

# Public Safety LTE USB Modem UM-1000

The entire document is available for System Text, except for the section "1.2.1 Inserting the SIM Card in the UM-1000." That section will be developed for final delivery at M3.

M5 Drop for System Test - June 26, 2011

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# 1 USB Modem UM-1000

Topics Covered in this Chapter

- [UM-1000 System Requirements](#)
- [Installing the UM-1000](#)
- [Getting Familiar with the Main Window](#)
- [Understanding the Buttons and Settings](#)
- [Connecting to the PS LTE Network](#)
- [Disconnecting from the PS LTE Network](#)
- [UM-1000 Troubleshooting](#)

The USB Modem UM-1000 is a fully Plug and Play USB device, with all operating software pre-loaded on the USB device itself. No CD-ROM is required. When first plugged in, the UM-1000 modem installs all the necessary Connection Manager software on your computer to provide high-speed Internet service through the Public Safety Long Term Evolution (PS LTE) network. The PS LTE network is a 4G cellular network.

The UM-1000 supports 3GPP connection standards.

**Figure 1-1** USB Modem UM-1000



## SEE ALSO

- [UM-1000 System Requirements](#)
- [Installing the UM-1000](#)
- [Getting Familiar with the Main Window](#)
- [Understanding the Buttons and Settings](#)
- [Connecting to the PS LTE Network](#)
- [Disconnecting from the PS LTE Network](#)
- [UM-1000 Troubleshooting](#)

## 1.1 UM-1000 System Requirements

The following table lists the minimum system requirements for the USB Modem UM-1000.

**Table 1-1 System Requirements for the UM-1000**

Specification	Parameter
OS Level	Windows 7 or Windows XP SP3
Processor Speed	1.0 GHz
Disk Space	40 MB
RAM Requirement	1.0 GB

### SEE ALSO

[USB Modem UM-1000](#)  
[USB Modem UM-1000](#)

## 1.2 Installing the UM-1000

The UM-1000 provides an easy and friendly interface to configure wireless connections to the Public Safety PS LTE network. You can install the UM-1000 software on more than one computer, activating the PS LTE service on the computer of your choice by plugging in the UM-1000 modem.

### SEE ALSO

[Inserting the SIM Card in the UM-1000](#)  
[Inserting the UM-1000 in the Computer Port](#)  
[Performing the UM-1000 Software Installation](#)  
[USB Modem UM-1000](#)  
[USB Modem UM-1000](#)

### 1.2.1 Inserting the SIM Card in the UM-1000

Use this procedure to insert the SIM card in the USB Modem UM-1000. This is done before inserting the UM-1000 in the USB port of the laptop computer.

#### Procedure Steps

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- 1 Write this procedure when the information and photos area available.

**Step result:** xxx.

---

- 2 xxx
    - a. xxx.
    - b. xxx
- 

- 3 xxx
    - a. xxx
    - b. xxx.
- 

**SEE ALSO**

[Installing the UM-1000](#)

## 1.2.2 Inserting the UM-1000 in the Computer Port

This procedure explains how to install the USB Modem UM-1000 in the laptop computer. Perform this procedure after inserting the SIM card in the UM-1000.

### Procedure Steps

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- 1 Insert the USB Modem UM-1000 into your laptop computer's USB port.

**Step result:** The software will automatically perform the setup procedure if possible. If the automatic setup begins, go to the next procedure, . Otherwise do the following steps.

**Figure 1-2 Graphic of inserting UM-1000 in the Laptop - Get Drawing or Photo Later**

---

- 2 For Windows 7 — If the system does not automatically perform the setup procedure:
    - a. Click **Start**.
    - b. Select **Run** from the menu that appears.
    - c. Type **X:\Setup.exe**, where X is the USB drive.
    - d. Click **OK**.
- 

- 3 For Windows XP SP3 — If the system does not automatically perform the setup procedure:
    - a. Click **Start**
    - b. Select **Computer** from the menu that appears.
    - c. Right-click on **USB drive** or **CD drive**.
    - d. Select **Open Auto Play**.
    - e. Select **Setup.exe**.
- 

**SEE ALSO**

[Installing the UM-1000](#)

## 1.2.3 Performing the UM-1000 Software Installation

The USB Modem UM-1000 loads the Connection Manager software on your computer. This procedure describes the software installation process shown on your computer screen.

### Procedure Steps

---

- 1 Insert the USB Modem UM-1000 in the USB drive of your laptop computer if it isn't already there.

**Step result:** The Welcome window appears.

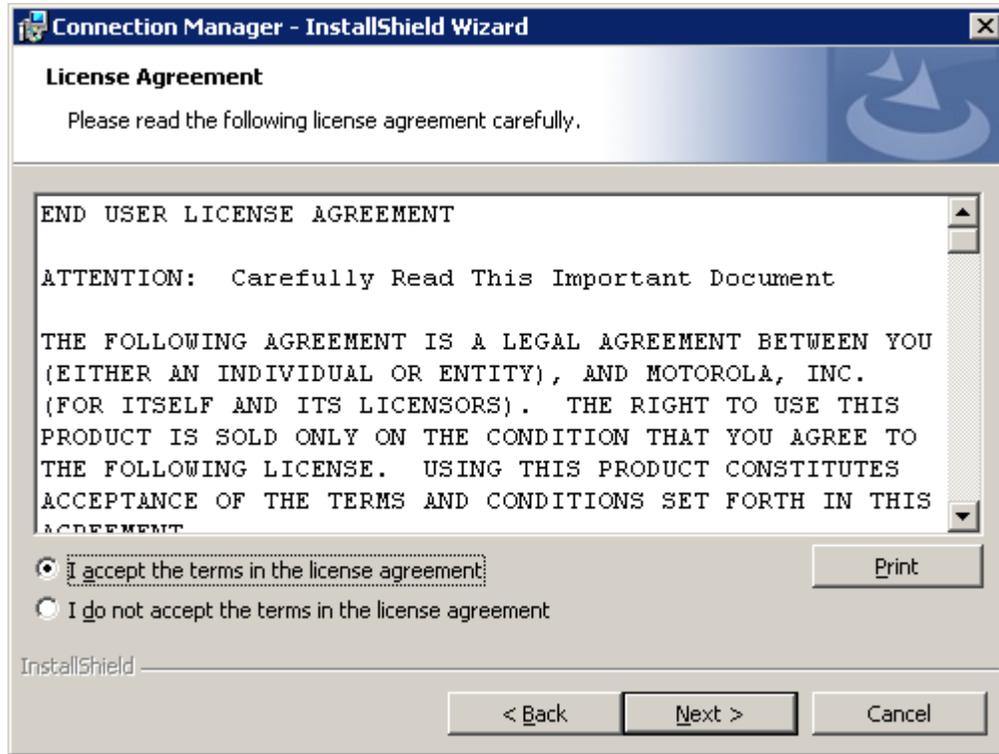
**Figure 1-3** Welcome Window



- 2 Click **Next**.

**Step result:** The License Agreement window appears.

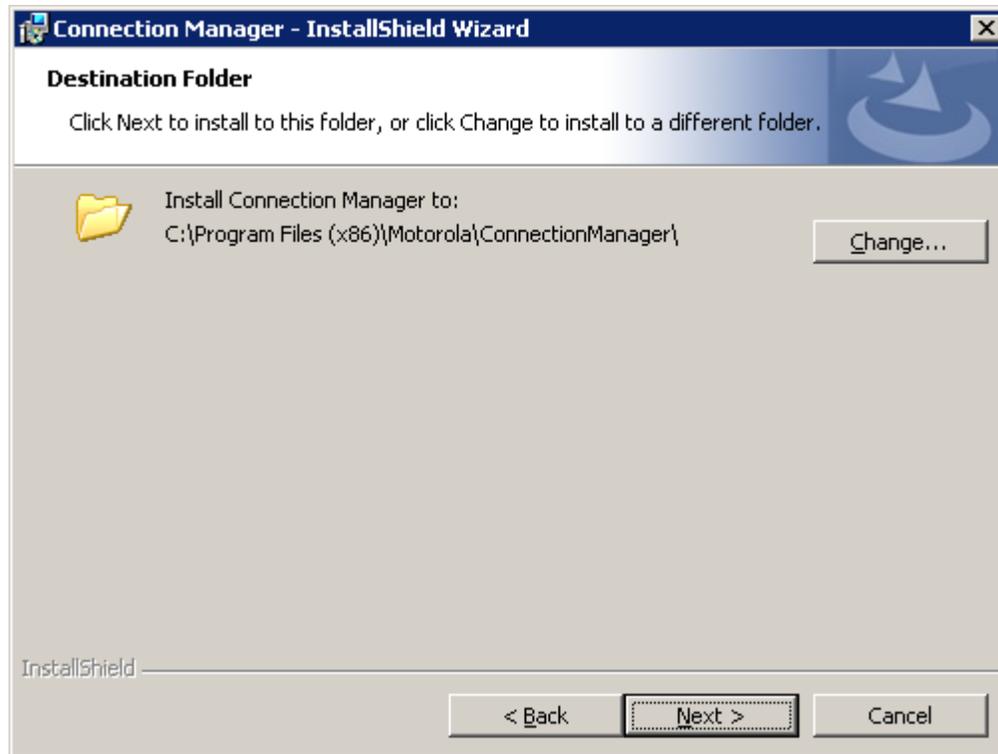
**Figure 1-4 License Agreement Window**



- 3 Make sure that **I accept the terms in the license agreement** is selected, then click **Next**.

**Step result:** The Destination Folder window appears.

**Figure 1-5 Destination Folder Window**



- 4 Do one of the following:
- If the folder location for the program installation is correct, click **Next**.
  - To change the folder location, click **Change**, select the folder, then click **OK** and **Next**.

**Step result:** The Installing Connection Manager window appears, followed by the InstallShield Wizard Completed window. The software is loaded on your computer, creating a shortcut on your desktop.

Figure 1-6 Installing Connection Manager Window

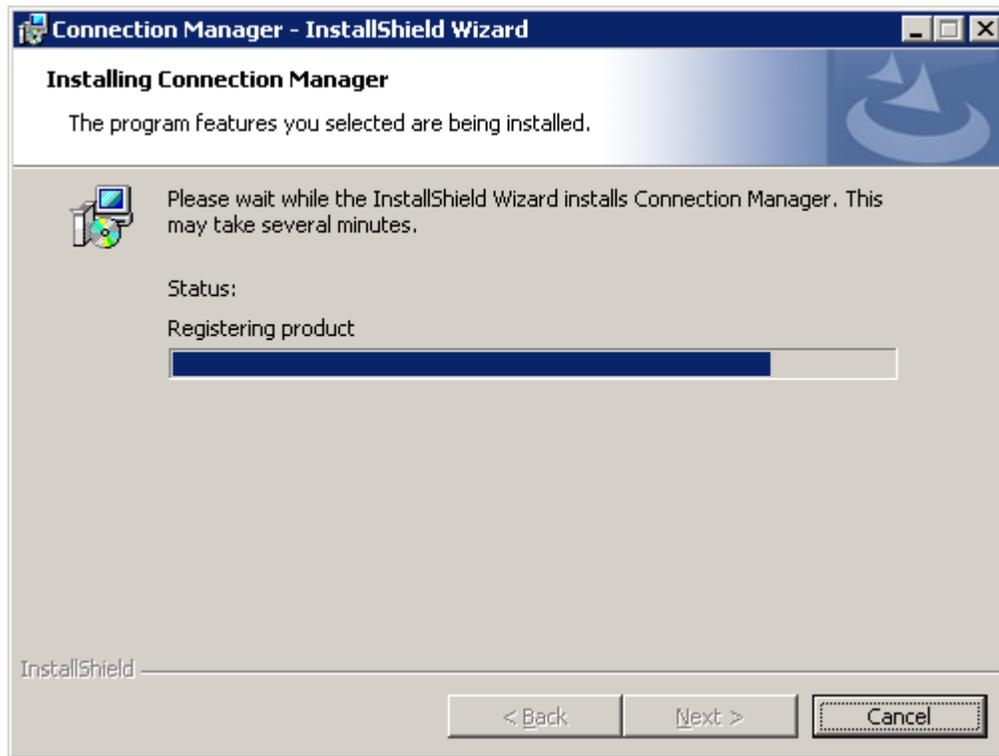
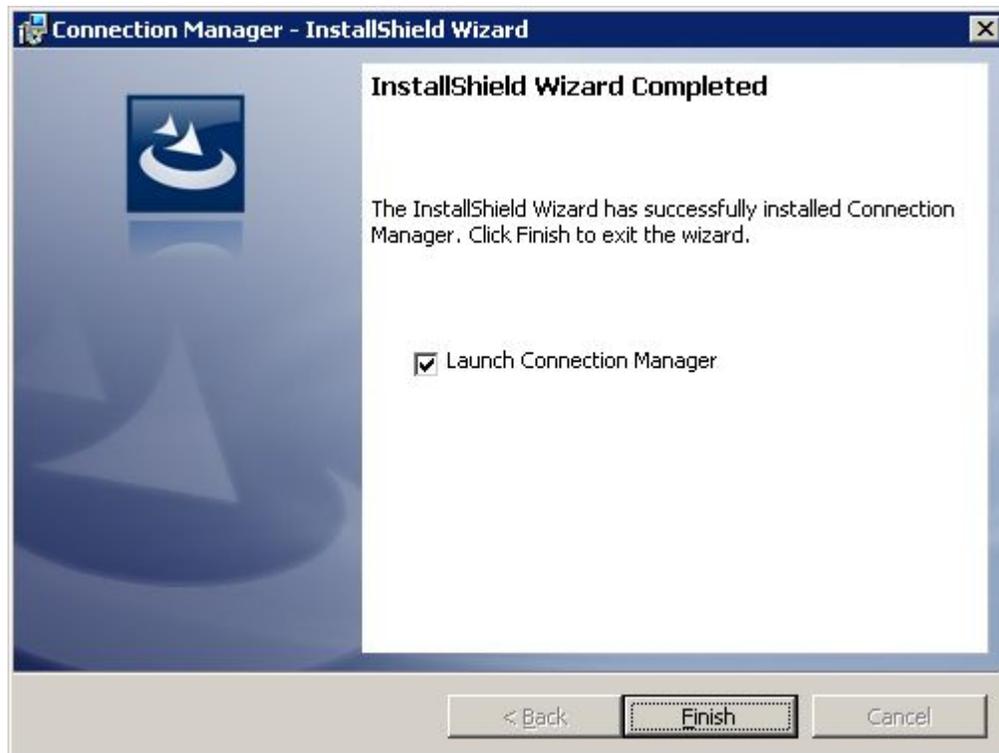


Figure 1-7 InstallShield Wizard Completed Window



- 5 In the InstallShield Wizard Completed window:
    - a. The **Launch Connection Manager** check box is selected by default. Leave it selected if you want Connection Manager to automatically start when the installation is finished. Deselect this option if you do not want the program to automatically start.
    - b. Click **Finish**.
- 

**Result:** If you selected **Launch Connection Manager**, above, the USB Modem UM-1000 will initialize the Connection Manager program, detect devices, and search for a network. Connection Manager will appear in the System Tray at the bottom of your screen, with the Main Window shown in the middle of the screen. If you did not select Launch Connection Manager, the software installs but the program does not open. Depending on the software settings, the program may automatically connect to the PS LTE network

### SEE ALSO

[Installing the UM-1000](#)

## 1.3 Getting Familiar with the Main Window

When the USB Modem UM-1000 starts up, it displays the main window, as shown here. If the modem has not yet connected to the PS LTE network, the first window below appears. If the modem has connected to the PS LTE network, the second window below appears.

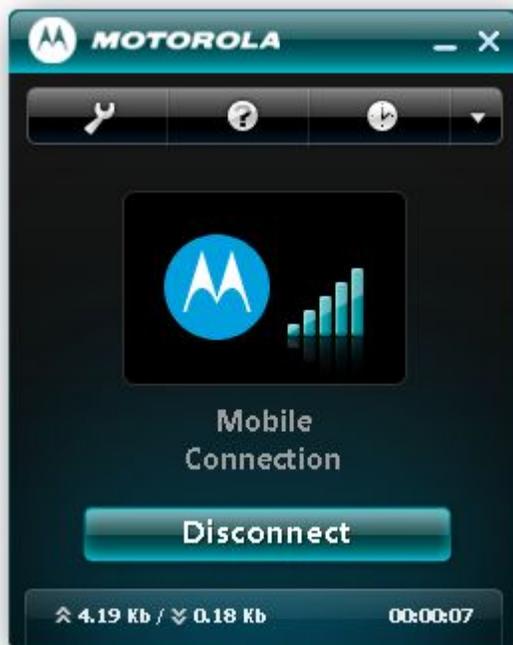
**Figure 1-8** Main Window Showing No Network Connection



**NOTE**

When the UM-1000 is not connected to the network, the Motorola logo is gray and the button label shows **Connect**, indicating that clicking it will connect to the network.

**Figure 1-9 Main Window Showing a Network Connection**

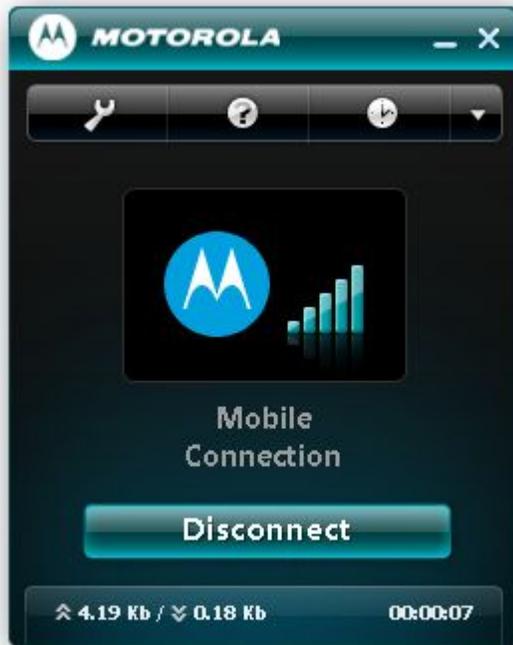
**NOTE**

When the UM-1000 is connected to the network, the Motorola logo is blue and the button label shows **Disconnect**, indicating that clicking it will disconnect from the network.

The main window has the following elements:

- **Toolbar** toward the top of the window
- **Connection Information** in the center of the window
- **Connection Button** toward the bottom of the window
- **Status Area** at the bottom of the window.

Figure 1-10 Main Window Elements — SHOW WITH CALLOUTS TO ELEMENTS



## Toolbar

The toolbar, toward the top of the window, contains an Options button, a Help button, a History button, and a Down Arrow button with more choices (About and Exit). Place your mouse cursor over a button to see its name. For more information, see [1.4 Understanding the Buttons and Settings, page 1-14](#).

Figure 1-11 Toolbar Buttons — ADD CALLOUTS TO BUTTONS



## Connection Information

The Connection Information area in the center of the window contains information about the connection. For example, the gray Motorola logo indicates there is no network connection, as explained earlier. If no device is detected (the modem is not inserted in the USB port of your computer), **LTE device not present** will show in the middle of the window.

Figure 1-12 Main Window with No Device Detected



## Connection Button

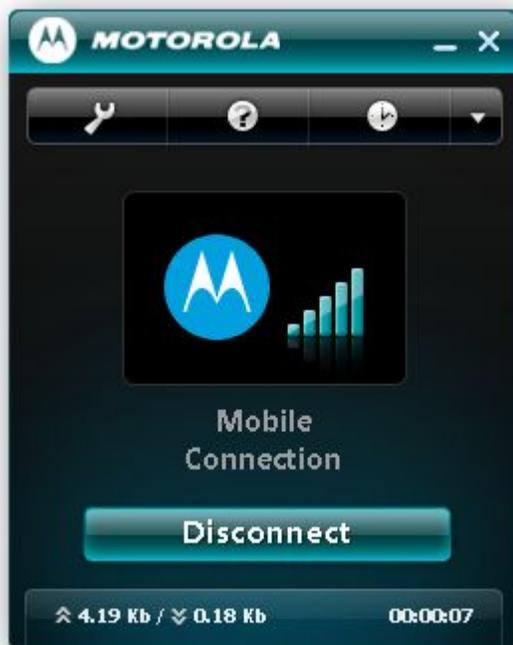
The Connection Button Area, toward the bottom of the window, shows one of two states:

- **Connect** — This means there is no active network connection currently. Clicking **Connect** will initiate a connection with the PS LTE network.
- **Disconnect** — This means there is a connection with the PS LTE network. Clicking **Disconnect** will disconnect from the PS LTE network.

## Status Area

The Status Area at the bottom of the window contains statistics about the network connection. This includes the total amount of uplinked data, total amount of downlinked data, and the duration of the connection.

- The total amount of uplinked/uploaded data is shown as xx.xx Kb next to the up arrows.
- The total amount of downlinked/downloaded data is shown as xx.xx Kb next to the down arrows.
- How long the network connection has occurred (since the Connection Manager was opened) is shown to the far right in hours, minutes, and seconds (hh:mm:ss).

**Figure 1-13 Status Area at Bottom of Window — INCLUDE CALLOUTS**

## Context Menu

If you right click on the Modem Connection icon (insert icon graphic) a menu appears with these items:

- Settings
- Disconnect
- Statistics
- Reset dongle
- Diagnostics

## Settings

To use this option, right click on the Modem Connection icon and select **Settings**.

The Settings window has four settings that you can change, including: User name, Password, APN string and Use DHCP

## Disconnect

To use this option, right click on the Modem Connection icon and select **Disconnect**.

This option causes the USB Modem UM-1000 to disconnect from the PS LTE network.

## Statistics

To use this option, right click on the Modem Connection icon and select **Statistics**.

The Statistics window shows statistics for the current session in a tabular chart format. You can change the period of information shown in the chart to daily or monthly statistics. In the lower-left corner of the window is an **Options** link, which allows you to change how long statistics are saved for, such as three months or a year.

### Reset Dongle

To use this option, right click on the Modem Connection icon and select **Reset Dongle**.

This option allows you to reset the USB Modem UM-1000. After clicking this option, the Connection Manager software goes through the process of initializing the modem and searching for an available network.

### Diagnostics

To use this option, right click on the Modem Connection icon and select **Diagnostics**.

Several diagnostics pages are available that contain:

- Device information
- Hardware information
- Network information
- Advanced information, including SIM status, network registration status, roaming status, and other data

#### SEE ALSO

[USB Modem UM-1000](#)

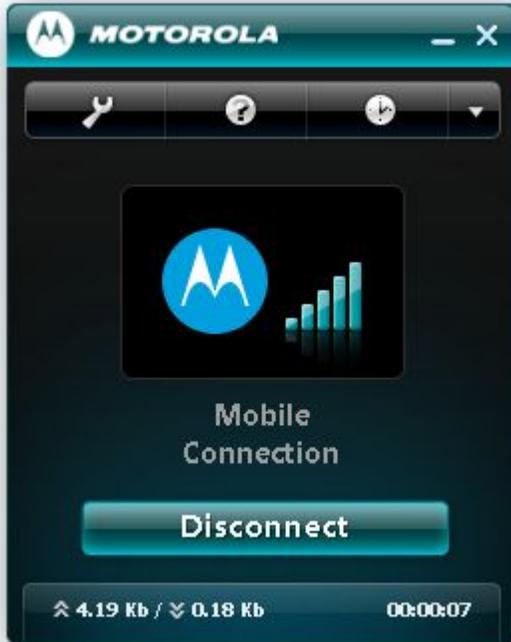
[USB Modem UM-1000](#)

## 1.4 Understanding the Buttons and Settings

### Options Button on Toolbar

To view and set the application options, click the **Options** button on the Main Window toolbar.

Figure 1-14 Main Window — Options Button (CALLOUT TO OPTIONS)



The Connection Manager Options dialog box appears.

Figure 1-15 Connection Manager Options Dialog Box



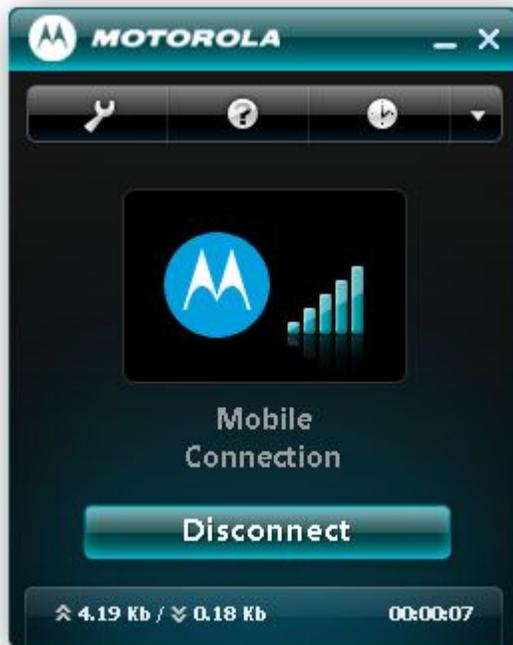
**Table 1-2 Options Menu**

Option	Description
Run Connection Manager when starting computer	If this option is checked, Connection Manager automatically opens when the computer starts. If it is not checked, Connection Manager does not auto load when the computer starts up.
Show main window when Connection Manager starts	If this option is checked, the Main Window automatically shows when Connection Manager opens. If it is not checked, the Main Window does not show when the program opens.
Connect automatically	If this option is checked, Connection Manager automatically connects with the PS LTE network when the application starts. If it is not checked, Connection Manager does not automatically connect with the PS LTE network upon startup.

## Help

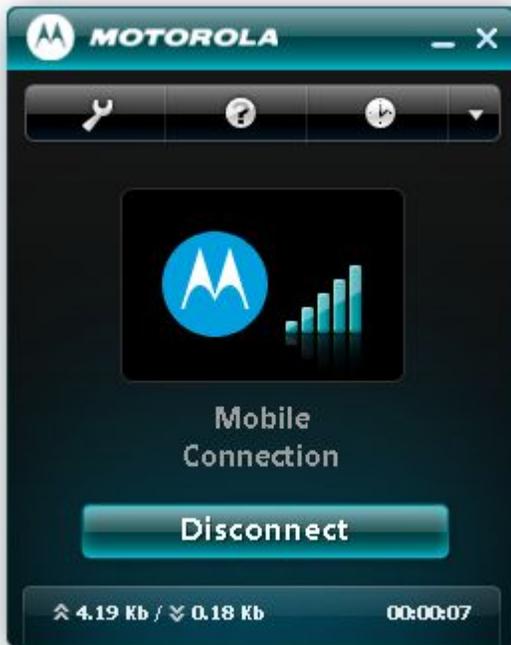
Click the **Help** button on the Main Window toolbar to view help information.

**Figure 1-16 Main Window — Help Button (CALLOUT TO HELP BUTTON)**



## History Button on Toolbar

Click the **History** button on the Main Window toolbar to view network connection history and to change history settings.

**Figure 1-17 Main Window — History Button (CALLOUT TO HISTORY)**

The Connection Manager - History dialog box appears. A history list is shown with each item indicating the date, time and other information about a UM-1000 connection to the PS LTE network. For example, the “Stop Session Mobile Connection” event shows how much data was transferred before the session stopped. The uplinked/uploaded information is shown in Kb next to the up arrows, and the downlinked/downloaded information is shown in Kb next to the down arrows. By default, the program shows one month of history, but this setting can be changed.

Figure 1-18 History Window — Viewing Information

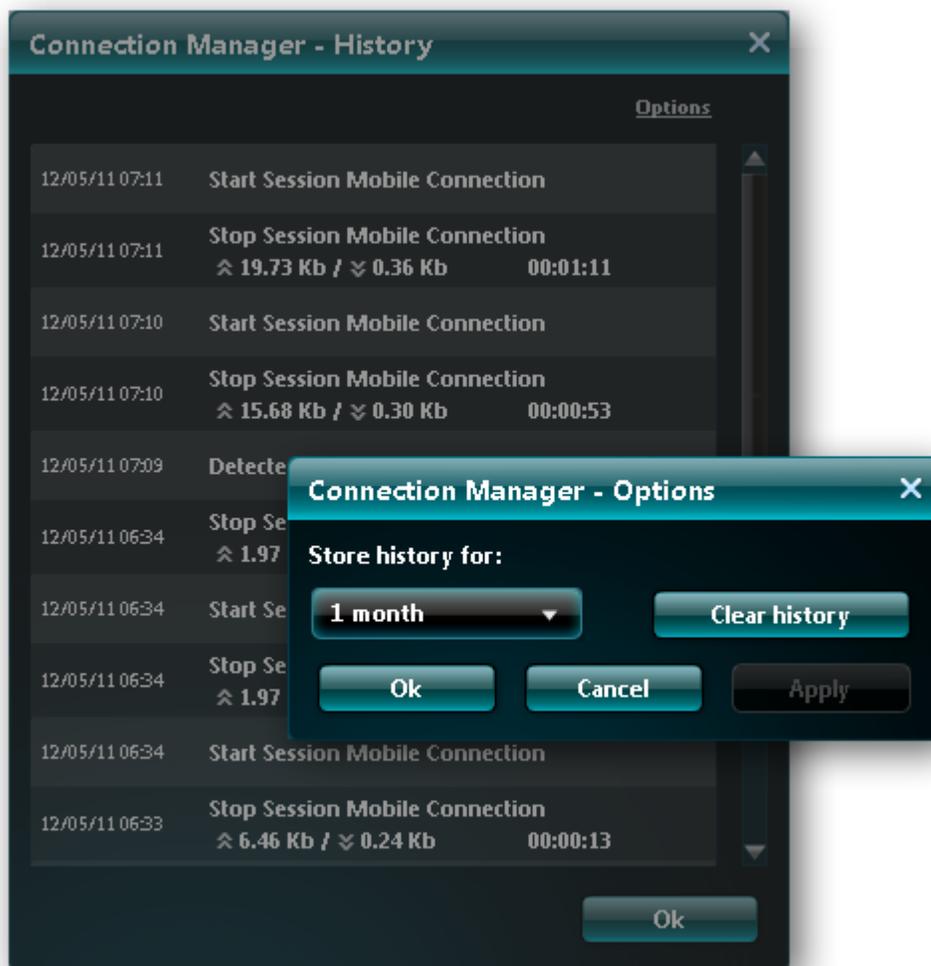


## Changing History Options

To change history settings, such as how long history is collected, click the **Options** button in the History window. Then click the **Down Arrow** and choose a setting. The choices are 1, 3, or 6 months, 1 year or forever. When finished, click **OK**.

This window also has a button to **Clear History**.

Figure 1-19 History Window — Changing Settings



## Down Arrow on Toolbar

Click the **Down Arrow** on the Main Window toolbar to see more selections, including **About** and **Exit**.

Figure 1-20 Main Window — Down Arrow (CALLOUT TO ARROW)

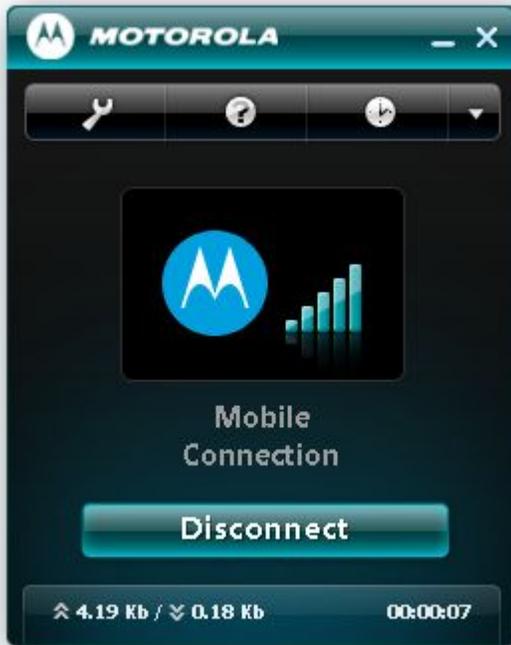


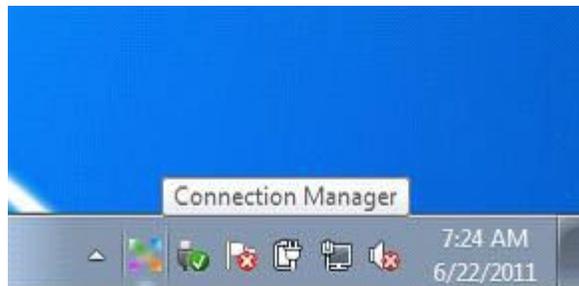
Table 1-3 About and Exit Options

Option	Description
About	Shows general information about Connection Manager, such as the version and year of the software.
Exit	Causes Connection Manager to close down.

## System Tray

The Connection Manager application always appears in the System Tray when the program opens.

Figure 1-21 System Tray



Place your cursor over the Connection Manager in the System Tray to see these items:

- **Open Connection Manager/Minimize to tray** shows/hides the Connection Manager application.
- **Connect/Disconnect** starts the connection procedure if there is no active connection. It also provides the ability to disconnect the active connection.

- **Options** shows the Connection Manager Options dialog box.
- **About** shows the Connection Manager general information.
- **Exit** closes the Connection Manager application.

## Notification Message Window

There is a notification message window area above the System Tray, as shown here.

**Figure 1-22 Notification Message Window**



### SEE ALSO

[USB Modem UM-1000](#)

[USB Modem UM-1000](#)

## 1.5 Connecting to the PS LTE Network

This procedure explains how to the connect the USB Modem UM-1000 to the Public Safety Long Term Evolution network.

## Procedure Steps

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- 1 Make sure the Connection Manager program is open and the Main Window is visible.



### NOTE

If the software was just loaded, the program may autostart with the Main Window displayed, as shown below.

- a. If Connection Manager is not open, double-click the program icon on your desktop.
- b. If the Main Window does not automatically show, click the minimized Connection Manager icon in the System Tray

**Step result:** The Main Window appears.

**Figure 1-23** Main Window with No Network Connection



- 
- 2 Click the **Connect** button.

**Step result:** A message appears, indicating that the network is connected. The button in the Main Window changes to **Disconnect**, meaning that pressing it will disconnect from the PS LTE network.

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### SEE ALSO

[USB Modem UM-1000](#)  
[USB Modem UM-1000](#)

## 1.6 Disconnecting from the PS LTE Network

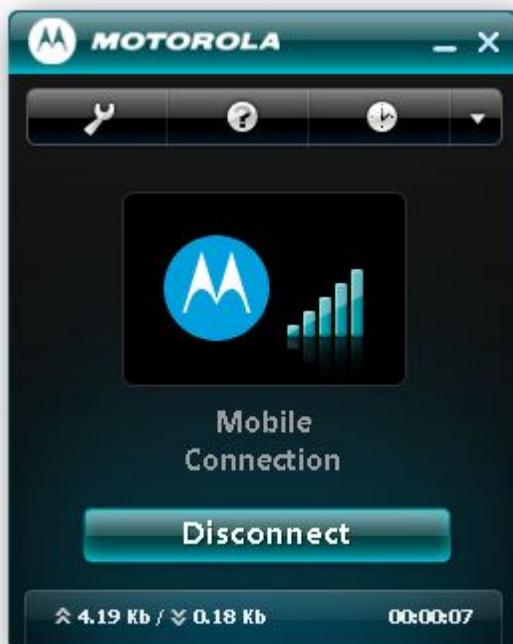
This procedure explains how to disconnect from the Public Safety Long Term Evolution network.

### Procedure Steps

- 1 Make sure the Connection Manager program is open and connected to the PS LTE network. See [1.5 Connecting to the PS LTE Network](#), page 1-21.

The Main Window displays a **Disconnect** button, indicating that it is currently connected to the network.

**Figure 1-24** Main Window with a Network Connection



- 2 Click the **Disconnect** button.

**Step result:** A message appears, indicating that the network is disconnected. The button in the Main Window changes to **Connect**, meaning that pressing it will connect to the PS LTE network.

### SEE ALSO

[USB Modem UM-1000](#)

[USB Modem UM-1000](#)

## 1.7 UM-1000 Troubleshooting

These tables list notifications, warnings and error messages that can appear in the Connection Manager Main Window for the USB Modem UM-1000.

**Table 1-4 Connection Manager Notifications — in Active Connection Area of Main Window**

Notification	Description	Required Action
“Detecting device...”	The Connection Manager is rescanning for the USB Modem UM-1000 device. This occurs after the operating system reported on the device.	No user action is required
“Initializing device...”	The Connection Manager found the USB Modem UM-1000 and is trying to initialize it.	No user action is required
“LTE device not present”	The USB Modem UM-1000 was not found by the Connection Manager.	If the USB Modem UM-1000 is plugged in and this notification is shown for more than 1–2 minutes, remove the UM-1000 from the computer's USB port and reinsert it.

**Table 1-5 Connection Manager Notifications — in Status Area of Main Window**

Notification	Description	Required Action
“Searching for network...”	The Connection Manager is trying to find the PS LTE network.	If the USB Modem UM-1000 is plugged in and this notification is shown for more than 1–2 minutes, remove the UM-1000 from the computer's USB port and reinsert it.
“No network is available”	There is no PS LTE network available.	Unplug the UM-1000 from the computer's USB port and plug it in again. If the same notification appears it means there is no network coverage. Try moving to an area where PS LTE network coverage is available.
“Resetting device. Please wait...”	The Connection Manager is trying to reset the USB Modem UM-1000.	At first, no user action is required. If the notification is shown for more than 1–2 minutes, remove the UM-1000 from the computer's USB port and reinsert it.

**Table 1-6 Connection Manager Warnings and Error Messages — in Status Area of Main Window**

“Autoconnect is not working, please try to connect manually” (warning)	The autoconnection has failed or the user pressed the Disconnect button in the Autoconnect mode.	Connect manually using the Connect button
“No SIM card or SIM error” (error message)	No SIM card is present or the USB Modem UM-1000 reported a SIM card I/O error.	Check if the correct SIM card is inserted in the SIM card slot. Check the SIM card contacts. Remove the SIM card and reinsert it in the UM-1000. If necessary, replace the SIM card.

### SEE ALSO

[USB Modem UM-1000](#)

## USB Modem UM-1000

### **Federal Communication Commission Interference Statement**

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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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.

### **IMPORTANT NOTE:**

#### **Radiation Exposure Statement:**

The product comply with the US/Canada portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.

SAR compliance has been established in typical laptop computer(s) with USB slot, and product could be used in typical laptop computer with USB slot. Other application like handheld PC or similar device has not been verified and may not compliance with related RF exposure rule and such use shall be prohibited.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Note: The country code selection is for non-US model only and is not available to all US model. Per FCC regulation, all WiFi product marketed in US must fixed to US operation channels only.