

Reference Information

Meter Modes

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

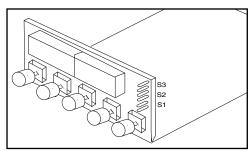
Configuration Mode - The meter is in the configuration mode when you press the MENU button to enable meter configurations.

Jumpers

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

Jumper	Description
S1	Installed: 10 V excitation 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

Configuration Mode

The following table lists display prompts that appear when the meter is in the configuration mode.

MENU	►/TARE	▲ /MAX
InP	0-10 4-20 20-4 0-5 1-5	
dEc.P	FFF.F FFFF. FFFF F.FFF	
ScAL	int LivE	rd1* 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 display value to zero.

This device is marked with the international caution symbol. It is important to read the Setup Guide before installing or commissioning this device as it contains important information relating to safety and EMC.

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.

The information contained in this document is believed to be correct but OMEGA Engineering, Inc. 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, patient connected applications

TRADEMARK NOTICE:

OMEGA, omega.com® are trademarks of OMEGA Engineering, Inc.



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 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. 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 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 are not warranted, including but not limited to contact points, fuses, and triacs.

OMEGA is pleased to offer suggestions on the use of its various products. However, OMEGA neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use if its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only 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.

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 | FOR NON-WARRANTY REPAIRS, have the following information available BEFORE

contacting OMEGA:

- P.O. number under which the product was PURCHASED.
- . Model and serial number of the product under warranty, and
- 3. Repair instructions and/or specific problems relative to the product.

consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA: P.O. number to cover the COST of the

- repair Model and serial number of product.
- and 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

OMEGA is a registered trademark of OMEGA ENGINEERING, INC.

© Copyright 2002 OMEGA ENGINEERING, INC. All rights reserved. This document may not be copied, photocopied, reproduced, translated, or reduced to any electronic medium or machine-readable form, in whole or in part, without prior written consent of OMEGA ENGINEERING INC.

PATENT NOTICE: The "Meter Case Bezel Design" is a trademark of NEWPORT Electronics, Inc., registered in the U.S. USED UNDER LICENSE. This product is covered by one or more of the following patents: U.S. Pat. No. Des. 336,895, 5,274,577/ Canada 2052599, 2052600/ Italy 1249456, 1250938/ France Brevet No. 91 12756/ Spain 2039150. 2048066/ UK Patent No. GB2 249 837, GB2 248 954/ Germany DE 41 34398 C2. OTHER INTERNATIONAL PATENTS PENDING.

12172ML-99 Rev. E MQS1866/0202





DP24-E Process Meter



OMEGAnet® On-Line Service Internet e-mail www.omega.com info@omega.com

Servicing North America:

One Omega Drive, P.O. Box 4047

ISO 9001 Certified Stamford CT 06907-0047

Mexico and

Benelux:

Latin American:

Czech Republic:

TEL: (203) 359-1660 e-mail: info@omega.com

Canada 976 Bergar

Laval (Quebec) H7L 5A1

FAX: (514) 856-6886 TEL: (514) 856-6928

e-mail: info@omega.ca

For immediate technical or application assistance:

FAX: (203) 359-7700

Sales Service: 1-800-826-6342 / 1-800-TC-OMEGA® **USA and Canada:**

Customer Service: 1-800-622-2378 / 1-800-622-BEST® Engineering Service: 1-800-872-9436 / 1-800-USA-WHEN® TELEX: 996404 FASYLINK: 62968934 CABLE: OMEGA

TEL: (001)800-TC-OMEGA® FAX: (001) 203-359-7807

En Español: (001) 203-359-7803 e-mail: info@omega.com.mx

Servicing Europe:

Postbus 8034, 1180 LA Amstelveen, The Netherlands TEL: +31 20 3472121 FAX: +31 20 6434643

Toll Free in Benelux: 0800 0993344

e-mail: nl@omega.com

Rudé armády 1868, 733 01 Karviná 8 TEL: +420 69 6311899 FAX: +420 69 6311114

e-mail: czech@omega.con

9, rue Denis Papin, 78190 Trappes TEL: +33 130 621 400 FAX: +33 130 699 120

Toll Free in France: 0800406342 e-mail: france@omega.com

Daimlerstrasse 26, D-75392 Deckenpfronn, Germany Germany/Austria:

TEL: +49 7056 9398-0 FAX: +49 7056 9398-29

Toll Free in Germany: 0800 639 7678

e-mail: germany@omega.com

United Kingdom: One Omega Drive ISO 9002 Certified

River Bend Technology Centre

Northbank, Irlam Manchester M44 5BD United Kingdom

TEL: +44 161 777 6611 FAX: +44 161 777 6622 Toll Free in England: 0800 488 488

e-mail: sales@omega.co.uk



Using This Quick Start Manual

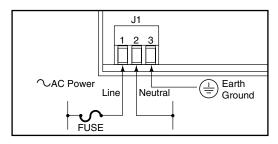
Use this Quick Start manual with your meter to power up, configure and scale your meter. For detailed instructions, refer to the appropriate section in the Operator's Manual.

Wiring

 $\overline{}$

Warning: Do not connect AC power to your device until you have completed all input and output connections. This device must only be installed by a specially trained electrician with corresponding qualifications. Failure to follow all instructions and warnings may result in injury!

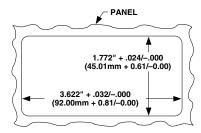
- 1. Locate the J1 connector.
- Insert the correct wire in each terminal as shown in the following figure and tighten the lockdown screws.
- 3. Tug gently on the wires to verify the connections.



Main Power Connections - ac

Mount the Meter

 Cut a hole in your panel, as shown in the figure below.

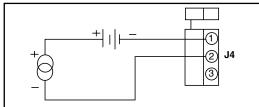


2. Insert the meter into the hole. Be sure the front bezel is flush to the panel.

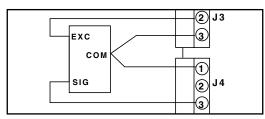
2

Connect the Sensor Input

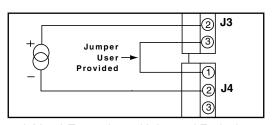
Depending upon sensor input type, connect your sensors according to one of the following figures. If your sensor type is not shown, refer to Section 3 of the Operator's Manual.



4 -20 mA Input with External Excitation



3-Wire dc Voltage Input with Internal Excitation



4-20 mA Transmitter with Internal Excitation

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:

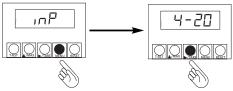


^{*} Represents the revision code. Write this number down. You will need this number if you call Customer Service for assistance.

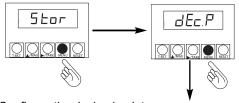
3

Configuring and Scaling Your Meter

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



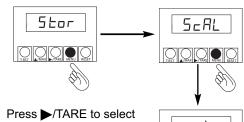
- Configure the input range by pressing ►/TARE to select from the following:
 4-20mA, 20-4mA, 0-5V, 1-5V and 0-10V.
- Press MENU to store range. The meter momentarily shows "Stor", "dEc.P", and then shows the last saved decimal point location.



- Configure the decimal point location by pressing

 ►/TARE to select from the following: FFF.F, FFFF.,

 FFFF, F.FFF and FF.F.
- Press MENU to store decimal point. The meter momentarily shows "Stor", "ScAL", and then shows the last saved scaling method.

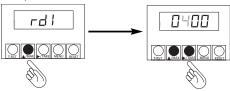


6. Press ►/TARE to select "int" or "LivE" scaling. "int" is internal scaling, or scaling without known loads. "LivE" is applying known loads to a sensor.



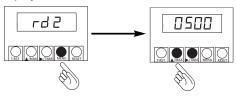


7. Press ▲/MAX. The display momentarily flashes "rd 1", then shows the low calibrated value.



- a. If you selected "int," enter the desired display corresponding to low input. (OVdc, 1Vdc, 4mA)
 - b. If you selected "LivE", apply low load to sensor and enter desired display.

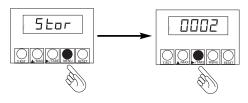
Press ▲/MAX and ▶/TARE to enter desired display.



- 9. Press MENU. The display momentarily flashes "rd 2", then shows the high calibrated value.
- a. If you selected "int", enter the desired display corresponding to high input. (10Vdc, 5Vdc, 20mA)
 - b. If you selected "LivE", apply full scale or 3/4 full scale load to sensor and enter desired display.

Press ▲/MAX and ▶/TARE to enter the desired display.

 Press MENU to store new scale factor and return to the run mode.



 If the display is not zero, with no load on your sensor, press ►/TARE. Scaling is now complete.