



User Guide



Linksys WUMC710 | 802.11ac Ethernet Bridge

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Product Overview


LED panel




 **Wireless** (Blue) The Wireless LED lights up when there is a wireless connection. The LED flashes when the bridge is actively sending or receiving data over the wireless network.

 **Wi-Fi Protected Setup Button** If your router supports Wi-Fi Protected Setup and uses WPA or WPA2 security, then you can use Wi-Fi Protected Setup to automatically connect the bridge. To use Wi-Fi Protected Setup, refer to “Wireless > Basic Wireless Settings” on page 7.

Wi-Fi Protected Setup LED (Blue/Amber) The LED flashes blue for two minutes during Wi-Fi Protected Setup. It lights up blue when wireless security is enabled. If there is an error during the Wi-Fi Protected Setup process, then the LED lights up amber. Make sure the network router supports Wi-Fi Protected Setup. Wait until the LED is off, and then try again.

 **Ethernet** (Blue) The Ethernet LED lights up when there is a wired connection. The LED flashes when the bridge is actively sending or receiving data over the Ethernet port(s).

 **Power** (Blue) The Power LED lights up when the bridge is powered on.

Ports panel



Ethernet These four Ethernet port(s) connects the bridge to a computer or other Ethernet network device.



Reset There are two ways to reset the bridge's factory defaults. Either press and hold the Reset button for approximately five seconds, or restore the defaults from Administration > Factory Defaults in the bridge's browser-based utility. The reset button is located on the bottom.



Power The Power port connects the bridge to the included power adapter.

Wireless Security Checklist

Wireless networks are convenient and easy to install, so homes with high-speed Internet access are adopting them at a rapid pace. Because wireless networking operates by sending information over radio waves, it can be more vulnerable to intruders than a traditional wired network. Like signals from your cellular or cordless phones, signals from your wireless network can also be intercepted. Since you cannot physically prevent someone from connecting to your wireless network, you need to take some additional steps to keep your network secure.

Change the default wireless network name or SSID

Wireless devices have a default wireless network name or Service Set Identifier (SSID) set by the factory. This is the name of your wireless network, and can be up to 32 characters in length. Linksys wireless products use **linksys** as the default wireless network name. You should change the wireless network name to something unique to distinguish your wireless network from other wireless networks that may exist around you, but do not use personal information (such as your Social Security number) because this information may be available for anyone to see when browsing for wireless networks.

Change the default password

For wireless products such as access points and routers, you will be asked for a password when you want to change their settings. These devices have a default password set by the factory. The Linksys default password is **admin**. Hackers know these defaults and may try to use them to access your wireless device and change your network settings. To thwart any unauthorized changes, customize the device's password so it will be hard to guess.

Enable MAC address filtering

Linksys routers give you the ability to enable Media Access Control (MAC) address filtering. The MAC address is a unique series of numbers and letters assigned to every networking device. With MAC address filtering enabled, wireless network access is provided solely for wireless devices with specific MAC addresses. For example, you can specify the MAC address of each computer in your home so that only those computers can access your wireless network.

Enable encryption

Encryption protects data transmitted over a wireless network. Wi-Fi Protected Access (WPA/WPA2) and Wired Equivalent Privacy (WEP) offer different levels of security for wireless communication.

A network encrypted with WPA/WPA2 is more secure than a network encrypted with WEP, because WPA/WPA2 uses dynamic key encryption. To protect the information as it passes over the airwaves, you should enable the highest level of encryption supported by your network equipment.

WEP is an older encryption standard and may be the only option available on some older devices that do not support WPA.

General Network Security Guidelines

Wireless network security is useless if the underlying network is not secure.

- Password protect all computers on the network and individually password protect sensitive files.
- Change passwords on a regular basis.
- Install anti-virus software and personal firewall software.
- Disable file sharing (peer-to-peer). Some applications may open file sharing without your consent and/or knowledge.

Additional Security Tips

- Keep wireless routers, access points, or gateways away from exterior walls and windows.
- Turn wireless routers, access points, or gateways off when they are not being used (at night, during vacations).
- Use strong passphrases that are at least eight characters in length. Combine letters and numbers to avoid using standard words that can be found in the dictionary.

Advanced Configuration

After setting up the bridge by following the steps on the CD folder, the bridge will be ready for use. However, if you want to change its advanced settings, use the bridge's browser-based utility. This chapter describes each web page of the utility and each page's key functions. You can access the utility via a web browser on a computer networked with the bridge.

The browser-based utility has these main tabs: Setup, Wireless, Administration, and Status. Additional tabs will be available after you click one of the main tabs.

How to access the browser-based utility

Use a web browser to access the browser-based utility.

If the bridge is connected to a network with a DHCP server (usually the network router), then the bridge will obtain its IP address from the DHCP server. If there is no DHCP server, then the bridge will use its default static IP address, **10.100.1.1**. (If you set a permanent static IP address on the bridge through the browser-based utility, then enter the static IP address instead.)

NOTE

If you do not know the bridge's IP address, then find its IP address in the DHCP clients table of your router. (Refer to the documentation for your router.)

If you cannot locate the bridge's IP address, you can reset the bridge; press the **Reset** button on the bridge for approximately five seconds, using a straightened paper clip. This will reset the bridge back to the factory default settings. The bridge will request an IP address from the DHCP server (usually the network router). If no DHCP server is found, then the bridge will use its default static IP address, **10.100.1.1**, until it detects a DHCP server and is assigned a dynamic IP address.

Launch your web browser, and enter the Adapter's IP address (the default setting is **10.100.1.1**) in the *Address* field. Press **Enter**.

A password request screen appears. (Non-Windows XP users will see a similar screen.) Leave the *User name* field blank. Enter the password you created during the Setup Wizard. If you did not create a new password, use the default password **admin**. (You can set a new password from the *Administration > Management* screen.) Click **OK** to continue.



NOTE

If the password request screen does not appear, wait two minutes and try again.

Setup > Basic Setup

The first screen that appears is the *Basic Setup* screen. Use this screen to change the browser-based utility's language, or to change the bridge's wired, Ethernet network settings.





Language

Language This is used to set the language displayed by the browser-based utility. Select the desired language from the drop-down menu.

Network Setup

This section determines if the bridge's IP address is obtained automatically from a DHCP server, such as your network router (Automatic Configuration - DHCP), or set manually (Static IP).

Bridge IP If your network has a DHCP server, such as your network router, assigning IP addresses to your network devices, then keep the default, **Automatic Configuration - DHCP**. The bridge will request an IP address from the DHCP server (usually the network router). If no DHCP server is found, then the bridge will use its default static IP address, **10.100.1.1**, until it detects a DHCP server and is assigned a dynamic IP address.

If you want to set a permanent static IP address for the bridge, then select **Static IP**.

If you select Static IP, then complete the following fields:

- **Static IP Address** Enter a unique IP address that will be used to access the browser-based utility.
- **Subnet Mask** Enter the subnet mask of your wired network.
- **Default Gateway** Enter the IP address of the default gateway for your network (in most cases, this is your router).

Click **Save Settings** to apply your changes, or click **Cancel Changes** to cancel your changes.

Wireless > Basic Wireless Settings

Use the *Basic Wireless Settings* screen to configure the bridge's basic wireless and security settings.

There are two ways to configure the bridge's settings, manual and Wi-Fi Protected Setup. Wi-Fi Protected Setup is a feature that makes it easy to set up your wireless network. If your network router supports Wi-Fi Protected Setup and uses WPA or WPA2 security, then you can use Wi-Fi Protected Setup to automatically connect the bridge.

Configuration View To manually configure your wireless network, select **Manual**. Refer to **Basic Wireless Settings, page 7**. To use Wi-Fi Protected Setup, select **Wi-Fi Protected Setup**. Refer to **Wi-Fi Protected Setup, page 9**.

Basic Wireless Settings



Network Name (SSID) The SSID is the network name shared among all points in a wireless network. The SSID must be identical for all devices in the wireless network. It is case-sensitive and must not exceed 32 characters (use any characters on the keyboard). Make sure this setting matches the setting on your wireless router or access point. For added security, you should change the default SSID (**linksys**) to a unique name.

Wireless Security

The bridge supports the following wireless security options: WPA Personal, WPA2 Personal, and WEP. WPA (Wi-Fi Protected Access) and WPA2 are stronger security methods than WEP (Wired Equivalent Privacy). For more information about wireless security, refer to “Wireless Security Checklist” on page 4.

Security Mode

Select the security method for your wireless network. If you do not want to use wireless security, keep the default, **Disabled**.

NOTE

Remember that each device in your wireless network **MUST** use the same security method and passphrase/key, or else the wireless devices will not be able to communicate with each other.

WPA Personal

WPA is a security standard stronger than WEP encryption.



Encryption WPA supports the TKIP encryption method, with dynamic encryption keys.

Passphrase Enter the key shared by the bridge and your wireless router or access point. It must have 8-63 characters.

Click **Save Settings** to apply your changes, or click **Cancel Changes** to cancel your changes.

WPA2 Personal

WPA2 is a more advanced, more secure version of WPA.



Encryption WPA2 supports two encryption methods, TKIP and AES, with dynamic encryption keys. Select the encryption method, **AES or TKIP or AES**. The default selection is **AES**.

Passphrase Enter the key shared by the bridge and wireless router or access point. It must have 8-63 characters.

Click **Save Settings** to apply your changes, or click **Cancel Changes** to cancel your changes.

WEP

WEP is a basic encryption method, which is not as secure as WPA or WPA2.



Encryption Select a level of WEP encryption, **40/64 bits (10 hex digits)** or **104/128 bits (26 hex digits)**. The default is **40/64 bits (10 hex digits)**.

Key 1 Enter the WEP key of your network.

Tx Key Key 1 is the transmit key used by the bridge.

Authentication The default is **Auto**, which allows either Open system or Shared key authentication to be used. Select **Open** to use open system authentication; the sender and recipient do not use a WEP key for authentication. Select **Shared** to use shared key authentication; the sender and recipient use a WEP key for authentication.

Click **Save Settings** to apply your changes, or click **Cancel Changes** to cancel your changes.

Wi-Fi Protected Setup

There are two methods available. Use the method that applies to the router you are using.



Method #1

Use this method if your router has a Wi-Fi Protected Setup button.

1. Click or press the **Wi-Fi Protected Setup** button on the router.
2. Within two minutes, click the **Wi-Fi Protected Setup** button on the bridge's *Wi-Fi Protected Setup* screen.
3. After the bridge has been configured, click **Close**.

The *Wi-Fi Protected Setup* screen displays the Link Status, Network Name (SSID), and Security method.

Method #2

Use this method if your router requests the PIN number of the bridge.

1. On the **router's** *Wi-Fi Protected Setup* screen, enter the PIN number on the **bridge's** *Wi-Fi Protected Setup* screen. Then click **Register** or the appropriate button. (It is also listed on the label on the bottom of the bridge.)
2. On the **bridge's** *Wi-Fi Protected Setup* screen, click **OK**.
3. After the bridge has been configured, click **Close**.

The *Wi-Fi Protected Setup* screen displays the Link Status, Network Name (SSID), and Security method.

Wireless > Wireless Network Site Survey

Click the **Wireless Network Site Survey** tab to begin a site survey. The *Wireless Network Site Survey* screen lists the wireless networks detected by the bridge.



Wireless Network Site Survey


Number of Wireless Networks The number of wireless networks detected by the bridge is displayed.

Select To connect to a wireless network, click **Select**. Then click **Connect**.

Wireless Network Name The network name or SSID of the wireless network is displayed.

GHz The radio band of the wireless network is displayed.

Signal The percentage of signal strength is displayed. 100% is the strongest signal strength possible; 0% is the weakest possible.

Security If the network supports Wi-Fi Protected Setup, the Wi-Fi Protected Setup icon  is displayed. The security method used by the wireless network is displayed.

Click **Refresh** to update the on-screen information.

After you have selected a network, click **Connect**. A new screen appears. Follow the instructions for the security method of your network.

WPA



Network Name (SSID) The name of the network you selected is automatically displayed.

Security Mode WPA Personal is automatically displayed.

Encryption WPA supports the TKIP encryption method, with dynamic encryption keys.

Passphrase Enter the key shared by the bridge and wireless router or access point. It must have 8-63 characters.

Click **Refresh** to update the on-screen information.

After you have entered the security settings, click **Connect**.

WPA2



Network Name (SSID) The name of the network you selected is automatically displayed.

Security Mode WPA2 Personal is automatically displayed.

Encryption WPA2 supports two encryption methods, TKIP and AES, with dynamic encryption keys. Select the encryption method, **AES** or **TKIP or AES**.

Passphrase Enter the key shared by the bridge and wireless router or access point. It must have 8-63 characters.

Click **Refresh** to update the on-screen information.

After you have entered the security settings, click **Connect**.

WEP



Network Name (SSID) The name of the network you selected is automatically displayed.

Security Mode WEP is automatically displayed.

Encryption Select a level of WEP encryption, **40/64 bits (10 hex digits)** or **104/128 bits (26 hex digits)**.

Key 1 Enter the WEP key of your network.

Tx Key Key 1 is the transmit key used by the bridge.

Authentication The default is **Auto**, which allows either Open system or Shared key authentication to be used. Select **Open** to use open system authentication; the sender and recipient do not use a WEP key for authentication. Select **Shared** to use shared key authentication; the sender and recipient use a WEP key for authentication.

Click **Refresh** to update the on-screen information.

After you have entered the security settings, click **Connect**.

Wireless > QoS

Wireless

WMM Support—Wi-Fi Multimedia (WMM) is a wireless Quality of Service feature that improves quality for audio, video, and voice applications by prioritizing wireless traffic. To use this feature, your wireless router or access point must support Wireless WMM. To disable this option, select **Disabled**. Otherwise, keep the default, **Enabled**.

No Acknowledgement—If you want to disable the bridge's *Acknowledgement* option so the bridge does not re-send data if an error occurs, select **Enabled**. Otherwise, keep the default, **Disabled**.



Administration > Management

Use this screen to manage specific bridge functions: access to the web-based utility, backup of the configuration file, and reboot.



Management

Bridge Access

Use a password to protect access to the browser-based utility.

Bridge Password Enter a new Password for the bridge.

Re-enter to confirm Enter the Password again to confirm.

Idle Timeout The login times out after a period of inactivity that you specify. The range is **60 to 3600** seconds. The default is **600**.

Web Access

Access via Wireless If you are using the bridge in a public domain where you are giving wireless access to your guests, you can disable wireless access to the bridge's browser-based utility. You will only be able to access the browser-based utility via a wired connection if you disable the setting. Keep the default, **Enabled**, to allow wireless access to the bridge's browser-based utility, or select **Disabled** to block wireless access to the utility.

Backup and Restore

Backup To backup the bridge's configuration file, click **Backup Configurations**. Then follow the on-screen instructions.

Restore Click **Browse** and select the configuration file. Then click **Restore Configurations**.

System Reboot

Reboot To reboot or restart the bridge, click **Start to Reboot**.

Click **Save Settings** to apply your changes, or click **Cancel Changes** to cancel your changes.

Administration > Factory Defaults

Use this screen to restore the bridge's configuration to its factory default settings.

Factory Defaults

Restore All Settings To reset the bridge's settings to the factory defaults, click **Restore All Settings**. Any settings you have saved will be lost when the default settings are restored.



Administration > Upgrade Firmware

Use this screen to upgrade the bridge's firmware. Do not upgrade the firmware unless you are experiencing problems with the bridge or the new firmware has a feature you want to use.



Before upgrading the firmware, download the bridge's firmware upgrade file from the Linksys website, www.Linksys.com/support.

Upgrade Firmware

Please select a file to upgrade the firmware Click **Browse** and select the firmware upgrade file. Then click **Start to Upgrade** and follow the on-screen instructions.

Status > Bridge

The bridge's current status information is displayed.



Bridge Information

Firmware Version The bridge's current firmware is displayed.

Local Network

Local MAC Address The bridge's MAC Address, as seen on your local, Ethernet network, is displayed.

IP Address The bridge's IP Address, as seen on your local, Ethernet network, is displayed.

Subnet Mask The Subnet Mask configured for your local network is displayed.

Status > Wireless

Information about your wireless network is displayed.



Wireless

Link Status The status of the connection to your wireless network is displayed.

MAC Address The bridge's MAC Address, as seen on your local, wireless network, is displayed.

Network Name (SSID) The wireless network name or SSID is displayed.

BSSID The wireless MAC address of the connected wireless router (or access point) is displayed.

Radio Band The radio band of your wireless network is displayed.

Channel Width The channel width, in MHz, used by your wireless network is displayed.

Wide Channel Depending on the channel settings of your network router, the Wide Channel is displayed. If you selected Wide - 40MHz Channel for the router's Radio Band or Channel Width setting, then this will be your primary Wireless-N channel.

Standard Channel The Standard Channel setting is displayed. If you selected Wide - 40MHz Channel for the router's Radio Band or Channel Width setting, then the Standard Channel will be a secondary channel for Wireless-N.

Bit Rate The data transmission rate is displayed.

Signal The percentage of signal strength is displayed. 100% is the strongest signal strength possible; 0% is the weakest possible.

Security The security method of your wireless network is displayed.

Troubleshooting

WUMC710

Your computer or other wired, Ethernet device cannot communicate with the wireless router.

1. Access the bridge's browser-based utility.
2. On the *Basic Wireless Settings* screen, make sure the Network Name (SSID) matches the name of your wireless network.
3. Make sure the security settings (WPA, WPA2, or WEP) match the security settings of your wireless network.

The bridge's IP address needs to be changed.

If the bridge is connected to a network with a DHCP server (usually the network router), then the bridge will obtain its IP address from the DHCP server. If there is no DHCP server, then the bridge will use its default, static IP address, **10.100.1.1**.

If you want the bridge to always use a static IP address, then follow these instructions:

1. Access the bridge's browser-based utility.
2. Click the **Network Setup** tab.
3. From the *Network Connection Type* drop-down menu, select **Static IP**.
4. Complete the *Static IP Address*, *Subnet Mask*, and *Default Gateway* fields.
5. Click **Save Settings**.

The bridge-enabled computer or other wired, Ethernet device will not communicate with another wireless-enabled device (such as a computer or printer).

Check the following:

- Make sure the wireless-enabled device is on the same wireless network as the computer or other wired, Ethernet device connected to the bridge.
- Make sure that the same Network Name (SSID) is used for all devices on the wireless network.

- Make sure all devices are on the same IP network, using compatible IP addresses.

The browser-based utility does not accept your password.

Check the following:

- The password is case-sensitive. Make sure that you are using the correct case(s) when entering the password.
- If you forget your password, you can reset the bridge to its factory defaults.

Press and hold the bridge's **Reset** button for approximately five seconds; the password will be reset to its factory default, **admin**. All other bridge settings will be reset to the factory defaults as well. (To access the browser-based utility, enter **admin** in the *Password* field.)

After you make changes through the browser-based utility, the new settings are not displayed on-screen.

On your web browser, click **Refresh**. If the new settings are not displayed, then follow these instructions:

1. Unplug the power adapter from the bridge.
2. Wait five seconds, and then plug the power adapter back into the bridge.
3. On your web browser, click **Refresh**.

WEB

If your questions are not addressed here, refer to the Linksys website at [Linksys.com/support](https://www.linksys.com/support)

Specifications

WUMC710

Model	WUMC710
Description	802.11ac Ethernet bridge
LEDs	Power, Ethernet, Wi-Fi Protected Setup™, Wireless, individual Ethernet link and activity
Ports	Ethernet (4), Power
Buttons	Reset, Wi-Fi Protected Setup
Cabling Type	CAT5e
Antennas	3 (internal)
Antenna Connector Type	N/A
Detachable (Yes/No)	No
Wireless Security	WEP, Wi-Fi Protected Access™ (WPA), Wi-Fi Protected Access™ 2 (WPA2)
Security Key Bits	Up to 128-bit encryption

Environmental

Dimensions	6.97" x 5.04" x 2.68" (177 x 128 x 68 mm)
Weight	TBD
Certification	FCC, UL/cUL, ICES-003, RSS210, CE, Wi-Fi (IEEE 802 11a/b/g/draft n), WPA2™, Wi-Fi Protected Setup, WMM®
Power	12V, 1.5A
Operating Temperature	32 to 104°F (0 to 40°C)
Storage Temperature	-4 to 140°F (-20 to 60°C)
Operating Humidity	10 to 85% Noncondensing
Storage Humidity	5 to 90% Noncondensing

Specifications are subject to change without notice.

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