START HERE

Using This Quick Start Manual

Use this Quick Start Manual to set up your RTD meter and begin operation. Information is provided on how to:

- Connect ac power
- Connect the RTD
- Set basic options for operation

Features with NEW are for the "B" version which has three-color programmable "Big" LED display - All segment characters shown are for the "B" version.

IMPORTANT: For complete information on all setup options, see the Operator's Manual.

Before You Begin

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

- ac power, as listed on meter's ID/Power Label
- RTD
- 1/8" flat blade screwdriver

Safety Consideration

This device is marked with the international Caution symbol.

The instrument is a panel mount device protected in accordance with EN61010-1 (Safety requirements for electrical equipment for measurement, control, and laboratory standard). Remember that the unit has no power-on switch. Building installation should include a switch or circuit-breaker that must be compliant to IEC 947-1 and 947-3.

SAFETY:

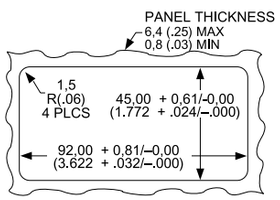
- Do not exceed voltage rating on the label located on the top of the instrument housing.
- Always disconnect power before changing signal and power connections.
- Do not use this instrument on a work bench without its case for safety reasons.
- Do not operate this instrument in flammable or explosive 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. Slide on retaining bracket to secure the meter against the panel.



NOTE: Dimensions in Millimeters (Inches)

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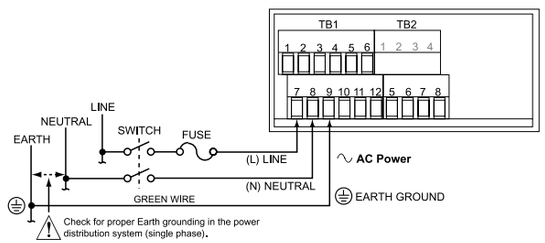
Wiring

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!

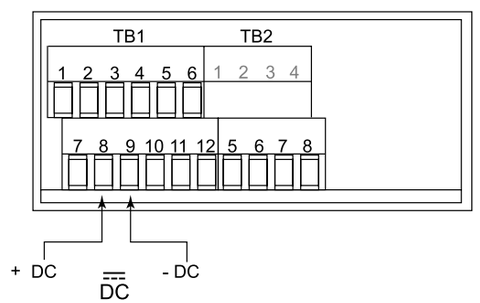
1. Remove the panel at the back of the unit.
2. Locate the TB1 connector.
3. Insert the correct wire in each terminal as shown in the following figure and tighten the lockdown screws.
4. Tug gently on the wires to verify the connections.

External Fuse Required:

Time-delay, UL 248-14 listed	Time-lag, IEC 127-3 recognized
175 mA (115 Vac line)	125 mA (115 Vac line)
80 mA (230 Vac line)	63 mA (230 Vac line)



AC Powered Unit Connections



DC Powered Unit Connections

In order to maintain the same degree of protection as the AC units, always use a Safety Agency Approval DC source with the same Overvoltage Category and Pollution Degree.

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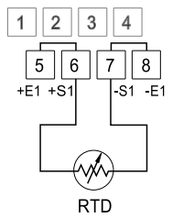
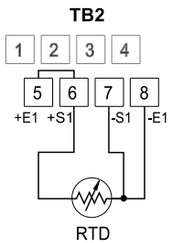
Connecting the RTD

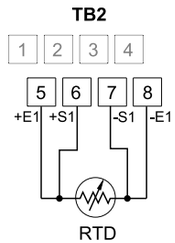
1. Locate the TB2 connector on the rear of the meter.
2. Attach the RTD wires, referring to the appropriate diagram below and tighten down lockdown screws.
3. Tug gently on the wires to verify the connections.
4. Replace the panel at the back of the meter.



2-Wire RTD Input Connection



3-Wire RTD Input Connection



4-Wire RTD Input Connection

Turn on the Meter

1. Apply ac power to the meter. The meter initializes, flashing ***RST*** then ***RTD*** on the front panel. Then the temperature should appear.
2. Verify that a temperature is displayed. If not:
   - Remove ac power
   - Verify the TB1 power connections
   - Check your power source
   - Apply ac power again

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Configure the Meter

To configure the meter, use the buttons on the front panel.

To:	Take This Action
Display the Configuration Menu.	Press the **MENU** button. The first function on the menu, ***INPT***, displays.
Select the sub-menu (a function you want to perform).	1. Press **MENU** until the sub-menu function you want is shown. 2. Press **▶/DEV**. The information you can change begins to flash.
Select a value the option you want. submenu.	1. Press **▲/MAX**. to display for that 2. Press **MENU** to select it. The message ***STRD*** quickly flashes, indicating that the selection has been stored in memory. Then the next menu function displays.
Go back to the previous menu function.	Press **RESET** once.
Exit the meter Configuration Menu.	• Press **RESET** twice. This reinitializes (displays ***RST***, then ***RTD***). When the temperature displays, the meter is back in run mode. • Optionally, you can press **MENU** to move through all the menu functions until the meter reinitializes.

MENU	SUBMENU ▶/DEV	DESCRIPTION
INPt	Rtd.2, Rtd.3*, Rtd.4	Input Type
dEC.P	FFFF*, FFF.F	Decimal Point
Rd.CF	R.1=C, R.1=F*	Reading Configuration
NEW COLR	GRN, REd, AMbR	Display Color
S1.CF	S.1=A*, S.1=b S.2=U*, S.2=L	Setpoint 1 Configuration
S2.CF	S.1=A*, S.1=b S.2=U*, S.2=L	Setpoint 2 Configuration
S1.db	0003*	Setpoint 1, Deadband
S2.db	0003*	Setpoint 2, Deadband
Ot.CF	0.1=E*, 0.1=d 0.2=C*, 0.2=4 0.3=A*, 0.3=P 0.4=d, 0.4=R 0.5=F, 0.5=H	Analog Output Configuration
P.bWd	0000 shown if 0.3 = P	Proportional Band
M.RSt	0000 shown if 0.3 = P	Manual Reset
Ot.S.O	Rd 1, Out1, Rd 2, Out2	Output Scale & Offset
t.OFF	0000	RTD Temperature Offset
LK.CF	RS=E*, RS=d SP=E*, SP=d L3=O*, L3=I	Lockout Configuration
NEW bRIt	M.brt, L.brt, H.brt	Display Brightness

* Factory Default Settings.

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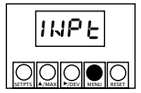
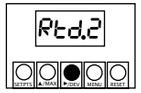
To Set the RTD Type:

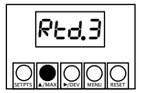
1. Press **MENU** until the meter displays:



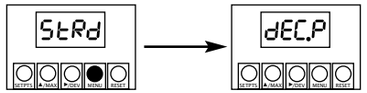
2. Press **▶/DEV**. The meter displays:



3. Press **▲/MAX** until the **RTD** for your installation is shown.
   - ***RTD.2*** is for a 2-wire RTD
   - ***RTD.3*** is for a 3-wire RTD
   - ***RTD.4*** is for a 4-wire RTD

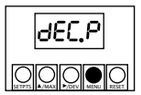


4. Press **MENU** to select the RTD shown. The meter displays:

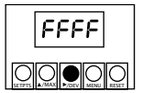


To Set the Decimal Point Position:

1. If it's not already shown, press **MENU** until the meter shows:

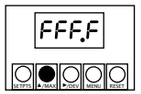


2. Press **▶/DEV.** The meter displays:

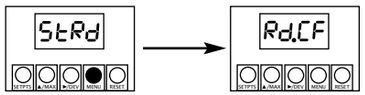


3. Press **▲/MAX** to move the decimal point to the desired location.

   Choices are: ***FFFF*** or ***FFF.F***



4. Press **MENU** to select the decimal point position shown. The meter displays:



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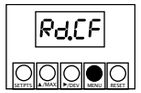
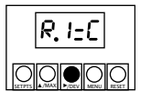
To Select the Temperature Unit (Fahrenheit or Celsius):

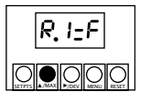
1. If it's not already shown, press **MENU** until the meter shows:



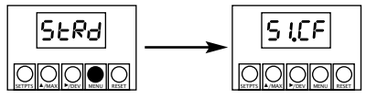
2. Press **▶/DEV.** The meter displays:



3. Press **▲/MAX** to display the setting you want. Choices are ***F*** and ***C***.

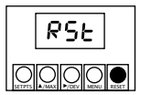


4. Press **MENU** to select the temperature meter shown. The meter displays:



Begin Operation

Reinitialize the meter (press **RESET** twice or press **MENU** until ***RST*** flashes on the display).



When the temperature appears, the meter is up and running.

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

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 CE mark to every appropriate device upon certification.

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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.

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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, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

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

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MQS3733/0206

QUICK START

MADE IN USA

DP25B-RTD and DP25-RTD
Programmable Digital RTD Meter

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