NETGEAR®

User Manual

Nighthawk® A7500 WiFi 6 USB 3.0 Adapter

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See the regulatory compliance document before connecting the power supply.

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Applicable to 6 GHz devices only: Only use the device indoors. The operation of 6 GHz devices is prohibited on oil platforms, cars, trains, boats, and aircraft, except that operation of this device is permitted in large aircraft while flying above 10,000 feet. Operation of transmitters in the 5.925-7.125 GHz band is prohibited for control of or communications with unmanned aircraft systems.

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Get Started and Connect to a WiFi Network

The NETGEAR A7500 WiFi 6 USB adapter connects your notebook or desktop computer over WiFi to an 11ax or other network for applications such as lag-free video streaming throughout your home, online learning, and secure and reliable Internet connections.

This chapter describes how to set up and connect the A7500 WiFi 6 USB adapter, in this manual referred to as *the adapter*, to a WiFi network. The chapter includes the following sections:

- <u>Download the A7500 Installation Program</u> on page 5
- <u>Set Up and Install the Adapter</u> on page 5
- <u>Join a WiFi Network</u> on page 6

> **NOTE:** For more information about the topics covered in this manual, visit the support website at <u>support.netgear.com</u>.

> **NOTE:** You can register your A7500 with NETGEAR and receive notifications with firmware updates. Firmware updates with new features and bug fixes are made available from time to time at <u>downloadcenter.netgear.com</u>.

Download the A7500 Installation Program

The adapter installation program is provided on the NETGEAR download site.

To obtain the A7500 standalone adapter installation program:

1. Visit https://www.netgear.com/A7500-download and download the latest software file.

2. Follow the steps in Set Up and Install the Adapter on page 5 to run the installation program.

Set Up and Install the Adapter

Before you begin using your adapter, set up the adapter by running the installation program.

To install the Windows standalone adapter:

1. Make sure your computer is running an up-to-date version of Windows 10 or Windows 11.

    For more information about updating Windows, see Microsoft's Update Windows support article.

2. Complete the steps described in Download the A7500 Installation Program on page 5 to download the latest software file for Windows.

3. Run the A7500 installation program:

    a. To start extraction of the installation files, double-click on the file that was downloaded and is named **A7500 Windows Installation Program V.xxxx**, where **xxxx** is the version number.

    b. Double-click on the file that was copied or downloaded and is named **A7500 Windows Installation Program V.xxxx.exe** where **xxxx** is the version number.

    > (!) **NOTE:** If a User Account Control window appears that asks if you want to allow the app to make changes to your device, select **Yes**.

    c. Follow the prompts to complete installation. When prompted, you can insert the Nighthawk® A7500 WiFi 6 USB 3.0 adapter into your computer's USB port.

> ⓘ **NOTE:** The installation program gives you the option to disable other WiFi adapters. For best performance, we recommend that you disable other adapters.

4. Click **Finish** to exit the installation wizard.

Join a WiFi Network

The adapter can join a known WiFi network by using the adapter standalone driver.

- Install the adapter's standalone driver.
- Use the WiFi network settings on your computer to join a WiFi network (see Join a Network Using the Adapter Driver on page 6).

Join a Network Using the Adapter Driver

This task describes how to join a WiFi network using the adapter.

> ⓘ **NOTE:** The adapter provides the best performance with a USB 3.0 port but is compatible with a USB 2.0 or USB 1.1 port.

To join a WiFi network:

1. Insert the adapter into a USB port on your computer.
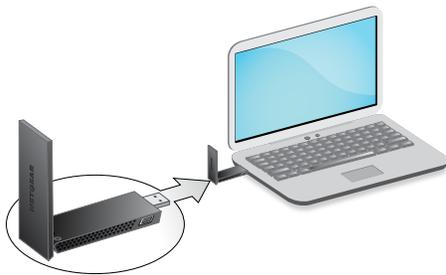
2. Open the WiFi network settings on your computer by right-clicking the WiFi icon. (📶) or the No Internet Access icon (🌐), which display in the lower right corner of your screen

3. (Windows 11 only) Click **Manage Wi-Fi connections (>)**, which is next to the WiFi icon.

4. Select your network's name (SSID).

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5. Click **Connect**.

6. Enter the network security key (WiFi password).

7. Click **Next**.

    When you see the message "Connected, secured," setup is complete.

8. Press the **ESC** key on the desktop to exit WiFi network settings.

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Monitor and Maintain the Adapter

This chapter includes the following sections:

- <u>Upgrade the Adapter Software</u> on page 9
- <u>Uninstall the Adapter Software</u> on page 9

View the Connection Status and Details

You can check your network connection status in Windows.

To view connection status and details:

1. Select the **Start** button, then enter **Settings**.

2. Select **Settings > Network & Internet.**

Upgrade the Adapter Software

You can upgrade the adapter software by downloading and running the latest installation program.

If you have registered with NETGEAR, then NETGEAR will notify you that an update is available when a new version is released.

Uninstall the Adapter Software

You can uninstall the adapter:

- From the Windows Settings interface.

- By using the adapter Installation Program.

1. To uninstall using Windows, select **Start > Settings > Apps > NETGEAR A7500 WiFi 6 Adapter > Uninstall**.

2. To uninstall using the A7500 Installation Program:

    a. Double-click on the installation program.

    b. Select **Uninstall** to remove the software.

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Troubleshooting and Frequently Asked Questions

This chapter covers the following topics:

Troubleshooting

This section provides the following troubleshooting sections:

- <u>Adapter LED is Not Lit</u> on page 11
- <u>When I Connect to the Network, I Cannot Access Shared Resources Such as Printers</u> on page 11
- <u>Adapter Lost Its IP Address</u> on page 11

Adapter LED is Not Lit

If the LED is not lit, use these troubleshooting tips:

- Remove and reinsert the adapter.
- Check the Windows device manager to see if the adapter is recognized and enabled. Reinstall the adapter software, if necessary.
- Insert the adapter in a different USB port on your computer if one is available.

When I Connect to the Network, I Cannot Access Shared Resources Such as Printers

Try these troubleshooting tips:

- Make sure that the router or access point is physically connected to the Ethernet network.
- Make sure that the IP addresses and the Windows networking settings are configured correctly.

Adapter Lost Its IP Address

The adapter might lose its IP address after you upgrade the adapter software but do not reboot your computer. Either restart your computer, or connect to a different router or access point.

Frequently Asked Questions

This section addresses the following frequently asked questions (FAQs):

- <u>Do USB Ports Go into Sleep Mode if No Traffic Is Going to or from the Port?</u> on page 12

- <u>How Can I Improve the Speed of My WiFi Connection?</u> on page 12

- <u>How Can I View the IP Address of the Adapter?</u> on page 13

Do USB Ports Go into Sleep Mode if No Traffic Is Going to or from the Port?

USB devices go into sleep mode if a Windows USB feature called Selective Suspend is enabled, which it is by default. If your adapter or another USB device goes into Selective Suspend mode, the network disconnects. To prevent this type of network disconnection, disable Selective Suspend.

To disable Selective Suspend mode:

1. Select **Start > Control Panel > Hardware and Sound > Power Options > Edit Plan Settings > Change Advanced Power Settings > USB Settings**.

2. Change the setting for Selective Suspend mode to **Disabled**.

How Can I Improve the Speed of My WiFi Connection?

The connection speed can vary depending on the type of USB port on your computer, the capacity of the router or access point for the WiFi network, and the type of Internet connection. The following limits might apply:

- If the physical rate is limited to 54 Mbps, the adapter might be connected to an 802.11a, 802.11b, or 802.11g network. If you want a faster physical rate, connect to an 802.11ac or 802.11n network, if available.

- If the physical rate is limited to 54 Mbps, the network security might be WPA (TKIP). When WPA (TKIP) security mode is configured on the router or access point, WiFi regulations allow the adapter to connect at up to 54 Mbps only. For a faster connection, configure the security for the router or access point as WPA2 or WPA + WPA2 mixed WiFi security. The connection speed still depends on the WiFi capacity of the router or access point.

- If your computer does not include a USB 3.0 or USB 2.0 port, the physical rate is limited to the 14 Mbps of the USB 1.1 legacy standard.

How Can I View the IP Address of the Adapter?

To check your Adapter IP Address:

1. Select the **Start** button.

2. Select **Settings**.

3. Select **Settings > Network > Internet > Properties**.

A

Factory Default Settings and Technical Specifications

This appendix covers the following topics:

Factory Default Settings

The following table lists the default settings of your adapter.

Table 1. Factory default settings

Default Settings	
WiFi communication	Enabled
Country/region	United States (varies by region)
Operating mode	802.11ax, 802.11ac, 802.11n, 802.11a, 802.11g, or 802.11b
Data rate	- Up to 1200 Mbps with a WiFi router or access point that supports 802.11ax 5.0GHz - Up to 574 Mbps with a WiFi router or access point that supports 802.11ax 2.4GHz - Backwards compatible with IEEE 802.11 a/b/g/n/ac WiFi

Technical Specifications

The following table provides technical specifications for the adapter.

Table 2. Technical specifications

Feature	Description
Antenna	Two dual-band dipole antennas
Standards	IEEE 802.11 a/b/g/n/ac/ax
Radio data rate	Autosensing

Table 2. Technical specifications (Continued)

Feature	Description
Frequency	• 2.4 GHz to 2.5 GHz CCK and OFDM modulation • 5 GHz with OFDM, 802.11n MCS0-15, and 802.11ac MCS0-9 coding scheme
Encryption	• WPA2-PSK [AES] • WPA3 • WPA-PSK [TKIP] • 40-bit (also called 64-bit) WEP data encryption • 128-bit WEP data encryption
Power	5V USB supply
Bus interface	USB 3.0, compatible with USB 2.0 and USB 1.1
Provided drivers	• Microsoft Windows 11 • Microsoft Windows 10
Dimensions	93.0 x 31.4 x 14.45 mm (3.66 x 1.24 x 0.57 in)
Weight	28g (0.99oz)
Operating temperature	0–35°C (32–95°F)
Regulatory compliance (certification)	USA/FCC, EU/CE, UK/UKCA, Canada/ISED, Australia/RCM, New Zealand/RSM