

# D-Link DSM-320

Wireless Media Player



**Manual** 



# **Contents**

Introduction	3
Package Contents	4
System Requirements	4
Features & Benefits	5
Front and Back Panels	6
Getting Started	7
Using the Remote Control	7
Using the Onscreen Keyboard	10
Installing the Media Server Software	10
Configuring the Media Server Software	14
Using the Media ServerSoftware	16
Hardware Connections	18
Network Layout	21
DSM-320 Setup Wizard	22
DSM-320 Basics	25
Setup	26
Music	29
Photos	34
Videos	36
Online Media	38
Search	42
FAQs	43
Troubleshooting	45
Technical Specifications	49
Appendix I-Setting Microsoft Windows Power Options	51
Appendix 2-Static and Dynamic IP Addresses	52
Appendix 3-WEP Configuration	52
Appendix 4-Ad-Hoc and Infrastructure modes	52
Glossary	
Warranty and Registration	
Technical Support	

# Introduction

D-Link introduces the latest addition to its multimedia family of products: the **D-Link MediaLounge™ DSM-320 Wireless Media Player**. The DSM-320 unites the network with the home entertainment center, allowing you to share, access, and enjoy digital media, whether it is music, videos, or photos, in the comfort of your living room.

The DSM-320 features 802.11g technology for transfer speeds up to 54Mbps, giving you maximum throughput for sharing and transferring digital media. Setting up the DSM-320 is simple, and the sleek design makes it a natural addition to any home entertainment center. AV jacks on the back panel of the DSM-320 allows direct connection to the TV. Using the included remote control, access media content stored on the PC, browse music files, watch videos, and display photos, all on the TV! In addition, the DSM-320 lets you access online media content on TV through an existing broadband Internet connection.

The DSM-320 adheres to the Universal Plug-&-Play AV specification, and complies with Intel Networked Media Product Requirements (INMPR), allowing it to communicate with other UPnP AV media devices seamlessly.

The DSM-320 supports and streams virtually all audio, video, and image formats stored on your PC. With support for MP3, WMA and WAV audio files, listen to music on the stereo system. Watch stored videos in MPEG1/2/4, AVI, QuickTime or Xvid format on TV or enjoy slideshows of your favorite photos in JPEG, JPEG2000, TIFF, GIF, BMP or PNG formats. Better yet, it's easy to access all media files through the TV Interface using the remote control included with the DSM-320.

Experience digital media like never before with the MediaLounge DSM-320 Wireless Media Player. The DSM-320 includes everything you need to instantly access and play music, videos, and photos using your home entertainment center.

# **Package Contents**



- D-Link DSM-320 Wireless Media Player
- Printed Quick Installation Guide
- Installation CD (Contains D-Link Media Server Software, Quick Installation Guide, and Manual)
- Antenna
- Ethernet (CAT5-UTP/Straight-Through) Cable
- Standard Composite RCA Audio/Video Cable
- S-Video Cable
- Remote Control with Batteries

# System Requirements

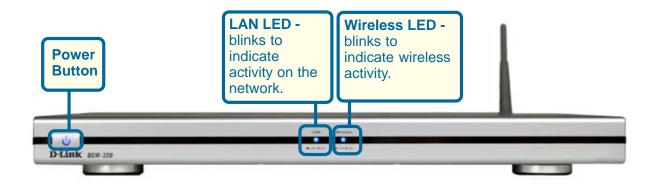
- Television with composite, S-Video, or component video inputs and an audio device with composite, coaxial digital or optical digital audio inputs.
- A wireless or Ethernet network
- Minimum to run the Media Server software: PC with 500 MHz processor, 128 MB RAM and 20 MB of hard disk space.
- Windows XP/2000/Me/98SE.
- CD-ROM drive

# **Features & Benefits**

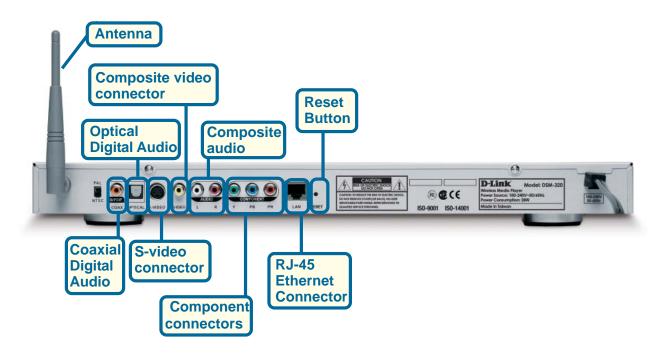
- Stream media content from a PC to your entertainment center.
- Listen to digital music on your stereo system.
- View digital photos, slideshows and videos on TV.
- Easily connect to your wireless network using 802.11g at up to 54Mbps.
- 802.11b compatible at 11Mbps.
- Connect using an Ethernet network cable at up to 100Mbps.
- UPnP AV and INMPR compliant for compatibility with other media devices.
- Support for all popular digital media formats.
- Remote controlled TV interface for quick access to your media content.
- Experience a world of online media content.
- Sit'n click access to your digital media.
- Sleek design complements your existing audio/video equipment.
- Optical and coaxial digital audio output.
- Component video output.
- 64- or 128-bit WEP security.
- Convenient one-touch access to preset music.
- Supports DHCP for easy connection to your home network.
- Color coded one-touch shortcut button on the remote, for quick access to music, photos, videos, and online media content.
- Built-in screensaver.
- Easy setup wizard.

# **Front and Back Panels**

### **Front Panel**



### **Back Panel**



# **Getting Started**

To begin using the DSM-320 Wireless Media Player, you will need:

- An existing home network (including a wireless router or a router with an available Ethernet port)
- The DSM-320 Media Server software installed on a PC. This computer will collect music, photo and video content from local sources (a digital camera for example) and from the Internet (downloaded MP3 music, digital photos or video files.)
- The DSM-320 Wireless Media Player connected to your television and audio system.

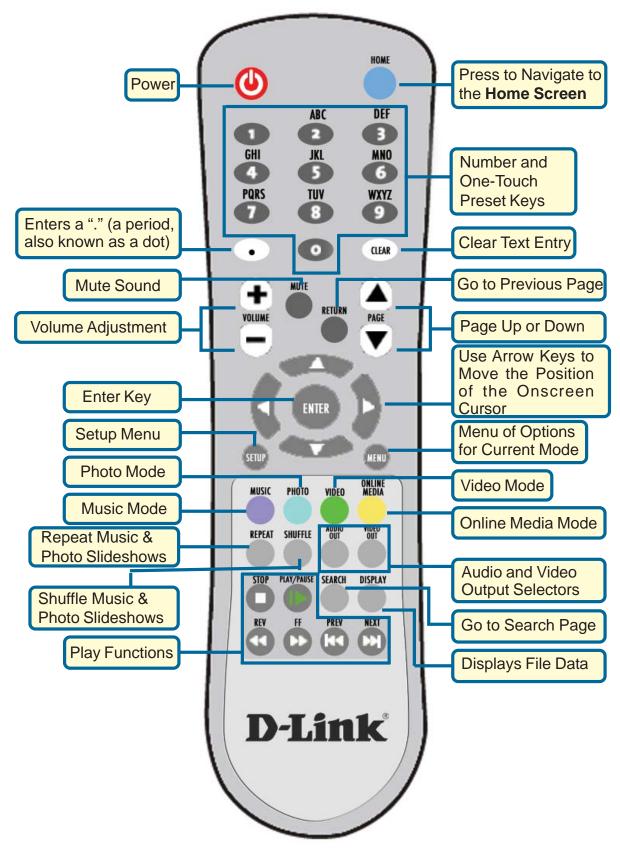
# **Using the Remote Control**

The included remote control is the only means by which to configure and control the DSM-320.

Information for the Setup Wizard is entered by using the remote control. The remote is used to enter numbers, letters, special characters and to make selections from an on-screen keyboard. The on-screen keyboard is activated by pressing Enter on the remote control whenever the on-screen cursor is located in a field where text is required.

The following page details the remote control and shows the function of each button.

# **Using the Remote Control**



# **Using the Remote Control (continued)**

Power - Turn the DSM-320 ON or OFF.

Home - Navigate to the DSM-320's home screen.

**Number Keys -** Enter numbers where needed, or use the onscreen keyboard. You can use the keys 1-9 to create **Music presets.** With a music selection highlighted onscreen, press down on a number from 1-9 on the remote control until the icon displays. Press the number of your preset music, anytime the MediaServer is on, to play the selection.

"." (a period, also known as a dot.)

Clear - Delete text.

Mute - Turn OFF the audio.

**Return -** Return to the previous page.

**Volume + -** Increase the volume.

Volume - - Decrease the volume.

**Page Up or Down -** Press Up to scroll up a page, and press Down to scroll down.

Enter - Make a selection.

**Setup -** Access the Setup menu.

**Arrow keys -** Move the onscreen cursor, navigate through media file names, and use for primary navigation through the interface. Right is forward, left is back.

Menu - Used to select Radio@AOL Presets.

Photo - Access the Photo mode.

Music - Access the Music mode.

**Video -** Access the Video mode.

Online Media - Access the Online media mode.

Repeat - Repeat the current Music or Photo Slideshow selection.

**Audio and Video Out -** When you have multiple audio and video output connections, you can select one by clicking on one of these keys.

**Shuffle -** Shuffle music tracks in a playlist or photos during a slideshow.

**Play Functions -** While viewing and listening to your media, you can use these keys to **Stop**, **Play/Pause**, **Reverse**, **Fast Forward**, go back (**Prev**), or go to the next item (**Next**).

Search - Enter the Search function.

**Display -** Display information about a file. For instance, view the type of photo and the name, date and other information about the photo.

# **Using the On-Screen Keyboard**

Whenever you need to enter text, press **ENTER** on the remote and the onscreen keyboard will appear.



The keyboard is used for naming your DSM-320 and performing searches for music, photos or video. To use the keyboard, highlight a character with the arrow buttons on the remote and press **ENTER**. Highlight and select **OK** when you are finished entering text.

Note: Before you install the hardware, you must first install the software as shown below.

# Installing the D-Link Media Server Software

Install the D-Link Media Server Software on each PC that contains audio, video, or photo files you wish to use with the DSM-320.

To install the software, follow the steps on the next page of this manual.

# Installing the D-Link Media Server Software (continued)

Click on D-Link Media Server Installer and select the appropriate operating system.

If the screen at right does not appear, please double-click **My Computer** on your desktop; right-click on the **CD-ROM drive**; select **Open**; double-click **autorun.exe**. The screen at right will appear.



The D-Link Media Server Setup Wizard will appear.



**Click Next** 

Choose a destination folder or accept the default location.



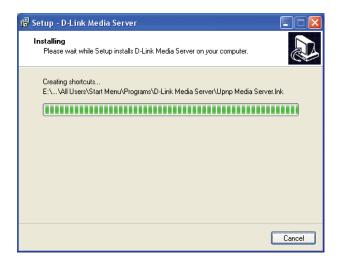
**Click Next** 

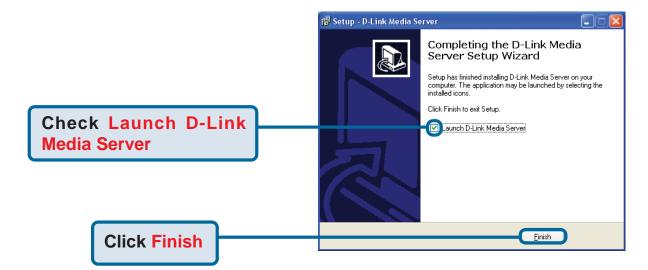
# Installing the D-Link Media Server Software (continued)

🐻 Setup - D-Link Media Server Choose a start menu folder or Select Start Menu Folder Where should Setup place the program's shortcuts? accept the default location. Setup will create the program's shortcuts in the following Start Menu folder. To continue, click Next. If you would like to select a different folder, click Browse. D-Link Media Server Browse... **Click Next** Cancel 👸 Setup - D-Link Media Server Select Additional Tasks Select the icons you want created. Which additional tasks should be performed? Select Create a desktop icon Select the additional tasks you would like Setup to perform while installing D-Link Media Server, then click Next. to access the program from Additional icons: your desktop. Create a desktop icon Create a Quick Launch icon Select Create a Quick Launch icon to access the program from your taskbar. **Click Next** Next> Cancel 👸 Setup - D-Link Media Server Ready to Install Setup is now ready to begin installing D-Link Media Server on your computer. Click Install to continue with the installation, or click Back if you want to review or Destination location: E:\Program Files\D-Link Media Server Additional tasks: Create a desktop icon **Click Install** Cancel

# Installing the D-Link Media Server Software (continued)

The necessary software will be copied to the specified locations on your computer.

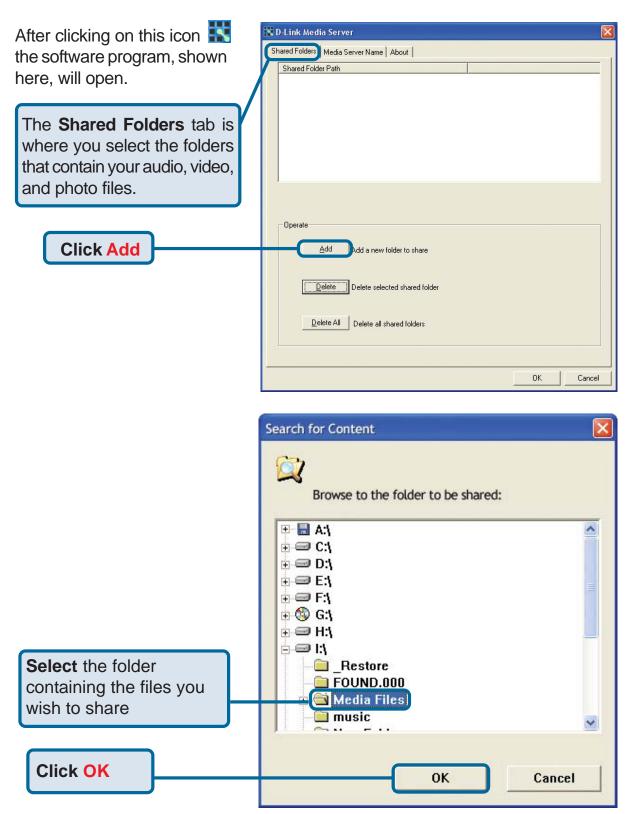




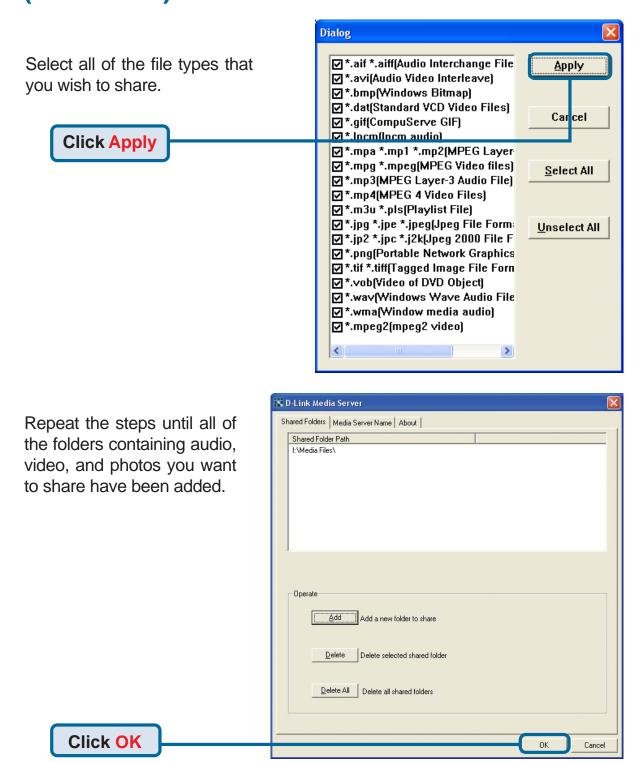
After you click **Finish**, the DSM-320 software will be available as an icon in your system tray or on your desktop. For any configuration needs, you can access the software by clicking on the icon. After the installation is complete, please double-click on the Media Server software icon and begin the configuration on the next page.

The D-Link Media Server Software Installation has been completed!

# Configuring the D-Link Media Server Software



# Configuring the D-Link Media Server Software (continued)



The D-Link Media Server Software Configuration has been completed!

# Using the D-Link Media Server Software

# Accessing the Media on your PCs

Before you can access the media on your PC, you must install the D-Link Media Server Software. Simply install the included software on each PC where you store your music or digital photos. Once the software is installed, the media server icon will appear in your system tray. To configure the D-Link Media Server, right-click on the icon.



The Media Server software will start whenever you power on your PC. If the D-Link Media Server software is not running, you can access it from the **Start** menu on the Windows taskbar. On the **Start** menu, click **All Programs**, then **D-Link Media Server**, and select **D-Link Media Server 1.xx**. The server icon will appear in your system tray.

#### **Stopping the D-Link Media Server**

To stop the D-Link Media Server (and stop sharing your photos and music on your PC), right-click on the server icon and select **Exit** from the server menu.

**Note:** If the D-Link Media Server is not running, your photos, videos and music will not be available on your DSM-320.

#### **D-Link Media Server Menu**

To open the D-Link Media Server menu, click the server icon with your right mouse button. The server menu will then display.

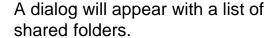


# Using the D-Link Media Server Software (continued)

# Sharing Media Content in Folders

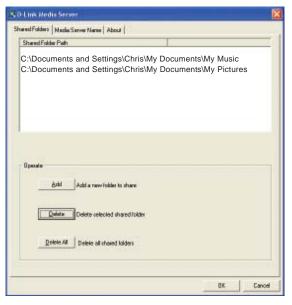
The D-Link Media Server will share content in the selected directory folders. All subfolders within a shared folder are shared as well.

To add or change the shared folders, click on the D-Link Media Server icon in the system tray or, as in this case, on the desktop, and select **Show Media Server**.



Add folders where your music and photos are stored, or remove folders you no longer wish to share. Depending on the number of files in your folders, it may take some time for the player to fully list the new folder contents.

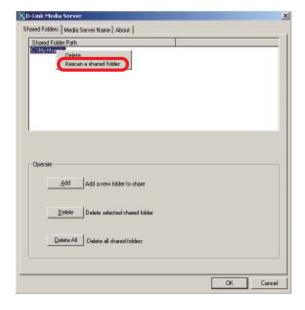




# Sharing a New File while the DSM-320 is ON:

If you wish to share a new file while the DSM-320 is in operation, you will need to do the following:

Right-click on the folder that contains the media that you wish to play on the DSM-320. Select **Rescan a shared folder.** The media in the selected folder will now be available. If you do not do this, the file cannot be accessed by the DSM-320.



# **Connecting the DSM-320**

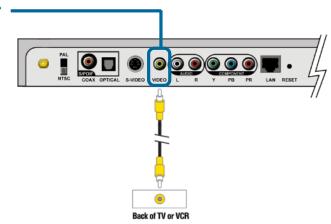
### Video Connections

All audio, video and networking connections are located on the rear panel of the DSM-320.

Select one of three ways to connect video to your DSM-320:

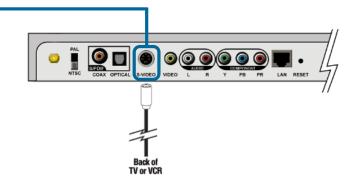
#### • Composite Video Connector

Plug the supplied yellow video cable into the DSM-320 and the matching opposite end of the cable to your television input.



#### • S-video Connector

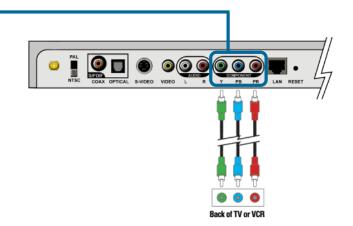
Plug the supplied S-video cable into the S-video connector and the opposite end into the S-video connector on your television.



#### • Component Connectors

Match the color coded cables to the matching connectors on the DSM-320 and into the component video input of your television.

Note: This cable is not supplied.



# **Connecting the DSM-320 (continued)**

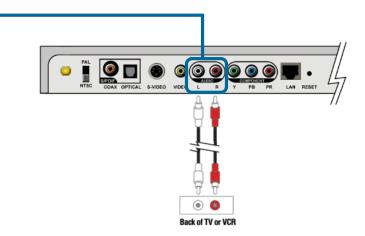
### **Audio Connections**

Select one of three ways to connect audio to your DSM-320:

#### • Composite Audio

Plug the supplied red and white connectors into the color-coded matching jacks on the DSM-320.

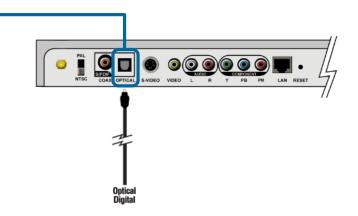
Plug the opposite ends to the matching jacks on your television or audio/video system.



#### Optical Digital Audio

Connect an optical audio connector into the DSM-320 and the matching opposite end of the cable to the audio input of your audio system.

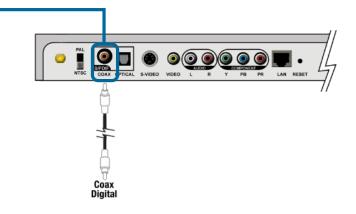
Note: This cable is not supplied.



#### Coaxial Digital Audio

Connect a coaxial audio connector into the DSM-320 and the matching opposite end of the cable to the audio input of your audio system.

Note: This cable is not supplied.



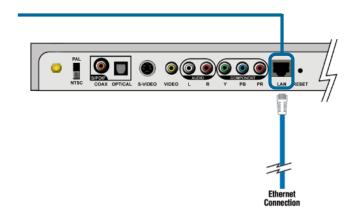
# **Connecting the DSM-320 (continued)**

### **Network Connections**

#### Select one of two ways to connect a network to your DSM-320:

#### • RJ-45 Ethernet Connector

Connect the supplied Ethernet cable to the network cable connector, and attach the other end to the network.



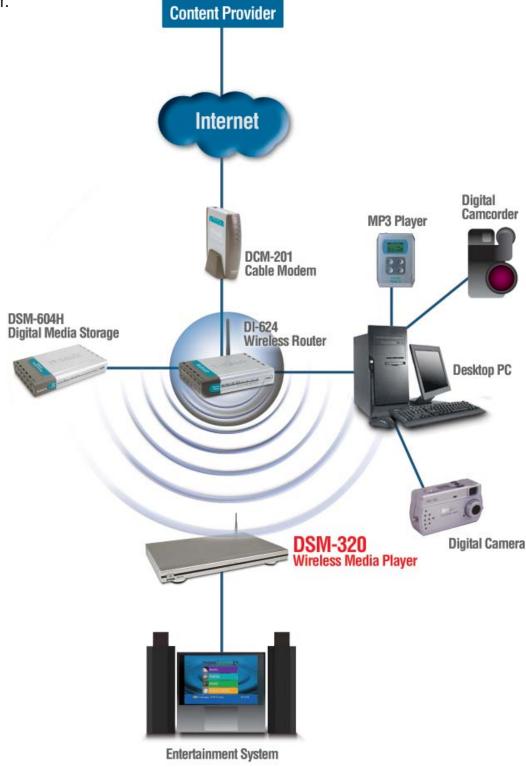
#### Wireless Antenna

Attach the supplied antenna by threading it onto the antenna connector. Be sure the antenna is secure and in an upright position.



# **Network Layout**

Below is a diagram displaying what your network might look like once all of the connections have been made to the MediaLounge™ DSM-320 Wireless Media Player.



# The DSM-320 Setup Wizard

Upon initial startup, the DSM-320 displays the Setup Wizard.



Click Next to begin the DSM-320 Setup Wizard

**Step 1 of 6**: Type in a name of your choice or select the default setting.



Click Next to continue

**Step 2 of 6**: Select the type of network connection.

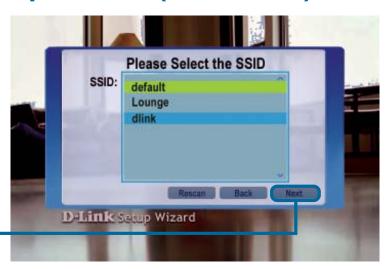
If selecting Wired, skip to Step 5 of 6 on page 23.

**Click Next** to continue



# The DSM-320 Setup Wizard (continued)

Step 3 of 6: For wireless network connections, select the SSID that is being used by your existing wireless network.



**Click Next** to continue

Step 4 of 6: Your current wireless settings are displayed and can be changed at this point.



**Click Next** to continue

Note: Please see the Appendix in this manual for an explanation of DHCP and static IP addresses.

Step 5 of 6: Your current network settings are displayed and can be changed at this point.



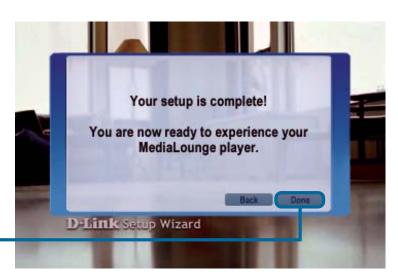
**Click Next** to continue

# The DSM-320 Setup Wizard (continued)

Step 6 of 6: Select a Media Server from the list. A Media Server is any PC running the D-Link Media Server software, or a UPnP AV compliant device on the network.



**Click Next** to continue



Click Done to finish

Your MediaLounge<sup>™</sup> DSM-320 is now ready to stream music, photo, and video content for enjoyment on your home entertainment center.



Your setup is complete!

# DSM-320 Menu

### Menu Basics

The DSM-320 uses an onscreen menu interface. As you move through the menus, you will use the **selection arrows** to move up, down, right and left. The highlight bar moves from item to item as you press the selection arrows. In some instances you will need to click **Enter** to access the pulldown menu within an item. You will then see an arrow within the highlighted bar. These arrow "hints" help you with menu navigation, and show you the possible paths you may take. For example, a down arrow hints that more items are available if you move the highlight bar down. To move to the next menu screen, use the right arrow. Similarly, use the left arrow to move to the previous screen.

#### Menu Home

The menu home screen is the top level menu. From the home screen, you can access music, photos, video, and online media. To jump directly to the home screen, press the **Home** button on the upper right-hand corner of the remote.



# Setup

If you want to change the configuration of your setup you can press the **Setup** button on the remote control.

For an explanation of the terminology used in the Setup function, please see the Appendix.

Click **Setup** on your remote control to access the setup features. Using the arrow keys on your remote control, scroll down the list to highlight your selection then click Enter or the right arrow to select your choice. You can select from:

Network, Wireless, System, Miscellaneous, Version or Wizard.



Press **Enter** in a text field, to display the onscreen keyboard. You can enter text either by using the onscreen keyboard, or by using the digits and letters on your remote control.

### Network

**Connection:** Select **Wired** or **Wireless**.

**Configuration:** Select **Static** or **DHCP**.

A DHCP-enabled router automatically assigns IP addresses to the devices on your network. If you have a DHCP-capable router in your network, select **DHCP** here.

If you do not have a DHCP



capable router, you will select **Static** and provide the following information:

IP: Enter the IP address of the DSM-320.

**Netmask:** Enter the subnet mask of the DSM-320.

Gateway: Enter the IP address of the router on your network.

**DNS:** Enter the IP address of the domain name server.

# **Setup (continued)**

### Wireless

**SSID:** Enter the SSID or click **Site Survey** to select the SSID.

Mode: Select Ad-Hoc or Infrastructure mode.\*

**WEP:** Select Disable, 64-bit, or 128-bit WEP.

**Key Index:** select keys 1-4. For each key enter a string of digits in hexadecimal or ASCII format.



\*Ad-Hoc is a Peer-to-Peer network that does not contain a router or an access point. An Infrastructure network is one that contains a router or an access point.

# **Device Name:** You can name your DSM-320 here.

**Default Server:** Select the PC that you would like to use as the default server.

View all Servers: Select to view a list of all the PC's that are available to share media on your network.

**System Restart:** Restart your DSM-320 here.

# System



System Reset: Return your DSM-320 to its factory default settings.

Note: You will lose your current settings.

# **Setup (continued)**

**Screen Saver Delay:** Select from a 1- 30 minute idle-time delay before the screen saver appears.

**Photo Display:** Choose to display your photos either as a list or as thumbnails.

Slide Show Delay: Select a slide show interval from 1 second to 2 minutes.

Perform Firmware Upgrades Automatically: Click Yes to be informed automatically of firmware upgrades.

**Check for Updates:** Select to check for firmware updates.

**Wizard:** When you click **Wizard** in the main Setup window, you will be directed to begin the Setup Wizard, as shown here.

### Miscellaneous



### Version



#### Wizard



# Music



# Music Quality

Your music listening experience on the media player depends upon the quality of your digital music files on your PC. Avoid quality settings below 48kbps as they are unsupported. For CD quality music, rip your MP3s at 128kbps or higher, with a sample rate of 44.1kHz.

# **Supported Music Formats**

The following music file formats are supported:

- MP3 (up to 192 kbps)
  MPEG-1,Layer 3 Audio file -The standard Internet music file format, and the most common.
- WMA
  Windows Media Audio file Supported by the Microsoft Windows Media player and some music jukebox programs.
- WAV & AIFF (AIFF files must be encoded in PCM format only.)
  WAV was developed by Microsoft and IBM. WAV sound files end in .wav
  and are compatible with Windows applications supporting audio.
  AIFF (Audio Interchange File Format) was developed by Apple Computer,
  and is the standard audio format for Macintosh computers. It's extensions
  are .AIF or .IEF.
- MPEG 1 and MPEG 2 Audio use the file extension of MP3.

# **Organizing Music Files**

Your music files can be contained in one directory folder, or organized in several subfolders. The DSM-320 automatically organizes your music files by genre, artist, album, and tracks. This information is obtained from the ID3 tags in each of your music files. The ID3 tag is created for you when you rip (copy) your music from your CD. However, if your music files have incorrect or incomplete tags, the tracks may not appear where they should in your music categories.

# **Playing a Track**

Once you enter the music menu, you can view tracks by artist, genre, album, or track name. Use the **selection arrows** to navigate to the track you wish to play. Once you have found your track, highlight it and press Enter or press the **Play** button on the remote. The track will begin playing on your stereo or television speakers. The **All Tracks** section contains all of your music tracks...simply scroll or page through the track list to find the desired track.

To play a track starting from the main home screen:

- 1. Select MUSIC
- 2. Select All Tracks
- 3. Highlight a track name. Use the selection arrows, or use the **Page Up** and **Page Down** buttons to quickly move through the track list.
- 4. Press **Enter** or press **Play.**



# **Creating a Preset**

Select **MUSIC**; select **All Tracks**; scroll down to select a track. Press a number between 1-9 on your remote control. If you select the number 1, hold the number 1 key down until this icon appears next to your selection. (If you choose another number, that number will appear within the icon.) You have completed the creation of a Preset. Now you can play your selection at any time that the DSM-320 is ON, by pressing the preset number on your remote control.

# **Browsing for Music**

There are many ways to browse for a music track. For example, let's use the following music file:

With Arms Wide Open.mp3

Artist: Creed

Album: Human Clay Genre: Rock/Pop

To browse for this track in the track list:

- 1. Select All Tracks
- 2. Highlight With Arms Wide Open

#### To browse by artist:

- 1. Select **Artists**
- 2. Select Creed
- 3. Select Human Clay
- 4. Highlight With Arms Wide Open

#### To browse by album:

- 1. Select Albums
- 2. Select Human Clay
- 3. Highlight With Arms Wide Open

#### To browse by genre:

- 1. Select Genres
- 2. Select Rock/Pop
- 3. Select Creed
- 4. Select Human Clay
- 5. Highlight With Arms Wide Open

# **Creating Music Playlists**

Use your favorite music software on your PC to create music playlists. A playlist allows you to specify exactly what tracks to play and in what order to play them. For example, create a "favorites" playlist and just listen to your favorite tracks. Save the playlist in the industry standard .m3u playlist format.

The DSM-320 will play tracks from playlists you create on your computer. The media player supports playlists in two standard formats:

- m3u MPEG Playlist File
- pls MPEG Playlist File

Software for playing music on your PC can be used to create playlists. **WinAmp**™ and Microsoft Windows Media Player™ are two examples.

# **Playing a Playlist**

To play all the tracks in a playlist, highlight the playlist name and press the **Play** button. All tracks will be played in the order they appear in the playlist.

# **Controlling Music Playback**

Your DSM-320 works just like a stereo or CD player. Controlling your music playback will be an easy and natural experience. Use the remote to **Play**, **Pause**, or **Stop** music. Press the **Previous** and **Next** buttons to skip to the previous or next track, or **Reverse** or **Fast Forward** through a song.

# Viewing Photos while Music is Playing

Your DSM-320 is capable of displaying photos and playing Preset music simultaneously.

At any point during photo viewing, simply press a number on the remote control that corresponds with an existing Preset. The appropriate song will begin playing.

Please see page 30 to find out how to create a Preset.

# **Shuffle and Repeat**

Once you play a group of tracks (for example, a playlist), each track will play in the original order listed.

To change the play order of a playlist, press the **Shuffle** button on the Remote Control, or select this icon in the interactive screen.



To repeat a track, click **Repeat** on the remote control or select this icon in the interactive screen.



When you select a music track, information about the song will be displayed, as shown here.



# **Photos**

### **Supported Photo Formats**

The following photo file formats are supported:

- BMP (non-compressed)
  Windows bitmap file. Widely used in Microsoft
  Windows for pictures and backgrounds.
- JPEG (grayscale, RGB, YCbCy) (Does not support CMYK, YCCK.) The JPEG format is the Internet and digital photo format standard used by most digital cameras.
- Older format still widely available on the internet for photos, web pages, and clip art.
- PNG (Alpha channel only)
  Portable Network Graphics standard created in response to limitations in the GIF file format.
- TIFF (RGB)

  (Does not support CMYK, YMC, YMCK, KCMY)

  Tagged Image File Format is a raster file format.

# **Organizing Photo Albums**

Unlike music files, photos contain very little information about their content. Therefore, photos are organized by their filename and by the folder they are in. Each folder will become an album on the player, and all files in the folder will appear in the album.

Many digital cameras will organize your photos into folders when you connect and unload them to your PC. Each time you dock or connect, a new folder is created using the current date and time, and all photos are copied into that folder.

You can also create your own photo albums. For instance, create a folder in the My Pictures directory called **My Birthday** and copy all your birthday photos into it. Your DSM-320 will show the folder as a photo album named **My Birthday**. To play a slideshow of the album, highlight it and press the **Play** button. To view a list of the photos in the album, highlight it and press the **> (right arrow)** button.

# **Photos (continued)**

Similarly, you can give your photos meaningful names by changing the filename. Most digital cameras will number the photos sequentially. For example, rename the photo **IM001059.jpg** to **My Birthday Cake.jpg**. The photo will be named **My Birthday Cake** on your DSM-320.\*

You can create as many album folders as you need. Create a folder for the year, then create folders inside for each of the months, and then folders in each month for special occasions (birthday, vacation, holidays).

# Playing a Photo Slideshow

To start playing a photo slideshow, highlight a folder and press the **Play** button. The first photo will display, and it will be followed by the next photo in the album. The slideshow will display all photos in the album, and all photos in any sub-albums. When the end of the photo album is reached, the slideshow will repeat.

# **Controlling Photo Playback**

Controlling photo playback is very similar to controlling a CD player...instead of music tracks, there are photos. Once you have started a photo slideshow, use the remote to **Play**, **Pause**, or **Stop** the show. Press the **Previous** and **Next** buttons to skip to the previous or next photo. To set the slideshow delay time, click **Setup** on your remote and select **Miscellaneous**. You can set the slide show delay at any interval between 1 second and 2 minutes.

# **Viewing Photo Information**

To view information about a photo, highlight the photo and press the **Display** button.

\*Folder creation and renaming files must be done on the PC via standard Windows procedures.



# **Videos**

# **Supported Video Formats**

The following video file formats are supported:

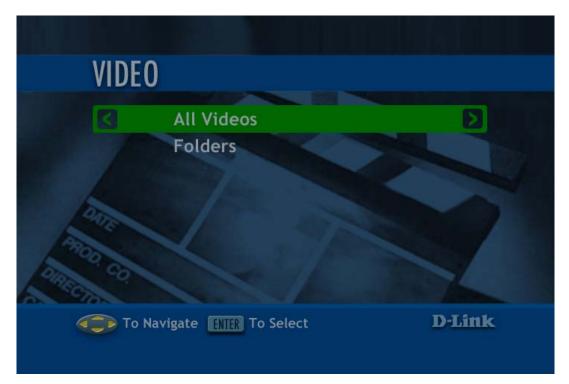
- MPEG-1 (up to 8Mbps)
- MPEG-2 (up to 8Mbps)
- MPEG-4 (ASP. Advanced Simple Profile)
- **AVI** or **QT** (MPEG4 layer only)
- **XVID** (with MP3 and PCM)

### Viewing a Video

Once you enter the Video menu, you can view your list of videos.

Use the **selection arrows** to navigate to the video folder you wish to view. Highlight and press **Enter** to view the video folder.

After you have selected a video folder, scroll down and highlight the video you wish to view and press **Enter** or press **Play** to view the video.



## **Videos (continued)**

## **Using the Remote Control with Videos**

Enter - Click ENTER to play your highlighted video.

Play/Pause - To pause the video and to resume playing the video.

- + (Volume) To increase the volume.
- (Volume) To decrease the volume.

**Mute** - To silence the audio portion of the video.

**FF** - To fast forward through the video.

**Display** - To view the track time; the resolution and the bit rate.

Repeat - To repeat the video after viewing it.

## **Online Media**

From the main menu, select Online Media.

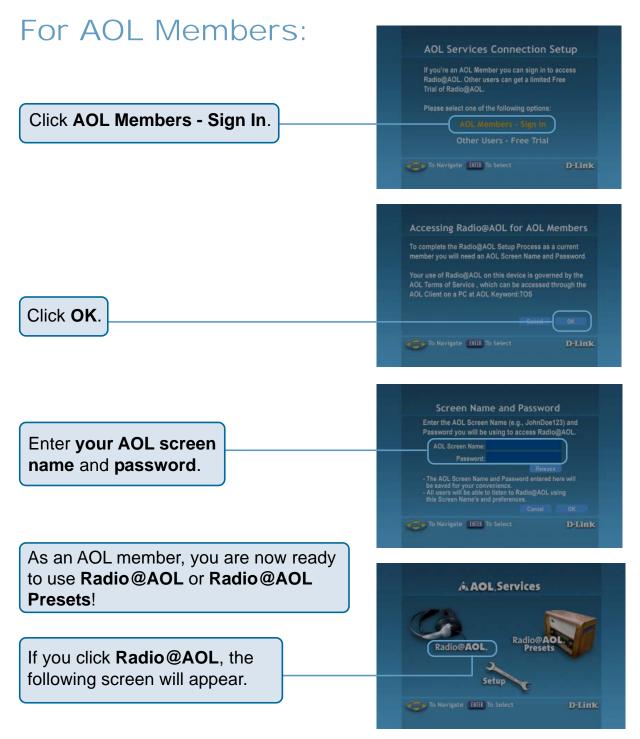


The screen above will appear. Select **AOL Services**. This service allows you to listen to online radio. When you select AOL Services, a setup wizard will appear, leading you through the simple steps required to listen to **Radio@AOL**.

## Online Media (continued)

### **AOL Services**

After selecting **AOL Services** (as shown on the previous page), you will be given the option to sign in as an **AOL Member**, or, if you are not a member, you can enjoy a **Free Trial**. AOL members will sign in as follows:



## **Online Media (continued)**

For AOL Members (continued):

Information about the current selection will be displayed here.

Use the arrow keys on your remote to scroll up and down, and across lists, to make your music selection. Radio@AOL presets can be selected here by pressing the Menu button on the remote control when listening to the desired station.

Radio@AOL



## Radio@AOL Presets



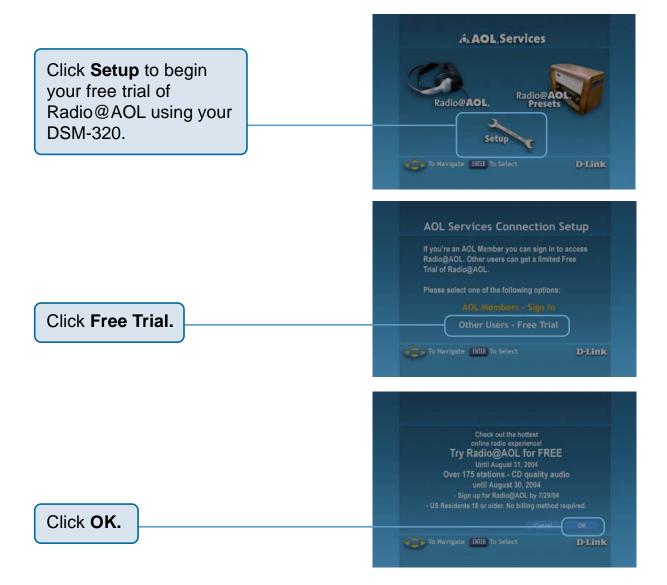
Click Radio@AOL Presets.

Preset Radio stations are available here. Use the arrow keys, on your remote control, to highlight the station of your choice, or you can setup your own selection of stations. (Free trial users are not able to select their own presets.)



## **Online Media (continued)**

### **AOL** Services for Non-members



You are now ready to begin your free trial. Please see the previous page for an explanation of your listening options.Non-members have access to Radio@AOL Presets, and can select from five pre-set stations. (AOL member are able to configure their own pre-sets.)



## Search

Click the **Search** button on the remote control, and the screen below will appear, allowing you to search for music tracks, videos, or photos. Shown below is an example of a search for a music track.

## Searching for Media files

Some music track lists can be very long and therefore tedious to scroll through...especially if the song you are looking for is at the bottom of the list. The **Page Up** and **Page Down** buttons can help you move more quickly. You can also search for a particular song.

You can click the **Search** button on the remote control. The screen at right will appear.

In the **Media Type** pulldown menu, select **Music.** 

In the **Search For** field, enter the music title you are seeking.

Select **Search** and press **Enter**.



## **Frequently Asked Questions**

#### What is D-Link's DSM-320?

The DSM-320 is a complete digital entertainment center. Enjoy music, video, and photo content when and where you want it in your living room, bedroom, den, or anywhere you have a TV. Once attached to a network, the DSM-320 allows you to access media content, and play it on a big screen televison. Additional media can be accessed online with AOL Services. Enjoy the convenience of fast, wireless data transmission, and control the audio and video entertainment on the TV, with the remote control!

# What kind of files are supported by the D-Link's DSM-320?

Audio - MP3, WMA, WAV, AIFF
 Video - MPEG 1, 2, and 4, AVI, QT, XVID
 Images - JPEG, PNG, BMP, GIF, TIFF, JPEG2000

### What do I need to set up the D-Link's DSM-320?

You must have a Microsoft Windows-based home network in place, with at least one PC running Microsoft Windows XP/ 2000/Me/98SE.

# Will any software need to be installed on my computer?

Yes, the D-Link Media Server Software needs to be installed on a networked Windows-based PC. From this PC, you can choose the media files to be streamed to your TV.

## **Frequently Asked Questions (continued)**

# What operating system do I need to run the server software?

■ Windows XP/2000/Me/98SE

# How does the D-Link DSM-320 get its files from my computer?

As soon as you have installed the D-Link Media Server Software on your PC, the server software will be launched, allowing you to add media files. You may then select folders containing music, photos or videos that you want to play.

# Can I access AOL without Media server software running?

Yes, by pressing the Online Media button on the main menu screen, you can access AOL.

### What about Copy Protection?

Some music files are copy protected and can only be played on your computer. Copy protected files cannot be played on your DSM-320. If a file is copy protected, it will not appear in the DSM-320. If you plan on sharing and playing music files on your DSM-320, turn copy protection off when ripping your own CDs to your PC.

## Can I use my Universal remote control?

No, the DSM-320 is not compatible with the universal remote.

## **Troubleshooting**

# I cannot see the Home Screen when I turn on my DSM-320 player for the first time.

- Make sure your TV is displaying the appropriate video source. You may need to use the **AV Input**, **Source**, **Select**, or **TV/Video** button on your TV or TV remote to change video sources. If you are having trouble changing the video source, refer to the instructions that came with your TV.
- If you did not connect the player directly to your TV, but are instead passing the signal through your VCR, make sure your VCR is displaying the appropriate video source. You may need to use the **Input** or **Source** button on your VCR or VCR's remote control. Some VCRs only pass the signal through when they are turned off. If you are having trouble displaying the correct video source, refer to the instructions that came with your VCR.
- Make sure cables are connected to the IN jacks on your TV or VCR, not the OUT jacks.
- The cables you are using to connect your receiver to your TV or other equipment may be damaged or defective. Try exchanging the cables connected to the receiver with other cables that you know are working properly.
- Make sure you have firmly attached the power adapter plug to the back of the player. Also, verify the power adapter is plugged into a working power outlet and that the outlet is not controlled by a light switch.

## **Troubleshooting (continued)**

## My remote control isn't working.

- Make sure the batteries are inserted correctly.
- Try removing the batteries and reinserting them without touching any buttons on the remote control.
- Replace the batteries with new ones.

## I can't find any of my music, photos, or video.

- Make sure your computer is powered on and that it has not entered standby mode. Change your computer's power settings if you want your content to always be available.
- Make sure the server software is running on your computer. Look for the media server icon in your system tray. If necessary, start the server software again.
- Click on the server icon and select Settings to Verify you are sharing the correct directories.
- Verify the receiver network cable is properly attached to your network switch, hub or router, and that the switch, hub or router has power.
- If you are using static network addresses, verify the network address and netmask are correct for your network, and that the address is not already in use by another PC or device.
- Make sure the file you are sharing is of a supported file format and encoding scheme.

## **Troubleshooting (continued)**

## I can't hear any sound when I'm playing music.

- Make sure the audio cables are properly connected.
- If the audio cables are connected to your TV, the TV must be on to hear any music.
- If the audio cables are connected to your stereo, make sure the stereo is on and you have the correct stereo input source selected. If you are having trouble selecting the correct audio source, refer to the instructions that came with your stereo.

## Some of my MP3 and WMA files don't appear.

- The DSM-320 supports the most common music file formats. However, there are almost an infinite variety of bit rates and sample rates. If a file does not appear on the receiver, it most likely uses an unsupported rate.
- The files may be copy protected. To share your files, turn copy protection off when you rip them.
- The following MP3 sample rates are supported:4, 8, 16, 22.05, 24, 32, 44.1, 48, 88.2 and 96 kHz.
- For best results, rip your MP3 files at 128 kbps or higher, with a sample rate of 44.1 kHz.

## **Troubleshooting (continued)**

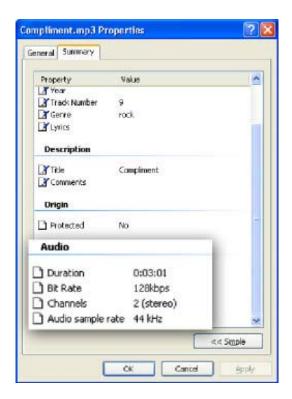
## Checking the bit and sample rates of a music file.

To check the bit and sample rates of a music file, in your PC's Windows folder, right-click on the filename and select **Properties**.

Select the **Summary** tab and scroll to the bottom of the list.

The file to the right has a bit rate of 128 kbps and a sample rate of 44 kHz.

In most cases, you don't need to worry about the sample rate unless you come across a file that will not play or appear on your player. Use the above procedure to check the file settings for supported rates.



# I created a playlist on my computer, but it doesn't appear on my media player

Make sure the playlist file is located in a folder shared by your media player. Copy the playlist to your shared music folder, or click on the media server icon to add or change your folder options.

### How do I reset my DSM-320?

Under normal circumstances, you should not need to reset your media player. However, to fully reset the media player, turn the toggle switch on the rear panel to OFF. Wait a few seconds, then toggle the switch to ON.

#### What version of software do I have?

From the main home screen, press the **SETUP** button and select **Version**. The software version will be listed.

# **Technical Specifications**

#### **Network**

TCP/IP

#### **Media Streaming Protocol**

**HTTP** 

#### **Supported Audio Formats:**

- MP3 up to 192 kbps
- WAV & AIFF (PCM only)
- WMA
- MPEG 1/2 Audio

#### **Supported Image Formats:**

- JPEG (Grayscale, RGB, YCbCy only -does not support CMYK, YCCK)
- BMP (Non-compressed)
- PNG
- TIFF (RGB only does not support CMYK, YMC, YMCK, KCMY)
- GIF

#### **Supported Video Formats:**

- MPEG 1 (up to 8mbps)
- MPEG 2 (up to 8mbps)
- MPEG 4 (asp- advanced simple profile)
- XVID with MP3 and pcm
- AVI or QT (MPEG4 layer only)

#### **Audio Playlist Formats:**

- M3U
- PLS

#### **Outputs:**

- RCA audio jacks
- RCA video
- S-Video
- Component Video
- Optical Digital Audio
- Coax Digital Audio

#### **Network:**

- 802.11g Wireless
- Supports up to 54Mbps

transfer rate

Wired LAN: 10/100Mbps

Ethernet

DHCP or Static IP Address

## **Technical Specifications (continued)**

#### Security:

- Hardware based WEP (Wired Equivalent Privacy)
- Up to 128-bit encryption

#### **Configuration:**

- UPnP-AV 1.0 Enabled
- INMPR Compliant

#### **PC System Requirements**

- Connection to 802.11g
   wireless or Ethernet network
- Windows 98SE, Me, 2000 or XP
- 500MHz processor
- 128MB memory
- 20MB available hard disk space
- Broadband Internet Service (cable or DSL modem) - For online media access and firmware updates Environmental specification
- Operating temperature:

0°C to 45°C

- Storage temperature:
- -25°C to 55°C
- Operating relative humidity:
  10% to 95% non-condensing

#### Warranty:

1 Year

# **Appendix 1**

# Setting Microsoft Windows Power Options

If you want access to your music and photos all the time, make sure to configure your PC's power settings. Do not allow your computer to enter a standby power state, or you will have to "wake up" your PC to view music or photos on your DSM-320. However, your monitor can be in a low power state or turned off.

To change your power settings on Windows XP:

- 1. Click on start
- 2. Select Control Panel
- 3. Select Performance and Maintenance
- 4. Select Power Options
- 5. Change both System standby and System hibernates to Never
- 6. Click OK

To change your power settings on Windows 2000/Me/98SE:

- 1. Click on start
- 2. Select Settings
- 3. Select Control Panel
- 4. Select Power Options
- 5. Change both System standby and System hibernates to Never
- 6. Click OK

# **Appendix 2**

## Static and Dynamic IP Addresses

DHCP-capable routers will automatically assign IP addresses to the devices on the network, using DHCP (Dynamic Host Configuration Protocol) technology.

If you are using a DHCP-capable router in your network, you will <u>not</u> need to assign a static IP address to your DSM-320. However, if you do not have a DHCP-capable router in your network, you will need to assign a static IP address to your DSM-320. You can do this through the Setup feature on your remote control.

The IP addresses on your network must be within the same range. For example, if one PC or device has an IP address of 192.168.0.2, the other devices should have IP addresses that are sequential, like 192.168.0.3 and 192.168.0.4.

The **subnet mask** must be the same for all the computers on the network.

# **Appendix 3**

## WEP Configuration

When you create WEP keys for security purposes, (as you can through the Setup button on the remote, under Wireless), you may be asked to enter a key phrase. This phrase will consist of Hexadecimal or ASCII digits, as described below:

Hexadecimal digits consist of the numbers 0-9 and the letters A-F.

**ASCII** (American Standard Code for Information Interchange) is a code for representing English letters as numbers from 0-127.

# **Appendix 4**

### Ad-Hoc & Infrastructure

**Ad-Hoc** mode means that two PC's are communicating in a Peer-to-Peer network, without a router or an access point.

**Infrastructure** mode means that two or more devices are in a network with a router or an access point.

# **Glossary**

### **MUSIC**

**MP3** = Is the file extension for MPEG-1, audio layer 3. Layer 3 is one of three coding schemes (layer 1, layer 2 and layer 3) for the compression of audio signals. Layer 3 removes the redundant and irrelevant parts of a sound signal, which the human ear does not hear. It uses Modified Discrete Cosine Transform to implement a filter bank, increasing the frequency resolution 18 times higher than that of layer 2.

**WAV** = Is the file extension for sound files and was developed by Microsoft and IBM. WAV sound files end with a .wav extension and is compatible with Windows applications supporting audio.

AIFF = Is short for Audio Interchange File Format, an audio format that was developed by Apple Computer and is the standard audio format for Macintosh computers. AIFF use a .AIF or .IEF extension.

**WMA** = Is short for Windows Media Audio and is a audio format that was created by Microsoft. It is similar to MP3, although WMA can compress at a higher rate than MP3.

**M3U** = M3U is a playlist format and is the default playlist format of WinAMP and most other media player software. It allows multiple files to be queued in a program in a specific format.

**PLS** = A proprietary playlist format used for playing Shoutcast and other audio streams.

## **Glossary (continued)**

## **PHOTOS**

**JPG** = Short for **J**oint **P**hotographic **E**xperts **G**roup, and pronounced jay-peg. JPEG is a lossy compression technique for color images. Although it can reduce files sizes to about 5% of their normal size, some detail is lost in the compression.

**JP2** = JP2 is the file extension for the new image format called JPEG2000 based on the latest image compression technology.

**GIF** = Pronounced jiff or giff and stands for **g**raphics interchange **f**ormat, it is a bit-mapped graphics file format. GIF supports color and various resolutions. It uses data compression, but it is limited to a 256-color palette.

**BMP** = The standard bit-mapped graphics format used in the Windows environment. By convention, graphics files in the BMP format end with a .BMP extension.

**PNG** = Short for **P**ortable **N**etwork **G**raphics, is a bit-mapped graphics format similar to GIF. In fact, PNG was approved as a standard by the World Wide Web consortium to replace GIF because GIF uses a patented data compression scheme. In contrast, PNG is patent and license-free.

**TIFF** = Acronym for Tagged Image File Format, and is one of the most widely supported file formats for storing bit-mapped images on personal computers.

TIFF graphics can be any resolution, and they can be black and white, gray-scaled, or color. Files in TIFF format often end with a .tif extension.

## **Glossary (continued)**

### **VIDEO**

**AVI** = Short for **A**udio **V**ideo **I**nterleave, the file format for Microsoft's Video for Windows standard. See under Video for Windows.

**DivX** = Is a video format that is MPEG-4 compliant and widely used on the Internet for encoding video files.

**MPEG** = Short for **M**oving **P**icture **E**xperts **G**roup, and pronounced "empeg". MPEG generally produces better-quality video than competing formats. MPEG achieves high compression rate by storing only the changes from one frame to another, instead of each entire frame. MPEG uses a type of lossy compression, since some data is removed. However, the reduction in the resulting video quality is minimal. There are three major MPEG standards: MPEG-1, MPEG-2 and MPEG-4.

- The most common implementations of the MPEG-1 standard provide a video resolution of 352-by-240 at 30 frames per second (fps).
   MPEG-1 is used with Video CDs (VCD) and results in video quality slightly below the quality of a VCR video.
- MPEG-2 offers higher resolution with CD-quality audio. This is sufficient for all the major TV standards, including NTSC, and even HDTV. MPEG-2 is used by DVDs. MPEG-2 compresses a 2 hour video into a few gigabytes of data on a single disc.
- MPEG-4 is a video compression standard based on MPEG-1 and MPEG-2. Videos encoded with MPEG-4 technology are considerably smaller when compared to videos encoded with MPEG-1 or 2.
   MPEG-4 was standardized in October 1998.

**Quicktime** = A audio and video compression technology developed by Apple Computer and is widely supported on Macintosh and Windows PC computers. The latest Quicktime implementation is MPEG-4 compliant.

**XVID** = XviD is an ISO MPEG-4 compliant video codec. It's an open source project which is developed and maintained by many people from all over the world.

# Warranty and Registration USA only

Subject to the terms and conditions set forth herein, D-Link Systems, Inc. ("D-Link") provides this Limited warranty for its product only to the person or entity that originally purchased the product from:

- D-Link or its authorized reseller or distributor and
- 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, addresses with an APO or FPO.

*Limited Warranty:* D-Link warrants that the hardware portion of the D-Link products described below will be free from material defects in workmanship and materials from the date of original retail purchase of the product, for the period set forth below applicable to the product type ("Warranty Period"), except as otherwise stated herein.

1-Year Limited Warranty for the Product(s) is defined as follows:

- Hardware (excluding power supplies and fans) One (1) Year
- Power Supplies and Fans One (1) Year
- Spare parts and spare kits Ninety (90) days

D-Link's sole obligation shall be to repair or replace the defective Hardware during the Warranty Period at no charge to the original owner or to refund at D-Link's sole discretion. Such 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 in its sole discretion 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 from the date of original retail purchase. If a material defect is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to repair or replace the defective Hardware, the price paid by the original purchaser for the defective Hardware will be refunded by D-Link upon return to D-Link of the defective Hardware. All Hardware (or part thereof) that is replaced by D-Link, or for which the purchase price is refunded, shall become the property of D-Link upon replacement or refund.

Limited Software Warranty: D-Link warrants that the software portion of the product ("Software") will substantially conform to D-Link's then current functional specifications for the Software, as set forth in the applicable documentation, from the date of original retail purchase of the Software for a period of ninety (90) days ("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 Warranty Period, the magnetic media on which D-Link delivers the Software will be free of physical defects. D-Link's sole obligation shall be 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 at D-Link's sole discretion. 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. Software will be warranted for the remainder of the original Warranty Period from the date or original retail purchase. 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 nonconforming 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 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.
- The original product owner must obtain a Return Material Authorization ("RMA") number from the Authorized D-Link Service Office and, if requested, provide written proof of purchase of the product (such as a copy of the dated purchase invoice for the product) before the warranty service is provided.

# Warranty and Registration USA only (continued)

- 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, with shipping charges prepaid. Expedited shipping is available if shipping charges are prepaid by the customer and upon request.

D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link's reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming.

What Is Not Covered: This limited warranty provided by D-Link does not cover: Products, if 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; 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. Repair by anyone other than D-Link or an Authorized D-Link Service Office will void this 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 NINETY (90) DAYS. 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 NON-CONFORMING 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 the product owner may also have other rights which vary from state to state.

# Warranty and Registration USA only (continued)

**Trademarks:** D-Link is a registered trademark of D-Link Systems, Inc. Other trademarks or registered trademarks are the property of their respective manufacturers or owners.

**Copyright Statement:** No part of this publication or documentation accompanying this Product may be reproduced in any form or by any means or used to make any derivative such as translation, transformation, or adaptation without permission from D-Link Corporation/D-Link Systems, Inc., as stipulated by the United States Copyright Act of 1976. Contents are subject to change without prior notice. Copyright® 2002 by D-Link Corporation/D-Link Systems, Inc. All rights reserved.

**CE Mark Warning:** This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

**FCC Statement:** This equipment has been tested and found to comply with the limits for a Class 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 communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment; such modifications could void the user's authority to operate the equipment.

#### **FCC Caution:**

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.

#### **IMPORTANT NOTE:**

#### **FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. The antenna(s) used for this equipment must be installed to provide a separation distance of at least eight inches (20 cm) from all persons.

This equipment must not be operated in conjunction with any other antenna.

For detailed warranty outside the United States, please contact corresponding local D-Link office.

Register your D-Link product online at http://support.dlink.com/register

# **Contacting Technical Support**

## **Technical Support**

You can find software updates and user documentation on the D-Link website.

D-Link provides free technical support for customers within the United States and within Canada for the duration of the warranty period on this product.

U.S. and Canadian customers can contact D-Link Technical Support through our website, or by phone.

### Tech Support for customers within the United States:

**D-Link Technical Support over the Telephone:** (877) 453-5465

24 hours a day, seven days a week.

D-Link Technical Support over the Internet:

http://support.dlink.com email:support@dlink.com

### **Tech Support for customers within Canada:**

D-Link Technical Support over the Telephone:

(800) 361-5265

Monday to Friday 8:30am to 9:00pm EST

D-Link Technical Support over the Internet:

http://support.dlink.ca email:support@dlink.ca