

ES-229 & ES-230

NTSC / PAL COLOR BAR GENERATORS

The **ES-229** and **ES-230** are Color Bar Generators that can be used for aligning monitors or for checking the signal fidelity of a video system. Both units generate RS-170A full-field bars or black-burst. The **ES-229** provides one composite output and one S-Video output while the **ES-230** provides eight composite outputs. Front-panel DIP switches allow selection of Auto-Black, Bars / Black, Interlace / Progressive, NTSC pedestal On / Off, Chroma On / Off and PAL mode.

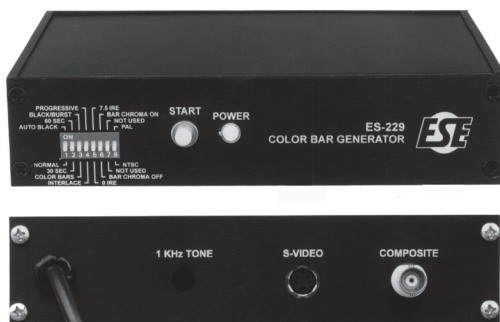
If the "Tone" option is ordered on the **ES-229**, a 1 KHz tone is output from the rear-mounted RCA connector and on the **ES-230**, the frequency can be set to 400 Hz or 1 KHz.

Features

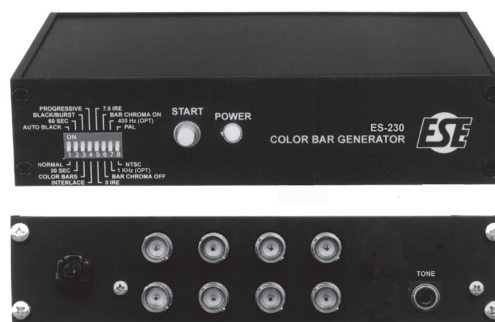
- Auto-black Mode (30 Or 60 Second Delay)
- Optional 1 KHz (400 Hz) Tone
- Switchable NTSC Pedestal
- Color Bars Or Black-Burst
- Interlace Or Progressive
- PAL And NTSC Modes
- Chroma On/Off

Applications

- Pre-Blackening Video Tape
- Video System Synchronization
- Alignment Of Video Monitors
- Pre-Blackening Video Tape
- Checking Signal Fidelity Of Video Systems



ES-229



ES-230

Operation Notes:

The "Auto-Black" mode generates Color Bars (& Tone if ordered) for 30 or 60 seconds after the START button is pressed, then switches to silent Black-Burst. In "Bars" mode, only color bars are output and in "Black" mode, only Black-Burst is output. The "Interlace/Progressive" switch allows for either 524/624 Line Progressive or 525/625 Line Interlace operation and the "Pedestal" switch allows selection between 7.5 IRE Setup or 0 IRE when in NTSC mode (In PAL mode, 0 IRE is output regardless of setting.). Burst is always present whether the "Bar Chroma" switch is on or off.

Specifications

	ES-229
Outputs:	1 Composite, BNC 1 S-Video, Mini-DIN
Video Level:	75% amplitude, 75% saturation (NTSC) 75% amplitude, 100% saturation (PAL)
Output Impedance:	75Ω
Differential Gain:	0.8%
Differential Phase:	0.8°
SNR:	60db
Hue Accuracy:	1.0°
Saturation Accuracy:	1.0%
Enclosure:	Desk-Top, Black Anodized Aluminum
Dimensions:	1.6" H x 7" W x 5" D
Tone (optional):	1 KHz Sine Wave, 0 dbm, RCA
Electrical:	117 VAC, 50/60 Hz
Power:	5W maximum
Options:	J, P, P2, Tone, UL

	ES-230
Outputs:	8 Composite, BNC -
Video Level:	75% amplitude, 75% saturation (NTSC) 75% amplitude, 100% saturation (PAL)
Output Impedance:	75Ω
Differential Gain:	0.8%
Differential Phase:	0.8°
SNR:	60db
Hue Accuracy:	1.0°
Saturation Accuracy:	1.0%
Enclosure:	Desk-Top, Black Anodized Aluminum
Dimensions:	1.6" H x 7" W x 5" D
Tone (optional):	400 Hz / 1 KHz Sine Wave, 0 dbm, RCA
Electrical:	117 VAC, 50/60 Hz
Power:	5W maximum
Options:	J, P, P2, Tone, UL