

**GENERAL<sup>®</sup>****DCM7021**  
**USER'S MANUAL****Digital  
Conductivity  
Meter****INTRODUCTION:**

*Thank you for selecting model DCM7021 microprocessor-based waterproof Digital Conductivity Meter. It is used to measure a wide range of Conductivity, TDS, Salinity and Temperature with a replaceable electrode. Please read and follow the manual carefully.*

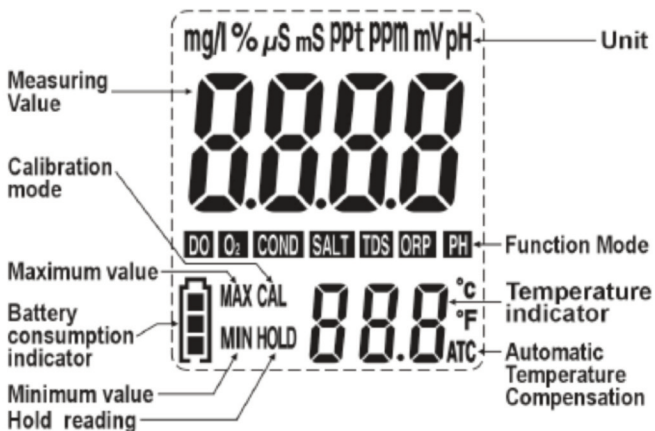
**FEATURES:**

- Large LCD displays Temperature along with Conductivity or TDS or Salinity simultaneously
- Waterproof to IP-57 standard
- Automatic Temperature Compensation (ATC)
- Degree °F/°C switchable
- Icon **COND**, **TDS**, **Salt** and unit **S, mS, ppm, ppt, °F, °C** for easy recognition while selecting function modes
- Displays MIN/MAX value and Data hold
- Low battery indicator
- Automatically shuts off after 10 minutes of non-usage
- Easy to replace Conductivity electrode module
- Floats on water

**SPECIFICATIONS:**

	Conductivity	TDS	Salinity	Temp.
Range	0 to 2000 $\mu$ S 2.00 to 20.00 mS	0 to 1300 ppm 1.30 to 13.00 ppt	0 to 1000 ppm 1.00 to 12.00 ppt	32° to 194°F (0 to 90°C)
Accuracy	± 2% FS (Cond., TDS, Salt)			±0.4°F + 1 digit (±0.2°C + 1 digit)
Resolution	1 $\mu$ S/0.01 mS	1 ppm/0.01 ppm	1 ppm/0.01 ppt	0.2°F (0.1°C)
ATC	32° to 122°F (0 to 50°C)			
Calibration	0 $\mu$ S, 1413 $\mu$ S, 12.88 mS			
Power Source	4 "AAA" batteries			
Dimensions	Meter: 7.7" x 1.6" x 1.4" (195 x 40 x 36mm)			
	Kit: 9.1" x 8.1" x 2" (230 x 205 x 50mm)			
Weight	Meter: 4.8 oz (135 g) (with battery)			
	Kit: 22.6 oz (640 g)			

**DEVICE DESCRIPTION:**

**DISPLAY DESCRIPTION:****FUNCTIONS OF KEYBOARD:****POWER/CALIBRATION**

1. Press button to switch power On or Off
2. Press and hold button to enter calibration mode

**FUNCTION MODE**

1. Press button to select the desired measurement mode Conductivity, TDS, or Salinity
2. Press and hold button to change degree °F or °C


**HOLD/MIN&MAX**

1. Press button to enter Hold mode
2. Press and hold button to enter Minimum/Maximum mode  
Press button lightly to get Minimum/Maximum value
3. Press and hold button again to exit this mode and return to Measurement mode

**OPERATING PROCEDURE:****ACCESSORIES**


Upon receiving the shipment, inspect the container and equipment for any signs of damage. Verify that you have received all the items listed: Meter, Standard Solution 1413  $\mu\text{S}/\text{cm}$ , Battery (installed), Lanyard, Instruction Manual and Carrying Case.

**PREPARATION**

1. Remove the protective cap from the meter. Rinse the electrode with clean water and wipe it dry.
2. Press  button to turn the meter power on.

**Note:** Don't touch or wipe the surface of inner black sensor of the conductivity cell.

**CALIBRATION**

Dip the conductivity cell into the standard solution 1413  $\mu\text{S}/\text{cm}$ . Stir gently and wait until the display is stabilized. Press and hold  button to enter calibration mode until the icon **CAL** appears in the display, and flashes 1413  $\mu\text{S}/\text{cm}$ . When the display stops flashing and indicates "SA", and then "End" while calibration is ending, it will return to measurement mode.


**Note:** (1) Calibration with a 12.88 mS/cm standard solution would be better for measuring high conductivity solution.

(2) The icon **COND** will appear automatically during calibration mode.

(3) "SA" will not appear if the calibration fails.

(4) If the reading is not 0  $\mu\text{S}/\text{cm}$  while the meter is in the air and not dipped into any solution, then calibrate it in the air to make the reading become 0  $\mu\text{S}/\text{cm}$ .

**MEASUREMENT**

1. After calibration, rinse the conductivity cell with clean water and wipe it dry. Dip the conductivity cell into sample solution to be measured. Stir gently and wait until a stable reading can be obtained.
2. Press  button to select the desired measurement mode Conductivity, TDS or Salinity.

**Note:** (1) "----" will appear in the display when it is over the measuring range.



(2) The unit will auto-range to  $\mu\text{S}/\text{cm}$  or mS/cm, ppm or ppt.



**FUNCTIONS MODE**

1. Press  button to enter Hold function mode.

The icon **HOLD** will appear, and the reading value in the display can be locked.

Press button again to return to Measurement mode.

2. Press and hold  button to enter the measuring Maximum and Minimum function mode. Hold button until a flashing icon **MAX** and **MIN** appears in the display. The value of maximum and minimum will appear in the display while pressing the button lightly. To exit this mode, press and hold  button until icon **MAX** and **MIN** disappears, and returns to Measurement mode.

3. Press  button to select the desired measurement mode Conductivity, TDS or Salinity.
4. Press and hold  button to change °F or °C.

**Note:** (1) The display can not auto shut off under the status of MAX/MIN mode.

- (2) Change new batteries when the battery indicator flashes.

### ***MAINTENANCE:***

#### **BATTERY REPLACEMENT**

1. Loosen the screw with a screwdriver on the battery compartment cap.
2. Replace with fresh 4 "AAA" batteries and note polarity.
3. Replace the battery compartment cap and tighten the screw.

**Note:** (1) Be sure batteries are in the correct position by polarity.

- (2) Don't loosen the O-ring which has been mounted on cap.

#### **ELECTRODE REPLACEMENT**

1. Unscrew the electrode collar counterclockwise and remove it completely.
2. Pull the electrode module out from the tester.
3. Plug a new electrode module into the tester socket carefully.
4. Place and tighten the electrode collar to make a good seal.

#### **APPLICATIONS**

Agriculture • Anti-freeze recycling • Aquarium boiler • Chemical industry • Cooling tower  
• Drinking water • Fish farming • Food industry • Garden husbandry • Hydroponic Laboratory  
usage • Plating industry • Swimming pool & Spa • Water treatment

## *Calibration Certificate*

*This certificate guarantees that this product has been inspected and tested in accordance with the published specifications.*

*The instrument has been calibrated by using equipment which is already calibrated to standards traceable to International standards.*

**Model:** DCM7021

**Serial no.:** \_\_\_\_\_

**Date:** \_\_\_\_\_



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DCM7021 User's Manual  
Specifications subject to change without notice

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MAN# DCM7021 8/08