

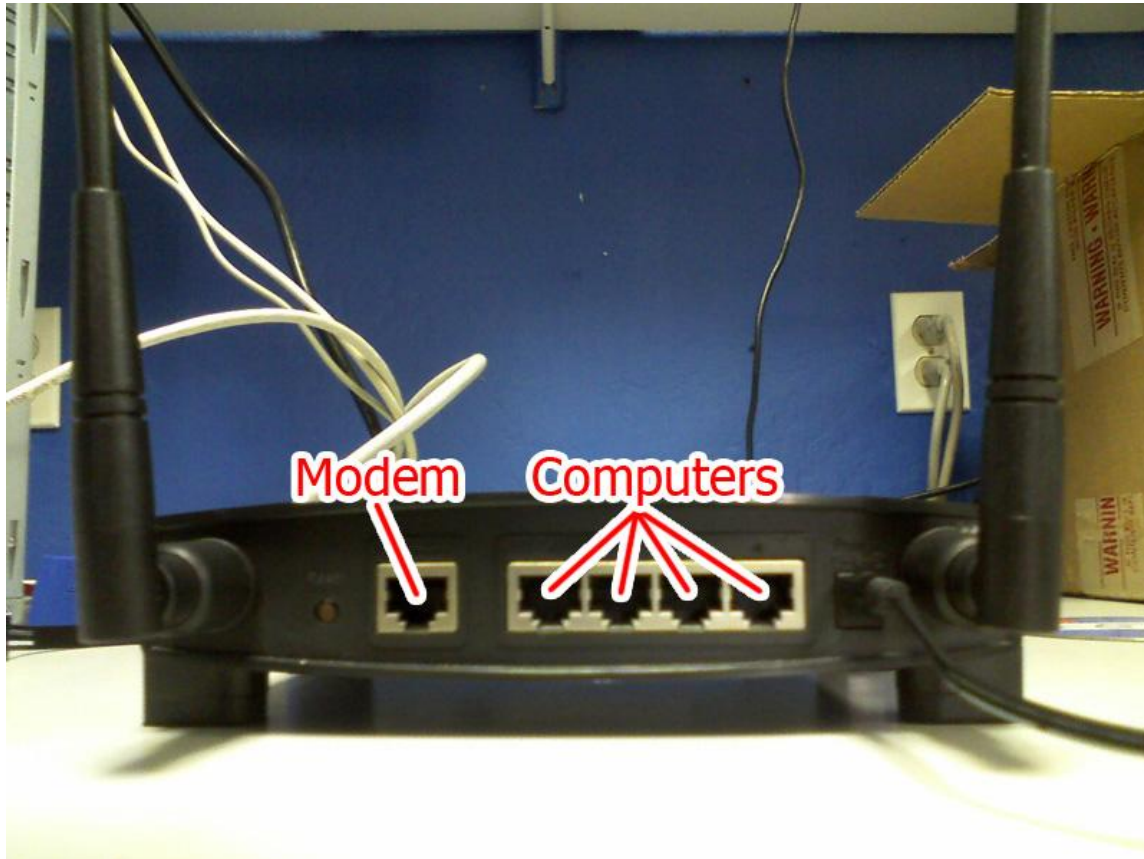
Setting up a Wireless Router

Before we start

- Make sure each computer you want connected to the internet has a long enough cable to reach the router.
- The Cable Modem device also has a long enough cable to reach the router.

Cable type required: Ethernet Cable “CAT-5”

To ensure proper connectivity between the Modem and Router, unplug the power cord for the Cable Modem and Router. First plug the Cable modem power in and wait for around a minute, then plug the Router power in.



Using the Right Slots

Most routers will have a label above the slots. The cable from the modem will go into the slot that is separated from the bunch, which is generally on the left side. The other slots bunched together are for computers you wish to connect to the internet.

Accessing the Router for Configuration

If you wish to configure the settings on the Router (name of your network, passwords, etc), you will need to be on the network that it creates. Either connecting to the wireless network or cabled connection will allow you to access the router. It is recommended that you use the cabled connection as it is more stable. There are default configurations put in by the manufacture, and that is why it is highly recommended to setup your router once you get it installed.

Most every Linksys router has the default settings below. If you run into any trouble with these settings do a Google search for your router model and keywords related to 'Default Settings' (ie: "WRT54GL default settings").

Default IP Address: 192.168.1.1

Default Login Username: admin

Default Login Password: admin

*some model's password is blank (no password), try that if 'admin' does not work

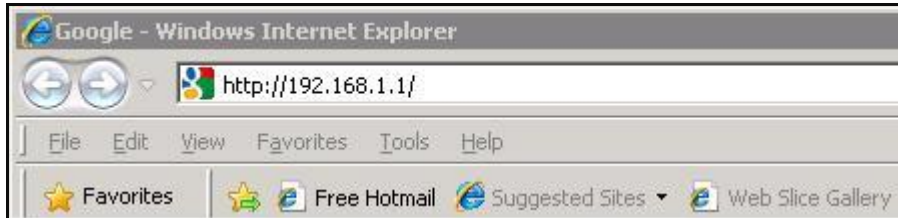
Next step is to configure your network security.

Setting up the Router's Network

Manufacture settings by default are set to be unsecured. That means anyone can detect and connect to your newly operational network. This guide will help you configure your router to your security needs.

Step 1: Log into your router

In order to change any settings, we must first connect into the device. The default IP Address of the router is 192.168.1.1. Type this IP Address into your web browser's address bar as: <http://192.168.1.1/>.



This should prompt a login window, use the following default settings:

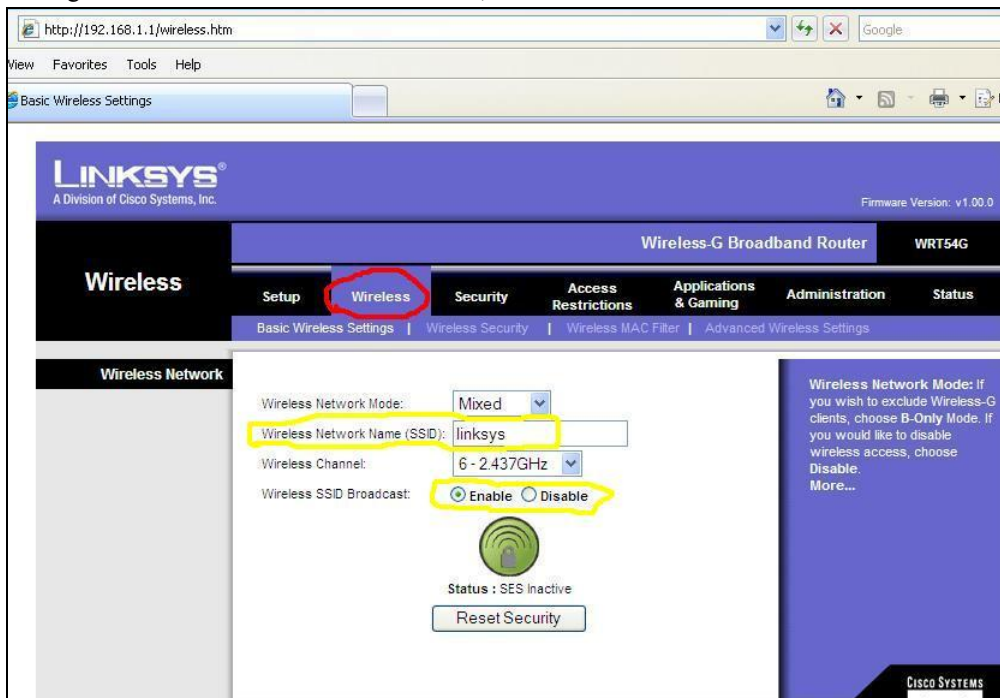
Default Login Username: admin

Default Login Password: admin

*some model's password is blank (no password), try that if 'admin' does not work

Step 2: Configure the Network

Once we are in the Router, we can now setup the wireless network name, and passwords to login to the network. Let's get to the wireless section of the router, click on the "wireless" tab.



Wireless Network Name (SSID) will be the name broadcasted for your network. Change this to something more personal, but not too revealing. For the Tutorial family I might name the network 'TTL' or 'TuT'. This requires a little creativity on your part. Leave Wireless SSID Broadcast on so people can scan for your network. Make sure to "Save Settings"!

Wireless Security

LINKSYS®
A Division of Cisco Systems, Inc. Firmware Version: v1.00.0

Wireless-G Broadband Router WRT54G

Wireless Security

Security Mode:

- Disable
- WPA Personal
- WPA Enterprise
- WPA2 Personal
- WPA2 Enterprise
- RADIUS
- WEP

Security Mode: You may choose from Disable, WEP, WPA Pre-Shared Key, WPA RADIUS, or RADIUS. All devices on your network must use the same security mode in order to communicate. More...

Save Settings Cancel Changes

Now let us setup some security for this baby. Choose WPA2 Personal (latest encryption method, most secure). If you have old laptops, say four plus years old, you may want to use WEP mode (in that case, skip down to the WEP configure section below).

WPA2 Personal configuration

LINKSYS®
A Division of Cisco Systems, Inc. Firmware Version: v1.00.0

Wireless-G Broadband Router WRT54G

Wireless Security

Security Mode:

WPA Algorithms:

WPA Shared Key:

Group Key Renewal: seconds

Security Mode: You may choose from Disable, WEP, WPA Pre-Shared Key, WPA RADIUS, or RADIUS. All devices on your network must use the same security mode in order to communicate. More...

Save Settings Cancel Changes

Enter a password in the “WPA Shared Key” input field. With WPA you may use any alphanumeric character (A-Z, and 0-9). This will be needed to enter into your network, so write it down on a sticky and keep it handy (in case guests come over and want to download the internet’s). Click “Save Settings”.

WEP Configuration (skip if you're using WPA/WPA2)

The screenshot shows the Linksys WRT54G router's configuration interface. The top navigation bar includes 'Wireless', 'Setup', 'Wireless', 'Security', 'Access Restrictions', 'Applications & Gaming', 'Administration', and 'Status'. The 'Wireless Security' section is active, showing the following configuration:

- Security Mode: WEP
- Default Transmit Key: 1 (selected)
- WEP Encryption: 64 bits 10 hex digits
- Passphrase: (empty)
- Key 1: 1122334455
- Key 2: (empty)
- Key 3: (empty)
- Key 4: (empty)

At the bottom, there are 'Save Settings' and 'Cancel Changes' buttons. A red circle highlights the 'Save Settings' button.

WEP is an older and less secure encryption. Many older laptops don't have support for the newer WPA/WPA2 security modes. Enter the password into Key 1 input field. The password is limited to the characters: A-F, 0-9 and 10 characters long. So a password "alfa123456" would not be accepted due to the 'L'. If you get invalid password error, make sure your using A-F and 0-9 only. Click "Save Settings".

Final Thoughts

There are other methods that are more secure which you can Google search, one is by using "MAC Filtering" (nothing to do with Apple Computers).

A simple security addition is to Disable the SSID Broadcast (seen in the first screenshot), so you manually have to enter in the network name when attempting to join the network. This acts like a 'hidden network', and provides a bit more security against those malicious outsiders. Although that just adds another step to getting on the internet and may be confusing if not familiar with the process. The good news is the network is saved when first connecting and will auto connect in the future.

Computer Won't Connect Wirelessly! "Limited or No Connectivity" Issue

Open the Wireless Network list, usually by clicking on the network icon in the system tray next to the digital clock. Disconnect from your network. Reconnect providing the password you created. Switching out an older router for the one you just setup, and using the same network name will cause the computer to use the password for the old router, not knowing there is a new router installed with new settings (ie: new password).