

# DIGITAL INDUCTANCE METER OPERATION MANUAL

## 1. FEATURES

- ◇ Easy and correct readout.
- ◇ High measuring accuracy.
- ◇ Measurements are possible even under a strong magnetic field.
- ◇ LSI-circuit provides high reliability and durability.
- ◇ Input overload protection is provided.
- ◇ LCD display for low power consumption and clear readout even in bright ambient light conditions.
- ◇ In-line pushbuttons allow one hand operation.
- ◇ Light-weight and compact construction for easy operation.
- ◇ Low battery condition is indicated on the LCD display.
- ◇ Backlight
- ◇ Spotlight

## 2. SPECIFICATIONS

### 2-1.GENERAL SPECIFICATIONS

Display : LCD (Liquid Crystal Display) Max. Indication 1999.

Measurement :L (Inductance)

Over-Range :Display shows "1".

Sampling Rate :3 times/second.

Operating Temp : 0°C to 40°C, humidity<80 %

Power Supply :9V 6F22×1

Standard Accessories:

Test alligator clips (red & black)...1 pair.

Instruction manual..... 1 pc.

Conform card..... 1 pc.

### 2-2 ELECTRICAL SPECIFICATION

Accuracy is  $\pm$ (percentage of reading + number of digit) at 23  $\pm$  5°C, <75%RH.

Range	Accuracy	Resolution
200 $\mu$ H	$\pm$ (3.0%+15d)	0.1 $\mu$ H
2mH	$\pm$ (1.5%+5d)	1 $\mu$ H
20mH		10 $\mu$ H
200mH		100 $\mu$ H
2H	$\pm$ (3.0%+5d)	1mH
20H	$\pm$ (5.0%+15d)	10mH
200H		100mH

$\mu$ H= micro Henry ( $10^{-6}$  H). mH= milli Henry ( $10^{-3}$ H).

## 3. OPERATION

### 3-1.CONSIDERATION OF MEASUREMENT

(1) This inductance meter is intended for measuring the inductance value of an inductor. It is not intended for determining the "Q"

factor for above reactive components. Misleading readings may be obtained if the measurement of the inductance of a resistor is attempted.

- (2) When measuring components within circuit that circuit must be switched off and de-energized before connecting the test leads.
- (3) Instruments used in dusty environments should be stripped and cleaned periodically.
- (1) Do not leave the instrument exposed to direct heat from the sun for long periods.
- (2) Before removing the battery compartment cover, ensure that the instrument is disconnected from any circuit and the power switch is in the OFF position.
- (3) For all measurements, should connect black test lead into "-" terminal and red test lead into "+" terminal.

### 3-2. INDUCTANCE (L) MEASUREMENT PROCEDURE

- (1) Select the range switch for the maximum expected inductance.
- (2) Connect the alligator clips to the inductor leads.
- (3) Read the display. The value is direct reading in the electrical units ( $\mu$ H,mH, H) indicated at the selected switch. If display show "1". It indicates on Out-of-Range measurement. If the display indicates one of more reading zeros, shift to the next lower range scale to improve the resolution of the measurement.

#### NOTE:

- (a) If the inductance value is unmarked, start with the 200 $\mu$ H range and keep increasing until the over range indication goes off and a reading is obtained.
- (b) Measure of very low inductance should be performed using extremely short leads in order to avoid introducing any stray inductance.
- (c) This instrument is not intended for determining the "Q" factor for the inductor. Misleading readings may be obtained if the measurement of the inductance of a resistor is attempted.

## 4. MAINTENANCE

### 1) 9-Volt batteries replacement

- a. Ensure the instrument is not connected to any external circuit. Set the selector switch to OFF position and remove test leads from terminals.
- b. Remove the screw on the bottom case and lift the bottom case.
- c. Remove the spent battery and replace it with a battery of the same type.