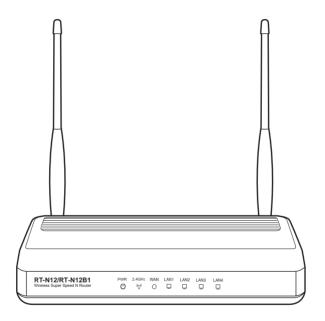




RT-N12 RT-N12 B1 ASUS Wireless Super Speed N Router



User Manual







E6473 First Edition V1 April 2011

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About this guide

This user guide contains information that you need to install and configure the ASUS Wireless Router.

How this guide is organized

This guide contains the following parts:

Chapter 1: Knowing your wireless router

This chapter provides information on the package contents, system requirements, hardware features, and LED indicators of the ASUS Wireless Router.

· Chapter 2: Getting started

This chapter provides instructions on setting up the Router, Repeater, and Access Point modes of the ASUS Wireless Router.

Chapter 3: Configuring the network clients

This chapter provides instructions on setting up the clients in your network to work with your ASUS Wireless Router.

Chapter 4: Configuring via the web GUI

This chapter provides instructions on configuring the ASUS Wireless Router using its web graphics user interface (web GUI).

Chapter 5: Installing the utilities

This chapter provides information on the utilities that are available from the support CD.





Chapter 6: Troubleshooting

This chapter provides you with a troubleshooting guide for solving common problems you may encounter when using the ASUS Wireless Router.

Appendices

This chapter provides you with the regulatory Notices and Safety Statements.

Conventions used in this guide



WARNING: Information to prevent injury to yourself when trying to complete a task.



CAUTION: Information to prevent damage to the components when trying to complete a task.



IMPORTANT: Instructions that you MUST follow to complete a task.



NOTE: Tips and additional information to aid in completing a task.







Knowing your wireless router

Package contents

Check the following items in your ASUS Wireless Router package.

- ☑ RT-N12 B1 Wireless Router x1
- ✓ Power adapter x1
- ✓ Support CD (manual, utilities) x1
- ☑ RJ45 cable x1
- ✓ Detachable antenna x2
- Quick Start Guide x1



Note: If any of the items is damaged or missing, contact your retailer.

System requirements

Before installing the ASUS Wireless Router, ensure that your system/network meets the following requirements:

- An Ethernet RJ-45 port (10Base-T/100Base-TX)
- At least one IEEE 802.11b/g/n device with wireless capability
- An installed TCP/IP and Internet browser

Before you proceed

Take note of the following guidelines before installing the ASUS Wireless Router:

- The length of the Ethernet cable that connects the device to the network (hub, ADSL/cable modem, router, wall patch) must not exceed 100 meters.
- Place the device on a flat and stable surface as far from the ground as possible.
- Keep the device clear from metal obstructions and away from direct sunlight.
- Keep the device away from transformers, heavy-duty motors, fluorescent lights, microwave ovens, refrigerators, and other industrial equipment to prevent signal loss.
- Install the device in a central area to provide ideal coverage for all wireless mobile devices.



RT-N12 B1

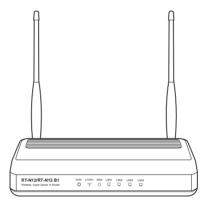
Chapter 1: Knowing your wireless router



 Install the device at least 20cm from a person to insure that the product is operated in accordance with the RF Guidelines for Human Exposure adopted by the Federal Communications Commission.

Hardware features

Front panel



Status indicators

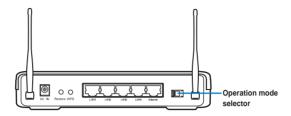
Chapter 1: Knowing your wireless router

LED	Status	Indication
(Power)	Off	No power or wireless signal is disabled
C (i oiioi)	On	System ready
	Flashing-slow	Rescue mode
	Flashing-quick	WPS processing
('i') (Wireless)	Off	No power
	On	Wireless system ready
	Flashing	Transmitting or receiving data (wireless)
□ LAN 1-4	Off	No power or no physical connection
(Local Area Network)	On	Has physical connection to an Ethernet network
	Flashing	Transmitting or receiving data (through Ethernet cable)
O WAN (Wide	Off	No power or no physical connection
Area Network)	On	Has physical connection to an Ethernet network
	Flashing	Transmitting or receiving data (through Ethernet cable)





Rear panel



Label	Description
WAN	Connect an RJ-45 Ethernet cable to this port to establish WAN connection.
LAN1-LAN4	Connect RJ-45 Ethernet cables to these ports to establish LAN connection.
DC IN	Insert the AC adapter into this port to connect your router to a power source.
WPS	Press this button to establish wireless connection.
Restore	Press this button for more than five seconds to restore the system to its factory default settings.

Item
Operation mode selector





Chapter 1: Knowing your wireless router



Getting started

Setting up the wireless router

The ASUS Wireless Router includes a web graphics user interface (web GUI) that allows you to configure the wireless router using your web browser on your computer.



Note: For details on configuring your wireless router using the web GUI, refer to Chapter 4: Configuring via the web GUI.

You can set up the wireless router in any of these three operation modes: Router (IP Sharing), Repeater, and Access Point (AP). Set up the wireless router in the Router (IP Sharing) and Repeater modes via the Quick Internet Setup (QIS), and the AP mode via the web GUI.



Note: To set up the wireless router in the AP mode, use Device Discovery included in the support CD to access the web GUI.

Using the Quick Internet Setup (QIS)

The Quick Internet Setup (QIS) function, which is integrated in the wireless router's web GUI, detects the Internet connection type automatically and guides you in setting up your network quickly.

The QIS web page appears automatically after you connected all your devices and launched your web browser. You may also launch the QIS from the Network Map page in the web GUI. To do this, click **Go** in the QIS field under Internet status.





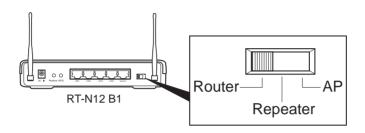


Setting up the wireless router in Router mode

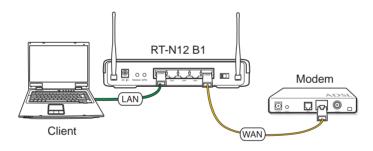
In the Router mode, the wireless router connects to the Internet via PPPoE, Automatic IP, PPTP, L2TP, or Static IP, and provides you with wireless radio signals. The NAT, firewall, and IP sharing services for LAN clients are enabled.

To set up the wireless router in Router mode:

1. Choose the Router mode.



2. Connect your devices.





Note: We recommend that you use an Ethernet cable (wired connection) to connect your computer to the wireless router for initial configuration to avoid possible setup problems due to wireless uncertainty.







3. Launch your web browser and the QIS starts to detect your Internet connection type.





Note: If the QIS web page does not appear after you launched your web browser, disable the proxy settings on your web browser.

4. Key in the user name and password. Click **Apply all settings**.





Note:

- The PPPoE Internet connection type is used in this setup case. The setup screen varies with different Internet connection types.
- Obtain the required information such as the username and password from your Internet Service Provider (ISP).







5. The Internet connection setup is completed.



- Click Going to Internet to surf the Internet.
- Click Advanced Setting page to manually configure advanced settings for the wireless router.
- Click Add to Favorites to add this URL to your Favorites list for quick access to the web GUI.



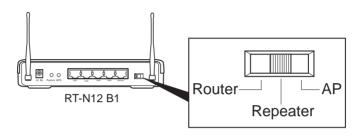




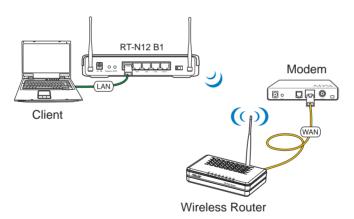
In the Repeater mode, the wireless router extends your wireless network coverage and provides you with higher quality wireless radio signals. The NAT, firewall, and IP sharing services are disabled.

To set up the wireless router in Repeater mode:

1. Choose the Repeater mode.



2. Connect your devices.





Note: We recommend that you use an Ethernet cable (wired connection) to connect your computer to the wireless router for initial configuration to avoid possible setup problems due to wireless uncertainty.







3. Launch your web browser and the QIS web page appears automatically. Select the AP whose wireless signal you want to extend, then click **Connect**.





Note: If the QIS web page does not appear after you launched your web browser, disable the proxy settings on your web browser.







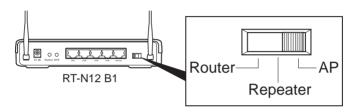


Note: To set up the wireless router in the AP mode, use Device Discovery included in the support CD to access the web GUI.

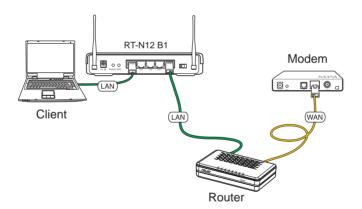
In the AP mode, the wireless router receives the WAN IP address from the router connected to the WAN port and provides you with wireless radio signals. The NAT, firewall, and IP sharing services are disabled.

To set up the wireless router in AP mode:

1. Choose the AP mode.



2. Connect your devices.





Note: We recommend that you use an Ethernet cable (wired connection) to connect your computer to the wireless router for initial configuration to avoid possible setup problems due to wireless uncertainty.







- Launch the Device Discovery utility and click Configure to access the web GUI.
- 4. On the login page, key in the default user name (**admin**) and password (**admin**).



5. From the main page, click the navigation menu or links to configure the various features of the wireless router.









Configuring the network clients

Accessing the wireless router

Setting an IP address for wired or wireless clients

To access the ASUS Wireless Router, you must have the correct TCP/IP settings on your wired or wireless clients. Ensure that the clients' IP addresses are within the same subnet as the ASUS Wireless Router.

By default, the ASUS Wireless Router integrates the DHCP server function, which automatically assigns IP addresses to the clients in your network.

But in some instances, you may want to manually assign static IP addresses on some of the clients or computers in your network rather than automatically getting IP addresses from your wireless router.

Follow the instructions below that correspond to the operating system installed on your client or computer.



Note: In the Router mode, if you want to manually assign an IP address to your client, we recommend that you use the following settings:

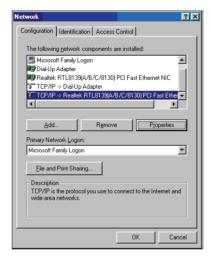
- IP address: 192.168.1.xxx (xxx can be any number between 2 and 254. Ensure that the IP address is not used by another device)
- Subnet Mask: 255.255.255.0 (same as the ASUS Wireless Router)
- · Gateway: 192.168.1.1 (IP address of the ASUS Wireless Router)
- DNS: 192.168.1.1 (ASUS Wireless Router) or assign a known DNS server in your network



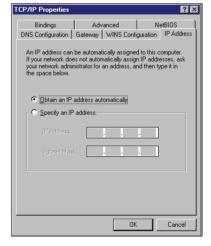




- Click Start > Control Panel > Network to display the Network setup window.
- Select TCP/IP then click Properties.



 If you want your computer to automatically obtain an IP address, click Obtain an IP address automatically then click OK. Otherwise, click Specify an IP address, then key in the IP address and Subnet Mask.





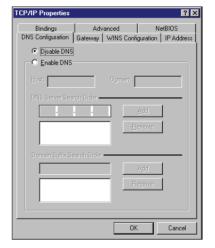




4. Select the **Gateway** tab, and key in **New gateway** then click **Add**.



- Select the DNS configuration tab and click Enable DNS. Key in Host, Domain, and DNS Server Search Order, then click Add.
- 6. Click OK.





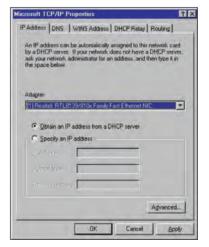




- Go to Control Panel > Network to display the Network setup window then select the Protocols tab.
- Select TCP/IP Protocol from the Network Protocols list then click Properties.



- From the IP Address tab of the Microsoft TCP/IP Properties window, you can:
 - Select the type of network adapter installed in your system.
 - Set the router to assign IP address automatically.
 - Manually set up the IP address, subnet mask, and default gateway.

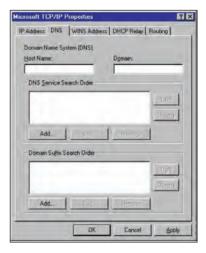








 Select the DNS tab then click Add under the DNS Service Search Order and key in DNS.



Windows® 2000

 Click Start > Control Panel >
 Network and Dial-up Connection.
 Right-click Local Area Connection
 then click Properties.



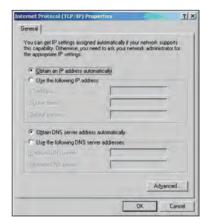






then click Properties.

- Select Obtain an IP address automatically if you want the IP settings to be assigned automatically. Otherwise, select Use the following IP address: and key in IP address, Subnet mask, and Default gateway.
- Select Obtain DNS server address automatically if you want the DNS server settings to be assigned automatically. Otherwise, select Use the following DNS server addresses: and key in the Preferred and Alternate DNS server
- 5. Click OK when done.









 Click Start > Control Panel >
 Network Connection. Right-click
 Local Area Connection then select
 Properties.



- Select Internet Protocol (TCP/IP), then click Properties.
- Select Obtain an IP address automatically if you want the IP settings to be assigned automatically. Otherwise, select Use the following IP address: and key in IP address, Subnet mask, and Default gateway.
- Select Obtain DNS server address automatically if you want the DNS server settings to be assigned automatically. Otherwise, select Use the following DNS server addresses: and key in the Preferred and Alternate DNS server.
- 5. Click OK when done.



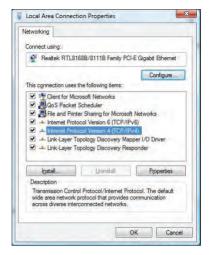




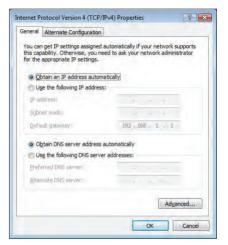
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 Go to Start > Control Panel >
 Network and Internet > Network
 and Sharing Center. Click View
 status > Properties > Continue.



- Select Internet Protocol Version 4 (TCP/IPv4), then click Properties.
- Select Obtain an IP address automatically if you want the IP settings to be assigned automatically. Otherwise, select Use the following IP address: and key in IP address and Subnet mask.
- Select Obtain DNS server address automatically if you want the DNS server settings to be assigned automatically. Otherwise, select Use the following DNS server addresses: and key in the Preferred and Alternate DNS server.
- 5. Click **OK** when done.









Configuring via

Configuring via the web GUI

The router's web graphics user interface (web GUI) allows you to configure these features: **Network Map** and **EZQoS Bandwidth Management**.

To access the web GUI:

1. Launch a web browser, then key in the router's IP address. The login page of the router's web GUI appears.



Note:

- In the Router mode, the router's IP address is 192,168,1,1,
- In the Repeater and AP modes, use Device Discovery included in the support CD to find the router's IP address.
- On the login page, key in the default user name (admin) and password (admin).









3. From the main page, click the navigation menu or links to configure the various features of the ASUS Wireless Router.









Network Map allows you to view the status and configure the connection settings of the Internet, system, and clients in your network. It enables you to quickly set up your Wide Area Network (WAN) using the Quick Internet Setup (QIS) feature, or to quickly set up your Local Area Network (LAN) using the WPS Wizard.



Note: For more details on the WPS Wizard, refer to the section **WPS Wizard** in Chapter 5 of this user manual

To view the status or configure the settings, click any of these icons displayed on the main page:

Icon	Description
	Internet status Click this icon to display information on the Internet connection status, WAN IP address, DNS, connection type, and gateway address. From the Internet status screen, use the Quick Internet Setup (QIS) feature to quickly set up your network.
	System status Click this icon to display information on the SSID, authentication and encryption methods, LAN IP, MAC address, or turn the wireless radio on/off. Enable the WPS mode from the System status screen.
	Client status Click this icon to display information about the clients or computers in the network, and allows you to block/unblock a client.







The wireless router allows you to create multiple SSID profiles that meet various working scenarios.

To create an SSID profile:

1. Under System status, click Add.



2. Configure the profile settings, then click Add.









Managing bandwidth with EzQoS

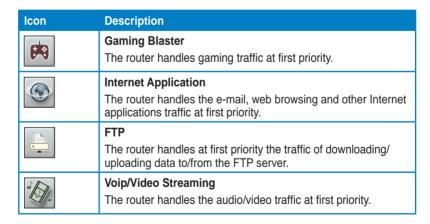
EzQoS Bandwidth Management enables you to set the bandwidth priority and manage the network traffic.

To set up the bandwidth priority:

 Click EzQoS Bandwidth Management from the navigation menu at the left side of your screen.



2. Click each of these four applications to set the bandwidth priority:



3. Click **Save** to save the configuration settings.

Chapter 4: Configuring via the web GUI









Note: Download the latest firmware from the ASUS website at http://www.asus.com.

To upgrade the firmware:

 Click Advanced Setting from the navigation menu at the left side of your screen.



- 2. Under the Administration menu, click Firmware Upgrade.
- In the New Firmware File field, click Browse to locate the new firmware on your computer.
- 4. Click **Upload**. The uploading process takes about three minutes.



Note: If the upgrade process fails, use the Firmware Restoration utility to restore the system. For details on this utility, refer to the section **Firmware Restoration** in Chapter 5 of this user manual.







Restoring/Saving/Uploading settings

To restore/save/upload the settings:

- 1. Click Advanced Setting from the navigation menu at the left side of your screen.
- 2. Under the Administration menu, click Restore/Save/Upload Setting.



3. Select the tasks that you want to do:

Chapter 4: Configuring via the web GUI

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- To restore to the default factory settings, click Restore, and click OK in the confirmation message.
- To save the current system settings, click Save, and click Save in the file download window to save the system file in your preferred path.
- To restore previous system settings, click **Browse** to locate the system file that you want to restore, then click Upload.





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34	RT-N12 B1	Chapter 4: Configuring via the web GUI

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Installing the utilities

The support CD contains the utilities for configuring the ASUS Wireless Router. To install the ASUS WLAN Utilities in Microsoft® Windows, insert the support CD in the CD drive. If Autorun is disabled, run **setup.exe** from the root directory of the support CD.

To install the utilities:

1. Click Install...Utilities.



2. Click Next.





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Chapter 5: Installing the utilities

Note: When you install the utilities, the setup wizard automatically detects your computer's operating system. If you are using Windows® 7 / Vista OS, click **Install** on the confirmation message.





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3. Click **Next** to accept the default destination folder or click **Browse** to specify another path.



 Click **Next** to accept the default program folder or enter another name.



5. Click **Finish** when setup is completed.









Device Discovery is an ASUS WLAN utility that detects an ASUS wireless router and enables you to configure the device.

To launch the Device Discovery utility:

From your computer's desktop, click Start > All Programs > ASUS Utility > RT-N12 B1 Wireless Router > Device Discovery.



- Click Configure to access the web GUI and configure the wireless router.
- Click **Search** to search for ASUS wireless routers within range.
- Click **Exit** to exit the application.

Chapter 5: Installing the utilities







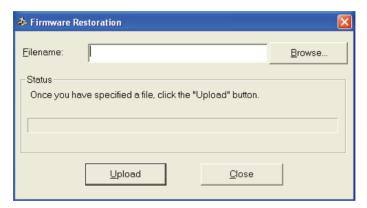
Firmware Restoration is used on an ASUS Wireless Router that failed during its firmware upgrading process. It uploads the firmware that you specify. The process takes about three to four minutes



Important: Launch the rescue mode before using the Firmware Restoration utility.

To launch the rescue mode and use the Firmware Restoration utility:

- 1. Unplug the wireless router from the power source.
- Hold the Restore button at the rear panel and simultaneously re-plug the
 wireless router into the power source. Release the Restore button when the
 Power LED at the front panel flashes slowly, which indicates that the wireless
 router is in the rescue mode.
- 3. From your computer's desktop, click Start > All Programs > ASUS Utility > RT-N12 B1 Wireless Router > Firmware Restoration.



4. Specify a firmware file, then click Upload.



Note: This is not a firmware upgrade utility and cannot be used on a working ASUS Wireless Router. Normal firmware upgrades must be done through the web interface. Refer to **Chapter 4: Configuring via the web GUI** for more details.





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WPS (Wi-Fi Protected Setup) allows you to set up a secure and protected wireless network easily.

Using WPS Wizard



Note:

- Ensure that you use a wireless LAN adapter with WPS function.
- Windows® operating systems and wireless LAN cards/adapters that support WPS:

OS Support	Wireless Adapter Support
	Intel wireless LAN card
Vista 32/64	ASUS 167gv2 driver v3.0.6.0 or later
Viola 02/01	ASUS 160N/130N driver v2.0.0.0 or later
	Intel wireless LAN card
XP SP2	ASUS 167gv2 driver v1.2.2.0 or later
711 01 2	ASUS 160N/130N driver v1.0.4.0 or later
	ASUS LAN card with ASUS WLAN Utility
XP SP1 and 2000	ASUS 167gv2 driver v1.2.2.0 or later
Al Ci i and 2000	ASUS 160N/130N driver v1.0.4.0 or later

To use WPS Wizard:

 Follow the onscreen instructions to set up your hardware. When done, click Next.



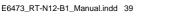


Note: Use the WPS Wizard with one wireless client at a time. If the wireless client cannot discover the wireless router, shorten the distance between the client and the router.



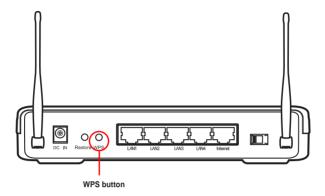








Push the WPS button at the rear panel of the wireless router for more than five seconds.



3. On the WPS Wizard, click Next to continue.





Notes:

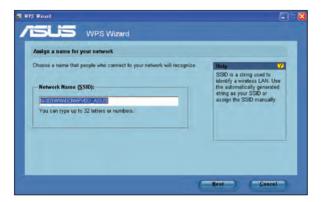
- When running WPS, the Internet connection pauses briefly then reestablishes the connection.
- If the WPS button is pushed without running the WPS Wizard, the PWR indicator flashes and Internet connection pauses briefly and then reestablishes the connection.







4. Assign a name to your network, then click Next.



5. Use the auto-generated passphrase as your network's security key or manually assign a passphrase containing between 8 and 63 characters. Click **Next**.









 Installation is completed. Click Save or print settings for future reference or Save settings to a USB flash drive to add other devices to the network. Click Next to connect to the Internet.





Note: For more details on adding devices to the network using a USB flash drive, refer to the section **Adding network devices using a USB flash drive** on the next page.

7. You have connected to the wireless router. If you want to configure the Internet settings, click **Setup**. Click **Finish** to close the WPS Wizard.









With the WPS utility, you can add devices to your network using a USB flash drive.

To add network devices using a USB flash drive:

1. In the WPS Wizard, click Save settings to a USB flash drive.



2. Plug a USB flash drive into the USB port on your computer, and then select the drive from the dropdown list. When done, click **Next** to continue.









3. Remove the USB flash drive from this computer, and then plug it to the computer that you want to add to the wireless network.



 Locate the SetupWireless.exe from the USB drive, and double-click to run it. Click Yes to add the computer to the wireless network.



5. Click **OK** to exit the **Wireless Network Setup Wizard**.







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Troubleshooting

Chapter 6: Troubleshooting

This troubleshooting guide provides solutions to some common problems that you may encounter while installing or using the ASUS Wireless Router. These problems require simple troubleshooting that you can perform by yourself. Contact the ASUS Technical Support if you encounter problems not mentioned in this chapter.

Problem	Action
I cannot access the web GUI for configuring the router.	Launch a web browser, then click Tools > Internet Options
	Under Temporary Internet files, click Delete Cookies and Delete Files
	Disable the proxy settings of the web browser.
The client cannot establish a wireless connection with the router.	Out of Range: Put the router closer to the wireless client. Try to change the channel settings.
	Authentication:
	Use wired connection to connect to the router.
	Check the wireless security settings.
	Press the Restore button at the rear panel for more than five seconds.
	Cannot find the router:
	Press the Restore button at the rear panel for more than five seconds.
	Check the setting in the wireless adapter such as SSID and encryption settings.





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Problem	Action
Cannot access the Internet via wireless LAN adapter.	 Move the router closer to the wireless client. Check whether the wireless adapter is connected to the correct wireless router. Check whether the wireless channel in use conforms to the channels available in your country/area. Check the encryption settings. Check if the ADSL or Cable connection is correct. Retry using another Ethernet cable.
Internet is not accessible.	 Check the status indicators on the ADSL modem and the wireless router. Check if 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 Start Guide of the wireless router and re-configure the settings. Check if the WAN LED on the wireless router is ON. Check the wireless encryption settings. Check if the computer can get the IP address (via both wired network and wireless network). Ensure that 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.	 Ensure that all your cables are all properly 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 setting up the wired connection and configuring the wireless encryption again. Press the Restore button at the rear panel of the wireless router for more than five seconds.

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Problem	Action
How to restore the system to its default settings?	Press the Restore button at the rear panel of the wireless router for more than five seconds.
	Refer to the section Restoring/Saving/ Uploading settings in Chapter 4 of this user manual.
	The following are the factory default settings:
	User Name: admin
	Password: admin
	Enable DHCP: Yes (if WAN cable is plugged in)
	IP address: 192.168.1.1
	Domain Name: (Blank)
	Subnet Mask: 255.255.255.0
	DNS Server 1: 192.168.1.1
	DNS Server 2: (Blank)
	SSID: ASUS
I cannot use 192.168.1.1 to enter the web GUI.	Check the router's operation mode.
	In the Router mode, the default IP address is 192.168.1.1.
	In the Repeater / AP mode, use Device Discovery to find the router's IP address.







RT-N12 B1 supports the ASUS DDNS service. When exchanging devices at the service center, if you have registered the ASUS DDNS service and want to keep the original domain name, data transfer is a must. Visit your local service center for more information.



Notes:

- If there is no activity in the domain such as reconfiguring the router or accessing the registered domain name - within 90 days, the system automatically deletes the registered information.
- If you encounter any problem or difficulty in using your device, contact the service center.

Frequently Asked Questions (FAQs)

Will the registered information be lost or registered by others?
 If you have not updated the registered information in 90 days, the system

automatically deletes the registered information and the domain name may be registered by others.

I did not register the ASUS DDNS for the router I bought six months ago. Can I still register it?

Yes, you can still register the ASUS DDNS service for your router. The DDNS service is embedded in your router, so you can register the ASUS DDNS service anytime. Before registering, click **Query** to check if the hostname has been registered or not. If not, the system registers the hostname automatically.

I have registered a domain name before and it has been working well until my friends told me that they could not access my domain name.

Check the following:

- 1. The internet is working well.
- 2. The DNS server is working well.
- 3. The last time you updated the domain name.

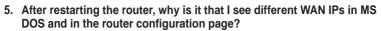
If there are still problems in accessing your domain name, contact the service center.

4. Can I register two domain names to separately access my http and ftp servers?

No, you cannot. You can only register one domain name for one router. Use port mapping to implement security in the network.







This is normal. The interval time between the ISP DNS server and ASUS DDNS results in different WAN IPs in MS DOS and in the router configuration page. Different ISPs may have different interval time for IP updating.

6. Is the ASUS DDNS service free, or is it just a trial version?

The ASUS DDNS service is a free and embedded service in some ASUS routers. Check your ASUS router if it supports the ASUS DDNS service.





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Chapter 6: Troubleshooting

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Notices

ASUS Recycling/Takeback Services

ASUS recycling and takeback programs come from our commitment to the highest standards for protecting our environment. We believe in providing solutions for you to be able to responsibly recycle our products, batteries, other components, as well as the packaging materials. Please go to http://csr.asus.com/english/Takeback.htm for the detailed recycling information in different regions.

REACH

Complying with the REACH (Registration, Evaluation, Authorisation, and Restriction of Chemicals) regulatory framework, we published the chemical substances in our products at ASUS REACH website at http://csr.asus.com/english/REACH.htm

Federal Communications Commission Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- 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.



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

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Country Code Statement

For product available in the USA/Canada market, only channels 1~11 can be operated. Selection of other channels is not possible.

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)

IC Warning

The Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulation.

Cet appareil numerique de la class B respecte toutes les exigences du Reglement sur le materiel brouilleur du Canada.



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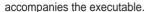
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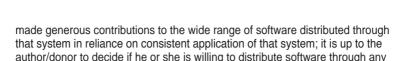
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Safety Warning

SAFE TEMP: This wireless router should be only used in environments with ambient temperatures between 5°C(41°F) and 40°C(104°F).

DO NOT expose to or use near liquids, rain, or moisture. DO NOT use the modem during electrical storms.





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