digi-MOD HD-2002DM www.digi-modbyzycast.com

## HD-2002DM Dual Input DVB-T HD Encoder / Modulator User Guide and Install Manual

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## Safety Precautions

The presence of this symbol is to alert the installer and user to the presence of uninsulated dangerous voltages within the product's enclosure that may be of sufficient magnitude to produce a risk of electric shock.



TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS DEVICE TO RAIN OR MOISTURE. DO NOT OPEN THE UNIT. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

- **Do not** apply power to the unit until all connections have been made, all components have been installed and all wiring has been properly terminated.
- Do not terminate, change or uninstall any wiring without first disconnecting the unit's power adapter from the device.
- This device is supplied with the appropriately rated power supply. The use of any other power supply could cause damage and invalidate the manufacturer's warranty.
- · Do not connect the power cord to the device if the power cord is damaged.
- Do not cut the power cord.
- **Do not** plug the power cord into an AC outlet until all cables and connections to the device have been properly connected.
- The device should be installed in an environment consistent with its operating temperature specifications. Placement next to heating devices and ducts is to be avoided as doing so may cause damage. The device should not be placed in areas of high humidity.
- · Do not cover any of the device's ventilation openings.
- Do not cover or obstruct the device's fan or fan openings.
- If the device has been in a cold environment allow it to warm to room temperature for at least 2 hours before connecting to an AC outlet.

## Package Contents

This package contains:

- One HD-2002DM Encoder / Modulator
- One power cable
- One installation / configuration manual

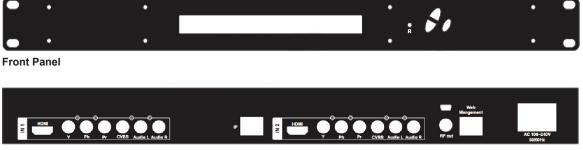
Inspect the package before starting installation to ensure there is no damage and all supplied contents are present. Contact your distributor or dealer should the device be damaged or package contents are incomplete.

## **Product Description**

Resi-linx digi-MOD HD Series Encoder/ Modulators provides a DVB-T - making it ideal for any Commercial RF Network. The high quality HD design allows for watching action packed movies and sports channels on any HDTV. The optional AC-3 Dolby Audio and AES-128 Encryption capabilities rounds out the feature rich product series. The space saving design delivers up to 4 High Quality HD DVB-T channels in a single 1RU space.

- Front panel LCD Display for easy installation
- High Resolution up to 1080i/1080p
- LCN MODE
- · Composite, Component, and HDMI (unencrypted) inputs
- MPEG2 or MPEG4 (H.264) Video Output

- Selectable Constellation
- Closed Captioning Support
  - 100dB Output
- Rack mountable 1RU height



```
Rear Panel
```

## Specification

VIDEO INPUTS (VIDEO BY PRIORITY)	
HDMI	1.4v
Component	YPrPb (RCA)
Composite	CVBS (RCA)
AUDIO INPUTS	
Audio Inputs	L/R (RCA)
VIDEO ENCODER	
Mode	MPEG-2, MPEG-4 (H.264)
Video Resolutions	1080p (MPEG-4 Only), 1080i, 720p, 576p, 576i, 480p, 480i
AUDIO ENCODER	
Audio Compression	MPEG-1 Layer II, AAC, AC-3 Pass Through
RF DVB-T SUPPORT	
Frequency	Channel Plan - Varies by Country
RF Channel Output	2 multiplexed on to 1 RF Output
Constellation	64QAM (16QAM)
Bandwidth	7 MHz
RF Level Output	100dB
MER	>40dB Typical
FEC	1/2, 2/3, 3/4, 5/6, 7/8
Guard Interval	1/4, 1/8, 1/16, 1/32
OFDM	8K (2K)
Attenuation	1-20dB (1dB steps)
RF Output	"F" - Female 75 ohm
Closed Captioning Control	By Selection (use of CVBS Input)
MANAGEMENT / CONTROL	
Front Panel LCD Control	Full Support (Up/Down/OK Buttons)
GUI	IE9, Firefox, Chrome, Safari
Password Protected	Front Panel, GUI
GENERAL	
Rack Mountable (1RU)	482.7mm x 240mm x 44.4mm - 19" EIA Standard
Internal Fan Cooled	Dual Internal
LCD Front Panel	Dual Line, Scrolling Display

\*\*Subject to change without notice

## Installation

System Installer must adhere to Article 820-40 of the NEC that provides guidelines for proper grounding and specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as possible.

#### UNPACKING AND INSPECTION

Each unit is shipped factory tested. Ensure all items are removed from the container prior to discarding any packing material.

Thoroughly inspect the unit for shipping damage with particular attention to connectors and controls. If there is any sign of damage to the unit or damaged or loose connectors contact your distributor immediately. Do not put the equipment into service if there is any indication of defect or damage.

## Hardware Installations and Connections

It is highly recommended that quality cables and connectors be used for all video and audio source connections.

- 1. The unit is designed to be rack mounted in a standard EIA 19" rack.
- 2. The unit comes standard with HDMI, Component, and Composite video inputs. The HDT encoder / modulator are intelligently designed to detect the video input from the video source. HDMI Connection: Connect the HDMI cable(s) from the video source(s) into the HDMI input(s). If using a Component Video Cable, connect the Y (Green), Pb (Blue), and Pr (Red) video source cable to the unit's Component input ports. If using a Composite Video source, use a 75Ω coaxial cable with RCA connectors to connect the video source (e.g., CATV, DVD, VCR, Camera) to the unit's CVBS port (IN1...IN2, IN3, IN4 depending on your model).
- 3. Repeat this step for each video source connection.
- Component / Composite Audio inputs: Connect A/V audio input (Left / Right Audio) use RCA cables to connect the audio source to the red / white AUDIO L and AUDIO R INPUT jacks (IN1...IN2, IN3, IN4 depending on your model). Repeat this step for each audio source connection.
- 5. Be sure the video and audio connections for each source are consistent with the unit's inputs (IN1...IN2, IN3, IN4 depending on your model).
- 6. Use a quality 75Ω coaxial cable with "F" connectors from the unit's **RF OUT jack** to the **distribution system** (combiner or reverse splitter) or directly to a television.
- 7. If your device is equipped with an IP output- connect the Ethernet cable to the IP output RJ45 connector.
- 8. Connect the included power cord to the unit's **POWER** plug.
- 9. Connect the power cord to an appropriately rated AC power outlet.

## **DEVICE** Programming and Setup

To setup and program the Encoder you can use the GUI interface or the LCD Front Panel.

## Connecting to the GUI Interface

- 1. Connect an Ethernet cable directly (no Cross Over cable required) to the Web Management Port on the rear panel of the encoder or connect the Ethernet cable to an Ethernet switch. Connect an Ethernet Cable to your PC.
- 2. Using a Windows-based PC Select Windows Icon
- 3. Go to My Computer
- 4. Select Network
- 5. Allow UPnP to locate and list the device(s) in the right panel
- 6. Right Click and Select "View device Webpage".

#### NOTE:

For Setup Using Front Panel LCD: Go to page 11 in this manual.

## Encoder Programming and Setup via GUI Interface

After connecting the device to the "Web Management" port located on the rear of the device and locating the device via the 'Network' tool in 'My Computer'

STEP 1: Right Click and Select "View device Webpage".

			resi-linx HD Encodulator
verview	Welcome	!	
Common Setup	Device Name:	RESI-LINX-001	
RF Setup	Model Number:	HD-2002DM	ā
Encoder Setup	Device Address: System:	1 DVB-T	0H2: 12:005
P Streaming Getup	Net Version:	20131224	
eb Management	RF Output 1		
etup	Channel	39 (606.5 MHz)	
dministration	Constellation	64QAM	
	Output Bitrate	27.709	
		Input 1	
	Channel Name	CHANNEL-1	
	Video Source	Auto	
	Video Output	MPEG2	
	Audio Output	MP2	
	Input Bitrate	13.401	

**NOTE:** Image displays the Quad version of the HDT Encoder.

#### Overview page of resi-linx digi-MOD HD

Overview status of the Encoder when fully functioning. Alternate between viewing status of RF Output 1 and RF Output 2 by selecting the RF Output section of the device you want to monitor.

STEP 2: Login Select Common Setup

Once the Common Setup Tab is selected you will be prompted to enter the user name and password for device:

	2.168.200.206 is asking for your user name and password. T s that it is from Protected.
	ir user name and password will be sent using basic in on a connection that isn't secure.
2	
	User name
5/2	Password
	Remember my credentials

Default User Name: admin Default Password: Admin123

STEP 3: Common Setup Tab

Common Setup: Use the Common Setup Page to set the Output channel, Attenuation, LCN Mode, and Device Address.

#### STEP 4: Local Save

Once all parameters are set you are required to do a Local Save.

**Notes on Changes:** Changes made to an individual setup tab may require the installer to perform a Local Save AND Upload and Reboot to the device if you are only making changes to one parameter to the encoder.

Example: Installer is required to change only the output channel for the device (No other changes to the device are not required). Once the channel has been changed, the installer is required to perform

- 1. Local Save and
- 2. Upload and Reboot.



		resi-linx HD Encodul
verview	RF Setup	
mmon Setup	This name allows to setup RF or	itput configurations. Here you may save the
Satur	changed values into brower's se	ession storage. After you reviewall your encoders' setup, you can upload them all
	together and reboot the device.	
Streaming tup	RF Output 1	
eb Management	Constellation:	64QAM V
tup	FEC:	7/8 🗸
Iministration	Guard Interval:	1/32 V 8k V
	OFDM Mode: RF Output:	Normal Y
	Cell ID:	0
	TS ID:	1000
	Network ID:	100
	Original Network ID	: 10

Use the RF Setup Page to setup each RF Output.

#### STEP 6: Local Save

Once all parameters are set you are required to do a Local Save.

#### NOTE:

The device shown is a QUAD input device. Your device will not show RF Output 2 if you are setting up a Single or Dual input encoder.

## STEP 7: Encoder Setup

		resi-linx HD Enco
verview	Encoder Setup	
ommon Setup	This page allows to configure the	encoder's settings. Here you may sav
tF Setup	changed values into brower's ses	sion storage. After you reviewall your coders' setup, you can upload them al
ncoder Setup	together and reboot the device.	
P Streaming Setup	Encoder 1 Encoder 2	
veb Management	Video Input: Program Number:	Auto detect V
etup	Channel Name:	CHANNEL-1
dministration	Provider Name:	resi-linx
	LCN:	101
	Aspect Ratio:	16:9 🗸
	Video Output:	MPEG2 CBR 🗸
	HDCP Enable:	
	Audio Input:	Analog V
	Audio Output:	MPEG1 Layer2 (MP2) V
	Closed Caption: Brightness:	
	Brightness:	128
	Contrast:	128
	Saturation:	128
	Hue:	128

NOTE:	
There is an Encoder tab profession for each input on the device	

Select the Encoder 1, 2 tab to program an individual encoder. Select and change all desired parameters.

Once all parameters are set you are required to do a Local Save on EACH Encoder Tab where changes were performed

<b>resi</b> ⁼linx				
		resi-linx HD Encodulat	tor	
Overview Encode	er Setup			
Common Setup This page allow	ws to configure the er	coder's settings. Here you may save the		
RE Sotup changed value	es into brower's sessio	n storage. After you reviewall your lers' setup, you can upload them all		
	reboot the device.			
IP Streaming Setup	Encoder 2			
web Management	o Input: ram Number:	Auto detect V		Note: Local
Administration	nnel Name:	CHANNEL-1		Save function will
	ider Name:	resi-linx		indicate the local
LCN:	ct Ratio:	101		change made
	o Output:	MPEG2 CBR V		
	P Enable:			
	o Input:	Analog V		
	o Output:	MPEG1 Layer2 (MP2) V		
	ed Caption:			
	htness:	128		
Contr	rast:	128		
Satur	ration:	128		
Hue:		128		IMPORTANT NOTE:
Local Save	Upload and Reboot F	Reset local changes		Ensure all Encoder changes have been locally saved before
	Up	load and Reboot after	all changes have	performing Step 9.
		en made and a Local S		

STEP 9: Upload and Reboot

Once you have set all the encoder settings and performed a Local Save for each encoder

Select "Upload and Reboot" after you have saved all your Local changes on each Tab. This function will upload and save all parameters set in the Common, RF, and Encoder sections of the device.

We highly recommend you save your encoder configuration files. See Administration tab for how to back you device settings.

**STEP 10:** Network Configuration Tab

		resi-linx HD Encod
verview	Network Conf	iguration
Common Setup	This page allows to configure t	he encodulator's network settings.
RF Setup		-
Encoder Setup		gs may cause the encodulator to lose very options will be provided on the next
IP Streaming	page.	
	Enter the new settings for the	encodulator below:
A CARLEND AND THE PARTY AND A CARLEND AND A		
	Host Name:	RESI-LINX-###
Setup	Host Name:	RESI-LINX-### RESI-LINX-001
Setup	Host Name:	RESI-LINX-001
Setup		RESI-LINX-001
Setup	IP Address:	RESI-LINX-001 ✓ Enable DHCP 192.168.200.206
Setup		RESI-LINX-001
Web Management Setup Administration	IP Address:	RESI-LINX-001  ☐ Enable DHCP  192.168.200.206

Use the Network Setup Tab to configure the device's IP address, Subnet Mask, Gateway, Enable/Disable DHCP, and set Host Name.

#### STEP 11: Save Network Configuration

Save Config: Once all parameters are set you are required to select Save Config. This function will reboot and save the changes setting for the Network Configuration.

#### STEP 12: Administration

01 Co RF En IP Se We Se

IP       Reboot         IP       Reboot the system, and forget the local changes.         IP       Reset to Default         aming       Reset to Default         Reset all configuration of modulator and encoders to factory default, and clean-up the local saved changes.         Backup	ew	Administration
Reboot         Reboot         Reboot         Reboot the system, and forget the local changes.         Reset to Default         Reset all configuration of modulator and encoders to factory default, and clean-up the local saved changes.         Backup         stration         User can backup and download all configuration settings from the device local file.         Config File:       Browse         User can upload the file with pre-saved configuration settings to device.         CAUTION: The new password must:         • matches a string of 6~8 characters;         • that contains at least one digit;         • at least one uppercase character; and         • at least one lowercase character:         After changing the admin's password, it needs to close current web browser, and open a new browser to use new password.         Old Password:	n Setun	Administration
Setup       Reboot the system, and forget the local changes.         Setup       Reset to Default         Reset all configuration of modulator and encoders to factory default, and clean-up the local saved changes.         Backup         tration         User can backup and download all configuration settings from the device local file.         Config File:       Browse         Upload         User can upload the file with pre-saved configuration settings to device.         CAUTION:The new password must:         • matches a string of 6~8 characters;         • that contains at least one digit;         • at least one uppercase character; and         • at least one lowercase character:         After changing the admin's password, it needs to close current web browser, and open a new browser to use new password.         Old Password:		Reboot
Reset to Default         nagement         tration         User can backup and download all configuration settings from the device local file.         Config File:       Browse         Upload         User can upload the file with pre-saved configuration settings to device.         CAUTION:The new password must:         • matches a string of 6~8 characters;         • that contains at least one digit;         • at least one uppercase character; and         • at least one lowercase character;         After changing the admin's password, it needs to close current web browser, and open a new browser to use new password.         Old Password:	P	Reboot the system, and forget the local changes.
angement         Reset all configuration of modulator and encoders to factory default, and clean-up the local saved changes.         Backup         User can backup and download all configuration settings from the device local file.         Config File:       Browse         User can upload the file with pre-saved configuration settings to device.         CAUTION:The new password must:         • matches a string of 6~8 characters;         • that contains at least one digit;         • at least one uppercase character; and         • at least one lowercase character:         After changing the admin's password, it needs to close current web browser, and open a new browser to use new password.         Old Password:	Setup	Posot to Dofault
Imagement       Eackup         Eackup       User can backup and download all configuration settings from the device local file.         Config File:       Browse       Upload         User can upload the file with pre-saved configuration settings to device.       CAUTION:The new password must:         • matches a string of 6~8 characters;       • that contains at least one digit;         • at least one uppercase character; and       • at least one lowercase character:         After changing the admin's password, it needs to close current web browser,and open a new browser to use new password.         Old Password:	aming	Reset all configuration of modulator and encoders to factory default, and
User can backup and download all configuration settings from the device local file. Config File: Browse Upload User can upload the file with pre-saved configuration settings to device. CAUTION:The new password must: • matches a string of 6~8 characters; • that contains at least one digit; • at least one uppercase character; and • at least one lowercase character: After changing the admin's password, it needs to close current web browser,and open a new browser to use new password. Old Password:	nagement	
User can upload the file with pre-saved configuration settings to device. CAUTION:The new password must:     matches a string of 6~8 characters;     that contains at least one digit;     at least one uppercase character; and     at least one lowercase character:     After changing the admin's password, it needs to close current web browser,and open a new browser to use new password.     Old Password:	stration	User can backup and download all configuration settings from the device to a
CAUTION:The new password must: • matches a string of 6~8 characters; • that contains at least one digit; • at least one uppercase character; and • at least one lowercase character: After changing the admin's password, it needs to close current web browser,and open a new browser to use new password. Old Password:		Config File: Browse Upload
matches a string of 6~8 characters;     that contains at least one digit;     at least one uppercase character; and     at least one lowercase character:  After changing the admin's password, it needs to close current web browser,and open a new browser to use new password.  Old Password:		User can upload the file with pre-saved configuration settings to device.
		<ul> <li>matches a string of 6~8 characters;</li> <li>that contains at least one digit;</li> <li>at least one uppercase character; and</li> <li>at least one lowercase character:</li> </ul> After changing the admin's password, it needs to close current web
New Password		Old Password:
New Password,		

ADMINISTRATION PAGE FUNCTIONS	ACTIONS
Reboot	Reboot device. All unsaved settings will be lost.
Reset to Default	Reset all settings back to original factory settings
Backup	Download all settings of device
Upload	Upload a saved config file
New Password	Create and save new password for GUI

STEP 13: If required, change GUI Password and Submit.

This password is for access to the GUI only. The LCD front Panel Password will not be changed and is set to prevent unauthorized users access to your device.

## NOTE:

When setting a new password you must use the 'Submit' button.

## Saving your configuration files

To upload a configuration file- simply click "Choose File" then locate the file you want to upload. Click "Upload" to install the configuration files. This function is helpful to the installer when installing a large number of encoders in a single system.

## **IMPORTANT NOTE:**

We highly recommend you save your encoder configuration files. Simply Click the "Backup" button and the config files will be saved to your computer.

NOTE:

Only the Network Configuration changes will be saved.

## Installing Multiple Encoders in the Same Installation (Stacking)

The following changes are required when using multiple modulators in the same installation (stacking) -

• **Output channel** - Default is 39 UHF (606.5 MHz). If the modulators are on the same output channel as another modulator or FTA channel the TV will not scan the channel in. Place all modulators on available channels between 6 to 12 VHF and 28 to 51 UHF (including adjacent channels - 38, 39, 40, etc.)

Note - if you plan on using channel 52 to 69 be aware of LTE transmissions as they may interfere with each other. We recommend installing a filter.

• LCN (Logic Channel Number) - default 101. If TV tuner receives two or more LCN's on the same number, including FTA channels - the TV will automatically place the LCN on a free range. In Australia this is 350 and up. Suggest to go 101, 102, 103, etc.

• **Channel Name** - default "CHANNEL-1" this is necessary but recommended for clients to be able to identify channels. For example "APPLE-TV", "FOXTEL", "DVD", etc.

• **TS ID (Transport Stream)** - Default can vary per product. You will need to adjust the TS ID # on each additional modulator up one number per modulator. For example if default is "TS ID #1" - leave on "TS ID #1", place 2nd modulator on "TS ID #2", 3rd on "TS ID #3", etc. If the TS ID is the same number the TV tuner will not scan both channels in.

• **Program Number** - Default can vary per product. You may need to adjust each additional modulator Program Number up one number per modulator. For example, if default is "Program Number - 1" - leave on "Program Number - #1", place 2nd modulator on "Program Number - #2", 3rd on "Program Number - #3", etc. If the Program Number is the same number the TV tuner will not scan both channels in.

Note - most TVs do not have an issue with this setting but we recommend changing it just in case.

## Front Panel LCD Encoder Menu Map

COMMON SETUP		
	Output Channel	
	Attenuation	
	LCN Mode	
	Device Address	
	Default Configuration	
	2 oldalt o olligaration	Back to Main
RF SETUP		
	Select RF	
	Enable RF	
	Constellation	
	FEC	
	Guard Interval	
	OFDM	
	RF Output	
	Cell ID	
	RF TS ID	
	Network ID	
	Org Network ID	
	Network Name	
		Back to Main
ENCODER SETUP		
	Select Encoder	
	Video Input	
	Program Num	
	Channel Name	
	Provider Name	
	LCN	
	Aspect Ratio	
	Video Output	
	HDCP	
	Audio Input	
	Audio Output	
	Closed Caption Brightness	
	Contrast	
	Saturation	
	Hue	
	The second secon	Back to Main
IP STREAMING		
	Network Setup	
	Streaming Setup	
		Back to Main
WEB MANAGEMEN	Т	
	DHCP	
	IP Address	
	Subnet Mask	
	Gateway	
		Back to Main
EXIT		

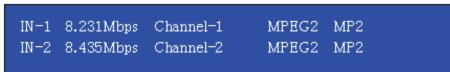
## Modulator Configuration via Front Panel LCD

Once the encoder is powered up it will go through its initial booting process. Once the unit has completed its initial "Booting" up process the LCD will display IN-1..., Bit Rate information, Channel-1..., and other information in the LCD Display Window. When visible the unit is ready for programming or operation.

The LCD will display data as it cycles through the available information.

#### SCREEN VIEWS

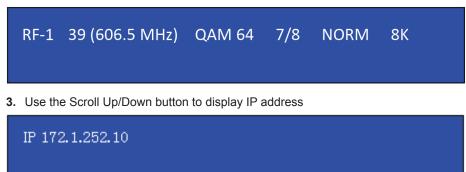
1. Inputs, Mbps, Channel Names, Video Output Type, Audio Output type



#### NOTE:

If your device is a QUAD version the below screen will display all input data as is cycles through the data available.

**2.** Use the Scroll Up/Down button to display RF-1 / RF-2 data, Physical Output Channel, Constellation, FEC setting, OFDM Mode Selection.



- Main Menu To access the Main Menu first enter the password by pressing the OK button. Use the Scroll Up/Down buttons to enter the password. Once the password is entered press the OK button again and the LCD Screen will display "Main Menu Common Setup".
- **Password** Use the Scroll Up/Down buttons to enter the password. Password is **0000**. Press the OK button for each number to enter the password. Press OK again after the display shows ...... HD Series.

## PASSWORD=?

## $\sim$

#### **COMMON SETUP MENU**

- **Output Channel** Use the Scroll Up/Down button to change the output channel. Use the Scroll Up/Down buttons to select the desired output channel. Once the desired output channel is selected press the OK button to set the channel. The LCD Display will show both the channel number and the frequency number of the output channel (example: 21 480.5000MHz).
- Attenuation Use the Scroll Up/Down button to select Attenuation. Press the OK button to enter the Attenuation menu. Use the Scroll/Up down button to select the desired attenuation in 1dB increments from 0 to minus 20 dB. Once the desired attenuation level is found press the OK button to set.
- LCN Use the Scroll Up/Down button to select LCN MODE. Press the OK button to enter the LCN menu. Menu options are APN, NORDIG, ITC, and EACEM. Factory default: APN. Use the Scroll Up/Down button to select the desired LCN and press he OK button to set.

## NOTE:

The RF2 Channel Physical output is determined by the selection of output channel of RF1. The Quad Encoder prevents you from selecting the last channel in the device. \*\*See page 9 of this manual for more information on this topic.

- Device Address Use the Scroll Up/Down button to select Device Address. Press the OK button to enter the Device Address menu. Use the Scroll Up/Down to select the Desired Address ranging from 1 to 255 then press OK to set. A unique device address is required if setting up more than 1 encoder per site. This allows the user to distinguish each device.
- Default Configuration –To reset the Encoder/Modulator back to the factory default select the Default Configuration Menu.
   Press OK to enter the Default Configuration Menu. Using the Up/Down button select YES to reset all programmed settings back to the factory default setting. Factory Default: NO.

**Caution:** Once the "YES" button is pressed the unit will automatically reset to the factory default settings. All settings or changes to the encoder/modulator will be lost.

• Back to Main – Select Back to Main to escape the Common Setup Menu.

## **RF SETUP MENU**

• Select RF – Press the OK button to enter the Select RF menu. Use the Scroll Up/Down button to Select the RF section of the Encoder. Select 1 or Select 2. The single and Dual versions of this product will have Select 1 only

RF SETUP	1	
SELECT RF		

- **Constellation** Use the Scroll Up/Down button to select Constellation. Press the OK button to enter the Constellation menu. Select the desired Constellation / QAM setting then press the OK button to set.
- FEC Use the Scroll Up/Down button to select the FEC menu. Press the OK button to enter the FEC menu. Use the Scroll Up/ Down button to select the desired FEC setting and press the OK button to set.
- **Guard Interval** Use the Scroll Up/Down button to select Guard Interval. Press the OK button to enter the Guard Interval menu. Use the Scroll Up/Down button to select the desired Guard Interval and press the OK button to set.
- OFDM Use the Scroll Up/Down button to select the OFDM menu. Press the OK button to enter the OFDM menu. Use the Scroll Up/Down to select the OFDM 2K or 8K. Press OK to set.
- RF Output Use the Scroll Up/Down button to select RF Output. Press the OK button to enter the RF Output menu. Menu
  options are Normal, Inverted and C.W. The factory default is Normal. Use the Scroll Up/Down button to select the desired RF
  Output and press the OK button to set.
- **CELL ID** Use the Scroll Up/Down button to select CELL ID. Press the OK button to enter the CELL ID menu. Use the Scroll Up/Down button to select the desired CELL ID ranging from 0 to 65535 then press the OK button to set. Factory default is 0.
- **TS ID** Use the Scroll Up/Down button to select TS ID. Press the OK button to enter the TS ID menu. Use the Scroll Up/Down button to select the desired Stream ID ranging from 0 to 65535 then press the OK button to set.
- Network ID Use the Scroll Up/Down button to select Network ID. Press the OK button to enter the Network ID menu. Use the Scroll Up/Down button to select the desired Network ID ranging from 0 to 65535 then press the OK button to set.
- ORG Network ID Use the Scroll Up/Down button to select ORG Network ID. Press the OK button to enter the ORG Network ID menu. Use the Scroll Up/Down button to select the desired ID ranging from 0 to 65535 then press the OK button to set.
- Network Name Use the Scroll Up/Down button to select Network Name. Press the OK button to enter the Network Name
  menu. Use the Scroll Up/Down buttonto select the first character for the desired Network Name then press the OK button to set.
  Repeat the process for each character in the desired Network Name. A Network Name can consist up to 16 characters.
- Back to Main Select Back to Main to escape the RF Setup Menu.

#### **ENCODER SETUP MENU**

 Select Encoder – Use the OK button to enter the Select Encoder Menu. Using the Scroll Up/Down buttons select the encoder you wish to program. Use the OK button to set the Encoder. Select Encoder 1, 2, 3, or 4 based on your model number. Once Selected the Display will indicate which Encoder you are programming while in the setup function



- Video Input Use the Scroll Up/Down button to select Video Input. Press the OK button to enter the Video Input menu. Use the Scroll Up/Down button to select the Video Input option: Auto, Composite, Component, or HDMI. Factory default: Auto. Press the OK button to set. The HDT series of Encoder/Modulators is designed with Intelligent Input Detection (IID) technology. If you select Auto, the unit will detect the video input.
- **Program Num** Use the Scroll Up/Down button to set 1 Program Num(Number). Press the OK button to enter the Program Num menu. Use the Scroll Up/Down to select the Program Num ranging from 1 to 65535 then press OK to set.
- Channel Name Use the Scroll Up/Down button to select Channel Name. Press the OK button to enter the Channel Name
  menu. Use the Scroll Up/Down menu to select the first character of the desired Channel Name then press the OK button to
  set. Repeat the process until the Channel Name is completed. The Channel Name can be 7 characters long. Factory Default:
  CHANNEL-1, CHANNEL-2, CHANNEL-3, CHANNEL-4.
- Provider Name Use the Scroll Up/Down button to select Provider Name. Press the OK button to enter the Provider Name
  menu. Use the Scroll Up/Down menu to select the first character of the desired Provider Name then press the OK button to set.
  Repeat the process until the Provider Name is completed.. The Provider Name can be 16 characters long.
- LCN Use the Scroll Up/Down button to set LCN. Press the OK button to enter The Source ID menu. Use the Scroll Up/Down
  to set the Source ID. Range: 1 to 999. Press OK to set.
- Aspect Ratio Use the Scroll Up/Down button to select Aspect Ratio. Press the OK button to enter the Aspect Ratio menu. Use the Scroll Up/Down button to select the desired Aspect Ratio option of 4:3 or 16:9 then press the OK button to set. Factory default: 16:9.

Video Output – This Encoder / Modulators may be Dual MODE Capable. The user may select to output video in either MPEG2 or MPEG-4 (4.264). Use the Scroll Up/Down button to select 1 Video Output. Press the OK button to enter the Video Output menu. Use the Scroll Up/Down button to select the Video Output option: MPEG2 or MPEG-4. Factory default: MPEG2. Press the OK button to set.

#### NOTE:

The Dual and Quad Input allows the installer to select a combination of Video Output formats. Some versions of this device will allow the user to have both outputs broadcasting in either MPEG2 or MPEG4 (H.264) or a combination of both MPEG2 and MPEG4 (H.264).

HDCP – Use the Scroll Up/Down button to select the HDCP menu- Use the Scroll Up/Down button to select the HDCP menu.
 Press the OK button to enter the HDCP menu. Select Enable / Disable. Each Encoder will require you to Enable the HDCP option.

## NOTE:

It is the installers / property owner / integrator's responsibity to contract with the service provider regrding content authoization and the use of HDCP.

- Audio Input Use the Scroll Up/Down button to select. Press the OK button to enter the Audio Input menu. Use the Scroll Up/ Down button to select the Audio Input option: Analog. Factory Set: Analog.
- Audio Output Use the Scroll Up/Down button to select Audio Output. Press the OK button to enter the Audio Output menu. Use the Scroll Up/Down button to select the Audio Output option: MP2 (MPEG2 Layer I Audio), AAC, or AC3. Factory default: MP2. Press the OK button to set. Some versions of the HDT Encoder will not allow you to select AC3 as an option. Contact your Distributor if you require an AC3 version of this device.
- Closed Caption Use the Scroll Up/Down button to select the Closed Caption Menu. Press the OK button to enter the Closed Caption menu. Enable / Disable Closed Caption control. Each Encoder will require you to Enable the Closed Caption option if you require Closed Captioning Support on a particular video output.

## NOTE:

When using closed captioning- user must connect from the content source the composite output or cc output source to the encoder's cvbs input connector.

- **Brightness** Use the Scroll Up/Down button to select Brightness. Press the OK button to enter the Brightness menu. Use the Scroll Up/Down button to select the desired Brightness value (0 to 255) and press the OK button to set. Factory default: 128.
- Contrast Use the Scroll Up/Down button to select Contrast. Press the OK button to enter the Contrast menu. Use the Scroll Up/Down button to select the desired Contrast value (0 to 255) and press the OK button to set. Factory default: 128.
- Saturation Use the Scroll Up/Down button to select Saturation. Press the OK button to enter the Saturation menu. Use the Scroll Up/Down button to select the desired Saturation value (0 to 255) and press the OK button to set. Factory default: 128.
- **Hue** Use the Scroll Up/Down button to select Hue. Press the OK button to enter the Hue menu. Use the Scroll Up/Down button to select the desired Hue value (0 to 255) and press the OK button to set. Factory default: 128.
- Back to Main Select Back to Main to escape the Encoder Setup Menu

#### **NETWORK SETUP**

- Reset Network Select Reset Network from the Network Setup to Reset the Network settings.
- Back to Main Select Back to Main to escape the Encoder Setup Menu.

ITEM	VALUE
Password	
Serial Number	
Installation Date	
Purchase Date	
Video Input 1	
Video Input 2	
Video Input 3	
Video Input 4	

# digi-MOD<sup>®</sup> FD by ZyCast<sup>®</sup>

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WARRANTY

digi-MOD states that the warrant that the customer can rely on is that provided by the manufacturer. In the event of any warranty claim please contact your place of purchase and it will be forwarded it to the manufacturer. The manufacturer will then determine the extent of their liability.