

**MZK-W04NU**

**11N WIRELESS LAN USB ROUTER**

**User's Manual**

# Foreword

## Explanation of the signals

In order to let you set up and use this product correctly, please pay attention when reading or browsing the manual as you see these signals listed below.



### **Warning/ Danger**

Users should read the explanation carefully and understand it completely, otherwise users might be in danger or even be injured.



### **Caution/ Be Careful**

Remind users to be careful when setting up the product and to avoid damaging the product or its system programs.

## Seeking for service or searching for an agent or a distributor

Thank you for purchasing products from Planex Communications Inc. If you have any operational problems while configuring or setting up the product, you may contact with our Customer Service Department or ask the agent or the distributor from which you bought the product for help. Moreover, during warranty, if you find any defect or breakdown of the product, you may bring the product, assembly, and its warranty card to our company or to where you bought the product to ask for repair.

- ★ Every product has different warranty period and contract; please refer to our company for further information or consult the agent or the distributor.

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# **Chapter1 Introduction of MZK-W04NU**

# Introduction

Thank you for purchasing **Wireless USB Broadband Router MZK-W04NU**. This router is a multi-function device which provides **shared broadband Internet access for all LAN users, 4-Ports switching hub for 10/100 Base-T connections and an additional USB port.**

MZK-W04NU has embedded with IEEE802.11b/g and 802.11N Draft 2.0 wireless communication standard. All the PCs and network devices, including PDA, mobile phone, game console and other digital appliances, with wireless functions can surf online wirelessly through MZK-W04NU wireless broadband router. Cooperate with 802.11N Draft 2.0 wireless adapter, MZK-W04NU can let data transmission rate up to 300Mbps! It also has the built-in **WPS** function. All you need to do is to press a button and then you can easily setup up wireless Internet and security settings. (Only Windows XP and 2000 OS support WPS function.)

MZK-W04NU incorporates many advanced features, and it was designed to provide sophisticated but easy to use functions. MZK-W04NU has a built-in Web server, thus you can access its settings through Web browsers, such as IE, Netscape, Firefox, and so on. You can set up and configure the settings easily and completely and enjoy the convenience instantly.

MZK-W04NU has an USB port and supports BitTorrent download, iTunes Server, DLNA and NAS functions. With all these features, MZK-W04NU must be the best solution for both beginners and advanced users.

## Special Features

### ➤ **Compatible with IEEE802.11n Draft2.0**

It is compatible with the regulation of next generation of high speed wireless LAN IEEE802.11n Draft2.0. At maximum, 300Mbps throughput can be achieved. It can also build steady connections at isolated place or blocked dead spot by using multiple antenna.

### ➤ **Support WPS (Wi-Fi protected setup)**

You just need to push a button to setup wireless Internet and security setting.

### ➤ **BitTorrent supported**

**MZK-W04NU** supports BitTorrent for efficient file downloading in narrow/broad band. BitTorrent is the large file distribution system. One of the assets of this BitTorrent is that downloading will be more efficient and fast as the file become popular and popular.

### ➤ **iTunes Server supported to share the music**

**MZK-W04NU** supports (Only FAT32 format supported) iTunes Server, and all the computer under

the same LAN can share music easily.

➤ **DLNA (Digital Living Network Alliance)**

As long as connect MZK-W04NU to digital multimedia equipment which supports DLNA (Digital Living Network Alliance), it does not need miscellaneous settlement. It can broadcast the digital contents stored in NAS easily, and let you easily build your digital home easily.

➤ **Serves as NAS with additional hard disks**

MZK-W04NU is equipped with one USB 2.0 port, and supports NAS (Network Attached Storage). The product serves as network storage when a USB hard disk is attached to it, and files in the hard disk can be shared throughout the network via the router. The product also supports USB flash memory.

➤ **3dBi powerful antenna**

The 3dBi antenna increases the connection distance and provides steady connection for wireless LAN.

# 1. Contents of Package

After purchasing MZK-W04NU Wireless Router from a distributor or an agency, please open the package and check that all the components listed below are included. If there is any item missing or damaged, please contact with the distributor or the agency at once.

**\*MZK-W04NU**

**\* 3dBi Antenna(x3)**

**\* User's Manual**

**\* UTP cable**

**\* AC adapter**

**\* Warranty card**

**\* CD-ROM (Application Module)**



If plug the AC adapter which includes in the product package into a socket with different voltage power supply, it will cause damage and that is not included in warranty.

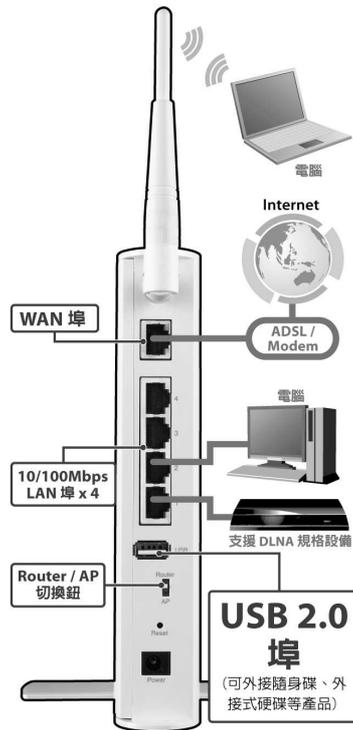
## 2. Product Functions

LEDs	Status	Meaning
Power	On/Off	When starting up MZK-W04NU, the Power LED will be on.
AP/Router	On/Off	When switching to Router mode, the LED will be on. When switching to AP mode, the LED will be off.
USB	On/Off	When connecting with a USB storage device, the LED will be on.
Wireless	Blinking	The LED will be blinking steadily while the wireless reception is fine.
LAN	On/Blinking	When the connection is established between MZK-W04NU and a host, the LAN LED will be on. And the LAN LED will be blinking when transmitting or receiving data via LAN port.
WAN	On/Off	When the connection is established between MZK-W04NU and a modem, the WAN LED will be on. And the WAN LED will be blinking when transmitting or receiving data via WAN port.
Status	Green/Amber	When starting up MZK-W04NU, the Status LED will be amber for a few minutes, and then turn off. If there's any software or hardware error happened, it will be on. After self test of the start-up, if the status of the router is O.K., the LED will be green.
WPS	On/Off	Press the WPS button and the LED will be on.



<b>Ports</b>	<b>Function</b>	
USB	Connect a USB storage device with MZK-W04NU through USB port, and then users can share files on the network.	
LAN	Use standard LAN cables (RJ45 connectors) to connect your PCs to these ports. Any LAN port can be connected with another hub, if required.	
WAN	Connect a DSL or Cable Modem to the WAN port and link to the internet. If your modem came with a cable, use the supplied cable. Otherwise, use a standard LAN cable.	
Power	Plug the power cord into this port and the other side of the adaptor should be plugged into the socket.	
<b>Button</b>	<b>Function</b>	<b>Usage</b>
Reset	Reset to default	Press the button for 3-5 seconds, and then unplug the power cord, but do not release the Reset button and wait for 3 seconds before plugging the power cord back. Release the Reset button and MZK-W04NU will automatically restart and back to the default settings.
WPS	Build wireless connection	Press the button and build a connection between MZK-W04NU and a station (adapter).
AP/Router	Shift between two kinds of modes	Shift between AP and router modes by switching the switch.

### 3. How to Set Up MZK-W04NU



(Note:, Please turn out the stand before using.)

1. Unwrap the package of MZK-W04NU Wireless Router and check if the components are complete and without missing anything.

2. **Choose an Installation Site.**

Select a suitable place on the network to install MZK-W04NU Wireless Router. And make sure that the Wireless Router and the DSL/Cable modem are not powered on yet.

3. **Connect LAN Cables.**

Use standard LAN cables to connect PCs to the switching hub ports on MZK-W04NU. Both 10 Base-T and 100 Base-T connections can be used simultaneously.

4. **Connect WAN Cable.**

Connect the DSL or Cable modem to the WAN port on MZK-W04NU.

5. **Power On.**

Power the DSL or Cable modem on, and connect the adapter with MZK-W04NU and plug the other side of the power cord into the power socket to power on it. While detecting, the **Power** LED and **Status** LED will be on, and **LAN** LEDs will be blinking for a while and then the MZK-W04NU will be ready in a short time and the **Status** LED will be green.



Plug the AC Adapter which comes with MZK-W04NU in a different voltage power supply will cause damage on MZK-W04NU, and it is not included in warranty.

## **System Requirements**

- Windows, Macintosh, or Linux-based Operating System with an installed Ethernet adapter
- Network cables. Use standard 10/100 BaseT network (UTP) cables with RJ45 connectors.
- TCP/IP protocol must be installed on all PCs.
- For Internet Access, an Internet Access account with an ISP, and either of a DSL or Cable modem (for WAN port usage)

# **Chapter2 Setup & Configuration**

# 1. Client's Computer Setup

The computers on your LAN need to be set up to cooperate with MZK-W04NU Wireless Router. Please make sure that your operating system already enabled your interface card on the host and connected to one of the LAN ports on MZK-W04NU through Cat.5 cable. Be sure that LEDs on MZK-W04NU are already on and the LED corresponds with the port which you connected. If you switch on MZK-W04NU for the first time, owing to the default status, it will automatically enable the embedded DHCP server and start to distribute IP to your host. In addition, the default IP address of MZK-W04NU is "192.168.1.1." If your operating system is Windows 98/2000/XP, you may be able to use command of "ipconfig" to inquire whether you have the correct IP address or not. If you are using Linux/Unix-Like system, you can use "ifconfig" to check your NIC (Network Interface Card) address. The instructions are as follows:

- **Windows98**

1. Click "Start→Programs→MS-DOS" or "Start→Run..." and type in "command.exe" and then press enter.
2. "MS-DOS" window will appear.
3. Type "ipconfig" after the command of "c:>" and then press enter.
4. MS-DOS will appear your NIC address in the window, please take notice of the value of "IP Address" and "Default Gateway."
5. The value of "Default Gateway" is the IP address of MZK-W04NU.

- **Windows2000/XP**

1. Please make sure that you do have the authority to access as an "Administrator" or you are already one of the "System Administrators."
2. Click "Start→Programs→Accessories→Command Prompt" or "Start→Run..." and then type in "cmd.exe" and press enter.
3. It will appear a "MS-DOS" window.
4. Type "ipconfig" after the command of "c:>" and then press enter.
5. MS-DOS will appear your NIC address in the window, please take notice of the value of "IP Address" and "Default Gateway."
6. The value of "Default Gateway" is the IP address of MZK-W04NU.

If you can get "IP Address" and "Gateway," normally, it means that you may use web browser to configure MZK-W04NU. Type your destination—"http://192.168.1.1" (default IP Address of MZK-W04NU) on the Address Bar in the web browser. If you have changed the default IP Address of MZK-W04NU, please type in the new address on the address bar.

## 2. Web Configuration

The MZK-W04NU Wireless Router contains an HTTP server. This enables you to connect the router, and configure it by using your web browser.

Before attempting to configure MZK-W04NU Wireless Router, please ensure that your PC can establish a physical connection to the Wireless Router. The PC and the MZK-W04NU Wireless Router must be directly connected with each other (using the LAN ports on MZK-W04NU) or on the same LAN segment. Besides, the MZK-W04NU Wireless Router must be set up and powered on. The MZK-W04NU Wireless Router's default IP Address is "**192.168.1.1**." If the IP address has already used by another device, the other device must be turned OFF until MZK-W04NU is allocated a new IP Address.

### Using Web Browser

To establish a connection between your PC and the MZK-W04NU Wireless Router:

1. Start the WEB browser.
2. In the Address box, enter "<http://192.168.1.1/>" which is the default IP Address of the MZK-W04NU Wireless Router. Press "**Enter**" on your keyboard, and the pop-up will ask you to enter the **User Name** and **Password** to get into the program.



3. Enter the default User Name "**admin**" and Password "**password**" and then click "**OK**" to enter the system. You can also put a check in the "**Remember my password**" check box, and next time you do not need to enter password to enter the system.



4. After entering the system, MZK-W04NU will show you the homepage. During configuration, you can use the tabs on the top of the page to navigate. Besides, it is necessary that, after configuring, you should click "**Apply**" to enable the settings you've made.



If your MZK-W04NU Wireless Router does not response, and you cannot enter the web configuration page, please follow the steps below to check if there is any problem:

1. Make sure that MZK-W04NU Wireless Router is properly installed and powered on, and LAN connection is O.K. You can test the connection by using "**Ping**" command:

- ◆ Open MS-DOS window or click "**Start→Run...**" on the desktop to show the command prompt window.
- ◆ Enter the command: **ping 192.168.1.1**
- ◆ If it shows the message of "**Request time out,**" the problem can be either disorder of connection, or the conflict between your PC's IP address and the router's IP address.



2. If your PC uses static IP address, the IP address must between in the range of 192.168.1.2~192.168.1.254, in order not to occupy the MZK-W04NU's default IP address "**192.168.1.1.**" In addition, the subnet mask must be "**255.255.255.0.**" To know more details of your PC and Internet connection, please check the TCP/IP settings on your PC.

3. You have to make sure that your PC and MZK-W04NU are on the same segment.

## 3. Setup Wizard

After you login the configuration utility, you can click “**Setup Wizard**” on the upper left of the page to start setting up MZK-W04NU. You can finish setting up the router and begin to connect Internet just through a few simple and easy steps. Please follow the instructions below to set up MZK-W04NU.



### 3.1. Enter Setup Wizard

The followings are the most common used connection types: **Static IP Address**, **DHCP**, and **PPPoE**. If you want to know more about the other types of WAN configurations, please refer to “**Network→LAN Setup**” configuration page.



## 3.2. Broadband Type & IP Address Info

### 3.2.1. Static IP Address

#### ➤ Step 1

If you have already had a Static IP address, you can choose this entry and use the wizard to configure. Click "**Static IP Address**" to proceed.



The screenshot shows the 'Setup Wizard (Step 1)' interface for the MZK-WO4NU device. The top navigation bar includes 'Status', 'Management', 'Network', 'Advanced', 'Firewall', 'Wireless LAN', 'USB', and 'Log'. The 'Setup Wizard' sidebar is on the left. The main content area shows three radio button options: 'Static IP Address' (which is selected and highlighted with a red box), 'DHCP', and 'PPPoE'. A 'Next' button is located below the options.

#### ➤ Step 2

The following are the WAN settings; please configure the settings according to the real environment.



The screenshot shows the 'Setup Wizard (Step 2)' interface for the MZK-WO4NU device, titled 'Static IP Address'. The top navigation bar and sidebar are the same as in Step 1. The main content area contains five rows of input fields for IP configuration: 'IP Address', 'Subnet Mask', 'Default Gateway', 'DNS Server', and another 'DNS Server'. Each field is a four-digit input box with a period separator. A 'Finish' button is located at the bottom of the configuration area.

- **IP address** : Enter the IP address provided by your ISP.
- **Subnet Mask** : Enter the Subnet Mask address provided by your ISP.
- **Default Gateway** : Enter the Default Gateway address provided by your ISP.
- **DNS address** : Enter the DNS IP address provided by your ISP.
- **Finish** : After finishing setting up, you may click here.

### 3.2.2. DHCP

#### ➤ Step1

If you use cable modem, you may choose this entry and use the wizard to configure. Click "**DHCP**" to proceed.



### ➤ Step2

The following are the WAN settings; please configure the settings according to the real environment.



- **Change MAC address** : The default MAC address of MZK-WO4NU is the Network Interface Card's (NIC) MAC address on the WAN side. If you were asked to use the NIC provided by the ISP, you may click "**Enable**" and enter the MAC address of NIC provided by the ISP. We do not suggest you to change the default MAC address, if your ISP does not ask you to change it.
- **Finish** : After finishing setting up, you may click here.

### 3.2.3. PPPoE

#### ➤ Step1

If you use PPPoE, you may choose this entry and use the wizard to configure. Click "**PPPoE** " to proceed.



### ➤ Step2

The following are the WAN settings; please configure the settings according to the real environment.

## PPPoE

USER ID Password Confirm Password 

- **USER ID** : Enter the User Name provided by your ISP. (The ID must be alphanumeric characters and case sensitive.)
- **Password** : Enter the Password provided by your ISP. (The password must be alphanumeric characters and case sensitive.)
- **Confirm Password** : Enter the Password again for verification.
- **Finish** : After finishing setting up, you may click here.

## 4. Status

### 4.1. System

After entering the configuration homepage of MZK-W04NU, please click “**Status**” on the upper left corner of the page. This page shows the general current system status.



The screenshot shows the MZK-W04NU configuration interface. The top navigation bar includes 'Status', 'Management', 'Network', 'Advanced', 'Firewall', 'Wireless LAN', 'USB', and 'Log'. The 'Status' tab is selected. On the left, a 'Setup Wizard' menu lists 'System', 'LAN', 'WAN', and 'Wireless LAN'. The main content area is titled 'System' and displays the following information:

Model Name	MZK-W04NU
F/W Version	1.00.03
Build Date	Wed Nov 28 21:03:53 JST 2007

### 4.2. LAN

Click the link of “**LAN**” on the left side of the page, it will show you the current settings of Local Area Network.



The screenshot shows the MZK-W04NU configuration interface with the 'LAN' tab selected. The 'Setup Wizard' menu on the left is expanded to show 'LAN'. The main content area is titled 'LAN' and displays the following settings:

IP Address	192.168.1.1
Subnet Mask	255.255.255.0
DHCP Server	Enable
MAC Address	00:03:7f:e0:01:f0

A 'Refresh' button is located below the MAC Address field.

### 4.3. WAN

Click the link of “**WAN**” on the left side of the page to check the current Internet connection status of MZK-W04NU.



The screenshot shows the MZK-W04NU configuration interface with the 'WAN' tab selected. The 'Setup Wizard' menu on the left is expanded to show 'WAN'. The main content area is titled 'WAN' and displays the following settings:

Connection type	DHCP
Connect status	Disconnect
IP Address	0.0.0.0
Subnet Mask	0.0.0.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
DNS Server	0.0.0.0
MAC Address	00:03:7f:e0:01:f1

A 'Refresh' button is located below the MAC Address field.

## 4.4. Wireless LAN

Click the link of “**Wireless LAN**” on the left side of the page to check the current WLAN settings of MZK-W04NU.



The screenshot displays the web management interface for the MZK-W04NU device. The top navigation bar includes the device name 'MZK-W04NU', a language dropdown set to 'English', and an 'OK' button. Below the navigation bar are tabs for 'Status', 'Management', 'Network', 'Advanced', 'Firewall', 'Wireless LAN', 'USB', and 'Log'. The 'Wireless LAN' tab is selected. On the left side, a 'Setup Wizard' menu lists 'System', 'LAN', 'WAN', and 'Wireless LAN'. The main content area shows the following settings:

Wireless LAN	Enable
AP/Router	Router Mode
Wireless Mode	802.11 G/N
SSID	planexuser
Channel	1
MAC Address(BSSID)	00:03:7f:be:f2:d4

A 'Refresh' button is located below the MAC Address field.

# 5. Management

You can configure many things through Management functions, such as

- ◆ Remote Management
- ◆ Password
- ◆ Time Zone and NTP (Network Time Protocol)
- ◆ Firmware Update
- ◆ Save & Load Settings
- ◆ Load Default & Reboot

## 5.1. Remote Management

MZK-W04NU Wireless Router can be managed by any PC from your LAN. If the router has connected to the Internet, the administrator can also configure it via the Internet. Owing to the security, however, you should have a static IP before performing remote management.



- **Remote Management** : Click the check box to enable remote management function.
- **Management host IP** : Enter the IP address of the remote management interface.
- **Reply ping** : Ping is a common and useful tool to know 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 reply all inbound PING request, and when you activate this function, not only you but all the users will be able to ping your router from Internet.
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.

## 5.2. Administrator

The default USER ID of MZK-W04NU Wireless Router is “**admin**” and Password is “**password.**” It is recommended that you should change the default password to have better protection over the router and the LAN. You must memorize the password set by you to enter the system; otherwise, you have to restore the whole systems and then configure the settings again.



The screenshot shows the web interface of the MZK-W04NU Wireless Router. The top navigation bar includes tabs for Status, Management (selected), Network, Advanced, Firewall, Wireless LAN, USB, and Log. The left sidebar contains a menu with options: Setup Wizard, Remote Management, Administrator (selected), Date & Time, Firmware Management, Save & Load settings, and Load Default & Reboot. The main content area is titled "Administrator" and contains three input fields: "USER ID" with the value "admin", "Password" with masked characters, and "Confirm Password" with masked characters. Below the input fields are "Apply" and "Clear" buttons.

- **USER ID** : Enter the current USER ID of the administration. (It has to be alphanumeric characters and case-sensitive.)
- **Password** : Enter a new Password of the administration. (It has to be alphanumeric characters and case-sensitive.)
- **Confirmed Password** : Please enter the password again for confirmation.
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click “**Clear**” to configure the page again.

## 5.3. Date & Time

You can set the system date and time according to the time zone where you locate now.



The screenshot shows the web interface for the MZK-W04NU device. The top navigation bar includes 'Status', 'Management', 'Network', 'Advanced', 'Firewall', 'Wireless LAN', 'USB', and 'Log'. The 'Management' tab is active. On the left, a sidebar menu lists 'Setup Wizard', 'Remote Management', 'Administrator', 'Date & Time', 'Firmware Management', 'Save & Load settings', and 'Load Default & Reboot'. The main content area is titled 'Date & Time' and contains the following settings:

- NTP**:  Enable
- Timezone**: Japan
- NTP Server 1**: ntp2.jst.mfeed.ad.jp
- NTP Server 2**: ntp1.jst.mfeed.ad.jp
- Time**: Sat Jan 1 09:32:14 JST 2000

At the bottom of the settings are three buttons: 'Apply', 'Clear', and 'Refresh'.

- **NTP** : Click to enable the Network Time Protocol function.
- **Timezone** : Scroll the list to choose the time zone for MZK-W04NU.
- **NTP Server 1/2** : You can enter the Internet address of an NTP(Network Time Protocol) Server for your system to synchronize with.
- **Time** : Here shows the current date and time.
- **Apply** : Click this button, the system will save the settings and synchronize with NTP Server.
- **Clear** : If there is anything wrong with the configuration, you can click "**Clear**" to configure the page again.
- **Refresh** : Click this button to update to the latest date and time.

## 5.4. Firmware Management

You can upgrade the firmware of MZK-W04NU via Web Browser.

First, please go to the website: <http://www.planex.net/support/index.htm> to download the latest firmware of MZK-W04NU. Be sure that the downloaded firmware is stored in your PC's disk and then click "**Browse...**" to search for the firmware file which you just downloaded. Click "**Open**" to use the firmware and then go back to the configuration page, and click "**Firmware Update**" to start upgrading immediately. It is recommended that you should save the settings before upgrading the firmware.



It takes about 2~3 minutes to upgrade the firmware. When upgrading, please do not turn off the power of MZK-W04NU. After finishing upgrading, MZK-W04NU will restart automatically.

### Firmware Management

Firmware Update

### Firmware Management

Firmware Update

MZK-W04NU English

Setup Wizard

Remote Management

Administrator

Date & Time

Firmware Management

Save & Load settings

Load Default & Reboot

System Message

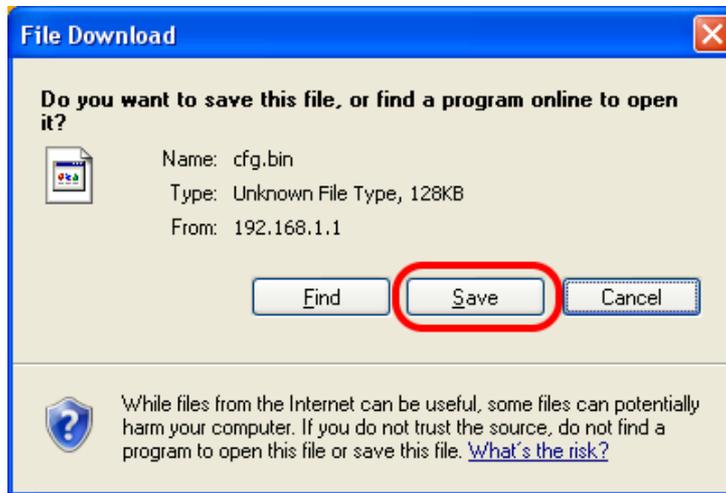
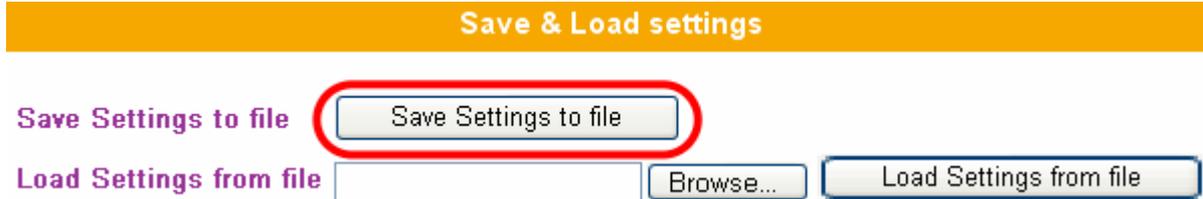
System is restarting now. Please wait for a while. 71

## 5.5. Save & Load Settings

Before upgrading, you can use this function to save current system settings or upload the previous settings after upgrading the firmware.

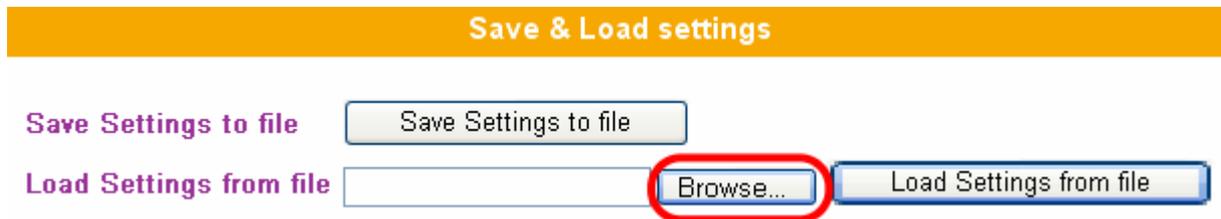
### ➤ Save Settings to file

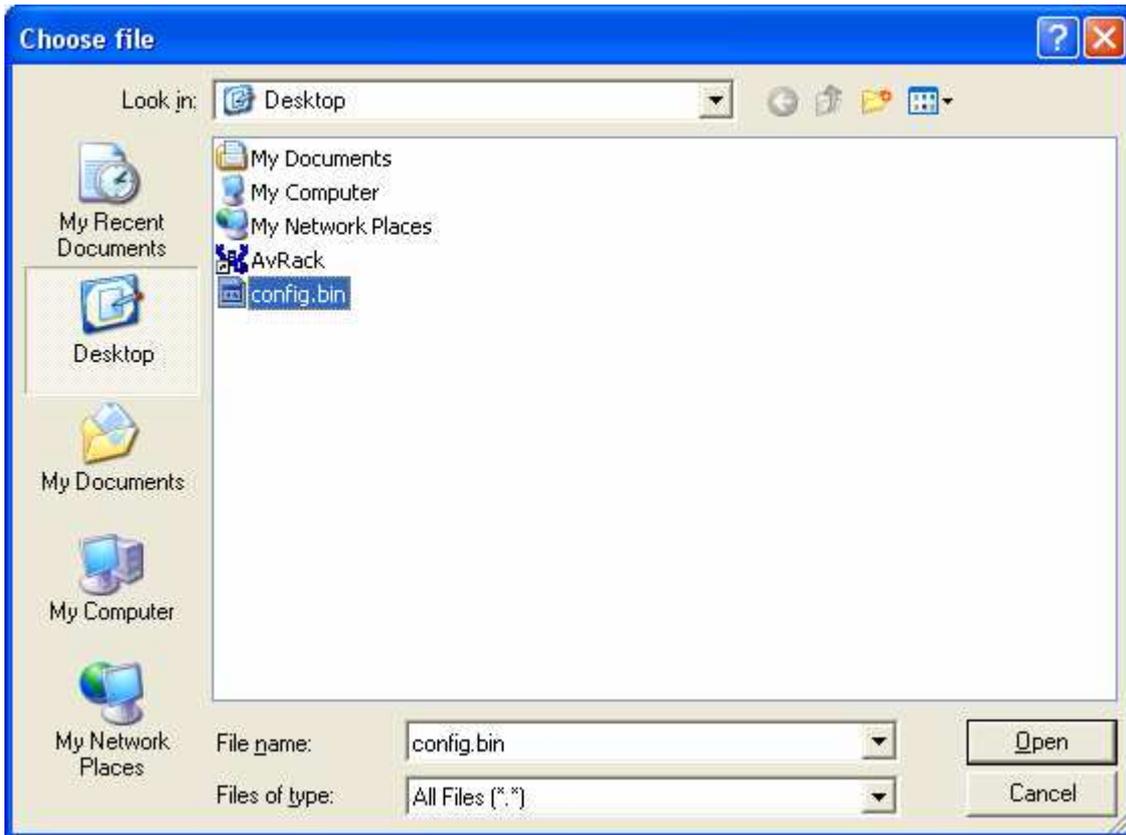
You may click "**Save Settings to file**" button to save current system settings to your local disk. (The format will be "\*.bin" file)



### ➤ Restore Settings

Make sure the saved system setting file is in the local host disk and then click "**Browse...**" to search for the saved system setting file. Click "**Open**" to select the system setting file that you want and then click "**Load Settings from file**" to start restore the settings.





### Save & Load settings

Save Settings to file

Save Settings to file

Load Settings from file

C:\Documents and Setting

Browse...

Load Settings from file

## 5.6. Load Default & Reboot

### ➤ Load Default

Click "**Load Default**" and then the system will restart to the factory default value afterward. After successfully restoring, the system will automatically go back to the homepage.



### ➤ Reboot

Go to the "**Load Default & Reboot**" configuration page, and then click "**Reboot**" to restart the system. It may take some time to complete the process, please don't turn off the power of the router before the process is completed.



- Setup Wizard
- Remote Management
- Administrator
- Date & Time
- Firmware Management
- Save & Load settings
- Load Default & Reboot

System Message

System is restarting now. Please wait for a while. 65

# 6. LAN

On the LAN Settings page, you can set up **LAN IP address**; moreover, you can enable **DHCP Server** function to assign IP addresses to users on the LAN.

**DHCP** stands for **Dynamic Host Control Protocol**. MZK-W04NU Wireless Router has a built-in DHCP server which can automatically assign an IP address to those computers/devices on the LAN/private network. If you enable DHCP server, the client device will obtain an IP address automatically. Whenever you turn on the computer, the client device will automatically load the proper TCP/IP settings from MZK-W04NU. The DHCP server will allocate an unused IP address from the IP address pool to the requesting computer, but you must specify the beginning and ending address of the IP address pool.



## LAN IP

- **IP address** : Here is the IP address of the LAN side of MZK-W04NU. It is usually the default gateway of the client’s PC. The default IP address is “**192.168.1.1**”.
- **Subnet Mask** : The Subnet Mask of the LAN side of MZK-W04NU is “**255.255.255.0**”.

## DHCP Server

- **DHCP Server** : Click to “**Enabled**” the DHCP server of MZK-W04NU.
- **Start Address/End Address** : Please enter the first and the last IP addresses which MZK-W04NU distribute IP addresses to. The IP addresses in this range can get assigned IP addresses from MZK-W04NU. (However, all the PCs on the same LAN should use the same subnet mask.)
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click “**Clear**” to configure the page again.

# 7. WAN

In the WAN settings, MZK-W04NU Wireless Router provides many kinds of access. You can configure the WAN side according to the real environment.

## 7.1. Static IP Address

If you do not need to make a dial-up connection, and your ISP provides you a static IP address, please choose “**Static IP Address**”.

The screenshot displays the 'Static IP Address' configuration page of the MZK-W04NU router. The page features a top navigation bar with tabs for 'Status', 'Management', 'Network', 'Advanced', 'Firewall', 'Wireless LAN', 'USB', and 'Log'. A left sidebar contains a 'Setup Wizard' menu with options: 'LAN Setup', 'WAN Setup', 'Static IP Address', 'DHCP', 'PPPoE', 'PPPoE Unnumbered', and 'PPPoE Multisession'. The main content area is titled 'Static IP Address' and contains the following fields:

- IP Address**: 0 . 0 . 0 . 0
- Subnet Mask**: 0 . 0 . 0 . 0
- Default Gateway**: 0 . 0 . 0 . 0
- DNS Server**: 0 . 0 . 0 . 0
- DNS Server**: 0 . 0 . 0 . 0

At the bottom of the form area, there are two buttons: 'Apply' and 'Clear'.

- **IP Address** : Enter the IP address provided by your ISP.
- **Subnet Mask** : Enter the Subnet Mask address provided by your ISP.
- **Default Gateway** : Enter the Gateway address provided by your ISP.
- **DNS Server 1/2** : Enter the DNS Server’s address provided by your ISP. Enter the second DNS address, however, this is option and you may leave it blank.
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click “**Clear**” to configure the page again.

## 7.2. DHCP

If you automatically get the IP address from your ISP or use the Cable Modem, please choose “DHCP”.

MZK-W04NU English OK PCI

Status Management Network Advanced Firewall Wireless LAN USB Log

Setup Wizard

LAN Setup

WAN Setup

Static IP Address

DHCP

PPPoE

PPPoE Unnumbered

PPPoE Multisession

DHCP

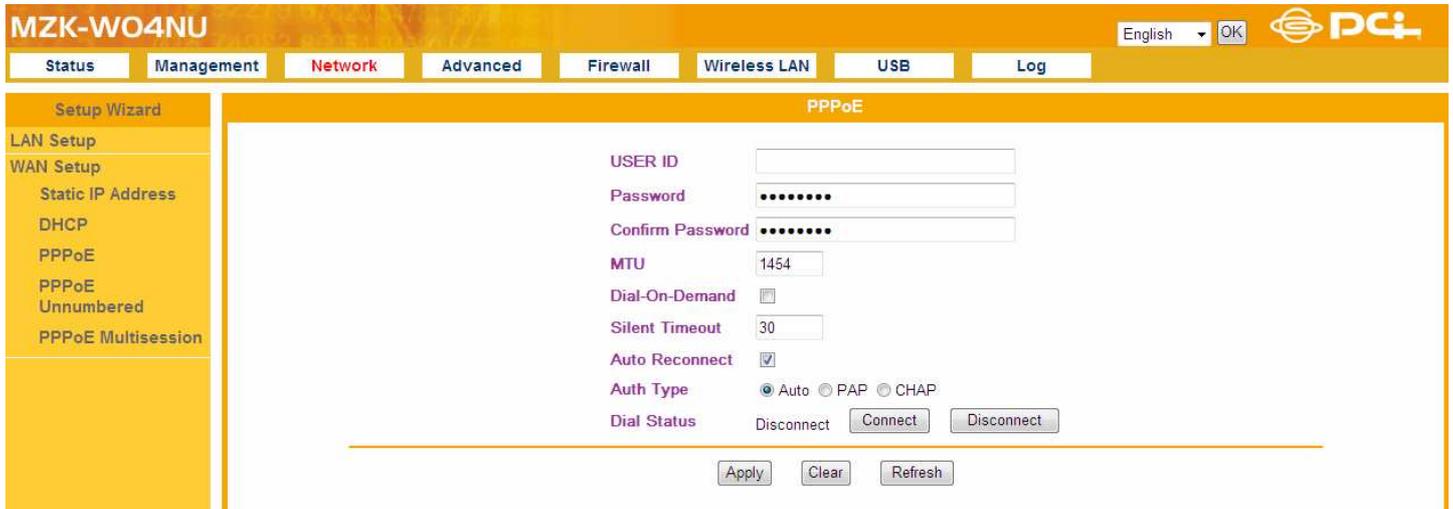
Change MAC Address  Enable 00 : 00 : 00 : 00 : 00 : 00

Apply Clear

- **MAC address** : The default MAC address of MZK-W04NU is the Network Interface Card’s (NIC) MAC address on the WAN side. If you were asked to use the NIC provided by the ISP, you may click “**Enable**” and enter the MAC address of NIC provided by the ISP. We do not suggest you to change the default MAC address, if your ISP does not ask you to change it.
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click “**Clear**” to configure the page again.

## 7.3. PPPoE

If your ISP assigns a new IP address for you whenever you login, please choose “**PPPoE** (Point to Point Protocol over Ethernet)” from the above page.



- **USER ID** : Enter the User Name provided by your ISP. (The ID must be alphanumeric characters and case sensitive.)
- **Password** : Enter the Password provided by your ISP. (The password must be alphanumeric characters and case sensitive.)
- **Confirm Password** : Enter the Password again for verification.
- **MTU** : MTU means **Maximum Transmission Unit**, the largest physical packet size, measured in bytes, that a network can transmit. The default value is **1454**. Please set up the MTU according to your system environment. Only enter a new MTU when your ISP requires, otherwise, please leave it as the default setting. When using PPPoE connection, you may need to change MTU settings to maintain the connection with your ISP, however, if the incorrect value was entered, you may be unable to access certain websites. Reducing the packet size can help connecting to certain websites or speeding up the transmission rate.
- **Dial-On-Demand/Silent Timeout** : You may disconnect the connection when there is no activity for a period of time and set the Silent Timeout in the next field. Silent Timeout means a period of idle time before you go offline. Enter a maximum period of time (minute) to define the maximum idle time. If the silent time is above the defined maximum idle time, it will go offline immediately. You can set the value to be 0 or Auto Reconnect to disable this function.
- **Auto Reconnect/Connect/Disconnect** : If you choose Auto Reconnect, MZK-W04NU Wireless Router will automatically reconnect to your ISP when you restart the system or the connection is stopped. To enable “**Auto Reconnect**” you must set “**Silent Timeout**” to be 0 or leave the field blank; otherwise there might be a warning message. Click “**Connect**” to manually make a connection or click “**Disconnect**” to disconnect the connection.
- **Auth Type** : You may choose **PAP** or **CHAP** authentication to enhance the security of data transmission.

- ◆ **PAP** –Short for **Password Authentication Protocol**, the most basic form of authentication, in which a user's name and password are transmitted over a network and compared to a table of name-password pairs. Typically, the passwords stored in the table are encrypted. The Basic Authentication feature built into the HTTP protocol uses PAP. The main weakness of PAP is that both the username and password are transmitted "in the clear" -- that is, in an unencrypted form.
- ◆ **CHAP** –Short for **Challenge Handshake Authentication Protocol**, a type of authentication in which the authentication agent (typically a network server) sends the client program a random value that is used only once and an ID value. Both the sender and peer share a predefined secret.
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.
- **Refresh** : Click this button to update to the latest status.

## 7.4. PPPoE Unnumbered

Unnumbered PPPoE can let you manage a range of IP addresses but only need to dial once. When an IP address is received at the gateway, the driver will use network mask to configure the subnet mask of ASIC. At the server side, you must delete the corresponding hot route and add a new network route so that the packets can be correctly routed to gateway.

The screenshot shows the 'PPPoE Unnumbered' configuration page in the MZK-WO4NU web interface. The page has a navigation menu at the top with tabs for Status, Management, Network, Advanced, Firewall, Wireless LAN, USB, and Log. The main content area is titled 'PPPoE Unnumbered' and contains the following fields and controls:

- USER ID**: Text input field.
- Password**: Password input field (masked with dots).
- Confirm Password**: Password input field (masked with dots).
- IP Address**: Four numeric input fields (0, 0, 0, 0).
- Subnet Mask**: Four numeric input fields (255, 255, 255, 0).
- MTU**: Text input field (1454).
- Dial-On-Demand**: Check box (unchecked).
- Silent Timeout**: Text input field (30).
- Auto Reconnect**: Check box (checked).
- Auth Type**: Radio buttons for Auto (selected), PAP, and CHAP.
- Dial Status**: Three buttons: Disconnect, Connect, and Disconnect.

At the bottom of the form, there are three buttons: Apply, Clear, and Refresh.

- **USER ID** : Enter the User Name provided by your ISP. (The ID must be alphanumeric characters and case sensitive.)
- **Password** : Enter the Password provided by your ISP. (The password must be alphanumeric characters and case sensitive.)
- **Confirm Password** : Enter the Password again for verification.
- **IP Address** : Please enter the IP address provided by your ISP.
- **Subnet Mask** : Please enter the subnet mask address provided by the ISP.
- **MTU** : MTU means **Maximum Transmission Unit**, the largest physical packet size, measured in bytes, that a network can transmit. The default value is **1454**. Please set up the MTU according to your system environment. Only enter a new MTU when your ISP requires, otherwise, please leave it as the default setting. When using PPPoE connection, you may need to change MTU settings to maintain the connection with your ISP, however, if the incorrect value was entered, you may be unable to access certain websites. Reducing the packet size can help connecting to certain websites or speeding up the transmission rate.
- **Dial-On-Demand/Silent Timeout** : You may disconnect the connection when there is no activity for a period of time and set the Silent Timeout in the next field. Silent Timeout means a period of idle time before you go offline. Enter a maximum period of time (minute) to define the maximum idle time. If the silent time is above the defined maximum idle time, it will go offline immediately. You can set the value to be 0 or Auto Reconnect to disable this function.
- **Auto Reconnect/Connect/Disconnect** : If you choose Auto Reconnect, MZK-WO4NU Wireless Router will automatically reconnect to your ISP when you restart the system or the

connection is stopped. To enable "**Auto Reconnect**" you must set "**Silent Timeout**" to be 0 or leave the field blank; otherwise there might be a warning message. Click "**Connect**" to manually make a connection or click "**Disconnect**" to disconnect the connection.

- **Auth Type** : You may choose **PAP** or **CHAP** authentication to enhance the security of data transmission.
  - ◆ **PAP** –Short for **Password Authentication Protocol**, the most basic form of authentication, in which a user's name and password are transmitted over a network and compared to a table of name-password pairs. Typically, the passwords stored in the table are encrypted. The Basic Authentication feature built into the HTTP protocol uses PAP. The main weakness of PAP is that both the username and password are transmitted "in the clear" -- that is, in an unencrypted form.
  - ◆ **CHAP** –Short for **Challenge Handshake Authentication Protocol**, a type of authentication in which the authentication agent (typically a network server) sends the client program a random value that is used only once and an ID value. Both the sender and peer share a predefined secret.
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.
- **Refresh** : Click this button to update to the latest status.

## 7.5. PPPoE Multisession

Using Multiple PPPoE, you can login to the different ISP concurrently and connect to the Internet. MZK-W04NU provides two connections: PPPoE 1 and PPPoE 2.

The screenshot shows the MZK-W04NU web interface. The top navigation bar includes 'Status', 'Management', 'Network' (highlighted), 'Advanced', 'Firewall', 'Wireless LAN', 'USB', and 'Log'. The left sidebar shows 'Setup Wizard' with 'WAN Setup' expanded to 'PPPoE Multisession'. The main content area is titled 'PPPoE Multisession' and 'PPPoE 1'. It contains the following fields and controls:

- USER ID: Text input field
- Password: Password input field (masked with dots)
- Confirm Password: Password input field (masked with dots)
- IP Address: Four numeric input fields (0, 0, 0, 0)
- Subnet Mask: Four numeric input fields (255, 255, 255, 0)
- MTU: Text input field (1454)
- Dial-On-Demand:
- Silent Timeout: Text input field (30)
- Auto Reconnect:
- Auth Type: Radio buttons for Auto (selected), PAP, and CHAP
- Dial Status: Disconnect, Connect, and Disconnect buttons

The screenshot shows the MZK-W04NU web interface. The top navigation bar includes 'Status', 'Management', 'Network' (highlighted), 'Advanced', 'Firewall', 'Wireless LAN', 'USB', and 'Log'. The left sidebar shows 'Setup Wizard' with 'WAN Setup' expanded to 'PPPoE Multisession'. The main content area is titled 'PPPoE Multisession' and 'PPPoE 2'. It contains the following fields and controls:

- USER ID: Text input field
- Password: Password input field (masked with dots)
- Confirm Password: Password input field (masked with dots)
- IP Address: Four numeric input fields (0, 0, 0, 0)
- Subnet Mask: Four numeric input fields (255, 255, 255, 0)
- MTU: Text input field (1454)
- Dial-On-Demand:
- Silent Timeout: Text input field (30)
- Auto Reconnect:
- Auth Type: Radio buttons for Auto (selected), PAP, and CHAP
- Network 1: Dropdown menu (Disable)
- Network 2: Dropdown menu (Disable)
- Network 3: Dropdown menu (Disable)
- Network 4: Dropdown menu (Disable)
- Dial Status: Disconnect, Connect, and Disconnect buttons
- Apply, Clear, and Refresh buttons at the bottom

- **USER ID** : Enter the User Name provided by your ISP. (The ID must be alphanumeric characters and case sensitive.)
- **Password** : Enter the Password provided by your ISP. (The password must be alphanumeric characters and case sensitive.)
- **Confirm Password** : Enter the Password again for verification.
- **MTU** : MTU means **Maximum Transmission Unit**, the largest physical packet size, measured in bytes, that a network can transmit. The default value is **1454**. Please set up the MTU according to your system environment. Only enter a new MTU when your ISP requires, otherwise, please leave it as the default setting. When using PPPoE connection, you may

need to change MTU settings to maintain the connection with your ISP, however, if the incorrect value was entered, you may be unable to access certain websites. Reducing the packet size can help connecting to certain websites or speeding up the transmission rate.

- **Dial-On-Demand/Silent Timeout** : You may disconnect the connection when there is no activity for a period of time and set the Silent Timeout in the next field. Silent Timeout means a period of idle time before you go offline. Enter a maximum period of time (minute) to define the maximum idle time. If the silent time is above the defined maximum idle time, it will go offline immediately. You can set the value to be 0 or Auto Reconnect to disable this function.
- **Auto Reconnect/Connect/Disconnect** : If you choose Auto Reconnect, MZK-W04NU Wireless Router will automatically reconnect to your ISP when you restart the system or the connection is stopped. To enable "Auto Reconnect" you must set "Silent Timeout" to be 0 or leave the field blank; otherwise there might be a warning message. Click "Connect" to manually make a connection or click "Disconnect" to disconnect the connection.
- **Auth Type** : You may choose **PAP** or **CHAP** authentication to enhance the security of data transmission.
  - ◆ **PAP** –Short for **Password Authentication Protocol**, the most basic form of authentication, in which a user's name and password are transmitted over a network and compared to a table of name-password pairs. Typically, the passwords stored in the table are encrypted. The Basic Authentication feature built into the HTTP protocol uses PAP. The main weakness of PAP is that both the username and password are transmitted "in the clear" -- that is, in an unencrypted form.
  - ◆ **CHAP** –Short for **Challenge Handshake Authentication Protocol**, a type of authentication in which the authentication agent (typically a network server) sends the client program a random value that is used only once and an ID value. Both the sender and peer share a predefined secret.
- **Network 1~4** : When using NAPT LAN type, you may do the following settings.
  - ◆ **Disable**: Choose this to disable the function.
  - ◆ **IP Address** : Please enter the range of IP addresses provided by your ISP.
  - ◆ **Domain Name** : You can set a domain name as the transmission rule. For example, entering "**planex.com.tw**" in this column, it means the packets which use planex.com.tw as destination will be delivered through this segment.
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click "Clear" to configure the page again.
- **Refresh** : Click this button to update to the latest status.

# **Chapter3 Advanced Setup & Configuration**

# 1. Advanced

## 1.1. DHCP Server

Dynamic DNS can let you connect with one or more DDNS services to update your current dynamic IP address. **DHCP** stands for **Dynamic Host Control Protocol**. MZK-W04NU Wireless Router has a built-in DHCP server which can automatically assign an IP address to those computers/devices on the LAN/private network. If you enable DHCP server, the client host will obtain an IP address automatically. Whenever you turn on the computer, it will automatically load the proper TCP/IP settings from MZK-W04NU. The DHCP server will allocate an unused IP address from the IP address pool to the requesting computer, but you must specify the beginning and ending address of the IP address pool.

**DHCP Server Setting**

DHCP Server	<input checked="" type="checkbox"/> Enable
Start Address	192.168.1.20
End Address	192.168.1.50
1st WINS Server	0.0.0.0
2nd WINS Server	0.0.0.0

**Static DHCP Leases**

No.	MAC Address	IP Address
1	00:00:00:00:00:00	192.168.1.20

**DHCP Lease Status**

No.	MAC Address	IP Address
1	00:00:00:00:00:00	192.168.1.20
2	00:17:ab:df:d1:3a	192.168.1.21

### DHCP Server Setting

- **DHCP Server** : Click to enable the built-in DHCP server, it will automatically distribute IP addresses to the devices which send request to it.
- **Start Address/End Address** : Please enter the first and the last IP addresses which MZK-W04NU distribute IP addresses to. The IP addresses in this range can get assigned IP addresses from MZK-W04NU. (However, all the PCs on the same LAN should use the same subnet mask.)
- **1<sup>st</sup> / 2<sup>nd</sup> WINS Server** : If you already set and need the WINS server, you can fill in the IP address of the WINS server in the columns.
- **Apply** : After finishing setting up DHCP server, click this button to save the settings.
- **Clear** : If you want to clear the settings you just made, click this button.

### **Static DHCP Leases**

- **MAC address** : Enter the MAC address of the PC or network device.
- **IP address** : Enter the IP address you want to assign to the PC or network device.
- **Apply** : After entering the MAC address and IP address, click this button to save the settings.
- **Clear** : If you want to clear the just entered MAC address or IP address, click this button.

### **DHCP Lease Status**

- **DHCP Lease Status** : If you already set a range of IP addressed for the DHCP server to distribute, the clients who get the IP addresses will be listed here.
- **Refresh** : Click this button to update to the latest status.

## 1.2. UPnP

If your Windows Operating System supports UPnP service, when you enable the UPnP service and the MZK-W04NU Wireless Router is connecting with the computer, the task bar will show the icon of MZK-W04NU to inform you that a new device is found and inquire you whether if you want to set a shortcut on the desktop.



- **Enable** : If your operating system supports this function, you may check to enable it.
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.

### 1.3. Dynamic DNS

Dynamic DNS can let you connect with one or more DDNS services to update your current dynamic IP address. To make a WEB server publicly accessible on the Internet, a static global IP address needs to be assigned to MZK-W04NU. Even when there is an always-on connection, however, disconnection does occur and the IP address may dynamically change after reconnection. When Dynamic DNS is enabled, the IP address of the product is reported to a Dynamic DNS server at regular intervals so that it can use the same static host name even after IP has changed.

MZK-W04NU supports [www.dyndns.org](http://www.dyndns.org) and [cybergate.planex.co.jp](http://cybergate.planex.co.jp) Dynamic DNS services. [www.dyndns.org](http://www.dyndns.org) and [cybergate.planex.co.jp](http://cybergate.planex.co.jp) are free services. Before enabling DDNS configuration on the product, be sure to access either of the former websites and register your user name, password, host name, and so on.

The screenshot shows the MZK-W04NU web interface. At the top, there is a navigation bar with tabs for Status, Management, Network, Advanced, Firewall, Wireless LAN, USB, and Log. The 'Advanced' tab is selected. Below the navigation bar, there is a sidebar with a 'Setup Wizard' menu containing options like DHCP Server, UPnP, Dynamic DNS, Static Routing, and IPv6 Bridge. The main content area is titled 'Dynamic DNS' and contains a section for 'CyberGate -DDNS-'. This section includes a checkbox for 'Enable', a 'Last Updated' field showing 'None', a 'Subdomain' text input, a 'Domain' dropdown menu set to 'luna.ddns.vc', 'Password' and 'Confirm Password' fields with masked characters, an 'Interval' dropdown set to '1 Day', and an 'Off Line' checkbox.

#### DynDNS

The screenshot shows the DynDNS configuration page. It includes a checkbox for 'Enable', a 'Last Updated' field showing 'None', a 'USER ID' text input, 'Password' and 'Confirm Password' fields with masked characters, a 'Hostname' text input followed by a dropdown menu set to 'ath.cx', an 'Interval' dropdown set to '1 Day', a 'Wildcard' checkbox, and a 'Mail Exchanger' text input. At the bottom, there are three buttons: 'Apply', 'Clear', and 'Refresh'.

#### CyberGate -DDNS-

- **CyberGate -DDNS-** : You may choose a DDNS provider and then click to enable DDNS

function. The default status is **Disabled**.

- **Last Updated** : Show the status of last update.
- **Subdomain** : Enter the sub-domain which you registered on CyberGate website.
- **Domain** : Select the Domain Name which you registered.
- **Password** : Enter the Password or Key which you use to login the service.
- **Confirm Password** : Enter the Password again for verification.
- **Interval** : Choose an interval to renew DNS information. You can choose: 1 Day, 3 Days, 5 Days, 1 Week, or 2 Weeks.
- **Off Line** : Click to be off-line.

### DynDNS

- **DynDNS** : You may choose a DDNS provider and then click to enable DDNS function. The default status is **Disabled**.
- **Last Updated** : Show the status of last update.
- **User ID** : Enter the User ID which you registered on DynDNS website.
- **Password** : Enter the Password or Key which you use to login the service.
- **Confirm Password** : Enter the Password again for verification.
- **Hostname** : Enter the Hostname which you registered on DynDNS website.
- **Interval** : Choose an interval to renew DNS information. You can choose: 1 Day, 3 Days, 5 Days, 1 Week, or 2 Weeks.
- **Wildcard** : When setting the alias of sub-domain name, please click to enable this function. For example, sub-domain of [www.planex.dyndns.org](http://www.planex.dyndns.org), [ftp.planex.dyndns.org](http://ftp.planex.dyndns.org) and etc., can use the same IP address with the host name of [planex.dyndns.org](http://planex.dyndns.org).
- **Mail Exchanger** : Enter the transferring setting of the mail server set with the host name on DynDNS website.
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.

## 1.4. Static Routing

This section describes how to manually add routing information.

No.	Destination IP/Netmask	Gateway	Metric	Interface	Enable
1	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 . 0 . 0 . 0	0	LAN	<input type="checkbox"/>
2	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 . 0 . 0 . 0	0	LAN	<input type="checkbox"/>
3	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 . 0 . 0 . 0	0	LAN	<input type="checkbox"/>
4	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 . 0 . 0 . 0	0	LAN	<input type="checkbox"/>
5	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 . 0 . 0 . 0	0	LAN	<input type="checkbox"/>
6	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 . 0 . 0 . 0	0	LAN	<input type="checkbox"/>
7	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 . 0 . 0 . 0	0	LAN	<input type="checkbox"/>
8	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 . 0 . 0 . 0	0	LAN	<input type="checkbox"/>
9	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 . 0 . 0 . 0	0	LAN	<input type="checkbox"/>
10	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 . 0 . 0 . 0	0	LAN	<input type="checkbox"/>
11	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 . 0 . 0 . 0	0	LAN	<input type="checkbox"/>
12	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 . 0 . 0 . 0	0	LAN	<input type="checkbox"/>
13	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 . 0 . 0 . 0	0	LAN	<input type="checkbox"/>
14	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 . 0 . 0 . 0	0	LAN	<input type="checkbox"/>
15	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 . 0 . 0 . 0	0	LAN	<input type="checkbox"/>

- **Destination IP/Netmask** : Enter the IP address of packet destination and Netmask of packet destination.
- **Gateway** : Enter the address of the first gateway through which the target network is reached.
- **Metric** : Enter the hop count number (the number of gateways used between the product and target network).
- **Interface** : Select the interface for which static routing is configured.
- **Enable** : Put a check in the check box to enable each route.
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.

## 1.5. IPv6 Bridge

MZK-W04NU supports IPv6 Bridge function, which can connect between LAN and WAN in Data. By using this function, you can connect to computers on your network through PPPoE connection.

\*As for IPv6 clients setting, please refer to OS manual.



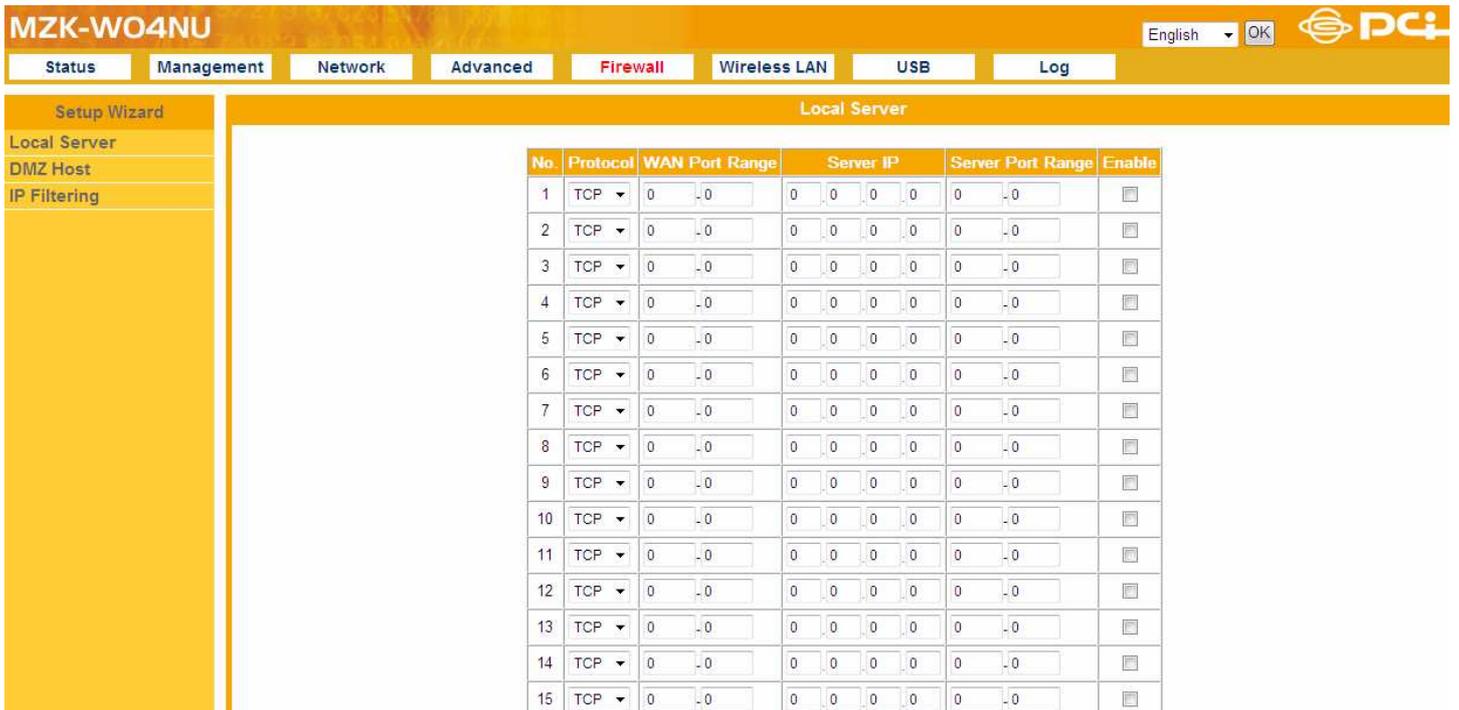
- **Enable** : Click to enabled IPv6 Bridge function.
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.

## 2. Firewall

MZK-W04NU has three kinds of firewall functions which are Local Server, DMZ, and IP Filtering.

### 2.1. Local Server

Local Server configuration is used to i) make a server on LAN publicly accessible via the Internet and ii) access applications including online games and chat programs. Some services and applications used on the Internet have been already registered in the product to simplify Local Server configuration. You may set **32** sets of servers.



The screenshot shows the 'Local Server' configuration page in the MZK-W04NU web interface. The page has a yellow header with the product name 'MZK-W04NU' and navigation tabs: Status, Management, Network, Advanced, Firewall (selected), Wireless LAN, USB, and Log. A language dropdown is set to 'English' with an 'OK' button. On the left, a 'Setup Wizard' sidebar lists 'Local Server', 'DMZ Host', and 'IP Filtering'. The main area contains a table for configuring 15 servers.

No.	Protocol	WAN Port Range	Server IP	Server Port Range	Enable
1	TCP	0 - 0	0 0 0 0	0 - 0	<input type="checkbox"/>
2	TCP	0 - 0	0 0 0 0	0 - 0	<input type="checkbox"/>
3	TCP	0 - 0	0 0 0 0	0 - 0	<input type="checkbox"/>
4	TCP	0 - 0	0 0 0 0	0 - 0	<input type="checkbox"/>
5	TCP	0 - 0	0 0 0 0	0 - 0	<input type="checkbox"/>
6	TCP	0 - 0	0 0 0 0	0 - 0	<input type="checkbox"/>
7	TCP	0 - 0	0 0 0 0	0 - 0	<input type="checkbox"/>
8	TCP	0 - 0	0 0 0 0	0 - 0	<input type="checkbox"/>
9	TCP	0 - 0	0 0 0 0	0 - 0	<input type="checkbox"/>
10	TCP	0 - 0	0 0 0 0	0 - 0	<input type="checkbox"/>
11	TCP	0 - 0	0 0 0 0	0 - 0	<input type="checkbox"/>
12	TCP	0 - 0	0 0 0 0	0 - 0	<input type="checkbox"/>
13	TCP	0 - 0	0 0 0 0	0 - 0	<input type="checkbox"/>
14	TCP	0 - 0	0 0 0 0	0 - 0	<input type="checkbox"/>
15	TCP	0 - 0	0 0 0 0	0 - 0	<input type="checkbox"/>

- **Protocol** : Select to use "TCP" or "UDP" protocol.
- **WAN Port Range** : Enter the source port number for the service or application.
- **Server IP** : Enter the IP address of the PC that serves as local server.
- **Server Port Range** : Enter the destination port number for the service or application.
- **Enable** : Put a check in the check box to enable each server.
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click "Clear" to configure the page again.

## 2.2. DMZ

If your computer cannot use Internet applications or cannot provide services to remote users when applying MZK-W04NU at the same time, you can let the host which wants to access to the Internet using DMZ function. Enter the host's LAN IP address to enable this function, but be aware that one MZK-W04NU can only correspond to a single DMZ host.



The screenshot shows the 'DMZ Host' configuration page in the MZK-W04NU web interface. The page has a yellow header with the title 'MZK-W04NU' and a navigation menu with tabs for 'Status', 'Management', 'Network', 'Advanced', 'Firewall', 'Wireless LAN', 'USB', and 'Log'. The 'DMZ Host' tab is selected. On the left side, there is a sidebar with a 'Setup Wizard' section containing 'Local Server', 'DMZ Host', and 'IP Filtering'. The main content area shows the 'DMZ Host' configuration with a checkbox labeled 'DMZ Host Enable' which is unchecked. To the right of the checkbox are four input fields for the IP address, each containing the number '0'. Below the input fields are two buttons: 'Apply' and 'Clear'.

- **Enable DMZ** : Check this box to enable DMZ function, uncheck this box to disable DMZ function.
- **Client PC IP address** : Please enter the private IP address that the Internet IP address will be mapped to.
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.



Adding a client host to DMZ might expose it to a variety of danger such as virus or worm attacks because of unrestricted Internet access; therefore, only use this option as the last means. Besides, before using DMZ function, you should update the up-to-date settings of security system and virus signatures on the host.

## 2.3. IP Filtering

The built-in IP filter of MZK-W04NU applies pre-configured filter rules to packets received as well as packets transmitted by the product. Filter rules include IP filtering and Port filtering. You may set **32** sets of filter rules.

IP Filtering							
No.	Action	Protocol	Source IP/Netmask	Source PORT	Destination IP/Netmask	Destination PORT	Enable
1	Drop	TCP	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	<input type="checkbox"/>
2	Drop	TCP	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	<input type="checkbox"/>
3	Drop	TCP	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	<input type="checkbox"/>
4	Drop	TCP	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	<input type="checkbox"/>
5	Drop	TCP	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	<input type="checkbox"/>
6	Drop	TCP	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	<input type="checkbox"/>
7	Drop	TCP	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	<input type="checkbox"/>
8	Drop	TCP	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	<input type="checkbox"/>
9	Drop	TCP	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	<input type="checkbox"/>
10	Drop	TCP	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	<input type="checkbox"/>
11	Drop	TCP	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	<input type="checkbox"/>
12	Drop	TCP	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	<input type="checkbox"/>
13	Drop	TCP	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	<input type="checkbox"/>
14	Drop	TCP	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	<input type="checkbox"/>
15	Drop	TCP	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	0 . 0 . 0 . 0 / 0 . 0 . 0 . 0	0 - 0	<input type="checkbox"/>

- **Action** : "Drop" means drop the packets to filter. "Accept" means accept all packets related to this session.
- **Protocol** : Choose to filter "TCP" or "UDP" protocol.
- **Source IP/Netmask** : Enter the Source IP address which you want to filter and it's Netmask.
- **Source PORT** : Specify the Source PORT which you want to filter.
- **Destination IP/Netmask** : Enter the Destination IP address which you want to filter and it's Netmask
- **Destination PORT** : Specify the Destination PORT which you want to filter.
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click "Clear" to configure the page again.

## 3. Wireless LAN

If your computer, PDA, game console, or other network devices which is equipped with wireless network interface, you can use the wireless function of this router to let them connect to Internet and share resources with other computers with wired-LAN connection. You can also use the built-in security functions to protect your network from being intruded by malicious intruders.

### 3.1. Basic Settings

This page includes all the fundamental and basic parameters. After changing any parameters, you have to apply and restart the device and then the new settings can be effective.

The screenshot shows the web interface for the MZK-W04NU router. The top navigation bar includes tabs for Status, Management, Network, Advanced, Firewall, Wireless LAN (selected), USB, and Log. The main content area is titled 'Basic Settings' and contains the following configuration options:

- Wireless LAN:**  Enable
- SSID:** planexuser
- Wireless Mode:** 802.11 B/G/N
- Channel:** 1
- Frequency Bandwidth:** 40MHz
- Hide SSID:**  Enable
- 11G Protection:**  Enable
- Wireless Separating:**  Enable

Buttons for 'Apply' and 'Clear' are located at the bottom of the settings list.

- **Wireless LAN** : Click the check box to enable the Wireless function. The default value is "Enabled". After modifying the settings, please click "Apply" to save the settings and restart the system.
- **SSID** : Every SSID is unique in the WLAN (SSID can be 16-digit ASCII characters and case-sensitive). SSID can prevent two nearby WLAN from combining to be one. You can give BLW-54MF an SSID, and only whose SSID is the same with it can connect with it. The default SSID is "planexuser". **Notice: When entering your SSID, please don't use special characters such as "@", "#", "\$", "%", "^", "&", "\*", "(", and ")". Using special characters or symbols could cause wireless connection difficulties.**
- **Wireless Mode** : Scroll down the list to choose a band width. There are six kinds of modes: **B/G/N, G/N, B/G, B, G, and N.**
- **Channel** : Here shows the channels provided by the local wireless connection. The setting of the channels of the wireless network should be the same as the wireless APs. For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.
- **Frequency Bandwidth** : Choose a kind of frequency bandwidth: **20MHz** or **20/40MHz.**
- **Hide SSID** : If you check the check box of "Hide SSID," SSID of MZK-W04NU will not appear on the other PC's wireless network list. Therefore, the Wireless Router/AP can block the users without authentication.

- **11G Protection:** Enabling this setting will reduce the chance of radio signal collisions between 802.11b and 802.11g wireless access points.
- **Wireless Separating :** Enable this function to discard the packets between wireless adapters.
- **Apply :** Click this button to save the settings.
- **Clear :** If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.

## 3.2. Security

In this page, you can configure the security of your wireless network. Selecting different method can make different levels of security. However, no matter what kind of authentication or encryption you use to prevent data packets from being eavesdropped by people without authentication, it may cause decrease of the data throughput of the wireless connection.

### Authentication and Encryption

There are several kinds of authentication of MZK-W04NU wireless Router. After selecting the authentication mode, it has to cooperate with the encryption type. The settings of authentication on the destination network must be the same with MZK-W04NU.

**Open System** –If enabling this mode, there is no need authentication to access AP or wireless NIC.

**Pre-Shared Key** –Only those who are sharing the same key with the AP can connect with it.

**WEP** –WEP is short for Wired Equivalent Privacy, a security protocol for WLANs defined in the 802.11b standard. WEP is designed to provide the same level of security as that of a wired LAN. WEP aims to provide security by encrypting data over radio waves so that it is protected as it transmitted from one end point to another. There are two kinds of WEP encryption: 64 bit and 128 bit. 64 bit needs 10 hex characters to be the key and 128 bit needs 26 hex characters.

**WPA** – is short for Wi-Fi Protected Access. It was designed to improve upon the security features of WEP. The technology is designed to work with existing Wi-Fi products that have been enabled with WEP. Through the data encryption, access control and authentication, it provides better protection over data transmission. WPA uses 128-digit keys to ensure the wireless network privacy and security.

**WPA2** – is short for Wi-Fi Protected Access 2. It is the follow on security method to WPA for wireless networks that provides stronger data protection and network access control. It provides enterprise and consumer Wi-Fi users with a high level of assurance that only authorized users can access their wireless networks. There are two versions of WPA2: WPA2-Personal, and WPA2-Enterprise. WPA2-Personal protects unauthorized network access by utilizing a set-up password. WPA2-Enterprise verifies network users through a server. WPA2 is backward compatible with WPA.

**WPA-PSK** – is short for Wi-Fi Protected Access-Pre-Shared Key. WPA-PSK uses the same encryption way with WPA, and the only difference between them is that WPA-PSK recreates a simple shared key, instead of using the user's certification.

**TKIP** – is short for **Temporal Key Integrity Protocol**. TKIP scrambles the keys using a hashing algorithm and, by adding an integrity-checking feature, ensures that the keys haven't been tampered with.

**AES** – is short for **Advanced Encryption Standard**. AES is a symmetric 128-bit block data encryption technique. It has a fixed block size of 128-bits and a key size of 128, 192, or 256-bits.

**Pass Phrase** – Pass Phrase also named Shared Secret which is used only when enabling WPA-PSK

authentication. A passphrase is a string of characters longer than the usual password (which is typically from four to 16 characters long) that is used in creating a digital signature (an encoded signature that proves to someone that it was really you who sent a message) or in an encryption or a decryption of a message. It is applicable only when you select WPA-PSK authentication. You will need to enter an 8~63 characters password to start the encryption process, which will generate four WEP keys automatically.

**RADIUS** – is short for Remote Authentication Dial-In User Service, an authentication and accounting system used by many Internet Service Providers (ISPs). RADIUS setup is used to set up additional parameters for authorizing wireless clients through RADIUS server. The RADIUS setup is required when you select to use **Open System with 802.1x** or **WPA** authentication.

<b>Encryption</b>	<b>WEP Key 1~4</b>	<b>Passphrase</b>
<b>Open System or Shared Key</b>		
WEP64 (bit)	10 hex characters	Null
WEP128 (bit)	26 hex characters	Null
<b>Open System</b>		
WEP64 (bit)	10 hex characters	Null
WEP128 (bit)	26 hex characters	Null
<b>Open System with 802.1x</b>		
WEP64 (bit)	Null	Null
WEP128 (bit)	Null	Null
<b>Shared Key</b>		
WEP64 (bit)	10 hex characters	Null
WEP128 (bit)	26 hex characters	Null
<b>WPA</b>		
TKIP	Null	Null
AES	Null	Null
WEP64 (bit)	Null	Null
WEP128 (bit)	Null	Null
<b>WPA-PSK</b>		
TKIP	Null	8-63 characters
AES	Null	8-63 characters
WEP64 (bit)	Null	8-63 characters
WEP128 (bit)	Null	8-63 characters

The screenshot displays the 'Security' configuration page of an MZK-WO4NU router. The page is organized into a sidebar on the left with options like 'Basic Settings', 'Security', 'MAC Filtering', 'WDS', and 'WPS'. The main content area is titled 'Security' and contains the following fields:

- Authentication:** A dropdown menu set to 'Open System'.
- Encryption:** A dropdown menu set to 'None'.
- Pass Phrase:** A text input field with a note below it: '\*8-63 ascii characters or 64 digits Hexadecimal'.
- Default Key:** A dropdown menu set to 'KEY 1'.
- WEP Key 1, 2, 3, 4:** Four separate text input fields for entering WEP keys.
- RADIUS Server IP:** A field with four small input boxes, each containing a '0'.
- RADIUS Port:** A text input field containing '1812'.
- RADIUS Pass Phrase:** A text input field.

At the bottom of the configuration area, there are 'Apply' and 'Clear' buttons.

- **Authentication** : There are several kinds of authentication types : **Open System, Shared Key, WPA, WPA-PSK/WPA2-PSK, WPA/WPA2.**
- **Encryption** : There are five types of encryption settings, please set the key depending on the real environment. According to the type and length, there are four Key types:
  - **64-bit** – Enter 10-digit Hex values or 5-digit ASCII values as the encryption keys. For example: "0123456aef" or "Guest."
  - **128-bit** – Enter 26-digit Hex values or 13-digit ASCII values as the encryption keys. For example: "01234567890123456789abcdef" or "administrator."
  - **TKIP** – It is short for **Temporal Key Integrity Protocol**. TKIP scrambles the key using a hashing algorithm and, by adding an integrity-checking feature, ensures that the keys haven't been tampered with.
  - **AES** – Short for **Advanced Encryption Standard**, a symmetric 128-bit block data encryption technique. It works at multiple network layers simultaneously and has a fixed block size of 128-bits and a key size of 128, 192, or 256-bits.
  - **TKIP/AES** – A mix use of both TKIP and AES encryption.
- **Pass Phrase** : It's also named Shared Secret which is used only when enabling WPA-PSK authentication. A passphrase is a string of characters longer than the usual password (which is typically from four to 16 characters long) that is used in creating a digital signature (an encoded signature that proves to someone that it was really you who sent a message) or in an encryption or a decryption of a message. It is applicable only when you select WPA-PSK authentication. You will need to enter an 8~63 characters password to start the encryption process, which will generate four WEP keys automatically.
- **Default Key** : You can enter four WEP keys and select one of them as default key. Then the router can receive any packets encrypted by one of the four keys. Only the key you select it in the "**Default key**" will take effect.
- **WEP Key 1~4** : The WEP keys are used to encrypt data transmitted in the wireless

network. Fill the text box by following the rules below. 64-bit WEP: input 10-digit Hex values (in the "A-F", "a-f" and "0-9" range) or 5-digit ASCII character as the encryption keys. 128-bit WEP: input 26-digit Hex values (in the "A-F", "a-f" and "0-9" range) or 13-digit ASCII characters as the encryption keys.

- **RADIUS Server IP** : Please input the IP address of your RADIUS authentication server here.
- **RADIUS Port** : Please input the port number of your RADIUS authentication server here. **Default setting is 1812.**
- **RADIUS Pass Phrase** : Please input the password of your RADIUS authentication server here.
- **Apply** : Click this button to save the settings and restart the router.
- **Clear** : If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.

### 3.3. MAC Filtering

If you set MAC Filtering, only those whose wireless MAC addresses listed on the Device List **can** or **cannot** connect with MZK-W04NU. The default mode is that all the wireless stations are allowed to access MZK-W04NU. Up to **20** MAC addresses can be assigned by using this function.

The screenshot shows the MAC Filtering configuration page for the MZK-WO4NU device. The page is divided into a header, a navigation menu, a sidebar, and a main content area. The main content area is titled "MAC Filtering" and contains an "Action" dropdown menu set to "Disable", with "Apply" and "Clear" buttons below it. Below this is a "Device List" section with a table header: "No.", "Comment", and "MAC Address". The table has one row with "1" in the "No." column, an empty "Comment" field, and an empty "MAC Address" field. "Apply" and "Clear" buttons are located below the table.

- **Action** : Choose an action from the list. The default value is **Disable**.
  - **Disable** – Choose this function to disable MAC filtering function. This means all the users may connect with MZK-04G without limitation.
  - **Allow** – Choose this function to let users only whose MAC addresses were added to the Device List can connect with MZK-04G and eliminate other users.
  - **Deny** – Choose this function to deny those users whose MAC addresses were added to the Device List cannot connect with MZK-04G, while other users can connect with it.
- **Apply** : Click this button to save the settings and restart the router.
- **Clear** : If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.
- **Comment** : Enter any text to describe the MAC address which you want to allow or deny. It can be 16 alphanumerical characters at most.
- **MAC address** : Enter the MAC address of your wireless devices here.
- **Apply** : Click "**Apply**" button to add the save/apply the settings and then the added MAC address will be listed on the table.
- **Clear** : If there is anything wrong with the settings you just entered, you can click "**Clear**" to configure the column again.

### 3.4. WDS

**Wireless Distribution System** uses wireless media to communicate with other APs, like the Ethernet does. To do this, you must set these APs in the same channel and set MAC address of other APs which you want to communicate with in the table and then enable the WDS.

The screenshot shows the web interface for the MZK-W04NU device. The top navigation bar includes tabs for Status, Management, Network, Advanced, Firewall, **Wireless LAN**, USB, and Log. A language dropdown is set to English. On the left, a 'Setup Wizard' sidebar lists Basic Settings, Security, MAC Filtering, WDS, and WPS. The main content area is titled 'WDS' and features a 'WDS' dropdown menu currently set to 'Disable'. Below it is a 'MAC Address' field consisting of six input boxes, each containing '00'. At the bottom of the form are 'Apply' and 'Clear' buttons.

- **WDS** : MZK-W04NU supports the following mode for WDS settings.
  - **Disable**: Disable WDS function.
  - **Root**: In this mode, MZK-W04NU becomes the only connection between the wireless LAN and Ethernet/Internet.
  - **Bridge** : Connect MZK-W04NU with another wireless router, to expand the range of the network.
  - **Repeater** : Connect MZK-W04NU with up to four other wireless routers, to expand the scope of network.
- **MAC address** : Enter the MAC address of the wireless AP here.
- **Apply** : Click "**Apply**" button to add the save/apply the settings and then the added MAC address will be listed on the table.
- **Clear** : If there is anything wrong with the settings you just entered, you can click "**Clear**" to configure the column again.

### 3.5. WPS

Use the unique **WPS (Wi-Fi Protected Setup)** function to insure your wireless security, and you may complete the setup of wireless configuration and encryption within a simple click on a button. However, this function only works on **Windows 2000** and **XP** OS.



- **Apply** : Click this button to activate WPS function.
- **Clear** : If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.

# 4. USB

When a USB storage device is attached to the product, it can serve as a file server. The attached USB storage device can also be used as a publicly accessible HTTP server on the Internet. This chapter first describes how to attach a USB storage device to the product, and then shows how to use it as a file server.

When a USB storage device is connected to the product, it serves as a file server. The following summarizes the steps required to use a USB storage device via the product.

1. Connect a USB storage device to the product
2. Upload the Addon files in order to activate all the USB storage device management functions.

## 4.1. USB Device

Note: the hard disk formats supported by the product are FAT32 and EXT3 only.

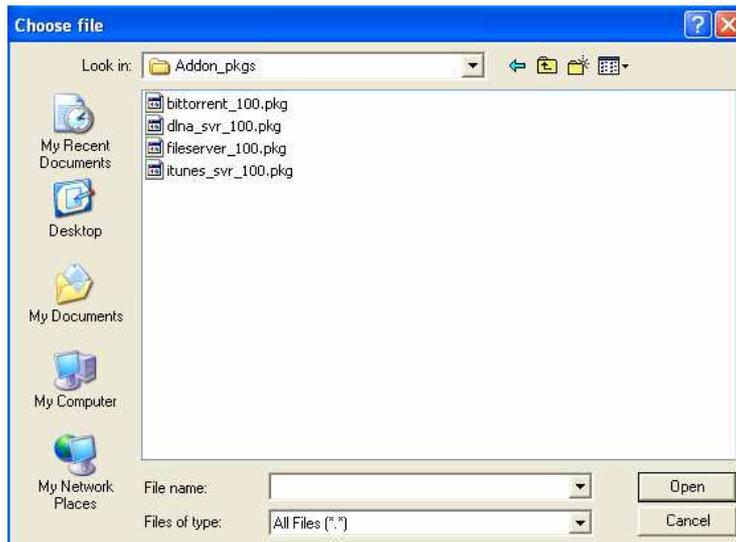
1. Connect a USB storage device to the product, MZK-W04NU will detect the device and show its **Total Size, Free Size, Description, Format Type, and Status.**



2. In order to upload the Addon files for your MZK-W04NU, please click on the "Addons" on the left side of the configuration page.



5. You can find the Addon files in the CD which is provided in the product package, and those files' format are "\*.pkg". Please copy the Addon files to your computer, and click "Browse".



6. Choose the file you want to upload, and click "Submit Query".



7. Addons will be shown on the configuration page. You can configure different USB storage device settings here.



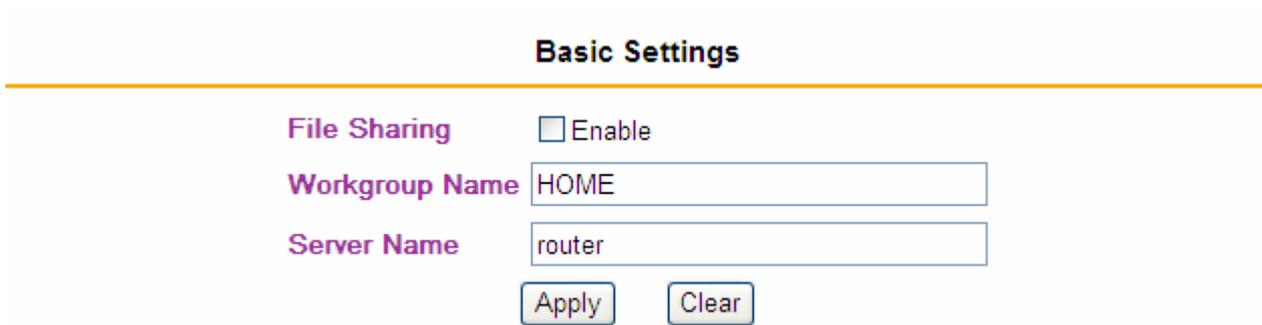
## 4.2. File Server Settings

Although the product serves as a file server when a USB storage device is attached to it, a workgroup and user accounts need to be configured to access the partitions created on the storage device.

This section describes how to configure/create a workgroup and a user account.

### 4.2.1. Basic Settings

MZK-W04NU must be in the same workgroup with the computer to let users access the file server through network.



**Basic Settings**

**File Sharing**  Enable

**Workgroup Name**

**Server Name**

- **File Sharing** : Click to enable File Server function.
- **Workgroup Name** : Enter the name of workgroup which has already been configured on your computer. For example, "**Workgroup**" on your computer, the Workgroup Name on MZK-W04NU must be "**Workgroup**", too. If a different workgroup name is used, the file server icon will not be displayed on My Network window of the computer.
- **Server Name** : Give your File Server a distinguishable name or leave it as default.
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.

### 4.2.2. User Settings

After configure the Basic Settings of MZK-W04NU, you'll have to create user accounts to let users share files on the network.

No.	User Name	Password	Allow Read	Allow Write
1	<input type="text"/>	<input type="password"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="text"/>	<input type="password"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="text"/>	<input type="password"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="text"/>	<input type="password"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="text"/>	<input type="password"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	<input type="text"/>	<input type="password"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	<input type="text"/>	<input type="password"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	<input type="text"/>	<input type="password"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	<input type="text"/>	<input type="password"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	<input type="text"/>	<input type="password"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	<input type="text"/>	<input type="password"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	<input type="text"/>	<input type="password"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	<input type="text"/>	<input type="password"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	<input type="text"/>	<input type="password"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	<input type="text"/>	<input type="password"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	<input type="text"/>	<input type="password"/>	<input type="checkbox"/>	<input type="checkbox"/>

- **User Name** : Enter an alphanumeric name and its case-sensitive. You can set 16 sets of user accounts.
- **Password** : Enter a case-sensitive alphanumeric Password which correspond to the User Name.
- **Allow Read** : Users with this permission will be allowed to read data from the file server.
- **Allow Write** : Users with this permission will be allowed to both i) write data to the file server and ii) delete data in the server.
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.



Users with **Write** permission need to have **Read** permission as well. Be sure to have users with either i) Read permission only or ii) Read and Write permissions.

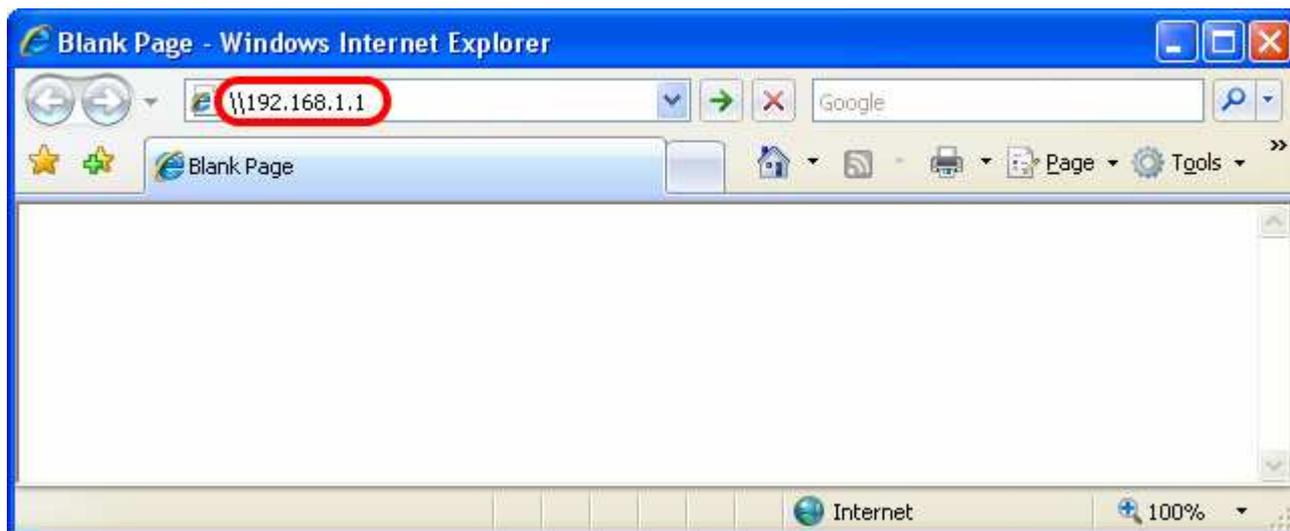
### 4.3. Bit Torrent

MZK-W04NU supports BitTorrent for efficient file downloading. If you want to use BT download, please follow the steps below:

2. Set a user who can read and write to manage the BT files.

No.	User Name	Password	Allow Read	Allow Write
1	1234	●●●●●●●●	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2		●●●●●●●●	<input type="checkbox"/>	<input type="checkbox"/>
3		●●●●●●●●	<input type="checkbox"/>	<input type="checkbox"/>
4		●●●●●●●●	<input type="checkbox"/>	<input type="checkbox"/>
5		●●●●●●●●	<input type="checkbox"/>	<input type="checkbox"/>

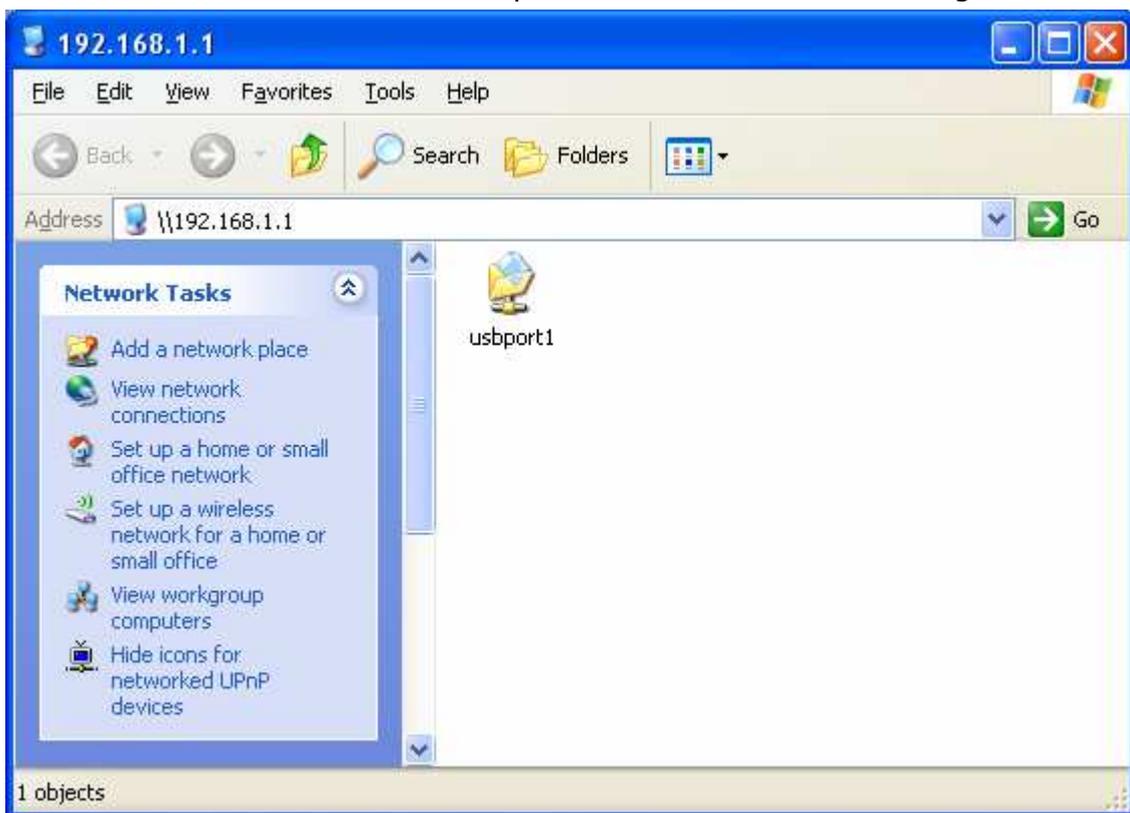
3. Open a web browser and enter "[\\192.168.1.1](http://192.168.1.1)" on the address column to enter the file server of MZK-W04NU.



4. Enter the User Name and Password which you set on the User Settings of File Server.



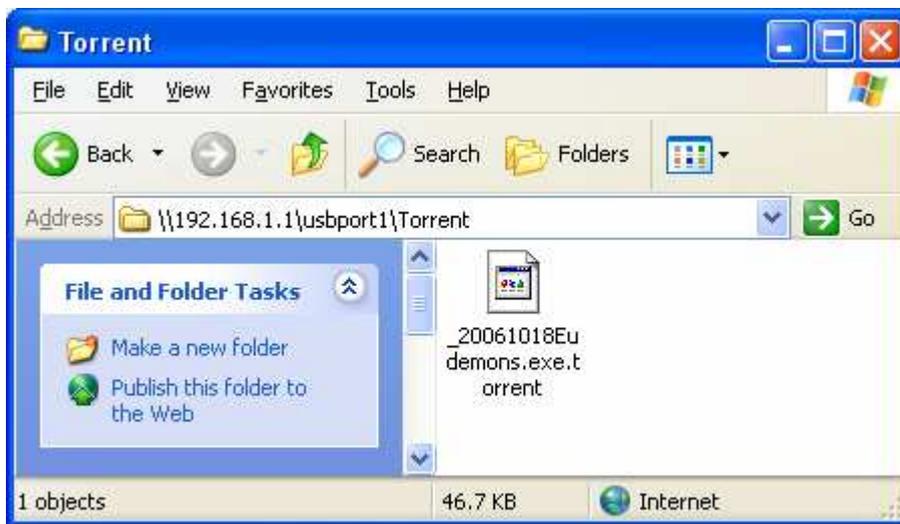
5. After entering the file server of MZK-W04NU, you will see a folder which is named after the USB port. Double click on the icon of the USB port which connects the storage device.



6. After entering the storage device, first, you have to add a new folder, and then name the folder as "**Torrent**" (case-sensitive).



7. Copy the BT seed file on your hard disk and then paste the file into the "Torrent" folder.



8. Go back to the "USB→Bit Torrent" configuration page of MZK-W04NU. If you successfully put the BT seed file into the Torrent folder, Bit Torrent configuration page will show the details of BT seed on **Torrent File List**. Click "Start" to begin downloading the file.

Device Information					
Free Size	123.0 MBytes				

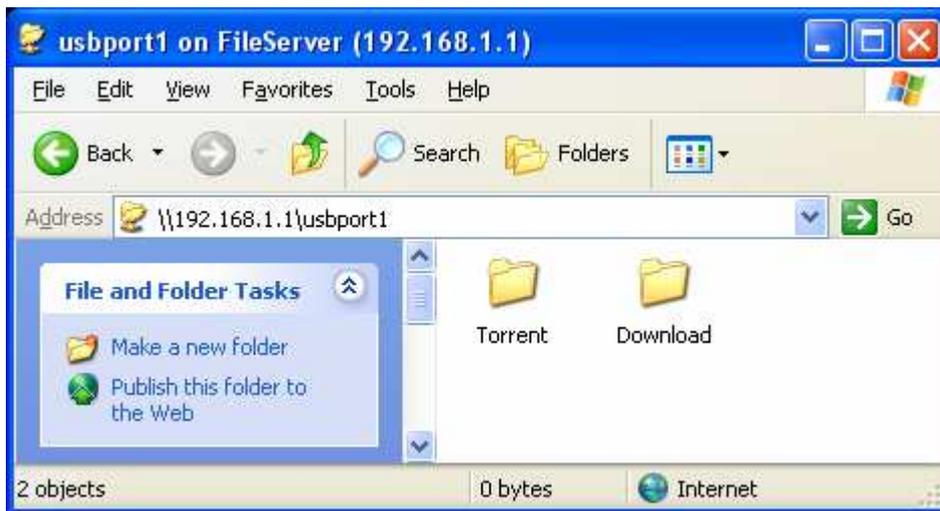
Torrent File List					
No.	Download Size	DL Limits	UL Limits	Status	Start/Stop
1	<input type="button" value="Detail"/> _20061018Eudemons.exe.torrent				
	595.8 MBytes	0 KB/s	0 KB/s	Stopped	<input type="button" value="Start"/>

9. When MZK-W04NU starts downloading the file, you may click "Detail" on **Torrent File List** to

check the download status of the file.

<b>Torrent File Name</b>	_20061018Eudemons.exe.torrent	
<b>Download Size</b>	595.8 MBytes	
<b>Status</b>	Downloading... <div style="border: 1px solid black; width: 100px; height: 15px; background-color: blue; margin-bottom: 2px;"></div> 0.00%	
<b>DL Limits</b>	0 KB/s	
<b>UL Limits</b>	0 KB/s	
<b>DL Speed</b>	0.00 KB/s	
<b>UL Speed</b>	0.00 KB/s	
<b>Peers</b>	0 peers	
<b>Download File (s)</b>	20061018Eudemons.exe	595.8 MBytes

10. After successfully downloading the file, you may go to "**Download**" folder on the file server to look for the downloaded file.



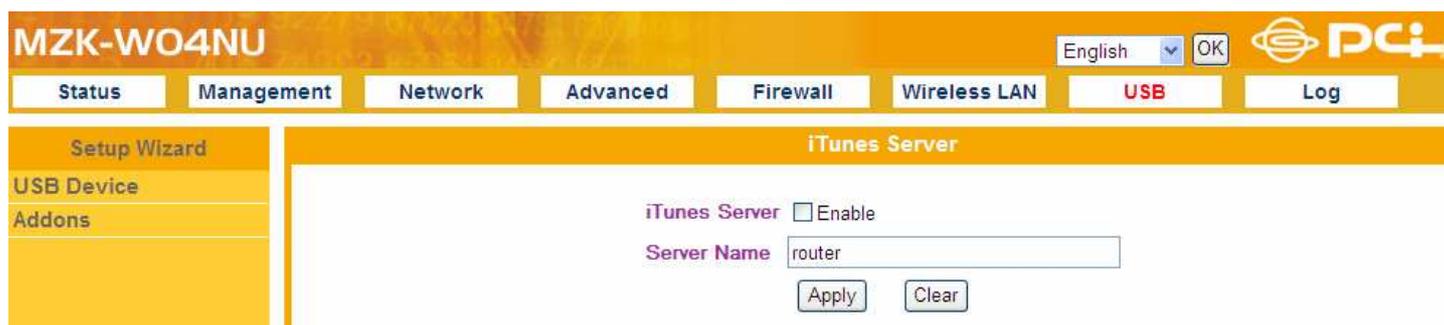
## 4.4. iTunes Server

MZK-W04NU supports iTunes Server function to share the music. (Please download the iTunes on Apple's Website before using this function.)

- Once saving the music to the HDD Enclosure and put it to the router through USB port, other computers can also enjoy the music saved in the USB storage device. In this way, you do not need to save the music you want to listen on each computer one by one.
- As long as you connect the iPod to the USB port of the router, the router will immediately enables users which are on the same LAN to enjoy the music saved in the iPod.

Please follow the steps below to use iTunes Server function:

1. Save the music into the USB connection storage device.
2. Enable the "iTunes Server" function on the configuration page of the router. And give your MZK-W04NU a distinguishable **Server Name**.
3. Using the iTunes on computer, the router will automatically add the music to its library.
4. And all you need to do now is to choose the music you like to play.



The screenshot shows the web interface of the MZK-W04NU router. At the top, there is a navigation bar with tabs for Status, Management, Network, Advanced, Firewall, Wireless LAN, USB, and Log. The 'USB' tab is selected. Below the navigation bar, there is a sidebar with 'Setup Wizard', 'USB Device', and 'Addons'. The main content area is titled 'iTunes Server' and contains the following settings:

- iTunes Server**  Enable
- Server Name**
- 

- **iTunes Server** : Click to enable iTunes Server function.
- **Server Name** : Give your iTunes Server a distinguishable name or leave it as default.
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click "Clear" to configure the page again.

## 4.5. DLNA Media Server

MZK-W04NU supports **DLNA (Digital Living Network Alliance) Media Server** function. This function has to cooperate with PS3™ to make DLNA Media Server work.



DLNA media server function only works on **firmware version of 1.80 or above** of PS3™. So, please upgrade the firmware of your PS3™ before using this function.

If you want to see any pictures or listen to music through PS3™, first, you'll have to connect PS3™ with MZK-W04NU through LAN port and build a connection. And then insert a USB storage device which has photos or music on the USB port of MZK-W04NU. After that, "**Enable**" DLNA Media Server function to let PS3™ find the server (which the default name is "**router**") on its list. Enter the Media Server and then you may find the photos or music in each folder which is sorted by PS3™.

MZK-WO4NU

English OK

Status Management Network Advanced Firewall Wireless LAN **USB** Log

Setup Wizard

USB Device

Addons

DLNA Media Server

DLNA Media Server  Enable

Media File Path

Server Name

Apply Clear

- **DLNA Media Server** : Click to enable DLNA Media Server function.
- **Media File Path** : If you want to give Media Server a specific folder which will be shown as a sub-folder of **User Files** on PS3™, you will need to set the path as **"/XXXX"** (a forward slash with the folder name). Or if you don't want to specify a folder, you'll just need to set **"/"** (a forward slash) to make all the media files show on PS3™.
- **Server Name** : Give your DLNA Media Server a distinguishable name or leave it as default.
- **Apply** : Click this button to save the settings.
- **Clear** : If there is anything wrong with the settings you made, you can click "**Clear**" to configure the page again.

## 5. Log

After entering the **Log** page of MZK-W04NU, this page shows the general current system log.

### 5.2. System Log

System Log records every events happened on the MZK-W04NU Wireless Router. These data are useful for troubleshooting.

MZK-W04NU

English OK

Status Management Network Advanced Firewall Wireless LAN USB Log

Setup Wizard System Log

```
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0x5e0000
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0x120000
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0x620000
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0x200000
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0x2ff0000
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0xff0000
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0xff0000
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0xff0000
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0x40ff0000
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0x5f0000
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0x870000
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0xf90000
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0x7b0000
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0xff0000
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0xf50000
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0xdc0000
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0x110000
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0x6100a8
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0x423022
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0x2014008f
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0xc40002
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0x3000f2
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0x440016
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0x410040
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0x1805e
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0xc0ab
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0xe1
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0x80
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0xd4
Jan 1 09:00:19 (none) user.info kernel: RF 0x98d0 V 0x10000f
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0x500
Jan 1 09:00:19 (none) user.info kernel: RF 0x989c V 0x800
Jan 1 09:00:19 (none) user.info kernel: RF 0x98cc V 0xe
```

- **Refresh** : Refresh the System Log to get the latest status.

## **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 the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

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

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

This 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.

### **IMPORTANT NOTE:**

#### **Radiation Exposure Statement:**

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

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

The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

### **Europe – EU Declaration of Conformity**

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. The following test methods have been applied in order to prove presumption of conformity with the essential requirements of the R&TTE Directive 1999/5/EC:

**EN 60 950-1: 2001 +A11: 2004**

**EN50385 : (2002-08)**

Product standard to demonstrate the compliance of radio base stations and fixed terminal stations for wireless telecommunication systems with the basic restrictions or the reference levels related to human exposure to radio frequency electromagnetic fields (110MHz - 40 GHz) - General public

**EN 300 328 V1.7.1: (2006-10)**

Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband Transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using spread spectrum modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive

**EN 301 489-1 V1.6.1: (2005-09)**

Electromagnetic compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements

**EN 301 489-17 V1.2.1 (2002-08)**

Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for 2,4 GHz wideband transmission systems and 5 GHz high performance RLAN equipment

This device is a 2.4 GHz wideband transmission system (transceiver), intended for use in all EU member states and EFTA countries, except in France and Italy where restrictive use applies.

In Italy the end-user should apply for a license at the national spectrum authorities in order to obtain authorization to use the device for setting up outdoor radio links and/or for supplying public access to telecommunications and/or network services.

This device may not be used for setting up outdoor radio links in France and in some areas the RF output power may be limited to 10 mW EIRP in the frequency range of 2454 – 2483.5 MHz. For detailed information the end-user should contact the national spectrum authority in France.

**CE 0560**

 Česky [Czech]	<i>[Jméno výrobce]</i> tímto prohlašuje, že tento <i>[typ zařízení]</i> je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
--	--

 Dansk [Danish]	Undertegnede [ <i>fabrikantens navn</i> ] erklærer herved, at følgende udstyr [ <i>udstyrets typebetegnelse</i> ] overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
 Deutsch [German]	Hiermit erklärt [ <i>Name des Herstellers</i> ], dass sich das Gerät [ <i>Gerätetyp</i> ] in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.
 Eesti [Estonian]	Käesolevaga kinnitab [ <i>tootja nimi = name of manufacturer</i> ] seadme [ <i>seadme tüüp = type of equipment</i> ] vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
 English	Hereby, [ <i>name of manufacturer</i> ], declares that this [ <i>type of equipment</i> ] is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
 Español [Spanish]	Por medio de la presente [ <i>nombre del fabricante</i> ] declara que el [ <i>clase de equipo</i> ] cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
 Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ [ <i>name of manufacturer</i> ] ΔΗΛΩΝΕΙ ΟΤΙ [ <i>type of equipment</i> ] ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.
 Français [French]	Par la présente [ <i>nom du fabricant</i> ] déclare que l'appareil [ <i>type d'appareil</i> ] est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
 Italiano [Italian]	Con la presente [ <i>nome del costruttore</i> ] dichiara che questo [ <i>tipo di apparecchio</i> ] è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Latviski [Latvian]	Ar šo [ <i>name of manufacturer / izgatavotāja nosaukums</i> ] deklarē, ka [ <i>type of equipment / iekārtas tips</i> ] atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuvių [Lithuanian]	Šiuo [ <i>manufacturer name</i> ] deklaruoją, kad šis [ <i>equipment type</i> ] atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
 Nederlands [Dutch]	Hierbij verklaart [ <i>naam van de fabrikant</i> ] dat het toestel [ <i>type van toestel</i> ] in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
 Malti [Maltese]	Hawnhekk, [ <i>isem tal-manifattur</i> ], jiddikjara li dan [ <i>il-mudell tal-prodott</i> ] jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.
 Magyar [Hungarian]	Alulírott, [ <i>gyártó neve</i> ] nyilatkozom, hogy a [... <i>típus</i> ] megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.
 Polski	Niniejszym [ <i>nazwa producenta</i> ] oświadczam, że [ <i>nazwa wyrobu</i> ] jest zgodny z

[Polish]	zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.
 Português [Portuguese]	<i>[Nome do fabricante]</i> declara que este <i>[tipo de equipamento]</i> está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
 Slovensko [Slovenian]	<i>[Ime proizvajalca]</i> izjavlja, da je ta <i>[tip opreme]</i> v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.
Slovensky [Slovak]	<i>[Meno výrobcu]</i> týmto vyhlasuje, že <i>[typ zariadenia]</i> spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
 Suomi [Finnish]	<i>[Valmistaja = manufacturer]</i> vakuuttaa täten että <i>[type of equipment = laitteen tyyppimerkintä]</i> tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
 Svenska [Swedish]	Härmed intygar <i>[företag]</i> att denna <i>[utrustningstyp]</i> står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.