

INSTRUCTION
SHEET
NO. 070-5299-00
PRODUCT GROUP 60

TEK PROBE
AND ACCESSORIES

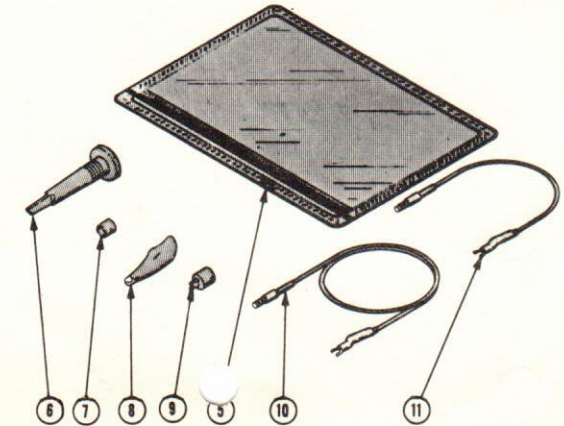
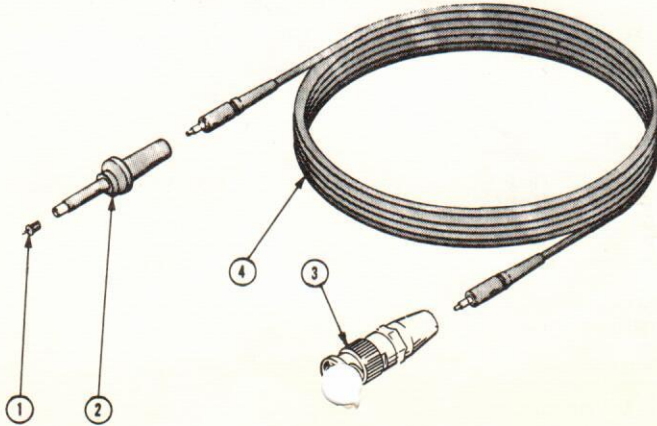
P6101A
1X PASSIVE PROBE

Tektronix[®]
COMMITTED TO EXCELLENCE

OPERATING CONSIDERATIONS

Probe Grounding. A passive probe is capacitive for high-frequency signals. Inductance introduced by a long signal lead or ground lead will form a resonant circuit that will ring if driven by a signal containing significant frequency components at or above circuit resonance. This ringing can appear on the display and distort the true waveform. The ground lead and signal-input connections should be as short as possible to maintain the best waveform fidelity.

Probe Accessories. Proper use of the accessories supplied with the probe will ease making measurements. The Retractable Hook Tip slides over the tip of the probe and provides a hands-free connection to a test point. The IC Test Tip and the Ground-Cover Sleeve both cover the metal sleeve of the probe tip to prevent accidental grounding of the circuit under test. The IC Test Tip also has guides that make it particularly useful when making measurements on the leads of ICs. The Cable Markers are useful to identify specific probes on complex test set-ups. The pouch is intended to protect the probe and its accessories when they are not in use.



MAINTENANCE

Cleaning. Accumulated dirt can be removed with a soft cloth dampened with a nonresidue type cleaner, preferably isopropyl alcohol. Before using any other type of cleaner, consult your Tektronix Service Center or representative. In particular, avoid chemicals which contain benzene, toluene, xylene, acetone, or similar solvents.

Probe Module Replacement. Modular construction has been used in the design of the P6101A to simplify repairs. The probe head, tip assembly, connector, and cable are available as separate units for replacement. The probe head simply pulls away from the cable. To remove or insert the cable into the connector, first squeeze the connector lengthwise so the tapered portion moves toward the BNC portion. Replacement modules are available through your local Tektronix Field Office or representative. The procedure for replacing the tip assembly is included in the package of replacement tips.

Fig. & Index No.	Tektronix Part No.	Serial/Model No. Eff	Dscont	Qty	1	2	3	4	5	Name & Description	Mfr Code	Mfr Part Number
1-1	010-6101-11			1						PROBE,VOLTAGE:P6101A,1 METER,W/ACCESS	80009	010-6101-11
	010-6101-13			1						PROBE,VOLTAGE:P6101A,2 METER,W/ACCESS	80009	010-6101-13
	010-6101-15			1						PROBE,VOLTAGE:P6101A,3 METER,W/ACCESS	80009	010-6101-15
PARTS LISTED USED ON EACH PROBE UNLESS INDICATED												
-1	206-0191-03			1						.TIP,PROBE:SET OF 10,W/EXTRACTOR	80009	206-0191-03
	206-0191-04			1						.TIP,PROBE:SET OF 100,W/EXTRACTOR	80009	206-0191-04
-2	206-0223-02			1						.PROBE HEAD ASSY:	80009	206-0223-02
-3	103-0189-00			1						.ADAPTER,CA END:	24931	28D224-1
-4	175-9419-00			1						.CABLE ASSY,RF:0.004 DIA COAX,1.0 METER	80009	175-9419-00
	175-9409-00			1						.CABLE ASSY,RF:0.004 DIA COAX,2.0 METER	80009	175-9409-00
	175-9410-00			1						.CABLE ASSY,RF:0.004 DIA COAX,3.0 METER	80009	175-9410-00
ACCESSORIES												
	016-0708-00			1						POUCH,ACCESSORY:	T1556	ZIP-6.25X9.25ID
	013-0107-05			1						TIP,PROBE:RETRACTABLE HOOK ASSY	80009	013-0107-05
	166-0404-01			1						COVER,GROUND:	80009	166-0404-01
	344-0046-00			1						CLIP,ELECTRICAL:ALLIGATOR,1.56 L,STL BRT	80009	344-0046-00
	015-0201-07			1						TIP,PROBE:IC TEST,PKG OF 10	80009	015-0201-07
	015-0201-08			1						TIP,PROBE:IC TEST,PKG OF 100	80009	015-0201-08
-10	175-0125-01			1						LEAD,ELECTRICAL:STRD,24 AWG,GRAY VINYL,12.	80009	175-0125-01
-11	175-0124-01			1						LEAD,ELECTRICAL:STRD,23 AWG,BLK VINYL,5.0	80009	175-0124-01
	334-2794-00			2						BAND,MARKER:0.371 DIA,BLACK,PLASTIC,5.0	80009	334-2794-00
	334-2794-01			2						BAND,MARKER:0.371 DIA,WHITE,PLASTIC,5.0	80009	334-2794-01
	334-2794-02			2						BAND,MARKER:0.371 DIA,SILVER GRAY,PLAST	80009	334-2794-02
	070-5299-00			1						MANUAL,TECH:INSTR,P6101A PROBE	80009	070-5299-00

CROSS INDEX—MFR. CODE NUMBER TO MANUFACTURER

Mfr. Code	Manufacturer	Address	City, State, Zip
24931	SPECIALITY CONNECTOR CO., INC.	2620 ENDRESS PLACE	GREENWOOD, IN 46142
80009	TEKTRONIX, INC.	P O BOX 500	BEAVERTON, OR 97077
T1556	CONSOLIDATED VINYL SALES	1237 S. SAN GABRIEL BLVD	SAN GABRIEL CA 91776

SPECIFICATIONS

Description

The P6101A is a miniature, 1X, passive probe for use with all general-purpose oscilloscopes. It is fully compatible with the Tektronix family of miniature probe accessories. The P6101A is available with 1, 2 and 3-meter cables.

Electrical Characteristics

Attenuation: 1X (Same as oscilloscope.)

Input Resistance (System): 1 M Ω (Same as oscilloscope.)

Input Capacitance (Probe Only):

1-Meter Probe	Approximately 32 pF.
2-Meter Probe	Approximately 54 pF.
3-Meter Probe	Approximately 78 pF.

System Bandwidth (Oscilloscope Input Capacitance 20 pF):

1-Meter Probe	At least 34.0 MHz.
2-Meter Probe	At least 15.5 MHz.
3-Meter Probe	At least 8.0 MHz.

Maximum Nondestructive Input Voltage: 500 V (dc + peak ac) to 1.1 MHz. (See Figure 1 for voltage derating curves.)

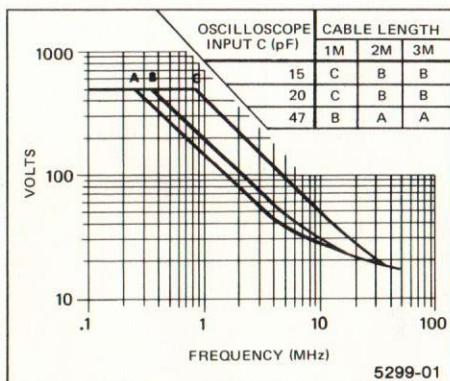


Figure 1. Typical voltage derating versus frequency.

Environmental Characteristics

Temperature Range (Operating): - 15° C to + 75° C (+ 5° F to + 167° F).

Temperature Range (Nonoperating): - 62° C to + 85° C (- 80° F to + 185° F).

Humidity: Five cycles (120 hr) at 95% to 97% relative humidity. Per Tek Standard 062-2847-00, Class 3. Ref to MIL-E-16400F, paragraph 4.5.9 through 4.5.9.5.1, class 4.

Physical Characteristics

Net Weight (Includes Accessories):

1-Meter Probe	90 g (3.2 oz).
2-Meter Probe	115 g (4.1 oz).
3-Meter Probe	140 g (4.9 oz).

Probe Cable Length: 1.0 m (3.3 ft), 2.0 m (6.6 ft), 3.0 m (9.8 ft).

Safety

To avoid explosion, do not operate this product in an explosive atmosphere unless it has been specifically certified for such operation.

This product meets the requirements of UL 1244.

First Printing AUG 1984

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