

# **AirCard<sup>®</sup>**

# **778S Mobile Hotspot**

## **User Guide**



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## Important Notice

Due to the nature of wireless communications, transmission and reception of data can never be guaranteed. Data may be delayed, corrupted (i.e., have errors) or be totally lost. Although significant delays or losses of data are rare when wireless devices such as the NETGEAR® modem are used in a normal manner with a well-constructed network, the NETGEAR modem should not be used in situations where failure to transmit or receive data could result in damage of any kind to the user or any other party, including but not limited to personal injury, death, or loss of property. NETGEAR accepts no responsibility for damages of any kind resulting from delays or errors in data transmitted or received using the NETGEAR modem, or for failure of the NETGEAR modem to transmit or receive such data.

## Safety and Hazards

Do not operate the NETGEAR modem in areas where blasting is in progress, where explosive atmospheres may be present, near medical equipment, near life support equipment, or any equipment which may be susceptible to any form of radio interference. In such areas, the NETGEAR modem **MUST BE POWERED OFF**. The NETGEAR modem can transmit signals that could interfere with this equipment.

Do not operate the NETGEAR modem in any aircraft, whether the aircraft is on the ground or in flight. In aircraft, the NETGEAR modem **MUST BE POWERED OFF**. When operating, the NETGEAR modem can transmit signals that could interfere with various onboard systems.

The driver or operator of any vehicle should not operate the NETGEAR modem while in control of a vehicle. Doing so will detract from the driver or operator's control and operation of that vehicle. In some states and provinces, operating such communications devices while in control of a vehicle is an offence.

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# 1: Get Started

This chapter provides an overview of the AirCard 778S Mobile Hotspot features, and instructions on how to set up your mobile hotspot and connect to the Internet.

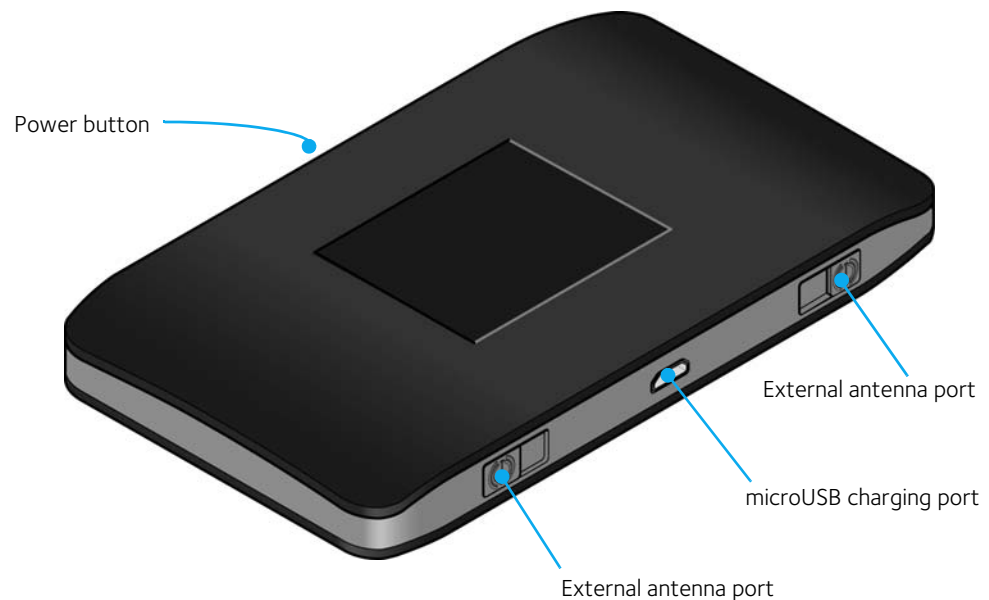
## Know your device

Your mobile hotspot enables you to create a Wi-Fi network anywhere there is cellular network coverage. You can use that Wi-Fi network to connect your laptop and other Wi-Fi capable devices to your network provider's mobile broadband network and connect to the Internet.

You can also use your mobile hotspot in tethered mode by connecting it to your laptop with the USB cable to access the Internet.

Additional features include:

- LCD interface — View basic data usage information, system and network provider alerts and messages.
- Web interface — Configure hotspot and Wi-Fi network settings from a connected device.
- Wi-Fi Protected Setup (WPS) — A fast, easy way to connect WPS-enabled devices to your Wi-Fi network
- Guest Wi-Fi — Create a second Wi-Fi network on the hotspot for guests to use
- English/Spanish user interface



## Power button

**Table 1-1: Power button usage**

Desired result	Action
Turn mobile hotspot on	Press and hold the power button for 3–4 seconds.
Turn mobile hotspot off	Press and hold the power button for 3–4 seconds.
Wake up Wi-Fi signal and device screen	Press and quickly release the power button.
Cycle through screens	Click (press and quickly release) the power button: <ul style="list-style-type: none"><li>• Once — Go to next topic (switch between main screen, alerts, guest Wi-Fi setup, About)</li><li>• Twice — Go to next page of the current topic (for example, switch between pages of the 'About' screen)</li></ul>

## LCD screen

The mobile hotspot's LCD displays:

- Wi-Fi network name and password
- Network signal icons (See [LCD screen elements](#) on page 9 for details.)
- Data usage details
- Wi-Fi status, number of connected devices
- Notifications

For advanced settings, use a Wi-Fi enabled device to connect to the hotspot and then visit the homepage at <http://192.168.1.1>.



## LCD screen elements

Icons on the LCD screen's top row indicate the status of the mobile hotspot. Icons on the second row indicate alerts, messages, other notifications, and battery status. The remainder of the screen shows Wi-Fi details and data usage.

### Homescreen

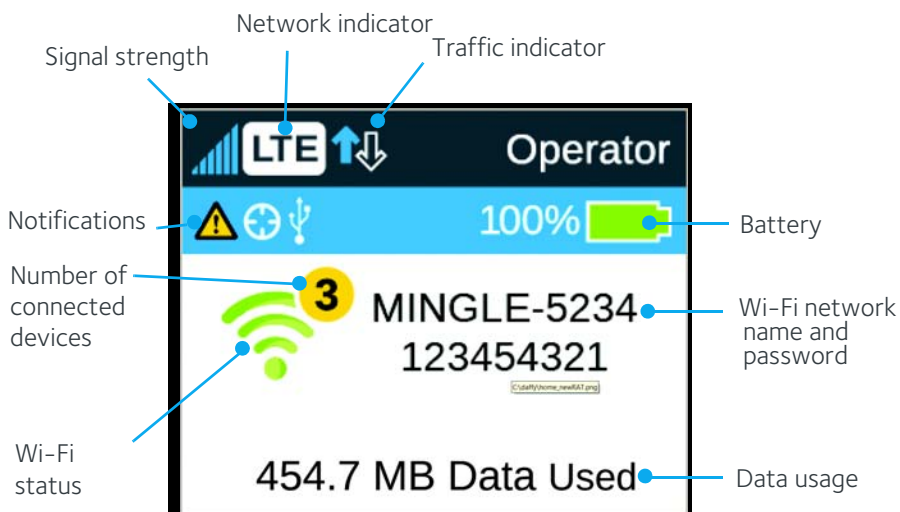


Figure 1-1: LCD homescreen

Table 1-2: LCD homescreen elements

Element	Indicates
Signal strength	The more bars the stronger the network provider's signal.
Network indicator	Shows currently connected mobile broadband network type.
Battery status	Indicates the charge status of the battery. Green bar — 26–100% Yellow bar — 11–25% Red bar — <10%. Connect charger.
Notifications	Indicates alerts to be read, USB tethered status, etc.
Wi-Fi network name and Wi-Fi password	Mobile hotspot's Wi-Fi network name and password. Used by Wi-Fi enabled devices to connect to the mobile hotspot.
Data Usage	Text description of data used in current billing period.
Wi-Fi status	Icon is colored when Wi-Fi radio is active, or grey when it is sleeping.

## Accessories

- Micro USB cable—Used mainly for recharging the battery, although you can also use it to tether the mobile hotspot to your computer
- Wall charger—Used with the USB cable to recharge the battery or to power the mobile hotspot from a wall socket

## Power sources

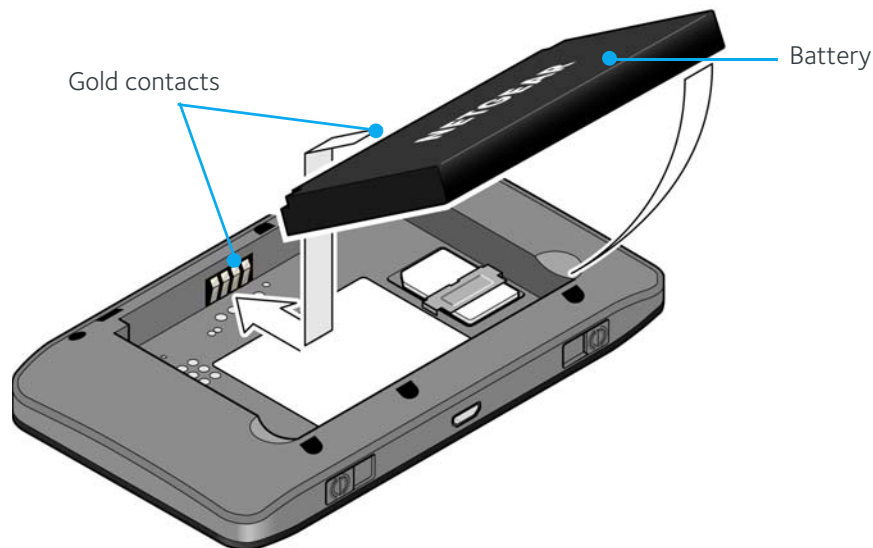
You can power your mobile hotspot from:

- Rechargeable battery included with the mobile hotspot
- Wall socket using the wall charger and USB cable
- USB port on your computer

## Set up and connect to the Internet

### Install the battery

1. Insert the battery as shown in the illustration. Ensure that the gold contacts on the battery are lined up with the gold contacts on the device.



2. Replace the back cover.

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*Note:* The battery comes partially-charged and ready to go. When the battery needs recharging, follow the instructions in [Recharge the battery](#) on page 15.

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## Connect to the Internet

To connect to the Internet:

1. Turn on the mobile hotspot.  
Press and hold the power button for a few seconds. Once powered up, the mobile hotspot automatically searches for and connects to your network provider's mobile broadband network.
2. Connect your computer or other device to your Wi-Fi network.
  - a. On your computer, view the list of available Wi-Fi networks.
  - b. Select the Wi-Fi network name displayed on the mobile hotspot LCD screen, and connect to it.
  - c. When prompted, enter your Wi-Fi network password, as it appears on the mobile hotspot LCD screen.
3. Launch your browser to surf the Internet.

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*Note:* Your mobile hotspot does not need to be connected to the computer with the USB cable to connect to the Internet. The USB cable is used mainly for recharging the battery. (You can also connect to the Internet with the mobile hotspot tethered to the laptop with the USB cable.)

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*Note:* To customize the mobile hotspot's settings, use a Wi-Fi enabled device to connect to the hotspot and then use a browser to display the homepage (<http://192.168.1.1>). Log in as Administrator to make changes.

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*Note:* The LCD screen may go into sleep mode to save power. To wake up the LCD screen, press and quickly release the power button.

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## Device configuration

Your mobile hotspot comes configured, perfectly secure and ready to use, but if you want to change the security settings, the Wi-Fi network name (SSID) and other settings, go to your mobile hotspot's homepage (<http://192.168.1.1>).

You must be logged in as Administrator to change settings and view detailed information.

## Security credentials

Three passwords are associated with the mobile hotspot:

- Wi-Fi password — Used to connect your computer or other Wi-Fi device to your mobile hotspot network. This character string is unique to your device. It is displayed on the main mobile hotspot LCD screen. If the screen is blank (a power-saving feature), press and quickly release the power button to view the information on the screen.
- Admin Login — Used to log into the homepage as Administrator. You must be logged in as Administrator to use certain features and to make changes to your mobile hotspot settings. The Admin Login can be 5–31 characters.
- Guest Wi-Fi Password — When enabled, guests can use this password to access the Guest Wi-Fi network.

You can change these passwords on the homepage, <http://192.168.1.1>.



## 2: Use Your Mobile Hotspot

This chapter provides information on how to use your mobile hotspot.

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*Note:* To change settings you need to be logged in as Administrator. See [Set up and connect to the Internet](#) on page 10.

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### Add a wireless device to your Wi-Fi network

You can connect up to ten wireless devices (plus one device tethered by USB) such as smart phones, laptops, tablets, digital cameras, printers, gaming consoles, and digital picture frames to your mobile hotspot network.

You can add a wireless device to your Wi-Fi network manually, or if the device you are adding is Wi-Fi Protected Setup (WPS) enabled, you can use the WPS method to connect the device without using the Wi-Fi password.

#### Add a device manually

1. On the wireless device you want to add to your network, view the list of available Wi-Fi networks.
2. Connect to the network that corresponds to your mobile hotspot network, as displayed on the LCD.
3. When prompted, enter the Wi-Fi password for your mobile hotspot network. The Wi-Fi password is displayed on the mobile hotspot LCD screen. (If the screen has turned off to save power, press and quickly release the power button to wake up the screen.)

#### Add a WPS-enabled device

You can add a WPS-enabled Wi-Fi device to your Wi-Fi network without a Wi-Fi password:

1. On the homepage, log in as Administrator.
2. Click **Wi-Fi**.
3. Click **WPS** for either the Main Wi-Fi or Guest Wi-Fi.
4. Choose the WPS method you want to use:
  - If the device you want to connect has a WPS button: Click **WPS button pairing**, and then within two minutes (120 seconds) press the device's WPS button, or
  - If the device you want to connect has a WPS PIN associated with it: Click **Enter WPS PIN**, and then enter the device's WPS PIN.

Your mobile hotspot and the wireless device will communicate and establish the connection.

## Messages and Alerts

### View alerts

Your mobile hotspot displays alerts to advise you of the device status.

#### On the LCD screen:

On the home screen, the Alerts icon indicates that you have system alerts.

To view alerts:

1. On the home screen, click the power button (press and quickly release).
2. Read each alert that appears and follow any displayed instructions. Click (press and quickly release) the power button twice to show the next alert.

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*Note:* Alerts remain as long as the issues that cause them are active. When the issues are dealt with, the alerts are removed automatically.

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#### On the homepage:

If you have logged in as Administrator, any active alerts will appear on the homepage.

To view alerts:

1. Log in as Administrator. Active alerts will appear at the top of the homepage.
2. Follow the instructions in each alert to address the conditions that caused them to appear.

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*Note:* Alerts remain as long as the issues that cause them are active. When the issues are dealt with, the alerts are removed automatically.

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## Battery

### Battery life

The mobile hotspot, by default, is configured to optimize battery life. Battery life is affected by:

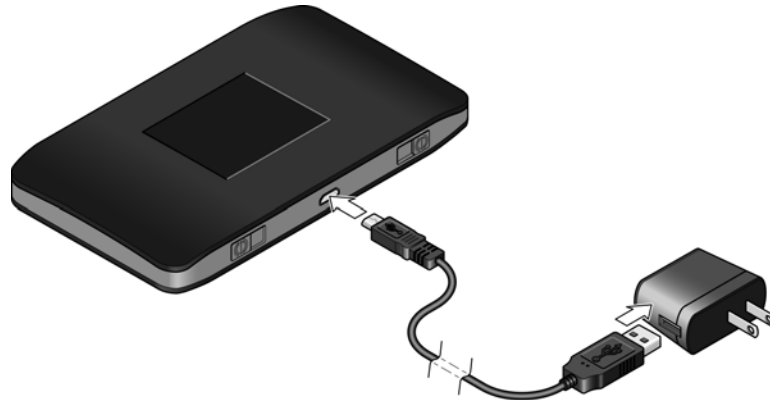
- Standby time
- Data throughput
- Mobile Broadband signal strength (the better the signal, the longer the battery life)


## Recharge the battery

The battery comes partially charged. You can recharge the battery from a wall socket or from the USB port on your computer.

To recharge the battery from a wall socket (Fastest option):

1. Attach one end of the micro USB cable to the mobile hotspot and attach the other end to the wall charger (included).



2. Plug the wall charger into a wall socket. The battery icon includes a lightning bolt to indicate that the battery is charging. (  )

The battery icon on the LCD screen indicates when the battery is fully charged


(  ) and an alert is displayed.

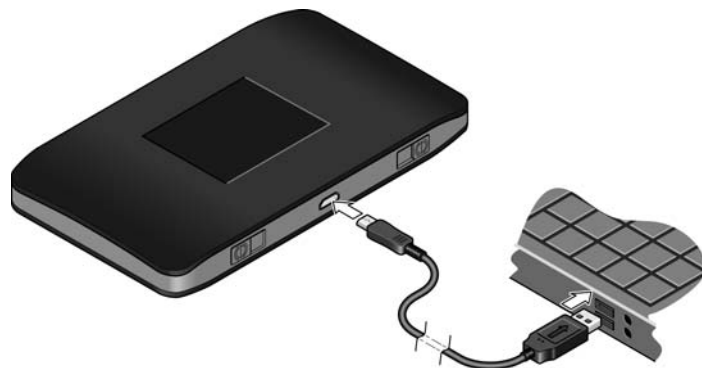
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*Note:* The LCD goes into sleep mode after a set time to extend battery life. To wake up the LCD screen, press and quickly release the power button.

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To recharge the battery from the USB port on your computer:

1. Attach one end of the micro USB cable to the mobile hotspot and plug the other end into the USB port on your computer. The battery icon includes a lightning bolt to indicate that the battery is charging. (  ).



The battery icon on the LCD screen indicates when the battery is fully charged () and an alert is displayed.



## 3: Frequently Asked Questions

This chapter provides answers to questions you may have about your mobile hotspot. (Also see [Troubleshooting](#) on page 19.)

### How do I turn the mobile hotspot off?

Press and hold the power button for 3–4 seconds.

### How do I find out how many users are connected to my mobile hotspot network?

The number on the Wi-Fi icon on the mobile hotspot LCD shows the number of users (or devices) connected to your Wi-Fi network, and a list of connected devices is shown in the homepage's Devices Connected section.

For more details about a device connected to your network, on the homepage click the device name in the Devices Connected section.

### The LCD screen is not lit. How do I know if the mobile hotspot is still powered on?

The LCD screen dims to save energy. To wake up the LCD, press and quickly release the power button.

### Where can I find more information?

- Refer to the Quick Start that came with your mobile hotspot.



# 4: Troubleshooting

This chapter provides suggestions for troubleshooting problems that may arise when using your mobile hotspot.

## Reset the mobile hotspot

From the homepage, you can clear your account information to use your device another account, reset most settings (except for your account and network activation), or reset your device to its factory default settings (this is useful if you have lost your Admin Login for the homepage).

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*Note:* If you reset the modem, all of your customizations will be lost. If you want to keep them, save them before doing the reset, then restore them afterward. See [Download \(backup\) and restore settings](#) on page 44 for details.

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*Note:* When you reset the hotspot, any currently connected devices will lose access and will have to be reconnected after the hotspot restarts.

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1. On the home page, click **Settings > General > Software and Reset**.
2. Click **Reset** for one of these options:
  - **Clear Programming** — Clear account details to use the device with another account.
  - **Settings Reset** — Reset device to its default behavior, but don't change the account or network activation.
  - **Factory Reset** — Reset the device to its factory default settings.
3. Click **Begin Reset**.
4. After the device has reset, reconnect Wi-Fi devices.

## Alerts

### Temperature-related alerts

The mobile hotspot is designed to work over a wide temperature range. (See [Environmental specifications](#) on page 21 for details.) The mobile hotspot will shut down automatically if it goes out of the supported temperature range.

Move the device to an area where the temperature is more suitable and, if the mobile hotspot is too warm, make sure the area is well-ventilated and air can circulate around the device.

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*Note:* The battery may not recharge if the mobile hotspot is outside the operating temperature range.

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## 5: Specifications

### Mechanical specifications

**Table 5-1: Mechanical specifications**

Weight	104g (3.67 oz.)
Length	110 mm (4.33 in.)
Width	60 mm (2.36 in.)
Thickness	16 mm (0.63 in.) [excluding feet]

### Environmental specifications

**Table 5-2: Environmental specifications**

Operating temperature	0° C to 45° C (32° F to 113° F)
Storage temperature	-20° C to +60° C, 30 days (-4° F to 140° F)

### Supported RF bands

**Table 5-3: Supported RF bands**

Technology	Bands
LTE	FDD: <ul style="list-style-type: none"> <li>• Band 25 (1900 MHz)</li> <li>• Band 26 (850 MHz)</li> </ul> TDD: <ul style="list-style-type: none"> <li>• Band 41 (2600 MHz)</li> </ul>
CDMA (EVDO, 1x/eHRPD)	BC0 (800 MHz) BC1 (1900 MHz) BC10 (850 MHz)



# 6: Regulatory and Safety Information

## Notice

Because of the nature of wireless communications, transmission and reception of data can never be guaranteed. Data may be delayed, corrupted (that is, have errors), or be totally lost. Although significant delays or losses of data are rare when wireless devices such as the AirCard 778S Mobile Hotspot are used in a normal manner with a well-constructed network, the AirCard 778S Mobile Hotspot should not be used in situations where failure to transmit or receive data could result in damage of any kind to the user or any other party, including but not limited to personal injury, death, or loss of property. NETGEAR and its affiliates accept no responsibility for damages of any kind resulting from delays or errors in data transmitted or received using the AirCard 778S Mobile Hotspot, or for failure of the AirCard 778S Mobile Hotspot to transmit or receive such data.

## Safety and Hazards

The mobile hotspot **MUST BE POWERED OFF** in all areas that may be susceptible to radio interference, in particular:

- Prohibited areas  
Obey all signs and notices and follow all rules and regulations. Power off the mobile hotspot when instructed to do so or when you suspect that it may cause interference or danger.
- In areas where blasting is in progress
- Where explosive atmospheres may be present  
Areas with a potentially explosive atmosphere are not always clearly marked. Such areas include gas stations, fuel depots, chemical transfer or storage facilities, areas where blasting is in progress, areas where the air contains chemicals or particles such as grain, dust, or metal powders, and any other area where you would normally be advised to turn off your cellular phone or vehicle engine.
- Near medical or life-support equipment  
Medical equipment may be susceptible to any form of radio interference. In such areas the mobile hotspot can transmit signals that could interfere with this equipment.
- On board aircraft  
In addition to Federal Aviation Authority (FAA) requirements, many airline regulations state that you must suspend wireless operations before boarding an aircraft. The mobile hotspot is capable of transmitting signals that could interfere with various onboard systems and controls.

Failure to observe this instruction may lead to suspension or denial of cellular telephone services to the offender, legal action, or both.

Some airlines may permit the use of cellular phones while the aircraft is on the ground and the door is open. The mobile hotspot may be used normally at this time.

- While operating a vehicle

The driver or operator of any vehicle should not use a wireless data device while in control of a vehicle. Doing so detracts from the driver or operator's ability to control and operate the vehicle. In some countries, using such communications devices while in control of a vehicle is an offence.

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**Caution:** Unauthorized modifications or changes not expressly approved by NETGEAR, Inc. could void compliance with regulatory rules, and thereby your authority to use this device.

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## Proper Battery Use and Disposal

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*Note:* Improper battery use may result in a fire, explosion, or other hazard.

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To ensure safe and responsible battery use:

- Do not open, disassemble, puncture, crush, bend, or shred.
- Do not expose to water or other liquids, fire, explosion, or other hazards.
- Use the battery only in the mobile hotspot.
- If using with a charger, use only the charger supplied with the mobile hotspot.
- Do not short circuit the battery.
- When replacing a battery, use the same model of battery that was supplied with the mobile hotspot.
- Follow local regulations when disposing of a used battery.
- Avoid dropping the mobile hotspot or the battery. If dropped and you suspect damage, take it to a service center for inspection.

## Regulatory Information for North America

FCC ID: PY3AC778S

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**Caution:** The AirCard 778S Mobile Hotspot was tested for typical body-worn operations. A minimum separation distance must be maintained between the user's body and the Hotspot: 1 cm to comply with the RF exposure requirements in the U.S. for FCC exposure requirements.

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This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.



Where appropriate, the use of the equipment is subject to the following conditions:

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**Note: (EMI)** – *United States FCC Information* – This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
  - Increase the separation between the equipment and receiver.
  - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  - Consult the dealer or an experienced radio/TV technician for help.
- 

removed  
repeated content  
(I had left in 'If  
this equipment  
does cause ... tv  
technician for  
help')

If you have purchased this product under a United States Government contract, it shall be subject to restrictions as set forth in subparagraph (c)(1)(ii) of Defense Federal Acquisitions Regulations (DFARs) Section 252.227-7013 for Department of Defense contracts, and as set forth in Federal Acquisitions Regulations (FARs) Section 52.227-19 for civilian agency contracts or any successor regulations. If further government regulations apply, it is your responsibility to ensure compliance with such regulations.



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