NETGEAR®

User Manual

Nighthawk M6 Pro, Nighthawk M6

Models

MR6110
MR6150
MR6400
MR6450
MR6500
MR6550

May 2023
202-12621-03

NETGEAR, Inc.
350 E. Plumeria Drive
San Jose, CA 95134, USA

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For regulatory compliance information including the EU Declaration of Conformity, visit https://www.netgear.com/about/regulatory/.

See the regulatory compliance document before connecting the power supply.

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By using this device, you are agreeing to NETGEAR's Terms and Conditions at https://www.netgear.com/about/terms-and-conditions. If you do not agree, return the device to your place of purchase within your return period.

Compliance

FCC regulations restrict operation of this device to indoor use only when it is operating in the 6 GHz band (5.92-7.125GHz). The operation of 6 GHz band 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.

FCC regulations restrict the operation of this device in the 5.925-7.125 GHz band to indoor use only.

6 GHz is available only when the device is powered by AC adapter connected to AC mains.

The device cannot be used outdoors on 6 GHz, as required by FCC/IC rules.

When using external antennas, their net gain (antenna + cable loss) must be less than what is specified in Table 3 and Table 4 in LTE and 5GNR transmission specifications on page 68 in Chapter 7, "Specifications" as required by FCC.

ISED regulation requires device shall not be used for control of or communications with unmanned aircraft systems. Operation shall be limited to indoor use only. Operation on oil platforms, automobiles, trains, maritime vessels and aircraft shall be prohibited except for on large aircraft flying above 3,048 m (10,000 ft).

In the Singapore market, only 2-pin EU (Type C) and 3-pin UK (Type G) plug adapters are approved and suitable for use with this device.

Restrictions applicable in AT/BE/BG/CZ/DK/EE/FR/DE/IS/IE/IT/EL/ES/CY/ LV/LI/LT/LU/HU/MT/NL/NO/PL/PT/RO/SI/SK/TR/FI/SE/CH/UK(NI)/HR/HK:

Operation in 5150-5350MHz and 5470-5875MHz is restricted to indoor use only. This device is restricted to indoor use only when operating in the 5945 to 6425 MHz band (to the extent that these frequencies are made available).

This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

SAR is measured with the device at 5 mm from the body, while transmitting at the highest certified output power level in all frequency bands of the device. The maximum SAR value is 1.652 W/kg (body) averaged over 10 gram of tissue.

Contents

Chapter 1 Get Started

Meet your Nighthawk M6.....9
Nighthawk band support matrix.....10
Set up your Nighthawk M6.....10
Charge the battery.....12
Charging best practices.....13
Connect to the Internet.....13
Connect from a smartphone using the QR code.....14
Replace a SIM card.....15
Home screen.....16
Manage the Nighthawk M6 with NETGEAR Insight Pro.....16
Power off or reset the Nighthawk M6.....17
Security credentials.....17
Connect to the Nighthawk M6 with tethering.....18
Log in to the Nighthawk M6 web page to view or change settings.....19

Chapter 2 Use Your Nighthawk M6

View data usage on the Nighthawk M6 web page.....21
View SMS messages from the Nighthawk M6.....21
View SMS messages from the Nighthawk M6 web page.....21
Delete a message from the Nighthawk M6.....22
Delete a message from the Nighthawk M6 web page.....23
View alerts from the Nighthawk M6.....23
View alerts from the Nighthawk M6 web page.....24
Turn on dual-band WiFi from the Nighthawk M6.....25
Turn on dual-band WiFi from the Nighthawk M6 web page.....25
Enable GPS from the Nighthawk M6.....26
Manage your broadband network connection.....27
- View mobile broadband network status from the Nighthawk M6.....27
- View mobile broadband network status from the Nighthawk M6 web page.....28
- Turn domestic data off from the Nighthawk M6 web page.....28
- Turn international roaming on and off from the Nighthawk M6 web page.....29

Connect to WiFi.....30
Manage WiFi.....30
Specify WiFi settings from the Nighthawk M6.....31
Turn on 5 GHz WiFi or 6 GHz WiFi from the Nighthawk M6 web page.....32
Change WiFi settings from the Nighthawk M6 web page.....33
Manage WiFi Security.....33
Change WiFi network name and password from the Nighthawk M6.....34
Change WiFi network names and passwords from the Nighthawk M6 web page.....34
Change WiFi encryption settings.....35
No-Battery Operation.....36
Enable In-Home Performance Mode.....37
WiFi and Ethernet Offloading.....38
Enable WiFi Offloading.....38
Enable Ethernet Offloading.....38

Chapter 3 Manage Security

Change the Nighthawk M6 web page login settings.....40
View connected devices from the Nighthawk M6 web page.....40
Activate SIM security.....41

Chapter 4 Maintain Your Nighthawk M6

Manage power usage with Power Manager.....43
Extend battery life.....44
Adjust WiFi settings to optimize battery life.....45
Set the display to increase battery life from the Nighthawk M6.....45
Set the display to increase battery life from the Nighthawk M6 web page.....46
View details about your device from the Nighthawk M6.....47
View details about your device from the Nighthawk M6 web page.....48
Add and select access point names (APN).....49
Add an APN for another network.....49
Select an APN to use.....50
Remove an APN entry.....51
Enable DMZ.....51
Update Nighthawk M6 software and firmware.....52
Update Nighthawk M6 software and firmware in response to an Update Available alert.....52
Check for software updates from the Nighthawk M6.....53

Chapter 5 Frequently Asked Questions

Connect and disconnect devices and access the Internet.....56
What do I do if I can't connect a device to the Nighthawk M6?.56
What do I do if I can't access the Internet?.....56
How do I disconnect from the mobile broadband network?....57
How do I find out how many devices are connected to my Nighthawk M6 WiFi networks?.....57
What do I do if the No Signal icon displays?.....57
Why can't my device access the Nighthawk M6 web page when connected to a VPN?.....57
What do I do if my Nighthawk M6 doesn't connect to my service provider's network?.....57
How do I go back to the Nighthawk M6 web page?.....58
What do I do if I forget my admin login password?.....59
Perform a factory reset.....59
How do I perform a factory reset from the touch screen?.....59
How do I perform a factory reset with the Reset button?.....59
General Questions.....60
Where should I place my mobile hotspot?.....60
Why isn't my battery charging?.....61
Why is the Signal Strength indicator always low?.....62
Why is the download or upload speed slow?.....62
The LCD screen is not lit. How do I know if the Nighthawk M6 is still powered on?.....62
How do I find my computer's IP address?.....62
Find the IP address on a Windows 10 device.....62
Find the IP address on a Mac OS X device.....63
Find the IP address on devices running other operating systems.....63
How do I find a device's MAC address?.....63
Find the MAC address on a Windows 10 device.....63
Find the MAC address on a Mac OS X device.....64
What do I do if the WiFi network name doesn't appear in the list of networks?.....64

Appendix A Specifications

Battery specifications.....66
Nighthawk M6 and M6 Pro LCD display specifications.....67
Mechanical specifications.....68
LTE and 5GNR transmission specifications.....68
Nighthawk M6 mobile band specifications.....72
Features for Nighthawk M6 product family.....73
GPS support.....75

Package contents.....75
Port specifications.....75
Security specifications.....76
WiFi specifications.....77
Environmental specifications.....78

1

Get Started

The Nighthawk M6 securely connects up to 32 connected devices with 5G speeds and lets you manage your data, check device connections and more, with the touch screen display. Plus, you can switch between wired and mobile broadband and go all day on the removable battery.

This chapter provides an overview of features, and instructions for how to set up your Nighthawk M6 and connect to the Internet. The chapter covers the following topics:

- Meet your Nighthawk M6
- Nighthawk band support matrix
- Set up your Nighthawk M6
- Charge the battery
- Connect to the Internet
- Connect from a smartphone using the QR code
- Replace a SIM card
- Home screen
- Manage the Nighthawk M6 with NETGEAR Insight Pro
- Power off or reset the Nighthawk M6
- Security credentials
- Connect to the Nighthawk M6 with tethering
- Log in to the Nighthawk M6 web page to view or change settings

NOTE: The Nighthawk M6 automatically checks for new software or firmware updates periodically. If an update becomes available, the Nighthawk M6 displays an alert. You can also check for updates manually without receiving an alert.

Meet your Nighthawk M6

The Nighthawk M6 front panel has a touch screen, a Home button, and a Back button.



Figure 1. Nighthawk M6 front panel

The Nighthawk M6 comes with a USB-C charging cable.

The Nighthawk M6 connectors are located on the rear panel. The connectors include a USB Type-C connector, an RJ45 Ethernet port, and two antenna ports.

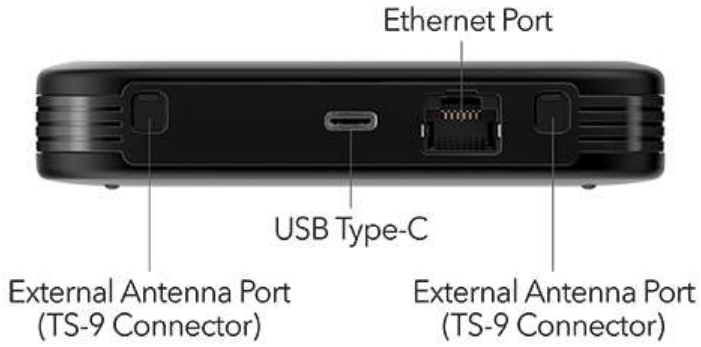


Figure 2. Nighthawk M6 connectors

Nighthawk band support matrix

The devices in the Nighthawk device family provide different levels of radio frequency band support. The most advanced models support mmWave (millimeter waves) and also WiFi 6E. Other models support WiFi 6E but not mmWave. Less advanced models only support WiFi 6.

The following table summarizes the band support that the M6 series devices provide.

Table 1. Nighthawk band support

Device	WiFi support	mmWave support
MR6500, MR6550 (M6 Pro)	WiFi 6E	Yes
MR6400, MR6450 (M6 Pro)	WiFi 6E	No
MR6110, MR6150 (M6)	WiFi 6	No

Set up your Nighthawk M6

To set up your Nighthawk M6:

1. Insert the Nano SIM card.

2. Insert the battery.



3. Install the back cover.
4. Firmly close the back cover.
5. Push the **Power** button to power on the Nighthawk M6.



The Home screen appears.

Familiarize yourself with its LCD screen, icons, buttons, and connectors.



Charge the battery

Your battery comes partially charged.

To charge your battery:

1. Connect the USB-C charging cable to your Nighthawk M6.



2. Connect the other end of the cable to an USB port on your computer or to the USB charger.

Charging best practices

Charging your Nighthawk M6 properly is important to ensure its longevity and maintain its performance. Here are some best practices to follow when charging your mobile hotspot:

- **Use the provided charging cable**: To ensure the safety and performance of your Nighthawk M6, always use the charging cable that came with the device. Using third-party cables might result in slower charging, and can damage your device. Do not use damaged or frayed charging cables.
- **Plug the cable into a power source:** Plug the charging cable into a wall adapter (recommended) or a computer USB port to charge the device. Make sure that the power source is stable and reliable.
- **Check the charging status:** When you plug in the charging cable, check the device's charging status. The charging indicator in the status bar shows a lightning bolt over the battery icon if the device is charging. If the charging indicator does not appear, try unplugging the cable and plugging it back in.
- **Charge the device fully:** We recommend that you charge the Nighthawk M6 fully before using it for the first time, and that you let the device recharge fully before using it again when you discharge the battery. This helps to maintain the battery's lifespan and overall performance.
- **Avoid overcharging:** Overcharging the device can damage the battery and shorten its lifespan. When the device is fully charged, unplug it from the power source. Don't leave it plugged in overnight or for long periods of time. We recommend that you remove the battery when the device is plugged in for a long period of time.
- **Charge in a well-ventilated area:** Charging your Nighthawk M6 in a well-ventilated area can prevent overheating and ensures that the device charges efficiently. Avoid charging the device in an enclosed space or in direct sunlight.

By following these best practices, you can ensure that your Nighthawk M6 stays charged and performs optimally for years to come.

Connect to the Internet

When you turn on your Nighthawk M6, it automatically connects to the network in your area. Connect your device to the Nighthawk M6 WiFi network to access the Internet.

Depending on the specific model and service provider, your Nighthawk M6 might come with a preinstalled SIM card. If so, the SIM must be activated on a data plan from that service provider. If your Nighthawk M6 does not come with a preinstalled SIM card, get

a SIM card with an active data plan from your service provider. Contact your service provider for any SIM related issues.

To connect to the Internet:

1. Press the **Power** button to turn on the Nighthawk M6

   The device powers up and the Lock screen appears.



2. On your laptop or WiFi device, open your WiFi network connection manager.
3. Select the Nighthawk M6 network with the WiFi name and password.

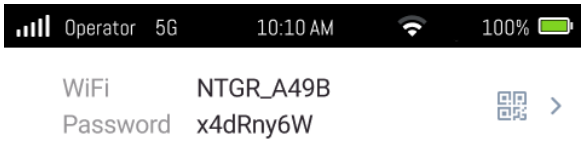
   The Nighthawk M6 WiFi network name and password display on the LCD Home page. If the LCD screen is blank (a power saving feature) press and quickly release the Power button. The default WiFi password is also printed on a label under the battery.

Connect from a smartphone using the QR code

The top area of the dashboard contains a QR code. You can connect from a smartphone by tapping the QR code.

To connect using the QR code:

1. Tap the QR code icon the Nighthawk M6 LCD home screen.



A QR code displays.

2. Point your phone's camera at the QR code.
   Your phone connects to the Nighthawk M6 WiFi network.
3. Launch your Internet browser.

Replace a SIM card

In some circumstances you might need to replace the SIM card.



To replace a SIM card:

1. Remove the back cover by lifting the corners.
2. Remove the battery.
3. Slide out the SIM card.
4. Insert the replacement SIM card.
5. Insert the battery.
6. Install the back cover.

Home screen

You can use the Home screen to view the Nighthawk M6's status, configure WiFi settings, view data usage details, and view system alerts.



Figure 3. Home screen

Table 2. Icons

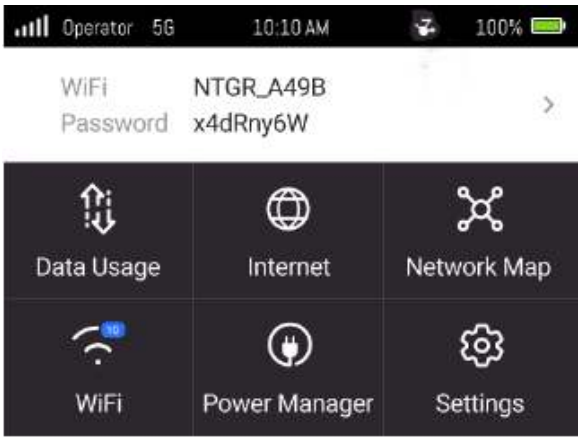
Icons	Description
	This indicates the strength of the mobile broadband network signal.
5G	5G network indicator. Lets you know you are connected to the 5G network.
	This indicates the amount of charge in the battery.

Manage the Nighthawk M6 with NETGEAR Insight Pro

You can manage the Nighthawk M6 with NETGEAR Insight Pro. NETGEAR Insight Pro is a Cloud-based management platform that allows you to manage, deploy, and configure

enterprise mobile devices such as the Nighthawk M6 with complete visibility and simple control, centrally applying company policies, profiles, monitoring, and more.

When the Nighthawk M6 is running under Insight Pro, the Nighthawk M6 shows the Insight icon as shown in the following dashboard image.



For more information on NETGEAR Insight Pro, visit this site:
https://www.netgear.com/insight/mobile-hotspot

Power off or reset the Nighthawk M6

To power off or reset the device:

1. Hold down the **Power** button for 5 seconds.
   The Power Off/Reset menu appears and you are prompted to power off or restart the device.
2. Tap **Power Off** to power off the device, or choose **restart** to reset the device.

Security credentials

Two passwords are associated with the Nighthawk M6:

- **WiFi password**. Use this to connect your computer or WiFi device to your Nighthawk M6 network. This character string is unique to your device. It displays on the home screen. If the screen is blank (a power-saving feature), press and quickly release the **Power** button. The default WiFi password is also printed on a label under the battery. For information about changing WiFi passwords, see Change WiFi encryption settings on page 35.

- **Web admin login password**. Use this password to log in to the Nighthawk M6 web page as an administrator. Some changes can be made using the LCD. You must log in as an administrator to use certain features. The default login password is printed on a label under the battery and can be 5–31 characters in length.

Connect to the Nighthawk M6 with tethering

You can connect a computer to the Nighthawk M6 using the USB-C cable instead of connecting with WiFi. This kind of cable connection is called tethering.

NOTE: The computer's operating system detects the Nighthawk M6 the first time you use the USB-C cable to connect the computer to the Nighthawk M6.

To install drivers on computers running Windows:

1. Make sure the Nighthawk M6 is connected to the internet.
2. Ensure that the Nighthawk M6 is powered off.
3. Connect the Nighthawk M6 to your computer using the USB cable.



The Nighthawk M6 automatically powers on.

After the driver is installed, you can visit the Nighthawk M6 web page to customize your Nighthawk M6's advanced settings. This is an optional step.

Log in to the Nighthawk M6 web page to view or change settings

Your Nighthawk M6 comes configured and ready to use as is. You can use the Nighthawk M6 web page to manage advanced settings.

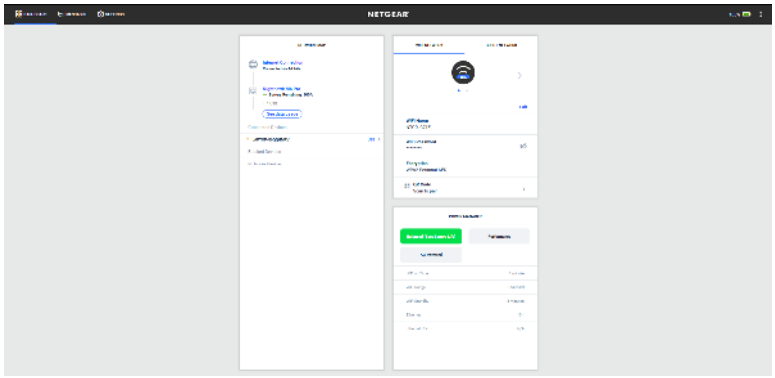
To log in to your Nighthawk M6 web page:

1. From the computer or WiFi device that is connected to the Nighthawk M6, launch a web browser.
2. Enter **http://192.168.1.1**.

   The Nighthawk M6 web page displays.
3. Log in using your admin password.

   The default admin login password is printed on the product label. The password is case sensitive.

   The web dashboard displays.



2

Use Your Nighthawk M6

This chapter explains how to use your Nighthawk M6. The chapter covers the following topics:

- View data usage on the Nighthawk M6 web page
- View SMS messages from the Nighthawk M6
- View SMS messages from the Nighthawk M6 web page
- Delete a message from the Nighthawk M6
- Delete a message from the Nighthawk M6 web page
- View alerts from the Nighthawk M6
- View alerts from the Nighthawk M6 web page
- Turn on dual-band WiFi from the Nighthawk M6
- Turn on dual-band WiFi from the Nighthawk M6 web page
- Enable GPS from the Nighthawk M6
- Manage your broadband network connection
- Connect to WiFi
- Manage WiFi
- Manage WiFi Security
- No-Battery Operation
- WiFi and Ethernet Offloading

View data usage on the Nighthawk M6 web page

To view data usage information on the Nighthawk M6 web page:

1. From a computer or WiFi device that is connected to the Nighthawk M6, launch a web browser.
2. Enter **http://192.168.1.1**.

   The Nighthawk M6 web page displays.

3. Enter the administrator login password.

   The default password printed on the product label. The password is case sensitive.

   The Nighthawk M6 web page displays the data usage for the current billing cycle and for the current broadband session.

View SMS messages from the Nighthawk M6

You can tell from your Nighthawk M6 display if you have unread messages, and you can view them directly from there.

To view SMS messages from the Nighthawk M6 display:

1. Tap the message to read the full text.

View SMS messages from the Nighthawk M6 web page

To view SMS messages from the Nighthawk M6 web page:

1. From a computer or WiFi device that is connected to the Nighthawk M6, launch a web browser.
2. Type **http://192.168.1.1** in the browser bar.

   The Nighthawk M6 web page displays.

3. Enter the administrator login password.

   The default password is printed on the product label. The password is case sensitive.

   The home page displays.

4. Select **Messages**.

   A list of messages displays, showing the first portion of the text.

5. Click a message to read the full text.

Delete a message from the Nighthawk M6

You can delete messages from your Nighthawk M6 display.

To delete messages from the Nighthawk M6 display:

1. Tap **Settings**.



2. Tap **Messages**.
   The **Messages** screen displays.
3. Select the message to delete.
4. Tap **Delete**.
   The message is deleted.

Delete a message from the Nighthawk M6 web page

To delete a message from the Nighthawk M6 web page:

1. From a computer or WiFi device that is connected to the Nighthawk M6, launch a web browser.
2. Enter **http://192.168.1.1**.

   The Nighthawk M6 web page displays.
3. Enter the administrator login password.

   The default password is printed on the product label. The password is case sensitive.

   The home page displays.
4. Select **Messages**.

   A list of messages displays, showing the first portion of the text.
5. Select the message and click the **Delete** button.

   The message is deleted.

View alerts from the Nighthawk M6

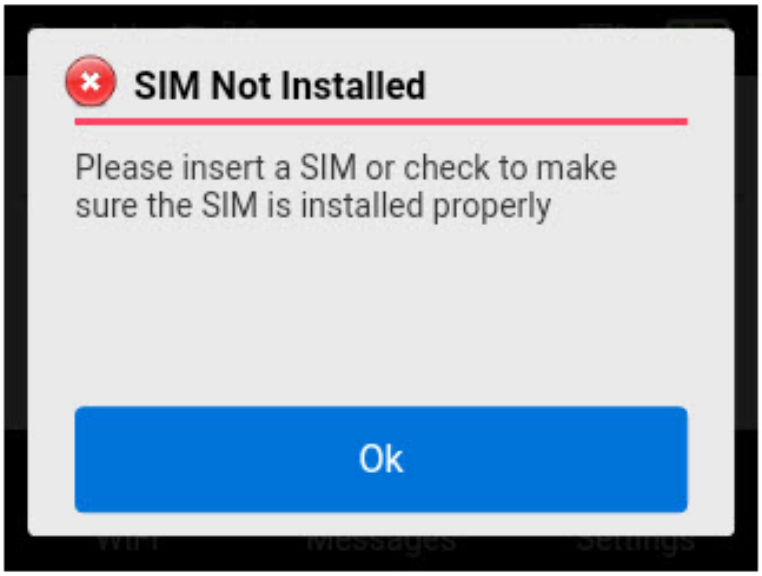
When you unlock the device screen, the device displays any current alerts.

Your Nighthawk M6 displays alerts to advise you of device status changes. When there are outstanding alerts, the alerts displays on the LCD screen and on the web page. Alerts remain as long as the issues that cause them are active. When the issues are resolved, the alerts are removed automatically.

1. Press the **Power** button to wake the Nighthawk M6.

   The Lock page displays.
2. Swipe up to unlock the Nighthawk M6.

Any current alerts are shown on the display. For example, if no SIM card is installed, the following alert appears:



View alerts from the Nighthawk M6 web page

Your Nighthawk M6 displays alerts to advise you of device status changes. When there are outstanding alerts, the alerts displays on the screen. Alerts remain as long as the issues that cause them are active. When the issues are resolved, the alerts are removed automatically.

To view alerts from the Nighthawk M6 web page:

1. From a computer or WiFi device that is connected to the Nighthawk M6, launch a web browser.
2. Type **http://192.168.1.1** in the browser bar.
3. Enter the administrator login password.

   The default password is printed on the product label. The password is case sensitive.

   The Nighthawk M6 web page displays.

   Any current alerts are shown on the display.

   Follow the instructions in each alert to address the conditions that caused it to display.

Turn on dual-band WiFi from the Nighthawk M6

Dual-Band is supported on all models. Only the MR6450 and MR6550 allow Dual-Band (2.4 & 6 GHz). All models enable Dual-Band (2.4 & 5 GHz) configuration in the GUI. Note that the overall throughput speed could decrease when WiFi dual-band is enabled.

If your device supports this feature, to turn on dual-band WiFi from the Nighthawk M6:

1. Tap **WiFi**.
2. Tap **Band**.
   The Band screen displays.
3. Tap **Dual-Band (2.4 & 5 GHz)** or **Dual-Band (2.4 & 6 GHz)**.
4. Click **Apply**.

   Your settings are saved.

Turn on dual-band WiFi from the Nighthawk M6 web page

Some versions of the Nighthawk M6 can broadcast WiFi signals in the 2.4 GHz and 5 GHz WiFi bands. Note that the overall throughput speed could decrease when WiFi dual-band is enabled.

To turn on dual-band WiFi from the Nighthawk M6 web page:

1. From a computer or WiFi device that is connected to the Nighthawk M6, launch a web browser.
2. Enter **http://192.168.1.1**.

   The Nighthawk M6 web page displays.
3. Enter the administrator login password.

   The default password is printed on the product label. The password is case sensitive.

   The home page displays.

4. Select **WiFi Band**.

   The WiFi Band page displays.

5. If your Nighthawk device model supports dual-band, select **Dual-Band (2.4 & 5 GHz)** or **Dual-Band (2.4 & 6 GHz)**.

   NOTE: The MR6150 does not support the dual-band feature.

   The Apply and Discard buttons display at the bottom of the page.

6. Click **Apply**.

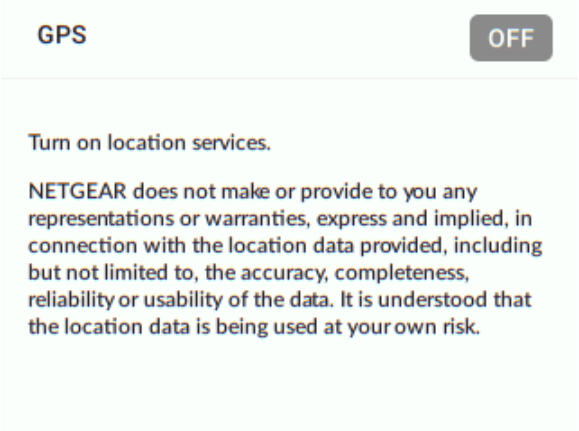
   A message displays telling you that to save this change, your device must restart WiFi connections.

Enable GPS from the Nighthawk M6

You can enable GPS location services on some Nighthawk M6 models. See "GPS Support" in the Specifications chapter for information on which models support GPS. When GPS is enabled, users can turn on location services to launch GPS-enabled apps on a computer and use the NMEA port to obtain a GPS location.

To enable GPS on the Nighthawk M6:

1. From the Nighthawk M6 dashboard, select **Settings > More > GPS.**
   The GPS screen displays.



2. Pull the slider to the right (On) to enable GPS.
   GPS is enabled.

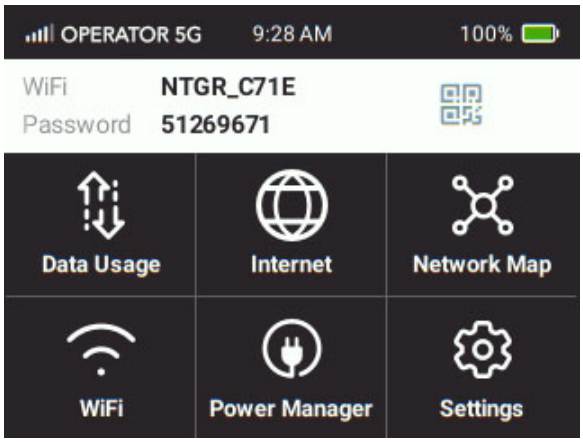
Manage your broadband network connection

You can view the mobile broadband network status, turn domestic data on and off, and turn international roaming on and off.

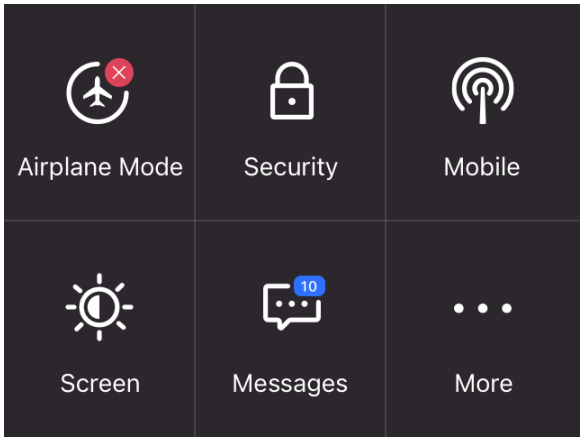
View mobile broadband network status from the Nighthawk M6

To view network status from the Nighthawk M6:

1. Tap **Settings**.



2. Tap **Mobile**.



3. To view details about the network status, tap **Status**.

The Network Status screen displays.

View mobile broadband network status from the Nighthawk M6 web page

To view network status from the Nighthawk M6 web page:

1. From a computer or WiFi device that is connected to the Nighthawk M6, launch a web browser.
2. Enter **http://192.168.1.1**.

   The Nighthawk M6 web page displays.
3. Enter the administrator login password.

   The default password is printed on the product label. The password is case sensitive.

   The home page displays.
4. Select **Settings >Status > Network**.

   The Status page displays.
5. View the Network Status section.

Turn domestic data off from the Nighthawk M6 web page

NOTE: You can turn domestic data off, but not on from the web page.

To turn domestic data off from the Nighthawk M6:

1. From a computer or WiFi device that is connected to the Nighthawk M6, launch a web browser.
2. Enter **http://192.168.1.1**.

   The Nighthawk M6 web page displays.
3. Enter the administrator login password.

   The default password is printed on the product label. The password is case sensitive.

   The home page displays.

4. Select **Settings > Advanced Settings > Cellular**.
   The preferences page displays.
5. Uncheck the **Data** check box.

   The Apply and Discard buttons display at the bottom of the page.

6. Click the **Apply** button.

   Your settings are saved.

Turn international roaming on and off from the Nighthawk M6 web page

Before you turn on international roaming, make sure that you are aware of any extra charges for data that you might incur.

To turn international roaming on and off:

1. From a computer or WiFi device that is connected to the Nighthawk M6, launch a web browser.
2. Enter **http://192.168.1.1**.

   The Nighthawk M6 web page displays.

3. Enter the administrator login password.

   The default password is printed on the product label. The password is case sensitive.

   The home page displays.

4. Select **Settings > Advanced > Cellular**.
   The preferences page displays.
5. In the check box for **Roaming Data**, check the box to turn roaming **On** or uncheck it to turn roaming **Off**.

   The Apply and Discard buttons display at the bottom of the page. >

6. Select **Apply**.

   Your settings are saved.

Connect to WiFi

You can connect up to 32 devices (such as smartphones, laptops, tablets, digital cameras, printers, gaming consoles, and digital picture frames) to your Nighthawk M6 network. For information about setting connections for WiFi networks, see View mobile broadband network status from the Nighthawk M6 on page 27.

To connect using the WiFi password:

1. On the WiFi device, view the list of available WiFi networks.
2. Connect to the network that corresponds to your Nighthawk M6 network as displayed on the LCD screen.
3. When prompted, enter the WiFi password for your Nighthawk M6 network.

   The WiFi password displays on the Nighthawk M6 LCD screen. If the screen is turned off, press and quickly release the **Power** button to wake the Nighthawk M6.

Manage WiFi

You can set up the WiFi radio of the Nighthawk M6 to meet your WiFi needs by customizing settings on the Nighthawk M6 web page.

On the Nighthawk M6 web page,depending on the MR device version you are configuring the following WiFi profiles are available:

- **Dual-Band (2.4 & 5 GHz)** or **Dual-Band (2.4 & 6 GHz)**. Support two separate WiFi networks simultaneously using both a 2.4- and 5-GHz frequency band or using a 2.4- and 6-GHz frequency band.

  NOTE: The MR6150 does not provide Dual-Band (2.4 & 6 GHz) support.

- **2.4 GHz only**. Share your main WiFi with 2.4 GHz devices that you trust.
- **5 GHz Only**. Share your main WiFi with 5 GHz devices that you trust
- **6 GHz Only**. Share your main WiFi with 6 GHz devices that you trust

  NOTE: The MR6150 GUI does not support 6 GHZ only selection.

- **Turn Off WiFi**. Turn off WiFi.

By default, 5 GHz Only WiFi is enabled. If your place of business does not allow WiFi or for any other reason you want to disable WiFi and use the Nighthawk M6 only in tethered mode, the Nighthawk M6 gives you that option.

NOTE: WiFi on the Nighthawk M6 will restart whenever you make a change to WiFi settings. Please ensure your connected devices are set to automatically reconnect to WiFi.

Specify WiFi settings from the Nighthawk M6

To specify the WiFi settings from the Nighthawk M6:

1. Press the **Power** button to wake the device.



2. To turn the WiFi signal on or off:
   a. Tap **WiFi**.
      The WiFi screen displays.
   b. Tap **Options**.
      The WiFi Options screen displays.
   c. Tap the **WiFi Signal** field.
   d. To toggle the WiFi radio, tap **WiFi On/Off**.
      A message displays to tell you that changing the WiFi info temporarily causes connectivity loss.
   e. Click **Apply**.
      Your settings are saved.

3. To power down the WiFi radio after a set period of inactivity:
   a. Tap **WiFi** .
      The WiFi Options screen displays.
   b. Tap **Options**.

The WiFi Options screen displays.

c. Tap the **WiFi Standby** field to modify the standby timer.
The WiFi Standby screen displays.

d. Tap the setting for the selection that you want.
The Changes Saved screen appears.

e. Click **Apply** to continue.
Your settings are saved.

Use the Nighthawk M6 web page to set up a profile that is more detailed than the basic profiles offered on the Nighthawk M6.

Turn on 5 GHz WiFi or 6 GHz WiFi from the Nighthawk M6 web page

For indoor usage when the device is on the AC charger, 6 GHz is available.

NOTE: When you go from indoor use to mobile use, you must turn on 5GHz WiFi, and when you connect to AC power you must manually switch back to 6GhZ WiFi.

When all of your devices support 5 GHz WiFi, use 5 GHz WiFi for faster downloads.

To turn on 5 GHz WiFi or 6GHz from the Nighthawk M6 web page:

1. From a computer or WiFi device that is connected to the Nighthawk M6, launch a web browser.
2. Enter **http://192.168.1.1**.

   The Nighthawk M6 web page displays.
3. Enter the administrator login password.

   The default password is printed on the product label. The password is case sensitive.

   The home page displays.
4. Select **Settings** > **General > WiFi Band** .
   The WiFi Options page displays.
5. Select **5GHz Only** or select **6GHz Only**.

   NOTE: The **6GHz Only** selection does not appear for the MR6150.

The Apply and Discard buttons display at the bottom of the page.

6. Click the **Apply** button.

   A message displays telling you that to save this change, your device must restart WiFi connections.

7. Click the **Continue** button.

   Your settings are saved.

Change WiFi settings from the Nighthawk M6 web page

To specify WiFi settings on the Nighthawk M6 web page:

1. From a computer or WiFi device that is connected to the Nighthawk M6, launch a web browser.
2. Enter **http://192.168.1.1**.

   The Nighthawk M6 web page displays.

3. Enter the administrator login password.

   The default password is printed on the product label. The password is case sensitive.

   The home page displays.

4. Select **Settings > General > WiFi Band > More > 5GHz > Global Settings**.
5. To allow the WiFi information to be displayed on the Nighthawk M6 home screen, leave the WiFi Info on Home check box selected.
6. Click the **Apply** button.

   A message displays to tell you that changing the WiFi info will temporarily cause connectivity loss.

   Your settings are saved.

Manage WiFi Security

NOTE: WiFi on the Nighthawk M6 will restart whenever you make a change to WiFi settings. Please ensure your connected devices are set to automatically reconnect to WiFi.

Change WiFi network name and password from the Nighthawk M6

The WiFi network name identifies your WiFi network and is visible to other WiFi-enabled devices.

To change the network name and password from the Nighthawk M6.

1. Press the **Power** button to wake the device.



2. Tap **WiFi > WiFi**.
   The settings screen for the network displays.
3. Tap the **Pencil** (Edit) icon beside the name or password.
   A message displays telling you that currently connected devices must re-authenticate to the network with the updated information.
4. Tap **Continue**.
   The message closes.
5. Enter the new WiFi name and password.
6. Tap **Done**.
   Your settings are saved.

Change WiFi network names and passwords from the Nighthawk M6 web page

The WiFi network name identifies your WiFi network and is visible to other WiFi-enabled devices.

To change network name and password from the Nighthawk M6 web page:

1. From a computer or WiFi device that is connected to the Nighthawk M6, launch a web browser.
2. Enter **http://192.168.1.1**.

   The Nighthawk M6 web page displays.

3. Enter the administrator login password.

   The default password is printed on the product label. The password is case sensitive.

   The home page displays.

4. Select **Settings > General > WiFi Band**.
   The WiFi connect page displays.
5. Change the **WiFi Name** and **WiFi Password** fields as desired.
6. Click the **Apply** button.

   A message displays telling you that to save this change, your device must restart WiFi connections.

7. Click the **Continue** button.

   Your settings are saved.

   All devices that were connected must reconnect with the new name and password.

Change WiFi encryption settings

For information about WiFi security, see Security credentials on page 17.

To change the type of security used for main WiFi:

1. From a computer or WiFi device that is connected to the Nighthawk M6, launch a web browser.
2. Enter **http://192.168.1.1**.

   The Nighthawk M6 web page displays.

3. Enter the administrator login password.

   The default password is printed on the product label. The password is case sensitive.

   The home page displays.

4. Select **Settings > General > WiFi Band >More > 5GHz Wireless**.
   The wireless settings display.
5. In the Encryption menu for main WiFi or guest WiFi, select a security option:

WPA2 Personal AES (default) WPA WPA2 WPA2 WPA3 WPA3 Personal AES>

- **WPA2 Personal AES** (default). Strong security supported by newer WiFi devices, the default.
- **WPA WPA2**
- **WPA2 WPA3**
- **WPA3 Personal AES**

The Apply and Discard buttons display at the bottom of the page.

6. Click the **Apply** button.
   A message displays telling you that to save this change, your device must restart WiFi connections.
7. Click **Continue**.
   Your settings are saved.
8. Reconnect your WiFi devices, if necessary, using the new WiFi credentials.

No-Battery Operation

Depending on your needs, you might want to use your Nighthawk M6 mobile hotspot in a fixed location as a replacement for a conventional modem or a modem router/gateway. The Nighthawk M6 can be set up for fixed use either by itself, or connected to a conventional WiFi router with the included Ethernet port.

When you use your mobile hotspot in a fixed location for an extended period of time, we recommend that you remove the battery and connect your hotspot to wall power with the included USB cable and power adapter. Removing the battery and using wall power provides numerous benefits:

- Extends battery life
- Reduces device temperatures
- Enables the use of In-Home Performance Mode for increased WiFi speed and coverage

NOTE: Only use the included USB cable and power adapter with your mobile hotspot. Using other cables or power adapters can cause your hotspot to function improperly or display error messages.

Enable In-Home Performance Mode

Activating the In-Home Performance Mode of your Nighthawk M6 allows you to access enhanced WiFi 6 functionality. This functionality boosts WiFi coverage as well as the max speed of the Ethernet port on Nighthawk M6 Pro models. You can only use this mode while your hotspot is plugged in and the battery is removed. See the following table for differences between models and regions when In-Home Performance Mode is activated.

Model	Region	WiFi Range	WiFi 6E	Ethernet Port Speed
M6	US	Up to 2000 sq. feet	Not Supported	1 Gbps
M6	EU/AU/NZ/HK	Up to 90 sq. meters	Not Supported	1 Gbps
M6 Pro	US	Up to 2000 sq feet	Supported*	2.5 Gbps
M6 Pro	EU/AU/NZ/HK	Up to 90 sq. meters	Supported	2.5 Gbps

*WiFi 6E is restricted to indoor use only in the US. The power adapter must be plugged in to use the 6 GHz band. 6 GHz band must be manually enabled.

To enable In-Home Performance Mode:

1. Press and hold the **Power** button on your M6 until **Select a Power Option** displays.
2. Tap **Shut down**.
3. Remove the battery cover from your M6.
4. Remove the battery from your M6.
5. Replace the battery cover.
6. Plug your M6 into the supplied power adapter.
   Your mobile hotspot powers on, then reboots.

In-Home Performance Mode is now active on your M6.

NOTE: When you switch from a battery installed profile to a non-battery profile and vice-versa, your mobile hotspot powers on, then reboots into the new profile. This is normal operation.

WiFi and Ethernet Offloading

Your Nighthawk M6 mobile hotspot supports WiFi offloading and Ethernet offloading, which can lower your device's data usage and power consumption, along with other benefits:

- **WiFi offloading** lets your mobile hotspot use WiFi for data traffic instead of a cellular network. WiFi offloading can extend your battery life, prevent connection interruptions when switching between networks, and provide WiFi coverage in areas where cellular coverage is weak or unavailable.
- **Ethernet offloading** lets your mobile hotspot use its Ethernet controller to process data instead of its CPU. Ethernet offloading can improve data transfer rates when cellular service is weak, and provide a more reliable connection by dynamically switching between Ethernet and cellular connections when outages occur.

You can enable both features from the **Internet** menu on your Nighthawk M6.

Enable WiFi Offloading

To enable WiFi offloading:

1. Tap **Internet**.
2. Tap **WiFi + Cellular**.
   A pop-up notification displays.
3. Follow the instrustions displayed on the pop-up notification.

WiFi offloading is active.

Enable Ethernet Offloading

To enable Ethernet offloading:

1. Tap **Internet**.
2. Tap **Ethernet + Cellular**.
   A pop-up notification displays.
3. Tap **Continue**.

Ethernet offloading is active.

3

Manage Security

For information about WiFi security settings, see Manage WiFi security on page ?.

The chapter covers the following topics:

- Change the Nighthawk M6 web page login settings
- View connected devices from the Nighthawk M6 web page
- Activate SIM security

Change the Nighthawk M6 web page login settings

You can change the admin password for the Nighthawk M6 web page.

To change the login settings for the Nighthawk M6 web page:

1. From a computer or WiFi device that is connected to the Nighthawk M6, launch a web browser.
2. Enter **http://192.168.1.1**.

   The Nighthawk M6 web page displays.
3. Enter the administrator login password.

   The default password is printed on the product label. The password is case sensitive.

   The home page displays.
4. Select **Settings > Administration > Set Password**.
   The password settings are displayed.
5. In the **New Password** field, change the password used to log in as an administrator.

   Best practice is to set a more secure password.

   Enter a maximum of 31 characters.
6. Click the **Apply** button.

   Your settings are saved.

View connected devices from the Nighthawk M6 web page

To view the connected devices from the Nighthawk M6 web page:

1. From a computer or WiFi device that is connected to the Nighthawk M6, launch a web browser.
2. Enter **http://192.168.1.1**.

The Nighthawk M6 web page displays.

3. Enter the administrator login password.

   The default password is printed on the product label. The password is case sensitive.

   The home page displays.

Activate SIM security

You can create another level of security by configuring a PIN that you must enter before you can manage the network connection or view SMS messages.

To activate SIM security:

1. From a computer or WiFi device that is connected to the Nighthawk M6, launch a web browser.
2. Enter **http://192.168.1.1**.

   The Nighthawk M6 web page displays.

3. Enter the administrator login password.

   The default password is printed on the product label. The password is case-sensitive.

   The home page displays.

4. Select **Settings > Security > SIM Security**.

   The SIM Security page displays.

5. Click the **Activate** button.
6. Enter your PIN and click the **Apply** button.

   If you enter an incorrect PIN three times, the SIM is blocked. If the SIM is blocked, contact your network service provider to receive a PUK number to unblock the SIM.

4

Maintain Your Nighthawk M6

The chapter covers the following topics:

- Manage power usage with Power Manager
- Extend battery life
- View details about your device from the Nighthawk M6
- View details about your device from the Nighthawk M6 web page
- Add and select access point names (APN)
- Enable DMZ
- Update Nighthawk M6 software and firmware

Manage power usage with Power Manager

You can manage Nighthawk M6 power usage by enabling Power Manager.

Power Manager lets you select one of the following profiles:

- **Performance**: Best performance on battery.
- **Balance**: Best battery life.
- **Plugged In**: Max performance with battery removed.

Table 3. Power Manager Profile Settings

	Balanced	Performance	Plugged In
LCD on time	1 minute	1 minute	1 minute
WiFi range	Short	Long	Extended
WiFi standby	5 minutes	60 minutes	Never
Ethernet port	Off	On	On
Ethernet speed	100Base-T	1000Base-T	2.5GBase-T (M6 Pro only)

Select options under Battery Only or under Plugged In as required.

To enable Power Manager:

1. Press **Power** to wake the Nighthawk M6.

The Home screen appears.



2. Tap **Power Manager**.
   The **Power Manager** menu appears.
3. Select a profile that suits your needs.

Extend battery life

The Nighthawk M6, by default, is configured to optimize battery life. The following factors affect battery life:

- Screen brightness.
- Standby time.
- Data throughput.
- Mobile broadband signal strength (the better the signal, the longer the battery life).
- WiFi range.

To extend the battery life first use the Power Manager to specify a Balanced power configuration. Then use any of the following methods:

- Adjust WiFi settings.
- Adjust display settings.
- Use tethered USB.

Adjust WiFi settings to optimize battery life

Set the standby timer to a shorter period to minimize the wait time when no devices are connected to either WiFi network before going into standby mode (the WiFi radios turn off).

NOTE: WiFi on the Nighthawk M6 will restart whenever you make a change to WiFi settings. Please ensure your connected devices are set to automatically reconnect to WiFi.

You can set the following WiFi options to optimize battery life:

- Adjust the display settings. See Set the display to increase battery life from the Nighthawk M6 web page on page 46.
- Set the WiFi standby to 5 minutes.

Set the display to increase battery life from the Nighthawk M6

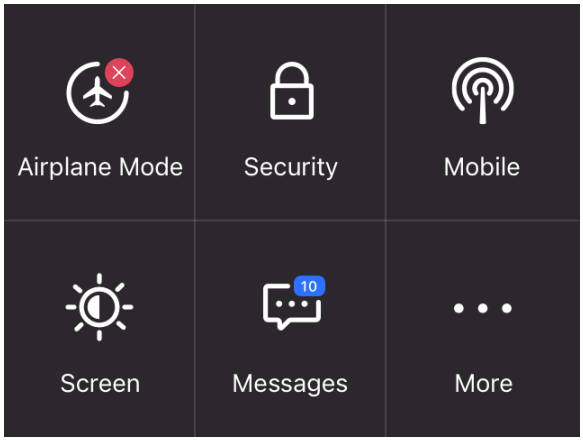
Dim the screen to reduce the LCD screen's brightness level. Set the screen time-out to a shorter period to reduce the amount of time the Nighthawk M6 waits without the LCD screen being touched before the screen turns blank.

To change the screen brightness from the Nighthawk M6:

1. Tap **Settings**



2. Tap **Screen**.



The settings screen for the network displays.

3. Slide the **Screen Brightness** slider to the brightness that you want.
Your settings are saved.
4. Tap **Screen Timeout**.
The Screen Timeout screen displays.
5. Tap the field for the selection that you want.
Your settings are saved.

Set the display to increase battery life from the Nighthawk M6 web page

Dim the screen to reduce the LCD screen's brightness level. Set the screen time-out to a shorter period to reduce the amount of time the Nighthawk M6 waits without the LCD screen being touched before the screen turns blank.

To adjust display settings to increase battery life from the Nighthawk M6 web page:

1. From a computer or WiFi device that is connected to the Nighthawk M6, launch a web browser.
2. Enter **http://192.168.1.1**.

   The Nighthawk M6 web page displays.
3. Enter the administrator login password.

   The default password is printed on the product label. The password is case sensitive.

The home page displays.

4. Select **Settings > Advanced > Device**.
   The device settings page opens.
5. Adjust any of these settings:
   - **Screen Brightness** . From the menu, select the screen brightness level.
   - **Screen Timeout** . From the menu, select a shorter time period.
6. Click the **Apply** button.

   Your settings are saved.

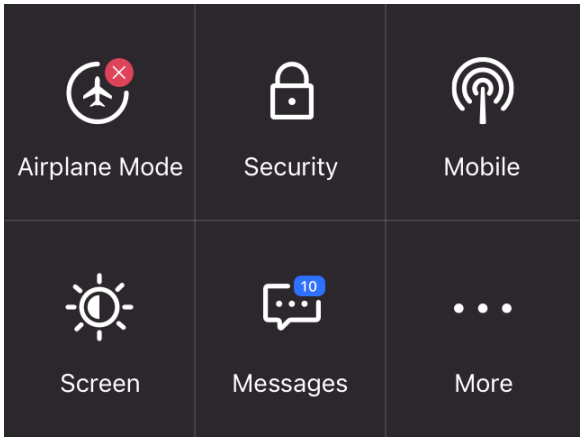
View details about your device from the Nighthawk M6

You can view details about your device such as the model number, software version, and IMEI (International Mobile Station Equipment Identity).

1. Tap **Settings**.



2. Tap **More**.



3. Tap **Device Information**.
4. Scroll down to view additional device information.

View details about your device from the Nighthawk M6 web page

You can view details about your device such as the model number, software version, and IMEI (International Mobile Station Equipment Identity).

To view details about your device from the Nighthawk M6 web page:

1. From a computer or WiFi device that is connected to the Nighthawk M6, launch a web browser.
2. Enter **http://192.168.1.1**.
   The Nighthawk M6 web page displays.
3. Enter the administrator login password.

   The default password is printed on the product label. The password is case sensitive.

   The home page displays.
4. Select **Settings > WiFi Status > Account**.
   The About page displays details for your Nighthawk M6.

Add and select access point names (APN)

Your Nighthawk M6 comes preconfigured with the access point name (APN) for your network service provider. You can add additional APNs and select among the configured APN for use by the Nighthawk M6. The Nighthawk M6 checks the APN to determine the type of network connection to establish.

Add an APN for another network

To add an APN for another network:

1. From a computer or WiFi device that is connected to the Nighthawk M6, launch a web browser.
2. Enter **http://192.168.1.1**.
   The Nighthawk M6 web page displays.
3. Enter the administrator login password.

   The default password is printed on the product label. The password is case-sensitive.

   The home page displays.
4. Select **Settings > Advanced > Cellular**.
   The Add APN screen displays.
5. Click the **Add** button.
   The APN page displays.
6. Specify the APN name.
   The APN name is a label for display in the UI.
7. Specify the APN
   This step specifies the APN as defined by the carrier
8. Change the PDP (data protocol), if necessary:
   - **IPV4**
   - **IPV6**
   - **IPV4V6**
9. Change the PDP roaming protocol, if necessary:
   - **None**
   - **IPV4**

- **IPV6**
- **IPV4V6**

NOTE: PDP roaming protocol is the IP protocol used while you are roaming (for example when you are traveling and the roaming network does not support IPv6).

10. Select the network authentication mode:
    - **None**
    - **PAP**
    - **CHAP**
    - **PAPCHAP**
11. Enter the name and password, if they are required for the network.
12. Click the **ADD** button.

    The entry is added to the table.

Select an APN to use

To select an APN to use:

1. From a computer or WiFi device that is connected to the Nighthawk M6, launch a web browser.
2. Enter **http://192.168.1.1**.
   The Nighthawk M6 web page displays.
3. Enter the administrator login password.

   The default password is printed on the product label. The password is case-sensitive.

   The home page displays.
4. Select **Settings > Advanced Settings > Cellular**.
   The APN page displays.
5. Select the **Active** radio button next to the APN entry.

   The APN is selected.

Remove an APN entry

To remove an APN entry:

1. From a computer or WiFi device that is connected to the Nighthawk M6, launch a web browser.
2. Enter **http://192.168.1.1**.
   The Nighthawk M6 web page displays.
3. Enter the administrator login password.

   The default password is printed on the product label. The password is case-sensitive.

   The home page displays.
4. Select **Settings > Advanced > Cellular**.
   The APN page displays.
5. Select the box to the left of the APN.
6. Click the **Delete** button.

   The APN is removed.

Enable DMZ

In a demilitarized zone (DMZ) network configuration, a computer runs outside the firewall in the DMZ. This computer intercepts incoming Internet traffic, providing an extra layer of protection for the rest of the network, and sending all incoming data to a particular IP address.

To enable the DMZ and designate a computer to screen incoming traffic:

1. From a computer or WiFi device that is connected to the Nighthawk M6, launch a web browser.
2. Enter **http://192.168.1.1**.
   The Nighthawk M6 web page displays.
3. Enter the administrator login password.

   The default password is printed on the product label. The password is case sensitive.

   The home page displays.
4. Select **Settings > Advanced > Other**.

The Nighthawk M6 page displays.

5. Scroll down to display the DMZ section.
6. Check the **Enable** check box.
7. In the **DMZ Address** field, enter the IP address of the computer to which you want all data sent.

   If the Nighthawk M6 is tethered using a USB cable, this address is 192.168.1.4. If the Nighthawk M6 is connected using WiFi, the first WiFi client's IP address is usually 192.168.1.XX.

   NOTE: IPv6 addresses are not supported.

8. Click the **Apply** button.

   Your settings are saved.

Update Nighthawk M6 software and firmware

The Nighthawk M6 automatically checks for new software or firmware updates periodically. If an update becomes available, the Nighthawk M6 displays an alert. You can also check for updates manually without receiving an alert.

Update Nighthawk M6 software and firmware in response to an Update Available alert

To update the Nighthawk M6 software or firmware in response to an Update Available alert:

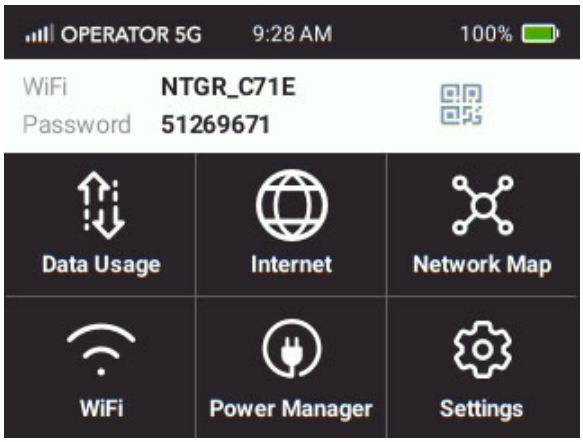
1. To wake the device, press the **Power** button.
   The home screen displays and shows the alert.
2. Tap **Install/Update**.

   The update process starts.

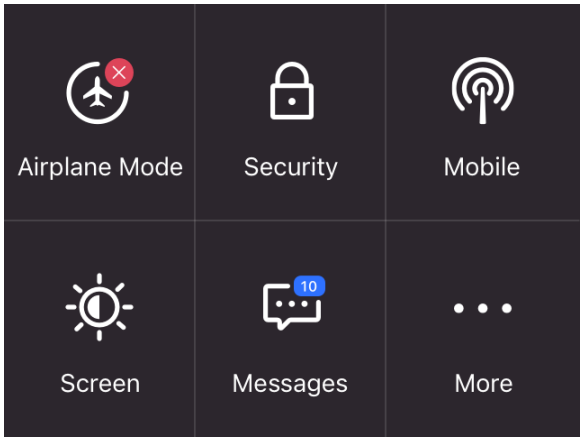
   After the update install completes, the Nighthawk M6 reboots.

Check for software updates from the Nighthawk M6

1. Tap **Settings**.



2. Tap **More**.



3. Tap **Software**.
   The Software Update screen displays.
4. Tap the **Check for updates now** button.
   The screen refreshes showing any available update.
5. Do one of the following:
   - If an upgrade is available and you want to install it, tap the **Update now** button to install the update.
   - To postpone the update, tap **Postpone**.

   If you tap Update now, the update proceeds.

   If you tap **Postpone** a message appears indicating the update will be postponed for 4 hours. You can then click **Apply** to accept the postponed update.

When the wait period is complete, after you are prompted to continue the update, tap **Continue Update**.

If the battery is low, a message appears indicating that the battery is low.

6. To continue, connect the device to the charge and click **Apply**.
   After the update install completes, the Nighthawk M6 reboots.

5

Frequently Asked Questions

This chapter provides answers to possible questions about your Nighthawk M6:

- Connect and disconnect devices and access the Internet
- Perform a factory reset
- General Questions

Connect and disconnect devices and access the Internet

Review these topics for answers to questions about connecting and disconnecting devices and accessing the Internet.

What do I do if I can't connect a device to the Nighthawk M6?

If you are experiencing problems connecting to the Nighthawk M6, try the following suggestions:

- Turn off your Nighthawk M6 and take the battery out, wait 10 seconds, put the battery back in, and turn your Nighthawk M6 on.
- Restart your computer or Wifi device.
- Turn off or temporarily disable any security programs or firewalls.
- If possible, try using another computer or WiFi device to connect to your Nighthawk M6. If you can, then the problem is with the device that cannot connect, not the Nighthawk M6.

What do I do if I can't access the Internet?

If you are connected to the Nighthawk M6 but cannot connect to the Internet, try the following suggestions:

- Check the display status on the Nighthawk M6's LCD screen.
- Make sure that network coverage is available in your area.
- Make sure that your SIM card is active and enabled with data services.
- Wait one to two minutes for the Nighthawk M6 to initialize.
- Check the device information screen to make sure the SIM information is displayed (to ensure the MHS sees the SIM).
- Confirm that your account is activated and that no other Internet connections are active.
- Switch your Nighthawk M6 off and on and restart your computer or WiFi device.

How do I disconnect from the mobile broadband network?

Turning off domestic data and international roaming disconnects your Nighthawk M6 from the mobile broadband network. For more information, see Turn domestic data off from the Nighthawk M6 web page on page 28.

How do I find out how many devices are connected to my Nighthawk M6 WiFi networks?

The number next to the **WiFi** button on the Nighthawk M6's LCD home screen is the number of users (or devices) connected to your WiFi network. When you log in to the Nighthawk M6 web page, the number of connected devices displays on the home page.

What do I do if the No Signal icon displays?

If the No Signal icon (⊘) displays, make sure that you are in your network service provider's coverage area.

Why can't my device access the Nighthawk M6 web page when connected to a VPN?

To directly access the Nighthawk M6 web page hosted on the device, enter the address **http://192.168.1.1** in your browser.

What do I do if my Nighthawk M6 doesn't connect to my service provider's network?

If your Nighthawk M6 does not connect to your service provider's mobile broadband network, try the following suggestions:

- Make sure that your SIM account is active. To check SIM status, contact your wireless service provider.
- If you use a prepaid SIM card, make sure that the account balance is positive.
- If your Nighthawk M6 still does not connect, you might need to create or update the default connection profile.

To check the default connection profile settings:

1. From a computer or WiFi device that is connected to the Nighthawk M6, launch a web browser.

2. Enter **http://192.168.1.1**.

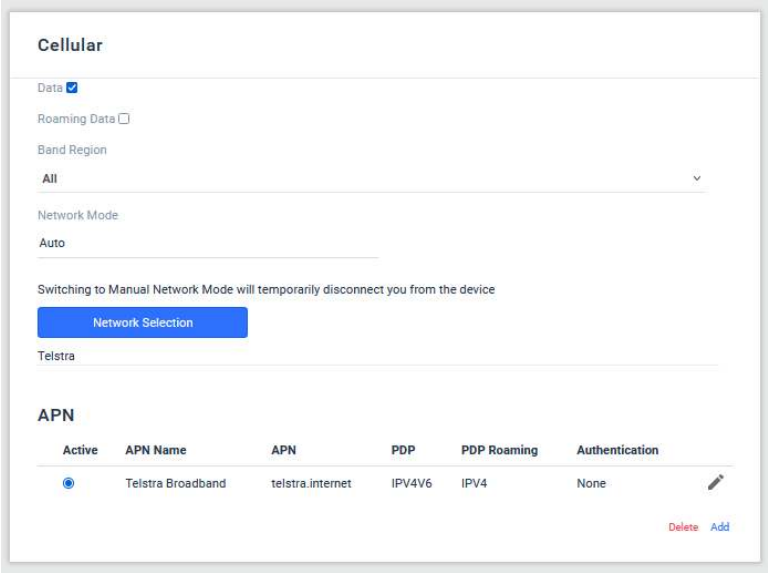
   The Nighthawk M6 web page displays.

3. Enter the Nighthawk M6 password.

   The default password is printed on the product label. The password is case sensitive.

   The home page displays.

4. Select **Settings > Advanced > Cellular**.



5. Review the settings.

How do I go back to the Nighthawk M6 web page?

To view the Nighthawk M6 web page:

1. From a computer or WiFi device that is connected to the Nighthawk M6, launch a web browser.
2. Enter **http://192.168.1.1**.

   The Nighthawk M6 web page displays.

3. Enter the administrator login password.

   The default password is printed on the product label. The password is case sensitive.

   The Nighthawk M6 web page displays.

What do I do if I forget my admin login password?

The default password is printed on the product label. The password is case sensitive. The Nighthawk M6 web page URL is **http://192.168.1.1**.

If you changed the admin login password and can't remember the password that you created, you must reset the Nighthawk M6 back to factory defaults. See Reset the Nighthawk M6 on page ?.

Perform a factory reset

A factory reset deletes all personalized settings including your username, password, WiFi network name (SSID), and security settings. A factory reset is necessary when you cannot recover your password.

How do I perform a factory reset from the touch screen?

To perform a factory reset using the touch LCD:

1. Tap **Settings**.
2. Tap **More**.
3. Tap **Factory Reset**.
4. Tap **Reset Now**.
5. Tap **Continue**.
   Your mobile hotspot resets.

How do I perform a factory reset with the Reset button?



To perform a factory reset using the reset button:

1. Remove battery cover, but leave the battery installed.
2. Locate the reset button.
   The reset button is inside of a small hole labelled **RESET**.
3. Press and hold the reset button with a paper clip or similar object for up to 10 seconds.
   Use only gentle pressure. Pressing too hard or using a sharp object will damage your hotspot and might void your warranty.
4. Release the reset button.
   Your mobile hotspot displays **resetting...**
   Your mobile hotspot is reset.

General Questions

Review these topics for answers to general questions about the Nighthawk M6.

Where should I place my mobile hotspot?

NETGEAR mobile hotspots connect to cellular towers using the same technology found in cellphones. Therefore, mobile hotspots are subject to the same sorts of connectivity considerations as cellphones. The following are some guidelines for where to place your hotspot.

We recommend placing your hotspot close to a window. Signal strength might vary depending on location. We recommend walking around the area where you plan to use your hotspot, with your device in hand, to find where you receive the best performance.

Things that might negatively impact your cellular signal:

- Large buildings or trees
- Thick or dense walls made of concrete, brick, or metal
- Electronic appliances such as microwave ovens, robot vacuums, baby monitors, and cordless phones
- Reflective surfaces like mirrors
- Fish tanks and water coolers

Placement Tips

- Place your hotspot close to a window with no obstructions.
- Make sure that your hotspot is placed in an elevated location and not on the floor.
- Stand the hotspot up on its edge and point its LCD screen in the direction of the best signal location.
- Do not place your hotspot inside of a cupboard or other enclosure.

Using the signal indicator on the dashboard

The signal indicator is at the top left of the dashboard screen. Use the indicator to find the best signal strength by walking around the location where you intend to use your hotspot.

Signal Bars	Signal Status
5 Bars	Best
4 Bars	Better
3 Bars	Good
0-2 Bars	Not good

Why isn't my battery charging?

If you are in a low-coverage area, are transferring a lot of data, or left the Nighthawk M6 in a hot location, the internal temperature of the Nighthawk M6 can rise above 45°C (113°F). In these conditions, the battery cannot be charged due to safety limits with lithium-ion battery technology.

Check to ensure that the USB cable and the AC wall charger are connected securely and are working correctly.

If the device is left charging for over seven consecutive days, the device automatically enters a battery longevity mode to enhance the life of the battery. During this state, the device stops charging and allows the battery level to drop to and maintain at approximately 75 percent. The next time the device is plugged into a charger, it resumes charging.

Why is the Signal Strength indicator always low?

Your Nighthawk M6's reception is poor. Try moving it to a location with a clear view of the sky (for example, near a window).

Why is the download or upload speed slow?

Data transfer speed depends on signal strength and interfering radio sources like electrical generators or other Nighthawk M6 WiFi devices. Review the following possibilities:

- Check your signal strength and network type (for example, 5G is generally faster than 4G).
- Check WiFi interference by powering the Nighthawk M6 off and on to find a better WiFi channel.
- Change the WiFi band from 2.4 GHz to 5 GHz.

The LCD screen is not lit. How do I know if the Nighthawk M6 is still powered on?

The LCD screen dims to save energy. To wake the Nighthawk M6, press the **Power** button.

How do I find my computer's IP address?

The steps for finding your computer's IP address depend on the operating system. If your device runs an operating system not listed here, see the appropriate operating system documentation.

Find the IP address on a Windows 10 device

To find the IP address on a Windows 10 device:

1. Open the command prompt window:
   a. Select **Start > Run**.
   b. Enter **cmd** or **command** and click the **OK** button.
2. At the command prompt, enter **ipconfig** and press **Enter**.
3. Write down the IP address for the entry that relates to the WiFi network connection.

   The IP address might be listed under IPv4 Address or something similar.

Find the IP address on a Mac OS X device

To find the IP address on a Mac OS X device:

1. From the Apple menu, select **System Preferences > Network**.
2. Select the WiFi adapter.

   The IP address is displayed in the right pane.

Find the IP address on devices running other operating systems

To find the IP address on devices running other operating systems:

Refer to the user documentation for your operating system or computer.

How do I find a device's MAC address?

You must know the MAC address for a device when you are doing the following:

- Assigning an IP address based on a MAC address (when using DHCP)
- Allowing or denying devices access to your WiFi network (MAC filtering)

Tip: The steps for finding a device's MAC address depend on the operating system. If your device runs an operating system not listed in the following procedures, see the appropriate operating system documentation.

Find the MAC address on a Windows 10 device

To find the MAC address on a Windows 10 device:

1. Open the command prompt window:
   a. Select **Start > Run**.
   b. Enter **cmd** or **command** and click the **OK** button.

2. At the command prompt, enter **ipconfig /all** and press **Enter**.
3. Write down the physical address for the entry that relates to the WiFi network connection.

   It appears as a series of numbers and letters. This is the MAC address of your WiFi adapter.

Find the MAC address on a Mac OS X device

To find the MAC address on a Mac OS X device:

1. From the Apple menu, select **System Preferences > Network**.
2. Select the WiFi adapter that is connecting to the routing hardware.
3. Select **Advanced**.
4. Select **Ethernet**.

   The Ethernet ID is displayed. This is the same as the MAC address.

What do I do if the WiFi network name doesn't appear in the list of networks?

If you do not see the Nighthawk M6's WiFi networks from your WiFi-enabled device, try these suggestions:

- Refresh the list of networks.
- If the LCD screen is dark, the WiFi radio might be asleep. Press the **Power** button to wake the Nighthawk M6.
- Check the WiFi band settings and consider using the 2.4 GHz band for increased compatibility with client devices.

A

Specifications

This appendix covers the following topics:

- Battery specifications
- Nighthawk M6 and M6 Pro LCD display specifications
- Mechanical specifications
- LTE and 5GNR transmission specifications
- Nighthawk M6 mobile band specifications
- Features for Nighthawk M6 product family
- GPS support
- Package contents
- Port specifications
- Security specifications
- WiFi specifications
- Environmental specifications

Battery specifications

Battery specifications:

- Removable Li-ion battery
- Up to 9 hours of continuous usage

NOTE: 9+ hour battery life is achieved by the following heaviest case: stream YouTube for 1 hour, followed by 30 minutes of idle time, and then repeat for over 9 hours.

Nighthawk M6 and M6 Pro LCD display specifications

The following table indicates the Nighthawk M6 and M6 Pro LCD display specifications.

Device	Display Type
Nighthawk M6 (MR6100, MR6110, MR6150)	2.4 in. (6.1 cm.) LCD touch screen
Nighthawk M6 Pro (MR6400, MR6450, MR6500, MR6550)	2.8 in. (7.1 cm.) LCD touch screen.

Mechanical specifications

Table 4. Physical dimensions

Parameter	Dimension
Weight	250 g (.55 lb) with battery
Length	105 mm (4.15 in.)
Width	105 mm (4.15 in.)
Thickness	21mm (0.84 in.) excluding the feet, which are 0.55 mm high (0.2 in)

LTE and 5GNR transmission specifications

Transmission specifications

The following tables indicate the LTE and 5GNR transmission characteristics.

Table 5. LTE transmission characteristics for MR6150 and MR6550

Frequency (MHz)	Bands	Ext Ant Gain (dBi)
1850-1910	B2	4
1710-1755	B4	4
824-849	B5	4
2500-2570	B7	4
698-716	B12	4
777-787	B13	4
788-798	B14	4
1850-1915	B25	4
814-849	B26	4

Table 5. LTE transmission characteristics for MR6150 and MR6550 (Continued)

Frequency (MHz)	Bands	Ext Ant Gain (dBi)
2305-2315	B30	1.05
2496-2690	B41	4
3400-3600	B42	-0.23
3550-3700	B48	0.17
1710-1780	B66	4
663-698	B71	4

Table 6. LTE transmission characteristics for MR6400

Frequency (MHz)	Bands	Ext Ant Gain (dBi)
1850-1910	B2	4
1710-1755	B4	4
824-849	B5	4
2500-2570	B7	4
698-716	B12	4
777-787	B13	4
788-798	B14	4
1850-1915	B25	4
814-849	B26	4
2305-2315	B30	1.05
2496-2690	B41	4
3400-3600	B42	-0.23
3550-3700	B48	0.17
1710-1780	B66	4
663-698	B71	4

Table 7. LTE transmission characteristics for MR6500

Frequency (MHz)	Bands	Ant1 Gain (dBi)	Ant2 Gain (dBi)	Ext Ant Gain (dBi)
1850-1910	B2	0.67	0.45	4
1710-1755	B4	0.67	0.54	4
824-849	B5	-0.88	-1.60	4
2500-2570	B7	0.39	-0.53	4
698-716	B12	-0.83	-1.60	4
788-798	B14	-0.83	-1.60	4
717-728	B29	-0.83	-1.60	4
2305-2315	B30	1.03	1.05	1.05
3550-3700	B48	0.17	1.66	0.17
1710-1780	B66	0.67	0.54	4

Table 8. 5GNR transmission characteristics for MR6150

Frequency (Mhz)	Bands	Ext Ant Gain (dBi)
1850-1919	n2	4
824-849	n5	4
698-716	n12	4
788-798	n14	4
1850-1915	n25	4
2305-2315	n30	1.05
2496-2690	n41	4
3550-3700	n48	0.17
1710-1780	n66	4
663-698	n71	4
3300-3550, 3700-4200	n77	4

Table 9. 5GNR transmission characteristics for MR6400

Frequency (Mhz)	Bands	Ext Ant Gain (dBi)
1850-1919	n2	4
824-849	n5	4
698-716	n12	4
788-798	n14	4
1850-1915	n25	4
2305-2315	n30	1.05
2496-2690	n41	4
3550-3700	n48	0.17
1710-1780	n66	4
663-698	n71	4
3300-3550, 3700-4200	n77	6

Table 10. 5GNR transmission characteristics for MR6500

Frequency (Mhz)	Bands	Ext Ant Gain (dBi)
1850-1919	n2	4
824-849	n5	4
698-716	n12	4
788-798	n14	4
2305-2315	n30	1.05
1710-1780	n66	4
3300-3550, 3700-4200	n77	6

Table 11. 5GNR transmission characteristics for MR6550

Frequency (Mhz)	Bands	Ext Ant Gain (dBi)
1850-1919	n2	4
824-849	n5	4

Table 11. 5GNR transmission characteristics for MR6550 (Continued)

Frequency (Mhz)	Bands	Ext Ant Gain (dBi)
2500-2570	n7	4
698-716	n12	4
788-798	n14	4
1850-1915	n25	4
2305-2315	n30	1.05
2570-2620	n38	4
2496-2690	n41	4
3550-3700	n48	0.17
1710-1780	n66	4
663-698	n71	4
3300-3550, 3700-4200	n77	4 (FCC), 0.17 (ISED)
3300-3800	n78	4 (FCC), 0.17 (ISED)

Nighthawk M6 mobile band specifications

This section provides mobile band specifications for the Nighthawk devices.

To view tables that show the mobile band specifications for the Nighthawk devices, use the camera app on your mobile device to select the following QR code.

Features for Nighthawk M6 product family

Insight Pro Feature Support

- MR6500-1A1NAS
- MR6110-1A1NAS

WiFi 6E (6 GHz) Feature Support

To view tables that show the feature support for the Nighthawk devices, use the camera app on your mobile device to select the following QR code.

2.5G BaseT Feature Support

To view tables that show the feature support for the Nighthawk devices, use the camera app on your mobile device to select the following QR code.

GPS support

Some Nighthawk M6 devices provide GPS support. When using these devices, you can enable GPS from the Nighthawk M6 device as described in Enable GPS from the Nighthawk M6 on page 26.

The following table indicates which Nighthawk M6 devices support GPS.

Table 12. Nighthawk M6 and M6 Pro GPS support

Device	GPS support
MR6110	Yes
MR6400	Yes
MR6500	Yes
MR6150	No
MR6450	No
MR6550	No

Package contents

Your Nighthawk M6 package includes the following:

- Nighthawk M6 Pro or Nighthawk M6
- Removable lithium ion battery
- AC charger
- USB Type-C cable
- Quick Start Guide
- Safety leaflet

Port specifications

The Nighthawk M6 provides one USB 3.2 Type-C port and an Ethernet port.

Security specifications

Supported security features:

- WiFi security encryption
- VPN pass-through
- NAT firewall
- Password protected administration UI

WiFi specifications

WiFi support

- WiFi 802.11a/b/g/n/ac/ax, 2x2 MIMO
- 2.4/5/6 GHz Standalone

The following restrictions apply in

AT/BE/BG/CZ/DK/EE/FR/DE/IS/IE/IT/EL/ES/CY/LV/LI/LT/LU/HU/MT/NL/NO/PL/PT

/RO/SI/SK/TR/FI/SE/CH/UK(NI)/HR/HK:

- Operation in 5150MHz to 5350MHz is restricted to indoor use only.
- This device is restricted to indoor use only when operating in the 5945MHz to 6425MHz band (to the extent that these frequencies are made available).
- This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.
- SAR is measured with the device at 5 mm to the body, while transmitting at the highest certified output power level in all frequency bands of the device. The maximum SAR value is 1.652 W/kg (body) averaged over 10 gram of tissue.

Table 13. GHz specifications

GHz	Range
5GHz	5150-5350MHz, 5470-5875MHz
6GHz	5945-6425MHz

Environmental specifications

Table 14. Recommended operating and storage temperatures

Environment	Temperature
Operating temperature	0°C to 35°C (32 F to 95°F)
Storage temperature	–10°C to +60°C (14°F to 140°F)