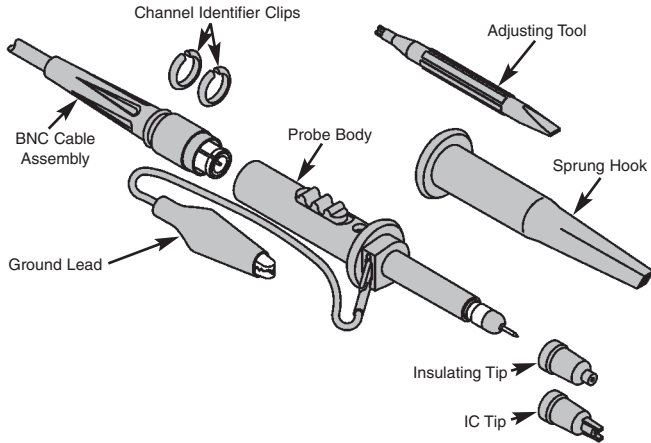


## ACCESSORIES

Spare Probe Tip (optional).....	616002
Insulating Tip.....	626000
Channel Identifier Clip.....	626003
IC Tip.....	626041
Probe Body.....	626P1E
Adjusting Tool.....	629014
Sprung Hook.....	680912
BNC Cable Assembly.....	870034
Ground Lead.....	874010



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Made in Taiwan

# Oscilloscope Probe Kit

## Model P-1E



Instruction Manual

## Elenco® Electronics, Inc.

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## INTRODUCTION

The P-1E is a passive, high-impedance oscilloscope probe designed and calibrated for use with instruments having an input impedance of  $1\text{M}\Omega$  shunted by  $20\text{pF}$ . However, it may be compensated for use with instruments having an input capacitance of 10 to  $35\text{pF}$ . The probe incorporates a two position slide switch in the head which selects attenuation of x1, x10 position.

## SAFETY INSTRUCTIONS

Review the following safety precautions to avoid injury and prevent damage to this product or any products connected to it.

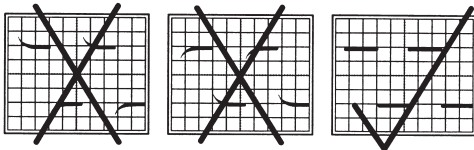
- To avoid potential hazards, use this product only as specified.
- The common terminal is at ground potential. Do not connect the common terminal to elevated voltages.
- Do not operate in an explosive atmosphere.
- Keep product surfaces clean and dry.
- If your probe requires cleaning, disconnect it from the instrument and clean it with mild detergent and water. Make sure the probe is completely dry before reconnecting it to the instrument.

## MAINTENANCE

Before dismantling any part of the probe, make sure it is disconnected from any voltage source. The probe body can be detached from the cable assembly by unplugging the push-fit BNC connector from the probe body. This permits replacement of the cable or body assembly should either part become damaged. The probe tip is also replaceable. To replace a broken tip, hold the black insulating part of the tip with pliers and unscrew it from the probe body. Replace with a new tip, taking care to align with the inner contact.

## COMPENSATION ADJUSTMENT

In order to obtain the correct division ratio with each oscilloscope, the attenuation network needs to be adjusted. To compensate the probe to your oscilloscope, apply a 1kHz square wave to the probe tip, or connect to the cal socket on the oscilloscope to display a few cycles of the waveform and adjust the trimmer located in the probe body for a flat-topped square wave.



## SPECIFICATIONS

### Position X10

Attenuation Ratio	10:1
Bandwidth	DC to 65MHz
Rise Time	5.5nS
Input Resistance	$10\text{M}\Omega$ when used with oscilloscopes with $1\text{M}\Omega$ input.
Input Capacitance	Approx. 18pF
Compensation Range	10 to 35pF
Working Voltage	600VDC including peak AC derating with frequency (see Figure 1).

### Position X1

Attenuation Ratio	1:1
Bandwidth	DC to 15MHz
Rise Time	27nS
Input Resistance	$1\text{M}\Omega$ (oscilloscope input)
Input Capacitance	46pF plus oscilloscope capacitance
Working Voltage	600VDC including peak AC derating with frequency.

Operating Temperature	$-50^{\circ}\text{F}$ ( $-10^{\circ}\text{C}$ ) to $131^{\circ}\text{F}$ ( $55^{\circ}\text{C}$ )
Humidity	85% RH or less (at $95^{\circ}\text{F}/35^{\circ}\text{C}$ )
Safety	Meets IEC1010-1 CAT I
Cable Length	46.8" (1.2m)

Figure 1 - Voltage Derating Curve

