

A. O. Johnston



TEKTRONIX

Manufacturers of

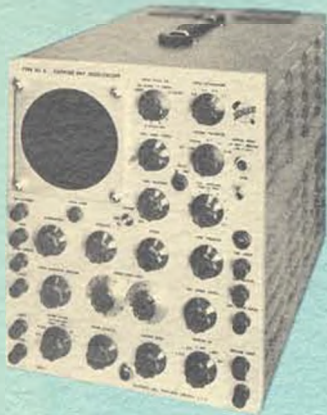
**CATHODE - RAY OSCILLOSCOPES
AND VIDEO TEST INSTRUMENTS**

CAT 100 B

"SHORT FORM" CATALOG

AUGUST 1951

THE SYMBOL OF EXCELLENCE



TYPE 511-AD OSCILLOSCOPE

The Tektronix Type 511-AD Cathode Ray Oscilloscope offers the desirable combination of the following characteristics: 5 cps—10 mc. bandwidth; .1 μ sec/cm—.01 sec/cm sweeps; trigger sensitivity, pulses as short as .05 μ sec duration and as low as .5v amplitude; vertical deflection sensitivity from .25 v/cm to 200 v/cm; voltage calibrator from 0 to 100 v in 3 ranges; .25 μ sec. delay network which can be switched in or out of the vertical amplifier at will. This instrument is extremely valuable for use in the video testing field, where excellent transient response, wide bandpass, and high sweep speeds are mandatory. Weight 50 lbs. Price: Type 511-AD \$845.00; Type 511-A (without delay network) \$795.00.

OSCILLOSCOPE

- 5" Cathode Ray Tubes • Directed or recurrent sweeps • S
- Positive or negative internal gate available on front panel •
- Individually adjusted for optimum image contrast under high ambient light •
- all aluminum construction — low weight

TYPE 512 OSCILLOSCOPE

The Tektronix Type 512 Oscilloscope features: balanced, direct-coupled, push-pull amplifiers with sensitivity ranging from 5 mv/cm to 50 v/cm; bandwidth from DC to 2 mc; sweep range from 3 μ sec/cm to .3 sec/cm; differential input to amplifiers; 1 kc square wave voltage calibrator from 0 to 50 v in 9 ranges, 2% full scale accuracy; sweeps of 1.0 sec/cm and 3.0 sec/cm available on order. With its high stability, sensitivity, and accurate calibration of timing and amplitude, the Type 512 has gained exceptional and immediate acceptance in the fields of biophysical and geophysical research, as well as being an indispensable circuit development tool in the hands of the electronic engineer. Weight, 53 lbs. Price \$950.00.

TYPE 517 OSCILLOSCOPE

The Tektronix Type 517 is a wide band high voltage cathode ray oscilloscope designed primarily for the observation and photography of very fast transients. It consists of two units, including a power supply, mounted on a scope-mobile to provide a convenient, mobile instrument. Features include:

- High writing rate, obtained by 24 kv accelerating potential on a metallized P11 CRT.
- Eleven accurately calibrated sweep rates from .01 μ sec/cm to 100 sec/cm.
- Sweep triggered by observed signals of 2 mm or more amplitude.
- Signal delay to permit observation of front of pulse.
- Distributed vertical amplifier with .007 μ sec rise time.
- .1 v/cm sensitivity.
- Cathode follower input probe with capacity attenuation.
- Pulse type amplitude calibrator with 6 ranges. Accuracy $\pm 2\%$.
- All supply voltages to indicator (including 24 v heaters) electronically regulated.
- Trigger rate generator, variable from 15 to 15,000 cps.
- Panel switch to reduce accelerating potential to 10 kv, giving twice above sensitivities and sweep rates.
- Standard accessories: Scope-mobile, cathode follower probe and attenuators, 170 ohm attenuator, voltage divider hood.
- Weight 175 lbs. Price \$3500.00.

TYPE 121 PRE-AMPLIFIER

The Tektronix Type 121 Pre-Amplifier was designed primarily to augment the vertical amplifier of the Type 511-A oscilloscope, providing an overall sensitivity of 2.5 mv/cm, while preserving the bandpass and transient response. May be used with other oscilloscopes or wide band equipment.

Voltage gain, 100; input imp., 1 meg, 20 μ f; output, ± 1 v, 93 ohms; band pass, 5 cps, 12 mc; front panel supply socket, 6.3 v DC, 20-120 v AC; portable; self-contained power supply. 11 $\frac{1}{2}$ " high, 6" wide, 15 $\frac{3}{4}$ " deep. Weight 18 lbs. Price \$265.00.

TYPE 112 AMPLIFIER

The Tektronix Type 112 DC Amplifier was developed to be used with Tektronix or other oscilloscopes.

Same amplifier as in Type 512; self-contained regulated supply; 1kc calibrator; trigger output; marker input; output voltages, 150v high imp.; 75v, 8000 ohm load; av. output level, 150v and gnd. Weight 32 lbs., 15 $\frac{3}{4}$ " high, 7" wide, 22 $\frac{1}{4}$ " deep. Price \$495.00.

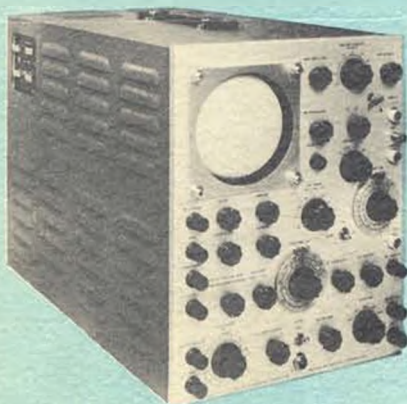


TYPE 122 PRE-AMPLIFIER

The Tektronix Type 122 Pre-Amplifier has been designed as an accessory to the Type 512 Oscilloscope, for use in the biophysical, geophysical and other fields requiring additional sensitivity in the limited pass-band of 1/6cps-40 kc. At maximum gain, a 5 μ v signal will produce a 1 cm deflection on the oscilloscope. Use of the differential input gives a rejection ratio of 90 db for unwanted signals. A maximum of 20 v (peak-to-peak) is available at the cathode follower output. Multiposition switches permit separate control of both ends of the pass band. Battery operated for minimum noise level. Price \$85.00.

All Tektronix instruments are fully guaranteed for one year. Should replacement parts be required, when net prices, they will be shipped from the factory, within the continental United States and Canada.

Prices shown are f.o.b. factory.



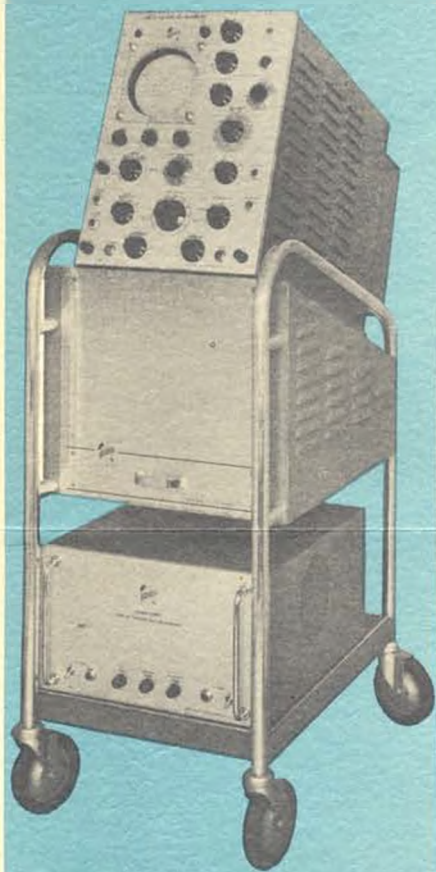
ANCE IN INSTRUMENTATION



FEATURES

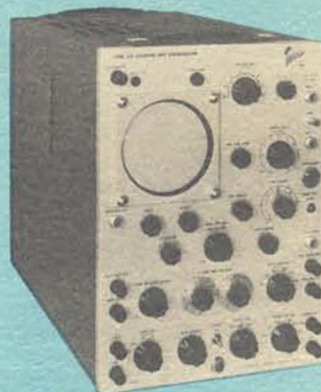
Reading sweep dials • Single, trig-
 sweep speeds accurate to 5% or better
 external triggering • Sweep and
 DC voltages electronically regulated
 transient response • Excellent
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TYPE 513-D OSCILLOSCOPE

The Tektronix Type 513-D Oscilloscope has the following features: high writing rate CRT with regulated accelerating potential of 12 kv (+10 kv and -2 kv); distributed type vertical amplifier, DC to 20 mc; maximum deflection sensitivity of 30 mv/cm; trigger rate generator with 5 fixed pulse rate frequencies of .2 kc, .5 kc, 1 kc, 2 kc and 5 kc; a 1 kc square wave voltage calibrator from 0 to 50 v in 6 ranges, 2% full scale accuracy; other specifications similar to those of Type 511-A. This instrument is extremely useful in random pulse work where high writing rate is essential. Weight 70 lbs. Price, Type 513-D, \$1650.00. Type 513 (without delay network) \$1600.00.



TYPE 514-D OSCILLOSCOPE

The Tektronix Type 514-D Oscilloscope offers the high frequency range of the Type 511-A with the additional advantages of direct-coupled vertical amplifier. Specifications: band-pass DC to 10 mc at .3 v/cm, and 5 cps to 10 mc at .03 v/cm; .1 μ sec/cm to .01 sec/cm sweep range; square wave voltage calibrator variable from 0 to 50 v in 6 ranges, 2% full scale accuracy; undistorted deflection of 4 cm (± 2 cm); accelerating potential of 3 kv (+1.5 kv and -1.5 kv); other specifications similar to those of Type 511-A. The Type 514-D admirably meets the requirements of those who do not need the higher writing rate of the Type 513-D, but require its direct-coupling and high sensitivity. Weight 62 lbs. Price: Type 514-D \$950.00; Type 514 (without delay network) \$900.00.



TYPE 104A SQ. WAVE GENERATOR

The Tektronix Type 104-A is a low cost generator of precision square waves with four fixed frequencies in the ranges most used to test wide band amplifiers and oscilloscopes. Its use in conjunction with any of the above oscilloscopes permits the transient response of an amplifier to be readily observed. Controls are provided enabling use of LF output as voltage calibrator, 5 mv to 50 v in 9 ranges, 2% full scale accuracy.

Frequencies: LF 50 cps, 1 kc; HF 100 kc, 1 mc; rise time, LF 3 μ sec; HF .02 μ sec; amplitude, LF 0-50 v; HF 0-5 v output load, LF 0-20 k; HF 0-93 ohms; portable. Weight 18 lbs. Price \$195.00.



TYPE 105 SQ. WAVE GENERATOR

The Tektronix Type 105 Square Wave Generator is an extremely versatile precision instrument for checking transient response and bandwidth (25 cps to 20 mc) of amplifiers, filters, attenuators, etc. Regulated DC supply, direct reading frequency meter, small size, and other features all combine to make this instrument a necessity for any well equipped laboratory.

Frequency: 25 cps to 1 mc variable; risetime, .02 μ sec if load is 93 ohms or less; amplitude, 100v maximum; 15v across 93 ohms; accuracy of frequency meter, 3% of full scale; sync voltages, output 5v; input 3v-50v. Weight 35 lbs. Price \$395.



against defective materials and workmanship for one
 at no charge under warranty terms or at established
 air transportation upon request, prepaid to any point

OUR CONTINUING CREED

is that of serving Tektronix customers with products and policies that are unexcelled in the electronics industry and limited only by the current state of the art.

For Detailed Specifications Please Contact Nearest Representative or Tektronix, Inc.

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