

GEMTEK HomePlug Wireless Access Point User Guide

Introduction

The GEMTEK WHAPC-100GE Home Plug + Wireless 11g Access Point is like 2 devices in one box! The Home-Plug Wireless AP functions lets you to securely expand the range of your local area network, while Home-Plug utilizes the electric cord as the transfer media, the 11G utilizes the electric wave.

The GEMTEK WHAPC-100GE Home Plug + Wireless 11g Access Point offers a convenient way to create a simple network through the existing power line of a home or office with the additional ability to provide you with access to your network without wires. Offering several levels of security, the WHAPC-100GE is built with 128-bit WEP encryption and 802.11i (WPA / TKIP, AES, PSK) for the wireless pass-through and 56-bit DES encryption for the Power line pass-through There are also some Enhanced Security Management Functions: Wireless/Wired 802.1x, and Embedded RADIUS Server



Important Safety Information

This product is intended for connection to the AC power. The following precautions should be taken when using this product.

- Read all instructions before installing and operating this product.
- Follow all warnings and instructions marked on the product.
- Do not operate this product near water.
- This product relies on a building's electrical installation for short-circuit (over current) protection.
- Do not allow anything to rest on the product.
- The HomePlug Wireless Access Point should be plugged directly into an

AC wall outlet.

- Only a qualified technician should service this product. Opening or removing covers may result in exposure to dangerous voltage points or other risks. (Note: Opening or removing the covers will void your product warranty).
- Unplug the HomePlug Wireless Access Point from the AC wall outlet and refer the product to a qualified service representative for the following conditions:
 - If liquid has been spilled onto the product.
 - If the product has been exposed to rain or water.
 - If the product does not operate normally when the operating instructions have been followed.
 - If the product exhibits a distinct change in performance.

Getting start with your HomePlug Device

Before installing your HomePlug networking device, please examine and familiarize yourself with it. Below is a diagram of the WHAPC-100GE along with a brief description of what each LED and slot represent.



<u>LED</u>	<u>LED STATUS</u>	<u>INDICATION</u>
Collisions (COL)	Blinking OFF	Collisions Detected No Collisions Detected
Activity (ACT)	Blinking Fast Blinking OFF	Looking for Powerline Devices Transmit/receive data No Network Traffic
Power	ON Off	Power On Power Off
WLAN	ON Blinking	Wireless Connection Transmitting/Receiving wireless data traffic

What This Package Contains?

Upon you receive your wireless access point, please check that the following contents are packaged:

- HomePlug Wireless Access Point (WHAPC-100GE)
- Quick Install Guide

Necessary Equipment?

- One or more computers with wireless device, and it's software already installed
- Microsoft TCP/IP networking protocol installed on each PC
- Web browser installed on each PC

Equipment that can be used with the WHAPC-100GE?

- Broadband modem
- ALL1681 Broadband router
- Additional PCs with a wireless or HomePlug Device

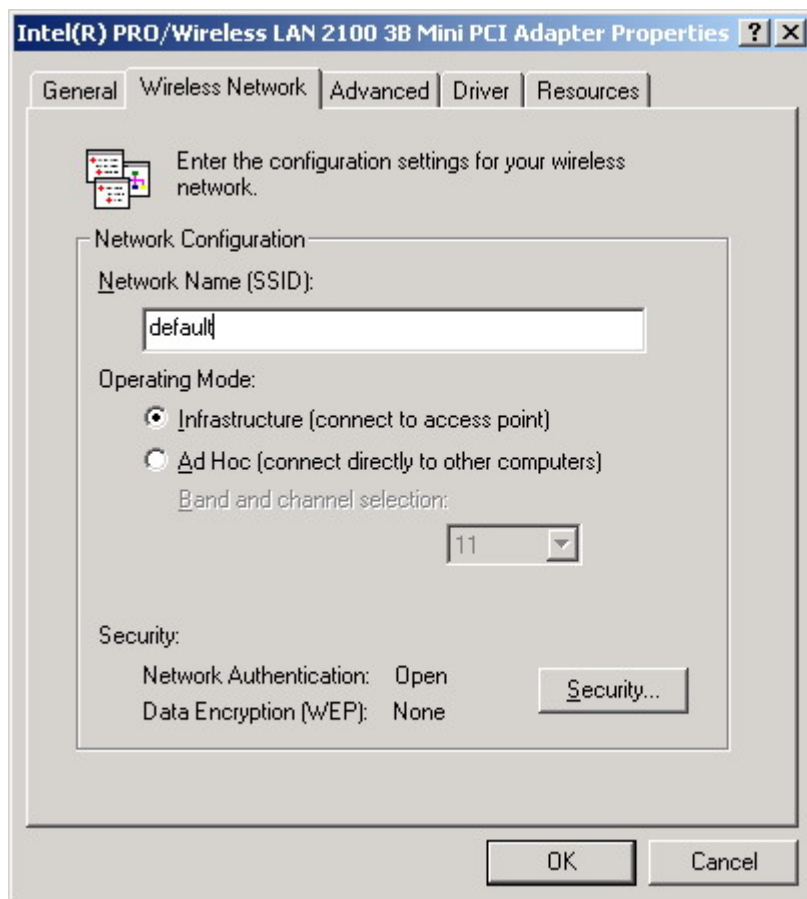
Important: After receiving the wireless access point, please check for any shipping damages to the carton and camera before proceeding with any installations.

PC or Laptop Setup Guide

Note: If you have not installed your Wireless device to your laptop So far, please do so. For instructions on how to install your Wireless device, please contact the manufacturer of that wireless device.

To configure the Wireless device to work with your WHAPC-100GE, please follow the following steps:

1. Plug WHAPC-100GE into an outlet.
2. Go to the wireless card's configuration screen or window. It should resemble figure 1 or others.



PC or Laptop Setup Guide

Note: If you have not installed your Wireless device to your laptop So far, please do so. For instructions on how to install your Wireless device, please contact the manufacturer of that wireless device.

To configure the Wireless device to work with your WHAPC-100GE, please follow the following steps:

1. Plug WHAPC-100GE into an outlet.
2. Go to the wireless card's configuration screen or window. It should resemble figure 1 or others.
3. Make sure Infrastructure is selected.
4. In the SSID field, type in the following: default (This is case sensitive)
5. Make sure Fully Automatic is selected.
6. Click OK to exit the configuration window.

Note: If you are using Win XP you will not need to configure the PCMCIA card because XP has an auto sense function included in the operating system.

WHAPC-100GE Setup Guide

You will need to temporarily change the IP address of your PC/laptop to setup your WHAPC-100GE. Follow these steps

depending on your operating system.

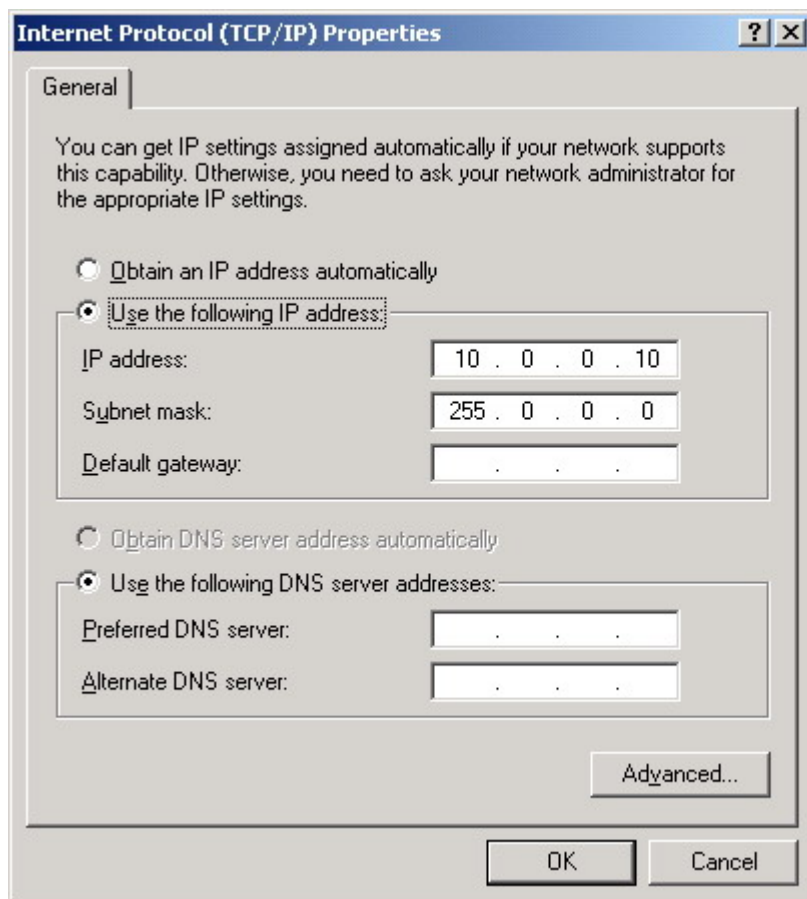
Note: If you have not changed the default HomePlug password (HomePlug) or you get the same subnet (10.0.0.1/16) on your network then there is no need to continue this setup.

Windows 98 SE / ME

1. Click on Start, then Settings, and then Control Panel.
2. Double click on the Network icon.
3. Select the TCP/IP Protocol entry.
4. Click on the Properties button.
5. Select the IP Address tab.
6. Select Specify an IP address.
7. Type in the following address: 10.0.0.10.
8. For the Subnet Mask, type: 255.255.255.0.
9. Click OK to close the TCP/IP properties panel.
10. Click OK to close the Network panel.
11. Restart the PC

Windows 2000 / XP

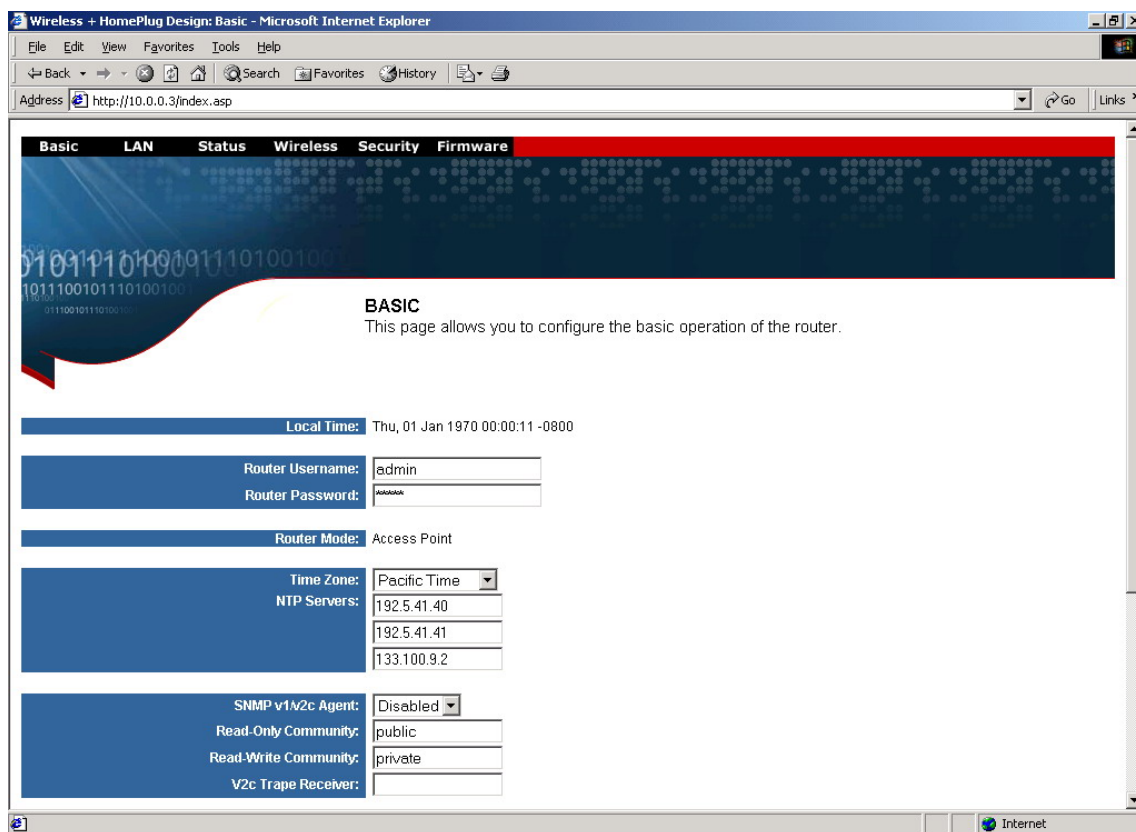
1. Open Network Connections.
 - Win 2000: Click on Start, Settings, then Network, and Dial-up Connections.
 - Win XP: Click on Start, Connect To, then Show All Connections.
2. Right click on Local Area Connection and then select Properties.
3. Select Internet Protocol (TCP/IP) and then click on Properties.
4. Click on Use the following IP address.
5. Type in the following IP address: 10.0.0.10.
6. For the Subnet Mask, type: 255.255.255.0.
7. Click OK to close the TCP/IP properties panel.
8. Click OK to close the Network panel and the changes will take effect when this panel is closed.



1. Open a web browser and type in the following address:
10.0.0.1.
2. A login screen should appear. Type the login name: admin and the password: admin.



3. The basic information screen should now appear in the browser window.



4. Click on the Powerline Tab.

5. The default HomePlug password is HomePlug. If your existing HomePlug password is different, change this password accordingly.

Setting up the IP address on the WHAPC-100GE

1. Click on the LAN Tab.

2. The default IP address of WHAPC-100GE is 10.0.0.1. You can change this IP address to matches your network configuration (Example: 192.168.1.10)

3. You can change the Subnet mask and Gateway values as well.

At this point, you will need to change the PCs IP address back to it's original settings. Follow these steps depending on your operating system.

Windows 98 SE / ME

1. Click on Start, then Settings, and then Control Panel.

2. Double click on the Network icon.

3. Select the TCP/IP Protocol entry.

4. Click on the Properties button.

5. Select the IP Address tab.

6. Select Obtain an IP Address Automatically.

7. Click OK to close the TCP/IP properties panel.

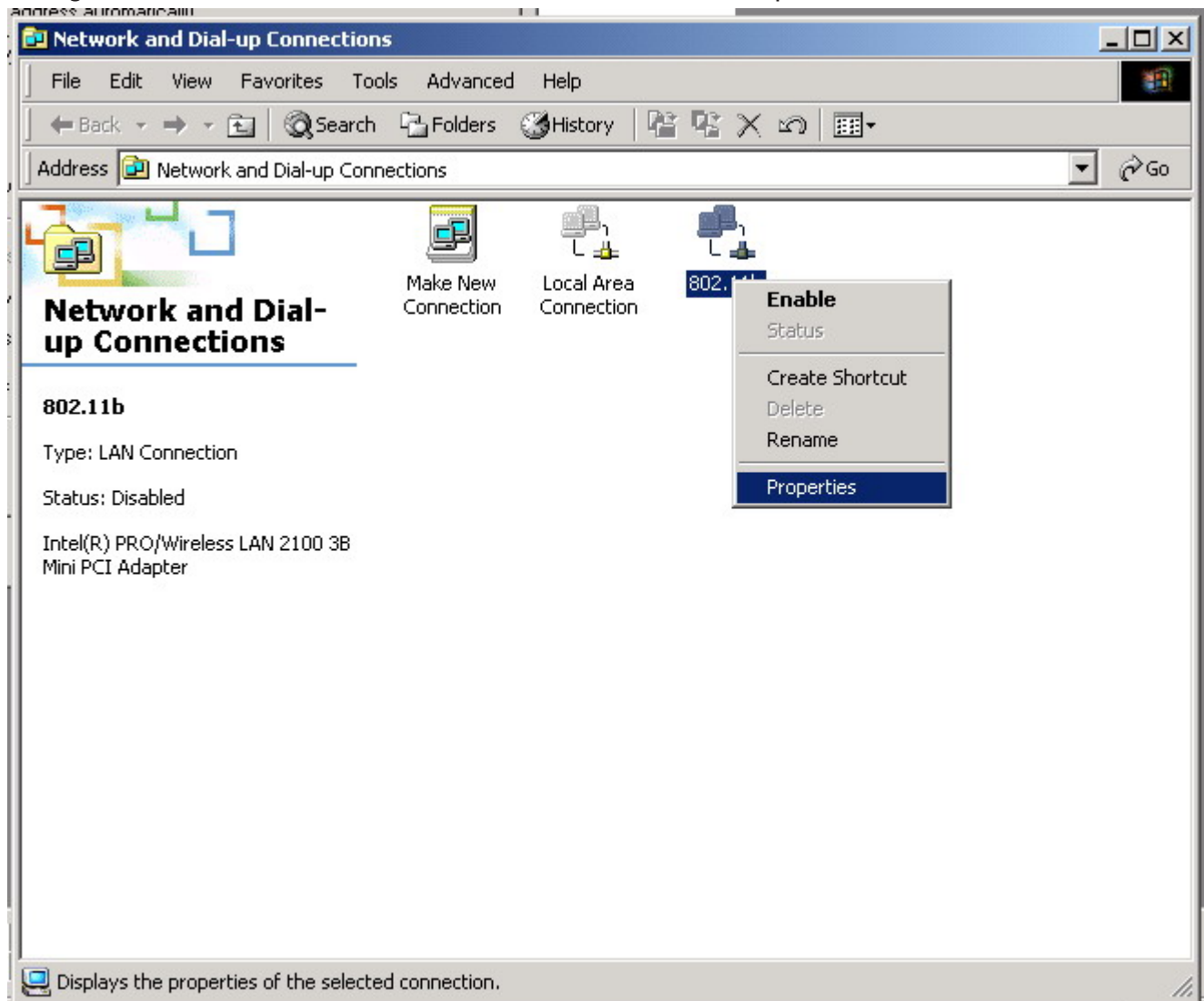
8. Click OK to close the Network panel.

9. Restart the PC.

Windows 2000 / XP

1. Open Network Connections.

- Win 2000: Click on Start, Settings, then Network and Dial-up Connections.
 - Win XP: Click on Start, Connect To, then Show All Connections.
2. Right click on Local Area Connection and then select Properties.



3. Select Internet Protocol (TCP/IP) and then click on Properties.
4. Select Obtain an IP Address Automatically and Obtain a DNS server automatically.
5. Click OK to close the TCP/IP properties panel.
6. Click OK to close the Network panel.

The changes will take a few minutes.

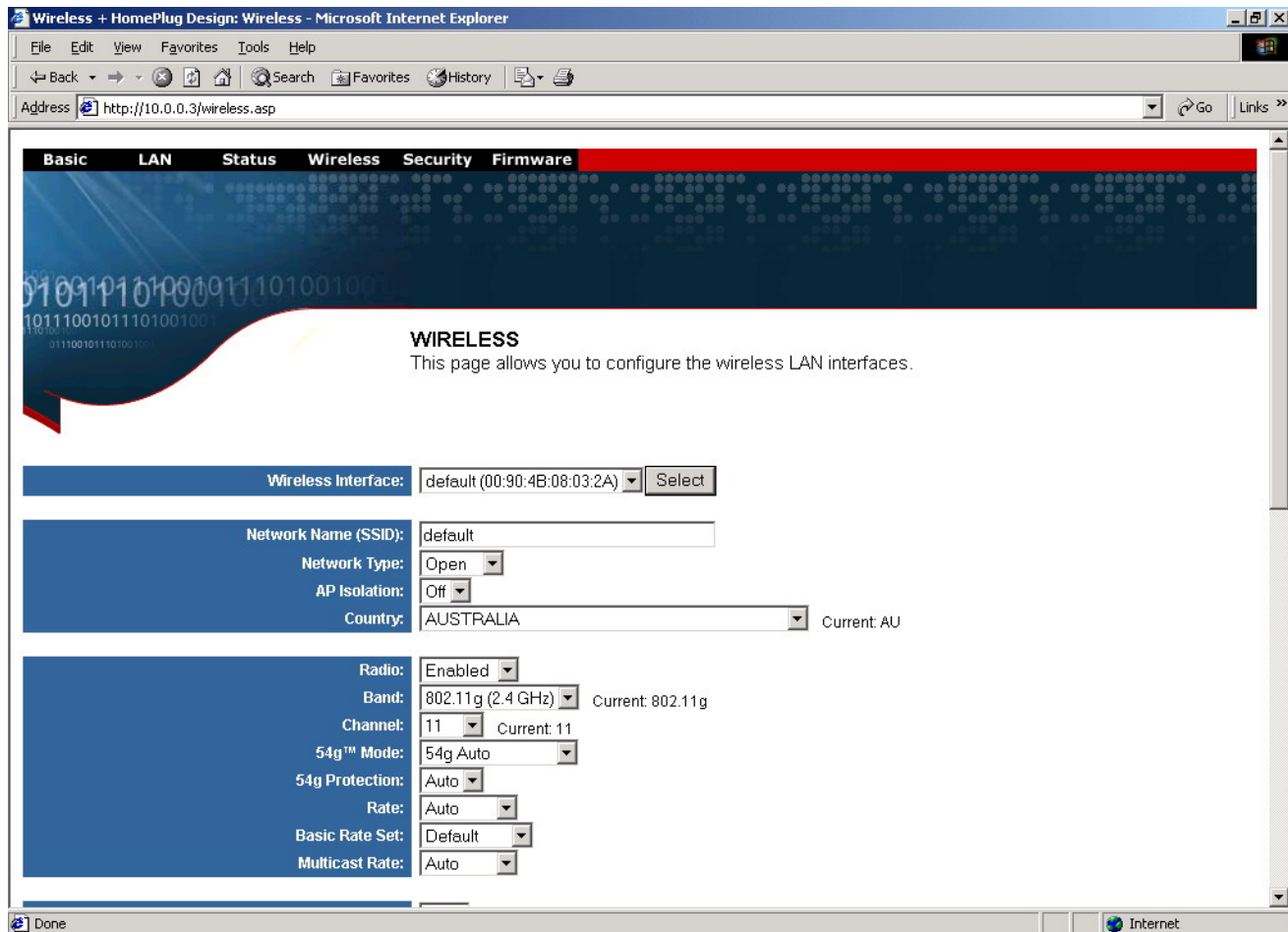
Open a new web browser and type in the new IP address of WHAPC-100GE to ensure the changes worked.

Other Features

Wireless Tab

- Change the value for the SSID (Note: If you change the value here, you will also need to change the value on each PC.)
- Change the Country where you are
- Change the Band

- Change the Channel
- Change the transmission Mode
- Change the Transmission Mb rates
- Change the Multicast rates
- Enable XPress Technology
- Enable Afterburner Technology
- Change WDS Operation Mode (Note: It depend on you network environment)
- Enable MAC Restrict Mode (Note: Type the MAC address of devices you want to restrict here)



Security Tab

Here you can adjust the following:

- Setup the information of External/ Internal RADIUS Server
- Enable Wired 802.1x
- Open the Network Authentication
- Enable WEP Encryption
- Setup WPA Pre-Shared Keys

Wireless + HomePlug Design: Security - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites History

Address <http://10.0.0.3/security.asp> Go Links

Basic LAN Status Wireless Security Firmware

SECURITY

This page allows you to configure security for the wireless LAN interfaces.

RADIUS Server Type:	External RADIUS Server
RADIUS Server IP Address:	
RADIUS Port:	
RADIUS Key:	

RADIUS Server Type:	Internal Embedded RADIUS Server(EAP-MD5 for Authorization Only)
Embedded RADIUS Server:	Disabled
Embedded RADIUS IP Address:	10.0.0.3
Embedded RADIUS Port:	1812
RADIUS Key:	mradius1218
Embedded RADIUS Username:	admin
Embedded RADIUS Password:	

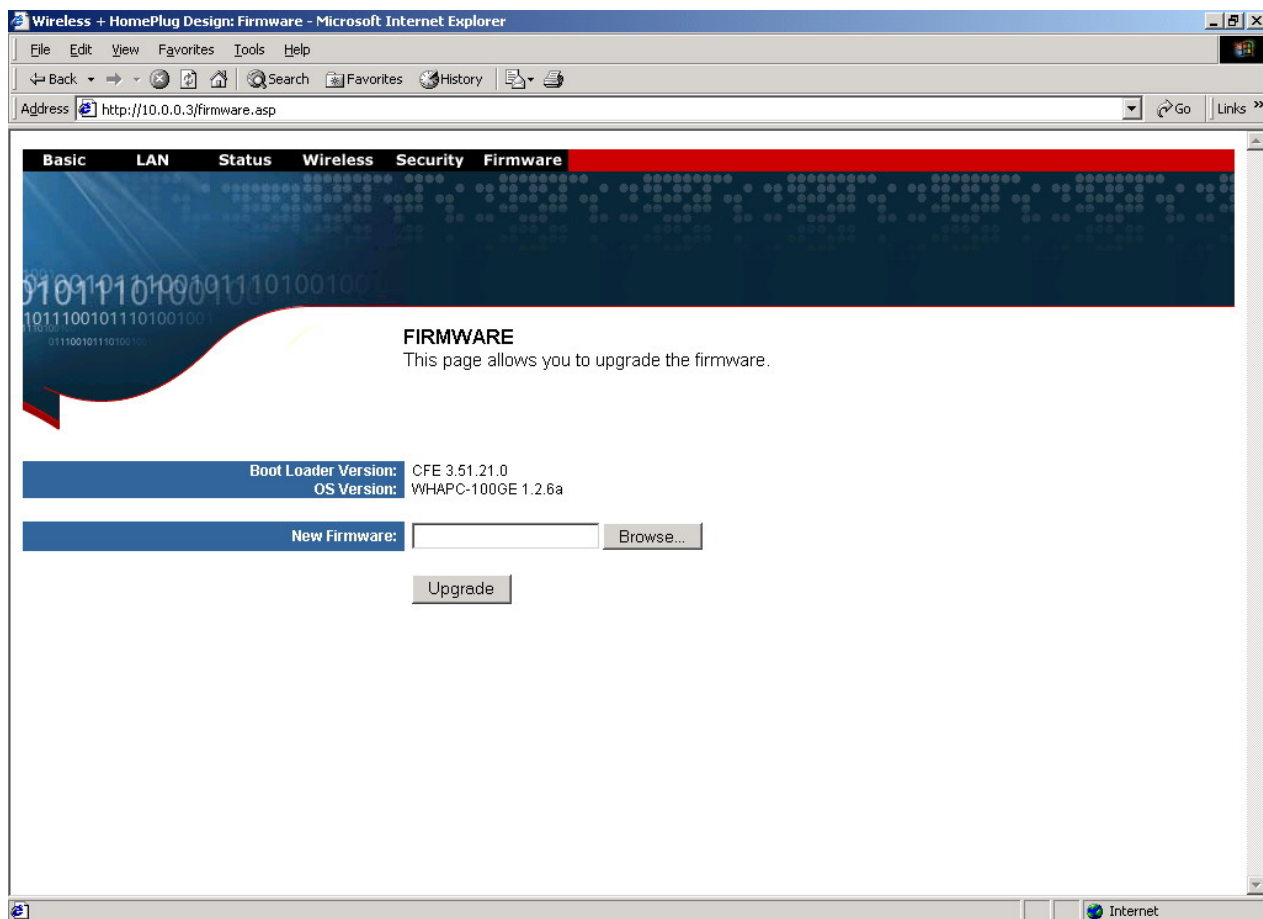
Wired 802.1x	Disabled
Wired 802.1x RADIUS Server	External RADIUS Server

Wireless Interface:	default (00:90:4B:08:03:2A)
Wireless 802.1x RADIUS Server	External RADIUS Server

Internet

Firmware Tab

- Here you can update the new firmware. (Note: You should download the new firmware first)



Notes

Appendix A: Features

Supports 802.11g wireless LAN

Support Home-Plug 1.0 Power-line network

Simultaneously operation on 802.11g wireless LAN and Power-line network

Enhanced Security Management Functions: Wireless/Wired 802.1x, Embedded RADIUS Server

Supports 64/128 bits WEP Key in wireless 802.11g LAN

Supports 56-bits DES Key for Power-line network

The wireless 11g operation provide data rate at 6, 9, 12, 18, 24, 36, 48, 54Mbps with auto fallback at 11b data rate at 1, 2, 5.5, and 11Mbps.

For 802.11g, support 11 channels for North America, 13 for Europe (ETSI) and 14 for Japan

Supports Wireless Distribution System (WDS) –Wireless Bridge, Wireless Repeater

Supports 802.11i – WPA / TKIP, AES, PSK

Easily Configurable through your networked PC's Web browser

Administrators can block specific internal users' Internet access with 802.1x

TCP, UDP, ICMP, IGMP

IEEE 802.1D (self learning transparent bridge)

IEEE 802.1D Spanning Tree Protocol

SNMP V1/V2c Agent

Remote administration and remote upgrades available over the Internet

Supports Traffic and Event Logging

Appendix B: Limited Warranty

Appendix C: FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of

FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance

with the instructions, may cause harmful interference to radio communications. However, there is no guarantee

that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or

television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct

the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of FCC Rules.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

FCC RF Radiation Exposure Statement:

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment

should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

•FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Appendix D: Technical Support

Please contact the GEMTEK Service and Support Center at:

<http://www.gemtek.com.tw>

Add: No.1 Jen Ai Road, HsinChu Industrial Park, Hukou, Hsinchu, Taiwan, R.O.C. 303

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