

AC1900 LTE Router Quick Start

Model ML2410



## Let's get started

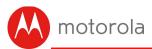
If you want to provide cellular backup to your existing Internet connection we recommend setting up and testing the cellular connection as described below than changing the configuration to enable cellular backup.

To use your ML2410 modem you need an activated **micro** SIM (3FF format), which you normally get from your mobile broadband service provider. If instead you use a **nano** SIM card (used by most phones today), you must use a SIM Card Adapter. SIM card adapters are available from Amazon and other online retailers.

You must remove the battery cover on the ML2410's back panel to access the SIM slot. Using a Philips head screwdriver remove the screw from the battery cover, remove the battery cover, and insert the SIM. Replace the battery cover when finished

Next, attach the 2 LTE Antennas to the ML2410 by screwing them fingertight into the 2 gold connectors located on the back of the unit.

Now, connect the supplied power cube between the ML2410's power jack and a working electrical outlet. The ML2410 should power up and the power light on the top of the unit should turn amber while the unit powers up. If the power light does not turn on, check that the On/Off button on the back panel is On. Wait for the Cell Status light to turn on. This may take up to 2 minutes. If the Cell Status light does not turn on please see troubleshooting tips at the end of this Quick Start. If you want to use the ML2410 as cellular backup continue below, otherwise skip ahead to *Connect your Devices* below.



# Using the ML2410 for Cellular Backup

Connect the ML2410's yellow Ethernet cable between the ML2410's WAN port and the Ethernet port of a cable modem, DSL modem, or fiber optic modem used for Internet access

Switch the power of the modem off now. (For some modem/routers, this requires you to remove a power backup battery.) After the modem is off for at least 10 seconds, switch it back on. (If you removed a backup battery, plug the battery back in first.)

Now, connect the supplied power cube between the ML2410's power jack and a working electrical outlet. The ML2410 should power up and the power light on the top of the unit should turn amber while the unit powers up. If the power light does not turn on, check that the On/Off button on the back panel is On. The power light will turn green when the unit has finished powering up.

To configure your ML2410 for cellular backup you will need to access the ML2410's configuration manager. To access the ML2410 with a wired connection plug an Ethernet cable into one of the ML2410's LAN jacks and the other into your desktop or laptop's Ethernet port. To connect via WiFi to the ML2410, go into the WiFi setup section for the device (not the router). Then use the ML2410 router's WiFi Network Name (SSID) and WiFi Password/Key. The unique factory-set default settings are printed on a label on the bottom of the ML2410.

Next, to access the ML2410's configuration manager open your Web browser. Type <a href="http://192.168.5.1">http://192.168.5.1</a> in the address bar and press Enter.

In the login dialog box, enter the Login information printed on the bottom label of your ML2410.

The **Basic Setup** page will appear. If the **Basic Setup** page doesn't appear, please see the **Troubleshooting Tips** below.

From the dropdown menu next to **Internet Connection**, select the type of connection you have. Most users should select DHCP.



Next check the box next to **Enable Cellular Backup.** This will turn on cellular backup in case your Internet connections goes down. The ML2410 should automatically detect your SIM card and should be configured correctly.



### Connect Your Devices

The ML2410 lets many devices share your Internet connection. Devices can connect by using WiFi or by plugging into one of the ML2410 Ethernet ports.

#### WiFi Wireless

You can connect any of your WiFi devices by first going into the WiFi setup section for the <u>device</u> (not the router). Then use the ML2410 router's WiFi Network Name (SSID) and WiFi Password/Key. The unique factory-set default settings are printed on a label on the bottom of the ML2410. If you prefer to use a different network name and password, please see the chapter. Changing Wireless Security Settings in the full length manual at <a href="https://www.motorolanetwork.com/ML2410manual">www.motorolanetwork.com/ML2410manual</a>

#### Wired Ethernet

You can also connect up to two HDTVs, computers, game stations, or other devices with an Ethernet cable between an Ethernet port of the device and any one of the LAN jacks on the router. Some devices have a Network Setup section where you specify a wired Ethernet connection. If you have a problem with a particular device, consult its user manual.

Once you've set up a Wireless or Wired Ethernet connection, try to browse the Web. If browsing works, Congratulations! Your ML2410 is working.

If your ML2410 is NOT working, see **Troubleshooting Tips** and **We like to help** at the end of this Quick Start.

#### USB 3.0 Port

Also available on the rear panel is a High-speed USB 3.0 port for connecting USB memory devices or external hard drives. This port can be used to attach USB Drives, that can then be accessed through the network. For more information on this feature go to

www.motorolanetwork.com/ML2410manual . A cable for this port is not provided with the ML2410. Use a standard USB 3.0 cable to connect USB 3.0 devices, or a USB 2.0 cable can be used for USB 2.0 devices. For the ML2410-side of the connection, the cable needs to have a USB type-A male connector.



## MotoManage<sup>TM</sup>

We strongly suggest that you download the **MotoManage**<sup>TM</sup> App from the Apple App Store or from Google Play to access basic and advanced network control features. The app lets you manage your network quickly and easily, and it makes it easy to keep your network's original wireless settings

The app includes basic and advanced features, which are all available free of charge for the first month. After that you will be able to decide whether you'd like to just keep the free features, or whether you'd like to also keep the advanced features for a small monthly fee.



MotoManage app on your smartphone or tablet.





2 Open the app.

1

- 3 Scan the QR code on the bottom of your ML2410 to setup your device's WiFi network.
- 4 Now enjoy the app. You can easily elect to keep your original name and password, as we recommend. Plus you can easily monitor your Internet usage and WiFi signal strength, get security alerts that help protect your network, control Internet access by devices, or set up some basic parental controls.

Note that your ML2410 must be **online** for the app to communicate with it.



# Improving WiFi Performance

As noted before, the ML2410 has a unique WiFi SSID/Network Name and WiFi Password/Security Key printed on the ML2410's bottom label. Use these unless you want to change them for some reason. If you do change them, we suggest that you tape a label with the new SSID and Password onto the ML2410. (Changing them will not affect WiFi quality.)

Note that WiFi performance depends on a number of factors. Please keep these things in mind:

- Where possible, put the ML2410 in a central place so that it's not too far away from your other WiFi devices.
- Don't put the ML2410 close to interference-generating wireless devices such as Bluetooth headsets and stereos, microwave ovens, 2.4 GHz cordless phones and base stations, and WiFi printers.
- The ML2410 router provides a powerful WiFi signal that can help reach many corners of your house. However, WiFi range can be limited by a variety of issues, including weak WiFi clients and challenging building configurations. Many devices, such as phones, that you may use to connect to the ML2410 do not have as powerful a WiFi signal. Although the ML2410's advanced WiFi technology can help improve the performance and range of the devices, often the weaker signal of your other devices can be a limiting factor.
- If you have coaxial cable running near your router and a distant WiFi access
  point, HDTV, or other device, MoCA is often a good way to connect the
  router to the device. MoCA can share the same cable used for cable TV,
  cable Internet, or FiOS fiber optic service. With the Motorola MM1000
  MoCA Adapter, speeds are up to 1,000 Mbps.



# Top/Front Panels

LIGHT	COLOR	DESCRIPTION	
Power	Green or Amber	Green: OFF: Amber:	ML2410 power on ML2410 power off ML2410 powering up
Cell Status	Green or Amber	Green: Amber: Blinking: Off: Green:	Connected in LTE mode Connected in 3G mode Sending data Not Connected ML2410 online
Internet	Green	OFF:	ML2410 offline
2.4	Green	ON: Blinking: OFF:	2.4 GHz WiFi is enabled Data is flowing or WPS is in discovery mode. WiFi is not enabled
5	Green	ON: Blinking: OFF:	5 GHz WiFi is enabled Data is flowing or WPS is in discovery mode. WiFi is not enabled
WPS	Green	ON: Blinking: OFF:	Gigabit Ethernet connection     Data being sent     No device connected



# **Battery Purchase and Replacement**

The ML2410 has battery back-up circuitry which will power the ML2410 in the event of a power failure. The ML2410 typically does not ship with a battery included. A battery is not required for normal operation with AC power. If you want a back-up battery, you can purchase one online.

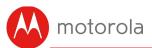
The type of back-up battery that must be used with this product is  $\underline{\text{Model }98250}$  from MTRLC LLC, and is labeled **BP-15033-22/2150** S.

Note that in the case of loss of power, the ML2410 can provide up to 6 hours of Internet access when equipped with the optional battery. You can maximize the runtime on battery by turning off certain features in the ML2410 configuration manager. To disable these features, log into the ML2410's configuration manager by opening your Web browser and typing <a href="http://192.168.5.1">http://192.168.5.1</a> in the address bar and press Enter. In the login dialog box. Enter the Login information printed on the bottom label of your MI.2410.

In the left hand menu, select **Admin** then **Power Management**. Click the **Enable** button next to **Power Saving**. You can now turn off the WiFi, the WAN ports, the LAN ports, the LTE module, or the USB port to save power, if you are not using them while in battery-power mode.

#### CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED WITH AN INCORRECT TYPE! DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS PROVIDED WITH THE BATTERY.



# **Troubleshooting Tips**

### Why can't I connect to the Internet after installing my modem?

- Check that the modem is powered on. The power LED on the front panel should be on. If it is not on, then:
  - o Check that the power button on the back of the unit is pushed in.
  - o Check that the power cable is correctly plugged into the modem and that the other end of the cable is plugged into a working electrical outlet.
- Confirm that the modem can talk to the SIM. Log into the Configuration Manager by typing 192.168.5.1 in the address bar of your browser, go to that address, enter the Username and Password. The default username and password are printed on the bottom of your device. On the left hand menu, click on Status then Cellular. There should be a 19 or 20 digit number next to IMSI. If this number is missing, try reinserting your SIM. You may need to get a new SIM from your service provider if the modem can't read it.
- Verify with your service provider that your account is active.
- You may need to set the APN on your modem. Log into the Configuration
  Manager by typing 192.168.5.1 in the address bar of your browser, go to that
  address, enter the Username and Password. On the left hand menu, click
  Basic Setup then APN. You should contact your service provider for the
  correct APN. Some common APNs are:

Verizon: VZWINTERNET AT&T: NXTGENPHONE

or

**BROADBAND** 

T-Mobile: fast.t-mobile.com

For more information on setting APNs please see the full length manual at: www.motorolanetwork.com/ML2410manual

# I'm unable to access the ML2410 when I try to login to the Configuration Manager

• First check that the ML2410's Power light is on.

The yellow Ethernet jack on the back of the ML2410 has a green LED on it. This LED should be on when the Ethernet cable is plugged in. If it is not on, check that the Ethernet cable is securely plugged in. If that doesn't work,



your Ethernet cable might be bad; try an Ethernet cable that you know is working.

- I'm plugging the ML2410's WAN port of a modem and cannot access the Internet.
- Power cycle the modem This will cause it to request a new IP address.
- Verify that your ML2410's WAN port is configured for DHCP, sometimes called Dynamic Routing, Cable Modem, or Automatic.

Do you have any other questions? A good place to start is our full-length manual: www.motorolanetwork.com/ML2410manual



# We like to help.

Please visit our support Website or call our support specialists. Our Website has our Motorola Mentor information, and also provides returns and warranty information.

www.motorolanetwork.com/support

Email: support@motorolanetwork.com

Phone:

Spain:

In the US and most other countries:

800-753-0797 or +1 617-753-0562

UK: +44 800 023 9083 +34 900 839 783

Our full-length user manual is available at www.motorolanetwork.com/ML2410manual

# **Limited Warranty**

MTRLC LLC warrants this product against defects in material and workmanship for a warranty period of 2 years. To read the full warranty, please go to www.motorolanetwork.com/warranty



### Safety Precautions

#### These precautions help protect you and your ML2410.

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this and of the computer manufacturer must therefore be allowed at all times to ensure the safe use of the equipment.

- Do not put the ML2410 or its power cube in water, since this is a shock hazard.
- Protect the ML2410 from moisture and be careful about temperature.
- Your ML2410 should be operated in an environment that's between 32 and 104° Fahrenheit (0 to 40° Centigrade).
- Your ML2410 should not be in a confined space. There should be room for air flow around the top, front, and sides of the ML2410.
- Make sure to use your ML2410's power cube and a compatible electrical outlet.
   MOTOROLA and MTRLC assume no liability for damage caused by any improper use of the router.



#### **FCC Statement**

This device complies with Class B 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.

Note: 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, and/or 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 the equipment.

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

For operation within the 5.15 - 5.25GHz frequency range, it is restricted to indoor operation. This device meets all the other rerquirements specified in Part 15E, Section 15.407 of the FCC Rules.

#### For Country Code Selection Usage (WiFi Devices):

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

#### FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be instsalled and operated within minimum distance 42cm between the radiator and your body.

♦ ♦ DC input connector is center-pin positive polarity.

WEEE is a directive in the EU that designates safe and responsible collection, recycling, and recovery procedures for electronic waste.

MTRLC LLC PO Box 121147 Boston, MA 02112-1147

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