# USER MANUAL

## DNS-343

VERSION 1.0

D-Link®

STORAGE

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# Product Overview

## Package Contents

- D-Link DNS-343 4-Bay Network Storage Enclosure
- CD-ROM with Manual and Software
- Quick Installation Guide
- Power Adapter
- Power Cable
- CAT5 Ethernet Cable

**Note: Using a power supply with a different voltage than the one included with the DNS-343 will cause damage and void the warranty for this product.**

***If any of the above items are missing, please contact your reseller.***

# System Requirements

For best results, the following system requirements are recommended:

- Computer with: 1GHz processor / 512 MB RAM / 200 MB available space / CD-ROM drive
- Internet Explorer version 6.0 or Mozilla Firefox 1.0 and above
- Windows® XP (with Service Pack 2) or Vista™

- The DNS-343 requires installation of a hard drive before it can be used. The hard disk must be a 3.5” SATA Hard Drive of any capacity.

# Introduction

The D-Link DNS-343 4-Bay Network Storage Enclosure shares your documents, photos, music, and videos across the network and on the Internet (via FTP server) so family members, friends, or employees can access them. This enclosure, which can hold four 3.5" SATA hard drives of any capacity[1], creates a central network point for backing up valuable files. The built-in RAID 1[2] mirroring technology protects these files from drive failure. Other options such as Standard, JBOD, RAID 0, and RAID 5 are also available.

The DNS-343 shares files over the Internet via the built-in FTP server[3]. Users and groups can be created and assigned to folders with either read or read/write permissions. Quotas can be set per user or group to restrict space usage. In addition, the DNS-343 can be used to stream photos, music, and videos to UPnP AV compatible network media players[4].

The included CD contains D-Link's Easy Search Utility. This utility allows you to locate the DNS-343 on the network and map drives to your computer. Backup software is also included on the CD. This software allows you to backup your files from a computer to the DNS-343 manually, by a schedule, or in real-time. Real-time backups are a great way to safeguard against unfortunate accidents that may result in the loss of important files.

Combining ease of use with practical, high performance features, the DNS-343 is an organized solution for any network. Free up drive space on computers and centralize data on your network with the DNS-343 4-Bay Network Storage Enclosure!

1 Hard Drive(s) not included.

2 RAID 1 mirroring requires the use of at least 2 internal SATA drives.

3 Note that use of an FTP Server to access files over the Internet does not provide for secure or encrypted transmissions.

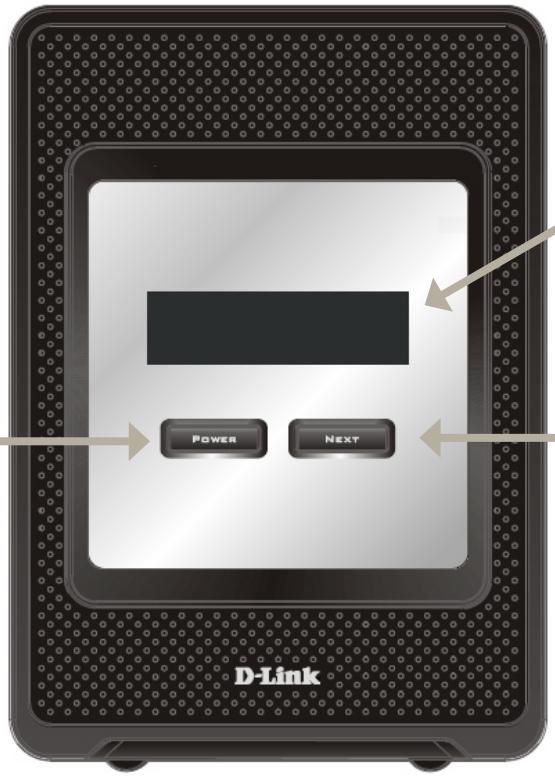
4 D-Link cannot guarantee full compatibility or proper playback with all codecs. Playback capability depends on the codec support of the UPnP™ AV media player.

# Features

- Equipped with one 10/100/1000 Mbps auto-MDIX Gigabit Ethernet LAN port
- Embedded SATA 3.5” HDD interface
- 128X64 OLED display screen
- 4-bay Serial ATA Hard Drive with RAID 0/1/5/JBoD support
- Supports 2 modes: Open mode and Account mode
- Supports Static and DHCP IP address assignment
- Supports Real time clock (RTC)
- Web-based administrative program is stored in flash ROM of the server.
- No setup necessary in open mode
- Supports Windows® XP and Vista™ Operating Systems
- Supports UPnP on Windows XP
- Supports PnP-X/LLTD
- Equipped with Ultra Cooler (aluminum housing + FAN speed control)
- Supports Thermal sensor
- E-mail Alert system to notify specified users of any device problems
- Supports HTTPS management function
- Supports iTunes Server
- Supports Schedule download
- Supports Easy Search
- Supports Downloader
- Supports Uni-code
- Supports User and Group management
- Supports Quotas for users and groups
- Supports group assignment for Network sharing and FTP server
- Can act as a DHCP Server
- Supports Configuration file save/load
- Tool-less Hard Drive installation
- Supports UPnP AV and DLNA compliant
- Supports DDNS
- Supports FTP Server
- USB port supports print server and UPS monitoring
- Jumbo frame support

# Hardware Overview

## Front View




**OLED:**
This screen displays System Information, HD Status, and Server Status.

**Power Button**
Use this button to switch the device on or off. To switch on the device press the button once. To switch off the device hold the button down for 5 seconds.

**Next Button**
Use this button to display the System Information (system state), HD Status (hard drive state) and Server Status (server status state) on the OLED. Press the button once to alternate between the different Status screens

# Rear Panel (Connections)

**Drive Eject Levers**
Use the provided lever to eject the SATA hard drives.

**Reset Button**
Press this button down for over 5 seconds to reset the unit to factory defaults.

**Power Receptacle**
Connect the supplied power adapter.

**Drive Eject Levers**
Use the provided lever to eject the SATA hard drives.

**Cooling Fan**
The cooling fans are used to cool the hard drives and feature speed control. When the unit is first powered on the fans rotate at a low speed and rotate at a high speed when the temperature rises above 49 C.

**Ethernet Port**
Gigabit Ethernet port that connects the DNS-343 to the local network.

**USB Connector**
USB 2.0 (Type A) connector. USB Host port for Print Server or USB UPS monitoring.

# Using the OLED

The DNS-343 network storage enclosure features an OLED that enables the administrator to easily view information about the DNS-343. The OLED display screen displays information about the network connection, hard drive, and server status. The OLED has three different screens:

**System Information** - This screen shows the following information:

- The hostname of the DNS-343
- The firmware version
- The IP address of the DNS-343
- The operating temperature

**Hard Drive Status** - This screen shows the following information:

- The percentage of space used on the hard drives

**Server Status** - This screen shows the following information:

- Whether a printer is connected to the server
- The status of the UPNP server
- The status of the iTunes server
- The status of the FTP Server

Press the **Next** button once to alternate between the different Status screens

# Installation
# Hardware Setup

This section provides unpacking and installation information for the DNS-343. Open the shipping carton for the DNS-343 and carefully unpack its contents. If this is the first time using the DNS-343 or if a new hard disk is installed, use the Easy Search utility located on the Installation CD and follow the instructions for setting up, configuring and formatting the new drive.

To install the DNS-343 on your local network, refer to the steps below:

1. Access the drive bays by sliding the faceplate up until it unlatches from the device.

2. Once the faceplate is unlatched, pull it off the device, exposing the drive bay.

3. Insert a 3.5” SATA hard drive into an available drive bay. Make sure to align the drive connector to the SATA connector on the bottom edge inside the drive bay of the DNS-343. Gently push the drive in until it connects.

4. Attach the faceplate to the front of the device.

5. Connect an Ethernet cable to the available Ethernet port. This cable should connect the DNS-343 to your local network via a router or switch, or directly to a computer for configuration.

6. Connect the supplied power adapter to the power receptacle.

When a hard disk is installed, the hard disk must first be formatted in the DNS-343 before it can be used. Insert the Installation CD into your computer's CD-ROM or DVD-ROM drive and follow the instructions below to use the Easy Search Utility to establish a network link to the DNS-343. Then use the web-based management software to format the new hard disk.

# Configuration
## Easy Search Utility

When first powered on, during the initial boot sequence, the DNS-343 will wait to be assigned an IP address via DHCP. If it does not receive a DHCP assigned IP address, by default it will have a self-assigned IP address of 192.168.0.32. It is recommended to use the included D-Link Easy Search Utility when accessing and configuring the DNS-343 for the first time. If you want to change the IP address before logging in or are unable to connect to the DNS-343 IP address, you can use the Easy Search Utility provided on the product CD to locate the device on your network and make any needed changes.

**Network Storage Device** The Easy Search Utility displays all available DNS-343 devices within the same network.

**Refresh** Refreshes the device list.

**Configuration** Click **Configuration** to access the Web based configuration of the DNS-343.

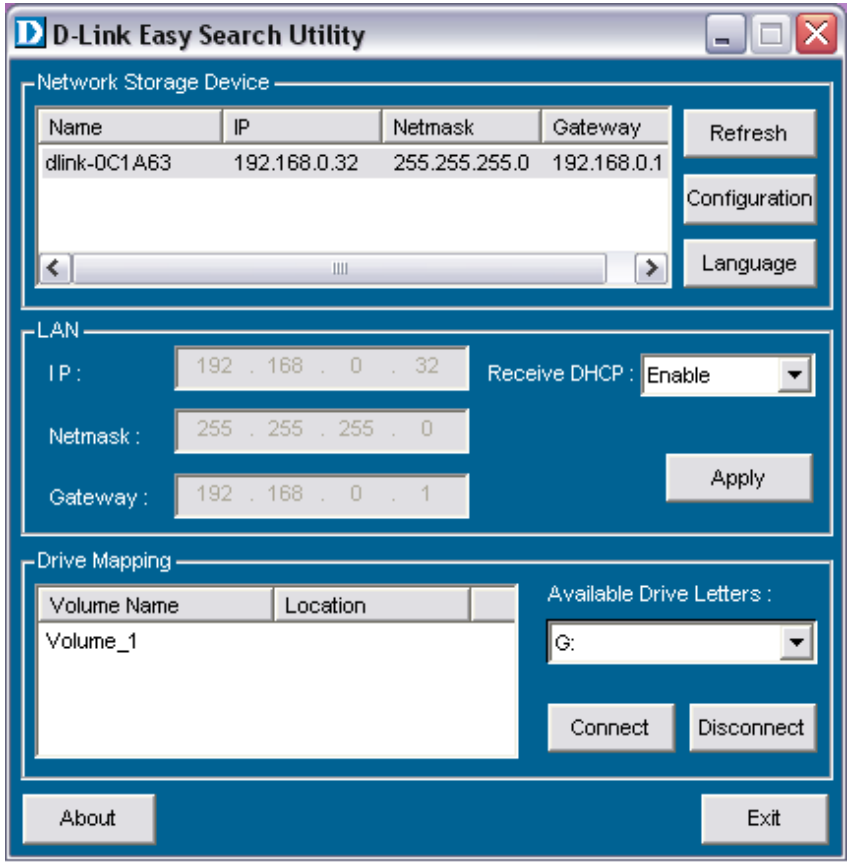
**LAN** Configure the LAN Settings for the DNS-343.

**Apply** Click **Apply** to save changes to the LAN Settings.

**Drive Mapping** Volumes that are available for mapping are displayed here.

**Available Drive Letters** Choose an available drive letter. Click **Connect** to map the selected volume. Click **Disconnect** to disconnect the selected mapped volume.

**Exit** Click **Exit** to close the utility.

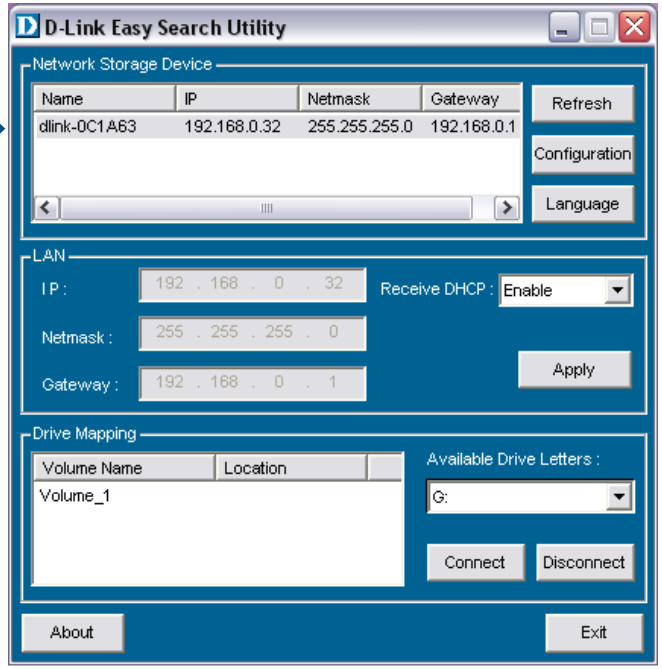


# Getting Started

To run the Easy Search Utility, insert the DNS-343 CD into your CD-ROM drive:

Click **Easy Search Utility**.

Select the listed DNS-343 and click the **Configuration** button. This will launch the computer's default web browser and direct it to the IP address listed for the device. Make sure the browser is not configured to use a proxy server.




The first window that appears will require the user to login for **Configuration** or **Downloads** menus. The **Downloads** menus are described later in this guide in the section titled **Downloads** on page 60.

***Note:*** *The computer used to access the DNS-343 web-based configuration manager must be on the same subnet as the DNS-343. If your network is using a DHCP server and the computer receives IP settings from DHCP, the DNS-343 will automatically be in the same subnet.*

The Login screen will appear:

***Note:*** *If the web browser is unable to connect to the web manager of the DNS-343, check to make sure your computer is on the same subnet as the DNS-343. For example, if there is no DHCP server active, your computer will need an IP address in the 192.168.0.0 subnet. Your computer should have an IP address of 192.168.0.x where x equals a number from 1 to 31, or 33 to 254.*

When logging into the DNS-343 for the first time, you will be asked to choose a drive configuration (Basic or Custom) and format the drives.

*Basic Configuration* offers four options: **Standard**, **JBOD**, **RAID 1** and **RAID 5**. Standard configures each disk as a separate volume, while JBOD combines all disks into a single volume. See page 26 for more details on using the RAID configurations.

*Custom Configuration* offers 3 combination methods: **RAID 0 + JBOD**, **RAID 1 + JBOD**, and **RAID 5 + JBOD**. See page 26 for more details on using the RAID configurations.

**Note:** All data will be erased during the format process.

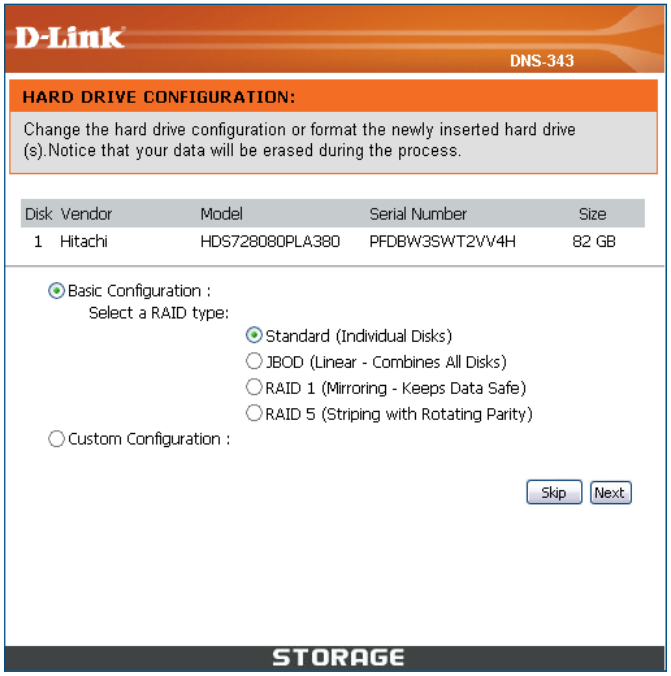
When prompted to configure the Hard Drive Settings:

Select from one of the basic types of hard drive configurations below:

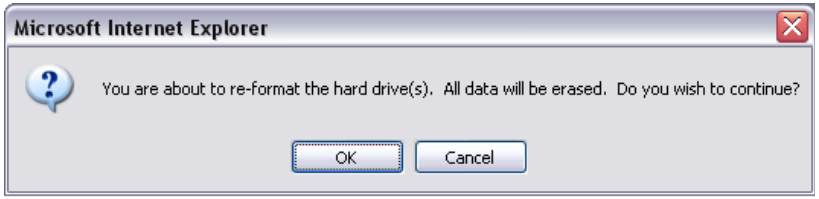
- Standard
- JBOD
- RAID 1
- RAID 5

Or select **Custom Configuration** and then click **Next**.

***Note:*** *All data will be erased off the hard drives installed in the DNS-343 during the format process!*

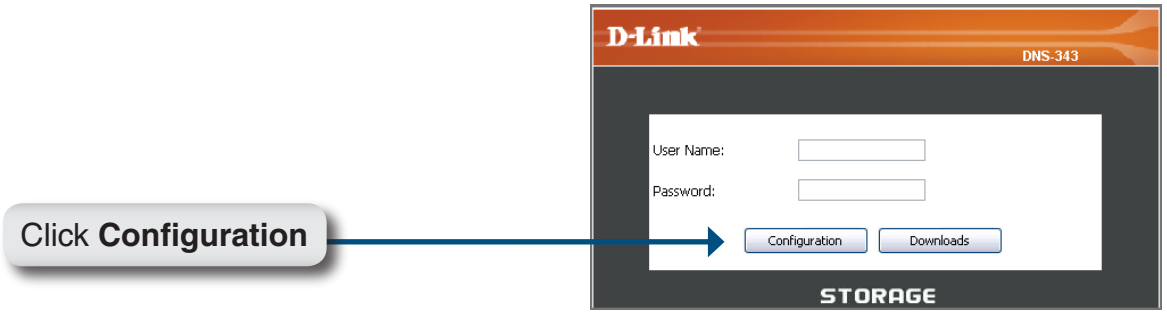



A warning message appears informing you that your drives will be formatted and all data will be erased. Click **OK** to continue.



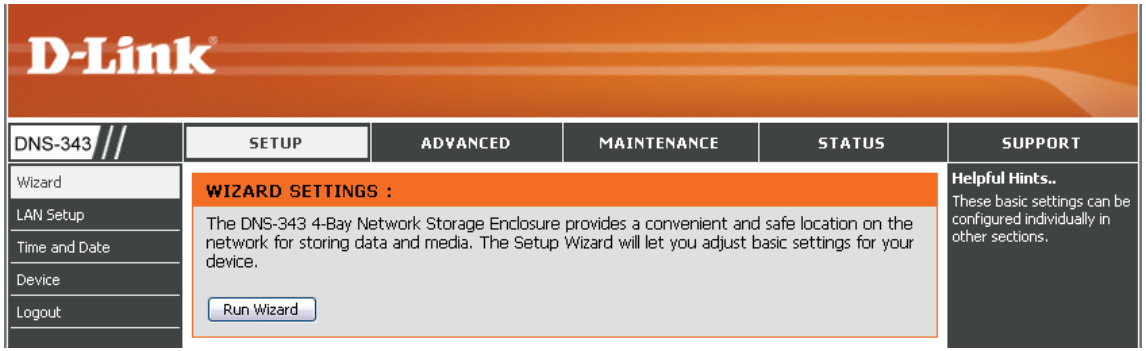
When the formatting completes, the *Format Results* screen will appear. Click **Restart** to finish the format procedure. Then click OK to confirm and restart the DNS-343.

When the system restarts you will be prompted to login to the DNS-343. Login to the DNS-343 with the username and password you created previously



# Web UI

After login, you will be redirected to the DNS-343 web UI:



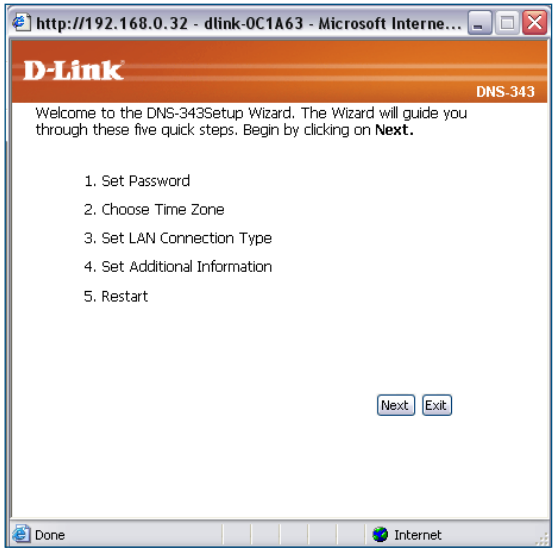

The DNS-343 web UI defaults to the *Setup* page. The main categories for configuration are located in the menu tabs at the top of the page. These categories include:

- **Setup** - Contains the DNS-343 setup Wizard, LAN Setup, Time and Date settings and Device settings.
- **Advanced** - Allows the DNS-343 administrator to configure RAID options, Users, groups of users and their storage quotas. The FTP Server, UPnP AV server, iTunes server, LLTD, and DHCP server settings are also contained here as well.
- **Maintenance** - Allows the DNS-343 administrator to reset the Admin Password, perform System maintenance tasks, carry out Firmware Upgrades, configure e-mail alerts, configure Power Management options, configure Dynamic DNS, change the LCD Display settings and get diagnostic information about the installed Hard Disks.
- **Status** - Shows current information about the LAN configuration, Device, Printer and Hard drives installed.
- **Support** - Contains help files for your DNS-343.

# Setup
## Wizard

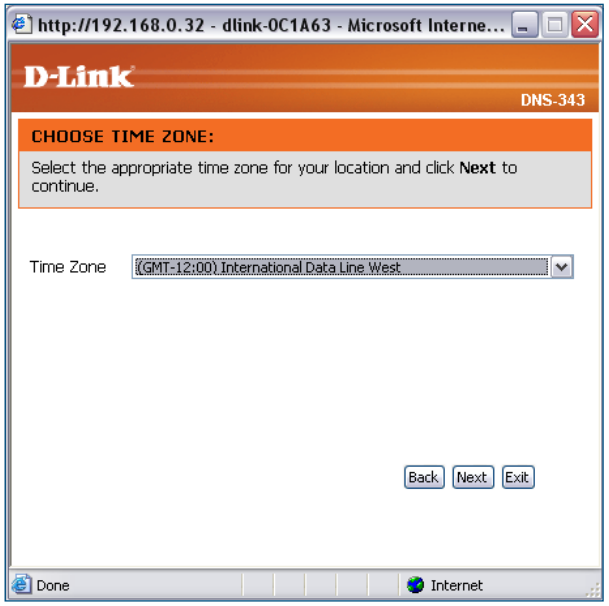
The DNS-343 has a setup Wizard that allows you to configure the basic settings for your device.

When running the DNS-343 setup wizard, the welcome screen displays a summary of the five steps of the wizard. Click **Next** to continue.



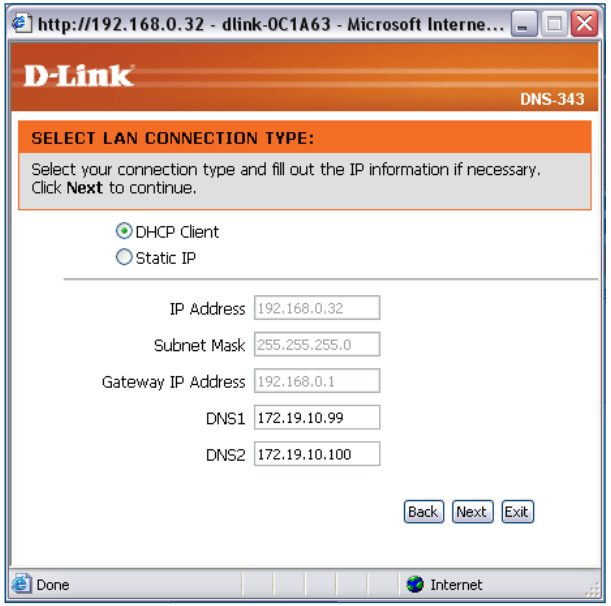

It is recommended that you set an admin password to access the web manager. Type a New Password in the space provided and type it again in the Confirm Password space. Click **Next** to continue.

Choose your Time Zone from the drop-down menu. Click **Next** to continue.

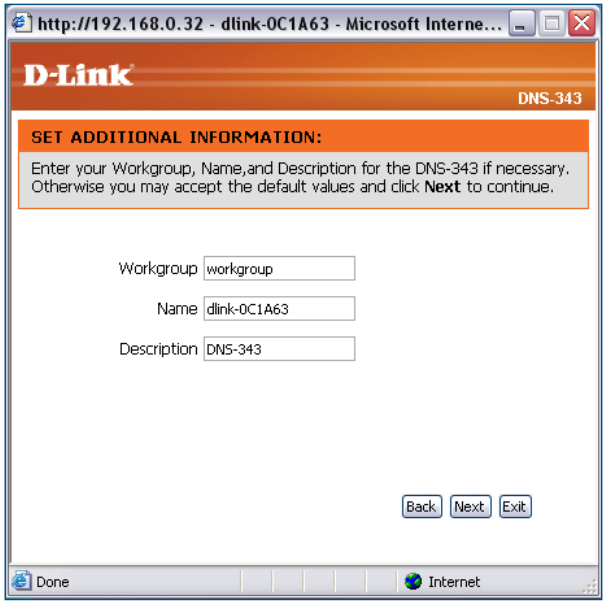



Configure the IP settings for your device. If you are using a DHCP server such as a router on your network, the DNS-343 will automatically obtain the IP settings.

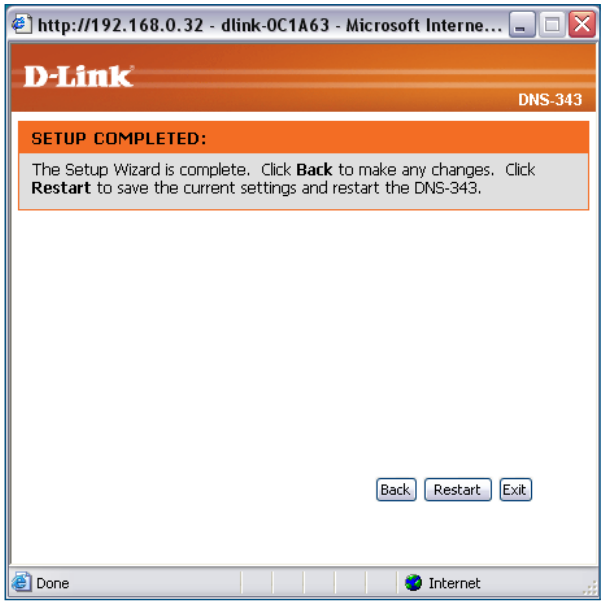
If you prefer to assign a Static IP address, select **Static IP** and enter the network setting for your device. Click **Next** to continue.



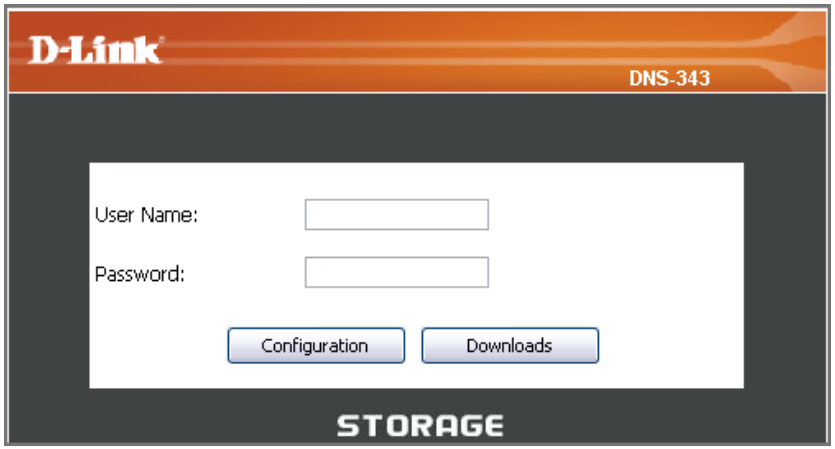
Enter the workgroup, name, and description for your DNS-343, or leave the default values and click **Next** to continue.




Click **Back** to make changes or click **Restart** to save your settings and reboot the DNS-343.



When the login prompt appears, login using the new administrator password. Then click **Configuration** to access the configuration page of your DNS-343.



# LAN

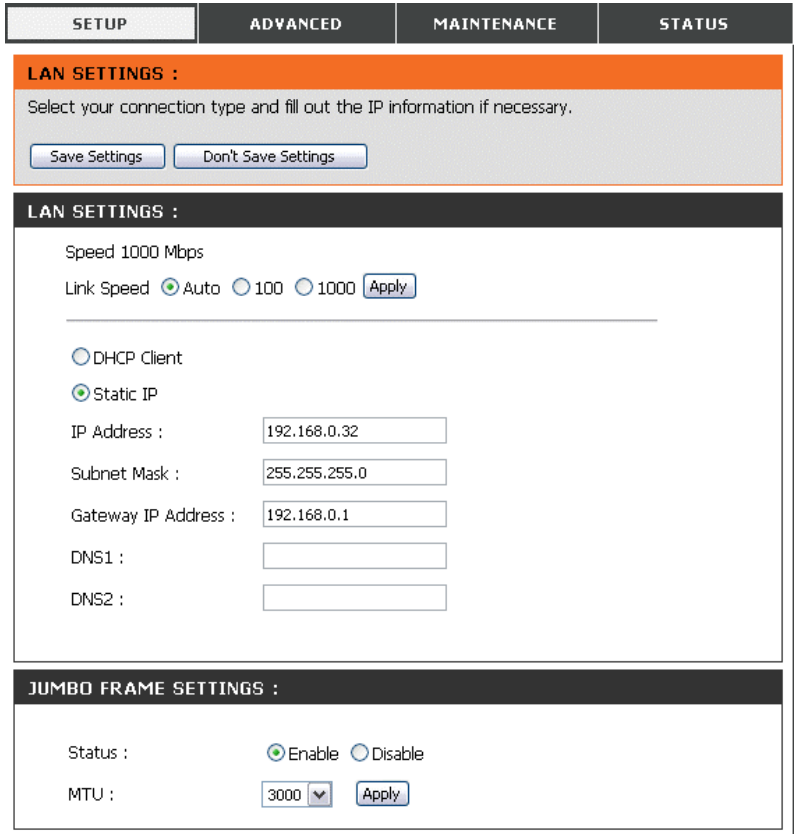
In this section, you can configure the LAN settings for your DNS-343.

**Link Speed** The LAN Link Speed is set to Auto by default, but can be manually set to 100Mbps or 1000Mbps.

**DHCP Client** Select **DHCP Client** to obtain an IP address from your DHCP server.

**Static IP** Select **Static IP** to assign the IP information for the DNS-343 manually.

**Jumbo Frames** The DNS-343 can support Jumbo Frames that are between 3000 and 9000 bytes in size. In order to enable Jumbo Frames on the DNS-343, click the **Enable** radio button and select an MTU size from the MTU combo box.




Click on the **Save Settings** button to apply and save the new settings. If you have changed the IP address or selected **DHCP client**, it will be necessary to log in again using the new IP address. If you do not know the new address (as would likely be the case when changing from a static IP address to DHCP client), use the **Easy Search Utility** on the Installation CD to obtain the IP address of your device.

# Time and Date

The system time and date can be set manually or configured from an NTP server.

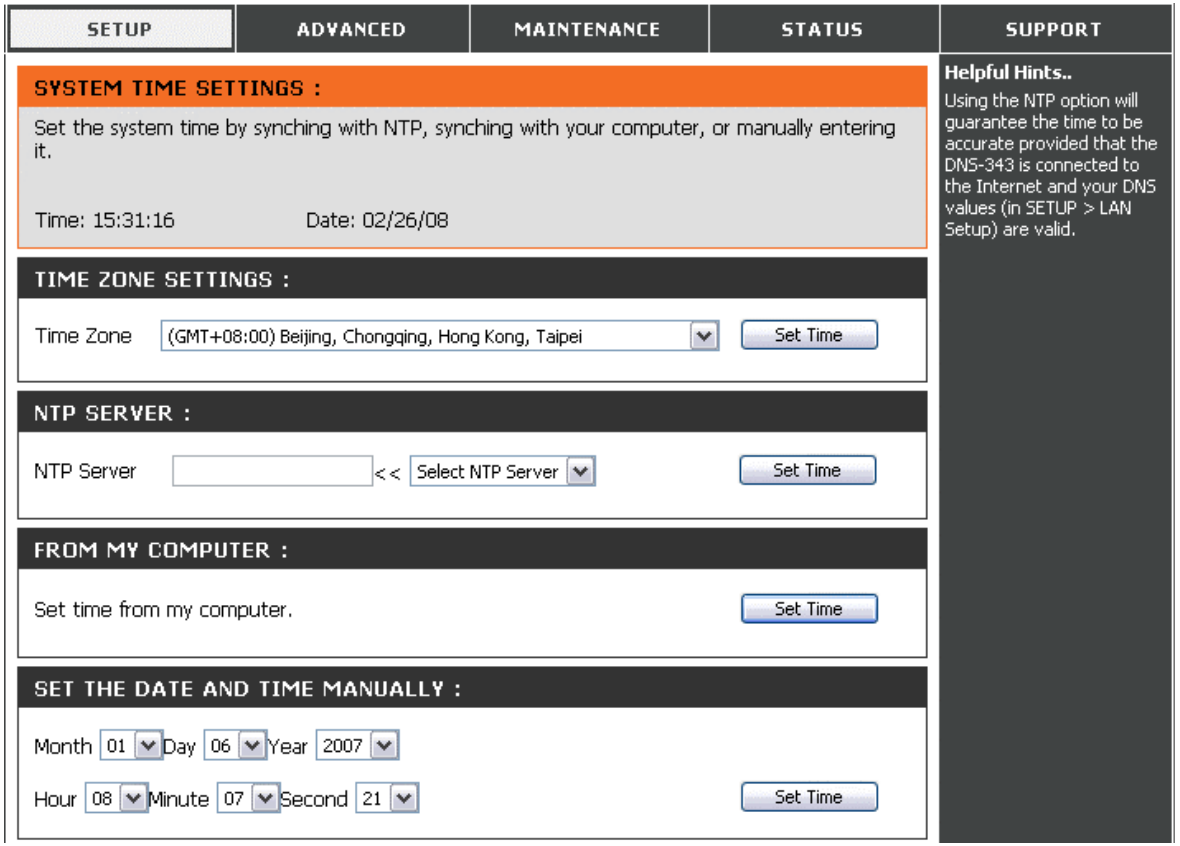
**Time Zone** Select your time zone from the drop-down menu.

**NTP Server** Network Time Protocol (NTP) synchronizes the DNS-343 with an Internet time server.

D-Link provides two time servers for your convenience. Choose the one closest to your location.

**From My Computer** This option will synchronize the DNS-343 clock with your computer.

**Set Date and Time Manually** This option allows you to set the time and date manually. Enter the appropriate time and date and click **Set Time.**



# Device Settings

This section allows you to assign a workgroup name, name, and a description to the DNS-343.

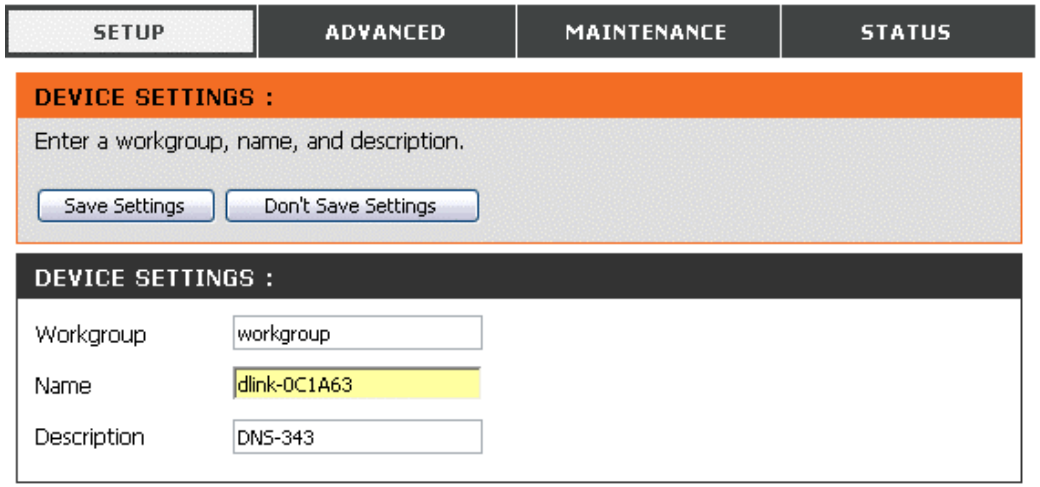
**Workgroup** The Workgroup is used by Microsoft® Windows Network to organize available network groups within the same network.

**Name** The unique Name appears for other network services including shared libraries on iTunes® and other media players.

The name can be used to access your device from a web browser instead of using an IP address, for example, http://dlink-xxxxxx. This is useful when there is more then one DNS-343 on the network.

By default the device name is d-link-xxxxxx, where xxxxxx is the last six digits of the MAC address.

**Description** Assigns a device description to the DNS-343.



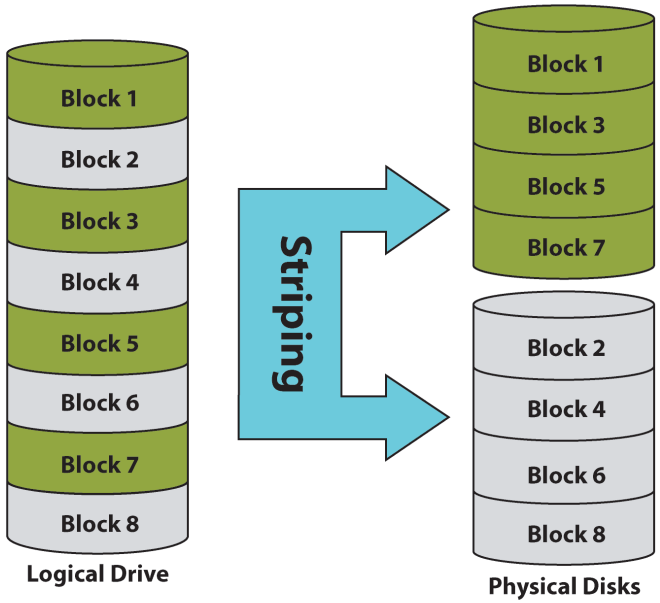
# Advanced

## RAID

RAID, short for Redundant Array of Independent Disks, is a combination of two or more disks with the aim of providing fault tolerance and improving performance. There are several different levels of RAID, with each one providing a different method of sharing or distributing data among the drives.

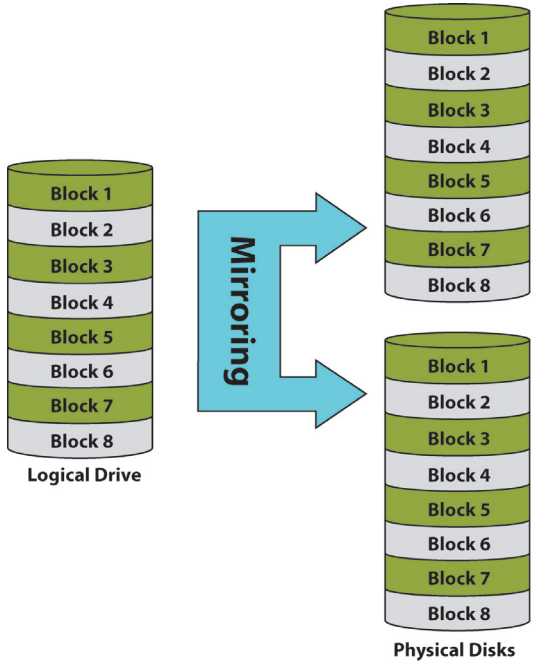
**RAID 0** RAID 0 provides *data striping*, which spreads out blocks of data over all drives, but does not provide data redundancy.

Although performance is improved, the lack of fault tolerance means that if one drive fails, all data in the array will be lost.




**RAID 1** RAID 1 provides *mirroring* over multiple disks, with the same read/write speed of a single disk. A RAID 1 array can only be as large as it's smallest member disk.

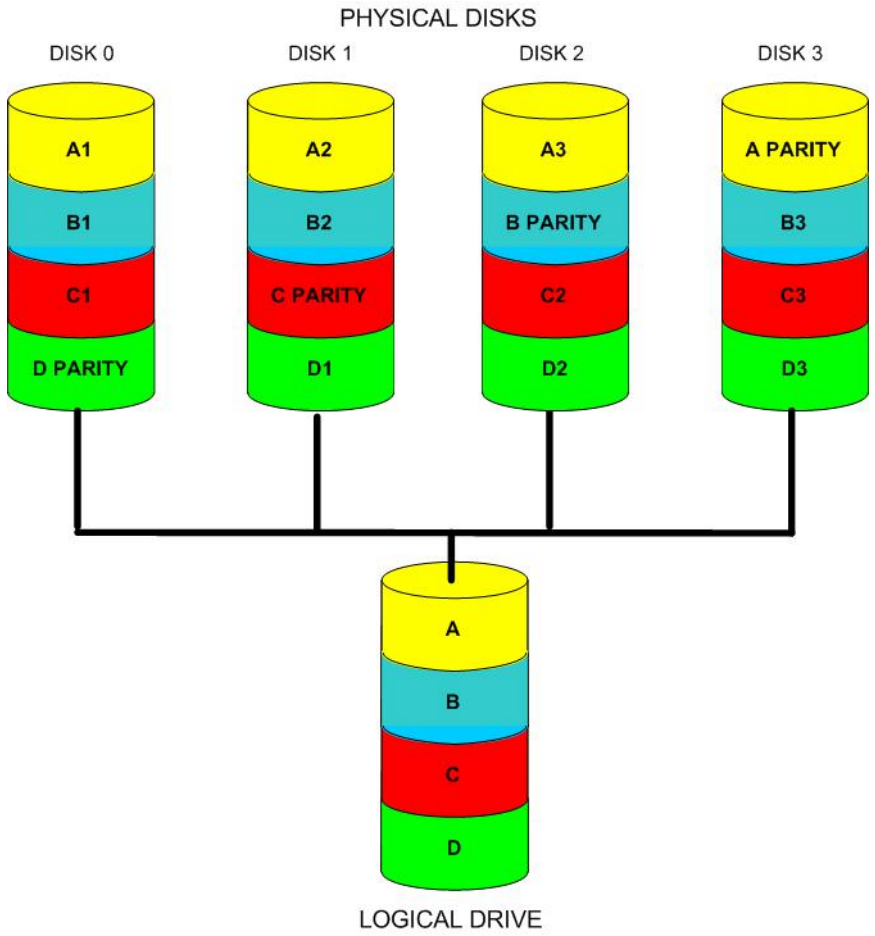
Because the data is stored on multiple disks, RAID 1 provides fault tolerance and protection, in addition to performance advantages.



RAID 5 provides data striping with distributed parity, which stores information that can be used to reconstruct data. A RAID 5 array will be the size of all the combined disks capacity less the capacity of one disk, e.g. If there are 4x 80GB disks in the array, the arrays capacity will be 240GB (3x80GB).

Implementing RAID 5 on the DNS-343 allows it to continue operating even if one of the disks fails.

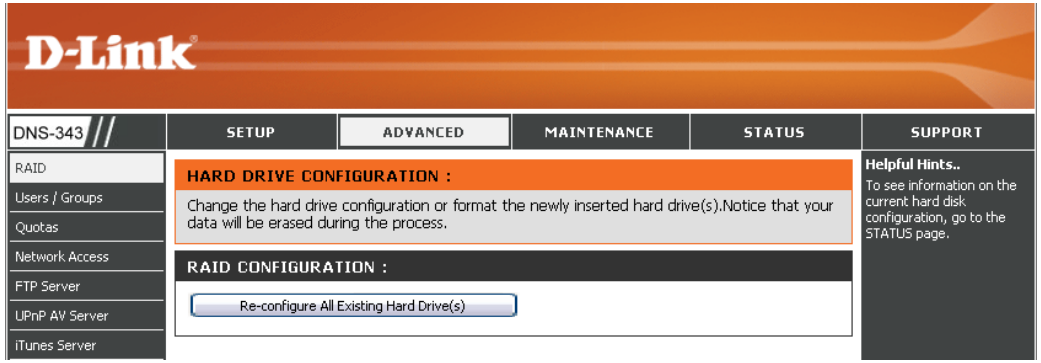
The diagram below indicates the operation of RAID 5.



The DNS-343 supports the following configuration types: **Standard**, where each drive is a unique volume, **JBOD**, which combines both drives in a linear fashion to create one volume, **RAID 1** and **RAID 5** with a Basic Configuration and a combination of RAID 0/JBOD, RAID 1/JBOD and RAID 5/JBOD for Custom Configuration.

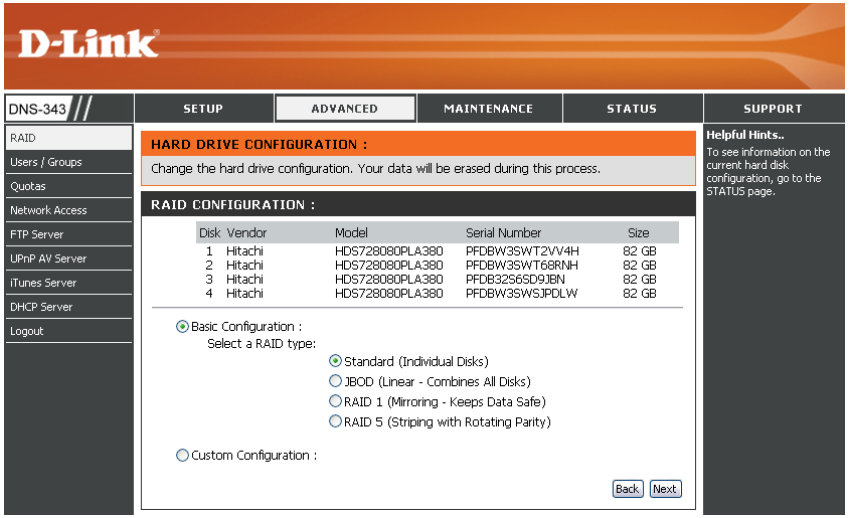
Click **Re-configure All Existing Hard Drive(s)** to setup the RAID configuration.

***Note:*** *All data will be lost when changing the drive configuration:*

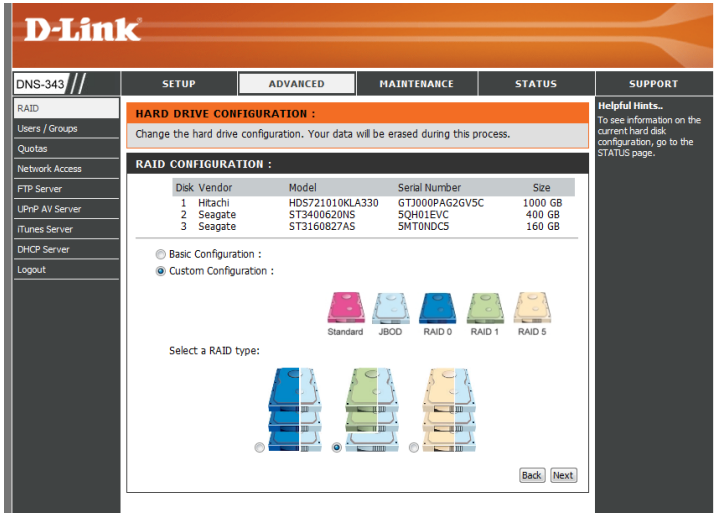



The following screen appears showing the disks installed in the system. This screen also allows the administrator to choose a RAID configuration type for this device. Select either **Basic Configuration** or **Custom Configuration**.

Basic Configuration




Custom Configuration



# Users and Groups

The Users/Groups menu is used to create and manage user and group accounts. These are used for user access and read/write privileges for specified folders on the network drive (using the Network Access menu), or to setup FTP access and privileges. Up to 64 users and 10 groups can be created. By default all users have read and write access to all folders but access rules can be created in the Network Access menu.

To create user names and passwords in the *User/Group Creation* menu:

- Type a unique User Name for each user added
- Enter and confirm the user Password
- Click **Add** to create the new user.

The user will be added to the *User List* and will be available for assignment to a user group if you choose to create groups.

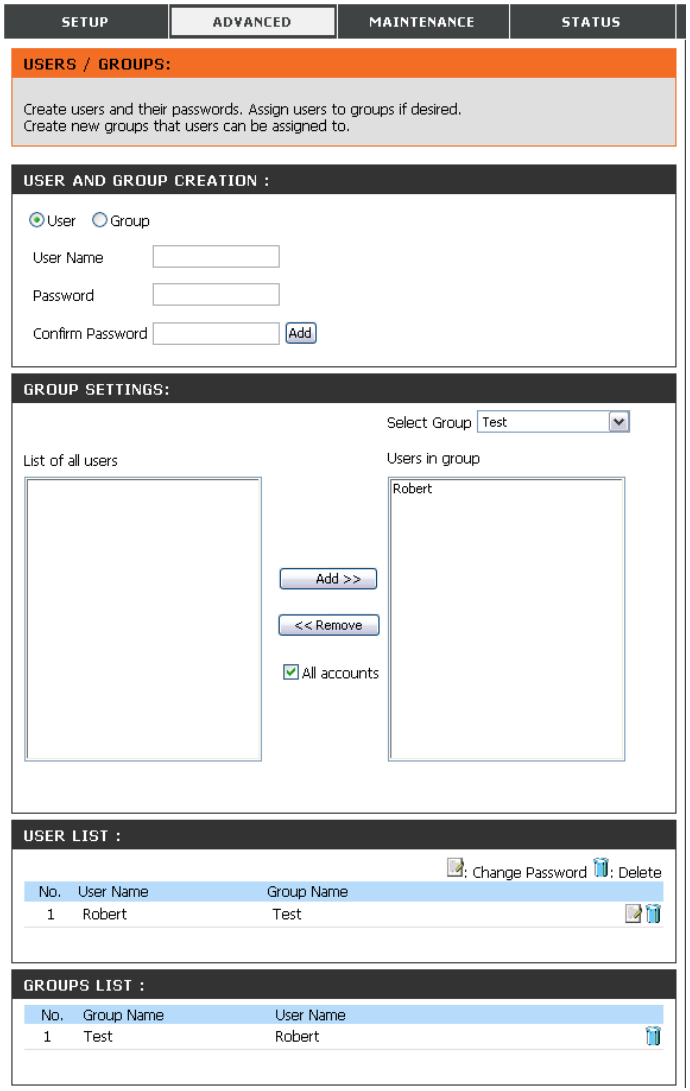
To create a Group:

- Select the **Group** option in the *User And Group Creation* menu
- Type a unique group name in the *Add New Group* space and click **Add**.

The group will appear in the *Group List* and will be available for user assignment in the *Group Settings* menu.

To add a user to a user group, under *Group Settings*:

- Select an available group from the *Select Group* drop-down menu
- Highlight the user from *List of all users*
- Click the **Add>>** button



The user is now listed in the *Users in group* list.

To delete a user from a group, under *Group Setting*:

- Select the group
- Highlight the user to be removed
- Click the **<<Remove** button

To remove a user or group from the User or Group lists, click the trash can icon of that group or user.

To change a user password, click the notepad icon of the user.

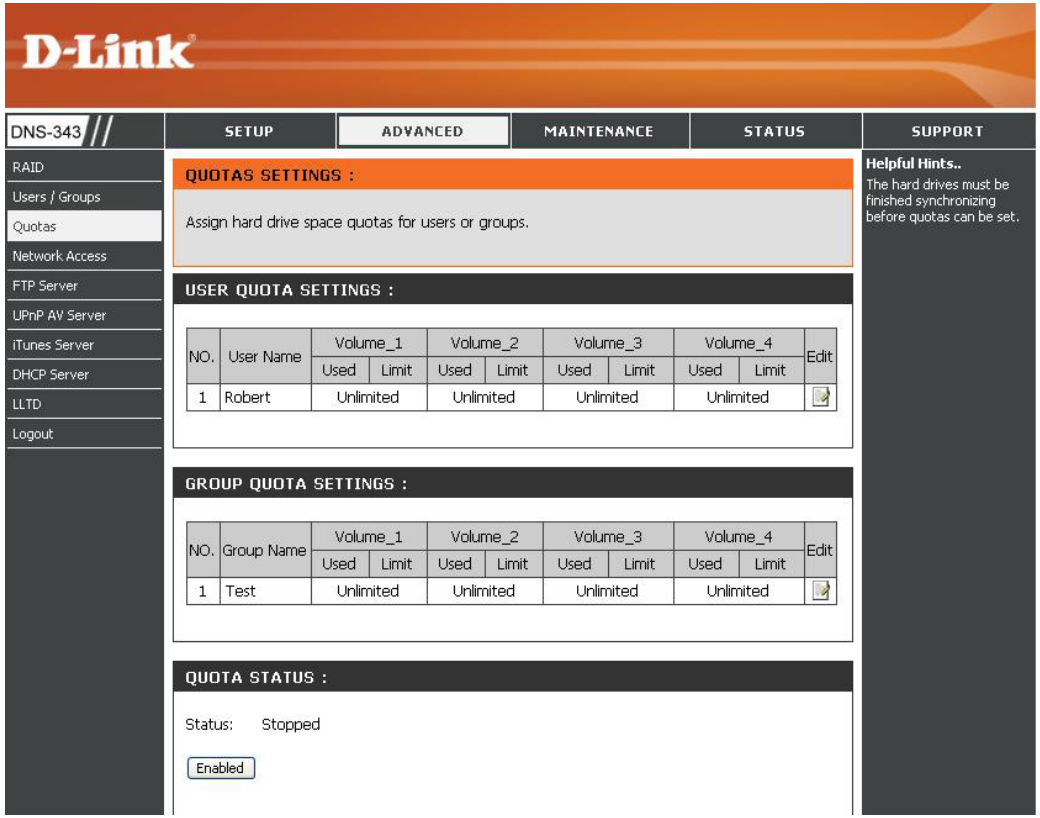
# Quotas

The DNS-343 supports storage quotas for both groups and individual users. Assigning a quota to a group or user will limit the amount of storage they are allocated. By default, users and groups do not have a quota.

**User Quota Settings** User quotas are displayed here. Quotas can be edited by clicking on the notepad icon.

**Group Quota Settings** Group quotas are displayed here. Quotas can be edited by clicking on the notepad icon.

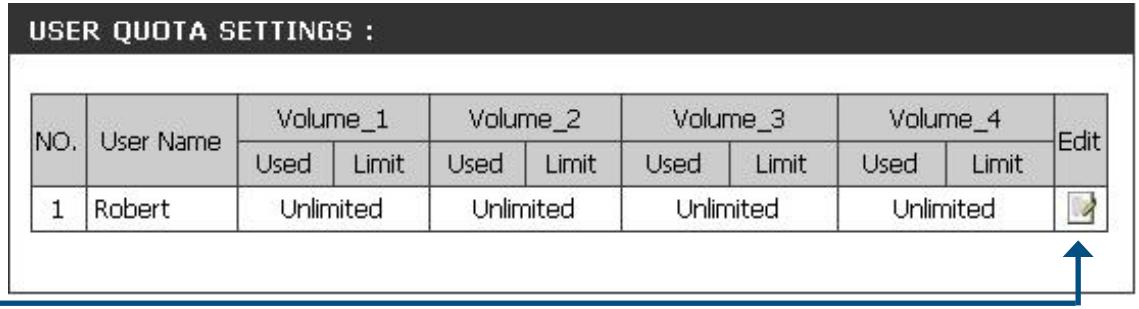
**Quota Status** Displays the current status of the quota feature. The quota function can be started or stopped here.



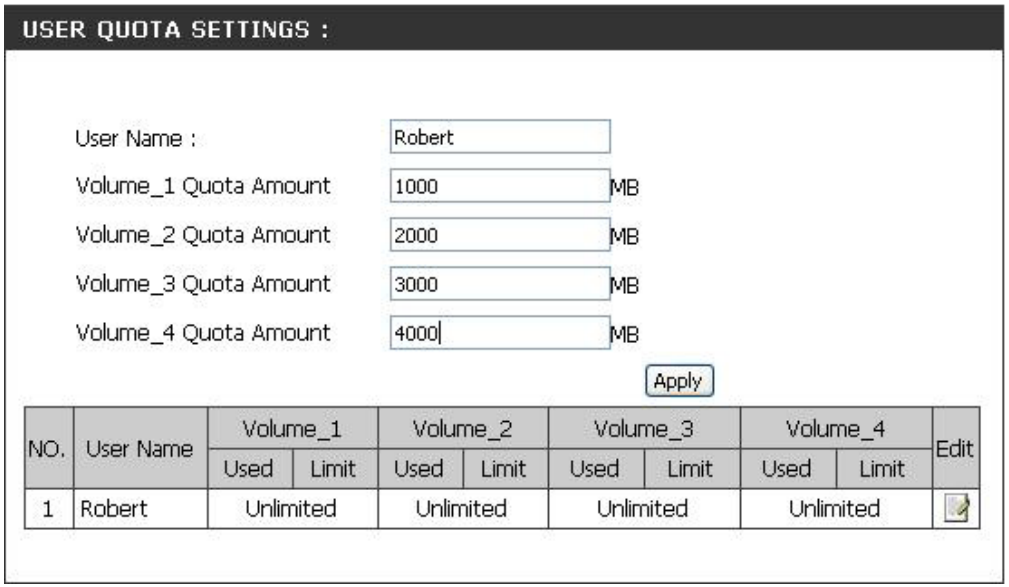
# Configuring Quotas

All users and groups are automatically listed on this page, and cannot be deleted. The default quota setting is "Unlimited".

To add a quota for a particular user or group, you must perform the following:

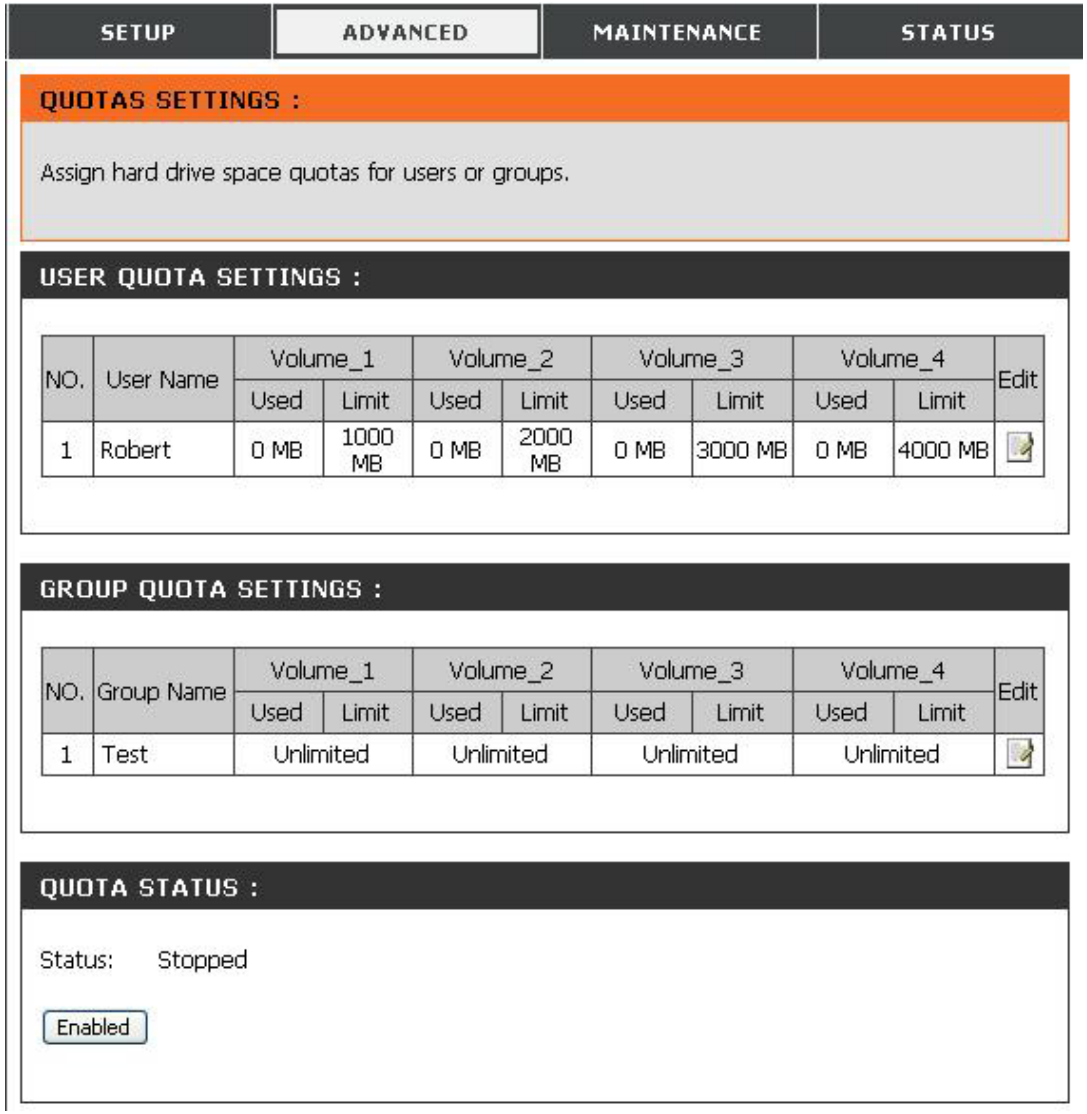



Click the notepad icon of the user you want to add a quota to.




Set a quota amount (MB) for the user and click **Apply**.

This screen will display and indicate all updated quota settings.



# Network Access

This section allows you to assign the access rights for your users and groups to specific folders or volumes. By default, all volumes are open to anyone on the local network with read/write access. Before specific user or group rules can be created, the default rules must be deleted.

**Network Access Settings** Assign permissions for users and groups on the local network here.

**Category** Determines whether the access rule will apply to a group or individual user.

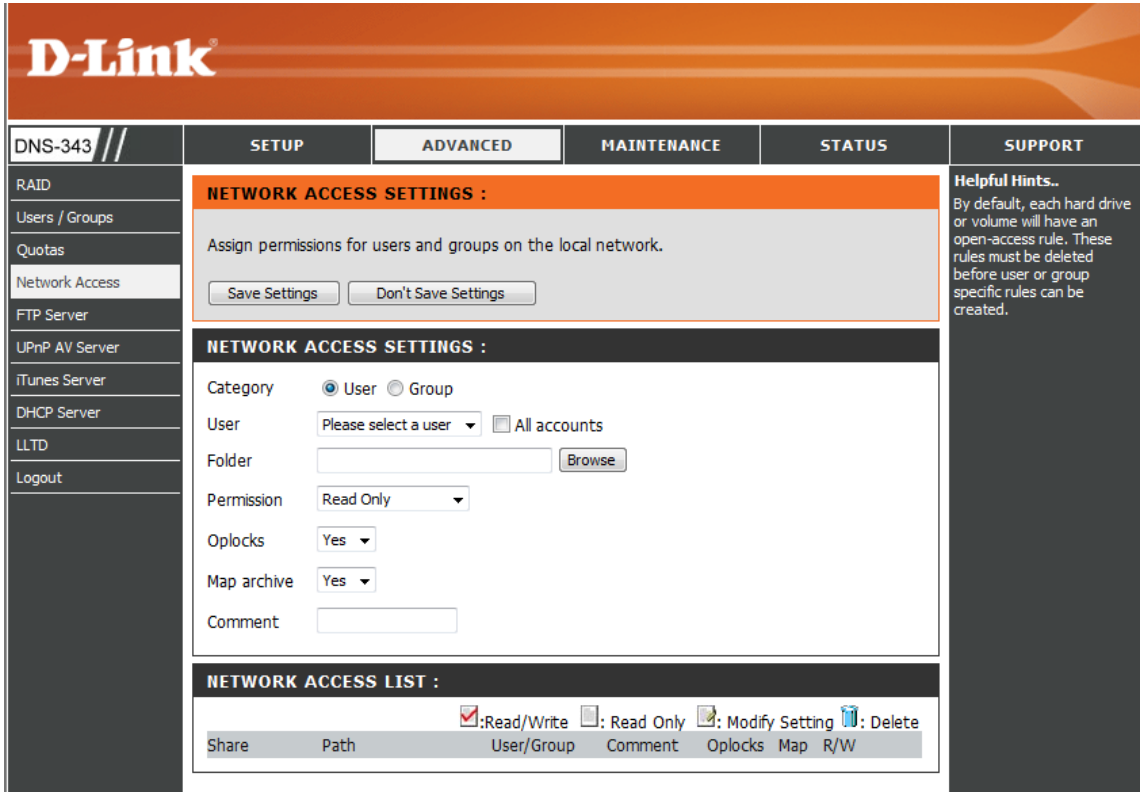
**User / Group** Select the user or group the access rule will apply to.

**Folder** Browse to and select the folder or directory you are controlling access to.

**Permission** Set the user or group permission to Read Only or Read/Write.

**Oplocks** Opportunistic locks (oplocks) are a characteristic of the LAN Manager networking protocol implemented in the 32-Bit Windows family. Oplocks are guarantees made by a server for a shared logical volume to its clients. These guarantees inform the Client that a file's content will not be allowed to be changed by the server, or if some change is imminent, the client will be notified before the change is allowed to proceed.

Oplocks are designed to increase network performance when it comes to network file sharing however when using file-based database applications it is recommended to set the share oplocks to **No(off)**.



By default Windows® Vista™ has Oplocks enabled and can not be disabled. If you are having network performance issues with applications sharing files from the DNS-343 you may try to improve performance by setting Oplocks to **No(off)**.

**Map Archive** When enabled, the file attribute ”Archive” will be copied as the file is being stored on the DNS-343. Certain backup software attach this attribute to files that are being stored as backups.

**Comment** Enter a comment for reference or description of the rule.

**Network Access List** Lists all defined access rules.

# FTP Server

## FTP Server Settings

The DNS-343 is equipped with a built in FTP Server. The server is easy to configure and allows up to 10 users to access the server locally or remotely at the same time.

**FTP Server Settings** This section contains the configuration settings for the DNS-343 FTP Server.

**Category** Determines whether the FTP server rule will apply to an individual user or a group.

**User / Group** Select the group or user the FTP server rule will apply to.

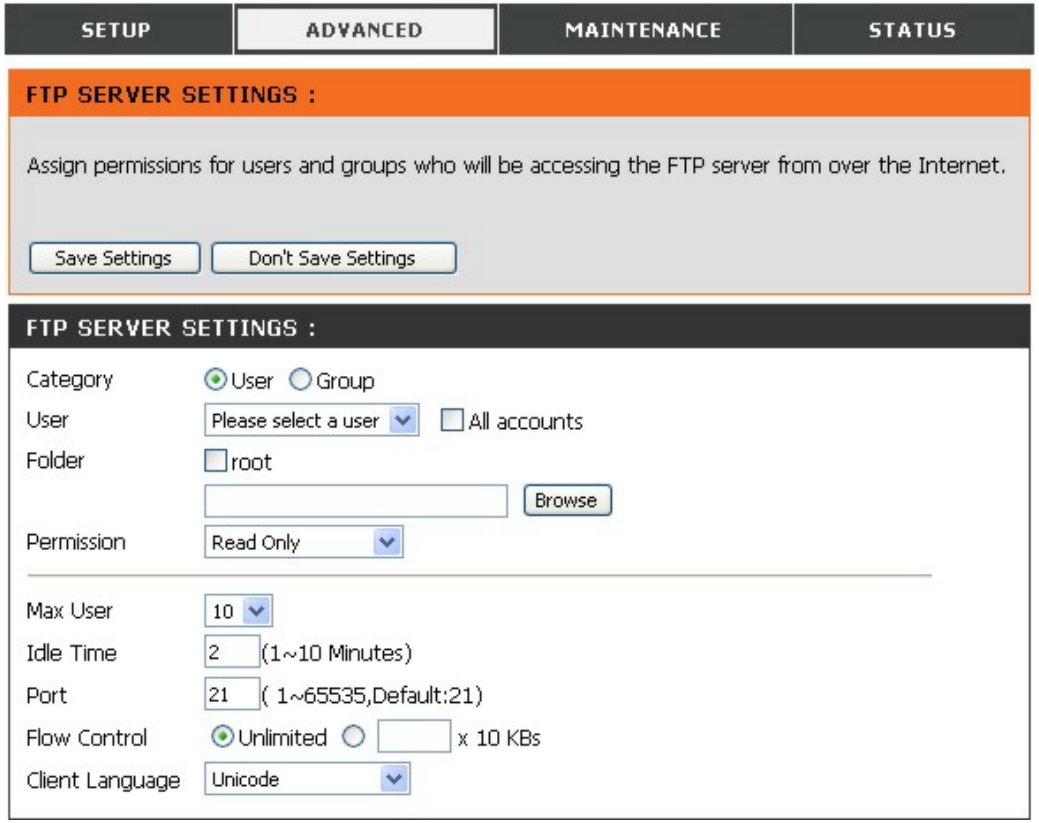
**Folder** Browse to and select the folder or directory you are granting FTP access to. Select **root** to grant access to all volumes.

**Permission** Set the user or group permission to Read Only or Read/Write.

**Max User** Sets the maximum amount of users that can connect to the FTP server.

**Idle Time** Sets the amount of time a user can remain idle before being disconnected.

**Port** Sets the FTP port. Default is 21.




**Flow Control** Allows you to limit the amount of bandwidth available for each user.

**Client Language** Specify alternate input characters allowed for FTP connection requests.

***Note:*** *If your Internet access is controlled through a router, or if your network uses a firewall device of any kind, it will likely be necessary to configure the router or firewall device to allow FTP requests from the Internet. Often it is possible to configure the router to direct FTP traffic to specified devices, in this case, to the DNS-343. Usually, at a minimum, it is necessary to enter the IP address of the DNS-343 and the TCP port used for FTP (port 21). See the user documentation of the firewall device or router for information on creating forwarding rules for FTP traffic to devices on the LAN.*

# FTP Server Status

**FTP Access List** Displays users and/or groups that have access and their user rights.

**Status** Displays if the FTP server is started or stopped.

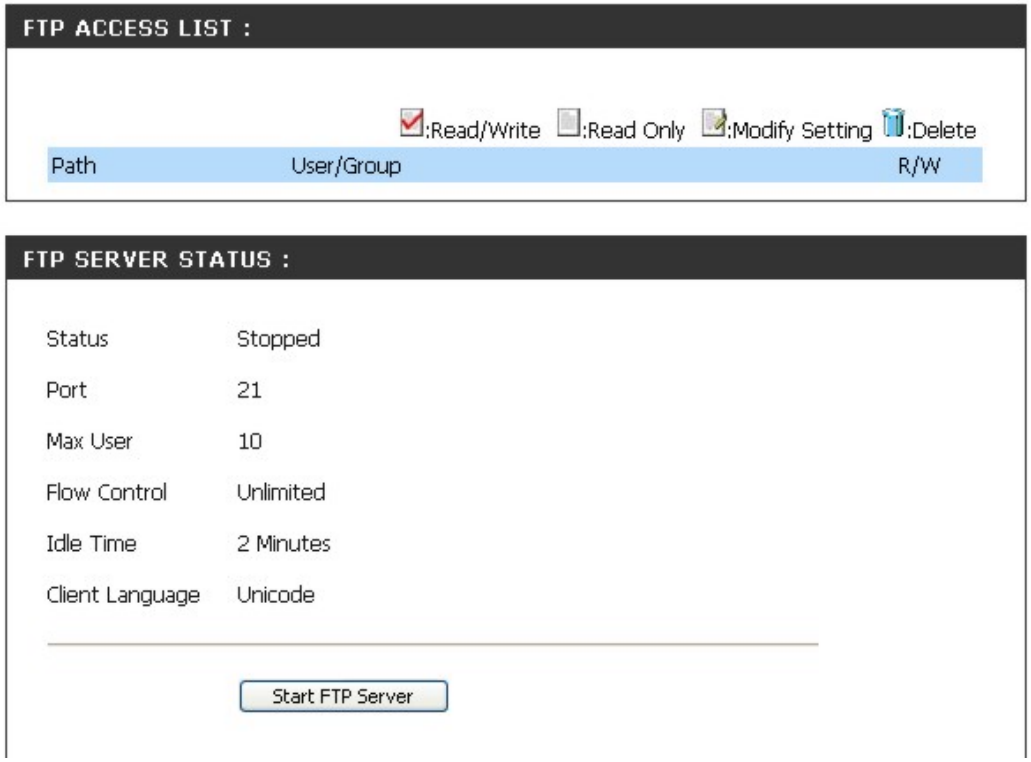
**Port** Displays the FTP Port.

**Max User** Displays the maximum number of users.

**Flow Control** Displays the flow control status.

**Idle Time** Displays the idle time before disconnecting the user.

**Client Language** Displays the client language set for this FTP server.



# FTP Server Behind a Router

If you are behind a router, you will need to forward the FTP port from the router to the DNS-343. Additional filtering and firewall settings may need to be modified on your router to allow FTP Access to the DNS-343 from the Internet. Once the port has been forwarded on the router, users from the internet will access the FTP server through the WAN IP address of the router.

If you are using a D-Link router, such as the WBR-2310 used in the example below, your port forwarding rule should be similar to the following:

**Name** Name the DNS-343 FTP server rule.

**IP Address** Enter the IP address of the DNS-343.

**Public Port** Enter the public FTP port. By default, the port is 21.

**Private Port** Enter the private FTP port. By default, the port is 21.

**Traffic Type** Set the traffic type to TCP.

If you use an FTP port other than 21, then users accessing the FTP server using an FTP client will have to specify the non-standard port, and users who are using a browser will have to specify the port in the URL (e.g. ftp://ftp.dns323.com:3000, where the FTP port is 3000).

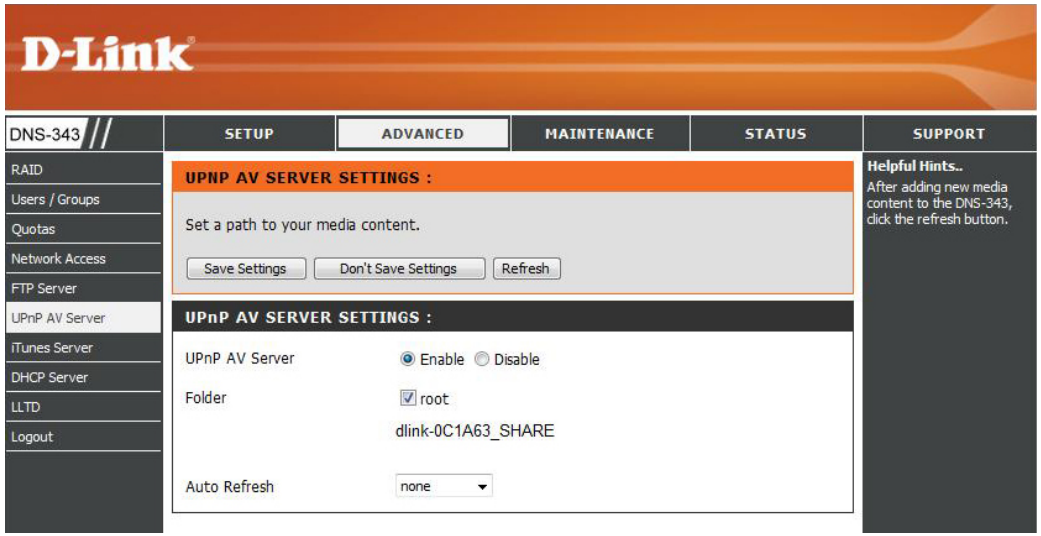
# UPnP AV Server

The DNS-343 supports media streaming service to UPnP AV compatible clients on the local network. Use the UPnP AV Server menu to select the media content made available to such clients. By default the UPnP server is enabled. The root checkbox specifies access to media content on all volumes and folders on the drive. Click on the **Save Settings** button to apply and save the new settings.

**UPnP AV Server** Select **Enable** or **Disable** to enable or disable the DNS-343 UPnP AV server.

**Folder** Specifies the folder or directory that will be shared by the UPnP AV server. Select **root** to share all files on all volumes, or click **Browse** to select a specific folder.

**Auto Refresh** Select the auto refresh mode from the drop-down menu.




When content is added or deleted from the available folders, click the **Refresh** button and the DNS-343 will scan for file updates. While the update scan is underway, the AV media will not be available for use by clients on the network.

# iTunes Server

The DNS-343 features an iTunes Server. This server provides the ability to share music and videos to all the available computers within your local network. If the server is enabled, the DNS-343 will be automatically detected by the iTunes program, and the music and videos contained in the specified directory will be available to stream over the network.

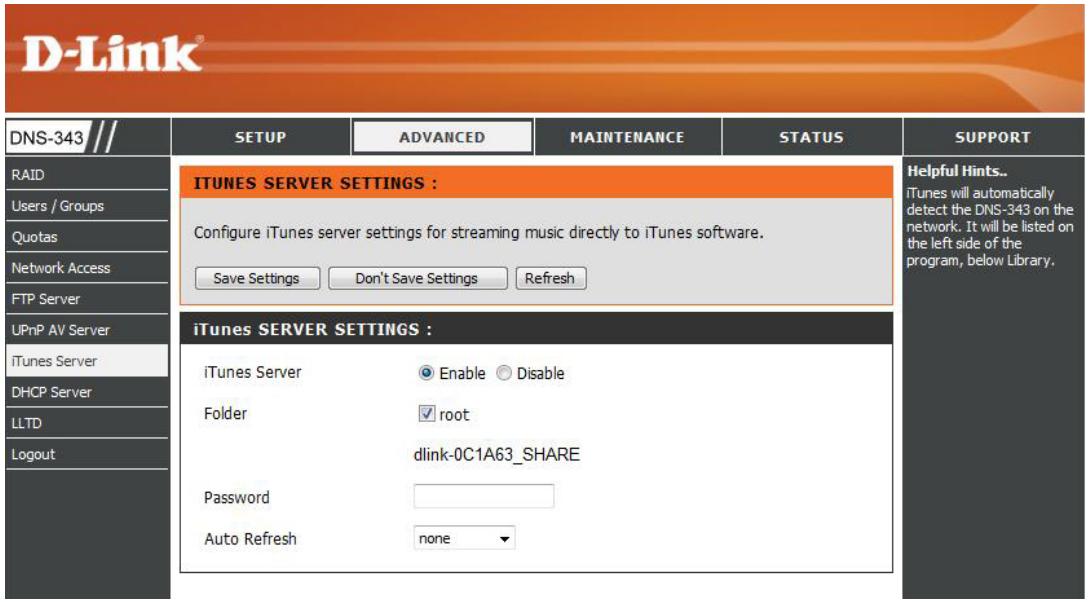
**iTunes Server** Select **Enable** or **Disable** to enable or disable the DNS-343 iTunes server.

**Folder** Specifies the folder or directory that will be shared by the iTunes server. Select **root** to share all files on all volumes, or click **Browse** to select a specific folder.

**Password** Sets password for the iTunes server. (Optional)

**Auto Refresh** Select the auto refresh mode from the drop-down menu.

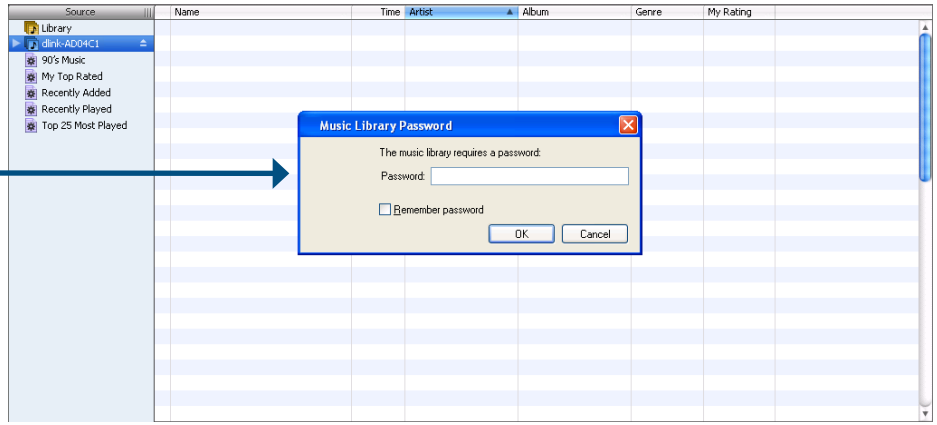
**Save Settings** Click on the **Save Settings** button to apply and save the new settings.



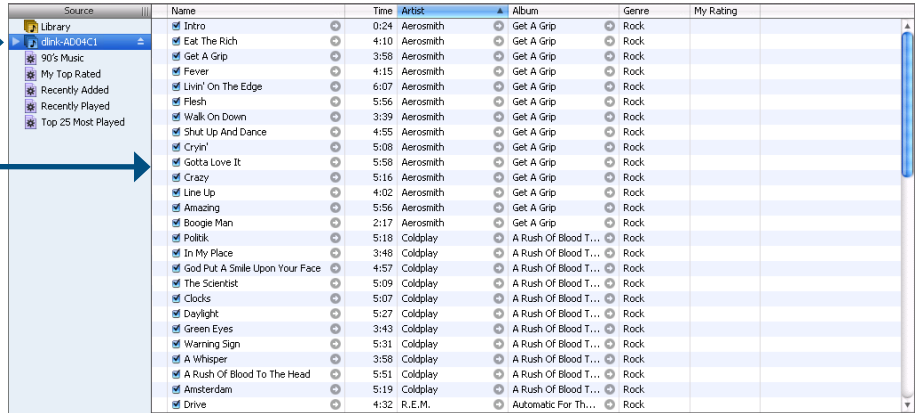

When content is added or deleted from the available folders, click the **Refresh** button and the DNS-343 will scan for file updates. While the update scan is underway, iTunes files will not be available for use by clients on the network.

After enabling the iTunes server on the DNS-343, launch iTunes. When iTunes detects the DNS-343, select it and you will be prompted to enter the iTunes server password if required.

Select the DNS-343. When prompted, enter in the iTunes server password. Click **OK**.




Media stored on the DNS-343 will then be available for use in iTunes.



# DHCP Server

The DNS-343 can be used as a DHCP Server. As a DHCP server, it can be used to serve IP addresses to devices on your local network. However, this feature should not be enabled if you already have a DHCP server, such as a router on your local network.

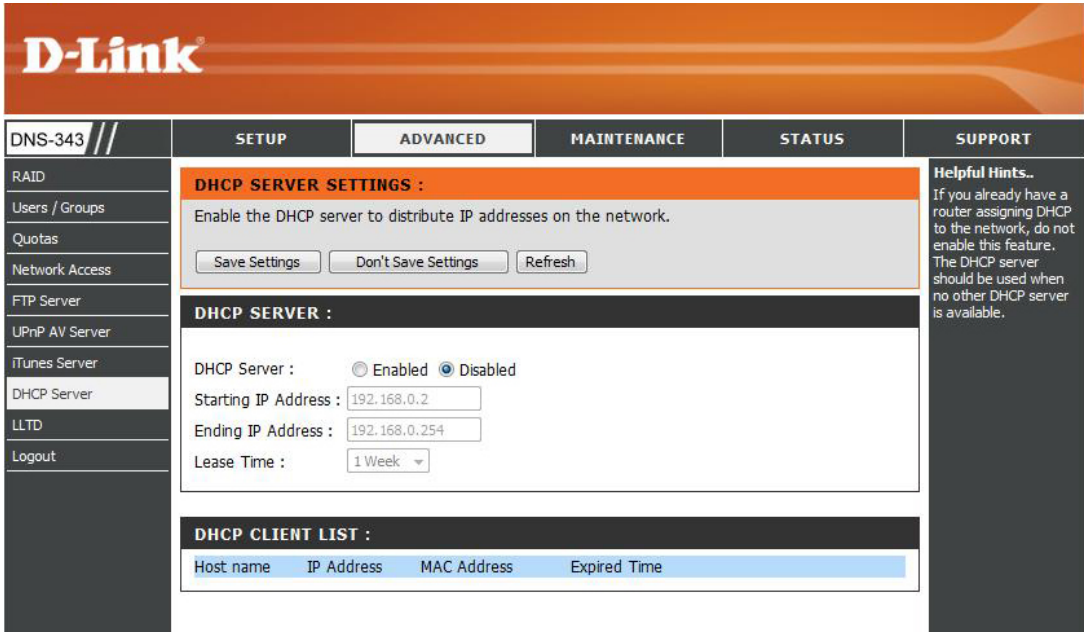
**DHCP Server** Enables or Disables the DNS-343 DHCP Server.

**Starting IP Address** Enter the starting IP address for the range of addresses assigned by the DHCP server.

**Ending IP Address** Enter the ending IP address for the range of addresses assigned by the DHCP server.

**Lease Time** Sets the duration of time that an IP address will remain assigned to a device.

**Save Settings** Click on the **Save Settings** button to apply and save the new settings.



# Maintenance
## Change Admin Password

The Admin menu allows you to set a password for your admin account. It is recommended to set an admin password when first configuring your DNS-343.

**User Name** The administrator user name is *admin,* and this cannot be changed.

**Password** Enter the current password. (Leave this blank if you have not set a password yet.)

**New Password** Enter a new password.

**Confirm Password** Enter the new password again for confirmation.

Click **Save Settings** to save the new password.

# System

The DNS-343 System menu provides options to perform a system restart, save and load configuration settings, and set idle times.

**Restart** Click **Restart** to reboot the DNS-343.

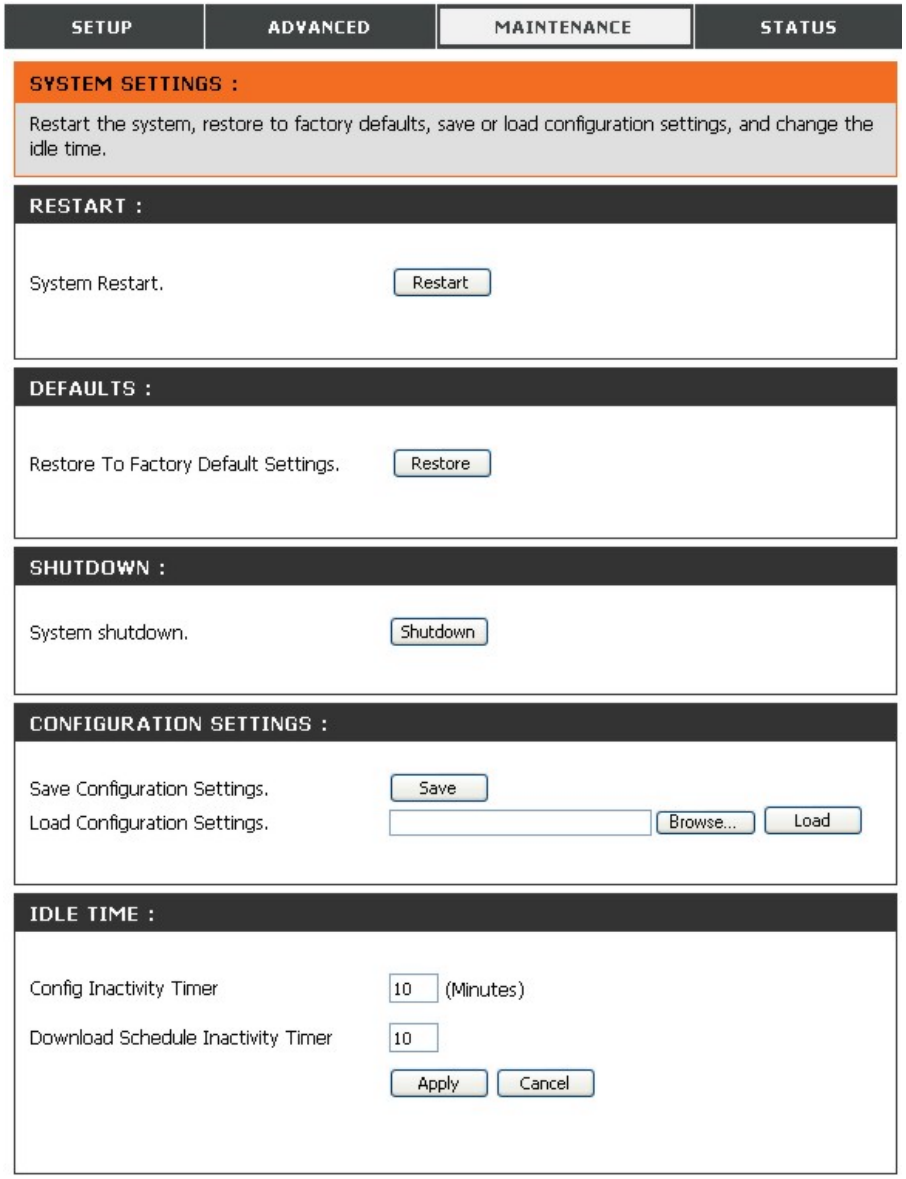
**Defaults** Click **Restore** to reset the DNS-343 to its factory default settings. This will erase all previous configuration changes.

**Shutdown** Click **Shutdown** to turn off the DNS-343.

**Configuration Settings** Click **Save** to save the current DNS-343 configuration settings to a file on the local computer. If at a later time you need to reload this configuration after a system reset, browse to the file and click **Load**.

**Idle Time** Enter the time (in minutes) that the administrator will be allowed to remain idle while accessing the DNS-343 configuration settings or that users will be allowed to remain idle while accessing the download schedule settings.

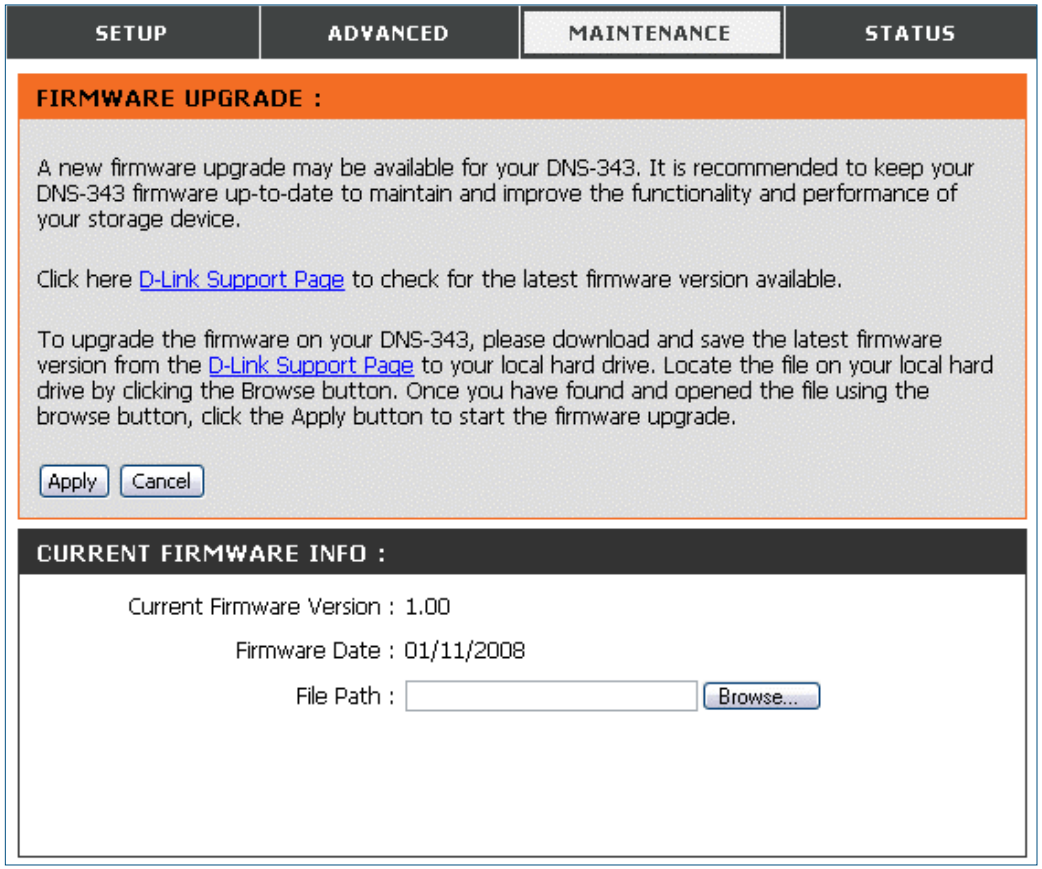
**Apply** Click **Apply** to save the settings.



# Firmware

This section allows you to check for new firmware releases and upload them to your device.

To upgrade the DNS-343 firmware, go the D-Link Support Page and download the latest version. When the download is completed, use the **Browse** button to locate the firmware file on your computer and click the **Apply** button to begin loading the firmware to your device.



# E-Mail Alerts

With the DNS-343 E-Mail Alerts, you can configure e-mails to be sent alerting you to certain operational conditions and drive status conditions. These alerts can prove helpful with the management and safeguarding of important data.

**Alert Settings** This section contains the configuration settings for your e-mail account and alert preferences.

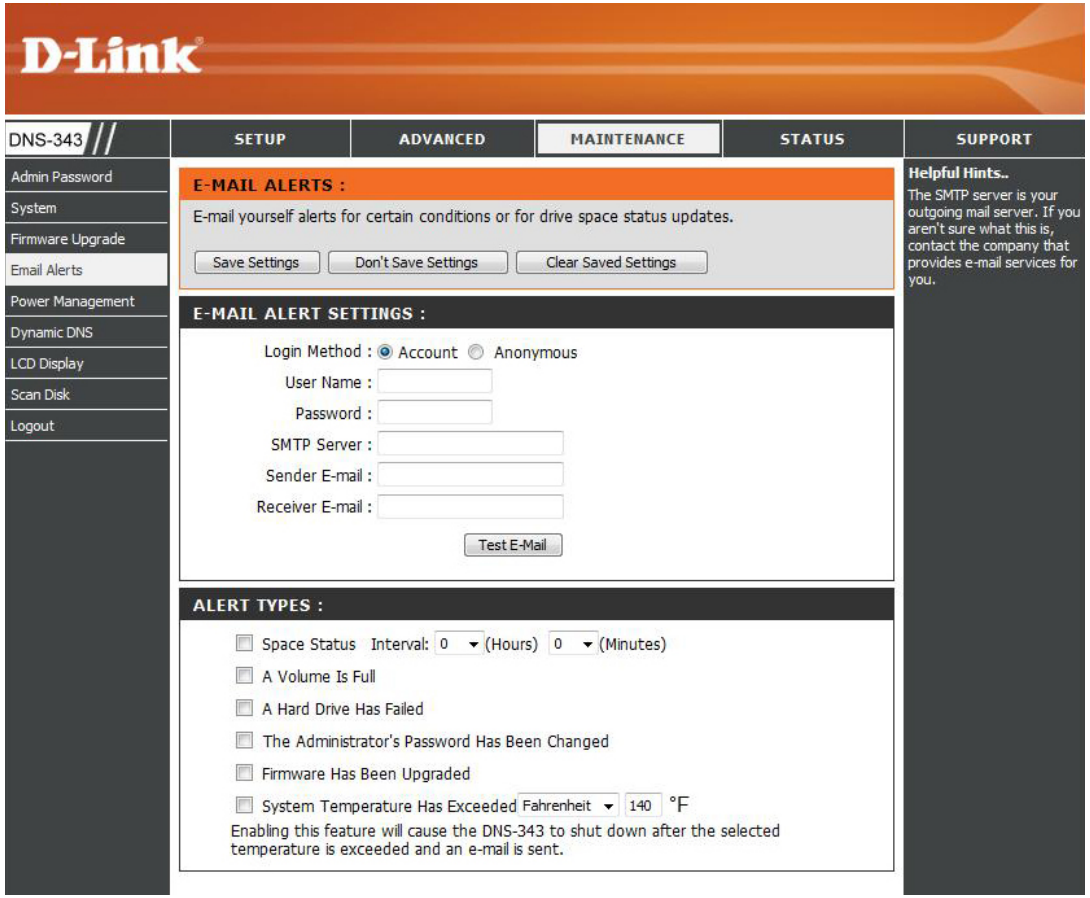
After you have configured the settings, use the **Test E-Mail** button to send a test e-mail and confirm your settings are correct.

A pop-up window will display the success or failure of the test.

**Alert Types** This section contains the alert options and their configuration settings.

Refer to page 48 for more information.

**Save Settings** Click **Save Settings** to apply and save the new alert settings.



# E-Mail Alert Settings

**Login Method** Select either **Account** or **Anonymous**. Choosing Anonymous does not require a User Name or Password.

**User Name** Enter the appropriate user name for your e-mail account.

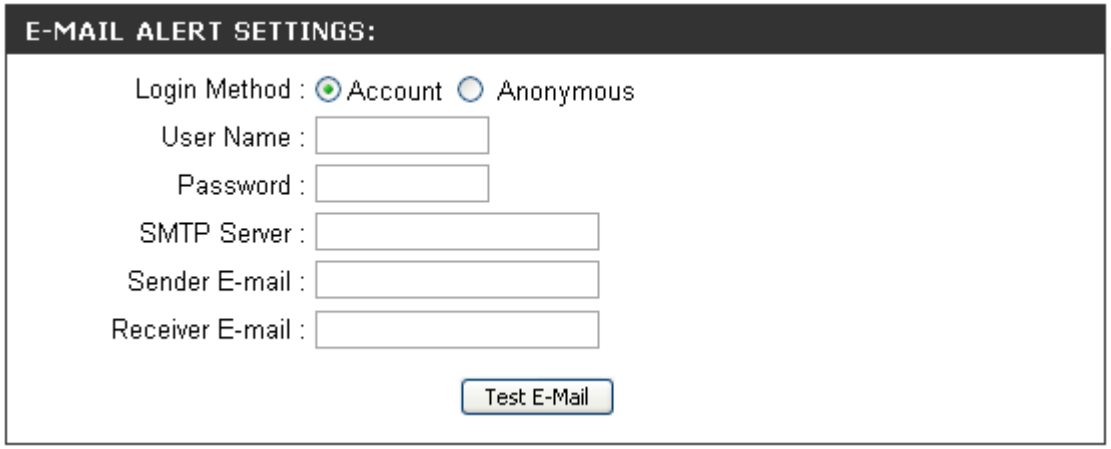
**Password** Enter the appropriate password for your e-mail account.

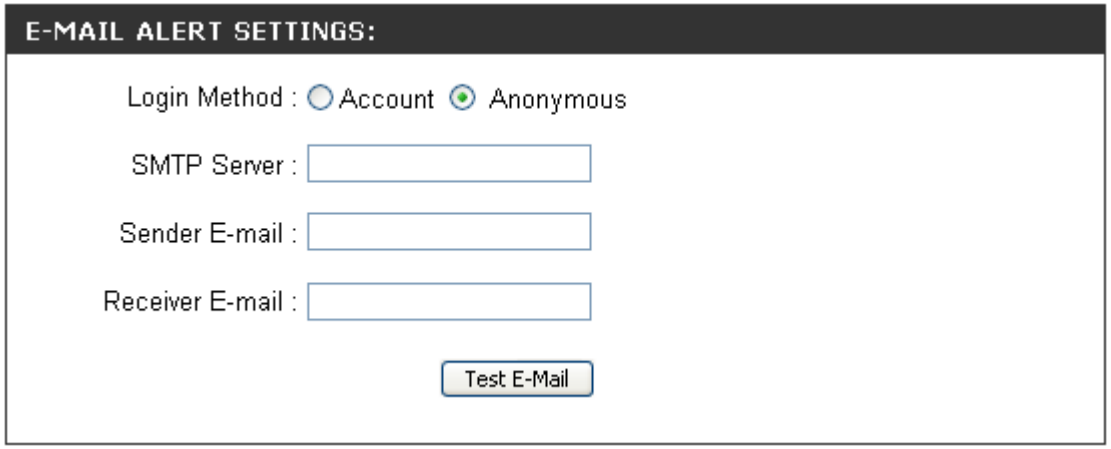
**SMTP Server** Enter the IP address or domain name of your outgoing mail server. If you are unsure of this value, contact your e-mail provider.

**Sender E-Mail** Enter the "from" e-mail address (e.g. alerts@dns323.com). This field does not require a valid e-mail address. However, if your e-mail client is filtering spam, make sure you allow this address to be received.

**Receiver E-Mail** Enter the e-mail address you want to send the alerts to. This address must correspond with the SMTP server configured above.

**Test E-Mail** Click the Test E-Mail button to send a test alert and confirm your settings are correct.



# E-Mail Alert Types

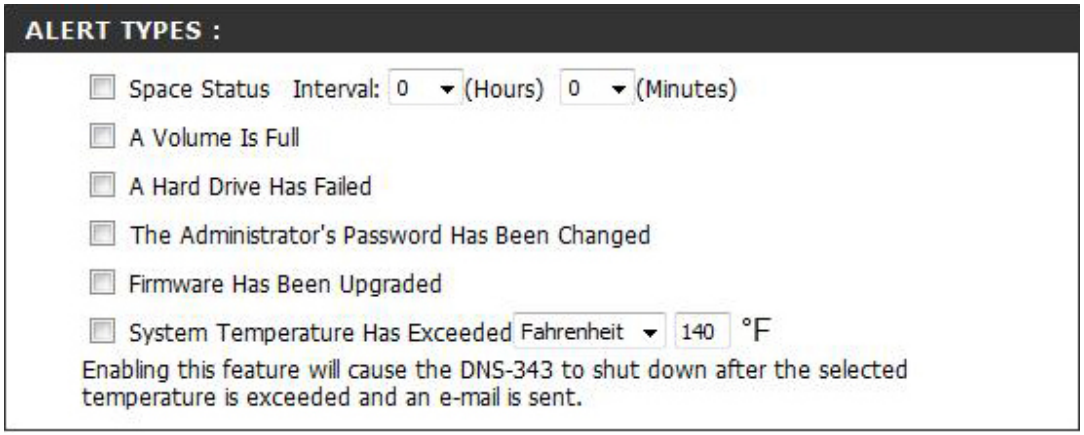
**Space Status** Select an interval in hours and minutes to have a status of space remaining on the drives e-mailed.

**A Volume Is Full** An alert will be sent when the hard drive is full.

**Administrator Password Change** An alert will be sent if the admin password is changed.

**Firmware Upgraded** An alert will be sent if the firmware is upgraded.

**System Temperature Exceeded** An alert will be sent if the DNS-343 device temperature exceeds the set threshold. After the alert has been sent, the DNS-343 will power off for safety.



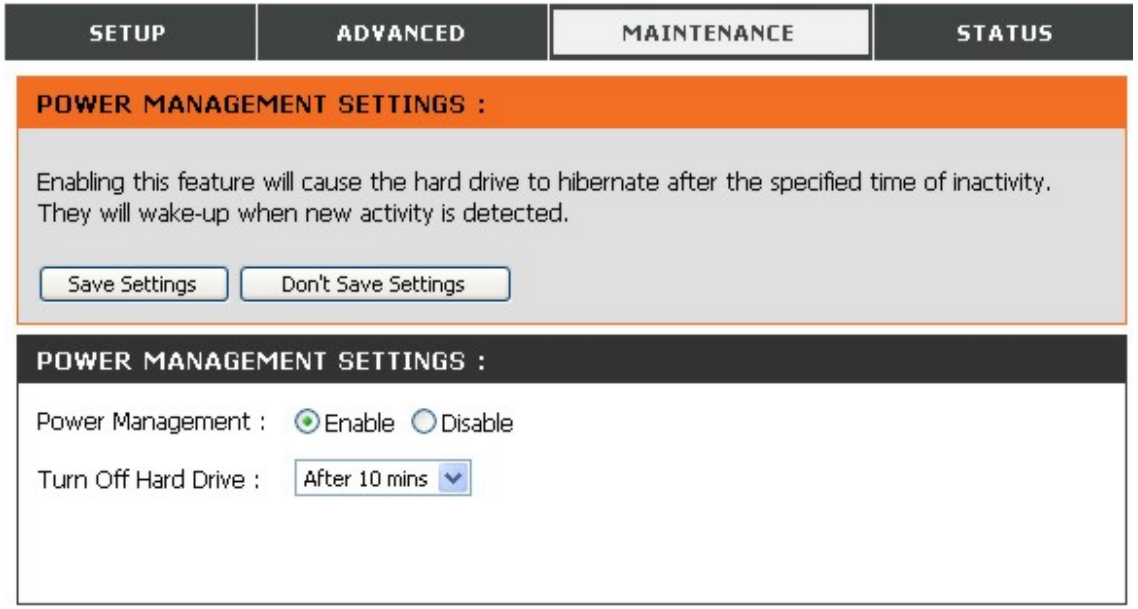
# Power Management

The DNS-343 Power Management feature allows you to configure the drives to shut down after a specified idle time. The drives will power up again when data is accessed.

**Power Management** Select **Enable** or **Disable**.

**Turn off Hard Drives** Set the amount of time before idle drives will shut down.

Click **Save Settings** to apply the settings.



# Dynamic DNS

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

**DDNS** Select **Enable** or **Disable**.

**Server Address** Enter the DDNS server address or select from the drop-down menu.

**Host Name** Enter your DDNS host name.

**Username or Key** Enter your DDNS username or key.

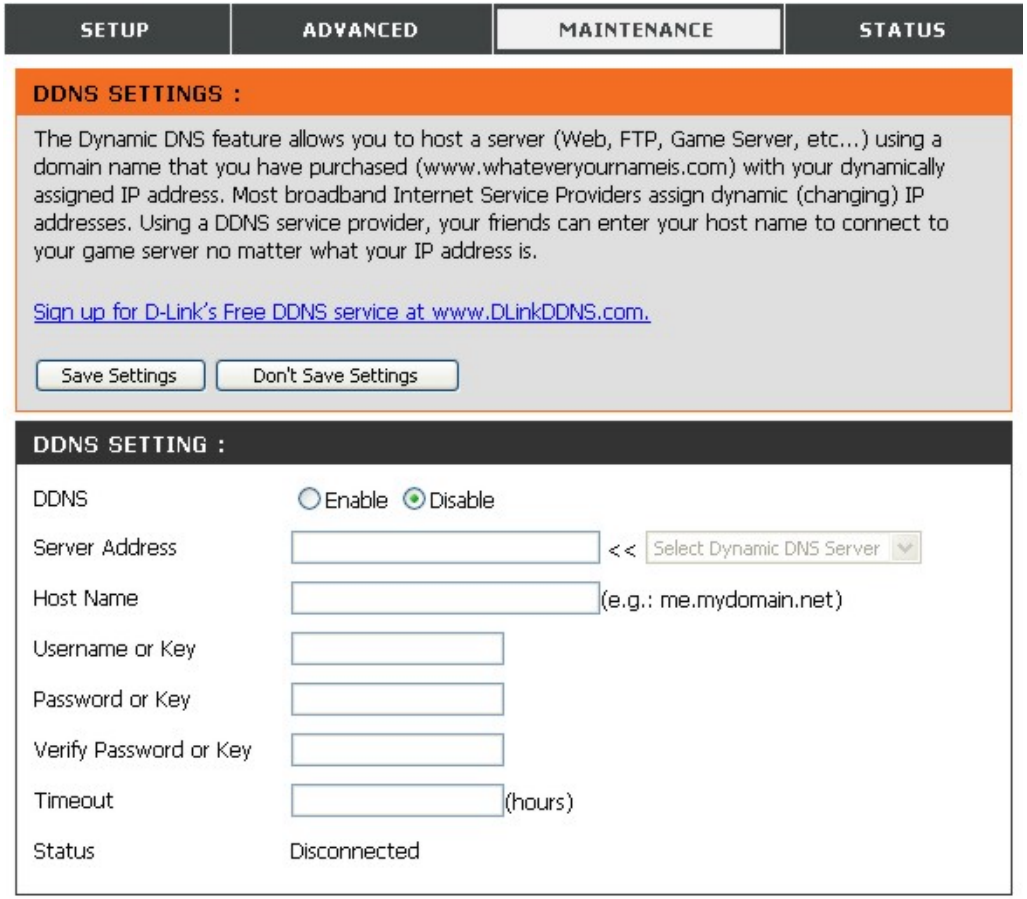
**Password or Key** Enter your DDNS password or key.

**Verify Password or Key** Re-enter your password or key.

**Timeout** Enter the timeout time in hours.

**Status** Displays your DDNS status.

Click **Save Settings** to apply the settings.

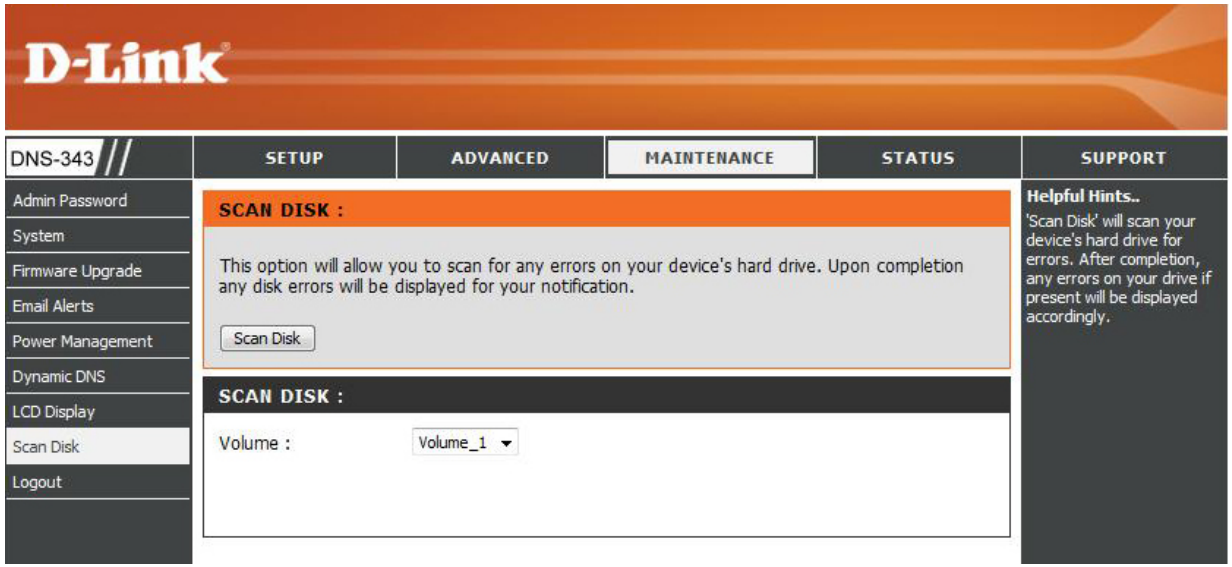


# LCD Display

The LCD Display settings allow the administrator to change the time it takes for the OLED screen on the front of the DNS-343 to power off. Click on the drop-down box below to change the time it takes for the OLED screen to power off. Click the **Save Settings** button to apply the settings

# Disk Utility

The Disk Utility allows the administrator to perform a standard Scan Disk check for errors on the hard disk, select the volume from the drop-down menu and then click the **Scan Disk** button. Any errors found will be listed along with a description and the available repair options.



# Status

## Device Information

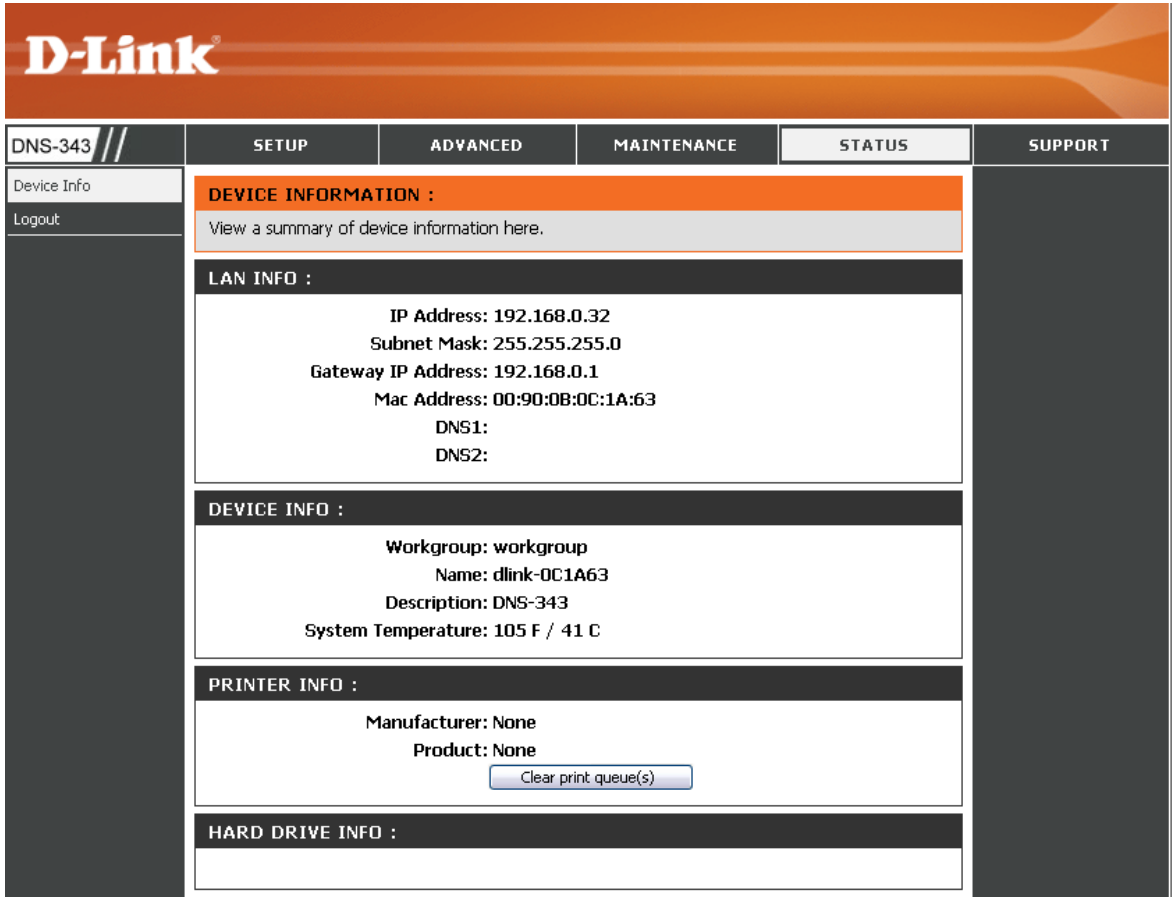
**LAN Info** Displays the local network settings of the DNS-343.

**Device Info** Displays the workgroup, name, description and current temperature of the DNS-343.

**Printer Info** Displays information for a connected USB printer.

If your computer is having problems printing to the DNS-343, you can click the **Clear Print Queue(s)** button to remove any print jobs that may be causing your computer to be unable to print.

**Hard Drive Info** Displays the hard drive information, including the disk mode, total size, used and remaining drive space.



# Connecting a UPS to the DNS-343

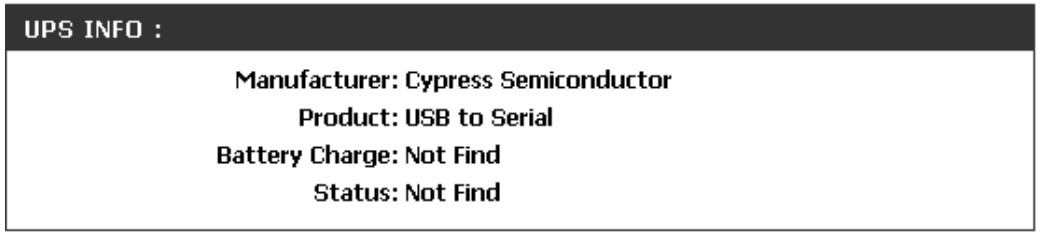
When a UPS (Uninterruptible Power Supply) USB management connection is connected to the DNS-343, the Status screen hides the printer information and displays information about the UPS connected. The screenshot below shows the Status screen when a UPS is attached to the DNS-343.

**UPS Info** The UPS Information screen displays information about the UPS Manufacturer and the Product name.

**Battery Charge** Battery Charge indicates the battery power state of the UPS (not all UPS units support this function)

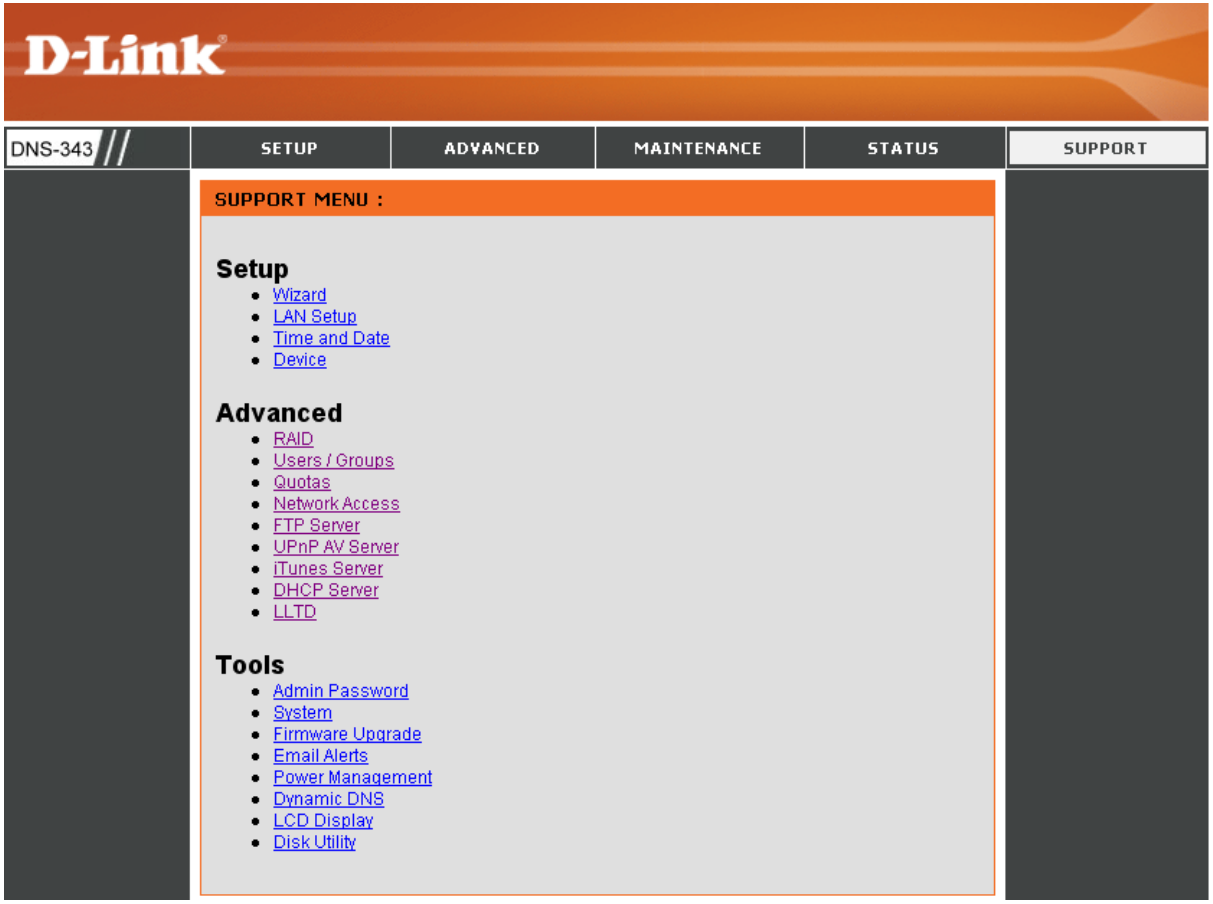
**Status** The Status field will display one of the three messages below:

1. **OL:**This indicates that the UPS is online.
2. **OB:** This indicates that the UPS is running on battery, meaning that there has been a power failure. The DNS-343 is consuming the battery power of the UPS and any data should be saved immediately to prevent any work being lost.
3. **LB:** This indicates that the UPS has low battery power.



# Support

The DNS-343 Support page provides a menu of Support topics explaining the features of the device.



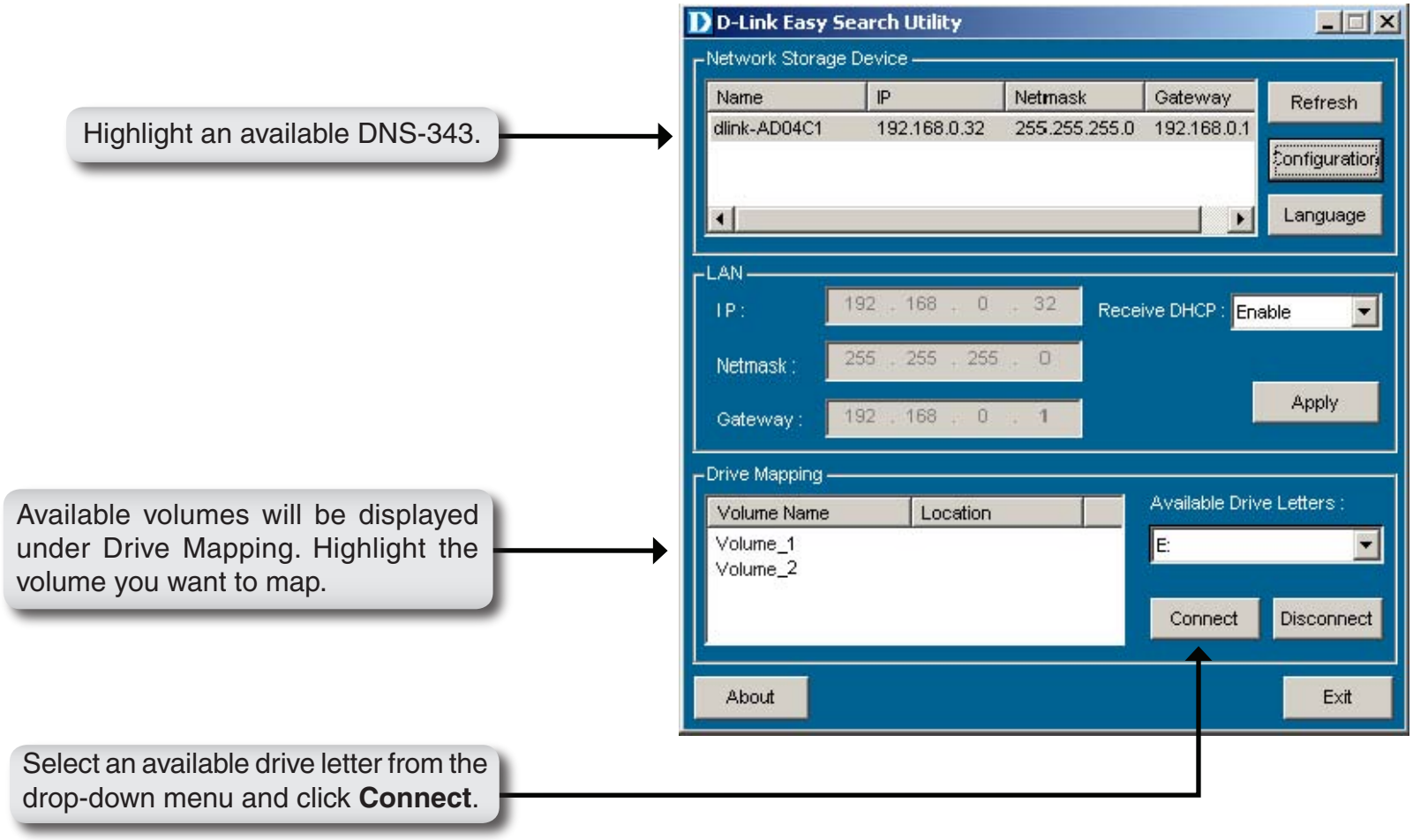
# Mapping a Drive

You can use the D-Link Easy Search Utility to map drives to your computer. Insert the DNS-343 CD into your CD-ROM drive.

Click **Easy Search Utility**.

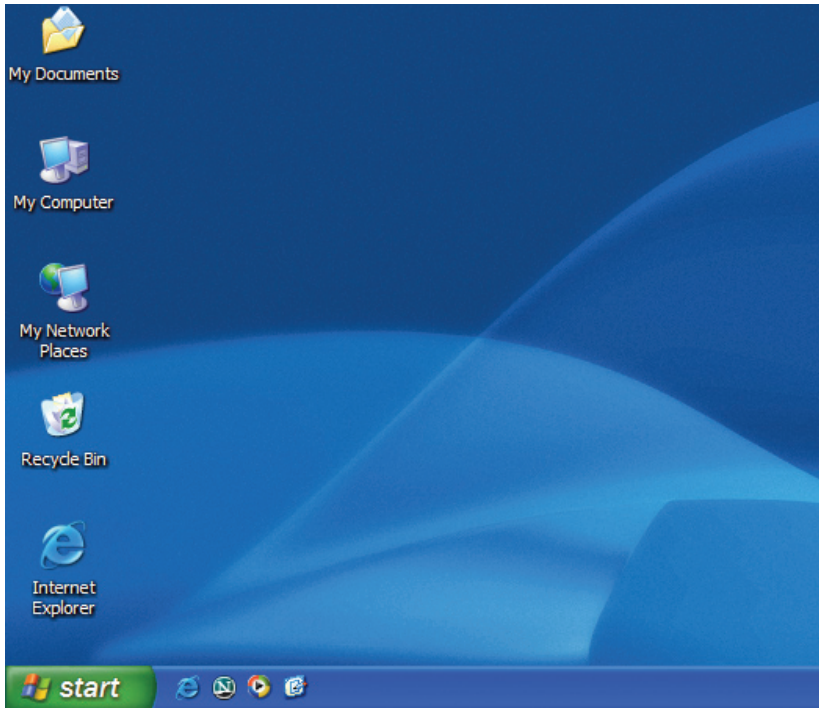
The Easy Search Utility will load and detect any DNS-343 devices that are on the local network.

If the name of your DNS-343 does not display in the device list, click **Refresh**.

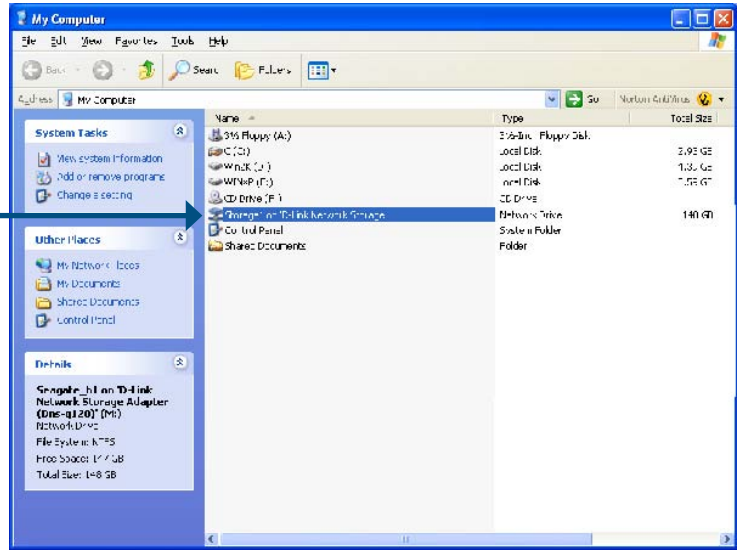



Once connected, your mapped drive(s) will appear in **My Computer**.

Double-click the **My Computer** icon on your desktop.




Double-click on the mapped drive to access the files and folders.



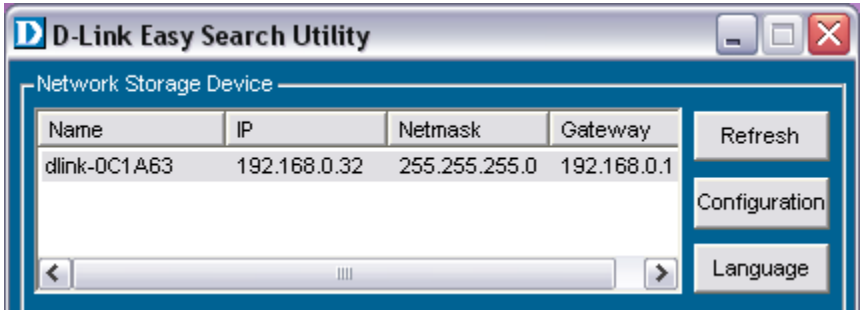
# Download Scheduling

The DNS-343 Download Scheduling feature allows you to set up scheduling folder or file downloads and backup sessions.

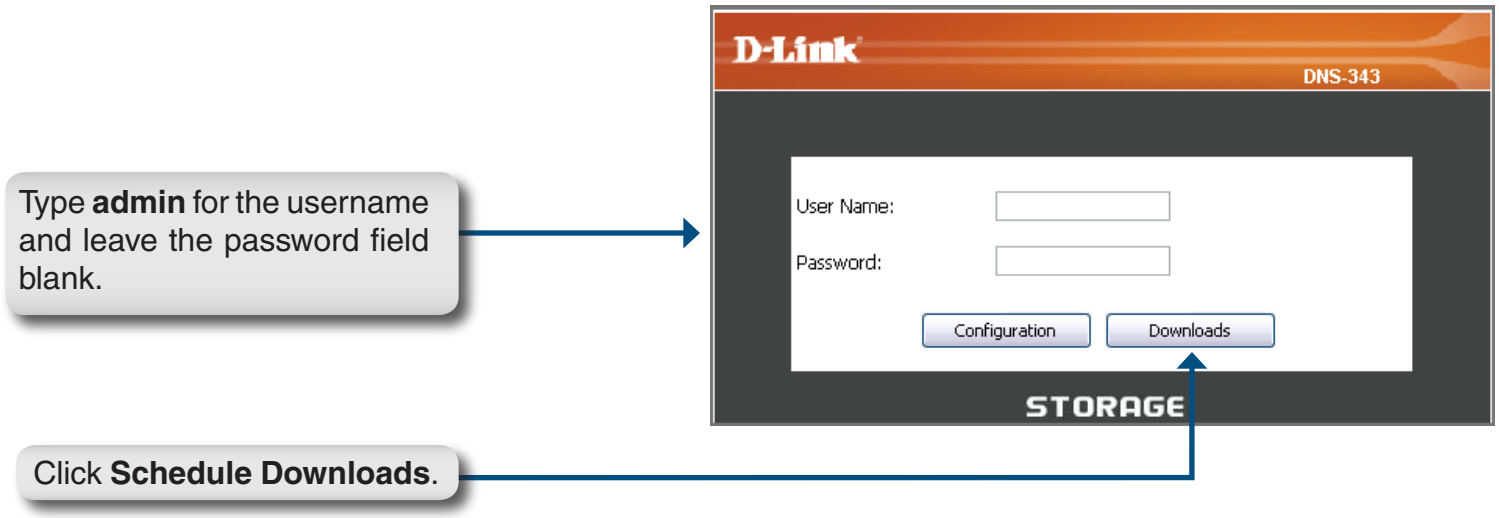
Begin by accessing the configuration page of your DNS-343:

Click **Easy Search Utility**.

Highlight an available DNS-343 and click **Configuration** to access the web-based utility.



The DNS-343 login screen will appear:

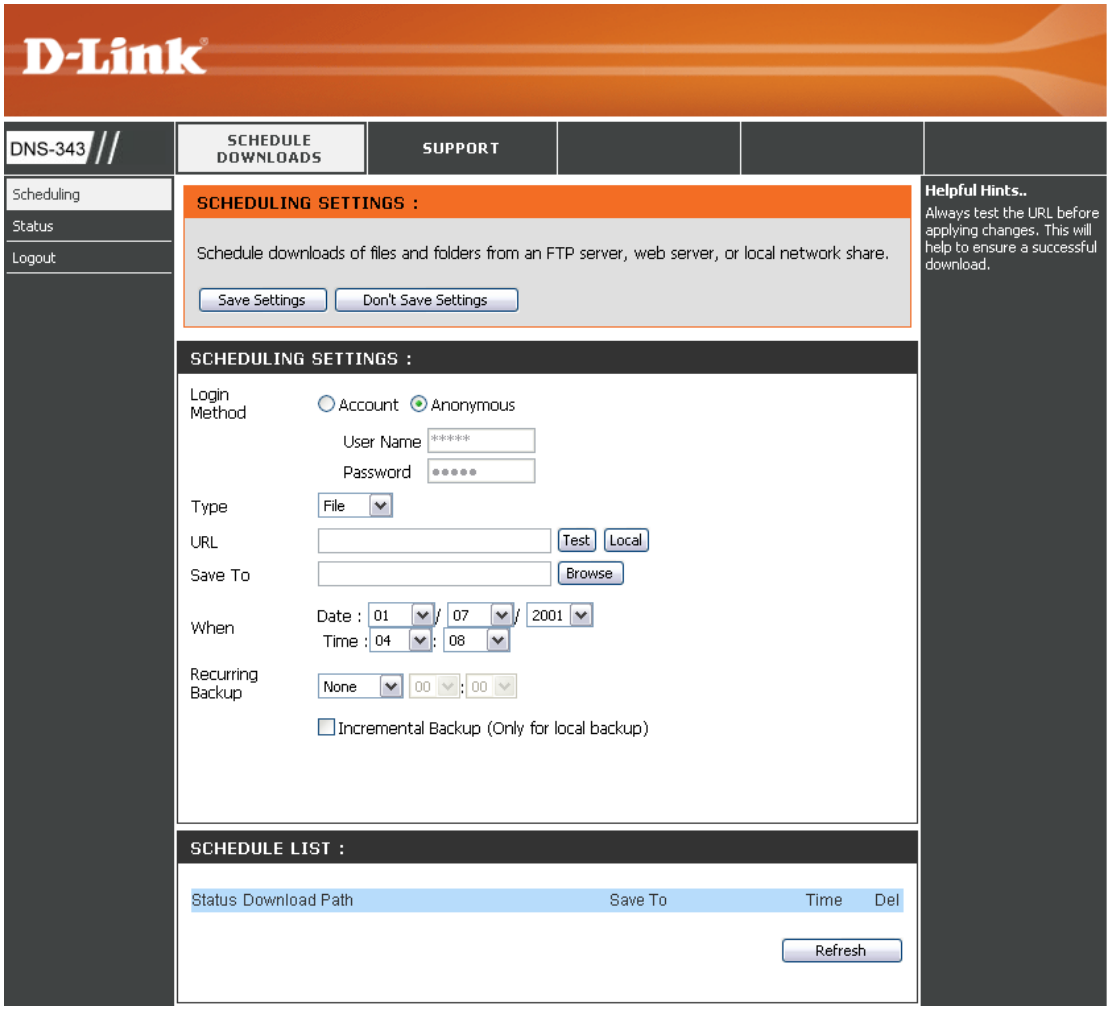



The DNS-343 Download Scheduling configuration will appear.

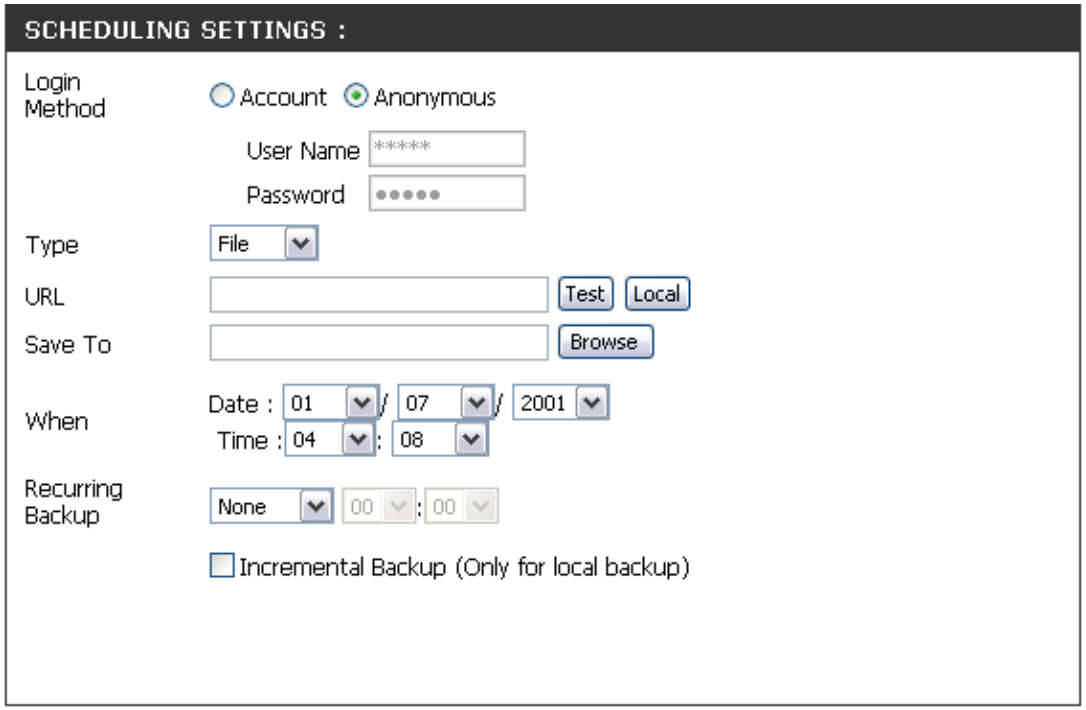
# Schedule Downloads

**Scheduling Settings** Configure download and backup schedules here. Refer to the next page for more information.

**Schedule List** The Schedule List will display all completed, active, and pending scheduled downloads and backups.



# Scheduling Settings




**Login Method** Select the appropriate login method to access the files for download. If the site requires login credentials, select Account and enter a valid username and password.

**Type** Select **File** or **Folder**, depending on what you want to download or backup.

**URL** Enter the URL of the site or server you are initiating a transfer from.

E.g. ftp://123.456.789/Test
ftp://123.456.789/test.txt
http://www.test.com/test.txt

**Test** Click **Test** to test the URL is valid and the user name and password are correct.

**Local** Click **Local** to set the source file or folder from one of the internal drive volumes. Browse to the file or folder, and click Ok to accept the network path.

**Save To** Enter a valid destination drive on the DNS-343, or click Browse and browse to the destination.

**When** Enter the date and time you want the scheduled backup or download to occur.

**Recurring Backup** Designate the interval and time you want the backup or download to run unattended.

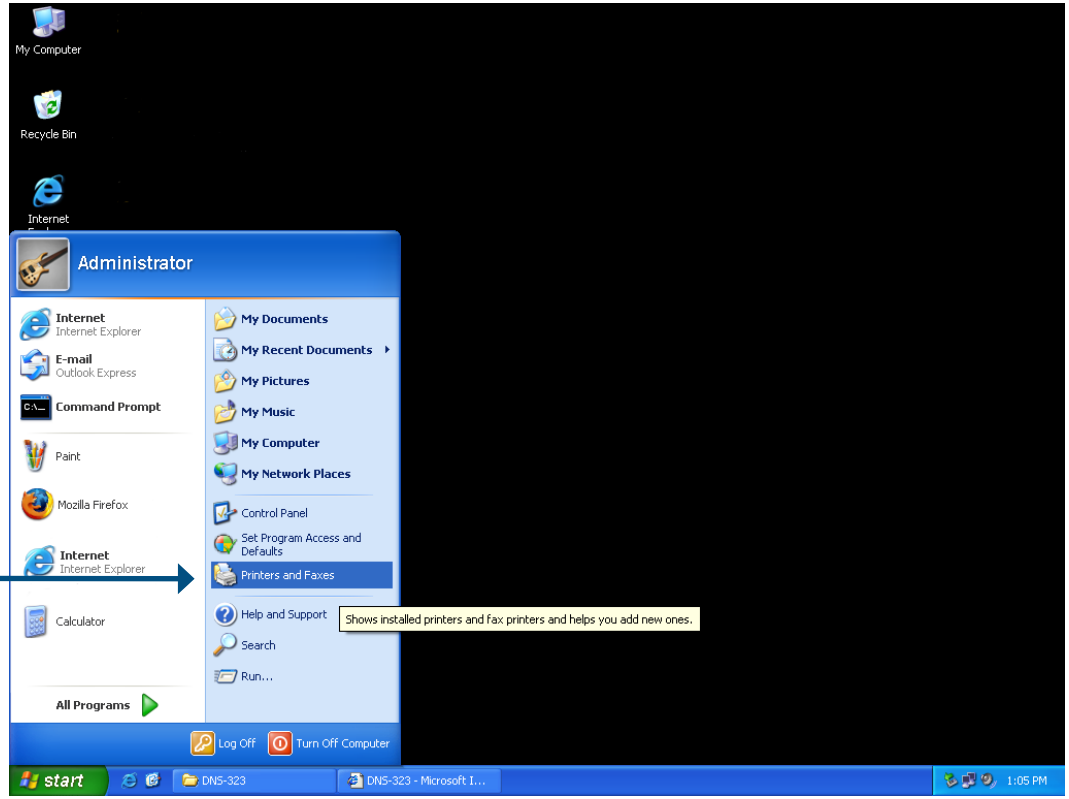
**Incremental Backup** By default all local backups and file/folder downloads are in Overwrite mode, meaning that identical files in the destination folder will be overwritten by the source files. Checking **Incremental Backup** will have the DNS-343 compare identical file names at the source and destination. Files will only be overwritten if the source file is more recent.

# USB Print Server

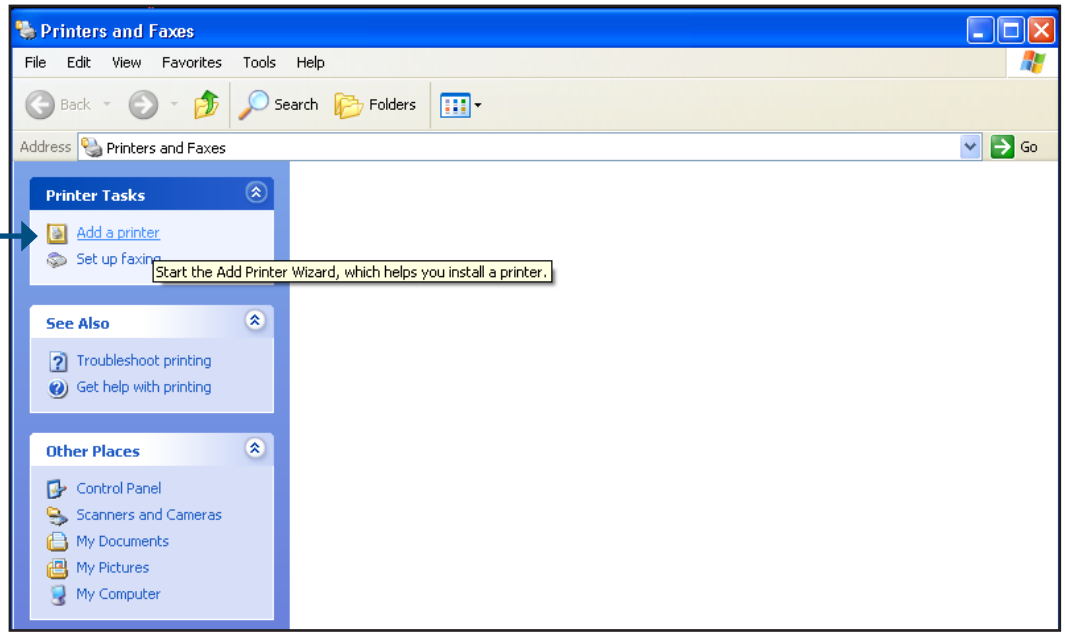
The DNS-343 features a built-in USB print server, giving users the ability to share a printer on their local network. Connect a USB printer to the USB port on the back of the DNS-343. It is important to ensure that all the printer's drivers have been installed on the computer(s) you want to print from.

To add a printer:

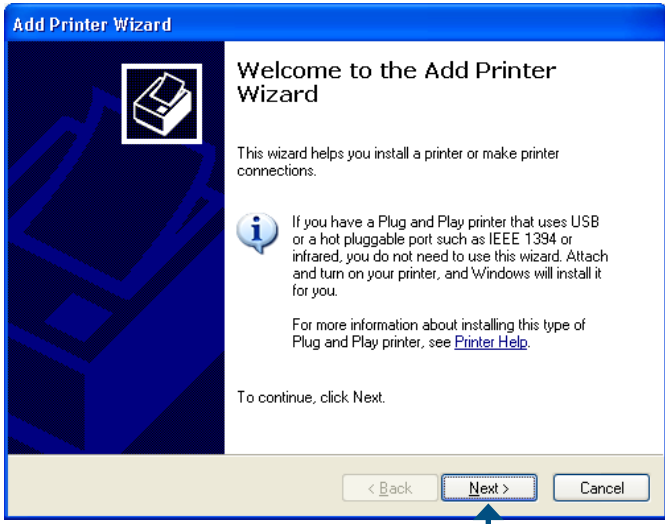
Click **Start**, and select Printers and Faxes.



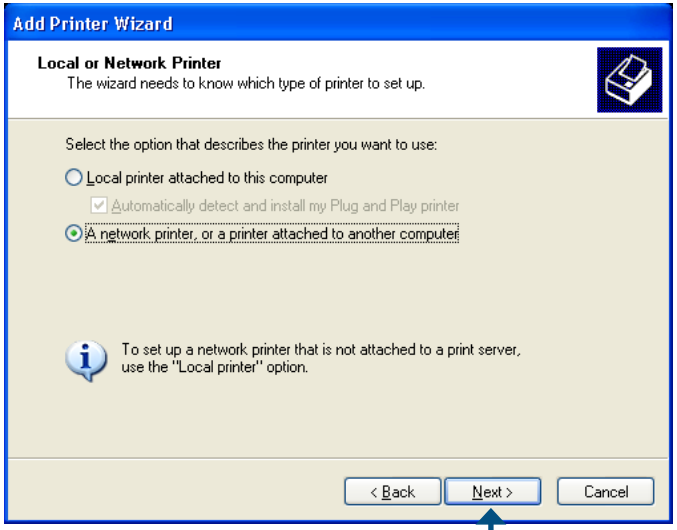
Select "**Add a printer**".



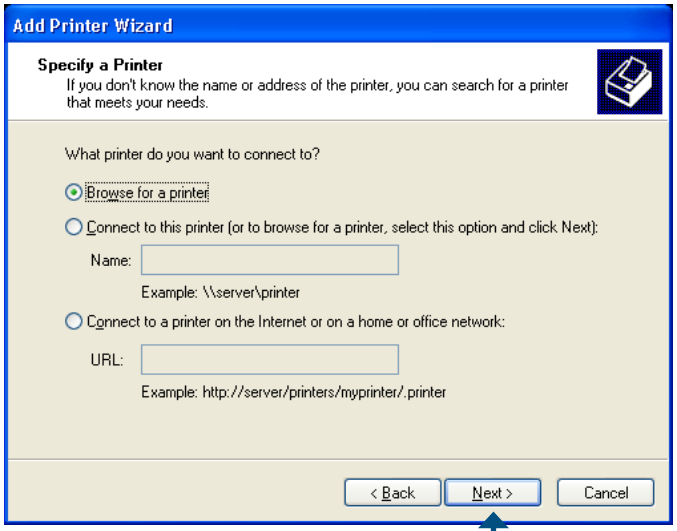

The Windows® Add Printer Wizard will launch:




Click **Next** to continue.

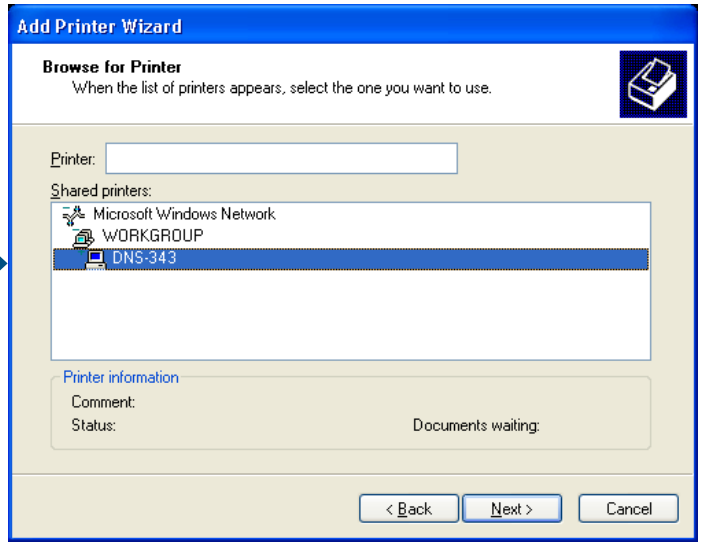


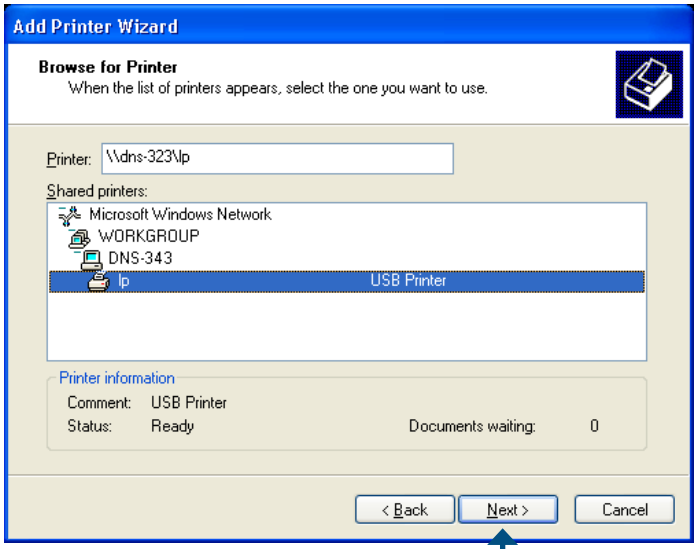

When prompted to choose a local, or network printer, select "**A network printer, or a printer attached to another computer**." Click **Next** to continue.




Select "**Browse for a printer**" and click **Next** to continue.

Double-click “**DNS-343**” from the Shared Printers list to expand the tree.

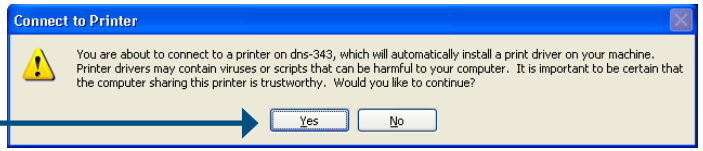


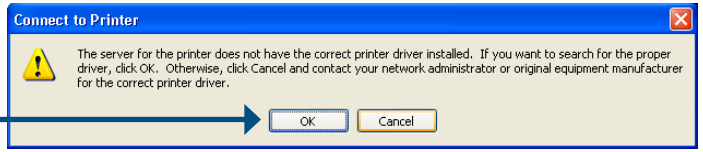

Select the available USB printer, and click **Next** to continue.

The following printer driver messages will appear:

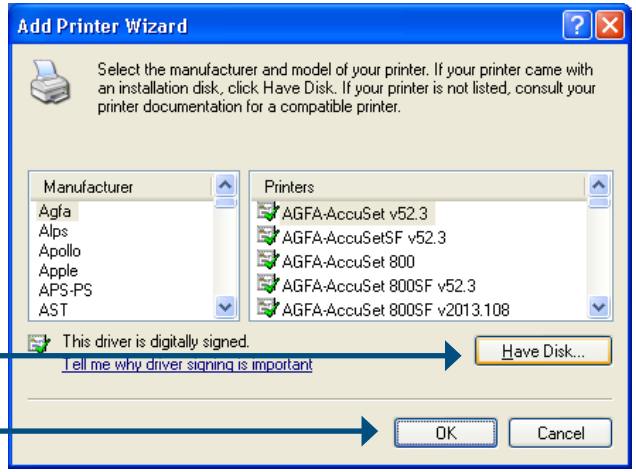
Click **Yes** to continue.

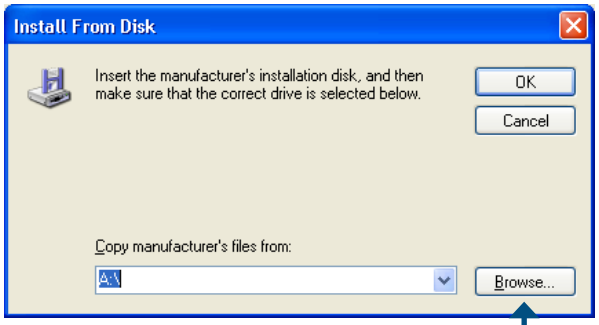



Click **OK** to continue and select a printer driver.

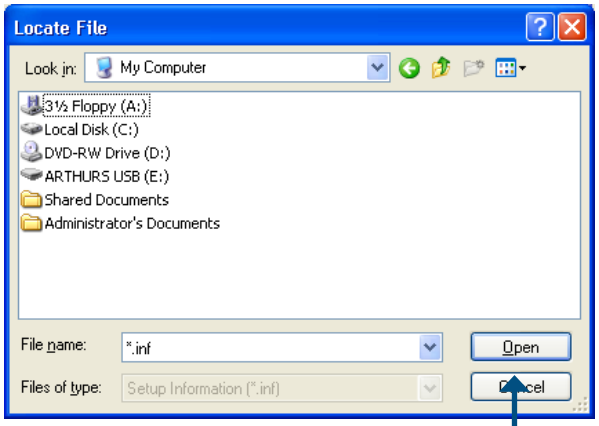



Select the appropriate printer driver from the list and click **OK** to complete the wizard. If the driver is not in the list, select **Have Disk**.

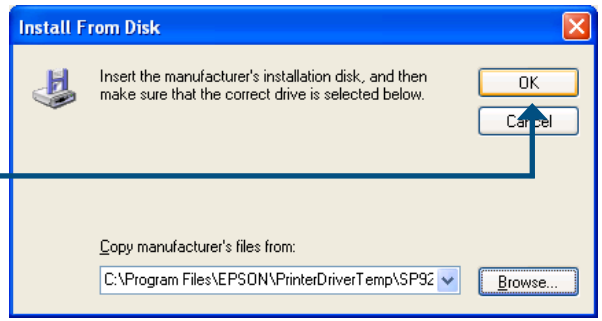




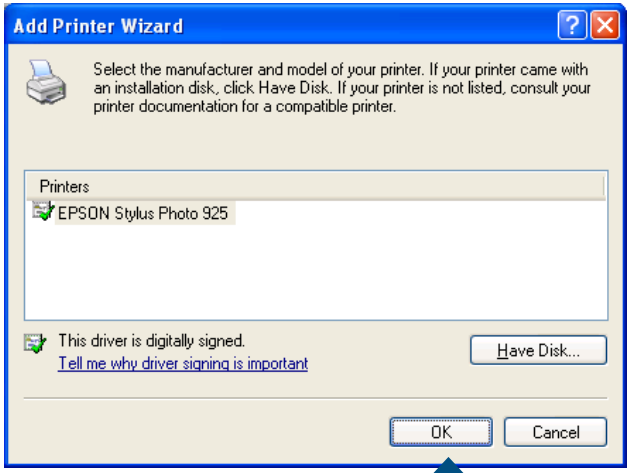

Insert the print driver CD or browse to the appropriate directory.



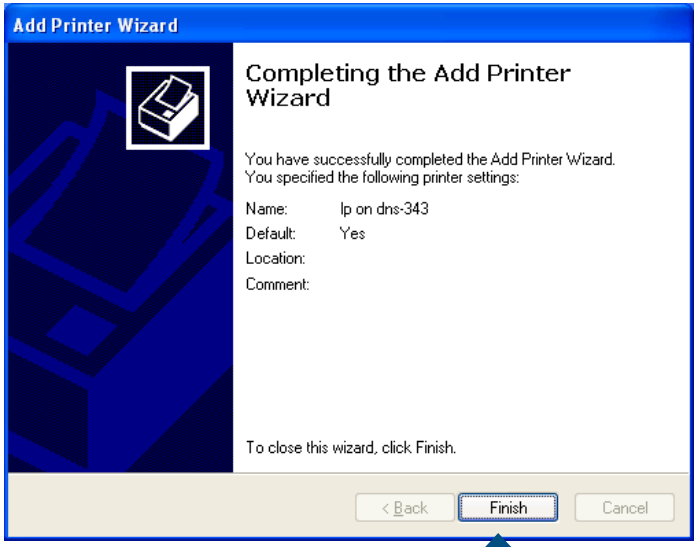

Select the appropriate driver file, and click **Open** to continue.




Click **OK** to continue.

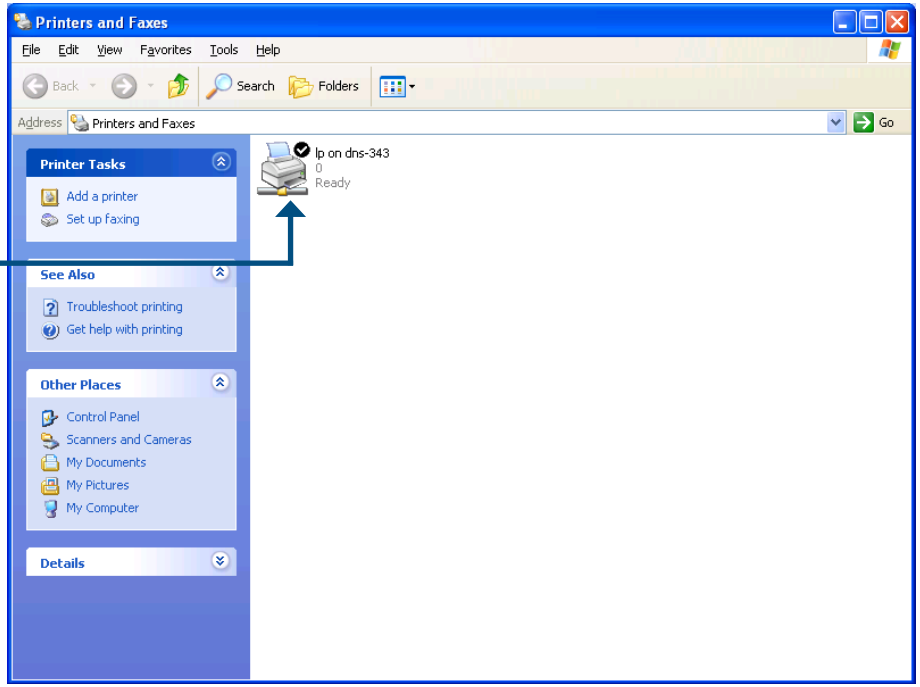



Verify the driver is correct, and click **OK** to continue.




The wizard will install the printer drivers, and return a completion screen. Click **Finish**.

The printer should now appear as an available printer.



# Storing non-English Character Files

By default the DNS-343 supports Unicode which is an industry standard allowing computers to consistently represent and manipulate text expressed in most of the world's writing formats.

# Replacing or Adding a New Hard Drive

It is recommended that you backup your important files before replacing or adding a new hard drive to the DNS-343.

**Replacing a Hard Drive:**

Please make sure the power is off before replacing a hard drive. After you install the new drive, turn on the DNS-343 and then connect to the Web UI. The DNS-343 will prompt you to format the new drive. Refer to page 15.

**Adding a New Hard Drive:**

The DNS-343 is able to work with one single hard drive, two, three, and four hard drives. Please make sure the power is off before installing a new hard drive.

After you install the new drive(s), turn on the DNS-343 and then connect to the Web UI. The DNS-343 will prompt you to format the new drive(s). Refer to page 15.

**Note: Formatting a hard drive will erase the data stored on the hard drive. Please backup important data before formatting a hard drive.**

# Contacting Technical Support

U.S. and Canadian customers can contact D-Link technical support through our web site or by phone.

Before you contact technical support, please have the following ready:

- Model number of the product (e.g. DNS-343)
- Hardware Revision (located on the label on the bottom of the device (e.g. rev A1))
- Serial Number (s/n number located on the label on the bottom of the device).

You can find software updates and user documentation on the D-Link website as well as frequently asked questions and answers to technical issues.

**For customers within the United States:**

**Phone Support:**
(877) 453-5465

**Internet Support:**
http://support.dlink.com

**For customers within Canada:**

**Phone Support:**
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**Internet Support:**
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Subject to the terms and conditions set forth herein, D-Link Systems, Inc. (“D-Link”) provides this Limited Warranty:

- Only to the person or entity that originally purchased the product from D-Link or its authorized reseller or distributor, and
- Only for products purchased and delivered within the fifty states of the United States, the District of Columbia, U.S. Possessions or Protectorates, U.S. Military Installations, or addresses with an APO or FPO.

## Limited Warranty:

D-Link warrants that the hardware portion of the D-Link product described below (“Hardware”) will be free from material defects in workmanship and materials under normal use from the date of original retail purchase of the product, for the period set forth below (“Warranty Period”), except as otherwise stated herein.

- Hardware (excluding power supplies): One (1) year
- Free Technical Support - Basic Installation: Ninety (90) days

The customer’s sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at D-Link’s option, to repair or replace the defective Hardware during the Warranty Period at no charge to the original owner or to refund the actual purchase price paid. Any repair or replacement will be rendered by D-Link at an Authorized D-Link Service Office. The replacement hardware need not be new or have an identical make, model or part. D-Link may, at its option, replace the defective Hardware or any part thereof with any reconditioned product that D-Link reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. Repaired or replacement hardware will be warranted for the remainder of the original Warranty Period or ninety (90) days, whichever is longer, and is subject to the same limitations and exclusions. If a material defect is incapable of correction, or if D-Link determines that it is not practical to repair or replace the defective Hardware, the actual price paid by the original purchaser for the defective Hardware will be refunded by D-Link upon return to D-Link of the defective Hardware. All Hardware or part thereof that is replaced by D-Link, or for which the purchase price is refunded, shall become the property of D-Link upon replacement or refund.

## Limited Software Warranty:

D-Link warrants that the software portion of the product ("Software") will substantially conform to D-Link's then current functional specifications for the Software, as set forth in the applicable documentation, from the date of original retail purchase of the Software for a period of ninety (90) days ("Software Warranty Period"), provided that the Software is properly installed on approved hardware and operated as contemplated in its documentation. D-Link further warrants that, during the Software Warranty Period, the magnetic media on which D-Link delivers the Software will be free of physical defects. The customer's sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at D-Link's option, to replace the non-conforming Software (or defective media) with software that substantially conforms to D-Link's functional specifications for the Software or to refund the portion of the actual purchase price paid that is attributable to the Software. Except as otherwise agreed by D-Link in writing, the replacement Software is provided only to the original licensee, and is subject to the terms and conditions of the license granted by D-Link for the Software. Replacement Software will be warranted for the remainder of the original Warranty Period and is subject to the same limitations and exclusions. If a material non-conformance is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to replace the non-conforming Software, the price paid by the original licensee for the non-conforming Software will be refunded by D-Link; provided that the non-conforming Software (and all copies thereof) is first returned to D-Link. The license granted respecting any Software for which a refund is given automatically terminates.

## Non-Applicability of Warranty:

The Limited Warranty provided hereunder for Hardware and Software portions of D-Link's products will not be applied to and does not cover any refurbished product and any product purchased through the inventory clearance or liquidation sale or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product and in that case, the product is being sold "As-Is" without any warranty whatsoever including, without limitation, the Limited Warranty as described herein, notwithstanding anything stated herein to the contrary.

### Submitting A Claim:

The customer shall return the product to the original purchase point based on its return policy. In case the return policy period has expired and the product is within warranty, the customer shall submit a claim to D-Link as outlined below:

- The customer must submit with the product as part of the claim a written description of the Hardware defect or Software nonconformance in sufficient detail to allow D-Link to confirm the same, along with proof of purchase of the product (such as a copy of the dated purchase invoice for the product) if the product is not registered.

- The customer must obtain a Case ID Number from D-Link Technical Support at 1-877-453-5465, who will attempt to assist the customer in resolving any suspected defects with the product. If the product is considered defective, the customer must obtain a Return Material Authorization ("RMA") number by completing the RMA form and entering the assigned Case ID Number at https://rma.dlink.com/.

- After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package. Do not include any manuals or accessories in the shipping package. D-Link will only replace the defective portion of the product and will not ship back any accessories.

- The customer is responsible for all in-bound shipping charges to D-Link. No Cash on Delivery ("COD") is allowed. Products sent COD will either be rejected by D-Link or become the property of D-Link. Products shall be fully insured by the customer and shipped to D-Link Systems, Inc., 17595 Mt. Herrmann, Fountain Valley, CA 92708. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped to the customer via UPS Ground or any common carrier selected by D-Link. Return shipping charges shall be prepaid by D-Link if you use an address in the United States, otherwise we will ship the product to you freight collect. Expedited shipping is available upon request and provided shipping charges are prepaid by the customer. D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link's reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming.

## What Is Not Covered:

The Limited Warranty provided herein by D-Link does not cover:

Products that, in D-Link's judgment, have been subjected to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, repair or service in any way that is not contemplated in the documentation for the product, or if the model or serial number has been altered, tampered with, defaced or removed; Initial installation, installation and removal of the product for repair, and shipping costs; Operational adjustments covered in the operating manual for the product, and normal maintenance; Damage that occurs in shipment, due to act of God, failures due to power surge, and cosmetic damage; Any hardware, software, firmware or other products or services provided by anyone other than D-Link; and Products that have been purchased from inventory clearance or liquidation sales or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product.

While necessary maintenance or repairs on your Product can be performed by any company, we recommend that you use only an Authorized D-Link Service Office. Improper or incorrectly performed maintenance or repair voids this Limited Warranty.

## Disclaimer of Other Warranties:

EXCEPT FOR THE LIMITED WARRANTY SPECIFIED HEREIN, THE PRODUCT IS PROVIDED "AS-IS" WITHOUT ANY WARRANTY OF ANY KIND WHATSOEVER INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT.

IF ANY IMPLIED WARRANTY CANNOT BE DISCLAIMED IN ANY TERRITORY WHERE A PRODUCT IS SOLD, THE DURATION OF SUCH IMPLIED WARRANTY SHALL BE LIMITED TO THE DURATION OF THE APPLICABLE WARRANTY PERIOD SET FORTH ABOVE. EXCEPT AS EXPRESSLY COVERED UNDER THE LIMITED WARRANTY PROVIDED HEREIN, THE ENTIRE RISK AS TO THE QUALITY, SELECTION AND PERFORMANCE OF THE PRODUCT IS WITH THE PURCHASER OF THE PRODUCT.

## Limitation of Liability:

TO THE MAXIMUM EXTENT PERMITTED BY LAW, D-LINK IS NOT LIABLE UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY FOR ANY LOSS OF USE OF THE PRODUCT, INCONVENIENCE OR DAMAGES OF ANY CHARACTER, WHETHER DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF GOODWILL, LOSS OF REVENUE OR PROFIT, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, FAILURE OF OTHER EQUIPMENT OR COMPUTER PROGRAMS TO WHICH D-LINK'S PRODUCT IS CONNECTED WITH, LOSS OF INFORMATION OR DATA CONTAINED IN, STORED ON, OR INTEGRATED WITH ANY PRODUCT RETURNED TO D-LINK FOR WARRANTY SERVICE) RESULTING FROM THE USE OF THE PRODUCT, RELATING TO WARRANTY SERVICE, OR ARISING OUT OF ANY BREACH OF THIS LIMITED WARRANTY, EVEN IF D-LINK HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE SOLE REMEDY FOR A BREACH OF THE FOREGOING LIMITED WARRANTY IS REPAIR, REPLACEMENT OR REFUND OF THE DEFECTIVE OR NONCONFORMING PRODUCT. THE MAXIMUM LIABILITY OF D-LINK UNDER THIS WARRANTY IS LIMITED TO THE PURCHASE PRICE OF THE PRODUCT COVERED BY THE WARRANTY. THE FOREGOING EXPRESS WRITTEN WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ANY OTHER WARRANTIES OR REMEDIES, EXPRESS, IMPLIED OR STATUTORY.

## Governing Law:

This Limited Warranty shall be governed by the laws of the State of California. Some states do not allow exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the foregoing limitations and exclusions may not apply. This Limited Warranty provides specific legal rights and you may also have other rights which vary from state to state.

## Trademarks:

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## CE Mark Warning:

This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

## FCC Statement:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. 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 receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

For detailed warranty information applicable to products purchased outside the United States, please contact the corresponding local D-Link office.

# Registration

Product registration is entirely voluntary and failure to complete or return this form will not diminish your warranty rights.

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