

.1 YEAR
WARRANTY



Ω OMEGA® User's Guide



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MADE IN TAIWAN

CDS106

Conductivity/TDS/Salt/ Temperature Meter



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The information contained in this document is believed to be correct, but OMEGA accepts no liability for any errors it contains, and reserves the right to alter specifications without notice.

WARNING: These products are not designed for use in, and should not be used for, human applications.

Introduction:

We thank you for having purchased CDS106 portable Conductivity/TDS/Salt/Temp meter.

Before using the instrument, please note that the operation instructions should be read carefully, which will help you to operate and maintain the instrument, as well as to avoid trouble caused by unsuitable operation and maintenance.

CDS106 portable meter employs leading edge technology with integrated microprocessor, which is suitable for measurement in water solutions for institutes, industrial labs and production fields.

The information presented in this manual is subject to change without notice as improvements are made.

Features:

1. Microprocessor based designed.
2. Large displays reading and Temperature simultaneously.
3. Splash proof housing and rubber protective holster.
4. Automatic Temperature Compensation(ATC) or Manual Temperature Compensation(MTC)
5. Simple to calibrate by one keyboard for 5 points standard solutions.
6. Auto shut off after 10 minutes of non use.

Specifications:

	Conductivity	TDS
Range	0.0~ 199.9 μ S 200~ 1999 μ S 2.00~ 19.99 mS 20.0~ 200.0 mS	0.0~131.9 ppm 132~1319 ppm 1.32~13.19 ppt 13.2~66.7 ppt
Accuracy	$\pm 2\%$ FS	$\pm 2\%$ FS
Resolution	0.1/1 μ S/0.01/0.1 mS	0.1/1ppm/0.01/0.1ppt
Compensation	ATC: 0~50 °C	ATC: 0~50 °C

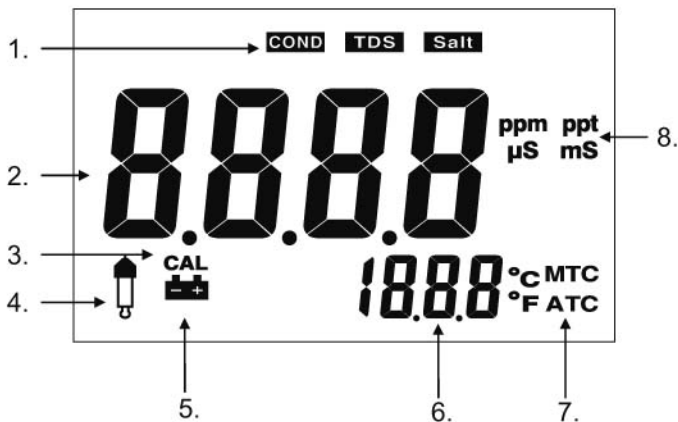
	Salt	Temp.
Range	0.0~99.9 ppm 100~999 ppm 1.00~9.99 ppt 10.0~50.0 ppt	0~110 °C
Accuracy	$\pm 2\%$ FS	$\pm 0.2 + 1$ digit
Resolution	0.1/1ppm/0.01/0.1ppt	0.1 °C
Compensation	ATC: 0~50 °C	

Accessories:

Upon receiving the shipment, please inspect the container and equipment for any signs of damage. Please verify that you have received the corresponding accessories as below:

Conductivity cell, Temperature probe, 1413 μ S \times 50ml & 12880 μ S \times 50ml & distilled water \times 50ml, 9V battery, User's Guide, Carrying case

Display Description:







1. Function Mode
2. Measuring Value
3. Calibration Mode
4. Calibration error indicator
5. Battery power low Indicator
6. Temperature Indicator
7. Auto/Manual Temperature Compensation
8. Unit

Device Description:




Functions of Keyboard:

	Turn on or off power. Press 3 sec. to enter calibration mode
	Adjust the temperature reading in MTC mode.
	
	Choose different function mode. Press 3 sec. to switch °C/°F.

Preparation:

1. Open the battery compartment and connect the 9V battery.
2. Connect the conductivity cell and T/probe to meter,
3. Remove the protection cap from the conductivity cell.
Press button to turn the meter power on.
4. Rinse the conductivity cell and T/probe with clean water and wipe it dry.

Calibration:


1. Connect the Conductivity cell and T/probe.
2. Dip the cell and the probe into the standard solution 1413 $\mu\text{S}/\text{cm}$.
3. Stir gently and wait until the reading is stable.
4. Press and hold "" for 3 sec. to enter calibration mode.
5. The display will appear **CAL** and flashing 1413 $\mu\text{S}/\text{cm}$. When the display stops flashing and indicates "**SA**", then "**End**" while calibration ends, and will return to measurement mode.

Note:

1. Calibrated by 12.88 mS/cm standard solution would be better for measuring high conductivity solution.
2. The icon **COND** will display automatically during calibration mode.
3. Calibration error indicator icon will appear, and "**Err**" instead of "**SA**", if calibration fails.
4. If the reading is not 0 $\mu\text{S}/\text{cm}$ while the cell is in the air and not dipped into any solution, calibrate it in the air to make reading becomes 0 $\mu\text{S}/\text{cm}$.
5. The calibration point of Conductivity are 0, 84 $\mu\text{S}/\text{cm}$, 1413 $\mu\text{S}/\text{cm}$, 12.88 mS/cm and 80.0 mS/cm.

Measurement:

1. The display will appear “----” when it is over measuring range.
2. After measurement, rinse the electrode with clean water. Replace the soaking bottle. The soaking bottle should be always filled with soaking solution (4M KCL).

1. Press “” to choose COND, TDS or Salt mode.
2. After calibration, rinse the conductivity cell and T/probe with clean water and wipe it dry.
3. Dip the cell and T/probe into the sample solution which is going to be measured. Stir gently and wait until a stable reading can be obtained.

Note:

1. The display will appear “----” when it is over measuring range.
2. The unit will auto-range to $\mu\text{S}/\text{cm}$ or mS/cm , or ppm or ppt.
3. After measurement, rinse the cell and T/probe with clean water and replace the protective cap.
4. Don't touch or wipe the surface of the inner black plate of the conductivity cell.

WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA's WARRANTY adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

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CONDITIONS: Equipment sold by OMEGA is not intended to be used, nor shall it be used: (1) as a "Basic Component" under 10 CFR 21 (NRC), used in or with any nuclear installation or activity; or (2) in medical applications or used on humans. Should any Product(s) be used in or with any nuclear installation or activity, medical application, used on humans, or misused in any way, OMEGA assumes no responsibility as set forth in our basic WARRANTY/DISCLAIMER language, and, additionally, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the Product(s) in such a manner.

RETURN REQUESTS/INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. This affords our customers the latest in technology and engineering.

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