Digital Media Recorder HD

User Manual

DMR HD

Media POINTE
An Advanced Media Design Technology

Digital Media Recorder HD
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This document was written by the Development Department of Advanced Media Design, Inc. We are fully committed to, and take pride in maintaining high quality documentation. We welcome and appreciate any comments or suggestions you may have regarding content, presentation, structure and distribution of this document. Please use the contact information below for all correspondence:

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Safety Precautions

For your protection, please read all related safety instructions, observe all warnings and precautions, and exercise common sense while operating this electronic equipment.

- Always place the unit on a stable cart, stand or table.
- Do not use the unit near water or sources of heat.
- Do not drop or shake the unit. Do not place or install the unit in environments where it can be dropped or shaken. Make sure the unit is powered off while being moved even for short distances.
- Observe the power requirements of the unit; if you are not sure of the power available, consult your local dealer or power company.
- When plugging into a power outlet, insert the plug firmly into the outlet. Route the power cord so as to avoid any activity that may result in fraying or other damage to the cord or the plug.
- Under no circumstances should you attempt to override the polarization or grounding protection on the plug.
- Do not overload wall outlets, integral convenience receptacles or extension cords.
- Unplug the unit from the wall before cleaning. Do not use liquid or aerosol cleaners.
- For proper ventilation, do not block the slots and openings. Do not install the unit in a location where the ventilation slots and openings can be plugged during everyday use.
- Do not place or install the unit under, on top of or near any heat-producing equipment (i.e. radiators, stoves, or amplifiers), or in a heated place.
- Unplug the unit during lightning storms, when it will not be used for extended periods of time, or before you have a scheduled power outage.

If the unit is visibly damaged either by not observing the precautions above or for any other reason, contact your local dealer immediately. If the unit does not operate to the specifications set forth in this user guide, or exhibits a distinct change in performance, this may be an indication of a problem needing repair.

Environmental Operating Limits of DMR HD

Operating Temperature: 0˚C to 32˚C (32˚F to 90˚F)

Relative Humidity: 10% to 90% non-condensing

Storage & Transport Temperature: -20˚C to 80˚C
(-4˚F to 140˚ F)

Electrical requirements

Input: 100-240V ~50/60Hz

Service Support and Training

MediaPOINTE®, Inc. is committed to providing the service support and training needed to install, manage, and maintain your MediaPOINTE® equipment.

All MediaPOINTE® products are sold through a wide network of Authorized MediaPOINTE® Dealers. For help with your products, contact your local dealer for assistance first. If for any reason, you would like to contact MediaPOINTE® directly for information regarding service programs and extended warranty information, training, installation or usage, we are glad to be of assistance. You can contact us at the phone number listed below, or visit our website.

MediaPOINTE® Technical Support
Hours: 8:30 a.m. – 5:30 p.m. Pacific Standard Time
(866) 709-0444 TOLL FREE
(805) 214-7911 INTERNATIONAL
support@MediaPOINTE.com

DMR HD Package Contents

- 1 - MediaPOINTE DMR HD
- 2 – RCA Video Cable
- 2 – S-Video Cable
- 1 – Male VGA (RGBHV) Cable
- 1 - CAT-5e LAN Cable
- 1 - RCA Stereo Audio Cable
- 1 - AC Power Cable
- 1 – Male DVI-D Cable
- 1 – IR Remote Control plus 2 AAA batteries
- 1 – Rack Mount Kit
- Documentation CD-ROM
- Warranty Document
- Registration Sheet

Warranty

MediaPOINTE warrants that the DMR HD (excluding spare parts if applicable, external peripheral devices and consumables) will be free from any defect in materials or workmanship and shall perform in accordance with its specification for a period of 30 days for MediaPOINTE software and 1 year for hardware, starting on shipment date of the initial purchase of the equipment. MediaPOINTE disclaims any and all implied warranties of merchantability or fitness for a particular purpose. MediaPOINTE's sole liability for breach of this warranty will be (at its option) to provide access to software for download or to repair or replace the defective unit or component after customer has shipped the product to MediaPOINTE for return-to-factory repair. Customer must obtain an RMA (return material authorization) number from MediaPOINTE prior to returning equipment. Replacement parts may be new or equivalent to new. Part(s) replaced will be covered for the remaining term of the warranty. MediaPOINTE shall not be liable for any loss of profits or incidental or consequential loss for whatever reason. This warranty will be void if the equipment has been subject to any unauthorized modifications, improper operation, user negligence, service by an unauthorized person, accident, neglect, misuse, tampering, acts of God, or any event other than ordinary use.

Document Conventions

The following conventions are used throughout this user's guide.

The hand symbol indicates a note, containing special instructions, and in some cases, circumstances that require caution.

The light bulb symbol highlights suggestions or hints.

The high voltage symbol is intended to alert the user to the presence of un-insulated, dangerous voltages.

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1 DMR HD Introduction & Overview

Introduction

Welcome to the user's guide for the MediaPOINTE® DMR HD. The DMR HD is one of the easiest to use, cost-effective and reliable archiving and streaming products on the market today. It can archive important audio, video, and graphical data while simultaneously transmitting it anywhere on your network.

This user's guide describes how to set up and use the DMR HD to record and transport graphics, video and audio content over IP networks. As with all MediaPOINTE AV-over-IP products, you can control the DMR HD by different methods. These methods include: Web Portal interface, remote control, contact closure, RS-232 serial port, Telnet, or from the convenient front keypad.

This guide is written for units running 4.0 software. If your DMR HD is operating on a different version of software, some capabilities and screenshots may be different.

Key Features

The DMR HD may be used in a variety of situations for live communication and collaboration, including:

• Archive media content from multiple independent sources.

• Share visual information, designs, and concepts with dispersed groups of people to gather input during a video conference.

• Stream important videoconferences to other locations such as overflow rooms or remote conference locations over your corporate network.

• Conduct customer or employee training across vast geographical areas.

• Discuss research, engineering, architecture, product design, or process analysis when the participants are not able to meet in one central location.

• Access a centralized data bank of expertise from a field location.

How It Works (Method of Operation)

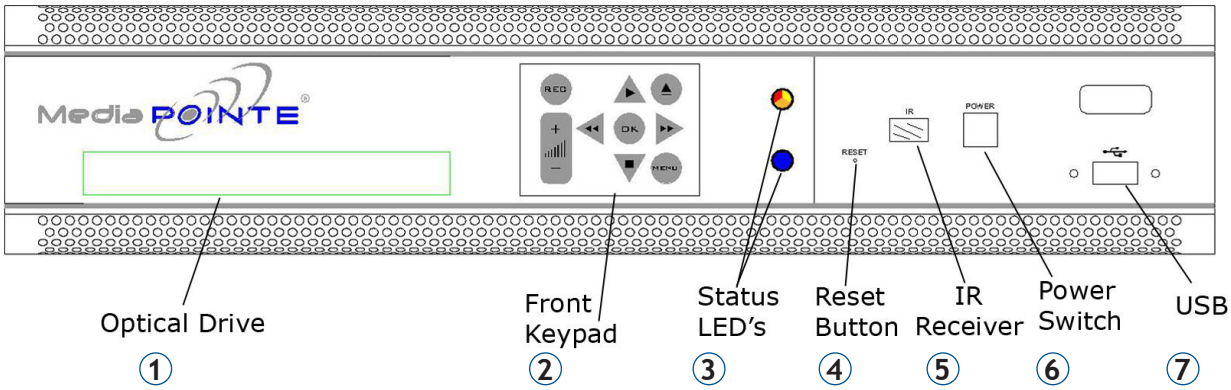
The DMR HD can archive and stream video and audio media. The DMR HD accepts DVI-D, analog RGBHV, S-Video, composite video, and unbalanced line level stereo audio inputs. The selected input source along with the associated audio is captured into a file which can be simultaneously streamed live over your network during the archival process.

Users can select from several configurable parameters (profiles) for capturing and subsequent playback of the recorded material. These profiles are fully configurable, allowing the user to specify the input source, capture resolution, bit and frame rates.

The archived recordings are stored on the DMR HD's hard drive. The recorded file can then be viewed on your PC or replayed directly from the DMR HD on a local monitor. The content can also be copied to a USB memory stick, burned to DVD-R, DVD+R or CD-R disk, downloaded to a PC, attached to an e-mail, or automatically transferred (FTP) to a server after the file has been indexed.

The DMR HD records content in standard MPEG-4 ASP, which can be played on a variety of desktop client players including QuickTime. It can record content in Windows Media Format that can be played in Windows Media Player.

DMR HD Front Panel



Front Panel View

The front panel consists of an Optical Drive, the main operation Keypad, two status LEDs, a small RESET button, IR receiver, a power switch and a USB port. The following is a brief description of each of these components.

1. Optical Drive

The DMR features an optical drive capable of recording to DVD-R, DVD+R, and CD-R media.

2. Front Keypad

The DMR HD has a front keypad that allows the user to start and stop recording as well as navigate the on screen menus without using the remote control. When the REC button is pressed a menu will appear on the display so you can determine which recording profile to use. A monitor is required to use this feature.

3. LED Status

The LED indicators are used to describe system states, actions and error conditions. The valid LED states are described in the table below.

	LED 1 (top) RED/YELLOW/ ORANGE	LED 2 (bottom) BLUE
Powering On	Orange	OFF
Ready	OFF	ON
Record/Stream	RED	ON
Indexing	RED Fast Blink	ON
Play/	OFF	Slow Blink
Error	YELLOW Fast Blink	OFF
Disk Burn	RED Slow Blink	ON
Mute (not record)	OFF	Fast Blink
Mute (record)	RED	Fast Blink

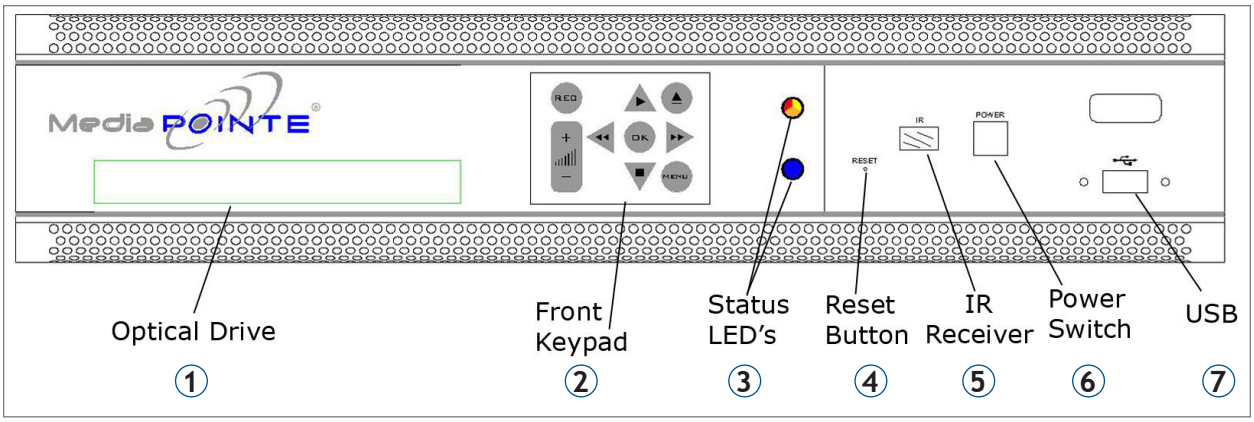
4. RESET Button

To avoid inadvertent resetting of the system, the RESET button is hidden behind a tiny hole in the front panel and requires activation using a small device such as a pin or paperclip. Pressing the RESET button will reset the Administrator Password and return the IP settings back to the default network settings.

5. IR Receiver

The IR Receiver is used with the included remote control.

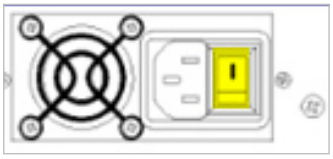
DMR HD Front Panel



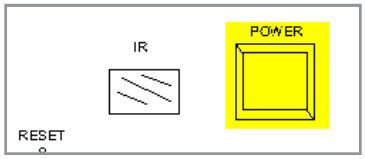
6. Power Switch

This POWER button on the front of the unit will turn the unit on and off. It is used in conjunction with the main power switch on the rear of the unit.

1. Ensure power supply switch is in the ON position (on back panel)



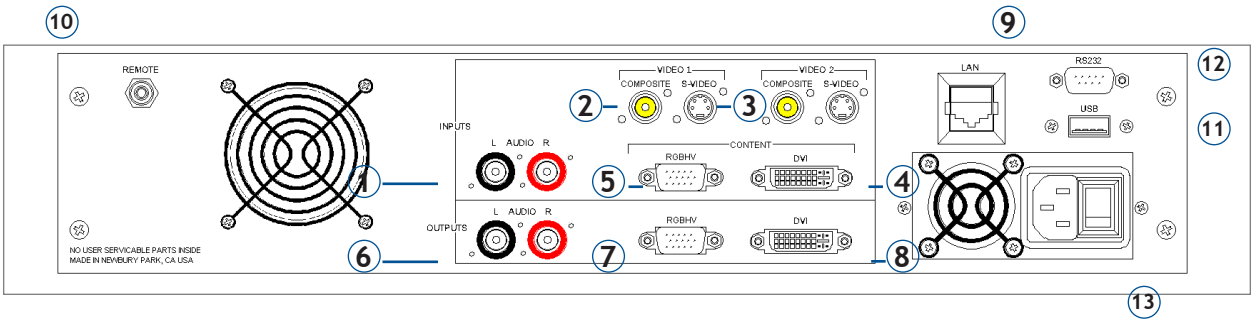
2. Start the unit by pressing the POWER button



7. USB Port

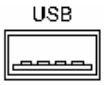
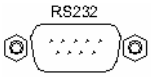
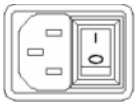
The USB port can be used to offload media from and to the DMR HD. It can also be used to set or capture an IP address. See the Network Configuration section for USB IP address configuration.

Back Panel View

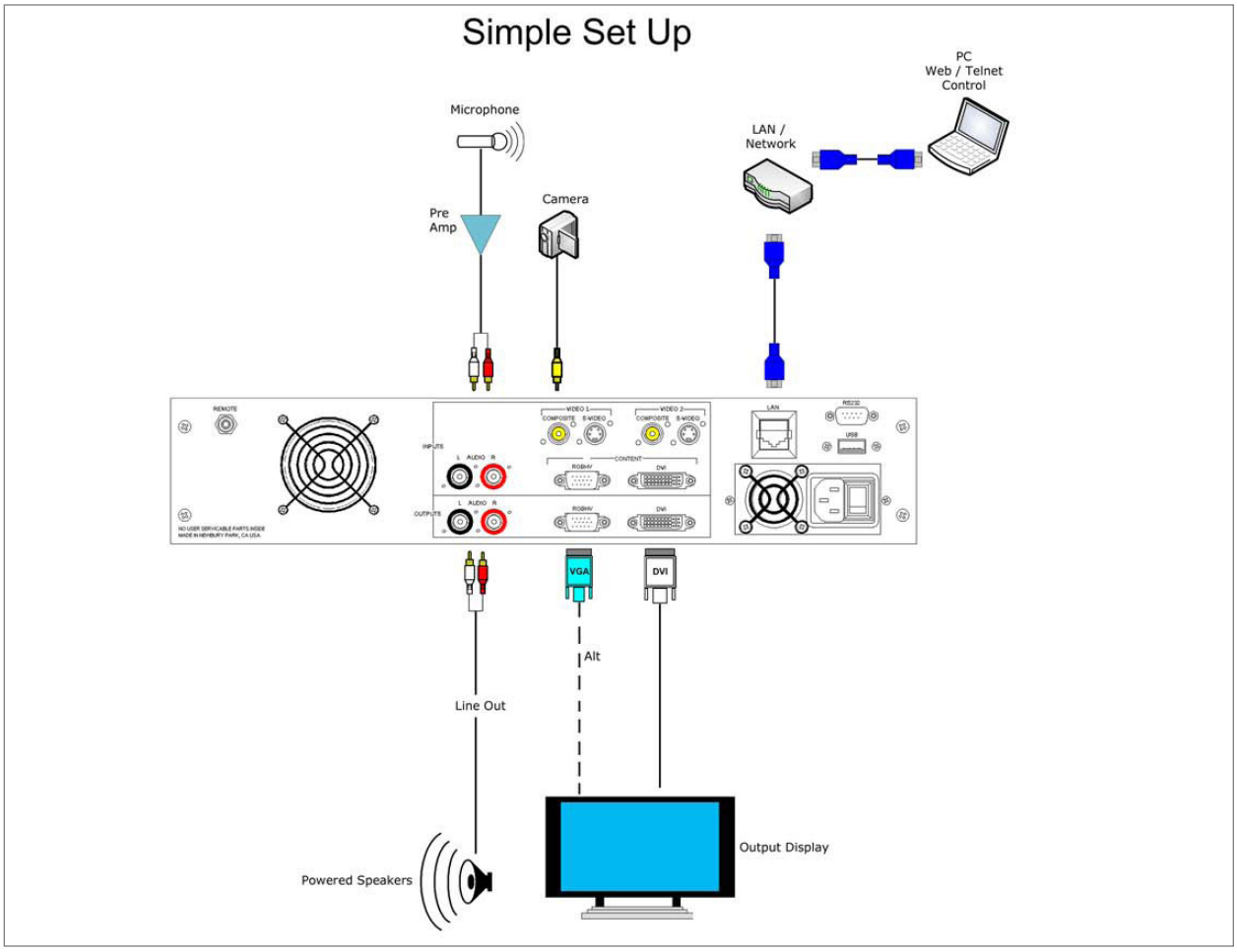


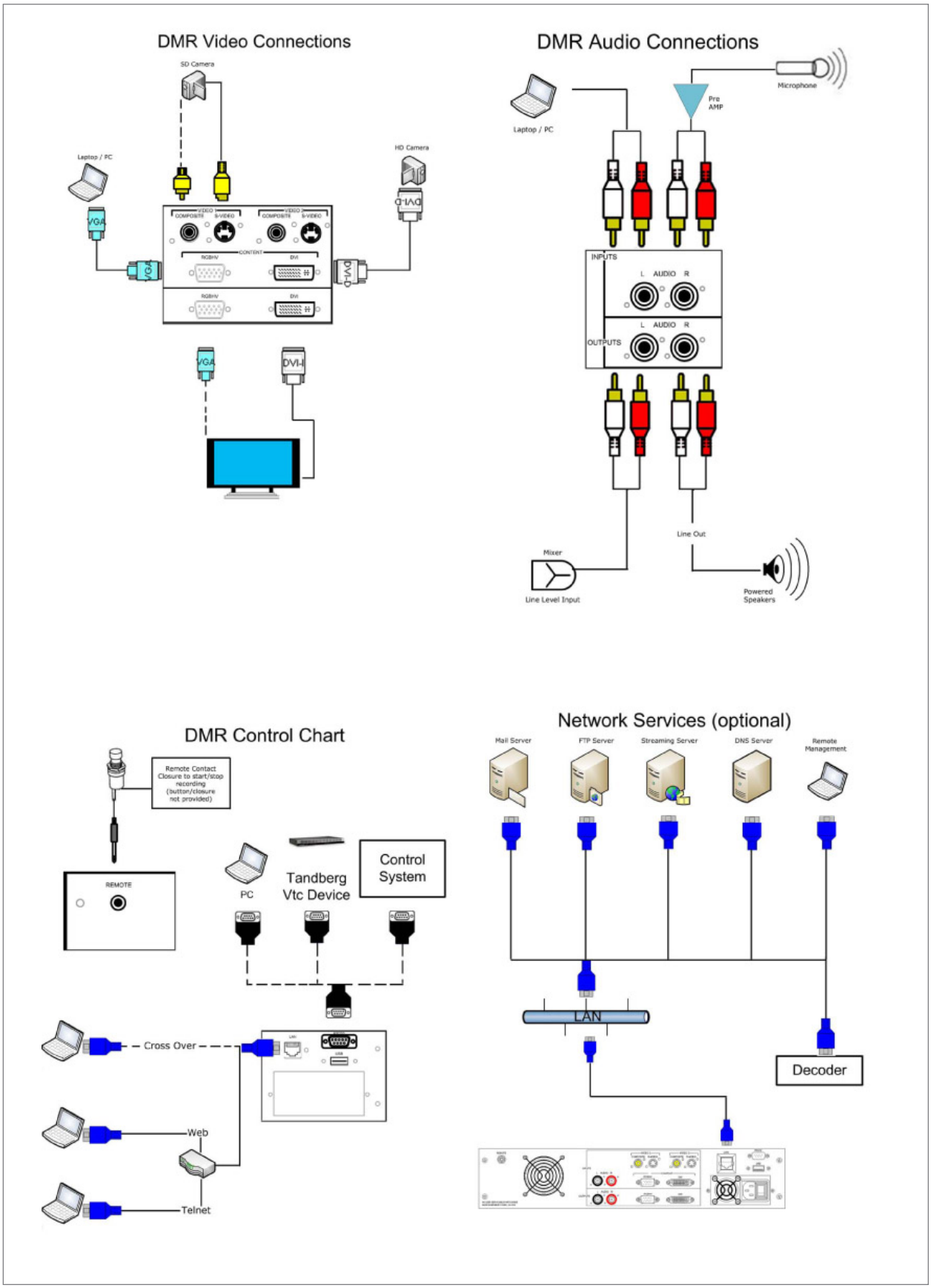
AUDIO/ VIDEO INPUTS			
	Connector	Function	Description
1	L AUDIO R	Stereo Audio Pair	Unbalanced Line level stereo audio inputs that use standard RCA connectors.
2	COMPOSITE	Composite	Composite Video input 1 on the DMR HD can be selected from the Web Portal.
3	S-VIDEO	S-Video	S-Video input 1 on the DMR HD can be selected from the Web Portal.
4	DVI	DVI	The DVI-I connector is for digital signals only. Although a DVI-I connector is used, the analog pins are not active, but will allow DVI-D and DVI-I cables to be used. DVI input 1 on the DMR HD can be selected from the Web Portal.
5	RGBHV	VGA (RGBHV)	The HD15 connector is used to connect a analog computer signal to the DMR HD. DVI input 1 on the DMR HD can be selected from the Web Portal.

AUDIO/ VIDEO OUTPUTS			
	Connector	Function	Description
6	L AUDIO R	Stereo Audio Pair	Unbalanced Line level stereo audio outputs that use standard RCA connectors.
7	DVI	DVI	The DVI-I connector is for digital signals only. Although a DVI-I connector is used, the analog pins are not active but will allow DVI-D and DVI-I cables to be used.
8	RGBHV	VGA (RGBHV)	The HD15 connector is used for local monitor playback of files directly from the DMR HD or when using the On Screen Menu to control the unit. This output can also be sent back to your AV display system.

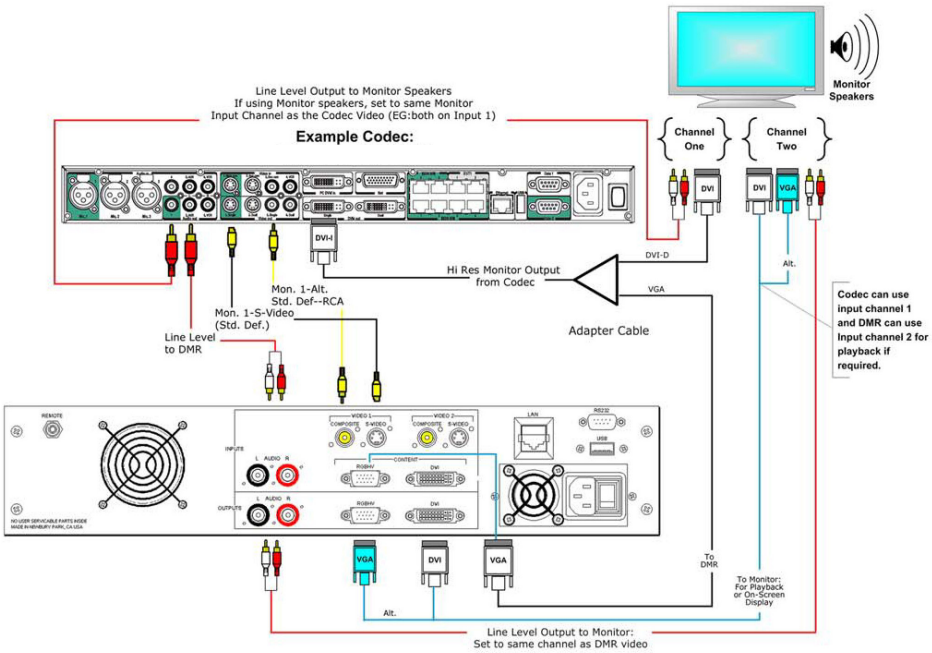
ALL OTHER CONNECTIONS			
	Connector	Function	Description
9		LAN	The RJ45 connector allows the included standard 10/100Mb CAT-5e LAN cable to connect the DMR HD to a network.
10		Remote Relay Closure	The standard 3.5 mini mono connector allows a remote switch (contact closure) to start/stop a session of the DMR HD.
11		USB	The USB port on the back of the unit can be used for upload or offload of video content and for network configuration of the DMR HD. For more information on USB network configuration, see Appendix B.
12		RS-232	This standard serial DB9 connector allows connection for serial control (note: a null-modem serial cable is required).
13		AC Power	The IEC connector allows the included IEC cable to connect the DMR HD to AC power. Make sure the power on/off switch is in the off position before plugging in the power cable.

Setup & Application Diagrams

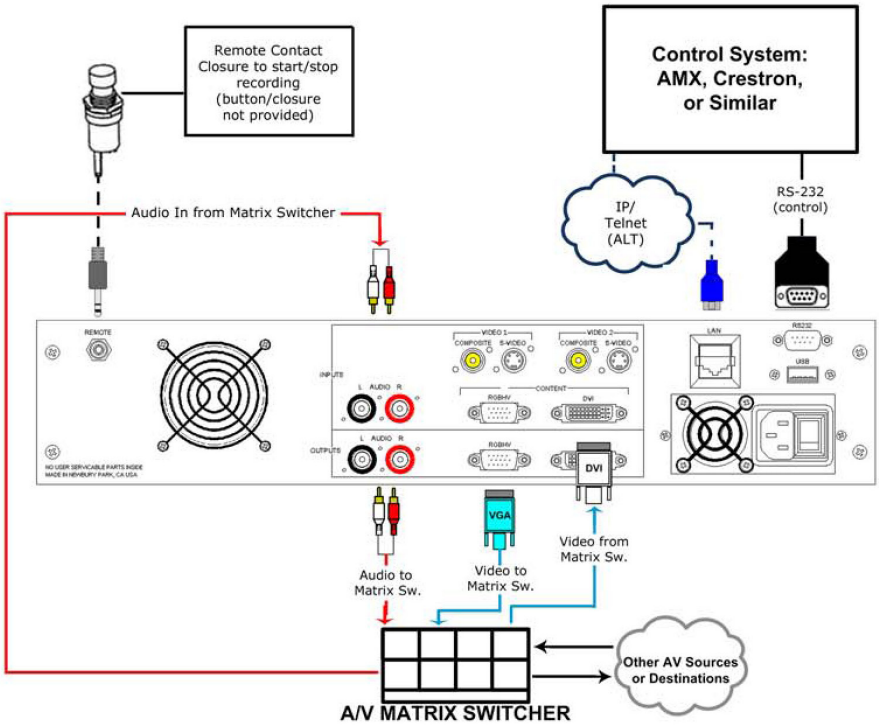



DMR Video Connections
SD Camera
Laptop / PC
HD Camera
VGA
DVI-D
DMR Audio Connections
Microphone
Pre AMP
Laptop / PC
INPUTS
L AUDIO R
OUTPUTS
Line Out
Mixer
Line Level Input
Powered Speakers
DMR Control Chart
Remote Contact Closure to start/stop recording (button/closure not provided)
REMOTE
PC
Tandberg Vtc Device
Control System
Cross Over
Web
Telnet
Network Services (optional)
Mail Server
FTP Server
Streaming Server
DNS Server
Remote Management
LAN
Decoder

Basic Videoconferencing Application



Basic Integration Example



2 Setting Up the DMR HD

Use this information when you are ready to install the DMR HD hardware at your site. To turn on the unit ensure the power supply switch is in the ON position then start the unit by pressing the POWER button.

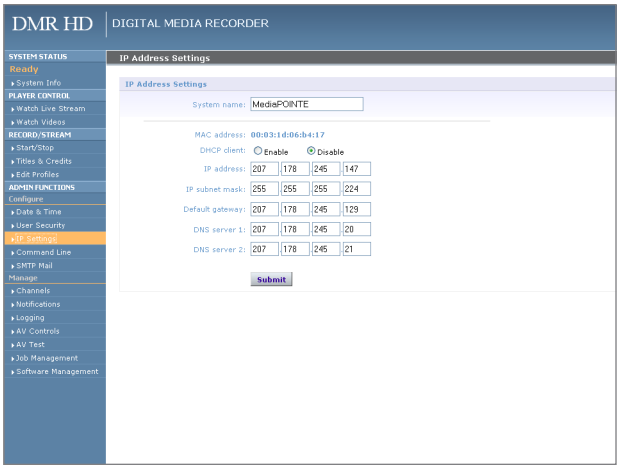
Logging In

This section describes the procedure for a first time login, and the DMR HD access rights.

The default IP address is:
192.168.1.253

Web Portal Access:

To log into the DMR HD, browse to its IP address using your Internet browser. There are three levels of access rights. There is a “user” login, an “author” login, and a system “admin” login.



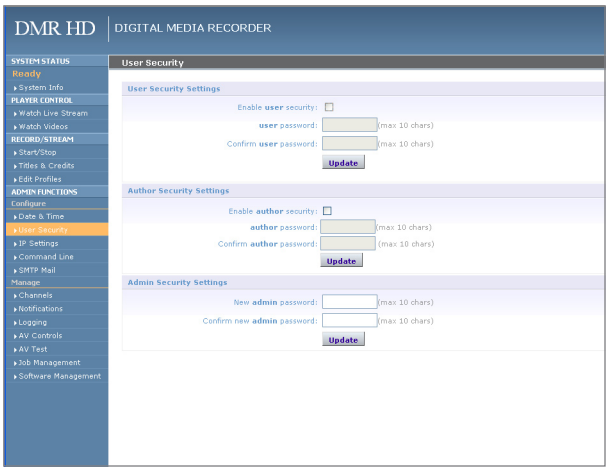
As an Administrator

The Administrator maintains all rights to the DMR HD.

1. If you are already logged into the DMR HD as a user or author, click on the LOG out selection at the top right of the web UI. You will be able to enter a username and password.

2. Use the login id “admin”. The default password is “MediaPOINTE”. Note that the login id and the password are case sensitive.

3. From the User Security selection of the main menu, the Administrator can enable or disable logins for users and authors and can change the admin password.



Changing the Administrator Password

Administrator rights are required to access or change any of the settings under the “Configure” and “Manage” sections in the main menu. By default, the Administrator ID and password are set to “admin” and “MediaPOINTE” respectively. It is not possible to change the Administrator ID. It will always be “admin”.

To change the Administrator password, enter a new Administrator password in the “New admin Password”

field (10 characters maximum) and confirm it by clicking Change Admin Password button. The next time the DMR HD is accessed, the new admin password will take effect.

Be sure to write down the new administrator password and keep it in a safe place. If you forget the admin password, the DMR HD will have to be reset back to the factory defaults to enable an administrator to access the “Configure” and “Manage” sections of the unit.

As a User

Once you have navigated to the site, you will be presented with the login page. Administrative login is required to make changes to the system settings under the “Configure” and “Manage” sections of the menu.

If content playback is all you require from the DMR HD, you will not need administrator rights. No password is required for the standard Guest user login as a default. The administrator has the ability to modify this feature to require a password for viewers to login.

To change the default IP settings of the DMR HD or any of the other configuration settings, you must log in with administrator rights.

User Login Security

By default, user security is turned off. Anyone can LOGIN to the DMR HD without being asked for a login ID or password. Check the Enable user security checkbox to enable security for the user. This will require all users to have an ID of “user” and the password created in the “user password” field.

Enter a user password in the “user password” field and confirm it by clicking the Save user Security Settings button. The next time the DMR HD is accessed, anyone logging in will be presented with a login box asking for the ID “user” and a password.

Un-checking the Enable user security checkbox will restore the default settings.

As an Author

The Author maintains content creation rights on the DMR HD. The Author can set recording options but does not have access to the “Configure” and “Manage” sections of the menu.

1. If you are already logged into the DMR HD as a user or admin, click on the LOGOUT selection at the top of the main menu. You will be prompted to enter a username and password.

2. Use the login id “author”. The password will be user defined in the User Security section of the main menu. Note that the login id and the password are case sensitive.

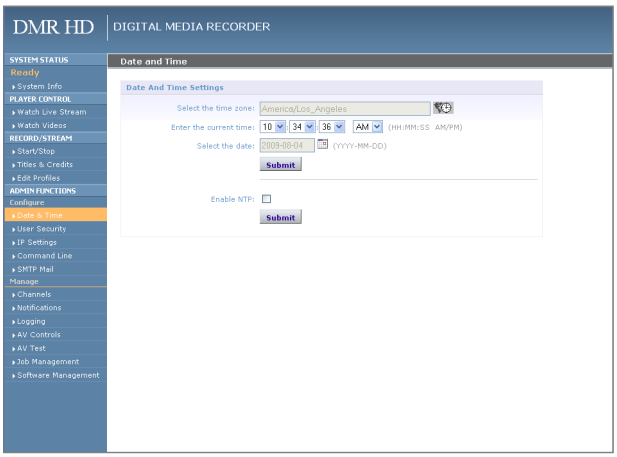
Author Login Security

Author rights are required to access or change any of the settings under the “Options” section in the main menu. By default, the author login password is disabled. Checking the Enable author checkbox will enable the author login security. Enter an author password in the “author password” field and confirm it by clicking save author Security Settings button.

Un-checking the Enable author LOGIN checkbox will deactivate the need for an author login password

Date & Time

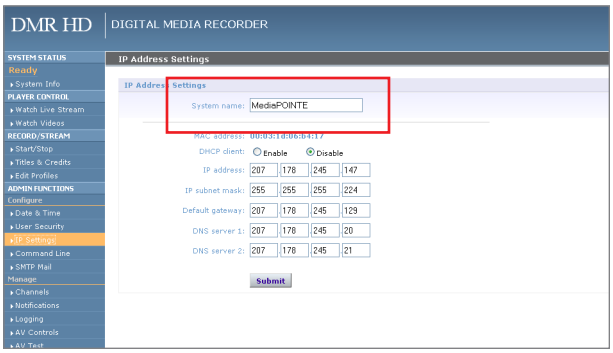
When content is recorded using the DMR HD it is given a time and date stamp. The time and date stamp can be set in the Date & Time section of the main menu. The date can be selected from the pop-up calendar. Confirm any changes by clicking on the Set Date & Time button. If desired, the NTP (Network Time Protocol) feature can be enabled to synchronize the clock of the DMR HD to an NTP server; click on the “Enable NTP” box and enter the server information, then click on Save NTP settings.



Network Configuration

System Name

The factory set system name is the unit build number. You can change the name in the IP setting menu page by entering a new name in the text field. A reboot is required for the new name to take effect. The name can be up to 15 characters long and consist of alpha-numeric characters. No special characters or symbols will be accepted except for a hyphen.



IP Settings

The System Name and all network settings can be set in the IP Settings section of the main menu. Network settings may also be configured via USB memory stick configuration.

To quickly find the system's IP Address, connect a VGA (RGBHV) or DVI monitor to the output. Use the keypad to navigate to the System Info page of the on screen menu.

Network Configuration	
Setting	Description
DHCP Client	Enable DHCP settings for automatic address retrieval from DHCP Server. Disabling the DHCP client will require a static IP address (with subnet mask and default gateway) to be entered.
IP Address	Assign a static IP address to DMR HD. This field will also display the currently assigned IP address
IP Subnet Mask	Assign subnet mask to DMR HD. This field will also display the currently assigned subnet mask
Default gateway	Assign a default gateway to the DMR HD. This field will also display the currenty assigned default gateway
DNS server	If the network supports DNS, enter the DNS Server Address(es) here.

IP addresses may be assigned to the DMR HD by two ways: DHCP and Fixed (Static) IP. If your network is configured for DHCP, the IP address will be provided automatically and will be visible on the DVI or VGA (RGBHV) output of the DMR HD. To set a Fixed (Static) IP address, follow the procedure below.

Configuring Static IP Address

1. Connect the Ethernet / LAN cable and power up the DMR HD.

2. On your Internet browser, enter the current IP address of the DMR HD. (Note: If the unit has factory settings, the default static IP address is: 192.168.1.253)

3.Login to the DMR HD using the procedure shown in the Logging In section.

4. Navigate to the network settings page by selecting IP Settings.

5. To change to a Fixed or Static IP address, set the DHCP Client checkbox to "Disable". Fill in the IP Address, IP Subnet Mask and Default Gateway fields.

6. Once you have completed all of the above steps, select the Apply Changes button. You will receive a pop-up window warning you to use this option with caution as you are changing the default address and should remember the new settings.

Configuring DHCP IP Address

1. Follow the steps above (1 through 4)

2. To enable the DMR HD to pick up an IP address, set the DHCP Client checkbox to "Enable".

3. If you have made any changes to the network settings, select the Apply Changes button. You will receive a pop-up window warning you that you to use this option with caution as you are changing the default address and should remember the new settings.

USB Network Configuration

This section describes how to configure the DMR HD. Changes in the Configure section of the Main Menu require Administrator privileges and cannot be accessed by users logged in with author or user profiles. The network parameters of the DMR HD can be set via a special configuration text file on a USB memory stick. Insert the memory stick into one of the DMR HD USB ports at any time. The unit will look for the presence of this configuration file and will implement the settings from the file. Use a simple ASCII text editor to create the file.

dhcp=(bool)0

dns_1=(string)192.168.0.2

dns_2=(string) 192.168.0.3

ethernet=(string)auto

gateway=(string)192.168.1.1

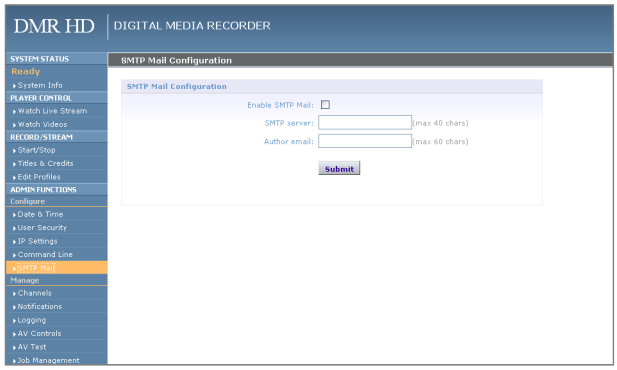
ipaddress=(string)192.168.1.253

netmask=(string)255.255.255.0

If the dmx_ip_conf.txt file is intentionally left blank with no text of any type within the body of the file, the DMR HD will write its network settings to this file. This is an easy way to obtain the unit's network settings.

SMTP Mail

The DMR HD has the ability to send email messages to a remote SMTP server. Enter the address of the SMTP server in the appropriate text box (use the IP address if DNS settings are not set). The Email field will set the default "From" field to the entered email. Leave this field blank to allow the user to enter their own "From" email address. Confirm any changes to the SMTP mail configuration by clicking Save SMTP settings button.



Command Line

The DMR HD has a Command Line interface that can be accessed from Telnet or RS-232. A list of commands can be found in the External Control section of this manual.

Telnet (TCP/IP)

The Telnet port by default is not enabled. To turn on Telnet control, set the Telnet port number (typically Port 23) and check the TCP/IP port enable checkbox. A password for the Telnet session can be activated by entering a password in the Password for TCP/IP connection text box. If a password is not desired on the Telnet session, leave the text box blank.

RS-232

On the back of the DMR HD there is a serial control port configured as a DTE that supports the RS-232 protocol. A Null-Modem cable should be used between the DMR HD and the COM port on your PC.

Terminal session settings required for RS-232 control are: 9600, 8, None, 1 with No Flow Control.

There is no password protection on this interface and, by default the RS-232 port is enabled. The administrator has the ability to disable the port by un-checking the COM port enable checkbox.

3 Control & Operation

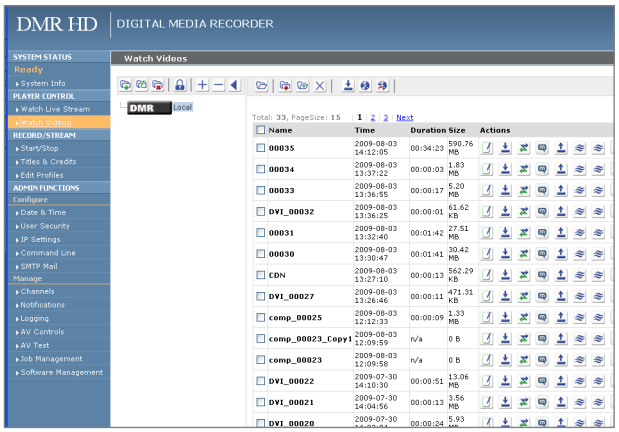
The DMR HD can be controlled by several different methods. These include, a Web Portal interface, IR remote control, contact closure, RS-232 serial port, Telnet, or by the convenient button panel (Keypad) on the front of the unit. This section will cover each of these control interfaces in detail.

Web Portal

Overview

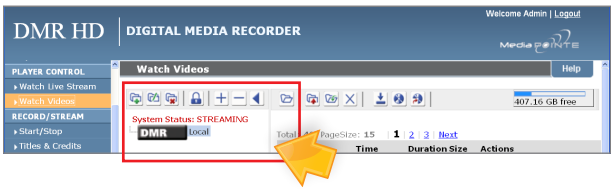
The DMR HD has a fully featured Web Portal that can be accessed via a web browser. Enter the unit's IP address in the web browser's address bar and complete a log on. From this screen you can start and stop a recording session, play or download previously archived material, set recording preferences and move content off/on or within the DMR HD.

Selecting the Watch Videos selection from the main menu will show a list of all current recordings in the Root directory.

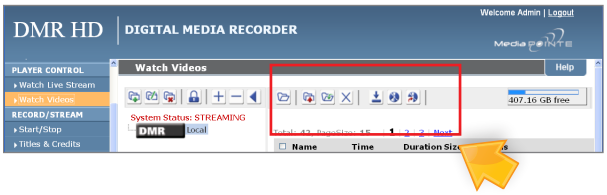


Toolbar

When logged in as either author or admin selecting the Archives selection from the main menu will provide the main system Toolbar.



Icon	Function	Description
	Create New Folder	Will create a new folder without password protection.
	Rename Folder	Will allow the user to change the name of the selected folder.
	Delete Folder	This will permanently delete a folder; including all content held within.
	Folder Password	This icon will allow the user to password protect the currently selected folder. If the folder is already password protected, it will allow the user to change the password.
	Open All Folders	Will show all folders on the DMR HD.
	Close All Folders	Will show only the highest tier folder of the folder tree.
	Close Folder View	Will hide all folders on the DMR HD.
DMR	ROOT Directory	Is the highest level directory/folder that content can be stored in.
	Password Protected Folder	A folder that has been password protected will be displayed with the lock icon.



Icon	Function	Description
	Show Folders	Will display the folder management tree.
	Move to	Will allow content to be moved from one folder to another.
	Copy to	Will allow a copy of a media file to be created in a different folder.
	Delete Selected	Will delete the selected content. There is no recycle bin or recovery process for content that has been deleted.
	Mail Attachement Manager	Will open the Mail Attachment Manager to allow content to be emailed.
	Download to my PC	Will open the Download Manager to allow content to be moved to the local PC.
	Show DVD	Will open the Disk Manager to allow content to be burned to a DVD-R, DVD+R or CD-R.
	Eject DVD	Will eject DVD from DVD drive

On-Screen Menu / Front Control Panel

The On-Screen Menu is displayed on the VGA (RGBHV) or DVI output of the DMR HD. The DMR HD IR remote or Front Control Panel (keypad) will provide some of the configuration features of the Web Portal as well as provide the ability to navigate and playback non-password protected content stored on the DMR HD.

Currently the on screen menus give the user the following capabilities:

- Start/Stop Recording
- Browse and Play non-password protected content
- Browse and Play recent content
- Burn content to optical disk
- Copy content to USB
- Display test images and tones
- Set audio input recording level
- Adjust the Menu opacity, position and timeout
- Retrieve System Information

External Control

RS-232

DB-9 Female	Function	DB-9 Female
2	Rx to Tx	3
3	Tx to Rx	2
5	Signal Ground	5

On the back of the DMR HD there is a single control port configured as a DTE that supports the RS-232 protocol. A Null-Modem cable should be used between the DMR

HD and the COM port on your PC – the pin-out is shown here.

Terminal session settings required for RS-232 control are: 9600, 8, None, 1 with No Flow Control.

audiogain	help or ?	multicast	shutdown
author	input	multicast_ttl	smtp
bye/quit	ipassign	notify	status
cli	ipset	play	sysinfo
copyme	ipstat	playstatus	test
defaultprofile	key	reboot	usersec
displayres	limit	record	volume
displayratio	listfiles	rename	
file info	list profiles	resetconf	

There is no password protection on this interface and, by default, the RS-232 port is enabled. However, the administrator has the ability to disable the serial control port from the Web Portal.

See below for a list of the available commands.

For more information on external control, please refer to the MediaPOINTE Command Line Interface document.

Telnet

The telnet client within the DMR HD provides access to the Command Line Interface through the TCP/IP protocol. By default, telnet is disabled but can be activated from the Web Portal with an optional password. The available commands are the same as listed in the RS-232 section.

To access the telnet client, open a command prompt on your computer and enter: telnet <ipaddress>

Once connected to the DMR HD, a connect message will be displayed.

DMR HD Welcome to MediaPOINTE

Password:_

Once logged in, type 'help' or '?' for a list of commands.

Infra-Red

The Infra-Red (IR) receiver for the remote control is located on the front of the DMR HD. It can also be used for IR control via control systems such as AMX or Crestron.

Remote Contact Closure (Relay)

A relay contact closure connection is mounted on the back as a 1/8th (3.5mm) phone plug. Either a mono or stereo plug can be used, but in the case of the stereo phone plug, short the sleeve to the ring as the negative connection. This connection can be wired to a simple switch closure and will start or stop a recording.

Note: There is a +5V on the tip

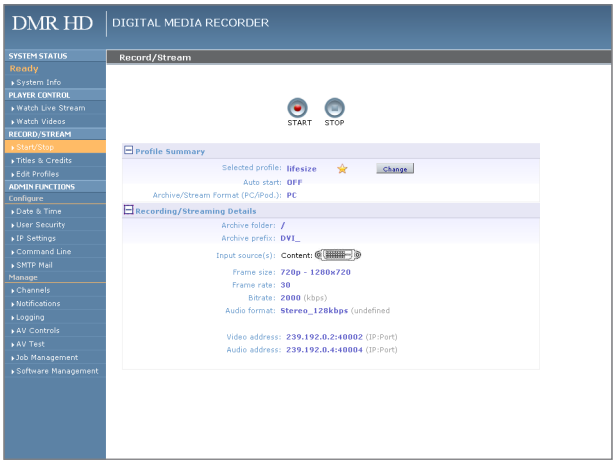
This closure can be in the form of a relay, manual switch or semi-conductor switch. This allows for relay control via external control systems such as AMX, Crestron, or by a plain momentary trigger, such as a footswitch.

Semi-conductor closures are found on AMX or Crestron controllers in the form of a D I/O port. If using a semi-conductor closure, polarity is important. The phone plug tip must be wired to the + or individual input of the D I/O port, and the sleeve connected to the ground or - connector. Note that, unlike relay connections, these connections are not isolated and can form grounding or hum loops.

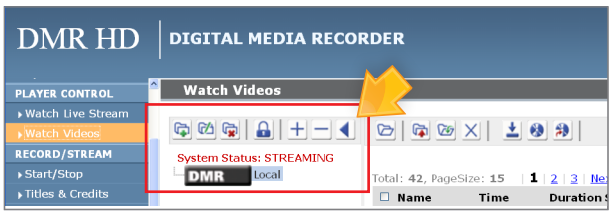
4 Recording, Archiving & Streaming

Recording and Streaming

A streaming/recording session can be started and stopped from the Start/Stop section of the main toolbar and from the profile listing. The “default” profile will be used unless another profile is selected. To select an alternate profile, use the Change button to bring up a profile listing.



The RED LED will illuminate when the DMR HD is recording/streaming and the Web Portal will display a “Recording” message at the top of the page. The record/stream parameters will be as specified in the profile that was chosen.



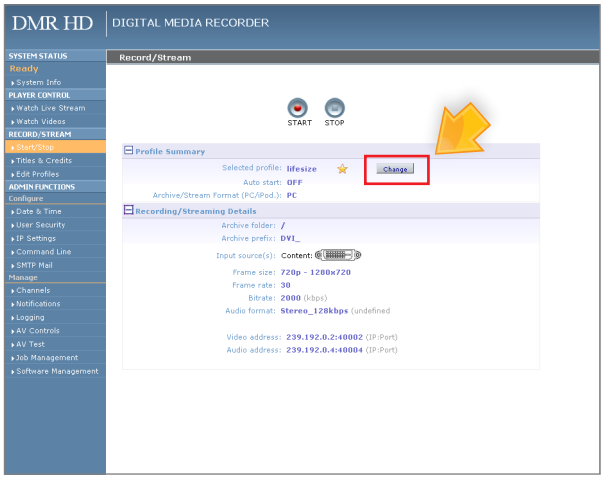
To stop the recording and create an archived file, press the Stop button to begin the “indexing” process. The RED LED on the front of the unit will blink fast during the indexing procedure, indicating that the unit is busy and cannot record or stream until the process is complete. Depending on the length of the archived material, this could take a few seconds up to several minutes to complete.

Disabling / enabling multicast

By default the DMR will multicast anytime a profile is intiated with streaming enabled. Multicast can be disabled so only unicast streams will be supplied. To disable multicast, access the CLI and enter the “multicast off” command.

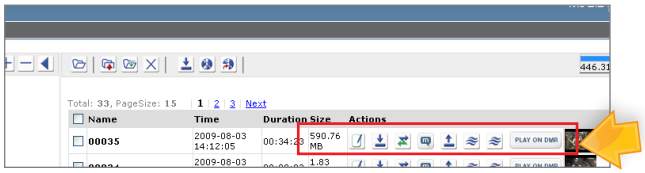
Changing Profiles

On the Start/Stop page, you can click on the Change icon and you will get a list pop-up with all available profiles. Select on the profile of your choice and the Start/Stop page will automatically be updated.



Recorded Content Detail

Icon	Function	Description
	Rename	Will allow the user to change the name of the selected folder.
	Email Media	Will allow the selected file(s) to be emailed. This feature will not be available if SMTP settings are not enabled.
	Stream	Will play media on local PC that is browsing DMR HD. The media will playback within the web portal using an MPEG-4 capable playback plug-in (such as Quicktime)
	Download to my PC	Will allow the selected file to be downloaded to the local PC. A pop-up dialog box will ask for a file location and name for saved file
PLAY ON DMR	Play on DMR	Will start the media playback on the VGA (RGBHV) and DVI output simultaneously.
DMR	ROOT Directory	Is the highest level directory/folder that content can be stored in.
	Password Protected Folder	A folder that has been password protected will be displayed with the lock icon.
	Upload to Server	Transfer a file to a remote server.
	Transcode	Convert the MPEG-4 File to WMV, H.264, and iPod formats.
	Metadata	Tag a video file with information such as Author, Title, Keywords and more.



Playback on DMR HD

Content stored on the DMR HD can be viewed on the VGA (RGBHV) or DVI output. Selecting the Play Locally button will start the content playback.

During playback, the pause, stop, skip forward and skip backward controls will be provided.

To play content on the local PC that is browsing the DMR HD click on the Play button. In order to play the file, an MPEG-4 capable playback application (such as Quicktime Player) is required on the viewing PC.

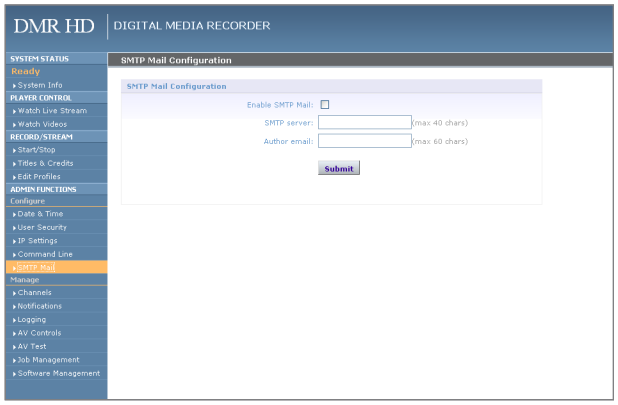
DVD Playback

To watch a DVD on the DMR HD, insert the DVD into the DVD drive. The movie will begin to play. Use the remote control to control the playback of the DVD.

Archiving

Mail Attachment

Once you have enabled the SMTP Mail settings you will have the ability to attach the file to an email.

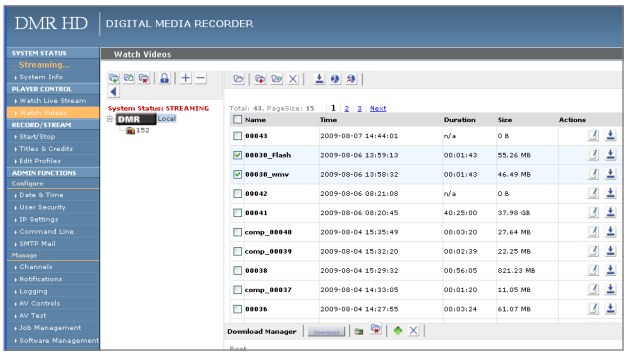


Icon	Function	Description
Attach to Mail	Attach to Mail	Will attach the selected content to an email.
	Add Folder	Will add the selected folder to the email attachment.
	Remove Folder	Will remove the selected folder from the email attachment.
	Add Media	Will add the selected media to the email attachment.
	Remove Media	Will remove the selected media from the email attachment.
	Close Mail	Will close the Mail Attachment Window.
	Default Folder	A recording initiated from IR, the remote relay closure or the REC button will be saved to the BLUE Default Folder

Download Manager

Files and Folders can be downloaded to the browsing computer using the Download Manager.

Select the Download Manager icon from the main menu to bring up the Download Manager Toolbar.



Disk Burning

The disks are burned as Data Disk.

Content can be moved from the DMR HD to an optical disk. Insert a blank disk into the DMR HD and select the Disk icon from the main menu. This will display the Toolbar that will provide icons for burning media files and folders to the optical drive. Formats supported include DVD-R, DVD+R and CD-R.

USB Offload / Upload

The front USB port can be used to move media to or from the DMR HD. Connect the USB memory stick and a folder named USB will appear in the Folder tree in the left pane. While the USB is connected, media can be copied to and from this folder.

Streaming

The Watch Live Stream page allows users at their personal computers to launch client media players, which will receive and decode the media streams for playback.

Manual FTP Upload

Under the actions menu for any video there is a manual FTP icon. Clicking this icon will allow you to manually transfer a video file and associated XML file to a remote server. SCP, FTP, and FTPS are all available options for transferring files. To transfer your desired file, choose the Manual FTP icon in the actions menu. Enter the server destination, Port number (optional for non standard ports), Destination path, and credentials. You can choose to delete the content after a successful upload.

Metadata

Metadata tagging allows you to tag a video file with information such as Author, Title, Keywords and more. This information is stored in the header of the Video file. A second copy of this information is stored within an XML file that is downloaded or transferred alongside the file. To add metadata to the file, select the video you wish to edit and click on the metadata icon in the Actions Menu associated with that file. Then enter your desired information into the available fields.

Transcoding

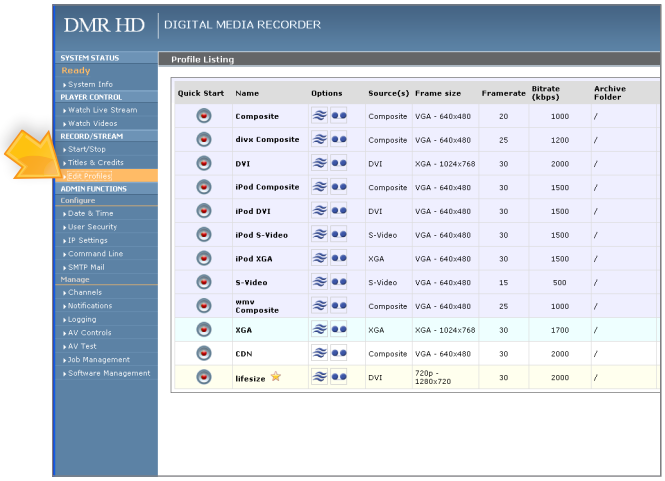
The DMR and DMR HD support file transcoding. This is a manual post process procedure. To transcode a video select the transcode icon under the actions menu for the desired video. Select the desired formats you wish to transcode from the pop-up menu. You can choose, WMV, H.264, and iPod formats. The transcoding will happen in the background and appear as a new file in your media library. The new file will have the transcoded video type appended to the beginning of the original file name for easy recognition. To see waiting jobs reference the Job Management page.

5 Management & System Tools

This section describes how to set up all configurable recording options on the DMR HD; only author and admin users have access to these settings.

Profiles

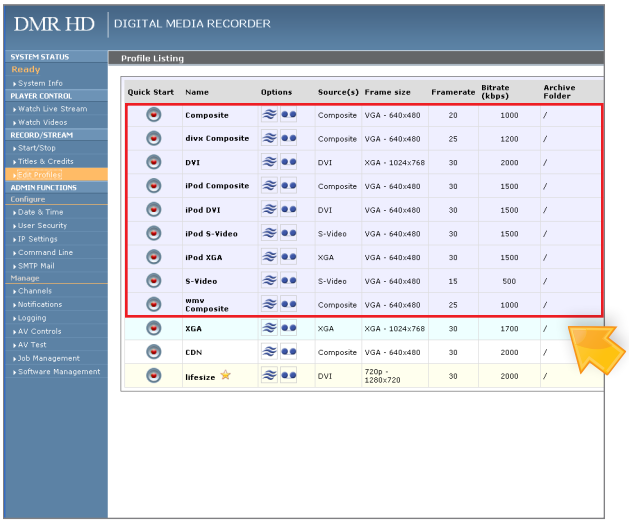
A Profile is a collection of settings that defines the operating characteristics for a streaming or recording session. Parameters include graphics and audio multicast or unicast addresses, port numbers, bit and frame rates and modes of operation. The DMR HD comes with 8 pre-configured profiles that cannot be modified. These profiles can be copied and re-configured to create custom recording profiles.



Icon	Function	Description
	Start Record/ Stream	Will start a recording/streaming session using the settings specified in Profile.
	Stop Record/ Stream	Will stop both the recording and the live stream and will begin the indexing process.
	Streaming	Indicates that Streaming is enabled on this profile.
	Archive	When the STOP Button is pressed, the file will be saved on the DMR HD.
	Info	Will provide a quick view of all configured settings in profile.
	Copy	Will create a copy of a profile that can be customized.
	Edit Profile	Will allow a user defined profile to be edited. To create a custom profile, copy one of the 8 Originals.
	Delete Profile	Will permanently delete a custom profile.
	Default Profile	Used when a recording is started without a profile specified. Identified by a Gold Star.
	Set Default Profile	Click on this icon to change the Default profile.

Creating/Modifying a profile

To create a customizable profile, you must copy one of the eight profiles provided with the DMR HD.



Setting	Description
Profile Name	Enter the name for this particular Profile.
Auto Start	Set the DMR HD's recording mode here: OFF- recording will be initiated in the normal manner ON- recording will be initiated in the normal matter but will also begin when specified Codec enters a call.
Format	Set the DMR HD's recording mode here: PC-for recording to be played on standard PC iPod™- for recordings that are played back on iPod™ (MPEG-4 ASP) WMV-Windows Media Format Divx- Divx Format
Archive and/or Stream	To enable or disable the ability to archive and stream, for your custom profile, click on the check box next to the appropriate icons.

Profiles- Stream Settings	
Setting	Description
Frame Rate	The frame rate in frames per second (fps) defines the maximum bit-rate that the DMR HD encoder may utilize in creating the media stream. The maximum allowable frame rate is 30 fps.
Bitrate	The bitrate in kilobits-per-second (kbps) defines the maximum bit-rate that the DMR HD encoder may utilize in creating the media stream. For low motion or static images the bitrate may decrease from this peak level. The maximum allowable bitrate is 5120 kbps.
Audio Format	Select the bandwidth and encoding properties of the audio media stream associated with the graphics stream. All audio is encoded in the Advanced Audio Coding (AAC) format.
Multicast Audio & Video Address	For streaming, a valid multicast address must be specified for both audio and video streams.

Templates- Archives Settings	
Setting	Description
Archive Folder	All recordings made with this profile will be saved to this folder.
Archive prefix	A prefix of up to 10 alpha-numeric characters may be entered. All recordings will include this prefix.
Enable FTP upload	When recording is ended, the file can be automatically directed to the ftp server. Selecting this checkbox will allow the FTP server detail to be entered.
FTP Server	The FTP server IP address or URL.
FTP Username	Username of FTP server to upload to.
FTP User password	The FTP server password.
FTP upload directory	Enter the directory path to the folder you wish to upload to.
Delete local media after upload	To keep a copy of the recorded media on the DMR HD, ensure that the Delete Local Media after successful FTP upload checkbox is un-checked.

Titles & Credits

JPEG images can be uploaded to the DMR HD in the Titles & Credits selection of the main menu. Images uploaded here can be specified in the profile parameters.

Images must be in JPEG format.

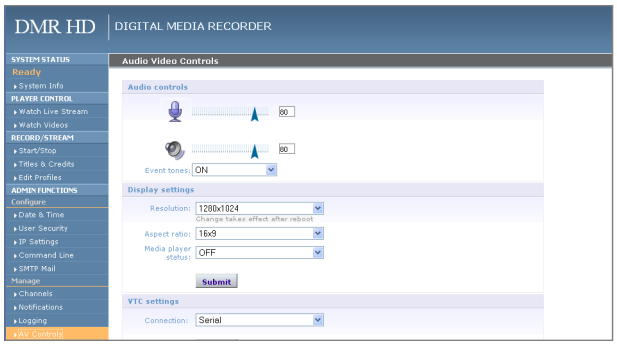
To upload an image, browse to the JPEG you wish to use and click on the Upload button. Individual images can be viewed or deleted using the controls provided on each graphic.

An image that is larger than the native content captured will be scaled to best fit the content window. An image that is smaller than the native content captured will be centered in front of the recorded content.

Note: The Studio Package allows for selecting templates

AV Controls

Audio input and output levels can be adjusted either by sliding the pointer along the bar, or by entering a value from 0 to 100 in the text field. You can also mute the output by clicking on the icons. Event tones can be turned on to alert you when an event occurs. For example you will hear a tone when you stop recording.



Display Settings	
Setting	Description
Aspect Ratio	The aspect ratio of the output can be specified to be either 4x3 or 16x9
Media Status Player	When enabled overlays the elapsed and duration time of the media file during playback on the DMR HD.
VTC Settings	
Setting	Description
Connection	Uses the LAN to have the DMR HD receive the command and record when a call is placed with the codec.
IP Address	The IP Address of the codec that you want to record
Password	The Telnet password of the codec that you want to record.

AV Test

The DMR HD has the ability to test audio and video to connected output devices without the need for live input sources. There are four audio test tones for confirming the audio outputs of the DMR HD. There are three test images for confirming video output to a locally connected monitor. Once a test tone or image has been selected, use the Stop Test button to end the test.

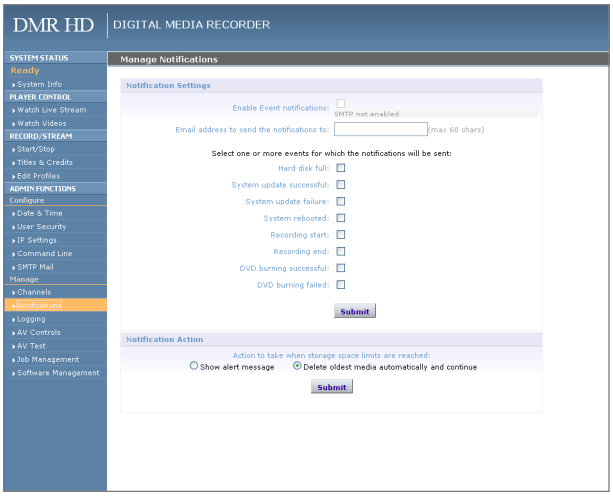
Live Video Test

The “content” and “video1” inputs can be tested to a local monitor. To test the high-resolution input, click on either the DVI or VGA (RGBHV) image and the source connected to that input will display on the local monitor. To test the standard-definition input, click on either the Composite or S-video image and the video source connected to that input will display on the local monitor.

Note: Video 2 option is enabled with Studio Package.

Notifications

The DMR HD can be configured by the Administrator to send email event notifications from the Notifications section of the main menu. Enter the email address to which the notifications will be sent and select the events to track. Confirm these settings with the Save Notification Settings button.



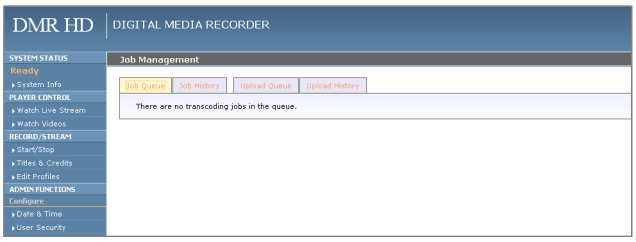
Logs	
Setting	Description
Event Log	The time and date of all recordings and live streams are captured in the event log. Also included in this log are all actions related to the archived media files (moving , renaming, deleting content etc.)
SMTP Log	All emails sent from DMR HD are logged and date stamped.
FTP Log	All recording uploaded to a server via FTP are logged and date stamped.
Failed Logins	All failed logins are logged and date stamped.
Error Log	The error log will provide a description of the problem that put the DMR HD into an error state (the Yellow LED will be on)

Storage Limits

The Administrator can determine the action to take when the DMR HD hard drive is full. Make the selection and press the Submit button.

Job Management

The job management page will show you the progress of all manual FTP uploads as well as transcoding Jobs.



JOB MANAGEMENT TABS	
Tab	Description
Job Queue	Job queue wil show you what jobs are waiting to be completed. To cancel a job press the Cancel button on the left-hand side.
Job History	The job history tab will show you previously transcoded jobs
Upload Queue	The upload queue tab will show you the FTP uploads waiting to be transferred. To cancel a transfer press the cancel button on the right hand side.
Upload History	The upload history tab shows you previously uploaded files.

Logging

The DMR HD can be configured by the Administrator to log events from the Logging section of the main menu. Select the events you wish to save to a log and confirm these settings with the Save Logging Options button. Current logs will hold 14 days of data. Logs listed as “old” will include the previous 14 days of data.

Update (Upgrades)

The Software Management section of the DMR HD menu enables the system administrator to perform several key functions. These include upgrading the system software to a new version; and resetting the DMR HD configuration to factory default network settings.

Upgrade System Software

MediaPOINTE’s Development Team is constantly striving to refine and upgrade features on the DMR HD to lead technological advances in the archiving and streaming marketplace.

In order to keep the DMR HD up to date with all of the latest features, you may want to update the system software from time to time. Follow the following steps

to upgrade the DMR HD software.

1. Contact your MediaPOINTE dealer for the latest software version. This file will have an *.mpup extension. The downloaded file must be placed on the same network as the PC that will be used to browse the web portal.

2. Go to the Software Management section of the main menu and click on the browse button to search for the downloaded *.mpup file. Locate the file and specify the path to the file as shown in the window.

3. Select the Upgrade button to begin the upgrade. Be sure to wait until the upgrade is complete before proceeding.

4. If your DMR HD doesn't automatically reboot, manually do this by selecting the Reboot button in the nfo section. This will reboot the unit and the new software will be in place.

Reset Configuration

Selecting the Reset Configuration button on the Software Management page will reset all DMR HD passwords and network settings to factory default. This will not delete any of your recorded files. This is the same as using the reset button within the hole on the front on the DMR HD.

System Info

The System Info section gives the user important information about the DMR HD. The system can be shutdown or rebooted from this page of the DMR HD. See the table for more details.

Sys Info	
Setting	**Description**
Product Name	Name of DMR HD.
Series	Product Series Number.
Version	The installed Version number of current software.
Serial Number	The DMR HD Serial number.
Manufacturer	Name of the Company that manufactured DMR HD.
Copyright	Copyright date of DMR HD.
Available disk space	The amount of disk space still available for content recording.
SDI	This is a unique indentifier, specific to your DMR HD. Provide MediaPOINTE technical support with this number should you call to start a ticket.
Options	Future Optional features will be listed here.
Option Keys	This key will be required to activate an option.

Shutdown

Select the Shutdown button on the Software Management page to remotely power-down (shut off) the DMR HD. Any access to the unit will be lost as the unit is powered down. In order to power up the unit, the user must physically push the power switch on the front of the unit. No communication is possible with the DMR HD when it is powered down.

Reboot

Select the Reboot button on the System Info page to power off the DMR HD and then turn the unit back on. This is a useful option after changing passwords or IP Addresses.

6 Options

All DMR HD units are shipped out to the field with the basic software installed. However, the software was designed with the ability to receive multiple option upgrades. The current option upgrades available are the Studio package and the Channels package. The unit can be setup for one or both options simultaneously. Please contact Advanced Media Design to purchase any of these packages.

Installing Upgrade Packages

After your purchase of an upgrade option(s), Advanced Media Design's tech support team will walk you through the process of enabling your specific option(s) (i.e. video 2 enabled with the Studio Package).

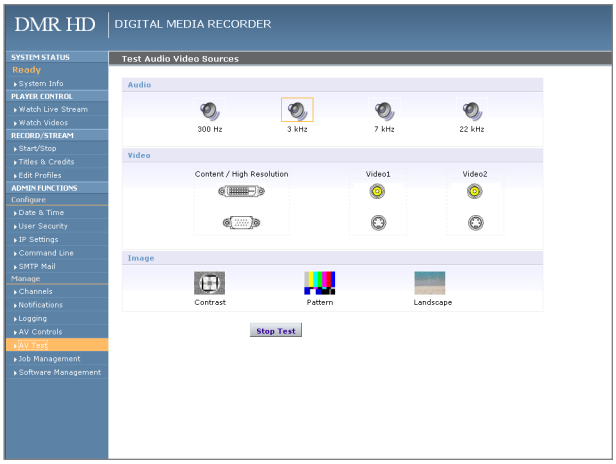
Studio Package:

The Studio upgrade package adds to the DMR HD functionalities:

Studio Functionalities	DMR HD	DMR HD Studio Package Option
Audio/Video Source Inputs	1 Composite 1 S-Video 1 DVI 1 VGA (RGBHV)	2 Composite 2 S-Video 1 DVI 1 VGA (RGBHV)
Custom Input Selection	No	Yes
Custom Video Templates	No	Yes
Resolution Output	Up to 1920 x1080	Up 1920 x 1080 Up to 1366 x 768 Side-by-Side

Video Source Inputs

The studio package adds to the DMR HD one more Composite and one more S-Video inputs. You can test these inputs from the AV TEST page.



Custom Video Templates

To select one of the 20 different CUSTOM profile layouts, navigate to the PROFILE page and select CUSTOM from the "Main Source" drop-down menu. Then Click on the CHANGE icon to bring up the screen or video templates.

Select the desired template and you will be navigated back to the PROFILE page to set up the corresponding input source to the selected template. On this page, you can select your content to be either VGA (RGBHV) or DVI. The rest of the template selection is either Video 1 and or Video 2. Once you click on save profile, your custom profile will be created.

Video-On-Demand (VOD) Option

A Video-on-Demand channel is a way to link up to a like optioned DMR, DMR HD, DVP, VIDi HD-d, and VIDi HD units simultaneously.

Video-On-Demand Channel Settings

By clicking on "Add New Channel" a window will open allowing you to enter the IP address of the device you want to connect to.

Viewing a Video-On-Demand Channel

If you go to the Live Streams page you will see current live streams from all your VOD channels. To view the stream click on the play icon under Actions and a window will open and display the stream.

The following tables describe AMD devices' play/stream VOD capabilities:

Video-On-Demand Channel Product Matrix					
Capabilities Description	DMR	DMR HD	DVP	VIDi HD	VIDi HD-d
View/Play recorded content from	Yes	Yes	No	No	No
View/Play live stream from	Yes	Yes	No	Yes	No
Make recorded content available to	Yes	Yes	Yes	No	No
Stream live content to	Yes*	Yes*	Yes	No	Yes

** with Video-On-Demand Option enabled*

AESOP External Storage Option

An additional external 1Terabyte of storage is available for the DMR HD. AESOP is the only external device that can extend the storage space. For more information please contact your sales representative.

Appendix A

The studio package key will require several user defined settings to be reset to their default configuration. Before updating your unit please take note of these settings so they can be re configured when the update is complete.

1. NTP settings will be disabled
2. User and Author passwords will be reset to blank
3. Comm port will be disabled
4. SMTP settings will be removed
5. Notification settings are lost
6. Logging is re-enabled
7. Display resolution will be set to 1280x1024
8. VTC settings are blank

DMR HD

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