LYCEBELL LC-38C Digital Pen Type Multimeter Instruction Manual

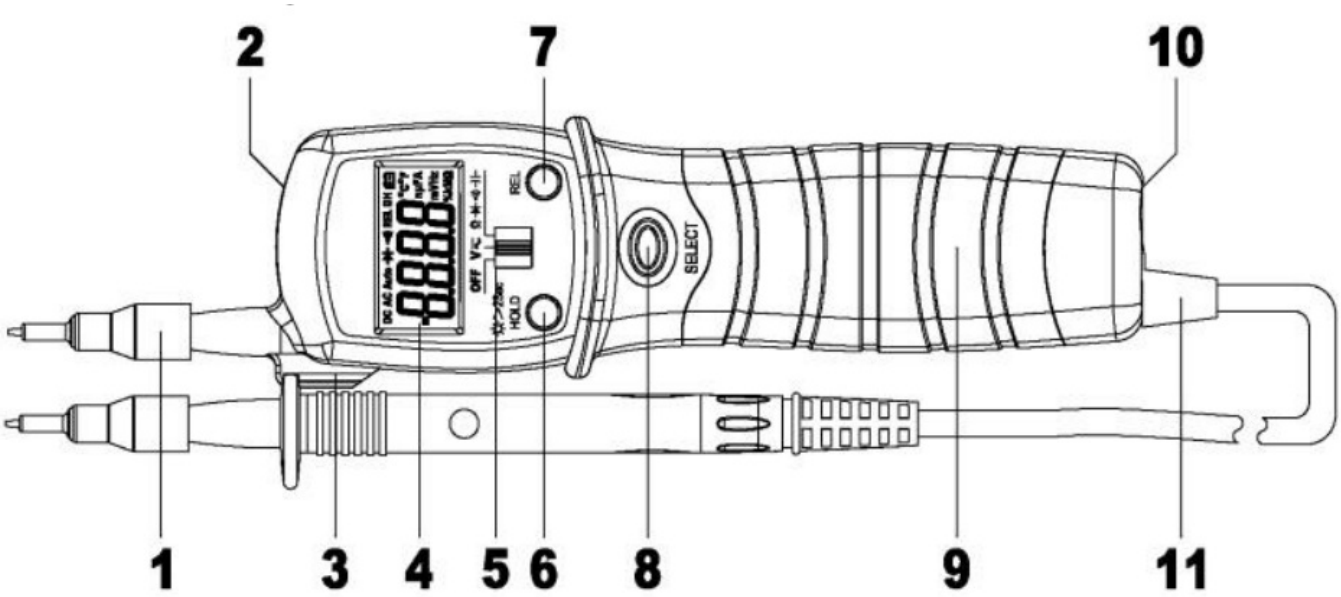
LYCEBELL LC-38C Digital Pen Type Multimeter

Contents

Overview

The pen type digital multimeter is characterized at slim size, portable, stable performance and anti-dropping capacity. Using 6000 counts digit LCD monitor with character 12mm high, they offer clear readings. With overall circuitry design centering on large-scale IC A/D converters in conjunction and overload protection circuit, the meters give excellent performance and exquisite making as a handy utility instrument.
The meters can be used to measure DC & AC voltage, resistance, capacitor, positive diode voltage fall and audible continuity. If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

Panel Layout



1. VΩ: **V**/Ω Input test lead.
2. Lamp light.
3. Test lead fixture: Fix the COM test lead.
4. LCD display: 6000 counts digit, full function symbol display.
5. Toggle Switch: Use this switch to select functions and ranges.
6. **HOLD** key: Press the **"HOLD"** key to lock display value, and the **"DH"** sign will appear on the display, press it again to exit. Press the **"HOLD"** key over 2 seconds to light the back light, press it again for more than 2 seconds to lights off it, it can lights off automatically after 15 seconds too.
7. **REL** Key: Press the **"REL"** key, the meter enters relative measuring mode, **"REL"** is displayed on the LCD and the present reading becomes the reference value and displayed on the display.
   Relative measurement REL△ =measurement value-Reference value. Press it again to exit.
8. **SELECT** key: This key work on the " Ω " range, press the key to choose resistance, diode, continuity test or capacitance test, on the voltage range, change to DC or AC.
9. Protective casing.
10. Battery cover.
11. **COM:** COM input test lead.

Safety Information

The meter is designed according to IEC-1010 concerning electronic measuring instruments with an over-voltage category 600V (CAT Ⅲ) and pollution 2.
Follow all safety and operating instructions to ensure that the meter is used safely and is kept in good operating condition.

safety symbols

 Important safety information, refer to the operating manual.

 Dangerous voltage may be presence.

 Double insulation (protection Class II)

Special Cautions for Operation

1. To avid risk of electric shock, do not use the meters before the cover is in place.
2. The toggle switch should be right position for the testing.
3. To avoid electric shock and damaging the instruments, the input signals are forbidden to exceed the specified limits.
4. When measuring TV set or switched power, attention should be paid to the possible pulses that may bring destruction to the circuit.
5. Toggle switch position is forbidden to be changed at random during measurement.
6. Take caution against shock in the course of measuring voltage higher than DC 60V & AC 30V.
7. After operation is finished, set toggle switch at OFF to save battery power.
8. If the meter is without usage for long time, take out battery to avoid damage by battery leakage.

GENERAL SPECIFICATIONS

1. **Max Voltage between input terminal and Earth Ground:** CAT Ⅲ 600V.

2. **Over-range Indication:** display “OL” for the significant digit.
3. Automatic display of negative polarity “-”.
4. **Low Battery Indication**: “  ” displayed.
5. **Max LCD display:** 6000 counts digit.
6. Auto range control.
7. **Auto Power Off:** When measurement exceeds 15 minutes without switching mode and pressing key, the meter will switch to standby mode. Press any key to exit standby mode. When restart the system, press and hold **SELECT** key to disable auto power off.
8. **Power supply:** 1.5V×2 “AAA” R03P battery
9. **Operating Temp.:** 0℃ to 40℃ (relative humidity <85%)
10. **Storage Temp.**: -10℃ to 50℃ (relative humidity <85%)
11. **Guaranteed precision Temp.:** 23±5℃ (relative humidity <70%)
12. **Dimension:** 235 x 54 x 30mm
13. **Weight:** approx. 200g (including battery)

Testing Specifications

Accuracy is specified for a period of year after calibration and at 18℃ to 28℃ (64℉ to 82℉) with relative humidity to 70%.

DC Voltage

Range	Resolution	Accuracy
600.0mV	0.1mV	±(0.5% of rdg + 2 digits)
6.000V	1mV	
60.00V	10mV	
600.0V	100mV	
600V	1V	±(0.8% of rdg + 2 digits)

- Impedance: 10MΩ, More than 100MΩ on 600mV range
- Overload protection: 600V DC or AC rms

AC Voltage (True RMS)

Range	Resolution	Accuracy
6.000V	1mV	±(1.0% of rdg + 3 digits)
60.00V	10mV	
600.0V	100mV	
600V	1V	±(1.5% of rdg + 3 digits)

- Impedance: 10MΩ
- Overload protection: 600V DC or AC rms
- Frequency Range: 40 to 2kHz

Resistance

Range	Resolution	Accuracy
600Ω	0.1Ω	±(1.0% of rdg + 3 digits)
6kΩ	1Ω	±(1.0% of rdg + 2 digits)
60kΩ	10Ω	
600kΩ	100Ω	
6MΩ	1kΩ	
60MΩ	10kΩ	±(1.5% of rdg + 3 digits)

- Overload protection: 600V DC or AC rms

Capacitance

Range	Accuracy	Resolution
6nF	±(3.0% of rdg + 10 digits)	1pF
60nF	±(2.5% of rdg + 5 digits)	10pF
600nF		100pF
6µF		1nF
60µF	±(5.0% of rdg + 10 digits)	10nF
600µF	±(10.0% of rdg + 20 digits)	100nF
6mF		1µF
60mF		10µF

- Overload protection: 600V DC or AC rms

Diode and Audible continuity test

Range	Description	Test Condition
	Display read approximately forward volt age of diode	Forward DC current approx. 1.5mA Reversed DC voltage approx. 4V
	Built-in buzzer sounds if resistance is le ss than 50Ω	Open circuit voltage approx. 2V

Overload protection: 600V DC or AC rms

OPERATING INSTRUCTIONS

Attention before operation

Check battery. When the battery voltage drop below proper operation range, the “  ” symbol will appear on the LCD display and the battery need to changed.

Pay attention to the “  ” besides the input jack which shows that the input voltage should be within the specified value.
The toggle switch should be positioned to desired range for measurement before operation.

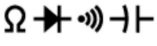
Measuring DC & AC Voltage

Set the toggle switch at the desired “  ” range position, it shows symbol for testing DC voltage, if you want to test AC voltage, push **“SELECT”** button switch.
Connect test leads across the source or load under measurement.
You can get reading from LCD. The polarity of the red lead connection will be indicated along with the DC voltage value.

NOTE:

1. “  ” means you can’t input the voltage more than 600V, it’s possible to show higher voltage, but it may destroy the inner circuit or pose a shock.
2. Be cautious against shock when measuring high Voltage.

Measuring Resistance

1. Set the toggle switch at the desired “  ” range position.
2. Connect test leads across the resistance under measurement.
3. You can get reading from LCD.

NOTE: Max. input overload: 600V rms 10sec

1. For measuring resistance above 1MΩ, the mete may take a few seconds to get stable reading.
2. When the input is not connected, i.e. at open circuit, the figure ‘OL’ will be displayed for the over-range condition.

3. When checking in-circuit resistance, be sure the circuit under test has all power removed and that all capacitors have been discharged fully.

Measuring Capacitance

Set the toggle switch at the desired " Ω ⊣◀ •)) ⊣⊢ " range position, push **"SELECT"** to choose **Capacitance** measurement.
Connect test leads across the capacitance under measurement.
You can get reading from LCD.
NOTE: Max. input overload: 600V rms 10sec

1. Capacitors should be discharged before being tested.
2. When testing large capacitance, it will take longer time before the final indication (For 100uF~60mF range, it will take about 10 seconds).
3. When testing small capacitance (≤1uF), to assure the measurement accuracy, first press "REL", then go on measuring.

Diode & Audible continuity Testing

1. Set the toggle switch at the " Ω ⊣◀ •)) ⊣⊢ " range position, push **"SELECT"** to choose **Diode** or Audible **continuity** measurement.
2. On **diode** range, connect the test leads across the diode under measurement, display shows the approx. forward voltage of this diode.
3. On **Audible continuity** range, connect the test leads to two point of circuit, if the resistance is lower than approx. 50Ω, the buzzer sounds.

NOTE: Make sure the power is cut off and all capacitors need to be discharged under this measurement.

Battery replacement

1. When the battery voltage drop below proper operation range the "  " symbol will appear on the LCD display and the battery need to changed.
2. Before changing the battery, set the toggle switch to **"OFF"** position. Open the battery cover by rotary the battery cover.
3. Replace the old battery with the same type battery (AAA R03P 1.5V×2).
4. Close the battery cover and rotary the battery cover to lock it.

Maintenance

1. Use only moist fabric or small amount of detergent but not chemical solution for cleaning.
2. Do not use the meter before the back cover is properly closed and screw secured. Upon any abnormality, stop operation immediately and send the meter for maintenance.
3. Please take out the battery when not using for a long time.

Above picture and content just for your reference. Please be subject to the actual products if anything different or updated.

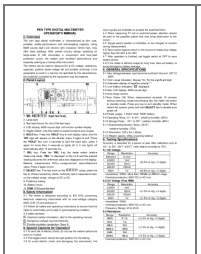
Please pardon for not informing in advance.

CONTACT US

For any problem or concern, welcome to email us for prompt response.
AFTERSALES1010@HOTMAIL.COM
P.S.
To make sure you can receive immediate solution and your requests processed quickly, please email us with these information:

1. **Order Number**
2. **Platform of Your Purchase**
3. **Full Model Number**
4. **Description of the Problem(Attaching videos or photos can help us troubleshoot the problems even faster)**

Documents / Resources

	**LYCEBELL LC-38C Digital Pen Type Multimeter** [pdf] Instruction Manual LC-38C Digital Pen Type Multimeter, LC-38C, Digital Pen Type Multimeter, Pen Type Multimeter, Type Multimeter, Multimeter

References

- **User Manual**

Manuals+,