



WLX-2006



wallmount range
extender N300

Introduction

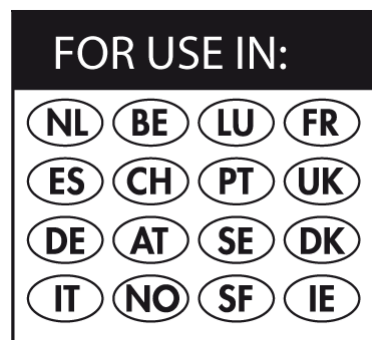
Thank you for purchasing the Sitecom WLX-2006 Wall Mount Range Extender N300. With this product you can easily double the signal coverage of your Wi-Fi network for better Wi-Fi quality in homes with many rooms or multiple floors. With both a Wi-Fi extender and a power adapter in a compact design, the WLX-2006 can be plugged directly into an electrical outlet for convenient placement. The smart signal strength LED makes it easy for you to set it up where your Wi-Fi signal needs enhancement. Additionally, it complies with wireless 802.11b/g/n standards and can create an extended Wi-Fi network with data transmission rates of up to 300Mbps. With the WLX-2006, you can enjoy high-speed wireless networking throughout your home without additional cabling.

The WLX-2006 features a WPS button which allows you to set up the extender quick and easy. Alternatively, the software wizard automatically detects the available Wi-Fi networks nearby and helps you establish a connection within seconds. The WPS button also allows you to connect the extender to the root access point with a simple click of a button. Additionally, the WLX-2006 is designed with a signal strength LED, which helps you find the best setup location for optimal Wi-Fi coverage.

Not only is the WLX-2006 very compact, it is designed with a built-in power adapter. This design allows you to plug it directly into an electrical outlet, eliminating the need for an additional power cable. You can easily install it where your Wi-Fi signal needs enhancement and enjoy high-speed wireless performance without any hassles.

The latest 802.11n technology is built into the WLX-2006 to broaden its wireless coverage and to eliminate dead spots within the wireless range. The WLX-2006 complies with wireless 802.11b/g/n standards and can reach data transmission rates of up to 300Mbps when connected to wireless 802.11n devices. It provides faster and more reliable wireless connections than standard 802.11b/g wireless networks.

This product can be used safely in the countries listed below:



This product complies with the following European Union regulations:



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Sitecom Europe BV

EC Declaration of Conformity

We
Sitecom Europe BV
Linatebaan 101
3045 AH Rotterdam
The Netherlands

Hereby declare under our sole responsibility that the Sitecom product:

Product number: WLX-2006 v1 001
Product description: Wi-Fi Range Extender N300

To which this declaration relates is in conformity with the requirements of the following standards:

CE/LVD
· EN 60950-1: 2006+A11 (2009)

CE/EMC
· EN 301 489-1 V1.8.1
· EN 301 489-17 V2.1.1

RADIO SPECTRUM
· EN 300 328 V1.7.1 2006-10
· EN 50385 2002

This certifies that the following designated Sitecom product:

Product description: Wi-Fi Range Extender N300
Product No.: WLX-2006 v1 001

Complies with the requirements of the following directives and carries the CE marking accordingly:
R&TTE Directive 99/5/EC, EMC directive 2004/95/EC and Low Voltage Directive 2006/95/EC.
This declaration is the responsibility of the manufacturer / importer:

Sitecom Europe B.V.
Rotterdam, 15 November 2012

M. Bergwerff,



COO

UK CE COMPLIANCE

Hereby Sitecom Europe BV declares that this product is in accordance with essential requirements and other relevant terms of the European regulation 1999/5/EC.

FR CONFORMITE CE

Par la présente Sitecom Europe BV, déclare que l'appareil est conforme aux exigences essentielles et aux dispositions pertinentes de la Directive Européenne 1999/5/EC.

DE CE-CONFORMITÄT

Hiermit erklärt Sitecom Europe BV, dass dieses Produkt die erforderlichen Voraussetzungen und andere relevante Konditionen der europäischen Richtlinie 1999/5/EC erfüllt.

IT CONFORMITA ALLE NORME CE

Con la presente Sitecom Europe BV dichiara che questo prodotto è conforme ai requisiti essenziali e agli altri termini rilevanti della Direttiva Europea 1999/5/EC.

NL CE GOEDKEURING

Hierbij verklaart Sitecom Europe BV dat dit product in overeenstemming is met de essentiële eisen en andere relevante bepalingen van Europese Richtlijn 1999/5/EC.

ES CONFORMIDAD CON LA CE

Por la presente Sitecom Europe BV declara que este producto cumple con los requisitos esenciales y las otras provisiones relevantes de la Directiva Europea 1999/5/EC.

PT CONFORMIDADE CE

Pela presente a Sitecom Europe BV declara que este produto está em conformidade com os requisitos essenciais e outras condições relevantes da regulamentação Europeia 1999/5/EC.

SE CE-FÖRSÄKRAN

Härmed försäkrar Sitecom Europe BV att denna produkt uppfyller de nödvändiga kraven och andra relevanta villkor EU-direktivet 1999/5/EC.

DK OVERENSSTEMMELSESERKLÆRING

Sitecom Europe BV bekræfter hermed, at dette produkt er i overensstemmelse med de væsentlige krav og andre betingelser i henhold til Rådets direktiv 1999/5/EC.

NO CE-OVERENSSTEMMELSE

Sitecom Europe BV erklærer herved at dette produktet er i overensstemmelse med de avgjørende kravene og andre relevante vilkår i den europeiske forskriften 1999/5/EC.

FI CE-HYVÄKSYNTÄ

Täten Sitecom Europe BV ilmoittaa, että tämä tuote on yhdenmukainen direktiivin 1999/5/EC olennaisten vaatimusten ja muiden asiaankuuluvien sopimusehtojen kanssa.

RU СООТВЕТСТВИЕ ТРЕБОВАНИЯМ CE

Настоящим компания Sitecom Europe BV заявляет, что ее продукция соответствует основным требованиям и условиям Европейской Директивы 1999/5/EC.

PL CERTYFIKAT ZGODNOŚCI CE

Sitecom Europe BV niniejszym oświadcza, że ten produkt spełnia wszelkie niezbędne wymagania, a także inne istotne warunki dyrektywy europejskiej 1999/5/WE.

GR ΣΥΜΜΟΡΦΩΣΗ ΜΕ CE

Η Sitecom Europe BV δηλώνει, ότι το παρόντος, ότι αυτό το προϊόν συμμορφώνεται με τις ουσιαστικές απαιτήσεις και τους λοιπούς όρους του ευρωπαϊκού κανονισμού 1999/5/EC.



This product may be used in the following countries:

AT BE HU CZ IT RO EE ES
FI FR IS NL GR CY IE DE
LT LU LV MT GB SI TR PT
SE SK PL DK CH BG NO U

For non EU countries please check with the local authorities for restrictions of using wireless products

1 KEY FEATURES

Features	Advantages
Incredible Data Rate up to 300Mbps*	Heavy data payloads such as MPEG video streaming
IEEE 802.11n Compliant and backwards compatible with 802.11b/g	Fully Interoperable with IEEE 802.11b / IEEE802.11g compliant devices with legacy protection
Support 802.1x authenticator, 802.11i (WPA/WPA2, AES)	Provide mutual authentication (Client and dynamic encryption keys to enhance security
Easy to use web-based GUI	Graphical User Interface for network configuration and management purposes.
WPS Button	Easily connect the device to your existing network and your clients with just the push of a button.

** Theoretical wireless signal rate based on IEEE standard of 802.11b, g, n chipset used. Actual throughput may vary. Network conditions and environmental factors lower actual throughput rate. All specifications are subject to change without notice.*

2 PACKAGE CONTENTS

Open the package carefully, and make sure that none of the items listed below are missing. Do not discard the packing materials, in case of return; the unit must be shipped back in its original package.

1. The WLX-2006 Wall Mount Range Extender N300
2. A Quick Install Guide
3. An UTP cable

3 CAUTIONS

This device's design and manufacturer has your safety in mind. In order to safely and effectively use this device, please read the following before usage.

3.1 Usage Cautions

The user should not modify this device. The environmental temperature should be within +5 ~ +35 degrees Celsius.

3.2 Power

The device's power voltage is AC 230v. When plugging in the device, make sure it cannot get damaged or be subject to pressure. To reduce the risk of electric shock, unplug the device first before cleaning it. Never connect the device to the power in a humid or dusty area.

3.3 Repair

If the device has a problem, you should take it to an appointed repair center and let the specialists do the repair. Never repair the device yourself, you might damage the device or endanger yourself.

3.4 Disposing of the device

When you dispose of the device, be sure to dispose of it appropriately. Some countries may regulate disposal of an electrical device, please consult with your local authority.

3.5 Others

When using this device, please do not let it come into contact with water or other liquids. If water is accidentally spilled on the device, please use a dry cloth to absorb the spillage. Electronic products are vulnerable, when using please avoid shaking or hitting the device, and do not press the buttons too hard.

- Do not let the device come into contact with water or other liquid.
- Do not disassemble, repair or change the design of the device, any damage done will not be included in the repair policy.
- Avoid hitting the device with a hard object, avoid shaking the device and stay away from magnetic fields.
- If during electrostatic discharge or a strong electromagnetic field the device will malfunction, unplug the power cable. The product will return to normal performance the next time it is powered on.

4 PRODUCT LAYOUT



	Description
Network Port	You can use this port to connect a wired device so it benefits from the repeated signal.
OPS Button	<p>You can use this button to connect using OPS.</p> <p>OPS Button functions:</p> <p>Press 0-5 seconds: WPS enrollee Press 5-10 seconds: WPS registrar Press 15+ seconds: reset to factory defaults.</p>

LED Description



From top to bottom:

LED	Color	Description
Power	Green	Lights up when powered ON. Blinks on TEST/RESET.
OPS	Green	Blinks when OPS mode is on.
LAN	Green	Lights up when a LAN cable is connected.
Signal	Green	This LED shows the quality of the signal it receives from your Router/Access Point. 0-25%: 250 milliseconds ON – 250 millisecond OFF 25-50%: 1000 milliseconds ON – 1000 milliseconds OFF 50-100%: Continuous ON

5 NETWORK + SYSTEM REQUIREMENTS

To begin using the WLX-2006, make sure you meet the following as minimum requirements:

- PC/Notebook.
- 1 Free Ethernet port.
- WiFi card/USB dongle (802.11 b/g/n) – optional.
- PC with a Web-Browser (Internet Explorer, Safari, Firefox, Opera)
- Ethernet compatible CAT5 cables.
- Router or Access Point

6 WLX-2006 PLACEMENT

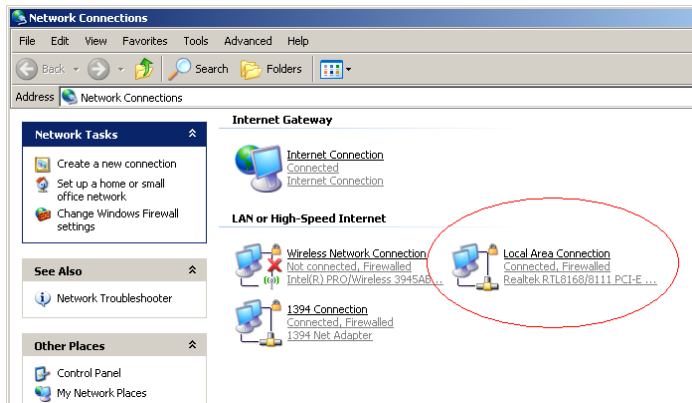
You can place the WLX-2006 directly in a wall socket. For optimal performance, place your Range Extender in a location that is away from any potential source of interference, such as a metal wall or microwave oven. This location must be within a good signal range from your existing router or access point, preferably above 50% signal strength.



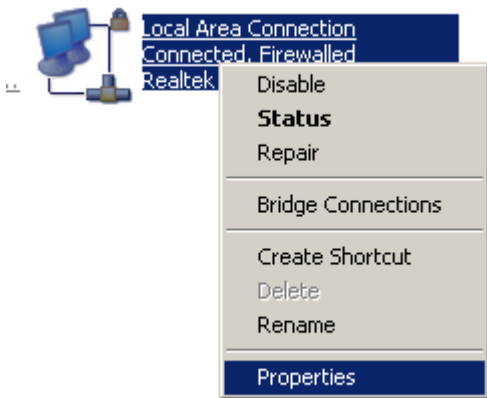
7 PC NETWORK ADAPTER SETUP

Windows XP

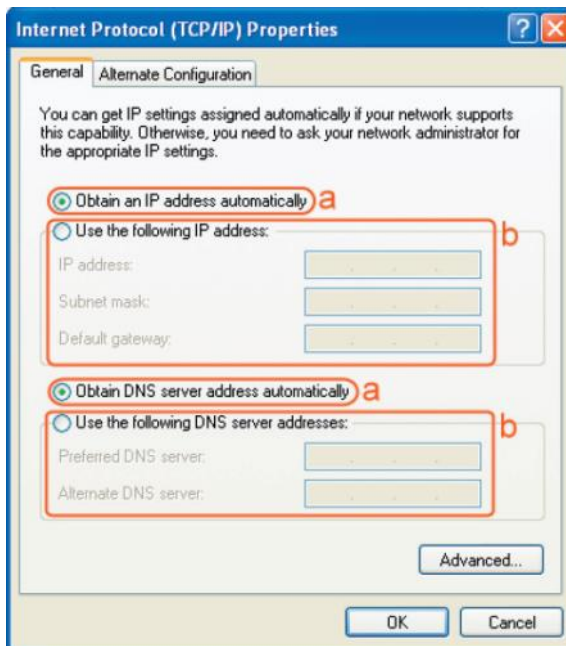
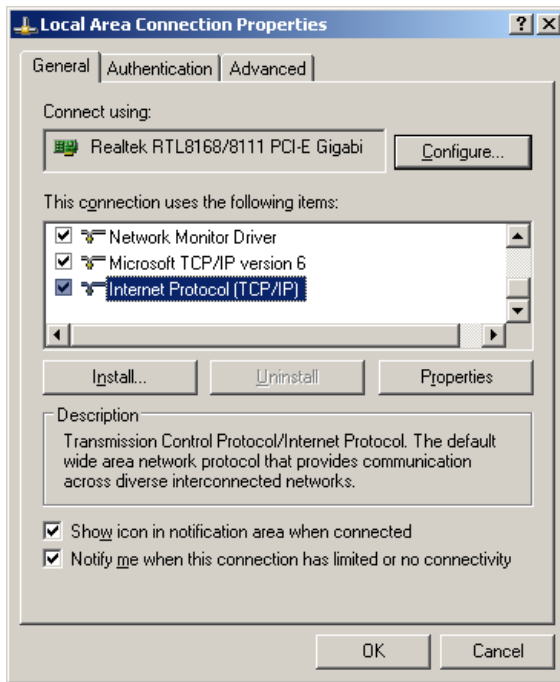
- Enter [Start Menu] -> select [Control panel] -> select [Network].



- Select [Local Area Connection]) icon -> select [properties]



- Select [Internet Protocol (TCP/IP)] =>Click [Properties].

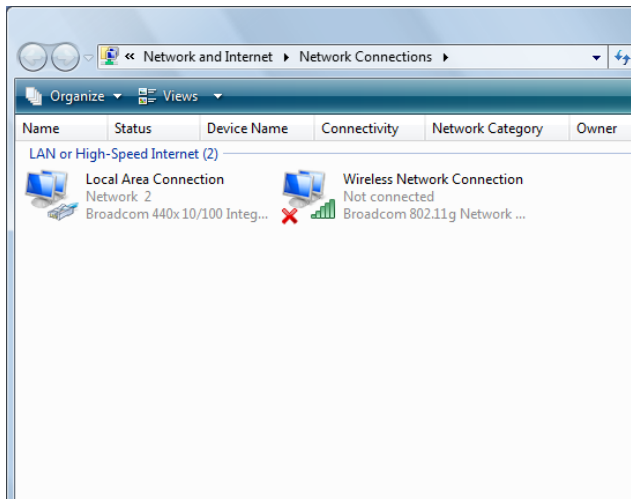


- Select the [General] tab.

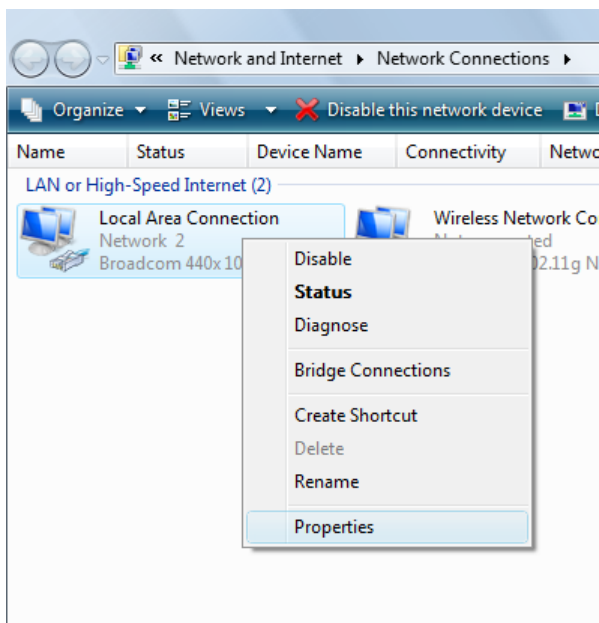
The device supports the [DHCP] function, please select both [Obtain an IP address automatically] and [Obtain DNS server address automatically].

Windows Vista/Seven

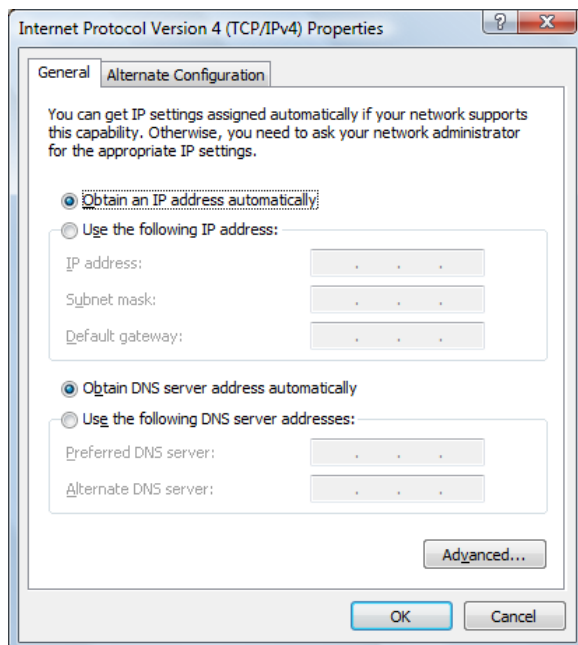
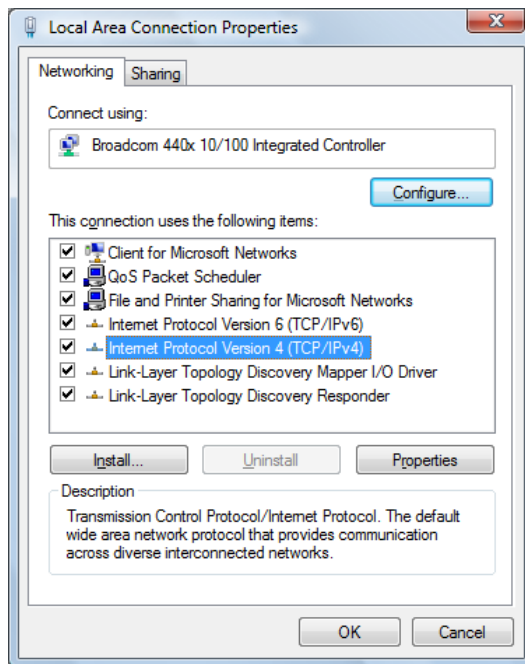
- Enter [Start Menu] -> select [Control panel] -> select [View network status and tasks] -> select [Manage network connections].



- Select [Local Area Connection]) icon -> select [properties]



- Select [Internet Protocol Version 4 (TCP/IPv4)] -> Click [Properties].

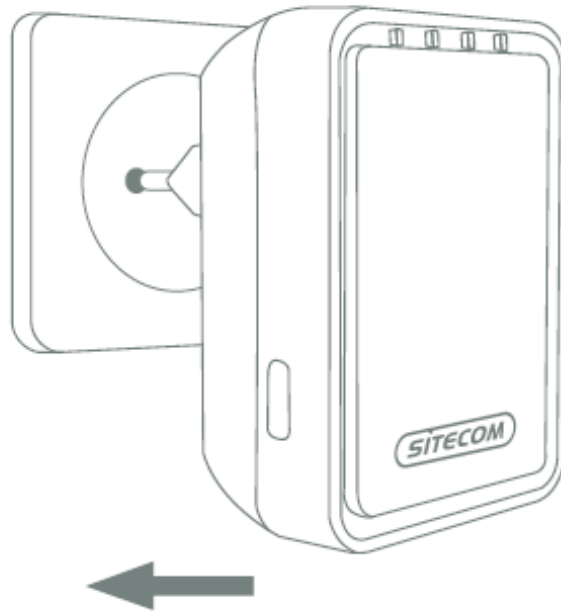


- Select the [General] tab.

The device supports the [DHCP] function, please select both [Obtain an IP address automatically] and [Obtain DNS server address automatically].

8 BRINGING UP THE WLX-2006

You can plug the WLX-2006 directly into a wall outlet. Switch the device on with the power switch located on the bottom of the device. The WLX-2006 automatically enters the self-test phase. During self-test phase, the Power LED will be lit continuously to indicate that this product is in normal operation.



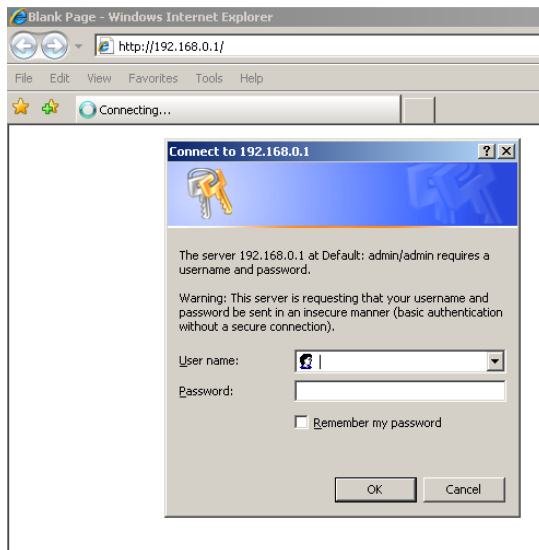
9 INITIAL SETUP WLX-2006

LOGIN procedure

1. OPEN your browser (e.g. Internet Explorer).



2. Type <http://sitecom.extender> in the address bar and press [Enter]



3. Type user name and password (default is admin/admin).



4. Click OK.

5. You will see the home page of the WLX-2006.

The screenshot shows the web interface of a Sitecom Wallmount Range Extender N300. The header features the product name 'wallmount range extender N300' and the Sitecom logo. A navigation bar includes links for Home, Wizard, Basic Settings, Advanced Settings, and Toolbox, along with a language selection dropdown. The main content area is divided into two sections: 'System' and 'Wireless Configuration'. The 'System' section displays 'Up time : 0day:0h:28m:49s', 'Hardware version : Rev. A', and 'Runtime Code Version : 1.12'. The 'Wireless Configuration' section displays 'Mode : Universal Repeater (Disconnected)', 'ESSID : Sitecom3a825e', 'Channel Number : 11', 'Security : Disabled', 'BSSID : 80:1F:02:3A:82:5E', and 'Associated Clients : 0'.

System	
Up time :	0day:0h:28m:49s
Hardware version :	Rev. A
Runtime Code Version :	1.12

Wireless Configuration	
Mode :	Universal Repeater (Disconnected)
ESSID :	Sitecom3a825e
Channel Number :	11
Security :	Disabled
BSSID :	80:1F:02:3A:82:5E
Associated Clients :	0

The System status section allows you to monitor the current status of your device, the UP time, hardware information, serial number as well as firmware version information is displayed here.

10 CONFIGURATION WIZARD

With the wizard you can configure the Range Extender to connect to your existing network. Click Wizard to start configuring the WLX-2006. The Setup wizard will now be displayed.

On the first page you can select the network that the Range Extender needs to connect to. You can also see the signal strength, the channel and the encryption type used on the networks surrounding the Range Extender.

The screenshot shows the 'Wireless Site Survey' page of the configuration wizard. The page title is 'wallmount range extender N300' with the 'SITECOM' logo. The navigation bar includes 'Home', 'Wizard' (selected), 'Basic Settings', 'Advanced Settings', and 'Toolbox'. A language dropdown is set to 'Choose your language'. The main heading is 'Wireless Site Survey' with the instruction 'Please select the wireless network that you want to extend.' Below this is a table with five columns: 'Select', 'SSID', 'Channel', 'Encryption', and 'Signal'. The table lists four networks: Sitecom436056 (Channel 11, WPA2-PSK, Signal 68), SitecomF2795E (Channel 5, WPA2-PSK, Signal 56), Sitecom829EFC (Channel 11, WPA2-PSK, Signal 24), and PConTV (Channel 1, no encryption, Signal 8). Each row has a radio button in the 'Select' column. At the bottom are 'Refresh' and 'Next' buttons.

Select	SSID	Channel	Encryption	Signal
<input type="radio"/>	Sitecom436056	11	WPA2-PSK	68
<input type="radio"/>	SitecomF2795E	5	WPA2-PSK	56
<input type="radio"/>	Sitecom829EFC	11	WPA2-PSK	24
<input type="radio"/>	PConTV	1	no	8

Select your network from the list. Click Next.

The screenshot shows the 'Wireless Security' page of the configuration wizard. The page title is 'wallmount range extender N300' with the 'SITECOM' logo. The navigation bar is the same as the previous page. The main heading is 'Wireless Security' with the instruction 'Please enter the security key for the wireless network that you want to extend.' Below this is a label 'Pre-Shared Key :' followed by a text input field. At the bottom right are 'Next', 'Previous Page', and 'Cancel' buttons.

Fill in the security key from your existing network. Please refer to the manual of your router or access point on how to retrieve this key. Click Next.

wallmount range
extender N300

SITECOM

Home

Wizard

Basic Settings

Advanced Settings

Toolbox

Choose your language ▾

Please reconnect to the following network:

ESSID :

SitecomAAB158_EXT

Pre-Shared Key :

wirelesspassword

Copy to Clipboard

Apply

Previous Page

Cancel

On this last page you will see the new settings of your Range Extender. You can use these settings on your computer to connect to the Range Extender. You can use the "Copy to Clipboard" button to copy the wireless password to your clipboard so you don't have to type it in.

11 BASIC SETTINGS

wallmount range
extender N300

SITECOM

Home Wizard **Basic Settings** Advanced Settings Toolbox Choose your language ▼

This page allows you to define ESSID and Channel for the wireless connection. These parameters are used for the wireless pcs to connect to the WLX-2003.

Band : 2.4 GHz (B+G+N) ▼

MAIN ESSID : Sitecom3a825e

Channel Number : 11 ▼

Associated Clients : Show Active Clients

Root AP SSID :

Site Survey: Site Survey

Apply Cancel

Band

Please select the wireless band you wish to use. By selecting a different band setting, you'll be able to allow or deny the wireless clients on a certain band.

MAIN ESSID

Please input the ESSID (the name used to identify this wireless access point) here. You can input up to 32 alphanumerical characters. PLEASE NOTE THAT THE ESSID IS CASE SENSITIVE.

Channel Number

Please select a channel number you wish to use. The channel number must be same as the wireless access point you wish to connect.

Associated Clients Click 'Show Active Clients' button and a new popup window will appear which contains the information about all wireless clients connected to this access point.

Active Wireless Client Table

This table shows the MAC address, transmission and reception packet counters for each associated wireless client.

MAC Address	Mode	Tx Packet	Rx Packet	Tx Rate	Power Saving	Expired Time (s)
None	---	---	---	---	---	---

Refresh Close

You can click the 'Refresh' button in the popup window to keep the information up-to-date

Root AP SSID

In 'Universal Repeater' mode, this device can act as a station to connect to a Root AP. You should assign the SSID of the Root AP here or click 'Select Site Survey' button to choose a Root AP.

Site Survey

Click 'Site Survey' button, then a "Wireless Site Survey Table" will pop up. It will list all available access points nearby. You can select one access point in the table and the access point will join wireless LAN through this access point.

Wireless Site Survey
Please select the wireless network that you want to extend.

Select	SSID	Channel	Encryption	Signal
<input type="radio"/>	Sitecom436056	11	WPA2-PSK	68
<input type="radio"/>	SitecomF2795E	5	WPA2-PSK	56
<input type="radio"/>	Sitecom829EFC	11	WPA2-PSK	24
<input type="radio"/>	PConTV	1	no	8

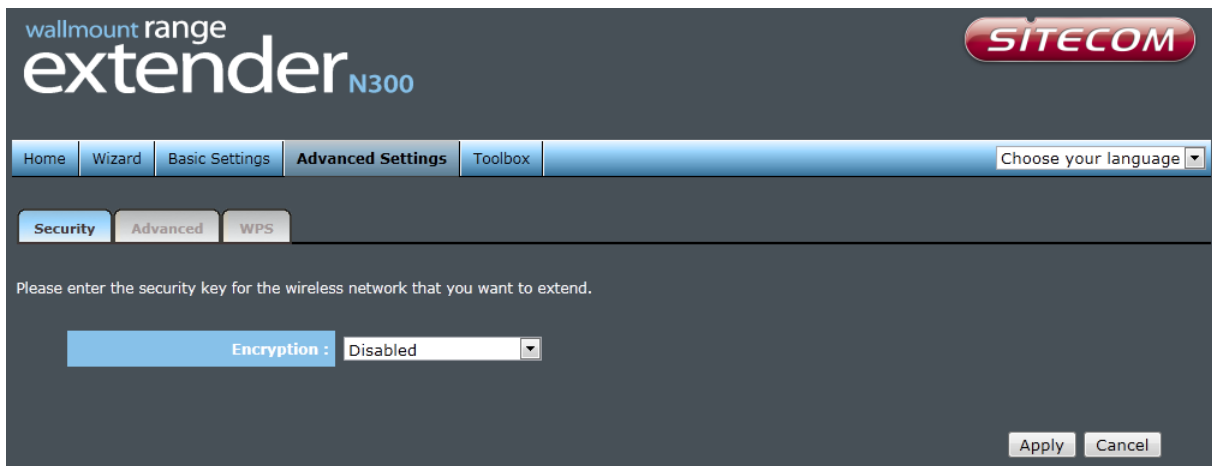
12 ADVANCED SETTINGS

Security

This device provides many types of wireless security (wireless data encryption). When you use data encryption, data transferred by radio signals in the air will become unreadable for those people who don't know the correct encryption key (encryption password).

There are three types of security level you can select: Disable (no security - data encryption disabled), WEP and WPA Pre-shared Key. Please refer to the following sections for detailed instructions.

Disabled



The screenshot shows the web interface of a wallmount range extender N300. The top header includes the product name 'wallmount range extender N300' and the 'SITECOM' logo. Below the header is a navigation bar with tabs: Home, Wizard, Basic Settings, Advanced Settings (selected), and Toolbox. A language selection dropdown is on the right. Under the 'Advanced Settings' tab, there are three sub-tabs: Security (selected), Advanced, and WPS. The main content area has a heading 'Please enter the security key for the wireless network that you want to extend.' Below this is a label 'Encryption :' followed by a dropdown menu currently set to 'Disabled'. At the bottom right are 'Apply' and 'Cancel' buttons.

When you select 'Disabled', wireless encryption for the network is disabled. This is not recommended.

Click <Apply> at the bottom of the screen to save the above configuration. You can now configure other sections by choosing Continue, or choose Apply to apply the settings and reboot the device.

WEP

The screenshot shows the 'wallmount range extender N300' interface. At the top right is the 'SITECOM' logo. Below the header is a navigation bar with tabs: 'Home', 'Wizard', 'Basic Settings', 'Advanced Settings' (selected), and 'Toolbox'. To the right of these tabs is a language selection dropdown labeled 'Choose your language'. Below the navigation bar are three sub-tabs: 'Security' (selected), 'Advanced', and 'WPS'. The main content area has a dark background and contains the text: 'Please enter the security key for the wireless network that you want to extend.' Below this text are several configuration fields:

- 'Encryption' dropdown menu set to 'WEP'.
- 'Key Length' dropdown menu set to '64-bit'.
- 'Key format' dropdown menu set to 'Hex (10 characters)'.
- 'Default Tx Key' dropdown menu set to 'Key 1'.
- Four text input fields labeled 'Encryption Key 1', 'Encryption Key 2', 'Encryption Key 3', and 'Encryption Key 4'.

 At the bottom right of the form are two buttons: 'Apply' and 'Cancel'.

Key Length You can select the WEP key length for encryption, 64-bit or 128-bit. The larger the key will be the higher level of security is used, but the throughput will be lower.

Key Format You may select ASCII Characters (alphanumeric format) or Hexadecimal Digits (in the "A-F", "a-f" and "0-9" range) to be the WEP Key.

Key1 - Key4 The WEP keys are used to encrypt data transmitted in the wireless network. Use the following rules to setup a WEP key on the device. 64-bit WEP: input 10-digits Hex values (in the "A-F", "a-f" and "0-9" range) or 5-digit ASCII character as the encryption keys. 128-bit WEP: input 26-digit Hex values (in the "A-F", "a-f" and "0-9" range) or 13-digit ASCII characters as the encryption keys.

Click <Apply> at the bottom of the screen to save the above configuration. You can now configure other sections by choosing Continue, or choose Apply to apply the settings and reboot the device.

WPA

The screenshot shows the web interface of a wallmount range extender N300. The top navigation bar includes links for Home, Wizard, Basic Settings, Advanced Settings (which is active), and Toolbox. A language selection dropdown is on the right. Below the navigation bar, there are tabs for Security, Advanced, and WPS. The Security tab is selected, and a message prompts the user to enter a security key. The configuration section includes: Encryption set to WPA Pre-Shared Key; WPA Unicast Cipher Suite with radio buttons for WPA(TKIP), WPA2(AES) (which is selected), and WPA2 Mixed; Pre-Shared Key Format set to Passphrase Key; and a text input field for the Pre-Shared Key. Apply and Cancel buttons are at the bottom right.

wallmount range
extender N300

SITECOM

Home Wizard Basic Settings **Advanced Settings** Toolbox Choose your language ▾

Security Advanced WPS

Please enter the security key for the wireless network that you want to extend.

Encryption : WPA Pre-Shared Key ▾

WPA Unicast Cipher Suite : ☐ WPA(TKIP) ☒ WPA2(AES) ☐ WPA2 Mixed

Pre-Shared Key Format : Passphrase Key ▾

Pre-Shared Key :

Apply Cancel

WPA Unicast Cipher Suite

Available options are: WPA (TKIP), WPA2 (AES), and WPA2 Mixed. You can select one of them, but you have to make sure your wireless client supports the cipher you selected.

Pre-shared Key Format

Please select the format of pre-shared key here, available options are 'Passphrase' (8 to 63 alphanumerical characters) and 'Hex' (64 hexadecimal characters – 0 to 9 and a to f).

Pre-shared Key

Please input pre-shared key according to the key format you selected here. For security reason, don't use simple words.

Advanced

This tab allows you to set the advanced wireless options. The options included are Channel Bandwidth, Fragment Threshold, RTS Threshold, Beacon Interval, and Preamble Type. You should not change these parameters unless you know what effect the changes will have on the router.

The screenshot shows the 'Advanced Settings' tab for a Sitecom Wallmount Range Extender N300. The interface includes a navigation bar with 'Home', 'Wizard', 'Basic Settings', 'Advanced Settings' (selected), and 'Toolbox'. Below the navigation bar are tabs for 'Security', 'Advanced' (selected), and 'WPS'. A warning message states: 'These settings are only for more technically advanced users who have a sufficient knowledge about wireless LAN. These settings should not be changed unless you know what effect the changes will have on your WLX-2003.' The settings are as follows:

Setting	Value	Range/Options
Fragment Threshold:	2346	(256-2346)
RTS Threshold:	2347	(0-2347)
Beacon Interval:	100	(20-1000 ms)
DTIM Period:	3	(1-10)
Data rate:	Auto	
N Data rate:	Auto	
Channel Bandwidth:	<input checked="" type="radio"/> Auto 20/40 MHz <input type="radio"/> 20 MHz	
Preamble Type:	<input checked="" type="radio"/> Short Preamble <input type="radio"/> Long Preamble	
Broadcast ESSID:	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	
CTS Protection:	<input checked="" type="radio"/> Auto <input type="radio"/> Always <input type="radio"/> None	
Tx Power:	100 %	

Buttons: Apply, Cancel

Fragment Threshold

Set the Fragment threshold of wireless radio. The default value is 2346.

RTS Threshold

Set the RTS threshold of wireless radio. The default value is 2347.

Beacon Interval

Set the beacon interval of wireless radio. The default value is 100.

DTIM Period

Set the DTIM period of wireless radio. The default value is 3.

Data Rate

Set the wireless data transfer rate to a certain value. Since most wireless devices will negotiate with each other and pick a proper data transfer rate automatically, it's not necessary to change this value unless you know what will happen after modification.

N Data Rate

Set the data rate of 802.11 N clients, available options are MCS 0 to MCS 15. It's safe to set this option to 'Auto' and it's not necessary to change this value unless you know what will happen after modification.

Channel Width

Select wireless channel width (bandwidth taken by wireless signals of this access point). It's suggested to select 'Auto 20/40MHz'. Do not change to '20 MHz' unless you know what it is.

Preamble Type	Set the type of preamble of wireless radio. The default setting is 'Short Preamble'.
Broadcast ESSID	Decide if the wireless access point will broadcast its own ESSID or not. You can hide the ESSID of your wireless access point (set the option to 'Disable'), so only people who know the ESSID of your wireless access point can get connected.
WMM	WMM (Wi-Fi Multimedia) technology, which can improve the performance of certain network applications, like audio/video streaming, network telephony (VoIP), and others. When you enable WMM, the access point will define the priority of different kinds of data, to give higher priority to applications which require instant response. Therefore you can improve the performance of such network applications.
CTS Protect	Enabling this setting will reduce the chance of radio signal collisions between 802.11b and 802.11g wireless access points. It's recommended to set this option to 'Auto'.
TX Power	You can set the output power of wireless radio. Unless you're using this wireless access point in a really big space, you may not have to set output power to 100%. This will enhance security (malicious / unknown users on a distance will not be able to reach your wireless access point).

WPS

Wi-Fi Protected Setup (WPS) is the simplest way to establish a connection between the wireless clients and the wireless router. You don't have to select the encryption mode and fill in a long encryption passphrase every time when you try to setup a wireless connection. You only need to press a button on both wireless client and wireless router, and WPS will do the rest for you.

The Push button on the WLX-2006 has 2 functions:

Client mode: If you push the button for 0-5 seconds the device acts as a WPS enrollee. In this mode it's set to connect to your existing Wireless network. You have to push the button on your router within 2 minutes.

AP mode: If you push the button for 5-10 seconds the device acts as a WPS registrar. In this mode it's set to connect client devices to the WLX-2006. You have to push the button on the wireless client or in the utility of the wireless client within 2 minutes.

If you want to use the PIN code, you have to know the PIN code of the wireless client and switch it to WPS mode, then fill-in the PIN code of the wireless client through the web configuration interface of the wireless router.

The screenshot shows the web interface of a wallmount range extender N300. The top navigation bar includes links for Home, Wizard, Basic Settings, Advanced Settings (selected), and Toolbox. A language selection dropdown is on the right. Below the navigation bar, there are tabs for Security, Advanced, and WPS (selected). The main content area has a heading 'WPS' and a description: 'This page allows you to change the setting for WPS(Wi-Fi Protecting Setup). WPS can help your wireless client automatically connect to the Access Point.' There is a checkbox labeled 'Enable' which is checked. Below this is a section titled 'Wi-Fi Protected Setup Information' containing a table with the following data:

WPS Current Status:	Configured
Self Pin Code:	73888949
SSID:	Sitecom3a825e
Authentication Mode:	WPA Pre-Shared Key
Passphrase Key:	••••••••

Below the table is a section titled 'Device Configure' with three rows:

Mode:	Registrar	
WPS Via Push Button:	Start to Process	
WPS via PIN:		Start to Process

Check the box to enable the WPS function and uncheck it to disable the WPS function.

WPS Current Status

If the wireless security (encryption) function of this wireless router is properly set, you'll see a 'Configured' message here. Otherwise, you'll see 'UnConfigured'.

Self Pin Code

This is the WPS PIN code of the wireless router. You may need this information when connecting to other WPS-enabled wireless devices.

SSID

This is the network broadcast name (SSID) of the router.

Authentication Mode	It shows the active authentication mode for the wireless connection.
Passphrase Key	It shows the passphrase key that is randomly generated by the wireless router during the WPS process. You may need this information when using a device which doesn't support WPS.
Mode	In Client mode the device is set to connect to your existing network. In Registrar mode the device is set to connect to your clients.
WPS via Push Button	Press the button to start the WPS process. The device will wait for the WPS request from the wireless devices within 2 minutes.
WPS via PIN	You can fill-in the PIN code of the wireless device and press the button to start the WPS process. The router will wait for the WPS request from the wireless device within 2 minutes.

13 TOOLBOX SETTINGS

System

This device provides some control functions including password, IP address management, and DHCP server function. Please go to Toolbox, and open the 'System' tab, to access these functions. Below are detailed descriptions of every control function.

The screenshot shows the web interface of a Sitecom Wallmount Range Extender N300. The top navigation bar includes 'Home', 'Wizard', 'Basic Settings', 'Advanced Settings', and 'Toolbox' (which is selected). A language dropdown menu is on the right. Below the navigation bar, there are four tabs: 'System' (selected), 'Back-up', 'Upgrade', and 'Reset'. The main content area has a heading 'This page allows you to set your password and change the IP Address of the WLX-2003'. It is divided into three sections: 'Password Settings' with fields for 'Current password', 'New Password', and 'Confirm password'; 'IP management' with fields for 'IP Address' (192.168.128.253), 'Subnet Mask' (255.255.255.0), 'Default Gateway', and a 'DHCP Server' dropdown set to 'Enabled'; and 'DHCP Server' with fields for 'Default Gateway' (192.168.128.253), 'DNS Address' (0.0.0.0), 'DHCP client start address' (192.168.128.100), 'DHCP client end address' (192.168.128.200), 'Domain name' (SitecomWLX2003), and 'Lease time' (One Day). 'Apply' and 'Cancel' buttons are at the bottom right.

Password Settings

You can change the password used to enter the web configuration menu of this device. Please input the current password in the 'Current Password' field, then input a new password in both the 'New Password' and the 'Re-Enter Password' field. After you finish, please go to the bottom of the page and click 'Apply'.

IP Management

You can change the IP address of this device, so it can become a part of your local network. Please remember this address or you will not be able to connect the configuration menu of device. The default IP address is: 192.168.128.253 / Subnet Mask 255.255.255.0.

DHCP Server

If you want to activate the DHCP server function of this device, please select 'Enabled' in the 'DHCP Server' option, and see the next Section for detailed instructions. If you

don't want to use the DHCP server function of this device, or there's another DHCP server on the network this device connects to, please select 'Disable'. After you finish, please go to the bottom of this page and click 'Apply'.

DHCP Server

This device is capable to act as a DHCP server for your network.

Default Gateway

Please input the IP address of default gateway of your network here.

DNS Address

Please input the IP address of domain name server (DNS) here.

DHCP Client Start Address

Please input the start IP address of the IP range.

DHCP Client End Address

Please input the end IP address of the IP range.

Domain Name

If you wish, you can also optionally input the domain name for your network. This is optional.

Lease Time

Please choose a lease time (the duration that every computer can keep a specific IP address) of every IP address assigned by this access point from dropdown menu.

After you finish, please click 'Apply'.

Backup

You can back up all configurations of this device to a file, so you can make several copies of access point configuration for security reasons.

The screenshot shows the web interface of a Sitecom Wallmount Range Extender N300. The top navigation bar includes links for Home, Wizard, Basic Settings, Advanced Settings, and Toolbox. Below this is a sub-menu with System, Back-up, Upgrade, and Reset. The main content area contains instructions: "Use 'Backup' to save the WLX-2003 current configuration to a file named 'config.bin'. You can then use 'Restore' to upload the saved configuration to the Access Point. Use 'Restore to Factory Default' to force the Access Point to perform a System Reset and restore the original factory settings". At the bottom, there are three rows of controls: "Backup Settings :" with a "Save" button; "Restore Settings :" with a text input field, a "Browse..." button, and an "Upload" button; and "Restore to Factory default :" with a "Reset" button.

Backup Settings

Press 'Save...' button, and you'll be prompted to download the configuration as a file. The default filename is 'config.bin'. You can save it as another filename for different versions, and keep it in a safe place.

Restore Settings

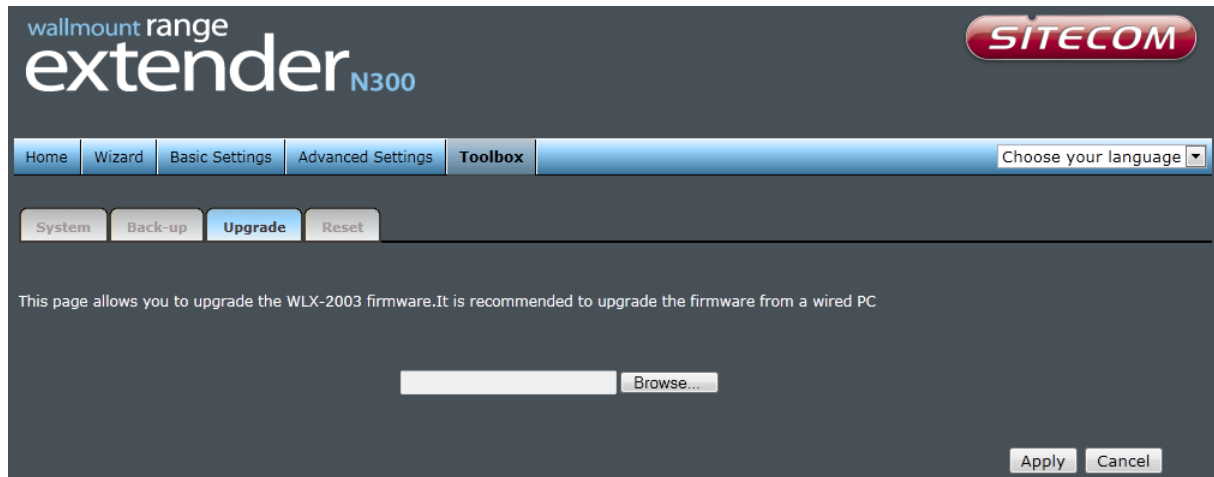
Press 'Browse...' to pick a previously-saved configuration file from your computer, and then click 'Upload' to transfer the configuration file to the device. After the configuration is uploaded, the configuration will be replaced by the file you just uploaded.

Restore to Factory Default

Click this button to remove all settings you made and restore the configuration of this device back to factory default settings.

Upgrade

If there is a new firmware available, you can upload the firmware to the device to get extra functions or problem fixes.



The screenshot shows the web interface of a Sitecom Wallmount Range Extender N300. The top header includes the product name 'wallmount range extender N300' and the 'SITECOM' logo. Below the header is a navigation bar with tabs: 'Home', 'Wizard', 'Basic Settings', 'Advanced Settings', and 'Toolbox'. A language selection dropdown is on the right. Under the 'Toolbox' tab, there are four sub-tabs: 'System', 'Back-up', 'Upgrade' (which is highlighted), and 'Reset'. The main content area of the 'Upgrade' page contains the text: 'This page allows you to upgrade the WLX-2003 firmware. It is recommended to upgrade the firmware from a wired PC'. Below this text is a file selection interface with a text input field and a 'Browse...' button. At the bottom right of the page are 'Apply' and 'Cancel' buttons.

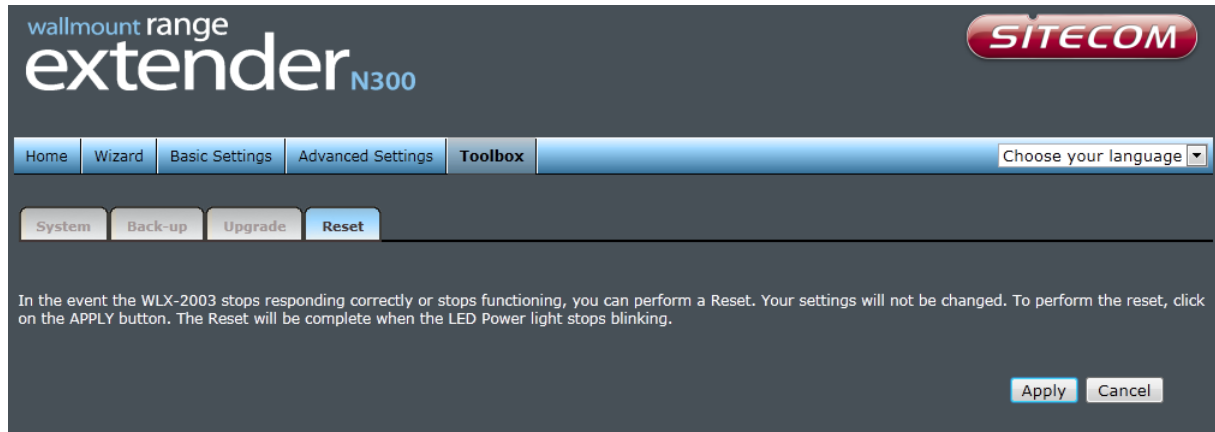
Click the 'Browse' button. You'll be prompted to provide the filename of the firmware upgrade file. Please download the latest firmware file from our website, and use it to upgrade your device.

After a firmware file is selected, click the 'Apply' button, and the device will start the firmware upgrade procedure automatically. The procedure may take several minutes, so please be patient.

NOTE: Never interrupt the upgrade procedure by closing the web browser or physically disconnecting your computer from the device.

Reset

When you think the device is not working properly, you can use this function to restart the device; this may help and solve the problem.



This function is useful when the device is far from you or unreachable. However, if the device is not responding, you may have to switch it off by unplugging the power plug and plugging it back again after 10 seconds.

Parts of the firmware of the WLX-2006 Range Extender are subject to the [GNU general public license](#).

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Specifically, the following part of this product is subject to the GNU GPL:

#	Package name	Source
1	busybox-1.11	http://busybox.net/
2	wireless_tools.25	http://www.hpl.hp.com/personal/Jean_Tourrilhes/Linux/Tools.html
3	bridge-utils	http://bridge.sourceforge.net
4	dnrd-2.20.3	http://dnrd.sourceforge.net/
5	boa-0.94.14rc21	http://www.boa.org
6	Linux-2.4.18	http://www.kernel.org

Availability of source code

Sitecom Europe BV has made available the full source code of the GPL licensed software, including any scripts to control the compilation and installation of the object code in the driver section of this product on the Sitecom website.

No Warranty

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Revision 1.0

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