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› TP-Link Archer C80 AC1900 Wireless WiFi Router User Manual

TP-Link ARCHER-C80

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Model: ARCHER-C80

1. PRODUCT OVERVIEW

The TP-Link Archer C80 is an AC1900 MU-MIMO Wireless WiFi Router designed to provide high-speed internet connectivity and broad coverage for your home network. It operates on dual bands, offering 1300 Mbps on the 5 GHz band and 600 Mbps on the 2.4 GHz band, suitable for various online activities from casual browsing to 4K streaming and online gaming.



Figure 1.1: Front view of the Archer C80 router. It features a sleek black design with four fixed high-performance antennas and a row of LED indicators on the front panel for status monitoring.



Figure 1.2: Rear view of the Archer C80 router. From left to right, it shows the power button, power input, a blue Gigabit WAN port, four yellow Gigabit LAN ports, and a WPS/Wi-Fi button, and a reset button.

2. PACKAGE CONTENTS

Before you begin, please verify that all items are present in your package:

- Wi-Fi Router Archer C80
- Power Adapter (US Version 12 V 1.5 A)
- RJ45 Ethernet Cable
- Quick Installation Guide

3. SETUP GUIDE

3.1 Hardware Connection

1. **Power Off:** Disconnect the power from your modem. If it has a backup battery, remove it.
2. **Connect Router:** Connect the modem's Ethernet cable to the Archer C80's blue WAN port.
3. **Power On:** Connect the power adapter to the router and plug it into a power outlet. Power on the modem.

4. **Verify LEDs:** Wait for the router to start up. The LED indicators on the front panel should stabilize, indicating a successful connection.

3.2 Network Configuration

You can configure your router using the TP-Link Tether app or a web browser.

Using the TP-Link Tether App:

1. **Download App:** Download the TP-Link Tether app from the App Store or Google Play.
2. **Connect to Router:** Connect your mobile device to the router's default Wi-Fi network (SSID and password are on the label at the bottom of the router).
3. **Follow Instructions:** Open the Tether app and follow the on-screen instructions to set up your router.

Using a Web Browser:

1. **Connect to Router:** Connect your computer to the router via an Ethernet cable (to any yellow LAN port) or wirelessly to the default Wi-Fi network.
2. **Access Web Interface:** Open a web browser (Internet Explorer 11+, Firefox 12.0+, Chrome 20.0+, Safari) and type <http://tplinkwifi.net> or <http://192.168.0.1> into the address bar.
3. **Login:** Create a new password for future logins.
4. **Follow Quick Setup:** Follow the Quick Setup wizard to configure your internet connection and wireless settings.

4. OPERATING THE ROUTER

4.1 Wi-Fi Connectivity

The Archer C80 provides dual-band Wi-Fi, allowing devices to connect to either the 2.4 GHz or 5 GHz band for optimal performance. The 5 GHz band offers faster speeds for demanding tasks like streaming and gaming, while the 2.4 GHz band provides broader coverage for general use.

Incredible 802.11ac Wave2 Home Wi-Fi



Figure 4.1: Illustration of dual-band performance. The 5 GHz band supports up to 1300 Mbps, ideal for high-bandwidth activities like 4K video streaming and online gaming. The 2.4 GHz band supports up to 600 Mbps, suitable for general internet use and broader coverage.

4.2 MU-MIMO Technology

The router supports 3x3 MU-MIMO (Multi-User, Multiple-Input, Multiple-Output) technology, which allows it to communicate with multiple devices simultaneously. This significantly improves network efficiency and throughput, especially in environments with many connected devices.

Maximum Wi-Fi Performance with 3×3 MIMO

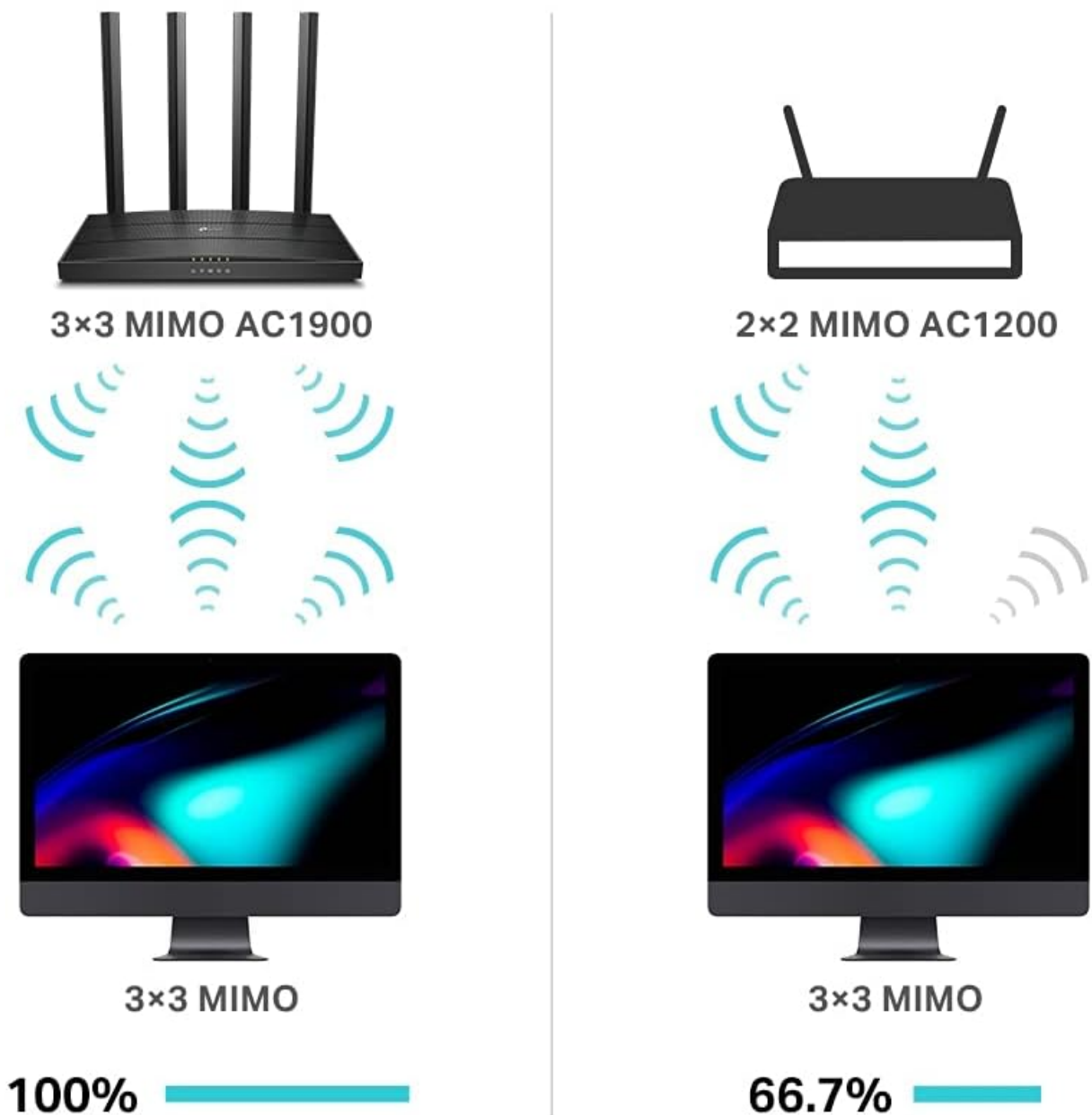


Figure 4.2: Comparison of MU-MIMO performance. The Archer C80's 3x3 MU-MIMO capability allows it to transmit and receive data on three streams, providing 100% efficiency compared to 2x2 MIMO systems which offer approximately 66.7% efficiency when communicating with multiple clients.

4.3 Beamforming

Beamforming technology concentrates wireless signal strength towards connected clients, expanding Wi-Fi range and delivering a highly efficient wireless connection, particularly beneficial for devices further away from the router.

Broader Coverage Throughout Your Home



Figure 4.3: Illustration of Beamforming technology. The router's four antennas work together to form a signal-boosting array, concentrating the wireless signal towards your devices to provide broader and more reliable coverage throughout your home.

4.4 Working Modes

The Archer C80 supports two primary working modes:

- **Router Mode:** The default mode, where the device acts as a central hub for your network, providing internet access to all connected devices.
- **Access Point Mode:** Converts your existing wired network into a wireless network, ideal for extending Wi-Fi coverage without replacing your main router.

5. MAINTENANCE AND SECURITY

5.1 Firmware Updates

Regularly update your router's firmware to ensure optimal performance, security, and access to new features. Firmware updates can be performed via the Tether app or the web management interface (OTA Firmware Upgrade).

5.2 Network Security

The Archer C80 includes robust security features to protect your network:

- **Wi-Fi Encryption:** Supports WPA, WPA2, WPA3, and WPA/WPA2-Enterprise (802.1x) for secure wireless connections.
- **SPI Firewall:** Provides protection against various internet attacks.
- **Access Control:** Manage which devices can connect to your network.
- **IP & MAC Binding:** Enhance security by binding IP addresses to MAC addresses.
- **Guest Network:** Create separate Wi-Fi networks for guests (one 5 GHz and one 2.4 GHz) to isolate them from your main network.

5.3 Parental Controls

Utilize parental controls to manage and monitor internet access for children. Features include URL Filtering and Time Controls to restrict access to certain websites or limit internet usage during specific hours.

6. TROUBLESHOOTING

6.1 No Internet Access

- **Check Cables:** Ensure all Ethernet cables are securely connected to the correct ports (WAN port for internet, LAN ports for devices).
- **Restart Devices:** Power cycle your modem and router. Disconnect power, wait 30 seconds, then reconnect power to the modem first, then the router.
- **Verify WAN Type:** Confirm your WAN connection type (Dynamic IP, Static IP, PPPoE, PPTP, L2TP) with your Internet Service Provider (ISP) and configure it correctly in the router's settings.

6.2 Weak Wi-Fi Signal or Dropped Connections

- **Router Placement:** Place the router in a central location, away from obstructions and interference sources (e.g., microwaves, cordless phones).
- **Antenna Orientation:** Adjust the antennas for optimal signal strength.
- **Channel Interference:** In the router's settings, try changing the Wi-Fi channel for both 2.4 GHz and 5 GHz bands to a less congested one.
- **Firmware Update:** Ensure your router's firmware is up to date.

6.3 Forgot Login Password

If you forget your router's login password, you can perform a factory reset. Locate the Reset button on the back of the router (refer to Figure 1.2). With the router powered on, press and hold the Reset button for approximately 10 seconds until the LEDs flash. The router will revert to its factory default settings, and you can then set up a new password.

7. SPECIFICATIONS

Category	Specification
Wireless Standards	Wi-Fi 5 (IEEE 802.11ac/n/a 5 GHz, IEEE 802.11n/b/g 2.4 GHz)
Wi-Fi Speeds	AC1900 (1300 Mbps on 5 GHz, 600 Mbps on 2.4 GHz)
Wi-Fi Range	3 Bedroom Houses, 4 Fixed High-Performance Antennas, Beamforming
Wi-Fi Capacity	Dual-Band, 3x3 MU-MIMO, Airtime Fairness
Working Modes	Router Mode, Access Point Mode
Processor	1.2 GHz CPU
Ethernet Ports	1 Gigabit WAN Port, 4 Gigabit LAN Ports
Buttons	WPS/Wi-Fi Button, Power On/Off Button, Reset Button
Power	US Version 12 V 1.5 A
Dimensions (W×D×H)	8.5 × 4.6 × 1.26 in (215 × 117 × 32 mm)
Item Weight	3.53 ounces
System Requirements	Internet Explorer 11+, Firefox 12.0+, Chrome 20.0+, Safari

8. WARRANTY AND SUPPORT

8.1 Warranty Information

For detailed warranty information regarding your TP-Link Archer C80 router, please refer to the warranty card included in your product packaging or visit the official TP-Link website. Warranty terms and conditions may vary by region.

8.2 Technical Support

If you encounter any issues or have questions about your TP-Link Archer C80 router, please contact TP-Link Technical Support. Support resources, including FAQs, troubleshooting guides, and contact information, are available on the official TP-Link support website.

You can also utilize the TP-Link Tether App for basic management and troubleshooting, or refer to the Web Emulator available on the TP-Link website for a virtual experience of the router's interface.

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question