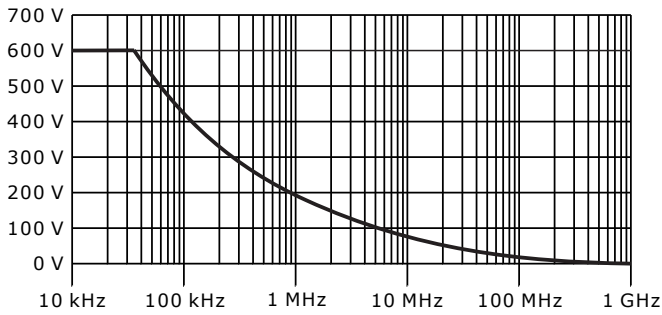


VOLTAGE DERATING CURVE



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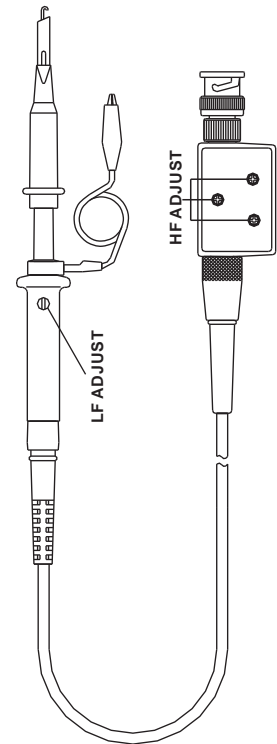
Manufactured in the Far East.
Imported by Pico Technology.

DO133-1

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Oscilloscope probe



User's Manual

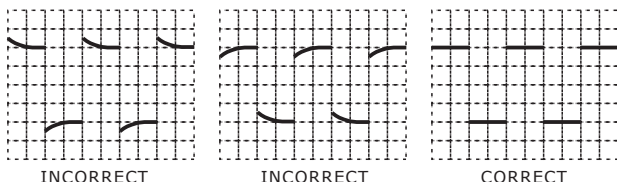
INTRODUCTION

The TA049 is a passive high-impedance oscilloscope probe designed and calibrated for use on instruments having an input impedance of 1 MΩ shunted by 15 pF. However, it may be compensated for use with instruments having an input capacitance of 10 to 35 pF. Behind the cover of the box located near the BNC are three trimmers for high-frequency compensation adjustment. *Consult a professional engineer for assistance with these.*

LOW-FREQUENCY COMPENSATION ADJUSTMENT

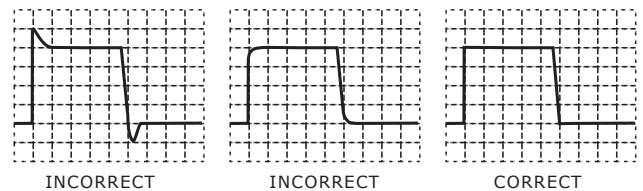
Low-frequency response can be matched to the oscilloscope by adjusting the compensation trimmer on the head of the probe.

- Connect the probe to the oscilloscope and to a 1 kHz square wave source.
- Set the oscilloscope to display two to three cycles and two to six vertical divisions.
- Carefully adjust the trimmer tool to obtain the flattest tops to the square waves displayed on the oscilloscope. See the following illustrations.



HIGH-FREQUENCY COMPENSATION ADJUSTMENT

The high-frequency compensation box is located near the BNC connector. Using a BNC adapter, connect the probe to a square-wave generator operating between 10 kHz and 1 MHz and terminated into 50 Ω. The square-wave generator rise time should be approximately 125 ns. Adjust each control until the leading edge of the waveform is as flat, square and horizontal as possible.



SPECIFICATIONS

Attenuation ratio
Bandwidth
Rise time
Input resistance

Input capacitance
Compensation range
Working voltage
Safety
Cable length
Operating temperature
Storage temperature

10:1
DC to 500 MHz
0.7 ns
10 MΩ when used with oscilloscopes with 1 MΩ input
Approx. 11 pF
10 to 35 pF
Max. 600 V (DC+Peak AC)
Conforms to IEC-1010
1.5 metre
0 °C to 50 °C, 80% RH
0 °C to 50 °C, 80% RH

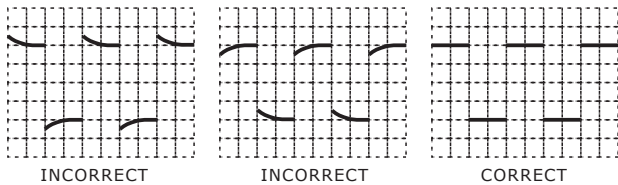
INTRODUCTION

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LOW-FREQUENCY COMPENSATION ADJUSTMENT

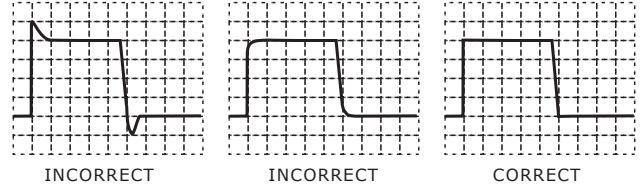
Low-frequency response can be matched to the oscilloscope by adjusting the compensation trimmer on the head of the probe.

- Connect the probe to the oscilloscope and to a 1 kHz square wave source.
- Set the oscilloscope to display two to three cycles and two to six vertical divisions.
- Carefully adjust the trimmer tool to obtain the flattest tops to the square waves displayed on the oscilloscope. See the following illustrations.



HIGH-FREQUENCY COMPENSATION ADJUSTMENT

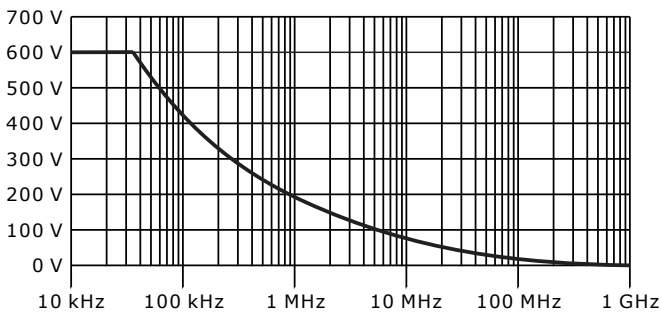
The high-frequency compensation box is located near the BNC connector. Using a BNC adapter, connect the probe to a square-wave generator operating between 10 kHz and 1 MHz and terminated into 50 Ω . The square-wave generator rise time should be approximately 125 ns. Adjust each control until the leading edge of the waveform is as flat, square and horizontal as possible.



SPECIFICATIONS

Attenuation ratio	10:1
Bandwidth	DC to 500 MHz
Rise time	0.7 ns
Input resistance	10 M Ω when used with oscilloscopes with 1 M Ω input
Input capacitance	Approx. 11 pF
Compensation range	10 to 35 pF
Working voltage	Max. 600 V (DC+Peak AC)
Safety	Conforms to IEC-1010
Cable length	1.5 metre
Operating temperature	0 $^{\circ}$ C to 50 $^{\circ}$ C, 80% RH
Storage temperature	0 $^{\circ}$ C to 50 $^{\circ}$ C, 80% RH

VOLTAGE DERATING CURVE



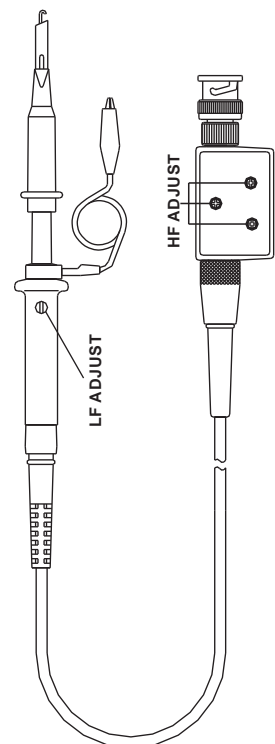
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