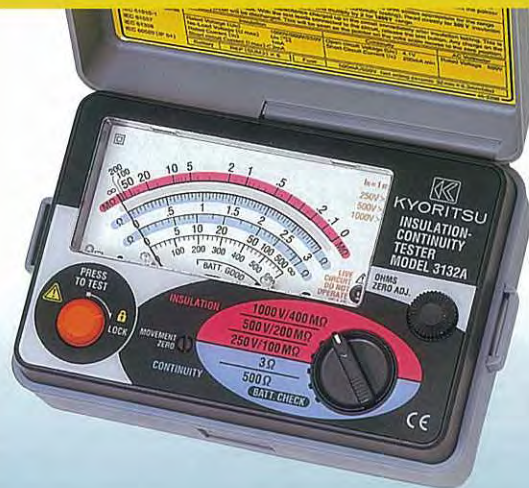


# New Look for KYORITSU Professional Safety Tester 2001

## INSULATION/CONTINUITY



**World Class Test and Measuring Instruments  
for a Global Marketplace**

# DIGITAL

# 3005A, 3007A

## KEW DIGITAL INSULATION/CONTINUITY TESTER

Model 3005A and 3007A are microprocessor controlled digital insulation/continuity testers. They not only permit insulation resistance measurement on three rated test voltages (250V, 500V and 1000V) and continuity testing, but also offer a number of advanced features such as a bargraph reading of insulation resistance, auto null function for continuity testing, Trac-Lok function to save battery power (Model 3007A only), etc.

### Selection Guide

MODEL	3005A	3007A
250V test voltage	●	●
500V test voltage	●	●
1000V test voltage	●	●
200mA continuity range	●	●
Live circuit warning	●	●
Illuminated scale		●
Automatic discharge	●	●
Trac-lok for extended battery life		●

3005A



CE

3007A



CE

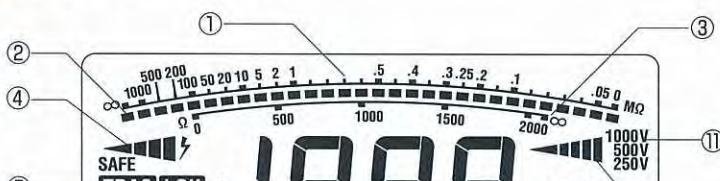
### Features (3005A/3007A)

- Bargraph to display insulation resistance.
- Displays the value of external AC voltage along with flashing symbol.
- Auto null function to automatically subtract the test lead resistance before displaying the real continuity resistance value.
- Trac-Lok mode to conserve battery life on insulation and continuity tests (Model 3007A only).
- Live circuit warning beeper.
- Releasing the test button automatically discharges the charges stored in the circuit under test.
- Backlight function to view the test results in dimly lit areas (Model 3007A only).
- 200mA continuity measuring current to IEC 61557.
- Minimum 1mA current on insulation tests to IEC 61557.

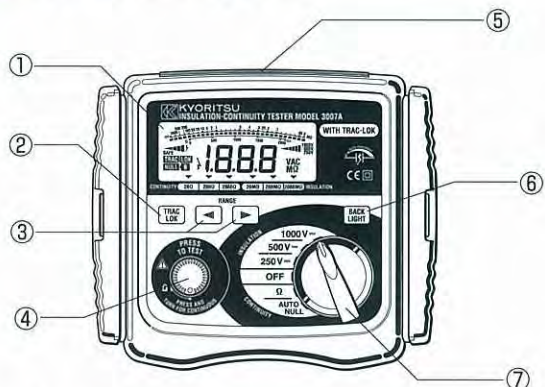
### Accessory Test Leads MODEL 7122



### LCD DISPLAY



### Layout Diagram



- ① LCD DISPLAY
- ② TRAC-LOK SWITCH (Model 3007A only)
- ③ RANGE SELECTOR SWITCH
- ④ TEST BUTTON
- ⑤ CONNECTOR
- ⑥ BACK LIGHT SWITCH (Model 3007A only)
- ⑦ FUNCTION SWITCH

- ① INSULATION RESISTANCE SCALE
- ② BAR GRAPH
- ③ CONTINUITY SCALE
- ④ LIVE CIRCUIT WARNING
- ⑤ TRAC-LOK MODE
- ⑥ AUTONULL OPERATION
- ⑦ BATTERY VOLTAGE WARNING
- ⑧ CONTINUITY/INSULATION RESISTANCE RANGE SETTING

- ⑪ OUTPUT VOLTAGE RANGE
- ⑫ MEASUREMENT VALUES

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## KEW INSULATION/CONTINUITY TESTER

The Model 3131A offers unmatched performance, and feature including test lead resistance zero adjustment for time-saving continuous operation, a clear ease to read illuminated scale, and a live circuit warning.

**3131A**



### Accessory Test Leads MODEL 7122



### Specification

Insulation	3005A/3007A	3131A	3132A
Test Voltage	250V/500V/1000V	250V/500V/1000V	250V/500V/1000V
Measuring Ranges (Mid-scale Value)	20M $\Omega$ /200M $\Omega$ /2000M $\Omega$	100M $\Omega$ /200M $\Omega$ /400M $\Omega$ (1M $\Omega$ ) (2M $\Omega$ ) (4M $\Omega$ )	100M $\Omega$ /200M $\Omega$ /400M $\Omega$ (1M $\Omega$ ) (2M $\Omega$ ) (4M $\Omega$ )
Output Voltage on open circuit	Rated test voltage +20%, -0%	Rated test voltage +20%, -0%	Rated test voltage +20%, -0%
Nominal Current	1mA DC min.	1mA DC min.	1mA DC min.
Output Short Circuit Current	1.5 mA DC approx.	1.3 mA DC approx.	1.3 mA DC approx.
Accuracy	$\pm 1.5\%rdg \pm 5dgt$ (20M $\Omega$ /200M $\Omega$ ) $\pm 10\%rdg \pm 3dgt$ (2000M $\Omega$ )	0.05 - 10M $\Omega$ /0.1 - 20M $\Omega$ /0.2 - 40M $\Omega$ (Accuracy Guaranteed Ranges) $\pm 5\%$ of indicated value	0.1 - 10M $\Omega$ /0.2-20M $\Omega$ /0.4 - 40M $\Omega$ (Accuracy Guaranteed Ranges) $\pm 5\%$ of indicated value

### Continuity

Measuring Ranges (Mid-scale Value)	20 $\Omega$ /200 $\Omega$ /2000 $\Omega$	2 $\Omega$ /20 $\Omega$ (1 $\Omega$ ) (10 $\Omega$ )	3 $\Omega$ /500 $\Omega$ (1.5 $\Omega$ ) (20 $\Omega$ )
Output Voltage on open circuit	7~12V DC	4~9V DC	4.1V DC approx.
Measuring Current	200mA DC min.	200mA DC min.	210mA DC min.
Accuracy	$\pm 1.5\%rdg \pm 5dgt$ (20 $\Omega$ ) $\pm 1.5\%rdg \pm 3dgt$ (200 $\Omega$ /2000 $\Omega$ )	$\pm 3\%$ of scale length	$\pm 3\%$ of scale length

### AC Voltage

AC Voltage range	0 - 600V AC	---	0 - 600V AC
Accuracy	$\pm 5\%rdg \pm 3dgt$	---	$\pm 5\%$ of scale length

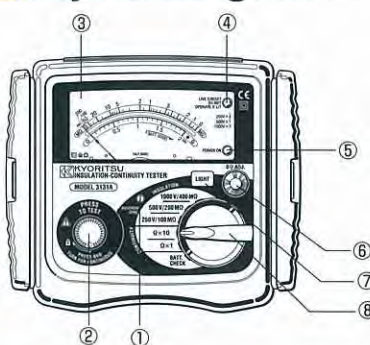
### General

Safety Standard	IEC61010-1 CAT. III 300V Pollution Degree 2 IEC61010-2-031 IEC61557-1/2/4	IEC61010-1 CAT. III 300V Pollution Degree 2 IEC61010-2-031 IEC61557-1/2/4	IEC61010-1 CAT. III 300V Pollution Degree 2 IEC61010-2-031 IEC61557-1/2/4
IP Rating	IEC60529-IP54	IEC60529-IP54	IEC60529-IP54
EMC Standard	IEC61326-1	IEC61326-1	IEC61326-1
Withstand Voltage	3700V AC for 1 minute	3700V AC for 1 minute	3700V AC for 1 minute
Power Source	R6P(AA) (1.5V) $\times$ 8	R6P(AA) (1.5V) $\times$ 6	R6P(AA) (1.5V) $\times$ 6
Dimensions	185(L) $\times$ 167(W) $\times$ 89(D)mm	185(L) $\times$ 167(W) $\times$ 89(D)mm	106(L) $\times$ 160(W) $\times$ 72(D)mm

### Features

- Test insulation up to 100M $\Omega$  at 250V, 200M $\Omega$  at 500V, 400M $\Omega$  at 1000V and continuity up to 20 $\Omega$ .
- LIVE circuit warning lamp plus audible warning.
- Automatic discharge of circuit capacitance when TEST button is released.
- Fuse protected (continuity range only).
- Battery check LED.
- Front panel zero adjust.
- Back light function to facilitate working at dimly lit situations.
- PRESS TO TEST button with lock down feature.

### Layout Diagram

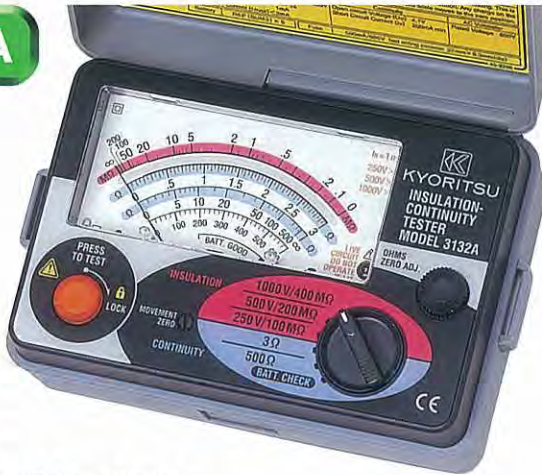


- ① METER MOVEMENT ZERO ADJUST
- ② TEST BUTTON
- ③ SCALE PLATE
- ④ LIVE CIRCUIT WARNING LED
- ⑤ POWER-ON INDICATION LED
- ⑥ CONTINUITY ZERO ADJUST
- ⑦ LIGHT SWITCH
- ⑧ RANGE SELECTOR SWITCH

## KEW INSULATION/CONTINUITY TESTER

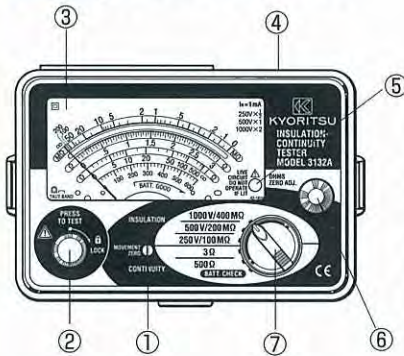
The Model 3132A is a highly compact and easy to use insulation and continuity tester. Designed to strict IEC61010-1 safety standards, it has an IP protection rating of IP54 and is ideally suited to more arduous environments. The instrument offers 3 insulation test ranges, a 3  $\Omega$  continuity range and a 500  $\Omega$  resistance range.

**3132A**



CE

### Layout Diagram



- ① METER MOVEMENT ZERO ADJUST
- ② TEST BUTTON
- ③ SCALE PLATE
- ④ INPUT CONNECTOR
- ⑤ LIVE CIRCUIT LAMP
- ⑥ OHMS ZERO ADJUST
- ⑦ RANGE SELECTOR SWITCH

### Selection Guide

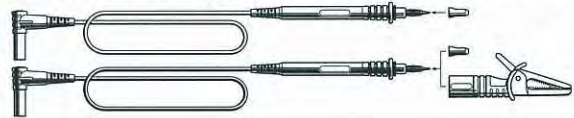
MODEL	3131A	3132A
3 range insulation test voltage	●	●
200mA continuity	●	●
Live circuit warning	●	●
AC Voltage range		●
Illuminated scale	●	
Automatic discharge	●	●
IP54 rated	●	●

### Features

- Dust and drip proof construction. (designed to IEC 60529 IP54)
- Designed to meet IEC61010-1 and IEC61557 safety standard.
- 1mA rated test current at the minimum resistance.
- 200mA measuring current on continuity testing.
- Automatic discharge of circuit capacitance. (Any charge stored in the circuit under test will be automatically discharged after testing.)
- Live circuit warning buzzer and neon lamp.
- Small and lightweight. Shock resistant new case material.
- AC voltmeter with liner, easy-to-read scale.
- Operates on AA, R6P×6 dry batteries.

### Accessory

Test Leads MODEL 7122



### Why insulation test is necessary?

All live conductors of electrical appliances and installations must be insulated to prevent electric shock hazards from inadvertent contact, fire hazards from short circuit and equipment damage. In addition, a low insulation resistance in installation will result in a leakage current, and hence causes a waste of energy which would increase the running costs of the installation.

Insulation resistance must be checked by applying appliances or installation a higher voltage than its normal working voltage, because an insulation resistance is lower at higher voltage than at lower voltage. KYORITSU's insulation resistance testers provide measurement at high levels of test voltages.

Periodical test is also important to ensure that insulation of installations or appliances is not deteriorating. Foreign matter and mechanical factors like wear or breakage may reduce insulation resistance. Regular tests and data logs can detect possible fault in insulation.

#### Minimum value of insulation resistance by IEC60364-6-61 TABLE 61A

Nominal circuit voltage (V)	Test voltage V DC	Insulation resistance (Mohms)
SELV and functional extra-low voltage, when the circuit is supplied from a safety isolating transformer (SELV: Safety Extra-Low Voltage)	250	$\geq 0.25$
Up to and including 500V with the exception of the above cases	500	$\geq 0.5$
Above 500V	1000	$\geq 1.0$



### Safety Warnings

Please read the "Safety Warnings" in the instruction manual supplied with the instrument thoroughly and completely for correct use. Failure to follow the safety rules can cause fire, trouble, electrical shock, etc. Therefore, make sure to operate the instrument on a correct power supply and voltage rating marked on each instrument.

※The contents of this catalogue may be subject to change without notice.

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