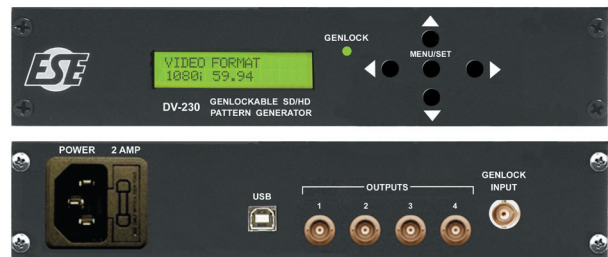# HD & SD SDI
PATTERN GENERATORS

The **DV-229** and **DV-230** are Standard Definition (SD) and High Definition (HD) Serial Digital Interface (SDI) Signal Generators. These units are capable of generating a variety of different patterns. Conveniently located on the front panel are five pushbuttons allowing the user to easily set up the **DV-229** and **DV-230** using the menus on the LCD. Alternatively, the user can connect the units to a computer using a USB cable and can then use the DV-229/230 Control Panel software to set up the units. The **DV-229** provides Two identical SDI outputs while the **DV-230** supplies Four identical SDI outputs and a Genlock Input (bi-level or tri-level) all of which are accessible on BNCs located on the rear panel.

These generators produce 4:2:2 (525 and 625 line) digital video signals and are SMPTE 424M, SMPTE 292M and SMPTE 259M compliant.

Features

- 2 SDI Outputs (DV-229)
- 4 SDI Outputs (DV-230)
- Genlock Input (DV-230)
- Twenty Test Patterns
- Universal Power Supply (85-264 VAC)
- Moving Patterns
- Embedded Audio Tone
- RP-188 Time Code Insertion
- Optional Rack Mount
- Closed Caption Insertion
- Onscreen Time Code & User Text Insertion

The main menu consists of ten items, described separately below.

Video Format: Sets the Video Format.
Available choices are 1080i60, 1080i59.94, 1080i50, 1080p30, 1080p29.97, 1080p25, 1080p24, 1080p23.98, 1080psf24, 1080psf23.98, 720p60, 720p59.94, 720p50, 525i, 625i.

Video Pattern: Sets the visual pattern to display.
Available choices are: Color Bars, Full Color Bars, S198M Check Field, Border Lines, Noise, Gradient, Gray Levels, Red Levels, Green Levels, Blue Levels, White, Red, Green, Blue, 15% Gray, 25% Gray, Black, Target, V Lines, H Lines.

Audio: Sets the mode for the embedded audio test tones.
There are 3 sub menus:
Audio Embed: Enable or Disable the embedding of the audio tone.
Group 1 Freq: Selects 500Hz or 1000 Hz as the test tone for Audio Group 1.
Group 2 Freq: Selects 500Hz or 1000 Hz as the test tone for Audio Group 2.

Motion: Sets the onscreen motion options:
None (pattern is stationary), Square (moving square box, "pong" style, over the currently selected pattern), Square Inv(screen is black, with a square transparent box which reveals the currently selected pattern, moving in a "pong" fashion), Full Motion (the Color Bars pattern moves continuously in a down/right diagonal direction).

Time Code: Sets options for embedding time code or burning in the onscreen time code window.
There are several sub-menu options.

Text Burn: Sets parameters for the text window burn.
Burn Mode: Sets the window appearance - White with Black Background, Black with White Background, White with No Background, Black with No Background, or Disabled (no insert).
Clear Text: Resets the Text to blank.
Set Text: Allows setting of each text character. Navigate left/right in the text line using the LEFT and RIGHT pushbuttons, scroll through the available characters using the UP and DOWN pushbuttons. Select the currently displayed character using the MENU/SET pushbutton.
Text Burn VPOS: Sets the Vertical position of the text window.
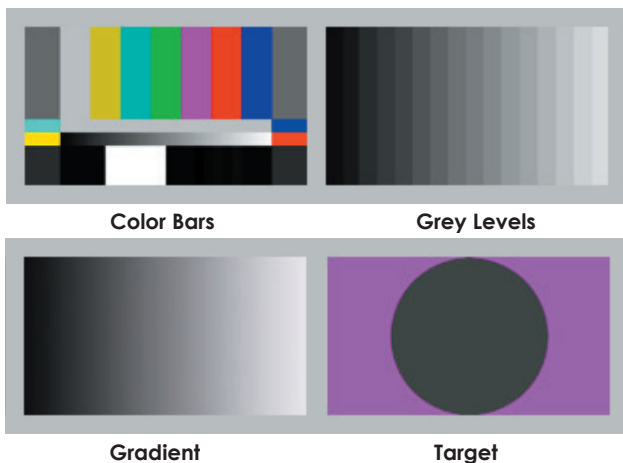Text Burn HPOS: Sets the Horizontal position of the text window.

SMPTE 352M: Enables or Disables insertion of SMPTE 352M Payload Identification data.

Closed Caption: Enables or Disables insertion of the Closed Caption test text string ("ESE DV-229/230"). It is fixed and cannot be changed. Customized Captions are available on a custom basis. Consult Factory.

Color IRE: Sets the Color IRE level from 0% to 100%.
Default is 100%.

Save Settings: Commits the current settings to the non-volatile FLASH memory.

EXAMPLES:

Color Bars

Grey Levels

Gradient

Target

DV-229/DV-230 Control Panel Software

SPECIFICATIONS

POWER:	85 – 264 VAC, 47 – 63 Hz, 20 Watts maximum
MECHANICAL:	Black anodized aluminum enclosure 1.6" H x 8" W x 7.3" D
TIME & SETUP/STATUS DISPLAY:	16 x 2 character LCD
SD SDI OUTPUT:	SMPTE 259M-C (270Mb/s)
SD SDI OUTPUT SWING:	800 mV typical
SD SDI OUTPUT RISE/FALL TIME:	660 ps typical
GENLOCK INPUT (DV-230):	Bi-level or Tri-level, 75 Ohm
OPTIONS:	DC, P, P2, UL

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