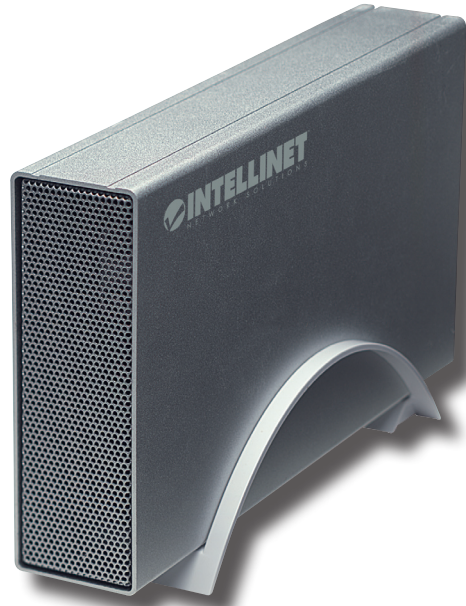


GIGABIT SATA NAS USER MANUAL

MODELS 505888
& 505895



Model 505888: 1.5 TB



Model 505895: 3 TB



INTELLINETTM
N E T W O R K S O L U T I O N S

INT-505888/505895-UM-0110-01

Thank you for purchasing the INTELLINET NETWORK SOLUTIONS™ Gigabit SATA NAS, Model 505888 (1.5 TB) or Model 505895 (3 TB). Either model provides an easy solution for home and office users who require the benefits of the 3 S's: speed, streaming and abundant storage space.

You can install a SATA hard drive — up to 1.5 TB for Model 505888 and up to 3 TB for Model 505895 — for extremely fast access to data storage on your network. If more space is needed, you can connect two additional USB HDDs. And with the convenient power-saving design, the SATA NAS will put the HDD to sleep if it isn't needed — saving more than 80 percent of its power.

With a Gigabit network connection, this device provides ultra-fast data throughput, making it the perfect network storage unit for smaller work groups. Plus, it allows you to stream videos and photos through the media player in your home entertainment center, and streams MP3 files to your media player via iTunes and downloads files via the BitTorrent network to the NAS without your PC being on.

Detailed instructions in this user manual make installation reasonably quick and simple so you'll soon be enjoying the benefits of all these popular features:

- Holds one (Model 505888) or two (Model 505895) 3.5" SATA-I or SATA-II hard drives (up to 1.5 TB each, not included)
- Model 505895 supports RAID configurations (RAID 0, 1, JBOD)
- Hi-Speed USB ports to connect an additional external USB hard drive or USB printer or USB memory stick
- Supported USB hard drive file systems: FAT32 and NTFS
- Made from high-quality aluminum for optimized heat dissipation
- Cooling fan automatically adjusts to internal temperature (Model 505895 only)
- Integrated iTunes Digital Audio Access Protocol (DAAP) server delivers audio streams to any iTunes-compatible media player on the network
- Built-in FTP server allowing remote users to upload and download files
- BitTorrent client to download files from the BT network while having your computer turned off
- Cross-platform file sharing for Windows, Linux and Mac OS
- Supported file serving protocols: CIFS (Samba), FTP and NFS
- Supports user groups and user accounts with quota management
- User (name/password) and Sharing Level (read/write) security
- Supports Self-Monitoring Analysis and Reporting Technology-enabled (SMART) hard drives
- Adjustable hard drive spin-down time
- Easy Web-based configuration via Web browser
- Firmware update via Web browser
- Two-Year Warranty

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Package Contents

- Gigabit SATA NAS
- Power adapter
- Quick install guide and installation CD with user manual

NOTE: Some screen images have been modified to fit the format of this manual.

1 HARDWARE

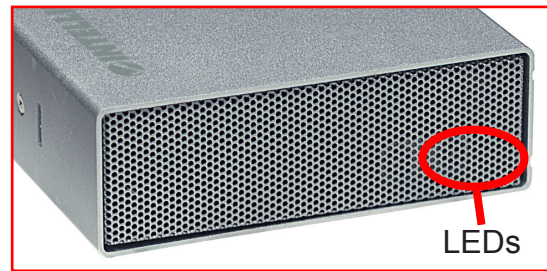
1.1 Model 505888 / 1.5 TB

1.1.1 System Requirements

- Computer with Internet browser and network access for setup
- Switch or router with one free Ethernet port for the NAS
- One 3.5" SATA-I or SATA-II hard drive with 20 GB – 1.5 TB (1.5 Gbps)

1.1.2 Front Panel

Two LEDs are positioned behind the front-panel grille: Blue indicates power is on; red indicates data access. **NOTE:** This unit doesn't feature an On/Off switch. To turn it off, simply remove the power supply; or when using the network drive, go to the



Turn Off Server screen in the System section and click "Turn off." To turn it back on, re-connect the power supply or allow about two minutes for the system to re-boot when using the network drive.

1.1.3 Rear Panel

The buttons and jacks on the rear panel are detailed below from left to right.

Gigabit Ethernet port —

This RJ45 jack features two LEDs. When flashing

green, the left LED indicates activity. The right LED is unlit when linked at 10 Mbps; green at 100 Mbps; orange at 1000 Mbps **NOTE:** The device can be used as a network drive or an external USB drive, but not both at the same time. When both USB (USB device port) and Ethernet cables are connected, the device will act as a USB hard drive.

Restart button — Press and release for a hardware reset of the network drive. The device will restart after you release the button.

Reset button — When the network drive is powered up and ready, press and release for a software reset, or press and hold it for 5 seconds before releasing to reset all the network drive settings to factory defaults (which will erase all user accounts and groups).

USB host port — This USB type-B port is the host connection to the computer when using the device as an external USB HDD.

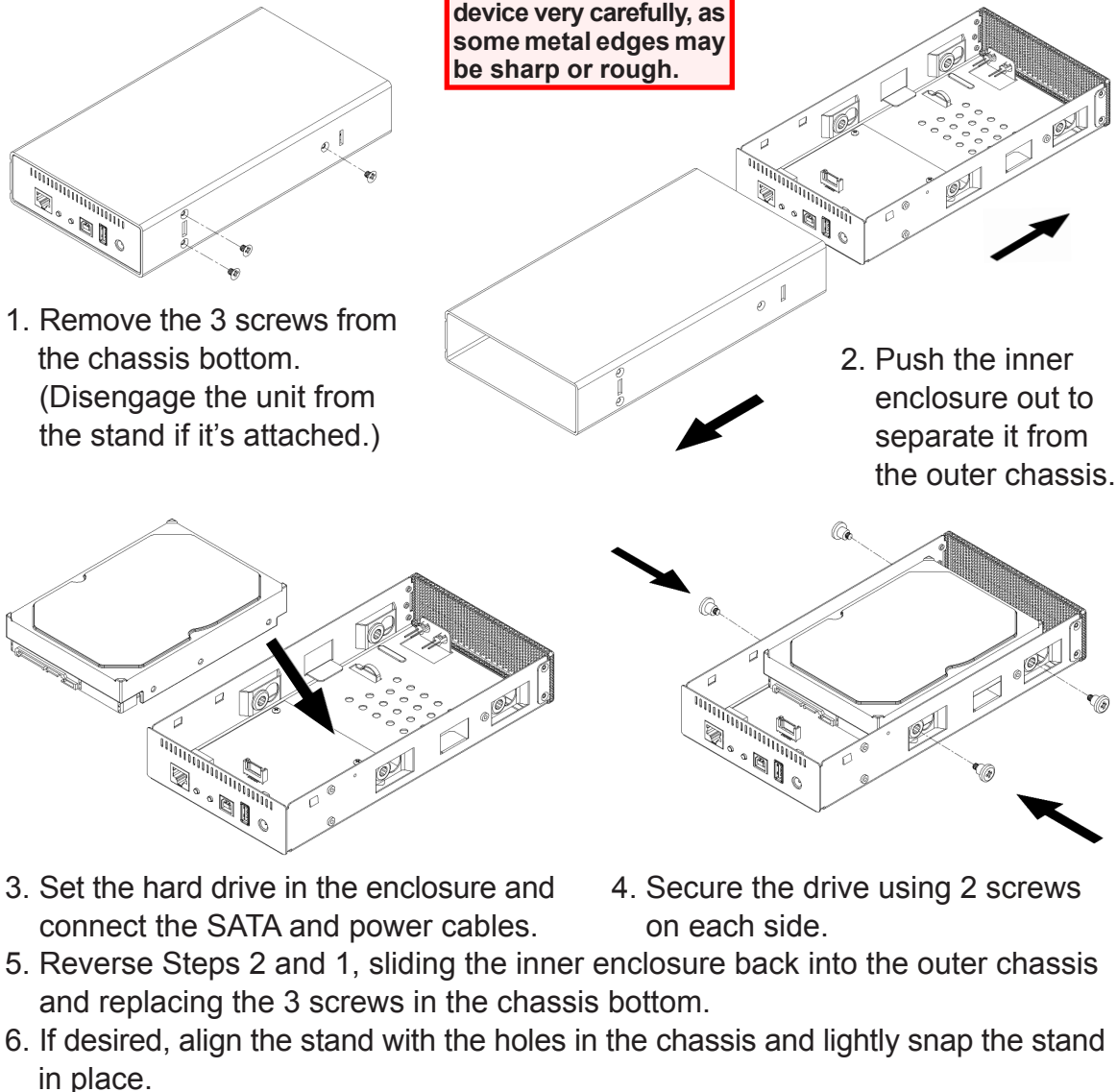


USB device port — This USB type-A port is for connection to an external USB hard drive, USB flash drive or USB printer.

Power adapter jack — For external USB devices, it's recommended that the USB drives have their own power supply.

1.1.4 Hard Drive Installation

CAUTION! Handle the device very carefully, as some metal edges may be sharp or rough.



NOTE: Be careful not to damage any cables or components during the assembly, and make sure the cables are firmly connected.

1.2 Model 505895 / 3 TB

1.2.1 System Requirements

- Computer with Internet browser and network access for setup
- Switch or router with one free Ethernet port for the NAS
- One or two 3.5" SATA-I or SATA-II hard drives (1.5 Gbps) with 20 GB – 1.5 TB per drive (3 TB total)
- For RAID 0 and 1, two hard drives of identical capacity are recommended

1.2.2 Front Panel

The buttons and jacks on the front panel are detailed below from top to bottom.

Power switch — Press to turn the unit on or off; On will display a blue light.

NOTE: It takes about a minute for the system to boot once the unit is on.

LED status indicators — The

OS (operating system) LED on the left lights green to indicate the system is on/ready; blinks to indicate the system is starting or is shutting down; and remains off to indicate the system has shut down. The HDD (activity) LED on the right lights amber to indicate an error (disk not found or a RAID error); blinks to indicate data access; and remains off to indicate there is no disk activity.

USB backup button — Press and hold in for 4 seconds to back up your files.

USB device port — This USB type-A port is for connection to an external USB hard drive, USB flash drive or USB printer.



1.2.3 Rear Panel

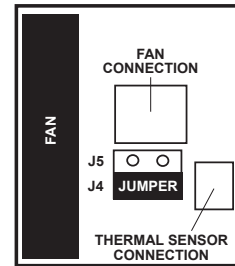
The buttons and jacks on the rear panel are detailed below from top to bottom, left to right.

Security lock slot — Lock is not included.

Ventilation fan — The black jumper at J4/J5 can be re-positioned to set the mode for the fan speed.



The jumper is placed on J4 at the factory (as shown at right) so that the fan speed will automatically adjust to the temperature of the device during operation. (The thermal sensor needs to be connected — see Step 5 of section 1.2.4 below.) If you prefer, you can set the fan to run at high speed by re-positioning the jumper to J5; or you can set the fan to run at low speed by removing the jumper altogether. **NOTE:** Be sure to disconnect power to the device before changing any of the fan or jumper connections.



Gigabit Ethernet port — This jack features multiple LEDs. When lighted green, the left LED indicates a link. The right LED flashes green to indicate activity at 10 Mbps; both green and orange at 100 Mbps; and orange at 1000 Mbps.

Restart button — Press and release for a hardware reset of the network drive. The device will restart after you release the button.

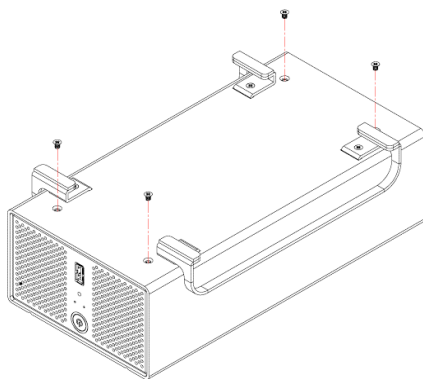
Reset button — When the network drive is powered up and ready, press and release for a software reset, or press and hold it for 5 seconds before releasing to reset all the network drive settings to factory defaults (which will erase all user accounts and groups).

USB device port — This second USB type-A port is also for connection to an external USB hard drive, USB flash drive or USB printer.

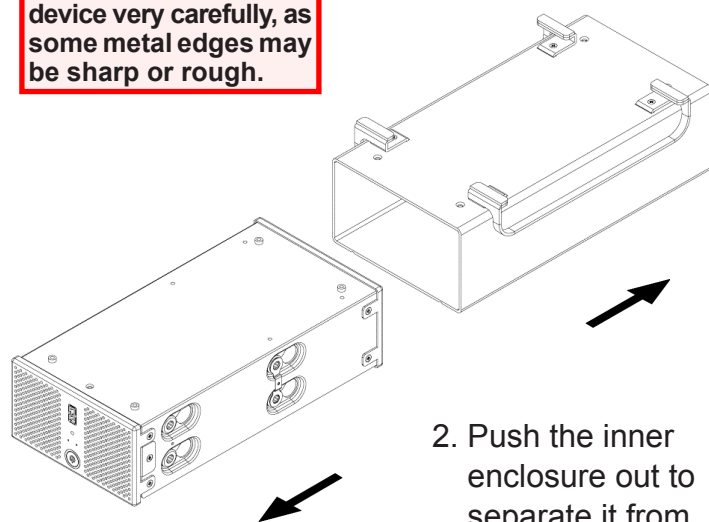
Power adapter jack — For external USB devices, it's recommended that the USB drives have their own power supply. If two bus-powered USB drives are connected at the same time, at least one of them needs to be powered by an external power supply.

1.2.4 Hard Drive Installation

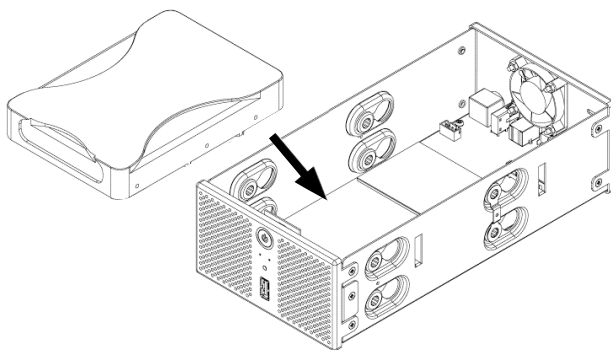
CAUTION! Handle the device very carefully, as some metal edges may be sharp or rough.



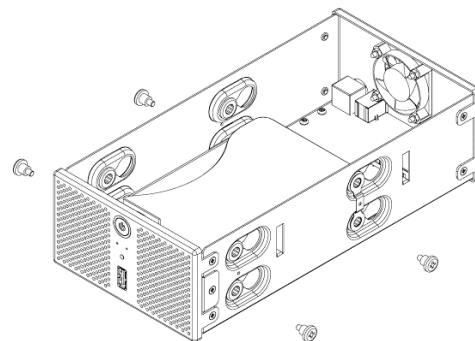
1. Remove the 4 screws from the chassis bottom.



2. Push the inner enclosure out to separate it from the outer chassis.

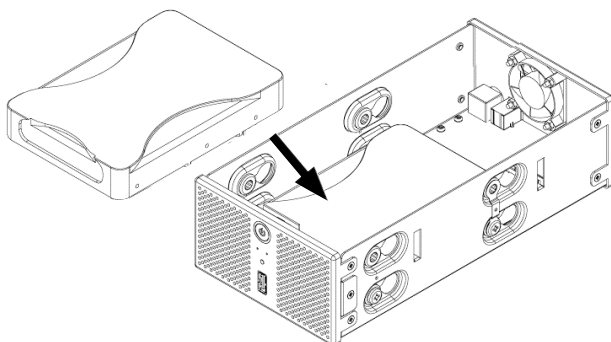


3. Set the first hard drive in the enclosure and connect the SATA and power cables.

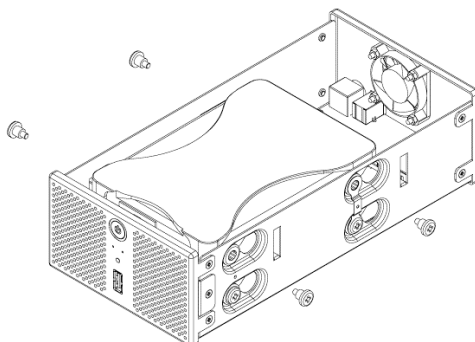


4. Secure the drive using 2 screws on each side.

5. Using the tape provided, attach the thermal probe (black and white wire) to the first hard drive. Choose a location between the two drives so the probe won't be damaged during the installation of the second drive.



6. Set the second hard drive in the enclosure and connect the SATA and power cables.



7. Secure the drive using 2 screws on each side.

8. Reverse Steps 2 and 1, sliding the inner enclosure back into the outer chassis and replacing the 4 screws in the chassis bottom.

NOTE: Be careful not to damage any cables or components during the assembly, and make sure the cables are firmly connected.

2 QUICK INSTALLATION

2.1 Connections & Configuration

Following is a quick installation procedure to get you up and running. For further details on each of the settings, refer to subsequent sections in this manual.

1. Install one or two hard drives. **NOTE:** Without installing and formatting a drive first, the other functions of the Gigabit SATA NAS will not be available.
2. Connect the Ethernet cable from your network router or switch to the device.
3. Model 505888: When everything is connected, turn the Gigabit SATA NAS on by connecting the power adapter. Give it about two minutes to boot up.
Model 505895: When everything is connected, turn the Gigabit SATA NAS on by pressing the Power switch. Give it about two minutes to boot up.
4. On the included installation CD, run the INTELLINET_nas.exe utility. If needed, refer to Section 3: System Setup / Logging In in the manual.
5. Access the Web configuration interface via your Web browser, then refer to Section 4: Web Configuration in the user manual.
5. Model 505888: Go to the Maintenance menu and use the disk utility to format the drive. When only using the Gigabit SATA NAS as network drive, using EXT2 is recommended; when also using it as a USB drive, NTFS or FAT32 will be more convenient, depending on your operating system.
Model 505895: Go to the Maintenance menu and use the disk utility to format the drive. If two identical drives are installed, you can also go to the RAID Setting section and create your RAID array.
6. Once the drive has been formatted, go to the Basic menu and follow the quick setup wizard instructions. This will help you to set up the IP configuration, add the first user and prepare file sharing, after which you'll be ready to start sharing or downloading files. **NOTE:** Set the speed for your network card to auto and not full or half speed.

2.2 Power On/Off Procedures

2.2.1 Model 505888 / 1.5 TB

To turn the power on, simply connect the power supply. **NOTE:** Always connect the power adapter to the Gigabit SATA NAS before you plug it into an AC outlet. It'll take about two minutes for the network drive to go online and be ready.

To turn off the network drive, log in via your Web browser, stop all current downloads, go to the "Turn Off Server" section in the System menu and turn the server off. Once the system has shut down, remove the power adapter from the AC outlet.

When using Gigabit SATA NAS as a USB drive, eject the external drive from your system, then remove the power adapter from the AC outlet.

2.2.2 Model 505895 / 3 TB

To turn the power on, first connect the power adapter to the Gigabit SATA NAS, then plug it into an AC outlet. Press the Power switch. The blue backlight LED will turn on, and the unit will start to boot up. It will take about a minute for the device to go online and be ready. During bootup, the OS LED will be blinking.

To turn the power off, log in via your Web browser, stop all current downloads, go to the “Turn Off Server” section in the System menu, and turn the server off or use the Power switch. The OS LED will be blinking for about 5 seconds; the system will shut down about 20 seconds later. **NOTE:** If the device is not in use for a longer period of time, remove the power adapter from the AC outlet.

IMPORTANT: To protect your files and help prevent the loss of your data, it's strongly recommended that you keep two copies of your data: one copy on your Gigabit SATA NAS and a second copy either on your internal drive or another storage media, such as a CD, DVD, tape or additional external drive. Any loss or corruption of data while using this Gigabit SATA NAS is the sole responsibility of the user, and under no circumstances will INTELLINET NETWORK SOLUTIONS be held liable for compensation or the recovery of this data.

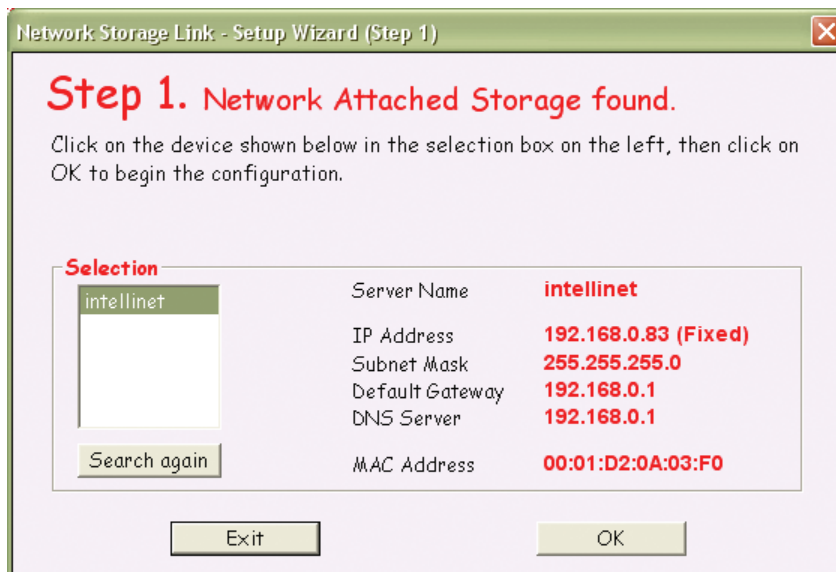
3 SYSTEM SETUP / LOGGING IN

To configure your network drive, open your Web browser, enter the IP address, then use the Web configuration interface for further setup. Options for identifying your device's IP address once it's connected to the network are described below.

3.1 PC Login

Open the INTELLINET_nas.exe utility on the included CD. This will list the device automatically and allow you to access the Web configuration interface with a simple click of your mouse. You can use the same utility at a later point to map the network drive after you set up your shares.

1. Turn on the NAS, ensuring it's connected to the same network as your computer.
2. Start the utility by double-clicking on the .exe file and clicking "Setup."
3. Your Gigabit SATA NAS should automatically display in the device list. If it doesn't, make sure the utility has access to the network and search again. You may need to configure your firewall or even temporarily turn it off.
4. With the utility's Step 1: Network Storage Link(s) Have Been Found screen displayed, select your device and click "OK" to start the setup wizard.



5. Before you can access the Gigabit SATA NAS, you need to enter the admin password. Enter the default — "admin" — in the text field, then click "OK" to log in.



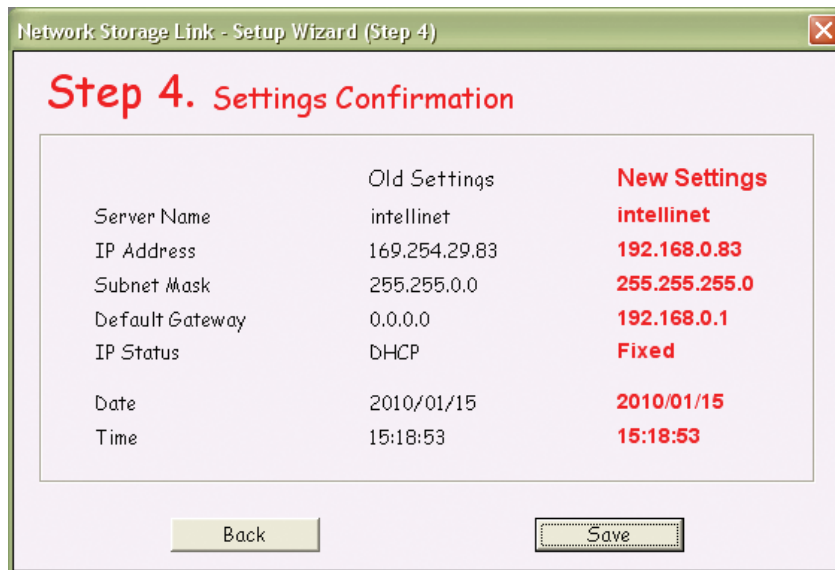
6. When the Step 2: IP Settings screen displays, you can define the name for your device and set up the IP configuration. Selecting “Automatically obtain an IP address (DHCP)” is recommended. When set, click “Next” to continue.

The screenshot shows the 'Step 2. IP Settings' window of the 'Network Storage Link - Setup Wizard'. The window has a title bar with the text 'Network Storage Link - Setup Wizard (Step 2)' and a close button. The main content area is titled 'Step 2. IP Settings' in red. It contains a 'Server Name' field with the value 'intellinet'. Below this, there are two radio buttons: 'Set IP configuration manually' (which is unselected) and 'Automatically obtain an IP address (DHCP)' (which is selected). To the right of the second radio button, there is a red warning message: 'An IP address must be specified in order to access the Network Storage Link from the network.' Below the radio buttons, there are four input fields: 'IP Address' (169 . 254 . 29 . 83), 'Subnet Mask' (255 . 255 . 0 . 0), 'Gateway' (0 . 0 . 0 . 0), and 'DNS Server' (. . .). At the bottom of the window, there are two buttons: 'Back' and 'Next'.

7. When the Step 3: Date and Time screen displays, you can set up the date and time. Select your time zone from the drop-down menu, set the date and the time, then click “Next” to continue.

The screenshot shows the 'Step 3. Date and Time' window of the 'Network Storage Link - Setup Wizard'. The window has a title bar with the text 'Network Storage Link - Setup Wizard (Step 3)' and a close button. The main content area is titled 'Step 3. Date and Time' in red. It contains a 'Time Zone' drop-down menu with the value '(GMT+01:00) Amsterdam, Berlin, Bern, Rome, Vienna'. Below this, there are two drop-down menus: 'Date' (1/15/2010) and 'Time' (3:18:53 PM). At the bottom of the window, there are two buttons: 'Back' and 'Next'.

8. When the Step 4: Settings Configuration screen displays, you can compare your new settings with the previous configuration. If you find a mistake, click “Back” to make changes; otherwise, click “Save.”



- The setup wizard will remind you that the previous settings will now be updated with the new configuration. Click “OK” to finish the setup wizard.

You are about to change the settings. Press "OK" to save new settings. Press "Cancel" if you want to keep current settings.

OK

Cancel

Once you’ve identified the IP address (as confirmed above on the Step 4 screen), you can simply enter that into the URL address field of your Web browser to access the Web configuration interface of your device. **NOTE:** This option may not work on a Mac.

3.2 Peer to Peer Login

If you connect the Gigabit SATA NAS directly to your computer (PC or Mac) using Ethernet cable, you can access the device using its default IP: 192.168.1.1. Open the Web browser and enter 192.168.1.1 to access the Web configuration interface. **NOTE:** This option only works when Bonjour is disabled (see 3.4 below).

3.3 Mac Login

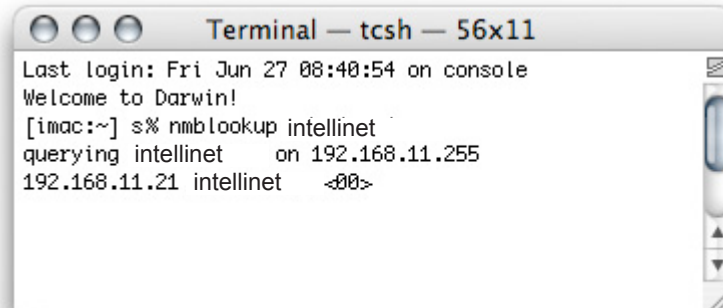
When the Bonjour service is disabled, the only way to access the Login screen is by using its IP address. First, you need to find out the IP address of your Gigabit SATA NAS, then use the Web browser to access the Web configuration interface.

- Turn on the NAS, ensuring it’s connected to the same network as your computer.
- Open the Terminal utility, which is usually located in your Applications folder under Utilities.



Terminal

3. Enter “intellinet.” This is the default name of the Gigabit SATA NAS: If it’s been changed and you don’t know the current correct name, reset the device first to re-establish the default settings.
4. After entering the previous command and pressing the <Enter> key, it should return an IP address, followed by the name you just entered.



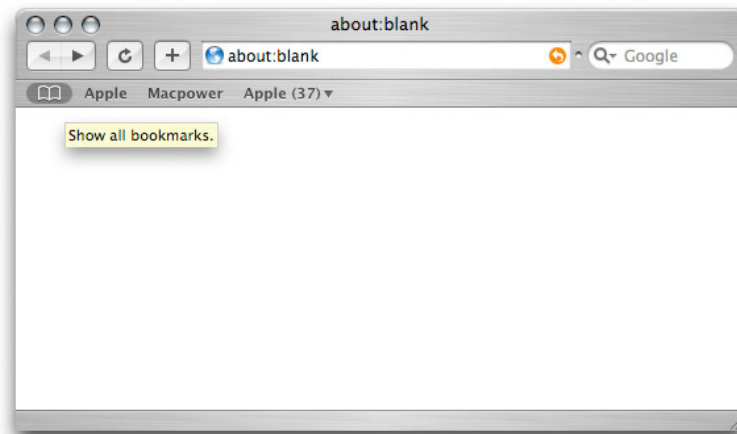
5. Open your Web browser and enter the IP address from the previous step to access the Web configuration interface. The default username and password are both “admin.”

NOTE: When Bonjour is disabled, you can use the Peer to Peer method to log in and set up your network drive.

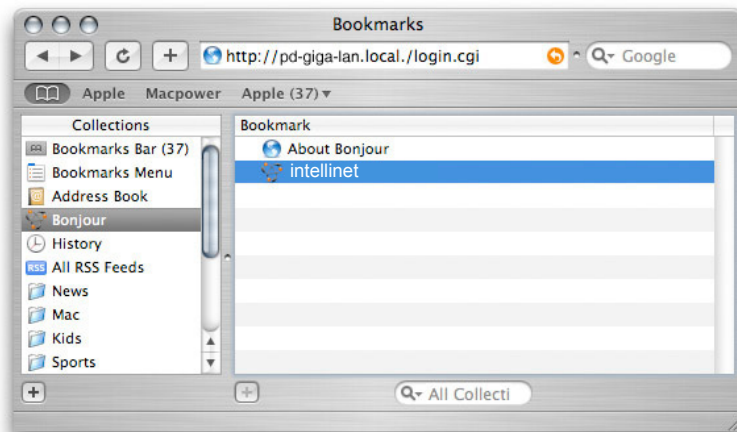
3.4 Bonjour Login

When the Bonjour service on the device is enabled, all you need to do is access the Bonjour tab in your bookmarks folder and select the Gigabit SATA NAS.

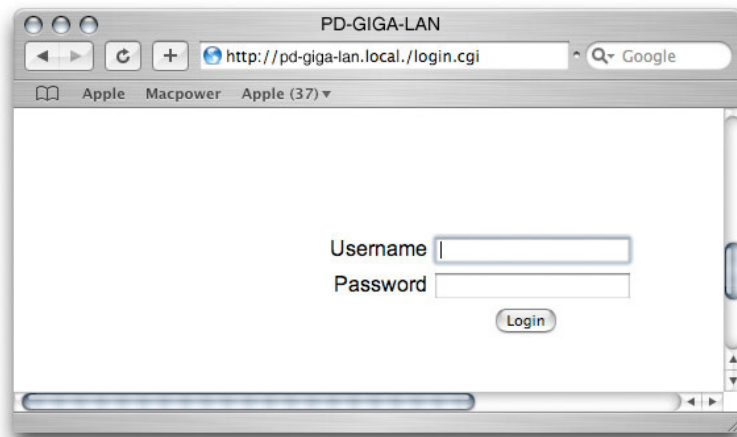
1. Turn on the NAS, ensuring it’s connected to the same network as your computer.
2. Open your Web browser. If not already displayed, click on the bookmarks icon to show all bookmarks.



3. Select “Bonjour” and browse for “intellinet.” Click on it to display the Login screen.



4. The default login is “admin” for both username and password.



4 WEB CONFIGURATION

Open your Web browser, enter the IP address of your Gigabit SATA NAS (refer to Section 3: System Setup / Logging In) and log in. The default login is “admin” for both the username and the password. The initial screen that displays presents four primary menu options: Basic, Control Panel, Personal Information and Log Out.



Basic — The settings in this menu are aimed at the user who wants to quickly set up the LAN disk and share files on the local network. Only the most basic functions and settings are available, but it is ideal for someone using this device for the first time. For a more advanced setup, see 4.2: Control Panel.

Control Panel — This menu includes all the settings and information the Gigabit SATA NAS offers. You can access specific settings or adjust and modify everything manually.

Personal Info — This menu is for the system administrator account. It includes the option to set the password and some others related to the Web interface.

Log Out — This can be used to log out once all the settings have been configured.

NOTE: Without installing and formatting a drive first, the other functions of the Gigabit SATA NAS will not be available. The settings options presented in this section only affect the network drive and do not apply to the USB drive.

4.1 Basic

4.1.1 Quick Setup

As mentioned above, these are basic settings. For detailed explanations, refer to 4.2.1: Users and Group Management, 4.2.2: File and Print or 4.2.3: System.

4.1.1.1 Wizard

The setup wizard can be used to configure all the basic LAN settings for your network drive.

- PC users, if you’ve followed the setup wizard steps in Section 2, there’s no need to repeat the procedure unless you want to change some of the settings or you haven’t yet completed the setup.

Basic	Control Panel	Personal Info	Logout
-------	---------------	---------------	--------

Quick Setup

[Wizard](#)
Add User
Add Group
Add Share

Step 1/6

Preference Language Setting - admin

Language Preference set From Browser Options ▼

Back
Next
Cancel

- Mac users, follow the setup wizard step below to quickly prepare your network drive for file sharing.
1. Select your preferred language for the Web interface from the drop-down list.
 2. Set a new password for the Web configuration interface (not required, but strongly recommended).
 3. If you prefer a different hostname for your NAS, you can change the name here; otherwise, simply use the default name.
 4. It's recommended that you set both IP Address and DNS Server to obtain the IP automatically; but, if required, you can set it manually. If you need help in manually filling in these fields, contact your network administrator.
 5. Set the date and time manually or select your time zone from the drop-down list and use an NTP server to synchronize the time via the Internet.
 6. Click "Save" to save the new settings.

4.1.1.2 Add User

This screen lets you quickly add and configure a new user account.

Basic	Control Panel	Personal Info	Logout
-------	---------------	---------------	--------

Quick Setup

[Wizard](#)
[Add User](#)
Add Group
Add Share

Step 1/3

Add User

User Name

Password

Please type your password :

Description (optional)

☐ Create Shared private Folder

Shared Private Folder Location

☐ Enable Quota of MB

Back
Next

1. Enter the username and password for the new account. At this point, you can

- also create a private folder for that user and set the quota limit.
2. If there are other users already set up, they can be added to the user account management.
3. If desired, configure the permissions to the shared folder and add or remove other users.

4.1.1.3 Add Group

This screen lets you quickly add a new group.

The screenshot shows the 'Add Group' screen. At the top, there are tabs: 'Basic', 'Control Panel', 'Personal Info', and 'Logout'. On the left, under 'Quick Setup', there are links: 'Wizard', 'Add User', 'Add Group' (which is highlighted with a dashed border), and 'Add Share'. The main area is titled 'Step 1/3' and contains the text 'Add Group' and a form for 'Group Name' with an empty text box. At the bottom right, there are 'Back' and 'Next' buttons.

1. Enter the group name.
2. Configure which members will be included in this group by adding or removing them from the list.
3. Configure the share permissions by adding (read only or writable) or removing them from the list.

4.1.1.4 Add Share

This screen lets you quickly add a new share.

The screenshot shows the 'Add Share' screen. At the top, there are tabs: 'Basic', 'Control Panel', 'Personal Info', and 'Logout'. On the left, under 'Quick Setup', there are links: 'Wizard', 'Add User', 'Add Group', and 'Add Share' (which is highlighted with a dashed border). The main area is titled 'Step 1/3' and contains the text 'Add Share'. Below this, there are three form fields: 'Share Name' with a text box, 'Path' with a text box, and 'Description (Optional)' with a text box. At the bottom right, there are 'Back' and 'Next' buttons.

1. Enter the share name and, if desired, a description for the share.
2. Configure the Windows/FTP access permissions by adding (read only or writable) or removing members or groups from the list.
3. Configure the NFS access permissions by adding unique IP addresses or a subnet.

4.2 Control Panel

4.2.1 Users and Groups

In this section, the administrator can manage the users and groups for the NAS. Start by adding your users first, then create the groups and assign the members to their groups. **NOTE:** These settings only apply to the network drive, not when the drive is connected to the computer directly via USB.

4.2.1.1 User Management

In this section, you can see all existing users for the NAS and manage them by adding or removing them from the list.

The screenshot shows the 'User Management' page of the INTELLINET Gigabit SATA NAS 1.5TB web interface. The page has a top navigation bar with 'Basic', 'Control Panel', 'Personal Information', and 'Log out'. The left sidebar lists 'Users and Groups' (with 'User Management' selected), 'Group Management', 'File and Print', 'System', 'Network Service', 'Maintenance', and 'Log File'. The main content area is titled 'User Management' and contains an 'Existing Users' list with 'admin' and 'guest-share', followed by '==== END LIST ====='. Below this is a form to add a new user with fields for 'User Name', 'Password', and 'Description (optional)'. The password field has a prompt 'Please type your password again'. There are checkboxes for 'Create Shared private Folder' (with a location field set to '/mnt/ide1') and 'Enable Quota of' (with a value field). At the bottom are buttons for 'Save', 'Clear Form', 'Groups', and 'Delete User'.

Existing Users — Lists the current users of the Gigabit SATA NAS.

Adding Users — To add a new user, clear the form by clicking “Clear Form” and fill in a username and password. The description is optional, but it’s recommended to help manage multiple users. If required, you can create a private folder for that user and set a limit for the capacity. Once done, click “Save” to create the new user. To add this user to an existing group, select the user from the existing users list and click “Groups” for further settings.

Modifying Users — Select the user from the existing users list and modify the settings. Once done, click “Save” to apply the new settings.

Removing Users — To remove a user, select it from the existing users list and click “Delete User.”

4.2.1.2 Group Management

In this section, you can see all existing groups for the NAS and manage them by

adding or removing them from the list. Groups are not required to grant access to the Gigabit SATA NAS, but they'll help the administrator manage multiple users and easily share a folder among a group of people.

Existing Groups — Lists the current groups of the Gigabit SATA NAS.

Adding Groups — To add a new group, clear the form by clicking “Clear Form” and enter a new group name. Once done, click “Save” to create the new group. To add members to this group, select the group from the existing groups list and click “Members” for further settings.

Modifying Groups — Select the group from the existing groups list and modify the members by clicking “Members” for further settings. Once done, click “Save” to apply the new settings.

Removing Groups — To remove a group, select it from the existing groups list and click “Delete Group.”

4.2.2 File and Print

In this menu, you can configure all the settings related to the FTP, NFS and printer server in order to manage how your files and folders are shared.

4.2.2.1 File Server

In this section, you can modify the server settings and enable or disable a service.

NOTE: After making any changes to the settings, click “Save” to apply the new configuration.

Character Set — Select the language of your file names from the drop-down list.

Windows Setting — In this section, you can change the workgroup the Gigabit SATA NAS belongs to and modify its description. The IP for the WINS (Windows Internet name server) can be left blank unless this is required for your network.

FTP Server — This can be enabled or disabled. When enabled, the default FTP port number will be set to 21, but you can change that if required.

NFS Server — This can either be enabled or disabled to suit your requirements.

Guest Access — To enable guest access (guest-share), enable it and, if required,

The screenshot shows the 'File Server Setting' page. The left sidebar has a tree view with categories: Users and Groups, File and Print, System, Network Service, Maintenance, and Log File. Under 'File and Print', 'File Server' is selected. The main area contains settings for Character set (Latin 1; Western European (CP1252)), Windows Setting (Enable checked, Workgroup: WORKGROUP, Description: intellinet, WINS Server (Optional) empty), FTP Server Setting (Enable checked, Enable FTP with TLS unchecked, Port Number: 21), and NFS Server Setting (Enable checked, Guest Access Setting (Enable checked, Enable Quota unchecked, Guest-user Quota empty MB). A 'Save' button is at the bottom right.

set a limit for the disk space. For security reasons, the guest access can also be disabled.

4.2.2.2 Share Management

In this section, you can manage the shares and access rights.

The screenshot shows the 'Share Management' page. The left sidebar is similar to the previous page, but 'Share Management' is selected under 'File and Print'. The main area shows 'Existing Shares' as a list box containing 'public' and '==== END LIST ====='. Below this are input fields for 'Share Name', 'Path' (pre-filled with '/mnt/ide1 /'), and 'Description (Optional)'. At the bottom are buttons for 'Windows FTP Access', 'NFS Access', 'Save', 'Clear Form', and 'Delete Share'.

Existing Shares — Lists the current shares on the NAS.

Adding Shares — To add a new share, clear the form by clicking “Clear Form” and enter a new share name. Once done, click “Save” to create the new group.

Select the new group from the existing shares list; then, depending on how you share the files, click “Windows, FTP Access” or “NFS Access” and add the users or groups that will have access to this share. You can allow access for all users or define each user and group separately. Names with an “@” for the first letter are groups.

Modifying Shares — Select the share from the existing shares list and modify the access rights by clicking “Windows, FTP Access” or “NFS Access” for further settings. Once done, click “Save” to apply the new settings.

Removing Shares — To remove a share, select it from the existing shares list and click “Delete Share.”

4.2.2.3 Printer Server

In this section, you can enable or disable the printer server and check the details of the connected USB printer.

4.2.3 System

In this menu, you can configure the basic network settings for the Gigabit SATA NAS and find details related to the firmware or disk usage.

4.2.3.1 LAN Settings

In this section, you can define the hostname for the NAS and set up the IP configuration. Selecting “Obtain IP/DNS address automatically” is recommended. When selecting a hostname, make sure to use a unique name and not one that has already been used on the local network.

If required, you can also set the individual addresses yourself. If you need help in manually filling in these fields, contact your network administrator. **NOTE:** After making any changes to the settings, click “Save” to apply the new configuration.

The screenshot shows the 'LAN Settings' page within the 'Control Panel' tab. The left sidebar contains a tree view with categories: Users and Groups, File and Print, System, Network Service, Maintenance, and Log File. Under 'System', 'LAN Settings' is selected. The main content area has tabs for 'Basic', 'Control Panel', and 'Personal Info', with 'Control Panel' being active. A 'Logout' button is in the top right. The settings include: Hostname (intellinet), IP Address Setting (radio buttons for 'Obtain IP Address automatically' and 'Use following IP Address'), IP Address (192.168.0.83), Subnet Mask (255.255.255.0), Default Gateway (192.168.0.1), Obtain DNS Server Address automatically (radio buttons for 'Obtain DNS Server Address automatically' and 'Use following DNS Server Address'), Primary DNS (192.168.0.1), Secondary DNS, and Others. The MAC Address is 00:01:D2:0A:03:F0. A 'Save' button is at the bottom right.

4.2.3.2 Time Settings

In this section, you can set the date and time manually or select your time zone from the drop-down list and use an NTP server to synchronize the time via the Internet. When setting manually, click “Save” to apply the new time and save the settings; when synchronizing via the Internet, select the NTP server and click “Update Time.”

The screenshot shows the 'Time Settings' page within the 'Control Panel' tab. The left sidebar is the same as in the previous screenshot, with 'Time Settings' selected under 'System'. The main content area has the same tabs, with 'Control Panel' active. A 'Logout' button is in the top right. The settings include: Date (Month 1, Day 15, Year 2010), Time (Hour 3, Minute 46, PM), Time Zone ((GMT+01:00) Amsterdam, Berlin, Bern, Rome, Vienna), and NTP Server (radio buttons for 'Default' and 'User Define', with 'Default' selected and 'time.windows.com' in the dropdown). 'Save' and 'Update Time' buttons are at the bottom right.

NOTE: To use the NTP function, you need to enter a valid NTP server or select one

from the drop down list. If the default address at time.windows.com doesn't work, find a new one and try again or turn off the NTP server and set the time manually.

4.2.3.3 Turn Off Server

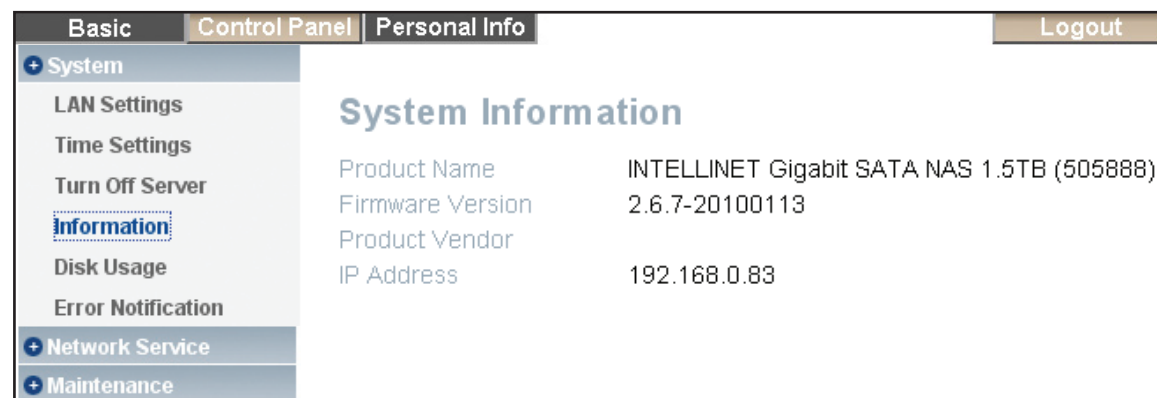
In this section, you can restart the server or turn off the NAS via the Web browser. Make sure that nobody is accessing the device when you restart it or turn it off.



Click "Restart" to restart the server. The system will restart and automatically prompt you for the login when it's ready. Click "Turn Off" to shut down the system. The browser will prompt you to close the window after about 90 seconds (Internet Explorer only; for other browsers, close it manually).

4.2.3.4 Information

In this section, you'll find the product name, the current firmware and the current IP address.



4.2.3.5 Disk Usage

In this section, you'll find a summary of the hard disk status and disk usage. Click "Refresh" to update the information.

Basic	Control Panel	Personal Info	Logout															
<ul style="list-style-type: none"> System LAN Settings Time Settings Turn Off Server Information Disk Usage Error Notification Network Service DHCP Server Bonjour BTorrent 	<h2>Disk Usage</h2> <p>Last Checked: 1/1/2009 12:22:50</p> <p>Please select statistics information: Summary</p> <table border="1"> <thead> <tr> <th>Disk Name</th> <th>Capacity</th> <th>Used</th> <th>Free</th> <th>Disk Usage (%)</th> </tr> </thead> <tbody> <tr> <td>/dev/hdb</td> <td>509MB</td> <td>28MB</td> <td>480MB</td> <td>5%</td> </tr> <tr> <td>/dev/hda</td> <td>937887MB</td> <td>0MB</td> <td>937886MB</td> <td>0%</td> </tr> </tbody> </table> <p>Refresh</p>			Disk Name	Capacity	Used	Free	Disk Usage (%)	/dev/hdb	509MB	28MB	480MB	5%	/dev/hda	937887MB	0MB	937886MB	0%
Disk Name	Capacity	Used	Free	Disk Usage (%)														
/dev/hdb	509MB	28MB	480MB	5%														
/dev/hda	937887MB	0MB	937886MB	0%														

4.2.4 Network Service

In this menu, you can enable or disable network services like the DHCP server, Bonjour and the BitTorrent download service.

4.2.4.1 DHCP Server

In this section, you can enable and set up the DHCP server. In general, there is already a DHCP server on the local network, so you don't need to enable this; but if required, enable it and configure the addresses. Once you've set everything up, click "Save" to start the DHCP server and save the settings.

Basic	Control Panel	Personal Info	Logout
<ul style="list-style-type: none"> Users and Groups File and Print File Server Share Management Printer Server System LAN Settings Time Settings Turn Off Server Information Disk Usage Error Notification Network Service DHCP Server Bonjour 	<h2>DHCP Server Setting</h2> <p>Enable Server <input type="checkbox"/></p> <p>DHCP Client Setting</p> <p>Subnet Mask (optional) <input type="text"/></p> <p>Default Gateway (optional) <input type="text"/></p> <p>Primary DNS (optional) <input type="text" value="192.168.0.1"/></p> <p>Secondary DNS (optional) <input type="text"/></p> <p>Others DNS (optional) <input type="text"/></p> <p>DHCP IP Address Start <input type="text" value="192.168.0.2"/></p> <p>DHCP IP Address End <input type="text" value="192.168.0.50"/></p> <p>Maximum Lease Time <input type="text" value="1 day"/></p> <p> Save DHCP lease list Static IP </p>		

4.2.4.2 Bonjour

In this section, you can enable or disable the Bonjour service. For Mac users, turn it on for easy access to the Login page via the Web browser. You can also enable iTunes so music files can be accessed. When the iTunes option is enabled, you can store MP3 music files in the "/public/music" folder and play them directly from iTunes. The Gigabit SATA NAS will automatically appear in iTunes under Shared Devices.

Basic	Control Panel	Personal Info	Logout
<div> <div> + Network Service <div> DHCP Server <div> Bonjour <div> BTorrent </div> </div> </div> </div> <div> + Maintenance <div> + Log File </div> </div> </div> <div> <h2>Bonjour Setting</h2> <div> <div>Enable</div> <div><input checked="" type="checkbox"/></div> </div> <div> <div>iTunes Enable</div> <div><input checked="" type="checkbox"/></div> </div> <div>Save</div> </div>			

4.2.4.3 BitTorrent

In this section, you can manage your torrents and add new downloads to the queue. Before you add the first job, set a limit for the download and upload speed based on your network's bandwidth. After changing the settings, click "Save" to apply the new configuration. **NOTE:** If there is no hard drive installed or if the drive isn't formatted, this menu is not available.

INTELLINET NETWORK SOLUTIONS		Gigabit SATA NAS 3TB																					
		Basic	Control Panel	Personal Information	Log out																		
<div> <div> + Users and Groups <div> + File and Print <div> + System <div> + Network Service <div> DHCP Server <div> Bonjour <div> BTorrent <div> + Maintenance <div> + Log File </div> </div> </div> </div> </div> </div> </div> </div> </div> </div>		<h2>BTorrent</h2> <div> <div>Max bandwidth down(kB/s)</div> <div>5</div> </div> <div> <div>Max bandwidth up(kB/s)</div> <div>1</div> </div> <div>Save</div> <div> <div>Open torrent file</div> <div></div> <div>Browse...</div> </div> <div> <div>Torrent File Location</div> <div>/mnt/ide1/public/btdown</div> <div>Add</div> </div> <table border="1"> <thead> <tr> <th>ID</th> <th>Name</th> <th>Size</th> <th>Percentage</th> <th>Download</th> <th>Upload</th> <th>Client</th> <th>Status</th> <th></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>noecho records - paradigm - girders under a steel sky.torrent</td> <td>88.8MB</td> <td>0%</td> <td>0 (kb/s)</td> <td>0 (kb/s)</td> <td>0</td> <td>stop</td> <td> <div>Start</div> <div>Stop</div> <div>Delete</div> </td> </tr> </tbody> </table> <div>Refresh</div>				ID	Name	Size	Percentage	Download	Upload	Client	Status		1	noecho records - paradigm - girders under a steel sky.torrent	88.8MB	0%	0 (kb/s)	0 (kb/s)	0	stop	<div>Start</div> <div>Stop</div> <div>Delete</div>
ID	Name	Size	Percentage	Download	Upload	Client	Status																
1	noecho records - paradigm - girders under a steel sky.torrent	88.8MB	0%	0 (kb/s)	0 (kb/s)	0	stop	<div>Start</div> <div>Stop</div> <div>Delete</div>															

To start downloading files, you need to download a torrent file from the Internet first, then upload it to the NAS. Once the torrent file is added, you can start downloading. The downloaded files will be stored in your "/public/btdownload" folder.

The BitTorrent client on the Gigabit SATA NAS can download five files at a time, with a maximum of 40 files in the queue. Remember to start the download again if the device has been turned off or rebooted before the file has been downloaded completely. (Also see Section 6: Additional Features / BitTorrent.)

NOTE: The BitTorrent client on the NAS uses the TCP protocol and the ports 6881-6889. Make sure those ports are not blocked by your router or its firewall and, if necessary, set up port forwarding so traffic for those ports is forwarded to the NAS.

4.2.5 Maintenance

In this menu, you can format the hard drive(s), upgrade the firmware and manage the configuration settings.

4.2.5.1 Disk Utility

This utility can be used to format the hard drive(s) and view related disk information.

Device Name	Type	Mount Point	Status	Encrypt/Password/Format Type/Format	Scandisk	Unmount	Health
/dev/hdb	ext2	/mnt/ide2	mounted	<input type="checkbox"/> encrypt ext2 Format	Scan	Unmount	PASSED Detail
/dev/hda	ext2	/mnt/ide1	mounted	<input type="checkbox"/> encrypt ext2 Format	Scan	Unmount	PASSED Detail

[Refresh](#)

Disk spin down time: Minute [Save](#)

Encryption — The Gigabit SATA NAS supports 128-bit loop-AES encryption for the EXT2 file system. When enabled, the drive needs to be formatted again, and you'll be prompted for a password (which has to be exactly 20 characters).

File System (Model 505888 / 1.5 TB) — The available file systems are EXT2, EXT3, FAT32 and NTFS. For the drive installed in the Gigabit SATA NAS, using EXT2 is recommended for optimum performance and functionality when it is used as network drive only. If it's to be connected to a PC via USB, as well, then NTFS is the preferred file system, so that it can be mounted without the need to install additional applications to read the EXT2 partition. The performance of the network drive will not be as good as with EXT2, however.

File System (Model 505895 / 3 TB) — For drives not in a RAID array, there's a choice among EXT2, EXT3 and FAT32. For drives installed in the Gigabit SATA NAS, using EXT2 is recommended for optimum performance and functionality.

Scandisk — Click "Scan" to check the disk integrity. If possible, any errors found will automatically be fixed. This can take awhile to finish, depending on the capacity of the drive. During any such fixes, the disk can not be used.

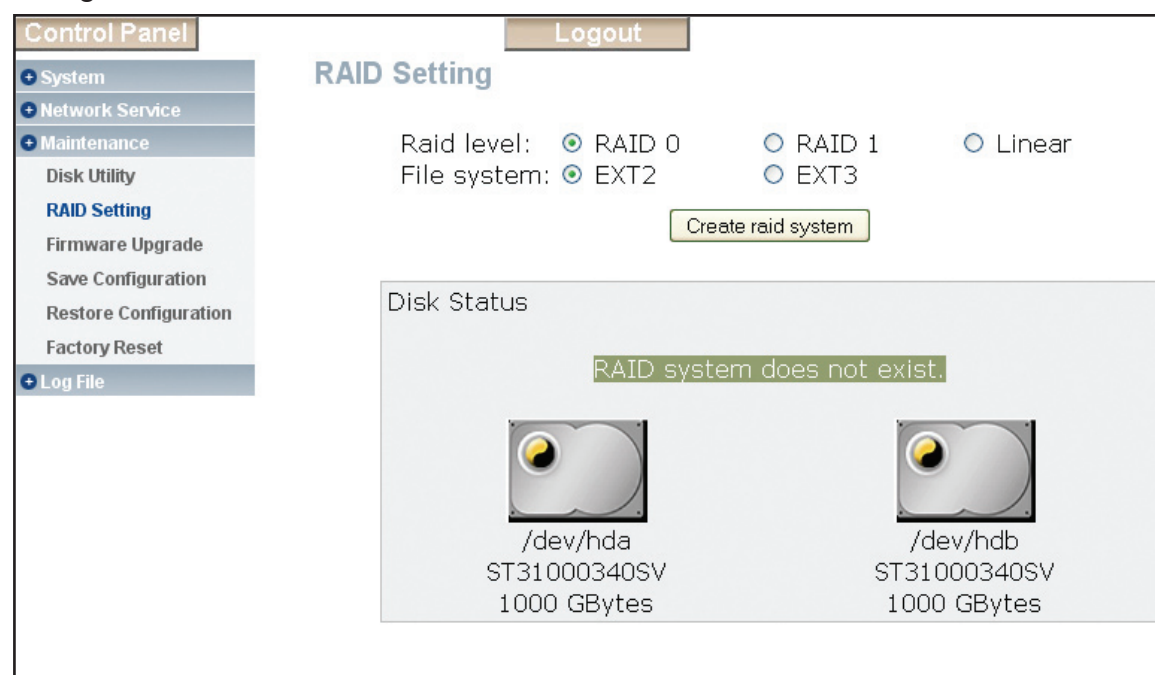
Unmount — This function is only available for external USB drives attached to the NAS. Click "Unmount" to eject the USB drive before you disconnect it.

Detail — Click “Detail” to see additional disk information. If the drive supports S.M.A.R.T, it will also report the disk’s health status.

HDD Power Management — To save power and reduce heat, you can let the hard disk spin down if not used for a certain amount of time. Enter a time in minutes and click “Save” to apply the new setting. **NOTE:** The “disk spin down” function might not work properly for some WD hard drives due to the lack of the E3h command.

4.2.5.2 RAID Setting

In this section (Model 505895 only), you can manage the RAID array and set up your drives. The Gigabit SATA NAS supports RAID 0 and RAID 1. Two hard drives of identical capacity and make are required. If only one drive is installed, the RAID configuration will not be available.



RAID 0 — Used when speed is the primary objective, RAID Level 0 (also called “striping”) is not redundant. This form of array splits each piece of data across both of the drives in segments; since data is written without any form of parity data-checking, it allows for the fastest data transfer compared to the other setups. However, if one drive becomes damaged, the whole array can become corrupted.

RAID 1 — This mode requires two identical drives for implementation. A RAID 1 creates an exact copy (or mirror) of a set of data on the second drive, useful when reliability and backup are more important than data capacity. Available capacity to the user will only be as large as a single drive, but when one of the

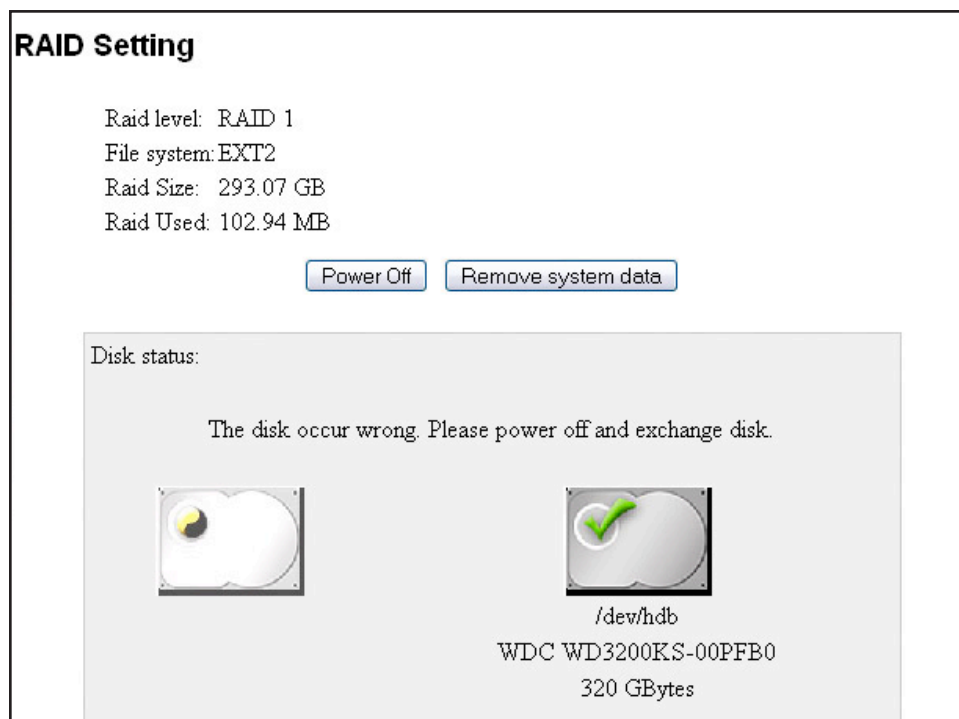
hard drives fails, it can be replaced and the data rebuilt.
JBOD — Used to combine two hard drives of different capacity into a single, larger hard drive. If you're using two identical drives, RAID 0 is recommended instead.

NOTE: Creating the RAID system can take awhile, depending on drive capacity. Do not turn off power or interrupt the system in any other way during this process! The use of the EXT2 file system for optimum performance and functionality is recommended. Also, changing the RAID setup requires that you to re-format the drives. Make sure you back up all data before doing so.

4.2.5.2.1 Rebuilding a RAID Array

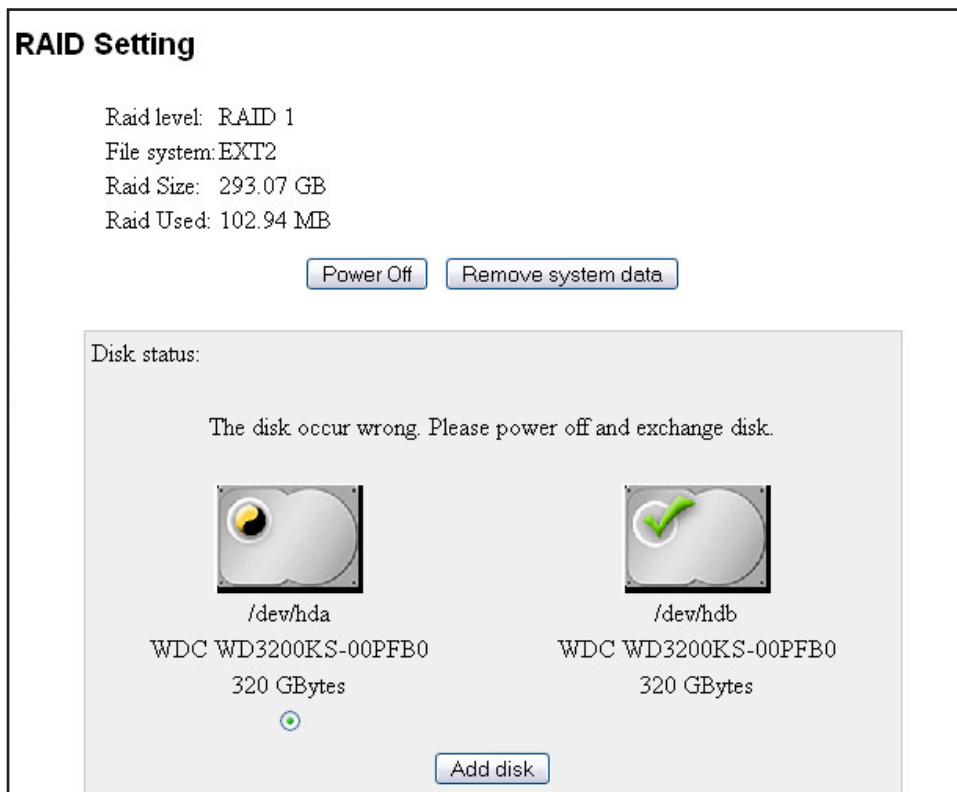
When using RAID 1, if one of the drives fails, the faulty HDD has to be replaced and the RAID 1 array rebuilt.

1. Log in and go to the RAID Setting menu to check the disk status. If there's a problem, it will show which drive needs to be replaced.

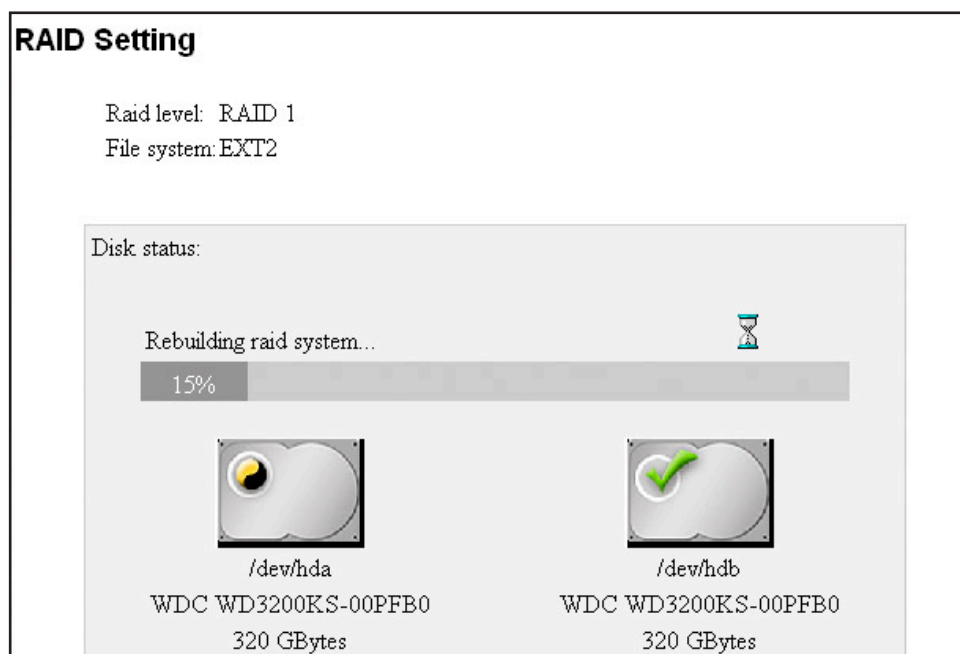


2. Turn off the power, remove the power supply from the AC outlet and replace the defective HDD with a new one.
3. Turn on the power and go to the RAID Setting menu. Click "Add disk" to start rebuilding your RAID array.

NOTE: On the bridge board of the Gigabit SATA NAS, the P1 connector indicates the drive at hdb, whereas P2 indicates the drive at hda. With firmware v2.6.3 or later, P1 indicates the drive at hdc and P2 the drive at hdd.



4. Depending on capacity, rebuilding can take awhile. Do not turn off the power or interrupt the system in any other way. The HDD LED will be on while the RAID array is being rebuilt.




5. When the procedure is complete, the HDD LED will turn off and the disk status will show that the system is ready.


RAID Setting

Raid level: RAID 1
File system: EXT2
Raid Size: 293.07 GB
Raid Used: 0.08 MB

Disk status:

Raid system is normal operation.


/dev/hda
WDC WD3200KS-00PFB0
320 GBytes


/dev/hdb
WDC WD3200KS-00PFB0
320 GBytes

NOTE: Clicking “Remove system data” or “Remove raid system” will erase all data! Only use these if you need to set up a different RAID system.

4.2.5.3 Firmware Upgrade

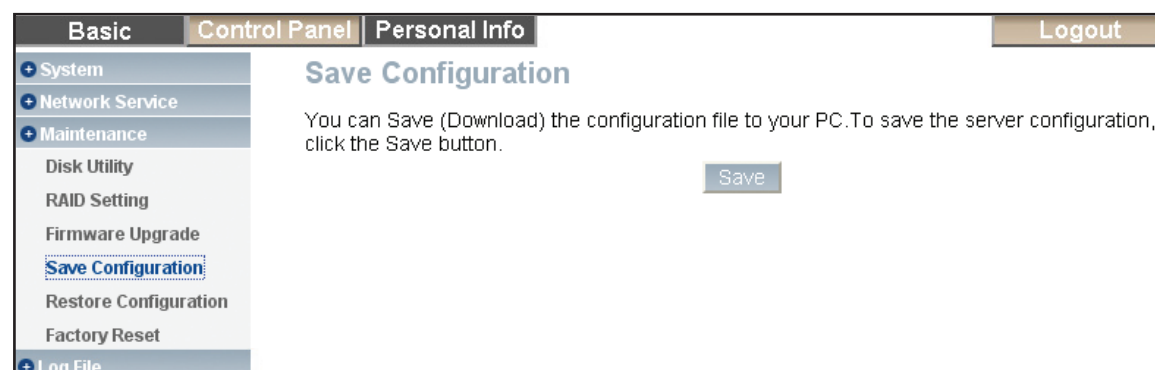
In this section, you can check the current firmware version and upgrade if a new one is available. Download the latest firmware and store it on your computer, then browse for the *.gz file, select it and start the upgrade. The upgrade process takes about 10-20 minutes.

Basic	Control Panel	Personal Info	Logout
+ System	Firmware Upgrade		
+ Network Service	Current Firmware Version 2.6.7-20100113		
+ Maintenance	Upgrade File <input type="text"/> <input type="button" value="Browse..."/>		
Disk Utility	<input type="button" value="Upgrade"/>		
RAID Setting			
Firmware Upgrade			
Save Configuration			
Restore Configuration			
Factory Reset			

NOTE: Never turn off your device during the firmware upgrade procedure, as this may damage it. If for any reasons (e.g., power supply failure during the firmware upgrade) the procedure fails, you may not be able to operate your device anymore.

4.2.5.4 Save Configuration

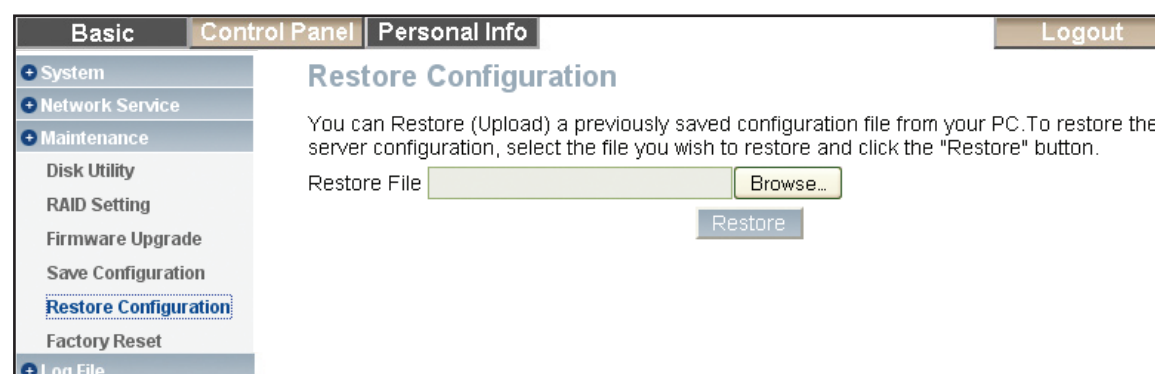
For backup and before every firmware upgrade, you can use this function to save the current configuration. Click “Save” and save the “config.tar” file on your computer.



The screenshot shows a web interface with a top navigation bar containing 'Basic', 'Control Panel', 'Personal Info', and 'Logout'. A left sidebar lists menu items: '+ System', '+ Network Service', '+ Maintenance' (with sub-items 'Disk Utility', 'RAID Setting', 'Firmware Upgrade', 'Save Configuration', 'Restore Configuration', and 'Factory Reset'), and '+ Log File'. The main content area is titled 'Save Configuration' and contains the text: 'You can Save (Download) the configuration file to your PC. To save the server configuration, click the Save button.' A 'Save' button is located at the bottom right of the main content area.

4.2.5.5 Restore Configuration

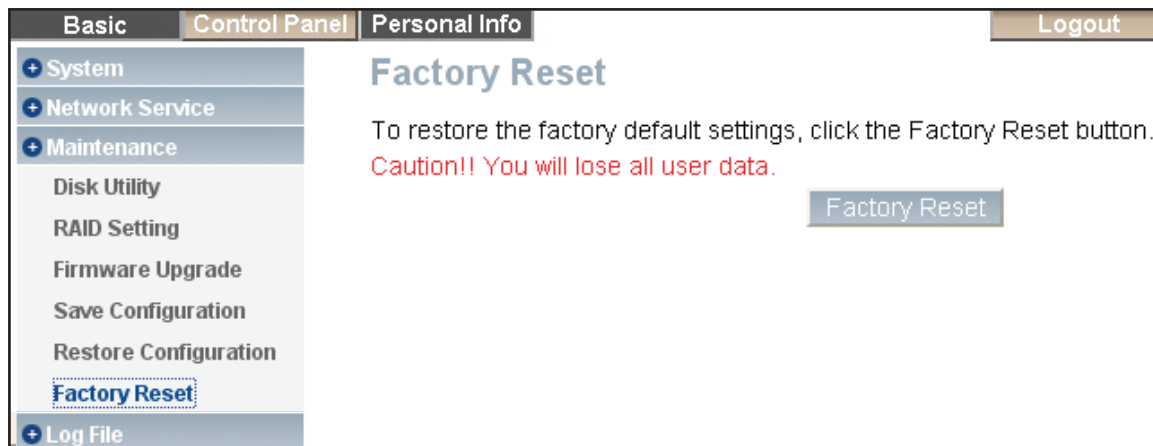
To quickly restore previous settings or set up multiple units, you can save the configuration and then use this function to upload a previous backup. Browse for the “config.tar” file on your computer and click “Restore” to restore the previous settings.



The screenshot shows a web interface with a top navigation bar containing 'Basic', 'Control Panel', 'Personal Info', and 'Logout'. A left sidebar lists menu items: '+ System', '+ Network Service', '+ Maintenance' (with sub-items 'Disk Utility', 'RAID Setting', 'Firmware Upgrade', 'Save Configuration', 'Restore Configuration', and 'Factory Reset'), and '+ Log File'. The main content area is titled 'Restore Configuration' and contains the text: 'You can Restore (Upload) a previously saved configuration file from your PC. To restore the server configuration, select the file you wish to restore and click the "Restore" button.' Below this text is a 'Restore File' label followed by a text input field and a 'Browse...' button. A 'Restore' button is located at the bottom right of the main content area.

4.2.5.6 Factory Reset

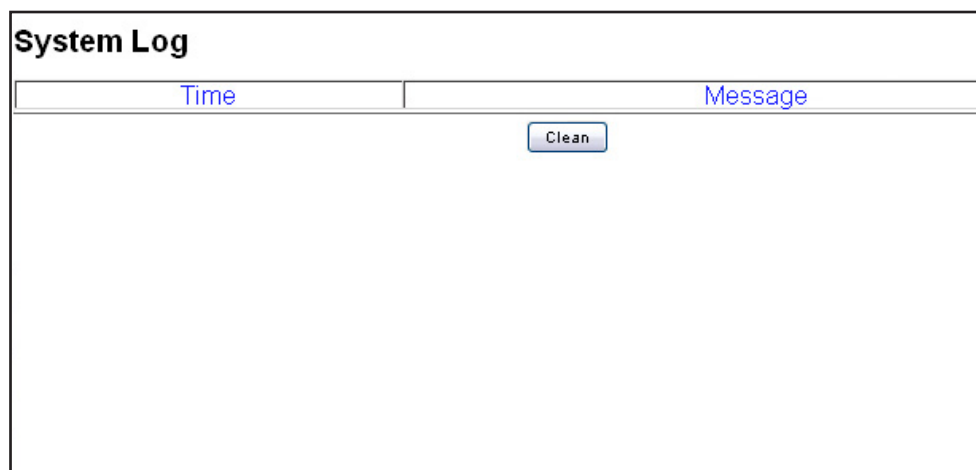
Clicking “Factory Reset” will restore all settings to their default configuration. First, however, save your current configuration in case you want to restore it again later.



NOTE: When “Factory Reset” is clicked, all users, groups and other configurations will be lost. The files inside the shared folders won’t be erased, but only the administrator will have access to them via an SMB connection, unless the same share name is set up again and access is granted for new users. To completely erase the files inside the shares, use the Share Management menu to remove the shares before the reset, or use the administrator account after the reset, log in via SMB and delete the files.

4.2.6 Log File

This menu includes all the log files of your Gigabit SATA NAS. You can find logs for the SAMBA, FTP and DHCP servers, as well as system and administration logs.



NOTE: To delete old log files, click “Clean.”

4.3 Personal Information

4.3.1 Account

In this menu, you can change your admin password and the menu language for the configuration interface. An overview of disk usage and a share list are also presented.

Account Information - admin

Change Password

.....

.....

(Please enter password again)

Language Preference

set From Browser Options ▼

Description (Optional)

Disk Usage

Quota	unlimited
Used	0.00MB
Percentage	-

Share List

public (Writable)

swupdate (Writable)

===== END LIST =====

Save

Refresh

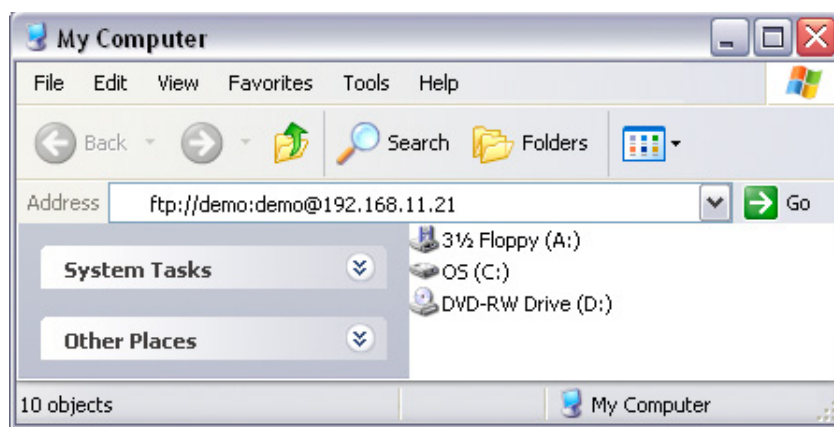
5 NETWORK STORAGE

To access the data on the Gigabit SATA NAS via the network connection, you can use either FTP or SMB. Before you can access the shared folders, you need to set up your users, groups and shares (see Section 3).

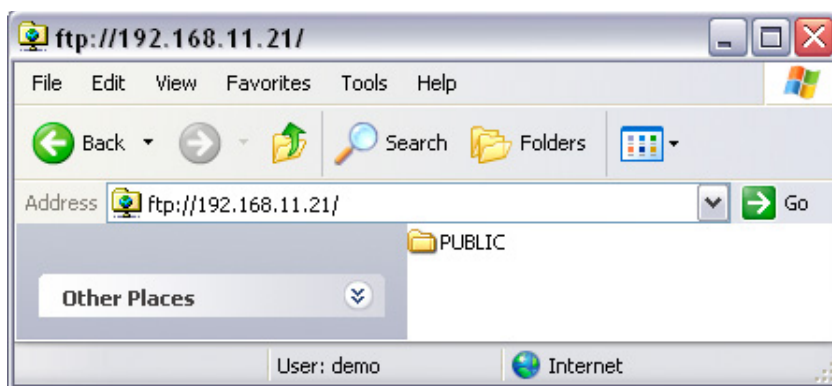
5.1 File Access on a PC

5.1.1 FTP

Open Windows Explorer and enter “ftp://” followed by the IP address of the Gigabit SATA NAS. Add the username and password in front of the IP address with “@” in between; for example: ftp://demo:demo@192.168.11.21.



After login, you can access the available folders and transfer your files. Remember that files can't be opened directly via FTP: You always need to transfer them to your computer first.



NOTE: For FTP transfers, it's recommended that you install and use a dedicated FTP application, either a free utility or a professional shareware program.

5.1.2 Windows Explorer

Open Windows Explorer and enter “\\” followed by the IP address of the Gigabit SATA NAS; for example: “\\192.168.11.21.” All available folders and shares on the NAS will display, which you can then access directly.

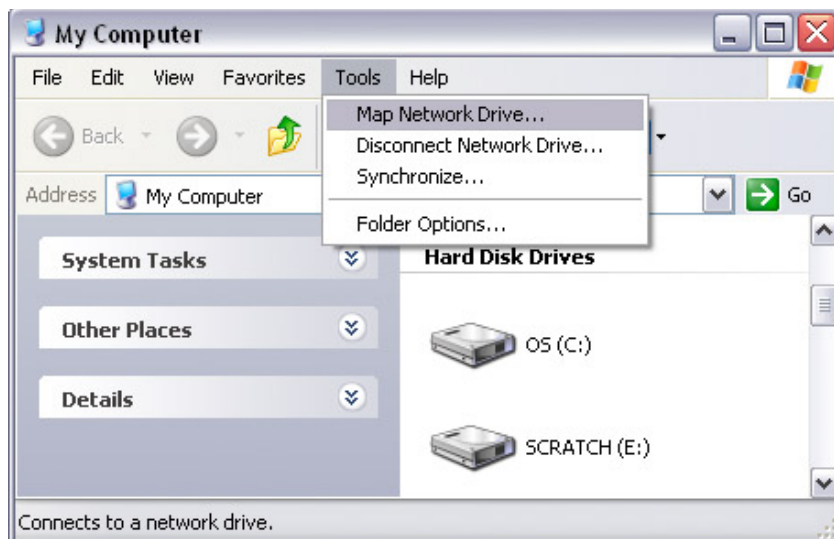
You can copy files to the network storage as if it were a folder on your local drive. Depending on the bandwidth, you can also directly play and open the files, although transferring the data to your local drive first is recommended.



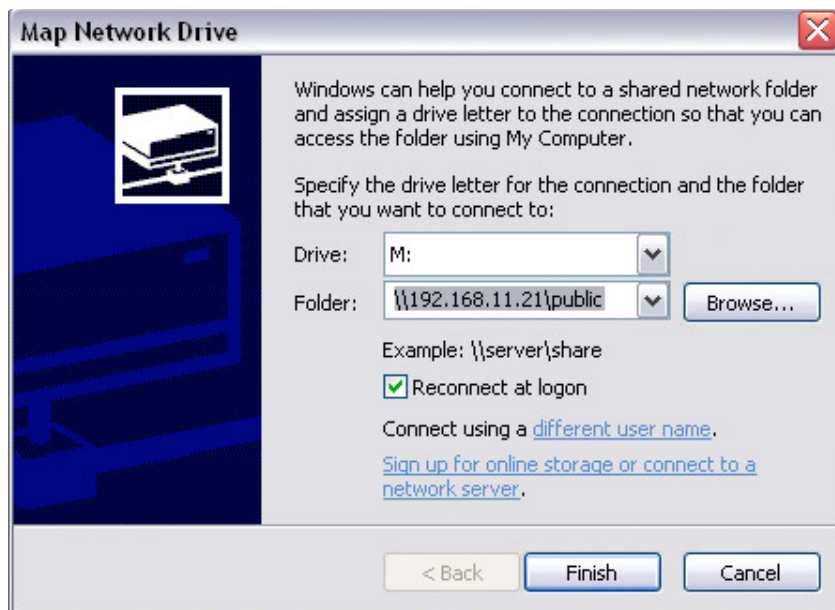
5.1.3 Mapping a Network Drive

For easy access, mapping the storage as a network drive is recommended.

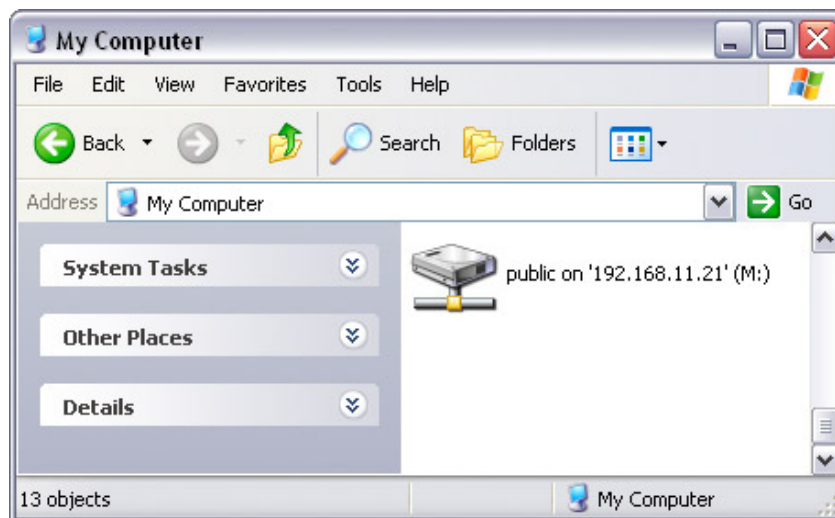
1. Double-click on My Computer, go to the Tools menu and select “Map Network Drive....”



2. Follow the setup wizard on-screen instructions and fill in the path to your NAS. When entering the IP address, also add the folder; for example, “\\192.168.11.21\public.” Alternatively, you can find the shares by clicking “Browse” to locate the folder.



3. Once the drive's been mapped, you can find and access it under My Computer. This link will still be there even after rebooting your operating system if you've selected "Reconnect at logon."



NOTE: For quick and temporary access, you can also simply go to My Network Places, view the workgroup computers and select your NAS.

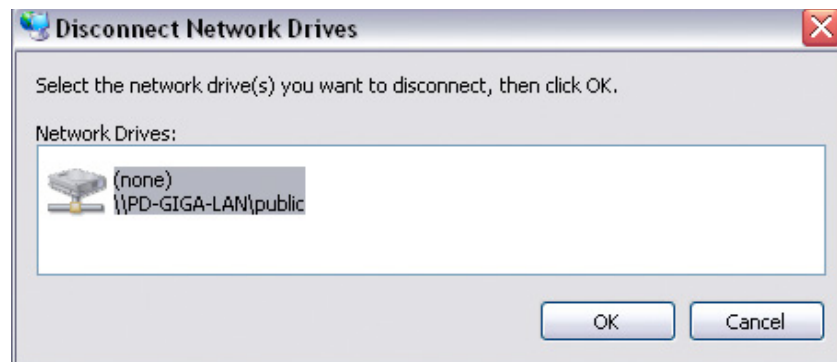
5.1.4 Disconnecting a Network Drive

When you don't need a mapped network drive anymore, disconnecting it is recommended. It is also necessary to disconnect a temporary network drive when you try to log in with a new password but have not restarted the computer first.

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



2. Select any temporary or mapped network drives you want to remove, then click "OK."

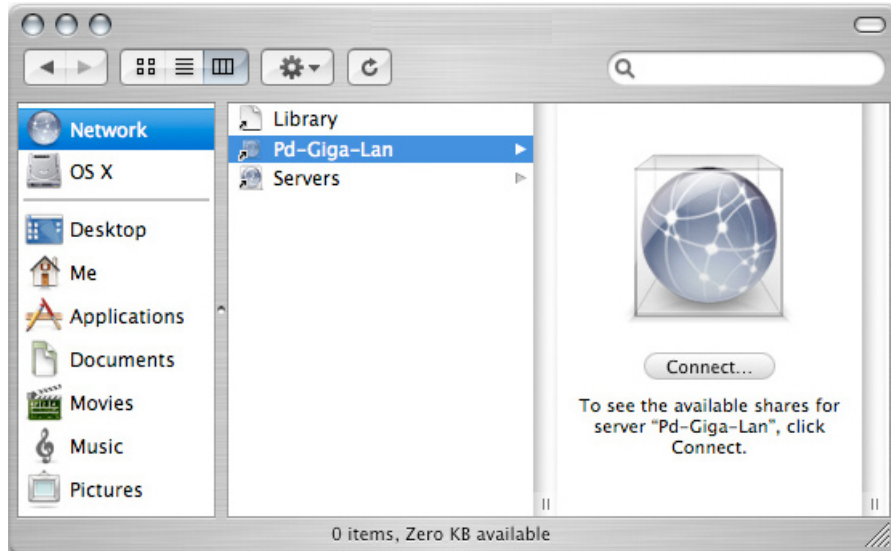


NOTE: If you experience problems with the network access, disconnect all network drives on the NAS, reboot your computer and try again.

5.2 File Access on a Mac

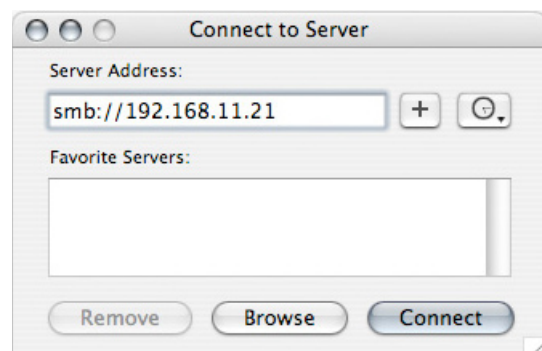
5.2.1 SMB

To mount and access the network storage, open your Finder, click “Go” and choose “Network.” Browse for your network drive and click on it to access the folder.

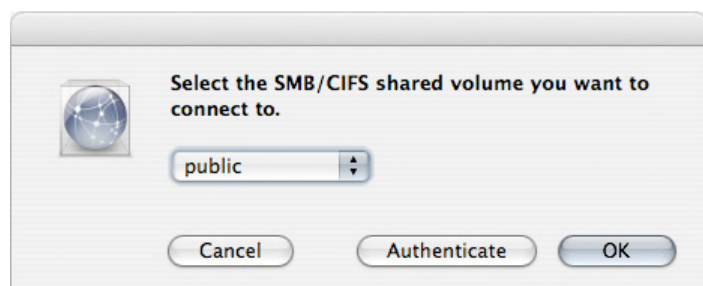


Or use the “Connect to Server” command.

1. Click “Go” and choose “Connect to Server.”
2. Enter “smb://” followed by the IP address of your Gigabit SATA NAS, or click “Browse” to locate the folder on your network. Click “Connect” once the server address has been entered.



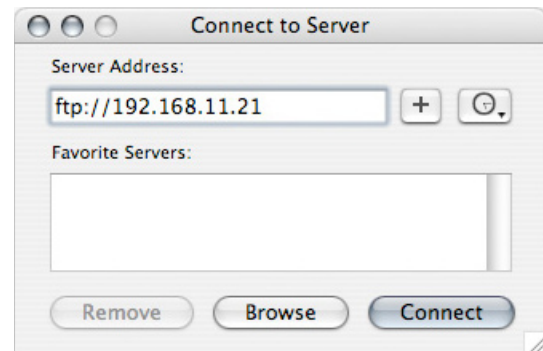
3. When prompted, choose a folder. After you enter the correct password (if passwords have been set), the folder will appear on your desktop.



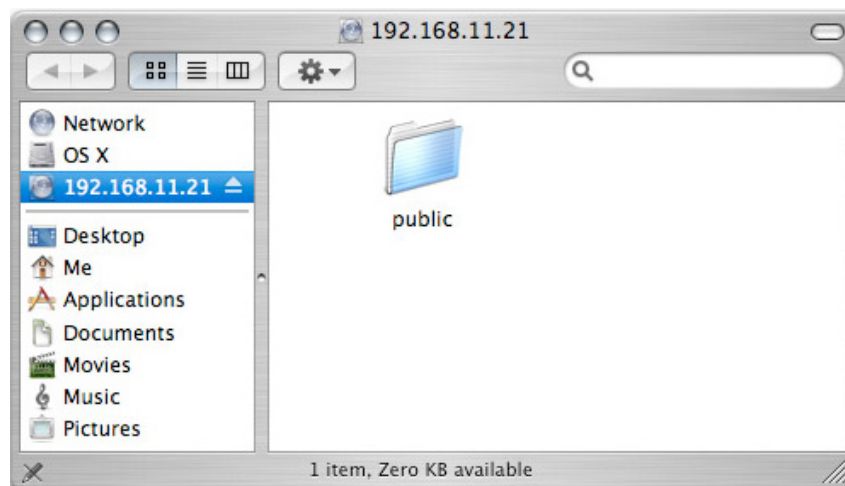
5.2.2 FTP

The FTP utility on the Mac will be able to read the data on the network drive, but you can't upload new data to the drive. To do that, you need to install a dedicated FTP application, which can either be a free utility or a professional shareware program.

1. Click "Go" and choose "Connect to Server."
2. Enter "ftp://" followed by the IP address of your Gigabit SATA NAS. Click "Connect" once the server address has been entered.



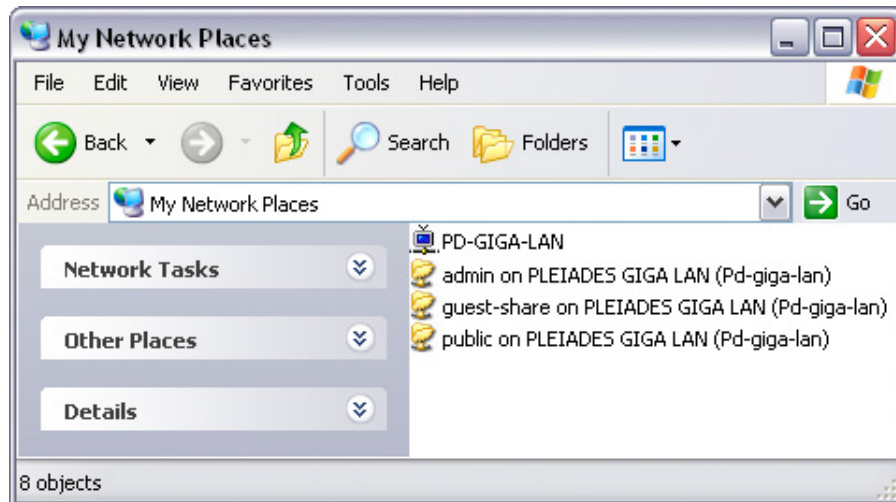
3. When prompted, choose a folder. After you enter the correct password (if passwords have been set), the folder will appear on your desktop.



6 ADDITIONAL FEATURES

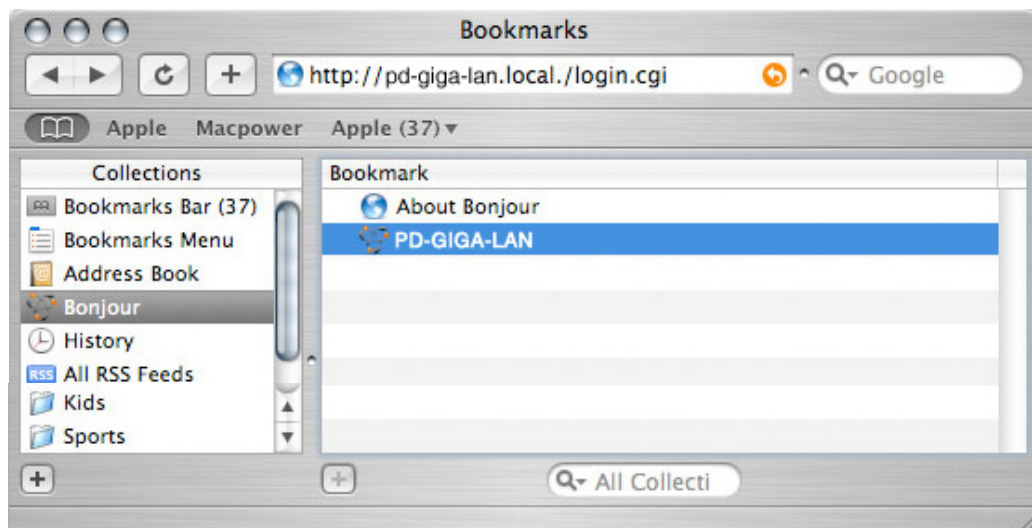
6.1 UPnP

The Gigabit SATA NAS supports UPnP v1.0. To access the device on a PC, go to My Network Places, where the NAS will be listed as a UPnP device. You can select it and access the configuration page. **NOTE:** There's no need to configure anything: This function is turned on by default and other devices will be able to recognize it automatically.



6.2 Bonjour and iTunes

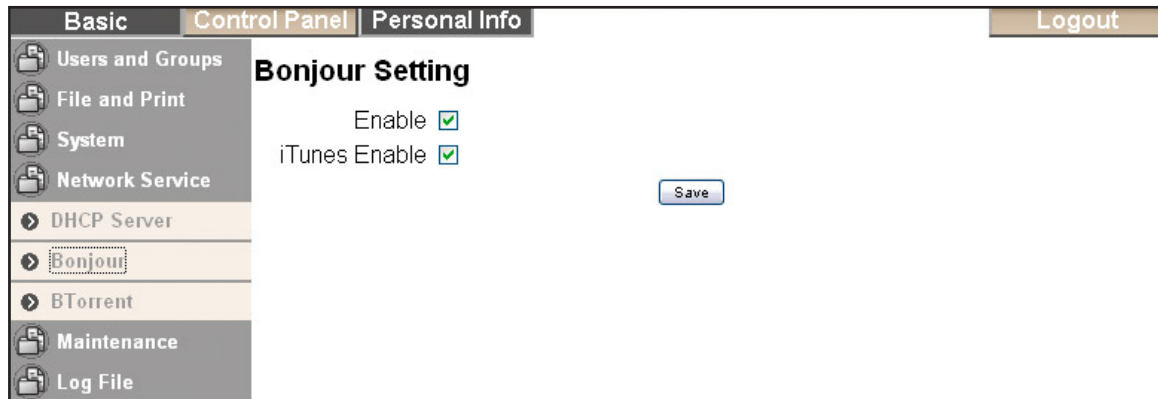
For easy access to the Web configuration interface on the Mac, a shortcut to the Gigabit SATA NAS is available in the bookmarks collection under Bonjour.



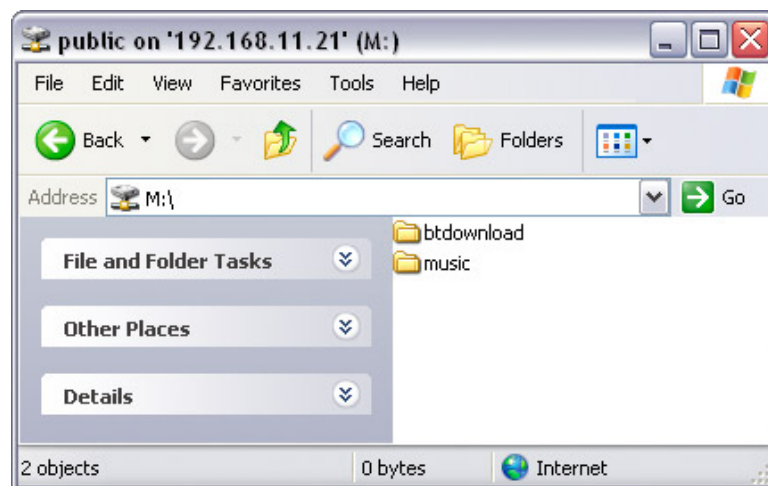
6.2.1 iTunes

When the iTunes support for Bonjour is enabled, the Gigabit SATA NAS will appear as a shared music folder in your iTunes library. Store your MP3 files in the music folder of the Gigabit SATA NAS and play them over the network.

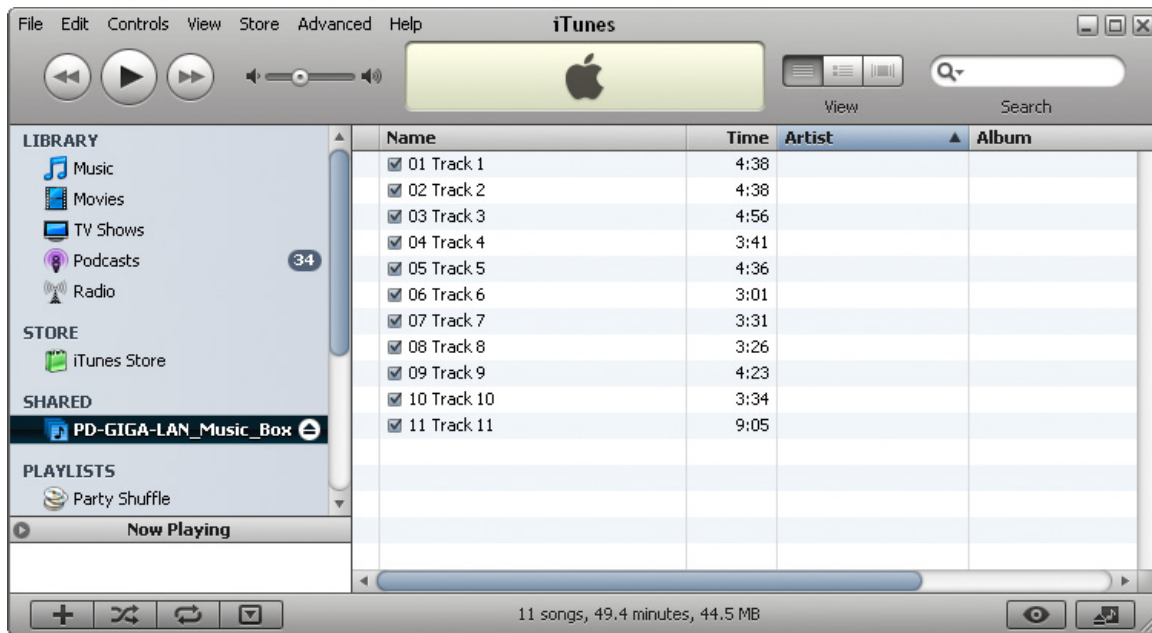
1. Make sure the support for iTunes in the Bonjour menu is enabled.



2. Store your MP3 files in the music folder of the NAS. The folder's already been created in "/public/music."



3. Start iTunes and the Gigabit SATA NAS will appear as a shared device.

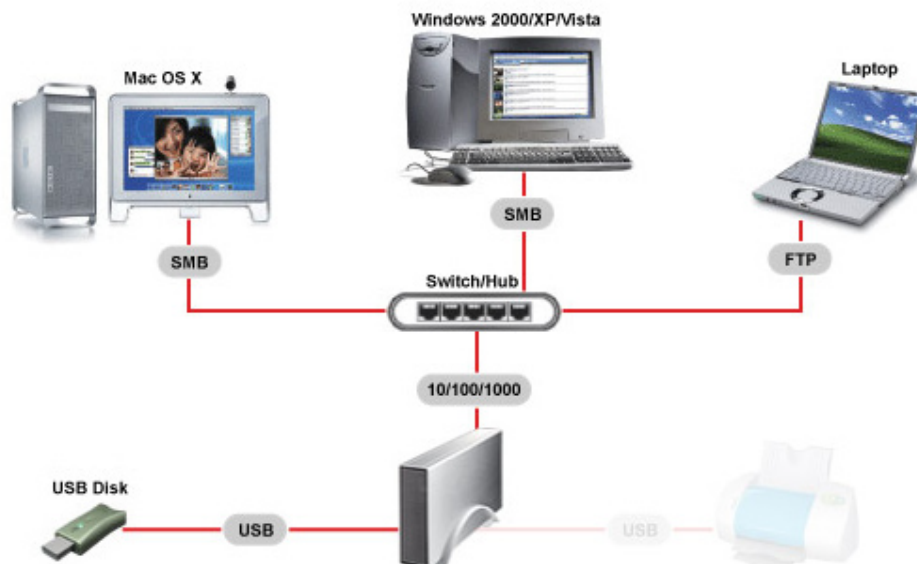


6.3 USB Drive

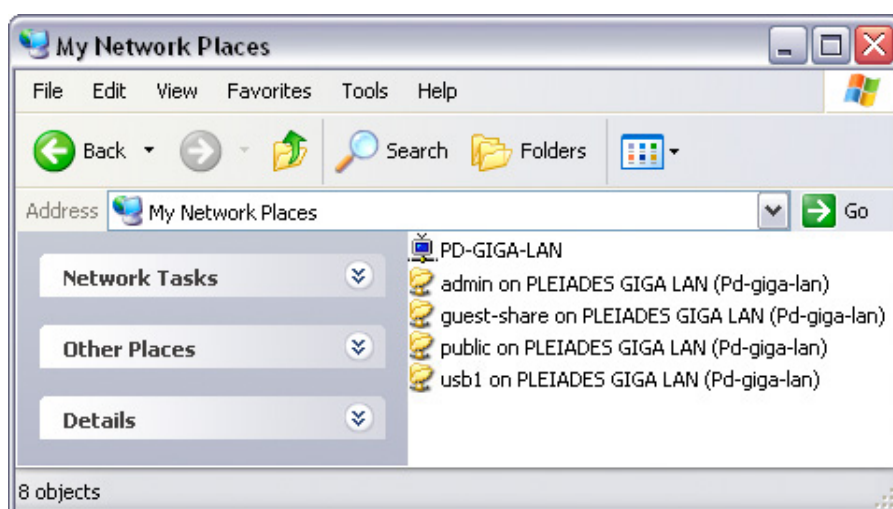
USB drives connected to the network drive can be shared and accessed on the network. Plus, instead of a network drive, the NAS can be used as a USB drive.

6.3.1 Sharing a USB Drive

A USB drive with the file system FAT32 or NTFS that is connected to the NAS can be shared and accessed over the network via SMB or FTP.



Connect the USB drive to the Gigabit SATA NAS and go to My Network Places. The external drive will show up as “usb1,” and you can access it to transfer files without further login. Before disconnecting it, go to the Disk Utility menu and click “Unmount” to eject the drive.



NOTE: To access the USB drive via FTP, leave the “md1” directory and you’ll find the “usb1” folder in the root directory.

6.3.2 The NAS as a USB Drive (Model 505888 / 1.5 TB only)

When the Gigabit SATA NAS isn’t connected to the network, it can also be used as a simple USB mass storage device.

1. Login via the Web browser, stop all current downloads, go to Section 3.2.3.3: System / Turn Off Server and turn the server off.
2. Once the system has shut down, remove the power supply from the AC outlet and disconnect the Ethernet cable.
3. Connect the USB cable to the USB device port on the NAS and the USB port on your computer.
4. Turn on the NAS. The USB drive will automatically appear: in My Computer for Windows; on the desktop for Mac.

IMPORTANT: Depending on the file system used to format the drive and the OS, the USB drive might not be accessible without the installation of additional software applications to mount the drive. The EXT2 file system is ideal for the network drive, but is not natively supported by Windows or Mac; so if you intend to use it as a USB drive, choosing NTFS or FAT32 might be more convenient to use (although slower for the network drive). Remember that when formatting the drive, all data will be lost, including the data related to the network drive.

The user accounts and access rights used for the network drive don’t apply to the

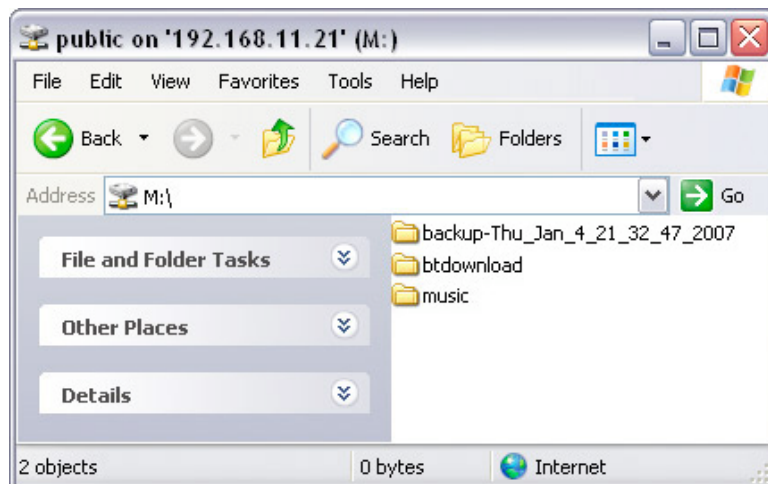
USB drive. When connected directly to the computer via USB, all data can be accessed and modified!

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

6.4 USB Backup (Model 505895 / 3 TB only)

The USB backup function can be used to quickly and conveniently copy the files from an external USB drive to the internal SATA hard drives.

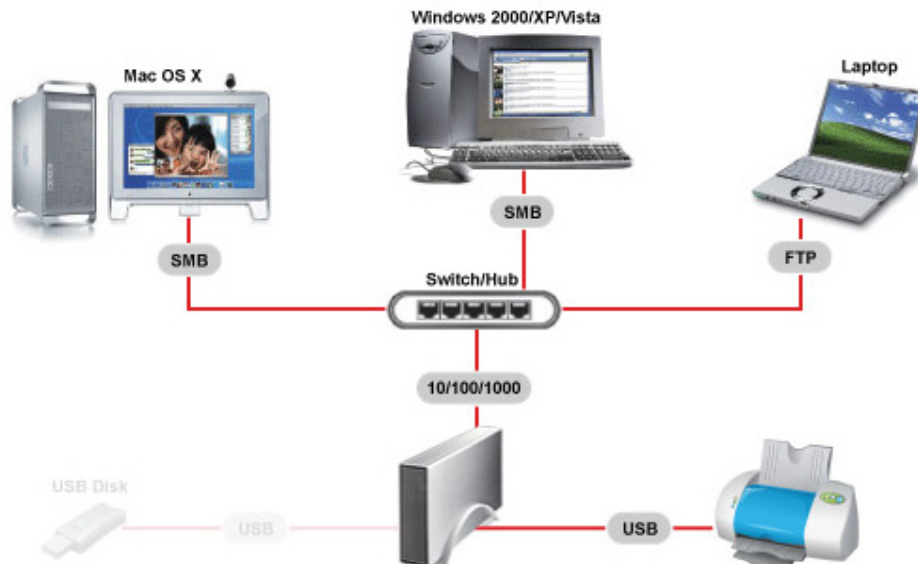
1. Connect the USB drive to the front port of the Gigabit SATA NAS.
2. Press the button just above the USB port for 4 seconds to back up your files.
3. A new folder based on date and time will be created in the /public directory. All files will be copied to that folder. During the backup process, the yellow LED will blink. When finished, the LED will stop blinking and the NAS will automatically eject the drive so that you can remove the USB drive.



NOTE: For external USB devices, using self-powered USB drives is recommended. Only drives formatted using FAT32 are supported! If more than one USB drive is connected, only the files from the second drive will be copied.

6.5 USB Printer

The Gigabit SATA NAS is equipped with an additional USB host port (or ports) and a printer server. Connect your USB printer to the USB host port on the NAS and enable the printer server to share the printer among other workstations on the same local network.



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 click “Print,” wait for the printer to receive the data.

1. Connect your USB printer to the USB host port on the Gigabit SATA NAS and turn both devices on.
2. Log in to make sure the printer server is enabled and the printer has been recognized.

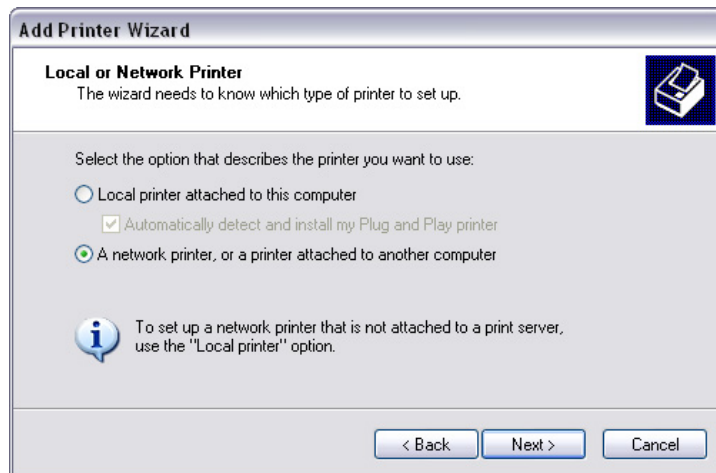
Basic	Control Panel	Personal Info	Logout
<ul style="list-style-type: none"> Users and Groups File and Print File Server Share Management Printer Server System Network Service Maintenance Log File 	<h3>Printer Server Setting</h3> <p>Enable <input checked="" type="checkbox"/></p> <p>Printer Name usb1p0</p> <p>Description (optional) EPSON USB2.0 Printer (Hi-speed)</p> <p><input type="button" value="Save"/></p>		

Once these initial steps are complete, refer either to Section 6.5.1: Installation on a PC or Section 6.5.2: Installation on a Mac.

6.5.1 Installation on a PC

1. On your PC, go to Start and select “Printers and Faxes.”
2. Go to File and select “Add Printer” to bring up the printer setup wizard.
3. Click “Next” to start the setup wizard.

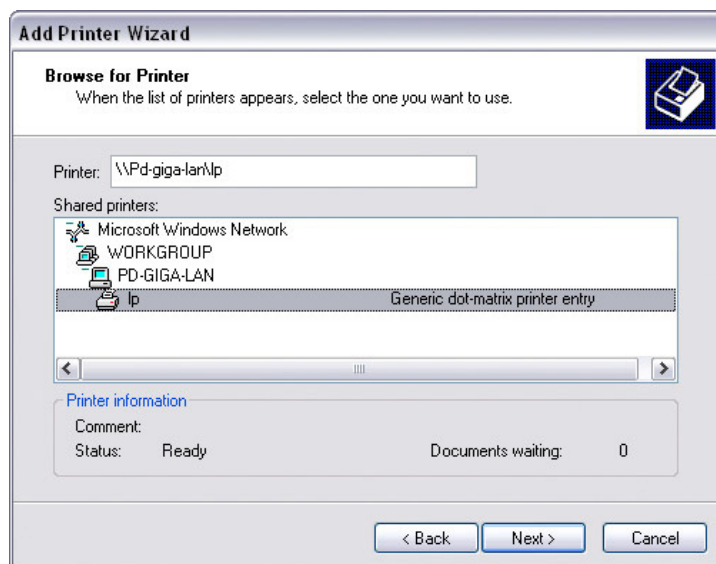
4. When the Local or Network Printer screen displays, select “A network printer...” and click “Next.”



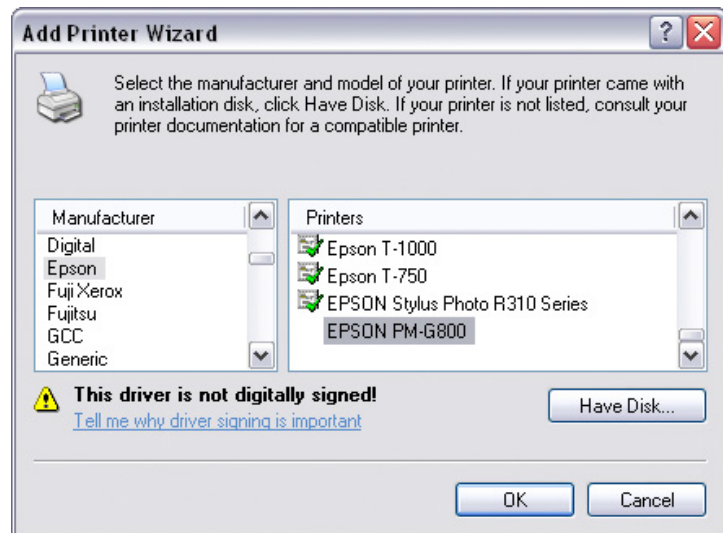
5. When the Specify a Printer screen displays, select “Connect to this printer...” and click “Next.”



6. When the Browse for Printer screen displays, find the Gigabit SATA NAS in the Shared Printers list, select “lp” and click “Next.”

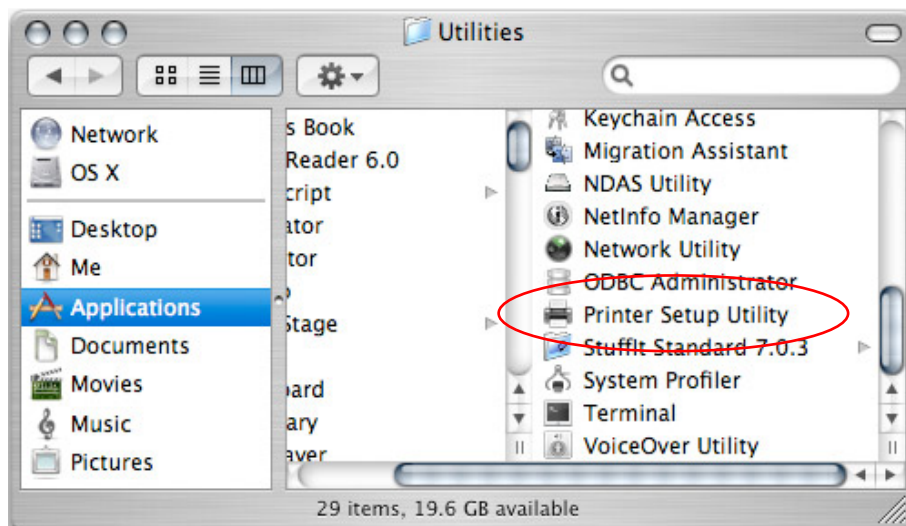


7. When the next screen displays, select your printer from the list or browse for the corresponding driver on your local drive. Click “OK” to complete the procedure. Your printer is now set up.

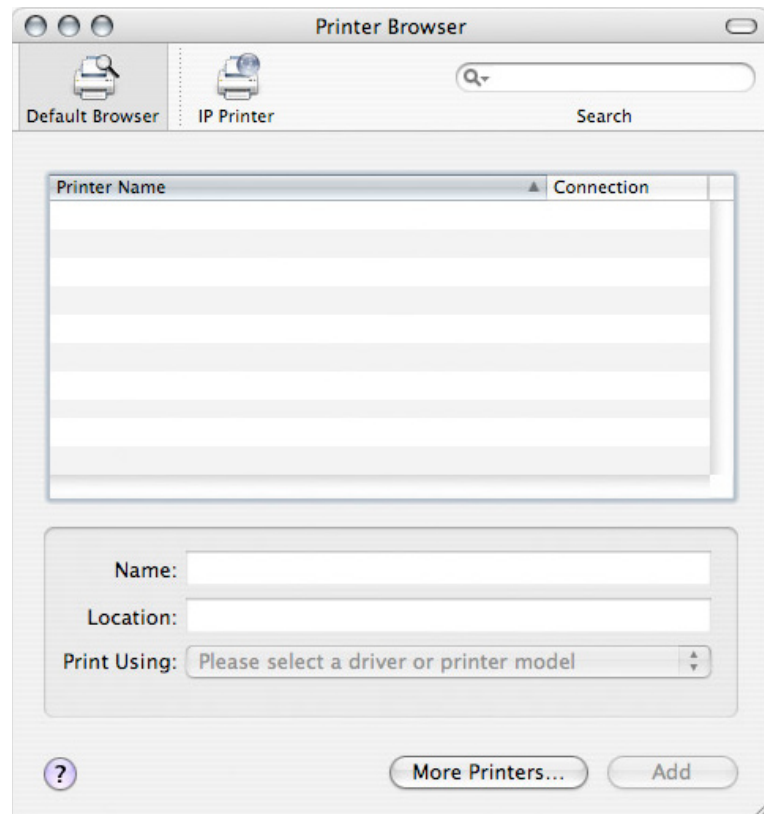


6.5.2 Installation on a Mac

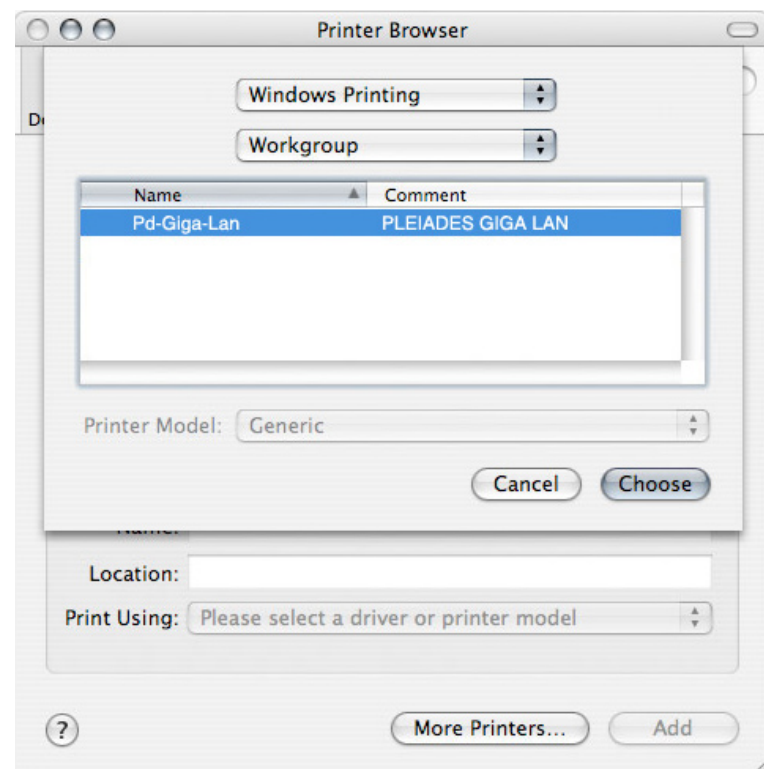
1. Go to Applications and open the Printer Setup Utility in the Utilities folder.



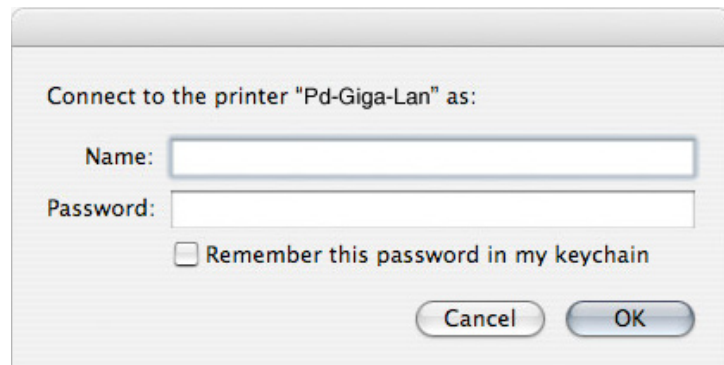
2. When the Printer Browser screen displays, click “More Printers.”



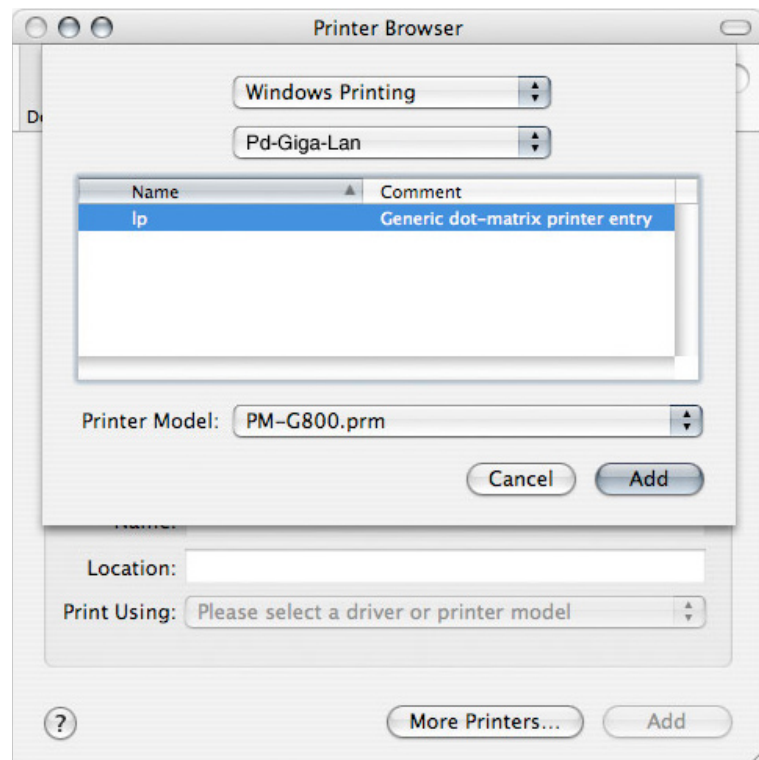
3. Use the Windows Printing and the Workgroup drop-down menus to display the Gigabit SATA NAS in the window. Select it and click “Choose.”



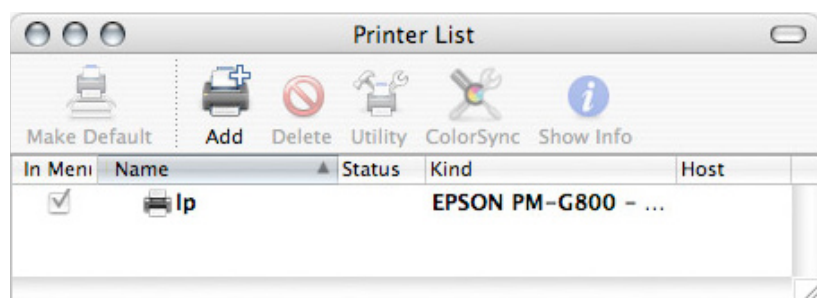
4. When prompted, enter a name and password — either as an administrator or user — and click “OK.”



5. Select the lp printer from the list, then find the corresponding printer model to install the correct printer driver. Click “Add.”



6. A Printer List screen should display with your selection in the list, indicating that your printer is now set up.



6.6 BitTorrent

Used in conjunction with its built-in BitTorrent client, the Gigabit SATA NAS can be set to download media files from the Internet and have them saved directly to the internal SATA hard drive. You can then turn off your computer.

The BitTorrent client on the NAS uses the TCP protocol and ports 6881-6889. Make sure those ports are not blocked by your router: If necessary, set up port forwarding so that the traffic for those ports is forwarded to your NAS.

The BitTorrent client on the NAS can download five files at a time, with a maximum of 40 files in the queue. Before turning off the device, stopping all current downloads first is recommended. After the device has been rebooted or turned off, the partial downloads will need to be started again to continue the download process.

1. Browse the Internet for the media files you want to download, and store the torrent files on your local drive.
2. Log in to the Web interface and go to the BTorrent screen in the Network Service menu (see Section 4.2.4.3).
3. Click “Browse” and locate your previously downloaded torrent file. Select it and click “Add” to add the file to the download queue.

The screenshot shows the 'BTorrent' configuration page. On the left is a sidebar menu with options: Users and Groups, File and Print, System, Network Service, DHCP Server, Bonjour, BTorrent (selected), and Maintenance. The main area has tabs for Basic, Control Panel, and Personal Info. Under the Control Panel tab, there are input fields for 'Max bandwidth down(KB/s)' (set to 20) and 'Max bandwidth up(KB/s)' (set to 5), with a 'Save' button below them. Below these is an 'Open torrent file' field with a 'Browse...' button. A red text annotation points to the 'Open torrent file' field, stating 'The torrent file is placed in /mnt/md1/public/btdown'. Below the field is an 'Add' button.

4. Click “Start” to begin the download process. **NOTE:** If the new file doesn’t appear on the list, click “Refresh” or re-select “BTorrent” from the left-hand menu.

The screenshot shows the BitTorrent download page. It has the same sidebar menu as the previous screenshot. The main area shows the same configuration options. Below the 'Add' button is a table of active downloads. The table has columns: ID, Name, Size, Percentage, Download, Upload, Client, Status, and buttons for Start, Stop, and Delete. There is one entry in the table: ID 1, Name 'crossing1.mov.torrent', Size '91.3MB', Percentage '0%', Download '0 (kb/s)', Upload '0 (kb/s)', Client '0', and Status 'stop'. Below the table is a 'Refresh' button.

ID	Name	Size	Percentage	Download	Upload	Client	Status	
1	crossing1.mov.torrent	91.3MB	0%	0 (kb/s)	0 (kb/s)	0	stop	<button>Start</button> <button>Stop</button> <button>Delete</button>

The file is now being downloaded (as indicated by the updated information in the Percentage and Download columns below) and, if you like, you can turn off your computer. Remember to start the download process again if the Gigabit SATA NAS has been turned off or rebooted before the file has been downloaded completely.

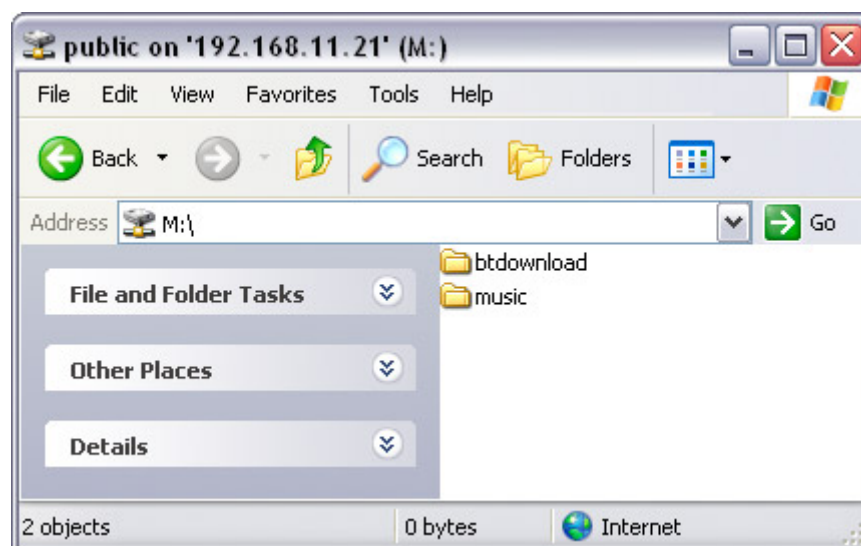
BTorrent

Max bandwidth down(KB/s)
 Max bandwidth up(KB/s)

Open torrent file
 The torrent file is placed in

ID	Name	Size	Percentage	Download	Upload	Client	Status	
1	crossing1.mov.torrent	91.3MB	1%	20.1 (kb/s)	0.0 (kb/s)	0	connect	<input type="button" value="Start"/> <input type="button" value="Stop"/> <input type="button" value="Delete"/>

Once the file has been downloaded, you can delete it from the download list and access the media file on your Gigabit SATA NAS. All files will be stored in the “/public/btdownload” folder.



7 GLOSSARY

BitTorrent — This is a peer-to-peer (P2P) file distribution client application, and also refers to its related file-sharing protocol. BitTorrent is designed to distribute large amounts of data widely without incurring the corresponding consumption in costly server and bandwidth resources.

EXT2 — The ext2, or second extended, file system is a file system found mostly on Linux operating systems. This is the recommended file system for the Gigabit SATA NAS network drive.

EXT3 — The ext3, or third extended, file system is a journaled file system found mostly on Linux operating systems.

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 4 GB.

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 (Gigabit SATA NAS) and a client (user's computer).

NTFS — NTFS, or New Technology File System, is the standard file system of Windows NT and its descendants. NTFS has several improvements over FAT, but is not compatible with other operating systems (except, perhaps, in Read Only mode).

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 residence, office complex or college.

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.

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.

8 FREQUENTLY ASKED QUESTIONS

Q: Why aren't some of the functions and menus available?

A: The functions of the Gigabit SATA NAS require that a hard drive be installed. Make sure you have a hard drive installed and that it is formatted, preferably using EXT2.

Q: I lost my password. What do I do?

A: Press the Reset button and hold it for 5 seconds to reset the NAS to its default settings. The default login is "admin"/"admin." Resetting the device will erase all user and group accounts, plus some other settings.

Q: I can't access the Web configuration interface. What's the correct IP?

A: See Section 3 about how to log in. If the instructions don't help, turn on your device and wait for it to boot, then press and hold the Reset button for five seconds to reset its IP address and server name.

Q: Why doesn't 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 storage, but you can't write new data to the drive. To upload files, you need to install a dedicated FTP application.

Q: Why can't I restart or turn off the server?

A: Make sure there are no current file transfers in process or any other disk activity. Close any other applications that might still be accessing the NAS, then try again.

Q: What port is the BitTorrent client on the Gigabit SATA NAS using?

A: The BitTorrent client is using the TCP protocol and the ports 6881-6889.

Q: How many files can the BitTorrent client download at the same time?

A: It can download five files at a time, with another 40 in the queue.

Q: Does the Gigabit SATA NAS support SSH or Telnet access?

A: No, it doesn't support SSH, Telnet or TFTP access.

Q: Why doesn't the torrent file show up on the list after clicking "Add"?

A: If the new file doesn't show up or the page stays blank, refresh the page or re-select "BTorrent" from the left-hand menu to reload the page.

Q: Can I use the Gigabit SATA NAS as a USB and network drive at the same time?

A: No, it can 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 has priority.

Q: Which file system is recommended for the internal hard drive?

A: If the device is mainly used as network drive, using the EXT2 file system is recommended. When the drive is also often used as a USB drive, the most suitable file system will depend on the operating system. NTFS is most suitable for Windows, and FAT32 offers the best compatibility.

Q: Why doesn't the connected the USB cable show up on my computer?

A: If the device is currently used as a network drive, it has to be restarted first. Depending on the file system of the internal hard drive, your operating system might not natively support it, and you need to either install an additional application to mount the drive or re-format it using a different file system.

9 SPECIFICATIONS

Model 505888 / 1.5 TB

Standards

- IEEE 802.3 (10Base-T Ethernet)
- IEEE 802.3ab (Twisted Pair Gigabit Ethernet)
- IEEE 802.3u (100Base-TX Fast Ethernet)

General

- LAN: RJ45 10/100/1000 Mbps data port
- USB: one Hi-Speed USB 2.0 USB type-A port for external USB hard drive, USB flash drive or USB printer
- USB: one USB type-B port for host connection to computer when using the device as an external USB HDD
- Data throughput: up to 25 MBps (FTP, read)
- Internal hard drive:
 - Design: 3.5" SATA-I or SATA-II
 - Maximum size: 1.5 TB
- External USB hard drives:
 - Supported file systems: FAT32, NTFS
 - Maximum size: 1 TB
- File serving protocols: CIFS (Samba), FTP, NFS
- iTunes server:
 - iTunes version mt-daapd-0.2.4
 - Maximum connection limit: 8
- FTP server max. connection limit: 8
- Samba server:
 - Version samba-3.0.25 (supporting NTLMv2 authentication for Windows Vista)
 - Maximum connection limit: 8
- BitTorrent client options:
 - Maximum upload bandwidth
 - Maximum download bandwidth
 - Status/statistics for active torrents
- Certifications: FCC Class B, CE, RoHS, VCCI

Security / User Management / Network Shares

- Maximum user accounts: 8
- Maximum user groups: 8
- Username/password-based security
- Folder level security (read/write)

- Disk space usage (quota) management
- Supported network clients: Windows, Linux, Mac OS

Environmental

- Dimensions: 237 (l) x 137 (w) x 42 (h) mm (9.33 x 5.39 x 1.54 in.)
- Weight: 1.65 kg (3.6 lbs.)
- Operating temperature: 5 – 40°C (41 – 104°F)
- Operating humidity: 5 – 90% RH, non-condensing
- Storage temperature: -20 – 70°C (-4 – 158°F)

Power

- External power adapter: 12 V DC, 2.0 A
- Power consumption:
 - 12.4 Watts maximum with HDD active
 - 1.2 Watts maximum with HDD turned off

Package Contents

- Gigabit SATA NAS 1.5 TB
- Power adapter
- Installation CD with user manual
- Quick install guide

Model 505895 / 3 TB

Standards

- IEEE 802.3 (10Base-T Ethernet)
- IEEE 802.3ab (Twisted Pair Gigabit Ethernet)
- IEEE 802.3u (100Base-TX Fast Ethernet)

General

- LAN: RJ45 10/100/1000 Mbps data port
- USB: 2 Hi-Speed USB 2.0 USB type-A ports for external USB hard drive, USB flash drive or USB printer
- Data throughput: up to 25 MB/s (FTP, read)
- Internal hard drive:
 - Design: 3.5" SATA-I or SATA-II
 - Maximum size: 1.5 TB
 - Total capacity: 3 TB (RAID 0)
- External USB hard drives:
 - Supported file systems: FAT32, NTFS
 - Maximum size: 1 TB
- File serving protocols: CIFS (Samba), FTP, NFS

iTunes server:

- iTunes version mt-daapd-0.2.4
- Maximum connection limit: 8
- FTP server max. connection limit: 8
- Samba server:
 - Version samba-3.0.25 (supporting NTLMv2 authentication for Windows Vista)
 - Maximum connection limit: 8
- BitTorrent client options:
 - Maximum upload bandwidth
 - Maximum download bandwidth
 - Status/statistics for active torrents
- Certifications: FCC Class B, CE, RoHS, VCCI

Security / User Management / Network Shares

- Maximum user accounts: 8
- Maximum user groups: 8
- Username/password-based security
- Folder level security (read/write)
- Disk space usage (quota) management
- Supported network clients: Windows, Linux, Mac OS

Environmental

- Dimensions: 237 (l) x 137 (w) x 42 (h) mm (9.33 x 5.39 x 1.54 in.)
- Weight: 1.65 kg (3.6 lbs.)
- Operating temperature: 5 – 40°C (41 – 104°F)
- Operating humidity: 5 – 90% RH, non-condensing
- Storage temperature: -20 – 70°C (-4 – 158°F)

Power

- External power adapter: 12 V DC, 2.0 A
- Power consumption:
 - 25.1 Watts maximum with HDD active
 - 1.8 Watts maximum with HDD turned off

Package Contents

- Gigabit SATA NAS 3 TB
- Power adapter
- Installation CD with user manual
- Quick install guide

SAFETY & COMPLIANCE STATEMENTS

FCC Part 15

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of Federal Communications Commission (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 to an outlet on a circuit different from the receiver.
- Consult the dealer or an experienced radio/TV technician for help.

EU Countries Intended for Use

The ETSI version of this device is intended for home and office use in Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden and the United Kingdom. The ETSI version of this device is also authorized for use in EFTA member states Iceland, Liechtenstein, Norway and Switzerland. EU Countries Not Intended for Use: None.

Disposal of Used Electric and Electronic Equipment in Private Households

(applicable in the European Union and other European countries with separate collection systems)



This symbol on the product — or in the manual and in the warranty, and/or on its packaging — indicates that this product shall not be treated as household waste. Instead, it should be taken to an applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences to the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. If your equipment contains easy removable batteries or accumulators, please dispose of these separately according to your local requirements. The

recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased this product.

In countries outside of the EU: If you wish to discard this product, please contact your local authorities and ask for the correct manner of disposal.

Dieses auf dem Produkt oder der Verpackung angebrachte Symbol zeigt an, dass dieses Produkt nicht mit dem Hausmüll entsorgt werden darf. In Übereinstimmung mit der Richtlinie 2002/96/EG des Europäischen Parlaments und des Rates über Elektro- und Elektronik-Altgeräte (WEEE) darf dieses Elektrogerät nicht im normalen Hausmüll oder dem Gelben Sack entsorgt werden. Wenn Sie dieses Produkt entsorgen möchten, bringen Sie es bitte zur Verkaufsstelle zurück oder zum Recycling-Sammelpunkt Ihrer Gemeinde.

Ce symbole sur le produit ou son emballage signifie que ce produit ne doit pas être traité comme un déchet ménager. Conformément à la Directive 2002/96/EC sur les déchets d'équipements électriques et électroniques (DEEE), ce produit électrique ne doit en aucun cas être mis au rebut sous forme de déchet municipal non trié. Veuillez vous débarrasser de ce produit en le renvoyant à son point de vente ou au point de ramassage local dans votre municipalité, à des fins de recyclage.

Questo simbolo sul prodotto o sulla relativa confezione indica che il prodotto non va trattato come un rifiuto domestico. In ottemperanza alla Direttiva UE 2002/96/EC sui rifiuti di apparecchiature elettriche ed elettroniche (RAEEI), questo prodotto elettrico non deve essere smaltito come rifiuto municipale misto. Si prega di smaltire il prodotto riportandolo al punto vendita o al punto di raccolta municipale locale per un opportuno riciclaggio.

Este símbolo en el producto o su embalaje indica que el producto no debe tratarse como residuo doméstico. De conformidad con la Directiva 2002/96/CE de la UE sobre residuos de aparatos eléctricos y electrónicos (RAEEI), este producto eléctrico no puede desecharse con el resto de residuos no clasificados. Deshágase de este producto devolviéndolo al punto de venta o a un punto de recogida municipal para su reciclaje.





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