

INTRODUCTION

The 6 in 1 digital multi-tester has been designed to combine the functions of Sound Level Meter, Light Meter, Humidity Meter, Temperature Meter, Non-contact AC Voltage Test Meter and Digital Multimeter.

It is an ideal multi-function Instrument with scores of practical applications for professional and home use.

The Sound Level function can be used to measure noise in factories, schools, offices, airports, home, etc., checking acoustics of studios, auditoriums and hi-fi installations.

The Light function is used to measure luminescence in the field. It is fully cosine corrected for the angular incidence of light. The light sensitive component used in the meter is a very Stable, long life silicon diode.

The Temperature is for use a semiconductor sensor and K type thermocouple.

The digital Multimeter performs AC/DC Voltage, AC/DC Current, Resistance measurement and Audible Continuity, Diode, Temperature test.

SAFETY INSTRUCTIONS

Input Protection Limits	
Function	Maximum Input
V DC or V AC	600VDC/AC rms
mAAC/DC	500mA 660V fast acting fuse(500mA/660V)
AAC/DC	10A 600V fast acting fuse (10A for 30 seconds max every 15 minutes)
Frequency, Resistance, Capacitance, Duty Cycle, Diode Test, Continuity	600VDC/AC rms
Temperature	600VDC/AC rms

FEATURES

- 14 functions measure Sound level, Light, Humidity, Temperature, DC Voltage, AC Voltage, DC Current, AC Current, Resistance, Diode and Continuity test.
- 3 4/5 Digital large LCD display with units of Lux, °C, % and dB indication.
- Easy to use with single function switch operating, pocket size and light weight.
- Sound level measures from 35dB to 100dB for C weighting checking with 0.1dB resolution.
- Light measuring levers ranging from 1 lux to 40,000 lux.
- Humidity measurement from 30%RH to 90%RH with 1%RH resolution and fast time response.

GENERAL SPECIFICATIONS

- Display** : 3-4/5 Digital 4000 counts Backlit LCD display with function of Lux, °C, % and dB indication.
 - Polarity** : Automatic, (-) negative polarity indication.
 - Over-range** : "OL" mark indication.
 - Low battery indication** : The "BAT" is displayed when the battery voltage drops below the operating level.
 - Measurement rate** : 3 times per second, nominal.
 - Operating environment** : 0°C ~40°C (32°F~104°F) at < 70 % relative humidity.
 - Storage temperature** : -10°C to 60°C (14 °F to 140 °F) at < 80 % relative humidity.
 - Power** : One standard 9V, NEDA1604 or 6F22 battery.
 - Dimensions** : 170 (H) x 78(W) x 48(D) mm
 - Weight** : Approx: 335g including holster.
- Accuracy is given at 18°C to 28°C (65°F to 83°F), less than 70% RH



*Technical Specifications & Appearance are subject to change without prior notice

Sound Level

Measurement range : 35-100dB
Resolution : 0.1dB
Typical instrument frequency range : 30Hz-10kHz
Frequency Weighting : C-weighting
Time Weighting : Fast
Accuracy : ± 5 dB at 94 dB sound level, 1kHz sine wave.
Microphone : Electric condenser microphone.

Light

Measuring Range : 4000, 40,000lux (40,000lux range reading x10)
Overrate Display : Highest digit of "OL" is displayed.
Accuracy : ± 5% rdg + 10 dgts (calibrated to standard incandescent lamp at color temperature 2856 k)
Repeatability : ± 2%.
Temperature Characteristic : ± 0.1% / °C.
Photo detector : One silicon photo diode with filter.

Humidity/Temperature

K type temperatur Measurement Range:

Range	Resolution	Accuracy
-4°F~+2372°F	1°F	3% of rdg ± 9 dgts
-20°C~+1300°C	1°C	3% of rdg ± 5 dgts

Input Impedance : 10MΩ.
Overload Protection : 250VDC or AC rms. for 400mV range and 600V DC or 600V AC rms for other ranges.

Indoor Temperature Range

Range	Resolution	Accuracy
0°C ~ + 50°C	0.1°F	3% of rdg ± 5 dgts

Indoor Humidity Range

Range	Resolution	Accuracy
33%RH~99%RH	1%RH	3% of rdg ± 5 dgts

Input Impedance : 10MΩ.
Overload Protection : 250VDC or AC rms. for 400mV range and 600V DC or 600V AC rms for other ranges.

Multimeter

DC Voltage (Auto-ranging)

Range	Resolution	Accuracy
400.0mV	0.1mV	± 1.0% of rdg ± 4 dgts
4.000V	1.0mV	
40.00V	10mv	
400.0V	100mV	± 1.5% of rdg ± 4 dgts
600V	1V	

Input Impedance : 10MΩ.
Overload Protection : 600VDC or AC rms. for 400mV range and 600V DC or 600V AC rms for other ranges.

AC Voltage (Auto-ranging except 400mV)

Range	Resolution	Accuracy
400.0mV	0.1mV	± 1.5% of rdg ± 15 dgts
4.000V	1.0mV	± 1.0% of rdg ± 4 dgts
40.00V	10mv	
400.0V	100mV	± 1.5% of rdg ± 4 dgts
600V	1V	± 2% of rdg ± 4 dgts

Input Impedance : 10MΩ.
Frequency Range : 50 to 400Hz
Maximum Input : 600V DC or 600V AC rms

DC Current (Auto-ranging for uA and mA)

Range	Resolution	Accuracy
400.0uA	0.1uA	± 1.0% of rdg ± 2 dgts
4000uA	1uA	± 1.0% of rdg ± 2 dgts
400.0mA	100uA	± 1.2% of rdg ± 2 dgts
10.00A	10mA	± 2.0% of rdg ± 5 dgts

Overload Protection : 500mA/660V and 10A/600V fuse
Maximum Input : 400mA DC or 400mA AC rms on uA/mA ranges, 10A DC or AC rms on 10A range

AC Current (Auto-ranging for uA and mA)

Range	Resolution	Accuracy
400.0uA	0.1uA	± 1.2% of rdg ± 2 dgts
4000uA	1uA	± 1.2% of rdg ± 2 dgts
400.0mA	100uA	± 1.5% of rdg ± 2 dgts
10.00A	10mA	± 2.0% of rdg ± 5 dgts

Overload Protection : 500mA/660V and 10A/600V fuse
AC Response : 50Hz to 400Hz
Maximum Input : 400mA DC or 400mA AC rms on uA/mA ranges, 10A DC or AC rms on 10A range

Resistance (Auto-ranging)

Range	Resolution	Accuracy
400.0Ω	0.1Ω	± 1.5% of rdg ± 4 dgts
4.000Ω	1Ω	± 1.5% of rdg ± 2 dgts
40.00kΩ	10Ω	
400.0kΩ	100Ω	
4.000MΩ	10kΩ	± 2.0% of rdg ± 2 dgts
40.000MΩ	1MΩ	± 2.5% of rdg ± 2 dgts

Overload Protection : 15 seconds maximum 250V DC or 250V AC rms on all ranges
Maximum open circuit voltage : 2.8V

Capacitance (Auto-ranging)

Range	Resolution	Accuracy
50.00nF	10pF	± 5.0% of rdg ± 7 dgts
500.0nF	0.1nF	± 3.0% of rdg ± 5 dgts
5.00μF	1nF	± 4.0% of rdg ± 5 dgts
50.00μF	10nF	
100.0μF	0.1uF	

Input Protection : 660V DC or 600V AC rms

Frequency (Auto-ranging)

Range	Resolution	Accuracy
5.000Hz	0.001Hz	± 1.2% of rdg ± 3 dgts
50.00Hz	0.01Hz	
500.0Hz	0.1Hz	
5.000kHz	1Hz	
50.00kHz	10Hz	
500.0kHz	100Hz	± 1.5% of rdg ± 4 dgts
10.00MHz	1kHz	

Sensitivity : >0.5V RMS while < 1MHz
Sensitivity : >3V RMS while > 1MHz
Input Protection : 250V DC or 250V AC rms

Diode and Continuity Check

Diode : Test current 1.4mA DC and open circuit voltage 2.8V DC
Continuity : Built in Buzzer will be sound if the circuit resistance is less than 50Ω
Overload Protection : Maximum 600V DC or 600V AC rms

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