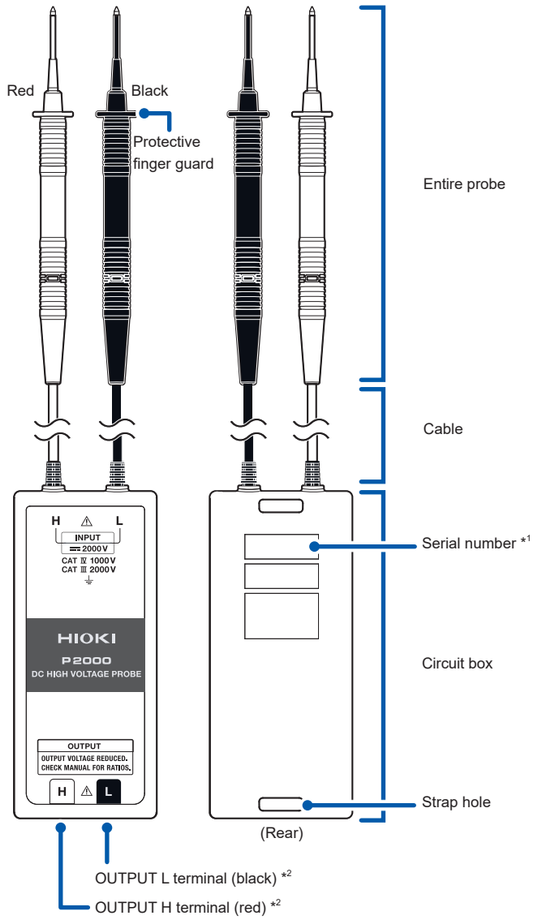
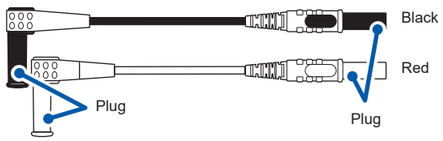
Part Names



L4943 Connection Cable Set (included)



*1: The serial number consists of 9-digit numbers. The first four digits indicate the year (its first two digits omitted) and the month of manufacture. Do not remove this label as the number is important.

*2: Connect the L4943 Connection Cable Set, L4930 Connection Cable Set, or L4931 Extension Cable Set.

Specifications

Accuracy labeling

Reading (display value)
Indicates the value displayed by the instrument. Limit values for reading errors are expressed as a percentage of the reading ("% rdg.").

Operating environment	Indoor use, pollution degree 2, altitude up to 2000 m (6562 ft.)
Operating temperature and humidity range	Temperature: −25°C to 65°C (−13.0°F to 149.0°F) Humidity: −25°C to 40°C (−13.0°F to 104.0°F): 80% RH or less (non-condensing) 40°C to 65°C (104.0°F to 149.0°F): Linearly reduces from 80% RH or less at 40°C (104.0°F) to 25% RH or less at 65°C (149.0°F) (non-condensing).
Storage temperature and humidity range	−30°C to 70°C (−22.0°F to 158.0°F), 90% RH or less (non-condensing)
Standards	Safety: EN 61010
Dimensions	Exposed metal area: Approx. 3.7 mm (0.15″) (ϕ2.0 mm) Protective finger guard tip: Approx. 42.7 mm (1.68″) Entire probe: Approx. 154 mm (6.06″) Cable: Approx. 1500 mm (59.06″) Circuit box: Approx. 58W × 133H × 22D mm (2.28″W × 5.24″H × 0.87″D)
Weight	Approx. 190 g (6.7 oz.)
Product warranty duration	3 years (excluding entire probe and cable)
Accessories	• L4943 Connection Cable Set • Strap Buckle ×2 • Strap • C0205 Carrying Case • Instruction manual (this manual) • Operating Precautions (0990A909)
Options	The options listed below are available for the device. To order an option, please contact your authorized Hioki distributor or reseller. Options are subject to change. Please check Hioki's website for the latest information. • L4930 Connection Cable Set (1.2 m) • L4931 Extension Cable Set (1.5 m) • L4943 Connection Cable Set (65 mm) • Z5004 Magnetic Strap • Z5020 Magnetic Strap (Extra strength) • C0205 Carrying Case
Maximum input voltage (Maximum rated voltage between INPUT H and INPUT L)	2000 V DC
Maximum rated line-to-ground voltage	1000 V (Measurement category IV), Anticipated transient overvoltage: 12,000 V 2000 V (Measurement category III), Anticipated transient overvoltage: 15,000 V
Input resistance	20 MΩ ±5.0% (between INPUT H and INPUT L, with OUTPUT terminal open)
Overload protection	2200 V DC/2200 V AC (applied for 1 minute) (Between INPUT H - INPUT L) 600 V DC/600 V AC (applied for 1 minute) (Between OUTPUT H - OUTPUT L)
OUTPUT terminal	4 mm banana terminal
Accuracy guarantee conditions	Accuracy guarantee duration: 1 year Accuracy guarantee duration after adjustment made by Hioki: 1 year Accuracy guarantee temperature and humidity range: 23°C ±5°C (73.0°F ±9.0°F), 80% RH or less (non-condensing) Others: 1.5 m or less of the cable length on the OUTPUT side
Temperature coefficient	Outside the temperature range of 23°C ±5°C, (Accuracy × 0.1)/°C is added to the accuracy
Accuracy guarantee range	±80 V DC to ±2000 V DC

Accuracy table for compatible instruments

1. Compatible instruments for which combined accuracy has been defined

-1. Models with DC High V Probe mode

Model	Range	Output ratio	Combined accuracy
DT4261	600.0 V	–	±0.5% rdg ±0.2 V
	2000 V	–	±0.5% rdg ±5 V
CM4141-50, CM4371-50, CM4373-50, CM4375-50	600.0 V	–	±1.0% rdg ±0.3 V
	2000 V	–	±1.0% rdg ±3 V

-2. Models without DC High V Probe mode

Model	Function	Range	Output ratio	Combined accuracy
DT4281, DT4282	DCV	60.000 V	1/10	±0.8% rdg ±0.002 V
		600.00 V	1/10	±0.8% rdg ±0.02 V
DT4251, DT4252, DT4253	DCV	60.00 V	1/10	±1.2% rdg ±0.05 V
		600.0 V	1/10	±1.2% rdg ±0.5 V
DT4254, DT4255, DT4256	DCV	60.00 V	1/10	±1.2% rdg ±0.03 V
		600.0 V	1/10	±1.2% rdg ±0.3 V
CM4371, CM4372, CM4373, CM4374, CM4375, CM4376, CM4141, CM4142	DCV	60.00 V	1/11	±3.0% rdg ±0.03 V
		600.0 V	1/11	±3.0% rdg ±0.3 V

2. Compatible instruments for which output accuracy has been defined

Compatible instruments	Function	Range	Output ratio	Output accuracy (relative to output ratio)
Input resistance 10 MΩ ±5%	DCV	–	1/10	±5.0% output *

*: Does not include accuracy of compatible instrument

Making Measurements

⚠ WARNING

■ Do not use the device to measure AC voltages

The probe cannot accurately measure AC voltages. Improper measurement could lead to electric shock. You can use the device for DC voltage measurement only.

■ Do not measure DC voltages in excess of 2000 V DC.

Doing so could cause damage to the device and measuring instrument, resulting in bodily injury.

NOTICE

■ When using the L4943 Connection Cable Set (included), do not subject the cable or plug to a mechanical load.

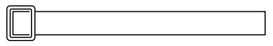
Doing so could cause the cable to become disconnected or result in damage to the cables and plugs.

When using the L4943 Connection Cable Set (included)

Of the compatible instruments, the strap buckle can only be used with the DT4261 and CM series as other models lack strap holes. Exercise care not to subject the cables or plugs to a mechanical load.

1 Disconnect the clip from the strap buckle as shown in the figure.

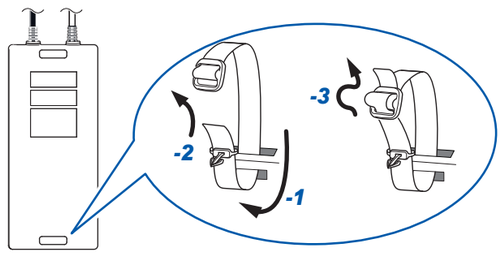
2 Attach the strap to the device.



-1 Pass the strap through the strap attachment hole on the back of the device.

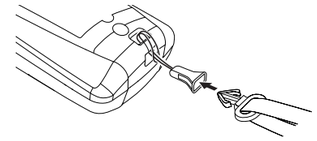
-2 Pass the strap through the clip.

-3 Secure the strap as shown in the figure.



3 Attach the strap buckle to a compatible instrument and connect it to the clip that you attached to the device with the strap.

Example: CM4375-50



When using the L4930 Connection Cable Set or the L4931 Extension Cable Set (optional)

Hang the device in some way, such as using a magnetic strap, not to subject the cables and the plugs to stress.

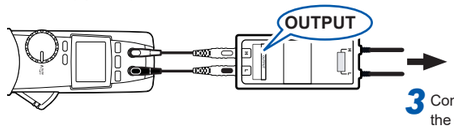
Making measurement

1 Set the compatible instrument to its DC voltage measurement function and select the appropriate range as indicated in the accuracy specifications.

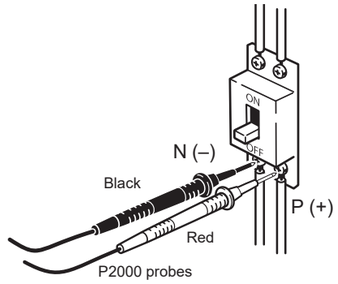
If using an instrument with DC High V Probe mode, enable DC High V Probe mode.

2 Connect the device to the compatible instrument with the connection cable.

Connect the instrument's COM and V terminals to the device's OUTPUT L (black) and OUTPUT H (red) terminals, respectively, with the L4943 (included) or L4930 (optional).



3 Connect the device's probe to the object under measurement.



4 Check the measured value.

The actual measured value is obtained by converting the displayed measured value based on the output ratio.
Example: For the CM4375, multiply by 11.
Instruments with DC High V Probe mode display the actual measured value, eliminating the need for conversion.