



NETGEAR®

54 Mbps Wireless Ethernet Bridge

WGE111



Reference Manual

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Regulatory Approvals

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one 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.

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).

FCC Radiation Exposure Statement

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

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

The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

Channel

The Wireless Channel sets the radio frequency used for communication.

- Access Points use a fixed Channel. You can select the Channel used. This allows you to choose a Channel which provides the least interference and best performance. In the USA and Canada, 11 channels are available. If using multiple Access Points, it is better if adjacent Access Points use different Channels to reduce interference.
- In "Infrastructure" mode, Wireless Stations normally scan all Channels, looking for an Access Point. If more than one Access Point can be used, the one with the strongest signal is used. (This can only happen within an ESS.)
- If using "Ad-hoc" mode (no Access Point), all Wireless stations should be set to use the same Channel. However, most Wireless stations will still scan all Channels to see if there is an existing "Ad-hoc" group they can join.

1 Preparing to Install the WGE111 Bridge

Introduction

Thank you for purchasing a NETGEAR WGE111 54 Mbps Wireless Ethernet Bridge. With this bridge you can connect one or more gaming consoles, personal computers, printers, or other Ethernet-enabled devices to communicate with your network.

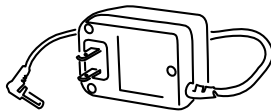
Note: If you have a wired network, you must have a wireless router or access point set up in the network. To connect more than one device to the bridge you must use switch or a hub.

This guide shows you how to connect the bridge and configure it for your network — whether to work with a wireless router or access point, or to work with other wireless devices. Setup is easy – follow the instructions in this guide and your network will be up and running quickly.

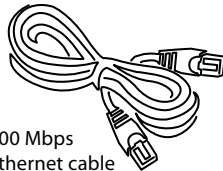
Package Contents



Resource CD for 54 Mbps Wireless Ethernet Bridge, Installation guide, Support information card, Warranty card



Power adapter



100 Mbps Ethernet cable



WGE111 54 Mbps Wireless Ethernet Bridge

The product package should contain the following items:

- WGE111 54 Mbps Wireless Ethernet Bridge
- Power adapter
- Ethernet cable
- WGE111 54 Mbps Wireless Ethernet Bridge Resource CD, that includes this Reference Manual for the Model WGE111 54 Mbps Wireless Ethernet Bridge in Adobe® Acrobat® PDF file format
- Installation guide
- Warranty card
- Support information card

System Requirements

Before installing the WGE111 54 Mbps Wireless Ethernet Bridge, please make sure that these minimum requirements have been met:

- For connecting into a wired network, you must have the network set up and working with an access point or wireless router.
- For creating an Ad-Hoc network without an access point, all devices must have a receiver/transmitter. (The receiver/transmitter may be another WGE111 bridge.)

If the default settings on the bridge do not work, you will need to configure the bridge. Also, if you have more than one WGE111 in the network, only one can use the default IP address. You'll have to configure the others with unique IP addresses. To configure the bridge with the configuration software, you must have a personal computer with Internet browser software installed, such as Microsoft® Internet Explorer 5.0 (or later) or Netscape® 6.0 (or later).

Placement and Range Guidelines

Computers and other Ethernet-enabled devices can connect over wireless networks indoors at more than 500 feet. However, the operating distance or range of your wireless connection can vary significantly based on the physical location of the WGE111 54 Mbps Wireless Ethernet Bridge. For best results, avoid potential sources of interference, such as:

- Large metal surfaces
- Microwaves
- 2.4 GHz cordless phones

In general, wireless devices can communicate through walls. However, if the walls are constructed with concrete or have metal (or metal mesh), the effective range will decrease if such materials are between the wireless devices.

Operating Modes

The WGE111 Wireless Ethernet Bridge operates in either Infrastructure or Ad-Hoc mode.

- Infrastructure mode is used when you have an access point or wireless router connected to a wired network. The wireless devices and computers communicate with the wired network (and other wireless devices) through the wireless router or access point. For example, with a wireless router multiple computers (both wired and wireless) can share a single cable or DSL broadband Internet connection.
- You use the bridge in Ad-Hoc mode if you have a small, wireless-only network and all the devices have wireless transmitters/receivers. In this case, there's no need for an access point or a wireless router for the wireless devices communicate directly to one another.

WGE111 Default Wireless Configuration Settings

Note: If you are setting up a new wireless network, please set up the network and make sure it works *before* adding the WGE111 Wireless Ethernet Bridge into the network.

You will need to identify the wireless configuration and security parameters already defined in your wireless network.

Note: All NETGEAR, Inc. 802.11g and 802.11b wireless access products use similar factory settings as the WGE111 and will work without any configuration changes.

The factory default settings for your WGE111 54 Mbps Wireless Ethernet Bridge are:

- Mode (Infrastructure or Ad-Hoc): **Infrastructure**
- Wireless network name Service Set Identification (SSID): **Any**

Note: **Any** means the bridge will connect to the access point or wireless router that has the strongest signal. This may not be the closest access point or wireless router. For the WGE111 Wireless Ethernet Bridge to communicate with a specific wireless router or access point, both devices must be configured with the same SSID.

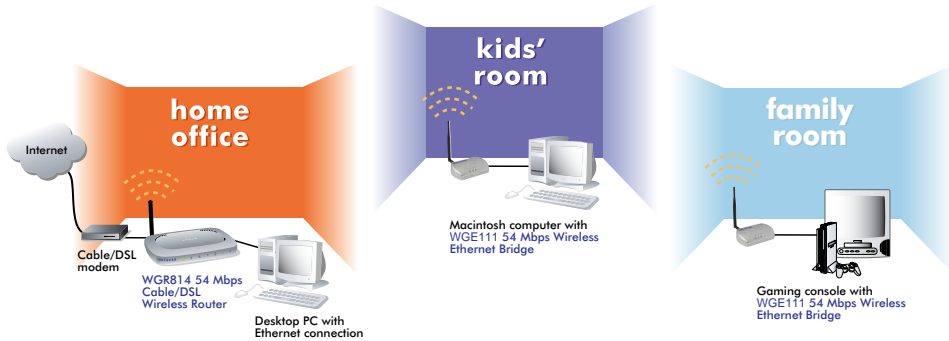
- User ID: **admin**
- Password: **password**
- Authentication type: **Auto**
- WEP security: **Disabled**
- Country/Region: **United States**

Warning: Having the bridge set to the wrong country or region may result in the violation of local laws.

WGE111-specific default settings:

- IP address: **192.168.0.202**
- Protocol: **Static**
- Device name: **netgearxxxx** (where xxxx is the last 4 digits of the MAC address)
- Data rate: **b/g combo**

2 Installing the WGE111 Bridge

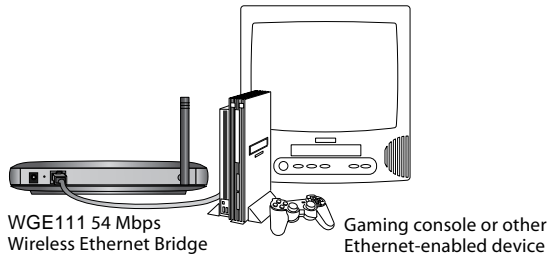





This section provides instructions for connecting the WGE111 54 Mbps Wireless Ethernet Bridge, using the default settings, to either a single Ethernet-enabled device or to multiple devices through a switch or hub.


Note: If you find that the default settings don't work, if you know that you've configured your wireless network with WEP security, if you're placing more than one WGE111 bridge on the network, or if you are not in the United States, you'll have to configure the bridge before connecting it to the Ethernet-enabled device(s). To configure the bridge, see *Configuring the WGE111 Bridge for Your Wireless Network* on page 12.

Connecting the Bridge to a Single Device

1. Unpack the box and verify the contents.
2. Identify a flat surface where you will put the wireless game adapter. For best results, follow these guidelines:
 - Place it away from potential sources of interference, such as computers, monitors, TVs, microwaves, cordless phones, or large metal surfaces.
Warning: Failure to follow these guidelines can cause intermittent or complete failure of wireless connectivity.
 - Place it in an elevated location such as a high shelf or on a wall in the center of your wireless access area. If you mount the bridge on a wall, do *not* place the bridge in such a way that it is vertical with the NETGEAR name upside-down and the power adapter plug hanging from the bottom of the unit. Having the unit in this position violates power adapter regulations.
3. Lift the bridge's antenna so it is vertical.



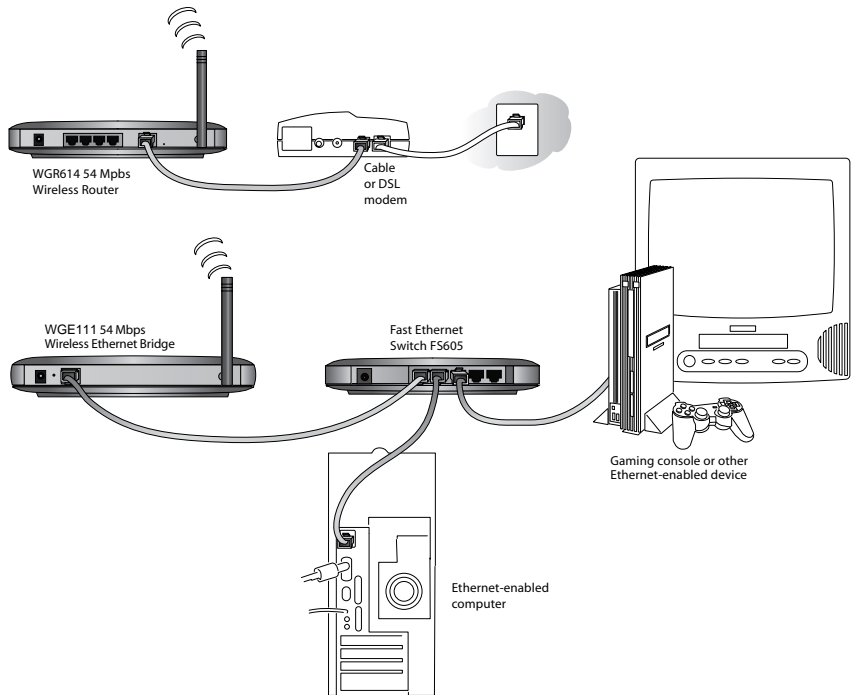
4. Turn off the gaming console or other Ethernet-enabled device.
5. Connect the provided Ethernet cable between the WGE111 Wireless Game Adapter and the gaming console or other Ethernet-enabled device.
6. Connect the power adapter to the bridge and plug the power adapter in to a power outlet. The Power  and Wireless LAN  lights should light up.
7. After you see the Wireless LAN light  light up, turn on the gaming console or other Ethernet-enabled device.




If the bridge and the Ethernet-enabled device are successfully connected, the Network light  will light up. This light flashes when there is network activity.


Note: If your setup works with the default settings, you don't need to configure the bridge *unless* you need to change the Country/Region setting from the default setting (**United States**) or you need to assign a unique IP address to subsequent WGE111 bridges. See page 12 for information on configuring the bridge.

Connecting the Bridge to Multiple Devices

1. Unpack the box and verify the contents.
2. Identify a flat surface where you will put the wireless game adapter. For best results, follow these guidelines:
 - Place it away from potential sources of interference, such as computers, monitors, TVs, microwaves, cordless phones, or large metal surfaces.
Warning: Failure to follow these guidelines can cause intermittent or complete failure of wireless connectivity.
 - Place it in an elevated location such as a high shelf or on a wall in the center of your wireless access area. If you mount the bridge on a wall, do *not* place the bridge in such a way that it is vertical with the NETGEAR name upside-down and the power adapter plug hanging from the bottom of the unit. Having the unit in this position violates power adapter regulations.
3. Lift the bridge's antenna so it is vertical.
4. Turn off the gaming consoles or other Ethernet-enabled devices.



5. Connect the provided Ethernet cable between the WGE111 Wireless Game Adapter and the switch (or hub).
6. Connect each gaming console or other Ethernet-enabled device to the switch (or hub) using an Ethernet cable.
7. Connect the switch's (or hub's) power adapter and plug that power adapter in to a power outlet.
8. Connect the bridge's power adapter and plug the power adapter in to a power outlet. The Power  and Wireless LAN  lights should light up.
9. After the Wireless LAN light  lights up, turn on any gaming console(s).
10. After turning on any gaming consoles, turn on any other Ethernet-enabled device(s).

If the bridge, switch, and the Ethernet-enabled devices are successfully connected, the Network light  will light up. This light flashes when there is network activity.

Note: If your setup works with the default settings, you don't need to configure the bridge *unless* you need to change the Country/Region setting from the default setting (**United States**) or you need to assign a unique IP address to subsequent WGE111 bridges. See page 12 for information on configuring the bridge.

3 Preparing To Configure the WGE111 Bridge

If the default settings don't work in your wireless network, if you are in a country or region other than the United States, or if you have multiple WGE111 bridges on the network, you need to configure the bridge.

Identifying Your Wireless Network Settings

You may want to print this page separately, fill in the configuration parameters, and put it in a safe place for possible future reference. For an existing wireless network, the person who set up the network will be able to provide this information.

Note: For wireless devices and the bridge to communicate with each other, each must be configured with the same SSID, WEP security settings, and the same IP subset address.

- **Wireless Network Name (SSID):** The Service Set Identification (SSID) identifies the wireless local area network. **Any** is the default WGE111 SSID. If you have named your wireless network with a different SSID, write your network's SSID on the line below.

Wireless network name (SSID): _____

- **Bridge IP Address:** Your Ethernet network has an IP subset address given as a set of three numbers plus a last set of unique numbers (xxx.xxx.xxx.yyy) to identify each device on the network. The default IP address for the bridge is **192.168.0.201**. To communicate to your Ethernet network, each bridge must have a unique address consistent with your network's IP subset address. If you need to change the bridge's IP address, write down the new address.

Bridge's IP address: _____

- **WEP Security Encryption key:** The default WEP encryption mode of the bridge is **disabled**. If you have set up WEP security on your wireless network (through the router or access point), you'll need to configure the bridge using the same WEP security parameters.

WEP Encryption Key Length, circle one: 40/64 or 128 bits

WEP Encryption Passphrase, if used: _____

A passphrase is used to automatically generate the WEP hexadecimal numbers for the key. Otherwise, you will have to manually enter up to four hexadecimal numbers.

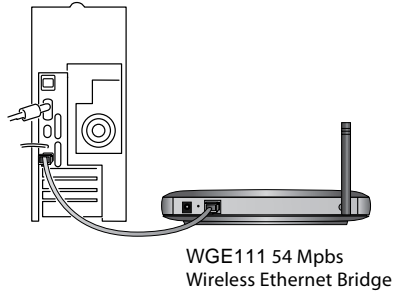
WEP Hexadecimal Numbers: _____

Connecting the Bridge to a Computer

You use browser-based configuration software to configure the bridge. To access the software, the bridge must be directly connected or connected through a switch (or hub) to a computer. The computer must have an Internet browser installed. For example, if the bridge is connected to a game box, you'll have to connect the bridge to a computer to be able to configure the bridge.

To connect the bridge to a computer:

1. If your network has a wireless router or access point, make sure it is powered up.
2. Power down the Ethernet-enabled computer.
3. Connect the provided Ethernet cable between the computer and the bridge.
4. Power up the bridge.
5. Power on the computer.



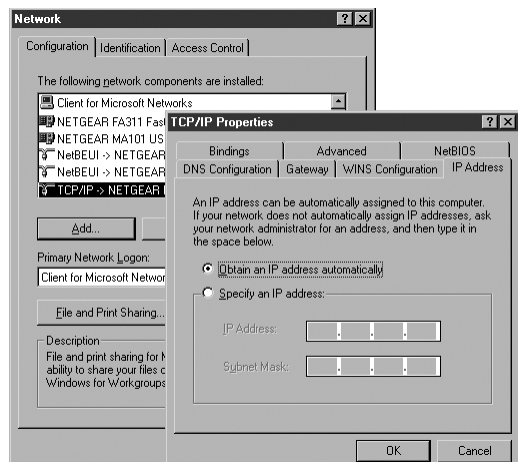
Checking and Changing the Computer's IP Address

If your wireless network has an IP address other than 192.168.0.yyy, you need to change the IP address on the computer before you can access the browser-based configuration software.

Note: All NETGEAR products use 192.168.0.yyy. If you have NETGEAR wireless products working in your wireless network without configuration changes, you won't need to check or change IP addresses.

Windows 98/Me

1. Choose **Settings>Control Panel** from the Start menu.
2. Double-click the **Network** icon.
3. Click the **Configuration** tab.
4. In the list of installed network components, select the **TCP/IP** entry for the computer's Ethernet adapter or NIC.
5. Click **Properties**.
6. Click the **IP Address** tab.
7. If **Obtain an IP address automatically** is selected, select **Specify an IP Address**.
OR
If **Specify an IP Address** is already selected, note the current IP address.
8. Change the IP address to **192.168.0.230**.

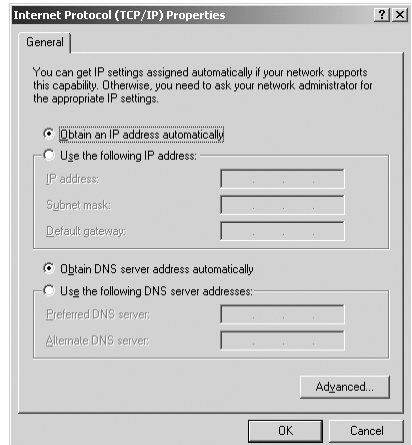


- Click **OK** twice to close the *Network* control panel and save any changes.
- If you made a change, restart the computer.

Note: After you've changed the settings on the bridge, you'll have to reset the TCP/IP Properties: IP Address tab values back to their original state.

Windows 2000/XP

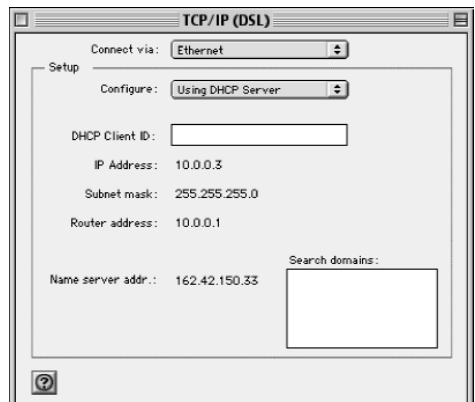
- Right-click **My Network Place** and choose **Properties**.
- Double-click **Local Area Network Connection** and click **Properties**.
- Select **Internet Protocol (TCP/IP)** and click **Properties**.
- If **Obtain an IP address automatically** is selected, select **Use the following IP Address**.
OR
If **Use the following IP Address** is selected, note the current IP address.
- Change the IP address to **192.168.0.230**.
- Click **OK** twice and click **Close** to save any changes.
- If you made a change, restart the computer.



Note: After you've changed the settings on the bridge, you'll have to reset the *Internet Protocol (TCP/IP) Properties* dialog box back to its original state.

Mac OS® 8.6 or 9.x

- Choose **Control Panels > TCP/IP** from the **Apple** () menu.
- If not already selected, select **Ethernet** in the **Connect via** list.
- If **Manually** isn't selected in the **Configure** list, note the current selection and select **Manually**.
OR
If **Manually** is selected, note the current IP address.
- Change the IP address to **192.168.0.230** and click the close box.
- If asked, click **Save**.



Note: After you've changed the settings on the bridge, you'll have to reset the *TCP/IP* dialog box back to its original state.

Mac OS X

1. Choose **System Preferences** from the **Apple** (🍏) menu.
2. Double-click **Network**.
3. If not already selected, select **Built-in Ethernet** in the Configure list.
4. If **Manually** isn't selected in the Configure list, note the current selection and select **Manually**.
OR
If **Manually** is selected, note the current IP address.
5. Change the IP address to **192.168.0.230** and click **Apply Now**.



Note: After you've changed the settings on the bridge, you'll have to reset the *Network: TCP/IP* dialog box back to its original state.

Linux® and UNIX®

If you're configuring the bridge with a Linux-based or UNIX-based computer see your system documentation for TCP/IP and networking setup information.

Changing the Bridge's IP Address

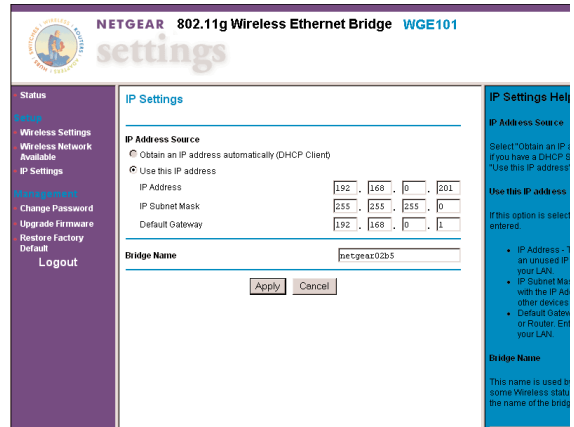
1. Start your browser software.
2. Type `http://192.168.0.201` as the web address and press **Enter** (or **Return**).
3. Type **admin** as the User ID and type **password** as the Password.
4. Click **OK**.
You'll see the Status page.
5. To change the IP address for the bridge to match your wireless network, click **IP Settings**.
6. Select **Use this IP address** and type a unique IP address for the bridge. The first three sets of numbers (xxx.xxx.xxx.yyy) should be the same as your access point or router. The last set of numbers (.yyy) should be a set of unique numbers on your network.

OR

If your network has a router with a router table, change the Protocol to **DHCP**.

(By doing this, the bridge's IP address is assigned dynamically by the router and you'll use the router table to find out what the bridge's current IP address is.)

8. Click **Apply**.
9. Click **Logout**.
10. Restore the computer to its previous network settings. See *Checking and Changing the Computer's IP Address* on page 8 for details.
11. Make any other configuration changes.
12. If you want this bridge used elsewhere on your network, install it now.



Note: If you have multiple WGE111 bridges in your network and want to use the default IP address of 192.168.0.201, only one bridge can use this default IP address. You'll have to create IP addresses for each bridge using 192.168.0.yyy, where yyy is a unique number for each device.

Using the NetBIOS Name

If you're familiar with using a device's NetBIOS name, you may use it in the Internet browser instead of the IP address to access the configuration software. The WGE111 NetBIOS name is **netgearxxxx**, where xxxx stands for the last four digits of the WGE111 MAC address, which is found on the bridge's label.

4 Configuring the WGE111 Bridge for Your Wireless Network

You use browser-based configuration software to configure the bridge. To do so, you must have the bridge connected to a computer (either directly or through a switch or hub) that has an Internet browser installed. See *Installing the WGE111 Bridge* on page 4 or *Connecting the Bridge to a Computer* on page 8.

Once you are logged into the configuration software, you can view the status of your wireless network and the bridge's current configuration, change the password, enable WEP security (if you have it set up on your wireless network), select a specific network for the wireless connection, or make other configuration changes.

Changing the Country/Region Setting

If you are not in the United States, you must first change the Country/Region selection.

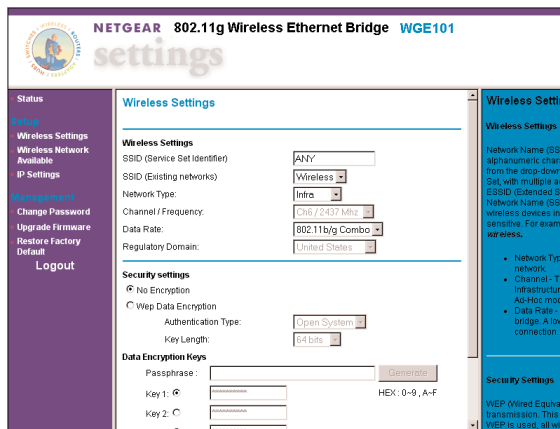
1. Start your browser software.
2. Type `http://` followed by the bridge's IP address as the web address and press **Enter** (or **Return**).

Note: The default value is `192.168.0.201`. If you've set the bridge to use DHCP, check the router table to find out what the current address is for the bridge.

3. Type **admin** as the User ID and type **password** as the Password.
4. Click **OK**.
You'll see the Status page.
5. Click **Wireless Settings**.
6. Select the correct country or region from the Country/Region list. Click **Yes** to accept the new country or region.

Warning: Having the bridge set to the wrong country or region may result in the violation of local laws.

7. Click **Apply**.
8. Click **OK**.
9. If you are through making changes, click **Logout**.



10. To use the bridge with a different computer or other Ethernet-enabled device, return to *Installing the WGE111 Bridge* on page 4 to connect the bridge.

Selecting a Specific Wireless Network

On the Wireless Settings page, you can select a specific wireless network (SSID) and make other configuration changes.

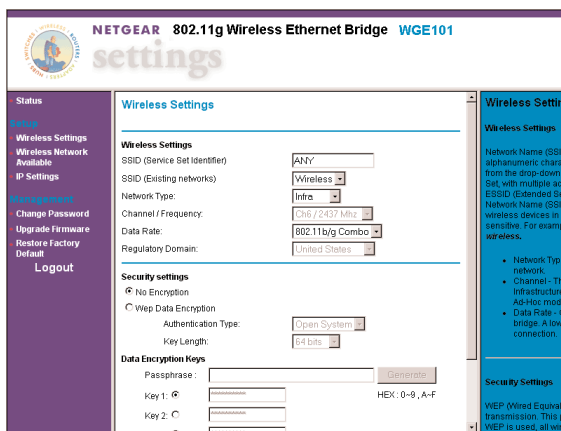
1. Start your browser software.
2. Type `http://` followed by the bridge's IP address as the web address and press **Enter** (or **Return**).

Note: The default value is `192.168.0.201`. If you've set the bridge to use DHCP, check the router table to find out what the current address is for the bridge.

3. Type **admin** as the User ID and type the current password. (**password** is the default password.)
4. Click **OK**.

You'll see the Status page.

5. Click **Wireless Settings**.
6. To connect to a specific wireless router or access point, select the correct one from the SSID (**Existing networks**) list.
7. Click **Apply**.
8. Click **OK**.
9. Click **Logout**.



Note: You may also select the SSID on the Wireless Network Available page instead of the Wireless Settings page.

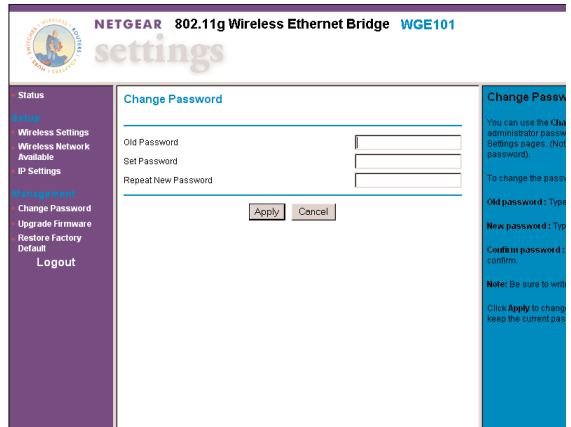
Changing the Bridge's Password

1. Start your browser software.
2. Type `http://` followed by the bridge's IP address as the web address and press **Enter** (or **Return**).

Note: The default value is `192.168.0.201`. If you've set the bridge to use DHCP, check the router table to find out what the current address is for the bridge.

3. Type **admin** as the User ID and type the current password. (**password** is the default password.)

4. Click **OK**.
You'll see the Status page.
5. Click **Change Password**.
6. Type the old password in the Old Password box.
7. Type a new password in the New Password box.
8. Re-type the new password in the Confirm Password box.
9. Click **Apply**.
10. If you are through making changes, click **Logout**.



Enabling WEP Security

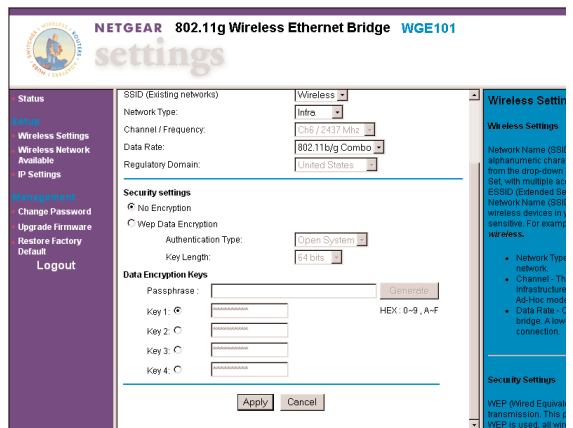
To prevent others from accessing your wireless network, you may enable WEP (Wired Equivalent Privacy) security on your wireless network. If you do so, you'll need to enable WEP security in all the devices. If you filled in the parameters on page 7, you may want to refer to that page before making any configuration change.

Note: By default, WEP security is disabled.

1. Start your browser software.
2. Type **http://** followed by the IP address for the bridge as the web address and press **Enter** (or **Return**).

Note: The default value is **192.168.0.201**. If you've set the bridge to use DHCP, check the router table to find out what the current address is for the bridge.

3. Type **admin** as the User ID and type the current password. (password is the default.)
4. Click **OK**.
You'll see the Status page.
5. To change the WEP settings, click **Wireless Settings**.
6. Select **Web Data Encryption** to enable WEP security.



7. Select **Open System** or **Shared** as the Authentication Type.
8. Select **64 bits** or **128 bits** as the Key Length.
9. If the key is determined through software, type the phrase in the Passphrase box and click **Generate**.

OR

If you entered a key manually for your wireless router or access point, select a Key and type the hexadecimal values that are used with the wireless router or access point.

10. Click **Apply**.
11. If you are through making changes, click **Logout**.

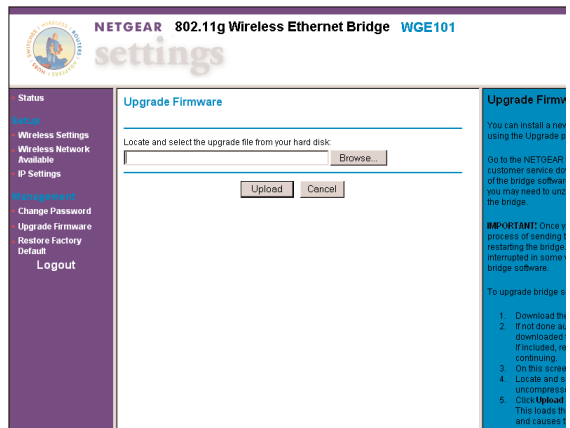
Upgrading the Bridge

If there's a firmware upgrade, download the software from www.NETGEAR.com to your computer and then use the browser-based configuration software to upgrade the bridge.

1. Start your browser software.
2. Type **http://** followed by the IP address for the bridge as the web address and press **Enter** (or **Return**).

Note: The default value is **192.168.0.201**. If you've set the bridge to use DHCP, check the router table to find out what the current address is for the bridge.

3. Type **admin** as the User ID and type the current password. (password is the default.)
4. Click **OK**.
You'll see the Status page.
5. To upgrade the bridge, click **Upgrade Firmware**.
6. Click **Browse** and locate the downloaded software.
7. Click **Upload**.
8. If you are through making changes, click **Logout**.



Configuring the Bridge for Ad-Hoc Mode

You may use this bridge in a wireless-only network where the wireless devices are all set to Ad-Hoc mode. By default, the bridge is set to Infrastructure mode; therefore, you'll need to change the Network Type on the Wireless Settings page.

Note: In an Ad-Hoc network, all devices must have the same SSID, WEP settings, and IP network subset address with a unique identifying number (xxx.xxx.xxx.yyy).

1. Start your browser software.
2. Type `http://` followed by the IP address for the bridge as the web address and press **Enter** (or **Return**).

Note: The default value is `192.168.0.201`. If you've set the bridge to use DHCP, check the router table to find out what the current address is for the bridge.

3. Type `admin` as the User ID and type the current password. (password is the default.)
4. Click **OK**.

You'll see the Status page.

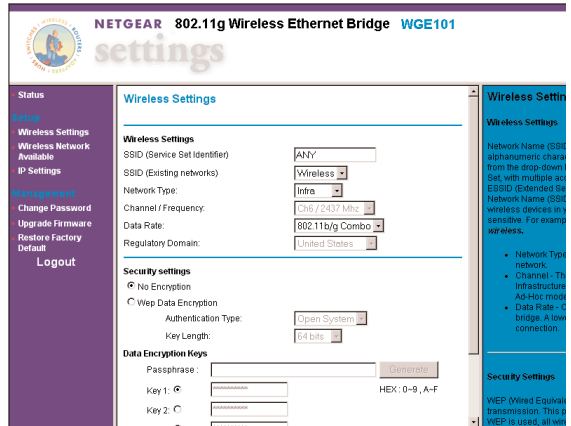
5. Click **Wireless Settings**.
6. If you are setting up the Ad-Hoc network, type a SSID for the network in the SSID (Service Set Identifier) box.

OR

If the Ad-Hoc network already exists, select the correct SSID in the SSID (Existing network) list.

Note: You may also select the SSID on the Wireless Network Available page.

7. Select **Ad-Hoc** as the Network Type.
8. Select the correct channel/frequency for the Ad-Hoc network.
9. Click **Apply**.
10. If you are through making changes, click **Logout**.



Setting the Bridge's Data Rate

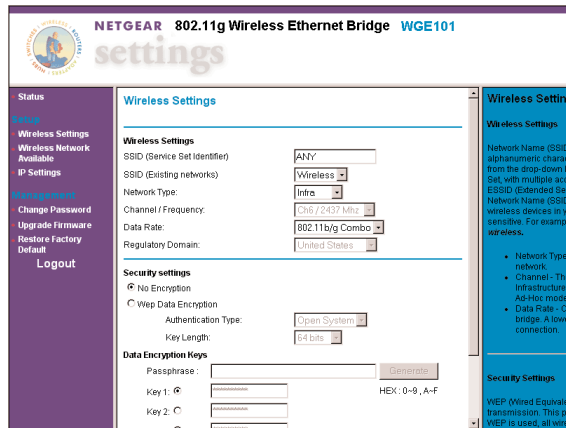
The wireless Ethernet standard, 802.11, supports several data rates — the most common are the 802.11b and the 802.11g standards. The 802.11b standard is slower with a maximum data rate of 11 Mbps. The 802.11g standard supports data rates up to 54 Mbps. By default the WGE111 bridge is set to connect at either standard, but it tries first using the 802.11g standard. If you want to force the bridge to connect using a specific standard, you can set the Data Rate on the Wireless Settings page.

Note: The actual data rates achieved can be much lower than the maximum depending on the devices, distances, and any interference.

1. Start your browser software.
2. Type **http://** followed by the IP address for the bridge as the web address and press **Enter** (or **Return**).

Note: The default value is **192.168.0.201**. If you've set the bridge to use DHCP, check the router table to find out what the current address is for the bridge.




3. Type **admin** as the User ID and type the current password. (**password** is the default.)
4. Click **OK**.
You'll see the Status page.
5. Click **Wireless Settings**.
6. Select either **B only** (802.11b) or **G only** (802.11g) as the Data Rate.
7. Click **Apply**.
8. If you are through making changes, click **Logout**.



WGE111 Bridge Status Lights and Settings

Status Lights




The WGE111 54 Mbps Wireless Ethernet Bridge has the following three lights, which give you information about the status of your wireless connection:

- | | | | |
|---|-------------|-------|---|
|  | PWR | Green | OFF: No power to the unit.
ON: Power applied to the unit. |
|  | WLAN | Green | OFF: No wireless LAN activity.
Flashing: Searching for an access point or wireless router.
ON: Connected to a wireless LAN. |
|  | LAN | Green | OFF: No Ethernet traffic.
Flashing: Wired Ethernet traffic.
ON: Connected to the Ethernet. |

Restoring the Bridge to the Default Settings

There are two ways to return the bridge to its default factory settings.

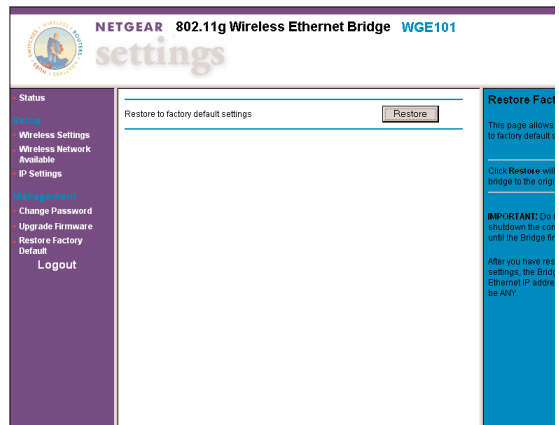
Using the Default button:

1. Press the **Default** button with the point of a pen or pencil for at least 6 seconds until the WLAN light  flashes.
2. Then release the button.
The LAN light  and then the WLAN light  should each flash and then come on steadily.

Using the browser-based software:

To use this procedure the bridge must be connected to a computer — either directly or through a switch or hub — that has an Internet browser installed.

1. Open and log into the browser-based configuration software.
2. Click **Restore Factory Default** in the navigation bar on the left.
3. Click **Restore**.
4. When the warning appears, click **OK**.
5. When the Status page appears, click **Logout**.



Status Information

In the browser-based configuration software, you can get certain status information about the bridge and your wireless network.

The screenshot shows the configuration interface for a NETGEAR 802.11g Wireless Ethernet Bridge (WGE101). The page is titled "settings" and features a navigation menu on the left with sections for Status, Setup, and Management. The main content area is divided into three sections: Wireless Settings, IP Settings, and Bridge Information. A "Status Help" sidebar on the right provides additional context for the status information.

NETGEAR 802.11g Wireless Ethernet Bridge WGE101

settings

Status

Wireless Settings

Connection Status	Connected
Signal strength	99%
Network Name(SSID)	ANY
Country / Region	United States
Channel	IEEE 6
Security	Off
Packet Statistics	Receive: 1602 Transmit: 844

IP Settings

IP Address	192.168.0.201
IP Subnet Mask	255.255.255.0
Default Gateway	192.168.0.1
IP Address Source	Fixed

Bridge Information

Bridge Name	netgear02b5
Mac Address	00:D0:59:E1:02:B5
Firmware Version	RC2.0

Status Help

The Status page displays current settings and statistics for your bridge. As this information is read-only, any changes must be made on other pages.

Wireless Settings

- Connection Status - The current connection status of the bridge.
- Signal Strength - The current signal strength.
- Wireless Network Name (SSID) - The current SSID value.
- Country / Region - The current country setting.
- Channel - The channel currently in use.
- Security - The current security settings.
- Packet Statistics - The traffic statistics for the wireless interface.

IP Settings

- IP Address - The current IP address.
- Subnet Mask - The network mask associated with the IP address above.
- Default Gateway - The Gateway IP address associated with the IP address above.

The **Status** page of the configuration software shows:

- Connection status
- A signal strength indicator
- Network name SSID
- Current country or region setting
- Channel and frequency of the bridge
- Type of encryption currently active
- Transmitted and received data amounts
- The bridge's IP address, subnet mask, default gateway, and the source of the IP address
- NETBIOS name
- Media access control (MAC) address
- Firmware version

Troubleshooting Tips

If you have problems connecting to your wireless network, check these tips.

Symptom	Cause	Solution
<p>The WLAN light is flashing and I can't connect to the router or access point.</p>	<p>The bridge is too far away from the wireless router or access point.</p> <p>OR</p> <p>The bridge is not configured correctly for the network</p>	<ul style="list-style-type: none">• Move the bridge and the wireless router or access point closer together. <p>OR</p> <ul style="list-style-type: none">• Check the configuration utility for the router or access point, to see if it lists the WGE111 bridge.• Use the configuration software for the bridge to verify that the WEP settings, Network Name (SSID), and country/region settings match those of the router or access point.
<p>My gaming console or remote computer could not connect to the Internet.</p>	<p>There is a problem connecting to the wireless router.</p>	<ul style="list-style-type: none">• Make sure WLAN light is on solidly. If not, see the previous symptom/solution.• Make sure the gaming console or remote computer has a correct IP address with the same IP subset address as the wireless router or access point.• Turn the bridge off and then back on. Recheck the IP address for the gaming console or remote computer.• Turn off all devices. Then, power on the wireless router (or access point), wait, and then power on the bridge. Check that the bridge connects to the wireless router or access point. If it connects, power on the gaming console or remote computer.

Symptom	Cause	Solution
My bridge-enabled computer could not communicate with my wireless-enabled computer or printer.	This most likely is a network configuration problem.	<ul style="list-style-type: none"> • Check that the wireless-enabled computer or printer is on the same wireless network as the computer using the bridge. • Make sure the Network Name (SSID), WEP key (if WEP is enabled), and country/region selection are the same for all devices connected to the same wireless network. • If the computer is connected to the bridge through a switch or hub, try connecting it directly to the bridge.
I can't get the configuration utility to show the bridge. or I can't open the configuration software with my browser.	This could be a network configuration problem or a hardware connection problem.	<ul style="list-style-type: none"> • If the wireless LAN setting are correct, make sure all the devices are on the same IP network. • Make sure the Ethernet cable connectors are plugged into the computer and bridge securely. • You may need to change the IP address of your computer temporarily to change the bridge's IP address. See page 8. • Reset to factory defaults. See pg.18.
I have a gaming console, computer, and the bridge connected through a switch. The computer connects to the Internet but the gaming console can't.	If using a switch or hub with an Ethernet-enabled gaming console, the gaming console must be powered on before the other Ethernet-enabled devices.	<ul style="list-style-type: none"> • With power on, disconnect everything from the switch or hub. Re-connect the WGE111, then connect the game console(s). Finally, connect the other device(s).

Note: For more troubleshooting information, go to the NETGEAR, Inc. web site.

WGE111 System Requirements and Specifications

System Requirements for the Bridge

To use the bridge in your network you must have:

- Wireless router or access point (Infrastructure mode) or a network of wireless devices (Ad-Hoc mode)
- Network software (Windows, Mac OS, Linux, or UNIX)
- Internet Explorer 5.0 or later; Netscape 6.0 or later

Bridge Specifications

Dimensions:	W: 175 mm (6.9") D: 118 mm (4.7") H: 28 mm (1.1")
Weight:	0.3 kg (0.7 lbs.)
LAN:	10BASE-T and 100BASE-T
WLAN:	802.11g or 802.11b
Power Adapter:	5V DC, 2A with localized plug for North America, UK, Europe or Australia

Environmental Specifications

Operating temperature:	-10° to 55° C (14° to 131° F)
Operating humidity:	85% maximum relative humidity, noncondensing
Electromagnetic Emissions:	CE/LVD: EN 60950:1992+A1+A2+A3+A4+A11 CE/EMC: EN301489-17 (2002-08) EN301489-1 (2002-08) CE/Radio: EN 300328-1 V1.3.1: 12-2001 EN 300328-2 V1.2.1: 12-2001 FCC Part 15 Subpart C FCC Part 15 Subpart B
Safety Certifications:	UL 1950, CUL, TUV licensed (EN 60950)

Statement of Conditions

In the interest of improving internal design, operational function, and/or reliability, NETGEAR reserves the right to make changes to the products described in this document without notice.

NETGEAR does not assume any liability that may occur due to the use or application of the product(s) or circuit layout(s) described herein.

Certificate of the Manufacturer/Importer

It is hereby certified that the Model WGE111 54 Mbps Wireless Ethernet Bridge has been suppressed in accordance with the conditions set out in the BMT- AmtsblVfg 243/1991 and Vfg 46/1992. The operation of some equipment (for example, test transmitters) in accordance with the regulations may, however, be subject to certain restrictions. Please refer to the notes in the operating instructions.

Federal Office for Telecommunications Approvals has been notified of the placing of this equipment on the market and has been granted the right to test the series for compliance with the regulations.

VCCI Statement

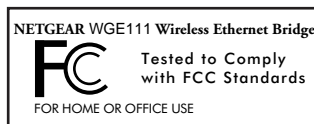
This equipment is in the Class B category (information equipment to be used in a residential area or an adjacent area thereto) and conforms to the standards set by the Voluntary Control Council for Interference by Data Processing Equipment and Electronic Office Machines aimed at preventing radio interference in such residential areas. When used near a radio or TV receiver, it may become the cause of radio interference. Read instructions for correct handling.

Federal Communications Commission (FCC) Compliance Notice: Radio Frequency Notice

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.
2. This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: (1) Reorient or relocate the receiving antenna, (2) Increase the separation between the equipment and receiver, (3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected, (4) Consult the dealer or an experienced radio/TV technician for help.



Federal Communications Commission (FCC) Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (8 inches) during normal operation.

Canadian Department of Communications Radio Interference Regulations

This digital apparatus (Model WGE111 54 Mbps Wireless Ethernet Bridge) does not exceed the Class B limits for radio-noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.

Technical Support

PLEASE REFER TO THE SUPPORT INFORMATION CARD THAT SHIPPED WITH YOUR PRODUCT.

By registering your product at www.NETGEAR.com/register, we can provide you with faster expert technical support and timely notices of product and software upgrades.

NETGEAR, INC.

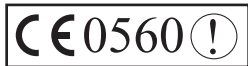
Support Information

Phone: 1-888-NETGEAR (for US & Canada only), available 24x7.

For other countries see your Support Information card.

E-mail: support@NETGEAR.com (24x7 online support)

www.NETGEAR.com



Attention: When you configure the wireless settings of this device please make sure to select the correct country settings. Due to EU-law, the country settings must be identical to the country where the device is operating (important due to non-harmonized frequencies in the EU).

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July 2003