USER MANUAL DNS-343

VERSION 1.4







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Product Overview Package Contents

- D-Link DNS-343 ShareCenter[™] 4-Bay Network Storage
- CD-ROM with Manual and Software
- Quick Installation Guide
- Power Adapter (19V / 7.89A)
- Power Cord
- CAT5 Ethernet Cable





Please 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
- 3.5" SATA Hard Drive(s)Windows[®] XP (with Service Pack 2) or Vista™

Introduction

The D-Link DNS-343 ShareCenter[™] 4-Bay Network Storage shares your documents, photos, music, and videos across the network and on the Internet so family members, friends, or employees can access them. This ShareCenter, which can hold four 3.5" SATA hard drives of up to 2TB capacity each¹, creates a central network point for backing up valuable files.

The DNS-343 shares files over the Internet via the built-in Secure FTP server². 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 players³, Xbox 360, and Playstation 3.

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 or by a schedule.

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 ShareCenter[™] 4-Bay Network Storage!

The DNS-343 ShareCenter[™] 4-Bay Network Storage also includes new features like the USB Print Server allowing users to use this unit as a print server on their network. The DNS-343 also includes UPS monitoring via it's USB port.

Another feature added is called Remote Replication, which allows the user to backup files remotely safely and fast.

1 Hard Drive(s) not included.

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

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

Features

The DNS-343 ShareCenter[™] 4-Bay Network Storage is an easy to install data storage platform used for remote access through a private network or from the Internet. The DNS-343 supports up to 4 SATA hard drives and includes the product features listed below:

- Four hard drive bays for 3.5 inch SATA hard drives of up to 2TB capacity each
- Single volume support for up to 8TB disk capacity
- Simplified Hard Drive Installation Process No Tools Required
- Five Hard Drive Configurations: Standard, JBOD (Linear), RAID 0, RAID 1, and RAID 5
- High performance Gigabit Ethernet connectivity
- Equipped with an informative OLED display screen
- Equipped with aluminium housing and smart FAN speed control
- USB port supports Printer server and UPS monitoring
- Power Management for Conserving Energy and Extending Hard Drive Life
- Built-in secure FTP Server for File Access over the Internet
- UPnP AV Server for Streaming Music, Photos, and Video to compatible network media players, Xbox 360, and Playstation 3
- Automatic E-mail Notification
- Supports HTTPS management function
- iTunes Software will be able to automatically find and play music directly from the DNS-343
- Users and Groups can be assigned to folders with read or read/write permissions
- Supports Quotas for Users and Groups
- Supports Group Assignment for Network Sharing and FTP Server
- Supports DHCP server

- Supports Configuration file save/load
- Supports DDNS
- Supports Jumbo Frame
- Supports Auto Power Recovery Function
- Supports Active Directory
- Supports Multi-language File Name
- Supports Schedule Download
- Supports Easy Search Utility
- Full or Incremental Backups
- Supports Yahoo! Widget
- Supports UPnP for Windows® XP
- Supports PnP-X / LLTD
- Supports Remote NAS to NAS backup (Remote Replicate)
- Supports System Logging/FTP Logging
- Supports Add-On software and multi-language packages
- Supports NFS Server
- FTP Server supports FTP over SSL/TLS, and FXP
- Recover your computer using the bundled backup software



COMPONENT	DESCRIPTION
OLED Screen	This screen displays detailed information about the following:
	System Information
	HD Status
	Server Status
	RAID 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)



COMPONENT	DESCRIPTION	
Drive Eject Levers	Use the provided levers to eject the SATA hard drives.	
Reset Button	Press this button for over 5 seconds to reset the unit to factory defaults.	
Power Receptacle	Connect the 19V / 7.89A power supply to the receptacle.	
USB Connector	1x USB 2.0 (Type A) connector. USB Host port for Print Server or USB UPS monitoring.	
Gigabit Ethernet Port	Use the Gigabit Ethernet Port to connect the DNS-343 to the local network.	
Cooling Fans	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 they will switch to a high speed when the temperature rises above 49° C.	

Using the OLED

The DNS-343 ShareCenter[™] 4-Bay Network Storage 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 status and the number of hard drives installed and the bay ID's they are installed in. The OLED has four 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.

RAID Status- This screen shows the following information:

- The RAID health status.
- The status of the rebuilding progress.

Click 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.



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 bays.



3. Insert a 3.5" SATA hard drive into each available drive bay. Make sure to align the drive connectors to the SATA connectors on the bottom edge inside the drive bay of the DNS-343. Gently push the drive in until it connects. When a drive is inserted properly, you will feel it "seat" into the connector. Some hard drives that are thin or oddly shaped may need to be guided carefully into position.



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.



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



6. Connect the supplied power adapter to the power receptacle.7. Connect a USB printer. (Optional)

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.

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 available for mapping are displayed.
- Available Drive Choose an available drive letter. Click Connect Letters: to map the selected volume. Click Disconnect to disconnect the selected mapped volume.
 - About: Click About to view the software version of the Easy Search Utility.
 - **Exit:** Click **Exit** to close the utility.



Network Storage The Easy Search Utility displays any DNS-343 Device: device that it detects on the network.

Getting Started

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

Step 1 - Click Easy Search Utility.



Connect

About

Disconnect

Exit

Step 2 - 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 Application menus. The Applications menu is described later in this guide in the section titled Applications on page 65.



Please 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, then the DNS-343 will automatically be in the same subnet.

Step 3 - The Login screen will appear:

Type '**admin**' for the username and leave the password field blank. Click **Configuration**.

If the web browser is unable to connect to the web manager of the DNS-343. For example, if the DHCP server is inactive, 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.

Step 4 - 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.

Custom Configuration offers three combination methods: RAID 0 + JBOD, RAID 1 + JBOD and RAID 5 + JBOD.

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 of the hard drives installed in the DNS-343 during the formatting process.

Step 5 - A warning message appears informing you that your drives will be formatted and all data erased. Click **OK** to continue.

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 RAID 1 (Mirroring - Keeps Data Safe) RAID 5 (Striping with Rotating Parity) 	Size 750 GB 750 GB 750 GB 750 GB	Serial Number WD-WCAPT1090768 WD-WCAS85512740 WD-WCAS85512742 WD-WCAS85512748	DDAYYS-D1RCA DDAAKS-22YGA DDAAKS-22YGA DDAAKS-22YGA	Model WD75 WD50 WD50 WD50 WD50 configuration : ct a RAID type:	< Vendor WDC WDC WDC WDC © Basic Conf Select	Disk 1 2 3 4
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 KALO U (Sulping with Rotating Parity) 	Size 750 GB 750 GB 750 GB 750 GB	Serial Number WD-WCA285512740 WD-WCA385512740 WD-WCA385512742 WD-WCA385512748 idual Disks) combines All Disks)	DAYYS-01RCA DAAKS-22YGA DAAKS-22YGA DAAKS-22YGA Standard (Ind DADD (Linear	Model WD75 WD50 WD50 WD50 sonfiguration : tt a RAID type:	< Vendor WDC WDC WDC WDC Basic Conf Select	Disk 1 2 3 4
O Custom Configuration :	Size 750 GB 750 GB 750 GB 750 GB	Serial Number WD-WCAPT1090768 WD-WCAS85512740 WD-WCAS85512742 WD-WCAS85512748 idual Disks) combines All Disks) ng - Keeps Data Safe) width Botting Datit ()	DAYYS-01RCA DAAKS-22YGA DAAKS-22YGA ODAAKS-22YGA Standard (Ind JBOD (Linear RAID 1 (Mirror RAID 1 (Mirror	Model WD75 WD50 WD50 WD50 ronfiguration : tt a RAID type:	< Vendor WDC WDC WDC WDC Basic Conf Select	Disk 1 2 3 4
	Size 750 GB 750 GB 750 GB 750 GB	Serial Number WD-WCAPT1090768 WD-WCAS85512740 WD-WCAS85512742 WD-WCAS85512748 idual Disks) combines All Disks) ng - Keeps Data Safe) g with Rotating Parity)	DAYYS-01RCA DAAKS-22YGA DAAKS-22YGA DAAKS-22YGA Standard (Ind JBOD (Linear RAID 1 (Mirror RAID 1 (Stripi	Model WD75 WD50 WD50 WD50 To figuration : tt a RAID type:	< Vendor WDC WDC WDC WDC O Basic Conf Select	Disk 1 2 3 4
	Size 750 GB 750 GB 750 GB 750 GB	Serial Number WD-WCAPT1090768 WD-WCAS85512740 WD-WCAS85512742 WD-WCAS85512748 idual Disks) combines All Disks) ng - Keeps Data Safe) g with Rotating Parity)	DAYYS-01RCA DAAKS-22YGA DAAKS-22YGA DAAKS-22YGA OBAKS-22YGA OBAKS-22YGA OBAC (Inter OBAD (Linear ORAID 1 (Mirror ORAID 5 (Stripin	Model WD75 WD50 WD50 wD50 tonfiguration : tt a RAID type: Configuration :	< Vendor WDC WDC WDC @ Basic Conf Select	Disk 1 2 3 4





Step 6 - Choose whether to use the EXT2 or EXT3 file system on the DNS-343 from the drop-down.

Click **Next** to continue.

D-Link DNS-343				
FORMAT RESULTS				
Volume Name	File System	Format Result		
Volume_1	EXT2	SUCCESS		
Volume_2	EXT2	SUCCESS		
Volume_3	EXT2	SUCCESS		
Volume_4	EXT2	SUCCESS		
		Restar	t	
		-		
	STORAG	E		

Step 8 - When formatting of the drive completes, the DNS-343 will display the results of the disk formatting. Click Restart to restart the DNS-343.

		DNS-343	
FORMAT DISK:			
Please wait a moment			
_			
	2%		

Step 7 - The following window appears to indicate the progress of the disk formatting.

1	Microso	ft Internet Explorer 🛛 🛛 🛛 🛛
	2	Please wait a minute while the DN5-343 is restarted before logging in again.
		OK Cancel

Step 9 - A warning message informs you that it will take a minute for the DNS-343 to restart.

Click **OK** to restart the DNS-343.

The DNS-343 is restarting. Please wait a moment.

Step 10 - When the restart is complete, the login screen will appear. Note: After logging in to the DNS-343 for the first time, it is recommended to add a password to the admin account (See Step 3).

Web User Interface

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, DHCP Server, LLTD and Remote Backup settings are also contained here.
- **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 OLED 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.

These pages and their configuration options will be discussed in detail in the following pages of this manual.

Setup Section

- Wizard: The DNS-343 ShareCenter[™] 4-Bay Network Storage provides a convenient and safe location on the network for storing data and media. The Setup Wizard will let you adjust basic settings for your device.
- LAN Setup: The LAN Settings allow you to configure the Link Speed and to configure the IP address as a DHCP client or Static IP.
- Time and Date: The Time configuration option allows you to configure, update, and maintain the correct time on the internal system clock. From this section you can set the time zone that you are in and set the NTP (Network Time Protocol) Server to periodically update your system time from the NTP Server. You can also copy your computer's time as the system time.



Device: Workgroup and Active Directory configuration can be done here.

Wizard

The DNS-343 has a setup Wizard that allows you to quickly configure some of the basic device settings.



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



3. Set the appropriate Time Zone and click Next to continue.

D-Link
UNS-343
You may change the admin account password by entering in a new password. Click Next to continue.
New Password
Confirm Password
Back Next Exit

2. It is recommended you set an admin password here. Enter the new password and re-enter it for confirmation. Click **Next** to continue.



4. Edit or change the DNS-343 LAN information, or to keep the current settings, click **Next** to continue.

Section 3 - Configuration



5. The following screen allows you to choose your network type.

D-Link		
		DNS-340
SET ADDITIONAL INF	ORMATION :	
Enter your workgroup, na Otherwise you may accept	me, and description t the default value	in for the DNS-343 if necessary. es and click Next to continue.
Network Type O Workg	ioup (rectory
User Name		
Password		
DNS1		
DNS2		
Host Name	dink-9f3Jbb	
Workgroup		
Realm Name		
AD Server Name		
		Bade Next Exit

7. If your DNS-343 will be connected to an Active Directory network, click the **Active Directory** radio button. Enter the information about your Active Directory. Click **Next** to continue.

D-Link	
	DNS-343
SET ADDITIONAL INFO	DRMATION:
Enter your Workgroup, Nar necessary. Otherwise you r continue.	me, and Description for the DNS-343 if may accept the default values and click Next to
Network Type 💿 Workgro	oup 🔿 Active Directory
Workgroup	workgroup
Name	dlink-9f31bb
Description	DN5-343

6. If your network is configured as a workgroup, click the **Workgroup** radio button. Enter the Workgroup, Name and Description for your DNS-343, or leave the default values. Click

D-Link	DNS-343
SETUP COMPLETED:	
The Setup Wizard is complete. Click Back to make any changes. Completed to save the current settings.	Click
(Back) Completed	Exit

8. When the wizard completes, click **Back** to go back and make changes or click **Completed** to save the current settings.



10. The DNS-343 will restart.

ink			DNR 242
			DNS-343
User Name:			
Password:			
_			
C	onfiguration	Application	IS

11. When the login prompt appears, log in using the new administrator password.

LAN

The Local Area Network settings for the DNS-343 are configured on the LAN Setup page.

- Link Speed: The LAN Link Speed is set to Auto by default, but can be manually set to 100Mbps or 1000Mbps.
- **DHCP Client:** Selecting DHCP Client will cause the DNS-343 to obtain an IP address from the local DHCP server.
 - Static IP: Selecting Static IP requires you 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 the MTU size from the drop-down menu. Click the **Apply** button to save any changes made.

LAN SETTINGS : The LAN Settings alow you to configure the Link Speed and to configure the IP address as a DHCP cient or Static IP. Enabling Jumbo Frames alows you to increase the Frame size from 3,000 to 9000 bytes which increase network throughput and performance. Standard Ethernet Frames are 1,500 bytes in size. Save Settings Don't Save Settings

LAN SETTINGS :		
Speed 100 Mbps Link Speed ④ Auto	0100 1000 Apply	
O DHCP Client		
Static IP		
IP Address :	192.168.69.32	
Subnet Mask :	255.255.255.0	
Gateway :	192.168.69.1	
DNS1:		
DNS2 :		
JUMBO FRAME SETT	mes :	
Status :	C Enable O Disable	
	Apply	

Time and Date

The Time and Date of the DNS-343 can be set manually or be configured automatically using an NTP Server.



- **Time Zone:** Choose the Time Zone of where you are located from the drop-down menu.
- NTP Server: Select the Enable NTP Server check box to enable NTP. Network Time Protocol (NTP) synchronizes the DNS-343 with an Internet time server.

Type the URL of the NTP Server in the NTP Server check box or use the drop-down menu to choose one of the two time servers that D-Link provides for your convenience.

Set the Date and Time Manually: To set the date and time manually, ensure that the Enable NTP Server is deselected and select the Date and Time using the drop-down menus.

TIME ZONE :			
Time Zone :	GMT Casablanca, Monrovia		
NTP SERVER :			
Enable NTP Server NTP Server :	Select NTP Server		
SET THE DATE AND TIME MANUALLY :			
Date and Time :	Month 07 V Day 15 Vear 2009 V Hour 05 Minute 37 Second 56 V Set Time From My Computer		

Device - Workgroup

The device settings page allows you to configure the Workgroup or Active Directory settings of your network on the DNS-343. If your network is configured as a Workgroup, click the **Workgroup** radio button. Configure the parameters as described below:

- 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-xxxxx. This is useful when there is more then one DNS-343 on the network.

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

Description: Assign a device description to help identify the DNS-343 in the workgroup.

Click the **Save Settings** button when you have finished configuring the Workgroup settings.



DEVICE SETTINGS :				
Network Type 💿	Workgroup O Active [lirectory		
Workgroup	workgroup			
Name	dlink-9f31a6			
Description	DNS-343			

Device - Active Directory

If your network is configured in an Active Directory make sure the following conditions are true:

 Ensure that the Time and Date is synchronized between the DNS-343 and the Windows Active Directory server. The DNS-343 and Active Directory server will only tolerate a maximum time difference of 5 minutes.

DEVICE SETTINGS :	
Enter a workgroup, name, and description. Save Settings Don't Save Settings	

• Ensure that you can get the IP address of the 2003 AD server from the DNS server. The DNS1 and DNS2 settings are the same as the LAN Setup. Please make sure this is working properly.

To configure the DNS-343 to use Active Directory, click the Active Directory radio button and configure the parameters as described below:

Username:	Input the username of an account setup on the		
	Active Directory that requires access to the		
	resources on the DNS-343.		

- **Password:** Input the password of the chosen Active Directory user account.
- Host Name: Input a Domain Name Service (DNS) name for the DNS-343. If the device connecting to the DNS-343 is a browser or logon server, this will be the name that these services are advertised by.

DEVICE SETTINGS :					
Network Type 🔘 Wor	Network Type 🔿 Workgroup 💿 Active Directory				
User Name					
Password					
DNS1					
DNS2					
Host Name	dink-9f31a6				
Workgroup					
Realm Name					
AD Server Name					

- **Workgroup:** Enter your Workgroup name here. The workgroup name should be the same as the computers on the network. Devices using the same workgroup will have additional file sharing methods available.
- **Realm Name:** Input the FQDN (Fully Qualified Domain Name) of the Active Directory Domain in this field. This option specifies the Kerberos realm to use.
- AD Server Name: Input the name of the Active Directory Server in this field. When the Windows[®] user attempts to access the DNS-343 at login time, the DNS-343 will connect to the 2003 AD Server and attempt to authenticate the given user with the given password.

Click the **Save Settings** button when you have finished configuring the Active Directory settings.



Please Note:

For this feature to be enabled the user has to install the ADS Add-on available for this device.

Advanced

- **RAID:** This option allows you to change your hard drive configuration, or format a newly inserted hard drive. Please note that formatting a hard drive will erase any data that was stored on the hard drive.
- **Users / Groups:** This option allows you to create and manage user and group accounts. This is used for user access and read/write privileges for a specified folder on the network drive, or to setup FTP access and privileges.
 - Quotas: This option allows you to assign a quota to a group or user, to limit the amount of storage they are allocated. By default, users and groups do not have a quota.



- Network Access: This option allows you to assign the access rights for your users and groups to a specific folders or volumes.
 - FTP Server: This option contains the configuration settings for the built-in FTP server.
- **UPnP AV Server:** This option allows you to configure the UPnP AV server function.
- iTunes Server: This option allows you to configure the iTunes server function.
- DHCP Server: This option allows you to enable the built-in DHCP server to issue IP addresses to devices on your local network.
 - LLTD: This option allows you to enable or disable the LLTD support.
- **Remote Backup:** This option allows you to backup files on the DNS-343 to one or more remote NAS devices in order to prevent data loss in the event of a failure. You can securely backup or recover your data over an encrypted SSH connection.
 - Add-ons: This option allows you to install application packages onto your system. In addition, you can also install language packages to suit your local language needs.

RAID

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.

RAID Configuration: Click **Set RAID Type and Re-Format** to change

the current drive configuration.

If you already have one drive installed and intend to install additional drives, the DNS-343 allows you to change the drive configuration from Standard to JBOD, RAID 1, RAID 5 or a combination of RAID0/JBOD, RAID1/JBOD or RAID5/JBOD.

Configure Newly Inserted Hard drive(s): If you have installed an additional hard drive and chose not to do the configuration, you will see an additional option allowing you to configure the new hard drive. This will erase the entire data stored on the new hard drive.

Auto-Rebuild Configuration: Select to Enable or Disable Auto-Rebuild Configuration: When the DNS-343 has been configured as a RAID array the Auto-Rebuild function allows a degraded RAID array to rebuild when the failed hard drive is replaced by restoring data from the existing hard drives to the newly inserted hard drive.



Please Note:

Rebuilding will erase all the data on the newly inserted drive.

HARD DRIVE CONFIGURATION :

RAID CONFIGURATION allows you to change your hard drive configuration, or format a newly inserted hard drive. Please note that formatting a hard drive will erase any data that was stored on the hard drive.

AUTO-REBUILD CONFIGURATION allows you to enable or disable the Auto-Rebuild feature. You can also manually rebuild by clicking the Manually Rebuild Now button. Please note that rebuilding will erase all data on the newly inserted drive.

RAID CONF	RAID CONFIGURATION :			
Current RAID Volu	Type : me_1 : JBOD			
Re-co	nfigure All Existing Ha	rd Drive(s)		
AUTO-REB	UILD CONFIGUR	ATION :		
Vendor	Model	Serial Number	Size	
◯ Enable Au ④ Disable Au	ito-Rebuild ito-Rebuild		(andy)	
Manually	/ Rebuild Now			

Carry out the following to configure the RAID settings on the DNS-343:

Re-configure AllClick Re-configure All Existing Hard Drive(s)Existing Hardto setup the RAID configuration.Drive(s):

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**.

Custom Configuration



HARD DRIVE CONFIGURATION :

RAID CONFIGURATION allows you to change your hard drive configuration, or format a newly inserted hard drive. Please note that formatting a hard drive will erase any data that was stored on the hard drive.

AUTO-REBUILD CONFIGURATION allows you to enable or disable the Auto-Rebuild feature. You can also manually rebuild by clicking the Manually Rebuild Now button. Please note that rebuilding will erase all data on the newly inserted drive.

RAID CONFIGURATION :

Current RAID Type :

Volume_1 : JBOD

Re-configure All Existing Hard Drive(s)

Basic Configuration

This section allows you to change the hard drive configuration or to format the newly inserted hard drive. Notice that the data stored in formatted drives will be erased during the process.

RAID CONFIGURATION :

	_				
	Disk	Vendor	Model	Serial Number	Size
	1	Hitachi	HDS728080PLA380	PFDBW3SWT2VV4H	82 GB
	2	Hitachi	HDS728080PLA380	PFDBW3SWT68RNH	82 GB
۲	Basic	Configuration :			
	Se	lect a RAID type:			
			Standard (Individual E)isks)	
			O JBOD (Linear - Combi	nes All Disks)	
			ORAID 1 (Mirroring - Ke	eps Data Safe)	
			O RAID 5 (Striping with	Rotating Parity)	
~					
0	Custo	m Configuration :			
					Back Next

Users / Groups

The Users/Groups menu is used to create and manage user and group accounts. This is 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. When the DNS-343 is connected to a Workgroup, up to 64 users and 10 groups can be created. When the DNS-343 is connected to an Active Directory, a combined total of 500 users and groups can be displayed. By default all users have read and write access to all folders but access rules can be created in the Network Access menu.

- User and Group This section contains required attributes for a new user, including group, user name and password.
- Select Group: Select User or Group and enter a user or group name, password and then click Add.
- Users in Group: Select a group from the drop-down menu. Select the All accounts check box to add all the listed users to the group.
- List of All Users: Users that are assigned to the selected group will be listed here.

Displays the list of users that you may assign to the selected group.

To add a user to the selected group, click the user and then click **Add** >>.

To remove a user from the group, click the user and then click **<< Remove**.

USERS / GROUPS

This section allows you to create and manage user and group accounts. There are used for user access and read / write privileges for specified folder on the network drive, or to setup FTP access and privileges.

Up to 64 users and 10 groups can be created.

USER AND GROUP CREATION :	
⊙ User O Group	
User Name]
Password]
Confirm Password	Add
GROUP SETTINGS :	
	Select Group Please select a group 💌
List of all users	Users in group

	Select Group Please select a group M
List of all users	Users in group
	Add >>
	<< Remove
	Al accounts
USER LIST :	
🕹 Local User List 🛛 💐 Local Group List	
NO. User Name	Group Name

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.

Please see Knowledge Base Section for a Quota Configuration example.

- User Quota Settings: User quotas are displayed here. Quotas can be edited by clicking on the **Notepad** icon.
 - **Group Quota** 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.

QUOTA SETTINGS :

This section allows you to assign a quota to a group or user to limit the amount of storage they are alocated. By default, users and groups do not have a quota.

ISER QUOTA SETTINGS :					
NO.	User Name	Used	Limit	Edit	
1	user1	OMB	10000MB	1	
2	user2	OMB	10000MB	1	
2	user3	OMB	10000MB		

GROUP QUOTA SETTINGS :						
NO.	Group Name	Used	Limit	Edit		
1	group1	OMB	20000MB			
2	aroup2	OMB	10000MB	1		

QUOTA	STATUS :			
Status:	Started			
Disabled				

Network Access

The Network Access settings allow you to assign permissions for 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.

NFS Server Settings:	Choose whether or not to enable or disable NFS (Network File System).

- Network Access Assign permissions for users and groups on the Settings: 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

NETWORK ACCESS SETTINGS :

This section allows you to assign the access rights for your users and groups to a 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.

NFS SETTI	NGS :				
NFS Server	⊖Enable ⊙	Disable	Αρρίγ		
NETWORK	ACCESS SET	TINGS :			
Туре		S			
Category	⊙ User ◯ Gr	oup			
Folder	Please select a	user M L AI	Browse		
Permission	Read only	~			
Oplocks	No 💌				
Map archive	No 💌				
Comment			Save Setting	25	
SMB LIST	:				
		✓:Read/\	Write 🛄: Read on	y 🔄: Modify	Settings 闻: Delete
Share	Path	User/G	roup Comment	Oplocks a	nchive R/W
Volume_1	Volume_1	ALL		No	No 🗹 谢 🕅

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 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.
 - SMB List: Lists all defined access rules.

FTP Server

The DNS-343 is equipped with a built in FTP Server. The server is easy to configure and allows users access to important data whether they are on the local network or at a remote location. The FTP server can be configured to allow user access to specific directories, and will allow up to 10 users to access the DNS-343 at a time.

- **Category:** Determines whether the FTP server rule will apply to an individual user or a group.
- **User / Group:** Select the user or group the FTP server rule will apply to.
 - Folder: Browse to and select the folder or directory you are granting FTP access to. Selecting the root check box grants access to all volumes.
- **Permission:** Use the drop-down menu to set the user or group permission to Read Only or Read/Write.
 - Max User: Set the maximum amount of users that can connect to the FTP server.
 - Idle Time: Set the amount of time a user can remain idle before being disconnected.
 - Port: Set the FTP port. Default is 21.
- Flow Control: Allows you to limit the amount of bandwidth available for each user.
- **Client Language:** Most standard FTP clients, like Windows[®] FTP, only support Western European code page when transferring files. Support has been added for non standard FTP clients that are capable of supporting these character sets.



Please Note:

To be able to use this function, the FTP port must be set. The default option is port 21.

FTP SERVER SETTINGS :

This section contains the configuration settings for the build 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.

Category	💿 User 🔘 Group
User	Please select a user 💌 🔲 All accounts
Folder	Root
	Browse
Permission	Read only Add
FTP SERVER SE	TTINGS :
FTP SERVER SE	10 v
FTP SERVER SE Max. User Idle Time	10 M 2 (1~10 Minutes)
FTP SERVER SE Max. User Idle Time Port	TTURGS : 10 M 2 (1~10 Minutes) 21 (1025 to 3688, 3690 to 49999, 65501 to 65535, Default: 21)
FTP SERVER SE Max. User Idle Time Port Flow Control	10 ★ 2 (1~10 Minutes) 21 (1025 to 3688, 3690 to 49999, 65501 to 65535, Default: 21) ③ Unlimited ① x 10 KBs

- Modify Setting: Click the Notepad icon next to the Access List you want to modify.
 - **Delete:** Click the **Trashcan** icon next to the Access List you want to delete.
 - Status: Displays if the FTP server service has started or not.
 - 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 the FTP server.

Start / Stop FTP Click to Start or Stop the FTP server.

Server:

In order to use FXP (File Exchange Protocol) for server-to-server data transfer, please make sure to change the port from 21 to some other port as listed in the Port section of the web UI. Also, please make sure to open the corresponding port on your router and forward that port from your router to the DNS-343.

	M:Read/Write □:Read only III:Modify Settings III:Dele
ath	User/Group
P SERVER STAT	rus :
Status	Stopped
Port	21
Max. User	10
Flow Control	Unimted
Idle Time	2 (Minutes)
Client Language	Western European

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: Type a name for 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.

WBR-2310		SETUP	ADVANCED	TOOLS		STATUS	SUPPORT
VIRTUAL SERVER	VIR	TUAL SERVER	RULES :				Helpful Hints
APPLICATION RULES NETWORK FILTER WEBSITE FILTER FIREWALL SETTINGS	The to ar onlin	Virtual Server op h internal LAN IP e services such a ve Settings Doi VIRTUAL SE	tion allows you to define a Address and Private LAN pi s FTP or Web Servers. ht Save Settings RVER RULES	single public port ort if required. Th	on your roi is feature is	uter for redirection s useful for hosting	 Check the application Name drop down menu for applications that you can select from. If you select one of the pre-defined applications, click the arror button next to the drop down menu to fill out the appropriate fields.
ADVANCED WIRELESS				Port	Traffic Type	Schedule	You can select your computer from the list of
		Name DNS-343_FTP IP Address 192.168.0.32	Application Name <	Public 21 Private 21	TCP 💌	Always	DHCP clients in the Computer Name drop down menu, or enter the 1 address manually of the computer you would like to open the specified port to.
		Name IP Address	Application Name	Public Private	TCP 💌	Always	• In order to apply a schedule to a Virtual Serve Rule, you must first define a schedule on the Tools>Schedules page.

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.dns343.com:3000, where the FTP port is 3000).

FTP over TLS

Below we'll examine FTP over TLS. FireFTP is an open-source, cross platform FTP client for Mozilla Firefox users who want to use FTP or FTPS.

- **Step 1:** From the **Tools** menu click **FireFTP** to open the application in Mozilla Firefox.
- Step 2: Go to the Quick Connect drop down menu and choose Create an Account.



QuickConnect	<u>E</u> dit <u>A</u> bort						og/Queue <u>T</u> ools <u>H</u> elp
Create an account			Marowse				🔽 Cha <u>n</u> ge
QuickConnect	Name	/ Type	Date 🛤		Name	/ Туре	Date 🛱
Alpha ngs	Documents and Settings		May 19 2:23 AM				
Cyril Huang	Inetpub		Jun 15 3:35 PM				
Ruru Lu			May 19 1:42 AM				
🕀 🔂 Lotus	Cotus		Jun 23 4:03 PM	4			
🕀 🛅 Program Files	Program Files		Jun 29 9:58 AM		-		
🕀 🧰 S	i 🔂 S		Jul 1 8:39 AM				
🗄 🛅 temp	Entemp		May 20 5:38 AM				
🕀 🗁 WINDOWS	i indews		Jun 26 8:27 AM	-			
	AUTOEXEC.BAT	0 bat	May 19 12:11 AM				
*							
FireFTP 1.0.4 'Human Being' (oreated by <u>Mime Čuvalo</u>						

Step 3: Account Name:

Enter a name for this FTP connection here.

Host:

Enter the IP of the DNS-343 in here.

Login:

Enter the user's username in here.

Password:

Enter the user's password in here.

Step 2: Go to the Connection Tab and set the Security function to Auth TLS (Best).

Then click **OK** to finish the setup.

Main Details		-22
Account Nar	me: DNS-321	Cat <u>eg</u> ory:
<u>H</u> ost:	192.168.69.32	
Password:	•••••	
Password:	••••	
		Anonymous

🗹 Passiy	Mode			Pv6
<u>S</u> ecurity:	Auth TLS (Best)	P	ort:	21
Pr <u>i</u> vate Key		Browse	Convert.	
<u>R</u> emote:			Use C <u>u</u> rre	ent
		Keep directories in sync v	vhile navigal	ting
Step 5:	Firefox and FireFTP will now start a series of security confirmations.	Secure Connection Failed!		
---------	---	--		
	The first warning should look like this.	192.168.69.32 uses an invalid security certificate.		
	Click the Or you can add an exception button to accept the security change.	 The certificate is not trusted because the issuer certificate has expired. The certificate does not come from a trusted source. This could be a problem with the server's configuration, or it could be someone trying to impersonate the server. If you have connected to this server successfully in the past, the error may be temporary, and you can try again later. Cancel Or you can add an exception 		
	The second warning should look like this.	Secure Connection Failed!		
Step 6:	Click the Add exception button to accept the security change.	You should not add an exception if you are using an internet connection that you do not trust completely or if you are not used to seeing a warning for this server. Get me out of here! Add exception		
Step 7:	The next step is to get the certificate for the connection. Click the Get Certificate button to acquire the certificate.	Add Security Exception Image: Constraint of the state of the st		

Z germanently store this exception

Confirm Security Exception

Cancel

- Step 8: After the certificate has been acquired click on the **Confirm Security Exception** button to finish the security confirmations.
- Step 9: Select the newly added FTP connection and click on the **Connect** option if it has not already connected by itself.

If you can see your files on the right block from the DNS-321, the connection has been established successfully.



DNS-321 Disconr	nect <u>E</u> dit <u>A</u> bort					4	og/Queue <u>I</u> ools <u>H</u> elp
🛍 🧲 C:			Browse	🔯 😋 🗋 /Volume_1			🔽 Cha <u>n</u> ge
⊟ <mark> </mark>]⊂:\	Name	/ Type	Date 🛤		Name	/ Type	Date 🛤
🕀 🛅 Documents and Settings	Documents and Settings		May 19 2:23 AM	😟 🧰 Volume_1	DN5-321	4	Nov 6 2000
🕀 🧰 Inetpub	inetpub 🔁		Jun 15 3:35 PM		Nas_Prog	4	Nov 6 2000
🗉 🧰 Intel	Intel		May 19 1:42 AM		P2P	4	Nov 6 2000
🕀 🚞 Lotus	Lotus		Jun 23 4:03 PM		10000		
🕀 🛅 Program Files	Program Files		Jun 29 9:58 AM		4		
🕀 🧰 S	🗀 s		Jul 1 8:39 AM				
🕀 🧰 temp	Etemp		May 20 5:38 AM				
🕀 🗁 WINDOWS	C WINDOWS		Jun 26 8:27 AM				
	AUTOEXEC.BAT	0 bat	May 19 12:11 AM				
•		U Sys	мау 19 12:11 Am				
534 Fallback to [U] CWD /Volume_1 250 OK. Current directory is /Vo PASV MLSD 150 Accepted data connection 226-Options: -I 226 3 matches total	plume_1 ,168,69,32,222,245)						
Log Queue						- 16 - 16	- 10 - 10
Remote Listing: 3 object(s), 12.0 KB					Binary		- L Ins

UPnP AV Server

The DNS-343 features an UPnP AV Server. This server provides the ability to stream photos, music and videos to UPnP AV compatible network media players. If the server is enabled, the DNS-343 will be automatically detected by UPnP AV compatible media players on your local network.

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.

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.



UPNP AV SERVER SETTINGS :					
UPnP AV Server	⊙ Enable ○ Disable				
Folder	Root				
	dink-9f31a6_SHARE				

iTunes Server

The DNS-343 features an iTunes Server. This server provides the ability to share music and videos to computers on the local network running iTunes. 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: Set the password for the iTunes server (Optional).

ITUNES SERVER SETTINGS :

This section allows you to configure the iTunes server function. You can enable or disable the iTunes server function, set the password for the service, and specify the folder or directory that will be shared.

The DNS-343 will automatically scan for file updates when content is added or deleted from the available folders. You can also click the "Refresh" button to manually scan for file updates.

Save Settings Don't Save Settings Refresh

ITUNES SERVER SETTINGS :					
Tunes Server	🖲 Enable 🔿 Disable				
Folder	Root				
	dlink-9f31a6_SHARE				
Password					

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.

Source	Name	Time	Artist 🔺	Album	Genre	My Rating	
🕞 Library							
dink-AD04C1							
90's Music							
🙀 My Top Rated							
Recently Added							
Recently Played				_			
Top 25 Most Played		Music Library F	Password				
		The o	usic libraru requires a pass	word			
		1101	iusic ibidiy requires a pass	word.			
		Pass	word:				u
			emember password				
				Cancel			
							Y

Select the **DNS-343**. When prompted, enter the iTunes server password and click **OK**.

Source	Name	Ti	me	Artist		Album		Genre	My Rating	-
🕞 Library	🗹 Intro	0 0:	24	Aerosmith	0	Get A Grip	0	Rock		À
📄 dlink-AD04C1 🛛 🗢	d Eat The Rich	O 4:	10	Aerosmith	0	Get A Grip	Ο	Rock		T
90's Music	🗹 Get A Grip	O 3:	58	Aerosmith	O	Get A Grip	Ο	Rock		
My Top Rated	Fever	O 4:	15	Aerosmith	0	Get A Grip	0	Rock		
Recently Added	🗹 Livin' On The Edge	C 6:	07	Aerosmith	0	Get A Grip	0	Rock		
& Recently Played	🕑 Flesh	O 5:	56	Aerosmith	0	Get A Grip	0	Rock		
Top 25 Most Played	Walk On Down	O 3:	39	Aerosmith	0	Get A Grip	0	Rock		
in top correst they be	Shut Up And Dance	O 4:	55	Aerosmith	0	Get A Grip	0	Rock		
	🗹 Cryin'	O 5:	80	Aerosmith	0	Get A Grip	Ο	Rock		
	🗹 Gotta Love It	O 5:	58	Aerosmith	O	Get A Grip	0	Rock		
	d Crazy	O 5:	16	Aerosmith	0	Get A Grip	Ο	Rock		٣
	🗹 Line Up	O 4:	02	Aerosmith	0	Get A Grip	0	Rock		
	Amazing	O 5:	56	Aerosmith	0	Get A Grip	0	Rock		
	🗹 Boogie Man	O 2:	17	Aerosmith	0	Get A Grip	0	Rock		1
	🗹 Politik	O 5:	18	Coldplay	0	A Rush Of Blood T	0	Rock		
	In My Place	O 3:	48	Coldplay	0	A Rush Of Blood T	Ο	Rock		ъ
	Sod Put A Smile Upon Your Face	O 4:	57	Coldplay	O	A Rush Of Blood T	Ο	Rock		
	The Scientist	O 5:	09	Coldplay	0	A Rush Of Blood T	0	Rock		
	Clocks	O 5:	07	Coldplay	0	A Rush Of Blood T	0	Rock		
	🗹 Daylight	O 5:	27	Coldplay	0	A Rush Of Blood T	0	Rock		1
	Sreen Eyes	O 3:	43	Coldplay	0	A Rush Of Blood T	0	Rock		
	🗹 Warning Sign	O 5:	31	Coldplay	0	A Rush Of Blood T	0	Rock		ъ
	A Whisper	O 3:	58	Coldplay	0	A Rush Of Blood T	0	Rock		
	A Rush Of Blood To The Head	O 5:	51	Coldplay	0	A Rush Of Blood T	0	Rock		
	Amsterdam	O 5:	19	Coldplay	0	A Rush Of Blood T	0	Rock		L
	I Drive	O 4:	32	R.E.M.	0	Automatic For Th	0	Rock		Ŧ

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, but 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.

DHCP SERV	ER:			
DHCP Server : Starting IP Ad Ending IP Add Lease Time :	 Ena dress : 192.16 192.16 1 Weel 	able Obisable 8.0.200 8.0.254		
DHCP CLIEF	IT LIST :			
Host Name	IP Address	MAC Address	Expired Time	

LLTD

The DNS-343 supports LLTD. LLTD stands for Link Layer Topology Discovery and is used to discover network devices by the Network Map application that is included in Windows Vista[®].

Click the **Enable** or **Disable** radio button to enable or disable the DNS-343 LLTD service.

LLTD :	
This section all	ows you to enable or disable the LLTD support.
Save Settings	Don't Save Settings
LLTD :	
LLTD :	Enable Disable

Remote Backup

The Remote Backup window allows you to backup the files stored on the DNS-343 to one or more remote NAS devices in order to prevent data loss in the event of a failure.

The Remote Backup feature has the following benefits:

- 1. Uses a Secure Shell (SSH) connection that dynamically creates secure key pairs to encrypt the data, ensuring that your data is reliably backed up or restored securely.
- 2. Supports 10 concurrent downloads to multiple destination devices, providing efficient and comprehensive backups.
- 3. If configuring the DNS-343 to be a Destination device, the Remote Backup feature allows you to browse to the shared backup folders setup on a Source device.
- 4. The shared backup folder located on the Source device is encrypted before being sent to the Destination devices.

Remote BackupClick the Source radio button to specify that
you want to backup the files stored on the
DNS-343 to a remote NAS device.

Click the **Destination** radio button to specify that the DNS-343 should be used as a destination device for a remote NAS device to back its files onto.

Please consult your router's manual for information on port forwarding or virtual server settings.

REMOTE BACKUP SETTINGS

This section allows you to backup files on the DNS-343 to one or more remote NAS devices in order to prevent data loss in the event of a failure. You can securely backup or recover your data over an encrypted SSH connection.

REMOTE BACI	KUP SETTINGS :			
Туре	O Source ○ Destinat Destinat O	tion		
Password				Apply
SOURCE SHAL	RE PATH :			
Dest. Backup Fol Backup from	der Name			Browse
SOURCE STAT	'US :			
Status	Stopped Start Remote Server			
SOURCE SHAL	RE LIST :			
Dadua force		Death Falder Prove	: Modify	Settings 闻 : Delet
Backup from		Dest, Folder Name		



Please Note:

To be able to use this function, port numbers 22, 873, and 62057 need to be forwarded to this unit from your local router's setup.

Remote Backup - Source

If configuring the DNS-343 to be a Source device, configure the parameters as described below:

- Remote Backup Settings: Type a password that will be used by the destination NAS device to authenticate with the DNS-343 before copying the files.
- Destination Backup
Folder Name:Type a name for the folder that you want to back
the data up to on the remote device.
 - **Backup from:** Click the **Browse** button to specify the folders that you want to backup on the DNS-343. Click the **Apply** button to add the folder to the Source Share List.
- Source Share List: Displays the list of folders that will be backed up onto the destination NAS device. To modify the source folder, click the **Notepad** icon next to the folder you want to modify and change the required settings. To delete a source folder, click the **Trashcan** icon next to the folder you want to delete.

Туре	Source Destination	
Password		Apply
SOURCE SH	ARE PATH :	
Dest. Backup I Backup from	Folder Name	Browse
SOURCE ST	ATUS :	
Status	Stopped Start Remote Server	
SOURCE SH	ARE LIST :	
na dun farm	Dest Folder Name	odify Settings 🔃 : Delete

Remote Backup - Destination

If configuring the DNS-343 to be a Destination device, configure the parameters as described below:

- **Source IP:** Type the IP address of the NAS device that is storing the files you want to backup.
- **Password:** Type the password that has been setup on the source device for the Remote Backup feature.
 - Save to: Click the **Browse** button and select the folder where you want to back the data up to. Click the **Apply** button to add the folder to the Destination List.
 - Method: Select the Keep existing file check box to stop any existing files stored on the destination folder from being deleted.
- **Destination List:** Select the check boxes next to the folders that you want to back the data up to.

REMOTE BA	CKUP SETTINGS :		
Туре	🔘 Source 💿 Destinatio	on	
Source IP			
Password			
Save To			Browse
Method	Keep existing file		
			Apply
DESTINATI	DN LIST :		
Backup	from	Dest. Folder Name	
			Badoup

Add-ons

In this section you will be able to install application and language packs to further enhance the functionality of your DNS-343. This powerful new feature on the DNS-343 allows users to customize the interface and usability of this unit. Adding features to the unit now only requires an Add-on installation as soon as new features are available.

- Application Pack: Click on **Browse** to search for the specific application pack you want to install. After selecting the application pack, then click **Apply** to install the application pack.
- Language Pack: Click on **Browse** to search for the specific language pack you want to install. After selecting the language pack, then click **Apply** to install the language pack.
- Add-Ons Summary: In this section you can see a summary of the application/language pack(s) you have installed. Under the *Status* column, you can see if a specific pack is currently enabled or disabled. Under the *Start/Stop* column, click the **Start** icon to enable the specified pack.

Click on the **Stop** icon to disable the specified pack. Under the *Remove* column, click the **Trashcan** icon to uninstall the specified pack

The two Add-ons listed here are **BitTorrent Client Application** and **ADS**.

ADD-ONS :

This section allows you to install application packages onto your system. In addition, you can also install language packages to suit your local language needs.

PPLI	CATION PACK :				
ile Patl	h:		Browse	Apply	
ANG	JAGE PACK :				
ile Patl	h :		Browse	Apply	
ADD-O	DIIS SUMMARY :		S:Enable C	Disable	art 💻 Ste
NO.	NIS SUMMARY : Module Name	Version	C:Enable C):Disable 💽:St Start/Stop	art E : Sto Delete
NO.	Module Name	Version 1.00	C:Enable C Status):Disable .st Start/Stop	art E : Sto Delete
NO. 1 2	Module Name ADS BitTorrent	Version 1.00 1.00	Status	Start/Stop	art E ste Delete



Please Note:

Keep a keen lookout on D-Link's local website for new Add-on releases.

Language Pack

After loading a language pack you must activate it on the Add-Ons page. After activating a language pack the interface of the DNS-343 will change to the language loaded. Below is an example of a running Chinese language pack.

D-Link						
DNS-343	設定	進階設定	IA	狀態	支援	
RAID 使用书词知知	増益集 :				有用的提示 結確定要在使用應用程	
12.70年7.47 配額設定	這個卻份可課您安裝設備 也可安裝語言至件以将合	≹專用的應用程式套件到您 ☆當地的語言需求。(若炎	的設備硬碟之中,以彈性的 3沒有安装硬碟,便無法使用	牘充新功能。此外,您 目本功能)	式 /語言套件前先對其 安裝,此外,應用程式 及語言套件可以藉由點	
網路分享設定 (Samba)					撃在「増益集擒要」區 段裡「啟動 / 解閉」 欄	
FTP 伺服器	慶用程式套件 :				下的「啟動 / 腐閉」 圖 示以暫時關連(法遗在 2015年3月日) 注意	
UPnP AV 伺服器	i di sia Dia kao				稍很重新闲取了。 這些 套件也可加以删除。	
Trunes 何服器	福集路径:		Browse 2:78		取消此語言套件將會讓 KAG語言同指到預給道	
DHCP 伺服器					英文.	
理玩慣() 協公集	語言套件:					
通用	where the sector					
	檔案路徑 :		Browse 客用	<u>í</u>		
	增益集績要 :					



Please Note:

Please contact the local vendor (D-Link) to find out if there is a language pack available for your local language.

Maintenance

- Admin Password: This section allows you to set a password for your admin account.
 - System: The System Settings section allows you to restart the system, shutdown the system, or restore the device to the factory default setting.
- Firmware Upgrade: A new firmware upgrade may be available for your DNS-343. It is recommended to keep your DNS-343 firmware up-to-date to maintain and improve the functionality and performance of your storage device.

E-mail Alerts:

This section allows you to configure e-mails to alert you to certain operational conditions and drive status conditions.

D-Lini	k				\prec
DNS-343 //	SETUP	ADVANCED	MAINTENANCE	STATUS	SUPPORT
Admin Password	ADMINISTRATOR	SETTINGS :			Helpful Hints
System					recommended that you
Firmware Upgrade	This section allows you	to set a password for yo	ur admin account.		the Administrator. Be sure
Email Alerts	By default there is no p	password configured. It is	highly recommended to se	et an admin password	to write down the new Password to avoid having to reset the DNS-343 in the event that it is forgotten.
Power Management	to keep your device se	cure.			
Dynamic DNS	Save Settings	Don't Save Settings			,
OLED Display					
Disk Diagnostic	ADMINISTRATOR	SETTINGS :			
Logout	User Nam	e : admin			
	Passwon	d :			
	New Passwore	d :			
	Confirm Passwor	d :			

Power Management:

This section allows you to enable or disable the Hard Drive Hibernation and Power Recovery function.

- **Dynamic DNS:** The Dynamic DNS 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 enter your host name to connect to your NAS no matter what your IP address is.
- **OLED Display:** This section allows you to configure the OLED display screen to turn to standby mode after a specified idle time.
- **Disk Diagnostics:** This section allows you to perform a health test on your hard drives. In addition, you can set a schedule for your tests and receive e-mail notifications.

Admin Password

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

This section allows you to	set a password for your admin account.
By default there is no pas to keep your device secu	sword configured. It is highly recommended to set an admin passwon re.
Save Settings Dr	n't Save Settings
ADMINISTRATOR SE	TTINGS :
ADMINISTRATOR SE	admin
ADMINISTRATOR SE User Name : Password :	admin

Confirm Password :

- 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 for system restarts, saving and loading configuration settings, and setting idle times.

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

- **Restore 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.

Click **Apply** to save the settings.

SYSTEM SETTINGS :						
The System Settings section allows you to restart the system, shutdown the system, or restore the device to the factory default setting. Restoring the unit to factory settings will erase all settings, including any rules that you have created.						
The current system settings can be sav be uploaded into the unit.	ed as a file onto the local hard drive. The saved file can					
RESTART -						
RESTRAT.						
System Restart.	Restart					
DEFAULTS :						
Restore To Factory Default Settings.	Restore					
SHUTDOWN :						
System shutdown.	Shutdown					
CONFIGURATION SETTINGS :						
Save Configuration Settings.	Save					
Load Configuration Settings.	Browse Loed					
IDLE TIME :						
Config Inactivity Timer	10 (Minutes)					
Download Schedule Inactivity Times	10 (Minutes)					
Download Schedule Inactivity Ther						
	Apply Cancel					

Firmware Upgrade

The DNS-343 Firmware Upgrade menu makes it simple to check for new firmware releases and upload them to the device.

FIRMWARE UPGRADE :

A new firmware upgrade may be available for your DNS-343. It is recommended to keep your DNS-343 firmware up-to-date to maintain and improve the functionality and performance of your storage device.

Click D-Link Support Page to check for the latest available firmware.

To upgrade the firmware on your DNS-343, please download and save the latest firmware version from the <u>D-Link Support Page</u> to your local hard drive. Locate the file on your local hard drive by clicking the Browse button. Once you have found and opened the file using the browse button, click the Apply button to start the firmware upgrade.

Firmware Upgrade: This section provides a link to check for new firmware on the D-Link support website.

If a new firmware is available, download the file to your local computer.

Current Firmware This section provides information about the current Info: DNS-343 firmware.

When upgrading the firmware, click **Browse** to select the new firmware file on your local computer.

Click **Apply** to begin the firmware upgrade process.

Current OLED This section provides information about the current **Firmware Info:** DNS-343 OLED firmware.

See the OLED Firmware Upgrade page for details on how to upgrade the OLED Firmware.

CURRENT FIRMWARE INFO :

Current NAS Firmware Version : 1.03	
Current OLED Firmware Version : 1.03	
Firmware Date : 07/07/2	2009
File Path :	Browse Apply

OLED Firmware Upgrade

The latest firmware for the DNS-343 has a function that verifies if the OLED Firmware is up to date or not. When the OLED Firmware is out dated, after the firmware update, the user will be prompted to update the OLED firmware automatically.

Start: Go to the MAINTENANCE > FIRMWARE UPGRADE

page to verify the current firmware version.



CURRENT FIRMWARE INFO

Step 1: To upgrade the firmware, click on the **Browse** button and select the latest firmware available for the upgrade.

Notice that you can go to your local D-Link web site to find out what the latest available firmware is for the DNS-343. In this example, we upgraded to the firmware version 1.03.

Once you've selected your firmware file, click on the **Apply** button to begin the firmware update process.

Current Firmware Version : 1.02	
Firmware Date : 08/20/2008	
File Path :	Browse Apply



Section 3 - Configuration

Step 2: After the firmware update has been completed, you'll be prompted to click the **Restart** button.

Current Firmware Version :	1.02
Firmware Date :	08/20/2008
File Path :	D:\Projects Pending Writer\DNS- Browse Apply

The DNS-343 is restarting. Please wait a moment.

After clicking the **Restart** button, wait 120 seconds for the device to restart.

Step 3: After the restart, you can connect to the web configuration again. The latest firmware evaluates the current OLED firmware and will prompt you to upgrade it if it's out dated.

If prompted to upgrade, click the **Start** button to begin the OLED firmware upgrade.

D-Link
OLED FIRMWARE UPGRADE :
A new OLED firmware upgrade may be available for your DNS-343. It is recommended that you keep your DNS-343 OLED firmware up-to-date to maintain and improve the functionality and performance of the OLED of your storage device. Click <u>D-Link Support Page</u> to check for the latest available OLED firmware. To upgrade the OLED firmware on your DNS-343, please download and save the latest firmware version from the <u>D-Link Support Page</u> to your local hard drive. Locate the file on your local hard drive by clicking the Browse button. Once you have found and opened the file using the browse button, click the Apply button to start the firmware upgrade.
CURRENT OLED FIRMWARE INFO :
Current OLED Firmware Version : 1.02
OLED Firmware Date : 10/27/2008
STORAGE

Step 4: The update will automatically go through the steps of erasing and programming the OLED firmware of your device.

Step 5: After the update has been completed, you'll be prompted to remove the power cord from the DNS-343, wait for 5 seconds and then insert the power cord back into the DNS-343 again.

After this, updating the firmware and the OLED firmware will be complete.

	DNS-343
OLED FIR	MWARE UPGRADE :
A new OLEE that you kee functionality) firmware upgrade may be available for your DNS-343. It is recommended ap your DNS-343 OLED firmware up-to-date to maintain and improve the and performance of the OLED of your storage device.
Click <u>D-Link !</u>	Support Page to check for the latest available OLED firmware.
To upgrade latest firmwa the file on y and opened firmware up	the OLED firmware on your DNS-343, please download and save the are version from the <u>D-Link Support Page</u> to your local hard drive. Locate our local hard drive by clicking the Browse button. Once you have found the file using the browse button, click the Apply button to start the grade.
CURRENT	OLED FIRMWARE INFO :
	Current OLED Firmware Version : 1.02
	OLED Firmware Date : 10/27/2008
	Erasing µP
	2%
	STORAGE
)-Linl	ć 💦
	DNS-343
OLED FIR	MWARE UPGRADE :
A new OLED	
that you kee functionality) firmware upgrade may be available for your DNS-343. It is recommended ap your DNS-343 OLED firmware up-to-date to maintain and improve the and performance of the OLED of your storage device.
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that you ker functionality Click <u>D-Link</u> To upgrade atest firmware the file on y and opened firmware up CURRENT	o firmware upgrade may be available for your DNS-343. It is recommended and performance of the OLED of your storage device. Support Page to check for the latest available OLED firmware. the OLED firmware on your DNS-343, please download and save the are version from the <u>D-Link Support Page</u> to your local hard drive. Locate our local hard drive by clicking the Browse button. Once you have found the file using the browse button, click the Apply button to start the grade. OLED FIRMWARE INFO : Current OLED Firmware Version : 1.02 OLED Firmware Date : 10/27/2008 Programming uP 34% STORAGE
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that you kee functionality Click <u>D-Link</u> To upgrade latest firmware up and opened firmware up CURRENT	D firmware upgrade may be available for your DNS-343. It is recommended and performance of the OLED of your storage device. Support Page to check for the latest available OLED firmware. the OLED firmware on your DNS-343, please download and save the are version from the <u>D-Link Support Page</u> to your local hard drive. Locate our local hard drive by clicking the Browse button. Once you have found the file using the browse button, click the Apply button to start the grade. OLED FIRMWARE INFO : Current OLED Firmware Version : 1.02 OLED Firmware Date : 10/27/2008 Programming µP 34%

E-Mail Alerts

E-MAIL ALERTS :

Save Settings

safeguarding of important data.

E-MAIL ALERT SETTINGS :

User Name : Password :

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.

The Alert Settings section contains the configuration settings for your e-mail account and alert preferences. Once configured, use the **Test E-Mail** button to send a test e-mail and confirm your settings are correct. The Alert Types section contains the alert options and their configuration settings.

- Login Method: Select either Account or Anonymous. 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@dns343. 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.

MAIL ALERT SETTINGS :			
	Test E-Mai		
Receiver E-mail :			
Sender E-mail :			
SMTP Server :			

This section allows you to configure e-mails to be alerting you to certain operational conditions

Clear Saved Settings

and drive status conditions. These alerts can prove helpful with the management and

Don't Save Settings

Login Method :
Account
Anonymous

-MAIL ALERT SETTINGS :				
Login Method : 🔿 Account 💿 Anonymous				
SMTP Server :				
Sender E-mail :				
Receiver E-mail :				
Test E-Mai				

- **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.

Section 3 - Configuration

Space Status:	Select an interval in hours and minutes to have a	ALERT TYPES :
	status of space remaining on the drives e-mailed.	Space Status Interval: O V(Hours) O V(Minutes)
A Volumo lo Eully	An alort will be cant when the hard drive is full	One Of The Volumes Is Full
A VOIUIIIC IS FUII.	An alert will be sent when the hard drive is full.	One Of The Hard Drives Has Failed
A Hard Drive Has	An alert will be sent if a critical error occurs on one	The Administrator Password Has Been Changed
Failed	of the drives	Firmware Has Been Upgraded
rancu.		Send log file
Administrator	An alert will be sent if the admin password	Send S.M.A.R.T. Test Result
Password Change:	changes.	System Temperature Has Exceeded Fahrenheit 💌 140 °F
· · · · · · · · · · · · · · · · · · ·		Enabling this feature will cause the DNS-343 to shut down after the selected temperature is exceeded and an e-mail is sent.
Firmware Upgraded:	An alert will be sent if the firmware is upgraded.	
Send Log File:	A log file will be sent daily, weekly or monthly.	
S.M.A.R.T. Test Result:	S.M.A.R.T. information and result will be sent.	
System Temperature Exceeded:	An alert will be sent if the DNS-343 device temperatu DNS-343 will power off for safety.	ire exceeds the set threshold. After the alert has been sent, the
RAID Degraded Status:	An alert will be sent if a degraded RAID status is de	tected.

RAID Rebuilding An alert will be sent if the RAID rebuilding process is complete. Status:

Power Management

The DNS-343 Power Management feature allows you to configure the drives to shut down while power remains constant to the device. The drives will power up again when data is accessed.

POWER MANAGEMENT :	
This section allows you to enable or disable the Hard Drive Hibernation and Power Recovery function.	
Save Settings Don't Save Settings	
HARD DRIVE HIBERNATION SETTINGS -	
HDD Hibernation :	
Turn Off Hard Drives : After 5 minutes 💌	
POWER RECOVERY SETTINGS :	
Power Recovery : O Enable O Disable	

- HDD Hibernation: Use the radio buttons to Enable or Disable the Hard Drive Hibernation feature.
- Turn off Hard Drives: Use the drop-down menu to set the amount of time before idle drives will be shut down.
 - Power Recovery
Settings:Click the Enable radio button to automatically
restart the DNS-343 after an unexpected shutdown
or after a power failure.

Dynamic DNS

The Dynamic DNS 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 enter in your domain name to connect to your server no matter what your IP address is.

Server Address: Enter the DDNS server address or select from

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

dropdown 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.

Status: Displays your DDNS status.

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

DDNS SETTINGS :

The Dynamic DNS 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 enter your host name to connect to your NAS no matter what your IP address is.

Sign up for D-Link's Free DDNS service at www.DLinkDDNS.com.

Save Settings Don't Save Settings

Dynamic DNS	🔿 Enable 💿 Disable	
Server Address :		<< Select Dynamic DNS Server
Host Name :		(e.g.: me.mydomain.net)
Username or Key :		
Password or Key :		
Verify Password or Key :		

OLED Display

The OLED Display settings allows 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.

OLED DISPLA	Y SETTINGS :
This section allow specified idle time	vs you to configure the OLED display screen to turn to standby mode after a a.
Save Settings	Don't Save Settings
OLED DISPLA	Y SETTINGS :
Sleep :	After 30 secs 💌

Disk Diagnostics

S.M.A.R.T stands for "Self-Monitoring, Analysis, and Reporting Technology". This is a system on a hard drive used to monitor and report on the health of the drive. If the HD is grayed out, then it does not support S.M.A.R.T.

Quick Test: Runs a quick S.M.A.R.T test. The test usually takes less than 10 minutes. This test will check the electrical, mechanical, and read performance of the hard drive. The results are displayed as Passed/ Failed on the web UI and can also be sent as an email alert.

Extended Test: Runs an extended S.M.A.R.T test. This test requires a lot more time to complete. However, it is a more thorough and complete test when compared to the Quick Test.

Send Result By Enable this function in order to have the results of Email: the S.M.A.R.T test sent to you by e-mail.

Create Schedule: Click on this button in order to create a scheduled S.M.A.R.T test. You will be able to schedule a test on a daily, weekly, and monthly basis.

Scan Disk: Scan Disk will scan your system's file system for errors and/or corruption. After completion, any errors on your file system will be displayed accordingly.

To run the S.M.A.R.T test, select the hard drive you wish to perform the S.M.A.R.T test on. Then select whether to run a **Quick** or **Extended S.M.A.R.T test.** Then click the **Start** button to run the test.

This section allows you to perform a health test on your hard drives. In addition, you can set a schedule for your tests and receive email notifications.

S. M	I.A.R	LT TEST :			
	Slot	Manu.	Model	Progress	Result
	1	WDC	WD2500AAKS-00L9	-	Pass [2009/07/15 09:15:48]
	2	WDC	WD5000AAKS-22YG	-	
	3	Hitachi	HD5728080PLA380	-	1
	4	Hitachi	HDS728080PLA380	-	-
Test	type:	: 💿 Quick te	est OExtended test		
	Send	result by E-ma	d		
0	Ireate	Schedule	Stert		

SCAN DISK :
Volume Name : Volume_1 💌 Scan Disk

Status

- System Info: View a summary of system information here.
- Hard Drive Info: View a summary of hard drive information here.
 - Logs: Use this option to view the NAS system logs and the FTP logs.



Device Information

View a summary of system information here.

DEVICE INFORMATION :

View a summary of hard drive information here.

- 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 are unable to print.
- Hard Drive Info: Displays the total number of hard drives installed in the DNS-343.
- **Physical Disk Info:** Displays the hard drive information, including the disk mode, total size, used and remaining drive space.

LAN INFO :

IP Address: 192.168.69.32 Subnet Mask: 255.255.255.0 Gateway IP Address: 192.168.69.1 Mac Address: 00:1E:58:9F:31:A6 DNS1: DNS2:

DEVICE INFO :

Workgroup: workgroup Name: dlink-9f31a6 Description: DNS-343 System Temperature: 113°F / 45°C

PRINTER INFO : Manufacturer: None Product: None Clear print queue(s) HARD DRIVE INFO : Volume Name: Volume_1 Volume Type: 180D

Volume Type: JBOD Total Hard Drive Capacity: 894113 MB Used Space: 88 MB Unused Space: 894024 MB

Connecting a UPS to the DNS-343

To add an Uninterruptible Power Supply (UPS), carry out the following steps:

- Turn off the DNS-343 if it is not already powered down.
- Connect the UPS to the USB port on the back of the DNS-343.
- Connect the power of the DNS-343 to the UPS.
- Turn on the UPS.
- Turn on the DNS-343.
- Verify the UPS is properly connected and powered on by going to the Device Information window.

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' 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.

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 on the right-hand side shows the Status screen when a UPS is attached to the DNS-343. The parameters shown above are displayed in the UPS Info section.

Hard Drive Information

This section will display a summary of the hard drive(s) currently installed in the DNS-343. The summary will include information such as the hard drive manufacturer, model, serial number, temperature, total capacity size, and status. The **Status** of the hard drive will display the health of the hard drive. If your hard drive is healthy, the status will display *Normal*. If your hard drive is not healthy, the status will display *Abnormal*. At any time, if you wish to view the S.M.A.R.T table of the hard drive, you can click the **Normal/Abnormal** button.

HAR	D DRIV	E INFORMATION :						
View	a summa	ary of hard drive inform	ation here.					
		.,						
HAR	D DRIV	/E INFO :						
Slot	Manu.	Model	Serial Number		Tem	p. S	ize	Status
1	Hitachi	HDS728080PLA380	PFDBW3SWT2V	/V4H	40°C/1	04°F 8	2 GB	Normal
2	Hitachi	HDS728080PLA380	PFDBW3SWT68	RNH	43°C/1	09°F 8	2 GB	Normal
SLOT	Г 1 S. М	I.A.R.T INFO						
Id		Item	Now	Wo	orst	Three	sh	Raw Value
1	Raw_Re	ead_Error_Rate	100	1	00	16		0
2	Throug	hput_Performance	100	1	00	50		0
3	Spin_U	p_Time	103	1	03	24		190
4	Start_S	top_Count	100	1	00	0		515
5	Realloca	ated_Sector_Ct	100	1	00	5		0
7	Seek_E	rror_Rate	100	1	00	67		0
8	Seek_T	Time_Performance	100	1	00	20		0
9	Power_	On_Hours	100	1	00	0		1449
10	Spin_Re	etry_Count	100	1	00	60		0
12	Power_	Cycle_Count	100	1	00	0		317
192	Power-	Off_Retract_Count	100	1	00	50		552
193	Load_C	ycle_Count	100	1	00	50		552
194	Tempe	rature_Celsius	137	6	55	0		40
196	Realloca	ated_Event_Count	100	1	00	0		0
197	Current	_Pending_Sector	100	1	00	0		0
198	Offline_	Uncorrectable	100	1	00	0		0
199	UDMA_	CRC_Error_Count	200	2	53	0		0

Log

Use the Log window to view a summary of the System and FTP Log Events on the DNS-343. Select **System Log** from the drop-down menu to view the System Log events. Choose FTP Log from the drop-down menu to view FTP Log events.

Use this option	to view the NAS s	ystem logs and the FTP logs.
LOGS :		
Logs : System L	.og 🚩	
Date	Time	Info
2001/02/05	19:19:28	Modify System time to "2001/02/05 19:19:28"
2001/02/05	19:19:55	System up
2001/02/05	19:21:13	admin login.
2001/02/05	19:21:22	admin login.
2001/02/05	19:33:27	admin login.
2001/02/05	19:38:04	System restart.
2001/02/05	19:39:02	Modify System time to "2001/02/05 19:39:02"
2001/02/05	19:39:23	System up
2001/02/05	19:40:14	admin login.
2001/02/05	19:43:40	Modify "admin" password.
2001/02/05	11:44:00	Modify RTC time to "2001/02/05 11:43:59"
2001/02/06	03:44:21	admin login.
2001/02/06	03:45:43	admin logout.
2001/02/06	03:45:49	admin login.
	02:51:24	System restart

Support

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



Applications

When the Login screen appears, type '**admin**' for the username and leave the password field blank.

Click Applications.

D-Link	L
DNS-343	
User Name:	
Password:	
Configuration Applications	
STORAGE	

Scheduled Downloads

Scheduling Settings: Configure download and backup schedules here.

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



Scheduling Settings

Schedule downloads of files and folders from an FTP server, web server, or local network share.

- 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 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.

SCHEDULING :

Schedule downloads of files and folders from an FTP server, web server, or local network share.

Save Settings Don't Save Settings

SCHEDULI	IG :	
Login Method	Account Anonymous User Name Password eeeee	
Туре	File M	
URL	Test Local	
Save To	Browse	
When	Date : 07 💌 / 15 💌 / 2009 💌 Time : 09 💌 : 40 💌	
Recurring Backup	NONE 💌 00 🖂 00 🗸	
	Incremental Backup (Only for local backup)	
SCHEDULE	LIST :	
Status Down	load Path Save To	Time Del
		Refresh

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. Ticking 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.

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

Scheduling List

Pending and completed download events will be listed here. The current status for each event is displayed here. In addition, there is an option to delete a download event at any time. Current download statistics, such as % completed and download speed, are displayed for each event. A refresh button is also provided to produce updated listings at any time.

SCHEDULE LIST :

View the progress and status of currently scheduled downloads.





Download Success.



Download has not yet occurred. ?



Link File.

The file is downloading.

BitTorrent

BitTorrent is a peer-to-peer file sharing protocol used for distributing large amounts of data.

- **Downloads:** Download files using the built-in BitTorrent download manager.
 - Settings: Configure your BitTorrent download manager settings.
 - Support: Locate support for this section.

SCHED	ULE BIT	TORRENT			
DOWNLO	ADS:				
Here you ca	n download files using	the built in BitTome	nt download manager.		
DOWNLO4	ADS:				
			Total S	peeds	
					0
			Uploa	ds:	0
			Uploa	ds:	0
Add To	rrent From URL		Add	ds: Remov	0 e Complete
Add To	rrent From URL	Add Torrent From	Uploa Add	Remov	0 e Complete
Add To	rrent From URL Torrent From URL [Red Hat Linux	Add Torrent From	Uploa Add File stem Administration - 2n	Remov	0 e Complete
Add To St Add	rrent From URL Torrent From URL [Red Hat Linux ebooks-book2	Add Torrent From Networking and Sy	Uploa Add File stem Administration - 2n	Remov	0 e Complete
Add To R Add Sta	Torrent From URL Torrent From URL C Red Hat Linux ebooks-bookz	Add Torrent From Networking and Sy	Uploa Add File stem Administration - 2n	Remov d Edition -	e Complete
Add To Add To Sta	Torrent From URL Form URL C Red Hat Linux ebooks-books	Add Torrent From Networking and Sy- tone	Uploa Add File stem Administration - 2n 0%	Remov	e Complete Remove

Downloads

Here you can download files using the built in BitTorrent download manager.

- Total Speeds: Total download and upload speed will be displayed here for torrents that are active.
- Add Torrent: Add Torrent from URL: In the field provided you can copy and paste a link to a torrent file hosted on the Internet. The BitTorrent download manager will add the torrent file to the download manager for downloading.

Add Torrent from File: Here you can browse for a torrent file you have downloaded onto your PC. This allows you to load the torrent file from your local PC.

- **Remove Completed:** By clicking the **Remove Completed** option you can remove all downloads that have transferred 100% of the data to your DNS-343. This allows you to see what downloads are still active.
 - Start: After you have added a torrent file to your BitTorrent download manager, you can click the Start button to begin downloading your files.
 - Stop: Once you have added a torrent file and clicked the Start button, the Stop button will now be available. In the event that you need to pause the download on your DNS-343 you can click the Stop button and later resume the download again by clicking Start.

DOWNLOADS :

Here you can download files using the built in BitTorrent download manager

		Total Speeds	
		Downloads:	0
		Uploads:	0
d Torrent From URI	Add	Pama	e Completed
dd Torrent From URL 🔲 Add Torrent From File	Add	Kentov	e completed
Add Torrent From URL Add Torrent From File	Add	(Kenio)	e completed
Add Torrent From URL Add Torrent From File	Add		e completed
Add Torrent From URL Add Torrent From File	rents. Add	a torrent above.	e completed
Add Torrent From URL Add Torrent From File	rents. Add	a torrent above.	e completed
dd Torrent From URL Add Torrent From File	rents. Add	a torrent above.	e completed

DOWNLOADS	1							
Add Torrel	nt From URL	Add Torre	nt From File					~_
Stop	Red Hat Linux ebooks-book							
	0%							
	7.8 MB		Less Details 🔻			00		
	Remaining: Downloaded: Uploaded: Files: Red Hat Linux 1 bookzone/Dow Red Hat Linux 1 bookzone/Red Red Hat Linux 1 bookzone/Torr	7.8 MB 0 bytes 0 bytes letworking and letworking and Hat Linux Netw letworking and downloader	Seeds: Peers: Ratio: I System Administ oks.url I System Administ orking and Syste I System Administ orking and Gyste	0 (0) 0 (1) 0 tration - 2nd E tration - 2nd E m Administrat tration - 2nd E bot	Download Speed: Upload Speed: Availability: dition -ebooks- ion - 2nd Edition.pdf dition -ebooks-	0 0		

- More Details: View download details like the number of peers and seeds you are connected to, and what download and upload speed the selected file is transferring at. Details on the remaining amount of data and how long until your download finishes are also displayed.
 - **Remove:** Once you have added a torrent file to the BitTorrent download manager, you will have the option to remove the download. This will delete any partial data downloaded as well as the associated torrent file.

Settings

Here you can configure your BitTorrent download manager settings.

Port Settings: Here you can select the default port setting of 6881, or if your ISP blocks port 6881 you can select a custom port number and enter it in the provided field.

BandwidthSelect between Automatic or Manual. If you selectManagement:the Manual bandwidth control, you must specify
the maximum download, upload, and maximum
upload seeding speeds.

Seeding - Remove: While you are downloading the files associated with your torrent, there are other users also downloading this same data. Seeding allows other users to start a peer to peer connection to your torrent client and download parts of data that you have already received. This allows users to accelerate their download speeds by receiving data from multiple locations at once.

There are three options to choose from in the BitTorrent download manager that can be selected. You can select to **Seed until removed** from your BitTorrent download manager, or you can **Stop seeding when ratio reaches** a certian percentage, or you can **Stop seeding after** a specific amount of time (minutes) has passed.

SETTINGS :

Here you can configure your BitTorrent download manager settings.

ort Settings:		
Default (6881)		
Custom		
Incoming connections port		
andwidth Management:		
Automatic		
D Manual		
Maximum download rate (kB/s):		default: -1 (unlimited)
Maximum upload rate (kB/s):		default: -1 (unlimited)
Max. upload rate when seeding (kB/s)		default: -1 (unlimited)
eeding:		
Seed until removed		
Stop seeding when ratio reaches		96
Stop seeding after		(Minutes)
ĺ	Save	Cancel

Knowledge Base 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 CDROM drive.



1. Click **Easy Search Utility**. The Easy Search Utility will load and detect any DNS-343 devices that are on the local network. If the DNS-343 you are working with does not show up in the device list, click **Refresh**.



3. Double-click the **My Computer** icon on your desktop, and then double-click the mapped drive to access the files and folders.



 Highlight an available DNS-343. Available volumes will be displayed under Drive Mapping. Highlight the volume you want to map, select an available drive letter from the drop-down menu and click **Connect**. Once connected, your mapped drive(s) will appear in My Computer.
Yahoo! Widget Configuration

D-Link provides an added feature to the ShareCenter called a Yahoo! Widget.

What is a Yahoo Widget?

Yahoo! Widgets are free application platforms that can be used in Microsoft Windows[®] and Mac OS X. The engine uses a JavaScript runtime environment combined with an XML interpreter to run small applications referred to as widgets, and hence is part of a class of software applications called widget engines.

Yahoo! Widget Installation

Step 1: Install the Yahoo! Widget downloaded. Once the Yahoo! Widget is installed, a D-Link icon will appear in your Widget Dock.



Step 2: Click the **Configuration** button to configure the Widget.

Enter the IP Address of your DNS-343 and click the **Save** button.

Now you are ready to use your new D-Link Yahoo! Widget!

Yahoo! Widget Display

The D-Link Widget is mainly used for monitoring the activities taking place on your ShareCenter.

- System: Information about your Computer, ShareCenter, IP Address, Firmware Version and Current Operational Temperature are displayed in the System window.
- Hard Drive: Information about the storage space of your ShareCenter is displayed In the Hard Drive window.
 - Server: Information about the USB Device, UPnP Server, ITunes and FTP Server configured on your ShareCenter is displayed in the Server window.
- **Download:** The user can view the download status of files being downloaded using the BitTorrent Client Add-on. Please note that the BitTorrent Add-on must be installed on the device for this window to display information.



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 the manufacturer's printer drivers are already installed on the computer you want to print from.





2. Click Add a printer.



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

1. To add a printer:

Click Start and select Printers and Faxes.



3. The Windows[®] Add Printer Wizard will launch: Click **Next** to continue.

Add Printer Wizard
Specify a Printer If you don't know the name or address of the printer, you can search for a printer that meets your needs.
What printer do you want to connect to?
<u> </u>

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

rinter: \\\dns:343\lp hared printers: Microsoft Windows Network WORKGROUP DNS:343 USB Printer Printer information Comment: USB Printer Status: Backup Decurrents waiting: 0	when the list of printers appears, select	the one you want to use.
hared printers: Microsoft Windows Network WORKGROUP DNS-343 p USB Printer Printer information Comment: USB Printer Status: Beadu	rinter: \\dns-343\lp	
Microsoft Windows Network WORKGROUP DNS-343 Ip USB Printer Printer information Comment: USB Printer Status: Beadu Documents waiting: 0	hared printers:	
Printer information Comment: USB Printer Status: Beadu Documents waiting: 0	Microsoft Windows Network	
Printer information Comment: USB Printer Status: Backu Documents waiting: 0		USB Printer
JIGUA. LIGOUV LIGUA VOLUIU. U	Drinker information	

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

l rowse Whe	or Printer In the list of printers appears, select the one you want to use.
Printer:	
Shared	vrinters:
M N	icrosoft Windows Network WORKGROUP
Street M Ben	icrosoft Windows Network WORKGROUP DNS-343
	icrosoft Windows Network WORKGROUP DNS-343
	icrosoft Windows Network WORKGROUP DNS-343
	icrosoft Windows Network WORKGROUP DNS-343
Printer	icrosoft Windows Network WORKGROUP DNS-343
- Printer Comr	icrosoft Windows Network WDRKGROUP IDNS-343 information eent:
Printer Comr Statu	icrosoft Windows Network WDRKGROUP DNS-343 information ent: s: Documents waiting:

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

♪	You are about to connect to a printer on nds-343, which will automatically instal a print driver on your machine. Printer drivers may contain visues or scripts that can be harmful to your computer. It is important to be certain th the computer sharing this printer is trustworthy. Would you like to continue?
	Yes
Connec	t to Printer
Connec	to Printer The server for the printer does not have the correct printer driver installed. If you want to search for the proper driver, dick CK. Otherwise, dick Cancel and contact your network administrator or original equipment manufactur for the correct printer driver.

8. The following printer driver messages will appear: Click **Yes** to continue. Click **OK** to continue and select a printer driver.



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

Locate File			? 🛛
Look in: 🧕	My Computer	💌 😋 🥬	ا ∞ 🖽
31/2 Flopp Cocal Disk DVD-RW [ARTHURS ARTHURS Administra	/ (A:) (C:) vrive (D:) USB (E:) icuments itor's Documents		
File <u>n</u> ame:	*.inf	~	<u>Open</u>
Files of <u>type</u> :	Setup Information (*.inf)	~	Cancel

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

 Insert the manufacturer's installation disk, and then make sure that the correct drive is selected below.	OK ancel
Copy manufacturer's files from:	

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

Install F	rom Disk	×
4	Insert the manufacturer's installation disk, and then make sure that the correct drive is selected below.	OK Cancel
	Copy manufacturer's files from: C:\Program Files\EPSON\PrinterDriverTemp\SP92 ✔	Browse

12. Click OK to continue.

Section 3 - Configuration



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



15. The printer should now appear as an available printer.

Add Printer Wizard	
	Completing the Add Printer Wizard
	You have successfully completed the Add Printer Wizard. You specified the following printer settings:
	Name: Ip on dns-343
	Default: Yes
	Location:
	To close this wizard, click Finish.
	< <u>B</u> ack Finish Cancel

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

Storing non-English Character Files

By default the DNS-343 will support 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 12.

Adding a New Hard Drive:

The DNS-343 is able to work with one, two, three or 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 12.



Please Note:

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

Secure HTTP Login

Apart from logging into the web user interface using the normal http://192.168.0.32/, the user can also login to the web configuration using secure https.

1) Open Internet Explorer and type https://192.168.0.32

2) Login to the DNS-343 as per normal.



What is 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: 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:



RAID 1 Recovery - Setting up RAID 1

RAID CONFIGURATION

RAID 1 configuration creates an exact copy (or mirror) of a set of data on two or more disks.

Step 1: Go to ADVANCED > RAID and select Basic Configuration.

Also select **RAID 1** (Mirroring - Keeps Data Safe). Click the **Next** button.

	vendor	Model	Serial Number	Size
1 2	Seagate Seagate	ST3500630AS ST3500630AS	5QG1TEHT 5QG1TENA	500 GB 500 GB
 Basic 	Configuration :			
Se	elect a RAID typ	e:		
		O Standard (Individ	ual Disks)	
		O JBOD (Linear - Co	mbines All Disks)	
		RAID 1 (Mirroring RAID 5 (Christian)	- Keeps Data Sare)	
		C RAID 5 (Scriping)	WITH ROLALING PARICY)	
○ Custo	om Configuration	1:		
				Back Next
rago from	wohnago			
sage from	wenhage			
Create	a Raid based on the	minimum space of the existing d	rives, the remaining space will be	come JBOD(Linear) Volun
~				
			Lancer	
		Such as a second se		
UTO-REB	UILD CONFIG	GURATION :		
DEnable A	UILD CONFIC	GURATION :		
UTO-REB) Enable A	UILD CONFIC	GURATION :		
UTO-REB Enable A Disable A	UILD CONFIC uto-Rebuild uto-Rebuild	GURATION :		
UTO-REB) Enable A) Disable A	UILD CONFIC uto-Rebuild uto-Rebuild	GURATION :		
UTO-REB) Enable A) Disable A	UILD CONFIC uto-Rebuild uto-Rebuild	GURATION :		
UTO-REB) Enable A) Disable A	UILD CONFIC uto-Rebuild uto-Rebuild	GURATION :		Back Next
UTO-REB) Enable A) Disable A	UILD CONFIC uto-Rebuild uto-Rebuild	GURATION :		Back Next
UTO-REB) Enable A) Disable A	UILD CONFIC uto-Rebuild uto-Rebuild	GURATION :		Back Next
UTO-REB	UILD CONFIC uto-Rebuild uto-Rebuild	SURATION :		Back Next
UTO-REE) Enable A) Disable A AID CON	UILD CONFIC uto-Rebuild uto-Rebuild FIGURATION	SURATION :		Back Next
UTO-REB C Enable A Disable A Disable A	UILD CONFIC uto-Rebuild uto-Rebuild FIGURATION	SURATION :		Back Next
UTO-REB C Enable A Disable A Disable A	UILD CONFIC uto-Rebuild uto-Rebuild FIGURATION Select file	SURATION : : system: EXT 2 (Best Perf	ormance) 💌	Back Next
UTO-REB C Enable A Disable A Disable A	UILD CONFIC uto-Rebuild uto-Rebuild FIGURATION Select file	SURATION : : system: EXT 2 (Best Perf	ormance) 🔽	Back Next
UTO-REB	UILD CONFIC uto-Rebuild uto-Rebuild FIGURATION Select file	SURATION : : system: EXT 2 (Best Perf	ormance) 💌	Back Next
UTO-REB	UILD CONFIC uto-Rebuild uto-Rebuild FIGURATION Select file	SURATION : : system: EXT 2 (Best Perf	ormance) 💌	Back Next
AID CON	UILD CONFIC uto-Rebuild uto-Rebuild FIGURATION Select file	SURATION : : system: EXT 2 (Best Perf	ormance) 💌	Back Next
UTO-REB	UILD CONFIC uto-Rebuild uto-Rebuild FIGURATION Select file	SURATION : : system: EXT 2 (Best Perf	ormance) 🔽	Back Next

A message will pop-up. Click OK.

- Step 2: Auto-Rebuild is a feature that will allow the DNS-343 to initiate the Rebuilding phase automatically. The Rebuilding phase will occur when one or more hard drives fail and is replaced by a new one.
- Step 3: WARNING This feature will automatically format the newly added drive.
 If this feature is NOT required, click **Disable**. Click **Next** to continue.

Choose the desired file system and click Next.

RAID 1 configuration creates an exact copy (or mirror) of a set of data on two or more disks.

Step 4: RAID configuration will initiate, and formatting of the hard drives will commence.

After the RAID 1 configuration, you'll be prompted to click the **Restart** button. RAID 1 configuration is complete.

		Initializating 9%	•	
RAID CONFIGU	RATION :			
		Formatting Volum 3%	e <u>1</u>	
RAID CONFIGU	RATION :			
900				
V	olume Name	File System	Format Result	t)
17	olume_1	EXT2	SUCCESS	

RAID 1 Recovery - Auto Rebuilding

When a hard drive fails or becomes corrupted, RAID 1 provides the feature to enable the Auto Rebuild configuration. This configuration will take the information from one of the existing hard drives and rebuild the new hard drive with the same information to complete the RAID 1 configuration.

Information: To view the hard drive status you can got to STATUS > SYSTEM INFO and monitor the Sync Time Remaining field. If it displays *Completed*, the RAID 1 configuration is functioning normal.

Degraded: If it displays *Degraded*, then one of the hard drives have either failed or is starting to fail. This mean that the problematic hard drive needs to be replaced.

HARD DRIVE INFO :

Volume Name: Volume_1 Volume Type: RAID 1 Sync Time Remaining: Completed Total Hard Drive Capacity: 489326 MB Used Space: 923 MB Unused Space: 488403 MB

HARD DRIVE INFO :

Volume Name: Volume_1 Volume Type: RAID 1 Sync Time Remaining: Degraded Total Hard Drive Capacity: 489326 MB Used Space: 923 MB Unused Space: 488403 MB

RAID CONFIGURATION :

Current RAID Type :

Volume_1 : RAID 1 (Degraded)

Re-configure All Existing Hard Drive(s)

AUTO-REBUILD CONFIGURATION : Vendor Model Serial Number Size Seagate ST3500630AS **5QG1TENA** 500 GB 0 C Enable Auto-Rebuild Oisable Auto-Rebuild Apply Cancel Volume_1 💙 Manually Rebuild Now

Step1: After the new hard drive is inserted into the DNS-343, go to ADVANCED > RAID. You now have the option to start the Auto Rebuilding process, if Auto Rebuild was disabled from the beginning. If Auto Rebuild was enabled from the beginning, the DNS-343 will start this Rebuilding process automatically.

You can now click the **Manually Rebuild Now** button to initiate the Auto Rebuilding process.

Step 2: After clicking the Manually Rebuild Now button, the Synchronizing will start and take some time to finish.

AUTO-REB	UILD CONFIGUR	ATION :	
Vendor	Model	Serial Number	Size
🔿 Enable Au	ito-Rebuild		
💿 Disable Au	uto-Rebuild		
			Apply Cancel

Monitoring: To monitor the progress of the Auto Rebuilding process, you can go to STATUS > SYSTEM INFO and monitor the Sync Time Remaining (progress of the Rebuilding process).

Volume Name: Volume_1 Volume Type: RAID 1 Sync Time Remaining: 155.1 minute(s) Total Hard Drive Capacity: 489326 MB

HARD DRIVE INFO :

Used Space: 926 MB Unused Space: 488400 MB

Alternatively you can also use your Yahoo! Widget to monitor the progress of the Rebuilding process.



Quotas - Configuration

By default, all users and groups are displayed on the Quota Settings page. 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 user:

Step 1: Click the Notepad icon of the user you want to add a quota to.

QUOTA SETTINGS :

This section allows you to assign a quota to a group or user to limit the amount of storage they are allocated. By default, users and groups do not have a quota.

USER QUOTA SETTINGS :

NO		Volur	ne_1	Volur	ne_2	Volur	ne_3	Volur	ne_4	Edit
NO.	oser Name	Used	Limit	Used	Limit	Used	Limit	Used	Limit	Euit
1	robert	Unlin	nited	Unlin	nited	Unlim	nited	Unlin	nited	

Step 2: Type the quota amount (MB) that the user will have for each volume and click **Apply**.

QUOTA SETTINGS :

This section allows you to assign a quota to a group or user to limit the amount of storage they are allocated. By default, users and groups do not have a quota.

USE	r quota s	ETTING	s:							
	User Name :			robert						
	Volume_1 Qu	uota Amo	ount	0		MB	l.			
	Volume_2 Qu	uota Amo	ount	0		MB	l.			
	Volume_3 Quota Amount					MB	l,			
	Volume_4 Qu	uota Amo	ount	0		MB	i -			
							Ap	ply		
		Volur	ne 1	Volur	ne 2	Volur	ne 3	Volur	me 4	
NO.	User Name	Used	Limit	Used	Limit	Used	Limit	Used	Limit	-Edit
1	robert	Unlin	nited	Unlin	nited	Unlim	nited	Unlin	nited	1

Section 3 - Configuration

The user and their amount of storage used, and their storage limit are displayed.

USER QUOTA SETTINGS :

			Volume_1		Volume 2		Volume 3		Volume_4		
N	о.	User Name	Used	Limit	Used	Limit	Used	Limit	Used	Limit	Edit
	1	robert	OMB	40MB	OMB	44MB	OMB	23MB	OMB	22MB	

GROUP QUOTA SETTINGS :

	NO.	Group Name	Volume_1		Volume_2		Volur	ne_3	Volur	Edit	
			Group Marrie	Used	Limit	Used	Limit	Used	Limit	Used	Limit
	1	test	Unlimited		Unlimited		Unlimited		Unlimited		

Step 3: Click **Enabled** to turn quota monitoring on.

QUOTA STATUS :

Status: Stopped

Enabled

Once enabled, the status will change to *Started*.

QUOTA S	QUOTA STATUS :									
Status:	Started									
Disabled										

To add a quota for a group:

Step 1: Click the **Notepad** icon of the group you want to add a quota to.

QUOTA SETTINGS :

This section allows you to assign a quota to a group or user to limit the amount of storage they are allocated. By default, users and groups do not have a quota.

USER QUOTA SETTINGS :

NO.	User Name	Volume_1		Volume_2		Volume_3		Volume_4		Edit	
		Used	Limit	Used	Limit	Used	Limit	Used	Limit	Euit	
	1	robert	OMB	40MB	OMB	44MB	OMB	23MB	OMB	22MB	

GRC	IUP QUOTA	SETTIN	IGS :							
NO	Group Name	Volume_1		Volume_2		Volur	ne_3	Volur	ne_4	Edit
NO.		Used	Limit	Used	Limit	Used	Limit	Used	Limit	Eur
1	test	Unlin	nited	Unlimited		Unlin	nited	Unlin	nited	.1

Step 2: Type the quota amount (MB) that the group will have for each volume and click **Apply**.

GRO	UP QUOTA	SETTIN	IGS :								
	Group Name	:		test							
	Volume_1 Qu	iota Amo	unt	0			3				
	Volume_2 Qu	iota Amo	unt	0			МВ				
	Volume_3 Qu	iota Amo	unt	0		ME	3				
	Volume_4 Qu	iota Amo	unt	0		ME	3				
							Ap	ply			
~	_						1000				
	Curry on Alanaa	Volur	ne_1	Volume_2		Volur	Volume_3		ne_4		
NO.	Group Name	Used	Limit	Used	Limit	Used	Limit	Used	Limit	Ealt	
1	test	Unlim	nited	Unlim	nited	Unlin	nited	Unlim	ited		

Section 3 - Configuration

The group, the amount of storage used and the storage limit are displayed.

USER QUOTA SETTINGS :

	NO.	User Name	Volume_1		Volume_2		Volume_3		Volume_4		Edit
			Used	Limit	Used	Limit	Used	Limit	Used	Limit	Eult
	1	robert	OMB	40MB	OMB	44MB	OMB	23MB	OMB	22MB	1

GROUP QUOTA SETTINGS :

R.	NO.	Group Name	Volume_1		Volume_2		Volun	ne_3	Volun	Edit	
			Used	Limit	Used	Limit	Used	Limit	Used	Limit	Euit
	1	test	OMB	68MB	OMB	77MB	OMB	33MB	OMB	33MB	1

Step 3: Click **Enabled** to turn quota monitoring on.

QUOTA STATUS :

Status: Stopped

Enabled

Once enabled, the status will change to Started.

QUOTA STATUS : Status: Started Disabled

Technical Specifications

Standards

- IEEE 802.3
- IEEE 802.3u
- CIFS/SMB
- DHCP Server/Client
- NTP
- Jumbo Frame
- LLTD
- UPnP AV
- FTP

- IEEE 802.3ab
 TCP/IP
 - NFS
- DDNS
- HTTP/HTTPS
- USB 2.0
- 056 2.0 • Rsync
- PnP-X
- FTP over explicit SSL/TLS, FXP

Supported Hard Drive Type

- SATA I/II Any Capacity; Supports hard drive capacity of up to 2TB
- 3.5" Internal

Ports

- 1 10/100/1000 Gigabit Ethernet Port
- 1 USB Port
- Power

Display

• 256 x 64 OLED Display Screen

Disk Management

- Multiple Hard Drive Configurations: RAID 0, RAID 1, RAID 5, JBoD, Standard
- Hard Drive Format: EXT2/EXT3
- Scandisk
- S.M.A.R.T.
- RAID Roaming

Account Management

- Windows Active Directory service support
- User account management
- Group account management
- User/Group Quota management
- Network Access management

Device Management

- Internet Explorer v6 and later or Firefox
- E-Mail Alerts
- Syslog
- Easy Search Utility
- Yahoo! Widget

Power Management

- Power Saving mode
- UPS Monitoring
- Auto Power Recovery
- Smart Fan control

File Sharing

- Max. User Accounts: 64 users (Samba) / 4000 (ADS)
- Max. Groups: 10 groups (Samba) / 1700(ADS)
- Max. Shared Folders: 45 (without/BT) / 10(with/BT)
- Max. Concurrent Connections: 64 (Samba) / 10 (FTP)

Power Supply

- External Power Supply
- DC 19V/7.89A Switching

Power Consumption

- Normal mode: 45.71W*
- Sleep mode: 17.81W*

Temperature

- Operating: 0° 40° C (32° 104° F)
- Storage: -20° 50° C (-4° 122° F)

Operating Humidity

• 5% ~ 90% (Non-condensing)

Dimensions

- Item (W x D x H): 128 x 200 x 178 mm (5" x 7.9" x 7")
- Packaging (W x D x H): 270 x 320 x 260 mm (10.6" x 12.6" x 10.2")

Weight

- Item: 2.7kg (6.0 lbs)
- Packaging: 4.5kg (10.0 lbs)

Multilingual Support

• Samba: Unicode

• FTP Client: Unicode, Croatian, Cyrillic (Kyrgyz Republic), Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Romanian, Russian, Simplified Chinese, Slovenian, Spanish, Swedish, Traditional Chinese, Turkish

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 switch (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: (800) 361-5265

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

Warranty

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.
- 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. 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 nonconforming.

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.

Federal Communication Commission (FCC) Statement:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.

Registration



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