

Single range: IR4010 SERIES

3-range: 3490



# Flip the Cover

Quick and easy storage without disconnecting the leads



## **Built for the Field**

## LIGHT

See better in the dark

#### Luminous Scale



### **Bright LED**

- · Work safely knowing that when the RED is lit, live wires, high voltage or electrical discharge is present
- · The super bright light at the tip of the optional L9788-10 Test Leads adds to efficiency





# Check the Battery Status

Be well-informed about the condition of your batteries. Green signals that the battery level is sufficiently high, and red warns of low battery power. Replace the batteries before the LED turns completely off.



BATT : Hi BATT : Lo



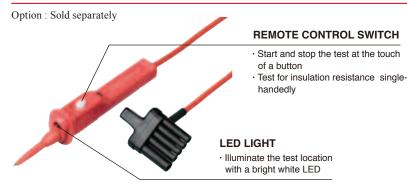
BATT : Dead

## Check for Live Circuits

The LIVE CIRCUIT LED will light up in red whenever the voltage exceeds 20 V AC between the LINE and EARTH terminals, and when at least 20 V DC is still remaining during the auto discharge.



## TEST LEAD WITH REMOTE SWITCH (RED) **L9788-10**



#### **MEASURE SWITCH**

 Ergonomic design lets you start and stop tests with a single press



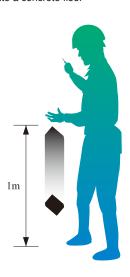
Simply flip the switch to measure continuously



## DROP PROOF



 Testers are built tough to withstand a 1 meter drop onto a concrete floor





Rated output voltage Effective maximum indicated value

## 3-range insulation & continuity Analog $M\Omega$ Hitester 3490

Rated output voltage 250V / 500V / 1000V



### Easy-to-Read Scale

The 250V and 500V ranges share a common 100M  $\!\Omega\!$  , making the display completely clean and uncluttered

SCALE 250V/ 50MΩ 500V/100MΩ



 $4000M\Omega$  Scale at the 1000V Range

 $3\Omega$  range, 200mA EN 61557

#### Checks ground wire continuity with current of 200mA

Also capable of testing the continuity of electrical grounds in accordance with EN 61557

## Model Line-up

#### At A Glance

MODEL No.(Order Code)	Insulation Resistance			Resistance	AC voltage
	250 V	500 V	1000 V	Measurement	Measurement
IR4016-20	_	$100~\mathrm{M}\Omega$	_	-	600 V AC
IR4017-20	_	$1000~\mathrm{M}\Omega$	_	<del>_</del>	600 V AC
IR4018-20	_	<u> </u>	$2000~\mathrm{M}\Omega$	<del>_</del>	600 V AC
3490	$100~\mathrm{M}\Omega$	$100~\mathrm{M}\Omega$	$4000~\mathrm{M}\Omega$	$3 \Omega, 30 \Omega$	600 V AC

#### **Accessories**

#### TEST LEAD L9787 (1.2m)

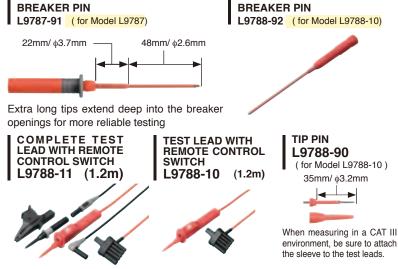
Conforms to safety standard IEC61010-031 (revised) for hand-held probes



included as a standard accessory (This sleeve cannot be attached to previous products)

When measuring in a CAT III environment, be sure toattach the sleeve to the test leads.

#### **Options**



MAGNETIC ADAPTER 9804-02 Magnetic tip for use with the standard Models L9788-11, L9788-10, L9787 (generally compatible with M6 pan screws)



**General Specifications** 

Power supply	Rated power voltage: 1.5 VDC × 4, LR6 alkaline battery × 4	
Continuous operating time	Approx. 20 hours (at 500V range, no load*) * IR4018-20:15 hours	
Auto Power Save	Approx. 15 minutes	
Operating Temperature & Humidity	0 to 40°C (32 to 104°F), 90% rh or lower (non-condensation) 40 to 50°C (104 to 122°F), at 50°C and below relative with linear decrease up to 50% rh	
Storage Temperature & Humidity	e Temperature & Humidity -10 to 50°C (14 to 122°F), 90% rh or lower (non-condensation)	
Maximum rated voltage to earth	600 VAC, Measurement Category III, Anticipated Transient Over voltage: 6000 V	
Dielectric strength	7060 VAC, 50/60 Hz, Measurement terminals - electrical enclosure, current sensitivity 1 mA	
Standards	Safety EN61010, EMC EN61326 3490 only: EN61557-1/-2/-4 IR4016-20, IR4017-20, IR4018-20: EN61557-1/-2	
Drop Proof	On concrete: 1 m (3.28 ft)/1 time	
Dimensions (excluding protrusions)	Approx. 159W × 177H × 53D mm (6.26"W × 6.97"H × 2.09"D)	
Mass	Approx. 610 g (21.5 oz.) (including battery, not including test lead)	
Accessories	Test lead L9787 ×1, Instruction manual ×1, Shoulder strap ×1, LR6 alkaline battery ×4	

☐ 3490 specifications (Accuracy guaranteed for 1 year, Post-adjustment accuracy guaranteed for 1 year)

Mo	del No. (Order Code)	3490			
	Rated output voltage	250 V DC	500 V DC	1000 V DC	
	Effective maximum indicated value	100 MΩ		4000 MΩ	
	Center scale value	1 ΜΩ		50 MΩ	
	1st effective	0.05 to 50 MΩ		2 to 1000 MΩ	
	measuring range	±5% of indicated value			
Insulation resis-	2nd effective	$0.01$ to $0.05~\mathrm{M}\Omega$		$0.5$ to $2~\mathrm{M}\Omega$	
tance measure-	measuring range	50 to 100 MΩ		1000 to 4000 MΩ	
ment		±10% of indicated value			
	Open circuit voltage	1 to 1.2 times of rated output voltage			
	Lower limit measurement resistance value to be maintained rated output voltage	0.25 ΜΩ	0.5 ΜΩ	1 ΜΩ	
	Rated current	1 mA (Tolerance: 1 to 1.2 times of		f the rating value)	
	Overload protection	660 V AC (10 se		.)	
	Ranges	3 Ω		30 Ω	
	Center scale value	1.5 Ω		15 Ω	
Resistance	Accuracy	±0.09 Ω		±0.9 Ω	
measurement	Open-circuit voltage	4.1 to 6.9 V			
	Measuring current	200 mA DC or more		20 mA DC or more	
	Overload protection	720 V AC (10 sec., by		Fuse)	
AC voltage mea-	Measuring range	0 to 600 V (50/60 Hz)			
	Accuracy	±5% of maximum scale value			
surement	Input resistance	$100 \text{ k}\Omega$ or more (50/60 Hz)			
	Overload protection	660 V AC (10 sec.)			

□ IR4016, IR4017, IR4018 specifications (Accuracy guaranteed for 1 year, Post-adjustment accuracy guaranteed for 1 year)

Model No. (Order Code)		IR4016-20	IR4017-20	IR4018-20	
Insulation resistance measurement	Rated output voltage	500 V DC	500 V	1000 V DC	
	Effective maximum indicated value	100 MΩ	1000 MΩ	2000 MΩ	
	Center scale value	$2\mathrm{M}\Omega$	20 MΩ	50 MΩ	
	1st effective	$0.1$ to $50~\mathrm{M}\Omega$	1 to 500 MΩ	2 to 1000 MΩ	
	measuring range	±5% of indicated value			
	2nd effective	$0.01$ to $0.1~\text{M}\Omega$ 50 to $100~\text{M}\Omega$	$0.5$ to $1~\mathrm{M}\Omega$ 500 to $1000~\mathrm{M}\Omega$	$1 \text{ to } 2 \text{ M}\Omega$ $1000 \text{ to } 2000 \text{ M}\Omega$	
	measuring range	±10% of indicated value			
	Open circuit voltage	1 to 1.2 times of rated output voltage			
	Lower limit measurement resistance value to be maintained rated output voltage	$0.5~\mathrm{M}\Omega$	0.5 ΜΩ	1 ΜΩ	
	Rated current	1mA (Toleran	1mA (Tolerance: 1 to 1.2 times of the rating value)		
	Overload protection	600 V AC (10 sec.)		660 V AC (10 sec.)	
AC voltage measurement	Measuring range	0 to 600 V (50/60 Hz)			
	Accuracy	±5% of maximum scale value			
	Input resistance	$500 \text{ k}\Omega$ or more ( $50/60 \text{ Hz}$ )			
	Overload protection	600 V AC (	10 sec.)	660 V AC (10 sec.)	



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