

CONDUCTIVITY METER



Your purchase of this CONDUCTIVITY METER marks a step forward for you into the field of precision measurement. Although this METER is a complex and delicate instrument, its durable structure will allow many years of use if proper operating techniques are developed. Please read the following instructions carefully and always keep this manual within easy reach.

OPERATION MANUAL

TABLE OF CONTENTS

1. FEATURES.....	1
2. SPECIFICATIONS.....	1
3. FRONT PANEL DESCRIPTION.....	3
3-1 Display.....	3
3-2 Power ON Button.....	3
3-3 Power OFF Button.....	3
3-4 Hold Button.....	3
3-5 2 mS range Button.....	3
3-6 20 mS range Button.....	3
3-7 Electrode Input Socket.....	3
3-8a 20 mS range Calibration VR.....	3
3-8b 2 mS range Calibration VR.....	3
3-9 Battery compartment/Cover.....	3
3-10 Stand.....	3
3-11 Electrode Handle.....	3
3-12 Conductivity Electrode.....	3
4. MEASURING PROCEDURE.....	4
5. CALIBRATION PROCEDURE.....	4
6. REPLACEMENT of BATTERY.....	5

1. FEATURES

- * Separate electrode, easy operation.
- * The portable conductivity meter provides fast, accurate readings, with digital readability and the convenience of a remote probe separately.
- * Multi measuring ranges: 1.999 mS, 19.99 mS.
- * LCD display for low power consumption & clear read-out even in bright ambient light condition.
- * Water resistance on the front panel.
- * All function keys are used the rubber button.
- * Data hold.
- * Used the durable, long-lasting components, including a strong, light weight ABS-plastic housing case.
- * Built-in Low battery indicator.
- * Wide applications: water contioning, aquariums, beverage, fish hatcheries, food processing, photography, laboratory, paper industry, plating industry, quality control, school & college.

2. SPECIFICATIONS

Display	Large LCD display, 21.5 mm digit height. Max. display count no. 1999..
Measurement & Range	2 ranges, 1.999 mS, 19.99 mS.
Resolution	0.001 mS for 1.999 mS range. 0.01 mS for 19.99 mS range. * mS – milli Simens
Accuracy ($23 \pm 5^{\circ}\text{C}$)	$\pm (3\% \text{ F.S.} + 1 \text{ d})$ * F.S. – Full scale

Sampling Time	Approx. 0.4 second.
Over Range Indicator	Display shows " 1 ".
Data Hold	To freeze the measured conductivity value on the display.
Temperature Compensation	Automatic, 0 °F to 50 °F (32 °F to 122 °F).
Operating Temp.	0 °C to 50 °C (32 °F to 122 °F).
Operating Humidity	Max. 80% RH.
Power Supply	DC 9V battery (heavy duty type). 006P, MN1604(PP3) or equivalent.
Power Current	Approx. DC 5 mA.
Weight	270 g/0.60 LB (w/battery & electrode).
Dimension	<i>Meter :</i> 200 x 68 x 30 mm (7.9 x 2.7 x 1.2 inch). <i>Electrode :</i> Round, 22 mm Dia. x 120 mm length.
Accessories Included	Operation Manual.....1 PC. Conductivity electrode.....1 PC.
Optional Accessories	1.413 mS calibration solution.....CD-14 Hard carrying case.....CA-06 Soft Carrying case with saash.... CA-52A

3. FRONT PANEL DESCRIPTION

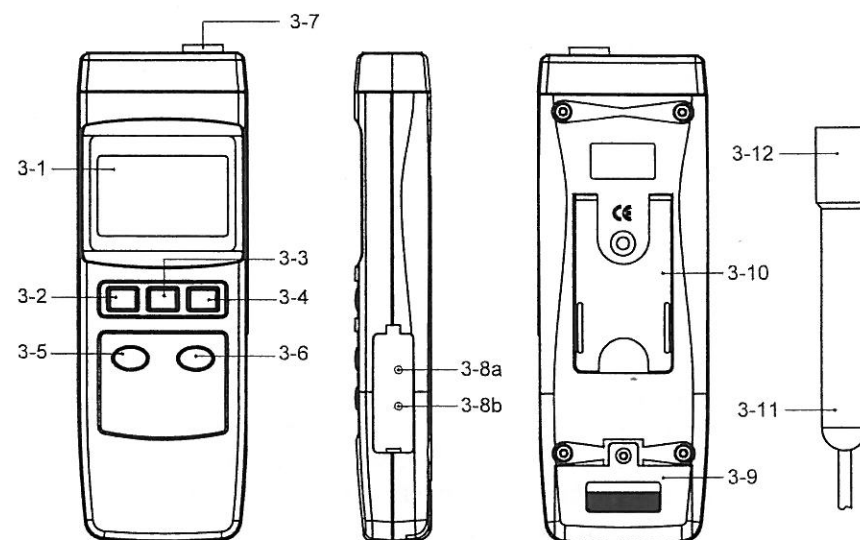


Fig. 1

- | | |
|------------------------|---------------------------------|
| 3-1 Display | 3-7 Electrode Input Socket |
| 3-2 Power ON Button | 3-8a 20 mS range Calibration VR |
| 3-3 Power OFF Button | 3-8b 2 mS range Calibration VR |
| 3-4 Hold Button | 3-9 Battery compartment/Cover |
| 3-5 2 mS range Button | 3-10 Stand |
| 3-6 20 mS range Button | 3-11 Electrode Handle |
| | 3-12 Conductivity Electrode |

4. MEASURING PROCEDURE

- 1) Connect the " Conductivity Electrode " (3-12, Fig. 1) to the " Electrode Input Socket " (3-7, Fig. 1).
- 2) Power on the instrument by pressing the " Power ON Button ".
- 3) Select the " 2 mS range " or " 20 mS range " by pressing the range button (3-5, 3-6, Fig. 1).
- 4) Hold the " Electrode Handle " (3-11, Fig. 1) by hand & let the Conductivity Electrode (3-12, Fig. 1) is immersed wholly into the measured solution.
Shake the Electrode several time to let the air bubble leave away from the electrode and let the reading value is stable.
Display will show the conductivity mS values.

Measuring Consideration :

If display show "1", it indicate on out-of-range measurement. If the display indicates one or more leading zeros, shift to the next lower range scale to improve the measurement.

5. CALIBRATION PROCEDURE

When recalibrate the instrument, please according the following procedures :

- 1) Prepare a " 1.413 mS Calibration Solution " (CD-14, optional).
- 2) Pressing the range switch to " 2 mS range " (3-5, Fig. 1) position.

- 3) * Hold the " Electrode Handle " (3-11, Fig. 1) by hand & let the " Conductivity Electrode " (3-12, Fig. 1) is immersed wholly into the above " 1.413 mS Calibration Solution ".
- * Shake the Electrode several time to let the air bubble leave away from the electrode and let the reading value is stable.
- * Adjust the " 2 mS Calibration VR " (3-8b, Fig. 1) until display show the value same as 1.413 mS exactly.

6. REPLACEMENT OF BATTERY

- 1) When the left corner of LCD display show the indicator "", it is necessary to replace the battery.
However, in-spec measurement may still be made for several hours after low battery indicator appears before the instrument become inaccurate.
- 2) Slide the " Battery Cover " (3-9, Fig. 1) away from the instrument and remove the battery.
- 3) Replace with 9V battery, heavy duty type, 006P, MN1604 (PP3) or equivalent. and restate the cover.
- 4) Make sure the battery cover is secured after change the battery.