

Wireless Broadband Router







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Chapter I: Product Information

1-1 Introduction and safety information

Thank you for purchasing Edimax BR-6225n / BR-6226n nLite wireless broadband router! This high cost-efficiency router is the best choice for *Small office* / *Home office* users, all computers and network devices can share a single xDSL / cable modem internet connection at high speed. Easy install procedures allows any computer users to setup a network environment in very short time - within minutes, even inexperienced. When the number of your computers and network-enabled devices grow, you can also expand the number of network slot by simple attach a hub or switch, to extend the scope of your network!

With built-in IEEE 802.11b/g wireless network capability, all computers and wireless-enabled network devices (including PDA, cellular phone, game console, and more!) can connect to this broadband router without additional cabling. New Draft-N wireless capability also gives you the highest speed of wireless experience ever! With a compatible wireless card installed in your PC, you can transfer file for up to 150 Mbps! The radio coverage is also doubled, so don't worry if your office or house is really big!

Other features of this router including:

- Provide 12-languages user interface
- Support WISP (Wireless ISP) connection mode
- Support EZview to manage LAN devices
- Support wireless schedule setting
- Built-in 16-languages EZmax Setup Wizard to setup router
- High Internet Access throughput
- Allow multiple users to share a single Internet connection
- Supports up to 253 LAN users sharing a single Cable or xDSL internet connection
- Four wired LAN ports (10/100Mbps) and one WAN port (10/100Mbps)
- Comply with wireless IEEE 802.11b/g standards

- Compatible with wireless IEEE802.11n standard
- Support DHCP (Server/Client) for easy client IP-address setup
- Advanced network and security features like: Special Applications, DMZ, Virtual Servers, URL blocking, QoS, Access Control, Firewall.
- Allow you to monitor the router's status like: DHCP Client Log, System Log, Security Log and Device/Connection Status
- Easy to use Web-based GUI for network configuration and management purposes
- Remote management function allows configuration and upgrades from a remote computer (over the Internet)
- Auto MDI / MDI-X function for all wired Ethernet ports.

1-2 Safety Information

In order to keep the safety of users and your properties, please follow the following safety instructions:

- 1. This router is designed for indoor use only; DO NOT place this router outdoor.
- 2. DO NOT put this router at or near hot or humid places, like kitchen or bathroom. Also, do not left this router in the car in summer.
- 3. DO NOT pull any connected cable with force; disconnect it from the router first.
- 4. If you want to place this router at high places or hang on the wall, please make sure the router is firmly secured. Falling from high places would damage the router and its accessories, and warranty will be void.
- 5. Accessories of this router, like antenna and power supply, are danger to small children under 3 years old. They may put the small parts in their nose or month and it could cause serious damage to them. KEEP THIS ROUTER OUT THE REACH OF CHILDREN!
- 6. The router will become hot when being used for long time (*This is normal and is not a malfunction*), DO NOT put this router on paper, cloth, or other flammable materials.
- 7. There's no user-serviceable part inside the router. If you found that the router is not working properly, please contact your dealer of purchase and ask for help. DO NOT disassemble the router, warranty will be void.
- 8. If the router falls into water when it's powered, DO NOT use your hand to pick it up. Switch the electrical power off before you do anything, or contact an experienced technician for help.
- 9. If you smell something strange, or even see some smoke coming out from the router or power supply, remove the power supply or switch the electrical power off immediately, and call dealer of purchase for help.

1-3 System Requirements

- Internet connection, provided by xDSL or cable modem with a RJ-45 Ethernet port.
- Computer or network devices with wired or wireless network interface card.
- Web browser (Microsoft Internet Explorer 4.0 or above, Netscape Navigator 4.7 or above, Opera web browser, or Safari web browser).
- An available power socket

1-4 Package Contents

Before you starting to use this router, please check if there's anything missing in the package, and contact your dealer of purchase to claim for missing items:

□ Router	1
☐ Quick installation guide (1 pcs)	2
☐ CDROM (with multi-languages setup wizard, multi-languages Qu	iick
installation guide and User manual)(1 pcs)	3
□ 12V 1A power adapter (1 pcs)	4
☐ Ethernet Cable (1 pcs)	5
☐ Holding base (1 pcs)	6
☐ Antenna (1 pcs for BR-6225n only)	.7
□ Accessories (1 pcs)	8

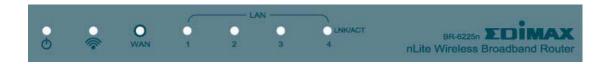
You can configure the router by running the Setup Wizard in the CD-ROM provided in the package. The wizard provides quick setup for the Internet connection, SSID, wireless security, firmware upgrade and changing router's password. When you start the Setup Wizard, you will get the following Welcome screen. Please choose the language to start with and follow the easy steps in the Wizard. No instruction for the Setup Wizard is given here.

If you lost the CD-ROM or you prefer the traditional web setup, please follow the procedures in this Manual (or Quick Installation Guide) to configure the router



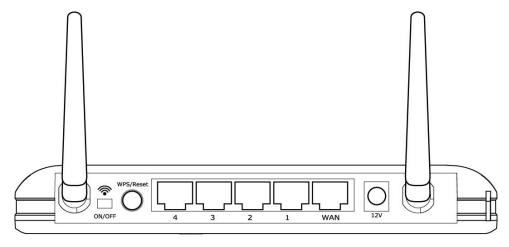
1-5 Familiar with your new wireless broadband router

Front Panel

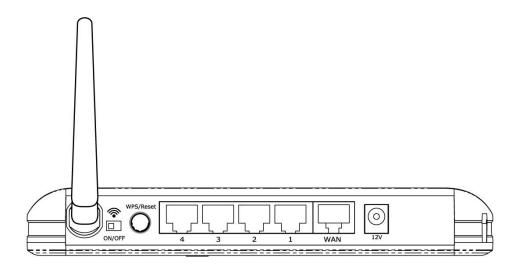


LED Name	Light Status	Description
PWR O	ON	Router is switched on and correctly powered
	On	Wireless network is switched on
WLAN 🛜	Off	Wireless network is switched off
	Flashing	Wireless LAN activity (transferring data) or
		WPS mode is on. (LED will on and off every
		1 second)
WAN	On	WAN port is connected
	Off	WAN port is not connected
LNK/ACT	Flashing	WAN activity (transferring data)
LAN	On	LAN port is connected
	Off	LAN port is not connected
LNK/ACT	Flashing	LAN activity (transferring data)

Back Panel



BR-6226n



BR-6225n

Item Name	Description	
Antenna	High gain 3dBi Antenna	
₹ON/OFF	Enable / Disable wireless signal	
* UN/UFF	You can not connect the router via wireless adapter,	
	when you disable (OFF) the wireless signal.	
12V (Power)	Power connector, connects to power adapter	
Reset / WPS	Reset the router to factory default settings (clear all	
	settings) or start WPS function. Press this button and	
	hold for 20 seconds to clear all settings, and press this	
	button 3~5 seconds to start WPS function.	
1 - 4	Local Area Network (LAN) ports 1 to 4	
WAN	Wide Area Network (WAN / Internet) port	

Chapter II: System and Network Setup

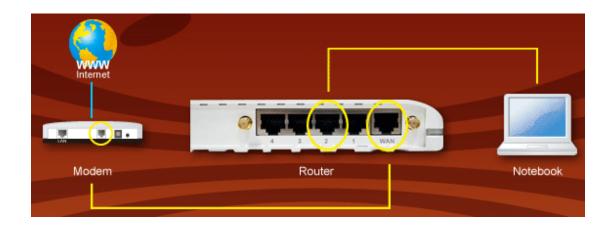
2-1 Establish network connection

Please follow the following instruction to build the network connection between your new Broadband router and your computers, network devices:

1. Connect your xDSL / cable modem to the WAN port of router by Ethernet cable.



2. Connect all your computers, network devices (network-enabled consumer devices other than computers, like game console, or switch / hub) to the LAN port of the router.



- 3. Connect the power adapter to the wall socket, and then connect it to the 'Power' socket of the router.
- 4. Please check all LEDs on the front panel. 'PWR' LED should be steadily on, WAN and LAN LEDs should be on if the computer / network device connected to the respective port of the router is powered on and correctly connected. If PWD LED is not on, or any LED you expected is not on, please recheck the cabling.

2-2 Setup client computers to obtain IP address automatically

After the network connection is established, the next step you should do is setup the router with proper network parameters, so it can work properly in your network environment.

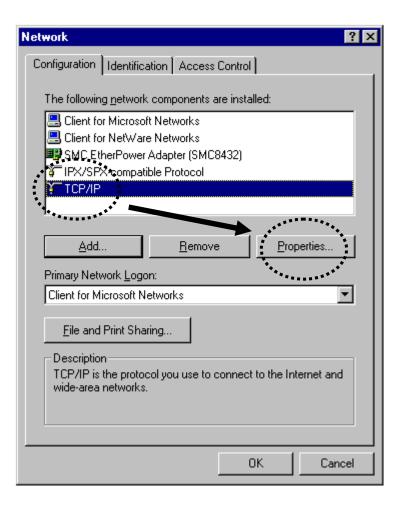
Before you can connect to the router and start configuration procedures, your computer must be able to get an IP address automatically (use dynamic IP address). If it's set to use static IP address, or you're unsure, please follow the following instructions to configure your computer to use dynamic IP address:

If the operating system of your computer is....

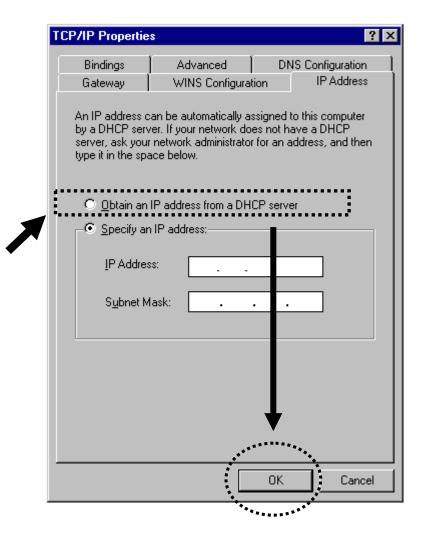
Windows 95/98/Me
 Windows 2000
 Please go to section 2-2-2
 Please go to section 2-2-3
 Please go to section 2-2-3
 Please go to section 2-2-4

2-2-1 Windows 95/98/Me IP address setup:

1. Click 'Start' button (it should be located at lower-left corner of your computer), then click control panel. Double-click *Network* icon, and *Network* window will appear. Select 'TCP/IP', then click 'Properties'.

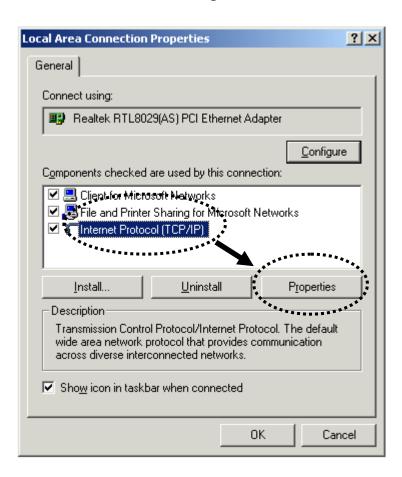


2. Select 'Obtain an IP address from a DHCP server', then click 'OK'.

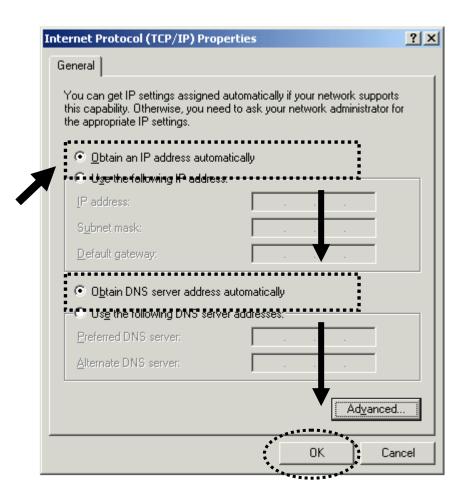


2-2-2 Windows 2000 IP address setup:

1. Click 'Start' button (it should be located at lower-left corner of your computer), then click control panel. Double-click *Network and Dial-up Connections* icon, double click *Local Area Connection*, and *Local Area Connection Properties* window will appear. Select 'Internet Protocol (TCP/IP)', then click 'Properties'

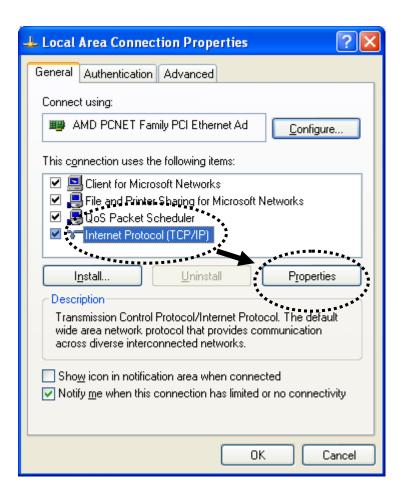


2. Select 'Obtain an IP address automatically' and 'Obtain DNS server address automatically', then click 'OK'.

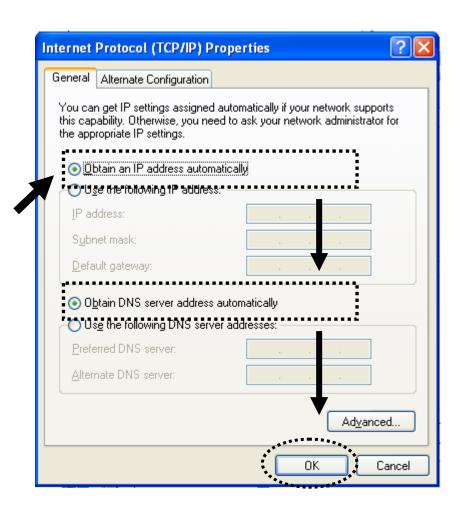


2-2-3 Windows XP IP address setup:

1. Click 'Start' button (it should be located at lower-left corner of your computer), then click control panel. Double-click *Network and Internet Connections* icon, click *Network Connections*, then double-click *Local Area Connection*, *Local Area Connection Status* window will appear, and then click 'Properties'

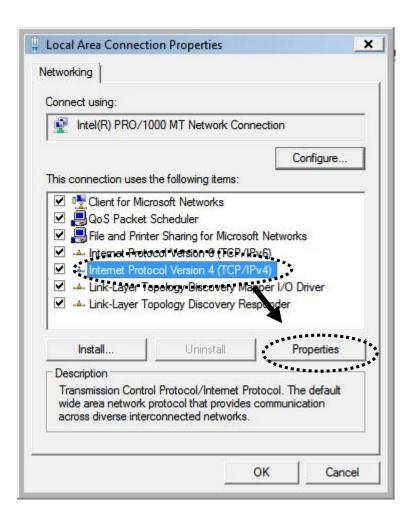


2. Select 'Obtain an IP address automatically' and 'Obtain DNS server address automatically', then click 'OK'.

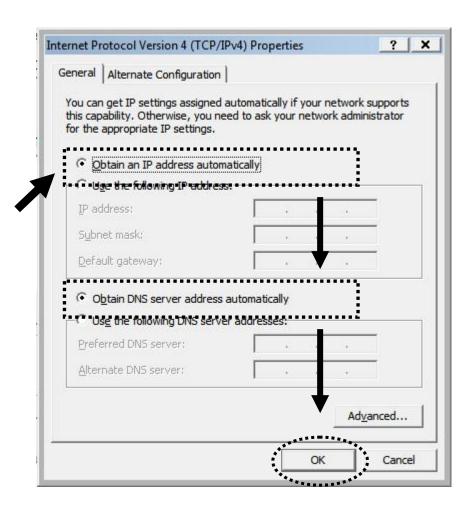


2-2-4 Windows Vista IP address setup:

1. Click 'Start' button (it should be located at lower-left corner of your computer), then click control panel. Click *View Network Status and Tasks*, then click *Manage Network Connections*..Right-click *Local Area Netwrok, then select 'Properties'*. *Local Area Connection Properties* window will appear, select 'Internet Protocol Version 4 (TCP / IPv4), and then click 'Properties'



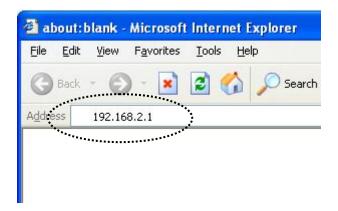
2. Select 'Obtain an IP address automatically' and 'Obtain DNS server address automatically', then click 'OK'.



2-3 Connect to broadband router by web browser

Default IP address of this broadband router is '192.168.2.1', and you can connect to broadband router's web-based configuration interface by any connected computer with web browser (Internet Explorer 5.x or above, Firefox, or Netscape).

Please input '192.168.2.1' in web browser's address bar and press 'Enter' key to establish connection:



You should see the following authentication window:



Please input 'admin' in 'User name' field, and '1234' in 'Password' field, and click 'OK' button to enter web configuration interface.



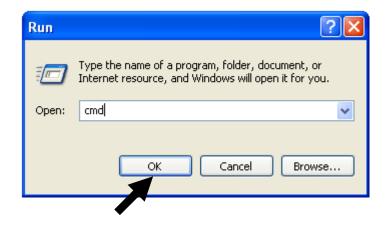
TIPS: If you can't establish connection with broadband router with web browser (got 'The page cannot be displayed' or similar error message), the IP address you inputted may be wrong. If you've changed the IP address of this broadband router previously, please input correct IP address instead of the default IP address '192.168.2.1'.

If the DHCP server function of this broadband router is enabled, please follow the following instructions to find out the IP address of this broadband router:

Please click 'start' -> 'run' at the bottom-lower corner of your desktop:



Input 'cmd', then click 'OK'



Input 'ipconfig', then press 'Enter' key. Please check the IP address followed by 'Default Gateway' (In this example, the IP address of router is 192.168.2.1, *please note that this value may be different.*)

NOTE: If the IP address of Gateway is not displayed, or the address followed by 'IP Address' begins with '169', please recheck network connection between your computer and router, and / or go to the beginning of this chapter, to recheck every step of network setup procedure.

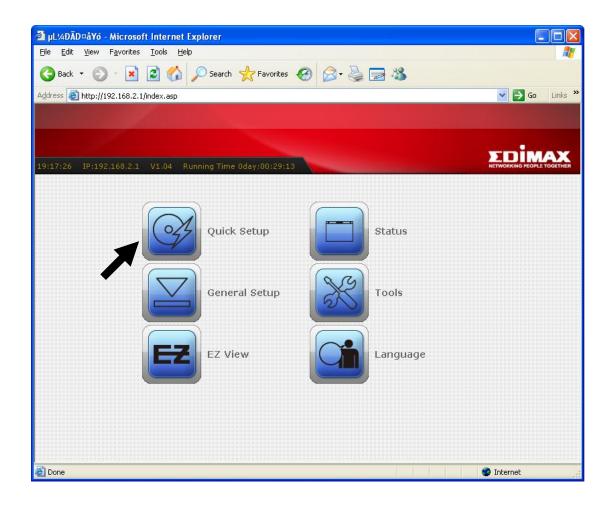
If you tried the instructions listed above and still can not find the IP address of this broadband router / you forget the password, please jump to chapter 6-1 to reset the broadband router.

2-4 Using 'Quick Setup'

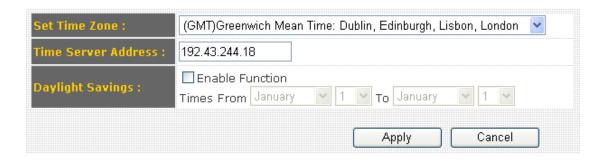
This broadband router provides a 'Quick Setup' menu, and you can setup basic parameters of this broadband router.

Please follow the following instructions to use 'Quick Setup' menu:

1. Click 'Quick Setup' after logged in.



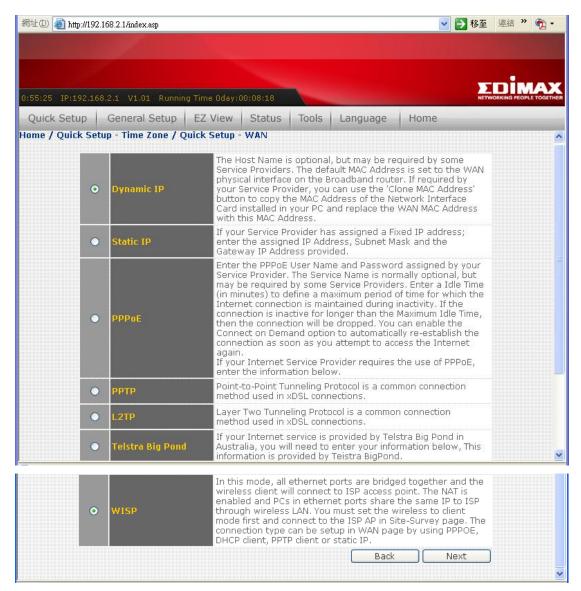
2. In the first step of quick setup, you can setup automatic time synchronization settings.



The descriptions of every setting items are listed as follow:

Item Name	Description
Time Zone	Please select a time zone of the country or
	region of your residence here. If you can't find
	the country / region of your residence here,
	please select a city / region which time zone is
	the same with the country / region of your
	residence.
Time Server Address	This load-balance router supports NTP
	(Network Time Protocol). NTP server will
	provide correct time for this router to setup the
	date and time of the router automatically.
	Please input the host name or IP address of
	NTP server here. If you don't know the host
	name or IP address of time server, please ask
	network administrator or use 'pool.ntp.org' as
	time server.
Daylight Savings	If the country / region of your residence use
	daylight saving time, please check 'Enable
	Function' box, and select the beginning and
	ending date of daylight time saving.

After you finish with time zone settings, please click 'Next' to proceed to next step of quick setup - broadband type:



Please choose the broadband (Internet connection) type you're using in this page. There are six types of Internet connection, they are:

Dynamic IP	- Please go to section 2-4-1
Fixed-IP xDSL	- Please go to section 2-4-2
PPPoE xDSL	- Please go to section 2-4-3
PPTP xDSL	- Please go to section 2-4-4
L2TP xDSL	- Please go to section 2-4-5
Telstra Big Pond	- Please go to section 2-4-6
WISP	- P lease go to section 2-4-7

If you're not sure, please contact your Internet service provider. A wrong Internet connection type will cause connection problem, and you will not be able to connect to internet.

If you want to go back to previous step, please press 'Back' button on the bottom of this page.

NOTE: Some service providers use 'DHCP' (Dynamic Host Configuration Protocol) to assign IP address to you. In this case, you can choose 'Cable Modem' as Internet connection type, even you're using another connection type, like xDSL. Also, some cable modem uses PPPoE, so you can choose 'PPPoE xDSL' for such cable modem connection, even you're using a cable modem.

2-4-1 Using 'Dynamic IP' as broadband connection type

If your Internet service provider uses cable modem to provide Internet service to you, you can select this connection type. You can also select this connection type if your ISP tells you that they will assign you the IP address by 'DHCP' (Dynamic Host Configuration Protocol).



Here are descriptions of every setup items:

Item Name	Description
Host Name	Please input the host name of your computer,
	this is optional, and only required if your
	service provider asks you to do so.
MAC address	Please input MAC address of your computer
	here, if your service provider only permits
	computer with certain MAC address to access
	internet. If you're using the computer which
	used to connect to Internet via cable modem,
	you can simply press 'Clone Mac address'
	button to fill the MAC address field with the
	MAC address of your computer.
TTL	Time-to-live (TTL) is a value in an Internet
	Protocol packet that tells a network router
	whether or not the packet has been in the
	network too long and should be discarded.

If you wish to select another connection type as broadband connection type, click 'Back'; or you can click 'OK' to finish with quick setup. You'll see the following messages:



Please click 'Apply' to save changes you made and restart the broadband router, this requires about 30 seconds and the broadband router will stop responding (this is normal and is not malfunction). You can reconnect to this broadband router and continue on other settings later.

2-4-2 Using 'Fixed-IP xDSL' as broadband connection type

If your ISP requires you to set a fixed IP address to establish connection, you can use this connection type to input the IP address information assigned by your ISP.

Please note that not only xDSL connections (like ADSL, HDSL, VDSL) can use this connection type, you can select this connection type for all connections that requires you to input a fixed IP address. Also, if your ISP is assigning a fixed IP address to you by DHCP or PPPoE, do not select this connection type. Please contact your ISP's service hotline to make sure you really need to use static IP as connection type.



Here are descriptions of every setup items:

Item Name	Description
IP address assigned by	Please input IP address assigned by your
your by your service	service provider.
provider	
Subnet Mask	Please input subnet mask assigned by your
	service provider.
DNS address	Please input the IP address of DNS server
	provided by your service provider.
Service Provider	Please input the IP address of DNS server
Gateway Address	provided by your service provider.
TTL	Time-to-live (TTL) is a value in an Internet
	Protocol packet that tells a network router
	whether or not the packet has been in the
	network too long and should be discarded.

You must use the addresses provided by your Internet service provider, wrong setting value will cause connection problem.

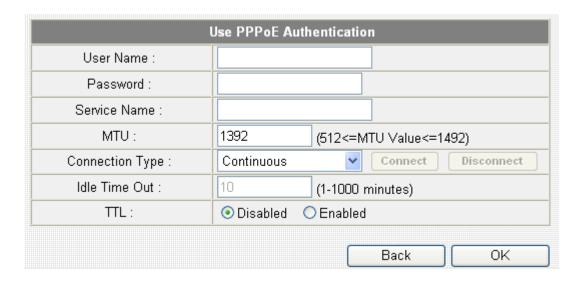
If you wish to select another connection type as broadband connection type, click 'Back'; or you can click 'OK' to finish with quick setup. You'll see the following messages:



Please click 'Apply' to save changes you made and restart the broadband router, this requires about 30 seconds and the broadband router will stop responding (this is normal and is not malfunction). You can reconnect to this broadband router and continue on other settings later.

2-4-3 Using 'PPPoE xDSL' as broadband connection type

If your ISP requires you to establish Internet connection by PPPoE (Point-to-Point Protocol over Ethernet), you can use this connection type to establish Internet connection.

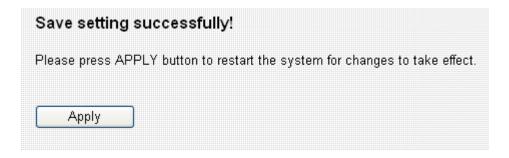


Here are descriptions of every setup items:

Item Name	Description
User Name	Please input user name assigned by your
	Internet service provider here.
Password	Please input the password assigned by your
	Internet service provider here.
Service Name	Please give a name to this Internet service, this
	is optional.
MTU	Please input the MTU value of your network
	connection here. If you don't know, you can use
	default value.
Connection Type	Please select the connection type of Internet
	connection you wish to use. There are 3
	options:
	'Continuous' - keep internet connection alive,
	^
	do not disconnect.
	'Connect on Demand' - only connects to

	Internet when there's a connect attempt,
	Manual - only connects to Internet when 'Connect' button on this page is pressed, and disconnects when 'Disconnect button is pressed.
Idle Time Out	Please specify the time to shutdown internet
	connect after no internet activity is detected in minute(s). This option is only available when connection type is 'Connect on Demand'.
TTL	Time-to-live (TTL) is a value in an Internet
	Protocol packet that tells a network router
	whether or not the packet has been in the network too long and should be discarded.

If you wish to select another connection type as broadband connection type, click 'Back'; or you can click 'OK' to finish with quick setup. You'll see the following messages:



2-4-4 Using 'PPTP xDSL' as broadband connection type

If your ISP requires you to use PPTP (Point-to-Point Tunneling Protocol) to establish connection, you can select this connection type to establish Internet connection.

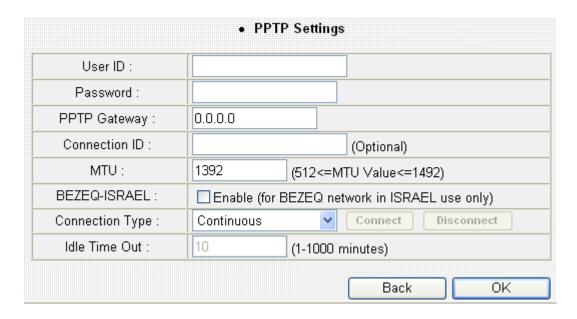
PPTP xDSL requires two kinds of setting: WAN interface setting (setup IP address) and PPTP setting (PPTP user name and password). Here we start from WAN interface setting first:

WAN Interface Settings		
Obtain an IP address automatically :		
Host Name :		
MAC address :	00000000000	Clone Mac address
O Use the following IP address :		
IP address :	0.0.0.0	
Subnet Mask :	0.0.0.0	
Default Gateway :	0.0.0.0	

Select the type of how you obtain IP address from your service provider here. You can choose 'Obtain an IP address automatically' (equal to DHCP, please refer to 'Cable Modem' section above), or 'Use the following IP address' (i.e. static IP address).

WAN interface settings must be correctly set, or the Internet connection will fail even those settings of PPTP settings are correct. Please contact your Internet service provider if you don't know what you should fill in these fields.

Now please go to PPTP settings section:



Here are descriptions of every setup items:

Item Name	Description
User ID	Please input user ID (user name) assigned by
	your Internet service provider here.
Password	Please input the password assigned by your
	Internet service provider here.
PPTP Gateway	Please input the IP address of PPTP gateway
	assigned by your Internet service provider
	here.
Connection ID	Please input the connection ID here, this is
	optional and you can leave it blank.
MTU	Please input the MTU value of your network
	connection here. If you don't know, you can use
	default value.
BEZEQ-ISRAEL	Check 'Enable' box if you're using BEZEQ
	network service in Israel. Do not check this
	box if you're using other Internet service
	provider.
Connection Type	Please select the connection type of Internet
	connection you wish to use. There are 3
	options:

	'Continuous' - keep internet connection alive, do not disconnect.
	'Connect on Demand' - only connects to
	Internet when there's a connect attempt,
	Manual - only connects to Internet when
	'Connect' button on this page is pressed, and
	disconnects when 'Disconnect button is
	pressed.
Idle Time Out	Please specify the time to shutdown internet
	connect after no internet activity is detected in
	minute(s). This option is only available when
	connection type is 'Connect on Demand'.

If you wish to select another connection type as broadband connection type, click 'Back'; or you can click 'OK' to finish with quick setup. You'll see the following messages:



2-4-5 Using 'L2TP xDSL' as broadband connection type

If your ISP requires you to use L2TP (Layer-2 Tunneling Protocol) to establish connection, you can select this connection type to establish Internet connection. L2TP is another popular connection method for xDSL and other Internet connection types, and all required setting items are the same with PPTP connection.

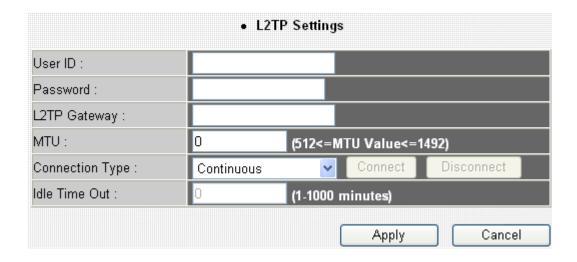
Like PPTP, there are two kinds of required setting, we'll start from 'WAN Interface Settings':

WAN Interface Settings		
Obtain an IP address automatically:		
Host Name :		
MAC address :	00000000000	Clone Mac address
O Use the following IP address :		
IP address :	0.0.0.0	
Subnet Mask :	0.0.0.0	
Default Gateway :	0.0.0.0	

Please select the type of how you obtain IP address from your service provider here. You can choose 'Obtain an IP address automatically' (equal to DHCP, please refer to 'Cable Modem' section above), or 'Use the following IP address' (equal to static IP address, please refer to 'PPPoE xDSL' section above).

WAN interface settings must be correctly set, or the Internet connection will fail even those settings of L2TP settings are correct. Please contact your Internet service provider if you don't know what you should fill in these fields.

Now please go to L2TP settings section:



Here are descriptions of every setup items:

Item Name	Description
User ID	Please input user ID (user name) assigned by
	your Internet service provider here.
Password	Please input the password assigned by your
	Internet service provider here.
L2TP Gateway	Please input the IP address of L2TP gateway
	assigned by your Internet service provider
	here.
MTU	Please input the MTU value of your network
	connection here. If you don't know, you can use
	default value.
Connection Type	Please select the connection type of Internet
	connection you wish to use. There are 3
	options:
	'Continuous' - keep internet connection alive,
	do not disconnect.
	'Connect on Demand' - only connects to
	Internet when there's a connect attempt,
	Manual - only connects to Internet when
	'Connect' button on this page is pressed, and
	disconnects when 'Disconnect button is
	pressed.

Idle Time Out	Please specify the time to shutdown internet
	connect after no internet activity is detected in
	minute(s). This option is only available when
	connection type is 'Connect on Demand'.

If you wish to select another connection type as broadband connection type, click 'Back'; or you can click 'OK' to finish with quick setup. You'll see the following messages:



2-4-6 Using 'Telstra Big Pond' as broadband connection type

This connection type only works for Telstra big pond network service in Australia. DO NOT select this connection type if you're not using Telstra big pond network service.



Here are descriptions of every setup items:

Item Name	Description
User Name	Please input the user name assigned by Telstra.
Password	Please input the password assigned by Telstra.
User device login	Check this box to choose login server by
server manually	yourself.
Login Server	Please input the IP address of login server here.

If you wish to select another connection type as broadband connection type, click 'Back'; or you can click 'OK' to finish with quick setup. You'll see the following messages:

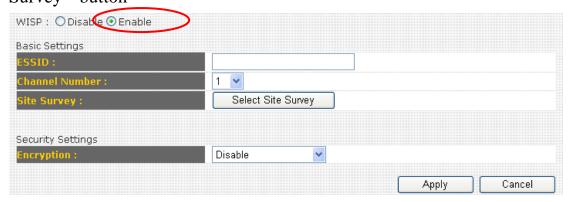


Please click 'Apply' to save changes you made and restart the broadband

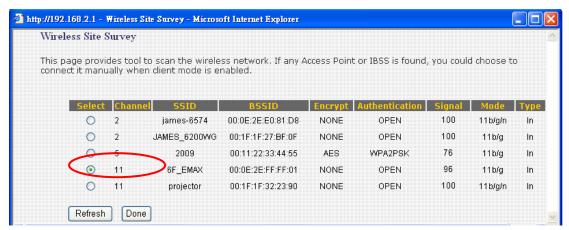
router, this requires about 30 seconds and the broadband router will stop responding (this is normal and is not malfunction). You can reconnect to this broadband router and continue on other settings later.

2-4-7 WISP (Wireless ISP Connection mode)

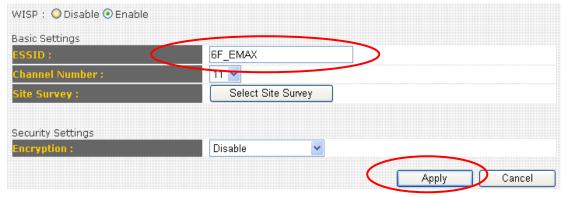
You can connect with ISP via the router wirelessly, because the router provides WISP connection mode. Click "Enable " and "Select Site Survey " button



Here you will find many Wireless Access Points as follows. To Choose an Access Point which you would like connect, then click "Select" button and "Done".



Here you will see the Access Point which you select.



Here we provide WEP and PWA-PSK security settings for you to connect with ISP (Access Point). If your ISP does not ask you to input the security key, please choose "Disable" and click "Apply " to save changes you



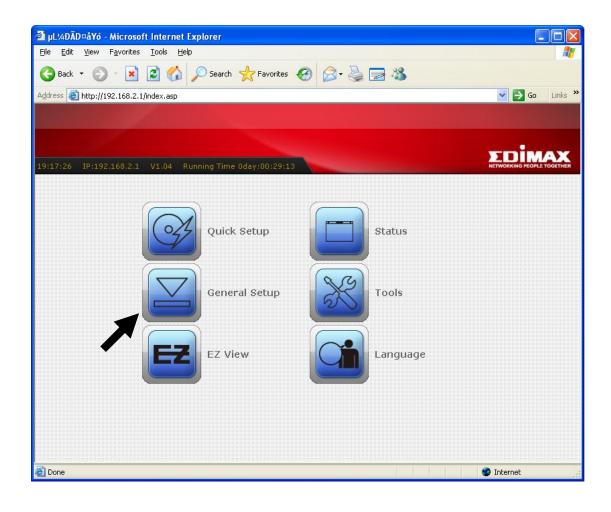


Chapter III: General Setup

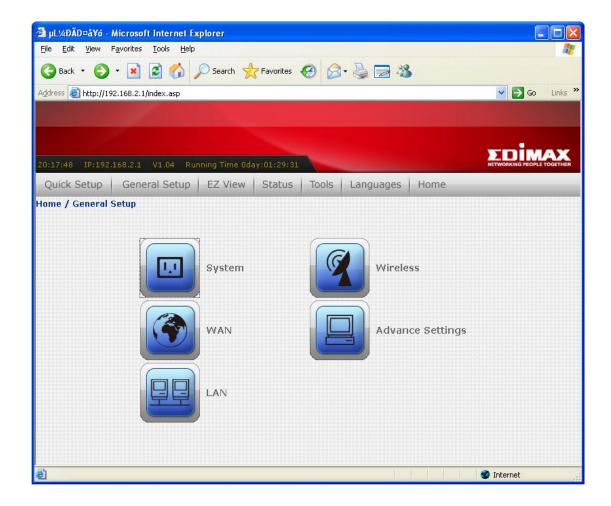
The 'General Setup' is for you to setup "System, WAN, LAN, Wireless, and others (Advance settings) ".

Please follow the following instructions to use 'General Setup' menu:

1. Click 'General Setup' after logged in.



2. Five submenus will appear:



System - Basic system settings (please go to chapter 3-1)

WAN - Setup WAN port manually (please go to chapter 3-2)

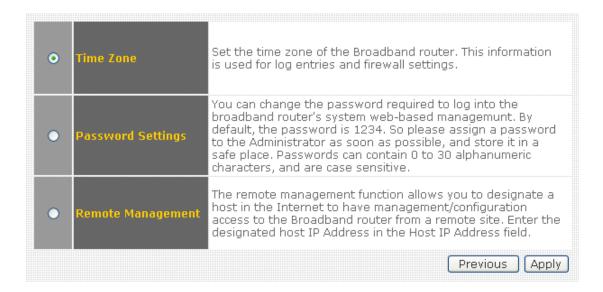
LAN - Setup LAN port manually (please go to chapter 3-3)

Wireless - Setup wireless interface manually (please go to chapter 3-4)

Advance Settings - Setup advanced settings of this broadband router (Please go to chapter 3-5)

3-1 System

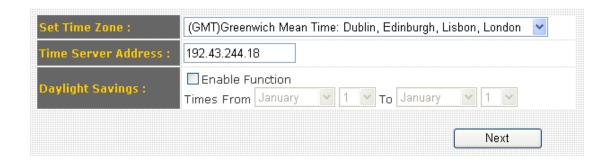
You can setup basic system settings of this broadband router in 'System' menu:



Please select the setting item you wish to set, then click 'Apply' button to proceed. You can also click 'Previous' button to back to 'System' menu.

3-1-1 Time Zone

You can change the time zone settings of this broadband router. It's important to have correct date and time setting if you need to read system log and use build-in firewall functions.

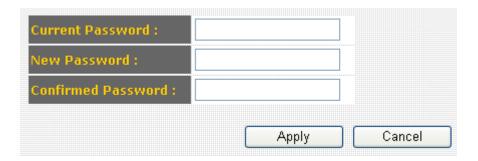


The descriptions of every setting item are listed as follow:

Item Name	Description
Time Zone	Please select a time zone of the country or
	region of your residence here. If you can't find
	the country / region of your residence here,
	please select a city / region which time zone is
	the same with the country / region of your
	residence.
Time Server Address	This load-balance router supports NTP
	(Network Time Protocol). NTP server will
	provide correct time for this router to setup the
	date and time of the router automatically.
	Please input the host name or IP address of
	NTP server here. If you don't know the host
	name or IP address of time server, please ask
	network administrator or use 'pool.ntp.org' as
	time server.
Daylight Savings	If the country / region of your residence use
	daylight saving time, please check 'Enable
	Function' box, and select the beginning and
	ending date of daylight time saving.

3-1-2 Password Settings

You can change the web login password of this broadband router. If you keep using the default password '1234', other people may access the configuration interface without your permission. Please change the password as soon as possible.



The descriptions of every setting item are listed as follow:

Item Name	Description
Current Password	Please input current password here.
New Password	Please input new password here.
Confirmed Password	Please input new password here again for
	confirmation.

After you inputted current and new password, click 'Apply' to save changes, or you can click 'Cancel' to keep current password untouched.

3-1-3 Remote Management

If you need to manage this broadband router outside of your LAN (i.e. from Internet), you can use this function to assign a remote IP address which is permitted to connect to this broadband router's web management interface from Internet.

If it's not required for you to manage this broadband router from Internet, you can disable this function to improve security.



The descriptions of every setting item are listed as follow:

Item Name	Description
Host address	Input the IP address of the remote host you
	wish to initiate a management access.
Port	You can define the port number this router
	should expect an incoming connection request.
	If you're providing a web service (default port
	number is 80), you should try to use other port
	number. You can use the default port setting
	'8080', or something like '32245' or '1429'.
	(Any integer between 1 and 65534)
Enabled	Check this box to enable remote management
	function. When this box is unchecked, no one
	can access this broadband router's
	management interface from Internet.

Please click 'Apply' to save changes in this page, or you can click 'Cancel' to discard all settings in this page. After you click 'Apply' button, you'll see the following message:



3-2 WAN

You can setup WAN (Wide Area Network, i.e. Internet) connections of this broadband router in 'WAN' menu:

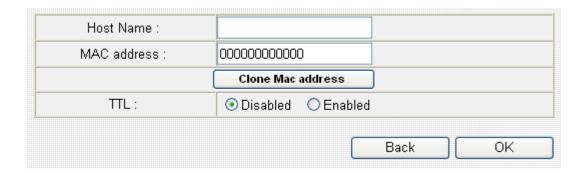
•	Dynamic IP	The Host Name is optional, but may be required by some Service Providers. The default MAC Address is set to the WAN physical interface on the Broadband router. If required by your Service Provider, you can use the 'Clone MAC Address' button to copy the MAC Address of the Network Interface Card installed in your PC and replace the WAN MAC Address with this MAC Address.
•	Static IP	If your Service Provider has assigned a Fixed IP address; enter the assigned IP Address, Subnet Mask and the Gateway IP Address provided.
•	PPPoE	Enter the PPPOE User Name and Password assigned by your Service Provider. The Service Name is normally optional, but may be required by some Service Providers. Enter a Idle Time (in minutes) to define a maximum period of time for which the Internet connection is maintained during inactivity. If the connection is inactive for longer than the Maximum Idle Time, then the connection will be dropped. You can enable the Connect on Demand option to automatically re-establish the connection as soon as you attempt to access the Internet again. If your Internet Service Provider requires the use of PPPoE, enter the information below.
•	РРТР	Point-to-Point Tunneling Protocol is a common connection method used in xDSL connections.
•	L2TP	Layer Two Tunneling Protocol is a common connection method used in xDSL connections.
•	Telstra Big Pond	If your Internet service is provided by Telstra Big Pond in Australia, you will need to enter your information below, This information is provided by Teistra BigPond.
•	WISP	In this mode, all ethernet ports are bridged together and the wireless client will connect to ISP access point. The NAT is enabled and PCs in ethernet ports share the same IP to ISP through wireless LAN. You must set the wireless to client mode first and connect to the ISP AP in Site-Survey page. The connection type can be setup in WAN page by using PPPOE, DHCP client, PPTP client or static IP.
		Back Next

Please select the WAN connection type you wish to use, then click 'Apply' to continue. You can also click 'Previous' to back to previous page.

If you're not sure which connection type you should use, please call your ISP's service hotline and ask for help. You'll not be able to connect to Internet with wrong connection type.

3-2-1 Dynamic IP

Dynamic IP means your ISP will assign an IP address to you automatically by 'DHCP' (Dynamic Host Configuration Protocol). Dynamic IP is often used by cable modem Internet connection.



Here are descriptions of every setup items:

Item Name	Description
Host Name	Please input the host name of your computer,
	this is optional, and only required if your
	service provider asks you to do so.
MAC address	Please input MAC address of your computer
	here, if your service provider only permits
	computer with certain MAC address to access
	internet. If you're using the computer which
	used to connect to Internet via cable modem,
	you can simply press 'Clone Mac address'
	button to fill the MAC address field with the
	MAC address of your computer.
TTL	Time-to-live (TTL) is a value in an Internet
	Protocol packet that tells a network router
	whether or not the packet has been in the
	network too long and should be discarded.

If you wish to select another connection type as broadband connection type, click 'Back'; or you can click 'OK' to finish with quick setup. You'll see the following messages:



3-2-2 Static IP

Some ISP will give you a fixed IP address, and ask you to use this IP address to establish Internet connection. In this case, you have to select this connection type to establish connection with your ISP.

Please note that if your ISP is assigning a fixed IP address to you by DHCP or PPPoE, do not select this connection type. Please contact your ISP's service hotline to make sure you really need to use static IP as connection type.



Here are descriptions of every setup items:

Item Name	Description
IP address assigned by	Please input IP address assigned by your
your by your service	service provider.
provider	
Subnet Mask	Please input subnet mask assigned by your
	service provider.
DNS address	Please input the IP address of DNS server
	provided by your service provider.
Service Provider	Please input the IP address of DNS server
Gateway Address	provided by your service provider.
TTL	Time-to-live (TTL) is a value in an Internet
	Protocol packet that tells a network router
	whether or not the packet has been in the
	network too long and should be discarded.

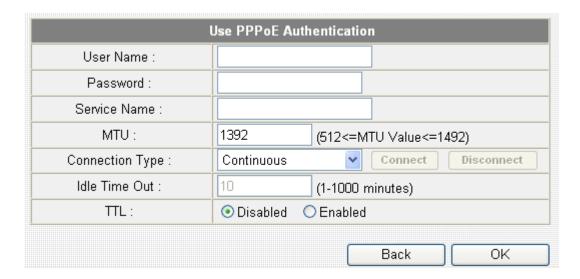
You must use the addresses provided by your Internet service provider, wrong setting value will cause connection problem.

If you wish to select another connection type as broadband connection type, click 'Back'; or you can click 'OK' to finish with quick setup. You'll see the following messages:



3-2-3 PPPoE

If your ISP requires you to establish Internet connection by PPPoE (Point-to-Point Protocol over Ethernet), you can use this connection type to establish Internet connection.



Here are descriptions of every setup items:

Item Name	Description
User Name	Please input user name assigned by your
	Internet service provider here.
Password	Please input the password assigned by your
	Internet service provider here.
Service Name	Please give a name to this Internet service, this
	is optional.
MTU	Please input the MTU value of your network
	connection here. If you don't know, you can use
	default value.
Connection Type	Please select the connection type of Internet
	connection you wish to use. There are 3
	options:
	'Continuous' - keep internet connection alive,
	do not disconnect.
	'Connect on Demand' - only connects to

	Internet when there's a connect attempt,
	Manual - only connects to Internet when 'Connect' button on this page is pressed, and disconnects when 'Disconnect button is pressed.
Idle Time Out	Please specify the time to shutdown internet connect after no internet activity is detected in minute(s). This option is only available when connection type is 'Connect on Demand'.
TTL	Time-to-live (TTL) is a value in an Internet Protocol packet that tells a network router whether or not the packet has been in the network too long and should be discarded.

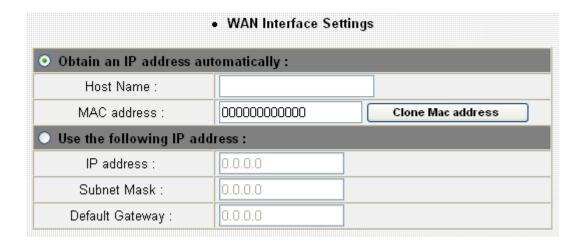
If you wish to select another connection type as broadband connection type, click 'Back'; or you can click 'OK' to finish with quick setup. You'll see the following messages:



3-2-4 PPTP

If your ISP requires you to use PPTP (Point-to-Point Tunneling Protocol) to establish connection, you can select this connection type to establish Internet connection.

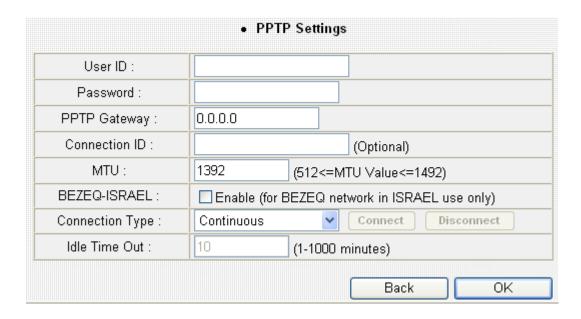
PPTP requires two kinds of setting: WAN interface setting (setup IP address) and PPTP setting (PPTP user name and password). Here we start from WAN interface setting first:



Select the type of how you obtain IP address from your service provider here. You can choose 'Obtain an IP address automatically' (equal to DHCP, please refer to 'Cable Modem' section above), or 'Use the following IP address' (i.e. static IP address).

WAN interface settings must be correctly set, or the Internet connection will fail even those settings of PPTP settings are correct. Please contact your Internet service provider if you don't know what you should fill in these fields.

Now please go to PPTP settings section:



Here are descriptions of every setup items:

Item Name	Description
User ID	Please input user ID (user name) assigned by
	your Internet service provider here.
Password	Please input the password assigned by your
	Internet service provider here.
PPTP Gateway	Please input the IP address of PPTP gateway
	assigned by your Internet service provider
	here.
Connection ID	Please input the connection ID here, this is
	optional and you can leave it blank.
MTU	Please input the MTU value of your network
	connection here. If you don't know, you can use
	default value.
BEZEQ-ISRAEL	Check 'Enable' box if you're using BEZEQ
	network service in Israel. Do not check this
	box if you're using other Internet service
	provider.
Connection Type	Please select the connection type of Internet
	connection you wish to use. There are 3
	options:

	'Continuous' - keep internet connection alive, do not disconnect.
	'Connect on Demand' - only connects to
	Internet when there's a connect attempt,
	Manual - only connects to Internet when
	'Connect' button on this page is pressed, and
	disconnects when 'Disconnect button is
	pressed.
Idle Time Out	Please specify the time to shutdown internet
	connect after no internet activity is detected in
	minute(s). This option is only available when
	connection type is 'Connect on Demand'.

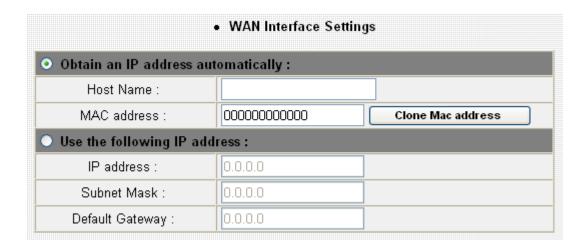
If you wish to select another connection type as broadband connection type, click 'Back'; or you can click 'OK' to finish with quick setup. You'll see the following messages:



3-2-5 L2TP

If your ISP requires you to use L2TP (Layer-2 Tunneling Protocol) to establish connection, you can select this connection type to establish Internet connection. L2TP is another popular connection method for xDSL and other Internet connection types, and all required setting items are the same with PPTP connection.

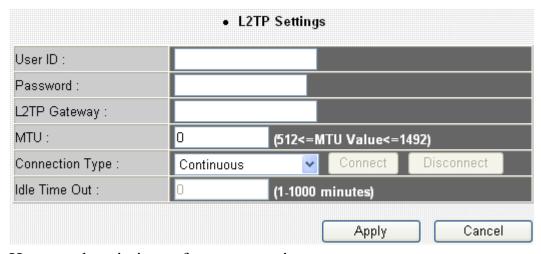
Like PPTP, there are two kinds of required setting, we'll start from 'WAN Interface Settings':



Please select the type of how you obtain IP address from your service provider here. You can choose 'Obtain an IP address automatically' (equal to DHCP, please refer to 'Cable Modem' section above), or 'Use the following IP address' (equal to static IP address, please refer to 'PPPoE xDSL' section above).

WAN interface settings must be correctly set, or the Internet connection will fail even those settings of L2TP settings are correct. Please contact your Internet service provider if you don't know what you should fill in these fields.

Now please go to L2TP settings section:



Here are descriptions of every setup items:

Item Name	Description
User ID	Please input user ID (user name) assigned by
	your Internet service provider here.
Password	Please input the password assigned by your
	Internet service provider here.
L2TP Gateway	Please input the IP address of L2TP gateway
	assigned by your Internet service provider
	here.
MTU	Please input the MTU value of your network
	connection here. If you don't know, you can use
	default value.
Connection Type	Please select the connection type of Internet
	connection you wish to use. There are 3
	options:
	'Continuous' - keep internet connection alive,
	do not disconnect.
	'Connect on Demand' - only connects to
	Internet when there's a connect attempt,
	Manual - only connects to Internet when
	'Connect' button on this page is pressed, and
	disconnects when 'Disconnect button is
	pressed.
Idle Time Out	Please specify the time to shutdown internet

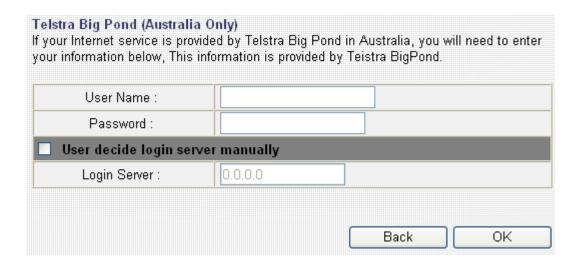
connect after no internet activity is detected in minute(s). This option is only available when connection type is 'Connect on Demand'.

If you wish to select another connection type as broadband connection type, click 'Back'; or you can click 'OK' to finish with quick setup. You'll see the following messages:



3-2-6 Telstra Big Pond

This connection type only works for Telstra big pond network service in Australia. DO NOT select this connection type if you're not using Telstra big pond network service.



Here are descriptions of every setup items:

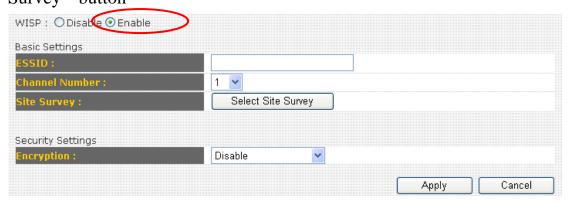
Item Name	Description
User Name	Please input the user name assigned by Telstra.
Password	Please input the password assigned by Telstra.
User device login	Check this box to choose login server by
server manually	yourself.
Login Server	Please input the IP address of login server
	here.

If you wish to select another connection type as broadband connection type, click 'Back'; or you can click 'OK' to finish with quick setup. You'll see the following messages:

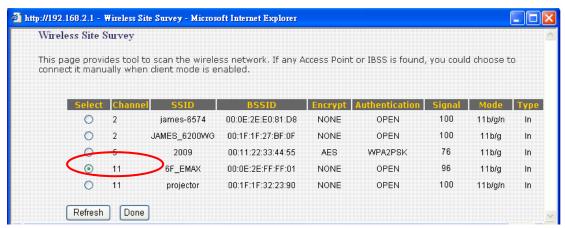


3-2-7 WISP (Wireless ISP Connection Mode)

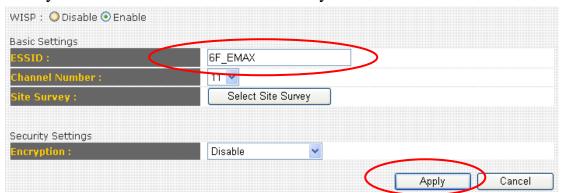
You can connect with ISP via the router wirelessly, because the router provides WISP connection mode. Click "Enable " and "Select Site Survey " button



Here you will find many Wireless Access Points as follows. To Choose an Access Point which you would like connect, then click "Select" button and "Done".



Here you will see the Access Point which you select.



Here we provide WEP and PWA-PSK security settings for you to connect with ISP (Access Point). If your ISP does not ask you to input the security key, please choose "Disable" and click "Apply " to save changes you





3-3 LAN (Wired)

You can setup Wired LAN (Local Area Network) connections of this broadband router in 'LAN' menu. This broadband router has 4 LAN ports and they'll all use the same LAN IP address settings. Please also note that both wired and wireless LAN uses the same LAN IP address settings, too.

LAN settings split into 3 sections: LAN IP, DHCP Server, and Static DHCP leases. Please refer to corresponding sections below for detailed setup instructions.

3-3-1 Start

Before you start - Suggestions for deciding an IP address to be used with this broadband router

Before all computers using wired Ethernet connection (i.e. those computers connect to this router's LAN port 1 to 4 by Ethernet cable) or wireless connection can communicate with each other and access internet, they must have a valid IP address.

There are two ways to assign IP addresses to computers: static IP address (set the IP address for every computer manually), and dynamic IP address (IP address of computers will be assigned by router automatically. It's recommended for most of computers to use dynamic IP address, it will save a lot of time on setting IP addresses for every computer, especially when there are a lot of computers in your network; for servers and network devices which will provide services to other computer and users that come from Internet, static IP address should be used, so other computes can locate the server.

This broadband router has a built-in DHCP (Dynamic Host Configuration Protocol) server, and can help you to assign IP addresses to your client computers. Almost all network computers / devices manufactured after year 1995 are compatible with DHCP, and you can let this broadband router to assign the IP address to client computers / devices for you.

Suggestions on IP address numbering plan:

If you have no idea on how to define an IP address plan for your network, here are some suggestions.

- 1. A valid IP address has 4 fields: a.b.c.d, for most of home and company users, it's suggested to use 192.168.c.d, where c is an integer between 0 and 254, and d is an integer between 1 and 254. This router is capable to work with up to 253 clients, so you can set 'd' field of IP address of router as 1 or 254 (or any number between 1 and 254), and pick a number between 0 and 254 for field 'c'.
- 2. In most cases, you should use '255.255.25.0' as subnet mask, which allows up to 253 clients (this also meets router's capability of working with up to 253 clients).
- 3. For all servers and network devices which will provide services to other people (like Internet service, print service, and file service), they should use static IP address. Give each of them a unique number between 1 and 253, and maintain a list, so everyone can locate those servers easily.
- 4. For computers which are not dedicated to provide specific service to others, they should use dynamic IP address.

If you don't really understand the descriptions listed above, don't worry! We will provide recommended setup values below.

3-3-2 LAN IP

If you enable "DHCP Server", the router can assign IP address to PC which connect with the router. You can use this setting to assign an IP address to the LAN interface of this broadband router.

IP address :	192.168.2.1
Subnet Mask :	255.255.255.0
802.1d Spanning Tree :	Disabled 🕶
DHCP Server :	Enabled 🕶
Lease Time :	Forever

Here are descriptions of every setup items:

Item Name	Description
IP address	Please input the IP address of this broadband
	router's LAN interface.
Subnet Mask	Please input subnet mask for this network.
802.1d Spanning Tree	If you wish to activate 802.1d spanning tree
	function, select 'Enabled' for setup item
	'802.1d Spanning Tree', or set it to 'Disabled'.
DHCP Server	If you want to activate DHCP server function
	of this router, select 'Enabled', or set it to
	'Disabled'.
Lease Time	Please select the lease time for every DHCP
	leases here. You can select the time period from
	the dropdown list, and the DHCP client will be
	forced to obtain a new IP address from this
	broadband router after this period of time.
	You can select 'Forever' if you're using this
	broadband router with only few computers
	(less than 30 computers)

Recommended Value if you don't know what to fill:

IP Address: 192.168.1.254 Subnet Mask: 255.255.255.0 802.1d Spanning Tree: Disabled

DHCP Server: Enabled

3-3-3 DHCP Server

You can use this setting to decide the range of IP address leases.

DHCP Server	
Start IP :	192.168.2.100
End IP :	192.168.2.200
Domain Name :	

Here are descriptions of every setup items:

Item Name	Description
Start IP	Please input the start IP address of the IP
	leases range.
End IP	Please input the end IP address of the IP leases
	range.
Domain Name	If you wish, you can also input the domain
	name for your network. This is optional.

Recommended Value if you don't know what to fill:

Lease Time: Two Weeks (or 'Forever', if you have less than 20 computers)

Start IP: 192.168.2.2 End IP: 192.168.2.200

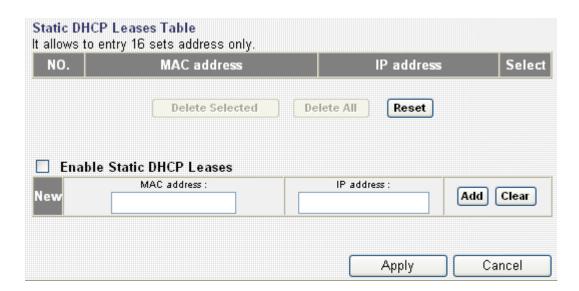
Domain Name: (leave it blank)

NOTE:

- 1. The number of the last field (mentioned 'd' field) of 'End IP' must be greater than 'Start IP', and can not the same with router's IP address.
- 2. The former three fields of IP address of 'Start IP', 'End IP', and 'IP Address of 'LAN IP' section (mentioned 'a', 'b', and 'c' field) should be the same.
- 3. These settings will affect wireless clients, too.

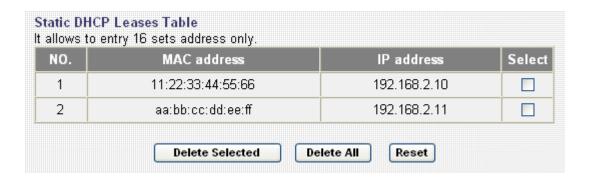
3-3-4 Static DHCP Leases

If you wish to assign a fixed IP address to certain computers / devices by DHCP, you can use this function to establish a MAC-to-IP address table here, so you can assign a specific IP address to a specific computer / network device by its MAC address.



Item Name	Description
Enable Static	Check this box to enable this function,
DHCP Leases	otherwise uncheck it to disable this function.
MAC Address	Input the MAC address of the computer or
	network device (total 12 characters, with
	character from 0 to 9, and from a to f, like
	'001122aabbcc').
IP address	Input the IP address you want to assign to
	this computer or network device.
Add	After you inputted MAC address and IP
	address pair, click this button to add the pair
	to static DHCP leases table.
Clear	Click this button to remove texts in MAC
	address and IP address field.

All MAC-to-IP address entries will be listed in this page, and this broadband router supports up 16 static DHCP leases:



To delete one or more entries listed here, please check the box of the mapping entry (under 'Select'), and click 'Delete Selected' button.

If you wish to delete all mapping entries, click 'Delete All' button. To deselect all checked boxes, click 'Reset' button.

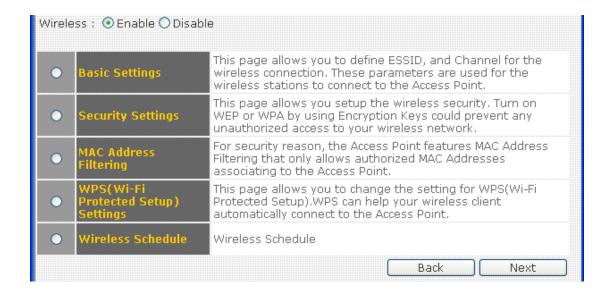
When you finished with the settings in this page, you can click 'Apply' button to save changes you made in this page, or you can click 'Cancel' to discard changes. After you click 'Apply' button, you'll see the following messages:



Please click 'Apply' to save changes you made and restart the broadband router, this requires about 30 seconds and the broadband router will stop responding (this is normal and is not malfunction). You can reconnect to this broadband router and continue on other settings later.

3-4 Wireless

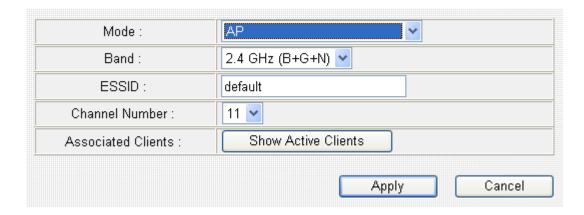
You can setup Wireless LAN connection parameters of this broadband router in 'Wireless' menu:



Please select one setting in this menu, then click 'Apply' to proceed. If you wish to go back to previous page, click 'Previous'.

3-4-1 Basic Settings

You can set basic settings of wireless LAN here.



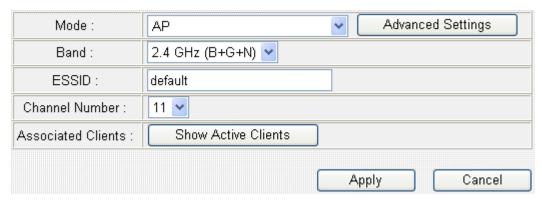
Please select the working mode of this broadband router from 'Mode' dropdown list first:

- a. AP: Standard wireless AP (access point).
- b. Station-Infrastructure: This broadband router acts as both wireless communication client and server connects to another wireless access point as client, and serves other wireless clients as server.
- c. *AP Bridge-Point to Point*: Connect this router with another broadband router, to expand the scope of network.
- d. *AP Bridge-Point to Multi-Point*: Connect this router with up to four other broadband routers, to expand the scope of network.
- e. *AP Bridge-WDS*: Connect this router with up to four WDS-capable broadband routers, to expand the scope of network.
- f. *Universal Repeater*: This broadband router will repeat other wireless access point's signal to extend its wireless signal coverage, and also acts as a wireless access point to serve other wireless clients.

Note: When you enable WISP connection mode, you will not get "b. *Station-Infrastructure*" and "f. *Universal Repeater*" mode here.

3-4-1-1 AP mode

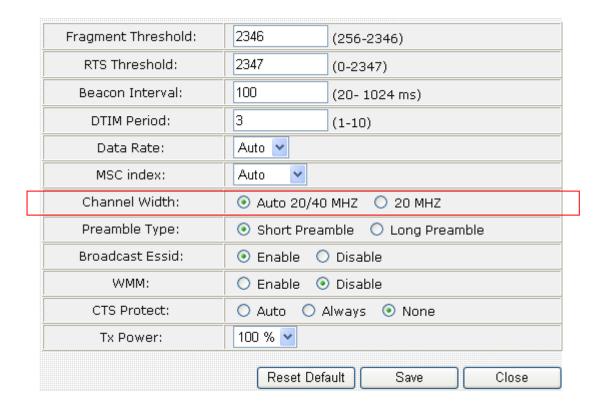
In AP mode, the following settings will appear:



Item Name	Description
Band	Please select the radio band from one of
	following options:
	2.4 GHz (B): 2.4GHz band, only allows
	802.11b wireless network client to connect this router (maximum transfer rate 11Mbps).
	2.4 GHz (N): 2.4GHz band, only allows
	802.11n wireless network client to connect this router (maximum transfer rate 150Mbps).
	2.4 GHz (B+G): 2.4GHz band, only allows 802.11b and 802.11g wireless network client to connect this router (maximum transfer rate 11Mbps for 802.11b clients, and maximum 54Mbps for 802.11g clients).
	2.4 GHz (G): 2.4GHz band, only allows 802.11g wireless network client to connect this router (maximum transfer rate 54Mbps).
	2.4 GHz (B+G+N): 2.4GHz Band, Allows 802.11b, 802.11g, and 802.11N wireless clients.

	It's recommends to select this band to maximize compatibility.
ESSID	This is the name of broadband router. You can type any alphanumerical characters here, maximum 32 characters. ESSID is used to identify your own broadband router from others when there are other broadband routers in the same area. Default SSID is 'default', it's recommended to change default ESSID value to the one which is meaningful to you, like myhome, office_room1, etc.
Channel Number	Please select a channel from the dropdown list of 'Channel Number', available channel numbers are 1 to 13. You can choose any channel number you want to use, and almost all wireless clients can locate the channel you're using automatically without any problem. However, it's still useful to remember the channel number you use, some wireless client supports manual channel number select, and this would help in certain scenario when there is some radio communication problem.
Associated Clients	Click 'Show Active Clients' button to show the list of all connected wireless clients. You can click 'Refresh' in new window to get latest list again, or click 'Close' to close the window. Please note that if you have pop-up blocker installed, you may have to disable it or tell your pop-up blocker to allow the popup window, or you will not be able to see the wireless client list window.
Advanced Settings	When you click "Advanced Settings", you will get a windows as follows. Please do not change the default settings, if you do not understand the meaning of the setting.

Where you can setup Channel Width in "Auto 20/40MHz" to get good wireless signal.



TIPS: You can try to change channel number to another one if you think the data transfer rate is too slow, or keep having problem while transferring the file over wireless network. There could be some other broadband routers using the same channel, which will disturb the radio communication between wireless client and the broadband

When you finished with the settings in this page, you can click 'Apply' button to save changes you made in this page, or you can click 'Cancel' to discard changes. After you click 'Apply' button, you'll see the following messages:

Save setting successfully! You may press CONTINUE button to continue configuring other settings or press APPLY button to restart the system for changes to take effect Continue Apply

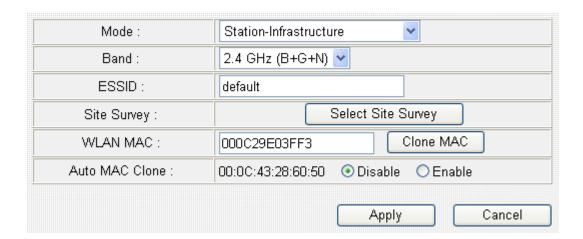
Please click 'Apply' to save changes you made and restart the broadband router, this requires about 30 seconds and the broadband router will stop responding (this is normal and is not malfunction). You can reconnect to this broadband router and continue on other settings later.

You can click 'Continue' to continue on other settings without restart the broadband router, however, the changes you made will not take effect before you restart the broadband router.

3-4-1-2 Station-Infrastructure

In Station-Infrastructure mode, you can select a wireless access point to become its wireless client, and also acts as wireless access point to serve other wireless clients. If you have the access privilege of other wireless access point nearby, and you wish to use that access point to access Internet, you can use this connection type:

Note: You will not get this mode, when you enable WISP.



Item Name	Description
Band	Please select the radio band from one of
	following options (must be the same with the
	wireless access point you wish to connect):
	2.4 GHz (B): 2.4GHz band, only allows
	802.11b wireless network client to connect this
	router (maximum transfer rate 11Mbps).
	2.4 GHz (N): 2.4GHz band, only allows
	802.11n wireless network client to connect this
	router (maximum transfer rate 150Mbps).
	2.4 GHz (B+G): 2.4GHz band, only allows
	802.11b and 802.11g wireless network client to
	connect this router (maximum transfer rate

	11Mbps for 802.11b clients, and maximum
	54Mbps for 802.11g clients).
	54M10ps joi 602.11g chems).
	2.4 GHz (G): 2.4GHz band, only allows
	802.11g wireless network client to connect this
	router (maximum transfer rate 54Mbps).
	2.4 GHz (B+G+N): $2.4 GHz$ Band, Allows
	802.11b, 802.11g, and 802.11N wireless clients.
	It's recommends to select this band to maximize
	compatibility.
ESSID	This is the name of broadband router. You can
	type any alphanumerical characters here,
	maximum 32 characters. ESSID is used to
	identify your own broadband router from
	others when there are other broadband routers
	in the same area. Default SSID is 'default', it's
	recommended to change default ESSID value
	to the one which is meaningful to you, like
	myhome, office_room1, etc.
Site Survey	Click 'Select Site Survey' and a popup window
	will appear. All reachable wireless access
	points will be shown in the window. Select the
	wireless access point you wish to connect from
	the list, and click 'Done'. If the wireless access
	point you wish to connect is not listed, you can
	click 'Refresh' to rescan.
	If you still can't find the wireless access point
	you wish to connect, please move the
	broadband router to the place nearer to the
WILLIAM MAG	access point you wish to connect.
WLAN MAC	Some wireless access points will only allow
	clients with certain MAC address to
	establish connection. In this case, you can
	input the MAC address that will be accepted
	by the wireless access point you wish to
	connect here. You can also click 'Clone

	MAC' button to use the MAC address of your computer (the one you used to connect to the web management interface currently).
Auto MAC Clone	If you wish to use the MAC address of wired LAN interface of this broadband router, select 'Enable', or select 'Disable' to not to use the MAC address of the wired LAN interface of this broadband router.

When you finished with the settings in this page, you can click 'Apply' button to save changes you made in this page, or you can click 'Cancel' to discard changes. After you click 'Apply' button, you'll see the following messages:



Please click 'Apply' to save changes you made and restart the broadband router, this requires about 30 seconds and the broadband router will stop responding (this is normal and is not malfunction). You can reconnect to this broadband router and continue on other settings later.

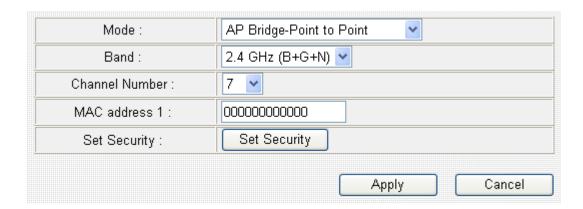
You can click 'Continue' to continue on other settings without restart the broadband router, however, the changes you made will not take effect before you restart the broadband router.

3-4-1-3 AP Bridge-Point to Point

In this mode, you can use this broadband router as a wireless network bridge and let all computers connected to the LAN ports of both wireless access points to communicate with each other. **This mode supports only one wireless access point peer.**

Please note that when you select this mode, this broadband router will act as wireless bridge only, and will not accept other wireless clients.

Also, you can connect to the wireless access point with the same functionality only. If you wish to connect to the wireless access points made by other manufacturer, please select 'AP Bridge-WDS' mode if the wireless access point you wish to connect supports WDS.



Item Name	Description
Band	Please select the radio band from one of
	following options (must be the same with the
	wireless access point you wish to connect):
	2.4 GHz (B): 2.4GHz band, only allows 802.11b wireless network client to connect this router (maximum transfer rate 11Mbps).
	2.4 GHz (N): 2.4GHz band, only allows
	802.11n wireless network client to connect this

	nouton (manimum tugas for ant a 150Mlans)
	router (maximum transfer rate 150Mbps).
	2.4 GHz (B+G): 2.4GHz band, only allows 802.11b and 802.11g wireless network client to connect this router (maximum transfer rate 11Mbps for 802.11b clients, and maximum 54Mbps for 802.11g clients).
	2.4 GHz (G): 2.4GHz band, only allows 802.11g wireless network client to connect this router (maximum transfer rate 54Mbps).
	2.4 GHz (B+G+N): 2.4GHz Band, Allows 802.11b, 802.11g, and 802.11N wireless clients. It's recommends to select this band to maximize compatibility.
Channel Number	Select the channel number you wish to use; both access points must use the same channel.
MAC address 1	Input the MAC address of another wireless access point (the one you wish to connect).
Set Security	Click 'Set Security' button to set security functions of this wireless connection to improve security. Please refer to chapter 3-2-1-7 for detailed instructions.

When you finished with the settings in this page, you can click 'Apply' button to save changes you made in this page, or you can click 'Cancel' to discard changes. After you click 'Apply' button, you'll see the following messages:



Please click 'Apply' to save changes you made and restart the broadband router, this requires about 30 seconds and the broadband router will stop responding (this is normal and is not malfunction). You can reconnect to this broadband router and continue on other settings later.

You can click 'Continue' to continue on other settings without restart the broadband router, however, the changes you made will not take effect before you restart the broadband router.

3-4-1-4 AP Bridge-Point to Multi-Point

In this mode, you can use this broadband router as a wireless network bridge and let all computers connected to the LAN ports of all wireless access points to communicate with each other. **This mode supports up to four wireless access point peers.**

Please note that when you select this mode, this broadband router will act as wireless bridge only, and will not accept other wireless clients.

Also, you can connect to the wireless access point with the same functionality only. If you wish to connect to the wireless access points made by other manufacturer, please select 'AP Bridge-WDS' mode if the wireless access point you wish to connect supports WDS.

Item Name	Description
Band	Please select the radio band from one of
	following options (must be the same with the
	wireless access point you wish to connect):
	2.4 GHz (B): 2.4GHz band, only allows
	802.11b wireless network client to connect this
	router (maximum transfer rate 11Mbps).
	2.4 GHz (N): 2.4GHz band, only allows
	802.11n wireless network client to connect this
	router (maximum transfer rate 150Mbps).
	2.4 GHz (B+G): 2.4GHz band, only allows
	802.11b and 802.11g wireless network client to
	connect this router (maximum transfer rate
	11Mbps for 802.11b clients, and maximum
	54Mbps for 802.11g clients).
	2.4 GHz (G): 2.4GHz band, only allows
	802.11g wireless network client to connect this

	router (maximum transfer rate 54Mbps).
	2.4 GHz (B+G+N): 2.4GHz Band, Allows 802.11b, 802.11g, and 802.11N wireless clients. It's recommends to select this band to maximize compatibility.
Channel Number	Select the channel number you wish to use; all access points must use the same channel.
MAC address 1 to 4	Input the MAC address of other wireless access points (the access points you wish to connect).
Set Security	Click 'Set Security' button to set security functions of this wireless connection to improve security. Please refer to chapter 3-2-1-7 for detailed instructions.

When you finished with the settings in this page, you can click 'Apply' button to save changes you made in this page, or you can click 'Cancel' to discard changes. After you click 'Apply' button, you'll see the following messages:

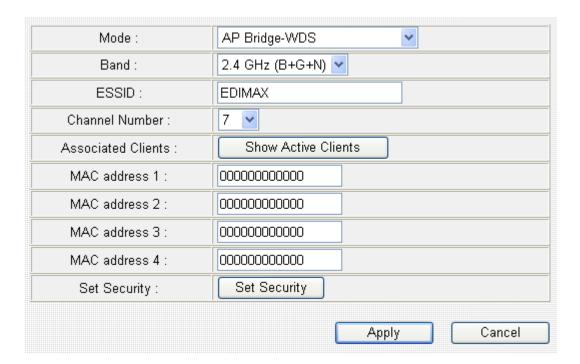


Please click 'Apply' to save changes you made and restart the broadband router, this requires about 30 seconds and the broadband router will stop responding (this is normal and is not malfunction). You can reconnect to this broadband router and continue on other settings later.

You can click 'Continue' to continue on other settings without restart the broadband router, however, the changes you made will not take effect before you restart the broadband router.

3-4-1-5 AP Bridge-WDS

In this mode, this broadband router acts as both wireless communication bridge and wireless access point. This broadband router can establish communication with up to four WDS-compatible wireless access points, and let all computers connected to the LAN ports of every wireless access points communicate with each other. The broadband router is able to serve other wireless clients and acts as a wireless access point at the same time.



Item Name	Description
Band	Please select the radio band from one of
	following options (must be the same with the
	wireless access point you wish to connect):
	2.4 GHz (B): 2.4GHz band, only allows
	802.11b wireless network client to connect this router (maximum transfer rate 11Mbps).
	2.4 GHz (N): 2.4GHz band, only allows

	802.11n wireless network client to connect this router (maximum transfer rate 150Mbps).
	romer (maximum transfer rate 1501/10ps).
	$2.4 \; GHz \; (B+G)$: $2.4 GHz \; band, \; only \; allows$
	802.11b and 802.11g wireless network client to
	connect this router (maximum transfer rate
	11Mbps for 802.11b clients, and maximum
	54Mbps for 802.11g clients).
	2.4 GHz (G): 2.4GHz band, only allows
	802.11g wireless network client to connect this
	router (maximum transfer rate 54Mbps).
	2.4 GHz (B+G+N): $2.4 GHz$ Band, Allows
	802.11b, 802.11g, and 802.11N wireless clients.
	It's recommends to select this band to maximize
	compatibility.
ESSID	This is the name of broadband router. You can
	type any alphanumerical characters here,
	maximum 32 characters. ESSID is used to
	identify your own broadband router from
	others when there are other broadband routers
	in the same area. Default SSID is 'default', it's
	recommended to change default ESSID value
	to the one which is meaningful to you, like
	myhome, office_room1, etc.
Channel Number	Select the channel number you wish to use; all
	access points must use the same channel.
Associated Clients	Click 'Show Active Clients' button to show
	the list of all connected wireless clients. You
	can click 'Refresh' in new window to get
	latest list again, or click 'Close' to close the
	window.
	Please note that if you have pop-up blocker
	installed, you may have to disable it or tell
	your pop-up blocker to allow the popup
	window, or you will not be able to see the

	wireless client list window.
MAC address 1 to 4	Input the MAC address of other wireless access
	points (the access points you wish to connect).
Set Security	Click 'Set Security' button to set security
	functions of this wireless connection to
	improve security. Please refer to chapter
	3-2-1-7 for detailed instructions.

When you finished with the settings in this page, you can click 'Apply' button to save changes you made in this page, or you can click 'Cancel' to discard changes. After you click 'Apply' button, you'll see the following messages:



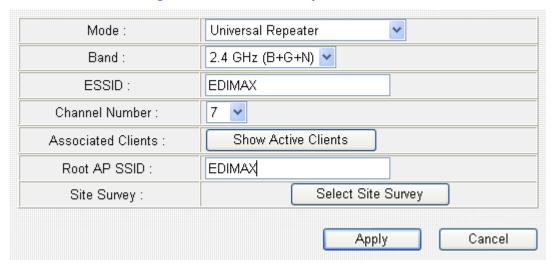
Please click 'Apply' to save changes you made and restart the broadband router, this requires about 30 seconds and the broadband router will stop responding (this is normal and is not malfunction). You can reconnect to this broadband router and continue on other settings later.

You can click 'Continue' to continue on other settings without restart the broadband router, however, the changes you made will not take effect before you restart the broadband router.

3-4-1-6 Universal Repeater

In this mode, this broadband router acts as a wireless repeater. It will repeat the signal of the wireless access point you specified, to extend its wireless coverage. The broadband router will still accept wireless clients when in this mode.

Note: You will not get this mode, when you enable WISP.



Item Name	Description
Band	Please select the radio band from one of following options (must be the same with the wireless access point you wish to connect):
	2.4 GHz (B): 2.4GHz band, only allows 802.11b wireless network client to connect this router (maximum transfer rate 11Mbps).
	2.4 GHz (N): 2.4GHz band, only allows 802.11n wireless network client to connect this router (maximum transfer rate 150Mbps).
	2.4 GHz (B+G): 2.4GHz band, only allows 802.11b and 802.11g wireless network client to connect this router (maximum transfer rate

	11Mbps for 802.11b clients, and maximum 54Mbps for 802.11g clients).
	2.4 GHz (G): 2.4GHz band, only allows 802.11g wireless network client to connect this router (maximum transfer rate 54Mbps).
	2.4 GHz (B+G+N): 2.4GHz Band, Allows 802.11b, 802.11g, and 802.11N wireless clients. It's recommends to select this band to maximize compatibility.
ESSID	This is the name of broadband router. You can type any alphanumerical characters here, maximum 32 characters. ESSID is used to identify your own broadband router from others when there are other broadband routers in the same area. Default SSID is 'default', it's recommended to change default ESSID value to the one which is meaningful to you, like myhome, office_room1, etc.
Channel Number	Select the channel number you wish to use; all access points must use the same channel.
Associated Clients	Click 'Show Active Clients' button to show the list of all connected wireless clients. You can click 'Refresh' in new window to get latest list again, or click 'Close' to close the window.
	Please note that if you have pop-up blocker installed, you may have to disable it or tell your pop-up blocker to allow the popup window, or you will not be able to see the wireless client list window.
Root AP SSID	Please input the SSID of the wireless access point you wish to extend signal coverage.
Site Survey	Click 'Select Site Survey' and a popup window will appear. All reachable wireless access points will be shown in the window. Select the

wireless access point you wish to connect from the list, and click 'Done'. If the wireless access point you wish to connect is not listed, you can click 'Refresh' to rescan.

If you still can't find the wireless access point you wish to connect, please move the broadband router to the place nearer to the access point you wish to connect.

When you finished with the settings in this page, you can click 'Apply' button to save changes you made in this page, or you can click 'Cancel' to discard changes. After you click 'Apply' button, you'll see the following messages:



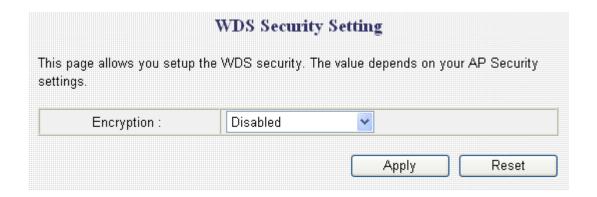
Please click 'Apply' to save changes you made and restart the broadband router, this requires about 30 seconds and the broadband router will stop responding (this is normal and is not malfunction). You can reconnect to this broadband router and continue on other settings later.

You can click 'Continue' to continue on other settings without restart the broadband router, however, the changes you made will not take effect before you restart the broadband router.

3-4-1-7 Set Security

In certain AP working modes, you can enable encryption to improve security level.

When you click 'Set Security' button, the following window will appear:

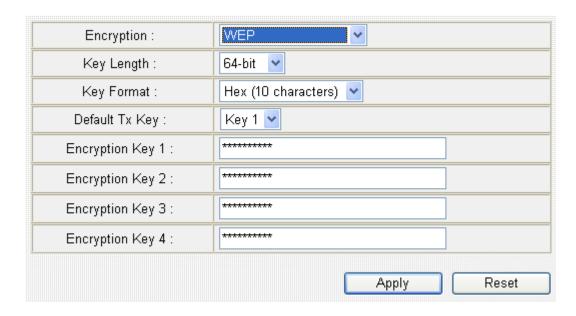


Please select an encryption method from 'Encryption' dropdown menu, and corresponding setting will appear:

Disabled

Encryption is disabled. It's **not recommended** to disable encryption because other people may use certain wireless scanner to copy the data transferred over air.

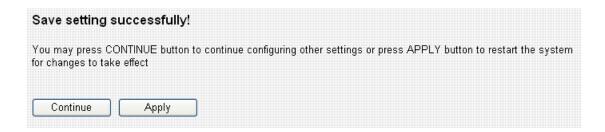
WEP
Select WEP to enable WEP (Wired Equivalent Privacy) encryption:



Item Name	Description
Key Length	There are two types of WEP key length: 64-bit
	and 128-bit. Using '128-bit' is safer
	than '64-bit', but will reduce some data
	transfer performance.
Key Format	There are two types of key format: ASCII and
	Hex. When you select a key format, the number
	of characters of key will be displayed. For
	example, if you select '64-bit' as key length,
	and 'Hex' as key format, you'll see the message
	at the right of 'Key Format' is 'Hex (10
	characters), which means the length of WEP
	key is 10 characters.
Default Tx Key	You can set up to four sets of WEP key, and you
	can decide which key is being used by default
	here. If you don't know which one you should
	use, select 'Key 1'.
Encryption Key 1 to 4	Input WEP key characters here, the number of
	characters must be the same as the number

displayed at 'Key Format' field. You can use any alphanumerical characters (0-9, a-z, and A-Z) if you select 'ASCII' key format, and if you select 'Hex' as key format, you can use characters 0-9, a-f, and A-F. You must enter at least one encryption key here, and if you entered multiple WEP keys, they should not be same with each other.

Please click 'Apply' to save changes, or click 'Reset' to clear the texts in all fields. If you click 'Apply', the following messages will appear:



You can click 'Continue' to back to previous page and continue setting, or click 'Apply' to restart the broadband router so the changes will take effect.

WPA pre-shared key

WPA (Wi-Fi Protected Access) is also an encryption method and is safer than WEP. It's recommended to use WPA instead of WEP when you need to use encryption to protect your data security.



Here are descriptions of every setup items:

Item Name	Description
WPA Unicast Cipher	Please select a type of WPA cipher suite.
Suite	Available options are: WPA (TKIP), WPA2
	(AES), and WPA2 Mixed. You can select one of
	them, but you have to make sure your wireless
	client support the cipher you selected.
Pre-shared Key	Select the type of pre-shared key, you
Format	can select Passphrase (8 or more
	alphanumerical characters, up to 63), or Hex
	(64 characters of 0-9, and a-f).
Pre-shared Key	Please input the WPA passphrase here.
	It's not recommended to use a word that can
	be found in a dictionary due to security
	reason.

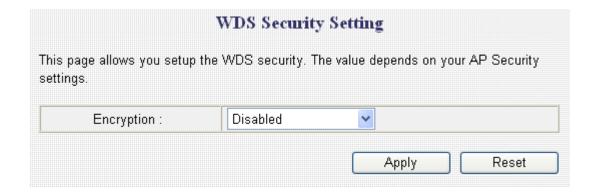
Please click 'Apply' to save changes, or click 'Reset' to clear the texts in all fields. If you click 'Apply', the following messages will appear:



You can click 'Continue' to back to previous page and continue setting, or click 'Apply' to restart the broadband router so the changes will take effect.

3-4-2 Security Settings

This wireless router supports two types of encryption: WEP (Wired Equivalent Privacy) and WPA (Wi-Fi Protected Access):

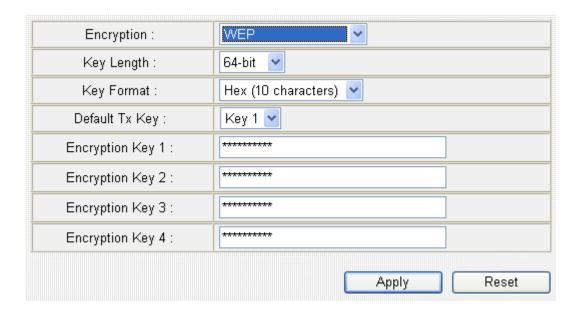


Please select an encryption method from 'Encryption' dropdown menu, and corresponding setting will appear:

Disabled

Encryption is disabled. It's **not recommended** to disable encryption because other people may use certain wireless scanner to copy the data transferred over air.

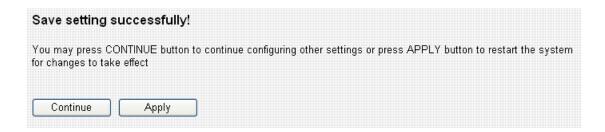
WEP
Select WEP to enable WEP (Wired Equivalent Privacy) encryption:



Item Name	Description
Key Length	There are two types of WEP key length: 64-bit
	and 128-bit. Using '128-bit' is safer
	than '64-bit', but will reduce some data
	transfer performance.
Key Format	There are two types of key format: ASCII and
	Hex. When you select a key format, the number
	of characters of key will be displayed. For
	example, if you select '64-bit' as key length,
	and 'Hex' as key format, you'll see the message
	at the right of 'Key Format' is 'Hex (10
	characters), which means the length of WEP
	key is 10 characters.
Default Tx Key	You can set up to four sets of WEP key, and you
	can decide which key is being used by default
	here. If you don't know which one you should
	use, select 'Key 1'.
Encryption Key 1 to 4	Input WEP key characters here, the number of
	characters must be the same as the number

displayed at 'Key Format' field. You can use any alphanumerical characters (0-9, a-z, and A-Z) if you select 'ASCII' key format, and if you select 'Hex' as key format, you can use characters 0-9, a-f, and A-F. You must enter at least one encryption key here, and if you entered multiple WEP keys, they should not be same with each other.

Please click 'Apply' to save changes, or click 'Reset' to clear the texts in all fields. If you click 'Apply', the following messages will appear:



You can click 'Continue' to back to previous page and continue setting, or click 'Apply' to restart the broadband router so the changes will take effect.

WPA pre-shared key

WPA (Wi-Fi Protected Access) is also an encryption method and is safer than WEP. It's recommended to use WPA instead of WEP when you need to use encryption to protect your data security.



Here are descriptions of every setup items:

Item Name	Description
WPA Unicast Cipher	Please select a type of WPA cipher suite.
Suite	Available options are: WPA (TKIP), WPA2
	(AES), and WPA2 Mixed. You can select one of
	them, but you have to make sure your wireless
	client support the cipher you selected.
Pre-shared Key	Select the type of pre-shared key, you
Format	can select Passphrase (8 or more
	alphanumerical characters, up to 63), or Hex
	(64 characters of 0-9, and a-f).
Pre-shared Key	Please input the WPA passphrase here.
	It's not recommended to use a word that can
	be found in a dictionary due to security
	reason.

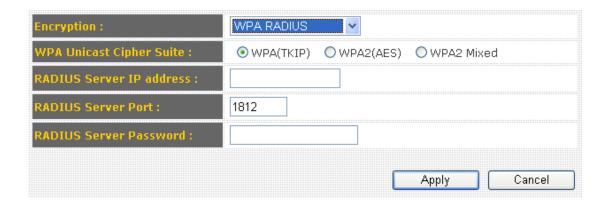
Please click 'Apply' to save changes, or click 'Reset' to clear the texts in all fields. If you click 'Apply', the following messages will appear:



You can click 'Continue' to back to previous page and continue setting, or click 'Apply' to restart the broadband router so the changes will take effect.

WPA RADIUS

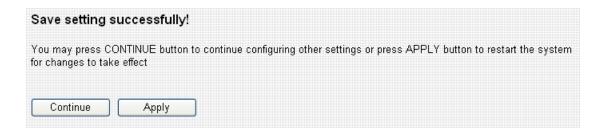
If you have RADIUS authentication server on your local network, you can authenticate the wireless clients by RADIUS server's user database. Only authenticated clients can establish wireless connection with this broadband router.



Here are descriptions of every setup items:

Item Name	Description
WPA Unicast Cipher	Please select a type of WPA cipher suite.
Suite	Available options are: WPA (TKIP), WPA2
	(AES), and WPA2 Mixed. You can select one of
	them, but you have to make sure your wireless
	client support the cipher you selected.
RADIUS Server IP	Input the IP address of RADIUS authentication
address	server here.
RADIUS Server Port	Input the port number of RADIUS
	authentication server here. Most of RADIUS
	server will use port number 1812 and you can
	keep using default value.
RADIUS Server	Input the password of RADIUS authentication
Password	server here.

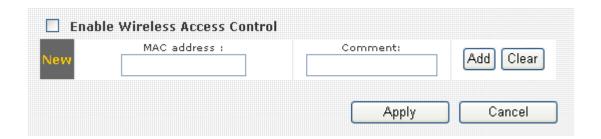
Please click 'Apply' to save changes, or click 'Reset' to clear the texts in all fields. If you click 'Apply', the following messages will appear:



You can click 'Continue' to back to previous page and continue setting, or click 'Apply' to restart the broadband router so the changes will take effect.

3-4-3 MAC Address Filtering

This function will help you to prevent unauthorized users from connecting to your wireless router; only those wireless devices who have the MAC address you assigned here can gain access to your wireless router. You can use this function with other security measures described in previous section, to create a safer wireless environment. Up to 20 MAC addresses can be assigned.



To enable MAC address filtering, please check 'Enable Wireless Access Control' box in this page, the descriptions of other setting items are listed as follow:

Item Name	Description
MAC address	Input the MAC address you wish to add to the
	MAC address to the table.
Comment	You can input any text here as the comment of
	this MAC address, like 'ROOM 2A Computer'
	or anything. You can input up to 16
	alphanumerical characters here. This is
	optional and you can leave it blank, however,
	it's recommended to use this field to write a
	comment for every MAC addresses as a
	memory aid.
Add	Click 'Add' button to add the MAC address and
	associated comment to the MAC address
	filtering table.
Clear	Click 'Clear' to remove the value you inputted
	in MAC address and comment field.

All MAC address entries will be listed in this page:

NO.	MAC address	Comment	Select
1	11:22:33:44:55:66	John's Computer	
	aa:bb:cc:dd:ee:ff		
	Doloto Goldotoa		

To delete one or more entries listed here, please check the box of the mapping entry (under 'Select'), and click 'Delete Selected' button.

If you wish to delete all mapping entries, click 'Delete All' button. To deselect all checked boxes, click 'Reset' button.

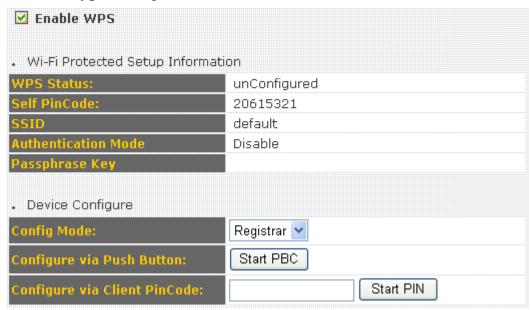
When you finished with the settings in this page, you can click 'Apply' button to save changes you made in this page, or you can click 'Cancel' to discard changes. After you click 'Apply' button, you'll see the following messages:



Please click 'Apply' to save changes you made and restart the broadband router, this requires about 30 seconds and the broadband router will stop responding (this is normal and is not malfunction). You can reconnect to this broadband router and continue on other settings later.

3-4-4 WPS

WPS (Wi-Fi Protected Setup) provides a convenient way to establish the connection between this broadband router and wireless clients. Any WPS-compatible wireless clients can establish secure connection with this broadband router with simple push-button type configuration or PinCode type configuration.

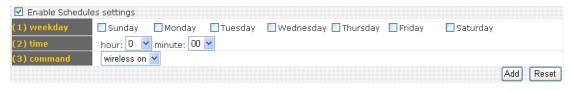


Item Name	Description
Enable WPS	Check this box to enable WPS function,
	uncheck it to disable WPS.
WPS Status	If the wireless security (encryption) function of
	this wireless router is properly set, you'll see
	'Configured' message here. If wireless security
	function has not been set, you'll see
	'unConfigured'.
Self PIN code	This is the WPS PIN code of this wireless
	router. This code is useful when you need to
	build wireless connection by WPS with other
	WPS-enabled wireless devices.
SSID	The SSID of this wireless router will be
	displayed here.
Authentication Mode	The wireless security authentication mode of

	this wireless router will be displayed here.
Passphrase Key	The WPA passphrase will be displayed as asterisk here.
Config Mode	Select the WPS configuration role of this broadband router.
	Registrar: This broadband router will act as WPS registrar and wait for wireless clients to send WPS configuration request.
	Enrollee: This broadband router will act as WPS enrollee and send WPS configuration request to other WPS registrar.
Configure via Push Button	Click 'Start PBC' to start Push-Button type WPS configuration (PBC). Please push the WPS push-button on other WPS-compatible network devices to begin WPS configuration.
	You can also push the 'WPS / Reset' button located at the back of this broadband router to start PBC without using web configuration interface.
Configure via Client PinCode	Please input the PinCode displayed at the configuration software of WPS-enabled wireless client, and click 'Start PIN' to establish connection with the wireless client.

3-4-5 Wireless Schedule

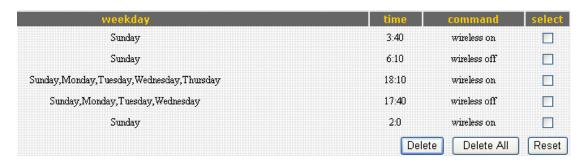
By wireless schedule, you can restrict wireless clients (computers) from accessing improper website. Because you can setup time and you can enable/disable router's wireless signal to control schedule of Internet access.



Item Name	Description
Enable Schedule	Check this box to enable Schedule function,
settings	uncheck it to disable Wireless Schedule .
Weekday	Where you can select a day or several days.
Time	Enter a start time for the schedule.
Command	Wireless on or Wireless off (Enable or Disable
	wireless signal for the schedule)

Note: The function is not workable, if you disable wireless hardware button (back panel).

Click "Add", the list of schedules will be listed here.



3-5 Advance Settings*

This router provides various network functionalities like QoS and NAT, and you can configure these functions in 'Advanced Settings' menu.

•	QoS	Quality of Service (QoS) refers to the capability of a network to provide better service to selected network traffic. The primary goal of QoS is to provide priority including dedicated bandwidth, controlled jitter and latency (required by some real-time and interactive traffic), and improved loss characteristics. Also important is making sure that providing priority for one or more flows does not make other flows fail.
•	NAT	Network Address Translation (NAT) allows multiple users at your local site to access the Internet through a single Public IP Address or multiple Public IP Addresses. 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 the Web or FTP.
•	Firewall	The Broadband router provides extensive firewall protection by restricting connection parameters, thus limiting the risk of hacker attack, and defending against a wide array of common attacks. However, for applications that require unrestricted access to the Internet, you can configure a specific client/server as a Demilitarized Zone (DMZ).
•	DDNS	DDNS allows users to map the static domain name to a dynamic IP address. You must get a account, password and your static domain name from the DDNS service providers. Our products have DDNS support for www.dyndns.org and www.tzo.com now.
•	Port Forwarding	Entries in this table allow you to automatically redirect common network services to a specific machine behind the NAT firewall. These settings are only necessary if you wish to host some sort of server like a web server or mail server on the private local network behind your Gateway's NAT firewall.
•	DMZ(Demilitarized Zone)	If you have a local client PC that cannot run an Internet application properly from behind the NAT firewall, then you can open the client up to unrestricted two-way Internet access by defining a Virtual DMZ Host.

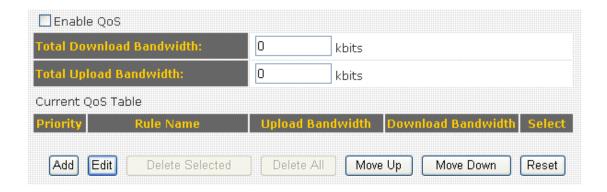
Please select the function you wish to set, then click 'Apply' button. If you wish to go back to previous page, click 'Previous' button.

3-5-1 QoS

Quality of service provides an efficient way for computers on the network to share the internet bandwidth with a promised quality of internet service. Without QoS, all computers and devices on the network will compete with each other to get internet bandwidth, and some applications which require guaranteed bandwidth (like video streaming and network telephone) will be affected, therefore an unpleasing result will occur, like the interruption of video / audio transfer.

With this function, you can limit the maximum bandwidth or give a guaranteed bandwidth for a specific computer, to avoid said unpleasing result from happening.

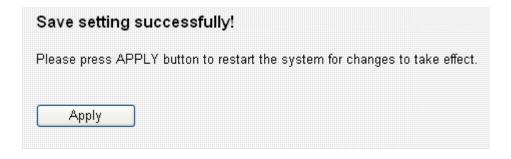
3-5-1-1 Basic QoS Settings



Item Name	Description
Enable QoS	Check this box to enable QoS function,
	uncheck it to disable QoS.
Total Download	You can set the limit of total download
Bandwidth	bandwidth in kbits. To disable download
	bandwidth limitation, input '0' here.
Total Upload	You can set the limit of total upload bandwidth
Bandwidth	in kbits. To disable upload bandwidth
	limitation, input '0' here.
Add	Click 'add' button to add a new QoS rule
	(detailed instructions will be given below).

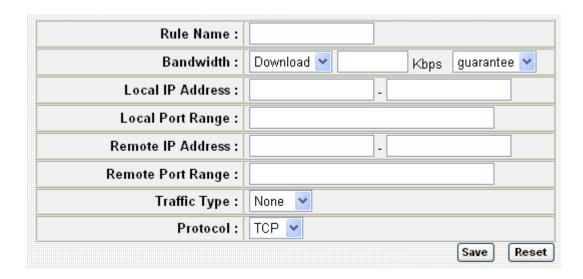
Edit	If you want to modify the content of a specific
	rule, please check the 'select' box of the rule
	you want to edit, then click 'Edit' button. Only
	one rule should be selected a time! If you
	didn't select a rule before clicking 'Edit'
	button, you'll be prompted to add a new rule.
Delete Selected	You can delete selected rules by clicking this
	button. You can select one or more rules to
	delete by check the 'select' the box of the
	rule(s) you want to delete a time. If the QoS
	table is empty, this button will be grayed out
	and can not be clicked.
Delete All	By clicking this button, you can delete all rules
	currently listed in the QoS table. If the QoS
	table is empty, this button will be grayed out
	and can not be clicked.
Move Up	Move selected item up.
Move Down	Move selected item down.
Reset	If you want to erase all values you just entered.
	Click 'Reset'

When you finished with the settings in this page, you can click 'Apply' button to save changes you made in this page, or you can click 'Cancel' to discard changes. After you click 'Apply' button, you'll see the following messages:



3-5-1-2 Add a new QoS entry

After you click 'Add' button in QoS menu, a new setting page will appear:



Item Name	Description
Rule Name	Please give a name to this QoS rule (up to 15
	alphanumerical characters).
Bandwidth	Set the bandwidth limitation of this QoS rule.
	You have to select the data direction of this rule
	(Upload of Download), and the speed of
	bandwidth limitation in Kbps, then select the
	type of QoS: 'guarantee' (guaranteed usable
	bandwidth for this rule) or 'max' (set the
	maximum bandwidth for the application
	allowed by this rule).
Local IP Address	Specify the local (source) IP address that will
	be affected by this rule. Please input the
	starting IP address in the left field, and input
	the end IP address in the right field to define a
	range of IP addresses, or just input the IP
	address in the left field to define a single IP
	address.
Local Port Range	Please input the range of local (source) port

Remote IP Address	number that will be affected by this rule. If you want to apply this rule on port 80 to 90, please input '80-90'; if you want to apply this rule on a single port, just input the port number, like '80' Specify the remote (destination) IP address that
	will be affected by this rule. Please input the starting IP address in the left field, and input the end IP address in the right field to define a range of IP addresses, or just input the IP address in the left field to define a single IP address.
Remote Port Range	Please input the range of remote (destination) port number that will be affected by this rule. If you want to apply this rule on port 80 to 90, please input '80-90'; if you want to apply this rule on a single port, just input the port number, like '80'. If the remote (destination) IP address and /or port number is universal, just leave it blank.
Traffic Type	Please select the traffic type of this rule, available options are None, SMTP, HTTP, POP3, and FTP. You can select a specific traffic type for this rule, if you want to make this rule as a IP address based rule (apply the limitation on all traffics from / to the specified IP address / port number), select 'None'.
Protocol	Please select the protocol type of this rule, available options are TCP and UDP. If you don't know what protocol your application uses, please try 'TCP' first, and switch to 'UDP' if this rule doesn't seems to work.

Please click 'save' button to save settings, and the rule you just set will appear in current QoS table; if you did anything wrong, you'll get an error message when you click 'Save' button, please correct your input by the instructions given by the error message. If you want to erase all values you just entered, click 'Reset'.

3-5-2 NAT

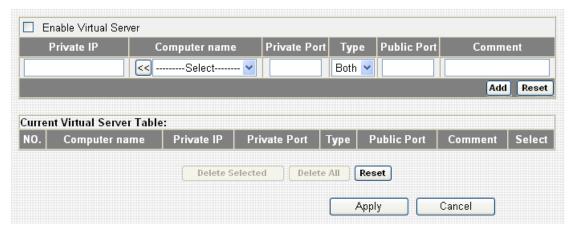
Network address translations solve the problem if sharing a single IP address to multiple computers. Without NAT, all computers must be assigned with a valid Internet IP address to get connected to Internet, but Internet service providers only provide very few IP addresses to every user. Therefore it's necessary to use NAT technology to share a single Internet IP address to multiple computers on local network, so everyone can get connected to Internet.



This broadband router supports four types of NAT functions, and the instructions of these functions will be given below.

3-5-2-1 Virtual Server

This function allows you to redirect a port on Internet IP address (on WAN port) to a specified port of an IP address on local network, so you can setup an Internet service on the computer on local network, without exposing it on Internet directly. You can also build many sets of port redirection, to provide many different Internet services on different local computers via a single Internet IP address.



Item Name	Description
Enable Virtual Server	Check this box to enable virtual server, and
	uncheck this box to disable virtual server.
Private IP	Input the IP address of the computer which
	provides Internet service.
Computer name	All computer names found by this broadband
	router on local network will be listed here. You
	can select the computer name and click '<<'
	button to add selected computer's IP address to
	'Private IP' field.
	Please note that this list may not be able to list
	all computers on your local network.
Private Port	Input the port number of the IP address which provides Internet service.
Tung	1
Type	Select the type of connection, TCP or UDP. If
	you're not sure, please select 'Both'
Public Port	Please select the port number of Internet IP

	address which will be redirected to the port
	number of local IP address defined above.
Comment	Please input any text to describe this mapping,
	up to 16 alphanumerical characters.
Add	Add the mapping to virtual server table.
Reset	Remove all inputted values.

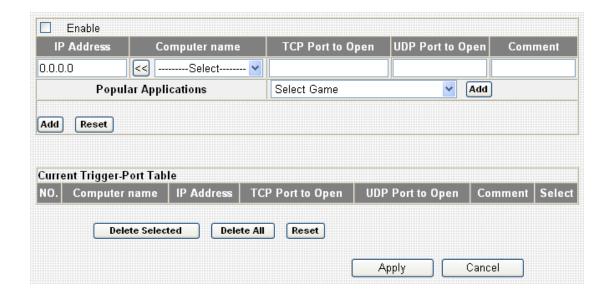
All existing virtual server mappings will be displayed in this page. To delete one or more mappings, check the box of the mapping, then click 'Delete Selected' button to remove the mapping. To delete all existing mappings, click 'Delete All' button. If you want to uncheck all boxes, click 'Reset'.

When you finished with the settings in this page, you can click 'Apply' button to save changes you made in this page, or you can click 'Cancel' to discard changes. After you click 'Apply' button, you'll see the following messages:



3-5-2-2 Special Applications

Some applications require more than one connection a time; these applications won't work with simple NAT rules. In order to make these applications work, you can use this function to let these applications work.



Item Name	Description
Enable	Check this box to enable support for special
	applications, and uncheck this box to disable
	this support.
IP Address	Input the IP address of the computer which is
	going to use the special application.
Computer name	All computer names found by this broadband router on local network will be listed here. You can select the computer name and click '<<' button to add selected computer's IP address to 'IP Address' field.
TCP Port to Open	Please note that this list may not be able to list all computers on your local network. Input the TCP port number required by the
	special application, the port number can be a

	single value, or a range (like 20-50). If you need to input more than one port number and they're not contiguous, list all port numbers here and separate them by comma (,). If the application does not use TCP port, leave it blank.
UDP Port to Open)	Input the UDP port number required by the special application, the port number can be a single value, or a range (like 20-50). If you need to input more than one port number and they're not contiguous, list all port numbers here and separate them by comma (,). If the application does not use UDP port, leave it blank.
Comment	You can input any text here to help you remember the purpose of this item. This is optional.
Select Game	This router comes with a numerous port mapping settings of network games. If the game you wish to set is listed here, you can select it from dropdown menu.
	After a game is selected, click 'Add' (the one next to 'Select Game' dropdown list) to add the connection parameters to all respective fields.
Add	Click this button to add a new port mapping rule to special applications table.
Reset	Click this button to remove all values in every field.

All existing special application mappings will be displayed in this page. To delete one or more mappings, check the box of the mapping, then click 'Delete Selected' button to remove the mapping. To delete all existing mappings, click 'Delete All' button. If you want to uncheck all boxes, click 'Reset'.

When you finished with the settings in this page, you can click 'Apply' button to save changes you made in this page, or you can click 'Cancel' to discard changes. After you click 'Apply' button, you'll see the following messages:



3-5-2-3 UPnP Settings



Parameters	Default	Description
UPnP Feature	Disable	You can Enable or Disable UPnP feature here. After you enable the UPnP feature, all client systems that support UPnP, like Windows XP, can discover this router automatically and access the Internet through this router without any configuration. The NAT Traversal function provided by UPnP can let applications which support UPnP smoothly connect to Internet websites and avoid any incompatibility problem due to the NAPT port translation.

Click **Apply**> at the bottom of the screen to save the configurations. You can now configure other advance sections or start using the router.

3-5-2-4 ALG Settings

You can select applications that require "Application Layer Gateway" support.

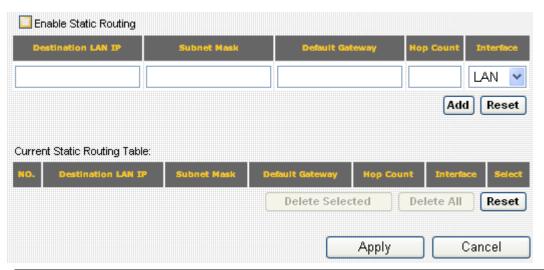
Enable	Name	Comment	
V	Amanda	Support for Amanda backup tool protocol.	
~	Egg	Support for eggdrop bot networks.	
V	FTP	Support for FTP.	
~	H323	Support for H323/netmeeting.	
V	IRC	Allows DCC to work though NAT and connection tracking.	
V	MMS	Support for Microsoft Streaming Media Services protocol.	
V	Quake3	Support for Quake III Arena connection tracking and nat.	
~	Talk	Allows netfilter to track talk connections.	
~	TFTP	Support for TFTP.	
~	IPsec	Support for IPsec pass-through	
	Starcraft	Support for Starcraft/Battle.net game protocol.	
	MSN	Support for MSN file tranfer.	
		Apply Cancel	

Parameters	Default	Description
Enable		You can enable "Application Layer Gateway" function, and the router will let selected application correctly pass though the NAT gateway.

Click **Apply**> at the bottom of the screen to save the configurations. You can now configure other advance sections or start using the router.

3-5-2-5 Static Routing

This router provides static routing function, and the static routing can work with NAT (IP Sharing) function. With static routing, the router can forward packets according to your routing rules.



Parameters	Description
Enable Static Routing	Static routing function is disabled by default. You have to enable the static routing function, to make your routing rules take effect.
Destination LAN IP	The network address of destination LAN.
Subnet Mask	The subnet mask of destination LAN.
Default Gateway	The next stop gateway of the path toward the destination LAN. This is the IP of the neighbor router that this router should communicate with on the path to the destination LAN.
Hop Count	The number of hops (routers) to pass through to reach the destination LAN.
Interface	The interface that go to the next hop (router).
Add a Rule	Fill in the "Destination LAN IP", "Subnet Mask", "Default Gateway", "Hop Count" and "Interface" of the rule to be added and click "Add". Then this static routing rule will be added to the "Static Routing Table" listed below. If you found any typo before adding it and want to correct it, just click "Reset" and the fields will be cleared.

Remove a Rule	If you want to remove some routing rules from the "Static Routing Table", select the rules you want to remove in the table and click "Delete Selected". If you want remove all rules from the table, just click "Delete All" button. Click "Reset" will clear your current selections.
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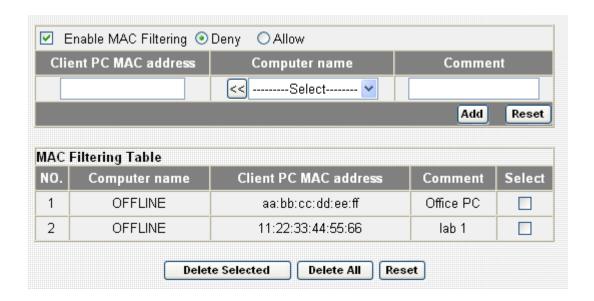
Click **Apply**> at the bottom of the screen to save the configurations. You can now configure other advance sections or start using the router.

3-5-3 Firewall

This broadband router supports several firewall functions which will help you to protect your network and computer. In this chapter, instructions for using these functions will be given, so you can utilize these functions to protect your network from hackers and malicious intruders.

3-5-3-1 Access Control

By using access control, you can restrict your computers from accessing improper website, or using disallowed applications. You can even only allow computers with certain MAC address to access the network, or deny the computers in the list from accessing your network.



Item Name	Description
Enable MAC Filtering	Check this box to enable MAC address based
	filtering, and please select 'Deny' or 'Allow' to
	decide the behavior of MAC filtering table. If
	you select deny, all MAC addresses listed in
	filtering table will be denied from connecting
	to the network; if you select allow, only MAC
	addresses listed in filtering table will be able to
	connect to the network, and rejecting all other

	network devices.
Client PC MAC address	Please input the MAC address of computer or network device here, dash (-) or colon (:) are not required. (i.e. If the MAC address label of your wireless device indicates 'aa-bb-cc-dd-ee-ff' or 'aa:bb:cc:dd:ee:ff', just input 'aabbccddeeff'
Computer Name	All computer names found by this broadband router on local network will be listed here. You can select the computer name and click '<<' button to add selected computer's IP address to 'Private IP' field. Please note that this list may not be able to list all computers on your local network.
Comment	You can input any text here as the comment of this MAC address, like 'ROOM 2A Computer' or anything. You can input up to 16 alphanumerical characters here. This is optional and you can leave it blank, however, it's recommended to use this field to write a comment for every MAC addresses as a memory aid.
Add	Click 'Add' button to add the MAC address and associated comment to the MAC address filtering table.
Reset	Remove all inputted values.

All MAC address entries will be listed in this page:

NO.	Computer name	name Client PC MAC address	Comment	Select
1	OFFLINE	aa:bb:cc:dd:ee:ff	Office PC	
2	OFFLINE	11:22:33:44:55:66	lab 1	

To delete one or more entries listed here, please check the box of the mapping entry (under 'Select'), and click 'Delete Selected' button.

If you wish to delete all mapping entries, click 'Delete All' button. To deselect all checked boxes, click 'Reset' button.

If you wish to use IP address-based filtering, please use 'IP Filtering Table' in this page:



Please check 'Enable IP Filtering Table' box first, and select 'Deny' or 'Allow' to decide the behavior of IP filtering table (Deny the access of IP addresses in the list, or allow the access of IP addresses in the list). You have to click 'Add PC' button to add a new IP address to the list:



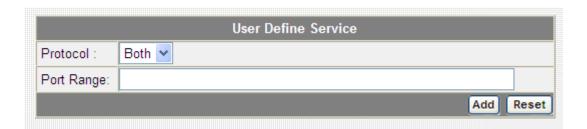
Item Name	Description
Client PC Description	Please input any text to describe this IP
	address, up to 16 alphanumerical characters.
Client PC IP address	Please input the starting IP address in the left
	field, and input the end IP address in the right
	field to define a range of IP addresses, or just input the IP address in the left field to define a
	input the IP address in the left field to define a
	single IP address.

You also have to select the type of Internet services that will be applied to this access control rule from the list:

Client PC Service :		
Service Name	Detail Description	Select
WWW	HTTP, TCP Port 80, 3128, 8000, 8080, 8081	
E-mail Sending	SMTP, TCP Port 25	
News Forums	NNTP, TCP Port 119	
E-mail Receiving	POP3, TCP Port 110	
Secure HTTP	HTTPS, TCP Port 443	
File Transfer	FTP, TCP Port 21	
MSN Messenger	TCP Port 1863	
Telnet Service	TCP Port 23	
AIM	AOL Instant Messenger, TCP Port 5190	
NetMeeting	H.323, TCP Port 389,522,1503,1720,1731	
DNS	UDP Port 53	
SNMP	UDP Port 161, 162	
VPN-PPTP	TCP Port 1723	
VPN-L2TP	UDP Port 1701	
TCP	All TCP Port	
UDP	All UDP Port	

You can select multiple services here. If you wish to deny or allow all services of certain IP address(es), please select both 'TCP' and 'UDP'.

If the service you wish to deny or allow is not listed, you can use 'User Define Service' table to add a new service of your own:



Here are descriptions of every setup items:

Item Name	Description
Protocol	Please select the protocol type of this service:
	TCP or UDP, or 'Both'.
Port Range	Please input the port range if this service. For a single port number, just input the number of service port (like '110').
	If this service consists multiple continuous ports, you can input '110-120' for port number 110 to 120, or '110,115,120' for port number 110, 115, and 120.

Click 'Add' to add this IP address restriction rule to the list (and back to previous page), or click 'Reset' to clear all texts in every field.

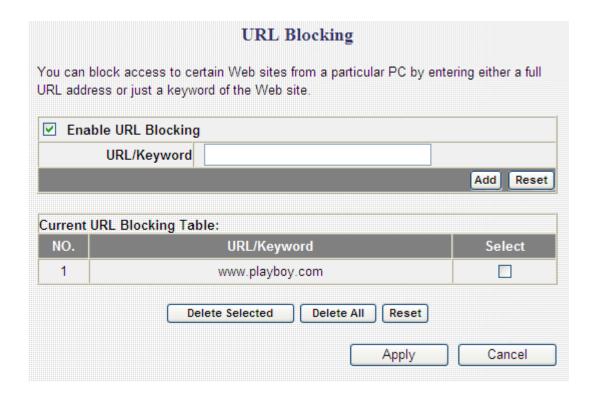
When you finished with the settings in this page, you can click 'Apply' button to save changes you made in this page, or you can click 'Cancel' to discard changes. After you click 'Apply' button, you'll see the following messages:



3-5-3-2 URL Blocking

If you want to prevent computers in local network from accessing certain website (like pornography, violence, or anything you want to block), you can use this function to stop computers in local network from accessing the site you defined here.

This function is useful for parents and company managers. Please follow the following instructions to set URL blocking parameters: Please click 'Firewall' menu on the left of web management interface, then click 'URL Blocking', and the following message will be displayed on your web browser:



Item Name	Description
Enable URL Blocking	Check this box to enforce URL Blocking,
	uncheck it to disable URL Blocking.
URL/Keyword	Input the URL (host name or IP address of
	website, like http://www.blocked-site.com or
	http://11.22.33.44), or the keyword which is

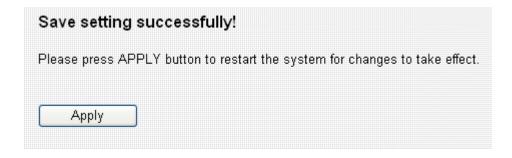
	contained in URL (like pornography, cartoon,
	stock, or anything).
Add	Click 'Add' button to add the URL / keyword to
	the URL / Keyword filtering table.
Reset	Click 'Reset' to remove the value you inputted
	in URL/Keyword field.

All existing URLs will be displayed in 'Current URL Blocking Table':



If you want to delete a specific URL/Keyword entry, check the 'select' box of the MAC address you want to delete, then click 'Delete Selected' button. (You can select more than one MAC addresses). If you want to delete all URL/Keyword listed here, please click 'Delete All' button, or you can also click 'Reset' button to unselect all URL/Keywords.

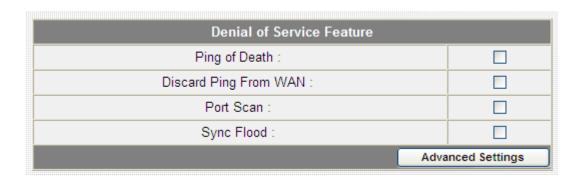
When you finished with the settings in this page, you can click 'Apply' button to save changes you made in this page, or you can click 'Cancel' to discard changes. After you click 'Apply' button, you'll see the following messages:



3-5-3-3 DoS

Denial of Service (DoS) is a common attack measure, by transmitting a great amount of data or request to your Internet IP address and server, the Internet connection will become very slow, and server may stop responding because it is not capable to handle too much traffics.

This router has a built-in DoS attack prevention mechanism; when you activate it, the router will stop the DoS attack for you:



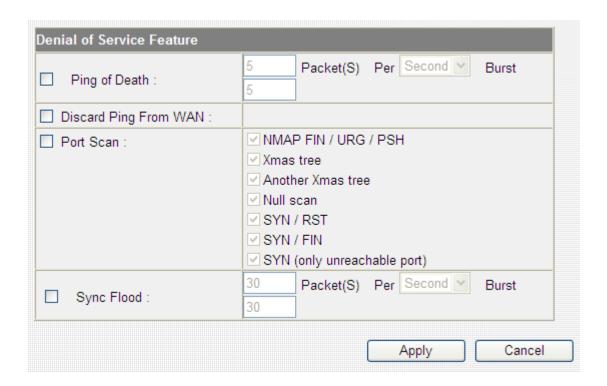
Here lists four kinds of DoS attacks, please select the type of DoS attack you wish this broadband router to protect, and you can select multiple types of attacks.

The descriptions of every DoS attack is listed below:

Item Name	Description
Ping of Death	Ping of Death is a special packet, and it will
	cause certain computer to stop responding.
	Check this box and the router will filter this
	kind of packet out.
Discard Ping From	Ping is a common and useful tool to know
WAN	the connection status of a specified remote
	network device, but some malicious intruder
	will try to fill your network bandwidth with a
	lot of PING request data packet, to make your
	internet connection become very slow, even
	unusable. Check this box and the router will
	ignore all inbound PING request, but when you
	activate this function, you will not be able to

	ping your own router from internet, too.
Port Scan	Some malicious intruder will try to use a 'port scanner' to know how many ports of your
	Internet IP address are open, and they can
	collect a lot of valuable information by doing
	so. Check this box and the router will block all
	traffics which are trying to scan your Internet
	IP address.
Sync Flood	This is another kind of attack, which uses a lot
	of fake connection request to consume the
	memory of your server, and try to make your
	server become unusable. Check this box and
	the router will filter this kind of traffic out.

If you need to specify the details of every DoS attack, please click 'Advanced Settings' button, and the following settings will appear:

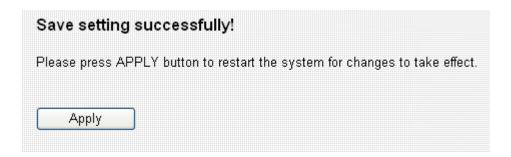


The descriptions of every DoS attack is listed below:

Item Name	Description
Ping of Death	Set the threshold of when this DoS prevention
	mechanism will be activated. Please check the

Discard Ping From WAN	box of Ping of Death, and input the frequency of threshold (how many packets per second, minute, or hour), you can also input the 'Burst' value, which means when this number of 'Ping of Death' packet is received in very short time, this DoS prevention mechanism will be activated. Check the box to activate this DoS prevention mechanism.
Port Scan	Many kind of port scan methods are listed here, please check one or more DoS attack methods you want to prevent.
Sync Flood	Like Ping of Death, you can set the threshold of when this DoS prevention mechanism will be activated.

When you finished with the settings in this page, you can click 'Apply' button to save changes you made in this page, or you can click 'Cancel' to discard changes. After you click 'Apply' button, you'll see the following messages:



3-5-4 DDNS

DDNS (Dynamic DNS) is a IP-to-Hostname mapping service for those Internet users who don't have a static (fixed) IP address. It will be a problem when such user wants to provide services to other users on Internet, because their IP address will vary every time when connected to Internet, and other user will not be able to know the IP address they're using at a certain time.

This router supports DDNS service of following service providers:

3322 (http://www.3322.org/)

DHS (http://www.dhs.org)

DynDNS (http://www.dyndns.org/)

ODS (http://ods.org)

TZO (http://www.tzo.com/)

GnuDIP (http://gnudip2.sourceforge.net/)

DyNS (http://www.dyns.cx/)

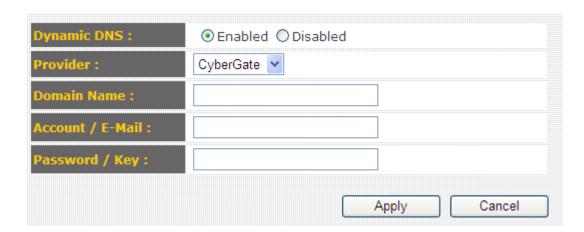
ZoneEdit (http://www.zoneedit.com)

DHIS (http://www.dhis.org/)

CyberGate (http://cybergate.planex.co.jp/ddns/)

NS2GO (http://ns.ns2go.com/)

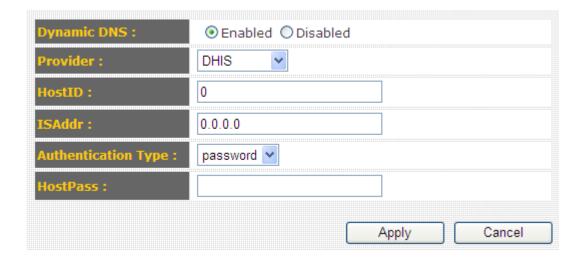
Please go to one of DDNS service provider's webpage listed above, and get a free DDNS account by the instructions given on their webpage. After that, you can use the DDNS page to setup DDNS parameters to use DDNS service:



Here are descriptions of every setup items:

Item Name	Description
Dynamic DNS	If you want to enable DDNS function, please
	select 'Enabled'; otherwise please select
	'Disabled'
Provider	Select your DDNS service provider here.
Domain Name	Input the domain name you've obtained from
	DDNS service provider.
Account / E-Mail	Input account or email of DDNS registration.
Password / Key	Input DDNS service password or key.

If your DDNS provider is 'DHIS', the settings will be different:



Item Name	Description
HostID	Please input the HostID you applied during
	DHIS registration.
ISAddr	Please input the ISAddr you applied during
	DHIS registration.
Authentication Type	Please select the DHIS user authentication type
	from dropdown menu: password or QRC.
HostPass	Please input the HostID you applied during
	DHIS registration.
	(This field will appear only when

	authentication type is password).
AuthP / AuthQ	Please input the AuthP/AuthQ you applied during DHIS registration.
	(This field will appear only when authentication type is QRC).

When you finished with the settings in this page, you can click 'Apply' button to save changes you made in this page, or you can click 'Cancel' to discard changes. After you click 'Apply' button, you'll see the following messages:

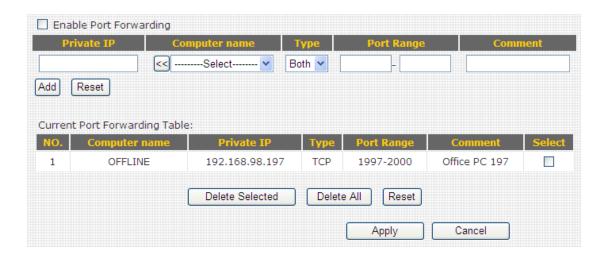


3-5-5 Port Forwarding

This function allows you to redirect a single port or consecutive ports of Internet IP address to the same port of the IP address on local network. The port number(s) of Internet IP address and private IP address (the IP address on local network) must be the same.

If the port number of Internet IP address and private IP address is different, please use 'Virtual Server' function.

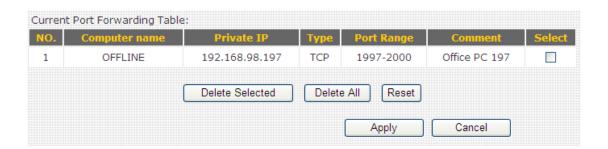
The port forwarding setting page looks like this:



Item Name	Description
Enable Port	Check this box to enable port forwarding, and
Forwarding	uncheck this box to disable port forwarding.
Private IP	Input the IP address of the computer on local
	network which provides internet service.
Computer name	All computer names found by this broadband router on local network will be listed here. You can select the computer name and click '<<' button to add selected computer's IP address to 'Private IP' field.
	Please note that this list may not be able to list
	all computers on your local network.

Туре	Select the type of connection, TCP or UDP. If you're not sure, please select 'Both'.
Port Range	Input the starting port number in the left field, and input the ending port number in the right field. If you only want to redirect a single port number, just fill the port number in the left field.
Comment	Please input any text to describe this mapping, up to 16 alphanumerical characters.
Add	Add the mapping to port forwarding table.
Reset	Remove all inputted values.

All existing URLs will be displayed in 'Current URL Blocking Table':



If you want to delete a specific port forwarding entry, check the 'select' box of the port forwarding entry you want to delete, then click 'Delete Selected' button. (You can select more than one port forwarding entries). If you want to delete all port forwarding entries listed here, please click 'Delete All' button or you can also click 'Reset' button to unselect all port forwarding entries.

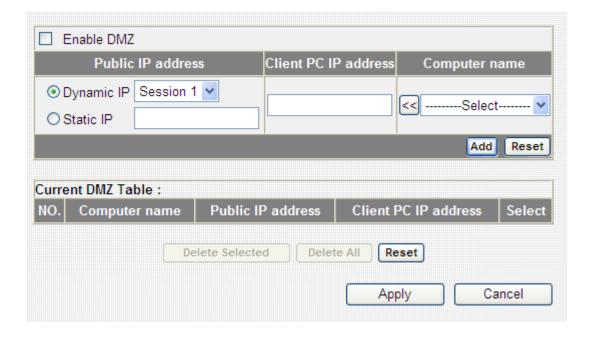
When you finished with the settings in this page, you can click 'Apply' button to save changes you made in this page, or you can click 'Cancel' to discard changes. After you click 'Apply' button, you'll see the following messages:



3-5-6 DMZ

Demilitarized Zone (DMZ) is a special area in your local network. This area resides in local network, and all computers in this area uses private IP address, too. But these private IP addresses are mapped to a certain Internet IP address, so other people on Internet can fully access those computers in DMZ.

The DMZ setting page looks like this:



Item Name	Description
Enable DMZ	Check this box to enable DMZ function,
	uncheck this box to disable DMZ function.
Public IP address	You can select 'Dynamic IP' or 'Static IP' here.
	If you select 'Dynamic IP', you have to select
	an Internet connection session from dropdown
	menu; if you select 'Static IP', please input the
	IP address that you want to map to a specific
	private IP address.
Client PC IP address	Please input the private IP address that the
	Internet IP address will be mapped to.
Туре	Select the type of connection, TCP or UDP. If

	you're not sure, please select 'Both'.
Port Range	Input the starting port number in the left field, and input the ending port number in the right field. If you only want to redirect a single port number, just fill the port number in the left field.
Comment	Please input any text to describe this mapping, up to 16 alphanumerical characters.
Add	Add the mapping to port forwarding table.
Reset	Remove all inputted values.

NOTE: Please note that every public IP address can be mapped to a single Client PC IP address only.

All existing DMZ entries will be displayed in 'Current DMZ Table':



If you want to delete a specific DMZ entry, check the 'select' box of the DMZ entry you want to delete, then click 'Delete Selected' button. (You can select more than one DMZ entries). If you want to delete all DMZ entries listed here, please click 'Delete All' button or you can also click 'Reset' button to unselect all DMZ entries.

When you finished with the settings in this page, you can click 'Apply' button to save changes you made in this page, or you can click 'Cancel' to discard changes. After you click 'Apply' button, you'll see the following messages:



Please click 'Apply' to save changes you made and restart the broadband router, this requires about 30 seconds and the broadband router will stop responding (this is normal and is not malfunction). You can reconnect to this broadband router and continue on other settings later.

Chapter IV EZ View

Many network devices like printer, IP camera, and multi-media adapters support UPnP (Universal PnP) function. Those UPnP-compatible devices can communicate with each other, and make appropriate configurations.

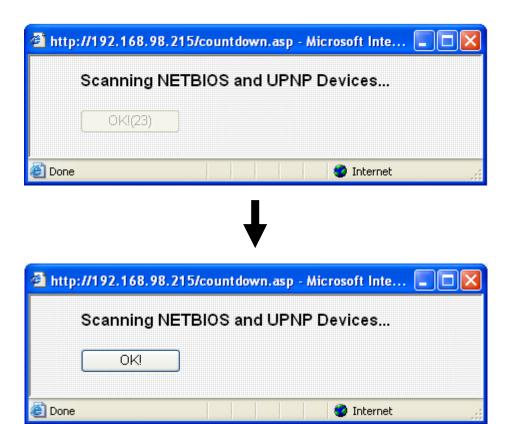
This broadband router is capable to scan the local network and find all UPnP-compatible devices out, you can get a list of all UPnP devices on network, and you can connect to the administration interface of these devices from web interface directly. EZView also helps you to set the name and IP address of UPnP-compatible network devices, and control its bandwidth usage. You can also set special network functions like DMZ and port forwarding for a specific UPnP-compatible devices.

To use EZ View, please follow the following instructions:

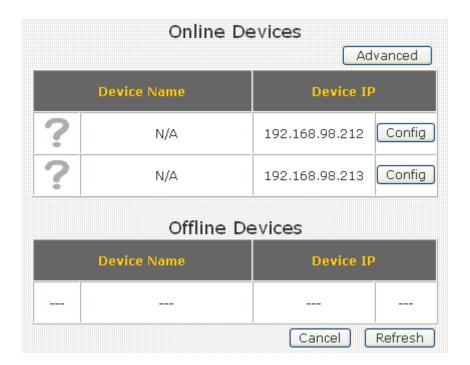
1. click 'EZ View' button from main menu:



2. A pop-up window (or new web browser tab) will appear to show that broadband router is scanning for UPnP devices on network, please wait for 30 seconds until 'OK' button appears. Click 'OK' button to continue.



3. All UPnP-compatible devices found on the network will be listed here, with the category it belongs to and its name. (For network devices not manufactured by Edimax, or earlier non-PnP Edimax products, the category and name will not be able to displayed).



You can click 'Config' button to connect to the web administration interface of the network device, as shown below. (The following picture is an example of connecting to an IP camera, you can input its username and password to login).





If you want to rescan UPnP devices, click 'Refresh' button.

If you need to set the detailed information of UPnP devices, please click 'Advanced' button, and the following settings will appear:

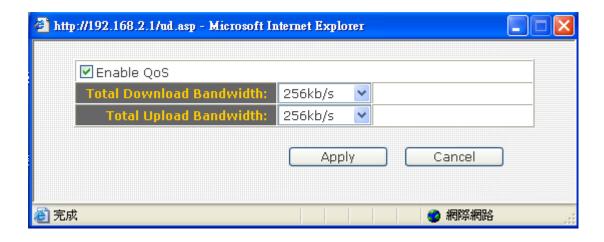


You can click '?' icon and a drop-down list will shown, then you can select an icon for the network device you selected. For example, if the network device you selected is a computer, you can use the person icon to represent it.









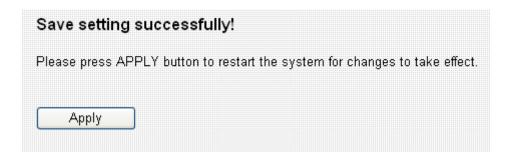
Here are descriptions of every setup items:

Item Name	Description
Add	Click this button to add a network device, and
	you can set detailed network information like
	name and IP address for it. Click 'Apply'
	button to save changes and new setting will
	take effect until next login.
DEL	Click this button to delete all settings assigned
	to the network device.
Device Name	You can give this device a name as memory
	aid. Also, if the type of UPnP device is not
	identified by this broadband router, a question
	mark (?) will appear to the left of device's
	name. You can click the question mark, several
	icons will appear and you can pick an icon that
	is able to represents this device.
Config	Click 'Config' button to connect to the web
	configuration interface of UPnP device.
Upload / Download	Please click red dot Download Upload =
	(located at the right of 'Upload'), and a new
	pop-up window will be shown. Please check
	'Enable QoS' box to enable QoS bandwidth
	control function for this device, and select the
	upload / download bandwidth you wish to
	assign to this device from dropdown list.
Block	You can block this device so it will not be able

	to access the network at certain time period.
	Click 'Set' button and a new window will
	appear with three time-selection options:
	appear with three time-selection options.
	No Block: Do not block this UPnP device.
	Time Interval: This UPnP device will be
	blocked during the time period you specified.
	Please input 'from' and 'to' hour in two
	respective fields of this item by 24 hours
	format.
	Always: This UPnP device will be blocked
	permanently.
	Click 'Apply' to save changes you made, or
	click 'Cancel' to close pop-up window and
	discard changes.
DMZ	Select 'DMZ' to set this device as a DMZ
DIVIZ	
	server.
	Please note that you can only set one DMZ
	server at the same time.
Port Forwarding	You can set the port-forwarding rules for this
	device. Click 'Set' and a new pop-up window
	will shown, you can set up to 5 sets of
	port-forwarding rules for this device. You can
	click 'Apply' in port-forwarding setting window
	to save changes, or click 'Cancel' to close
	3
	window and discard changes.
	You can also click 'View' to view current
	port-forwarding rules for this device.
	port joi warante i mes joi inis acrice.

You can click 'Refresh' button to rescan all UPnP-compatible devices on network,

When you finished with the settings in this page, you can click 'Apply' button to save changes you made in this page, or you can click 'Cancel' to discard changes. After you click 'Apply' button, you'll see the following messages:

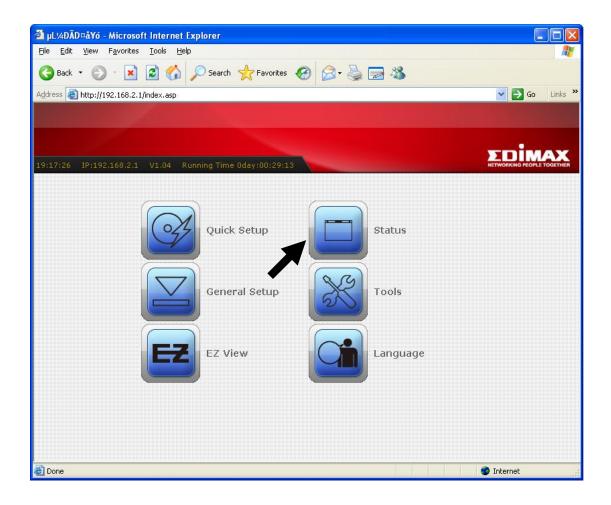


Please click 'Apply' to save changes you made and restart the broadband router, this requires about 30 seconds and the broadband router will stop responding (this is normal and is not malfunction). You can reconnect to this broadband router and continue on other settings later.

Chapter V: Status

In this menu, you can check the operation status of this broadband router. To view the status, follow the following instructions:

1. Click 'Status' button from main menu:



2. The basic system information will be shown:



You can check the system uptime and firmware version of this broadband router. If you need detailed information about Internet connection or system usage log, please choose one of them and click 'Apply'. If you want to go back to previous page, please click 'Previous'.

•	Internet Connection	View the current internet connection status and related information.
•	Device Status	View the current setting status of this device.
•	System Log	View the system operation information. You can see the system start up time, connection processetc. here.
•	Security Log	View any attempts that have been made to illegally gain access to your network.
•	Active DHCP Client	This table shows the assigned IP address, MAC address and time expired for each DHCP leased client.
•	Statistics	This page shows the packet counters for transmission and reception regarding to networks.
		Previous Apply

5-1 Internet Connection

This page shows the current status of Internet connection.

	Fixed IP connect	
IP Address :	172.1.1.1	
Subnet Mask :	255.255.0.0	
Default Gateway :	172.1.1.254	
MAC Address :	00:11:22:33:44:56	
Primary DNS :	168.95.1.1	
Secondary DNS:	0.0.0.0	

5-2 Device Status

This page shows current wireless LAN and wired LAN configuration.

	Wireless Configuration	
Mode	AP	
ESSID	EDIMAX	
Channel Number	7	
Security	WPA pre-shared key	
	LAN Configuration	
IP Address	192.168.98.215	
Subnet Mask	255.255.255.0	
DHCP Server	Disable	
	00:0c:29:e0:3f:f2	

5-3 System Log

This page shows all logged system information. You can use scroll bar to view the logs, or click 'Save' to download the log file to your computer. You can also click 'Clear' to remove all logs, or click 'Refresh' to reload logs.



5-4 Security Log

This page shows all logged security-related information. You can use scroll bar to view the logs, or click 'Save' to download the log file to your computer. You can also click 'Clear' to remove all logs, or click 'Refresh' to reload logs.



5-5 Active DHCP Client

This page shows all current DHCP clients. You can click 'Refresh' to reload the list.



5-6 Statistics

This page shows the statistical information of network interfaces of this broadband router, and the total system uptime.

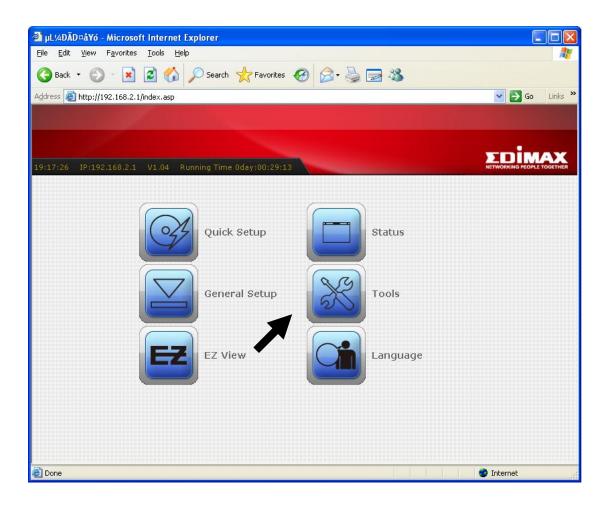
Wireless LAN	Sent Packets	3950
	Received Packets	75148
Ethernet LAN	Sent Packets	14969
	Received Packets	112690
Ethernet WAN	Sent Packets	31844
	Received Packets	0
Running Time	0day:22:13:26	Restart
	Refresh	

Chapter VI: Tools

This broadband router comes with several tools that will help you to manage the configuration of broadband router, upgrade the firmware, and restart the broadband router.

To use these tools, follow the following instructions:

1. Click 'Tools' button from main menu:



2. The list of tools will appear:

•	Configuration Tools	Use the "Backup" tool to save the Broadband router's current configurations to a file named "config.bin". You can then use the "Restore" tool to restore the saved configuration to the Broadband router. Alternatively, you can use the "Restore to Factory Default" tool to force the Broadband router to perform System Reset and restore the original factory settings.
•	Firmware Upgrade	This tool allows you to upgrade the Broadband router's system firmware. Enter the path and name of the upgrade file and then click the APPLY button below. You will be prompted to confirm the upgrade. The system will automatically reboot the router after you finished the firmware upgrade process. If you don't complete the firmware upgrade process in the "next" step, you have to reboot the router.
•	Restart	In the event that the system stops responding correctly or stops functioning,you can perform a Reset. Your settings will not be changed. To perform the reset,click on the APPLY button below. You will be asked to confirm your decision.The Reset will be complete when the LED Power light stops blinking.
		Previous Apply

Please select the tool you wish to use, then click 'Apply' button. If you wish to go back to previous page, click 'Previous' button.

6-1 Configuration Tools

In this page, you can backup and restore current system configuration, and reset all settings to factory default value.



Here are descriptions of every setup items:

Item Name	Description
Backup Settings	Click 'Save' button to download the current
	configuration as 'config.bin' file. Save this file
	on your computer to keep current
	configuration. If you want to keep more than
	one version of configuration file, please
	rename the configuration file to another name.
Restore Settings	Click 'Browse' button to select a
	previously-saved configuration file from your
	computer, then click 'Upload' to upload the
	configuration file to broadband router, and the
	configuration of broadband router will be
	replaced by the content of uploaded
	configuration file.
Restore to Factory	Click 'Reset' button to restore the settings of
Default	the broadband router to factory default value.
	A pop-up message window will appear and ask
	you to confirm the reset.

6-2 Firmware Upgrade

New firmware releases will provide new functions to this broadband router, and you can use firmware upgrade function to upgrade the firmware to new version.

NOTE: It's recommended to use wired Ethernet connection to upload the firmware file, please refrain from using wireless connection to upload the firmware file. Also, please do not switch the broadband router or computer you used to upload the firmware file off during firmware upgrade. This will cause broadband router become malfunction and unusable.

Please download the firmware file from our company's website and save it on your computer, and use firmware upgrade function to upgrade firmware:



Please click 'Browse...' button to select the firmware file saved on your computer, then click 'Apply' button to start firmware upload. The broadband router will restart after file upload is successful, and all settings will be lost. Please use default IP address (192.168.2.1) to connect to the broadband router and set every settings again.

6-3 Restart

If you found that the broadband router is not functioning correctly, or responding slowly then usual, you can use this function to restart the broadband router, and this may correct the problem.



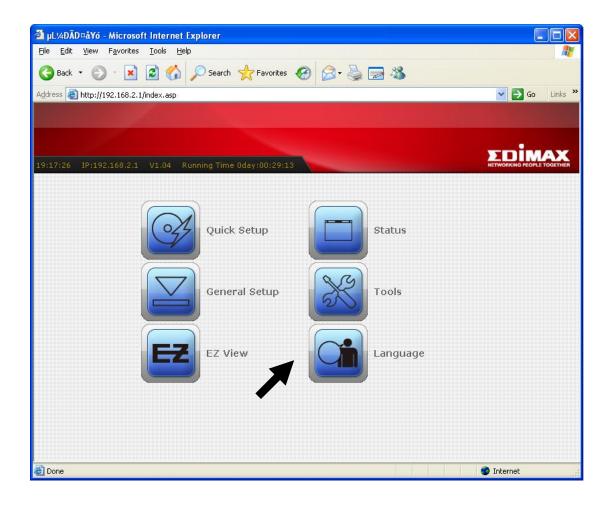
Click 'Apply' button to restart the broadband router. You'll be prompted to confirm the restart, click 'OK' to restart the broadband router.

Chapter VII: Language

This broadband router's web-based user interface supports 12-languages . You can change the display language by click 'Language' button in main menu.

To change the display language, follow the following instructions:

1. Click 'Language' button from main menu:



Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

FCC Caution

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

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.

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

Federal Communications Commission (FCC) Radiation Exposure Statement
This equipment must be installed and operated in accordance with provided instructions and a minimum 20 cm spacing must be provided between computer mounted antenna and person's body (excluding extremities of hands, wrist and feet) during wireless modes of operation.

The equipment version marketed in US is restricted to usage of the channels 1-11 only.

R&TTE Compliance Statement

This equipment complies with all the requirements of DIRECTIVE 1999/5/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL of March 9, 1999 on radio equipment and telecommunication terminal Equipment and the mutual recognition of their conformity (R&TTE)

The R&TTE Directive repeals and replaces in the directive 98/13/EEC (Telecommunications Terminal Equipment and Satellite Earth Station Equipment) As of April 8, 2000.

Safety

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this and of the computer manufacture must therefore be allowed at all times to ensure the safe use of the equipment.

EU Countries Intended for Use

The ETSI version of this device is intended for home and office use in Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, Slovenia, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

The ETSI version of this device is also authorized for use in EFTA member states: Iceland, Liechtenstein, Norway, and Switzerland.

EU Countries not intended for use

None

A declaration of conformity is available on www.edimax.com





EDIMAX Technology Co., Ltd. www.edimax.com