

100 Hz / 120 Hz / 1 KHz / 10 KHz

# LCR METER

Model : LCR-9173

ISO-9001, CE, IEC1010



SMD TEST CLIP, optional  
Model : SMDC-21  
( optional )



SMD TESTER, optional  
Model : SMDA-22



Carrying case  
( optional )



LUTRON ELECTRONIC

*The Art of Measurement*



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100 Hz/120 Hz/1 KHz/10 KHz  
Ls/Lp/Cs/Cp/Rs/Rp with D/Q/θ /ESR parameters

# LCR METER

Model : LCR-9173

## FEATURES

* Compact size, easy to carry.
* AutoLCR smart check and measurement.
* 6000 counts ADC resolution.
* Built-in simple DMM front end circuit to support DCV/Frequency/Diode/NCV mode.
* Test ranges : L : 600.0 uH to 200.0 H. C : 600.0 pF to 10.00 mF. R : 60.00 to 20.00 M.
* DCV : 600.0 mV to 20.00 V.
* Frequency : 6.000 KHz to 15.00 MHz.
* Series/Parallel modes are selectable.
* DCR mode 60.00 to 20.00 M.
* Four test frequencies are available : 100 Hz/120 Hz/1 KHz/10 KHz
* Ls/Lp/Cs/Cp with D/Q/θ /ESR Parameter.
* Optional SMD test clips, SMDC-21.
* Optional SMD tester, SMDA-22.

## GENERAL SPECIFICATIONS

Display	LCD size : 52 X 50 mm.
Test frequency	100 Hz/120 Hz/1 KHz/10 KHz
Function buttons	POWER button Mode button Function button HOLD/Backlight button Frequency button LEVEL button D/Q/θ /ESR button SER/PAL button
Dissipation factor	0.000 to 999
Quality factor B	0.000 to 999
measurement	± 90°
Calibration	Open/Short calibration
Data Hold	Freeze the display reading
Power off	Auto shut off saves battery life or manual off by push button
Operating temperature	0°C to 50°C
Operating humidity	Less than 85% R.H.
Power Supply	005P DC 9V battery * Alkaline or Heavy duty type DC 9V adapter input * AC/DC power adapter is optional.
Power consumption	DC 6 mA approximately
Dimension	152 x 78 x 43 mm
Weight	250 g ( 0.55 Lb ). * meter only
Standard Accessories Included	* Instruction manual ..... 1 PC * Alligator clips ( red and black ) ..... 1 Pair
Optional Accessories	SMD tester, SMDA-22 SMD test clip, SMDC-21 AC to DC 9V adapter USB power to DC 9V converter, USBP-59. Hard carrying case, CA-06 Soft carrying case, CA-05A

## ELECTRICAL SPECIFICATIONS (23± 5 °C)

### Resistance ( DCR )

#### 0.5V(rms) / 0.1V(rms)

Range	Accuracy	Remark
60Ω	± (1.5%+5d)	After calibration
600Ω	± (1.0%+5d)	
6000Ω	± (1.0%+5d)	
60kΩ	± (1.0%+5d)	
600kΩ	± (1.0%+5d)	
6000kΩ	± (1.0%+5d)	
20MΩ	± (1.5%+5d)	After calibration

### Resistance(Z)/(Rs/Rp)

#### 0.5V(rms) / 0.1V(rms)

Range	Accuracy	Accuracy	Accuracy	Remark
	100Hz/120Hz	1KHz	10KHz	
60Ω	± (1.5%+5d)	± (1.5%+5d)	± (1.5%+5d)	After cal.
600Ω	± (1.2%+5d)	± (1.2%+5d)	± (1.2%+5d)	
6000Ω	± (1.2%+5d)	± (1.2%+5d)	± (1.2%+5d)	
60kΩ	± (1.2%+5d)	± (1.2%+5d)	± (1.2%+5d)	
600kΩ	± (1.2%+5d)	± (1.2%+5d)	± (1.2%+5d)	
6000kΩ	± (1.2%+5d)	± (1.2%+5d)	± (1.2%+5d)	
20MΩ	± (2.0%+5d)	± (2.0%+5d)	± (2.0%+5d)	After cal.

### Capacitance ( Cp /Cs ) : D ≤ 0.1

#### 0.5V(rms) / 0.1V(rms)

Range	Accuracy	Accuracy	Accuracy	Remark
	100Hz/120Hz	1KHz	10KHz	
600pF	-----	-----	± (2.0%+5d)	After cal.
6000pF	± (2.5%+5d)	± (2.0%+5d)	± (1.5%+5d)	After cal.
60nF	± (2.0%+5d)	± (2.0%+5d)	± (1.5%+5d)	
600nF	± (2.0%+5d)	± (1.5%+5d)	± (1.5%+5d)	
6000nF	± (1.5%+5d)	± (1.5%+5d)	± (1.5%+5d)	
60μF	± (1.5%+5d)	± (1.5%+5d)	± (2.5%+5d)	
600μF	± (1.5%+5d)	± (2.5%+5d)	-----	
6000μF	± (2.5%+5d)	-----	-----	After cal.
20mF	± (3.5%+5d)	-----	-----	After cal.

### Inductance(Ls/Lp) : (D<0.1)

#### 0.5V(rms) / 0.1V(rms)

Range	Accuracy	Accuracy	Accuracy	Remark
	100Hz/120Hz	1KHz	10KHz	
600uH	-----	-----	± (2.5%+5d)	After cal.
6000uH	-----	± (2.0%+5d)	± (2.0%+5d)	After cal.
60mH	± (2.0%+5d)	± (1.5%+5d)	± (1.5%+5d)	
600mH	± (1.5%+5d)	± (1.5%+5d)	± (1.5%+5d)	
6000mH	± (1.5%+5d)	± (1.5%+5d)	± (1.5%+5d)	
60H	± (1.5%+5d)	± (2.5%+5d)	-----	After cal.
200H	± (2.5%+5d)	-----	-----	After cal.

### DCV

Meas. Range	Accuracy	Min. resolution
600mV to 20V	± (0.5%+3d)	0.1 mV

### Frequency

Meas. Range	Accuracy	Min. resolution
6kHz~15MHz	± (0.5%+3d)	1 Hz

### Scale range configuration

#### LCR Mode

Function mode	Frequency	Meas. Range	Min. resolution
Inductance	100 Hz/120 Hz	60 mH~200 H	0.01 mH
Ls/Lp	1 KHz	6000 uH~60 H	1 uH
	10 KHz	600 uH~6 H	0.1 uH
Capacitance	100 Hz/120 Hz	60 nF~10 mF	0.01 nF
	1 KHz	6 nF~600 uF	1 pF
Cs/Cp	10 KHz	600 pF~60 uF	0.1 pF
	Resistance	100 Hz/120 Hz	60 Ω ~20 MΩ
Rs/Rp	1 KHz	60 Ω ~20 MΩ	0.01 Ω
	10 KHz	60 Ω ~20 MΩ	0.01 Ω
DC Resistance	N / A	600 Ω ~10 MΩ	0.1 Ω

\* Appearance and specifications listed in this brochure are subject to change without notice.

L204-LCR9173

