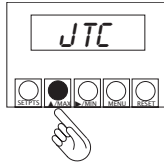


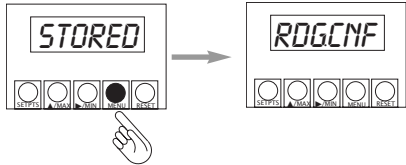
5

- Press ▲/MAX until the meter displays the thermocouple type:

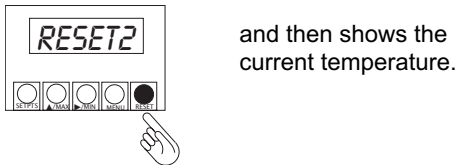
Your choices are J, K, T, E, N, DNJ, R, S, and B.



- Press MENU. The meter displays:

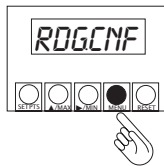


- Press RESET twice. The meter displays:

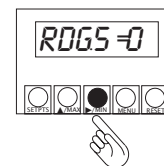


To Set Temperature Units:

- Press MENU until the meter displays:



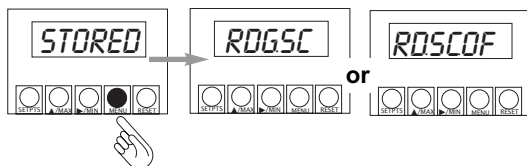
- Press ►/MIN until the meter displays:



- Press ▲/MAX to change the value.

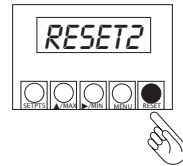
Your choices are:
0 = °C, 1 = °F, 2 = °K

- Press MENU to enter the value. The meter displays:



6

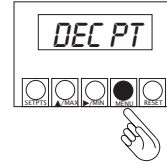
- Press RESET twice. The meter displays:



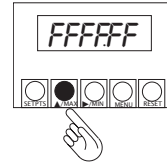
and then shows the current temperature.

To Set Decimal Point Position:

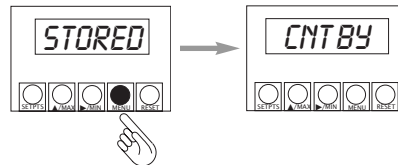
- Press MENU until the meter displays:



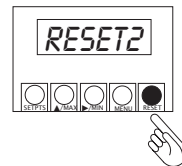
- Press ▲/MAX to move the decimal point to the desired location.



- Press MENU. The meter displays:



- Press RESET twice. The meter displays:



and then shows the current temperature.

The unit is now up and running.

WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **61 months** from date of purchase. OMEGA's WARRANTY adds an additional one (1) month grace period to the normal **five (5) 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.

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 of its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only that the parts manufactured by the company 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.

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

- Purchase Order number under which the product was PURCHASED,
- Model and serial number of the product under warranty, and
- 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:

- Purchase Order number to cover the COST of the repair or calibration,
- Model and serial number of the 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 engineering.

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QUICK START

For complete product manual:

www.omega.com/manuals/manualpdf/M1296.pdf



**DP41-TC
High Performance
Temperature Indicator**

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Norwalk, CT 06854
Omega Engineering, Inc.
Toll-Free: 1-800-826-6342 (USA & Canada only)
Customer Service: 1-800-622-2378 (USA & Canada only)
Engineering Service: 1-800-872-9436 (USA & Canada only)
Tel: (203) 359-1660 Fax: (203) 359-7700
e-mail: info@omega.com

**U.S.A.
Headquarters:**

For Other Locations Visit omega.com/worldwide

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.

Using This Quick Start Manual

Use this Quick Start Manual to get your Temperature Indicator, when used with a Thermocouple, up and running right out of the box. To do this you:

- connect ac power
- connect the Thermocouple
- configure the unit
 - specify Thermocouple type
 - set degrees to C or F
 - set decimal point position

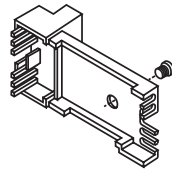
Note

The latest complete Communication and Operational Manual as well as free Software are available at www.omega.com/software.

Before You Begin

You should have the following parts:

- Meter
- Panel-mounting gaskets
- ac Power Connector (orange - P1), Input Connectors (2) (grey -P3 and P9), and rear protective cover (mounted) with green Cold Junction Compensation Board (right side).



You **MUST** have this component.

In addition to the unit and related parts, you will need the following items to set up your unit:

- ac power, as listed on meter's Product/ID label
- Thermocouple
- 1/8" flat blade screwdriver
- 1/8" Phillips head screwdriver

Safety Consideration



This device is marked with the international Caution symbol.

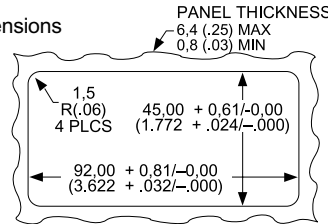
The instrument is a device protected in accordance with UL 61010:2010 Electrical Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory. The device has no power-on switch. Installations must include a switch or circuit breaker that is compliant to IEC 947-1 and 947-3. It must be suitably located to be easily reached and marked as the disconnecting device for the equipment. Use copper conductors only, minimum 20 AWG, UL Rated, for power connection. Insulation must be rated for at least 85C and 600V.

SAFETY:

- Do not exceed voltage rating on the label located on the top of the instrument housing.
- Always disconnect power before changing signal and power connections.
- Do not use this instrument on a work bench without its case for safety reasons.
- Do not operate this instrument in flammable or explosive atmospheres.
- Do not expose this instrument to rain or moisture. **EMC:**
- Whenever EMC is an issue, always use shielded cables.
- Never run signal and power wires in the same conduit.
- Use signal wire connections with twisted-pair cables.
- Install Ferrite Bead(s) on signal wire close to the instrument if EMC problems persist.

Mount the Unit

1. Cut a panel opening using the dimensions shown to the right.
2. Position the unit in the opening, making sure the front bezel/ gasket is flush with the panel.
3. From the rear of the panel, slide the sleeve the panel surface.
4. The panel should now be sandwiched between the bezel-backed gasket in front and the sleeve in back.
5. Replace the thumbnuts that secure the sleeve tabs to the case.



NOTE: Dimensions in Millimeters (Inches)

Connect ac Power



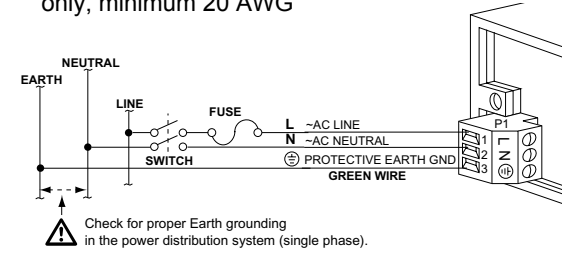
Warning: Do not connect AC power to your device until you have completed all input and output connections. This device must only be installed by a specially trained electrician with corresponding qualifications. Failure to follow all instructions and warnings may result in injury!

1. Remove the rear protective cover and set it aside. The cover is secured with a Phillips-head screw.
2. Locate connector P1 on the bottom-left-rear of the unit. The connector has three screw-down terminals (see below).

EXTERNAL FUSE WIRED

115 Vac IEC127-2/III, 125mA, 250V (Time-Lag) or UL Slow-Blow, 125mA, 250V
230 Vac IEC127-2/III, 63mA, 250V (Time-Lag) or UL Slow-Blow, 63mA, 250V

3. Insert the correct wire in each terminal and tighten the lockdown screw. Tug gently on each wire to verify the connection. Use copper conductors only, minimum 20 AWG



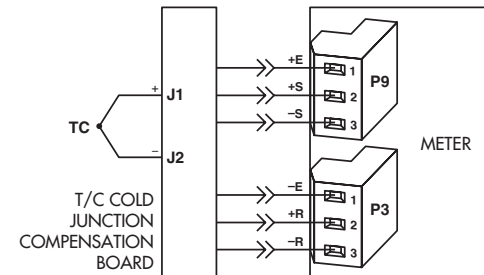
CAUTION: Take care not to damage the green Cold Junction Compensation Board and its connectors.

4. Replace the rear cover. Verify proper seating of the connectors on the green Cold Junction Compensation Board.
5. Thread the power wires through the slots on the side of the cover. Replace the rear cover retaining screw.

Connect the Thermocouple

Note

Regardless of thermocouple type, the RED wire is always NEGATIVE.



The cover on the thermocouple connector shows the positive and negative terminals.

1. Attach the wires and tighten the retaining screws. Tug gently on each wire to verify the connection.
2. Apply ac power. The front panel of the unit displays **RESET2**, followed by the temperature. If it does not:
 - a. Remove ac power.
 - b. Verify your P1 power connections.
 - c. Check your power source.
 - d. Plug the unit in again.

If the unit flashes **+OPEN**, the Cold Junction Compensation Board is not seated properly. Check the connections and the rear cover retaining screw, and repeat this step.

Configure the Unit

Press the front panel buttons:

Press This Button: To:



access the configuration menus and move from one menu to the next.



enter and scroll through a submenu



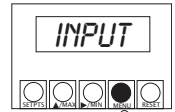
change the value of a submenu



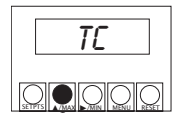
move backward one menu (press once) or exit the configuration menus (press twice).

To Set Thermocouple Type:

1. Press MENU until the meter displays:



2. Press MAX until the meter flashes:



3. Press MENU until the meter displays:

