

LINDY®

CONNECTION PERFECTION

Digital Multimeter Basic

User Manual

English



No. 43027

www.lindy.com



Tested to Comply with
FCC Standards
For Home and Office Use!

Please Note

Compliant with the requirements for double insulation. Full compliance with safety standards can only be met with the test probes supplied. If necessary, these must be replaced with a suitable type.

Introduction

Thank you for buying the LINDY Digital Multimeter Basic. This low-cost digital multimeter measures DC Voltage from 200mV to 600V, AC Voltage from 200V and 600V, Amp Current between 200u to 200u, and Resistance from 0 to 2000k Ohm, as well as test diodes and hFE Transistors. Powered by a replaceable 9V battery (included) the Multimeter also has the convenience of having a replaceable 250mA/250V fuse. Perfect for home enthusiasts, hobbyist or those looking for an entry level electrical measuring tool, the Multimeter has a simple, pocket sized design that is lightweight and easy to operate.

Basic Safety Information

- Never exceed the protection limit indicated for range measurements
- When the meter is linked to a measurement circuit, do not touch unused terminals
- Never use the meter to measure voltages that might exceed 600V above earth ground in Category II installations.
- Always be careful when working with voltages above 60V DC or 30V AC RMS. Keep fingers behind the probe barriers while measuring.
- Before attempting to insert Transistors for testing; always be sure that test leads have been disconnected from any measurement circuit.
- Components should not be connected to the hFE socket when making voltage measurements with test probes.
- Before attempting to open the case, always be sure that the test leads are disconnected from measurement circuits

Do Not perform resistance measurements on live circuits

Package Contents

- Multimeter
- 2x Probes with tip covers Red and Black
- 1 x 9V Battery (installed)

Features

- IEC1010 Isolation and Safety designed measuring instrument, with 250mA/250V Fuse (Quick Acting)
- COM, V Ω mA, 10A Jack
- Measures AC/DC Voltage, DC Amps, Resistance plus Diode and hFE Transistor tester

Specification

- Power Supply 9V battery
- Display LCD 1999 counts, updates 2-3/sec
- Measuring Method Dual-slope integration A/D converts
- Over range indication Only figure "1" on the display
- Polarity indication "." Displayed for negative polarity
- Operating temperature 0°C to 40°C (32°F to 104°F)
- Storage temperature -10°C to 50°C (10°F to 122°F)
- Low Battery Indicator "BAT" appears on display
- Size 126 x 70 x 25mm
- Weight Approx. 170g
- Accuracy
 - o $\pm 1.2\%$ of rdg ± 10 dgts (AC Voltage)
 - o $\pm 0.5\% \sim 1.0\%$ of rdg ± 2 dgts (DC Voltage/Current and Resistance)

AC Voltage

Range	Resolution	Accuracy
200V	100mV	$\pm 1.2\%$ of rdg ± 10 dgts
600V	1V	$\pm 1.2\%$ of rdg ± 10 dgts

Overload Protection: 600V DC or rms AC for all ranges

Frequency range: 45Hz to 450Hz

Response: average responding, calibrated in rms of a sine wave

DC Voltage

Range	Resolution	Accuracy
200mV	0.1mV	$\pm 0.5\%$ of rdg ± 2 dgts
2V	1mV	$\pm 0.5\%$ of rdg ± 2 dgts
20V	10mV	$\pm 0.5\%$ of rdg ± 2 dgts
200V	100mV	$\pm 0.5\%$ of rdg ± 2 dgts
600V	1V	$\pm 0.8\%$ of rdg ± 2 dgts

Overload Protection: 250V rms for 200mV range and 600V DC or rms AC for other ranges

DC Current

Range	Resolution	Accuracy
200μA	0.1μA	$\pm 0.5\%$ of rdg ± 2 dgts
2000μA	1μA	$\pm 0.5\%$ of rdg ± 2 dgts
20mA	0.01mA	$\pm 0.5\%$ of rdg ± 2 dgts
200mA	0.1mA	$\pm 1.5\%$ of rdg ± 2 dgts
10A	10mA	$\pm 3.0\%$ of rdg ± 2 dgts

Overload Protection: F 250mA/ fuse (10A range unfused)

Resistance Ω

Range	Resolution	Accuracy
200 Ω	0.1Ω	$\pm 0.8\%$ of rdg ± 2 dgts
2000 Ω	1Ω	$\pm 0.8\%$ of rdg ± 2 dgts
20k Ω	10Ω	$\pm 0.8\%$ of rdg ± 2 dgts
200k Ω	100Ω	$\pm 0.8\%$ of rdg ± 2 dgts
2000k Ω	1kΩ	$\pm 1.0\%$ of rdg ± 2 dgts

Maximum Open Circuit Voltage: 3.2V

Overload Protection: 250V rms AC on all ranges.

Diode Test

Range	Description
	Show the approx.. Forward voltage drop of the diode

Overload Protection: 250V rms AC.

Operation**AC Voltage Measurements**

1. Connect the red test lead to the “V Ω mA” jack and the black lead to the “COM” jack
2. Set the rotary switch to the desired ACV position
3. Connect the test leads across the source of the load being measured and read the voltage value on the LCD display

DC Voltage Measurement

1. Connect the red test lead to the “V Ω mA” jack and the black lead to the “COM” jack
2. Set the rotary switch to the desired DCV position. If the voltage to be measured is not known beforehand, set the range switch at the highest range position and then Reduce it until a satisfactory result is obtained.
3. Connect the test leads across the source or load being measured. Read the voltage value on the LCD display along with the polarity of the red lead connection.

DC Current Measurement

1. Connect the red test lead to the “V Ω mA” jack and black lead to the “COM” jack (For measuring current between 200mA and 10A, move the red lead to the “10A” jack.)
2. Set the rotary switch to the desired DCA position
3. Open the circuit in which the current is to be measured and connect the test leads in series with the circuit.
4. Read the current value on the LCD display along with the polarity of the red lead connection.

Resistance Measurement

1. Connect the red test lead to the “V Ω mA” jack and black lead to the “COM” jack (The polarity of the red lead is positive “+”)
2. Set the rotary switch to the desired resistance range position
3. If the resistor to be measured is connected to a circuit, turn off the power and discharge all capacitors before applying the test leads.
4. Connect the test leads across the resistor to be measured and read the LCD display.

Transistor Test

1. Set the Rotary switch at “hFE” position
2. Determine whether the transistor under testing in PNP or NPN type and locate the emitter, base, collector leads. Insert the leads into proper holes of the hFE socket on front panel.
3. The meter will show the approximate hFE value at the condition of base current 10 μ A and Vce 3V

Diode Test

1. Connect the red test lead to the “V Ω mA” jack and black lead to the “COM” jack (The polarity of the red lead is positive “+”)
2. Set the rotary switch to the  position
3. Connect the red test lead to the anode of the diode to be tested and the black lead to the cathode of the diode
4. The approximate forward voltage drop of the diode will be displayed in mV. If the connection is reversed, only figure “1” will be shown.

Battery and Fuse Replacement

1. If the sign “BAT” appears on the LCD display, it indicates that the battery should be replaced. Loosen the screws on the back cover and open the case. Replace the exhausted battery with a new one of the same type.
2. Fuses rarely need replacing and a blown fuse is almost always a result of operator error. If you do need to replace the fuse., Open the case and replace the blown fuse with a rating of F 250mA/250V

CE/FCC Statement

CE Certification

This equipment complies with the requirements relating to Electromagnetic Compatibility Standards EN55022/EN55024 and the further standards cited therein. It must be used with shielded cables only. It has been manufactured under the scope of RoHS compliance.

CE Konformitätserklärung

Dieses Produkt entspricht den einschlägigen EMV Richtlinien der EU für IT-Equipment und darf nur zusammen mit abgeschirmten Kabeln verwendet werden.

Diese Geräte wurden unter Berücksichtigung der RoHS Vorgaben hergestellt.

Die formelle Konformitätserklärung können wir Ihnen auf Anforderung zur Verfügung stellen

FCC Certification

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

You are cautioned that changes or modification not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

LINDY Herstellergarantie – Hinweis für Kunden in Deutschland

LINDY gewährt für dieses Produkt über die gesetzliche Regelung in Deutschland hinaus eine zweijährige Herstellergarantie ab Kaufdatum. Die detaillierten Bedingungen dieser Garantie finden Sie auf der LINDY Website aufgelistet bei den AGBs.

Recycling Information



WEEE (Waste of Electrical and Electronic Equipment), Recycling of Electronic Products

Europe, United Kingdom

In 2006 the European Union introduced regulations (WEEE) for the collection and recycling of all waste electrical and electronic equipment. It is no longer allowable to simply throw away electrical and electronic equipment. Instead, these products must enter the recycling process.

Each individual EU member state has implemented the WEEE regulations into national law in slightly different ways. Please follow your national law when you want to dispose of any electrical or electronic products. More details can be obtained from your national WEEE recycling agency.

Germany / Deutschland

Die Europäische Union hat mit der WEEE Direktive Regelungen für die Verschrottung und das Recycling von Elektro- und Elektronikprodukten geschaffen. Diese wurden im Elektro- und Elektronikgerätegesetz – ElektroG in deutsches Recht umgesetzt. Dieses Gesetz verbietet das Entsorgen von entsprechenden, auch alten, Elektro- und Elektronikgeräten über die Hausmülltonne! Diese Geräte müssen den lokalen Sammelsystemen bzw. örtlichen Sammelstellen zugeführt werden! Dort werden sie kostenlos entgegen genommen. Die Kosten für den weiteren Recyclingprozess übernimmt die Gesamtheit der Gerätehersteller.

France

En 2006, l'union Européenne a introduit la nouvelle réglementation (DEEE) pour le recyclage de tout équipement électrique et électronique.

Chaque Etat membre de l' Union Européenne a mis en application la nouvelle réglementation DEEE de manières légèrement différentes. Veuillez suivre le décret d'application correspondant à l'élimination des déchets électriques ou électroniques de votre pays.

Italy

Nel 2006 l'unione europea ha introdotto regolamentazioni (WEEE) per la raccolta e il riciclo di apparecchi elettrici ed elettronici. Non è più consentito semplicemente gettare queste apparecchiature, devono essere riciclate. Ogni stato membro dell' EU ha tramutato le direttive WEEE in leggi statali in varie misure. Fare riferimento alle leggi del proprio Stato quando si dispone di un apparecchio elettrico o elettronico.

Per ulteriori dettagli fare riferimento alla direttiva WEEE sul riciclaggio del proprio Stato.

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