

DIGITAL CAPACITANCE METER OPERATING MANUAL

MODEL: CM7115A

1. SPECIFICATION

1) GENERAL CHARACTERISTICS

Measuring Method: Dual-Slope integration A/D converter system

Display Method: LCD display

Maximum Display: 1999 counts (3 ½ digits) with automatic polarity indication

Over-range Indication: “1” Figure only in the display

Low-Battery Indication: automatic Low-Battery detect, if Low-Battery the symbol

Measurement Rate: updates 2~3 sec

Zero Adjust: manual-zeroing, about ±20pF

Operating Temperature: 0°C ~ 40°C 0~80% R.H.

Storage temperature: -10°C ~ +50°C 0~70% R.H.

Power Supply: 9v battery (IEC 6F22, NEDA 1604, JIS 006p)

Dimensions: 135L × 72W × 36H mm

Accessories: test leads (pair), Operator’s Manual

2) ELECTRICAL SPECIFICATION (23±5°C, below 80% R.H.)

Accuracy is given as ± (% of maximum reading + number of least significant digits)

Range	Resolution	Accuracy	Test Frequency
200pF	0.1pF	± (0.5% Cm+1dgt+0.5pF)	800Hz
2nF	1pF	± (0.5% Cm+1 dgt)	
20nF	10pF		
200nF	100pF		
2uF	1nF		
20uF	10nF		
200uF	100nF		80Hz
2000uF	1uF	± (1% Cm+1 dgt)	8Hz
20mF	10uF	± (2% Cm+1 dgt)	

2. METHOD OF MEASUREMENT

1) PRECAUTIONS AND PREPARATIONS FOR MEASUREMENT

- ✓ Be sure that battery and fuse are correctly placed.
- ✓ The tested capacitor should be discharged before the testing procedure.
- ✓ The polarity of tested capacitor must be same to the input terminal.
- ✓ Note: never apply voltage to the input terminal, serious damage maybe result.
- ✓ Dot short-circuit two input terminal, or will loss power energy and over-range.
- ✓ If the value of tested capacitor is unknown before test, set the Function-range switch to the lowest range and work up.

2) MEASURING

- ★ Set the Function-range to the properly range.
- ★ Measuring the low capacitor, please adjust “ZERO ADJ” for reading accuracy.
- ★ Connect the test capacitor to the input socket or the test leads.
- ★ When only the figure “1” is displayed, over range is being indicated and the Function-range switch has be set to a higher range; When the figure “0” displayed at seniority, set the Function-range to a lower range for higher resolution and accuracy.

NOTE:

- 🔔 **If the test capacitor is a short capacitor, it will be over-range and only figure “1” is displayed; soaking-out capacitor, the reading will high it’s value; open-circuit capacitor, will displayed “0”. (maybe ±10pF at the 200pF range)**
- 🔔 **Display value will fluctuated, if a soaking-out capacitor connected.**
- 🔔 **If use other leads measure capacitor, leads will appear a value, please keep in mind before measure; it would be substrate from displayed value.**