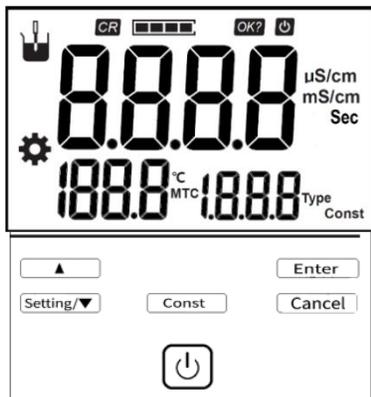


# EC100B Conductivity Meter Operation Quick Guide

## 1. Specification

Parameters: Conductivity  
 Conductivity Range: 0.00 $\mu$ S/cm ~ 100.0mS/cm

## 2. Screen Icons



Symbol	Explanation	Symbol	Explanation
	Reading state	Sec	Time Unit
	Confirm the option	$\mu$ S/cm	Conductivity Unit
	Automatic shutdown	mS/cm	Conductivity Unit
	continuous-read	MTC	Manual temperature compensation
	Measurement	$^{\circ}$ C	Temperature Unit
	Setting	Const	Cell Constant
		Type	Electrode Type

## 3. Maintenance & Precaution

### 3.1. The meter

- 1 . Disconnect the charge when storage for a long term.
- 2 . Keep the meter and accessories clean and away from acids, alkalis, and any corrosive solutions/gases.
- 3 . Put the dust cover on the meter or put the meter in a packing box for storage overnight or longer.

### 3.2. Conductivity Electrode

- 1 . Rinse with deionized water for several hour to clean the cell when the first time usage or storage a long term.
- 2 . For accurate measurement, rinse with distill or deionized water before every measurement.
- 3 . For accurate measurement, calibrate the constant with a standard solution which value is close to the test sample.
- 4 . Keep the socket away from moisture.
- 5 . For storage overnight or longer, put the EC electrode back to the packing box and store in a cool, dry place.

## 4. Preparation

- 1 . Connect the EC electrode (e.g., k=1) to the meter.
- 2 . Take off the electrode protection cap.
- 3 . Rinse the conductivity electrode with DI water, dry out.
- 4 . Switch on the meter.

Note: The exact constant is attached to the cable in a new EC electrode.

## 5. Calibration

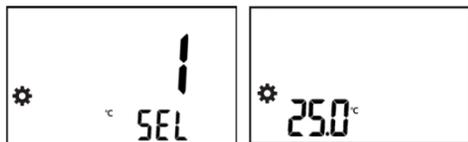
### 5.1. Cell Constant Setting

- 1 . In the measurement status, press "Const" to access the constant menu.
- 2 . Press "Const" to exchange 1.0, 10 or 0.1 to set the desired constant type (e.g. k=1).
- 3 . Press the  $\blacktriangle$  or  $\blacktriangledown$  to adjust the constant (e.g. 1.000) and press "Enter" key to save the setting and return to the measurement status.



## 5.2. Manual Calibration

- 1 . Set the desired constant type as the 5.1 Cell Constant Setting.
- 2 . Set the temperature to  $(25.0 \pm 0.1) ^\circ\text{C}$  in the meter.
  - 1) In the measurement status, press "Setting/▼" to access the main setting menu.
  - 2) Press the "▲" or "Setting/▼" to highlight "1 °C" and press "Enter" key.
  - 3) Press the "▲" or "Setting/▼" to adjust the temperature as  $25^\circ\text{C}$  and press "Enter" key to save the setting and return to the measurement status.



- 3 . Prepare a standard conductivity solution (e.g.,  $1413 \mu\text{S}/\text{cm}$  conductivity solution)
- 4 . Prepare a thermostatic bath, and set the temperature to  $(25.0 \pm 0.1) ^\circ\text{C}$ .
- 5 . Place a standard conductivity solution in a thermostatic bath, and set the temperature to  $(25.0 \pm 0.1) ^\circ\text{C}$ .

- 6 . Place the conductivity electrode into a standard solution.
- 7 . Record the conductivity as the Ct (e.g. 1421).
- 8 . Calculate the constant,  $\text{constant} = \text{Cs}/\text{Ct}$  (e.g.,  $1413/1421 = 0.994$ ).
- 9 . Adjust the cell constant referring to the 5.1 Cell constant setting.



## 6. Measurement

- 1 . Measure the test solution temperature with the temperature meter.
- 2 . Set the real temperature in the meter.
  - 1) In the measurement status, press "Setting" to access the main setting menu.
  - 2) Press the "▲" or "Setting/▼" to highlight "1 °C" and press "Enter" key.
  - 3) Press the "▲" or "Setting/▼" to adjust the temperature as real temperature (e.g.  $25.2^\circ\text{C}$ ) and press "Enter" key to save the

setting and return to the measurement status.



- 3 . Rinse the conductivity electrode with DI water, dry out.
- 4 . Put the measurement end of the electrode into the sample solution.
- 5 . When the reading is stable, the reading prompts shows .
- 6 . End the measurement and record the results.
- 7 . During measurement, stored EC electrode in distilled or deionized water .
- 8 . After measurement, rinse the EC electrode with deionized water thoroughly and put on the electrode protection cap.

Note: For accurate measurement, please calibrate and measure at the same temperature.

