

**Model: SMCWBR14-G2**

**Topic: Wireless Encryption Setting**

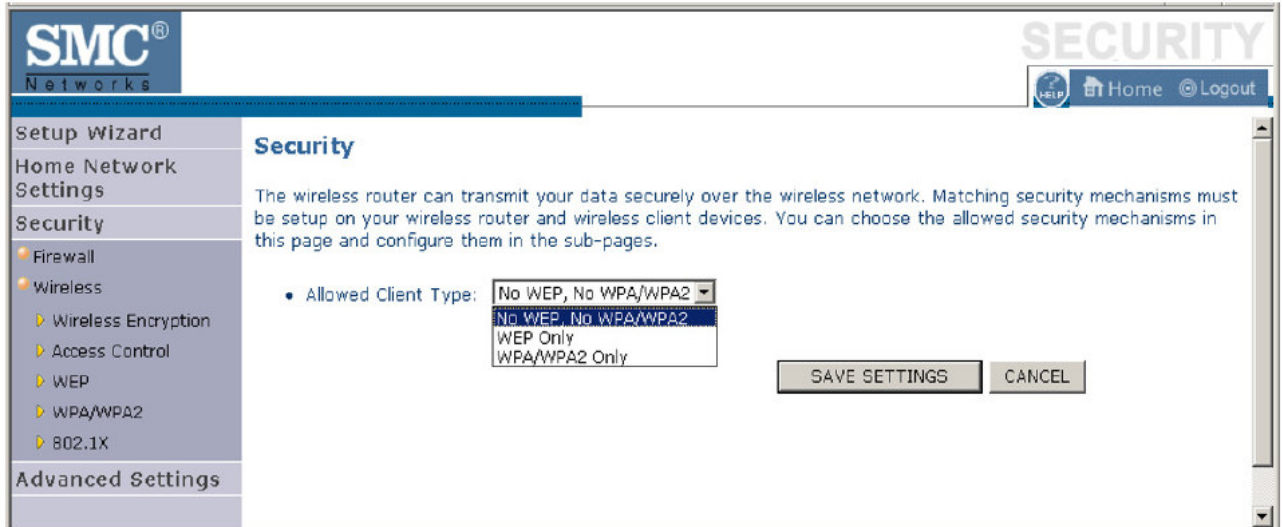
**Configuration** – Set the Wireless Encryption setting through the router's web based configuration via an Internet Explorer (IE)

**It is highly recommended to configure the Wireless Encryption by wired connection.**

- a. **Enter Barricade's default IP – 192.168.2.1** in Internet Explorer to access configuration page
- b. You will be greeted with a login screen, enter **smcadmin** as password. Click **LOGIN**
- c. Please go to **Security → Wireless**  
Please make sure that the **Wireless Module** is **Enable**

The screenshot shows the SMC Networks web interface. The top left corner features the SMC Networks logo. The top right corner has a 'SECURITY' header and a 'Home' button. The left sidebar contains a navigation menu with the following items: Setup Wizard, Home Network Settings, Security (highlighted), Firewall, Wireless (highlighted), Wireless Encryption, Access Control, WEP, WPA/WPA2, and 802.1X. Below the Security menu, the 'Advanced Settings' section is visible. The main content area is titled 'Wireless Settings' and contains the following text: 'The wireless router can be quickly configured for roaming clients by setting the service set identifier Wireless Netw Name(SSID) and channel number. It also supports data encryption and client filtering.' Below this text, there is a label 'Enable or disable Wireless module function :' followed by two radio buttons: 'Enable' (which is selected and highlighted with a red box) and 'Disable'. A 'SAVE SETTINGS' button is located at the bottom right of the page.

- d. Please go to **Wireless Encryption** which under Security – Wireless  
There are two Wireless Encryption modes to choose: **WEP Only & WPA/WPA2 Only**



***If you are transmitting sensitive data across wireless channels, you should enable Wi-Fi Protected Access (WPA) or Wired Equivalent Privacy (WEP) encryption. Encryption security requires you to use the same protocol set (WPA or WEP) and encryption/decryption keys for the Wireless Barricade and all of your wireless clients.***

***The security mechanisms that may be employed depend on the level of security required, the network and management resources available, and the software support provided on wireless clients. A summary of wireless security considerations is listed in the following table.***

Security Mechanism	Client Support	Implementation Considerations
WEP	Built-in support on all 802.11b and 802.11g devices	<ul style="list-style-type: none"> <li>Provides only weak security</li> <li>Requires manual key management</li> </ul>
WPA mode	Requires WPA-enabled system and network card driver (native support provided in Windows XP)	<ul style="list-style-type: none"> <li>Provides good security in small networks</li> <li>Requires configured RADIUS server, or manual management of pre-shared key</li> </ul>
	<i>802.1x mode</i> Requires WPA-enabled system and network card driver (native support provided in Windows XP)	<ul style="list-style-type: none"> <li>Provides robust security in WPA-only mode (i.e., WPA clients only)</li> <li>Requires configured RADIUS server</li> <li>802.1x Extensible Authentication Protocol (EAP) type may require management of digital certificates for clients and server</li> </ul>

## WEP Section

This section will guide on how to setup using the WEP encryption which is less secured than WPA mode. You need to make sure your Wireless Utility able to support WPA mode. If you want to choose WPA mode, please skip this section and proceed to WPA section.

- a. Please go to **WEP** which under **Security – Wireless**
- b. Please choose either **64bit** or **128bit** encryption
  - **64bit** encryption required **10 Hexadecimal keys**
  - **128bit** encryption required **26 Hexadecimal keys**.
  - **Hexadecimal** is from 0-9 & a-f

For example:

64bit encryption: 01234567890

128bit encryption: 01234567890abcdef0123456789

**WEP**

WEP is the basic mechanism to transmit your data securely over the wireless network. Matching encryption keys must be setup on your wireless router and wireless client devices to use WEP.

WEP Mode  64-bit  128-bit

Key Entry Method  Hex  ASCII

Key Provisioning  Static  Dynamic

**Static WEP Key Setting**

10/26 hex digits for 64-WEP/128-WEP

Default Key ID

Passphrase  (1~32 characters)

Key 1

Key 2

Key 3

Key 4

- c. Please choose **Hex** for Key Entry Method  
Please choose **Static** for Key Provisioning  
Please choose **1** for the Default Key ID
- d. Please key in **Hex key** into the Key 1 box accordingly base on the 64bit/128bit requirement.
- e. Click Save Settings to apply the configuration.

f. Please go to **Wireless Encryption** which under **Wireless**

The screenshot shows the SMC Networks web interface. The left sidebar contains a navigation menu with the following items: Setup Wizard, Home Network Settings, Security (highlighted), Firewall, Wireless, Wireless Encryption (highlighted with a red box), Access Control, WEP, WPA/WPA2, and 802.1X. The main content area is titled 'Security' and contains the following text: 'The wireless router can transmit your data securely over the wireless network. Matching security mechanisms must be setup on your wireless router and wireless client devices. You can choose the allowed security mechanisms in this page and configure them in the sub-pages.' Below this text is a list item 'Allowed Client Type:' followed by a dropdown menu. The dropdown menu is open, showing four options: 'WEP Only' (highlighted with a red box), 'No WEP, No WPA/WPA2', 'WEP Only', and 'WPA/WPA2 Only'. To the right of the dropdown menu is a 'SAVE SETTINGS' button (highlighted with a red box) and a 'Cancel' button.

g. Please make sure **WEP only** is selected under the Allow Client Type

**Please remind that you need to key in the same encryption key for the wireless client as well**

- Please scan the available wireless network
- Select your wireless network and connect to it
- It will prompt for encryption key and please enter the same encryption key

h. **WEP** successfully configured.

## WPA/WPA2 Section

This section will guide on how to setup using the WPA. You need to make sure your Wireless Utility able to support WPA mode. If you using Windows XP built –in Utility (Wireless Zero Configuration) to control the wireless card, please confirm that there is at least SP2 installed in your computer.

- a. Please go to **WPA/WPA2** which under **Security – Wireless**
- b. Please select **TKIP+AES (WPA/WPA2)**  
Please choose **Pre-shared key**  
Please key in the passphrase in the Pre-shared key. It required at least **8 characters** and up to **63 characters**.

**Setup Wizard**  
**Home Network Settings**  
**Security**  
Firewall  
Wireless  
Wireless Encryption  
Access Control  
WEP  
WPA/WPA2  
802.1X  
**Advanced Settings**

### WPA/WPA2

WPA/WPA2 is a security enhancement that strongly increases the level of data protection and access control for an existing wireless LAN. Matching authentication and encryption methods must be setup on your wireless router and wireless client devices to use WPA/WPA2.

Cipher suite	TKIP+AES (WPA/WPA2)
Authentication	<input type="radio"/> 802.1X <input checked="" type="radio"/> Pre-shared Key
Pre-shared key type	<input checked="" type="radio"/> Passphrase (8~63 characters) <input type="radio"/> Hex (64 digits)
Pre-shared Key	<input type="text"/>
Group Key Re_keying	<input checked="" type="radio"/> Per 1800 Seconds <input type="radio"/> Per 1000 K Packets <input type="radio"/> Disable

SAVE SETTINGS CANCEL

- c. Click **Save Settings** to apply the setting.
- d. Please go to **Wireless Encryption** which under **wireless**

**Networks** | HELP | Home

### Setup Wizard

### Home Network Settings

### Security

Firewall  
Wireless  
Wireless Encryption  
Access Control  
WEP  
WPA/WPA2  
802.1X  
**Advanced Settings**

### Security

The wireless router can transmit your data securely over the wireless network. Matching security mechanisms must be setup on your wireless router and wireless client devices. You can choose the allowed security mechanisms in this page and configure them in the sub-pages.

- Allowed Client Type: WEP Only  
No WEP, No WPA/WPA2  
WEP Only  
WPA/WPA2 Only

SAVE SETTINGS CANCEL

- e. Please choose **WPA/WPA2 Only** for Allowed Client Type
- f. Please click **Save Settings** to apply the setting

**Please remind that you need to key in the same encryption key for the wireless client as well**

- Please scan the available wireless network
- Select your wireless network and connect to it
- It will prompt for encryption key and please enter the same encryption key

- g. WPA successfully configured.