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## User Manual

8x4 Cable Modem  
plus  
N450 Wireless Router



MG7315

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## **SAFETY**

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 manufacture must therefore be allowed at all times to ensure the safe use of the equipment.

## **CAUTION:**

- Do not put the cable modem/router in water.
- Do not use the cable modem/router outdoors.
- Keep the cable modem/router in an environment that is between 0°C and 40°C (between 32°F and 104°F).
- Do not place any object on top of the cable modem/router since this may cause overheating.
- Do not place the cable modem/router in a confined space that may cause overheating.
- Do not restrict the flow of air around the cable modem/router.
- MOTOROLA and MTRLC assume no liability for damage caused by any improper use of the cable modem/router.



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## Introduction

The Motorola Model MG7315 is an 8x4 DOCSIS 3.0 cable modem with a built-in N300 Wi-Fi router that has 4 Gigabit Ethernet ports. This model connects to standard cable company Internet service. Model MG7315 can provide shared Internet access to Ethernet-capable and Wi-Fi devices including computers, smartphones, tablets, HDTVs, game consoles, security cameras, and streaming media devices.

Basic Installation instructions for Model MG7315 are in the Quick Start that comes with Model MG7315 and that is duplicated in Chapter 2 of this User Guide.

Model MG7315 has a Configuration Manager that provides a lot of technical information about Model MG7315 and that tells you how to do some useful things as summarized below. Please note that some users will never need to use the Configuration Manager.

Chapter 3: Alternate Ways to Connect Your Coax Cable

Chapter 4: Connecting Devices to Your Cable Modem/Router

Chapter 5: Setting up an HDTV, Streaming Media Device, or Other Device

Chapter 6: Accessing the Configuration Manager by Using a Browser

Chapter 7: Configuring Your MG7315 to Support Devices and Applications with Special Requirements, like Games Played on Game Consoles and PCs, and Security Cameras

Chapter 8: Changing Wireless Settings

Chapter 9: Changing Firewall Settings

Chapter 10: Tuning Wireless Performance

Chapter 11: Parental Control

Chapter 12: Troubleshooting Tips



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## Quick Start

Packaged with your MG7315 modem/router



Power Cube



Coax Wrench



Ethernet Cable



Velcro® Cable Tie



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## Let's get started

If you don't have cable Internet service, please order that from your cable service provider.

Now connect your MG7315 as shown on the next panel.

### Connecting to a Coax Cable

Soon you'll need to connect your MG7315 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 MG7315 can also share a coax cable attached to a TV by using a coax splitter.



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### ON/OFF button

### POWER

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

### RESET

### WLAN button

Wi-Fi on/off button

### WPS button

### ETHERNET (LAN 1-4)

You can connect a computer, HDTV, game station, or other Ethernet-capable device to any of these 4 LAN ports.

### 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.)*






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## Prepare to activate

By now you should have:

- Subscribed to cable Internet service.
- Connected your MG7315.
- Powered up your MG7315. To do this, the On/Off button needs to be On. Wait for the green online connection light  to stop flashing and remain solidly lit. This may take up to 15 minutes.

You should have a recent cable bill handy because it has your account number and you'll probably need that.

If you're asked for information about the MG7315, you can find this on the label on the bottom of the MG7315.

## Activate

For some service providers, you activate by calling them. Many service providers including Comcast and Cox prefer that you activate by opening the Web browser of a computer that's plugged into one of the MG7315's Ethernet ports.

If you don't have a computer, you can use the Web browser of a Wi-Fi device such as a smartphone or tablet. In that case you'll need the unique Wireless Network Name and Password printed on the bottom of your MG7315. You'll use these in setting up your wireless device to connect to the MG7315. Once you've connected, you can open the browser of that wireless device.



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*For Comcast XFINITY Users Only:*

If the activation page does not appear, please go to **[www.xfinity.com/internetsetup](http://www.xfinity.com/internetsetup)** for more information and to activate your modem.

Here is a list of phone numbers for some major cable service providers. *(Note that this list is subject to change.)*

Comcast	1 (855) 652-3446
Time Warner	1 (855) 704 4503
Bright House	1 (888) 289-8988
Suddenlink	1 (877) 794-2724
Cable One	1 (877) 692 2253
Cox	1 (888) 556-1193
RCN	1 (866) 832-4726

Once your MG7315 is activated either online or by phone, your service provider will provision your MG7315 service. Typically this takes less than 5 minutes, but in some cases this may take 30 minutes or longer to complete.

Try to browse the Web using a device connected via Ethernet or Wi-Fi to the MG7315. If browsing works, **Congratulations!** Your MG7315 is working.

If your MG7315 is NOT working, see **Troubleshooting Tips** below.



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## Configuration Manager

Most MG7315 users never use the Configuration Manager. Here are some reasons for using the Configuration Manager:

- You want to change the wireless router setup. For instance, maybe you're replacing a router and want to use your existing Wireless Network Name and/or Password instead of the unique ones that come with the MG7315.
- You want to set up special Internet gaming settings.
- You want to set up parental controls including white lists and/or black lists for certain users and times.
- You want to get performance information about the MG7315 modem/router and/or built-in router. This can be helpful in optimizing wireless performance.

If you need to access the MG7315 Configuration Manager, open your Web browser. Type **http://192.168.0.1** in the address bar and 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:       **motorola**

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

For details about the Configuration Manager, please see **Chapter 6** in this manual.



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## Wireless Router

As noted before, the MG7315 has a unique Wireless Network Name/SSID and WPA/WPA2 Wireless Security Key/Password printed on the MG7315's bottom label. If you don't change these, you should set up your wireless devices to work with this SSID and security key.

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








- Where possible, put the MG7315 in a central place so that it's not too far away from your other wireless devices.
- Try to avoid interference from other wireless devices such as Bluetooth headsets and stereos, and 2.4 GHz cordless phones and base stations. Don't put the MG7315 close to these interfering devices.
- Sometimes it helps to change the MG7315 wireless channel frequency to reduce interference with neighbors' wireless networks. This is discussed in the Troubleshooting section.



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## Front Panel Lights

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

LIGHT	COLOR	DESCRIPTION
 <b>Power</b>	Green	ON: MG7315 power on OFF: MG7315 power off
 <b>Upstream</b>	Green or Blue	Green Blinking: Ranging in progress Green ON: Connected on 1 channel Blue Blinking: Negotiating bonded channel(s) <sup>†</sup> Blue ON: Bonded with 2 or more channels OFF: Upstream not connected
 <b>Downstream</b>	Green or Blue	Green Blinking: Scanning for DS channel Green ON: Connected on 1 downstream channel Blue Blinking: Negotiating bonded channel(s) <sup>†</sup> Blue ON: Bonded with 2 or more channels
 <b>Online</b>	Green	Blinking: Trying to go online ON: Online OFF: Offline
 <b>Ethernet LAN ports</b>	Green or Amber	Blinking: Ethernet data is flowing Green: Connected at highest LAN speed, 1 Gbps Amber: Connected at 10 or 100 Mbps OFF: No connection
 <b>WLAN</b>	Green	Blinking: Data is flowing ON: Wi-Fi is enabled OFF: Wi-Fi is not enabled
 <b>WPS</b>	Green	Blinking: WPS is in discovery mode ON: Light will remain solid after WPS configuration is successful

<sup>†</sup> 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.



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## Alternate Ways to Connect Your Coax Cable

As summarized in the Quick Start, one important connection is the coaxial cable connection that carries your cable Internet service to your MG7315. Here are the main ways you can make that connection:

- 1) Use the loose end of an available “live” coaxial cable from your cable service provider. Plug the loose end into the Coax jack of your cable modem.
- 2) If there’s a “live” coax jack in your wall, connect a coax cable between that jack and the Coax jack of your cable modem.
- 3) Use a “live” cable that’s plugged into one of your televisions. If you still want cable TV to go to that TV set, you can get a coaxial splitter and two cables of the right length as shown below.



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## Connecting Devices to Your Cable Modem/Router

You can connect computers, smartphones, tablets, game consoles, security cameras, streaming media devices (like Roku, Chromecast & AppleTV), Internet-enabled HDTVs and other devices to your cable modem/router.

You can connect these devices either with an Ethernet cable (a wired connection), or via Wi-Fi (a wireless connection).

An Ethernet connection is normally a faster, more reliable connection than a wireless connection. To make an Ethernet connection, you need a device with an Ethernet connector and a cable to connect between that device and your cable modem. In some cases, this may be impossible because of the location of the devices. In those cases, or if the device doesn't have an Ethernet connector, you will need to create a wireless connection as described below.

### Connecting a Device via Ethernet

To make the connection at the Ethernet-capable device, simply plug in one end of the Ethernet cable to an Ethernet jack on the device. At the cable modem, plug the other end of the cable into any of the cable modem's LAN jacks. You can connect up to four devices by using the four LAN jacks.



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## Connecting a Smartphone, Tablet or Other Wireless Device via Wireless

You will need to enter your wireless network name (SSID) and password into each client device that you want to connect to your network. If you haven't changed the factory settings, you can find these on a label on the bottom of your modem's stand. If you have changed the network name and/or password, use your new values. (See Chapter 8 if you want to change your wireless settings).

If you want to connect devices to a Guest Network, use the Network Name and Password for that network. (See Chapter 8 if you want to set up a Guest Network).

Wireless devices vary, but they all have a Wireless Settings area. There you should first select the wireless network you want, namely the wireless network name or Guest network name of the MG7315. Now enter the password for your wireless network. Make sure to turn wireless ON on your client devices. Normally that's all you need to do.





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## Setting up an HDTV, Streaming Media Device, or Other Device

A typical HDTV, for instance, has an Input or Setup section. Within that section there's normally a Network section. In that section you may need to specify that you have an Ethernet connection if that's how you connect to the MG7315. If you want to connect wirelessly to the MG7315, you'll need to select its wireless network name and then enter its wireless password.



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## Accessing the Configuration Manager by Using a Browser

Model MG7315 has a Configuration Manager that provides a lot of technical information about Model MG7315 and that tells you how to do some useful things. Please note that some users will never need to use the Configuration Manager.

You can access the Configuration Manager from a computer or any other device that has a browser and that is connected via Ethernet or wirelessly to your cable modem. If you will be changing wireless settings, it's much better to use a device that connects via Ethernet while you make these changes.

To access the Configuration Manager, do the following:

- 1) Open your browser.
- 2) Type **192.168.0.1** into your browser's address bar and press Enter.



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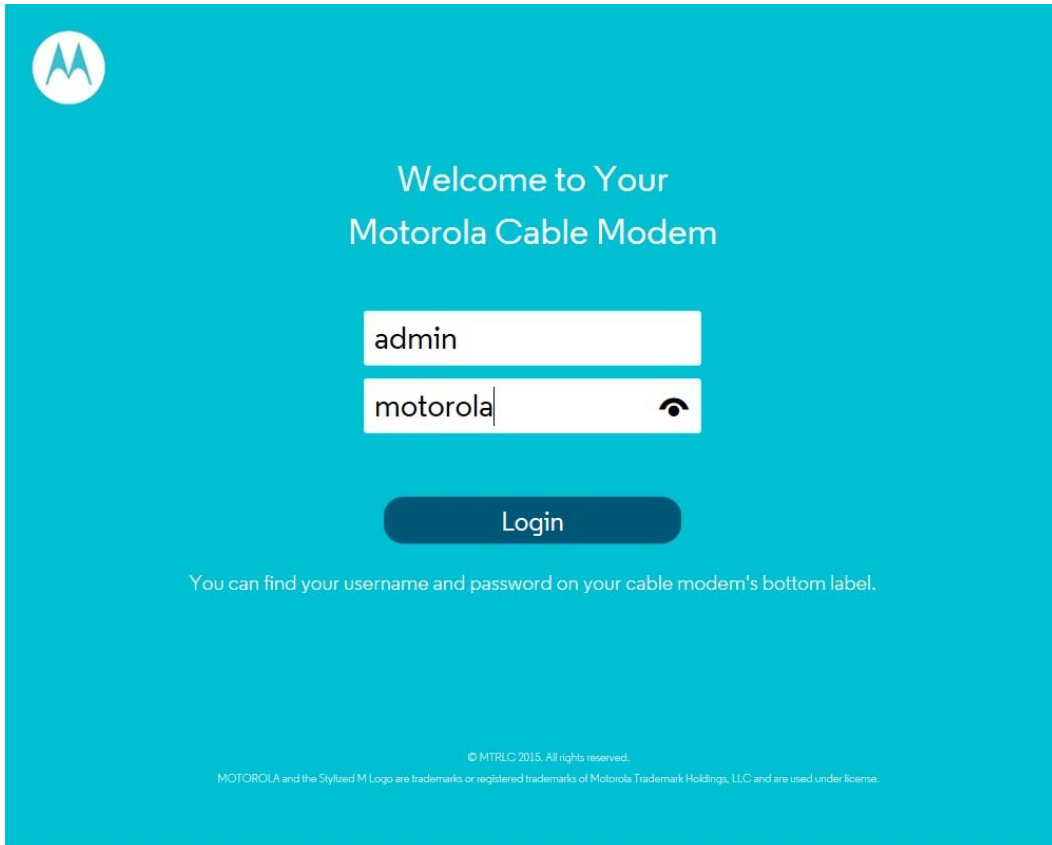
You should see this page:

A screenshot of the Motorola Cable Modem login page. The page has a teal background. In the top left corner, there is a small white Motorola logo. The main heading reads "Welcome to Your Motorola Cable Modem". Below this, there are two white input fields: "Username" and "Password". Underneath the fields is a dark teal "Login" button. A line of text below the button says "You can find your username and password on your cable modem's bottom label." At the bottom of the page, there is small copyright text: "© MTRIC 2015. All rights reserved. MOTOROLA and the Stylized M Logo are trademarks or registered trademarks of Motorola Trademark Holdings, LLC and are used under license."

- 3) Type **admin** in the Username field.
- 4) Type **motorola** in the Password field.



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A screenshot of the Motorola Cable Modem login interface. The background is a solid teal color. In the top left corner, there is a small white circle containing the Motorola logo. The main heading, "Welcome to Your Motorola Cable Modem", is centered in white text. Below the heading are two white input fields: the first contains the text "admin" and the second contains "motorola" with a small eye icon to its right. A dark teal rounded button with the word "Login" in white is centered below the fields. At the bottom of the page, there is a small white line of text: "© MTRLC 2015. All rights reserved. MOTOROLA and the Stylized M Logo are trademarks or registered trademarks of Motorola Trademark Holdings, LLC and are used under license."

5) Click the Login button.



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This should bring you to the Basic Status and Settings page shown below.

The screenshot shows the 'Basic Status and Settings' page. At the top right, there are buttons for 'Advanced' and 'Logout'. The page is divided into three main sections:

- Internet Connection:** A table showing connection status. 'Online' is 'Connected'. 'Number of Channels Connected' is 8 (Downstream) and 4 (Upstream).
- Wi-Fi Privacy Settings (2.4 GHz):** Fields for 'Network Name' (MOTO17E4) and 'Password' (masked with dots). There are 'Save' buttons and 'Show Key' checkbox for each.
- Cable Modem Addresses and Version:** A table showing MAC Address (00:40:36:3f:17:e4), IP Address (192.168.168.19), IPv6 Address (::), and Software Version (7310-5.7.1.15).

Internet Connection		
Online	Connected	(i)
Number of Channels Connected		
Downstream	8	
Upstream	4	(i)

Wi-Fi Privacy Settings		
2.4 GHz		
Network Name	<input type="text" value="MOTO17E4"/>	Save (i)
Password	<input type="password" value="....."/> <input type="checkbox"/> Show Key	Save (i)

Cable Modem Addresses and Version		
MAC Address	00:40:36:3f:17:e4	(i)
IP Address	192.168.168.19	(i)
IPv6 Address	::	(i)
Software Version	7310-5.7.1.15	(i)

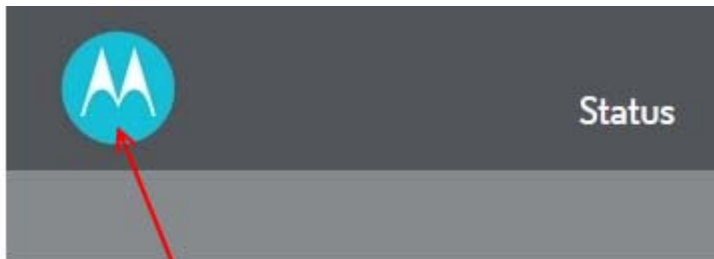
The Basic Status and Settings page gives you information about your Internet connection, lets you view and modify your Wi-Fi privacy settings, and shows you basic information about your cable modem's addresses and software version. The logout link lets you end your session with the Configuration Manager.

The Advanced button at the top of the page takes you to pages with more extensive information and options to configure your cable modem/router.



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You can return to the Basic Status and Settings page from any Advanced page by clicking the Motorola stylized M Logo in the upper left-hand corner of the page.



**Click the Motorola logo to return to the Basic page.**

Note the circled (i) 'information' icons to the right of the page. You can click the icons for descriptions of entries:



**Click the information icon for a description of the entry.**

The information icons appear on every page, including Advanced pages.

The Advanced pages include more detailed status information, as well as exhaustive configuration options for the Wi-Fi, Router and Firewall functions of your device. In addition, there is a Parental Control page, and pages to set up Virtual Private Networks (VPNs).



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Click the Advanced button. Note the Menus and Submenus at the top of the page. The currently selected menu item is highlighted (top row), and submenu items corresponding to the selected menu item are displayed in the second row. The currently selected submenu item is indicated by a small white pointer underneath it.

In this screenshot, the menu item Status and submenu item Software are selected.

The screenshot shows the Motorola web interface. At the top, there is a navigation bar with the Motorola logo on the left and several menu items: Status, Basic Router, Advanced Router, Wireless, Protection & Parental Control, and VPN. Below this is a secondary navigation bar with items: Software, Connection, Diagnostics, Security, and Event Log. The 'Software' submenu is expanded, showing a list of device information items. The 'Software' menu item is highlighted with a white pointer underneath it.

Device Information		
Cable Specification Version	DOCSIS 3.0	<a href="#">i</a>
Hardware Version	V1.0	<a href="#">i</a>
Software Version	7310-5.7.1.15	<a href="#">i</a>
Cable Modem MAC Address	00:40:36:3f:17:e4	<a href="#">i</a>
Cable Modem Serial Number	2685-MG7310-0045	<a href="#">i</a>
CM Certificate	Installed	<a href="#">i</a>
	5.7.1mp1	<a href="#">i</a>

The following sections in this guide will walk you through the features that users most often want to configure.



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## Configuring Your MG7315 to Support Devices and Applications with Special Requirements

### For Games Played on Game Consoles and PCs, and Security Cameras

Devices including game consoles and security cameras often require special router settings to work correctly. This may also be true of games that you play on a PC or another device. For gaming, you probably want to use special settings if you're playing another person or a computer over the Internet. You don't need special settings for games that don't involve connecting to another player or computer over the Internet.

Typically, you will have to open ports on your router to support these devices. There may be other settings that you need to change.

To open ports, first log into the Configuration Manager as described in chapter 4. In summary, you type **192.168.0.1** in the address bar of your browser, go to that address, enter the Username **admin** and Password **motorola**, then click the Login button.

This will bring you to the Basic Status and Settings page. Click the Advanced button in the upper right. This will bring you to the Status → Software page. Hover over the Advanced Router menu item, and select the Forwarding submenu:





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Forwarding

Add a Forwarding Rule (i)

Forward Requests from the Internet to these LAN Addresses and Ports

Local

- IP Address
- Start Port
- End Port

External

- IP Address
- Start Port
- End Port

Protocol

Description

Enable/Disable

Add\_IPv4 Add\_IPv6

Forwarding Rules Added (i)

Clear All Forwarding Rules

You can create forwarding rules for both IPv4 and IPv6 environments. These rules determine how data flows from the address to specified LAN addresses and ports. In this document we will describe how to create a rule for an IPv4 network. The steps are similar for IPv6.

To create an IPv4 Forwarding Rule, first click the Add\_IPv4 button. You can now enter your port forwarding information.



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Status Basic Router **Advanced Router** Wireless Protection & Parental Control VPN

Options IP Filtering MAC Filtering Port Filtering **Forwarding** Port Triggers RIP DMZ

### Forwarding

**Add a Forwarding Rule** ⓘ

Forward Requests from the Internet to these LAN Addresses and Ports

Local

IP Address

Start Port

End Port

External

IP Address

Start Port

End Port

Protocol

Description

Enable/Disable

**Forwarding Rules Added** ⓘ

Review your game or device documentation to find the port or ports that need to be forwarded. Also, determine the IP Address that your device is using. Your game or device documentation should show you where to find this.

Your game or device may need more than one port to be forwarded. In some cases, the ports will be numbered sequentially, in a range. In other cases, the ports may be separated. In this case, you will have to set up a separate forwarding rule for each port.



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## To create a port forwarding rule

- 1 Under Local IP Address, enter the address of the game station, PC or other device. In the case of a security camera, enter the address of the camera's DVR.
- 2 Under Local Start Port, enter the starting port that your device or game needs.
- 3 Under Local End Port, if your device uses a sequential range of port numbers, enter the highest number in the range. Otherwise, if there is only one number, enter the start port number again.
- 4 Unless instructed otherwise in your game or device documentation, leave the External entries blank. They will fill in automatically.
- 5 Select the protocol, TCP, UDP or Both, indicated in your documentation.
- 6 Select Enable in the Enable/Disable pulldown.
- 7 Click Save.

Repeat these steps as necessary to create rules for multiple ports or port ranges.

The rule or rules you create will appear at the bottom of the page, as shown below. Note that you can clear individual rules, or all rules.



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Navigation: Status | Basic Router | **Advanced Router** | Wireless | Protection & Parental Control | VPN

Sub-navigation: Options | IP Filtering | MAC Filtering | Port Filtering | **Forwarding** | Port Triggers | RIP | DMZ

### Forwarding

**Add a Forwarding Rule** ⓘ

Forward Requests from the Internet to these LAN Addresses and Ports

**Local**

- IP Address
- Start Port
- End Port

**External**

- IP Address
- Start Port
- End Port

Protocol

Description

Enable/Disable

[Add\\_IPv4](#) [Add\\_IPv6](#)

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**Forwarding Rules Added** ⓘ

Local IP Address	192.168.0.10
Start Port	825
End Port	840
External (Internet) IP Address	0.0.0.0
Start Port	125
End Port	140
Protocol	TCP
Description	
Enable/Disable	Disable

[Edit](#) [Clear](#)

[Clear All Forwarding Rules](#)

For games and game consoles, you may also need to enable UPnP and to set the Firewall to OFF.



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The screenshot shows the Motorola router configuration interface. The top navigation bar includes 'Status', 'Basic Router', 'Advanced Router', 'Wireless', 'Protection & Parental Control', and 'VPN'. Below this, a sub-menu contains 'Options', 'IP Filtering', 'MAC Filtering', 'Port Filtering', 'Forwarding', 'Port Triggers', 'RIP', and 'DMZ'. The 'Options' section is active and contains three sub-sections: 'Router Selections', 'Pass Through These MAC Addresses', and 'NAT ALG Status'. The 'Router Selections' section has a 'Save' button at the top right. It lists several settings with checkboxes and information icons:

Setting	Checkbox	Label	Info Icon
WAN Blocking	<input type="checkbox"/>	Enable	(i)
IPSec PassThrough	<input checked="" type="checkbox"/>	Enable	(i)
PPTP PassThrough	<input checked="" type="checkbox"/>	Enable	(i)
Remote Config Management	<input type="checkbox"/>	Enable	(i)
Multicast	<input checked="" type="checkbox"/>	Enable	(i)
UPnP	<input checked="" type="checkbox"/>	Enable	(i)
Primary Network Bridged	<input type="checkbox"/>	Enable	(i)

The 'UPnP' row is circled in red. Below this is the 'Pass Through These MAC Addresses' section with a table for adding MAC addresses and a 'Clear List' button. The 'NAT ALG Status' section has a 'Save' button and a list of protocols with checkboxes:

Protocol	Checkbox	Label
RSVP	<input checked="" type="checkbox"/>	Enable
FTP	<input checked="" type="checkbox"/>	Enable
TFTP	<input checked="" type="checkbox"/>	Enable
Kerb88	<input checked="" type="checkbox"/>	Enable
Multicast	<input checked="" type="checkbox"/>	Enable

Click the UPnP Enable box, and click Save at the top of the Router Selections box.



Navigation: Status | Basic Router | Advanced Router | Wireless | Protection & Parental Control | VPN

Sub-navigation: Firewall Basic | Firewall EventLog | Parental Control

### Firewall Basic

#### Firewall Setup

IPv4 Firewall Protection	Off	Save	i
IPv6 Firewall Protection	Enabled	Save	i
Attack Detection	<input type="checkbox"/> Enable	Save	i
Block Fragmented IP Packets	<input type="checkbox"/> Enable	Save	i
Port Scan Detection	<input type="checkbox"/> Enable	Save	i
IP Flood Detection	<input type="checkbox"/> Enable	Save	i

#### List of Allowed Services

Service	Port Range	Protocol
No Ports Restricted		

Select Off in the IPv4 Firewall Protection pulldown, and click Save.



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## Changing Wireless Settings

The MG7315 comes set up for wireless-N with WPA2 security, with a unique wireless network name (SSID) and a unique password. There's a good chance that you'll want to use these settings. In that case wireless devices connecting to the Primary Network on your MG7315 will use the same wireless network name and password. (You may want to enable a separate Guest Network or Networks for visitors and others for whom you want to provide Internet access without also providing access to your computers and other devices connected to your network.)


You may want to change the wireless settings on the Primary Network. The most common reason is that you're replacing a cable modem/router and you want to use the same wireless network name and password that you've had. If you change the wireless settings on your MG7315 to match your previous settings, you won't have to change the settings of wireless devices that worked with your previous router. Unless there's a good reason to change your wireless settings, you should use the unique ones assigned at the factory.

To change the wireless settings, first log into the Configuration Manager as described in chapter 6. In summary, you type **192.168.0.1** in the address bar of your browser, go to that address, enter the Username **admin** and Password **motorola**, then click the Login button.



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This will bring you to the Basic Status and Settings page:

Advanced Logout

### Basic Status and Settings

#### Internet Connection

Online	Connected <span data-bbox="1209 640 1242 672">i</span>
<b>Number of Channels Connected</b>	
Downstream	8 <span data-bbox="1209 703 1242 735">i</span>
Upstream	4 <span data-bbox="1209 735 1242 766">i</span>

#### Wi-Fi® Privacy Settings

2.4 GHz

Network Name	<input data-bbox="698 861 868 892" type="text" value="NewName"/>	<input data-bbox="876 861 917 892" type="checkbox"/> Show Key	<input data-bbox="1128 861 1193 892" type="button" value="Save"/> <span data-bbox="1209 861 1242 892">i</span>
Password	<input data-bbox="698 892 868 934" type="text" value="NewCleverPa\$\$word"/>	<input checked="" data-bbox="876 892 917 934" type="checkbox"/> Show Key	<input data-bbox="1128 892 1193 934" type="button" value="Save"/> <span data-bbox="1209 892 1242 934">i</span>

#### Cable Modem Addresses and Version

MAC Address	00:40:36:3f:17:e4 <span data-bbox="1209 997 1242 1029">i</span>
IP Address	192.168.168.19 <span data-bbox="1209 1029 1242 1060">i</span>
IPv6 Address	:: <span data-bbox="1209 1060 1242 1092">i</span>
Software Version	7310-5.7.1.15 <span data-bbox="1209 1092 1242 1144">i</span>





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## To change the Network Name and Password

- 1 Select and delete the old Network Name, then type in the new Network Name.
- 2 Click the Save button.
- 3 You can click the Show Key box to check your typing for Password.
- 4 Select and delete the old Password, then type in the new Password.
- 5 Click the Save button.

**Network Name** can be from 6 - 32 characters long. You can use the upper and lower case letters (a – z and A – Z), numbers (0 - 9) and special characters (e.g. \$\_/& etc.) except the single quote ' .

**Password** can be from 8 - 63 characters long. You can use upper and lower case letters (a – z and A – Z), numbers (0 - 9) and special characters (e.g. \$\_/& etc.) except the single quote ' .

Be sure to write down and save the new wireless network name and password in a place where you can easily find it. One approach is to write it on a small piece of paper and tape it on the bottom of your cable modem. Some people like to take a picture of the settings with their phone, which is fine as long as long as they save it in a place where they are sure to find it when they need it.



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## Wireless Guest Networks

You can enable one or more Guest Networks to let friends use your Internet connection without giving them access to other devices on your network.

To set up a Guest Network, first log into the Configuration Manager as described in chapter 4. In summary, you type **192.168.0.1** in the address bar of your browser, go to that address, enter the Username **admin** and Password **motorola**, then click the Login button.

This will bring you to the Basic Status and Settings page. Click the Advanced button in the upper right. This will bring you to the Status → Software page. Hover over the Wireless menu item, and select the Guest submenu:



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Guest

Guest Network

Select Guest Network  ①  ②

Guest Network Status  ③

Guest Network Name (SSID) ④  ④

WPA-PSK / WPA2-PSK Security Key / Password ⑥  ⑤  Show Key ⑦

Protected Management Frames

To configure and enable a Guest Network:

- 1 Select the desired Guest Network (there are seven available).
- 2 Click the Save button.
- 3 Select Enabled and click Save to enable the selected Guest Network.

The following steps are optional. Follow them if you want to change the default Guest Network Name and Password:

- 1 Select and delete the old Guest Network Name, then type in the new Guest Network Name and click Save.
- 2 You can click the Show Key box to check your typing for Password.
- 3 Select and delete the old Password, then type in the new Password.
- 4 Click the Save button.

**Network Name** can be from 6 - 32 characters long. You can use the upper and lower case letters (a – z and A – Z), numbers (0 - 9) and special characters (e.g. \$\_/& etc.) except the single quote ‘ .

**Password** can be from 8 - 63 characters long. You can use upper and lower case letters (a – z and A – Z), numbers (0 - 9) and special characters (e.g. \$\_/& etc.) except the single quote ‘ .



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## Changing Firewall Settings

A Firewall helps protect your Model MG7315 and the devices attached to it from harm from outsiders connecting via the Internet. Model MG7315 comes with reasonable firewall settings. The firewall allows all normal traffic to pass, but protects against well-known attacks. Normally you just leave the firewall settings in place. If you want to change them, you go to the Protection→Firewall section of the Configuration Manager. First log into the Configuration Manager as described in chapter 6. In summary, you type **192.168.0.1** in the address bar of your browser, go to that address, enter the Username **admin** and Password **motorola**, then click the Login button.

This will bring you to the Basic Status and Settings page. Click the Advanced button in the upper right. This will bring you to the Status → Software page. Hover over the Protection & Parental Control menu item, and select the Firewall submenu.



The screenshot shows the 'Firewall Basic' configuration page. At the top, there are navigation tabs: Status, Basic Router, Advanced Router, Wireless, Protection & Parental Control, and VPN. Below these are sub-tabs: Firewall Basic, Firewall EventLog, and Parental Control. The main content area is titled 'Firewall Basic' and contains two sections:

- Firewall Setup:** A list of settings with 'Save' and 'Info' buttons for each.
  - IPv4 Firewall Protection: Set to 'Low' (dropdown menu)
  - IPv6 Firewall Protection: Set to 'Enabled' (dropdown menu)
  - Attack Detection:  Enable
  - Block Fragmented IP Packets:  Enable
  - Port Scan Detection:  Enable
  - IP Flood Detection:  Enable
- List of Allowed Services:** A table with columns for Service, Port Range, and Protocol.

Service	Port Range	Protocol
No Ports Restricted		

The firewall lets you set your protection level through IPv4 Firewall Protection, for example. By default, with the Low setting, all services are allowed. If you select Medium or High protection, the firewall will block all services except those listed in the List of Allowed Services at the bottom of the page. Select the desired protection level, and click Save.

The higher protection levels will make it harder for attackers to penetrate your network. You may find that if you select one of these levels, that some Internet activities may fail. If that is the case, you may need to use a lower level of protection during those activities.

Note that in order to play some games, you may need to turn protection off.

When enabled, Port Scan Detection and IP Flood Detection will generate reports in the Firewall Log if they detect their respective attacks.



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## Tuning Wireless Performance

This chapter discusses steps to tune wireless performance. These steps can optimize wireless performance in many cases.

First, note that placement of your MG7315 can be very important. Make sure it is not too close to other wireless devices like Bluetooth transmitters (e.g. for headsets), or a neighbor's wireless router. For example, in an apartment an MG7315 could be only feet away from a neighbor's device on the other side of a shared wall.

There are also optimizations you can make by using the MG7315's Configuration Manager.

Log into the Configuration Manager as described in chapter 4. In summary, you type **192.168.0.1** in the address bar of your browser, go to that address, enter the Username **admin** and Password **motorola**, then click the Login button.

This will bring you to the Basic Status and Settings page. When the Basic Status and Settings page comes up, click the Advanced button at the top right.

Remember that you can go back to the Basic Status and Settings page at any time by clicking the Motorola 'M' logo at the upper left of the page.

To optimize wireless performance, check channel usage of neighboring devices. You can do this by looking at the wireless Scan Results table.



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Select the Wireless Scan/Bridge page. Hover over the Wireless menu item to bring the Wireless submenu options into view, then click the Scan/Bridge submenu option. This brings you to the Wireless Scan/Bridge page:

The screenshot shows the Motorola router's configuration interface. At the top, there is a navigation bar with the Motorola logo and several menu items: Status, Basic Router, Advanced Router, Wireless, Protection & Parental Control, and VPN. Below this, a secondary navigation bar highlights the 'Scan/Bridge' option under the 'Wireless' menu. The main content area is titled 'Wireless Scan & Extended Network Range (Bridging)'. It features a 'Primary Radio MAC Address' section with a text field containing 'F8:CF:C5:F4:28:38' and an information icon. Below this is the 'Wireless Bridging' section, which includes a dropdown menu set to 'Disabled', a 'Save' button, and an information icon. Underneath, there are four empty text input fields for 'Remote Bridge MAC Addresses', each accompanied by its own 'Save' and 'Clear' buttons and an information icon. At the bottom of the page, there is a 'Scan Wireless APs' button.



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Click the “Scan Wireless APs” button at the bottom of the page. This will pop up the wireless Scan Results table:

The screenshot shows a web browser window with the URL <http://192.168.0.1/MotowlanScanResult.asp>. The page features the Motorola logo and a section titled "Scan Results". Below this, there is a sub-section titled "Nearby Wireless Access Points" which contains a table of network information.

Network Name	Security Mode	Mode	PHY Mode	RSSI	Channel	Bandwidth
11lbeach4e	WPA-PSK TKIP	Managed	802.11b/g	-54 dBm	6	20 MHz
hpsetup	NONE	Ad Hoc	802.11b/g	-76 dBm	6	20 MHz
	WPA2-PSK AES-CCMP TKIP	Managed	802.11n	-78 dBm	6	20 MHz
	WPA2-PSK AES-CCMP TKIP	Managed	802.11n	-71 dBm	6	20 MHz
11FX08174819	WEP	Managed	802.11b/g	-70 dBm	6	20 MHz
PCHWiFi	WPA2 AES-CCMP	Managed	802.11n	-58 dBm	6	20 MHz
CoPatient	WPA2-PSK AES-CCMP	Managed	802.11n	-54 dBm	11	20 MHz
Credo	WPA2-PSK AES-CCMP	Managed	802.11n	-51 dBm	11	20 MHz
DOH	WPA2-PSK AES-CCMP	Managed	802.11n	-50 dBm	6	20 MHz

Note that as in these sample Scan Results, you may need to scroll down to see all neighboring networks.

Look at the Channel column. This shows the channels that your neighboring networks use. Available channels are 1 through 11. Many installations use only channels 1, 6 or 11, because ideally wireless devices should be separated by 5 channels.

If there are very few neighboring wireless devices in your location, you should follow the rule of choosing a channel separated by 5 from all other channels. For example, if there are two neighboring networks using channels





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6 and 11, you should choose channel 1.

If there are many neighboring networks, you may find that most use channels 1, 6 and 11. In that case, you may find you achieve better performance by choosing an unused channel between the most-used channels, for example one of channels 3, 4, 8 or 9. You may need to experiment to find the best channel. Note good candidate channels to use for your network. Then, navigate to the Wireless Basic page.

Hover over the Wireless menu item to bring the Wireless submenu options into view, then click the Basic submenu option. This brings you to the Wireless Basic page:

The screenshot shows the Motorola router's configuration interface. At the top, there is a navigation bar with the Motorola logo and several menu items: Status, Basic Router, Advanced Router, Wireless, Protection & Parental Control, and VPN. Below this is a secondary navigation bar with sub-menu items: Basic, Radio, WPS RADIUS WEP, Guest, Access, Advanced, WMM, and Scan/Bridge. The main content area is titled 'Basic' and contains a section for 'Primary Network' configuration. The settings are as follows:

Setting	Value	Action
Primary Network Status	Enabled	Save (Info)
Network Name (SSID)	MOTO17E4	Save (Info)
WPA-PSK / WPA2-PSK Security Key / Password	•••••••• <input type="checkbox"/> Show Key	Save (Info)
Channel	6	Save (Info)
Bandwidth	20 Mhz	Save (Info)
Sideband for Control Channel (40 Mhz only)	Lower	Save
Protected Management Frames	Off	Save

Select the desired channel from the Channel pulldown, and click Save. Wait for a minute or so for client devices to resynchronize to the new channel.

Check to see whether wireless performance has improved. If not, you can try another channel selection.



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## Wi-Fi Multimedia (WMM)

Another possible way to improve performance is to change Wi-Fi Multimedia (WMM) settings. From the Wireless menu, click the WMM submenu:

The screenshot shows the Motorola router's configuration interface. At the top, there is a navigation bar with the Motorola logo and several menu items: Status, Basic Router, Advanced Router, Wireless, Protection & Parental Control, and VPN. Below this is a sub-menu for the Wireless section, including Basic, Radio, WPS, RADIUS, WEP, Guest, Access, Advanced, WMM, and Scan/Bridge. The main content area is titled "Wi-Fi Multimedia (WMM)" and contains a "WMM Setup" section. This section lists three settings, each with a dropdown menu set to "Off", a "Save" button, and an information icon (i):

Setting	Value	Action	Info
WMM Support	Off	Save	i
No-Acknowledgement	Off	Save	i
Power Save Support	Off	Save	i

WMM is designed to provide Quality of Service (QoS) support for traffic on your network. In some environments, this may result in suboptimal wireless performance. You can turn WMM Off and see if that improves performance in your network. Select Off and click Save.

Power Save Support is designed to support client devices with the Power Save feature. The Power Save feature extends battery life by reducing power consumption. However, sometimes this feature results in suboptimal wireless performance. You can turn Power Save Support Off and see if that improves performance in your network. Select Off and click Save.



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## Parental Control

Parental Control lets you limit access to the Internet from particular devices on your network. For a device like a child's computer or tablet, you can create lists of websites that the device is allowed to visit, blocking all others (whitelists). Alternatively, you can create lists of websites that the device may not visit, allowing all others (blacklists). You can also set times where Internet access is allowed and not allowed.

To make Parental Control settings, go to the Protection → Parental Control section of the Configuration Manager. First log into the Configuration Manager as described in chapter 6. In summary, you type **192.168.0.1** in the address bar of your browser, go to that address, enter the Username **admin** and Password **motorola**, then click the Login button.

This will bring you to the Basic Status and Settings page. Click the Advanced button in the upper right. This will bring you to the Status → Software page. Hover over the Protection & Parental Control menu item, and select the Parental Control submenu:



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Parental Control

Parental Control Setup

Parental Control Enable/Disable  Save *i*

List of Blocked Addresses (Blacklist) *i*

Name	MAC Address	URL	Days	Time Start	/ Time End	Protocol	Enable	Add
------	-------------	-----	------	------------	------------	----------	--------	-----

Clear List of Blocked Addresses

List of Allowed Addresses (Whitelist) *i*

Name	MAC Address	URL	Days	Time Start	/ Time End	Protocol	Enable	Add
------	-------------	-----	------	------------	------------	----------	--------	-----

Clear List of Allowed Addresses

Current System Time

Current System Time Tue Jan 05 05:19:07 2016

Note that Parental Control is Disabled by default. You should leave it disabled until you have set up all desired Whitelists and Blacklists. Enable Parental Control once the Whitelist and Blacklist settings are complete. Select Enable, and then Save.

If you need to modify the Whitelists or Blacklists, first Disable Parental Control and Save. Then, Enable Parental Control when the changes are complete, and Save again.

To set up either a whitelist or a blacklist, you will need to first find the MAC Address of the device you want to control. On some devices, this may be found on a label. On others, there may be a way to query the device to display this. Check your user documentation for that device.



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You may also find the device's MAC Address by looking at the client list on your MG7315. Click Basic Router → DHCP and look at the MAC Addresses in the DHCP Client List:

DHCP Client List							<i>i</i>
MAC Address	IP Address	Subnet Mask	Duration	Expires	Hostname	Select	
448a5ba1101e	192.168.000.020	255.255.255.000	D:01 H:00 M:00 S:00	-----:--:--	DESKTOP-V4M2NFJ	<input type="radio"/>	

You may have to do a little sleuthing to find your device's MAC Address, for example by turning the device off and on again to see which MAC Address is removed and then restored to the list.

## Setting up a Blacklist

Before you make any changes, make sure Parental Control at the top of the page is Disabled, and click Save if you had to change this.

Under the tab List of Blocked Addresses (Blacklist), click the Add button to the right. A set of fields will appear. Give your Blacklist a name, and then type in the MAC Address of the device you want your Blacklist to apply to. Use the format XX:YY:ZZ:WW:VV:UU.

Next, enter the URL of the first domain that you want to block, for example BadSite.com.

If you want the Blacklist to apply only during certain hours, enter the start and stop times for the period you want the Blacklist to apply. If you want the Blacklist to apply always, make sure to set the start time to 12:00 am and the end time to 11:59 pm.

Next, select which protocols the Blacklist should apply to. If you're not sure, leave this selection at the default setting, BOTH.



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Here is an example entry to block access to BadSite.com at all times:

Name	MAC Address	URL	Days	Time Start	/ Time End	Protocol	Enable		
BadSite	00:12:34:56:78:9A	BadSite.com	All	12:00 AM	/ 11:59 PM	Both	<input checked="" type="checkbox"/>	Add	Save Cancel

Finally, make sure to check the Enable box, and click the Save button.

Name	MAC Address	URL	Days	Time Start	/ Time End	Protocol	Enable		
BadSite	00:12:34:56:78:9A	BadSite.com	+ All	12:00am	/ 11:59pm	BOTH	<input checked="" type="checkbox"/>	Add	Edit Clear

Click the + sign to add another site to block for this device:

Name	MAC Address	URL	Days	Time Start	/ Time End	Protocol	Enable		
BadSite	00:12:34:56:78:9A	BadSite.com	+ All	12:00am	/ 11:59pm	BOTH	<input checked="" type="checkbox"/>	Add	Edit Clear

Click the + sign to add another site to the Blacklist.

Now you can add another site, for example WorseSite.com, to the Blacklist:

Name	MAC Address	URL	Days	Time Start	/ Time End	Protocol	Enable		
BadSite	00:12:34:56:78:9A	BadSite.com	+ All	12:00am	/ 11:59pm	BOTH	<input checked="" type="checkbox"/>	Add	Edit Clear
		WorseSite.com						Save	Cancel

Remember to click Save.

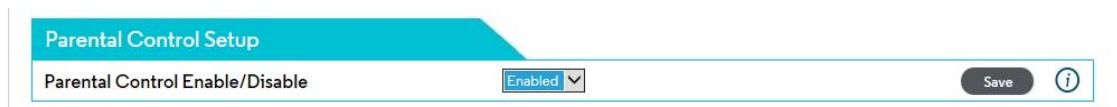
Click the + sign again to add more sites if you like.

Click the Add button to configure a blacklist for another device, if you like.



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When you have completed all Blacklists, remember to Enable Parental Control at the top of the page, and click Save.



## Setting up a Whitelist

Before you make any changes, make sure Parental Control at the top of the page is Disabled, and click Save if you had to change this.

Under the tab List of Blocked Addresses (Whitelist), click the Add button to the right. A set of fields will appear. Give your Whitelist a name, and then type in the MAC Address of the device you want your Whitelist to apply to. Use the format XX:YY:ZZ:WW:VV:UU.

Next, enter the URL of the first domain that you want to allow, for example Jill\_Site\_1.com.

If you want to the Whitelist to apply only during certain hours, enter the start and stop times for the period you want the Whitelist to apply. If you want the Whitelist to apply always, make sure to set the start time to 12:00 am and the end time to 11:59 pm.

Next, select which protocols the Whitelist should apply to. If you're not sure, leave this selection at the default setting, BOTH.

Finally, make sure to check the Enable box, and click the Save button.



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Here is an example entry to allow access to Jill\_Site.com from 4:00 pm to 8:00 pm:

List of Allowed Addresses (Whitelist)									
Name	MAC Address	URL	Days	Time Start	/ Time End	Protocol	Enable	Add	
Jills_PC	00:ED:CB:A9:87:65	Jill_Safe_1.com	+ All	04:00pm	/ 08:00pm	BOTH	<input checked="" type="checkbox"/>	Edit	Clear

Now you can add another device, for example Joey's PC, to the Whitelist. First click the Add button.

Then enter the entry name, device MAC Address, site to allow, and start and end time for the entry. In the example below, we have named the entry Joeys\_PC, and the site Joey\_Safe\_1.com, with active time from 10:00 am to 2:00 pm.

Remember to click Save.

Click the + sign to add another site to allow for this device:

List of Allowed Addresses (Whitelist)									
Name	MAC Address	URL	Days	Time Start	/ Time End	Protocol	Enable	Add	
Jills_PC	00:ED:CB:A9:87:65	Jill_Safe_1.com	+ All	04:00pm	/ 08:00pm	BOTH	<input checked="" type="checkbox"/>	Edit	Clear
Joeys_PC	00:CB:A9:87:65:43	Joey_Safe_2.com	+ All	10:00am	/ 02:00pm	BOTH	<input checked="" type="checkbox"/>	Edit	Clear
		Joey_Safe_1.com						Edit	Clear

Click the + sign to add another site to the Whitelist.

Click the Add button to configure a Whitelist for yet another device, if you like.





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When you have completed all Whitelists, remember to Enable Parental Control at the top of the page, and click Save.



## Setting up Times when Internet Access is Allowed and Not Allowed

Before you make any changes, make sure Parental Control at the top of the page is Disabled, and click Save if you had to change this.

You can set up times when Internet is allowed by configuring a Whitelist entry with a universal URL. By doing this, you can allow Internet access for a particular device only during hours that you specify. Access will be allowed to all Internet sites. Internet access will not be allowed to any site outside of the hours that you specify.

Under the tab, List of Allowed Addresses (Whitelist), click the Add button to the right. A set of fields will appear. Give your Whitelist a name, and then type in the MAC Address of the device you want your Whitelist to apply to. Use the format XX:YY:ZZ:WW:VV:UU.

In this case, enter . (that is, the single character 'dot' or 'period') as the URL. Parental Control will interpret this to apply to all websites.



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Now set the start and end times of when you want to allow the device to have Internet access. Here is an example of entries to allow Internet access in an after-school period from 5:00 pm to 10:00 pm. We have named the sample entry AfterSch:

List of Allowed Addresses (Whitelist) <span style="float: right;">?</span>									
Name	MAC Address	URL	Days	Time Start	/	Time End	Protocol	Enable	
AfterSch	00:34:56:78:9A:BC	.	All	5:00	PM	10:00	PM	Both	<input checked="" type="checkbox"/>

Add Save Cancel

Make sure to check the Enable box, and click the Save button.

Click the Add button to configure a Whitelist entry for an allowed schedule for another device, if you like.

When you have completed all Whitelists, remember to Enable Parental Control at the top of the page, and click Save.

Parental Control Setup	
Parental Control Enable/Disable	<span>Enabled</span> <span>?</span>

Save



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## Changing Your MG7315's Username and Password, and Resetting to Factory Defaults

### Changing Your MG7315's Username and Password

To change your MG7315'S Username and Password, first log into the Configuration Manager as described in chapter 6. In summary, you type **192.168.0.1** in the address bar of your browser, go to that address, enter the Username **admin** and Password **motorola**, then click the Login button.

This will bring you to the Basic Status and Settings page. Select Advanced at the top of the screen, and then Status and Security.

The screenshot shows the Motorola MG7315 configuration interface. At the top, there is a navigation bar with the Motorola logo on the left and several menu items: Status, Basic Router, Advanced Router, Wireless, Protection & Parental Control, and VPN. Below this is a secondary navigation bar with Software, Connection, Diagnostics, Security, and Event Log. The Security page is active, showing a 'Security' header and a 'Username & Password' section. This section contains five input fields: Username, Current Password, New Username, New Password, and Repeat New Password. Each field has an information icon (i) to its right. A 'Save' button is located in the top right corner of the form area.

You will need to enter the Current Username and Password, and then the new Username and Password. Your new Password will have to be entered twice. Both



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the Username and Password fields accept entries up to 15 characters long. Both Username and Password may include lower- and upper-case letters (a – z, A – Z) and numbers (0 – 9). Special characters are not allowed. Be sure to click Save to write your changes to memory.

Caution: Once you make this change, you will not be able to log into the modem if you forget the new Username and Password. To recover, you will have to reset the modem to factory defaults. When you reset the device to factory defaults, you will lose all changes you have made to the modem.

## Resetting to Factory Defaults

There may be occasions when you need to reset your cable modem/router to factory defaults, for example if you have changed the Username and Password and lost the new values. Note that if you reset your device to its factory defaults, you will lose any changes you have made to settings in the device.

To reset to factory defaults:

- 1.) Make sure the cable modem/router is powered on.
- 2.) Find the reset button on the rear of the unit. It is marked WPS/RESET.
- 3.) Press and hold the Reset button for at least 10 seconds.
- 4.) The device will flash its LEDs and commence a reboot sequence.

Note that you will have to manually re-enter any required changes.

## Configuring Alternate Wi-Fi Security Settings

### Alternatives to WPA2--WPA, WEP and RADIUS

*Your Cable Modem/Router comes from the factory configured for **WPA2-PSK** wireless security with **AES** encryption. Some older clients may not support this security mode. (For details, see *About Wireless Security*, below). To change the wireless security mode, first open the page `WPS_RADIUS_WEP`.*

To do this, first log into the Configuration Manager. In summary, you type



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**192.168.0.1** in the address bar of your browser, go to that address, enter the Username **admin** and Password **motorola**, then click the Login button.

This will bring you to the Basic Status and Settings page. Click the Advanced button in the upper right. This will bring you to the Status → Software page. Hover over the Wireless menu item, and select the WPS\_RADIUS\_WEP submenu:

To enable WPA-PSK, follow these steps:

- 1.) Find the WPA-PSK Security Settings tab. Select Enabled from the WPA-PSK pulldown.
- 2.) Click Save.
- 3.) Under Encryption, select AES+TKIP.
- 4.) Click Save.

If you need to support WEP, follow these steps.

- 1.) Disable all WPA and WPA-PSK entries.
- 2.) Make sure to click Save for each entry you change.
- 3.) Under 802.11n Mode Enable/Disable, select Disable from the pulldown.
- 4.) Click Save.
- 5.) Find the tab WEP Security Settings.
- 6.) In the field PassPhrase, enter a sequence of letters. This can be words, names, or an arbitrary sequence.
- 7.) Click the button Generate WEP Keys.
- 8.) In the WEP Encryption pulldown, select either **WEP-64 bit** or **WEP-128 bit**. (WEP-128 offers more security).
- 9.) Select Enabled on the Show Keys pulldown.



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- 10.) Note the setting of Current Network Key. This determines which Network Key you need to use on your clients. You can change this value by selecting a different number in the pulldown.
- 11.) Click the Save button at the top of the WEP Security Settings box.
- 12.) Note the Network Key that you selected, and save this for use on your clients. (Also store a copy in a safe place, such as on a piece of paper taped to the bottom of your device).

## About Wireless Security

There are two basic wireless security modes: WPA and WEP. There are two versions of WPA: WPA and WPA2. When configured as part of a typical home or small office network, WPA and WPA2 require a Pre-Shared Key, or PSK. These modes are typically called WPA-PSK and WPA2-PSK, respectively, though sometimes they're just called WPA and WPA2. You can enable either WPA-PSK or WPA2-PSK alone, or you can enable both WPA-PSK and WPA2-PSK together. By default, your Cable Modem/Router has WPA2-PSK with AES encryption enabled. You will only need to change the security mode if you have a device in your wireless network that only supports WEP or WPA-PSK with TKIP encryption. If you want an unsecured network, disable all security methods.

## How to Tell if Your Client Supports WPA2

You can check to see if all other clients that you plan to put on the network support WPA2. You can do this by checking the manual that came with each device or by checking the configuration software for the installed device. Look under **Security** or **Encryption** or **Setup** or **Advanced Features**.



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## How to Configure Wireless Security for a RADIUS Server

If you have a Radius Server, select the WPA/WPA2 options without PSK.

To enable WPA and WPA2 without PSK, follow these steps:

- 1.) Find the WPA-PSK Security Settings tab. If WPA-PSK is Enabled, select Disabled from the WPA-PSK pulldown and click Save. (Note that WPA-PSK is Disabled by default).
- 2.) If WPA2-PSK is Enabled, select Disabled from the WPA2-PSK pulldown and click Save. . (Note that WPA2-PSK is Enabled by default).
- 3.) Select Enabled for WPA2. Do not click Save yet.
- 4.) Enter the RADIUS Server Address and click Save.
- 5.) Enter the RADIUS Port and click Save.
- 6.) Enter the RADIUS Key and click Save.
- 7.) If you want to enable WPA, select Enabled for WPA, and click Save.
- 8.) If you want to enable WPA2, make sure Enabled is selected for WPA2, and click Save.
- 9.) If you want to disable WPA2, select Disabled for WPA2, and click Save.
- 10.) Under Encryption, if you have enabled WPA, or WPA and WPA2, select AES+TKIP. If you have enabled WPA2 only, select AES only.
- 11.) Click Save.



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## Troubleshooting Tips

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

- First turn your MG7315 off for at least 8 seconds, then on, to see if that fixes the problem.
- Check the connections you've made to your MG7315. Power and coax connections are required, and up to 4 Ethernet connections are optional. Are those connections good?
- Check that the MG7315's power cube is plugged into a live outlet, and that the Ethernet cable is connected securely to a computer.
- Make sure that your coax cable is live. 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 my MG7315 has been working, then stops working?

- First turn your MG7315 off for at least 8 seconds, then on, to see if that fixes the problem.
- If the MG7315's lights don't come on, check that the modem is getting power from its power cube and that the MG7315's power button is on.
- Check your MG7315 cables.
- Check with your service provider. Sometimes there's a service outage or some other service issue.





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## 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 plugged into the modem. Use one of the tools found when you search the phrase: broadband speed test.
- 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.
- Try connecting your MG7315 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 MG7315, try the MG7315 without the splitter to see if that helps. If it does, you may need to get a better splitter.

## What if I'm told that my MG7315 isn't approved for my MG7315 service?

That's probably not true. Leading cable service providers have a list of certified cable modems, and you can check the list for your service provider. You can also find information about certifications at

**[www.motorolacable.com/services](http://www.motorolacable.com/services)**

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

Please re-read the Wireless Router sections in this User Manual.



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## What if I don't know my MG7315's Wireless Network Name/SSID or Security Key/Password?

The default values are printed on the bottom label of the MG7315. 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 MG7315, it may show the Wireless Network Name/SSID and Password. You can also find this information in the MG7315 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 for 10 seconds. You can then use the default values.

## What if I think that wireless devices are interfering with my MG7315 wireless router?

1. Where possible, put the MG7315 as far away as possible from interfering devices such as Bluetooth transmitters and neighbors' Wi-Fi routers.
2. To try to pick a less used wireless channel for your MG7315, first go in to your MG7315's Configuration Manager.
3. 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.
4. 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 MG7315.
5. On the top of the page, click the Wireless Basic menu item.
6. 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.motorolacable.com/mentor](http://www.motorolacable.com/mentor)



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## Support

### We like to help.

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

**[www.motorolacable.com/support](http://www.motorolacable.com/support)**

**Email: [support@motorolacable.com](mailto:support@motorolacable.com)**

**Phone: 800-753-0797**

### 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.motorolacable.com/warranty](http://www.motorolacable.com/warranty)**



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## Compliance

### **FCC Interference Statement**

This device 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 radio interference in a residential environment. This device can generate, use and radiate radio frequency energy and, if not installed and used in accordance with the instructions in this manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause interference, in which case the user, at his own expense, will be required to take whatever measures are necessary to correct the interference. 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.

The 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.

Only coaxial cables are to be used with this device in order to ensure compliance with FCC emissions limits. Accessories connected to this device by the user must comply with FCC Class B limits. The manufacturer is not responsible for any interference which results from use of improper cables, or which results from unauthorized changes or modifications to the device.



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**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.

### **FCC Radiation Exposure Statement**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

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

The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

**Note to CATV System Installer:** This reminder is provided to call the CATV systems installer's attention to Section 820-93 of the National Electric Code which provide guideline for proper grounding and, in particular, specify that the Coaxial cable shield shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

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