# **Specifications**

## models

|                   | 890                   | 830A  | 810C   |  |
|-------------------|-----------------------|---|--|--|
| CAPACITANCE       |                       |   |  |  |
| RANGE             | 500pF (0.1pF)         | 10 automatically  | 200pF (0.1pF)  |  |
| (Best Resolution) | 5nF (1pF)             | selected ranges   | 2nF (1pF)  |  |
|                   | 50nF (10pF)           | 199.9pF to 19.99μF                                      | 20nF (10pF)  |  |
|                   | 500nF (0.1nF)         | (0.1pF on lowest range,                                 | 200nF (100pF)  |  |
|                   | 5μF (InF)             | otherwise 0.05% of FS)                                  | 2μF (InF)  |  |
|                   | 50μF (10nF)           | 20μF to 199.9mF   | 20μF (10nF)  |  |
|                   | 500μF (0.1μF)         | (0.05% of full scale)                                   | 200µF (100nF)  |  |
|                   | 5000μF (1μF)          |   | 2000μF (1μF)   |  |
|                   | 50mF (10μF)           |   | 20mF (10μF)  |  |
| ACCURACY          | ±(1%rdg + 10dgt)      | $\pm (0.2\% \text{rdg} + 1 \text{dgt} + 0.5 \text{pF})$ | $\pm (0.5\% \text{ rdg} + 1 \text{dgt} + 0.5 \text{pF})$ |  |
|                   | $\pm$ (1%rdg + 3dgt)  | $\pm$ (1%rdg + 2dgt)                                    | ±(0.5% rdg + 1dgt)                                       |  |
|                   | $\pm$ (1%rdg + 3dgt)  |   | ±(0.5% rdg + 1dgt)                                       |  |
|                   | $\pm$ (1%rdg + 3dgt)  |   | ±(0.5% rdg + 1dgt)                                       |  |
|                   | $\pm$ (1%rdg + 3dgt)  |   | ±(0.5% rdg + 1dgt)                                       |  |
|                   | $\pm$ (1%rdg + 3dgt)  |   | ±(0.5% rdg + 1dgt)                                       |  |
|                   | $\pm$ (2%rdg + 3dgt)* |   | ±(0.5% rdg + 1dgt)                                       |  |
|                   | $\pm$ (2%rdg + 3dgt)* |   | ±(2% rdg + 1dgt)   |  |
|                   | ±(2%rdg + 3dgt)*      |   | ±(4% rdg + 1dgt)   |  |

#### POWER SOURCE

| TOWERSOURCE  |                           |                          |                           |  |
|--------------|---------------------------|--------------------------|---------------------------|--|
|              | 9V Battery                | 9V Battery               | 9V Battery                |  |
| BATTERY LIFE | 200 hours typ. (alkaline) | 20 hours typ. (alkaline) | 200 hours typ. (alkaline) |  |
| DISPLAY      | 4 digit LCD (dual)        | 3 1/2 digit LCD          | 3 1/2 digit LCD           |  |
| DIGIT HEIGHT | 0.5/0.3" (13/7.6mm)       | 0.5" (13mm)              | 0.56" (14mm)              |  |
| OPERATING    |                           |                          |                           |  |
| TEMPERATURE  | 32° to 122°F              | 32° to 122°F**           | 32° to 104°F              |  |
|              | (0° to 50°C)              | (0° to 50°C)**           | (0° to 40°C)              |  |
| STORAGE      |                           |                          |                           |  |
| TEMPERATURE  | -4° to 140°F              | -1° to 125°F             | 14° to 140°F, <70% RH     |  |
|              | (-20° to 60°C)            | (-18° to 52°C)           | (-10° to 60°C)            |  |
| DIMENSIONS   | 7.56 x 3.54 x 1.46"       | 7.5 x 4.0 x 2.0"         | 6.75 x 3.0 x 2.25"        |  |
| (L x W x D)  | (192 x 90 x 37 mm)        | (190 x 101 x 50 mm)      | (171 x 76 x 57 mm)        |  |
| WEIGHT       | 17.64 oz. (500g)          | 1 lbs. (454g)            | 11.3 oz. (200g)           |  |

### Three Year Warranty

### One Year Warranty

## Accessories

| SUPPLIED:  | Test Leads, Manual, | Manual, Battery  | Test Leads, Manual, |  |
|--|---------------------|------------------|---------------------|--|
|  | Battery             |                  | Battery             |  |
| OPTIONAL:  | TL-8 SMD Probe      | TL-8 SMD Probe   | TL-8 SMD Probe      |  |
|  | AK-890 RS-232 Pkg.  | BC-12 AC adapter |                     |  |
|  |                     | ·                |                     |  |
| CARRYING C   | ASE: LC-29B         |                  | LC-29B              |  |
| (Not included  | )                   |                  |                     |  |
| * >2mF, NO Spec. ** 59° to 95°F (15° to 35°C) for specified accuracy |                     |                  |                     |  |

# Additional Specification

|                       | model                                       |
|-----------------------|---|
|                       | 810C  |
| EXCITATION VOLTAGE    | <3.5 V Max. (approximate)                   |
| ZERO ADJUSTMENT RANGE | +20 pF typical                              |
| PROTECTION            | Input protected by 0.1A/ 250 V Fast Acting. |
| MEASUREMENT RATE      | 2 per second, nominal.                      |

| Additional Specifications mod |  | ١ |
|-------------------------------|--|---|
|                               | 830A   |   |
| HOLD ACCURACY                 | 0  |   |
|                               | and 179 counts add: 0.1% for full scale to 19.99 mF; 0.5% of full scale from |   |
|                               | 19.99 mF to 199.9 mF.  |   |
| READING TIME                  | 0.4-1.0 sec to 20 mF; increasing to 6 sec at 200 mF.                         |   |
| ZERO CONTROL                  | Can compensate up to 2000 pF of test lead capacitance.                       |   |
| OVERRANGE                     |  |   |
| INDICATOR                     | 01 display and mF indicates on.  |   |

# Capacitance Meters

# Model 810C

## Capacitance Meter

The Model 810C Capacitance Meter is a compact capacitance meter, designed for accurate measurement of capacitive components. It features direct plug-in test sockets

810C and test lead jacks. A zero adjustment knob is also provided to "zero" test lead capacitance.

- ■Zero adjustment knob
- **■**Capacitor test sockets
- **■**Fuse protected
- **■**Protective rubber boot

# Model 830A

## **Capacitance Meter**

The Model 830A Capacitance Meter is a highly accurate capacitance meter It is fully autoranging and can be powered from a choice of alkaline betteries or from AC/DC adapter/charger (sold separately). A selectable range hold feature provides for fast batch testing of large value capacitors.



- ■Auto ranging
- ■Selectable range hold feature
- **■Z**ero adjustment
- **■**Capaciter test socket and test lead jacks

### Model 890

The Model 890 Capacitance Meter features a large LCD with dual display, 5,000 counts resolution, and 10 automatically selected ranges with full scale value from 0.1pF to 50mF. Designed to meet the latest international safety standards, the meter's dedicated chip and microprocessor allow programmable high/low limits or pre-programmed standard capacitor tolerances, making it ideal for



measuring values, inspection, sorting capacitors and testing capacitors against standard tolerances. Optional software and cabling is available for PC based data logging and monitoring. The 890 is a unique value and is indispensible on the inspection bench.

- Dual display simultaneously Program unique values displays value and deviation from selected tolerance
- ■Sort on preset tolerance of ■RS-232 interface for 1,5,10%
- to sort for specific circuit applications
  - data logging software available