

Overview

Note: For more information, consult the *Enova DVX-3150HD-SP 10x4 All-in-One Presentation Switcher Operation/Reference Guide* available at www.amx.com.

The DVX-3150HD-SP (**FG1905-15**) is a ten input, four output, multi-format matrix switcher with built-in video scalers, microphone mixer, amplifier, and device controller.

This presentation-style switcher incorporates the following:

- A NetLinX controller (equivalent of a NetLinX 3101-SIG central controller)
- Integrated Multi-format and UTP audio / video switcher
- Video scaler
- Audio processor with mic mixing
- Volume controller and audio amplifier



FIG. 1 Enova DVX-3150HD-SP 10x4 All-in-One Presentation Switcher (front panel)

The following table lists the specifications for the Enova DVX-3150HD-SP All-in-One Presentation Switcher:

Enova DVX-3150HD-SP Specifications	
Power:	100-240V, 47/63 Hz AC supply
Memory:	<ul style="list-style-type: none"> • 256 MB SDRAM • 256 MB Flash • 1 MB Non-volatile (NVRAM)
Amplifier:	2 x 25W into 8 Ohms Class D stereo amplifier (capable of driving loads in the range of 2-8 ohms)
Enclosure:	Metal with black matte finish
Integrated Controller:	Equivalent of a NetLinX 3101-SIG central controller on-board.
Front Panel Components:	
LEDs:	<ul style="list-style-type: none"> • LINK/ACT (green) - Link/Activity LED blinks when receiving Ethernet data packets. • STATUS (green) - Status LED blinks to indicate that the system is programmed and communicating properly. • INPUT (yellow) - Input LED blinks to indicate that the Controller is receiving data. • OUTPUT (red) - Output LED blinks to indicate that the Controller is transmitting data. • RS-232 / 422 / 485 (red/yellow) - 6 sets of LEDs indicate that RS-232/422/485 Ports (1-6) are transmitting or receiving data. • RELAYS (red) - 8 LEDs indicate that one or more of the relay channels (1-8) are active (closed). • IR/SERIAL (red) - 8 LEDs indicate that one or more of the IR/Serial channels (1-8) are transmitting control data. • I/O (yellow) - 8 LEDs indicate that one or more of the I/O channels (1-8) are active.
LCD display:	Liquid crystal display (2 lines with 20 characters per line) indicates current volume level and displays the Video, Audio, and Status menu options.
SWITCH pushbutton:	Press to access the Switch menu on the LCD display. Use the menu to choose to switch audio, video or both from any input to any output.
TAKE pushbutton:	While in the Switch menu, press to implement an audio/video switch.
VIDEO MENU pushbutton:	Press to access the Video menu on the LCD display.
AUDIO MENU pushbutton:	Press to access the Audio menu on the LCD display.
Navigational pushbuttons:	4 directional buttons for navigating the options in the Video and Audio menu (on the LCD display).
STATUS pushbutton:	Press to access the STATUS menu on the LCD display to view system status and other system information.
EXIT pushbutton:	Press to exit the current menu and return to the default menu page, Main Amp Output/Volume.
VIDEO MUTE pushbutton:	Press to mute/un-mute (enable/disable) all video output displays. Video Mute results in a blank screen on the output displays.
AUDIO MUTE pushbutton:	Press to mute/un-mute all audio outputs.

Enova DVX-3150HD-SP Specifications (Cont.)	
Rear Panel Components:	
RS-232/422/485 (PORT 1-6):	RS-232/422/485 Ports 1-6 provide serial control via DB9 (male) connectors.
RELAYS (PORT 8):	Port 8 provides Relay control via 8-pin 3.5 mm captive-wire connector.
IR/SERIAL (PORTS 9-16):	Ports 9-16 provide IR/Serial control via 2-pin 3.5 mm captive-wire connectors.
I/O (PORT 17):	Port 17 provides 4-channel binary I/O port for contact closure with each input being capable of voltage sensing.
AUDIO INPUTS:	8 analog audio inputs: <ul style="list-style-type: none"> • 4 female 1/8" stereo mini-phono jacks receive up to four unbalanced audio inputs. • 4 3.5mm 5-pin captive-wire connector provides for fixed or variable, balanced or unbalanced line level audio input.
MIC INPUTS:	2 3.5mm 3-pin captive-wire connectors receive up to 2 mono microphones (balanced or unbalanced audio and switchable Phantom Power).
AMP OUT:	1 5mm 4-pin captive wire connector provides amplified audio output with volume control. The connector accepts 12AWG maximum.
AUDIO OUTPUTS:	3 3.5mm 5-pin captive-wire connector provides for balanced or unbalanced, mono or stereo line level audio output.
S/PDIF OUTPUT:	1 Coaxial RCA connector provides digital S/PDIF audio output that can mirror any of the 4 analog audio outputs or 4 HDMI outputs.
MULTI-FORMAT VIDEO INPUTS:	4 DVI-I input connectors provide analog and digital video inputs for up to four video sources.
HDMI INPUTS:	6 HDMI inputs (5-10) receive digital audio and video from up to six video sources.
VIDEO OUTPUTS:	<ul style="list-style-type: none"> • 4 HDMI Output connectors (1-4) each provide HDMI digital audio and video output. • 2 DXLink Cat5 outputs (1, 3) mirror HDMI outputs 1 and 3.
CONFIG DIP Switch:	8-position Master configuration DIP switch allows setting the Serial Programming port baud rate and onboard Master execution mode (PRD or normal).
PROGRAM Port:	DB9 connector (male) connects to a DB9 serial port on a PC, for serial communication.
ID Pushbutton:	Black ID pushbutton sets the NetLinX Device ID assignments of the Internal Control Device. It has no effect on the Internal Switcher Device.
LAN 10/100 Port:	RJ-45 connector provides TCP/IP communication.
AxLink Port:	1 3.5 mm 4-pin captive-wire connector provides data and power to external control devices. The AxLink port can be used to supply power to downstream AxLink-compatible devices as long as the maximum current draw is less than 1 Amp.
Power Connector:	IEC Power cord connector: 100-240V AC, 47-63Hz
Operating Environment:	Storage temperature: -10° C to 70° C (14° F to 158° F) Operating Temperature: 0° C to 40° C (32° F to 104° F) Operating Relative Humidity: 5% to 85% non-condensing
Weight:	29.2 lb (13.25 kg)
Dimensions (HWD):	5 3/16" x 17" x 14" (13.2 cm x 43.2 cm x 35.6 cm)
Certifications:	<ul style="list-style-type: none"> • FCC Part 15 Class A • IC CISPR 22 Class A • LVD EN 60950-1 • cULus UL 60950-1 • C-Tick CISPR 22 Class A • IEC 60950-1 • CE EN 55022 Class A and EN 55024
Included Accessories:	<ul style="list-style-type: none"> • 1 Power Cord, Universal (64-0009) • 2 Connector, Phoenix2, M, TH, R/A, BLACK, 5.08mm (41-0158-SA) • 7 Connector, Phoenix5, F, BLACK (41-0336) • 2 Connector, Phoenix3, F, BLACK (41-0338) • 1 Connector, Phoenix4, F, TH, BLACK, 3.5mm (41-5047) • 2 Connector, Phoenix, 8-pin, FEM, BLACK (41-5083) • 1 Connector, Phoenix, 10-pin, FEM, BLACK (41-5107) • 2 Front Rack Mounting Brackets (62-1905-16 and 62-1905-17) • 2 CC-NIRC, IR Emitter with 3.5mm Phoenix Connector (FG10-000-11) • 1 CC-DVIM-VGAF, DVI to HD-15 Female Adapter (FG10-2170-13) • 1 Commonging Strip, Cypher, 8 Pos., 3.5 mm, Phoenix Connector (41-2105-01)

Enova DVX-3150HD-SP Specifications (Cont.)

Optional Accessories

- CC-DVI-5BNCM DVI to 5 BNC adapter cable (FG10-2170-08)
- CC-DVI-RCA3M DVI to 3 Male RCA adapter cable (FG10-2170-09)
- CC-DVI-SVID DVI to S-Video adapter cable (FG10-2170-10)
- CC-3.5ST5-RCA2F 2 RCA Female to 5-Pin Phoenix Cable (FG10-003-20)
- AVB-RX-DXLINK-HDMI DXLINK™ HDMI Receiver Module (FG1010-500)

Mounting the DVX-3150HD-SP into an Equipment Rack

The DVX-3150HD-SP occupies three rack units in a standard equipment rack. Install the included rack mounting brackets using the supplied mounting screws prior to securing the unit in the rack.

Warning: The DVX-3150HD-SP should not be installed in enclosed spaces. ALWAYS ensure that the rack enclosure is adequately ventilated. Do not block any ventilation openings. It is recommended that you leave 1 RU of space above the DVX-3150HD-SP when you install it in a rack. DO NOT stand other units directly on top of the DVX-3150HD-SP when it is rack mounted, as this will place excessive strain on the mounting brackets.

Note: Connect the LAN port to a LAN with DHCP before powering up the device.

VIDEO INPUTS

The DVX-3150HD-SP features 10 connectors on the rear panel which are used to connect source video input devices to the DVX-3150HD-SP. The DVX-3150HD-SP routes video from connected source input devices to the connected output devices.

MULTI-FORMAT VIDEO INPUTS (1-4)

Each MULTI-FORMAT VIDEO INPUT connector supports DVI-D, as well as RGBHV, S-Video, Composite, Component, and HDMI inputs, using the appropriate conversion cables. These ports are HDCP compatible.

Use an adapted cable to connect a video source to one of the DVI-I VIDEO INPUTS. Consult the *Enova DVX-3150HD-SP 10x4 All-in-One Presentation Switcher Operation/Reference Guide* for information on adapter cables.

HDMI INPUTS (5-10)

The six HDMI INPUT connectors on the rear panel are used to connect source input devices to the DVX-3150HD-SP. These connectors support digital audio in addition to video. All HDMI inputs are HDMI (with 3D and Deep Color) and HDCP compatible.

AUDIO INPUTS

The DVX-3150HD-SP features 14 connectors (including the 6 HDMI inputs which support digital audio) on the rear panel which are used to connect source audio input devices to the DVX-3150HD-SP. Since the DVX-3150HD-SP allows independent switching of video and audio, video and audio inputs of the same number do not have to be connected to the same source equipment.

AUDIO INPUTS (1-4)

The four AUDIO INPUTS connectors are female 1/8" stereo mini-phono jacks receive up to four unbalanced audio inputs.

AUDIO INPUTS (11-14)

The four AUDIO INPUTS connectors are 3.5 mm 5-position captive-wire terminals that can be wired for either balanced (differential) or unbalanced (single-ended) stereo audio.

VIDEO OUTPUTS (1-4)

4 HDMI Output connectors (1-4) each provide simultaneous digital DVI and HDMI video output.

2 DXLink Twisted Pair outputs (1, 3) mirror HDMI outputs 1 and 3. They provide digital video, audio, Ethernet, and bi-directional control over Twisted Pair Cable to DXLink Receivers. All video outputs are HDCP compatible. These outputs support Cat5e (rated to 250MHz minimum), Cat6/6e, Cat6a, Cat7, STP, and FTP twisted pair cable types.

Important Cable Recommendations

- To keep from incurring video issues, the installation must use quality Cat5e, Cat6/6e, Cat6a, Cat7, STP, or FTP cable.
- Twisted pair cable quality required in order to reach the 100 meter distance should meet ANSI/TIA/EIA 568A-5 or better specification and be rated for 250 MHz or better. For cable runs approaching the 100m limit, Cat6/6e, Cat6a or Cat7 is recommended.
- Do not use a tightly bundled or rolled cable.
- Be sure to avoid kinks by following the manufacturer's minimum bend radius.
- Minimize service loops or coils whenever possible as they will reduce overall cable performance.
- Transmission line performance can be impaired by the cable being placed in close proximity to electrically noisy devices or other cables. Tight bundling of cables should be avoided in long run applications to reduce crosstalk issues.
- Cable end terminations should meet the TIA specification of the cable used to ensure optimal performance.

PROGRAM Port

The PROGRAM port is a DB-9 male RS-232 port that connects the DVX-3150HD-SP to a communication port on a PC, and is intended primarily to be used to configure system settings.

Accessing the Configuration Settings

You can access the configuration settings for the DVX-3150HD-SP by using the buttons on the front panel of the unit or by using a web browser.

Using the Front Panel Buttons

You can access the configuration settings for the DVX-3150HD-SP by using the VIDEO MENU, AUDIO MENU, SWITCH, and STATUS buttons on the front panel of the DVX-3150HD-SP. Pressing any button opens its respective menu on the LCD display on the front panel.

Press the TAKE pushbutton to implement an audio/video switch while you are in the Switch menu on the LCD display. When in an audio or video menu, press the button to cycle through audio and video inputs or outputs (depending on the menu.)

Use the Navigational buttons to traverse the available options and change their values. FIG. 2 displays the navigational function of each button.

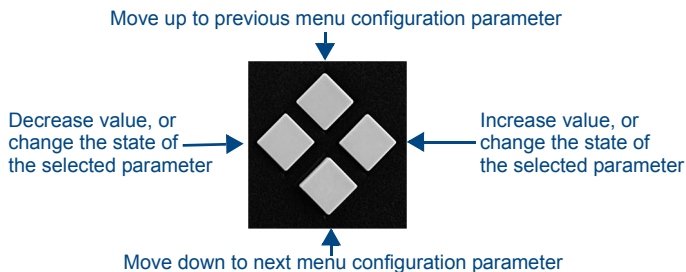


FIG. 2 Navigation buttons

Selecting a Video Test Pattern

Selecting a test pattern for your input source can help determine if you have your video devices connected correctly. Perform these steps to select a test pattern:

1. Press the VIDEO MENU button on the front panel of the DVX-3150HD-SP.
2. Press the left and right navigation buttons to select the output on which to display the test pattern (ALL, 1, 2, 3, or 4).
3. Press the down navigational button until the Output Test Pattern option appears.
4. Use the left and right navigational buttons to select an appropriate output test pattern.

Selecting an Audio Test Tone

Selecting a test tone for your input source can help determine if you have your audio devices connected correctly. Perform these steps to select a test tone:

1. Press the AUDIO MENU button on the front panel of the DVX-3150HD-SP.
2. Press the left and right navigation buttons to select the output on which to play the test tone (ALL, 1, 2, 3, or 4).
3. Press the down navigational button until the Test Tone option appears.
4. Use the left and right navigational buttons to select an appropriate audio test tone.

Locating the IP Address of the DVX-3150HD-SP

You can locate the IP address of the DVX-3150HD-SP by using the buttons on the front panel of the unit. The IP address appears on the LCD display on the front panel of the switcher. Perform these steps to locate the IP address of the unit:

1. Press the STATUS button on the front panel of the unit to open the Status Menu. The Status options appear on the LCD display.
2. Use the UP and DOWN navigational arrow buttons to navigate through the options until you find the switcher's IP address. Note the IP address for future reference.

Note: You can use the Status menu to verify current TCP/IP settings using the UP and DOWN navigational buttons.

Using a Web Browser

The system configuration pages are available by entering the IP address of the NetLinX master into the location bar of your web browser. Entering your IP address into your web browser opens the Main WebControl page.

Note: The configuration screens appear in a pop-up window separate from the Main WebControl screen. Make sure the pop-up blocker in your web browser is disabled. Perform these steps to access the configuration settings:

1. Open a web browser, and enter the IP address of the DVX-3150HD-SP in the location bar of the web browser. The Main WebControl page opens.

Note: WebControl requires that you install the latest version of the Adobe Flash Player plug-in for your browser. If your browser does not have the Flash Player plug-in installed, you will be prompted to install it.

2. Use the Device options menu at the top of the screen to select <DEVICE #> - DVX-3150HD-SP Switch Device. The Configuration page opens in a separate pop-up window.

