

WG-500P

Hotspot in a Printer

User Manual

HANLINK[®]
Your HotSpot Service Partner

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1 Introduction

The WG-500P is a compact intelligent gateway. It provides Plug' Play Internet access, advanced security and network management.

The WG-500P is designed for service providers, system integrator or hotspot venue operator without backend-RADIUS-Server to have integrated solution for rapid deployment, which can start hotspot service quickly and easily and enhance service performance.

The WG-500P is an ideal solution for hotel lobbies, coffee bars, airport lounges, conference facilities and other sites that commonly host business travelers, and offers instant high-speed Internet connections. With its IP Plug and Play technology, it accepts any client configuration login, when client open browser the WG-500P immediately recognizes new end-user and redirects their browser to customized Web pages. There's no need for end-user to change any of their default network (Static IP), e-mail (SMTP Server behind firewall), or browser settings (HTTP Proxy) or load any special software to access hotspot service. It's completely Plug' Play with any browser.

The WG-500P provides QR code service. You can install any QR code APP to your mobile device, and then scan QR code on the ticket to get access of the Internet! You could save the time to key the account and the password.

1-1 Package Contents

Please inspect your package. The following items should be included:

WG-500P

- One WG-500P
- One Thermal papers (50 meter)
- One Power Adapter
- One Ethernet Cable (1.5 meter)
- One Quick Installation Guide
- Two Detachable Antenna
- One Product CD

If any of the above items are damaged or missing, please contact your dealer immediately.

1-2 Features

- Wireless data rates up to 300 Mbps
- Supports up to 30 simultaneous Users
- IP Plug and Play (iPnP)
- Comprehensive security
 - 64/128-bit WEP encryption
 - WPA encryption
 - WPA2 Encryption
 - IP/URL filtering
- Intelligent Management
- Built-in AAA (Authentication/Accounting/Authorization) and Billing mechanism
- Internet access via QR code scanning

Note: The "PnP" Function only can be used with TCP/IP-based Network.

1-3 Precautions

- Never remove or open the cover. You may suffer serious injury if you touch these parts.
- Never install the system in the wet locations.
- Use only the original fitting AC power adapter otherwise there is a danger of severe electrical shock.
- Avoid exposing the WG-500P to direct sunlight or another heat source.
- Choose a well-ventilated area to position your WG-500P.

1-4 Outlook



Figure 1-4-1 WG-500P

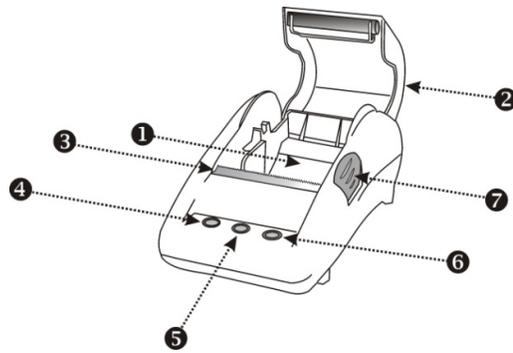


Figure 1-4-2 Front Panel

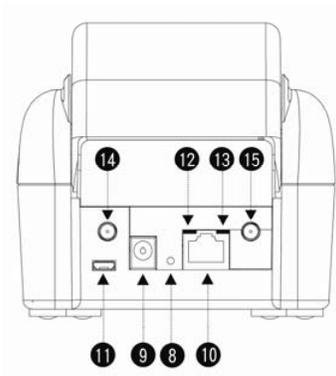


Figure 1-4-3 Rear Panel

1. Paper roll housing
2. Printer Cover
3. Tear Bar, for paper cutting
4. Button A
5. Button B
6. Button C
7. Push Button, for printer cover opening
8. Reset Button
9. DC power supply connector
10. RJ45 port
11. Micro USB connector
12. WLAN LED (Green)
13. UPLINK LED (Yellow)
14. SMA connector
15. SMA connector

● **WLAN LED:**

Off: The wireless is not ready.

Green light: The WG-500P has established a valid wireless connection.

Green Blinking: The wireless connection is active.

- **UPLINK LED:**
 - Off: A port has not established any network connection.
 - Yellow light: A port has established a valid 10/100 Mbps network connection.
 - Yellow Blinking: 10/100 Mbps traffic is traversing the port.
- **Reset Button:** The WG-500P has a reset button at the rear panel of the device. Use this function to reset the system back to factory defaults.
- **Power Jack:** Used to connect the external power supply with the WG-500P.

1-4-1 Printing a test page

After you have installed your printer, you should print a test page to make sure the printer is functioning properly. To do this act as follows:

1. Turn the printer off.
2. Hold down the button A for approximately five seconds, and then turn the printer on.
3. The printer will print a test page.

1-4-2 How to load paper rolls

Please follow the steps to correctly load paper rolls.

1



2



3



4



Figure 1-4-4 Paper rolls loading

1-5 Technical Specifications

1-5-1 Hardware Specifications

Network Specification

- IEEE802.3 10BaseT Ethernet
- IEEE802.3u 100BaseTX Fast Ethernet
- IEEE802.11b/g/n Wireless LAN
- ANSI/IEEE 802.3 NWay auto-negotiation
- Wi-Fi Compatible

Connectors

- One WAN Port (10BaseT/100BaseTX Auto cross-over)
- One Micro USB connector

Encryption

- WEP (Wired Equivalent Privacy) 64/128-bit RC4
- WPA (Wi-Fi Protected Access)
- WPA2 (Wi-Fi Protected Access)

External Antenna Type

- Dual detachable diversity antenna with reverse SMA

LED Indicators

- One POWER LED
- One WAN 10/100M Link/Activity LED
- One Wireless Link/Activity LED
- One System LED

Power Requirement

- External Power Adapter
- Input: 100-240 VAC, 50/60 Hz
- Output: 12V, 1.5A

Environment Conditions

- Operating Temperature: 0 to 50°C

- Storage Temperature: -10 to 60°C
- Operating Humidity: 20~80% non-condensing
- Storage Humidity: 20% to 90% non-condensing

Certifications

- FCC part 15 Class B, CE , C-Tick , VCCI

Dimension

- Size: 109×155×90 (W×D×H)mm
- Weight: About 340g (Net)

Printer Tray

- Push button: push to open printer cover
- Tear bar: cuts receipt paper
- Button A: flashing when printer cover is opened
- Paper roll housing: put paper roll here

Paper Roll and Printing

- Paper width: 58 (+0/-1)mm
- Paper length: 50M (max.)
- Paper thickness: 65 um
- Paper roll outside diameter: 63 (+2/-2) mm
- Paper roll inside diameter: 12 (+0.5/-0) mm
- Paper Detection: Photo interrupter
- Printing width: 48 mm
- Printing Method: Direct thermal
- Printing Speed: 25.4 mm/ sec
- Dot resolution (dots/ mm): 8 (203 dpi)
- Thermal head service life: 1 pulses or 50Km

1-5-2 Software Specifications

Networking

- IEEE802.3 10BaseT Ethernet
- IEEE802.3u 100BaseTX Fast Ethernet
- IEEE802.11b Wireless LAN
- IEEE802.11g Wireless LAN
- IEEE802.11n Wireless LAN

- Supports 30 Simultaneous Users
- IP Plug and Play (iPnP)
- HTTP Proxy Support
- WEP64/128bit
- WPA-PSK (TKIP)
- WPA2-PSK(AES)
- WPA/WPA2 Mix mode
- SMTP Server Redirection
- DHCP Server(RFC 2131)
- DHCP Relay(RFC 1542)
- Static IP WAN Client
- DHCP WAN Client
- PPPoE WAN Client(RFC 2516)
- PPTP WAN Client
- NAT(RFC 1631)
- IP Routing
- NTP (Network Time Protocol) Support
- Local Account: 256
- Max Session Number: up to 16384

Marketing Cooperation

- Advertisement URL link
- Walled garden
- Customizable log-on and log-off pages
- Portal Page

User Accounting and Authentication

- Built-in Authentication
- Web-based Authentication
- RADIUS AAA Support (RFC 2865, 2866)
- Secondary RADIUS
- User Authentication and Accounting
- Logout Window Timer Control

Security and Firewall

- Layer 2 Isolation Security
- SSL User Login page/ Configuration Page

- SSL Administration
- VPN Pass through (IPSec/PPTP)
- Customize SSL Certificate
- Pass Through IP/MAC/URL Address
- Restricted Destination Filtering IP/URL
- VPN (IPSec/PPTP) Pass through
- PPTP VPN Client
- WEP
- WPA
- WPA2
- WPA/WPA2 Mix mode

Management

- Web-based Management Tool
- Firmware Upgrade via HTTP/TFTP
- Wizard setup for step-by-step Configuration
- Backup/Restore/Factory Default Setting
- Remote Authorized Management
- Real-time Session List
- Syslog (System/Subscriber/LAN device)
- E-mail logs
- SNMP v1/v2 (MIB II, Private MIB)
- System Information Table
- Status Report (Daily/Monthly/System/Network)
- SSL certificate upload

2 Installation

2-1 Connecting the Antennas

The WG-500P provides two antenna connectors on the rear of the unit.

2-2 Installation Requirements

Before installing the WG-500P, make sure your network meets the following requirements.

System Requirements

The WG-500P requires one of the following types of software:

- Windows 98 Second Edition/NT/2000/XP/Vista
- Red Hat Linux 7.3 or later version
- MAC OS X 10.2.4 or later version
- Any TCP/IP-enabled systems like Mac OS and UNIX (TCP/IP protocol installed)
- Standard phone line for xDSL modem Or Coaxial cable for Cable modem
- Web Browser Software (Microsoft I.E 5.0 or later version or Netscape Navigator 5.0 or later version)
- One computer with an installed 10Mbps, 100Mbps or 10/100Mbps Ethernet card
- UTP network Cable with a RJ-45 connection (Package contents)

Note: Prepare twisted-pair cables with RJ-45 plugs. Use Cat.5 cable for all connections. Make sure each cable not exceed 328 feet (Approximately 100 meters).

ISP Requirements

Verify whether your ISP use fixed or dynamic IP. If it is a fixed IP, be sure to get the IP from your ISP. For dynamic IP, which is mostly used, the PC will get the IP automatically whenever it hooks up on the modem.

Dynamic IP

- Dynamic IP Setting

Fixed IP

- Your fixed IP address for the WG-500P
- Your subnet mask for the WG-500P
- Your default gateway IP address
- Your DNS IP address

PPPoE

- Your user name and password from your ISP

PPTP

- PPTP Server IP Address from your ISP
- PPTP Local IP address from your ISP.
- PPTP Local IP subnet mask from your ISP.
- Your user name from your ISP
- Your password from your ISP
- Your PC Requirements

The Static IP settings for the PC

- Your PC's fixed IP address
- Your PC's subnet mask
- Your PC's default gateway IP address
- Your PC's primary DNS IP address

Note:

1. The gateway's default IP address setting is "10.59.1.1".
2. The gateway's default subnet mask setting is "255.255.255.0".

The Dynamic IP settings for the PC

We recommend that you leave your IP settings as automatically assigned. By default, the WG-500P is a DHCP server, and it will give your PC the necessary IP settings.

2-3 Getting Start

WG-500P Connection

1. Connect the DC power adapter to the WG-500P and plug it into a power socket.
2. Connect WG-500P and xDSL modem with an Ethernet Cable.



Figure 2-3-1 WG-500P Connection

Configure TCP/IP of your computer

For Windows user,

1. Click Start > Control Panel, click Switch to Classic View and double click on Network Connections.
2. Right click on the Local Area Connection and click Properties.
3. Double click Internet Protocol (TCP/IP).
4. Choose Obtain an IP address automatically.
5. Click OK to close the Internet Protocol (TCP/IP) Properties and click OK again to close the Local Area Connection.

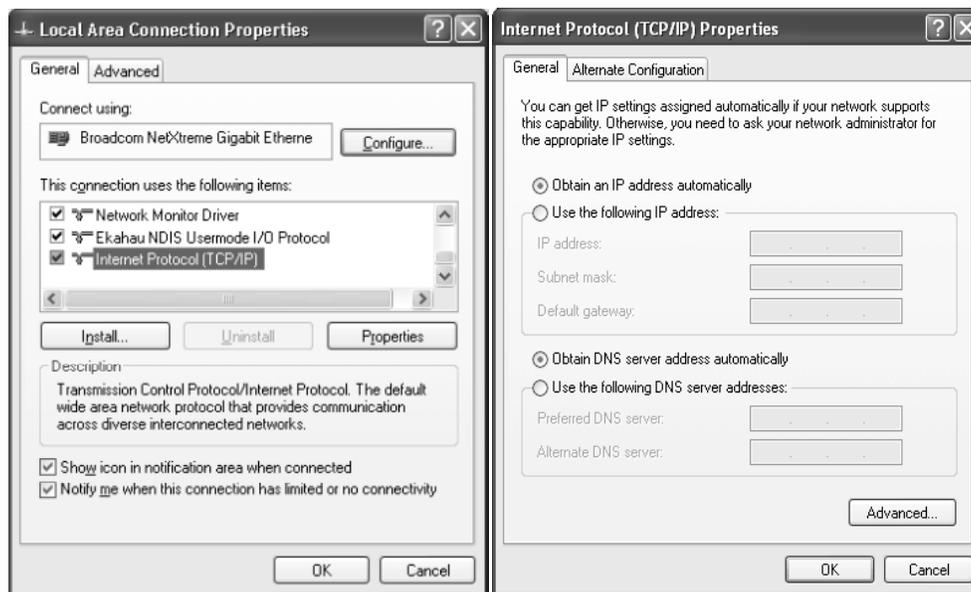


Figure 2-3-2 TCP/IP Setting

3 Configuring the WG-500P

3-1 Setting Wizard

Step 1: The ESSID's name by default is related to the last 4 numbers of Wlan MAC. If the Wlan MAC is "00-90-0E-00-12-34", the default is "Wireless-1234_1(2,3,4)". Please search ESSID "Wireless-1234_1" and connect it.

Step 2: Start your browser, and then enter the factory default IP address **10.59.1.1** in your browser's location box. Press **Enter**.

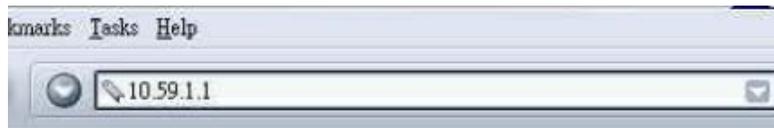


Figure 3-1-1 Web Browser Location Field (Factory Default)

Step 3: The WG-500P configuration tools menu will appear. In the Username and Password field, type the factory default user name **admin** and password **admin** and click **Login**. If you are first time setting the system, the wizard setup screen will appear. You will be guided, step-by-step, through a basic setup procedure.



Figure 3-1-2 Configuration Tools Menu

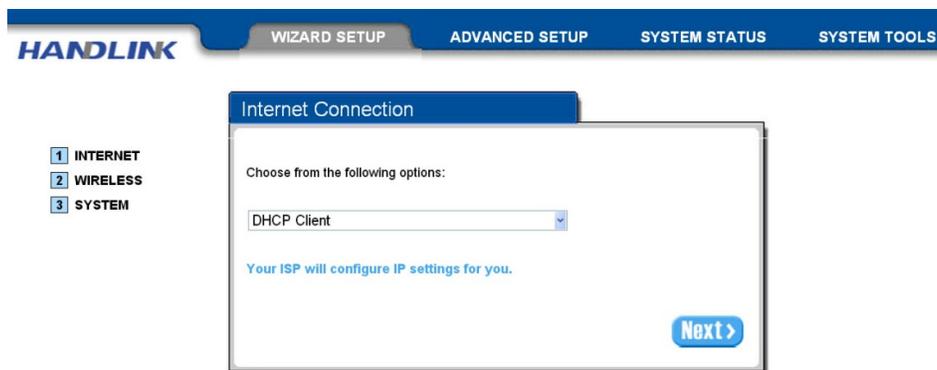


Figure 3-1-3 Wizard Setup Screen

System Quick View

[refresh](#)

System

System/Host Name		Firmware Version	1.07.06
Location Name		Domain Name	
System Time	2012/7/2 16:08:58	System Up Time	00D:00H:01M:11S
WAN MAC address	00:90:0E:00:60:C1	WLAN MAC address	00:90:0E:00:60:C0

Network

WAN Status	LAN IP Address	WAN Type	DHCP Client
WAN IP Address	None	LAN IP Address	10.59.1.1
WAN Subnet Mask	None	LAN Subnet Mask	255.255.255.0
Default Gateway	None	DNS	

Wireless

Wireless Service	OK	ESSID 1	Wireless-1234_1
Wireless Channel	10	ESSID 2	Wireless-1234_2
		ESSID 3	Wireless-1234_3
		ESSID 4	Wireless-1234_4

Traffic

WAN	TxData:10 RxData:0 TxError:0 RxError:0
LAN	TxData:83 RxData:77 TxError:0 RxError:0
ESSID 1	TxData:2 RxData:0 TxError:0 RxError:0
ESSID 2	TxData:2 RxData:0 TxError:0 RxError:0
ESSID 3	TxData:2 RxData:0 TxError:0 RxError:0
ESSID 4	TxData:2 RxData:0 TxError:0 RxError:0

[refresh](#)

Figure 3-1-4 System Quick View

Note:

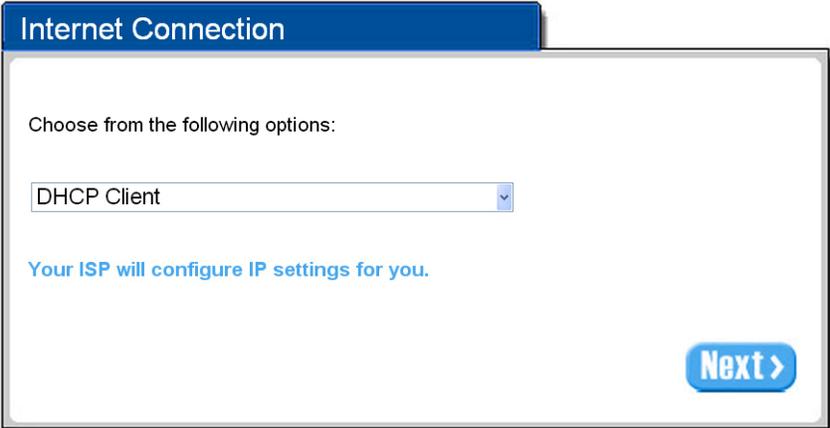
1. This Web agent is best viewed with IE 5.0 or Netscape 6.0 and above browsers.
2. Username and Password can consist of up to 20 alphanumeric characters and are case sensitive.
3. If for some reason your password is lost or you cannot gain access to the

WG-500P Configuration Program, please press the reset button to load the device to manufacturer defaults.

4. If the WG-500P doesn't send packet in 5 minutes (default), the WG-500P wills logout automatically.
5. Proxy needs to set disable first when administrator accesses admin UI.

Step 4: Internet Connection Setting

Select the appropriate Internet connection type to connect to your ISP.



Internet Connection

Choose from the following options:

DHCP Client

Your ISP will configure IP settings for you.

Next >

Figure 3-1-5 Internet Connection Setting Screen

DHCP Client

The device can work as a DHCP client. This allows the device to obtain the IP address and other TCP/IP settings from your ISP. If your xDSL/Cable comes with this feature, please enable Use DHCP Client.

The screenshot shows a window titled "Internet Connection". Below the title bar, it says "Choose from the following options:". There is a dropdown menu with "DHCP Client" selected. Below the dropdown, it says "Your ISP will configure IP settings for you." in blue text. In the bottom right corner, there is a blue button with the text "Next >" and a right-pointing arrow.

Figure 3-1-6 Internet Connection Setting Screen

Static IP Setting

If **Static IP Setting** is selected, then this screen will appear. Enter the IP address information provided by your ISP.

The screenshot shows a window titled "Internet Connection". Below the title bar, it says "Choose one from the following selections:". There is a dropdown menu with "Static IP Setting" selected. Below the dropdown, it says "Enter static IP information from your ISP:" in blue text. There are five input fields with labels to their left: "IP Address:" (0.0.0.0), "Subnet Mask:" (0.0.0.0), "Gateway IP address:" (0.0.0.0), "Primary DNS Server:" (empty), and "Secondary DNS Server:" (empty). In the bottom right corner, there is a blue button with the text "Next >" and a right-pointing arrow.

Figure 3-1-7 Internet Connection Setting Screen—Static IP Setting

Item	Default	Description
IP Address	0.0.0.0	Enter the IP address provided by your ISP.
Subnet Mask	0.0.0.0	Enter the subnet mask for the IP address.
Gateway IP Address	0.0.0.0	Enter the Gateway IP Address provided by your ISP.
Primary DNS Server	Empty	Enter the primary DNS server IP address for the xDSL/Cable connection (provided by your ISP).
Secondary DNS Server	Empty	Enter the secondary DNS server IP address for the xDSL/Cable connection (provided by your ISP). If the primary DNS Server IP were not available, meanwhile, Secondary DNS Server IP would start in the same time.

PPPoE (Point-to-Point Protocol over Ethernet)

If “PPPoE” is selected, then this screen will appear. Enter the username, password and other major fields.

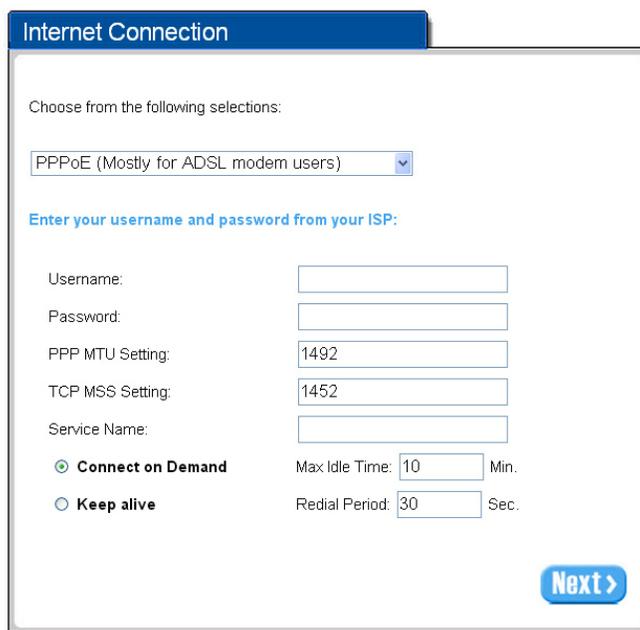


Figure 3-1-8 Internet Connection Setting Screen—PPPoE Setting

Item	Default	Description
Username	Empty	Enter the user name provided by your ISP. The user name can consist of up to 80 alphanumeric characters and is case sensitive.
Password	Empty	Enter the user password provided by your ISP. The password can consist of

WG-500P Hotspot in a Printer

		up to 80 alphanumeric characters and is case sensitive.
PPP MTU Setting	1492	MTU (Maximum Transfer Unit) specifies maximum transmission unit size.
TCP MSS Setting	1452	MSS (Maximum Segment Size) specifies maximum segment size.
Service Name	Empty	Enter the service name provided by your ISP. The service name can consist of up to 64 alphanumeric characters and is case sensitive.
Connect on Demand and Max Idle Time		
Connect on Demand	Enable	You can configure your WG-500P to cut your connection with your ISP after a specified period of time (Max Idle Time). If you have been disconnected due to inactivity, Connect on Demand enables your WG-500P to automatically re-establish your connection as soon as you attempt to access the Internet again. If you wish to activate Connect on Demand, click the radio button. If you want your Internet connection to remain, click the radio button of keep alive. The Max Idle Time maximum value is 65535 minutes.
Max Idle Time	10 Minutes	
Keep alive and Redial Period		
Keep alive	Disable	This option keeps your PPPoE enabled Internet access connected indefinitely, even when it sits idle. The Redial Period maximum value is 65535 seconds.
Redial Period	30 Seconds	

PPTP Client (Point-to-Point Tunneling Protocol)

If PPTP Setting is selected, then this screen will appear. Please enter the IP address, Username and Password provided by your ISP.

Figure 3-1-9 Internet Connection Setting Screen—PPPoE Setting

Item	Default	Description
Username	Empty	Enter the user name provided by your ISP. The user name can consist of up to 80 alphanumeric characters and is case sensitive.
Password	Empty	Enter the user password provided by your ISP. The password can consist of up to 80 alphanumeric characters and is case sensitive.
PPP MTU Setting	1492	MTU (Maximum Transfer Unit) specifies maximum transmission unit size.
TCP MSS Setting	1452	MSS (Maximum Segment Size) specifies maximum segment size.
Service Name	Empty	Enter the service name provided by your ISP. The service name can consist of up to 64 alphanumeric characters and is case sensitive.
Connect on Demand and Max Idle Time		
Connect on Demand	Enable	You can configure your WG-500P to cut your connection with your ISP after a specified period of time (Max Idle Time). If you have been disconnected due to inactivity, Connect on Demand
Max Idle Time	10 Minutes	

WG-500P Hotspot in a Printer

		enables your WG-500P to automatically re-establish your connection as soon as you attempt to access the Internet again. If you wish to activate Connect on Demand, click the radio button. If you want your Internet connection to remain, click the radio button of keep alive. The Max Idle Time maximum value is 65535 minutes.
Keep alive and Redial Period		
Keep alive	Disable	This option keeps your PPPoE enabled Internet access connected indefinitely, even when it sits idle. The Redial Period maximum value is 65535 seconds.
Redial Period	30 Seconds	

Step 5: Wireless Setting

Wireless Setting: This page allows you to Channel ID and 802.11 Mode for wireless connection.

1 INTERNET
2 WIRELESS
3 SYSTEM

Wireless Settings

Channel : 6 (Leave default if you don't know how to choose)
802.11 Mode: 802.11n + 802.11g + 802.11b

< Back Next >

Figure 3-1-10 Wireless Setting Screen

Item	Default	Description
Channel	6	Enter the channel ID for wireless connection.
802.11 Mode	802. 11n + 802.11g + 802.11b	Enter the 802.11 Mode for wireless connection.

Step 6: System Setting

System Setting: WG-500P allows to change the administrator’s Username and Password, and an NTP server setting.

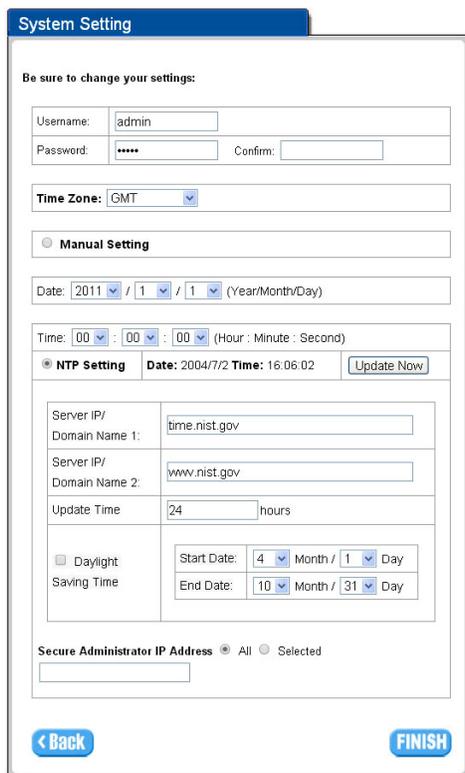


Figure 3-1-11 System Setting Screen

Item	Default	Description
Username	admin	Enter the user name. The user name can consist of up to 80 alphanumeric characters and is case sensitive.
Password	admin	Enter the user password. The password can consist of up to 80 alphanumeric characters and is case sensitive.
Time Zone	GMT	Enter the Time Zone for the system.
Manual Setting	YYYY/MM/DD HH:MM:SS	Click Manual Setting to set the system date and time.
NTP Setting		Click Update button to correct the system date and time.
Secure Administrator IP Address	All	This function allows remote user to management the device. You can specify one or any IP addresses for remote control the system.

Click **FINISH** button to save the settings then the system will restart.

3-2 Advanced Setup

The Advanced Setting enables you to configure advanced settings related to accessing the Internet, including,

AUTHENTICATION

- AUTHENTICATION
- RADIUS

BILLING

- BILLING
- ACCOUNTING
- CREDIT CARD

MANAGEMENT

- SYSLOG
- SESSION TRACE
- BANDWIDTH
- SNMP

SECURITY

- PASS THROUGH
- FILTERING
- SECURE REMOTE

SYSTEM

- SYSTEM
- WAN / LAN
- SERVER
- CUSTOMIZATION
- PORTAL PAGE
- ADVERTISEMENT
- WALLED GARDEN
- DDNS
- WIRELESS

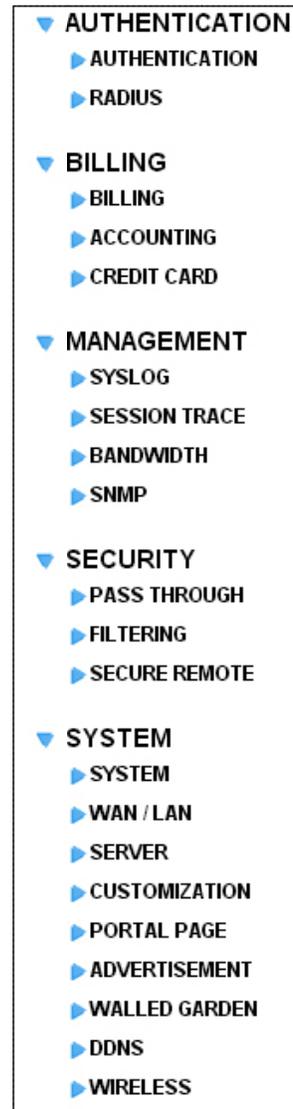


Figure 3-2-1 Advanced Setting Item

Note: After change the settings of device, please click **Apply** button to save the new settings.

3-2-1 AUTHENTICATION

3-2-1-1 Authentication

AUTHENTICATION

Authentication Type	<input checked="" type="radio"/> No Authentication <input type="radio"/> Built-in Authentication <input type="radio"/> User Agreement <input type="radio"/> Redirect URL Link: <input type="text"/> Code <input type="radio"/> Standard User Agreement page Assign To <input type="text" value="ESSID 1"/>
Current User Information Backup	<input type="text" value="1"/> Min(s) (1 - 1440)
SSL Login Page	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
User Idle Time Out	<input type="text" value="5"/> Min(s) (1 - 1440) <small>(Not function on "Time to Finish" billing mode)</small>
<input type="button" value="Apply"/>	

Figure 3-2-2 Authentication

Item	Default	Description
Authentication Type	No Authentication	<p>Option: No Authentication, Built-in Authentication or User Agreement.</p> <p>No Authentication Subscriber can direct access the Internet without enter username and password.</p> <p>Built-in Authentication WG-500P provides "Built-in Authentication" for service provider to build up an Internet service without any extra authentication software. If "Built-in Authentication" is selected, service provider can generate the subscriber account inside the device, and the system will authenticate the subscriber login according to the generated account.</p> <p>User Agreement Subscriber must accept the service usage agreement before they can access the Internet.</p>
Redirect Login Page URL	Empty	The input format can be http://www.yahoo.com. The maximum character of the URL Link is 200.
Code	Copy and paste the following HTML Code into your home page to produce	

	redirect subscriber login page.
--	---------------------------------

Copy and paste the following HTML Code into your home page to produce user agreement login page.

```


Redirect Login Page Code


<html>
<body style="font-family: Arial" bgcolor="#FFFFFF">
<form method="post" action="http://1.1.1.1/login.cgi" name="apply">
<div align="center">
<table cellSpacing="0" borderColorDark="#FFFFFF" cellPadding="4" width="50%" bgColor="#F7F7F7"
borderColorLight="#9dcda0" border="1">
<tr>
<td align="center" width="100%" bgColor="#d7f0d7" colSpan="2">
<font size="2"><b>Welcome</b></font>
</td>
</tr>
</table>

```

Figure 3-2-3 Preview Redirect Login Page Code

Item	Default	Description
Current User Information Backup	1 Min(s)	The system provides automatically backup account information and unused account to flash ROM. This function allow administrator to adjust the backup time. The default value is 1 minute. The Current User Information Backup valid range is 1 to 1440.
SSL Login Page	Disable	Enables or disables SSL security of login page.
User Idle Time Out	5 Minutes	The user idle time out valid range is 1-1440.

Click **Apply** button to save the new settings.

3-2-1-2 RADIUS

RADIUS

Disable
 Enable

Time to Finish
 The subscriber can access the Internet only for a single session. After the subscriber logs in, Internet access is available until the session ends or time runs out, whichever comes first.

Accumulation
 The subscriber can access the Internet multiple times with one account. The system accumulates the time of each session until the purchased time limit is reached.

Primary RADIUS Server
 Server IP:
 Authentication Port:
 Accounting Port:
 Shared Secret Key:

Secondary RADIUS Server
 Server IP:
 Authentication Port:
 Accounting Port:
 Shared Secret Key:

Retry times when Primary fails:

Retry Frequency: seconds (3~75)

Accounting Service
 Enable
 Disable
 Interim Update Time: (Minute)

Authentication Method

WSPr Smart Client
 Enable

Login Mode
 Directly Reply
 Proxy Reply with "Redirect Login Page" URL
 Proxy Reply with Specific URL:

Figure 3-2-4 Authentication Setting Screen

Item	Default	Description
RADIUS Authentication	Disable	Option: No Authentication or RADIUS Server. Disable (No Authentication) Subscriber can direct access the Internet without enter username and password. Enable (RADIUS Authentication) WG-500P provides "RADIUS Authentication" for service provider to build up an Internet service with RADIUS server. If RADIUS Authentication is enabled, all subscribers' authentication will send to RADIUS Server by RADIUS protocol (RFC 2865, 2866).
Time to Finish/ Accumulation	Enable	Service provider provides two different accounting calculate for the Internet service.
Primary RADIUS Server		
Server IP	Empty	Enter the IP address of RADIUS server.
Authentication Port	1812	Enter the authentication port number; the authentication port number must match with the RADIUS server setting. The allowed numbers are from 0 to 65535.

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Accounting Port	1813	Enter the accounting port number; the accounting port number must match with the RADIUS server setting. The allowed numbers are from 0 to 65535.
Share Secret Key	Empty	The share secret key, the key number also has to match with the Server setting. Up to 64 characters are allowed.
Secondary RADIUS Server		
Server IP	Empty	Enter the IP address of RADIUS server.
Authentication Port	1812	Enter the authentication port number; the authentication port number must match with the secondary RADIUS server setting. The allowed numbers are from 0 to 65535.
Accounting Port	1813	Enter the accounting port number; the accounting port number must match with the secondary RADIUS server setting. The allowed numbers are from 0 to 65535.
Share Secret Key	Empty	The share secret key, the key number also has to match with the secondary RADIUS Server setting. Up to 64 characters are allowed.
Retry times when Primary fail	1	Specify the retry times when primary fail.
Retry Frequency ~ Seconds	3	The field default value is 3 seconds.
Accounting Service	Disable	Enables or disables the accounting service.
Interim Update Time	5 Minutes	Specify the interim update time.
Authentication Method	CHAP	CHAP Enter the authentication method of RADIUS server.
WISPr Smart Client		
Enable	Disable	Enables or disables WISPr Smart Client roaming function.
Login Mode	Directly Reply	Options: Directly Reply, Proxy Reply with "Redirect Login Page" URL and Proxy Reply with Specific URL. The login mode information for the IPASS GIS connection. (Provided by your ISP).

3-2-2 BILLING

3-2-2-1 Billing

The function is used to setup a billing profile. A billing profile is a description of how you want to charge *your customer*.

BILLING

Pre-Paid
 The subscribers can access Internet with pre-defined usage time.
 Enable Credit Card Service WG-500P

Time to Finish
 The subscriber can access Internet only one time with one account. Once subscriber login, the pre-defined usage time will start until run out even the subscriber stop to access the Internet before run out.

Accumulation
 The subscriber can access Internet several times with one account. The system can keep and accumulate every single usage time until the pre-defined usage time run out.

Billing Profile

Currency: Number of decimals places:

Tax Percentage: %

No.	Active	Name (max. 12 characters)	Account Usage Time		Charge
01	<input checked="" type="checkbox"/>	<input type="text" value="30 minutes"/>	<input type="text" value="30"/>	<input type="text" value="minutes"/>	<input type="text" value="1.00"/>
02	<input checked="" type="checkbox"/>	<input type="text" value="1 hour"/>	<input type="text" value="1"/>	<input type="text" value="hours"/>	<input type="text" value="2.00"/>
03	<input checked="" type="checkbox"/>	<input type="text" value="2 hours"/>	<input type="text" value="2"/>	<input type="text" value="hours"/>	<input type="text" value="3.00"/>
04	<input type="checkbox"/>	<input type="text" value="3 hours"/>	<input type="text" value="3"/>	<input type="text" value="hours"/>	<input type="text" value="4.00"/>
05	<input type="checkbox"/>	<input type="text" value="5 hours"/>	<input type="text" value="5"/>	<input type="text" value="hours"/>	<input type="text" value="5.00"/>
06	<input type="checkbox"/>	<input type="text" value="10 hours"/>	<input type="text" value="10"/>	<input type="text" value="hours"/>	<input type="text" value="6.00"/>
07	<input type="checkbox"/>	<input type="text" value="1 day"/>	<input type="text" value="1"/>	<input type="text" value="days"/>	<input type="text" value="10.00"/>
08	<input type="checkbox"/>	<input type="text" value="2 days"/>	<input type="text" value="2"/>	<input type="text" value="days"/>	<input type="text" value="20.00"/>
09	<input type="checkbox"/>	<input type="text" value="7 days"/>	<input type="text" value="7"/>	<input type="text" value="days"/>	<input type="text" value="50.00"/>
10	<input type="checkbox"/>	<input type="text" value="30 days"/>	<input type="text" value="30"/>	<input type="text" value="days"/>	<input type="text" value="200.00"/>

Figure 3-2-5 Billing Setting Screen

Item	Default	Description
Enable Credit Card Service	Disable	Enables or disables the credit card service. Before you enable credit card service, make sure that your credit service is configured to work and the currency is American dollars. You must be converting all prices on your billing page into American dollars (U.S. dollars). For details, see section 3-2-2-3 Credit Card. The credit card function only supports the American dollars.
Time to Finish	Enable	The subscriber can access Internet only one time with one account. Once subscriber login, the pre-defined usage time will start until run out even the subscriber stop to access the Internet before run out.
Accumulation		
Accumulation	Disable	The subscriber can access Internet many times with one account. The

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		system can keep and accumulate every single usage time until the pre-defined usage time run out.
Idle Time Out	5 Min(s)	The idle time out valid range is 1-1440. If the idle time out is set as 5 minutes, it means if the account doesn't send packet in 5 minutes, the account will logout automatically.
Billing Profile		
Currency	\$	Enter the appropriate currency unit or currency symbol.
Number of decimals places	2	Enter the number. The field maximum value is 3.
Tax Percentage	Disable	This check box is used to indicate the taxable status of the account.
	5%	Enter the tax rate (i.e. a 5% sales tax is entered as 5).
Active	-	Click on check box, active or inactive the billing profile.
Name	-	It is the name of billing profile. The maximum allowed characters length is 12.
Account Usage time	-	The duration of the billing period. When this period expires, user account will be discontinued.
Charge	-	Enter the unit rate amount (i.e. 35.00) that most of your accounts are charged for one day of service.

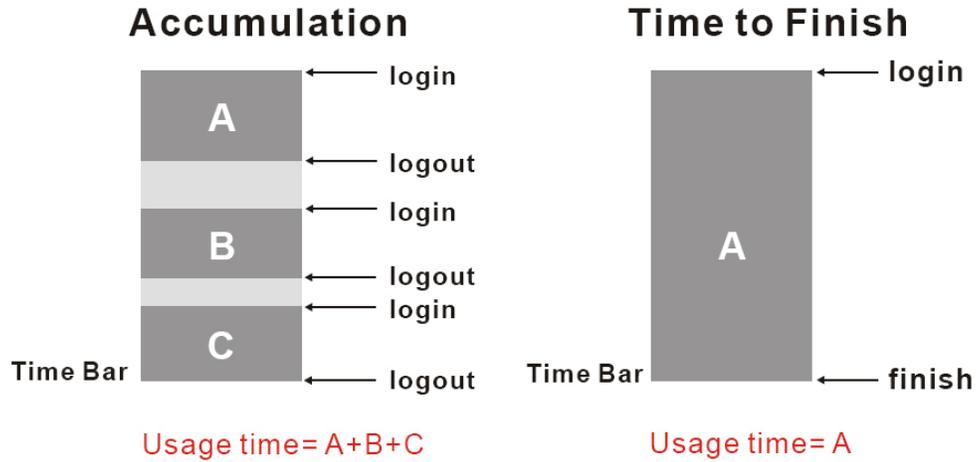


Figure 3-2-6 Accumulation and Time to Finish

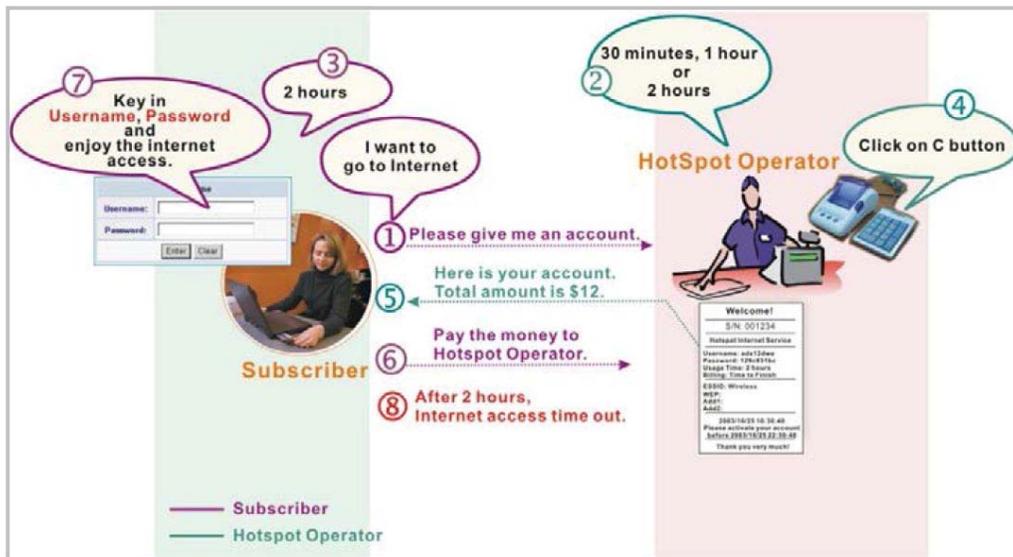


Figure 3-2-7 Pre-paid Procedure Diagram

3-2-2-2 Accounting

This function allow service provider to generate the subscriber accounts.

ACCOUNTING

Expiration	Delete unused accounts automatically after <input type="text" value="12"/> hours (1~30)
	Delete accumulation accounts after last logged out <input type="text" value="3"/> months (1~30)
Printout	Number of copies to print: <input type="text" value="1"/>
Top UP	<input type="checkbox"/> Can be replenished by subscriber

Three-Button Printer / Web-based Account Generator Panel Preview/Operate

Button A	<input type="text" value="(01) 30 minutes, 30 minutes, \$1.00"/>
Button B	<input type="text" value="(01) 30 minutes, 30 minutes, \$1.00"/>
Button C	<input type="text" value="(01) 30 minutes, 30 minutes, \$1.00"/>

Print to... * Account Generator Printer Connected Printer

Use for Discount Price Plan based on "Button Presses": (only valid for Three-Button Printer)

Discount Price Plan based on "Button Presses" Charge by levels

Level	Conditions	Button Presses	Unit Price
01	when >=	1	same as base charge
02	when >=	<input type="text" value="0"/>	<input type="text"/>
03	when >=	<input type="text" value="0"/>	<input type="text"/>
04	when >=	<input type="text" value="0"/>	<input type="text"/>
05	when >=	<input type="text" value="0"/>	<input type="text"/>
06	when >=	<input type="text" value="0"/>	<input type="text"/>
07	when >=	<input type="text" value="0"/>	<input type="text"/>
08	when >=	<input type="text" value="0"/>	<input type="text"/>
09	when >=	<input type="text" value="0"/>	<input type="text"/>
10	when >=	<input type="text" value="0"/>	<input type="text"/>

Figure 3-2-8 Accounting Setting Screen

Item	Default	Description
Expiration		
Un-used account will be deleted after ~hours automatically	24 hours	Enter the number of hours/minutes/days. The field maximum value is 30 hours/minutes/days.
Accumulation account will be deleted after last logged in ~	3 months	Enter the number and select time unit from list box. The field maximum value is 30 month/ days/ hours.
Printout		
Number of copies to print	1	The system allows you to print all your bills. Select one number of copies by clicking in the list box.
Can be Top Up by subscriber		Click the check box to enable the Top Up function.

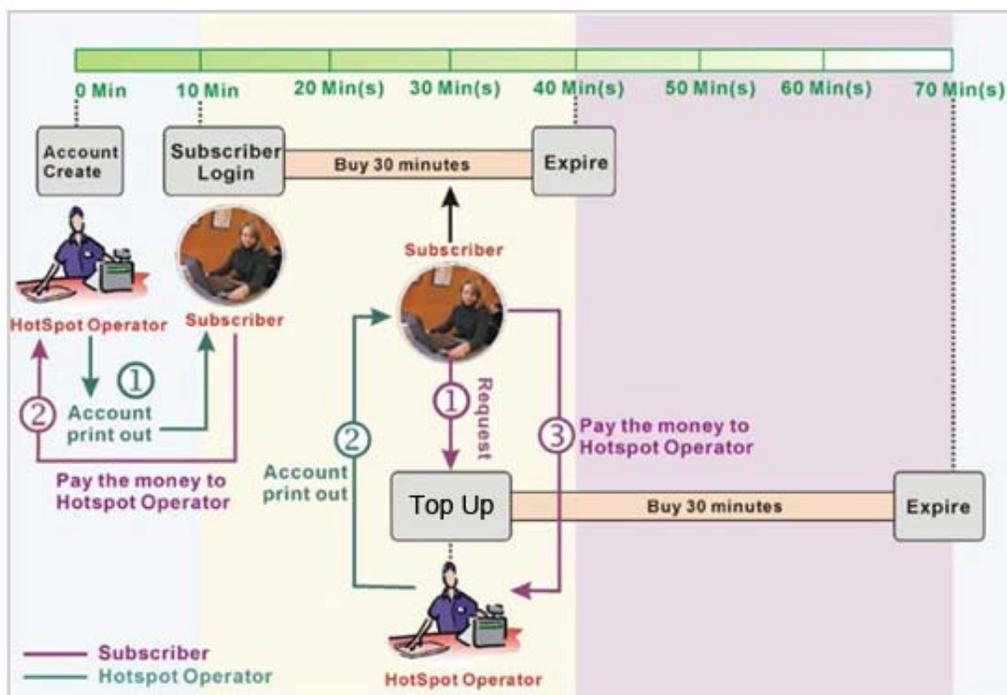


Figure 3-2-9 Account Process Diagram Can be replenished by subscriber=Enable

Item	Default	Description
Button A~C		Define each button's billing profile. Select one billing profile by clicking in the list box.
Print to...	Account Generator Printer	Select a printer to print out your account.
Use ~ for Discount Price Plan based on "Button Presses"	Button A, Disable	Select one button (A~C) by clicking in the list box to assign the base charge and select enable to active the discount price plan.

Click **Preview/Operate** button to preview and operate account generator panel.

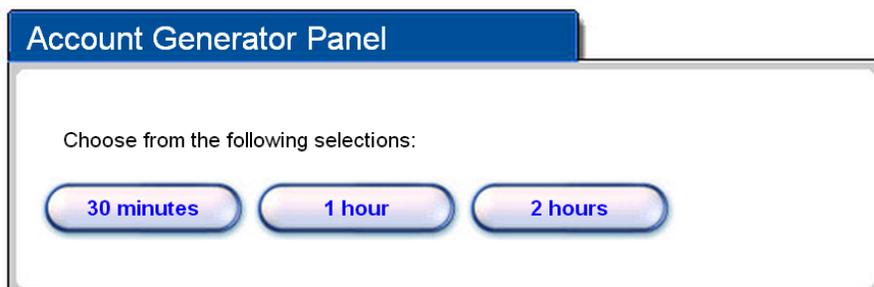


Figure 3-2-10 Account Generator Panel

```
Welcome!
-----
Hotspot Internet Service
-----
Username: 4n27
Password: 7ndx
Billing: Time to Finish
Service: 1 hour
Unit: 7
Usage Time: 07:00:00
Total: USD 11.00
ESSID: Handlink_WG-500P
WPA/WPA2: 1234567890
-----
2013/08/12 17:57:34
S/N: 000206
Please activate your account before
2013/08/13 17:57:34
-----
Thank you very much !

```

Figure 3-2-11 Account Generator Printer (Time to Finish)

```
Welcome!
-----
Hotspot Internet Service
-----
Username: v03d
Password: zkrn
Billing: Accumulation
Service: 1 hour
Unit: 1
Usage Time: 01:00:00
Total: USD 2.00
ESSID: Handlink_WG-500P
WPA/WPA2: 1234567890
-----
2013/08/12 17:58:52
S/N: 000207
Please activate your account before
2013/08/13 17:58:52
Please finish your usage time within 3 months after your last logged out
-----
Thank you very much !

```

Figure 3-2-12 Account Generator Printer (Accumulation)

Note: Before configuring the accounting, you have to setting the billing profile of Web-based account generator panel.

WG-500P Hotspot in a Printer

Example: If press 7 times

- Discount Price Plan based on "Button Presses" is disabled.

Three-Button Printer / Web-based Account Generator Panel		Preview/Operate
Button A	(01) 30 minutes , 30 minutes , \$1.00	
Button B	(02) 1 hour , 1 hours , \$2.00	
Button C	(01) 30 minutes , 30 minutes , \$1.00	
Print to... <input checked="" type="radio"/> Account Generator Printer <input type="radio"/> Connected Printer		
Use <input type="button" value="Button B"/> for Discount Price Plan based on "Button Presses": <input type="button" value="Enable"/> (only valid for Three-Button Printer)		

Figure 3-2-13 Example 1

Amount: 7 x \$2.00= \$14.00

```

Welcome!
-----
Hotspot Internet Service
-----
Username: 4n27
Password: 7ndx
Billing: Time to Finish
Service: 1 hour
Unit: 7
Usage Time: 07:00:00
Total: USD 11.00
ESSID: Handlink_WG-500P
WPA/WPA2: 1234567890
-----
2013/08/12 17:57:34
S/N: 000206
Please activate your account before
2013/08/13 17:57:34
-----
Thank you very much !

```

Figure 3-2-14 Account Printout

WG-500P Hotspot in a Printer

- Discount Price Plan based on “Button Presses” is enabled.
- The Charge by level is disabled.

Preview/Operate

Three-Button Printer / Web-based Account Generator Panel

Button A: (01) 30 minutes , 30 minutes , \$1.00

Button B: (02) 1 hour , 1 hours , \$2.00

Button C: (01) 30 minutes , 30 minutes , \$1.00

Print to... Account Generator Printer Connected Printer

Use Button B for Discount Price Plan based on "Button Presses": Enable (only valid for Three-Button Printer)

Discount Price Plan based on "Button Presses" Charge by levels

Level	Conditions	Button Presses	Unit Price
01	when > =	1	same as base charge
02	when > =	<input type="text" value="3"/>	<input type="text" value="1.5"/>
03	when > =	<input type="text" value="7"/>	<input type="text" value="1"/>
04	when > =	<input type="text" value="0"/>	<input type="text"/>
05	when > =	<input type="text" value="0"/>	<input type="text"/>
06	when > =	<input type="text" value="0"/>	<input type="text"/>
07	when > =	<input type="text" value="0"/>	<input type="text"/>

Figure 3-2-15 Example 2

Amount: 7 x \$ 1 = \$ 7.00

Below is an example of the account printout.

```

Welcome!
-----
Hotspot Internet Service
-----
Username: 4n27
Password: 7ndx
Billing: Time to Finish
Service: 1 hour
Unit: 7
Usage Time: 07:00:00
Total: USD 11.00
ESSID: Handlink_WG-500P
WPA/WPA2: 1234567890
-----
2013/08/12 17:57:34
S/N: 000206
Please activate your account before
2013/08/13 17:57:34
-----
Thank you very much !

```

Figure 3-2-16 Account Printout

WG-500P Hotspot in a Printer

- Discount Price Plan based on “Button Presses” is enabled.
- Charge by level is enabled.

Preview/Operate

Three-Button Printer / Web-based Account Generator Panel

Button A	(01) 30 minutes , 30 minutes , \$1.00
Button B	(02) 1 hour , 1 hours , \$2.00
Button C	(01) 30 minutes , 30 minutes , \$1.00

Print to... Account Generator Printer Connected Printer

Use Button B for Discount Price Plan based on "Button Presses": Enable (only valid for Three-Button Printer)

Discount Price Plan based on "Button Presses" Charge by levels

Level	Conditions	Button Presses	Unit Price
01	when > =	1	same as base charge
02	when > =	<input type="text" value="3"/>	<input type="text" value="1.5"/>
03	when > =	<input type="text" value="7"/>	<input type="text" value="1"/>
04	when > =	<input type="text" value="0"/>	<input type="text" value=""/>
05	when > =	<input type="text" value="0"/>	<input type="text" value=""/>
06	when > =	<input type="text" value="0"/>	<input type="text" value=""/>
07	when > =	<input type="text" value="0"/>	<input type="text" value=""/>

Figure 3-2-17 Example 3

Amount: 2 x \$2.00 + 4 x \$ 1.50+1x\$1= \$11.00

Below is an example of the account printout.

```

Welcome!
-----
Hotspot Internet Service
-----
Username: 4n27
Password: 7ndx
Billing: Time to Finish
Service: 1 hour
Unit: 7
Usage Time: 07:00:00
Total: USD 11.00
ESSID: Handlink_WG-500P
WPA/WPA2: 1234567890
-----
2013/08/12 17:57:34
S/N: 000206
Please activate your acc
ount before
2013/08/13 17:57:34
-----
Thank you very much !

```

Figure 3-2-18 Account Printout

● Discount Price Plan based on “Button Presses”

Discount Price Plan based on “Button Presses” <input checked="" type="checkbox"/> Charge by levels			
Level	Conditions	Button Presses	Unit Price
01	when > =	1	same as base charge
02	when > =	<input type="text" value="0"/>	<input type="text"/>
03	when > =	<input type="text" value="0"/>	<input type="text"/>
04	when > =	<input type="text" value="0"/>	<input type="text"/>
05	when > =	<input type="text" value="0"/>	<input type="text"/>
06	when > =	<input type="text" value="0"/>	<input type="text"/>
07	when > =	<input type="text" value="0"/>	<input type="text"/>
08	when > =	<input type="text" value="0"/>	<input type="text"/>
09	when > =	<input type="text" value="0"/>	<input type="text"/>
10	when > =	<input type="text" value="0"/>	<input type="text"/>

Figure 3-2-19 Discount Price Plan Setting Screen

Item	Default	Description
Charge by levels	Enable	Enables or disables the charge by levels function.
Level	1-10	This field displays the level number of charge rate.
Conditions	When>=	The discount condition
Button Presses	-	Enter the times of pressing button
Unit Price	-	Enter the amount of charge level

Click **Apply** button to save the new settings and the success dialog box appears. Click on **Back** to return to Accounting setting screen.

3-2-2-3 Credit Card

WG-500P provides three credit card services (**Authorize.net**, **iValidate.net**, **Secure Pay**, **Paypal** and **WorldPay**) that allow service provider to authorize, process, and manage credit transactions directly from Internet.

CREDIT CARD

Authorize.net

Version	3.1
Merchant ID	<input type="text"/>
Merchant Password	<input type="checkbox"/> New Password: <input type="text"/>
Merchant Transaction Key	<input type="text"/>
Payment Gateway	https:// <input type="text" value="secure.authorize.net/gateway/transact.dll"/>
<input type="checkbox"/> Email Additional Information	Merchant Name: <input type="text"/> (max. 40 characters) <input type="checkbox"/> Username and Password <input type="checkbox"/> Usage Time

iValidate.net

Merchant ID	<input type="text"/>
Terminal ID	<input type="text"/>
Secure Server Address	https:// <input type="text" value="https://www.securepay.com.au/xmlapi/payment"/>

PayPal

Business	<input type="text"/> (max. 127 characters)
Currency Code	Australia Dollar <input type="button" value="v"/>
Identity Token	<input type="text"/> (max. 160 characters)
Payment Gateway	https:// <input type="text" value="www.paypal.com/cgi-bin/webscr"/> (max. 100 characters)

World Pay

Payment Gateway	https:// <input type="text" value="select.worldpay.com/wcc/purchase"/>
Installation ID	<input type="text"/>
Currency Code	<input type="text"/> (max. 3 characters)
Description	<input type="text"/> (max. 100 characters)
<input type="checkbox"/> Test Mode	success <input type="button" value="v"/>

Credit Card icons to be displayed on the login page

BankCard

Figure 3-2-20 Credit Card Setting Screen

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Item	Default	Description
Authorize.net		
Version	3.1	This field displays the merchant version.
Merchant ID	Empty	Enter your Merchant ID. This is a Merchant Identification Number that you're received from your Merchant Provider. The maximum character of the Merchant ID is 50.
Merchant Password	This is a Merchant password that you're received from your Merchant Provider.	
Need	Disable	If your Merchant Provider need password to authorize, click the check box to enable this function.
Password	Empty	Enter your Merchant password.
Merchant Transaction Key	Empty	The Merchant Transaction Key can be obtained directly from "Authorize.net". The Merchant Transaction Key is similar to a password and is used by the Payment Gateway to authenticate transactions. The maximum character of the Merchant Transaction Key is 50.
Payment Gateway	https://secure.authorize.net/gateway/transaction.dll	Enter the address of Payment Gateway.
Email Additional Information	The Email Additional Information included subscriber username and password would be sent to subscriber.	
Email Additional Information	Disable	Indicates whether Email additional information should be sent to the subscriber (customer).
Merchant Name	Empty	Enter the merchant's company name. The maximum allowed characters length is 40.
Username and Password Enable/Disable	Disable	The Email Additional Information included subscriber username and password would be sent to subscriber.
Usage Time Enable/Disable	Disable	The Email Additional Information included subscriber usage time would be sent to the subscriber.
iValidate.net		
Merchant ID	Empty	Enter your Merchant ID. This is a Merchant Identification Number that you're received from your Merchant Provider. The maximum character of the Merchant ID is 20.
Device ID	Empty	Enter your Device ID. This is a Device Identification Number that you're received from your Merchant Provider. The maximum character of the Device ID is 20.
Secure Server Address	https://www.vious.net/	Enter the secure server address.

WG-500P Hotspot in a Printer

	merchant/processcc.a sp	
Secure Pay		
Merchant ID	Empty	Enter your Merchant ID. This is a Merchant Identification Number that you're received from your Merchant Provider. The maximum character of the Merchant ID is 7.
Secure Pay Address	https://www.securepay.com.au/securepay/payments/process2.asp	Enter the address of SecurePay Payment Gateway.
Paypal		
Business	Empty	Enter your Merchant PayPal account. This is a Merchant Identification account that you're register on PayPal. The maximum character of the Business is 127.
Currency Code	Australia dollar	To Drop-down the list. It's includes Australia dollar, Canadian Dollar, Euro, Pound Sterling, Japanese Yen , U.S. Dollars, Czech Koruna, Danish Kroner, Hong Kong Dollars, Hungarian Forint, New Zealand Dollars, Norwegian Kroner, Polish Zloty, Singapore Dollars, Swedish Kronor, Swiss Francs.
Identity Token	Empty	Enter the Identities token form merchants profile in the Paypal site. The maximum character of the Identity Token is 160.
Payment Gateway	https://www.paypal/cgi-bin/webscr	Enter the address of Payment Gateway. The maximum character of the payment gateway is 100.
World Pay		
Payment Gateway	select.worldpay.com/wcc/purchase	Enter the payment gateway address.
Installation ID	Empty	The unique reference number, assigned by WorldPay, for a particular Select installation. This is the number you send to WorldPay in your payment form. You will probably have at least two of these; one for the live installation and one for testing.
Currency Code	Empty	Enter the currency code
Description	Empty	Enter a description of payment page
Test Mode	Disable, Success	Enables or disables test mode function. Select test mode by clicking in the list box. Success—to make a successful test transaction. Fail—for a failed transaction.
Credit Card icons to be		Click on check box to display credit card icon on the login page.

WG-500P Hotspot in a Printer

displayed on the login page		
--------------------------------	--	--

Click **Apply** button to save the new settings and the success dialog box appears. Click on **Back** to return to Accounting setting screen.

Note: Please leave the Administrator' s Email address in Advanced/Syslog/Email portion.

3-2-3 MANAGEMENT

3-2-3-1 Syslog

The function allows the device to transmit event messages to your syslog server or your email address for monitoring and troubleshooting.

Syslog Setting

SYSLOG

Syslog Log Settings

Send to Syslog Server	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
<input type="checkbox"/> Syslog Server on LAN :	Server IP Address : <input style="width: 100px;" type="text"/> Server MAC Address : <input style="width: 100px;" type="text"/>
<input type="checkbox"/> Syslog Server on WAN :	Server 1 IP Address : <input style="width: 100px;" type="text"/> Server 2 IP Address : <input style="width: 100px;" type="text"/>
Send to Email	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Email Server :	IP Address or Domain Name : <input style="width: 150px;" type="text"/> SMTP Port : <input style="width: 50px;" type="text" value="25"/> <input type="checkbox"/> E-mail (SMTP) server account : Username : <input style="width: 80px;" type="text"/> Password : <input style="width: 80px;" type="text"/>
Email From :	Name : <input style="width: 80px;" type="text"/> Email address : <input style="width: 150px;" type="text"/>
Email To :	Email address 1 : <input style="width: 100px;" type="text"/> Email address 2 : <input style="width: 100px;" type="text"/>

Figure 3-2-21 Syslog Setting Screen

Item	Default	Description
Send to Syslog Server	Disable	Enables or disables the syslog server function.
Syslog on LAN		
Server IP Address	Empty	Enter syslog server's IP address. The WG-500P will send all of its logs to the specified syslog server.
Server MAC Address	Empty	Enter the syslog server's MAC address. The WG-500P will send all of its logs to the specified syslog server.

Item	Default	Description
Syslog on WAN		
Server 1 IP Address	Empty	Enter IP address of first syslog server.
Server 2 IP Address	Empty	Enter IP address of second syslog server.
Send to Email		
	Disable	Enables or disables the send to e-mail function.
E-mail Server		
IP Address or Domain Name	Empty	Enter the SMTP server IP address or domain name. The maximum allowed characters length is 50.
SMTP Port	25	The SMTP port allowed range is 25 or 2500 to 2599.
E-mail (SMTP) Server needs to check my account	Disable	If your SMTP server requires authentication before accepting e-mail, click on check box. These values (username and password) are supplied by your network administrator, SMTP server provider or ISP.
Username	Empty	Enter the username for the SMTP server. The maximum allowed characters length is 64.
Password	Empty	Enter the password for the SMTP server
Email From		
Name	Empty	Enter the name you would like to appear in the "message from" field of your outgoing message. The maximum allowed characters length is 20.
Email Address	Empty	Enter your e-mail address. This is the address others will use to send email to Email Address 1/Email Address 2.
Email To		
Email Address 1	Empty	Enter your first e-mail address to receive the logs.
Email Address 2	Empty	Enter your second e-mail address to receive the logs.

Click **Apply** button to save the new settings and the success dialog box appears. Click on **Back** to return to Syslog setting screen.

Log Categories

SYSLOG

Syslog **Log Settings**

System				
Syslog	Email	Log Name	Description	Sending Time
<input type="checkbox"/>	<input type="checkbox"/>	Device Information	Device information updated at specified interval time	10 minute(s) (5-60)
<input type="checkbox"/>	<input type="checkbox"/>	System Up Notice	Updated when system is rebooted or restarted	At system reboot or restart
<input type="checkbox"/>	<input type="checkbox"/>	System Account Activity Information	Updated when system manager (Administrator) logs in or out from the device	At system manager login or logout
<input type="checkbox"/>	<input type="checkbox"/>	Firmware Update Notice	Updated at completion of firmware update	At firmware update completion
<input type="checkbox"/>	<input type="checkbox"/>	Wireless Association information	Updated with wireless user information at specified interval time	10 minute(s) (5-60)

User				
Syslog	Email	Log Name	Description	Sending Time
<input type="checkbox"/>	<input type="checkbox"/>	User Login	Updated with user login events	At user login
<input type="checkbox"/>	<input type="checkbox"/>	User Logout	Updated with user logout events	At user logout
<input type="checkbox"/>	<input type="checkbox"/>	Current User List	Updated with current user information at specified interval time	10 minute(s) (5-60)

Accounting And Billing				
Syslog	Email	Log Name	Description	Sending Time
<input type="checkbox"/>	<input type="checkbox"/>	Account information	Updated when an account is created	At account creation
<input type="checkbox"/>	<input type="checkbox"/>	Billing Amount	Updated when payment is received	At receipt of payment

[Apply](#)

Figure 3-2-22 Log Settings Screen

Item	Default	Description
System		
Device Information	Every 10 minute(s)	<p>The range is 5~60 minutes. The log included system information would be sent according to specified interval time.</p> <p>Format :</p> <p>PRODUCT=WG-500P;VER=2.00.00;LOGNAME=DVI;</p> <p>DATE=07Mar26;TIME=11:30:00;</p> <p>WANMAC=09-00-0e-00-00-01;LANMAC=09-00-0e-00-00-02;</p> <p>WLANMAC=09-00-0e-00-00-03;</p> <p>IP_ADDRESS=210.66.37.21;</p> <p>SYS_UP_TIME=14D23H34M21S;WANTXOK=99999;</p> <p>WANRXOK=99999;WANTXERROR=99999;WANRXERROR=99999;</p> <p>LANTXOK=99999;LANRXOK=99999;LANTXERROR=99999;</p> <p>LANRXERROR=99999;WIRELESSTXOK=99999;WIRELESSRXOK=99999;</p> <p>WIRELESSTXERROR=99999;WIRELESSRXERROR=99999;</p> <p>WAN_QUALITY=5;</p>
System Up Notice	When system	If device have been rebooted or restarted, the log would be

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	rebooted or restarted	<p>sent.</p> <p>Format :</p> <p>PRODUCT=WG-500P;VER=2.00.00;LOGNAME=SUN;</p> <p>DATE=07Mar26;TIME=15:23:32;</p> <p>WANMAC=09-00-0e-00-00-01;LANMAC=09-00-0e-00-00-02;</p> <p>WLANMAC=09-00-0e-00-00-03;</p> <p>IP_ADDRESS=210.66.37.21;</p> <p>SYS_NAME=Cafehotspot;LOCATION=East;CITY=Taipei;</p> <p>COUNTRY=Taiwan; FIRMWARE=v1.01.02;MESSAGE=System_Up;</p> <p>Message = System_Reboot</p>
System Account Activity Information	When system manager login or logout	<p>A log will be sent if system manager (Administrator) login to or logout from the device</p> <p>Format:</p> <p>PRODUCT=WG-500P;VER=2.00.00;LOGNAME=SUN;</p> <p>DATE=07Mar26;TIME=15:23:32;</p> <p>WANMAC=09-00-0e-00-00-01;LANMAC=09-00-0e-00-00-02;</p> <p>WLANMAC=09-00-0e-00-00-03;</p> <p>IP_ADDRESS=210.66.37.21;</p> <p>SYS_NAME=Cafehotspot;LOCATION=East;CITY=Taipei;</p> <p>COUNTRY=Taiwan;</p> <p>FIRMWARE=v1.01.02;MESSAGE=System_Up;</p> <p>Account Name = Admin Supervisor Operator</p> <p>Status= Login Logout Idle_Time_Out</p>
Firmware Update Notice	When firmware update completed	<p>A log will be sent if firmware update completed</p> <p>Format:</p> <p>PRODUCT=WG-500P;VER=2.00.00;LOGNAME=FUN;</p> <p>DATE=07Mar26;TIME=15:23:32;</p> <p>WANMAC=09-00-0e-00-00-01;LANMAC=09-00-0e-00-00-02;</p> <p>WLANMAC=09-00-0e-00-00-03;</p> <p>IP_ADDRESS=210.66.37.21;</p> <p>MESSAGE=Success;OLD_FRIMWARE=v1.00.01;</p> <p>NEW_FIRMWARE=v1.00.02</p> <p>Message = Success Fail</p>
Wireless Association Information	Every 10 minute(s)	<p>The range is range 5–60 minutes. A log including wireless users information will be sent according to specified interval time.</p> <p>Format:</p> <p>PRODUCT=WG-500P;VER=2.00.00;LOGNAME=WAI;</p>

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		<p>DATE=07Mar26;TIME=15:23:32;</p> <p>WANMAC=09-00-0e-00-00-01;LANMAC=09-00-0e-00-00-02;</p> <p>WLANMAC=09-00-0e-00-00-03;</p> <p>IP_ADDRESS=210.66.37.21;</p> <p>USER_NUM=15;SEQ=1-5;USER_MAC=02-34-3e-01-00;</p>
User		
User Login	When user logged-in	<p>A log including users information will be sent when user logged-in</p> <p>Format:</p> <p>PRODUCT=WG-500P;VER=2.00.00;LOGNAME=ULI;DATE=07Mar26;</p> <p>TIME=15:23:32;WANMAC=09-00-0e-00-00-01;</p> <p>LANMAC=09-00-0e-00-00-02; WLANMAC=09-00-0e-00-00-03;</p> <p>IP_ADDRESS=210.66.37.21;USER_NAME=asdfg12;USER_IP=10.59.1.1;</p> <p>USER_MAC=02-34-3e-01-00;INTERFACE=Ethernet;</p> <p>USER_TYPE=Dynamic;</p> <p>User Type = Dynamic / Super / User Agreement / Radius / No-Auth</p> <hr/> <p>When User Replenish login format:</p> <p>PRODUCT=WG-500P;VER=2.00.00;LOGNAME=URP;DATE=07Mar26;</p> <p>TIME=15:23:32; WANMAC=09-00-0e-00-00-01;</p> <p>LANMAC=09-00-0e-00-00-02; WLANMAC=09-00-0e-00-00-03;</p> <p>IP_ADDRESS=210.66.37.21;USER_NAME=asdfg12;</p> <p>REP_USER_NAME=kifm2fs3;USER_IP=10.59.1.1;</p> <p>USER_MAC=02-34-3e-01-00; INTERFACE=Ethernet;</p> <p>USER_TYPE=Dynamic; USED_TIME=24:00:00;TIME_LEFT=24:00:00</p> <p>User Type = Dynamic / Radius</p>
User Logout	When user logged-out	<p>A log including users information will be sent when user logged-out</p> <p>Format:</p> <p>PRODUCT=WG-500P;VER=2.00.00;LOGNAME=ULO;DATE=07Mar26;</p> <p>TIME=15:23:32;WANMAC=09-00-0e-00-00-01;</p> <p>LANMAC=09-00-0e-00-00-02; WLANMAC=09-00-0e-00-00-03;</p> <p>IP_ADDRESS=210.66.37.21;USER_NAME=asdfg12;USER_IP=10.59.1.1;</p> <p>USER_MAC=02-34-3e-01-00;INTERFACE=Ethernet;</p> <p>USER_TYPE=Dynamic;RXDATA=1234; TXDATA=1234;</p> <p>USED_TIME=24:00:00;LOGOUT_TYPE=Time_Up;TIME_LEFT=24:00:00</p>

		0 User Type = Dynamic / Super / User Agreement / Radius / No-Auth
Current User List	Every 10 minute(s)	The range is Range 5~60 minutes. A log including logged-in users information will be sent according to specified interval time Format: PRODUCT=WG-500P;VER=2.00.00;LOGNAME=CUL;DATE=07Mar26; TIME=15:23:32;WANMAC=09-00-0e-00-00-01; LANMAC=09-00-0e-00-00-02; WLANMAC=09-00-0e-00-00-03; IP_ADDRESS=210.66.37.21;USER_NUM=0;SEQ=1-5; USER_NAME=asdfg12,USER_IP=10.59.1.2,USER_MAC=02-34-3e-01-00, INTERFACE=Ethernet,USER_TYPE=Dynamic,RXDATA=1234, TXDATA=1234,USED_TIME=24:00:00,SESSION=100,WLAN_SIG=N/A; USER_NAME=dk6uf2eg,USER_IP=10.59.1.3,USER_MAC=02-34-3e-01-02, INTERFACE=Wireless,USER_TYPE=Dynamic,RXDATA=1234, TXDATA=1234,USED_TIME=24:00:00,SESSION=100,WLAN_SIG=100%; User Type = Dynamic / Super / User Agreement / Radius / No-Auth User Name = If the type of user is Super/User Agreement/No-Auth , the username=****
Account and Billing		
Account Information	When an account is created	A log will be sent when an account is created Format: PRODUCT=WG-500P;VER=2.00.00;LOGNAME=ACI;DATE=07Mar26; TIME=15:23:32;WANMAC=09-00-0e-00-00-01; LANMAC=09-00-0e-00-00-02; WLANMAC=09-00-0e-00-00-03; IP_ADDRESS=210.66.37.21;USER_NAME=asdfg12; ACCOUNT_TYPE=TimetoFinish; ACCOUNT_SERIAL=000002; ACCOUNT_PRICE= USD20.00; ACCOUNT_USAGE_TIME=10:59:59; BILLING_INDEX=1;BILLING_UNIT=2; Account Type = TimeToFinish / Accumulation / PostPaid Account Price = Currencyxx.xx Currency = AUD CHF EUR GBP JPY RIY USD
Billing Amount	When received amount	A log will be sent when received amount Format:

		<p>PRODUCT=WG-500P;VER=2.00.00;LOGNAME=BLA; DATE=07Mar26; TIME=15:23:32;WANMAC=09-00-0e-00-00-01; LANMAC=09-00-0e-00-00-02; WLANMAC=09-00-0e-00-00-03; IP_ADDRESS=210.66.37.21;USER_NAME=username; BILL_TYPE=Cash, BILL_AMOUNT= USD50.00 Billing Type= Cash Credit_Card: Billing Amount = xx.xx Currency = AUD CHF EUR GBP JPY RIY USD.....</p>
--	--	---

Click **Apply** button to save the new settings and the success dialog box appears. Click on **Back** to return to Logs setting screen.

3-2-3-2 Session Trace

Session Trace is an intelligent function to help service provider to trace every user’s access behavior. When “session trace” is enable , the system will collect information such like destination IP, destination port, source IP, source MAC, source port by every user and send the collected information in text format file to specified TFTP server or Email Server.

SESSION TRACE

Session Trace : Disable

TFTP Server	<input type="checkbox"/> Enable Primary TFTP Server IP Address <input style="width: 100px;" type="text"/> Secondary TFTP Server IP Address <input style="width: 100px;" type="text"/>														
E-mail Server	<input type="checkbox"/> Enable <table style="width: 100%; border: 1px solid #ccc;"> <tr> <td style="width: 30%; padding: 2px;">IP Address or Domain Name :</td> <td><input style="width: 150px;" type="text"/></td> </tr> <tr> <td style="padding: 2px;">SMTP Port :</td> <td><input style="width: 50px;" type="text" value="25"/></td> </tr> <tr> <td style="padding: 2px;"><input type="checkbox"/> E-mail (SMTP) server account :</td> <td></td> </tr> <tr> <td style="padding: 2px;"> Username :</td> <td><input style="width: 80px;" type="text"/></td> </tr> <tr> <td style="padding: 2px;"> Password :</td> <td><input style="width: 80px;" type="text"/></td> </tr> <tr> <td style="padding: 2px;">Email From :</td> <td>Name : <input style="width: 80px;" type="text"/> Email address : <input style="width: 120px;" type="text"/></td> </tr> <tr> <td style="padding: 2px;">Email To :</td> <td>Email address 1 : <input style="width: 120px;" type="text"/> Email address 2 : <input style="width: 120px;" type="text"/></td> </tr> </table>	IP Address or Domain Name :	<input style="width: 150px;" type="text"/>	SMTP Port :	<input style="width: 50px;" type="text" value="25"/>	<input type="checkbox"/> E-mail (SMTP) server account :		Username :	<input style="width: 80px;" type="text"/>	Password :	<input style="width: 80px;" type="text"/>	Email From :	Name : <input style="width: 80px;" type="text"/> Email address : <input style="width: 120px;" type="text"/>	Email To :	Email address 1 : <input style="width: 120px;" type="text"/> Email address 2 : <input style="width: 120px;" type="text"/>
IP Address or Domain Name :	<input style="width: 150px;" type="text"/>														
SMTP Port :	<input style="width: 50px;" type="text" value="25"/>														
<input type="checkbox"/> E-mail (SMTP) server account :															
Username :	<input style="width: 80px;" type="text"/>														
Password :	<input style="width: 80px;" type="text"/>														
Email From :	Name : <input style="width: 80px;" type="text"/> Email address : <input style="width: 120px;" type="text"/>														
Email To :	Email address 1 : <input style="width: 120px;" type="text"/> Email address 2 : <input style="width: 120px;" type="text"/>														

Send Session Trace log file every minutes. (5~1440)
(Note: Session Trace log file will also be sent also when 50 logs are collected)

Apply

Figure 3-2-23 Session Trace Setting Screen

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Item	Default	Description
TFTP Server		
Session Trace	Disable	Disables or enables session trace function.
Primary TFTP Server IP Address	Empty	Enter the IP address of the primary TFTP server.
Secondary TFTP Server IP Address	Empty	Enter the IP address of the second TFTP server.
Send Session Trace log file every- minutes.	10 minutes	The field means to send the session trace log file every interval minutes. The value range is 5 to 1440 (minutes).
Send to Email	Disable	Enables or disables the send to e-mail function.
E-mail Server		
IP Address or Domain Name	Empty	Enter the SMTP server IP address or domain name. The maximum allowed characters length is 50.
SMTP Port	Empty	The SMTP port allowed range is 25 or 2500 to 2599.
E-mail (SMTP) Server needs to check my account	Disable	If your SMTP server requires authentication before accepting e-mail, click on check box. These values (username and password) are supplied by your network administrator, SMTP server provider or ISP.
Username	Empty	Enter the username for the SMTP server. The maximum allowed characters length is 64.
Password	Empty	Enter the password for the SMTP server
Email From		
Name	Empty	Enter the name you would like to appear in the "message from" field of your outgoing message. The maximum allowed characters length is 20.
Email Address	Empty	Enter your e-mail address. This is the address others will use to send email to Email Address 1/Email Address 2.
Email To		
Email Address 1	Empty	Enter your first e-mail address to receive the logs.
Email Address 2	Empty	Enter your second e-mail address to receive the logs.

3-2-3-3 Bandwidth

The function enables administrator to limit bandwidth usage on a per user basis (MAC address). That prevents users from consuming a disproportionately large amount of bandwidth so every user gets a fair share of the available bandwidth.

BANDWIDTH

Bandwidth Management:

Limit bandwidth usage on a per user (MAC address) basis. Prevent individual users from consuming a disproportionately large amount of bandwidth. Distribute bandwidth more fairly across all users.

Specify maximum Upstream/Downstream bandwidth:

Maximum Upstream 64 Kbps Kbps (64~5120)

Maximum Downstream 128 Kbps Kbps (64~5120)

Figure 3-2-24 Bandwidth Setting Screen

Item	Default	Description
Bandwidth	Disable	Enables or disables Bandwidth Management.
Maximum Upstream	64Kbps	Specify the amount of upstream bandwidth.
Maximum Downstream	128Kbps	Specify the amount of downstream bandwidth.

3-2-3-4 SNMP

The SNMP Agent Configuration screen enables you to access to your device via Simple Network Management Protocol. If you are not familiar with SNMP, please consult your Network Administrator or consult SNMP reference material. You must first enable SNMP on the SNMP Agent Configuration screen.

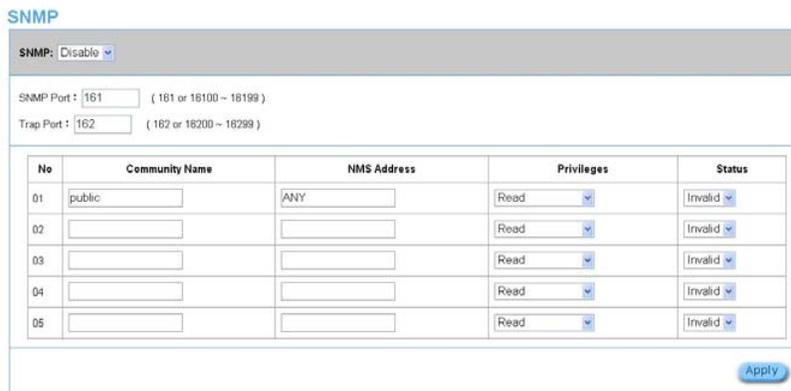


Figure 3-2-25 SNMP Setting Screen

Item	Default	Description
SNMP	Disable	Disables or enables the SNMP management.
SNMP Port	161	If the SNMP enables, also allowed to specific the SNMP port number via NAT. The allowed SNMP port numbers are 161(default), 16100-16199 and Trap port numbers are 162 (default), 16200-16299. This Port setting is useful for remote control via NAT network.
Trap Port	162	
Configuration		
Community Name	public/private	Every unit with SNMP enable must be configured to recognize one or more community names up to 20 characters. The default setting for the community of entry 1 is "public" and for the entry 2 is "private" and others are empty.
NMS Address	ANY	The address of the NMS. The default settings for the NMS Networking are "ANY".
Privileges	Read/Write	Choose "Read", "Write", "Trap Recipients" and "All" for different privileges. The default setting of the entry 2 is "write" and others are "read".
Status	Valid/Invalid	Chosen "Valid" or "Invalid". The default setting of entry 1, 2 are valid and others are invalid.

3-2-4 SECURITY

3-2-4-1 Pass Through

This function allow administrator to set some special devices pass through the WG-500P system. Because some network devices might be constructed under the WG-500P. However these devices needn't be checked and authorized. The WG-500P provides a pass through list and the administrator can control which devices can be pass through with authentication.

PASS THROUGH

Pass Through: Enable

Pass Through Destination allows the subscribers to access specified Internet websites without authentication, which is useful to promote selected services. Pass Through Subscriber is useful for VIP users without authentication. Pass Through LAN device is also useful for devices that do not have a web browser (cash registers, for example) or that are connected with LAN port (wireless access points, for example).

Enter new pass through for destination (up to 20 entries)

URL or Website:

Start / End IP Address: ~

Enter new pass through for subscribers or LAN devices (up to 20 entries)

Start / End IP Address: ~

IP Address: Subnet Mask:

MAC address: Mask: FF-FF-FF-FF-FF-FF

Pass Through List

No.	Active	Address List	Type	Description	Delete
<input type="button" value="Delete All"/>					

Figure 3-2-26 Pass through Setting Screen

Item	Default	Description
Pass Through	Disable	Enables or disables the pass through function.
Destination URL/IP Address Pass Through		
URL or Website	Empty	<p>Enter the URL Page; please use this format such like "http://www.yahoo.com". The maximum character of the URL Page is 50.</p> <p>Note:</p> <ol style="list-style-type: none"> Please add www.apple.com into PASS THROUGH list in WG-500P. (iOS 6 device and later is required.) Please add go.redirectingat.com for certain QR code apps.

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Start / End IP Address	Empty	Enter the start / end IP address of you wants pass through.
Subscriber IP/MAC Address or LAN Device Pass Through		
Start / End IP Address	Empty	Enter the start / end IP address of you wants pass through.
IP Address	Empty	Enter the IP address of you wants pass through.
Subnet Mask	Empty	Enter the subnet mask of you wants pass through.
MAC Address	Empty	Enter the MAC address of you wants pass through.
Mask	Empty	Enter the subnet mask of you wants pass through.
Pass Through List	Display the pass through Information of WG-500P.	
No.	-	The index number of pass through address.
Active	Disable	Click on check box, active or inactive the pass through address.
Address List	-	Display the pass through address(s).
Type	-	Display the type of pass through address.
Delete	Disable	Select the check boxes and click 'Delete' to delete the pass through address(s).

Click **Add to List** button to add a new entry. Click **Apply** button to save the new settings. Click **Delete All & Apply** button to delete all entries.

Note: The priority of "pass through" is higher than "Filtering".

3-2-4-2 Filtering

Filtering allows the system administrator to have a list of restricted destinations, which is useful to block specified Internet websites or Intranet areas.

FILTERING

Filtering:

List of restricted destinations, usually for blocking specified Internet websites or Intranet areas.

HTTP Message to display when a website is blocked

Enter new restricted destination: (up to 20 entries)

URL or Website:

Start / End IP Address: ~

IP Address: Subnet Mask:

Restricted Destination List

No.	Active	Address List	Delete
<input type="button" value="Delete All"/>			

Figure 3-2-27 Filtering Setting Screen

Item	Default	Description
Filtering	Disable	Enables or disables filtering function.
HTTP Message to display when a website is blocked	The Web Site is blocked by System	Enter the http message. The maximum character of the HTTP message is 200.
Restrict Destination		
URL or Website	Empty	Enter the URL Page of you wants to filter; please use this format such like "http://www.yahoo.com". The maximum character of the URL Page is 50.
Start IP Address	Empty	Enter the start IP address of you wants to filter.
IP Address	Empty	Enter the destination IP address of you wants to filter.
Subnet Mask	Empty	Enter the destination subnet mask.
No	-	The index number of filtering address.
Active	Disable	Click on check box, active or inactive the filtering address.