

PD-SATA USB/GbE

Network Attached Storage Drive



User Manual

January 13, 2009 - v1.0

Firmware: v1.42a

EN

The diagrams and images contained in this document may not fully represent the actual product and are for illustration purposes only.

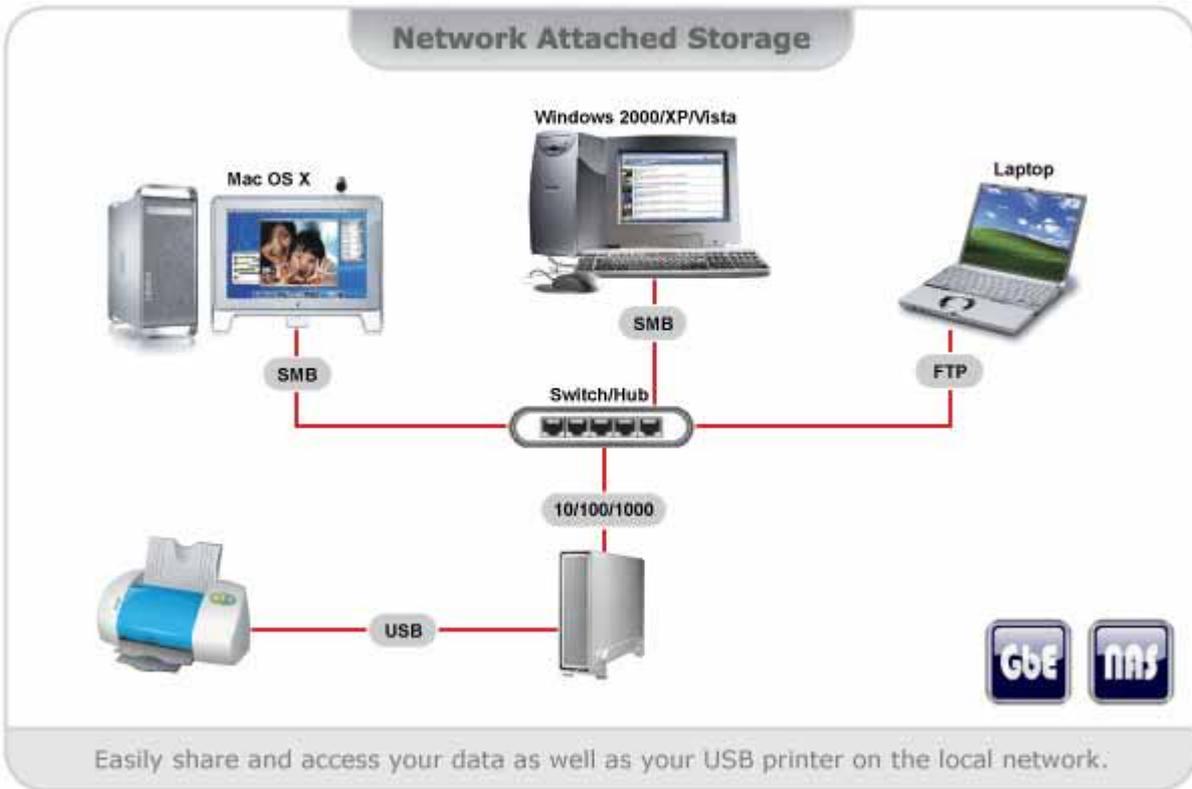
Table of Contents

1	Getting Started	1
1.1	About this Device	1
1.2	System Requirements	2
1.3	Package Contents	2
1.4	Detailed View	3
1.5	Before Use	4
2	Basic Operation.....	5
2.1	Network Drive Setup	5
2.2	How to Login	6
2.3	Web Configuration.....	8
3	Extra Features and Examples	20
3.1	File Access on a PC	20
3.2	File Access on a Mac	23
3.3	BitTorrent Download Manager	25
3.4	Printer Server	26
3.5	Media Server	31
3.6	USB Device	33
4	Appendix.....	34
4.1	Precautions	34
4.2	Trademarks	34
4.3	Specifications	35
4.4	Important Notices	35
4.5	Technical Terms.....	36
4.6	FAQ	36

1 Getting Started

1.1 About this Device

The PD-SATA USB/GbE offers high speed USB 2.0 and Gigabit Ethernet connection in a slim aluminium enclosure for your 3.5" SATA HDD. Designed to easily share your data at home, this network drive comes not only with the standard SMB and FTP server but also includes a BitTorrent download manager, USB printer server and UPnP media server for the Xbox 360 & PlayStation 3.



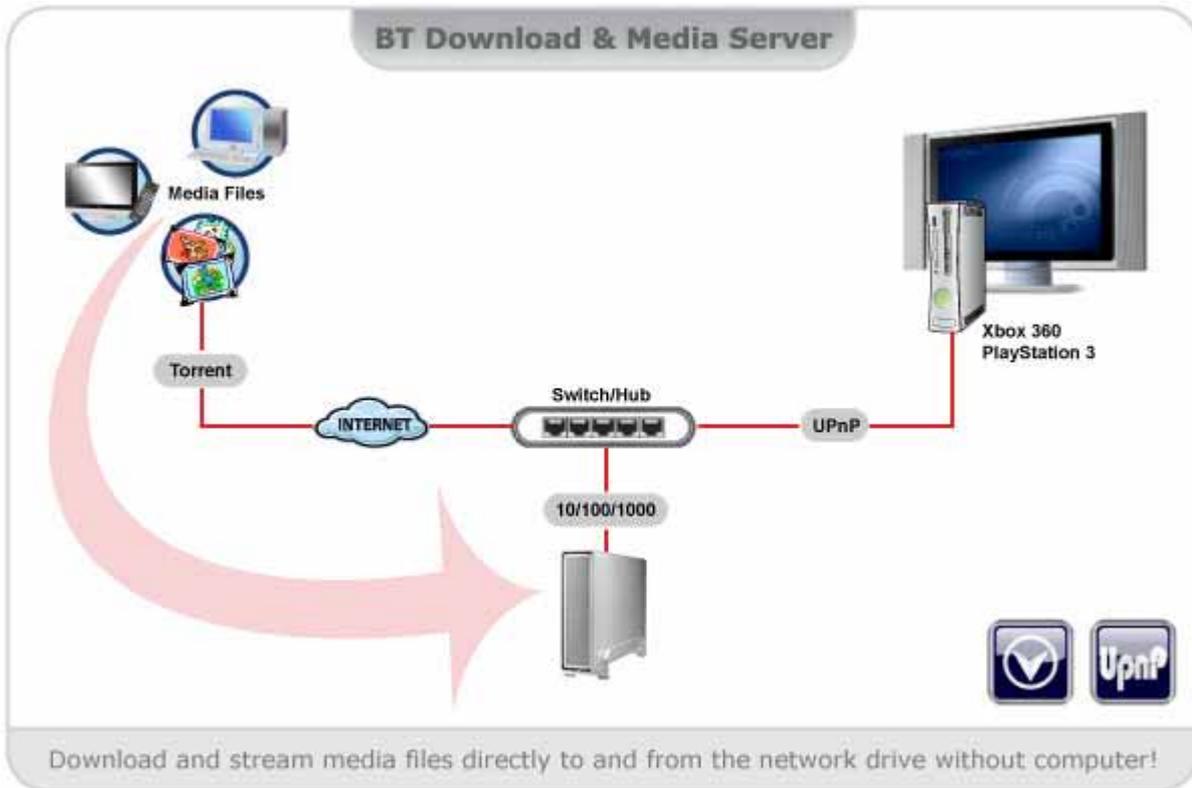
1.1.1 USB Hard Drive

The PD-SATA USB/GbE comes with a high speed USB 2.0 port for convenient access to your data. The common USB connection comes in handy when a network connection is not accessible.



1.1.2 UPnP media server and BitTorrent™ download manager

Used in conjunction with its built-in BitTorrent™ client, media files can be downloaded from the Internet and saved directly to the internal SATA hard drive. The shared media files on the network drive will be immediately available on the Xbox 360 (WMV, XviD, MP3, JPG) and the PlayStation 3 (MPEG-1, MPEG-2, XviD, MP3, JPG) to access and playback on the TV. Best of all, once everything has been set-up, you can turn off your computer and let the PD-SATA USB/GbE handle all the downloads and sharing of your media files.



1.2 System Requirements

1.2.1 System Requirements

- Minimum Intel Processor III 500MHz or Apple G4 processor, 128MB RAM
- PC: Windows 2000/XP/Vista
- Mac: Mac OS 10.2 or above
- 10, 100, 1000 or 10/100/1000Mbps fast Ethernet card
- One free Ethernet port on network switch or router

1.2.2 Supported Devices

- Hard Drive: 3.5" SATA-I or SATA-II HDD (1.5Gb/s or 3.0Gb/s), 20GB - 1.5TB
- USB devices: USB printers only
- UPnP clients: Xbox 360, PlayStation 3

1.3 Package Contents

- PD-SATA USB/GbE enclosure (no HDD included)
- External power adapter: Input 100-240V, Output 12V/2A
- USB 2.0 and Ethernet cable
- Manual

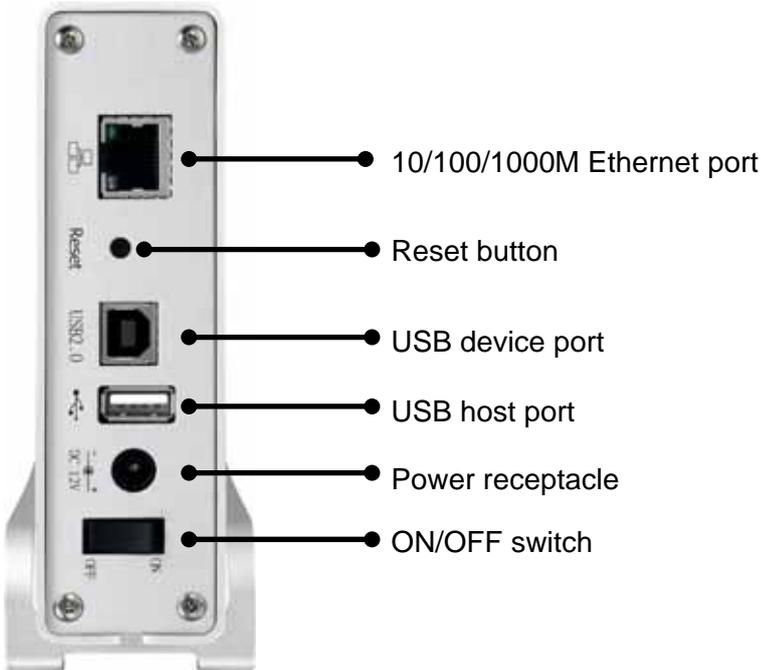
1.4 Detailed View

1.4.1 Front LED Indication

Single LED visible through the perforated front panel.

LED	blue	blinking
	Power on	Data access

1.4.2 Rear View



1.4.3 Ethernet LED Indication

The green LED on the left side of the Ethernet connector indicates the LINK status and data access, whereas the LED on the right indicates the connection speed.

Speed	off	green	orange
	10Mbps	100Mbps	1000Mbps
Link	off	green	blinking
	No connection	Connection established	Data access

1.4.4 Reset Button

If you don't know the administrator's password or after a firmware upgrade, press and hold the reset button, turn on the device and wait for about 30 seconds. Release the button and the device will reset all settings back to its factory default setup. SMB & FTP user accounts will still exist after a reset.

Default login: admin/admin

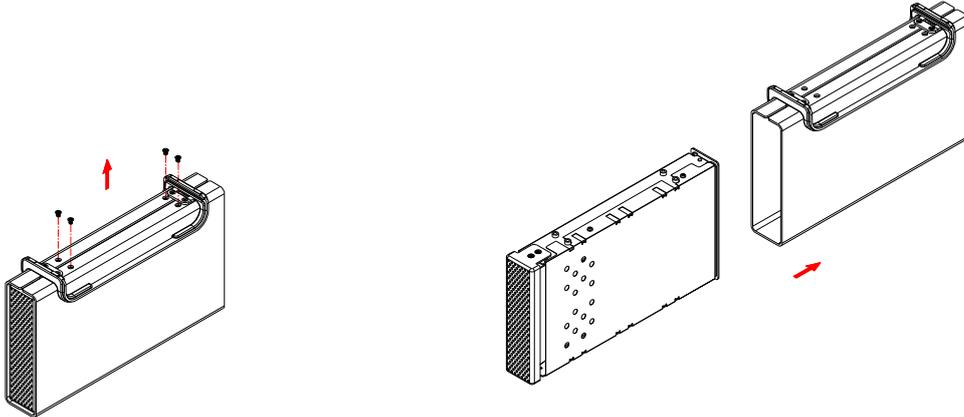
Default IP: 169.254.0.1 without DHCP server, otherwise Auto IP

1.5 Before Use

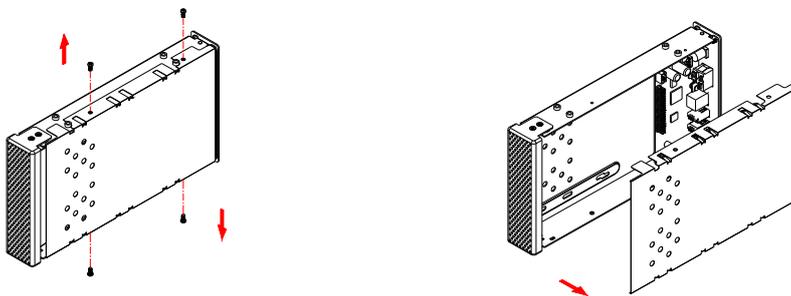
1.5.1 Hard Drive Assembly

Your unit might come with an installed hard drive. Before opening such an enclosure, please read the warranty and any other notes from your vendor carefully, as this might void your warranty. Be careful not to damage any cables or components during the installation.

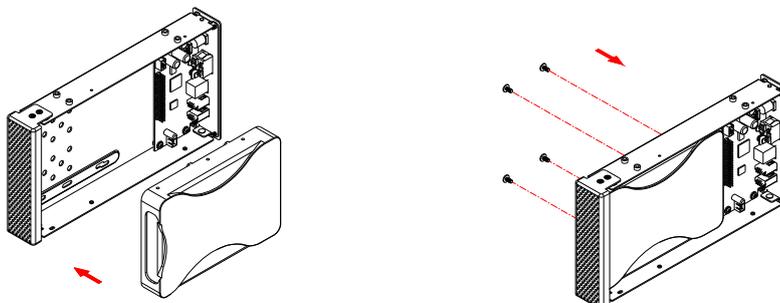
1. Remove the 4 screws on the bottom and then slide the case off the body. You do not need to remove the screws for the aluminium stand (feet).



2. If the metal shielding is mounted, remove the 4 screws that are holding it in place and then lift it off the body.



3. Connect the SATA cable and the power line to your hard drive. Install the hard drive and fasten the 4 screws to hold the drive in place. Align the metal shielding with the body and fasten the screws, before you slide it back into the casing. Fasten the last 4 screws on the bottom and then re-connect your power adapter and interface cable.

**Note**

Always remove the power adapter from the main socket before you open the enclosure!

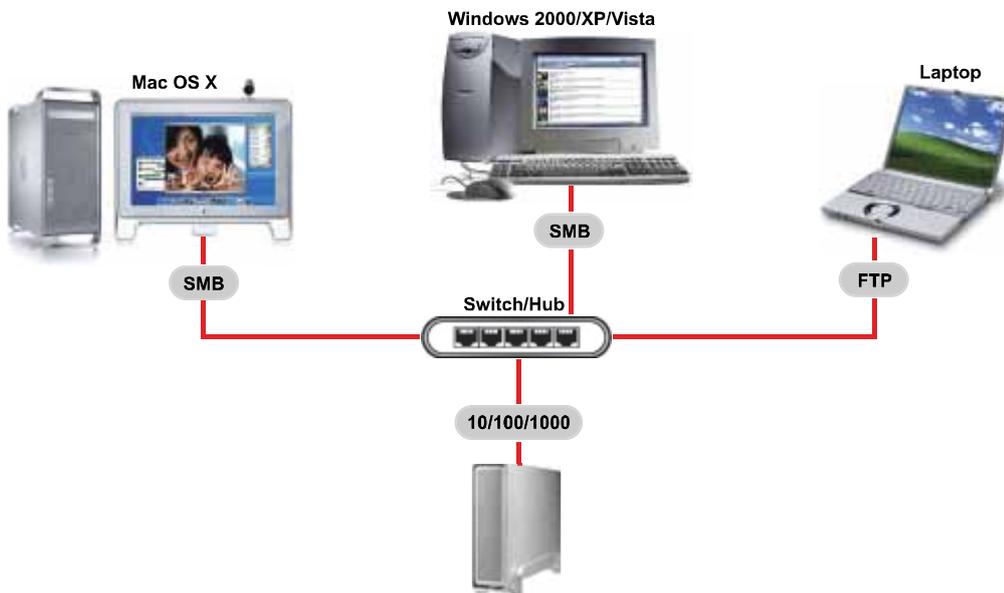
2 Basic Operation

2.1 Network Drive Setup

To connect the LAN disk to your network, an additional switch, router or hub may be required. The USB cable has to be disconnected in order for the network drive to work.

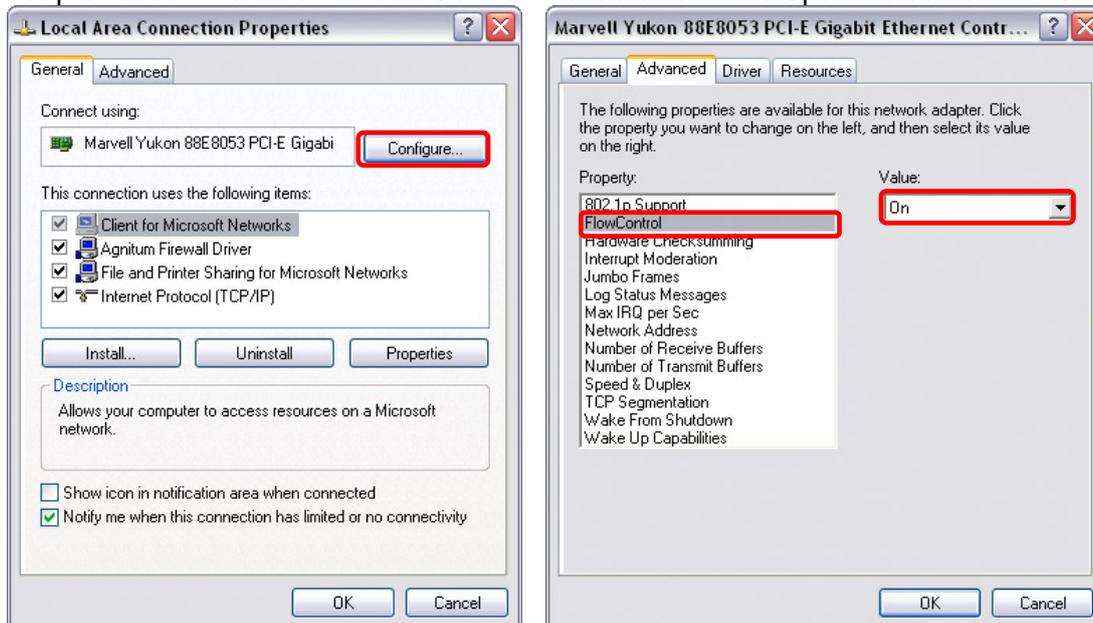
Connect the power supply to your network drive and plug it into the wall socket. Connect the Ethernet cable to your network drive and plug it into the network switch or router. Next, turn on the power and wait for approximately one minute for the device to start. Once ready, login as admin.

If there is a DHCP server on your local network, the network drive will automatically obtain an IP address from the DHCP server. If there is no DHCP server, the network drive will automatically enable its own DHCP server and default to the IP address 169.254.0.1.



Note

If you experience slow transfer speeds, go to the Advanced Properties of your LAN card or network adapter and make sure the FlowControl is enabled and the Speed is set to Auto-Sense.



2.2 How to Login

Before attempting to access the device, make sure the USB cable has been disconnected and the drive is connected to the same local network as your computer.

Default Login

Username: admin

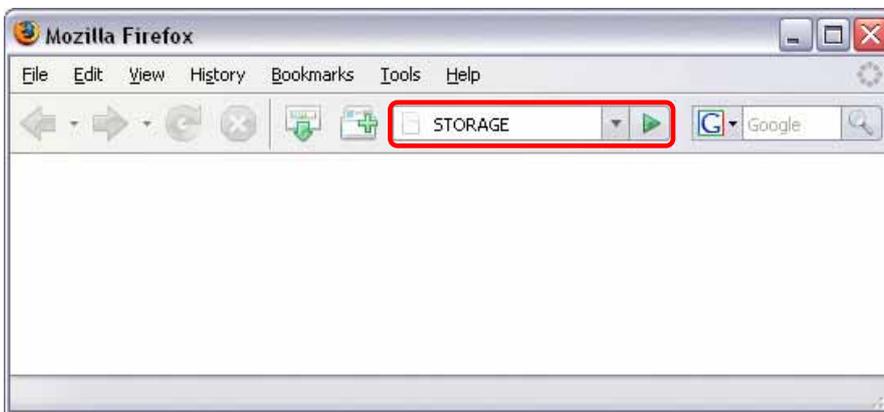
Password: admin

Note

We strongly recommend changing the password as soon as you are logged in, to prevent unauthorized access.

2.2.1 Login on a PC

Open your web browser and type STORAGE or if connected directly to your computer, type 169.254.0.1 into the URL field and hit the Enter key to connect.



If you have more than one device connected, type STORAGE-xxxx, where the xxxx stands for the last four digits of the Mac address as seen on the bottom of your device (e.g. STORAGE-BB0B).

2.2.2 Nettool Application on a PC

If typing STORAGE in the address field of your web browser does not work, use the Nettool application to search for the network drive instead.

1. The Nettool application requires the Java Runtime Environment (JRE). If JRE is not already installed on your computer, go to www.sun.com and download it.
2. Double click on the *.JAR file to start the application.
 nettool_str8183.jar
3. The device will be listed automatically and it will display its IP address, device name and group name. If the information is not automatically displayed, make sure the network drive and your computer are connected to the same local network and assure that the Nettool is not blocked by the firewall (javaw.exe requires UDP out at port 14675).



4. If you have more than one device connected and the current device is not the correct one, press Search Next. Otherwise, press Connect to open the web browser and login to configure your device.



5. Enter the user name and password to login. By default, the name and password is admin.



2.2.3 Nettool Application on a Mac

On the Mac, use the Nettool application to search for the network drive.

1. Double click on the *.JAR file to start the application.



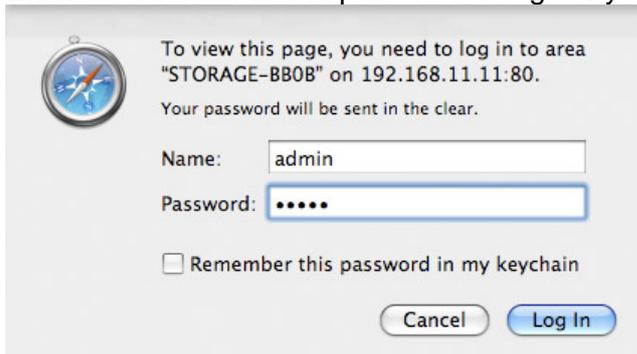
2. The device will be listed automatically and it will display its IP address, device name and group name. If it is not automatically displayed, make sure the network drive and your computer are connected to the same local network and assure that the Nettool is not blocked by the firewall (javaw.exe requires UDP out at port 14675).



3. If you have more than one device connected and the current device is not the correct one, press Search Next. Otherwise, press Connect to open the web browser and login to configure your device.



4. Enter the user name and password to login. By default, the name and password is admin.



2.3 Web Configuration

To configure the settings of your network drive, you will need to use a web browser, enter the IP address of your device and then use the web configuration for further setup. If you don't know the IP address, see How to Login and use the Nettool application. The default login is admin/admin.

2.3.1 Status

System Information		
Host Name	STORAGE-BB0B	<input type="button" value="Change"/>
Group Name	WORKGROUP	<input type="button" value="Change"/>
Administrator	admin	<input type="button" value="Change"/>
Date/Time	2008/12/29 16:44:07 GMT 8:00	<input type="button" value="Change"/>
Firmware Version	STR8183-1.40a LOADER 1.06 W1.06	

Network Information		
IP Address	192.168.11.11	
MAC Address	00:b0:b5:00:bb:0b	
DHCP Server	OFF <input type="radio"/> ENABLE <input checked="" type="radio"/> DISABLE	<input type="button" value="Apply"/>

Service Information		
SMB Service	<input checked="" type="radio"/> ENABLE <input type="radio"/> DISABLE	<input type="button" value="Apply"/>
FTP Service	<input checked="" type="radio"/> ENABLE <input type="radio"/> DISABLE	<input type="button" value="Apply"/>

Disk Information	
Disk ID	WDC WD10 EADS-00
Free Size	953625 MB free
Total Size	953869 MB

Host Name

This name is used to identify your device on the network. If you prefer a different name that is easier to remember, click on Change and type in a new name. When selecting a new hostname, make sure to use a unique name and not one that has already been used on the local network.

By default, the host name is set to STORAGE-xxxx, where the xxxx stands for the last four digits of your MAC address (e.g. STORAGE-BB0B).

Group Name

This should be the same name as your workgroup. In general, the default WORKGROUP will work, but if your workstation belongs to a different group, click on Change and modify it.

On a PC, right click on My Computer and choose Properties. Go to the Computer Name tab to view your current workgroup.

For a Mac to join a Windows workgroup, open the directory access utility under Applications and Utilities. Select SMB and click Configure to modify the settings (administrator access is required to access this option).

Identification	
Host Name	STORAGE-BB0B
Group Name	WORKGROUP
<input type="button" value="OK"/> <input type="button" value="Cancel"/>	

Note. First character can not be number (0-9).

Administrator

This is the account used to manage the settings of your network drive. The admin user name can not be changed but we strongly recommend changing the password as soon as you have logged in for the first time, to prevent any unauthorized access.

To change the password, click on Change, enter your new password and click OK to apply the changes. You will then be asked to login again with your new password.

Administration	
Administrator	admin
Password	<input type="text"/> (Max 12 Bytes)
Verify Password	<input type="text"/>
<input type="button" value="OK"/> <input type="button" value="Cancel"/>	

Date/Time

Click on Change to setup the correct date and time. When SNTP is disabled, you can enter the date and time manually, then click OK to save the settings. Instead, you can also click on the Sync from PC button to synchronize the time with your computer.

If internet access is available, we recommend setting SNTP to AUTO instead. Select a time server from the list, enable daylight savings if required and then click OK to apply the new settings. It will automatically synchronize date & time with the time server.

Date and Time	
Date	2008 / 12 / 29 (yyyy/mm/dd)
Time	17 : 39 : 53 (hh:mm:ss) <input type="button" value="Sync from PC"/>
SNTP	<input checked="" type="radio"/> AUTO <input type="radio"/> DISABLE
Time Server	<input checked="" type="radio"/> clock.isc.org <input type="radio"/> <input type="text"/>
Time Zone	<input type="checkbox"/> Daylight Saving Time, GMT+9
<input type="button" value="OK"/> <input type="button" value="Cancel"/>	

Note

The date and time settings are only accurate as long as the power is turned on. If SNTP is disabled and you turn off or remove the power supply, the date and time have to be reset! If SNTP is set to Auto and a time server is selected, it will automatically synchronize the time at start up.

Firmware Version

Displays the current firmware and loader version. It is recommended to periodically check the website of your vendor for possible updates.

Network Information

Displays the current IP address, MAC address and DHCP server status of your network drive. The DHCP server should be disabled in order not to interfere with your existing DHCP server. In most cases, your router will be assigning the IP address or in the office, a dedicated DHCP server might already be running. When the network drive is connected directly to your computer via patch cable or if there is no other DHCP server on the local network, the DHCP server will be enabled automatically (IP 169.254.0.1, Mask 255.255.255.0, Gateway N/A).

Network Information	
IP Address	192.168.11.11
MAC Address	00:b0:b5:00:bb:0b
DHCP Server	OFF <input type="radio"/> ENABLE <input checked="" type="radio"/> DISABLE Apply

Service Information

By default, both Samba and FTP services are enabled, allowing you to transfer files via FTP or to mount the network drive using SMB. If you only use one of these services, we recommend disabling the other one for security reasons. You can always enable it again in the future.

Service Information	
SMB Service	<input checked="" type="radio"/> ENABLE <input type="radio"/> DISABLE Apply
FTP Service	<input checked="" type="radio"/> ENABLE <input type="radio"/> DISABLE Apply

Disk Information

Displays details about the installed hard drive and the storage capacity. If you do not see these details, it is possible that the drive has not yet been installed or it has not been recognised because it has not yet been formatted. Make sure the hard drive has been installed properly and then use the disk utility to format it.

Disk Information	
Disk ID	WDC WD10 EADS-00
Free Size	953623 MB free
Total Size	953869 MB

2.3.2 IP Config

By default, the IP Config is set to Automatic IP. This is the recommended setting and will allow the network drive to obtain its IP address automatically. If you prefer setting it manually, select the Static IP option, enter your own values and click Apply to confirm the new settings.

Setting it manually is useful when you need to have a static IP address in order to mount the network drive or set up port forwarding as an example. To find out the correct settings for a static IP setup, refer to your router settings or ask your system administrator.

IP Config	
<input checked="" type="radio"/> Automatic IP	
<input type="radio"/> Static IP as below	
IP Address	<input type="text" value="192.168.11.11"/>
SubnetMask	<input type="text" value="255.255.255.0"/>
Gateway	<input type="text" value="192.168.11.1"/>
Primary DNS	<input type="text" value="192.168.11.1"/>
Secondary DNS	<input type="text" value="0.0.0.0"/>
Apply	

2.3.3 Maintenance

The tools found in the maintenance menu can be used to upgrade the firmware of your network drive and to reset the device to its factory default settings. Read the description of each tool for more details.

Firmware Upload

Here you can update the loader and firmware for your network drive. To do so:

1. Download the latest firmware and loader from your vendor’s website.
2. Store the files on your computer and unzip them if necessary.
3. Click on Browse and locate the firmware (*.BIN file).



4. Click on Upload.



5. Confirm the pop-up message to start the upgrade.



6. During the upgrade process, take no other actions and make sure the power is left on! This might take a few minutes.
7. Once the upgrade process is completed you will be prompted to reboot the device.



8. Click on Reboot to restart the device.
9. After rebooting the device, wait approximately one minute and then proceed to the Status page to confirm the upgrade was successful.

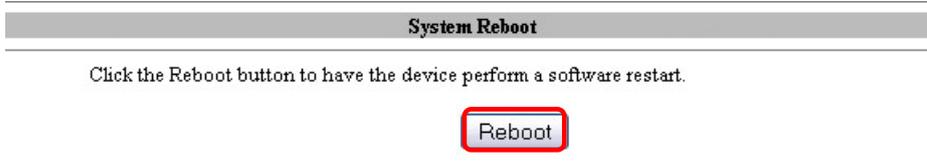
Note

Never turn off your device or remove the power during the firmware upgrade procedure as it may cause irreparable damage!

System Reboot

This can be used to restart the network drive after a firmware upgrade. Make sure all current operations are completed before rebooting the device.

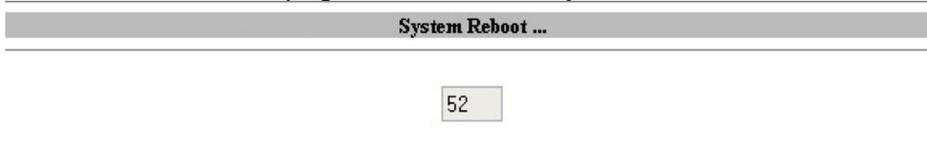
1. Click on Reboot.



2. Confirm the pop-up message to restart the device.



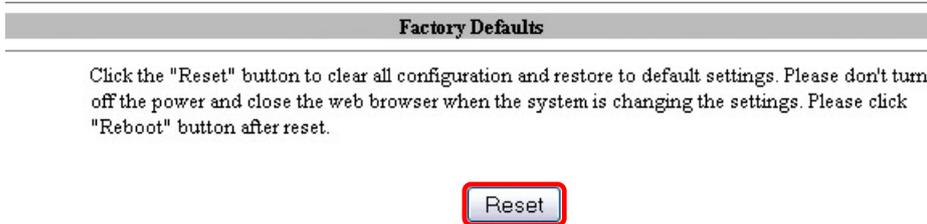
3. After 60 seconds the page will automatically refresh.



Factory Defaults

If you experience problems and after a firmware upgrade, it is recommended to reset all settings. Resetting the device will set all settings, except the SMB and FTP accounts, back to its original factory default settings.

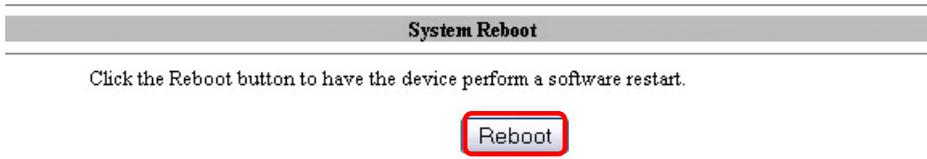
1. Click on Reset.



2. Confirm the pop-up message to reset all settings.



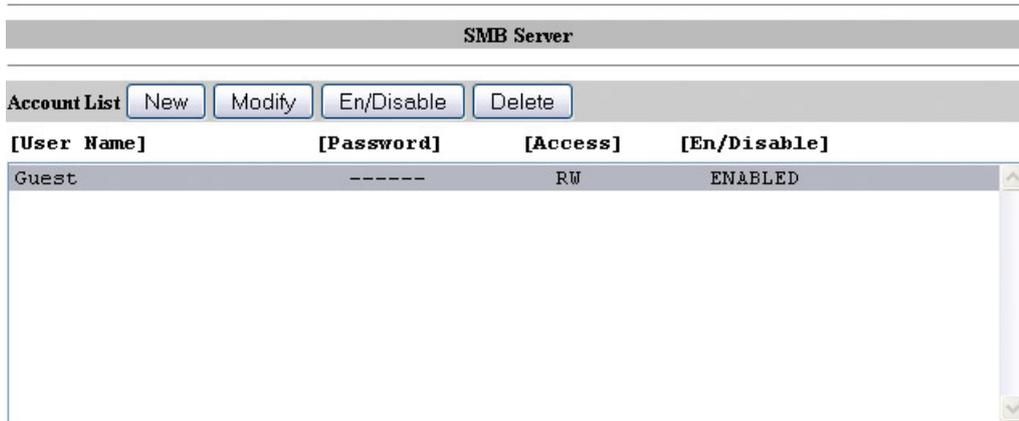
3. Click on Reboot to restart the device.



2.3.4 SMB Server

You can create a maximum of 16 accounts. Only use the English alphabet, with no special characters or spaces, for folder and account names. The ports used by the SMB server are 137-139.

The default account is created automatically. The user name is “guest” and no password has been set. Like any other account, you can always modify, delete or disable it.

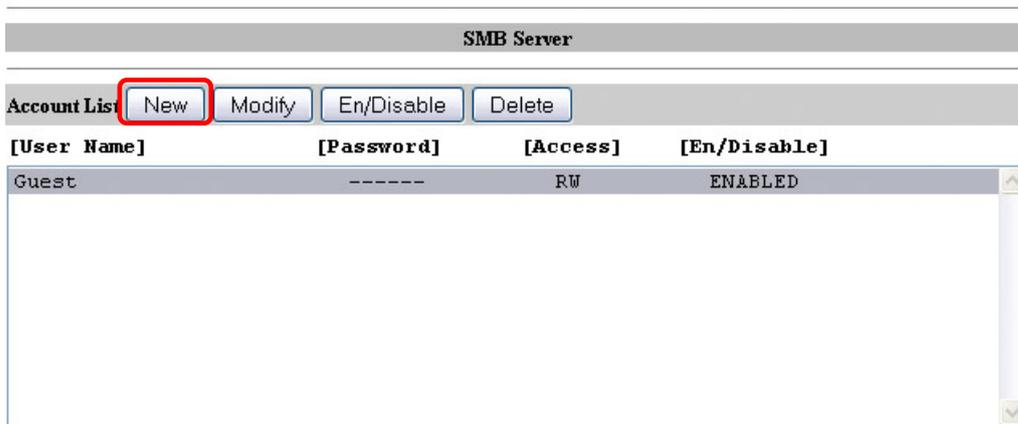


Note

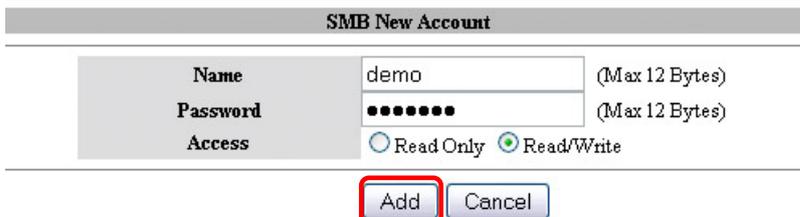
Only the folders on the sharing list will be accessible on the network. Select an account, click on Modify and then use the arrow buttons to add and remove the folders from that list. Deleting a folder will also erase all the files that are stored inside that directory!

Adding a new Account

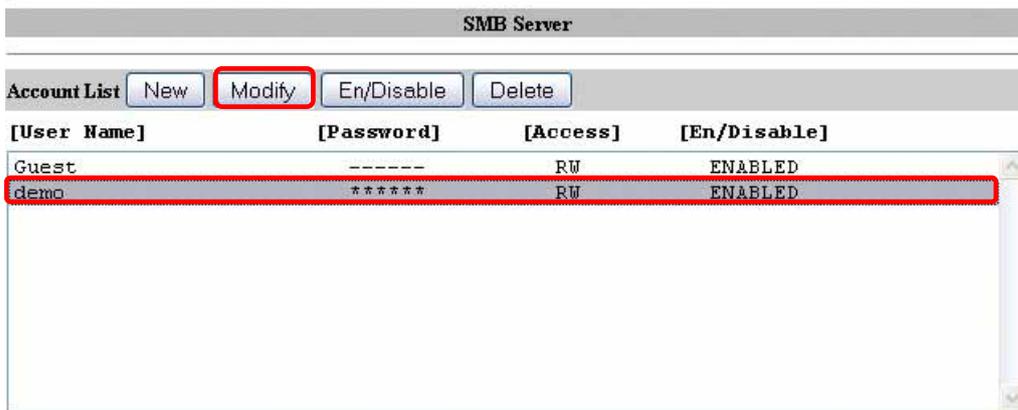
1. To create a new account and share files, click on New.



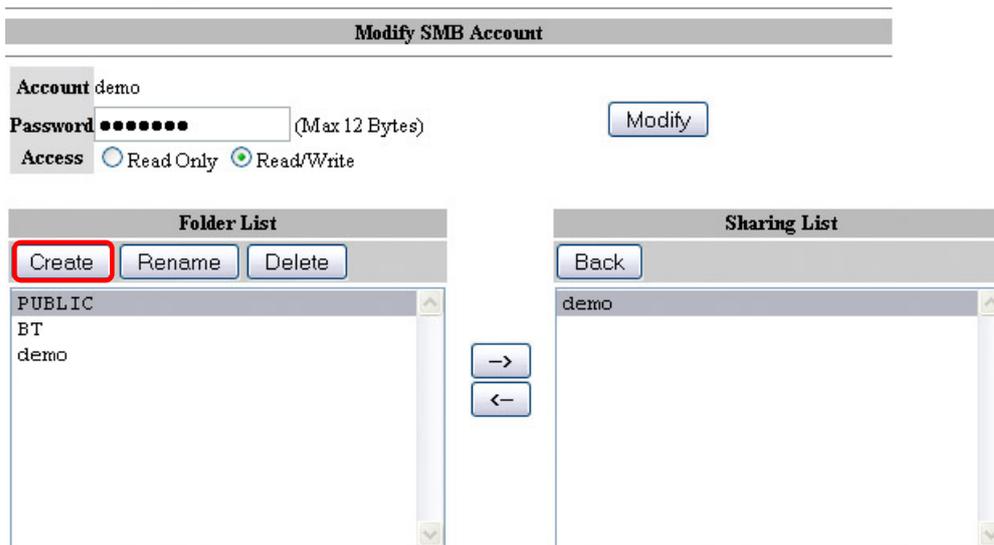
2. Enter a name for the new account and a password for the user of the account. Define the access rights for the new user, Read Only or Read/Write, and click on Add.



- 3. Select the account from the list and click on Modify.



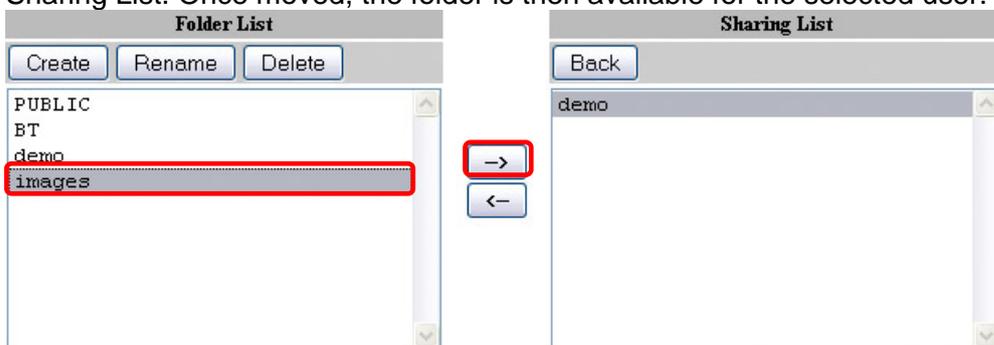
- 4. Here you can modify the settings and also create and manage the shared folders. Click on Create to add a new folder.



- 5. Enter a name for the new folder (max 12 bytes) and click on OK.



- 6. Select the new folder in the Folder List and then click on the arrow key to move it to the Sharing List. Once moved, the folder is then available for the selected user.



- 7. You can remove the folders from the sharing list at any time and also rename them if required. When deleting, remember that this will also remove all the files in that directory!

2.3.5 FTP Server

When creating FTP accounts, only use the English alphabet, with no special characters or spaces. The default account (anonymous) is created automatically but like any other account, you can always modify, delete or disable it.

FTP Configuration

FTP Port	<input style="width: 90%;" type="text" value="21"/> 21 or 1025-65500	<input type="button" value="Apply"/>
FTP Codepage	<input style="width: 90%;" type="text" value="English"/> help	<input type="button" value="Apply"/>

Account List

[User Name]	[Password]	[Access]	[En/Disable]
anonymous	-----	RO	ENABLED

Note

For FTP file transfers we recommend using a dedicated FTP application. Deleting a folder will also erase all the files that are stored inside that directory!

FTP Port

The standard port for the FTP service is 21. If required, you can change it and use any port number from 1025-65500, however generally, we recommend using the default of 21. When you change the port number for the FTP server, remember to adjust your firewall, otherwise, the FTP access will likely be blocked.

FTP Codepage

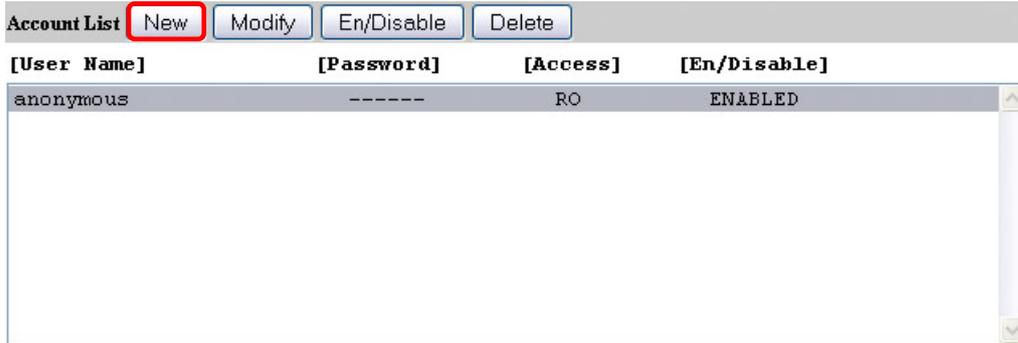
By default, the encoding is set to English. If you want to store or transfer files with a different encoding (different language), choose the corresponding language from the drop down menu list. Click on Apply to confirm the selection and change the language setting. If you are unclear about which encoding to select, click on Help for further details.

In order to transfer and store the files, it is important that you select the correct language!

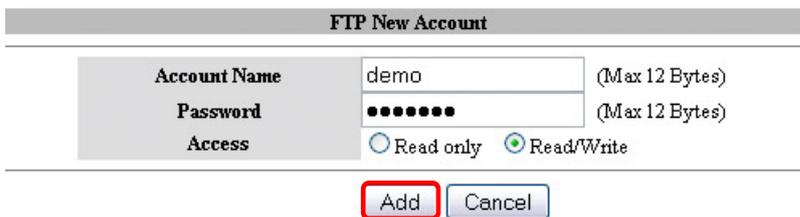
- Central Europe (CP1250)
Croat, Czech, Hungarian, Polish, Romanian, Slovak, Slovene and Sorbian.
- Cyrillic (CP1251)
Bulgarian, Belorussian, Macedonian, Moldavian, Russian, Serbian and Ukrainian.
- Latin I (CP1252)
Albanian, Danish, Dutch, Faroese, Finnish, French, German, Icelandic, Irish, Italian, Norwegian, Portuguese, Spanish and Swedish.
- Baltic (CP1257)
Estonian, Latvian, Lithuanian.

Adding a new Account

1. To add a new account, click on New. You can create a maximum of 16 accounts.



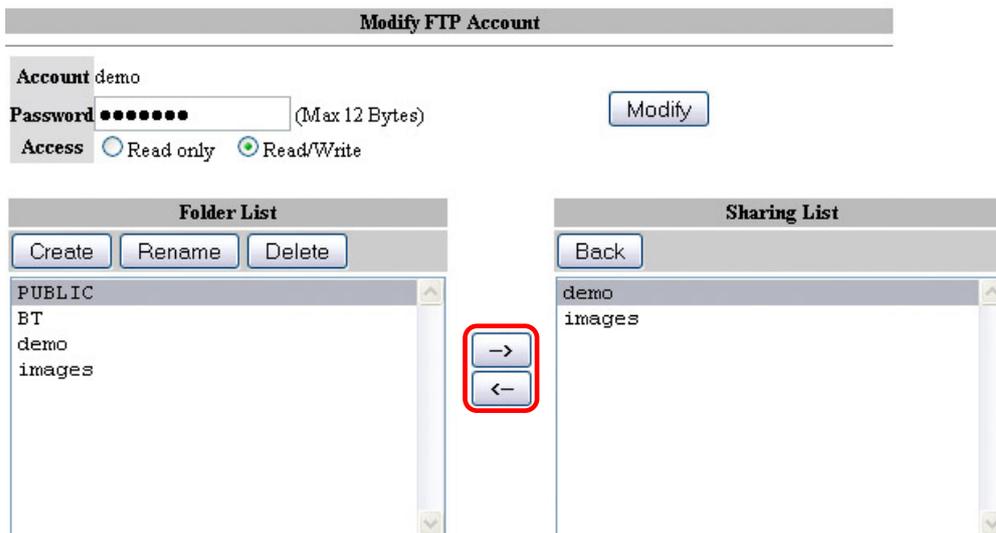
2. Enter a name for the new account and a password for the new user. Define the access rights for the new user, Read Only or Read/Write, and click on Add.



3. Select the account from the list and click on Modify.



4. For the FTP user to access the files, use the arrow buttons and move the folder you want to share to the sharing list. The folders from the SMB accounts will be available here but you can also add new and modify existing ones if required. Use the Create button to add more folders and the delete button to erase a folder and all its content.



2.3.6 BitTorrent

Here you can manage your torrents and add new downloads to the queue. Before you add the first download, set the download path to your preferred folder, set the server port and set a limit for the upload speed according to your network's bandwidth. After changing each of the settings, press the Apply button to save the new configuration.

To start downloading files, you will first have to download a torrent file from the internet and then upload it to the network drive. Once the torrent file has been added, you can start downloading. The downloaded files will be stored in the folder that is set for the Download Path.

The BitTorrent™ client on the PD-SATA USB/GbE can download 4 files at a time with a maximum of 40 files in the queue. The download speed may not be as fast as a BitTorrent™ client on the computer but once the Torrent has been added to the queue, it can download the files by itself.

BT Configuration	
System ID	535452383138332d312e3430610b0b50b6bb0
Download Path	PUBLIC <input type="button" value="Apply"/>
Server Port	6881 1025 ~ 65535 (Default: 6881) <input type="button" value="Apply"/>
Upload Limit	0 KB (0 is unlimited)
Mail Notification	<input type="button" value="Mail Setup"/>

Upload Your Torrent File	
<input type="button" value="Browse..."/>	<input type="button" value="Upload"/>

Download Queue	
<input type="button" value="Restart"/>	<input type="button" value="Pause"/>
<input type="button" value="Stop"/>	<input type="button" value="Show"/>
<input type="button" value="Remove"/>	

Note

Make sure the port for the BitTorrent™ client is not blocked by your router or the firewall. If necessary, set up port forwarding, so that the traffic for that port is forwarded to your network drive.

Mail Notification

To be notified when a torrent is stopped or removed, you can set up e-mail notification. Click on Mail Setup, check Enable and fill out the configuration for your e-mail. To find out the correct settings for the mail server, ask your system administrator or your e-mail provider.

BitTorrent Mail Notification	
Enable	<input type="checkbox"/>
SMTP Server	<input type="text"/>
Sender	<input type="text"/>
Recipient	<input type="text"/>
Mail Authentication	<input type="checkbox"/>
User Name	<input type="text"/>
Password	<input type="text"/>

<input type="button" value="Apply"/>	<input type="button" value="Return"/>
--------------------------------------	---------------------------------------

2.3.7 Printer

When a USB printer has been connected to the network drive, it will display its status here. If the status indicator shows Offline, the printer has not been connected properly, is turned off or is not supported.

Printer Status	
Status	Offline
Manufacturer	
Model Number	
Languages	

2.3.8 Media Server

The UPnP media server can be used to share your photos, music and videos that are stored on the network drive with an Xbox 360 or PlayStation 3 video game console that is connected to the same local network.

Media Server	
Sharing List	Photo Directory
PUBLIC <input type="button" value="Set"/>	Disable <input type="button" value="Disable"/>
Sharing List	Music Directory
PUBLIC <input type="button" value="Set"/>	Disable <input type="button" value="Disable"/>
Sharing List	Video Directory
PUBLIC <input type="button" value="Set"/>	Disable <input type="button" value="Disable"/>

1. Select the folder where your files are stored from the sharing list.
2. Click on Set to save the new setting and enable the file sharing with your video game console.
3. Repeat the previous two steps for each media type (photo, music, video).
4. The file sharing can be disabled at any time by clicking on Disable for the corresponding directory.

Note

Depending on the video game console, only certain media files can be accessed. For the Xbox 360, you can play JPG, MP3, WMV and XviD files. For the PlayStation 3, you can play JPG, MP3, MPEG-1, MPEG-2 and XviD files. iTunes will only be able to play MP3 music files.

2.3.9 Disk Utility

The screenshot shows a web-based utility interface titled "Disk Utility". It features three main sections on the left side, each with a corresponding button on the right:

- Format Disk:** A button labeled "Format".
- Sleep Time:** A dropdown menu currently set to "DISABLE" with "(minutes)" text to its right, and a "Set" button.
- Scan Disk:** A button labeled "Start".

Below these sections is a large, empty rectangular text area. At the bottom of the interface are two buttons: "Clear" and "Refresh".

Format Disk

Use this tool to format your hard drive and prepare it for the network drive. When you format the hard drive using this disk utility, it will create a single partition using the FAT32 file system. Large files up to 127GB are supported when the drive is formatted using this disk utility.

If you create other partitions or choose a different file system when connected through USB, keep in mind that the network drive is only able to recognize the first partition and it has to be the FAT32 file system!

Sleep Time

To save energy and keep the drive cool, it is recommended to set a sleep time. Select a time from the list between 10 to 60 minutes. When the drive is idle for longer than the set time, it will automatically go into stand-by mode and spin down.

If you need immediate access to the drive, set it to Disable and the drive will keep spinning at all times.

Scan Disk

Click on Start to scan the disk for errors. A report will be shown in the text field below. If errors are found, it is recommended to format the drive again and/or connect it via USB to a computer to scan for and fix the errors. Use the Clear button to erase any old reports.

Note

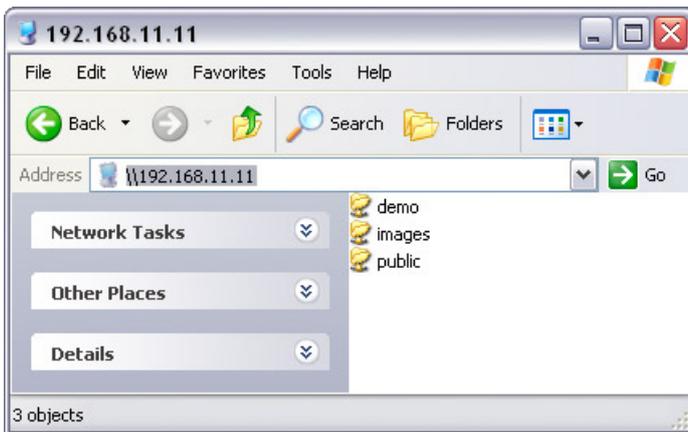
Formatting the drive will erase all data and settings, as well as deleting the SMB folders and FTP accounts!

3 Extra Features and Examples

3.1 File Access on a PC

3.1.1 Windows Explorer

Use Windows Explorer and type \\ followed by the IP address or \\STORAGE into the address field and press the Enter key on your keyboard. It will then list all available folders on your LAN disk. To create a permanent link to your network drive, see Mapping a Network Drive.



You can copy files to the network drive as if it were a folder on your local drive. Depending on the bandwidth, you can also open and directly play the files, although we recommend always transferring the data to your local drive first.

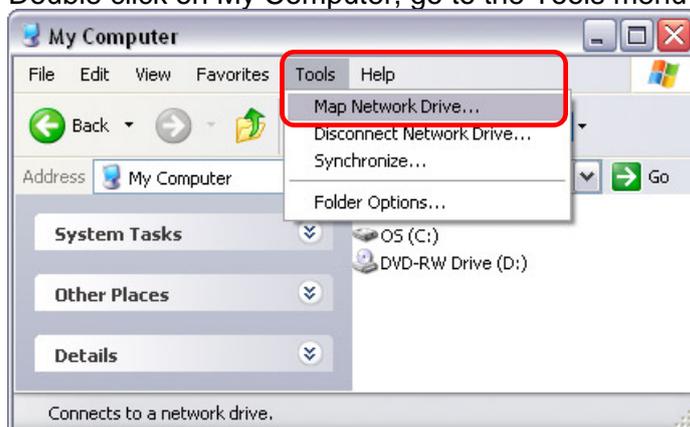
Note

When you have to access multiple folders with different passwords or have modified the settings without a computer restart, go to Tools and disconnect the temporary network drive first, before accessing a new folder.

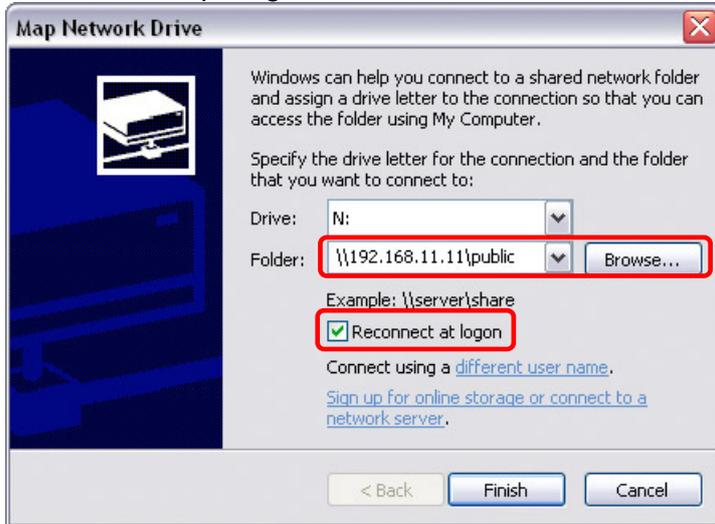
3.1.2 Mapping a Network Drive

Mapping the network drive will allow you to create a permanent link that will be present even after restarting the computer. This permanent link provides convenient access to your network drive and can be used to store file within other applications. If you experience problems when trying to access the shared folders, disconnect all network drives, reboot your computer, restart your network drive and then try again.

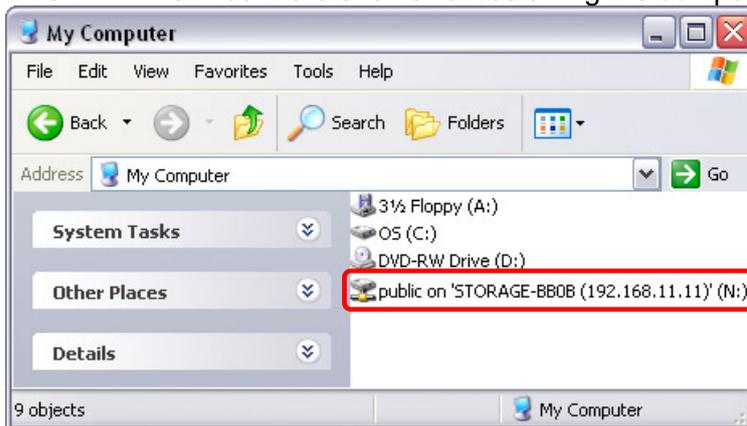
1. Double click on My Computer, go to the Tools menu and select "Map Network Drive...".



- Follow the setup wizard and fill in the path to your network drive. When entering the IP address, also add the shared folder name (e.g. \\192.168.11.11\public). It is recommended to select the “reconnect at logon” option when you map the network drive, otherwise you will have to map it again after a restart.



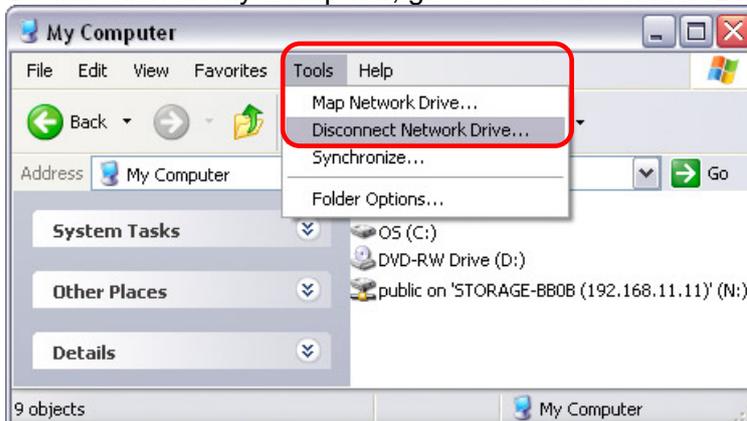
- Once the drive has been mapped, you are able to find and access it under My Computer. This link will still be there even after restarting the computer.



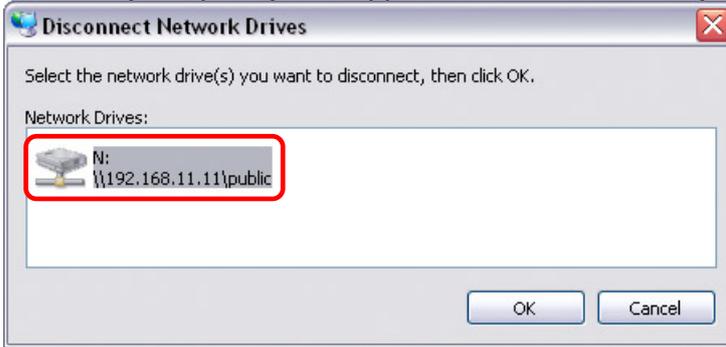
3.1.3 Disconnecting a Network Drive

When you don't need a mapped network drive any more, we recommend disconnecting it. It is also necessary to disconnect a temporary network drive when you try to login with a new user name and password but have not restarted the computer in between.

- Double click on My Computer, go to Tools and select “Disconnect Network Drive...”.



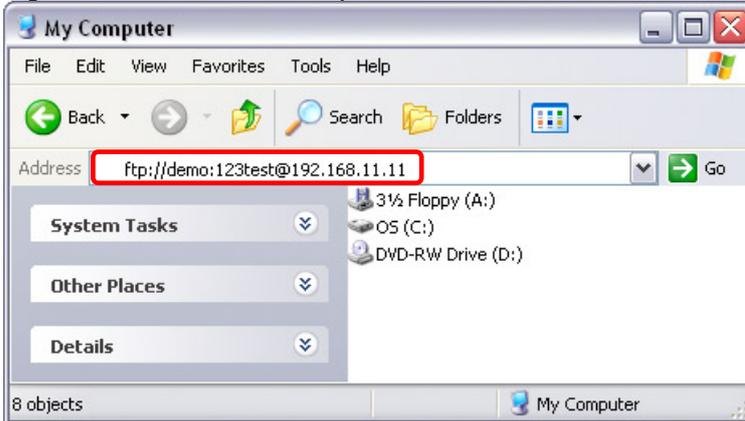
2. Select any temporary or mapped network drives that you would like to remove and click OK.



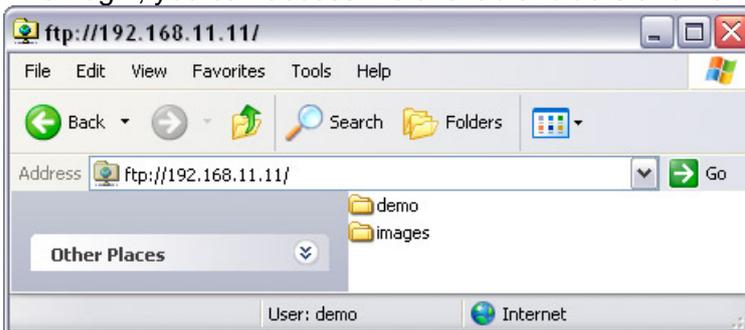
3.1.4 FTP

For FTP transfers, we recommend installing and using a dedicated FTP application, which can either be a free utility or shareware program. Files can not be opened directly via FTP, so you will always have to transfer them to your computer first.

1. Using Windows Explorer, type ftp:// followed by the IP address of your network drive into the address field. Add the user name and password in front of the IP address with an @ sign in between like this ftp://demo:demo@192.168.11.26.



2. After login, you can access the available folders and transfer your files.

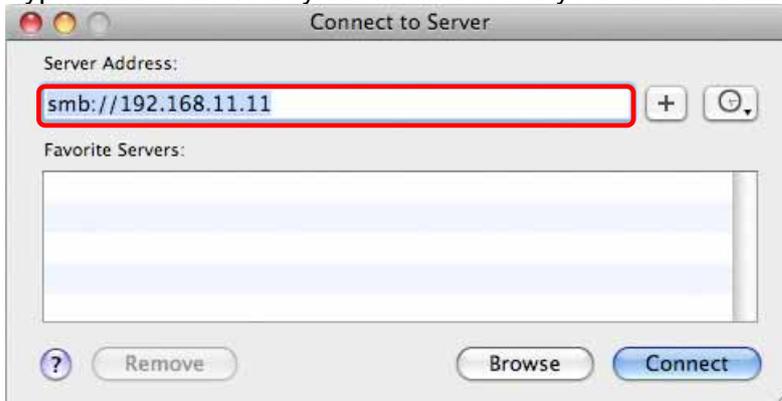


3.2 File Access on a Mac

3.2.1 SMB

To mount and access the network drive, use the Connect to Server command.

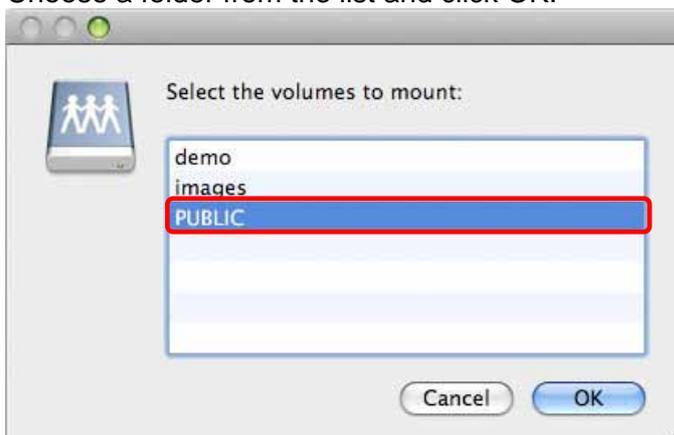
1. Click on “Go” and select “Connect to Server”.
2. Type `smb://` followed by the IP address of your network drive and click on Connect.



3. Select Registered User and enter your user name and password for the SMB account.



4. Choose a folder from the list and click OK.



- The mounted drive will be listed in your finder under Shared devices. Here you can access the network drive and transfer your files. When no longer needed, click on the eject button to disconnect the drive.



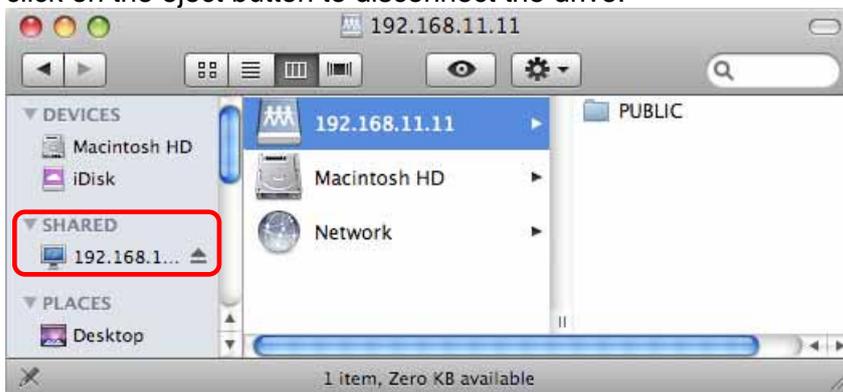
3.2.2 FTP

For FTP transfers, we recommend installing and using a dedicated FTP application, which can either be a free utility or shareware program. The FTP utility on the Mac will only be able to read the data on the network drive but can not upload new data to it.

- Click on “Go” and select “Connect to Server”.
- Type ftp:// followed by the IP address of your network drive and then click on Connect.



- Enter the correct username and password. The FTP folder will then be listed in your finder under Shared devices and you can download the files. When the FTP is no longer needed, click on the eject button to disconnect the drive.



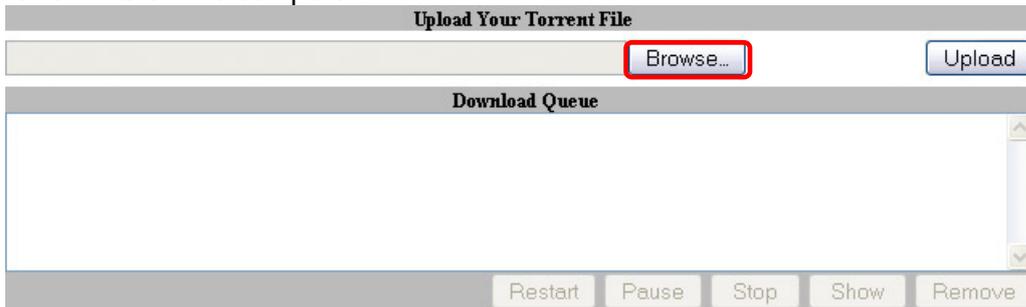
3.3 BitTorrent Download Manager

Used in conjunction with its built-in BitTorrent™ client, the network drive can be set to download media files from the Internet and have them saved directly to the internal hard drive.

3.3.1 Starting a Download

Before you add the first download, set the download path to your preferred folder, set the server port and set a limit for the upload speed according to your network’s bandwidth. After changing each of the settings, press the Apply button to save the new configuration.

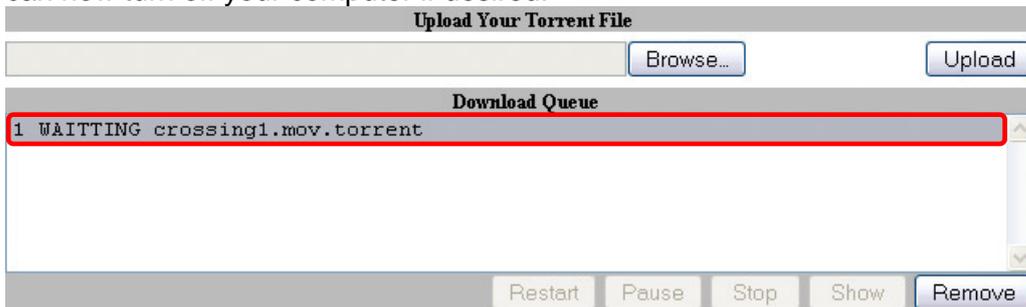
1. Use a search engine, such as Google, and browse the internet for the media files you would like to download. Download and store the torrent file(s) on your computer.
2. Login to your network drive and go to the BitTorrent menu. Click on Browse and locate your torrent file on the computer.



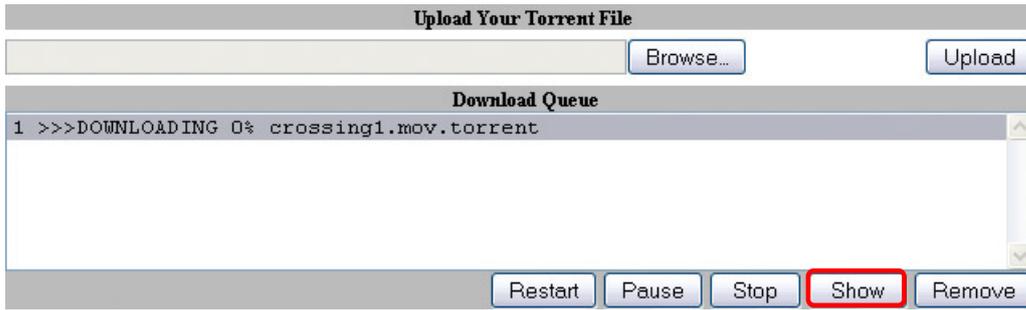
3. To start the download process, click on Upload.



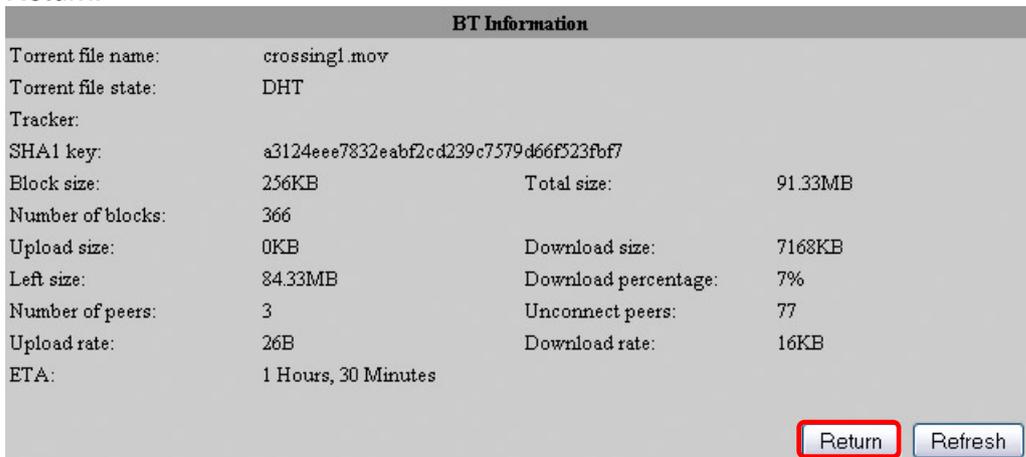
4. The file will be added to the download queue and the download starts automatically. You can now turn off your computer if desired.



- Once the download has started, the buttons to Restart, Pause, Stop and Show further information will be enabled. To see more details about the selected download, click on Show.



- To update the information, click on Refresh. To return to the download queue, click on Return.



Note

The download speed of the built-in BitTorrent t™ client may not be as fast as a client on the computer, but once the Torrent has been added to the queue, it can download the files by itself and the computer can be turned off.

3.4 Printer Server

The network drive is equipped with an additional USB host port and a printer server. Connect your USB printer to the USB host port on the network drive to share it with other workstations on the same local network.

3.4.1 Installation on a PC

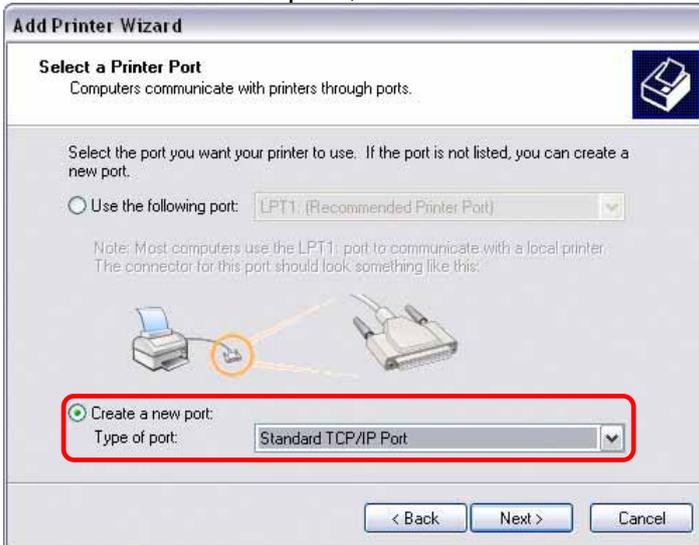
Printing via the shared network printer will be slower than when the printer is connected directly to the USB port on the computer. After you press the Print button, please wait for the printer to receive the data.

- Connect your USB printer to the USB host port on the network drive and turn both units on.
- Login to your network drive and go to the Printer menu to make sure the printer has been recognized. We also strongly recommend using a fixed IP address, in order to prevent having to modify the printer setup whenever the IP changes.
- On your PC, go to Start and select "Printers and Faxes".
- Go to File, select "Add Printer" to bring up the printer setup wizard and press "Next" to start.

5. Select “Local printer attached to this computer”, deselect “Automatically detect and install my Plug and Play printer” and press “Next”.



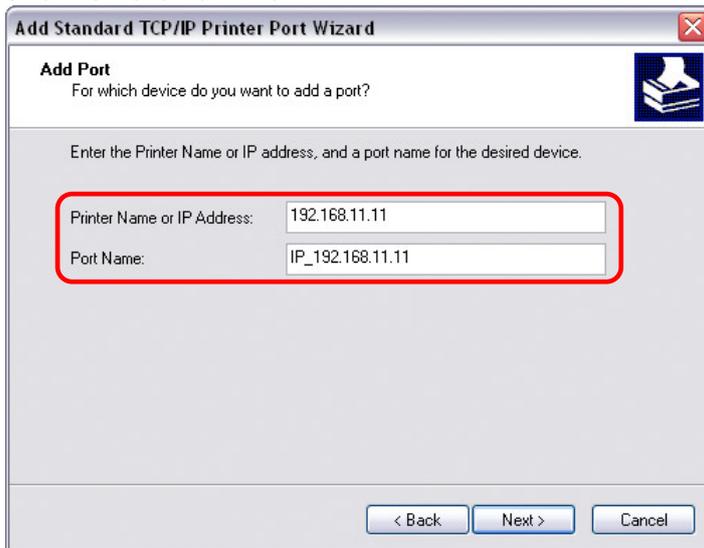
6. Select “Create a new port”, choose “Standard TCP/IP Port” from the list and click on “Next”.



7. Make sure the network drive and printer are both turned on and connected to the same local network as your computer, then click on “Next”.



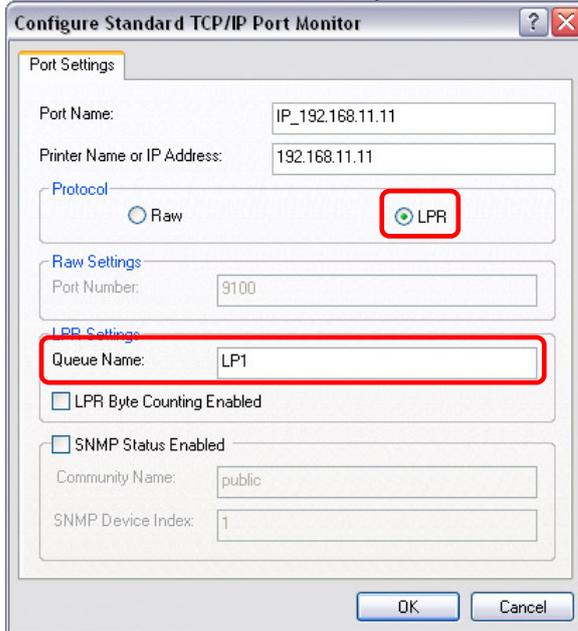
8. Enter the IP address of your network drive (the port name will be filled out automatically) and then click on “Next”.



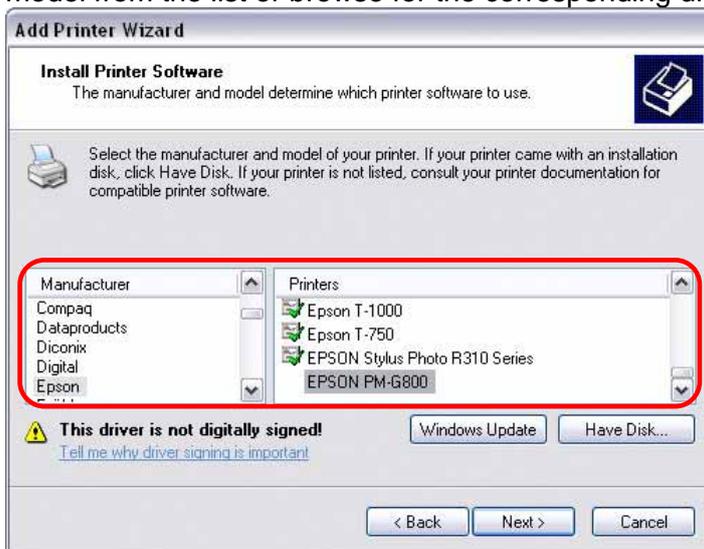
9. Select “Custom” and click on “Settings” to modify the configuration.



10. Select “LPR” and enter the queue name “LP1”, then click on OK to confirm it.



11. Click on Finish not complete the TCP/IP Wizard and close the dialog.
 12. After clicking on “Next”, a pop-up window will appear asking for a driver. Select your printer model from the list or browse for the corresponding driver on your local drive.



13. In the next few steps, you will be able to give the printer a name, set it as default printer, add a description and print a test page. It is not necessary to share the printer with other network users, because it can be installed on other computers in the same way as here.
 14. Once you have completed the wizard set-up your printer should be properly installed and ready to print.

Note

Not all USB printers support LPR/LPD printing, therefore, your printer may not be compatible and the installation might fail.

3.4.2 Installation on a Mac

Printing via the shared network printer will be slower than when the printer is connected directly to the USB port on the computer. After you press the Print button, please wait for the printer to receive the data.

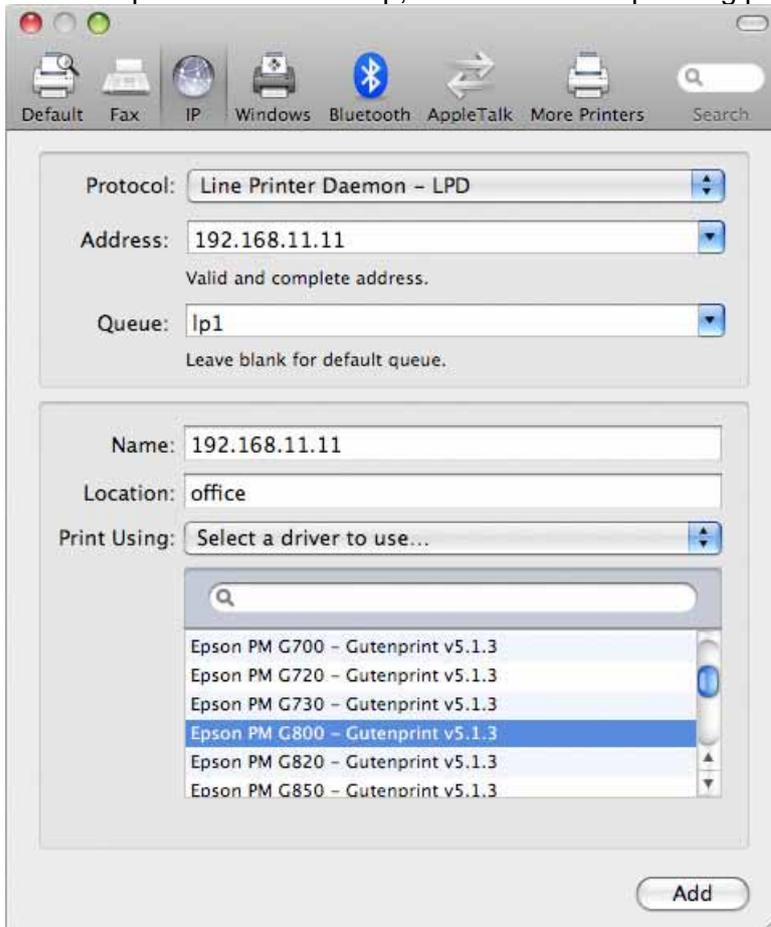
1. Go to System Preferences and click on Print & Fax.



2. Click the + symbol to add a new printer.



3. Select the IP tab. For the Protocol, select Line Printer Daemon (LPD), for the Address enter the IP address of your network drive and for the Queue enter lp1. The Name and Location are used to easily identify the printer and do not have to be the same as the ones used in this example. For the last step, select the corresponding printer driver and click on Add.



4. Done! Your printer has been set up and you are now ready to print.

Note

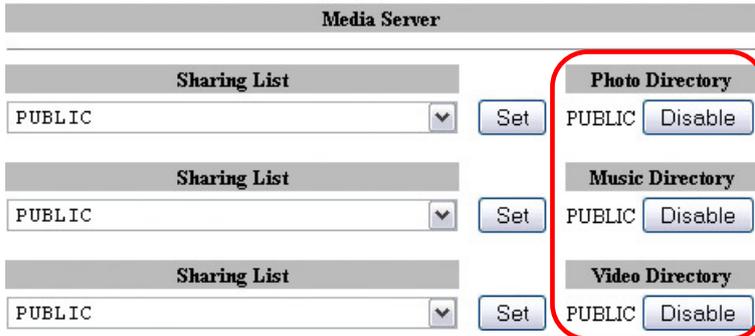
Not all USB printers support LPR/LPD printing, therefore, your printer may not be compatible and the installation might fail.

3.5 Media Server

The UPnP media server can be used to share your photos and music files that are stored on the network drive with an Xbox 360 or a PlayStation 3 video game console that is connected to the same local network. Before you start, make sure both devices are connected to the same local network and both are turned on.

3.5.1 Xbox 360

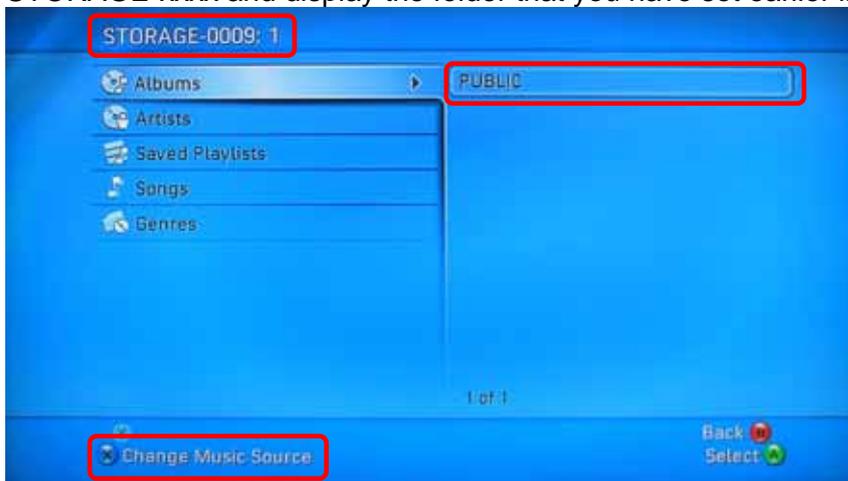
1. On your network drive, go to the Media Server menu and make sure that each of the sharing lists have a folder set and the directory is not disabled.



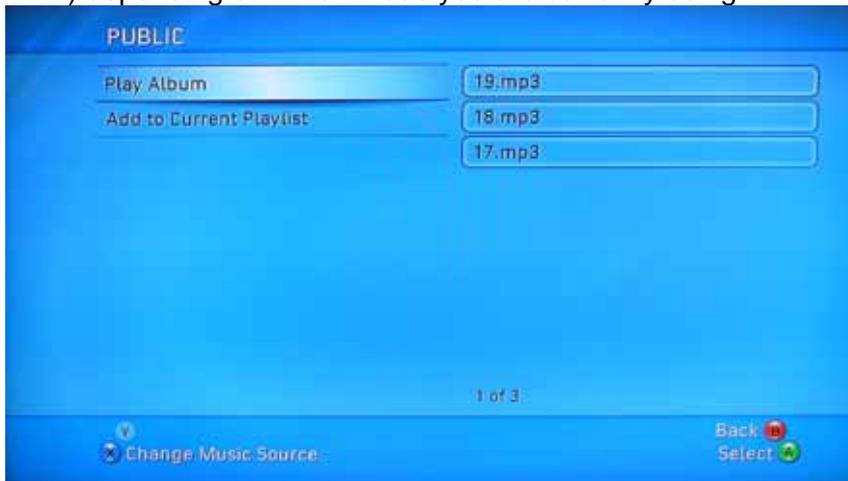
2. On your Xbox 360, go to media, select Music, Pictures or Videos and press A to continue.



3. Press X to change the source and select your network drive. It should show up as STORAGE-xxxx and display the folder that you have set earlier in the sharing list.



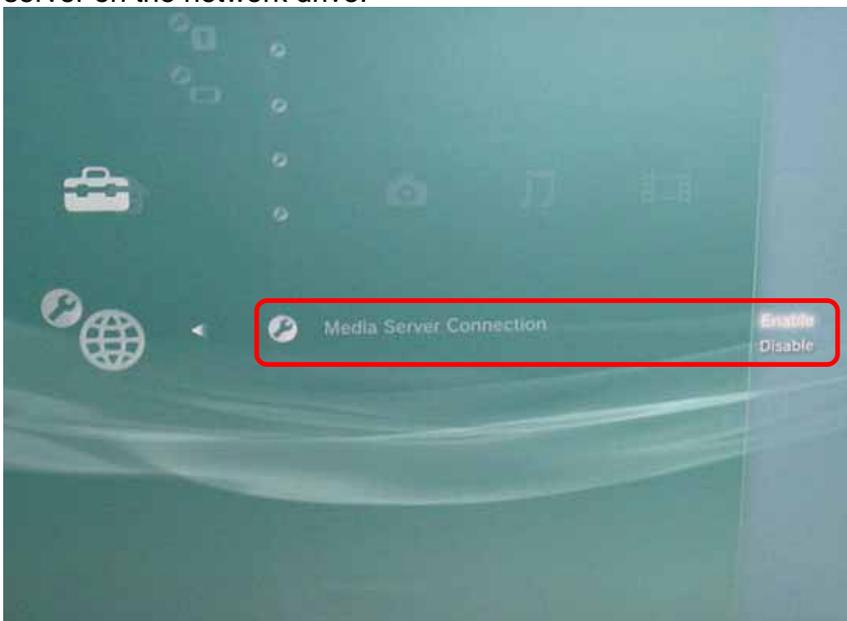
4. Inside the shared folder, you can access your pictures (JPG), music (MP3) or videos (WMV, XviD) depending on which mode you are currently using.



5. Now select and play the files you would like view or listen to.
6. Enjoy!

3.5.2 PlayStation 3

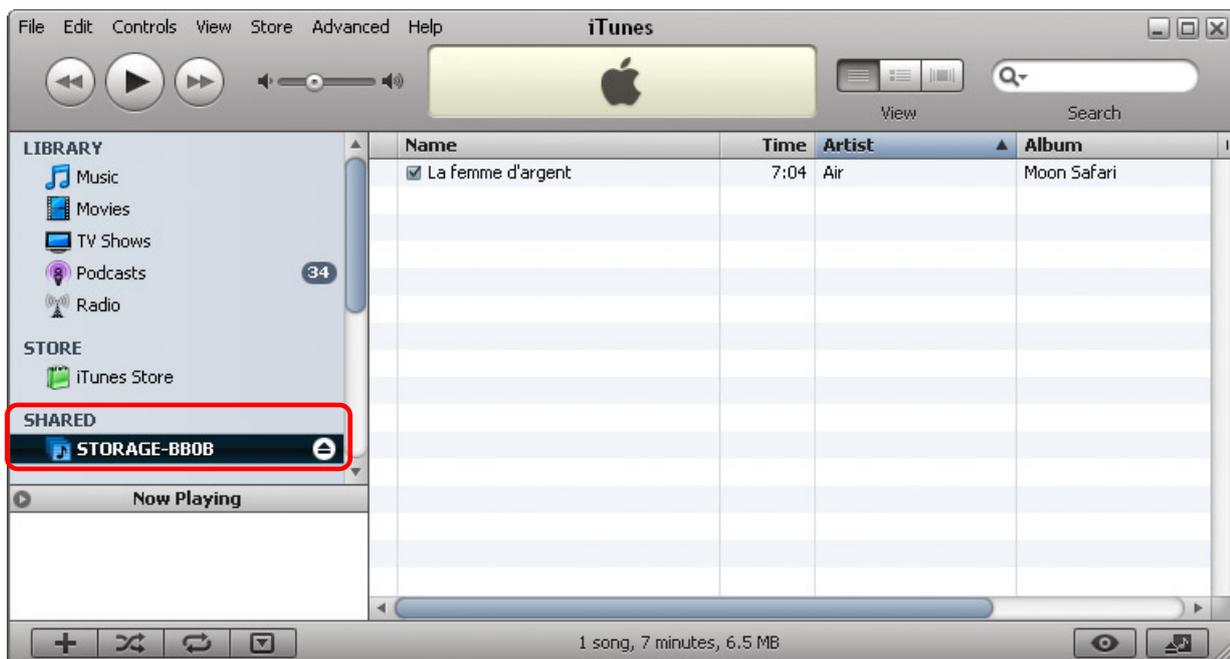
1. On your network drive, go to the Media Server menu and make sure that each of the sharing lists have a folder set and the directory is not disabled.
2. On your PS3™, open the Settings menu, go to Network Settings, select Media Server Connection and Enable it. This will allow the PS3 to detect the shared folders of the media server on the network drive.



3. When you turn on the PS3™, media servers on the same local network are automatically detected and a shortcut will be displayed under Photo, Music and Video.
4. Select the network drive to access the shared folders of the media server and playback your photos (JPG), music (MP3) and videos (MPEG-1, MPEG-2, XviD).

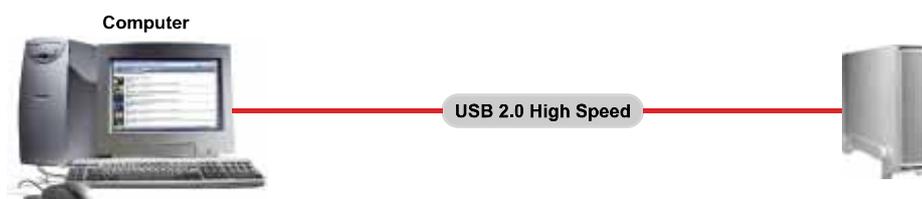
3.5.3 iTunes

When a shared folder for the music directory on the media server has been set, the network drive will automatically appear on iTunes under shared devices and MP3 files can be played.



3.6 USB Device

When the PD-SATA USB/GbE is not connected to the network, it can also be used as a simple USB mass storage device. The user accounts and access rights used for the network drive do not apply to the USB drive. When connected directly to the computer via USB, all data can be accessed and modified!



1. Login via a web browser, stop all current downloads and then turn off the power.
2. Disconnect the Ethernet cable and connect the USB cable to the USB device port on the network drive and to the USB port on your computer.
3. Turn on the power.
4. The USB drive will automatically show up under "My Computer" for Windows or on the desktop for the Mac.

Note

The device has to be turned off to change it from acting as USB drive to a network drive and vice versa. When both USB cable and Ethernet cable are connected, the USB connection has priority and it will act as USB drive until disconnected and restarted.

Do not format the drive on your computer! Only use the disk utility of the network drive to do that.

4 Appendix

4.1 Precautions

Before using your network drive, please carefully read the following paragraphs relating to the safety issues of your device.

4.1.1 Power on/off precautions

It is highly recommended to switch the unit off when not in use. When re-locating the network drive or when not in use for an extended period of time, we strongly recommend unplugging the unit.

4.1.2 Location and placing precautions

Set the network drive up in a vertical position and do not place any other objects on top of it. Do not place the unit on other heat-sensitive equipment.

Avoid positioning your device in the following places:

- Locations with direct sunlight and next to radiators or other sources of heat.
- Locations with very high temperatures (more than 38° C) or humidity (more than 90%).
- Very dusty or sandy locations.
- Locations subject to vibration, shock, or with a sloping base.

4.1.3 Electricity and power plug

Careful attention must be paid to the following points in order to avoid operational faults with the equipment and to prevent electric shock, fire, and/or injury:

- When removing the power cable from the socket, always pull on the plug fixture and never on the cord.
- Do not connect and remove the power cable with wet hands.
- Keep the power cable away from heaters.
- Never try to repair the power cable yourself or to modify it in any way.
- If the unit is dropped or becomes damaged, unplug the power cable.
- If the unit should emit smoke, an unusual odour or noise, switch it off immediately and unplug the power cable. In such cases, please contact your vendor.
- If the unit is not used for extended periods of time, then the unit should be unplugged.

4.1.4 Cables

Use only the cables supplied or recommended by your vendor in order to avoid the risk of malfunction, electric shock, and/or possible interference to the device.

4.2 Trademarks

- Microsoft, Windows 2000/XP/Vista and Xbox are trademarks of Microsoft Corporation.
- Apple Macintosh, Mac and iTunes are trademarks of Apple Computer.
- BitTorrent and Torrent are registered trademarks of BitTorrent, Inc.
- PlayStation and PS3 are trademarks of Sony Corporation.
- All other third party brands and names are the property of their respective owners.

4.3 Specifications

Internal Hard Drive	<ul style="list-style-type: none"> • Single 3.5" SATA-I or SATA-II hard drive (1.5Gb/s or 3.0Gb/s) • 20GB - 1.5TB • FAT32
Interface/Ports	<ul style="list-style-type: none"> • 10/100/1000Base-TX Auto MDI/MDI-X • USB 2.0 High Speed device port • USB host port for USB printers
Supported USB devices	USB printers only (LPD/LPR)
Supported UPnP clients	<ul style="list-style-type: none"> • Xbox 360 (JPG, MP3, WMV, XviD) • PlayStation 3 (JPG, MP3, MPEG-1, MPEG-2, XviD) • iTunes (MP3)
System Requirements	<ul style="list-style-type: none"> • PC: Windows 2000/XP/Vista • Mac: Mac OS 10.2 or above • Your hardware device must have the correct corresponding port (eg. USB 2.0, USB 1.1 or PCI card)
Power (AC adapter)	AC: 100-240V, 0.5A, 50-60Hz DC: +12V/2A
Dimensions	22.8cm x 13.7cm x 3.5cm
Operating Temperature/Humidity	5°C ~ 40°C / 10%RH ~ 80%RH non condensing
Storage Temperature/Humidity	-20°C ~ 70°C / 5%RH ~ 90%RH non condensing

Note

Design and specifications are subject to change without prior notice and will depend on the model and the current firmware release.

4.4 Important Notices

4.4.1 About this Manual

This manual was written for the PD-SATA USB/GbE network drive with the firmware version as seen on the front page. Images, descriptions and features may slightly vary between this document and the actual product you have, depending on the current firmware release and the vendor.

4.4.2 About Data Backup

To protect your files and help prevent the loss of your data, we strongly recommend that you keep two copies of your data, one copy on your network drive and a second copy either on your internal drive or another storage media such as a CD, DVD, Tape or an additional external drive. Any loss or corruption of data while using the network drive is the sole responsibility of the user, and under no circumstances will the manufacturer be held liable for compensation or the recovery of this data.

4.4.3 Intellectual Property

The PD-SATA USB/GbE network drive is not designed or intended to, and may not be used to violate any copyrights or other IP (Intellectual Property) rights. Each user of the network drive may only use it in connection with materials legally owned by or licensed to the user and only extend such ownership or license rights that will permit such use.

4.5 Technical Terms

Description for terms and abbreviations used in this manual.

BitTorrent™

BitTorrent is the name of a peer-to-peer (P2P) file distribution client application and also of its related file sharing protocol, both of which were created by programmer Bram Cohen. BitTorrent is designed to distribute large amounts of data widely without incurring the corresponding consumption in costly server and bandwidth resources. For more details, please refer to www.bittorrent.com.

Torrent™

A torrent can mean either a .torrent metadata file or all files described by it, depending on context. The torrent file contains metadata about all the files it makes downloadable, including their names and sizes and checksums of all pieces in the torrent. It also contains the address of a tracker that coordinates communication between the peers in the swarm.

FAT32

File Allocation Table (FAT) is a file system developed by Microsoft for MS-DOS. The FAT file system is considered relatively uncomplicated, and is consequently supported by virtually all existing operating systems for personal computers. The maximum size of a single file is limited to 4GB or when the drive has been formatted using the disk utility of the network drive to 127GB.

LAN

A Local Area Network (LAN) is a computer network covering a small local area, like a home, office, or small group of buildings such as a home, office, or college.

FTP

FTP or file transfer protocol is a commonly used protocol for exchanging files over any network that supports the TCP/IP protocol (such as the Internet or an intranet). There are two computers involved in an FTP transfer: a server (network drive) and a client (user's computer).

SMB

Server Message Block (SMB) is a network application-level protocol mainly applied to share files, printers, serial ports, and miscellaneous communications between nodes on a network.

4.6 FAQ

Q: I forgot my login, what do I do?

A: If you lost the administrator's password, press and hold the reset button, turn on the device and wait for about 30 seconds. Release the button and the device will reset all settings back to its factory default setup. The default login is admin/admin.

Q: FTP access on my Mac doesn't work properly!

A: The FTP utility on the Mac will be able to read the data on the network drive but you can not write new data to the drive. To upload files, you will need to install a dedicated FTP application.

Q: I can not access the web configuration interface, what's the correct IP?

A: See Basic Operation and How to Login. If none of these instructions help, reset your device. Connect it directly to your computer via Ethernet cable and access it using 169.254.0.1.

Q: My HDD is not recognized.

A: The network drive can only access the first partition and it has to be formatted using the FAT32 file system. We recommend only using the disk utility of the network drive to format the drive.

Q: Which ports do I have to open on my firewall?

A: Depending on the services that are used, the following TCP ports will have to be opened for the network drive: FTP port 21, SMB ports 137-139, HTTP port 80 and UDP port 14675 for the LAN disk utility. Additionally, port 6881 is required for the BitTorrent client.

Q: Does the PD-SATA USB/GbE support SSH or Telnet access?

A: No, it does not support SSH, Telnet or TFTP access.

Q: Can I use the PD-SATA USB/GbE as USB and network drive at the same time?

A: No, it can only be used either as a USB drive or as a network drive but not both at the same time. When both cables are connected, the USB connection will have priority.

Q: I've connected the USB cable but it does not show up on my computer!

A: If the device is currently used as a network drive, it has to be restarted first.

Q: I get Error Code -36

A: The Finder cannot complete the operation because some data in "smb://storage" could not be read or written. If you get this error message, use the IP address instead of STORAGE.

1. Log in as admin using your web browser.
2. Under SMB Server, make sure the folder you want to access is in the Sharing List.
3. Go to IP Config and make sure it is set to Automatic IP
4. Go to Network Information in the Status menu and write down the IP address you see there.
5. Go to your Finder and select Go/Connect to Server
6. Type smb://IP/FOLDER and click on Connect. For the IP use the IP address you wrote down in step 4, for FOLDER use the folder name you added to the Sharing List in step 2.
7. If the LAN disk is connected directly to your computer using the Ethernet cable, the default IP address is 169.254.0.1.

© Copyright 2008 by Macpower & Tytech Technology Co., Ltd. all Rights Reserved

The information contained in this manual is believed to be accurate and reliable. Macpower & Tytech Technology assumes no responsibility for any errors contained in this manual. Macpower & Tytech Technology reserves the right to make changes in the specifications and/or design of this product without prior notice. The diagrams contained in this manual may also not fully represent the product that you are using and are there for illustration purposes only. Macpower & Tytech Technology assumes no responsibility for any differences between the product mentioned in this manual and the product you may have.