
Installation and Operation Manual

EN

PENTAGRAM
THE PERFECT SIMPLICITY

PENTAGRAM Cerberus [P 6361]

*The latest versions of manual, drivers and applications are available on
www.pentagram.eu*

2011-08-16

Important information

Safety precautions

- Do not use or store the device in dusty places, where the humidity is high or in extreme temperatures.
- Do not operate the device with wet hands to avoid the risk of device damage or electric shock.
- Do not clean the device with chemicals, such as benzine or detergents - always clean the device with a soft, dry cloth.
- Disconnect the device from the computer prior to cleaning.
- Do not modify or fix the device yourself in any way, it might void the guarantee.
- Do not drop or shake the device.
- Avoid using this product and all accessories outdoors.
- Only use the power adapter that comes with the package. Using a different voltage rating power adapter may damage the router.

Information concerning waste electronic equipment

The markings on the device and in the attached documentation indicate that it cannot be disposed of along with unsegregated general black bag waste when withdrawn from use. The device must be recycled or processed in another way to recover reusable materials and neutralize hazardous components.

The users should contact recycling/recovery authorities to determine how the device is to be disposed of in an environment-friendly manner.



NOTE: All information and technical data is subject to change without previous notice and/or indication in this manual.

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Introduction

The Cerberus wireless router combines a 4-port switch, firewall, NAT router and wireless access point (AP), making it an excellent foundation for a wireless network at home or a small business. With the Cerberus, your Internet connection sharing, file transfer and gaming experience can be even better and safer than before.

PENTAGRAM Cerberus can support a 802.11n (Draft 2) wireless network with a maximum data rate of 150 Mbps. With a rich feature set, it can also interoperate with 802.11b products (up to 11 Mbps) and 802.11g products (up to 54 Mbps) in home or office environments, and with public hotspots. Additionally, your wireless network can be secured using WEP, WPA or WPA2.

Package contents

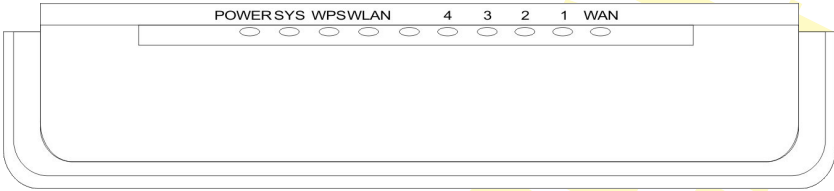
- 1.PENTAGRAM Cerberus [P 6361]
- 2.9 V □ 0,6 A mains adapter
- 3.Network cable (RJ-45)
- 4.CD
- 5.Quick Installation Guide

If any of the package contents are missing, please contact your vendor.



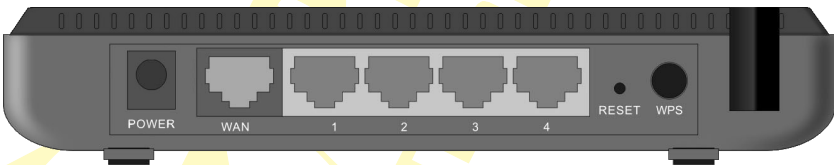
Operating the device

Front panel



LED	Action	Description
POWER	Not lit	No Power
	Lit up	Power on
SYS	Not lit	No Power or system initializing
	Flashing	System ready
WPS	Flashing	Device is negotiating with client in WPS mode.
WLAN	Not lit	The Wireless function is disabled
	Lit up	The Wireless function is enabled
	Flashing	Data transfer
WAN & 1-4	Not lit	No device connected to the corresponding port
	Lit up	Network device connected to the corresponding port
	Flashing	Network activity of the corresponding port

Rear Panel



Label	Used for...
POWER	Connecting with supplied power adapter
WAN (RJ-45)	Connecting with DSL/cable modem through Ethernet cable
LAN 1-4 (RJ-45)	Connecting with computers/devices through Ethernet cable
RESET	Resetting the device.
WPS	Connecting with wireless station via WPS. Press this button for about 1 second while you are connecting a PC or wireless adapter with WPS function (you must enable WPS' PBC function).

Connecting computers to the Cerberus

Computers and other network devices can be connected to the Cerberus in two ways as described below.

Wired connections (LAN interface)

All Ethernet (LAN) ports on the router support Auto-MDIX functionality, which enables and disables crossover automatically, as required. With the autonegotiation feature, the router also automatically selects the highest connection speed available. For 10/100 Mbps transfers, a Cat. 5 twisted-pair cable is required, terminated with RJ-45 connectors according to TIA/EIA-568-A/B. One end of the cable should be connected to a computer's network adapter, and the other to one of the router's LAN ports. If the connection is correct, the LED indicator corresponding to the LAN port will light up.

Wireless connections (WLAN interface)

In order to connect a computer to the Cerberus using a wireless network, the WLAN adapter must be installed correctly in the system, and the router must be located within the operating range of the wireless adapter and belong to the same subnet.

Configuring network properties

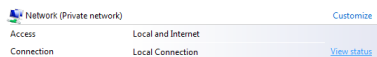
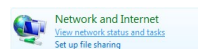
Before a connection (wired or wireless) can be established between your computer and the router, TCP/IP must be configured in the operating system (this protocol should be installed automatically by the system when installing network adapter drivers). It is recommended to configure TCP/IP so that the IP address and other connection settings are obtained from the router's DHCP server. This configuration is described below for various Windows systems.

Note: In some cases, a computer running Windows 7, Windows Vista or Windows XP Service Pack 3 may not obtain an IP address from the router's DHCP server. To solve this issue, please follow the instructions provided on the Microsoft technical support website at <http://support.microsoft.com/kb/928233/en-us>.

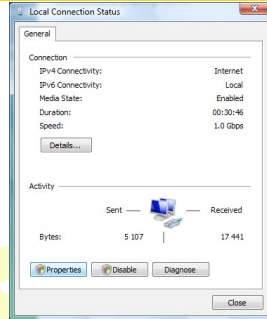
Windows Vista/7

Note: You need administrative privileges to perform network configuration. During configuration, it may be necessary to click **Allow** (Windows Vista) or **Yes** (Windows 7) in the **User Account Control** dialog, and provide an administrative user name and password if the current user does not have administrative privileges.

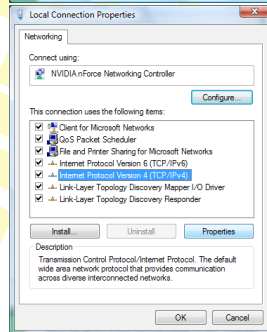
1. Click **Start** → **Control Panel**.
2. Click **View network status and tasks**.
3. Click **View status** (Vista) or click the connection type (7) for your connection.



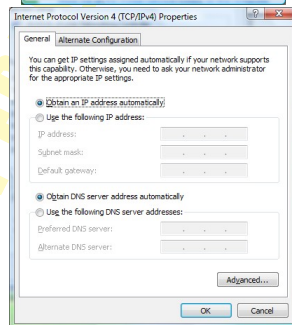
4. On the General tab, click Properties.



5. On the Networking tab, select Internet Protocol Version 4 (TCP/IPv4) and click Properties.



6. On the General tab, select Obtain an IP address automatically and Obtain DNS server address automatically.



7. Click OK to save the settings and close the Internet Protocol Version 4 (TCP/IPv4) Properties dialog.

Windows 2000/XP

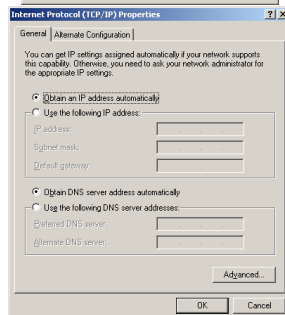
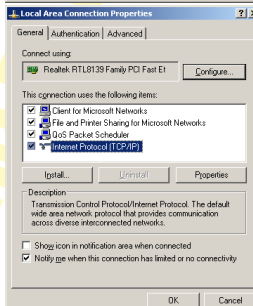
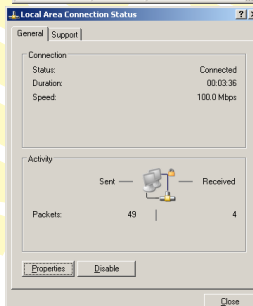
1. Click Start → Settings → Control Panel.
2. Double-click the Network Connections icon (2000/XP classic view) or Network and Internet Connections and then Network Connections (XP default view).
3. Double-click Local Area Connection.

4. On the General tab, click Properties.

5. On the General tab, select Internet Protocol (TCP/IP) and click Properties.

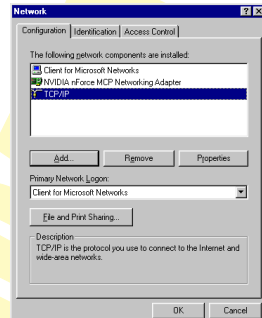
6. On the General tab, select Obtain an IP address automatically and Obtain DNS server address automatically.

7. Click OK to save the settings and close the Internet Protocol (TCP/IP) Properties dialog.

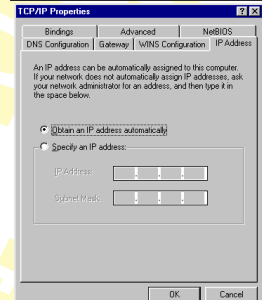


Windows 95/98/Me

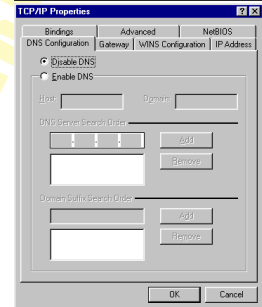
1. Click Start → Settings → Control Panel.
2. Double-click the Network icon.
3. On the Configuration tab, select TCP/IP for the appropriate network adapter and click Properties.



4. On the IP Address tab, select Obtain an IP address automatically.



5. On the DNS Configuration tab, select Disable DNS.
6. Click OK to save the settings and close the TCP/IP Properties dialog.



To verify whether your adapter has a valid IP address:

1. Use **⌘+R** hotkey or click **Start > Run** (Windows 98/ME/ 2000/XP) or **Start > All programs > Accessories > Run** (Windows Vista/7) to display the **Run** dialog.
2. Type **cmd** (Win 2000/XP/Vista/7) or **command** (Win 98/ME) and press **Enter**.
3. Type **ipconfig /all** (Windows 2000/XP/Vista/7) or **wingipcfg** (Windows 98/ME) in the command line and press **Enter**.
4. Check whether the IP Address entry for the appropriate network adapter matches the address pool of the router's DHCP server, e.g. **192.168.0.101** .

Configuring the router

Basic router settings can be configured using the configuration wizard provided on the CD supplied with the product. This wizard allows you to configure the WAN connection (ISP settings) and WLAN connection (wireless network established using the router). More detailed and advanced configuration settings are available on the router's configuration page, which can be accessed using any Web browser.

NOTE: We recommend performing the initial router setup using a computer connected to the device with a network cable.

Default settings

Before configuring the router, we recommend reviewing the default settings for key router parameters shown below.

IP address	192.168.0.1
Subnet mask	255. 255. 255.0
SSID	PENTAGRAM
DHCP server	Enabled
DHCP server address pool	101 IP addresses from 192.168.0.100 to 192.168.1.200
IP address lease time	86,400 seconds (24 hours)
User name	admin
Password	admin

We recommend that you change the access password for the router's configuration page as soon as possible.

If you ever forget the access password for the router, please reset the device to its default settings.

Restoring default settings

The router can be restored to its default settings in two ways:

- by clicking the **Reset** button on the **Admin** → **Backup/Restore Settings** tab on the router's configuration page; or
- by pressing and holding the **RESET** button on the back of the device for approx. 10 seconds.

Configuration using configuration wizard

NOTES:

- It is advised to carry out the initial router configuration from a computer connected to the router via Ethernet cable.
- Configuration wizard is designed only for initial router configuration after it's first start.
- After changing LAN settings of the router, using configuration wizard may not be possible.

1.Insert the supplied CD into the CD-ROM drive. The startup menu should open automatically. Under Windows Vista and Windows 7, you may need to click **Run: SETUP.EXE** in the **AutoPlay** dialog. If the menu does not open automatically, select **Start > Run** (under Windows Vista and 7: **Start > All Programs > Accessories > Run**). In the **Open** field in the **Run** dialog, type **X:\setup.exe** (where "X" is the letter corresponding to your optical drive), then press Enter.

2.During CD menu start, you may need to click **Allow** (Windows Vista) or **Yes** (Windows 7) in the **User Account Control** dialog, and provide an administrative user name and password if the current user does not have administrative privileges.

3.Click the **Start** button, to begin configuration wizard.



You can exit configuration wizard at any moment without saving any changes into the router - use **Exit** button visible in lower right corner of wizard's window.

Step 1-4

If power supply and computer are still not connected to the router, wizard will guide you through that process. If router isn't connected properly to the power supply or the computer, message with additional information will be displayed. If computer is properly connected to the router, appropriate message will be displayed - click the **OK** button, to go to step 5 **Please select your broadband connection type**.

Step 5 Please select your broadband connection type

To continue with the configuration you need to select connection mode used by the ISP.

The screenshot shows the configuration wizard interface for the Pentagram Cerberus router. At the top left is the Pentagram logo with the tagline 'THE PERFECT SIMPLICITY'. At the top right is the website 'www.pentagram.eu'. The main content area is titled '5 Please select your broadband connection type.' and lists five options: '*Ethernet broadband, get IP automatically(dynamic IP)', '*Ethernet broadband, fixed IP(static IP)', '*PPPoE', '*PPTP', and '*L2TP'. At the bottom of the screen, there is a 'Model: [P 6361]' label, a 'Back' button, and an 'Exit' button. The background of the screen has a large, faint yellow watermark of the Pentagram logo.

Ethernet broadband, get IP automatically(dynamic IP) - Select this option, if you did not receive any access information from the ISP. In this case additional configuration is not necessary and wizard will jump to the **Step 7 MAC address clone**.

Ethernet broadband, fixed IP(static IP) - Select this option, if you received from ISP access information, like IP address, subnet mask, default gateway address, etc. After selecting this option wizard will jump to step **6 Static IP**.

PPPoE - Select this option, if you received from ISP access information in form of user name and password. After selecting this option wizard will jump to step **6 ADSL Virtual Dialing (PPPoE)**.

PPTP - Select this option, if ISP is using PPTP Tunnel connections. After selecting this option wizard will jump to step **6 PPTP**.

L2TP - Select this option, if ISP is using PPTP Tunnel connections. After selecting this option wizard will jump to step **6 L2TP**.

Step 6

This Step depends on option selected in Step 5. To continue with the configuration you need to enter values acquired from ISP to all required fields. After you're done, click on the **Next** button to go to the next step.

Static IP

The screenshot shows the 'Static IP' configuration screen. At the top left is the Pentagram logo with the text 'PENTAGRAM THE PERFECT SIMPLICITY'. At the top right is the URL 'www.pentagram.eu'. The main heading is '6 Static IP'. Below this, there are five input fields for IP configuration, each with a label and a text box containing '0 . 0 . 0 . 0':

- IP Address
- Subnet Mask
- Default Gateway
- Primary DNS
- Secondary DNS

At the bottom left, it says 'Model: [P 6361] PENTAGRAM Cerberus'. At the bottom right, there are three buttons: 'Back', 'Next', and 'Exit'.

ADSL Virtual Dialing (PPPoE)

The screenshot shows the 'ADSL Virtual Dialing (PPPoE)' configuration screen. At the top left is the Pentagram logo with the text 'PENTAGRAM THE PERFECT SIMPLICITY'. At the top right is the URL 'www.pentagram.eu'. The main heading is '6 ADSL Virtual Dialing (PPPoE)'. Below this, there are two input fields: 'Account' and 'Password'. Below these fields is a 'Check Accounts' button. At the bottom left, it says 'Model: [P 6361] PENTAGRAM Cerberus'. At the bottom right, there are three buttons: 'Back', 'Next', and 'Exit'.

Check Accounts button allows you to validate entered values.

PPTP

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6 PPTP

Server IP Address: 0 . 0 . 0 . 0

Account:

Password:

Address Mode: Dynamic

IP Address: 0 . 0 . 0 . 0

Subnet Mask: 0 . 0 . 0 . 0

Default Gateway: 0 . 0 . 0 . 0

Model: [P 6361] Back Next Exit

PENTAGRAM Cerberus

L2TP

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6 L2TP

Server IP Address: 0 . 0 . 0 . 0

Account:

Password:

Address Mode: Dynamic

IP Address: 0 . 0 . 0 . 0

Subnet Mask: 0 . 0 . 0 . 0

Default Gateway: 0 . 0 . 0 . 0

Model: [P 6361] Back Next Exit

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Step 7 MAC Address Clone

In some cases ISP bounds the service to user's network adapter - for this purpose adapter's hardware address (MAC) is used. In this case, it is required to give bound adapter's MAC address to WAN port of the router. MAC address cloning is not recommended if it's not necessary.

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7 MAC Address Clone

(Do not modify unless special needs.)

MAC address

Model: [P 6361]

PENTAGRAM Cerberus

MAC Address - Field for manual input of the MAC address.

Clone MAC Address - Click this button to clone local computer MAC address.

Restore to default MAC - Click this button to revert router's MAC address to factory default.

Click on the **Next** button to go to the next step.

Step 8 Wireless Basic Settings

This step allows configuration of the basic wireless network settings.

8 Wireless Basic Settings
Here you can change the wireless network name, protocol and channel.

SSID	<input type="text" value="PENTAGRAM"/>
Wireless Mode	<input type="text" value="802.11b/g/n Mixed"/>
Channel	<input type="text" value="6"/>
SSID Broadcast	<input checked="" type="checkbox"/>

Model: [P 6361]
PENTAGRAM Cerberus

Back Next Exit

SSID - SSID of the wireless network.

Wireless Mode - Wireless station's standards, which will be allowed to connect to router's wireless network.

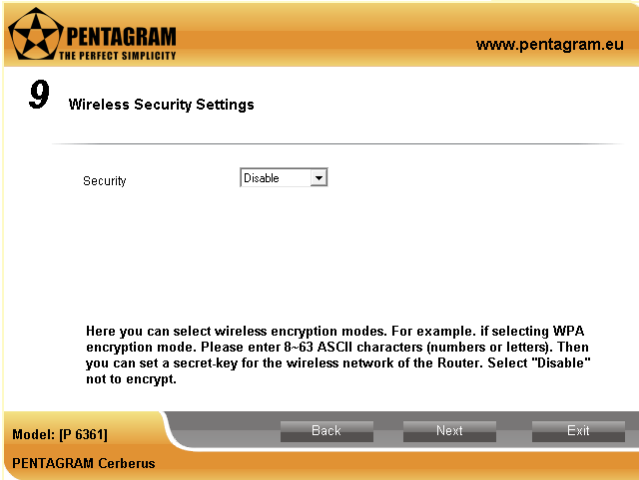
Channel - Channel (frequency) on which wireless network will work.

SSID Broadcast - If this option is disabled, wireless network won't be visible through network survey and only users knowing network's SSID will be able to connect to the network.

Click on the **Next** button to go to the next step.

Step 9 Wireless Security Settings

In this step you can secure router's wireless network. For best security and performance protocol WPA2 with AES encryption is recommended.



Security - Select protocol used to secure the network. Options below depends from option selected here.

•WEP - Low security level.

Security	WEP
Authentication Mode	Open
Encryption size	ASCII
Transmit Key	Key 1
Key	<input type="text"/>

Key Description : 64-bit Key needs 10 characters; 128-bit key needs 26 characters (The characters range 1-9 or a-f).

Security - Change security protocol.

Authentication Mode - Select client's authentication method. **Open** authentication allows everyone to connect to wireless network.

Encryption size - Select whether WEP key should be in form of a ASCII characters (digits & latin letters) or hexadecimal characters (digits & letters a-f).

Transmit Key - Select WEP key to use.

Key - Field for WEP key input.

Click on the **Next** button to go to the next step.

•WPA - Medium security level.

Security	<input type="text" value="WPA"/>	
WPA Key Mode	<input type="text" value="TKIP"/>	
WPA Key	<input type="text"/>	(8-63 ASCII characters)
Key Valid Time	<input type="text" value="3600"/>	s.(60s-9999s)

Security - Change security protocol.

WPA Key Mode - Select encryption method: **TKIP** or **AES**. **AES** encryption is recommended, but some network devices supports only **TKIP** encryption with **WPA** protocol.

WPA Key - Field for encryption key input.

Key Valid Time - Connection time, after which encryption key will be automatically changed.

Click on the **Next** button to go to the next step.

•WPA2 - High security level.

Security	<input type="text" value="WPA2"/>	
WPA2 Key Mode	<input type="text" value="AES"/>	
WPA2 Key	<input type="text"/>	(8-63 ASCII characters)
Key Valid Time	<input type="text" value="3600"/>	s.(60s-9999s)

Security - Change security protocol.

WPA Key Mode - Select encryption method: **TKIP** or **AES**. **AES** encryption is recommended.

WPA Key - Field for encryption key input.

Key Valid Time - Connection time, after which encryption key will be automatically changed.

Click on the **Next** button to go to the next step.



Step 10 Status

This step allows for last verification of the configuration. If router is properly connected to ISP network & Internet, IP Address should be other than 0.0.0.0 .

10 Running Status Refresh

link mode	Dynamic IP
IP Address	0.0.0.0
NetMask	0.0.0.0
gateway	0.0.0.0
WAN Mac	C8:3A:35:2D:B9:E5
SSID	PENTAGRAM
Channel	6
wireless mode	11 b/g/n mode
SSID Broadcast	Enable
Encryption Mode	WPA2
Key	1234567890

Note: If the IP address shows 0.0.0.0 please wait one minute and click the Refresh button to check IP address again. If IP address still 0.0.0.0, Please Contact your provider for the correct configuration settings. Configuration is successful when IP address is not 0.0.0.0.

Model: [P 6361] Back Finish Exit

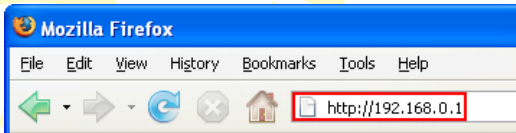
PENTAGRAM Cerberus

Click on the **Finish** button to close wizard window.

Configuration using the configuration page

Logging on

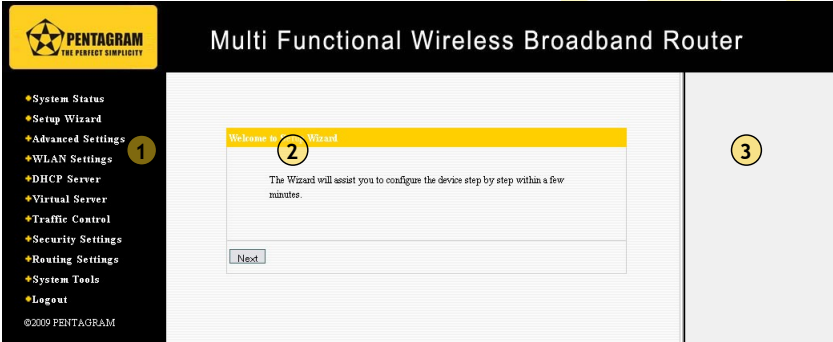
- 1.Launch your Web browser.
- 2.In the address bar, type the default IP address: **http://192.168.0.1** .



- 3.If the system password is set, enter your username and password (default: **admin / admin**).

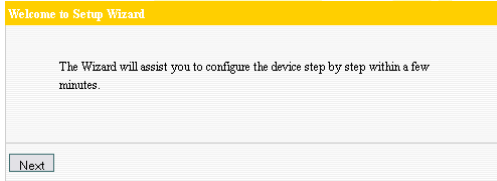
Navigation

After successful logging in, the router's configuration page will be displayed. It's divided into three sections - navigation menu (1), selected tab content (2) and help to currently selected tab (3).



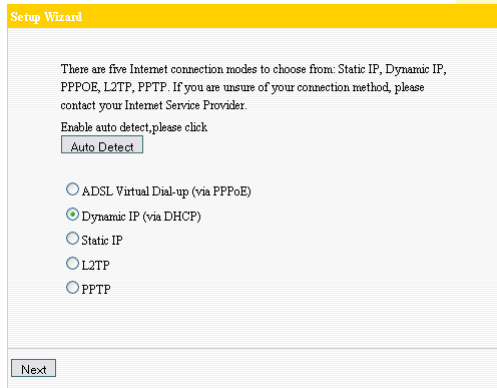
Setup Wizard

Here is the Welcome to Setup Wizard for configuring your Router quickly. Click Next.



PENTAGRAM Cerberus [P 6361]

In this screen, select one mode of your Internet connection you use. If you are not clear, press the **Auto Detect** button or contact your Internet Service Provider, and click **Next**.



Setup Wizard

There are five Internet connection modes to choose from: Static IP, Dynamic IP, PPPOE, L2TP, PPTP. If you are unsure of your connection method, please contact your Internet Service Provider.

Enable auto detect, please click

ADSL Virtual Dial-up (via PPPoE)

Dynamic IP (via DHCP)

Static IP

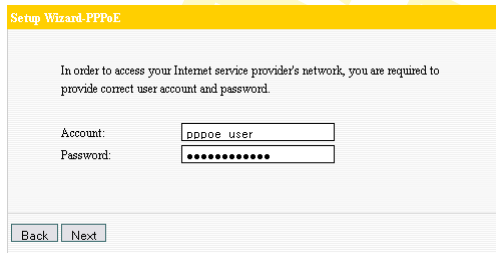
L2TP

PPTP

ADSL Virtual Dial-up (Via PPPoE)

Enter the Account and Password provided by your ISP, and click **Next**.

For example:



Setup Wizard-PPPoE

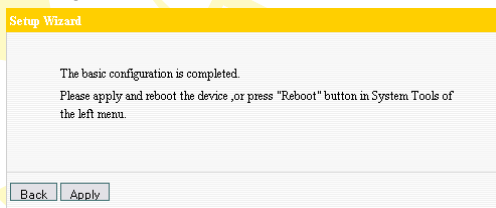
In order to access your Internet service provider's network, you are required to provide correct user account and password.

Account:

Password:

Dynamic IP (Via DHCP)

If your connection mode is Dynamic IP, it means your IP address keeps changing every time you connect. You do not need to enter the information like other modes. Click **Apply** to finish the settings.



Setup Wizard

The basic configuration is completed.

Please apply and reboot the device, or press "Reboot" button in System Tools of the left menu.

Static IP

In this screen, fill the network address information from your ISP in the **IP Address**, **Subnet Mask**, **Gateway** and **Primary DNS server** fields and click **Next**.

For example:

ISP provides the following TCP/IP parameters as follows:

IP Address: 192.168.1.2

Subnet Mask: 255.255.255.0

Gateway: 192.168.1.1

Primary DNS Server: 192.168.1.2

Alternate DNS Server: 202.96.134.133

Setup Wizard-Static IP

This Internet connection mode requires network address information from your Internet service provider.

IP Address:

Subnet Mask:

Gateway:

Primary DNS Server:

Secondary DNS Server: (optional)

Click **Apply** to complete the setup wizard. The Router will record the settings you made. To activate the settings, it is recommended to select **Reboot the Router** from **System Tool** of the left menu. It is rebooting now, please wait for a few minutes and **DO NOT** power off it.

Reboot

Click here to reboot the router.

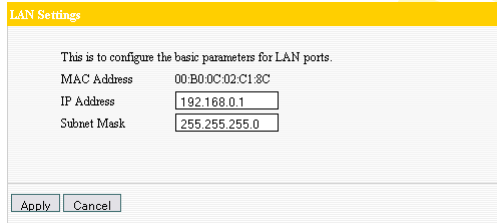
16%

Click the **System Status** in the left menu of the Web-based Utility to find out the current network and system information. If the **Connection Status** is **Connected**, Congratulations you on completing the Router's basic settings. You are on the Internet now. If you want to configure more, please proceed to the following explanations for Advanced Settings.

Advanced Settings

LAN Settings

LAN Settings are for the basic TCP/IP parameters of LAN ports.



LAN Settings	
This is to configure the basic parameters for LAN ports.	
MAC Address	00:B0:0C:02:C1:8C
IP Address	192.168.0.1
Subnet Mask	255.255.255.0
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>	

MAC Address: The Router's physical MAC address as seen on your local network, which is unchangeable.

IP Address: The Router's LAN IP addresses (not your PC's IP address). 192.168.0.1 is the default value.

Subnet Mask: It's shown the Router's subnet mask for measurement of the network size. 255.255.255.0 is the default value.

NOTE: Once you modify the IP address, you need to remember it for the Web-based Utility login next time.

WAN Settings

After you have selected the ISP connection type in **Setup Wizard** and you want to modify the related settings, here you can modify and configure the settings in details.

Virtual Dial-up (PPPoE)

WAN Settings

WAN connection mode: PPPoE

Account:

Password:

MTU:

Service Name: (Do NOT Modify Unless Necessary)

AC Name: (Do NOT Modify Unless Necessary)

Internet Connection Option:

Connect Automatically

Connect Manually

Connect on Demand

Max Idle Time: (60-3600 seconds)

Connect on Fixed Time

IMPORTANT: Please set the time in system Tools, before you select this Internet connection.

Time From: to

Time format, Hours 0-23; Minute 0-59

Connection Mode: Show your current connection mode.

Account: Enter them provided by your ISP.

Password: Enter them provided by your ISP.

MTU: Maximum Transmission Unit. It is the size of largest datagram that can be sent over a network. The default value is 1492. Do NOT modify it unless necessary. But if when some specific website or web application software can not be open or enabled, have a try to change the MTU value as 1450, 1400, etc.

Service Name: It is defined as a set of characteristics that are applied to a PPPoE connection. Enter it if provided. Do NOT modify it unless necessary.

AC Name: Enter it if provided. Do NOT modify it unless necessary.

Connect Automatically: Connect automatically to the Internet after rebooting the system or connection failure.

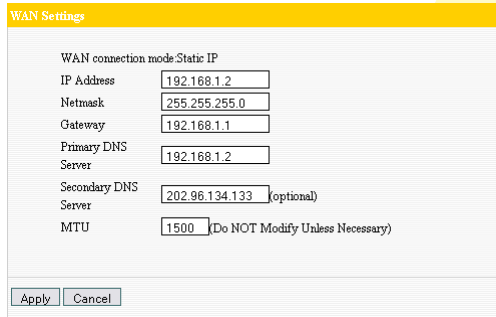
Connect Manually: Connect to the Internet by users manually.

Connect on Demand: Re-establish your connection to the Internet after the specific time (**Max Idle Time**). Zero means your Internet connection at all time. Otherwise, enter the minutes to be elapsed before you want to disconnect the Internet access.

Connect on Fixed Time: Connect to the Internet during the time you fix.

Notice: The **Connect on Fixed Time** can be deployed only when you have set the current time in **Time Settings** from **System Tools**.

Static IP



The screenshot shows a 'WAN Settings' dialog box with the following fields and values:

Field	Value
WAN connection mode	Static IP
IP Address	192.168.1.2
Netmask	255.255.255.0
Gateway	192.168.1.1
Primary DNS Server	192.168.1.2
Secondary DNS Server	202.96.134.133 (optional)
MTU	1500 (Do NOT Modify Unless Necessary)

Buttons: Apply, Cancel

If your connection mode, static IP is chosen, you can modify the following addressing information.

IP Address: Here enter the WAN IP address provided by your ISP.

Subnet Mask: Enter the WAN Subnet Mask here.

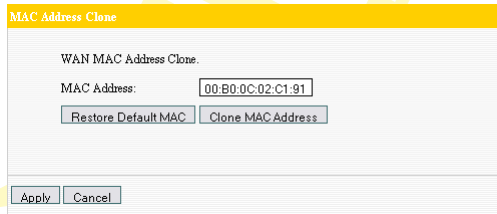
Gateway: Enter the WAN Gateway here.

Primary DNS Server: Enter the Primary DNS server provided by your ISP.

Secondary DNS Server: Enter the secondary DNS.

MAC Address Clone

This page is for the Router's MAC address to WAN.



The screenshot shows a 'MAC Address Clone' dialog box with the following fields and buttons:

Field	Value
WAN MAC Address Clone	
MAC Address	00:B0:0C:02:C1:91

Buttons: Restore Default MAC, Clone MAC Address

Buttons: Apply, Cancel

Some ISPs require end-user's MAC address to access their network. This feature copies the MAC address of your network device to the Router.

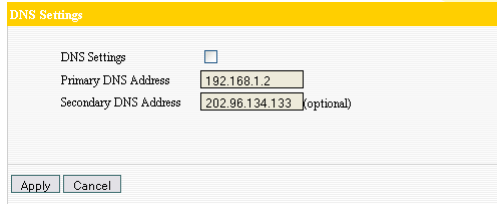
MAC Address: The MAC address to be registered with your Internet service provider.

Clone MAC Address: Register your PC's MAC address.

Restore Default MAC Address: Restore to the default hardware MAC address.

DNS Settings

DNS is short for Domain Name System (or Service), an Internet service that translate domain names into IP addresses which are provided by your Internet Service Provider. Please consult your Internet Service Provider for details if you do not have them.



DNS Settings	
DNS Settings	<input type="checkbox"/>
Primary DNS Address	192.168.1.2
Secondary DNS Address	202.96.134.133 (optional)
Apply Cancel	

DNS: Click the checkbox to enable the DNS server. The Router's DHCP sever will answer the client's requests and distribute DNS address.

Primary DNS Address: Enter the necessary address provided by your ISP.

Secondary DNS Address: Enter the second address if your ISP provides, which is optional.

NOTE: After the settings are completed, reboot the device to activate the modified settings.

Wireless Settings

Basic Settings

Basic Settings

Enable Wireless

Network Mode: 11b/g/n mixed mode

SSID: PENTAGRAM P6361

Broadcast(SSID): Enable Disable

BSSID: 00:B0:0C:02:C1:8C

Channel: 2437MHz (Channel 6)

Operating Mode: Mixed Mode Green Field

Channel BandWidth: 20 20/40

Guard Interval: long Auto

MCS: Auto

Reverse Direction Grant(RDG): Disable Enable

Extension Channel: 2417MHz (Channel 2)

Aggregation MSDU(A-MSDU): Disable Enable

Apply Cancel

Enable Wireless: Check to enable the Router's wireless features; uncheck to disable it. You can also press the WPS button to turn on/off the wireless function.

Network Mode: Select one mode from the following. The default is 11b/g/n mode.

- **11b mode:** Allow the wireless client to connect with the device in 11b mode at the maximum speed of 11Mbps.
- **11g mode:** Allow the 11g/11n-compliant client device to connect with the AP at the maximum speed of 54Mbps.
- **11b/g mixed mode:** Allow the 11b/g-compliant client device to connect with the AP with auto-negotiation speed, and 11n wireless client to connect the device with 11g speed.
- **11b/g/n mixed mode:** Allow 11b/g/n-compliant client device to connect with the AP with auto-negotiation speed.

SSID: SSID (Service Set Identifier) is the unique name of the wireless network.

Broadcast (SSID): Select **Enable** to enable the device's SSID to be visible by wireless clients. The default is enabled.

BSSID: Basic Service Set Identifier of wireless network. In IEEE802.11, BSSID is the MAC address of wireless access point.

Channel: Specify the effective channel (from 1 to 13\Auto) of the wireless network.

Extension Channel: To increase data throughput of wireless network, the extension channel range is used in 11n mode.

Channel Bandwidth: Select the channel bandwidth to improve the wireless performance.

When the network has 11b/g and 11n clients, you can select the 20M; when it is an 11n network, select 20/40M to improve its throughput.

Wireless Security Settings

Use this page to configure security settings, network access point. There are several encryption methods such as Mixed WEP, WPA-personal, WPA2-personal.

Mixed WEP

WEP (Wired Equivalent Privacy), a basic encryption method, usually encrypts wireless data using a series of digital keys (64 bits or 128 bits in length). By using the same keys on each of your wireless network devices, you can prevent unauthorized wireless devices from monitoring your transmissions or using your wireless resources. Select Mixed WEP to enter the following window:

The screenshot shows a window titled "Security Settings" with a yellow header. The SSID is set to "PENTAGRAM P6361". The Security Mode is set to "Mixed WEP". There are four WEP Key fields, each with a "Hex" dropdown menu. The Default Key is set to "Key 1". A notice at the bottom states: "Notice: Wireless Security Settings 802.11n only defines three standard encryption methods: Open-None (Disable), WPA- Personal-AES, WPA2-Personal-AES. Other encryption methods are nonstandard. There may be compatibility problems among different manufacturers." At the bottom are "Apply" and "Cancel" buttons.

Security Mode: From the drop-down menu select the corresponding security encryption modes.

WEP Key1-4: Set the WEP key with the format of ASCII and Hex. You can enter ASCII code (5 or 13 ASCII characters. Illegal character as "/" is not allowed.) Or 10/26 hex characters.

Default Key: Select one key from the four configured keys as the current available one.

WPA-Personal

WPA (Wi-Fi Protected Access), a Wi-Fi standard, is a more recent wireless encryption scheme, designed to improve the security features of WEP. It applies more powerful encryption types (such as TKIP [Temporal Key Integrity Protocol] or AES [Advanced Encryption Standard]) and can change the keys dynamically on every authorized wireless device.

The screenshot shows a 'Security Settings' dialog box with a yellow header. The SSID is 'PENTAGRAM P6361'. The Security Mode is set to 'WPA-Personal'. Under 'WPA Algorithms', the 'TKIP' radio button is selected. The 'Pass Phrase' field is empty. The 'Key Renewal Interval' is set to '3600 second'. A red notice at the bottom states: 'Notice: Wireless Security Settings. 802.11n only defines three standard encryption methods: Open-None (Disable), WPA-Personal-AES, WPA2-Personal-AES. Other encryption methods are nonstandard. There may be compatibility problems among different manufacturers.' At the bottom are 'Apply' and 'Cancel' buttons.

WPA Algorithms: Provides TKIP [Temporal Key Integrity Protocol] or AES [Advanced Encryption Standard]. The default is TKIP mode.

Pass Phrase: Enter the encrypted characters with 8-63 ASCII characters.

Key Renewal Interval: Set the key's renewal period.

WPA2- Personal

WPA2 (Wi-Fi Protected Access version 2) provides higher security than WEP (Wireless Equivalent Privacy) and WPA (Wi-Fi Protected Access).

The screenshot shows a 'Security Settings' dialog box with a yellow header. The SSID is 'PENTAGRAM P6361'. The Security Mode is set to 'WPA2-Personal'. Under 'WPA Algorithms', the 'TKIP' radio button is selected. The 'Pass Phrase' field is empty. The 'Key Renewal Interval' is set to '3600 second'. A red notice at the bottom states: 'Notice: Wireless Security Settings. 802.11n only defines three standard encryption methods: Open-None (Disable), WPA-Personal-AES, WPA2-Personal-AES. Other encryption methods are nonstandard. There may be compatibility problems among different manufacturers.' At the bottom are 'Apply' and 'Cancel' buttons.

WPA Algorithms: Provides TKIP [Temporal Key Integrity Protocol] or AES [Advanced Encryption Standard]. The default is TKIP mode.

Pass Phrase: Enter the encrypted characters with 8-63 ASCII characters.

Key Renewal Interval: Set the key's renewal period.

Advanced Settings

This section is to configure the advanced wireless setting of the Router, including the Radio Preamble, 802.11g/n Rate, Fragmentation Threshold, RTS Threshold, etc.

Advanced Settings	
BG Protection Mode	Auto
Basic Data Rates	Default(1-2-5.5-11 Mbps)
Beacon Interval	100 ms (range 20 - 999, default 100)
Fragment Threshold	2346 (range 256 - 2346, default 2346)
RTS Threshold	2347 (range 1 - 2347, default 2347)
TX Power	100 (range 1 - 100, default 100)
WMM Capable	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
APSD Capable	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>	

BG protection Mode: Auto by default. It is for 11b/g wireless client to connect 11n wireless network smoothly in a complicated wireless area.

Basic Data Rates: For different requirement, you can select one of the suitable Basic Data Rates. Here, default value is (1-2-5.5-11Mbps...). It is recommended not to modify this value.

Beacon Interval: Set the beacon interval of wireless radio. Default value is 100. It is recommended not to modify this value.

Fragment Threshold: The fragmentation threshold defines the maximum transmission packet size in bytes. The packet will be fragmented if the arrival is bigger than the threshold setting. The default size is 2346 bytes. It is recommended not to modify this value.

RTS Threshold: RTS stands for "Request to Send". This parameter controls what size data packet the frequency protocol issues to RTS packet. The default value of the attribute is 2346. It is recommended not to modify this value in SOHO environment.

TX Power: Set the output power of wireless radio. The default value is 100.

WMM Capable: It will enhance the data transfer performance of multimedia data when they're being transferred over wireless network. It is recommended to enable this option.

APSD Capable: It is used for auto power-saved service. The default is disabled.

WPS Settings

WPS (Wi-Fi Protected Setting) can be easy and quick to establish the connection between the wireless network clients and the device through encrypted contents. The users only enter PIN code or press WLAN/WPA button on the panel to configure it without selecting encryption method and secret keys by manual. In the **Wireless settings** menu, click **WPS settings** to enter the next screen.

The screenshot shows the 'WPS Config' screen. At the top, it says 'You could setup security easily by choosing PIN or PBC method to do Wi-Fi Protected Setup.' Below this, there are two rows of radio buttons: 'WPS Settings:' with 'Disable' and 'Enable' (selected), and 'WPS mode:' with 'PBC' (selected) and 'PIN'. A 'WPS Summary' section follows, listing various parameters and their values. At the bottom, there are 'Save' and 'Reset OOB' buttons.

WPS Summary	
WPS Current Status:	Idle
WPS Configured:	No
WPS SSID:	PENTAGRAM P6361
WPS Auth Mode:	WPA-PSK WPA2-PSK
WPS Encryp Type:	TKIP/AES
WPS Default Key Index:	2
WPS Key(ASCII):	
AP PIN:	01806205

WPS settings: To enable or disable WPS function. The default is **Disable**.

WPS mode: Provide two ways: PBC (Push-Button Configuration) and PIN code.

PBC: Select the PBC or press the WPS button on the back panel of the device for about one second (Press the button for about one second and WPS indicator will be blinking for 2 minutes, which means the WPS is enabled. During the blinking time, you can enable another device to implement the WPS/PBC negotiation between them. Two minutes later, the WPS indicator will be off, which means the WPS connection is completed. If more clients are added, repeat the above steps. At present, the WPS supports up to 32 clients access.)

PIN: If this option is enabled, you need to enter a wireless client's PIN code in the field and keep the same code in the WPS client.

WPS Summary: Show the current state of Wi-Fi protected setting, including authorized mode, encryption type, default key and other information.

WPS Current Status: **Idle** means WPS in idle state. **Start MSC process** means the process has been started and waits for being connected. **Configured** means the negotiation is successful between server and clients.

WPS Configured: **Yes** means WPS feature is enabled and goes into effect. **Not used** means it is not used. Usually the AP-security has been enabled, here will displayed **Not used**.

WPS SSID: Show the main SSID set by WPS.

WPS Auth. Mode: The authorization mode deployed by WPS, generally WPA/WPA2-personal mode.

WPS Encrypt Type: The encryption type used by WPS, generally AES/TKIP.

WPS key: The effective key generated by AP automatically.

AP PIN(KEY): The PIN code used by default.

Reset OOB: When this button is pressed, the WPS client will be idle state, and WPS indicator will be turned off. AP will not respond the WPS client's requests and the set the security mode as WPA mode.

WDS Settings

WDS (Wireless Distribution System) is used to expand wireless coverage area. This Router provides three modes: **Lazy**, **Bridge** and **Repeater**.

WDS Settings

WDS Mode

Attention: To configure WDS

1. In the MAC address field, input the connected device's MAC address. If the connected device has configured the WDS encryption method, please enter the same key values.
2. If you need to authorize wireless client's access, please configure the settings in the "Wireless Settings->Security Setting" window. After the configuration is completed, click "Save" and reboot the Router to implement communication between the WDS device.

Lazy Mode: In this mode, the connected device can be Bridge mode or Repeater mode and enter the Router's BSSID to establish the connection.

Bridge Mode: In this mode router can only communicate with other WDS APs. In this mode, you need to add the Wireless MAC address of the connecting device into the Router's AP MAC address table or select one from the scanning table.

Repeater Mode: In this mode, add the opposing MAC address into each own AP MAC address table by manual or scanner to enlarge and extend the wireless radio.

Encrypt Type: Select one from WEP, TKIP, AES for security here.

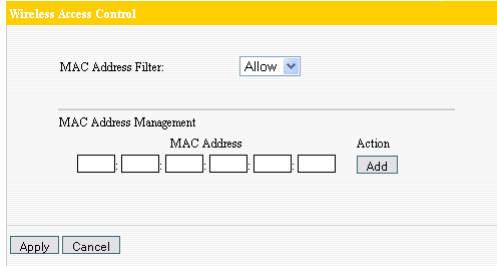
Pass phrase: Enter the encrypted key for wireless devices.

AP MAC: Input the MAC address of another (opposing) wireless router you want to connect.

NOTE: It is recommended that two wireless routers keep the same bandwidth, channel number, and security settings. Apply the settings and reboot the Router to activate it.

Wireless Access Control

To secure your wireless LAN, the wireless access control is actually based on the MAC address management to allow or block the specific clients to access the wireless network. Select **Wireless Setting->Access Control** to display the following screen:



The screenshot shows the 'Wireless Access Control' configuration page. At the top, there is a yellow header with the title. Below it, the 'MAC Address Filter' is set to 'Allow'. The 'MAC Address Management' section contains a form with six input fields for the MAC address and an 'Add' button. At the bottom, there are 'Apply' and 'Cancel' buttons.

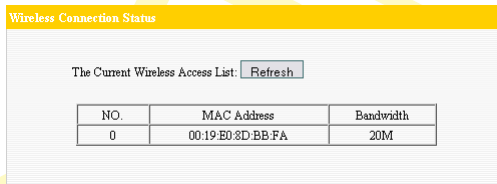
MAC Address Filter: Enable/disable MAC address filter. Select **Close** to malfunction MAC address; **Disable** to prevent the MAC addresses in the list from accessing the wireless network; **Allow** to allow the MAC address in the list to access the wireless network.

MAC Address Management: Input the MAC address to implement the filter policy. Click **Add** to finish the MAC add operation.

MAC list: Show the added MAC addresses. You can add or delete them.

Connection Status

This page shows wireless client's connection status, including MAC address, Channel bandwidth, etc. Select **Wireless Setting->Connection status** to enter the following screen:



The screenshot shows the 'Wireless Connection Status' page. It features a yellow header with the title. Below the header, there is a 'Refresh' button. A table displays the current wireless access list with three columns: NO., MAC Address, and Bandwidth. The table contains one entry with NO. 0, MAC Address 00:19:ED:8D:BB:FA, and Bandwidth 20M.

NO.	MAC Address	Bandwidth
0	00:19:ED:8D:BB:FA	20M

MAC Address: Shows current MAC addresses of the hosts connecting to the Router.

Bandwidth: Shows current bandwidth of the hosts (wireless client).

DHCP Server

DHCP Settings

DHCP (Dynamic Host Control Protocol) is to assign an IP address to the computers on the LAN/private network. When you enable the DHCP Server, the DHCP Server will allocate automatically an unused IP address from the IP address pool to the requesting computer in premise of activating **Obtain an IP Address Automatically**. So specifying the starting and ending address of the IP Address pool is needed.

DHCP Server: Activate the checkbox to enable DHCP server.

IP Address Start/End: Enter the range of IP address for DHCP server distribution.

Lease Time: The length of the IP address lease. *For example:* If the lease time is an hour, then DHCP server will reclaim the IP address each hour.

DHCP List and Binding

The Static IP assignment is to add a specifically static IP address to the assigned MAC address. You can view the related information in the DHCP server list.

NO.	IP Address	MAC Address	IP-MAC bind	Delete
	192.168.0.100	00:19:ED:8D:BB:FA		

IP Address: Enter the IP address which needs to be bound.

MAC Address: Enter the MAC address of the computer you want to assign the above IP address. Click **Add** to add the entry in the list.

Hostname: The name of the computer which is added a new IP address.

Lease Time: The left time length of the corresponding IP address lease.

Virtual Server

Port Range Forwarding

This section deals with the port range forwarding mainly. The Port Range Forwarding allows you to set up a range of public services such as web servers, ftp, e-mail and other specialized Internet applications to an assigned IP address on your LAN.

Port Range Forwarding

The Router can be configured as a virtual server on behalf of local services behind the LAN port. The given remote requests will be re-directed to the local servers via the virtual server. This section deals with the port range forwarding mainly. The Port Range Forwarding allows you to set up kinds of public services such as web servers, ftp, e-mail and other specialized Internet applications on your network.

NO.	Start Port-End Port	To IP Address	Protocol	Enable	Delete
1.	<input type="text"/> - <input type="text"/>	192.168.0. <input type="text"/>	TCP <input type="button" value="v"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	<input type="text"/> - <input type="text"/>	192.168.0. <input type="text"/>	TCP <input type="button" value="v"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	<input type="text"/> - <input type="text"/>	192.168.0. <input type="text"/>	TCP <input type="button" value="v"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	<input type="text"/> - <input type="text"/>	192.168.0. <input type="text"/>	TCP <input type="button" value="v"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	<input type="text"/> - <input type="text"/>	192.168.0. <input type="text"/>	TCP <input type="button" value="v"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	<input type="text"/> - <input type="text"/>	192.168.0. <input type="text"/>	TCP <input type="button" value="v"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	<input type="text"/> - <input type="text"/>	192.168.0. <input type="text"/>	TCP <input type="button" value="v"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	<input type="text"/> - <input type="text"/>	192.168.0. <input type="text"/>	TCP <input type="button" value="v"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	<input type="text"/> - <input type="text"/>	192.168.0. <input type="text"/>	TCP <input type="button" value="v"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	<input type="text"/> - <input type="text"/>	192.168.0. <input type="text"/>	TCP <input type="button" value="v"/>	<input type="checkbox"/>	<input type="checkbox"/>

Well-Known Service Port: ID

Start/End Port: Enter the start/end port number which ranges the External ports used to set the server or Internet applications.

IP Address: Enter the IP address of the PC where you want to set the applications.

Protocol: Select the protocol (TCP/UDP/Both) for the application.

Delete/Enable: Click to check it for corresponding operation.

Well-Known Service Port: Select the well-known services as DNS, FTP from the drop-down menu to add to the configured one above.

Add: Add the selected well-known port to the policy ID.

NOTE: If you set the virtual server of the service port as 80, you must set the Web management port on **Remote Web Management** page to be any value except 80 such as 8080. Otherwise, there will be a conflict to disable the virtual server.

DMZ Settings

The DMZ function is to allow one computer in LAN to be exposed to the Internet for a special-purpose service as Internet gaming or videoconferencing.

DMZ Host IP Address: The IP address of the computer you want to expose.
Enable: Click the checkbox to enable the DMZ host.

For example: Set the computer at IP address of 192.168.0.10 as DMZ host to connect another host in the Internet for intercommunication.

NOTE: When the DMZ host is enabled, the firewall settings of the DMZ host will not function.

UPnP Settings

It supports latest Universal Plug and Play. This function goes into effect on Windows XP or Windows ME or this function would go into effect if you have installed software that supports UPnP. With the UPnP function, host in LAN can request the router to process some special port switching so as to enable host outside to visit the resources in the internal host.

Enable UPnP: Click the checkbox to enable the UPnP.

Traffic Control

Traffic Control

Traffic control is used to limit communication speed in the LAN and WAN. Up to 20 entries can be supported with the capability for at most 254 PCs' speed control, including for IP address range configuration.

Traffic Control Settings

Traffic Control

Interface **Upload BW** **Download BW**
 WAN: 512 2048 (KByte/s)

Protocol	Port	Service
TCP&UDP	0	All
IP:	192.168.0.	
Up/Down:	Up	
BW Range:		(KByte/s)
Apply:	<input type="checkbox"/>	

Add

Num	Port	IP	Up/Down	BW Range	Apply	Edit	Del
-----	------	----	---------	----------	-------	------	-----

Apply Cancel

Enable Traffic Control: To enable or disable the internal IP bandwidth control. The default is disabled.

Interface: To limit the uploading and downloading bandwidth in WAN port.

Service: To select the controlled service type, such as HTTP service.

IP Starting Address: The first IP address for traffic control.

IP Ending Address: The last IP address for traffic control.

Uploading/Downloading: To specify the traffic heading way for the selected IP addresses: uploading or downloading.

Bandwidth: To specify the uploading/downloading Min. /Max. Traffic speed (KB/s), which can not exceed the WAN speed.

Apply: To enable the current editing rule. If not, the rule will be disabled.

Add: After edit the rule, click the Add button to add the current rule to rule list.

Apply: Click Apply to activate the current rule.

Cancel: Click Cancel to drop all setting saved last time.

Security Settings

Client Filter Settings

To benefit your further management to the computers in the LAN, you can control some ports access to Internet by data packet filter function.

Client Filter: Check to enable client filter.

Access Policy: Select one number from the drop-down menu.

Enable: Check to enable the access policy.

Delete the Policy: Click **Clear** button to clear all settings for the policy.

Filter Mode: Click one radio button to enable or disable to access the Internet.

Policy Name: Enter a name for the access policy selected.

IP Start/End: Enter the starting/ending IP address.

Port No: Enter the port range based over the protocol for access policy.

Protocol: Select one protocol (TCP/UDP/Both) from the drop-down menu.

Times: Select the time range of client filter.

Date: Select the day(s) to run the access policy.

URL Filter Settings

In order to control the computer to have access to websites, you can use URL filtering to allow the computer to have access to certain websites at fixed time and forbids it having access to certain websites at fixed time.

URL Filtering Setting: Enable

Access Policy: 10

Enable: Delete the Policy: Clear

Filtering Mode: Disable Enable access the Internet

Policy Name:

Start IP: 192.168.0.

End IP: 192.168.0.

URL:

Times: 0:00 - 0:00

Date: Everyday Sun Mon Tue Wen Thr Fri Sat

Apply Cancel

URL Filter: Check to enable URL filter.

Access Policy: Select one number from the drop-down menu.

Enable: Check to enable the access policy.

Delete the Policy: Click Clear button to clear all settings for the policy.

Filter Mode: Click one radio button to enable or disable to access the Internet.

Policy Name: Enter a name for the access policy selected.

Start/End IP: Enter the starting/ending IP address.

URL Strings: Specify the text strings or keywords needed to be filtered. If any part of the URL contains these strings or words, the web page will not be accessible and displayed.

Times: Select the time range of client filter.

Date: Select the day(s) to run the access policy.

Save: Click Save to activate the configuration.

MAC Address Filter

In order to manage the computers in LAN better, you could control the computer's access to Internet by MAC Address Filter.

MAC Address Filter: Check to enable MAC address filter.

Access Policy: Select one number from the drop-down menu.

Enable: Check to enable the access policy.

Delete the Policy: Click Clear button to clear all settings for the policy.

Filter Mode: Click one radio button to enable or disable to access the Internet.

Policy Name: Enter a name for the access policy selected.

MAC Address: Enter the MAC address you want to run the access policy.

Times: Select the time range of client filter.

Date: Select the day(s) to run the access policy.

Apply: Click to make the settings go into effect.

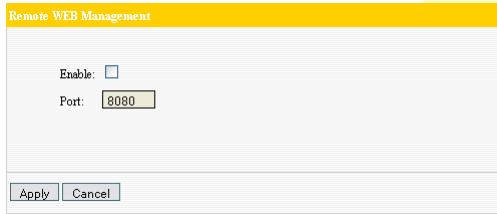
Prevent Network Attack

This section is to protect the internal network from exotic attack such as SYN Flooding attack, Smurf attack, LAND attack, etc. Once detecting the unknown attack, the Router will restrict its bandwidth automatically. The attacker's IP address can be found from the System Log.

Prevent Network Attack: Check to enable it for attack prevention.

Remote Web Management

This section is to allow the network administrator to manage the Router remotely. If you want to access the Router from outside the local network, please select the **Enable**.



Remote WEB Management

Enable:

Port:

Apply Cancel

Enable: Check to enable remote web management.

Port: The management port open to outside access. The default value is 80.

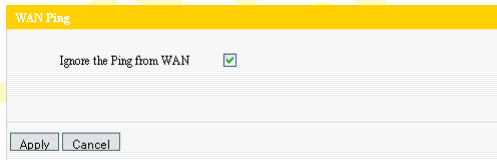
WAN IP Address: Specify the range of the WAN IP address for remote management.

NOTES:

- If you want to login the device's Web-based interface via port 8080, you need use the format of WAN IP address: port (for example `http://219.134.32.101: 8080`) to implement remote login.
- If your WAN IP address starts and ends with 0.0.0.0, it means all hosts in WAN can implement remote Web management. If you change the WAN IP address as 218.88.93.33-218.88.93.35, then only the IP addresses as 218.88.93.33, 218.88.93.34 and 218.88.93.35 can access the Router.

WAN Ping

The ping test is to check the status of your internet connection. When disabling the test, the system will ignore the ping test from WAN.



WAN Ping

Ignore the Ping from WAN

Apply Cancel

Ignore Ping from WAN: Check to ignore the ping request and give no reply.

Routing Settings

Routing Table

The main duty for a router is to look for a best path for every data frame, and transfer this data frame to a destination. So, it's essential for the router to choose the best path, i.e. routing arithmetic. In order to finish this function, many transferring paths, i.e. routing table, are saved in the router, for choosing when needed.

Destination IP	Subnet Mask	Gateway	Metric	Interface
239.255.255.250	255.255.255.255	0.0.0.0	0	br0
192.168.1.0	255.255.255.0	0.0.0.0	0	eth2.2
192.168.0.0	255.255.255.0	0.0.0.0	0	br0
0.0.0.0	0.0.0.0	192.168.1.1	0	eth2.2

Refresh

System Tools

Time Settings

This section is to select the time zone for your location. If you turn off the Router, the settings for time disappear. However, the Router will automatically obtain the GMT time again once it has access to the Internet.

Time Settings	
Time Zone:	(GMT+01:00)Paris,Berlin,Belgium,Vienna,Rome,Switzerland
(Notice: GMT time can be obtained only after accessing to the Internet.)	
Customized time:	<input type="checkbox"/>
	[]y []M []D []H []M []S
Apply	Cancel

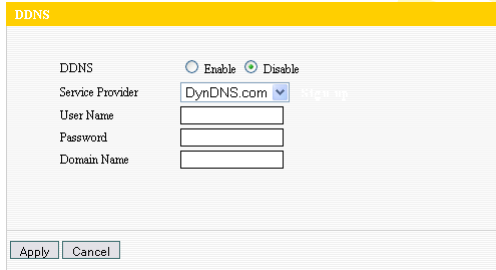
Time Zone: Select your time zone from the drop-down menu.

Customized time: Enter the time you customize.

NOTE: When the Router is powered off, the time setting will be lost. Before the Router will obtain GMT time automatically, you need connect with the Internet and obtain the GMT time, or set the time on this page first. Then the time in other features (e.g. firewall) can be activated.

DDNS

The DDNS (Dynamic Domain Name System) is supported in this Router. It is to assign a fixed host and domain name to a dynamic Internet IP address, which is used to monitor hosting website, FTP server and so on behind the Router. If you want to activate this function, please select **Enable** and a DDNS service provider to sign up.



Owing to ISP most times provides dynamic IP address, DDNS is used to capture the changeable IP address and match the fixed domain. Then users can have access to the Internet to communicate with others. DDNS can help you establish virtual host in your home and company.

DDNS: Click the radio button to enable or disable the DDNS service.

Service Provider: Select one from the drop-down menu and press **Sign up** for registration.

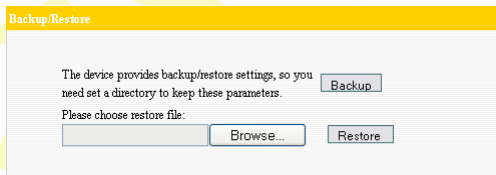
User Name: Enter the user name the same as the registration name.

Password: Enter the password you set.

Domain Name: Enter the domain name which is optional.

Backup/Restore Settings

The device provides backup/restore settings, so you need set a directory to keep these parameters.



Backup Setting:

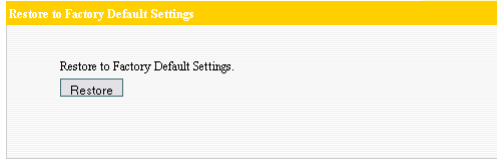
1. Click **Backup** button to back up the Router's settings and select the path for save.
2. Click **Save** to save the configuration files.

Restore Setting:

1. Click **Browse** button to select the backup files.
2. Click **Restore** button to restore previous settings.

Restore to Factory Default Setting

This button is to reset all settings to the default values. It means the Router will lose all the settings you have set. So please Note down the related settings if necessary.

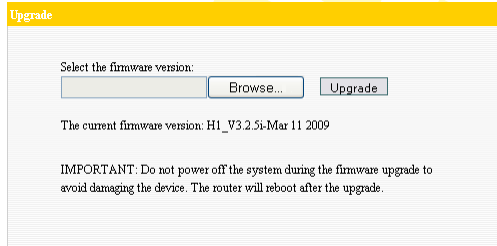


Restore: Click this button to restore to default settings.

NOTE: After restoring to default settings, please restart the device, then the default settings can go into effect.

Upgrade Firmware

The Router provides the firmware upgrade by clicking the **Upgrade** after browsing the firmware upgrade packet which you can download from www.pentagram.eu .

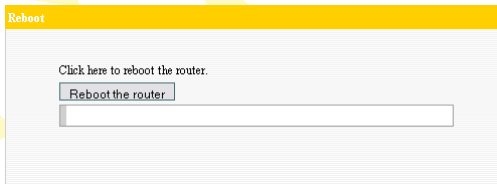


Browse: click this button to select the upgrade file.

Upgrade: click this button to start the upgrading process. After the upgrade is completed, the Router will reboot automatically.

Reboot the Router

Rebooting the Router makes the settings configured go into effect or to set the Router again if setting failure happens.



Reboot the router: Click this button to reboot the device.

Password Change

This section is to set a new user name and password to better secure your router and network.

Change Password

Note: User Name and Password makeup only by number or/and letter.

User Name

Old Password

New Password

Re-enter to Confirm

User Name: Enter a new user name for the device.

Old Password: Enter the old password.

New Password: Enter a new password.

Re-enter to Confirm: Re-enter to confirm the new password.

NOTE: It is highly recommended to change the password to secure your network and the Router.

Syslog

The section is to view the system log. Click the **Refresh** to update the log. Click **Clear** to clear all shown information. If the log is over 150 records, it will clear them automatically.

System Log

Page 1 content

Refresh: Click this button to update the log.

Clear: Click this button to clear the current shown log.

Logout

After you have finished the settings completely, in logout page click **Yes** to logout the web management page.

Troubleshooting

If the router is not function properly, first check this session for simple troubleshooting before contacting your Internet service provider (ISP) for support.

Using LEDs to Diagnose Problems

The LEDs are useful aides for finding possible problem causes.

Power LED

The **POWER LED** on the front panel does not light up.:

1. Make sure that the power adaptor is connected to the router and plugged in to an appropriate power source. Use only the supplied power adaptor;
2. Check that the router and the power source are both turned on and the router is receiving sufficient power;
3. Turn the router off and on;
4. If the error persists, you may have a hardware problem. In this case, you should contact your vendor.

LAN LED

The **LAN LED** on the front panel does not light up.:

1. Check the Ethernet cable connections between your router and the computer or hub;
2. Check for faulty Ethernet cables;
3. Make sure your computer's Ethernet card is working properly;
4. If these steps fail to correct the problem, contact your local distributor for assistance.

WAN LED

The **WAN LED** on the front panel does not light up:

1. Check the Ethernet cable connections between your router and ISP's access device;
2. Check that the ISP's access device is turned on and receiving sufficient power;

Problems with Router's DHCP Server and Windows Vista

In some cases Windows Vista cannot obtain an IP address from certain router's DHCP server. If you encounter this, follow this steps to resolve this problem (Microsoft Support page) <http://support.microsoft.com/kb/928233/en-us>

Problems with the Web Interface

I cannot access the web interface:

1. Make sure you are using the correct IP address of the router. Check the IP address of the router;
2. Your computer's and the router's IP addresses must be on the same subnet for LAN access;
3. If you changed the router's LAN IP address, then enter the new one as the URL;
4. Remove any filters in LAN or WAN that block web service.

Problems with the Login Username and Password

I forgot my login username and/or password:

1. The default username is "admin". The default password is "admin". The Password and Username fields are case-sensitive. Make sure that you enter the correct password and username using the proper casing;
2. If you ever forget the password to log in, you may need to restore the factory default settings. Use the **RESET** button: While router is powered on, press and hold the Reset button for about 10 seconds. Release the reset button and wait for the router to reboot.

Problems with LAN Interface

I cannot access the router from the LAN or ping any computer on the LAN:

1. Check the Ethernet LEDs on the front panel. A LAN LED should be on for a port that has a PC connected. If it is off, check the cables between your router and the PC. Make sure you have uninstalled any software firewall for troubleshooting;
2. Make sure that the IP address and the subnet mask is consistent between the router and the workstation.

Problems with the Internet Access

I cannot access the Internet:

1. Make sure the router is turned on and connected to the network;
2. If the WAN LED is off, refer to Section **WAN LED** of this troubleshooting;
3. Verify your WAN settings;
4. Make sure you entered the correct user name and password;
5. For wireless stations, check that both the router and wireless station(s) are using the same SSID, channel and encryption keys (if encryption is activated).

Internet connection disconnects:

1. If you use PPPoE, check the idle time-out setting;
2. Contact your ISP.