

PS163 DUAL TRACE TRIGGERED SWEEP OSCILLOSCOPE

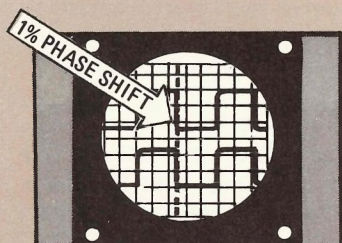
for
• school
• lab &
• shop

Only
\$695

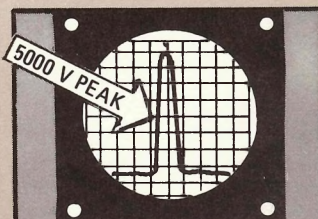
(Price Includes Both
Lo-Cap, 5KV Rated Probes)



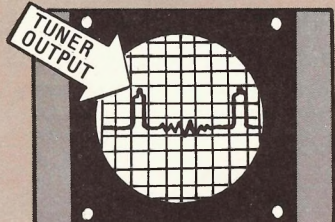
6 big reasons why the PS163 belongs on your bench



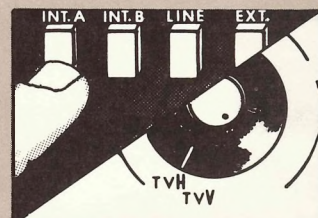
PHASE LOCKED MATCHED CHANNELS ALLOW YOU TO COMPARE ANY SIMULTANEOUS WAVEFORMS WITHIN 1% LAB ACCURACY.



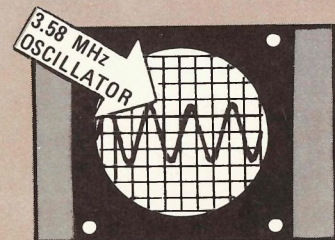
IT'S PROTECTED UP TO 5000V AC A REAL BENEFIT TO INSTRUCTORS CONCERNED ABOUT STUDENT USE AND TO SERVICE TECHS WHO NO LONGER NEED TO WORRY ABOUT BRUSHING AGAINST THE 5KV OFF THE HORIZONTAL PLATE OF A TV SET.



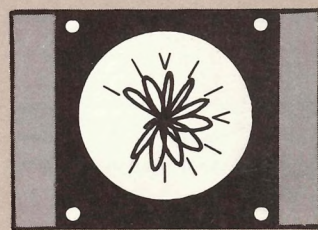
HIGH SENSITIVITY WITH 5 MILLIVOLTS PER CENTIMETER. AS AN EXAMPLE, YOU NOW CAN READ TELEVISION TUNER OUTPUT DIRECTLY FROM IF JACK USING DEMODULATOR PROBE.



TIME SAVING INSTANT MODE SELECTION FOR MANUAL, FREE RUNNING, OR AUTOMATIC TRIGGERED SWEEP WITH SELECTABLE A OR B CHANNEL TRIGGERING.



TRUE BANDWIDTH USING NO PEAKING COILS OR OTHER GIMMICKS TO CAUSE RINGING OR SIGNAL DISTORTION. NOW YOU CAN VIEW CLEAN WAVEFORMS FROM DC TO 8MHz IN THE SCHOOL, LAB, OR SHOP.



TV VERTICAL AND TV HORIZONTAL SWEEP SETTINGS WITH SYNC SEPARATOR STABILITY.

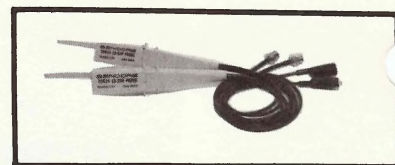
IT'S A VECTORSCOPE WITH A SIMPLE FRONT PANEL PUSHBUTTON CONTROL. MATCHED GAIN IN X AND Y AMPLIFIERS PROVIDE HIGH SENSITIVITY FOR COLOR DEMODULATION AND INSTRUCTIVE PHASE SHIFT PATTERNS.

Compare cost to performance...

- ■ ■ WITH COMPETITIVELY PRICED SCOPES AND YOU WILL CHOOSE THE PS163 ON PERFORMANCE.
- ■ ■ WITH SCOPES COSTING 3 TIMES AS MUCH AND YOU WILL AGREE THE PS163 GIVES YOU LAB ACCURACY WITH ONLY 1% PHASE SHIFT BETWEEN CHANNELS AND AT 1/3 THE COST.

\$695

(PRICE INCLUDES BOTH LO-CAP, HIGH VOLTAGE PROBES, WITH 5KV RATING, COSTING \$50 IF ORDERED SEPARATELY.)



SPECIFICATIONS

VERTICAL (CHANNEL A and B)

Sensitivity	.005V/cm to 50V/cm in 13 ranges. FRONT PANEL calibrated from .05V/cm to 500V/cm for direct reading with low capacity probe. Gain continuously variable between range positions.
Bandwidth	DC to 8MHz -3db. Usable to 15MHz.
Overshoot	Negligible. Typically 1% or less.
Accuracy	± 2%
Rise Time	40 nanoseconds
Input Voltage	5KV peak to peak AC or 1KVDC maximum through low capacity probe.
Input Impedance	10 megohms shunted by 11pf using low capacity probe. 1 megohm shunted by 35pf at input terminals.

HORIZONTAL

Time Base Range Triggered	.1 microsecond/cm to .1 second/cm in 19 calibrated ranges, continuously variable between steps. Additional TVV and TVH provide correct time base to view vertical or horizontal frames of TV waveforms.
Free Run	.1Hz to 1MHz in 19 ranges, continuously variable between steps.
Accuracy	± 2% (Triggered mode only)
Sweep Magnification	5X, 5% accuracy (not calibrated on .1, .2, and .5uSec/cm)
Horizontal Input Variable	uncalibrated
Sensitivity	Direct: Less than 750mV required for one cm of deflection. With 5X expand: Less than 150mV required for one cm of deflection.
Input Impedance	1 megohm shunted by 40pf.

TRIGGERING

Manual	Sync level adjustable.
Automatic	Base line reference remains in absence of a trigger source.
Free Run Source	Conventional sync-sweep operation. Channel A, Channel B, Line or external. Positive or negative slope polarity.
Level Requirements	
Internal	1cm of display
External	15mV minimum. Input impedance: 1 megohm shunted by 40pf.
Phase Shift	Negligible. Typically less than 3° at 5MHz.

VECTOR or X-Y MODE

Sensitivity	.005V/cm to 50V/cm direct. .05V/cm to 500V/cm using low capacity probe.
Frequency Response(-3db)	DC to 8MHz vertical DC to 7MHz horizontal
Display	Channel A vertical Channel B horizontal

GENERAL

Rear Access	Vertical deflection plates, ground, 15V peak to peak horizontal sawtooth and Z axis input.
Calibrate Output	1KHz, 2V peak to peak square wave through front panel output pin.
Chopped Mode Rate	100KHz.
CRT	5UP1 Flat face round 5 inch, P-1 phosphor, double shielded.
CRT Supply Retrace Suppression	2KV, 30KHz regulated RF supply. DC coupled unblanking of CRT.
Graticule	2 layer illuminated, with switch selection of 10X10 cm grid or 30° vector reference.
Power Requirements	105 to 130 VAC, 60Hz 60 watts.
Size	12 inches high, 10 inches wide and 15½ inches deep.
Weight	30 lbs.

ACCESSORIES

39G34 Low Capacity Probe (Probes Included In Price of Unit).	
Attenuation	10:1
Input Impedance	10 Megohm shunted by 11pf with adjustable compensation.
Maximum Ratings	5000 volts AC peak, 1000 volts DC peak
Mechanical	Spring - loaded, hooked tip for positive connection to circuit under observation. Tug-proof, shielded 36" cable with BNC connector and 12" ground lead at probe body.

39G41 Demodulator Probe (Optional) . . .



Electrical	Voltage - doubler type probe for frequency range of 2MHz to 250MHz.
Maximum Ratings	500 volts DC isolation. 50 volts RMS AC maximum.
Mechanical	Same as 39G34 with 3" ground lead. (not supplied with unit) \$20.00

DISTRIBUTED BY:



SENCORE

NO. 1 MANUFACTURER OF ELECTRONIC MAINTENANCE EQUIPMENT
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