DATA-TRONIX®

USER GUIDE AND MANUAL

Dual Input HD Digital Encoder-Modulator with ASI

MODEL: DT-IPTV-QAM-ASI-2H
Version 1.1
Last Update: 10-1-2019

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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 DT-IPTV-QAM-ASI-2H HD Digital Encoder-Modulator
- ➢ One power cable
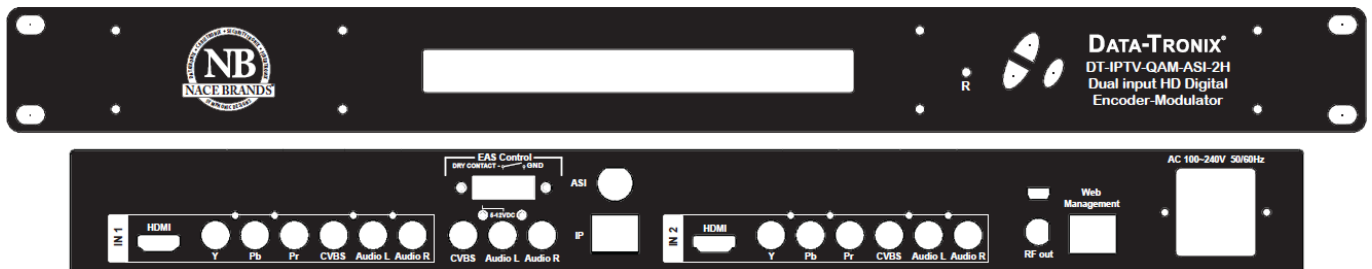- ➢ User Guide and Manual

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

DATA-TRONIX's DT-IPTV-QAM-ASI-2H Encoder/Modulators simultaneously provide a QAM, ASI, and IP output stream making it ideal for any Commercial RF or IP Networks. The high quality HD design allows for watching action packed movies and sports channels on any HDTV. The space saving design delivers 2 High Quality HD QAM/IP/ASI channels in a single 1RU space.

- Front panel LCD Display for easy installation
- High Resolution 1080i/1080p
- VCN Mode for Virtual Channel Mapping
- Composite, Component, and HDMI (unencrypted) inputs
- MPEG2 or MPEG4 (AVC) Video Output
- Selectable Constellation
- Closed Captioning Support
- +40dBmV Output
- Newly Added EAS Functionality
- Rack mountable 1RU height

Images of Front and Rear Panels

Specifications

INPUTS (VIDEO By Priority)	
HDMI	1.4v
Component	YPrPb (RCA)
Composite	CVBS (RCA)

AUDIO Inputs	
Audio Input	L/R (RCA)

VIDEO Encoder	
Mode	MPEG-2, MPEG-4(AVC) Selectable, AVC only (4/1 Models)
Video Resolutions	1080p(AVC Only), 1080i, 720p, 576p, 576i, 480p, 480i

AUDIO Encoder	
Audio Compression	MPEG-1 Layer II, AAC, Supports Dolby® Digital AC-3, AC-3 Pass Through

RF QAM SUPPORT	
Frequency	54-864 MHz (CH 2-CH 135)
RF Channel Output	1/1 (Single Input), 2/1 (Dual Input), 4/2 (Quad Input), 4/1 (Quad Input AVC Only)
QAM	J.83 Annex B
Constellation	QAM 256/64, QAM256 (Dual/Quad)
Bandwidth	6 MHz
RF Level Output	+45dBmV Typical
MER	>40dB Typical
Interleaver	Supported on DVB-C Annex B
Channel Type	STD, HRC, IRC
VCN	Virtual Channel Mapping (1-16383)
Attenuation	1 – 20dB (1 db Steps)
RF Output	"F"- Female 75Ω
Closed Captioning Control	Per Output Control (Use of CVBS Input)

EAS Support (Optional)	
Connection	Dry Contact
Video Input	CVBS (RCA)
Audio Input	L/R (RCA)

ASI Output Support (Optional)	
Connection	BNC 75Ω
Output	TS Multiplexed

IP Output (Optional)	
Type	RJ-45, GbE
Stream Type	Unicast, Multicast
TS Format	SPTS (Single Input Only), MPTS

Management / Control	
Front Panel LCD Controller	Full Support (Up/Down/OK Control Buttons)
GUI Supported	IE9, FireFox, Chrome, Safari
Password Protected	Front Panel, GUI

General	
Rack mountable (1RU)	482.7mm x 240mm x 44.4mm (19" x 9.45" x 1.75"), 19" EIA Standard
Fan Cooled	Internal
LCD Front Panel	Dual Line, Scrolling Display

*Subject to change without notifications
*Manufactured under License of Dolby Laboratories

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 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).

   Repeat this step for each video source connection.

3. **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). Repeat this step for each audio source connection.

   Be sure the video and audio connections for each source are consistent with the unit's inputs (IN1,IN2).

4. 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.

5. If your device is equipped with an IP output- connect the Ethernet cable to the IP output RJ45 connector.

6. If your device is equipped with an ASI output- connect the BNC cable to the ASI output.

7. If your device is EAS equipped make the proper connections (contact replay and Video /Audio Inputs) to the EAS device.

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 by opening a web browser and navigating to 192.168.1.9, or via 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. Set your PC's LAN (TCP/IPv4) to "192.168.1.2", with a subnet mask of "255.255.255.0".   All other fields may be left blank.
3. Open a browser and navigate to "192.168.1.9".

Note: To setup the encoder using the Front Panel LCD see "Modulator Configuration via Front Panel LCD".

Encoder Programming and Setup via GUI Interface:

Overview Page of DATA-TRONIX Encoder

DATA-TRONIX®

DataTronix HD encoder/modulator

Overview
Common Setup
RF Setup
Encoder Setup
IP Streaming Setup
Web Management Setup
Administration

Welcome!

Device Name: DT-001
Model Number: DT-IPTV-QAM-ASI-2H
Device Address: 1
System: DVB-C J.83B
Net Version: 20181220
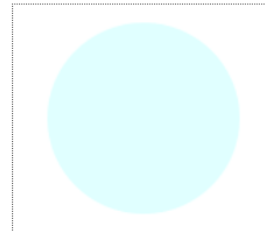
RF Output 1

Channel	2 (57.0000 MHz)	
Constellation	256QAM	
Output Bitrate		

|	Input 1	Input 2
Channel Name	991	992
Video Source	Auto	Auto
Video Output	MPEG2	MPEG2
Audio Output	AAC	AAC
Input Bitrate		

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Welcome page showing overview status of the Encoder when fully functioning.

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.

Login Password:

        Default User Name: **admin**
        Default Password: **Admin123**
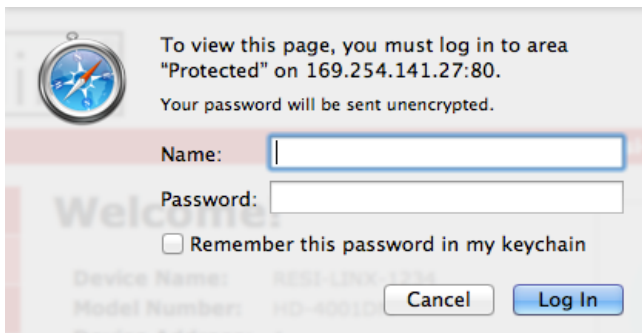
      Note: To change the Password for the GUI go to the Administration Tab

Step **3: Common Setup Tab**

Common Setup

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

Step 4: Local Save

 Perform a **Local Save** once all parameters are set.

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 of the encoder.
Example: Installer is required to change only the output channel for the device (No other changes to the device are required). Once the channel has been changed, the installer is required to perform
1) Local Save *AND*
2) Upload and Reboot.

Step 5: RF Setup

RF Setup

Use the RF Setup Page to setup each RF Output.
Select and set the required parameters you require for your installation.

Step 6: Local Save

Perform a **Local Save** once all parameters are set.

Step 7: Encoder Setup

Encoder Setup

COLOR SETUP

Brightness:	180
Contrast:	180
Saturation:	180
Hue:	180

PID SETUP (IP only)

IP TS ID:	551
PMT PID:	552
Video PID:	553
Audio PID:	554
PCR PID:	555

PSIP SETUP

VCN:	16383
Program Number:	1
Short Name:	991
Long Channel Name:	881
Source ID:	57

Local Save   Upload and Reboot   Reset local changes

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Select the **Encoder 1, 2 tab** to program an individual encoder. **Select** and **change** all desired parameters.
NOTE: There will be an Encoder tab present for each input on the device.

Step 8: Local Save for each Encoder tab

Perform a Local Save on EACH Encoder Tab where changes were performed.
***** Ensure all Encoder tab changes have been locally saved

Step 9: IP Streaming

IP Streaming Setup

** Your device may not be IP Streaming capable- if not move to the next step.
Use the IP Streaming setup page to set your device's IP streaming IP Address, and select your streaming method protocol and Destination IP, Port, and TTL settings.

Step 10: Local Save

Perform a **Local Save** once all parameters are set.

***** **Ensure all Encoder changes have been locally saved before performing Step 11.**

Step 11: Upload and Reboot

Once all the encoder's settings are changed and a **Local Save** performed for each Setup tab **Select "Upload and Reboot"** on the IP Streaming page. This function will upload and save all parameters set in the Common, RF, Encoder, IP Streaming sections of the device. Your device will quickly reboot.

Reminder: If changing only a setting on a specific setup page- remember to **perform** a **Local Save** and **Upload and Reboot**.

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

Step 12: Network Configuration Tab

Network Configuration

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

Step 13: 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.

Note: Only the Network Configuration changes will be saved.

Step 14: Administration

Administration

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

****Caution****

Selecting "Reset to Default" will automatically reset all saved settings back to factory default settings. All saved settings will be lost.

****Caution****

Step 15: If required- change GUI Password and Submit.

Note: When setting a new password you must use the **Submit** button.
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.

Saving your configuration files

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

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.

Setup Using Front Panel LCD
Front Panel LCD Encoder Menu Map

Main Menu

Common Setup
Output Channel
Attenuation
VCN Mode
Channel Type
Regional Name
Device Address
ASI TS ID
Default Config
Back to Main

RF Setup
Select RF
Enable RF
Constellation
Interleaver
RF Output
RF TS ID
Back to Main

Encoder Setup
Select Encoder
Video Setup
Audio Setup
Color Setup
PID Setup
PSIP Setup
Back to Main

IP Streaming Setup
Network Setup
Streaming Setup
Back to Main

Web Mngt / Network Setup
DHCP
IP Address
Subnet Mask
Gateway
Back to Main

Exit

(Encoder Setup Sub Menus)

(IP Streaming Sub Menus)

Video Setup Menu
Video Input
Video Output
HD Video Output Bitrate
SD Video Output Bitrate
Aspect Ratio
HDCP
Closed caption
Back to Encoder

Audio Setup Menu
Audio Input
Audio Output
Back to Encoder

PID Setup Menu
IP TS ID
PMT PID
Video PID
Audio PID
PCR PID
Back to Encoder

PSIP Setup Menu
VCN (Major CH No)
VCN (Minor CH No)
VCN (One Part)
Program Num
Short Name
Long CH Name
Source ID
Back to Encoder

Network Setup Menu
DHCP
IP Address
Subnet Mask
Gateway
Back to IP Streaming Setup

Streaming Setup Menu
Select IP Output
Enable Streaming
Streaming Method
Destination IP
Destination Port
Time to Live
Back to IP Streaming Setup

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, MY-DTV1...., 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

2: Use the Scroll Up/Down button to display RF-1 data, Physical Output Channel, Constellation, and Interleaver.
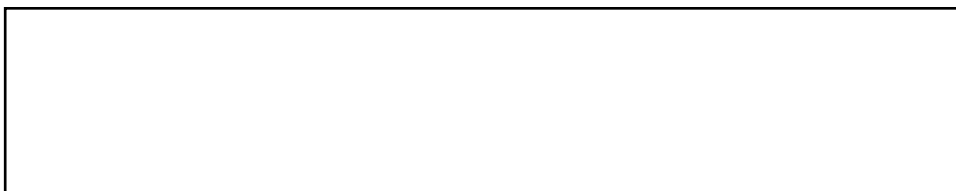
3: Use the Scroll Up/Down button to display IP address

- ➢ **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.
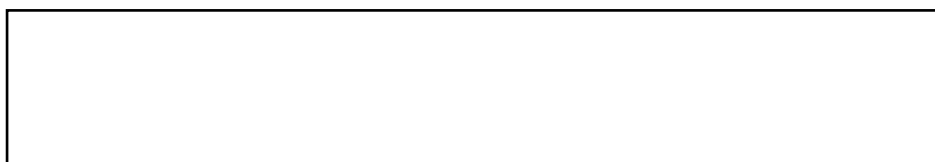
Common Setup Menu

☐ **Output Channel** – Use the Scroll Up/Down button to change the output channel. Use the Common Setup MenuScroll 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: 102 663.0000MHz)

☐ **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.

☐ **VCN Mode -** To enable Virtual Channel Number / Mapping Scroll to VCN Menu. Press OK to enter the VCN menu. Select the desired VCN Mode, VCN(Major & Minor) Auto, VCN(Major & Minor) Manual, or VCN(One Part) Manual. Press OK button to set.

☐ **Channel Type** – Use the Scroll Up/Down button to select Channel Type. Press the OK button to enter the Channel Type menu. Menu options are STD, HRC and IRC. Factory default: STD. Use the Scroll Up/Down button to select the desired Channel Type and press the OK button to set**.**

☐ **Regional Name -** Note: Do not Change. Skip this function. Default: USA**.**

☐ **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.

☐ **ASI TS ID** – Use the Scroll Up/Down button to select ASI TS ID. Press the OK button to enter the ASI TS ID menu. Use the Scroll Up/Down to select the Desired ID ranging from 1 to 65535 then press OK to set. Factory Default: 5000.

☐ **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-** The Single and Dual versions of this product will have Select 1 only.

☐ **Enable RF-** Use the Scroll UP/Down button to select Enable RF. Press the OK button to enter the Enable RF Menu. Select Enable or Disable then press the OK button to set. Factory Default: Enable.

☐☐**Constellation** – Use the Scroll Up/Down button to select Constellation. Press the OK button to enter the Constellation menu. Factory Default: QAM256.

☐ **Interleaver**- Use the Scroll Up/Down button to select the appropriate Interleaver selection. Press the OK button to enter the Interleaver menu. Use the Scroll Up/Down button to select the desired Interleaver value and press the OK button to set. Factory default: I=128, J=1.

☐☐**RF Output** – Use the Scroll Up/Down button to select RF Output. Press the OK button to enter the RF Output menu. Options are Normal, Inverted, or C.W. Factory default: Normal. Use the Scroll Up/Down button to select the desired RF Output and press the OK button to set.

☐ **RF TS ID** – Use the Scroll Up/Down button to select RF TS ID. Press the OK button to enter the RF TS ID menu. Use the Scroll Up/Down button to select the desired ID ranging from 1 to 65535 then press the OK button to set.

☐☐**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 or 2, then press OK button to set.

Once Selected the Display will indicate which Encoder you are programming while in the setup function

☐ **Video Setup-** Use the Scroll Up/Down button to select Video Setup Menu. Press the OK button to enter the Video Setup menu. Set the Video Setup using the Scroll Up/Down buttons to set Video Input, Video Output, HD Video Output Bitrate, SD Video Output Bitrate, Aspect Ratio, HDCP, and Closed Caption.

☐ **Video Input-** Use the Scroll Up/Down button to select Video Input Menu. Press the OK button to enter the Video Input Menu. Use the Scroll Up/Down to select the Desired Video Input option: Auto, HDMI, Component, or Composite then press OK to set. Factory Default: Auto.

The Encoder/Modulator is designed with Intelligent Input Detection (IID) technology. If you select Auto, the unit will detect the video input.

☐ **Video Output-** Use the Scroll Up/Down button to select Video Output Menu. Press the OK button to enter the Video Output Menu. Use the Scroll Up/Down to select the Desired Video Output, H.264 CBR or MPEG 2 CBR then press OK to set. Factory Default: H.264 CBR.

Note: The Dual 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 AVC (MPEG4) or a combination of both MPEG2 and AVC (MPEG4).

☐ **HD Video Output Bitrate-** Use the Scroll Up/Down button to select Video Output Bitrate Menu. Press the OK button to enter the Video Output Bitrate Menu. Use the Scroll Up/Down to select the Desired HD Video Output Bitrate, ranging from 2000 to 10000. Factory Default: 8000.

☐ **SD Video Output Bitrate-** Use the Scroll Up/Down button to select Video Output Bitrate Menu. Press the OK button to enter the Video Output Bitrate Menu. Use the Scroll Up/Down to select the Desired SD Video Output Bitrate, ranging from 1000 to 4000. Factory Default: 4000.

☐ **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.

☐☐**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 responsibility to contract with the service provider regarding content authorization and the use of HDCP.

☐ **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.

☐☐**Back to Encoder-** Select Back to Encoder to escape the Video Setup Menu.

☐ **Audio Setup-** Use the Scroll Up/Down button to select Audio Setup Menu. Press the OK button to enter the Audio Setup menu. Set the Audio Setup using the Scroll Up/Down buttons to set Audio Input, Audio Output.

☐☐**Audio Input** – Use the Scroll Up/Down button to select Audio Input. Press the OK button to enter the Audio Input menu. Use the Scroll Up/Down button to select the Audio Input option: Auto or Analog. Factory Set: Auto.

☐ **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), AC3, or AAC. Factory default: MP2. Press the OK button to set.

☐☐**Back to Encoder-** Select Back to Encoder to escape the Audio Setup Menu.

☐ **Color Setup-** Use the Scroll Up/Down button to select Color Setup Menu. Press the OK button to enter the Color Setup menu. Set the Color Setup using the Scroll Up/Down buttons to set.

- **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 Encoder- Select Back to Encoder to escape the Color Setup Menu.

- **PID Setup-** Use the Scroll Up/Down button to select PID Setup Menu. Press the OK button to enter the PID Setup menu. Set the PID Setup using the Scroll Up/Down buttons to set IP TS ID, PMT PID, VIDEO PID, AUDIO PID, and PCR PID.

IP TS ID - Use the Scroll Up/Down button to set IP TS ID. Press the OK button to enter the IP TS ID setup menu. Use the Scroll Up/Down to select the desired IP TS ID ranging from 32 to 8186 then press OK to set. Factory Default: 1000.

PMT PID - Use the Scroll Up/Down button to set PMT PID. Press the OK button to enter the PMT PID setup menu. Use the Scroll Up/Down to select the desired PMT PID ranging from 32 to 8186 then press OK to set. Factory Default: 4178.

VIDEO PID - Use the Scroll Up/Down button to set VIDEO PID. Press the OK button to enter the VIDOE PID setup menu. Use the Scroll Up/Down to select the desired VIDEO PID ranging from 32 to 8186 then press OK to set. Factory Default: 4176.

AUDIO PID - Use the Scroll Up/Down button to set AUDIO PID. Press the OK button to enter the AUDIO PID setup menu. Use the Scroll Up/Down to select the desired AUDIO PID ranging from 32 to 8186 then press OK to set. Factory Default: 4177.

PCR PID - Use the Scroll Up/Down button to set PCR PID. Press the OK button to enter the PCR PID setup menu. Use the Scroll Up/Down to select the desired PCR PID ranging from 32 to 8186 then press OK to set. Factory Default: 4176.

Back to Encoder- Select Back to Encoder to escape the PID Setup Menu.

- **PSIP Setup-** Use the Scroll Up/Down button to select PSIP Setup Menu. Press the OK button to enter the PSIP Setup menu. Set the PSIP Setup using the Scroll Up/Down buttons to set VCN(MAJOR CH NO), VCN(MINOR CH NO), VCN(ONE PART), Program Num, Short Name, Long CH Name, and Source ID.

VCN(MAJOR CH NO) - Use the Scroll Up/Down button to set VCN(MAJOR CH NO). Press the OK button to enter the VCN(MAJOR CH NO) setup menu. Use the Scroll Up/Down to select the desired VCN(MAJOR CH NO) ranging from 1 to 999 then press OK to set. Factory Default: 102.

VCN(MINOR CH NO) - Use the Scroll Up/Down button to set VCN(MINOR CH NO). Press the OK button to enter the VCN(MINOR CH NO) setup menu. Use the Scroll Up/Down to select the desired VCN(MINOR CH NO) ranging from 1 to 999 then press OK to set. Factory Default: 1.

VCN(ONE PART) - Use the Scroll Up/Down button to set VCN(ONE PART). Press the OK button to enter the VCN(ONE PART) setup menu. Use the Scroll Up/Down to select the desired VCN(ONE PART) ranging from 1 to 999 then press OK to set. Factory Default: 101.

PROGRAM NO - Use the Scroll Up/Down button to set PROGRAM NO. Press the OK button to enter the PROGRAM NO setup menu. Use the Scroll Up/Down to select the Program Num ranging from 1 to 999 then press OK to set. Factory Default: 1.

Short Channel Name – Use the Scroll Up/Down button to select Short Channel Name. Press the OK button to enter the Short Channel Name menu. Use the Scroll Up/Down menu to select the first character of the desired Short Channel Name then press the OK button to set. Repeat the process until the Short Channel Name is completed. If the modulator has more than one video input scroll through the Advanced Menu for additional Short channel name menus.

The Short Name can be 7 characters long. Factory Default: MY-DVT1/MY-DVT2.

Long Channel Name – Use the Scroll Up/Down button to select Long Channel Name. Press the OK button to enter the Long Channel Name menu. Use the Scroll Up/Down menu to select the first character of the desired Long Channel Name then press the OK button to set. Repeat the process until the Long Channel Name is completed. If the modulator has more than one video input scroll through the Advanced Menu for additional Long channel name menus. Factory Default: ATSC-Digital-TV1/ATSC-DIGITAL-TV2. The Long Channel Name can be 16 characters long.

Source ID - Use the Scroll Up/Down button to set Source ID. Press the OK button to enter the Source ID menu. Use the Scroll Up/Down to set the Source ID. Range: 1 to 65535. Press OK to set. Factory Default: 101.

Back to Encoder- Select Back to Encoder to escape the PSIP Setup Menu.

IP Streaming Setup

Network Setup

DHCP – Use the Scroll Up/Down button to select DHCP. Press the OK button to enter the DHCP menu. Use the Scroll Up/Down button to Enable/Disable. Press the OK button to set.

IP Address – Use the Scroll Up/Down button to select IP Address. Press the OK button to enter the IP Address menu. Use the Scroll Up/Down button to enter the IP address. Use the Scroll Up/Down menu to select the first number of the desired IP Address then press the OK button to set. Repeat the process until the IP Address is completed. Press the OK button to set. **Note:** If DHCP is enabled you will not be able to set an IP address. Select DHCP disabled if Static IP Address required.

IP Address Range(s):

      (1) 10.0.0.0 ~ 10.255..255.255
      (2) 172.16.0.0 ~ 172.31.255.255
      (3) 192.168.0.0 ~ 192.168.255.255

☐ **Subnet Mask** – Use the Scroll Up/Down button to select Subnet Mask. Press the OK button to enter the Subnet Mask menu. Use the Scroll Up/Down button to enter the Subnet Mask. Use the Scroll Up/Down menu to select the first number of the desired Subnet Mask then press the OK button to set. Repeat the process until the Subnet Mask is completed. Press the OK button to set.

☐ **Gateway Address –** Use the Scroll Up/Down button to select Gateway Address. Press the OK button to enter the Gateway Address menu. Use the Scroll Up/Down button to enter the Gateway Address... Use the Scroll Up/Down menu to select the first number of the desired Gateway Address then press the OK button to set. Repeat the process until the Gateway Address is completed. Press the OK button to set.

☐☐**Back to IP Streaming Setup -** Select Back to IP Streaming Setup to escape the Network - IP Streaming Sub Menu.

Streaming Setup

☐ **Select IP Output** – Use the Scroll Up/Down button to select Select IP Output. Press the OK button to enter the Select IP Output menu. Use the Scroll Up/Down button to select the desired IP Output, 1 or 2. Press the OK button to set.

☐ **Enable Streaming** – Use the Scroll UP/Down button to select Enable Streaming. Press the OK button to enter the Enable Streaming Menu. Select Enable or Disable then press the OK button to set. Factory Default: Enable.

☐ **Streaming Method** – Use the Scroll Up/Down button to select Streaming Method. Press the OK button to enter the Streaming Method menu. Use the Scroll Up/Down button to select the Streaming Method required. Select: RTP UNICAST, UDP UNICAST, RPT MULTICAST, or UDP MULTICAST. Press the OK button to set. Factory Default: RTP Multicast.

☐ **Destination IP –** Use the Scroll Up/Down button to select Destination IP (Address). Press the OK button to enter the Destination IP Address menu. Use the Scroll Up/Down button to set the Destination IP Address. Note: By selecting Unicast in the Streaming Method Menu the default address begins at 192.168.1.20. Use the Scroll Up/Down button to set the Destination IP Address. Press the OK button to set.   Multicast begins at 224.1.1.1. Press the OK button to set.

Destination IP Address Range(s):

Unicast: 0.0.0.0 ~ 223.255.255.255

Multicast: 224.0.0.0 ~ 239.255.255.255

☐ **Destination Port** – Use the Scroll Up/Down button to select DES Port Number (Destination Port Number). Press the OK button to enter the Destination Port Number menu. Use the Scroll Up/Down button to set. Press the OK button to set. Factory Default: 10000.

- **Time To Live** – Use the Scroll Up/Down button to select Time To Live menu. Press the OK button to enter the Time To Live menu. Use the Scroll Up/Down button to select TTL. Press the OK button to set. Default Settings: Unicast: 63. Multicast: 4. TTL Range: 1~ 255.

- **Back to IP Streaming Setup**- Select Back to IP Streaming Setup To escape the Streaming - IP Streaming Sub Menu.

ASI Output

- **DHCP** – Use the Scroll Up/Down button to select DHCP. Press the OK button to enter the DHCP menu. Use the Scroll Up/Down button to Enable/Disable. Press the OK button to set.

- **IP Address** – Use the Scroll Up/Down button to select IP Address. Press the OK button to enter the IP Address menu. Use the Scroll Up/Down button to enter the IP Address. Use the Scroll Up/Down menu to select the desired IP Address then press the OK button to set. Repeat the process until the IP Address is completed. Press the OK button to set. Note: If DHCP is enabled you will not be able to set an IP address. Select DHCP disabled if Static IP Address required.

- **Subnet Mask** – Use the Scroll Up/Down button to select Subnet Mask. Press the OK button to enter the Subnet Mask menu. Use the Scroll Up/Down button to enter the Subnet Mask. Use the Scroll Up/Down menu to select the first number of the desired Subnet Mask then press the OK button to set. Repeat the process until the Subnet Mask is completed. Press the OK button to set.

- **Gateway Address** – Use the Scroll Up/Down button to select Gateway Address. Press the OK button to enter the Gateway Address menu. Use the Scroll Up/Down button to enter the Gateway Address. Use the Scroll Up/Down menu to select the first number of the desired Gateway Address then press the OK button to set. Repeat the process until the Gateway Address is completed. Press the OK button to set.

- **Back to Main**- Select Back to Main to escape the Web Management Network Setup Menu.

ASI Output

This device may come equipped with an ASI combined output. Connect a BNC cable to the ASI output connector (75 Ω) and to your Broadcast capable device.

EAS

This device may be equipped EAS Terminals/connections and CVBS (Video Input) and L/R audio input connections on the rear panel.

If applicable, connect your EAS Alert Device System outputs to the Encoder.
If the encoder receives the proper Event signal from your EAS device, the normal input audio/video would be replaced by the audio and video from the EAS system device. Once the encoder has received the proper signal from your EAS device the normal input video and audio would return to a normal operating mode.

****THIS DEVICE IS NOT AN EAS RECEIVER****

Note: It is the responsibility of the Installer/User to properly connect, verify, and test the EAS functionality of this device with the EAS receiver.

Note: It is the responsibility of the Installer/User to properly perform the required EAS tests as required by the FCC or your specific Government Agency.

If the EAS functions on this device fail for any reason it is the responsibility of the Installer/User to replace this device as required by the FCC or your specific Government Agency.

Product Notes:

Warranty

<u>DATATRONIX 1-Year Limited Warranty</u>

DATATRONIX. (the "Company") warrants to the Original Purchaser that the item purchased is free from defects in workmanship or material under normal use. This warranty starts on the date of shipment of the hardware to the Original Purchaser.

During the warranty period, the Company agrees to repair or replace, at its sole option, without charge to Original Purchaser, any defective component. To obtain service, the Original Purchaser must return the item to the Company properly packaged for shipping. All defective products must be returned to the Company within thirty (30) days of failure. Products must be returned with a description of the failure and Return Merchandise Authorization (RMA) number supplied by the Company. To receive a RMA number and a return shipping address on where to deliver the hardware, call 610-429-1821. The shipping, and insurance charges incurred in shipping to the Company will be paid by Original Purchaser, and all risk for the hardware shall remain with the Original Purchaser until such time as Company takes receipt of the hardware. Upon receipt, the Company will promptly repair or replace the defective unit, and then return said unit to Original Purchaser, shipping prepaid. The Company may use reconditioned or like-new parts or units, at its sole option, when repairing any hardware. Repaired products shall carry the same amount of outstanding warranty as from original purchase. Any claim under the warranty must include dated proof of purchase or invoice. In any event, the Company's liability for defective hardware is limited to repairing or replacing the hardware.

This warranty is contingent upon proper use of the hardware by Original Purchaser and does not cover: if damage is due to Acts of God (including fire, flood, earthquake, storm, hurricane or other natural disaster), accident, unusual physical, electrical, or electromechanical stress, modifications, neglect, misuse, operation with media not approved by the Company, tampering with or altering of the hardware, riot, war, invasion, act of foreign enemies, hostilities (regardless of whether war is declared), civil war, rebellion, revolution, insurrection, military or usurped power or confiscation, terrorist activities, nationalization, government sanction, blockage, embargo, labor dispute, strike, lockout or interruption or failure of electricity, air conditioning, or humidity control, internet, network,   or telephone service

The warranties given herein, together with any implied warranties covering the hardware, including any warranties of merchantability or fitness for a particular purpose, are limited in duration to one year from the date of shipment to the Original Purchaser. Jurisdictions vary with regard to the enforceability of warranty limitations, and you should check the laws of your local jurisdiction to find out whether the above limitation applies to you.

The Company shall not be liable to your for loss of data, loss of profits, lost savings, special, incidental, consequential, indirect, or other similar damages arising from breach of warranty, breach of contract, negligence, or other legal action even if the Company or its agent has been advised of the possibility of such damages, or for any claim brought against your by another party. Jurisdictions vary with regard to the enforceability of provisions excluding or limiting liability for incidental or consequential damages. You should check the laws of your local jurisdiction to find out whether the above exclusion applies to you.

This warranty allocates risks of product failure between Original Purchaser and the Company. The Company's hardware pricing reflects this allocation of risk and the limitations of liability contained in this warranty. The warranty set forth above is in lieu of all other express warranties, whether oral or written. The agents, employees, distributors, and dealers of the Company are not authorized to make modification to this warranty, or additional warranties binding on the Company. Accordingly, additional statements such as dealer advertising or presentations, whether oral or written, do not constitute warranties by the Company and should not be relied upon.

This warranty gives you specific legal rights. You may also have other rights which vary from one jurisdiction to another.

Item	Value
Password	
Serial Number	
Installation Date	
Purchase Date	
Video Input 1	
Video Input 2	