

# Password protect your router!

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There are a lot of articles written about personal routers and wireless technologies. This article is written for one single purpose: to help you connect your router to our network properly and to entice you into turning on a few basic security settings which will keep your router from being used without your knowledge. Every day you have an unsecured router is one more day that could make you responsible for damages because someone used the unsecured connection that you unwittingly made available and downloaded something illegal. That illegal download traces back to your router and your network connection on our network. Stop wondering whether your router is secure, change your password and encrypt the wireless connection now!

Securing your router does not require knowledge of bits and bytes. We're advocating that a simple security approach is better than none at all. Additionally, this approach is completely compatible with the majority of systems in use today without software patches for the PC's or third-party software to make things work properly.

Our instructions will be broken down into three parts:

Part 1: Password protect your wireless router (not the same as securing the wireless connection)

Part 2: Encrypt your wireless signal/change the broadcast name for your wireless network (protect your wireless connection)

Part 3: Hide your router from the Available Wireless Networks menu (Optional, hide your wireless connection name)

What you will need before you get started:

1. A personal router (in our example we use a Linksys wireless router, the wireless aspect is completely optional).
2. A straightened paper clip.
3. Two (2) category 5 (CAT5) Ethernet cables.
4. A piece of paper and a pen.
5. A PC with Internet Explorer (Linksys routers are finicky and "prefer" Internet Explorer, for whatever reason).
6. A printout of these instructions for your records.

Before you begin, it is very important that you plug things in properly. The only connections you will need at this point is to have the router plugged into the power connection, and have the router plugged into your PC, the Internet connection is not needed to configure it. In the picture below, the connections labeled 1-4 are for your PC's, TiVO, Playstation, Xbox

and whatever else you have that uses the Internet. The other connection is for the wall Ethernet outlet (which is your Internet connection). Nothing can make a mess of things like a router plugged in backwards, so please pay attention and save the Internet connection for last!

Print this out and circle or write in the information as you go along to have a written record of how to access your router and/or wireless connection.

Question: How can I password protect my wireless router to ensure my neighbors can't mess with my router's settings?

Answer: Follow these simple steps and you'll be one-step closer to locking down your router. Once the router is password protected, it doesn't mean the device is secure, it just means noone can easily change the settings.

1. Open your router's configuration web page. Some vendors ship a CD with the router and the setup program does only one thing, it takes you to the router configuration page. That router configuration page is not on the Internet, the router has its own little mini-web server built in so you can make changes to it (like to secure it) without installing any software. The URL (web page location) for the router varies across router vendors, so if the first one doesn't work, try the others or look up this information in your router's manual. Open a web browser, as some routers behave differently with different browsers, we suggest using Internet Explorer if you have it when configuring a Linksys router (we think it's nonsense that they did this, but then again, they are a household name).

<http://192.168.1.1> or <http://192.168.0.1> or <http://192.168.2.1>

\* A hint about connecting to your router. You can download this program for Windows PC's and install it. Run it when you are connected to the router and the default gateway IP address (number) is your router connection address. With a MAC, go to the MAC MENU, System Preferences, click Network and look at the router address on your screen.

2. Enter your router's username and password in the login screen as seen below. Again, the username and password varies by router, so either look this up in your router manual or try one of the options below:

- Usernames: admin, root, or leave blank
- Passwords: admin or leave blank

(linksys routers typically have no username and a default password of admin)

3. After you're logged in to your router's configuration web page, it's time change the password to prevent the average Joe from typing in admin to access your router! It's also a good idea to bookmark this page or add it to favorites so you don't have to remember your router's IP address.

4. Navigate to the Administration area

5. Look for a section related to router password as shown below:

5a. **BELKIN ROUTER OWNERS:** Some newer models of Belkin routers have an ISP list built-into them. We do not have proprietary settings, so just choose "Dynamic", it will work fine.

6. Type your new password in the router password field (be sure to write it down or remember it!)

My router password is: \_\_\_\_\_

Once you have successfully connected to your router, circle the IP address above or write it in the space provided for your records: \_\_\_\_\_

7. Click Save Settings. It's also a good idea to boomark the router in your web browser so you can get to it easily again.

If you do not have a wireless router, you're finished.

{mospagebreak title=Secure the wireless connection!}

Part Two Question: How do I keep people in my very close proximity from using my wireless router?

Answer: Follow these simple steps and you'll be one more step closer to locking down your router. Once the wireless connection is encrypted, it means no one can connect to your wireless network without the encryption key, so be careful who you give it to..

1. Navigate to the Wireless section (some routers this is found in the security section instead of under wireless). If you do not need the wireless function of the router, turn it off and save the settings. If you need the wireless capability, go to the next step.

2. Navigate to the Wireless Security sub-section

3. Choose WEP in the Security Mode dropdown, then choose 64 bits under WEP Encryption. We chose 64 bit because the encryption key will only be 10 characters long. While 128 bit encryption is better, the resulting key is 26 characters long, and people routinely make mistakes entering this long string of information in. We're just trying to keep it simple. We also chose not to include information on WPA and other methods, as it is necessary to make sure your computer supports it. Our goal is to give you the simplest, quickest way to accomplish this task, and in a manner that works for the majority of people.

4. Type in some nonsense (or a long phrase without spaces) in the passphrase box, then click the "Generate" button.

Copy down the information in the box labeled Key "1". Accuracy COUNTS, and remember a ZERO (0) is not the same as the letter "O". Alternately, you can enter a 10 digit key without the automatic passphrase generation so you can control the characters being entered. The only valid characters are 0-9 and a-f (no uppercase characters). An example would be "a977b27c50" (without the quotes).

My WEP Key: \_\_\_\_\_

5. Click Save Settings

6. Now navigate to the Wireless area.

7. Enter what name you want for your wireless network and click Save Settings.

My Wireless network is named: \_\_\_\_\_

To ensure you can still connect to your network, go to your wireless network settings on your PC, find your network and click Connect, and enter the WEP key entered above.

{mospagebreak title=Hide your wireless network name (Optional)}

Part Three (optional)

1. After you've confirmed you can connect to the wireless router via the wireless connection, you have the option to not "show" this information to anyone else with a wireless card in their PC.

2. Navigate to the Wireless area.

3. Select the Disable SSID Broadcast button shown below:

4. Click Save Settings.

Now plug in your router to its Internet connection (the WAN or INTERNET connection on the router) to our Ethernet outlet on your wall. Turn the power off on your router and wait thirty (30) seconds and power it back on. Give it at least 1-2 minutes before trying to connect to the Internet.

That's it! Hopefully this helps you in your quest to secure your router.