

HIOKI

INSULATION TESTER
IR4056, IR4057, IR4058

5-range INSULATION & CONTINUITY

CAT III 600V
IEC/EN 61557



5 Ranges
50/125/250
/500/1000V

200mA
continuity

AC/DC
600V

AC/DC automatic
detection range



QUICK & EASY



Model **IR4057-20**

NEW Built in Bluetooth® wireless technology

Model **IR4058-20**



With L9787

Model **IR4056-20**

With L9788-11 (Not CE marked)

Model **IR4056-21**

Comparator Function Improves Work Efficiency

- Identify the Insulation and Low Resistance Conditions with the PASS/ FAIL Icon
- FAIL Alert** with **Red LCD** and Audio Buzzer

Stable Digital Readings are Easy to Read



 **CALRIGHT
INSTRUMENTS**

The Right Source For Your Test & Measurement Needs

8715 Mesa Point Terrace San Diego, CA 92154

Toll Free: 1.866.363.6634 Tel: 1.619.429.4545 Fax: 1.619.374.7012

Email: sales@calright.com <http://www.calright.com>

Make measurements safely and efficiently with a digital insulation resistance meter

Comparator function provides PASS/ FAIL decisions at a glance

- Compare measured values to pre-set reference values to generate a pass or fail judgment with the Comparator function. (also pair with insulation resistance measurement and low-resistance measurement)
- Stable display delivers quick and easy-to-read results, increasing work efficiency.

Instantaneous judgment

The insulation testers deliver results as soon as the test lead makes contact, letting you finish your work rapidly similar to a continuity check.



In some cases, the capacitance component may prevent a judgment from being made until charging completes.

Identify PASS/FAIL using light and sound

The insulation testers give you pass/ fail results using a beeping sound, LCD light, and indication right on the test lead with remote control switch^{*1}, letting you check for insulation integrity without needing to look at the instrument.

PASS

When the measured value is greater than or equal to the reference value^{*2}

Short beep



No change



Green

FAIL

When the measured value is less than the reference value^{*2}

Continuous tone



Red



Red

^{*1} Standard with the IR4056-21

^{*2} Insulation resistance measurement

NEW IR4058 only

Smooth measurement and data recording with Bluetooth wireless technology

- Measured values held on the display are sent immediately to a smartphone or tablet via Bluetooth[®] wireless technology.
- Easily manage measured data and create simple PDF reports in the field.

Convenient when you need to make a series of measurements

Measurement

Record

Create simple reports on the spot

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GENNECT Cross (freeware) is required to use instruments with a smartphone or tablet.



GENNECT Cross specifications

Interface	Bluetooth [®] 4.0LE
Communication distance	5 m (line of sight)
Supported Android [™] devices	Android [™] 4.3 or later (Bluetooth [®] low energy enabled devices)
Supported iOS devices	iOS 10 or later (Bluetooth [®] low energy enabled devices)

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Designed for safety and peace of mind

Featuring improved convenience and ease of use

DROP PROOF



Built tough to withstand a 1-meter drop onto a concrete floor.

MEASURE key

Press to measure insulation resistance. Release to hold the measured value.

AC/ DC voltage measurement (With AC/ DC automatic detection function)

Use as a tester replacement thanks to DC voltage measurement functionality, which is useful in applications involving solar power and electric vehicles (EVs).



200 mA grounding line continuity check function

The Insulation testers can perform EV and HEV continuity checks as well as resistance measurement of safety conductors in building electrical equipment as defined by IEC 60364.



Integrated hard case with sliding cover



With cover closed

Easy-to-see LCD

An FSTN LCD ensures the instrument's display is easy to read from any angle.

Backlight (White LED)

A backlight lets you work in dark or poorly lit locations.



Effective maximum display value

A ">" mark is displayed when the measured value is greater than the effective maximum display value for the function in use.

Featuring Bluetooth® wireless technology (IR4058)

Bluetooth® wireless technology functionality can be switched on or off. Send data to a mobile device to be saved.

Safety-oriented double-action

500 V/1000 V range only



1 Set the function key to either 500 V or 1000 V.



2 Press the flashing "RELEASE" key.



IR4056-20 IR4056-21

Economic model
IR4056-20: With L9787
IR4056-21: With L9788-11
(Not CE marked)



TEST LEAD L9787

TEST LEAD WITH REMOTE SWITCH L9788-11

5 ranges 50/125/250/500/1000 V	Rated output voltage (DC)	5 ranges 50/125/250/500/1000 V
✓	Voltage measurement	✓
✓	Low resistance measurement	✓
Approx. 0.8 s	Comparator judgment result response time	Approx. 0.3 s
✓	200 mA continuity	✓
-	Bar graph	✓
-	Displaying 1-min. Values	✓
-	Bluetooth®	✓ (IR4058)

IR4057-20 IR4058-20

Bar graph for visual judgments
High-speed model



IR4057-20 IR4058-20 Functionality



Bar graph

Useful in determining compliance of circuits with a large capacitance component, for example solar panels, due to the ability to illustrate charging status behavior.

Displaying 1-min. Values

The instruments automatically hold the measured value being displayed 1 min. after the start of measurement (the 1 min. value). This functionality is convenient when you need to measure targets that include a capacitance component.



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Specifications

Accuracy guaranteed for 1 year, Post-adjustment accuracy guaranteed for 1 year, Product warranty period for 3 years

Insulation resistance measurement

Rated output voltage (DC)	50 V	125 V	250 V	500 V	1000 V
Effective maximum indicated value	100 MΩ	250 MΩ	500 MΩ	2000 MΩ	4000 MΩ
1st effective measuring range [MΩ]	0.200 to 10.00	0.200 to 25.0	0.200 to 50.0	0.200 to 500	0.200 to 1000
Accuracy	±2 % rdg. ±2 dgt.				
2nd effective measuring range [MΩ]	10.1 to 100.0	25.1 to 250	50.1 to 500	501 to 2000	1010 to 4000
Accuracy	±5 % rdg.				
Other measuring range [MΩ]	0 to 0.199				
Accuracy	±2 % rdg. ±6 dgt.				
Lower limit resistance value to maintain nominal output voltage	0.05 MΩ	0.125 MΩ	0.25 MΩ	0.5 MΩ	1 MΩ

Test leads with sleeves

When measuring in a CAT III environment, be sure to attach the sleeve to the test leads. When the CAT (measurement category) rating of the main unit is lower than that of test leads, the CAT of the main unit takes precedence.



Sleeves can be removed.

Basic specifications

Indicator	Semi-transmissive FSTN LCD, Positive backlight
Functions	Live circuit indicator, Automatic electric discharge, Automatic DC/AC detection, Comparator, Built-in battery power indicator etc.
IR4057/ IR4058 functions	Bar graph, Displaying 1-min. values
Power supply	LR6 alkaline battery × 4
Continuous operating time	Approx. 20 hours (Comparator off, backlight off, 500 V range, no load, Bluetooth® off)
Auto power save	The power will go off automatically 10 minutes after the last operation
Operating temperature and humidity	-25 to 40°C (-13 to 104°F) 90% rh or lower (non-condensating) 40 to 65°C (104 to 149°F), at 65°C and below relative with linear decrease up to 25% rh
Storage temperature and humidity	-25 to 65°C (-13 to 149°F) 90% rh or lower (non-condensating)
Maximum rated voltage to earth	600 V AC/DC, Measurement category III, Anticipated transient overvoltage: 6000 V
Dustproof and waterproof	IP40 (EN60529)
Standards	EN61326 (EMC), EN61557-1/ -2/ -4*1/ -10
Drop proof	On concrete: 1 m
Dimensions	Approx. 159W × 177H × 53D mm (6.26"W × 6.97"H × 2.09"D) (excluding protrusions)
Mass	IR4056-20/ IR4056-21: Approx. 600 g (21.2 oz) IR4057-20/ IR4058-20: Approx. 640 g (22.6 oz) (including battery, excluding test lead)

*1 Subclause 4.3 of Part 4 (interchanging of test leads) is not applicable when L9788-10 is used.

Model : INSULATION TESTER IR4056

Model No. (Order Code) (Note)

IR4056-20 (Economic model)

IR4056-21 (Economic model, Not CE marked)



Model : INSULATION TESTER IR4057

Model No. (Order Code) (Note)

IR4057-20 (High-speed model)



Model : INSULATION TESTER IR4058

Model No. (Order Code) (Note)

IR4058-20 (High-speed model, built in Bluetooth® wireless technology)

Accessories (IR4056-20, IR4057-20, IR4058-20)

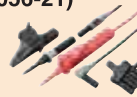
TEST LEAD L9787



Neck strap
Instruction manual
LR6 alkaline battery × 4

Accessories (IR4056-21)

TEST LEAD SET WITH REMOTE SWITCH L9788-11



Neck strap
Instruction manual
LR6 alkaline battery × 4

Voltage measurement

DC V	Display range (Auto range)	4.2 V	42 V	420 V	600 V
	Accuracy	±1.3 % rdg. ±4 dgt. *2			
AC V	Display range (Auto range)	420 V (Minimum indicated value: 30.0 V)		600 V	
	Accuracy	±2.3 % rdg. ±8 dgt. *2			
	Measurement principles	Average responding type			
	Frequency range	50/ 60 Hz			
	AC/ DC automatic detection range	AC detected at 30 V or greater (50/ 60 Hz) (Pulsating currents with an overlapping AC component of 30 V or greater are detected as AC)			
	Effect of temperature	Measurement accuracy per 1°C × 0.1 (Applicable to the operating temperature range other than 18 to 28°C)			

*2 Ranges in excess of 600 V are outside the accuracy guarantee.

Low resistance measurement

Display range (Auto range)	10 Ω	100 Ω	1000 Ω
Maximum indicated value	10.00 Ω	100.0 Ω	1000 Ω
Resolution	0.01 Ω	0.1 Ω	1 Ω
Accuracy (after zero adjustment)	0 to 0.19 Ω: ±3dgt. 0.20 to 10.00 Ω: ±3%rdg. ±2dgt.		±3%rdg. ±2dgt.
Measuring current	200 mA or more (at 6 Ω or less) (Display value before zero adjustment)		
Overload protection	600 VAC (10s, using fuse)		

Options

Shared options

MAGNETIC ADAPTER 9804-02



Attaches to the tip of cord, black ×1, φ11 mm (0.43 in)

L9787 options



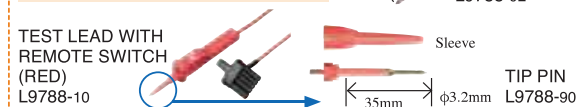
BREAKER PIN L9787-91

L9788-11 options



TEST LEAD SET WITH REMOTE SWITCH L9788-11

BREAKER PIN L9788-92



TEST LEAD WITH REMOTE SWITCH (RED) L9788-10

Sleeve
TIP PIN L9788-90

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