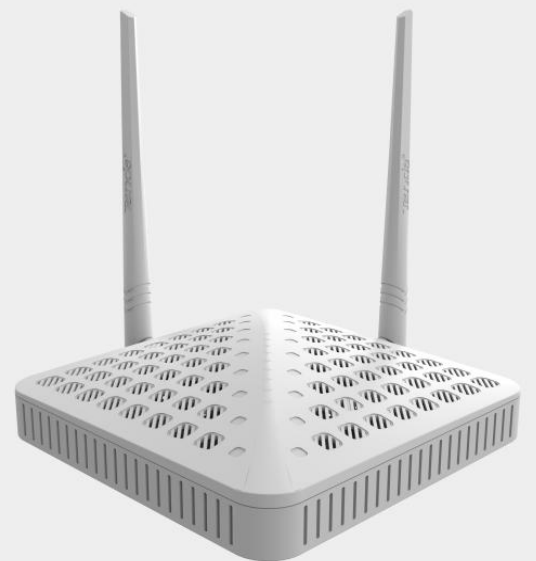


Tenda

User Guide

www.tendacn.com



Wireless AC1200 Dual Band Router

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Preface

Thank you choosing Tenda! Please read this user guide before you start! This user guide instructs you to install and configure the router.

This user guide uses the following formats to highlight special messages:



Note: This format is used to highlight information of importance or special interest. Ignoring this type of note may result in ineffective configurations, loss of data or damage to device.



Tip: This format is used to highlight a procedure that will save time or resources.



Knowledge Center: Description of fields on the device GUI.

Technical Support

- support02@tenda.com.cn
- Skype: tendasz
- YouTube: Tendasz1999
- Hotline:

1-800-570-5892 (USA) (061) 1300787922 (Australia)

(044)197-780-6119 (UK) (0852)36120883 (HongKong)

(064) 800787922 (New Zealand)

- Website: <http://www.tendacn.com>

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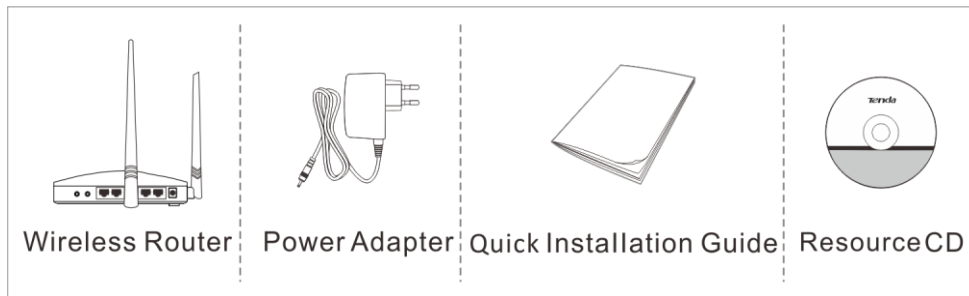
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I Product Overview

1 Package Contents

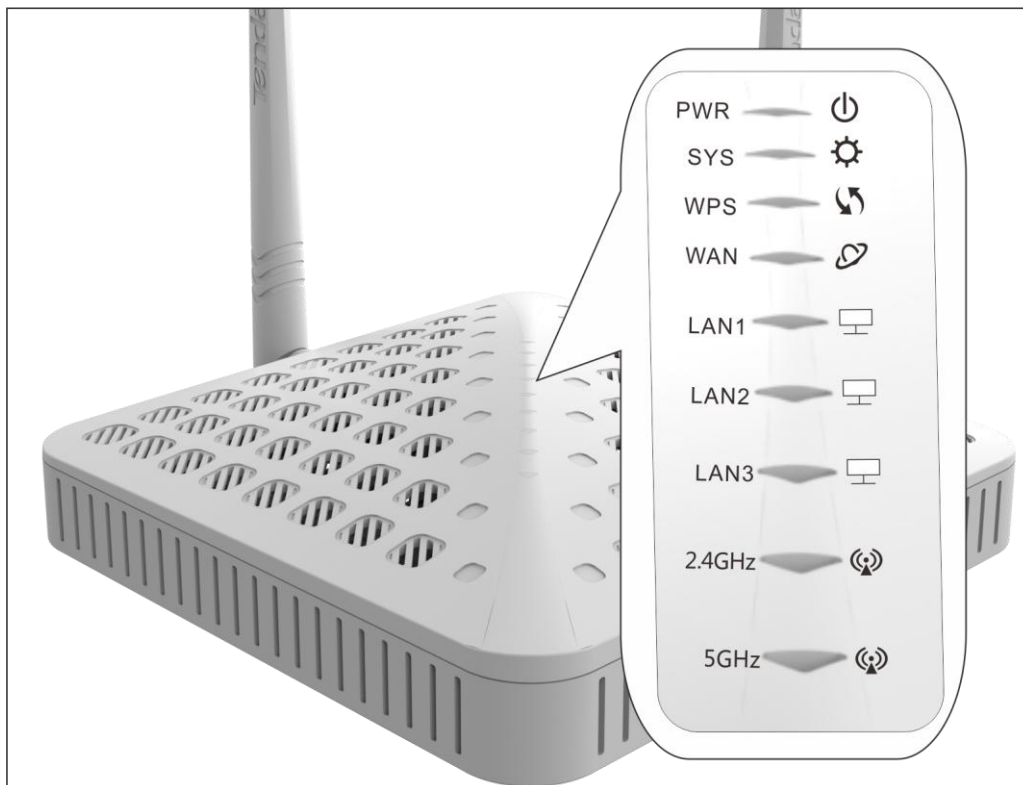
Unpack the package. Your box should contain the following items:










If any of the parts are incorrect, missing, or damaged, contact your Tenda dealer. Keep the carton, including the original packing materials, in case you need to return the product for repair.

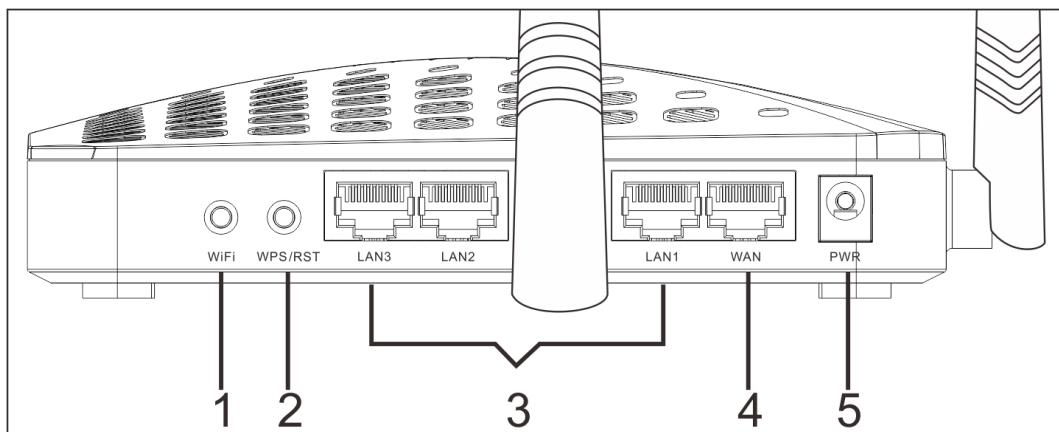
2 Getting to know your router

LEDs on Front Panel



LED	Status	Description
PWR 	Solid	Indicates a proper connection to the power supply
	Off	Power is not supplied to the router. Please check the power connection between the power outlet and router.
SYS 	Blinking	System is functioning correctly.
	Solid/Off	The unit is malfunctioning.
WPS 	Solid	WPS is enabled
	Blinking	Device is performing WPS authentication on a client device.
	Off	WPS function is disabled or WPS authentication negotiation is completed
WAN 	Solid	WAN port connected correctly
	Blinking	WAN port is transferring data
	Off	No link is detected on this port.
LAN (1/2/3) 	Solid	LAN port connected correctly
	Blinking	LAN port is transferring data
	Off	No link is detected on this port.
2.4GHz 	Solid	2.4G wireless radio is on
	Blinking	Data being transferred over 2.4G wireless network
	Off	2.4G wireless radio is off
5GHz 	Solid	5G wireless radio is on
	Blinking	Data being transferred over 5G wireless network
	Off	5G wireless radio is off

Buttons & Interfaces on Back Panel



1→WiFi : Wireless radio ON/OFF button. Pressing the WiFi On/Off button turns the wireless radios on and off.

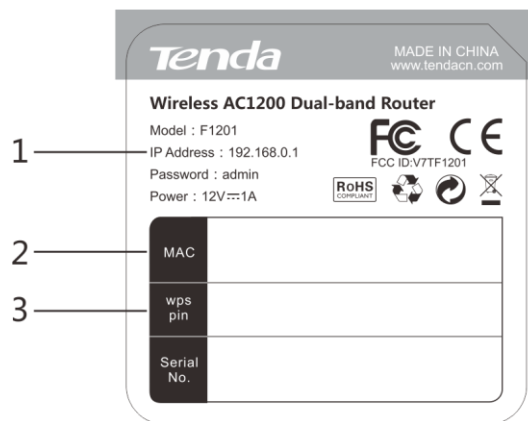
2→WPS/RST: Pressing it for over 7 seconds restores the device to factory default settings. For device's factory default settings, see [Appendix 3 Factory Default Settings](#). Pressing it for about 1 second enables WPS-PBC and the WPS LED blinks. You can use this button to quickly add a wireless device or computer to your wireless network.

3→LAN (1/2/3): The local (LAN) Ethernet ports are for cabling the device to local computers, switches, etc.

4→WAN: The Internet (WAN) Ethernet port is for cabling the router to a cable or DSL modem.

5→PWR: The power port for connecting the router to power outlet.

Label



1→Default Login IP address. This IP address is to be used to access the router's settings through a web browser. If you change it, you have to open a new connection to the new IP address and log in again.

2→MAC address.

3→WPS pin code.

3 Position Your Router

The operating distance or range of your wireless connection can vary significantly depending on the physical placement of your router. For best performance, place your router:

- Near the center of the area where your computers, smart phones and other devices operate, and preferably within line of sight to your wireless devices.
- In an elevated location such as a high shelf, keeping the number of walls

and ceilings between the router and your other devices such as computers and smart phones to a minimum.

- Away from electrical devices that are potential sources of interference, such as ceiling fans, home security systems, microwaves or PCs.
- Away from any large metal surfaces, such as a solid metal door or aluminum studs.
- Away from other materials such as glass, insulated walls, fish tanks, mirrors, brick, and concrete that can also affect your wireless signal.

II Quick Internet Setup

1 Getting Prepared

Before you start the installation process, you need to prepare the following:

Item	Description
Router	Find it in your package
Power Adapter	Please use the power adapter that comes in the package. Using a power adapter with a different voltage rating than the one included with the router will cause damage to the router.
PC	Should have a installed IE8 or higher browser
Ethernet Cable	You will need it to connect your PC to the router
Ethernet Cable from the incoming Internet side	This is provided by your ISP
Gather ISP Information	<p>Your Internet service provider (ISP) should have provided you with all of the information needed to connect to the Internet. If you cannot locate this information, ask your ISP to provide it.</p> <ul style="list-style-type: none"> ● If your ISP uses a PPPoE Internet connection, you will need ISP login name and password. ● If you use a DHCP Internet connection, no information is needed. ● If your ISP gives you a fixed or static IP address for Internet connection, you will need to gather the following information: <ol style="list-style-type: none"> 1) IP Address 2) Subnet Mask 3) Gateway 4) DNS Server 5) Alternate DNS Server (Optional)

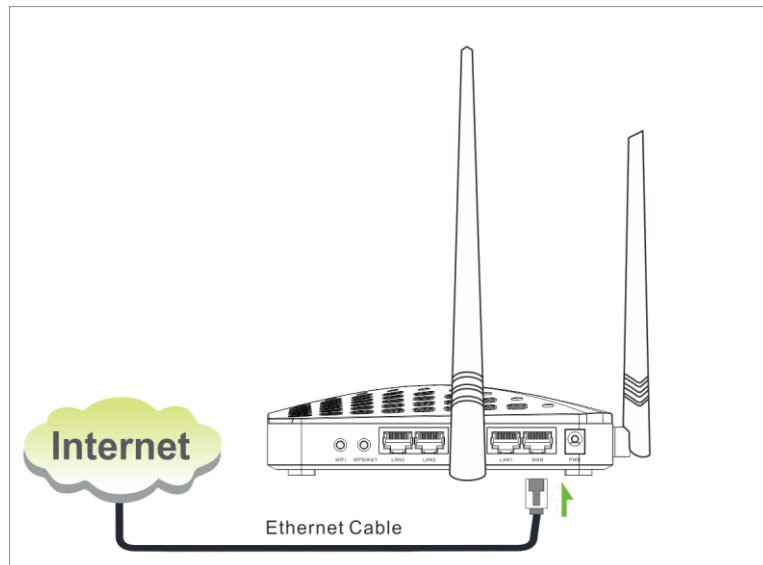
2 Hardware Install



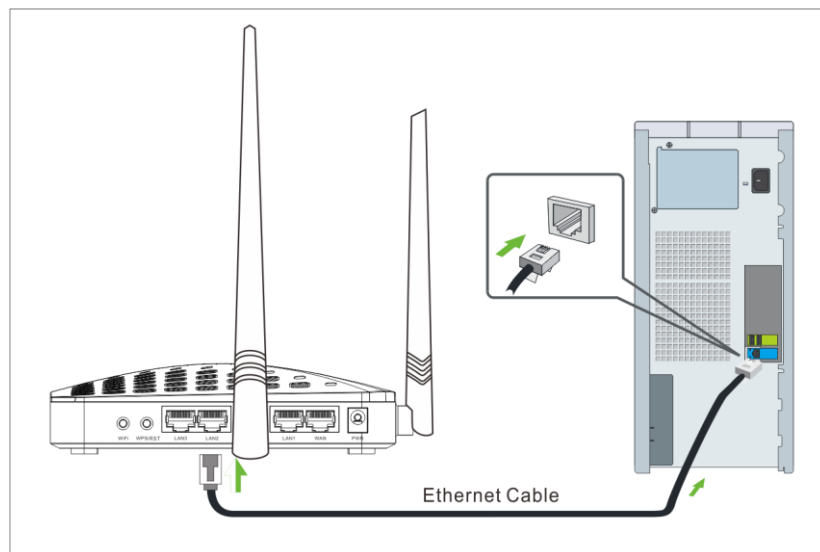
Note

Before you start, make sure you can access Internet by connecting the cable from the incoming Internet side to your PC.

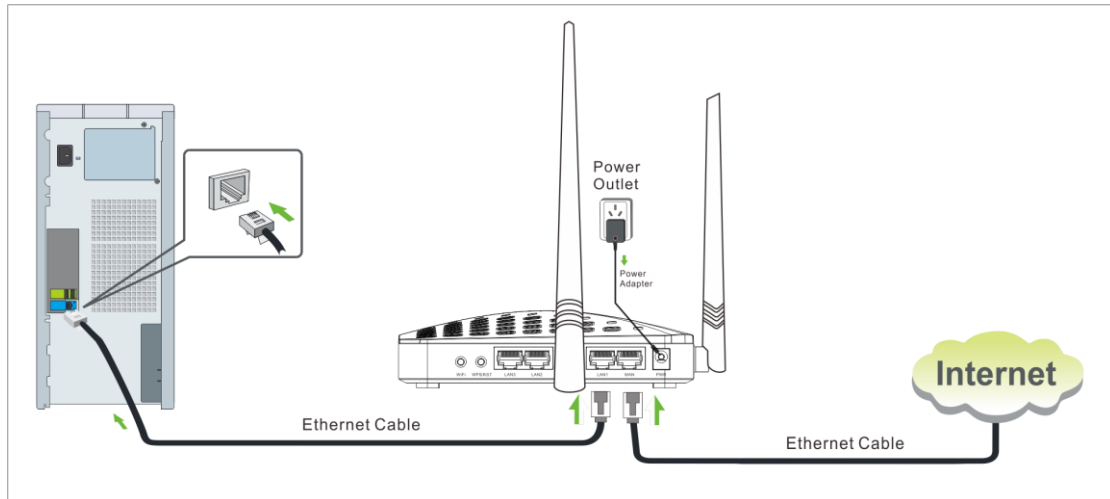
- ① Connect the cable from the incoming Internet side to the WAN port on the router.



- ② Connect one of the LAN ports on the router to the RJ45 (NIC) port on your PC using an Ethernet cable.



- ③ Connect the router to a surge protected power strip using the included power adapter.



Note

Using a power adapter with a different voltage rating than the one included with the Device will cause damage to the Device.

3. Internet Setup

Configure PC

If your computer is set to a static or fixed IP address (this is uncommon), change it to obtain an IP address automatically from the router. If you are unsure, see [*Appendix1 Configure PC TCP/IP Settings.*](#)

Configure Router

Step 1. Log in to Web manager.

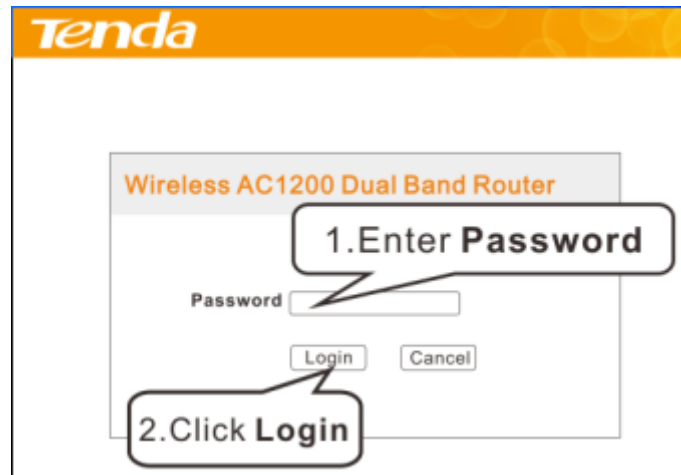
- ① Launch a web browser, say, IE.



- ② In the address bar, input 192.168.0.1, and press "Enter".



- ③ The login window appears.



- ④ This router will automatically detect WAN connection status when you press the **Enter** key (This happens when you first time set up the router or when you restore the router to factory default settings).



- ⑤ The following screen appears when your Internet connection type is detected. Click **OK**.



- ⑥ And the Quick Setup screen appears after you clicked the **OK** button.

Version V1.0.0.2 (7514)
Product Name Wireless AC1200 Dual Band Router

Internet Connection Setup

Internet Connection Type PPPoE Dynamic IP

For other connection types, click ["Advanced"](#)

Wireless Security Setup

2.4G Security
(Default: 12345678)

Save Cancel



Tip

1. If you are not using the PPPoE or Dynamic IP (DHCP) Internet connection type, see [Static IP](#).
2. The default Internet connection type is DHCP (Dynamic IP).
3. The router has a preset wireless security key of 12345678 but it is deactivated by factory default. However if you click the **OK** button on that page, the wireless security key of 12345678 will be activated automatically.
4. Here we use the WPA-PSK/AES for explanation. If you want to use other security mode and/or cipher type, see [Security](#).

Step 2. Internet Setup & Wireless Security Setup

A. Select Dynamic IP (DHCP) to obtain IP Address information automatically from your ISP. Select this option if your ISP does not give you any IP information or user name and password.

B. Select PPPoE if your ISP uses a PPPoE connection and gives you a PPPoE user name and a PPPoE password.

Dynamic IP (DHCP) & Wireless Security Setup

The screenshot shows the Tenda router's configuration interface. At the top, the Tenda logo is on the left, and the version (V1.0.0.2 (7514)) and product name (Wireless AC1200 Dual Band Router) are on the right. The main content area is divided into two sections: "Internet Connection Setup" and "Wireless Security Setup".

Internet Connection Setup: The "Internet Connection Type" is set to "Dynamic IP" (selected with a radio button). Below this, there is a link for "Advanced" settings.

Wireless Security Setup: The "2.4G Security" dropdown menu is selected. The security key field contains a series of dots, with the default value "12345678" shown below it.

At the bottom of the form, there are "Save" and "Cancel" buttons.

- ① Select Dynamic IP (DHCP).
- ② The default wireless band is 2.4G and default wireless security key is 12345678. For better security key, please change the default security key (Security key should be 8-63 characters).
- ③ Click **Save** to save your settings.

PPPoE & Wireless Security Setup

The screenshot shows the Tenda router's configuration interface for PPPoE. At the top, the Tenda logo is on the left, and the version (V1.0.0.2 (7514)) and product name (Wireless AC1200 Dual Band Router) are on the right. The main content area is divided into two sections: "Internet Connection Setup" and "Wireless Security Setup".

Internet Connection Setup: The "Internet Connection Type" is set to "PPPoE" (selected with a radio button). Below this, there are two input fields: "ISP Username" (with the placeholder "Please enter ISP Username!") and "ISP Password" (with the placeholder "Please enter ISP Password!"). Below these fields, there is a link for "Advanced" settings.

Wireless Security Setup: The "2.4G Security" dropdown menu is selected. The security key field contains a series of dots, with the default value "12345678" shown below it.

At the bottom of the form, there are "Save" and "Cancel" buttons.

- ① Select PPPoE.
- ② Enter the ISP login name and password.
- ③ The default wireless band is 2.4G and default wireless security key is 12345678. For better security key, please change the default security key

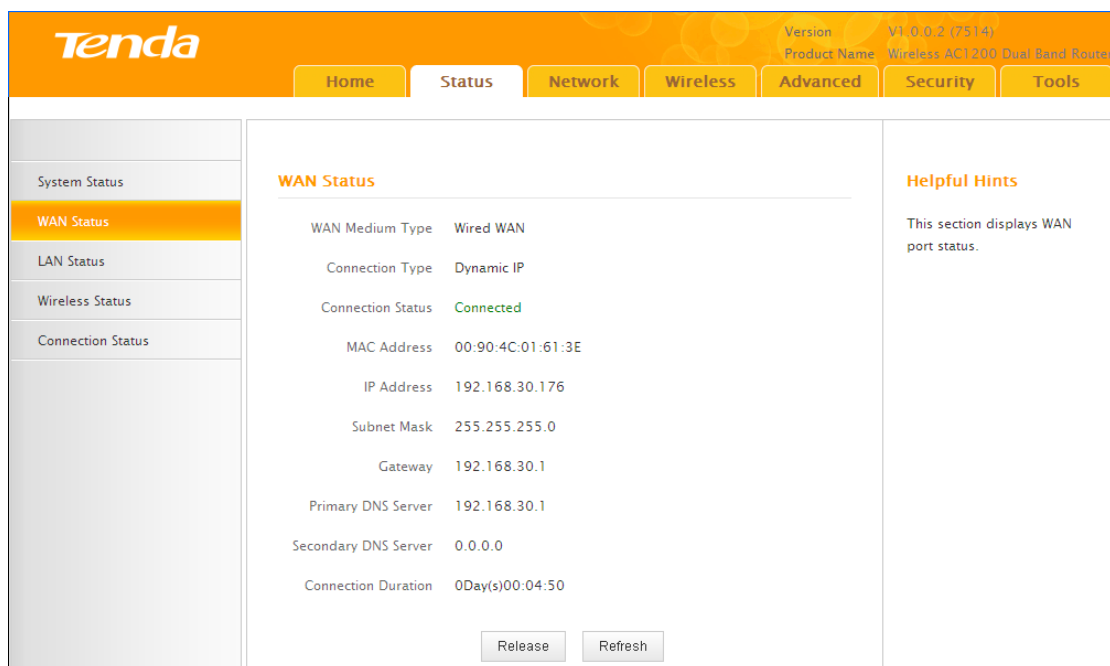
(Security key should be 8-63 characters).

- ④ Click **Save** to save your settings.

4 Verify Internet Connectivity

System will automatically enter the Status screen after you save the settings made on the Quick Setup screen.

A. If the connection status displays "Connected" (as shown below), you are connected to the Internet.



The screenshot shows the Tenda router's web interface. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The 'Status' page is active, displaying 'WAN Status' information. The connection status is 'Connected'. The WAN Medium Type is 'Wired WAN'. The Connection Type is 'Dynamic IP'. The Connection Status is 'Connected'. The MAC Address is '00:90:4C:01:61:3E'. The IP Address is '192.168.30.176'. The Subnet Mask is '255.255.255.0'. The Gateway is '192.168.30.1'. The Primary DNS Server is '192.168.30.1'. The Secondary DNS Server is '0.0.0.0'. The Connection Duration is '0Day(s)00:04:50'. There are 'Release' and 'Refresh' buttons at the bottom of the WAN Status section. A 'Helpful Hints' section on the right states: 'This section displays WAN port status.'

WAN Status	
WAN Medium Type	Wired WAN
Connection Type	Dynamic IP
Connection Status	Connected
MAC Address	00:90:4C:01:61:3E
IP Address	192.168.30.176
Subnet Mask	255.255.255.0
Gateway	192.168.30.1
Primary DNS Server	192.168.30.1
Secondary DNS Server	0.0.0.0
Connection Duration	0Day(s)00:04:50

B. If connection status displays "Cable improperly connected!" , the connection between the router and Internet fails. Make sure the cable from the incoming Internet side is properly connected to the router's WAN port. If nothing is wrong, "Connecting" or "Connected" will be displayed.

The screenshot shows the Tenda router's web interface. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The 'Status' page is active, with a sidebar on the left containing 'System Status', 'WAN Status', 'LAN Status', 'Wireless Status', and 'Connection Status'. The main content area is titled 'WAN Status' and displays the following information:

WAN Medium Type	Wired WAN
Connection Type	Dynamic IP
Connection Status	Cable improperly connected!
MAC Address	00:90:4C:01:61:3E
IP Address	0.0.0.0
Subnet Mask	0.0.0.0
Gateway	0.0.0.0
Primary DNS Server	0.0.0.0
Secondary DNS Server	0.0.0.0
Connection Duration	0Day(s)00:00:00

On the right side, there is a 'Helpful Hints' section with the text: 'This section displays WAN port status.'

If the connection status displays "Connecting..." and WAN IP address displays "0.0.0.0", wait until the page updates five times.

This screenshot shows the same Tenda router web interface as the previous one, but the 'Connection Status' has changed to 'Connecting...'. The rest of the page content, including the navigation bar, sidebar, and WAN status details, remains the same. At the bottom of the main content area, there are two buttons: 'Release' and 'Refresh'.

And if it still displays "Connecting..." try the following steps:

- ① Make sure physical connections are correctly established.
- ② Make sure you can access Internet on your PC without using the router.
- ③ If your ISP uses a PPPoE Internet connection, make sure you entered the correct ISP login name and password.
- ④ If the problem is still unsolved, see [2.4 MAC Clone](#).

5 Join Your Wireless Network

Having finished above settings, you can search for the device's default wireless network (SSID) from your wireless devices (notebook, iPad, iPhone, etc) and enter a security key to connect to it wirelessly.




Tip

1. The router's SSID is Tenda_XXXXXX by default. You can find it on the label on the bottom of the router.
2. Also, you can find the MAC address on label on the bottom of the router.
3. **To join your wireless network, the PC you use must have an installed wireless network adapter. If not, install one.**


Join Your Wireless Network - Windows 7



Click the icon  on the notification area on the bottom right corner.

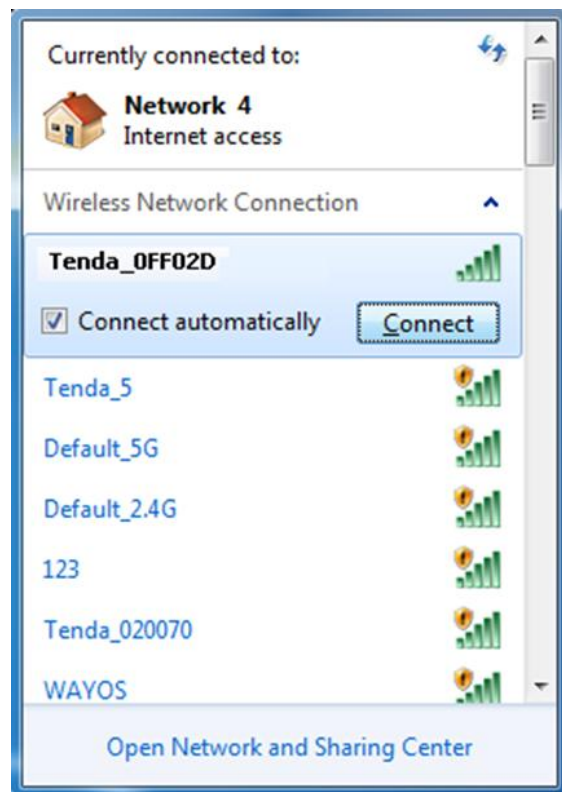


Tip

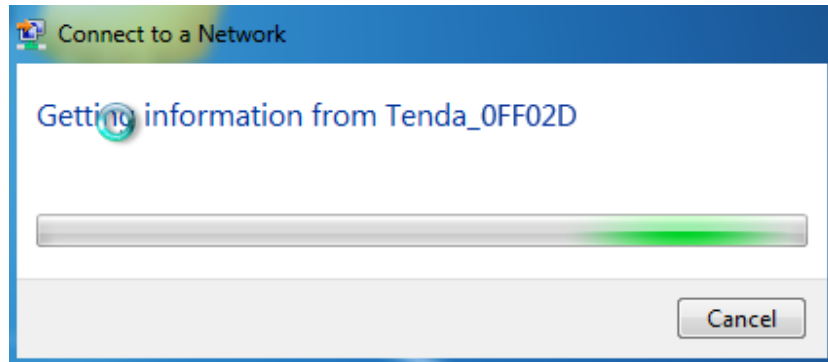
If you cannot find the  icon, try disabling the wired network adapter or unplug the Ethernet cable from the wired network adapter of your PC and refresh your desktop. If the problem remains unsolved, see [**Join Your Wireless Network - Windows 7**](#).



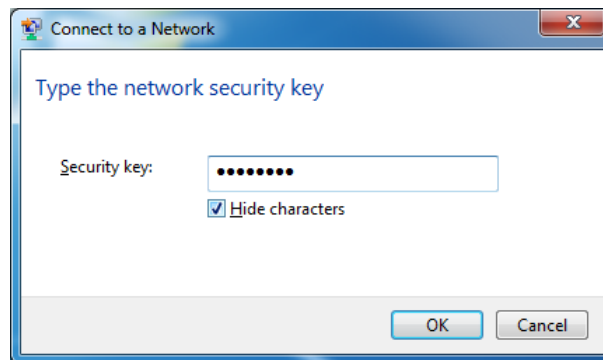
- ② Select the wireless network you wish to connect and click **Connect**.



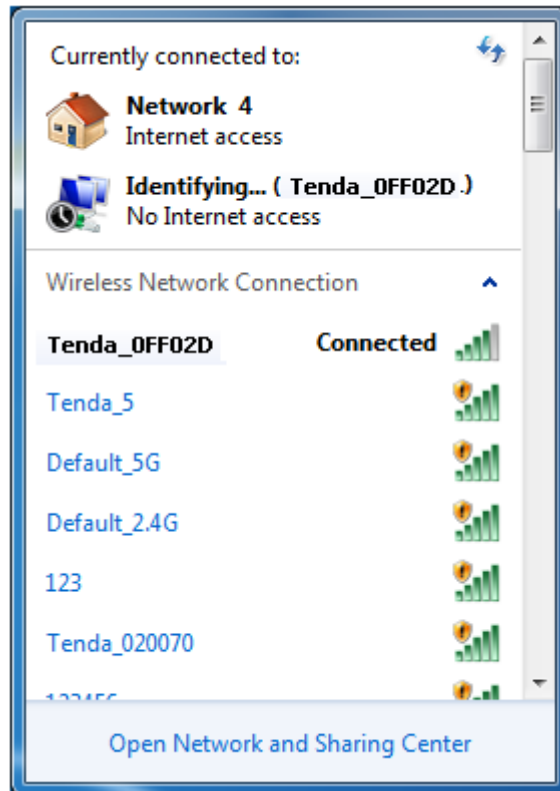
- ③ If you see the screen below, you are connecting to the wireless network.



- ④ Enter the security key and click **OK**.



- ⑤ When you see **Connected** displayed next to the wireless network you selected, you have connected to the wireless network successfully.

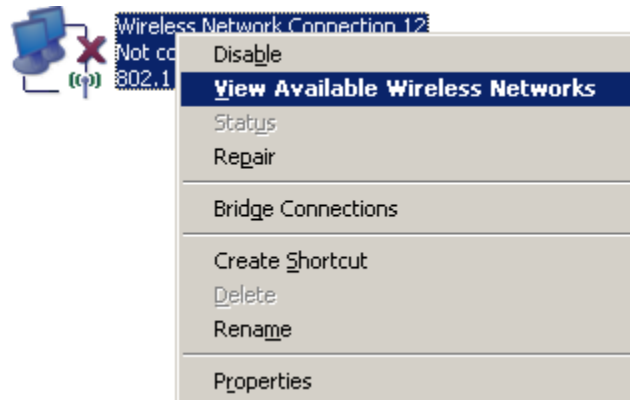


Join Your Wireless Network - Windows XP

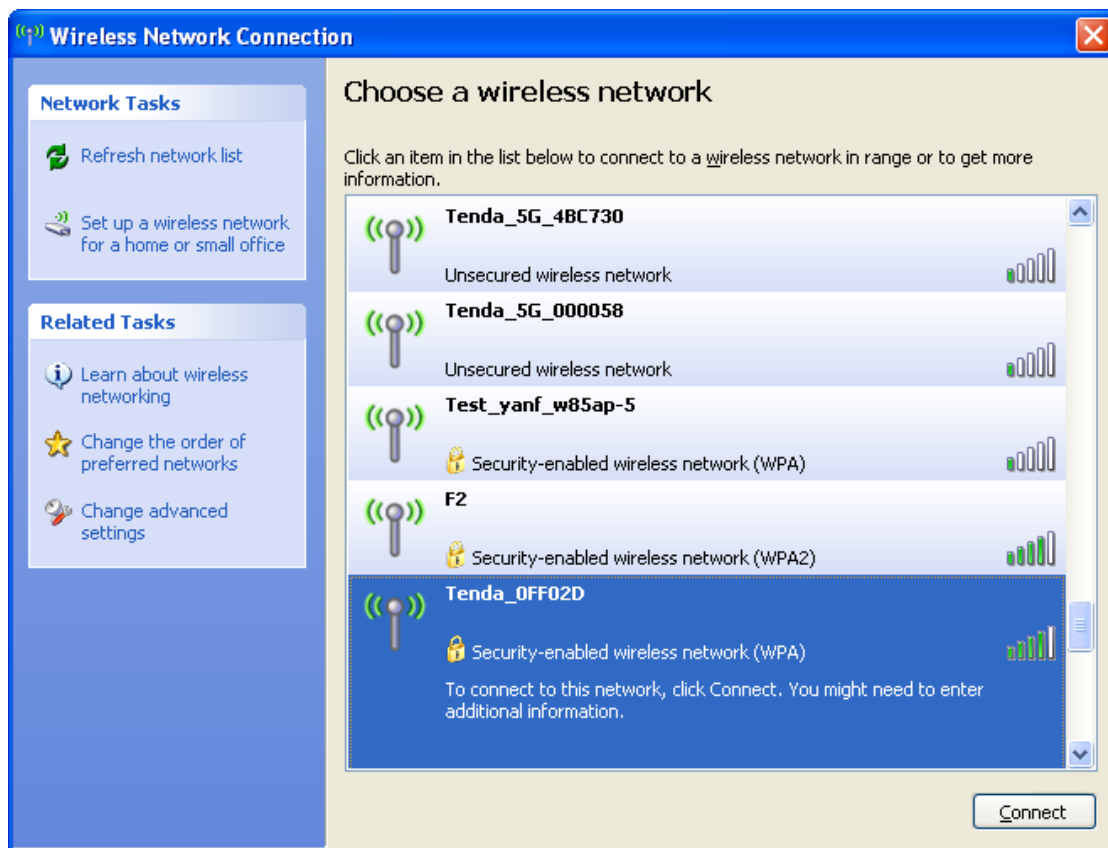
- ① Right click **My Network Places** from your PC's desktop and select **Properties**.



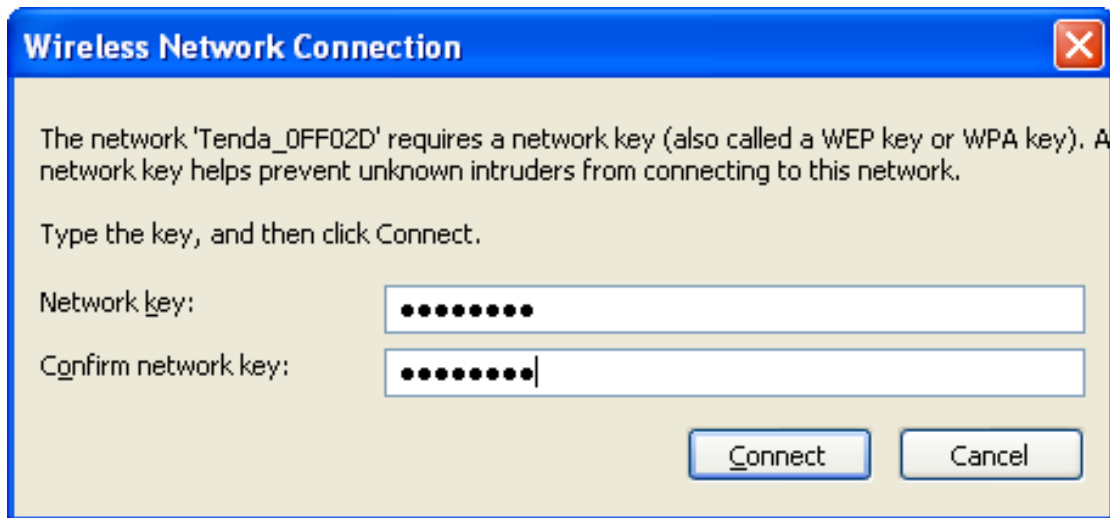
- ② Right click **Wireless Network Connection** and select **View Available Wireless Networks**.



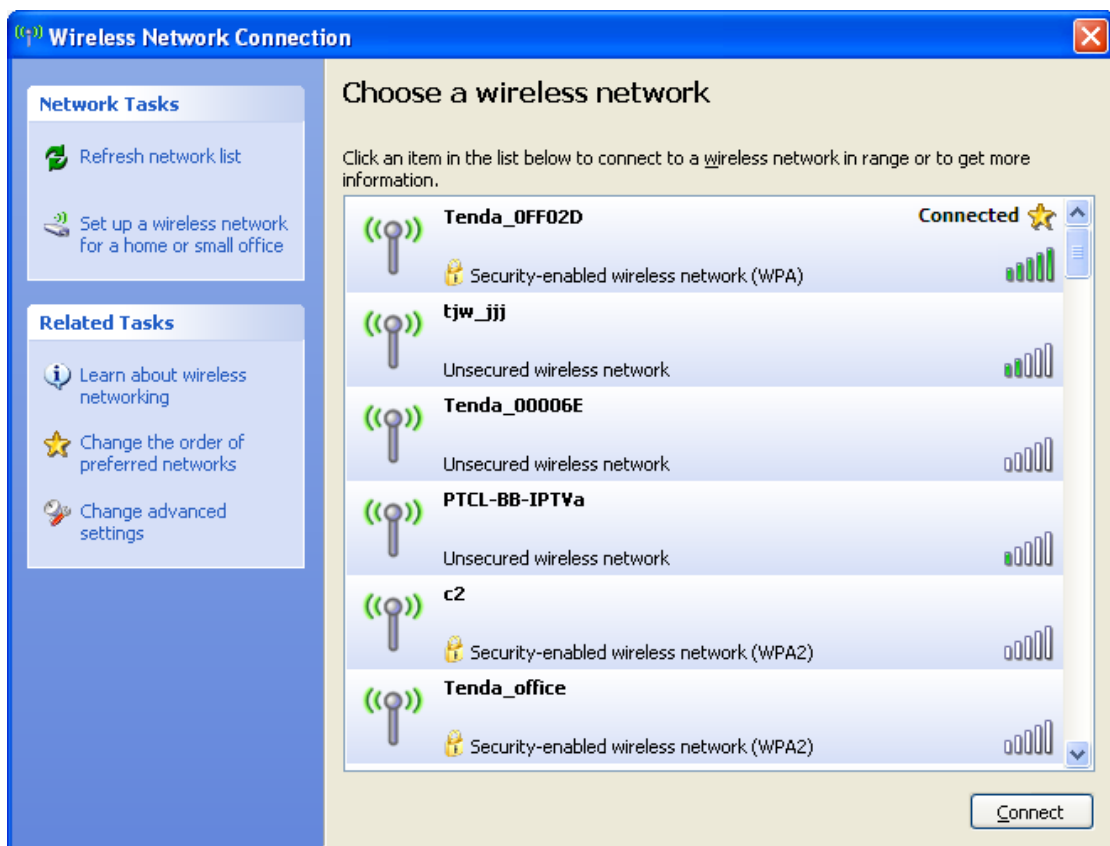
- ③ Double click the wireless network you wish to connect.



- ④ Enter the security key and click **Connect**.

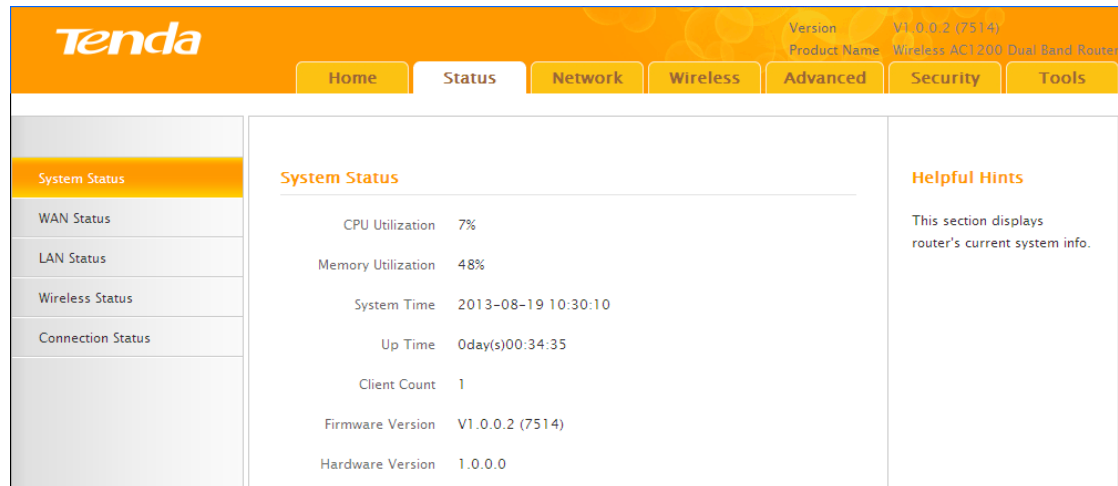


- ⑤ When you see **Connected** displayed next to the wireless network you selected, you have connected to the wireless network successfully.



III Features & Configurations

For more and advanced features, click **Advanced** on the home page.



System Status		Helpful Hints
CPU Utilization	7%	This section displays router's current system info.
Memory Utilization	48%	
System Time	2013-08-19 10:30:10	
Up Time	0day(s)00:34:35	
Client Count	1	
Firmware Version	V1.0.0.2 (7514)	
Hardware Version	1.0.0.0	

1 Status

1.1 System Status

Click **Advanced** on the home page and the **Status** screen appears. Here you can view the router's WAN status and system status as noted below:



Tip

1. **Connection Status:** Displays the router's current WAN connection status: Disconnected, Connecting, or Connected. For explanation of the 3 connection statuses, see [4 Verify Internet Connectivity](#).
2. IP Address/Subnet Mask/WAN subnet mask/Gateway/Primary DNS Server/Secondary DNS Server: This type of information appears only if the router successfully connects to Internet via a PPPoE or DHCP (dynamic IP) connection. However if you connect the router to Internet with static IP settings provided by your ISP, these fields will display the settings you entered whether the router successfully connects to the Internet or not.
3. If nothing appears in the secondary DNS server field, there is no available secondary DNS server.

The screenshot shows the Tenda router's web interface. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The 'Status' page is active, displaying system information. On the left, a sidebar menu lists 'System Status', 'WAN Status', 'LAN Status', 'Wireless Status', and 'Connection Status'. The main content area is titled 'System Status' and lists the following details:

- CPU Utilization: 7%
- Memory Utilization: 48%
- System Time: 2013-08-19 10:30:10
- Up Time: 0day(s)00:34:35
- Client Count: 1
- Firmware Version: V1.0.0.2 (7514)
- Hardware Version: 1.0.0.0

On the right side, there is a 'Helpful Hints' section with the text: 'This section displays router's current system info.'

1.2 WAN Status

Click **Status** -> **WAN Status** to enter the WAN Status screen as seen below.

The screenshot shows the Tenda router's web interface with the 'WAN Status' page selected. The top navigation bar and sidebar menu are the same as in the previous screenshot. The main content area is titled 'WAN Status' and displays the following connection details:

- WAN Medium Type: Wired WAN
- Connection Type: Dynamic IP
- Connection Status: **Connected**
- MAC Address: 00:90:4C:01:61:3E
- IP Address: 192.168.30.176
- Subnet Mask: 255.255.255.0
- Gateway: 192.168.30.1
- Primary DNS Server: 192.168.30.1
- Secondary DNS Server: 0.0.0.0
- Connection Duration: 0Day(s)00:33:47

At the bottom of the WAN Status section, there are two buttons: 'Release' and 'Refresh'. The 'Helpful Hints' section on the right states: 'This section displays WAN port status.'

1.3 LAN Status

Click **Status** -> **LAN Status** to enter the LAN Status screen as seen below.

<p>Tenda Version V1.0.0.2 (7514) Product Name Wireless AC1200 Dual Band Router</p> <p>Home Status Network Wireless Advanced Security Tools</p>		
<p>System Status</p> <p>WAN Status</p> <p>LAN Status</p> <p>Wireless Status</p> <p>Connection Status</p>	<p>LAN Status</p> <p>MAC Address 00:90:4C:01:60:3D</p> <p>IP Address 192.168.0.1</p> <p>Subnet Mask 255.255.255.0</p>	<p>Helpful Hints</p> <p>This section displays LAN port status.</p>

1.4 Wireless Status

Click **Status** -> **Wireless Status** to enter the Wireless Status screen as seen below.

<p>Tenda Version V1.0.0.2 (7514) Product Name Wireless AC1200 Dual Band Router</p> <p>Home Status Network Wireless Advanced Security Tools</p>		
<p>System Status</p> <p>WAN Status</p> <p>LAN Status</p> <p>Wireless Status</p> <p>Connection Status</p>	<p>Wireless Status</p> <p>2.4GHz Wireless</p> <p>Wireless Radio Enabled</p> <p>Wireless MAC Address 00:90:4C:01:70:3D</p> <p>SSID Tenda_01703D</p> <p>802.11 Mode 11b/g/n mixed</p> <p>Country China</p> <p>Channel Channel 11</p> <p>Security Mode WPA-PSK/WPA2-PSK</p> <p>5GHz Wireless</p> <p>Wireless Radio Enabled</p> <p>Wireless MAC Address 00:90:4C:0E:60:11</p> <p>SSID Tenda_5G_0E6011</p> <p>802.11 Mode 11a/n mixed</p> <p>Country China</p> <p>Channel Channel 9</p> <p>Security Mode None</p>	<p>Helpful Hints</p> <p>This section displays wireless status.</p>

1.5 Connection Status

Click **Status** -> **Connection Status** to enter the Connection Status screen.

The screenshot shows the Tenda router's web interface. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The 'Status' section is selected, displaying 'Connection Status' and 'Helpful Hints'. The 'Connection Status' section shows a table with one client connected:

IP Address	MAC Address	Medium Type(Wired/Wireless)
192.168.0.100	C8:3A:35:DC:E1:31	Wired

2 Network

2.1. LAN Settings

Click **Network** -> **LAN** to enter the LAN configuration screen. Here you can configure the LAN IP address. This IP address is to be used to access the router's settings through a web browser. Be sure to make a note of any changes you apply to this page.



- Tip -----
1. Default IP address and subnet mask are respectively 192.168.0.1 and 255.255.255.0.
 2. This router does not support VLSM.
 3. Be sure to make a note of any changes you apply to this page. If you change the LAN IP address of the router, you have to open a new connection to the new IP address and log in again.
-

Tenda		Version	V1.0.0.2 (2514)
		Product Name	Wireless AC1200 Dual Band Router
		Home	Status
		Network	Wireless
		Advanced	Security
		Tools	
LAN	LAN Settings		
WAN	Use this section to configure your router's LAN IP settings.		
Port Mode	MAC Address	00:90:4C:01:60:3D	
MAC Clone	IP Address	<input type="text" value="192.168.0.1"/>	
DHCP Server	Subnet Mask	<input type="text" value="255.255.255.0"/>	
DHCP Clients	<input type="button" value="Save"/> <input type="button" value="Cancel"/>		
Static Assignment			
DHCP - Guest Network			
Client List - Guest Network			
	Helpful Hints IP Address: Router's LAN IP address. All LAN PC's default gateway must be set to this address. Subnet Mask: Router's LAN subnet mask, commonly, 255.255.255.0. All LAN PC's subnet mask must be set to this value. Note: 1. If you change the LAN IP address, you must use the new one to log on to the web utility. 2. If the new LAN IP is not on the same net segment with the old one, DHCP server will automatically update its IP settings accordingly while old virtual server and DMZ settings will become inoperative; to re-activate such, you must renew the IP settings thereof.		

Configuration Procedures :

- ① Change the IP address to the one you wish to use, for example, 192.168.10.1.
- ② Click **Save** to save your settings.

2.2. WAN Settings

Click **Network** -> **WAN** to configure your Internet connection settings. Select your Internet connection type:

- A.** Select PPPoE if your ISP uses a PPPoE connection and gives you a PPPoE user name and a PPPoE password.
- B.** Select Static IP if your ISP provides you with fixed or static IP address settings (special deployment by ISP; this is rare).
- C.** Select DHCP (Dynamic IP) if you can access Internet simply by directly connecting your computer to an Internet-enabled ADSL/Cable modem without configuring any settings.

PPPoE

The screenshot shows the Tenda router's web interface. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The 'Network' tab is selected, and the 'WAN' sub-tab is active. The 'WAN Settings' section is displayed, showing the following configuration options:

- Connection Type:** A dropdown menu set to 'PPPoE'.
- ISP Username:** An empty text input field.
- ISP Password:** An empty text input field with a 'Display Key' checkbox to its right.
- MPPE:** An unchecked checkbox.
- MTU:** A text input field containing '1450', with '(Default: 1450)' displayed to its right.

At the bottom of the settings area are 'Save' and 'Cancel' buttons. On the right side of the page, there is a 'Helpful Hints' section with the following text:

Dynamic IP: Select it to obtain IP settings automatically for Internet connection if your ISP does not give you any IP or account info.

Static IP: Select it if your ISP provides you with IP info. Enter IP address, subnet mask, Primary DNS and secondary DNS info, etc provided by your ISP in corresponding fields.

PPPoE: Select it if your ISP is using a PPPoE connection and enter PPPoE user name and password info provided by your ISP.

MTU: Maximum Transmission Unit. The default value varies according to different Internet connection types. DO NOT change it unless necessary.

Configuration Procedures:

- ① **Internet connection Type:** Select PPPoE.
- ② **ISP Username:** Enter the ISP login name.
- ③ **ISP Password:** Enter the ISP login password.
- ④ Click **Save** to save your settings.


Knowledge Center -----

1. **MTU :** The MTU (maximum transmission unit) is the largest data packet a network device transmits. The normal MTU value for most Ethernet networks is 1500 bytes, or 1492 bytes for PPPoE connections. For some ISPs, you might need to change the MTU. This is rarely required, and should not be done unless you are sure it is necessary for your ISP connection. For more information, see [WAN MTU Setup](#).

2. **Service Name:** This is the descriptive name of the current connection. Only enter it if your ISP provides it.

3. **Server Name:** This is the descriptive name of the server. Only enter it if your ISP provides it.

Static IP

Tenda Version V1.0.0.2 (7514)
Product Name Wireless AC1200 Dual Band Router

Home Status **Network** Wireless Advanced Security Tools

LAN
WAN
Port Mode
MAC Clone
DHCP Server
DHCP Clients
Static Assignment
DHCP - Guest Network
Client List - Guest Network

WAN Settings

Connection Type

IP Address

Subnet Mask

Gateway

Primary DNS Server

Secondary DNS Server

MTU (Default: 1450)

Helpful Hints

Dynamic IP: Select it to obtain IP settings automatically for Internet connection if your ISP does not give you any IP or account info.

Static IP: Select it if your ISP provides you with IP info. Enter IP address, subnet mask, Primary DNS and secondary DNS info, etc provided by your ISP in corresponding fields.

PPPoE: Select it if your ISP is using a PPPoE connection and enter PPPoE user name and password info provided by your ISP.

MTU: Maximum Transmission Unit. The default value varies according to different Internet connection types. DO NOT change it unless necessary.

Configuration Procedures:

- ① **Internet connection Type:** Select **Static IP**.
- ② **IP Address/Subnet Mask/WAN subnet mask/Gateway/Primary DNS Server/Secondary DNS Server:** Enter the ISP information you gathered in *Getting Prepared*.
- ③ Click **Save** to save your settings.

Dynamic IP (DHCP)

Tenda Version V1.0.0.2 (7514)
Product Name Wireless AC1200 Dual Band Router

Home Status **Network** Wireless Advanced Security Tools

LAN
WAN
Port Mode
MAC Clone
DHCP Server
DHCP Clients
Static Assignment
DHCP - Guest Network
Client List - Guest Network

WAN Settings

Connection Type

MTU (Default: 1450)

Helpful Hints

Dynamic IP: Select it to obtain IP settings automatically for Internet connection if your ISP does not give you any IP or account info.

Static IP: Select it if your ISP provides you with IP info. Enter IP address, subnet mask, Primary DNS and secondary DNS info, etc provided by your ISP in corresponding fields.

PPPoE: Select it if your ISP is using a PPPoE connection and enter PPPoE user name and password info provided by your ISP.

MTU: Maximum Transmission Unit. The default value varies according to different Internet connection types. DO NOT change it unless necessary.

Configuration Procedures:

- ① **Internet connection Type:** Select **Dynamic IP** (DHCP).
- ② Click **Save** to save your settings.

WAN MTU Setup

The MTU (maximum transmission unit) is the largest data packet a network device transmits. The normal MTU value for most Ethernet networks is 1500 bytes, or 1492 bytes for PPPoE connections. For some ISPs, you might need to change the MTU. This is rarely required, and should not be done unless you are sure it is necessary for your ISP connection.

When one network device communicates across the Internet with another, the data packets travel through many devices along the way. If a device in the data path has a smaller MTU value than the other devices, the data packets have to be "fragmented" to accommodate the device with the smallest MTU value.

The best MTU value for Tenda routers is often just the factory default value. In some situations, changing the MTU value fixes one problem but causes another. Leave the MTU unchanged unless one of these situations occurs:

- A. You have problems connecting to your ISP or other Internet service, and the

technical support of either your ISP or Tenda suggests changing the MTU value.

Below web-based applications might require an MTU change:

- A secure website that does not open, or displays only part of a web page
- Yahoo email
- MSN portal

B. You use VPN and encounter serious performance problems.

C. You used a program to optimize MTU for performance reasons, and now you have connectivity or performance problems.

If you suspect an MTU problem, try changing the MTU to 1400. If this does not help, gradually reduce the MTU from the maximum value of 1500 until the problem disappears.

The common MTU sizes and applications are listed in the table below.

MTU	Application
1500	Typical for connections that do not use PPPoE or VPN.
1492	Used in PPPoE environments.
1472	Maximum size to use for pinging. (Larger packets are fragmented.)
1468	Used in some DHCP environments.
1436	Used in PPTP environments or with VPN.

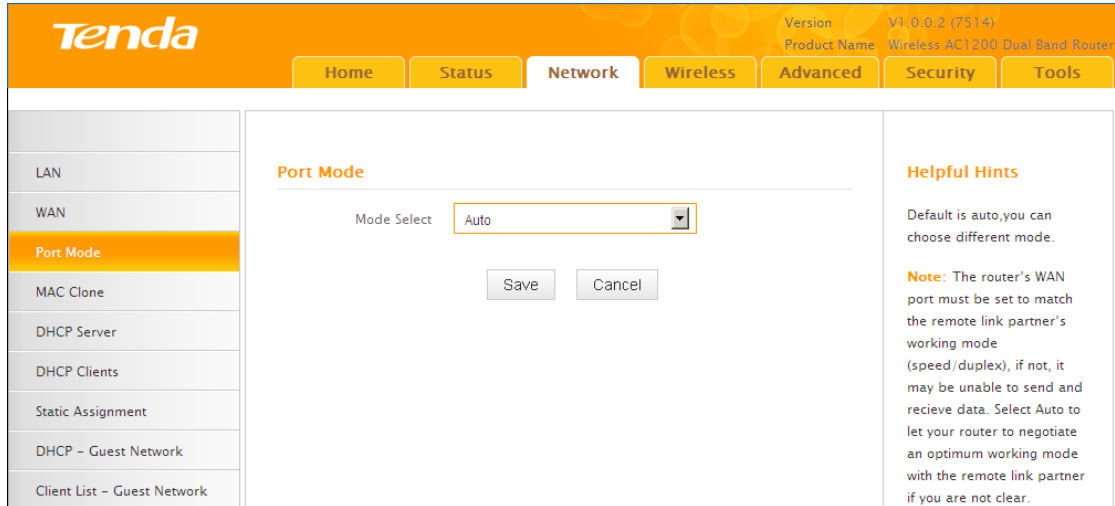


Note -----

A wrong/improper MTU value may cause Internet communication problems. For example, you may be unable to access certain websites, frames within websites, secure login pages, or FTP or POP servers.

2.3 Port Mode

Click **Network** -> **Port Mode** to enter the WAN port mode screen. Here you can configure the router's WAN speed and duplex mode.



The screenshot shows the Tenda router's web interface. At the top, the Tenda logo is on the left, and the version (V3.0.0.2 (7514)) and product name (Wireless AC1200 Dual Band Router) are on the right. Below this is a navigation bar with buttons for Home, Status, Network, Wireless, Advanced, Security, and Tools. The 'Network' button is highlighted. On the left side, there is a sidebar menu with options: LAN, WAN, Port Mode (highlighted), MAC Clone, DHCP Server, DHCP Clients, Static Assignment, DHCP - Guest Network, and Client List - Guest Network. The main content area is titled 'Port Mode' and contains a 'Mode Select' dropdown menu with 'Auto' selected. Below the dropdown are 'Save' and 'Cancel' buttons. To the right of the main content area is a 'Helpful Hints' section with the following text: 'Default is auto, you can choose different mode.' and a 'Note: The router's WAN port must be set to match the remote link partner's working mode (speed/duplex), if not, it may be unable to send and receive data. Select Auto to let your router to negotiate an optimum working mode with the remote link partner if you are not clear.'



Tip

1. The best port mode is often just the factory default of "Auto".
2. In some situations, you might need to change the port mode. For example, if the cable connected to your router's WAN port is too long, you may need to use 10M full-duplex or 10M half-duplex for better performance.

2.4 MAC Clone

Some ISPs (Internet Service Providers) require end-user's MAC address to access their network. This feature copies your current PC's MAC address to the router. Click **Network -> MAC Clone** to enter the MAC Clone screen.

The screenshot shows the Tenda router's web interface for the 'MAC Address Clone' feature. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The 'Network' menu is expanded, showing options like LAN, WAN, Port Mode, MAC Clone (selected), DHCP Server, DHCP Clients, Static Assignment, DHCP - Guest Network, and Client List - Guest Network. The main content area is titled 'MAC Address Clone' and features a text input field for the 'MAC Address' containing '00:90:4C:01:61:3E'. Below the field are two buttons: 'Restore to Factory Default MAC' and 'Clone MAC'. At the bottom of the form are 'Save' and 'Cancel' buttons. On the right side, there is a 'Helpful Hints' section with the following text:

WAN MAC Address: The device's WAN MAC address seen from the Internet side by your ISP.

Normally you don't need to change its default value. However, some ISPs may require a bound MAC address (not router's default WAN MAC) for Internet connection authentication and shall give you a valid MAC. In this case, simply enter such MAC in the WAN MAC Address field, save/apply the changes to activate the new WAN MAC.

Restore to Factory Default MAC: Click it to change router's current WAN MAC to factory default.

Clone MAC: Click it to populate current PC's MAC to router's WAN MAC field.



Knowledge Center

1. **Restore Default MAC:** Reset the router's WAN MAC to factory default.
2. **Clone MAC:** Clicking this button copies the MAC address of the computer that you are now using to the router. Also, you can manually enter the MAC address that you want to use. You have to use the computer whose MAC address is allowed by your ISP.

To restore default MAC address:

- ① Click **Restore Default MAC**.
- ② Click **Save** to save your settings.

To clone the MAC address of the computer that you are now using to the router:

- ① Click **Clone MAC**.
- ② Click **Save** to save your settings.

To manually enter the MAC address allowed by your ISP:

- ① Enter the MAC address allowed by your ISP.
- ② Click **Save** to save your settings.

2.5. DHCP

DHCP (Dynamic Host Configuration Protocol) assigns an IP address to each device on the LAN/private network. When you enable the DHCP Server, the DHCP Server will automatically allocate an unused IP address from the IP address pool specified in this screen to the requesting device as long as the device is set to "Obtain an IP Address Automatically". If you disable this feature, you have to manually configure the TCP/IP settings for all PCs on your LAN to access Internet.

Click **Network -> DHCP Server** to enter the **DHCP Server** screen. Here you can change the DHCP IP address pool and lease time.

The screenshot displays the Tenda DHCP Server configuration interface. At the top, the Tenda logo is on the left, and the version (V1.0.0.2 (7514)) and product name (Wireless AC1200 Dual Band Router) are on the right. A navigation bar includes Home, Status, Network, Wireless, Advanced, Security, and Tools. The left sidebar lists LAN, WAN, Port Mode, MAC Clone, DHCP Server (highlighted), DHCP Clients, Static Assignment, DHCP - Guest Network, and Client List - Guest Network. The main content area is titled 'DHCP Server' and contains a description of DHCP, a 'DHCP Server' toggle set to 'Enable', and input fields for Start IP Address (192.168.0.100), End IP Address (192.168.0.200), Primary DNS Server (192.168.0.1), Secondary DNS Server, and Lease Time (1 day). 'Save' and 'Cancel' buttons are at the bottom. A 'Helpful Hints' section on the right explains DHCP and provides a note about rebooting the router.

Configuration Procedures:

- ① **DHCP Server:** Select whether to enable or disable the DHCP server feature.
- ② **Start IP/End IP:** You can specify the starting and ending address of the IP address pool here. These addresses should be part of the same IP address subnet as the router's LAN IP address.
- ③ **Lease Time:** The lease time is a time length that the IP address is assigned to each device before it is refreshed.
- ④ Click **Save** to save your settings.

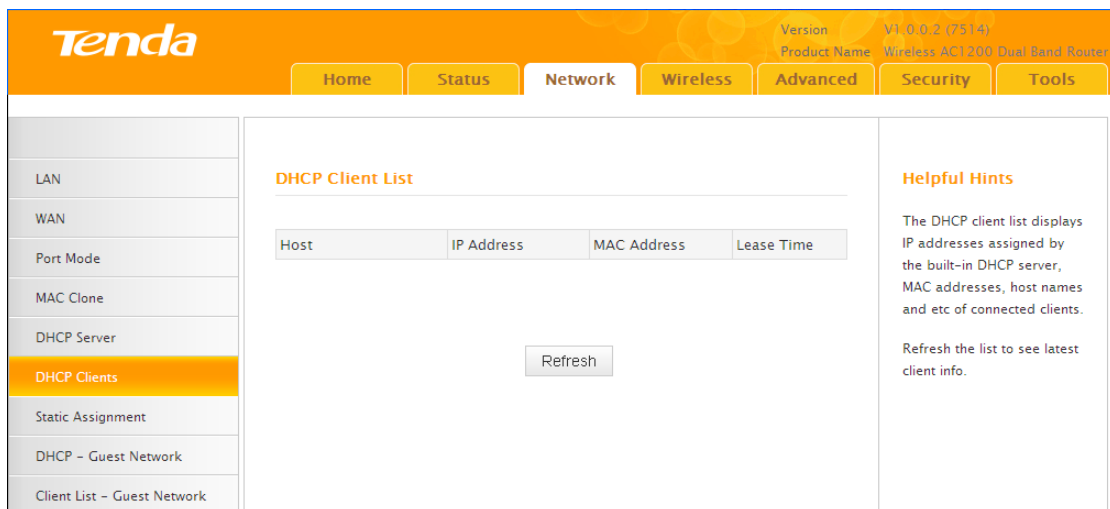


Tip -----

1. By default, the router functions as a DHCP server. Do not disable the DHCP server feature unless you want to manually configure the TCP/IP settings for all PCs on your LAN.
2. Lease time will be renewed automatically upon expiry. No additional configurations are needed.
3. If you are not an advanced user, the default DHCP server settings are recommended.

2.6 DHCP Client List

Click **Network -> DHCP Clients** to enter the **DHCP Clients** screen. Here you can view the host name, IP address, MAC address, and lease time information.



Tip -----

You can know whether there are unauthorized accesses by viewing the client list.

2.7 Static Assignment

Click **Network -> Static Assignment**. Here you can specify a reserved IP address for a PC in the LAN. That PC will always receive the same IP address each time when it accesses the DHCP server. Reserved IP addresses could be assigned to servers that require permanent IP settings.

Static Assignment Application Example:

To have a PC at the MAC address of 44:37:E6:4F:37:3B always receive the same IP address of 192.168.0.123.

Configuration Procedures:

- ① Enter the IP address: 192.168.0.123.
- ② Enter the MAC address of 44:37:E6:4F:37:3B.
- ③ Click **Add**.

The screenshot shows the Tenda router's web interface. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The 'Network' menu is selected, and the 'Static Assignment' option is highlighted in the left sidebar. The main content area is titled 'Static Assignment' and contains the following fields and buttons:

- IP Address:** A text input field containing '192.168.0.123'.
- MAC Address:** A series of six input boxes containing '44', '37', 'E6', '4F', '37', and '3B', separated by colons. An 'Add' button is located to the right of these boxes.
- Buttons:** 'Save' and 'Cancel' buttons are positioned below the MAC address input fields.

On the right side of the page, there is a 'Helpful Hints' section with the following text:

If you would like some devices on your network to always receive fixed IP addresses, you can manually add a static DHCP assignment entry for each such device. And then whenever each such host at a registered MAC address requests a IP address from the DHCP server, it will always be assigned with the same IP address (the one you specified on this section)

IP Address: Enter an IP address you want to assign to a specific computer or device.

MAC Address: Enter the MAC address of the computer or device to which you want DHCP server to assign the same IP address.

- ④ Click **Save** to save your settings.

Static Assignment

IP Address

MAC Address : : : : :

ID	IP Address	MAC Address	Action
1	192.168.0.123	44:37:E6:4F:37:3B	<input type="button" value="Edit"/> <input type="button" value="Delete"/>

Helpful Hints

If you would like some devices on your network to always receive fixed IP addresses, you can manually add a static DHCP assignment entry for each such device. And then whenever each such host at a registered MAC address requests a IP address from the DHCP server, it will always be assigned with the same IP address (the one you specified on this section)

IP Address: Enter an IP address you want to assign to a specific computer or device.

MAC Address: Enter the MAC address of the computer or device to which you want DHCP server to assign the same IP address.



Tip

1. If the IP address you have reserved for your PC is currently used by another client, then you will not be able to obtain a new IP address from the device's DHCP server, instead, you must manually specify a different IP address for your PC to access Internet.
2. For PCs that has already obtained IP addresses, you may need to perform the Repair action to activate the configured static IP addresses.

2.8 DHCP Server - Guest Network

Click **Network -> DHCP - Guest Network** to enter the guest network DHCP server screen. If you enable the built-in DHCP server for Guest Network on this device, it will automatically configure TCP/IP protocol settings for all DHCP-Client-enabled PCs on the Guest Network, including IP address, subnet mask, gateway and DNS etc.

Configuration Procedures:

- ① Click **Enable**.
- ② **Start IP Address:** Specify the start of the range for the pool of IP addresses in the same subnet as the device.

End IP Address: Specify the end of the range for the pool of IP addresses in the same subnet as the device.

③ Click **Save** to save your settings.

The screenshot shows the Tenda router's web interface. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The left sidebar lists various settings: LAN, WAN, Port Mode, MAC Clone, DHCP Server, DHCP Clients, Static Assignment, DHCP - Guest Network (highlighted), and Client List - Guest Network. The main content area is titled 'DHCP Server - Guest Network'. It contains a description of DHCP, a 'DHCP Server' toggle set to 'Disable', and input fields for 'Start IP Address' (192.168.2.100), 'End IP Address' (192.168.2.200), 'Primary DNS Server' (192.168.2.1), and 'Lease Time' (1 day). A 'Save' button is visible. On the right, a 'Helpful Hints' section explains DHCP and provides instructions for 'Start IP Address', 'End IP Address', and a 'Note' about applying settings to all PCs.

Click **Network -> Client List - Guest Network** to enter the guest network DHCP client list screen. This section displays a guest network DHCP dynamic client list, which includes host name, IP address, MAC address and lease time info. **Refresh:** Click to update the page.

The screenshot shows the 'DHCP Client List - Guest Network' page. The top navigation and sidebar are identical to the previous screenshot. The main content area is titled 'DHCP Client List - Guest Network' and includes a 'Refresh' button. A table with columns for 'Host', 'IP Address', 'MAC Address', and 'Lease Time' is present but currently empty. The 'Helpful Hints' section on the right explains that this section displays info of currently connected clients and instructs the user to click the 'Refresh' button to view the latest info.

3 Wireless Settings

3.1 Wireless-Basic

Here you can configure the basic wireless settings of the router.



Tip -----

1. Primary SSID is Tenda_XXXXXX by default, where XXXXXX is the last six characters in the device's MAC address. You can find this MAC address on the label attached on the bottom of the device.
 2. If you are not an advanced user, it is advisable to only change the SSID (name of the network) and channel and leave other items unchanged.
-

The screenshot shows the Tenda wireless configuration page. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The 'Wireless' section is active, showing 'Basic Settings'. The settings include:

- Band:** 2.4GHz
- 2.4GHz Wireless:** Enable
- Country:** ALL
- SSID Broadcast:** Enable Disable
- SSID:** Tenda_01703D
- 802.11 Mode:** 11b/g/n mixed
- Channel:** Auto
- Channel Bandwidth:** 20 20/40
- Extension Channel:** Auto

Buttons for 'Save' and 'Cancel' are at the bottom. A 'Helpful Hints' sidebar on the right explains SSID and Channel settings.

Configuration Procedures:

- ① **Band:** Select 2.4GHz or 5GHz.
- ② **Primary SSID:** This is the public name of your wireless network.
- ③ **Channel:** Select a channel or select Auto to let system automatically select one for your wireless network to operate on if you are unsure. The best selection is a channel that is the least used by neighboring networks.

- ④ Click **Save** to save your settings.



Knowledge Center -----

1. **802.11 Mode (Network Mode):** Select a correct mode according to your wireless clients.

- **11b:** This network mode delivers wireless speed up to 11Mbps and is only compatible with 11b wireless clients.
- **11g:** This network mode delivers wireless speed up to 54Mbps and is only compatible with 11g wireless clients.
- **11b/g mixed:** This network mode delivers wireless speed up to 54Mbps and is compatible with 11b/g wireless clients.
- **11b/g/n mixed:** This network mode delivers wireless speed up to 300Mbps and is compatible with 11b/g/n wireless clients.
- **11ac :** This network mode delivers wireless speed up to 867Mbps.

2. **SSID Broadcast:** This option allows you to have your network names (SSIDs) publicly broadcast or if you choose to disable it, the SSIDs will be hidden.

3. **Channel Bandwidth:** Select a proper channel bandwidth to enhance wireless performance.

This option is available only in 802.11b/g/n. Wireless speed in the channel bandwidth of 20/40 is 2 times in 20.

4. **Extension Channel:** This is used to ensure N speeds for 802.11n devices on the network.

This option is available only in 11b/g/n mixed mode with channel bandwidth of 20/40.

3.2 Guest Network

Click **Wireless -> Guest Network** to enter the Guest Network screen. The Guest Network feature allows guests to access Internet and other users on the guest network while disallowing them to access Device web manager, users on master network and clients behind the LAN ports. Thus the wireless master network is secured.

Configuration Procedures:

- ① **Band:** Select 2.4GHz or 5GHz.

② **Guest Network:** Select whether to enable or disable the Guest Network feature. It is disabled by default.

③ Click **Save** to save your settings.

The screenshot displays the Tenda web management interface for a Wireless AC1200 Dual Band Router. The top navigation bar includes tabs for Home, Status, Network, Wireless, Advanced, Security, and Tools. The left sidebar lists various configuration sections, with 'Guest Network' currently selected. The main content area is titled 'Guest Network' and contains the following settings:

- Band:** A dropdown menu set to '2.4GHz'.
- Guest Network:** A checkbox labeled 'Enable' which is currently unchecked.
- SSID Broadcast:** A checkbox labeled 'Enable' which is checked.
- AP Isolation:** A checkbox labeled 'Enable' which is unchecked.
- Guest Network SSID:** A text input field containing the value 'Tenda_Guest_01703E'.

At the bottom of the settings area are 'Save' and 'Cancel' buttons. To the right of the settings is a 'Helpful Hints' section with three informational paragraphs:

- Enable Guest Network:** The Guest Network feature allows guests to access Internet and other users on the guest network while disallowing them to access device web manager, clients and services on primary network.
- Broadcast SSID:** When it is enabled, your wireless network is visible to any wireless clients within coverage when they scan for a wireless network; when disabled, your guest wireless network is invisible and thus secure.
- AP Isolation:** If enabled, clients connecting to the guest network will be mutually inaccessible.

The bottom of the page shows the 'Guest Network SSID' definition: Service Set Identifier, the unique name of a wireless

3.3 Security

Click **Wireless** -> **Security** to enter the **Security** screen. Here you can define a security key to secure your wireless network against unauthorized accesses.

The screenshot shows the Tenda Wireless Security Settings page. The page has a navigation bar with tabs: Home, Status, Network, Wireless, Advanced, Security, and Tools. The Security tab is active. On the left, there is a sidebar with menu items: Basic, Guest Network, Security (highlighted), Advanced, Wireless Access Control, Wireless Extender, WPS, and Wireless Connection Status. The main content area is titled 'Security Settings' and contains the following configuration options:

- Band:** 2.4GHz
- SSID:** Tenda_01703D
- Security Mode:**
 - None
 - WEP
 - WPA-PSK/WPA2-PSK
- Authentication Type:** WPA-PSK
- Cipher Type:** AES
- Security Key:** [masked] Display Key
- Key Renewal Interval:** 3600

Below the Security Key field, there is a note: "(8-63 ASCII or 64 hex characters)". Below the Key Renewal Interval field, there is a note: "Down to 60 seconds. 0 indicates no renewal." At the bottom of the form are 'Save' and 'Cancel' buttons.

On the right side, there is a 'Helpful Hints' section with the following text:

- None:** Disable wireless security feature.
- WEP:** Wired equivalent privacy.
- Authentication Type:** Select either "Open" or "Shared".
- Key Format:** Select either "ASCII" or "Hex".
- Key Select:** Select a WEP key from below.
- Key Content:** Enter a WEP key. Note that the key format and length must match what is specified hereon.
- Key Length:** Select either 64-bit or 128-bit. Selecting "None" deactivates corresponding WEP Key.

At the bottom of the hints section, it says: "WPA-PSK/WPA2-PSK includes AES and TKIP".

To secure your wireless network

- ① Select a band, for example, 2.4GHz.
- ② Select the wireless network (SSID) you wish to encrypt.
- ③ Select a security mode, cipher type configure a security key.
- ④ Click **Save** to save your settings.



Tip -----
For better security, compatibility and wireless speed, we recommend the WPA-PSK and AES.



Knowledge Center -----

1. **WEP** : Wireless speed can reach up to 54Mbps if WEP - Open is selected.
2. **Key Select**: Select a key to be effective for the current WEP encryption. For example, if you select Key 1, wireless clients must join your wireless network using this Key 1.
4. **WPA-PSK** : WPA personal, support AES and TKIP+AES cipher types.
5. **WPA2-PSK** : WPA2 personal, support AES and TKIP+AES cipher types.
6. **WPA/WPA2-PSK mixed**: If selected, both WPA-PSK and WPA2-PSK secured wireless clients can join your wireless network.
7. **AES**: If selected, wireless speed can reach up to 300Mbps.
8. **TKIP**: If selected, wireless speed can reach up to 54Mbps.
9. **TKIP+AES**: If selected, both AES and TKIP secured wireless clients can join your wireless network.

3.4 Advanced

Click **Wireless -> Advanced** to configure the advanced wireless settings. This section allows you to config advanced settings, including AP Isolation, Beacon interval, Fragment threshold, RTS threshold and DTIM interval, etc, for your wireless networks. Normally, the default settings will work. If not, change them according to the suggestions given by your ISP or Tenda technical staff.

Advanced-Wireless

Band: 2.4GHz

AP Isolation:

Beacon Interval: 100 ms (Range: 20 - 999; Default: 100)

Fragment Threshold: 2346 (Range: 256 - 2346; Default: 2346)

RTS Threshold: 2347 (Range: 1 - 2347; Default: 2347)

DTIM Interval: 1 (Range: 1 - 255; Default: 1)

Short GI: Enable Disable

WMM Capable: Enable Disable

APSP Capable: Enable Disable

Save Cancel

Helpful Hints

This section allows you to config advanced wireless settings. It is advisable to leave the options unchanged from defaults if you are not clear about how to config them.

Beacon Interval: A time interval between any 2 consecutive Beacon packets sent by device. Available values are between 20 and 999. Do NOT change the default value of 100 unless necessary.

Fragment Threshold: Max size of a packet to transmit. Enter a Fragment Threshold (256-2346). Any wireless packet exceeding such set value will be divided into several fragments. DO NOT change the default value of 2346 unless necessary.

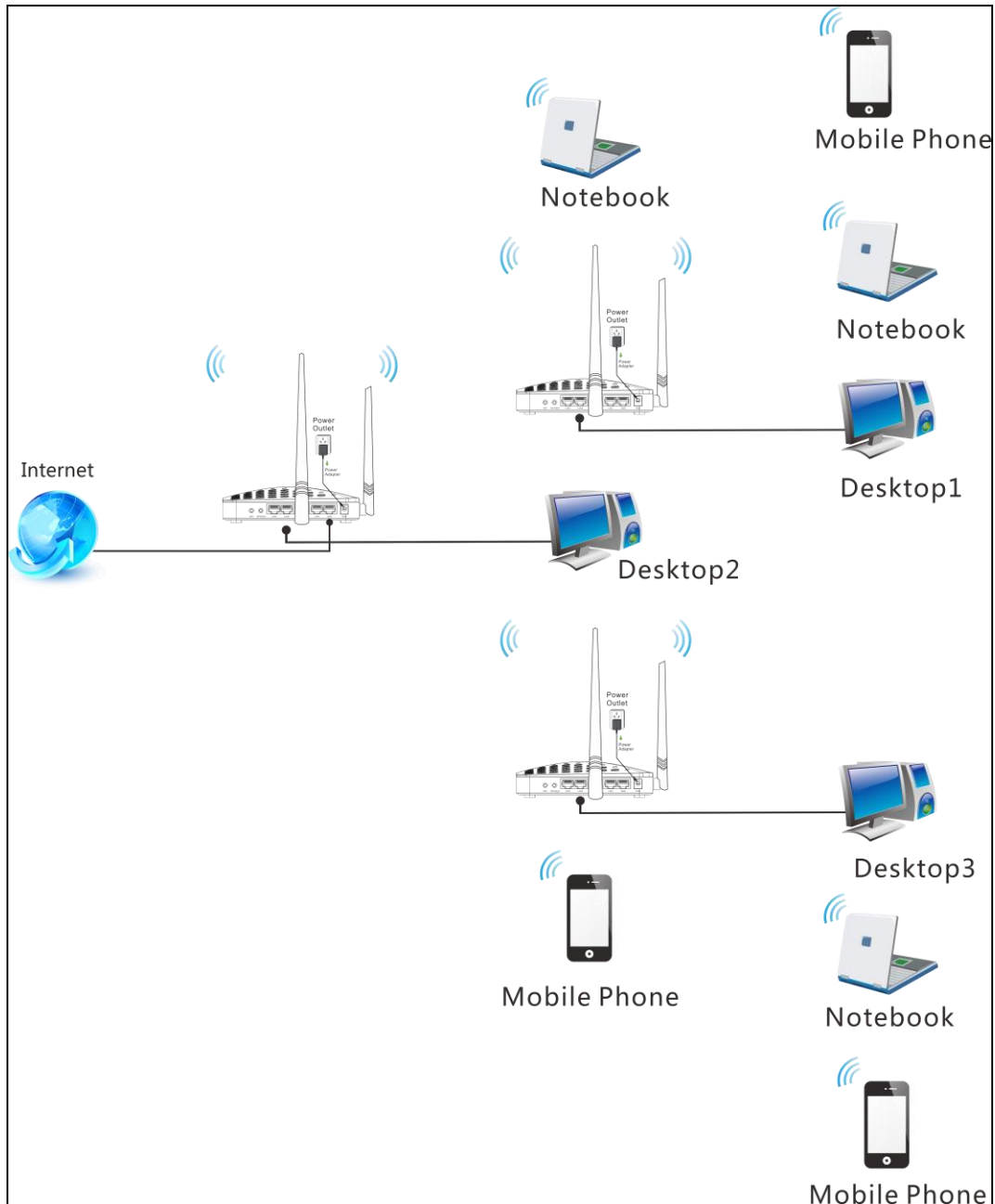


Knowledge Center -----

- 1 AP Isolation:** Isolates clients connecting to the primary SSID.
 - 2 Beacon Interval:** A time interval between any 2 consecutive Beacon packets sent by an Access Point to synchronize a wireless network. Do NOT change the default value of 100 unless necessary.
 - 3 Fragment Threshold:** Specify a Fragment Threshold value. Any wireless packet exceeding the preset value will be divided into several fragments before transmission. DO NOT change the default value of 2346 unless necessary.
 - 4 RTS Threshold:** If a packet exceeds such set value, RTS/CTS scheme will be used to reduce collisions. Set it to a smaller value provided that there are distant clients and interference. For normal SOHO, it is recommended to keep the default value unchanged; otherwise, device performance may be degraded.
 - 5 DTIM Interval:** A DTIM (Delivery Traffic Indication Message) Interval is a countdown informing clients of the next window for listening to broadcast and multicast messages. When the packets arrive in the router's buffer, the router will send DTIM (delivery traffic indication message) and DTIM interval to alert clients of the receiving packets.
-

3.6 Wireless Extender

Use this wireless extender feature to extend your existing wireless network.



Click **Wireless** -> **Wireless Extender** to enter the following screen.

The screenshot shows the Tenda Wireless Extender configuration interface. At the top, there is a navigation bar with tabs for Home, Status, Network, Wireless, Advanced, Security, and Tools. The 'Wireless' tab is active. On the left, a sidebar menu lists various settings, with 'Wireless Extender' highlighted. The main content area is titled 'Wireless Extender' and contains two dropdown menus: 'Band' (set to 2.4GHz) and 'Mode' (set to Disable). Below these are 'Save' and 'Cancel' buttons. To the right, a 'Helpful Hints' section provides detailed information about the different modes and their effects on other features like WPS and WDS.

This device provides three modes to extend your wireless network:

- To extend your wireless network using the universal repeater feature, see **Universal Repeater**.
- To extend your wireless network using the WISP client router (wireless WAN) feature, see **WISP Mode**.
- To establish Wireless Distribution System and extend your wireless network, see WDS.

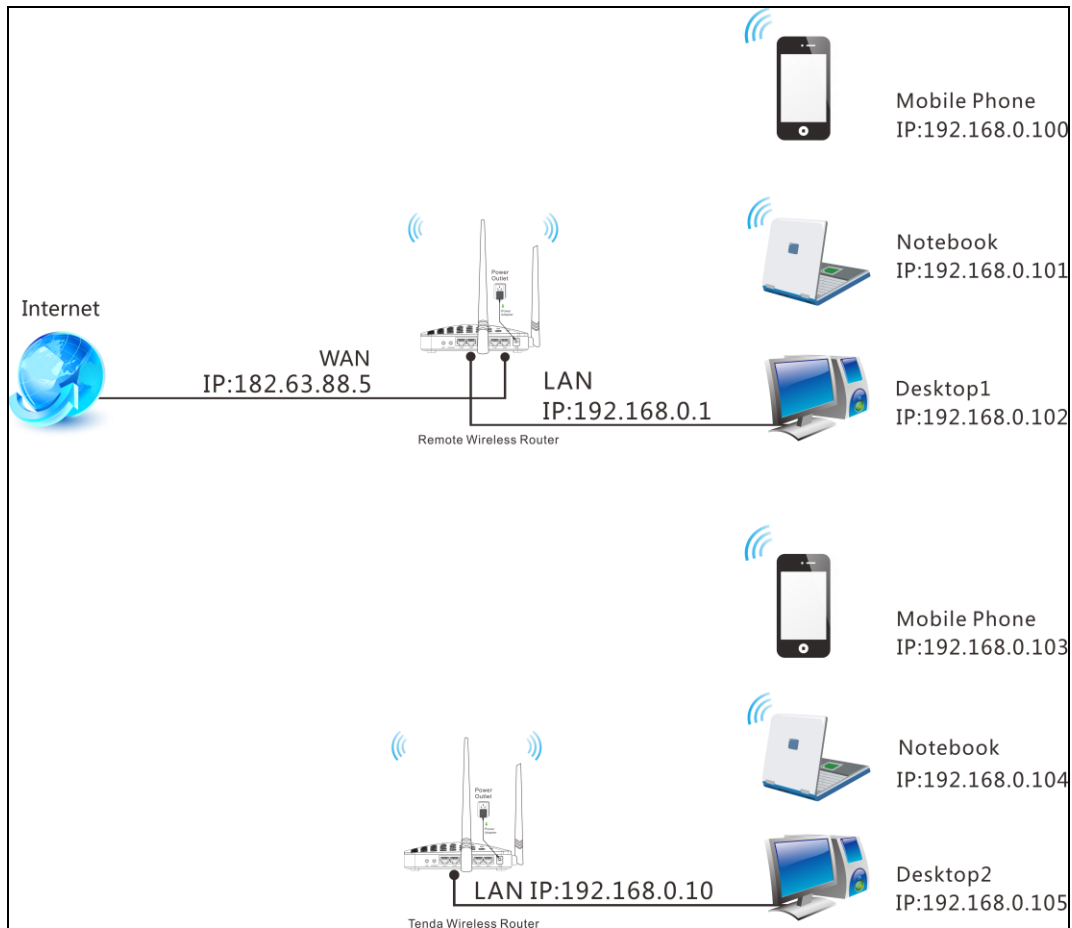


Tip

If "**Disable**" is selected, the wireless extender feature will be deactivated.

Universal Repeater Mode

Universal Repeater: Use this universal repeater mode to extend your existing wireless network. The application scenario is shown in the figure below:



In this mode, you only need to configure the following settings on the Tenda wireless router:

- Configure LAN IP: Specify an IP address that is in the same subnet as yet different from the remote wireless router for this Tenda wireless router.
- Universal Repeater: Configure this router to bridge the remote wireless router for extended network coverage.



Tip

Before you start, **make sure you have the following information:**

1. Remote router's SSID, security mode, cipher type and security key.
2. Remote router's LAN IP address.
3. No Ethernet cable is connected to the Tenda wireless router's WAN port.

Universal Repeater Application Example:

Assuming the remote wireless router has the following information:

SSID : Tenda_0FF02D

Security Mode: WPA-PSK

Cipher Type: AES

Security Key: 12345678

LAN IP Address: 192.168.0.1

Configuration Procedures:

- 1 Click **Network** -> **LAN** to configure an IP address that is in the same subnet as yet different from the remote wireless router for this Tenda wireless router.

The screenshot shows the Tenda router's web interface. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The 'Network' tab is selected, and the 'LAN' sub-tab is active. The 'LAN Settings' section is displayed, with the following fields and values:

MAC Address	00:90:4C:01:60:3D
IP Address	192.168.0.1
Subnet Mask	255.255.255.0

Below the fields are 'Save' and 'Cancel' buttons. To the right, the 'Helpful Hints' section contains the following text:

IP Address: Router's LAN IP address. All LAN PC's default gateway must be set to this address.

Subnet Mask: Router's LAN subnet mask, commonly, 255.255.255.0. All LAN PC's subnet mask must be set to this value.

Note: 1. If you change the LAN IP address, you must use the new one to log on to the web utility.
2. If the new LAN IP is not on the same net segment with the old one, DHCP server will automatically update its IP settings accordingly while old virtual server and DMZ settings will become inoperative; to re-activate such, you must renew the IP settings thereof.

- 2 Click **OK** in the appearing screen.
- 3 Select **Universal Repeater** and click **Open Scan**.

Wireless Extender

Band: 2.4GHz

Mode: Universal Repeater

Remote SSID:

Channel: Auto

Remote MAC Address:

Security Mode: None

Open Scan

Save Cancel

Helpful Hints

Enabling WDS or Universal Repeater automatically disables the WPS feature.

Enabling WISP Mode automatically disables the WPS feature, WAN MAC clone, Secondary SSID, and Guest Network.

Universal Repeater: In this mode, the router will relay data to an associated root AP and AP function is enabled meanwhile. The wireless repeater relays signal between its stations and the root AP for greater wireless range.

WISP Mode: In this mode the router acquires Internet access from a wireless Access Point. This method requires you to set the wireless name of Access Point, Channel and Security to match the wireless Access

④ Select the remote router's wireless network (SSID) and click **Close Scan**.

Wireless Extender

Band: 2.4GHz

Mode: Universal Repeater

Remote SSID:

Channel: Auto

Remote MAC Address:

Security Mode: None

Close Scan

Sel...	SSID	MAC Address	Ch...	Channel Bandwidth	Security	Signal Intensity
<input type="checkbox"/>	Tenda_OFF02D	C8:3A:35:00:02:94	11	40 MHz	WPA	-82 dBm

Helpful Hints

Enabling WDS or Universal Repeater automatically disables the WPS feature.

Enabling WISP Mode automatically disables the WPS feature, WAN MAC clone, Secondary SSID, and Guest Network.

Universal Repeater: In this mode, the router will relay data to an associated root AP and AP function is enabled meanwhile. The wireless repeater relays signal between its stations and the root AP for greater wireless range.

⑤ The SSID, channel, MAC address, security mode and cipher type of the remote router will be added automatically on this page. You only need to enter the security key and click **Save**.

Tenda		Version	V1.0.0.2 (7514)
		Product Name	Wireless AC1200 Dual Band Router
Home Status Network Wireless Advanced Security Tools			
Basic	Wireless Extender		
Guest Network	Band: 2.4GHz		
Security	Mode: Universal Repeater		
Advanced	Remote SSID: Tenda_OFF02D		
Wireless Access Control	Channel: 2462MHz (Channel 11)		
Wireless Extender	Remote MAC Address: C8:3A:35:00:02:94		
WPS	Security Mode: WPA-PSK/WPA2-PSK		
Wireless Connection Status	Authentication Type: WPA-PSK		
	Cipher Type: AES		
	Security Key: <input type="password" value="••••••"/> <input type="checkbox"/> Display Key		
	(8-63 ASCII or 64 hex characters)		
	<input type="button" value="Open Scan"/>		
	<input type="button" value="Save"/> <input type="button" value="Cancel"/>		
	Helpful Hints Enabling WDS or Universal Repeater automatically disables the WPS feature. Enabling WISP Mode automatically disables the WPS feature, WAN MAC clone, Secondary SSID, and Guest Network. Universal Repeater: In this mode, the router will relay data to an associated root AP and AP function is enabled meanwhile. The wireless repeater relays signal between its stations and the root AP for greater wireless range. WISP Mode: In this mode the router acquires Internet access from a wireless Access Point. This method requires you to set the wireless name of Access Point, Channel and Security to match the wireless Access		

Note

1. This router's primary SSID will automatically change to match that of the remote router when the Universal Repeater feature is configured successfully. Please do not change this SSID. Changing this SSID may interrupt the wireless bridge link.
2. When the Universal Repeater is configured successfully, wireless clients need to join this Tenda wireless router's SSID for Internet access.

Verify Bridge Connectivity:

- ① Connect your PC to this Tenda wireless router via a wired or wireless connection and set it to "Obtain an IP address automatically". If you are not clear, see [Appendix 1 Configure PC TCP/IP Settings](#).
- ② Wait until your PC successfully obtains an IP address.

The screenshot shows the 'Local Status' window with the 'Support' tab selected. Under 'Connection status', the following information is displayed:

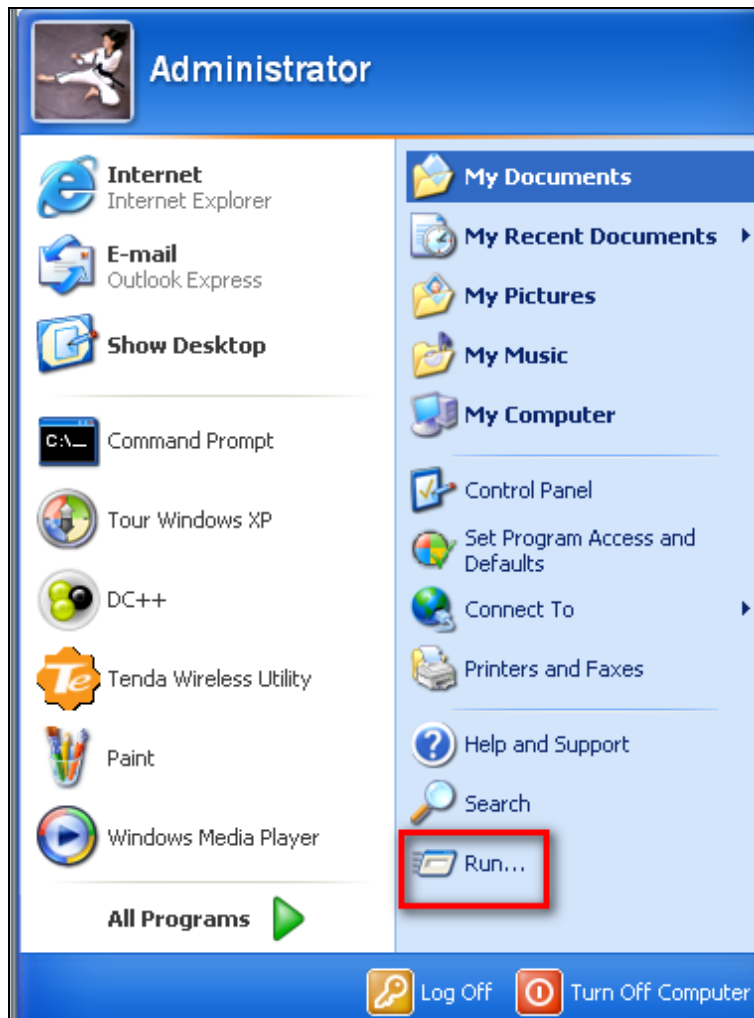
Address Type:	Assigned by DHCP
IP Address:	192.168.0.103
Subnet Mask:	255.255.255.0
Default Gateway:	192.168.0.1

Callout boxes provide additional context:

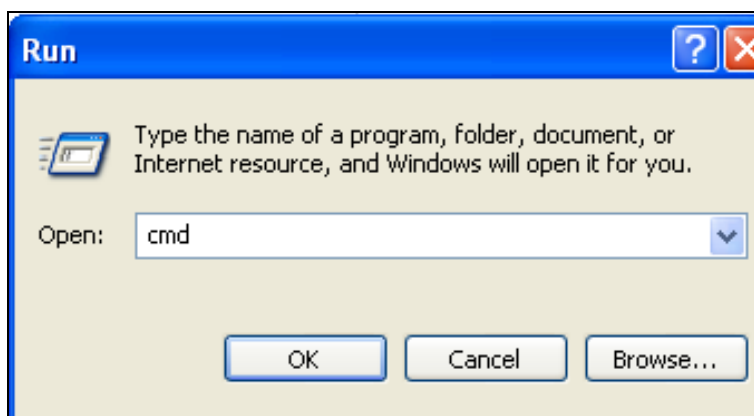
- For the IP Address: 192.168.0.103, the callout states: "Last number differs from that of the remote wireless router's LAN IP address."
- For the Default Gateway: 192.168.0.1, the callout states: "This is the remote router's LAN IP address."

At the bottom of the window, a message reads: "Windows did not detect problems with this connection. If you cannot connect, click Repair." Buttons for 'Details...', 'Repair', and 'Close' are also visible.

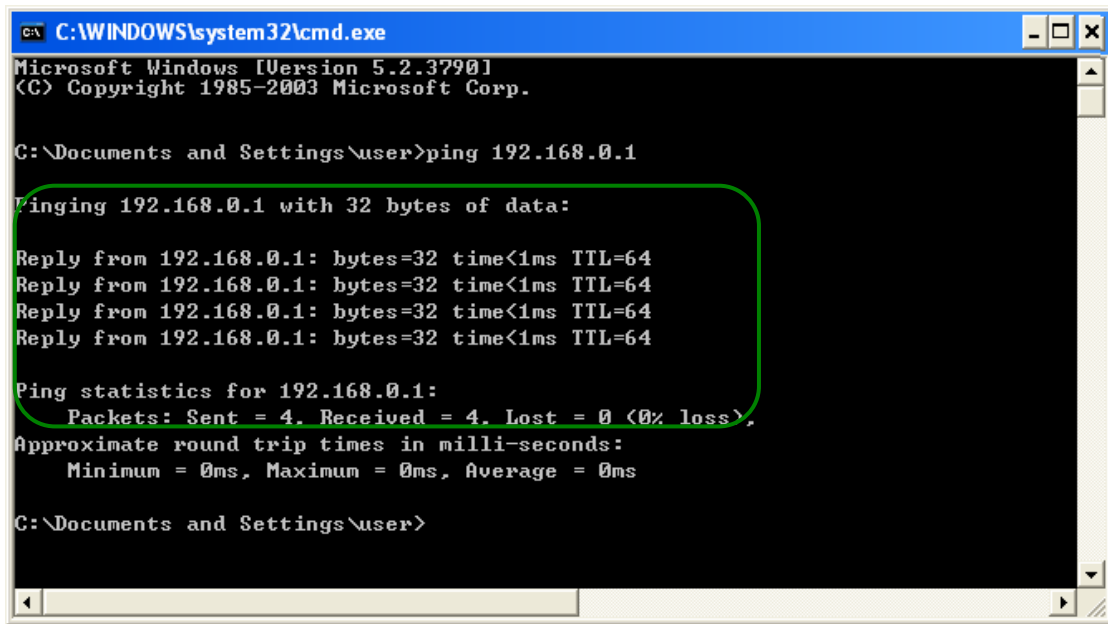
- ③ Click **Start -> R u n** .



- ④ Enter **cmd** and click **OK**.

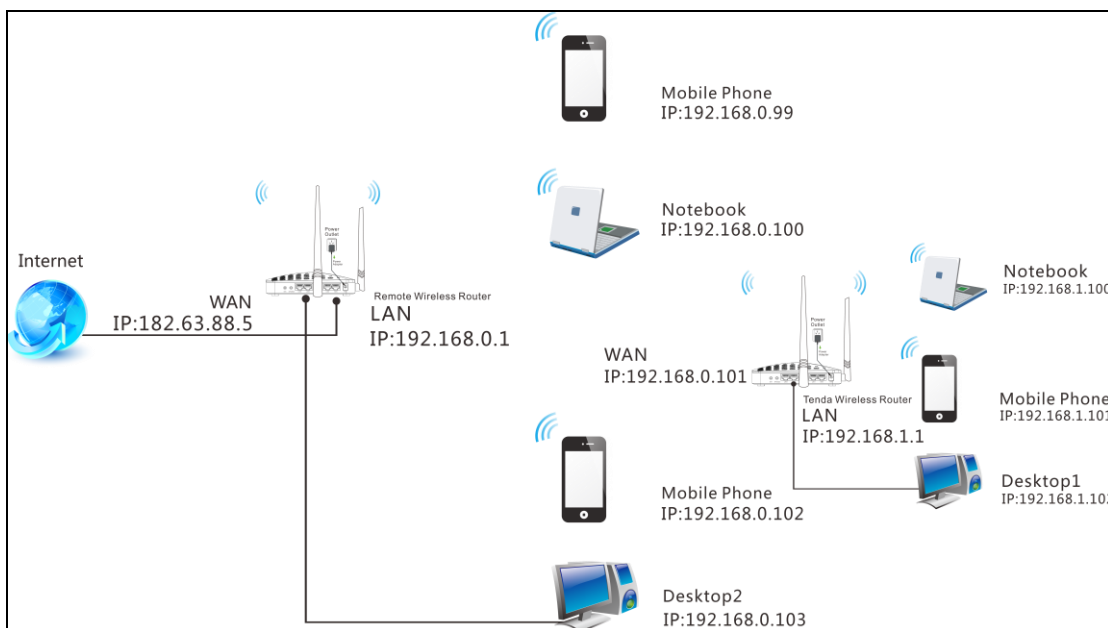


- ⑤ Enter "ping default gateway IP address". Here in this example, enter "ping 192.168.0.1" and press Enter. If you see a similar screen (highlighted area), the bridge is established successfully.



WISP Client Router Mode

WISP Mode: This is the WISP (Wireless Internet Service Provider) Client Router Mode. In this mode the router acquires Internet access from your WISP AP or a wireless Access Point on an existing network. Below shows the typical topology:



In this mode, you only need to configure the following settings on the Tenda wireless router:

- **WISP Mode Setup:** This mode establishes a wireless connection between the wireless LAN interface of the remote wireless router and the wireless WAN interface of your Tenda wireless router.
- **Internet Setup:** Configure this Tenda router to access Internet.

**Tip**-----

Before you start, make sure you have the following information:

1. Remote router's SSID, security mode, cipher type and security key.
 2. Internet connection information provided by the remote wireless router.
 3. No Ethernet cable is connected to the Tenda wireless router's WAN port.
-

WISP mode (Wireless WAN feature) Application Example:

Assuming the remote wireless router provides the following information:

SSID: Tenda_home

Security Mode: WPA-PSK

Cipher Type: AES

Security Key: 12345678

Internet Connection Type (for client): DHCP (dynamic IP)

Configuration Procedures:

- ① Click **Network** -> **WAN** to configure the Internet connection.

Tenda Version V1.0.0.2 (7514)
Product Name Wireless AC1200 Dual Band Router

Home Status **Network** Wireless Advanced Security Tools

LAN
WAN
Port Mode
MAC Clone
DHCP Server
DHCP Clients
Static Assignment
DHCP - Guest Network
Client List - Guest Network

WAN Settings

Connection Type

MTU (Default: 1450)

Helpful Hints

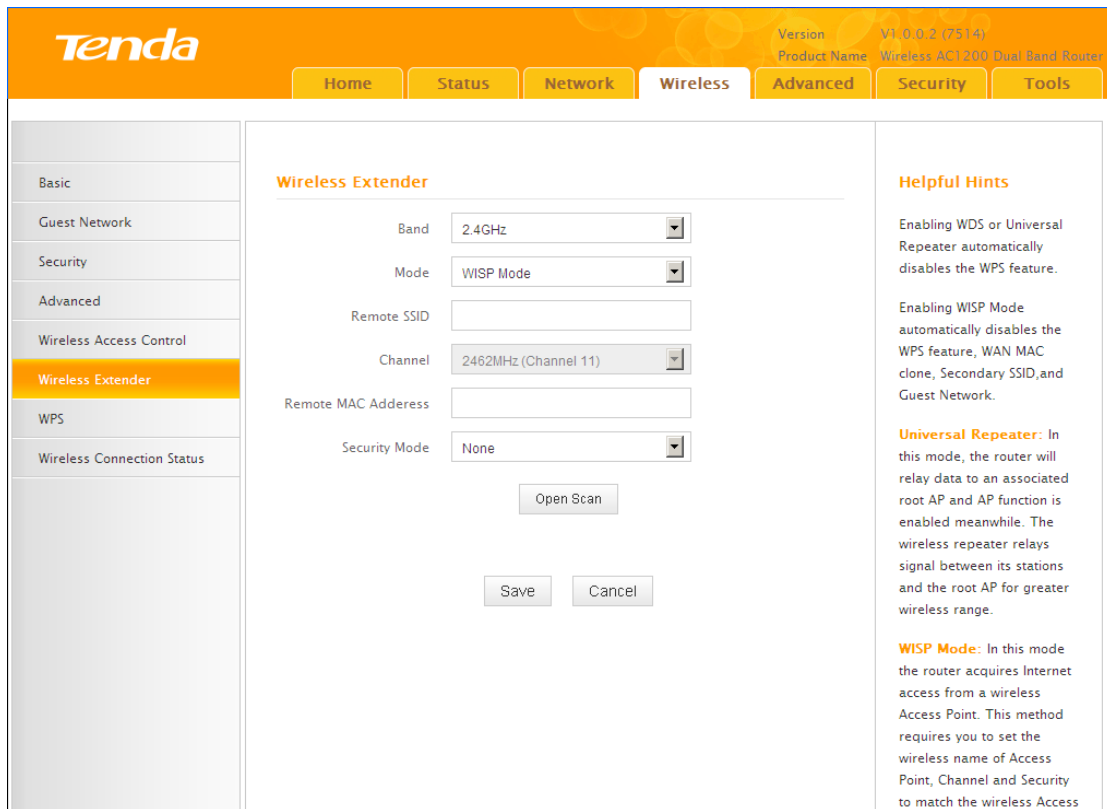
Dynamic IP: Select it to obtain IP settings automatically for Internet connection if your ISP does not give you any IP or account info.

Static IP: Select it if your ISP provides you with IP info. Enter IP address, subnet mask, Primary DNS and secondary DNS info, etc provided by your ISP in corresponding fields.

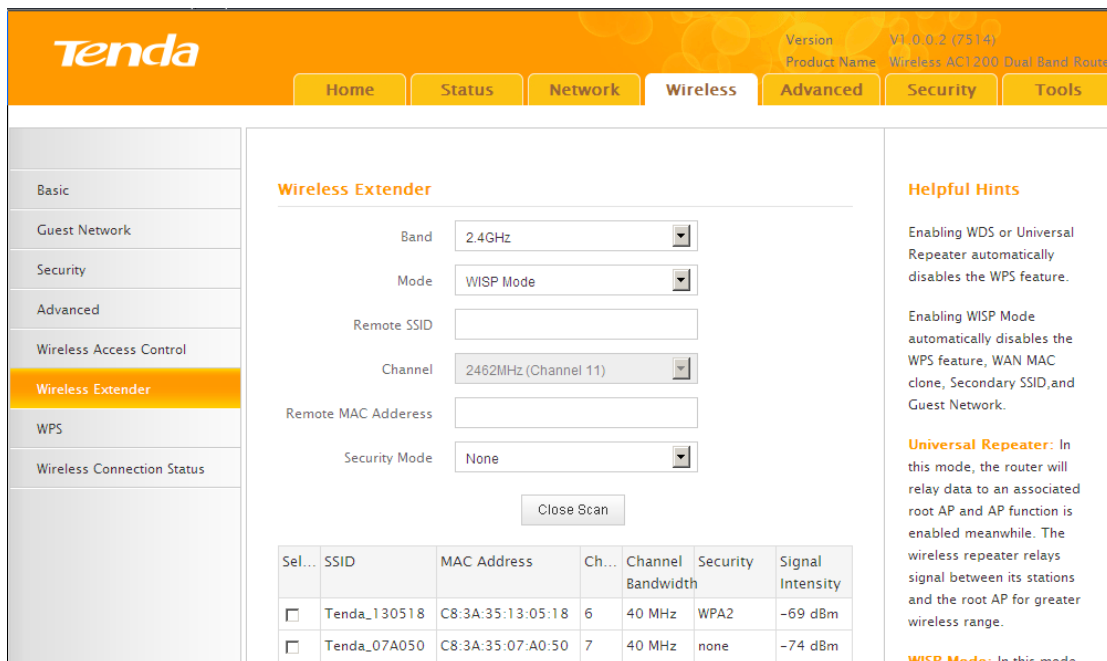
PPPoE: Select it if your ISP is using a PPPoE connection and enter PPPoE user name and password info provided by your ISP.

MTU: Maximum Transmission Unit. The default value varies according to different Internet connection types. DO NOT change it unless necessary.

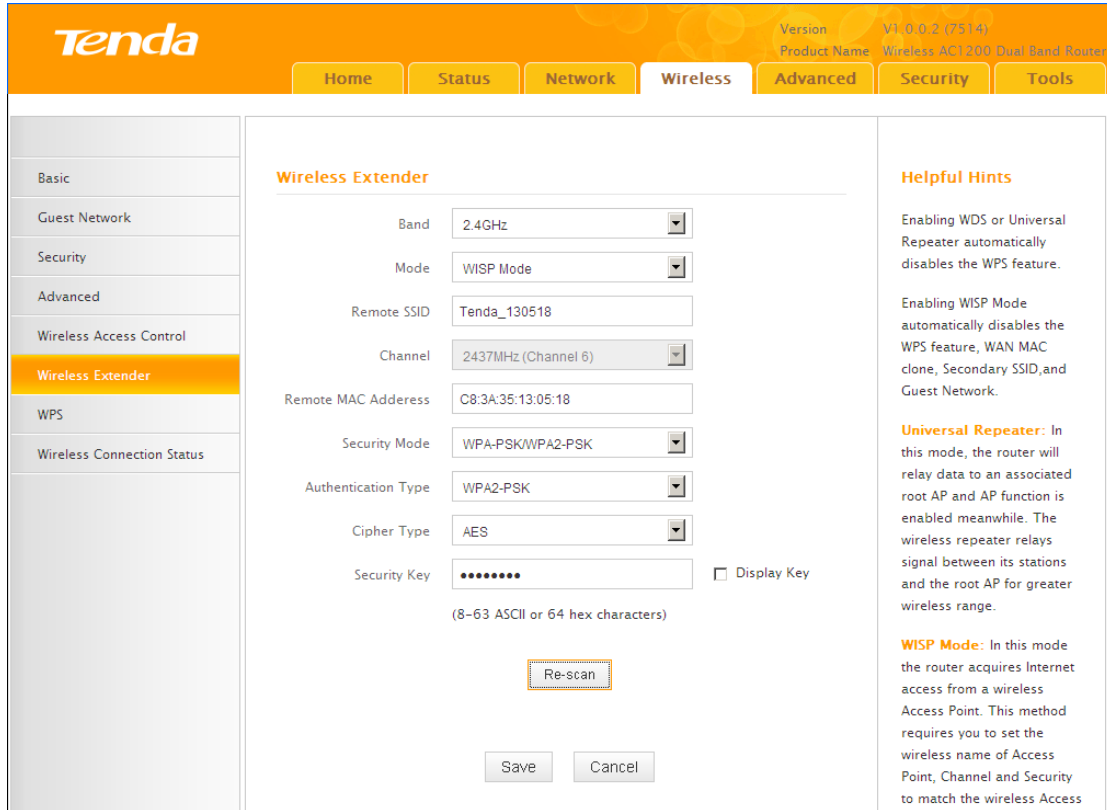
- ② Click **Wireless -> Wireless Extender**, select **WISP Mode** and click **Open Scan**.



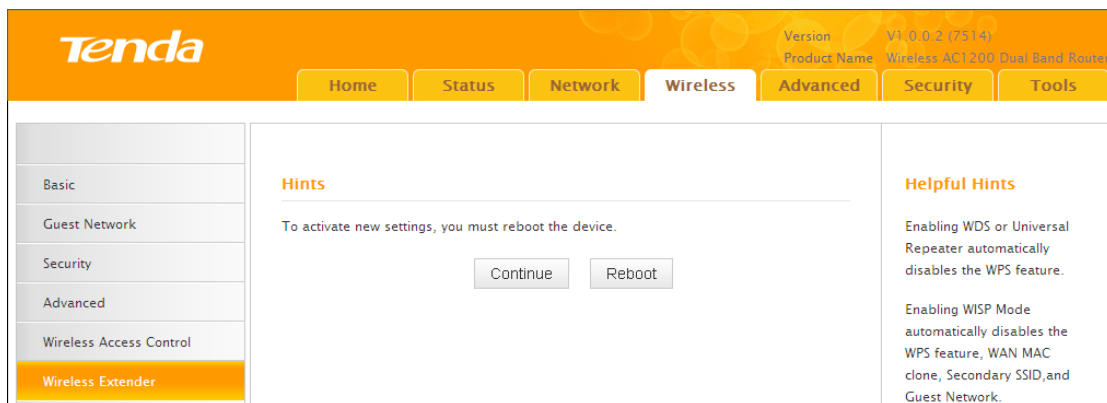
- ③ Select the remote router's wireless network (SSID) and click **Close Scan**.



- ④ The SSID, channel, MAC address, security mode and cipher type of the remote AP will be added automatically on this page. You only need to enter the security key and click **Save**.



- ⑤ Click **Reboot** on the appearing screen to reboot the router.



⑥ System automatically enters the home page (Quick Internet Setup screen) after reboot. Click the **Advanced** button there.

The screenshot shows the Tenda router's configuration interface. At the top, the Tenda logo is on the left, and the version (V1.0.0.2 (7514)) and product name (Wireless AC1200 Dual Band Router) are on the right. The main content area is divided into two sections:

- Internet Connection Setup:** This section has a title and two radio buttons for "Internet Connection Type": "PPPoE" (unselected) and "Dynamic IP" (selected). Below this, it says "For other connection types, click 'Advanced'" and "Current Mode is WISP."
- Wireless Security Setup:** This section has a dropdown menu set to "2.4G Security" and a password input field containing seven dots. Below the password field, it says "(Default: 12345678)". There are also three radio buttons for "TX Power": "High" (selected), "Medium" (unselected), and "Low" (unselected). At the bottom of this section are "Save" and "Cancel" buttons.

⑦ Click **Status** -> **WAN Status** to check the WAN status.

The screenshot shows the Tenda router's status page. At the top, the Tenda logo is on the left, and the version (V1.0.0.2 (7514)) and product name (Wireless AC1200 Dual Band Router) are on the right. Below the header is a navigation bar with buttons for "Home", "Status", "Network", "Wireless", "Advanced", "Security", and "Tools". The "Status" button is highlighted. On the left side, there is a sidebar menu with options: "System Status", "WAN Status" (highlighted), "LAN Status", "Wireless Status", and "Connection Status". The main content area is titled "WAN Status" and displays the following information:

- WAN Medium Type: 2.4GHz WISP
- Connection Type: Dynamic IP
- Connection Status: Connecting...
- MAC Address: 00:90:4C:01:70:3D
- IP Address: 192.168.30.176
- Subnet Mask: 255.255.255.0
- Gateway: 192.168.30.1
- Primary DNS Server: 192.168.30.1
- Secondary DNS Server: 0.0.0.0
- Connection Duration: 0Day(s)01:30:27

At the bottom of the WAN Status section are "Release" and "Refresh" buttons. On the right side of the main content area, there is a "Helpful Hints" section with the text: "This section displays WAN port status."

- ⑧ If the WAN Connection Status keeps displaying "Connecting...", change the LAN IP address of this router to a different subnet from the remote router's LAN IP address.

The screenshot displays the Tenda router's web interface for LAN Settings. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The 'Network' tab is selected. The left sidebar lists various network settings, with 'LAN' highlighted. The main content area is titled 'LAN Settings' and includes a description: 'Use this section to configure your router's LAN IP settings.' Below this, there are three input fields: 'MAC Address' (00:90:4C:01:60:3D), 'IP Address' (192.168.1.1), and 'Subnet Mask' (255.255.255.0). The 'IP Address' field is highlighted with a red box. At the bottom of the form are 'Save' and 'Cancel' buttons. On the right side, there is a 'Helpful Hints' section with the following text:

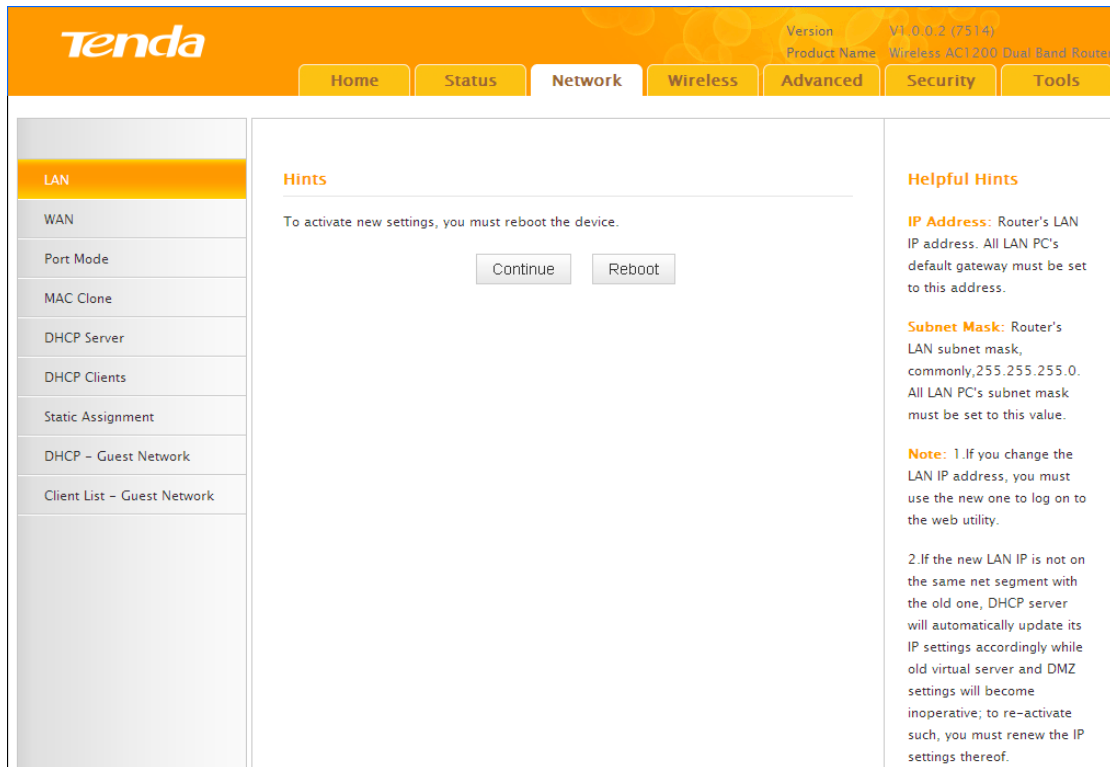
IP Address: Router's LAN IP address. All LAN PC's default gateway must be set to this address.

Subnet Mask: Router's LAN subnet mask, commonly, 255.255.255.0. All LAN PC's subnet mask must be set to this value.

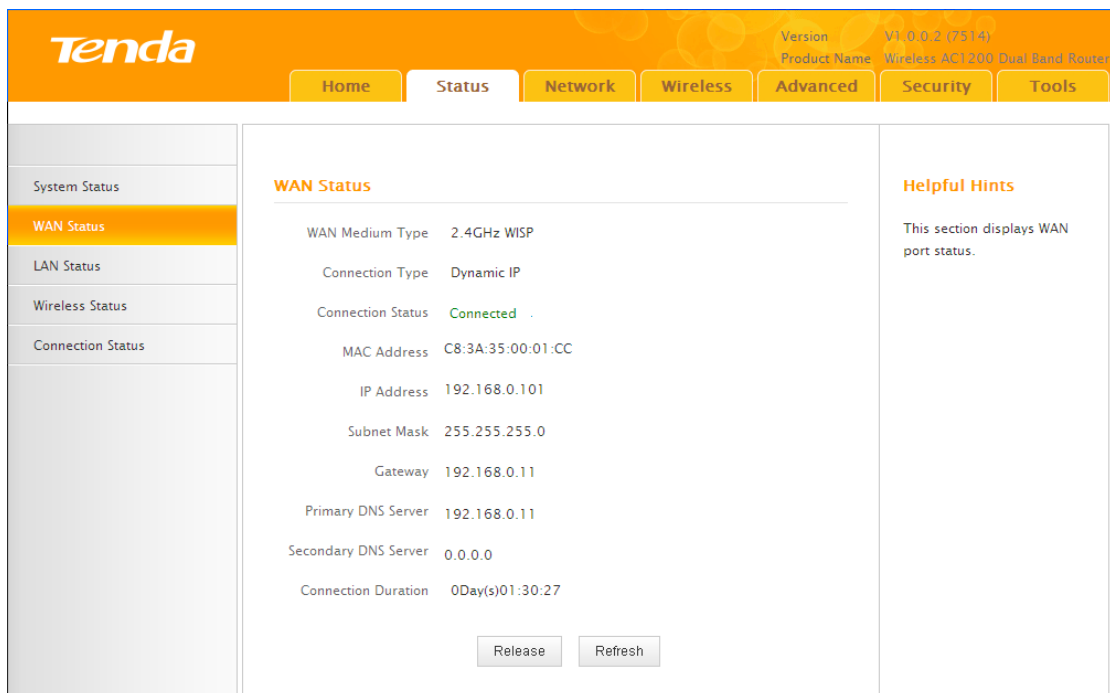
Note: 1. If you change the LAN IP address, you must use the new one to log on to the web utility.
2. If the new LAN IP is not on the same net segment with the old one, DHCP server will automatically update its IP settings accordingly while old virtual server and DMZ settings will become inoperative; to re-activate such, you must renew the IP settings thereof.

- ⑨ Click **OK** on the appearing screen to reboot the router.

⑩ Click **Reboot** on the appearing screen to reboot the router.



System automatically enters the Status screen after reboot. Check the WAN Connection Status, if it displays "Connected", you have successfully connected to Internet.

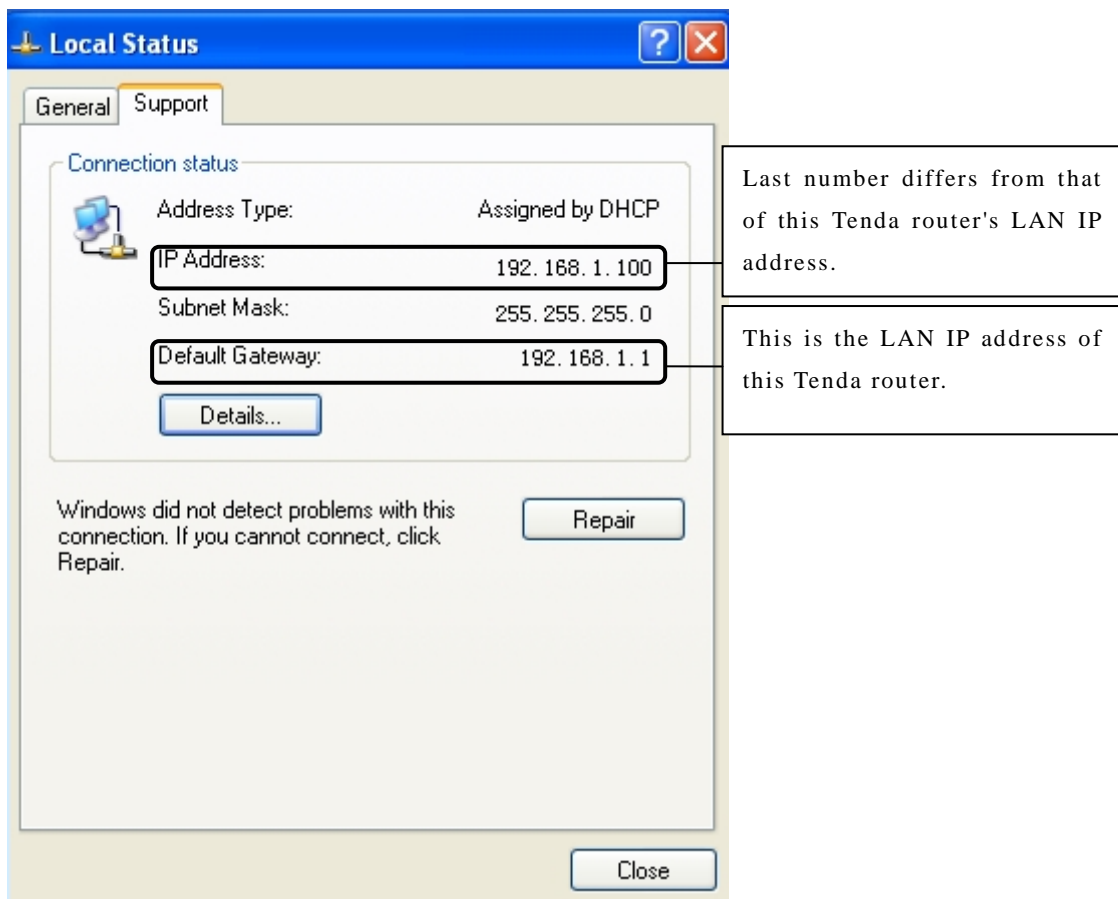


Note

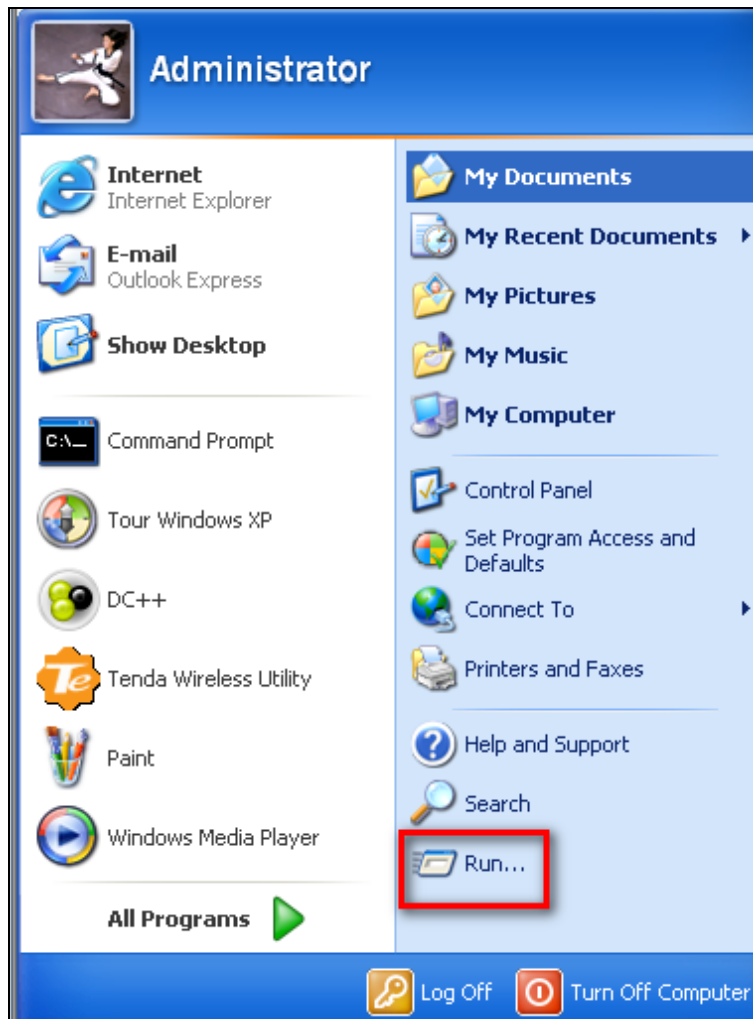
1. This router's primary SSID will automatically change to match that of the remote router when the WISP (client router) mode feature is configured successfully. Please do not change this SSID. Changing this SSID may interrupt the wireless link.
2. When the WISP (client router) mode is configured successfully, wireless clients need to join this Tenda wireless router's SSID for Internet access.

Verify Bridge Connectivity:

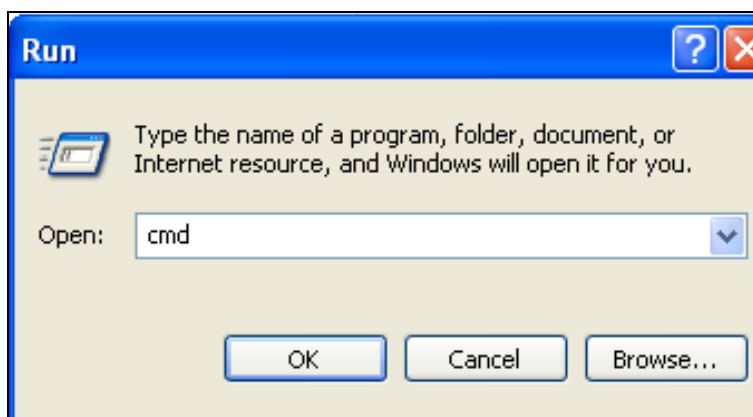
- ① Connect your PC to this Tenda wireless router via a wired or wireless connection and set it to "Obtain an IP address automatically". If you are not clear, see [Appendix 1 Configure PC TCP/IP Settings](#).
- ② Wait until your PC successfully obtains an IP address.



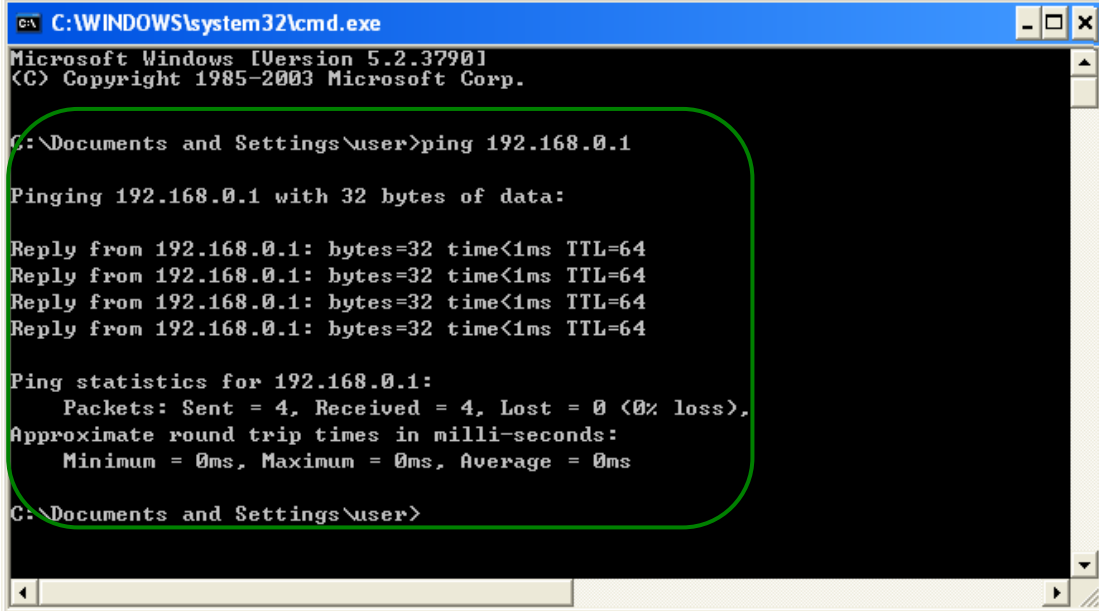
- ③ Click **Start ->Run**



- ④ Enter **cmd** and click **OK**.



- ⑤ Enter "ping Tenda router's gateway IP address" . Here in this example, enter "ping 192.168.0.1" and press **Enter**. If you see a similar screen (highlighted area), the bridge is established successfully.



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 5.2.3790]
(C) Copyright 1985-2003 Microsoft Corp.

C:\Documents and Settings\user>ping 192.168.0.1

Pinging 192.168.0.1 with 32 bytes of data:

Reply from 192.168.0.1: bytes=32 time<1ms TTL=64
Reply from 192.168.0.1: bytes=32 time<1ms TTL=64
Reply from 192.168.0.1: bytes=32 time<1ms TTL=64
Reply from 192.168.0.1: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Documents and Settings\user>
```

WDS Mode

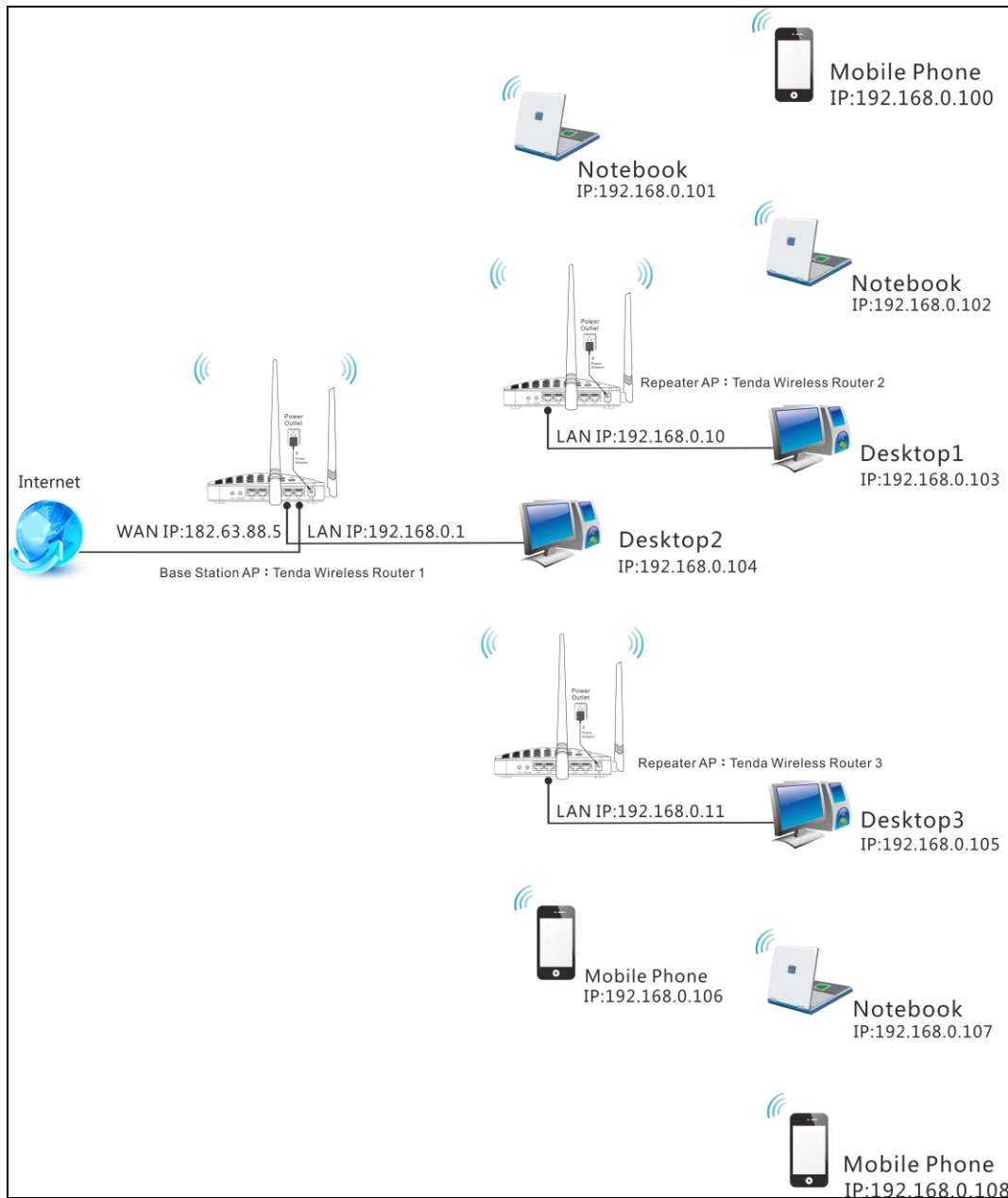
WDS (Wireless Distribution System) includes Wireless Bridge and Wireless AP.

The differences are described as below:

Operating in Wireless AP mode, clients can access Internet by connecting to the router via an Ethernet cable or wirelessly. Operating in Wireless Bridge mode, clients can access Internet by connecting to the router via an Ethernet cable or wirelessly joining the router's secondary SSID (wireless network) or guest network.

WDS: Wireless distribution system (WDS) is a system enabling the wireless interconnection of access points in an IEEE 802.11 network. It allows a wireless network to be expanded using multiple access points without the traditional requirement for a wired backbone to link them. The Tenda wireless router can function as a base station AP to create a wireless network or as a repeater AP to repeat and extend the base station AP's wireless network to a farther and wider

range. The following figure shows an application scenario.



In this mode, you must set up both the base station AP, and the repeater AP.



Tip-----

Before you start, **verify the following:**

1. Tenda wireless router 1 that functions as a base station AP has successfully connected to Internet.
2. No Ethernet cables are connected to the WAN ports of the repeater APs: Tenda wireless routers 2 and 3.

WDS Application Example (as shown in the application scenario above):

Step 1: Configure Base Station AP (Tenda Wireless Router 1)

- ① **Mode:** Select **WDS Mode**.
- ② **WDS Mode:** Select **Wireless AP**.
- ③ **SSID:** Customize a SSID, for example, Tenda_home.
- ④ **Channel:** Specify a channel for the base station AP to operate on, for example, 2437MHz (Channel 6).
- ⑤ **Remote MAC Address:** Manually enter the MAC addresses of the two remote repeater APs (You can click **Open Scan** to view the MAC addresses).
- ⑥ **Security Mode:** Specify security mode/authentication type, cipher type and security key for the base station AP.
- ⑦ Click **Save** to save your settings.

The screenshot displays the 'Wireless Extender' configuration page in the Tenda router's web interface. The page is titled 'Wireless Extender' and includes a navigation menu on the left with options like Basic, Guest Network, Security, Advanced, Wireless Access Control, Wireless Extender (selected), WPS, and Wireless Connection Status. The main configuration area contains the following fields:

- Band:** 2.4GHz
- Mode:** WDS Mode
- WDS Mode:** Wireless AP
- Remote SSID:** Tenda_home
- Channel:** 2437MHz (Channel 6)
- Remote MAC Address:** C8:3A:35:00:01:C8
- Remote MAC Address:** C8:3A:35:13:05:18
- Security Mode:** WPA-PSK/WPA2-PSK
- Authentication Type:** WPA-PSK
- Cipher Type:** AES
- Security Key:** A field with 8 dots, with a 'Display Key' checkbox and a note '(8-63 ASCII or 64 hex characters)'. Below this field is an 'Open Scan' button.

On the right side, there is a 'Helpful Hints' section with the following text:

Helpful Hints

Enabling WDS or Universal Repeater automatically disables the WPS feature.

Enabling WISP Mode automatically disables the WPS feature, WAN MAC clone, Secondary SSID, and Guest Network.

Universal Repeater: In this mode, the router will relay data to an associated root AP and AP function is enabled meanwhile. The wireless repeater relays signal between its stations and the root AP for greater wireless range.

WISP Mode: In this mode the router acquires Internet access from a wireless Access Point. This method requires you to set the wireless name of Access Point, Channel and Security to match the wireless Access Point.

- ⑧ Click **Network -> DHCP Server** on the base AP's configuration interface to enable the DHCP server.

Tenda Version: V1.0.0.2 (7514)
Product Name: Wireless AC1200 Dual Band Router

Home Status **Network** Wireless Advanced Security Tools

LAN
WAN
Port Mode
MAC Clone
DHCP Server
DHCP Clients
Static Assignment
DHCP - Guest Network
Client List - Guest Network

DHCP Server

The Dynamic Host Configuration Protocol (DHCP) is an automatic configuration protocol used on IP networks. If you enable the built-in DHCP server on this router, it will automatically configure TCP and IP protocol settings for all PCs in LAN, including IP address, subnet mask, gateway and DNS etc..

DHCP Server Disable Enable

Start IP Address:

End IP Address:

Primary DNS Server:

Secondary DNS Server:

Lease Time:

Save Cancel

Helpful Hints

The Dynamic Host Configuration Protocol (DHCP) is an automatic configuration protocol used on IP networks. If you enable the built-in DHCP server on this router, it will automatically configure TCP/IP protocol settings for all PCs in LAN, including IP address, subnet mask, gateway and DNS etc..

Start/End IP Address: Specify a IP address range for DHCP assignment by entering a starting/ending IP address.

Note: To activate this feature, you must reboot the router and set all LAN PC's TCP/IP settings to 'Obtain an IP address automatically'.

Step 2: Configure Repeater AP (Tenda Wireless Router 2)

- ① Click **Network** -> **LAN** to specify a LAN IP address that is in the same subnet as yet different from the base station AP.

Tenda Version: V1.0.0.2 (7514)
Product Name: Wireless AC1200 Dual Band Router

Home Status **Network** Wireless Advanced Security Tools

LAN **WAN**
Port Mode
MAC Clone
DHCP Server
DHCP Clients
Static Assignment
DHCP - Guest Network
Client List - Guest Network

LAN Settings

Use this section to configure your router's LAN IP settings.

MAC Address: 00:90:4C:01:60:3D

IP Address:

Subnet Mask:

Save Cancel

Helpful Hints

IP Address: Router's LAN IP address. All LAN PC's default gateway must be set to this address.

Subnet Mask: Router's LAN subnet mask, commonly, 255.255.255.0. All LAN PC's subnet mask must be set to this value.

Note: 1.If you change the LAN IP address, you must use the new one to log on to the web utility.
2.If the new LAN IP is not on the same net segment with the old one, DHCP server will automatically update its IP settings accordingly while old virtual server and DMZ settings will become inoperative; to re-activate such, you must renew the IP settings thereof.

Click **OK** in the appearing screen.

- ② Click **Wireless** -> **Wireless Extender**, select **WDS Mode** from the **Mode** drop-down

list, select **Wireless AP** from the **WDS Mode** drop-down list and then click **Open Scan**.

The screenshot shows the 'Wireless Extender' configuration page. The 'WDS Mode' dropdown menu is highlighted and set to 'Wireless AP'. Below the form, the 'Open Scan' button is visible. The page includes a sidebar with navigation options like 'Basic', 'Guest Network', 'Security', 'Advanced', 'Wireless Access Control', 'Wireless Extender', 'WPS', and 'Wireless Connection Status'. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The right side of the page contains 'Helpful Hints' regarding WDS, WISP Mode, Universal Repeater, and WISP Mode.

③ Search for and select the base station AP's SSID and then click **Close Scan**.

The screenshot shows the 'Wireless Extender' configuration page after a scan. The 'Close Scan' button is now visible. Below the form, a table displays the results of the scan:

Sel...	SSID	MAC Address	Ch...	Channel Bandwidth	Security	Signal Intensity
<input type="checkbox"/>	Tenda_home	C8-3A-35-0F-F0-2D	6	40 MHz	WPA	-82 dBm

The page layout is identical to the previous screenshot, including the sidebar, top navigation, and helpful hints.

④ The SSID, channel, MAC address, security settings except security key of the base station AP will be automatically added to the corresponding fields. You only need to enter the security key of the base station AP and click **Save**.

Tenda Version: V1.0.0.2 (7514)
Product Name: Wireless AC1200 Dual Band Router

Home Status Network **Wireless** Advanced Security Tools

Basic
Guest Network
Security
Advanced
Wireless Access Control
Wireless Extender
WPS
Wireless Connection Status

Wireless Extender

Band: 2.4GHz

Mode: WDS Mode

WDS Mode: Wireless AP

Remote SSID: Tenda_home

Channel: 2437MHz (Channel 6)

Remote MAC Address: C8:3A:35:0F:F0:2D

Remote MAC Address:

Security Mode: WPA-PSK/WPA2-PSK

Authentication Type: WPA-PSK

Cipher Type: AES

Security Key: Display Key
(8-63 ASCII or 64 hex characters)

Re-scan

Helpful Hints

Enabling WDS or Universal Repeater automatically disables the WPS feature.

Enabling WISP Mode automatically disables the WPS feature, WAN MAC clone, Secondary SSID, and Guest Network.

Universal Repeater: In this mode, the router will relay data to an associated root AP and AP function is enabled meanwhile. The wireless repeater relays signal between its stations and the root AP for greater wireless range.

WISP Mode: In this mode the router acquires Internet access from a wireless Access Point. This method requires you to set the wireless name of Access Point, Channel and Security to match the wireless Access Point.

5 Click **Network -> DHCP Server**, disable the DHCP server there and then click **Save**.

The screenshot shows the Tenda router's web interface. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The 'Network' tab is selected. On the left sidebar, 'DHCP Server' is highlighted. The main content area is titled 'DHCP Server' and contains the following information:

- DHCP Server:** Disable Enable
- Start IP Address:** 192.168.0.100
- End IP Address:** 192.168.0.200
- Primary DNS Server:** 192.168.0.1
- Secondary DNS Server:** (empty field)
- Lease Time:** 1 day

Buttons for 'Save' and 'Cancel' are at the bottom. A 'Helpful Hints' section on the right explains the DHCP protocol and provides instructions on setting IP addresses and rebooting the router.

Step 3: Configure Repeater AP (Tenda Wireless Router 3)

1 Click **Network -> LAN** to specify a LAN IP address that is in the same subnet as yet different from the base AP and the other remote AP.

The screenshot shows the Tenda router's web interface. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The 'Network' tab is selected. On the left sidebar, 'LAN' is highlighted. The main content area is titled 'LAN Settings' and contains the following information:

- MAC Address:** 00:90:4C:01:60:3D
- IP Address:** 192.168.0.11
- Subnet Mask:** 255.255.255.0

Buttons for 'Save' and 'Cancel' are at the bottom. A 'Helpful Hints' section on the right provides instructions on setting the IP address and subnet mask, and notes that changing the IP address requires a logon and may affect DHCP and DMZ settings.

- ② Click **OK** in the appearing screen.
- ③ Click **Wireless -> Wireless Extender**, select **WDS Mode** from the **Mode** drop-down list, select **Wireless AP** from the **WDS Mode** drop-down list and then click **Open Scan**.

The screenshot displays the Tenda web interface for configuring the Wireless Extender. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The 'Wireless' section is active, and the 'Wireless Extender' sub-section is selected in the left sidebar. The main configuration area contains the following fields:

- Band: 2.4GHz
- Mode: WDS Mode
- WDS Mode: Wireless AP
- Remote SSID: Tenda_01703D
- Channel: 2437MHz (Channel 6)
- Remote MAC Address: (empty)
- Remote MAC Address: (empty)
- Security Mode: None

Buttons for 'Open Scan', 'Save', and 'Cancel' are located at the bottom of the configuration area. On the right side, there is a 'Helpful Hints' section with the following text:

Helpful Hints

Enabling WDS or Universal Repeater automatically disables the WPS feature.

Enabling WISP Mode automatically disables the WPS feature, WAN MAC clone, Secondary SSID, and Guest Network.

Universal Repeater: In this mode, the router will relay data to an associated root AP and AP function is enabled meanwhile. The wireless repeater relays signal between its stations and the root AP for greater wireless range.

WISP Mode: In this mode the router acquires Internet access from a wireless Access Point. This method

- ④ Search for and select the base station AP's SSID and then click **Close Scan**.

Wireless Extender

Band: 2.4GHz

Mode: WDS Mode

WDS Mode: Wireless AP

Remote SSID:

Channel: 2437MHz (Channel 6)

Remote MAC Address:

Remote MAC Address:

Security Mode: None

Close Scan

Sel...	SSID	MAC Address	Ch...	Channel Bandwidth	Security	Signal Intensity
<input type="checkbox"/>	Tenda_home	C8:3A:35:0F:F0:2D	6	40 MHz	WPA	-82 dBm

Helpful Hints

Enabling WDS or Universal Repeater automatically disables the WPS feature.

Enabling WISP Mode automatically disables the WPS feature, WAN MAC clone, Secondary SSID, and Guest Network.

Universal Repeater: In this mode, the router will relay data to an associated root AP and AP function is enabled meanwhile. The wireless repeater relays signal between its stations and the root AP for greater wireless range.

WISP Mode: In this mode the router acquires Internet access from a wireless

- ⑤ The SSID, channel, MAC address, security settings except security key of the base station AP will be automatically added to the corresponding fields. You only need to enter the security key of the base station AP and click **Save**.

Wireless Extender

Band: 2.4GHz

Mode: WDS Mode

WDS Mode: Wireless AP

Remote SSID: Tenda_home

Channel: 2437MHz (Channel 6)

Remote MAC Address: C8:3A:35:0F:F0:2D

Remote MAC Address:

Security Mode: WPA-PSK/WPA2-PSK

Authentication Type: WPA-PSK

Cipher Type: AES

Security Key: Display Key

(8-63 ASCII or 64 hex characters)

Re-scan

Helpful Hints

Enabling WDS or Universal Repeater automatically disables the WPS feature.

Enabling WISP Mode automatically disables the WPS feature, WAN MAC clone, Secondary SSID, and Guest Network.

Universal Repeater: In this mode, the router will relay data to an associated root AP and AP function is enabled meanwhile. The wireless repeater relays signal between its stations and the root AP for greater wireless range.

WISP Mode: In this mode the router acquires Internet access from a wireless Access Point. This method requires you to set the wireless name of Access Point, Channel and Security to match the wireless Access Point.

- ⑥ Click **Network -> DHCP Server**, disable the DHCP server there and then click **Save**.

The screenshot shows the Tenda web interface for the Wireless AC1200 Dual Band Router. The 'Network' tab is selected, and the 'DHCP Server' sub-tab is active. The DHCP Server is currently disabled. The configuration fields are as follows:

Field	Value
DHCP Server	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Start IP Address	192.168.0.100
End IP Address	192.168.0.200
Primary DNS Server	192.168.0.1
Secondary DNS Server	
Lease Time	1 day

The 'Helpful Hints' section on the right states: "The Dynamic Host Configuration Protocol (DHCP) is an automatic configuration protocol used on IP networks. If you enable the built-in DHCP server on this router, it will automatically configure TCP/IP protocol settings for all PCs in LAN, including IP address, subnet mask, gateway and DNS etc.."

Start/End IP Address: Specify a IP address range for DHCP assignment by entering a starting/ending IP address.

Note: To activate this feature, you must reboot the router and set all LAN PC's TCP/IP settings to 'Obtain an IP address automatically'.



Note

- 1 . To set up a wireless network with WDS, both access points must be WDS capable.
- 2 . This router's primary SSID will automatically change to match that of the remote router when the WDS feature is configured successfully. Please do not change this SSID. Changing this SSID may interrupt the wireless bridge link.
- 3 . When the WDS is configured successfully; wireless clients need to join this Tenda wireless router's SSID for Internet access.

Verify Bridge Connectivity:

- ① Connect your PC to this Tenda wireless router via a wired or wireless connection and set it to "Obtain an IP address automatically". If you are not clear, see [Appendix 1 Configure PC TCP/IP Setting](#).
- ② Wait until your PC successfully obtains an IP address.

The screenshot shows the 'Local Status' window with the 'Support' tab selected. Under 'Connection status', the following information is displayed:

Address Type:	Assigned by DHCP
IP Address:	192.168.0.105
Subnet Mask:	255.255.255.0
Default Gateway:	192.168.0.1

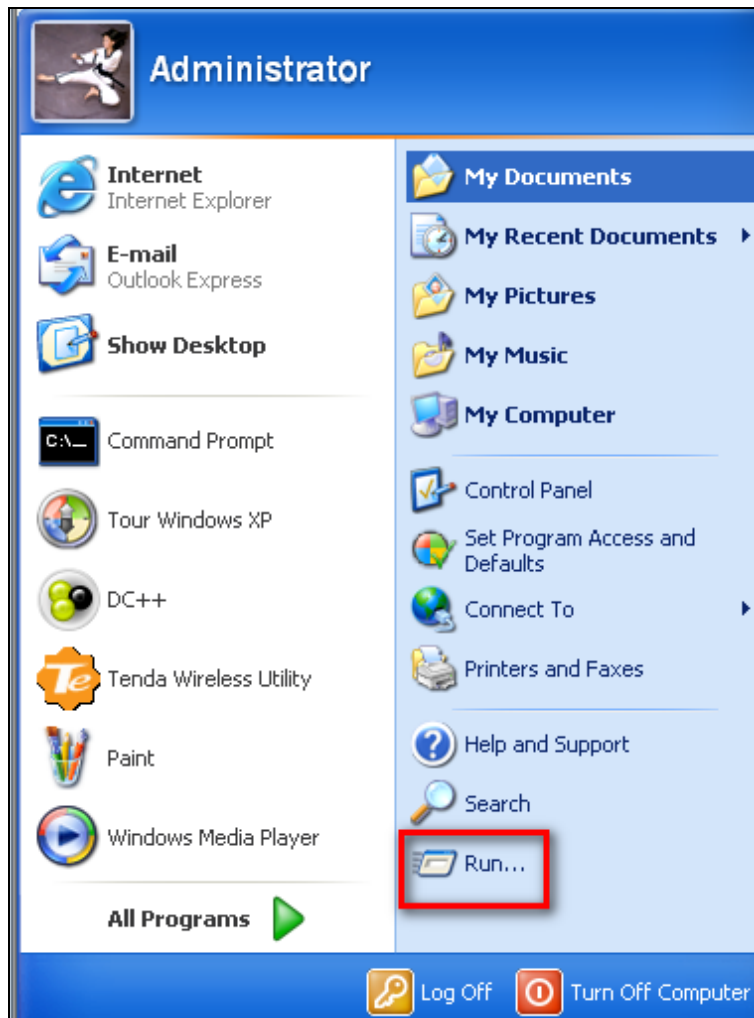
Callout 1: Last number differs from that of the remote wireless router's LAN IP address. (Points to the IP Address: 192.168.0.105)

Callout 2: This is the remote router's LAN IP address. (Points to the Default Gateway: 192.168.0.1)

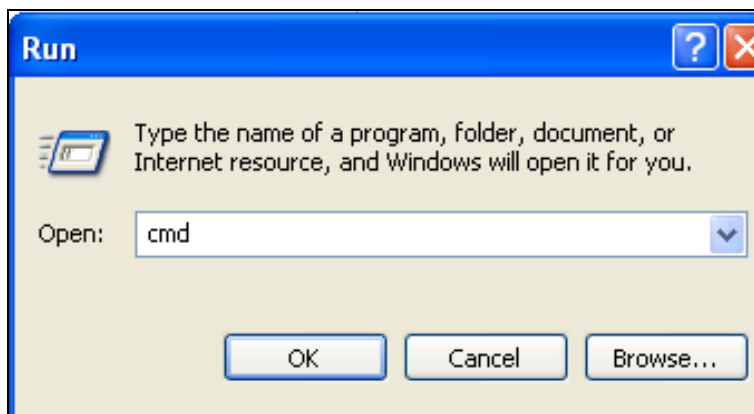
Windows did not detect problems with this connection. If you cannot connect, click Repair.

Buttons: Details..., Repair, Close

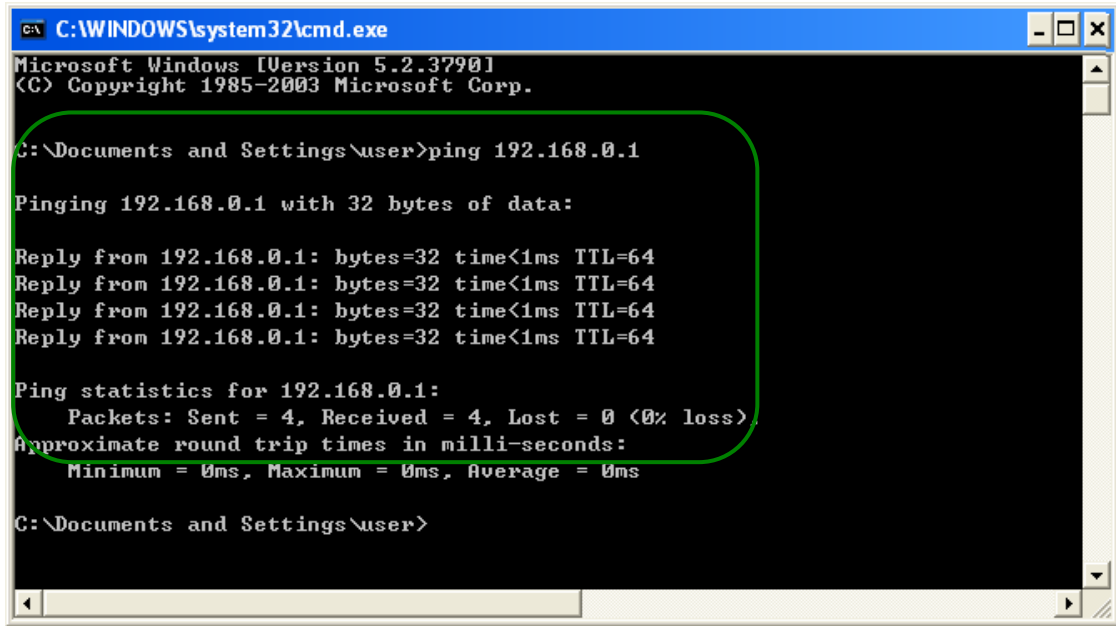
- ③ Click **Start ->Run** .



- ④ Enter **cmd** and click **OK**.



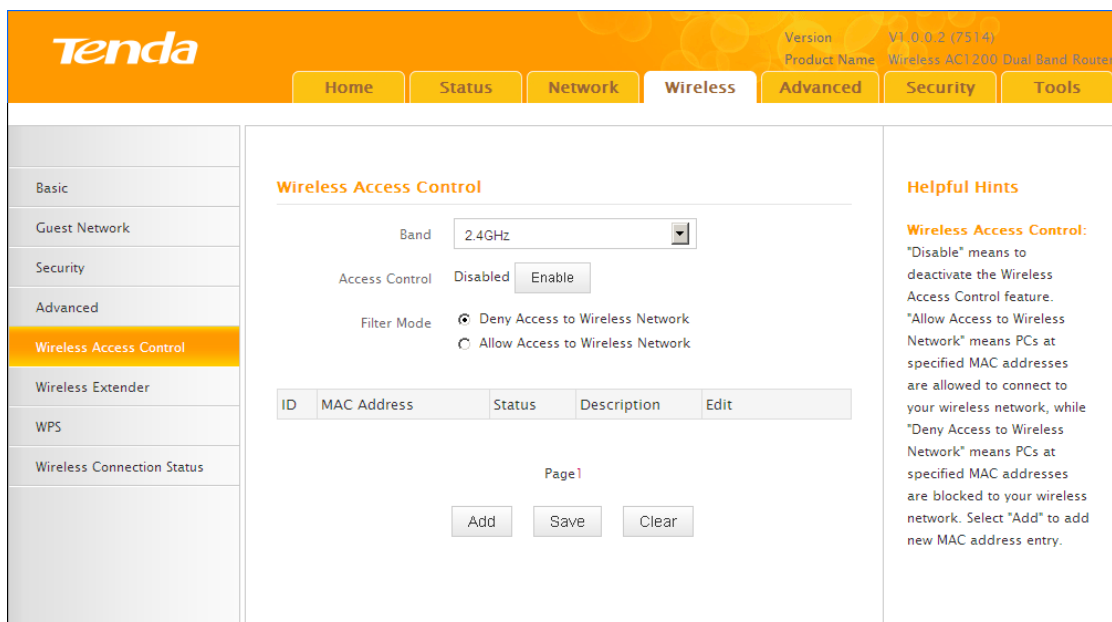
- ⑤ Enter "ping default gateway IP address" . Here in this example, enter "ping 192.168.0.1" and press Enter. If you see a similar screen (highlighted area), the bridge is established successfully.



3.5 Access Control

Specify a list of devices to "Permit" or "Forbid" a connection to your wireless network via the devices' MAC Addresses. Click **Wireless -> Wireless Access Control** to enter the configuration screen.

There are three options available: Disable, Deny Access to Wireless Network and Allow Access to Wireless Network.



A. If you want to allow all wireless clients to join your wireless network, select **Disable**.

B. If you want to allow **ONLY** the specified wireless clients to join your wireless network, select **Allow Access to Wireless Network**.

C. If you want to disallow **ONLY** the specified wireless clients to join your wireless network, select **Deny Access to Wireless Network**.

Wireless Access Control Application Example:

To only allow your own notebook at the MAC address of C8:3A:35:C2:CA:E7 to join your wireless network (SSID : Tenda_home)

Configuration Procedures:

- ① Select the wireless band you wish to use, for example 2.4GHz.
- ② Click **Enable**.
- ③ Select **Allow Access to Wireless Network**.

The screenshot displays the Tenda router's web interface for configuring Wireless Access Control. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The 'Wireless' section is active, and the 'Wireless Access Control' sub-section is selected in the left sidebar.

Wireless Access Control

Band: 2.4GHz

Access Control: Disabled

Filter Mode: Deny Access to Wireless Network Allow Access to Wireless Network

ID	MAC Address	Status	Description	Edit
----	-------------	--------	-------------	------

Page 1

Helpful Hints

Wireless Access Control:
"Disable" means to deactivate the Wireless Access Control feature.
"Allow Access to Wireless Network" means PCs at specified MAC addresses are allowed to connect to your wireless network, while
"Deny Access to Wireless Network" means PCs at specified MAC addresses are blocked to your wireless network. Select "Add" to add new MAC address entry.

④ Click **Add**.

Tenda Version: V1.0.0.2 (7514)
Product Name: Wireless AC1200 Dual Band Router

Home Status Network **Wireless** Advanced Security Tools

Basic
Guest Network
Security
Advanced
Wireless Access Control
Wireless Extender
WPS
Wireless Connection Status

Wireless Access Control

Band: 2.4GHz

Access Control: Disabled **Enable**

Filter Mode: Deny Access to Wireless Network
 Allow Access to Wireless Network

ID	MAC Address	Status	Description	Edit
Page 1				

Helpful Hints

Wireless Access Control:
 "Disable" means to deactivate the Wireless Access Control feature.
 "Allow Access to Wireless Network" means PCs at specified MAC addresses are allowed to connect to your wireless network, while "Deny Access to Wireless Network" means PCs at specified MAC addresses are blocked to your wireless network. Select "Add" to add new MAC address entry.

- ⑤ Select or enter your wireless MAC address and click **Save**.

- ⑥ Below screen will then appear.



Tip -----

1. Up to 16 wireless MAC addresses can be configured.
2. If you don't want to configure the complex wireless security settings and want to disallow others to join your wireless network, you can configure a wireless access control rule to allow only your own wireless device.

3.7 WPS Setup

Click **Wireless -> WPS** to enter WPS screen. Wi-Fi Protected Setup makes it easy for home users who know little of wireless security to establish a secure wireless home network, as well as to add new devices to an existing network without entering long passphrases or configuring complicated settings. Simply enter a PIN code or press the software PBC button or hardware WPS button (if equipped) and a secure wireless connection can be established.

A . If your wireless network is not secured, you can use the WPS to quickly encrypt your wireless.

B . If your wireless network is secured with WPS, you can quickly join your wireless network with a WPS capable adapter (Only WPA2-PSK and Mixed WPA/WPA2-PSK are supported).

You can use WPS PBC or WPS PIN to establish a secure connection.

- **PBC:** Establish WPS connection using the the software PBC button or hardware WPS button (if equipped).
- **PIN:** Establish WPS connection using the PIN code.

To secure a wireless network with WPS



Knowledge Center -----

1. Reset OOB: If clicked, the device's SSID and security mode will become unconfigured so that WPS can reconfigure the device's SSID, security settings. When the action of Reset OOB completes, the device's SSID will be restored to factory default, and security mode will be disabled (none).

The screenshot shows the Tenda web manager interface for the WPS configuration. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The left sidebar lists various settings categories, with 'WPS' highlighted. The main content area is titled 'WPS' and contains the following fields and controls:

- Band:** A dropdown menu set to '2.4GHz'.
- SSID:** 'Tenda_01703D'
- Device PIN:** '19505138'
- Enable WPS:** Radio buttons for 'Disable' and 'Enable' (selected).
- WPS Mode:** Radio buttons for 'PBC' (selected) and 'PIN'.
- Buttons:** 'Reset OOB', 'Start PBC', 'Save', and 'Cancel'.

On the right side, there is a 'Helpful Hints' section with the following text:

Wi-Fi Protected Setup (WPS) makes it easy for home users who know little of wireless security to establish a secure wireless home network, as well as to add new devices to an existing network without entering long passphrases or configuring complicated settings. Simply enter a PIN code or press the software PBC button or hardware WPS button (if any) and a secure wireless connection is established.

You can use the following 4 methods to establish a WPS connection:

Method 1: Establish a WPS connection using PBC on the Web Manager:

- ① Select a band, for example, 2.4GHz.
- ② Click **Enable**.
- ③ Click **Save** to save your settings.
- ④ Click **Start PBC**.
- ⑤ The WPS LED on this router will keep blinking for 2 seconds. Within these 2 minutes, enable WPS/PBC on the wireless client to join your wireless network.

Method 2: Establish a WPS connection using the hardware WPS button on the device:

- ① Select a band, for example, 2.4GHz.
- ② Click **Enable**.
- ③ Click **Save** to save your settings.
- ④ Press and hold the WPS button on the back panel of this router for about 1-3 seconds and then release it.
- ⑤ The WPS LED on this router will keep blinking for 2 seconds. Within these 2 minutes, enable WPS/PBC on the wireless client to join your wireless network.

Method 3: Establish a WPS connection using the 8-digit PIN code from the wireless network adapter:

- ① Select a band, for example, 2.4GHz.
- ② Click **Enable**.
- ③ Select **PIN** and enter the 8-digit PIN code from the wireless network adapter.
- ④ Click **Save** to save your settings.
- ⑤ Click **Start PIN**.
- ⑥ The WPS LED on this router will keep blinking for 2 seconds. Within these 2 minutes, enable WPS/PIN- Enrollee on the wireless client to join your wireless network.

Method 4: Establish a WPS connection using the 8-digit PIN code from the device:

- ① Select a band, for example, 2.4GHz.
- ② Click **Enable**.
- ③ Select **PIN**.
- ④ Click **Save** to save your settings.
- ⑤ Click **Start PIN**.
- ⑦ Enable WPS/PIN on your router and WPS/PIN- Enrollee on the wireless client, and then enter the 8-digit PIN code from your router to join your wireless network.

To quickly join a secured wireless network with WPS

If you have already secured your wireless network with WPS or WPA2-PSK or Mixed WPA/WPA2-PSK and you want to join your wireless network but you hate to enter or forget the security key, do as follows:

Method 1: Establish a WPS connection using the hardware WPS button on the router:

- ① Check the WPS LED status on the router. It should display a solid light.
- ② Press and hold the WPS button on the back panel of this router for about 1-3 seconds and then release it.
- ③ The WPS LED on this router will keep blinking for 2 seconds. Within these 2 minutes, enable WPS/PBC on the wireless client to join your wireless network.

Method 2: Establish a WPS connection using the 8-digit PIN code from the router:

- ① Check the WPS LED status on the router. It should display a solid light.
- ④ Enable WPS/PIN- Registrar on the wireless client and enter the 8-digit PIN code from your router to join your wireless network.



Note

 To use the WPS security, the wireless client must be also WPS-capable.

3.8 Connection Status

Click **Wireless -> Connection Status**. Here you can see a list of wireless devices connected to the router.



Tip

 You can know whether there are unauthorized accesses to your wireless network by viewing the wireless client list.

4 Advanced Applications

4.1 Bandwidth Control

If there are multiple PCs behind your router competing for limited bandwidth resource, then you can use this feature to specify a reasonable amount of bandwidth for each such PC, so that no one will be over stuffed or starved to death. Click **Advanced -> Bandwidth Control** to enter the bandwidth control screen.



Tip -----

1. 1M=128KByte/s.
 2. The volume of uplink traffic/downlink traffic should not be larger than that allowed on the router's WAN (Internet) port. You can ask your ISP to provide the volume of Internet traffic.
-

Bandwidth Control Application Example:

If you share a 4M-broadband service with your neighbor. He always downloads a large volume of data from Internet, which sharply frustrates your Internet surfing experience; you can use this feature to set limits for the volume of Internet traffic he can get. For example, you can split the 4M into two, so your neighbor can only use up to 2M Internet traffic and you can enjoy 2M. (Assuming the IP address of your neighbor's PC is 192.168.0.100. 2M=256KByte/s)

Configuration Procedures:

- ① Click **Advanced -> Bandwidth Control**.
- ② Click **Add Bandwidth Control Rule**.

Version: V1.0.0.2 (7514)
Product Name: Wireless AC1200 Dual Band Router

Home Status Network Wireless **Advanced** Security Tools

Bandwidth Control

DDNS

Virtual Server

DMZ Host

UPnP

Routing Table

Static Routing

Custom Bandwidth Control

Here you can see a list of bandwidth control rules.

En...	IP Range	Uplink/Downlink Limit(KBps)	Description	Action
-------	----------	-----------------------------	-------------	--------

Add Bandwidth Control Rule Delete All Rules

Helpful Hints

Enable: Indicates whether an entry is active or not.

IP Range: In IP range, each IP will acquire configured bandwidth.

Uplink/Download Limit: The maximum allowed upload/download speed limit on WAN port.

Action: Select either to edit or delete an entry.

- ③ Enter 192.168.0.100 in the **IP Range** fields.
- ④ Enter 32 in the **Uplink Bandwidth** field.
- ⑤ Enter 256 in the **Downlink Bandwidth** field.
- ⑥ Click **Save** to save your settings.

Version: V1.0.0.2 (7514)
Product Name: Wireless AC1200 Dual Band Router

Home Status Network Wireless **Advanced** Security Tools

Bandwidth Control

DDNS

Virtual Server

DMZ Host

UPnP

Routing Table

Static Routing

Custom Bandwidth Control

Here you can see a list of bandwidth control rules.

Enable

IP Range: 192.168.0.100 - 192.168.0.100

Bandwidth Range

Uplink Bandwidth: 32 KBps

Downlink Bandwidth: 256 KBps

Description:

Save Cancel

Helpful Hints

Enable: Indicates whether an entry is active or not.

IP Range: In IP range, each IP will acquire configured bandwidth.

Uplink/Download Limit: The maximum allowed upload/download speed limit on WAN port.

Action: Select either to edit or delete an entry.

- ⑦ Click **Reboot** on the appearing screen to reboot the router.

The screenshot shows the Tenda router's web interface. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The 'Advanced' tab is selected. On the left sidebar, 'Bandwidth Control' is highlighted. The main content area is titled 'Hints' and contains the text: 'To activate new settings, you must reboot the device.' Below this text is a 'Reboot' button. On the right side, there are 'Helpful Hints' explaining terms like 'Enable', 'IP Range', 'Uplink/Download Limit', and 'Action'.

- ⑧ System returns to the bandwidth control screen after reboot. You can view the rule you just add. Also you can click **Edit** to edit the rule or **Delete** to delete the rule. You can also add more rules.

The screenshot shows the Tenda router's web interface with the 'Custom Bandwidth Control' screen. The top navigation bar is the same as in the previous screenshot. The left sidebar shows 'Bandwidth Control' selected. The main content area is titled 'Custom Bandwidth Control' and contains the text: 'Here you can see a list of bandwidth control rules.' Below this is a table with the following data:

En...	IP Range	Uplink/Downlink Limit(Kbps)	Description	Action
Yes	192.168.0.100 - 192.168.0.100	32/256		<input type="button" value="Edit"/> <input type="button" value="Delete"/>

Below the table are two buttons: 'Add Bandwidth Control Rule' and 'Delete All Rules'. On the right side, there are 'Helpful Hints' explaining terms like 'Enable', 'IP Range', 'Uplink/Download Limit', and 'Action'.

4.3 DDNS

Dynamic DNS or DDNS is a term used for the updating in real time of Internet Domain Name System (DNS) name servers. We use a numeric IP address allocated by Internet Service Provider (ISP) to connect to Internet; the address may either be stable ("static"), or may change from one session on the Internet to the next ("dynamic"). However, a numeric address is inconvenient to remember; an address

which changes unpredictably makes connection impossible. The DDNS provider allocates a static host name to the user; whenever the user is allocated a new IP address this is communicated to the DDNS provider by software running on a computer or network device at that address; the provider distributes the association between the host name and the address to the Internet's DNS servers so that they may resolve DNS queries. Thus, uninterrupted access to devices and services whose numeric IP address may change is maintained.

Click **Advanced** -> **DDNS** to enter the DDNS screen.

The screenshot shows the Tenda router's web interface for DDNS configuration. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The 'Advanced' tab is selected. On the left, a sidebar menu lists 'Bandwidth Control', 'DDNS', 'Virtual Server', 'DMZ Host', 'UPnP', 'Routing Table', and 'Static Routing'. The main content area is titled 'DDNS' and contains the following fields and controls:

- DDNS Service:** Radio buttons for 'Enable' and 'Disable' (currently 'Disable' is selected).
- Service Provider:** A dropdown menu showing 'dyndns' with a 'Register' link next to it.
- User Name:** An empty text input field.
- Password:** An empty text input field with a 'Display Key' checkbox to its right.
- Domain Name:** An empty text input field.
- Connection Status:** A label indicating 'Disconnected'.
- Buttons:** 'Save' and 'Cancel' buttons at the bottom.

On the right side, there is a 'Helpful Hints' section with the following text:

The DDNS feature allows you to host a server (Web, FTP, Game Server, etc...) using a fixed domain name assigned by a DDNS service provider.

Simply click Register to register a domain name and then enter the user name and password given by the DDNS service provider on this router, and your friends can use this registered domain name to access your local server no matter what your IP address is.



Tip

1. To use the DDNS feature, you need to have an account with one of the Service Providers in the drop-down menu first.
2. This router supports five DDNS service providers: 88ip.cn3322.org, gnway, dyndns and no-ip.

DDNS Application Example:

If your ISP gave you a dynamic (changing) public IP address, you want to access your router remotely but you cannot predict what your router's WAN IP address will be, and the address can change frequently. In this case, you can use a commercial Dynamic DNS service. It lets you register your domain to their IP address and forwards traffic directed at your domain to your frequently changing IP address.

If you obtain the following account from your dyndns.org service provider:

User Name: tenda

Password: 123456

Domain Name: tenda.dyndns.org.

And you want to use the PC at 218.88.93.33 to remotely access this router on port number 8090.

The screenshot shows the Tenda router's web interface. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The 'Advanced' tab is selected, and the 'DDNS' sub-tab is active. The DDNS configuration form is displayed with the following fields:

- DDNS Service: Enable Disable
- Service Provider: [Register](#)
- User Name:
- Password: Display Key
- Domain Name:
- Connection Status: Disconnected

At the bottom of the form are 'Save' and 'Cancel' buttons. To the right of the form is a 'Helpful Hints' section with the following text:

Helpful Hints

The DDNS feature allows you to host a server (Web, FTP, Game Server, etc...) using a fixed domain name assigned by a DDNS service provider.

Simply click Register to register a domain name and then enter the user name and password given by the DDNS service provider on this router, and your friends can use this registered domain name to access your local server no matter what your IP address is.

Configuration Procedures:

- ① **DDNS Service:** Select **Enable**.
- ② **Service Provider:** Select your DDNS service provider from the drop-down menu. Here in this example, select **dyndns**.
- ③ **User Name:** Enter the DDNS user name registered with your DDNS service provider. Here in this example, enter **tenda**.
- ④ **Password:** Enter the DDNS Password registered with your DDNS service provider. Here in this example, enter **123456**.
- ⑤ **Domain Name:** Enter the DDNS domain name with your DDNS service provider. Here in this example, enter **tenda.dyndns.org**.
- ⑥ Click **Save** to save your settings.
- ⑦ Click **Security -> Remote Web Management**, enable the Remote Web Management feature, enter **8090** in the **Port** field, **218.88.93.33** in the **IP Address**

field and then click **Save** to save your settings.

The screenshot shows the Tenda router's web interface. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The 'Security' tab is active. On the left sidebar, 'Remote Web Management' is selected. The main content area is titled 'Remote Web Management' and contains the following settings:

- Enable:
- Port: (1024-65535)
- IP Address:

Below the settings are 'Save' and 'Cancel' buttons. On the right, there is a 'Helpful Hints' section with the following text:

Use this feature to let Internet users manage your router using a web browser.

Port: Specify a port through which a specified user accesses the router's web utility remotely from Internet.

IP Address: Specify an IP address for managing the router remotely.

⑧ Click **Reboot** on the appearing screen to reboot the router.

The screenshot shows the Tenda router's web interface after saving settings. The top navigation bar and sidebar are the same. The main content area is titled 'Hints' and contains the following text:

To activate new settings, you must reboot the device.

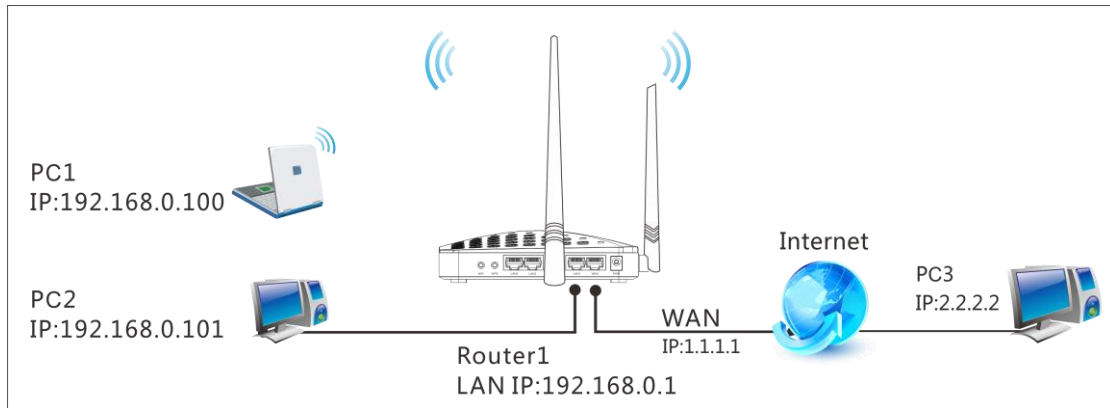
Below the text are 'Continue' and 'Reboot' buttons. On the right, the 'Helpful Hints' section is the same as in the previous screenshot.

Now you can access the router from the Internet by entering `http://tenda.dyndns.org:8090` in your browser.

4.1 Virtual Server

You want to share resources on your PC with your friends who are not in your LAN. But, by default, the router's firewall blocks inbound traffic from the Internet to your computers except replies to your outbound traffic. You can use the Virtual Server feature to create exceptions to this rule so that your friends can access these files from external networks.

Click **Advanced** -> **Virtual Server** to enter the configuration screen.



Application Example:

As shown in the diagram above, your PC (PC1: 192.168.0.100) connects to the router and runs a FTP server on port number 21. Your friend (PC3) wants to access the FTP server on your PC.



Tip -----

1. Make sure your WAN IP address (Internet IP address) is a public IP address. Private IP addresses are not routed on the Internet.
 2. Make sure you enter correct service port numbers.
 3. To ensure that your server computer always has the same IP address, assign a static IP address to your PC.
 4. Operating System built-in firewall and some anti-virus programs may block other PCs from accessing resources on your PC. So it is advisable to disable them before using this feature.
-

Virtual Server

Virtual Server is useful for web servers, ftp servers, e-mail servers, gaming and other special Internet applications. When enabled, communication requests from Internet to your router's WAN port will be forwarded to the specified LAN IP address. Be sure to statically assign the host's IP for this function to be consistent.

ID	Ext Port-Int Port	Internal IP	Protocol	En...	De...
1	21 - 21	192.168.0.100	Both	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2			Both	<input type="checkbox"/>	<input type="checkbox"/>
3			Both	<input type="checkbox"/>	<input type="checkbox"/>
4			Both	<input type="checkbox"/>	<input type="checkbox"/>
5			Both	<input type="checkbox"/>	<input type="checkbox"/>
6			Both	<input type="checkbox"/>	<input type="checkbox"/>
7			Both	<input type="checkbox"/>	<input type="checkbox"/>
8			Both	<input type="checkbox"/>	<input type="checkbox"/>

Well-known Service Port: ID:

Page 1 2 3 4

Helpful Hints

Ext Port – Int Port: WAN service port.

Enable: Select to activate a selected entry.

Delete: Click "Delete" and "Save" to remove a selected entry.

Add to: Adds a common service port to corresponding fields of a given entry.

Configuration Procedures:

- ① **Ext Port:** Enter the external port number for the public ports at the Internet interface. Here in this example, enter 21.
- Int Port:** Enter the internal port number for the private ports at the computer on the router's local area network (LAN). Here in this example, enter 21.
- ② **Internal IP:** Enter the IP address of your local computer that will provide this service. Here in this example, enter 192.168.0.100.
- ③ **Protocol:** Specify the protocol required for the service utilizing the port(s).
- ④ Check **Enable** to activate this rule.
- ⑤ Click **Save** to save your settings.

Now, your friends only need to enter `ftp://xxx.xxx.xxx.xxx:21` in their browsers to access your FTP server. `xxx.xxx.xxx.xxx` is the router's WAN IP address. Assuming it is 172.16.102.89, then your friends need to enter <ftp://202.33.56.88:21> in their browsers.

 Note

If you use the port number 80 here, you must set the port number for remote web management (Click **Tools -> Remote Web Management**) to any port number excluding 80 to avoid collision. Otherwise the port forwarding feature may not be effective.

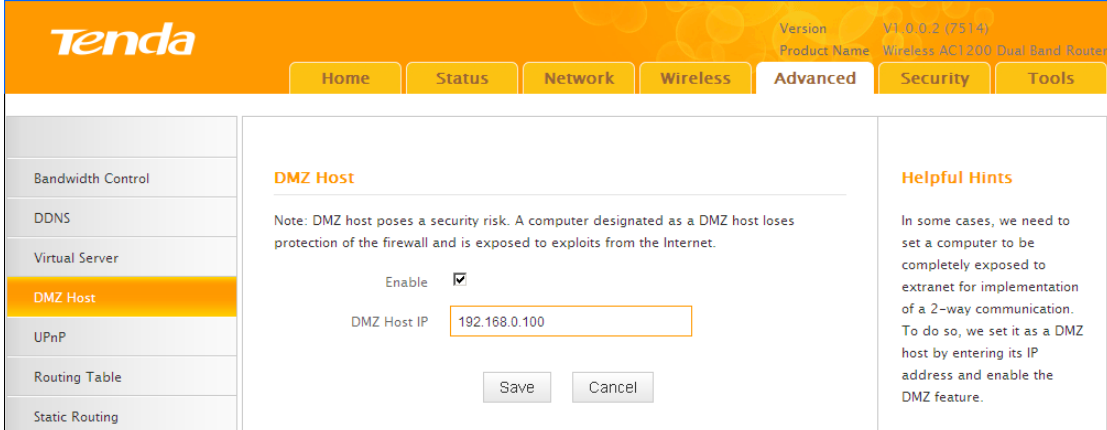
4.2 DMZ Host

The DMZ (De-Militarized Zone) function disables the firewall on the router for one device for a special purpose service such as Internet gaming or video conferencing applications that are not compatible with NAT (Network Address Translation).

Click **Advanced -> DMZ Host** to enter the DMZ Host screen.

 Note

1. DMZ host poses a security risk. A computer configured as the DMZ host loses much of the protection of the firewall and becomes vulnerable to attacks from external networks.
2. Hackers may use the DMZ host computer to attack other computers on your network.



The screenshot shows the Tenda router's web interface. At the top, there's a navigation bar with tabs: Home, Status, Network, Wireless, **Advanced**, Security, and Tools. The 'Advanced' tab is selected. On the left, there's a sidebar menu with options: Bandwidth Control, DDNS, Virtual Server, **DMZ Host**, UPnP, Routing Table, and Static Routing. The main content area is titled 'DMZ Host' and contains a note: 'Note: DMZ host poses a security risk. A computer designated as a DMZ host loses protection of the firewall and is exposed to exploits from the Internet.' Below the note, there's an 'Enable' checkbox which is checked, and a 'DMZ Host IP' text box containing '192.168.0.100'. At the bottom of the form are 'Save' and 'Cancel' buttons. On the right side, there's a 'Helpful Hints' section with text: 'In some cases, we need to set a computer to be completely exposed to extranet for implementation of a 2-way communication. To do so, we set it as a DMZ host by entering its IP address and enable the DMZ feature.'

Configuration Procedures:

- ① **Enable:** Check to enable the DMZ host.
- ② **DMZ Host IP Address:** The IP Address of the device for which the router's firewall will be disabled. Be sure to statically set the IP Address of that device for this function to be consistent.

- ③ Click **Save** to save your settings.



Tip -----

1. Be sure to statically set the IP Address of the computer that serves as a DMZ host for this function to be consistent.
 2. Security softwares such as anti-virus software and OS built-in firewall, etc may affect the DMZ host feature. Disable them if DMZ host fails.
-

4.4 UPnP

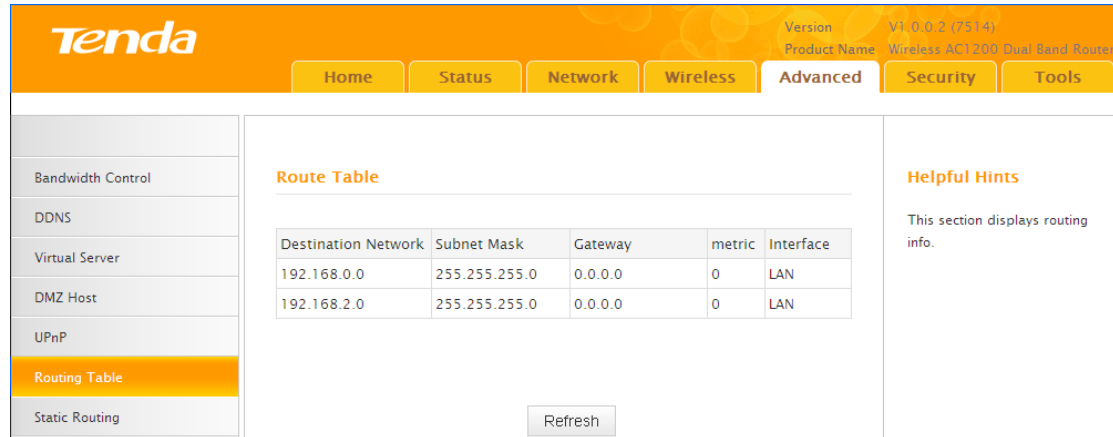
The Universal Plug and Play (UPnP) feature allows network devices, such as computers from Internet, to access resources on local host or devices as needed. UPnP-enabled devices can be discovered automatically by the UPnP service application on the LAN. If you use applications such as multiplayer gaming, peer-to-peer connections, real-time communications such as instant messaging, or remote assistance (a feature in Windows XP), you may need to enable Universal Plug and Play (UPnP) for better experience.

Click **Advanced** -> **UPnP** to enter the UPnP screen. The UPnP feature is enabled by default.

The screenshot displays the Tenda router's web management interface. At the top, the Tenda logo is on the left, and the version (V1.0.0.2 (7514)) and product name (Wireless AC1200 Dual Band Router) are on the right. A navigation bar contains buttons for Home, Status, Network, Wireless, **Advanced** (highlighted), Security, and Tools. On the left, a sidebar lists settings: Bandwidth Control, DDNS, Virtual Server, DMZ Host, **UPnP** (highlighted), Routing Table, and Static Routing. The main content area is titled 'UPnP' and features a checkbox labeled 'Enable UPnP' which is checked. Below this are 'Save' and 'Cancel' buttons. To the right, a 'Helpful Hints' section states: 'UPnP (Universal Plug and Play) feature allows a network device to discover and connect to other devices on the network. Presently, it is only supported by such operational systems as Windows XP and Windows 7 or later.'

4.6 Route Table

Click **Advanced** -> **Route Table** to view the router's route table.



The screenshot shows the Tenda router's web interface. The top navigation bar includes Home, Status, Network, Wireless, **Advanced**, Security, and Tools. The main content area is titled "Route Table" and contains a table with the following data:

Destination Network	Subnet Mask	Gateway	metric	Interface
192.168.0.0	255.255.255.0	0.0.0.0	0	LAN
192.168.2.0	255.255.255.0	0.0.0.0	0	LAN

Below the table is a "Refresh" button. To the right of the table is a "Helpful Hints" section with the text: "This section displays routing info." The sidebar on the left includes options like Bandwidth Control, DDNS, Virtual Server, DMZ Host, UPnP, **Routing Table**, and Static Routing.



Knowledge Center -----

1. **Destination Network:** The IP address of the final destination. "0.0.0.0" indicates any network segment.
 2. **Subnet Mask:** The subnet mask for the specified destination.
 3. **Gateway:** This is the next router on the same LAN segment as the router to reach.
 4. **Metric:** This stands for the number of routers between your network and the destination.
 5. **Interface:** The interface between your router and the final destination.
-

4.5 Static Route

Static routes provide additional routing information to your router. Typically, you do not need to add static routes. However, when there are several routers in the network, you may want to set up static routing. Static routing determines the path of the data in your network. You can use this feature to allow users on different IP domains to access the Internet via this device. It is not recommended to use this setting unless you are familiar with static routing. In most cases, dynamic routing

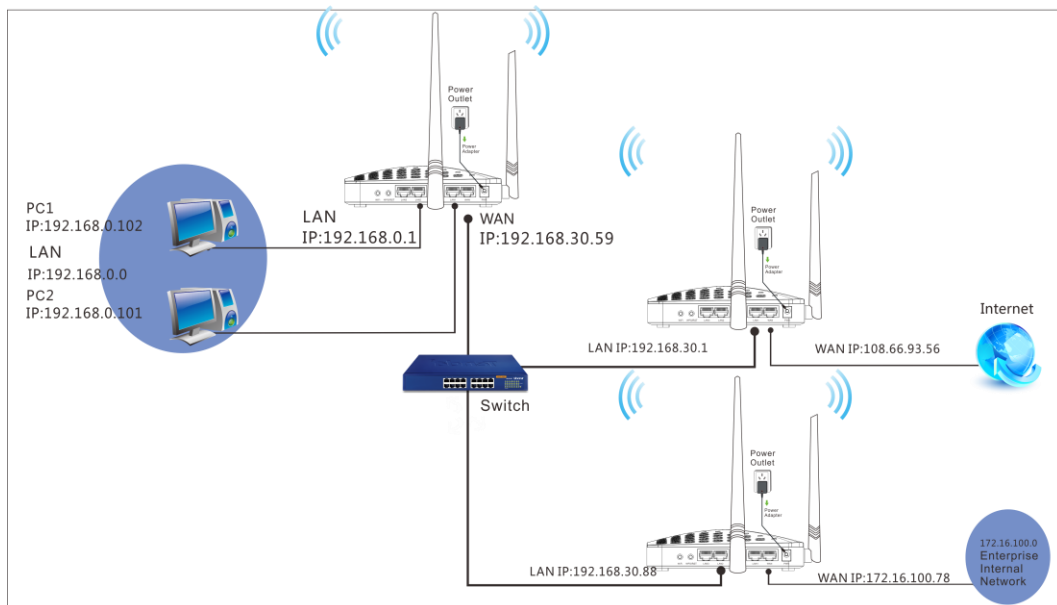
is recommended, because this feature allows the router to detect the physical changes of the network layout automatically. If you want to use static routing, make sure the router's DHCP function is disabled. Click **Advanced -> Static Routing** to enter the configuration screen.



Tip -----

1. Gateway must be on the same IP segment as WAN or LAN segment as the router.
 2. Subnet Mask must be entered 255.255.255.255 if destination IP address is a single host.
-

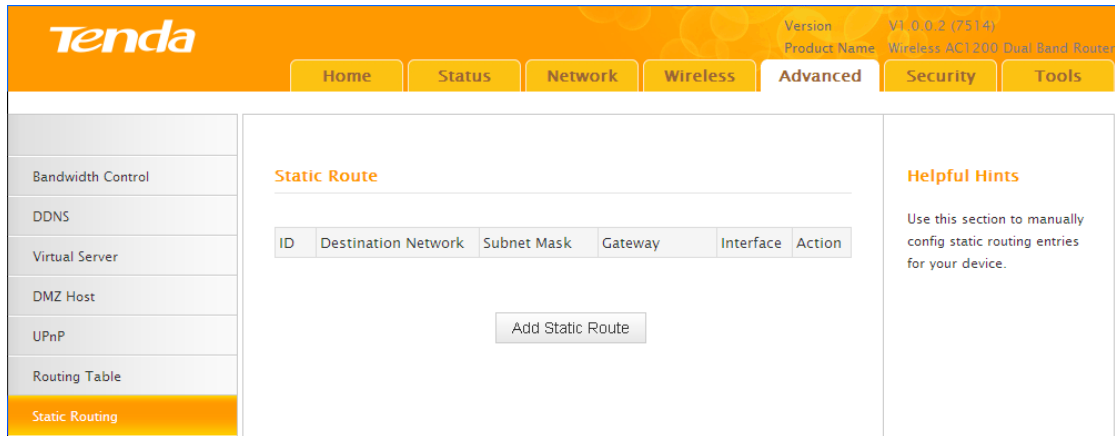
Static Route Application Example - Gateway IP address on the same IP segment as WAN IP:



For example, your company internal network and Internet are on different IP net segment and you want PCs on your LAN to access Internet and your company internal network via the Tenda Router. You can simply configuring static routes on the Tenda Router. The figure above depicts this application scenario.

Configuration Procedures:

- ① Click **Add Static Route**.



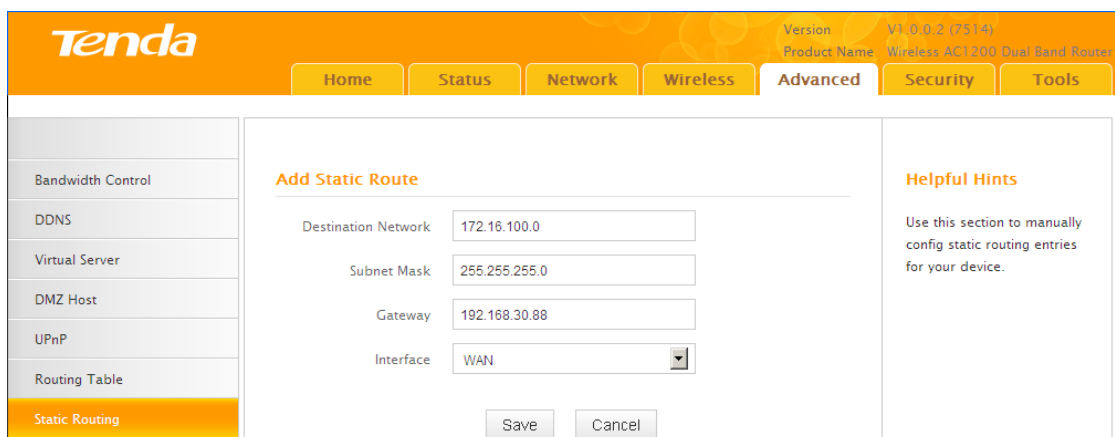
② **Destination Network:** The IP address of the final destination. Enter your corporate internal network IP address: 172.16.100.0.

③ **Subnet Mask:** Enter the subnet mask of your corporate internal network: 255.255.255.0.

④ **Gateway:** Enter the gateway IP address to your corporate internal network: 192.168.30.88

⑤ **Interface:** Select WAN.

⑥ Click **Save** to save your settings.



Click **Advanced** -> **Routing Table** to view your static route entry. If it does not display, go to **Tools** to reboot your router. Enter the router's management interface. When the router successfully connects to the Internet, the following screen will

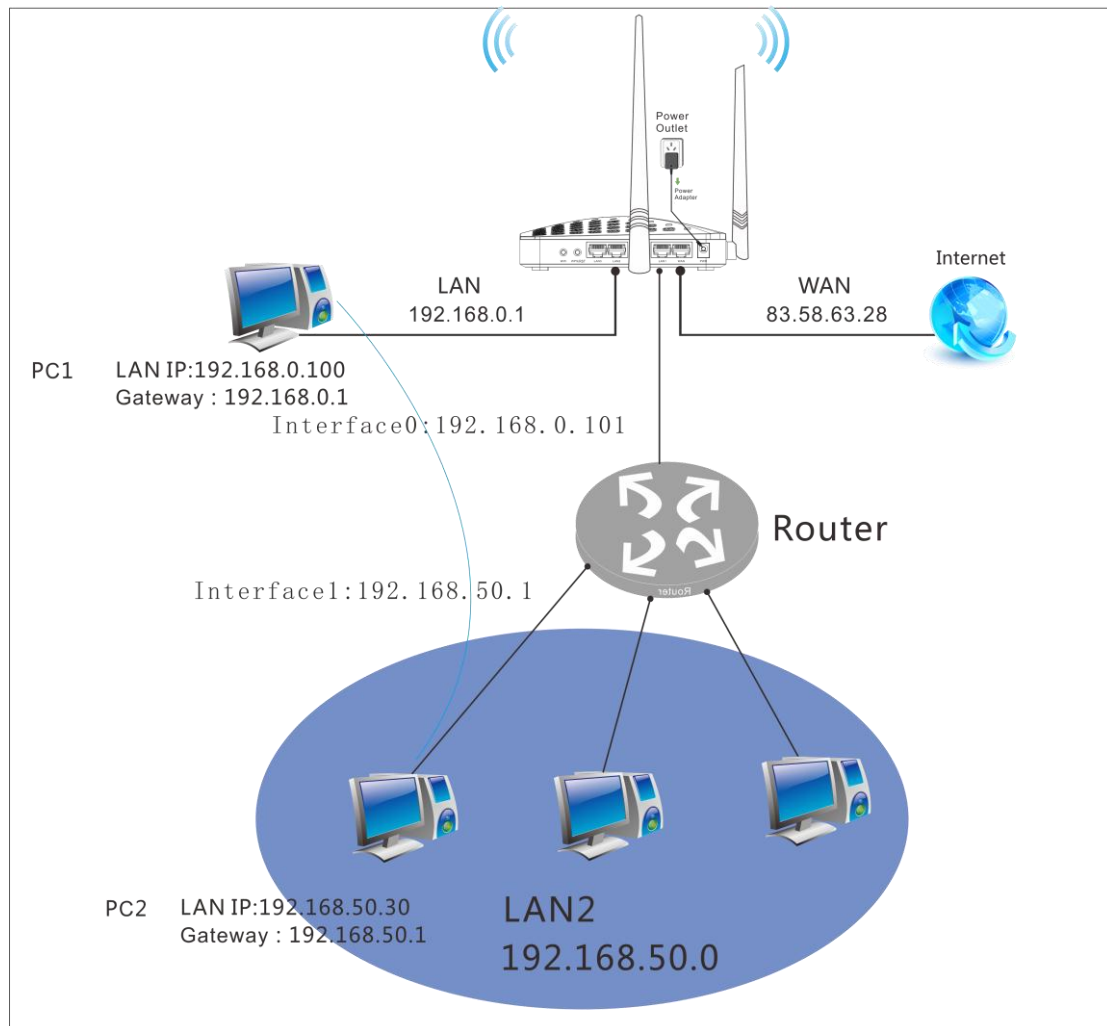
display:

The screenshot shows the Tenda router's web interface. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The 'Advanced' tab is selected, and the 'Routing Table' sub-tab is active. The 'Route Table' section displays a table with the following data:

Destination Network	Subnet Mask	Gateway	metric	Interface
192.168.0.0	255.255.255.0	0.0.0.0	0	LAN
172.16.100.0	255.255.255.0	192.168.30.88	0	WAN

A 'Refresh' button is located below the table. To the right, a 'Helpful Hints' section states: 'This section displays routing info.'

Static Route Application Example - Gateway IP address on the same IP segment as LAN IP:

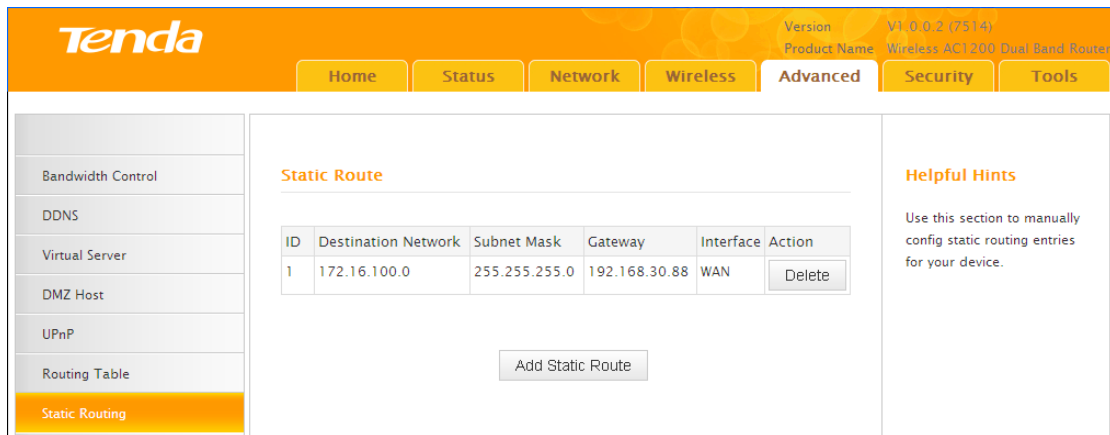


As seen in the above figure, PC2 on LAN2 connects with the Tenda Router via the Router; PC1 on LAN1 accesses Internet via the Tenda Router that performs NAT.

You can configure static routes to implement mutual communication between PCs on LAN1 and LAN2.

Configuration Procedures:

- 1 Click **Add Static Route**.

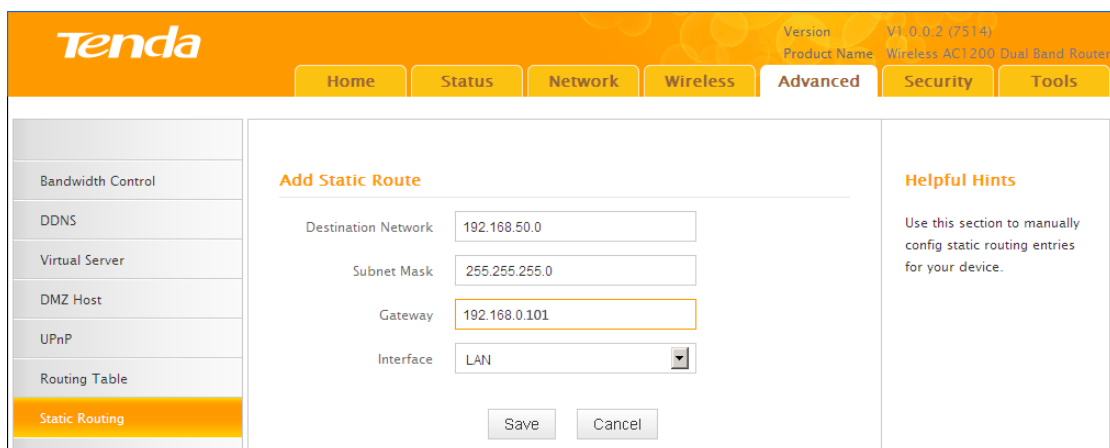


- 2 **Destination Network:** Enter 192.168.50.0.

- 3 **Subnet Mask:** Enter 255.255.255.0.

- 4 **Gateway:** Enter 192.168.0.101

- 5 Click **Save** to save your settings.



Click **Advanced** -> **Routing Table** to view your static route entry. If it does not display, go to **Tools** to reboot your router. Enter the router's management interface. When the router successfully connects to the Internet, the following screen will

display:

Version: V1.0.0.2 (7514)
Product Name: Wireless AC1200 Dual Band Router

Home Status Network Wireless **Advanced** Security Tools

Bandwidth Control
DDNS
Virtual Server
DMZ Host
UPnP
Routing Table
Static Routing

Route Table

Destination Network	Subnet Mask	Gateway	metric	Interface
192.168.0.0	255.255.255.0	0.0.0.0	0	LAN
172.16.100.0	255.255.255.0	192.168.30.88	0	WAN
192.168.50.0	255.255.255.0	192.168.0.101	0	LAN

Refresh

Helpful Hints
This section displays routing info.

5 Security

This router provides three security policies: MAC filter, client filter and URL filter.

- To restrict your LAN PCs to access Internet via their MAC addresses, see [MAC Filter](#).
- To restrict your LAN PCs to access certain services on Internet via their IP addresses, see [Client Filter](#).
- To restrict your LAN PCs to access certain websites on Internet via URL, see [URL Filter](#).

5.1 MAC Filter

This section allows you to restrict specific clients to access the Internet via the devices' MAC addresses. Each PC has at least an installed network adapter with a unique MAC address. Three options are available: Disable, Deny and Allow.

A. Disable: Disable the MAC Filter feature.

B. Deny: Disallow only the devices at specific MAC addresses to access Internet during the specific time period and/or specific days of the week. Access to Internet during other time period and/or other days of the week are not restricted.

C. Allow: Allow only the specified devices to access Internet during the specific time period

and/or specific days of the week. Access to Internet during other time period and/or other days of the week are denied.

Click **Security -> MAC Filter** to enter the configuration screen.

MAC Filter Application Example:

To allow only the PC at the MAC address of 00:C8:08:F5:E6:06 to access Internet from Friday to Sunday (18:30-22:30).

The screenshot shows the Tenda router's web interface for configuring a MAC Filter. The top navigation bar includes Home, Status, Network, Wireless, Advanced, Security, and Tools. The left sidebar has MAC Filter, Client Filter, URL Filter, and Remote Web Management. The main content area is titled 'MAC Filter' and contains the following configuration options:

- Filter Mode:** A dropdown menu set to 'Allow'.
- Select:** A dropdown menu set to '(1)'.
- Enable:** A checked checkbox with a 'Clear this item:' button next to it.
- Description:** An empty text input field.
- MAC Address:** A field with six segments: 00, C8, 08, F5, E6, 06.
- Time:** Two time range selectors: 18:30 ~ 20:30.
- Day:** A row of checkboxes for 'Every day', 'Sun', 'Mon', 'Tue', 'Wed', 'Thur', 'Fri', and 'Sat'. 'Sun', 'Fri', and 'Sat' are checked.

At the bottom are 'Save' and 'Cancel' buttons. On the right, a 'Helpful Hints' section explains that the feature is used to control LAN computer access to the Internet and provides instructions on how to clear an existing filter rule.

Configuration Procedures:

- ① **Filter Mode:** Select **Allow**.
- ② **Select:** Select a rule ID, for example, (1).
- ③ **Enable:** Check to enable this feature.
- ④ **Description:** Briefly describe the current rule. This field is optional. Or if you want to enter it, then enter numbers, letters or underscore only.
- ⑤ **MAC Address:** Specify the MAC address of the computer that you want to restrict, 00:C8:08:F5:E6:06.
- ⑥ **Time:** Specify a time period for the current rule to take effect. Here in this example, select 18:30-22:30. **Day:** Select a day, or several days of the week for the current rule to take effect. Here in this example, select Friday, Saturday and

Sunday.

⑦ Click **Save** to save your settings.

5.2 Client Filter

This section allows you to set the times specific clients can or cannot access the Internet via the devices' assigned IP addresses and service port. Three options are available: Disable, Deny and Allow.

A. Disable: Disable the Filter feature.

B. Deny: Disallow only the devices at specific IP addresses to access certain services on Internet during the specific time period and/or specific days of the week. Other time period and/or other days of the week are not restricted.

C. Allow: Allow only the devices at specific IP addresses to access specific services on Internet during the specific time period and/or specific days of the week. Access to any other services during other time period and/or other days of the week are denied.

Click **Security** -> **Client Filter** to enter the configuration screen.

Client Filter Application Example:

To prohibit PCs within the IP address range of 192.168.0.100--192.168.0.120 from accessing web pages during the time period of 8:00~18:00 from Monday to Friday

The screenshot shows the Tenda web interface for the Wireless AC1200 Dual Band Router. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The left sidebar has 'MAC Filter', 'Client Filter' (selected), 'URL Filter', and 'Remote Web Management'. The main content area is titled 'Client Filter' and contains the following configuration options:

- Filter Mode:** A dropdown menu set to 'Deny'.
- Select:** A dropdown menu set to '(1)'.
- Enable:** A checked checkbox with a 'Clear this item:' button next to it.
- Description:** An empty text input field.
- Start IP:** A text input field containing '192.168.0.100'.
- End IP:** A text input field containing '192.168.0.120'.
- Port:** Two text input fields, both containing '80', separated by a tilde '~'.
- Traffic Type:** A dropdown menu set to 'Both'.
- Time:** Two sets of dropdown menus for hours and minutes, set to '8' and '0' respectively, followed by a tilde '~', and another set set to '18' and '0'.
- Day:** A row of checkboxes for 'Every day', 'Sun', 'Mon', 'Tue', 'Wed', 'Thur', 'Fri', and 'Sat'. 'Mon', 'Tue', 'Wed', 'Thur', and 'Fri' are checked.

At the bottom of the configuration area are 'Save' and 'Cancel' buttons. On the right side, there is a 'Helpful Hints' section with text explaining the Client Filter functionality and a 'Deny/Allow' note.

Configuration Procedures:

- ① **Filter Mode:** Select **Deny**.
- ② **Select:** Select a rule ID, for example, (1).
- ③ **Enable:** Check to enable this feature.
- ④ **Description:** Briefly describe the current rule. This field is optional. Or if you want to enter it, then enter numbers, letters or underscore only, for example, 80.
- ⑤ **Start IP:** Enter a starting IP address. Here in this example, enter 192.168.0.100. **End IP:** Enter an ending IP address. Here in this example, enter 192.168.0.120.
- ⑥ **Port:** Enter a service port number. Here in this example, enter 80.
- ⑦ **Traffic Type:** Select **Both**.
- ⑧ **Time:** Specify a time period for the current rule to take effect. Here in this example, select 8:00~18:00. **Day:** Select a day, or several days of the week for the current rule to take effect. Here in this example, select Mon, Tue, Wed, Thur

and Fri.

- ③ Click **Save** to save your settings.

5.3 URL Filter

To better control LAN PCs, you can use the URL filter functionality to allow or disallow such PCs to access certain websites within a specific time period and/or specific days of the week. Three options are available: Disable, Deny and Allow.

A. Disable: Disable the URL Filter feature.

B. Deny: Disallow only the devices at specific IP addresses to access certain services on Internet during the specific time period and/or specific days of the week. Other time period and/or other days of the week are not restricted.

C. Allow: Allow only the devices at specific IP addresses to access specific services on Internet during the specific time period and/or specific days of the week. Access to any other services during other time period and/or other days of the week are denied.

Click **Security -> URL Filter** to enter the configuration screen.

URL Filter Application Example:

If you want to disallow all computers on your LAN to access “yahoo.com” from 8 : 00 to 18 : 00 during working days: Monday- Friday, then do as follows:

URL Filter

Filter Mode:

Select:

Enable: Clear this item:

Description:

Start IP:

End IP:

URL String:

Time: : ~ :

Day: Every day Sun Mon Tue Wed Thur Fri Sat

Helpful Hints

To better control the LAN computers' access to certain websites, you can use the URL filter feature to allow or deny their access to certain websites within a specified time range. For details, see user guide.

To clear an existing filter rule, select it and click the "Clear", and then the "Save" button.

URL String: Up to 16 sets of URL strings can be entered. Different domain names should be separated by a coma. Entering "*" in the URL string field indicates a wild card of any URL.

Note: 00:00~00:00 means all the time.

- ① **Filter Mode:** Select **Deny**.
- ② **Enable:** Check to enable this feature.
- ③ **Select:** Select a rule ID, for example, (1).
- ④ **Description:** Briefly describe the current rule, say, yahoo, (It can only consist of numbers, letters, or underscore). This field is optional.
- ⑤ **Start IP/End IP:** Enter 2-254.
- ⑥ **URL String:** Enter yahoo.
- ⑦ **Time:** Specify a time period for the current rule to take effect. Here in this example, select 8:00~18:00. **Day:** Select a day, or several days of the week for the current rule to take effect. Here in this example, select Mon, Tue, Wed, Thur and Fri.
- ⑧ Click **Save** to save your settings.



Note -----

Each entry can include up to 16 URL keywords, each of which must be separated by ", ".

5.4 Remote Web Management

The Remote management allows the device to be configured and managed remotely from the Internet via a web browser.

Click **Security** -> **Remote Web Management** to enter the configuration screen.



Tip -----

1 For better security, customize a port number between 1024-65535 for the remote web management interface, do not use the number of any common service port (1-1024).

2. Make sure your WAN IP address (Internet IP address) is a public IP address. Private IP addresses are not routed on the Internet.

3. It is unsafe to make your router remotely accessible to all PCs on external network. For better security, we suggest that only enter the IP address of the PC for remote management.

Remote Web Management Application Example:

To access your router (WAN IP address: 102.33.66.88) at your home from the PC (218.88.93.33) at your office via the port number 8080

The screenshot shows the Tenda router's web interface. At the top, there's a navigation bar with tabs: Home, Status, Network, Wireless, Advanced, Security, and Tools. The 'Security' tab is selected. On the left, there's a sidebar with options: MAC Filter, Client Filter, URL Filter, and Remote Web Management (which is highlighted). The main content area is titled 'Remote Web Management' and contains the following fields:

- Enable:** A checkbox that is checked.
- Port:** A text input field containing '8080', with a range '(1024-65535)' indicated to its right.
- IP Address:** A text input field containing '218.88.93.33'.

At the bottom of the form are 'Save' and 'Cancel' buttons. To the right of the form is a 'Helpful Hints' section with the following text:

Use this feature to let Internet users manage your router using a web browser.

Port: Specify a port through which a specified user accesses the router's web utility remotely from Internet.

IP Address: Specify an IP address for managing the router remotely.

Configuration Procedures:

- ① Check "Enable".
- ② Enter 8080.
- ③ Enter 218.88.93.33.
- ④ Click **Save** to save your settings.

Type `http://102.33.66.88:8080` into your browser's address or location field and

you can access the router at your home remotely.



Knowledge Center -----

1. Port: This is the management port to be open to outside access. The default setting is 8080. This can be changed.
2. IP Address: Here you can specify the IP address for remote management (When set to 0.0.0.0, the device becomes remotely accessible to all the PCs on Internet or other external networks).

6 Tools

6.1 Logs

Click **Tools** -> **Logs** to enter the logs screen. The Logs option allows you to view all events that occur upon system startup. **View Log Levels:** There are three types of logs available.

The screenshot shows the Tenda router's web interface. At the top, there is a navigation bar with tabs for Home, Status, Network, Wireless, Advanced, Security, and Tools. The 'Tools' tab is selected. On the left, a sidebar contains various system management options: Logs (highlighted), Traffic Statistics, Time, Change Password, Backup, Restore, Firmware Update, Restore to Factory Default, and Reboot. The main content area is titled 'Logs' and contains the following text: 'Here you can view the history of the device's actions.' Below this text is a 'View Log Levels' dropdown menu set to 'All'. A table displays the log entries:

Index	Time	Type	Log Contents
12	2013-08-19 14:55:06	system	Sync time success!
11	2013-08-19 14:24:57	system	Sync time success!
10	2000-01-01 00:00:28	system	wan up
9	2000-01-01 00:00:25	wan	Get Client IP Address (192.168.10.1...
8	2000-01-01 00:00:25	system	broadcasting ARPOP_REQUEST ,return ...
7	2000-01-01 00:00:20	system	broadcasting ARPOP_REQUEST for 192....
6	2000-01-01 00:00:20	wan	Dhcp_ack received from (192.168.10...
5	2000-01-01 00:00:20	wan	Broadcasting Dhcp_request for (192....
4	2000-01-01 00:00:20	wan	Dhcp_offer Received from (192.168....
3	2000-01-01 00:00:07	wan	Broadcasting Dhcp_discover
2	2000-01-01 00:00:02	system	wifi up
1	2000-01-01 00:00:01	system	System start success

At the bottom of the log table are 'Refresh' and 'Clear' buttons. To the right of the log table is a 'Helpful Hints' section with the following text: 'This section allows you to view all events that occur upon system startup. The device records a maximum of 200 log entries. **Note:** Logs will be cleared automatically when reaching the limit of 200 entries (14 pages).'

Here you can view the history of the device's actions.

Up to 150 entries can be logged. After 150 entries, you can click **Refresh** to update the logs or click **Clear** to clear the earliest logs.

6.2 Traffic Statistics

Click **Tools** -> **Traffic Statistics** to enter the Traffic Statistics screen. Traffic Statistics meter allows you to monitor and view the volume of traffic used by LAN devices.



Tip

If you suspect some PCs behind your router are consuming a large volume of bandwidth (downloading videos, etc) you can enable this Traffic Statistics meter feature to find out which PCs are overusing the traffic. Enabling the Traffic Statistics feature may degrade the router's performance. Do not enable it unless necessary.

Configuration Procedures:

- ① Check **Enable Traffic Statistics**.

The screenshot shows the Tenda router's web interface. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The 'Tools' menu is expanded, and 'Traffic Statistics' is selected. The main content area is titled 'Traffic Statistics' and contains the following configuration options:

- Enable Traffic Statistics:**
- Rate Unit:** KB/s
- Display in Order:** Display in descending order of downlink rate (selected)
- Buttons:** Refresh, Clear, Save, Cancel

Below the configuration options is a table with the following columns: ID, IP Address, TX Bytes, RX Bytes, Uplink Rate, Downlink Rate, and Connections. The table is currently empty.

On the right side, there is a 'Helpful Hints' section with the text: 'Statistics displays traffic usage by PCs on your LAN.'

② Click **Save** to save your settings.

Version: V1.0.0.2 (7514)
Product Name: Wireless AC1200 Dual Band Router

Home Status Network Wireless **Advanced** Security Tools

Logs

Traffic Statistics

Time

Change Password

Backup

Restore

Firmware Update

Restore to Factory Default

Reboot

Traffic Statistics

Enable Traffic Statistics

Rate Unit: KB/s

Display in Order

Refresh Clear

Display in descending order of download rate

ID	IP Address	TX Bytes	RX Bytes	Uplink Rate	Downlink Rate	Connections

Save Cancel

Helpful Hints

Statistics displays traffic usage by PCs on your LAN.

③ Click **Reboot** on the appearing screen to reboot the router.

Version: V1.0.0.2 (7514)
Product Name: Wireless AC1200 Dual Band Router

Home Status Network Wireless **Advanced** Security Tools

Logs

Traffic Statistics

Time

Change Password

Hints

To activate new settings, you must reboot the device.

Continue Reboot

Helpful Hints

Statistics displays traffic usage by PCs on your LAN.

The following screen appears after reboot.

Version: V1.0.0.2 (7514)
Product Name: Wireless AC1200 Dual Band Router

Home Status Network Wireless **Advanced** Security Tools

Logs

Traffic Statistics

Time

Change Password

Backup

Restore

Firmware Update

Restore to Factory Default

Reboot

Traffic Statistics

Enable Traffic Statistics

Rate Unit: KB/s

Display in Order

Refresh Clear

Display in descending order of download rate

ID	IP Address	TX Bytes	RX Bytes	Uplink Rate	Downlink Rate	Connections
1	192.168.0.100	0M	0M	0.00	0.00	4294967295

Save Cancel

Helpful Hints

Statistics displays traffic usage by PCs on your LAN.



Knowledge Center -----

1. **IP Address:** Displays the IP addresses of the PCs that have connected to the device.
 2. **Uplink Rate:** Displays the upload speed (KByte/s) of a corresponding PC.
 3. **Downlink Rate:** Displays the download speed (KByte/s) of a corresponding PC.
 4. **TX Bytes:** The number of bytes transmitted by a corresponding PC upon traffic statistics meter startup. The unit is M.
 5. **RX Bytes:** The number of bytes received by a corresponding PC upon traffic statistics meter startup. The unit is M.
 6. **Connections:** The number of clients that connect to this router.
-

6.3 Time

Click **Tools** -> **Time** to enter the time screen.

A. Sync with Internet time servers

Note that the GMT time is obtained only when Device is connected to Internet. You can also configure the system time manually.

The screenshot displays the Tenda router's web interface for configuring the system time. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The 'Time' configuration page is active, showing a sidebar with options like 'Logs', 'Traffic Statistics', 'Time', 'Change Password', 'Backup', 'Restore', 'Firmware Update', 'Restore to Factory Default', and 'Reboot'. The main content area is titled 'Time' and contains the following elements:

- Time** section header.
- Text: "This section assists you in setting the device current time; you can either select to set the time and date manually or update it from Internet automatically."
- Sync with Internet time servers
- Sync Interval: 30 minutes (dropdown menu)
- Note: GMT time will be updated automatically only when the device is connected to Internet
- Time Zone: (GMT+08:00)Beijing, Chongqing, Hong Kong, Urumqi (dropdown menu)
- Set Time and Date Manually:
 - Year: 2013, Month: 08, Day: 19, Hour: 15, Minute: 05, Second: 09
 - Buttons: Save, Cancel, Sync with Your PC
- Helpful Hints** section: "This section assists you in setting the device's current time; you can either select to set the time and date manually or update it from Internet automatically."
 - Note: The configured time and date information lose when the device is powered off. However, it will be updated automatically when the router connects to the Internet. To activate time-based features (e.g. firewall), the time and date info shall be set correctly first, either manually or automatically.

Configuration Procedures:

- ① Select your time zone.
- ② Click **Save** to save your settings.

B. Set Time and Date Manually/Sync with Your PC

The screenshot shows the Tenda router's web interface for configuring the time. The 'Time' section is active, and the 'Sync with Internet time servers' checkbox is unchecked. The 'Sync Interval' is set to 30 minutes. The 'Time Zone' is set to (GMT+08:00)Beijing, Chongqing, Hong Kong, Urumqi. The 'Set Time and Date Manually' section shows fields for Year (2013), Month (08), Day (19), Hour (05), Minute (09), and Second. There are buttons for 'Save', 'Cancel', and 'Sync with Your PC'.

Configuration Procedures:

- ① Specify the time and date manually or click the **Sync with Your PC** to automatically copy your PC's time to the device.
- ② Click **Save** to save your settings.

6.4 Change Password

Click **Tools -> Change Password** to enter the configuration screen. Here you can change the login password. It is strongly recommended that you change the factory default login password. Otherwise, anyone in your network can access this utility to change your settings.

For example, if you want to change the login password to "tenda", do as follows:

Configuration Procedures:

- ① **New Password:** Input a new password. Here in this example, enter "tenda".
- ② **Confirm New Password:** Re-enter the new password for confirmation. Here in this example, enter "tenda".
- ③ Click **Save** to save your settings.

Change Password

Note: NO password by default, We recommend you to change it for better security. The password allows a maximum of 32 characters in length and no space.

Old Password

New Password

Confirm New Password

Helpful Hints

NO password by default, We recommend you to change it for better security. Otherwise: anyone in your network can access this utility to change your settings.

Old Password: If you first time use the router, leave it blank. If you already changed it and unfortunately forgot, restore the router to factory defaults.

New Password: Input a new password. It MUST only consist of 3-32 characters without any space.

Confirm New Password: Re-enter the new password.

- ④ Click **OK** on the appearing window.
- ⑤ System will automatically enter the login window if you click **OK**. Enter the new login password of “tenda” and click **Login** to enter the device’s configuration interface.

Wireless AC1200 Dual Band Router

Password

6.5 Backup

Backup: Once you have configured the device the way you want it, you can save these settings to a configuration file on your local hard drive that can later be imported to your device in case that the device is restored to factory default settings. Click **Tools -> Backup** to enter the configuration screen.

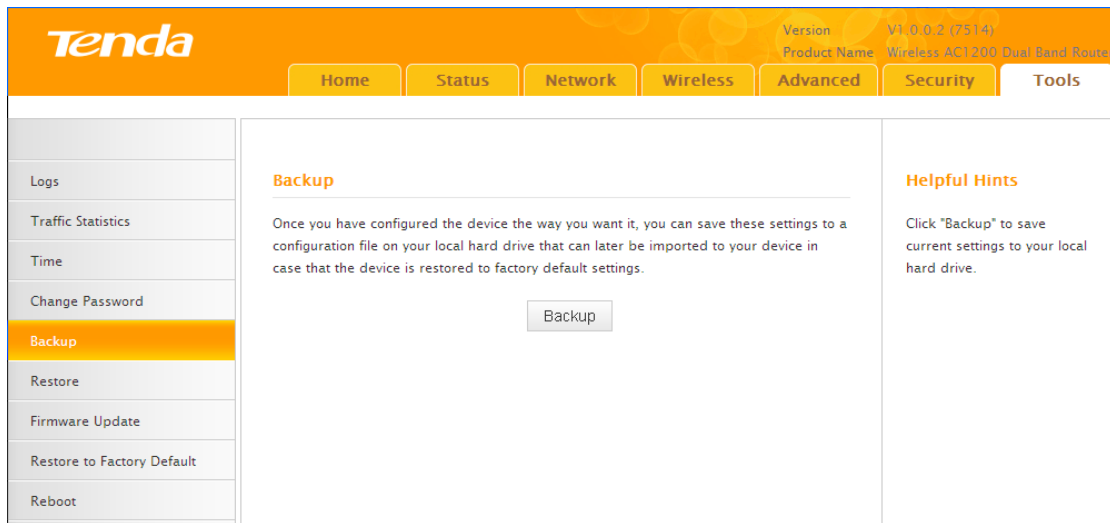


Tip -----

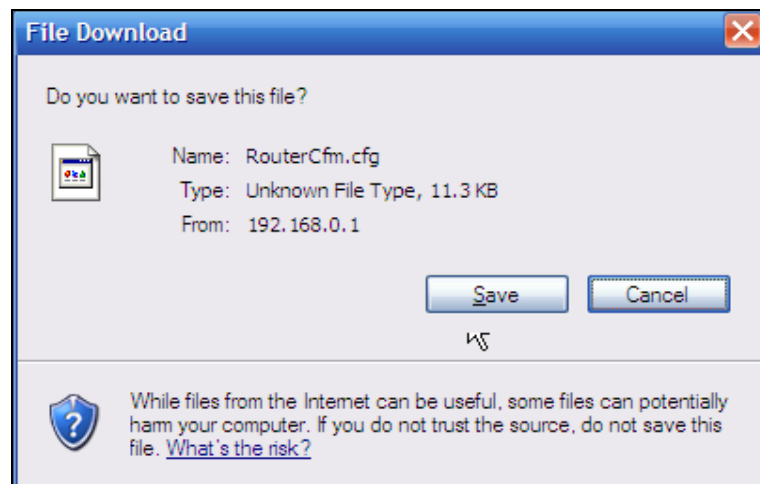
The default configuration file name is "RouterCfm.cfg". Do include the file name suffix of ".cfg" when renaming the file name to avoid problems.

Configuration Procedures:

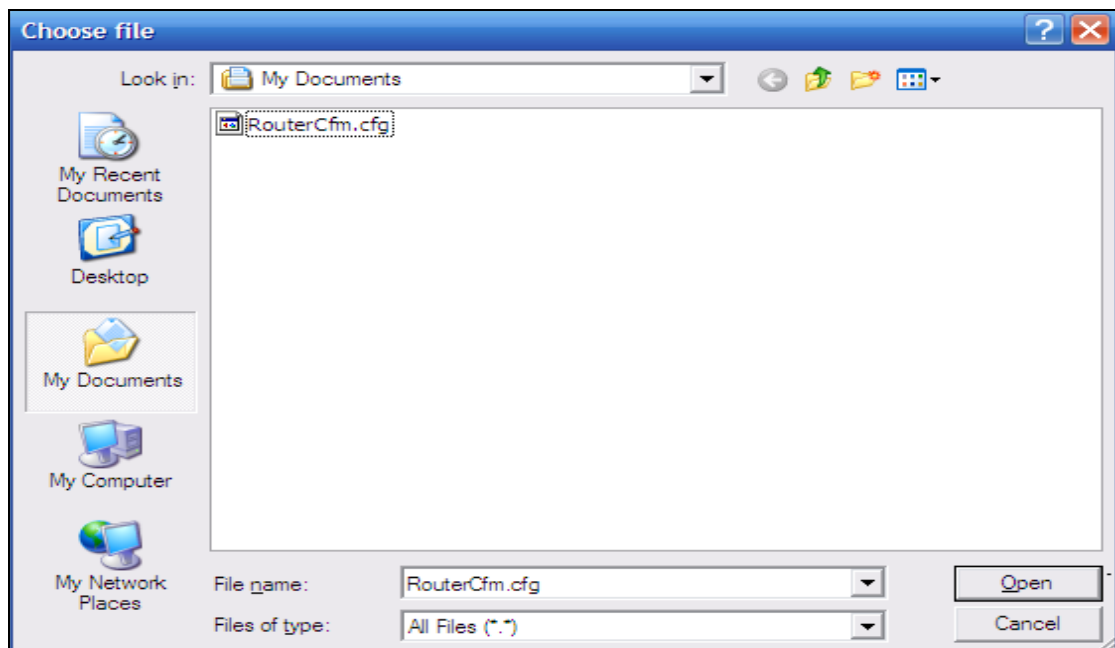
- 1 Click **Backup**.



- 2 Click **OK** on the appearing window.
- 3 Click **Save** on the **File Download** window.



- ④ Select a local hard drive to save the file and click **Save**.

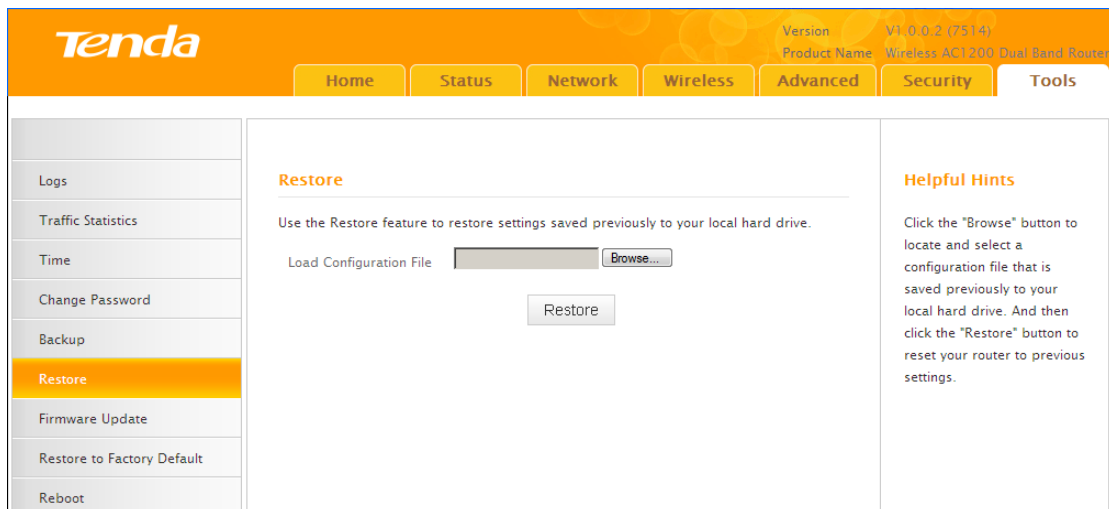


6.6 Restore

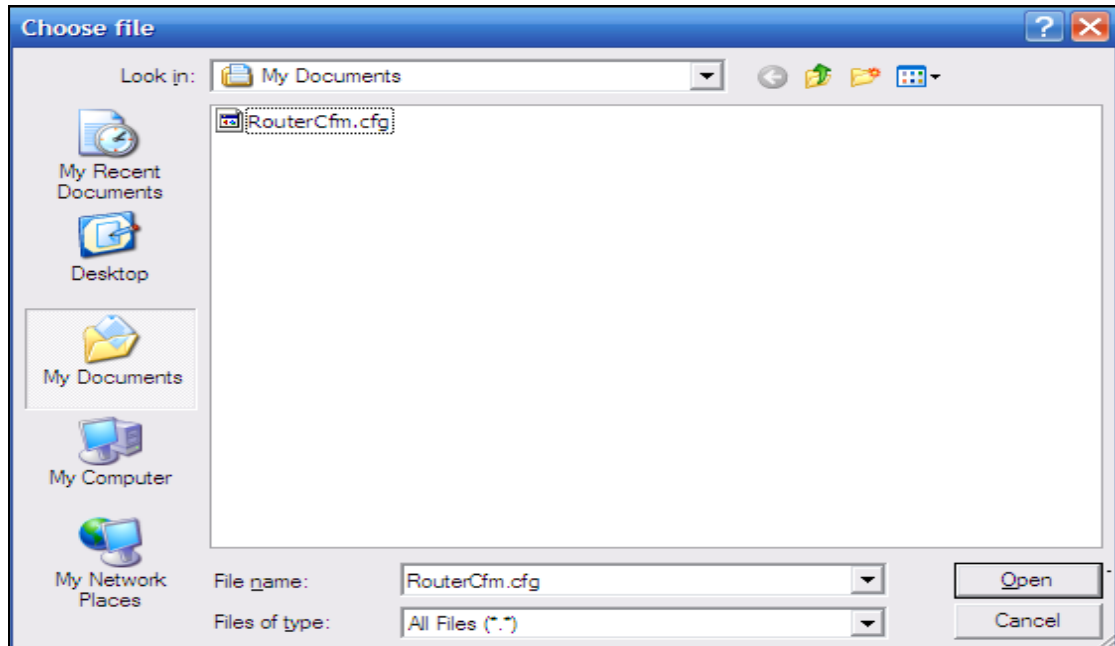
Click **Tools** -> **Restore** to enter the configuration screen.

Configuration Procedures:

- ① Click **Browse**.



- ② Select the configuration file that is saved previously to your local hard drive and click **Open**.



- ③ Click the **Restore** button to reset your device to previous settings.

6.7 Firmware Update

Click **Tools** -> **Firmware Update** to enter the configuration screen. Firmware upgrade is released periodically to improve the functionality of your device and also to add new features. If you run into a problem with a specific feature of the device, log on to our website (www.tendacn.com) to download the latest firmware to update your device. When upgrade is complete, the device restarts automatically. Update takes a few minutes. Please wait. If you run into a problem with a specific feature of the device, log on to our website (www.tendacn.com) to download the latest firmware to update your device.

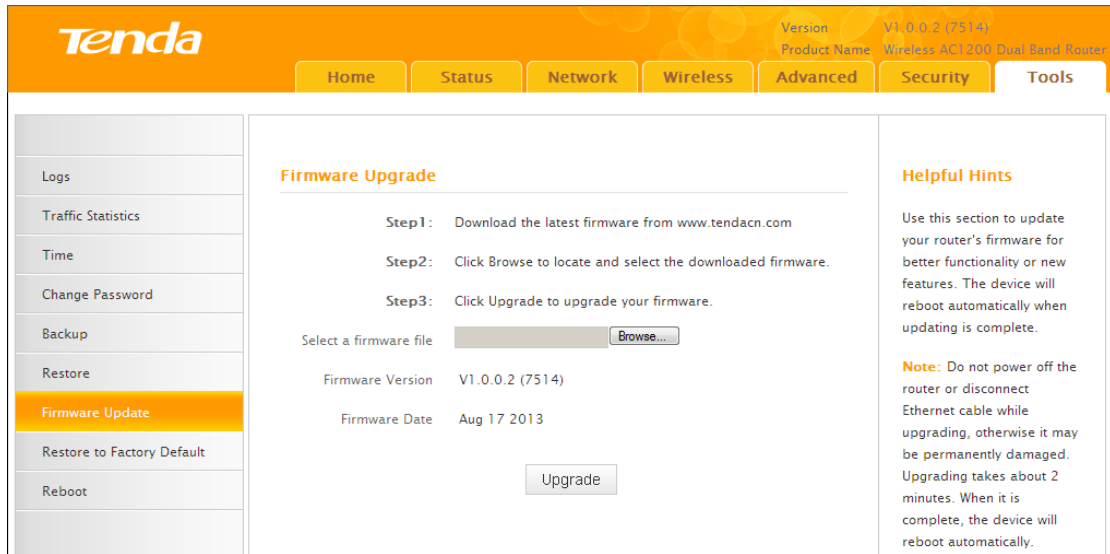


Note -----

- 1 Before you upgrade the firmware, make sure you are having a correct firmware. A wrong firmware may damage the device.
2. Do NOT upgrade the firmware wirelessly or disconnect device from power supply while firmware update is in process. Note that you need to update the device's firmware via a wired connection.

Configuration Procedures:

- ① Click **Browse**.



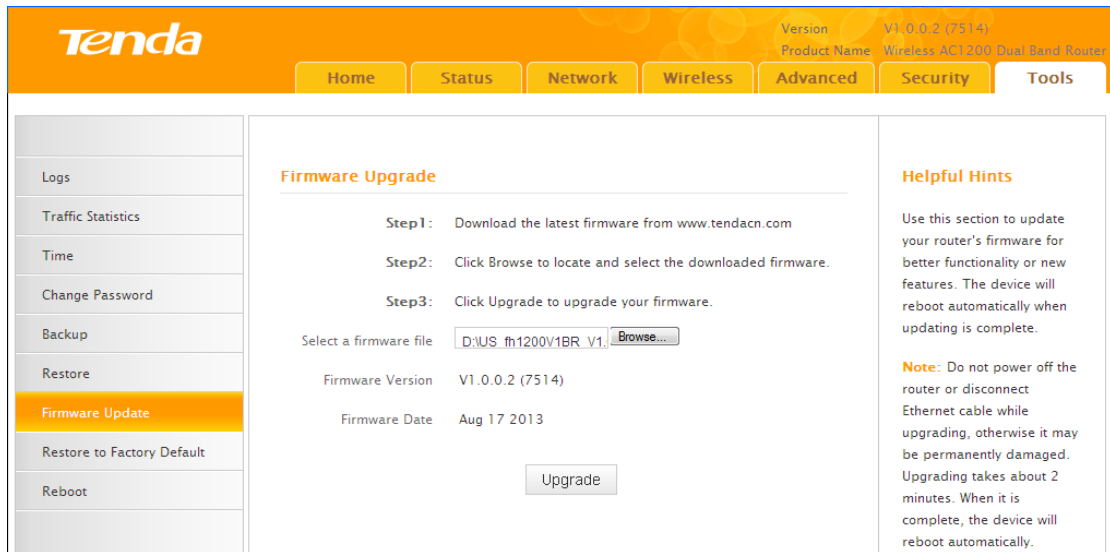
The screenshot shows the Tenda router's web interface. The top navigation bar includes 'Home', 'Status', 'Network', 'Wireless', 'Advanced', 'Security', and 'Tools'. The 'Security' tab is selected. On the left sidebar, 'Firmware Update' is highlighted. The main content area is titled 'Firmware Upgrade' and contains the following steps:

- Step1:** Download the latest firmware from www.tendacn.com
- Step2:** Click Browse to locate and select the downloaded firmware.
- Step3:** Click Upgrade to upgrade your firmware.

Below the steps, there is a 'Select a firmware file' field with a 'Browse...' button. The current 'Firmware Version' is 'V1.0.0.2 (7514)' and the 'Firmware Date' is 'Aug 17 2013'. An 'Upgrade' button is located at the bottom of the form.

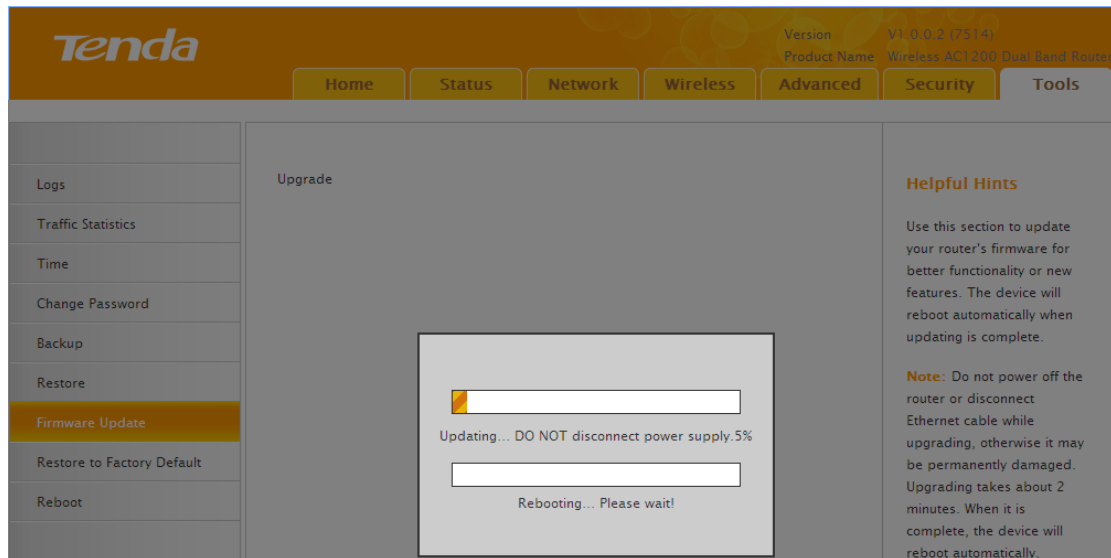
Helpful Hints: Use this section to update your router's firmware for better functionality or new features. The device will reboot automatically when updating is complete. **Note:** Do not power off the router or disconnect Ethernet cable while upgrading, otherwise it may be permanently damaged. Upgrading takes about 2 minutes. When it is complete, the device will reboot automatically.

- ② Select the upgrade file and click **Open**.
- ③ Click **Upgrade** (or **Update**).



This screenshot shows the same 'Firmware Upgrade' page as the previous one, but with a file selected. The 'Select a firmware file' field now contains the path 'D:\US_fm1200V1BR_V1.' and the 'Browse...' button is disabled. The 'Upgrade' button remains visible at the bottom of the form. The rest of the page content, including the steps and helpful hints, is identical to the previous screenshot.

- ④ Click **OK** on the appearing window.
- ⑤ An upgrade progress indicator bar appears during the upgrade process. When upgrade is complete, the device restarts automatically.



6.8. Restore to Factory Default Settings

Click **Tools -> Restore to Factory Default** to enter the configuration screen. Here you can reset the device to factory default settings.



Note -----

1. If you enable this option, all current settings will be deleted and be restored to factory default values. You will have to reconfigure Internet connection settings and wireless settings.
2. Do not restore factory default settings unless the following happens:
 - You need to join a different network or unfortunately forget the login password.
 - You cannot access Internet and Tenda technical staff asks you to reset the router.

The screenshot shows the Tenda router's web interface. At the top, the Tenda logo is on the left, and the version (V1.0.0.2 (7514)) and product name (Wireless AC1200 Dual Band Router) are on the right. Below this is a navigation bar with tabs: Home, Status, Network, Wireless, Advanced, Security, and Tools. On the left side, there is a sidebar menu with options: Logs, Traffic Statistics, Time, Change Password, Backup, Restore, Firmware Update, Restore to Factory Default (highlighted in orange), and Reboot. The main content area is titled 'Restore Factory Default' and contains the text: 'To restore factory defaults, click the Restore Factory Default button.' Below this text is a button labeled 'Restore Factory Default'. On the right side, there is a 'Helpful Hints' section with the following text: 'If you enable this option, all current settings will be deleted and be restored to factory default values. There is no preset default password. Default IP Address: 192.168.0.1. Default Subnet Mask: 255.255.255.0.'

Click the **Restore Factory Default** button to reset the device to factory default settings.

- Default IP Address: 192.168.0.1
- Default Subnet Mask: 255.255.255.0

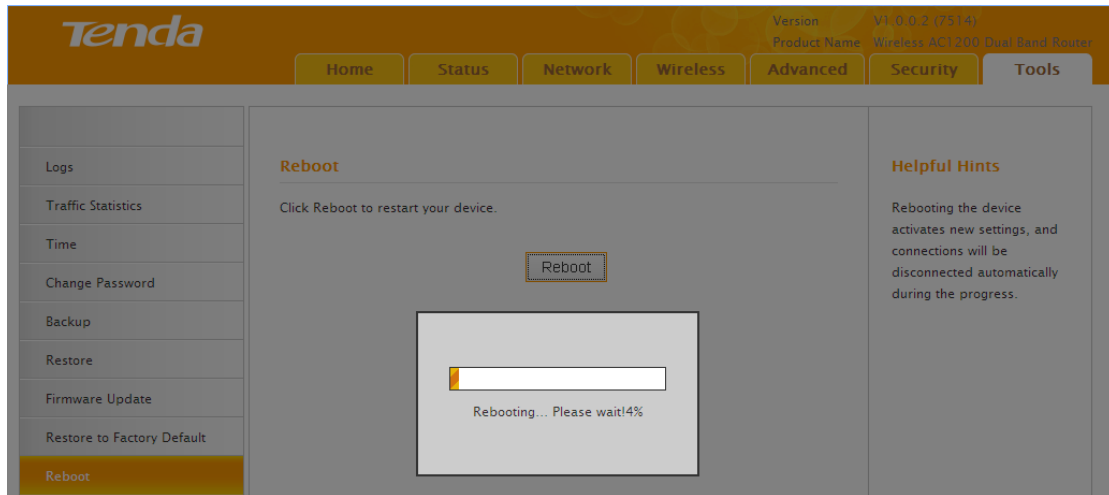
6.9 Reboot

Click **Tools -> Reboot** to enter the configuration screen. This section allows you to reboot the device.

- ① Click **Reboot**.

The screenshot shows the Tenda router's web interface. At the top, the Tenda logo is on the left, and the version (V1.0.0.2 (7514)) and product name (Wireless AC1200 Dual Band Router) are on the right. Below this is a navigation bar with tabs: Home, Status, Network, Wireless, Advanced, Security, and Tools. On the left side, there is a sidebar menu with options: Logs, Traffic Statistics, Time, Change Password, Backup, Restore, Firmware Update, Restore to Factory Default, and Reboot (highlighted in orange). The main content area is titled 'Reboot' and contains the text: 'Click Reboot to restart your device.' Below this text is a button labeled 'Reboot'. On the right side, there is a 'Helpful Hints' section with the following text: 'Rebooting the device activates new settings, and connections will be disconnected automatically during the progress.'

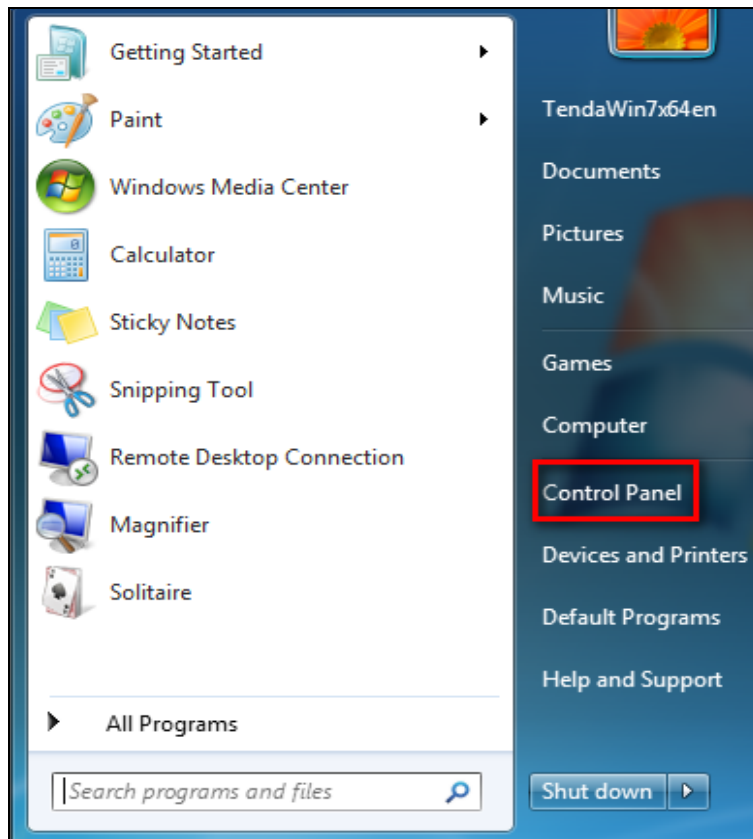
- ② Click **OK** on the appearing screen below:
- ③ The router restarts automatically if the **OK** button is clicked.



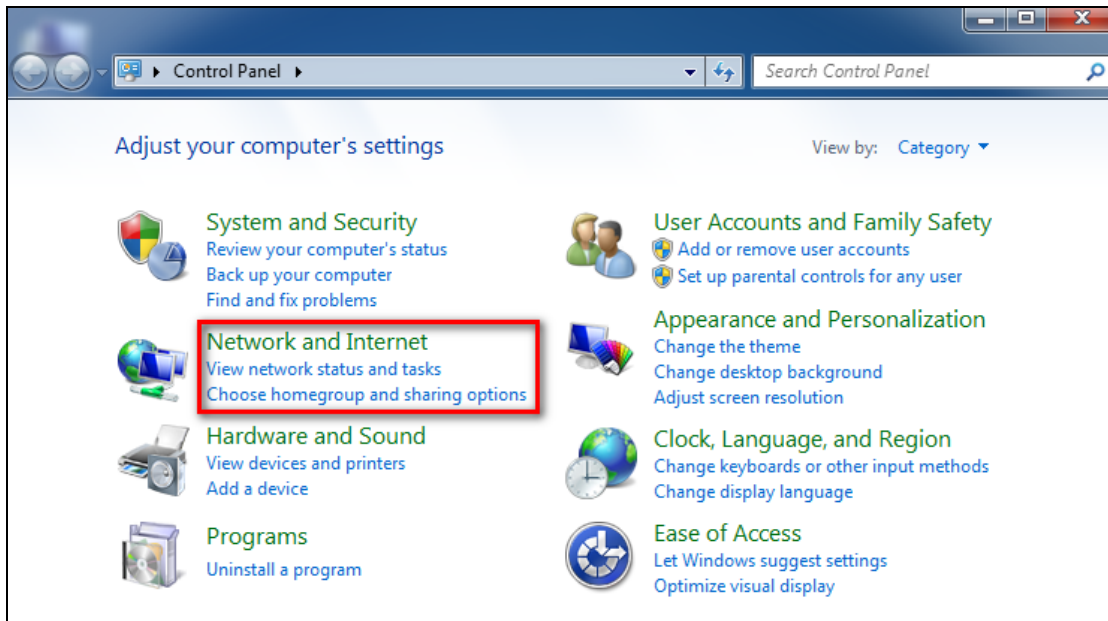
Appendix 1 Configure PC TCP/IP Settings

Windows 7

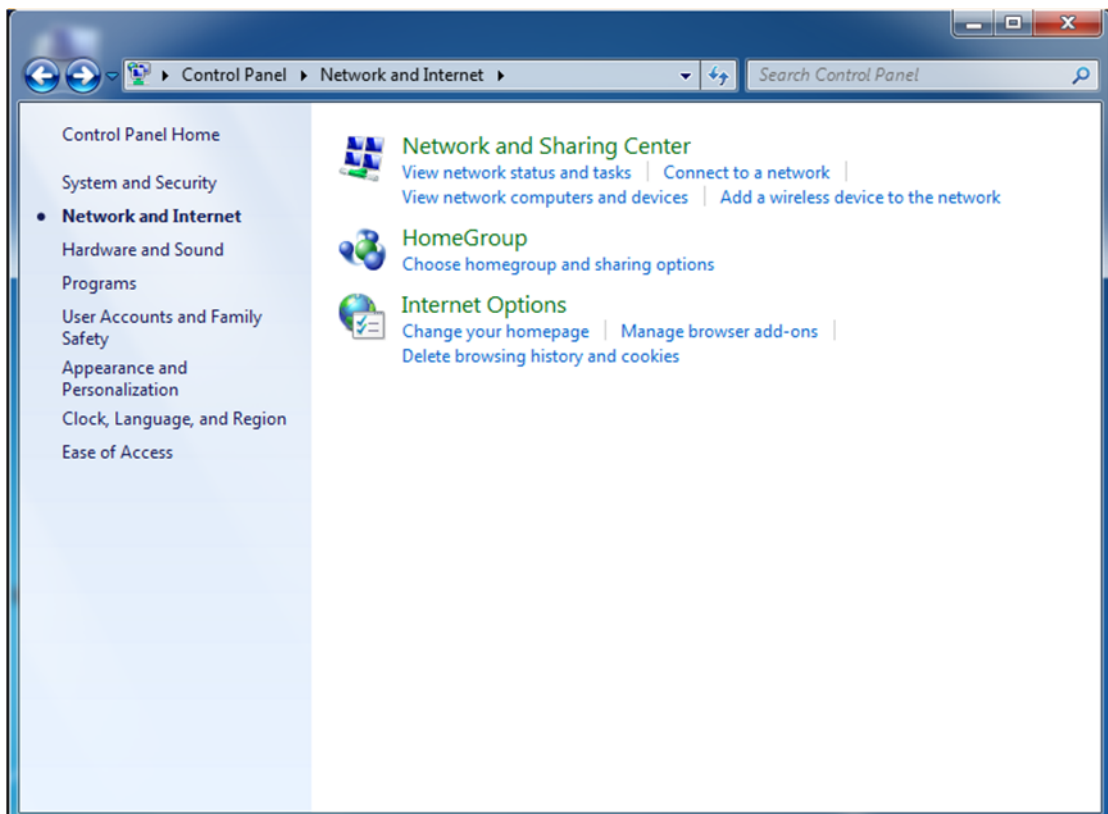
- 1 Click **Start -> Control Panel**.



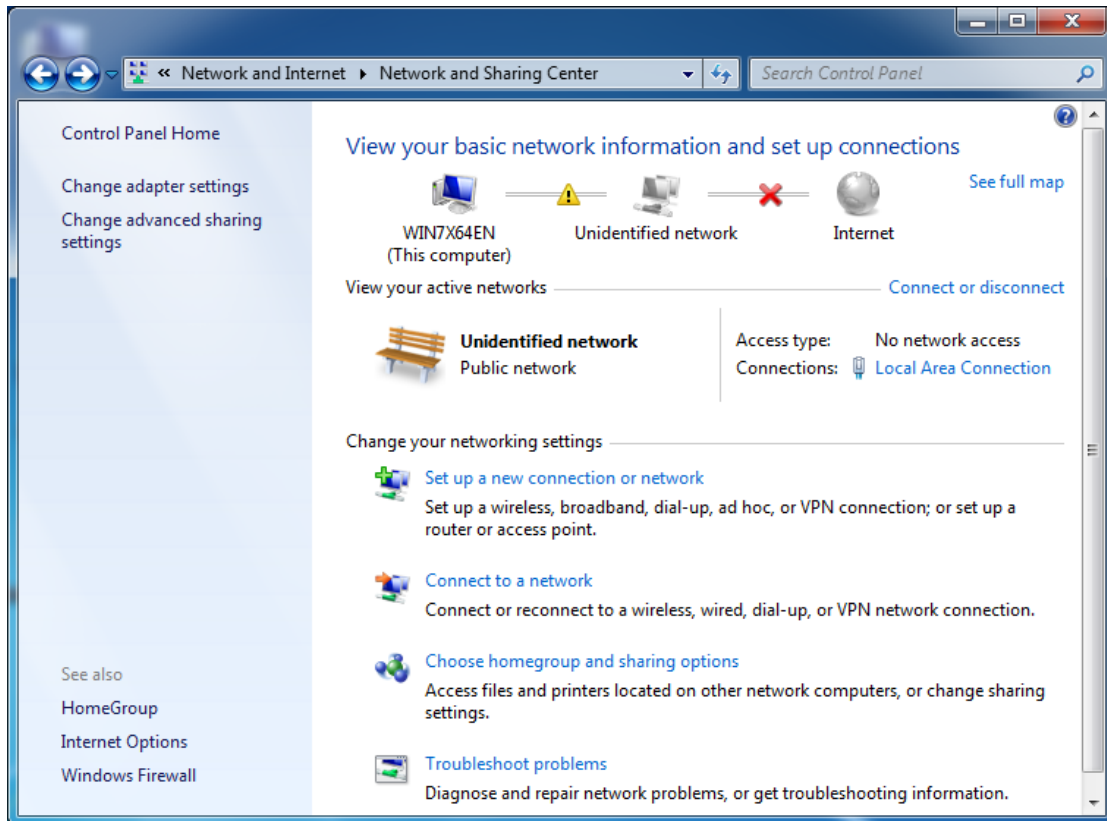
- ② Click **Network and Internet**.



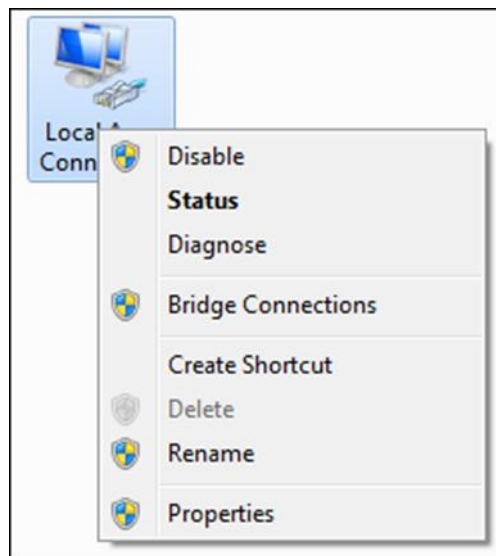
- ③ Click **Network and Sharing Center**.



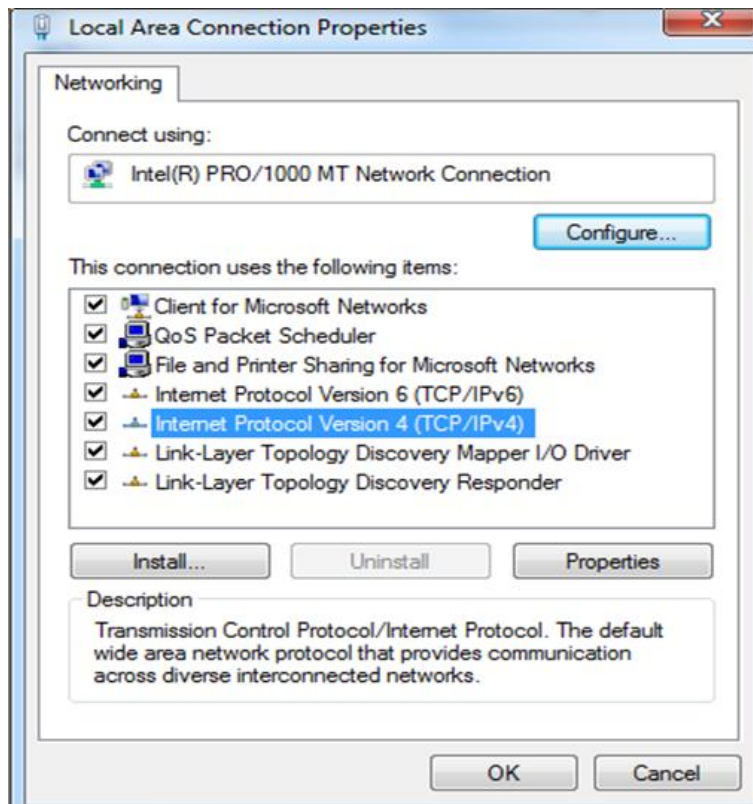
④ Click **Change adapter settings**.



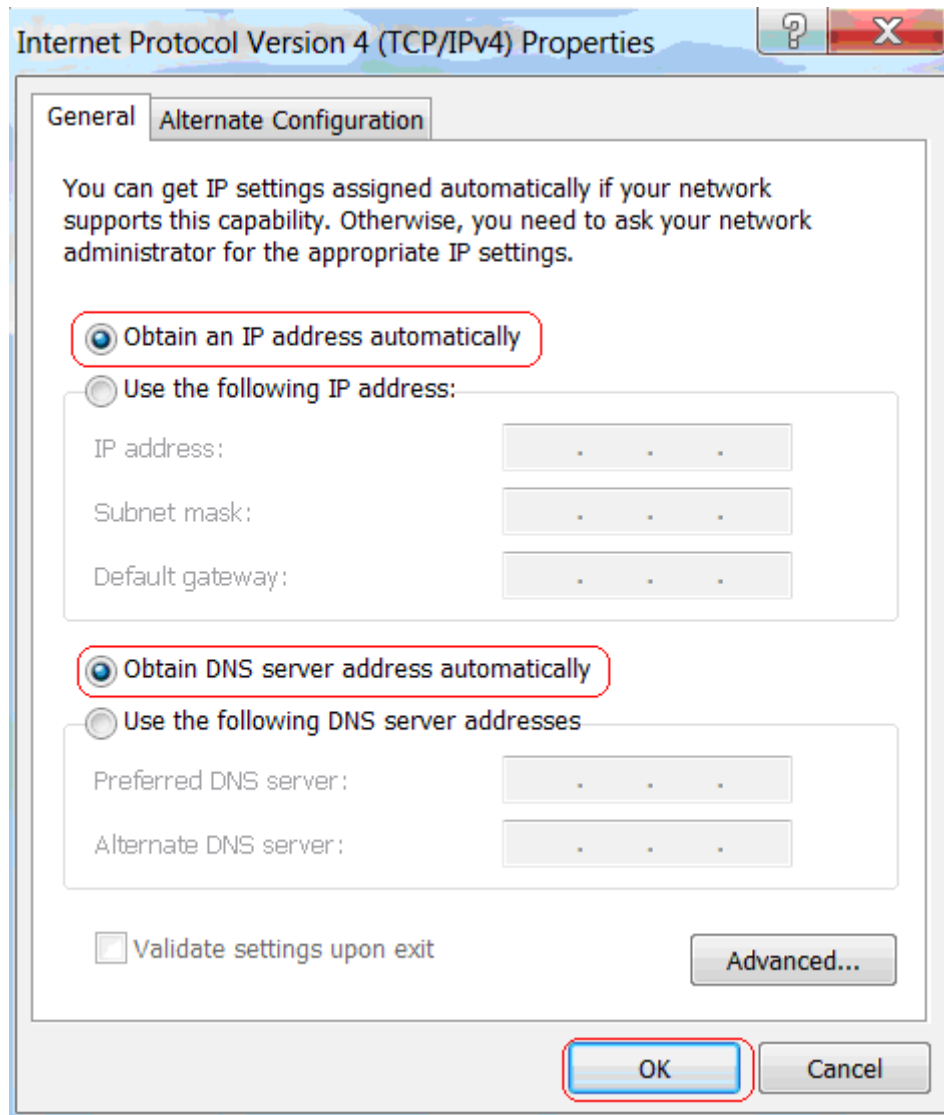
⑤ Click **Local Area Connection** and select **Properties**.



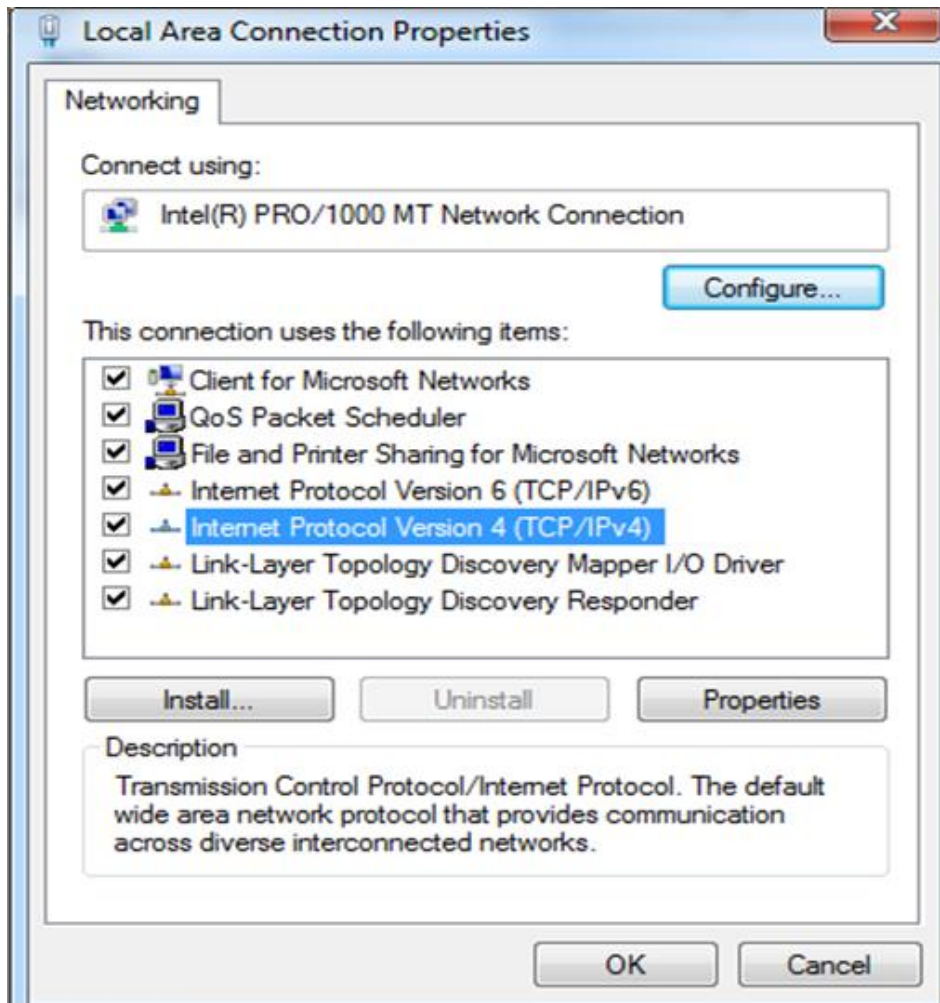
- ⑥ Select **Internet Protocol Version 4 (TCP/IPv4)** and click **Properties**.



- ⑦ Select **Obtain an IP address automatically** and click **OK**.

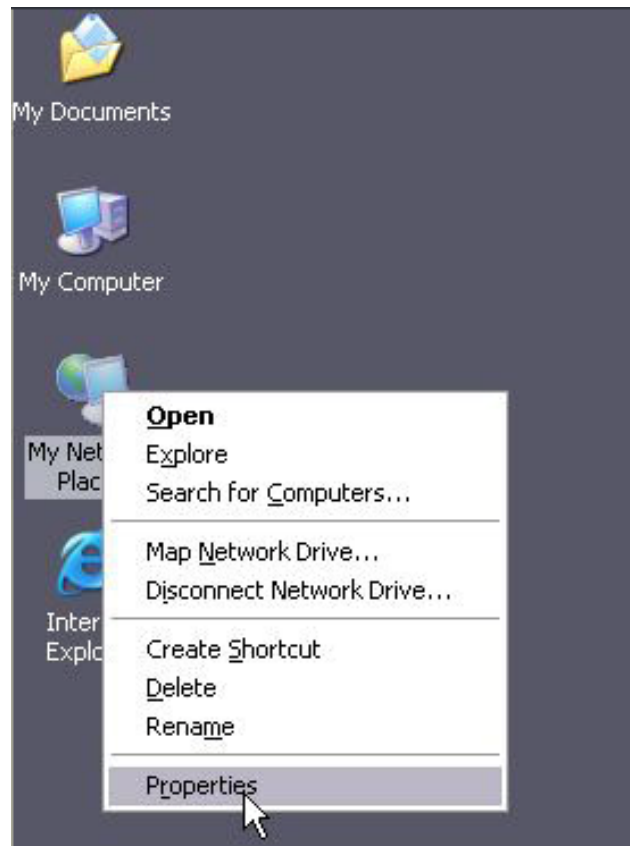


④ Click **OK** on the **Local Area Connection Properties** window to save your settings.



Windows XP

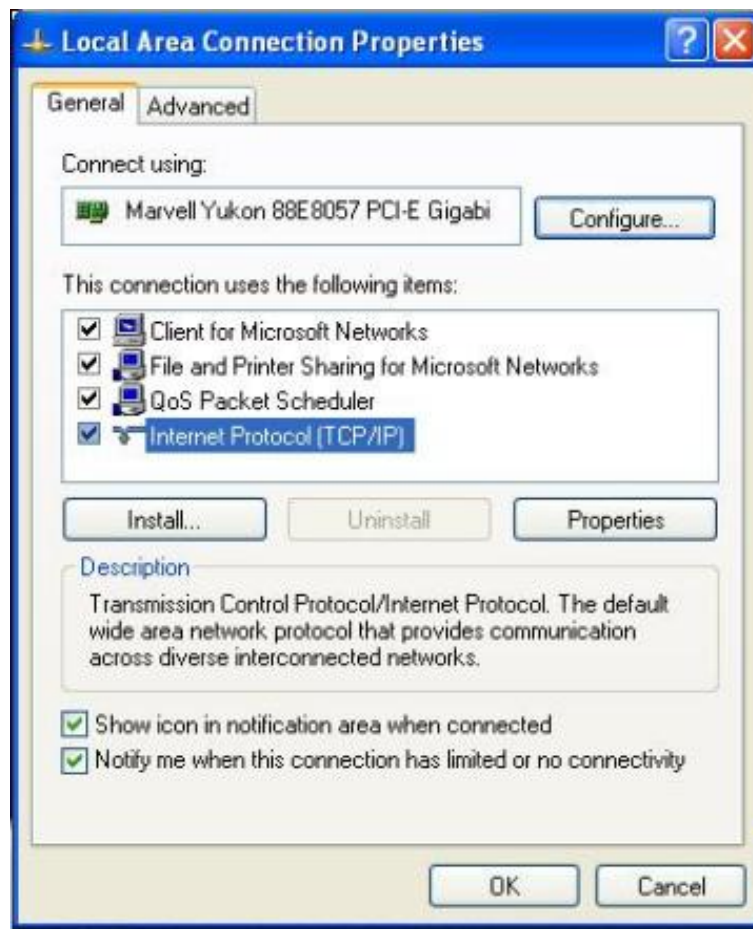
- ① Right-click **My Network Places** and select **Properties**.



- ② Right click **Local Area Connection** and select **Properties**.



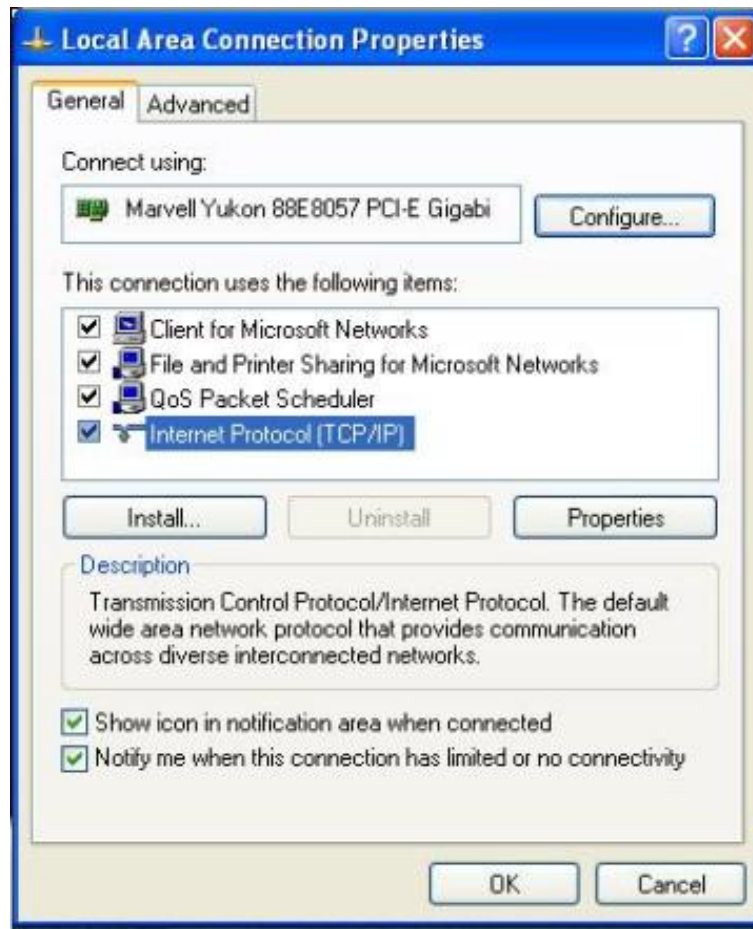
- ③ Select **Internet Protocol Version 4 (TCP/IPv4)** and click **Properties**.



- ④ Select **Obtain an IP address automatically** and click **OK**.



⑥ Click **OK** on the **Local Area Connection Properties** window to save your settings.



Appendix 2 Join Your Wireless Network

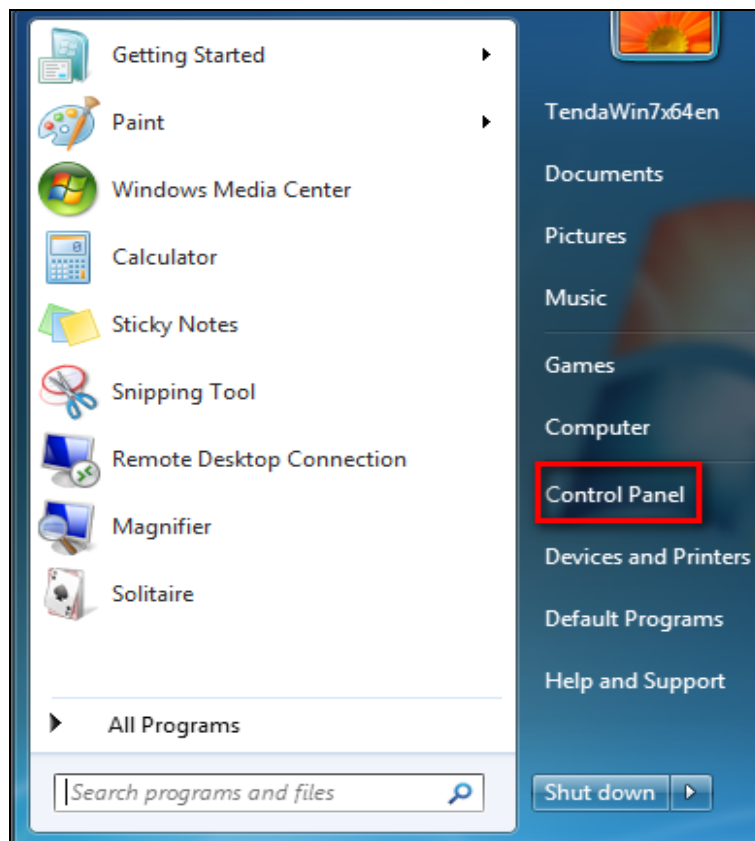


Tip -----

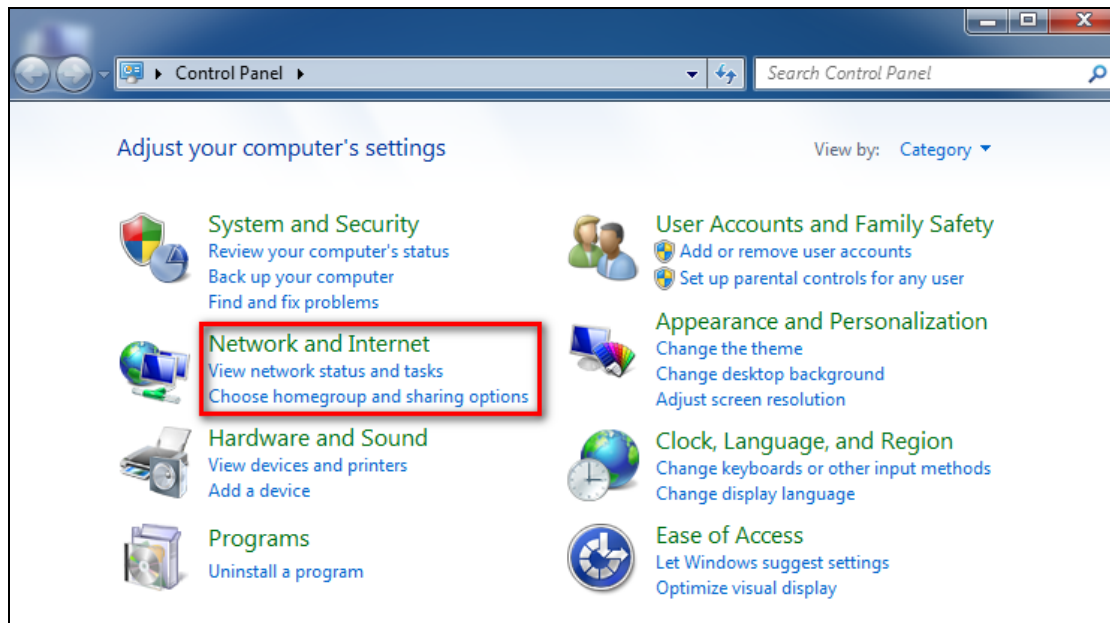
To join your wireless network, the PC you use must have an installed wireless network adapter. If not, install one.

Join Your Wireless Network - Windows 7

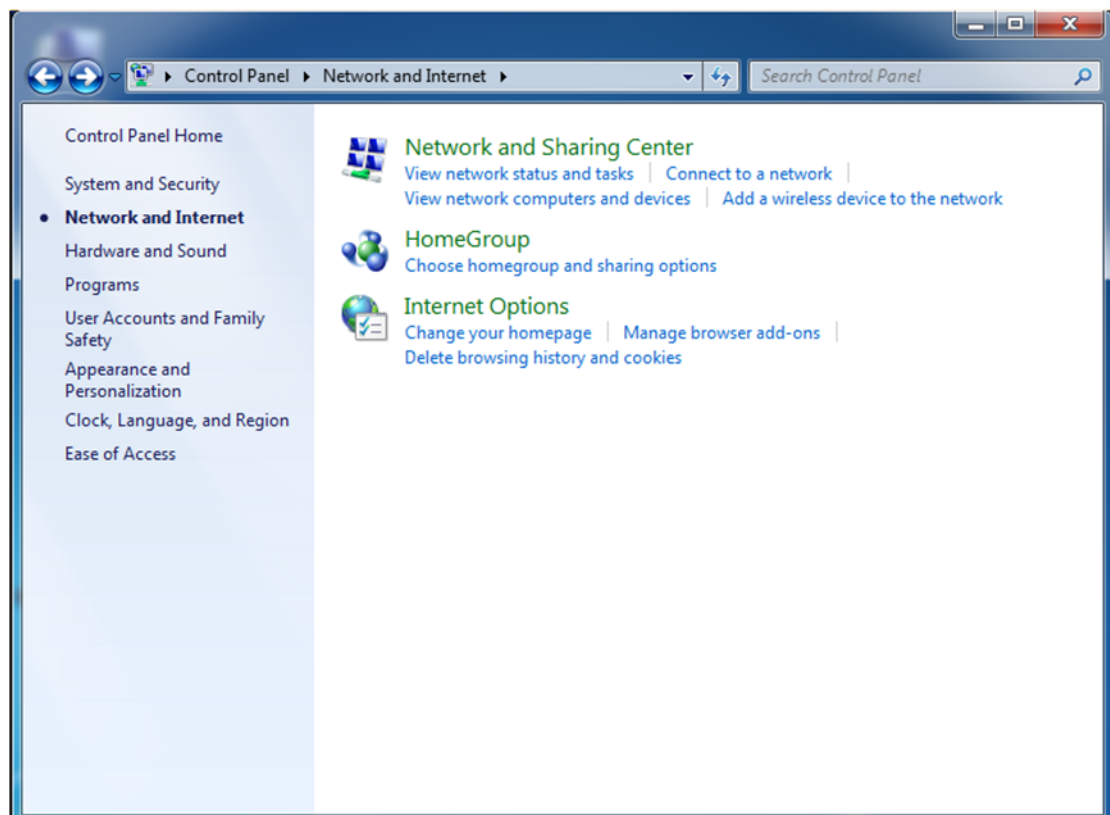
- 1 Click **Start -> Control Panel**.



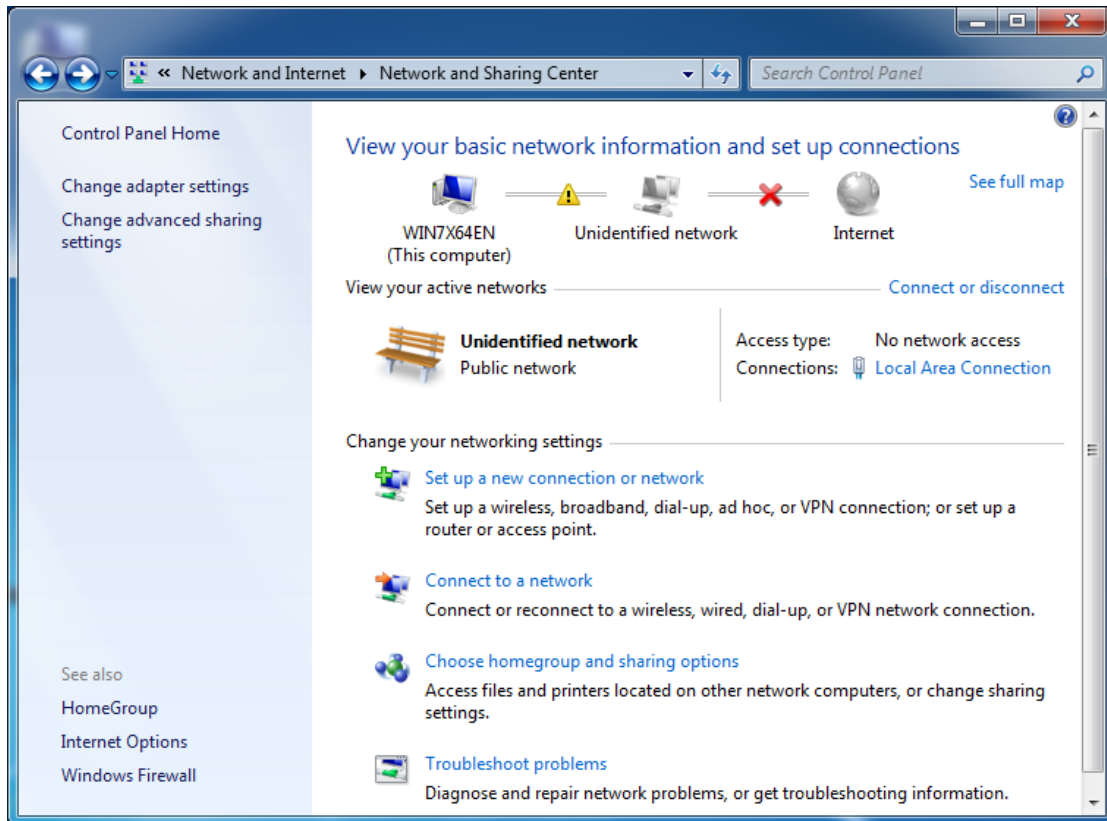
- ② Click **Network and Internet**.



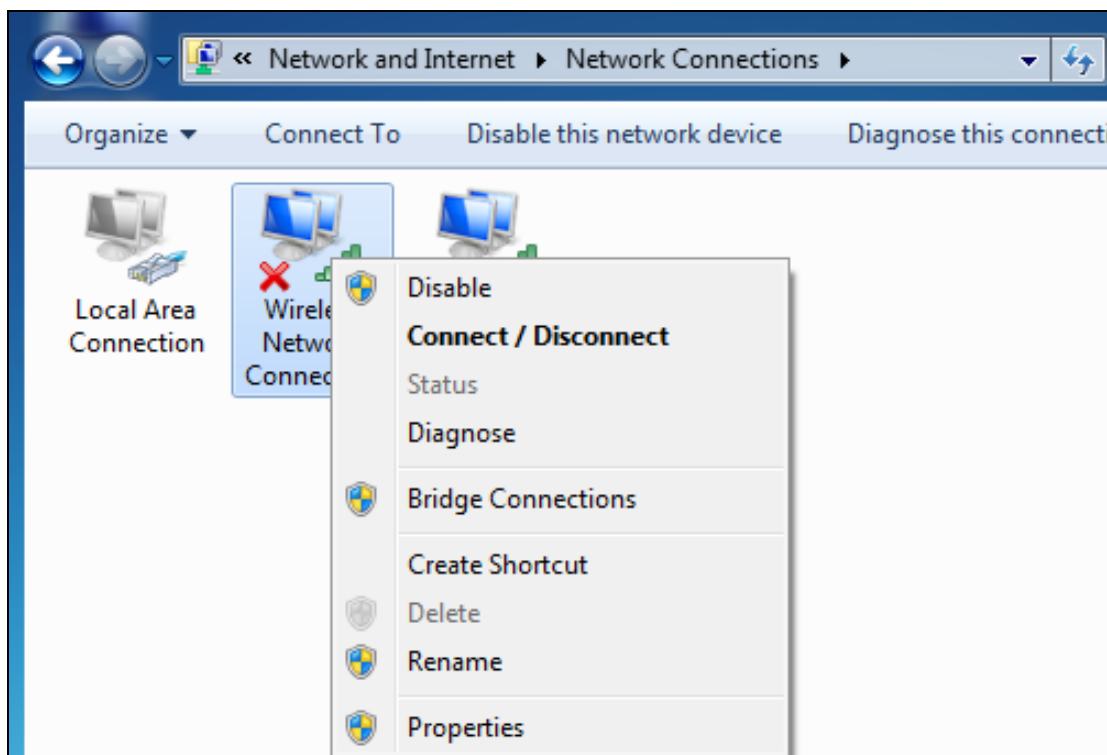
- ③ Click **Network and Sharing Center**.



④ Click **Change adapter settings**.

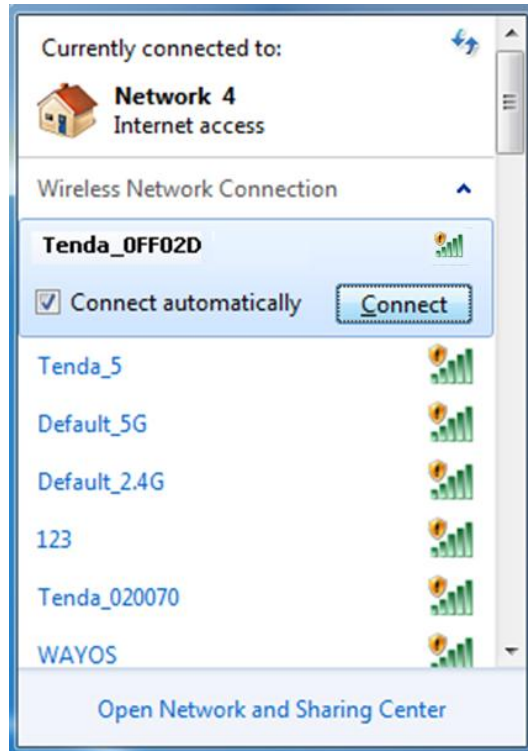


⑤ Right click the **Wireless Network Connection** and select **Connect/Disconnect**.



⑥ Select the wireless network you wish to connect and click **Connect**. Depending on whether you are joining a secured or unsecured wireless network, you will see different screens:

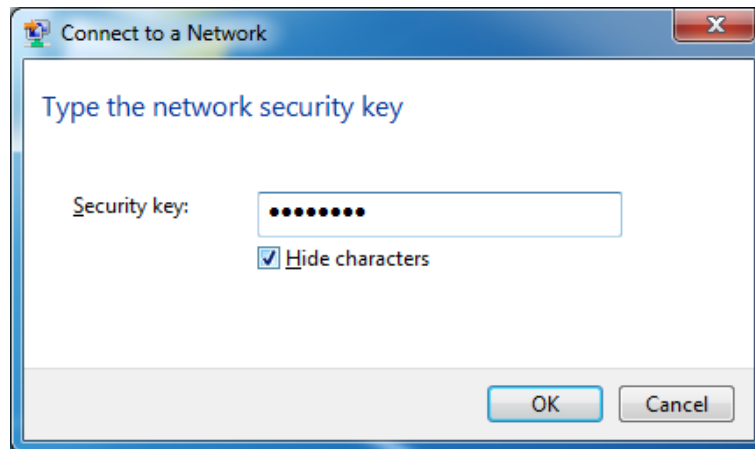
A. If you are joining an unsecured wireless network as seen below:



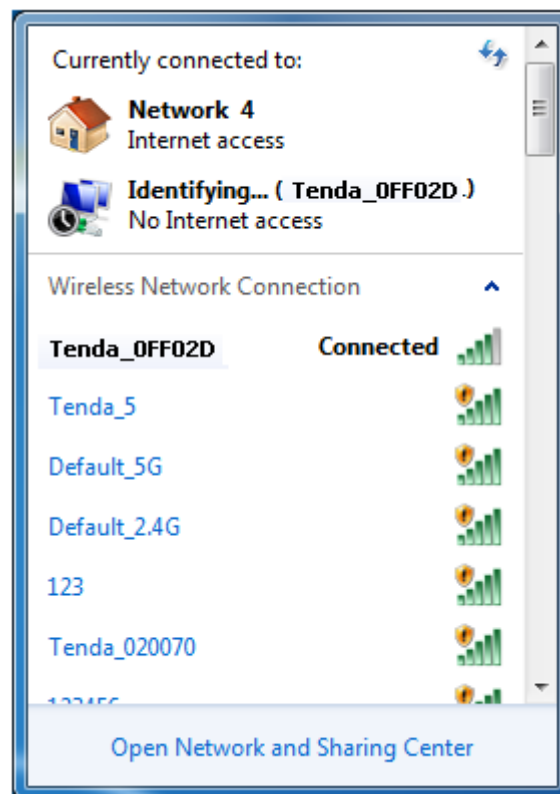
B. If you are joining a secured wireless network as seen below:



You are required to enter a security on the following screen. Enter the security key and click **OK**.



⑦ When you see **Connected** displayed next to the wireless network you selected, you have connected to the wireless network successfully.



Appendix 3 Factory Default Settings

Item		Default Settings
Router Login	Login IP Address	192.168.0.1
Network Settings	Internet Connection Type	DHCP
	MAC Address	Find it on the label attached to the bottom of your device.
	MTU	PPPoE: 1450 Dynamic IP: 1450 Static IP: 1450
	WAN Speed	Auto-negotiation
	DNS	Disabled
LAN Settings	IP Address	192.168.0.1
	Subnet Mask	255.255.255.0
	DHCP Server	Enabled
	IP Pool	192.168.0.100~192.168.0.200
	Time Zone	(GMT+08:00)Beijing, Chongqing, Hong Kong, Urumq
	Set Time and Date manually	Disabled
Wireless Settings	Wireless	Enabled
	Primary SSID (Network Name)	Tenda_XXXXXX (XXXXXX is the last six characters in the device's MAC address)
	Wireless Extender	Disabled
	Network Mode	11b/g/n mixed
	SSID Broadcast	Enabled
	AP Isolation	Disabled
	Channel	Auto
	Channel Bandwidth	20/40
	Extension Channel	Auto
	WMM Capable	Enabled
	APSD Capable	Disabled
	Security Mode	None
WPS	Disabled	
Tools	Remote Web Management	Disabled
	Login Password	None
Others	Bandwidth Control	Disabled
	Traffic Statistics	Disabled
	DMZ Host	Disabled

	UPnP	Enabled
	Security	Disabled

Appendix 4 FAQs

This section provides solutions to problems that may occur during installation and operation of the device. Read the following if you are running into problems.

If your problem is not covered here, please feel free to go to www.tendacn.com to find a solution or email your problems to: support@tenda.com.cn or support02@tenda.com.cn. We will be more than happy to help you out as soon as possible.

1. Q: I cannot access the device's management interface. What should I do?

- Make sure the power LED on the device's front panel is on and the SYS LED blinks normally.
- Make sure all cables are correctly connected and the corresponding LAN LED on the device is on.
- Verify that your PC's TCP/IP settings are configured correctly. If you select the "Use the following IP address" option, set your PC's IP address to any IP address between 192.168.0.2~192.168.0.254. Or you can select the "Obtain an IP address automatically" option.
- Check the IP address you entered in your browser. It should be `http://192.168.0.1`.
- Open your browser and click **Tools -> Internet Options -> Connections -> LAN settings**, uncheck the **Use a proxy server for your LAN** option.
- Press the WPS/RST button for over 7 seconds to restore your device to factory default settings. Then log to your device again.

2. Q: I changed the login password and unfortunately forget it. What should I do?

Press the WPS/RST button for over 7 seconds to restore your device to factory default settings.

3. Q: My computer shows an IP address conflict error after having connected to the device. What should I do?

- Make sure there are no other DHCP servers on your LAN or other DHCP servers are disabled.

- Make sure the device's LAN IP is not used by other devices on your LAN. The device's default LAN IP address is 192.168.0.1.
- Make sure the statically assigned IP addresses to the PCs on LAN are not used by others PCs.

4. Q: I have problems connecting to Internet/Secure websites do not open or displays only part of a web page. What should I do?

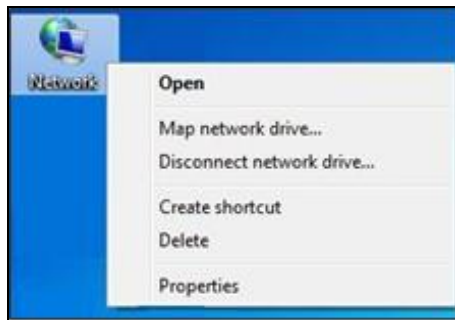
This problem mainly happens to users who use the PPPoE or Dynamic IP Internet connection type. You need to change the MTU size. Try changing the MTU to 1450 or 1400. If this does not help, gradually reduce the MTU from the maximum value until the problem disappears.

Appendix 5 Remove Wireless Network from Your PC

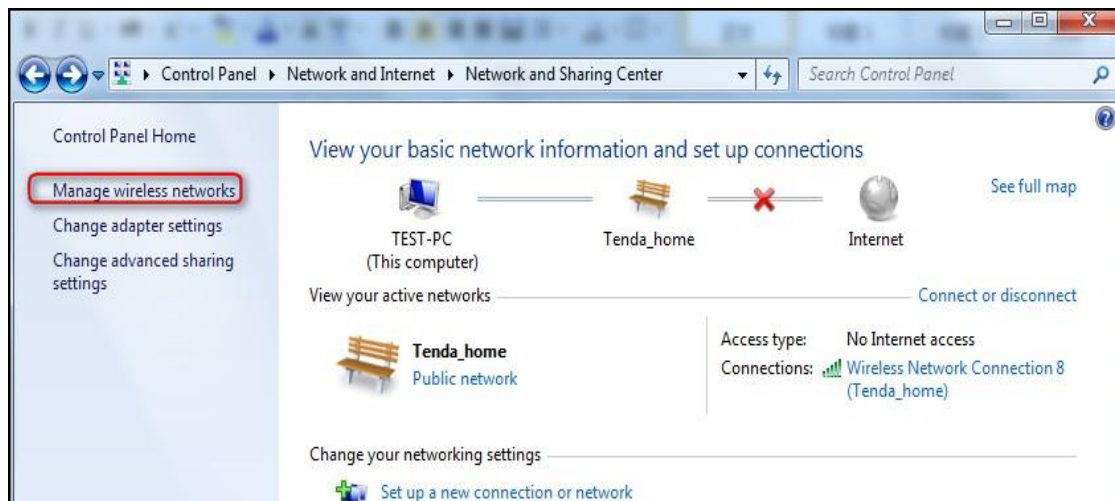
If you change wireless settings on your wireless device, you must remove them accordingly from your PC; otherwise, you may not be able to wirelessly connect to this device. Below describes how to do remove a wireless network from your PC.

Windows 7

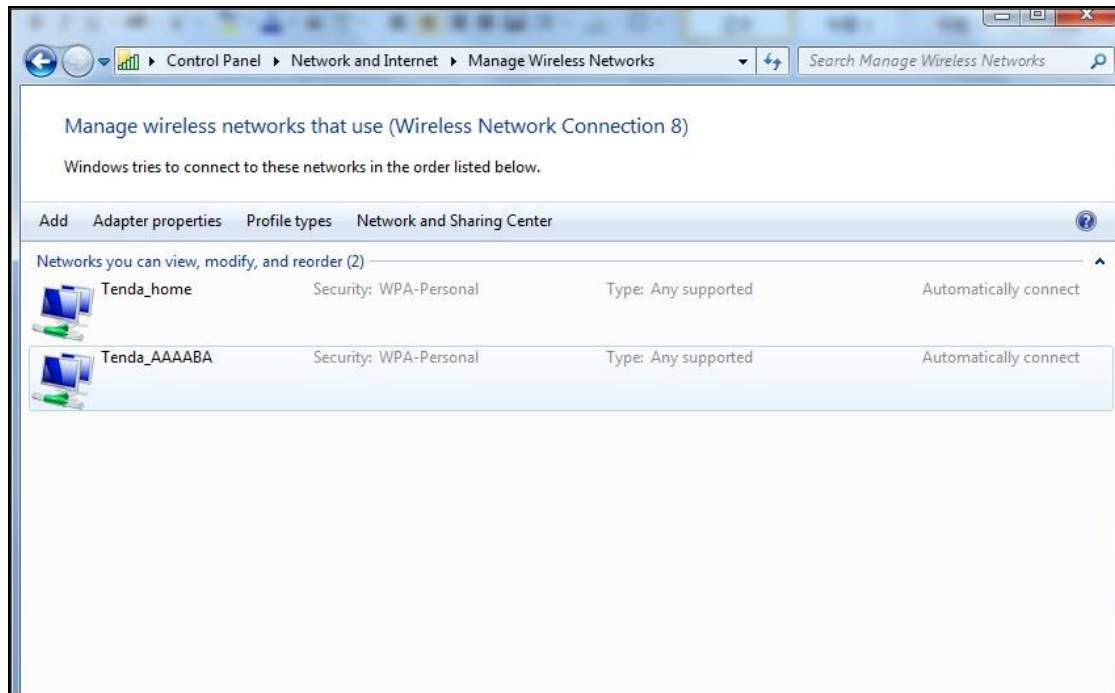
- ① Right-click the **Network** icon and select **Properties**.



- ② Select **Manage Wireless Networks**.

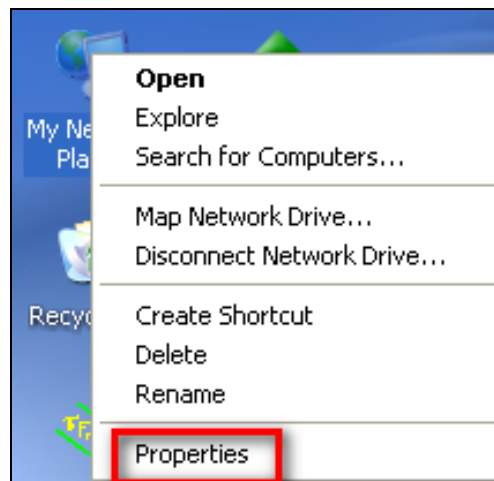


- ③ Select the wireless network and click **Remove network**.

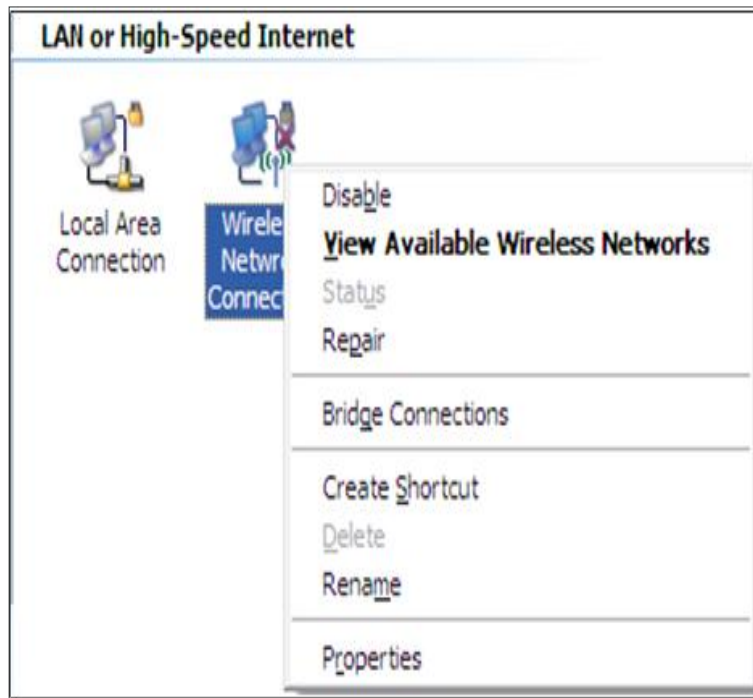


Windows XP

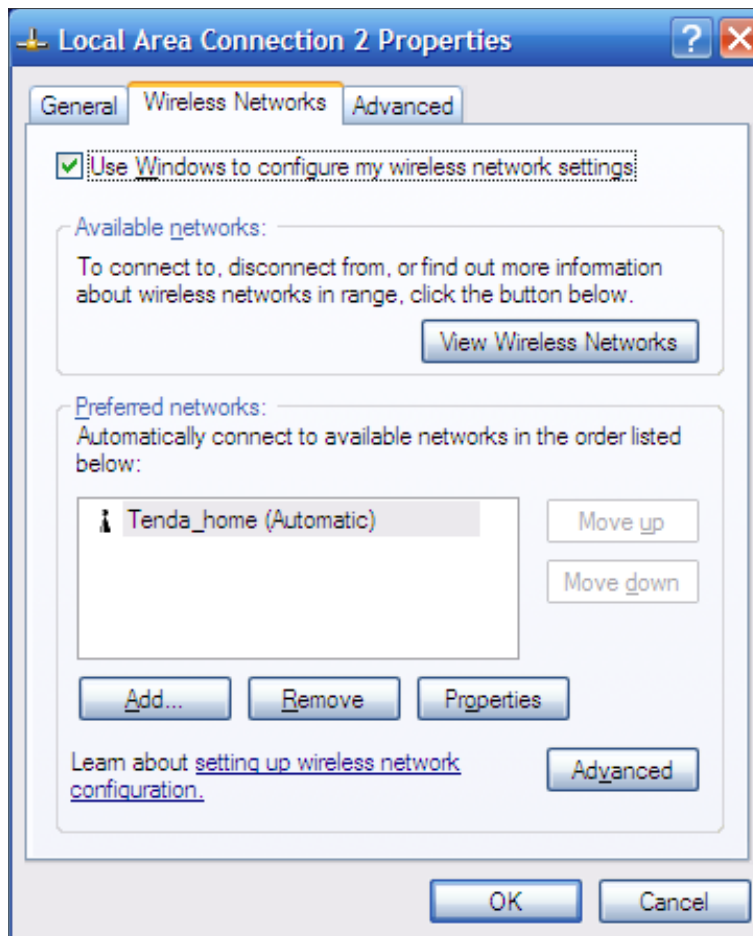
- ① Right-click **My Network Places** and select **Properties**.



- ② Right click **Wireless Network Connection** and then select **Properties**.



- ③ Click **Wireless Networks**, select the wireless network name under **Preferred networks** and then click the **Remove** button.



Appendix 6 Safety and Emission Statement



CE Mark Warning

Operations in the 5.15-5.25GHz band are restricted to indoor usage only.

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

NOTE:(1)The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment.(2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable



FCC Statement

Operations in the 5.15-5.25GHz band are restricted to indoor usage only.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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 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.

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

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

NOTE: (1) The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. (2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable

NCC Notice

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更設計之特性及功能。

低功率射頻電機之作用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信規定作業之無線電信。

低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

5.25 ~ 5.35GHz 限室內使用 (802.11a used)