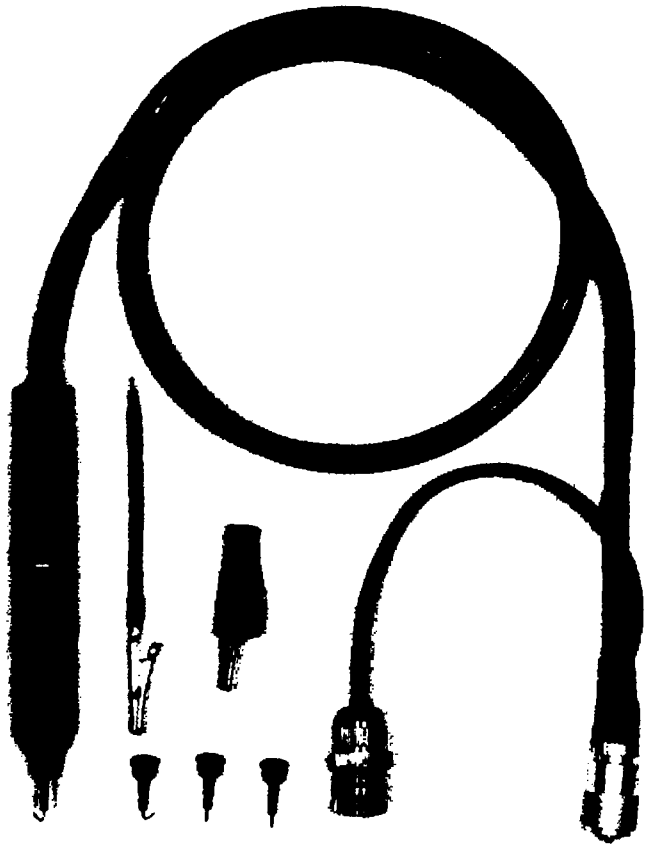
# Accessories

## P500CF CATHODE-FOLLOWER PROBE

The P500CF Probe has been developed for use with the Tektronix Type 524AD Oscilloscope. When used with oscilloscopes other than the Type 524AD, the P500CF requires use of a power supply such as the Tektronix Type 128 Probe Power Supply.



*CHARACTERISTICS*

**PROBE GAIN** is from 0.8 to 0.85.

**ATTENUATION** is 10X with attenuator head.

**INPUT IMPEDANCE** is 40 megohms paralleled by 4 pf when using the probe alone and 10 megohms paralleled by 2 pf when using 10X attenuator head.

**HIGH FREQUENCY RESPONSE** is 0.5-db down at 10 Mc.

**LOW FREQUENCY RESPONSE** is 3-db down at 5 cps.

**AMPLITUDE DISTORTION** is less than 3% for peak amplitudes up to 5 v when using the probe alone, or up to 50 v when using the 10X attenuator head.

**MAXIMUM INPUT VOLTAGE** is approximately 5 v at 10 Mc or 2 v at 30 Mc for the probe alone and approximately 50 v at 10 Mc or 20 v at 30 Mc when using the 10X attenuator head.

**HUM LEVEL** is less than 1.5 mv at maximum sensitivity.

**POWER SUPPLY REQUIREMENTS** are regulated +120 v at 25 ma, regulated or unregulated +6.3 v at 150 ma, dc voltages.

**PROBE CABLE** is 42" long.

P500CF CATHODE-FOLLOWER PROBE (010-109) ..... $64

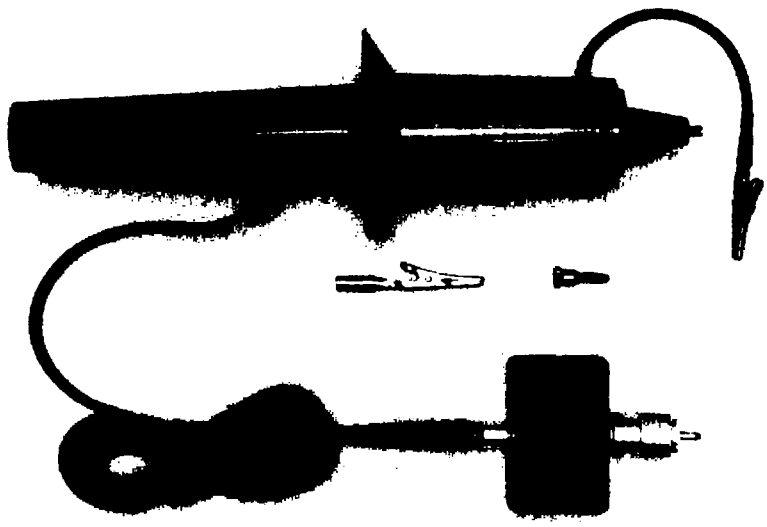
Each probe includes: 1—10X attenuator head, 1—5" ground strap, 2—hooked tips, 2—straight tips, 1—clip assembly, 2—instruction manuals.

## P6013 HIGH-VOLTAGE PROBE

The Type P6013 provides 1000X attenuation as a means for oscilloscope measurements of high-amplitude waveforms or dc potentials up to 12 kv. Pulse frequency can be up to 100 kc at 12 kv.

Peak to peak voltage derating is necessary at CW frequencies higher than 100 kc.

The probe can be compensated for oscilloscope input capacities up to 60 pf.



*CHARACTERISTICS*

**ATTENUATION** is 1000X.

**INPUT IMPEDANCE** is 100 megohms paralleled by 3 pf.

**RISETIME** is 14 nsec when using a Type 545A Oscilloscope and Type K Plug-In Unit.

**MAXIMUM VOLTAGE RATING** is 12 kv dc, peak pulse, or peak ac at frequencies below 100 kc. Voltage derating required for voltages at frequencies over 100 kc.

**CABLE LENGTH** is 10'.

P6013 PROBE (010-106) ..... $50

Each probe includes: 1—banana tip, 1—alligator tip, 1—7" ground strap, 2—instruction manuals.

U. S. Sales Prices f.o.b. Beaverton, Oregon
Please refer to Terms and Shipment, General Information page.

## P6016 AC CURRENT PROBE

*The P6016 Probe offers two current detecting systems for use with Tektronix wide-band oscilloscopes, the P6016 Probe and Type 131 Amplifier combination, or the P6016 Probe and Passive Termination combination.*

*The Probe and Amplifier combination measures currents over a wide range with risetimes to 20 nsec. The Probe and Passive combination is not quite as flexible, but has improved passband characteristic.*

### PROBE AND TYPE 131 AMPLIFIER

*CHARACTERISTICS*

**SENSITIVITY** with a 50 mv/div oscilloscope input is 1 ma/div basic sensitivity with 10 calibrated steps from 1 ma/div to 1 amp/div in a 1-2-5 sequence, accuracy within 3%. Variable control on the oscilloscope provides continuous uncalibrated ranging between steps.

**NOISE** is equivalent to a 100-$\mu$amp, pk-to-pk, input signal.

**RISETIME** is 20 nsec with a Tektronix Type K Plug-In Unit and Type 540A-Series Oscil oscope.

**PASSBAND** is approximately 17 Mc at 3-db down.

**DELAY TIME** is 32 nsec or less measured at the 50% pulse amplitude points.

**LOW-FREQUENCY RESPONSE** is 50 cps at 30 db down.

**AC CURRENT SATURATION RATING** is 15 amps pk-to-pk, decreasing to 8 amps at 400 cps, 400 ma at 50 cps.

**POWER REQUIREMENT** is 105-125 v ac, approximately 0.5 watt at 117 v, or approximately 0.25 watt at 234 v ac.

### PROBE AND PASSIVE TERMINATION

*CHARACTERISTICS*

**SENSITIVITY** is either 2 ma/mv or 10 ma/mv of oscilloscope sensitivity, accuracy within 3%.

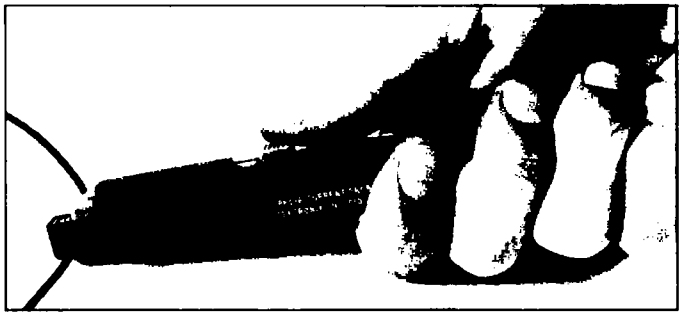
**RISETIME** is 17 nsec, ±4% maximum rolloff, overshoot, and ringing, with a Tektronix Type K Plug-In Unit and Type 540A-Series Oscilloscope.

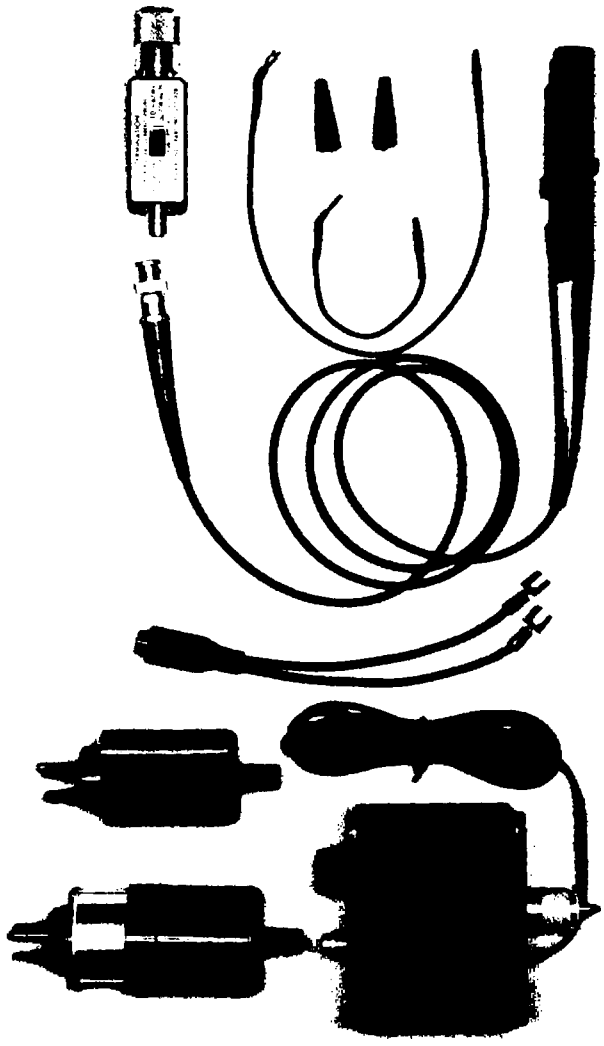
**PASSBAND** is approximately 20 Mc at 3-db down.

**DELAY TIME** is 12 nsec or less measured at the 50% pulse amplitude points.

**LOW-FREQUENCY RESPONSE** at 3-db down is approximately 850 cps at 2 ma/mv (5% tilt of 10 $\mu$sec square-wave pulse) and approximately 230 cps at 10 ma/mv (5% tilt of 35 $\mu$sec square-wave pulse).

**MAXIMUM CURRENT RATING** is 15 amps pk-to-pk.





### COMMON TO BOTH SYSTEMS

**DC SATURATION THRESHOLD** is 0.5 amp.

**MAXIMUM BREAKDOWN VOLTAGE** is 600 v.

**INSERTION IMPEDANCE** after a step function has been applied to the conductor under test is (1) 0.06 Ω after 50 nsec, (2) 0.04 Ω after 100 nsec, (3) 0.015 Ω after 1 $\mu$sec, and (4) 0.006 Ω after 10 $\mu$sec. Dependent upon size of the wire, the capacitance between the conductor and probe case is typically 1 pf.

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| P6016 PROBE (010-037) | $ 75 |
| PASSIVE TERMINATION (011-028) | $ 15 |
| PROBE AND PASSIVE TERMINATION (011-044) | $ 90 |
| TYPE 131 AMPLIFIER 117 v (015-011) | $160 |
| TYPE 131 AMPLIFIER 234 v (015-024) | $160 |
| PROBE AND AMPLIFIER (015-030) | $235 |

Each probe includes, 1—5" ground lead, 1—12" ground lead, 2—minigator clips, 2—instruction manuals.

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