

## 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 GREEN.
- Phone indicator will light GREEN after the Broadband indicator lights GREEN to indicate that digital phone service is active.

**NOTE:** On initial setup, it may take up to 15 minutes to achieve service connectivity.

**xDSL:** Use the following procedure to connect the gateway to an xDSL line.

1. Connect the supplied DSL data cable to the DSL Broadband port on the back of the gateway.
2. Connect the data cable from the xDSL port of the gateway to the DSL service wall jack.

**NOTE:** Some installations require a line filter. Follow the service provider instructions for installing a line filter.

**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.

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

1. Connect an 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

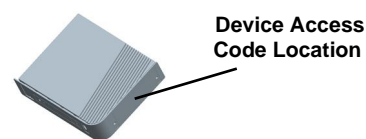
1. Open a web browser, such as Firefox, Chrome, or Microsoft Internet Explorer, from the computer connected to the gateway.
2. Type the following address in the address bar of the browser to open the Access Code Required Screen:  
<http://192.168.254.254>

### 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

NVG448B Version: 9.2.0h3d15

WAN Link: Down  
WAN Conn: Down  
Wireless2G: Enabled  
Wireless5G: Disabled

Link Type: Ethernet  
Conn Type: DHCP Client  
SSID: Frontier0938  
SSID: Frontier0938\_5G

Link Speed:  
WAN IP: 0.0.0.0  
Encryption: WPA2

Frontier COMMUNICATIONS

Password Required

The page you requested is protected. You must enter the Password in order to continue.

The Password is printed on the side or bottom of your gateway.

Username: admin

Password:

Continue

## 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

NVG448B Version: 9.2.0h3d15

Frontier COMMUNICATIONS

WAN Link: Down  
WAN Conn: Down  
Wireless2G: Enabled  
Wireless5G: Enabled

Link Type: Unknown  
Conn Type: DHCP Client  
SSID: Frontier0938  
SSID: Frontier0938\_5G

Link Speed:  
WAN IP: 0.0.0.0  
Encryption: WPA2

Main Wireless Network Firewall Advanced Status

Summary

WAN Summary

WAN Link: Down  
WAN Connection: Down  
Link Type: Unknown  
Connection Type: DHCP Client  
Link Speed:  
WAN IPv4 Address: 0.0.0.0  
WAN Subnet Mask: 0.0.0.0  
WAN Default Gateway:  
WAN MAC Address: e0:b7:0a: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	Registration State	Call State	Account State
Line-1	Idle	Idle	Not Provisioned
Line-2	Idle	Idle	Not Provisioned

Network

Ethernet Devices: 1  
Wireless Devices: 0

unknown 68 b5 99 54 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: M01604GS0938  
Time:  
Time Zone:  
Uptime: 00:00:11:11

## Set Up DSL

To set up DSL select the Broadband Settings link under the Advanced tab. The Broadband Settings page provides the functions needed to set up the broadband DSL connection. Customizing the broadband configuration of the gateway depends on the connection type being used by the service provider.

## 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. In the Wireless tab, the WPS section provides access to enable or disable the WPS, and the Basic Settings selection can also be used to change the default wireless network name and password.



## 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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## NVG44X ADSL2+/VDSL2 Gateway Quick Start Guide

### Introduction

Use this Quick Start Guide to install, configure, and perform basic troubleshooting for the ARRIS™ NVG44X ADSL/VDSL2+ 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.

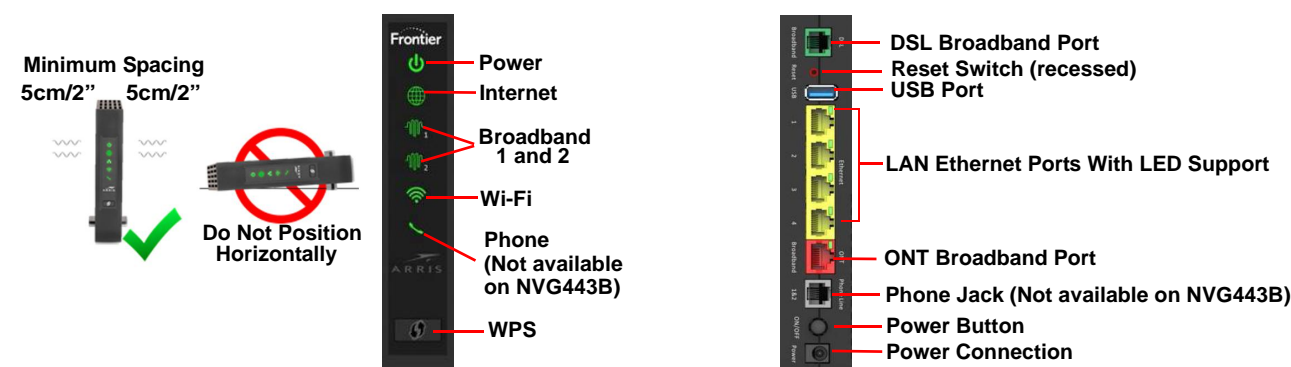
**WARNING:** The power supply must be connected to an outlet with a protective earth connection. Do not defeat the protective earth connection.

### Product Ventilation

The gateway is intended for residential use. Position the gateway in a vertical position and where temperatures remain within a range of 32° – 104°F (0° – 40°C) and where heat from the unit itself is not trapped. There must be at least two inches (2") of clearance on all sides except the 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
<b>Power</b>	<p><b>Solid Green</b> = The device is powered.</p> <p><b>Flashing Green</b> = The device is booting.</p> <p><b>Solid Red</b> = Boot failure.</p> <p><b>Flashing Red</b> = 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>
<b>Internet</b>	<p><b>Solid Blue</b> = Broadband Internet connection is active.</p> <p><b>Solid Red</b> = No IP address or authentication failed.</p> <p><b>Off</b> = No active Broadband connection.</p>
<b>Broadband</b>	<p><b>Solid Green</b> = WAN connection is active.</p> <p><b>Solid Red</b> = No Broadband WAN signal on the line.</p>
<b>Wi-Fi</b>	<p><b>Solid Green</b> = Wireless enabled (either radio).</p> <p><b>Flashing Yellow</b> = WiFi Protected Setup (WPS) is active for 5GHz user pairing which can be changed to 2.4GHz.</p> <p><b>Flashing Red</b> = WPS timeout or conflict.</p> <p><b>Solid Red</b> = Wireless network failure.</p> <p><b>Off</b> = Wireless disabled (both radios).</p>
<b>LAN/WAN Ethernet LEDs on rear panel RJ45 ports</b>	<p><b>Solid Green</b> = Port is active.</p> <p><b>Flashing Green</b> = Traffic passing on the line.</p> <p><b>Off</b> = Port not active.</p>
<b>Phone Line</b>	<p><b>Solid Green</b> = All VoIP voice lines are registered and active.</p> <p><b>Flashing Green</b> = A voice line is ringing or off-hook.</p> <p><b>Solid Yellow</b> = Both lines of a two line system are provisioned with one unregistered.</p> <p><b>Solid Red</b> = All provisioned VoIP voice lines are provisioned but not SIP registered.</p> <p><b>Off</b> = VoIP is not provisioned, or the gateway power is off.</p>