Aztech

USER MANUAL

WL580E

DUAL BAND WALL PLUGGED
300Mbps WIRELESS REPEATER

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About the Router

Aztech WL580E is a dual band Wall-plugged 300Mbps Wireless Repeater, which supports wireless 802.11b/g/n, and one 10/100 Base-T Ethernet port.

Repeat and Extend the WiFi Network

WL580E supports robust 802.11n technology with up to 300Mbps data transfer rate. The Repeater can take an existing 802.11n wireless signal, repeat and extend it to a longer range where it is too far away for the router or access point to reach. It eliminates the cable wires while providing the same reliable network connection. It can repeat and extend the wireless signal from virtually any 802.11n wireless router or access point that is launched on the market. It is backwards compatible with the 802.11b/g router or access point.

Make Wired Network WiFi Ready

The Repeater is equipped with 1 x 10/100M Auto MDI/MDIX LAN port that can be used to connect to an existing wired network to serve as a wireless interface. It can also be used to configure the Repeater via its web-based GUI, or upgrade the firmware.

MIMO Technology

The device is designed with MIMO technology, which successfully reduces areas with weak wireless network coverage within a home or in the building.

Advanced Security

WL580E features with 64/128-bit WEP encryption and WIFI Protected Access (WPA), WPA2 to ensure the network security and prevent unauthorized access to you network.

Portable without the Need of External Power Supply

The device is easy to setup. It is portable with no need of any external power adaptor. It comes with the embedded power supply and power plug, so that users can just plug the device into a power socket.

Minimum System Requirements

Your computer must meet the following minimum requirements.

- Any operating system can be used
- Web Browser
- 233MHz processor (or higher)
- Ethernet network adapter
- Or Wireless network adapter

Package Contents

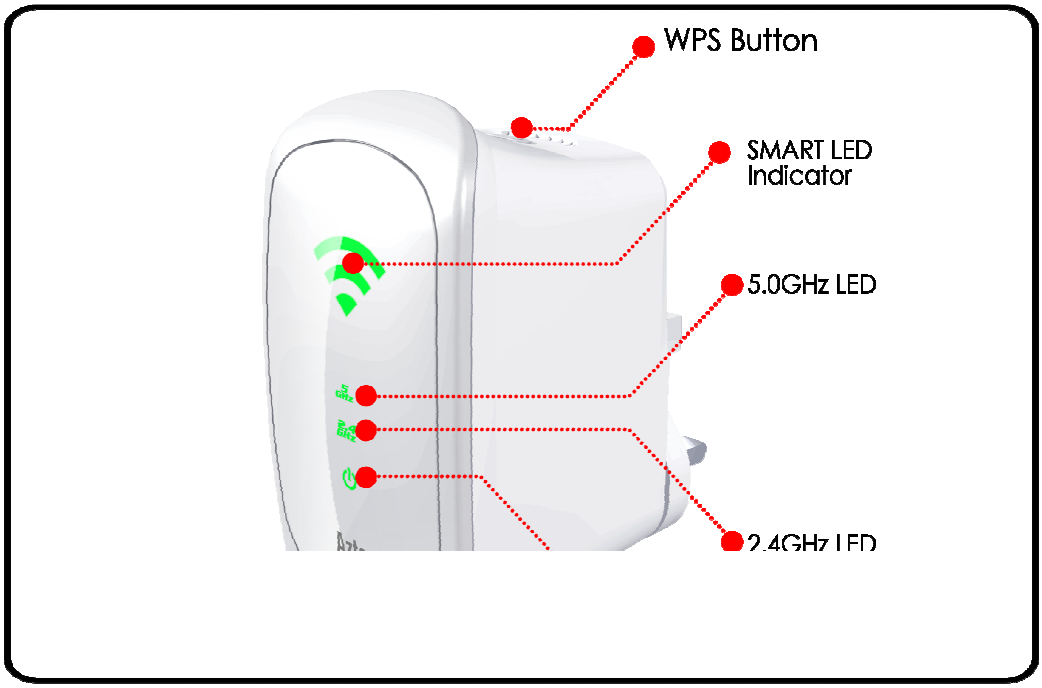
Package contents are listed below. For any missing items, please contact your dealer immediately. Product contents vary for different models.

- WL580E
- Ethernet cable
- Easy Start Guide
- Resource CD

Note: You may also download the Easy Start Guide, and the User Manual by visiting this link: www.aztech.com/support/

Device Design

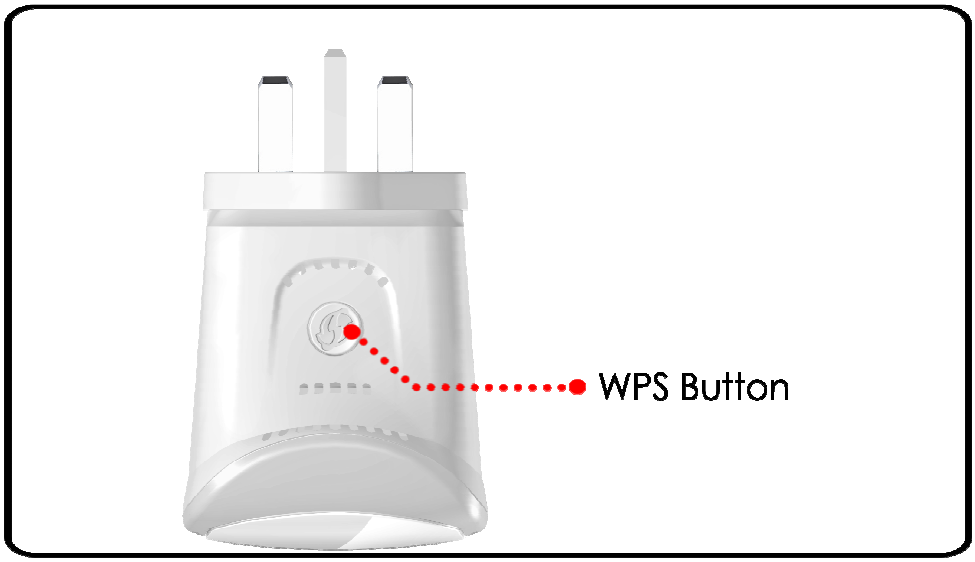
Front Panel



LABEL	STATE	DESCRIPTION
SMART LED Indicator		
3 BARS	Connected	95% and above (Excellent)
2 BARS	Connected	55-94% (Recommended)
1 BAR	Connected	10-54% (Weak)

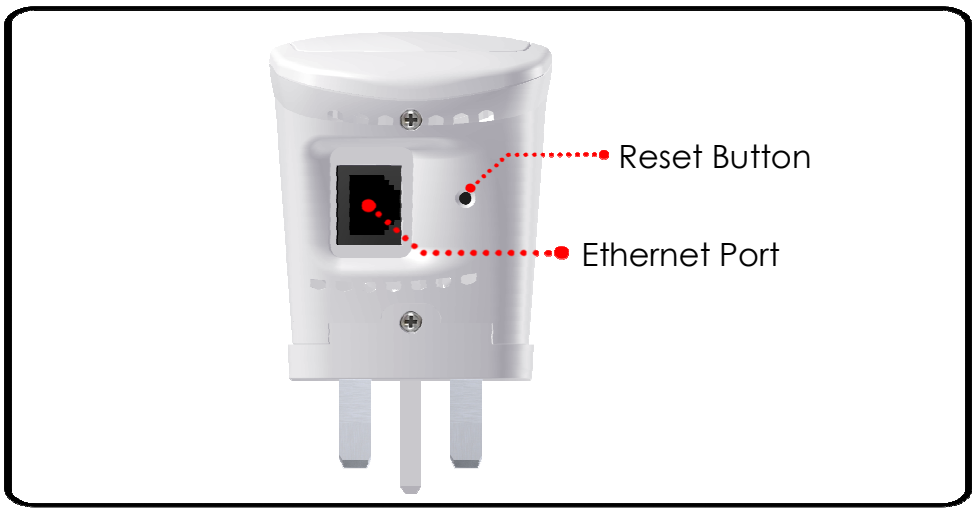
LABEL	STATE	DESCRIPTION
2.4GHz	OFF	No Wireless Device is connected.
	Blinking	A Wireless Device is connected and is actively transmitting / receiving data
5.0GHz	OFF	No Wireless Device is connected.
	Blinking	A Wireless Device is connected and is actively transmitting / receiving data
Power LED	ON	WL580E is Plugged to a working Power Outlet

Top Panel



LABEL	DESCRIPTION
WPS Button	Press this button for 2 seconds to connect theWL580E to any WPS capable devices (Wireless Device)
	Press this button for 5 seconds to connect the WL580E to any WPS capable devices (Wireless Router)

Bottom Panel



LABEL	DESCRIPTION
RESET	Press the Reset button for 5 seconds to restore the device to default factory settings
ETHERNET PORT	Connect to computers/Ethernet devices

SMART LED Indicator

Your WL580E is equipped with a SMART LED indicator which determines the signal strength from your wireless router as seen below:

NOTE: Wireless reception and throughput may vary according to the number of Wireless Devices that are in use, and at the same time, other nearby wireless devices, structure types, building materials, and other interferences present.

The Web User Interface

The Web User Interface of your WL580E allows you to configure the various features of your WL580E. This will serve as your main tool in monitoring and configuring all of your WL580E's main features.

Accessing the Web User Interface

NOTE: To avoid any conflicts in accessing the Web User Interface, it is strongly advised to do the following:

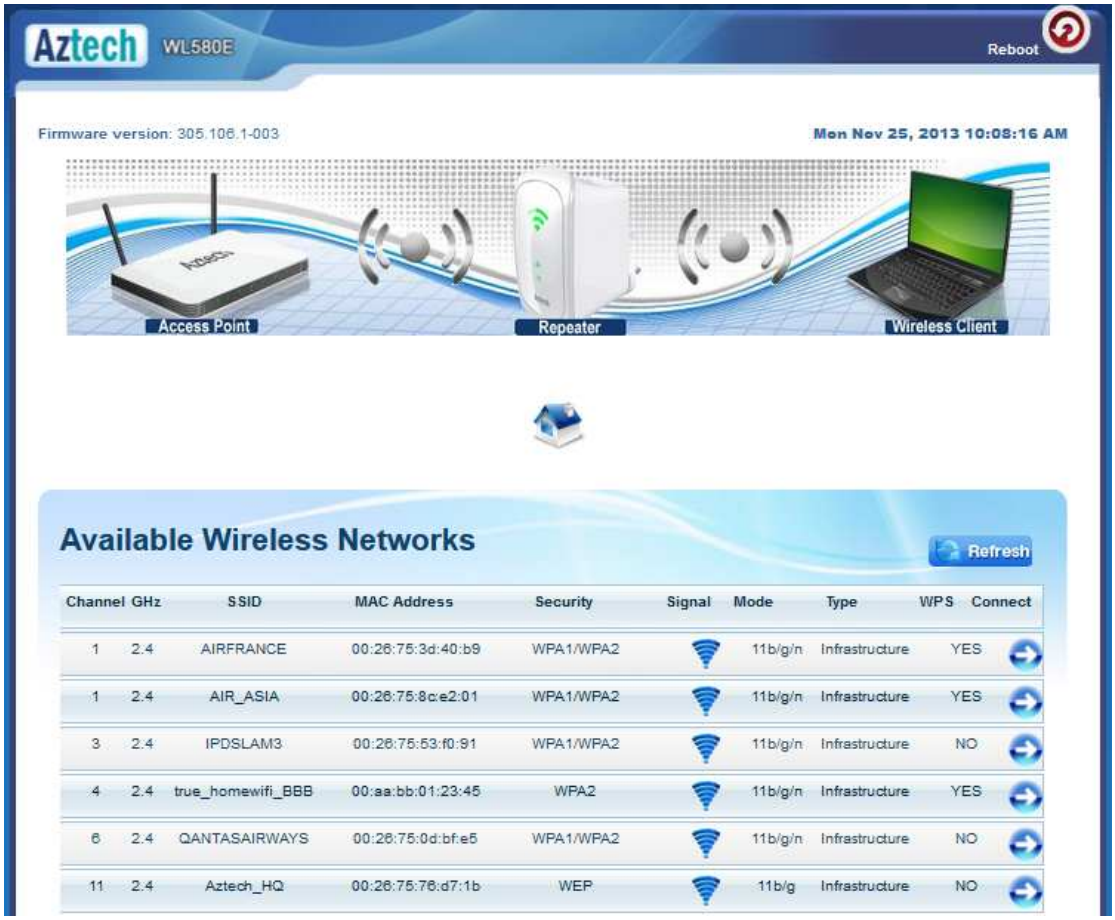
- Simply access the Web User interface through an Ethernet connection. This is achieved by connecting your Computer and your WL580E through an Ethernet cable.
- If present, kindly turn off the wireless adapter of your computer. You may enable the wireless adapter after completing the setup. This is to avoid IP address conflict which might block you from accessing the Web user interface.
- Remove temporary Internet files.

To access the Web User Interface through an Ethernet connection:

1. Connect your computer to the WL580E device using an Ethernet cable. NOTE: before proceeding to step 2, please check the SMART LED of the device; the LED should be in GREEN WEAK status and BLINKING.
2. Launch any web browser. You would automatically be redirected to your WL580E's web user interface.
3. If in any case it does not, kindly type **10.0.10.254** on the address bar and press Enter. You will then be redirected to the Home page of your WL580E's web user interface.
4. Upon redirecting, a window showing the wireless networks within range would appear. You may close this mini window or choose to connect to your preferred wireless network immediately.

If you wish to connect to a wireless network immediately you may do the following steps:

1. Click the connect button that corresponds to the network you want to connect to.



2. Enter the correct Wireless Password of the preferred network then click the Apply button.

3. Kindly wait for the repeater to finish initializing its connection. Your WL580E would reboot upon successful connection displaying the status depending on the frequency band (2.4GHz or 5.0GHz) of the wireless network you connected to:

For 2.4GHz wireless networks

For 5.0GHz wireless networks

NOTE: To know if you have successfully connected to your device, you may also check the LEDs of your WL580E; the SMART LED Indicator would be in STABLE GREEN light.

Web User Interface Menu

The web user interface was made for users to easily access and control your WL580E's main features. It is mainly comprised of the following menus:

Quick Connect

The Quick Connect menu allows you to scan for the available wireless networks within range and connect to your preferred wireless network as well.

Channel	GHz	SSID	MAC Address	Security	Signal	Mode	Type	WPS	Connect
1	2.4	SINGTEL-1715	00:26:75:88:17:16	WPA1/WPA2		11b/g/n	Infrastructure	NO	
1	2.4	linksys	00:1c:10:49:78:17	NONE		11b/g	Infrastructure	NO	
1	2.4	TPV	44:ad:d9:bb:84:d0	WEP		11b/g	Infrastructure	NO	
36	5.0	ASUS(5.0Ghz)(R)	00:26:75:55:96:00	WPA2		11a/n	Infrastructure	YES	

To connect to a Wireless Network, simply do the following:

1. Click the **Quick Connect** menu icon and wait for the search initialization to finish.
2. Determine your preferred wireless network then click its corresponding **Connect** button. You will then be redirected to the Wireless Setup page of your WL580E as seen below:

3. Input the Wireless network's passphrase on the **WPA Passphrase** (Wireless Password) text box then click **Apply**. Kindly wait for the repeater to finish initializing the connection. Your repeater would reboot upon successful connection.

   NOTE: To know if you have successfully connected to your device, check the LEDs of your WL580E; it would be in STABLE GREEN light.

Setup

The Setup page shows the current properties of the WL580E. This page also allows you to change the mode of operation, the SSID, the security mode, enable or disable the broadcast of your SSID, change the passphrase of the SSID broadcasted by your WL580E, and define the encryption type.

- **SSID.** Refers to your WL580E's wireless network name.
- **MAC Address.** The MAC address of your WL580E. The information in this field cannot be changed.
- **Broadcast SSID.** Allows you to enable or disable the broadcast of your wireless. By disabling this, you have to manually connect to your wireless network.
- **Security Mode.** Allows you to configure the combination of characters the wireless password would have.
- **WPA Passphrase.** Allows you to add the current wireless password of the Wireless Network. You are only allowed to configure this AFTER you have successfully connected to a network.

- **WPA Encryption.** Allows you to change the encryption settings of your WL580E.
- **Channel.** Allows you to configure the wireless channel of your WL580E.

Wireless

The Wireless page shows the current properties of the Wireless Network broadcasted by your WL580E. This menu allows you to modify basic router settings, your wireless network's security settings, and also add and delete MAC filters.

The Wireless page has the following sub menus that can be found on the second layer of icons just below the main menu icon shortcuts:

- Basic Wireless Settings
- Security Settings
- MAC Filter

Basic Wireless Settings

The Basic Wireless Settings page allows you to configure the basic properties of your WL580E such as enabling the wireless feature and SSID broadcast, changing the name of the Wireless SSID, defining a preferred wireless mode for your WL580E, changing the Wireless channel and various HT properties

- **Enable Wireless.** Enable or Disable the wireless feature of your WL580E. By default the Wireless feature of your WL580E is enabled.
- **Broadcast SSID.** Set option to disable to hide your wireless network. By default, the SSID Broadcast is enabled.
- **SSID.** Allows you to designate a name for your WL580E's wireless network.
- **Wireless Mode.** This option allows you to select the type of wireless standard you want to allow to connect to your wireless network.

- **Channel.** You may opt to change your wireless channel when you are getting poor reception. You may choose the least channel used in your area for better wireless performance.
- **Channel Bandwidth.** Here you can set your Channel Bandwidth to 20MHz and 20/40MHz. It is strongly suggested to leave this in Auto to achieve the best efficiency.
- **HT Data Rate and HT Guard Interval.** These options are recommended to be set to Auto for maximum efficiency.

Wireless Security Settings

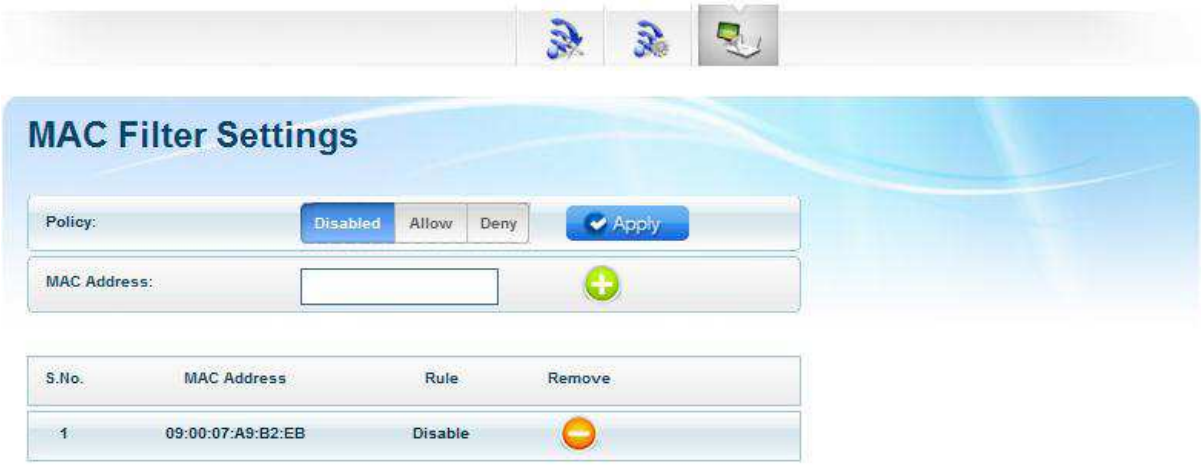
The Wireless Security Settings page allows you to change the Security Mode, enable or disable the WPS feature of your WL580E, and add a WPS enabled device by entering the needed PIN.

- **Security Mode.** Select the type of encryption you want for your wireless network.
- **WPS.** Allows you to enable or disable the WPS feature of your WL580E.
- **Enrollee PIN.** Enter this PIN on the Wireless Device that will be connecting to WL580E repeater to automatically configure the wireless device.
- **Registrar PIN.** Here you can enter the WPS-PIN of the Wireless Devices and click apply for the WL580E to allow access and configure your wireless device automatically

Note: WPS will work only for WPA-PSK, WPA2-PSK and WPA/WPA2 encryption. Wireless Devices should also support the WPS feature to use this option.

MAC Filter Settings

The MAC Filter page will provide additional protection to your wireless network. It allows or denies Wireless Devices from accessing the WL580E with the use of the MAC address which is unique for every network device.



To add a MAC Filter:

1. Specify your preferred Policy.
   - **Disable.** Disables the application of a MAC Filter to a specific device or to all the MAC Addresses specified in the list.
   - **Allow.** Allows the specified MAC Addresses to connect to the Wireless network.
   - **Deny.** Denies the specified MAC Addresses connection to the Wireless network.

     NOTE: By clicking the Apply button without specifying a MAC Address, you would be applying the selected policy to all MAC addresses on the list.
2. Enter the MAC Address of the device where the selected Policy would apply.

   To know the MAC Address of your computer, you may simply do the following:

   a. On the Start menu click **Run**.

   b. On the input box of the Run window, type in: **cmd** to open the command prompt.

c. On the command prompt key in **ipconfig/all**.
d. Locate the **Ethernet Adapter Ethernet** or **Ethernet Adapter Local Area Network** section and find the 'Physical Address' (MAC Address).

3. Click the button located beside the MAC Address text box to apply changes.

To remove a MAC Filter:

1. Click the button that corresponds to the MAC address that you wish to remove from the list.

System Settings

The System page allows you to configure various system oriented settings such as changing the devices IP Address, backing up the current configuration settings, upgrading the device's firmware, restoring the device from a previously saved configuration file, resetting the device to its factory default, and defining a user password for the Web UI.

The System's page has the following submenus:

- Device Info
- Local Network
- Configuration Settings
- Firmware upgrade
- System Password

Device Information

Allows you to view basic device information regarding your WL580E such as the firmware version and its build date, the device's serial number, MAC addresses of various interfaces, and view the Wireless' status as well.

- **Firmware Version.** Shows the current firmware version of the device
- **Build Date.** Shows the date the firmware was created.
- **Serial Number.** Shows the device's serial number.
- **ETH/Bridge and Wireless MAC address.** Shows the MAC address of the different Interfaces.
- **Wireless Status.** Shows the wireless device's wireless status.

LAN Configuration

The LAN Configuration page allows you to specify a device IP address and Device subnet mask your WL580E will use.

Note: Change this IP address if you are using two WL580E on the same network to avoid the occurrence of IP address conflict within your network.

Configuration Settings

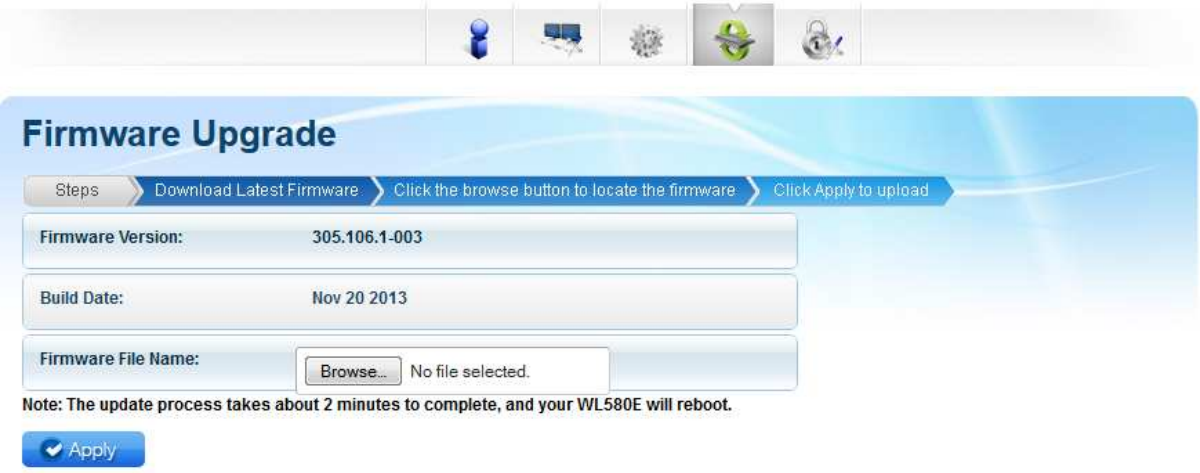
The configuration settings page allows you to backup your WL580E's current settings, do a firmware upgrade, and restore an existing configuration by using the backed up file.

- **Backup.** Allows you to save the current configuration of WL580E. Default file name for the backup file will be "***RT2880_Settings.dat***". Click **Apply** to start saving your configuration.

- **Update.** Here you can load the saved configuration of your WL580E. Click browse and load the saved settings then click the Apply button.
- **Restore.** Click on the apply button to reset the unit back to its default factory settings.

Firmware Upgrade

The Firmware Upgrade page allows you to update the firmware of your device for future changes and enhancement, however, it is strongly suggested to only upgrade your device firmware if it was advised by Aztech. You may download the latest firmware for your device at www.aztech.com/support.



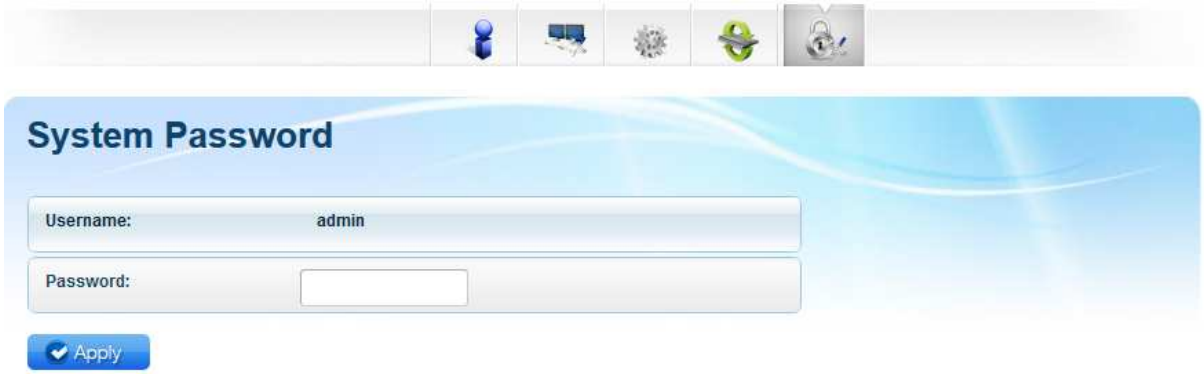
To upgrade the firmware:

1. From the System page, click the Firmware Upgrade button.
2. Click on the **Browse** button and locate and open the firmware for your WL580E (single.img).
3. Click **Apply** to start the update. Wait for the firmware upgrade to finish and for the device to reboot. You will be redirected to the Homepage of your WL580E.

Note: It is strongly recommended to only use firmware officially released by Aztech. Using third party firmware will void the warranty of the device.

System Password

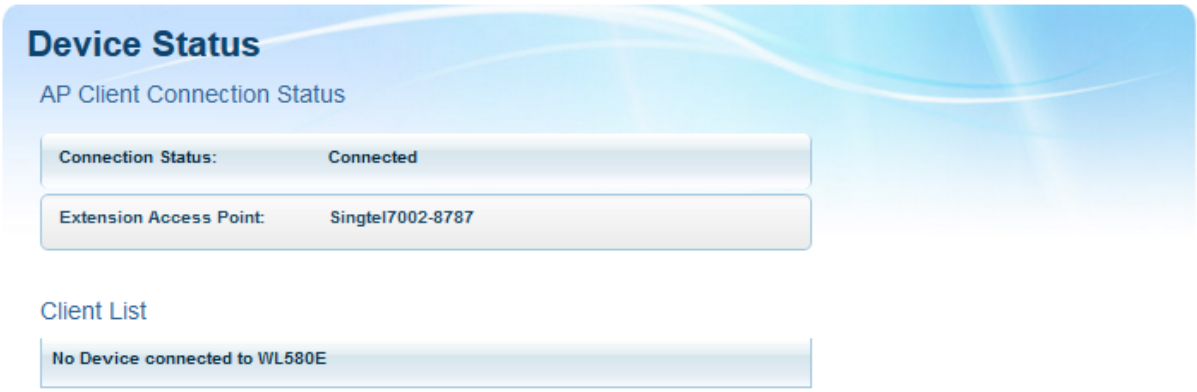
Set a password on the web user interface to prevent other users from getting access to the web UI and avoid unwanted changes from your settings. To add a system password, simply type in your preferred password and click on apply to activate this feature. To disable the password, simply remove the password and click apply to save your settings.



Note: Forgotten passwords cannot be recovered. Reset the device to its factory default by pressing the reset button found beside the Ethernet port of WL580E for 5 seconds.

Device Status

The device status page shows the current status of the AP, and also the wireless devices that are currently connected wirelessly to your WL580E.



WPS

WPS or Wifi Protected Setup makes it easier for you to connect your WL580E to your wireless router and the WL580E to your wireless devices with a simple push of a button.

To connect the WL580E to a Wireless Router via WPS:

1. Press the WPS button of WL580E for 5 seconds.
2. Press the WPS button on your router for 2 seconds.

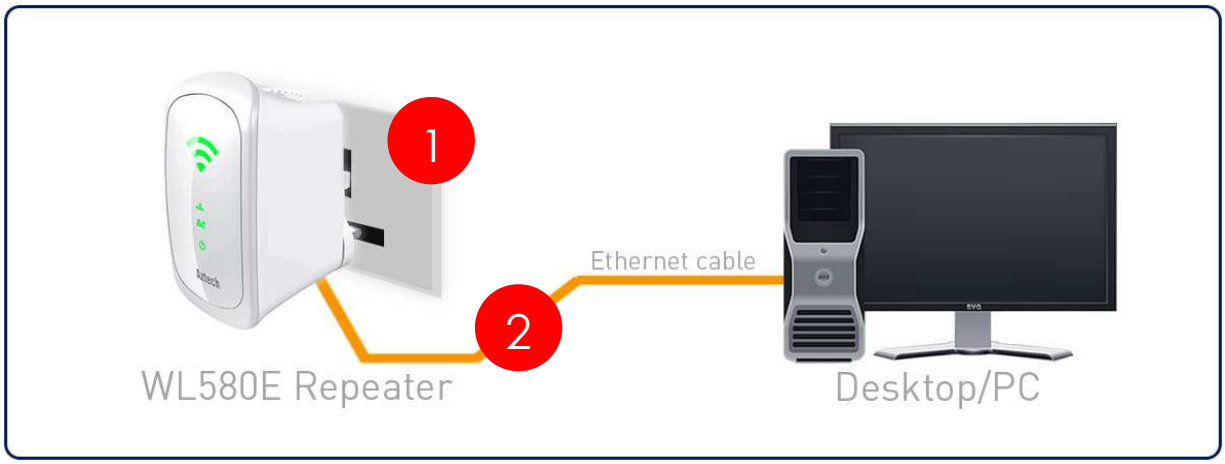
To connect the WL580E to a Wireless Device via WPS:

1. Press the WPS button of WL580E for 2 seconds.
2. Press the WPS button on the Wireless Device for 2 seconds.

NOTE: To accomplish a successful connection through WPS, simply accomplish the process correctly within two minutes. It is also important to ensure that the WPS feature of the device is enabled and must also be supported on the wireless router and even the wireless devices that will be connected to your WL580E.

Setup the Device

In setting up your device kindly follow the instructions provided below. A diagram has also been provided for additional reference.



1. Plug your WL580E to a power outlet.
2. Connect your WL580E to the computer using an Ethernet cable through their respective Ethernet ports.
3. Launch a web browser and you will automatically be redirected to the Web User Interface of your WL580E. If in any case it does not open, kindly type **10.0.10.254** on the address bar and hit enter.

Channel	GHz	SSID	MAC Address	Security	Signal	Mode	Type	WPS	Connect
1	2.4	SINGTEL-1715	00:26:75:88:17:16	WPA1/WPA2		11b/g/n	Infrastructure	NO	
1	2.4	linksys	00:1c:10:49:78:17	NONE		11b/g	Infrastructure	NO	
1	2.4	TPV	44:ad:d9:bb:84:d0	WEP		11b/g	Infrastructure	NO	
36	5.0	ASUS(5.0Ghz)(R)	00:26:75:55:96:00	WPA2		11a/n	Infrastructure	YES	

4. Select your SSID (wireless network/wifi name) from the list and click the Connect button.

5. Type the password for the wireless network of your router and click apply. The WL580E will reboot and will redirect to the user interface with the status dependent on the frequency band of your wireless router:

For 2.4GHz wireless networks

For 5.0GHz wireless networks

6. Disconnect the Ethernet cable from WL580E and computer then place the device at the location where it can get sufficient reception from your wireless router.

Appendix

FCC Statement

This equipment has been tested and complies with the specifications 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 according to 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 is found by turning the equipment OFF and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment or devices
- Connect the equipment to an outlet other than the receiver's
- Consult a dealer or an experienced radio/TV technician for assistance

FCC Radiation Exposure Statement

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment and it also complies with Part 15 of the FCC RF Rules. This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and consider removing the no-collocation statement.

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.

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

The operation frequency of the device in the 5150-5250MHz band is for indoor use only.

European Regulations

The product has been designed, tested and manufactured according to the European R&TTE directive 1999/5/EC.

Safety Warnings

For your safety, be sure to read and follow all warning notices and instructions.

- Do not open the device. Opening or removing the device cover can expose you to dangerous high voltage points or other risks. Only qualified service personnel can service the device. Please contact your vendor for further information.
- Do not use your device during a thunderstorm. There may be a risk of electric shock brought about by lightning.
- Do not expose your device to dust or corrosive liquids.
- Do not use this product near water sources.
- Make sure to connect the cables to the correct ports.
- Do not obstruct the ventilation slots on the device.

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