

# User's Manual

## Model 701948 Plug-on Clips

Thank you for purchasing the Model 701948, Plug-on Clips. This user's manual explains usage, specifications, and the handling precautions of the 700929. To ensure correct use, please read this manual thoroughly before beginning operation. After reading this manual, keep it in a safe place.



\*IM 701948-01E/2\*

**YOKOGAWA** ◆

IM 701948-01E  
2nd Edition

### Notes

- The contents of this manual are subject to change without prior notice as a result of continuing improvements to the product's performance and functionality. The figures given in this manual may differ from those that actually appear on your product.
- Every effort has been made in the preparation of this manual to ensure the accuracy of its contents. However, should you have any questions or find any errors, please contact your nearest YOKOGAWA dealer.
- Copying or reproducing all or any part of the contents of this manual without the permission of YOKOGAWA is strictly prohibited.

### Conventions Used in This Manual



Improper handling or use can lead to injury to the user or damage to the instrument. This symbol appears on the instrument to indicate that the user must refer to the user's manual for special instructions. The same symbol appears in the corresponding place in the user's manual to identify those instructions. In the manual, the symbol is used in conjunction with the word "WARNING" or "CAUTION."

#### WARNING

Calls attention to actions or conditions that could cause serious or fatal injury to the user, and precautions that can be taken to prevent such occurrences.

#### CAUTION

Calls attentions to actions or conditions that could cause light injury to the user or damage to the instrument or user's data, and precautions that can be taken to prevent such occurrences.

#### Note

Calls attention to information that is important for proper operation of the instrument.

### Safety Precautions

This product is designed to be used by a person with specialized knowledge. To use this product correctly and safely, make sure to observe the following safety precautions when handling the product. YOKOGAWA assumes no liability for the customer's failure to comply with these safety precautions. This manual is part of the product and contains important information. Keep this manual in a safe place so that you can refer to it immediately when using the product until you dispose of the product. Also, before starting to use the plug-on clips, read the user's manual of the probe and the measuring instrument to thoroughly familiarize yourself with their specifications and handling.

#### The following symbols are used on this instrument.



Handle with care. Refer to the user's manual or service manual. This symbol appears on dangerous locations on the instrument which require special instructions for proper handling or use. The same symbol appears in the corresponding place in the manual to identify those instructions.

#### Notes about Usage



#### WARNING

##### Grounding of the measuring instrument

The protective grounding terminal of the measuring instrument must be connected to ground.

##### Observe maximum input voltage

Do not apply any voltages exceeding the maximum input voltage to the plug-on clip's input.

##### Be careful of electric shock

Do not touch the plug-on clip's input terminal. Do not use the plug-on clip with wet hands or when the plug-on clip itself is wet. Doing so may cause electric shock.

##### Do not operate in wet or damp conditions

To prevent electric shock, do not operate the plug-on clip in wet or damp conditions.

##### Avoid exposed circuitry

To prevent electric shock, remove metal and jewelry such as watches and rings. Do not touch exposed connections or components when power is present on the device.

##### Do not operate in explosive atmosphere

To prevent injury or fire hazard, do not operate the plug-on clip in an atmosphere of flammable or explosive gases or vapors.

##### Do not operate with suspected failures

Stop using the plug-on clip if you suspect that the plug-on clip is damaged. Consult your nearest YOKOGAWA dealer.

##### Do not disassemble or modify

Do not disassemble or modify the product. YOKOGAWA assumes no liability if you disassemble or modify the product.

### Regulations and Sales in Various Countries and Regions

#### Waste Electrical and Electronic Equipment (WEEE)



(EU WEEE Directive valid only in the EEA\* and UK WEEE Regulation in the UK)  
This product complies with the WEEE marking requirement. This marking indicates that you must not discard this electrical/electronic product in domestic household waste. When disposing of products in the EEA or UK, contact your local Yokogawa office in the EEA or UK respectively.

\* EEA: European Economic Area

#### Disposal

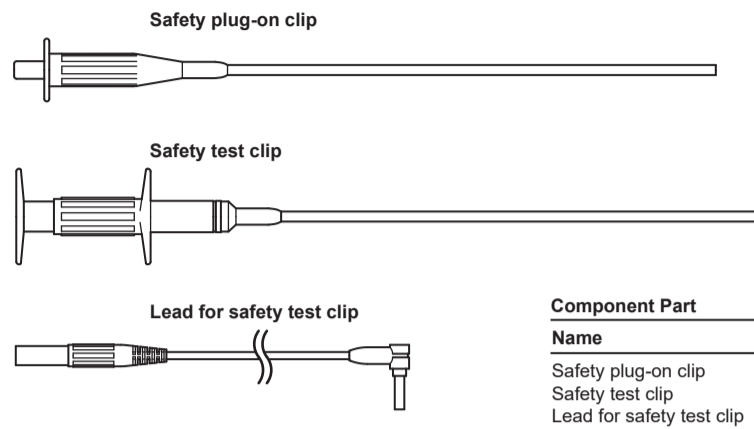
When disposing of YOKOGAWA products, follow the laws and ordinances of the country or region where the product will be disposed of.

### 1 Overview

The 701948, plug-on clips are accessories for safety probes (such as the 700929 and 701947) used with isolated input measuring instruments. Use them in combination with safety probes that support isolated input. Using the 701948 makes it possible to take measurements in tight locations that a probe cannot reach. Make sure you also fully understand the correct use of the probe and the measuring instrument when using the plug-on clips.

### 2 Configuration

The 701948 is composed of three parts.

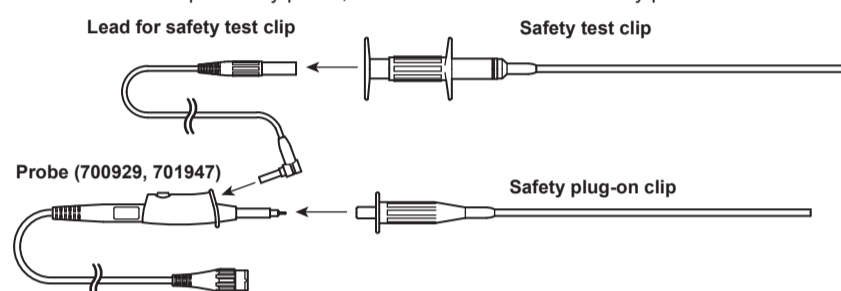


#### Component Part

Name
Safety plug-on clip
Safety test clip
Lead for safety test clip

### 3 How to Use

Replace the safety plug-on clip of the 701948 for the plug-on clip attached with the isolated input safety probe (700929 or 701947), and connect the safety plug-on clip to the tip of the safety probe. Replace the safety test clip and the lead for safety test clip of the 701948 for the clip lead attached with the isolated input safety probe, and connect them to the safety probe.



#### WARNING

- Use the plug-on clips only with YOKOGAWA's safety probes.
- Do not apply a voltage exceeding the maximum input voltage or the probe's derating voltage by frequency to the plug-on clip input. EN 61010-031 is a compliant safety standard that is applied to the probe alone. For the actual safety standards and operating conditions, comply with the conditions of the measuring instrument. Failure to follow this precaution may cause accidents, such as electric shock or damage to the measuring instruments.
- The actual maximum input voltage is limited to the lowest of the maximum input voltage of the plug-on clip, the maximum input voltage of the probe or the maximum input voltage of the measuring instrument. For the maximum input voltage of the probe and the measuring instrument, see the specifications of the probe and instrument. Convert the attenuation ratio of the probe and make sure not to apply an excessive input voltage to the measuring instrument.
- When the input coupling of the measuring instrument is AC, a DC voltage is applied to the measuring instrument's input at the same electric potential as the plug-on clip's input. Make sure not to exceed the maximum input voltage of the measuring instrument.
- Be careful of electric shock when connecting the plug-on clips or the probe to the device under measurement. After use, turn off the power to the device under measurement, disconnect the plug-on clips and the probe from the device, and then disconnect the probe from the measuring instrument.

#### CAUTION

Use a soft cloth to clean the plug-on clips. Do not immerse the plug-on clips in liquid. Do not use abrasive cleaners or volatile solvents such as benzene on the probe.

### 4 Specifications

Item	Specifications
Rated voltage	1000 V CAT II double insulation (voltage to ground)
Crimping width	Approximately up to 5 mm
Shaft length	200 mm
Operating environment	-10 to 60 °C, 20 to 80% (no condensation)
Storage environment	-20 to 60 °C, 20 to 80% (no condensation)
Operating altitude	2000 m or less
Safety standards	EN 61010-031
(Complying standards)	Measurement category II <sup>1</sup> Pollution degree 2 <sup>2</sup>

<sup>1</sup> This equipment is for measurement category II (CAT II). Do not use it with measurement category III (CAT III), nor measurement category IV (CAT IV).

Measurement Category	Definition
Measurement category "O" (Other)	It applies to measurement of a circuit that is not connected directly to the main power source.
Measurement category II (CAT II)	It applies to measurement of electrical equipment that is powered through a fixed installation such as a wall outlet wired to a distribution board and measurement on such wiring.
Measurement category III (CAT III)	It applies to measurement at the distribution level, that is, building wiring, fixed installations.
Measurement category IV (CAT IV)	It applies to measurement at the primary supply level, that is, overhead lines, cable systems.

<sup>2</sup> Pollution degree applies to the degree of adhesion of a solid, liquid, or gas which deteriorates withstand voltage or surface resistivity. Pollution degree 2 applies to normal indoor atmospheres (usually with only non-conductive pollution).