



## Quick Start

DOCSIS 3.1 Cable Modem *plus* AX6000 Router *plus* 2 Xfinity Phone Lines

### MODEL

M T 8 7 3 3





## Packaged with your MT8733



Power Supply



Ethernet Cable



RJ11 phone cord



Coax Wrench



Velcro<sup>®</sup> Cable Organizer

Para una Guía de Inicio Rápido en español, por favor vaya a www.motorolanetwork.com/MT8733ir



### Let's get started

If you don't have cable Internet service, please order that from your cable service provider. Comcast Xfinity customers should also order phone service if they want to use the MT8733 phone lines. This phone capability works for Xfinity, but not for most other cable services.

If you already have an installed cable modem/router, simply disconnect your current modem and connect the MT8733, making sure to use the power supply provided with the MT8733. Reconnect the existing coax cable and any other appropriate cables as described on page 3. Then activate as described starting on page 4.

#### Connect your MT8733 as shown on page 3.

### Connecting to a Coax Cable

Please see the connection photo on the next panel. You connect your MT8733 to a "live" coax cable. Sometimes a cable will already be available. Sometimes there's a coax wall jack available, and you connect to the jack with a coax cable. Your MT8733 can also share a coax cable attached to a TV by using a coax splitter. Please note that a badly chosen splitter reduces a cable modem's speed; so if you need to use a splitter, use a 2-way splitter whose top frequency is 1,000 MHz or higher.





#### PHONE (TEL1-2)

If you have Xfinity phone service, you can connect telephones to Tell or to both of these phone jacks.

#### **ETHERNET (LAN 1-4)**

You can connect a computer, HDTV, game station, or other Ethernet-capable device to any of these 4 LAN ports. Note the 2.5GE port (2.5Gbps).

#### COAX

Connect a "live" coax cable to the modem's COAX connector as discussed above. (*Tighten the nut so it's finger tight. You may want to use the supplied wrench. Make the connection snug but not over-tight.*)

#### POWER

Connect the supplied power cube between the power jack and an electrical outlet.

#### RESET

#### WPS button

### Prepare to activate

By now you should have:

• Subscribed to cable Internet service, and possibly to Xfinity phone service.



- Connected your MT8733.
- Powered up your cable modem/router. To do this, plug the power supply into a standard wall outlet, and plug the power connector into your MT8733. Wait for the green or blue online connection light to stop flashing and remain solidly lit. This may take up to 15 minutes.

You may need your cable service account number for product registration. A recent cable bill/statement will have this information.

If you're asked for information about the MT8733, such as the Mac Address or Serial Number, you can find this on the label on the bottom of the modem/router.

### Activate

Activate your MT8733 by opening the Web browser of a computer or other device that's connected to your MT8733, and enter **xfinity.com/activate**. Your device can be connected either wirelessly or via one of the MT8733's Ethernet ports. If you connect wirelessly, you'll need the unique Wireless Network Name and Password printed on the bottom of your MT8733. (You may wish to write these down or take a picture. Later, you will be able to change your SSID and Password if you desire.) You'll use these in setting up your wireless device to connect to the MT8733. Once you've connected, you can open the browser of that wireless device.

Alternatively, call the Comcast Xfinity number: 1-800-XFINITY 1-800-



Once your MT8733 is activated either online or by phone, your service provider will provision your MT8733 service. Typically this takes less than 5 minutes for Internet, but in some cases this may take 30 minutes or longer. If you activate voice service for the first time, your service provider may take several days to activate that service.

Once you have been activated, try to browse the Web using a device connected via Ethernet or WiFi to the MT8733. (See the section Wireless Router below for information on connecting via WiFi). If browsing works, **Congratulations!** Your MT8733's Internet capability is working.

If you have Xfinity phone service and want to use that, make sure the MT8733's Tell light is ON. (You may have to wait a few minutes after power-up.) If you haven't already, plug a phone into the Tell port. Take the phone off-hook and confirm there is a dial tone. Then make a call and ask the person who answers to call you right back. Hang up so you can receive the incoming call and verify that your phone is working. For more information about using the MT711 telephone capability, please see the **Telephone Adapter** section on page 8. If your MT8733 is NOT working, see **Troubleshooting Tips** on page 12.

Note on phone service: Xfinity offers phone service for one phone number only or for two phone numbers. Tel1 works with one line and will work with the optional UPS power backup device for 5 hours of talk time if AC power is lost (15 hours with additional booster packs). Tel2 will only work if you have 2 phone numbers from Xfinity. The second phone number will not work if AC power is lost.



### **Configuration Manager**

You may not need to use the MT8733's Configuration Manager. Here are some reasons for using it:

- You want to change the wireless network name and password. For instance, maybe you want a more easily remembered name, or you're replacing a router and want to use your existing WiFi Network Name (SSID) and/or WiFi Password/Key instead of the unique ones that come with the MT8733. You can use the same SSID and Password for both 5G and 2.4G. When connecting to WiFi, the MT8733 will connect using the best band available.
- You want to set up special Internet gaming settings.
- You want to get performance information about the MT8733 modem and/or built-in router. This can be helpful in diagnosing DOCSIS performance issues and/or optimizing wireless performance.

If you need to access the MT8733 Configuration Manager, open your Web browser. Type **http://192.168.0.1** in the address bar and then press the **Enter** key.

In the login dialog box type the following User Name and Password in lower case, then click OK.

#### User Name: admin

Password: Type the **unique password** printed on your device's bottom label in the Password field.

The Basic Status and Settings page will appear. If this page doesn't appear, please see the **Troubleshooting Tips** below.

For more detailed information about the MT8733 and its Configuration Manager, please see **www.motorolanetwork.com/MT8733manual** 



### Wireless Router

As noted before, the MT8733 has a unique Wireless Network Name/SSID and Wireless Security Key/Password printed on the MT8733's bottom label. Set up your wireless devices to work with this SSID and security key, or with the SSID and security key you specified, if you changed them.

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

- Where possible, put the MT8733 in a central place so that it's not too far away from your wireless devices that need Internet access.
- Try to avoid interference from Bluetooth headsets and stereos, microwave ovens, WiFi-capable printers, and 2.4 GHz cordless phones and base stations. Try not to put the MT8733 close to these interfering devices.
- Sometimes it helps to change the MT8733 wireless channel frequency to reduce interference with neighbors' wireless networks. This is discussed in the Troubleshooting section of this Quick Start.
- Wireless range can be limited by a variety of issues, including weak wireless clients and challenging building configurations. Sometimes devices with a weak wireless signal will connect to the MT8733, and often those devices can slow down your network's WiFi. If you need greater wireless range far away from your MT8733, you could add a Range Extender. For more information, please see www.motorolanetwork.com/extenders

If you have coaxial cable running near your router and a distant wireless 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 or cable Internet. With the Motorola MM1000 MoCA Adapter, speeds are up to 1,000 Mbps. Please see **www.motorolanetwork.com/MocaWifi** 

### Telephone Adapter

The MT8733 includes two telephone ports that support standard (land line) telephones and other devices. The MT8733 is designed to work with Comcast Xfinity voice service only.

To use the telephone ports, first make sure you have subscribed to Xfinity voice service. This service may be provisioned to support either one line, Tel1, or both Tel1 and Tel2.



You can connect almost any standard telephone equipment into an activated MT8733 telephone port. This includes almost anything that connects using an RJ11 jack—telephones, cordless phone base stations, answering machines, etc. (If you want to connect an alarm system, check with the manufacturer for compatibility).

You can connect individual devices, or you can connect multiple devices that plug into the same phone line. (Their Ringer Equivalence Numbers need to add up to 5 or less.) One way to connect multiple devices is to plug the MT8733 phone port into a jack connected to existing telephone wiring. Before doing this, make sure to disconnect the wiring totally from the telephone company's network demarc. This is normally done by unplugging a phone cord at the jack nearest to where the phone line comes into your home. After you unplug that phone cord, check that none of the phones on that line gets dial tone when you go off-hook. If they don't, it's safe to connect a phone cord from one of the line's jacks to an MT8733 phone jack.

You may want to attach a cordless phone base station to the MT8733, and then place cordless handsets wherever you like.



# Front Panel Lights

During Power up, the lights will blink for about a minute.

LIGHT	COLOR	DESCRIPTION	
<b>U</b> Power	Green	OFF: ON:	Power supplied by external UPS Normal power-on
↓ Downstream	Green <i>or</i> Blue	Green ON:	On external UPS power Scanning for DS channel Connected on 1 Downstream channel Negotiating bonded channel(s) <sup>↑</sup> Bonded with 2 or more channels
<b>†</b> Upstream	Green <i>or</i> Blue	Green ON:	Upstream not connected or on external UPS power : Ranging in progress Connected on 1 channel Negotiating bonded channel(s) <sup>†</sup> Bonded with 2 or more channels
Online	Green or Blue	OFF: Blinking: Green ON: Blue ON:	Offline or on external UPS power Trying to go online Online in DOCSIS 3.0 mode Online in DOCSIS 3.1 mode
D UPS power	Green	OFF: ON:	Unit running on AC- supplied power AC power fail / External UPS back-up active



U L2 TEL1 & TEL2	Green	OFF:	Phone service not provisioned.
		Blinking:	Registration in process
			OR Phone off-hook / Call Active
		ON:	Phone on-hook / Ready for calls
Ŷ	Green	OFF:	WiFi is not enabled or on external UPS power
2.4 & 5 GHz WLAN		Blinking: ON:	Data is flowing. WiFi is enabled.

† If a blue light blinks continuously, this indicates partial service (at least one designated channel has not completed bonding). You should still get high Internet speeds, but your service provider may want to know so they can adjust their network.

Please note: The Tel2 LED will only light if Tel2 is provisioned for a second phone line. Tel2 does not work if AC power is lost.



### **Optional External UPS Backup Power**

An optional external 12V UPS power backup device is available with a special cable designed to connect to the MT8733. This external UPS power is for Telephone service only, when AC power is lost. The MT8733 does not ship with this external 12V UPS power backup device, it is sold separately and is NOT required for normal operation with AC power using the included power adapter. If you lose AC power, the UPS power back-up device will allow your telephone service to still function on Line 1 for a number of hours, but note that your WiFi and Internet service will not be available during that time. If you want this UPS power backup device, you can purchase one online.

The type of external UPS power backup device that can be used with this product is Model XXXX from MTRLC LLC.

Note that in the case of loss of power, the Tel1 jack will provide up to five hours of talk time or eight hours of stand-by time if you have the optional UPS (additional booster packs can be added to the external UPS to increase the backup time to up to fifteen hours of talk time or twenty-four hours of stand-by time). The Tel2 jack does not provide this back-up feature. Only phones that do not require their own power source will work during a power outage (unless the phones are provided with their own separate battery backup system). It's a good idea to have at least one phone available that just needs to plug into the MT8733, and not into a separate power jack.



## Troubleshooting Tips

#### What if I can't make an Internet connection right after installation?

- First turn your MT8733 off for at least 8 seconds, then on, to see if that fixes the problem.
- Check the connections you've made to your MT8733. Power and coax connections are required, and up to 4 Ethernet connections are optional. Are those connections good? Be sure that the coax cable connection is finger-tight, possibly using the coax wrench. Do not over-tighten.
- Check that the MT8733's power supply is plugged into a live outlet, and that the Ethernet cable (if used) is connected securely.
- Make sure that your coax cable is live. If you have cable TV service you can check that by using it with a TV.
- Check that you provided the correct setup information to your cable service provider.
- Contact your cable service provider to make sure they've turned on your Internet service.

### What if I can't make or receive phone calls right after installation?

- Make sure that you've ordered Xfinity phone service.
- Make sure that the Tell light is ON (lit solidly). It may take several minutes after power-up before voice service is established. Note also that it may take several days to activate voice service for the first time.
- If the Tell light never turns on, turn your MT8733 off for at least 8 seconds, then on. Wait up to 10 minutes to see if that fixes the problem.
- If the Tel1 light still isn't ON, call your service provider.
- If the Tell light is ON but you can't make and receive calls, check the connections to your phone. Is the phone cord connected snugly at both ends?
- If your phone has a base that needs to be powered, make sure it has a secure connection to a live outlet.
- If your phone's handset uses a battery, make sure this is fully charged.
- If you have connected to your home's telephone wiring, make sure that the home's wiring is disconnected at the demarc from the telephone company's network. The demarc is where the telephone company's network enters into the home and connects to the home phone wiring.



#### What if my MT8733 has been working, then stops working?

- First turn your MT8733 off for at least 8 seconds, then on, to see if that fixes the problem.
- If the MT8733's lights don't come on, check that the modem is getting power from its power cube and that the MT8733's power button is on.
- Check your MT8733 Ethernet or telephone cables, if used.
- Check with your service provider. Sometimes there's a service outage or some other service issue. Sometimes a service outage also affects your TV service, so check that.

#### What if I'm getting Internet service but my speed is disappointing?

- Be sure you know what speed you're paying for.
- Check the speed with a computer using a wired Ethernet connection and plugged into one of the modem's Ethernet ports. Use one of the tools found when you search the phrase: **broadband speed test**. Make sure your computer's wired Ethernet LAN port supports gigabit rates (1000BT or GE). You will need this to achieve service speeds of 100 Mbps or greater.
- If you get good speed when a computer's plugged into the modem, you may have a wireless problem. In that case, please re-read the wireless router section.
- Some video streaming services get bottlenecked, especially at busy times like after dinner. See whether you have the speed problem at less busy times or when using another streaming service.
- Try connecting your MT8733 nearer to where the coaxial cable comes into your home. This lets you see whether your home's cabling is a problem.
- If you're using a splitter with your MT8733, try the MT8733 without the splitter to see if that helps. If it does, you may need to get a better splitter, one with a top frequency of at least 1,000 MHz.

# What if I'm told that my MT8733 isn't approved by my cable service provider?

If your Cable Service Provider is Comcast Xfinity, then that's not true. The MT8733 is specifically listed on the Comcast Xfinity website as an approved device for Internet and phone services at **mydeviceinfo.xfinity.com**. Other leading cable service providers have a list of certified cable modems for each of their Internet speeds. You can check the list for your service provider. You can also find information about certifications at

www.motorolanetwork.com/services



# What if I am connected wirelessly but my connection seems slow or keeps dropping?

Please re-read the Wireless Router section above.

# What if I don't know my MT8733's Wireless Network Name/SSID or Security Key/Password?

The default values are printed on the bottom label of the MT8733. Use these unless you changed them. If you changed them, try to remember where you put the new values. If you have a device that connects wirelessly to the MT8733, it may show the Wireless Network Name/SSID and Password. You can also find this information in the MT8733 Configuration Manager. Information about using this is in the Configuration Manager section above.

If all else fails, reset the device to factory defaults by holding the Reset button depressed for 10 seconds. (A paperclip helps.) You can then use the default values.

# What if I think that wireless devices are interfering with my MT8733 wireless router?

- 1. Where possible, put the MT8733 as far away as possible from interfering devices such as Bluetooth transmitters and neighbors' WiFi routers.
- 2. To try to pick a less used wireless channel for your MT8733, first go in to your MT8733's Configuration Manager.
  - Then, click the Advanced button at the top of the page, then click the Wireless and Scan/Bridge menu items at the top of the page.
  - Click the ScanWirelessAPs button. A list will appear of competing wireless networks, including the channels they are using. Write down one or more of the less used channel numbers, since a less used channel should be better for your MT8733.
  - On the top of the page, click the Wireless Basic menu item.
  - On the Basic page, select the channel you want in the Channel pulldown, then click Save.

Do you have any other questions? We have lots more information at **www.motorolanetwork.com/mentor** 





### 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: 800-753-0797 or 617-753-0562

Our full-length user manual is available at www.motorolanetwork.com/MT8733manual

## 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 MT8733.

- Do not put the MT8733 or its power supply in water, since this is a shock hazard.
- The MT8733 should normally be installed indoors. If you use it outdoors, protect it from moisture and be careful about temperature.
- Your MT8733 should be operated in an environment that's between 32 and 104° Fahrenheit (0 to 40° Centigrade).
- Your MT8733 should not be in a confined space. There should be room for air flow around the top, front, and sides of the MT8733.
- Make sure to use your MT8733's power supply and a compatible electrical outlet.
- The coaxial cable's ground shield is intended to be connected to the building's Earth ground. Attachment to Earth ground is typically provided through your cable service provider's installation.



### FCC 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 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 Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment and it also complies with Part 15 of the FCC RF Rules. This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and consider removing the no-collocation 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.

This device is restricted to indoor operation only in the band 5150-5250 MHz.

#### 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.

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

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