

High-Speed **2go**<sup>™</sup>

# Device User Manual

3G Mobile Broadband Device



 **comcast.**



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# Welcome

Here's your new 3G Mobile Broadband device!

With the 3G Mobile Broadband device and High-Speed 2go™ service, you can connect to the Internet from virtually anywhere you work and play.

If you have not yet signed up for High-Speed 2go, please call **1-800-COMCAST (1.800.266.2278)** or go to **<http://customer.comcast.com/highspeed2go>** to establish service before installation.



## Package Contents

This 3G Mobile Broadband device package contains the following components:

- 3G Mobile Broadband device
- Device User Manual
- USB flex cable
- Comcast Connection Manager on device (including the Comcast Connection Manager User Manual)

**Note:** *The USB flex cable provides an alternative means of connecting your Mobile Broadband device to your laptop and may improve your connection.*

## Minimum Requirements

Hardware/Software	Windows®	Mac OS X
USB	one active port	one active port
Operating System	Windows 7, Vista, XP Service Pack 2 or later	Mac OS X v10.5, Mac OS X v10.6
Processor	1 GHz (Windows 7, Vista) 300 MHz (XP)	867 MHz (Intel-based)
RAM	2 GB (Windows 7) 1 GB (Vista) 256 MB (XP)	512 MB
Hard Drive Space	100 MB	100 MB
<b>Browser(s)</b>	IE 7 (Windows 7, Vista) IE 5.5 (XP)	Safari (most current available version is recommended)

**Note:** You must use one of browsers listed above in order to install and use your Comcast Connection Manager. Other browsers may be used to browse the Internet.

*High-Speed 2go works only with 32-bit mode versions of the Mac operating systems.*

## Tips Before Starting

- **Close any programs or files that are open**, as your laptop may require restart once installation is completed for the Comcast Connection Manager.
- **Uninstall all other Connection Managers, if applicable.** This only applies if you have previously installed any connection managers on your laptop to support other mobile wireless devices.

# Windows OS

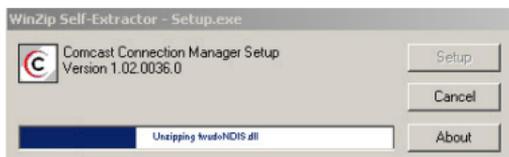
These steps are for installing the Comcast Connection Manager (CCM) on your PC laptop with a Windows operating system (OS).

## Insert

- Insert the 3G Mobile Broadband device into any USB port on your laptop.
- Windows will begin to recognize the device. Keep the device inserted into your laptop.
- Allow at least two minutes for the device recognition to complete. When finished, a message similar to “Your device is ready to use” or “Your new hardware is installed and ready to use” may display in your system tray.
- Following device recognition, the CCM will automatically begin the installation process.
- Proceed to the Install section.

## Windows: Install

- Once the CCM software automatically begins to install from the device, follow the on-screen instructions. Allow 3-5 minutes for installation.



(Sample Screen- Latest Version of the Comcast Connection Manager Will Display)

- If, within 3 minutes, your computer does **not** automatically begin to install software from the device:
  - Browse to the drive designated as "**Comcast CM**" in **My Computer** and double click to open.
  - If these steps fail, go to the Windows: Troubleshooting section.

## Windows: Install

continued

- The **InstallShield Wizard** box displays. Click **Next** to continue the installation process.
- Read the Service Agreement. If you accept the terms, click on **I accept the terms in the Service Agreement**. Click **Next** to continue the installation process. If you do not accept the terms, you will not be able to install the Comcast Connection Manager or use the High-Speed 2go service.



(Sample Screen – Latest version of the Service Agreement Will Display)

## Windows: Install

continued

- Click **Next** in the Destination Folder box to accept the default destination installation folder (recommended). Or, click on “Change” to browse to a different destination folder. Then, click **Next**.
- Click **Install** to run the installation process.



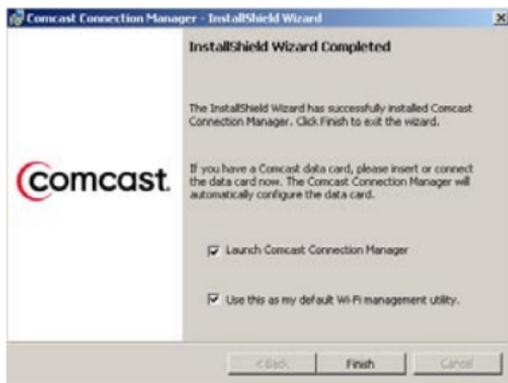
The Installing Comcast Connection Manager progress indicator displays.



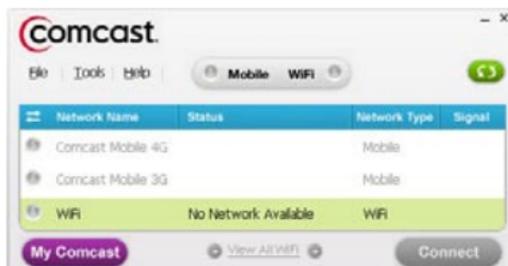
## Windows: Install

continued

- Click **Finish** in the InstallShield Wizard Completed box to complete the installation. It is recommended that you leave the following default settings checked: “Launch Comcast Connection Manager” and “Use this as my default Wi-Fi management utility.”



- The Comcast Connection Manager launches automatically when installation is complete.



- Disconnect from the Internet.
- Proceed to the Connect section.

## Windows: Connect

- The Comcast Connection Manager (CCM) will automatically begin the connection process to Comcast Mobile 3G service.
- Within 30-40 seconds, the CCM should display “Hands Free Activation Started” in the Status column for Comcast Mobile 3G. Do not take any action during this process.



- Within 2-3 minutes, the CCM should display “Connected” in the Status column for Comcast Mobile 3G.



## Windows: Connect

continued

- Once you are connected, it is recommended that you check for software updates. Go to the main menu of the Comcast Connection Manager and select **Tools**, then **Check for Updates**. If there are updates, the Comcast Connection Manager will prompt you with instructions.

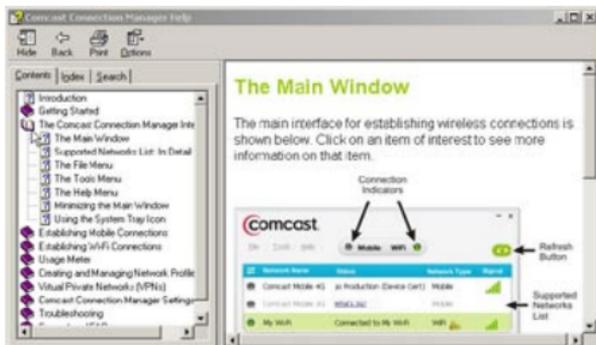
**Note:** *The 3G Mobile Broadband device you have selected is for use with the 3G Mobile Broadband service only. Access to 4G Mobile Broadband service requires a different device offered by Comcast. Also, if you experience any issues connecting with your device, please refer to the **Windows: Troubleshooting** section in this manual.*

## Windows: Troubleshooting

1. Click on **Help** from the Comcast Connection Manager main menu. Then, click on **Help** again.



2. The Help **Contents** panel displays. Click on a book symbol (shown below) to access a Help topic, or click the "Index" or "Search" tabs to look up a Help topic.



## Windows: Troubleshooting

continued

3. You can also refer to the Comcast Connection Manager User Manual, available within the Comcast Connection Manager program folder on your laptop.
4. Explore Frequently Asked Questions on our Customer Central webpage at <http://customer.comcast.com/highspeed2go>.

## Potential Troubleshooting Scenarios:

### Mobile Broadband device plugged in but nothing happens

Verify that your device is receiving power by checking to see that the LED light on your device is on. If not, take the following actions to ensure a good connection for your device:

- Disconnect your device from the USB port, then reconnect it to the USB port.
- Attach your device to the USB port by using the USB flex/extension cable included with your device.
- Insert your device into a different USB port on your laptop.
- To verify that the USB port on the laptop is functioning, try inserting a different device (i.e., thumb or flash drive) into your USB port(s).

If none of these actions are successful in powering your 3G Mobile Broadband device, record any error messages displayed and contact Customer Care at 1.866.206.2182.

## Windows: Troubleshooting

continued

### ***During first use, Mobile Broadband device is inserted in USB port and LED light is on, but Comcast Connection Manager installation does not automatically begin.***

If your device does not begin to automatically install the Comcast Connection Manager within 3-5 minutes of first inserting the device, check in My Computer for the drive designated as “**Comcast CM**” and double click to open. If this manual step is not successful in initiating the software installation, or the “Comcast CM” drive does not appear (or disappears quickly) in My Computer, you may have drivers remaining from a previous connection manager installation:

- First, attempt to uninstall any connection managers on your laptop.
- If uninstalling connection managers does not resolve the issue, contact Customer Care at 1.866.206.2182. They will guide you through the correct steps for removing these drivers.

Following these steps will enable you to either automatically install or manually install the Comcast Connection Manager.

### ***After attempting installation of the Comcast Connection Manager, the shortcut icon is not displayed on the desktop.***

This may indicate that installation of your Comcast Connection Manager (CCM) was not successful.

- To resolve this issue, attempt once again to install

## Windows: Troubleshooting

continued

the CCM by unplugging the device, reinserting the device, and repeating the CCM installation process.

- If your second attempt to install the CCM is not successful, record any error messages displayed and contact Customer Care at 1.866.206.2182.

### Comcast Connection Manager did not launch after successful installation.

Verify that you did not uncheck the **“Launch Comcast Connection Manager”** checkbox during installation. Attempt to launch the Comcast Connection Manager manually by double-clicking the CCM shortcut icon on your desktop.

If the CCM still does not launch via the manual method, record any error messages displayed and contact Customer Care at 1.866.206.2182.

### “Hands Free Activation Failed” message is displayed on the Comcast Connection Manager.

Failures of this type may indicate that your device is not provisioned correctly. To update the provisioning components of your device, take the following action:

- Click on **Tools** in the Comcast Connection Manager.
- Select **Settings** from the Tools menu.
- Click on the **Hardware** tab, then click on the **Modify** button in the Mobile Devices row of the Hardware tab.
- The Device Properties page displays. In the Comcast Mobile tab of the Device Properties page,

## Windows: Troubleshooting

continued

click on the **Update Profile** button in the Device Configuration area.

- After the Profile Update process has completed, unplug and reconnect your Mobile Broadband device.
- Attempt to reconnect to the network. If you continue to encounter this error, record any error messages displayed and contact Customer Care at 1.866.206.2182.

### Mobile Broadband network(s) not active in Comcast Connection Manager.

If the Comcast Connection Manager (CCM) has not properly installed your device, the Comcast Mobile 3G line will be completely grayed out in the CCM main menu screen. If this is the case, disconnect and then reconnect the device to allow the CCM an opportunity to install your device. You should receive various Windows messages indicating that the components to support your device are being installed.

### While attempting to connect to the network for approximately 2-3 minutes, the:

- **CCM generates an error message (e.g., 668, 678, 718), or**
- **CCM may show “Ready to Connect” and/or may continuously display “Disconnecting”.**

There are various causes for these scenarios, so first attempt to resolve this by:

## Windows: Troubleshooting

continued

- Pulling the device out of the laptop.
- Allowing the CCM to reset (i.e., wait until all options are grayed out.)
- Reinserting the device back into the USB port of your laptop.

If your device still does not connect to the network, this may indicate that your device is not provisioned correctly. To update the provisioning components of your device, take the following action:

- Click on **Tools** in the Comcast Connection Manager.
- Select **Settings** from the Tools menu.
- Click on the **Hardware** tab, then click on the **Modify** button in the Mobile Devices row of the Hardware tab.
- The Device Properties page displays. In the Comcast Mobile tab of the Device Properties page, click on the **Update Profile** button in the Device Configuration area.
- After the Update Profile process has completed, unplug and reconnect your Mobile Broadband device.
- Attempt to reconnect to the network. If you continue to encounter this error, record any error messages displayed and contact Customer Care at 1.866.206.2182.

### I am unable to establish a 3G connection.

It is possible that you are not in an adequate coverage area for the 3G network. Connect your device using the USB flex/extension cable. You can also try moving closer to a window if indoors, or to higher ground if outdoors.

## Windows: Troubleshooting

continued

### I can see a 3G network in the Comcast Connection Manager, but my device does not automatically connect.

Try manually connecting by highlighting the **Comcast Mobile 3G** line in the Comcast Connection Manager and clicking on **Connect**. If you cannot establish a connection after working through the Troubleshooting scenarios listed above, record any error messages displayed and contact Customer Care at 1.866.206.2182.

If you continue to have issues with your Mobile Broadband device or Connection Manager software, please contact Customer Care at 1.866.206.2182.

# Mac OS X

These steps are for installing the Comcast Connection Manager (CCM) on your Apple® laptop with a Mac OS X operating system.

## Insert

- Insert the 3G Mobile Broadband device into any USB port on your laptop.
- Mac OS X will begin to recognize the device. Keep the device inserted into your laptop.
- Allow at least two minutes for the device recognition to complete.
- Following device recognition, the CCM will automatically begin the installation process.
- Proceed to the Install section.

**Note:** *If the **Installer.mpkg** box is not displayed within three minutes of inserting the device, locate the application in the Downloads folder, within Finder, on your Mac. **Click** on the Installer.mpkg file to begin installation, then proceed to the Install section on the next page.*

## Mac OS X: Install

- Click on the **Installer.mpkg** box to begin the installation.



- A pop-up box will open and state “This package will run a program to determine if the software can be installed.” Click **Continue** to begin the installation process.



- The Install CCM box displays. Click **Continue**.



# Mac OS X: Install

continued

- The Service Agreement displays. Click **Continue**.



- Select **Read Agreement** to read the Service Agreement (optional). Click **Agree** to accept the terms and allow installation to proceed. If you do not accept the terms, you will not be able to install the Comcast Connection Manager or use the High-Speed 2go service.



## Mac OS X: Install

continued

- Click on the Macintosh HD icon, then click **Continue**.



- Click **Install** to accept the default installation location (recommended).



## Mac OS X: Install

continued

- You are prompted to enter your password (if you did not set up a password on your laptop, do not type an entry). Click **OK**.



- A warning states that your laptop will automatically restart upon completion of the installation. If restarting your laptop is okay, click **Continue Installation** (otherwise, you must select "Cancel" and install CCM later).



## Mac OS X: Install

continued

- Please wait for the installation to finish.



- After a successful installation, click **Restart** and your laptop will automatically restart.



- Disconnect from the Internet (including AirPort).
- Proceed to the Connect section.

## Mac OS X: Connect

- The Comcast Connection Manager (CCM) will automatically begin the connection process to Comcast Mobile 3G service.
- Mac OS X will begin device recognition. Do not take any action during this process.



- Hands Free Activation will begin. Do not take any action during this process.



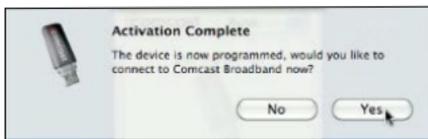
## Mac OS X: Connect

continued

- Upon completion of Hands Free Activation, device recognition will reoccur. Do not take any action during this process.



- Device activation is complete. Click **Yes**.



- The CCM will begin searching for Comcast Mobile 3G service. Do not take any action during this process.



## Mac OS X: Connect

continued

- The CCM will automatically connect to the Comcast Mobile 3G service.



- Once you are connected, it is recommended that you check for updates. Go to the main menu of the Comcast Connection Manager and select **Tools**, then **Check for Updates**. If there are updates, the Comcast Connection Manager will prompt you with instructions.

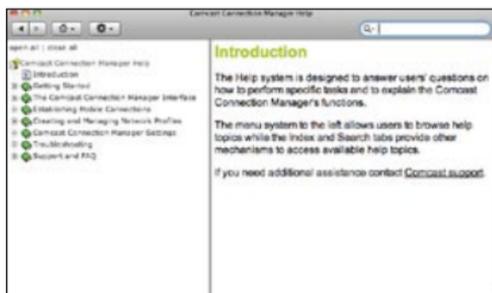
**Note:** For tips on how to connect to a Virtual Private Network (VPN), refer to the **Mac OS X: Troubleshooting** section of this manual.

# Mac OS X: Troubleshooting

1. Go to Comcast Connection Manager Main Menu and click on **Help**. The Help menu displays.



2. You can:
  - a. Enter a topic next to “Search” and press **Enter** (see above).
  - b. Select **Comcast Connection Manager Help** and a window will appear (see below). On the left pane, click on + or – to display Help topics in the right pane. Or, go to the upper right and enter a topic in the white space, then press Enter.



3. You can also refer to the Comcast Connection Manager User Manual, available within the Comcast Connection Manager program folder on your laptop.

## Mac OS X: Troubleshooting

continued

4. Explore Frequently Asked Questions on our Customer Central webpage at <http://customer.comcast.com/highspeed2go>.

## Potential Troubleshooting Scenarios:

### Mobile Broadband device plugged in but nothing happens.

Verify that your device is receiving power by checking to see that the LED light on your device is on. If not, take the following actions to ensure a good connection for your device:

- Disconnect your device from the USB port, then reconnect it to the USB port.
- Attach your device to the USB port by using the USB flex/extension cable included with your device.
- Insert your device into a different USB port on your laptop.
- To verify that the USB port on the laptop is functioning, try inserting a different device (i.e., thumb or flash drive) into your USB port(s).

If none of these actions are successful in powering your 3G Mobile Broadband device, record any error messages displayed and contact Customer Care at 1.866.206.2182.

## Mac OS X: Troubleshooting

continued

### ***During first use, Mobile Broadband device is inserted in USB port and LED light is on, but Comcast Connection Manager installation file does not appear on the desktop.***

If the drive designated as “**Comcast CM**” appears on your desktop upon **first use**, double-click on the **Installer.mpkg** file to start the installation process. Otherwise, you will need to manually start the installation process:

- Access the **Finder** application, go to File and open a New Finder Window.
- Click on the **Comcast CM** drive in the left column under Devices.
- Double-click on the **Installer.mpkg** file and the Comcast Connection Manager will begin installation. Follow installation instructions previously described in **Mac OS X: Install**.
- If the previous steps do not work, your device may not contain the Comcast Connection Manager for Apple computers. If this is the case, download and install the Comcast Connection Manager software by going to <http://customer.comcast.com/highspeed2go>. In the Quick Links section, under Comcast Connection Manager, select Mac OS X v10.5 and v10.6.

If the Comcast Connection Manager does not successfully install or you encounter any other issues, record any error messages displayed and contact Customer Care at 1.866.206.2182.

## Mac OS X: Troubleshooting

continued

### Comcast Connection Manager window is not displayed on desktop.

If the Comcast Connection Manager window is not displayed on your Desktop, you may have closed the application and/or modified the “Automatically run this application at login” setting under Preferences.

- Look for the **Comcast device icon** in your tray and click on it to activate the application.
- Once it is opened, click on **Preferences** to verify the appropriate setting for automatically running the Comcast Connection Manager application at login.

If the Comcast device icon is not displayed in your application tray, make sure that Comcast Connection Manager has been properly installed by checking within the Applications folder on your Mac for the presence of the Comcast Connection Manager.

- If it is present, point your mouse over the Comcast Connection Manager line and click to activate it.
- If the Comcast Connection Manager is not present in your Applications folder, you will need to re-install the application. Follow the steps previously described under **first use**.

If these steps are not successful in installing and gaining access to the Comcast Connection Manager application, record any error messages displayed and contact Customer Care at 1.866.206.2182.

## Mac OS X: Troubleshooting

continued

### “Hands Free Activation Failed” message is displayed on the Comcast Connection Manager.

Failures of this type may indicate that your device is not provisioned correctly. To update the provisioning components of your device, take the following actions:

- Access the Comcast Connection Manager application, select **Preferences** and then click on the **Hardware** tab in the Settings screen.
- Highlight your device under the CDMA Devices folder by clicking on it. Click on the **Edit Device Settings** button towards the bottom of the screen. A device-specific screen will appear.
- Click on the **Update Profile** button. You will receive an Update Notification screen. Click **OK** on this screen to begin updating your profile.
- You will see a “Preparing Services. Please Wait” message in the Comcast Connection Manager window. You will then receive a “Device Not Activated” message. Click **OK** on the device-specific screen and Settings screen.
- You will then receive a “Device Resetting” message followed by an Activation Complete screen. Click **Yes** on this screen to connect to the 3G network.
- The Comcast Connection Manager window will first display “Starting Device”, then it will attempt to connect to the 3G network.
- After the Profile Update process has completed, you may be requested to unplug and reconnect your

## Mac OS X: Troubleshooting

continued

Mobile Broadband device.

- If your device does not automatically connect to the 3G network, you may need to manually connect by clicking on the **Connect** button in the Comcast Connection Manager window.

If you are still unable to connect to the network, record any error messages displayed and contact Customer Care at 1.866.206.2182.

**When attempting to connect to a VPN network, error message(s) appear such as:**

- **“Multiple connections are not allowed”, or**
- **“Secure VPN Connection terminated locally by the Client.”**

Make sure you have launched the Comcast Connection Manager (CCM). Go to the CCM main menu and:

- Click “Comcast Connection Manager.”
- Go to “Preferences.”
- Select the “Hardware” tab. At bottom left corner, check the box next to “Allow simultaneous connections.”

**While attempting to connect to the network for approximately 2-3 minutes, the:**

- **CCM generates an error message (e.g., 668, 678, 718), or**
- **CCM may show “Ready to Connect” and/or may continuously display “Disconnecting”.**

## Mac OS X: Troubleshooting

continued

There are various causes for these scenarios, so first attempt to resolve this by:

- Pulling the device out of the laptop.
- Allowing the CCM to reset (i.e., wait until all options are grayed out.)
- Reinserting the device back into the USB port of your laptop.

If your device still does not connect to the network, this may indicate that your device is not provisioned correctly. To update the provisioning components of your device, take the following action:

- Click on **Tools** in the Comcast Connection Manager.
- Select **Settings** from the Tools menu.
- Click on the **Hardware** tab, then click on the **Modify** button in the Mobile Devices row of the Hardware tab.
- The Device Properties page displays. In the Comcast Mobile tab of the Device Properties page, click on the **Update Profile** button in the Device Configuration area.
- After the Update Profile process has completed, unplug and reconnect your Mobile Broadband device.
- Attempt to reconnect to the network. If you continue to encounter this error, record any error messages displayed and contact Customer Care at 1.866.206.2182.

## Mac OS X: Troubleshooting

continued

### **I am unable to establish a 3G connection.**

If your Comcast Connection Manager window shows “No Network Available” and the button says **Rescan**, it is possible that you are not in an adequate coverage area for the 3G network.

- Connect your device using the USB flex/extension cable and attempt to rescan for the network.
- You can also try moving closer to a window if indoors, or to higher ground if outdoors.

Once the network is recognized, the Comcast Manager window will say “Ready: Comcast Mobile 3G” and should automatically connect to the network.

### **My Comcast Connection Manager window says “Ready: Comcast Mobile 3G”, but my device does not automatically connect.**

Try manually connecting by clicking on the **Connect** button in the Comcast Connection Manager window. If you cannot establish a connection after working through the Troubleshooting scenarios listed above, record any error messages displayed and contact Customer Care at 1.866.206.2182.

If you continue to have issues with your Mobile Broadband device or Connection Manager software, please contact Customer Care at 1.866.206.2182.

# Product Information

## LED Operation

Your device has lights that indicate the following details. (These indicator lights are called L.E.D., or light-emitting diodes).

Status	LED Color		
	Red	Amber	Green
No Power	Off	Off	Off
No 3G Service	Solid	Off	Off
Error – Reset Device	Off	Solid	Off
Powered – No Data Transfer	Off	Off	Solid
Searching for 3G Network	Off	Off	Blinking Slowly
Connected to 3G Network with Data Transfer	Off	Off	Blinking Intermittently

## Important Safety Information

Because of 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 3G Mobile Broadband device are used in a normal manner with a well-constructed network, they 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.

Novatel Wireless and Comcast accept no responsibility for damages of any kind resulting from delays or errors in data transmitted or received using the 3G Mobile Broadband device, or for any failure of the 3G Mobile Broadband device to transmit or receive such data.

- Do not operate the 3G Mobile Broadband device in areas where blasting is in progress or where explosive atmospheres may be present.
- Do not operate the 3G Mobile Broadband device near medical equipment, life support equipment, or any equipment which may be susceptible to any form of radio interference, including hearing aids and pacemakers. In such areas, the 3G Mobile Broadband device must be removed from your computer. It can transmit signals that could interfere with this equipment.

## Important Safety Information

continued

- Do not operate the 3G Mobile Broadband device in any aircraft, whether the aircraft is on the ground or in flight. In aircraft, the 3G Mobile Broadband device must be removed from your computer. It can transmit signals when operating that could interfere with various onboard systems.
- The driver or operator of any vehicle should not operate the 3G Mobile Broadband device while in control of a vehicle. Doing so will detract from the driver or operator's control and operation of that vehicle. In some jurisdictions, operating such communication devices while in control of a vehicle is an offense.
- The 3G Mobile Broadband device must be used in a ventilated environment.
- Do not use the device where two-way radios are prohibited.
- Do not touch the antenna area unnecessarily while connected. This can reduce the signal quality and affect your device's performance.
- Do not use the device at a gas station.
- The device contains sensitive electronic circuitry. Do not expose the device to any liquids, high temperatures or shock.
- Store the device out of the reach of small children. Do not allow children to play with the device. The device may cause injury if used as a toy.

## **Important Safety Information**

continued

- Only use original accessories or accessories that are authorized by Novatel Wireless or Comcast. Using unauthorized accessories may affect your device's performance, damage your device and violate governmental regulations.
- There are no user-serviceable parts inside the device. Unauthorized dismantling or repairing of the device will void the warranty.
- This device 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.
- Do not use the device immediately after a sudden temperature change, e.g., from an air-conditioned environment to high temperature and humidity outside. In such cases moisture could develop inside the device, causing internal damage. Unplug the device and wait for 30 minutes before use.
- Close any associated software applications before removing the device.

# Safe Use Notification



Federal Communications Commission Notice (FCC –United States) Electronic devices, including computers and wireless modems, generate RF energy incidental to their intended function and are therefore subject to FCC rules and regulations. This equipment has been tested to, and found to be within the acceptable 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 when the equipment is operated in a residential environment. This equipment generates radio frequency energy and is designed for use in accordance with the manufacturer's user manual. However, there is no guarantee that interference will not occur in any particular installation. If this equipment causes harmful interference to radio or television reception, which can be determined by turning the equipment off and on, you are encouraged to try to correct the interference by one or more of the

## Safe Use Notification

continued

following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the 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/ television technician for help.

This device complies with Part 15 of the Federal Communications Commission (FCC) Rules. Operation is subject to the following two conditions:

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

**WARNING: DO NOT ATTEMPT TO SERVICE THE WIRELESS COMMUNICATION DEVICE YOURSELF. SUCH ACTION MAY VOID THE WARRANTY. THE MC760 MODEM IS FACTORY TUNED. NO CUSTOMER CALIBRATION OR TUNING IS REQUIRED. CONTACT COMCAST TECHNICAL SUPPORT FOR INFORMATION ABOUT SERVICING YOUR WIRELESS COMMUNICATION DEVICE.**

**FCC CAUTION:** Any changes or modification not expressly approved by the party responsible for

## Safe Use Notification

continued

compliance could void the user's authority to operate this equipment.

**MODIFICATIONS:** The FCC requires that you be notified that any changes or modifications made to this device that are not expressly approved by Comcast may void your authority to operate the equipment. This 3G Mobile Broadband device is approved for use in normal size notebook computers only (typically with 12" or larger display screens). To comply with FCC RF exposure requirements, the 3G Mobile Broadband device should not be used in configurations that cannot maintain at least 11 mm (approximately 0.43" or 7/16") from users and bystanders; for example, in certain notebook and tablet computers and configurations where the USB connectors are unable to provide or ensure the necessary separation is available between the modem and its users to satisfy compliance.

### **RF Exposure/Specific Absorption Rate (SAR) Information:**

This product has been evaluated for SAR and meets the FCC Guidelines for exposure to radio waves.

### **FCC Equipment Authorization ID:** PKRNVWMC760

Your wireless modem is a radio transmitter and receiver. It is designed and manufactured not to exceed the exposure limits for radio frequency (RF) energy set by the Federal Communications Commission (FCC) of the

## Safe Use Notification

continued

U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The exposure standard for wireless devices including mobile USB Modems and wireless modems uses a unit of measurement known as the Specific Absorption Rate, or SAR. Tests for SAR are conducted using standard operating positions reviewed by the FCC with the device under test transmitting at its highest certified power level in all frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the 3G Mobile Broadband device while operating can be well below the maximum value. This is because the 3G Mobile Broadband device is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output.

Before this device is made available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government-adopted requirement for safe exposure. The tests are performed in positions and locations (for example, at the ear or worn on the body) as required by the FCC for each model.

## **Safe Use Notification**

continued

THE FCC HAS GRANTED AN EQUIPMENT AUTHORIZATION FOR THIS 3G MOBILE BROADBAND DEVICE WITH ALL REPORTED SAR LEVELS EVALUATED AS IN COMPLIANCE WITH THE FCC RF EXPOSURE GUIDELINES. THE HIGHEST SAR VALUE FOR THIS 3G MOBILE BROADBAND DEVICE WHEN TESTED FOR COMPLIANCE AGAINST FCC STANDARDS WAS 1.53 W/KG USER-LAP POSITION.

# Regulatory Approvals

## **FCC Approval**

This device is compliant with parts 15, 22 and 24 of the FCC Rules (FCC ID: PKRNVWMC760).

## **SAR Value Ratings**

1.535 W/Kg (835 MHz – FCC Rules Part 22)

1.47 W/Kg (1900 MHz – FCC Rules Part 24)

# Specifications

## Mechanical Specifications

Dimensions (W – D – H)	2.2" x 0.98" x 0.47" (57 mm x 25 mm x 12 mm)
Weight	0.67 oz (19g)
Form Factor	USB Series "A" type plug
Antenna Type	Internal

## Environmental Specifications

Operating temperature	+32°F to +131°F (0°C to +55°C)
Storage temperature	-4°F to +149°F (-20°C to +65°C)
Humidity	5% – 90%, within operating temperature

## Radio Frequency and Electrical Specifications

Interface Type	High-Speed USB 2.0 compliant
Common Air Interface	1xEVDO Rev A
Power Consumption	
Transmit max	650mA
Idle max	115mA

# Notifications

## **Trademarks**

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Other marks are the property of their respective owners.

## **Copyrights**

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## Customer Limited Warranty

Should the Product, during normal consumer usage conditions, be defective in material or workmanship that results in Product failure within the first twelve (12) month period from the date of purchase, such defects will be repaired or replaced with new or refurbished parts or Products, at Comcast's sole discretion, without charge for parts and labor directly related to the defect(s). This warranty extends to consumers who purchase the product from Comcast and is not transferable or assignable.

This warranty does not apply to:

- (a) Products subject to abnormal use or conditions, accidents, mishandling, neglect, unauthorized alterations, misuse, improper installation or repair or improper storage;
- (b) Products whose mechanical serial number or electronic serial number has been removed, altered or defaced;
- (c) Damage from exposure to moisture, humidity, excessive temperature or extreme environment conditions;
- (d) Damage resulting from connection to, or use of any accessory or other product not approved or authorized by Comcast;
- (e) Defects in appearance, cosmetic, decorative or structural items such as framing and non-operative parts;
- (f) Products damaged from external causes such as fire, flooding, dirt, sand, weather conditions, battery

## **Customer Limited Warranty**

continued

leakage, blown fuse, theft or improper usage of any electrical source.

Comcast disclaims liability for removal or reinstallation of the product, for geographic coverage, for inadequate signal reception by the antenna or for communications range or operation of the cellular system as a whole.

When sending your wireless device to Comcast's authorized distributors for repair or service, please note that any personal data or software stored on the device may be inadvertently erased or altered. Therefore, we strongly recommend you make a backup copy of all data and software contained on your device before submitting it for repair or service. This includes all contact lists, downloads (i.e., third-party software applications, games and graphics) and any other data added to your device. Comcast is not responsible for and does not guarantee restoration of any third-party software, personal information or memory data contained in, stored on or integrated with any wireless device, whether under warranty or not, returned to Comcast for repair or service. To obtain repairs or replacement within the terms of this Warranty, please call Comcast at 1-866-206-2182 for instructions on warranties, returns, etc.

The extent of Comcast's liability under this warranty is limited to the repair or replacement provided above and, in no event, shall Comcast's liability exceed the purchase price paid by purchaser for the Product. Any implied warranties, including any implied warranty of merchant

## **Customer Limited Warranty**

continued

ability or fitness for a particular purpose, shall be limited to the duration of this written warranty. In no case shall Comcast be liable for any special, consequential or incidental damages for breach of this or any other warranty, express or implied, whatsoever. Comcast shall not be liable for the delay in pending service under this warranty or loss of use during the time the Product is being repaired or replaced. No person or representative is authorized to assume for Comcast any liability other than expressed herein in connection with the sale of this product. Some states or provinces do not allow limitations on how long an implied warranty lasts on the exclusion or limitation of incidental or consequential damage so the above limitation or exclusions may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights, which vary from state to state or province to province.





