

Zonet[®]

ZSR0104CP

Cable/DSL Broadband Router With 4-Port Switch

USER MANUAL

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1. Introduction

This router is a Cable/DSL Broadband Router w/4-port switch. It provides you an easy and stable way to share your Cable/DSL high speed Internet connection. The built-in NAT technology can act as a firewall to protect your internal network against outside hackers. The 4-port Broadband Router is compatible with most popular operating systems, such as Windows, Linux, Macintosh, etc. However, this manual is designed to help users to connect their computers with the Internet under Windows systems. For other operating systems, please check the related materials before you use this Router.

The User Manual explains how to setup and use the router in details. It also provides some quick introductions to the related network technologies. Please read it carefully before connecting the Router to the Internet and always consult it first when you meet problems with the Router.

1.1 Features

- Complies with the IEEE802.3 and IEEE802.3u standards
- One 10M/100M auto-negotiation WAN port allows you to connect the Router with Cable/DSL modem or other Ethernet devices, such as router, switch, hub, etc
- Built-in 4-port 10/100Mbps auto-negotiation Fast Ethernet switch allows you to share the single Internet connection with up to 50 computers or network devices
- Supports different Internet connecting modes: PPPoE, DHCP Client and Static IP
- All ports support auto MDI/MDIX function which allows you to connect the devices with the Router by either parallel or cross-over Ethernet cables
- Supports UPnP, Windows XP can find the Router in the network automatically
- Built-in NAT (Network Address Transfer) technology acts as a firewall to protect internal sources against outside hackers
- Simple, intelligent, web-based management and configuration interface
- Supports Proxy DNS
- Supports DHCP server, all networked computers can retrieve TCP/IP settings automatically from the Router
- Supports virtual server which makes LAN services (such as FTP, WWW, TELNET, DNS, etc) to be accessible to the Internet users
- LED indicators for simple diagnostics and management

1.2 Package Contents

4-port Cable/DSL Broadband Router	1pc
User Manual	1pc
Power Adapter	1pc
RJ-45 Cable	1pc



NOTE:

1. If any of the above items are missing, please contact your reseller.
2. Please check the voltage of your power supply before using the power adapter. Different input voltage may damage the power adapter.

2. Appearance Illustration

2.1 Panel

2.1.1 Front Panel

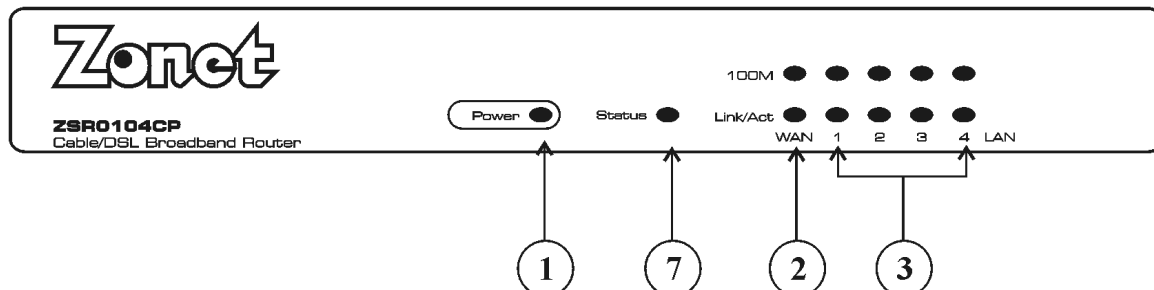


Figure 2-1

2.1.2 Rear Panel

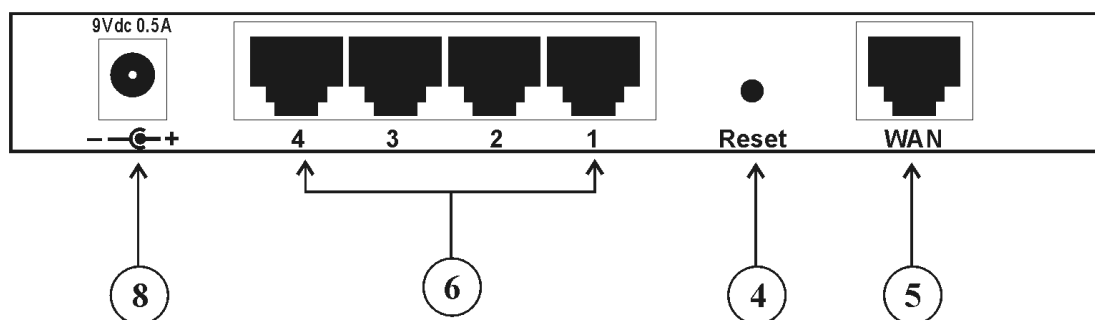


Figure 2-2

2.2 Illustration

Figure No.	Name on Router	Description	Remark
1 / 8	PWR	Power Status Indicator 9V/0.5A Power Connector	
2	WAN	WAN Interface Status Indicator	
3	1x/2x/3x/4x	LAN Interface Status Indicators	

4	Reset	Reset default button	Refer to 11.1 Forget Password (Reset the Router without Login)
5	WAN	WAN Port	Connect to Cable/DSL modem or other Ethernet devices
6	1x/2x/3x/4x	LAN Ports	Connect to LAN computers and devices
7	STATUS	System Ready Indicator	

2.3 Illustration of router Indicators

Indicator	Off	Solid	Flash
PWR	Power source not connected	Power source connected	N/A
LNK/ACT	Not connected	Connected	Data transmitting

2.4 Working environment

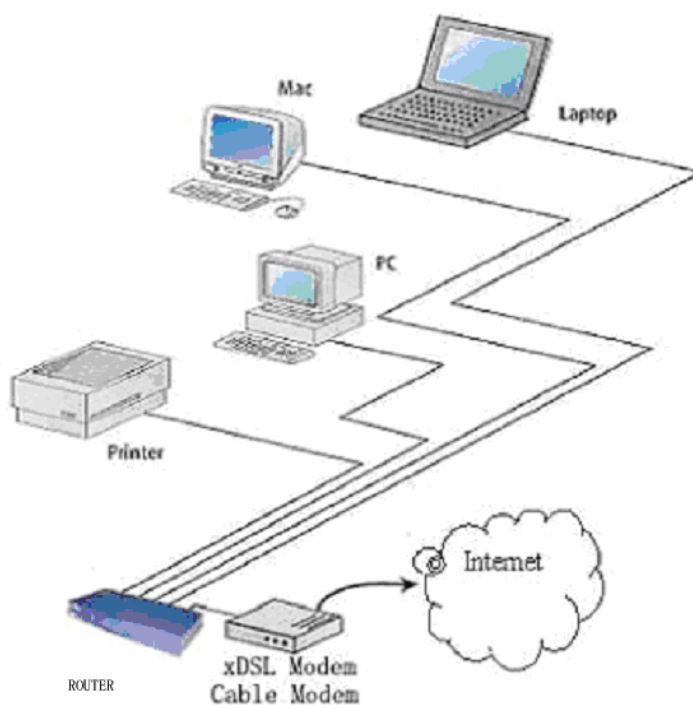


Figure 2-3

As the above figure shows, Router could be connected with four LAN (local area network) computers directly. In addition, users can expand their network by connecting other Ethernet devices (such as Hub, Switch, etc) with the Router. In this way, users can connect as many as 50 computers with router.

This router supports three kinds of connection modes which allow the users to hook up with the Internet through either Cable modem or DSL modem.

3. Setup your computer

3.1 Connect the Router

Please follow the steps below to connect the modem and your computers with the Router:

1. Make sure that all network devices are powered off, including the Router, PCs, switches, cable or DSL modem, and peripherals.
2. Connect the modem with the WAN port of the Router by one CAT 5 Ethernet cable.
3. Connect your computers with the LAN ports (1x/2x/3x/4x) of the Router by CAT 5 Ethernet cables. One computer connects to one port by one cable.
4. Power on the cable or DSL modem.
5. Plug in the power of the Router. The Power LED on the Router's front panel will light up as soon as the power adapter is connected properly.
6. Power on your PC(s).



NOTE:

Please refer to 4 APPEARANCE ILLUSTRATION for the port name and position.

Please setup your computer according to the operating system in your computer. In this chapter, we only introduce how to setup your computer for Windows 98/Me, Windows 2000 and Windows XP. We recommend customers to setup their computers to obtain IP address automatically, which we will introduce in this chapter. However, for some advanced users, or the users who cannot get the IP address through the following configuration, please refer to 11.4 How to Setup Your Computer to Get IP Address Manually.

3.2 Windows 98/Me

Please follow the steps below to setup your computer:

1. Go to Start → Settings → Control Panel.
2. Find and double-click the Network icon. The Network dialog box appears.
3. Click the Configuration label and ensure that you have network card.
4. Select TCP/IP. If TCP/IP appears more than once, please select the item that has an arrow "→" pointing to the network card installed on your computer. DO NOT choose the instance of TCP/IP with the words "Dial Up Adapter" beside it.
5. Click Properties. The TCP/IP Properties dialog box appears.

6. Ensure the Obtain IP Address Automatically is checked.
7. From the WINS Configuration dialog box, Ensure that Disable WINS Resolution is checked.
8. From the Gateway dialog box, remove all entries from the Installed gateways by selecting them and clicking Remove.
9. From the DNS Configuration dialog box, remove all entries from the DNS Server Search Order box by selecting them and clicking Remove. Remove all entries from the Domain Suffix Search Order box by selecting them and clicking Remove. Click Disable DNS.
10. Click OK, back to Network Configuration dialog box.
11. Click OK, if prompted to restart, click YES.

3.3 Windows 2000

Please follow the steps below to setup your computer:

1. Go to Start → Settings → Control Panel



Figure 3-1

2. Double click the icon Network and Dial-up Connections
3. Highlight the icon Local Area Connection, right click your mouse, click Properties

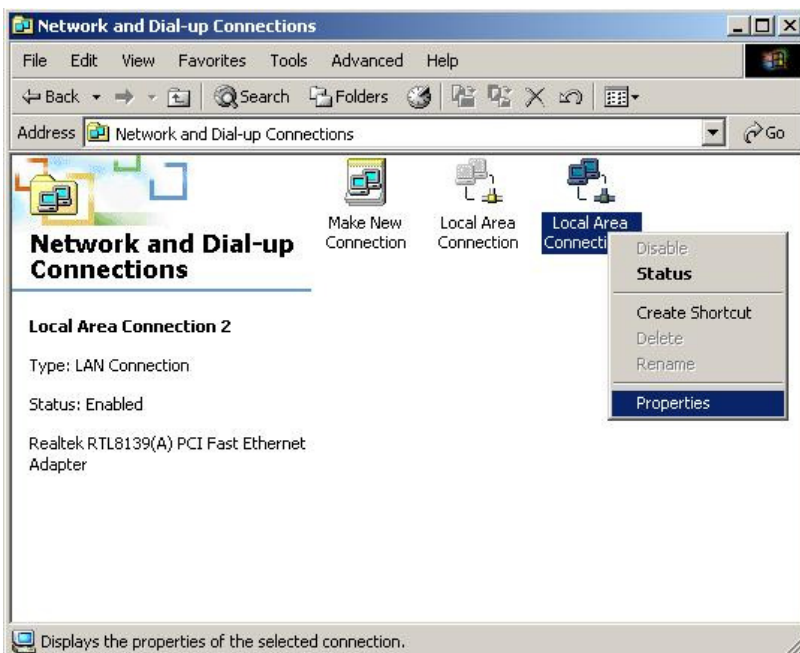


Figure 3-2

4. Highlight Internet Protocol (TCP/IP), and then press Properties button

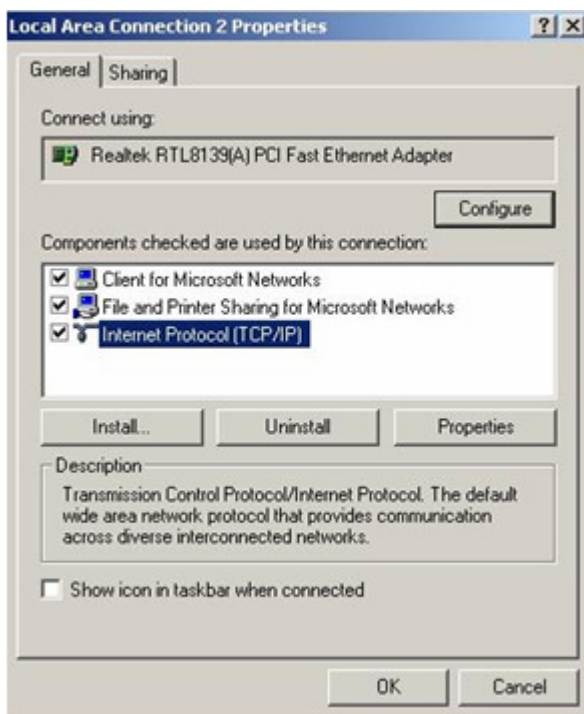


Figure 3-3

5. Choose Obtain an IP address automatically and Obtain DNS server address automatically, and then press OK to close the Internet Protocol (TCP/IP) Properties window

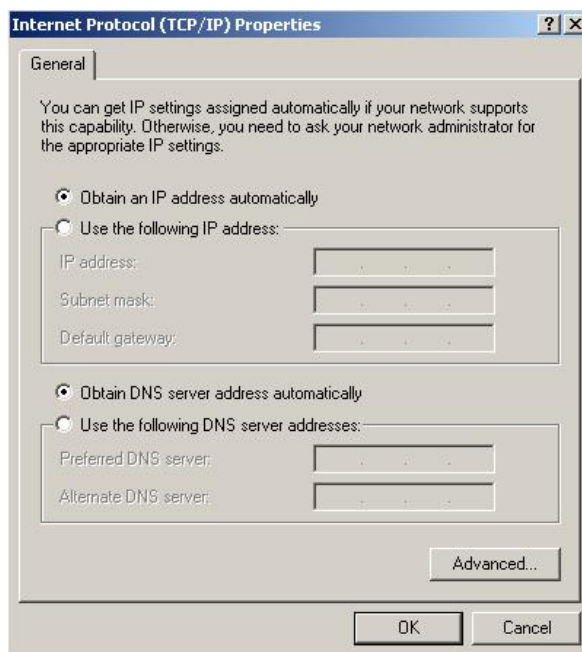


Figure 3-4

6. Press OK to close the Local Area Connection Properties window

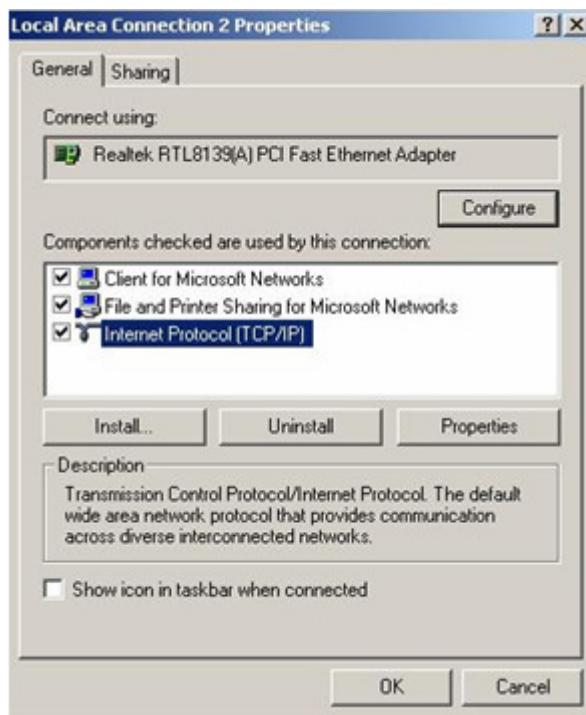


Figure 3-5

3.4 Windows XP

Please follow the steps below to setup your computer:

1. Go to Start → Settings → Control Panel
2. Click Network and Internet Connections



Figure 3-6

3. Click Network Connections



Figure 3-7

4. Highlight the icon Local Area Connection, right click your mouse, click Properties

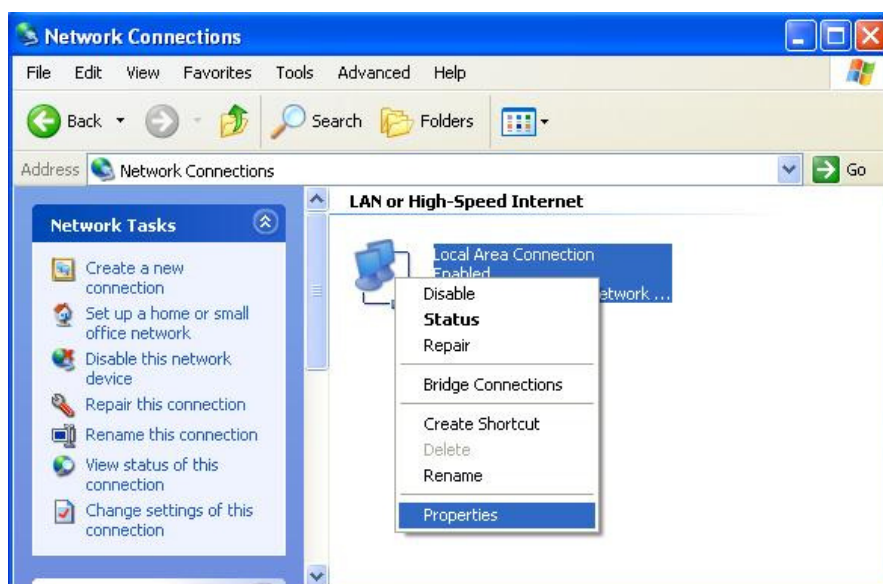


Figure 3-8

5. Highlight Internet Protocol (TCP/IP), and then press Properties button

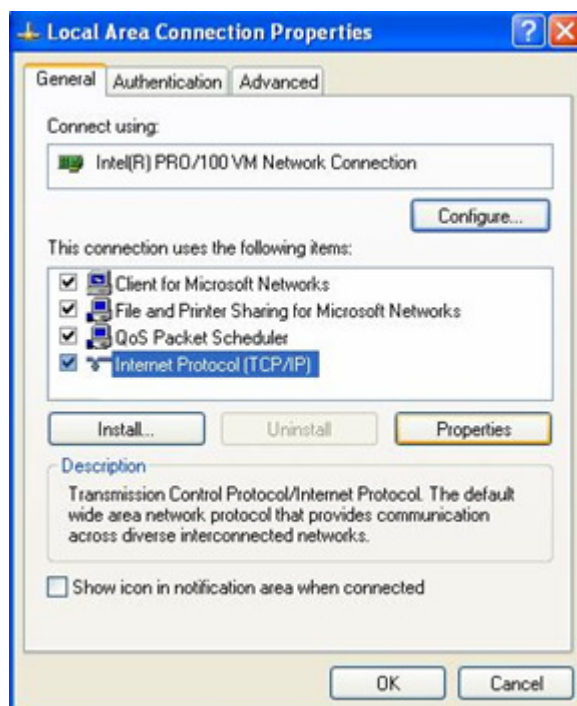


Figure 3-9

6. Choose Obtain an IP address automatically and Obtain DNS server address automatically, and then press OK to close the Internet Protocol (TCP/IP) Properties window

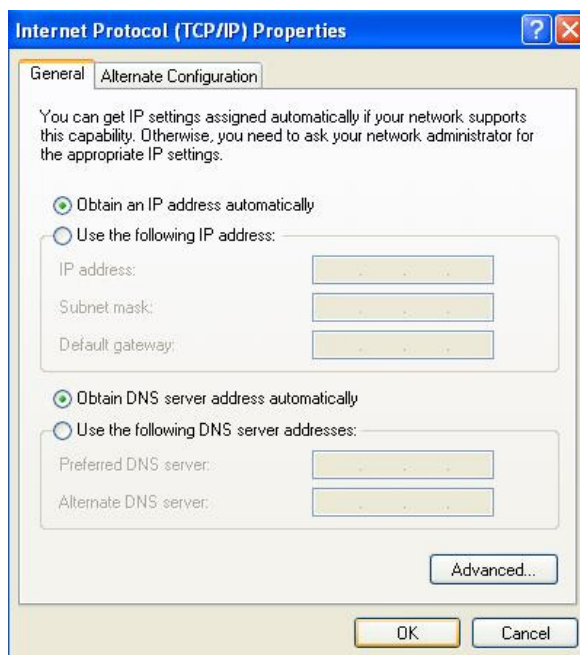


Figure 3-10

7. Press OK to close the Local Area Connection Properties window

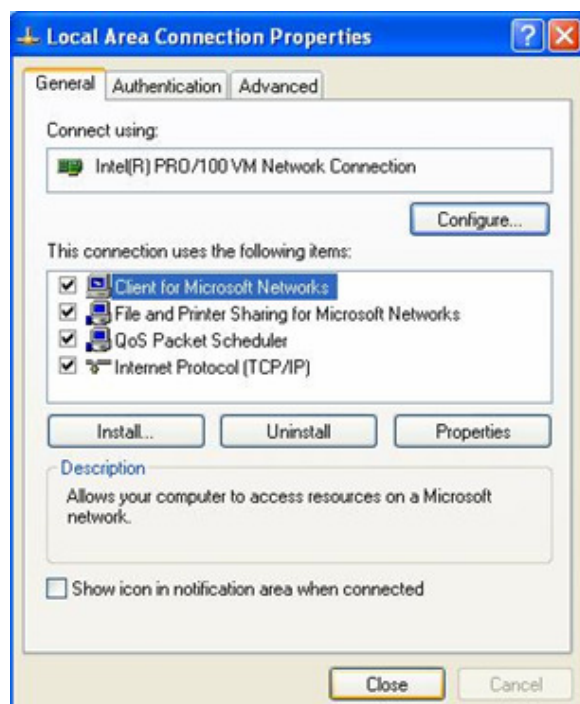


Figure 3-11

3.5 Windows Vista / 7

Please follow the steps below to setup your computer:

1. Go to Start → Settings → Control Panel

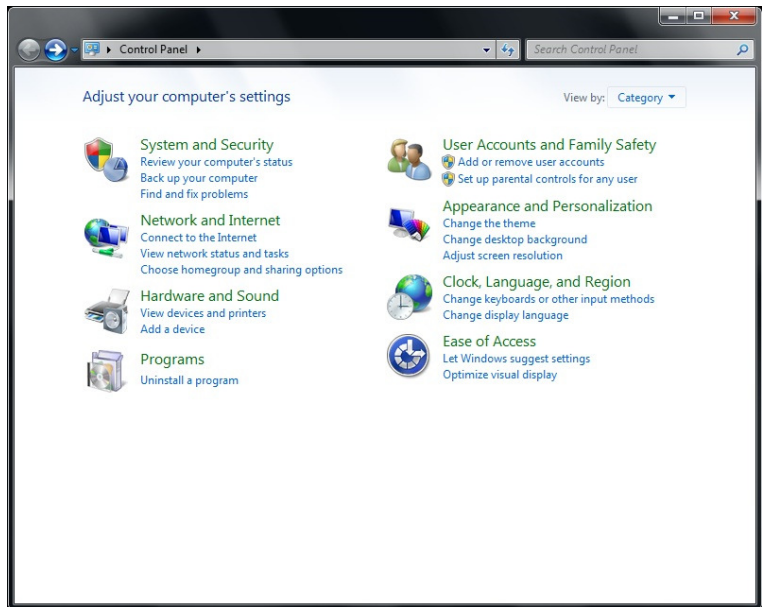


Figure 3-12

2. Click Network and Internet → Network and Sharing Center

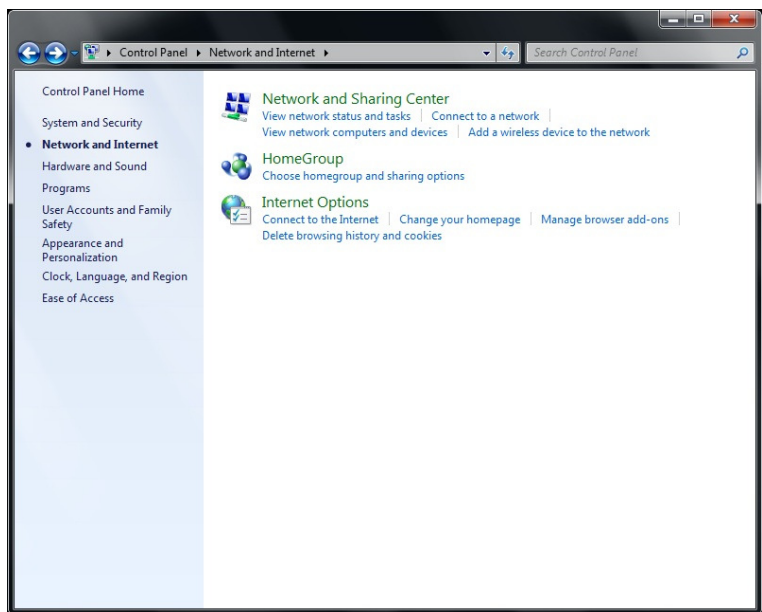


Figure 3-13

3. Click Change adapter settings

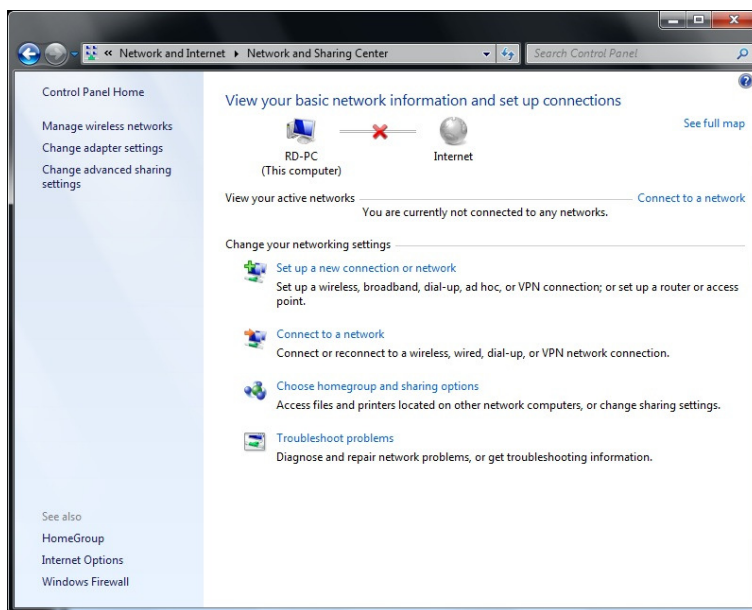


Figure 3-14

4. Highlight the icon Local Area Connection, right click your mouse, click Properties

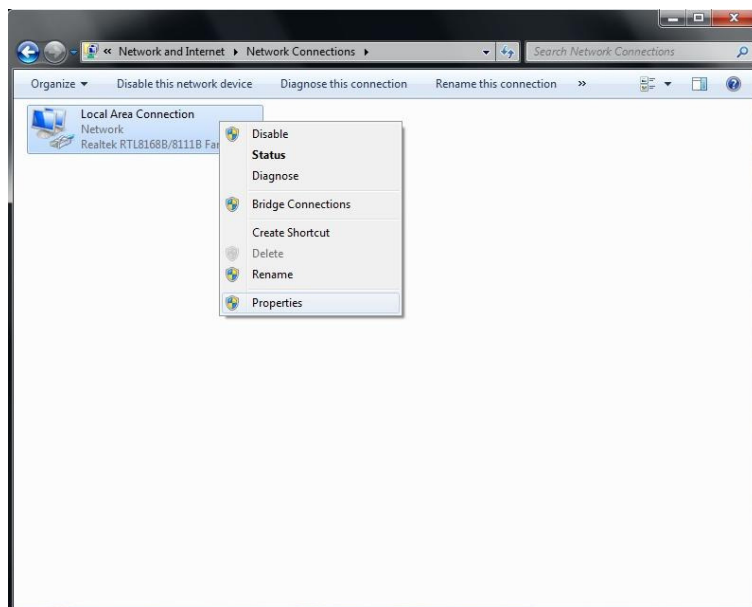


Figure 3-15

5. Highlight Internet Protocol Version 4 (TCP/IPv4), and then press Properties button

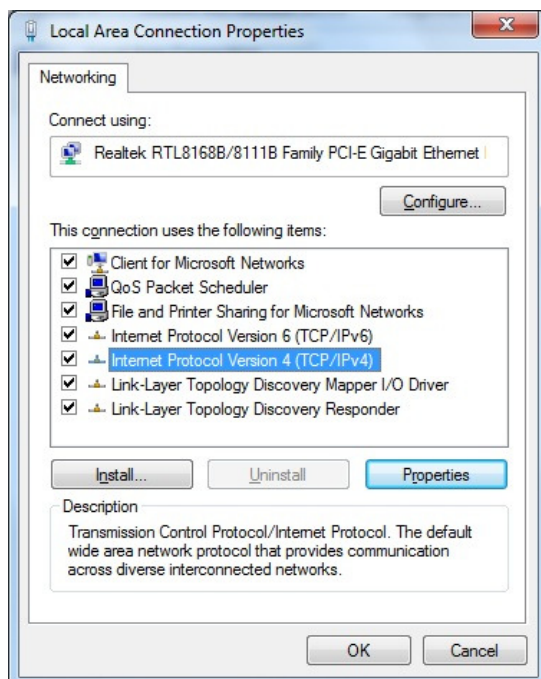


Figure 3-16

6. Choose Obtain an IP address automatically and Obtain DNS server address automatically, and then press OK to close the Internet Protocol Version 4 (TCP/IPv4) Properties window

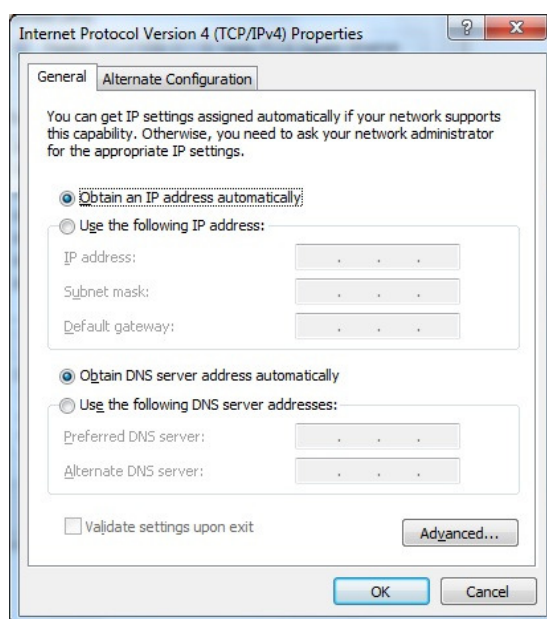


Figure 3-17

7. Back to Local Area Connection Properties window, highlight Internet Protocol Version 6 (TCP/IPv6), and then press Properties button

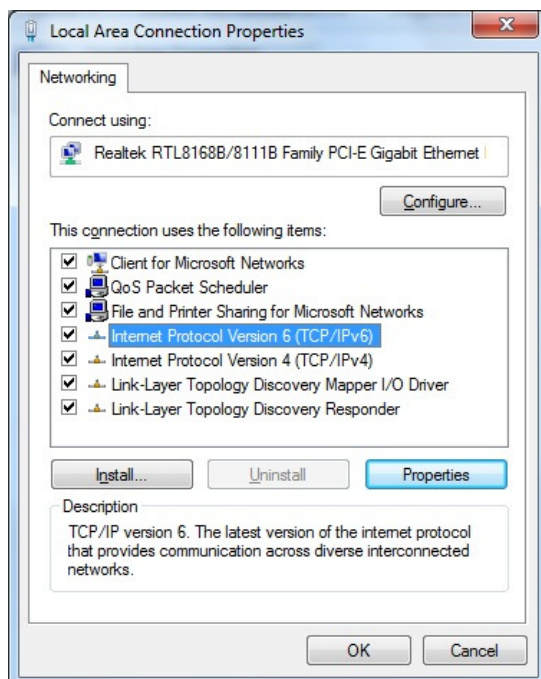


Figure 3-18

8. Choose Obtain an IPv6 address automatically and Obtain DNS server address automatically, and then press OK to close the Internet Protocol Version 6 (TCP/IPv6) Properties window

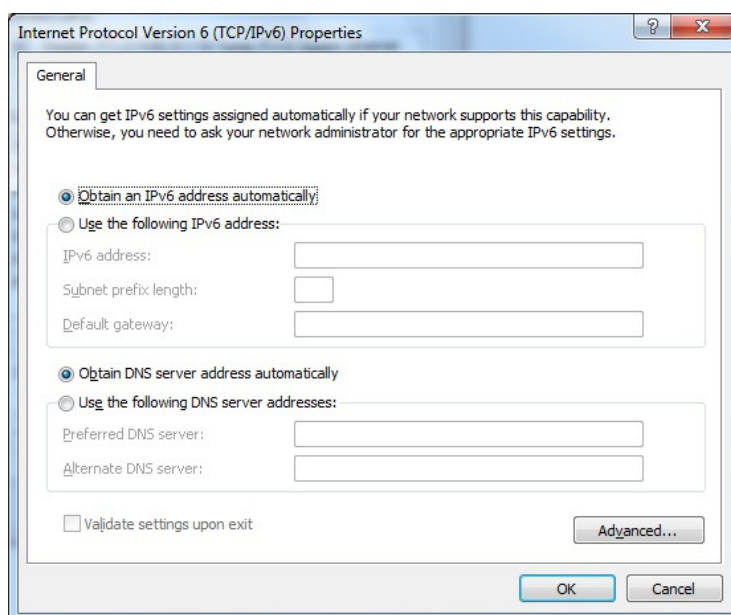


Figure 3-19

4. Configuring the Router

Before you configure this device, note that when the Broadband Router is configured through an Ethernet connection, make sure the host PC must be set on the IP subnetwork that can be accessed by the Broadband Router. For example, when the default network address of the Broadband Router Ethernet interface is 192.168.10.x, then the host PC should be set at 192.168.10.xxx (where xxx is a number between 2 and 254), and the default subnet mask is 255.255.255.0.

1. **Open an Internet Explorer (or other web browser), type "192.168.10.1" in the address bar, and then press "Enter".**
2. **Input "admin" for the User Name, and "admin" for the Password, and then press OK.**

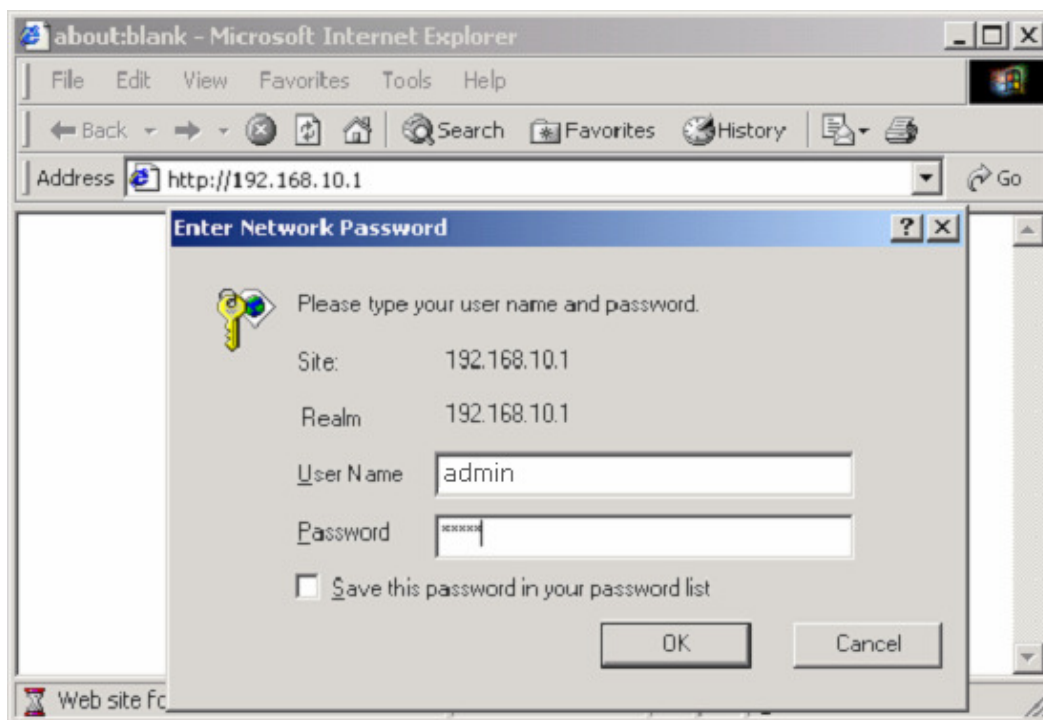


Figure 4-1



NOTE:

By default the user name is "admin" and the password is "admin". For security reasons it is recommended that you change the password as soon as possible (In Login ID & Password Setup).

This router provides web browser management mode. Login the Router, The HOME page screen below will appear. The Home Page is divided into eight sections, Status WAN Setup, LAN Setup, Routing, NAT, Fire Wall,

DDNS and MISC.

The left hand side is Function Menu. Users can click the item, corresponding information will be shown at the right hand side. When encountering difficulties in configuring, please click "Help" on the current page.

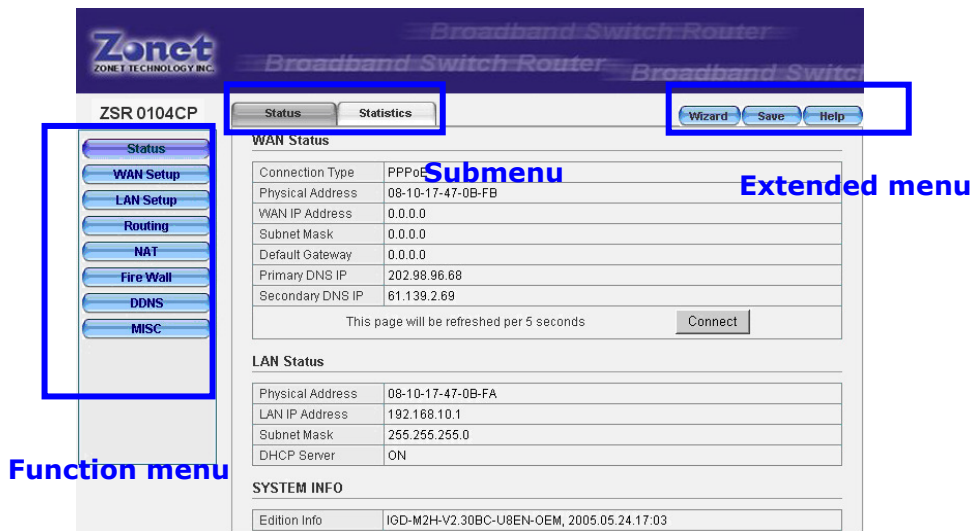


Figure 4-2

4.1 Status

When finish configuring the WAN/LAN Setup, the Status screen will list up the connection status for the Broadband Routers' WAN/LAN interfaces, firmware version numbers.

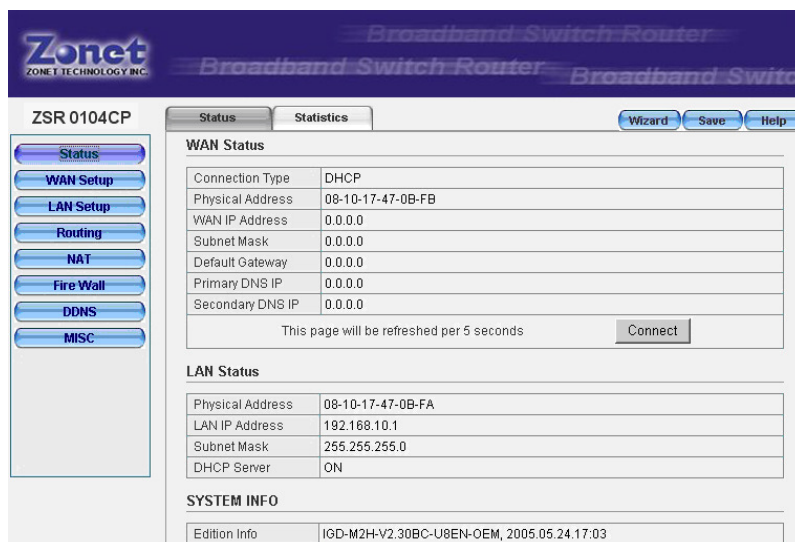


Figure 4-3

4.1.1 Statistics

View the statistics of packets sent and received on WAN interface.

System Run Time							
System Run Time		0 days 1 hours 33 minutes 28 seconds					
Type	Current NAT	Transmit Accumulation Statistic				Rate (KB/s)	
		Received Packets	Received Bytes (K)	Sent Packets	Sent Bytes (K)	Upload	Download
TCP	125	31532	28217	23879	6869	19	12
UDP	8	1337	255	1394	602	0	0
ICMP	0	17	0	17	0	0	0
OTHER	0	0	0	0	0	0	0
TOTAL	133	32886	28472	25290	7471	19	12
Refresh							

Figure 4-4

- **Refresh.** Update data monitor table to display newest data.

4.2 WAN Setup

Users can setup the Internet connection mode for their local area network on this page. Router provides four types of connection modes: Dynamic IP (obtain an IP automatically), PPPoE, Static IP and PPTP. These types are listed in the screen for the Internet Connection Type setting of the WAN Setup section. Users can choose the corresponding connection mode according to their situation. The default setting for Router is Dynamic IP.

WAN Setup	
<input checked="" type="radio"/> Dynamic IP User (Cable Modem)	
<input type="radio"/> PPPoE User (ADSL)	
<input type="radio"/> Static IP User	
<input type="radio"/> PPTP	
DHCP Client Setup	
<input type="checkbox"/> Physical Address Clone	<input type="text" value="08-10-17-47-0B-FA"/> If checked, the Mac address of PC will be updated
MTU	<input type="text" value="1496"/>
Primary DNS	<input type="text"/>
Secondary DNS	<input type="text"/>
Apply	

Figure 4-5

When finished making your changes on this screen, click the Save button to save these changes.

4.2.1 For Dynamic IP Setting

- Select "Dynamic IP User" button.
- You can check the "Physical Address Clone" checkbox to copy the MAC Address of your PC to be the MAC address of this device.
- The MTU feature specifies the largest packet size permitted for network transmission. Enter the value desired, for most Router users, it is recommended to use 1496. By default, MTU is set at 1496.
- Primary DNS and Secondary DNS, DNS (Domain Name System) Server IP must be filled up when the ISP Provider provide these information to you, if the ISP Provider provides Dynamic IP Address, then you can skip on these dialog box.
- Click "Apply" button then finish of setting.

DHCP Client Setup	
<input type="checkbox"/> Physical Address Clone	08-10-17-47-0B-FA If checked, the Mac address of PC will be updated
MTU	1496
Primary DNS	
Secondary DNS	
<input type="button" value="Apply"/>	

Figure 4-6



NOTE:

Some ISPs may require you to register the MAC address of your card/adapter .So It is recommended that the PC registered with the ISP is used to setup the MAC Address Clone.

When finished making your changes on this screen, click the Save button to save these changes.

4.2.2 For PPPoE Setting

- Select "PPPoE User (ADSL)" button.
- PPPoE Account and PPPoE Password, Enter the User Name and Password provided by your ISP.
- You can check the "Physical Address Clone" checkbox button to copy the MAC Address of your PC to be the MAC address of this device.
- The MTU feature specifies the largest packet size permitted for network transmission. Enter the value desired, for most DSL users, it is recommended to use 1492. By default, MTU is set at 1492.
- Primary DNS and Secondary DNS, DNS (Domain Name System) Server IP must be filled up when the ISP Provider provide these information to you, if the ISP Provider provides Dynamic IP Address, then you can skip on these dialog box.

- Auto disconnect when idle. You can configure the Router to cut your connection with your ISP after a specified period of time (Max Idle Time). If you have been disconnected due to inactivity, Connect to Internet manually, It enables the Router to automatically re-establish your connection as soon as you attempt to access the Internet again. If you wish to activate Connect on Demand, click the "Connect" button. If you want your Internet connection to remain on at all times, You can check the Connect to Internet automatically checkbox. The default setting for Router is Connect to Internet automatically.
- Click "Apply" button then finish of setting.

PPPoE Setup	
PPPoE Account	abcd1234
PPPoE Password	••••••••
<input type="checkbox"/> Physical Address Clone	08-10-17-47-0B-FA
MTU	1492
Primary DNS	1.1.1.1
Secondary DNS	
<input checked="" type="radio"/> Connect to Internet automatically (Default) <input type="radio"/> Auto disconnect when idle, time out After <input type="text"/> minutes, if no found the access request then auto-break off! <input type="radio"/> Connect to Internet manually	
<input type="button" value="Apply"/>	

Figure 4-7

When finished making your changes on this screen, click the Save button to save these changes.

4.2.3 For Static IP Setting

- Input the IP Address sub mask ,Primary DNS , Secondary DNS and Gateway provided by your ISP.
- You can check the "Physical Address Clone" checkbox button to copy the MAC Address of your PC to be the MAC address of this device.
- The MTU feature specifies the largest packet size permitted for network transmission. Enter the value desired, for most Router users, it is recommended to use1496. By default, MTU is set at 1496 Primary DNS and Secondary DNS, If your ISP provided at least one DNS Server IP Address, type that IP Address in the Primary DNS address fields. You can type up to another DNS Server IP Addresses. The Router will utilize these for quicker access to functioning DNS Servers.
- Click "Apply" button then finish of setting.

Static IP Setup	
WAN IP Address	<input type="text" value="10.0.1.2"/>
Subnet Mask	<input type="text" value="255.255.255.0"/>
Default Gateway	<input type="text" value="10.0.1.1"/>
Primary DNS	<input type="text" value="10.0.0.1"/>
Secondary DNS	<input type="text" value="10.0.2.1"/>
<input type="checkbox"/> Physical Address Clone	<input type="text" value="08-10-17-47-0B-FA"/> If checked, the Mac address of PC will be updated
MTU	<input type="text" value="1496"/>
<input type="button" value="Apply"/>	

Figure 4-8

When finished making your changes on this screen, click the Save button to save these changes.

4.2.4 For PPTP Setting

- User Name and Password. Enter the User Name and Password provided by your ISP.
- Server IP Address, IP address of The PPTP Server IP.
- DHCP, Obtain an IP address automatically, The ISP requires you to obtain an IP address by DHCP before connecting to the PPTP server.
- IP Address, This is the IP address that your ISP has given you to establish a PPTP connection.
- Subnet Mask, Enter the Subnet Mask provided by your ISP (e.g. 255.255.255.0) .
- Default Gateway, Enter the IP address of the ISP Gateway
- Primary DNS and Secondary DNS, If your ISP provided at least one DNS Server IP Address, type that IP Address in the Primary DNS address fields. You can type up to another DNS Server IP Addresses. The Router will utilize these for quicker access to functioning DNS Servers.

PPTP

User Name	adcd123
Password	••••••••
Server IP Address	X.X.X.X

Choose one WAN connection type DHCP or Static IP

DHCP

Static IP

WAN IP Address	10.0.1.2
Subnet Mask	255.255.255.0
Gateway	10.0.1.1
Primary DNS	10.0.0.1
Secondary DNS	10.0.2.1
<input type="checkbox"/> Physical Address Clone	08-10-17-47-0B-FA
MTU	1496

Connect to Internet automatically (Default)
 Connect to Internet on demand, Auto break-off when idle. Maximum Idle Time; minutes
 Connect to Internet manually

Figure 4-9

When finished making your changes on this screen, click the Save button to save these changes.

4.3 LAN Setup

The LAN Setup screen below allows you to specify a private IP address for your router’s LAN ports as well as a subnet mask for your LAN segment.

System IP Setup

System IP Address	192.168.10.1
Subnet Mask	255.255.255.0
<input checked="" type="checkbox"/> DHCP Server on	
DHCP IP Pool	192.168.10.2 - 192.168.10.101

DHCP IP Address Reserving

Auto Setup

Physical Address	<input type="text"/>
IP Address	<input type="text"/>

ID	IP Address	Physical Address	Delete
0	192.168.10.9	00-04-61-7D-7E-46	<input type="button" value="Delete"/>

Figure 4-10

- **System IP address.** This is the router's LAN port IP address (Your LAN clients default gateway IP address).
- **IP Subnet Mask** Specify a Subnet Mask for your LAN segment.
- **DHCP Server on** You can enable or disable the DHCP server. By enabling the DHCP server the router will automatically give your LAN clients an IP address. If the DHCP is not enabled then you'll have to manually set your LAN client's IP addresses; make sure the LAN Client is in the same subnet as this broadband router if you want the router to be your LAN client's default gateway .
- **DHCP IP Pool** You can select a particular IP address range for your DHCP server to issue IP addresses to your LAN Clients.



NOTE:

By default the IP range is from: Start IP 192.168.10.2 to End IP 192.168.10.101. If you want your PC to have a static/fixed IP address then you'll have to choose an IP address outside this IP address Pool.

- **DHCP IP Address Reserving** Reserve some IPs to specific computer. You need to enter the MAC address of the network card installed in computer to assign a particular IP to it. Enter the relative values and then click ADD. Also you can check the "Auto Setup" checkbox button to assign a particular IP to your computer.
- **Current Address Reserving Table:** This display shows the valid reserving IPs in Broadband Router. User can view the information about current address reserving.

Fill in the all of the setting to be added and then click "Add". Then this Special Application setting will be added into the "Current Address Reserving Table" below.

If you want to remove some Special Application settings from the "Current Address Reserving Table", select the Special Application settings you want to remove in the table and then click "Delete ".

When finished making your changes on this screen, click the Save button to save these changes.

4.4 Routing

If the Router is connected to more than one network, it may be necessary to set up a static route between them. A static route is a pre-determined pathway that network information must travel to reach a specific host or network.

Routing Table Management

Type	Target	Mask	Gateway		
NET ▾	<input type="text"/>	<input type="text"/>	<input type="text"/>		
<input type="button" value="Add"/>					
ID	Type	Target	Mask	Gateway	Delete
1	NET	172.16.2.0	255.255.255.0	192.168.10.18	<input type="button" value="Delete"/>

Figure 4-11

- **Type / Target / Mask / Gateway:** Fill in these fields required by this Static Routing function.
- **Add:** Click this button to add a new static routing. When you click this button, the next figure appears.
- **Current Routing Table:** This display shows the valid routing paths in Broadband Router. User can view the information about current routing paths

Fill in the all of the setting to be added and then click "Add". Then this Special Application setting will be added into the "Current Routing Table" below.

If you want to remove some Special Application settings from the " Current Routing Table ", select the Special Application settings you want to remove in the table and then click "Delete ".

When finished making your changes on this screen, click the Save button to save these changes.

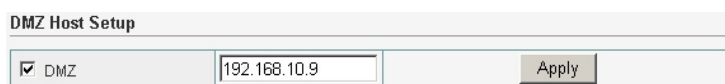
4.5 NAT

Network Address Translation (NAT) allows multiple users at your local site to access the Internet through a single Public IP Address. NAT provides Firewall protection from hacker attacks and has the flexibility to allow you to map Private IP Addresses to Public IP Addresses for key services such as Websites and FTP.

When finished making your changes on this screen, click the Save button to save these changes.

4.5.1 DMZ Host Setup

The DMZ screen allows one local user to be exposed to the Internet for use of a special-purpose service such as Internet gaming and videoconferencing. DMZ hosting forwards all the ports for one PC at the same time.



DMZ Host Setup		
<input checked="" type="checkbox"/> DMZ	<input type="text" value="192.168.10.9"/>	<input type="button" value="Apply"/>

Figure 4-12

Check DMZ and enter the host IP and then press "Apply" button to setup DMZ host.

When finished making your changes on this screen, click the Save button to save these changes.

4.5.2 FTP Private Port

FTP private port enables user to setup FTP server which is not using the standard port 21.



FTP Private Port		
<input checked="" type="checkbox"/> Port Number	<input type="text" value="1025"/>	<input type="button" value="Apply"/>

Figure 4-13

Check port number and enter the number and then press the "Apply" button to setup Private FTP port.

When finished making your changes on this screen, click the Save button to save these changes.

4.5.3 Virtual Server Setup

User can specify some services to be visible from outside users. The router can detect incoming service request and forward it to the specific local computer to handle it. For example, user can assign a PC in LAN acting as WEB server inside and expose it to the outside network. Outside user can browse inside web server directly while it is protected by NAT.

Virtual Server Setup

Rule Name	<input type="text"/>
Internal Server IP Address	<input type="text"/>
Protocol	TCP <input type="button" value="v"/>
External Port	<input type="text"/>
Internal Port	<input type="text"/>
<input type="button" value="Add"/>	

ID	Rule Name	Internal IP	Protocol	External Port	Internal Port	Delete
1	FTP	192.168.10.10	TCP	21	21	<input type="button" value="Delete"/>
2	HTTP	192.168.10.2	TCP	80	80	<input type="button" value="Delete"/>

Figure 4-14

- **Rule Name:** The description of this setting.
- **Internal Server IP Address:** This is the LAN client/host IP address that the Public Port number packet will be sent to.
- **Protocol:** Select the protocol type (TCP, UDP, FTP, HTTP).
- **External Port:** This is the port number (of the above Private IP host) that the below Public Port number will be changed to when the packet enters your LAN (to the LAN Server/Client IP).
- **Internet Port:** Enter the service (service/Internet application) port number from the Internet that will be re-directed to the above Private IP address host in your LAN. Click "Add" button after enter the all fields to add the rule.
- **Current Virtual Server Table:** This display shows the valid virtual Servers in Broadband Router. User can view the information about Virtual Server's Table.

Fill in the "Rule Name", "Internal Server IP Address", "Protocol", "External Port", and "Internal Port" of the setting to be added and then click "Add". Then this Special Application setting will be added into the "Current Virtual Server Table" below.

If you want to remove some Special Application settings from the "Current Virtual Server Table", select the Special Application settings you want to remove in the table and then click "Delete".

When finished making your changes on this screen, click the Save button to save these changes.

4.5.4 Port Triggering

The Port Triggering screen allows the Router to watch outgoing data for specific port numbers. The IP address of the computer that sends the matching data is remembered by the Router, so that when the requested data returns through the Router, the data is pulled back to the proper computer by way of IP address and port mapping rules.

Port Triggering

Predefined Trigger Rules	Select one of the predefined rules ▾
Rule Name	<input type="text"/>
Trigger Protocol	TCP ▾
Trigger Port	<input type="text"/> - <input type="text"/>
Forward Protocol	TCP ▾
Forward Port	<input type="text"/>
<input type="button" value="Add"/>	

ID	Rule Name	Trigger Condition	Forward Condition	Delete
1	GuruGuru	tcp:31200	tcp:9292	<input type="button" value="Delete"/>

Figure 4-15

- **Predefined Trigger Rules:** You can select one of the predefined rules.
- **Rule Name:** Enter any name you want to use for the Application Name.
- **Trigger Protocol:** Select whether the outbound port protocol is "TCP", "UDP"
- **Trigger Port:** This is the out going (Outbound) range of port numbers for this particular application.



NOTE:

Individual port numbers are separated by a comma (e.g. 47824, 5776, 6581 etc.). To input a port range use a "dash" to separate the two port number range (e.g. 3300-3800)

- **Forward Protocol:** Enter the In-coming (Inbound) port or port range for this type of application (e.g. 2300-2400, 47624).



NOTE:

Individual port numbers are separated by a comma (e.g. 47824, 5776, 6581 etc.).

- **Forward Port:** Select the Inbound port protocol type: "TCP", "UDP".
- **Current Trigger-Port Table:** This display shows the valid Trigger Rules in Broadband Router. User can view the information about Virtual Server's Table.

Fill in the "Rule Name", "Trigger Protocol", "Trigger Port", "Forward Protocol", and "Forward Port" of the setting to be added and then click "Add". Then this Special Application setting will be added into the "Current Trigger-Port Table" below.

If you want to remove some Special Application settings from the "Current Trigger-Port Table", select the Special Application settings you want to remove in the table and then click "Delete".

When finished making your changes on this screen, click the Save button to save these changes.

4.6 Fire Wall

The Broadband Router provides extensive firewall protection by restricting connection parameters to limit the risk of hacker attack, and defending against a wide array of common hacker attacks. The Broadband Router provides packet filtering rules by restricting service ports, IP address or MAC address.

When finished making your changes on this screen, click the Save button to save these changes.

4.6.1 MAC Filtering Configuration

You can block certain client PCs accessing the Internet based on MAC addresses.

MAC Filtering Configuration			
Status	The current status is enabled		<input type="button" value="Stop"/>
<input checked="" type="checkbox"/>	If checked, the undefined item in MAC Address list is allowed to access Internet; Unchecked means reverse		<input type="button" value="Apply"/>
MAC Address	<input type="text"/>	Permit <input type="button" value="v"/>	<input type="button" value="Add"/>
ID	MAC Address	Rule	Delete
1	08-10-17-47-0B-FA	Permit	<input type="button" value="Delete"/>

Figure 4-16

- **Status.** You can choose to turn on or turn off the Mac filtering configuration by click start/stop button.
- If checked, the undefined item in MAC Address list is allowed to access Internet; Unchecked means reverse, Click "Apply" to save the setting.
- **MAC Address.** Enter the toggled physical address that to be allowed or forbidden to access the Internet by select "permit" or "deny" in the drop-down menu. Then click "add" button to finish the setting.

**NOTE:**

Enter the 12-digit MAC address in this format, XX-XX-XX-XX-XX-XX, with the hyphens.

- **Current MAC filtering Table:** This display shows the valid MAC filtering rules in Broadband Router. User can view the information about MAC filtering Table.

If you want to remove some Special Application settings from the " Current MAC filtering Table", select the Special Application settings you want to remove in the table and then click "Delete ".

When finished making your changes on this screen, click the Save button to save these changes.

4.6.2 Connection Filtering Configuration

To control a certain client PCs accessing the Internet based on time. You can filter Internet access for local clients based on IP addresses, application types, (i.e., HTTP port), and time of day. For example, this screen shows that clients in the address range 192.168.10.20-50 are permanently restricted from using FTP (Port 21), while clients in the address range 192.168.10.60-70 are blocked from browsing the Internet (port 80) from Monday to Friday and from 0:00 AM to 11:00 PM.

Connection Filtering Configuration							
Status	The current status is enabled						Stop
<input checked="" type="checkbox"/>	If checked, the undefined item in IP Address list is allowed to access Internet;Unchecked means reverse						Apply
Rule Name	<input type="text"/>						
Source IP Address	<input type="text"/> - <input type="text"/>						
Protocol	ALL <input type="button" value="v"/>						
Destination Port	<input type="text"/> - <input type="text"/>						
status	Permit <input type="button" value="v"/>						
Days To Block	<input type="checkbox"/> Everyday <input type="checkbox"/> Sun <input type="checkbox"/> Mon <input type="checkbox"/> Tue <input type="checkbox"/> Wed <input type="checkbox"/> Thu <input type="checkbox"/> Fri <input type="checkbox"/> Sat						
Times To Block	<input type="checkbox"/> All Day <input type="text" value="00:00"/> - <input type="text" value="00:00"/>						
<input type="button" value="Add"/>							
Rule Name	Source IP	Protocol	Dest Port	Days	Times	Rule	Delete
FTP	192.168.10.20-192.168.10.50	TCP	21	Everyday	All Day	Deny	<input type="button" value="Delete"/>
WEB	192.168.10.60-192.168.10.70	TCP	80	Mon Tue Wed Thu Sun	0:1-11:0	Deny	<input type="button" value="Delete"/>

Figure 4-17

- **Status.** You can choose to turn on or turn off the Connection Filtering Configuration by click start/stop button.
- If checked, the undefined item in IP Address list is allowed to access Internet; Unchecked means reverse.
- **Rule Name:** Enter any name you want to use for the Application Name.
- **Source IP address:** Enter the IP address that you wish to apply this Access Control rule.
- **Protocol.** Select the protocol type (TCP, UDP, FTP, HTTP).
- **Destination Port.** You can assign up to a port number or a port range. The router will block clients from accessing Internet services that use these ports.
- **Days To Block,** Chose days to block
- **Times To Block,** Chose time to block.
- **Current Access Control Table:** This display shows the valid Current Access Control rules in Broadband Router. User can view the information about Current Access Control Table.

Fill in the all of the setting to be added and then click "Add". Then this Special Application setting will be added into the "Current Trigger-Port Table" below.

If you want to remove some Special Application settings from the "Current Access Control Table", select the Special Application settings you want to remove in the table and then click "Delete".

When finished making your changes on this screen, click the Save button to save these changes.

4.6.3 URL Filtering Configuration

You can enter keywords specific to the site in these fields. The Router will block access to sites that use those keywords.



NOTE:

You can use wildcards (*and?); "*" is the multi-letters; "?" is a letter; For example: *.*sex*.* express that all URL with "sex" will be blocked!

URL Filtering Configuration

Note: You can use wildcards(* and ?); "*" is the multi-letters; "?" is a letter; For example: *.*sex*.* express that all URL with "sex" will be blocked!

Input Filtering Keyword

ID	Filtering Keyword	Delete
1	*.*sex*.*	<input type="button" value="Delete"/>

Figure 4-18

Fill in the all of the setting to be added and then click "Add". Then this Special Application setting will be added into the "Current URL Filtering Table" below.

If you want to remove some Special Application settings from the "Current URL Filtering Table", select the Special Application settings you want to remove in the table and then click "Delete".

When finished making your changes on this screen, click the Save button to save these changes.

4.7 DDNS Setup

The Router offers a Dynamic Domain Name System (DDNS) feature. DDNS allows you to map the static domain name to a dynamic IP address. It is useful when you are hosting your own website, FTP server, or other server behind the Router. You must get an account, password and your static domain name from the DDNS service providers.

DDNS Setup	
* Sign up www.dyndns.org first.(Free)	
DynDNS Operation	<input checked="" type="radio"/> Start <input type="radio"/> Stop
User ID	<input type="text"/>
Password	<input type="text"/>
Host Name	<input type="text"/>
Information	close!
<input type="button" value="Apply"/>	<input type="button" value="Refresh"/>

Figure 4-19

- **DynDNS Operation.** Before you can use this feature, you need to sign up for DDNS service the DDNS service currently incorporated, DynDNS.org. If you do not want to use this feature, keep the default setting Stop.
- **User ID.** Enter the User Name of the account you set up with DynDNS.org.
- **Password.** Enter the Password of the account you set up with DynDNS.org.
- **Host Name.** Enter the Host Name of the account you set up with DynDNS.org.
- **Information.** The status of the DDNS service connection is displayed here.

Click "Apply" button to finish the setting, and click "Refresh" button to display newest status.

When finished making your changes on this screen, click the Save button to save these changes.

4.8 MISC Configuration

4.8.1 Login ID & Password Setup

In factory setting, the default password is admin, and that for user is also password. You can change the default password to ensure that someone cannot adjust your settings without your permission. Every time you change your password, please record the password and keep it at a safe place.

Login ID & Password Setup	
Login name is "admin"	
New Password
Confirm New Password
Apply	

Figure 4-20

- **New Password.** Enter your new password.
- **Confirmed New Password** Enter your new password again for verification purposes.



NOTE:

If you forget your password, you'll have to reset the router to the factory default (Password is "admin") with the reset button (see router's front panel).

Click "Apply" button to finish the setting

When finished making your changes on this screen, click the Save button to save these changes.

4.8.2 Remote Management

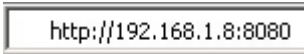
This feature allows you to manage the Router from a remote location, via the Internet. To enable this feature, check the "Management Port" checkbox, and click the Apply button.

Remote Mgmt	
<input checked="" type="checkbox"/> Management Port	8080
Apply	

Figure 4-21

- **Management Port,** Enter the port number.

When you want to access the web-based management from a remote site, enter `http://<WAN IP Address>:8080`. (e.g. `http://192.168.1.8:8080`).



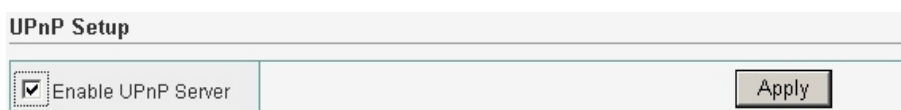
http://192.168.1.8:8080

Figure 4-22

When finished making your changes on this screen, click the Save button to save these changes.

4.8.3 UPnP Setup

With UPnP, all PCs in your Intranet will discover this router automatically. So you do not have to do any configuration for your PC and can access the Internet through this router easily.



UPnP Setup

<input checked="" type="checkbox"/> Enable UPnP Server	Apply
--------------------------------------------------------	-------

Figure 4-23

Check the "Enable UPnP Server" checkbox, and click the Apply button. When finished making your changes on this screen, click the Save button to save these changes.

4.8.4 System Time Setup

System Time Setup allows your router to base its time on the settings configured here, this will affect functions such as Firewall settings.



System Time Setup

System Time	Feb 27 2004 7:17:54	
GMT	(GMT+08:00) Beijing, Hongkong, KualaLumpur, Singapore	Apply

Figure 4-24

Select the time zone of the country you are currently in from the drop-down menu. The router will set its time based on your selection. When finished making your changes on this screen, click the Save button to save these changes.

4.8.5 WAN Link Status & Setup

Setup Wan Link mode, Select the mode from the drop-down menu, the default setting is "Auto".

Figure 4-25

Click the Apply button to finish the setting
When finished making your changes on this screen, click the Save button to save these changes.

4.8.6 Restore Default / Restart System

Figure 4-26

4.8.6.1 Restore Default

Restore the Router's configuration to its factory default settings. Restore Factory Defaults. To clear all of the Router's settings and reset them to its factory defaults, click the Restore Default button. Router will restart automatically.

Figure 4-27

4.8.6.2 Restart System

Click "Restart System" button to reboot router.

Figure 4-28

4.8.7 Firmware Upgrade

Upgrade the Broadband router's system firmware. To upgrade the firmware of your Broadband router, you need to download the firmware file to your local hard disk, and enter that file name and path in the appropriate field on this page. You can also use the Browse button to find the firmware file on your PC.

Firmware Upgrade	
New Firmware File:	<input type="text"/> <input type="button" value="Browse..."/> <input type="button" value="Apply"/>

Figure 4-29

5. Troubleshooting

Q1 Forget Password (Reset the Router without Login)

1. Use a pencil to press and hold the default button on the front panel of the Router for 3~5 seconds.
2. Plug out the power of the Router, wait for 5 seconds, and then plug in again.

After the above two steps, the manufacture's parameters will be restored in the Router. The default password is admin.

Q2 Problems Related to Connection with Cable Modem

Please follow the following steps to check the problems:

1. Check whether the Cable modem works well or the signal is stable. Normally there will be some indicator lights on the modem, users can check whether the signal is ok or the modem works well from those lights. If not, please contact the ISP.
2. Check the front panel of the Router, there are also 7 indicator lights there. When the physical connection is correct, the Power light and the CPU light should be solid, the WAN light should be blinking. If you use your computer, the corresponding LAN port light should be blinking too. If not, please check whether the cables work or not. If cables work, please follow the steps in 11.1 Forget Password (Reset the Router without Login) to reset the Router. Check whether you can access the Internet, if not, go to step 3.
3. Open an Internet Explorer (or other web browser), type "192.168.10.1" in the address bar, and then press "Enter".
4. Input "admin" for the User Name, and "admin" for the Password, and then press OK.

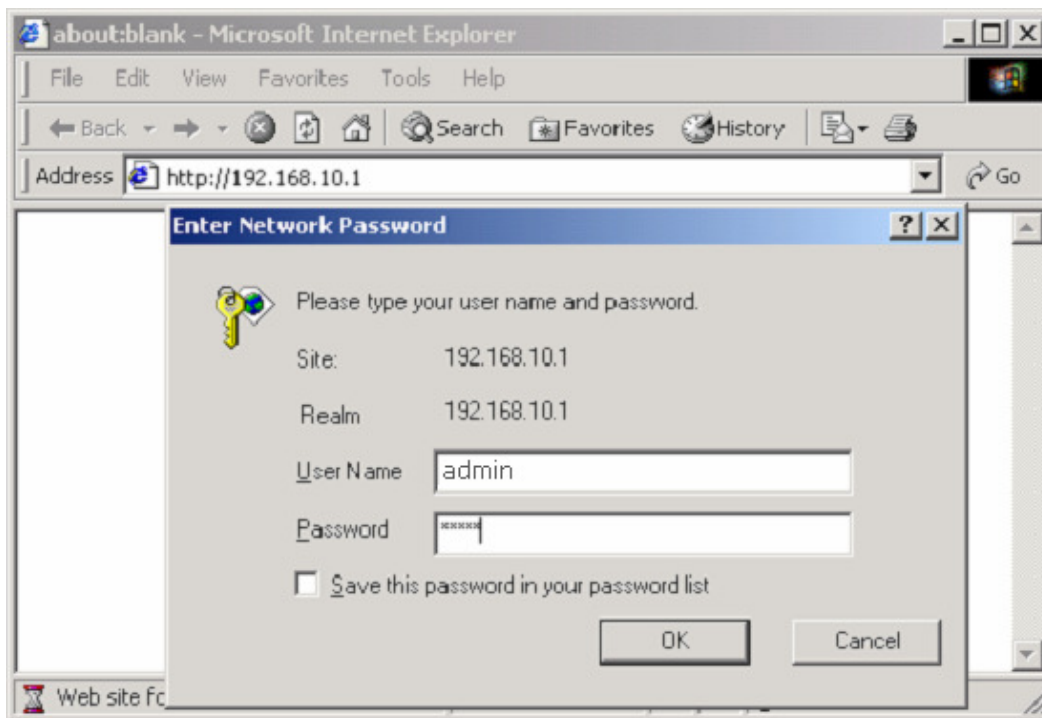


Figure 5-1

5. Click LAN Setup at the left hand side, check DHCP Server on at the right hand side, and then press Apply.

System IP Setup

System IP Address	192.168.10.1
Subnet Mask	255.255.255.0
<input checked="" type="checkbox"/> DHCP Server on	
DHCP IP Pool	192.168.10.2 - 192.168.10.101
Apply	

DHCP IP Address Reserving

<input type="checkbox"/> Auto Setup	
Physical Address	
IP Address	
Add	

ID	IP Address	Physical Address	Delete
0	192.168.10.9	00-04-61-7D-7E-46	Delete

Figure 5-2

6. Close the Internet Explorer window.

Q3 Problems Related to Connection with DSL Modem

Please follow the following steps to check the problems:

- 1. Check whether the DSL modem works well or the signal is stable. Normally there will be some indicator lights on the modem, users can check whether the signal is ok or the modem works well from those lights. If not, please contact the ISP.**
- 2. Check the front panel of the Router, there are also 7 indicator lights there. When the physical connection is correct, the Power light and the CPU light should be solid, the WAN light should be blinking. If you use your computer, the corresponding LAN port light should be blinking too. If not, please check whether the cables work or not. If cables work, please follow the steps in 11.1 Forget Password (Reset the Router without Login) to reset the Router.**
- 3. Repeat the steps in 9.2 Connect with Internet Through DSL Modem.**

Q4 How to Setup Your Computer to Get IP Address Manually

We only introduce how to do so in Windows XP here, for the other operating systems, please refer to related materials.

- 1. Go to Start → Settings → Control Panel**
- 2. Click Network and Internet Connections**

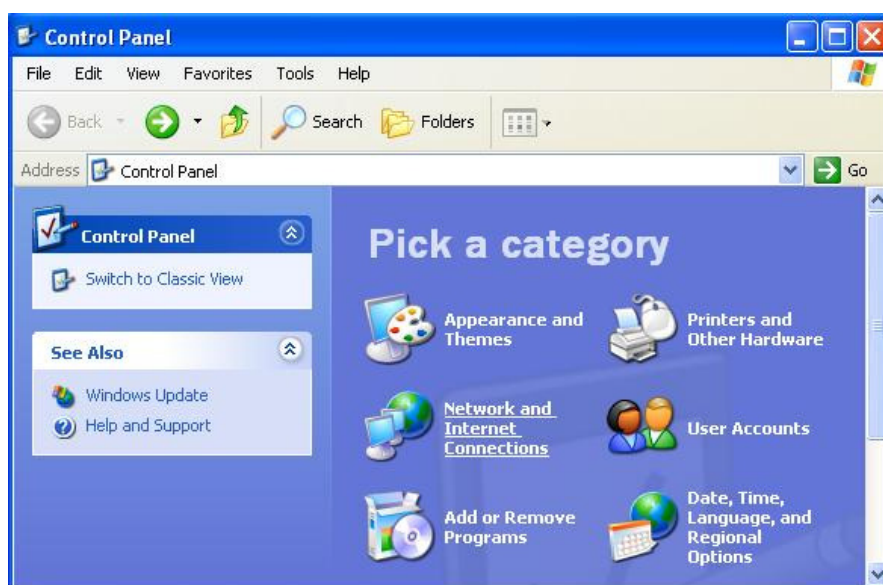


Figure 5-3

3. Click Network Connections



Figure 5-4

4. Highlight the icon Local Area Connection, right click your mouse, click Properties



Figure 5-5

5. Highlight Internet Protocol (TCP/IP), and then press Properties button



Figure 5-6

6. Choose Use the following IP address and Use the following DNS server addresses, and then

- **IP address:** 192.168.10.XXX, the "XXX" shown here is a number between 2 and 253
- **Subnet mask:** 255.255.255.0
- **Default gateway:** 192.168.10.1
- **Preferred DNS server:** 192.168.10.1
- **Alternate DNS server:** leave it blank

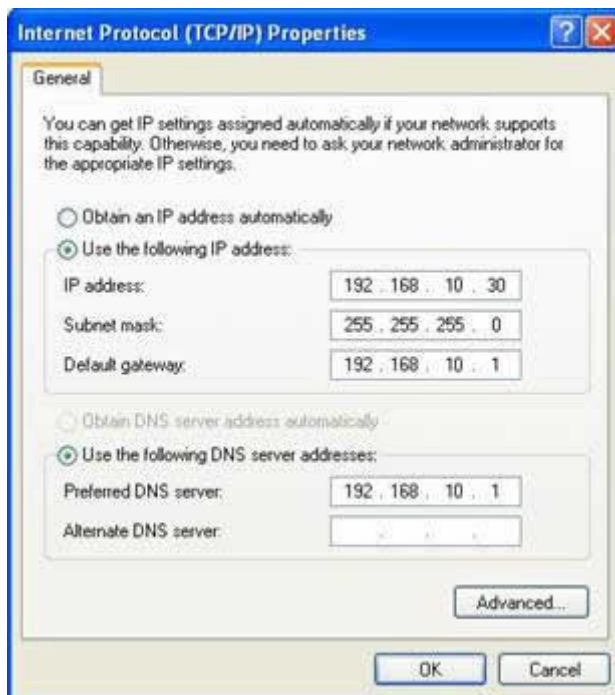


Figure 5-7

7. Press OK to close the Local Area Connection Properties window

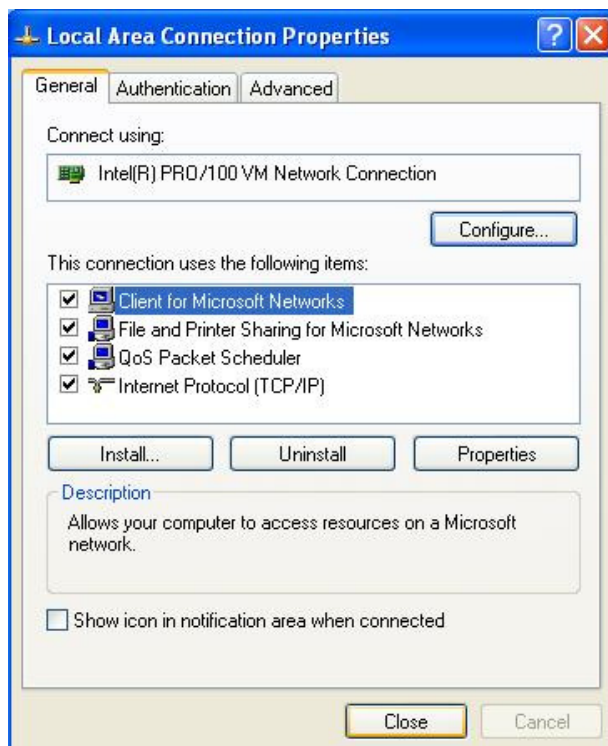


Figure 5-8

6. Technical Specifications

- **Standards:** IEEE802.3 10Base-T, IEEE802.3u 100Base-TX
- **Network Media:** 10BASE -T: UTP Cat. 3 or up, 100BASE-TX: UTP Cat. 5 or up
- **Management Interface:** web-based
- **Maximum Users:** 50 Computers
- **NAT Table Entries:** 4096
- **Average Latency:** $\leq 300 \mu\text{s}$
- **Interface Speed:** WAN: 10/100Mbps auto-negotiation, LAN: 10/100Mbps auto-negotiation
- **LED Indicators:** Power, CPU, Link/Activity
- **Temperature:** 0° to 50° C (operating), -40° to 70° C (storage)
- **Humidity:** 20% to 95 % non-condensing (operating), 20% to 95% non-condensing (storage)
- **Dimension:** 159mm (L)*100mm(W)*28mm(H)
- **Weight:** 350g
- **Power:** DC 9V, 500mA
- **Certifications:** FCC Part 15 Class A, CE