

WARRANTY

OMEGA warrants this unit to be free of defects in materials and workmanship and to give satisfactory service for a period of **13 months** from date of purchase. OMEGA 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 should malfunction, 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. However, this WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of being 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 which wear or which are damaged by misuse are not warranted. These include contact points, fuses, and triacs.

OMEGA is glad to offer suggestions on the use of its various products. Nevertheless, OMEGA only warrants that the parts manufactured by it will be as specified and free of defects.

OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, EXCEPT THAT OF TITLE AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED.

LIMITATION OF LIABILITY: The remedies of purchaser set forth herein are exclusive and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based. In no event shall OMEGA be liable for consequential, incidental or special damages.

Every precaution for accuracy has been taken in the preparation of this manual; however, OMEGA ENGINEERING, INC. neither assumes responsibility for any omissions or errors that may appear nor assumes liability for any damages that result from the use of the products in accordance with the information contained in the manual.

SPECIAL CONDITION: Should this equipment be used in or with any nuclear installation or activity, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the equipment in such a manner.

RETURN REQUESTS / INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA ENGINEERING 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.

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

1. P.O. 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 OR **CALIBRATION**, consult OMEGA for current repair/ calibration charges. Have the following information available BEFORE contacting OMEGA:

1. P.O. number to cover the COST of the repair/calibration,
2. Model and serial number of 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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Reference Information

Meter Modes

Run Mode - The meter is in the run mode when the display is actively showing a process.

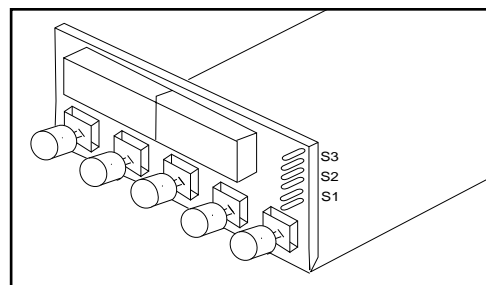
Configuration Mode - The meter is in the configuration mode when you press the MENU button to enable meter configurations.

Jumpers

The following table gives you information about jumpers. Refer to the illustration below for exact jumper location. Refer to the Operator's Manual for additional jumper information.

Jumper	Description
S1	Removed: 24 V excitation
S2	Installed: Front-panel buttons locked out Removed: All buttons operable
S3	Installed: PEAK shows when ▲/MAX button is pushed. PrsT (Peak Reset) is active when RESET is pushed. Press ▲/MAX to show PEAK value.* Removed: VALLEY shows when ▲/MAX button is pushed. VrST (Valley Reset) is active when RESET is pushed. Press ▲/MAX to show VALLEY value.*

*Shows in run mode only



S1 - S3 Jumpers

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Configuration Mode

The following table lists display prompts that appear when the meter has configured to pH correctly.

MENU	▶/TARE	▲/MAX
InP	4-20 only	
dEc.P	FF.FF only	
ScAL	LivE only	XXXX
rd 2*		*XXXX

* Shows only if you press the ▲/MAX button.

Tare

The following buttons enable tare functions in the run mode:

T-RST

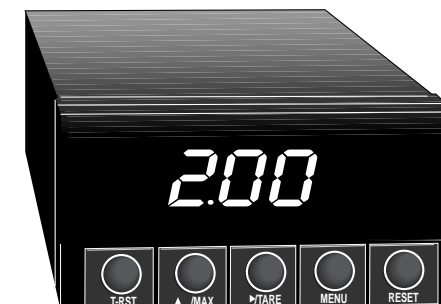
Clears tare value

▶/TARE

Tares brings display value to zero. If accidentally TARE, you can use T-RST to bring it back to normal.

QUICK START

RoHS 2 Compliant



DP24-pH PH Meter



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For immediate technical or application assistance:

USA and Canada: Sales Service: 1-800-826-6342 / 1-800-TC-OMEGA SM
 Customer Service: 1-800-622-2378 / 1-800-622-BEST SM
 Engineering Service: 1-800-872-9436 / 1-800-USA-WHEN SM
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It is the policy of OMEGA to comply with all worldwide safety and EMC/EMI regulations that apply. OMEGA is constantly pursuing certification of its products to the European New Approach Directives. OMEGA will add the mark to every appropriate device upon certification.

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Using This Quick Start Manual

Use this Quick Start manual with your DP24-pH meter to power up, configure and scale your meter.

Specifications:

Power: 115Vac 50/60 Hz; 230 Vac optional

pH Controller:

Range: pH 0-14

Resolution: pH 0.01

Accuracy: pH 0.02

Display: 4 Digit red LED 13.7mm (0.54")

Temperature Compensation: Manual or automatic 0-100°C using PT 1000 ohm RTD

Output: 4 to 20 mA

Connector: pH-BNC

Dimensions: 1.77 x 3.66 x 3.94"

Wire the Meter

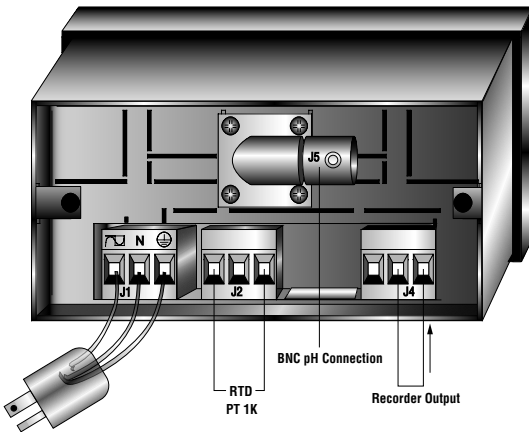
Connect wires to the J1 connector at the back of the meter as indicated below:

J1-1 Black Wire

J1-2 White Wire

J1-3 Green Wire

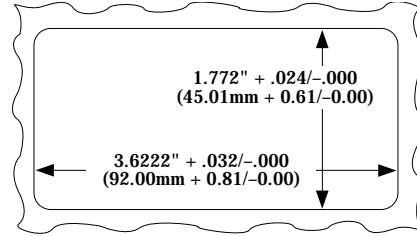
J4 is for 4 to 20mA output and a jumper should be between 2 and 3 if not used.



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Mount the Meter

1. Cut a hole in your panel, as shown in the figure below.
2. Insert the meter into the hole. Be sure the front bezel is flush to the panel.

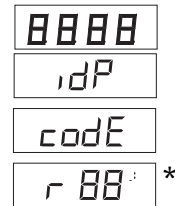


Connect the Sensor Input

Connect the BNC connector from the pH sensor to J5, and the ATC to J2. When ATC is not needed the 1.1K resistor supplied by the factory should be at J2. If ATC is needed then remove the resistor, and connect the Pt 1K wires at J2-1 and 3.

Apply Power

Plug in the meter. There is no power switch, so the meter will be active as soon as you apply power. The meter shows the following:

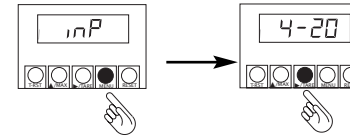


* Represents the Microprocessor revision code. Write this number down. You will need this number if you call OMEGA Customer Service for assistance.

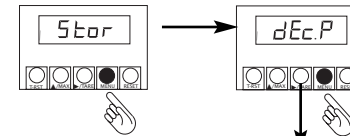
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Configuring and Calibrating Your Meter

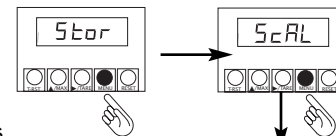
1. Press MENU. The meter momentarily shows "InP", then shows last saved input range.



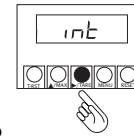
2. Configure the input range by pressing ▶/TARE to select 4-20mA.
3. Press MENU to store range. The meter momentarily shows "Stor", "dEc.P", and then shows the last saved decimal point location.



4. Configure the decimal point location by pressing ▶/TARE to select FF.FF.
5. Press MENU to store decimal point. The meter momentarily shows "Stor", "ScAL", and then shows the last saved scaling method.

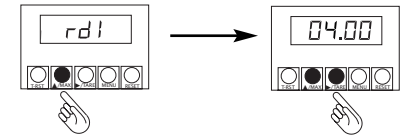


6. Press ▶/TARE to select "int" or "LivE" scaling. "int" is internal scaling, or scaling without known loads. "LivE" is applying known input to a sensor.

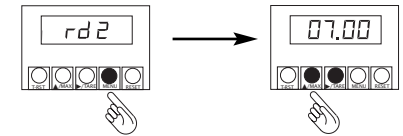


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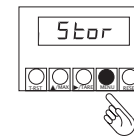
7. Press ▲/MAX. The display momentarily flashes "rd 1", then shows the low calibrated value.



8. If you selected "LivE", put pH sensor in 4.00 buffer and enter 4.00 on display. Press ▲/MAX and ▶/TARE to enter 4.00 on display.
9. Press MENU. The display momentarily flashes "rd 2", then shows the high calibrated value.



10. If you selected "LivE", put pH sensor in 7.00 buffer and enter 7.00 on display. Press ▲/MAX and ▶/TARE to enter 7.00 on display.
11. Press MENU to store new scale factor and return to the run mode.



12. The Calibration is now complete.