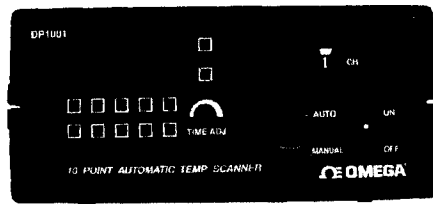




# User's Guide



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## DP1001M & DP1001A 10-Channel Thermometer

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## 1.0 INTRODUCTION

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The DP1001M and the DP1001A are able to measure temperatures from 10 different locations and portray this information in a fashion very similar to watching television. Each location is assigned to a channel. To view the temperature of that location, you switch to that channel and its temperature will appear on the screen.

## 1.1 General Description

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- DP1001A is an auto scan model, & DP1001M is a manual model.
- Both are bench type with a 10 channel selection.
- Different models in type K, Type J, and Type T are available for purchase use.
- Large & super bright LED display.
- °C/°F switchable with switch at rear & °C/°F indicator lamp in the front
- The channel switch is on the front panel, it is also easy to see the channel number displayed on the front panel.
- Sensors can be easily connected to input screw terminals at rear of case.
- Auto scanning channels with adjustable scan rate that goes from 2 to 16 seconds.

## 1.2 Accessories

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DC 9V power adaptor

## 2.0 GETTING STARTED

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### 2.1 Unpacking

Remove the packing list and verify that you have received all equipment. Upon receiving the shipment, inspect the container and equipment for any signs of damage.

**Note:** If there is any evidence of rough handling in transit, immediately report any damage to the shipping agent.

**Note:** The carrier will not honor any claims unless all shipping material is saved for their examination. After examining and removing contents, save packing materials and carton in the event reshipment is necessary.

## 3.0 SAFETY CONSIDERATIONS

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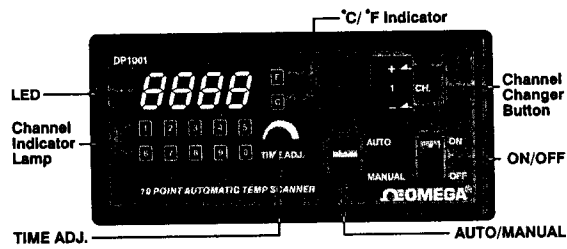
This device is marked with the International Caution symbol. It is important to read this manual before installing or commissioning this device as it contains important information relating to Safety and EMC (Electromagnetic Compatibility).

- 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 it's case for safety reasons.
- Do not operate this instrument in flammable or explosive atmospheres.
- Do not expose this instrument to rain or moisture.

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## 4.0 DISPLAY OF FRONT AND BACK PANEL

### 4.1 FRONT VIEW



**LED:** This is the screen in which the temperature will appear.

**°C/°F Indicator:** These LED lamp whether you are seeing the temperature in Celsius or Fahrenheit.

**Channel changer buttons:** These buttons allow you to change the channel under MANUAL status. The positive button counts up and the negative button counts down.

**Channel Indicator Lamp:** These lights tell you which channel you have the thermometer set for.

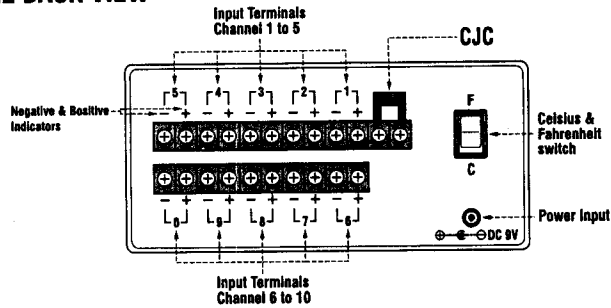
**ON/OFF :** Switch ON or off.

**AUTO/MANUAL :** Switch for scanning with automation or manual.

**TIME ADJ. :** Adjust for channel scan rate under AUTO status.

## 4.0 DISPLAY OF FRONT AND BACK PANEL

### 4.2 BACK VIEW



**Negative & Positive Indicators:** These are signs indicating where the positive and negative wires for each channel must go.

**Input Terminals 1-10:** These are the terminals where you will attach the wires. They are labeled according to the channels that the terminals represent.

**Celsius & Fahrenheit switch:** This switch allows you to change the units of measurement to either Celsius or Fahrenheit.

**Power Input:** This is the port where you must plug in the AC power adaptor provided with the package. The AC power adaptor is good only to receive power at 110 VAC and 60Hz.

**CJC:** Cold junction compensation

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## 5.0 OPERATION INSTRUCTIONS

1. Connect the power source with AC adapter to the device and turn the device ON.
  2. You now must choose whether you want to read the temperature in Celsius or Fahrenheit.
  3. Wire the inputs according to wiring diagrams at the rear (10 input channel).
- NOTE:** Every TYPE compensation wire is different.
4. Switch mode to "AUTO" and adjust "TIME ADJ" for channel scan rate.
  5. Auto mode: (DP1001A only)
    - a. Adjust TIME ADJ to set desired scanning speed.
    - b. The channel changer buttons will not work on AUTO mode.
    - c. Scanner will automatically display temperature with LED channel indicators with desired scanning speed.
  6. Switch mode to "Manual" and thumb channel number which you need.

## 6.0 CONSUMPTION

Wattage: 26mA X 110V = 2.9W

## 7.0 SPECIFICATIONS

	Type J	Type K	Type T
Range:	-50 to 700°C (50 to 1400°F)	0 to 1200°C (0 to 1999°F)	-50 to 350°C (-58 to 662°F)
Resolution:	1°C/F	1°C/F	1°C/F
Accuracy:	0.25% FS	0.25% FS	0.25% FS
Power:	DC 9V with AC adaptor		
Dimensions:	180 x 76 x 145 mm (7.1 x 3.0 x 5.7")		
Weight:	964g (2.1 oz.)		

## 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 which wear are not warranted, including but not limited to contact points, fuses, and triacs, conduct(s) in such a manner.

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## 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. ENGINEERING, INC.

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.

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