

WLX-2004



universal wireless TV adapter

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1. 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-2004 Universal WiFi TV adapter for smart TV
- 2. An USB to Micro USB cable

2. Cautions

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

2.1 Usage Cautions

The user should not modify this WiFi TV adapter. The environmental temperature should be within $+5 \sim +35$ degrees Celsius.

2.2 Power

When placing the adapter cable, make sure it cannot get damaged or be subject to pressure. To reduce the risk of electric shock, unplug the adapter first before cleaning it. Never connect the adapter to the WiFi TV adapter in a humid or dusty area. Do not replace the adapter or cable's wire or connector.

2.3 Repair

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

2.4 Disposing of the WiFi TV adapter

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

2.5 Others

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

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

3. Product layout



Power Input - Micro USB

WPS/Reset button

- 0-5 seconds for WPS
- 10-15 seconds reset
- >15 seconds for reset to factory defaults

4. LOGIN procedure

Connect the WLX-2004 via an Ethernet cable directly to the computer and make sure the device is powered via the Micro USB cable. Wait for 30 seconds to let the device boot up fully. After that, proceed with the following steps to access the configuration pages of the WLX-2004.

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









2. Type http://192.168.0.234 in the address bar and press [Enter]

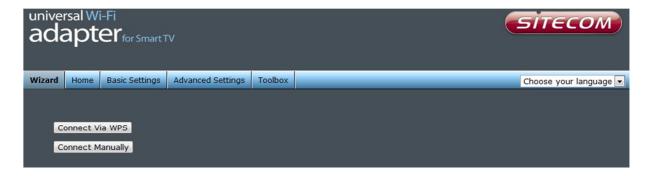




Please input user name and password in the field respectively. The default user name is 'admin', and the default password is 'admin'. Press the 'OK' button to see the web management interface of this device.

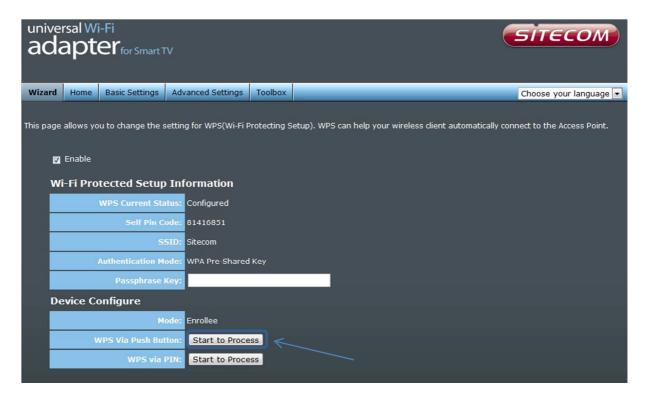
5. Wizard

Click 'Wizard' to easily configure the WiFi TV adapter.

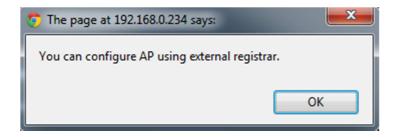


5.1 Connect Via WPS (Softbutton)

If the access point you wish to connect to supports **WPS** then this is the easiest way to configure this client. 'Click on Connect via WPS'.



To start WPS, Click on 'start to process' at WPS via Push Button.



The following pop up will appear to inform you that the client will now attempt to make a WPS connection. Click '**OK**' and click on the WPS button of your Access point or router within 2 minutes.

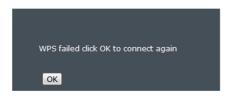


If WPS is successful Click 'OK' to continue.



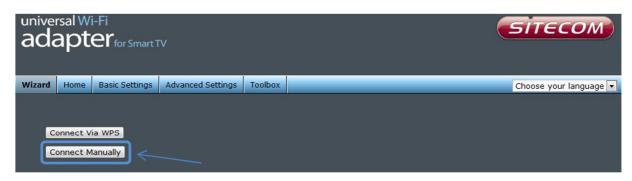
Click **'OK'**. The device will now restart and apply the changes.

Please note: The DHCP server of the client will be disabled after the Setup Wizard is completed. If you wish to access the GUI pages of the client without resetting the device to defaults, configure your PC to a static IP within the range of the WiFi TV adapter e.g. 192.168.0.x and open the GUI pages as explained in chapter 'Login procedure'.

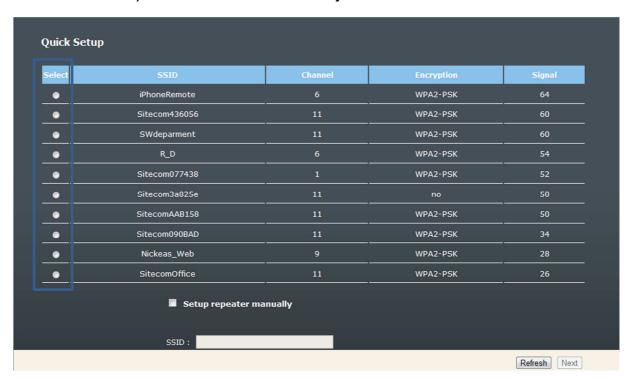


If WPS was unsuccessful click '**OK**' to return to the first step of the wizard.

5.2 Connect Manually



If the Access point you wish to connect to does not support WPS you can also connect manually. Click 'Connect Manually' to continue.



The WiFi TV adapter will now show an overview of all networks within range. If the Network you wish to connect to does not show up in the list, click 'refresh' to rescan the environment.

If your network still does not show up the signal from your Access Point might be too weak. Either place the Access point closer to the WiFi TV adapter or move the WiFi TV adapter closer to the Access Point.

If the network you wish to connect does appear in the list. Select it by clicking on the corresponding radio button and click 'Next' to continue.

Secu	rity	
Please	input wireless security key of your connected Access Point.	
	KEY:	
		Back Next

Enter the security key of your wireless network and click 'next' to continue.



The WiFi TV adapter will now verify if the key is correct. Please wait for 20 seconds.





The WiFi TV adapter will inform you if the key you have entered for the wireless network is correct or not.

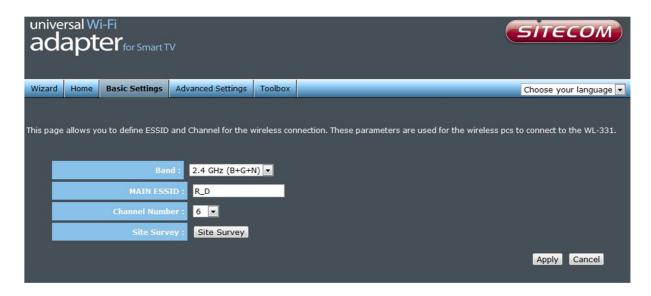
- If the key is not correct click 'Back' to enter the key again.
- If the Key is correct click 'Next' to continue.



If the key was Correct the client has saved the settings and displays the network name of the access point it will connect to. Click 'Apply' to restart the device with the new settings.

Please note: The DHCP server of the client will be disabled after the Setup Wizard is completed. If you wish to access the GUI pages of the client without resetting it to default, configure your PC to a static IP within the range of the WiFi TV adapter e.g. 192.168.0.x (Do not configure to 192.168.0.234 as this is the IP address of the WiFi TV adapter)

6. Basic Settings



Band	Please select the wireless band you wish to use. By
	selecting different band setting, you'll be able to allow or
	deny the wireless client of a certain band.
Main ESSID	Please input the ESSID (the name used to identify this
	WiFi TV adapter) here. You can input up to 32
	alphanumerical characters.
	PLEASE NOTE THAT ESSID IS CASE SENSITIVE.
Channel	Display to channel number of the WiFi TV adapter.
Number	
Site Survey	To make use of this wireless client you have to associate it
	with a working Access point. Click the '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 it will join wireless LAN
	through this WiFi TV adapter.

7. Advanced

7.1 Security

This WiFi TV adapter supports 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 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.

Please remember it's very important to set wireless security settings properly! Without a proper setting, hackers and intruders may gain access to your local network and do something bad to your computers and servers, which could cause serious problems.

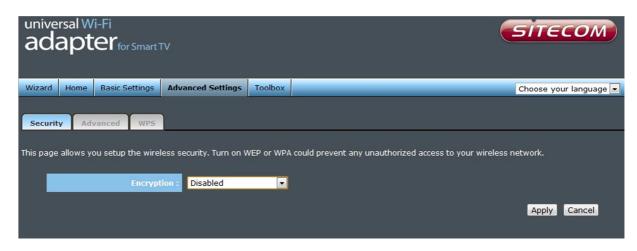
Please note: as this device only acts as a client device. It does not determine the security, the security settings which you wish to use have to be set in your access point. If the security in you access point has been set it is required to set the clients to the same security configuration.

There are several things you can do to improve wireless security:

- 1. Always enable data encryption. Only disable it when you want to open your wireless network to the public.
- 2. Never use simple words as encryption password. Use the random combination of symbols, numbers, and alphabets will greatly improve security.
- 3. Use WPA when possible it's much safer than WEP.
- 4. Change encryption password when you've used it for too long time.

Disable Security

When you select '**Disabled**', wireless encryption for the network is disabled.

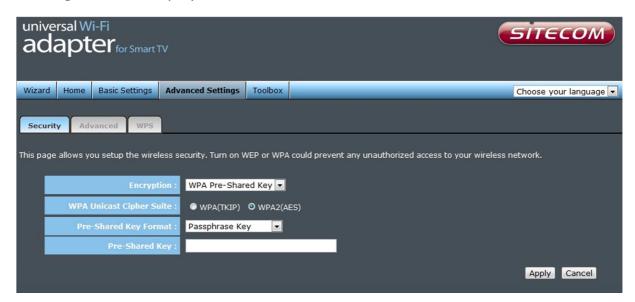


After you finish with setting, please click 'Apply'.

WPA Pre-shared Key

WPA Pre-shared key is the safest encryption method currently, and it's recommended to use this encryption method to ensure the safety of your data.

When you select '**WPA pre-shared key**' as encryption type, the following messages will be displayed:



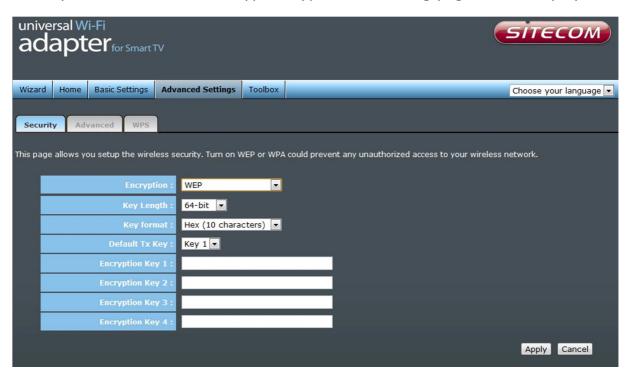
WPA Unicast Cipher Suite	Available options are: WPA (TKIP), WPA2 (AES), and WPA2 Mixed. You can select one of them, but you have to make sure your Access point supports the cipher you selected.
Pre-shared Key Format	Please select the format of pre-shared key here, available options are 'Passphrase' (8 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).

After you finish with setting, please click 'Apply'.

WEP

WEP (Wired Equivalent Privacy) is a common encryption mode. It's safe enough for home and personal use. But if you need higher level of security, please consider using WPA encryption (see next Section).

When you select 'WEP' as encryption type, the following page will be displayed:



Key Length	There are two types of WEP key length: 64-bit and 128-bit. Using `128-bit' is safer than '64-bit', but will reduce some data transfer performance.
Key Format	There are two types of key format: ASCII and Hex. When you select a key format, the number of characters of key will be displayed. For example, if you select '64-bit' as key length, and 'Hex' as key format, you'll see the message at the right side of 'Key Format' is 'Hex (10 characters), which means the length of WEP key is 10 characters.
Default Tx Key	You can set up to four sets of WEP key, and you can decide which key is being used by default here. If you don't know which one you should use, select 'Key 1'.
Encryption Key 1 to 4	Input WEP key characters here, the number of characters must be the same as the number displayed at 'Key Format' field. You can use any alphanumerical characters (0-9, a-z, and A-Z) if you select 'ASCII' key format, and if you select 'Hex' as key format, you can use characters 0-9, a-f, and A-F. You must enter at least one encryption key here.
Enable 802.1x Authentication	Check this box to enable 802.1x user authentication.

7.2 Advanced

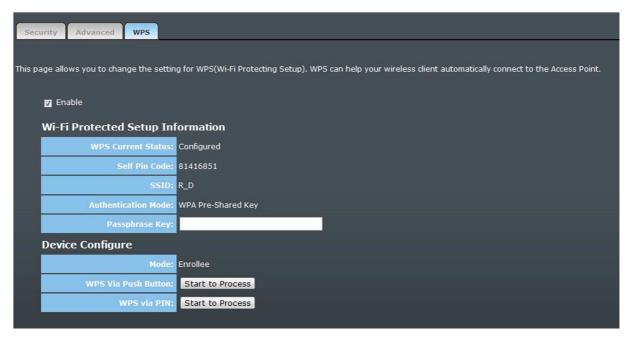


Fragment	Set the Fragment threshold of wireless radio. Do not
Threshold	modify default value if you don't know what it is, default value is 2346
RTS	Set the RTS threshold of wireless radio. Do not modify
Threshold	default value if you don't know what it is, default
Tillesiloid	value is 2347
Beacon	Set the beacon interval of wireless radio. Do not modify
Interval	default value if you don't know what it is, default
	value is 100
DTIM Period	Set the DTIM period of wireless radio. Do not modify
	default value if you don't know what it is, default
	value is 3
Data Rate	Set the wireless data transfer rate to a certain value.
	Since most of WiFi TV adapters 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 Draft-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	Select wireless channel width (bandwidth taken by
Bandwidth	wireless signals of this TV link adapter). It's suggested to
	select 'Auto 20/40MHz'. Do not change to '20 MHz' unless
Preamble	you know what it is.
	Set the type of preamble of wireless radio, Do not
Туре	modify default value if you don't know what it is,
Broadcast	default setting is 'Short Preamble'. Decide if the WiFi TV adapter will broadcast its own ESSID
Divaucast	Declue if the Wift IV adapter will broadcast its OWN ESSID

ESSID	or not. You can hide the ESSID of your WiFi TV adapter (set the option to 'Disable'), so only people those who know the ESSID of your WiFi TV adapter can get connected.
CTS Protect	Enabling this setting will reduce the chance of radio signal collisions between 802.11b and 802.11g WiFi TV adapters. 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 WiFi TV adapter in a really big space, you may not have to set output power to 100%. This will enhance security (malicious / unknown users in distance will not be able to reach your WiFi TV adapter).

After you have finished modifying the settings, please click 'Apply'.

7.3 WPS



Enable WPS	Check this box to enable or disable WPS function
Wi-Fi	All information related to WPS will be displayed here,
Protected	they're helpful when you're setting up connections using
Setup	WPS.
Information	
	WPS Status: Displays WPS status. If data encryption settings of this WiFi TV adapter has never been set, 'unConfigured' message will be displayed here. if data encryption settings has been set before, 'Configured' message will be displayed here.
	Self-PIN Code: This is the WPS PIN code of this WiFi TV adapter. This code is useful when you need to build wireless connection by WPS with other WPS-enabled Access points.
	SSID: Displays the SSID (ESSID) of this WiFi TV adapter.
	Authentication Mode: The wireless security authentication mode of this WiFi TV adapter will be displayed here.
	Passphrase Key: Displays the WPA passphrase here, all characters will be replaced by asterisk for security reasons. If encryption is not set on this WiFi TV adapter, nothing will be displayed here.
Start PBC	Click 'Start PBC' to start Push-Button style WPS setup procedure. This WiFi TV adapter will wait for WPS requests from wireless clients for 2 minutes. The 'WLAN' LED on the WiFi TV adapter will be steady on for 2 minutes when this WiFi TV adapter is waiting for incoming WPS request.
Start PIN	Please input the Self-PIN code of the wireless client you

via client wish to connect, and click 'Start PIN' button. The 'WLAN' LED on the WiFi TV adapter will be steady on when this WiFi TV adapter is waiting for incoming WPS request.

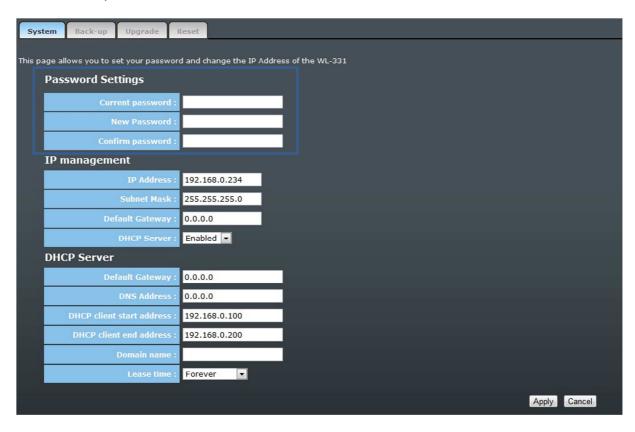
NOTE: When you're using PBC type WPS setup, you must press 'PBC' button (hardware or software) of your Access point within 120 seconds; if you didn't press PBC button of wireless client within this time period, please press 'PBC' button (hardware or software) of this WiFi TV adapter again.

8 Toolbox

8.1 System

8.1.2 Change Password

You can change the password used to enter the web configuration menu of this WiFi TV adapter.



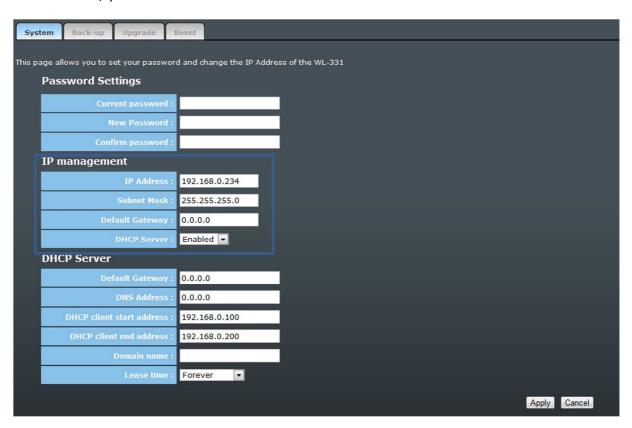
Please input current password in 'Current Password' field, then input new password in both 'New Password' and 'Confirm Password' field. After you finish, please go to the bottom of this page and click 'Apply'.

8.1.3 IP management

You can change the IP address of this WiFi TV adapter, 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 this WiFi TV adapter.

Default IP address is: 192.168.0.234 / Subnet Mask 255.255.25.0, you can press and hold 'Reset/WPS' button over 15 seconds to change the IP address back to default value if you forget the IP address you set.

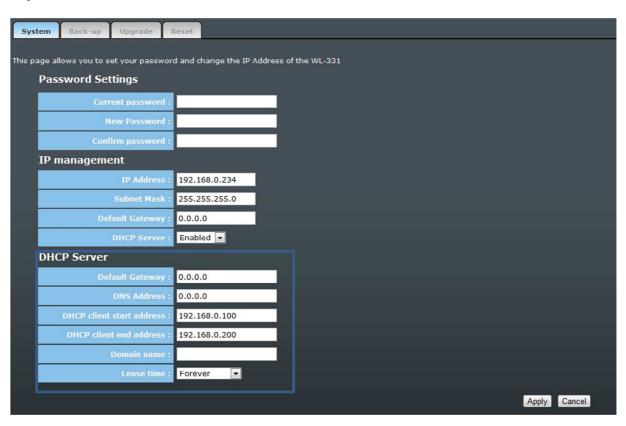
If you want to activate the DHCP server function of this WiFi TV adapter, please select 'Enabled' in 'DHCP Server' option, and see next Section for detailed instructions; if you don't want to use DHCP server function of this WiFi TV adapter, or there's another DHCP server on the network this TV link adapter connects to, please select 'Disable'.



After you finish, please go to the bottom of this page and click 'Apply'.

8.1.4 DHCP Server

This WiFi TV adapter is capable to act as a DHCP server for your network. It's enabled by default but will be turned off once the device has been configured via the Setup Wizard. If you want to enable/disable this function, please open the 'System' tab, via Toolbox.

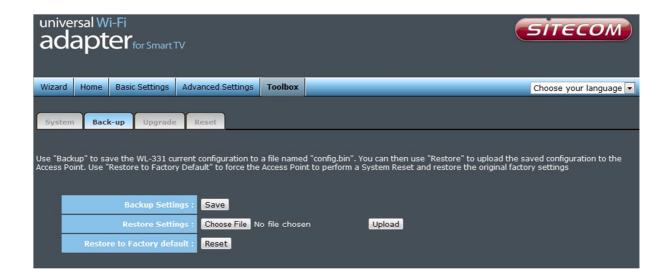


Default	Please input the IP address of default gateway of your	
Gateway IP	network here.	
Domain	Please input the IP address of domain name server	
Name Server	(DNS) here.	
IP		
Start IP	Please input the start IP address of the IP range.	
End IP	Please input the end IP address of the IP range.	
Domain	If you wish, you can also optionally input the domain	
Name	name for your network. This is optional.	
Lease Time	ase Time Please choose a lease time (the duration that every	
	computer can keep a specific IP address) of every IP	
	address assigned by this TV link adapter from dropdown	
	menu.	

After you finish, please click 'Apply'.

8.2 Back-up

You can back up all configurations of this WiFi TV adapter to a file, so you can make several copies of configurations for security reasons.



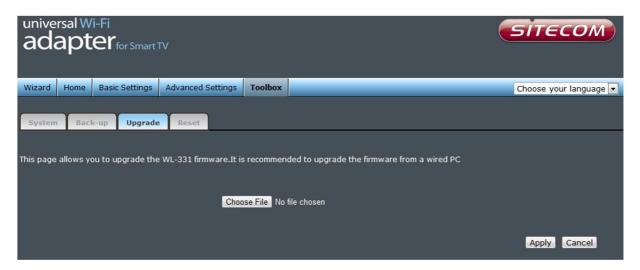
Backup Settings	Press 'Save' button, and you'll be prompted to download the configuration as a file, default filename is 'config.bin', you can save it as another filename for different versions, and keep it in a safe place.
Restore Settings	Press 'Browse' to pick a previously-saved configuration file from your computer, and then click 'Upload' to transfer the configuration file to the TV link adapter. After the configuration is uploaded, the TV link adapter's 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 wireless client back to factory default settings.

8.3 Upgrade

If there is new firmware for this wireless client available, you can upload the firmware to the client to change the firmware with the new one, to get extra functions or problem fixes.

To perform firmware upgrade, please click '**Upgrade**', and the following page will be displayed:

Click the 'Browse' button first; you'll be prompted to provide the filename of firmware upgrade file. Please download the latest firmware file from our website, and use it to upgrade your TV link adapter.



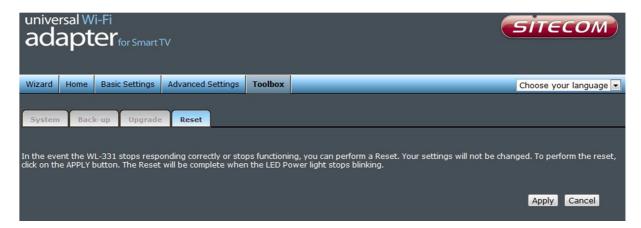
After a firmware upgrade file is selected, click the '**Apply**' button, and the client will start the firmware upgrade procedure automatically. The procedure may take several minutes, please be patient.

NOTE: Never interrupt the upgrade procedure by closing the web browser or physically disconnect your computer from the TV link adapter. If the firmware you uploaded is corrupt, the firmware upgrade will fail and you may have to return this TV link adapter to the dealer of purchase to ask for help. (Warranty voids if you interrupted the upgrade procedure).

8.4 Reset

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

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



To reset your WiFi TV adapter, please click '**Reset**', and the following message will be displayed:

Please click '**Apply**', and a popup message will ask you again, to make sure you really want to reset the device:



Click **'OK**' to reset the WiFi TV adapter, or click **'Cancel**' to abort. Please remember all connections will be disconnected.

Declaration of conformity



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-2004 v1001

Product description: Universal Wi-Fi Adapter for Smart TV

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

Œ/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: Universal Wi-Fi Adapter for Smart TV Product No.: WLX-2004 v1001

Complies with the requirements of the following directives and carries the CE marking accordingly: R&TE 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:

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Sitecom Europe B.V. Rotterdam, 29 April 2012

P. Schoonenberg,

ŒO





CE COMPLIANCE (UK)

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.

CONFORMITE CE (FR)

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-CONFORMITĂT**

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

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.

CE GOEDKEURING (NL)

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.

CONFORMIDADE CE (PT)

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.

CE-FÖRSÄKRAN (SE)

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

OVERENSSTEMMELSESERKLÆRING (DK)

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

CE-OVERENSSTEMMELSE (NO)

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.

CE-HYVÄKSYNTÄ

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(RU) СООТВЕТСТВИЕ ТРЕБОВАНИЯМ СЕ

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

(PL) CERTYFIKAT ZGODNOŚCI CE

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(GR) ΣΥΜΜΟΡΦΩΣΗ ΜΕ CE

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FOR USE IN:
(NL) BE (U) FR
ES CH PT UK
DE AT SE DK
(I) (N) (SF) (E)





⊕

Parts of the firmware of the WLX-2004 Wireless TV Adapter are subject to the <u>GNU general public</u> license.

Appendix A: Licensing Information

This product includes third-party software licensed under the terms of the <u>GNU General Public License</u>. You can modify or redistribute this free software under the terms of the <u>GNU General Public License</u>. Please see Appendix B for the exact terms and conditions of this license.

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

#	Package name	Source
1	Linux-2.4.18	http://www.kernel.org
2	boa-0.94.14rc21	http://www.boa.org
3	busybox-1.11.1	http://www.busybox.net
4	dnrd-2.10	http://dnrd.sourceforge.net/
5	wireless_tools.25	http://www.hpl.hp.com/personal/Jean Tourrilhes/index.html
6	bridge-utils	http://bridge.sourceforge.net

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

The free software included in this product is distributed in the hope that it will be useful, but WITHOUT ANY LIABILITY OF OR ANY WARRANTY FROM THE LICENSOR.

Appendix B: GNU GENERAL PUBLIC LICENSE

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