

EnGenius[®] X-TRA RANGE[®]

ESR Series Router
Wireless N DBDC Gigabit App Router
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.

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

Indicates keyboard keys that are pressed by the user.

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Product Overview

Chapter 1

1.1 Product Overview

Key Features

- IEEE802.11a/b/g/n, Dual-Band & Dual Concurrent
- Up to 300Mbps on both 2.4G & 5GHz band
- Gigabits Port Connect to High AV Performance
- External Wireless Coverage
- Next Generation IPv6 Compliant
- Parental Control & Guest Network
- VPN Server Support Lite-Business Applications
- Advanced Firewall / Network Security
- USB file sharing through Mobile App.
- Easy Setup Wizard

Robust and Reliable Wireless Performance

The ESR Series Router is a Dual-Band-Dual-Concurrent Router, equipped with Wireless-N technology and [four Gigabit LAN port switch](#). This cost effective router can connect to DSL or cable modems to provide high performance Internet access to your computer, mobile, laptop and home entertainment devices. Dual-Band-Dual-Concurrent design to protect your wireless multi-media data quality. Use the 5GHz band to protect sensitive multi-media data, while PC and mobile devices are assigned a 2.4GHz band for Internet surfing. ESR Series

Router models support the latest EnGenius X-TRA RANGE technology to increase wireless coverage throughout the house.

Support the Next Generation IPv6 Application

The EnGenius ESR Series Router supports the latest IPv6 standard application for all your current and future requirements.

Industry-Standard Wireless Security & Firewall

The ESR Series Router supports various security features including industry-standard WPA/WPA2 wireless encryption to prevent unauthorized access to your network. SPI firmware and MAC/IP address filtering are supported for greater network security for WAN and LAN ports.

Individual Wireless SSID for Guest Access

Up to four separate and discrete Wireless SSIDs for friend or visitor Internet access without sacrificing privacy to networked computers or data within your home.

USB Storages and File Sharing through the Mobile APPs

The ESR Series Router can function as a Network Storage Server (NAS) while the USB storage device is connected. Users can download, upload and even watch video through their PC/Mobile/Pad through the use of the ESR Series Router router.

Technical Specification

Physical Interface

- 1x 10/100/1000Mbps WAN Port
- 4x 10/100/1000Mbps LAN Ports
- 1x USB Host Port
- 1x WPS Button
- 1x Reset Button

LED Indicator

- 5GHz Wireless (ESR600 & ESR 900 models only)
- 2.4GHz Wireless
- Power LED
- WAN LED (Internet connection)
- WPS LED (Green/Orange)

Hardware Specification

- Dimension: 161.5 x 41.5mm (Diameter x Height)
- Weight:
- Power Adapter: 12V / 1.25A

Certification

- FCC/CE/IC

Physical/Environment Condition

- Operation Temp.: 0°C ~ 40°C
- Humidity 90% or less (Non-Condensing)
- Storage Temp.: -20°C ~ 60°C
- Humidity 95% or less (Non-condensing)

Wireless Specification

- IEEE802.11/a/b/g/n
- Wireless Band: 2.4GHz / 5GHz
- 4x Internal High Performance PIFA antennas
- Tx Output Power: 20±2dBm (MAX.)
- Rx Sensibility: -92dBm (MAX.)
(MAX. power may differ depending on local regulations)

Software Features

- Operation mode: AP Router / WDS
- Wi-Fi ON / OFF
- Wireless Output Power Control
- Wireless QoS (WMM)
- Multi-SSIDs for both 2.4GHz & 5GHz
- Guest Network by Wireless SSIDs
- WPS (PIN / Bottom)
- Encryption: WEP / WPA / WPA2 / TKIP / AES
- WAN: PPPoE / Static IP / DHCP / PPTP / L2TP
- IPv6 WAN / IPv6 LAN
- DHCP Server
- Port Forwarding / Mapping / Tagging
- ALG (Application Layer Gateway)
- VPN Passthrough: PPTP / L2TP / IPSec
- Lite VPN Server: PPTP / L2TP / IPSec
- QoS: MAC / IP / Port based
- URL / IP / Port / ICMP Filtering
- Clone MAC
- DMZ
- SPI Firewall / Anti-DoS Attack

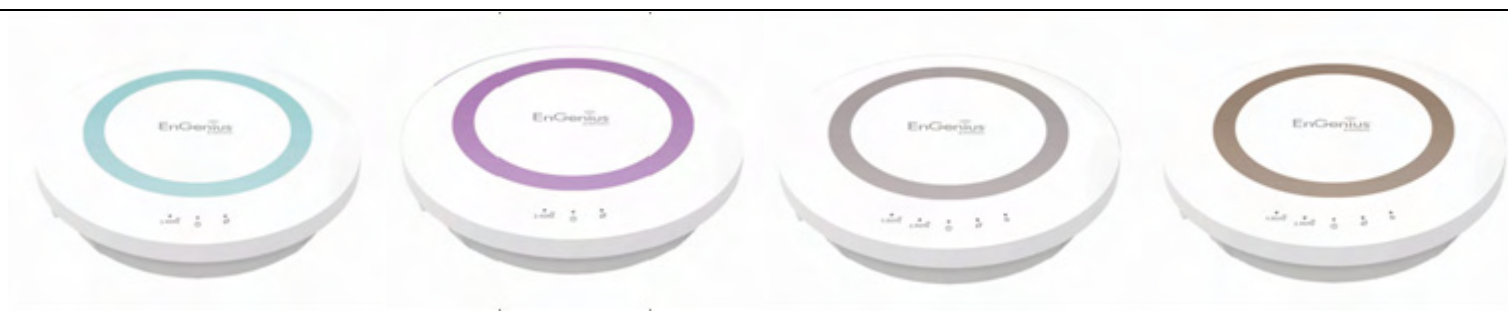
- DNS / DDNS / EnGenius DDNS Service
- NTP / Sync. with PC
- UPnP / UPnP NAT Traversal
- IGMP Proxy
- DLNA
- Remote Control / Firmware Upgrade
- Emergency Recovery Page (System failure)
- Backup / Restore Setting
- Auto Power Saving
- USB: FTP Server / SAMBA / File Sharing
- Web Based File Server (USB sharing)
- EnShare Mobile APP* (IOS/Android) Supported

*Not yet available. Firmware upgrading is required when support is available.

Wireless N DBDC Gigabit App Router Series Comparison



MODEL NAME	ESR300	ESR350	ESR600	ESR900
Wireless BAND	2.4 GHz, 802.11b/g/n	2.4 GHz, 802.11b/g/n	2.4 / 5G GHz802.11 a/b/g/n	2.4 / 5G GHz802.11 a/b/g/n
WiFiDATA RATE	300Mbps	300Mbps	<ul style="list-style-type: none"> ● 2.4G: 300Mbps ● 5G: 300Mbps 	<ul style="list-style-type: none"> ● 2.4G: 450Mbps ● 5G: 450Mbps
Operation Mode	Router	Router	Router	Router
WAN INTERFACE	1 x 10/100Mbps	1 x 10/100/1000Mbps	1 x 10/100/1000Mbps	1 x 10/100/1000Mbps
LAN INTERFACE	4 x 10/100Mbps	4 x 10/100/1000Mbps	4 x 10/100/1000Mbps	4 x 10/100/1000Mbps
Max. Output Power	22dBm	22dBm	22dBm	19dBm
LED	PWR/WiFi/WAN	PWR/WiFi/WAN	PWR/2.4G WiFi/5G WiFi/WAN/WPS	PWR/2.4G WiFi/5G WiFi/WAN/WPS
Antenna	2.4G internal x 2	2.4G internal x 2	2.4G 3.5dBi internal x 2	2.4G 3.5dBi internal x 3
	3.5dBi	3.5dBi	5G 3.5dBi internal x 2	5G 3.5dBi internal x 3
USB port	1x USB2.0	1x USB2.0	1x USB2.0	1x USB2.0
DLNA	Y	Y	Y	Y
Mobile APP support	iOS/Android	iOS/Android	iOS/Android	iOS/Android

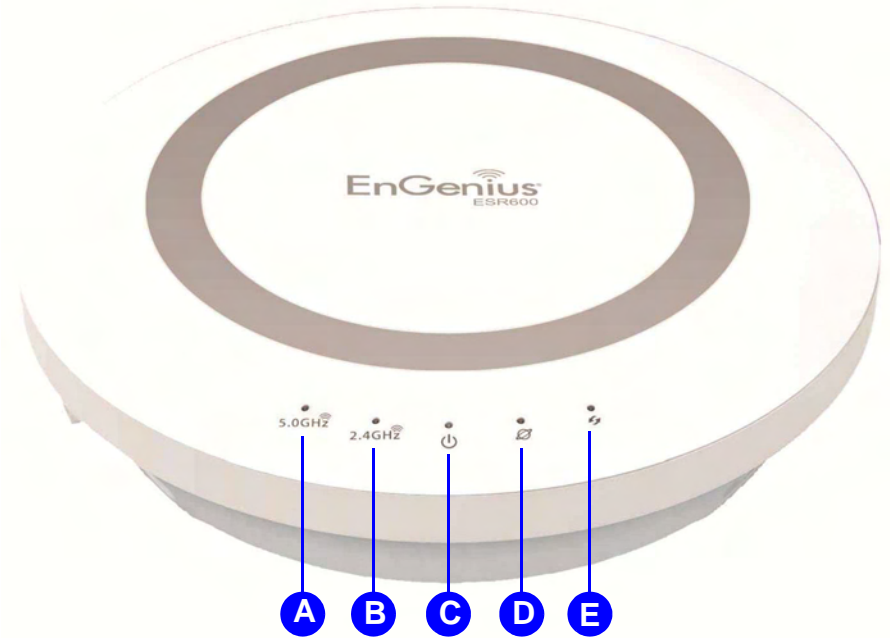


MODEL NAME	ESR300	ESR350	ESR600	ESR900
WPS / Reset	Y	Y	Y	Y
Parental Control	Y	Y	Y	Y
IPv6 Compliance	Y	Y	Y	Y
Guest Network	Y	Y	Y	Y
Multi-Language	Y / 5 Countries	Y / 5 Countries	Y / 5 Countries	Y / 5 Countries

1.2 Package Contents

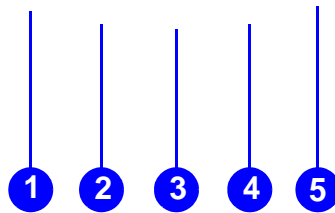
ITEM	QUANTITY
ESR Series Router Wireless N DBDC Gigabit App Router	1
Quick Start Guide	1
12V/1A Power Adaptor	1
Rj-45 Ethernet Cable	1

1.3 Product Layout



ITEM		DESCRIPTION
A	WLAN 5GHz LED	Wireless 5GHz LED
B	WLAN 2.4GHz LED	Wireless 2.4GHz LED
B	Power LED	Power status LED
D	WAN Port LED	WAN status LED
E	WPA LED	WPA status LED

ITEM		DESCRIPTION
1	DC Power Jack	Connects the ESR Series Router to a DC power adapter source.
2	WAN Port	Connects the ESR Series Router to a modem.
3	LAN Ports (1 – 4)	Connects up to four computers (4) to a local area network (LAN) using Ethernet cable.
4	Reset Button	To reset to factory settings, press button for > 11 seconds.
5	WPS Button	Wi-Fi Protected Setup button. To activate WPS, press button for 1~5 seconds.



Installation

Chapter 2

2.1 System Requirements

To install an ESR600 Series Router, you need the following:

- Computer (Windows, Linux, OSX Operating System)
- 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

** Optional

2.2 Wall Mounting

Mounting the ESR600 Series Router 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 ESR600 Series Router.

4. Install and secure the mounts onto the ESR600 Series Router.
5. Install the ESR600 Series Router 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 ESR600 Series Router 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 ESR600 Series Router.
- For optimal wireless access place the ESR600 Series Router 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 ESR600 Series Router and reduce the wireless access range.

Installation

No software installation required.

3.2 Connecting Network 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. 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.

Web Configuration

Chapter 4

4.1 Logging In

**Note:**

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

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

Default settings

user name: `admin`

password: `admin`.



4.2 Viewing the Dash Board

The main screen, or dashboard, provides access to all of the ESR Series Router's services.

The screenshot shows the EnGenius ESR600 web dashboard. At the top, there is a navigation bar with the EnGenius logo and the text 'ESR600' and 'EnGenius Wireless Router ESR600'. Below the navigation bar, there are several icons for navigation: Home, Setup Wizard, Network Settings, USB Storage Sharing, IP Cam Viewer, Language, and Logout. The main content area is divided into two columns. The left column contains system information, and the right column contains status and device list information.

Application Version	1.0.0
Hardware Version	1.0.0
Serial Number	133250136
MAC Address	1C:6F:65:C8:B1:03
Attain IP Protocol	Dynamic IP Address
IP Address	---
Subnet Mask	---
Default Gateway	---
IPv6 Connection Type	Link Local
IPv6 WAN Default Gateway	---
LAN IPv6 Link-Local Address	FE80::202:6FFF:FEFB:A016
DHCP-PD	Disabled
Wireless 2.4GHz :	
SSID_1	EnGeniusFBA016
Security Type	WPA Pre-Shared key
Wireless 5GHz :	
SSID_1	EnGeniusFBA017
Security Type	WPA Pre-Shared key

Status		
WAN Disconnected	WAN Cable Disconnected	Wireless 2.4GHz On Wireless 5GHz On
Device List		

Main Menu

The Home, Setup Wizard, Network Settings, USB Storage Sharing, IP Cam Viewer, Language, and Logout links available from the main menu.

Home

The Home link displays the dashboard screen.

Setup Wizard

The Setup Wizard link starts the wizard that automatically configures the ESR Series Router. Refer to “Internet Setup Wizard” on page 5-1.

Network Settings

The Network Settings link displays the menus to manually configure the ESR Series Router. Refer to “Web Menus Overview” on page 4-4.

USB Storage Sharing

The USB Storage Sharing link displays the menus to access shared storage devices connected to the ESR Series Router. Refer to “Web Menus Overview” on page 4-4.

IP Cam Viewer

The IP Cam Viewer link displays the menus to view an IP camera connected to the network. Refer to “Web Menus Overview” on page 4-4.

Language

The Language link displays the menu to set the OSD language. Refer to “Configuring the System Language” on page 6-14.

Logout

The Logout link closes the ESR Series Router configuration software.

4.3 Web Menus Overview

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.

Language

Configure the application menu and GUI language.

IP Camera

View the IP cameras connected to the ESR Series Router.

System	
	Status
	LAN
	DHCP
	Log
	Monitor
	Language
	IP Camera
	Internet
	Wireless
	Parental Control
	Guest Network
	IPv6
	Firewall
	VPN
	USB Port

Internet

View and edit settings that affect network connectivity.

Status

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

Dynamic IP

Setup a dynamic IP connection to an Internet service provider (ISP).

Static IP

Setup a static IP connection to an ISP.

PPPoE









Setup a PPPoE connection to an ISP.

PPTP

Setup a PPTP connection to an ISP.

L2TP

Setup an L2TP connection to an ISP.

 System
 Internet
Status
Dynamic IP
Static IP
PPPoE
PPTP
L2TP
DS-Lite
 Wireless 2.4GHz
 Wireless 5GHz
 Parental Control
 Guest Network
 IPv6
 Firewall

Wireless 2.4G

View and edit settings for 2.4G 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 ESR Series Router using an 8-digit PIN.

Client List

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

 System
 Internet
 Wireless 2.4GHz
Basic
Advanced
Security
Filter
WPS
Client List
 Wireless 5GHz
 Parental Control
 Guest Network
 IPv6
 Firewall
 VPN
 USB Port
 Advanced
 Tools

Wireless 5G

View and edit settings for 5G 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 ESR Series Router using an 8-digit PIN.

Client List

View the 5G wireless devices currently connected to the network.

	System
	Internet
	Wireless 2.4GHz
	Wireless 5GHz
	Basic
	Advanced
	Security
	Filter
	WPS
	Client List
	Parental Control
	Guest Network
	IPv6
	Firewall
	VPN
	USB Port
	Advanced
	Tools

Parental Control


View and edit settings for parental control.

Wizard

Enable or disable the Parental Control function. The menu also provides information for configuring parental control policies.

Web Monitor

The menu provides a log of the events for defined parental control policies.

 System
 Internet
 Wireless 2.4GHz
 Wireless 5GHz
 Parental Control
Wizard
Web Monitor
 Guest Network
 IPv6
 Firewall
 VPN
 USB Port
 Advanced
 Tools

Guest Network

View and edit settings for a guest network.

Selection













Enable or disable the Guest Network function.

DHCP Server Setting

Configure the Guest Network DHCP server settings.

DHCP Client List

Configure the Guest Network client list.

 System
 Internet
 Wireless 2.4GHz
 Wireless 5GHz
 Parental Control
 Guest Network
Selection
DHCP Server Setting
DHCP Client List
 IPv6
 Firewall
 VPN
 USB Port
 Advanced 

IPv6

View and edit settings for the IPv6 protocol.

Basic

Allows you to enable or disable the IPv6 and IPv6 Pass-through functions.

Status

Shows IPv6 LAN connection details.

Static IPv6

Configure the IPv6 protocol.

Auto Configuration

Configure the IPv6 by obtaining the information through the ISP provider.

PPPoE













Configure the PPPoE network protocol, obtain information from you Internet Service Provider (ISP).

6to4

Configure the IPv6 to IPv4 transition mechanism to migrate IPv4 to allow IPv6 packets to be transmitted over the IPv4 protocol.

Link Local

[Configure the IPv6 link local address.](#)

	System
	Internet
	Wireless 2.4GHz
	Wireless 5GHz
	Parental Control
	Guest Network
	IPv6
	Basic
	Status
	Static IPv6
	Auto Configuration
	PPPoE
	6to4
	Link Local
	Firewall
	VPN
	USB Port
	Advanced
	Tools

Firewall

View and edit settings for the network firewall.

Basic

Enable or disable the network firewall.

Advanced

Configure virtual private network (VPN) packets.

DMZ







Redirect packets from the WAN port IP address to a particular IP address on the LAN.

DoS

Enable or disable blocking of denial of service (DoS) attacks.

ACL

Configure access control lists.

	System
	Internet
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	Wireless 5GHz
	Parental Control
	Guest Network
	IPv6
	Firewall
	Basic
	Advanced
	DMZ
	DoS
	ACL
	VPN
	USB Port
	Advanced
	Tools

VPN

View and edit settings for VPN tunnelling.

Status

View the status of current VPN tunnels.

Profile Setting













Manually configure VPN tunnels.

User Setting

Configure users, user ID and password combinations, and assign access to specific VPN tunnels.

Wizard

Automatically configure VPN tunnels with guidance from the software.

 System
 Internet
 Wireless 2.4GHz
 Wireless 5GHz
 Parental Control
 Guest Network
 IPv6
 Firewall
 VPN
Status
Profile Setting
User Setting
Wizard
 USB Port
 Advanced
 Tools

USB Port

View and edit settings for storage sharing.

Enshare

Enable or disable the EnShare remote access function.

File Sharing













Enable or disable the Samba sharing function.

File Server

Enable and configure the File Server function.

DLNA

Enable the DLNA server software to turn your PC into a server. By enabling the DLNA server you can provide access to compatible devices to use your media libraries.

 System
 Internet
 Wireless 2.4GHz
 Wireless 5GHz
 Parental Control
 Guest Network
 IPv6
 Firewall
 VPN
 USB Port
EnShare
File Sharing
File Server
DLNA
 Advanced
 Tools

Advanced

View and configure advanced system and network settings.

NAT

Enable or disable Network Address Translation (NAT).

Port Mapping

Re-direct a range of service port numbers to a specified LAN IP address.

Port Forwarding

Configure server applications to send and receive data from specific ports on the network.

Port Triggering

Configure applications that require multiple connections and different inbound and outbound connections.

ALG












Configure the application layer gateway (ALG).

UPnP

Enable or disable Universal Plug and Play (UPnP) functionality.

IGMP

Enable or disable the Internet Group Multicast Protocol (IGMP).

 System
 Internet
 Wireless 2.4GHz
 Wireless 5GHz
 Parental Control
 Guest Network
 IPv6
 Firewall
 VPN
 USB Port
 Advanced
NAT
Port Mapping
Port Forwarding
Port Triggering
ALG
UPnP
IGMP
QoS
Routing
WOL

QoS

Configure the network quality of service (QoS) setting by prioritizing the uplink and downlink bandwidth.

Routing

Configure static routing.

WOL

Configure wake on LAN (WOL) to turn on a computer over the network.

Tools

View and configure system and network tools settings.

Admin

Configure the administrator password used to login to the router.

Time

Configure the system time on the router.

DDNS

Map a static domain name to a dynamic IP address.

Diagnosis

Check if a specific computer is connected to the LAN.

Firmware













Update the router's firmware.

Backup

Load or save configuration settings from a backup file or restore the factory default settings.

Reset

Manually reset the router.

	System
	Internet
	Wireless 2.4GHz
	Wireless 5GHz
	Parental Control
	Guest Network
	IPv6
	Firewall
	VPN
	USB Port
	Advanced
	Tools
	Admin
	Time
	DDNS
	Diagnosis
	Firmware
	Back-up
	Reset

Installation Setup Wizard

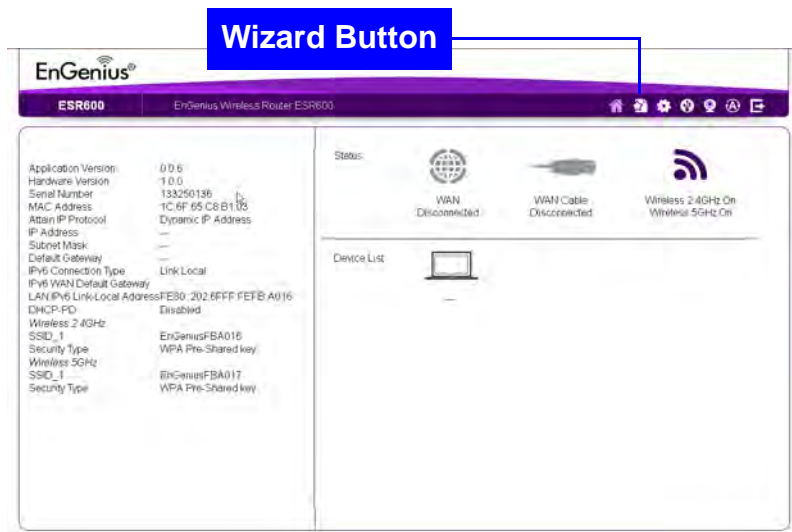
Chapter 5

5.1 Internet Setup Wizard

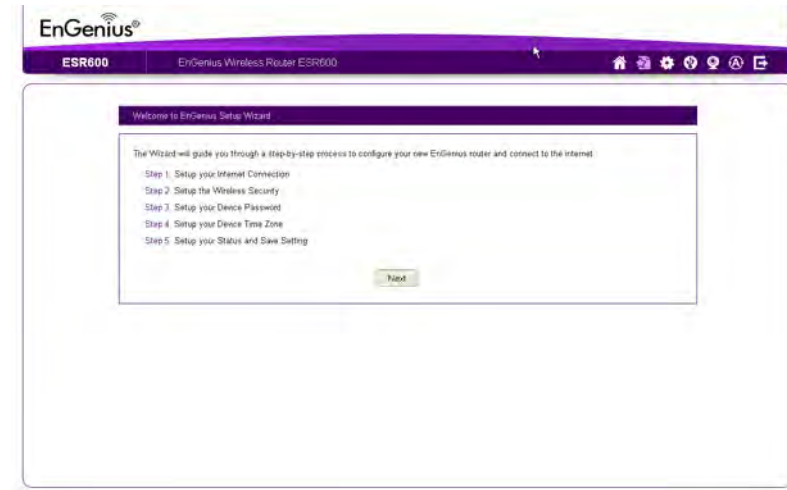
Use the Wizard to detect and setup the type of internet connection, setup a secure Wi-Fi connection, create an administrator password to secure the device, and set the date and time properties.

To use the Internet setup wizard, follow these steps:

1. Click the Wizard button to show the Wizard start screen.



2. Click Next to continue with the setup procedure.



5.1.1 Setting Up Your Internet Connection

1. Decide how to setup the Internet connection.

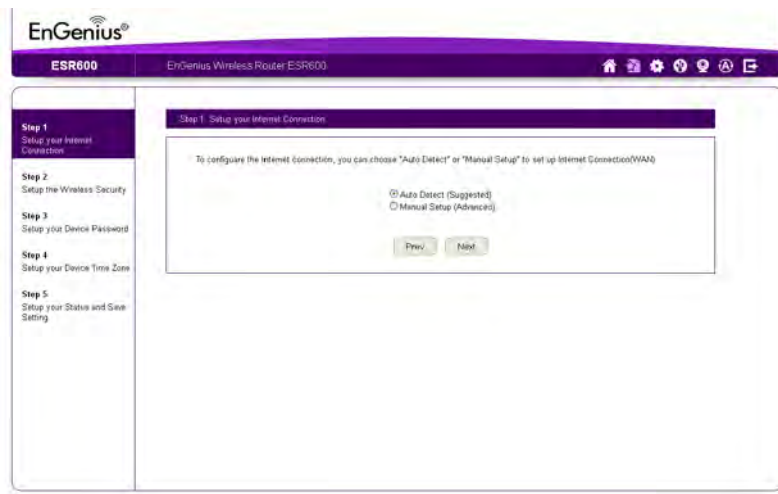


Note:

It is recommended to let the device setup the Internet connection automatically.

- Select `Auto Detect` to let the wizard setup the Internet connection.
- Select `Manual Setup` to set the properties yourself.

2. Click `Next` to continue or `Prev` to return to the previous screen.



If you selected `Manual Setup`, follow these steps:

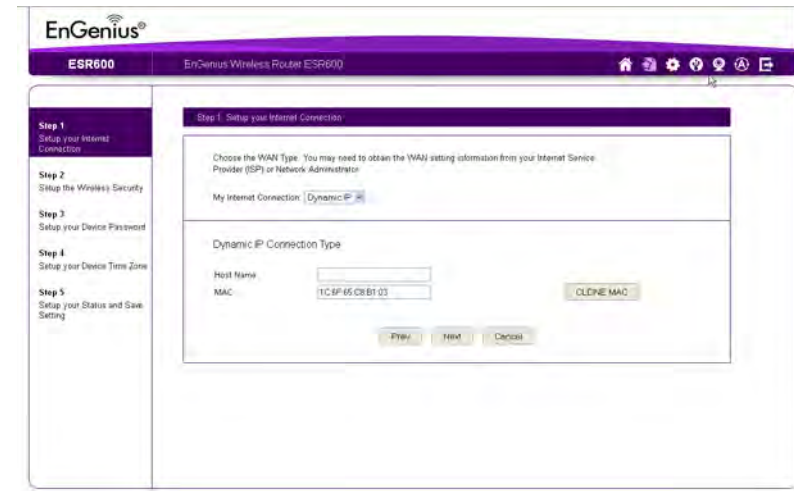
3. Select the Internet connection type and enter the connection properties.



Note:

The connection types available are static IP, PPPoE, Dynamic IP, PPTP, and L2TP. For a description of the properties for the different connection types, refer to “WAN Settings” on page 6-39.

4. Click `Next` to continue, `Prev` to return to the previous screen, or `Cancel` to abort the procedure.



5.1.1 Setting Up Your Wireless Connection

Setup secure connections to 2.4G and 5G Wi-Fi networks.

To setup a secure 2.4G Wi-Fi network, follow these steps:

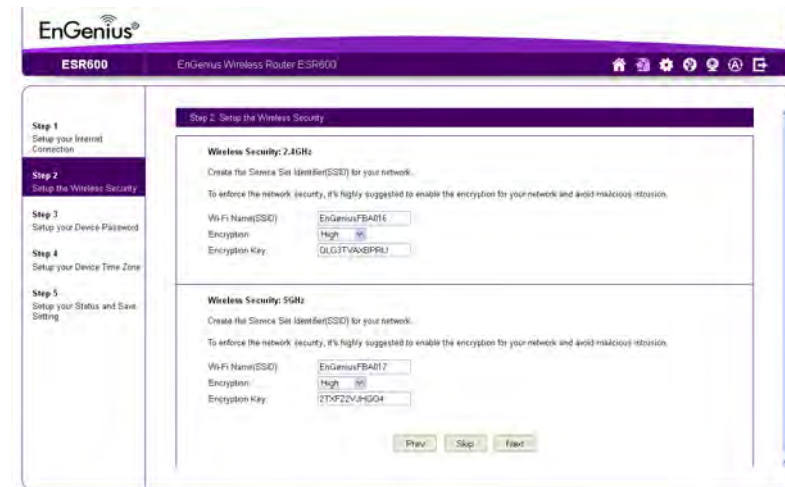
1. Enter a router name in the Wi-Fi Name (SSID) text field.
2. Select the security level from the Encryption dropdown list.



Important:

To ensure the network is secure, it is recommended to select High for an encryption level.

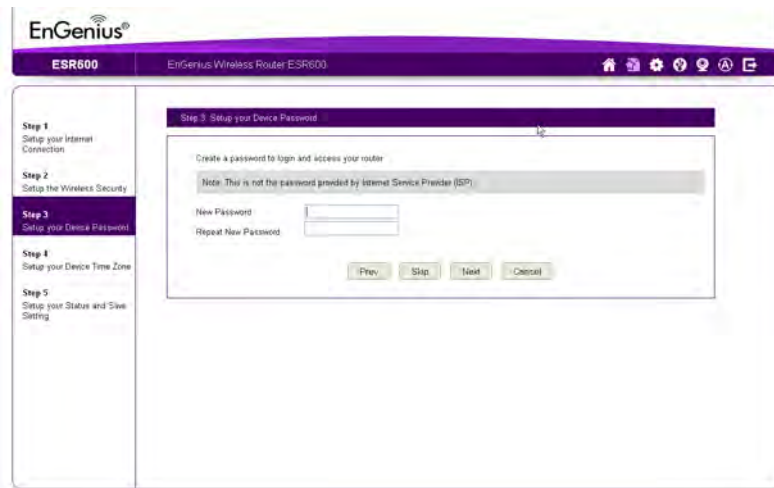
3. Enter a password in the Encryption Key text field.
4. Repeat steps 1 to 3 to setup a secure 5G Wi-Fi network.
5. Click Next to continue, Prev to return to the previous screen, or Cancel to abort the procedure.



5.1.1 Setup Your Device Password

Setup a password to login to the ESR Series Router.

1. Enter a password in the `New Password` text field.
2. Enter the same password in the `Repeat New Password` text field.
3. Click `Prev` to return to the previous screen, `Skip` to skip this procedure, `Next` to continue, or `Cancel` to abort the procedure.

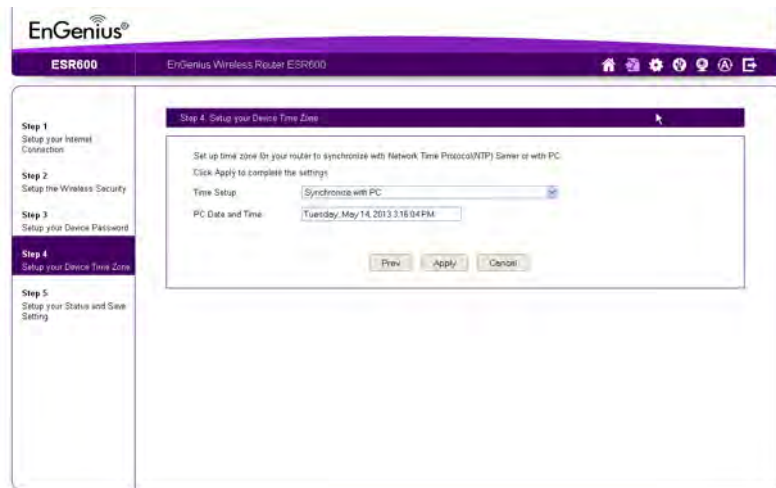


5.1.1 Setup Your Device Time Zone

Setup date and time synchronization on the ESR Series Router with a PC or an Network Time Protocol (NTP) server.

To synchronize date and time settings with a PC, follow these steps:

1. Select `Synchronize with PC` from the `Time Setup` dropdown list. The date and time values are shown in the `PC Date and Time` text field.

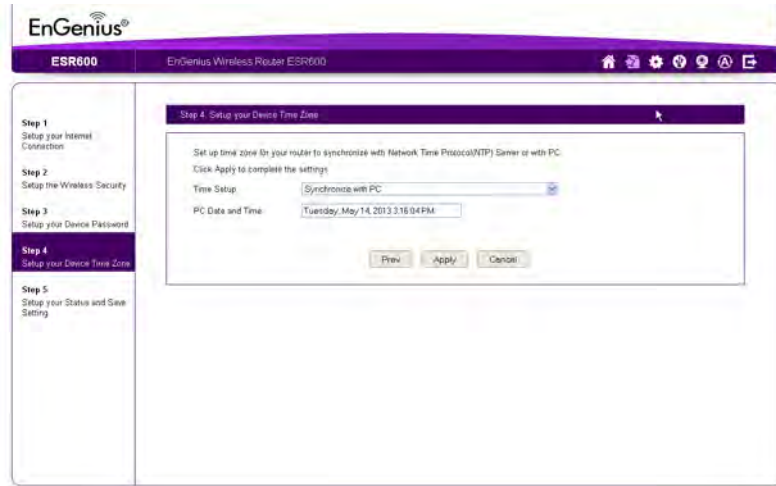


2. Click `Prev` to return to the previous screen, `Apply` to save the settings, or `Cancel` to abort the procedure.

To synchronize the date and time settings with an NTP server, follow these steps:

1. Select `Synchronize with NTP Server` from the `Time Setup` dropdown list.
2. Select a time zone value from the `Time Zone` dropdown list.
3. Enter an IP address or domain name of an NTP server in the `NTP Server` text field.
4. Click the `Enable Daylight Saving` check box to enable or disable daylight savings time.
5. Select the date and time values when daylight savings time starts in the `Start Time` dropdown lists.

6. Select the date and time values when daylight savings time ends in the `End Time` dropdown lists.



7. Click `Prev` to return to the previous screen, `Apply` to save the settings, or `Cancel` to abort the procedure.

5.1.1 Setup Your Status and Save Setting

Save the connection and security settings and setup up a custom DDNS domain name to use with the ESR Series Router.

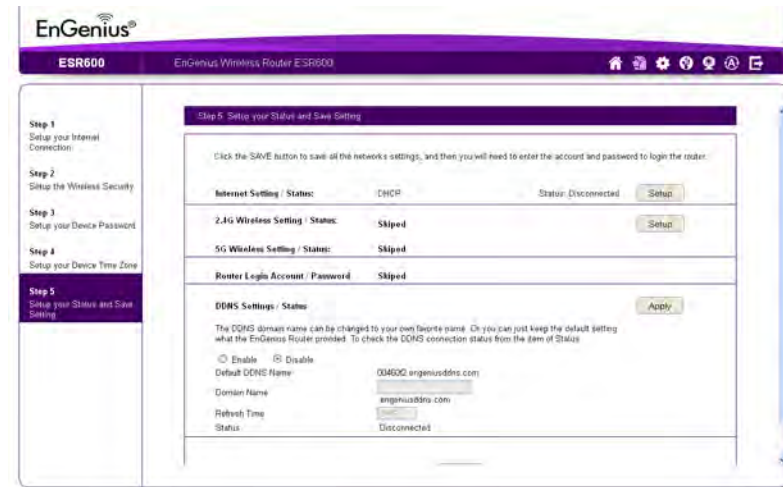
To review or modify the device settings, follow these steps:

1. Review the settings shown on the screen for the Internet connection, 2.4G and 5G Wi-Fi networks, and the ESR Series Router administrator login.
2. Change settings to the Internet connection and Wi-Fi network settings by clicking the `Setup` button.
3. Click `Enable` to setup a custom DDNS domain name for the ESR Series Router or `Disable` to use the default name.

To setup as custom DDNS domain name, follow these steps:

- a. Enter a domain name in the `Domain Name` text field.
- b. Select a time interval to refresh the DNS records from the `Refresh` dropdown list.

- c. Click `Apply` to save the DDNS settings.



4. Click `Save` to save the settings and close the wizard.

Basic Network Settings

Chapter 6

Wireless Services

Chapter 7

7.2 IP Camera Client

The EnGenius IP cam feature is only available to the EnGenius IP cam

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.

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

Operations in the 5.15-5.25GHz band are restricted to indoor usage only.

FCC Radiation Exposure Statement:**Important:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 35cm between the radiator & your body.

Industry Canada statement:**Important:**

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.

**WARNING!**

(i) the device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;

(ii) high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

Avertissement:**Important:**

(i) les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

(ii) De plus, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5250-5350 MHz et 5650-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

Radiation Exposure Statement:**Important:**

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 35cm de distance entre la source de rayonnement et votre corps.

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 35cm 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 35 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
		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)

REGION/COUNTRY OF PURCHASE	SERVICE CENTRE	SERVICE INFORMATION	
Europe	NETHERLANDS	web site	www.engeniusnetworks.eu
		email	support@engeniusnetworks.eu
		contact numbers	(+31) 40-8200-887
		hours of operation	Monday - Friday 9:00 AM - 5:00 PM (GMT+1)
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	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)
Singapore, Cambodia, Indonesia, Malaysia, Thailand, Philippines, Vietnam China, Hong Kong, Korea India South Africa Oceania	SINGAPORE	web site	www.engenlustech.com.sg/e_warranty_form
		email	techsupport@engenlustech.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

REGION/COUNTRY OF PURCHASE

SERVICE CENTRE

SERVICE INFORMATION

Note:

- * Service hours are based on the local time of the service center.
 - * Please visit the website for the latest information about customer service.
-