

Oscilloscope Probe Kit Model. P6501 CE 0

Introduction

The P6501 is a passive high impedance oscilloscope probe designed and calibrated for use with instruments having an input impedance of 1 M Ω shunted by 13pF. However, it may be compensated for use with instruments having an input capacitance of 8 to 20pF. The P6501 is also compatible with readout function oscilloscopes that automatically detect probe attenuation and adjust the scale readout accordingly.

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.

Compensation Adjustment

The following adjustment is required whenever the probe is transferred from one oscilloscope or input channel to another. Connect the probe to the 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 BNC plug for a flat topped square wave.



H.F. Compensation Adjustment

The probe high frequency (H.F.) compensation should seldom require adjustment; however, if adjustment is required, use the following procedure.

Connect the probe to a 1MHz square wave (rise time less than 0.7nS), and adjust the oscilloscope controls to display one half cycle of the waveform. adjust the H.F. trimmer located in the BNC plug for a flat topped square wave





Specifications

Attenuation Ratio	10:1
Bandwidth	DC to 500MHz
Rise Time	0.7nS
Input Resistance	10M Ω when used with oscilloscopes which have 1M Ω input.
Input Capacitance	Approx. 11pF
Compensation Range	8 to 20pF
Max. Input Voltage	Measurement Category I: 500 Vrms, (see voltage derating curve on Fig.1) Measurement Category II: 400 Vrms
Pollution Degree	Pollution Degree 2 (as defined in EN 61010-031)
Operating Altitude	UP to 3000 meters
Max. Operating Temp	0° C to +50° C
Humidity	5% to 95% RH (10° C to 30°C) 5% to 75% RH (30° C to 40°C) 5% to 50% RH (above 40°C) RH not controlled below 10° C
Cable Length	1.2 Meter