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NEW TEKTRONIX OSCILLOSCOPES

Use Signal-Amplifier and Time-Base Plug-In Units

Compact, dependable, easy-to-operate and maintain, the Type 560 and Type 561 Oscilloscopes feature new plug-in unit flexibility, along with accepted Tektronix standards of precision and accuracy. Basically indicator units, the instruments accept two units—which connect directly to the crt deflection plates and take the place of the horizontal and vertical deflection systems in a conventional oscilloscope. Unlike other oscilloscopes with plug-in units, the Type 560 and Type 561 are not limited by additional circuitry imposed between the plug-ins and the deflection plates.

A wide range of plug-in units permits almost any type and degree of performance demanded for a particular application. And with approximately two-thirds of the circuitry housed within the plug-in units, servicing is easier and indicator unit "down time" is less.

THE INDICATOR UNITS

TEKTRONIX CATHODE-RAY TUBE

Flat-faced, 5-inch monoaccelerator crt.
3.5 kilovolts accelerating potential.
External crt terminal—for beam-intensity modulation.
P2 Phosphor—or a P1, P7, or P11 if requested.
8 x 10 centimeter viewing area.
Adjustable edge-lighted graticule.

POWER SUPPLIES

TYPE 560—Regulated dc-voltage supply provides 30 watts for powering all plug-in units below Type 70; regulated dc heater voltage (12 v) assures gain stability, low hum, and low drift; thermal cut-out protection; operates between 105 to 125 volts or 210 to 250 volts, 50 to 800 cycles.

TYPE 561—Through different circuitry the regulated dc-voltage supply will provide 90 watts for powering all present and future plug-in units in this series; dc heater voltage regulated through separate regulator circuitry; other specifications similar to Type 560.

CALIBRATOR

TYPE 560—500 mv and 50 mv peak-to-peak square-wave voltages, at line frequency (for time-base calibration).
TYPE 561—18 calibrated peak-to-peak square-wave voltages from 0.2 mv to 100 v, approximately 2 μsec rise-time, at line frequency (for time-base calibration).

MECHANICAL SPECIFICATIONS

Construction—aluminum-alloy chassis, three-piece cabinet.
Finish—photo-etched anodized front-panel, blue-vinyl finish cabinet.
Dimensions—13½" high by 9¾" wide by 21½" deep.
Weight—less than 27 pounds.
TYPE 560, includes power cord and instruction manual **$325**
TYPE 561, includes power cord, instruction manual, and binding-post adapter **$425**

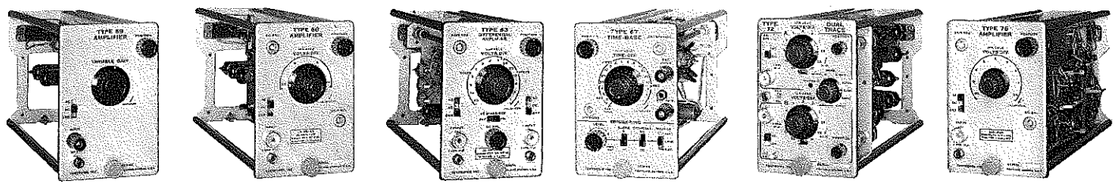
TENTATIVE SPECIFICATIONS

THE SIGNAL-AMPLIFIER AND TIME-BASE PLUG-IN UNITS

Six plug-in units are now available—each using a minimum number of tubes for the maximum degree of reliability. Additional plug-in units compatible with the power-supply capabilities of the Type 560 and Type 561 will be available. The present plug-in units are numbered 59, 60, 63, 67, 72, and 75. Plug-in unit combinations numbered below 70 require less operating power than those with higher numbers. The Type 560 accepts only those numbered below 70, while the Type 561 accepts all of them. Dimensions of the units are 6¼" high by 4¼" wide by 14½" deep.

The units plug into either opening in the front of the instrument. The unit on the right controls the horizontal deflection of the beam. The unit on the left controls the vertical deflection of the beam. It is possible to change from a horizontal time base to a vertical time base merely by exchanging the position of the two units.

With the Type 561, you can use a time-base unit, Type 67, with one of the following signal-amplifier units: a basic amplifier, Type 59; a 1-megacycle amplifier, Type 60; a differential-input amplifier, Type 63; a dual-trace amplifier, Type 72; or a wide-band amplifier, Type 75. You can operate the Type 560 or Type 561 as an X-Y Oscilloscope by using identical amplifier units in both channels. You can even design your own circuitry into an available skeleton unit.



TYPE 59 TYPE 60 TYPE 63 TYPE 67 TYPE 72 TYPE 75

TYPE 59 BASIC AMPLIFIER

Sensitivity—approximately 1 volt per centimeter, attenuation provided by variable potentiometer at the input.
Passband—dc to 400 kilocycles, at maximum sensitivity.
Maximum Input Voltage—600 volts.
Binding-Post Input Terminals.

TYPE 59 ..... **$50**

TYPE 60 1-MEGACYCLE AMPLIFIER

Sensitivity—50 mv/cm to 50 v/cm, calibrated decade-step curacy within 3%, continuously variable between steps, variable between steps, uncalibrated.
Passband—dc to 1 megacycle.
Maximum Input Voltage—600 volts.
Input Impedance—1 megohm paralleled by 47 picofarads, RC probe can be used.

TYPE 60 ..... **$115**

TYPE 63 DIFFERENTIAL-INPUT AMPLIFIER

Sensitivity—1 mv/cm to 20 v/cm, 14 calibrated steps, accuracy within 3%, continuously variable between steps, and to approximately 50 v/cm, uncalibrated.
Passband—dc to 300 kilocycles.
Differential Input—Approximately 100-to-1 rejection ratio, at maximum sensitivity.
Input Impedance—1 megohm paralleled by 47 picofarads, RC probe can be used.
Phase-Shift—Nominally less than 1 degree at 50 kilocycles.
AC-Coupling Switch—Inter-stage ac-coupling reduces drift at high gain.

TYPE 63 ..... **$125**

TYPE 67 TIME-BASE PLUG-IN UNIT

Sweep Range—1 μsec/cm to 5 sec/cm, 21 calibrated steps, accuracy within 3%, sweep time adjustable between steps, and to approximately 12 sec/cm, uncalibrated.

Sweep Magnification—5X.

Triggering Facilities—Amplitude-level selection, automatic, or free-run (recurrent), ac-coupled or dc-coupled, rising or falling slope, internal source, external source, or line frequency.

External Input to Sweep Amplifier—1 v/cm sensitivity.

TYPE 67 ..... **$150**

TYPE 72 DUAL-TRACE AMPLIFIER

Identical Channels—5 Operating Modes: Channel A only (may be inverted), Channel B only, electronic switching at 30 kc (dual-trace blanking provided), electronic switching on alternate sweeps, both channels combined at output (A ± B).

Sensitivity (of each channel)—10 mv/cm to 20 v/cm, 11 calibrated steps, accuracy within 3%, continuously variable between steps, and to approximately 50 v/cm, uncalibrated.

Passband (of each channel)—dc to 650 kilocycles.

Input Impedance—1 megohm paralleled by 47 picofarads, RC probe can be used.

TYPE 72 ..... **$250**

TYPE 75 WIDE-BAND AMPLIFIER

Sensitivity—50 mv/cm to 20 v/cm, 9 calibrated steps, accuracy within 3%, continuously variable between steps and to approximately 50 v/cm, uncalibrated.

Risetime—approximately 85 nanoseconds.

Passband—dc to 4 megacycles.

Input Impedance—1 megohm paralleled by 47 picofarads, RC probe can be used.

TYPE 75 ..... **Price to be announced**

SKELETON UNIT

Contains 24-pin connector, latch, front-panel overlay—for constructing your own special circuits.

SKELETON UNIT **$15**

RECOMMENDED ACCESSORIES

Although RC attenuator probes are not included with the Types 560 and 561, their use is recommended when minimum loading on the circuit under test is required. The following 42-inch cable length probes are ideally suited for use with the plug-in units (Type 60 and above).

Probe	Ratio Atten.	Input Impedance		Voltage Rating	Price
		Resistance	Capacitance		
P6000	10:1	10 meg Ω	14.5 pf	1200 v	$19.50
P6001	1:1	1 meg Ω	95 pf	600 v	$19.50
P6002	100:1	9.1 meg Ω	2.8 pf	2000 v	$21.50