Giga LAN USB2.0 USB Media Adapter

User Manual

Model A : 2-USB
Model B : 1-USB&1-SD Card Reader

Version 1.0
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Table of Contents

Introduction 4

Product Feature 5

Specifications 6

Package Content 8

1 Installation 10
- 1.1 Identifying hardware components 10
- 1.2 LED indicators 12

2 Starting Up 15
- 2.1 System requirement 15
- 2.2 Hardware installation 16
- 2.3 Utility Installation 17

3 Managing Your Device 21
- 3.1 Prepare Your Computer to Connect USB Media Adapter 21
- 3.2 Status of USB Media Adapter 23
- 3.3 Setup Your USB Media Adapter 24
- 3.4 Setup FTP Server 32
- 3.5 Setup SMB Server 34
- 3.6 BitTorrent 37
- 3.7 Media Server 42
- 3.8 Disk Utility 43
- 3.9 Misc: Factory Default and Firmware Upgrade 44
- 3.10 Restart 46
- 3.11 Backup Your Disk (Model A) 48
- 3.11 Backup Your SD Card (Model B) 49

4 Internet Connection 51

5 Troubleshooting 53

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Trademark recognition

All product names used in this manual are the properties of their respective owners and are acknowledged.

Federal Communications Commission (FCC)

This equipment has been tested and found to comply with the limits for a Class A 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 or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and the receiver.

Connect the equipment onto 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.

Shielded interconnect cables and a shielded AC power cable must be employed with this equipment to ensure compliance with the pertinent RF emission limits governing this device. Changes or modifications not expressly approved by the system's manufacturer could void the user's authority to operate the equipment.

CE MARK

This device complies with the requirements of the EEC directive 89/336/EEC with regard to "Electromagnetic compatibility" and 73/23/EEC "Low Voltage Directive".

About this manual

This manual is intended for system administrators who are familiar with setting up a new system and installing an operating system.

Safety information

Before installing and using the USB Media Adapter, take note of the following precautions:

- Read all instructions carefully.
- Do not place the unit on an unstable surface, cart, or stand.
- Do not block the slots and opening on the unit, which are provided for ventilation.
- Do not push objects in the ventilation slots as they may touch high voltage components and result in shock and damage to the components.
- Only use the power source indicated on the marking label. If you are not sure, contact your dealer or the Power Company.
- Do not place anything on the power cord. Place the power cord where it will not be in the way of foot traffic.
- Follow all warnings and cautions in this manual and on the unit case.
- When replacing parts, ensure that your service technician uses parts specified by the manufacturer.
- Avoid using the system near water, in direct sunlight, or near a heating device.

The USB ports can be damaged if care is not taken when connecting devices. Ensure USB devices are correctly inserted.
Plugging a phone line into the LAN port (RJ-45 connector) can damage the connector. Take care only plug an RJ-45 connector into the LAN port.

Introduction

Thank you for purchasing the USB Media Adapter. This product is specifically designed for Small Office and Home Office needs, providing a reliable and centralized data storage solution. With it you will be able to access your shared files from any desktop or laptop within your network.

The USB Media Adapter is a convenient and economical solution for adding any USB storage devices onto your LAN (Local Area Network). Once on the network, the USB storage can be shared by any network user, just like an ordinary NAS device.
Come built-in with a USB 2.0 connection and a gigabit 10/100/1000Mbps connection, the USB Media Adapter supports both SMB (Server Message Block) and the open source Samba network protocols, allowing for cross-platform access of all shared data for most versions of Windows 2000/XP/2003/Vista/Windows7, Mac OS X or above, and various Linux distributions. For remote users who are not connected over the LAN, the USB media adapter provides FTP access for up to 8 simultaneous users anywhere in the world with an internet connection.

Product Feature

- Convert any USB 2.0 mass storage device into a Network Attached Storage device
- Great for creating a custom Network Attached Storage appliance.
- Support Gigabit Ethernet 10/100/1000Mbps.
- Support 2-USB 2.0 ports (capacity 4GB~2TB) (Model A)
- Support 1 USB 2.0 port + 1 SD card reader port (capacity 4GB~2TB) (Model B)
- Simple to install.
- Small and light weight. Can be installed practically anywhere.
- Support PPPoE and DDNS
- Support Samba server for up to 8 concurrent clients.
- Support FTP server for up to 8 concurrent users.
- Built-in BitTorrent client for direct download to the attached USB storage device
- Can be set as a UPnP AV server to share photo/music/film files stored on the file server with XBOX 360 video game consoles, PS3 and iTunes connected to the LAN
- User management to allow read only or read/write access to folders
- Administrative management access via web browser with password security.
- Compatible with all Windows OS, Mac OS, and Linux.

Specifications

Function Summary

Item	Descriptions
Interfaces	
USB	2-USB2.0 high speed compliant port(Model A) 1-USB2.0 high speed compliant port + 1 SD card reader port (Model B)
LAN	Complies with IEEE 802.3/u/ab, 10/100/1000Base-T
Software	
Network Operating System Support	Windows 2000/XP/2003/Vista/Windows 7,Mac OS X or above, Linux
Network Protocol Support	Samba /FTP (UTF8) / BitTorrent/UPnP AV/PPPoE/DDNS
IP Configure	DHCP Client/Static IP
Management	Web interface
Software Upgradeable	Web interface
Maximum User Login	FTP 8 User/Samba 8 User (Total 64 TCP connection at the same time)
File System	FAT32 (Maximum single size: 127GB)
HDD Capacity	4GB ~ 2TB
FTP Server	Maximum create 16 user account, maximum16 folder share by one account
Samba Server	Share Level Access, maximum 16 folder share by root
BitTorrent Station	・Support Tracker & DHT ・BT Download Throughput : 8Mbps ・Max. 4 torrents download at the same time and Max. 32 Torrents queuing
Media Server	Support XBOX360, PS3 and iTunes
Throughput	Read 20± 1M Bytes , Write 12± 1M Bytes
Hardware	
CPU	ARM9-based SoC
Flash	1Mbytes
System Memory	32Mbytes DDR-SDRAM
LAN	10/100/1000Base-T

Item	Descriptions
USB Port	2-USB2.0 high speed compliant port(Model A) 1-USB2.0 high speed compliant port + 1 SD card reader port (Model B)
Reset Button	Yes (Reset / Load Factory Defaults)
Backup Button	Yes(Backup/ backup disk or SD card to USB Disk)
Power Adapter	5V/2A, switching
Dimension	72(Length) x 58(Width) x 25(Height) mm
Weight	58g (device only)
Temperature	Operating：0 ~ 50℃; Storage：-5 ~ 65℃
Humidity	Operating：0 ~ 70%; Storage：0 ~ 80%

- This product does not support use of USB hubs for daisy-chained connection, USB-to-Parallel connectors, or USB cable extenders.
- All contents and specifications are subject to change without notice.
- Other brands and product names are trademarks or registered trademarks of their respective owners.

Package Content

The package should contain all the followings. If anything is missing or appears damaged, contact your dealer immediately. Also, keep the box and packaging materials in case you need to ship the unit in the future.

CD-ROM with manual and driver

Power Adapter

USB Media Adapter

QIG

Chapter 1

Installation

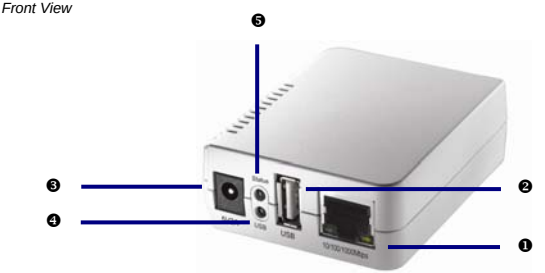
1.1 Identifying hardware components

1.2 LED Indicators

1 Installation

1.1 Identifying hardware components

Front View



Rear View (Model A)

NO	Description	NO	Description
❶	10/100/1000Base-T LAN port	❻	USB-2 2.0 high-speed port of **rear** side
❷	USB 2.0 high-speed port of **front** side	❼	USB-2 LED(Rear)
❸	Power port (5V/2A)	❽	Reset Button
❹	Status LED	❾	Backup Button
❺	USB LED (Front)		

*Rear View (*Model B*)*

NO	Description	NO	Description
❶	10/100/1000Base-T LAN port	❻	SD card reader port of **rear** side
❷	USB 2.0 high-speed port of **front** side	❼	SD card LED(Rear)
❸	Power port (5V/2A)	❽	Reset Button
❹	Status LED	❾	Backup Button
❺	USB LED (Front)		

1.2 LED indicators

Function	Color	Location	State
Status LED	Green	Front	When system power on, the LED will blink for self-test. After booting successfully, the LED will keep light.
USB LED	Orange	Front	When plug in the USB Disk, the LED will turn on. When there is traffic with USB DISK, the LED will blink.
USB-2 LED (Model A)	Orange	Rear	When plug in the USB-2 Disk, the LED will turn on. When there is traffic with USB-2 DISK, the LED will blink.
SD LED (Model B)	Orange	Rear	When plug in the SD card, the LED will turn on. When there is traffic with SD card, the LED will blink.

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Chapter 2

Starting Up

2.1 System requirement
2.2 Hardware installation
2.3 Utility Installation

2 Starting Up

2.1 System requirement

Operating system and software: Windows 2000, XP, 2003, Vista, Windows 7, Mac OS X or above, Linux

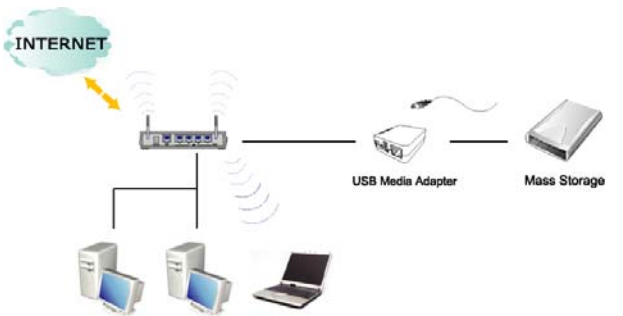
Required hardware resources:

- RJ-45 cable(Cat5e)
- JAVA-enabled computer
- USB 2.0 External HDD
- USB cable

2.2 Hardware installation

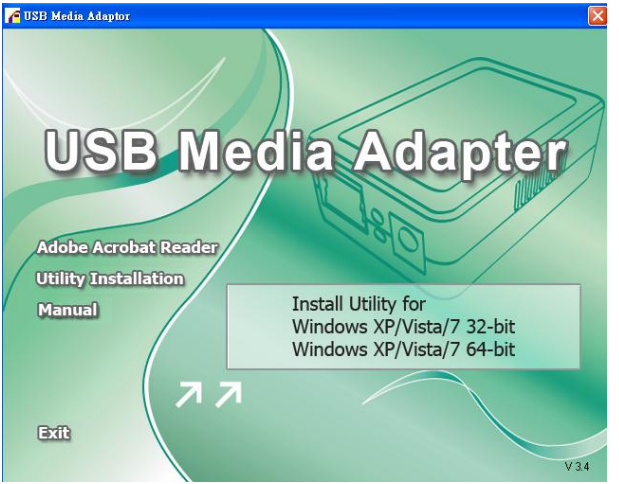
2.2.1 Connecting the USB Media Adapter

1. Turn on power of the external HDD enclosure.
2. Connect the external HDD enclosure to the USB port of the front of the USB media adapter.
3. Connect the AC power adapter cord to the power port to the front of the USB media adapter.
4. Connect the other end of the AC power adapter cord to an electric outlet.
5. Connect the twisted-pair cable to the front of the USB media adapter and the other end of the cable to the router.

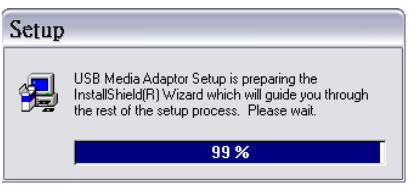


2.3 Utility Installation

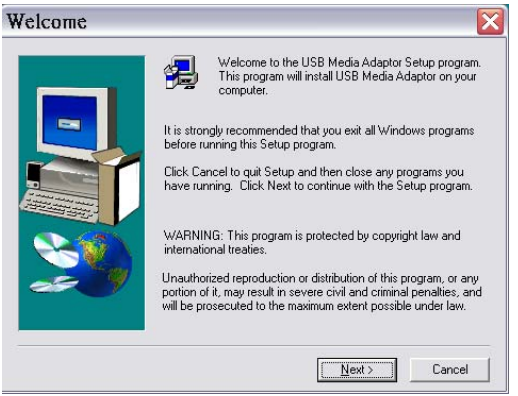
Please double click "Utility Installation" to start the installation steps as follow:



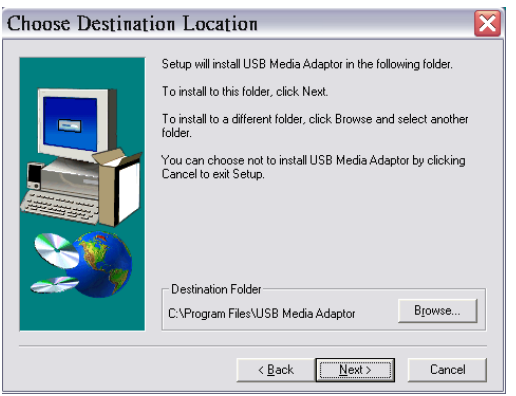
1. Preparing to install the USB Media Adapter Setup.



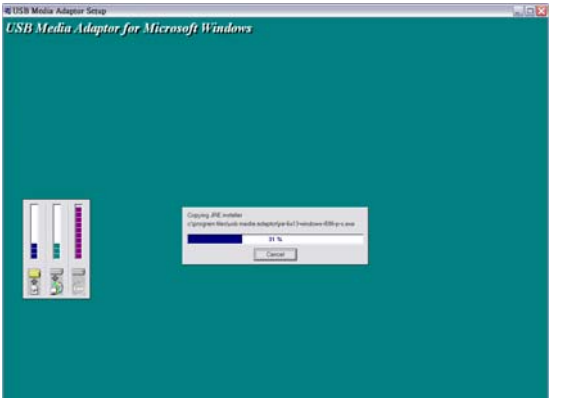
2. Click the " Next" button on the Welcome window.



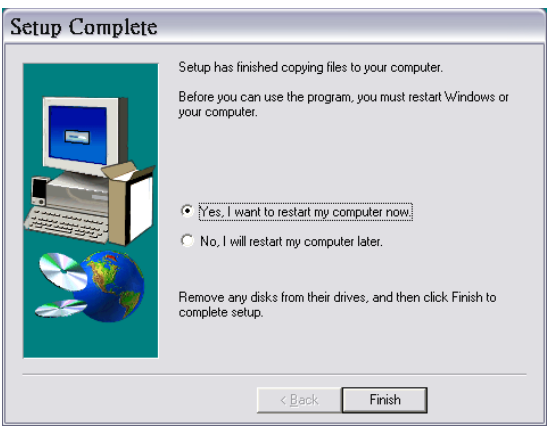
3. Select "Browse" to choose the destination location and click the "Next" button on the window.



4. Install processing.



5. Check the “Yes” selection and click the "Finish" button on the Setup Complete window.



Chapter 3

Managing Your Device

3.1 Prepare Your Computer to Connect USB Media Adapter

3.2 Status of USB Media Adapter

3.3 Setup Your USB Media Adapter

3.4 Setup FTP Server

3.5 Setup SMB Server

3.6 BitTorrent

3.7 Media Server

3.8 Disk Utility

3.9 Misc : Factory Default and Firmware Upgrade

3.10 Restart

3.11 Backup Your Disk (Model A)

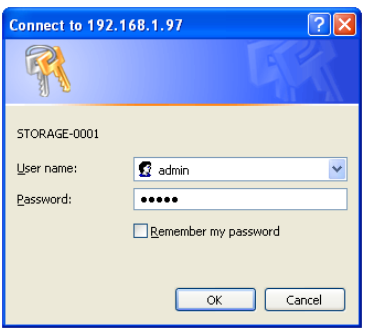
Backup Your SD Card (Model B)

3 Managing Your Device

3.1 Prepare Your Computer to Connect USB Media Adapter

1. Please make sure your computer supports the JAVA environment. If not, you can go to http://java.com to download and install the JAVA software.
2. Open the **Server Search Tool** of utility program and click **Search Next** to search the USB media adapter from your network environment, and then click **Connect** into **login screen**.

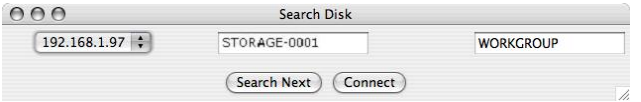
Please enter default username and password: **admin**.



Linux and Mac System

The following two procedures are for Linux and Mac, other procedures are similar as previous.

1. Please install the JAVA environment for Linux and Mac system.
2. Double click the **SDisk.jar** to search the USB media adapter from your network environment, and the click Connect.



Note:
Please setup the fixed IP after you login the system. Please refer to section "Setup > TCP/IP" for further information.

3.2 Status of USB Media Adapter

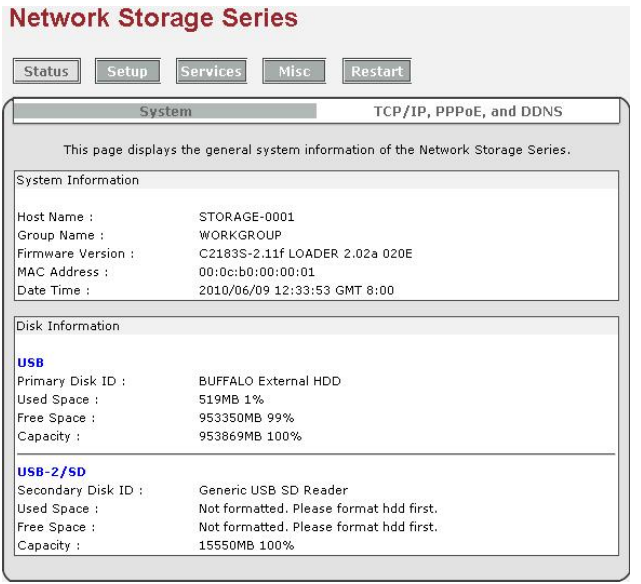
After logging in, user may find the current system and TCP/IP information by clicking on “Status”.

System Information:

It provides system and disk information. System information includes the basic information such as Host Name, Group Name, Firmware version, MAC Address and Date/Time.

Disk Information:

It provides the information of attached HDD such as device name, used size, free size and capacity.



TCP/IP Information

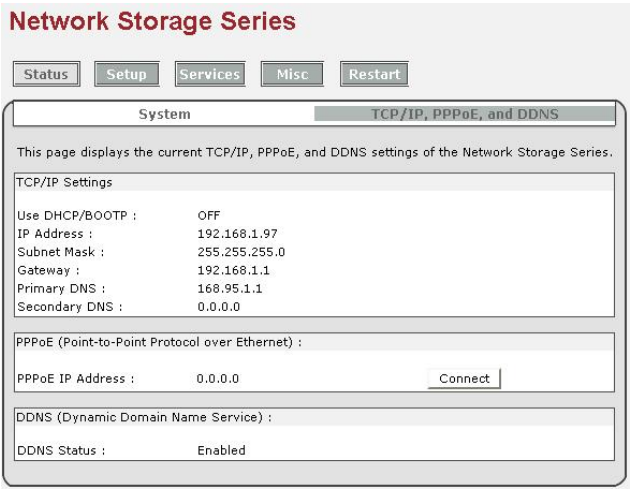
TCP/IP provides current TCP/IP settings and information. The Status of DHCP, IP address, Subnet Mask, Gateway, Primary DNS, Secondary DNS setting will be shown here.

PPPoE Information

PPPoE provide setting of PPPoE IP address

DDNS Information

It shows the status of DDNS, Enabled or Disabled.



3.3 Setup Your USB Media Adapter

Before attaching you external HDD, please check the following items:

1. USB Media Adapter can recognize only the **partition in FAT 32, maximum single file size is 127GB.**
2. If your external HDD is not FAT 32 format, please use the disk utility in “Services > Disk Utility” to format your HDD into FAT 32.

3. If your external HDD contains one FAT 32 partition already, formatting HDD could be unnecessary.

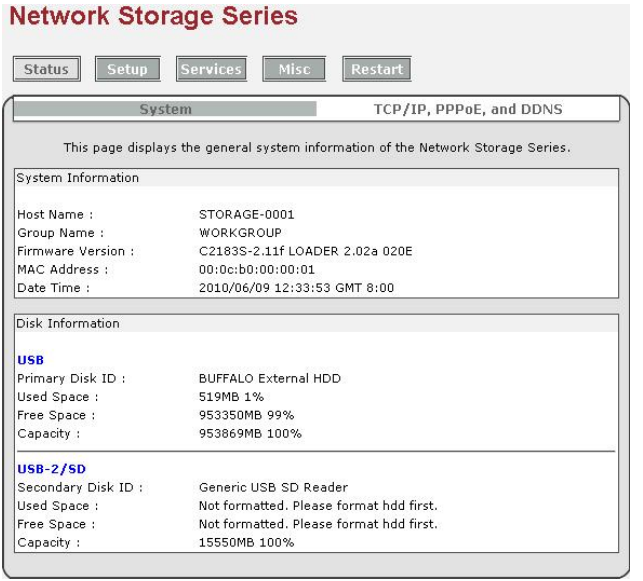
Note: Formatting HDD will cause data lost.

Format your External HDD

Format your USB External HDD At first Time Setup

Please plug your USB external HDD to the USB port of USB Media Adapter.

Log-in USB Media Adapter utility and check the “Disk Information” in System to see if the external HDD is recognized successfully.



Format your External HDD

If the external HDD is recognized correctly, please go to **Services** > **Disk Utility** and click on **Format** to process. Formatting time depends on the size of the external HDD. It takes 2 to 5 minutes in general.

Format Finished

After finish formatting, a new webpage will be redirected and shows "**Format successfully**!"

Setting your USB Media Adapter

Before setting your USB Media Adapter, please check the following items:

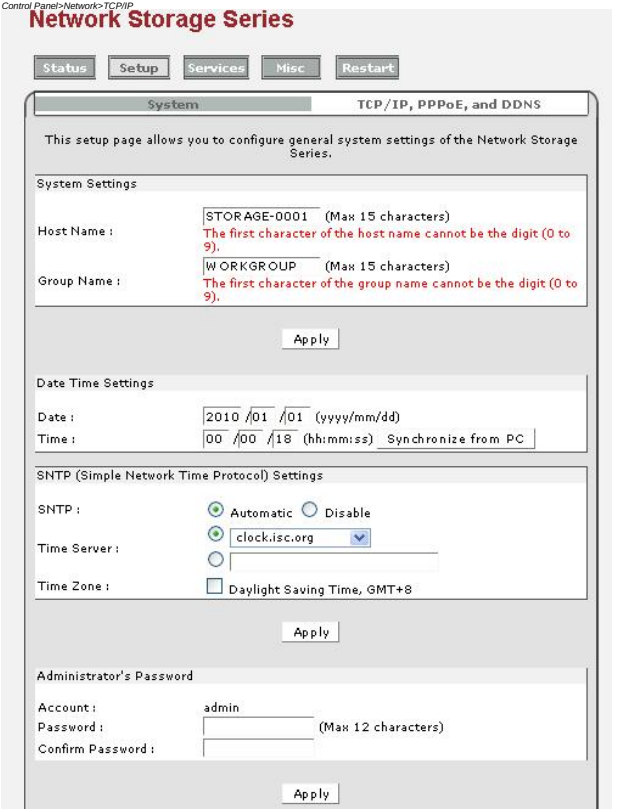
1. “Group Name”, “Subnet Mask”, “Gateway” need to be set as the same as your local network. If the setting is different, your USB Media Adapter is not able to be found on local network.
2. Host Name will be shown in “workgroup Computers”.
3. **Setting a fixed IP for USB Media Adapter is highly recommended**. The IP of USB Media Adapter **MUST** in the same segment with local LAN. For example, if the local LAN IP is at 192.168.1.x, the IP of USB Media Adapter also has to be 192.168.1.x (x=available IP from 1 to 253)

System
System Settings

Host Name: The name you want to be shown in local LAN.

Group Name: The workgroup that you would like to join. By Windows are generally "MSHOME" or "Workgroup"

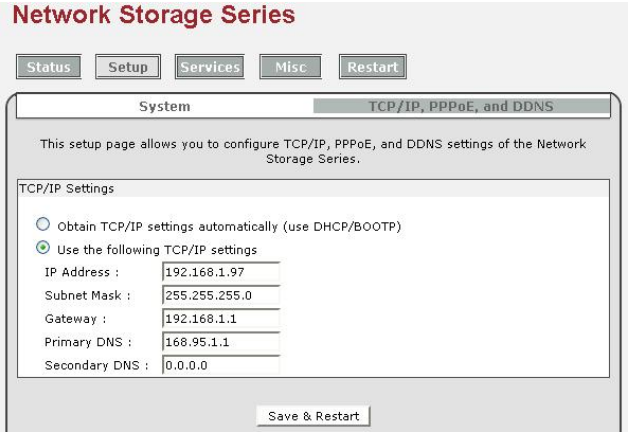
***Tips**: You may reference the subnet Mask, Gateway, Primary DNS and secondary DNS setting in your Computer. Those information could be found at Control Panel>Network>TCP/IP*



TCP/IP

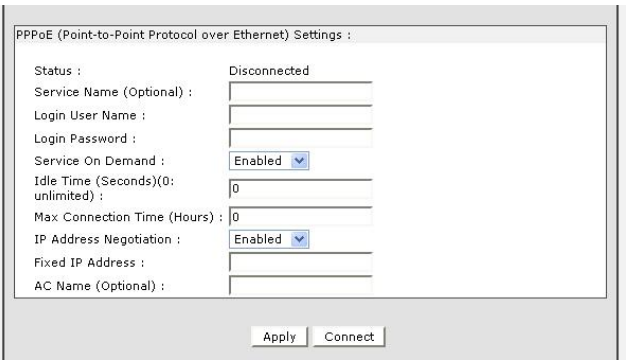
TCP/IP Settings

1. **Obtain TCP/IP settings automatically**: When this option is enabled, USB Media Adapter will use the IP assigned by router. However, this IP may changes from time to time.
2. **Use the following TCP/IP settings**: Enable this option will allow user to setup a fixed IP, Subnet Mask, Gateway, Primary DNS and Secondary DNS. You may reference the setting in Control Panel>Network>TCP/IP.



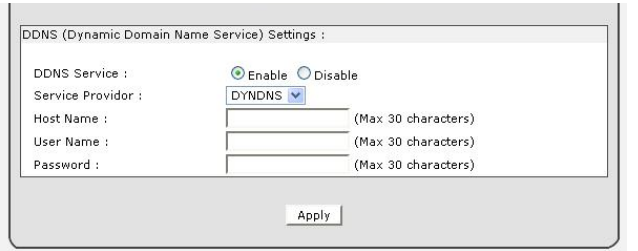
PPPoE
Point-to-Point Protocol over Ethernet (PPPoE) emulates a dial-up connection. If your ISP uses a PPPoE connection. Your ISP will provide you with a username and password. This option is typically used for DSL services.

PPPoE Settings
It allows user to setup PPPoE service name, login user name, login password and other PPPoE settings.
Login User Name : Enter the user name provided by the ISP.(Ex. A ~ Z, a ~ z, 0 ~ 9)
Login Password : Enter the password associated with the user name above.
Service on Demand : If enable is selected, users need to enter an Idle Time value in the next field.
IP Address Negotiation : In most condition, the "enabled" is selected. If your ISP provides you an IP address, please enter the IP address in the next field.



DDNS
The DDNS feature allows you to host a server (FTP, Game Server, etc…) using a domain name that you have purchased with your dynamically assigned IP address. Most broadband Internet Service Providers assign dynamic (changing) IP addresses. Using a DDNS service provider, your friends can enter in your domain name to connect to your server no matter what your IP address is.

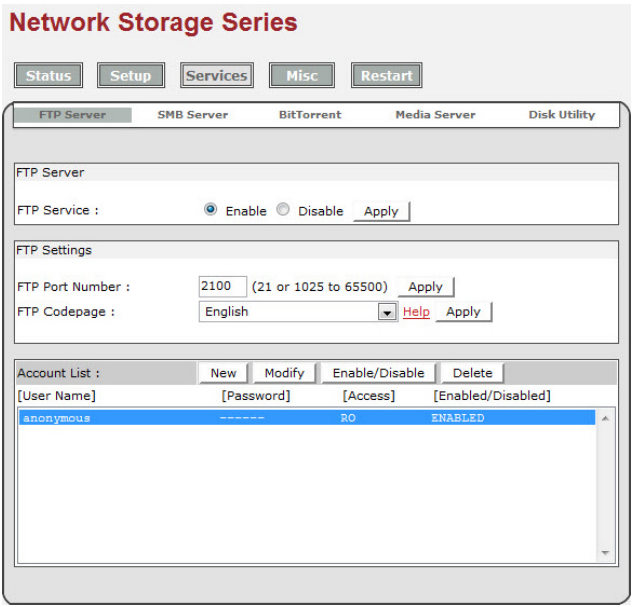
DDNS Settings
Please setup following settings to enable DDNS service: service provider, host name, user name and password.



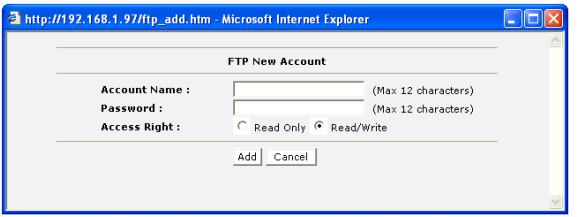
3.4 Setup FTP Server

FTP (File Transfer Protocol)
Enable FTP server service let the user to upload/download files from local network or internet.

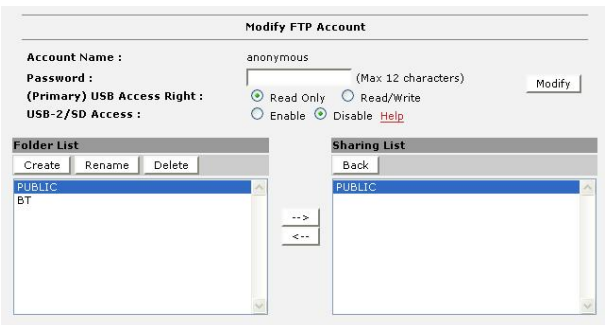
FTP Settings
1. **FTP Service**: Click “Enable” and “Apply” will start the FTP service. To stop FTP service, click ”Disable” and “Apply” to take effect.
2. **FTP Port Number**: By default is port 21. User may also enter the number from 1025 to 65599.
3. **FTP Codepage**: choose the language and click “Apply”.



Create, modify, enable, disable and delete a FTP account.
Create a FTP account: Click on “New”, the browser will bring up a “FTP New Account” windows. Enter an account name and password. You may also choose the “Access Right” for the added account, it could be “Read only” or “Read/Write”. After a new FTP created, a default folder will be created; name of the folder is the same as account name.



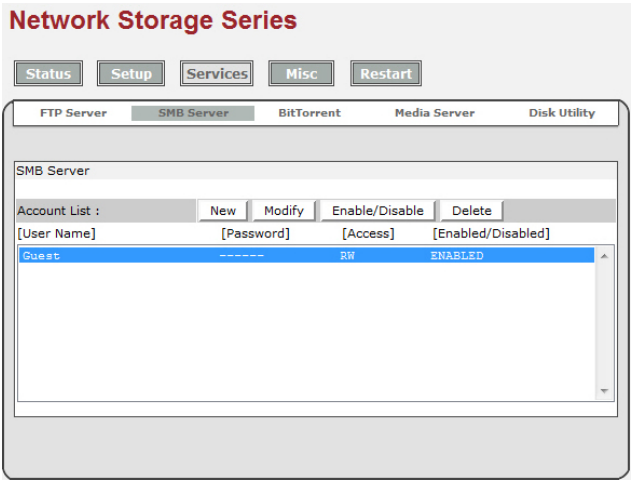
Modify a FTP account: Click on “Modify”, the browser will bring up a “Modify FTP Account” window. Here you may change the password and the read/write attribute of selected account. Also, you may change the folder name by renaming it.
In “Sharing List”, you may decide which folder you would like allow the user to browse and write.



Enable/Disable: This function allows the administrator temporary stop the FTP service to certain user.
Delete: To delete the ftp user account.

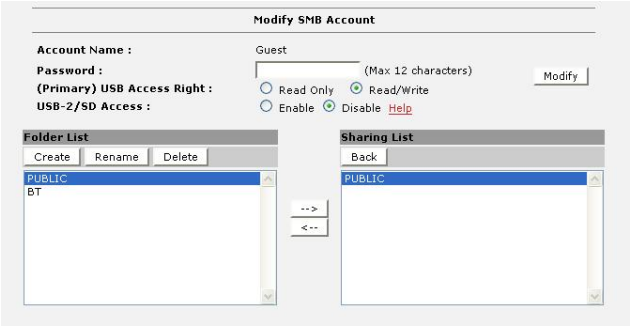
3.5 Setup SMB Server

SMB Server:
Enable SMB service let the user to read or read/write files in local network



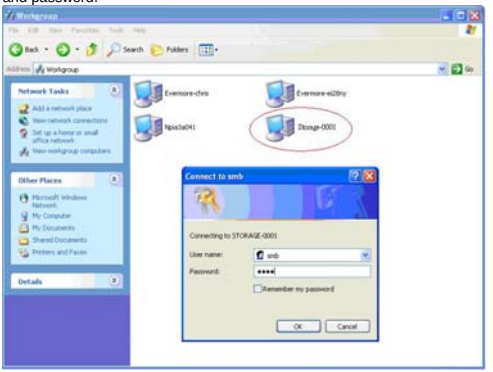
Create, modify, enable, disable and delete a SMB account.
Create a SMB account: Click on "New", the browser will bring up a "SMB New Account" windows. Type an account name and password. You may also choose the "Access Right" for the added account, it could be "Read only" or "Read/Write". **After a new SMB account created, a default folder will be created; name of the folder is the same as account name**.

Modify a SMB account: Click on “Modify”, the browser will bring up a “Modify SMB Account” window. Here you may change the pass word and the read/write attribute of selected account. Also, you may change the folder name by renaming it.
In “Sharing List”, you may decide which folder you would allow the user to browse and write.

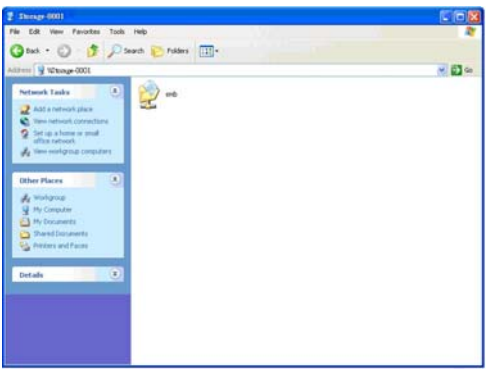


Enable/Disable: This function allows the administrator temporary stop the SMB service to certain account.
Delete: To delete the SMB user account.

Login SMB server:
After setting a SMB account, user may go to My Network Places>View Group computers to find the SMB server. The server name is the same as the “Host name” in system setup.
Click on the server and the system will pop up a login window. Please enter your account name and password.

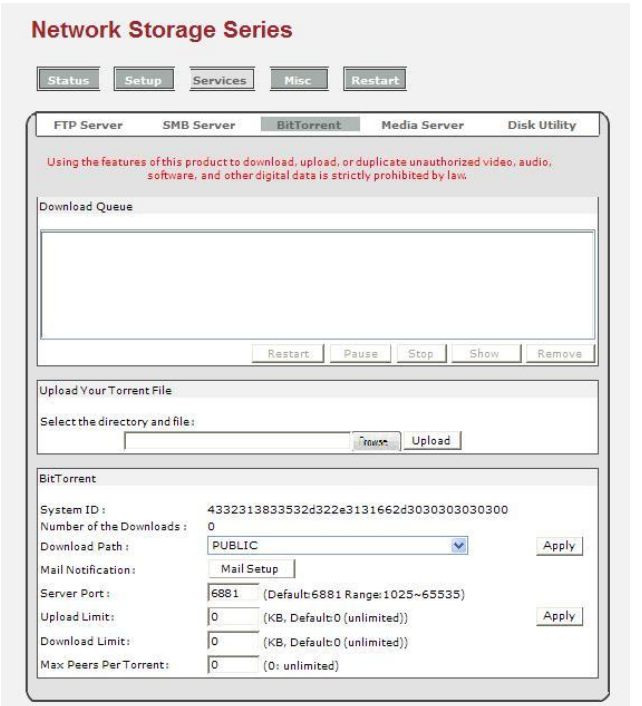


If the user name and password are correct, you may login successfully and the accessible folders will be shown.



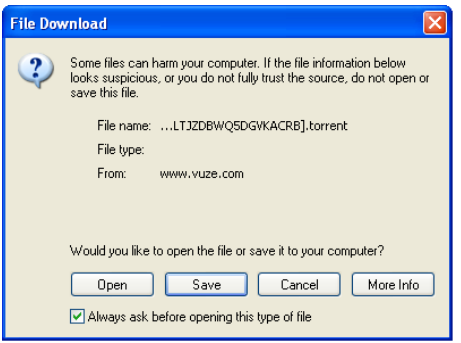
3.6 BitTorrent

BitTorrent, or “BT download” is a Peer-to-Peer application. By using BitTorrent, nodes in Peer-to-Peer download and share file in P2P network.

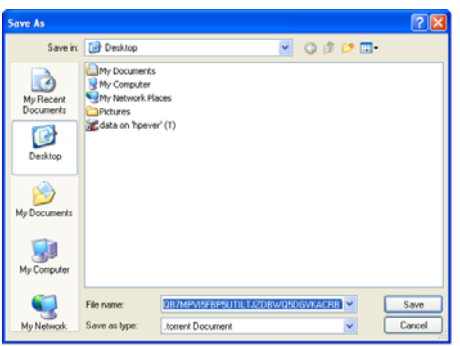


Setting BitTorrent
Download Path: Setting a download path to store the completed file.
Mail Notification: USB Media Adapter will send a notification to your email to inform you the download is complete.

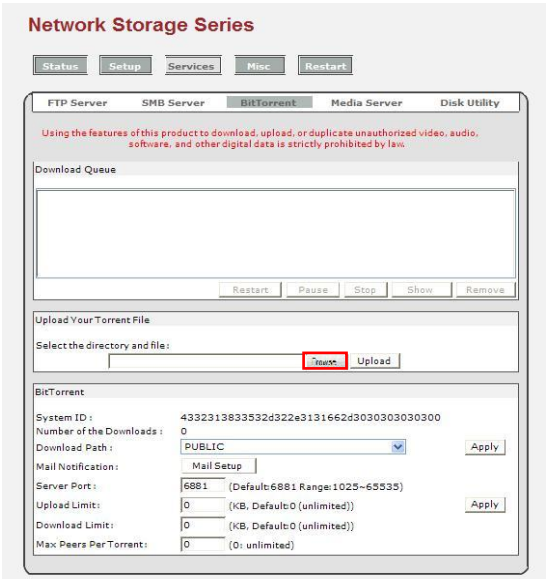
Upload a Torrent to USB Media Adapter
Find and download a Torrent
User may find the legal Torrent from Internet easily.

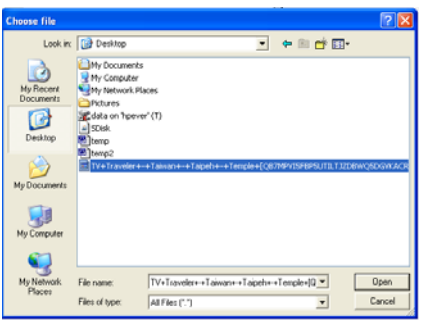


Save the Torrent on Desktop.

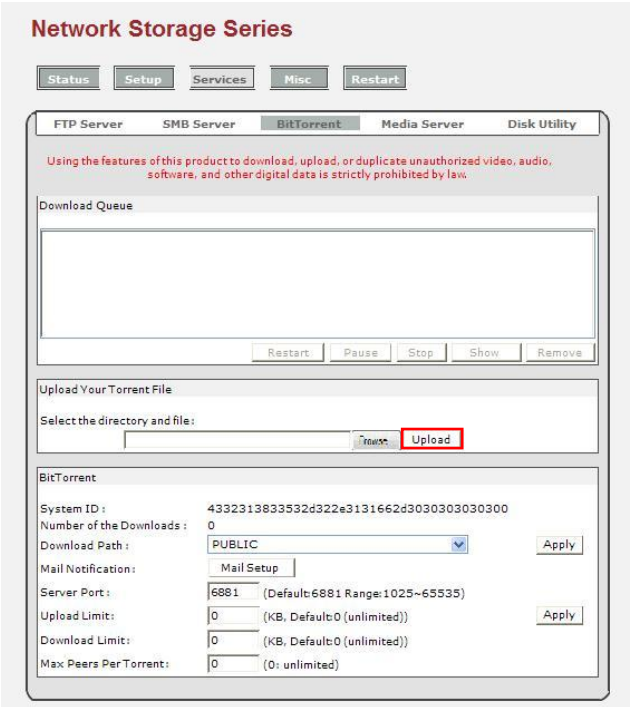


Click on “Browse” to select the Torrent

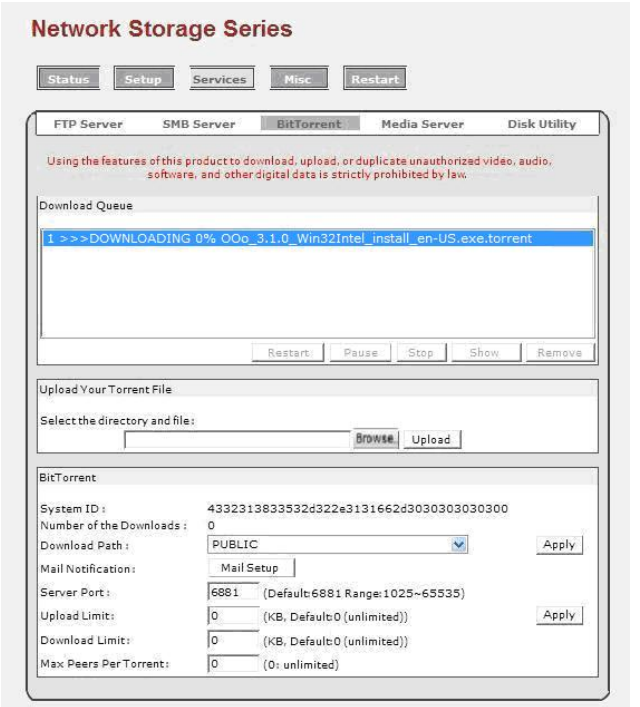




Click on “Upload” button to upload the Torrent into USB Media Adapter.



Upload complete. In Download Queue will show the downloading file.

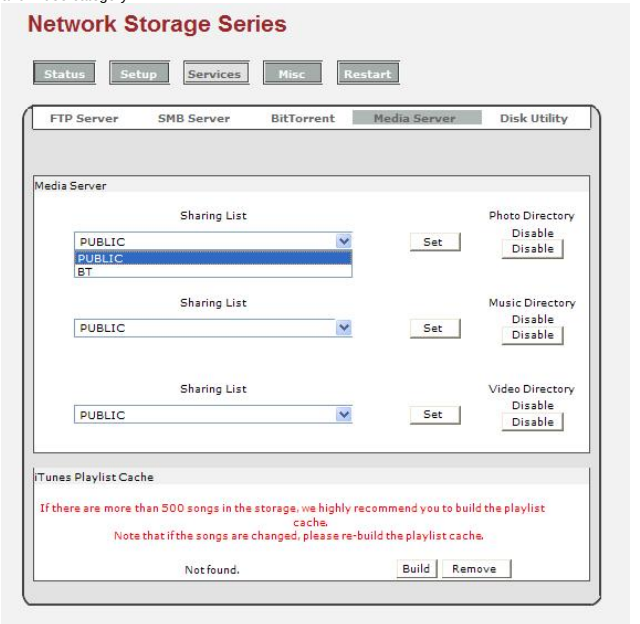


Now the torrent is active and communicating with other nodes. Several minutes later, download will start and show the complete level in percentage.

***TIP**: USB Media Adapter supports maximum 4 torrents download at the same time and maximum 32Torrents queuing.*

3.7 Media Server

USB Media Adapter supports UPnP and allows PS3, XBOX360 and even iTunes to access the sharing folder. User may organize their file by types. USB Media Adapter provides Photo, Music and Video category.

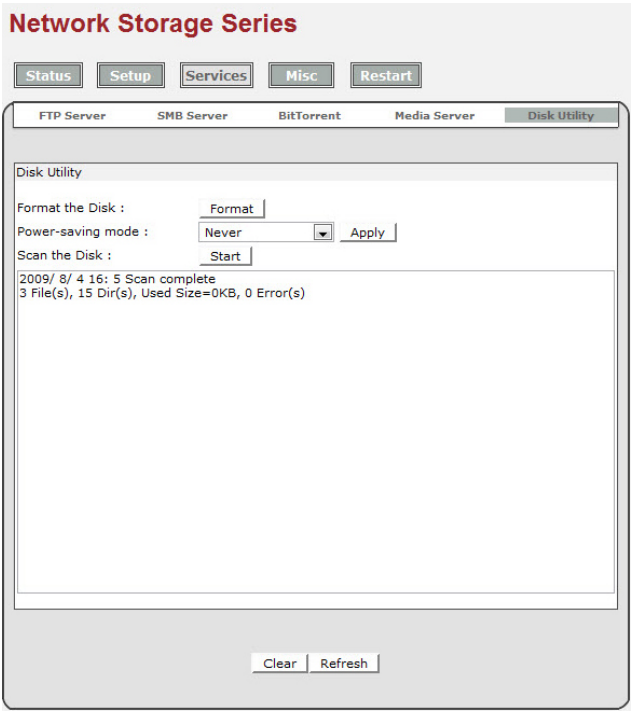


***TIPS**: User may use SMB service save the file to specific category and select it in Media Server to share and play back with PS3, XBOX360 and iTunes.*

3.8 Disk Utility

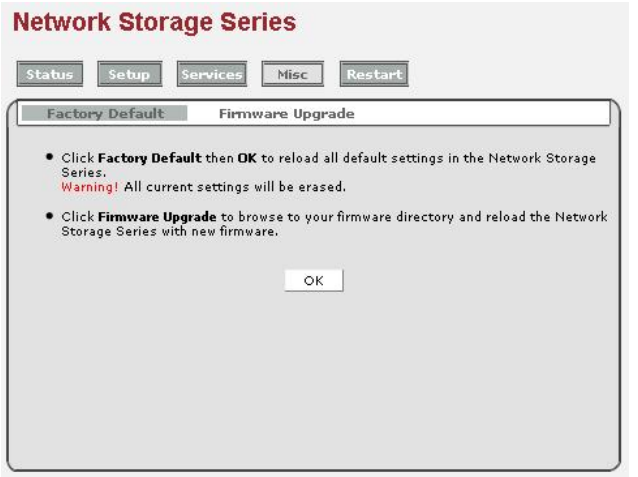
Disk Utility contains 3 basic Disk tools: **Format the Disk**, **Power-saving mode** and **Scan the Disk.**

Format the Disk: Format attached external HDD in the USB port (primary HDD) to FAT 32, the only supported format.
Power-saving mode: If attached external HDD in the USB port (primary HDD) support power-saving, it will enter the power-saving mode automatically.
Scan the Disk: This utility scans attached external HDD in the USB port (primary HDD) to get the detail information like files, directory and used size in total. It also detects the hard disk error as well.



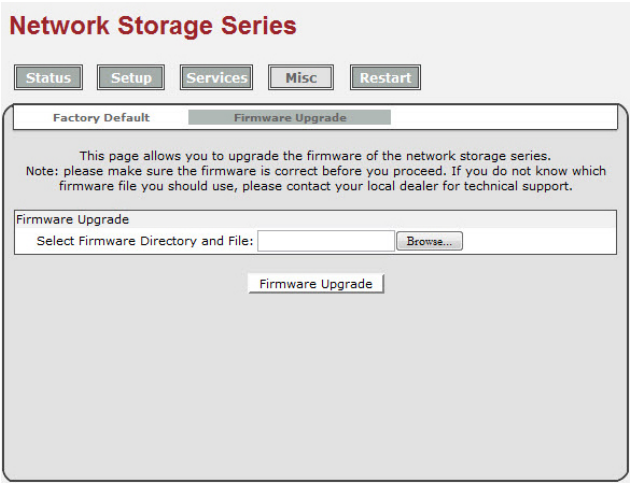
3.9 Misc: Factory Default and Firmware Upgrade

Factory Default
By pressing “OK”, the USB Media Adapter will reload the default setting and all the current setting will be erased.



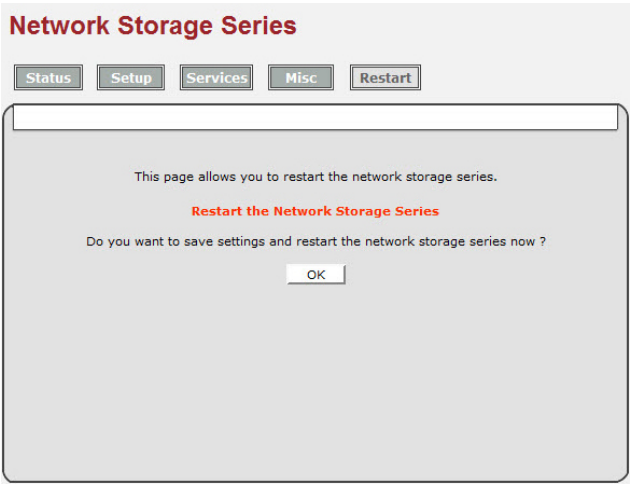
Firmware Upgrade

User may enhance better performance and stability by upgrading Firmware. Simply download the firmware to computer and click on “Browse” to select it. Make sure the firmware is correct and press “Firmware Upgrade” to process it. Firmware Upgrade will spend several minutes and the current setting will also be erased.

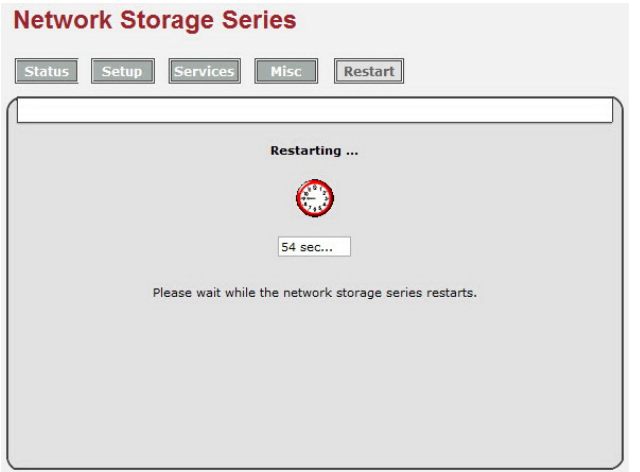


3.10 Restart

This function let user to restart the USB Media Adapter without pressing the physical reset button. To restart USB Media Adapter, click on “OK”.



Restart will complete in 60 seconds and will automatically redirected to status page if it is setting with a fixed IP.



3.11 Backup Your Disk (Model A)

USB media adapter provides disk backup function let user can backup his external disk simply **from USB-2 port (Slave HDD) to USB port (Primary HDD)**. User can follow procedures below to backup his external disk.

1. Plug external HDD in both USB port and USB-2 port as below.

2. Push "**Backup**" button for two seconds to start backup process and then USB/USB-2 LED will be blinking at the same time.

3. Find backup data in the folder of HDD in the USB port (Primary HDD) as below:

   Path : \PUBLIC\usb_backup\yyyymmddxxx.
   (xxx is series number, Ex: \usb_backup\Public\20100609001)

***TIP**: 1) If the backup process failed, the USB LED will stop blinking and Status/USB-2 LED will blink in ten seconds at the same time. Please check the capacity (Primary HDD > Slave HDD) and format type (FAT32 available only) of both disk again.*
2) If user wants to stop backup process, please push "Backup" button for two seconds again.

3.11 Backup Your SD Card (Model B)

USB media adapter provides disk backup function let user can backup his external disk simply **from SD port (SD card) to USB port (Primary HDD)**. User can follow procedures below to backup his SD card.

1. Plug external HDD in the USB port and SD card in the SD port as below.

2. Push "**Backup**" button for two seconds to start backup process and then USB/SD LED will be blinking at the same time.

3. Find backup data in the folder of HDD in the USB port (primary HDD) as below:

   Path : \PUBLIC\usb_backup\yyyymmddxxx.
   (xxx is series number, Ex: \usb_backup\Public\20100609001)

***TIP**: 1) If the backup process failed, the USB LED will stop blinking and Status/SD LED will blink in ten seconds at the same time. Please check the capacity (Primary HDD > SD Card) and format type (FAT32 available only) of both disk again.*
2) If user wants to stop backup process, please push "Backup" button for two seconds again.

Chapter 4

Internet Connection

4 Internet Connection

Connection to USB media adapter over the Internet:

USB media adapter has a fixed IP:
1. Open the IE of the external network computer and input the IP of USB media adapter in the address bar to access the WEB management interface.

USB media adapter has no fixed IP:
Method 1: DMZ connection
1. Set the NAT function of the IP sharer connected to USB media adapter first. (The NAT setting may vary among different IP sharers. Set the virtual IP of the internal network whose DMZ default server IP is USB media adapter.)
2. Record the external IP of the IP sharer.
3. Open the IE of the external network computer and input the external IP of the IP sharer in the address bar to access the USB media adapter WEB management interface.

Method 2: DDNS connection
1. Register a domain (for instance: storagesandy.mine.nu) with a Dynamic DNS website (e.g. www.dyndns.org) and write down the domain, ID and password.
2. Set the DDNS function at the IP sharer connected to USB media adapter. (The DDNS setting may vary among different IP sharers. It is necessary to input the domain, ID and password applied on the Dynamic DNS website.)
3. Open the IE of the external network computer and input in the address bar the domain, ID and password applied on the Dynamic DNS website to access the USB media adapter WEB management interface.

Chapter 5

Troubleshooting

5 Troubleshooting

Often after time spent troubleshooting, the problem is traced to something as simple as a loose connection. Check the following before proceeding to the problem-specific solutions.

In each problem-specific section, try the steps in the order suggested. This may help you to solve the problem more quickly.

Keep a record of the steps you take when troubleshooting: The information may be useful when calling for technical support or for passing on to service personnel.

- Use some other electrical device to confirm that the electrical outlet is working.
- Ensure all connections are securely attached.

General Problems

Refer to the following general problems you may encounter.

PROBLEM	SOLUTION
What can DHCP do as well with USB media adapter?	If you have installed a router with a built-in (active) DHCP Server, USB media adapter will be automatically set up as a DHCP client.
Any limitation on the length of the USB media adapter file name?	The length of the file name is limited to 12 bytes.
What is the limitation on users of USB media adapter FTP and Samba and account mode?	1. FTP 8 Users / Samba 8 Users (Total 24 sessions at the same time). 2. FTP Server: Account (maximum 32 user accounts created, 8 user accounts connected at the same time, and maximum 16 folders shared by one account). 3. Samba Server: Share Level Access (maximum 16 folders shared by root)
May I use a USB media adapter with a USB flash drive?	Not suggested. A USB flash drive may slow down the BT/FTP transmission rate or cause instability.
Why can't I create/share folders in an SMB or FTP server?	To avoid any language support issue, you are suggested to create/share folders with English characters only.