

EnGenius® X-TRA RANGE®



ERB300H/ERB150H

Wireless-N HD Media Bridge & Range Extender

User Guide v1.0

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Conventions

The following conventions are used to give the user additional information about specific procedures or content. It is important to pay attention to these conventions as they provide information to prevent damage to equipment or personal injury.

General Conventions

The following general conventions are used in this document.



CAUTION!

CAUTIONS APPEAR BEFORE THE TEXT IT REFERENCES. CAUTIONS APPEAR IN CAPITAL LETTERS TO EMPHASIZE THAT THE MESSAGE CONTAINS VITAL HEALTH AND SAFETY INFORMATION.



WARNING!

Warning information appears before the text it references to emphasize that the content may prevent damage to the device or equipment.



Important:

Indicates information that is important to know for the proper completion of a procedure, choice of an option, or completing a task.



Note:

Indicates additional information that is relevant to the current process or procedure.



Example:

Indicates information used to demonstrate or explain an associated concept.

N/A:

Indicates that a component or a procedure is not applicable to this model.

Prerequisite:

Indicates a requirement that must be addressed before proceeding with the current function or procedure.

Content Conventions

The following acronyms are used to represent the different modes of the ERB300H/ERB150H. If a feature or function is not supported in all modes, the supported modes are identified in a notification.

Mode Definitions

**Note:**

This section applies to Client Bridge mode,

Indicates keyboard keys that are pressed by the user.

**Note:**

This section applies to Universal Repeater mode,

Typographical Conventions

The following typographical conventions are used in this document:

Italics

Indicates book titles, directory names, file names, path names, and program/process names.

`Constant width`

Indicates computer output shown on a computer screen, including menus, prompts, responses to input, and error messages.

Constant width bold

Indicates commands lines as entered on the computer. Variables contained within user input are shown in angle brackets (< >).

Bold

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Product Overview

Chapter 1

1.1 Product Overview

EnGenius ERB300H/ERB150H integrates your home media streaming wirelessly

The ERB300H/ERB150H comes with four Fast Ethernet LAN ports. The ERB300H/ERB150H provides extended wireless coverage through one (ERB150H) or two (ERB300H) detachable 2dBi antennas. The WPS push button design makes it easy to setup the ERB300H/ERB150H without any complicated configuration settings. The incorporation of two operating modes into the ERB300H/ERB150H's design means the it can be operated within different networking environments and applications.

X-TRA RANGE family devices are specially tailored for multi-media and high performance applications

EnGenius ERB300H/ERB150H is one of the member of X-TRA RANGE family series. The max. RF power is up to 26dBm for the reason to enhance the signal and extend range to avoid dead spots for home multi-media and light-business user. ERB150H equips 1 x SMA connector designed while the ERB300H equips 2 x SMA connectors designed. User could change the high gain antenna by different demand.

Operation Modes

ERB300H/ERB150H supports the following operating modes: universal repeater, client bridge. In the default mode of univer-

sal repeater, the ERB300H/ERB150H is not only an HD Media bridge gateway to bridge your home media with excellent quality but also a wireless repeater. The Client Bridge mode makes the ERB300H/ERB150H as a home wireless multi-media center. The 4 ports Ethernet designed can make more IP related device to enjoy the smoothly wireless connection.

Passive PoE Supported (ERB150H)

User might not find power socket from some special environment. This problem can be solved by the ERB150AN passive PoE port. ERB150AN power can be supplied by 12V/1A PoE Injector through RJ-45 cable.

Wireless LED Signal Indicator (ERB300H)

To easily identify where the best place for the ERB300H through the Wireless Signal LED Indicator. **GREEN** means GOOD. **ORANGE** means Normal. **RED** means POOR.

Hardware Features

- IEEE802.11b/g/n, 300Mbps Wireless Speed (ERB300H)
- IEEE802.11b/g/n, 150Mbps Wireless Speed (ERB150H)
- X-TRA Range Technology Equipped

- 4 x Fast Ethernet Ports Designed
- Easy Connection via WPS Button
- Operating Modes: Repeater, Client Bridge
- Wireless Signal LED Indicator
- QoS Wireless Multimedia (WMM) (ERB300H)
- Passive PoE Supported (ERB150H)

Software Features

- System Log
- Wireless Client List
- Wireless Signal Indicator
- Operating Modes: Repeater, Client Bridge
- Channel Setting: Auto/Manual/Scan
- Output Power Control
- QoS (WMM) Wireless Multimedia WPS

Technical Specification

Physical Interface

- 4x 10/100Mbps LAN Ports
- WPS/Reset Button
- Power Switch
- 1x 2dBi SMA Antenna Connector (ERB150H)
- 2x 2dBi SMA Antenna Connector (ERB300H)

Wireless Specification

- ERB150H: IEEE 802.11 B/G/N, 150Mbps Wireless Speed
- ERB300H: IEEE 802.11 B/G/N, 300Mbps Wireless Speed
- Tx Output Power: 26±2dBm
- Rx Sensibility: -90dBm

Hardware Specification

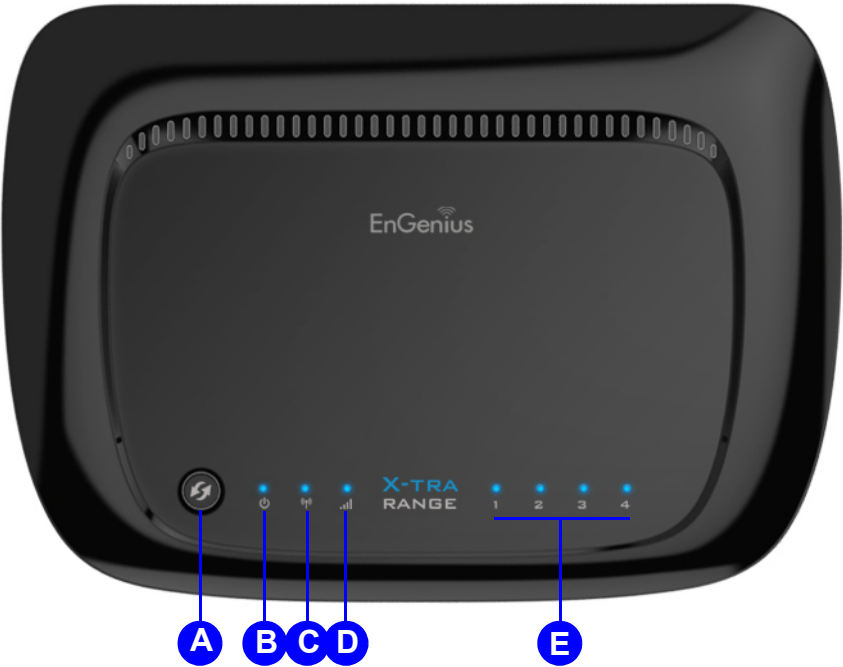
- Dimension: 165mm x 120mm x 18mm (L x W x H)
- Power Adapter: 12V, 1A
- Passive PoE: 12V, 1A (ETH-4) (ERB150H)
- Encryption: WEP/WPA/WPA2/TKIP/AES

- Hidden SSID
- MAC Address Filtering
- PPTP/IPSec/L2TP Pass-through
- Remote Control/Firmware Upgrade
- Backup/Restore Setting

1.1 Package Contents

ITEM	QUANTITY
ERB300H/ERB150H Wireless N Range Extender	1
2dBi Antennas	2
Quick Installation Guide	1
12V/1A Power Adaptor	1
Ethernet Cable	1
User CD (with user manual)	1
Technical Support Card	1

1.1 Product Layout



FRONT PANEL COMPONENTS		DESCRIPTION
A	WPS/Reset Button	Wi-Fi Protected Setup button. To activate WPS, press button for 1~5 seconds. To reset to factory settings, press button for > 11 seconds.
B	Power LED	Power status LED.
C	WLAN LED	Wireless LAN (WLAN) status LED.
D	Signal Indicator LED	Green - Signal is good. Orange - Signal is normal. Red - Signal is weak.
E	LAN (1 – 4) LEDs	LAN port status LED(s).

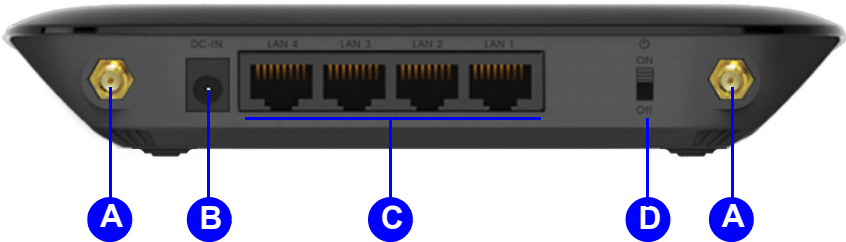


Figure 1-1: ERB300H

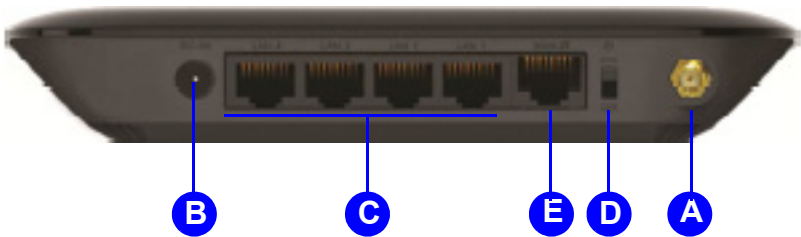


Figure 1-2: ERB150H

BACK PANEL COMPONENTS		DESCRIPTION
A	External Antenna Connectors	External interface for the antennas.
B	DC Power Jack	Connects the ERB300H/ERB150H to a DC power adapter source.
C	LAN Ports (1 – 4)	Connects up to four computers (4) to a local area network (LAN) using Ethernet cable.
D	Power Switch	Turns the ERB300H/ERB150H on or off.
E	Passive PoE Port	Supplies power to the device through an RJ-45 cable. (ERB150H only)

Installation

Chapter 2

2.1 System Requirements

To install the ERB300H/ERB150H, you need the following:

- Computer (Windows, Linux, OSX Operating System)
- CD-ROM *
- Web Browser (Internet Explorer, FireFox, Chrome, Safari)
- Network Interface Card with an open RJ-45 Ethernet Port
- Wi-Fi Card or USB Wi-Fi Dongle (802.11 B/G/N) **
- An existing router or access point (AP) with SSID broadcast
- CAT5 Ethernet Cables

**Note:**

* Windows Only: Using ERB300H/ERB150H Setup CD

** Optional

2.1 Wall Mounting

Mounting the ERB300H/ERB150H on a wall optimizes the wireless access range.

**Note:**

Choose a location that is within reach of an electrical outlet for the AC adapter and the DSL or Cable modem.

To mount the device on the wall do the following:

1. Measure the distance from the middle of each mounting screw hole.
2. Mark the locations of the screw holes on the wall.
3. Drill a hole for each marked location and insert a screw in each.

**Note:**

Make sure to leave enough of the screw head above the wall surface to secure the ERB300H/ERB150H.

4. Install and secure the mounts onto the ERB300H/ERB150H.
5. Install the ERB300H/ERB150H on the wall.

EnGenius Quick Start

Chapter 3

3.1 Installing the Software

**Note:**

Before getting started, please power off the cable or DSL modem.

Setup Notes

When considering the placement of the ERB300H/ERB150H remember the following:

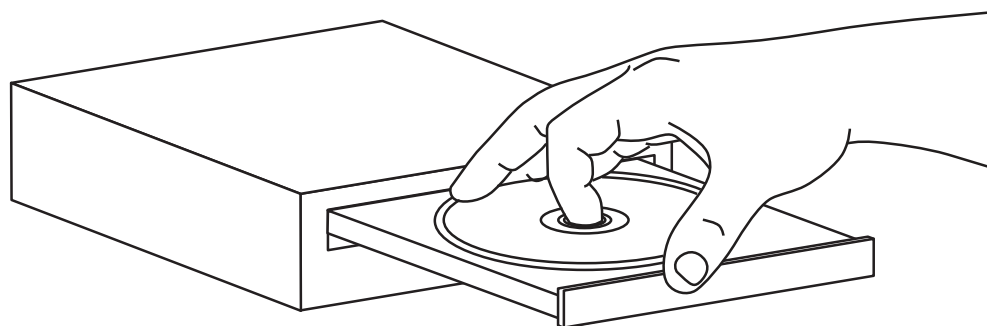
- It must be close to an electrical outlet.
- Upon first setup, it must be close to the computer that is used to set up and configure the ERB300H/ERB150H.
- For optimal wireless access place the ERB300H/ERB150H in the center of the room, at a high altitude and with an unobstructed view of the other wireless devices.
- Other electronic devices can interfere with the wireless frequency of the ERB300H/ERB150H and reduce the wireless access range.

Installation

**Note:**

If the instructions do not automatically start, open a file manager and browse the root folder of the CD-ROM. Look for the file named *index.html* and open it.

1. Insert the ERB300H/ERB150H installation CD into the CD-ROM drive.



2. Click **Quick Start**. The wizard will guide you through setting up your ERB300H/ERB150H.



3.1 Connecting the Cables



CAUTION!

UNPLUG ALL PERIPHERALS AND THE ADAPTER BEFORE STARTING WITH THIS PROCEDURE.

1. Connect the adapter cable to an electrical outlet.

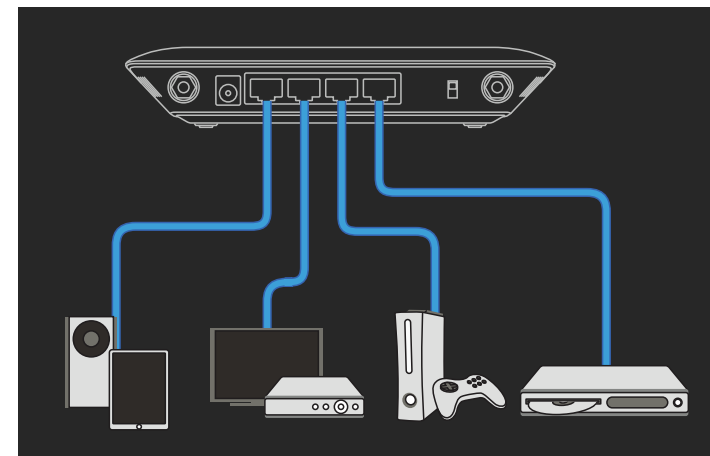
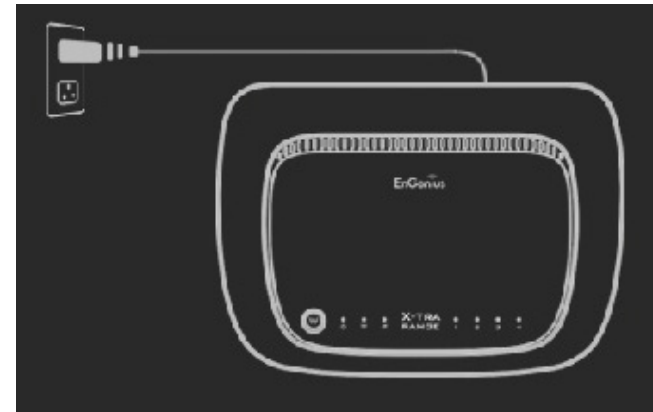
Note:

The Power LED lights up to show the device is active.

2. If the ERB300H/ERB150H is acting as a client bridge, connect media entertainment devices, a maximum of four, to the LAN ports. Plug one end of an Ethernet cable into the LAN port on the back panel of the device. Plug the other end of the cable into the Ethernet port of the computer.

Note:

Make sure the network cables and power adapter are firmly connected.



Installation Setup Wizard

Chapter 4

4.1 Setting Up the ERB300H/ERB150H

The EnGenius ERB300H/ERB150H is both a Range Extender and a Media Entertainment Bridge. As a Range Extender, the ERB300H/ERB150H extends the reach of a wireless network to areas with poor signal reception. As a Media Entertainment Bridge, the ERB300H/ERB150H wirelessly connects home entertainment devices so they may share content.

Using the ERB300H/ERB150H as a Range Extender

Note:

Place the device in an area that is free of obstructions and other electronic equipment that may interfere with the Wi-Fi connection. Use the ERB300H/ERB150H Signal Indicator to find an optimal location.

- Green- Signal is good.
- Orange- Signal is normal.
- Red- Signal is weak.

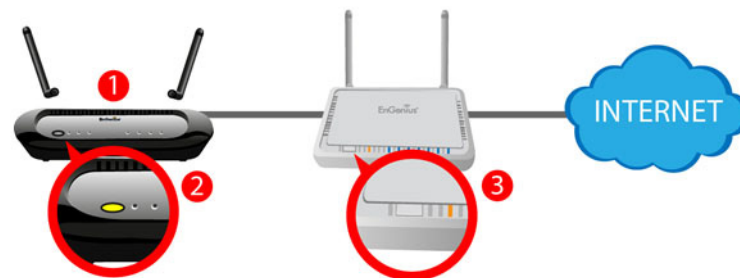


Connect the ERB300H/ERB150H to an existing wireless network either by WPS configuration or by Smart Wizard configuration.

Note:

Use the ERB300H/ERB150H Signal Indicator to find an optimal location.

WPS Configuration

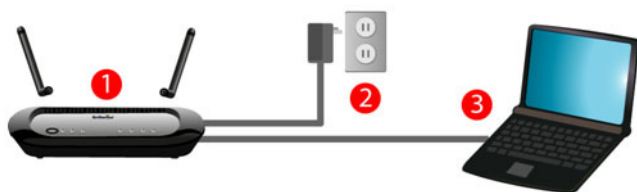


1. Attach the ERB300H/ERB150H's Wi-Fi antenna and power on the device.
2. Press the WPS button  on the ERB300H/ERB150H and hold for 2 seconds. The WPS signal will start fast blinking.
3. Within two minutes of activating the WPS button on the ERB300H/ERB150H, press the WPS button on your router or access point.

The ERB300H/ERB150H Signal Strength LED lights up and the range extender connects to the wireless network.

Smart Wizard Configuration

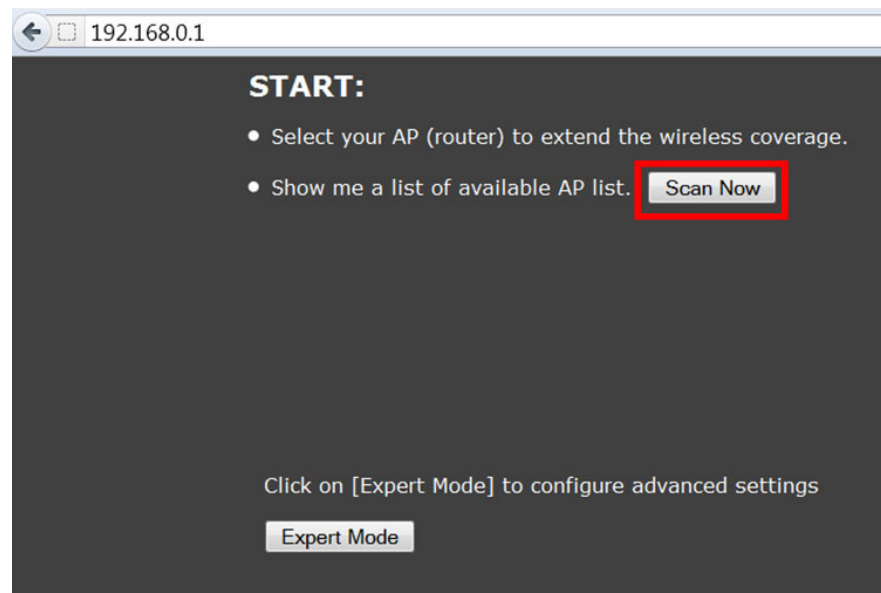
For routers without WPS support, use Smart Wizard to complete the setup.



4. Attach the ERB300H/ERB150H's Wi-Fi antenna and power on the device.
5. Connect a computer to the ERB300H/ERB150H with an Ethernet cable.
6. Open a web browser and enter the default IP, 192.168.0.1, in the address bar.



7. Click **Scan Now** to find the target router.



8. Select the target router and click **Connect**.

Note:

If the target router is not in the list, move the ERB300H/ERB150H closer to the router and click the Refresh button.

STEP 1: Select your Access Point (Router)

- Please select one from the list and press [Connect] to proceed.
- If your AP is not found on the list please press [Refresh] again to get updated list.
- If you have enabled "Hidden SSID" or "Do not broadcast beacon" on your AP, you will have to enter correct SSID on the next page.

Refresh **Connect**

NO.	Select	Channel	SSID	BSSID	Encryption	Authentication	Signal(%)	Mode
1	☐	1	apang226	1C:C6:3C:1C:5A:B6	AES	WPA2PSK	100	b/g/n
2	☐	9	Washington S321	C4:3D:C7:66:69:71	TKIPAES	WPAPSKWPA2PSK	100	b/g
3	☐	6	2WIRE824	28:16:2E:0F:33:89	TKIPAES	WPAPSKWPA2PSK	88	b/g
4	☐	6	2WIRE025	34:EF:44:77:55:E1	TKIPAES	WPAPSKWPA2PSK	100	b/g

9. Select the target router's Encryption and Authentication Type.

10. Enter the Pre-shared Key and click Connect.

Note:

The default SSID, encryption and authentication type of the ERB300H/ERB150H is initially the same as that of the target router. The values can be changed by entering a

new value in Repeater (SSID) and selecting a new value in Encryption and Authentication Type.

STEP 2: Enter Password (security key)

- The following security settings are automatically entered for you in accords to the selected AP.
- Change it ONLY IF you found it mismatched.
- Usually you are only required to enter the password (security key).
- If your AP does not have security, please ignore this page and press [connect] to proceed.

SSID : Router_SSID

Encryption : WPA pre-shared key ▼

Authentication Type : WPA(TKIP) ▼

Pre-shared Key :

Repeater (SSID) : Repeater_SSID

Encryption : WPA pre-shared key ▼

Authentication Type : WPA(TKIP) ▼

Pre-shared Key :

Connect

To complete the ERB300H/ERB150H installation, remove the Ethernet cable and place the range extender back in the previously selected location.

The ERB300H/ERB150H immediately starts transmitting and receiving the wireless signal and is now ready to connect to your wireless media devices.

Note:

When the ERB300H/ERB150H connects via Wi-Fi to a remote router under bridge or repeater mode, the device's IP address changes to the router's DHCP subnet address. However, it is not possible to access the device using the subnet IP address nor can a static IP address be assigned in the traditional manner.

A work-around is available by following one of these two procedures:

- Enter the model name of the device in a web browser's address bar. For example, enter `http://erb300h/` to connect to the ERB300H or `http://erb150h/` to connect to the ERB150H.
- The default management IP address of the device is 192.168.1.250. To connect to the device over a LAN, the LAN's subnet IP address must be 192.168.1.xxx. Otherwise directly connect a PC to the device.

Manually configure a PC's IP address to 192.168.1.xxx and enter 192.168.1.250 in a web browser's address bar.

Using the ERB300H/ERB150H as a Media Entertainment Bridge

Getting Started

Create a wireless media entertainment network using the ERB300 as a Media Entertainment Bridge (Client Bridge mode) by following the instructions in the next section.

Setting Up the Media Bridge

Connect the ERB300H/ERB150H to an existing wireless network either by WPS configuration or by Smart Wizard configuration.

Note:

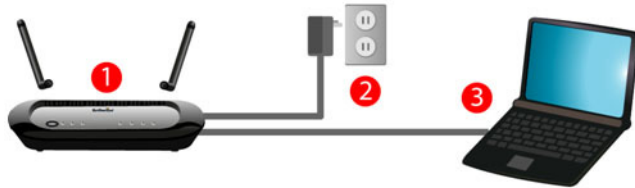
It is recommended to use WPS configuration if the ERB300H/ERB150H supports it.

WPS Configuration

Note:

See *WPS Configuration* on page 4-1 for details.

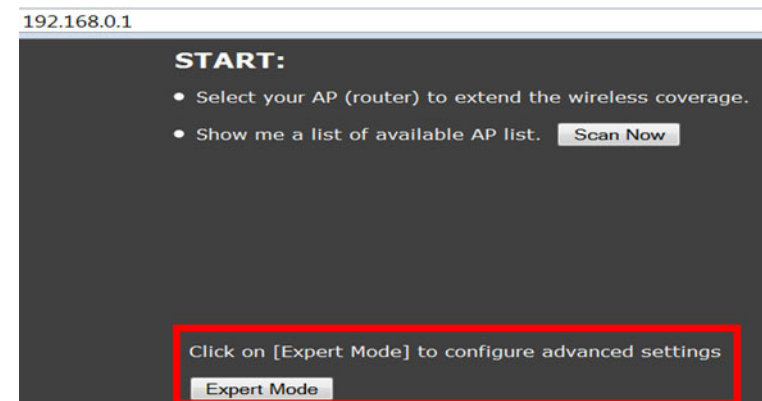
Smart Wizard Configuration



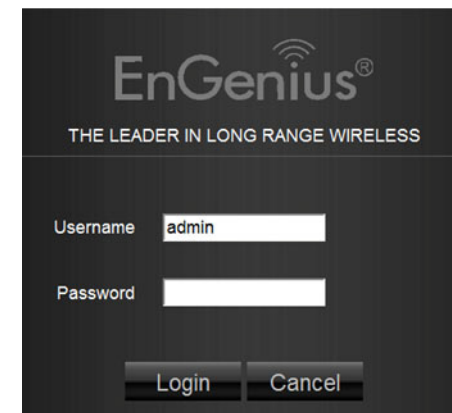
1. Attach the ERB300H/ERB150H's Wi-Fi antenna and power on the device.
2. Connect your computer to the ERB300H/ERB150H with an Ethernet cable
3. Open a web browser and enter the default IP, 192.168.0.1, in the address bar.

192.168.0.1

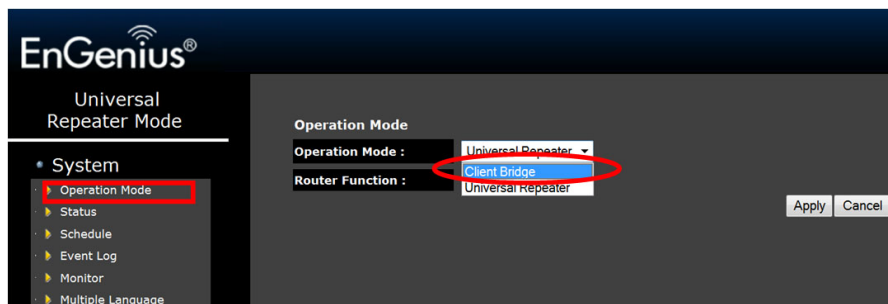
4. Select **Expert Mode** to display the *Login Page*.



5. Enter the default Password: admin and click **Login**.



6. Click **System>>Operation Mode** to display the **Operation Mode** screen.

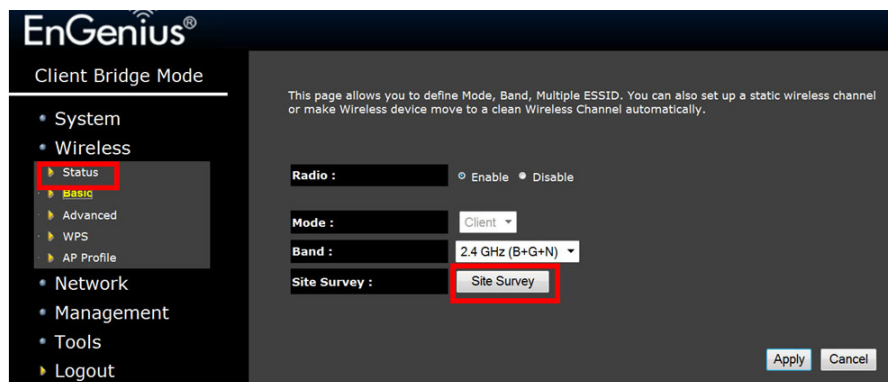


7. Click **Client Bridge** in the drop-down menu and click **Apply** to save the settings.

Note:

The first time the device is changed to client bridge (CB) mode, it is assigned an IP address by its DHCP server (there is no need to set a static IP address).

8. Click **Wireless>>Basic** to display the **Site Survey** button. Click the button to view a list of wireless signals.



9. Select your target router and click **Add to AP Profile**.

Site Survey								
NO.	Select	Channel	SSID	BSSID	Encryption	Authentication	Signal(%)	Mode
1	☒	1	IEEE80211	00:02:03:04:05:06	AES	WPA2PSK	100	b/g/n
2	☐	6	ECB350TEST	00:02:6F:BC:07:00	AES	WPA2PSK	100	b/g/n
3	☐	11	engenius-cli-command	00:02:6F:93:3F:44	TKIP	WPA2PSK	100	b/g/n
4	☐	6	EOA7535	00:02:6F:88:DA:82	AES	WPA2PSK	100	b/g
5	☐	11	EnGeniusBA170A	00:02:6F:BA:17:0A	NONE	OPEN	50	b/g/n

Refresh **Add to AP Profile**

10. If the target router uses encryption, enter the password in **Pre-shared Key** and click **Save**.

This page allows you setup the wireless security. You can turn on WEP or WPA by using Encryption Keys, besides you can enable 802.1x Authentication or RADIUS to coordinate with RADIUS server.

AP Profile Settings

Network Name (SSID) : IEEE80211

Encryption : WPA pre-shared key

Authentication Type : WPA2(AES)

Pre-shared Key :

Save

If the profile was saved successfully, the following screen is displayed.



Click **Close** to return to the web management page. Select the target router and click **Connect**.

Note:

The first time the device connects to a router in CB mode it becomes a DHCP client and automatically configures its subnet to that of the host network.

To complete the procedure, select media entertainment devices, a maximum of four, and connect each device to a LAN port on the ERB300H/ERB150H.

The ERB300H/ERB150H is successfully setup as a client bridge to the router and is ready to stream media entertainment applications.

Note:

When the ERB300H/ERB150H connects via Wi-Fi to a remote router under bridge or repeater mode, the device's IP address changes to the router's DHCP subnet address. However, it is not possible to access the device using the subnet IP address nor can a static IP address be assigned in the traditional manner.

A work-around is available by following one of these two procedures:

- Enter the model name of the device in a web browser's address bar. For example, enter `http://erb300h/` to connect to the ERB300H or `http://erb150h/` to connect to the ERB150H.
- The default management IP address of the device is 192.168.1.250. To connect to the device over a LAN, the LAN's subnet IP address must be 192.168.1.xxx. Otherwise directly connect a PC to the device.

Manually configure a PC's IP address to 192.168.1.xxx and enter 192.168.1.250 in a web browser's address bar.

Web Configuration

Chapter 5

5.1 Logging In

**Note:**

If the login screen does not display, enter the default IP address of 192.168.0.1.

Note:

The default user name is `admin` and the default password is `admin`.

1. At the login screen enter a user name and a password.
2. Click `Login` to continue.

The screenshot shows the EnGenius login interface. At the top, the EnGenius logo is displayed with the tagline 'THE LEADER IN LONG RANGE WIRELESS'. Below this, there are two input fields: 'Username' with the text 'admin' and 'Password' with five dots. At the bottom, there are two buttons: 'Login' and 'Cancel'.

5.1 Web Menus Overview

Universal Repeater Mode Menus

System

View and edit settings that affect system functionality.

Operation Mode Configure the device to be a universal repeater or a client bridge.

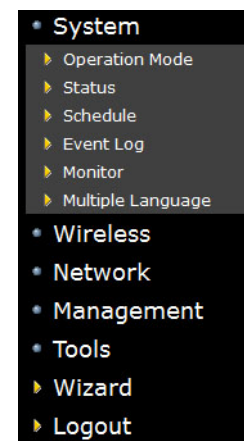
Status Display the summary of the current system status.

Schedule schedule services to start and stop at specific times or intervals.

Event Log View recorded system operations and network activity events.

Monitor View the current network traffic bandwidth usage.

Multiple Language Configure the application menu and GUI language.



Wireless

View and edit settings for wireless network connectivity.

Status View the current wireless connection status and related information.

Basic Configure the minimum settings required to setup a wireless network connection.

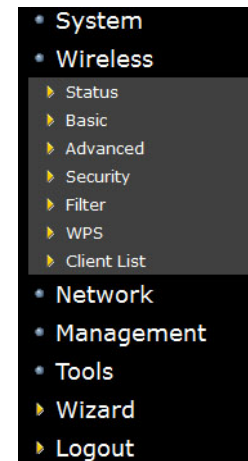
Advanced Configure the advanced network settings.

Security Configure the wireless network security settings.

Filter Configure a list of clients that are allowed to wirelessly connect to the network.

WPS Automate the connection between the a wireless device and the ERB300H/ERB150H using an 8-digit PIN.

Client List View the 2.4G wireless devices currently connected to the network.

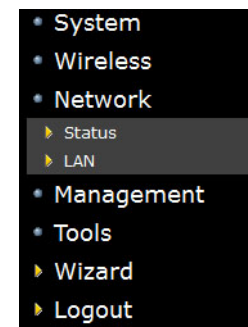


Network

View and edit settings that affect network connectivity.

Status Display the summary of the Internet status and type of connection.

LAN Configure local area network (LAN) specific and Internet protocol (IP) settings.



Management

View and configure settings for managing the device.

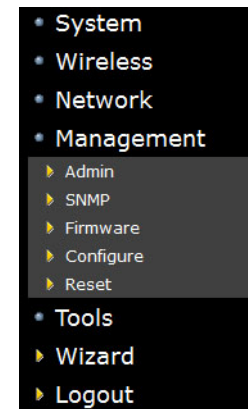
Admin Change the password used to access this device.

SNMP Monitor network-attached devices for conditions that warrant administrative attention.

Firmware Upgrade the firmware of this device.

Configure Save and load system settings from a file on a hard disk drive (HDD).

Reset Reset system settings to factory defaults.

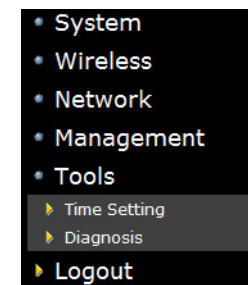


Tools

View and configure system and network tools settings.

Time Setting Configure the system time with NTP servers.

Diagnosis Diagnose the current network status.



Wizard

Start the wizard to configure the connection between the device and the ERB300H/ERB150H.

- System
- Wireless
- Network
- Management
- Tools
- **Wizard**
- Logout

Logout

Logout of the device application.

- System
- Wireless
- Network
- Management
- Tools
- Wizard
- **Logout**

Client Bridge Mode Menus

System

View and edit settings that affect system functionality.

Operation Mode Configure the device to be a universal repeater or a client bridge.

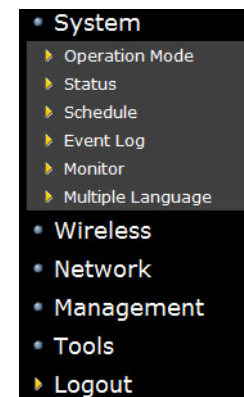
Status Display the summary of the current system status.

Schedule schedule services to start and stop at specific times or intervals.

Event Log View recorded system operations and network activity events.

Monitor View the current network traffic bandwidth usage.

Multiple Language Configure the application menu and GUI language.



Wireless

View and edit settings for wireless network connectivity.

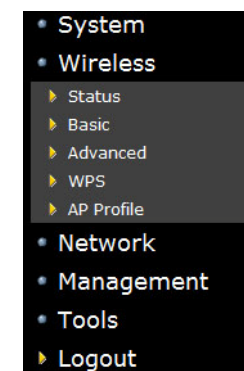
Status View the current wireless connection status and related information.

Basic Configure the minimum settings required to setup a wireless network connection.

Advanced Configure the advanced network settings.

WPS Automate the connection between the a wireless device and the ERB300H/ERB150H using an 8-digit PIN.

AP Profile Setup wireless security based on profiles.

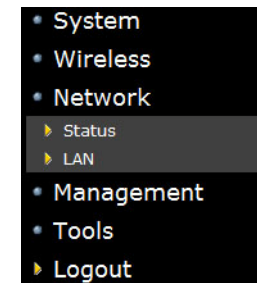


Network

View and edit settings that affect network connectivity.

Status Display the summary of the Internet status and type of connection.

LAN Configure local area network (LAN) specific and Internet protocol (IP) settings.



Management

View and configure settings for managing the device.

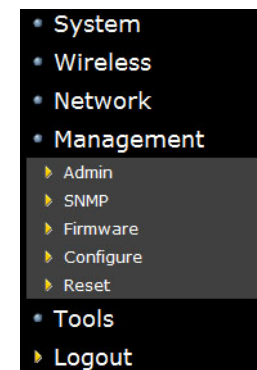
Admin Change the password used to access this device.

SNMP Monitor network-attached devices for conditions that warrant administrative attention.

Firmware Upgrade the firmware of this device.

Configure Save and load system settings from a file on a hard disk drive (HDD).

Reset Reset system settings to factory defaults.

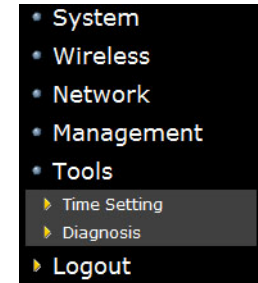


Tools

View and configure system and network tools settings.

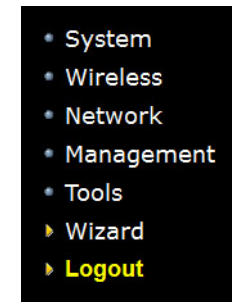
Time Setting Configure the system time with NTP servers.

Diagnosis Diagnose the current network status.



Logout

Logout of the device application.



Basic Network Settings

Chapter 6

6.0 System Setup

The following sections explain the features and functionality of the ERB300H/ERB150H in universal repeater mode (URM) and client bridge mode (CBM).

**Note:**

If a feature or function does not apply to all modes, a note indicates which modes are applicable. Otherwise, it is assumed the feature or function applies to all modes.

6.0.1 Operation Mode

Set the primary function of the device to act as a universal repeater or client bridge. The function that is selected affects which items are available in the main menu.

Operation Mode Select Universal Repeater to extend the router/AP signal coverage or Client Bridge to function as a bridge for other network devices.



Figure 6-1: Universal Repeater Mode (URM)

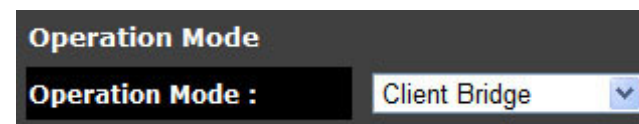
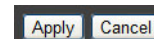


Figure 6-2: Client Bridge Mode (CBM)



Click **Apply** to save the settings or **Cancel** to discard changes.

6.0.2 Viewing System Status

View the summary of the current system status including system (hardware/software version, date/time), wired network (LAN) and wireless network (WLAN) information.

System

Operation Mode The ERB300H/ERB150H operating mode: Universal Repeater or Client Bridge.

System Time The current system date and time.

Hardware Version The hardware version number of the ERB300H/ERB150H.

Serial Number The serial number of the ERB300H/ERB150H. The serial number is required for customer service or support.

Firmware Version The firmware version number of the ERB300H/ERB150H.

Note:

To update the firmware visit www.engeniusnetworks.com.

System	
Operation Mode	Client Bridge
System Time	2009/01/01 10:10:20
System Up Time	4 hours 32 min 35 sec
Hardware Version	1.0.0
Serial Number	000000001
Firmware version	1.1.1

WLAN Station Information



Note:
This section applies to Client Bridge mode.

- Connection Status** Displays the connection status of the device to the WLAN.
- Channel** The communications channel used by all stations, or computing devices, on the network.
- ESSID** The ID value of a set of one or more interconnected basic service sets (BSSs).
- Security** The security setting status (Default: **Disabled**).
- BSSID** The unique ID of the BSS using the above channel value on this device. The ID is the MAC address of the BSSs access point.

WLAN Station Information	
Connection Status	Fail
Channel	---
ESSID	---
Security	---
BSSID	---

WLAN Repeater Information

 **Note:**
This section applies to Universal Repeater mode.

- Connection Status** Displays the connection status of the device to the WLAN.
- Channel** The communications channel used by all stations, or computing devices, on the network.
- ESSID** The ID value of a set of one or more interconnected basic service sets (BSSs).
- Security** The security setting status (Default: **Disabled**).
- BSSID** The unique ID of the BSS using the above channel value on this device. The ID is the MAC address of the BSSs access point.

WLAN Repeater Information	
Connection Status	Fail
Channel	---
ESSID	---
Security	---
BSSID	00:00:00:AA:03:0F

WLAN Settings

 **Note:**
This section applies to Universal Repeater mode.

- Channel** The communications channel used by all stations, or computing devices, on the network.

WLAN Settings	
Channel	11

Repeater SSID



Note:
This section applies to Universal Repeater mode.

ESSID The ID value of a set of one or more interconnected basic service sets (BSSs).

Security The security setting status (Default: **Disabled**).

BSSID The unique ID of the BSS using the above channel value on this device. The ID is the MAC address of the BSSs access point.

Repeater SSID	
ESSID	EnGeniusCCDD10
Security	Disable
BSSID	00:AA:BB:CC:DD:10

6.0.3 Configuring Scheduled Services

Use the Schedule function to start and stop the device services that operate on a routine basis.

Schedule Services Table

The Schedule function relies on the GMT time setting acquired from a network time protocol (NTP) server. See *System Time Setting* for details on how to connect the ERB300H/ERB150H to an NTP server.

Enabled Schedule Table Click checkbox to enable schedule services.

Scheduled Services Table Displays a list of scheduled services for the ERB300H/ERB150H. The properties of each service displayed are:

NO. Displays the ID number of the service in the table.

Description Displays the description of the service.

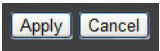
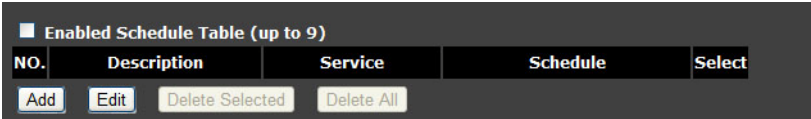
Service Displays the type of service, either `Wireless` `Active` or `Restart`.

Schedule Displays the schedule information of when the service is active or inactive.

Select Select one or more services to edit or delete.

Click `Add` to add a new service to the table, `Edit` to edit an existing service, `Delete Selected` to delete the selected services or `Delete All` to delete all services.

Click `Apply` to save the settings or `Cancel` to discard changes.



Add/Edit a Service

Create or edit a schedule service type and date/time parameters for a specific service.

Schedule Description Enter the description of the schedule service.

Service Select the type of schedule service, either Wireless Active or Restart.

Days Select the days of the week to enable the schedule service.

Time of Day Set the start and stop times that the service is active.

Click Apply to save the settings or Cancel to discard changes.

You can use the Schedule page to Start/Stop the Services regularly. The services will start at the time in the following Schedule Table or it will stop.

Schedule Description :	schedule 01	
Service :	☐ Wireless Active ☐ Restart	
Days :	☐ Every Day ☐ Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☐ Sat ☐ Sun	
Time of day :	☐ All Day (use 24-hour clock) From 0 : 0 To 0 : 0	

Apply

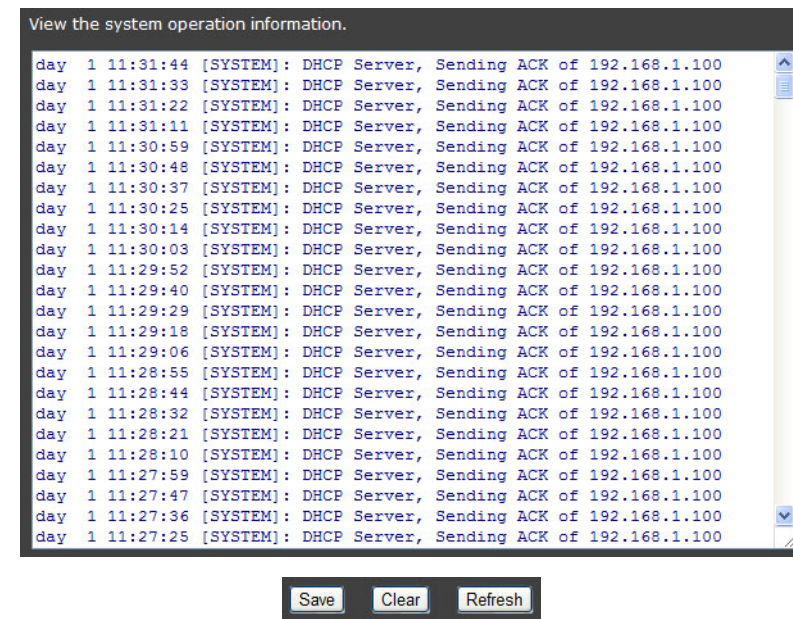
Cancel

6.0.4 Configuring Event Logging

The logging service records and displays important system information and activity on the network. The events are stored in a memory buffer with older data overwritten by newer when the buffer is full.

Log Message List

Shows the current system operations and network activity.



Click **Save** to save the message list to a text file, **Cancel** to discard changes or **Refresh** to clear the current message list from the memory buffer.

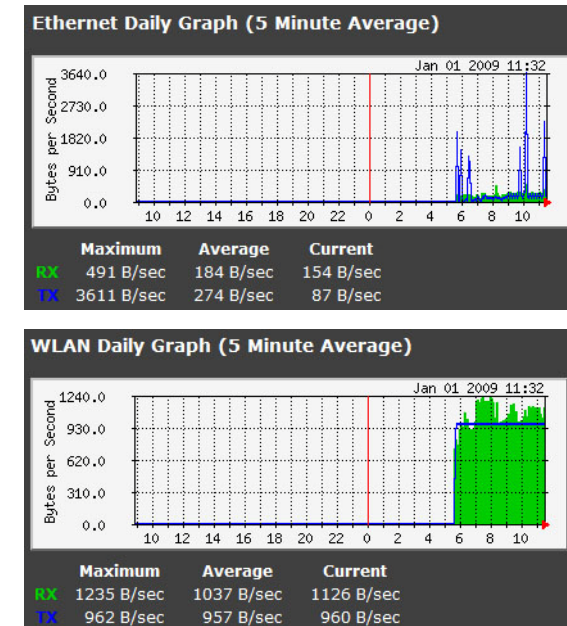
6.0.5 Monitoring Bandwidth Usage

View bandwidth usage for LAN and WLAN traffic.

Displays the daily bandwidth usage for the LAN and WLAN networks.

Note:

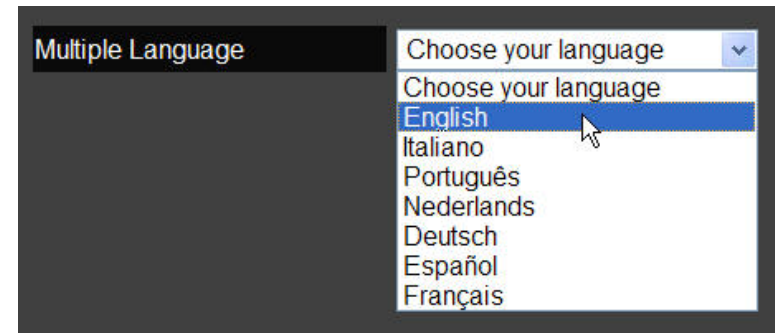
Click [Details](#) to view daily, weekly and monthly data.



6.0.6 Configuring the System Language

The system supports multiple languages for using the graphical user interface (GUI).

Select the system language to use from the dropdown list.



6.1 Wireless LAN Setup

6.1.1 Viewing WLAN Status

View the connection status, extended service set identifier (ESSID), security and basic service set identifiers (BSSID) settings.

WLAN Station Information



Note:
This section applies to Client Bridge mode.

Connection Status Displays the connection status of the device to the WLAN.

ESSID The ID value of a set of one or more interconnected basic service sets (BSSs).

Security The security setting status (Default: **Disabled**).

BSSID The unique ID of the BSS using the channel value on this device. The ID is the MAC address of the BSSs access point.

View the current wireless connection status and related information.

WLAN Station Information	
Connection Status	Fail
ESSID	---
Security	---
BSSID	---

WLAN Repeater Information

 **Note:**
This section applies to Universal Repeater mode.

- Connection Status** Displays the connection status of the device to the WLAN.
- ESSID** The ID value of a set of one or more interconnected basic service sets (BSSs).
- Security** The security setting status (Default: **Disabled**).
- BSSID** The unique ID of the BSS using the channel value on this device. The ID is the MAC address of the BSSs access point.

View the current wireless connection status and related information.

WLAN Station Information	
Connection Status	Fail
ESSID	---
Security	---
BSSID	---

WLAN Settings

 **Note:**
This section applies to Universal Repeater mode.

- Channel** The communications channel used by all stations, or computing devices, on the network.

WLAN Settings	
Channel	11

Repeater SSID



Note:
This section applies to Universal Repeater mode.

ESSID The ID value of a set of one or more interconnected basic service sets (BSSs).

Security The security setting status (Default: **Disabled**).

BSSID The unique ID of the BSS using the above channel value on this device. The ID is the MAC address of the BSSs access point.

Repeater SSID	
ESSID	EnGeniusCCDD10
Security	Disable
BSSID	00:AA:BB:CC:DD:10

6.1.2 Basic Settings

Define the device mode, signal band and connect to multiple ESSIDs.

**Note:**

This section applies to Client Bridge mode.

Radio Enable or disable the wireless radio. If the wireless radio is disabled, wireless access points are not available.

Mode Select the wireless operating mode for the ERB300H/ERB150H.

Band Select the wireless band protocol. The following options are available:

- 2.4GHz (B)
- 2.4GHz (N)
- 2.4GHz (B+G)
- 2.4GHz (G)
- 2.4GHz (B+G+N)

Click `Site Survey` to scan the area for wireless routers that the ERB300H/ERB150H can connect to. See step 8 of *Using the ERB300H/ERB150H as a Media Entertainment Bridge* for detailed instructions on adding an access point profile.

The screenshot shows a dark-themed settings panel with the following controls:

- Radio :** Two radio buttons labeled "Enable" (which is selected) and "Disable".
- Mode :** A dropdown menu currently showing "Client".
- Band :** A dropdown menu currently showing "2.4 GHz (B+G+N)".
- Site Survey :** A button labeled "Site Survey".

**Note:**

This section applies to Universal Repeater mode.

Radio Enable or disable the wireless radio. If the wireless radio is disabled, wireless access points are not available.

Mode Select the wireless operating mode for the ERB300H/ERB150H.

Band Select the wireless band protocol. The following options are available:

- 2.4GHz (B)
- 2.4GHz (N)
- 2.4GHz (B+G)
- 2.4GHz (G)
- 2.4GHz (B+G+N)

Repeater SSID Enter the repeater SSID for the ERB300H/ERB150H.

Channel Select the communications channel used by all stations, or computing devices, on the network.

Click `Site Survey` to scan the area for wireless routers that the ERB300H/ERB150H can connect to. See step 8 of *Using the ERB300H/ERB150H as a Media Entertainment Bridge* for detailed instructions on adding an access point profile.

The screenshot shows the 'Basic Settings' interface for the ERB300H/ERB150H in 'Universal Repeater' mode. The settings are as follows:

Setting	Value
Radio	☒ Enable ☐ Disable
Mode	Universal Repeater
Band	2.4 GHz (B+G+N)
Repeater SSID	EnGeniusCCDD10
Channel	11
Site Survey	Site Survey

6.1.3 Advanced Settings

Define the advanced settings available on the ERB300H/ERB150H.



WARNING!

Incorrectly changing these settings may cause the device to stop functioning. Do not modify the settings in this section without a thorough understanding of the parameters.



Note:

This section applies to Client Bridge mode.

Fragment Threshold Enter the maximum size of a packet during data transmission. A value too low could lead to low performance.

RTS Threshold Enter the RTS threshold. If the packet size is smaller than the RTS threshold, the ERB300H/ERB150H does not use RTS/CTS to send the data packet.

Tx Power Select the wireless signal strength level. Valid values are between 25% and 100%.

Click `Apply` to save the settings or `Cancel` to discard changes.

Fragment Threshold :	2346	(256-2346)
RTS Threshold :	2347	(1-2347)
Tx Power :	100 %	

Apply	Cancel
--------------------------------------	---------------------------------------

**Note:**

This section applies to Universal Repeater mode.

Fragment Threshold Enter the maximum size of a packet during data transmission. A value too low could lead to low performance.

RTS Threshold Enter the RTS threshold. If the packet size is smaller than the RTS threshold, the ERB300H/ERB150H does not use RTS/CTS to send the data packet.

Beacon Interval Enter the beacon interval. This is the amount of time that the ERB300H/ERB150H sets to synchronize the network.

Delivery Traffic Indication Message (DTIM) Period Enter the DTIM period. The DTIM is a countdown period informing clients of the next point of broadcast and multicast of messages over the network. Valid values are between 1 and 255.

N Data Rate Select the N data rate. This is the rate in which the ERB300H/ERB150H will transmit data packets to wireless N compatible devices.

Channel Bandwidth Select the channel bandwidth. The factory default is `Auto 20/40MHz`. The default setting provides the best performance by auto selecting channel bandwidth.

Preamble Type Select the preamble type. `Long Preamble` provides better LAN compatibility and `Short Preamble` provides better wireless performance.

CTS Protection Select the type of CTS protection. Using CTS Protection can lower the data collisions between Wireless B and Wireless G devices and lower data throughput.

Tx Power Select the wireless signal strength level. Valid values are between 25% and 100%.

Click `Apply` to save the settings or `Cancel` to discard changes.

Fragment Threshold :	2346	(256-2346)
RTS Threshold :	2347	(1-2347)
Beacon Interval :	100	(20-1000 ms)
DTIM Period :	1	(1-255)
N Data Rate:	Auto	
Channel Bandwidth	☒ Auto 20/40 MHz ☐ 20 MHz	
Preamble Type :	☐ Long Preamble ☒ Short Preamble	
CTS Protection :	☒ Auto ☐ Always ☐ None	
Tx Power :	100 %	

Apply Cancel

6.1.4 Security

**Note:**

This section applies to Universal Repeater mode.

Enable security options on the wireless network to prevent intrusions to systems on the wireless network.

ESSID Selection Select the wireless network group to change the wireless security settings for.

Broadcast SSID Enable or disable broadcast SSID. Choose whether or not the wireless group is visible to other members.

Wi-Fi Multimedia (WMM) Enable or disable quality of service (QoS) to optimize the streaming for bandwidth sensitive data such as HDTV video streaming, online gaming, VoIP, videoconferencing, and etc.

Encryption Select the encrypt type for the ERB300H/ERB150H.

ESSID Selection :	EnGeniusCCDD10 ▾
Broadcast ESSID :	Enable ▾
WMM :	Enable ▾
Encryption :	Disable ▾

Encryption Type

Wired Equivalent Privacy (WEP)

Authentication Type Select the type of authentication.

- **Open System** Wireless stations can associate with the ERB300H/ERB150H without WEP encryption
- **Shared Key** Devices must provide the corresponding WEP key(s) when connecting to the ERB300H/ERB150H.
- **Auto**

Key Length Select between 64-bit and 128-encryption.

Key Type Select the type of characters used for the WEP Key: ASCII (5 characters) or Hexadecimal (10 characters).

Default Key

Encryption Key [#] Enter the encryption key(s) used to encrypt the data packets during data transmission.

Click `Apply` to save the settings or `Cancel` to discard changes.

ESSID Selection :	EnGeniusCCDD10
Broadcast ESSID :	Enable
WMM :	Enable
Encryption :	WEP
Authentication Type :	☒ Open System ☐ Shared Key ☐ Auto
Key Length :	64-bit
Key Type :	ASCII (5 characters)
Default Key :	Key 1
Encryption Key 1 :	
Encryption Key 2 :	
Encryption Key 3 :	
Encryption Key 4 :	

Apply	Cancel
-------	--------

Wi-Fi Protected Access (WPA) Pre-Shared Key

WPA Type Select the type of WPA.

- **WPA Temporal Key Integrity Protocol (TKIP)** Generates a 128-bit key for each packet.
- **WPA2 Advanced Encryption Standard (AES)** Government standard packet encryption which is stronger than TKIP.
- **WPA2 Mixed** Mixed mode allows device to try WPA2 first, and if that fails selects WPA type.

Pre-Shared Key Type Select the type of pre-shared key as Passphrase (ASCII) or Hexadecimal.

Pre-Shared Key Enter the pre-shared Key value.

Click `Apply` to save the settings or `Cancel` to discard changes.

ESSID Selection :	EnGeniusCCDD10 ▾
Broadcast ESSID :	Enable ▾
WMM :	Enable ▾
Encryption :	WPA pre-shared key ▾
WPA Type :	☒ WPA(TKIP) ☐ WPA2(AES) ☐ WPA2 Mixed
Pre-shared Key Type :	Passphrase ▾
Pre-shared Key :	

<code>Apply</code>	<code>Cancel</code>
--------------------	---------------------

6.1.5 Filter

 **Note:**
This section applies to Universal Repeater mode.

 **WARNING!**
Incorrectly changing these settings may cause the device to stop functioning. Do not modify the settings in this section without a thorough understanding of the parameters.

When `Enable Wireless Access Control` is selected, only wireless clients with MAC addresses listed in the table are allowed to connect to the wireless network.

Enable Wireless Access Control

Description Enter a description of the device allowed to connect to the network.

MAC Address Enter the MAC address of the wireless device.

☐ Enable Wireless MAC Filtering

Description	MAC Address

MAC Address Filtering Table

No. The sequence number of the device.

Description The description of the device.

MAC Address The MAC address of the device.

Select Indicates the device(s) that can have actions performed on them.

Click `Delete Selected` to remove selected devices from the list, `Delete All` to remove all devices form the list or `Reset` the discard changes.

Click `Apply` to save the settings or `Cancel` to discard changes.

Only the following MAC Addresses can use network:

NO.	Description	MAC Address	Select
-----	-------------	-------------	--------

Delete Selected

Delete All

Reset

Delete Selected

Delete All

Reset

Apply

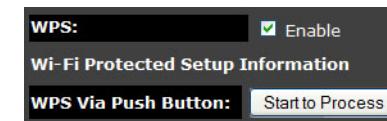
Cancel

6.1.6 Wi-Fi Protected Setup

Wi-Fi protected setup (WPS) is an easy way to allow wireless clients to connect to the ERB300H/ERB150H. Automate the connection between the device and the ERB300H/ERB150H using a button or a PIN.

WPS Enable or disable WPS.

WPS via Push Button Click `Start` to `Process` to activate WPS.



6.1.7 AP Profile



Note:
This section applies to Client Bridge mode.

AP Profile Table

- NO.** Displays the ID value of the profile.
- SSID** Displays the SSID value of the profile.
- MAC** Displays the MAC address of the profile.
- Authentication** Displays the authentication type of the profile.
- Encryption** Displays the encryption type of the profile.
- Select** Select one or more services to edit or delete.

Click **Add** to add a new AP profile to the table, **Edit** to edit an existing profile, **Move Up** to move a profile up a position in the table, **Move Down** to move a profile down a position, **Delete Selected** to delete the selected profiles, **Delete All** to delete all the profiles or **Connect** to a selected AP.

AP Profile Table					
NO.	SSID	MAC	Authentication	Encryption	Select

Add

Edit

Move Up

Move Down

Delete Selected

Delete All

Connect

Add an AP Profile

- SSID** Enter the SSID information of the profile.
- Encryption** Select the encryption type of the profile.

Click **Add** to add a new AP profile to the table, **Edit** to edit an existing profile, **Move Up** to move a profile up a position in the table, **Move Down** to move a profile down a position, **Delete Selected** to delete the selected profiles, **Delete All** to delete all the profiles or **Connect** to a selected AP.

AP Profile Settings

SSID :

Encryption :

Disable

Add

Edit

Move Up

Move Down

Delete Selected

Delete All

Connect

Wired Equivalent Privacy (WEP)

- Authentication Type** Select the type of authentication.
- Open System** Wireless stations can associate with the ERB300H/ERB150H without WEP encryption
 - Shared Key** Devices must provide the corresponding WEP key(s) when connecting to the ERB300H/ERB150H.

Key Length Select between 64-bit and 128-encryption.

Key Type Select the type of characters used for the WEP Key: ASCII (5 characters) OR Hexadecimal (10 characters).

Default Key

Encryption Key [#] Enter the encryption key(s) used to encrypt the data packets during data transmission.

Click **Apply** to save the settings or **Cancel** to discard changes.

AP Profile Settings

SSID :

Encryption :

WEP

Authentication Type :

☒ Open System

☐ Shared Key

Key Length :

64-bit

Key Type :

ASCII (5 characters)

Default Key :

Key 1

Encryption Key 1 :

Encryption Key 2 :

Encryption Key 3 :

Encryption Key 4 :

Apply

Cancel

Wi-Fi Protected Access (WPA) Pre-Shared Key



Note:
This section applies to Client Bridge mode.

Authentication Type Select the type of authentication.

- **WPA Temporal Key Integrity Protocol (TKIP)** Generates a 128-bit key for each packet.
- **WPA2 Advanced Encryption Standard (AES)** Government standard packet encryption which is stronger than TKIP.

Pre-Shared Key Enter the pre-shared Key value.

Click `Apply` to save the settings or `Cancel` to discard changes.

AP Profile Settings

SSID :	
Encryption :	WPA pre-shared key ▾
Authentication Type :	WPA2(AES) ▾
Pre-shared Key :	

Apply

Cancel

6.1.8 Client List

 **Note:**
This section applies to Universal Repeater mode.

View the wireless devices currently connected to the ERB300H/ERB150H.

WLAN Client Table

- Interface** Displays the type of network connected to the device.
- MAC Address** Displays the MAC address of device connected to network.
- Rx** Displays the number of data packets received by the device.
- Tx** Displays the number of data packets transmitted by the device.
- Signal** Displays the signal strength of the device connected to the network.
- Connected Time** Displays the amount of time the connected device has been active on the network.
- Idle Time** Displays the amount of time the connected device has not been active on the network.

Click `Refresh` to refill the list with currently connected devices.

WLAN Client Table :

This WLAN Client Table shows client MAC address associate to this device.

Interface	MAC Address	Rx	Tx	Signal(%)	Connected Time	Idle Time
No client connecting to the device.						

Refresh

6.2 Network Setup

6.2.1 Network Status

The *Status* screen shows a summary of the current network connection information.

LAN Status Settings



Note:
This section applies to Client Bridge mode and Universal Repeater mode.

- IP Address** Displays the LAN IP address of the ERB300H/ERB150H.
- Subnet Mask** Displays the LAN subnet mask of the ERB300H/ERB150H.
- Default Gateway** Displays the default gateway IP address of the ERB300H/ERB150H.
- MAC Address** Displays the MAC address of the ERB300H/ERB150H.
- Primary DNS** Displays the primary DNS address of the ERB300H/ERB150H.
- Secondary DNS:** Displays the secondary DNS address of the ERB300H/ERB150H.

Note:
The MAC address is located on the label on the back side of the ERB300H/ERB150H.

View the current wireless connection status and related information.

LAN Settings		
IP Address	192.168.1.220	
Subnet Mask	255.255.255.0	
Gateway IP Address	---	
MAC Address	00:00:00:20:C3:7A	
First DNS Address	192.168.1.1	
Second DNS Address	192.168.1.1	

6.2.2 LAN Settings

Configure the LAN settings for the ERB300H/ERB150H using a static or dynamic IP address.

Bridge Type Configure the bridge type using either a static IP or dynamic IP.

IP Address Enter the LAN IP address of the ERB300H/ERB150H.

Subnet Mask Enter the subnet mask of the ERB300H/ERB150H.

Default Gateway Enter the default gateway of the ERB300H/ERB150H.

DNS Type Select the type of DNS for the ERB300H/ERB150H.

Primary DNS Enter the primary DNS address of the ERB300H/ERB150H.

Secondary DNS Enter the secondary DNS address of the ERB300H/ERB150H.

802.1d Spanning Tree Enable or disable using the spanning tree protocol with the ERB300H/ERB150H.

Click **Apply** to save the settings or **Cancel** to discard changes.

This section allows you to configure LAN (Local Area Network) specific and IP settings.

Bridge Type :	Static IP ▾
IP Address :	192.168.1.220
IP Subnet Mask :	255.255.255.0
Default Gateway :	
DNS Type :	Static ▾
First DNS Address :	192.168.1.1
Second DNS Address :	192.168.1.1
802.1d Spanning Tree :	Disabled ▾

Apply **Cancel**

6.3 Management Setup

6.3.1 Administrator Account Setup

Change the system password, system name and idle timeout value for the ERB300H/ERB150H.

Old Password: Enter the existing administrator password.

New Password: Enter the new administrator password.

Confirm Password: Re-type the new administrator password.

System Name: Enter the system name of the ERB300H/ERB150H.

Idle Timeout: Enter a value, between 1 and 10 minutes, that the system can remain idle before returning to the login screen.

Click **Apply** to save the settings or **Cancel** to discard changes.

You can change the password that you use to access the device, this is not you ISP account password.

Old Password :	
New Password :	
Confirm password :	
System Name :	ERB300H
Idle Timeout :	10 (1~10 Minutes)

Apply **Cancel**

6.3.2 SNMP Setup

SNMP is used in network management systems to monitor network-attached devices for conditions that warrant administrative attention.

SNMP Active Enabled or disabled SNMP active state.

SNMP Version Select the SNMP version.

SNMP Manager IP Enter the SNMP manager IP address.

Read Community Enter the SNMP read community name.

Set Community Enter the SNMP set community name.

System Location Enter the system location.

System Contact Enter the system contact.

Trap Active Enable or disable the SNMP trap notifications.

Trap Manager IP Enter the destination address for the trap notifications.

Trap Community Enter the name of the trap community.

Click `Apply` to save the settings or `Cancel` to discard changes.

SNMP is used in network management systems to monitor network-attached devices for conditions that warrant administrative attention.

SNMP Active	Enabled ▾
SNMP Version	All ▾
SNMP Manager IP	0.0.0.0
Read Community	public
Set Community	private
System Location	EnGenius Technologies, Inc.
System Contact	SENAO Networks, Inc.
Trap Active	Disabled ▾
Trap Manager IP	192.168.0.100
Trap Community	public

`Apply` `Cancel`

6.3.3 Firmware

Firmware is system software that operates and allows the administrator to interact with the ERB300H/ERB150H.



WARNING!

Upgrading firmware through a wireless connection is not recommended. Firmware upgrading must be performed while connected to an Ethernet (LAN port) with all other clients disconnected.

Upgrading Firmware

To update the firmware version, follow these steps:

1. Download the appropriate firmware approved by EnGenius Networks from an approved web site.
2. Click `Choose File`.
3. Browse the file system and select the firmware file.
4. Click `Apply`.

Click `Apply` to save the settings or `Cancel` to discard changes.

You can upgrade the firmware of the device in this page. Ensure, the firmware you want to use is on the local hard drive of your computer. Click on Browse to browse and locate the firmware to be used for your update.

`Choose File` No file chosen

`Apply` `Cancel`

6.3.4 Configuration Settings

Store the current configuration settings of the ERB300H/ERB150H to a file on a local drive. The saved configuration settings can be loaded on the device at a later time or the device can be reset to the factory default settings.

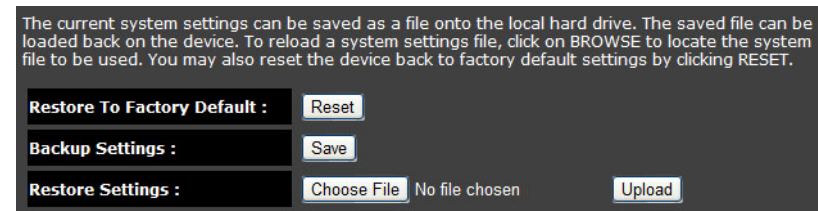
Backing Up Settings

Restore to factory default Click `Reset` to restore the ERB300H/ERB150H to factory defaults.

Backup Settings Click `Save` to save the current configuration on the ERB300H/ERB150H to a *.dlf file.

Restore Settings To restore saved settings, do the following:

1. Click `Choose File`.
2. Browse the file system for location of the settings file (*.dlf).
3. Click `Upload`.



6.3.5 Reset

This feature allows the administrator to reset the ERB300H/ERB150H in the event of a system error.

Resetting the Device

In the event the system stops responding correctly or stops functioning, you can perform a reset. Your settings will not be changed. To perform the reset, click on the APPLY button. You will be asked to confirm your decision. The reset will be completed when the LED Power light stops blinking.

Click `Apply` to reset the device.



6.4 Tools Setup

6.4.1 System Time Setting

Change the system time of the ERB300H/ERB150H and setup automatic updates through a network time (NTP) protocol server or through a PC.

Synchronize with an NTP Server

Time Setup Select how the ERB300H/ERB150H obtains the current time.

Time Zone Select the time zone for the ERB300H/ERB150H.

NTP Time Server Enter the domain name or IP address of an NTP server.

Enable Daylight Saving Click to enable or disable daylight savings time.

Start Time Select the date and time when daylight savings time starts.

End Time Select the date and time when daylight savings time ends.

The device reads the correct time from NTP servers on the Internet and sets its system clock accordingly. The Daylight Savings option merely advances the system clock by one hour. The time zone setting is used by the system clock when displaying the correct time in schedule and the log files.

Time Setup :	Synchronize with the NTP Server ▾
Time Zone :	(GMT)Greenwich Mean Time: Dublin, Edinburgh, Lisbon, London ▾
NTP Time Server :	
Daylight Saving :	☐ Enable From January 1 To January 1

Synchronize with a PC

Time Setup Select how the ERB300H/ERB150H obtains the current time.

PC Date and Time Displays system date and time from a PC.

Enable Daylight Saving Click to enable or disable daylight savings time.

Start Time Select the date and time when daylight savings time starts.

End Time Select the date and time when daylight savings time ends.

Click `Apply` to save the settings or `Cancel` to discard changes.

The device reads the correct time from NTP servers on the Internet and sets its system clock accordingly. The Daylight Savings option merely advances the system clock by one hour. The time zone setting is used by the system clock when displaying the correct time in schedule and the log files.

Time Setup :	Synchronize with PC
PC Date and Time :	Wed Aug 15 2012 14:12:29 GMT+0800
Daylight Saving :	☒ Enable
	From January 1 To January 1

Apply	Cancel
-------	--------

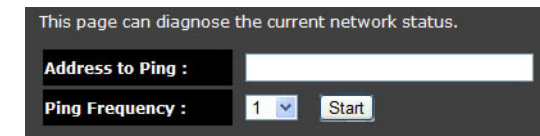
6.4.2 Diagnosis

The diagnosis feature allow the administrator to verify that another device is available on the network and is accepting request packets. If the ping result returns `alive`, it means a device is on line. This feature does not work if the target device is behind a firewall or has security software installed.

Diagnosing a Network Connection Problem

Address to Ping Enter IP address of the device to ping.

Ping Frequency Select the interval, in seconds, that the ping message is sent out.

A screenshot of a network diagnosis web interface. At the top, a message states 'This page can diagnose the current network status.' Below this, there are two input fields. The first is labeled 'Address to Ping :' and is an empty text box. The second is labeled 'Ping Frequency :' and contains a dropdown menu with the value '1' selected. To the right of the frequency dropdown is a 'Start' button.

This page can diagnose the current network status.

Address to Ping :

Ping Frequency : 1

6.5 Wizard Mode

This feature allows the administrator to configure the device settings with the use of on-screen menus.

**Note:**

This section applies to Universal Repeater mode.

Reset the range-extender to factory default Select to reset all values to factory default.

Keep the other advanced settings Select to reset all but the advanced feature values.

Click `Enter Wizard Mode` to continue

Note:

During wizard the current connection with the AP is lost. Previously configured wireless security settings on the range-extender are erased.

Important Notice

You are about to enter Wizard Mode. This means you will lose your current connection with the AP. The previously configured wireless security settings on the range-extender will be erased. However, you can decide whether to keep the advanced (RTS Threshold / Transmit Power) settings.

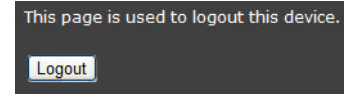
☒ Reset the range-extender to factory default

☐ Keep the other advanced settings

`Enter Wizard Mode`

6.6 Logout

Click Logout to logout from the ERB300H/ERB150H.



Appendix A

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

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



WARNING!

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

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Radiation Exposure Statement**Important:**

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

This device complies with FCC RF Exposure limits set forth for an uncontrolled environment, under 47 CFR 2.1093 paragraph (d)(2).

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Appendix B

Industry Canada Statement

This device complies with RSS-210 of the Industry Canada Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Ce dispositif est conforme à la norme CNR-210 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.



Important:

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

Appendix C

Link Layers

There are different ways of connecting your personal computer (PC) or mobile computing device to the Internet. Here are four of the most common ways and how to connect to the Internet using them.

Dynamic IP Address (DHCP)

A DHCP of connection is where your internet connection is usually always on and your internet service provider automatically provides you with an IP address. A DHCP connection is usually from a Cable internet service.

Static IP

To set up a Static IP connection, enter the following: IP Address of the Internet Connection, Subnet Mask, Default Gateway, and both DNS Servers. This information can be obtained by either your Internet Service provider or Network Administrator. If your internet service provider requires a username and password to connect, you will then be prompted to enter the correct information.

MTU: Maximum Transmission Unit. It specifies the largest packet size permitted for internet transmission. The factory default MTU size of Static IP is 1500. If you wish to manually change the MTU size, set it between 512 and 1500.

Point-to-Point Protocol over Ethernet (PPPoE)

Point-to-Point Protocol over Ethernet (PPPoE): To set up a PPPoE connection, enter the Username, Password, and Service (name) of the internet connection provided by your ISP. Click Next and the ERB300H/150H should connect to the internet successfully. A PPPoE connection is usually from a DSL internet service.

1. Login: The username or e-mail address that the internet connection uses to access internet connectivity.
2. Password: The password that corresponds to the username or e-mail address used to connect to the internet in the PPPoE.
3. Service Name: The Service Name is optional. This is to signify the name of the Internet Service Provider.
4. MTU: Maximum Transmission Unit. It specifies the largest packet size permitted for internet transmission. The factory default MTU size of Static IP is 1500. If you wish to manually change the MTU size, set it between 512 and 1500.
5. Point-to-Point Tunneling Protocol (PPTP)

To set up a PPTP connection, enter the type of WAN connection (Static IP or DHCP). After, depending on the type of WAN, follow the instructions of DHCP or Static IP to fill out the corresponding information. Then, proceed to enter the Username, Password, Service, and Connection ID of the PPTP internet connection. Once completed, click Next. Once configured, the internet connection will successfully connect.

Layer 2 Tunneling Protocol (L2TP)

To set up an L2TP connection, enter the type of WAN connection (Static IP or DHCP). After, depending on the type of WAN, follow the instructions of DHCP or Static IP to fill out the corresponding information. Then, proceed to enter the Username, Password, and Service. Click next when completed. Once configured, the internet connection will successfully connect.

MTU: Maximum Transmission Unit. It specifies the largest packet size permitted for internet transmission. The factory default MTU size of Static IP is 1500. If you wish to manually change the MTU size, set it between 512 and 1500.

Appendix D

WorldWide Technical Support

REGION/COUNTRY OF PURCHASE	SERVICE CENTRE	SERVICE INFORMATION	
Canada	CANADA	web site	www.engeniuscanada.com
		email	rma@engeniuscanada.com
		contact numbers	Toll Free: (+1) 888-397-2788 Local: (+1) 905-940-8181
		hours of operation	Monday - Friday 9:00AM to 5:30PM EST (GMT-5)
USA	LOS ANGELES, USA	web site	www.engeniustech.com
		email	support@engeniustech.com
		contact numbers	Toll Free: (+1) 888-735-7888 Local: (+1) 714-432-8668
		hours of operation	Monday - Friday 8:00 AM to 4:30 PM PST (GMT-8)
Mexico, Central and Southern America	MIAMI, USA	web site	[ES] es.engeniustech.com [PT] pg.engeniustech.com
		email	miamisupport@engeniustech.com

REGION/COUNTRY OF PURCHASE	SERVICE CENTRE	SERVICE INFORMATION	
Europe	NETHERLANDS	contact numbers	Miami: (+1) 305-887-7378 Sao Paulo, Brazil: (+55)11-3957-0303 D.F., Mexico:(+52)55-1163-8894
		hours of operation	Monday - Friday 8:00 AM to 5:30PM EST (GMT-5)
		web site	www.engeniusnetworks.eu
		email	support@engeniusnetworks.eu
Africa Middle East Russia CIS / Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan, Ukraine, Uzbekistan Turkey Afghanistan Pakistan Bangladesh, Maldives, Nepal, Bhutan, Sri Lanka	DUBAI, UAE	contact numbers	(+31) 40-8200-887
		hours of operation	Monday - Friday 9:00 AM - 5:00 PM (GMT+1)
		web site	www.engenius-me.com
		email	support@engenius-me.com
		contact numbers	Toll Free: U.A.E.: 800-EnGenius 800-364-364-87 General: (+971) 4357-5599
		hours of operation	Sunday - Thursday 9:00 AM - 6:00 PM (GMT+4)

REGION/COUNTRY OF PURCHASE	SERVICE CENTRE	SERVICE INFORMATION	
Singapore, Cambodia, Indonesia, Malaysia, Thailand, Philippines, Vietnam China, Hong Kong, Korea India South Africa Oceania	SINGAPORE	web site	www.engeniustech.com.sg/e_warranty_form
		email	techsupport@engeniustech.com.sg
		contact numbers	Toll Free: Singapore: 1800-364-3648
		hours of operation	Monday - Friday 9:00 AM - 6:00 PM (GMT+8)
Others	TAIWAN, R.O.C.	web site	www.engeniusnetworks.com
		email	technology@senao.com

Note:

* Service hours are based on the local time of the service center.

* Please visit the website for the latest information about customer service.