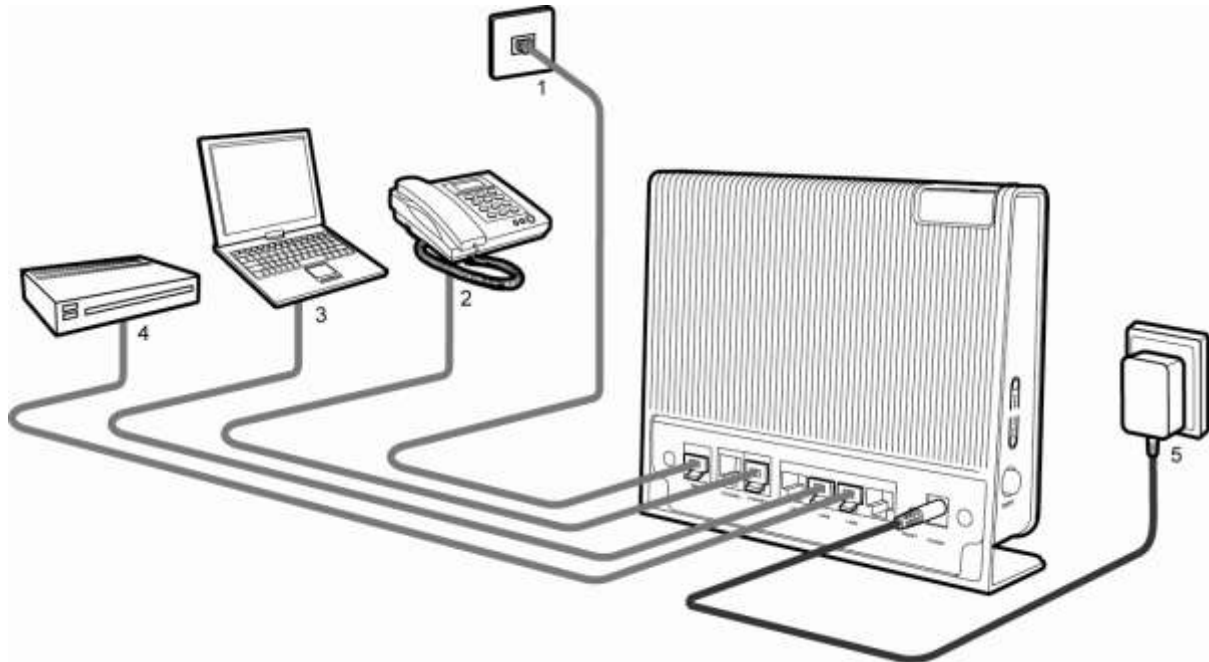


Installation Guide

The figure as below shows the cable connections.



1 - Network jack on the wall

2 - Phone

3 - PC

4 - Set-top box

5 - Power adapter

To connect the cables for installing the HG256s, do as follows:

Step 1 - Connect the WAN interface on the rear panel of the HG256s to the network jack with a network cable.

Step 2 - Connect a telephone to the PHONE1 or PHONE2 interface of the HG256s with a telephone cable.

Step 3 - Connect Ethernet interface on the computer to any of the four LAN interfaces on the rear panel of HG256s with a network cable.


Step 4 - Connect the power adapter to the power interface on the rear panel of the HG256s and plug the power adapter into a wall outlet.

3.4 Logging In to the Web-Based Configuration Utility

The HG256s provides an easy-to-use Web-based configuration utility. You can view and set the parameters of the HG256s through this utility.

To log in to the Web-based configuration utility, do as follows:

Step 1 Set the network connection of your PC and ensure that your PC obtains an IP address automatically.

 **TIP** By default, the DHCP function of the HG256s is enabled. In this case, the HG256s assigns an IP address to your PC automatically and you do not need to configure the IP address of your PC.

Step 2 Start the Internet Explorer on your PC and ensure that the Internet Explorer does not use any proxy server.

Take the Internet Explorer 6.0 as an example. To ensure that the Internet Explorer does not use any proxy server, do as follows:

1. Start the Internet Explorer. Choose **Tools > Internet Options**.
2. On the **Connect** tab of the **Internet Options** dialog box, click **LAN Settings**.
3. In the **Proxy Server** area, ensure that **Use the proxy server for LAN** is cleared. If **Use the proxy server for LAN** is selected, clear **Use the proxy server for LAN**, and then click **OK**.

Step 3 In the address bar of the Internet Explorer, enter **http://192.168.1.1**, and then press **Enter**.

Step 4 In the **Login** dialog box, enter the user account (**admin** by default) and the password (**admin** by default), and then click **OK**.

4.1 Setting Up a Wireless Connection Manually

To configure the wireless network connection through the web page, do as follows:

Step 1 - Record the WLAN name and the WLAN access password.

The WLAN name (SSID) and WLAN access password of the HG256s are preset before delivery. You can find them from the label on the rear panel of the HG256s or consult the Internet Service Provider (ISP).

Step 2 - Configure the wireless network connection on your computer (taking the Windows XP operating system as an example):

1. Choose **Start > All Programs > Accessories > Communications > Network Connections**.
2. In the Network Connections window, right-click Wireless Network Connection to display a shortcut menu, and then select **View Available Wireless Networks** from the shortcut menu.
3. Select the wireless network that is configured in Step 1 from the wireless network list, and then click **Connect** in the lower right corner of the window.
4. In the displayed dialog box, enter the access password that is preset in Step 1, and then click **Connect**.

After the password is verified, **Connected** appears on the icon of the wireless network in the wireless network list, which indicates that your computer is connected to the HG256s through wireless connection.

6.2.2 Changing the Name of a WLAN

Function Overview

If the HG256s has hidden the SSID of a WLAN, you need to enter the SSID of the WLAN manually when you use a PC to access the WLAN. If you enter a wrong SSID, the PC cannot connect to the WLAN. Therefore, the security of the WLAN can be improved if the SSID is difficult to be predicted.

An SSID consists of 1–32 American Standard Code for Information Interchange (ASCII) characters. When the HG256s is delivered, the SSID is preset. You can find this preset SSID on the label on the rear panel of the HG256s. In addition, the HG256s supports the change of the SSID. You can change the SSID as required.

Configuration Example

If your current SSID index is **SSID1** and if you have used this SSID for a certain period, to change this SSID to **MyNewSSID**, do as follows:

Step 1 Log in to the Web-based configuration utility.

Step 2 In the navigation tree, choose **Basic > WLAN**.
The WLAN configuration page is displayed.

Step 3 Select **SSID1** for **SSID Index**.

Step 4 In **SSID**, enter **MyNewSSID**.

Step 5 Click **Submit**.

6.2.3 Using Secure Encryption

Function Overview

To ensure the security of a WLAN, an important solution is to select an optimum security mode for the WLAN. After this security mode is used, a wireless client should provide the corresponding password when connecting to the WLAN and data is being transmitted after secure encryption. Thus, only authorized persons can use the WLAN and the data transmitted on the WLAN is protected against unauthorized access.

The HG256s supports WEP encryption and multiple security modes, such as WPA-PSK and WPA2-PSK, thus meeting security requirements in diversified network environments.

It is recommended that you set the security mode to **WPA-PSK/WPA2-PSK** and the encryption mode to **AES**. Thus, the WLAN works efficiently and the security of the WLAN is ensured. In addition, if a wireless adapter does not support a certain security mode, it cannot be connected to the WLAN in this security mode. If you use the recommended security and encryption modes, this problem can be avoided.

- ⊙ The WPS function can be used only when the security mode is set to **WPA-PSK** or **WPA2-PSK**.
- ⊙ AES = Advanced Encryption Standard

Table 6-1 lists the rules for setting the password used for accessing a WLAN in different security modes.

Rules for setting the password used for accessing a WLAN

Security Mode	Password Setting Rule
WEP encryption	<ul style="list-style-type: none">⊙ It uses 64-bit encryption (also referred to as 40-bit encryption). The password consists of five visible ASCII characters entered through a keyboard or 10 hexadecimal characters.⊙ It uses 128-bit encryption (also referred to as 104-bit encryption). The password consists of 13 visible ASCII characters entered through a keyboard or 26 hexadecimal characters.
WPA-PSK or WPA2-PSK	The password consists of 8–63 visible ASCII characters entered through a keyboard or 64 hexadecimal characters.

Configuration Example

If you use the HG256s at home, to select an optimum security mode, plan the parameters as follows:

- ⊙ Set the security mode to **WPA-PSK/WPA2-PSK**.
- ⊙ Set the encryption mode to **AES**.
- ⊙ Set the password used for accessing the WLAN to **MyPassword@2010**.

To set the preceding parameters, do as follows:

Step 1 Log in to the Web-based configuration utility.

Step 2 In the navigation tree, choose **Basic > WLAN**.
The WLAN configuration page is displayed.

Step 3 Select **WPA-PSK/WPA2-PSK** for **Security Mode**.

Step 4 In **WPA Pre-Shared Key**, enter **MyPassword@2010**.

Step 5 Select **AES** for **WPA Encryption**.

Step 6 Click **Submit**.



NOTE After the password used for accessing a WLAN is changed, you need to enter the new password when connecting a PC to the WLAN

6.2.4 Allowing Only Specified PCs to Be Connected to a WLAN

Function Overview

After the SSID is hidden and an optimum security mode is used, your WLAN is in a secure state. You can prohibit certain PCs from being connected to the WLAN or allow only specified PCs to be connected to the WLAN, thus preventing unauthorized users from accessing the WLAN.

Through the wireless MAC filtering function of the HG256s, the preceding functions can be used after you enter the MAC addresses of the PCs to be controlled.

The wireless MAC filtering function can be implemented in the following modes:

- ⊙ **Blacklist:** The PCs whose MAC addresses are listed in the filtering list are prohibited from being connected to the WLAN.
- ⊙ **Whitelist:** The PCs whose MAC addresses are listed in the filtering list are allowed to be connected to the WLAN.

You can select either of the preceding modes for the wireless MAC filtering function.



NOTE The wireless MAC filtering function controls the option of allowing a PC to be connected to the HG256s through a WLAN. The MAC address filtering function described in section 6.4 "Controlling the Internet Access Rights of PCs" controls the option of allowing a PC connected to the HG256s to access the Internet.



TIP You can set the maximum number of the devices that are allowed to be connected to a WLAN, thus increasing the security of the WLAN. This maximum number ranges from 1 to 32. For example, you have only one laptop that needs to be connected to the WLAN. You can set this maximum number to 1. After your laptop is connected to the WLAN, other PCs cannot be connected to the WLAN.

Configuration Example

For example, you have a desktop computer and a laptop at home. The SSID of your WLAN is **MyNewSSID**. The desktop computer is connected to the HG256s through a network cable. A wireless network adapter is installed on the laptop. To allow only the laptop to be connected to the WLAN and prohibit other unauthorized users from accessing the WLAN, you can use the whitelist mode of the wireless MAC filtering function. To create a whitelist and allow only your laptop to be connected to the WLAN, do as follows:

Step 1 View and record the MAC address of the laptop.

Take the Windows XP operating system as an example. To view the MAC address of a PC, do as follows:

1. Choose **Start > Run**.

2. In **Open**, enter **cmd**. Then press **Enter**.

3. In the displayed command line window, enter **ipconfig/all**. Then press **Enter**. Multiple lines of information is displayed. You can find a line of information that is similar to **Physical Address. : 00-11-09-11-04-DD. 00-11-09-11-04-DD** is the MAC address of the PC.

Step 2 Log in to the Web-based configuration utility.

Step 3 In the navigation tree, choose **Basic > WLAN**.

The WLAN configuration page is displayed.

Step 4 Click **WLAN Filtering**.

Step 5 Select **Enable**.

Step 6 Select **Whitelist**.

Step 7 Click .

Step 8 Select **MyNewSSID** for **Select SSID**.

Step 9 In **Source MAC address**, enter the MAC address of the laptop.

For example, the MAC address can be **00:11:09:11:04:DD**.

The format of the MAC address entered in **Source MAC address** is different from that of the MAC address displayed in the command line window of a Windows XP operating system. The colons (:) replace the hyphens (-).

Step 10 Click **Submit**.