IPS) features, including deep packet inspection (DPI) and virtual patching, to block malicious traffic. This is a free subscription service.
- **VPN Features:** Secure public Wi-Fi connections and create secure tunnels for remote access.
- **Safe Browsing:** Helps protect against malicious websites.
- **Content Filter:** Allows for managing internet access and blocking unwanted content.

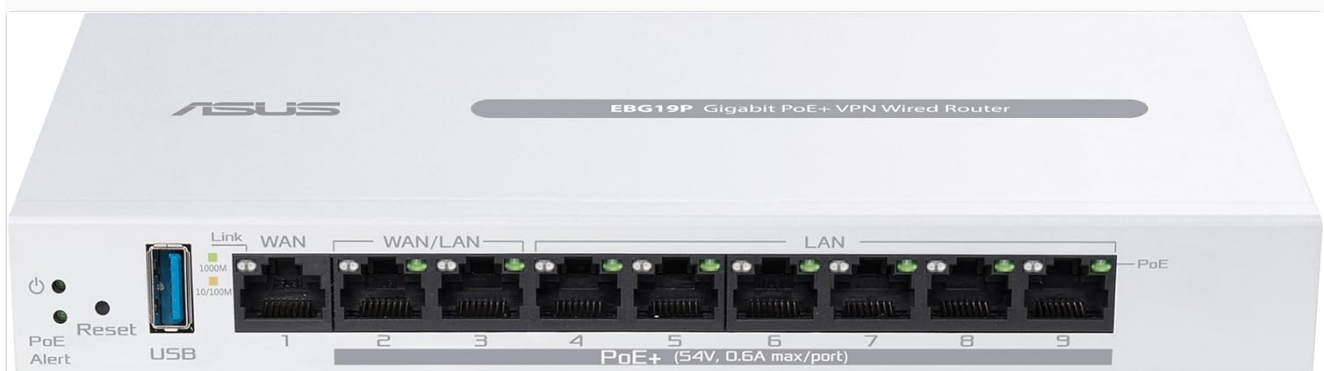

Figure 8: AiProtection Security

Figure 9: VPN Feature

Figure 10: Network Security Overview

4.4 VLAN for Enhanced Security

Each Ethernet port can be assigned to one or more Virtual Local Area Network (VLAN) IDs. This feature allows for network segmentation, isolating different departments or device types to enhance security and manage network traffic more efficiently.

4.5 Device Management and Scalability

The EBG19P offers centralized control over connected PoE devices and network settings through its web interface and the ASUS ExpertWiFi app. The ExpertWiFi Self-defined Network (SDN) feature allows for creating up to five SSIDs to separate and prioritize devices for various business needs. The router is compatible with other ASUS ExpertWiFi devices, enabling scalable network coverage.

Figure 11: ExpertWiFi SDN and Management

Figure 12: ExpertWiFi App Dashboard

Figure 13: Scalable Network with ExpertWiFi Access Points

Figure 14: Multiple Application Scenarios

5. MAINTENANCE

To ensure optimal performance and longevity of your ASUS ExpertWiFi EBG19P router, consider the following maintenance practices:

- **Firmware Updates:** Regularly check for and install the latest firmware updates from the ASUS support website or through the ExpertWiFi app. Firmware updates often include security patches, performance improvements, and new features.
- **Physical Cleaning:** Keep the router free from dust and debris. Use a soft, dry cloth to clean the exterior. Ensure ventilation openings are not obstructed.
- **Placement:** Place the router in a well-ventilated area, away from direct sunlight, heat sources, and strong electromagnetic fields.
- **Regular Reboots:** Periodically rebooting the router (e.g., once a month) can help clear temporary issues and maintain stable performance.

6. TROUBLESHOOTING

This section addresses common issues you might encounter with your ASUS ExpertWiFi EBG19P router.

6.1 No Internet Connection

- **Check Cables:** Ensure all Ethernet cables are securely connected to the WAN and LAN ports.
- **Modem Status:** Verify that your modem or ISP device is working correctly and has an active internet connection.
- **Router Status Lights:** Check the WAN indicator light on the router. If it's off or red, there might be an issue with the internet connection.
- **Reboot Devices:** Power cycle your modem, then the router, and then your connected devices.
- **ISP Contact:** If the issue persists, contact your Internet Service Provider.

6.2 PoE+ Devices Not Receiving Power

- **Device Compatibility:** Ensure the connected device is PoE+ (802.3at) or PoE (802.3af) compliant. The EBG19P supports active PoE. Passive PoE devices may not be compatible or may require specific configuration not supported by this router.
- **Cable Length and Quality:** Verify that the Ethernet cable length does not exceed recommended limits for PoE and that the cable is of sufficient quality (e.g., Cat5e or Cat6).
- **Power Budget:** Check the router's PoE power budget. The EBG19P provides up to 123W total. Ensure the combined power draw of all connected PoE devices does not exceed this limit.
- **Router Configuration:** Access the router's web interface or app to ensure PoE is enabled for the specific ports.

6.3 Difficulty with Initial Setup or Advanced Features

- **Quick Start Guide:** Refer to the included Quick Start Guide for initial setup steps.
- **Web Interface vs. App:** For advanced configurations like VLANs or detailed VPN settings, the web browser interface typically offers more comprehensive options than the mobile app.
- **Firmware:** Ensure your router's firmware is up to date.
- **ASUS Support:** Visit the official ASUS support website for detailed guides, FAQs, and technical assistance.

7. SPECIFICATIONS

Feature	Detail
Model Number	EBG19P
Product Dimensions (LxWxH)	3.7 x 1 x 8.4 inches
Item Weight	1.2 pounds
Number of Ports	8 (PoE+)
Maximum PoE Power	123 Watts
Interface Type	RJ45, PoE+
Data Transfer Rate	1 Gigabits Per Second
WAN Ports	1 Gigabit WAN, 2 Gigabit WAN/LAN, 1 USB WAN

Feature	Detail
Wireless Type	802.11a (Note: This is a wired router, 802.11a refers to potential compatibility with wireless standards for connected APs)
Manufacturer	ASUS
UPC	197105071285
Color	WHITE
Compatible Devices	Personal Computer, Security Camera, Smart Television, Smartphone, Tablet

8. WARRANTY AND SUPPORT

Your ASUS ExpertWiFi EBG19P router comes with a warranty. Please refer to the included Warranty Card for specific terms and conditions, including warranty period and coverage details.
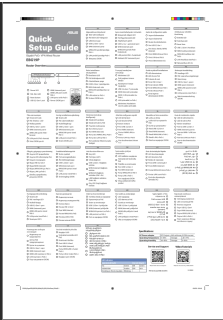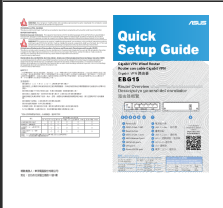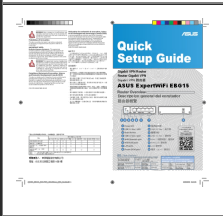
For technical support, additional documentation, firmware downloads, and FAQs, please visit the official ASUS support website:

https://www.asus.com/support/

You can also utilize the ASUS ExpertWiFi app for certain support functions and device management.

Related Documents - EBG19P

[ASUS ExpertWiFi EBG19P Gigabit PoE+ VPN Wired Router Quick Setup Guide](#)
This guide provides a quick setup for the ASUS ExpertWiFi EBG19P Gigabit PoE+ VPN Wired Router, covering router overview, specifications, and setup instructions via app or web.

[ASUS EBG15 Gigabit VPN Wired Router Quick Setup Guide](#)
This guide provides essential information for setting up your ASUS EBG15 Gigabit VPN Wired Router, including hardware overview, specifications, and initial configuration steps.

[ASUS ExpertWiFi EBG15 Gigabit VPN Router Quick Setup Guide](#)
A concise and accessible guide to setting up your ASUS ExpertWiFi EBG15 Gigabit VPN Router, including hardware overview, connection steps, and important compliance information.

User Guide **RT-BE86U** **BE6800 Dual-band WiFi Router**	[ASUS RT-BE86U BE6800 Dual-band WiFi Router User Guide](#) This user guide provides comprehensive instructions for setting up and using the ASUS RT-BE86U BE6800 Dual-band WiFi Router. It covers initial setup, features like AiMesh and VPN, security, troubleshooting, and safety information.
Guia de l'usuari **RT-BE58U** **Encaminador Wi-Fi 7 de BE3600 banda dual**	[Guia de l'usuari RT-BE58U: Configuració i ús del router Wi-Fi 7 de banda dual](#) Aquesta guia de l'usuari proporciona instruccions detallades per a la configuració i l'ús del router Wi-Fi 7 de banda dual ASUS RT-BE58U. Inclou informació sobre el contingut del paquet, la ubicació del router, els requisits de configuració, els passos de configuració inicial, la configuració general i avançada, les utilitats i la resolució de problemes.
User Guide **RT-AX88U** **Wireless-AX6000 Dual Band Gigabit Router**	[ASUS RT-AX88U User Guide: Setup, Features, and Troubleshooting](#) Comprehensive user guide for the ASUS RT-AX88U Wireless-AX6000 Dual Band Gigabit Router. Learn about setup, advanced configurations, security features like AiProtection, and troubleshooting tips.