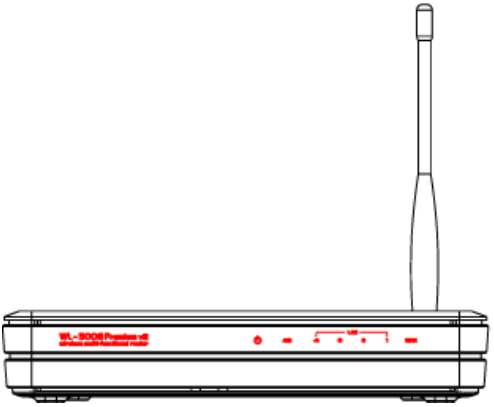
WL-500gP V2 Wireless Router



User Manual

E3209/ October 2007

Declaration of Conformity

We, Manufacturer/Importer
(full address)

ASUS COMPUTER GmbH
HARKORT STR. 25
40880 RATINGEN, BRD. GERMANY

declare that the product
(description of the apparatus, system, installation to which it refers)

Wireless Router
WL-500gP V2
is in conformity with

(reference to the specification under which conformity is declared)
in accordance with 2004/108/EC-EMC Directive and 1999/5 EC-R & TTE Directive

☒ **EN 300328**	Electromagnetic compatibility and Radio spectrum Matters (ERM); wideband transmission equipment operating in the 2.4GHz ISM band and using spread spectrum modulation techniques; Part 1: technical characteristics and test conditions Part2: Harmonized EN covering essential requirements under article 3.2 of the R&TTE	☒ **EN 55022**	Limits and methods of measurement of radio disturbance characteristics of information technology equipment
		☐ **EN 55024**	Information Technology equipment-Immunity characteristics-Limits and methods of measurement
☐ **EN 300386**	Electromagnetic compatibility and Radio spectrum Matters (ERM);Telecommunication equipment; ElectroMagnetic Compatibility (EMC) requirements	☐ **EN 50360/ EN 50361**	the limitation of exposure of the general public to electromagneticnetwork fields (0 Hz to 300 GHz) International Commission on Non-Ionising Radiation Protection (1998), Guidelines for limiting exposure in time-varying electric, magnetic, and electromagnetic fields
☒ **EN 301489**	Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic compatibility(EMC) standard for radio equipment and services; Part 17: Specific conditions for wideband data and HIPERLAN equipment	☒ **EN 61000-3-2***	Disturbances in supply systems caused
		☒ **EN 61000-3-3***	Disturbances in supply systems caused
☒ **EN50392**	Generic standard to demonstrate the compliance Of electronic and electrical apparatus with the basic restrictions related to human exposure to electromagnetic fields(0 Hz-300 GHz)	☐ **EN 55013**	Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment
		☐ **EN 55020**	Immunity from radio interference of broadcast receivers and associated equipment
☐ **EN 301893**	Broadband Radio Access Networks (BRAN); 5 GHz high performance RLAN; Harmonized EN covering essential requirements of article 3.2 of the R&TTE Directive	☐ **EN 50081-2**	Generic emission standard Part 2 Industrial environment
		☐ **EN 50082-2**	Generic immunity standard Part 2: Industrial environment

☒ **CE marking** CE (EC conformity marking)

The manufacturer also declares the conformity of above mentioned product with the actual required safety standards in accordance with LVD 73/23 EEC

☐ **EN 60065**	Safety requirements for mains operated electronic and related apparatus for household and similar general use	☒ **EN 60950-1**	Safety for information technology equipment including electrical business equipment
☐ **EN 60335**	Safety of household and similar electrical appliances	☐ **EN 50091-1**	General and Safety requirements for uninterruptible power systems (UPS)

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Signature : _____

(Stamp)

Date : May. 25 , 2007

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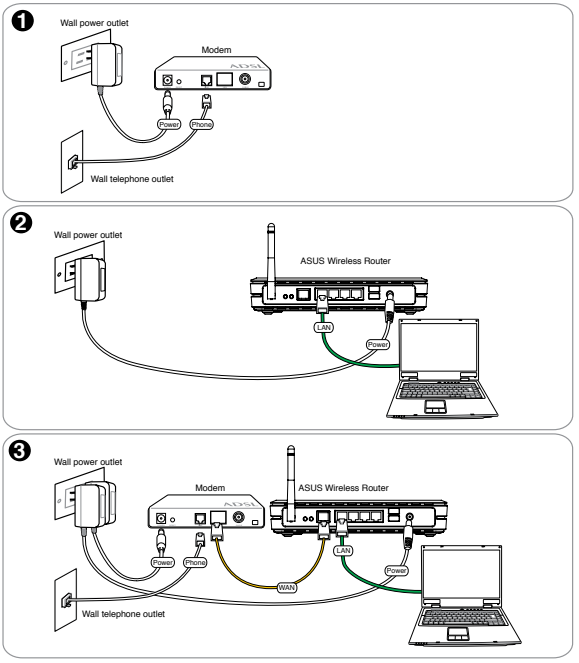
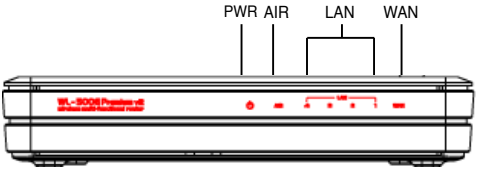
- Power adapter x 1
- Utility CD x 1
- RJ45 cable x 1
- Quick Start Guide x 1

2. Connecting ADSL modem and wireless router

1) Cable connection



2) Status indicators



PWR (Power)

Off	No power
On	System ready
Flashing-slow	Firmware upgrade failed
Flashing-quick	EZsetup processing

AIR (Wireless Network)

Off	No power
On	Wireless system ready
Flashing	Transmitting or receiving data (wireless)

WAN (Wide Area Network)

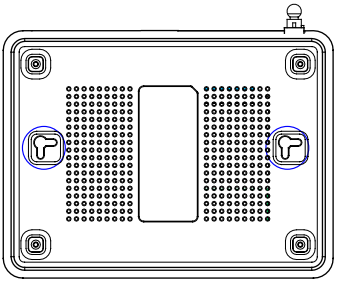
Off	No power or no physical connection
On	Has physical connection to an Ethernet network
Flashing	Transmitting or receiving data (through Ethernet cable)

LAN 1-4 (Local Area Network)

Off	No power or no physical connection
On	Has physical connection to an Ethernet network
Flashing	Transmitting or receiving data (through Ethernet cable)

3) Wall mount option

Out of the box, ASUS WL-500gP V2 Wireless Router is designed to sit on a raised flat surface like a file cabinet or book shelf. The unit may also be converted for mounting to a wall or ceiling.



Follow these steps to mount the ASUS Wireless Router to a wall:

1. Look on the underside for the two mounting hooks.
2. Mark two upper holes in a flat surface.
3. Tighten two screws until only 1/4" is showing.
4. Latch the hooks of the ASUS Wireless Router onto the screws.

Note: Re-adjust the screws if you cannot latch the ASUS Wireless Router onto the screws or if it is too loose.

3. Getting started

The ASUS WL-500gP V2 Wireless Router can meet various working scenarios with proper configuration. The default settings of the wireless router may need change so as to meet your individual needs. Therefore, before using the ASUS Wireless Router, check the basic settings to make sure they all work in your environment.

ASUS provides a utility named EZSetup for fast wireless configuration. If you would like to use EZSetup for your wireless network configuration, refer to chapter 6 for details.

Note: Wired connection for initial configuration is recommended to avoid possible setup problems due to wireless uncertainty.

1) Wired connection

The ASUS WL-500gP V2 Wireless Router is supplied with an Ethernet cable in the package. Since the ASUS Wireless Router has integrated auto-crossover function, therefore, you can use either straight-through or crossover cable for wired connection. Plug one end of the cable to the LAN port on the rear panel of the router and the other end to the Ethernet port on your PC.

2) Wireless Connection

For establishing wireless connection, you need an IEEE 802.11b/g compatible WLAN card. Refer to your wireless adapter user manual for wireless connection procedures. By default, the SSID of ASUS Wireless Router is “default” (in lower case), encryption is disabled and open system authentication is used.

3) Setting IP address for wired or wireless client

To access WL-500gP V2 Wireless Router, you must have correct TCP/IP settings on your wired or wireless clients. Set the IP addresses of the clients within the same subnet of WL-500gP V2.

Getting IP address Automatically

The ASUS Wireless Router integrates DHCP server functions, therefore, you can make your PC get IP address automatically from the ASUS Wireless Router.

Note: Before rebooting your PC, switch ON the wireless router and make sure the router is in ready state.

Setting up IP address Manually

To set IP address manually, you need to know the default settings of the ASUS Wireless Router:

- IP address 192.168.1.1
- Subnet Mask 255.255.255.0

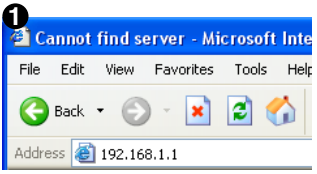
To set up the connection with a manually assigned IP address, the address of your PC and the wireless router must be within the same subnet:

- IP address: 192.168.1.xxx (xxx can be any number between 2 and 254. Make sure the IP address is not used by other device)
- Subnet Mask: 255.255.255.0 (same as WL-500gP V2)
- Gateway: 192.168.1.1 (IP address of WL-500gP V2)
- DNS: 192.168.1.1 (WL-500gP V2), or assign a known DNS server in your network.

4) Configuring the wireless router

Follow the steps below to enter the Web configuration interface of WL-500gP V2.

❶



Enter the following address in your web browser: http://192.168.1.1

❷

Defaults

User name: **admin** Password: **admin**

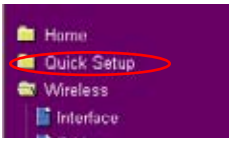
❸

After logging in, you can see the ASUS Wireless Router home page.

The homepage displays quick links to configure the main features of the wireless router.

5) Quick setup

To start quick setup, click **Next** to enter the "Quick Setup" page. Follow the instructions to setup the ASUS Wireless Router.



1. Select your time zone and click **Next**.

2. ASUS wireless router supports five types of ISP services: cable, PPPoE, PPTP, static WAN IP, and Telstra BigPond. Select your connection type and click **Next** to continue.

Cable or dynamic IP user

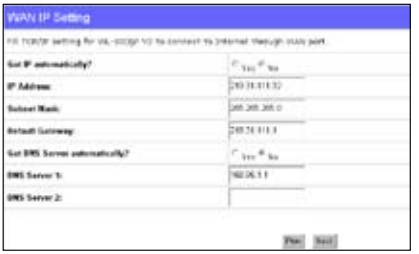
If you are using services provided by cable ISP, select **Cable Modem or other connection that gets IP automatically**. If your ISP provides you hostname, MAC address, and heartbeat server address, fill these information into the boxes on the setting page; if not, click **Next** to skip this step.

PPPoE user

If you use PPPoE service, select **ADSL connection that requires username and password.** It is known as PPPoE. You need to input the username and password provided by your ISP. Click **Next** to continue.

PPTP user

If you are using PPTP services, select **ADSL connection that requires username, password and IP address.** Fill in the username, password and IP address provided by your ISP into the fields. Click **Next** to continue.



Static IP user

If you are using ADSL or other connection type that uses static IP address, select **ADSL or other connection type that uses static IP address**. Input the IP address, subnet mask, and default gateway provided by your ISP. You can specify DNS servers, or get DNS information automatically.

3. After the connection type setting is complete, you are to set up your wireless interface. Specify to your wireless router an SSID (Service Set Identifier), which is a unique identifier attached to packets sent over WLAN. This identifier emulates a password when a device attempts to communicate with your wireless router via WLAN.

If you want to protect transmitted data, select a **Security Level** to enable encryption methods.

Medium: Only users with the same WEP key settings can connect to your wireless router and transmit data using 64bits or 128bits WEP key encryption.

High: Only users with the same WPA-PSK Key settings can connect to your wireless router and transmit data using TKIP encryption.

4. Input four sets of WEP keys in the WEP Key fields (10 hexadecimal digits for WEP 64bits, 26 hexadecimal digits for WEP 128bits). You can also let the system generate the keys by inputting a Passphrase. Record the Passphrase and the WEP keys in your notebook, then click **Finish**.

   For example, if we select WEP 64bits encryption mode and input 11111 as the Passphrase, the WEP Keys are generated automatically.

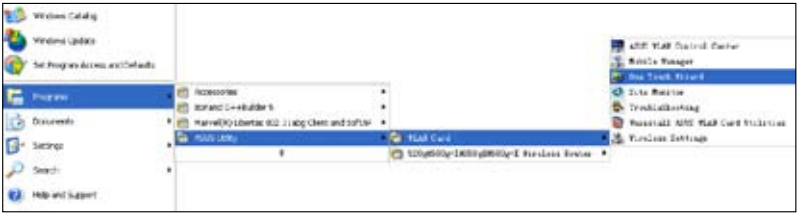
5. Click **Save&Restart** to restart the wireless router and activate the new settings.

6. Connect to the wireless router via wireless.

   To connect the wireless router from a wireless client, you can use Windows® Wireless Zero Configuration service to set up the connection. If you use ASUS Wireless Card on your computer, you can use the One Touch Wizard utility supplied in WLAN Card support CD for wireless connection.

Configuring ASUS WLAN Card with One Touch Wizard

If you have installed ASUS wireless card together with its utilities and drivers on your PC, click **Start -> Programe -> ASUS Utility-> WLAN Card -> One Touch Wizard** to launch the One Touch Wizard utility.



1) Select **Connect to an existing wireless LAN (Station)** radio button and click **Next** to continue.

2) One Touch Wizard searches and displays the available APs in the **Available Networks** list. Select WL-500gP V2 and press **Next** to continue.

3) Set the authentication and encryption of your WLAN card the same with those at WL-500gP V2. In the previous steps the **Key Length** is **64 bits**, **Passphrase** is 11111 Click **Next** to continue.

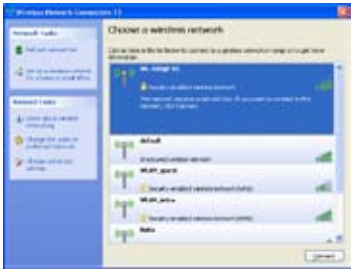
4) It takes several seconds for the wireless card to associate with WL-500gP V2. Press **Next** to setup TCP/IP for your WLAN Card.

5) Setup the IP address of the WLAN Card according to your network condition. After the setup is complete, click **Finish** to exit the One Touch Wizard.

Configuring WLAN card with Windows® WZC service

If you use non-ASUS wireless card, you can set up the wireless connection with Windows® Wireless Zero Configuration (WZC) service.

1) Double-click the wireless network icon on the task bar to view available networks. Select your wireless router and click **Connect**.



2) Input the 10-digit keys you have set on the wireless router and click **Connect**. The connection is complete within several seconds.

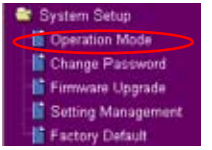
7. Configuring advanced features

To view and adjust other settings of the wireless router, enter the Web configuration page of WL-500gP V2. Click on items on the menu to open a submenu and follow the instructions to setup the router. Tips show up when you move your cursor over each item.

4. Wireless router features

This chapter provides setup examples of some frequently used router features. You can setup these features via your Web browser.

1) Choosing an appropriate operation mode



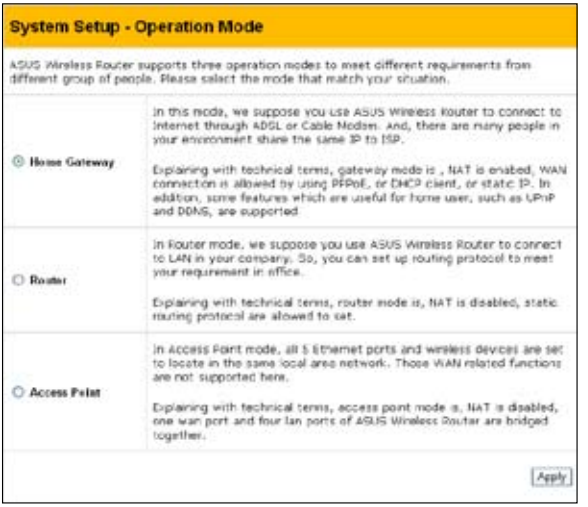
ASUS WL-500gP V2 Wireless Router supports three operation modes: home gateway, router, and access point. Click **System Setup -> Operation mode** to open the configuration page.

Home gateway mode is for home or SOHO users who want to connect to their ISPs for Internet services. In this operation mode, NAT, WAN connection, Internet firewall functions are supported.

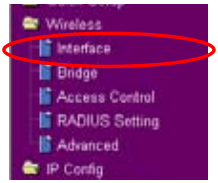
Router mode is for office use where multiple routers and switches co-exist. You can set up routing policies in this mode; however, NAT function is disabled.

Access point mode works when you setup WL-500gP V2 as a wireless bridge. In this mode, all Ethernet ports on WL-500gP V2 (4 LAN ports and 1 WAN port) are recognized as LAN ports. WAN connection, NAT, and Internet firewall functions are disabled in access point mode.

Select a proper mode which complies to your network scenario and press **Apply** button, and then you can continue to setup advanced features for your WL-500gP V2.



2) Setting up wireless encryption



WL-500gP V2 provides a set of encryption and authentication methods to meet the different demands of home, SOHO, and enterprise users. Before setting up encryption and authentication for WL-500gP V2, contact your network administrator for advice.

Click **Wireless -> Interface** to open the configuration page.

Encryption

The encryption modes supported by WL-500gP V2 are: WEP (64bits), WEP (128bits), TKIP, AES, and TKIP+AES.

WEP stands for Wired Equivalent Privacy, it uses 64bits or 128bits static keys to encrypt the data for wireless transmission. To setup WEP keys, set **WEP Encryption** to **WEP-64bits** or **WEP-128bits**, then manually type in four sets **WEP Keys** (10 hexadicimal digits for 64-bit key or 26 hexadicimal digits for 128-bit key). You can also let the system generate the keys by entering a **Passphrase**.

TKIP stands for Temporal Key Integrity Protocol. TKIP dynamically generates unique keys to encrypt every data packet in a wireless session.

AES stands for Advanced Encryption Standard. This solution offers stronger protection and increases the complexity of wireless encryption.

TKIP+AES is used when both WPA and WPA2 clients co-exist in the wireless network.

Authentication

The authentication methods supported by WL-500gP V2 include: Open, shared key, WPA-PSK, WPA, and Radius with 80.211x.

Open: This option disables authentication protection for wireless network. Under Open mode, any IEEE802.11b/g client can connect to your wireless network.

Shared: This mode uses the the WEP keys currently in use for authentication.

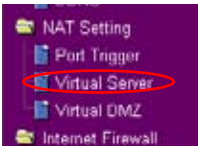
WPA and WPA-PSK: WPA stands for WiFi-Protected Access. WPA provides two security modes: WPA for enterprise network, and WPA-PSK for home and SOHO users. For enterprise network, WPA uses the already existing RADIUS server for authentication; for home and SOHO user, it provides Pre-Shared Key (PSK) for user identification. The Pre-Shared Key consists of 8 to 64 characters.

Radius with 802.1X: Similar with WPA, this solution also uses RADIUS server for authentication. The difference lays on the encryption mothods: WPA adopts TKIP or AES encryption methods, while Radius with 802.1X does not provide encryption.

When authentication and encryption are set, click **Finish** to save the settings and restart the wireless router.

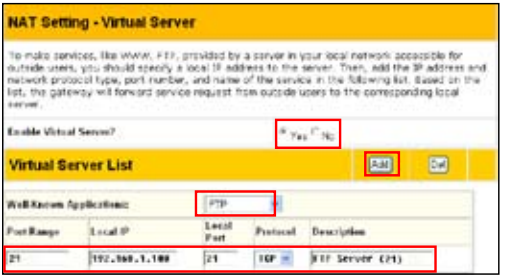
3) Setting up virtual server in your LAN

Virtual server is a Network Address Translation (NAT) function which turns a computer within a LAN into a server by allowing data packets of certain service, such as HTTP, from Internet.



1. Click **Virtual Server** in NAT Setting folder to open the NAT configuration page.

2. Select **Yes** to enable virtual server. For example, if host 192.168.1.100 is FTP server which is to be accessed by Internet user, it means all packets from Internet with destination port as 21 are to be directed to the host. Set Well-known Application to FTP. Port range to 21, Local IP to the host IP, Local Port to 21, Protocol to TCP.



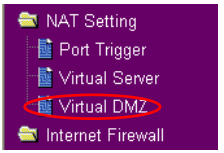
3. Click **Finish**.

4. Click **Save & Restart** to restart the wireless router and activate the settings.

4) Setting up virtual DMZ in your LAN

To expose an internal host to Internet and make all services provided by this host available to outside users, enable Virtual DMZ function to open all ports of the host. This function is useful when the host plays multiple roles such as HTTP server and FTP server. However, in doing this, your network becomes less secure.

1. Click **Virtual DMZ** in the NAT Setting menu.



2. Enter the IP address of the host and click **Finish**.

3. Click **Save & Restart** to restart the wireless router and activate the settings.

5) Setting up DDNS

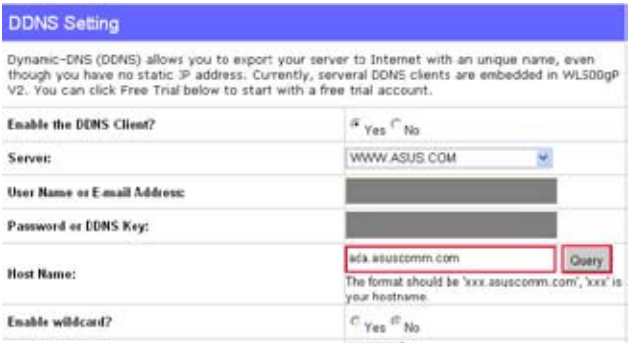
DNS enables host who uses static IP address to associate with a domain name; for dynamic IP user, they can also associate with a domain name via dynamic DNS (DDNS). DDNS requires registering and account-creating at ASUS DDNS service. The ASUS DDNS server has already recorded your IP address information. You just set your domain name and you can access USB Hard Disc Drive that plugged in WL-500gP V2 via Internet.

ASUS DDNS Service

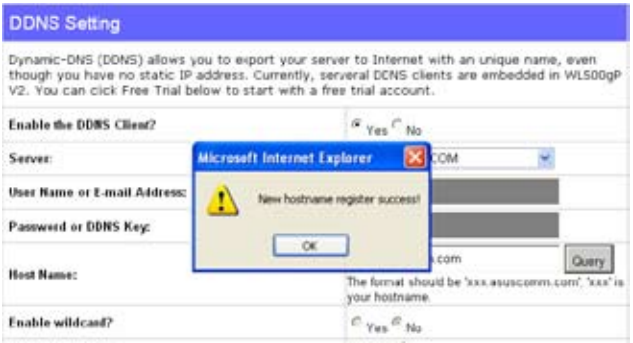
1. Click **DDNS** from **IP Config** folder.
2. Select **Yes** to enable the DDNS service.

3. Select WWW.ASUS.COM for detail setting. You are not necessary to key in **User Name or E-mail Address** and **Password or DDNS Key** if you select this server. Or you can select another website to register and apply for DDNS service. Please refer to Page 18 to see another service setting.

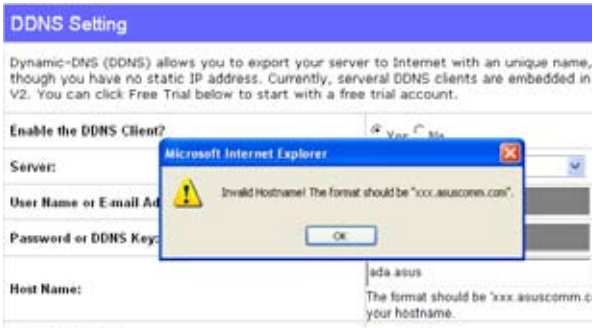
4. Enter the host name then click **Query**. The format should be xxx.asuscomm.com. (xxx is what you want to set up a host name)



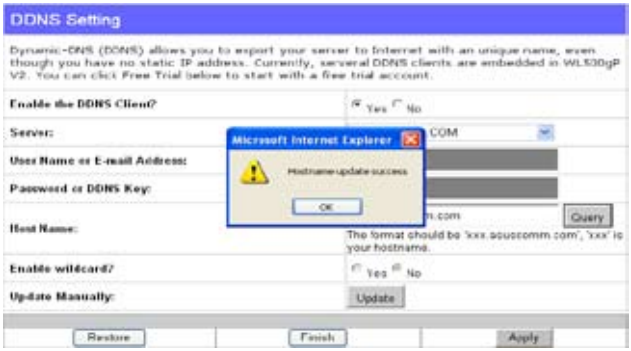
5. You can see this message when your host name is successfully registered.



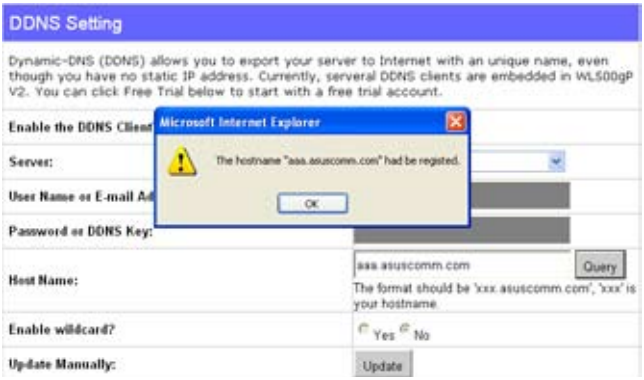
6. If host name's format does not follow xxx.asuscomm.com, you will see this message. Please re-enter your host name again.



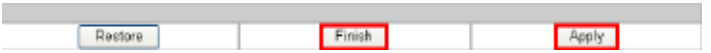
7. If you want to change host name, please enter new host name and click **Query**. You can see this message when your host name is successfully updated.



8. If the host name had been registered, you will see this message. Please re-enter your host name again.



9. Click **Apply** then click **Finish.**



10. Click **Save & Restart** to restart WL-500gP V2 and activate settings.

11. You can type your host name in the address bar of browser to access your Hard Disk Drive plugged in WL-500gP V2. For FTP site setting, please refer to P25 "Setting up FTP Site" section.

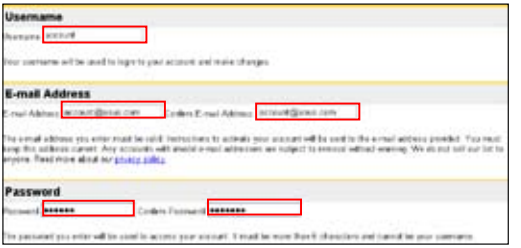
DynDNS Service

1. Select **Yes** to enable the DDNS service. If you do not have a DDNS account, click **Free Trial** to register for a trial account.

2. After clicking Free Trial, you are directed to the homepage of www.DynDNS.org, where you can register and apply for DDNS service.

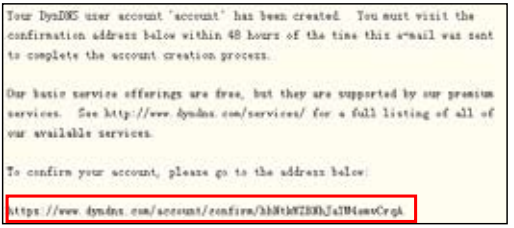
   Read the policy and select "**I have read...**".

3. Enter your user name, e-mail address, password, then click **Create Account**.



4. A message prompts out informing that your account has been created. An E-mail is sent to your mailbox. Open your mailbox and read the mail.

5. You can find the activation letter in your E-mail box. Click the hyperlink.



6. The link directs you to a login page. Click **login**.

7. Enter the user name and password then click **Login**.

8. After logging in, you can see this welcome message.

9. Select **Services** tab.

10. Click **Add Dynamic DNS Host** .

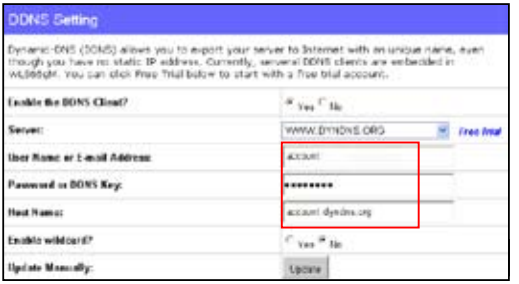
11. Enter the host name then click **Add Host**.

Note: The input character should be in the range of A-Z, a-z, or 0-9, and the length of the characters should be no more than 64 bytes.

12. You can see this message when your hostname is successfully created.

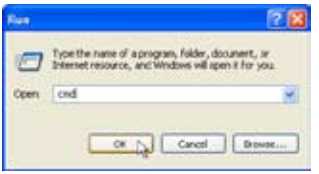
13. Fill the account information into the DDNS setting fields of your wireless router.

14. Click **Finish**.

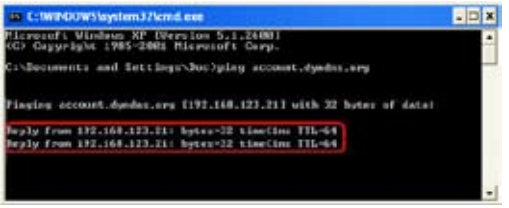


15. Click **Save & Restart** to restart the wireless router and activate the settings.

16. Verify whether DDNS is working. Click **Start** menu and select **Run....**Type **cmd** and click **OK** to open the CLI console.



17. Type **ping account.dyndns.org** (your DDNS domain name). If you can see the reply like what is shown in the right picture, DDNS is working correctly.

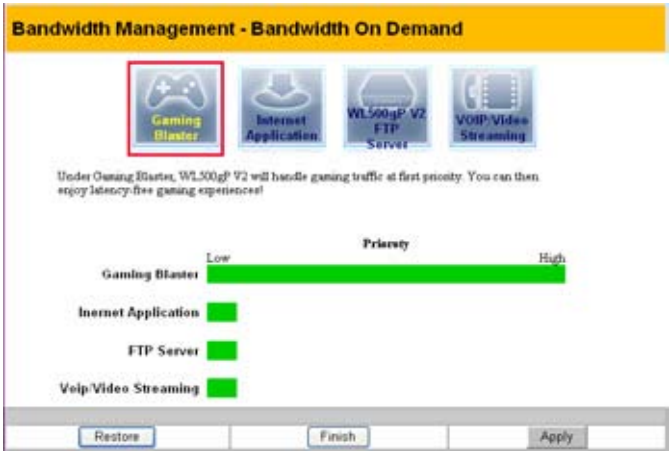


6) Setting up Bandwidth Management

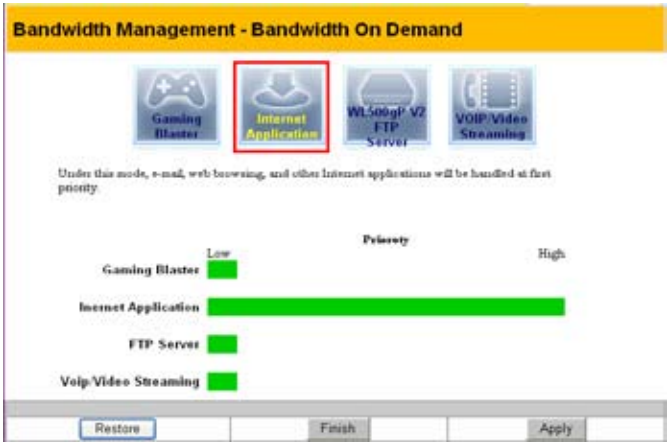
Bandwidth Management provides a mechanism that controls the traffic of you network. To set up bandwidth management:

1. Click **Basic Config** page in Bandwidth Management folder. In this page you can see four buttons including **Gaming Blaster**, **Internet Application**, WL-**500gP V2 FTP Server**, and **VOIP/Video Streaming**. In this page, you can click each item to set its priority higher. After you click each item, the letters on the button turns yellow (see figures below) and the green bar behind it automatically grows longer, indicating its bandwidth status is the first priority. Click **Finish** and **Apply** to complete the configuration. The following figures show different bandwidth priority settings:

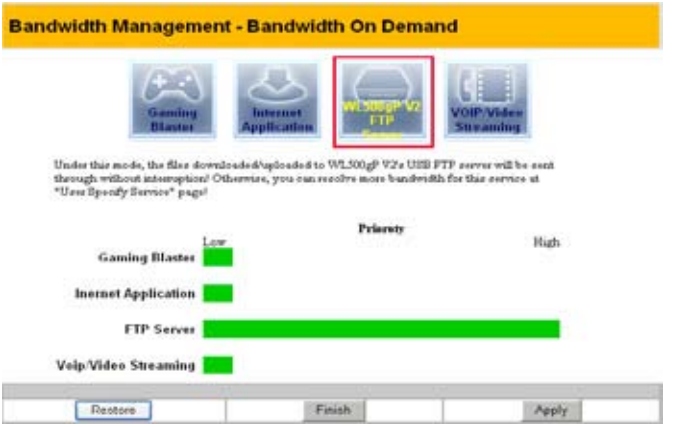
Gaming Blaster



Internet Application

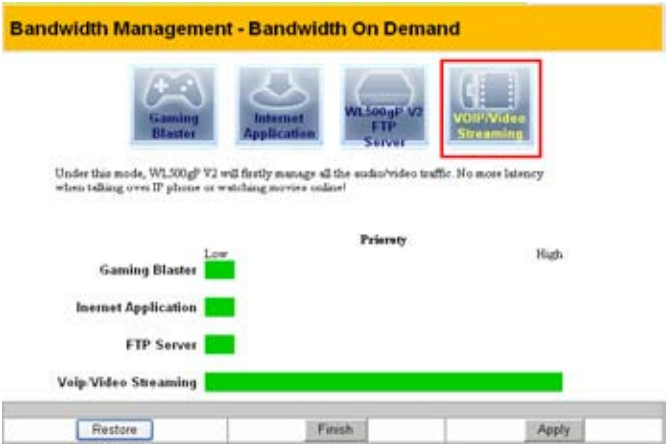


WL-500gP V2 FTP Server

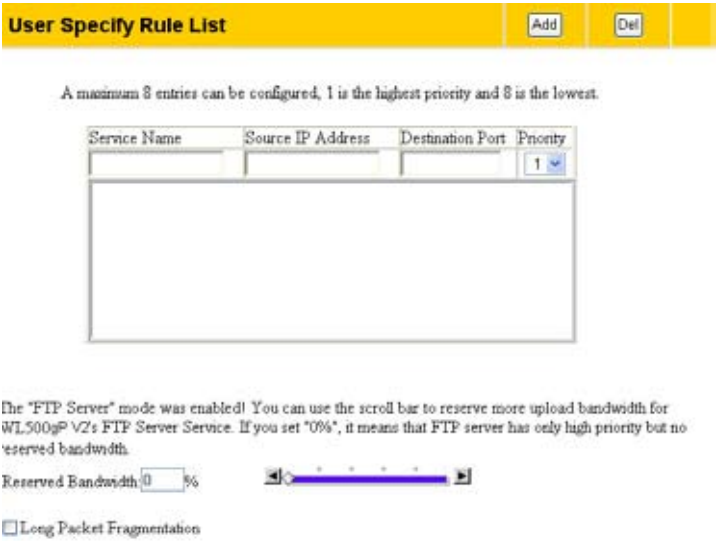


After you applying the **WL-500gP V2 FTP Server** settings, a screen appears asking you to do further configuration:

VOIP/Video Streaming



2. You can also configure the bandwidth manually by clicking "**User Specify Services**". Input the **IP address**, **destination port** and choose the **priority status from** the drop-down list.



5. Application features

ASUS WL-500gP V2 Wireless Router provides two USB2.0 ports for connecting USB storage, USB camera, and USB printer, therefore, you can monitor the working environment, share data and printer with both wired and wireless users in your network.

Warning: Before unplugging the USB storage disk from WL-500gP V2, you must eject the disk in **Status & Log -> USB** page to prevent data corruption.

Note: Before applying change and rebooting WL-500gP V2, make sure all USB applications are disabled, it would take more than 20 seconds for WL-500gP V2 to reboot.

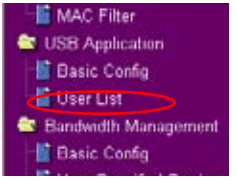
1) Sharing USB storage

To use this feature, you need to plug a USB hard disk to the USB2.0 port on the rear panel of WL-500gP V2. Make sure the hard disk is formatted and partitioned properly.

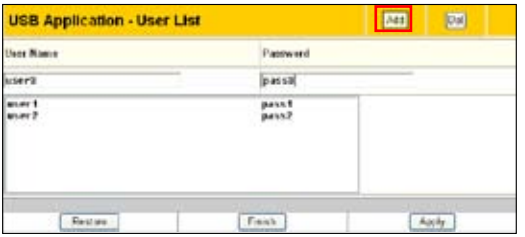
Note: FAT32 has a 4GB file size limitation and do not support files above that size. If you want to use files of above 4GB, you must format the disk to EXT2 file system.

Creating user account

To share the data in the USB storage, you need to create user accounts first.

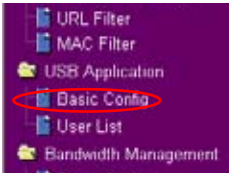


1. Click **USB Application -> User List** in the left side menu to open the configuration page.
2. Input **User Name** and **Password** for the accounts. Click **Add** to add the account to the list.
3. To delete an account, select the account from the list and click **Del**.
4. Click **Apply** to apply the changes and restart the wireless router.



Creating share folder and access right

You can create a new share folder or share an existing folder in your hard disk.



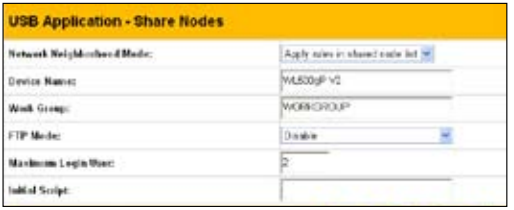
1. Click **USB Application -> Basic Config** in the left side menu to open the configuration page.

2. Click **Add** to add a share folder.

3. Select the folder you want to share from Folder Manager and click **Ok**. To create a share folder, input the folder name in **Add Folder** field and press **Add**.

4. Define the access right for the share folder by appoint **User Name** and **Access Right**. Click **Add** to add the access right rule. When finished, click **Apply** to save the configuration.

5. Set Network Neighbourhood Mode to **Apply rules in shared node list**, Work Group to **WORKGROUP** to enable all computers within WORKGROUP to access WL-500gP V2 USB storage.



6. Click **Finish**.

7. Click **Save & Restart** to restart the wireless router and activate the settings.

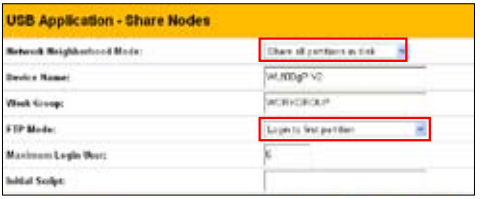
8. Open **My Network Place** from a computer connected to WL-500gP V2. Click **view work group computers**, you can see WL-500gP V2 in the **Workgroup** category. All files on the USB storage are ready for sharing.

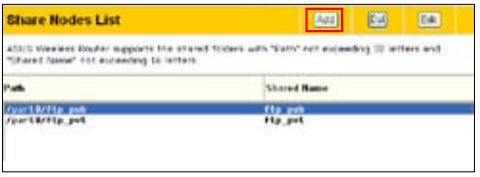
2) Setting up FTP site

WL-500gP V2 can also serve as an FTP site. You can make your FTP site accessible by all users, or set up access policy to restrict anonymous login. To use this feature, you need to plug a USB storage disk to the USB2.0 port on the rear panel of WL-500gP V2. Make sure the hard disk is formatted and partitioned properly.

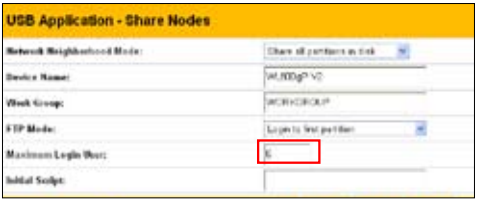
1. To allow anonymous login: Set Network Neighbourhood Mode to **Share all partitions in disk**, FTP Mode to **Login to first partition**. The anonymous login directory is the root directory of first partition.

   To allow account login only: Set Network Neighbourhood Mode to **Apply rules in shared node list**, FTP Mode to **Login to first matched shared node**. Click **Add** in the Share Node List to specify the access directory and access right of FTP account.





2. The **Maximum Login User** field specifies the maximum logged in users at a same time. The default value is 6.



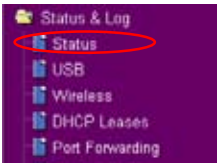
3. Click **Finish** to activate the settings and reboot. This process may take several minutes.

4. Type **ftp://192.168.1.1** into the address box of your Web browser and press Enter to login the FTP site.

3) Sharing USB printer

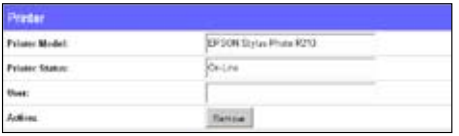
You can connect a compatible USB printer to the USB2.0 port of WL-500gP V2 to share the printer with your LAN users. Follow the procedures below to setup your computers to utilize the printer server function of WL-500gP V2.

Installing USB printer



Plug your USB printer to the USB2.0 port on WL-500gP V2 rear panel. To verify whether your printer is properly installed and to WL-500gP V2 Wireless router, click **Status & Log -> Status**. If **Printer Model** is correct and **Printer Status** is **On-Line**, you can share this printer within your LAN.

Note: Visit ASUS Website for comaptible printer vendor and models.

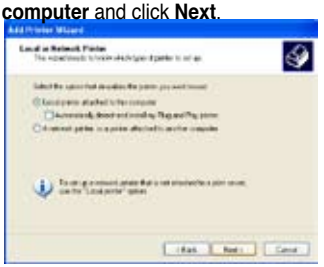


Setting up printer client under Windows XP

Follow the steps below to install network printer on your clients.

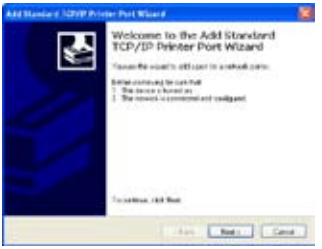
1. Run Add Printer Wizard from **Start -> Printers and Faxes -> Add a printer**.

2. Select **Local printer attached to this computer** and click **Next**.



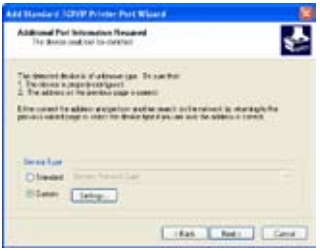
3. Select **Create a new port** and set Type of port to **Standard TCP/IP Port**, then click **Next**.

4. Click **Next** to setup TCP/IP port for accessing the network printer.



5. Input the IP address of WL-500gP V2 in the **Printer Name of IP Address** field and click **Next**.

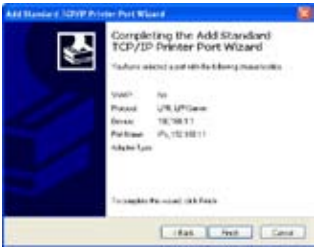
6. Select **Custom** and click **Settings...**



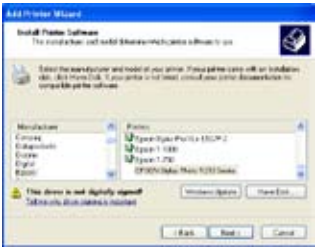
7. Set **Protocol** to **LPR** and type **LPRServer** in **Queue Name** field. Click **Next** to continue.

8. Press **Next** to finish standard TCP/IP port setting.

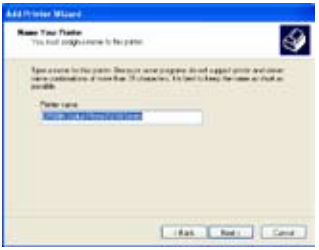
9. Press **Finish** to complete the settings and return to Add Printer Wizard.



10. Install printer driver from the vendor-model list. If your printer is not in the list, click **Have Disk** to manually assign the location of driver.

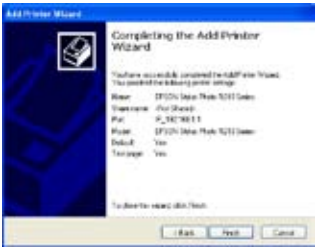


11. Click **Next** to accept the default name for the printer.



12. Select **Yes** to print a test page. Click **Next** to print.

13. The installation is complete. Click **Finish** to quit the Add Printer Wizard.



Note: If you have already installed the printer locally on your computer, right click the printer icon and select **Property -> Port** tab to add a standard TCP/IP port. Click **Add Port** then select **Standard TCP/IP Port** and click **New Port** button. Refer to step 5-8 for setting procedures.

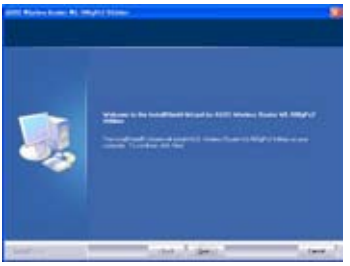
Note: If you use Windows® 98 or ME which does not support Standard TCP/IP port, you need to use Romote Port which is supported by WL-500gP V2.

6. Setting up using ASUS utility

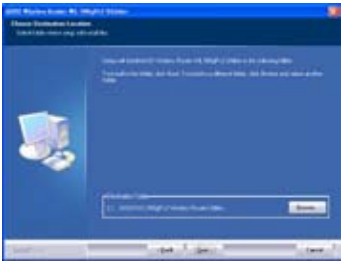
1) Utility Installation for WL-500gP V2

1. Click **Install ASUS Wireless Router Utilities** to run the setup installation program.

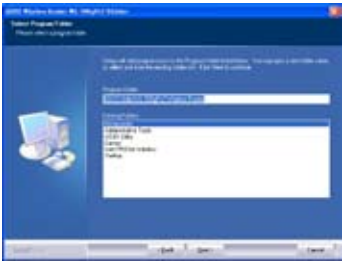
2. Click **Next** to continue.



3. Click **Next** to install the utility in the designated location.

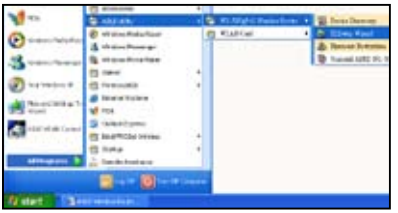


4. Select a program folder and click **Next**.



5. Press Finish to quit the installation program.

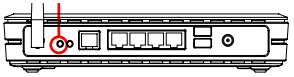
6. Open the **EZSetup Wizard**.



2) EZSetup

Wireless LAN setup will complete in two easy steps. First open the EZSetup utility form Start menu, then push the EZSetup button on the rear panel for 3 seconds.

❶ Push **EZSetup** over 3 sec. and release.



1) If the setup button is pushed without running the EZsetup wizard utility, the PWR indicator will flash and Internet connections will pause for a short period but will then return to normal operation without change.

2) To use EZSetup, we recommend using an ASUS wireless adapter such as WL-106gM, WL-100gE, and WL-169gE.

❷

Click the **EZSetup** button in the utility.

Note: Use EZSetup Wizard with one wireless client at a time. If the wireless client computer cannot discover the wireless router while in EZSetup mode, please shorten the distance between the client and the router.

❸

Wireless settings, including network name and network keys, are generated automatically. You can modify these settings manually. Note if your wireless router is configured before, select **Preserve original wireless router settings** to use the current value. Click **Next** to continue.

4

If you need to configure the ISP settings for your wireless router, select **Configure ISP settings**, click **Next** and follow the instructions to complete the settings.

5

Setup is complete, press **Print/Save Wireless LAN Settings** button for future reference. Click Finish to exit the EZSetup utility.

7. Configure WL500gP V2 under Vista OS

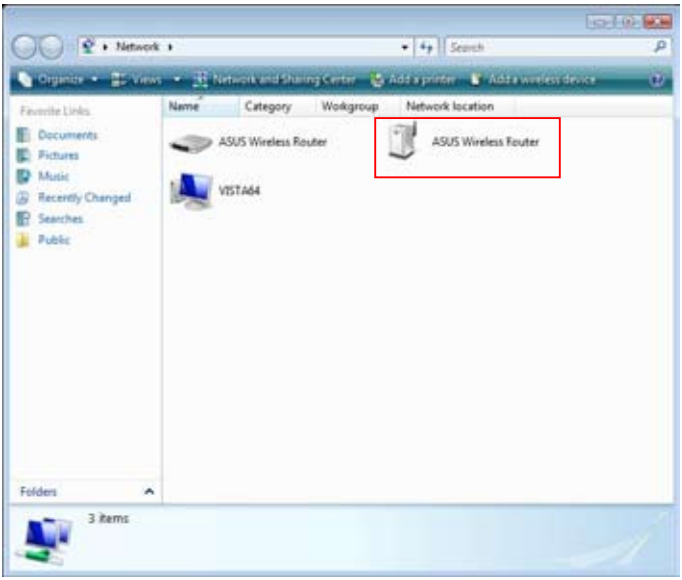
The Windows Simple Config function, which is preinstalled in the ASUS WL500gP V2, enables the device to be configured via WCN Net process of Windows Vista.

Note: The WCN Net process of Windows Vista can only discover the device when the device is not configured and is in the default settings state. If the device is configured, you have to set up the device by WEB or EZsetup. Or you can push Reset button and then begin WCN-NET setup.

1) Configuring the device

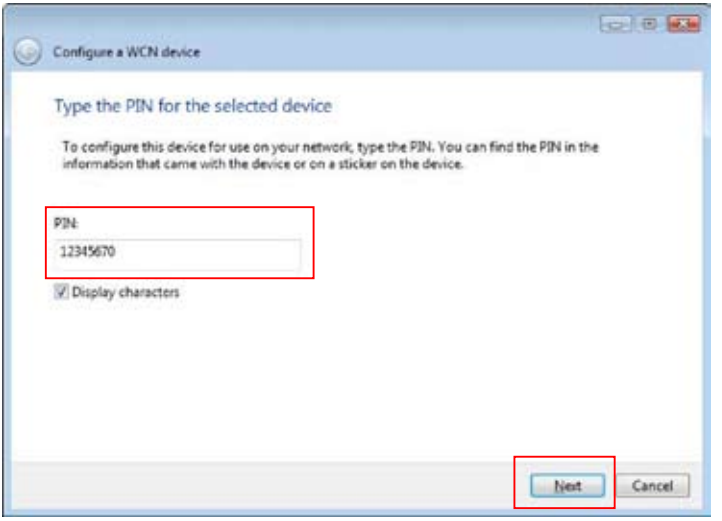
Follow the steps below to configure the device using WCN-Net process of Windows Vista:

1. Connect the device to your PC and power on it.
2. Click **Start** >**Network** from the Vista desktop. The Network screen appears (as shown below).
3. Double click **ASUS Wireless Router**.

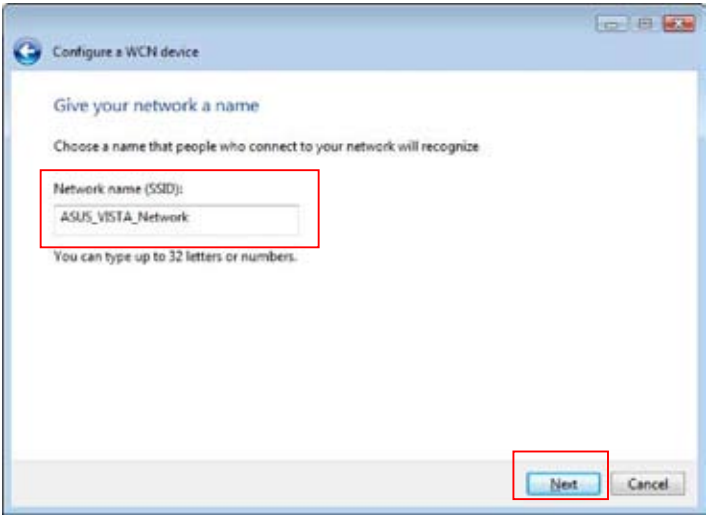


A screen prompts you to enter the PIN of your device. The PIN is located on the sticker posted on the device.

4. Enter the PIN in the **PIN** box, then click **Next**.

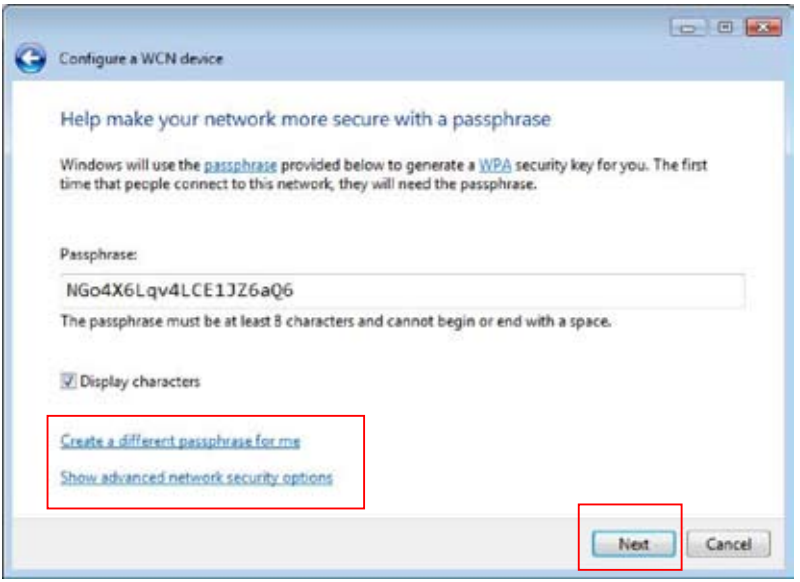


5. Give the network a name and type it in the **Network name** box, then click **Next.**



A Passphrase is generated for WPA security for the network.

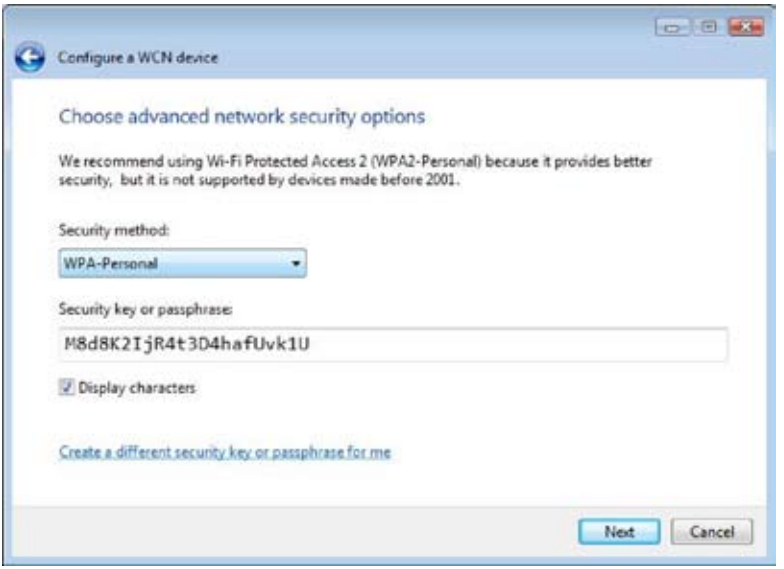
6. Click **Next** from this screen.



If you want to create a different passphrase, click **create a different passphrase for me**. If you want to use security method other than WPA-Personal, click **Show advanced network security options**.

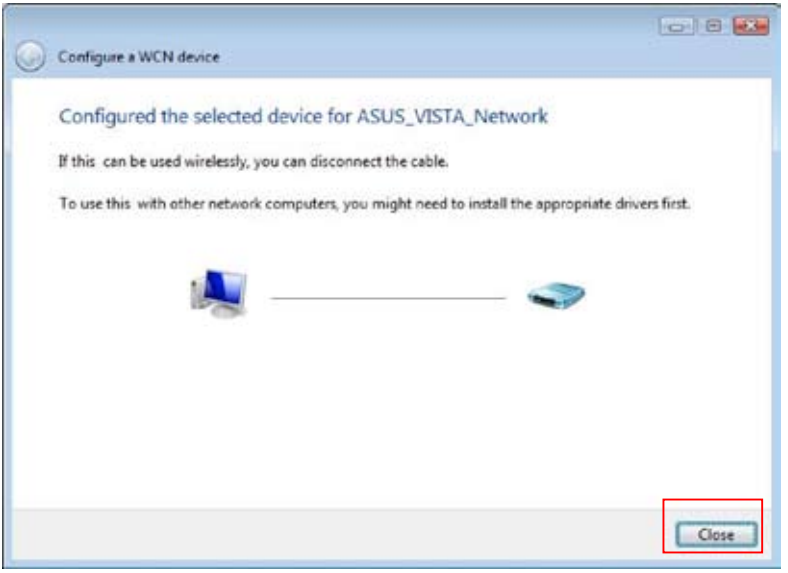
The “Create a different passphrase” and “Security methods” screens are shown below.

Create a different passphrase



Four security methods

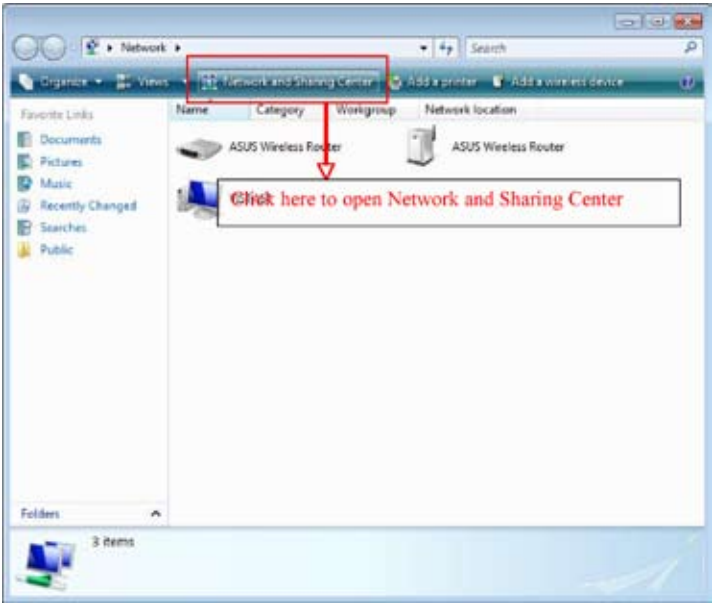
6. Click **Next** from the above screens after the configuration is completed. The complete configuration screen appears as shown below. Click **Close** to finish the process and exit.



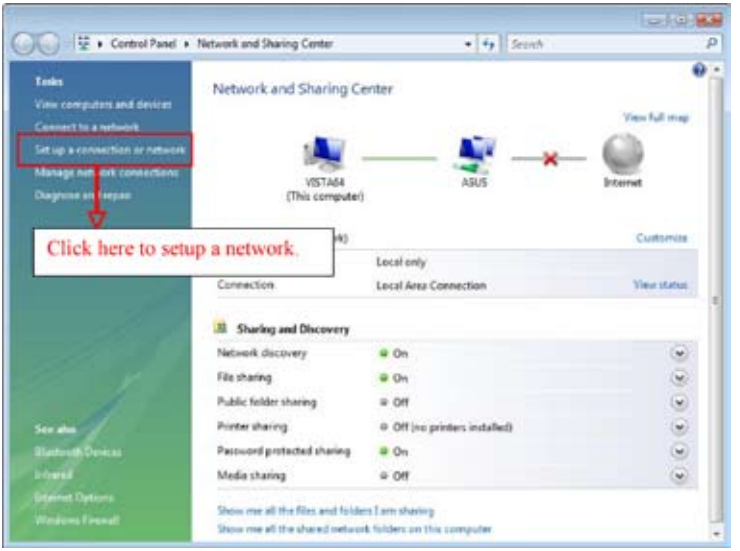
2) Setting up the network sharing center

Follow the steps below to set up a sharing center to allow the network users to share printer, file and media.

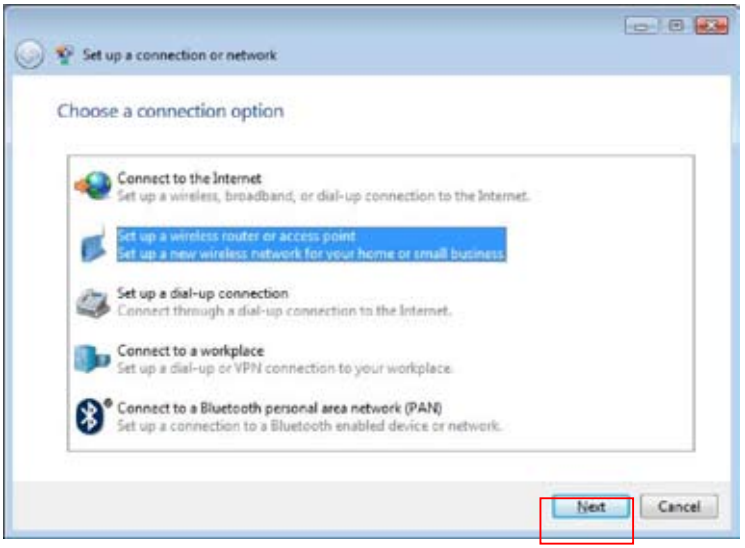
1. Connect the device to your PC and power it on.
2. Click **Network and Sharing Center** in the navigation bar. The **Network and Sharing Center** screen appears.



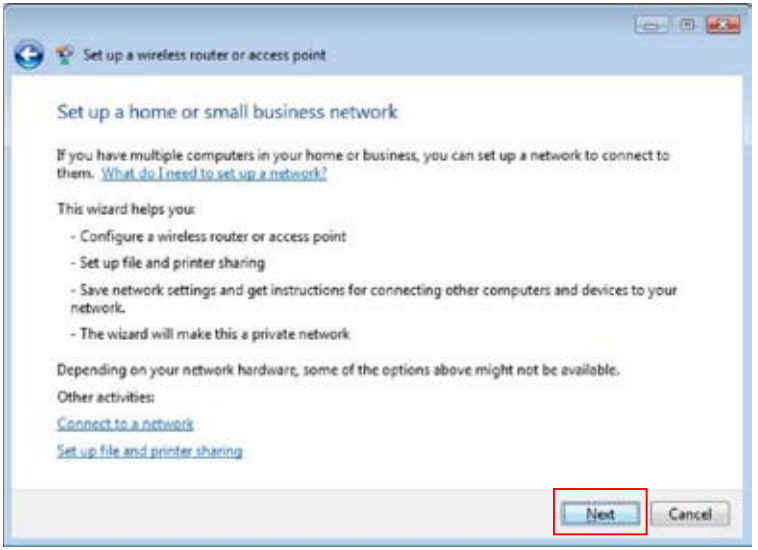
3. Click **Set up a connection or network**.



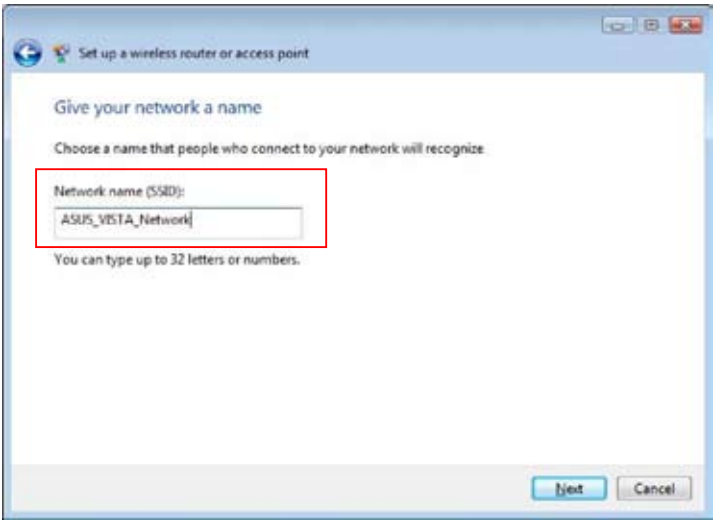
4. Choose **Set up a wireless router or access point**, then click **Next.**



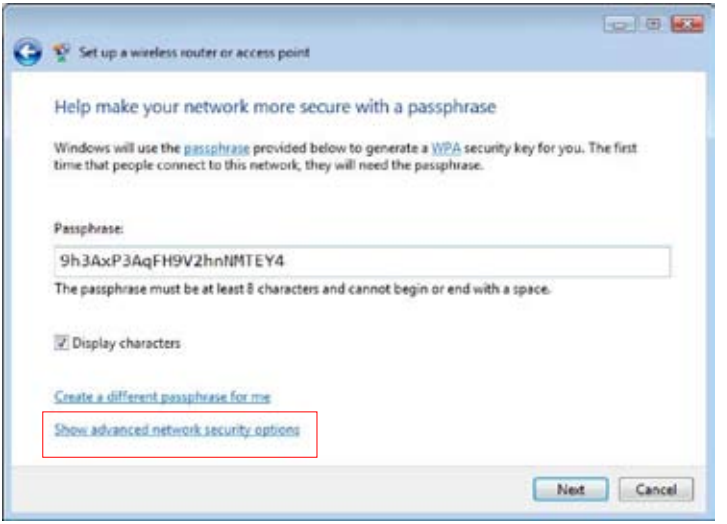
5. Click **Next.**



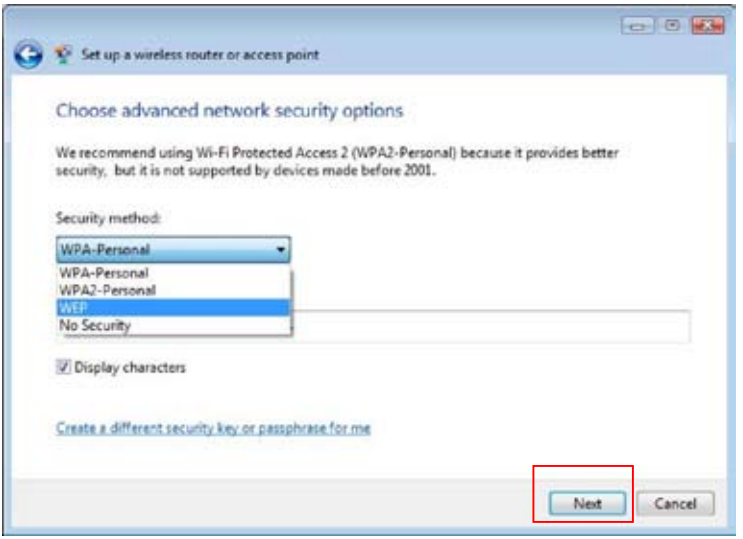
6. In the screen that appears, type a network name in the **Network name** box, then click **Next**. A passphrase is generated for the WPA security.



7. Click **Next**. If you want to use security methods other than WPA-Personal, click **Show advanced network security options**.

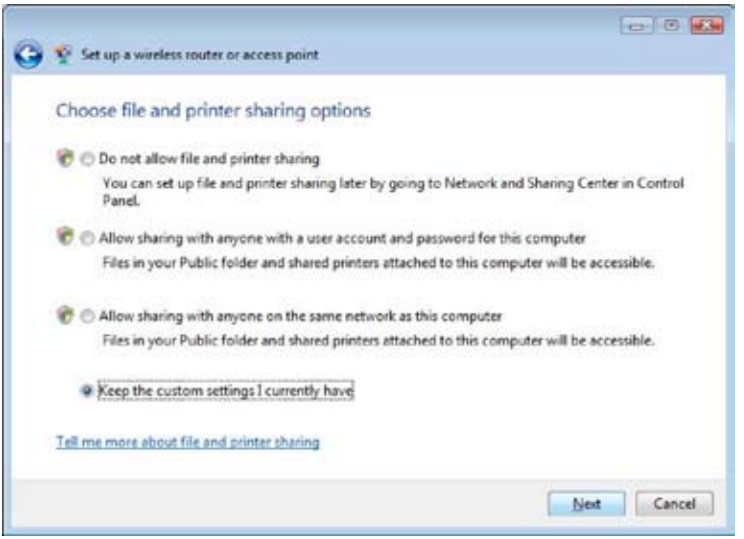


8. Choose a security method and click **Next.**

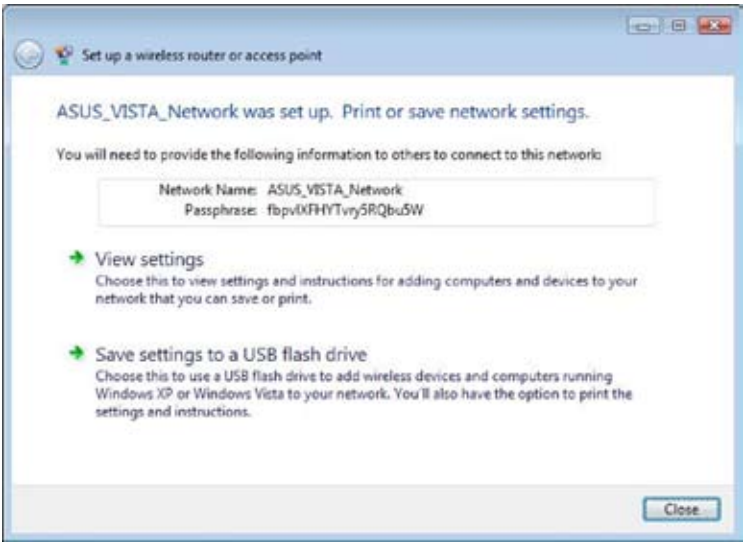


9. A screen prompts you to enter the PIN for the device. Enter the PIN, which is located on the sticker posted on the device, then click **Next**.

10. Choose a file and printer sharing option and click **Next.**



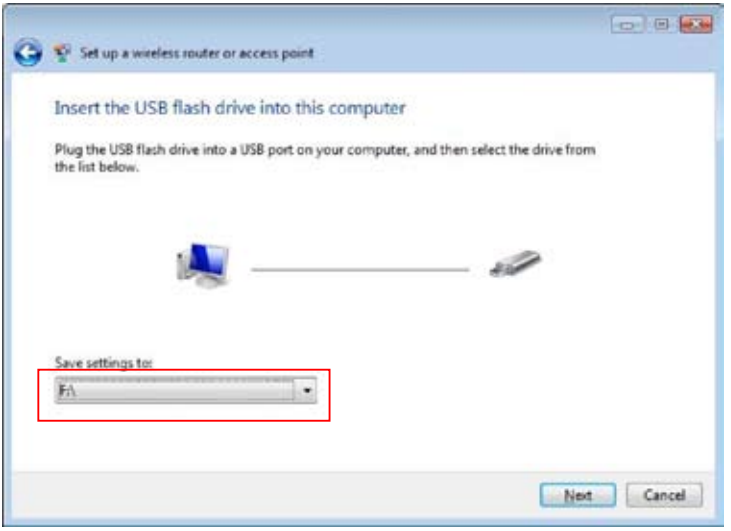
A screen appears showing that the set up is complete as shown below.



11. From the above screen you can choose to **View settings** or, **Save settings to a USB flash drive**. The respective screens are shown below.

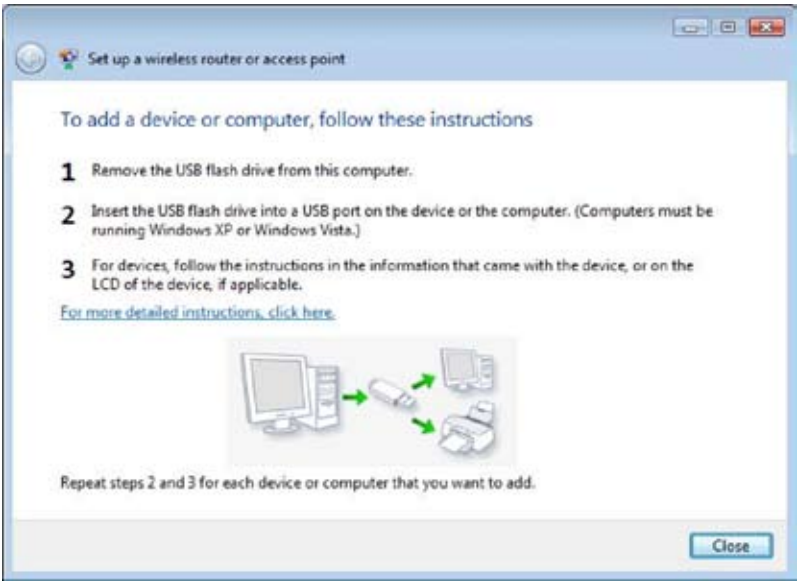
View settings screen

Save settings to a USB flash drive screen



12. When **Save settings to a USB flash drive screen** appears, plug a USB flash drive into your computer, then select the drive from the **Save settings to** box and click **Next**. The settings start to be saved into the USB drive.

    After the saving process is completed, a screen appears to instruct you to add computer or other devices into the network. Follow the instructions to add computers and devices into your network.



8. Troubleshooting

Cannot access to web browser for router configuration

1. Open a web browser and open "Internet Options" dialog box.

2. Click on "Delete Cookies" and "Delete Files".

Cannot Establish Connection via Wireless

Out of Range:

- Put the router closer to the wireless client.
- Try to change the channel setting.

Authentication:

- Use wired connection to connect to router.
- Check the wireless security setting.
- Do the hard reset on the wireless router by pressing the Reset button on the rear panel for more than 5 seconds.

Couldn't find the router:

- Do the hard reset on the wireless router by pressing the Reset button on the rear panal for more than 5 seconds.
- Check the setting in the wireless adapter such as SSID and encryption setting.

Cannot get access to the Internet via wireless LAN adapter

- Move the router closer to the wireless client.
- Check whether the wireless adapter is connected to the correct AP.
- Check whether the wireless channel in use conforms to the channels available in your country/ area.
- Check encryption setting.
- Check whether the ADSL or Cable connection is correct.
- Retry using another Ethernet cable.

Internet is not accessible

- Check the lights on ADSL modem and the Wireless Router
- Check whether the "WAN" LED on the Wireless Router is ON. If the LED is not ON, change the cable and try again.

When ADSL Modem "Link" light is ON (not blinking), this means Internet Access is Possible.

- Restart your computer.
- Refer to the Quick Setup Guide of the wireless router and reconfigure the settings.
- Check whether the WAN LED on the router is ON or not.
- Check wireless encryption settings.
- Check whether the computer can get the IP address or not (via both wired network and wireless network).
- Make sure your Web browser is configured to use the local LAN, and is not configured to use a proxy server.

If the ADSL "LINK" light blinks continuously or stays off, Internet access is not possible - the Router is unable to establish a connection with the ADSL network.

- Make sure your cables are all correctly connected .
- Disconnect the power cord from the ADSL or Cable modem, wait a few minutes, then reconnect the cord.
- If the ADSL light continues to blink or stays OFF, contact your ADSL service provider.

Network name or encryption keys are forgotten

- Try to setup the wired connection for setup the wireless encryption again.
- Do the hard reset on the wireless router by pressing the Reset button on the rear panel for more than 5 seconds.

How to reset to defaults

The following are factory default values. If you push the Restore button on the back of the ASUS Wireless Router for over 5 seconds, or click the “Restore” button on the “Factory Default” page under “ Advanced Setup”, the following default settings overwrite the old settings on your wireless router.

User Name:	admin	Subnet Mask:	255.255.255.0
Password:	admin	DNS Server 1:	192.168.1.1
Enable DHCP:	Yes (if plug in Wan cable)	DNS Server 2:	(Blank)
IP address:	192.168.1.1	SSID:	default
Domain Name:	(Blank)		

9. Appendix

FCC Warning 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.

(2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

CAUTION:

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

Prohibition of Co-location

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter

Safety Information

To maintain compliance with FCC's RF exposure guidelines, this equipment should be installed and operated with minimum distance 20cm between the radiator and your body. Use on the supplied antenna.

Declaration of Conformity for R&TTE directive 1999/5/EC

Essential requirements – Article 3

Protection requirements for health and safety – Article 3.1a

Testing for electric safety according to EN 60950-1 has been conducted. These are considered relevant and sufficient.

Protection requirements for electromagnetic compatibility – Article 3.1b

Testing for electromagnetic compatibility according to EN 301 489-1 and EN 301 489-17 has been conducted. These are considered relevant and sufficient.

Effective use of the radio spectrum – Article 3.2

Testing for radio test suites according to EN 300 328- 2 has been conducted. These are considered relevant and sufficient.

CE Mark Warning

This is a Class B product, in a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

Operation Channels: Ch1~11 for N. America, Ch1~14 Japan, Ch1~13 Europe (ETSI)

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Version 2, June 1991

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