

Powering and Initial Cabling

Press the power button on the back of the gateway. The Power indicator will light GREEN to indicate that the gateway is powered correctly. Under normal operation, while the gateway is powering up, LED status is as follows:

- Internet will light solid BLUE to indicate Internet connection is active, solid RED when there is no IP address, and off when there is no Broadband connection.
- Broadband, Ethernet, Wireless, and Phone indicators will be off.
- Ethernet and Wireless indicators will light GREEN to indicate that the Ethernet connection and Wireless service are active.
- Broadband indicator will initially flash GREEN, and upon service connectivity, it will light solid GREEN.
- Phone indicator will light GREEN after the Broadband indicator lights GREEN to indicate that digital phone service is active.

NOTE: ATTENTION CATV System Installers. Review section 820-93 of the National Electric Code for proper equipment grounding requirements.

Section 820-93 specifies the Coaxial cable shield must be connected to the building grounding system as close to the point of cable entry as practical.

NOTE: On initial setup, it may take several minutes to achieve service connectivity.

ONT Broadband: Use the following procedure to connect the gateway to Optical Network Termination (ONT) Ethernet.

1. Connect an Ethernet cable to the ONT Broadband port on the back of the gateway.
2. Connect the other end of the Ethernet cable to the incoming ONT connection.

MoCA: Use the following procedure to connect the gateway to a Cable line.

1. Connect a F-Connector terminated coaxial cable to the Cable Line terminal on the back of the gateway.
2. Connect the other end of the coaxial cable from the gateway to the cable service connection.

Digital Phone Service: Use the following procedure to connect the gateway to a digital phone line.

1. Connect the supplied RJ11 terminated phone cable to the Phone port on the back of the gateway.
2. Connect the phone cable to a phone or fax machine.

NOTE: Use a RJ-14 to RJ-11 splitter to connect two phone lines.

Ethernet: Use the following procedure to make an Ethernet connection on the gateway.

1. Connect the supplied RJ45 terminated Ethernet cable to one of the Ethernet ports on the back of the gateway.
2. Connect the Ethernet cable to the Ethernet port on a local computer.

Access the Web Management Interface

1. Open a web browser, such as Firefox, Chrome, or Microsoft Internet Explorer, from the computer connected to the gateway.
2. Type the following address in the address bar of the browser to open the Access Code Required Screen:

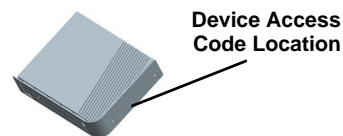
<http://192.168.254.254>

Access the Web Management Configuration Pages

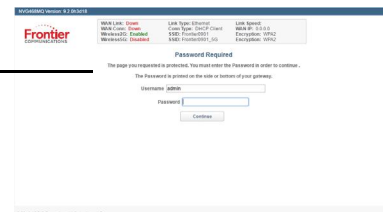
NOTE: When applicable, select the appropriate language button in the lower right corner of the Access Code Required Screen to continue in the selected language.

To access the Web Management configuration pages:

1. Provide the Device Access Code, a unique code printed on a label on the base of the gateway.
2. Select **Continue**.



Password Required Page



NOTE: The terms Device Access Code and Password are sometimes used interchangeably.

Broadband Configure Interface

The NVG468MQ has Broadband Configuration screen for initial configuration. Use the Broadband Configuration screen to configure the gateway to use DHCP Client or PPPoE for the broadband IP interface:

- If the proper connection type is not determined, use the DHCP option from the pulldown menu and select **Finish**.
- If it is known that PPPoE is required, then select it and enter the user name and password, then select **Finish**. When the connection is successful, the Home Screen opens.
- If there is a failure in the connection, the notice “WAN connection was not successful - Please reenter your broadband configuration” appears on the Broadband Configuration screen.

Main Page

The Main page provides an overview of the connection and home network status. From this screen, other detailed status and configuration screens can be accessed including the following:

- Main — network status/configuration
- Wireless — network status/configuration, including security settings
- Network — status of all devices in the LAN Host Discovery table
- Firewall — status/configuration
- Advanced — advanced settings and configuration, including the Reboot (Factory Reset) options
- Status — system status/configuration

Main Page

The screenshot shows the Main Page of the NVG448B gateway. At the top, it displays the version (9.2.0h3d15) and a Logout button. Below this is a status summary table:

WAN Link: Down	Link Type: Unknown	Link Speed: WAN IP: 0.0.0.0
WAN Conn: Down	Conn Type: DHCP Client	Encryption: WPA2
Wireless2G: Enabled	SSID: Frontier0938	
Wireless5G: Enabled	SSID: Frontier0938_5G	

The main content area is divided into several sections:

- Summary:** WAN Summary (WAN Link: Down, WAN Conn: Down, Link Type: Unknown, Connection Type: DHCP Client, Link Speed: 0.0.0.0, WAN IPv4 Address: 0.0.0.0, WAN Subnet Mask: 0.0.0.0, WAN Default Gateway: e0b7.0a.06.86.91, WAN MAC Address: e0b7.0a.06.86.91, DNS Server 1: , DNS Server 2:), Wireless Summary (2.4GHz Radio: Enabled, Network Name: Frontier0938, Encryption: WPA2, Guest SSID: Disabled, Network Name: Guest0938, Encryption: WPA, 5 GHz Radio: Enabled, Network Name: Frontier0938_5G, Encryption: WPA2), Private LAN Summary (IP Address: 192.168.254.254, Subnet Mask: 255.255.255.0, DHCP: Enabled, IPv6 Status: Disabled), Public LAN Summary (Public LAN: Disabled), Voice Over IP (Line-1: Idle, Line-2: Idle).
- Network:** Ethernet Devices: 1, Wireless Devices: 0. A table shows the Ethernet device details: unknown (68 b5 99 14 79 71), Ethernet Port 1 - 1000 Mbps Full (192.168.254.1 Static), LAN: Private, Status: Active.
- Quick Links:** Change Connection Username and Password, Wireless Setup, Enable Applications, Reboot Gateway, Frontier.com Webmail, Frontier.com Tech Support.
- Firewall Summary:** Level: Medium, Packet Filtering: Disabled, Port Forwarding: Disabled, DMZ: Disabled, UPnP: Enabled, NAT: Enabled, Service Blocking: Disabled, ALG Passthrough: Enabled.
- Gateway Summary:** Model: NVG448B, Firmware: 9.2.0h3d15, Serial Number: M91604GS0938, Time: , Time Zone: , Uptime: 00:00:11:11.

At the bottom, it says © 2016 ARRIS Enterprises, LLC. Intellectual Property.

Add a Wireless Device to the Gateway

On the wireless device, use the Wireless setup option to find the available wireless network names. The Wi-Fi Network Name for the gateway is printed on the bottom label along with the Wi-Fi Password.

NOTE: Optionally, WiFi Protected Setup (WPS) can be used to allow wireless devices with WPS support to join by pressing the WPS button on the front panel and following the wireless device instructions provided. The WiFi Configure screen provides access to enable or disable the WPS, and can also be used to change the default wireless network name and password.



NVG468MQ Ethernet and FTTH Gateway Quick Start Guide

Declaration of Conformance

WARNING: This is a Class B product. In a domestic environment this product may cause radio interference, in which case the user may be required to take adequate measures. Adequate measures include increasing the physical distance between this product and other electrical devices. Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

United States: This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

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

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 device.
- Increase the distance between the equipment being interfered with and the device.
- Connect the device to an outlet on a circuit different from the outlet to which the equipment being interfered with is connected.
- Consult the retailer or an experienced radio/TV technician for help.

United States: This device complies with 47 CFR Part 68 of the FCC Rules. Operation is subject to the following four conditions:

1. The Federal Communications Commission (FCC) has established Rules which permit this device to be directly connected to the telephone network. Standardized jacks are used for these connections. This equipment should not be used on party lines or coin phones.
2. If this device is malfunctioning, it may also be causing harm to the telephone network; this device should be disconnected until the source of the problem can be determined and until repair has been made. If this is not done, the telephone company may temporarily disconnect service.
3. The telephone company may make changes in its technical operations and procedures; if such changes affect the compatibility or use of this device, the telephone company is required to give adequate notice of the changes. You will be advised of your right to file a complaint with the FCC.
4. If the telephone company requests information on what equipment is connected to their lines, inform them of:
 - The telephone number to which this unit is connected.
 - The ringer equivalence number. [0.XB] (Indicated on the label)
 - The USOC jack required. [RJ11C]
 - The FCC Registration Number. [XXXUSA-XXXX-XX-E] (Indicated on the label)

The Ringer Equivalence Number (REN) is used to determine how many devices can be connected to your telephone line. In most areas, the sum of the REN's of all devices on any one line should not exceed five (5.0). If too many devices are attached, they may not ring properly.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. Operations within the 5.15 ~ 5.25 GHz band are restricted to indoor use only.

Radiation Exposure Statement: This equipment complies with FCC radiation exposure limits as set forth for an uncontrolled environment. This equipment should be installed and operated maintaining a minimum distance of 27 cm between the device and your body.

Service Requirements: In the event of equipment malfunction, if under warranty, we will exchange a product deemed defective. Under FCC rules, no customer is authorized to repair this equipment. This restriction applies regardless of whether the equipment is in or out of warranty.

Technical Support for Hardware Products:

Customers inside North America: 888-944-4357 (888-944-HELP)

Customers outside North America: 1-215-323-2345

For Spanish language support: 1-215-323-2346

All ARRIS products are furnished under a license agreement included with the product. If you are unable to locate a copy of the license agreement, please contact ARRIS.

IMPORTANT: This product was tested for FCC compliance under conditions that included the use of shielded cables and connectors between system components.

Changes or modifications to this product not authorized by the manufacturer could void your authority to operate the equipment.

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Introduction

Use this Quick Start Guide to install, configure, and perform basic troubleshooting for the ARRIS™ NVG468MQ Ethernet and FTTH Gateway.

Power Supply Installation

Connect the power supply cord to the power connection on the gateway. Plug the power supply into an appropriate electrical outlet.

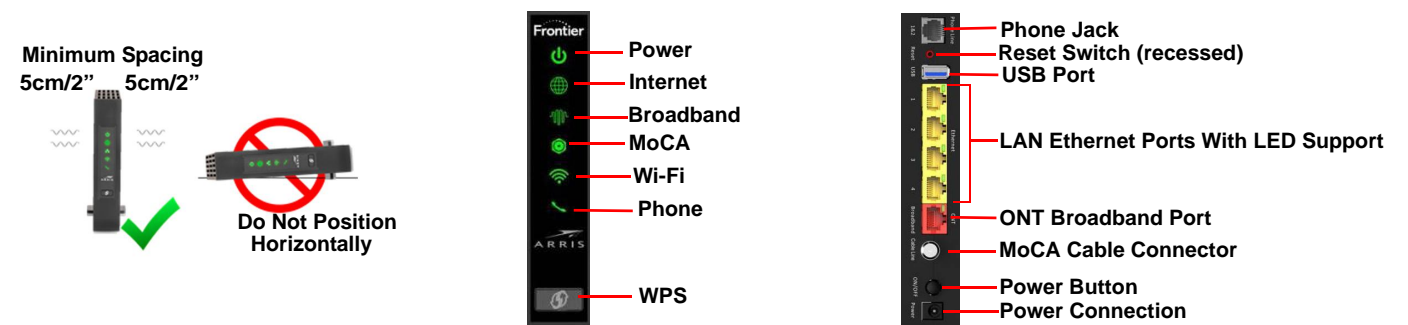
WARNING: The power supply must be connected to an outlet with a protective earth connection. Do not defeat the protective earth connection.

Product Ventilation

The gateway is intended for residential use. Position the gateway in an upright vertical position and locate it where temperatures remain within a range of 32° – 104°F (0° – 40°C) and where heat from the unit itself is not trapped, requires at least two inches (2") of clearance on all sides except bottom.

Gateway Positioning, Status Indicator Lights and Port Configuration

Proper positioning of the gateway is essential for proper cooling. Colored LEDs on the gateway indicate the status of various port activity.



LED	Status
Power	<p>Solid Green = The device is powered.</p> <p>Flashing Green = The device is booting.</p> <p>Solid Red = Boot failure.</p> <p>Flashing Red = Detecting Factory Reset (press and hold the recessed Reset Switch for 1 second to reboot the device and for 10 or more seconds to trigger the factory reset).</p>
Internet	<p>Solid Blue = Broadband Internet connection is active.</p> <p>Solid Red = No IP address or authentication failed.</p> <p>Off = No active Broadband connection.</p>
Broadband	<p>Solid Green = Ethernet WAN connection is active.</p> <p>Solid Red = No Broadband Ethernet WAN signal on the line.</p>
MoCA LAN	<p>Solid Green = MoCA LAN connection is active.</p> <p>Flashing Green = MoCA LAN is detecting, connecting and configuring.</p> <p>Solid Red = No MoCA LAN signal on the line.</p> <p>Off = MoCA is disabled.</p>
Wi-Fi	<p>Solid Green = Wireless enabled (either radio).</p> <p>Flashing Yellow = WiFi Protected Setup (WPS) is active.</p> <ul style="list-style-type: none"> • Slow flash = less than 3 sec WPS push for 5GHz SSID user pairing. Can be changed to 2.4GHz. • Fast flash = 3 sec or longer WPS push for 5GHz Video SSID pairing. <p>Flashing Red = WPS timeout or conflict.</p> <p>Solid Red = Wireless network failure.</p> <p>Off = Wireless disabled (both radios).</p>
LAN/WAN Ethernet LEDs on rear panel RJ45 ports	<p>Solid Green = Port is active.</p> <p>Flashing Green = Traffic passing on the line.</p> <p>Off = Port not active.</p>
Phone Line	<p>Solid Green = All VoIP voice lines are registered and active.</p> <p>Flashing Green = A voice line is ringing or off-hook.</p> <p>Solid Yellow = Both lines of a two line system are provisioned with one unregistered.</p> <p>Solid Red = All provisioned VoIP voice lines are provisioned but not SIP registered.</p> <p>Off = VoIP is not provisioned, or the gateway power is off.</p>