NetComm™

HS800

Wireless Gateway

User's Guide

Customising the HS800

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1. Introduction

Congratulations on purchasing your NetComm HS800 Wireless Gateway. This guide covers areas specific to administrators of the Wireless Gateway and will help in you in customizing the device to suit your needs.

Login page:	The HS800 Wireless Gateway allows you to change the look and feel of the login page that a subscriber will see when logging onto the Internet. You can decide what the welcome message is, if you want a logo on the page, or if you would like the web page split into two frames with the login fields in the bottom frame and a website of your choice in the top frame. You can even code your own login page or redirect the subscriber to a different website address.
Receipt:	Customize what is printed on the receipt issued to subscribers.
Billing:	You can decide how much to charge people to use the service, and customize a billing profile for each button on the printer that comes with the HS800 Wireless Gateway. You can implement discounts based on button sequences on the HS800 printer. Decide how you would like your customers to pay for the service - before logging in, or once they have finished using the Internet.
Accounting:	Decide whether you would like to use the HS800 printer or a printer on your network to print account details. Set expiration times for accounts.
Pass Through:	Allow certain machines to access the internet without having to enter a username and password. This is ideal for VIP members. You can also allow subscribers to access certain websites without having to enter a username and password by listing the website addresses under the Pass Through section.
Advertisements:	Advertise specials that your organisation may have, or charge companies to use the HS800 Wireless Gateway for advertisements. The adverts will be pop-ups that appear while a subscriber is surfing the Internet.
Filtering:	Decide which websites you want to restrict access to (e.g. competitors, X-rated sites, download sites).

1-1 Package Contents

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

- One HS800 Wireless Gateway
  - Two antennas
  - One AC Power Adapter for HS800 Wireless Gateway
  - One CD containing Manuals
  - Two screws for wall-mount
  - One UTP Ethernet/Fast Ethernet cable (Cat.5 Twisted-pair)
  - Package Contents Note

- One Account Generator Printer
  - One AC Power Adapter for mini account generator printer
  - One RJ-11 to DB25 male connector cable
  - One Account Generator Printer User's Guide

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

1-2 Features

- IP Plug and Play connectivity
- Wireless 802.11b+ 22Mbps
- Built-in AAA (Authentication/Accounting/Authorization) and Billing mechanism
- Comprehensive security
- Intelligent Management

Note: The "PnP" Function can only be used with a 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 wet areas.
- Only use the original fitting AC power adapter otherwise there is a danger of severe electrical shock.
- Avoid exposing the HS800 Wireless Gateway to direct sunlight or another heat source.
- Choose a well-ventilated area to position your HS800 Wireless Gateway.

1-4 Overview of the HS800 Wireless Gateway

Figure 1-1 HS800 Wireless Gateway Outlook

1-4-1 Front Panel

The front panel of the HS800 Wireless Gateway is shown below.

Figure 1-2 HS800 Wireless Gateway Front Panel

Description of LEDs

LED	State	Description
Power	Off	The HS800 Wireless Gateway is not receiving electrical power.
	Green	The HS800 Wireless Gateway is receiving electrical power.
WAN	Green	The WAN port is connected to your xDSL or Cable modem.
	Green (Blinking)	Data is travelling through the WAN port.
LAN (1-4)	Green	A port has established a valid 10/100Mbps network connection.
	Green (Blinking)	10/100Mbps traffic is traversing the port.
	Off	Port has not established any network connection.
Wireless	Green	The HS800 Wireless Gateway has established a valid wireless connection.
	Green (Blinking)	The Wireless connection is active.
Status	Off	The HS800 Wireless Gateway status is defective.
	Green	The HS800 Wireless Gateway status is complete.
	Green (Blinking)	During firmware upgrades, the status LED will blink.

1-4-2 Rear Panel

The rear panel of the HS800 Wireless Gateway is shown below.

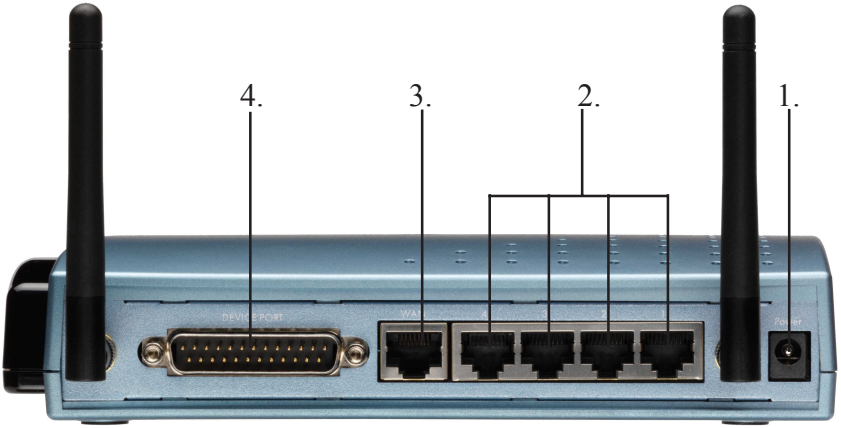


Figure 1-3 HS800 Wireless Gateway Rear Panel

1. **Power Jack:** Used to connect the external power supply with the HS800 Wireless Gateway.
2. **LAN Ports:**

   The rear panel supports four auto-sensing RJ-45 ports and all ports can be auto-switched to MDI-II connections. The LAN ports are used for linking hosts or other network devices. The individual port can be either connected to 100BaseTX networks or 10BaseT networks. When connecting to a 100BaseTX network, the ports operate at 100Mbps in half-duplex mode or 200Mbps in full-duplex mode. When connecting to a 10BaseT network, the ports operate at 10Mbps in half-duplex mode or 20Mbps in full-duplex mode.
3. **WAN Port:** One Ethernet port used for linking a xDSL or Cable Modem.
4. **Device Port:** Used to connect the Account Generator Printer.

1-4-3 Left Side Panel

The left side panel of the HS800 Wireless Gateway is shown below.

Figure 1-4 HS800 Wireless Gateway Left Side Panel

Reset Button:

The HS800 Wireless Gateway has a reset button on the left side panel of the device. In some circumstances you might need to reset the HS800 Wireless Gateway device.

1-5 Three Button Printer

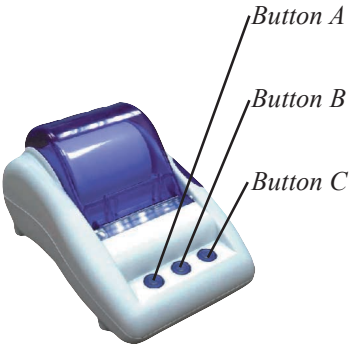


Figure 1-5 Three Button Thermal Printer

1-5-1 Changing the paper

If there is no paper, the Button A indicator will be flashing. To change the paper:

Step 1: Open the clear cover by pressing down the lever on the right hand side of the printer.

Step 2: Remove the old roll.

Step 3: Insert the new roll so that the paper edge is facing away from the front of the printer.

Step 4: Close the clear cover.

Step 5: Press and release Button A to feed the paper through.

1-5-2 Test Print

To print a test page on the Printer:

Step 1: Turn the power off.

Step 2: Hold down Button A and turn the power on.

Step 3: Release Button A and the printer will print a test page.

2. Logging in to the HS800

Step 1: Start your Browser

Start your browser, and then enter the factory default IP address **10.0.0.1** in your browser's location box. Press **Enter**.

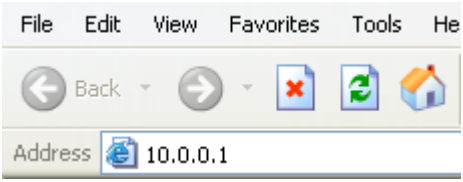


Figure 2-1 Web Browser Location Field (Factory Default)

Step 2: The HS800 Wireless Gateway Configuration Tools Menu

The HS800 Wireless Gateway configuration tools menu will appear. In the Username and Password field, type the factory default user name (**admin**) and password (**admin**)and click "**Getting Started".** Select the **"Advanced Setup"** tab to access the customisation screens.

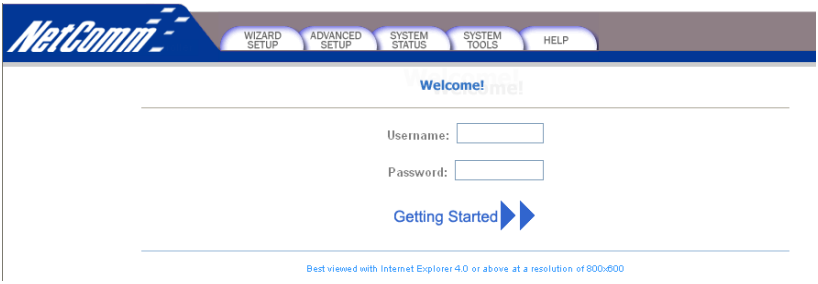


Figure 2-2 Configuration Tools Menu

Step 2: The HS800 Wireless Gateway Advanced Setup Menu

This section details the most common customisation issues. For more detailed information on the HS800, please refer to the HS800 Installation Guide.

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

1. System
2. WAN/LAN
3. Server
4. Authentication
5. Billing
6. Accounting
7. Credit Card
8. Keypad
9. Customization
10. Pass Through
11. Filtering
12. Share
13. Portal Page
14. Advertisement
15. Walled Garden
16. DDNS
17. LAN Device Management
18. Syslog
19. Wireless

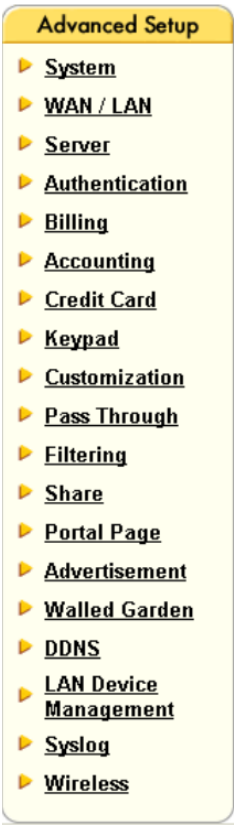


Figure 2-3 Advance Setup Menu Screen

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

3. Customising the HS800

To customise your HS800, click on **Customisation** in the **Advanced Setup** screen.

3-1 Customisation

3-1-1 Logo

This function allows uploading the service provider's logo file, which can be shown on the standard login page and account printout from the PC-connected printer.

Note: Maximum file size is 60KB (kilobytes).

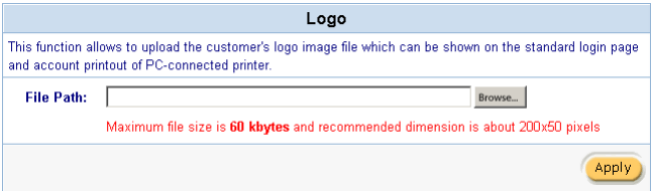


Figure 3-1 Logo Setting Screen

Item	Description
File Path	Enter the path to the file (e.g. c:\images\logo.jpg)

Click the **Apply** button to save the new settings. The Success! dialog box appears.

Figure 3-2 Success Dialog Box

Click on **Back** to return to Customization setting screen.

3-1-2 Login Page

Standard

Service Providers have the ability to customize the login page. The page elements include the welcome image, background color, article etc. The HS800 Wireless Gateway provides three different login page formats, including standard, redirect, advanced and frame format.

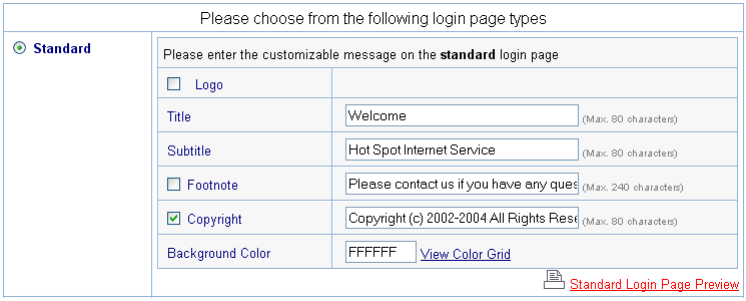


Figure 3-3 Standard Login Page Customization Setting Screen

Item	Default	Description
Logo	Disable	Select the checkbox to display the provider's logo. NOTE: You will need to specify the path to the logo before checking this tickbox.
Title	Welcome	Enter the title for the login page. The maximum allowed characters is 80.
Subtitle	Hot Spot Internet Service	Enter the subtitle for the login page. The maximum allowed characters is 80.
Footnote	Disable	Allows the administrator to input a footnote such as "Please Contact our Customer Service Center on EXT 142". Maximum characters: 240.
Copyright	Enable	Copyright information can be included. The maximum character length is 80.
Background Color	FFFFFF	Enter a hexadecimal number that represents the background colour. The default FFFFFF is white.

Figure 3-4 Login Page Screen

Before you add your logo to the login page, please make sure the logo image file is defined. For details, see section 3-1-9 Customization->Logo.

Figure 3-5 Error Dialog Box

3-1-3 Redirect

This allows the service provider to redirect the subscriber's browser to a specified home page.

Figure 3-6 Redirect Login Page Setting Screen

Copy and paste the following HTML Code into your home page to produce redirect subscriber login page.

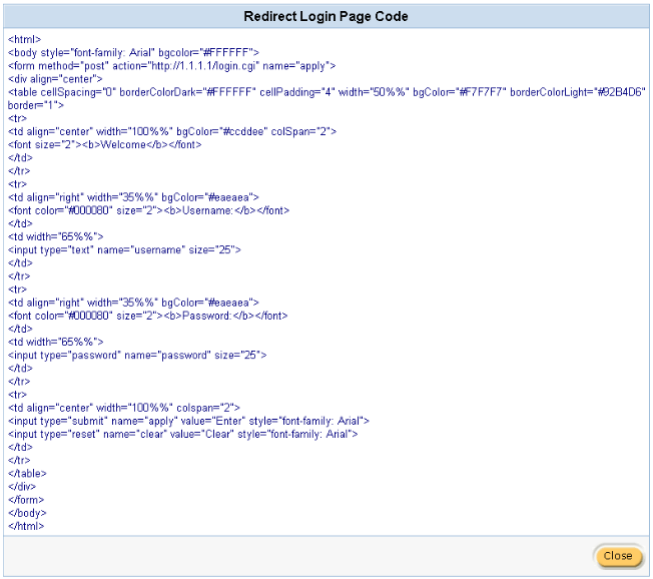


Figure 3-7 Redirect Login Page Code Screen

3-1-4 Advanced

This function allows users to design a login page for the HS800 Wireless Gateway.

Figure 3-8 Advanced Login Page Setting Screen

Item	Default	Description
Welcome Slogan	Welcome	A Welcome message with a maximum length of 80 characters can be added.
Page Background	None	The page background can be none or a specified color. For the background color format please view the color grid. The allowed format is Hexadecimal (RGB values of Red, Green, and Blue, where each component has a hexadecimal value from 00 to FF. 000000 is black and FFFFFF is white.)
Article	Empty	The article is generally used for an advertisement or a special announcement. Maximum character length is 1024.
Article Text Color	000000	The article text color can be specified color. For the specified text color format please view the color grid. The allowed format is Hexadecimal.
Article Background Color	None	The article background can be a specified color. For the background color format please view the color grid. The allowed format is Hexadecimal. (e.g. FFFFFF)
Information	Empty	Allows the administrator to include text information such as address, telephone number and fax information. The maximum character length is 80.
Comments	Empty	Allows the administrator to include text comments such like “Please Contact our Customer Service Center on EXT 142”. The maximum character length is 80.

Figure 3-9 Color Gird

3-1-5 Frame

If "Frame" is selected the subscriber login page will be separated into Top and Bottom frame. The Bottom Frame is a default format for username and password input. The Top frame can be specified as a URL.

Figure 3-10 Frame Login Page Setting Screen

Item	Default	Description
Top Frame URL Link	Empty	The input format can be http:// www.yahoo.com. The maximum character length of the URL Link is 200.
Bottom Frame	-	This frame will show the standard login page.

Figure 3-11 Example-Login Page Screen

3-1-6 Information Window

The Information Window is a pop-up window that is displayed to subscribers within their browser once after the subscriber logs in successfully. The subscriber can type http://1.1.1.1/info to open this window again or http://1.1.1.1/logout to logout immediately if accumulation billing is selected.

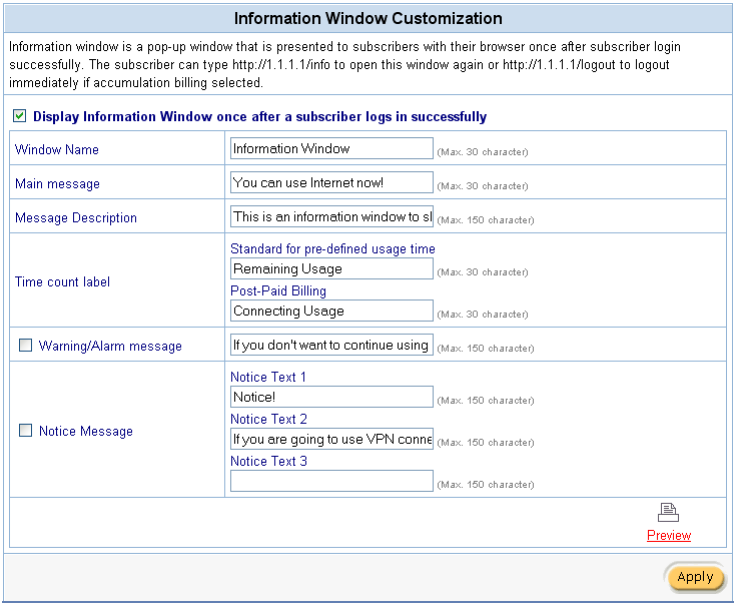


Figure 3-12 Example-Login Page Screen

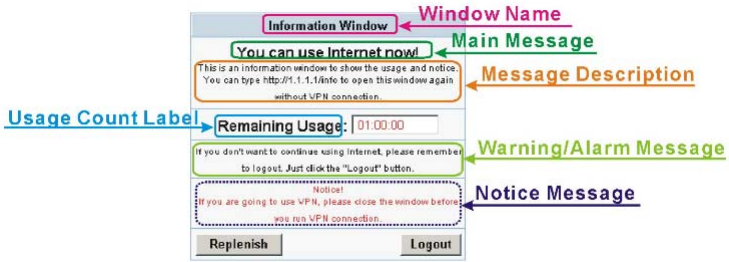


Figure 3-13 Example-Login Page Screen

Figure 3-14 Information Window

Billing Type=Time to Finish

Can be replenished by subscriber=Disable

Figure 3-15 Information Window

Billing Type=Time to Finish

Can be replenished by subscriber=Enable

Figure 3-16 Information Window

Billing Type=Accumulation

Can be replenished by subscriber=Disable

Figure 3-17 Information Window

Billing Type=Accumulation

Can be replenished by subscriber=Enable

Figure 3-18 Information Window

Super Subscriber Account (Default username="super" & password="super")

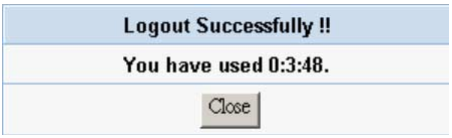


Figure 3-19Logout Successfully Dialog Box

Billing Type=Accumulation

Figure 3-20 Disconnected Dialog Box

Figure 3-21 Alarm Dialog Box

3-1-7 Account Printout

This function allows the service provider to specify the text on the account printout.

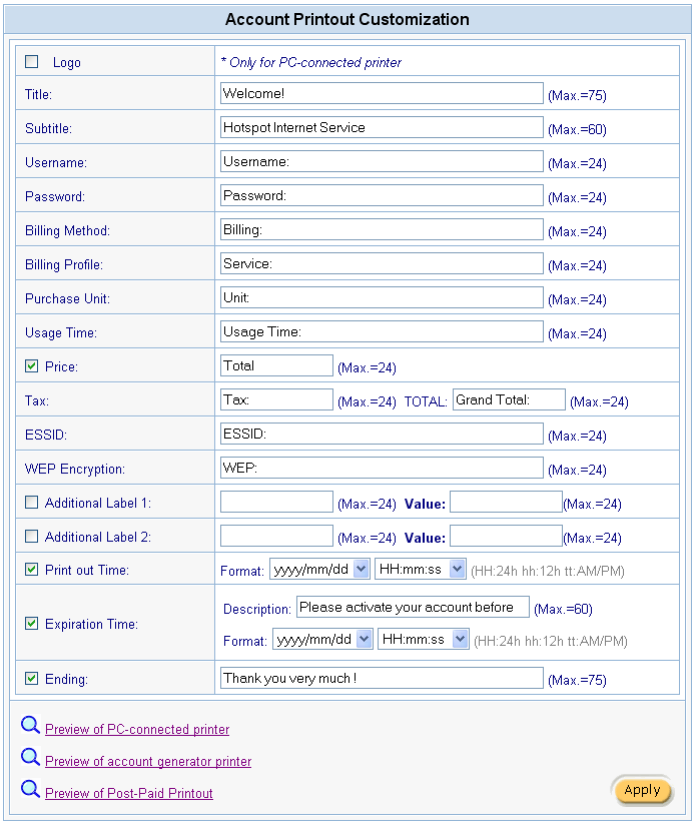


Figure 3-22 Account Printout Customization Setting Screen

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

Figure 3-23 Success Dialog Box

Click the **Back** button to return to Account Printout Customization setting screen.

Preview of PC-connected printer

Figure 3-24 PC-connected Printer Printout

Preview of account generator printer

Figure 3-25 Account Generator Printer Printout

Figure 3-26 Account Generator Printer Printout

3-1-8 Credit Card

Standard Login Page

This function allows the service provider to customize the additional credit card message for the standard login page.

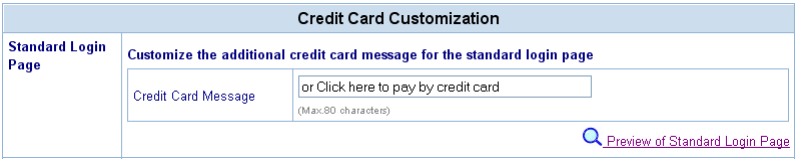


Figure 3-27 Credit Customization Setting Screen

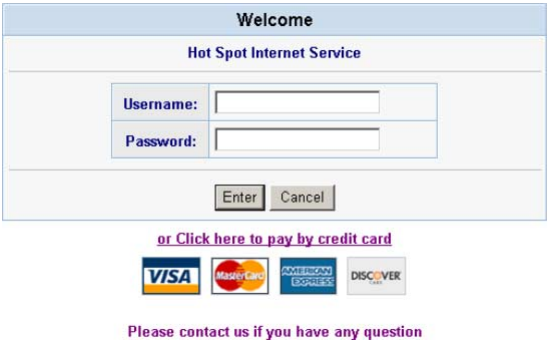


Figure 3-28 Standard Login Page

(Enable Credit Card Service=enable)

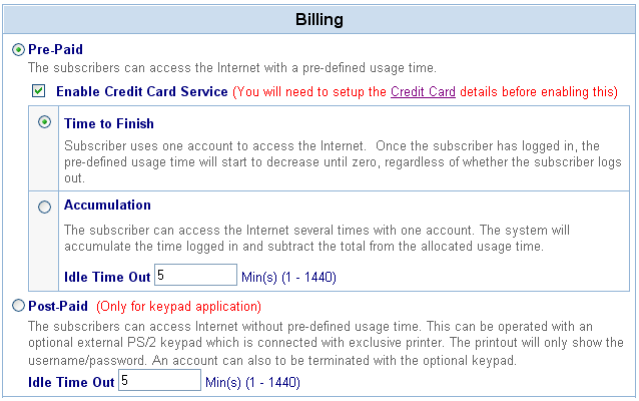


Figure 3-29 Billing Setting Screen

3-1-9 Service Selection Page

This function allows the service providers to customize the additional credit card message for the standard login page.

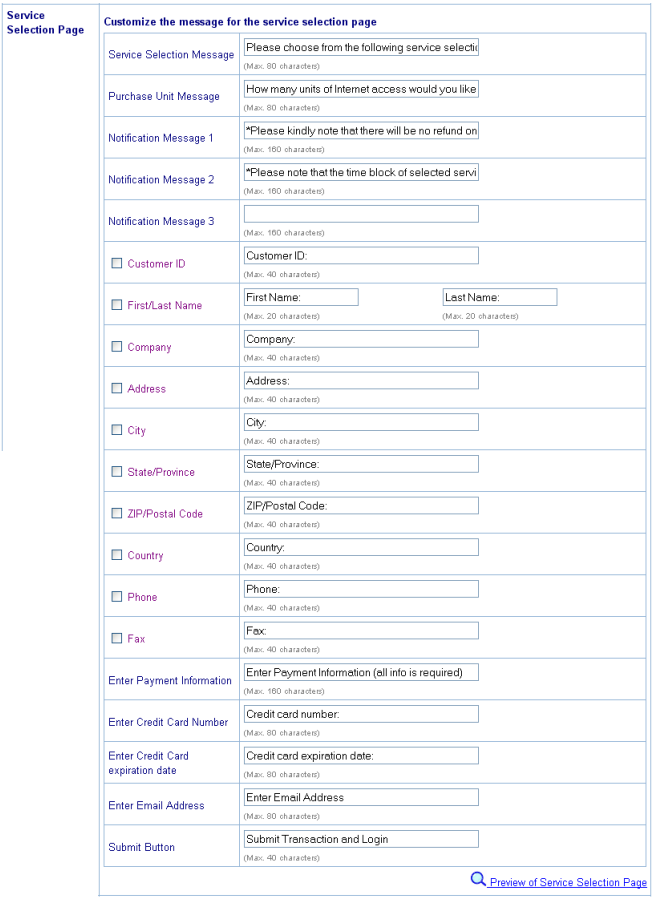


Figure 3-30 Service Selection Page Setting Screen

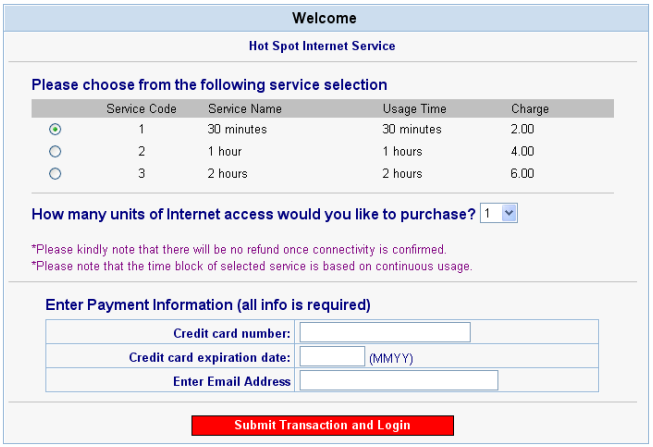


Figure 3-31 Example-Service Selection Page

Successful Page

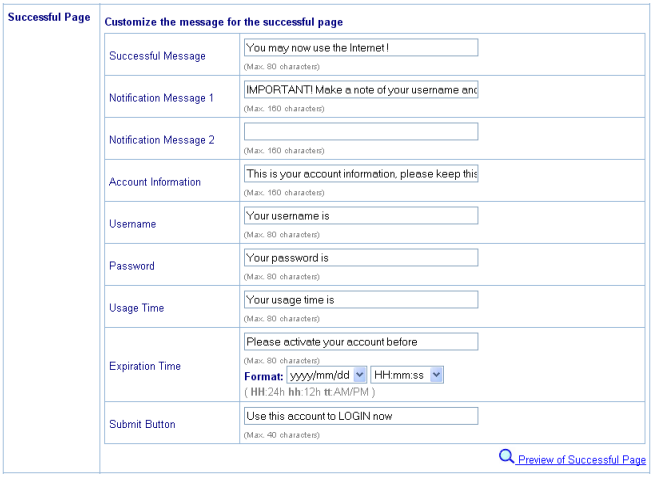


Figure 3-32 Successful Page Setting Screen

Figure 3-33 Example-Successful Page

Fail Page

This function allows the service provider to customize the message for the fail page.

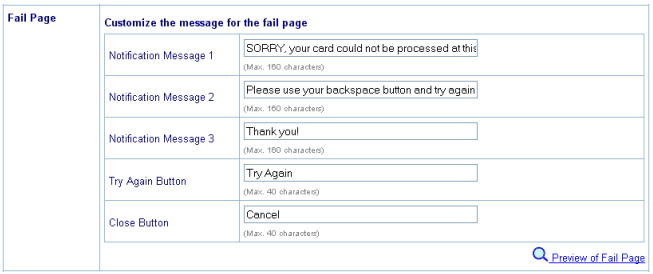


Figure 3-34 Fail Page Setting Screen

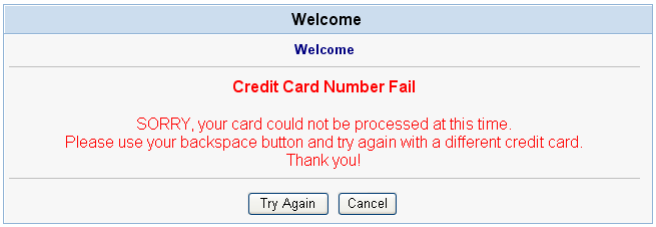


Figure 3-35 Example-Fail Page

Click the **Apply** button to save the new settings. The Success! dialog box appears.

Figure 3-36 Success Dialog Box

Click the **Back** button to return to Credit Card Customization setting screen.

3-2 Billing

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

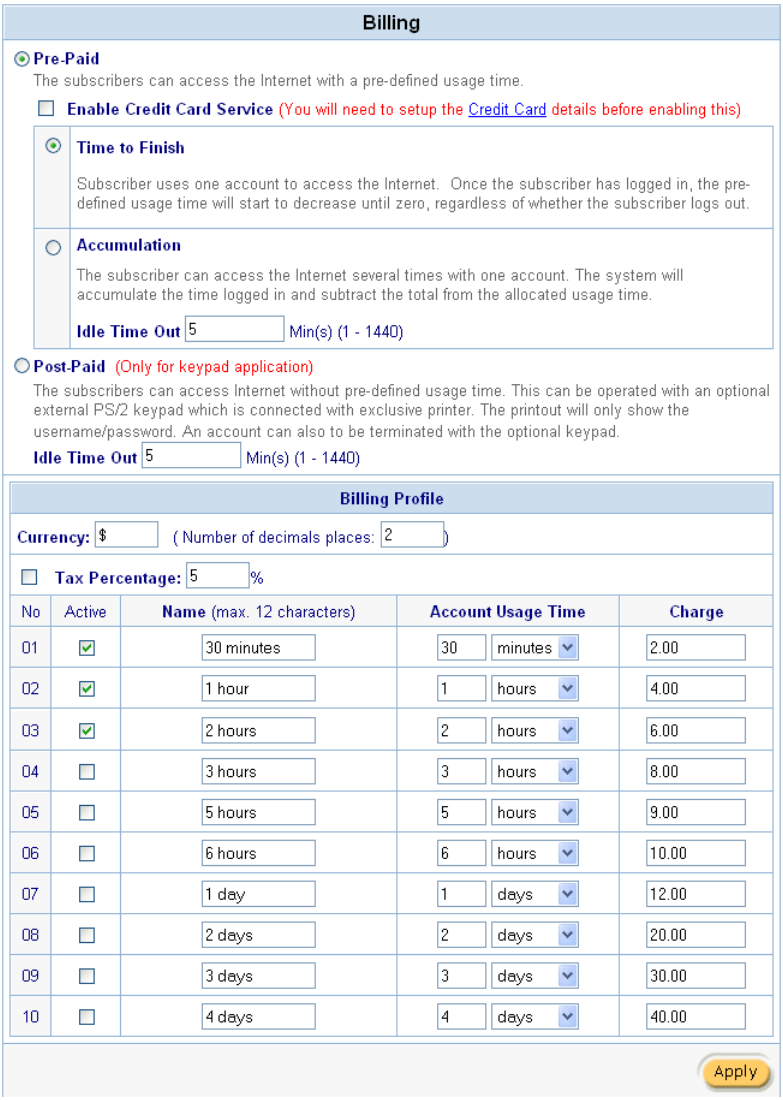


Figure 3-37 Billing Setting Screen

Item	Default	Description
Pre-Paid	Enable	The subscribers can access Internet with pre-defined usage time.

Note: ***If you change billing mode (Pre-paid->Post-paid or Post-paid->Pre-paid), the system will erase all accounts and disconnect all on-line users.***

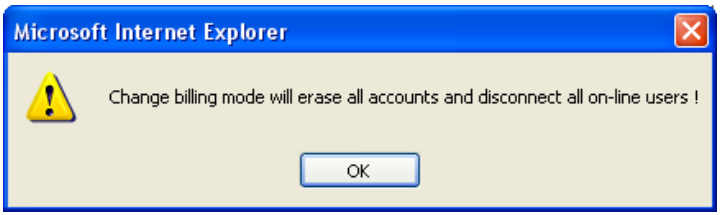


Figure 3-38 Message Box

Item	Default	Description
Enable Credit Card Service	Disable	Enables or disables the credit card service. Before you enable the 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 3-1-7 Credit Service. The credit card service only supports American dollars.

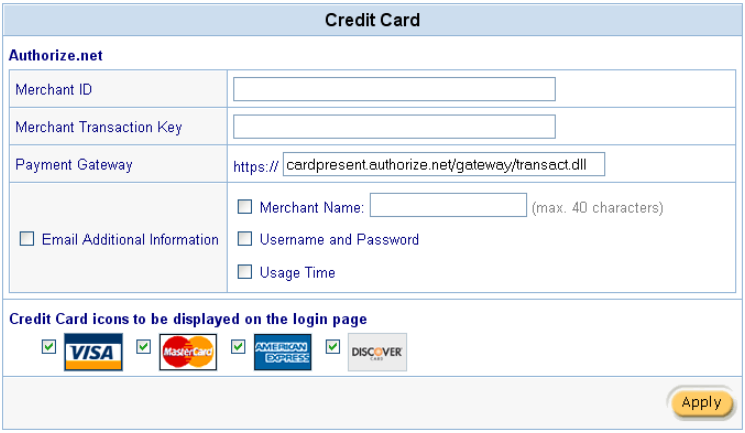


Figure 3-39 Credit Service Setting Screen

Item	Default	Description
Time to Finish	Enable	Subscriber uses one account to access the internet. Once the subscriber has logged in, the pre-defined usage time will start to decrease until zero, regardless of whether the subscriber logs out.
Accumulation		
Accumulation	Disable	Subscriber can access the internet several times with one account. The system will accumulate the time logged in and subtract the total from the allocated usage time.
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.

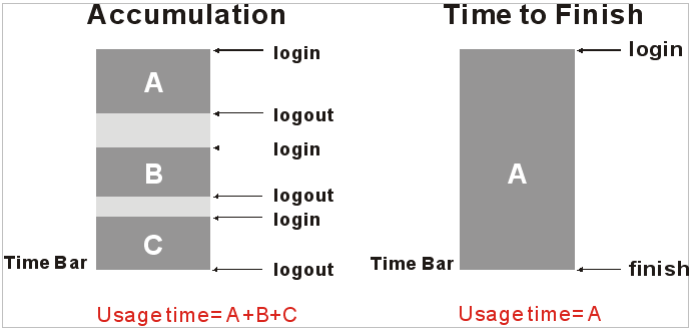


Figure 3-40 Accumulation and Time to Finish

Item	Default	Description
Post-Paid	Disable	The subscribers can access Internet without pre-defined usage time. This can be operated with an optional external PS/2 keypad that is connected with exclusive printer. The printout will only show the username/password. An account can also to be terminated with the optional keypad.

Note: Only the three-button printer supports the Post-paid function.

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 of decimal places. Maximum: 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).
No.	+1~+10	The index number of billing profile. In Advanced setup, we provide 10 billing profiles.
Active	-	Click on check box to activate/deactivate the billing profile.
Name	-	The name of the Billing profile. Maximum characters: 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.

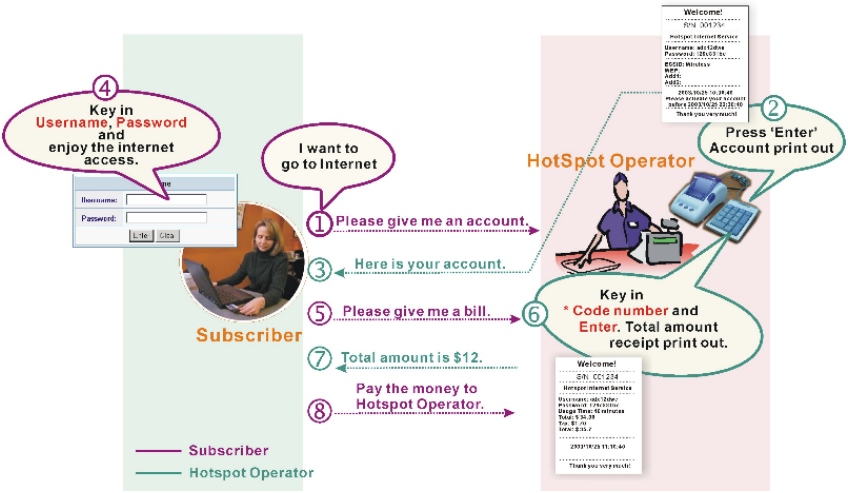


Figure 3-41 Post-paid Procedure Diagram

Click the **Apply** button to save the new settings. The Success! dialog box appears.

Figure 3-42 Success Dialog Box

Click the **Back** to return to Billing setting screen.

3-3 Accounting

This function allows the service provider to generate the subscriber accounts.

Figure 3-43 Accounting Setting Screen

Item	Default	Description
Expiration		Un-used account will be deleted after ~hours automatically
	12 hours	Enter the number of hours.
		Accumulation account will be deleted after logged in ~ 3 months Enter the number and select time unit from list box.
Printout	1	Number of copies to print. The system allows you to print all your bills. Enter the number of copies.
Replenish	Enable	Can be replenished by subscriber Click the check box to enable the replenish function.

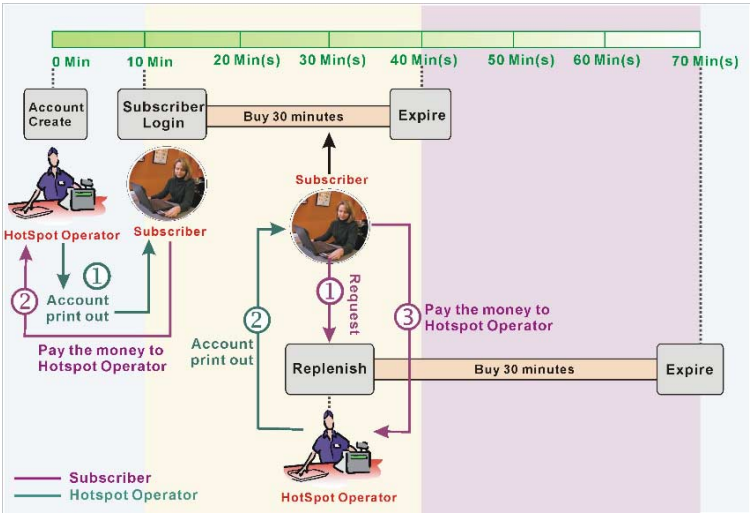


Figure 3-44 Account Process Diagram

Can be replenished by subscriber=Enable

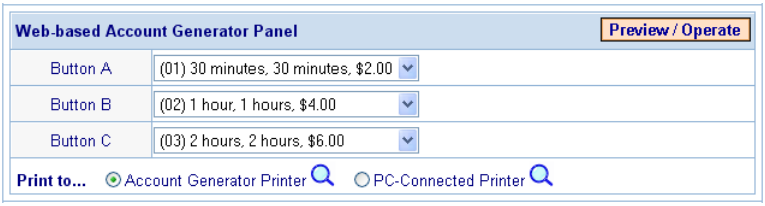


Figure 3-45 Web-based Account Generator Panel Setting Screen

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 printer to print out your account.
Preview / Operate		Click on button to preview and operate account generator panel.

Figure 3-46 Account Generator Panel

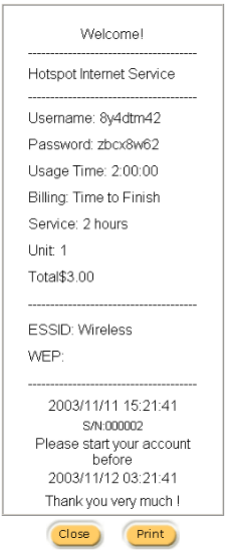


Figure 3-47 Web-based Account Generator Printout (Time to Finish)

Figure 3-48 PC-connected Printer Printout (Time to Finish)

AMBASSADOR

Welcome !

Hotspot Internet Service

Username:	101
Password:	3g5u2uzyfi
Billing:	Time to Finish
Service:	30 minutes
Unit:	2
Usage Time:	**60 minutes**
Total:	**$30.00**
Tax:	$1.50
Grand Total:	**$31.50**

ESSID:	Wireless
WEP:	
Add1:	
Add2:	

S/N: 000001 2002/08/28 14:39:07

Please activate your account before 2002/08/29 02:39:07

Thank You very much !

Close Print

Figure 3-49 Web-based Account Generator Printout (Accumulation)

Welcome!

Hotspot Internet Service

Username: i293qt32

Password: cq9ib459

Usage Time: 0:30:00

Billing: Accumulation

Service: 30 minutes

Unit: 1

Total$1.00

ESSID: Wireless

WEP:

2003/11/26 10:14:02

S/N:000003

Please start your account before

2003/11/26 22:14:02

Please finish your usage time within 3 months after your first login

Thank you very much !

Close Print

Figure 3-50 PC-connected Printer Printout (Accumulation)

One-Button Printer

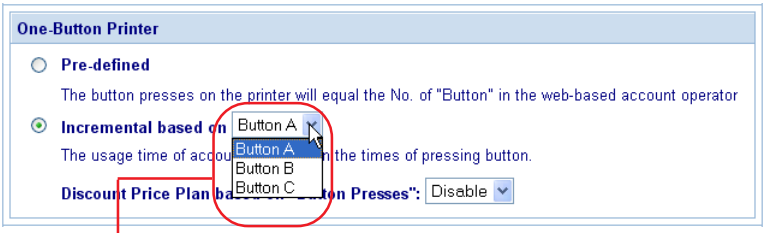


Figure 3-51 One-Button Printer Setting Screen

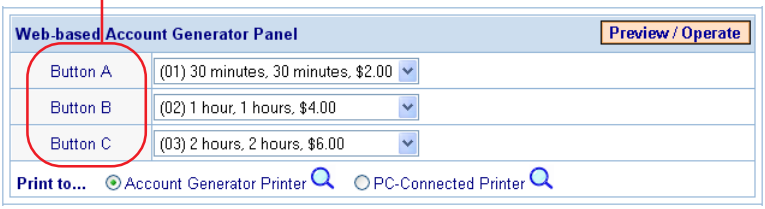


Figure 3-52 Web-based Account Generator Panel

Item	Default	Description
Pre-defined	Disable	The number of button presses on the printer will equal the number specified in the web-based account operator. Press once for button A, twice for button B, and thrice for button C.
Incremental based on Button ~	Enable Button A	The usage time of account is based on the number of times the button is pressed; you have to select one button by clicking in the list box. EX. If Incremental based on Button A is selected. Pressed one time is button A, and 3 times is button A x 3.
Discount Price Plan based on “Button Presses”	Disable	Enables or disables the discount price plan.

Note: Configuring the one-button printer accounting, you have to set the billing profile of the web-based account generator panel.

Example 1 : If button on One-Button Printer is pressed 6 times

Discount Price Plan based on “Button Presses” is disabled.

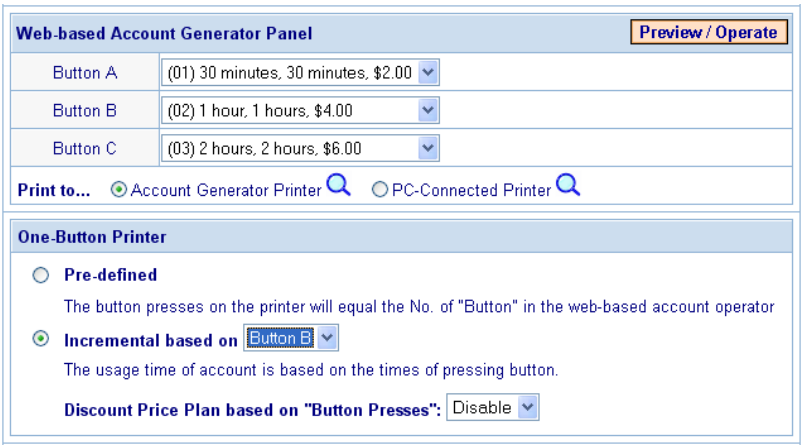


Figure 3-53 Example 1

Amount: 6 x $4.00= $24.00

Example 2

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

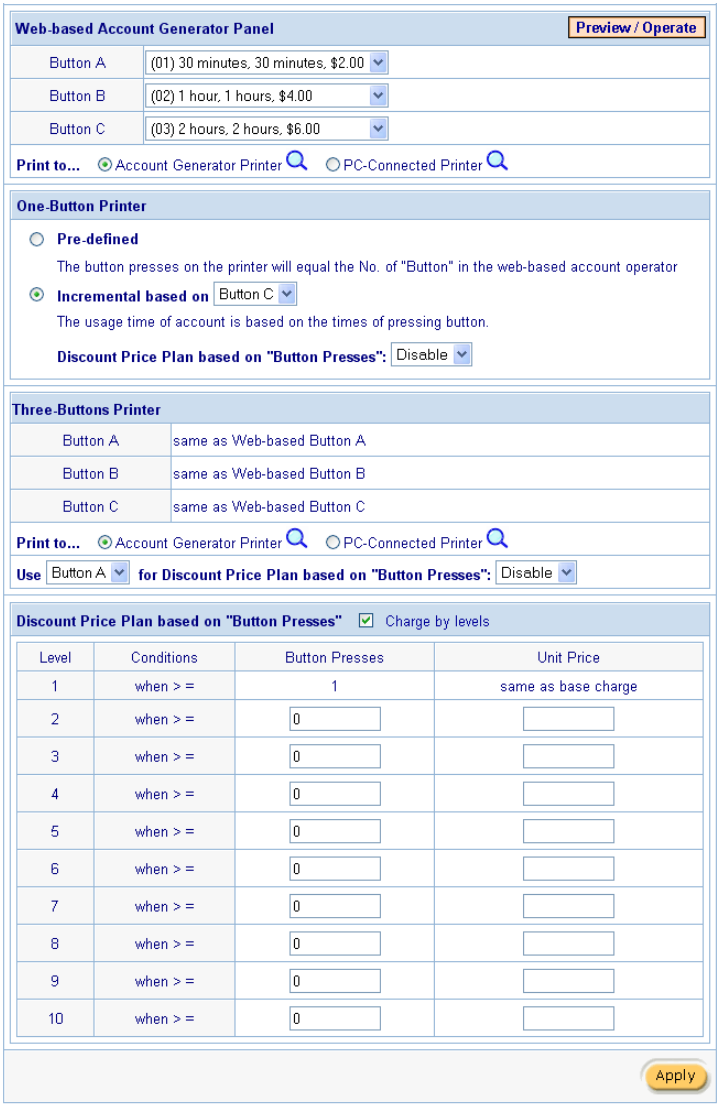


Figure 3-54 Example 2

Amount: 6 x $ 3.8 = $ 22.80

Example 3

Discount Price Plan based on “Button Presses” is enabled.

Charge by level is enabled.

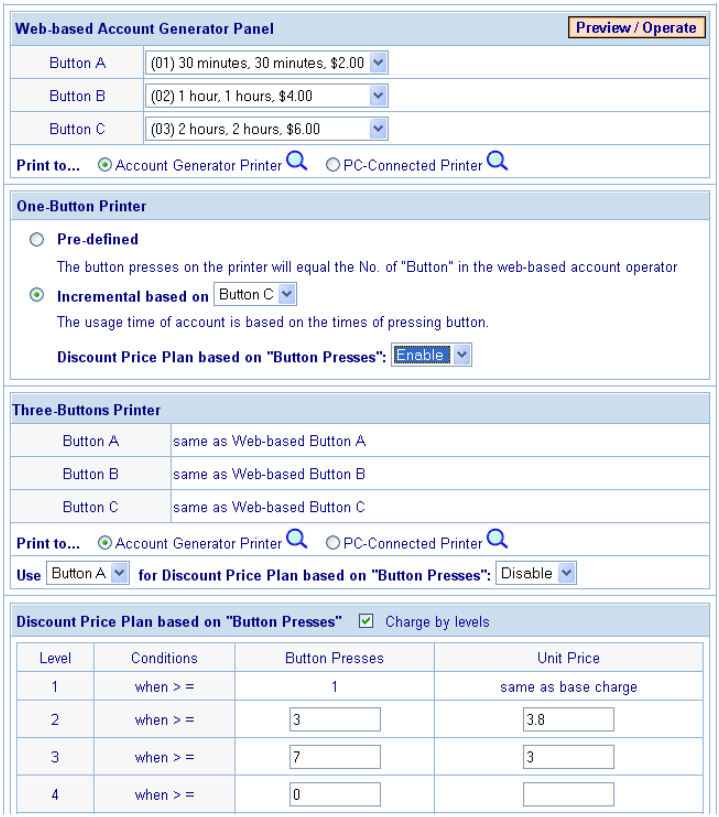


Figure 3-55 Example 3

Amount: 2 x $4.00 + 4 x 3.8= $23.20

When the button is pressed 6 times on a one-button printer, the total amount is calculated by adding level one (Base Charge) twice & Level 2 ($3.80) four times.

Three-Button Printer

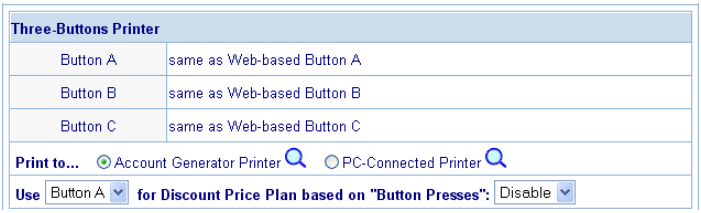


Figure 3-56 Web-based Account Generator Panel Setting Screen

Item	Default	Description
Print to…	Account Generator Printer	Select printer to print out your account.
Use ~ for Discount Price Plan based on “Button Presses”:	Disable	Select one button by clicking in the list box to assign the base charge and select enable to activate the discount price plan.

Note: Before configuring the one-button printer accounting, you have to set the billing profile of the web-based account generator panel.

Discount Price Plan based on “Button Presses”

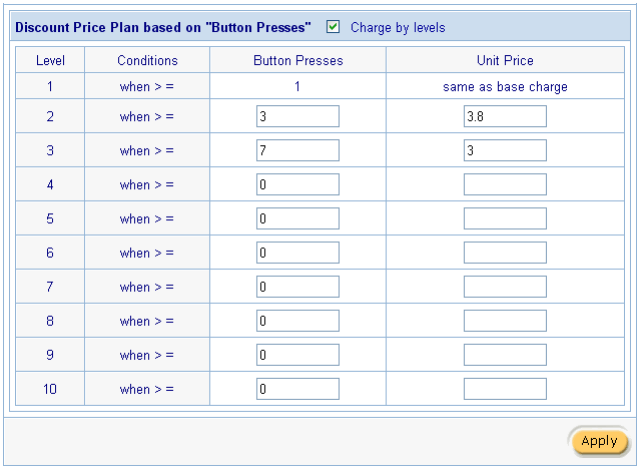


Figure 3-57 Discount Price Plan Setting Screen

Item	Default	Description
Charge by levels	Enable	Enables or disables the charge by levels function.
Level	1~10	The level number of charge rate.
Conditions	When>=	The discount condition.
Button Presses	-	Enter the number of times the button needs to be pressed.
Unit Price	-	Enter the amount to be charged.

Click the **Apply** button to save the new settings. The Success! dialog box appears.

Figure 3-58 Success Dialog Box

Click the **Back** to return to Accounting setting screen.

3-4 Pass Through

This function allows the administrator to allow some special devices to pass through the HS800 Wireless Gateway system. Some network devices might be connected under the HS800 Wireless Gateway, but do not need to be checked and authorized for access. The HS800 Wireless Gateway provides a pass through list that allows the administrator to control which devices can pass through without authentication.

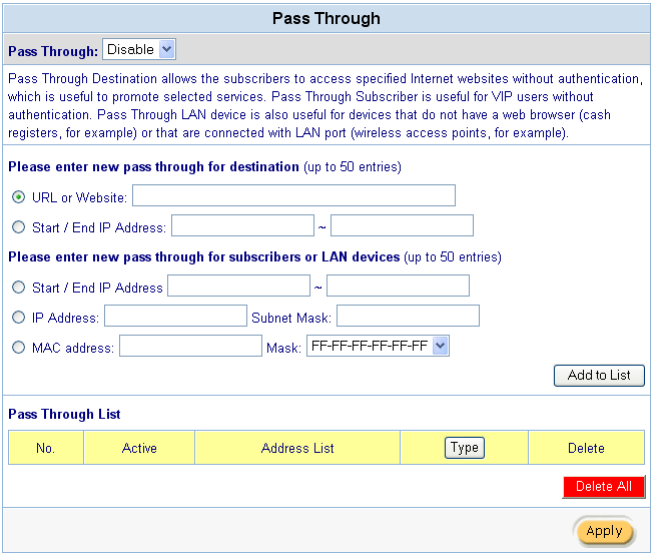


Figure 3-59 Pass through Setting Screen

Item	Default	Description
Pass Through	Disable	Enables or disables the pass through function.
Destination URL/IP Address Pass Through		
URL or Website	Empty	Enter the URL of the page in this format: http://www.yahoo.com. Maximum characters: 20.
Start IP Address	Empty	Enter the first IP address in the range to allow pass through.
End IP Address	Empty	Enter the last IP address in the range to allow pass through.
Subscriber IP/MAC Address or LAN Device Pass Through		
Start IP Address	Empty	Enter the first IP address you would like to pass through.
End IP Address	Empty	Enter the last IP address you would like to pass through.

Item	Default	Description
IP Address	Empty	Enter the IP address you would like to pass through.
Subnet Mask	Empty	Enter the subnet mask you would like to pass through.
MAC Address	Empty	Enter the MAC address you would like to pass through.
Mask	Empty	Enter the subnet mask of you would like to pass through.
Pass Through List		Display the pass through Information of HS800 Wireless Gateway.
No.	-	The index number of the 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 the **Add to List** button to add a new entry.

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

Click the **Delete All** & **Apply** button to delete all entries.

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

3-5 Advertisement

Up to 10 URL links can be specified for advertisers.

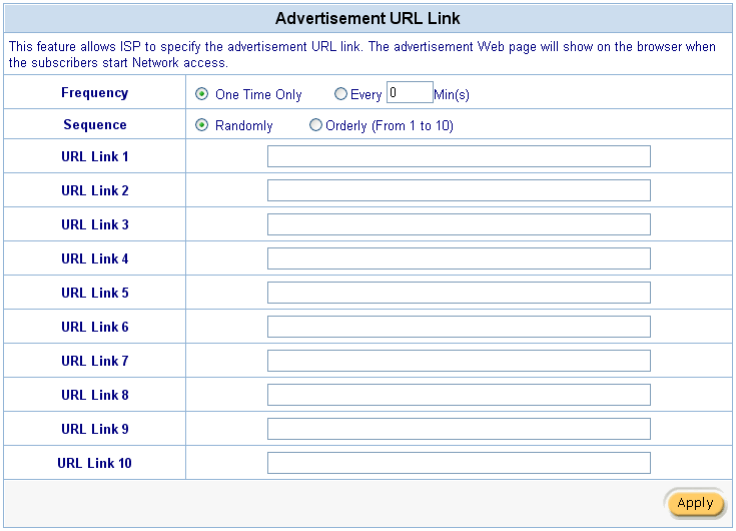


Figure 3-60 Advertisement URL Link Setting Screen

Item	Default	Description
Frequency	One Time Only	One Time Only—Displays the advertisement link once after the subscriber Logs in. Every~Min(s)—Displays the advertisement link at a specified interval. The range can be between 1 and 60 minutes.
Sequence	Randomly	Displays the advertisements in a random order. From 1 to 10 —Display the advertisement pages from 1 to 10.
URL Link 1~10	Empty	This function allows the administrator to enter ten different websites in the table for advertisements. The input format can be “http://www.yahoo.com”. Maximum length is 200 characters.

Click the **Apply** button to save the new settings. The Success! dialog box appears.

Figure 3-61 Success Dialog Box

Click the **Back** button to return to Advertisement URL Link setting screen.

3-6 Walled Garden

Walled Garden refers to links that are displayed on the login page and that can be used for advertising purposes. Users can access the links without having to enter a username and password.

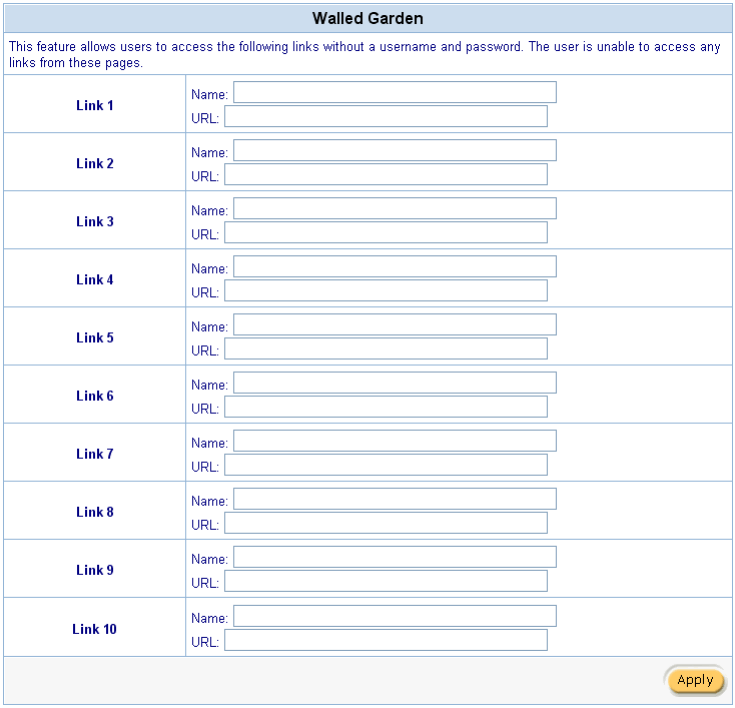


Figure 3-62 Walled Garden

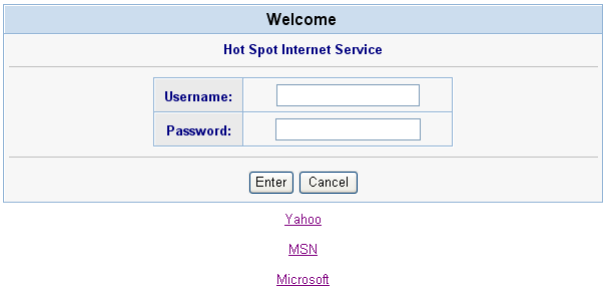


Figure 3-63 Login Page

Item	Description
Link 1~10	
Name	The name of the link can be specified for up to 10 links, with a maximum of 80 characters each.
URL 1~10	The address of the URL is listed for the links, with a maximum character length of 200 .

Click the **Apply** button to save the new settings. The Success! dialog box appears.

Figure 3-64 Success Dialog Box

Click the **Back** button to return to Walled Garden setting screen.

4. Troubleshooting

4-1 Frequently Asked Questions

Is it possible to allow accounts generated at one HotSpot site to be used at other locations?

No. However, the HS900 supports RADIUS server authentication allowing roaming accounts.

Are there any AG-100 printer drivers for Windows?

I'm afraid not. The printer has been specifically designed for use with the HS800.

How long can accounts last, and will accounts be erased if the HS800 is powered off?

Accounts last for up to 999 days, and accounts will not be erased if the HS800 is powered off because this data is stored in flash ROM.

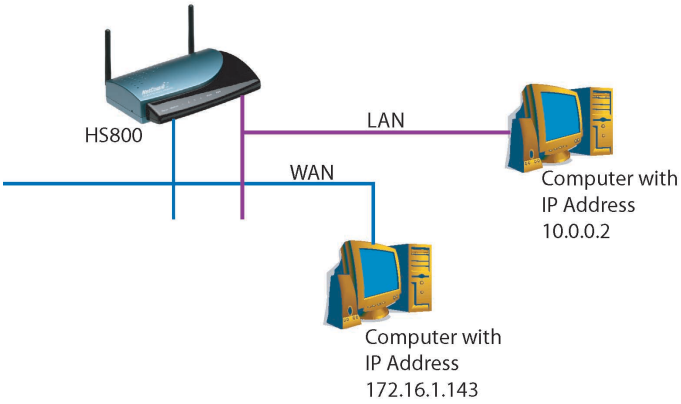
My browser has an HTTP Proxy Server setup, do I need to disable it?

No, the HS800 will work with a proxy server setup. However, if you wish to access the Web Configuration page you will need to disable the proxy server on your web browser.

4-2 HS800 Wireless Gateway – Remote Administration

4-2-1 Connecting to HS800 on Internal LAN (within Office / Site)

Scenario:

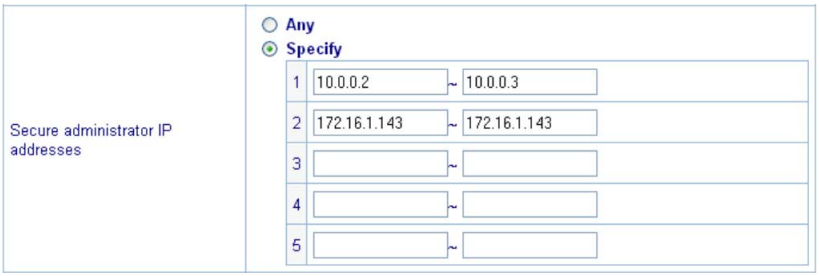


The HS800 is connected to a LAN via an Ethernet port as a DHCP client (getting IP, Gateway and DNS from your DHCP server). Note: you can also set it up with a Static IP if necessary.

You have a connection to the Internet and you can surf using devices that are connected to the LAN side of the HS800 (default IP's in the 10.0.0.x range)

You would like to specify certain IP addresses that can administer the HS800 from both the LAN and WAN side.

Login to http://10.0.0.1/ as the administrator and navigate to Advanced Setup / System and scroll down to following section:



Click on **Specify**

List the IP addresses that will allow people to access HS800 login screen and click the **Apply** button. In this example there are three IP's that are able to access the HS800: 10.0.0.2, 10.0.0.3 and 172.16.1.143. The first two are on the LAN side of the HS800 and the last one is on the WAN side of the HS800 (i.e. another PC on your office network)

You cannot browse to 10.0.0.1 from the 172.. machine. You need to find out the IP your DHCP server has allocated to the HS800. To find this, you click on System Quick View in the bottom left of the screen:

You will see the System Status screen. The section you are concerned with is:

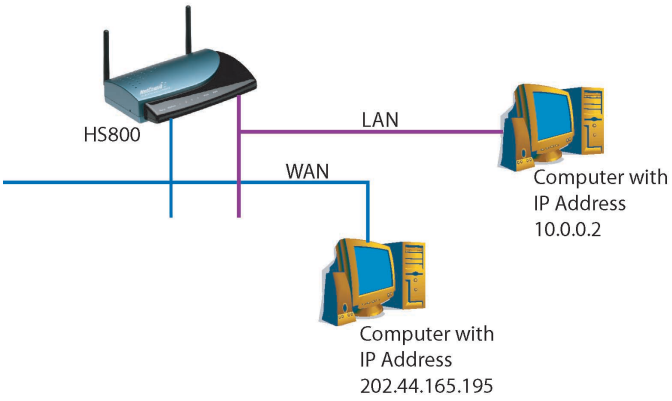
Network

WAN Status	**Established**	WAN Type	**DHCP Client**
WAN IP Address WAN Subnet Mask	172.16.1.239 255.255.255.0	LAN IP Address LAN Subnet Mask	10.0.0.1 255.0.0.0
Default Gateway	172.16.1.4	DNS	172.16.1.3 202.44.170.21

In this example the HS800's WAN IP is 172.16.1.239. This is the address that 172.16.1.143 will need to browse to.

4-2-2 Connecting to HS800 from External WAN (outside Office / Site)

Scenario:

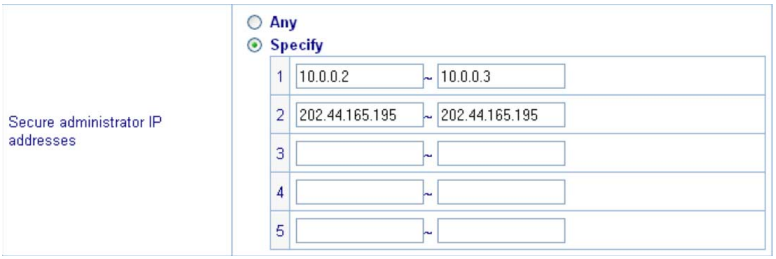


The HS800 is connected to an xDSL modem via an Ethernet port as a DHCP client (getting IP, Gateway and DNS from your router/modem (if possible). Note: you can also set it up with a Static IP if necessary.

You have a connection to the Internet via your modem and you can surf using devices that are connected to the LAN side of the HS800 (default IP's in the 10.0.0.x range)

You would like to specify certain IP addresses that can administer the HS800 both from the LAN and WAN (outside of office) side.

Login to http://10.0.0.1/ as the administrator and navigate to Advanced Setup / System and scroll down to following section:



Click on **Specify**

List IP addresses that will allow people to access HS800 login screen and click the **Apply** button. In this example three IP's are able to access the HS800: 10.0.0.2, 10.0.0.3 and 202.44.165.195. The first two are on the LAN side of the HS800 and the last one is the WAN IP of the other machine (i.e. another PC outside the office network).

To find out the IP if the PC is located on an intranet with an address in the private IP range (most common case), you can browse to the following address from the remote PC:

http://www.whatismyip.com/

You cannot browse to 10.0.0.1 from the 202.. machine. You need to find out the IP the modem/router/ISP has allocated to the HS800. To find this, you click on System Quick View in the bottom left of the screen:

You will see the System Status screen. The section you are concerned with is:

Network

WAN Status	**Established**	WAN Type	**PPPoE**
WAN IP Address WAN Subnet Mask	220.240.2.67 255.255.255.255	LAN IP Address LAN Subnet Mask	10.0.0.1 255.0.0.0
Default Gateway	220.240.2.67	DNS	203.194.56.150 203.194.27.58

The address the remote PC needs to navigate to in this example is 220.240.2.67.

Note: ***If the remote PC's public IP is not listed as an administrator, the HS800 login page will not be displayed.***

Appendix A – Cable Connections

This cable information is provided for your reference only. Please ensure you only connect the appropriate cable into the correct socket on either this product or your computer.

If you are unsure about which cable to use or which socket to connect it to, please refer to the hardware installation section in this manual. If you are still not sure about cable connections, please contact a professional computer technician or NetComm for further advice.

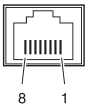
RJ-45 Network ports

The HS800 Wireless Gateway RJ-45 Ethernet port can connect to any networking devices that use a standard LAN interface, such as a Hub/Switch Hub or Router. Use unshielded twisted-pair (UTP) or shield twisted-pair (STP) cable to connect the networking device to the RJ-45 Ethernet port. Depending on the type of connection, 10Mbps or 100Mbps, use the following Ethernet cable, as prescribed.

10Mbps: Use EIA/TIA-568-100-Category 3, 4 or 5 cable.

100Mbps: Use EIA/TIA-568-100-Category 5 cable.

Note: To prevent loss of signal, make sure that the length of any twisted-pair connection does not exceed 100 meters.

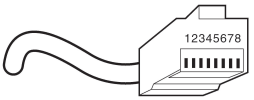


RJ-45 Connector Pin Assignment	Normal Assignment
1	Input Receive Data +
2	Input Receive Data -
3	Output Transmit Data +
6	Output Transmit Data -
4,5,7,8	Not used

Figure 1

Twisted pair cables

Figures 1 and 2 illustrate the use of straight-through and crossover twisted pair cables along with the connector.



RJ-45 plug attached to cable

Figure 2

Straight and crossover cable configuration

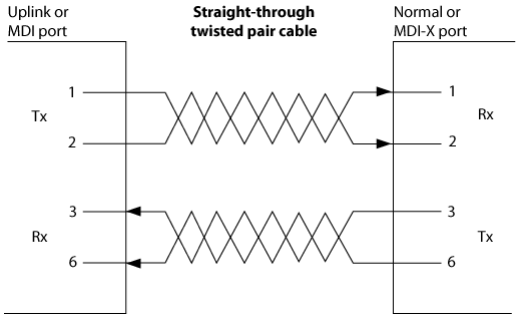


Figure 3

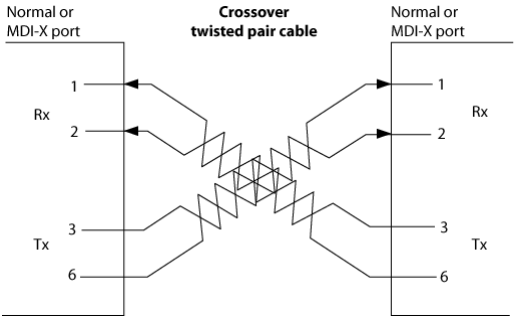


Figure 4

RJ11 connector and cable

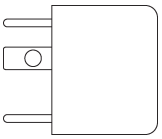
An RJ-11 connector is the small, modular plug used for most analog telephones. It has six pin slots in the head, but usually only two or four of them are used.

RJ-11 Connector Pin Assignment	Normal Assignment
1	Signal Ground
2	CTS
3	RXD
4	TXD
5	+5 Volts In
6	Signal Ground

Figure 5

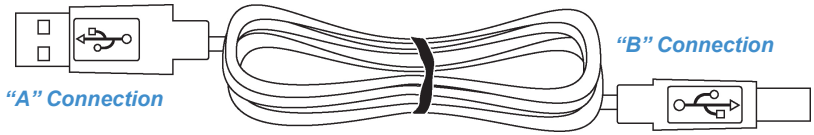
605 to RJ-11 adapter

The 605 to RJ-11 adaptor is provided to comply with the older 610 Telstra wall socket. The 605 to RJ-11 adapter may be used to convert the supplied RJ-11 cable, if the older connection is required.



USB cable

A typical USB cord has an "A" connection (“upstream” to plug into the computer) and a “B” connection (“downstream” to plug into the device).

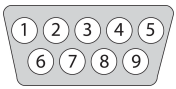


By using different connectors on the upstream and downstream ends, cable connection is simplified. The “B” connection will fit a into the “B” socket of any USB device. Similarly, any "A" connector can be plugged into any "A" socket, such as on a computer.

If it is a new device, the operating system auto-detects it and asks for the driver disk. If the device has already been installed, the computer activates it and starts talking to it. USB devices can be connected and disconnected at any time.

9 Pin (RS-232) Serial Cable

A 9 Pin (RS-232) Serial Cable may be used to connect a device to a serial console terminal or a PC running a terminal emulation program, such as Hyper Terminal.



Male Connector

Pin No	Name	Notes/Description No.
1	DCD	Data Carrier Detect
2	RD	Receive Data (a.k.a RxD, Rx)
3	TD	Transmit Data (a.k.a TxD, Tx)
4	DTR	Data Terminal Ready
5	SGND	Ground
6	DSR	Data Set Ready
7	RTS	Request To Send
8	CTS	Clear To Send
9	RI	Ring Indicator

Appendix B – Technical Specifications

Hardware Specifications

Network Specification

IEEE802.3 10BaseT Ethernet

IEEE802.3u 100BaseTX Fast Ethernet

IEEE802.11b Wireless LAN

ANSI/IEEE 802.3 NWay auto-negotiation

Wi-Fi Compatible

Connectors

Four LAN Ports (10BaseT/100BaseTX Auto cross-over)

One WAN Port (10BaseT/100BaseT)

One Device Port (1 DB25 male RS232 for external device application)

Wireless Operation Range

Open Space: 100~300m

Indoors: 35~100m

Wireless Data Rate

22 Mbps, 11 Mbps, 5.5 Mbps, 2 Mbps, 1 Mbps

Encryption

64/128/256-bit RC4

External Antenna Type

2dBi (Max) Dual detachable diversity antenna with reverse SMA

Power Requirement

External Power Adapter

Input: 100-240 VAC, 50/60 Hz

Output: 5V, 1.4A

LED Indicators

One POWER LED

One WAN Link/Activity LED

Four LAN Link/Activity LEDs

One Wireless Link/Activity LED

One Status LED

Dimension

Size: 200(L) x 130(W) x 44(H) mm

Weight: About 400g (Net)

Environment Conditions

Operating Temperature: 0 to 50°C

Storage Temperature: -10 to 60°C

Operating Humidity: 10~80% non-condensing

Storage Humidity: 10% to 95% non-condensing

Certifications

FCC part 15 Class B, CE, VCCI Class B, UL,

CE / R&TTE, C-Tick

Mounting

Desktop, Wall mounted

Software Specifications

Networking

- IEEE802.3 10BaseT Ethernet
- IEEE802.3u 100BaseTX Fast Ethernet
- Supports 100 Simultaneous Users
- IP Plug and Play (iPnP)
- HTTP Proxy Support
- WEP Data Encryption
- SMTP Server Redirection
- DHCP Server
- DHCP Relay
- Static IP WAN Client
- DHCP WAN Client
- PPPoE WAN Client
- PPTP WAN Client
- NAT
- IP Routing
- NTP (Network Time Protocol) Support
- IP Multicast support

Marketing Cooperation

- Advertisement URL link
- Walled garden
- Customize Login Page
- Portal Page

AAA/Billing

- Built-in Authentication
- Web-based Login Page Authentication
- Exclusive Printer Accounting without PC operating
- Web-based Accounting
- Flexible Billing Profiles and Price Plan
- Flexible Billing Mechanism (Pre-Paid and Post-Paid)

- Flexible Time Mechanism (Time to Finish and Accumulation)
- Credit Card Support (Authorize.net)
- External PS/2 Keypad Support

Security

- Layer 2 Isolation
- SSL Login Page
- SSL Administration
- VPN Pass through (IPSec/PPTP/L2TP)
- Customize SSL Certificate
- Pass through Destination IP/URL
- Pass through Source IP/MAC
- Restricted Destination Filtering IP/URL
- Share LAN Resources

Management

- Administrator/Super Subscriber/Account Manager Management Access
- Remote Browser-based Configuration and management
- Authorized remote management (Access Control List)
- Firmware Upgrade via HTTP/TFTP
- Scheduled Firmware Upgrade
- Backup/Restore/Factory Default Setting
- LAN Device Management
- Dynamic DNS
- System Information Table
- Real-time Current User List / DHCP Clients List / Session List / Account List
- Syslog
- Status Report (Daily/Monthly/System/Network)

Appendix C – Registering your NetComm Product

All NetComm Limited ("NetComm") products have a standard 12 month warranty from date of purchase against defects in manufacturing and that the products will operate in accordance with the specifications outlined in the User Guide. However some products have an extended warranty option (please refer to packaging). To be eligible for the extended warranty you must supply the requested warranty information to NetComm within 30 days of the original purchase by registering on-line via the NetComm web site at:

www.netcomm.com.au

Contact Information

If you have any technical difficulties with your product, please do not hesitate to contact NetComm's Customer Support Department.

Email:	support@netcomm.com.au
Fax:	(+612) 9424-2010
Web:	www.netcomm.com.au

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Please note that the images used in this document may vary slightly from those of the actual product. Specifications are accurate at the time of the preparation of this document but are subject to change without notice.

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NetComm reserves the right to change the specifications and operating details of this product and manual without notice and does not warrant that any changes to the specifications or operating details of the product will meet the requirements of the customer or will be able to interoperate, remain compatible or coexist with any other hardware or software the customer uses.

Registration of warranties, either via the NetComm web site or via post is subject to NetComm's privacy policy and procedures. Copies of NetComm's privacy policy and procedures can be obtained from www.netcomm.com.au.

Customer Information

ACA (Australian Communications Authority) requires you to be aware of the following information and warnings in relation to the purchased product:"

(I) This unit shall be connected to the Telecommunication Network through a line cord which meets the requirements of the ACA TSOOS Standard."

(2) This equipment has been tested and found to comply with the Standards for C-Tick and or A-Tick as set by the ACA. These standards are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio noise and, if not installed and used in accordance with the instructions detailed within this manual, may cause interference to radio communications. However, there is no guarantee that interference will not occur with the installation of this product in your home or office. If this equipment does cause some degree of interference to radio or television reception, which can be determined by turning the equipment off and on, we encourage the user to try to correct the interference by one or more of the following measures:

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

(3) The power supply that is provided with this unit is only intended for use with this product. Do not use this power supply with any other product or do not use any other power supply that is not approved for use with this product by NetComm. Failure to do so may cause damage to this product, fire or result in personal injury.

Warranty

Where the Customer (you) is a consumer as defined by any relevant law such as the Trade Practices Act 1974 (Commonwealth) and similar State laws, certain conditions and warranties ("the consumer warranties") cannot be excluded, restricted or modified. You then have the benefit of both the consumer warranties and any other warranty that may be provided by the Company or by the manufacturer of the goods. To the extent permitted by Law, all implied warranties and conditions are excluded.

All NetComm products have a standard 12 months warranty from date of purchase. However some products have an extended warranty option (refer to packaging). To be eligible for the extended warranty you must supply the requested warranty information to NetComm within 30 days of the original purchase by registering on-line via the NetComm web site at www.netcomm.com.au.

To the extent permitted by the consumer warranties, in relation to your product and any other materials provided with the product ("the Goods") the liability of NetComm under the Relevant Acts is limited at the option of NetComm to:

- replace the Goods; or
- repair of the Goods; or
- pay for the cost to replace the Goods; or
- pay for the cost to repair the Goods.

Conditions and exclusions:

The warranty is granted on the following conditions:

1. This warranty extends to the original retail Customer (you) and is not transferable;
2. This warranty does not apply to software programs, batteries, power supplies, cables or other accessories supplied in or with the product;
3. You must comply with all of the terms of any relevant agreement with NetComm and any other reasonable requirements of NetComm including producing such evidence of purchase as NetComm may require;
4. The cost of transporting the product under a claim based on this warranty to and from NetComm's nominated premises is your responsibility; and
5. NetComm does not have any liability or responsibility under this warranty where any cost, loss, injury or damage of any kind, whether direct, indirect, consequential, incidental or otherwise arises out of events beyond NetComm's reasonable control. This includes but is not limited to: acts of God, war, riot, embargoes, acts of civil or military authorities, fire, floods, electricity outages, lightning, power surges, or shortages of materials or labour.
6. You are responsible for the security of your computer and network at all times. Security features may be disabled within the factory default settings. NetComm recommends that you enable these features to enhance your security.

The warranty is void if:

1. You, or someone else, use the product, or attempt to use it, other than as specified by NetComm;
2. The fault or defect in your product is the result of a voltage surge subjected to the product either by the way of power supply or communication line, whether caused by thunderstorm activity or any other cause(s);
3. The fault is the result of accidental damage or damage in transit, including but not limited to liquid spillage;
4. Your product has been used for any purposes other than that for which it is sold, or in any way other than in strict accordance with the user manual supplied;
5. Your product has been repaired or modified or attempted to be repaired or modified, other than by a qualified person at a service center authorised by NetComm; and,
6. The serial number has been defaced or altered in any way or if the serial number plate has been removed.

NetComm™

HS800

Wireless Gateway

Features

- **Login page:** The HS800 Wireless Gateway allows you to change the look and feel of the login page that a subscriber will see when logging onto the Internet. You can decide what the welcome message is, if you want a logo on the page, or if you would like the web page split into two frames with the login fields in the bottom frame and a website of your choice in the top frame. You can even code your own login page or redirect the subscriber to a different website address.
- **Receipt:** Customize what is printed on the receipt issued to subscribers.
- **Billing:** You can decide how much to charge people to use the service, and customize a billing profile for each button on the printer that comes with the HS800 Wireless Gateway. You can implement discounts based on button sequences on the HS800 printer. Decide how you would like your customers to pay for the service - before logging in, or once they have finished using the Internet.
- **Accounting:** Decide whether you would like to use the HS800 printer or a printer on your network to print account details. Set expiration times for accounts.
- **Pass Through:** Allow certain machines to access the internet without having to enter a username and password. This is ideal for VIP members. You can also allow subscribers to access certain websites without having to enter a username and password by listing the website addresses under the Pass Through section.
- **Advertisements:** Advertise specials that your organisation may have, or charge companies to use the HS800 Wireless Gateway for advertisements. The adverts will be pop-ups that appear while a subscriber is surfing the Internet.
- **Filtering:** Decide which websites you want to restrict access to (e.g. competitors, X-rated sites, download sites).

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