SafetY WARNINGs

Radio Frequency (RF) Safety

To avoid possible radio frequency (RF) interference, follow any special regulations for using radio equipment, and follow the safety advice listed here:

- Operating the device close to other electronic equipment may cause interference if the equipment is inadequately protected.
- Observe any warning signs and the manufacturer's recommendations. Different industries and businesses restrict the use of cellular devices. Respect restrictions on the use of radio equipment in fuel depots, chemical plants, or where blasting operations are in process. Follow restrictions for any environment where you operate the device.
- Do not place the antenna outdoors, unless in an outdoor-rated enclosure.
- Switch OFF your wireless device when in an aircraft. Failing to observe this restriction may lead to suspension or denial of cellular services to the offender, legal action, or both.
- Switch OFF your wireless device when around gasoline or diesel fuel pumps and before filling your vehicle with fuel.
- Switch OFF your wireless device in hospitals and any other place where medical equipment may be in use.
- Refer to Potential Interference with Pacemakers and Other Medical Devices.

Potential Interference with Pacemakers and Other Medical Devices

Radio frequency energy (RF) from cellular devices can interact with some electronic devices, causing electromagnetic interference (EMI). The FDA helped develop a detailed test method to measure EMI of implanted cardiac pacemakers and defibrillators from cellular devices. This test method is part of the Association for the Advancement of Medical Instrumentation (AAMI) standard. This standard allows manufacturers to ensure that cardiac pacemakers and defibrillators are safe from cellular device EMI.

The FDA continues to monitor cellular devices for interactions with other medical devices. If harmful interference occurs, the FDA will assess the interference and work to resolve the problem.

Precautions for Pacemaker Wearers

EMI can affect a pacemaker in one of three ways:

- Stop the pacemaker from delivering the stimulating pulses that regulate the heart’s rhythm.
- Cause the pacemaker to deliver the pulses irregularly.
- Cause the pacemaker to ignore the heart’s own rhythm and deliver pulses at a fixed rate.

Based on current research, cellular devices do not pose a significant health problem for most pacemaker wearers. However, people with pacemakers may want to take simple precautions to avoid EMI from cellular devices:

- Keep the device on the opposite side of the body from the pacemaker to add extra distance between the pacemaker and the device.
- Avoid placing a turned-on device next to the pacemaker (for example, don’t carry the device in a shirt or jacket pocket directly over the pacemaker).

Antenna

The antenna intended for use with this unit meets the requirements for mobile operating configurations and for fixed mounted operations, as defined in 2.1091 and 1.1307 of the FCC rules for satisfying RF exposure requirements. Follow restrictions for any environment where you operate the device.

- Do not place the antenna outdoors, unless in an outdoor-rated enclosure.
- Switch OFF your wireless device when in an aircraft. Failing to observe this restriction may lead to suspension or denial of cellular services to the offender, legal action, or both.
- Switch OFF your wireless device when around gasoline or diesel fuel pumps and before filling your vehicle with fuel.
- Switch OFF your wireless device in hospitals and any other place where medical equipment may be in use.
- Refer to Potential Interference with Pacemakers and Other Medical Devices.
**B. Mounting the Modem**

Mount the modem, either on a wall using the slide-in tab, or attach the rubber feet and place on a flat surface.

**Using a Mounting Tab**

1. Locate the groove on the back of the device.
2. Slide the mounting rod into the groove.
3. Place the modem on the mounting surface.
4. Secure to the surface using the holes at each end of the mounting rod.

**Mount the Modem on a Flat Surface**

You can also rest the modem on a flat, stable surface after applying the four adhesive plastic feet.

**C. Connecting the Modem**

1. Connect one antenna to the connector labeled CELL on the modem. If your modem has a second antenna, connect the second antenna to the connector labeled AUX.
2. Connect the USB cable:
   a. First, connect the USB cable to the USB port(s) on the Envoy.
   b. Then, connect the mini-USB connector to the Mobile Connect modem.

The power LED lights when the modem has power. After about two minutes, the Link Status LED flashes to indicate a network connection. The power LEDs indicate signal strength according to the Signal LED table.

No additional configuration is needed. The Envoy automatically starts for LED status indications.

For the Envoy-S or IQ Envoy, check the Network Communication LED for LED status indications.

**D. Checking Connection Status and Cellular Signal Strength**

An Envoy with Mobile Connect automatically reports to Enlighten. When the Envoy establishes an Internet connection through the cellular modem, the Envoy Network Communications LED lights solid green in the Envoy-S.

You can use the Enphase Installer Toolkit to check the modem status and cellular signal strength. The Envoy AP (Access Point) Wi-Fi network allows you to connect your mobile device (smart phone or tablet) to the IQ Envoy.

1. On the Envoy, the AP Mode LED lights solid green when the network is available. If the AP Mode LED is not lit, press the AP Mode button.
2. On your mobile device, go to Settings and join the Wi-Fi network "Envoy_nnnnn" (where "nnnnnn" represents the final six digits of the IQ Envoy serial number).
3. Launch Installer Toolkit and tap Connect to Envoy
4. Tap Network
5. Under Network Configuration, tap Cellular

The app displays Connection Status and an indication of signal strength.

6. Check the connection status and verify that signal strength is at least two bars for adequate data transmission.

**Checking the MultiTech Status LEDs**

This MultiTech modem has the following status LEDs:

- **Power**
- **LS**
- **Signal**

The following tables list LED indicator status. The LEDs may be difficult to see if you view them from an angle. View the LEDs straight on.

**Power**

<table>
<thead>
<tr>
<th>LED</th>
<th>Indicates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>DC power not present</td>
</tr>
<tr>
<td>On</td>
<td>DC power present</td>
</tr>
</tbody>
</table>

**LS (Link Status)**

<table>
<thead>
<tr>
<th>LED</th>
<th>Indicates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lit solid</td>
<td>The modem is not registered to the cellular network.</td>
</tr>
<tr>
<td>Flashing</td>
<td>The modem is registered to the cellular network.</td>
</tr>
</tbody>
</table>

**Signal**

<table>
<thead>
<tr>
<th>LEDs</th>
<th>Description</th>
<th>Indicates</th>
</tr>
</thead>
<tbody>
<tr>
<td>All off</td>
<td>Very weak signal</td>
<td></td>
</tr>
<tr>
<td>Bar 1 ON</td>
<td>Weak signal</td>
<td></td>
</tr>
<tr>
<td>Bar 1 and 2 ON</td>
<td>Good signal</td>
<td></td>
</tr>
<tr>
<td>Bar 1, 2, and 3 ON</td>
<td>Very good signal</td>
<td></td>
</tr>
</tbody>
</table>

**Troubleshooting**

**Issue**

- No communication with Enlighten after connecting the cellular modem to the Envoy.
- Disconnect the USB cable.
- Power cycle the Envoy.
- Wait until the Envoy boots completely.
- Reconnect the cellular modem USB cable.

**Action**

- Moving the modem to a different location.
- Disconnect the USB cable.
- Power cycle the Envoy.
- Wait until the Envoy boots completely.
- Reconnect the cellular modem USB cable.

**I want to disconnect the modem and re-use it at a different site.**

**Action**

- Moving the modem to a different location.
- Reinstall the modem at a different site.

**MultiTech Modem Dimensions**

**Industry Canada Class B Notice**

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement Canadien sur le matériel brouilleur.

This device complies with Industry Canada RSS appliance radio exempt from licensing. The operation is permitted for the following two conditions:

1. The device may not cause harmful interference, and
2. The user of the device must accept any interference suffered, even if the interference may jeopardize the operation.

**Industry Canada and FCC**

This device complies with Industry Canada license-exempt RSS standard(s) and part 15 of the FCC rules. Operation is subject to the following two conditions:

1. The device may not cause interference, and
2. The device must accept any interference, including interference that may cause undesired operation of the device.

**EMC, Safety, and R&TTE Directive Compliance**

The CE mark is affixed to this product to confirm compliance with the following European Community Directives:

- Council Directive 2006/95/EC of 12 December 2006 on the harmonization of the laws of Member States relating to electrical equipment designed for use within certain voltage limits and
- Council Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment and

**REGRULATORY NOTICES**

**FCC - Antenna - Wireless Products only**

The antenna intended for use with this unit meets the requirements for mobile operating configurations and for fixed mounted operations, as defined in 2.1091 and 1.1307 of the FCC rules for satisfying RF exposure compliance. If an alternate antenna is used, please consult user documentation for required antenna specifications.

**FCC - 47 CFR Part 15 Regulation**

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.

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

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

**WARNING:** Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.