User's Manual

Model 701943
500 MHz Passive Probe (10 : 1)

Safety Precautions

Make sure to comply with the safety precautions mentioned hereafter when handling the probe.
YOKOGAWA ELECTRIC Co. assumes no responsibility for any consequences resulting from failure to comply with these safety precautions.
Also, read the User's Manual of the measuring instrument thoroughly so that you are fully aware of its specifications and handling, before starting to use the probe.

■General definitions of safety symbols and markings

⚠ This symbol indicates the risk of injury, death of personnel, or damage to the instrument. Be sure to refer to the corresponding explanation in the User's Manual.

WARNING This symbol calls attention to a procedure, practice, condition or the like, which, if not correctly performed or adhered to, could result in injury or death of personnel.

CAUTION This symbol calls attention to a procedure, practice, condition or the like, which, if not correctly performed or adhered to, could result in damage to or destruction of part of the product.

■Make sure to comply with the following safety precautions in order to prevent accidents such as an electric shock which impose serious health risks to the user and damage to the instrument.

⚠ **WARNING**

●Grounding of the measuring instrument
Make sure to connect the protective grounding of the measuring instrument.

●Earth cable of the probe
Make sure to connect the earth cable to the ground (grounding potential).

●Connecting the object of measurement
Make sure to avoid an electric shock when connecting the probe to the object of measurement. Do not remove the probe from the measuring instrument after the object of measurement is connected.

●Handling of the passive probe
Do not touch the probe's input terminal or the probe itself with wet hands.

⚠ **CAUTION**

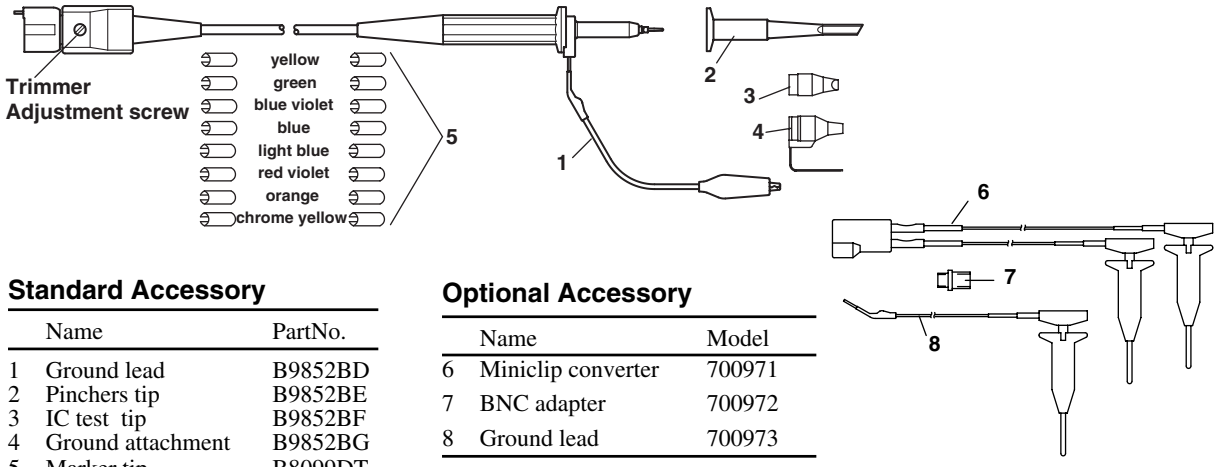
●Maximum input voltage
Do not supply any voltages exceeding the maximum input voltage to the probe.

Abstract

The model 701943 is a 500MHz passive probe with probe ID pin and attenuation ratio of 1/10.
This probe can be used for oscilloscopes with input impedances of 1 MΩ.

Composition

This probe is composed of the probe and its accessories. Optional accessories are available to meet various applications.



Standard Accessory

	Name	PartNo.
1	Ground lead	B9852BD
2	Pinchers tip	B9852BE
3	IC test tip	B9852BF
4	Ground attachment	B9852BG
5	Marker tip	B8099DT

Optional Accessory

	Name	Model
6	Miniclip converter	700971
7	BNC adapter	700972
8	Ground lead	700973

Specifications

Item	Specifications	Conditions
Probe length	1.5m	
Connector type	BNC	
Input resistance	10MΩ ±2%	In conjunction with an oscilloscope with an input impedance of 1MΩ ±1%.
Input capacitance	Approx. 14 pF	In conjunction with an oscilloscope with an input impedance of 1MΩ ±1%.
Attenuation ratio	1/10 ±2%	In conjunction with an oscilloscope with an input impedance of 1MΩ ±1%.
Bandwidth	DC to 500MHz (–3 dB or less)	Subject to change depending on type of oscilloscope used.
Rise time	700 ps max. (*typical)	Subject to change depending on type of oscilloscope used.
Max input voltage	600V(DC+AC peak) or 424 Vrms	Frequency of the AC needs to be less than 100kHz.

* : Typical (or average) value; not guaranteed.

Complied Standard

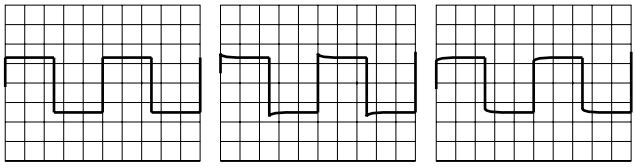
IEC1010.1
IEC1010.2-031
Over Voltage Category II

Usage

Use adequate attachment suitable for the point to measure.
Before using the probe, adjust its capacitance by tuning the trimmer.

Adjustment

(1) Connect the probe connector to the input of the oscilloscope, and connect the tip of the probe to the CAL signal output terminal.
(2) Change the Time/Div and the V/Div to get the display shown below. And tune the trimmer to get the correct waveform.



Correct Waveform | Over Compensation | Inadequate Compensation

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