144
NTSC Signal Generator

NEW

The 144 NTSC Signal Generator is a compact, solid-state source of high-quality color television test, sync, and burst signals for 525-line, 60-Hz field, cable, and broadcast TV systems. Combined in one compact unit are the signals needed to accurately test, evaluate, and adjust CATV, laboratory, and standard broadcast color video equipment.

The 144 is similar to the 146 NTSC Signal Generator with a Composite Color Test Pattern Signal Generator in place of Gen-Lock. For Gen-Lock applications, the 146 will be required. The 144 has an —I, W, Q, B signal in place of the Color Bar/Y REF split-field signal of the 146.

The 144 provides: NTSC encoded color bars (full-field or split-field), modulated staircase, convergence crosshatch or a composite color test pattern designed for use in CATV systems. The composite test pattern combines, in both fields, convergence, color bars, luminance only, and an insert area for displaying two external video inputs. The uses for this pattern are almost limitless. By locating the gray scale above the color bars, registry of the chrominance luminance signals can be easily checked. Luminance cross-modulation is also easily detected on picture monitors by comparing the brightness of the yellow color bar with the light gray directly above it, when the chrominance control is set to lowest possible gain. The lower insert area does not normally carry test signals. It is intended for message service: time and temperature, local news or commercial mesages, stock market ticker tape displays, etc. The crosshatch lines and/or dots are available for picture monitor linearity evaluation and convergence adjustment. Vertical interval test signals are provided by the 144.

The 144 can be used as the master sync generator for local program origination. The self-contained sync generator includes a temperature-controlled color standard with excellent frequency stability.

The 144 is available in rackmount (R144) and cabinet (144) styles.

COMPOSITE COLOR TEST PATTERN

This operating mode provides a convergence pattern (crosshatch lines and/or dots) with two inserts areas. Each insert is digitally controlled from the sync generator. The user may select the lines to be included in each insert area by proper placement of insulated color-coded jumpers within the instrument.

The first insert consists of either the staircase test signal or color bar signal. When the color bar is selected, the luminance portion of the color bars, is located directly above the first insert. The second insert can be controlled by the operator in the same manner as the first. Generally, the second insert will be below the center of the screen, as the center should carry the convergence pattern to permit proper converging of color receivers. This insert does not normally carry test signals since it is intended for message service.

Two video inputs are provided at the rear panel. Video input signals may be derived from TV cameras which are driven by the sync generator in the 144. A horizontal wipe control provides for smooth transition between the two signals, or allows them to be displayed simultaneously, sharing the selected insert area.

External Video Input—Two AC-coupled, 75-Ω, loop-through input connections are provided on the rear panel. Input requires 1.0 V P-P of composite video or 0.714 V P-P of non-composite video. Return loss is at least 30 dB to 5 MHz. External sync is stripped and sync from the 144 is inserted.

Composite Video Ouput—Composite video consists of composite sync and video test signals as selected by front-panel controls. Independent front- and rear-panel outputs are provided with the two inputs isolated by at least 40 dB. Output level is 140 IRE units with the exception of the crosshatch lines and dots which are set for 75 IRE units.

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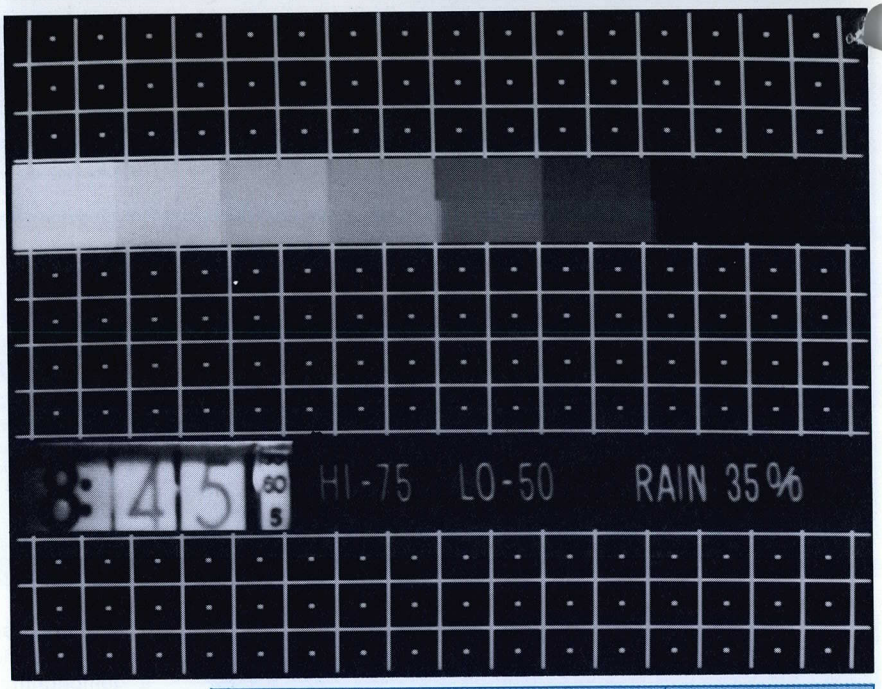
COMPOSITE COLOR TEST PATTERN

Convergence pattern with full color bars and color bar luminance in upper insert and two video inputs displayed in lower insert.



Power Requirements— 90 to 136 VAC or 180 to 272 VAC, 48 Hz to 66 Hz, 55 watts maximum at 115 VAC and 60 Hz. Rear-panel selector provides rapid accommodation for 6 line-voltage ranges.

Ambient Temperature—Performance characteristics are valid over an ambient temperature range of 0°C to +50°C (except as noted).

INCLUDED STANDARD ACCESSORIES

Two 75-Ω, through-line terminations (011-0103-02); set of insulated jumpers, assorted colors (013-0117-00); power cord (161-0036-00); instruction manual (070-1084-00).
R144 also includes rackmounting hardware.

Dimensions and Weights	144		R144	
	in	cm	in	cm
Height	3 1/2	8.9	3 1/2	8.9
Width	16 3/4	42.6	19	48.3
Depth	18 1/2	47.1	18 1/2	47.1
	lb	kg	lb	kg
Net weight	17 3/4	8.0	18 1/2	8.4
Domestic shipping weight	≈34	≈15.4	≈35	≈15.9
Export-packed weight	≈54	≈24.4	≈55	≈25.0

144 NTSC TEST SIGNAL GENERATOR **$2500**
R144 NTSC TEST SIGNAL GENERATOR (rackmount) **$2500**

140 NTSC Signal Generator

The 140 NTSC Signal Generator is substantially similar to the 146 NTSC Signal Generator. The 140 has minor control differences in the color bar and modulated staircase sections. Applications for Color Gen-Lock will require use of the 146. CATV applications for Composite Color Test Pattern will require use of the 144.

The 140 has a —I, W, Q, B signal in place of the Color Bar/Y REF split-field signal of the 146.

Power Requirements— 90 to 136 VAC or 180 to 272 VAC, 48 Hz to 66 Hz, 55 watts maximum at 115 VAC and 60 Hz. Rear-panel selector provides rapid accommodation for 6 line-voltage ranges.

Ambient Temperature—Performance characteristics are valid over an ambient temperature range of 0°C to +50°C (except as noted).

Dimensions and Weights	140		R140	
	in	cm	in	cm
Height	3 1/2	8.9	3 1/2	8.9
Width	16 3/4	42.6	19	48.3
Depth	18 1/2	47.1	18 1/2	47.1
	lb	kg	lb	kg
Net weight	17 3/4	8.0	18 1/2	8.4
Domestic shipping weight	≈34	≈15.4	≈35	≈15.9
Export-packed weight	≈54	≈24.4	≈55	≈25.0

INCLUDED STANDARD ACCESSORIES

75-Ω, through-line termination (011-0103-02); power cord (161-0036-00); instruction manual (070-0944-00).
R140 also includes rackmounting hardware.

140 NTSC TEST SIGNAL GENERATOR **$2150**
R140 NTSC TEST SIGNAL GENERATOR (rackmount) **$2150**

U.S. Sales Prices FOB Beaverton, Oregon
Please refer to General Information page